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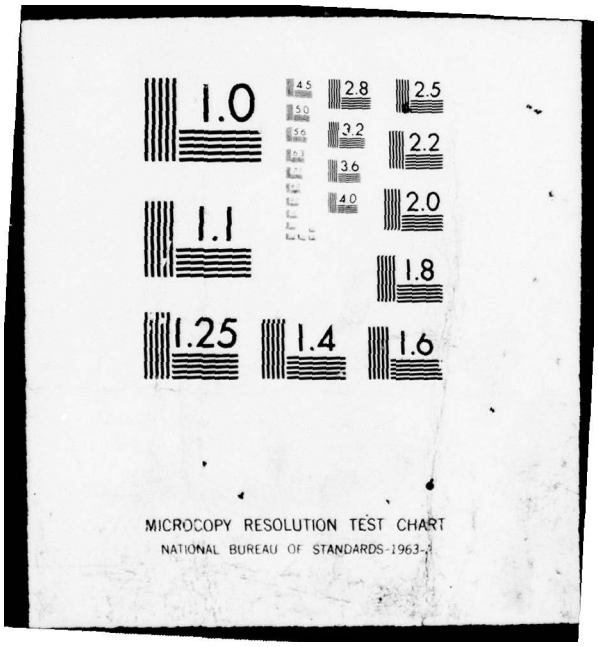
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INDOPAC EXPEDITION,

Legs I, II, III, VII, VIII, XV, XVI,

23 March 1976 - 31 July 1977.

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INDOPAC Expedition aboard RV THOMAS WASHINGTON was a joint physical, biological and geophysical oceanographic expedition in the Pacific and eastern Indian Oceans during 1976-1977. This report presents the hydrographic data and most of the chemical data collected on Legs I, II, III, VII, VIII, XV and XVI, all in the Pacific Ocean. No hydrographic collecting was done on the other legs of the expedition.

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SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL, CHEMICAL AND BIOLOGICAL DATA

INDOPAC Expedition

Leg I, 23 March to 30 April 1976
Leg II, 5 to 19 May 1976
Leg III, 25 May to 19 June 1976
Leg VII, 14 to 29 August 1976
Leg VIII, 2 to 30 September 1976
Leg XV, 3 to 30 June 1977
Leg XVI, 5 to 31 July 1977

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Sponsored by

Office of Naval Research (Legs VII, VIII, XV, XVI)
National Science Foundation (Legs I, II, III, XV, XVI)
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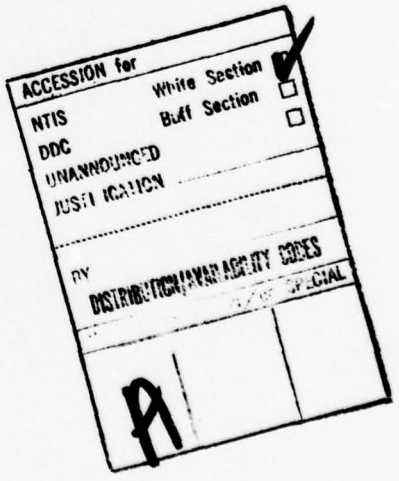


INTRODUCTION

INDOPAC Expedition aboard RV THOMAS WASHINGTON was a joint physical, biological and geophysical oceanographic expedition in the Pacific and eastern Indian Oceans during 1976-1977. This report presents the hydrographic data and most of the chemical data collected on Legs I, II, III, VII, VIII, XV and XVI, all in the Pacific Ocean. No hydrographic collecting was done on the other legs of the expedition.

Preceding the tabulated data for each cruise are: (1) a description of the principal objective and the hydrographic work carried out on the cruise; (2) sponsoring agency; (3) a description of all "non-standard" procedures; and (4) a list of scientific personnel participating in the collection of data.

STANDARD PROCEDURES

Hydrographic Cast Data

Temperature was measured using paired deep-sea reversing thermometers and is reported to hundredths of a Celsius degree except for the deepest levels where specially scaled low range thermometers were read and tabulated to thousandths of a degree. Most bottles below 100 meters included unprotected (pressure) thermometers for depth determination.

Water samples were obtained from Niskin bottles on Leg I and from Nansen bottles on all other legs. Bottles were hung on the STD wire in conjunction with STD lowerings on most stations. (The major exception is Leg XV where only four stations have the STD and bottle cast lowered together.)

Salinity was determined using Bissett Berman (now Plessey Environmental Systems) inductive salinometers and a University of Washington (1960) conductive salinometer.

Dissolved oxygen was determined by the Winkler method as modified by Carpenter (1965) using the equipment and procedures outlined by Anderson (1971).

On Legs I, II, III, VII and VIII:

1. Reactive phosphate was determined using a Gilford modified Beckman Model DU spectrophotometer by the method of Murphy and Riley (1962) as described by Anderson (1971). The modification consisted of a Gilford Model 222A photometer, Model 2220 adapter, Model 2470-A ten centimeter cuvette compartment and Model 410 digital absorbance meter.

2. Reactive silicate, reactive nitrate and reactive nitrite were determined using a Technicon Model II AutoAnalyzer by the method of Atlas *et al.* (1971). Reactive phosphate was also run on the AutoAnalyzer but the spectrophotometer data are tabulated in this report.

On Leg XVI all nutrients (phosphate, silicate, nitrate and nitrite) were determined using a standard Beckman Model DU spectrophotometer. Reactive phosphate was done using the method of Murphy and Riley (1962), with the specific procedure outlined by Anderson (1971), reactive silicate by the method of Strickland and Parsons (1968); nitrate by the method of Wood, *et al.* (1967) and nitrite by the method of Bendschneider and Robinson (1952). The specific procedures used for silicate, nitrate and nitrite are outlined in Marine Technician handbooks in preparation. In addition, nitrates were run on a mini-autoanalyzer using an AA-I (15 channel) pump, an Hitachi model 100-1005 spectrophotometer with a 10mm flow cell and an Hitachi model 50 single pen recorder. The methodology was as described by Hager *et al.* with slight modifications to the pump tubes used to increase sample signal to compensate for the smaller flow cell used, 10 rather than 15mm. Sampling was done by hand using a stop watch, 2 1/2 minutes for a sample with 1/2 minute rinse.

The nitrate values contained in the Leg XV and XVI sections of this report are averages of the values from the two methods. The samples used for the two methods of analysis were collected from the same bottle and were processed at the same time. The numerical differences between the methods were very small so they were averaged. The nutrients for the two stations on Leg XV (S22 and S38) were frozen and run at the beginning of Leg XVI.

The observed data has been evaluated using the method described by Klein (1973). This involves consideration of their variation as functions of density or depth and their relations to each other, and comparison with adjacent observations.

Chlorophyll and phaeophytin on Legs I, XV and XVI were determined fluorometrically according to the procedure of Yentch and Menzel (1963) as modified by Holm-Hansen *et al.* (1965).

Primary production on Legs I and XV was determined by the uptake of radiocarbon (Steemann Nielsen, 1952) using a modification of the procedure outlined by Strickland and Parsons (1968; Sec. V.3). The transparency of the ocean water was estimated from secchi disc measurements assuming the depth of 1% illumination to be three times the secchi disc depth. Water samples were collected with Niskin bottles from depths of 98%, 60%, 38%, 16%, 6% and 1.5% transmission. Subsamples of 250 ml were innoculated with 20μ Ci of $NaH^{14}CO_3$ and incubated on deck in a seawater cooled incubator equipped with neutral density filters to simulate *in situ* light intensities (Owen and Zeitschel, 1970). From each depth there were duplicate light bottles and a dark bottle. Samples were incubated from approximately noon until shortly after sunset. Samples were filtered onto 0.45μm Millipore filters, acid fumed by 2-4 hour exposure to concentrated HCl fumes in a closed container, and stored in scintillation liquid (Aquasol) until returned to the lab nine months later when they were counted with a scintillation counter. The total production values presented in this report are the means of the replicate light bottles from which the dark uptake has

been subtracted. The values have not been adjusted to a standard time period since it is felt that such extrapolation is not always valid (Venrick *et al.*, 1977).

Water samples for primary productivity analyses on Leg I were taken from the Niskin bottles used on the regular hydrographic casts, and Leg XV samples were from special Niskin bottle casts with no temperature or salinity data.

In Situ Salinity/Temperature/Depth Recorder (STD) Data

Plessey Environmental Systems Model 9040 STDs were used for most lowerings. A Bissett Berman (HYTECH) Model 9006 STD was used on a few stations. Data recordings were made on a Plessey digital data logger (DDL) Model 8400 and on the shipboard IBM 1800 computer. This report contains data from the Model 8400 DDL.

One of the STD pressure sensors was found to have a temperature dependent pressure error of 1 decibar per 4° Celcius. The pressures were corrected using the *in situ* temperature. Depth was calculated from the pressure, the mean density of the overlaying water column, and the local value of gravity.

A time lag constant together with a small offset correction based on the hydrographic data were applied to the temperature from all STD lowerings.

Salinity spikes caused by the time constant variation between temperature and conductivity sensors were eliminated from most stations with one time constant. However, stations which had rapid temperature gradients required larger time constants.

Faulty pyrex liners in the conductivity sensor of the STD caused the salinity to drift during part of the expedition. Based on the hydrographic data, a pressure dependent salinity offset correction was applied to each STD lowering.

After correcting the STD data for time lags and offset errors, all three parameters were smoothed by means of a 1-2-1 5 decibar block average of the data for all Legs except XV which had a 3 decibar block average.

An indication of the precision of the STD data was obtained by comparing the STD data with the hydrographic data at the surface layer and deepest levels of the bottom casts on Leg I. The following table shows the average differences and standard deviations between the hydrographic data and the STD:

	TEMPERATURE °C		SALINITY ‰	
	MEAN	STD. DEV.	MEAN	STD. DEV.
SURFACE LAYER	.01	.02	-.003	.012
> 3500 m	.001	$.003^5$	-.001	$.002^5$

The STD temperature and salinity data are tabulated in this report to the nearest hundredths between the surface and 1500 meters and to the nearest thousandths below 1500 meters.

TABULATED DATA

The time reported is Greenwich Mean Time. For STD lowerings it is the "start down" time, and for bottle casts it is the time of messenger release. When more than one cast was lowered on a station the messenger times for the first and last casts are given. Multiple casts, excluding the surface cast, are indicated by a letter following the observed depth.

Station positions were based on satellite navigation and are for the messenger time on single cast stations. On multiple cast stations the deep cast messenger time position was used for hydrographic and STD data, and the shallow cast messenger time was used for chlorophyll, phaeophytin and primary productivity.

Bottom depths, determined acoustically, have been corrected using Matthews

(1939) tables and are reported in meters. No correction for the depth of the ship's transducer was made; approximately four meters can be added to the reported depth.

Weather and dominant waves are coded using the National Oceanographic Data Center (NODC) method.

Data from the bottle casts appears on the even numbered pages for all legs except Leg XV. Temperature, salinity and oxygen are interpolated from the observations on the right. Computed values of thermosteric anomaly are included with the observed levels and computed values of sigma-t, thermosteric anomaly and geopotential anomaly are included with the interpolated levels.

Data from the STD lowerings appears on the facing odd numbered pages for all legs except Leg XV. Temperature and salinity are tabulated at closer standard intervals than in previous reports. Computed values of sigma-t, thermosteric anomaly and geopotential anomaly are included. A "U" following the station number indicates an up cast, that is, the data was recorded while the STD was being raised. Up casts were usually used only if there was a problem with the data recorded while the STD was lowered.

The column headings are to be interpreted as follows:

Z	Depth	Meters
T	Temperature	°C
S	Salinity	‰
O2	Dissolved Oxygen	ml/L
PO4	"Reactive" inorganic phosphate-phosphorus	µg at/L
SIO3	"Reactive" inorganic silicate-silicon	µg at/L
NO2	"Reactive" inorganic nitrite-nitrogen	µg at/L
NO3	"Reactive" inorganic nitrate-nitrogen	µg at/L
DT	δ_T Thermosteric anomaly	cl/ton
SIGT or SIGMA T	$\sigma_t = (\rho_{s,t,0}-1)\ 10^3$ where $\rho_{s,t,0}$ is the density the parcel of sea water would have if moved isothermally to the sea surface.	g/L
DD	Geopotential anomaly, referred to the sea surface.	dynamic meters

FOOTNOTES

In addition to footnotes, several special notations are used without footnotes because the meaning is always the same.

A, B, and C: After depth value indicates successively deeper casts on expedition legs which have multiple cast stations. The upper cast originating at or near the surface has no letter following the depth.

K: Both protected thermometers in the sample bottle malfunctioned. The temperature was inferred from the pressure thermometer and wire depth. For this expedition, the values are believed accurate to ± 0.05°C.

U: Uncertain value. Values which are not used in interpolation because they seem to be in error without apparent reason. NOTE: "U" following STD station number indicates the up cast data are being reported.

V: Because of time differences, overlapping casts show some differences. Values not used in interpolation.

PUBLICATIONS UTILIZING INDOPAC EXPEDITION DATA

Kenyon, Kern E., 1977. A transpacific XBT section at 35°N. *Polymode News*, No. 30, July 8, 1977 (unpublished document).

Kenyon, Kern E., 1978. The surface layer of the eastern North Pacific in winter. *J. Geophys. Res.*, *83:* 6115-6122.

Kenyon, Kern E., 1978. The shallow salinity minimum of the eastern North Pacific in winter. *J. Phys. Oceanogr.*, *8:* 1061-1069.

Kenyon, Kern E., 1978. Indirect evidence of deep-flow east of the North Pacific seamount. *J. Oceanogr. Soc. Japan*, *34* (in Press).

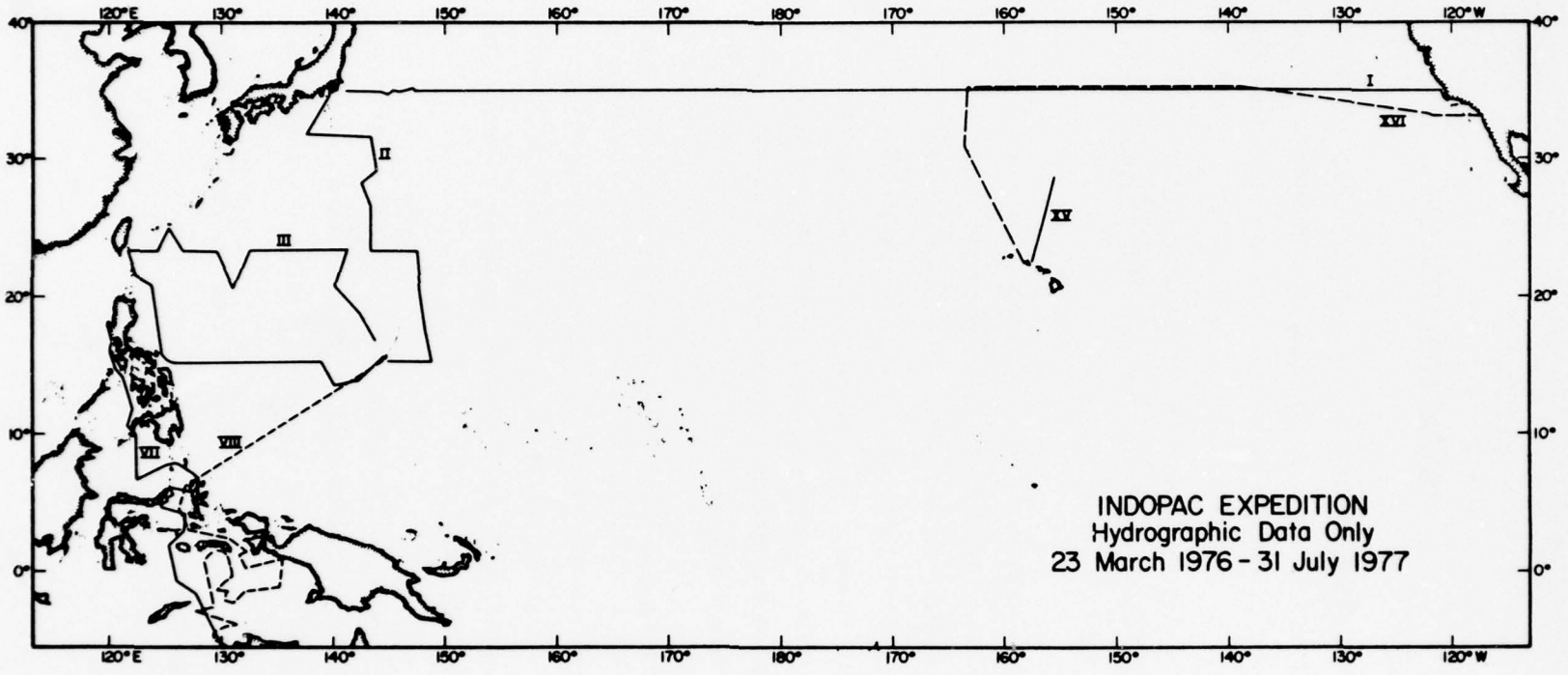
Mantyla, Arnold W., and Joseph L. Reid, 1978. Measurements of water characteristics at depths greater than 10 km in the Marianas Trench. *Deep-Sea Res.*, *25*: 169-173.

Millero, F. J., D. Forsht, D. Means, J. Gieskes, and K. E. Kenyon, 1978. The density of North Pacific ocean waters. *J. Geophys. Res.*, *83*: 2359-2364.

Reid, Joseph L. and Arnold W. Mantyla, 1978. On the mid-depth circulation of the North Pacific Ocean. *J. Phys. Oceanogr.*, *8:* 946-951.

Venrick, Elizabeth L., 1978. Systematic sampling in a planktonic ecosystem. *Fisheries Bulletin*, *76*(3).

Venrick, Elizabeth L., 1978. The lateral extent and characteristics of the North Pacific Central Environment at 35°N. *Deep-Sea Res.* (manuscript submitted September, 1978).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150°
160°
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170°
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150°
140°
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120°W
40°
30°
20°
10°
0°
I
II
III
VII
VIII
XV
XVI
INDOPAC EXPEDITION
Hydrographic Data Only
23 March 1976 - 31 July 1977

FIGURE 1

INDOPAC EXPEDITION LEG I

Leg I of INDOPAC Expedition was a systematic study of the physical and chemical oceanography from the surface to the bottom along Latitude 35° North in the Pacific Ocean between California and Japan from 23 March to 30 April 1976. Ninety-eight hydrographic stations (numbered 1 to 98) were occupied at one-degree intervals of longitude (100 km) from 122°W to 141°E (fig. 2). Expendable bathythermograph (XBT) drops were made at 20 kilometer intervals on and between stations.

The main purpose of the physical oceanography program was to obtain a better description of the large scale circulation of the upper layers at mid-latitude and in particular to find the depth structure of the longitudinal variation in surface temperature, which appears as a permanent feature in climatological records. The second purpose was to obtain a better description of the deep circulation in the North Pacific. The main purpose of the chemical oceanography program was to study the carbon dioxide system along the east-west transect.

INDOPAC Expedition Leg I was sponsored by the National Science Foundation.

Preceding the tabulated data is a thermograph temperature profile, an XBT vertical section and a series of curves of potential temperature versus salinity presented in figures similar to the T-S curves in *The Oceans* (1942), Figure 200, page 715.

Data from the sample bottle casts and the STD lowerings are tabulated followed by computer curves of STD temperature and salinity versus depth, with the observed sample bottle data plotted for comparison.

In addition to the data contained in this report, the following observations and collections were made:

1. Continuous underway surface temperature recording from a thermo-salinograph.
2. 12 KHz and 3.5 KHz echo sounder bottom profiling.
3. Magnetic profiling.
4. Gravity profiling.
5. An Isaacs-Kidd midwater trawl, a 1 meter 505 micron mesh open net oblique tow, and a neuston tow were made over the Japan Trench.
6. 14 surface plankton tows were made off the bow of the vessel to obtain uncontaminated samples for trace element analysis.
7. Water samples from some stations were collected to be used in later analysis ashore for density, partial pressure of carbon dioxide, lead 210, methane and trace metals.

The stations near odd numbered degrees of longitude consisted of a single twenty bottle cast using 5-liter Niskin bottles on the STD wire from the surface to 1200 meters for temperature, salinity and oxygen.

In general, the stations near even numbered degrees of longitude consisted of two casts (upper and lower) on the STD wire. Twenty 5-liter Niskin bottles were used on each cast. The lower cast went near the bottom with the aid of a pinger or to a maximum depth of 6000 meters (the STD limit) where bottom depths were greater than 6000 meters. 30-liter Niskin bottles were substituted on occasion to obtain sufficient water for the partial pressure of carbon dioxide and lead 210 analyses. No samples were obtained below 1500 meters between 140°W and 162°W because of winch problems. (Note: Deep casts were obtained in the area on Leg XVI of this expedition.) Temperature, salinity, oxygen, phosphate, silicate, nitrate and nitrite were determined for all levels. Chlorophyll, phaeophytin, alkalinity, total carbon dioxide and calcium were determined for some levels. Primary productivity data were obtained at selected stations.

The upper cast salinities were determined using a Bissett Berman (now Plessey Environmental Systems), Model 6220 inductive salinometer. Salinities

for the deep casts were determined using a University of Washington conductive salinometer (Univ. of Wash., 1960).

The University of Washington salinometer malfunctioned during the cruise resulting in salinity offset errors of .04 to .30 ppt. The deep salinities have been corrected on the basis of T-S curve overlaps between the upper and lower casts. Portions of nearby GEOSECS Expedition stations were also considered in correcting the deeper salinities. Although the reported salinities were less reliable than normal, they are tabulated to .001 ppt and appear to be correct within .005 to .01 ppt from comparison with salinities from previous expeditions. Stations corrected were: 7, 9, 11, 13, 43, 45, 47, 49, 51, 63, 65, 66, 93 and 95.

Vertical sections were considered in data evaluation as well as the method described by Klein (1973).

Alkalinity and total carbon dioxide were determined using the method of Edmond (1970).

Calcium was determined using the method of Tsunogai *et al.* (1968) adopted for microanalysis (1 ml samples were used instead of 20 ml).

Positions for alkalinity, total carbon dioxide and calcium are for deep cast messenger times.

Thermograph

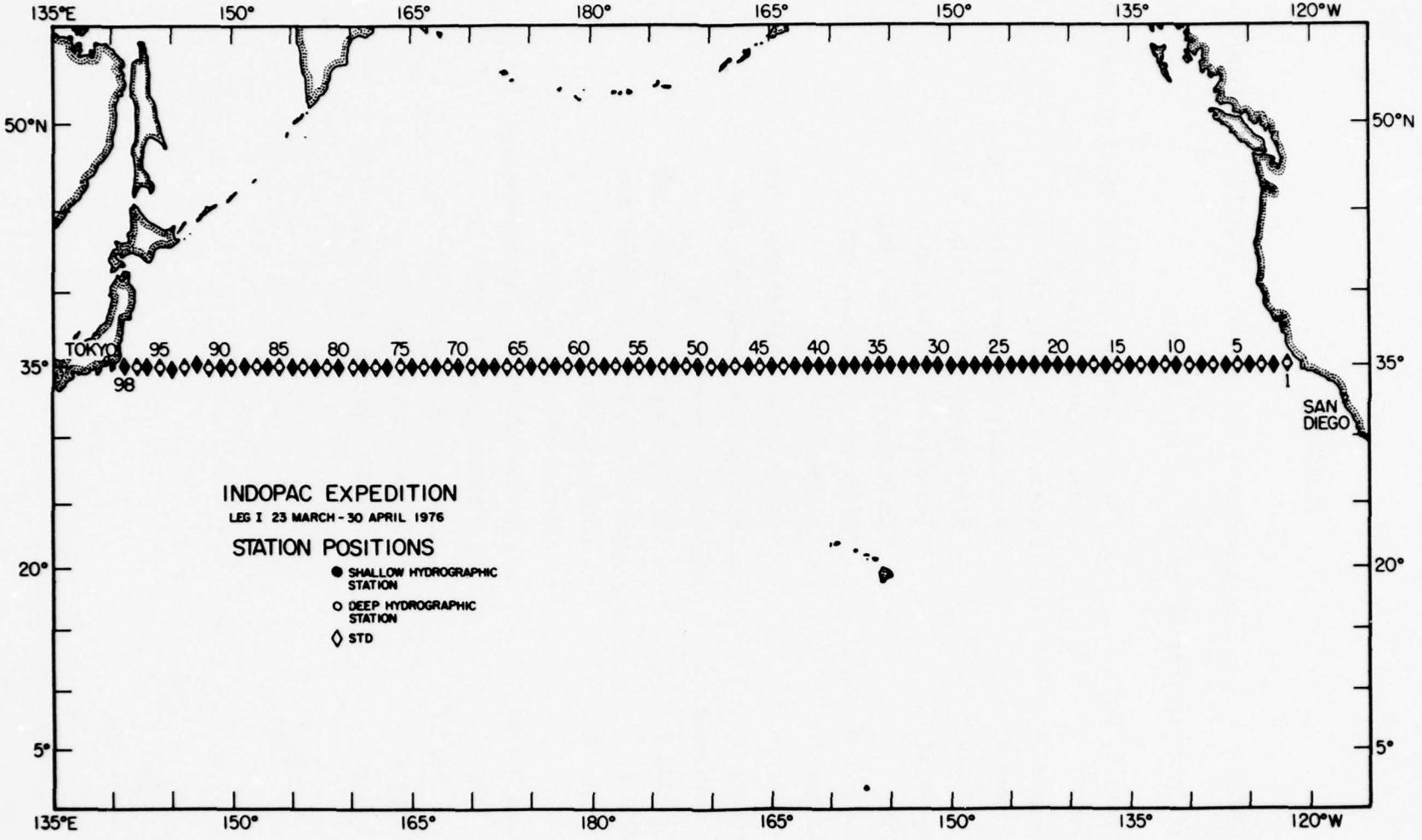
A continuous thermograph record was obtained between 122°W and 141°E except for a few gaps where the clock stopped. The thermograph temperatures were read at 15 minute intervals which converts to about a 5 kilometer spacing of data points. No adjustments have been made to these temperature data.

PERSONNEL

Ship's Captain: Arsenault, Albert RV THOMAS WASHINGTON

Personnel Participating in the Collection of Data:

Kenyon, Kern E. Dr.	Chief Scientist, Research Oceanographer, SIO
Bos, David L.	Staff Research Associate, SIO
Coats, Douglas A.	Graduate Student, SIO
Conway, Carol B.	Principal Engineering Aid, SIO
Costello, James P.	Staff Research Associate, SIO
Drummond, David T.	Research Technician, MIT
Fleck, Paul A.	Laboratory Assistant, SIO
Gieskes, Joris M. Dr.	Associate Professor, SIO
Henry, Arthur J.	Programmer, SIO
Hester, Arthur W.	Staff Research Associate, SIO
Kaye, H. Ross	Electronics Technician, SIO
Lindsey, Charles W.	Staff Volunteer, SIO
Lingle, Donald E.	Staff Research Associate, SIO
Muus, David A.	Staff Research Associate, SIO
Parke, Michael E.	Graduate Student, SIO
Patla, Susan M.	Marine Technician, SIO
Schechtman, Nathan D.	Marine Technician, Queens College, N.Y.
Shiller, Alan M.	Graduate Student, SIO
Singleton, James R.	Electronics Technician, SIO
Wells, James A.	Marine Technician, SIO
Wilson, Robert C.	Resident Marine Technician, SIO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20°
5°
TOKYO
98
95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5
1
SAN DIEGO
INDOPAC EXPEDITION
LEG I 23 MARCH - 30 APRIL 1976
STATION POSITIONS
SHALLOW HYDROGRAPHIC STATION
DEEP HYDROGRAPHIC STATION
STD

FIGURE 2

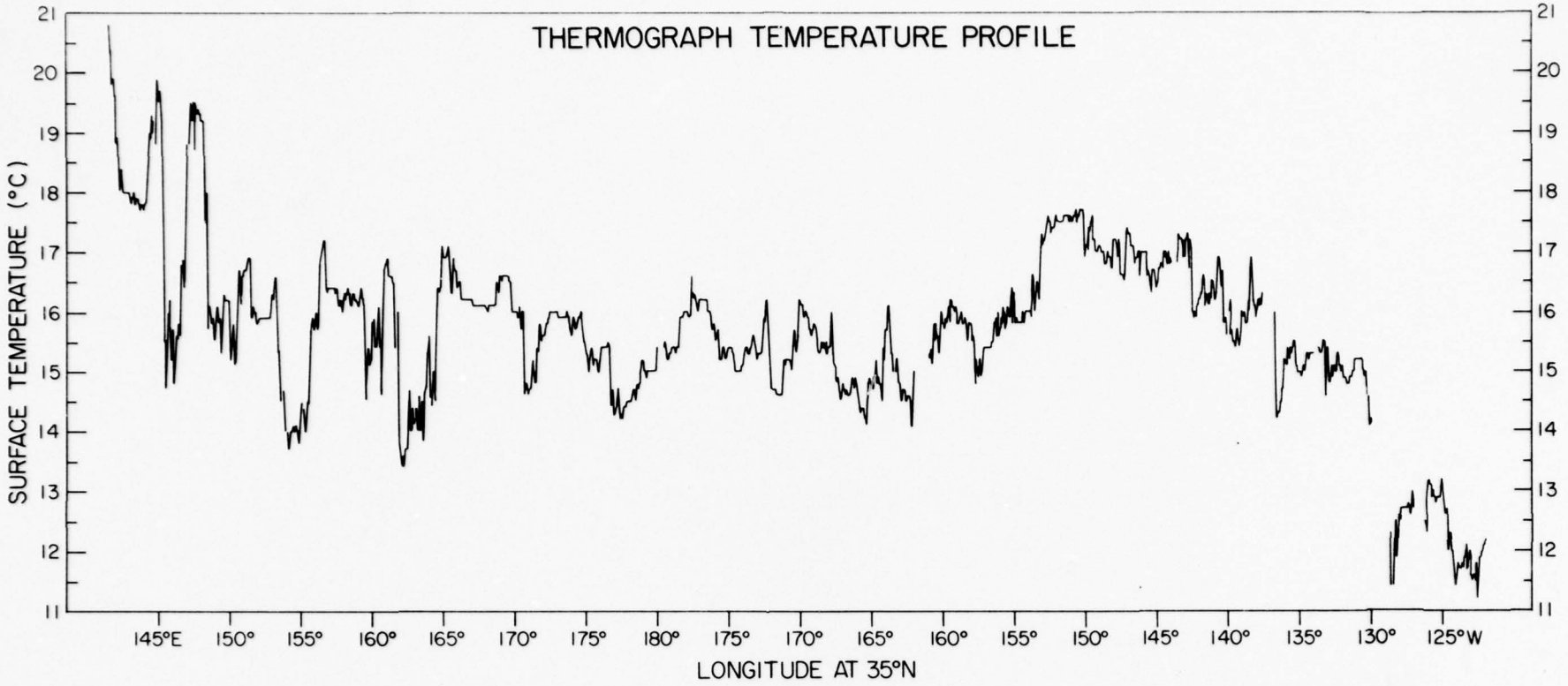


Figure 3

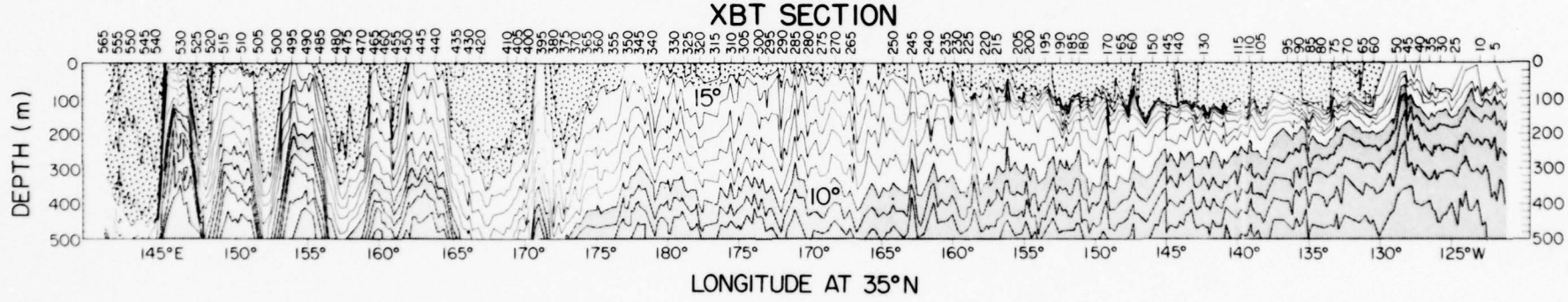
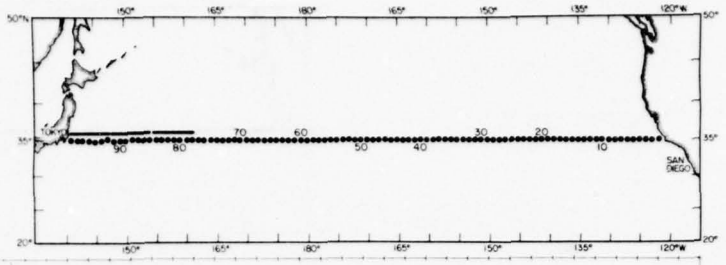
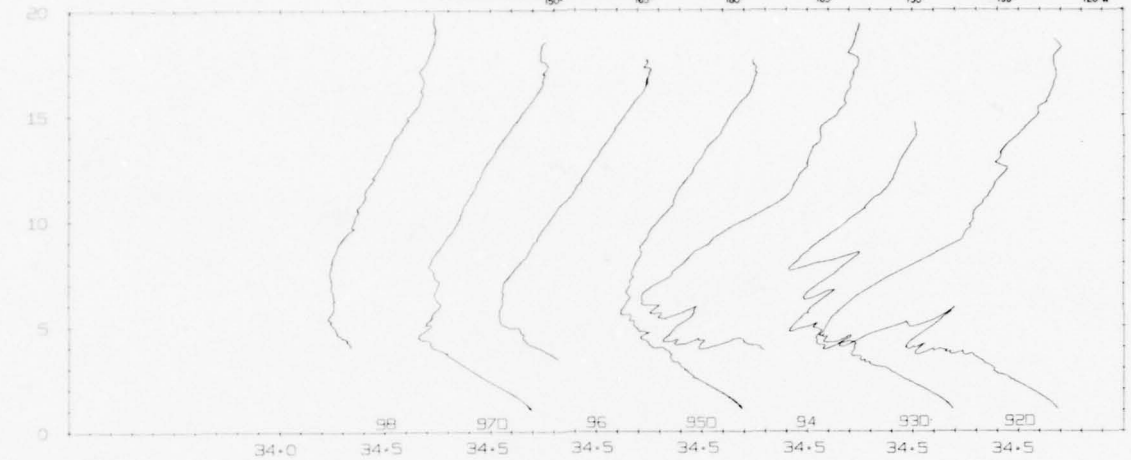
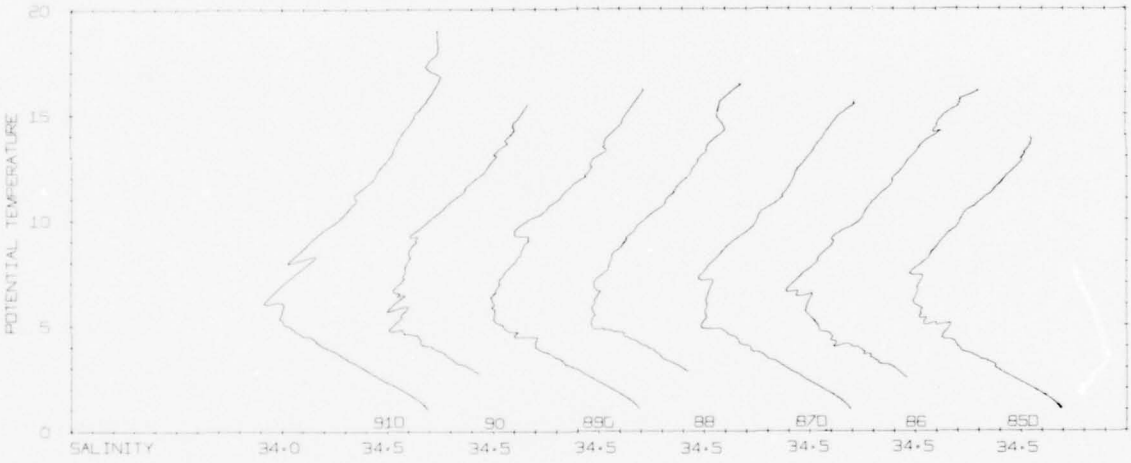


Figure 4

INDOPAC LEG I
141E TO 161E







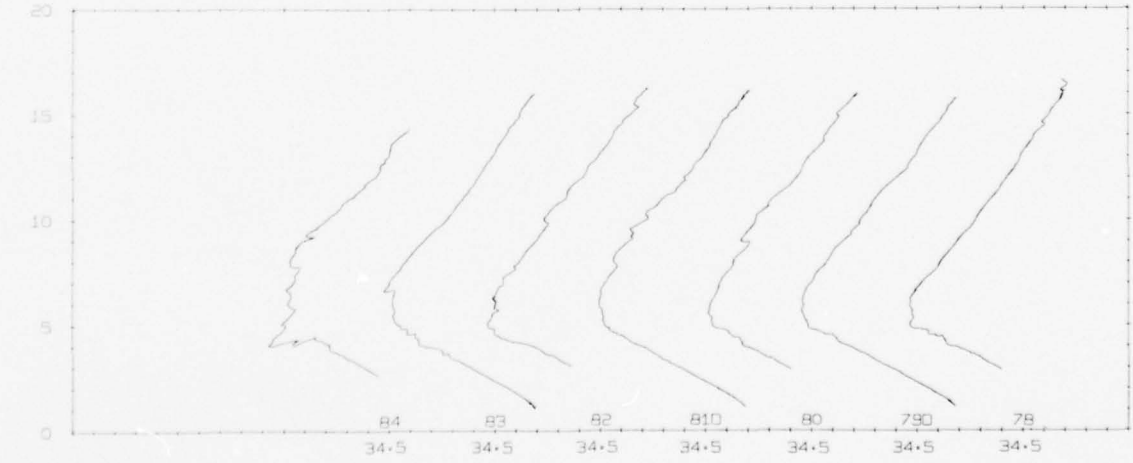
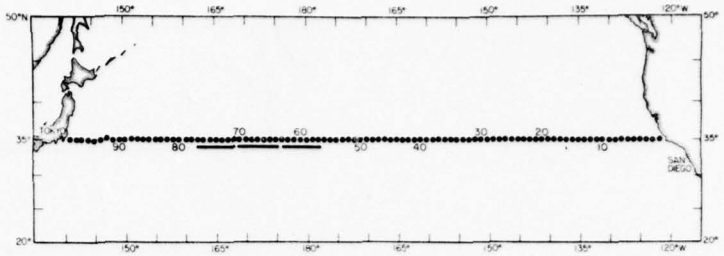


FIGURE 5a

INDOPAC LEG I
162E TO 178W



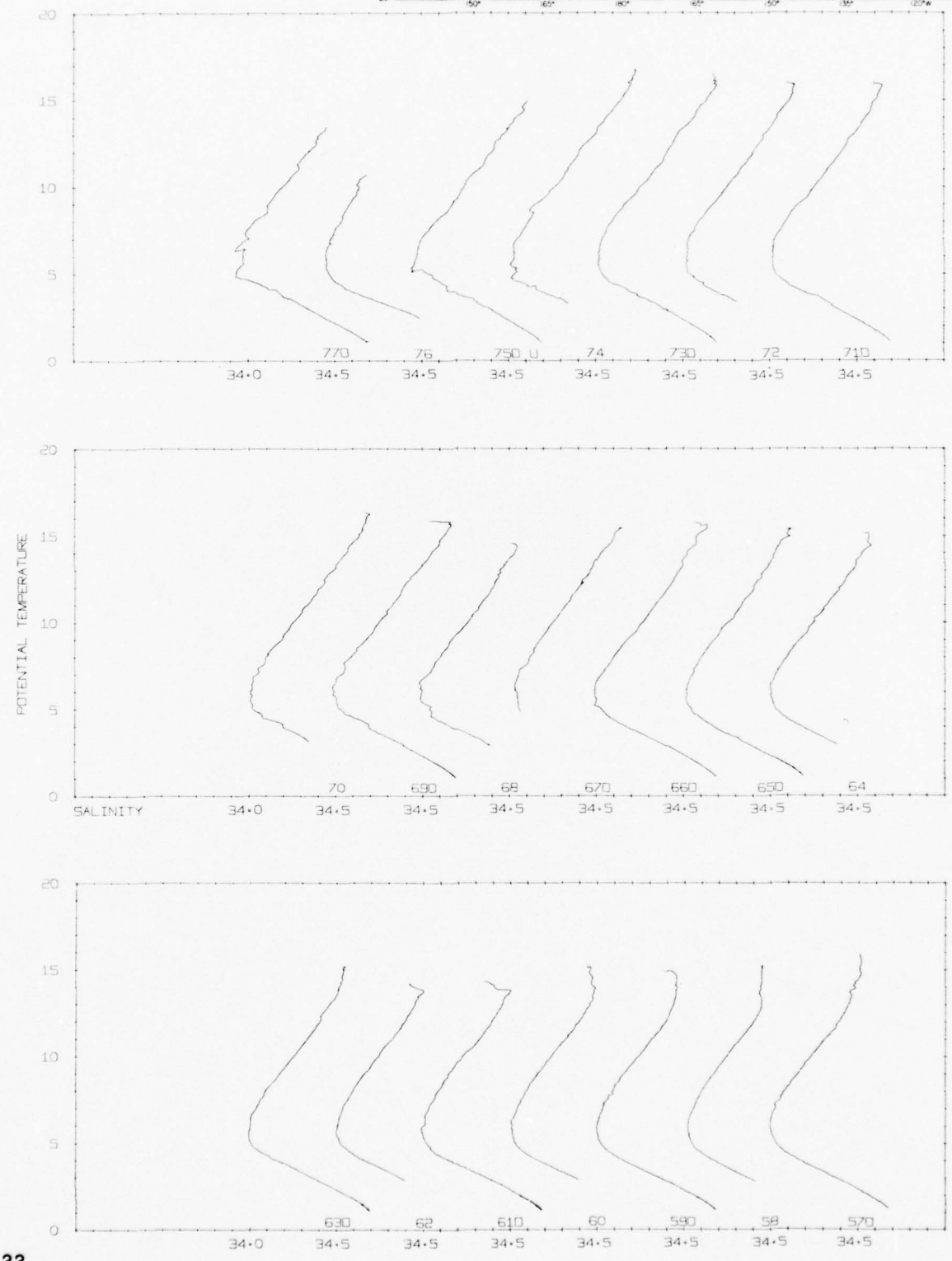
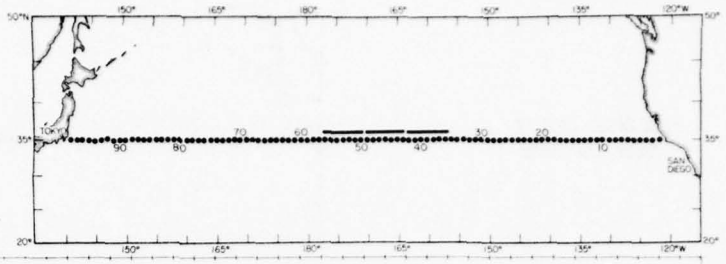


FIGURE 5b

INDOPAC LEG I
177W TO 157W



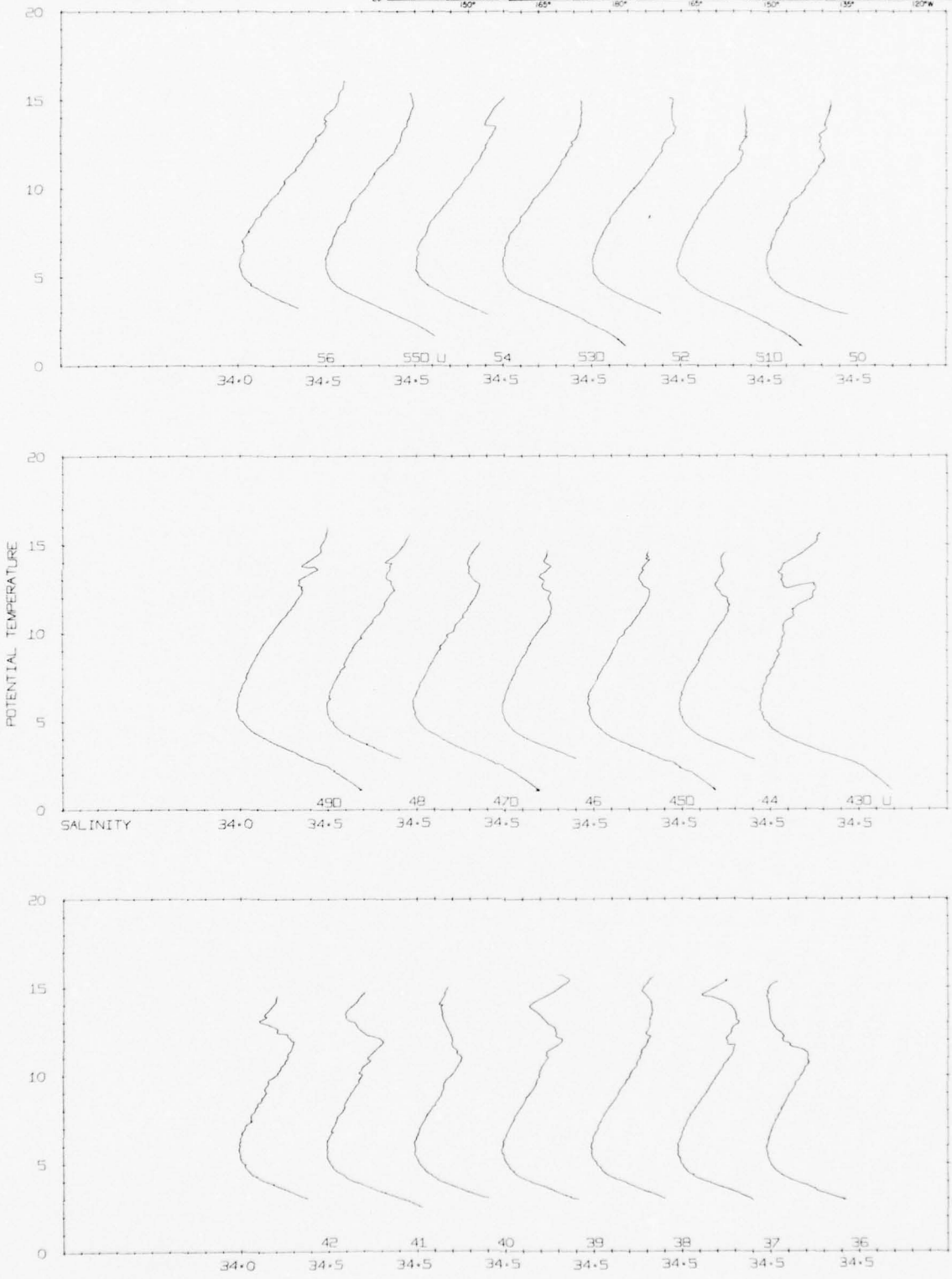
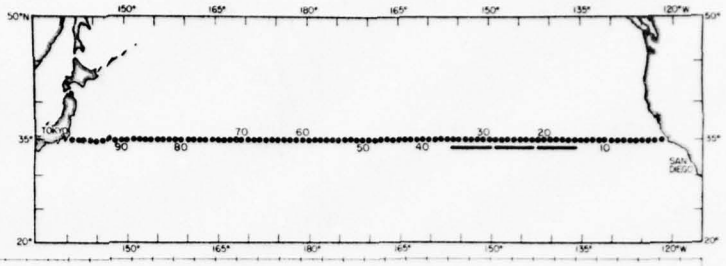
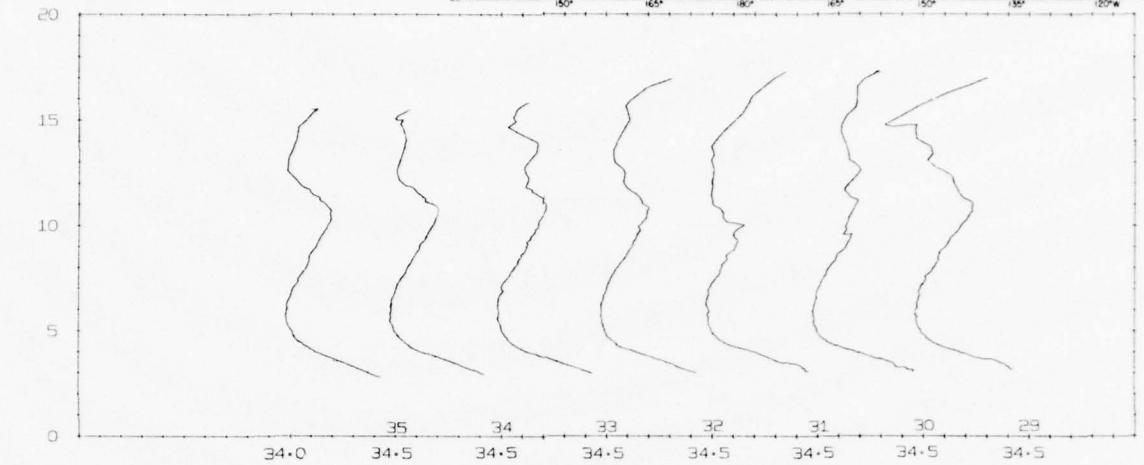
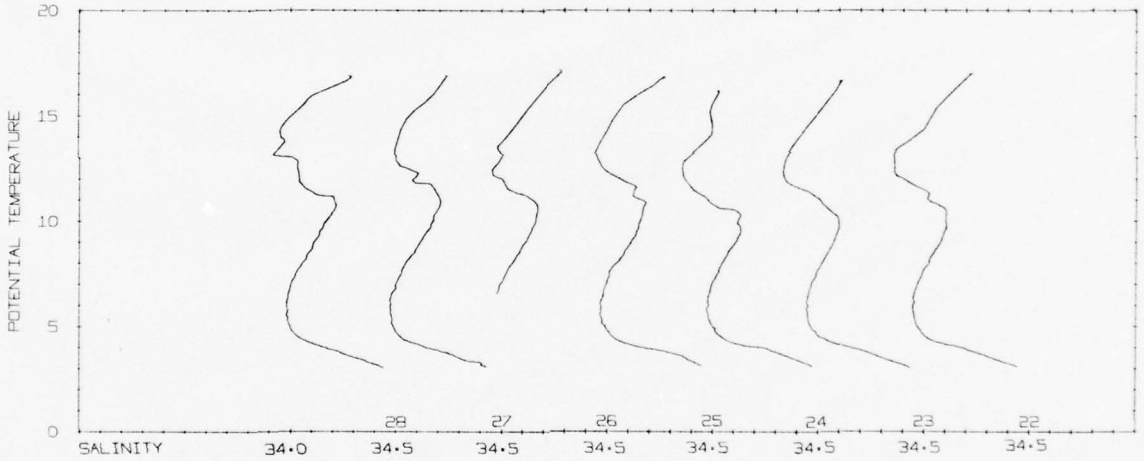


FIGURE 5c

INDOPAC LEG I
156W TO 136W







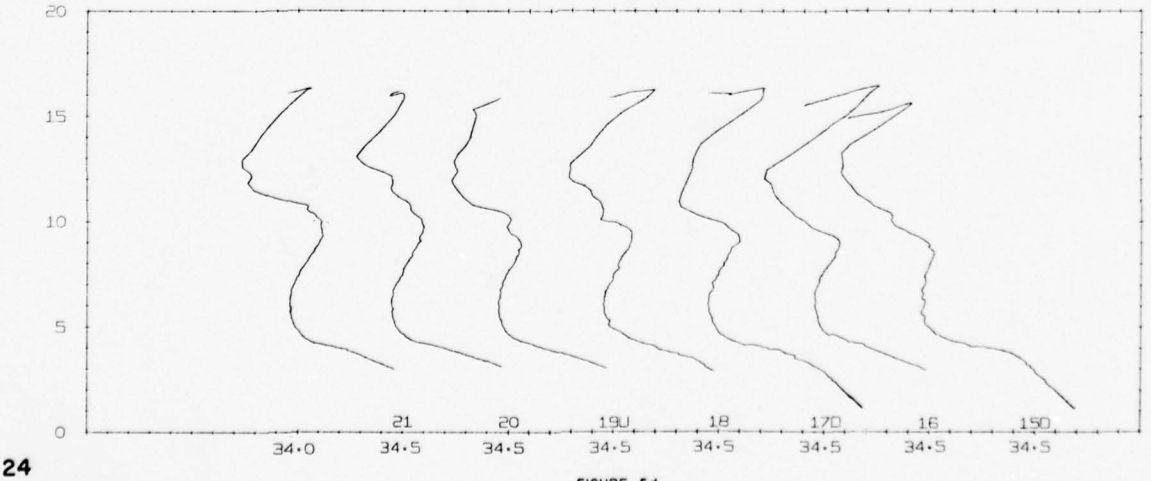


FIGURE 5d

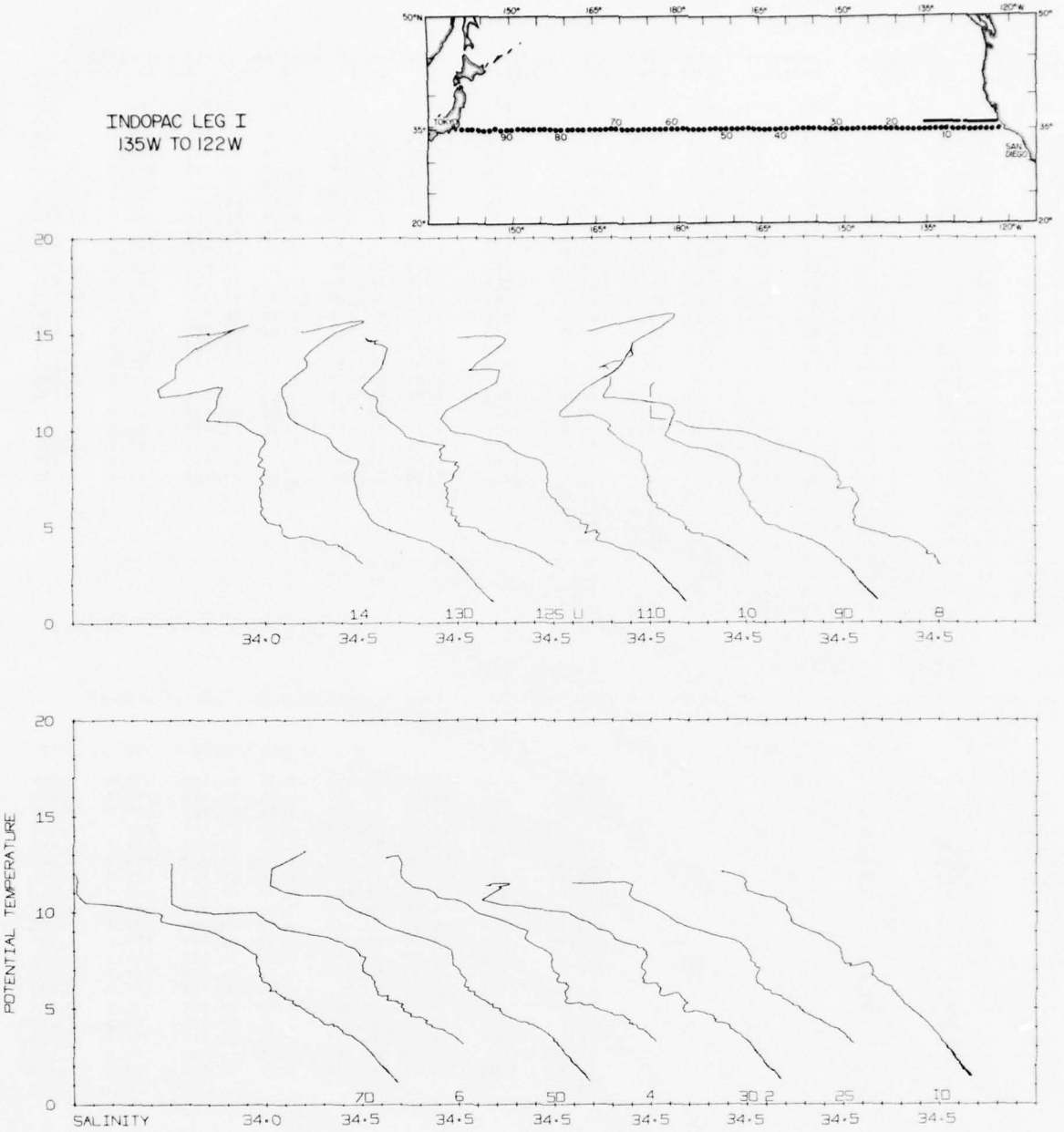

INDOPAC LEG I
135W TO 122W
50°N
150°
165°
180°
165°
150°
135°
120°W
50°
35°
20°
TOKYO
SAN DIEGO
90
80
70
60
50
40
30
20
10
POTENTIAL TEMPERATURE
SALINITY
0
5
10
15
20
34·0
34·5
14
13
12.5 U
11
10
9
8
7
6
5
4
3
2
2.5
1.0

FIGURE 5e

RV THOMAS WASHINGTON INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 03.5N	121 56.2W	3/25/76	2308 0246 GMT	2920M	340	26KT	0	340 12 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
4	12.11	33.418	6.25	0.33	7.3	0.13	2.6	262.3	0	12.11	33.418	6.25	25.362	262.3	0.000
10	12.11	33.418	6.27	0.34	7.2	0.13	2.7	262.3	10	12.11	33.418	6.27	25.362	262.3	0.026
20	12.11	33.422	6.40	0.37	7.2	0.22	2.6	262.0	20	12.11	33.422	6.40	25.365	262.0	0.052
31	12.09	33.427	6.20	0.47	7.2	0.27	2.7	261.3	30	12.09	33.428	6.23	25.372	261.4	0.079
52	11.14	33.536	5.61	0.67	11.5	0.43	8.1	236.6	50	11.27	33.527	5.67	25.600	239.7	0.129
62	10.39	33.547	4.53	1.06	13.9	0.18	13.7	223.2	75	9.92	33.640	4.25	25.924	208.9	0.185
78	9.86	33.664	4.16	1.32	19.4	0.27	18.3	206.0	100	9.54	33.779	3.55	26.129	189.4	0.236
93	9.48	33.747	3.72	1.60	23.9	0.29	21.5	193.9	125	8.76	33.698	3.09	26.314	171.8	0.281
103	9.28	33.790	3.49	1.64	24.9	0.36	22.7	187.6	150	8.29	33.983	3.00	26.453	158.7	0.323
128	8.69	33.911	3.05	1.87	31.4	0.00	26.0	169.7	200	7.70	34.024	2.60	26.573	147.2	0.401
154	8.23	33.991	2.99	1.97	36.7	0.00	28.0	157.2	250	7.60	34.123	1.82	26.664	138.6	0.475
204	7.67	34.024	2.55	2.04	44.0	0.00	30.3	146.8	300	7.27	34.161	1.41	26.742	131.2	0.544
254	7.60	34.130	1.76	2.34	50.8	0.00	32.5	137.9	400	6.33	34.209	0.82	26.907	115.6	0.673
305	7.22	34.161	1.38	2.42	57.2	0.00	34.8	130.5	500	5.87	34.287	0.53	27.027	104.2	0.789
405	6.29	34.211	0.80	2.66	72.5	0.00	38.9	114.8	600	5.45	34.325	0.41	27.109	96.4	0.896
503	5.86	34.288	0.52	2.90	83.6	0.00	40.5	103.9	700	5.04	34.369	0.40	27.193	88.4	0.996
547A	5.65	34.303	0.62D	3.13	86.9	0.00	41.1	100.3	800	4.65	34.405	0.54	27.266	81.5	1.089
602	5.44	34.325	0.41	2.97	92.5	0.00	42.1	96.2	1000	3.99	34.473	0.58	27.390	69.7	1.258
700	5.04	34.369	0.40	3.04	101.0	0.01	43.2	88.4	1200	3.46	34.505	0.75	27.469	62.2	1.408
729A	4.82	34.351	0.38	3.23	104.6	0.00	43.1	84.4	1500	2.86	34.554	1.09	27.564	53.2	1.610
800	4.65	34.405	0.54	3.08	109.4	0.01	43.7	81.5	1750	2.38	34.599	1.44	27.640	46.0	1.757
911A	4.27	34.446	0.50	3.32	117.8	0.00	43.9	74.5	2000	2.08	34.626	1.86	27.687	41.6	1.890
1093A	3.72	34.494	0.70	3.21	130.0	0.00	43.9	65.5							
1276A	3.29	34.511	0.80	3.17	140.4	0.00	43.4	60.3							
1459A	2.94	34.548	1.06	3.16	150.2	0.00	43.3	54.4							
1643A	2.58	34.576	1.22	3.14	160.0	0.03	42.6	49.3							
1827A	2.26	34.612 E	1.61	3.03	169.3	0.00	41.9	44.0							
2011A	2.07	34.625	1.87	2.99	172.8	0.01	41.1	41.5							
2197A	1.889	34.640	2.16	2.91	175.8	0.07	40.3	39.1							
2384A		34.645		2.80	176.0	0.00	39.4								

RV THOMAS WASHINGTON INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58. N	123 05.1W	3/26/76	1115 GMT	3287M	360	26KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
4	11.54	33.044	6.31					279.8	0	11.54	33.044	6.31	25.179	279.8	0.000
13	11.53	33.045	6.31					279.5	10	11.53	33.047	6.31	25.180	279.7	0.028
24	11.52	33.055	6.32					278.6	20	11.52	33.053	6.32	25.187	279.0	0.056
35	11.56	33.083	6.32					277.3	30	11.54	33.069	6.32	25.197	278.1	0.084
55	11.55	33.216	6.30					267.3	50	11.55	33.178	6.31	25.278	270.3	0.139
80	11.55	33.416	5.89					252.5	75	11.55	33.368	6.00	25.427	256.2	0.205
105	10.20	33.513	5.14					222.6	100	10.50	33.496	5.31	25.713	229.0	0.266
129	9.40	33.649	4.17					199.9	125	9.51	33.626	4.33	25.982	203.4	0.321
159	8.72	33.859	3.17					174.0	150	8.90	33.800	3.43	26.216	181.1	0.369
209	8.01	34.001	2.73					153.2	200	8.11	33.990	2.75	26.486	155.5	0.455
259	7.51	34.031	2.30					144.1	250	7.60	34.031	2.38	26.593	145.3	0.532
309	6.93	34.059	1.78					134.3	300	7.04	34.055	1.88	26.691	136.1	0.605
408	5.78	34.127	0.44					115.0	400	5.86	34.122	0.53	26.898	116.4	0.736
508	5.30	34.230	0.26					101.8	500	5.33	34.223	0.27	27.043	102.7	0.851
608	4.77	34.298	0.28					90.8	600	4.81	34.294	0.28	27.159	91.6	0.954
707	4.46	34.359	0.19					83.0	700	4.48	34.356	0.20	27.245	83.5	1.049
808	4.20	34.411	0.27					76.5	800	4.22	34.407	0.26	27.314	76.9	1.136
906	3.99	34.457	0.19					70.9	1000	3.79	34.486	0.48	27.421	66.8	1.296
1007	3.77	34.487	0.51					66.5	1200	3.26	34.535	0.74	27.513	58.1	1.439
1200	3.255	34.535	0.74					58.1							

E) AN ERROR OF 1 OHM (0.056 PPT) IN CONDUCTIVITY HAS BEEN ASSUMED.

1D

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 03.5N	121 56.2W	03/25/76	1949 GMT

Z	T	S	SIGMA T	DT	DD
0	12.12	33.38	25.331	265.3	0.000
10	12.11	33.38	25.333	265.1	0.027
20	12.10	33.37	25.327	265.7	0.053
30	12.10	33.38	25.335	264.9	0.080
40	12.09	33.38	25.336	264.8	0.106
50	11.87	33.46	25.440	254.9	0.132
75	10.78	33.62	25.762	224.3	0.193
100	9.99	33.71	25.969	204.7	0.247
125	9.10	33.80	26.185	184.1	0.296
150	8.61	33.91	26.348	168.6	0.341
175	8.24	33.97	26.451	158.8	0.382
200	7.90	33.99	26.518	152.5	0.422
225	7.42	34.00	26.595	145.2	0.460
250	7.24	34.03	26.644	140.5	0.497
275	7.36	34.12	26.695	135.7	0.532
300	7.18	34.14	26.739	131.5	0.567
350	6.69	34.15	26.814	124.4	0.633
400	6.42	34.18	26.873	118.8	0.697
450	6.16	34.24	26.954	111.1	0.757
500	5.92	34.26	27.000	106.7	0.815
550	5.62	34.29	27.061	100.9	0.870
600	5.29	34.32	27.125	94.9	0.922
650	5.09	34.34	27.164	91.2	0.973
700	4.90	34.36	27.202	87.6	1.021
750	4.73	34.39	27.245	83.5	1.068
800	4.57	34.41	27.278	80.3	1.113
850	4.43	34.42	27.302	78.1	1.157
900	4.27	34.44	27.335	75.0	1.199
950	4.11	34.45	27.360	72.6	1.240
1000	3.95	34.47	27.392	69.5	1.280
1100	3.73	34.49	27.430	65.9	1.357
1200	3.50	34.51	27.469	62.3	1.431
1300	3.27	34.53	27.507	58.6	1.501
1400	3.07	34.54	27.534	56.1	1.568
1500	2.90	34.56	27.565	53.1	1.632
1600	2.686	34.573	27.595	50.4	1.694
1700	2.509	34.587	27.621	47.8	1.752
1800	2.322	34.601	27.648	45.3	1.808
1900	2.180	34.616	27.672	43.1	1.862
2000	2.099	34.622	27.683	42.0	1.913
2100	2.019	34.632	27.697	40.6	1.964
2200	1.929	34.634	27.706	39.8	2.014
2300	1.859	34.648	27.723	38.2	2.062
2400	1.799	34.656	27.734	37.2	2.109
2500	1.757	34.656	27.737	36.9	2.156
2600	1.724	34.663	27.745	36.1	2.202
2700	1.682	34.664	27.749	35.7	2.247
2800	1.654	34.670	27.756	35.1	2.293
2834	1.648	34.674	27.760	34.7	2.308

2S

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58. N	123 05.1W	03/26/76	0943 GMT

Z	T	S	SIGMA T	DT	DD
0	11.51	33.09	25.220	275.9	0.000
10	11.52	33.09	25.218	276.0	0.028
20	11.53	33.10	25.224	275.5	0.055
30	11.52	33.11	25.233	274.6	0.083
40	11.51	33.14	25.259	272.2	0.110
50	11.51	33.15	25.266	271.4	0.137
75	11.54	33.26	25.346	263.9	0.205
100	10.59	33.43	25.648	235.1	0.268
125	9.63	33.61	25.951	206.4	0.323
150	9.08	33.76	26.157	186.8	0.373
175	8.66	33.89	26.324	170.9	0.419
200	8.31	33.98	26.448	159.1	0.461
225	7.96	34.00	26.517	152.6	0.501
250	7.77	34.01	26.552	149.2	0.539
275	7.44	34.02	26.608	143.9	0.577
300	7.16	34.06	26.679	137.2	0.613
350	6.39	34.05	26.775	128.1	0.682
400	5.98	34.11	26.875	118.6	0.746
450	5.69	34.16	26.950	111.5	0.806
500	5.38	34.22	27.035	103.4	0.863
550	5.14	34.25	27.087	98.5	0.917
600	4.92	34.29	27.144	93.1	0.968
650	4.67	34.32	27.196	88.1	1.016
700	4.50	34.36	27.247	83.4	1.063
750	4.42	34.38	27.271	81.0	1.107
800	4.29	34.40	27.301	78.2	1.151
850	4.11	34.43	27.344	74.1	1.193
900	4.04	34.45	27.367	71.9	1.234
950	3.96	34.48	27.399	68.9	1.273
1000	3.85	34.49	27.418	67.1	1.311
1100	3.59	34.51	27.460	63.1	1.385
1200	3.31	34.54	27.511	58.2	1.455
1227	3.24	34.55	27.526	56.9	1.473

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00. N	124 00. W	3/26/76	2150 0245 GMT	3451M	340	22KT	1	300 7 7

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1A	11.51	33.205	6.40	0.58	5.5	0.03	2.7	267.4	0	11.51	33.205	6.40	25.309	267.4	0.000
2	11.52	33.205	6.33	0.56	6.1	0.03	2.7	267.6	10	11.51	33.206	6.36	25.308	267.5	0.027
11	11.51	33.204	6.36	0.58	6.0	0.03	2.6	267.5	20	11.52	33.218	6.37	25.316	266.7	0.053
22	11.52	33.221	6.37	0.61	6.2	0.03	2.7	266.4	30	11.57	33.275	6.36	25.350	263.5	0.080
32	11.58	33.285	6.36	0.63	6.6	0.03	2.8	262.7	50	11.51	33.302	6.30	25.382	260.5	0.133
42	11.54	33.293	6.33	0.63	6.9	0.03	3.1	261.4	75	10.42	33.259	5.98	25.543	245.2	0.196
51	11.5 K	33.301	6.30	0.62	6.9	0.03	3.3	260.3	100	10.08	33.558	5.40	25.833	217.5	0.254
61	11.17	33.272	6.23	0.65	7.3	0.13	3.9	256.6	125	9.49	33.721	4.13	26.059	196.0	0.307
77	10.32	33.262	5.94	0.87	7.4	0.14	7.4	243.1	150	8.86	33.837	3.46	26.251	177.9	0.354
102	10.08	33.586	5.34	1.22	13.3	0.00	13.4	215.3	200	7.93	33.965	3.27	26.508	153.4	0.438
127	9.43	33.727	4.03	1.25	21.9	0.00	20.9	194.6	250	7.16	33.989	3.03	26.621	142.6	0.514
153	8.79	33.848	3.42	1.96	27.9	0.00	24.4	175.9	300	6.45	33.995	2.49	26.722	133.1	0.585
203	7.88	33.993	3.26	2.13	43.7	0.00	29.3	152.0	400	5.79	34.113	1.15	26.900	116.2	0.714
206A	8.05	33.984	2.83	2.11	36.7	0.00	28.1	155.1	500	5.37	34.189	0.72	27.011	105.7	0.831
255	7.10	33.988	3.04	2.29	43.9	0.00	29.4	141.8	600	4.87	34.284	0.34	27.144	93.0	0.937
303	6.42	33.995	2.44	2.51	55.2	0.00	33.4	132.6	700	4.63	34.364	0.35	27.235	84.4	1.032
402	5.76	34.115	1.12	3.02	73.7	0.00	39.8	115.9	800	4.30	34.404	0.34	27.303	78.0	1.121
405A		34.09	1.20	2.86	73.2	0.00	39.1		1000	3.69	34.479	0.56	27.425	66.5	1.281
503	5.36	34.190	0.70	3.37	85.2	0.00	41.9	105.4	1200	3.00	34.517	0.80	27.493	59.9	1.425
602A	4.86	34.285	0.33	3.23	100.9	0.00	43.2	92.8	1500	2.72	34.566	1.14	27.586	51.2	1.619
603	4.95	34.282	0.41	3.40	98.9	0.00	43.4	94.0	1750	2.33	34.593	1.41	27.640	46.1	1.763
702	4.62	34.365	0.35	3.42	107.9	0.00	44.0	84.2	2000	2.05	34.618	1.72	27.683	42.0	1.896
797A	4.29	34.389	0.32	3.33	116.7	0.00	44.1	79.0	2250	1.88	34.642	2.13	27.715	38.9	2.020
802	4.30	34.414	0.36	3.47	116.5	0.00	44.8	77.2	2500	1.77	34.653	2.33	27.733	37.3	2.139
993A	3.76	34.458	0.50	3.32	129.5	0.00	44.4	68.6	2750	1.67	34.664	2.57	27.749	35.7	2.255
1003	3.66	34.485	0.58	3.48	131.2	0.00	45.2	65.6	3000	1.63	34.668	2.69	27.756	35.1	2.368
1191A	3.32	34.515	0.79	3.25	140.7	0.00	44.0	60.2	3250	1.58	34.678	2.82	27.767	34.1	2.482
1398B	2.89	34.550	1.02	3.16	150.5		44.0	53.8	3500	1.53	34.677		27.770	33.8	2.594
1596B	2.57	34.579	1.25	3.13	158.9		43.6	48.9							
1793B	2.27	34.595	1.45	3.07	167.6		43.1	45.3							
1990B	2.06	34.615	1.70	3.00	175.8		42.4	42.2							
2187B	1.92	34.639	2.06	2.95	174.9		41.4	39.4							
2384B	1.82	34.645	2.24	2.86	176.2		40.9	38.2							
2581B	1.74	34.657	2.40	2.80	176.7		40.3	36.7							
2776B	1.66	34.664	2.59	2.86	177.7		39.6	35.6							
2972B	1.63	34.666	2.67	2.75	178.7		39.2	35.2							
3169B	1.60	34.673	2.81	2.76	179.2		38.8	34.5							
3318B	1.56	34.676	2.85	2.71	180.7		38.6	34.0							
3368B	1.55	34.674	2.91	2.70	180.5		38.7	34.1							

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.3N	124 59.8W	3/27/76	0950 GMT	4095M	340	23KT	1	320 7 7

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	12.82	33.116	5.890					297.5	0	12.82	33.116	5.89	24.992	297.5	0.000
10	12.84	33.119	6.20					297.7	10	12.84	33.119	6.20	24.990	297.7	0.030
19	12.85	33.122	6.20					297.7	20	12.85	33.124	6.20	24.991	297.7	0.060
30	12.85	33.120	6.20					297.8	30	12.85	33.120	6.20	24.989	297.8	0.089
49	12.85	33.129	6.21					297.2	50	12.85	33.134	6.21	24.998	297.0	0.149
74	12.86	33.187	6.12					293.1	75	12.81	33.191	6.11	25.051	292.0	0.223
98	11.46	33.282	5.80					260.8	100	11.39	33.303	5.75	25.404	258.3	0.292
122	10.83	33.501	5.15					233.9	125	10.74	33.516	5.07	25.666	231.5	0.354
147	10.08	33.585	4.55					215.4	150	9.97	33.602	4.47	25.887	212.5	0.410
198	8.42	33.859	3.46					169.6	200	8.38	33.868	3.45	26.349	168.5	0.507
246	7.72	33.987	3.27					150.2	250	7.65	33.991	3.20	26.553	149.1	0.589
295	6.95	33.999	2.31					139.0	300	6.89	34.003	2.25	26.670	138.0	0.663
392	5.97	34.064	1.44					122.0	400	5.91	34.071	1.38	26.852	120.7	0.797
488	5.34	34.140	0.82					108.9	500	5.29	34.152	0.76	26.991	107.6	0.916
585	5.02	34.229	0.44					98.7	600	4.97	34.243	0.40	27.101	97.2	1.025
686	4.70	34.315	0.26					88.8	700	4.67	34.328	0.26	27.202	87.6	1.124
784	4.48	34.388	0.29					81.0	800	4.43	34.396	0.30	27.283	79.9	1.216
882	4.14	34.427	0.34					74.6	1000	3.82	34.472		27.407	68.1	1.380
982	3.86	34.467	0.27					68.9							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00. N	124 00. W	03/26/76	1932 GMT

Z	T	S	SIGMA T	DT	DD
0	11.41	33.16	25.292	269.0	0.000
10	11.41	33.16	25.292	269.0	0.027
20	11.41	33.14	25.277	270.5	0.054
30	11.46	33.17	25.291	269.1	0.081
40	11.52	33.22	25.319	266.5	0.108
50	11.47	33.26	25.359	262.6	0.134
75	10.35	33.28	25.573	242.3	0.198
100	9.74	33.61	25.933	208.1	0.255
125	8.99	33.76	26.187	183.9	0.304
150	8.34	33.89	26.373	166.2	0.348
175	8.14	33.96	26.456	158.1	0.390
200	7.79	33.98	26.526	151.7	0.429
225	7.12	33.95	26.598	144.9	0.467
250	6.92	33.97	26.641	140.8	0.504
275	6.49	33.96	26.691	136.1	0.539
300	6.32	34.01	26.752	130.2	0.574
350	5.96	34.05	26.830	122.9	0.639
400	5.81	34.12	26.904	115.9	0.701
450	5.55	34.16	26.967	109.8	0.760
500	5.32	34.19	27.019	105.0	0.817
550	4.85	34.20	27.081	99.1	0.871
600	4.85	34.26	27.128	94.6	0.922
650	4.70	34.31	27.185	89.2	0.971
700	4.48	34.33	27.225	85.4	1.019
750	4.31	34.35	27.259	82.1	1.064
800	4.28	34.38	27.286	79.6	1.108
850	4.18	34.41	27.321	76.3	1.151
900	3.98	34.41	27.341	74.4	1.193
950	3.85	34.44	27.379	70.8	1.233
1000	3.74	34.46	27.406	68.3	1.272
1100	3.50	34.49	27.453	63.8	1.347
1200	3.25	34.51	27.493	60.0	1.417
1300	3.08	34.53	27.525	57.0	1.485
1400	2.88	34.54	27.551	54.5	1.550
1500	2.73	34.56	27.580	51.7	1.612
1600	2.574	34.548	27.585	51.3	1.672
1700	2.419	34.586	27.628	47.2	1.731
1800	2.293	34.592	27.643	45.8	1.787
1900	2.145	34.607	27.667	43.5	1.840
2000	2.050	34.617	27.683	42.0	1.892
2100	1.971	34.627	27.697	40.6	1.942
2200	1.919	34.636	27.709	39.6	1.992
2300	1.870	34.644	27.719	38.6	2.040
2400	1.818	34.650	27.728	37.8	2.088
2500	1.787	34.653	27.732	37.3	2.135
2600	1.736	34.658	27.740	36.6	2.182
2700	1.702	34.662	27.746	36.0	2.228
2800	1.671	34.665	27.749	35.7	2.274
2900	1.643	34.666	27.753	35.3	2.319
3000	1.621	34.669	27.758	34.9	2.365
3100	1.603	34.671	27.761	34.7	2.410
3200	1.585	34.673	27.763	34.4	2.455
3300	1.570	34.676	27.767	34.0	2.500
3400	1.553	34.677	27.769	33.8	2.545

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.3N	124 59.8W	03/27/76	0834 GMT

Z	T	S	SIGMA T	DT	DD
0	12.84	33.12	24.991	297.6	0.000
10	12.85	33.13	24.997	297.1	0.030
20	12.87	33.13	24.993	297.5	0.060
30	12.86	33.13	24.995	297.3	0.089
40	12.85	33.13	24.997	297.1	0.119
50	12.85	33.13	24.997	297.1	0.149
75	12.71	33.20	25.078	289.3	0.223
100	11.31	33.29	25.411	257.6	0.291
125	10.69	33.47	25.661	233.9	0.354
150	9.99	33.60	25.883	212.8	0.410
175	9.24	33.81	26.170	185.5	0.461
200	8.58	33.85	26.306	172.6	0.506
225	8.05	33.95	26.464	157.6	0.549
250	7.67	33.98	26.543	150.1	0.588
275	7.26	33.96	26.602	144.5	0.626
300	6.93	33.99	26.655	139.4	0.662
350	6.36	34.03	26.763	129.2	0.732
400	5.99	34.06	26.834	122.5	0.797
450	5.81	34.06	26.917	114.6	0.859
500	5.23	34.15	26.998	107.0	0.917
550	5.11	34.20	27.051	101.9	0.973
600	4.91	34.25	27.114	96.0	1.025
650	4.79	34.30	27.167	90.9	1.075
700	4.73	34.35	27.213	86.5	1.123
750	4.55	34.37	27.249	83.1	1.169
800	4.31	34.39	27.291	79.1	1.214
850	4.22	34.42	27.324	76.0	1.257
900	4.03	34.43	27.352	73.3	1.298
950	3.96	34.46	27.383	70.4	1.338
1000	3.85	34.47	27.403	68.6	1.377
1100	3.58	34.50	27.453	63.7	1.452
1200	3.34	34.52	27.493	60.0	1.523

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.7N	126 01. W	3/27/76	1700 1947 GMT	3913M	320	25KT	2	290 7 10

Z	T	S	O2	PO4	SIC3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	13.19	33.202	6.17	0.36	3.8	0.00	0.2	296.2	0	13.19	33.202	6.17	24.985	298.2	0.000
11	13.19	33.193	6.15	0.38	3.7	0.00	0.2	298.8	10	13.19	33.195	6.15	24.978	298.8	0.030
22	13.18	33.198	6.12	0.39	3.6	0.00	0.3	298.3	20	13.18	33.199	6.13	24.983	298.4	0.060
31	13.18	33.197	6.05	0.40	3.4	0.00	0.4	298.4	30	13.18	33.199	6.06	24.984	298.3	0.090
50	13.18	33.196	6.08	0.42	3.1	0.00	0.6	298.4	50	13.18	33.196	6.08	24.983	298.4	0.150
75	13.06	33.158	6.13	0.41	3.2	0.00	0.8	299.0	75	13.06	33.158	6.13	24.977	299.0	0.225
99	11.12	33.034	6.01	0.65	6.7	0.03	4.4	273.3	100	11.09	33.047	5.99	25.260	272.1	0.296
124	10.71	33.359	5.55	0.72	7.6	0.04	6.3	242.4	125	10.68	33.370	5.54	25.584	241.3	0.361
148	9.97	33.543	5.30	1.18	15.5	0.00	13.3	216.7	150	9.90	33.562	5.23	25.866	214.4	0.419
197	8.55	33.886	3.58	1.88	31.5	0.00	24.1	169.5	200	8.49	33.897	3.60	26.355	168.0	0.516
246	7.82	33.973	3.96	1.84	35.8	0.00	24.8	152.7	250	7.76	33.977	3.86	26.527	151.7	0.598
294	7.16	33.995	2.48	2.35	49.4	0.00	31.6	142.1	300	7.07	34.000	2.36	26.643	140.6	0.673
391	5.97	34.076	1.23	2.92	72.2	0.00	39.1	121.1	400	5.92	34.087	1.14	26.864	119.7	0.808
487	5.51	34.172	0.51	3.12	85.4	0.05	41.7	108.5	500	5.41	34.180	0.46	26.999	106.8	0.927
583	4.83	34.220	0.28	3.29	99.2	0.00	43.3	97.3	600	4.76	34.232	0.28	27.115	95.8	1.035
678	4.54	34.285	0.26	3.37	108.5	0.00	44.2	89.4	700	4.49	34.302	0.26	27.201	87.7	1.133
776	4.33	34.356	0.24	3.39	114.8	0.00	44.7	81.9	800	4.27	34.374	0.20	27.281	80.1	1.224
871	4.10	34.415	0.15	3.41	121.0	0.00	44.7	75.2	1000	3.76	34.468	0.59	27.406	68.1	1.389
966	3.86	34.452	0.49	3.42	126.1	0.00	44.3	70.0	1200	3.25	34.509	0.84	27.492	60.1	1.534
1060A	3.62	34.492	0.74	3.32	132.7	0.02	44.4	64.7	1500	2.67	34.558	1.09	27.583	51.4	1.728
1165	3.35	34.500	0.81	3.36	138.8	0.00	44.1	61.5							
1251A	3.14	34.521	0.69	3.28	145.0	0.02	44.7	58.2							
1445A	2.77	34.549	1.03	3.26	156.0	0.02	44.3	52.9							
1646A	2.43	34.582	1.31	3.19	165.0	0.02	43.0	47.6							

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 01. N	126 59.1W	3/28/76	0239 GMT	3954M	310	20KT	2	290 8 11

Z	T	S	O2	PO4	SIC3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	12.57	32.996	6.26					301.8	0	12.57	32.996	6.26	24.948	301.8	0.000
10	12.56	32.992	6.28					301.9	10	12.56	32.992	6.28	24.947	301.9	0.030
20	12.55	32.993	6.26					301.6	20	12.55	32.993	6.26	24.950	301.6	0.060
31	12.56	32.997	6.28					301.5	30	12.56	32.999	6.28	24.951	301.5	0.091
51	12.44	33.008	6.29					298.5	50	12.45	33.009	6.29	24.980	298.7	0.151
76	11.59	32.900	6.36					291.3	75	11.64	32.909	6.36	25.055	291.6	0.225
101	10.36	33.089	5.95					256.6	100	10.40	33.079	5.95	25.405	258.3	0.294
126	9.97	33.498	5.28					220.0	125	9.98	33.484	5.31	25.792	221.4	0.355
152	9.01	33.710	4.31					189.4	150	9.09	33.700	4.39	26.107	191.5	0.407
201	8.19	33.966	3.02					158.4	200	8.20	33.964	3.04	26.452	158.7	0.496
251	7.64	34.036	2.32					145.5	250	7.65	34.037	2.33	26.590	145.6	0.574
300	6.90	34.018	2.17					137.0	300	6.90	34.018	2.17	26.681	137.0	0.647
398	6.04	34.082	1.24					121.4	400	6.02	34.085	1.23	26.848	121.1	0.781
496	5.38	34.166	0.75					107.5	500	5.36	34.170	0.74	26.998	107.0	0.900
593	4.86	34.231	0.47					96.8	600	4.84	34.238	0.45	27.112	96.1	1.008
690	4.55	34.316	0.32					87.2	700	4.50	34.322	0.32	27.215	86.3	1.106
788	4.13	34.361	0.36					79.5	800	4.10	34.369	0.37	27.296	78.7	1.196
887	3.94	34.420	0.44					73.2	1000	3.68	34.469	0.54	27.419	67.1	1.357
987	3.71	34.464	0.53					67.7	1200	3.21	34.523	0.86	27.507	58.6	1.500
1190	3.23	34.520	0.84					59.0							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.7N	126 01. W	03/27/76	1545 GMT

Z	T	S	SIGMA T	DT	DD
0	13.18	33.20	24.986	298.1	0.000
10	13.19	33.20	24.984	298.3	0.030
20	13.19	33.20	24.984	298.3	0.060
30	13.20	33.21	24.989	297.8	0.090
40	13.20	33.21	24.989	297.8	0.119
50	13.20	33.21	24.989	297.8	0.149
75	12.54	33.08	25.019	295.0	0.224
100	10.98	33.14	25.354	263.1	0.294
125	10.16	33.44	25.730	227.4	0.356
150	9.36	33.61	25.995	202.2	0.410
175	8.80	33.78	26.217	181.1	0.459
200	8.30	33.91	26.395	164.1	0.503
225	7.93	33.97	26.497	154.4	0.544
250	7.52	33.97	26.557	148.8	0.583
275	7.12	33.99	26.629	141.9	0.620
300	6.85	34.01	26.682	136.9	0.656
350	6.24	34.03	26.778	127.8	0.724
400	5.91	34.06	26.844	121.5	0.789
450	5.60	34.12	26.930	113.4	0.851
500	5.30	34.16	26.997	107.0	0.909
550	5.07	34.20	27.056	101.4	0.964
600	4.76	34.23	27.115	95.8	1.016
650	4.58	34.26	27.159	91.7	1.066
700	4.43	34.30	27.207	87.1	1.114
750	4.33	34.35	27.257	82.3	1.160
800	4.21	34.38	27.294	78.9	1.204
850	4.08	34.40	27.323	76.1	1.247
900	3.97	34.42	27.350	73.5	1.288
950	3.89	34.44	27.375	71.2	1.328
1000	3.78	34.46	27.402	68.7	1.368
1100	3.47	34.49	27.456	63.5	1.442
1200	3.25	34.51	27.493	60.0	1.513
1300	3.02	34.53	27.531	56.4	1.580
1400	2.81	34.54	27.557	53.9	1.644
1500	2.65	34.56	27.588	51.0	1.705
1600	2.490	34.583	27.620	48.0	1.764
1700	2.317	34.594	27.643	45.8	1.819
1800	2.200	34.605	27.661	44.0	1.873
1900	2.116	34.619	27.679	42.3	1.925
2000	2.030	34.627	27.693	41.1	1.976
2100	1.951	34.635	27.705	39.9	2.025
2200	1.876	34.641	27.716	38.9	2.074
2300	1.829	34.647	27.724	38.1	2.121
2400	1.773	34.654	27.734	37.1	2.168
2500	1.733	34.656	27.740	36.6	2.214
2600	1.695	34.663	27.747	35.9	2.260
2700	1.661	34.666	27.752	35.4	2.305
2800	1.621	34.665	27.754	35.2	2.350
2900	1.608	34.671	27.760	34.7	2.395
3000	1.582	34.670	27.761	34.6	2.440
3100	1.563	34.673	27.765	34.2	2.484
3200	1.541	34.676	27.769	33.8	2.529
3300	1.527	34.678	27.772	33.6	2.573
3400	1.514	34.680	27.774	33.4	2.617
3500	1.501	34.682	27.777	33.1	2.661
3600	1.491	34.684	27.779	32.9	2.705
3700	1.486	34.685	27.780	32.8	2.749
3800	1.486	34.687	27.782	32.6	2.794
3845	1.487	34.687	27.782	32.6	2.814

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 01. N	126 59.1W	03/28/76	0150 GMT

Z	T	S	SIGMA T	DT	DD
0	12.55	33.00	24.955	301.1	0.000
10	12.55	33.00	24.955	301.1	0.000
20	12.55	33.00	24.955	301.1	0.060
30	12.33	33.01	24.005	296.3	0.090
40	12.11	33.92	24.977	299.0	0.120
50	11.76	32.91	25.035	293.5	0.150
75	10.65	33.00	25.304	267.9	0.220
100	9.92	33.46	25.786	222.0	0.282
125	9.07	33.63	26.057	196.3	0.335
150	8.62	33.84	26.291	174.0	0.382
175	8.25	33.93	26.418	161.9	0.424
200	7.97	33.98	26.499	154.2	0.465
225	7.63	34.02	26.580	146.5	0.503
250	7.21	34.00	26.624	142.4	0.540
275	6.86	34.02	26.688	136.3	0.576
300	6.68	34.05	26.736	131.6	0.611
350	6.18	34.06	26.810	124.8	0.677
400	5.74	34.08	26.881	118.0	0.740
450	5.54	34.13	26.945	112.0	0.800
500	5.34	34.19	27.016	105.2	0.857
550	5.04	34.21	27.067	100.4	0.912
600	4.81	34.25	27.125	94.9	0.964
650	4.62	34.28	27.170	90.6	1.015
700	4.52	34.32	27.213	86.6	1.061
750	4.26	34.34	27.257	82.4	1.107
800	4.12	34.36	27.287	79.5	1.151
850	4.00	34.40	27.332	75.3	1.194
900	3.92	34.43	27.364	72.3	1.234
950	3.77	34.45	27.395	69.3	1.274
1000	3.64	34.47	27.424	66.6	1.312
1100	3.41	34.50	27.470	62.2	1.385
1200	3.22	34.52	27.504	58.9	1.454

RV THOMAS WASHINGTON INDOPAC LEG I 7

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59. N	128 03.2W	3/26/76	1034 1455 GMT	4839M	310	20KT	2	300 8 10

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
5	12.56	32.999	6.29	0.32	2.9	0.00	0.0	301.3	0	12.56	32.999	6.29	24.952	301.3	0.000
10	12.55	32.995	6.31	0.32	3.1	0.00	0.0	301.5	10	12.55	32.995	6.31	24.951	301.5	0.030
20	12.55	32.997	6.29	0.33	3.5	0.00	0.0	301.3	20	12.55	32.997	6.29	24.953	301.3	0.060
31	12.54	33.004	5.940	0.43	3.9	0.00	0.0	300.6	30	12.54	33.006	6.32	24.959	300.7	0.090
51	11.55	33.050	6.39	0.47	4.8	0.03	0.7	279.5	50	11.64	33.050	6.39	25.164	281.2	0.149
61	10.32	33.065	5.93	0.75	7.7	0.16	5.0	257.7	75	10.11	33.345	5.47	25.662	233.8	0.214
77	10.08	33.375	5.41	1.16	13.0	0.03	11.4	230.9	100	9.59	33.595	4.82	25.937	207.6	0.269
92	9.44	33.487	4.99	1.25	15.8	0.04	14.4	212.5	125	8.84	33.788	3.60	26.216	181.2	0.318
101	9.39	33.550	4.80	1.43	18.2	0.02	16.4	207.1	150	8.56	33.888	3.17	26.368	166.7	0.362
126	8.61	33.796	3.55	1.84	24.1	0.04	24.3	180.1	200	7.74	33.965	3.38	26.521	152.1	0.444
151	8.34	33.868	3.17	1.99	34.2	0.02	27.1	166.3	250	6.96	33.987	2.57	26.648	140.2	0.518
200	7.74	33.965	3.38	1.98	38.0	0.00	27.0	152.1	300	6.34	34.009	1.90	26.747	130.7	0.588
248	6.99	33.985	2.60	2.20	49.3	0.04	31.0	140.6	400	5.70	34.101	0.94	26.902	116.1	0.716
298	6.36	34.006	1.92	2.55	60.6	0.04	35.0	131.0	500	5.11	34.197	0.43	27.049	102.1	0.830
402	5.69	34.102	0.93	3.06	76.7	0.03	40.1	115.8	600	4.72	34.257	0.35	27.140	93.5	0.934
500A	5.11	34.197	0.43	3.21	92.3	0.04	42.6	102.1	700	4.26	34.316	0.25	27.237	84.3	1.030
601A	4.72	34.257	0.35	3.27	103.4	0.05	43.5	93.4	800	4.09	34.379	0.28	27.305	77.8	1.118
701A	4.26	34.316	0.25	3.34	115.3	0.02	44.3	84.2	1000	3.60	34.462	0.52	27.421	66.8	1.278
791A	4.11	34.373	0.27	3.36	120.8	0.02	44.6	78.4	1200	3.17	34.515	0.68	27.504	58.9	1.420
944B	3.70	34.442	0.46	3.23	132.7	0.00	44.1	69.2	1500	2.64	34.561	1.08	27.589	50.9	1.611
1005A	3.59	34.463	0.52	3.26	134.1	0.00	44.7	66.6	1750	2.30	34.585	1.42	27.636	45.9	1.754
1243B	3.07	34.523	0.72	3.21	148.7	0.00	43.4	57.4	2000	2.03	34.615	1.77	27.682	41.9	1.886
1541B	2.58	34.565	0.780	3.16	161.4	0.00	43.0	50.1	2250	1.85	34.630	2.03	27.707	39.4	2.011
2035B	2.00	34.619	1.82	3.07	177.9	0.00	41.1	41.5	2500	1.76	34.646	2.24	27.728	37.7	2.130
2529B	1.75	34.647	2.26	2.92	182.4	0.04	39.1	37.5	2750	1.67	34.654	2.37	27.741	36.4	2.247
3025B	1.60	34.663	2.53	2.84	183.9	0.00	38.5	35.2	3000	1.61	34.663	2.52	27.753	35.3	2.362
3518B	1.50	34.680	3.08	2.70	178.4	0.01	37.6	33.3	3250	1.55	34.671	2.78	27.764	34.2	2.475
4010B	1.50	34.685	3.32	2.55	172.4	0.00	36.8	32.9	3500	1.50	34.680	3.06	27.774	33.3	2.586
4500B	1.536	34.685		2.52	167.3	0.00	36.8	33.1	3750	1.50	34.683	3.22	27.777	33.1	2.697
4694B	1.558	34.688	3.50	2.52	166.3	0.00	35.9	33.0	4000	1.50	34.686	3.32	27.779	32.9	2.809
									4250	1.52	34.686	3.40	27.778	33.0	2.923
									4500	1.54	34.685	3.47	27.777	33.1	3.040

RV THOMAS WASHINGTON INDOPAC LEG I 8

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.8N	129 02.2W	3/28/76	2051 GMT	4765M	340	17KT	2	300 8 12

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	12.55	33.017	6.23					299.8	0	12.55	33.017	6.23	24.968	299.8	0.000
10	12.50	33.016	6.25					299.0	10	12.50	33.016	6.25	24.977	299.0	0.030
20	12.51	33.016	6.26					299.2	20	12.51	33.016	6.26	24.975	299.2	0.060
31	12.52	33.016	6.26					299.4	30	12.52	33.018	6.26	24.973	299.3	0.090
50	12.29	32.984	6.30					297.5	50	12.29	32.984	6.30	24.992	297.5	0.150
76	11.41	32.900	6.34					288.2	75	11.45	32.906	6.34	25.087	288.5	0.223
100	10.98	32.864	6.30					283.5	100	10.98	32.864	6.30	25.140	283.5	0.295
126	10.62	33.017	6.11					266.2	125	10.64	33.009	6.12	25.311	267.2	0.365
151	9.99	33.401	5.30					227.5	150	10.02	33.386	5.34	25.710	229.2	0.428
201	8.64	33.856	3.21					173.1	200	8.66	33.852	3.25	26.293	173.8	0.530
252	7.93	33.985	2.97					153.3	250	7.95	33.986	2.98	26.505	153.7	0.614
301	6.98	33.973	3.27					141.4	300	7.00	33.975	3.27	26.633	141.6	0.690
401	6.34	34.081	1.39					125.2	400	6.34	34.081	1.41	26.804	125.3	0.828
499	4.98	34.087	1.30					108.9	500	4.97	34.089	1.30	26.978	108.8	0.951
598	4.68	34.204	0.77					97.0	600	4.68	34.207	0.76	27.106	96.7	1.059
698	4.48	34.319	0.27					86.2	700	4.47	34.321	0.27	27.218	86.1	1.157
796	4.21	34.378	0.30					79.0	800	4.20	34.380	0.30	27.295	78.8	1.247
895	3.92	34.424	0.40					72.7	1000	3.81	34.466	0.39	27.423	66.5	1.408
993	3.63	34.466	0.39					66.8	1200	3.00	34.503	0.61	27.511	58.3	1.549
1195	3.02	34.502	0.60					58.5							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59. N	128 03.2W	03/28/76	0828 GMT

Z	T	S	SIGMA T	DT	DD
0	12.51	32.96	24.932	303.3	0.000
10	12.50	32.97	24.941	302.4	0.030
20	12.45	32.99	24.966	300.0	0.060
30	11.86	33.01	25.093	287.9	0.090
40	11.54	33.02	25.160	281.5	0.118
50	10.76	33.03	25.308	267.5	0.146
75	10.04	33.39	25.711	229.1	0.208
100	9.49	33.48	25.872	213.8	0.264
125	9.00	33.72	26.138	188.5	0.315
150	8.31	33.87	26.362	167.2	0.360
175	7.85	33.94	26.486	155.5	0.401
200	7.42	33.95	26.556	148.9	0.440
225	7.15	33.96	26.601	144.6	0.477
250	6.81	33.97	26.656	139.4	0.514
275	6.66	33.97	26.676	137.5	0.549
300	6.41	33.98	26.717	133.6	0.584
350	5.97	34.03	26.813	124.5	0.651
400	5.70	34.08	26.886	117.6	0.714
450	5.46	34.14	26.962	110.3	0.773
500	5.20	34.16	27.009	105.9	0.830
550	4.89	34.21	27.084	98.7	0.884
600	4.71	34.25	27.136	93.6	0.936
650	4.49	34.28	27.184	89.3	0.985
700	4.23	34.30	27.228	85.1	1.031
750	4.15	34.35	27.276	80.5	1.076
800	4.02	34.38	27.314	77.0	1.119
850	3.82	34.40	27.350	73.6	1.160
900	3.73	34.42	27.375	71.2	1.200
950	3.65	34.45	27.407	68.2	1.239
1000	3.53	34.46	27.427	66.3	1.277
1100	3.32	34.49	27.471	62.1	1.349
1200	3.11	34.51	27.506	58.7	1.418
1300	2.95	34.53	27.537	55.8	1.483
1400	2.79	34.55	27.567	53.0	1.547
1500	2.60	34.56	27.592	50.6	1.607
1600	2.463	34.576	27.616	48.3	1.665
1700	2.310	34.589	27.640	46.1	1.721
1800	2.168	34.603	27.662	44.0	1.775
1900	2.068	34.615	27.680	42.3	1.827
2000	1.994	34.623	27.692	41.1	1.877
2100	1.907	34.631	27.705	39.9	1.927
2200	1.850	34.635	27.713	39.1	1.975
2300	1.803	34.640	27.721	38.4	2.023
2400	1.771	34.645	27.727	37.8	2.070
2500	1.728	34.651	27.735	37.1	2.117
2600	1.693	34.655	27.741	36.5	2.163
2700	1.653	34.658	27.746	36.0	2.209
2800	1.631	34.660	27.750	35.7	2.254
2900	1.611	34.663	27.753	35.3	2.299
3000	1.586	34.666	27.758	34.9	2.345
3100	1.568	34.668	27.761	34.6	2.390
3200	1.551	34.670	27.764	34.4	2.434
3300	1.533	34.673	27.767	34.0	2.479
3400	1.516	34.675	27.770	33.7	2.524
3500	1.501	34.678	27.774	33.4	2.568
3600	1.492	34.680	27.776	33.2	2.612
3700	1.488	34.681	27.777	33.1	2.657
3800	1.486	34.682	27.778	33.0	2.701
3900	1.489	34.683	27.778	32.9	2.746
4000	1.493	34.683	27.778	33.0	2.791
4100	1.498	34.684	27.779	32.9	2.837
4200	1.504	34.685	27.779	32.9	2.882
4300	1.514	34.684	27.777	33.0	2.928
4400	1.524	34.686	27.778	33.0	2.975
4500	1.535	34.686	27.778	33.0	3.022
4600	1.544	34.686	27.777	33.1	3.069
4700	1.556	34.686	27.776	33.2	3.117
4768	1.561	34.687	27.776	33.1	3.140

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.4N	129 02.2W	03/28/76	2007 GMT

Z	T	S	SIGMA T	DT	DD
0	12.46	33.02	24.988	298.0	0.000
10	12.46	33.02	24.988	298.0	0.030
20	12.44	33.02	24.998	297.6	0.060
30	12.37	33.01	25.027	294.7	0.089
40	12.24	33.01	25.022	294.7	0.119
50	12.00	32.98	25.044	292.6	0.149
75	11.19	32.89	25.123	285.1	0.221
100	10.84	32.86	25.177	280.0	0.292
125	10.44	33.13	25.441	254.9	0.360
150	9.61	33.52	25.851	215.9	0.419
175	9.12	33.70	26.104	191.8	0.471
200	8.83	33.79	26.220	180.8	0.518
225	8.27	33.92	26.408	162.9	0.562
250	7.82	33.97	26.514	152.9	0.603
275	7.44	33.98	26.576	146.9	0.641
300	7.00	33.97	26.630	141.8	0.679
350	6.73	34.06	26.737	131.6	0.749
400	6.18	34.07	26.818	124.0	0.816
450	5.34	34.05	26.906	115.7	0.878
500	4.91	34.10	26.995	107.2	0.937
550	4.75	34.16	27.061	101.0	0.992
600	4.62	34.22	27.123	95.1	1.044
650	4.45	34.27	27.181	89.6	1.093
700	4.41	34.33	27.233	84.7	1.140
750	4.30	34.36	27.268	81.5	1.185
800	4.17	34.39	27.306	77.7	1.228
850	4.02	34.41	27.337	74.7	1.270
900	3.87	34.43	27.369	71.8	1.311
950	3.69	34.44	27.395	69.3	1.350
1000	3.60	34.46	27.420	66.9	1.388
1100	3.30	34.49	27.472	61.9	1.461
1200	3.03	34.51	27.514	58.0	1.529

RV THOMAS WASHINGTON — INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00. N	130 01.4W	3/29/76	0345 0712 GMT	4790M				

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
5	14.17	33.415	6.02	0.28	3.2	0.00	0.0	301.6	0	14.17	33.415	6.02	24.949	301.6	0.000
15	14.14	33.413	5.97	0.29		0.00	0.0	301.2	10	14.15	33.416	5.99	24.952	301.4	0.030
22	14.15	33.414	6.01	0.30				301.3	20	14.15	33.416	6.00	24.953	301.2	0.060
32	14.14	33.413	6.08	0.30	3.0	0.00	0.0	301.2	30	14.14	33.415	6.07	24.954	301.2	0.091
51	14.15	33.413	6.00	0.31	2.9	0.00	0.0	301.4	50	14.15	33.415	6.01	24.952	301.3	0.151
77	14.09	33.404	6.03	0.32	2.8	0.00	0.0	300.8	75	14.09	33.407	6.03	24.957	300.9	0.227
101	13.28	33.247	6.08	0.32	2.7	0.00	0.0	296.6	100	13.32	33.256	6.08	25.000	296.8	0.302
126	12.90	33.182	5.53U	0.34	2.8	0.03	0.1	294.2	125	12.92	33.188	5.96	25.026	294.3	0.377
153	11.44	33.409	5.65	0.58	5.4	0.00	3.6	251.1	150	11.62	33.379	5.68	25.421	256.7	0.446
202	9.30	33.681	4.61	1.34	18.0	0.00	16.0	196.0	200	9.37	33.673	4.66	26.042	197.7	0.562
252	8.46	33.942	3.81	1.75	30.4	0.00	22.8	164.1	250	8.48	33.936	3.83	26.387	164.9	0.654
302	7.70	33.981	3.66	1.92	37.1	0.00	25.4	150.4	300	7.73	33.983	3.66	26.536	150.7	0.736
403	6.39	34.022	1.91	2.61	59.0	0.00	34.6	130.2	400	6.42	34.022	1.97	26.748	130.7	0.882
502	5.59	34.079	1.15	2.94	74.9	0.00	39.4	116.4	500	5.60	34.079	1.14	26.896	116.6	1.011
603	5.06	34.166	0.61	3.17	89.6	0.00	41.9	103.9	600	5.07	34.164	0.62	27.026	104.2	1.128
689A	4.70	34.252	0.41	3.19	103.1	0.00	43.8	93.6	700	4.66	34.249	0.33	27.140	93.3	1.234
701	4.66	34.250	0.32	3.28	102.9	0.00	43.6	93.3	800	4.42	34.325	0.21	27.227	85.2	1.330
802	4.42	34.327	0.21	3.34	110.7	0.00	44.8	85.0	1000	3.79	34.440	0.37	27.384	70.5	1.503
900	4.10	34.392	0.28	3.35	119.4	0.00	44.4	76.9	1200	3.31	34.490	0.68	27.471	62.1	1.653
999	3.79	34.436	0.37	3.36	127.4	0.00	44.5	70.5	1500	2.68	34.467	1.06	27.510	58.3	1.860
1187A	3.34	34.496	0.69	3.28	141.3	0.00	45.5	61.6	1750	2.29	34.533	1.38	27.596	50.2	2.017
1195	3.32	34.490	0.67	3.29	139.0	0.00	44.4	62.1	2000	2.01	34.615	1.69	27.684	41.9	2.155
1889A	2.12	34.601	1.56	3.09	174.3	0.00	41.5	43.7	2250	1.81	34.634	1.98	27.715	38.8	2.278
2188A	1.85	34.632	1.91	2.97	182.0	0.00	41.3	39.4	2500	1.70	34.643	2.25	27.730	36.8	2.396
2887A	1.60	34.663	2.61	2.84	184.8	0.00	39.8	35.2	2750	1.62	34.655	2.49	27.746	35.6	2.512
3184A	1.54	34.669	2.82	2.79	181.7	0.00	38.9	34.4	3000	1.57	34.666	2.69	27.758	34.9	2.625
3873A	1.48	34.68		2.70	171.9	0.00	36.9	33.3	3250	1.53	34.671	2.87	27.765	34.2	2.737
4169A	1.50	34.684	3.44	2.69	168.9	0.00	37.1	32.9	3500	1.51	34.673	3.07	27.768	33.8	2.849
4412A	1.522	34.685	3.48	2.66	166.8	0.00	36.9	33.0	3750	1.49	34.676	3.23	27.772	33.5	2.962
4659A	1.542	34.692		2.63	164.2	0.00	36.8	32.8	4000	1.49	34.681	3.36	27.776	33.1	3.074
									4250	1.51	34.685	3.46	27.778	33.0	3.189
									4500	1.53	34.688		27.779	33.0	3.305

RV THOMAS WASHINGTON — INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 01.6N	131 00.6W	3/29/76	1344 GMT	5053M	350	8KT	2	300 6 10

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.14	33.673	5.86					302.5	0	15.14	33.673	5.86	24.940	302.5	0.000
10	15.16	33.673	5.86					302.9	10	15.16	33.673	5.86	24.936	302.9	0.030
20	15.17	33.678	5.87					302.7	20	15.17	33.678	5.87	24.937	302.7	0.061
31	15.16	33.675	5.87					302.7	30	15.16	33.677	5.87	24.937	302.7	0.091
51	15.16	33.677	5.87					302.6	50	15.16	33.679	5.87	24.939	302.6	0.152
76	15.22	33.701	5.86					302.1	75	15.22	33.702	5.86	24.944	302.1	0.228
101	16.05	34.094	5.72					291.0	100	16.03	34.082	5.73	25.034	291.6	0.303
127	14.39	33.859	5.74					273.5	125	14.58	33.890	5.74	25.227	275.2	0.374
152	11.80	33.588	5.59					244.2	150	12.01	33.606	5.61	25.526	246.7	0.440
202	9.77	33.752	4.96					198.0	200	9.80	33.739	5.00	26.021	199.6	0.554
252	8.39	33.946	3.56					162.7	250	8.43	33.941	3.61	26.398	163.8	0.647
302	7.75	33.982	3.40					151.0	300	7.77	33.984	3.41	26.531	151.3	0.728
403	6.26	34.028	1.79					128.1	400	6.30	34.028	1.85	26.768	128.8	0.873
501	5.45	34.127	0.85					111.2	500	5.46	34.127	0.84	26.952	111.3	0.999
602	4.90	34.202	0.49					99.4	600	4.91	34.202	0.49	27.075	99.6	1.111
700	4.52	34.280	0.26					89.6	700	4.52	34.280	0.26	27.181	89.6	1.212
800	4.31	34.358	0.22					81.6	800	4.31	34.358	0.22	27.266	81.6	1.305
899	4.03	34.404	0.28					75.3	1000	3.76	34.431	0.39	27.380	69.6	1.472
998	3.76	34.444	0.39					69.7	1200	3.26	34.502	0.65	27.486	60.7	1.620
1198	3.27	34.501	0.65					60.8							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00. N	130 01.4W	03/25/76	0216 GMT

Z	T	S	SIGMA T	DT	DD
0	14.18	33.41	24.943	302.2	0.000
10	14.15	33.40	24.942	302.3	0.030
20	14.14	33.40	24.944	302.1	0.060
30	14.13	33.40	24.946	301.9	0.091
40	14.11	33.40	24.950	301.5	0.121
50	14.10	33.40	24.952	301.3	0.151
75	14.04	33.40	24.965	300.1	0.227
100	13.29	33.25	25.002	296.6	0.302
125	13.24	33.28	25.035	293.4	0.376
150	11.68	33.34	25.382	260.4	0.447
175	10.99	33.62	25.725	227.8	0.508
200	9.60	33.59	25.940	207.4	0.564
225	8.86	33.84	26.254	177.5	0.613
250	8.47	33.93	26.385	165.1	0.657
275	7.90	33.97	26.502	154.0	0.698
300	7.56	33.97	26.551	149.3	0.737
350	6.82	33.98	26.662	138.8	0.811
400	6.34	34.01	26.750	130.5	0.881
450	5.87	34.04	26.833	122.6	0.948
500	5.50	34.08	26.910	115.3	1.010
550	5.11	34.12	26.988	107.9	1.069
600	4.95	34.17	27.046	102.4	1.124
650	4.73	34.22	27.110	96.3	1.177
700	4.59	34.26	27.157	91.8	1.228
750	4.44	34.30	27.206	87.2	1.276
800	4.31	34.34	27.251	82.9	1.323
850	4.13	34.37	27.294	78.8	1.367
900	4.01	34.40	27.330	75.4	1.410
950	3.86	34.42	27.362	72.4	1.451
1000	3.72	34.44	27.392	69.6	1.490
1100	3.43	34.47	27.444	64.6	1.566
1200	3.20	34.49	27.482	61.0	1.637
1300	2.99	34.52	27.525	56.9	1.705
1400	2.84	34.53	27.547	54.9	1.770
1500	2.67	34.55	27.578	52.0	1.832
1600	2.501	34.568	27.607	49.2	1.892
1700	2.326	34.579	27.630	47.0	1.949
1800	2.167	34.596	27.657	44.5	2.003
1900	2.080	34.606	27.672	43.0	2.055
2000	1.975	34.615	27.687	41.6	2.106
2100	1.897	34.623	27.700	40.4	2.156
2200	1.841	34.630	27.710	39.5	2.205
2300	1.794	34.636	27.718	38.7	2.253
2400	1.760	34.640	27.724	38.1	2.300
2500	1.723	34.644	27.730	37.6	2.347
2600	1.682	34.651	27.739	36.7	2.394
2700	1.646	34.656	27.745	36.1	2.440
2800	1.618	34.659	27.750	35.7	2.485
2900	1.594	34.664	27.755	35.1	2.530
3000	1.576	34.666	27.758	34.8	2.575
3100	1.559	34.669	27.762	34.5	2.620
3200	1.544	34.672	27.766	34.2	2.665
3300	1.529	34.672	27.767	34.1	2.709
3400	1.517	34.675	27.770	33.7	2.754
3500	1.502	34.677	27.773	33.5	2.798
3600	1.494	34.679	27.775	33.3	2.843
3700	1.491	34.680	27.776	33.2	2.887
3800	1.491	34.681	27.777	33.1	2.932
3900	1.486	34.682	27.778	33.0	2.977
4000	1.488	34.683	27.779	32.9	3.022
4100	1.495	34.684	27.779	32.9	3.067
4200	1.501	34.685	27.779	32.9	3.113
4300	1.507	34.685	27.779	32.9	3.159
4400	1.520	34.685	27.778	33.0	3.205
4500	1.532	34.685	27.777	33.1	3.252
4600	1.540	34.686	27.777	33.1	3.299
4700	1.549	34.687	27.777	33.1	3.347
4718	1.551	34.687	27.777	33.1	3.355

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 01.6N	131 00.6W	03/29/76	1258 GMT

Z	T	S	SIGMA T	DT	DD
0	15.16	33.67	24.933	303.1	0.000
10	15.16	33.67	24.933	303.1	0.030
20	15.17	33.68	24.939	302.6	0.061
30	15.17	33.68	24.939	302.6	0.091
40	15.17	33.69	24.947	301.8	0.121
50	15.17	33.69	24.947	301.8	0.152
75	15.53	33.83	24.974	299.2	0.227
100	15.90	34.12	25.114	285.9	0.301
125	13.95	33.88	25.353	263.2	0.370
150	11.62	33.61	25.603	239.4	0.434
175	10.78	33.66	25.793	221.3	0.493
200	10.07	33.78	26.009	200.8	0.546
225	8.63	33.96	26.384	165.2	0.593
250	8.12	33.97	26.469	157.1	0.634
275	7.72	33.99	26.544	150.0	0.674
300	7.44	33.99	26.584	146.2	0.712
350	6.66	33.99	26.692	136.0	0.785
400	6.22	34.03	26.781	127.5	0.854
450	5.78	34.07	26.868	119.3	0.918
500	5.44	34.12	26.949	111.6	0.979
550	5.22	34.16	27.022	104.6	1.036
600	4.87	34.20	27.079	99.3	1.090
650	4.67	34.25	27.141	93.4	1.141
700	4.53	34.28	27.180	89.7	1.191
750	4.41	34.33	27.233	84.7	1.238
800	4.32	34.36	27.266	81.5	1.283
850	4.13	34.39	27.310	77.3	1.327
900	4.01	34.41	27.338	74.6	1.369
950	3.91	34.43	27.365	72.2	1.410
1000	3.78	34.45	27.394	69.4	1.449
1100	3.48	34.49	27.455	63.6	1.524
1200	3.28	34.51	27.490	60.2	1.595

RV THOMAS WASHINGTON INDOPAC LEG I 11

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 01.2N	132 03.5W	3/29/76	2028 0035 GMT	5006M	330	4KT	2	310 6 10

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.23	33.47	5.92	0.25	3.4	0.00	0.0	319.2	0	15.23	33.47	5.92	24.764	319.2	0.000
10	14.84	33.46	6.00	0.26	3.4	0.00	0.0	310.4	10	14.84	33.48	6.00	24.857	310.4	0.031
31	14.84	33.50	5.98	0.27	3.4	0.00	0.0	308.9	20	14.84	33.49	5.99	24.864	309.7	0.063
51	14.83	33.52	5.93	0.27	3.3	0.00	0.0	307.3	30	14.84	33.50	5.98	24.872	309.0	0.094
77	15.06	33.68	5.91	0.28	3.3	0.00	0.0	300.3	50	14.83	33.52	5.93	24.888	307.4	0.155
92	13.81	33.62	5.94	0.33	3.5	0.00	0.0	279.5	75	15.04	33.67	5.91	24.957	300.8	0.232
102	13.06	33.55	5.83	0.42	4.6	0.03	1.0	270.2	100	13.19	33.56	5.86	25.262	271.9	0.304
112	12.76	33.60	5.69	0.52	5.6	0.05	2.0	260.8	125	11.93	33.56	5.48	25.503	249.0	0.370
153	10.01	33.45	5.02	1.13	12.5	0.00	12.2	224.2	150	10.22	33.46	5.07	25.736	226.8	0.430
203	8.99	33.79	4.33	1.62	22.9	0.00	19.5	183.2	200	9.01	33.77	4.37	26.171	185.4	0.535
253	8.07	33.95	3.72	1.88	33.6	0.00	24.3	157.9	250	8.12	33.95	3.75	26.450	158.9	0.623
304	7.35	33.95	3.43	2.06	40.8	0.00	27.1	148.0	300	7.38	33.95	3.44	26.563	148.2	0.702
401	6.25	34.00	1.70	2.73	63.3	0.00	36.6	130.1	400	6.26	34.00	1.72	26.752	130.3	0.846
500	5.59	34.08	0.96	3.07	77.8	0.01	40.0	116.3	500	5.59	34.08	0.96	26.899	116.3	0.975
598	5.00	34.16	0.57	3.23	93.1	0.00	42.3	103.7	600	4.99	34.16	0.56	27.035	103.4	1.091
695	4.49	34.25	0.32	3.32	107.2	0.00	44.3	91.5	700	4.47	34.25	0.31	27.165	91.1	1.195
794	4.13	34.30	0.26	3.37	118.2	0.00	44.9	84.1	800	4.11	34.30	0.26	27.243	83.7	1.290
892	3.87	34.37	0.24	3.39	126.8	0.00	45.4	76.3	1000	3.65	34.44	0.35	27.402	68.6	1.458
939A	3.75	34.420	0.39	3.36	129.1	0.00	45.2	71.4	1200	3.17	34.50	0.65	27.494	59.9	1.603
990	3.67	34.44	0.34	3.39	132.9	0.00	45.3	69.1	1500	2.60	34.56	1.10	27.591	50.7	1.795
1191	3.19	34.50	0.64	3.34	145.3	0.00	45.4	60.2	1750	2.23	34.59	1.43	27.650	45.2	1.937
1438A	2.71	34.549	1.01	3.23	157.7	0.00	44.4	52.4	2000	1.97	34.62	1.74	27.688	41.3	2.066
1933A	2.02	34.612	1.66	3.09	176.2	0.00	42.5	42.1	2250	1.81	34.63	2.01	27.712	38.8	2.188
2429A	1.74	34.645	2.19	2.96	181.5	0.00	40.9	37.6	2500	1.71	34.65	2.25	27.734	37.1	2.306
2924A	1.57	34.665	2.63	2.87	181.2	0.00	39.6	34.9	2750	1.62	34.66	2.48	27.748	35.7	2.420
3419A	1.50	34.678	3.07	2.73	176.0	0.00	38.4	33.4	3000	1.55	34.67	2.70	27.761	34.6	2.532
3914A	1.48	34.683	3.31	2.68	171.5	0.00	37.9	32.9	3250	1.52	34.67	2.93	27.768	33.8	2.644
4411A	1.52	34.686	3.41	2.67	166.4	0.00	37.4	32.9	3500	1.50	34.68	3.12	27.774	33.3	2.754
4804A	1.560	34.688	3.55	2.62	162.3	0.00	36.7	33.1	3750	1.49	34.68	3.25	27.777	33.0	2.865
4904A	1.570	34.688	3.54	2.61	162.8	0.00	36.7	33.1	4000	1.49	34.68	3.33	27.779	32.9	2.977

RV THOMAS WASHINGTON INDOPAC LEG I 12

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.3N	133 00.3W	3/30/76	0625 GMT	5142M	180	2KT		310 4 10

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.13	33.519	5.95					313.5	0	15.13	33.519	5.95	24.824	313.5	0.000
9	14.72	33.534	5.94					304.0	10	14.72	33.536	5.94	24.925	303.9	0.031
19	14.69	33.540	5.95					302.9	20	14.70	33.543	5.95	24.935	302.9	0.061
31	14.76	33.562	5.94					302.7	30	14.75	33.562	5.94	24.937	302.8	0.092
50	14.70	33.556	5.93					302.0	50	14.70	33.556	5.93	24.945	302.0	0.152
76	14.77	33.585	5.93					301.3	75	14.77	33.585	5.93	24.952	301.3	0.228
100	14.76	33.649	5.89					296.4	100	14.76	33.649	5.89	25.004	296.4	0.303
125	13.38	33.672	5.87					267.3	125	13.38	33.672	5.87	25.310	267.3	0.375
151	11.79	33.616	5.56					242.0	150	11.85	33.619	5.57	25.566	242.9	0.439
200	9.74	33.793	5.12					194.5	200	9.74	33.793	5.12	26.075	194.5	0.551
250	8.64	33.937	4.57					167.1	250	8.64	33.937	4.57	26.364	167.1	0.643
298	8.05	34.008	4.59					153.0	300	8.00	34.009	4.57	26.517	152.6	0.725
397	6.46	33.962	2.94					135.6	400	6.42	33.963	2.90	26.702	135.0	0.875
499	5.30	34.004	1.73					118.7	500	5.30	34.006	1.72	26.875	118.6	1.007
598	4.95	34.123	0.83					105.9	600	4.94	34.126	0.82	27.011	105.7	1.125
695	4.39	34.003 U	0.48						700	4.37	34.201	0.47	27.133	94.1	1.232
793	4.15	34.289	0.31					85.1	800	4.13	34.295	0.31	27.233	84.6	1.328
890	3.93	34.350	0.30					78.4	1000	3.64	34.413	0.35	27.378	70.9	1.499
987	3.68	34.407	0.33					71.7	1200	3.11	34.495	0.65	27.494	59.9	1.646
1183	3.15	34.488	0.63					60.7							

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 01.2N	132 03.5W	03/29/76	1908 GMT

Z	T	S	SIGMA T	DT	DD
0	14.84	33.50	24.872	308.9	0.000
10	14.82	33.51	24.884	307.6	0.031
20	14.82	33.52	24.892	307.0	0.062
30	14.84	33.54	24.903	306.0	0.092
40	14.83	33.55	24.913	305.1	0.123
50	14.83	33.55	24.913	305.1	0.154
75	14.64	33.75	25.107	286.5	0.228
100	13.16	33.57	25.275	270.6	0.298
125	11.26	33.48	25.568	242.8	0.363
150	9.98	33.49	25.799	220.6	0.422
175	9.44	33.72	26.068	195.3	0.475
200	8.86	33.81	26.231	179.8	0.522
225	8.51	33.91	26.363	167.2	0.567
250	8.04	33.96	26.473	156.7	0.606
275	7.67	33.97	26.536	150.8	0.648
300	7.33	33.97	26.584	146.2	0.686
350	6.59	33.98	26.693	135.8	0.759
400	6.13	34.03	26.792	126.4	0.827
450	5.74	34.06	26.865	119.5	0.891
500	5.46	34.12	26.947	111.8	0.952
550	5.13	34.16	27.017	105.1	1.009
600	4.70	34.16	27.066	100.5	1.064
650	4.68	34.23	27.124	95.0	1.116
700	4.27	34.23	27.168	90.8	1.166
750	4.17	34.28	27.219	86.0	1.213
800	4.04	34.31	27.256	82.5	1.259
850	3.91	34.35	27.301	78.2	1.303
900	3.84	34.38	27.332	75.2	1.345
950	3.75	34.41	27.365	72.1	1.386
1000	3.61	34.43	27.395	69.3	1.425
1100	3.40	34.47	27.447	64.3	1.500
1200	3.19	34.50	27.491	60.2	1.571
1300	2.99	34.52	27.525	56.9	1.638
1400	2.82	34.53	27.549	54.7	1.703
1500	2.65	34.55	27.580	51.8	1.765
1600	2.483	34.570	27.610	48.9	1.824
1700	2.314	34.583	27.634	46.6	1.881
1800	2.172	34.598	27.658	44.4	1.935
1900	2.083	34.609	27.674	42.8	1.987
2000	1.992	34.617	27.688	41.6	2.038
2100	1.911	34.626	27.701	40.3	2.088
2200	1.855	34.634	27.712	39.3	2.135
2300	1.814	34.639	27.719	38.6	2.184
2400	1.766	34.645	27.728	37.8	2.232
2500	1.733	34.649	27.733	37.4	2.278
2600	1.694	34.654	27.740	36.8	2.325
2700	1.658	34.658	27.746	36.0	2.371
2800	1.623	34.662	27.752	35.5	2.416
2900	1.599	34.664	27.755	35.2	2.461
3000	1.579	34.666	27.760	34.7	2.506
3100	1.566	34.669	27.762	34.5	2.551
3200	1.537	34.673	27.767	34.0	2.595
3300	1.520	34.675	27.770	33.8	2.640
3400	1.514	34.677	27.772	33.5	2.684
3500	1.495	34.679	27.775	33.3	2.728
3600	1.491	34.681	27.777	33.1	2.772
3700	1.487	34.680	27.776	33.2	2.817
3800	1.486	34.682	27.778	33.0	2.862
3900	1.487	34.684	27.779	32.9	2.906
4000	1.490	34.685	27.780	32.8	2.951
4100	1.495	34.684	27.779	32.9	2.996
4200	1.500	34.685	27.779	32.9	3.042
4300	1.507	34.686	27.780	32.9	3.088
4400	1.516	34.688	27.780	32.8	3.134
4500	1.526	34.687	27.779	32.9	3.181
4600	1.535	34.687	27.778	33.0	3.228
4700	1.547	34.687	27.777	33.0	3.275
4800	1.558	34.688	27.777	33.0	3.323
4900	1.569	34.688	27.777	33.1	3.371
4972	1.578	34.691	27.778	33.0	3.406

125U

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.3N	133 00.3W	03/30/76	0638 GMT

Z	T	S	SIGMA T	DT	DD
0	14.83	33.52	24.890	307.3	0.000
10	14.74	33.53	24.917	304.7	0.031
20	14.67	33.54	24.939	302.5	0.061
30	14.70	33.56	24.948	301.7	0.091
40	14.70	33.56	24.948	301.7	0.122
50	14.66	33.55	24.949	301.6	0.152
75	14.65	33.56	24.959	300.6	0.228
100	14.72	33.59	24.967	299.9	0.303
125	14.03	33.64	25.144	283.1	0.377
150	12.04	33.53	25.462	252.8	0.445
175	10.91	33.62	25.739	226.5	0.506
200	9.68	33.73	26.036	198.3	0.560
225	9.31	33.91	26.237	179.2	0.608
250	8.81	33.92	26.324	170.8	0.653
275	8.34	34.00	26.460	158.0	0.695
300	7.91	33.99	26.516	152.6	0.735
350	6.99	33.94	26.608	143.9	0.812
400	6.21	33.94	26.711	134.1	0.884
450	5.65	33.97	26.805	125.2	0.951
500	5.22	34.00	26.880	118.1	1.015
550	5.00	34.06	26.953	111.2	1.075
600	4.77	34.11	27.019	105.0	1.132
650	4.54	34.16	27.084	98.8	1.187
700	4.32	34.21	27.147	92.8	1.238
750	4.20	34.25	27.192	88.6	1.286
800	4.10	34.30	27.242	83.8	1.333
850	3.98	34.32	27.270	81.1	1.378
900	3.87	34.36	27.313	77.0	1.421
950	3.72	34.39	27.352	73.3	1.463
1000	3.59	34.41	27.381	70.6	1.503
1100	3.27	34.46	27.451	63.9	1.578
1200	3.09	34.49	27.492	60.1	1.648

RV THOMAS WASHINGTON INDOPAC LEG I 13

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.2N	134 02. W	3/30/76	1312 1616 GMT	5279M	250	13KT	2	240 3 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.22	33.72	5.81	0.22	3.7	0.00	0.0	300.7	0	15.22	33.72	5.81	24.959	300.7	0.000
10	15.22	33.72	5.84	0.23	3.7	0.00	0.0	300.7	10	15.22	33.72	5.84	24.959	300.7	0.030
20	15.22	33.72	5.84	0.22	3.6	0.00	0.0	300.7	20	15.22	33.72	5.84	24.959	300.7	0.060
31	15.23	33.72	5.84	0.22	3.6	0.00	0.0	300.9	30	15.23	33.72	5.84	24.957	300.9	0.090
50	15.21	33.72	5.83	0.23	3.6	0.00	0.0	300.5	50	15.21	33.72	5.83	24.961	300.5	0.151
76	15.18	33.72	5.84	0.23	3.6	0.00	0.0	299.9	75	15.18	33.72	5.84	24.967	299.9	0.226
90	15.20	33.72	5.83	0.22	3.5	0.00	0.0	300.3	100	15.19	33.72	5.82	24.965	300.1	0.302
100	15.19	33.72	5.480	0.28	3.5	0.00	0.0	300.1	125	15.14	33.98	5.72	25.043	292.7	0.377
111	15.37	33.78	5.80	0.28	3.8	0.00	0.0	299.5	150	14.10	33.76	5.60	25.226	275.2	0.449
125	15.74	33.98	5.72	0.31	3.6	0.00	0.0	292.7	200	10.80	33.64	5.24	25.770	223.1	0.575
151	14.00	33.74	5.80	0.81	3.6	0.04	0.0	274.4	250	9.23	33.89	4.46	26.234	179.4	0.678
200	10.80	33.64	5.24	0.83	9.7	0.06	7.6	223.1	300	8.16	34.01	4.24	26.495	154.7	0.764
250	9.23	33.89	4.46	1.36	21.0	0.00	17.3	179.4	400	6.62	34.01	2.43	26.713	133.9	0.914
300	8.16	34.01	4.24	1.68	30.2	0.00	21.2	154.7	500	5.68	34.06	1.39	26.873	118.8	1.046
399	6.63	34.01	2.44	2.43	53.9	0.00	31.9	134.1	600	5.00	34.14	0.76	27.018	105.0	1.165
498	5.70	34.06	1.41	2.88	71.7	0.00	37.8	119.1	700	4.64	34.24	0.37	27.138	93.6	1.271
598	5.01	34.14	0.77	3.15	88.9	0.00	41.2	105.3	800	4.38	34.34	0.24	27.240	84.0	1.367
696	4.65	34.24	0.38	3.25	102.4	0.00	42.9	93.9	1000	3.78	34.45	0.41	27.395	69.3	1.537
795	4.40	34.33	0.24	3.32	112.6	0.00	43.7	84.6	1200	3.32	34.50	0.80	27.475	61.7	1.685
839A	4.25	34.379	0.25	3.23	117.5	0.00	42.9	79.4	1500	2.75	34.55	1.04	27.573	52.5	1.884
993	3.80	34.45	0.39	3.25	124.2	0.00	44.4	69.6	1750	2.35	34.59	1.31	27.636	46.4	2.030
1037A	3.69	34.460	0.[illegible]	3.29	131.5	0.02	43.4	67.8	2000	2.03	34.62	1.62	27.684	41.9	2.164
1536A	2.69	34.558	1.03	3.13	157.5	0.00	42.9	51.5	2250	1.84	34.63	1.90	27.710	39.0	2.287
2032A	2.00	34.620	1.66	2.98	177.2	0.00	41.4	41.4	2500	1.73	34.65	2.17	27.733	37.1	2.405
2529A	1.72	34.651	2.20	2.87	181.6	0.00	40.0	37.0	2750	1.64	34.66	2.42	27.746	35.8	2.520
3025A	1.57	34.666	2.69	2.76	180.2	0.00	39.1	34.8	3000	1.58	34.67	2.67	27.758	34.9	2.633
3519A	1.50	34.674	3.18	2.64	175.3	0.00	38.2	33.7	3250	1.53	34.67	2.93	27.764	34.2	2.745
4015A	1.49	34.682	3.39	2.61	171.9	0.00	37.5	33.0	3500	1.50	34.67	3.16	27.770	33.7	2.857
4511A	1.523	34.687	3.57	2.58	165.9	0.00	36.9	32.9	3750	1.50	34.68	3.30	27.774	33.3	2.969
5006A	1.581	34.691	3.77	2.58	163.0	0.00	36.4	33.0	4000	1.49	34.68	3.39	27.777	33.0	3.082
5106A	1.593	34.690	3.86	2.54	162.0	0.00	36.3	33.1	4250	1.51	34.69	3.48	27.778	33.0	3.196
									4500	1.52	34.69	3.57	27.779	32.9	3.311
									4750	1.55	34.69	3.64	27.779	32.9	3.430
									5000	1.58	34.69	3.77	27.778	33.0	3.550

RV THOMAS WASHINGTON INDOPAC LEG I 14

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.7N	134 59. W	3/30/76	2210 GMT	5195M	350	29KT	2	340 11 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
2	14.91	33.541	5.94					307.4	0	14.91	33.541	5.94	24.889	307.4	0.000
12	14.90	33.541	5.91					307.2	10	14.90	33.543	5.91	24.890	307.2	0.031
22	14.89	33.541	5.92					307.0	20	14.89	33.543	5.92	24.892	307.0	0.061
32	14.93	33.555	5.91					306.7	30	14.92	33.553	5.91	24.894	306.8	0.092
52	15.00	33.609	5.91					304.3	50	14.99	33.604	5.91	24.917	304.6	0.154
77	15.07	33.677	5.88					300.7	75	15.07	33.674	5.88	24.956	301.0	0.230
101	15.07	33.700	5.87					299.0	100	15.07	33.701	5.87	24.975	299.1	0.305
126	14.33	33.704	5.87					283.6	125	14.38	33.709	5.87	25.129	284.5	0.379
151	11.87	33.418	5.80					258.0	150	11.97	33.430	5.81	25.396	259.1	0.448
202	10.70	33.730	5.17					214.8	200	10.75	33.721	5.20	25.845	216.4	0.569
251	9.46	34.022	4.86					173.2	250	9.49	34.019	4.87	26.292	173.9	0.669
300	8.16	33.983	3.50					156.7	300	8.16	33.983	3.50	26.473	156.7	0.754
398	6.67	33.977	3.05					137.1	400	6.64	33.979	3.03	26.684	136.7	0.906
496	5.40	34.009	1.75					119.4	500	5.36	34.013	1.71	26.874	118.7	1.039
594	4.58	34.110	0.90					103.0	600	4.57	34.121	0.85	27.048	102.1	1.156
693	4.46	34.250	0.32					91.2	700	4.44	34.257	0.31	27.171	90.6	1.259
791	4.17	34.318	0.22					83.1	800	4.16	34.327	0.22	27.257	82.4	1.352
889	4.02	34.399	0.24					75.6	1000	3.70	34.443	0.44	27.396	69.0	1.519
989	3.73	34.441	0.43					69.6	1200	3.17	34.506	0.84	27.498	59.6	1.665
1188	3.20	34.502	0.63					60.1							

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.2N	134 02. W	03/30/76	1150 GMT

Z	T	S	SIGMA T	DT	DD
0	15.18	33.69	24.944	302.1	0.000
10	15.18	33.70	24.952	301.3	0.030
20	15.16	33.70	24.956	300.9	0.060
30	15.14	33.70	24.961	300.5	0.090
40	15.14	33.70	24.961	300.5	0.121
50	15.14	33.70	24.961	300.5	0.151
75	15.14	33.70	24.961	300.5	0.226
100	15.17	33.72	24.970	299.7	0.302
125	15.67	33.99	25.066	290.5	0.377
150	14.88	33.84	25.125	284.9	0.449
175	12.96	33.67	25.392	259.4	0.519
200	11.08	33.62	25.709	229.4	0.581
225	9.91	33.78	26.036	198.2	0.635
250	9.21	33.86	26.214	181.3	0.684
275	8.64	33.96	26.382	165.4	0.729
300	8.03	33.97	26.483	155.8	0.770
350	7.21	33.97	26.601	144.6	0.848
400	6.48	33.99	26.716	133.7	0.920
450	5.97	34.02	26.805	125.2	0.988
500	5.50	34.05	26.886	117.5	1.051
550	5.12	34.09	26.963	110.2	1.111
600	4.90	34.15	27.036	103.4	1.168
650	4.72	34.19	27.088	98.4	1.221
700	4.55	34.24	27.146	92.9	1.273
750	4.44	34.29	27.198	88.0	1.322
800	4.31	34.33	27.243	83.7	1.368
850	4.17	34.36	27.282	80.0	1.413
900	4.04	34.39	27.319	76.4	1.456
950	3.93	34.41	27.347	73.9	1.498
1000	3.79	34.43	27.377	71.0	1.538
1100	3.52	34.47	27.435	65.4	1.615
1200	3.27	34.49	27.475	61.7	1.688
1300	3.08	34.51	27.509	58.5	1.757
1400	2.91	34.52	27.533	56.2	1.823
1500	2.75	34.54	27.563	53.4	1.887
1600	2.598	34.558	27.590	50.8	1.948
1700	2.408	34.573	27.619	48.1	2.007
1800	2.257	34.585	27.641	46.0	2.063
1900	2.128	34.598	27.662	44.0	2.117
2000	2.025	34.609	27.679	42.4	2.169
2100	1.946	34.616	27.690	41.3	2.220
2200	1.890	34.627	27.704	40.0	2.270
2300	1.829	34.633	27.713	39.1	2.318
2400	1.776	34.638	27.721	38.4	2.366
2500	1.728	34.643	27.729	37.7	2.414
2600	1.690	34.647	27.735	37.1	2.460
2700	1.655	34.651	27.741	36.5	2.507
2800	1.617	34.655	27.747	36.0	2.552
2900	1.592	34.659	27.752	35.5	2.598
3000	1.575	34.661	27.755	35.2	2.643
3100	1.564	34.663	27.757	35.0	2.688
3200	1.538	34.667	27.762	34.5	2.733
3300	1.523	34.670	27.766	34.2	2.778
3400	1.509	34.672	27.768	33.9	2.823
3500	1.497	34.676	27.772	33.5	2.867
3600	1.495	34.678	27.774	33.4	2.912
3700	1.490	34.679	27.775	33.3	2.956
3800	1.486	34.684	27.779	32.9	3.001
3900	1.487	34.683	27.779	32.9	3.046
4000	1.491	34.683	27.778	33.0	3.091
4100	1.492	34.685	27.780	32.8	3.136
4200	1.495	34.685	27.780	32.8	3.182
4300	1.501	34.685	27.779	32.9	3.227
4400	1.507	34.687	27.780	32.8	3.273
4500	1.521	34.687	27.779	32.9	3.320
4600	1.527	34.688	27.780	32.8	3.367
4700	1.538	34.689	27.780	32.8	3.414
4800	1.547	34.688	27.778	33.0	3.462
4900	1.558	34.688	27.777	33.0	3.510
5000	1.571	34.689	27.777	33.1	3.558
5100	1.584	34.689	27.776	33.2	3.607
5146	1.588	34.689	27.776	33.2	3.630

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.7N	134 59. W	03/30/76	2130 GMT

Z	T	S	SIGMA T	DT	DD
0	14.89	33.55	24.900	306.3	0.000
10	14.89	33.55	24.900	306.3	0.031
20	14.90	33.55	24.898	306.5	0.061
30	14.91	33.56	24.903	306.0	0.092
40	14.95	33.59	24.918	304.6	0.123
50	15.01	33.65	24.951	301.5	0.153
75	15.08	33.71	24.981	298.5	0.229
100	15.03	33.72	25.000	296.7	0.304
125	13.67	33.56	25.164	281.1	0.377
150	11.84	33.53	25.500	249.2	0.444
175	11.99	33.76	25.649	235.0	0.505
200	10.53	33.70	25.868	214.2	0.562
225	9.89	33.95	26.172	185.3	0.613
250	9.21	33.99	26.315	171.7	0.659
275	8.49	33.99	26.429	160.9	0.702
300	8.06	34.00	26.502	154.0	0.743
350	7.29	33.99	26.605	144.2	0.820
400	6.56	33.97	26.689	136.2	0.893
450	5.86	33.98	26.787	126.9	0.961
500	5.28	34.01	26.881	118.0	1.025
550	5.02	34.09	26.975	109.1	1.085
600	4.52	34.12	27.054	101.6	1.141
650	4.55	34.21	27.122	95.1	1.193
700	4.43	34.25	27.167	90.9	1.243
750	4.32	34.29	27.211	86.8	1.291
800	4.14	34.32	27.253	82.7	1.337
850	4.14	34.38	27.301	78.2	1.381
900	3.99	34.40	27.333	75.2	1.423
950	3.82	34.42	27.366	72.1	1.464
1000	3.70	34.45	27.402	68.6	1.503
1100	3.37	34.48	27.458	63.3	1.578
1200	3.17	34.51	27.501	59.3	1.648

RV THOMAS WASHINGTON INDOPAC LEG I 15

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.4N	136 02.8W	3/31/76	0845 GMT	4965M	010	25KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	15.13	33.700	5.97	0.16		0.00	0.0	300.3	0	15.13	33.700	5.97	24.963	300.3	0.000
12	15.15	33.699	5.87	0.16		0.00	0.0	300.8	10	15.15	33.701	5.88	24.959	300.7	0.030
22	15.13	33.705	5.88	0.16		0.00	0.0	299.9	20	15.13	33.706	5.88	24.965	300.1	0.060
31	15.17	33.701	5.87	0.22		0.00	0.0	301.0	30	15.17	33.703	5.87	24.956	300.9	0.090
50	15.14	33.701	5.92	0.23		0.06	0.0	300.4	50	15.14	33.701	5.92	24.962	300.4	0.151
75	15.18	33.700	5.87	0.23		0.05	0.0	301.3	75	15.18	33.700	5.87	24.952	301.3	0.226
90	15.08	33.694	5.87	0.23		0.00	0.0	299.7	100	15.00	33.715	5.86	25.003	296.5	0.302
100	15.00	33.715	5.86	0.22		0.00	0.0	296.5	125	13.59	33.606	5.91	25.214	276.4	0.374
110	15.18	33.855	5.82	0.19	3.6	0.00	0.0	290.0	150	12.64	33.633	5.82	25.424	256.4	0.441
124	13.65	33.609	5.91	0.22	3.8	0.00	0.0	277.1	200	10.04	33.810	5.13	26.036	198.2	0.557
149	12.70	33.629	5.83	0.26	4.2	0.00	0.4	257.6	250	9.00	33.991	4.77	26.348	168.6	0.651
197	10.13	33.794	5.15	0.82	12.5	0.00	10.4	200.7	300	8.00	34.016	4.17	26.522	152.0	0.734
246	9.09	33.984	4.81	1.18	21.3	0.00	16.4	170.3	400	6.51	33.990	2.70	26.711	134.2	0.882
294	8.10	34.015	4.26	1.55	31.2	0.00	21.7	153.5	500	5.16	34.011	1.78	26.895	116.7	1.013
392	6.64	33.991	2.79	2.18	51.7	0.00	30.8	135.6	600	4.51	34.113	1.02	27.050	102.0	1.128
489	5.27	34.002	1.87	2.63	73.8	0.00	37.3	118.5	700	4.20	34.233	0.51	27.177	89.9	1.230
588	4.56	34.098	1.10	2.90	93.9	0.00	41.3	103.7	800	4.02	34.329	0.39	27.273	80.9	1.323
684	4.24	34.214	0.55	3.04	108.1	0.00	43.4	91.7	1000	3.70	34.438	0.41	27.392	69.5	1.489
782	4.05	34.315	0.39	3.15	118.0	0.00	44.0	82.2							
979	3.73	34.427	0.41	3.15	128.5	0.00	44.2	70.7							

RV THOMAS WASHINGTON INDOPAC LEG I 16

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.1N	137 00.7W	3/31/76	1538 GMT	4797M	020	12KT	1	350 8 8

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.53	33.909	5.86					293.4	0	15.53	33.909	5.86	25.035	293.4	0.000
10	15.58	33.909	5.82					294.5	10	15.58	33.909	5.82	25.024	294.5	0.029
20	15.55	33.904	5.82					294.2	20	15.55	33.904	5.82	25.027	294.2	0.059
31	15.58	33.907	5.82					294.6	30	15.58	33.908	5.82	25.023	294.6	0.088
51	15.63	33.921	5.80					294.6	50	15.63	33.922	5.80	25.022	294.6	0.148
77	15.65	33.926	5.80					294.7	75	15.65	33.927	5.80	25.021	294.7	0.222
101	16.46	34.196	5.69					292.6	100	16.43	34.187	5.69	25.043	292.6	0.296
127	15.93	34.210	5.68					280.0	125	15.97	34.203	5.68	25.161	281.4	0.368
152	13.33	33.864	5.69					252.2	150	13.56	33.893	5.69	25.442	254.7	0.436
202	10.53	33.843	5.22					203.6	200	10.59	33.836	5.24	25.962	205.3	0.553
252	9.49	34.022	5.02					173.7	250	9.51	34.016	5.03	26.286	174.5	0.651
301	8.80	34.062	4.17					160.2	300	8.81	34.063	4.19	26.435	160.3	0.737
401	7.16	33.968	4.05					144.1	400	7.18	33.971	4.05	26.605	144.2	0.895
500	5.51	33.970	2.33					123.6	500	5.51	33.970	2.33	26.822	123.6	1.035
599	4.70	34.051	1.25					108.6	600	4.69	34.054	1.24	26.982	108.5	1.157
698	4.28	34.175	0.64					95.0	700	4.27	34.178	0.63	27.126	94.8	1.265
798	3.90	34.256	0.42					85.2	800	3.89	34.259	0.42	27.230	85.0	1.362
898	3.63	34.332	0.39					76.9	1000	3.40	34.391	0.29	27.384	70.3	1.532
1000	3.40	34.391	0.29					70.3	1200	3.09	34.476	0.49	27.481	61.1	1.679
1205	3.08	34.477	0.49					61.0							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.4N	136 02.8W	03/31/76	0423 GMT

Z	T	S	SIGMA T	DT	DD
0	14.93	33.62	24.945	302.0	0.000
10	14.93	33.62	24.945	302.0	0.030
20	14.91	33.61	24.942	302.3	0.060
30	14.90	33.61	24.944	302.1	0.091
40	14.90	33.61	24.944	302.1	0.121
50	14.92	33.62	24.947	301.8	0.151
75	15.42	33.84	25.007	296.1	0.227
100	15.50	33.90	25.035	293.4	0.301
125	12.56	33.58	25.401	258.6	0.371
150	11.38	33.65	25.678	232.3	0.433
175	10.48	33.80	25.954	206.0	0.489
200	9.72	33.85	26.123	190.0	0.539
225	9.23	33.95	26.281	175.0	0.586
250	8.87	34.00	26.377	165.8	0.629
275	8.35	34.01	26.466	157.4	0.671
300	7.87	34.00	26.530	151.3	0.711
350	7.12	33.98	26.621	142.7	0.787
400	6.33	33.97	26.720	133.3	0.859
450	5.58	33.97	26.814	124.4	0.926
500	4.97	34.00	26.909	115.4	0.988
550	4.59	34.05	26.991	107.6	1.047
600	4.44	34.09	27.039	103.0	1.102
650	4.29	34.15	27.103	97.0	1.155
700	4.13	34.20	27.159	91.6	1.206
750	4.11	34.26	27.209	86.9	1.253
800	4.02	34.30	27.250	83.0	1.299
850	3.93	34.35	27.299	78.4	1.343
900	3.83	34.38	27.333	75.1	1.386
950	3.68	34.41	27.372	71.5	1.426
1000	3.53	34.44	27.411	67.8	1.465
1100	3.25	34.47	27.461	63.0	1.538
1200	3.04	34.50	27.505	58.9	1.607
1300	2.81	34.52	27.534	56.1	1.673
1400	2.65	34.54	27.572	52.5	1.736
1500	2.48	34.55	27.594	50.4	1.795
1600	2.334	34.566	27.619	48.0	1.853
1700	2.220	34.582	27.641	45.9	1.908
1800	2.117	34.598	27.662	43.9	1.962
1900	2.018	34.610	27.680	42.3	2.013
2000	1.928	34.617	27.693	41.1	2.063
2100	1.857	34.628	27.707	39.7	2.112
2200	1.810	34.632	27.714	39.1	2.160
2300	1.776	34.637	27.720	38.5	2.208
2400	1.736	34.643	27.728	37.7	2.255
2500	1.690	34.647	27.735	37.1	2.301
2600	1.648	34.654	27.744	36.3	2.347
2700	1.620	34.660	27.750	35.6	2.392
2800	1.596	34.660	27.752	35.4	2.437
2900	1.574	34.664	27.757	35.0	2.482
3000	1.555	34.668	27.762	34.5	2.527
3100	1.549	34.668	27.762	34.5	2.571
3200	1.534	34.671	27.766	34.2	2.616
3300	1.516	34.673	27.768	33.9	2.660
3400	1.495	34.677	27.773	33.5	2.704
3500	1.491	34.680	27.776	33.2	2.748
3600	1.479	34.681	27.778	33.0	2.793
3700	1.477	34.683	27.779	32.9	2.837
3800	1.474	34.684	27.780	32.8	2.881
3900	1.477	34.685	27.781	32.7	2.925
4000	1.484	34.686	27.781	32.7	2.970
4100	1.492	34.689	27.783	32.5	3.015
4200	1.491	34.689	27.783	32.5	3.060
4300	1.498	34.688	27.782	32.6	3.106
4400	1.507	34.689	27.782	32.6	3.152
4500	1.519	34.689	27.781	32.7	3.198
4600	1.527	34.689	27.780	32.8	3.245
4700	1.537	34.689	27.780	32.8	3.292
4800	1.550	34.689	27.779	32.9	3.340
4900	1.560	34.691	27.780	32.8	3.388
4980	1.569	34.690	27.778	33.0	3.426

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.1N	137 00.7W	03/31/76	1428 GMT

Z	T	S	SIGMA T	DT	DD
0	15.52	33.90	25.030	293.9	0.000
10	15.54	33.91	25.034	293.5	0.029
20	15.55	33.91	25.031	293.8	0.059
30	15.57	33.91	25.027	294.2	0.088
40	15.57	33.91	25.027	294.2	0.118
50	15.58	33.91	25.025	294.4	0.147
75	15.68	33.95	25.033	293.6	0.221
100	16.40	34.22	25.076	289.5	0.295
125	15.47	34.15	25.233	274.5	0.366
150	12.65	33.75	25.515	247.8	0.432
175	11.04	33.78	25.840	216.9	0.491
200	10.11	33.89	26.088	193.3	0.544
225	9.56	33.98	26.251	177.9	0.591
250	9.28	34.05	26.351	168.3	0.636
275	9.03	34.07	26.407	163.0	0.678
300	8.69	34.06	26.453	158.7	0.720
350	7.82	34.00	26.537	150.6	0.800
400	6.99	33.96	26.624	142.5	0.876
450	6.19	33.95	26.722	133.1	0.948
500	5.48	33.97	26.826	123.3	1.015
550	4.89	33.99	26.910	115.3	1.078
600	4.67	34.05	26.982	108.4	1.137
650	4.38	34.11	27.062	100.9	1.192
700	4.26	34.17	27.122	95.2	1.244
750	4.04	34.22	27.185	89.2	1.294
800	3.90	34.25	27.223	85.6	1.341
850	3.75	34.29	27.270	81.2	1.386
900	3.61	34.33	27.315	76.8	1.429
950	3.48	34.36	27.352	73.4	1.470
1000	3.37	34.39	27.386	70.1	1.510
1100	3.22	34.44	27.440	65.0	1.585
1200	3.06	34.48	27.487	60.6	1.656

RV THOMAS WASHINGTON INDOPAC LEG I 17

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.3N	137 59. W	3/31/76	2230 0145 GMT	5219M	050	7KT	2	350 8 8

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	15.93	33.97	5.79	0.08	4.2	0.00	0.0	297.5
11	15.95	33.97	5.77	0.08	4.2	0.00	0.1	297.9
31	16.10	34.03	5.78	0.07	3.9	0.00	0.1	296.9
41	16.11	34.04	5.77	0.08	3.8	0.00	0.2	296.3
50	16.16	34.05	5.76	0.11	3.8	0.00	0.2	296.6
77	16.18	34.06	5.73	0.10	3.9	0.00	0.2	296.3
101	16.30	34.11	5.72	0.09	3.8	0.00	0.2	295.3
112	16.05	34.12	5.73	0.06	3.8	0.00	0.2	289.1
122	15.60	34.16	5.67	0.06	3.9	0.00	0.3	276.6
152	12.72	33.84	5.47	0.03	5.6	0.02	2.3	242.4
201	10.29	33.90	5.17	0.85	13.0	0.03	11.4	195.5
250	9.59	34.06	4.76	1.15	19.2	0.00	15.6	172.4
301	8.93	34.08	4.74	1.32	24.4	0.00	18.5	160.8
401	7.14	33.97	3.69	1.72	40.1	0.00	25.1	143.7
499	5.54	33.96	2.35	2.57	67.2	0.00	36.2	124.7
598	4.63	34.02	1.45	2.87	87.2	0.00	41.1	110.2
697	4.25	34.16	0.74	3.15	105.9	0.00	44.4	95.8
798	4.07	34.27	0.32	3.24	116.8	0.00	45.5	85.8
998	3.59	34.39	0.27	3.29	132.5	0.00	45.9	72.1
1124A	3.35	34.450	0.47	3.14	141.8	0.00	45.6	65.4
1200	3.17	34.48	0.53	3.26	144.9	0.00	45.5	61.5
1618A	2.45	34.562	1.17	3.02	166.3	0.00	44.2	49.3
2110A	1.89	34.620	1.85	2.96	179.4	0.00	41.8	40.6
2601A	1.67	34.648	2.35	2.83	182.1	0.00	40.8	36.9
3091A	1.53	34.665	2.80	2.66	178.1	0.00	39.2	34.6
3583A	1.49	34.676	3.15	2.61	174.8	0.00	38.1	33.5
4080A	1.496	34.684	3.37	2.53	170.7	0.00	37.4	32.9
4579A	1.526	34.684	3.49	2.53	168.7	0.00	37.1	33.1
4982A	1.579	34.687	3.54	2.50	162.9	0.00	36.8	33.3
5083A	1.586	34.683	3.69	2.54	162.7	0.00	36.8	33.6

Z	T	S	O2	SIGT	DT	DD
0	15.93	33.97	5.79	24.992	297.5	0.000
10	15.95	33.97	5.77	24.988	297.9	0.030
20	16.02	34.00	5.77	24.991	297.6	0.060
30	16.09	34.03	5.78	24.999	296.9	0.089
50	16.16	34.05	5.76	25.001	296.6	0.149
75	16.18	34.06	5.73	25.004	296.4	0.224
100	16.30	34.11	5.72	25.014	295.3	0.298
125	15.34	34.14	5.65	25.250	272.9	0.370
150	12.93	33.87	5.48	25.549	244.6	0.436
200	10.42	33.90	5.18	26.057	196.3	0.548
250	9.59	34.06	4.78	26.308	172.4	0.642
300	8.94	34.08	4.74	26.429	160.9	0.728
400	7.16	33.97	3.70	26.609	143.8	0.887
500	5.53	33.96	2.32	26.812	124.5	1.027
600	4.62	34.02	1.43	26.966	109.9	1.150
700	4.24	34.16	0.72	27.119	95.5	1.259
800	4.07	34.27	0.32	27.223	85.6	1.356
1000	3.59	34.39	0.27	27.366	72.0	1.529
1200	3.17	34.48	0.53	27.477	61.5	1.679
1500	2.62	34.55	0.97	27.581	51.7	1.875
1750	2.27	34.58	1.36	27.637	46.4	2.020
2000	1.99	34.61	1.69	27.683	42.0	2.152
2250	1.81	34.63	1.99	27.709	39.2	2.276
2500	1.70	34.64	2.25	27.729	37.4	2.394
2750	1.62	34.65	2.50	27.744	36.0	2.509
3000	1.55	34.66	2.72	27.757	34.9	2.622
3250	1.51	34.67	2.93	27.765	34.1	2.733
3500	1.49	34.67	3.10	27.771	33.6	2.845
3750	1.49	34.68	3.24	27.775	33.2	2.956
4000	1.50	34.68	3.34	27.778	33.0	3.069
4250	1.51	34.68	3.42	27.778	33.0	3.183
4500	1.52	34.68	3.48	27.777	33.1	3.299
4750	1.55	34.69	3.51	27.776	33.2	3.417
5000	1.58	34.69	3.56	27.774	33.3	3.539

RV THOMAS WASHINGTON INDOPAC LEG I 18

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 01.2N	139 00. W	4/ 1/76	0802 GMT	5252M	030	5KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	15.93	33.992	5.77					295.9
11	15.93	33.992	5.76					295.9
22	16.01	34.018	5.77					295.7
32	16.13	34.068	5.73					294.7
52	16.16	34.082						294.3
77	16.19	34.097	5.72					293.9
102	16.05	34.209	5.67					282.6
127	13.55	33.886	5.71					254.9
152	11.85	33.843	5.43					226.4
202	10.15	33.957	5.06					189.0
252	9.58	34.094	4.91					169.7
301	8.62	34.064	4.73					157.3
402	6.68	33.964	3.59					138.2
500	5.32	34.122 U	2.11					
600	4.57	34.068	1.13					106.0
698	4.24	34.178	0.57					94.4
798	3.89	34.264	0.33					84.5
896	3.70	34.344	0.28					76.6
996	3.50	34.396	0.30					70.8
1194	3.02	34.476	0.46					60.5

Z	T	S	O2	SIGT	DT	DD
0	15.93	33.992	5.77	25.009	295.9	0.000
10	15.93	33.993	5.76	25.009	295.9	0.030
20	15.99	34.013	5.77	25.010	295.7	0.059
30	16.11	34.059	5.74	25.019	294.9	0.089
50	16.16	34.082	5.73	25.025	294.3	0.148
75	16.19	34.097	5.72	25.030	293.9	0.222
100	16.06	34.194	5.67	25.133	284.0	0.295
125	13.78	33.913	5.71	25.413	257.4	0.363
150	11.96	33.842	5.46	25.717	228.5	0.425
200	10.19	33.951	5.07	26.122	190.0	0.532
250	9.60	34.091	4.91	26.330	170.3	0.624
300	8.64	34.067	4.74	26.464	157.6	0.709
400	6.72	33.967	3.62	26.665	138.5	0.862
500	5.32	33.976	2.11	26.849	121.1	0.998
600	4.57	34.068	1.13	27.008	106.0	1.117
700	4.23	34.181	0.56	27.133	94.2	1.223
800	3.89	34.266	0.33	27.237	84.3	1.319
1000	3.49	34.399	0.30	27.381	70.6	1.489
1200	3.01	34.478	0.46	27.490	60.3	1.636

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.3N	137 59. E	03/31/76	2052 GMT

Z	T	S	SIGMA T	DT	DD
0	16.11	33.95	26.956	302.6	0.000
10	16.10	34.04	25.007	296.1	0.030
20	16.09	34.06	25.025	294.4	0.060
30	16.09	34.06	25.025	294.4	0.089
40	16.09	34.06	25.025	294.4	0.119
50	16.08	34.06	25.027	294.2	0.148
75	16.04	34.05	25.028	294.0	0.222
100	16.27	34.15	25.052	291.7	0.296
125	15.87	34.20	25.182	279.4	0.368
150	13.30	33.89	25.494	249.8	0.435
175	11.47	33.83	25.801	220.6	0.495
200	10.34	33.90	26.056	196.3	0.548
225	9.94	34.01	26.211	181.7	0.597
250	9.60	34.06	26.306	172.6	0.642
275	9.20	34.10	26.403	163.4	0.685
300	8.67	34.05	26.448	159.1	0.727
350	7.87	34.01	26.538	150.6	0.807
400	7.20	33.97	26.602	144.5	0.884
450	6.33	33.95	26.704	134.6	0.957
500	5.60	33.96	26.803	125.4	1.025
550	5.08	33.98	26.881	118.1	1.089
600	4.62	34.02	26.964	110.1	1.149
650	4.38	34.07	27.030	103.9	1.206
700	4.21	34.13	27.095	97.7	1.259
750	4.13	34.20	27.159	91.6	1.310
800	4.01	34.24	27.203	87.4	1.358
850	3.96	34.30	27.256	82.4	1.404
900	3.79	34.33	27.297	78.5	1.448
950	3.60	34.36	27.340	74.5	1.490
1000	3.52	34.39	27.372	71.5	1.530
1100	3.32	34.44	27.431	65.9	1.607
1200	3.14	34.47	27.472	62.0	1.679
1300	2.97	34.50	27.511	58.3	1.748
1400	2.75	34.52	27.547	54.9	1.813
1500	2.57	34.54	27.578	51.9	1.875
1600	2.441	34.559	27.605	49.4	1.935
1700	2.285	34.576	27.631	46.9	1.991
1800	2.149	34.589	27.653	44.9	2.046
1900	2.062	34.599	27.668	43.4	2.099
2000	1.985	34.610	27.683	42.0	2.150
2100	1.921	34.617	27.693	41.0	2.200
2200	1.850	34.625	27.705	39.9	2.250
2300	1.801	34.630	27.713	39.2	2.296
2400	1.746	34.639	27.724	38.1	2.346
2500	1.708	34.642	27.729	37.6	2.393
2600	1.673	34.646	27.735	37.0	2.439
2700	1.634	34.651	27.742	36.4	2.485
2800	1.605	34.656	27.748	35.8	2.531
2900	1.578	34.661	27.754	35.2	2.576
3000	1.556	34.662	27.757	35.0	2.621
3100	1.537	34.667	27.762	34.5	2.666
3200	1.521	34.668	27.764	34.3	2.710
3300	1.503	34.675	27.771	33.7	2.755
3400	1.497	34.674	27.771	33.7	2.799
3500	1.491	34.677	27.773	33.4	2.843
3600	1.485	34.676	27.773	33.5	2.887
3700	1.482	34.680	27.777	33.1	2.932
3800	1.484	34.679	27.776	33.2	2.977
3900	1.486	34.681	27.777	33.1	3.021
4000	1.487	34.681	27.777	33.1	3.067
4100	1.492	34.682	27.777	33.0	3.112
4200	1.494	34.682	27.777	33.1	3.158
4300	1.501	34.682	27.777	33.1	3.204
4400	1.510	34.683	27.777	33.1	3.250
4500	1.517	34.683	27.776	33.1	3.297
4600	1.529	34.684	27.776	33.2	3.344
4700	1.537	34.684	27.776	33.2	3.392
4800	1.548	34.684	27.775	33.3	3.440
4900	1.561	34.684	27.774	33.4	3.488
5000	1.574	34.684	27.773	33.5	3.537
5107	1.587	34.683	27.771	33.6	3.590

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 01.2N	139 00. E	04/01/76	0720 GMT

Z	T	S	SIGMA T	DT	DD
0	15.85	33.97	25.010	295.8	0.000
10	15.85	33.98	25.018	295.0	0.030
20	15.97	34.02	25.021	294.7	0.059
30	16.11	34.07	25.028	294.1	0.089
40	16.14	34.08	25.029	294.0	0.118
50	16.15	34.08	25.026	294.2	0.148
75	16.19	34.11	25.040	292.9	0.222
100	15.58	34.11	25.178	279.8	0.294
125	13.23	33.85	25.477	251.4	0.361
150	11.75	33.84	25.757	224.8	0.421
175	10.92	33.94	25.986	203.0	0.476
200	10.13	33.94	26.124	189.9	0.526
225	9.87	34.03	26.238	179.1	0.573
250	9.53	34.08	26.333	170.0	0.618
275	9.15	34.08	26.395	164.1	0.661
300	8.78	34.07	26.446	159.3	0.703
350	7.78	34.02	26.559	148.6	0.783
400	6.73	33.96	26.659	139.1	0.857
450	5.91	33.95	26.757	129.8	0.927
500	5.34	33.98	26.850	120.9	0.993
550	4.84	34.02	26.940	112.5	1.054
600	4.54	34.07	27.012	105.5	1.112
650	4.31	34.13	27.085	98.7	1.166
700	4.20	34.18	27.136	93.8	1.217
750	3.98	34.22	27.191	88.6	1.266
800	3.86	34.26	27.233	84.7	1.312
850	3.78	34.31	27.282	79.9	1.357
900	3.67	34.34	27.317	76.6	1.400
950	3.61	34.38	27.355	73.1	1.441
1000	3.46	34.40	27.383	70.5	1.481
1100	3.19	34.43	27.435	65.5	1.557
1200	3.01	34.47	27.484	60.9	1.628

RV THOMAS WASHINGTON INDOPAC LEG 1 19

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.7N	140 00.5W	4/ 1/76	1803 GMT	5225M	190	3KT	1	49

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.90	33.96	5.79	0.21	5.6	0.00	0.2	297.6	0	15.90	33.96	5.79	24.991	297.6	0.000
10	15.90	33.96	5.78	0.19	5.6	0.00	0.0	297.6	10	15.90	33.96	5.78	24.991	297.6	0.030
20	15.90	33.96	5.77	0.17	5.4	0.00	0.0	297.6	20	15.90	33.96	5.77	24.991	297.6	0.060
31	15.90	33.96	5.77	0.19	5.2	0.00	0.0	297.6	30	15.90	33.96	5.77	24.991	297.6	0.089
51	15.88	33.95	5.77	0.19	5.0	0.00	0.0	297.9	50	15.88	33.95	5.77	24.988	297.9	0.149
76	15.78	33.92	5.78	0.20	4.8	0.00	0.0	297.9	75	15.79	33.92	5.78	24.988	297.9	0.224
101	15.42	33.84	5.81	0.21	4.3	0.00	0.0	296.1	100	15.43	33.84	5.81	25.006	296.2	0.299
126	15.30	33.83	5.84	0.19	4.4	0.00	0.0	294.3	125	15.30	33.83	5.84	25.025	294.4	0.374
152	13.32	33.76	5.82	0.31	6.1	0.04	0.4	259.7	150	13.50	33.76	5.82	25.356	262.9	0.444
201	10.73	33.87	5.25	0.73	12.1	0.00	9.0	205.0	200	10.77	33.87	5.26	25.955	205.9	0.564
251	9.51	34.01	4.99	1.08	18.9	0.00	15.1	174.9	250	9.53	34.01	4.99	26.278	175.3	0.661
300	8.67	34.05	4.73	1.31	26.1	0.00	18.5	159.1	300	8.67	34.05	4.73	26.448	159.1	0.747
400	7.06	33.97	4.00	1.76	42.1	0.00	24.8	142.6	400	7.06	33.97	4.00	26.622	142.6	0.904
498	5.52	33.96	2.46	2.39	66.9	0.00	34.2	124.5	500	5.50	33.96	2.44	26.816	124.2	1.043
597	4.60	34.02	1.53	2.80	87.6	0.00	39.5	109.9	600	4.58	34.02	1.50	26.971	109.5	1.166
695	4.17	34.14	0.77	3.04	105.6	0.00	42.9	96.5	700	4.16	34.15	0.75	27.113	96.0	1.275
794	3.92	34.23	0.46	3.13	117.8	0.00	44.1	87.3	800	3.90	34.24	0.44	27.210	86.8	1.373
890	3.68	34.30	0.28	3.16	129.2	0.00	44.9	79.8	1000	3.47	34.38	0.26	27.365	72.2	1.547
989	3.49	34.37	0.25	3.22	136.5	0.00	44.8	72.7	1200	3.14	34.47	0.46	27.472	62.0	1.697
1166	3.16	34.46	0.45	3.19	146.7	0.00	45.0	62.9							

RV THOMAS WASHINGTON INDOPAC LEG I 20

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.5N	141 00.1W	4/ 2/76	0003 GMT	5320M	240	16KT	2	5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	16.23	33.997	5.73					302.0	0	16.23	33.997	5.73	24.944	302.0	0.000
11	16.22	33.992	5.72					302.2	10	16.22	33.994	5.72	24.943	302.2	0.030
32	15.96	33.958	5.76					300.5	20	16.11	33.969	5.74	24.950	301.5	0.060
51	16.05	33.959	5.74					300.9	30	15.98	33.944	5.76	24.959	300.6	0.091
77	16.08	33.975	5.73					300.4	50	16.04	33.958	5.74	24.957	300.8	0.151
101	16.12	33.988	5.72					300.3	75	16.08	33.975	5.73	24.961	300.4	0.227
113	16.13	33.991	5.77					300.3	100	16.12	33.989	5.72	24.963	300.3	0.302
122	16.18	34.023	5.18U					299.0	125	15.94	34.002	5.73	25.013	295.5	0.378
152	12.95	33.776	5.01U					251.5	150	13.22	33.793	5.61	25.434	255.5	0.448
202	11.11	33.993	5.18					202.3	200	11.13	33.981	5.20	25.978	203.7	0.564
251	10.05	34.110	5.00					176.0	250	10.07	34.110	5.00	26.266	176.4	0.662
300	9.20	34.095	4.81					163.8	300	9.20	34.095	4.81	26.399	163.8	0.750
398	7.58	34.004	4.16					147.0	400	7.54	34.003	4.13	26.579	146.7	0.911
495	5.92	33.956	2.80					129.4	500	5.84	33.955	2.73	26.769	128.6	1.055
591	4.69	33.972	1.64					114.5	600	4.63	33.986	1.54	26.935	112.9	1.182
687	4.26	34.128	0.79					98.5	700	4.22	34.142	0.72	27.104	96.9	1.293
784	4.00	34.223	0.40					88.6	800	3.96	34.238	0.36	27.206	87.2	1.392
880	3.80	34.298	0.23					81.0	1000	3.55	34.374	0.22	27.355	73.0	1.567
977	3.60	34.360	0.20					74.5	1200	3.21	34.483	0.48	27.476	61.7	1.718
1172	3.25	34.468	0.45					63.1							

RV THOMAS WASHINGTON INDOPAC LEG I 21

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.9N	142 00.1W	4/ 2/76	0635 GMT	5383M	330	22KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	16.10	33.952	5.75	0.20	5.8	0.00	0.0	302.5	0	16.10	33.952	5.75	24.940	302.5	0.000
10	16.09	33.951	5.75	0.15	5.7	0.00	0.0	302.3	10	16.09	33.951	5.75	24.941	302.3	0.030
31	16.08	33.950	5.74	0.16	5.6	0.00	0.0	302.2	20	16.09	33.952	5.74	24.942	302.3	0.061
51	16.11	33.948	5.75	0.17	5.6	0.00	0.0	303.0	30	16.08	33.951	5.74	24.943	302.2	0.091
77	16.25	34.006	5.72	0.16	5.5	0.00	0.0	301.8	50	16.11	33.949	5.75	24.935	303.0	0.152
101	16.32	34.034	5.80	0.15	5.4	0.00	0.0	301.3	75	16.24	34.002	5.72	24.945	301.9	0.228
112	16.37	34.046	5.76	0.16	5.3	0.00	0.0	301.5	100	16.32	34.034	5.80	24.952	301.3	0.304
122	16.36	33.864 U	5.70	0.13	5.2	0.00	0.0		125	16.06	34.138	5.71	25.091	288.1	0.378
152	12.52	33.718	5.79	0.37	7.1	0.01	1.4	247.7	150	12.83	33.750	5.78	25.478	251.3	0.447
202	10.86	34.006	5.18	0.88	12.6	0.03	10.4	197.1	200	10.93	34.001	5.21	26.031	198.7	0.561
251	10.11	34.112	5.06	1.07	17.5	0.03	14.0	176.9	250	10.12	34.112	5.06	26.259	177.1	0.657
300	9.39	34.114	4.90	1.20	22.1	0.01	16.9	165.3	300	9.39	34.114	4.90	26.383	165.3	0.746
398	7.60	34.008	4.35	1.65	35.5	0.00	23.2	147.0	400	7.57	34.008	4.32	26.579	146.7	0.908
495	6.08	33.960	2.93	2.28	56.9	0.00	32.2	131.0	500	6.01	33.961	2.86	26.753	130.2	1.053
592	4.87	33.997	1.79	2.82	80.5	0.00	39.2	114.5	600	4.80	34.005	1.72	26.932	113.2	1.181
688	4.25	34.097	1.03	3.05	99.6	0.00	43.6	100.6	700	4.21	34.114	0.94	27.081	99.0	1.293
786	4.04	34.218	0.45	3.25	113.6	0.00	45.6	89.4	800	4.00	34.230	0.41	27.196	88.2	1.394
892	3.74	34.292	0.25	3.29	125.8	0.00	45.6	80.3	1000	3.44	34.367	0.24	27.361	72.6	1.569
981	3.48	34.354	0.23	3.33	134.7	0.00	45.3	73.8	1200	3.06	34.467	0.40	27.477	61.5	1.719
1184	3.09	34.459	0.39	3.25	146.6	0.00	45.9	62.4							

19 INDOPAC LEG I 20

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.7N	140 00.5W	04/01/76	1708 GMT

Z	T	S	SIGMA T	DT	DD
0	15.88	33.96	24.996	297.1	0.000
10	15.88	33.97	25.003	296.4	0.030
20	15.88	33.97	25.003	296.4	0.059
30	15.88	33.97	25.003	296.4	0.089
40	15.89	33.98	25.009	295.9	0.119
50	15.88	33.97	25.003	296.4	0.149
75	15.82	33.96	25.009	295.9	0.223
100	15.39	33.85	25.021	294.8	0.298
125	15.31	33.85	25.039	293.1	0.372
150	13.54	33.77	25.353	263.2	0.442
175	11.74	33.73	25.673	232.7	0.505
200	10.69	33.90	25.996	202.1	0.561
225	9.89	33.98	26.196	183.1	0.610
250	9.41	33.97	26.267	176.3	0.656
275	9.06	34.06	26.394	164.2	0.700
300	8.58	34.05	26.462	157.8	0.741
350	7.51	33.99	26.574	147.1	0.820
400	6.91	33.97	26.642	140.7	0.895
450	6.01	33.96	26.753	130.2	0.966
500	5.37	33.97	26.839	122.0	1.032
550	4.78	34.00	26.931	113.3	1.094
600	4.51	34.04	26.992	107.5	1.152
650	4.33	34.09	27.051	101.9	1.207
700	4.16	34.14	27.109	96.4	1.260
750	4.00	34.19	27.165	91.1	1.310
800	3.89	34.23	27.208	87.0	1.358
850	3.76	34.27	27.253	82.8	1.404
900	3.66	34.30	27.287	79.6	1.448
950	3.55	34.34	27.329	75.5	1.490
1000	3.47	34.38	27.369	71.8	1.531
1100	3.28	34.43	27.427	66.3	1.608
1200	3.13	34.47	27.473	61.9	1.680

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.5N	141 00.1W	04/01/76	2323 GMT

Z	T	S	SIGMA T	DT	DD
0	16.20	33.99	24.946	301.9	0.000
10	16.17	33.98	24.945	302.0	0.030
20	16.06	33.95	24.947	301.8	0.060
30	15.96	33.94	24.962	300.3	0.091
40	15.97	33.95	24.968	299.8	0.121
50	15.96	33.95	24.963	300.2	0.151
75	16.07	33.98	24.968	299.8	0.226
100	16.11	33.99	24.967	299.9	0.302
125	14.53	33.92	25.262	271.8	0.374
150	12.56	33.85	25.610	238.7	0.439
175	11.47	33.95	25.894	211.8	0.496
200	10.88	34.03	26.063	195.7	0.548
225	10.26	34.07	26.203	182.4	0.597
250	9.86	34.10	26.294	173.7	0.642
275	9.44	34.09	26.356	167.8	0.686
300	9.02	34.08	26.416	162.1	0.729
350	8.13	34.03	26.515	152.8	0.811
400	7.39	33.99	26.591	145.5	0.888
450	6.39	33.95	26.696	135.6	0.962
500	5.65	33.95	26.789	126.7	1.030
550	4.98	33.97	26.884	117.7	1.095
600	4.56	34.02	26.971	109.5	1.154
650	4.30	34.08	27.046	102.4	1.210
700	4.20	34.14	27.104	96.8	1.263
750	4.07	34.19	27.158	91.8	1.314
800	3.92	34.24	27.213	86.6	1.362
850	3.82	34.28	27.255	82.6	1.407
900	3.72	34.30	27.281	80.1	1.452
950	3.62	34.34	27.322	76.2	1.494
1000	3.54	34.37	27.354	73.2	1.536
1100	3.35	34.43	27.420	66.9	1.614
1200	3.19	34.47	27.467	62.5	1.687

21 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.9N	142 00.1W	04/02/76	0543 GMT

Z	T	S	SIGMA T	DT	DD
0	16.07	33.95	24.945	302.0	0.000
10	16.07	33.95	24.945	302.0	0.030
20	16.07	33.95	24.945	302.0	0.060
30	16.06	33.96	24.950	301.5	0.091
40	16.09	33.96	24.948	301.7	0.121
50	16.14	33.98	24.952	301.3	0.151
75	16.25	34.02	24.958	300.8	0.227
100	16.33	34.05	24.962	300.3	0.303
125	15.35	33.94	25.099	287.3	0.377
150	12.34	33.77	25.590	240.6	0.444
175	11.17	33.88	25.894	211.7	0.501
200	10.78	34.05	26.096	192.5	0.553
225	10.35	34.08	26.195	183.1	0.601
250	9.95	34.11	26.287	174.4	0.647
275	9.56	34.12	26.360	167.5	0.691
300	9.32	34.12	26.399	163.7	0.734
350	8.45	34.07	26.497	154.4	0.817
400	7.46	34.00	26.589	145.7	0.895
450	6.61	33.97	26.683	136.8	0.969
500	5.90	33.97	26.774	128.1	1.038
550	5.23	33.98	26.863	119.7	1.103
600	4.77	34.01	26.940	112.5	1.164
650	4.41	34.05	27.011	105.7	1.222
700	4.24	34.11	27.076	99.5	1.276
750	4.10	34.17	27.139	93.6	1.328
800	4.00	34.23	27.197	88.1	1.377
850	3.85	34.26	27.236	84.4	1.423
900	3.71	34.30	27.282	80.0	1.468
950	3.58	34.33	27.318	76.6	1.511
1000	3.46	34.36	27.354	73.2	1.552
1100	3.25	34.41	27.414	67.5	1.630
1200	3.06	34.46	27.471	62.1	1.703

RV THOMAS WASHINGTON INDOPAC LEG I 22

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.4N	143 00.8W	4/ 2/76	1242 GMT	5442M	350	16KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.96	34.221	5.62					301.8	0	16.96	34.221	5.62	24.946	301.8	0.000
10	17.00	34.223	5.62					302.6	10	17.00	34.223	5.62	24.938	302.6	0.030
20	17.01	34.225	5.62					302.7	20	17.01	34.225	5.62	24.937	302.7	0.061
31	17.03	34.225	5.63					303.1	30	17.03	34.226	5.63	24.933	303.1	0.091
50	17.03	34.228	5.62					302.9	50	17.03	34.228	5.62	24.935	302.9	0.152
75	17.03	34.224	5.63					303.2	75	17.03	34.224	5.63	24.932	303.2	0.228
100	17.05	34.224	5.62					303.6	100	17.05	34.224	5.62	24.927	303.6	0.305
125	15.12	34.029	5.75					276.0	125	15.12	34.029	5.75	25.218	276.0	0.378
150	12.86	33.852	5.68					244.2	150	12.86	33.852	5.68	25.552	244.2	0.444
199	11.30	34.021	5.22					203.6	200	11.28	34.025	5.21	25.986	203.0	0.558
249	10.51	34.108	4.90					183.7	250	10.49	34.110	4.90	26.192	183.4	0.657
298	9.71	34.107	4.90					170.8	300	9.68	34.107	4.89	26.329	170.4	0.748
398	7.99	34.015	4.52					151.9	400	7.95	34.014	4.49	26.528	151.5	0.916
497	6.09	33.946	2.97					132.2	500	6.04	33.947	2.94	26.737	131.7	1.064
596	4.91	33.972	1.96					116.8	600	4.88	33.977	1.94	26.900	116.2	1.194
695	4.28	34.078	1.07					102.3	700	4.26	34.085	1.03	27.053	101.7	1.309
794	4.03	34.192	0.50					91.2	800	4.01	34.198	0.48	27.170	90.6	1.412
892	3.74	34.276	0.36					82.1	1000	3.47	34.354	0.25	27.347	73.7	1.591
990	3.49	34.349	0.25					74.3	1200	3.16	34.454	0.42	27.457	63.4	1.744
1187	3.18	34.448	0.41					64.0							

RV THOMAS WASHINGTON INDOPAC LEG I 23

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.4N	144 00.8W	4/ 2/76	1857 GMT	5409M	010	10KT	2	010 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.66	34.12	5.71	0.06	5.7	0.00	0.0	302.5	0	16.66	34.12	5.71	24.939	302.5	0.000
10	16.68	34.12	5.70	0.05	5.6	0.00	0.0	303.0	10	16.68	34.12	5.70	24.935	303.0	0.030
31	16.68	34.12	5.74	0.04	5.5	0.00	0.0	303.0	20	16.68	34.12	5.72	24.935	303.0	0.061
41	16.69	34.12	5.70	0.05	5.4	0.00	0.0	303.2	30	16.68	34.12	5.74	24.935	303.0	0.091
51	16.69	34.12	5.70	0.04	5.3	0.00	0.0	303.2	50	16.69	34.12	5.70	24.932	303.2	0.152
76	16.70	34.12	5.70	0.06	5.2	0.00	0.0	303.4	75	16.70	34.12	5.70	24.930	303.4	0.228
101	16.69	34.12	5.68	0.06	5.1	0.00	0.0	303.2	100	16.69	34.12	5.68	24.932	303.2	0.305
116	16.65	34.12	5.69	0.07	5.0	0.03	0.0	302.3	125	14.97	34.00	5.81	25.230	274.8	0.378
126	14.76	33.99	5.82	0.10	5.3	0.06	0.0	271.4	150	12.46	33.85	5.36	25.626	237.2	0.443
152	12.36	33.84	5.30	0.36	6.9	0.09	1.0	235.8	200	10.74	34.04	5.02	26.091	193.0	0.552
201	10.73	34.04	5.02	0.82	12.9	0.07	9.7	192.4	250	9.89	34.12	4.93	26.304	172.8	0.646
251	9.88	34.12	4.93	1.08	17.9	0.07	13.8	172.6	300	9.12	34.08	4.88	26.400	163.7	0.733
300	9.12	34.08	4.88	1.24	23.2	0.07	16.6	163.7	400	7.42	33.98	4.21	26.579	146.7	0.894
400	7.42	33.98	4.21	1.69	37.6	0.08	22.2	146.7	500	5.93	33.94	2.89	26.747	130.7	1.039
497	5.97	33.94	2.93	2.27	58.7	0.07	30.5	131.2	600	4.75	33.98	1.77	26.920	114.3	1.168
597	4.78	33.98	1.80	2.78	82.0	0.10	37.6	114.8	700	4.17	34.11	0.89	27.080	99.1	1.261
694	4.19	34.10	0.93	3.06	103.4	0.07	41.6	99.7	800	3.95	34.20	0.48	27.175	90.2	1.382
793	3.97	34.19	0.49	3.19	115.4	0.08	43.0	90.8	1000	3.41	34.35	0.22	27.348	73.7	1.560
991	3.43	34.34	0.22	3.27	136.6	0.00	43.8	74.4	1200	3.12	34.45	0.36	27.458	63.3	1.713
1194	3.13	34.45	0.36	3.29	146.2	0.00	45.2	63.4							

RV THOMAS WASHINGTON INDOPAC LEG I 24

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.2N	144 59.9W	4/ 3/76	0112 GMT	5534M	040	6KT	2	010 6 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.23	34.021	5.74					300.3	0	16.23	34.021	5.74	24.963	300.3	0.000
10	16.23	34.023	5.73					300.1	10	16.23	34.023	5.73	24.964	300.1	0.030
20	16.22	34.024	5.73					299.8	20	16.22	34.024	5.73	24.967	299.8	0.060
31	16.21	34.023	5.70					299.7	30	16.21	34.024	5.70	24.969	299.7	0.090
50	16.18	34.023						299.0	50	16.18	34.023	5.71	24.976	299.0	0.150
76	16.18	34.023	5.74					299.0	75	16.18	34.024	5.74	24.976	299.0	0.225
100	16.19	34.022	5.71					299.3	100	16.19	34.022	5.71	24.973	299.3	0.301
125	14.45	34.007	5.77					263.9	125	14.45	34.007	5.77	25.346	263.9	0.372
151	12.51	33.838	5.52					238.7	150	12.58	33.845	5.53	25.601	239.5	0.436
200	10.82	34.027	5.17					194.9	200	10.82	34.027	5.17	26.071	194.9	0.547
249	9.90	34.122	5.03					172.7	250	9.89	34.124	5.03	26.307	172.5	0.641
299	9.32	34.127	4.87					163.2	300	9.30	34.127	4.87	26.406	163.1	0.728
399	7.60	34.021	4.22					146.0	400	7.59	34.021	4.21	26.588	145.9	0.888
497	5.95	33.972	2.85					128.6	500	5.91	33.973	2.82	26.775	128.1	1.032
596	4.87	34.008	1.86					113.7	600	4.84	34.012	1.83	26.933	113.1	1.158
694	4.27	34.100	1.10					100.5	700	4.25	34.110	1.05	27.074	99.7	1.271
792	4.06	34.235	0.43					88.3	800	4.04	34.244	0.40	27.203	87.5	1.372
890	3.79	34.318	0.25					79.4	1000	3.54	34.384	0.28	27.364	72.2	1.546
988	3.57	34.377	0.27					72.9	1200	3.18	34.477	0.44	27.473	61.8	1.697
1186	3.20	34.471	0.43					62.5							

22 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.4N	143 00.8W	04/02/76	1154 GMT

Z	T	S	SIGMA T	DT	DD
0	16.98	34.22	24.941	302.4	0.000
10	16.99	34.22	24.938	302.6	0.030
20	16.98	34.22	24.941	302.4	0.061
30	16.99	34.22	24.938	302.6	0.091
40	16.99	34.22	24.938	302.6	0.121
50	17.00	34.22	24.936	302.8	0.152
75	17.00	34.22	24.936	302.8	0.228
100	17.01	34.22	24.934	303.0	0.304
125	14.71	34.01	25.292	268.9	0.377
150	12.65	33.86	25.600	239.7	0.441
175	11.85	33.93	25.807	219.9	0.500
200	11.34	34.02	25.972	204.3	0.554
225	10.78	34.07	26.112	191.0	0.604
250	10.40	34.10	26.202	182.5	0.652
275	9.98	34.10	26.274	175.6	0.698
300	9.67	34.10	26.326	170.7	0.743
350	8.82	34.06	26.432	160.6	0.829
400	7.96	34.02	26.532	151.1	0.910
450	6.99	33.97	26.631	141.7	0.987
500	6.18	33.95	26.723	133.0	1.059
550	5.41	33.95	26.818	124.0	1.127
600	4.83	33.98	26.909	115.4	1.189
650	4.44	34.02	26.984	108.3	1.248
700	4.23	34.09	27.062	100.9	1.304
750	4.11	34.15	27.122	95.2	1.356
800	3.99	34.20	27.174	90.3	1.406
850	3.84	34.24	27.221	85.8	1.454
900	3.70	34.29	27.275	80.7	1.499
950	3.54	34.33	27.322	76.2	1.542
1000	3.45	34.36	27.355	73.1	1.583
1100	3.29	34.41	27.410	67.9	1.661
1200	3.15	34.45	27.455	63.6	1.735

23

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.4N	144 00.8W	04/02/76	1818 GMT

Z	T	S	SIGMA T	DT	DD
0	16.62	34.10	24.933	303.1	0.000
10	16.64	34.10	24.929	303.5	0.030
20	16.65	34.11	24.934	303.0	0.061
30	16.66	34.11	24.932	303.2	0.091
40	16.66	34.11	24.932	303.2	0.122
50	16.67	34.11	24.929	303.5	0.152
75	16.67	34.11	24.929	303.5	0.228
100	16.66	34.11	24.932	303.2	0.305
125	14.68	33.96	25.260	272.0	0.378
150	12.19	33.84	25.673	232.7	0.442
175	11.31	33.97	25.939	207.5	0.498
200	10.76	34.03	26.084	193.7	0.549
225	10.28	34.09	26.215	181.3	0.597
250	9.81	34.10	26.302	172.9	0.642
275	9.42	34.09	26.359	167.5	0.686
300	9.04	34.07	26.405	163.2	0.729
350	8.26	34.03	26.495	154.6	0.811
400	7.48	33.99	26.578	146.7	0.890
450	6.56	33.96	26.682	136.9	0.964
500	6.00	33.95	26.746	130.8	1.034
550	5.22	33.96	26.849	121.1	1.100
600	4.75	33.99	26.926	113.8	1.162
650	4.41	34.04	27.003	106.5	1.220
700	4.17	34.11	27.084	98.8	1.275
750	4.05	34.15	27.128	94.6	1.326
800	3.94	34.20	27.179	89.8	1.376
850	3.79	34.24	27.226	85.3	1.423
900	3.66	34.28	27.271	81.1	1.468
950	3.53	34.31	27.307	77.6	1.511
1000	3.42	34.35	27.350	73.6	1.553
1100	3.27	34.40	27.404	68.4	1.632
1200	3.09	34.44	27.452	63.8	1.706

24 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.2N	144 59.9W	04/03/76	0029 GMT

Z	T	S	SIGMA T	DT	DD
0	16.21	34.03	24.974	299.2	0.000
10	16.22	34.03	24.972	299.4	0.030
20	16.20	34.03	24.977	299.0	0.060
30	16.18	34.03	24.981	298.5	0.090
40	16.18	34.03	24.981	298.5	0.120
50	16.18	34.03	24.981	298.5	0.150
75	16.18	34.03	24.981	298.5	0.225
100	16.18	34.03	24.981	298.5	0.300
125	14.74	34.00	25.278	270.3	0.372
150	12.59	33.85	25.604	239.3	0.437
175	11.38	33.92	25.887	212.4	0.494
200	10.78	34.00	26.057	196.2	0.546
225	10.36	34.13	26.232	179.6	0.594
250	9.82	34.13	26.324	170.9	0.639
275	9.55	34.13	26.369	166.6	0.683
300	9.25	34.12	26.410	162.7	0.726
350	8.36	34.06	26.503	153.8	0.808
400	7.64	34.03	26.587	145.9	0.886
450	6.70	33.99	26.686	136.5	0.960
500	6.02	33.98	26.767	128.8	1.029
550	5.28	33.99	26.865	119.5	1.095
600	4.92	34.01	26.923	114.1	1.156
650	4.53	34.04	26.990	107.7	1.215
700	4.24	34.10	27.069	100.2	1.270
750	4.11	34.17	27.138	93.7	1.322
800	4.04	34.24	27.200	87.7	1.370
850	3.88	34.29	27.257	82.4	1.417
900	3.75	34.33	27.301	78.2	1.460
950	3.65	34.36	27.335	74.9	1.502
1000	3.55	34.38	27.361	72.5	1.543
1100	3.36	34.43	27.419	67.0	1.621
1200	3.18	34.47	27.468	62.4	1.694

RV THOMAS WASHINGTON INDOPAC LEG I 25

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.6N	146 00.5W	4/ 3/76	0727 GMT	5444M	080	3KT		0

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.85	34.29	5.62	0.04	4.1	0.00	0.1	294.4	0	16.85	34.29	5.62	25.025	294.4	0.000
10	16.87	34.28	5.63	0.02	4.1	0.00	0.1	295.5	10	16.87	34.28	5.63	25.012	295.5	0.030
20	16.87	34.28	5.61	0.04	4.1	0.00	0.1	295.5	20	16.87	34.28	5.61	25.012	295.5	0.059
31	16.84	34.28	5.62	0.04	4.0	0.00	0.1	294.9	30	16.84	34.28	5.62	25.019	294.9	0.089
50	16.88	34.27	5.63	0.02	4.0	0.00	0.1	296.5	50	16.88	34.27	5.63	25.002	296.5	0.148
76	16.88	34.28	5.63	0.03	4.0	0.00	0.0	295.8	75	16.88	34.28	5.63	25.010	295.8	0.223
100	16.85		5.62	0.05	4.0	0.00	0.0	295.1	100	16.85	34.28	5.62	25.017	295.1	0.297
125	15.80	34.12	5.68	0.05	4.2	0.00	0.1	283.7	125	15.80	34.12	5.68	25.136	283.7	0.370
151	12.91	33.96	5.59	0.30	6.1	0.03	2.0	237.2	150	13.02	33.96	5.59	25.606	239.1	0.437
160	12.42		5.45	0.40	7.4	0.01	4.1		200	11.60	34.14	5.20	26.017	200.0	0.549
175	12.00	34.07	5.36	0.55	8.4	0.00	6.6	212.3	250	10.53	34.20	5.11	26.256	177.3	0.645
190	11.78	34.13	5.25	0.60	9.9	0.00	8.2	204.0	300	9.71	34.17	5.00	26.371	166.4	0.734
200	11.60	34.14	5.20	0.65	10.3	0.00	9.0	200.0	400	7.85	34.04	4.39	26.563	148.2	0.898
249	10.55	34.20	5.11	0.96	16.0	0.00	12.8	177.6	500	6.39	33.98	3.37	26.720	133.3	1.046
298	9.75	34.17	5.01	1.11	19.7	0.00	15.2	166.8	600	5.00	34.00	2.13	26.908	115.4	1.177
398	7.88	34.04	4.41	1.56	33.6	0.00	21.8	148.5	700	4.29	34.08	1.23	27.046	102.4	1.292
496	6.45	33.98	3.42	2.00	51.3	0.00	29.2	134.1	800	4.04	34.19	0.59	27.161	91.5	1.396
594	5.06	34.00	2.19	2.57	76.4	0.00	37.1	116.3	1000	3.65	34.37	0.25	27.339	74.6	1.577
692	4.32	34.07	1.30	2.93	97.4	0.00	41.5	103.3	1200	3.19	34.45	0.42	27.451	64.0	1.732
791	4.06	34.18	0.61	3.11	112.7	0.00	44.1	92.4							
987	3.68	34.36	0.25	3.29	131.0	0.00	45.4	75.2							
1186	3.22	34.44	0.41	3.25	145.4	0.00	45.6	65.0							

RV THOMAS WASHINGTON INDOPAC LEG I 26

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.8N	147 00.7W	4/ 3/76	1318 GMT	5438M	240	2KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	17.15	34.265	5.61					302.9	0	17.15	34.265	5.61	24.935	302.9	0.000
10	17.14	34.264	5.60					302.8	10	17.14	34.264	5.60	24.936	302.8	0.030
31	17.13	34.276	5.60					301.7	20	17.14	34.269	5.60	24.941	302.4	0.061
50	17.03	34.268	5.61					300.0	30	17.13	34.276	5.60	24.947	301.7	0.091
76	16.96	34.260	5.61					299.0	50	17.03	34.268	5.61	24.966	300.0	0.151
100	16.94	34.255	5.62					298.9	75	16.96	34.261	5.61	24.976	299.0	0.227
120	16.32	34.215	5.63					288.1	100	16.94	34.255	5.62	24.977	298.9	0.302
135	13.93	34.002	5.69					253.8	125	15.52	34.134	5.66	25.209	276.8	0.375
150	13.26	34.026	5.52					239.0	150	13.26	34.026	5.52	25.607	239.0	0.440
200	11.48	34.043	5.26					205.1	200	11.48	34.043	5.26	25.964	205.1	0.554
249	10.69	34.171	5.07					182.1	250	10.67	34.173	5.07	26.209	181.8	0.653
299	9.87	34.156	5.01					169.7	300	9.86	34.156	5.01	26.338	169.6	0.744
398	8.44	34.073	4.68					154.0	400	8.40	34.071	4.66	26.505	153.7	0.912
496	6.57	33.980	3.51					135.6	500	6.50	33.980	3.45	26.703	134.9	1.063
596	5.21	33.991	1.99					118.7	600	5.17	33.996	1.94	26.882	117.9	1.196
694	4.42	34.097	1.06					102.3	700	4.40	34.104	1.02	27.054	101.6	1.313
793	4.15	34.186	0.56					92.9	800	4.13	34.194	0.53	27.153	92.2	1.417
892	3.92	34.281	0.28					83.5	1000	3.60	34.365	0.27	27.343	74.2	1.598
990	3.63	34.358	0.27					74.9	1200	3.17	34.461	0.40	27.462	63.0	1.752
1190	3.19	34.456	0.39					63.5							

RV THOMAS WASHINGTON INDOPAC LEG I 27

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.4N	148 00.1W	4/ 3/76	1935 GMT	5506M	300	2KT	2	300 4 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.94	34.228	5.64	0.07	5.9	0.00	0.0	300.9	0	16.94	34.228	5.64	24.956	300.9	0.000
10	16.93	34.229	5.63	0.13	5.7	0.00	0.0	300.6	10	16.93	34.229	5.63	24.959	300.6	0.030
20	16.89	34.228	5.63	0.10	5.8	0.00	0.0	299.8	20	16.89	34.228	5.63	24.968	299.8	0.060
40	16.93	34.230	5.62	0.11	5.8	0.00	0.0	300.5	30	16.90	34.230	5.62	24.966	300.0	0.090
65	16.92	34.230	5.63	0.10	6.0	0.00	0.0	300.3	50	16.93	34.230	5.63	24.961	300.5	0.151
75	16.92	34.229	5.62	0.08	6.5	0.00	0.0	300.4	75	16.92	34.229	5.62	24.962	300.4	0.226
95	16.84	34.228	5.63	0.11	6.3	0.00	0.0	298.6	100	16.92	34.218	5.64	25.045	292.4	0.301
110	15.72	34.175	5.66	0.14	6.6	0.00	0.0	278.0	125	14.51	34.041	5.74	25.359	262.6	0.371
125	14.51	34.041	5.74	0.19	6.7	0.06	0.0	262.6	150	12.62	34.049	5.50	25.752	225.2	0.433
150	12.62	34.049	5.50	0.46	8.7	0.03	3.9	225.2	200	11.13	34.167	5.24	26.012	200.5	0.542
199	11.75	34.164	5.24	0.70	12.2	0.03	8.9	200.9	250	10.95	34.211	5.09	26.189	183.7	0.640
249	10.97	34.210	5.09	0.89	15.8	0.03	11.9	183.9	300	10.10	34.177	5.03	26.313	171.9	0.732
298	10.13	34.178	5.03	1.06	19.3	0.03	14.5	172.3	400	8.38	34.074	4.65	26.510	153.2	0.901
398	8.42	34.075	4.66	1.42	29.8	0.03	19.7	153.6	500	6.70	33.989	3.76	26.685	136.6	1.053
497	6.74	33.989	3.80	1.97	48.8	0.03	27.1	137.1	600	5.42	33.983	2.53	26.842	121.7	1.190
596	5.47	33.980	2.58	2.49	70.6	0.00	34.4	122.4	700	4.38	34.053	1.48	27.015	105.2	1.310
695	4.41	34.047	1.53	2.97	94.7	0.00	40.6	105.9	800	4.03	34.169	0.71	27.144	93.0	1.416
793	4.05	34.161	0.73	3.15	112.3	0.00	43.1	93.8	1000	3.51	34.329	0.30	27.324	75.9	1.600
989	3.53	34.322	0.29	3.33	135.8	0.00	45.3	76.7	1200	3.15	34.447	0.39	27.452	63.8	1.756
1184	3.18	34.438	0.36	3.34	148.0	0.00	45.7	64.8							

25 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.6N	146 00.5W	04/03/76	0625 GMT

Z	T	S	SIGMA T	DT	DD
0	16.83	34.26	25.007	296.1	0.000
10	16.84	34.27	25.012	295.6	0.030
20	16.85	34.27	25.009	295.8	0.059
30	16.85	34.27	25.009	295.8	0.089
40	16.85	34.27	25.009	295.8	0.119
50	16.85	34.27	25.009	295.8	0.148
75	16.84	34.27	25.012	295.6	0.223
100	16.84	34.27	25.012	295.6	0.297
125	16.06	34.16	25.108	286.4	0.371
150	13.41	33.95	25.518	247.5	0.439
175	12.30	34.01	25.784	222.2	0.498
200	11.80	34.10	25.948	206.5	0.553
225	11.12	34.13	26.097	192.4	0.604
250	10.70	34.17	26.203	182.3	0.652
275	10.24	34.16	26.276	175.4	0.698
300	9.84	34.15	26.336	169.7	0.743
350	8.89	34.11	26.460	157.9	0.828
400	8.15	34.06	26.535	150.8	0.909
450	7.10	34.00	26.640	140.9	0.985
500	6.44	33.98	26.713	134.0	1.057
550	5.66	33.97	26.804	125.3	1.126
600	5.08	33.99	26.889	117.3	1.190
650	4.63	34.02	26.963	110.2	1.250
700	4.28	34.08	27.048	102.2	1.306
750	4.09	34.14	27.116	95.7	1.359
800	3.98	34.20	27.175	90.2	1.409
850	3.92	34.24	27.213	86.6	1.456
900	3.85	34.28	27.252	82.9	1.502
950	3.74	34.33	27.302	78.1	1.547
1000	3.61	34.36	27.339	74.6	1.589
1100	3.36	34.41	27.403	68.5	1.668
1200	3.18	34.45	27.452	63.9	1.743

26

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.8N	147 00.7W	04/03/76	1241 GMT

Z	T	S	SIGMA T	DT	DD
0	17.14	34.27	24.941	302.3	0.000
10	17.15	34.27	24.939	302.6	0.030
20	17.14	34.28	24.949	301.6	0.061
30	17.11	34.28	24.956	300.9	0.091
40	17.08	34.29	24.971	299.5	0.121
50	17.06	34.29	24.975	299.1	0.151
75	16.98	34.28	24.987	298.0	0.226
100	16.94	34.27	24.988	297.8	0.301
125	15.57	34.15	25.211	276.6	0.374
150	15.23	34.00	25.593	240.3	0.439
175	12.07	33.99	25.812	219.5	0.498
200	11.48	34.04	25.962	205.3	0.552
225	11.14	34.13	26.094	192.7	0.603
250	10.70	34.17	26.203	182.3	0.651
275	10.36	34.17	26.263	176.7	0.698
300	9.90	34.16	26.334	169.9	0.743
350	9.04	34.11	26.436	160.2	0.828
400	8.27	34.07	26.525	151.8	0.910
450	7.32	34.01	26.617	143.1	0.987
489	6.61	33.98	26.691	136.1	1.044

27 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.8N	148 00.1W	04/03/76	1851 GMT

Z	T	S	SIGMA T	DT	DD
0	16.92	34.23	24.962	300.3	0.000
10	16.91	34.23	24.965	300.1	0.030
20	16.91	34.23	24.965	300.1	0.060
30	16.91	34.23	24.965	300.1	0.090
40	16.91	34.24	24.972	299.3	0.120
50	16.91	34.24	24.972	299.3	0.150
75	16.92	34.24	24.970	299.6	0.226
100	16.61	34.22	25.027	294.1	0.301
125	14.49	34.03	25.355	263.0	0.371
150	12.57	34.04	25.755	225.0	0.433
175	12.00	34.08	25.895	211.6	0.489
200	11.77	34.16	26.001	201.6	0.541
225	11.30	34.19	26.111	191.1	0.592
250	10.98	34.21	26.185	184.1	0.640
275	10.64	34.20	26.237	179.1	0.687
300	10.15	34.18	26.307	172.5	0.732
350	9.38	34.14	26.405	163.2	0.819
400	8.57	34.09	26.495	154.7	0.902
450	7.62	34.03	26.590	145.6	0.981
500	6.80	34.00	26.681	137.0	1.056
550	6.01	33.97	26.760	129.5	1.126
600	5.31	33.98	26.854	120.6	1.192
650	4.69	34.01	26.948	111.6	1.253
700	4.32	34.06	27.028	104.1	1.310
750	4.16	34.12	27.093	97.9	1.364
800	3.99	34.17	27.150	92.5	1.415
850	3.86	34.21	27.195	88.2	1.464
900	3.77	34.25	27.236	84.4	1.511
950	3.63	34.29	27.282	80.0	1.556
1000	3.49	34.32	27.319	76.5	1.598
1100	3.40	34.39	27.383	70.4	1.680
1200	3.14	34.43	27.440	65.0	1.756

RV THOMAS WASHINGTON INDOPAC LEG I 28

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.1N	148 59.9W	4/ 4/76	0131 GMT	5525M	250	12KT	1	270 4 10

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.91	34.267	5.63					297.4	0	16.91	34.267	5.63	24.993	297.4	0.000
10	16.90	34.267	5.64					297.2	10	16.90	34.267	5.64	24.995	297.2	0.030
20	16.90	34.267	5.63					297.2	20	16.90	34.267	5.63	24.995	297.2	0.060
31	16.91	34.269	5.63					297.2	30	16.91	34.270	5.63	24.995	297.2	0.089
50	16.90	34.272	5.62					296.8	50	16.90	34.272	5.62	24.999	296.8	0.149
76	16.90	34.271	5.71					296.9	75	16.90	34.272	5.71	24.999	296.9	0.224
100	15.96	34.085	5.70					289.7	100	15.96	34.085	5.70	25.073	289.7	0.298
126	14.88	33.960	5.81					276.1	125	14.92	33.964	5.81	25.210	276.7	0.369
151	13.97	33.966	5.79					257.2	150	14.01	33.966	5.79	25.406	258.1	0.437
200	12.13	34.040	5.44					216.9	200	12.13	34.040	5.44	25.840	216.9	0.558
250	11.24	34.203	5.12					189.1	250	11.24	34.203	5.12	26.132	189.1	0.662
299	10.49	34.200	5.04					176.6	300	10.47	34.200	5.04	26.266	176.4	0.757
398	8.71	34.102	4.84					155.9	400	8.67	34.101	4.82	26.486	155.5	0.930
497	6.97	34.004	3.77					138.9	500	6.91	34.003	3.73	26.667	138.3	1.084
596	5.32	33.988	2.42					120.1	600	5.27	33.991	2.37	26.866	119.5	1.220
693	4.44	34.056	1.44					105.6	700	4.40	34.064	1.38	27.022	104.6	1.339
791	4.04	34.164	0.76					93.4	800	4.01	34.173	0.72	27.150	92.5	1.444
889	3.76	34.255	0.40					83.9	1000	3.47	34.347	0.26	27.342	74.3	1.625
988	3.50	34.339	0.26					75.1	1200	3.10	34.452	0.34	27.461	63.0	1.779
1184	3.13	34.444	0.36					63.9							

RV THOMAS WASHINGTON INDOPAC LEG I 29

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.6N	149 59.5W	4/ 4/76	0725 GMT	5717M	330	20KT	6	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.93	34.287	5.63	0.05	4.1	0.00	0.0	296.4	0	16.93	34.287	5.63	25.004	296.4	0.000
10	16.95	34.288	5.61	0.07	3.8	0.00	0.0	296.7	10	16.95	34.288	5.61	25.000	296.7	0.030
31	16.95	34.287	5.62	0.08	4.0	0.00	0.0	296.8	20	16.95	34.288	5.61	24.999	296.8	0.059
50	16.76	34.252	5.62	0.09	4.0	0.00	0.1	295.1	30	16.95	34.288	5.62	24.999	296.8	0.089
76	15.63	33.991	5.79	0.11	4.9	0.00	0.1	289.5	50	16.76	34.252	5.62	25.017	295.1	0.149
100	14.83	33.865	5.84	0.12	5.3	0.00	0.1	282.0	75	15.68	34.003	5.78	25.073	289.8	0.222
125	14.36	33.912	5.86	0.19	5.7	0.00	0.0	269.0	100	14.83	33.865	5.84	25.155	282.0	0.294
151	13.09	34.013	5.52	0.38	6.5	0.06	2.5	236.7	125	14.36	33.912	5.86	25.292	269.0	0.364
175	12.69	34.086	5.44	0.45	7.8	0.03	4.7	223.8	150	13.14	34.010	5.53	25.618	238.0	0.428
200	12.05	34.138	5.25	0.63	9.7	0.00	7.7	208.2	200	12.05	34.138	5.25	25.931	208.2	0.542
249	11.15	34.231	5.06	0.86	14.2	0.00	11.8	185.5	250	11.13	34.232	5.06	26.173	185.2	0.643
349	9.46	34.141	4.89	1.17	21.8	0.00	16.7	164.4	300	10.27	34.212	4.97	26.311	172.1	0.735
398	8.68	34.085	4.74	1.31	26.7	0.00	19.0	156.7	400	8.65	34.084	4.73	26.477	156.3	0.906
497	7.04	33.999	3.77	1.86	44.2	0.00	26.5	140.2	500	6.99	33.998	3.73	26.652	139.7	1.062
595	5.63	33.977	2.57	2.42	65.7	0.00	34.4	124.5	600	5.57	33.979	2.51	26.822	123.7	1.201
692	4.63	34.030	1.61	2.80	87.7	0.00	39.8	109.5	700	4.58	34.039	1.54	26.982	108.4	1.324
791	4.19	34.132	0.91	3.02	105.3	0.00	43.0	97.3	800	4.15	34.143	0.86	27.111	96.3	1.433
889	3.86	34.234	0.44	3.17	120.5	0.00	44.4	86.4	1000	3.71	34.343	0.27	27.315	76.9	1.622
987	3.74	34.333	0.27	3.25	128.3	0.00	45.0	77.8	1200	3.19	34.437	0.35	27.441	64.9	1.781
1182	3.24	34.429	0.34	3.26	144.4	0.00	45.5	66.0							

RV THOMAS WASHINGTON INDOPAC LEG I 30

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.8N	151 00.4W	4/ 4/76	1401 GMT	5622M	320	26KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	17.29	34.281	5.60					304.9	0	17.29	34.281	5.60	24.914	304.9	0.000
10	17.29	34.279	5.60					305.1	10	17.29	34.279	5.60	24.912	305.1	0.031
31	17.30	34.280	5.60					305.2	20	17.29	34.280	5.60	24.911	305.2	0.061
50	17.31	34.281	5.60					305.4	30	17.30	34.281	5.60	24.911	305.2	0.092
76	17.29	34.281	5.61					304.9	50	17.31	34.281	5.60	24.909	305.4	0.153
100	16.61	34.189	5.64					296.4	75	17.29	34.282	5.61	24.914	305.0	0.230
126	14.62	34.119	5.71					259.1	100	16.61	34.189	5.64	25.004	296.4	0.306
151	12.95	34.184	5.42					221.5	125	14.71	34.121	5.71	25.377	260.8	0.376
176	12.23	34.192	5.36					207.5	150	13.01	34.182	5.43	25.777	222.8	0.437
201	11.54	34.145	5.34					198.6	200	11.57	34.148	5.34	26.028	198.9	0.545
251	10.62	34.168	5.02					181.1	250	10.63	34.168	5.03	26.212	181.4	0.643
351	9.13	34.137	4.91					159.6	300	9.90	34.170	4.97	26.341	169.2	0.733
401	8.15	34.069	4.59					150.2	400	8.17	34.071	4.60	26.540	150.3	0.900
499	6.50	33.988	3.32					134.1	500	6.48	33.989	3.31	26.713	133.9	1.049
598	5.14	33.994	2.21					117.7	600	5.12	33.997	2.19	26.888	117.4	1.181
697	4.41	34.080	1.29					103.5	700	4.40	34.084	1.26	27.039	103.1	1.298
795	4.04	34.189	0.63					91.6	800	4.02	34.195	0.61	27.165	91.1	1.402
892	3.79	34.273	0.38					82.8	1000	3.59	34.353	0.27	27.335	74.9	1.583
988	3.61	34.345	0.27					75.7	1200	3.17	34.473	0.43	27.471	62.0	1.736
1181	3.21	34.462	0.42					63.2							

28 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.1N	148 59.9W	04/04/76	0046 GMT

Z	T	S	SIGMA T	DT	DD
0	16.90	34.28	25.005	296.2	0.000
10	16.90	34.28	25.005	296.2	0.030
20	16.89	34.28	25.008	296.0	0.059
30	16.89	34.29	25.015	295.2	0.089
40	16.89	34.29	25.015	295.2	0.119
50	16.89	34.29	25.015	295.2	0.148
75	16.87	34.29	25.020	294.8	0.222
100	15.89	34.10	25.101	287.1	0.296
125	14.69	33.98	25.273	270.7	0.366
150	13.80	33.98	25.461	252.9	0.433
175	12.92	34.03	25.678	232.2	0.495
200	11.93	34.04	25.878	213.3	0.551
225	11.29	34.12	26.059	196.1	0.604
250	11.12	34.21	26.159	186.5	0.653
275	10.69	34.22	26.244	178.5	0.700
300	10.29	34.19	26.291	174.0	0.746
350	9.49	34.14	26.387	164.9	0.834
400	8.61	34.10	26.496	154.5	0.917
450	7.64	34.03	26.587	145.9	0.996
500	6.87	34.00	26.671	137.9	1.071
550	6.09	33.98	26.758	129.7	1.141
600	5.26	33.99	26.868	119.3	1.207
650	4.67	34.02	26.959	110.7	1.268
700	4.39	34.07	27.029	104.0	1.325
750	4.18	34.12	27.091	98.1	1.379
800	4.03	34.17	27.146	92.9	1.430
850	3.90	34.22	27.199	87.9	1.479
900	3.72	34.26	27.249	83.1	1.525
950	3.59	34.30	27.293	78.9	1.569
1000	3.47	34.35	27.345	74.0	1.611
1100	3.28	34.40	27.403	68.5	1.690
1200	3.11	34.44	27.451	64.0	1.765

29

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.6N	149 59.5W	04/04/76	0645 GMT

Z	T	S	SIGMA T	DT	DD
0	16.95	34.30	25.009	295.9	0.000
10	16.95	34.30	25.009	295.9	0.030
20	16.95	34.30	25.009	295.9	0.059
30	16.95	34.30	25.009	295.9	0.089
40	16.86	34.27	25.007	296.0	0.119
50	16.68	34.23	25.019	294.9	0.148
75	15.70	33.99	25.059	291.1	0.222
100	14.73	33.82	25.142	283.3	0.294
125	14.76	33.97	25.251	272.9	0.365
150	13.52	34.04	25.565	243.0	0.430
175	12.82	34.05	25.713	228.9	0.490
200	12.41	34.12	25.848	216.1	0.547
225	11.71	34.16	26.012	200.5	0.600
250	11.20	34.21	26.145	187.9	0.650
275	10.88	34.23	26.218	180.9	0.698
300	10.52	34.22	26.274	175.6	0.744
350	9.42	34.13	26.390	164.6	0.833
400	8.59	34.07	26.476	156.5	0.916
450	7.87	34.04	26.561	148.4	0.996
500	6.88	33.98	26.654	139.5	1.072
550	6.23	33.97	26.732	132.1	1.144
600	5.45	33.97	26.829	122.9	1.211
650	4.85	34.00	26.923	114.1	1.274
700	4.55	34.04	26.988	107.9	1.332
750	4.29	34.09	27.055	101.5	1.388
800	4.12	34.15	27.121	95.3	1.441
850	3.97	34.20	27.176	90.1	1.491
900	3.81	34.24	27.224	85.5	1.539
950	3.72	34.29	27.273	80.9	1.584
1000	3.66	34.34	27.316	76.7	1.627
1100	3.45	34.39	27.379	70.8	1.709
1183	3.24	34.42	27.423	66.7	1.773

30 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.8N	151 00.4W	04/04/76	1316 GMT

Z	T	S	SIGMA T	DT	DD
0	17.24	34.28	24.925	303.9	0.000
10	17.27	34.30	24.933	303.1	0.030
20	17.29	34.28	24.913	305.0	0.061
30	17.29	34.28	24.913	305.0	0.091
40	17.29	34.28	24.913	305.0	0.122
50	17.29	34.28	24.913	305.0	0.153
75	17.30	34.28	24.911	305.2	0.229
100	16.75	34.21	24.987	298.0	0.306
125	14.46	34.11	25.423	256.5	0.376
150	12.83	34.19	25.819	218.8	0.436
175	12.07	34.16	25.944	207.0	0.490
200	11.45	34.15	26.052	196.7	0.542
225	11.14	34.19	26.140	188.3	0.591
250	10.45	34.15	26.232	179.6	0.638
275	9.96	34.13	26.301	173.1	0.684
300	9.59	34.12	26.355	168.0	0.728
350	9.07	34.14	26.455	158.4	0.813
400	8.37	34.08	26.518	152.5	0.894
450	7.41	34.02	26.612	143.5	0.972
500	6.54	33.99	26.708	134.5	1.045
550	5.82	33.98	26.792	126.5	1.113
600	5.18	33.99	26.877	118.4	1.178
650	4.62	34.03	26.972	109.4	1.238
700	4.38	34.08	27.038	103.2	1.295
750	4.16	34.14	27.109	96.4	1.348
800	4.00	34.20	27.173	90.3	1.398
850	3.86	34.24	27.219	86.0	1.446
900	3.73	34.28	27.264	81.7	1.491
950	3.66	34.32	27.302	78.1	1.535
1000	3.55	34.35	27.337	74.8	1.577
1100	3.34	34.41	27.405	68.3	1.657
1200	3.13	34.45	27.457	63.4	1.731

RV THOMAS WASHINGTON INDOPAC LEG I 31

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.4N	152 01.8W	4/ 4/76	2042 GMT	5636M	350	15KT	1	350 6 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	17.29	34.332	5.60	0.03	4.8	0.00	0.0	301.2	0	17.29	34.332	5.60	24.953	301.2	0.000
10	17.30	34.332	5.58	0.09	4.8	0.00	0.0	301.4	10	17.30	34.332	5.58	24.950	301.4	0.030
20	17.29	34.333	5.58	0.10	4.7	0.00	0.0	301.1	20	17.29	34.333	5.58	24.953	301.1	0.060
30	17.30	34.332	5.58	0.09	4.7	0.00	0.0	301.4	30	17.30	34.332	5.58	24.950	301.4	0.091
49	17.29	34.333	5.59	0.08	4.7	0.00	0.0	301.1	50	17.29	34.334	5.59	24.953	301.1	0.151
74	17.28	34.331	5.58	0.09	4.6	0.00	0.0	301.1	75	17.28	34.332	5.58	24.954	301.1	0.227
97	17.29	34.331	5.59	0.02	4.6	0.00	0.0	301.3	100	17.28	34.331	5.60	24.954	301.1	0.303
122	16.22	34.184	5.64	0.08	5.4	0.00	0.0	238.2	125	15.84	34.157	5.63	25.154	282.0	0.377
146	13.08	34.027	5.48	0.26	7.1	0.06	2.4	235.5	150	12.79	34.021	5.45	25.696	230.5	0.442
194	11.09	34.025	5.12	0.66	11.0	0.00	9.6	199.6	200	10.93	34.038	5.09	26.059	196.0	0.550
242	10.10	34.118	4.92	1.05	17.3	0.00	14.7	176.3	250	9.98	34.124	4.91	26.293	173.9	0.645
291	9.40	34.124	4.86	1.12	22.4	0.00	16.7	164.7	300	9.27	34.120	4.85	26.406	163.1	0.732
387	7.96	34.048	4.44	1.51	33.7	0.00	21.5	149.0	400	7.71	34.036	4.27	26.580	146.5	0.893
482	6.21	33.980	3.09	2.04	57.3	0.00	30.4	131.1	500	5.96	33.978	2.90	26.772	128.3	1.037
579	5.08	33.995	2.17	2.34	76.9	0.00	36.4	116.9	600	4.89	34.010	1.97	26.925	113.8	1.165
674	4.38	34.079	1.30	2.87	96.7	0.00	40.5	103.2	700	4.28	34.113	1.07	27.074	99.7	1.278
770	4.07	34.198	0.58	2.95	113.6	0.00	43.1	91.2	800	3.97	34.224	0.48	27.194	88.3	1.378
865	3.77	34.272	0.36	3.14	125.1	0.00	44.1	82.7	1000	3.51	34.383	0.30	27.367	72.0	1.553
960	3.59	34.354	0.27	3.19	133.8	0.00	44.0	74.8							
1155	3.14	34.453	0.43	3.26	147.9	0.00	44.4	63.3							

RV THOMAS WASHINGTON INDOPAC LEG I 32

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.5N	153 02.1W	4/ 5/76	0308 GMT	5811M	300	11KT	2	330 11 14

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	16.94	34.317	5.65					294.4	0	16.94	34.317	5.65	25.024	294.4	0.000
11	16.93	34.314	5.65					294.4	10	16.93	34.315	5.65	25.024	294.4	0.029
32	16.75	34.277	5.67					294.0	20	16.90	34.306	5.65	25.025	294.3	0.059
51	16.44	34.185	5.72					292.9	30	16.81	34.284	5.67	25.028	294.0	0.088
77	16.31	34.169	5.72					291.2	50	16.46	34.191	5.72	25.039	293.0	0.147
102	15.15	34.113	5.73					270.5	75	16.32	34.171	5.72	25.056	291.3	0.221
128	13.41	34.059	5.54					240.9	100	15.27	34.119	5.73	25.253	272.6	0.292
152	12.46	34.103	5.47					218.3	125	13.61	34.045	5.56	25.550	244.4	0.357
177	11.71	34.119	5.37					203.5	150	12.52	34.098	5.47	25.808	219.9	0.416
203	11.39	34.166	5.35					194.4	200	11.42	34.161	5.33	26.066	195.3	0.522
252	10.63	34.211	5.14					178.1	250	10.66	34.211	5.15	26.241	178.7	0.618
301	9.85	34.163	5.12					168.9	300	9.87	34.165	5.12	26.343	169.0	0.708
400	8.20	34.070	4.65					150.8	400	8.20	34.070	4.65	26.536	150.8	0.875
498	6.46	33.982	3.50					134.1	500	6.43	33.983	3.48	26.716	133.7	1.024
597	5.14	33.993	2.44					117.7	600	5.11	33.995	2.41	26.888	117.3	1.156
694	4.37	34.052	1.61					105.2	700	4.34	34.059	1.55	27.025	104.4	1.274
791	3.99	34.157	0.81					93.5	800	3.96	34.166	0.76	27.149	92.6	1.379
890	3.71	34.243	0.43					84.3	1000	3.44	34.330	0.30	27.331	75.2	1.561
989	3.46	34.323	0.30					76.0	1200	3.05	34.434	0.36	27.451	63.9	1.716
1191	3.07	34.430	0.36					64.4							

RV THOMAS WASHINGTON INDOPAC LEG I 33

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.9N	153 59.9W	4/ 5/76	0910 GMT	5777M	290	11KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
2	15.86	34.133	5.79	0.07	5.3	0.00	0.0	284.1	0	15.86	34.133	5.79	25.133	284.1	0.000
12	15.86	34.134	5.78	0.08	5.3	0.00	0.0	284.0	10	15.86	34.135	5.78	25.134	284.0	0.028
32	15.87	34.134	5.77	0.08	5.2	0.00	0.0	284.2	20	15.86	34.135	5.78	25.133	284.1	0.057
51	15.87	34.136	5.76	0.09	5.1	0.00	0.0	284.1	30	15.87	34.135	5.77	25.132	284.2	0.085
75	15.81	34.123	5.77	0.09	5.1	0.00	0.0	283.7	50	15.87	34.137	5.76	25.133	284.1	0.142
101	14.55	34.073	5.75	0.15	6.3	0.00	0.0	261.1	75	15.81	34.123	5.77	25.137	283.7	0.214
115	13.79	34.175	5.49	0.36	7.4	0.06	3.0	238.4	100	14.61	34.073	5.75	25.361	262.4	0.283
126	12.79	34.130	5.48	0.41	8.0	0.04	4.2	222.4	125	12.88	34.137	5.48	25.768	223.7	0.344
135	12.31	34.120	5.45	0.52	8.8	0.01	5.8	214.3	150	11.93	34.125	5.40	25.943	207.0	0.399
150	11.93	34.125	5.40	0.58	9.8	0.01	7.4	207.0	200	11.34	34.206	5.28	26.116	190.6	0.500
174	11.60	34.155	5.37	0.68	11.7	0.01	9.0	198.9	250	10.68	34.217	5.20	26.242	178.7	0.595
200	11.34	34.206	5.28	0.73	13.3	0.00	10.4	190.6	300	9.94	34.177	5.13	26.339	169.4	0.685
298	9.97	34.177	5.13	1.00	19.9	0.00	14.8	169.8	400	8.46	34.094	4.69	26.514	152.9	0.853
395	8.54	34.099	4.72	1.35	28.9	0.00	19.5	153.6	500	6.78	34.002	3.76	26.684	136.7	1.005
493	6.90	34.004	3.86	1.87	45.9	0.00	26.5	138.0	600	5.22	34.000	2.42	26.879	118.2	1.140
592	5.32	33.996	2.49	2.47	72.2	0.00	35.0	119.5	700	4.33	34.072	1.59	27.035	103.4	1.257
690	4.39	34.061	1.69	2.83	94.0	0.01	40.2	104.7	800	3.93	34.174	0.78	27.159	91.6	1.361
788	3.97	34.162	0.81	3.06	111.2	0.00	43.2	92.9	1000	3.37	34.336	0.33	27.342	74.3	1.541
982	3.41	34.323	0.33	3.21	135.7	0.00	45.4	75.5	1200	3.03	34.447	0.31	27.464	62.8	1.694
1174	3.07	34.433	0.31	3.25	148.6	0.13	45.4	64.2							

31 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.4N	152 01.8W	04/04/76	1950 GMT

Z	T	S	SIGMA T	DT	DD
0	17.25	34.34	24.968	299.7	0.000
10	17.26	34.34	24.966	300.0	0.030
20	17.26	34.34	24.966	300.0	0.060
30	17.27	34.34	24.964	300.2	0.090
40	17.27	34.34	24.964	300.2	0.120
50	17.27	34.34	24.964	300.2	0.150
75	17.27	34.34	24.964	300.2	0.226
100	17.28	34.34	24.961	300.4	0.302
125	15.58	34.16	25.216	276.1	0.375
150	12.82	34.00	25.675	232.6	0.439
175	11.47	33.99	25.925	208.8	0.495
200	10.83	34.03	26.072	194.8	0.547
225	10.19	34.07	26.215	181.3	0.595
250	10.04	34.15	26.303	172.9	0.641
275	9.46	34.10	26.361	167.4	0.684
300	9.19	34.12	26.420	161.8	0.727
350	8.35	34.07	26.513	153.0	0.809
400	7.60	34.03	26.593	145.4	0.886
450	6.61	33.98	26.691	136.1	0.960
500	5.89	33.98	26.783	127.3	1.029
550	5.20	33.99	26.875	118.6	1.094
600	4.78	34.02	26.946	111.8	1.154
650	4.47	34.06	27.012	105.6	1.212
700	4.25	34.12	27.083	98.8	1.266
750	4.10	34.18	27.147	92.8	1.317
800	3.93	34.22	27.196	88.2	1.366
850	3.80	34.26	27.241	83.9	1.412
900	3.64	34.30	27.289	79.4	1.457
950	3.53	34.34	27.331	75.3	1.499
1000	3.50	34.38	27.366	72.1	1.540
1100	3.28	34.43	27.427	66.3	1.617
1169	3.13	34.46	27.465	62.7	1.667

32

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.5N	153 02.1W	04/05/76	0233 GMT

Z	T	S	SIGMA T	DT	DD
0	16.93	34.31	25.021	294.7	0.000
10	16.93	34.31	25.021	294.7	0.029
20	16.87	34.29	25.020	294.8	0.059
30	16.76	34.26	25.023	294.5	0.089
40	16.54	34.20	25.028	294.0	0.118
50	16.42	34.18	25.041	292.8	0.148
75	16.26	34.16	25.062	290.8	0.221
100	15.12	34.11	25.280	270.1	0.292
125	13.33	34.03	25.596	240.1	0.356
150	12.26	34.09	25.849	215.9	0.414
175	11.68	34.11	25.979	203.7	0.468
200	11.42	34.15	26.058	196.1	0.519
225	10.94	34.18	26.168	185.6	0.568
250	10.68	34.20	26.230	179.8	0.615
275	10.29	34.19	26.291	174.0	0.660
300	9.95	34.15	26.318	171.5	0.705
350	9.17	34.13	26.431	160.7	0.791
400	8.34	34.08	26.522	152.1	0.873
450	7.37	34.02	26.618	143.0	0.950
500	6.62	33.99	26.697	135.5	1.023
550	5.77	33.97	26.790	126.6	1.092
600	5.18	33.99	26.877	118.4	1.157
650	4.63	34.02	26.963	110.2	1.217
700	4.35	34.05	27.017	105.1	1.275
750	4.13	34.11	27.088	98.4	1.329
800	3.95	34.16	27.146	92.9	1.380
850	3.79	34.22	27.210	86.8	1.428
900	3.67	34.25	27.246	83.4	1.474
950	3.53	34.29	27.291	79.1	1.519
1000	3.40	34.33	27.336	74.9	1.561
1100	3.20	34.38	27.394	69.3	1.641
1200	3.05	34.43	27.448	64.2	1.715

33 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.9N	153 59.9W	04/05/76	0815 GMT

Z	T	S	SIGMA T	DT	DD
0	15.81	34.13	25.142	283.2	0.000
10	15.82	34.13	25.140	283.4	0.028
20	15.83	34.13	25.137	283.7	0.057
30	15.84	34.13	25.135	283.9	0.085
40	15.83	34.13	25.137	283.7	0.114
50	15.80	34.12	25.136	283.7	0.142
75	15.78	34.12	25.141	283.3	0.214
100	14.78	34.05	25.308	267.4	0.283
125	12.79	34.11	25.766	223.9	0.345
150	11.89	34.12	25.947	206.7	0.400
175	11.54	34.16	26.043	197.5	0.451
200	11.31	34.20	26.117	190.5	0.501
225	10.96	34.21	26.188	183.8	0.549
250	10.65	34.21	26.243	178.5	0.596
275	10.25	34.18	26.290	174.1	0.641
300	9.86	34.17	26.349	168.5	0.685
350	9.11	34.13	26.441	159.8	0.771
400	8.37	34.08	26.518	152.5	0.852
450	7.60	34.04	26.600	144.6	0.930
500	6.75	34.00	26.688	136.4	1.004
550	5.87	33.99	26.794	126.3	1.073
600	5.17	34.00	26.886	117.6	1.138
650	4.65	34.03	26.969	109.7	1.198
700	4.28	34.08	27.048	102.2	1.254
750	4.00	34.14	27.125	94.9	1.306
800	3.89	34.18	27.168	90.8	1.356
850	3.73	34.23	27.224	85.5	1.404
900	3.59	34.27	27.270	81.2	1.449
950	3.48	34.30	27.304	77.9	1.492
1000	3.37	34.33	27.339	74.6	1.534
1100	3.18	34.39	27.404	68.4	1.613
1200	3.04	34.43	27.449	64.2	1.687

RV THOMAS WASHINGTON INDOPAC LEG I 34

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.9N	155 02.2W	4/ 5/76	1547 GMT	5765M	270	23KT	1	270 7 7

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	15.52	34.062	5.83					282.0	0	15.52	34.062	5.83	25.155	282.0	0.000
10	15.51	34.059	5.84					282.0	10	15.51	34.059	5.84	25.155	282.0	0.028
21	15.51	34.061	5.83					281.9	20	15.51	34.062	5.83	25.156	281.9	0.056
31	15.52	34.059	5.83					282.2	30	15.52	34.060	5.83	25.153	282.2	0.085
50	15.51	34.059	5.84					282.0	50	15.51	34.059	5.84	25.155	282.0	0.141
75	15.10	34.011	5.86					276.9	75	15.10	34.011	5.86	25.208	276.9	0.212
100	14.78	34.040	5.83					268.2	100	14.78	34.040	5.83	25.300	268.2	0.280
124	14.13	34.015	5.55					218.7	125	12.11	34.025	5.54	25.831	217.7	0.342
149	11.59	34.105	5.41					202.4	150	11.58	34.108	5.41	25.996	202.0	0.395
199	11.03	34.175	5.24					187.5	200	11.02	34.177	5.24	26.151	187.3	0.495
248	10.49	34.206	5.14					176.1	250	10.46	34.206	5.14	26.273	175.8	0.588
297	9.74	34.163	5.11					167.1	300	9.69	34.161	5.10	26.369	166.6	0.676
396	8.11	34.067	4.57					149.7	400	8.03	34.063	4.52	26.555	149.0	0.841
495	6.27	33.984	3.33					131.6	500	6.20	33.984	3.27	26.746	130.8	0.987
595	5.16	33.994	2.34					117.9	600	5.12	33.998	2.30	26.889	117.2	1.118
693	4.46		1.62						700	4.42	34.069	1.56	27.023	104.5	1.235
791	4.00	34.151	0.85					94.0	800	3.97	34.160	0.80	27.144	93.1	1.341
890	3.70	34.244	0.44					84.2	1000	3.66	34.333	0.26	27.341	74.4	1.523
989	3.39	34.325	0.26					75.2	1200	3.01	34.431	0.28	27.453	63.8	1.676
1187	3.03	34.425	0.28					64.4							

RV THOMAS WASHINGTON INDOPAC LEG I 35

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.7N	156 00.5W	4/ 6/76	0016 GMT	5771M	290	30KT	2	300 12 7

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
2		34.113	5.83	0.05	5.9	0.00	0.0		0	15.54	34.113	5.83	25.189	278.7	0.000
12	15.54	34.121	5.83	0.05	5.9	0.00	0.0	278.1	10	15.54	34.121	5.83	25.195	278.2	0.028
32	15.53	34.116	5.85	0.05	5.7	0.01	0.0	278.3	20	15.54	34.120	5.84	25.195	278.2	0.056
51	15.56	34.134	5.82	0.05	5.7	0.01	0.0	278.0	30	15.53	34.118	5.85	25.194	278.3	0.084
76	15.52	34.128	5.81	0.04	5.5	0.01	0.0	277.2	50	15.58	34.134	5.82	25.196	278.0	0.139
102	13.77	34.005	5.88	0.04	5.9	0.03	0.0	250.4	75	15.52	34.129	5.81	25.205	277.2	0.209
117	12.25	33.989	5.63	0.47	8.1	0.03	4.3	222.8	100	13.96	34.015	5.87	25.455	253.4	0.276
127	12.00	34.042	5.51	0.50	9.2	0.01	5.9	214.4	125	12.02	34.032	5.53	25.853	215.6	0.336
137	11.81	34.066	5.45	0.63	9.4	0.04	7.1	209.2	150	11.51	34.091	5.38	25.994	202.2	0.389
151	11.49	34.092	5.37	0.71	11.3	0.01	8.6	201.6	200	10.95	34.200	5.21	26.182	184.3	0.487
177	11.33	34.161	5.29	0.77	12.0	0.01	9.8	193.8	250	10.24	34.214	5.10	26.316	171.6	0.579
202	10.91	34.202	5.20	0.91	14.1	0.01	11.8	183.5	300	9.61	34.177	5.01	26.396	164.1	0.666
300	9.61	34.177	5.01	1.11	21.9	0.00	16.3	164.1	400	8.18	34.089	4.58	26.553	149.2	0.829
397	8.24	34.092	4.61	1.52	31.0	0.01	20.7	149.7	500	6.19	33.994	3.40	26.755	129.9	0.975
495	6.27	33.994	3.46	2.15	54.0	0.01	29.5	130.8	600	5.01	34.018	2.32	26.918	114.5	1.104
594	5.06	34.014	2.38	2.58	76.7	0.00	36.3	115.3	700	4.34	34.084	1.47	27.045	102.5	1.219
693	4.38	34.076	1.53	2.84	95.0	0.01	40.1	103.5	800	3.83	34.191	0.80	27.182	89.4	1.321
792	3.86	34.183	0.84	3.05	114.6	0.01	43.1	90.3	1000	3.28	34.339	0.34	27.354	73.5	1.498
993	3.30	34.330	0.34	3.21	137.8	0.01	45.3	74.0	1200	2.91	34.434	0.27	27.464	62.7	1.649
1198	2.91	34.433	0.27	3.25	152.5	0.01	45.9	62.8							

RV THOMAS WASHINGTON INDOPAC LEG I 36

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.6N	157 00.2W	4/ 6/76	0711 GMT	6147M	330	22KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
5	15.29	34.022	5.89					280.1	0	15.29	34.022	5.89	25.175	280.1	0.000
14	15.28	34.022	5.87					279.9	10	15.28	34.023	5.88	25.176	280.0	0.028
25	15.30	34.023	5.87					280.2	20	15.29	34.024	5.87	25.175	280.1	0.056
44	15.24	34.019	5.87					279.2	30	15.28	34.023	5.87	25.176	280.0	0.084
69	14.73	33.980	5.92					271.5	50	15.11	34.010	5.88	25.204	277.3	0.140
94	14.43	33.983	5.94					265.2	75	14.71	33.980	5.92	25.269	271.1	0.209
118	12.85	33.994	5.66					233.6	100	14.06	33.981	5.88	25.407	258.0	0.276
142	12.08	34.083	5.47					212.8	125	12.57	34.019	5.60	25.738	226.6	0.337
191	11.45	34.191	5.27					193.6	150	11.94	34.108	5.43	25.928	208.5	0.392
239	10.70	34.219	5.16					178.7	200	11.02	34.203	5.24	26.117	190.5	0.494
288	9.83	34.163	5.10					168.6	250	10.51	34.211	5.15	26.268	176.1	0.588
385	8.32	34.079	4.65					151.8	300	9.64	34.153	5.07	26.371	166.4	0.677
481	6.67	33.996	3.76					135.6	400	8.06	34.064	4.54	26.551	149.4	0.841
578	5.16	33.995	2.37					117.8	500	6.34	33.990	3.49	26.733	132.0	0.989
675	4.40	34.061	1.52					104.8	600	4.94	34.007	2.15	26.917	114.6	1.119
772	3.95	34.157	0.85					93.1	700	4.26	34.087	1.32	27.055	101.6	1.233
871	3.65	34.233	0.62					84.5	800	3.85	34.182	0.76	27.172	90.4	1.336
972	3.40	34.300	0.38					77.2	1000	3.54	34.319	0.37	27.332	75.4	1.516
1179	3.05	34.421	0.31					64.9	1200	3.02	34.433	0.30	27.453	63.8	1.670

34 INDOPAC LEG I 35

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.9N	155 02.2W	04/05/76	1502 GMT

Z	T	S	SIGMA T	DT	DD
0	15.49	34.07	25.167	280.8	0.000
10	15.49	34.07	25.167	280.8	0.028
20	15.49	34.07	25.167	280.8	0.056
30	15.49	34.07	25.167	280.8	0.084
40	15.50	34.07	25.165	281.0	0.113
50	15.50	34.07	25.165	281.0	0.141
75	15.30	34.04	25.187	279.0	0.211
100	14.90	34.03	25.266	271.4	0.281
125	12.51	34.01	25.743	226.1	0.344
150	11.66	34.10	25.975	204.0	0.398
175	11.22	34.15	26.095	192.7	0.449
200	11.02	34.18	26.154	187.0	0.497
225	10.66	34.20	26.234	179.4	0.544
250	10.36	34.19	26.279	175.2	0.590
275	9.97	34.18	26.338	169.6	0.634
300	9.70	34.16	26.368	166.7	0.678
350	8.85	34.11	26.467	157.3	0.762
400	8.10	34.06	26.543	150.1	0.842
450	7.16	34.01	26.639	141.0	0.919
500	6.29	33.98	26.733	132.1	0.990
550	5.70	33.98	26.807	125.1	1.058
600	5.16	33.99	26.879	118.2	1.122
650	4.68	34.03	26.965	110.0	1.182
700	4.42	34.06	27.018	105.1	1.239
750	4.10	34.11	27.091	98.1	1.294
800	3.94	34.16	27.147	92.8	1.345
850	3.78	34.21	27.203	87.5	1.393
900	3.64	34.26	27.257	82.4	1.439
950	3.48	34.30	27.304	77.9	1.483
1000	3.34	34.33	27.341	74.4	1.525
1100	3.17	34.38	27.397	69.1	1.604
1189	3.02	34.42	27.443	64.7	1.670

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.7N	156 00.5W	04/05/76	2332 GMT

Z	T	S	SIGMA T	DT	DD
0	15.48	34.10	25.193	278.4	0.000
10	15.47	34.10	25.195	278.2	0.028
20	15.49	34.11	25.198	277.9	0.056
30	15.50	34.11	25.196	278.1	0.084
40	15.50	34.11	25.196	278.1	0.111
50	15.51	34.12	25.201	277.6	0.139
75	15.52	34.13	25.207	277.0	0.209
100	14.30	34.04	25.403	258.4	0.277
125	12.00	34.04	25.864	214.5	0.337
150	11.50	34.10	26.004	201.2	0.389
175	11.16	34.15	26.105	191.6	0.439
200	10.86	34.18	26.183	184.3	0.487
225	10.48	34.19	26.258	177.2	0.534
250	10.14	34.19	26.317	171.6	0.579
275	9.85	34.17	26.350	168.4	0.623
300	9.47	34.15	26.398	163.9	0.666
350	8.75	34.10	26.474	156.6	0.749
400	7.94	34.07	26.574	147.1	0.828
450	7.00	34.01	26.661	138.9	0.903
500	6.11	33.99	26.764	129.2	0.973
550	5.47	33.98	26.835	122.4	1.039
600	4.98	34.01	26.916	114.7	1.102
650	4.56	34.04	26.987	108.0	1.161
700	4.27	34.09	27.057	101.3	1.216
750	3.99	34.14	27.126	94.8	1.269
800	3.78	34.19	27.187	89.0	1.318
850	3.64	34.23	27.233	84.7	1.365
900	3.50	34.27	27.278	80.3	1.409
950	3.37	34.30	27.315	76.9	1.452
1000	3.27	34.33	27.348	73.7	1.493
1100	3.03	34.38	27.410	67.8	1.571
1200	2.89	34.44	27.471	62.1	1.644

36 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.6N	157 00.2W	04/06/76	0628 GMT

Z	T	S	SIGMA T	DT	DD
0	15.29	34.04	25.189	278.8	0.000
10	15.30	34.04	25.187	279.0	0.028
20	15.30	34.04	25.187	279.0	0.056
30	15.28	34.03	25.183	279.3	0.084
40	15.24	34.02	25.184	279.2	0.112
50	15.07	34.00	25.206	277.1	0.140
75	14.63	33.98	25.286	269.5	0.209
100	14.05	33.99	25.417	257.1	0.275
125	12.45	34.05	25.786	222.0	0.336
150	11.78	34.11	25.960	205.4	0.390
175	11.49	34.16	26.053	196.6	0.441
200	11.30	34.20	26.119	190.4	0.491
225	10.75	34.21	26.226	180.2	0.538
250	10.35	34.19	26.280	175.0	0.584
275	9.96	34.17	26.332	170.1	0.628
300	9.58	34.14	26.372	166.3	0.672
350	8.76	34.10	26.473	156.7	0.756
400	8.14	34.06	26.537	150.7	0.836
450	7.27	34.02	26.632	141.7	0.913
500	6.35	33.99	26.733	132.1	0.984
550	5.50	33.98	26.831	122.7	1.051
600	4.90	34.01	26.925	113.9	1.114
650	4.54	34.04	26.989	107.8	1.172
700	4.24	34.09	27.061	101.0	1.228
750	4.03	34.14	27.122	95.2	1.280
800	3.86	34.18	27.171	90.5	1.330
850	3.70	34.22	27.219	86.0	1.377
900	3.56	34.25	27.257	82.4	1.423
950	3.43	34.28	27.293	78.9	1.467
1000	3.33	34.32	27.334	75.0	1.509
1100	3.11	34.38	27.403	68.5	1.588
1200	2.96	34.41	27.440	65.0	1.662

RV THOMAS WASHINGTON INDOPAC LEG 1 37

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.5N	158 04.1W	4/ 6/76	1359 GMT	5890M	340	15KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.39	34.252	5.91	0.04	6.3	0.00	0.0	265.4	0	15.39	34.252	5.91	25.329	265.4	0.000
9	15.40	34.252	5.80	0.05	6.2	0.00	0.0	265.6	10	15.40	34.253	5.80	25.327	265.6	0.027
29	15.41	34.252	5.84	0.07	6.0	0.00	0.1	265.8	20	15.41	34.253	5.82	25.326	265.7	0.053
50	15.39	34.252	5.83	0.09	5.9	0.00	0.1	265.4	30	15.41	34.253	5.84	25.325	265.8	0.080
75	15.41	34.252	5.84	0.12	6.0	0.00	0.1	265.8	50	15.39	34.252	5.83	25.329	265.4	0.133
101	14.56	34.106	5.83	0.17	6.4	0.04	0.1	258.8	75	15.41	34.252	5.84	25.325	265.8	0.200
115	14.28	34.264	5.46	0.34	7.4	0.25	2.7	241.6	100	14.60	34.114	5.83	25.395	259.1	0.266
125	13.68	34.316	5.31	0.38	6.5	0.07	5.3	225.9	125	13.68	34.316	5.31	25.745	225.9	0.328
136	13.32	34.316	5.26	0.56	9.3	0.04	6.5	218.9	150	12.95	34.345	5.24	25.915	209.7	0.383
150	12.95	34.345	5.24	0.61	9.8	0.01	7.7	209.7	200	11.85	34.266	5.31	26.068	195.2	0.486
175	12.22	34.267	5.32	0.68	11.2	0.01	8.5	201.8	250	11.19	34.261	5.17	26.186	184.0	0.584
200	11.85	34.266	5.31	0.74	12.4	0.01	9.7	195.2	300	10.54	34.241	4.98	26.287	174.4	0.677
299	10.55	34.241	4.98	1.02	18.6	0.01	14.2	174.6	400	8.98	34.142	4.75	26.470	157.1	0.849
397	9.05	34.146	4.76	1.33	28.0	0.00	18.2	157.7	500	6.77	34.005	4.07	26.688	136.3	1.004
494	6.88	34.006	4.16	1.87	47.4	0.00	26.5	137.4	600	5.27	33.993	2.50	26.867	119.3	1.138
593	5.36	33.989	2.59	2.48	71.7	0.00	34.5	120.5	700	4.36	34.063	1.51	27.026	104.3	1.257
690	4.42	34.053	1.59	2.84	94.0	0.00	40.0	105.6	800	3.95	34.159	0.85	27.145	93.0	1.362
787	3.99	34.147	0.91	3.05	110.8	0.03	42.6	94.2	1000	3.42	34.305	0.32	27.313	77.0	1.546
985	3.46	34.296	0.33	3.14	134.8	0.01	44.9	78.0	1200	2.99	34.405	0.24	27.434	65.6	1.704
1188	3.01	34.400	0.24	3.24	151.7	0.01	45.7	66.2							

RV THOMAS WASHINGTON INDOPAC LEG 1 38

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00. N	159 00.4W	4/ 6/76	2006 GMT	5917M	360	7KT		010 7 12

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.59	34.334	5.83					263.6	0	15.59	34.334	5.83	25.348	263.6	0.000
10	15.57	34.331	5.83					263.4	10	15.57	34.331	5.83	25.350	263.4	0.026
21	15.56	34.334	5.83					263.0	20	15.56	34.334	5.83	25.354	263.0	0.053
36	15.59	34.334	5.85					263.6	30	15.58	34.335	5.84	25.351	263.3	0.079
50	15.58	34.333	5.83					263.5	50	15.58	34.333	5.83	25.349	263.5	0.132
80	15.12	34.296	5.83					256.5	75	15.21	34.304	5.83	25.408	257.9	0.198
101	14.86	34.279	5.86					252.3	100	14.87	34.281	5.86	25.464	252.5	0.262
125	13.07	34.317	5.29					214.0	125	13.07	34.317	5.29	25.870	214.0	0.321
135	12.73	34.326	5.26					206.9	150	12.41	34.310	5.30	25.995	202.1	0.374
150	12.41	34.310	5.30					202.1	200	11.68	34.283	5.25	26.113	190.9	0.475
175	11.99	34.311	5.28					194.4	250	11.14	34.262	5.19	26.195	183.1	0.571
200	11.68	34.283	5.25					190.9	300	10.53	34.241	5.10	26.288	174.3	0.663
297	10.58	34.243	5.11					174.9	400	8.77	34.128	4.73	26.493	154.8	0.835
395	8.85	34.133	4.75					155.6	500	7.19	34.030	4.12	26.650	140.0	0.990
494	7.28	34.034	4.16					140.8	600	5.81	33.987	3.17	26.798	125.9	1.130
591	5.93	33.985	3.29					127.4	700	4.72	34.041	1.88	26.969	109.7	1.255
688	4.82	34.050	2.01					111.5	800	4.07	34.136	1.03	27.113	96.0	1.365
786	4.14	34.121	1.12					97.7	1000	3.45	34.304	0.37	27.309	77.5	1.553
982	3.50	34.290	0.38					78.8	1200	3.05	34.411	0.26	27.433	65.7	1.712
1182	3.08	34.403	0.27					66.5							

RV THOMAS WASHINGTON INDOPAC LEG I 39

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.6N	160 00.7W	4/ 7/76	0440 GMT	5824M	330	2KT	0	320 7 8

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	15.63	34.322	5.94	0.09	6.1	0.00	0.0	265.4	0	15.63	34.322	5.94	25.330	265.4	0.000
11	15.53	34.348	5.94	0.11	5.7	0.00	0.0	261.3	10	15.54	34.347	5.94	25.368	261.7	0.026
31	15.38	34.358	5.92	0.10	5.6	0.00	0.0	257.4	20	15.45	34.357	5.93	25.396	259.0	0.052
50	15.37	34.359	5.91	0.09	5.5	0.00	0.0	257.1	30	15.39	34.359	5.92	25.412	257.5	0.078
77	14.71	34.251	5.81	0.19	5.6	0.00	0.1	251.3	50	15.37	34.359	5.91	25.416	257.1	0.130
101	13.80	34.156	5.83	0.21	6.6	0.25	0.8	240.0	75	14.78	34.262	5.82	25.470	252.0	0.194
117	12.97	34.237	5.48	0.44	9.1	0.01	5.8	218.0	100	13.84	34.158	5.83	25.588	240.7	0.256
126	12.74	34.279	5.34	0.59	9.5	0.01	7.4	210.6	125	12.76	34.276	5.35	25.899	211.2	0.314
136	12.56	34.297	5.32	0.60	9.8	0.00	8.1	205.9	150	12.52	34.298	5.30	26.002	201.4	0.366
152	12.29	34.297	5.30	0.61	11.4	0.00	8.8	200.9	200	11.86	34.318	5.28	26.106	191.6	0.466
176	12.05	34.313	5.31	0.72	12.6	0.00	9.4	195.3	250	11.15	34.271	5.27	26.201	182.6	0.563
201	11.85	34.317	5.28	0.71	13.6	0.00	10.2	191.5	300	10.32	34.208	5.25	26.299	173.2	0.655
299	10.33	34.208	5.25	0.98	17.0	0.00	13.8	173.4	400	8.97	34.144	4.76	26.473	156.7	0.827
398	9.01	34.146	4.77	1.33	28.5	0.00	18.4	157.1	500	7.10	34.026	4.04	26.660	139.0	0.982
496	7.17	34.028	4.10	1.78	43.7	0.00	25.0	139.7	600	5.49	33.995	2.58	26.843	121.7	1.120
595	5.55	33.992	2.63	2.36	69.0	0.00	33.3	122.4	700	4.57	34.049	1.78	26.991	107.6	1.241
692	4.63	34.041	1.84	2.76	89.6	0.00	38.9	108.7	800	4.03	34.137	1.06	27.119	95.4	1.350
790	4.07	34.127	1.12	3.00	107.6	0.00	42.2	96.5	1000	3.39	34.303	0.33	27.315	76.8	1.536
985	3.42	34.293	0.34	3.20	135.9	0.00	45.2	77.9	1200	3.01	34.426	0.26	27.449	64.2	1.693
1183	3.04	34.416	0.27		151.7	0.00	45.8	65.2							

37 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.5N	158 04.1W	04/06/76	1308 GMT

Z	T	S	SIGMA T	DT	DD
0	15.38	34.25	25.330	265.3	0.000
10	15.38	34.25	25.330	265.3	0.027
20	15.38	34.25	25.330	265.3	0.053
30	15.39	34.25	25.328	265.5	0.080
40	15.39	34.25	25.328	265.5	0.106
50	15.40	34.25	25.326	265.7	0.133
75	15.21	34.23	25.352	263.4	0.200
100	14.46	34.13	25.438	255.0	0.265
125	13.13	34.31	25.852	215.7	0.325
150	12.51	34.28	25.952	206.2	0.378
175	12.00	34.25	26.027	199.1	0.430
200	11.71	34.26	26.069	193.1	0.480
225	11.55	34.29	26.142	188.1	0.529
250	11.32	34.29	26.185	184.1	0.577
275	10.91	34.27	26.244	178.5	0.624
300	10.51	34.23	26.284	174.7	0.670
350	9.77	34.19	26.379	165.6	0.758
400	9.04	34.14	26.460	158.0	0.843
450	8.05	34.07	26.558	148.7	0.923
500	6.87	34.00	26.671	137.9	0.999
550	5.92	33.98	26.780	127.6	1.069
600	5.25	33.99	26.869	119.2	1.134
650	4.72	34.02	26.953	111.2	1.195
700	4.35	34.06	27.025	104.4	1.252
750	4.11	34.11	27.090	98.2	1.306
800	3.96	34.15	27.137	93.7	1.357
850	3.79	34.19	27.186	89.1	1.406
900	3.68	34.23	27.229	85.0	1.453
950	3.53	34.27	27.275	80.6	1.498
1000	3.41	34.30	27.311	77.3	1.542
1100	3.16	34.36	27.382	70.5	1.623
1200	2.97	34.40	27.432	65.8	1.699

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00. N	159 00.4W	04/06/76	1924 GMT

Z	T	S	SIGMA T	DT	DD
0	15.57	34.33	25.349	263.5	0.000
10	15.57	34.33	25.349	263.5	0.026
20	15.57	34.33	25.349	263.5	0.053
30	15.57	34.33	25.349	263.5	0.079
40	15.57	34.33	25.349	263.5	0.106
50	15.57	34.33	25.349	263.5	0.132
75	15.28	34.30	25.391	259.6	0.198
100	14.85	34.27	25.462	252.8	0.263
125	13.31	34.32	25.824	218.4	0.322
150	12.43	34.30	25.983	203.3	0.376
175	12.04	34.31	26.066	195.4	0.427
200	11.65	34.29	26.124	189.9	0.476
225	11.27	34.26	26.171	185.4	0.524
250	11.03	34.26	26.214	181.3	0.571
275	10.84	34.25	26.241	178.8	0.618
300	10.49	34.24	26.295	173.6	0.664
350	9.76	34.19	26.381	165.5	0.752
400	8.93	34.14	26.480	156.0	0.836
450	8.11	34.08	26.557	148.8	0.916
500	7.41	34.04	26.628	142.0	0.992
550	6.47	33.99	26.717	133.6	1.065
600	5.79	33.99	26.804	125.4	1.134
650	5.14	34.01	26.897	116.5	1.198
700	4.73	34.04	26.968	109.8	1.258
750	4.29	34.09	27.055	101.5	1.314
800	4.09	34.13	27.108	96.5	1.367
850	3.90	34.19	27.175	90.1	1.418
900	3.75	34.23	27.222	85.7	1.465
950	3.59	34.26	27.262	81.9	1.511
1000	3.46	34.29	27.298	78.5	1.555
1100	3.24	34.36	27.375	71.2	1.637
1200	3.05	34.40	27.424	66.5	1.714

39 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.6N	160 00.7W	04/07/76	0345 GMT

Z	T	S	SIGMA T	DT	DD
0	15.67	34.30	25.304	267.8	0.000
10	15.57	34.34	25.357	262.8	0.027
20	15.46	34.36	25.397	259.0	0.053
30	15.40	34.36	25.410	257.7	0.079
40	15.39	34.36	25.412	257.5	0.104
50	15.37	34.36	25.417	257.1	0.130
75	14.94	34.30	25.465	252.4	0.194
100	13.81	34.14	25.582	241.3	0.257
125	12.83	34.26	25.874	213.6	0.314
150	12.37	34.29	25.967	202.9	0.367
175	12.08	34.31	26.058	196.1	0.418
200	11.91	34.32	26.098	192.3	0.468
225	11.23	34.23	26.155	186.9	0.517
250	10.99	34.24	26.206	182.1	0.564
275	10.66	34.22	26.249	177.9	0.611
300	10.30	34.20	26.297	173.4	0.656
350	9.82	34.19	26.371	166.4	0.744
400	9.06	34.15	26.464	157.5	0.829
450	8.00	34.08	26.573	147.2	0.909
500	7.30	34.04	26.643	140.6	0.985
550	6.27	33.99	26.743	131.1	1.057
600	5.51	33.99	26.838	122.1	1.124
650	4.93	34.02	26.929	113.4	1.186
700	4.52	34.05	26.999	106.8	1.245
750	4.19	34.10	27.074	99.7	1.300
800	4.01	34.14	27.124	95.0	1.352
850	3.83	34.18	27.174	90.2	1.401
900	3.67	34.23	27.230	84.9	1.449
950	3.52	34.26	27.269	81.3	1.494
1000	3.35	34.30	27.317	76.7	1.537
1100	3.18	34.36	27.380	70.7	1.618
1200	3.00	34.42	27.445	64.6	1.694

RV THOMAS WASHINGTON INDOPAC LEG I 40

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.2N	161 02.3W	4/ 7/76	1116 GMT	5892M	250	5KT	1	280 4 9

Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
2	15.10	34.182	6.03					264.4	0	15.10	34.182	6.03	25.340	264.4	0.000
11	14.76	34.153	6.06					259.5	10	14.79	34.156	6.06	25.387	259.9	0.026
32	14.69	34.151	6.05					258.2	20	14.73	34.153	6.06	25.397	258.9	0.052
51	14.66	33.877 U	6.04						30	14.70	34.152	6.05	25.404	258.3	0.078
76	14.05	34.148	5.89					245.5	50	14.67	34.150	6.04	25.408	257.9	0.130
101	13.74	34.138	5.81					240.1	75	14.08	34.149	5.90	25.533	246.0	0.193
117	12.35	34.193	5.39					209.6	100	13.75	34.139	5.81	25.593	240.3	0.255
126	12.07	34.201	5.37					204.0	125	12.09	34.202	5.37	25.972	204.3	0.311
136	11.89	34.209	5.35					200.1	150	11.64	34.204	5.34	26.059	195.9	0.362
151	11.62	34.204	5.52U					195.7	200	11.19	34.245	5.28	26.173	185.2	0.459
176	11.43	34.232	5.32					190.3	250	10.60	34.228	5.22	26.266	176.4	0.552
202	11.17	34.245	5.28					184.8	300	9.91	34.182	5.12	26.350	168.4	0.641
300	9.91	34.182	5.12					168.4	400	8.36	34.099	4.62	26.533	151.0	0.808
399	8.38	34.099	4.63					151.2	500	6.41	33.995	3.62	26.728	132.6	0.957
497	6.46	33.995	3.66					133.1	600	5.09	34.009	2.44	26.901	116.1	1.088
597	5.12	34.006	2.47					116.6	700	4.34	34.083	1.50	27.044	102.6	1.204
695	4.37	34.078	1.54					103.2	800	3.89	34.171	0.91	27.160	91.5	1.307
795	3.91	34.166	0.93					92.0	1000	3.35	34.312	0.37	27.325	75.9	1.489
992	3.37	34.306	0.37					76.4	1200	3.05	34.413	0.31	27.435	65.5	1.646
1192	3.06	34.409	0.31					65.9							

RV THOMAS WASHINGTON INDOPAC LEG I 41

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 01.4N	161 59.9W	4/ 7/76	1705 GMT	5889M	230	8KT	1	360 7 12

Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	14.75	34.201	6.02	0.12	6.7	0.00	0.0	255.8	0	14.75	34.201	6.02	25.430	255.8	0.000
10	14.74	34.197	6.03	0.11	6.5	0.00	0.0	255.9	10	14.74	34.197	6.03	25.429	255.9	0.026
31	14.65	34.194	6.04	0.13	6.3	0.01	0.0	254.2	20	14.70	34.197	6.03	25.438	255.1	0.051
50	14.25	34.167	5.95	0.25	6.4	0.01	0.0	248.1	30	14.65	34.195	6.04	25.446	254.3	0.077
75	13.21	34.105	5.91	0.29	7.4	0.23	1.1	232.2	50	14.25	34.167	5.95	25.511	248.1	0.127
100	12.98	34.146	6.06	0.27	7.5	0.13	0.6	224.9	75	13.21	34.105	5.91	25.678	232.2	0.186
125	12.65	34.172	5.81	0.41	8.3	0.22	4.2	216.7	100	12.98	34.146	6.06	25.756	224.9	0.243
150	12.14	34.288	5.34	0.69	11.7	0.03	9.0	198.8	125	12.65	34.172	5.81	25.841	216.7	0.301
174	11.86	34.308	5.33	0.72	12.7	0.03	10.2	192.3	150	12.14	34.288	5.34	26.030	198.8	0.354
200	11.20	34.244	5.42	0.81	13.8	0.03	10.9	185.4	200	11.20	34.244	5.42	26.171	185.4	0.452
249	10.40	34.194	5.24	0.95	17.7	0.03	13.0	175.5	250	10.39	34.195	5.24	26.276	175.4	0.545
298	10.02	34.190	5.14	1.05	19.8	0.01	14.9	169.6	300	10.00	34.190	5.14	26.340	169.3	0.634
397	8.53	34.099	4.76	1.39	29.2	0.03	19.5	153.4	400	8.48	34.097	4.74	26.513	152.9	0.802
494	6.90	34.015	3.94	1.84	44.3	0.03	26.2	137.2	500	6.80	34.013	3.86	26.691	136.1	0.954
593	5.36	34.004	2.57	2.47	69.5	0.03	34.3	119.4	600	5.28	34.009	2.49	26.879	118.2	1.088
690	4.44	34.072	1.63	2.84	90.3	0.01	39.6	104.4	700	4.38	34.082	1.54	27.039	103.1	1.205
788	3.94	34.160	0.91	3.07	107.5	0.00	42.8	92.8	800	3.89	34.172	0.85	27.160	91.5	1.309
983	3.38	34.314	0.33	3.21	131.1	0.01	44.9	75.9	1000	3.34	34.325	0.32	27.337	74.8	1.490
1180	3.02	34.418	0.26	3.25	145.7	0.00	45.4	64.9	1200	2.98	34.426	0.27	27.451	64.0	1.644
1481	2.57	34.522	0.60	3.19	157.3	0.00	44.7	53.3	1500	2.55	34.528	0.62	27.571	52.6	1.843

RV THOMAS WASHINGTON INDOPAC LEG I 42

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.8N	162 59.8W	4/ 7/76	2319 GMT	5820M	250	7KT	1	280 5 9

Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	14.49	34.209	6.10					249.9	0	14.49	34.209	6.10	25.492	249.9	0.000
11	14.37	34.204	6.11					247.8	10	14.38	34.205	6.11	25.512	248.0	0.025
30	14.14	34.196	6.12					243.8	20	14.27	34.202	6.11	25.534	245.9	0.050
49	13.84	34.170	6.06					239.7	30	14.14	34.196	6.12	25.557	243.8	0.074
74	13.27	34.129	6.02					231.6	50	13.82	34.169	6.06	25.603	239.4	0.123
98	13.04	34.101	6.01					229.3	75	13.26	34.128	6.02	25.686	231.5	0.182
113	13.01	34.112	6.00					227.9	100	13.04	34.102	6.01	25.710	229.2	0.240
124	12.96	34.141	5.93					224.8	125	12.94	34.146	5.90	25.764	224.1	0.298
132	12.86	34.155	5.82					221.9	150	12.56	34.219	5.56	25.893	211.8	0.353
147	12.63	34.211	5.59					213.5	200	11.98	34.286	5.36	26.057	196.2	0.457
170	12.17	34.253	5.44					201.9	250	11.41	34.284	5.37	26.163	186.1	0.555
196	12.02	34.283	5.36					197.0	300	10.66	34.243	5.37	26.267	176.3	0.649
292	10.78	34.250	5.39					177.8	400	9.02	34.131	4.90	26.455	158.4	0.824
388	9.22	34.142	4.97					160.6	500	7.58	34.044	4.19	26.634	141.5	0.981
485	7.63	34.057	4.31					143.8	600	5.89	33.992	3.23	26.792	126.5	1.123
582	6.13	33.991	3.45					129.3	700	4.82	34.035	2.04	26.953	111.2	1.249
678	5.02	34.019	2.26					114.5	800	4.13	34.117	1.24	27.092	98.0	1.361
775	4.26	34.093	1.41					101.0	1000	3.47	34.287	0.45	27.295	78.8	1.553
968	3.56	34.263	0.48					81.4							
1160	3.09	34.379	0.30					68.4							

40 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.2N	161 02.3W	04/07/76	1025 GMT

Z	T	S	SIGMA T	DT	DD
0	15.05	34.17	25.341	264.2	0.000
10	14.88	34.16	25.371	261.4	0.026
20	14.67	34.15	25.408	257.9	0.052
30	14.64	34.15	25.415	257.3	0.078
40	14.63	34.15	25.417	257.1	0.104
50	14.61	34.15	25.421	256.6	0.130
75	14.02	34.13	25.531	246.2	0.193
100	13.86	34.13	25.564	243.0	0.255
125	12.36	34.19	25.911	210.0	0.312
150	11.66	34.20	26.052	196.7	0.364
175	11.38	34.22	26.120	190.3	0.413
200	11.14	34.24	26.179	184.6	0.461
225	10.87	34.25	26.235	179.3	0.508
250	10.51	34.23	26.284	174.7	0.553
275	10.17	34.21	26.327	170.6	0.598
300	9.81	34.17	26.357	167.7	0.642
350	9.11	34.14	26.449	159.0	0.727
400	8.33	34.10	26.539	150.4	0.808
450	7.30	34.05	26.635	141.3	0.884
500	6.60	34.00	26.708	134.5	0.956
550	5.76	33.99	26.807	125.0	1.025
600	5.16	34.01	26.895	116.7	1.089
650	4.71	34.04	26.970	109.6	1.149
700	4.36	34.08	27.040	103.0	1.205
750	4.03	34.13	27.114	95.9	1.258
800	3.86	34.17	27.163	91.3	1.308
850	3.68	34.21	27.213	86.5	1.356
900	3.55	34.25	27.258	82.3	1.401
950	3.44	34.28	27.292	79.0	1.445
1000	3.35	34.31	27.325	76.0	1.488
1100	3.17	34.36	27.381	70.6	1.569
1188	3.08	34.41	27.429	66.0	1.636

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 01.4N	161 59.9W	04/07/76	1625 GMT

Z	T	S	SIGMA T	DT	DD
0	14.72	34.21	25.444	254.5	0.000
10	14.70	34.20	25.440	254.8	0.025
20	14.65	34.20	25.451	253.8	0.051
30	14.63	34.20	25.455	253.4	0.076
40	14.48	34.18	25.472	251.8	0.102
50	14.02	34.14	25.539	245.5	0.127
75	13.33	34.10	25.650	234.9	0.187
100	13.00	34.15	25.755	224.9	0.245
125	12.84	34.16	25.794	221.2	0.302
150	12.22	34.24	25.977	203.8	0.356
175	11.74	34.30	26.115	190.7	0.406
200	11.03	34.23	26.191	183.5	0.454
225	10.81	34.24	26.238	179.0	0.500
250	10.38	34.19	26.275	175.5	0.546
275	10.09	34.18	26.317	171.5	0.591
300	9.89	34.19	26.359	167.5	0.635
350	9.22	34.15	26.439	160.0	0.720
400	8.31	34.09	26.535	150.9	0.801
450	7.48	34.05	26.626	142.3	0.878
500	6.81	34.03	26.703	134.9	0.951
550	5.86	33.99	26.795	126.2	1.020
600	5.20	34.00	26.883	117.9	1.084
650	4.77	34.03	26.955	111.0	1.145
700	4.38	34.09	27.046	102.4	1.201
750	4.06	34.13	27.111	96.2	1.254
800	3.87	34.18	27.170	90.6	1.304
850	3.72	34.22	27.217	86.2	1.352
900	3.59	34.26	27.262	81.9	1.397
950	3.47	34.29	27.297	78.6	1.441
1000	3.37	34.32	27.331	75.4	1.483
1100	3.17	34.37	27.389	69.8	1.563
1200	2.99	34.43	27.454	63.7	1.638
1300	2.82	34.47	27.501	59.3	1.707
1400	2.67	34.51	27.546	55.0	1.773
1500	2.54	34.53	27.573	52.4	1.835

42 INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.8N	162 59.8W	04/07/76	2238 GMT

Z	T	S	SIGMA T	DT	DD
0	14.51	34.21	25.489	250.2	0.000
10	14.32	34.20	25.522	247.1	0.025
20	14.18	34.20	25.551	244.3	0.049
30	14.14	34.20	25.560	243.5	0.074
40	14.08	34.19	25.565	243.0	0.098
50	13.92	34.18	25.590	240.6	0.123
75	13.34	34.14	25.679	232.2	0.182
100	13.06	34.11	25.712	229.0	0.240
125	12.76	34.19	25.833	217.5	0.297
150	12.38	34.22	25.931	208.2	0.351
175	12.11	34.28	26.029	198.9	0.403
200	11.91	34.30	26.083	193.8	0.453
225	11.43	34.29	26.165	186.0	0.502
250	11.06	34.27	26.217	181.0	0.549
275	10.79	34.25	26.250	177.9	0.595
300	10.46	34.23	26.292	173.9	0.641
350	9.69	34.16	26.369	166.6	0.730
400	8.93	34.14	26.477	156.3	0.814
450	8.13	34.09	26.562	148.3	0.894
500	7.16	34.03	26.655	139.5	0.970
550	6.44	34.00	26.729	132.5	1.042
600	5.71	33.99	26.814	124.4	1.110
650	5.16	34.01	26.895	116.7	1.173
700	4.79	34.03	26.953	111.2	1.234
750	4.39	34.07	27.029	104.0	1.291
800	4.16	34.11	27.085	98.7	1.346
850	3.97	34.16	27.144	93.1	1.397
900	3.81	34.20	27.192	88.5	1.446
950	3.64	34.24	27.241	83.9	1.493
1000	3.49	34.28	27.287	79.5	1.538
1100	3.19	34.34	27.364	72.3	1.621
1172	3.07	34.38	27.407	68.2	1.677

RV THOMAS WASHINGTON INDOPAC LEG I 43

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00. N	163 59.3W	4/ 6/76	052A 0936 GMT	5718M	020	15KT	1	49

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	15.47	34.336	5.96	0.06	7.5	0.00	0.0	260.9
10	15.48	34.342	5.97	0.09	7.1	0.00	0.0	260.7
20	15.40	34.371	5.97	0.11	6.2	0.00	0.0	256.9
31	15.19	34.337	6.02	0.09	6.9	0.00	0.0	255.0
50	13.76	34.202	6.05	0.13	7.2	0.03	0.1	235.8
76	13.39	34.178	5.96	0.25	7.0	0.07	0.2	230.3
100	12.96	34.208	5.78	0.30	8.6	0.30	3.2	219.9
126	12.68	34.231	5.60	0.40	8.8	0.03	5.4	213.0
151	12.89	34.399	5.21	0.61	10.8	0.00	8.7	204.6
201	11.99	34.354	5.27	0.71	13.4	0.00	10.3	191.2
250	10.93	34.233	5.39	0.85	15.4	0.01	11.4	181.6
300	10.31	34.195	5.53	0.89	17.2	0.00	12.6	174.0
400	9.04	34.150	4.78	1.29	27.5	0.00	18.4	157.2
497	7.28	34.046	4.13	1.76	42.7	0.00	24.6	139.9
595	5.55	34.002	2.88	2.42	68.5	0.00	33.0	121.7
693	4.67	34.046	1.99	2.74	88.6	0.00	38.2	108.7
792	4.11	34.133	1.22	2.99	106.2	0.00	41.8	96.5
986	3.43	34.292	0.45	3.20	135.0	0.00	44.6	78.0
1127A	3.08	34.397	0.26	3.22	149.9	0.00	46.0	67.0
1185	3.04	34.410	0.26	3.25	150.8	0.00	45.6	65.7
1424A	2.70	34.501	0.56	3.20	161.4	0.00	45.5	55.9
1489	2.56	34.526	0.67	3.23	165.0	0.00	44.9	52.9
1915A	2.05	34.597	1.35	3.03	177.4	0.00	43.5	43.5
2505A	1.67	34.649	2.31	2.82	178.6	0.00	40.7	36.8
3097A	1.53	34.670	2.91	2.70	172.0	0.00	39.0	34.2
3687A	1.48	34.680	3.27	2.53	165.2	0.01	38.0	33.1
4278A	1.496	34.683	3.50	2.52	160.4	0.01	37.4	33.0
4869A	1.536	34.687	3.66	2.50	154.4	0.01	36.9	33.0
5461A	1.594	34.688	3.80	2.50	151.2	0.01	36.6	33.3
5560A	1.613	34.690	3.74	2.50	150.7	0.00	36.6	33.3

Z	T	S	O2	SIGT	DT	DD
0	15.47	34.336	5.96	25.376	260.9	0.000
10	15.48	34.342	5.97	25.378	260.7	0.026
20	15.40	34.371	5.97	25.418	256.9	0.052
30	15.22	34.343	6.01	25.436	255.2	0.078
50	13.76	34.202	6.05	25.641	235.8	0.127
75	13.40	34.182	5.97	25.697	230.4	0.186
100	12.96	34.208	5.78	25.808	219.9	0.243
125	12.68	34.230	5.61	25.878	213.2	0.297
150	12.88	34.393	5.22	25.965	204.9	0.351
200	12.02	34.359	5.27	26.107	191.5	0.452
250	10.93	34.233	5.39	26.211	181.6	0.548
300	10.31	34.195	5.53	26.291	174.0	0.640
400	9.04	34.150	4.78	26.468	157.2	0.812
500	7.22	34.044	4.09	26.657	139.3	0.968
600	5.49	34.004	2.83	26.850	120.9	1.106
700	4.62	34.053	1.93	26.989	107.8	1.227
800	4.07	34.141	1.17	27.117	95.6	1.336
1000	3.38	34.306	0.42	27.317	76.6	1.523
1200	3.03	34.415	0.27	27.438	65.2	1.680
1500	2.54	34.529	0.69	27.572	52.5	1.881
1750	2.20	34.581	1.09	27.642	45.9	2.025
2000	1.98	34.604	1.50	27.677	42.2	2.157
2250	1.80	34.624	1.92	27.707	39.0	2.280
2500	1.67	34.649	2.30	27.737	36.8	2.397
2750	1.59	34.657	2.59	27.749	35.4	2.511
3000	1.54	34.666	2.83	27.761	34.5	2.623
3250	1.51	34.673	3.02	27.768	33.8	2.734
3500	1.49	34.677	3.18	27.773	33.3	2.845
3750	1.48	34.681	3.30	27.777	33.1	2.956
4000	1.49	34.682	3.40	27.777	33.1	3.068
4250	1.50	34.684	3.49	27.778	33.0	3.182
4500	1.51	34.685	3.56	27.778	33.0	3.297
4750	1.53	34.687	3.63	27.778	33.0	3.415
5000	1.55	34.688	3.69	27.777	33.1	3.535
5250	1.57	34.688	3.75	27.776	33.2	3.658
5500	1.60	34.689	3.78	27.775	33.3	3.783

RV THOMAS WASHINGTON INDOPAC LEG I 44

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.6N	165 00.3W	4/ 8/76	1730 GMT	5751M	120	2KT	2	5 10

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	14.58	34.265	6.15					247.6
9	14.57	34.263	6.11					247.6
30	13.86	34.239	6.19					235.1
49	13.45	34.251	6.06					226.2
75	12.83	34.212	5.95					217.2
99	12.45	34.222	5.72					209.4
120	12.21	34.246	5.59					203.2
140	11.98	34.277	5.48					196.7
161	11.66	34.283	5.36					190.9
180	11.43	34.278	5.47					186.9
201	11.16	34.272	5.43					182.6
250	10.64	34.240	5.41					176.1
300	9.97	34.194	5.29					168.5
399	8.57	34.113	4.72					153.0
497	6.60	34.003	3.85					134.2
596	5.27	34.000	2.60					118.7
693	4.38	34.076	1.62					103.5
792	3.95	34.156	1.00					93.2
987	3.31	34.312	0.36					75.4
1184	2.94	34.404	0.36					65.3

Z	T	S	O2	SIGT	DT	DD
0	14.58	34.265	6.15	25.516	247.6	0.000
10	14.54	34.262	6.11	25.521	247.1	0.025
20	14.24	34.250	6.15	25.576	241.9	0.049
30	13.86	34.239	6.19	25.648	235.1	0.073
50	13.42	34.251	6.06	25.746	225.8	0.119
75	12.83	34.212	5.95	25.836	217.2	0.175
100	12.44	34.224	5.71	25.922	209.1	0.229
125	12.16	34.256	5.56	26.001	201.6	0.281
150	11.84	34.283	5.41	26.082	193.8	0.331
200	11.17	34.273	5.43	26.198	182.8	0.428
250	10.64	34.240	5.41	26.268	176.1	0.520
300	9.97	34.194	5.29	26.349	168.5	0.609
400	8.55	34.113	4.71	26.515	152.8	0.776
500	6.55	34.003	3.81	26.715	133.7	0.927
600	5.22	34.004	2.55	26.882	118.0	1.060
700	4.34	34.083	1.57	27.043	102.6	1.177
800	3.92	34.164	0.96	27.152	92.3	1.281
1000	3.28	34.321	0.36	27.339	74.6	1.462
1200	2.91	34.411	0.36	27.446	64.5	1.616

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00. N	163 59.3W	04/08/76	1000 GMT

Z	T	S	SIGMA T	DT	DD
0	15.61	34.27	25.294	268.7	0.000
10	15.61	34.27	25.294	268.7	0.027
20	15.59	34.28	25.306	267.6	0.054
30	15.34	34.26	25.347	263.7	0.080
40	14.25	34.14	25.490	250.1	0.106
50	13.64	34.06	25.556	243.9	0.131
75	13.33	34.05	25.611	238.6	0.192
100	12.96	34.06	25.693	230.8	0.251
125	12.52	34.10	25.811	219.6	0.308
150	12.70	34.25	25.891	211.9	0.363
175	12.46	34.26	25.946	206.7	0.416
200	12.00	34.24	26.019	199.8	0.468
225	11.31	34.12	26.055	196.4	0.519
250	11.00	34.13	26.119	190.4	0.569
275	10.51	34.07	26.159	186.5	0.617
300	10.26	34.07	26.203	182.4	0.665
350	9.68	34.07	26.301	173.1	0.757
400	8.94	34.04	26.398	163.9	0.845
450	7.98	34.01	26.521	152.1	0.928
500	7.10	33.96	26.608	143.9	1.006
550	6.24	33.95	26.715	133.7	1.079
600	5.57	33.95	26.799	125.8	1.147
650	5.08	33.97	26.873	118.8	1.212
700	4.57	34.01	26.962	110.4	1.273
750	4.30	34.06	27.030	103.9	1.330
800	4.03	34.11	27.098	97.4	1.383
850	3.80	34.16	27.161	91.4	1.434
900	3.63	34.21	27.218	86.1	1.482
950	3.46	34.25	27.266	81.5	1.528
1000	3.34	34.29	27.310	77.4	1.571
1100	3.13	34.36	27.385	70.2	1.652
1200	2.96	34.41	27.440	65.0	1.727
1300	2.82	34.46	27.493	60.0	1.798
1400	2.66	34.49	27.531	56.4	1.864
1500	2.56	34.52	27.563	53.3	1.927
1600	2.410	34.543	27.594	50.4	1.988
1700	2.240	34.567	27.628	47.2	2.045
1800	2.101	34.581	27.650	45.1	2.100
1900	2.011	34.596	27.669	43.3	2.152
2000	1.924	34.607	27.685	41.8	2.203
2100	1.861	34.616	27.697	40.7	2.253
2200	1.801	34.625	27.709	39.5	2.301
2300	1.744	34.632	27.719	38.6	2.349
2400	1.697	34.640	27.729	37.7	2.396
2500	1.660	34.646	27.736	36.9	2.442
2600	1.626	34.651	27.743	36.3	2.488
2700	1.601	34.656	27.749	35.8	2.533
2800	1.575	34.660	27.754	35.3	2.578
2900	1.556	34.662	27.757	35.0	2.623
3000	1.538	34.665	27.760	34.7	2.667
3100	1.527	34.668	27.764	34.4	2.711
3200	1.515	34.671	27.767	34.0	2.756
3300	1.504	34.673	27.769	33.8	2.800
3400	1.498	34.675	27.771	33.6	2.844
3500	1.491	34.677	27.773	33.4	2.888
3600	1.485	34.679	27.775	33.2	2.933
3700	1.482	34.680	27.777	33.1	2.977
3800	1.481	34.681	27.777	33.0	3.022
3900	1.480	34.682	27.778	33.0	3.066
4000	1.481	34.683	27.779	32.9	3.111
4100	1.483	34.684	27.780	32.8	3.157
4200	1.489	34.685	27.780	32.8	3.202
4300	1.492	34.685	27.780	32.8	3.248
4400	1.498	34.686	27.780	32.8	3.294
4500	1.505	34.686	27.780	32.8	3.340
4600	1.510	34.687	27.780	32.8	3.387
4700	1.518	34.687	27.780	32.9	3.434
4800	1.526	34.688	27.780	32.8	3.481
4900	1.533	34.688	27.779	32.9	3.529
5000	1.544	34.689	27.779	32.9	3.577
5100	1.553	34.689	27.779	32.9	3.625
5200	1.564	34.689	27.778	33.0	3.674
5300	1.576	34.689	27.777	33.1	3.724
5400	1.588	34.689	27.776	33.2	3.774
5500	1.602	34.689	27.775	33.3	3.824
5600	1.616	34.690	27.775	33.3	3.875

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.6N	165 00.3W	04/08/76	1645 GMT

Z	T	S	SIGMA T	DT	DD
0	14.57	34.25	25.507	248.5	0.000
10	14.58	34.25	25.505	248.7	0.025
20	14.51	34.24	25.512	248.0	0.050
30	14.18	34.22	25.567	242.8	0.074
40	13.73	34.23	25.668	233.2	0.098
50	13.52	34.24	25.719	228.3	0.121
75	12.98	34.21	25.805	220.2	0.178
100	12.42	34.21	25.915	209.7	0.232
125	12.08	34.23	25.996	202.0	0.284
150	11.78	34.26	26.076	194.4	0.335
175	11.50	34.27	26.136	188.7	0.384
200	11.19	34.26	26.185	184.0	0.431
225	10.83	34.24	26.235	179.3	0.478
250	10.63	34.23	26.262	176.7	0.524
275	10.17	34.20	26.319	171.3	0.569
300	9.96	34.18	26.339	169.4	0.613
350	9.24	34.14	26.428	161.0	0.699
400	8.46	34.09	26.512	153.1	0.781
450	7.53	34.04	26.611	143.7	0.859
500	6.57	34.00	26.712	134.1	0.932
550	5.86	33.99	26.795	126.2	1.000
600	5.26	34.00	26.876	118.5	1.065
650	4.73	34.03	26.960	110.5	1.125
700	4.35	34.08	27.041	102.9	1.182
750	4.10	34.12	27.099	97.3	1.235
800	3.89	34.17	27.160	91.5	1.286
850	3.69	34.21	27.212	86.6	1.334
900	3.54	34.26	27.267	81.5	1.379
950	3.37	34.30	27.315	76.9	1.422
1000	3.25	34.32	27.342	74.3	1.464
1100	3.07	34.37	27.399	69.0	1.543
1200	2.90	34.41	27.446	64.5	1.617

RV THOMAS WASHINGTON INDOPAC LEG 1 45

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 57. N	166 00. W	4/ 9/76	0031 0433 GMT	5887M	200	6KT	1	350 4 10

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	14.62	34.328	6.14	0.08	6.2	0.00	0.0	243.8	0	14.62	34.328	6.14	25.556	243.8	0.000
13	14.36	34.312	6.17	0.08	6.2	0.00	0.1	239.7	10	14.41	34.315	6.16	25.592	240.4	0.024
36	14.29	34.313	6.18	0.08	6.1	0.00	0.1	238.2	20	14.34	34.313	6.17	25.604	239.3	0.048
50	14.28	34.315	6.18	0.10	5.8	0.00	0.1	237.9	30	14.31	34.314	6.18	25.611	238.6	0.072
60	14.25	34.317	6.12	0.07	6.0	0.00	0.1	237.1	50	14.28	34.315	6.18	25.619	237.9	0.120
76	14.16	34.315	6.08	0.08	5.9	0.01	0.3	235.5	75	14.17	34.316	6.08	25.642	235.6	0.180
100	13.80	34.310	5.81	0.18	6.9	0.48	1.6	228.7	100	13.80	34.310	5.81	25.715	228.7	0.238
125	13.42	34.294	5.74	0.26	7.5	0.19	4.0	222.4	125	13.42	34.294	5.74	25.781	222.4	0.295
150	12.99	34.300	5.73	0.31	8.3	0.30	4.7	213.7	150	12.99	34.300	5.73	25.873	213.7	0.351
175	12.44	34.295	5.43	0.53	10.6	0.00	8.5	203.8	200	12.21	34.334	5.31	26.052	196.7	0.456
200	12.21	34.334	5.31	0.66	12.0	0.00	9.7	196.7	250	11.38	34.304	5.44	26.184	184.1	0.554
249	11.39	34.304	5.44	0.73	15.0	0.00	11.6	184.2	300	10.82	34.267	5.53	26.256	177.3	0.647
299	10.84	34.267	5.53	0.84	16.2	0.00	12.2	177.5	400	9.10	34.139	5.06	26.449	159.0	0.823
398	9.13	34.140	5.07	1.17	26.3	0.00	17.5	159.3	500	7.41	34.049	4.27	26.634	141.4	0.981
496	7.49	34.052	4.32	1.62	39.9	0.00	24.0	142.2	600	5.57	34.005	3.04	26.842	121.7	1.120
595	5.63	34.003	3.10	2.25	67.4	0.00	32.7	122.5	700	4.63	34.055	1.91	26.989	107.6	1.241
692	4.70	34.048	2.00	2.64	87.8	0.00	38.6	108.9	800	4.13	34.125	1.35	27.099	97.3	1.351
752A	4.29	34.100	1.45	2.94	100.0		38.6	100.7	1000	3.40	34.295	0.45	27.308	77.5	1.540
791	4.16	34.117	1.39	2.91	104.6	0.00	41.8	98.2	1200	2.93	34.403	0.29	27.437	65.3	1.698
986	3.44	34.285	0.46	3.09	134.0	0.00	45.2	78.7	1500	2.51	34.509	0.66	27.559	53.7	1.901
1182	2.96	34.396	0.27	3.20	153.4	0.00	46.2	66.0	1750	2.20	34.574	1.05	27.635	46.5	2.047
1229A	2.89	34.414	0.32	3.28	155.4		44.9	64.1	2000	1.97	34.607	1.49	27.681	42.2	2.179
1707A	2.25	34.565	0.97	3.10	175.4		44.4	47.5	2250	1.79	34.625	1.93	27.709	39.4	2.303
2189A	1.83	34.621	1.63	2.93	182.1		41.2	40.1	2500	1.68	34.642	2.31	27.731	37.2	2.421
2671A	1.62	34.654	2.53	2.82	177.6		39.6	36.1	2750	1.60	34.657	2.61	27.749	35.6	2.535
3153A	1.51	34.670	2.96	2.66	172.7		37.8	34.1	3000	1.53	34.665	2.84	27.760	34.5	2.647
3637A	1.49	34.679	3.28	2.56	168.2		37.7	33.3	3250	1.51	34.673	3.03	27.768	33.9	2.757
4118A	1.48	34.687	3.54	2.53	163.8		36.7	32.6	3500	1.50	34.677	3.20	27.773	33.4	2.868
4600A	1.512	34.686	3.58	2.55	161.2		35.8	32.9	3750	1.49	34.682	3.35	27.777	33.1	2.979
5081A	1.555	34.688		2.54	157.0		36.0	33.0	4000	1.48	34.686	3.49	27.781	32.7	3.091
5465A	1.592	34.689	3.72E	2.53	154.4		35.5	33.2	4250	1.49	34.687	3.55	27.781	32.6	3.204
5556A	1.600	34.689	3.79E	2.49	154.0		36.8	33.3	4500	1.51	34.687	3.57	27.780	32.8	3.319
									4750	1.53	34.687	3.60	27.779	32.9	3.436
									5000	1.55	34.688	3.64	27.778	33.0	3.556
									5250	1.57	34.689	3.69	27.777	33.1	3.679
									5500	1.60	34.690	3.75	27.776	33.2	3.803

RV THOMAS WASHINGTON INDOPAC LEG 1 46

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 01.6N	166 58. W	4/ 9/76	1023 GMT	5951M	220	12KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	14.72	34.255	6.07					251.2	0	14.72	34.255	6.07	25.478	251.2	0.000
10	14.66	34.253	6.09					250.1	10	14.66	34.253	6.09	25.490	250.1	0.025
20	14.49	34.251	6.09					246.8	20	14.49	34.251	6.09	25.525	246.8	0.050
31	14.42	34.248	6.10					245.6	30	14.43	34.249	6.10	25.536	245.7	0.075
50	14.11	34.232	6.13					240.5	50	14.11	34.232	6.13	25.591	240.5	0.124
77	13.75	34.268	5.88					230.8	75	13.78	34.267	5.90	25.686	231.4	0.183
101	13.39	34.215	5.90					227.6	100	13.40	34.218	5.90	25.725	227.7	0.241
126	13.09	34.223	5.90					221.3	125	13.10	34.223	5.90	25.790	221.6	0.298
152	12.69	34.267	5.73					210.5	150	12.72	34.265	5.75	25.897	211.4	0.353
201	11.79	34.259	5.41					194.6	200	11.81	34.261	5.42	26.071	194.9	0.457
252	11.24	34.267	5.37					184.4	250	11.26	34.268	5.37	26.178	184.7	0.554
301	10.67	34.237	5.43					176.9	300	10.68	34.239	5.43	26.259	177.0	0.648
400	9.24	34.135	5.04					161.4	400	9.24	34.135	5.04	26.424	161.4	0.824
499	7.60	34.046	4.28					144.2	500	7.58	34.046	4.27	26.607	144.0	0.985
598	6.09	33.987	3.37					129.2	600	6.06	33.988	3.34	26.768	128.7	1.129
696	4.69	34.032	1.91					110.0	700	4.66	34.036	1.87	26.972	109.4	1.256
796	4.13	34.111	1.26					98.3	800	4.11	34.115	1.24	27.093	97.9	1.366
895	3.78	34.192	0.73					88.8	1000	3.42	34.286	0.39	27.298	78.5	1.557
993	3.44	34.260	0.39					79.0	1200	2.98	34.399	0.25	27.430	66.0	1.717
1193	2.99	34.395	0.25					66.4							

F) A BURETTE READING ERROR OF ±0.1 MILLILITER (0.50 MILLILITER PER LITER) HAS BEEN ASSUMED.

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 57. N	166 00. W	04/08/76	2255 GMT

Z	T	S	SIGMA T	DT	DD
0	14.62	34.30	25.535	245.9	0.000
10	14.45	34.30	25.571	242.4	0.024
20	14.35	34.30	25.592	240.4	0.049
30	14.32	34.30	25.599	239.8	0.073
40	14.26	34.31	25.615	238.2	0.097
50	14.22	34.30	25.620	237.8	0.121
75	14.02	34.30	25.662	233.8	0.180
100	13.57	34.28	25.740	226.4	0.238
125	12.91	34.27	25.865	214.4	0.294
150	12.58	34.29	25.946	206.8	0.347
175	12.22	34.32	26.039	197.9	0.399
200	11.67	34.30	26.128	189.5	0.449
225	11.36	34.27	26.162	186.2	0.497
250	11.07	34.26	26.207	182.0	0.544
275	10.71	34.23	26.248	178.1	0.591
300	10.36	34.20	26.286	174.4	0.636
350	9.64	34.14	26.362	167.3	0.725
400	8.90	34.11	26.459	158.1	0.810
450	8.11	34.06	26.541	150.3	0.891
500	7.17	34.01	26.638	141.1	0.968
550	6.27	33.97	26.727	132.6	1.040
600	5.76	33.96	26.800	125.8	1.108
650	5.12	33.99	26.884	117.7	1.173
700	4.74	34.02	26.951	111.4	1.234
750	4.41	34.06	27.019	105.0	1.291
800	4.12	34.10	27.081	99.1	1.346
850	3.87	34.15	27.146	92.9	1.397
900	3.69	34.20	27.204	87.4	1.446
950	3.53	34.24	27.252	82.9	1.492
1000	3.41	34.27	27.287	79.5	1.536
1100	3.12	34.34	27.370	71.6	1.619
1200	2.88	34.39	27.432	65.8	1.696
1300	2.77	34.44	27.481	61.1	1.767
1400	2.60	34.47	27.520	57.4	1.834
1500	2.42	34.49	27.551	54.5	1.898
1600	2.316	34.520	27.584	51.4	1.959
1700	2.223	34.554	27.619	48.1	2.017
1800	2.134	34.569	27.638	46.3	2.073
1900	2.033	34.585	27.659	44.3	2.126
2000	1.937	34.599	27.678	42.5	2.178
2100	1.875	34.609	27.690	41.3	2.229
2200	1.794	34.621	27.706	39.8	2.278
2300	1.744	34.629	27.716	38.8	2.326
2400	1.695	34.637	27.726	37.9	2.373
2500	1.652	34.643	27.734	37.1	2.419
2600	1.620	34.647	27.740	36.6	2.465
2700	1.599	34.651	27.745	36.1	2.510
2800	1.580	34.655	27.749	35.7	2.555
2900	1.561	34.659	27.754	35.3	2.600
3000	1.536	34.663	27.759	34.8	2.645
3100	1.523	34.666	27.762	34.5	2.690
3200	1.507	34.668	27.765	34.2	2.734
3300	1.496	34.671	27.768	33.9	2.778
3400	1.488	34.674	27.771	33.6	2.822
3500	1.482	34.676	27.773	33.4	2.867
3600	1.480	34.678	27.775	33.3	2.911
3700	1.479	34.680	27.777	33.1	2.955
3800	1.475	34.681	27.778	33.0	3.000
3900	1.475	34.681	27.778	33.0	3.045
4000	1.479	34.683	27.779	32.9	3.089
4100	1.480	34.686	27.781	32.7	3.134
4200	1.486	34.686	27.781	32.7	3.180
4300	1.493	34.687	27.781	32.7	3.225
4400	1.498	34.686	27.780	32.8	3.271
4500	1.505	34.686	27.780	32.8	3.318
4600	1.510	34.687	27.780	32.6	3.364
4700	1.517	34.687	27.780	32.8	3.411
4800	1.525	34.687	27.779	32.9	3.459
4900	1.532	34.688	27.779	32.9	3.506
5000	1.543	34.690	27.780	32.8	3.554
5100	1.553	34.692	27.781	32.7	3.603
5200	1.562	34.688	27.777	33.1	3.652
5300	1.574	34.690	27.778	33.0	3.701
5400	1.584	34.689	27.776	33.2	3.751
5500	1.595	34.690	27.776	33.2	3.801
5600	1.606	34.689	27.775	33.3	3.852
5646	1.613	34.688	27.773	33.4	3.875

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 01.6N	166 58. W	04/09/76	0936 GMT

Z	T	S	SIGMA T	DT	DD
0	14.64	34.24	25.484	250.7	0.000
10	14.58	34.24	25.497	249.4	0.025
20	14.41	34.24	25.533	246.0	0.050
30	14.36	34.24	25.544	245.0	0.074
40	14.23	34.23	25.564	243.1	0.099
50	14.05	34.22	25.594	240.2	0.123
75	13.74	34.26	25.689	231.2	0.183
100	13.42	34.22	25.724	227.8	0.241
125	13.07	34.21	25.787	221.9	0.298
150	12.64	34.21	25.872	213.8	0.353
175	12.26	34.26	25.985	203.1	0.406
200	11.82	34.26	26.069	195.1	0.457
225	11.41	34.27	26.153	187.1	0.506
250	11.16	34.26	26.191	183.5	0.554
275	10.97	34.26	26.225	180.2	0.601
300	10.66	34.24	26.265	176.5	0.647
350	10.02	34.18	26.329	170.4	0.737
400	9.24	34.13	26.420	161.8	0.824
450	8.44	34.09	26.515	152.8	0.906
500	7.56	34.04	26.606	144.1	0.985
550	6.72	34.01	26.699	135.2	1.059
600	6.04	33.99	26.772	128.3	1.128
650	5.32	34.00	26.869	119.2	1.194
700	4.72	34.03	26.961	110.4	1.255
750	4.39	34.07	27.029	104.0	1.312
800	4.12	34.12	27.097	97.5	1.366
850	3.92	34.16	27.149	92.6	1.417
900	3.75	34.20	27.198	87.9	1.466
950	3.56	34.25	27.257	82.4	1.512
1000	3.40	34.29	27.304	77.9	1.556
1100	3.17	34.35	27.373	71.3	1.638
1200	2.97	34.40	27.432	65.8	1.715

RV THOMAS WASHINGTON INDOPAC LEG I 47

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 02.2N	168 00.5W	4/ 9/76	1725 2057 GMT	5923M	200	14KT	1	4

Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	15.28	34.391	6.00	0.09	6.8	0.00	0.0	252.9	0	15.28	34.391	6.00	25.460	252.9	0.000
11	15.23	34.388	6.01	0.10	6.7	0.00	0.0	252.1	10	15.24	34.389	6.01	25.468	252.2	0.025
16	15.20	34.390	5.94	0.10	6.9	0.00	0.0	251.3	20	15.19	34.389	5.97	25.479	251.1	0.050
27	15.16	34.384	6.01	0.10	6.8	0.00	0.0	250.9	30	15.05	34.380	6.04	25.502	249.0	0.076
42	14.51	34.356	6.12	0.11	6.9	0.00	0.0	239.5	50	14.22	34.339	6.06	25.649	235.0	0.124
61	13.93	34.317	5.94	0.19	7.1	0.14	0.5	230.7	75	13.86	34.313	5.88	25.705	229.7	0.183
77	13.85	34.312		0.21	7.2	0.25	0.8	229.5	100	13.74	34.316	5.79	25.733	227.0	0.240
102	13.72	34.316	5.79	0.23	7.2	0.62	1.5	226.7	125	13.42	34.331	5.66	25.829	217.8	0.297
127	13.28	34.332	5.64	0.41	7.9	0.12	4.4	216.9	150	12.90	34.369	5.37	25.944	207.0	0.351
153	12.85	34.373	5.34	0.56	10.4	0.03	7.8	205.7	200	12.06	34.367	5.27	26.105	191.7	0.453
202	12.03	34.364	5.27	0.77	13.1	0.00	10.5	191.2	250	11.34	34.313	5.35	26.199	182.7	0.549
252	11.31	34.310	5.35	0.85	15.4	0.01	11.5	182.4	300	10.63	34.262	5.34	26.287	174.4	0.641
302	10.60	34.259	5.34	0.92	17.7	0.00	13.1	174.1	400	9.20	34.150	5.07	26.441	159.7	0.816
402	9.17	34.147	5.06	1.25	25.1	0.00	17.1	159.4	500	7.48	34.064	4.18	26.636	141.3	0.974
502	7.44	34.061	4.16		41.2	0.00	24.4	140.9	600	5.82	34.005	3.09	26.812	124.6	1.115
601	5.80	34.004	3.06	2.28	63.6	0.00	31.9	124.4	700	4.70	34.058	1.91	26.985	108.1	1.238
700	4.70	34.058	1.91	2.75	88.0	0.00	38.8	108.1	800	4.14	34.152	1.21	27.119	95.4	1.347
774A	4.36	34.123	1.32	2.89	99.3		39.2	99.7	1000	3.45	34.293	0.52	27.301	78.3	1.536
799	4.15	34.151	1.21	2.99	106.3	0.00	41.8	95.5	1200	2.95	34.409	0.26	27.440	65.1	1.694
997	3.46	34.290	0.53	3.17	132.8	0.00	44.7	78.5	1500	2.49	34.542	0.55	27.586	51.1	1.893
1197	2.96	34.406	0.26	3.31	152.5	0.00	45.8	65.3	1750	2.20	34.574	1.02	27.635	46.6	2.036
1275A	2.82	34.462	0.27	3.21	157.8	0.00	45.0	59.9	2000	1.97	34.605	1.46	27.679	42.4	2.169
1776A	2.18	34.572	1.08	3.07	176.3	0.04	44.2	46.4	2250	1.79	34.630	1.88	27.713	39.2	2.292
2279A	1.77	34.631	1.93	2.92	181.0	0.04	40.9	38.9	2500	1.67	34.643	2.27	27.732	37.0	2.410
2780A	1.59	34.661	2.64	2.74	175.4	0.04	39.2	35.3	2750	1.60	34.660	2.60	27.751	35.5	2.523
3279A	1.50	34.676	3.01	2.61	171.0	0.03	38.2	33.6	3000	1.54	34.668	2.83	27.762	34.4	2.635
3777A	1.48	34.680	3.28	2.59	166.8	0.00	37.2	33.1	3250	1.50	34.676	2.99	27.771	33.6	2.745
4272A	1.49	34.686	3.48	2.54	162.6	0.00	37.2	32.7	3500	1.49	34.678	3.14	27.774	33.3	2.855
4767A	1.550	34.688	3.56	2.54	160.9	0.00	36.8	32.9	3750	1.48	34.680	3.27	27.776	33.1	2.966
5257A	1.576	34.689	3.66	2.53	157.2	0.01	36.5	33.1	4000	1.48	34.683	3.38	27.779	32.9	3.078
5647A	1.614	34.690	3.890	2.52	154.0	0.00	36.0	33.3	4250	1.49	34.686	3.47	27.781	32.7	3.191
5744A	1.624	34.690	3.75		153.0	0.00	36.2	33.4	4500	1.51	34.688	3.52	27.780	32.8	3.306
									4750	1.53	34.689	3.56	27.779	32.8	3.424
									5000	1.55	34.689	3.61	27.778	33.0	3.544
									5250	1.58	34.690	3.66	27.777	33.1	3.666
									5500	1.60	34.690	3.70	27.776	33.2	3.791

RV THOMAS WASHINGTON INDOPAC LEG I 48

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.7N	168 59.6W	4/10/76	0251 GMT	6028M	220	12KT	1	240 5 6

Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.66	34.462	6.00					255.8	0	15.66	34.462	6.00	25.430	255.8	0.000
10	15.47	34.461	5.99					251.8	10	15.47	34.461	5.99	25.472	251.8	0.025
20	15.11	34.447	6.07					245.2	20	15.11	34.447	6.07	25.541	245.2	0.050
31	15.02	34.442	6.05					243.7	30	15.03	34.443	6.05	25.556	243.8	0.075
50	14.36	34.391	5.95					233.9	50	14.36	34.391	5.95	25.660	233.9	0.123
76	13.92	34.360	5.86					227.4	75	13.93	34.361	5.86	25.727	227.5	0.181
101	13.76	34.354	5.80					224.7	100	13.77	34.355	5.80	25.756	224.8	0.238
125	13.41	34.349	5.75					218.2	125	13.41	34.349	5.75	25.826	218.2	0.294
151	13.06	34.346	5.70					211.7	150	13.07	34.347	5.70	25.891	211.9	0.349
201	12.32	34.374	5.31					195.8	200	12.33	34.374	5.32	26.058	196.1	0.453
251	11.67	34.363	5.35					187.1	250	11.68	34.335	5.35	26.152	187.2	0.552
300	11.17	34.301	5.36					180.6	300	11.17	34.301	5.36	26.221	180.6	0.647
401	9.74	34.189	5.16					165.2	400	9.76	34.191	5.16	26.382	165.4	0.827
500	8.19	34.096	4.52					148.7	500	8.19	34.096	4.52	26.557	148.7	0.993
600	6.36	34.008	3.61					130.9	600	6.36	34.008	3.61	26.745	130.9	1.141
700	5.07	34.023	2.45					114.7	700	5.07	34.023	2.45	26.916	114.7	1.272
800	4.30	34.106	1.50					100.4	800	4.30	34.106	1.50	27.067	100.4	1.387
897	3.81	34.205	0.82					88.1	1000	3.41	34.299	0.44	27.310	77.5	1.580
995	3.42	34.293	0.45					77.9	1200	2.95	34.405	0.25	27.437	65.3	1.738
1192	2.97	34.401	0.25					65.7							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 02.2N	168 00.5W	04/09/76	1555 GMT

Z	T	S	SIGMA T	DT	DD
0	15.17	34.36	25.461	252.9	0.000
10	15.16	34.36	25.463	252.7	0.025
20	15.15	34.36	25.465	252.4	0.051
30	15.10	34.36	25.476	251.4	0.076
40	14.80	34.34	25.526	246.6	0.101
50	14.19	34.30	25.626	237.2	0.125
75	13.76	34.29	25.708	229.3	0.184
100	13.42	34.30	25.786	222.0	0.241
125	12.84	34.35	25.941	207.2	0.295
150	12.51	34.36	26.014	200.3	0.347
175	12.04	34.34	26.089	193.2	0.397
200	11.64	34.31	26.141	188.2	0.446
225	11.34	34.29	26.181	184.4	0.494
250	11.03	34.26	26.214	181.3	0.541
275	10.76	34.25	26.255	177.4	0.587
300	10.49	34.22	26.279	175.1	0.633
350	9.74	34.18	26.377	165.9	0.722
400	9.01	34.13	26.457	158.3	0.806
450	8.19	34.08	26.545	149.9	0.887
500	7.18	34.02	26.644	140.5	0.964
550	6.49	33.99	26.714	133.8	1.036
600	5.93	33.98	26.778	127.8	1.105
650	5.18	34.00	26.885	117.7	1.171
700	4.76	34.04	26.964	110.1	1.231
750	4.45	34.08	27.030	103.9	1.288
800	4.23	34.12	27.085	98.6	1.342
850	4.01	34.16	27.140	93.5	1.394
900	3.78	34.20	27.195	88.2	1.443
950	3.57	34.25	27.256	82.5	1.490
1000	3.43	34.28	27.293	78.9	1.534
1100	3.17	34.34	27.365	72.1	1.617
1200	3.94	34.39	27.330	75.5	1.700
1300	2.78	34.43	27.472	61.9	1.778
1400	2.64	34.47	27.517	57.8	1.845
1500	2.51	34.50	27.552	54.4	1.910
1600	2.365	34.531	27.589	50.9	1.971
1700	2.237	34.557	27.620	48.0	2.029
1800	2.137	34.572	27.640	46.1	2.084
1900	2.031	34.587	27.661	44.1	2.137
2000	1.947	34.600	27.678	42.5	2.189
2100	1.876	34.611	27.692	41.2	2.240
2200	1.826	34.620	27.703	40.1	2.289
2300	1.762	34.630	27.716	38.9	2.337
2400	1.711	34.638	27.726	37.9	2.384
2500	1.668	34.645	27.735	37.1	2.431
2600	1.637	34.649	27.740	36.6	2.477
2700	1.612	34.655	27.747	35.9	2.522
2800	1.592	34.658	27.751	35.6	2.567
2900	1.566	34.663	27.757	35.0	2.612
3000	1.552	34.665	27.759	34.7	2.657
3100	1.539	34.668	27.763	34.4	2.701
3200	1.525	34.671	27.766	34.1	2.746
3300	1.514	34.672	27.768	34.0	2.790
3400	1.503	34.677	27.773	33.5	2.834
3500	1.494	34.679	27.775	33.3	2.879
3600	1.490	34.680	27.776	33.2	2.923
3700	1.485	34.681	27.777	33.1	2.967
3800	1.482	34.682	27.778	33.0	3.012
3900	1.486	34.684	27.779	32.9	3.056
4000	1.484	34.686	27.781	32.7	3.101
4100	1.488	34.689	27.783	32.5	3.146
4200	1.491	34.689	27.783	32.5	3.191
4300	1.495	34.691	27.784	32.4	3.237
4400	1.502	34.693	27.785	32.3	3.282
4500	1.507	34.692	27.784	32.4	3.328
4600	1.516	34.696	27.787	32.2	3.375
4700	1.525	34.697	27.787	32.1	3.421
4800	1.532	34.695	27.785	32.3	3.468
4900	1.538	34.691	27.781	32.7	3.515
5000	1.547	34.683	27.774	33.4	3.564
5100	1.557	34.681	27.772	33.6	3.613
5200	1.567	34.685	27.774	33.3	3.662
5300	1.576	34.688	27.776	33.2	3.712
5400	1.587	34.692	27.779	32.9	3.761
5500	1.599	34.692	27.778	33.0	3.812
5600	1.609	34.681	27.768	33.9	3.863
5700	1.619	34.680	27.767	34.1	3.914
5800	1.632				

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.7N	168 59.6W	04/10/76	0216 GMT

Z	T	S	SIGMA T	DT	DD
0	15.58	34.46	25.447	254.2	0.000
10	15.48	34.46	25.469	252.1	0.025
20	15.28	34.45	25.506	248.6	0.050
30	15.10	34.44	25.538	245.5	0.075
40	14.87	34.42	25.573	242.2	0.100
50	14.53	34.39	25.623	237.4	0.124
75	13.96	34.33	25.698	230.4	0.183
100	13.84	34.35	25.738	226.5	0.240
125	13.48	34.34	25.804	220.2	0.297
150	13.10	34.33	25.874	213.6	0.352
175	12.80	34.36	25.957	205.7	0.406
200	12.42	34.38	26.047	197.2	0.457
225	12.01	34.34	26.095	192.6	0.507
250	11.67	34.32	26.143	188.0	0.556
275	11.46	34.32	26.182	184.3	0.604
300	11.16	34.30	26.222	180.6	0.652
350	10.40	34.23	26.303	172.9	0.744
400	9.76	34.19	26.381	165.5	0.832
450	8.85	34.12	26.474	156.6	0.917
500	8.16	34.10	26.565	148.0	0.997
550	7.17	34.03	26.654	139.6	1.073
600	6.35	34.01	26.748	130.6	1.145
650	5.42	34.00	26.857	120.3	1.212
700	5.02	34.03	26.927	113.7	1.274
750	4.60	34.06	26.998	106.9	1.333
800	4.27	34.12	27.081	99.0	1.388
850	4.00	34.16	27.141	93.4	1.440
900	3.79	34.21	27.202	87.6	1.489
950	3.60	34.26	27.261	82.0	1.535
1000	3.40	34.30	27.312	77.2	1.579
1100	3.16	34.36	27.382	70.5	1.660
1200	2.94	34.41	27.442	64.8	1.735

RV THOMAS WASHINGTON INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.6N	170 00. W	4/10/76	1019 1334 GMT	5907M	210	17KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	16.10	34.536	5.84	0.14	5.8	0.00	0.0	259.9
10	16.09	34.532	5.85U	0.16	5.7	0.00	0.0	259.9
20	16.07	34.533	5.85	0.11	5.7	0.00	0.0	259.4
30	16.03	34.532	5.85	0.11	5.6	0.00	0.1	258.6
51	15.32	34.504	5.75	0.17	5.5	0.14	0.8	245.5
60	15.13	34.498	5.62	0.23	5.5	0.29	1.8	241.9
76	14.39	34.460	5.61	0.29	6.7	0.20	3.2	229.5
90	13.86	34.421	5.68	0.28	7.5	0.42	3.6	221.7
100	13.70	34.405	5.77	0.26	7.5	0.33	3.2	219.7
126	13.60	34.468	5.19	0.49	9.3	0.00	7.8	213.2
152	13.00	34.373	5.73	0.39	8.2	0.23	5.2	208.6
201	12.32	34.377	5.27	0.64	11.8	0.00	10.0	195.6
251	11.69	34.339	5.29	0.74	13.7	0.00	11.2	187.0
300	10.93	34.278	5.35	0.84	15.8	0.00	12.3	178.2
401	9.11	34.145	5.05	1.18	26.5	0.00	17.1	158.7
499	7.45	34.049	4.29	1.63	41.2	0.00	24.1	141.9
599	5.83	33.999	3.12	2.34	63.2	0.00	31.7	125.2
798	4.12	34.149	1.10	3.05	107.0	0.00	41.7	95.4
844A	3.84	34.181	0.91	3.09	116.8	0.00	43.2	90.2
998	3.37	34.308	0.54	3.24	135.8	0.00	44.5	76.3
1196	2.92	34.400	0.40	3.23	152.6	0.00	45.5	65.4
1344A	2.74	34.474	0.47	3.23	159.2	0.00	45.9	58.3
1843A	2.09	34.590	1.15	3.12	178.5	0.00	44.1	44.3
2342A	1.76	34.634	2.08	2.94	179.4	0.00	41.8	38.6
2842A	1.59	34.657	2.69	2.79	174.1	0.00	39.8	35.6
3341A	1.51	34.672	3.03	2.65	169.7	0.00	38.5	33.9
3838A	1.50	34.681	3.36	2.63	166.6	0.00	37.8	33.2
4333A	1.50	34.685	3.51	2.60	162.3	0.00	37.2	32.9
4826A	1.539	34.687	3.58	2.56	161.3	0.00	37.2	33.0
5318A	1.585	34.691	3.68	2.54	156.3	0.00	36.7	33.0
5707A	1.628	34.692	3.89U	2.52	155.3	0.00	36.6	33.2
5805A	1.637	34.693	3.76	2.52	154.6	0.00	36.6	33.2

Z	T	S	O2	SIGT	DT	DD
0	16.10	34.536	5.84	25.387	259.9	0.000
10	16.09	34.532	5.85	25.386	259.9	0.026
20	16.07	34.533	5.85	25.392	259.4	0.052
30	16.03	34.532	5.85	25.400	258.6	0.078
50	15.96	34.506	5.75	25.531	246.2	0.129
75	14.44	34.463	5.61	25.698	230.3	0.189
100	13.70	34.405	5.77	25.809	219.7	0.246
125	13.60	34.467	5.21	25.876	213.4	0.301
150	13.05	34.383	5.68	25.923	208.9	0.354
200	12.33	34.377	5.29	26.061	195.8	0.458
250	11.70	34.341	5.29	26.153	187.1	0.556
300	10.93	34.278	5.35	26.246	178.2	0.651
400	9.13	34.147	5.06	26.450	158.9	0.826
500	7.43	34.049	4.28	26.631	141.7	0.985
600	5.82	34.000	3.11	26.807	125.0	1.126
700	4.79	34.060	2.02	26.976	109.0	1.250
800	4.11	34.151	1.17	27.122	95.1	1.359
1000	3.36	34.310	0.54	27.323	76.2	1.545
1200	2.91	34.403	0.40	27.438	65.2	1.702
1500	2.52	34.526	0.63	27.571	52.7	1.902
1750	2.20	34.580	0.99	27.640	46.0	2.047
2000	1.96	34.610	1.44	27.684	41.9	2.178
2250	1.80	34.630	1.91	27.712	39.2	2.301
2500	1.69	34.641	2.30	27.729	37.4	2.419
2750	1.61	34.653	2.60	27.744	36.0	2.534
3000	1.56	34.662	2.81	27.756	35.0	2.647
3250	1.52	34.669	2.98	27.765	34.2	2.759
3500	1.51	34.676	3.15	27.771	33.6	2.870
3750	1.50	34.680	3.31	27.775	33.3	2.982
4000	1.50	34.683	3.42	27.777	33.0	3.095
4250	1.50	34.685	3.49	27.779	32.9	3.209
4500	1.51	34.686	3.53	27.779	32.9	3.325
4750	1.53	34.687	3.57	27.778	33.0	3.442
5000	1.56	34.689	3.62	27.778	33.0	3.562
5250	1.58	34.691	3.67	27.778	33.0	3.685
5500	1.61	34.692	3.71	27.777	33.1	3.810
5750	1.63	34.693	3.75	27.776	33.2	3.938

RV THOMAS WASHINGTON INDOPAC LEG I 50

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.4N	171 00.9W	4/10/76	1940 GMT	5992M	200	19KT	2	280 10 15

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	15.02	34.363	6.10					249.5
10	14.99	34.361	6.11					249.0
19	14.94	34.361	6.11					248.0
30	14.55	34.361	6.21					240.0
39	13.69	34.339	6.21					224.4
48	13.44	34.334	6.09					219.9
72	12.93	34.292	5.90					213.2
96	12.56	34.302	5.70					205.5
120	12.20	34.302	5.56					198.9
144	11.93	34.327	5.37					192.2
191	11.27	34.305	5.34					182.1
238	10.67	34.258	5.38					175.3
286	10.04	34.206	5.34					168.8
381	8.84	34.119	4.99					156.5
476	7.34	34.036	4.20					141.4
572	6.10	33.993	3.32					128.8
667	4.98	34.020	2.21					114.0
763	4.30	34.094	1.40					101.3
957	3.53	34.262	0.51					81.2
1156	3.02	34.381	0.25					67.7

Z	T	S	O2	SIGT	DT	DD
0	15.02	34.363	6.10	25.496	249.5	0.000
10	14.99	34.361	6.11	25.501	249.0	0.025
20	14.93	34.363	6.12	25.516	247.7	0.050
30	14.55	34.361	6.21	25.596	240.0	0.074
50	13.69	34.331	6.07	25.815	219.2	0.120
75	12.88	34.293	5.87	25.888	212.2	0.175
100	12.50	34.302	5.68	25.971	204.4	0.227
125	12.14	34.308	5.52	26.044	197.4	0.278
150	11.85	34.328	5.37	26.116	190.7	0.328
200	11.15	34.298	5.35	26.221	180.7	0.423
250	10.51	34.246	5.37	26.295	173.6	0.514
300	9.87	34.194	5.31	26.364	167.0	0.602
400	8.54	34.101	4.85	26.507	153.5	0.769
500	7.01	34.021	4.00	26.668	138.2	0.922
600	5.74	33.996	2.99	26.813	124.4	1.061
700	4.71	34.044	1.90	26.972	109.4	1.185
800	4.11	34.128	1.17	27.104	96.9	1.295
1000	3.40	34.294	0.45	27.306	77.7	1.484

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.8N	170 00. W	04/10/76	0810 GMT

Z	T	S	SIGMA T	DT	DD
0	16.01	34.50	25.380	260.5	0.000
10	16.01	34.50	25.380	260.5	0.026
20	15.93	34.50	25.398	258.8	0.052
30	15.74	34.50	25.441	254.7	0.078
40	15.50	34.49	25.488	250.3	0.103
50	15.21	34.48	25.544	244.9	0.128
75	14.54	34.46	25.675	232.5	0.188
100	13.76	34.35	25.755	224.9	0.246
125	13.73	34.42	25.815	219.2	0.302
150	13.28	34.39	25.884	212.7	0.357
175	12.88	34.34	25.925	208.7	0.411
200	12.63	34.36	25.990	202.5	0.464
225	12.27	34.36	26.060	195.9	0.515
250	11.74	34.32	26.130	189.3	0.564
275	11.35	34.29	26.179	184.6	0.613
300	10.93	34.26	26.232	179.6	0.660
350	10.19	34.20	26.316	171.6	0.751
400	9.31	34.13	26.408	162.9	0.839
450	8.53	34.09	26.501	154.1	0.922
500	7.44	34.04	26.623	142.5	1.000
550	6.48	34.00	26.723	133.0	1.073
600	5.63	33.98	26.815	124.2	1.141
650	5.10	34.00	26.894	116.8	1.205
700	4.72	34.04	26.969	109.7	1.265
750	4.38	34.09	27.046	102.4	1.321
800	4.16	34.13	27.101	97.2	1.375
850	3.92	34.17	27.157	91.8	1.426
900	3.74	34.21	27.207	87.1	1.474
950	3.59	34.24	27.246	83.4	1.520
1000	3.48	34.27	27.280	80.2	1.565
1100	3.19	34.33	27.356	73.0	1.649
1200	2.95	34.38	27.417	67.2	1.727
1300	2.78	34.43	27.472	61.9	1.799
1400	2.64	34.47	27.517	57.6	1.867
1500	2.53	34.50	27.550	54.6	1.932
1600	2.380	34.527	27.584	51.4	1.993
1700	2.248	34.545	27.610	49.0	2.052
1800	2.141	34.565	27.634	46.6	2.108
1900	2.031	34.579	27.654	44.7	2.162
2000	1.963	34.591	27.669	43.3	2.214
2100	1.898	34.602	27.683	42.0	2.266
2200	1.838	34.612	27.696	40.8	2.316
2300	1.774	34.623	27.709	39.5	2.365
2400	1.726	34.631	27.719	38.6	2.413
2500	1.695	34.637	27.726	37.9	2.460
2600	1.651	34.644	27.735	37.0	2.506
2700	1.627	34.649	27.741	36.5	2.553
2800	1.603	34.653	27.746	36.0	2.598
2900	1.577	34.658	27.752	35.5	2.644
3000	1.559	34.662	27.756	35.0	2.689
3100	1.542	34.664	27.759	34.8	2.733
3200	1.530	34.667	27.763	34.5	2.778
3300	1.516	34.670	27.766	34.1	2.823
3400	1.511	34.672	27.768	33.9	2.868
3500	1.504	34.675	27.771	33.7	2.912
3600	1.500	34.677	27.773	33.5	2.957
3700	1.496	34.678	27.774	33.4	3.002
3800	1.494	34.681	27.777	33.1	3.046
3900	1.492	34.683	27.778	33.0	3.091
4000	1.490	34.683	27.778	33.0	3.136
4100	1.492	34.685	27.780	32.8	3.182
4200	1.497	34.688	27.782	32.6	3.227
4300	1.501	34.688	27.782	32.7	3.273
4400	1.507	34.689	27.782	32.6	3.319
4500	1.513	34.688	27.781	32.7	3.365
4600	1.520	34.688	27.780	32.8	3.412
4700	1.526	34.690	27.781	32.7	3.459
4800	1.536	34.691	27.781	32.7	3.506
4900	1.543	34.694	27.783	32.5	3.554
5000	1.552	34.684	27.775	33.3	3.602
5100	1.563	34.686	27.775	33.2	3.651
5200	1.571				
5300	1.581				
5400	1.593				
5500	1.602				
5600	1.616				
5700	1.625				
5800	1.637				

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.4N	171 00.9W	04/10/76	1900 GMT

Z	T	S	SIGMA T	DT	DD
0	15.00	34.34	25.483	250.8	0.000
10	14.81	34.35	25.532	246.1	0.025
20	14.35	34.34	25.623	237.5	0.049
30	13.68	34.32	25.754	225.0	0.072
40	13.46	34.32	25.793	221.3	0.095
50	13.29	34.31	25.820	218.7	0.117
75	12.75	34.29	25.912	209.9	0.171
100	12.36	34.29	25.989	202.7	0.223
125	12.09	34.30	26.048	197.0	0.274
150	11.86	34.31	26.100	192.1	0.323
175	11.45	34.30	26.169	185.6	0.371
200	11.17	34.28	26.204	182.2	0.418
225	10.84	34.27	26.256	177.3	0.464
250	10.53	34.24	26.288	174.3	0.510
275	10.24	34.22	26.323	171.0	0.554
300	9.90	34.20	26.365	167.0	0.598
350	9.19	34.12	26.420	161.8	0.684
400	8.54	34.10	26.507	153.5	0.766
450	7.61	34.04	26.599	144.8	0.844
500	6.82	34.01	26.686	136.5	0.918
550	6.26	33.99	26.744	131.0	0.989
600	5.50	33.99	26.839	122.0	1.055
650	5.08	34.01	26.904	115.8	1.118
700	4.70	34.04	26.971	109.5	1.178
750	4.38	34.07	27.030	103.9	1.235
800	4.09	34.12	27.100	97.3	1.289
850	3.93	34.16	27.148	92.7	1.340
900	3.74	34.20	27.199	87.6	1.389
950	3.52	34.26	27.269	81.3	1.435
1000	3.36	34.30	27.316	76.8	1.478
1100	3.11	34.38	27.403	68.5	1.558
1156	2.98	34.44	27.463	62.9	1.599

RV THOMAS WASHINGTON INDOPAC LEG I 51

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 56.6N	172 02. W	4/11/76	0251 0712 GMT	6128M	190	16KT		280 12 18

Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	14.69	34.376	6.09	0.23	8.4	0.00	1.2	241.7	0	14.69	34.376	6.09	25.578	241.7	0.000
10	14.66	34.371	6.06	0.24	8.2	0.00	1.3	241.5	10	14.66	34.371	6.06	25.581	241.5	0.024
20	14.62	34.372	6.07	0.26	8.6	0.00	1.5	240.6	20	14.62	34.372	6.07	25.590	240.6	0.048
31	14.15	34.378	6.13	0.27	8.4	0.03	1.7	230.6	30	14.20	34.378	6.12	25.684	231.7	0.072
50	13.68	34.378	6.20	0.27	8.8	0.08	1.8	221.3	50	13.68	34.378	6.20	25.793	221.3	0.118
60	13.57	34.376	6.20	0.26	8.6	0.09	1.8	219.3	75	13.44	34.378	6.06	25.842	216.6	0.173
74	13.45	34.377	6.07	0.27	8.8	0.18	2.1	216.9	100	13.23	34.394	5.93	25.897	211.4	0.227
89	13.27	34.388	5.99	0.32	9.2	0.39	3.1	212.6	125	13.10	34.396	5.89	25.925	208.8	0.280
99	13.23	34.393	5.93	0.33	9.0	0.55	3.3	211.5	150	12.94	34.385	5.75	25.948	206.5	0.333
125	13.10	34.396	5.89	0.40	9.2	0.44	4.0	208.8	200	12.65	34.371	5.69	25.993	202.2	0.437
150	12.94	34.385	5.75	0.43	9.4	0.11	5.3	206.5	250	12.16	34.336	5.56	26.062	195.8	0.540
198	12.67	34.372	5.69	0.45	10.7	0.00	6.6	202.4	300	11.64	34.357	5.29	26.176	184.9	0.638
248	12.18	34.334	5.57	0.54	11.6	0.00	7.8	196.2	400	9.87	34.215	5.30	26.381	165.4	0.821
297	11.69	34.359	5.29	0.75	15.9	0.00	11.1	185.5	500	8.15	34.099	4.50	26.565	148.0	0.986
397	9.92	34.218	5.32	1.01	22.1	0.00	14.2	166.0	600	6.20	34.005	3.54	26.763	129.2	1.133
496	8.23	34.103	4.53	1.50	35.7	0.00	21.0	148.8	700	4.86	34.018	2.32	26.935	112.9	1.262
596	6.27	34.006	3.59	2.02	56.5	0.00	28.5	129.9	800	4.27	34.121	1.49	27.082	99.0	1.375
744A	4.50		1.80	2.75	94.0	0.06	38.8		1000	3.48	34.305	0.54	27.307	77.6	1.567
792	4.30	34.111	0.55U	2.84	102.0	0.01	40.0	100.0	1200	2.95	34.399	0.32	27.432	65.8	1.726
989	3.46	34.289	0.45	3.20	134.8	0.00	44.5	78.5	1500	2.48	34.490	0.51	27.546	55.0	1.931
994A	3.50		0.55	3.15	133.3	0.01	44.0		1750	2.15	34.560	0.89	27.629	47.1	2.079
1187	2.97	34.394	0.31	3.20	153.4	0.01	45.6	66.3	2000	1.93	34.602	1.40	27.679	42.4	2.212
1244A	2.87	34.409	0.35	3.22	156.1	0.00	45.2	64.3	2250	1.78	34.641	1.97	27.723	38.2	2.334
1495A	2.49	34.488	0.50	3.19	169.5	0.00	45.3	55.2	2500	1.67	34.647	2.36	27.736	37.0	2.450
1743A	2.16	34.558	0.88	3.10	177.3	0.00	44.3	47.3	2750	1.61	34.656	2.60	27.747	35.9	2.564
1993A	1.94	34.599	1.38	3.00	181.8	0.00	42.9	42.5	3000	1.56	34.661	2.94	27.755	35.2	2.677
2243A	1.78	34.640	1.96	2.92	180.9	0.00	41.5	38.3	3250	1.52	34.669	3.04	27.764	34.3	2.789
2493A	1.67	34.646	2.35	2.80	176.2	0.00	40.0	37.0	3500	1.49	34.674	3.16	27.771	33.7	2.900
2743A	1.61	34.655	2.59	2.76	175.5	0.00	39.3	35.9	3750	1.49	34.679	3.30	27.774	33.3	3.012
2992A	1.56	34.660	2.93	2.69	172.6	0.00	38.7	35.2	4000	1.48	34.682	3.41	27.778	33.0	3.125
3241A	1.52	34.668	3.04	2.69	171.2	0.00	38.3	34.3	4250	1.49	34.683	3.50	27.778	33.0	3.238
3490A	1.49	34.673	3.15	2.66	169.3	0.00	38.0	33.7	4500	1.50	34.685	3.57	27.779	32.9	3.354
3739A	1.49	34.678	3.29	2.56	167.6	0.00	36.6	33.3	4750	1.52	34.691	3.58	27.782	32.5	3.471
3987A	1.48	34.681	3.40	2.56	166.2		36.0	33.0	5000	1.54	34.696	3.59	27.785	32.3	3.590
4482A	1.50	34.684	3.57	2.55	164.7		36.3	32.9	5250	1.57	34.693	3.65	27.780	32.7	3.711
4977A	1.54	34.696	3.59	2.54	160.4		36.1	32.3	5500	1.60	34.691	3.70	27.776	33.2	3.835
5467A	1.596	34.690	3.69	2.53	157.8		35.5	33.2	5750	1.64	34.693	3.75	27.775	33.3	3.963
5857A	1.651	34.693	3.77	2.51	155.7		35.8	33.3	6000	1.67	34.693	3.76	27.773	33.5	4.094
5906A	1.655	34.693	3.78	2.49	155.4		35.5	33.4							
5955A	1.663	34.693	3.76	2.48	154.7		34.5	33.4							

RV THOMAS WASHINGTON INDOPAC LEG I 52

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 01.6N	172 59.9W	4/11/76	1338 GMT	5956M	200	24KT	1	

Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.10	34.438	5.98					245.7	0	15.10	34.438	5.98	25.536	245.7	0.000
9	15.07	34.435	5.99					245.3	10	15.07	34.436	5.99	25.541	245.2	0.025
19	15.04	34.439	5.98					244.4	20	15.04	34.440	5.98	25.551	244.3	0.049
31	15.01	34.441	5.99					243.6	30	15.01	34.442	5.99	25.558	243.7	0.074
50	14.29	34.438	6.02					229.1	50	14.29	34.438	6.02	25.711	229.1	0.121
76	13.76	34.445	5.64					218.0	75	13.77	34.445	5.66	25.825	218.3	0.177
101	13.52	34.442	5.58					213.5	100	13.53	34.443	5.58	25.874	213.6	0.232
126	13.32	34.454	5.27					208.7	125	13.33	34.454	5.28	25.923	208.9	0.286
152	13.04	34.448	5.20					203.8	150	13.06	34.450	5.21	25.973	204.2	0.338
202	12.36	34.387	5.48					195.6	200	12.39	34.390	5.47	26.060	195.9	0.440
252	11.68	34.353	5.25					185.8	250	11.71	34.355	5.26	26.163	186.2	0.539
302	10.87	34.298	5.19					175.7	300	10.90	34.301	5.19	26.268	176.1	0.632
402	9.17	34.167	4.97					158.0	400	9.20	34.171	4.98	26.457	158.3	0.807
500	7.57	34.064	4.33					142.4	500	7.57	34.064	4.33	26.624	142.4	0.965
602	5.68	34.002	3.14					123.2	600	5.71	34.003	3.17	26.823	123.6	1.106
700	4.62	34.063	1.96					106.9	700	4.62	34.063	1.96	26.998	106.9	1.228
799	4.10	34.146	1.32					95.4	800	4.10	34.148	1.31	27.121	95.3	1.337
897	3.78	34.213	0.91					87.2	1000	3.52	34.273	0.62	27.278	80.3	1.527
994	3.54	34.269	0.63					80.8	1200	3.01	34.388	0.36	27.418	67.1	1.690
1190	3.03	34.383	0.37					67.6							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 56.6N	172 02. W	04/11/76	0110 GMT

Z	T	S	SIGMA T	DT	DD
0	14.66	34.37	25.580	241.6	0.000
10	14.40	34.36	25.628	237.0	0.024
20	13.95	34.37	25.730	227.2	0.047
30	13.70	34.37	25.782	222.3	0.070
40	13.57	34.37	25.809	219.8	0.092
50	13.51	34.37	25.821	218.6	0.114
75	13.17	34.37	25.890	212.0	0.168
100	13.04	34.37	25.917	209.5	0.221
125	12.91	34.37	25.943	207.1	0.274
150	12.86	34.37	25.953	206.1	0.327
175	12.59	34.35	25.990	202.5	0.379
200	12.39	34.34	26.022	199.6	0.430
225	12.18	34.33	26.054	196.5	0.481
250	12.03	34.35	26.099	192.3	0.531
275	11.70	34.34	26.153	187.1	0.580
300	11.27	34.32	26.217	181.0	0.628
350	10.38	34.24	26.314	171.8	0.720
400	9.48	34.17	26.412	162.5	0.807
450	8.50	34.10	26.513	152.9	0.890
500	7.82	34.07	26.592	145.4	0.969
550	6.99	34.02	26.671	138.0	1.044
600	6.27	33.99	26.743	131.1	1.115
650	5.49	33.98	26.832	122.6	1.183
700	5.04	34.01	26.909	115.4	1.246
750	4.57	34.05	26.993	107.4	1.305
800	4.28	34.10	27.064	100.6	1.361
850	4.08	34.14	27.117	95.6	1.414
900	3.87	34.18	27.170	90.6	1.464
950	3.70	34.21	27.211	86.7	1.512
1000	3.53	34.26	27.268	81.4	1.558
1100	3.22	34.33	27.353	73.3	1.643
1200	2.97	34.38	27.416	67.3	1.721
1300	2.74	34.43	27.476	61.6	1.794
1400	2.55	34.47	27.524	57.0	1.861
1500	2.40	34.50	27.561	53.5	1.924
1600	2.251	34.529	27.596	50.2	1.984
1700	2.130	34.557	27.629	47.1	2.040
1800	2.051	34.576	27.650	45.1	2.094
1900	1.995	34.588	27.664	43.8	2.147
2000	1.911	34.603	27.683	42.0	2.198
2100	1.855	34.615	27.697	40.7	2.248
2200	1.796	34.624	27.708	39.6	2.297
2300	1.736	34.632	27.719	38.6	2.344
2400	1.693	34.641	27.730	37.6	2.391
2500	1.658	34.644	27.735	37.1	2.437
2600	1.635	34.650	27.741	36.5	2.483
2700	1.608	34.654	27.747	36.0	2.528
2800	1.582	34.657	27.751	35.6	2.574
2900	1.565	34.659	27.754	35.3	2.619
3000	1.550	34.660	27.756	35.1	2.663
3100	1.535	34.665	27.761	34.6	2.708
3200	1.524	34.671	27.766	34.1	2.753
3300	1.515	34.671	27.767	34.0	2.797
3400	1.509	34.672	27.768	33.9	2.842
3500	1.503	34.673	27.769	33.8	2.886
3600	1.495	34.675	27.772	33.6	2.931
3700	1.491	34.676	27.773	33.5	2.976
3800	1.487	34.679	27.775	33.2	3.021
3900	1.482	34.680	27.777	33.1	3.066
4000	1.486	34.679	27.775	33.2	3.111
4100	1.486	34.681	27.777	33.1	3.157
4200	1.491	34.682	27.778	33.0	3.202
4300	1.496	34.683	27.778	33.0	3.248
4400	1.501	34.684	27.778	33.0	3.294
4500	1.511	34.686	27.779	32.9	3.341
4600	1.517	34.689	27.781	32.7	3.388
4700	1.524	34.689	27.781	32.7	3.434
4800	1.535	34.690	27.781	32.7	3.482
4900	1.543	34.691	27.781	32.7	3.530
5000	1.551	34.689	27.779	32.9	3.578
5100	1.558	34.690	27.779	32.9	3.626
5200	1.571	34.692	27.780	32.8	3.675
5300	1.583	34.691	27.778	33.0	3.725
5400	1.593	34.692	27.778	33.0	3.774
5500	1.605	34.692	27.777	33.1	3.825
5600	1.615	34.693	27.777	33.1	3.875
5700	1.628	34.693	27.776	33.2	3.926
5800	1.642	34.694	27.776	33.2	3.978
5900	1.655	34.693	27.774	33.4	4.030

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 01.6N	172 59.9W	04/11/76	1249 GMT

Z	T	S	SIGMA T	DT	DD
0	15.11	34.44	25.536	245.7	0.000
10	15.09	34.43	25.532	246.1	0.025
20	15.06	34.45	25.554	244.0	0.049
30	14.73	34.45	25.626	237.1	0.073
40	14.38	34.45	25.701	230.0	0.097
50	14.16	34.45	25.748	225.6	0.120
75	13.74	34.46	25.843	216.5	0.175
100	13.51	34.47	25.899	211.3	0.229
125	13.25	34.46	25.944	207.0	0.282
150	12.88	34.44	26.003	201.4	0.334
175	12.54	34.41	26.047	197.2	0.385
200	12.25	34.39	26.087	193.3	0.435
225	11.88	34.36	26.150	187.3	0.484
250	11.52	34.35	26.194	183.2	0.532
275	11.23	34.33	26.232	179.6	0.579
300	10.88	34.30	26.272	175.8	0.625
350	10.18	34.25	26.356	167.8	0.714
400	9.18	34.17	26.461	157.9	0.799
450	8.30	34.10	26.544	150.0	0.880
500	7.49	34.06	26.632	141.6	0.957
550	6.66	34.02	26.715	133.7	1.030
600	5.76	34.00	26.815	124.3	1.098
650	5.10	34.02	26.910	115.3	1.162
700	4.66	34.06	26.991	107.6	1.221
750	4.36	34.10	27.056	101.5	1.277
800	4.10	34.15	27.123	95.1	1.330
850	3.91	34.18	27.166	91.0	1.380
900	3.75	34.22	27.214	86.4	1.428
950	3.61	34.25	27.252	82.9	1.474
1000	3.50	34.28	27.286	79.6	1.518
1100	3.23	34.34	27.360	72.6	1.602
1200	3.00	34.38	27.413	67.6	1.680

RV THOMAS WASHINGTON INDOPAC LEG I 53

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.6N	174 02. W	4/11/76	2110 0033 GMT	5545M	200	24KT	2	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
3	15.02	34.438	5.97	0.17	4.0		1.1	244.0	0	15.02	34.438	5.97	25.554	244.0	0.000
12	15.01	34.434	5.99	0.21	4.0		1.1	244.1	10	15.01	34.436	5.99	25.553	244.1	0.024
21	14.99	34.437	5.97	0.17	4.1		1.1	243.5	20	14.99	34.437	5.97	25.559	243.6	0.049
30	14.97	34.437	5.99	0.11	4.7		1.1	243.1	30	14.97	34.437	5.99	25.564	243.1	0.073
47	14.29	34.446	5.93	0.16	4.7		2.1	228.5	50	14.20	34.446	5.92	25.736	226.7	0.120
56	14.02	34.442	5.90	0.14	4.6		2.7	223.4	75	13.46	34.434	5.79	25.881	212.9	0.176
69	13.57	34.436	5.78	0.32	6.2		4.4	214.9	100	13.13	34.422	5.74	25.939	207.5	0.229
82	13.36	34.429	5.81	0.32	8.5		4.6	211.3	125	12.95	34.426	5.69	25.978	203.7	0.281
91	13.21	34.418	5.83	0.32	6.6		5.0	209.3	150	12.71	34.402	5.74	26.007	200.9	0.333
112	13.05	34.429	5.62	0.49	7.7		6.5	205.4	200	12.01	34.381	5.53	26.069	195.1	0.434
134	12.87	34.419	5.76	0.49	8.4		6.3	202.7	250	11.76	34.356	5.33	26.154	187.0	0.532
177	12.44	34.376	5.71	0.53	9.1		7.6	197.9	300	11.02	34.305	5.24	26.250	177.9	0.627
220	12.17	34.383	5.37	0.72	12.9		6.1	192.4	400	9.41	34.189	5.07	26.436	160.2	0.803
262	11.57	34.341	5.31	0.82	14.5		7.9	184.7	500	7.45	34.054	4.43	26.632	141.6	0.962
347	10.31	34.255	5.16	1.06	20.1		12.2	169.6	600	5.87	34.012	3.32	26.811	124.7	1.103
431	8.85	34.146	5.02	1.33	27.3		15.0	154.7	700	4.82	34.048	2.26	26.963	110.3	1.228
518	7.09	34.034	4.24	1.83	44.4		23.3	138.2	800	4.18	34.123	1.55	27.092	98.0	1.339
693	4.88	34.043	2.31	2.66	83.2		32.9	111.2	1000	3.45	34.307	0.65	27.312	77.2	1.529
878	3.67	34.201	1.10	2.98	115.8		38.4	89.0	1200	2.95	34.408	0.36	27.439	65.1	1.687
934A	3.68	34.267	0.75	3.14	125.7		41.4	82.2	1500	2.41	34.510	0.47	27.567	53.0	1.888
1076	3.21	34.334	0.53	3.16	139.8		42.3	72.9	1750	2.15	34.565	0.87	27.633	46.7	2.032
1183A	2.99	34.399	0.36	3.25	152.3		43.8	66.1	2000	1.96	34.601	1.39	27.676	42.5	2.165
1432A	2.51	34.490	0.40	3.29	168.2		45.2	55.2	2250	1.82	34.626	1.89	27.708	39.6	2.289
1681A	2.21	34.551	0.75	3.12	177.5		44.1	48.2	2500	1.70	34.642	2.31	27.729	37.6	2.408
1930A	2.01	34.593	1.26	3.10	181.3		42.7	43.5	2750	1.63	34.652	2.50	27.743	36.3	2.524
2178A	1.86	34.620	1.73	2.99	181.8		41.5	40.4	3000	1.57	34.664	2.79	27.757	34.9	2.638
2426A	1.73	34.639	2.24	2.90	180.1		39.6	38.0	3250	1.53	34.674	3.02	27.768	33.9	2.749
2675A	1.65	34.648	2.43	2.80	177.8		39.8	36.7	3500	1.50	34.678	3.12	27.773	33.4	2.860
2923A	1.58	34.660	2.69	2.79	175.0		38.4	35.3	3750	1.48	34.682	3.27	27.778	32.9	2.971
3172A	1.54	34.672	2.98	2.70	172.9		38.4	34.1	4000	1.48	34.685	3.40	27.781	32.7	3.083
3421A	1.50	34.676	3.07	2.69	170.4		37.9	33.6	4250	1.49	34.687	3.48	27.781	32.7	3.196
3915A	1.47	34.684	3.37	2.59	167.6		37.1	32.7	4500	1.51	34.688	3.51	27.780	32.8	3.311
4408A	1.503	34.687	3.51	2.58	167.1		36.7	32.7	4750	1.54	34.690	3.52	27.780	32.8	3.428
4901A	1.551	34.690	3.52	2.58	165.0		36.7	32.9	5000	1.56	34.691	3.54	27.779	32.9	3.548
5292A	1.593	34.691	3.58	2.56	162.0		36.6	33.1	5250	1.59	34.692	3.57	27.778	33.1	3.671
5390A	1.595	34.692	3.68	2.56	160.0		36.2	33.0							

RV THOMAS WASHINGTON INDOPAC LEG I 54

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.3N	175 00.8W	4/12/76	0646 GMT	5531M	280	15KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.22	34.482	5.98					245.0	0	15.22	34.482	5.98	25.544	245.0	0.000
10	15.17	34.479	5.99					244.2	10	15.17	34.479	5.99	25.552	244.2	0.024
20	15.18	34.479	5.92					244.4	20	15.18	34.479	5.92	25.550	244.4	0.049
31	15.17	34.486	6.01					243.7	30	15.17	34.486	6.00	25.557	243.7	0.073
50	13.84	34.406	6.07					222.4	50	13.84	34.406	6.07	25.781	222.4	0.120
76	13.65	34.387	6.06					220.1	75	13.66	34.388	6.06	25.805	220.2	0.176
100	13.54	34.411	5.98					216.2	100	13.54	34.411	5.98	25.847	216.2	0.231
126	13.16	34.435	5.79					207.1	125	13.18	34.435	5.80	25.939	207.4	0.285
151	12.97	34.427	5.86					204.0	150	12.98	34.428	5.86	25.974	204.1	0.337
201	12.40	34.388	5.70					196.2	200	12.41	34.389	5.71	26.055	196.4	0.440
251	11.84	34.366	5.49					187.7	250	11.85	34.367	5.49	26.145	187.8	0.538
301	11.06	34.311	5.30					178.0	300	11.08	34.313	5.30	26.247	178.2	0.633
401	9.25	34.177	5.32					158.4	400	9.27	34.179	5.32	26.453	158.6	0.809
502	7.49	34.064	4.35					141.3	500	7.52	34.067	4.37	26.632	141.7	0.967
602	5.74	34.008	3.33					123.4	600	5.77	34.009	3.35	26.820	123.8	1.108
701	4.63	34.067	2.22					106.7	700	4.64	34.067	2.23	26.999	106.9	1.230
800	4.14	34.147	1.54					95.7	800	4.14	34.147	1.54	27.116	95.7	1.338
899	3.73	34.232	0.86					85.3	1000	3.41	34.312	0.59	27.321	76.7	1.525
998	3.41	34.306	0.59					76.8	1200	2.95	34.408	0.43	27.440	65.0	1.682
1196	2.96	34.406	0.43					65.3							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.6N	174 02.0W	04/11/76	1938 GMT

Z	T	S	SIGMA T	DT	DD
0	14.97	34.43	25.559	243.6	0.000
10	14.96	34.44	25.569	242.6	0.024
20	14.96	34.44	25.569	242.6	0.049
30	14.93	34.44	25.575	242.0	0.073
40	14.85	34.44	25.592	240.3	0.097
50	14.60	34.44	25.647	235.2	0.121
75	13.91	34.44	25.793	221.3	0.179
100	13.52	34.43	25.866	214.4	0.234
125	13.10	34.42	25.943	207.0	0.287
150	12.89	34.41	25.977	203.8	0.339
175	12.68	34.40	26.011	200.5	0.391
200	12.50	34.39	26.039	197.9	0.442
225	12.21	34.37	26.080	194.1	0.492
250	11.95	34.36	26.122	190.1	0.542
275	11.47	34.33	26.188	183.7	0.590
300	11.03	34.30	26.245	178.3	0.637
350	10.14	34.24	26.355	167.9	0.727
400	9.14	34.16	26.459	158.0	0.812
450	8.31	34.10	26.542	150.1	0.893
500	7.18	34.03	26.652	139.7	0.970
550	6.39	34.01	26.743	131.1	1.041
600	5.59	34.00	26.836	122.3	1.108
650	4.99	34.02	26.923	114.1	1.171
700	4.69	34.04	26.972	109.4	1.230
750	4.32	34.10	27.060	101.1	1.286
800	4.08	34.14	27.117	95.6	1.339
850	3.88	34.18	27.169	90.7	1.389
900	3.73	34.22	27.216	86.2	1.437
950	3.57	34.25	27.256	82.5	1.483
1000	3.43	34.29	27.301	78.2	1.527
1100	3.18	34.34	27.365	72.2	1.610
1200	2.95	34.40	27.433	65.6	1.686
1300	2.75	34.44	27.483	60.9	1.757
1400	2.56	34.47	27.524	57.1	1.824
1500	2.44	34.49	27.550	54.6	1.888
1600	2.318	34.525	27.588	51.0	1.949
1700	2.198	34.546	27.614	48.5	2.007
1800	2.116	34.566	27.637	46.3	2.063
1900	2.036	34.584	27.656	44.4	2.116
2000	1.934	34.602	27.680	42.3	2.168
2100	1.868	34.615	27.696	40.8	2.218
2200	1.812	34.624	27.707	39.7	2.267
2300	1.759	34.632	27.718	38.7	2.315
2400	1.720	34.640	27.727	37.8	2.362
2500	1.686	34.645	27.734	37.2	2.408
2600	1.648	34.652	27.742	36.4	2.454
2700	1.622	34.657	27.748	35.8	2.500
2800	1.591	34.660	27.753	35.4	2.545
2900	1.575	34.663	27.756	35.1	2.590
3000	1.556	34.666	27.760	34.7	2.634
3100	1.542	34.669	27.763	34.4	2.679
3200	1.529	34.672	27.767	34.1	2.723
3300	1.513	34.674	27.769	33.8	2.768
3400	1.510	34.676	27.771	33.6	2.812
3500	1.498	34.678	27.774	33.4	2.856
3600	1.486	34.680	27.776	33.2	2.901
3700	1.481	34.682	27.778	33.0	2.945
3800	1.479	34.682	27.778	33.0	2.989
3900	1.477	34.684	27.780	32.8	3.034
4000	1.479	34.685	27.781	32.7	3.079
4100	1.480	34.687	27.782	32.6	3.124
4200	1.486	34.687	27.782	32.6	3.169
4300	1.492	34.688	27.782	32.6	3.214
4400	1.502	34.688	27.782	32.7	3.260
4500	1.507	34.689	27.782	32.6	3.306
4600	1.518	34.689	27.781	32.7	3.353
4700	1.524	34.690	27.782	32.7	3.400
4800	1.537	34.689	27.780	32.8	3.447
4900	1.546	34.689	27.779	32.9	3.495
5000	1.558	34.690	27.779	32.9	3.543
5100	1.570	34.690	27.778	33.0	3.592
5200	1.580	34.691	27.778	33.0	3.641
5300	1.591	34.692	27.778	33.0	3.691
5400	1.600	34.691	27.777	33.1	3.741
5432	1.604	34.693	27.778	33.0	3.757

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.3N	175 00.8W	04/12/76	0557 GMT

Z	T	S	SIGMA T	DT	DD
0	15.18	34.49	25.559	243.6	0.000
10	15.18	34.50	25.566	242.8	0.024
20	15.18	34.50	25.566	242.8	0.049
30	15.18	34.50	25.573	242.2	0.073
40	15.00	34.49	25.598	239.8	0.097
50	14.31	34.43	25.701	230.1	0.121
75	13.66	34.40	25.814	219.3	0.177
100	13.56	34.40	25.834	217.4	0.233
125	13.26	34.45	25.934	207.9	0.287
150	13.01	34.44	25.977	203.8	0.339
175	12.74	34.42	26.015	200.2	0.390
200	12.50	34.40	26.047	197.2	0.441
225	12.24	34.40	26.097	192.4	0.491
250	11.94	34.38	26.139	188.4	0.540
275	11.57	34.36	26.193	183.3	0.588
300	11.08	34.32	26.252	177.7	0.635
350	10.12	34.25	26.367	166.8	0.725
400	9.29	34.18	26.451	158.8	0.810
450	8.48	34.12	26.532	151.1	0.892
500	7.59	34.07	26.625	142.3	0.969
550	6.43	34.02	26.746	130.8	1.041
600	5.74	34.01	26.826	123.3	1.109
650	5.06	34.02	26.915	114.8	1.172
700	4.63	34.07	27.003	106.5	1.231
750	4.43	34.10	27.048	102.2	1.286
800	4.18	34.14	27.107	96.6	1.340
850	3.96	34.18	27.161	91.5	1.390
900	3.78	34.22	27.211	86.7	1.439
950	3.60	34.26	27.261	82.0	1.484
1000	3.43	34.30	27.309	77.4	1.528
1100	3.18	34.36	27.380	70.7	1.610
1200	2.98	34.40	27.431	65.9	1.686

RV THOMAS WASHINGTON INDOPAC LEG I 55

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.4N	175 59.8W	4/12/76	1325 1521 GMT	2050M	320	16KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	15.39	34.485	5.85	0.14	7.0	0.11		248.3	0	15.39	34.485	5.85	25.508	248.3	0.000
11	15.40	34.485	5.87	0.12	7.0	0.11		248.6	10	15.40	34.486	5.87	25.506	248.5	0.025
21	15.38	34.484	5.87	0.14	7.1	0.11		248.2	20	15.38	34.485	5.87	25.509	248.3	0.050
31	15.38	34.483	5.84	0.14	7.1	0.12		248.3	30	15.38	34.484	5.84	25.509	248.3	0.075
50	14.60	34.494	5.83	0.18	7.2	0.14		231.3	50	14.60	34.494	5.83	25.688	231.3	0.123
60	14.48	34.497	5.72	0.22	7.2	0.13		228.6	75	14.19	34.486	5.53	25.769	223.5	0.180
75	14.19	34.486	5.53	0.29	7.5	0.09		223.5	100	13.81	34.462	5.52	25.829	217.9	0.236
89	14.00	34.473	5.53	0.34	8.1	0.04		220.7	125	13.54	34.46A	5.34	25.890	212.1	0.290
98	13.84	34.461	5.53	0.38	8.5	0.02		218.4	150	13.29	34.452	5.37	25.929	208.3	0.344
123	13.56	34.468	5.34	0.45	9.5	0.02		212.4	200	12.44	34.408	5.21	26.065	195.4	0.447
148	13.32	34.453	5.37	0.50	10.3	0.00		208.8	250	11.77	34.360	5.17	26.155	186.9	0.545
196	12.49	34.411	5.22	0.64	13.3	0.00		196.2	300	10.98	34.300	5.24	26.254	177.5	0.640
244	11.86	34.366	5.16	0.77	15.8			188.0	400	9.47	34.187	4.99	26.426	161.2	0.816
293	11.07	34.306	5.25	0.83	17.5			178.6	500	7.95	34.057	4.15	26.649	140.0	0.975
391	9.66	34.200	5.04	1.11	24.4			163.1	600	5.78	34.013	3.11	26.822	123.6	1.114
486	7.61	34.070	4.29	1.61	41.2	0.00		142.5	700	4.76	34.060	2.17	26.979	108.8	1.238
584	5.98	34.009	3.28	2.14	61.3	0.00		126.2	800	4.10	34.140	1.47	27.114	95.6	1.347
779	4.24	34.124	1.55	2.79	102.0	0.00		98.4	1000	3.44	34.288	0.84	27.298	77.3	1.535
974	3.50	34.279	0.83	3.03	129.8	0.01		79.7	1200	2.95	34.394	0.61	27.428	66.1	1.694
976A	3.50	34.280	0.87	3.08	131.2	0.04		79.6	1500	2.43	34.509	0.83	27.565	53.1	1.896
1174	2.97	34.395	0.59	3.09	150.1	0.01		66.2	1750	2.18	34.558	1.20	27.625	47.5	2.042
1179A	2.97	34.393	0.61	3.16	151.1	0.06		66.4	2000	2.03	34.585	1.50	27.658	44.3	2.179
1382A	2.62	34.472	0.65	3.17	163.0	0.06		57.4	2250	1.84	34.619	1.97	27.700	40.8	2.307
1585A	2.31	34.530	0.98	3.14	170.0	0.02		50.6							
1784A	2.16	34.561	1.24	3.07	173.6	0.00		47.1							
1981A	2.04	34.581	1.48	2.99	175.1	0.00		44.6							
2175A	1.89	34.607	1.78	2.91	176.5	0.00		41.6							
2223A	1.86	34.611	1.92	2.88	176.4	0.03		41.0							
2270A	1.83	34.614	1.99	2.87	175.6	0.06		40.6							

RV THOMAS WASHINGTON INDOPAC LEG I 56

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.4N	176 58.1W	4/12/76	2148 GMT	3154M	330	21KT	1	49

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
3	16.09	34.588	5.74					255.8	0	16.09	34.588	5.74	25.429	255.8	0.000
12	16.08	34.590	5.74					255.5	10	16.08	34.591	5.74	25.433	255.5	0.026
22	16.09	34.590	5.76					255.7	20	16.09	34.591	5.76	25.431	255.6	0.051
32	16.09	34.591	5.77					255.6	30	16.09	34.592	5.77	25.431	255.6	0.077
51	16.08	34.591	5.77					255.4	50	16.08	34.592	5.77	25.434	255.4	0.128
75	15.45	34.585	5.58					242.3	75	15.45	34.585	5.58	25.572	242.3	0.191
98	14.97	34.560	5.45					234.1	100	14.94	34.560	5.45	25.664	233.6	0.251
122	14.64	34.544	5.42					228.4	125	14.58	34.539	5.45	25.727	227.5	0.309
146	14.15	34.498	5.66					221.8	150	14.11	34.495	5.65	25.792	221.4	0.367
194	13.91	34.485	5.59					218.0	200	13.88	34.488	5.54	25.836	217.2	0.479
240	13.52	34.491	5.21					209.9	250	13.36	34.483	5.20	25.940	207.4	0.588
287	12.67	34.439	5.16					197.5	300	12.47	34.427	5.15	26.073	194.7	0.692
382	11.18	34.333	5.06					178.5	400	10.84	34.306	5.03	26.284	174.6	0.885
476	9.24	34.182	4.91					157.9	500	8.65	34.139	4.73	26.520	152.2	1.057
569	7.02	34.044	4.05					136.6	600	6.44	34.025	3.69	26.747	130.7	1.208
663	5.50	34.016	2.95					120.1	700	5.10	34.035	2.57	26.920	114.3	1.338
756	4.65	34.075	2.06					106.3	800	4.39	34.116	1.70	27.065	100.6	1.453
851	4.14	34.163	1.32					94.5	1000	3.52	34.292	0.67	27.294	78.9	1.648
946	3.72	34.250	0.75					83.9							
1139	3.13	34.373	0.48					69.2							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.4N	175 59.8W	04/12/76	1338 GMT

Z	T	S	SIGMA T	DT	DD
0	15.39	34.47	25.497	249.4	0.000
10	15.40	34.47	25.495	249.7	0.025
20	15.40	34.48	25.502	248.9	0.050
30	15.38	34.48	25.507	248.5	0.075
40	15.18	34.48	25.551	244.3	0.100
50	14.61	34.49	25.683	231.6	0.124
75	14.09	34.47	25.778	222.7	0.181
100	13.78	34.46	25.835	217.3	0.236
125	13.49	34.45	25.887	212.3	0.291
150	13.13	34.43	25.945	206.9	0.344
175	12.72	34.42	26.019	199.8	0.396
200	12.36	34.40	26.074	194.6	0.447
225	12.04	34.39	26.128	189.5	0.496
250	11.58	34.34	26.176	184.9	0.544
275	11.18	34.30	26.218	180.9	0.591
300	10.83	34.27	26.258	177.1	0.638
350	10.24	34.24	26.338	169.5	0.728
400	9.35	34.16	26.425	161.3	0.815
450	8.32	34.11	26.549	149.5	0.896
500	7.35	34.05	26.644	140.5	0.973
550	6.26	34.01	26.760	129.5	1.044
600	5.68	34.00	26.825	123.3	1.111
650	5.15	34.01	26.896	116.6	1.175
700	4.73	34.04	26.968	109.8	1.235
750	4.49	34.07	27.018	105.0	1.292
800	4.17	34.12	27.092	98.0	1.346
850	3.95	34.17	27.154	92.1	1.398
900	3.79	34.20	27.194	88.3	1.446
950	3.67	34.23	27.230	84.9	1.493
1000	3.47	34.27	27.281	80.1	1.538
1100	3.18	34.34	27.365	72.2	1.622
1200	2.94	34.39	27.426	66.3	1.699
1300	2.74	34.43	27.476	61.6	1.771
1400	2.58	34.47	27.522	57.3	1.838
1500	2.42	34.51	27.567	53.0	1.901
1600	2.312	34.529	27.591	50.7	1.961
1700	2.217	34.546	27.613	48.6	2.019
1800	2.140	34.561	27.631	46.9	2.075
1900	2.084	34.572	27.644	45.7	2.130
2000	2.019	34.583	27.658	44.3	2.184
2100	1.932	34.599	27.678	42.5	2.236
2200	1.868	34.609	27.691	41.2	2.287
2300	1.820	34.618	27.702	40.2	2.336

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.4N	175 58.1W	04/12/76	2105 GMT

Z	T	S	SIGMA T	DT	DD
0	16.08	34.60	25.441	254.8	0.000
10	16.08	34.60	25.441	254.8	0.025
20	16.08	34.60	25.441	254.8	0.051
30	16.08	34.60	25.441	254.8	0.077
40	16.08	34.60	25.441	254.8	0.102
50	16.08	34.60	25.441	254.8	0.128
75	15.71	34.60	25.525	246.8	0.191
100	15.03	34.57	25.653	234.6	0.252
125	14.64	34.55	25.723	228.0	0.310
150	14.33	34.52	25.766	223.9	0.368
175	13.97	34.49	25.819	218.8	0.424
200	13.87	34.50	25.847	216.1	0.480
225	13.63	34.50	25.897	211.4	0.535
250	13.37	34.49	25.943	207.1	0.589
275	12.77	34.44	26.024	199.3	0.641
300	12.39	34.43	26.091	193.0	0.692
350	11.58	34.36	26.191	183.5	0.790
400	10.90	34.31	26.277	175.4	0.884
450	9.80	34.23	26.405	163.1	0.973
500	8.50	34.13	26.537	150.7	1.057
550	7.45	34.05	26.630	141.8	1.134
600	6.36	34.03	26.763	129.2	1.206
650	5.55	34.01	26.849	121.1	1.273
700	5.03	34.03	26.926	113.8	1.335
750	4.64	34.07	27.002	106.6	1.394
800	4.28	34.13	27.088	98.4	1.449
850	4.07	34.17	27.142	93.3	1.501
900	3.86	34.21	27.195	88.2	1.550
950	3.67	34.25	27.246	83.4	1.597
1000	3.53	34.29	27.291	79.1	1.641
1100	3.28	34.35	27.363	72.3	1.725

RV THOMAS WASHINGTON INDOPAC LEG I 57

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 01. N	178 01.2W	4/13/76	0436 0736 GMT	3722M	350	10KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	15.84	34.516	5.76	0.21	6.2		0.6	255.7	0	15.84	34.516	5.76	25.431	255.7	0.000
11	15.85	34.510	5.58	0.22	6.2		0.6	256.3	10	15.85	34.510	5.60	25.424	256.3	0.026
22	15.83	34.513	5.81	0.17	6.4		0.6	255.7	20	15.83	34.513	5.76	25.430	255.8	0.051
32	15.84	34.511	5.92	0.19	6.1		0.6	256.1	30	15.84	34.512	5.91	25.428	256.0	0.077
51	15.29	34.534	5.63	0.33	6.2		2.8	242.7	50	15.33	34.533	5.65	25.558	243.6	0.127
61	14.91	34.538	5.22	0.33	6.6		4.2	234.4	75	14.78	34.532	5.14	25.677	232.3	0.187
76	14.78	34.533	5.13	0.34	6.8		4.4	232.1	100	14.30	34.491	5.77	25.750	225.4	0.245
90	14.54	34.516	5.63	0.40	7.6		4.2	228.4	125	14.03	34.469	5.86	25.790	221.6	0.302
100	14.30	34.491	5.77	0.40	7.6		3.7	225.4	150	13.77	34.465	5.63	25.841	216.7	0.357
126	14.02	34.468	5.86	0.40	7.7		4.3	221.5	200	12.91	34.440	5.26	25.997	201.9	0.464
150	13.77	34.465	5.63	0.47	8.1		5.2	216.7	250	11.78	34.373	5.09	26.164	186.1	0.564
200	12.91	34.440	5.26	0.65	11.9		8.9	201.9	300	11.15	34.322	5.10	26.240	178.8	0.659
249	11.79	34.373	5.09	0.84	16.2		11.8	186.3	400	9.18	34.172	5.03	26.461	157.9	0.834
299	11.17	34.323	5.10	0.95	18.3		13.0	179.0	500	7.49	34.049	4.54	26.622	142.6	0.992
399	9.20	34.172	5.03	1.25	27.5		17.1	158.0	600	6.08	34.011	3.46	26.783	127.3	1.135
498	7.52	34.049	4.56	1.61	40.4		22.1	142.9	700	5.02	34.055	2.36	26.946	111.9	1.263
598	6.10	34.009	3.48	2.16	59.7		29.3	127.6	800	4.28	34.135	1.48	27.092	98.1	1.375
797	4.29	34.132	1.49	3.05	102.6		40.2	98.3	1000	3.55	34.282	0.80	27.283	79.9	1.568
994A	3.54	34.282	0.82	3.10	129.8		43.5	79.6	1200	2.98	34.393	0.54	27.424	66.5	1.730
995	3.56	34.278	0.81	3.23	129.3		43.4	80.3	1500	2.50	34.495	0.69	27.548	54.8	1.936
1095A	3.28	34.334	0.65	3.18	140.3		44.1	73.5	1750	2.15	34.554	1.07	27.624	47.6	2.085
1193	2.99	34.389	0.54	3.28	149.8		44.8	66.8	2000	1.92	34.595	1.63	27.674	42.8	2.218
1293A	2.85	34.423	0.54	3.27	154.6		44.6	63.1	2250	1.77	34.624	2.07	27.710	39.4	2.342
1492A	2.51	34.492	0.68	3.17	166.2		44.6	55.0	2500	1.65	34.640	2.45	27.731	37.4	2.460
1690A	2.22	34.543	0.97	3.14	174.7		43.9	48.9	2750	1.57	34.654	2.75	27.748	35.8	2.574
1888A	2.02	34.575	1.35	3.05	177.2		42.8	44.9	3000	1.53	34.662	2.94	27.759	34.8	2.686
2087A	1.85	34.606	1.84	2.98	178.3		41.7	41.3	3250	1.50	34.671	3.24	27.768	34.0	2.797
2286A	1.75	34.626	2.11	2.92	174.9		40.8	39.1	3500	1.46	34.675	3.35	27.774	33.4	2.907
2484A	1.66	34.638	2.42	2.89	173.9		39.8	37.6							
2681A	1.59	34.650	2.72	2.78	173.1		39.2	36.2							
2878A	1.55	34.658	2.79	2.75	170.5		38.7	35.3							
3075A	1.514	34.664	3.05	2.68	168.5		36.9	34.6							
3272A	1.496	34.671	3.26	2.65	167.1		36.9	33.9							
3371A	1.481	34.674	3.31	2.67	166.5		36.4	33.6							
3468A	1.468	34.675	3.34	2.65	166.0		36.7	33.4							

RV THOMAS WASHINGTON INDOPAC LEG I 58

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.6N	179 00.6W	4/13/76	1351 GMT	3960M	280	5KT		49

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.25	34.443	5.92					248.5	0	15.25	34.443	5.92	25.507	248.5	0.000
10	15.24	34.440	5.94					248.5	10	15.24	34.440	5.94	25.507	248.5	0.025
20	15.24	34.442	5.92					248.3	20	15.24	34.442	5.92	25.508	248.3	0.050
31	15.23	34.441	5.94					248.2	30	15.23	34.442	5.94	25.510	248.2	0.075
51	14.44	34.459	5.94					232.0	50	14.49	34.440	5.94	25.670	233.0	0.123
77	13.86	34.450	5.76					221.1	75	13.89	34.431	5.78	25.789	221.7	0.180
101	13.46	34.425	5.57					213.6	100	13.47	34.426	5.58	25.871	213.9	0.235
127	13.14	34.437	5.39					206.5	125	13.16	34.437	5.40	25.943	207.1	0.289
151	12.76	34.432	5.19					199.7	150	12.78	34.433	5.20	26.017	200.0	0.340
203	11.99	34.394	5.10					188.3	200	12.03	34.398	5.11	26.135	188.8	0.440
252	11.37	34.344	5.15					181.0	250	11.40	34.347	5.15	26.215	181.2	0.535
300	10.60	34.281	5.15					172.4	300	10.60	34.281	5.15	26.307	172.4	0.627
401	9.16	34.175	4.97					157.2	400	9.18	34.177	4.97	26.466	157.4	0.799
500	6.88	34.041	3.84					135.0	500	6.88	34.041	3.84	26.702	135.0	0.953
600	5.45	34.026	2.83					118.7	600	5.45	34.026	2.83	26.874	118.7	1.087
698	4.55	34.093	1.94					103.9	700	4.54	34.096	1.92	27.033	103.7	1.205
797	4.04	34.181	1.29					92.2	800	4.03	34.184	1.28	27.157	91.9	1.309
896	3.69	34.247	0.93					83.8	1000	3.43	34.300	0.76	27.309	77.4	1.493
995	3.44	34.297	0.76					77.7	1200	2.92	34.408	0.55	27.442	64.8	1.651
1194	2.93	34.405	0.56					65.1							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 01. N	178 01.2W	04/13/76	0336 GMT

Z	T	S	SIGMA T	DT	DD
0	15.87	34.51	25.420	256.8	0.000
10	15.86	34.51	25.422	256.6	0.026
20	15.84	34.51	25.426	256.1	0.051
30	15.80	34.51	25.436	255.3	0.077
40	15.67	34.51	25.465	252.5	0.103
50	15.22	34.51	25.565	242.9	0.127
75	14.66	34.51	25.687	231.3	0.187
100	14.22	34.48	25.758	224.6	0.245
125	14.01	34.48	25.803	220.4	0.301
150	13.86	34.46	25.818	218.9	0.357
175	13.47	34.46	25.899	211.2	0.412
200	13.21	34.45	25.944	206.9	0.465
225	12.65	34.42	26.033	198.5	0.517
250	12.28	34.40	26.089	193.1	0.568
275	11.82	34.37	26.154	187.0	0.617
300	11.37	34.34	26.214	181.3	0.665
350	10.17	34.24	26.350	168.4	0.756
400	9.06	34.16	26.472	156.8	0.841
450	8.28	34.10	26.547	149.7	0.921
500	7.17	34.02	26.646	140.3	0.998
550	6.34	34.00	26.742	131.2	1.070
600	5.79	34.00	26.812	124.6	1.137
650	5.14	34.03	26.913	115.0	1.201
700	4.79	34.05	26.969	109.7	1.261
750	4.44	34.10	27.047	102.3	1.317
800	4.26	34.14	27.098	97.4	1.371
850	4.04	34.17	27.145	93.0	1.422
900	3.85	34.21	27.196	88.1	1.471
950	3.64	34.25	27.249	83.1	1.518
1000	3.52	34.28	27.284	79.8	1.562
1100	3.25	34.33	27.350	73.6	1.647
1200	3.03	34.38	27.410	67.8	1.725
1300	2.81	34.43	27.470	62.2	1.798
1400	2.63	34.46	27.509	58.4	1.867
1500	2.50	34.49	27.545	55.1	1.932
1600	2.369	34.516	27.576	52.1	1.993
1700	2.225	34.538	27.606	49.3	2.052
1800	2.124	34.561	27.632	46.8	2.109
1900	2.023	34.579	27.655	44.7	2.163
2000	1.934	34.594	27.674	42.9	2.215
2100	1.848	34.608	27.692	41.2	2.266
2200	1.796	34.619	27.704	40.0	2.315
2300	1.748	34.627	27.714	39.0	2.363
2400	1.692	34.635	27.725	38.0	2.410
2500	1.660	34.641	27.732	37.3	2.456
2600	1.617	34.648	27.741	36.5	2.502
2700	1.589	34.652	27.746	36.0	2.548
2800	1.569	34.657	27.752	35.5	2.593
2900	1.554	34.660	27.755	35.1	2.637
3000	1.528	34.664	27.760	34.7	2.682
3100	1.506	34.668	27.765	34.2	2.726
3200	1.502	34.667	27.765	34.3	2.770
3300	1.488	34.673	27.770	33.7	2.814
3400	1.469	34.676	27.774	33.3	2.858
3441	1.466	34.677	27.775	33.2	2.876

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.6N	179 00.6W	04/13/76	1311 GMT

Z	T	S	SIGMA T	DT	DD
0	15.24	34.45	25.515	247.7	0.000
10	15.24	34.45	25.515	247.7	0.025
20	15.24	34.45	25.515	247.7	0.050
30	15.22	34.45	25.519	247.3	0.074
40	15.14	34.45	25.537	245.7	0.099
50	14.80	34.45	25.611	238.6	0.124
75	13.92	34.44	25.791	221.5	0.181
100	13.59	34.43	25.851	215.7	0.237
125	13.19	34.45	25.948	206.5	0.290
150	12.87	34.44	26.005	201.2	0.342
175	12.44	34.42	26.074	194.6	0.393
200	12.04	34.40	26.135	188.8	0.442
225	11.77	34.38	26.171	185.4	0.490
250	11.36	34.35	26.224	180.3	0.537
275	10.98	34.32	26.270	176.0	0.583
300	10.57	34.28	26.312	172.0	0.628
350	9.80	34.23	26.405	163.1	0.715
400	9.13	34.18	26.477	156.4	0.799
450	8.02	34.10	26.586	146.0	0.878
500	7.03	34.05	26.689	136.3	0.953
550	6.25	34.02	26.769	128.6	1.023
600	5.60	34.03	26.859	120.2	1.089
650	4.95	34.05	26.951	111.4	1.150
700	4.56	34.09	27.026	104.3	1.207
750	4.27	34.14	27.097	97.5	1.261
800	4.04	34.18	27.153	92.2	1.312
850	3.83	34.22	27.206	87.2	1.361
900	3.67	34.25	27.246	83.4	1.407
950	3.55	34.28	27.281	80.0	1.451
1000	3.43	34.30	27.309	77.4	1.495
1100	3.15	34.36	27.383	70.4	1.576
1200	2.92	34.41	27.444	64.6	1.651

RV THOMAS WASHINGTON INDOPAC LEG I 59

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.3N	179 59.6E	4/13/76	2001 2224 GMT	3711M	200	15KT	1	49

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
2	15.06	34.435	5.94	0.18	7.4		0.8	245.1	0	15.06	34.435	5.94	25.543	245.1	0.000
11	15.01	34.431	5.96	0.18	7.1		0.8	244.3	10	15.01	34.432	5.96	25.550	244.4	0.024
22	14.98	34.431	5.94	0.19	6.9		0.8	243.7	20	14.99	34.433	5.94	25.557	243.7	0.049
31	15.02	34.432	5.95	0.18	6.8		0.8	244.5	30	15.02	34.433	5.95	25.550	244.4	0.073
40	14.99	34.433	5.96	0.21	6.8		0.8	243.8	50	14.95	34.437	5.96	25.568	242.7	0.122
49	14.97	34.434	5.96	0.20	6.8		1.0	243.3	75	14.08	34.461	5.73	25.773	223.2	0.181
60	14.66	34.462	5.90	0.25	7.2		1.8	234.8	100	13.83	34.474	5.58	25.835	217.3	0.237
74	14.10	34.460	5.74	0.32	7.8		3.6	223.6	125	13.57	34.464	5.57	25.881	213.0	0.291
96	13.87	34.474	5.58	0.39	8.2		5.0	218.0	150	13.29	34.448	5.52	25.927	208.6	0.345
144	13.36	34.449	5.57	0.47	9.7		6.2	209.9	200	12.58	34.424	5.20	26.050	196.8	0.449
191	12.72	34.432	5.21	0.68	12.4		9.6	198.9	250	11.75	34.369	5.17	26.166	185.9	0.547
238	11.94	34.382	5.17	0.80	14.8		11.3	188.3	300	10.89	34.302	5.17	26.273	175.7	0.641
285	11.18	34.325	5.19	0.94	17.6		12.7	179.1	400	8.97	34.159	4.97	26.484	155.6	0.813
380	9.30	34.182	5.07	1.27	26.4		17.0	158.8	500	7.38	34.056	4.23	26.644	140.5	0.969
474	7.82	34.080	4.44	1.63	38.7		22.4	144.7	600	5.81	34.010	3.25	26.816	124.2	1.109
569	6.25	34.012	3.60	2.05	57.3		28.8	129.2	700	4.76	34.056	2.19	26.976	109.0	1.233
663	5.07	34.028	2.55	2.51	79.4		35.2	114.3	800	4.14	34.144	1.41	27.113	96.0	1.343
759	4.37	34.106	1.69	2.84	99.1		39.8	101.1	1000	3.39	34.299	0.60	27.312	77.2	1.531
951	3.53	34.269	0.73	3.12	128.8		44.2	80.7	1200	2.94	34.397	0.51	27.432	65.8	1.689
1067A	3.23	34.334	0.50	3.18	142.3		44.8	73.1	1500	2.42	34.499	0.68	27.558	53.8	1.892
1147	3.05	34.373	0.50	3.19	147.7		45.5	68.5	1750	2.13	34.554	1.00	27.626	47.4	2.039
1367A	2.62	34.460	0.57	3.23	164.6		45.4	58.4	2000	1.92	34.598	1.48	27.677	42.5	2.171
1669A	2.21	34.537	0.88	3.15	175.4		44.7	49.3	2250	1.75	34.626	2.08	27.713	39.2	2.295
1969A	1.94	34.592	1.40	3.04	180.7		43.3	43.1	2500	1.63	34.642	2.49	27.735	37.0	2.411
2269A	1.74	34.627	2.13	2.90	178.0		41.3	39.0	2750	1.55	34.655	2.78	27.751	35.5	2.524
2569A	1.60	34.646	2.57	2.79	173.8		39.9	36.5	3000	1.51	34.665	3.03	27.761	34.5	2.635
2866A	1.534	34.661	2.90	2.71	170.4		38.8	34.9	3250	1.48	34.671	3.20	27.769	33.8	2.745
3161A	1.490	34.668	3.16	2.65	167.3		38.2	34.1	3500	1.46	34.679	3.34	27.777	33.1	2.854
3554A	1.451	34.680	3.37	2.63	164.4		37.4	32.9							
3651A	1.436	34.683	3.46	2.56	163.8		37.3	32.6							

RV THOMAS WASHINGTON INDOPAC LEG I 60

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.8N	179 00.5E	4/14/76	0927 GMT	3739M	270	12KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	15.14	34.448	5.95					245.8	0	15.14	34.448	5.95	25.535	245.8	0.000
10	15.14	34.448	5.93					245.8	10	15.14	34.448	5.93	25.535	245.8	0.025
20	15.16	34.450	5.96					246.1	20	15.16	34.450	5.96	25.532	246.1	0.049
31	15.15	34.454	5.95					245.6	30	15.15	34.454	5.95	25.537	245.6	0.074
50	15.07	34.456	5.96					243.7	50	15.07	34.456	5.96	25.557	243.7	0.123
76	14.57	34.464	5.93					232.8	75	14.59	34.464	5.93	25.666	233.4	0.183
100	14.07	34.469	5.74					222.4	100	14.07	34.469	5.74	25.781	222.4	0.241
125	13.93	34.481	5.61					218.7	125	13.93	34.481	5.61	25.820	218.7	0.297
151	13.68	34.479	5.56					213.9	150	13.69	34.480	5.56	25.868	214.1	0.352
200	13.01	34.454	5.20					202.8	200	13.01	34.454	5.20	25.987	202.8	0.458
248	12.24	34.406	5.12					192.0	250	12.20	34.404	5.12	26.107	191.5	0.560
298	11.26	34.337	5.12					179.6	300	11.22	34.335	5.12	26.237	179.1	0.656
397	9.23	34.172	4.90					158.5	400	9.16	34.168	4.88	26.461	157.9	0.831
494	7.22	34.048	4.11					138.9	500	7.11	34.044	4.06	26.672	137.9	0.987
593	5.74	34.008	3.18					123.4	600	5.66	34.010	3.11	26.834	122.5	1.125
691	4.78	34.049	2.26					109.6	700	4.70	34.060	2.16	26.986	108.1	1.247
788	4.07	34.162	1.37					93.9	800	4.02	34.173	1.32	27.148	92.7	1.355
886	3.76	34.229	1.10					85.9	1000	3.40	34.300	0.78	27.311	77.3	1.539
984	3.44	34.290	0.81					78.3	1200	2.96	34.398	0.63	27.431	65.9	1.697
1183	3.00	34.390	0.64					66.8							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.3N	179 59.6E	04/13/76	1904 GMT

Z	T	S	SIGMA T	DT	DD
0	14.91	34.38	25.533	246.0	0.000
10	14.91	34.41	25.556	243.8	0.025
20	14.92	34.42	25.562	243.3	0.049
30	14.92	34.42	25.562	243.3	0.073
40	14.88	34.43	25.578	241.7	0.098
50	14.47	34.45	25.682	231.8	0.121
75	13.93	34.46	25.804	220.3	0.178
100	13.64	34.45	25.856	215.3	0.233
125	13.38	34.45	25.910	210.2	0.287
150	13.18	34.44	25.943	207.1	0.340
175	12.83	34.43	26.005	201.2	0.393
200	12.51	34.41	26.052	196.6	0.443
225	12.13	34.40	26.118	190.4	0.493
250	11.57	34.36	26.193	183.3	0.541
275	11.09	34.32	26.250	177.9	0.588
300	10.75	34.29	26.288	174.3	0.634
350	9.94	34.23	26.382	165.4	0.722
400	8.75	34.13	26.498	154.4	0.806
450	7.91	34.09	26.594	145.2	0.884
500	7.22	34.04	26.654	139.5	0.959
550	6.30	34.01	26.755	130.0	1.031
600	5.70	34.00	26.823	123.6	1.098
650	5.21	34.01	26.889	117.2	1.162
700	4.74	34.05	26.975	109.1	1.222
750	4.45	34.09	27.038	103.1	1.278
800	4.15	34.14	27.110	96.3	1.332
850	3.89	34.18	27.168	90.8	1.382
900	3.67	34.24	27.238	84.2	1.430
950	3.47	34.28	27.289	79.3	1.474
1000	3.33	34.31	27.327	75.8	1.516
1100	3.13	34.35	27.377	71.0	1.597
1200	2.90	34.40	27.436	65.2	1.673
1300	2.75	34.43	27.475	61.7	1.744
1400	2.56	34.47	27.524	57.1	1.811
1500	2.42	34.49	27.551	54.5	1.875
1600	2.286	34.522	27.588	51.0	1.936
1700	2.173	34.548	27.618	48.1	1.993
1800	2.072	34.568	27.642	45.9	2.049
1900	2.000	34.581	27.658	44.3	2.102
2000	1.906	34.599	27.680	42.3	2.154
2100	1.831	34.609	27.694	41.0	2.203
2200	1.773	34.621	27.708	39.6	2.252
2300	1.717	34.631	27.720	38.5	2.300
2400	1.663	34.639	27.730	37.5	2.346
2500	1.633	34.645	27.737	36.8	2.392
2600	1.595	34.651	27.745	36.1	2.437
2700	1.565	34.657	27.752	35.5	2.482
2800	1.540	34.661	27.757	35.0	2.526
2900	1.515	34.664	27.761	34.6	2.570
3000	1.500	34.667	27.765	34.2	2.614
3100	1.490	34.672	27.770	33.8	2.658
3200	1.478	34.673	27.771	33.6	2.701
3300	1.467	34.674	27.773	33.5	2.745
3400	1.453	34.678	27.777	33.1	2.788
3500	1.449	34.679	27.778	33.0	2.832
3600	1.445	34.682	27.781	32.7	2.875

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.8N	179 00.5E	04/14/76	0842 GMT

Z	T	S	SIGMA T	DT	DD
0	15.14	34.46	25.544	244.9	0.000
10	15.13	34.45	25.539	245.4	0.025
20	15.14	34.45	25.537	245.7	0.049
30	15.13	34.47	25.554	244.0	0.074
40	15.06	34.47	25.570	242.5	0.098
50	14.85	34.46	25.608	238.9	0.122
75	14.30	34.47	25.734	226.9	0.181
100	14.02	34.48	25.801	220.6	0.238
125	13.82	34.48	25.842	216.6	0.293
150	13.49	34.47	25.903	210.9	0.347
175	13.25	34.48	25.959	205.5	0.400
200	12.92	34.46	26.010	200.7	0.452
225	12.51	34.43	26.068	195.2	0.503
250	12.08	34.40	26.128	189.5	0.553
275	11.69	34.37	26.178	184.7	0.601
300	11.18	34.33	26.242	178.7	0.648
350	10.12	34.25	26.367	166.8	0.738
400	9.28	34.18	26.452	158.7	0.824
450	8.25	34.11	26.559	148.5	0.904
500	7.20	34.05	26.665	138.5	0.980
550	6.45	34.02	26.743	131.1	1.051
600	5.76	34.01	26.823	123.5	1.119
650	5.06	34.03	26.923	114.1	1.182
700	4.76	34.05	26.972	109.4	1.241
750	4.36	34.10	27.054	101.7	1.297
800	4.07	34.16	27.134	94.0	1.350
850	3.88	34.20	27.185	89.2	1.399
900	3.72	34.24	27.233	84.7	1.446
950	3.61	34.26	27.260	82.1	1.492
1000	3.41	34.30	27.311	77.3	1.535
1100	3.16	34.35	27.374	71.2	1.617
1200	2.95	34.40	27.433	65.6	1.693

RV THOMAS WASHINGTON — INDOPAC LEG I — 61

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59. N	177 58.4E	4/14/76	1633 2112 GMT	3667M	310	17KT	1	270 8 8

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
2	14.33	34.348	6.10	0.14	7.9	0.00	0.0	236.5	0	14.33	34.348	6.10	25.633	236.5	0.000
12	14.33	34.343	6.15	0.16	7.8	0.01	0.0	236.8	10	14.33	34.345	6.14	25.630	236.8	0.024
22	14.34	34.344	6.09	0.16	7.7	0.01	0.0	237.0	20	14.34	34.345	6.10	25.628	236.9	0.047
32	14.32	34.356	6.08	0.16	7.6	0.03	0.1	235.7	30	14.32	34.353	6.08	25.638	236.1	0.071
50	14.15	34.408	5.89	0.25	7.6	0.04	1.2	228.4	50	14.15	34.408	5.89	25.718	228.4	0.118
61	14.09	34.418	5.85	0.30	7.5	0.39	1.3	226.5	75	13.95	34.421	5.78	25.770	223.5	0.175
75	13.95	34.421	5.78	0.29	7.6	0.67	1.8	223.5	100	13.68	34.479	5.69	25.871	213.9	0.230
89	13.76	34.443	5.68	0.39	8.0	0.23	3.9	218.1	125	13.29	34.476	5.44	25.948	206.5	0.283
98	13.70	34.475	5.70	0.43	9.3	0.14	4.7	214.6	150	12.83	34.445	5.32	26.016	200.1	0.335
123	13.32	34.477	5.46	0.58	11.5	0.00	7.2	207.1	200	11.77	34.365	5.39	26.160	186.4	0.434
146	12.92	34.452	5.32	0.68	12.4	0.00	8.7	201.2	250	11.10	34.328	5.19	26.255	177.4	0.527
194	11.86	34.370	5.41	0.80	14.6	0.00	10.1	187.7	300	10.38	34.276	5.07	26.342	169.2	0.617
241	11.21	34.334	5.21	0.92	18.4	0.00	12.5	178.9	400	8.42	34.117	4.66	26.538	150.6	0.784
289	10.57	34.292	5.09	1.10	21.7	0.00	14.4	171.1	500	6.56	34.030	3.76	26.735	131.8	0.932
384	8.75	34.138	4.77	1.37	31.6	0.00	19.2	153.8	600	5.27	34.028	2.81	26.895	116.7	1.063
477	6.94	34.041	3.99	1.87	49.6	0.00	26.2	135.8	700	4.49	34.088	2.01	27.032	103.7	1.180
572	5.55	34.016	3.06	2.39	69.2	0.00	32.6	120.6	800	4.01	34.185	1.45	27.159	91.6	1.285
760	4.19	34.138	1.61	2.87	105.1	0.00	40.5	96.9	1000	3.30	34.326	0.85	27.342	74.3	1.465
952	3.48	34.297	0.82	3.08	133.1	0.00	44.1	78.1	1200	2.97	34.402	0.62	27.433	65.7	1.620
973A	3.41	34.293	0.89	3.10	134.4	0.00	43.4	77.8	1500	2.42	34.499	0.72	27.558	53.8	1.823
1146	2.96	34.424	0.62	3.20	151.1	0.00	45.5	63.9	1750	2.14	34.551	1.04	27.623	47.7	1.970
1172A	2.99	34.388	0.61	3.17	150.0	0.03	44.7	66.9	2000	1.92	34.594	1.50	27.674	42.9	2.104
1370A	2.63	34.459	0.65	3.18	162.7	0.02	44.9	58.5	2250	1.75	34.622	1.90	27.709	39.5	2.228
1569A	2.32	34.516	0.78	3.12	172.2	0.03	44.8	51.7	2500	1.63	34.640	2.43	27.733	37.2	2.345
1782B	2.11	34.556	1.10	3.10	177.0	0.00	43.9	47.1	2750	1.56	34.654	2.74	27.749	35.7	2.459
1984B	1.93	34.590	1.48	3.04	181.1	0.00	43.1	43.1	3000	1.51	34.666	2.99	27.763	34.4	2.570
2185B	1.79	34.614	1.74	2.96	180.6	0.00	42.1	40.3	3250	1.48	34.670	3.14	27.768	34.0	2.680
2387B	1.68	34.634	2.24	2.83	176.9	0.00	40.7	38.0	3500	1.45	34.679	3.42	27.778	33.0	2.789
2587B	1.60	34.643	2.54	2.76	172.8	0.00	40.2	36.8							
2787B	1.55	34.655	2.78	2.70	170.2	0.00	39.0	35.5							
2986B	1.51	34.665	2.99	2.63	168.5	0.00	38.2	34.5							
3184B	1.492	34.667	3.06	2.59	166.8	0.00	37.7	34.2							
3380B	1.465	34.674	3.30	2.57	165.4	0.00	37.5	33.5							
3574B	1.437	34.681	3.45	2.58	164.2	0.00	37.0	32.7							
3623B	1.424	34.681	3.43	2.62	164.6	0.00	36.4	32.7							

RV THOMAS WASHINGTON — INDOPAC LEG I — 62

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.1N	176 58.3E	4/15/76	034A GMT	2634M	350	10KT	1	310 11 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	14.26	34.422	6.03					229.6	0	14.26	34.422	6.03	25.705	229.6	0.000
10	14.23	34.418	6.07					229.3	10	14.23	34.418	6.07	25.708	229.3	0.023
20	14.18	34.421	6.07					228.1	20	14.18	34.421	6.07	25.721	228.1	0.046
31	14.18	34.420	6.11					228.2	30	14.18	34.421	6.11	25.721	228.2	0.069
51	14.07	34.432	5.98					225.1	50	14.08	34.431	5.99	25.750	225.4	0.114
75	13.73	34.494	5.48					213.8	75	13.73	34.494	5.48	25.872	213.8	0.170
100	13.57	34.479	5.74					211.8	100	13.57	34.479	5.74	25.893	211.8	0.223
126	13.47	34.468	5.79					210.6	125	13.47	34.469	5.79	25.905	210.7	0.277
151	13.29	34.466	5.71					207.3	150	13.30	34.467	5.72	25.939	207.4	0.330
202	12.59	34.428	5.29					196.8	200	12.62	34.431	5.31	26.046	197.3	0.434
251	11.82	34.379	5.20					186.3	250	11.84	34.381	5.20	26.158	186.6	0.532
301	11.03	34.324	5.12					176.5	300	11.05	34.326	5.12	26.262	176.7	0.626
401	9.66	34.214	5.13					162.1	400	9.67	34.216	5.13	26.415	162.2	0.803
501	7.76	34.074	4.66					144.3	500	7.78	34.076	4.67	26.602	144.5	0.965
600	6.04	34.008	3.57					127.0	600	6.04	34.008	3.57	26.787	127.0	1.109
698	4.92	34.039	2.47					111.9	700	4.90	34.042	2.45	26.949	111.6	1.236
797	4.25	34.128	1.71					98.2	800	4.24	34.132	1.69	27.094	97.9	1.348
897	3.83	34.221	1.17					87.1	1000	3.47	34.295	1.01	27.300	76.0	1.539
995	3.49								1200	2.93	34.401		27.436	65.4	1.697
1194	2.94	34.398	0.72					65.7							

61D

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.0N	177 58.4E	04/14/76	1515 GMT

Z	T	S	SIGMA T	DT	DD
0	14.32	34.34	25.629	236.8	0.000
10	14.32	34.34	25.629	236.8	0.024
20	14.32	34.34	25.629	236.8	0.047
30	14.28	34.37	25.661	233.8	0.071
40	14.11	34.40	25.720	228.2	0.094
50	14.01	34.41	25.749	225.5	0.117
75	13.85	34.44	25.805	220.1	0.173
100	13.58	34.49	25.900	211.2	0.228
125	13.21	34.46	25.952	206.2	0.281
150	12.96	34.45	25.994	202.1	0.333
175	12.50	34.42	26.062	195.7	0.383
200	12.03	34.39	26.130	189.3	0.433
225	11.59	34.36	26.189	183.7	0.481
250	11.16	34.34	26.253	177.6	0.527
275	10.78	34.31	26.298	173.3	0.572
300	10.15	34.24	26.354	168.0	0.617
350	9.39	34.18	26.434	160.4	0.702
400	8.53	34.12	26.524	151.9	0.784
450	7.72	34.07	26.607	144.1	0.861
500	6.78	34.02	26.699	135.3	0.935
550	5.85	33.99	26.796	126.1	1.004
600	5.20	34.01	26.891	117.1	1.068
650	4.78	34.05	26.970	109.6	1.128
700	4.43	34.08	27.032	103.7	1.185
750	4.25	34.11	27.075	99.6	1.239
800	4.04	34.16	27.137	93.7	1.291
850	3.84	34.20	27.189	88.8	1.340
900	3.68	34.24	27.237	84.3	1.387
950	3.50	34.27	27.278	80.3	1.432
1000	3.32	34.31	27.328	75.7	1.474
1100	3.12	34.36	27.386	70.1	1.554
1200	2.93	34.40	27.435	65.5	1.630
1300	2.73	34.44	27.485	60.8	1.701
1400	2.57	34.47	27.523	57.2	1.768
1500	2.42	34.50	27.559	53.7	1.831
1600	2.281	34.524	27.590	50.6	1.891
1700	2.168	34.546	27.617	48.3	1.949
1800	2.063	34.567	27.642	45.9	2.004
1900	1.993	34.583	27.660	44.1	2.057
2000	1.899	34.596	27.678	42.5	2.109
2100	1.842	34.605	27.690	41.4	2.159
2200	1.793	34.619	27.705	39.9	2.208
2300	1.729	34.627	27.716	38.9	2.256
2400	1.677	34.639	27.729	37.6	2.303
2500	1.635	34.643	27.736	37.0	2.349
2600	1.596	34.650	27.744	36.2	2.394
2700	1.569	34.656	27.751	35.5	2.439
2800	1.540	34.662	27.758	34.9	2.484
2900	1.516	34.664	27.761	34.6	2.528
3000	1.498	34.667	27.765	34.2	2.571
3100	1.486	34.669	27.767	34.0	2.615
3200	1.470	34.674	27.773	33.5	2.659
3300	1.461	34.674	27.773	33.5	2.702
3400	1.444	34.677	27.777	33.1	2.745
3500	1.439	34.679	27.779	32.9	2.789
3600	1.421	34.682	27.783	32.6	2.832
3653	1.411	34.684	27.785	32.3	2.855

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.1N	176 58.3E	04/15/76	0312 GMT

Z	T	S	SIGMA T	DT	DD
0	14.21	34.42	25.714	228.8	0.000
10	14.20	34.42	25.716	228.6	0.023
20	14.18	34.42	25.721	228.2	0.046
30	14.16	34.43	25.733	227.0	0.069
40	14.14	34.43	25.737	226.6	0.091
50	14.11	34.43	25.743	226.0	0.114
75	13.81	34.50	25.860	214.9	0.170
100	13.61	34.49	25.893	211.7	0.224
125	13.44	34.47	25.913	209.9	0.277
150	13.31	34.46	25.932	208.1	0.330
175	13.01	34.45	25.984	203.1	0.383
200	12.73	34.44	26.032	198.5	0.434
225	12.38	34.41	26.078	194.2	0.485
250	11.97	34.39	26.141	188.2	0.534
275	11.55	34.36	26.197	182.9	0.582
300	11.23	34.34	26.240	178.8	0.629
350	10.25	34.26	26.352	168.2	0.719
400	9.61	34.21	26.421	161.6	0.806
450	8.67	34.14	26.518	152.4	0.888
500	7.54	34.07	26.633	141.6	0.966
550	6.46	34.02	26.742	131.2	1.038
600	5.81	34.00	26.809	124.8	1.106
650	5.20	34.02	26.898	116.4	1.170
700	4.84	34.05	26.963	110.2	1.230
750	4.53	34.09	27.029	104.0	1.287
800	4.24	34.13	27.092	98.0	1.341
850	4.03	34.17	27.146	92.9	1.393
900	3.83	34.22	27.206	87.2	1.441
950	3.65	34.26	27.256	82.5	1.488
1000	3.46	34.30	27.306	77.7	1.531
1100	3.16	34.36	27.382	70.5	1.613
1187	2.93	34.40	27.435	65.5	1.679

RV THOMAS WASHINGTON INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.5N	175 57.8E	4/15/76	1041 1423 GMT	4905M	090	2KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	15.06	34.542	5.89	0.16	6.4	0.16	2.0	237.3
11	15.04	34.543	5.87	0.19	6.3	0.16	2.0	236.8
22	15.04	34.542	5.87	0.19	6.2	0.16	1.9	236.8
31	15.06	34.543	5.86	0.20	6.1	0.16	2.0	237.2
51	15.04	34.542	5.86	0.20	6.0	0.18	2.1	236.8
60	15.00	34.538	5.87	0.20	5.9	0.21	2.1	236.3
76	14.77	34.531	5.82	0.24	6.5	0.29	2.7	232.0
91	14.48	34.529	5.76	0.28	7.0	0.31	3.7	226.2
101	14.27	34.524	5.78	0.32	7.6	0.35	3.9	222.4
126	14.06	34.515	5.76	0.37	8.2	0.34	4.6	218.8
151	13.97	34.508	5.75	0.38	8.5	0.40	4.6	217.5
201	13.61	34.495	5.74	0.43	9.0	0.04	6.0	211.4
251	12.98	34.452	5.56	0.55	11.3	0.01	7.8	202.4
300	12.48	34.418	5.53	0.62	13.4	0.01	9.1	195.5
400	10.91	34.318	5.05	0.98	20.9	0.01	14.1	174.9
498	8.77	34.149	4.96	1.36	30.3	0.00	18.6	153.3
599	6.55 K	34.010	4.05	1.94	51.7	0.00	26.8	133.1
797	4.38	34.097	1.90	2.80	97.8	0.00	39.2	101.9
884A	3.97	34.185	1.40	2.88	112.6	0.00	40.9	91.2
992	3.66	34.249	1.10	3.08	124.9	0.06	42.6	83.4
1135A	3.11	34.363	0.77	3.17	143.7	0.00	43.8	69.8
1191	3.06	34.371	0.78	3.17	146.6	0.00	44.6	68.8
1686A	2.24	34.532	0.99	3.18	173.2	0.02	44.2	49.9
1887A	2.05	34.579	1.43	3.05	175.2	0.00	43.0	44.9
2087A	1.89	34.606	1.73	2.97	176.4	0.00	42.2	41.6
2286A	1.77	34.626	2.09	2.90	174.3	0.00	41.2	39.2
2485A	1.65	34.644	2.43	2.84	173.2	0.00	40.1	37.0
2684A	1.59	34.653	2.66	2.79	172.5	0.01	39.8	35.9
2883A	1.56	34.659	2.82	2.75	168.6	0.01	38.9	35.3
3081A	1.55	34.668	2.95	2.71	168.1	0.01	38.7	34.5
3280A	1.52	34.674	3.10	2.65	165.0	0.00	38.2	33.8
3479A	1.50	34.674	3.22	2.64	165.1	0.00	38.1	33.7
3677A	1.49	34.683	3.37	2.60	164.9	0.01	37.7	33.0
3874A	1.47	34.687	3.46	2.57	162.9	0.00	37.6	32.5
4121A	1.47	34.689	3.52	2.56	161.9	0.00	37.3	32.4
4367A	1.47	34.692	3.64	2.54	160.3	0.00	37.0	32.1
4662A	1.503	34.694	3.70	2.53	159.7	0.00	37.0	32.2
4760A	1.512	34.692	3.73	2.53	159.4	0.01	36.9	32.4
4808A	1.515	34.693	3.70	2.53	159.2	0.00	36.8	32.4
4848A	1.523	34.694	3.68	2.52	159.2	0.00	36.7	32.4

Z	T	S	O2	SIGT	DT	DD
0	15.06	34.542	5.89	25.625	237.3	0.000
10	15.04	34.543	5.87	25.630	236.8	0.024
20	15.04	34.542	5.87	25.629	236.8	0.047
30	15.06	34.543	5.86	25.626	237.1	0.071
50	15.04	34.543	5.86	25.629	236.9	0.119
75	14.79	34.532	5.82	25.676	232.4	0.178
100	14.29	34.525	5.76	25.778	222.7	0.235
125	14.06	34.516	5.76	25.819	218.8	0.291
150	13.97	34.509	5.75	25.832	217.6	0.347
200	13.62	34.496	5.74	25.895	211.5	0.457
250	12.99	34.454	5.56	25.990	202.6	0.563
300	12.48	34.418	5.53	26.064	195.5	0.666
400	10.91	34.318	5.05	26.281	174.9	0.860
500	8.72	34.146	4.95	26.514	152.8	1.033
600	6.53	34.011	4.04	26.724	132.9	1.184
700	5.16	34.021	2.90	26.903	115.9	1.317
800	4.36	34.101	1.88	27.056	101.5	1.433
1000	3.62	34.257	1.07	27.256	82.5	1.633
1200	3.05	34.378	0.78	27.404	68.5	1.800
1500	2.56	34.472	0.91	27.525	57.5	2.013
1750	2.17	34.549	1.13	27.618	48.1	2.166
2000	1.96	34.597	1.60	27.673	42.9	2.300
2250	1.79	34.623	2.02	27.707	39.6	2.425
2500	1.64	34.645	2.45	27.736	36.9	2.543
2750	1.58	34.656	2.72	27.749	35.7	2.656
3000	1.55	34.665	2.90	27.759	34.8	2.768
3250	1.52	34.674	3.08	27.768	33.9	2.879
3500	1.50	34.676	3.24	27.771	33.6	2.991
3750	1.48	34.685	3.41	27.780	32.8	3.102
4000	1.47	34.689	3.49	27.784	32.4	3.213
4250	1.47	34.691	3.58	27.786	32.2	3.324
4500	1.48	34.694	3.67	27.787	32.2	3.438
4750	1.51	34.693	3.73	27.784	32.4	3.553
5000	1.53	34.695		27.784	32.4	3.671

RV THOMAS WASHINGTON INDOPAC LEG I

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 01.1N	175 01.2E	4/15/76	2011 GMT	4045M	180	3KT	1	49

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	15.17	34.542	5.84					239.6
10	15.15	34.539	5.84					239.3
20	15.15	34.538	5.85					239.4
31	15.18	34.540	5.83					239.9
51	15.17	34.540	5.83E					239.7
76	15.16	34.542	5.80					239.3
100	15.16	34.557	5.72					238.3
127	14.87	34.568	5.59					231.4
151	14.38	34.554	5.57					222.4
201	13.71	34.505	5.33					212.6
251	13.25	34.474	5.19					205.9
301	12.39	34.417	5.18					193.9
402	10.68	34.293	5.08					172.9
500	8.65	34.138	4.78					152.3
600	6.79	34.013	4.11					135.9
698	5.23	34.013	2.76					117.2
797	4.46	34.098	1.81					102.6
896	4.04	34.173	1.29					92.8
995	3.64	34.251	0.89					83.1
1193	3.03	34.376	0.68					68.2

Z	T	S	O2	SIGT	DT	DD
0	15.17	34.542	5.84	25.601	239.6	0.000
10	15.15	34.539	5.84	25.603	239.3	0.024
20	15.15	34.538	5.85	25.602	239.4	0.048
30	15.18	34.540	5.83	25.587	239.9	0.072
50	15.17	34.541	5.83	25.599	239.7	0.120
75	15.16	34.542	5.80	25.603	239.4	0.181
100	15.16	34.557	5.72	25.615	238.3	0.241
125	14.90	34.569	5.60	25.679	232.1	0.300
150	14.40	34.555	5.57	25.777	222.8	0.358
200	13.72	34.506	5.34	25.883	212.7	0.470
250	13.26	34.475	5.19	25.953	206.1	0.577
300	12.41	34.419	5.18	26.079	194.2	0.681
400	10.72	34.297	5.08	26.298	173.3	0.873
500	8.65	34.138	4.78	26.520	152.3	1.045
600	6.79	34.013	4.11	26.692	135.9	1.198
700	5.21	34.016	2.74	26.893	116.9	1.332
800	4.44	34.102	1.79	27.047	102.3	1.450
1000	3.62	34.259	0.86	27.257	82.6	1.650
1200	3.01	34.380	0.67	27.412	67.7	1.816

F) A BURETTE READING ERROR OF 0.1 MILLILITER (0.84 MILLILITER PER LITER) HAS BEEN ASSUMED.

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.5N	175 57.8E	04/15/76	0905 GMT

Z	T	S	SIGMA T	DT	DD
0	15.19	34.54	25.595	240.1	0.000
10	15.20	34.55	25.600	239.6	0.024
20	15.21	34.56	25.606	239.1	0.048
30	15.18	34.55	25.605	239.2	0.072
40	15.14	34.55	25.614	238.3	0.096
50	15.07	34.54	25.621	237.6	0.120
75	15.03	34.55	25.638	236.0	0.180
100	14.83	34.54	25.674	232.6	0.239
125	14.34	34.53	25.771	223.3	0.297
150	14.11	34.53	25.820	218.7	0.353
175	13.97	34.51	25.834	217.4	0.408
200	13.91	34.51	25.847	216.2	0.464
225	13.56	34.50	25.911	210.0	0.519
250	13.07	34.46	25.980	203.5	0.572
275	12.81	34.44	26.017	200.0	0.624
300	12.45	34.42	26.072	194.8	0.675
350	11.59	34.37	26.197	182.9	0.774
400	10.63	34.30	26.317	171.5	0.867
450	9.43	34.21	26.451	158.8	0.954
500	8.65	34.15	26.529	151.4	1.036
550	7.50	34.06	26.630	141.8	1.113
600	6.61	34.01	26.714	133.8	1.187
650	5.67	34.00	26.826	123.2	1.255
700	5.04	34.01	26.909	115.4	1.319
750	4.65	34.05	26.985	108.2	1.378
800	4.36	34.10	27.056	101.5	1.434
850	4.10	34.15	27.123	95.1	1.487
900	3.93	34.20	27.180	89.7	1.537
950	3.74	34.24	27.231	84.8	1.585
1000	3.56	34.27	27.273	80.9	1.630
1100	3.19	34.34	27.364	72.3	1.714
1200	2.96	34.39	27.425	66.5	1.792
1300	2.79	34.43	27.472	62.0	1.864
1400	2.62	34.46	27.510	58.4	1.932
1500	2.46	34.49	27.548	54.8	1.997
1600	2.355	34.519	27.580	51.8	2.058
1700	2.223	34.541	27.608	49.1	2.117
1800	2.126	34.565	27.635	46.5	2.173
1900	2.036	34.584	27.658	44.4	2.227
2000	1.958	34.596	27.674	42.9	2.279
2100	1.878	34.610	27.691	41.2	2.329
2200	1.825	34.620	27.703	40.1	2.379
2300	1.761	34.631	27.717	38.8	2.427
2400	1.712	34.640	27.728	37.8	2.474
2500	1.661	34.649	27.739	36.7	2.520
2600	1.631	34.653	27.744	36.2	2.566
2700	1.601	34.658	27.750	35.6	2.611
2800	1.585	34.661	27.754	35.3	2.656
2900	1.572	34.665	27.758	34.9	2.700
3000	1.562	34.667	27.760	34.7	2.745
3100	1.549	34.670	27.764	34.4	2.789
3200	1.534	34.673	27.767	34.0	2.834
3300	1.517	34.677	27.772	33.6	2.878
3400	1.509	34.679	27.774	33.4	2.922
3500	1.496	34.682	27.777	33.1	2.966
3600	1.486	34.683	27.779	32.9	3.010
3700	1.481	34.687	27.782	32.6	3.054
3800	1.472	34.687	27.783	32.5	3.098
3900	1.472	34.688	27.784	32.5	3.143
4000	1.473	34.691	27.786	32.2	3.187
4100	1.472	34.690	27.785	32.3	3.231
4200	1.474	34.691	27.786	32.2	3.276
4300	1.478	34.693	27.787	32.1	3.321
4400	1.481	34.692	27.786	32.2	3.366
4500	1.488	34.693	27.786	32.2	3.412
4600	1.494	34.693	27.786	32.2	3.458
4700	1.502	34.694	27.786	32.2	3.504
4800	1.511	34.694	27.786	32.3	3.551
4900	1.521	34.694	27.785	32.3	3.598

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 01.1N	175 01.2E	04/15/76	1924 GMT

Z	T	S	SIGMA T	DT	DD
0	15.13	34.53	25.600	239.6	0.000
10	15.14	34.54	25.606	239.1	0.024
20	15.15	34.55	25.611	238.5	0.048
30	15.15	34.55	25.611	238.5	0.072
40	15.15	34.55	25.611	238.5	0.096
50	15.15	34.55	25.611	238.5	0.120
75	15.15	34.55	25.611	238.5	0.180
100	15.00	34.56	25.652	234.7	0.240
125	14.63	34.56	25.732	227.0	0.298
150	14.48	34.58	25.780	222.5	0.355
175	14.15	34.54	25.819	218.8	0.412
200	13.84	34.52	25.869	214.1	0.467
225	13.32	34.49	25.953	206.1	0.521
250	13.11	34.47	25.980	203.5	0.574
275	12.78	34.45	26.030	198.7	0.626
300	12.47	34.43	26.076	194.4	0.677
350	11.40	34.35	26.217	181.0	0.775
400	10.76	34.30	26.294	173.7	0.868
450	9.75	34.22	26.406	163.1	0.956
500	8.61	34.13	26.520	152.3	1.040
550	7.73	34.07	26.605	144.2	1.118
600	6.79	34.02	26.698	135.4	1.193
650	5.93	34.00	26.794	126.3	1.262
700	5.32	34.02	26.884	117.7	1.327
750	4.86	34.05	26.961	110.4	1.388
800	4.52	34.09	27.031	103.8	1.446
850	4.20	34.15	27.112	96.1	1.500
900	4.04	34.18	27.153	92.2	1.551
950	3.81	34.22	27.208	87.0	1.600
1000	3.62	34.26	27.259	82.2	1.646
1100	3.28	34.33	27.347	73.8	1.732
1200	3.03	34.38	27.410	67.8	1.810

RV THOMAS WASHINGTON INDOPAC LEG I 65

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00. N	174 00.3E	4/16/76	0253	0611 GMT	4358M	210	19KT	2	49

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	15.40	34.607	5.78	0.18	5.9		2.0	239.6	0	15.40	34.607	5.78	25.600	239.6	0.000
11	15.38	34.607	5.79	0.16	5.7		2.5	239.2	10	15.38	34.608	5.79	25.604	239.3	0.024
32	15.36	34.607	5.80	0.18	5.5		2.3	238.8	20	15.37	34.608	5.80	25.607	239.0	0.048
52	15.37	34.609	5.80	0.29	5.5		1.9	238.9	30	15.36	34.608	5.80	25.608	238.8	0.072
61	15.38	34.611	5.76	0.29	5.5		2.0	238.9	50	15.37	34.610	5.80	25.608	238.9	0.120
77	15.35	34.611	5.73	0.27	5.5		2.6	238.3	75	15.35	34.611	5.73	25.612	238.4	0.180
91	15.24	34.599	5.65	0.27	5.7		3.2	236.9	100	15.17	34.602	5.55	25.647	235.2	0.240
102	15.15	34.601	5.53	0.29	6.7		4.7	234.8	125	15.03	34.608	5.54	25.683	231.8	0.299
126	15.02	34.607	5.54	0.36	7.2		4.4	231.7	150	14.74	34.562	5.42	25.710	229.1	0.358
152	14.71	34.557	5.41	0.37	7.4		5.1	228.9	200	14.12	34.525	5.30	25.815	219.2	0.472
202	14.09	34.524	5.30	0.51	6.9		6.2	218.7	250	13.39	34.490	5.30	25.939	207.4	0.582
251	13.37	34.489	5.30	0.49	11.3		8.6	207.1	300	12.57	34.421	5.34	26.050	196.9	0.687
301	12.55	34.419	5.88U	0.49	11.5		6.8	196.7	400	11.07	34.328	5.41	26.260	176.9	0.882
400	11.07	34.328	5.41	0.80	18.0		11.6	176.9	500	8.23	34.113	4.58	26.564	148.1	1.053
497	8.29	34.116	4.60	1.38	34.4		20.6	148.7	600	6.63	34.036	3.81	26.731	132.3	1.202
596	6.71	34.037	3.86	1.75	51.0		27.2	133.1	700	5.01	34.041	2.58	26.935	112.9	1.333
695	5.06	34.036	2.63	2.45	77.5		35.5	113.6	800	4.35	34.123	1.70	27.074	99.7	1.447
794	4.38	34.118	1.74	2.82	96.6		40.4	100.3	1000	3.51	34.284	0.79	27.288	79.5	1.641
943A	3.78	34.227	1.00	2.98	118.1		42.5	86.2	1200	3.02	34.384	0.80	27.413	67.5	1.804
991	3.54	34.275	0.79	3.12	125.8		43.1	80.3	1500	2.41	34.502	0.93	27.561	53.5	2.009
1143A	3.14	34.363	0.83	3.09	141.2		43.6	70.1	1750	2.18	34.549	1.22	27.618	48.1	2.157
1192	3.04	34.379	0.80	3.19	142.4		44.4	68.0	2000	1.94	34.595	1.66	27.673	42.9	2.291
1343A	2.64	34.454	0.84	3.11	157.6		44.4	59.0	2250	1.77	34.630	2.13	27.714	39.0	2.415
1542A	2.37	34.511	0.97	3.10	166.5		44.3	52.5	2500	1.65	34.646	2.51	27.736	36.9	2.532
1740A	2.19	34.547	1.21	3.10	170.2		44.2	48.4	2750	1.64	34.655	2.74	27.744	36.2	2.646
1944A	1.98	34.585	1.54	3.05	172.4		43.2	43.9	3000	1.60	34.662	2.84	27.752	35.4	2.761
2137A	1.84	34.614	1.94	2.93	174.0		42.4	40.7	3250	1.56	34.670	3.06	27.762	34.5	2.874
2336A	1.72	34.638	2.26	2.87	171.5		41.3	38.0	3500	1.52	34.676	3.25	27.770	33.7	2.987
2535A	1.64	34.646	2.56	2.82	170.0		40.7	36.8	3750	1.50	34.680	3.31	27.774	33.4	3.099
2732A	1.64	34.653	2.73	2.77	169.2		40.6	36.3	4000	1.49	34.688	3.58	27.782	32.5	3.211
2929A	1.62	34.659	2.79	2.74	168.7		40.1	35.7							
3126A	1.57	34.664		2.71	166.8		39.9	35.0							
3324A	1.56	34.673	3.13	2.67	165.6		39.6	34.2							
3522A	1.52	34.676	3.26	2.62	164.1		39.2	33.7							
3716A	1.502	34.678	3.30	2.62	162.4		38.8	33.4							
3913A	1.504	34.685	3.42	2.65	161.7		38.9	32.9							
4108A	1.466	34.691	3.67	2.54	160.5		37.8	32.2							
4154A	1.466	34.691	3.59	2.55	159.5		38.2	32.2							

RV THOMAS WASHINGTON INDOPAC LEG I 66

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 01. N	173 02.5E	4/16/76	1356	1736 GMT	4793M	240	20KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	15.84	34.616	5.81					248.4	0	15.84	34.616	5.81	25.508	248.4	0.000
11	15.78	34.616	5.61					247.1	10	15.78	34.617	5.62	25.520	247.2	0.025
22	15.77	34.621	5.74					246.5	20	15.77	34.621	5.71	25.526	246.6	0.050
32	15.80	34.619	5.66					247.3	30	15.79	34.621	5.68	25.521	247.1	0.074
51	15.78	34.620	5.70					246.8	50	15.78	34.621	5.70	25.524	246.9	0.124
61	15.80	34.622	5.73					247.1	75	15.80	34.621	5.71	25.520	247.2	0.186
77	15.80	34.620	5.70					247.2	100	15.80	34.623	5.73	25.521	247.1	0.249
91	15.80	34.622	5.70					247.1	125	15.79	34.622	5.69	25.523	247.0	0.311
101	15.80	34.622	5.73					247.1	150	15.52	34.632	5.35	25.590	240.5	0.373
126	15.79	34.621	5.69					247.0	200	14.78	34.569	5.47	25.704	229.7	0.493
145A	15.58	34.634	5.36					241.5	250	14.37	34.534	5.57	25.768	223.6	0.610
152	15.50	34.629	5.35					240.2	300	14.02	34.515	5.31	25.828	218.0	0.724
201	14.77	34.566	5.47					229.5	400	12.11	34.406	5.16	26.126	189.6	0.937
245A	14.46	34.561	5.54					223.5	500	9.86	34.242	4.64	26.403	163.3	1.124
250	14.37	34.554	5.57					223.6	600	7.03	34.043	4.25	26.682	136.9	1.283
300	14.02	34.515	5.31					218.0	700	5.19	34.034	2.85	26.910	115.2	1.418
399	12.14	34.408	5.17					190.0	800	4.44	34.101	1.89	27.047	102.3	1.534
493A	9.44	34.215	4.50					158.6	1000	3.55	34.280	0.94	27.281	80.1	1.732
497	9.95	34.249	4.65					164.1	1200	3.05	34.385	0.76	27.411	67.7	1.896
597	7.1 K	34.044	4.29					137.6	1500	2.47	34.501	0.87	27.555	54.1	2.103
741A	4.74	34.058	2.26					108.6	1750	2.20	34.555	1.19	27.622	47.8	2.251
793	4.47	34.093	1.91					103.1	2000	1.98	34.590	1.61	27.666	43.6	2.386
989A	3.56	34.281	0.97					80.1	2250	1.80	34.619	2.05	27.703	40.1	2.512
991	3.57	34.275	0.95					80.6	2500	1.67	34.642	2.41	27.731	37.4	2.631
1190	3.09	34.375	0.78					68.7	2750	1.58	34.653	2.69	27.747	35.9	2.746
1237A	2.90	34.418	0.67					63.9	3000	1.52	34.665	3.02	27.761	34.6	2.858
1486A	2.49	34.497	0.86					54.5	3250	1.49	34.674	3.17	27.771	33.7	2.968
1736A	2.21	34.553	1.17					48.1	3500	1.48	34.677	3.28	27.773	33.4	3.078
1984A	1.99	34.587	1.58					43.8	3750	1.47	34.682	3.38	27.778	32.9	3.188
2233A	1.81	34.616	2.02					40.3	4000	1.48	34.686	3.46	27.781	32.7	3.300
2481A	1.68	34.640	2.39					37.5	4250	1.49	34.689	3.56	27.783	32.6	3.413
2727A	1.59	34.651	2.66					36.1	4500	1.48	34.683	3.70	27.779	32.3	3.527
2975A	1.52	34.663	3.00					34.7							
3221A	1.49	34.673	3.16					33.7							
3467A	1.48	34.675	3.27					33.5							
3715A	1.47	34.681	3.37					33.0							
4203A	1.49	34.688	3.53					32.6							
4497A	1.475	34.690	3.70					32.3							
4643A	1.476	34.695	3.72					31.9							
4690A	1.479	34.694	3.76					32.1							

650

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00. N	174 00.3E	04/16/76	0143 GMT

Z	T	S	SIGMA T	DT	DD
0	15.42	34.62	25.605	239.1	0.000
10	15.40	34.62	25.610	238.7	0.024
20	15.38	34.62	25.614	238.3	0.048
30	15.37	34.60	25.601	239.5	0.072
40	15.36	34.61	25.611	238.6	0.096
50	15.36	34.62	25.619	237.9	0.120
75	15.34	34.61	25.615	238.2	0.180
100	15.32	34.61	25.620	237.7	0.240
125	15.09	34.60	25.663	233.6	0.300
150	14.97	34.62	25.705	229.7	0.359
175	14.65	34.56	25.728	227.5	0.417
200	14.40	34.55	25.774	223.1	0.474
225	14.21	34.54	25.807	220.0	0.531
250	13.92	34.52	25.852	215.6	0.587
275	13.58	34.51	25.915	209.7	0.642
300	13.10	34.48	25.989	202.6	0.696
350	12.29	34.42	26.103	191.8	0.799
400	11.33	34.35	26.230	179.8	0.896
450	10.31	34.29	26.365	167.0	0.988
500	8.71	34.15	26.520	152.3	1.072
550	7.66	34.08	26.623	142.5	1.150
600	6.73	34.03	26.714	133.9	1.224
650	5.92	34.02	26.811	124.6	1.293
700	5.22	34.03	26.904	115.8	1.357
750	4.74	34.06	26.983	108.4	1.417
800	4.52	34.10	27.038	103.1	1.474
850	4.16	34.16	27.125	94.9	1.527
900	3.90	34.19	27.175	90.1	1.577
950	3.71	34.23	27.226	85.3	1.625
1000	3.55	34.27	27.274	80.8	1.670
1100	3.22	34.34	27.361	72.5	1.754
1200	2.95	34.39	27.425	66.4	1.832
1300	2.73	34.43	27.477	61.5	1.903
1400	2.58	34.47	27.522	57.3	1.971
1500	2.45	34.49	27.549	54.7	2.035
1600	2.327	34.518	27.581	51.6	2.096
1700	2.231	34.542	27.609	49.1	2.155
1800	2.143	34.558	27.628	47.2	2.211
1900	2.042	34.578	27.652	44.9	2.266
2000	1.959	34.593	27.671	43.1	2.318
2100	1.882	34.611	27.691	41.2	2.369
2200	1.829	34.620	27.703	40.1	2.418
2300	1.768	34.632	27.717	38.8	2.466
2400	1.708	34.641	27.729	37.7	2.513
2500	1.657	34.649	27.739	36.7	2.559
2600	1.642	34.652	27.742	36.4	2.605
2700	1.637	34.654	27.744	36.2	2.651
2800	1.636	34.655	27.745	36.1	2.696
2900	1.628	34.658	27.748	35.8	2.742
3000	1.617	34.660	27.751	35.6	2.788
3100	1.592	34.665	27.756	35.0	2.834
3200	1.572	34.669	27.761	34.6	2.879
3300	1.557	34.672	27.765	34.3	2.924
3400	1.549	34.674	27.767	34.0	2.969
3500	1.536	34.677	27.770	33.7	3.014
3600	1.519	34.680	27.774	33.4	3.059
3700	1.505	34.683	27.777	33.1	3.104
3800	1.498	34.685	27.779	32.9	3.149
3900	1.499	34.686	27.780	32.8	3.193
4000	1.486	34.688	27.783	32.6	3.238
4100	1.471	34.691	27.786	32.2	3.283
4200	1.461	34.693	27.788	32.0	3.327

660

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 01. N	173 02.5E	04/16/76	1222 GMT

Z	T	S	SIGMA T	DT	DD
0	15.75	34.56	25.485	250.5	0.000
10	15.75	34.57	25.493	249.8	0.025
20	15.75	34.57	25.493	249.8	0.050
30	15.76	34.57	25.491	250.0	0.075
40	15.76	34.57	25.491	250.0	0.100
50	15.71	34.58	25.509	248.2	0.125
75	15.70	34.60	25.527	246.5	0.188
100	15.57	34.60	25.556	243.8	0.250
125	15.64	34.64	25.571	242.3	0.311
150	15.45	34.64	25.614	238.3	0.372
175	15.13	34.59	25.646	235.2	0.433
200	14.72	34.57	25.721	228.2	0.492
225	14.48	34.57	25.772	223.2	0.550
250	14.26	34.54	25.796	221.0	0.607
275	14.01	34.52	25.833	217.4	0.664
300	13.66	34.50	25.891	212.0	0.719
350	12.78	34.46	26.038	198.0	0.826
400	12.09	34.42	26.141	188.2	0.927
450	10.74	34.31	26.305	172.7	1.023
500	9.48	34.22	26.451	158.8	1.110
550	7.72	34.08	26.614	143.3	1.191
600	6.52	33.99	26.710	134.2	1.265
650	5.58	34.00	26.837	122.2	1.333
700	4.98	34.03	26.932	113.2	1.395
750	4.60	34.07	27.006	106.2	1.454
800	4.30	34.12	27.078	99.3	1.509
850	3.97	34.18	27.160	91.6	1.560
900	3.81	34.22	27.208	87.0	1.609
950	3.63	34.26	27.258	82.3	1.655
1000	3.50	34.29	27.294	78.8	1.699
1100	3.17	34.35	27.373	71.3	1.782
1200	2.96	34.40	27.432	65.7	1.858
1300	2.80	34.43	27.471	62.1	1.930
1400	2.59	34.48	27.529	56.6	1.997
1500	2.46	34.50	27.556	54.0	2.060
1600	2.355	34.523	27.583	51.5	2.121
1700	2.265	34.538	27.603	49.6	2.180
1800	2.140	34.561	27.631	46.9	2.237
1900	2.040	34.579	27.653	44.8	2.291
2000	1.975	34.592	27.669	43.3	2.344
2100	1.892	34.607	27.687	41.6	2.395
2200	1.833	34.617	27.700	40.4	2.445
2300	1.744	34.628	27.716	38.9	2.493
2400	1.705	34.636	27.725	38.0	2.540
2500	1.659	34.644	27.735	37.1	2.587
2600	1.631	34.649	27.741	36.5	2.632
2700	1.596	34.656	27.749	35.7	2.678
2800	1.564	34.661	27.755	35.1	2.722
2900	1.543	34.665	27.760	34.7	2.767
3000	1.516	34.670	27.766	34.1	2.811
3100	1.509	34.674	27.770	33.8	2.854
3200	1.502	34.674	27.770	33.7	2.898
3300	1.489	34.676	27.773	33.5	2.942
3400	1.482	34.678	27.775	33.3	2.986
3500	1.475	34.680	27.777	33.1	3.030
3600	1.472	34.682	27.779	32.9	3.073
3700	1.469	34.683	27.780	32.8	3.117
3800	1.468	34.686	27.782	32.6	3.161
3900	1.470	34.685	27.781	32.7	3.206
4000	1.472	34.686	27.782	32.6	3.250
4100	1.477	34.687	27.783	32.6	3.295
4200	1.481	34.688	27.783	32.5	3.340
4300	1.478	34.689	27.784	32.4	3.386
4324	1.480	34.690	27.785	32.4	3.396

RV THOMAS WASHINGTON INDOPAC LEG I 67

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.7N	172 01.3E	4/17/76	0115 0227 GMT	637M	250	17KT	2	250 6 7

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
2	15.49	34.630	5.69	0.28	6.8	0.00	2.9	239.9	0	15.49	34.63	5.69	25.597	239.9	0.000
11	15.47	34.629	5.71	0.29	7.0	0.28	2.8	239.5	10	15.47	34.63	5.71	25.601	239.6	0.024
23	15.46	34.627	5.67	0.29	6.8	0.27	2.8	239.5	20	15.46	34.63	5.68	25.601	239.5	0.048
33	15.44	34.629	5.69	0.29	6.7	0.27	2.9	238.9	30	15.45	34.63	5.68	25.606	239.1	0.072
51	15.44	34.630	5.65	0.30	6.9	0.25	3.2	238.8	50	15.44	34.63	5.65	25.608	238.8	0.120
77	15.42	34.631	5.60	0.31	7.0	0.25	3.4	238.3	75	15.42	34.63	5.60	25.613	238.4	0.180
101	15.26	34.621	5.36	0.39	8.0	0.16	4.8	235.7	100	15.27	34.62	5.37	25.640	235.8	0.240
127	14.94	34.599	5.17	0.47				230.6	125	14.96	34.60	5.17	25.691	231.0	0.299
152	14.83	34.607	5.51	0.45	8.6	0.30	5.0	227.7	150	14.84	34.61	5.48	25.723	227.9	0.358
202A	14.42	34.56	5.56	0.41	10.4	0.31	5.5	222.5	200	14.44	34.57	5.56	25.778	222.7	0.473
203	14.36	34.561	5.50	0.48	9.8	0.27	5.8	221.5	250	13.76	34.51	5.23	25.880	213.0	0.585
225A	14.18	34.55	5.41	0.47	11.1	0.19	6.5	218.9	300	12.93	34.46	5.21	26.008	200.9	0.692
250A	13.76	34.51	5.23	0.60	13.0	0.04	8.2	213.0	400	12.46	34.43	5.18	26.076	194.4	0.899
252	14.00	34.537	5.28	0.54	11.2	0.22	7.2	216.0	500	10.65	34.30	4.94	26.312	172.0	1.092
274A	13.51	34.50	5.23	0.53	13.6	0.07	8.3	209.1	600	5.78	34.05	3.10	26.851	121.0	1.248
298A	12.96	34.46	5.21	0.65	15.0	0.03	9.5	201.3							
323A	12.70	34.44	5.24	0.68	16.0	0.01	9.8	197.8							
347A	12.62	34.44	5.25	0.66	16.4	0.02	10.0	196.5							
370A	12.56	34.43	5.19	0.72	16.7	0.00	10.4	195.9							
416A	12.37	34.43	5.18	0.74	17.0	0.01	10.6	193.0							
465A	11.73	34.38	5.14	0.80	19.1	0.00	12.1	184.6							
512A	10.14	34.26	4.81	1.09	27.2	0.00	16.5	166.3							
561A	7.20	34.09	3.82	1.82	53.1	0.00	25.9	135.4							
611A	5.49	34.05	2.90	2.34	74.8	0.00	32.7	117.8							
632A	4.98	34.06	2.47	2.49	84.3	0.00	35.2	111.0							

RV THOMAS WASHINGTON INDOPAC LEG I 68

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00. N	171 00.7E	4/17/76	0849 GMT	4346M	230	8KT	5	49

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	14.60	34.531	5.95					228.5	0	14.60	34.531	5.95	25.717	228.5	0.000
10	14.54	34.532	5.93					227.2	10	14.54	34.532	5.93	25.730	227.2	0.023
31	14.46	34.545	5.91					224.7	20	14.51	34.538	5.92	25.742	226.1	0.046
50	14.29	34.549	5.89					220.9	30	14.46	34.545	5.91	25.756	224.8	0.068
76	14.00	34.533	5.47					216.3	50	14.29	34.549	5.89	25.797	220.9	0.113
100	13.65	34.503	5.47					211.6	75	14.01	34.535	5.49	25.844	216.5	0.168
125	13.15	34.459	5.66					205.1	100	13.65	34.503	5.47	25.895	211.6	0.222
150	12.82	34.443	5.67					200.0	125	13.15	34.459	5.66	25.963	205.1	0.275
175	12.59	34.434	5.81					196.4	150	12.82	34.443	5.67	26.017	200.0	0.327
200	12.34	34.417	5.80					193.0	200	12.34	34.417	5.80	26.091	193.0	0.427
250	11.67	34.381	5.09					183.5	250	11.67	34.381	5.09	26.191	183.5	0.524
300	10.51	34.292	5.06					170.1	300	10.51	34.292	5.06	26.332	170.1	0.615
399	8.70	34.154	4.58					151.8	400	8.67	34.153	4.58	26.527	151.6	0.783
498	6.36	33.999	3.95					131.5	500	6.33	34.000	3.93	26.742	131.2	0.932
597	5.26	34.043	2.77					115.3	600	5.23	34.045	2.74	26.914	114.9	1.062
695	4.46	34.084	2.05					103.7	700	4.43	34.090	2.01	27.039	103.1	1.177
793	3.99	34.169	1.42					92.6	800	3.97	34.176	1.39	27.156	92.0	1.280
892	3.75	34.238	1.13					85.1	1000	3.44	34.309	0.92	27.315	76.9	1.465
992	3.46	34.303	0.93					77.5	1200	2.99	34.386	0.78	27.419	67.0	1.624
1190	3.01	34.386	0.79					67.2							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.7N	172 01.3E	04/17/76	0020 GMT

Z	T	S	SIGMA T	DT	DD
0	15.46	34.64	25.612	238.5	0.000
10	15.46	34.64	25.612	238.5	0.024
20	15.45	34.64	25.614	238.3	0.048
30	15.44	34.64	25.616	238.1	0.072
40	15.43	34.64	25.618	237.9	0.096
50	15.43	34.64	25.618	237.9	0.119
75	15.41	34.63	25.615	238.2	0.179
100	15.38	34.63	25.622	237.5	0.240
125	15.02	34.61	25.686	231.4	0.299
150	14.79	34.60	25.729	227.4	0.357
175	14.64	34.59	25.753	225.1	0.415
200	14.44	34.57	25.781	222.4	0.472
225	14.14	34.54	25.821	218.6	0.529
250	13.67	34.51	25.897	211.5	0.584
275	13.11	34.47	25.980	203.5	0.638
300	12.75	34.45	26.036	198.2	0.690
350	12.47	34.42	26.068	195.2	0.793
400	12.32	34.42	26.097	192.4	0.894
450	11.90	34.39	26.154	187.0	0.994
500	10.57	34.29	26.320	171.3	1.089
550	8.27	34.14	26.580	146.6	1.174
600	6.10	34.03	26.796	126.1	1.246
633	4.90	34.06	26.965	110.1	1.288

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00. N	171 00.7E	04/17/76	0810 GMT

Z	T	S	SIGMA T	DT	DD
0	14.55	34.51	25.711	229.1	0.000
10	14.53	34.52	25.723	227.9	0.023
20	14.50	34.53	25.737	226.6	0.046
30	14.39	34.54	25.768	223.6	0.068
40	14.29	34.55	25.797	220.9	0.091
50	14.26	34.55	25.804	220.3	0.113
75	13.99	34.53	25.845	216.3	0.168
100	13.54	34.49	25.908	210.4	0.222
125	13.00	34.44	25.979	203.6	0.274
150	12.71	34.43	26.029	198.9	0.325
175	12.54	34.43	26.062	195.7	0.376
200	12.31	34.41	26.091	193.0	0.426
225	11.98	34.40	26.147	187.7	0.474
250	11.71	34.38	26.182	184.3	0.522
275	11.12	34.34	26.260	176.9	0.569
300	10.71	34.31	26.310	172.1	0.614
350	9.52	34.22	26.444	159.5	0.701
400	8.51	34.14	26.543	150.1	0.782
450	7.38	34.06	26.648	140.2	0.858
500	6.17	33.99	26.756	129.9	0.929
550	5.49	33.99	26.840	121.9	0.995
600	5.17	34.05	26.926	113.8	1.057
650	4.74	34.05	26.975	109.1	1.116
700	4.42	34.08	27.033	103.6	1.173
750	4.16	34.14	27.109	96.4	1.226
800	3.95	34.18	27.162	91.4	1.276
850	3.82	34.22	27.207	87.1	1.325
900	3.68	34.25	27.245	83.5	1.371
950	3.51	34.28	27.285	79.7	1.415
1000	3.42	34.31	27.318	76.6	1.458
1100	3.20	34.35	27.371	71.6	1.540
1200	2.98	34.39	27.423	66.7	1.617

RV THOMAS WASHINGTON INDOPAC LEG I 69

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.6N	170 03.5E	4/17/76	1620 2014 GMT	5454M	220	27KT		250 8 7

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.87	34.582	4.990	0.14	5.7	0.23	1.3	251.5	0	15.87	34.582	4.99	25.475	251.5	0.000
10	15.86	34.579	5.60	0.14	5.6	0.25	1.4	251.5	10	15.86	34.579	5.60	25.475	251.5	0.025
30	15.86	34.607	5.70	0.11	5.5	0.28	1.4	249.5	20	15.86	34.592	5.66	25.484	250.7	0.050
50	15.83	34.629	5.74	0.13	5.4	0.32	1.7	247.2	30	15.86	34.607	5.70	25.496	249.5	0.075
60	15.84	34.632	5.46	0.11	5.3	0.34	1.8	247.2	50	15.83	34.629	5.74	25.520	247.2	0.125
75	15.83	34.632	5.71	0.12	5.2	0.36	1.9	247.0	75	15.83	34.632	5.71	25.522	247.0	0.188
90	15.78	34.648	5.61	0.16	5.1	0.37	2.9	244.8	100	15.74	34.650	5.56	25.556	243.8	0.250
99	15.74	34.648	5.56	0.17	5.0	0.40	2.9	243.9	125	15.74	34.666	5.61	25.569	242.6	0.311
125	15.74	34.666	5.61	0.21	4.9	0.29	3.2	242.6	150	15.68	34.656	5.54	25.575	242.0	0.373
149	15.68	34.655	5.56	0.20	4.8	0.26	3.7	242.1	200	15.16	34.643	4.61	25.681	231.9	0.494
197	15.21	34.646	4.60	0.35	7.6	0.03	6.1	232.8	250	14.10	34.561	5.13	25.845	216.4	0.609
247	14.17	34.566	5.11	0.53	11.0	0.02	8.5	217.3	300	13.07	34.479	5.32	25.994	202.2	0.718
294	13.17	34.485	5.34	0.62	12.2	0.13	8.7	203.6	400	11.43	34.372	4.71	26.229	179.9	0.917
392	11.58	34.382	4.72	1.04	21.5	0.02	14.9	181.9	500	9.12	34.193	4.60	26.487	155.4	1.094
487	9.50	34.228	4.63	1.35	29.9	0.00	18.7	158.5	600	6.52	34.011	4.14	26.726	132.7	1.248
581	6.9 K	34.019	4.40	1.85	45.5	0.00	24.7	136.9	700	5.14	34.047	2.72	26.925	113.8	1.379
674	5.41	34.029	3.00	2.40	71.6	0.00	33.1	118.1	800	4.51	34.127	2.01	27.060	101.0	1.494
767	4.65	34.099	2.18	2.72	90.6	0.00	37.4	104.5	1000	3.66	34.264	1.08	27.257	82.4	1.693
894A	4.18	34.199	1.61	2.82	106.6	0.00	39.6	92.2	1200	3.09	34.387	0.84	27.410	68.0	1.860
971	3.75	34.249	1.18	3.02	120.6	0.00	42.6	84.3	1500	2.54	34.483	0.88	27.535	56.0	2.071
1144A	3.29	34.344	0.87	3.05	138.6	0.00	43.1	72.8	1750	2.22	34.543	1.16	27.610	48.9	2.223
1174	3.17	34.371	0.85	3.16	140.4	0.00	44.0	69.7	2000	1.98	34.586	1.51	27.663	43.9	2.360
1394A	2.71	34.448	0.78	3.05	157.8	0.00	43.8	60.0	2250	1.80	34.619	1.98	27.703	40.1	2.487
1643A	2.34	34.522	1.07	3.04	169.5	0.00	43.8	51.4	2500	1.69	34.635	2.37	27.725	37.9	2.607
1893A	2.08	34.566	1.31	3.00	174.4	0.00	42.9	46.1	2750	1.61	34.649	2.68	27.742	36.4	2.723
2141A	1.87	34.607	1.79	2.93	176.5	0.00	41.6	41.4	3000	1.55	34.661	2.96	27.756	35.1	2.836
2391A	1.73	34.628	2.21	2.80	174.8	0.00	40.5	38.8	3250	1.50	34.671	3.17	27.767	33.9	2.948
2640A	1.64	34.644	2.56	2.72	171.9	0.00	39.6	37.0	3500	1.47	34.675	3.34	27.773	33.5	3.058
2889A	1.58	34.654	2.83	2.66	169.3	0.00	38.8	35.8	3750	1.46	34.681	3.48	27.778	32.9	3.169
3137A	1.52	34.668	3.10	2.62	166.9	0.00	38.2	34.3	4000	1.45	34.685	3.54	27.782	32.6	3.279
3384A	1.48	34.673	3.24	2.56	164.5	0.00	37.6	33.7	4250	1.45	34.687	3.64	27.783	32.5	3.391
3630A	1.46	34.676	3.44	2.53	162.6	0.00	37.2	33.3	4500	1.48	34.691	3.73	27.785	32.3	3.505
3876A	1.45	34.684	3.51	2.52	161.6	0.00	37.0	32.6	4750	1.48	34.693	3.87	27.787	32.2	3.619
4122A	1.45	34.685	3.57	2.50	160.3	0.00	36.7	32.5	5000	1.47	34.695	4.06	27.788	32.0	3.735
4368A	1.46	34.687	3.71	2.49	159.5	0.00	36.5	32.4	5250	1.49	34.696	4.06	27.789	32.0	3.853
4614A	1.49		3.76	2.49	157.1	0.00	36.0								
4857A	1.470	34.693	3.97	2.42	150.2	0.00	35.7	32.1							
5099A	1.477	34.695	4.10	2.40	146.5	0.00	35.4	32.0							
5294A	1.492	34.696	4.05	2.40	145.5	0.00	34.9	32.0							
5336A	1.500	34.699	4.05	2.39	145.4	0.00	35.3	31.8							

RV THOMAS WASHINGTON INDOPAC LEG I 70

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.5N	168 56.9E	4/18/76	0518 GMT	5514M	230	16KT	6	230 6 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.41	34.670	5.66					256.9	0	16.41	34.670	5.66	25.418	256.9	0.000
10	16.34	34.669	5.67					255.4	10	16.34	34.669	5.67	25.434	255.4	0.026
20	16.27	34.682	5.62					252.9	20	16.27	34.682	5.62	25.460	252.9	0.051
31	16.28	34.694	5.61					252.3	30	16.28	34.694	5.61	25.467	252.3	0.076
51	16.24	34.689	5.60					251.8	50	16.24	34.690	5.60	25.472	251.8	0.127
77	16.23	34.686	5.63					251.8	75	16.23	34.687	5.63	25.472	251.8	0.191
101	16.20	34.684	5.64					251.2	100	16.20	34.685	5.64	25.477	251.3	0.254
127	16.06	34.669	5.63					249.3	125	16.07	34.671	5.63	25.496	249.5	0.318
152	15.93	34.668	5.40					246.5	150	15.94	34.669	5.42	25.525	246.8	0.381
202	15.50	34.651	5.34					238.5	200	15.52	34.653	5.34	25.608	238.9	0.505
252	15.14	34.630	5.09					232.5	250	15.16	34.632	5.10	25.672	232.8	0.626
301	14.39	34.565	4.81					221.8	300	14.41	34.568	4.81	25.785	222.0	0.744
401	12.82	34.449	5.58					199.6	400	12.84	34.451	5.57	26.019	199.8	0.964
501	10.88	34.315	5.02					174.7	500	10.90	34.317	5.03	26.281	174.9	1.162
601	8.19	34.106	4.59					148.0	600	8.22	34.109	4.60	26.563	148.2	1.334
699	6.22	34.012	3.60					128.9	700	6.20	34.013	3.59	26.769	128.6	1.483
799	4.87	34.059	2.41					109.9	800	4.86	34.061	2.40	26.969	109.7	1.611
899	4.38	34.151	1.77					97.8	1000	3.93	34.228	1.37	27.202	88.0	1.825
998	3.93	34.220	1.37					88.2	1200	3.24	34.342	0.83	27.360	72.6	2.003
1198	3.25	34.341	0.84					72.7							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.6N	170 03.5E	04/17/76	1448 GMT

Z	T	S	SIGMA T	DT	DD
0	15.85	34.54	25.447	254.2	0.000
10	15.84	34.57	25.472	251.7	0.025
20	15.82	34.60	25.500	249.1	0.050
30	15.81	34.62	25.518	247.5	0.075
40	15.81	34.64	25.533	246.0	0.100
50	15.81	34.65	25.541	245.3	0.125
75	15.77	34.66	25.557	243.7	0.186
100	15.70	34.65	25.566	242.9	0.248
125	15.70	34.66	25.573	242.2	0.309
150	15.71	34.66	25.571	242.4	0.371
175	15.67	34.66	25.580	241.5	0.433
200	15.47	34.65	25.617	238.0	0.494
225	14.81	34.60	25.724	227.6	0.554
250	14.40	34.59	25.805	220.2	0.612
275	13.76	34.54	25.901	211.0	0.667
300	12.87	34.46	26.020	199.7	0.720
350	12.39	34.41	26.076	194.4	0.823
400	11.11	34.33	26.254	177.5	0.921
450	9.87	34.24	26.401	163.5	1.010
500	8.48	34.12	26.532	151.1	1.094
550	7.34	34.05	26.645	140.4	1.171
600	6.25	33.98	26.738	131.6	1.243
650	5.62	34.01	26.840	121.9	1.311
700	5.05	34.03	26.924	114.0	1.373
750	4.72	34.07	26.993	107.4	1.433
800	4.46	34.13	27.069	100.2	1.488
850	4.26	34.17	27.122	95.2	1.541
900	3.98	34.19	27.167	90.9	1.591
950	3.78	34.23	27.219	86.0	1.640
1000	3.62	34.26	27.259	82.2	1.686
1100	3.35	34.32	27.333	75.2	1.772
1200	3.13	34.38	27.401	68.7	1.852
1300	2.88	34.41	27.448	64.3	1.927
1400	2.69	34.45	27.496	59.7	1.997
1500	2.52	34.48	27.535	56.0	2.063
1600	2.398	34.503	27.564	53.3	2.126
1700	2.273	34.529	27.595	50.4	2.187
1800	2.172	34.547	27.617	48.2	2.244
1900	2.076	34.566	27.640	46.1	2.300
2000	1.990	34.585	27.662	44.0	2.354
2100	1.915	34.598	27.678	42.4	2.406
2200	1.846	34.609	27.693	41.1	2.456
2300	1.792	34.621	27.706	39.8	2.506
2400	1.729	34.635	27.722	38.3	2.553
2500	1.680	34.642	27.732	37.4	2.600
2600	1.643	34.647	27.738	36.8	2.647
2700	1.620	34.652	27.744	36.2	2.692
2800	1.592	34.659	27.752	35.5	2.738
2900	1.561	34.661	27.756	35.1	2.782
3000	1.536	34.666	27.761	34.6	2.827
3100	1.516	34.669	27.765	34.2	2.871
3200	1.496	34.673	27.770	33.8	2.915
3300	1.486	34.675	27.772	33.5	2.959
3400	1.478	34.679	27.776	33.2	3.003
3500	1.471	34.682	27.779	32.9	3.046
3600	1.461	34.682	27.780	32.8	3.090
3700	1.454	34.684	27.782	32.6	3.134
3800	1.457	34.687	27.784	32.4	3.177
3900	1.458	34.686	27.783	32.5	3.222
4000	1.458	34.686	27.783	32.5	3.266
4100	1.462	34.687	27.784	32.5	3.310
4200	1.462	34.688	27.784	32.4	3.355
4300	1.467	34.688	27.784	32.4	3.400
4400	1.471	34.689	27.785	32.4	3.446
4500	1.474	34.689	27.784	32.4	3.491
4600	1.477	34.690	27.785	32.3	3.537
4700	1.479	34.692	27.786	32.2	3.583
4800	1.476	34.692	27.787	32.2	3.630
4900	1.473	34.693	27.788	32.1	3.676
5000	1.469	34.694	27.789	32.0	3.723
5100	1.472	34.696	27.790	31.9	3.769
5200	1.483	34.696	27.789	31.9	3.816
5300	1.493	34.696	27.789	32.0	3.864
5389	1.501	34.696	27.788	32.1	3.906

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.5N	168 56.9E	04/18/76	0439 GMT

Z	T	S	SIGMA T	DT	DD
0	16.35	34.67	25.432	255.6	0.000
10	16.33	34.67	25.437	255.1	0.026
20	16.29	34.68	25.454	253.5	0.051
30	16.25	34.70	25.478	251.2	0.076
40	16.24	34.70	25.481	251.0	0.102
50	16.23	34.70	25.483	250.7	0.127
75	16.21	34.70	25.488	250.3	0.190
100	16.20	34.69	25.482	250.8	0.253
125	16.12	34.68	25.493	249.8	0.317
150	16.02	34.68	25.516	247.6	0.380
175	15.83	34.68	25.559	243.5	0.443
200	15.65	34.67	25.592	240.4	0.504
225	15.43	34.66	25.634	236.4	0.566
250	15.12	34.64	25.687	231.3	0.626
275	14.65	34.60	25.759	224.5	0.685
300	14.31	34.57	25.809	219.8	0.742
350	13.46	34.52	25.941	207.2	0.854
400	12.77	34.45	26.032	198.6	0.960
450	11.89	34.39	26.156	186.8	1.061
500	10.71	34.31	26.310	172.1	1.157
550	9.58	34.22	26.434	160.4	1.245
600	8.23	34.11	26.562	148.3	1.328
650	6.96	34.03	26.680	137.1	1.404
700	6.25	34.02	26.769	128.6	1.476
750	5.58	34.01	26.845	121.4	1.543
800	4.89	34.06	26.966	110.0	1.605
850	4.56	34.08	27.018	105.0	1.663
900	4.37	34.15	27.094	97.8	1.718
950	4.24	34.19	27.140	93.5	1.770
1000	3.91	34.22	27.198	88.0	1.819
1100	3.64	34.29	27.281	80.1	1.912
1200	3.25	34.34	27.358	72.8	1.997

RV THOMAS WASHINGTON INDOPAC LEG I 71

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.4N	168 00. E	4/18/76	1210 1543 GMT	5611M	260	7KT	6	49

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	15.97	34.589	5.68	0.13	4.9	0.29	1.5	253.2	0	15.97	34.589	5.68	25.457	253.2	0.000
11	15.96	34.593	5.69	0.16	4.9	0.29	1.8	252.7	10	15.96	34.594	5.69	25.462	252.7	0.025
32	15.85	34.624	5.68	0.16	4.7	0.36	1.8	248.0	20	15.91	34.607	5.69	25.483	250.8	0.051
51	15.83	34.634	5.66	0.16	4.7	0.38	1.9	246.9	30	15.86	34.622	5.68	25.507	248.5	0.076
77	15.86	34.635	5.64	0.16	4.9	0.39	2.0	247.4	50	15.83	34.635	5.66	25.524	246.9	0.125
101	15.85	34.638	5.65	0.17	5.1	0.42	2.1	247.0	75	15.86	34.636	5.64	25.518	247.4	0.188
127	15.87	34.639	5.63	0.17	4.9	0.43	1.9	247.4	100	15.85	34.639	5.65	25.522	247.0	0.250
151	15.84	34.638	5.62	0.20	4.9	0.45	2.0	246.8	125	15.87	34.640	5.63	25.519	247.3	0.313
177	15.84	34.639	5.62	0.20	4.9	0.48	2.1	246.7	150	15.84	34.639	5.62	25.524	246.8	0.376
202	15.84	34.637	5.63	0.21	4.9	0.48	2.2	246.9	200	15.84	34.638	5.63	25.524	246.8	0.502
252	15.53	34.622	5.25	0.34	6.7	0.07	4.5	241.3	250	15.55	34.624	5.27	25.579	241.6	0.627
302	15.09	34.609	5.01	0.47	8.6	0.06	6.7	233.0	300	15.11	34.611	5.02	25.666	233.4	0.750
403	13.55	34.518	4.87	0.68	13.3	0.03	9.8	208.5	400	13.61	34.522	4.87	25.919	209.3	0.981
502	11.48	34.362	4.93	0.97	19.7	0.01	13.2	181.6	500	11.52	34.366	4.93	26.206	182.1	1.188
602	9.85	34.244	5.45	1.03	22.5	0.01	14.4	162.9	600	9.88	34.247	5.45	26.404	163.2	1.373
701	7.53	34.064	4.38	1.66	42.2	0.00	22.7	141.9	700	7.55	34.067	4.39	26.627	142.1	1.537
801	5.74	34.013	3.23	2.23	66.8	0.00	30.7	123.0	800	5.76	34.014	3.24	26.826	123.2	1.681
847A	5.03	34.035	2.68	2.42	80.6	0.00	34.1	113.4	1000	4.17	34.170	1.59	27.131	94.3	1.917
899	4.66	34.075	2.21	2.66	90.6	0.00	36.4	106.4	1200	3.52	34.317	1.14	27.313	77.1	2.107
998	4.18	34.167	1.60	2.88	107.4	0.01	38.8	94.6	1500	2.68	34.455	0.87	27.501	59.3	2.338
1098A	3.78	34.279	1.35	2.91	122.0	0.00	41.0	82.3	1750	2.36	34.519	1.04	27.579	51.9	2.499
1201	3.52	34.316	1.14	2.99	130.6	0.00	41.6	77.1	2000	2.12	34.563	1.38	27.634	46.7	2.646
1349A	3.00	34.397	0.84	3.07	148.6	0.00	43.7	66.3	2250	1.92	34.596	1.74	27.675	42.6	2.780
1601A	2.54	34.483	0.89	3.00	163.2	0.01	44.0	56.0	2500	1.76	34.623	2.12	27.709	39.4	2.906
1852A	2.26	34.537	1.18	3.04	170.6	0.00	43.6	49.7	2750	1.65	34.644	2.54	27.734	37.0	3.026
2103A	2.04	34.578	1.55	2.97	174.5	0.00	42.7	44.9	3000	1.59	34.658	2.85	27.750	35.6	3.141
2355A	1.85	34.608	1.90	2.86	176.5	0.00	41.4	41.2	3250	1.53	34.668	3.06	27.763	34.4	3.254
2606A	1.71	34.633	2.29	2.77	174.7	0.00	40.2	38.3	3500	1.50	34.675	3.25	27.771	33.6	3.366
2857A	1.62	34.651	2.71	2.73	171.2	0.00	39.2	36.3	3750	1.48	34.680	3.39	27.775	33.2	3.478
3108A	1.57	34.662	2.94	2.69	168.8	0.00	38.4	35.1	4000	1.48	34.684	3.50	27.780	32.8	3.590
3357A	1.51	34.672	3.15	2.65	166.5	0.00	38.0	33.9	4250	1.47	34.687	3.59	27.783	32.5	3.703
3607A	1.49	34.676	3.31	2.57	164.4		37.4	33.5	4500	1.49	34.690	3.68	27.785	32.5	3.817
3855A	1.48	34.681	3.45	2.56	163.9		36.8	33.0	4750	1.50	34.692	3.74	27.784	32.4	3.933
4153A	1.47	34.686	3.55	2.54	160.9	0.00	36.7	32.6	5000	1.51	34.694	3.79	27.785	32.3	4.050
4400A	1.48	34.688	3.64	2.52	160.6	0.00	36.6	32.5	5250	1.51	34.695	3.99	27.786	32.3	4.170
4696A	1.50	34.691	3.74	2.50	159.2	0.00	36.3	32.4	5500	1.52	34.700	4.02	27.789	31.9	4.290
4940A	1.514	34.694	3.76	2.48	157.1	0.00	36.0	32.3							
5183A	1.514	34.693	3.91	2.44	150.6	0.00	35.5	32.4							
5377A	1.509	34.697	4.07	2.38	146.4	0.01	35.0	32.0							
5426A	1.512	34.699	4.02	2.42	145.3	0.03	35.1	31.9							

RV THOMAS WASHINGTON INDOPAC LEG I 72

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.5N	167 00.9E	4/18/76	2158 GMT	5603M	280	7KT	5	260 4 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	16.00	34.603	5.72					252.8	0	16.00	34.603	5.72	25.461	252.8	0.000
11	15.97	34.599	5.72					252.4	10	15.97	34.600	5.72	25.465	252.5	0.025
22	15.96	34.602	5.71					252.0	20	15.96	34.603	5.71	25.469	252.1	0.051
32	15.89	34.631	5.70					248.4	30	15.90	34.626	5.70	25.500	249.1	0.076
51	15.86	34.635	5.82					247.4	50	15.86	34.636	5.81	25.517	247.5	0.126
77	15.86	34.639	5.65					247.1	75	15.86	34.640	5.65	25.521	247.2	0.188
101	15.86	34.640	5.61					247.1	100	15.86	34.641	5.61	25.522	247.1	0.250
126	15.85	34.640	5.61					246.9	125	15.85	34.641	5.61	25.524	246.9	0.313
151	15.85	34.640	5.62					246.9	150	15.85	34.641	5.62	25.524	246.9	0.376
201	15.86	34.639	5.60					247.1	200	15.86	34.640	5.60	25.521	247.1	0.502
251	15.87	34.639	5.59					247.4	250	15.87	34.640	5.59	25.519	247.4	0.629
300	15.30	34.628	4.99					236.0	300	15.30	34.628	4.99	25.638	236.0	0.754
401	13.58	34.517	4.91					209.2	400	13.60	34.519	4.91	25.918	209.4	0.986
500	11.91	34.404	4.88					186.1	500	11.91	34.404	4.88	26.163	186.1	1.196
600	9.72	34.238	5.08					161.3	600	9.72	34.238	5.08	26.425	161.3	1.381
698	7.53	34.066	4.37					141.7	700	7.49	34.065	4.35	26.635	141.4	1.544
797	5.86	34.019	3.32					124.0	800	5.82	34.021	3.29	26.823	123.6	1.688
896	4.90	34.057	2.42					110.3	1000	4.21	34.155	1.63	27.115	95.8	1.926
994	4.24	34.150	1.66					96.5	1200	3.48	34.307	0.93	27.310	77.4	2.117
1191	3.51	34.300	0.96					78.2							

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.4N	168 00. E	04/18/76	1039 GMT

Z	T	S	SIGMA T	DT	DD
0	16.03	34.60	25.452	253.7	0.000
10	15.96	34.59	25.461	252.9	0.025
20	15.90	34.60	25.482	250.9	0.051
30	15.84	34.63	25.519	247.4	0.076
40	15.83	34.64	25.528	246.4	0.100
50	15.83	34.64	25.528	246.4	0.125
75	15.83	34.64	25.528	246.4	0.187
100	15.83	34.64	25.528	246.4	0.249
125	15.83	34.64	25.528	246.4	0.312
150	15.83	34.64	25.528	246.4	0.375
175	15.83	34.64	25.528	246.4	0.437
200	15.84	34.64	25.526	246.6	0.500
225	15.83	34.64	25.528	246.4	0.564
250	15.49	34.63	25.597	239.9	0.626
275	15.20	34.62	25.654	234.5	0.688
300	14.88	34.59	25.701	230.0	0.748
350	14.17	34.56	25.831	217.7	0.864
400	13.38	34.51	25.956	205.8	0.975
450	12.44	34.44	26.089	193.1	1.080
500	11.47	34.37	26.219	180.6	1.180
550	10.45	34.29	26.341	169.3	1.273
600	9.49	34.22	26.449	159.0	1.361
650	8.26	34.11	26.558	148.7	1.444
700	7.22	34.04	26.654	139.5	1.521
750	6.37	34.02	26.754	130.1	1.594
800	5.66	34.02	26.843	121.6	1.662
850	5.05	34.03	26.924	114.0	1.726
900	4.75	34.07	26.989	107.8	1.786
950	4.49	34.10	27.042	102.8	1.843
1000	4.21	34.15	27.111	96.2	1.897
1100	3.81	34.25	27.232	84.7	1.997
1200	3.48	34.32	27.320	76.4	2.086
1300	3.16	34.36	27.382	70.5	2.169
1400	2.92	34.41	27.444	64.6	2.245
1500	2.75	34.44	27.483	60.9	2.317
1600	2.593	34.477	27.526	56.8	2.385
1700	2.454	34.503	27.559	53.8	2.450
1800	2.347	34.525	27.585	51.2	2.511
1900	2.227	34.546	27.612	48.7	2.570
2000	2.122	34.564	27.635	46.6	2.627
2100	2.054	34.581	27.654	44.8	2.682
2200	1.975	34.595	27.671	43.1	2.736
2300	1.891	34.606	27.687	41.6	2.787
2400	1.829	34.618	27.701	40.3	2.838
2500	1.775	34.628	27.713	39.1	2.887
2600	1.715	34.638	27.726	37.9	2.935
2700	1.669	34.646	27.736	37.0	2.982
2800	1.630	34.653	27.744	36.2	3.028
2900	1.611	34.657	27.749	35.8	3.074
3000	1.583	34.663	27.756	35.1	3.120
3100	1.558	34.666	27.760	34.7	3.165
3200	1.537	34.670	27.765	34.3	3.209
3300	1.513	34.674	27.769	33.8	3.254
3400	1.501	34.676	27.772	33.6	3.298
3500	1.494	34.679	27.775	33.3	3.342
3600	1.488	34.680	27.776	33.2	3.387
3700	1.480	34.682	27.778	33.0	3.431
3800	1.476	34.684	27.780	32.8	3.475
3900	1.472	34.685	27.781	32.7	3.520
4000	1.472	34.686	27.782	32.6	3.564
4100	1.472	34.687	27.783	32.5	3.609
4200	1.472	34.689	27.784	32.4	3.654
4300	1.476	34.690	27.785	32.3	3.699
4400	1.478	34.691	27.786	32.3	3.744
4500	1.484	34.691	27.785	32.3	3.790
4600	1.489	34.691	27.785	32.3	3.836
4700	1.497	34.691	27.784	32.4	3.882
4800	1.504	34.692	27.785	32.4	3.929
4900	1.509	34.693	27.785	32.3	3.976
5000	1.515	34.693	27.785	32.4	4.023
5100	1.515	34.694	27.785	32.3	4.071
5200	1.513	34.695	27.786	32.2	4.119
5300	1.513	34.696	27.787	32.1	4.167
5400	1.514	34.697	27.788	32.1	4.215
5482	1.516	34.692	27.784	32.5	4.254

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.5N	167 00.9E	04/18/76	2113 GMT

Z	T	S	SIGMA T	DT	DD
0	15.96	34.58	25.453	253.6	0.000
10	15.97	34.60	25.466	252.4	0.025
20	15.97	34.60	25.466	252.4	0.051
30	15.94	34.61	25.480	251.0	0.076
40	15.88	34.64	25.517	247.5	0.101
50	15.86	34.64	25.522	247.1	0.126
75	15.85	34.64	25.524	246.9	0.188
100	15.85	34.64	25.524	246.9	0.250
125	15.84	34.64	25.526	246.6	0.313
150	15.84	34.64	25.526	246.6	0.376
175	15.84	34.64	25.526	246.6	0.438
200	15.85	34.64	25.524	246.9	0.502
225	15.85	34.64	25.524	246.9	0.565
250	15.85	34.64	25.524	246.9	0.628
275	15.70	34.64	25.558	243.6	0.692
300	15.32	34.63	25.635	236.3	0.754
350	14.52	34.58	25.771	223.3	0.873
400	13.69	34.52	25.900	211.1	0.987
450	12.75	34.47	26.052	196.7	1.095
500	11.86	34.40	26.170	185.5	1.196
550	10.52	34.29	26.328	170.4	1.291
600	9.66	34.23	26.429	160.9	1.380
650	8.70	34.15	26.521	152.1	1.464
700	7.55	34.07	26.631	141.7	1.544
750	6.58	34.03	26.734	132.0	1.618
800	5.83	34.02	26.822	123.6	1.687
850	5.16	34.02	26.903	115.9	1.751
900	4.89	34.06	26.966	110.0	1.812
950	4.55	34.10	27.035	103.4	1.871
1000	4.19	34.16	27.121	95.2	1.925
1100	3.83	34.23	27.214	86.5	2.025
1200	3.48	34.30	27.304	77.9	2.116

RV THOMAS WASHINGTON INDOPAC LEG I 73

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 01.8N	166 01. E	4/19/76	0513 GMT	5771M	350	11KT	2	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	16.23	34.584	5.79	0.15	5.1	0.09	0.8	259.2	0	16.23	34.584	5.79	25.394	259.2	0.000
11	16.23	34.586	5.81	0.09	5.1	0.09	0.8	259.1	10	16.23	34.587	5.81	25.396	259.1	0.026
22	16.22	34.584	5.77	0.10	5.0	0.10	0.9	259.0	20	16.22	34.586	5.78	25.396	259.0	0.052
32	16.29	34.638	5.74	0.09	4.3	0.10	1.2	256.6	30	16.28	34.627	5.75	25.416	257.1	0.078
52	16.21	34.668	5.68	0.10	4.5	0.10	1.7	252.6	50	16.22	34.667	5.69	25.460	253.0	0.129
62	16.13	34.662	5.65	0.12	4.9	0.16	2.2	251.3	75	16.02	34.662	5.55	25.500	249.1	0.192
77	16.01	34.661	5.54	0.20	5.0	0.38	2.5	248.8	100	15.94	34.652	5.50	25.512	248.0	0.255
91	15.95	34.649	5.54	0.12	5.2	0.43	2.6	248.4	125	15.92	34.656	5.45	25.519	247.3	0.318
101	15.94	34.652	5.49	0.13	5.2	0.30	2.8	247.9	150	15.87	34.657	5.40	25.531	246.2	0.381
127	15.92	34.655	5.45	0.16	5.1	0.24	3.4	247.3	200	15.75	34.664	5.32	25.565	243.0	0.506
152	15.87	34.656	5.40	0.20	5.0	0.30	3.4	246.1	250	15.40	34.648	5.27	25.630	236.8	0.629
202	15.74	34.663	5.32	0.22	5.6	0.14	4.6	242.8	300	14.60	34.581	5.15	25.755	224.9	0.748
251	15.39	34.646	5.27	0.32	7.1	0.08	5.6	236.6	400	12.94	34.461	5.01	26.007	200.9	0.971
300	14.60	34.581	5.15	0.44	9.2	0.05	7.4	224.9	500	10.45	34.288	4.76	26.338	169.5	1.166
399	12.96	34.462	5.01	0.67	13.7	0.01	10.8	201.3	600	8.29	34.108	4.59	26.550	149.4	1.337
497	10.52	34.293	4.76	0.93	24.6	0.00	16.6	170.2	700	6.36	34.026	3.68	26.758	129.7	1.486
594	8.42	34.115	4.64	1.25	33.8	0.00	20.8	150.6	800	4.93	34.050	2.62	26.952	111.5	1.616
787	5.06	34.028	2.71	2.25	78.3	0.00	35.8	114.2	1000	3.93	34.212	1.33	27.188	88.9	1.833
979A	4.01	34.199	1.40	2.88	113.3	0.03	41.4	90.5	1200	3.52	34.351	1.07	27.360	72.6	2.012
980	4.00	34.196	1.36	2.83	112.6	0.00	42.2	90.6	1500	2.64	34.465	0.85	27.512	58.2	2.234
1172	3.35	34.341	1.06	3.04	135.1	0.00	44.5	73.6	1750	2.29	34.532	1.05	27.595	50.3	2.392
1173A	3.39	34.340	1.11	2.99	134.4	0.03	43.1	74.1	2000	2.06	34.576	1.36	27.648	45.2	2.533
1372A	2.88	34.420	0.78	3.03	152.7	0.01	45.8	63.5	2250	1.86	34.607	1.72	27.689	41.4	2.664
1570A	2.53	34.485	0.89	3.08	164.3	0.00	44.9	55.7	2500	1.73	34.630	2.28	27.718	38.5	2.787
1767A	2.27	34.535	1.07	3.09	171.3	0.00	44.5	49.9	2750	1.63	34.646	2.58	27.737	36.8	2.905
1965A	2.09	34.570	1.35	3.02	174.9	0.00	43.7	45.8	3000	1.58	34.658	2.85	27.751	35.5	3.020
2164A	1.92	34.596	1.49	2.86	176.2	0.00	42.6	42.6	3250	1.53	34.670	3.09	27.764	34.3	3.132
2362A	1.80	34.620	2.05	2.83	175.4	0.00	41.8	39.9	3500	1.50	34.675	3.27	27.770	33.7	3.244
2660A	1.66	34.641	2.47	2.66	172.8	0.00	40.3	37.3	3750	1.49	34.679	3.33	27.775	33.3	3.356
2957A	1.59	34.655	2.80	2.68	170.0	0.00	39.6	35.8	4000	1.47	34.684	3.46	27.780	32.8	3.468
3253A	1.53	34.669	2.82U	2.64	163.5	0.00	38.2	34.3	4250	1.47	34.688	3.59	27.783	32.5	3.581
3548A	1.50	34.675	3.30	2.60	165.9	0.00	38.8	33.6	4500	1.48	34.690	3.64	27.784	32.5	3.695
3844A	1.48	34.680	3.35	2.58	162.0	0.00	37.6	33.1	4750	1.50	34.688	3.71	27.781	32.7	3.811
4138A	1.47	34.686	3.56	2.54	160.5	0.00	37.1	32.6	5000	1.51	34.693	3.81	27.784	32.4	3.929
4432A	1.48	34.690	3.62	2.52	159.5	0.00	36.9	32.4	5250	1.52	34.697	3.96	27.787	32.1	4.048
4724A	1.50	34.687	3.70	2.51	157.4	0.00	36.6	32.7	5500	1.52	34.698	4.06	27.787	32.1	4.169
5015A	1.514	34.693	3.82	2.49	153.2	0.00	36.2	32.4							
5306A	1.518	34.697	3.99	2.44	147.7	0.00	35.7	32.1							
5596A	1.531	34.698		2.43	144.7	0.00	35.4	32.1							
5693A	1.543	34.698	4.10	2.42	144.2	0.00	35.1	32.2							

RV THOMAS WASHINGTON INDOPAC LEG I 74

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.1N	165 00.4E	4/19/76	1548 GMT	5926M	350	10KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	16.77	34.718	5.63					261.4	0	16.77	34.718	5.63	25.371	261.4	0.000
10	16.75	34.716	5.64					261.1	10	16.75	34.716	5.64	25.374	261.1	0.026
30	16.76	34.713	5.64					261.5	20	16.76	34.716	5.64	25.372	261.3	0.052
49	16.67	34.727	5.33					258.5	30	16.76	34.713	5.64	25.370	261.5	0.079
73	16.35	34.705	5.58					253.0	50	16.66	34.727	5.34	25.404	258.2	0.131
96	16.27	34.701	5.46					251.5	75	16.34	34.705	5.58	25.461	252.8	0.195
144	15.98	34.667	5.36					247.7	100	16.25	34.699	5.46	25.477	251.3	0.259
188	15.55		4.89						125	16.12	34.682	5.41	25.495	249.6	0.322
232	14.83	34.624	4.68					226.5	150	15.93	34.669	5.30	25.526	246.6	0.385
276	13.97	34.556	4.63					214.0	200	15.37	34.657	4.81	25.643	235.5	0.509
319	13.02	34.485	4.55					200.7	250	14.49	34.599	4.65	25.790	221.5	0.626
360	12.08	34.397	4.98					189.7	300	13.45	34.518	4.59	25.948	206.5	0.737
441	9.99	34.251	5.04					164.6	400	11.06	34.322	5.01	26.257	177.3	0.937
521	8.05	34.114	4.24					145.4	500	8.56	34.149	4.50	26.541	150.2	1.110
600	5.94	34.018	3.34					125.0	600	5.94	34.018	3.34	26.807	125.0	1.256
678	4.97	34.016	2.77					114.2	700	4.81	34.031	2.57	26.951	111.4	1.382
758	4.49	34.079	2.07					104.4	800	4.28	34.122	1.78	27.081	99.0	1.495
838	4.21	34.161	1.56					94.4	1000	3.59	34.296	1.16	27.290	79.3	1.688
922	3.81	34.232	1.22					86.1							
1008	3.57	34.301	1.15					78.6							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 01.8N	166 01. E	04/19/76	0322 GMT

Z	T	S	SIGMA T	DT	DD
0	16.50	34.68	25.405	258.1	0.000
10	16.49	34.67	25.400	258.6	0.026
20	16.46	34.67	25.407	258.0	0.052
30	16.38	34.68	25.433	255.5	0.077
40	16.27	34.68	25.456	253.1	0.103
50	16.22	34.69	25.478	251.2	0.128
75	16.08	34.68	25.502	248.9	0.191
100	16.05	34.69	25.517	247.5	0.254
125	15.94	34.68	25.534	245.9	0.317
150	15.91	34.69	25.549	244.5	0.379
175	15.86	34.70	25.568	242.7	0.441
200	15.62	34.68	25.607	239.0	0.503
225	15.41	34.66	25.638	236.0	0.564
250	15.11	34.64	25.689	231.1	0.624
275	14.83	34.62	25.735	226.8	0.683
300	14.45	34.59	25.794	221.2	0.741
350	13.32	34.49	25.953	206.1	0.852
400	12.38	34.43	26.093	192.8	0.957
450	11.55	34.39	26.220	180.7	1.055
500	10.64	34.31	26.323	171.0	1.149
550	9.40	34.21	26.456	158.3	1.237
600	7.90	34.08	26.588	145.8	1.318
650	6.92	34.04	26.696	135.6	1.393
700	5.93	34.02	26.810	124.8	1.463
750	5.29	34.02	26.888	117.4	1.528
800	4.81	34.03	26.967	109.9	1.589
850	4.50	34.09	27.033	103.6	1.646
900	4.29	34.15	27.103	97.0	1.701
950	4.02	34.19	27.163	91.3	1.752
1000	3.87	34.24	27.218	86.1	1.800
1100	3.52	34.30	27.300	78.3	1.891
1200	3.28	34.36	27.371	71.6	1.974
1300	2.98	34.41	27.439	65.1	2.051
1400	2.81	34.44	27.478	61.4	2.123
1500	2.62	34.47	27.518	57.6	2.191
1600	2.456	34.502	27.558	53.8	2.256
1700	2.310	34.530	27.592	50.6	2.317
1800	2.202	34.550	27.617	48.2	2.375
1900	2.118	34.564	27.635	46.5	2.431
2000	2.040	34.580	27.654	44.7	2.485
2100	1.968	34.594	27.671	43.1	2.538
2200	1.897	34.607	27.687	41.6	2.589
2300	1.835	34.617	27.700	40.4	2.639
2400	1.772	34.629	27.714	39.0	2.688
2500	1.728	34.637	27.724	38.1	2.736
2600	1.680	34.645	27.734	37.2	2.783
2700	1.649	34.652	27.742	36.4	2.829
2800	1.618	34.656	27.747	35.9	2.875
2900	1.592	34.660	27.752	35.4	2.920
3000	1.574	34.664	27.757	35.0	2.966
3100	1.550	34.669	27.763	34.4	3.010
3200	1.532	34.671	27.766	34.2	3.055
3300	1.517	34.675	27.770	33.7	3.099
3400	1.503	34.678	27.773	33.4	3.143
3500	1.498	34.679	27.775	33.3	3.188
3600	1.495	34.680	27.776	33.2	3.232
3700	1.483	34.683	27.779	32.9	3.276
3800	1.479	34.684	27.780	32.8	3.321
3900	1.472	34.686	27.782	32.6	3.365
4000	1.472	34.687	27.783	32.5	3.410
4100	1.473	34.688	27.784	32.5	3.454
4200	1.475	34.689	27.784	32.4	3.499
4300	1.477	34.690	27.785	32.3	3.544
4400	1.482	34.690	27.785	32.4	3.590
4500	1.485	34.691	27.785	32.3	3.636
4600	1.494	34.691	27.784	32.4	3.682
4700	1.498	34.692	27.785	32.3	3.728
4800	1.503	34.693	27.785	32.3	3.775
4900	1.507	34.693	27.785	32.3	3.821
5000	1.510	34.694	27.786	32.3	3.869
5100	1.514	34.695	27.786	32.2	3.916
5200	1.514	34.695	27.786	32.2	3.964
5300	1.514	34.697	27.788	32.1	4.012
5400	1.520	34.697	27.787	32.1	4.060
5500	1.525	34.698	27.788	32.1	4.108
5600	1.532	34.699	27.788	32.0	4.157
5700	1.541	34.699	27.787	32.1	4.206
5750	1.544	34.699	27.787	32.1	4.231

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.1N	165 00.4E	04/19/76	1509 GMT

Z	T	S	SIGMA T	DT	DD
0	16.71	34.69	25.364	262.1	0.000
10	16.72	34.70	25.369	261.6	0.026
20	16.75	34.72	25.377	260.8	0.052
30	16.75	34.73	25.385	260.1	0.078
40	16.73	34.72	25.382	260.3	0.105
50	16.67	34.73	25.404	258.3	0.131
75	16.38	34.71	25.456	253.3	0.195
100	16.25	34.71	25.486	250.4	0.259
125	16.16	34.71	25.507	248.5	0.322
150	15.98	34.69	25.533	246.0	0.385
175	15.77	34.69	25.580	241.5	0.447
200	15.37	34.67	25.655	234.4	0.508
225	14.90	34.64	25.735	226.8	0.567
250	14.41	34.60	25.810	219.6	0.625
275	14.11	34.56	25.843	216.5	0.681
300	13.46	34.52	25.947	206.6	0.736
350	12.27	34.42	26.107	191.5	0.840
400	11.08	34.34	26.267	176.2	0.936
450	9.82	34.24	26.410	162.7	1.025
500	8.55	34.15	26.545	149.9	1.108
550	7.57	34.09	26.644	140.5	1.185
600	6.20	34.04	26.791	126.5	1.256
650	5.42	34.02	26.872	118.8	1.321
700	4.73	34.02	26.952	111.3	1.383
750	4.52	34.07	27.015	105.3	1.440
800	4.32	34.11	27.068	100.3	1.496
850	4.08	34.17	27.141	93.4	1.548
900	3.92	34.21	27.189	88.8	1.597
950	3.74	34.26	27.247	83.3	1.644
1000	3.63	34.29	27.282	80.0	1.689
1100	3.39	34.34	27.351	73.4	1.773

RV THOMAS WASHINGTON — INDOPAC LEG I — 75

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 04. N	164 08. E	4/20/76	0020 0526 GMT	5966M	350	12KT	1	290 7 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.43	34.658	5.83	0.39	8.2		2.9	236.6	0	15.43	34.658	5.83	25.632	236.6	0.000
10	15.42	34.656	5.83	0.34	8.0		3.4	236.5	10	15.42	34.656	5.83	25.633	236.5	0.024
31	15.12	34.616	5.70	0.34	8.2		4.0	233.1	20	15.34	34.656	5.77	25.650	234.9	0.047
50	14.32	34.584	5.72	0.42	9.5		5.1	219.0	30	15.15	34.622	5.71	25.667	233.3	0.071
60	14.00	34.579	5.70	0.41	9.7		5.6	212.9	50	14.32	34.584	5.72	25.817	219.0	0.116
75	13.98	34.577	5.73	0.40	9.7		5.6	212.7	75	13.98	34.577	5.73	25.884	212.7	0.171
90	13.71	34.556	5.51	0.45	10.5		7.5	208.9	100	13.52	34.535	5.48	25.946	206.8	0.224
99	13.54	34.537	5.47	0.52	11.2		8.0	206.9	125	13.13	34.478	5.86	25.982	203.3	0.276
124	13.14	34.479	5.86	0.49	11.4		6.7	203.5	150	12.81	34.440	5.83	26.016	200.1	0.327
149	12.82		5.85	0.48	12.4		7.5		200	12.24	34.414	4.84	26.107	191.5	0.427
198	12.28	34.416	4.84	0.79	18.4		12.8	192.0	250	11.17	34.334	4.85	26.247	178.2	0.522
247	11.23	34.339	4.82	0.97	22.5		14.8	178.9	300	10.04	34.231	5.24	26.364	167.0	0.612
295	10.17	34.242	5.24	0.99	23.4		14.9	168.2	400	7.49	34.031	4.60	26.607	144.0	0.773
394	7.65	34.041	4.65	1.57	39.4		22.3	145.2	500	5.48	33.949	3.64	26.809	124.9	0.914
490	5.58	33.940	3.77	2.08	62.1		30.2	126.7	600	4.88	34.063	2.43	26.968	109.8	1.037
587	4.95	34.051	2.54	2.47	83.6		36.2	111.3	700	4.37	34.133	1.81	27.079	99.2	1.148
683	4.47	34.120	1.90	2.69	97.6		39.4	101.1	800	3.86	34.205	1.37	27.190	88.7	1.249
779	3.95	34.188	1.45	2.90	113.9		41.9	90.8	1000	3.21	34.344	0.96	27.364	72.2	1.424
971	3.29	34.327	0.95	3.02	137.6		44.2	74.1	1200	2.76	34.439	1.01	27.481	61.2	1.572
1167	2.82		1.02	3.08	152.4		44.9		1500	2.33	34.526	1.10	27.588	51.0	1.762
1274A	2.64	34.465	0.99	3.03	159.4		43.2	58.1	1750	2.07	34.568	1.39	27.641	46.0	1.903
1740A	2.08	34.565	1.38	2.86	175.8		43.0	46.2	2000	1.89	34.604	1.78	27.684	41.9	2.033
2200A	1.78	34.624	2.12	2.78	175.6		40.8	39.5	2250	1.75	34.628	2.21	27.714	39.0	2.155
2430A	1.66	34.640	2.49	2.70	172.4		39.8	37.4	2500	1.64	34.644	2.58	27.735	37.0	2.272
2660A	1.61	34.652	2.75	2.69	169.8		39.2	36.1	2750	1.59	34.655	2.84	27.748	35.9	2.385
2889A	1.56	34.657	2.96	2.57	167.3		38.5	35.4	3000	1.54	34.665	3.03	27.759	34.8	2.498
3119A	1.52	34.671	3.10	2.66	165.6		38.0	34.1	3250	1.50	34.676	3.17	27.771	33.6	2.608
3348A	1.49	34.678	3.23	2.62	164.7		37.6	33.3	3500	1.48	34.679	3.31	27.775	33.3	2.718
3578A	1.48	34.678	3.35	2.57	162.5		37.4	33.3	3750	1.47	34.682	3.43	27.779	32.9	2.829
3807A	1.47	34.683	3.46	2.56	160.8		37.1	32.8	4000	1.49	34.685	3.56	27.779	32.9	2.940
4037A	1.49	34.684	3.56	2.49	158.8		36.8	32.9	4250	1.47	34.686	3.64	27.782	32.6	3.053
4268A	1.47	34.686	3.64	2.46	158.4		36.8	32.6	4500	1.47	34.690	3.69	27.785	32.4	3.167
4498A	1.47	34.689	3.69	2.51	157.4		36.4	32.4	4750	1.49	34.690	3.77	27.784	32.5	3.283
4730A	1.49	34.689	3.76	2.51	156.3		36.3	32.5	5000	1.49	34.697	3.89	27.789	32.0	3.400
4961A	1.49	34.696	3.87	2.47	150.3		35.8	32.0	5250	1.50	34.696	3.98	27.788	32.1	3.518
5195A	1.50	34.696	3.96	2.47	147.9		35.8	32.0	5500	1.52	34.696	4.04	27.786	32.3	3.638
5429A	1.518	34.695	4.02	2.42	145.9		35.4	32.2	5750	1.54	34.697	4.11	27.785	32.3	3.761
5664A	1.537	34.696	4.08	2.42	144.9		35.3	32.3							
5806A	1.550	34.696	4.12	2.45	143.9		35.3	32.4							
5901A	1.566		4.09	2.49	142.8		35.1								

RV THOMAS WASHINGTON — INDOPAC LEG I — 76

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 57.9N	162 58.4E	4/20/76	1310 GMT	5665M	350	11KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	14.13	34.525	5.97					219.5	0	14.13	34.525	5.97	25.812	219.5	0.000
10	14.10	34.523	5.97					219.0	10	14.10	34.523	5.97	25.817	219.0	0.022
20	14.06	34.518	5.97					218.6	20	14.06	34.518	5.97	25.821	218.6	0.044
31	13.80	34.492	5.95					215.3	30	13.83	34.495	5.95	25.852	215.7	0.066
51	13.59	34.482	5.85					211.9	50	13.60	34.483	5.86	25.889	212.1	0.109
76	13.02	34.462	5.55					202.4	75	13.04	34.464	5.56	25.988	202.8	0.161
101	12.67	34.433	5.55					197.9	100	12.68	34.435	5.55	26.038	198.0	0.212
126	12.59	34.432	5.43					196.5	125	12.59	34.433	5.43	26.053	196.6	0.262
151	12.27	34.406	5.46					192.5	150	12.29	34.408	5.46	26.094	192.7	0.311
201	11.25	34.342	5.63					179.0	200	11.27	34.344	5.63	26.235	179.3	0.406
250	10.23	34.269	4.71					167.2	250	10.23	34.269	4.71	26.363	167.2	0.495
299	8.93	34.173	4.31					153.9	300	8.90	34.172	4.31	26.506	153.6	0.578
397	6.77	34.028	3.96					134.5	400	6.72	34.028	3.93	26.713	134.0	0.728
495	5.31	34.024	3.01					117.3	500	5.25	34.026	2.96	26.896	116.6	0.859
593	4.45	34.069	2.18					104.7	600	4.42	34.077	2.13	27.031	103.8	0.975
690	4.09	34.174	1.59					93.2	700	4.05	34.185	1.54	27.155	92.1	1.079
788	3.72	34.256	1.18					83.4	800	3.69	34.264	1.16	27.254	82.6	1.172
886	3.46	34.307	1.10					77.2	1000	3.16	34.362	0.97	27.384	70.3	1.339
984	3.19	34.356	0.97					71.1	1200	2.77	34.431	0.91	27.474	61.8	1.485
1185	2.80	34.426	0.91					62.4							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 04, N	164 08, E	04/20/76	0052 GMT

Z	T	S	SIGMA T	DT	DD
0	14,97	34,61	25,697	230,4	0,000
10	14,92	34,61	25,706	229,4	0,023
20	14,63	34,59	25,755	224,9	0,046
30	14,47	34,59	25,790	221,6	0,068
40	14,39	34,59	25,807	220,0	0,090
50	14,21	34,57	25,830	217,8	0,112
75	13,56	34,51	25,919	209,3	0,166
100	13,32	34,49	25,953	206,1	0,219
125	12,92	34,46	26,010	200,7	0,270
150	12,56	34,43	26,058	196,1	0,321
175	12,22	34,42	26,116	190,6	0,370
200	11,74	34,38	26,177	184,8	0,418
225	11,22	34,35	26,250	177,9	0,465
250	10,53	34,27	26,311	172,1	0,510
275	10,00	34,24	26,379	165,6	0,554
300	9,42	34,21	26,453	158,6	0,596
350	8,23	34,10	26,554	149,0	0,675
400	6,73	33,99	26,682	136,9	0,750
450	5,68	33,96	26,794	126,3	0,819
500	5,14	33,94	26,842	121,7	0,883
550	5,02	34,04	26,935	112,9	0,945
600	4,71	34,08	27,002	106,6	1,003
650	4,47	34,12	27,060	101,1	1,058
700	4,17	34,14	27,108	96,5	1,110
750	3,92	34,20	27,181	89,6	1,160
800	3,74	34,23	27,223	85,6	1,207
850	3,64	34,28	27,273	80,9	1,252
900	3,46	34,31	27,314	77,0	1,295
950	3,28	34,33	27,347	73,8	1,336
1000	3,15	34,36	27,383	70,4	1,376
1100	2,92	34,41	27,444	64,6	1,450
1200	2,73	34,44	27,485	60,8	1,520
1300	2,57	34,47	27,523	57,2	1,586
1400	2,44	34,49	27,550	54,6	1,650
1500	2,32	34,51	27,576	52,2	1,711
1600	2,198	34,541	27,610	48,9	1,769
1700	2,098	34,555	27,630	47,1	1,824
1800	2,009	34,571	27,649	45,2	1,878
1900	1,935	34,587	27,668	43,4	1,931
2000	1,869	34,603	27,686	41,7	1,981
2100	1,806	34,612	27,698	40,6	2,031
2200	1,747	34,622	27,711	39,4	2,079
2300	1,703	34,632	27,722	38,3	2,126
2400	1,664	34,639	27,730	37,5	2,173
2500	1,633	34,644	27,737	36,9	2,218
2600	1,612	34,649	27,742	36,4	2,264
2700	1,590	34,653	27,747	35,9	2,309
2800	1,571	34,658	27,752	35,4	2,354
2900	1,554	34,661	27,756	35,1	2,399
3000	1,540	34,663	27,759	34,8	2,443
3100	1,526	34,666	27,762	34,5	2,488
3200	1,516	34,668	27,764	34,3	2,532
3300	1,503	34,671	27,768	34,0	2,577
3400	1,494	34,673	27,770	33,7	2,621
3500	1,487	34,675	27,772	33,5	2,665
3600	1,485	34,677	27,774	33,4	2,710
3700	1,476	34,678	27,775	33,2	2,754
3800	1,472	34,680	27,777	33,1	2,799
3900	1,471	34,682	27,779	32,9	2,844
4000	1,469	34,683	27,780	32,8	2,888
4100	1,473	34,684	27,780	32,8	2,933
4200	1,475	34,686	27,782	32,6	2,978
4300	1,479	34,686	27,782	32,7	3,024
4400	1,483	34,686	27,781	32,7	3,070
4500	1,489	34,687	27,782	32,7	3,116
4600	1,494	34,688	27,782	32,6	3,162
4700	1,502	34,688	27,782	32,7	3,209
4800	1,508	34,690	27,783	32,6	3,256
4900	1,511	34,690	27,782	32,6	3,303
5000	1,514	34,691	27,783	32,5	3,350
5100	1,518	34,692	27,784	32,5	3,398
5200	1,522	34,693	27,784	32,4	3,446
5300	1,527	34,693	27,784	32,5	3,494
5400	1,533	34,694	27,784	32,4	3,543
5500	1,541	34,695	27,784	32,4	3,592
5600	1,549	34,695	27,784	32,5	3,641
5700	1,559	34,695	27,783	32,5	3,691
5800	1,569	34,696	27,783	32,5	3,741
5900	1,581	34,696	27,782	32,6	3,791

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 57,9N	162 58,4E	04/20/76	1210 GMT

Z	T	S	SIGMA T	DT	DD
0	14,10	34,51	25,807	220,0	0,000
10	14,10	34,52	25,814	219,2	0,022
20	14,09	34,52	25,817	219,0	0,044
30	14,01	34,49	25,810	219,6	0,066
40	13,69	34,49	25,877	213,3	0,088
50	13,58	34,49	25,900	211,2	0,109
75	13,40	34,48	25,929	208,4	0,162
100	12,76	34,44	26,027	199,1	0,213
125	12,53	34,44	26,072	194,8	0,263
150	12,36	34,42	26,089	193,1	0,313
175	11,82	34,38	26,162	186,3	0,361
200	11,45	34,35	26,208	181,9	0,408
225	11,15	34,33	26,247	178,2	0,455
250	10,63	34,30	26,317	171,5	0,500
275	9,76	34,25	26,428	161,0	0,543
300	9,33	34,22	26,475	156,5	0,584
350	7,47	34,05	26,627	142,1	0,661
400	6,50	34,01	26,723	133,0	0,733
450	5,86	34,04	26,834	122,4	0,800
500	5,24	34,03	26,902	116,1	0,862
550	4,62	34,04	26,980	108,6	0,921
600	4,33	34,08	27,043	102,7	0,977
650	4,16	34,13	27,101	97,2	1,029
700	4,06	34,18	27,151	92,4	1,080
750	3,88	34,21	27,193	88,4	1,128
800	3,72	34,25	27,241	83,9	1,175
850	3,52	34,29	27,292	79,0	1,219
900	3,41	34,31	27,319	76,5	1,261
950	3,26	34,34	27,357	72,9	1,302
1000	3,14	34,37	27,392	69,6	1,341
1100	2,92	34,41	27,444	64,6	1,415
1200	2,76	34,44	27,482	61,0	1,485

RV THOMAS WASHINGTON INDOPAC LEG I 77

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59. N	162 04.5E	4/20/76	2040 0103 GMT	5078M	040	9KT	2	330 6 12

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	13.66	34.501	6.12	0.40	12.0	0.33	4.6	211.9	0	13.66	34.501	6.12	25.892	211.9	0.000
6	13.41	34.499	6.09	0.41	12.0	0.30	4.9	207.2	10	13.39	34.498	6.11	25.945	206.8	0.021
11	13.38	34.497	6.12	0.41	12.0	0.30	5.0	206.7	20	13.34	34.497	6.12	25.955	205.9	0.042
22	13.33	34.497	6.12	0.42	12.0	0.30	5.1	205.8	30	13.31	34.497	6.12	25.959	205.5	0.062
32	13.31	34.496	6.12	0.43	12.0	0.30	5.2	205.5	50	12.91	34.489	5.93	26.034	198.4	0.103
46	12.97	34.490	5.96	0.44	12.3	0.41	6.2	199.4	75	12.51	34.452	5.75	26.085	193.6	0.152
71	12.60	34.463	5.81	0.53	13.6	0.51	7.4	194.4	100	11.96	34.401	5.70	26.151	187.2	0.200
90	12.15	34.410	5.62	0.64	14.9	0.32	9.2	190.0	125	11.68	34.372	5.47	26.181	184.4	0.248
100	11.96	34.401	5.70	0.67	15.7	0.33	9.4	187.2	150	11.41	34.353	5.20	26.216	181.1	0.294
126	11.67	34.370	5.45	0.75	17.4	0.07	11.0	184.3	200	10.89	34.321	4.89	26.286	174.5	0.385
153	11.38	34.350	5.17	0.90	20.4	0.03	12.8	180.7	250	10.10	34.262	4.70	26.379	165.7	0.472
201	10.68	34.319	4.89	1.02	23.4	0.00	14.8	174.4	300	9.10	34.183	4.54	26.484	155.7	0.556
300	9.10	34.183	4.54	1.39	33.4	0.00	19.4	155.7	400	6.71	34.003	4.20	26.695	135.6	0.707
400	6.71	34.003	4.20	1.85	49.2	0.00	25.4	135.6	500	5.60	34.056	3.15	26.878	118.3	0.840
499	5.61	34.055	3.16	2.32	69.8	0.00	32.0	118.4	600	4.64	34.055	2.38	26.988	107.9	0.959
599	4.65	34.053	2.39	2.58	87.5	0.00	36.5	108.0	700	4.12	34.138	1.76	27.110	96.2	1.067
698	4.13	34.136	1.77	2.81	105.5		39.9	96.4	800	3.82	34.224	1.30	27.209	86.9	1.165
795	3.84	34.220	1.32	2.84	117.6		41.5	87.3	1000	3.21	34.349	0.94	27.369	71.8	1.338
991	3.23	34.344	0.95	3.09	139.8	0.00	43.7	72.3	1200	2.77	34.432	0.81	27.474	61.8	1.486
1187	2.80	34.427	0.80	3.08	155.1	0.00	44.1	62.3	1500	2.33	34.517	1.09	27.580	51.7	1.678
1380A	2.47	34.488	0.99	3.07	164.2	0.00	44.2	55.0	1750	2.09	34.565	1.37	27.638	46.3	1.821
1580A	2.25	34.533	1.16	2.96	169.9		43.7	49.9	2000	1.91	34.597	1.69	27.678	42.5	1.952
1780A	2.06	34.569	1.41	2.93	172.5		42.8	45.7	2250	1.76	34.624	2.15	27.710	39.3	2.075
1979A	1.92	34.594	1.65	2.91	175.1		42.4	42.8	2500	1.64	34.644	2.52	27.736	36.9	2.192
2178A	1.80	34.615	2.01	2.89	174.9		41.6	40.3	2750	1.56	34.658	2.80	27.753	35.4	2.305
2376A	1.69	34.637	2.37	2.76	174.3		40.7	37.8	3000	1.51	34.667	3.03	27.764	34.4	2.415
2575A	1.61	34.648	2.60	2.63	171.5		39.9	36.4	3250	1.48	34.675	3.20	27.772	33.5	2.525
2773A	1.55	34.658	2.82	2.63	169.5		39.2	35.3	3500	1.44	34.681	3.39	27.779	32.8	2.633
2972A	1.51	34.665	3.01	2.65	167.1		38.3	34.5	3750	1.43	34.683	3.51	27.782	32.6	2.742
3169A	1.49	34.672	3.14	2.65	165.6		38.5	33.8	4000	1.43	34.685	3.60	27.783	32.5	2.852
3416A	1.45	34.678	3.33	2.59	163.0		37.9	33.1	4250	1.44	34.688	3.66	27.785	32.3	2.963
3612A	1.44	34.683	3.45	2.55	162.2		37.3	32.6	4500	1.48	34.689	3.67	27.783	32.5	3.077
3807A	1.43	34.682	3.53	2.54	160.9		37.1	32.6	4750	1.51	34.690	3.71	27.782	32.6	3.193
4005A	1.43	34.684	3.60	2.50	159.8		37.0	32.5	5000	1.52	34.674	3.74	27.768	32.5	3.311
4197A	1.44	34.687	3.66	2.48	159.5		36.8	32.3							
4391A	1.46	34.687	3.67	2.48	159.1		37.0	32.4							
4583A	1.49	34.689	3.68	2.50	159.2		36.7	32.5							
4774A	1.507	34.689	3.72	2.52	158.3		36.5	32.6							
4965A	1.520	34.695	3.74	2.52	157.1		36.6	32.3							
5015A	1.520	34.690	3.75	2.53	156.7		36.5	32.6							

RV THOMAS WASHINGTON INDOPAC LEG I 78

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.5N	161 00.1E	4/21/76	0812 GMT	3739M	140	12KT	2	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.59	34.690	5.78					259.4	0	16.59	34.690	5.78	25.392	259.4	0.000
10	16.58	34.688	5.79					259.3	10	16.58	34.688	5.79	25.393	259.3	0.026
20	16.55	34.689	5.79					258.6	20	16.55	34.689	5.79	25.400	258.6	0.052
30	16.50	34.705	5.69					256.3	30	16.50	34.705	5.69	25.424	256.3	0.078
50	16.29	34.708	5.61					251.5	50	16.29	34.708	5.61	25.475	251.5	0.129
80	16.02	34.675	5.62					248.0	75	16.05	34.681	5.62	25.508	248.3	0.192
98	15.99	34.682	5.57					246.8	100	15.99	34.683	5.56	25.526	246.7	0.254
123	15.92	34.684	5.47					245.2	125	15.92	34.684	5.47	25.542	245.1	0.317
148	15.83	34.673	5.45					244.0	150	15.81	34.673	5.43	25.557	243.7	0.379
197	15.20	34.630	4.95					233.7	200	15.14	34.627	4.94	25.670	232.9	0.500
244	14.23	34.556	4.84					219.2	250	14.10	34.549	4.86	25.836	217.2	0.616
291	13.13	34.494	4.99					203.1	300	12.95	34.480	4.95	26.019	199.8	0.724
386	10.50	34.310	4.37					168.6	400	10.03	34.270	4.34	26.397	164.0	0.914
478	7.55	34.077	4.18					141.2	500	6.98	34.040	4.06	26.687	136.4	1.072
571	5.53	33.978	3.49					123.2	600	5.16	33.993	3.14	26.881	118.0	1.207
661	4.64	34.049	2.43					108.2	700	4.47	34.087	2.14	27.033	103.6	1.324
752	4.31	34.137	1.83					98.2	800	4.10	34.184	1.56	27.149	92.6	1.429
845	3.90	34.225	1.36					87.5	1000	3.30	34.341	0.99	27.353	73.3	1.609
938	3.51	34.301	1.12					78.1							
1128	3.02	34.391	0.82					66.9							

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59. N	162 04.5E	04/20/76	1831 GMT

Z	T	S	SIGMA T	DT	DD
0	13.43	34.46	25.907	210.4	0.000
10	13.44	34.46	25.905	210.6	0.021
20	13.42	34.45	25.902	211.0	0.042
30	13.15	34.43	25.941	207.2	0.063
40	12.83	34.41	25.989	202.6	0.084
50	12.71	34.40	26.005	201.1	0.104
75	12.50	34.39	26.039	197.9	0.154
100	12.30	34.38	26.070	195.0	0.204
125	12.06	34.35	26.093	192.6	0.253
150	11.61	34.31	26.147	187.7	0.302
175	11.25	34.29	26.198	182.9	0.349
200	10.84	34.27	26.256	177.3	0.395
225	10.45	34.24	26.302	173.0	0.440
250	9.78	34.18	26.370	166.5	0.484
275	9.46	34.15	26.399	163.7	0.526
300	8.90	34.11	26.459	158.1	0.568
350	7.68	34.01	26.565	148.0	0.647
400	7.07	34.01	26.652	139.8	0.722
450	6.47	33.99	26.717	133.6	0.793
500	5.62	33.97	26.809	124.9	0.861
550	4.82	33.96	26.894	116.6	0.925
600	4.65	34.01	26.953	111.2	0.984
650	4.44	34.06	27.015	105.3	1.042
700	4.16	34.12	27.093	97.9	1.096
750	4.02	34.18	27.155	92.1	1.146
800	3.72	34.20	27.201	87.7	1.194
850	3.61	34.24	27.244	83.6	1.241
900	3.44	34.28	27.292	79.0	1.285
950	3.30	34.30	27.321	76.3	1.327
1000	3.15	34.33	27.359	72.7	1.368
1100	2.95	34.37	27.409	67.9	1.445
1200	2.79	34.40	27.448	64.3	1.518
1300	2.62	34.43	27.486	60.6	1.588
1400	2.46	34.46	27.524	57.1	1.654
1500	2.34	34.49	27.558	53.8	1.717
1600	2.252	34.511	27.582	51.6	1.778
1700	2.131	34.536	27.612	48.7	1.836
1800	2.044	34.553	27.632	46.8	1.892
1900	1.979	34.567	27.649	45.2	1.946
2000	1.904	34.579	27.664	43.8	1.998
2100	1.840	34.592	27.679	42.3	2.050
2200	1.766	34.605	27.696	40.8	2.100
2300	1.715	34.614	27.706	39.6	2.148
2400	1.670	34.624	27.718	38.7	2.196
2500	1.640	34.630	27.725	38.0	2.243
2600	1.609	34.636	27.732	37.3	2.290
2700	1.582	34.642	27.739	36.7	2.336
2800	1.559	34.647	27.745	36.2	2.381
2900	1.539	34.651	27.749	35.7	2.426
3000	1.523	34.657	27.755	35.2	2.471
3100	1.497	34.661	27.760	34.7	2.516
3200	1.476	34.667	27.767	34.1	2.560
3300	1.464	34.670	27.770	33.8	2.604
3400	1.457	34.672	27.772	33.6	2.648
3500	1.449	34.675	27.775	33.3	2.692
3600	1.442	34.678	27.778	33.0	2.736
3700	1.437	34.679	27.779	32.9	2.779
3800	1.438	34.682	27.781	32.7	2.823
3900	1.438	34.683	27.782	32.6	2.867
4000	1.438	34.685	27.784	32.4	2.911
4100	1.444	34.686	27.784	32.4	2.956
4200	1.452	34.686	27.783	32.5	3.000
4300	1.462	34.687	27.784	32.5	3.045
4400	1.468	34.687	27.783	32.5	3.091
4500	1.479	34.688	27.783	32.5	3.137
4600	1.486	34.686	27.783	32.6	3.183
4700	1.497	34.689	27.783	32.6	3.229
4800	1.503	34.688	27.781	32.7	3.276
4900	1.513	34.690	27.782	32.6	3.323
5000	1.520	34.693	27.784	32.4	3.371
5064	1.522	34.694	27.785	32.3	3.401

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.5N	161 00.1E	04/21/76	0726 GMT

Z	T	S	SIGMA T	DT	DD
0	16.64	34.65	25.350	263.4	0.000
10	16.62	34.68	25.377	260.8	0.026
20	16.56	34.69	25.399	258.7	0.052
30	16.52	34.70	25.416	257.1	0.078
40	16.37	34.71	25.458	253.1	0.104
50	16.16	34.68	25.484	250.7	0.129
75	16.06	34.69	25.514	247.8	0.192
100	15.98	34.69	25.533	246.0	0.254
125	15.91	34.69	25.549	244.5	0.316
150	15.79	34.68	25.568	242.6	0.378
175	15.43	34.65	25.626	237.1	0.440
200	14.92	34.62	25.715	228.6	0.499
225	14.42	34.59	25.801	220.6	0.557
250	13.85	34.54	25.882	212.8	0.613
275	13.25	34.50	25.975	204.0	0.667
300	12.81	34.48	26.047	197.1	0.719
350	11.37	34.38	26.246	178.3	0.816
400	9.66	34.25	26.464	159.4	0.905
450	8.25	34.13	26.575	147.1	0.986
500	6.68	34.00	26.697	135.5	1.060
550	5.82	33.97	26.784	127.2	1.129
600	4.95	33.97	26.888	117.4	1.194
650	4.77	34.05	26.971	109.5	1.254
700	4.51	34.09	27.032	103.7	1.310
750	4.30	34.13	27.086	98.6	1.364
800	4.02	34.17	27.147	92.8	1.416
850	3.84	34.23	27.213	86.5	1.464
900	3.68	34.26	27.253	82.8	1.510
950	3.49	34.30	27.303	78.0	1.554
1000	3.32	34.33	27.343	74.2	1.595
1100	3.10	34.37	27.396	69.2	1.675
1166	2.96	34.40	27.432	65.7	1.724

RV THOMAS WASHINGTON INDOPAC LEG I 79

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME GMT	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 02. N	160 06. E	4/21/76	1602 2253	4932M	300	12KT	2	300 5 5

Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.70	34.702	5.68	0.27	8.1	0.29	1.6	239.1	0	15.70	34.702	5.68	25.605	239.1	0.000
10	15.71	34.698	5.68	0.26	8.1	0.33	2.5	239.6	10	15.71	34.698	5.68	25.600	239.6	0.024
19	15.70	34.697	5.68	0.28	8.1	0.33	2.3	239.5	20	15.70	34.698	5.68	25.602	239.5	0.048
31	15.65	34.693	5.68	0.22	7.9	0.35	2.8	238.7	30	15.66	34.694	5.68	25.609	238.8	0.072
50	15.28	34.656	5.61	0.30	8.3	0.49	3.6	233.5	50	15.28	34.656	5.61	25.664	233.5	0.119
60	15.17	34.647	5.66	0.38	8.3	0.45	3.5	231.9	75	15.04	34.642	5.77	25.706	229.5	0.178
75	15.04	34.642	5.77	0.30	8.3	0.43	3.3	229.5	100	14.66	34.609	5.52	25.764	224.1	0.235
90	14.89	34.629	5.59	0.34	8.5	0.58	4.4	227.4	125	14.35	34.583	5.18	25.810	219.7	0.291
100	14.66	34.609	5.52	0.40	8.7	0.36	5.1	224.1	150	13.79	34.537	4.93	25.891	212.0	0.346
125	14.35	34.583	4.360	0.78	14.8	0.16	10.9	219.7	200	12.90	34.486	5.48	26.034	198.4	0.451
151	13.77	34.534	4.92	0.67	14.3	0.01	9.7	211.7	250	12.16	34.430	5.67	26.135	188.8	0.551
200	12.90	34.486	5.48	0.63	13.5	0.03	8.6	198.4	300	10.77	34.278	5.20	26.274	175.6	0.645
248	12.21	34.435	5.68	0.62	14.6	0.01	8.8	189.3	400	7.85	34.063	4.65	26.582	146.4	0.813
296	10.89	34.288	5.22	0.88	20.4	0.00	12.7	176.8	500	5.64	33.957	3.71	26.796	126.1	0.956
393	8.04	34.076	4.70	1.52	37.3	0.00	20.8	148.1	600	4.70	34.024	2.56	26.958	110.7	1.080
496	5.69	33.955	3.76	2.07	61.4	0.00	29.0	126.8	700	4.19	34.127	1.78	27.094	97.8	1.190
590	4.76	34.013	2.65	2.52	83.4	0.00	35.1	112.1	800	3.87	34.221	1.30	27.202	87.6	1.290
777	3.96	34.205	1.39	2.89	115.2	0.00	41.3	89.6	1000	3.29	34.336	1.01	27.350	73.5	1.465
966	3.35	34.314	1.01	3.03	136.2	0.01	42.4	75.7	1200	2.86	34.417	0.94	27.455	63.6	1.617
1031A	3.24	34.354	1.01	3.06	140.0	0.00	42.8	71.7	1500	2.39	34.501	1.04	27.562	53.4	1.815
1157	2.90	34.405	0.88	3.07	151.0		43.6	64.8	1750	2.13	34.555	1.34	27.627	47.3	1.961
1232A	2.83	34.424	0.99	3.05	154.2	0.00	44.0	62.8	2000	1.93	34.588	1.71	27.668	43.4	2.096
1532A	2.49	34.483	0.99	3.04	165.6	0.00	44.0	55.6	2250	1.78	34.617	2.11	27.703	40.1	2.221
1633A	2.23	34.532	1.19	3.03	172.0	0.00	43.7	49.8	2500	1.67	34.637	2.48	27.727	37.8	2.340
1832A	2.07	34.568	1.46	2.97	174.3	0.00	42.8	45.8	2750	1.58	34.648	2.82	27.743	36.3	2.456
2032A	1.91	34.590	1.76	2.85	177.3	0.00	41.9	43.0	3000	1.53	34.659	3.02	27.755	35.1	2.569
2228A	1.79	34.614	1.850	2.80	175.8	0.00	41.0	40.3	3250	1.49	34.664	3.22	27.763	34.5	2.680
2425A	1.71	34.632	2.38	2.73	174.8	0.00	40.1	38.4	3500	1.46	34.674	3.37	27.773	33.4	2.791
2624A	1.61	34.642	2.65	2.71	171.7	0.00	39.4	36.9	3750	1.45	34.678	3.51	27.777	33.1	2.902
2822A	1.57	34.651	2.90	2.71	170.0	0.01	38.4	35.9	4000	1.46	34.686	3.56	27.782	32.6	3.013
3019A	1.53	34.659	3.03	2.62	167.6	0.00	38.2	35.1	4250	1.46	34.685	3.68	27.781	32.7	3.125
3214A	1.49	34.661	3.20	2.60	166.1	0.00	37.5	34.6	4500	1.48	34.691	3.72	27.786	32.2	3.239
3408A	1.47	34.671	3.30	2.54	164.2	0.00	37.1	33.7							
3603A	1.45	34.676	3.44	2.55	162.8	0.00	36.7	33.2							
3799A	1.45	34.678	3.53	2.54	161.0	0.00	35.8	33.1							
3992A	1.458	34.685	3.56	2.48	160.5	0.00	36.2	32.6							
4185A	1.464	34.685	3.67	2.52	159.3	0.00	35.7	32.6							
4378A	1.466	34.683	3.70	2.51	158.1	0.00	35.3	32.8							
4474A	1.474	34.687	3.72	2.48	157.7	0.00	35.6	32.5							

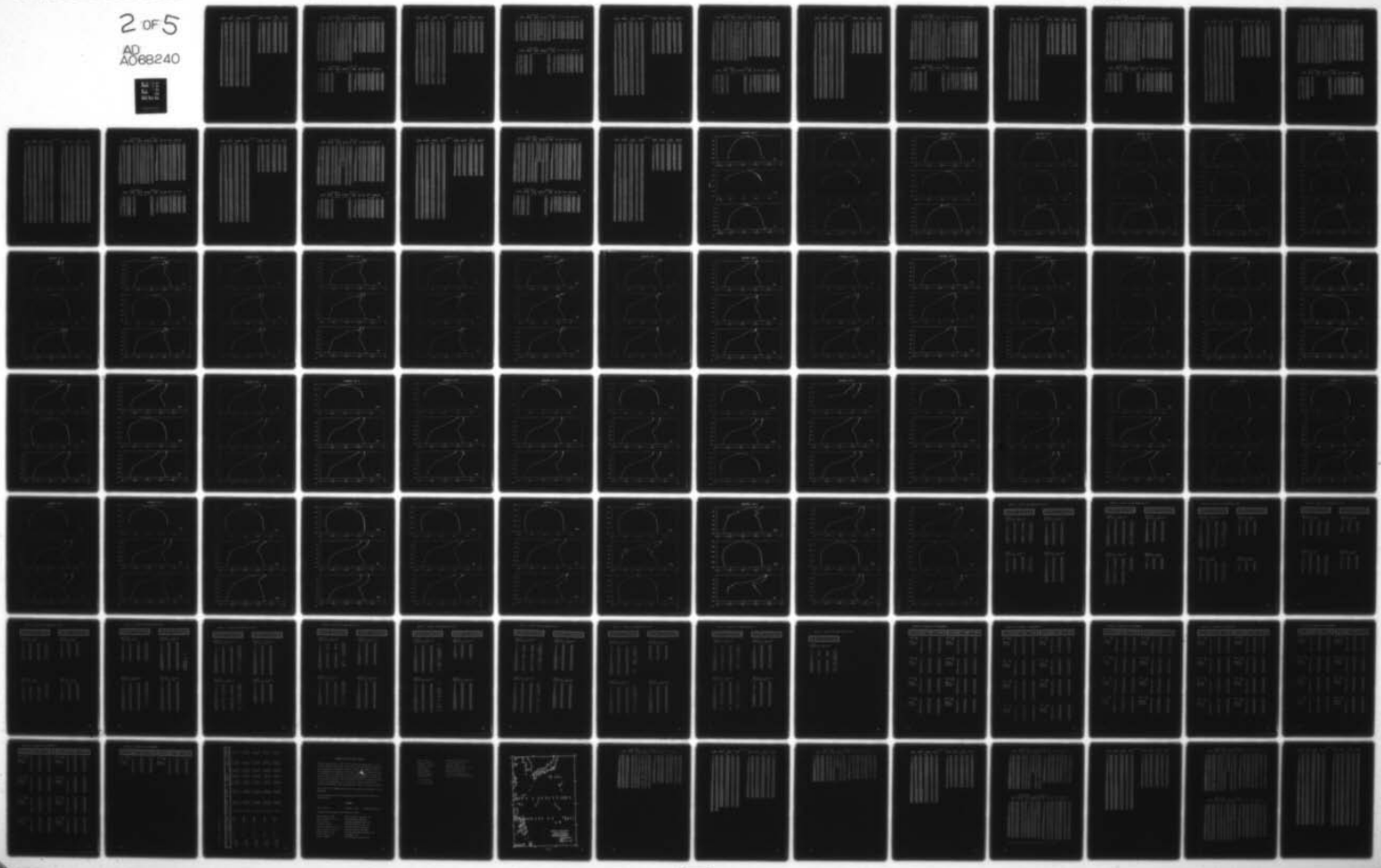
RV THOMAS WASHINGTON INDOPAC LEG I 80

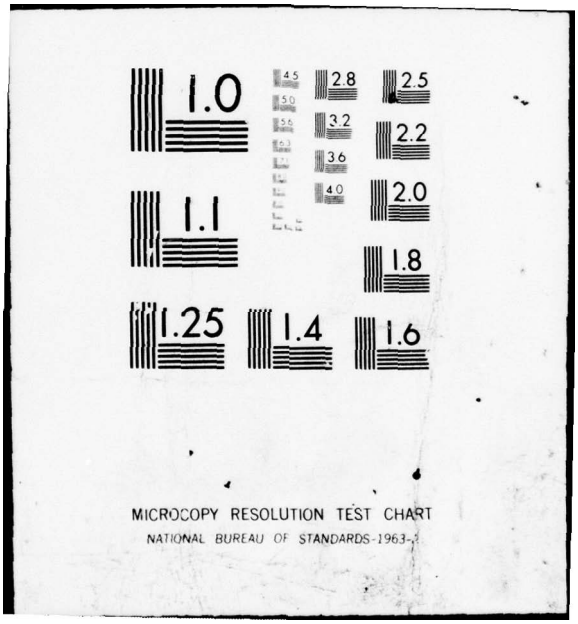
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME GMT	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 57.6N	158 57.7E	4/22/76	0616 GMT	4965M	170	15KT	5	49

Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.99	34.712	5.72					244.6	0	15.99	34.712	5.72	25.547	244.6	0.000
10	15.98	34.711	5.61					244.5	10	15.98	34.711	5.61	25.549	244.5	0.024
31	15.97	34.712	5.71					244.2	20	15.98	34.713	5.64	25.551	244.3	0.049
51	15.95	34.701	5.61					244.6	30	15.97	34.713	5.70	25.552	244.2	0.073
76	15.91	34.700	5.62					243.8	50	15.95	34.702	5.62	25.548	244.6	0.123
100	15.91	34.697	5.38					244.0	75	15.91	34.700	5.52	25.556	243.8	0.184
125	15.90	34.700	5.60					243.6	100	15.91	34.697	5.38	25.554	244.0	0.246
151	15.89	34.698	5.64					243.5	125	15.90	34.700	5.60	25.559	243.6	0.308
201	15.82	34.687	5.48					242.8	150	15.89	34.699	5.64	25.559	243.5	0.369
250	14.98	34.618	4.96					230.0	200	15.82	34.688	5.48	25.567	242.8	0.494
299	13.90	34.342	4.63					213.6	250	14.98	34.618	4.96	25.701	230.0	0.615
349	12.29	34.447	5.34					189.9	300	13.87	34.541	4.64	25.878	213.2	0.730
399	10.85	34.306	4.92					174.8	400	10.82	34.304	4.91	26.286	174.5	0.932
498	8.01	34.117	4.24					144.6	500	7.96	34.114	4.22	26.606	144.1	1.100
596	5.78	34.012	3.07					123.6	600	5.72	34.015	3.04	26.830	122.8	1.242
694	4.82	34.090	2.38					107.0	700	4.78	34.096	2.32	27.006	106.1	1.364
792	4.23	34.172	1.53					94.7	800	4.20	34.179	1.50	27.135	93.9	1.471
890	3.85	34.235	1.33					86.3	1000	3.43	34.303	1.04	27.311	77.2	1.657
986	3.47		1.05						1200	2.92	34.410	0.93	27.444	64.6	1.814
1182	2.96	34.404	0.94					65.4							

AD-A068 240 SCRIPPS INSTITUTION OF OCEANOGRAPHY LA JOLLA CALIF F/G 8/1
PHYSICAL, CHEMICAL AND BIOLOGICAL DATA. INDOPAC EXPEDITION, LEG--ETC(U)
DEC 78 N00014-75-C-0152
UNCLASSIFIED SIO-REF-78-21 NL

2 OF 5
AD A068240

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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 02. N	160 06. E	04/21/76	1408 GMT

Z	T	S	SIGMA T	DT	DD
0	15.72	34.64	25.553	244.1	0.000
10	15.73	34.69	25.589	240.6	0.024
20	15.72	34.69	25.592	240.4	0.048
30	15.67	34.68	25.595	240.1	0.072
40	15.50	34.66	25.618	237.9	0.096
50	15.38	34.65	25.637	236.1	0.120
75	15.08	34.64	25.696	230.5	0.179
100	14.74	34.61	25.747	225.7	0.237
125	14.42	34.58	25.793	221.3	0.293
150	13.82	34.53	25.881	212.9	0.349
175	13.52	34.52	25.935	207.8	0.402
200	13.06	34.49	26.005	201.1	0.455
225	12.56	34.46	26.081	193.9	0.505
250	12.26	34.43	26.116	190.6	0.555
275	11.67	34.36	26.174	185.1	0.604
300	10.71	34.28	26.287	174.4	0.650
350	9.81	34.23	26.404	163.3	0.738
400	8.39	34.10	26.538	151.3	0.820
450	7.06	34.00	26.645	140.4	0.897
500	5.98	33.96	26.756	129.9	0.968
550	5.23	33.97	26.855	120.5	1.033
600	4.74	34.03	26.959	110.7	1.094
650	4.58	34.07	27.008	106.0	1.151
700	4.43	34.12	27.064	100.7	1.206
750	4.09	34.16	27.132	94.2	1.258
800	3.92	34.20	27.181	89.6	1.308
850	3.73	34.24	27.232	84.7	1.355
900	3.61	34.27	27.268	81.4	1.400
950	3.46	34.29	27.298	78.5	1.443
1000	3.31	34.32	27.336	74.8	1.485
1100	3.08	34.37	27.398	69.0	1.565
1200	2.89	34.41	27.447	64.4	1.639
1300	2.70	34.44	27.487	60.5	1.709
1400	2.53	34.47	27.526	56.9	1.775
1500	2.38	34.50	27.563	53.4	1.838
1600	2.258	34.526	27.594	50.5	1.898
1700	2.158	34.547	27.618	48.1	1.955
1800	2.070	34.566	27.641	46.0	2.011
1900	1.991	34.577	27.656	44.6	2.064
2000	1.926	34.589	27.670	43.2	2.116
2100	1.856	34.603	27.687	41.6	2.167
2200	1.803	34.613	27.699	40.5	2.217
2300	1.743	34.623	27.712	39.3	2.265
2400	1.697	34.631	27.721	38.3	2.313
2500	1.657	34.640	27.732	37.4	2.359
2600	1.621	34.646	27.739	36.7	2.405
2700	1.591	34.652	27.746	36.0	2.451
2800	1.566	34.656	27.751	35.5	2.496
2900	1.547	34.659	27.755	35.2	2.541
3000	1.533	34.663	27.759	34.8	2.585
3100	1.510	34.666	27.763	34.4	2.629
3200	1.496	34.669	27.767	34.1	2.674
3300	1.477	34.672	27.770	33.7	2.718
3400	1.471	34.674	27.772	33.5	2.761
3500	1.460	34.676	27.775	33.3	2.805
3600	1.454	34.677	27.776	33.2	2.849
3700	1.450	34.679	27.778	33.0	2.893
3800	1.451	34.679	27.778	33.0	2.938
3900	1.452	34.681	27.780	32.9	2.982
4000	1.454	34.681	27.779	32.9	3.027
4100	1.456	34.683	27.781	32.7	3.071
4200	1.457	34.684	27.782	32.7	3.116
4300	1.461	34.685	27.782	32.6	3.162
4400	1.466	34.684	27.781	32.7	3.207
4500	1.471	34.685	27.781	32.7	3.253
4519	1.473	34.684	27.780	32.8	3.262

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 57.6N	158 57.7E	04/22/76	0533 GMT

Z	T	S	SIGMA T	DT	DD
0	15.97	34.71	25.550	244.3	0.000
10	15.97	34.71	25.550	244.3	0.024
20	15.97	34.72	25.558	243.6	0.049
30	15.97	34.72	25.558	243.6	0.073
40	15.98	34.72	25.556	243.8	0.098
50	15.96	34.72	25.560	243.4	0.122
75	15.90	34.71	25.566	242.8	0.184
100	15.89	34.71	25.569	242.6	0.245
125	15.89	34.71	25.569	242.6	0.306
150	15.88	34.71	25.571	242.4	0.368
175	15.86	34.70	25.568	242.7	0.430
200	15.83	34.70	25.574	242.0	0.492
225	15.55	34.67	25.615	238.2	0.554
250	14.95	34.63	25.717	228.5	0.614
275	14.34	34.58	25.810	219.7	0.672
300	13.79	34.56	25.910	210.1	0.727
350	12.16	34.44	26.143	188.0	0.831
400	10.71	34.29	26.295	173.6	0.926
450	9.30	34.18	26.449	159.0	1.014
500	8.10	34.13	26.598	144.9	1.094
550	6.93	34.06	26.710	134.2	1.168
600	5.76	34.02	26.831	122.8	1.236
650	5.08	34.03	26.920	114.3	1.299
700	4.79	34.10	27.009	105.9	1.358
750	4.46	34.14	27.077	99.5	1.413
800	4.20	34.18	27.136	93.8	1.465
850	3.99	34.20	27.174	90.3	1.514
900	3.82	34.24	27.223	85.6	1.562
950	3.61	34.27	27.268	81.4	1.607
1000	3.45	34.32	27.323	76.1	1.651
1100	3.20	34.36	27.378	70.8	1.732
1200	2.98	34.40	27.431	65.9	1.808

RV THOMAS WASHINGTON INDOPAC LEG I 81

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.2N	157 56. E	4/22/76	1312 1637 GMT	4437M	100	17KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.11	34.720	5.58	0.11	5.6	0.38	2.0	246.7	0	16.11	34.720	5.58	25.526	246.7	0.000
10	16.10	34.717	5.64	0.14	5.5	0.38	2.1	246.7	10	16.10	34.717	5.64	25.526	246.7	0.025
20	16.09	34.719	5.62	0.15	5.4	0.38	2.1	246.3	20	16.09	34.719	5.62	25.530	246.3	0.049
31	16.04	34.713	5.64	0.16	5.4	0.35	2.1	245.6	30	16.05	34.714	5.64	25.536	245.7	0.074
49	15.99	34.704	5.63	0.17	5.3	0.38	2.1	245.2	50	15.99	34.704	5.63	25.541	245.2	0.123
66	15.97	34.697	5.58	0.18	5.2	0.38	2.1	245.3	75	15.94	34.695	5.50	25.546	244.8	0.185
75	15.94	34.695	5.50	0.18	5.1	0.51	2.4	244.8	100	15.89	34.692	5.48	25.555	243.9	0.247
90	15.92	34.692	5.51	0.18	5.1	0.49	2.5	244.6	125	15.82	34.679	5.51	25.560	243.4	0.309
99	15.89	34.692	5.48	0.20	5.2	0.45	2.6	243.9	150	15.78	34.674	5.54	25.565	242.9	0.370
149	15.78	34.673	5.54	0.20	5.3	0.36	2.8	242.9	200	15.76	34.671	5.52	25.567	242.8	0.495
199	15.77	34.670	5.53	0.22	5.3	0.30	2.9	242.9	250	15.52	34.651	5.22	25.606	239.0	0.618
219A	15.64	34.670	5.34	0.26	7.0	0.27	1.9	240.2	300	14.77	34.596	4.89	25.729	227.4	0.739
249	15.53	34.651	5.23	0.30	7.1	0.14	5.0	239.2	400	12.53	34.453	4.49	26.081	193.9	0.959
299	14.76	34.595	4.90	0.51	9.9	0.01	8.0	227.6	500	10.03	34.230	4.96	26.366	166.8	1.150
398	12.62	34.459	4.49	0.91	18.4	0.00	13.3	195.1	600	7.17	34.048	4.10	26.666	138.3	1.312
420A	11.66	34.394	4.46	0.98	22.8	0.00	14.6	182.4	700	5.49	34.025	3.11	26.867	119.3	1.450
496	10.14	34.239	4.98	1.04	25.1	0.00	15.4	168.0	800	4.61	34.105	2.14	27.031	103.8	1.569
595	7.30	34.054	4.14	1.22	46.0	0.00	24.2	139.5	1000	3.74	34.256	1.28	27.243	83.7	1.773
668A	5.80	34.007	3.49	2.06	65.0	0.00	29.4	124.2	1200	3.10	34.375	0.93	27.399	68.9	1.942
693	5.56	34.019	3.19	2.25	69.1	0.00	31.5	120.5	1500	2.57	34.473	0.96	27.524	57.1	2.156
791	4.66	34.098	2.20	2.69	91.1	0.01	36.8	104.7	1750	2.25	34.537	1.17	27.603	49.6	2.310
917A	4.13	34.184	1.54	2.79	110.2	0.00	40.0	92.8	2000	2.03	34.580	1.54	27.654	44.7	2.450
988	3.78	34.249	1.30	2.93	120.5	0.01	41.1	84.5	2250	1.86	34.608	1.91	27.690	41.3	2.580
1165A	3.22	34.347	0.98	2.99	141.3	0.00	43.3	72.0	2500	1.75	34.631	2.27	27.716	38.8	2.703
1185	3.14	34.365	0.95	3.02	141.9	0.00	43.2	69.9	2750	1.63	34.648	2.63	27.739	36.6	2.821
1413A	2.72	34.444	0.93	3.04	158.8	0.01	44.1	60.4	3000	1.55	34.661	2.91	27.755	35.1	2.935
1661A	2.34	34.517	1.07	2.96	170.5	0.01	44.1	51.8	3250	1.51	34.670	3.16	27.766	34.1	3.046
1908A	2.11	34.565	1.39	2.94	175.5	0.01	43.2	46.4	3500	1.49	34.677	3.33	27.773	33.4	3.157
2155A	1.91	34.598	1.78	2.87	176.4	0.01	42.0	42.4	3750	1.47	34.682	3.47	27.778	33.0	3.268
2400A	1.80	34.622	2.12	2.84	175.9	0.01	41.0	39.8	4000	1.46	34.686	3.59	27.782	32.6	3.379
2645A	1.68	34.641	2.49	2.74	173.8	0.01	39.9	37.5	4250	1.48	34.691	3.62	27.785	32.3	3.491
2890A	1.58	34.657	2.80	2.66	170.5	0.01	39.0	35.5							
3135A	1.53	34.665	3.04	2.63	167.7	0.01	38.3	34.6							
3379A	1.49	34.674	3.27	2.59	164.3	0.00	37.7	33.6							
3624A	1.48	34.679	3.39	2.54	163.5	0.02	37.3	33.2							
3867A	1.46	34.683	3.54	2.52	160.5	0.02	36.8	32.8							
4109A	1.462	34.687	3.62	2.52	159.8	0.00	36.7	32.5							
4256A	1.478	34.691	3.62	2.48	160.0	0.03	36.6	32.3							
4303A	1.478	34.691	3.62	2.48	159.5	0.03	36.5	32.3							
4351A	1.462	34.693	3.65	2.47	158.8	0.00	36.6	32.2							

RV THOMAS WASHINGTON INDOPAC LEG I 82

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 02.1N	156 57.3E	4/22/76	2207 GMT	5118M	060	23KT	6	060 5 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.23	34.711	5.65					249.9	0	16.23	34.711	5.65	25.491	249.9	0.000
10	16.22	34.711	5.65					249.7	10	16.22	34.711	5.65	25.494	249.7	0.025
20	16.21	34.712	5.63					249.4	20	16.21	34.712	5.63	25.497	249.4	0.050
30	16.23	34.720	5.61					249.3	30	16.23	34.720	5.61	25.498	249.3	0.075
50	16.25	34.726	5.56					249.3	50	16.25	34.726	5.56	25.498	249.3	0.125
74	16.27	34.730	5.54					249.4	75	16.27	34.730	5.53	25.497	249.4	0.188
98	16.20	34.723	5.42					248.4	100	16.19	34.722	5.42	25.509	248.3	0.251
122	16.06	34.704	5.45					246.7	125	16.05	34.704	5.45	25.527	246.6	0.314
147	16.00	34.699	5.48					245.8	150	15.99	34.698	5.48	25.536	245.7	0.376
194	15.77	34.671	5.43					242.9	200	15.73	34.673	5.39	25.575	242.0	0.501
242	15.38	34.671	5.09					234.5	250	15.29	34.664	5.04	25.667	233.3	0.623
289	14.76	34.609	4.88					226.1	300	14.54	34.593	4.89	25.775	223.0	0.741
384	12.56	34.441	4.96					195.3	400	12.15	34.405	4.93	26.118	190.4	0.957
477	10.15	34.240	4.79					168.0	500	9.61	34.207	4.65	26.419	161.8	1.143
570	7.98	34.112	4.15					144.6	600	7.18	34.056	3.99	26.672	137.9	1.302
663	5.70	33.974	3.60					125.5	700	5.18	33.972	3.24	26.862	119.8	1.440
755	4.67	34.002	2.64					112.0	800	4.40	34.065	2.14	27.023	104.5	1.560
849	4.19	34.139	1.65					96.8	1000	3.64	34.273	1.12	27.266	81.5	1.761
944	3.83	34.229	1.29					86.5							
1137	3.23	34.346	0.92					72.2							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.2N	157 56. E	04/22/76	1120 GMT

Z	T	S	SIGMA T	DT	DD
0	16.13	34.70	25.506	246.6	0.000
10	16.12	34.70	25.508	248.3	0.025
20	16.12	34.71	25.516	247.6	0.050
30	16.10	34.71	25.521	247.2	0.075
40	16.09	34.70	25.515	247.7	0.099
50	16.03	34.69	25.521	247.1	0.124
75	15.97	34.69	25.535	245.8	0.186
100	15.90	34.68	25.543	245.0	0.248
125	15.87	34.68	25.550	244.4	0.310
150	15.84	34.68	25.557	243.7	0.372
175	15.78	34.67	25.563	243.2	0.435
200	15.77	34.68	25.573	242.2	0.497
225	15.73	34.67	25.574	242.1	0.559
250	15.45	34.65	25.622	237.6	0.621
275	15.04	34.61	25.682	231.9	0.681
300	14.57	34.57	25.753	225.1	0.740
350	13.60	34.52	25.919	209.3	0.853
400	12.78	34.46	26.038	198.0	0.960
450	11.32	34.35	26.231	179.6	1.060
500	10.07	34.23	26.360	167.5	1.152
550	9.04	34.14	26.460	156.0	1.238
600	7.24	34.03	26.644	140.5	1.316
650	6.07	33.99	26.769	128.7	1.390
700	5.37	34.02	26.878	118.3	1.456
750	4.82	34.05	26.966	110.6	1.517
800	4.57	34.09	27.025	104.4	1.574
850	4.37	34.13	27.078	99.3	1.629
900	4.07	34.19	27.158	91.8	1.681
950	3.89	34.23	27.208	87.0	1.730
1000	3.66	34.26	27.253	82.8	1.776
1100	3.32	34.32	27.335	74.9	1.863
1200	3.07	34.37	27.399	69.0	1.943
1300	2.88	34.41	27.448	64.3	2.018
1400	2.70	34.44	27.487	60.5	2.088
1500	2.54	34.47	27.525	56.9	2.155
1600	2.412	34.501	27.561	53.6	2.219
1700	2.310	34.523	27.587	51.1	2.280
1800	2.210	34.543	27.611	48.8	2.338
1900	2.116	34.563	27.635	46.6	2.395
2000	2.024	34.578	27.654	44.8	2.449
2100	1.949	34.592	27.671	43.1	2.502
2200	1.881	34.606	27.687	41.6	2.553
2300	1.842	34.614	27.697	40.7	2.604
2400	1.787	34.625	27.710	39.4	2.653
2500	1.743	34.632	27.719	38.6	2.701
2600	1.693	34.640	27.729	37.6	2.749
2700	1.657	34.647	27.737	36.8	2.795
2800	1.615	34.654	27.746	36.0	2.841
2900	1.579	34.662	27.755	35.2	2.887
3000	1.561	34.665	27.759	34.8	2.932
3100	1.558	34.667	27.761	34.6	2.976
3200	1.527	34.672	27.767	34.0	3.021
3300	1.515	34.675	27.770	33.7	3.065
3400	1.492	34.677	27.773	33.4	3.109
3500	1.490	34.679	27.775	33.3	3.153
3600	1.476	34.681	27.778	33.0	3.197
3700	1.473	34.682	27.779	32.9	3.242
3800	1.464	34.684	27.781	32.7	3.286
3900	1.458	34.686	27.783	32.5	3.330
4000	1.457	34.688	27.785	32.4	3.374
4100	1.453	34.690	27.787	32.2	3.418
4200	1.464	34.689	27.785	32.3	3.463
4300	1.475	34.689	27.784	32.4	3.508
4400	1.488	34.689	27.783	32.5	3.554

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 02.1N	156 57.3E	04/22/76	2111 GMT

Z	T	S	SIGMA T	DT	DD
0	16.21	34.70	25.488	250.3	0.000
10	16.21	34.70	25.488	250.3	0.025
20	16.21	34.70	25.488	250.3	0.050
30	16.22	34.71	25.493	249.8	0.075
40	16.22	34.71	25.493	249.8	0.100
50	16.24	34.72	25.496	249.5	0.125
75	16.25	34.73	25.501	249.0	0.188
100	16.25	34.73	25.501	249.0	0.251
125	16.09	34.71	25.523	246.9	0.314
150	16.00	34.70	25.536	245.7	0.377
175	15.85	34.68	25.555	243.9	0.439
200	15.75	34.67	25.570	242.5	0.501
225	15.51	34.66	25.616	238.1	0.563
250	15.36	34.69	25.672	232.7	0.624
275	14.96	34.64	25.722	228.0	0.683
300	14.58	34.60	25.774	223.1	0.742
350	13.26	34.51	25.980	203.5	0.853
400	12.04	34.41	26.143	188.0	0.955
450	10.79	34.29	26.281	175.0	1.051
500	9.65	34.23	26.431	160.8	1.140
550	8.42	34.14	26.557	148.8	1.222
600	6.94	34.03	26.685	136.6	1.298
650	5.93	34.00	26.794	126.3	1.368
700	5.10	33.97	26.871	119.0	1.434
750	4.61	34.00	26.949	111.5	1.495
800	4.40	34.05	27.012	105.6	1.553
850	4.18	34.14	27.107	96.6	1.608
900	4.01	34.19	27.164	91.2	1.658
950	3.71	34.24	27.234	84.6	1.706
1000	3.62	34.28	27.275	80.7	1.751
1100	3.29	34.33	27.346	73.9	1.837
1161	3.15	34.36	27.383	70.4	1.885

RV THOMAS WASHINGTON INDOPAC LEG I 83

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 03.3N	155 55.5E	4/23/76	0449 GMT	5471M			1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
911	3.50	34.303	1.17	2.79	130.3	0.14	41.1	77.9	1000	3.24	34.354	1.05	27.369	71.7	0.000
1161	2.85	34.427	0.92	3.02	151.9	0.07	43.0	62.8	1200	2.77	34.441	0.92	27.481	61.1	0.147
1410	2.45	34.494	0.93	3.04	164.7	0.01	43.2	54.4	1500	2.34	34.514	0.96	27.577	52.1	0.340
1661	2.18	34.544	1.01	2.99	171.1	0.00	42.7	48.5	1750	2.10	34.561	1.22	27.634	46.7	0.483
1910	1.98	34.586	1.64	2.93	175.3	0.00	42.0	43.8	2000	1.92	34.597	1.79	27.676	42.6	0.615
2160	1.83	34.613	2.02	2.79	174.4	0.00	41.1	40.7	2250	1.78	34.622	2.16	27.707	39.6	0.739
2408	1.70	34.636	2.38	2.67	171.9	0.00	39.8	38.0	2500	1.66	34.642	2.50	27.732	37.2	0.857
2657	1.61	34.652	2.68	2.63	170.0	0.00	39.1	36.1	2750	1.59	34.656	2.78	27.749	35.7	0.971
2906	1.56	34.660	2.93	2.62	166.9	0.00	38.4	35.2	3000	1.55	34.664	3.01	27.758	34.9	1.083
3154	1.53	34.667	3.12	2.56	165.8	0.00	37.8	34.5	3250	1.52	34.671	3.16	27.766	34.2	1.195
3403	1.50	34.674	3.22	2.52	163.7	0.00	37.7	33.7	3500	1.49	34.677	3.30	27.773	33.4	1.306
3649	1.48	34.681	3.41	2.51	163.1	0.00	37.1	33.0	3750	1.48	34.681	3.44	27.777	33.1	1.417
3896	1.48	34.680	3.48	2.43	162.1	0.00	36.9	33.1	4000	1.48	34.682	3.52	27.778	33.0	1.529
4143	1.48	34.684	3.57	2.50	160.6	0.00	36.6	32.8	4250	1.48	34.686	3.58	27.781	32.6	1.642
4389	1.48	34.688	3.59	2.50	160.2	0.00	36.4	32.5	4500	1.49	34.688	3.62	27.782	32.6	1.757
4634	1.50	34.686	3.48U	2.46	158.3		36.5	32.8	4750	1.51	34.687	3.70	27.780	32.8	1.873
4879	1.517	34.687	3.74	2.44	155.9		36.3	32.8	5000	1.52	34.690	3.74	27.781	32.8	1.992
5123	1.531	34.691	3.73	2.45	152.5	0.07	35.8	32.6	5250	1.54	34.694	3.85	27.783	32.5	2.113
5316	1.544	34.695	3.90	2.34	150.7	0.00	35.8	32.4							
5365	1.546	34.697	3.88	2.34	150.0	0.00	35.8	32.3							

RV THOMAS WASHINGTON INDOPAC LEG I 84

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 59.2N	155 00.6E	4/23/76	1232 GMT	5673M				

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
2	14.31	34.599	6.02					217.7	0	14.31	34.599	6.02	25.831	217.7	0.000
12	14.31	34.597	6.03					217.8	10	14.31	34.599	6.03	25.830	217.8	0.022
22	14.30	34.597	6.02					217.6	20	14.30	34.598	6.02	25.831	217.7	0.044
31	14.12	34.572	6.00					215.8	30	14.14	34.576	6.00	25.848	216.1	0.065
40	14.01	34.561	6.01					214.4	50	13.52	34.538	5.85	25.948	206.5	0.108
49	13.58	34.542	5.87					207.3	75	12.64	34.474	5.95	26.076	194.4	0.158
59	13.04	34.502	5.70					199.9	100	12.15	34.431	5.67	26.138	188.5	0.207
72	12.70	34.478	5.95					195.2	125	11.72	34.388	5.39	26.185	184.0	0.254
95		34.443	5.73						150	11.34	34.345	5.22	26.223	180.4	0.300
142	11.47	34.357	5.23					181.8	200	10.34	34.227	5.21	26.310	172.2	0.391
188	10.63	34.266	5.20					174.0	250	8.93	34.083	5.04	26.432	160.6	0.476
234	9.42	34.115	5.24					165.7	300	7.57	34.034	4.32	26.598	144.8	0.555
279	8.06	34.044	4.58					150.7	400	5.69	34.001	3.37	26.824	123.4	0.694
372	6.22	34.019	3.60					126.3	500	4.43	34.015	2.55	26.979	108.7	0.815
465	4.69	33.982	2.88					113.7	600	4.22	34.147	1.84	27.107	96.6	0.923
558	4.24	34.088	2.06					101.1	700	3.95	34.247	1.45	27.214	86.4	1.020
651	4.19	34.210	1.64					91.5	800	3.49	34.305	1.22	27.307	77.7	1.108
745	3.69	34.271	1.31					82.0	1000	2.97	34.401	1.06	27.432	65.8	1.264
938	3.12	34.375	1.11					69.0							
1129	2.69	34.442	0.98					60.3							

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 03.3N	155 55.5E	04/23/76	0245 GMT

Z	T	S	SIGMA T	DT	DD
0	16.00	34.68	25.520	247.2	0.000
10	16.00	34.69	25.528	246.5	0.025
20	16.00	34.69	25.528	246.5	0.049
30	15.94	34.68	25.534	245.9	0.074
40	15.49	34.64	25.605	239.1	0.098
50	15.06	34.62	25.685	231.6	0.122
75	14.64	34.60	25.761	224.3	0.180
100	14.26	34.57	25.819	218.8	0.236
125	13.88	34.54	25.876	213.4	0.290
150	13.39	34.51	25.954	206.0	0.344
175	12.95	34.48	26.020	199.8	0.396
200	12.49	34.45	26.087	193.3	0.446
225	11.88	34.41	26.173	185.1	0.495
250	11.34	34.37	26.243	178.5	0.541
275	10.50	34.31	26.347	168.6	0.586
300	9.87	34.26	26.417	162.0	0.629
350	8.37	34.10	26.533	151.0	0.711
400	7.20	34.01	26.634	141.5	0.787
450	6.68	34.03	26.721	133.2	0.859
500	5.81	34.03	26.833	122.6	0.926
550	5.08	34.04	26.928	113.6	0.988
600	4.77	34.09	27.003	106.5	1.046
650	4.43	34.13	27.072	99.9	1.101
700	4.10	34.15	27.123	95.1	1.153
750	3.97	34.21	27.184	89.3	1.202
800	3.88	34.25	27.225	85.4	1.249
850	3.71	34.28	27.266	81.5	1.294
900	3.48	34.30	27.304	77.9	1.337
950	3.38	34.33	27.338	74.7	1.379
1000	3.22	34.36	27.377	71.0	1.419
1100	3.01	34.40	27.428	66.2	1.495
1200	2.80	34.43	27.471	62.1	1.566
1300	2.63	34.46	27.509	58.4	1.634
1400	2.46	34.50	27.556	54.0	1.698
1500	2.36	34.51	27.572	52.5	1.759
1600	2.229	34.543	27.609	49.0	1.817
1700	2.155	34.559	27.628	47.2	1.873
1800	2.070	34.574	27.647	45.4	1.928
1900	1.989	34.588	27.665	43.7	1.980
2000	1.907	34.604	27.684	41.9	2.032
2100	1.863	34.612	27.694	41.0	2.081
2200	1.790	34.625	27.710	39.5	2.130
2300	1.739	34.633	27.720	38.5	2.178
2400	1.684	34.643	27.732	37.3	2.224
2500	1.666	34.647	27.737	36.9	2.270
2600	1.631	34.653	27.744	36.2	2.316
2700	1.606	34.657	27.749	35.7	2.361
2800	1.574	34.662	27.755	35.1	2.406
2900	1.559	34.666	27.760	34.7	2.450
3000	1.540	34.667	27.762	34.5	2.495
3100	1.528	34.672	27.767	34.1	2.539
3200	1.514	34.673	27.769	33.9	2.583
3300	1.501	34.676	27.772	33.6	2.627
3400	1.493	34.678	27.774	33.4	2.671
3500	1.484	34.680	27.776	33.2	2.715
3600	1.477	34.684	27.780	32.8	2.759
3700	1.472	34.682	27.779	32.9	2.803
3800	1.474	34.682	27.779	32.9	2.847
3900	1.472	34.685	27.781	32.7	2.892
4000	1.475	34.685	27.781	32.7	2.936
4100	1.477	34.684	27.780	32.8	2.981
4200	1.484	34.685	27.780	32.8	3.027
4300	1.490	34.685	27.780	32.8	3.072
4400	1.492	34.688	27.782	32.6	3.118
4500	1.496	34.688	27.782	32.6	3.164
4600	1.502	34.688	27.782	32.7	3.211
4700	1.512	34.688	27.781	32.7	3.257
4800	1.515	34.689	27.781	32.7	3.305
4900	1.518	34.690	27.782	32.6	3.352
5000	1.525	34.690	27.781	32.7	3.400
5100	1.530	34.691	27.782	32.6	3.448
5200	1.537	34.692	27.782	32.6	3.496
5300	1.542	34.693	27.783	32.6	3.545
5400	1.550	34.693	27.782	32.6	3.593

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 59.2N	155 00.6E	04/23/76	1138 GMT

Z	T	S	SIGMA T	DT	DD
0	14.35	34.60	25.823	218.4	0.000
10	14.34	34.60	25.825	218.2	0.022
20	14.28	34.60	25.838	217.0	0.044
30	14.04	34.57	25.866	214.4	0.065
40	13.71	34.53	25.904	210.8	0.087
50	13.12	34.50	26.001	201.5	0.107
75	12.58	34.46	26.077	194.3	0.157
100	12.15	34.44	26.145	187.8	0.206
125	11.68	34.38	26.188	183.8	0.253
150	11.24	34.34	26.238	179.0	0.299
175	10.60	34.27	26.299	173.2	0.344
200	9.98	34.20	26.352	168.2	0.388
225	9.34	34.11	26.388	164.8	0.430
250	8.75	34.06	26.443	159.6	0.472
275	7.99	34.03	26.536	150.8	0.512
300	7.75	34.07	26.602	144.5	0.550
350	6.63	34.02	26.719	133.4	0.622
400	5.87	34.04	26.833	122.6	0.688
450	4.86	34.00	26.922	114.2	0.750
500	4.18	33.98	26.980	108.7	0.808
550	4.13	34.04	27.032	103.7	0.864
600	4.36	34.16	27.103	96.9	0.916
650	4.16	34.21	27.164	91.2	0.966
700	3.81	34.24	27.224	85.5	1.013
750	3.66	34.28	27.271	81.1	1.058
800	3.46	34.30	27.306	77.7	1.101
850	3.35	34.33	27.340	74.4	1.142
900	3.24	34.35	27.367	72.0	1.182
950	3.08	34.38	27.406	68.3	1.220
1000	2.95	34.40	27.433	65.6	1.257
1100	2.76	34.44	27.482	61.0	1.327
1137	2.69	34.45	27.496	59.7	1.352

RV THOMAS WASHINGTON INDOPAC LEG I 85

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.5N	153 57.8E	4/23/76	1943 2341 GMT	5820M	060	18KT	2	060 8 8

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	13.57	34.523	6.13	0.29	12.5	0.32	4.3	208.5	0	13.57	34.523	6.13	25.927	208.5	0.000
6	13.56	34.521	6.13	0.31	12.5	0.23	4.5	208.5	10	13.56	34.523	6.14	25.929	208.4	0.021
11	13.56	34.523	6.14	0.37	12.5	0.23	4.5	208.3	20	13.56	34.523	6.14	25.929	208.4	0.042
22	13.56	34.522	6.14	0.37	12.5	0.23	4.6	208.4	30	13.54	34.525	6.15	25.934	207.9	0.063
31	13.54	34.525	6.15	0.31	12.5	0.23	4.7	207.8	50	12.71	34.496	5.87	26.080	194.0	0.103
41	13.16	34.531	5.96	0.42	12.6	0.51	5.9	200.0	75	11.94	34.375	5.56	26.246	178.3	0.150
49	12.77	34.501	5.88	0.42	13.8	0.67	6.5	194.8	100	10.94	34.327	5.46	26.281	174.9	0.195
74	11.37	34.377	5.57	0.65	17.5		10.3	178.5	125	10.47	34.271	5.33	26.322	171.0	0.239
99	10.96	34.328	5.46	0.71	18.8	0.00	11.2	175.1	150	10.04	34.223	5.20	26.358	167.6	0.282
125	10.47	34.271	5.33	0.82	21.2	0.00	12.5	171.0	200	9.10	34.155	4.63	26.461	157.9	0.365
149	10.06	34.223	5.21	0.88	23.4	0.00	13.5	167.8	250	8.10	34.063	4.70	26.544	149.9	0.444
199	9.12	34.156	4.63	1.27	32.3	0.00	18.0	158.0	300	6.93	34.032	4.02	26.687	136.4	0.518
247	8.17	34.065	4.73	1.41	36.1	0.00	19.3	150.7	400	5.79	34.049	3.21	26.850	121.0	0.651
295	7.02	34.033	4.07	1.78	49.2	0.00	24.7	137.4	500	5.16	34.177	2.19	27.026	104.3	0.769
395	5.82	34.041	3.26	2.26	67.8		30.5	121.9	600	4.21	34.199	1.65	27.149	92.6	0.873
493	5.23	34.173	2.24	2.63	89.1	0.00	35.4	105.2	700	3.71	34.254	1.34	27.245	83.5	0.967
592	4.26	34.194	1.68	2.85	107.1	0.00	39.2	93.9	800	3.43	34.311	1.18	27.317	76.7	1.053
789	3.46	34.307	1.19	3.00	131.5	0.00	41.9	77.2	1000	2.96	34.408	1.05	27.438	65.1	1.207
963A	3.04	34.386	0.99	3.07	146.4	0.03	42.5	67.5	1200	2.56	34.471	0.91	27.524	57.0	1.343
984	2.97	34.405	1.06	3.01	147.6	0.00	42.9	65.4	1500	2.24	34.535	1.26	27.602	49.7	1.524
1165A	2.66	34.452	0.91	3.05	159.5	0.07	43.6	59.3	1750	2.02	34.576	1.59	27.651	45.0	1.661
1178	2.58	34.465	0.90	3.07	161.6	0.00	43.6	57.6	2000	1.84	34.610	1.95	27.694	41.0	1.789
1370A	2.37	34.513	1.16	3.09	166.5	0.00	43.2	52.3	2250	1.71	34.627	2.38	27.717	38.8	1.909
1573A	2.17	34.545	1.32	2.98	170.9	0.00	42.9	48.4	2500	1.62	34.643	2.69	27.736	36.9	2.024
1777A	2.00	34.579	1.63	2.98	173.1	0.00	42.4	44.5	2750	1.57	34.654	2.90	27.749	35.7	2.137
1978A	1.85	34.608	1.91	2.89	173.0	0.00	41.3	41.2	3000	1.53	34.663	3.08	27.759	34.8	2.249
2180A	1.74	34.621	2.27	2.83	172.6	0.00	40.4	39.4	3250	1.49	34.669	3.28	27.767	34.0	2.360
2381A	1.66	34.637	2.56	2.71	170.1	0.00	39.6	37.6	3500	1.45	34.675	3.37	27.775	33.3	2.470
2681A	1.58	34.651	2.85	2.71	167.5		38.6	36.0	3750	1.44	34.680	3.50	27.779	32.8	2.579
2982A	1.53	34.662	3.06	2.67	165.0	0.01	38.0	34.8	4000	1.45	34.683	3.61	27.780	32.8	2.690
3280A	1.48	34.669	3.30	2.61	162.8	0.00	37.5	34.0	4250	1.45	34.684	3.65	27.781	32.7	2.802
3579A	1.44	34.677	3.39	2.56	161.1	0.00	37.1	33.1	4500	1.46	34.687	3.72	27.783	32.5	2.916
3876A	1.45	34.682	3.58	2.54	160.1	0.00	36.6	32.8	4750	1.48	34.687	3.76	27.781	32.7	3.032
4174A	1.45	34.682	3.63	2.50	157.9	0.00	36.4	32.8	5000	1.50	34.691	3.82	27.784	32.4	3.149
4470A	1.46	34.686	3.72	2.48	156.9	0.00	35.9	32.5	5250	1.53	34.691	3.87	27.782	32.6	3.269
4765A	1.48	34.686	3.76	2.48	153.3	0.00	35.8	32.7	5500	1.56	34.692	3.93	27.780	32.8	3.392
5062A	1.505	34.692	3.83	2.48	151.6	0.00	35.7	32.4							
5355A	1.54	34.690	3.90	2.48	150.4	0.00	35.5	32.8							
5647A	1.574	34.692	3.95	2.47	148.6	0.00	35.5	32.9							
5744A	1.583	34.693	3.94	2.42	148.3	0.00	35.3	32.8							

RV THOMAS WASHINGTON INDOPAC LEG I 86

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 57.9N	152 54.6E	4/24/76	0512 GMT	5955M	070	18KT	2	050 6 9

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	16.14	34.719	5.83					247.4	0	16.14	34.719	5.83	25.518	247.4	0.000
11	16.05	34.718	5.80					245.5	10	16.06	34.719	5.80	25.535	245.8	0.025
32	15.60	34.710	5.73					236.4	20	15.85	34.715	5.77	25.580	241.5	0.049
52	15.55	34.710	5.73					235.3	30	15.64	34.711	5.74	25.625	237.2	0.073
68	15.55	34.712	5.74					235.2	50	15.56	34.711	5.73	25.644	235.4	0.121
82	15.56	34.712	5.73					235.4	75	15.56	34.712	5.74	25.646	235.3	0.180
102	15.45	34.704	5.58					233.6	100	15.46	34.706	5.60	25.661	233.8	0.239
127	15.41	34.705	5.55					232.7	125	15.42	34.706	5.55	25.672	232.8	0.298
152	15.12	34.656	5.38					230.2	150	15.15	34.661	5.39	25.696	230.4	0.357
176	14.82	34.625	5.31					226.2	200	14.52	34.604	4.97	25.788	221.7	0.473
201	14.51	34.602	4.95					221.5	250	13.80	34.548	4.76	25.898	211.3	0.584
249	13.83	34.550	4.76					211.7	300	12.26	34.426	4.81	26.113	190.9	0.688
295	12.39	34.434	4.76					192.7	400	9.94	34.238	5.63	26.388	164.8	0.874
389	10.19	34.268	5.68					166.6	500	7.55	34.011	4.99	26.584	146.2	1.038
481	8.07	34.036	5.29					151.5	600	5.39	34.003	3.24	26.861	119.9	1.178
571	6.81	33.983	3.69					126.1	700	4.42	34.080	2.13	27.032	103.7	1.297
661	4.78	34.056	2.46					109.1	800	3.90	34.161	1.63	27.151	92.4	1.402
750	4.06	34.110	1.82					97.7	1000	3.53	34.339	1.32	27.330	75.5	1.584
931	3.72	34.290	1.38					80.9							
1116	3.15	34.396	1.23					67.7							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.5N	153 57.8E	04/23/76	1752 GMT

Z	T	S	SIGMA T	DT	DD
0	13,90	34,52	25,856	215,3	0,000
10	13,89	34,54	25,874	213,6	0,021
20	13,89	34,55	25,882	212,9	0,043
30	13,65	34,55	25,931	209,1	0,064
40	13,24	34,52	25,992	202,4	0,085
50	13,04	34,51	26,025	199,3	0,105
75	11,92	34,42	26,174	185,1	0,153
100	11,33	34,37	26,245	178,3	0,199
125	10,66	34,28	26,296	173,5	0,244
150	10,06	34,22	26,354	168,1	0,287
175	9,70	34,20	26,399	163,8	0,330
200	9,03	34,12	26,446	159,3	0,371
225	8,45	34,08	26,505	153,7	0,411
250	8,02	34,04	26,539	150,5	0,450
275	7,41	33,98	26,581	146,5	0,488
300	6,92	34,01	26,672	137,8	0,525
350	6,04	33,99	26,772	128,3	0,594
400	5,50	34,02	26,863	119,8	0,658
450	5,07	34,04	26,929	113,5	0,719
500	5,05	34,11	26,987	108,0	0,777
550	4,65	34,13	27,048	102,2	0,832
600	4,29	34,18	27,127	94,7	0,884
650	3,97	34,21	27,184	89,3	0,933
700	3,78	34,23	27,219	86,0	0,980
750	3,63	34,27	27,266	81,5	1,024
800	3,42	34,31	27,318	76,6	1,067
850	3,35	34,34	27,349	73,7	1,108
900	3,26	34,36	27,373	71,4	1,147
950	3,07	34,38	27,407	68,2	1,185
1000	2,97	34,39	27,424	66,6	1,222
1100	2,77	34,42	27,465	62,6	1,293
1200	2,61	34,46	27,511	58,3	1,361
1300	2,46	34,48	27,540	55,5	1,425
1400	2,33	34,51	27,575	52,2	1,486
1500	2,22	34,53	27,600	49,9	1,544
1600	2,150	34,550	27,622	47,8	1,600
1700	2,048	34,570	27,646	45,5	1,655
1800	1,969	34,588	27,666	43,6	1,707
1900	1,901	34,597	27,679	42,4	1,758
2000	1,835	34,611	27,695	40,9	1,807
2100	1,782	34,620	27,706	39,8	1,856
2200	1,737	34,628	27,716	38,9	1,903
2300	1,687	34,637	27,727	37,8	1,950
2400	1,649	34,644	27,735	37,0	1,996
2500	1,619	34,649	27,742	36,4	2,041
2600	1,582	34,656	27,750	35,6	2,086
2700	1,562	34,659	27,754	35,3	2,130
2800	1,538	34,662	27,758	34,9	2,174
2900	1,521	34,666	27,763	34,5	2,218
3000	1,505	34,668	27,765	34,2	2,262
3100	1,493	34,671	27,769	33,9	2,306
3200	1,480	34,674	27,772	33,6	2,349
3300	1,475	34,679	27,776	33,2	2,393
3400	1,466	34,677	27,775	33,2	2,436
3500	1,464	34,678	27,776	33,2	2,480
3600	1,459	34,679	27,777	33,1	2,524
3700	1,457	34,685	27,782	32,6	2,568
3800	1,454	34,682	27,780	32,8	2,612
3900	1,453	34,684	27,782	32,6	2,656
4000	1,454	34,685	27,783	32,6	2,700
4100	1,454	34,690	27,787	32,2	2,745
4200	1,458	34,690	27,786	32,2	2,789
4300	1,462	34,685	27,782	32,6	2,834
4400	1,465	34,687	27,783	32,5	2,880
4500	1,470	34,691	27,786	32,2	2,925
4600	1,477	34,691	27,786	32,3	2,971
4700	1,482	34,687	27,782	32,6	3,017
4800	1,488	34,692	27,786	32,3	3,064
4900	1,496	34,691	27,784	32,4	3,111
5000	1,506	34,688	27,781	32,7	3,158
5100	1,512	34,688	27,781	32,7	3,206
5200	1,522	34,689	27,781	32,7	3,254
5300	1,533	34,687	27,778	32,9	3,303
5400	1,545	34,688	27,778	33,0	3,352
5500	1,555	34,694	27,782	32,6	3,401
5600	1,565	34,687	27,776	33,2	3,451
5700	1,578	34,687	27,775	33,3	3,502
5789	1,590	34,689	27,776	33,2	3,547

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 57.9N	152 54.6E	04/24/76	0433 GMT

Z	T	S	SIGMA T	DT	DD
0	16,11	34,76	25,557	243,7	0,000
10	15,96	34,77	25,599	239,7	0,024
20	15,69	34,71	25,614	238,3	0,048
30	15,60	34,71	25,634	236,4	0,072
40	15,56	34,71	25,643	235,5	0,096
50	15,55	34,71	25,645	235,3	0,119
75	15,54	34,71	25,648	235,1	0,179
100	15,43	34,71	25,672	232,8	0,238
125	15,40	34,70	25,671	232,9	0,297
150	15,06	34,65	25,708	229,4	0,356
175	14,82	34,63	25,745	225,8	0,414
200	14,52	34,60	25,787	221,9	0,471
225	14,25	34,59	25,837	217,1	0,527
250	14,09	34,60	25,878	213,2	0,583
275	13,28	34,50	25,969	204,6	0,637
300	12,50	34,44	26,078	194,3	0,689
350	11,37	34,35	26,222	180,5	0,786
400	9,77	34,21	26,395	164,1	0,876
450	8,82	34,10	26,463	157,6	0,961
500	6,75	33,89	26,601	144,6	1,040
550	6,48	34,01	26,731	132,2	1,113
600	5,45	34,00	26,853	120,7	1,180
650	5,11	34,03	26,917	114,6	1,243
700	4,59	34,10	27,031	103,8	1,301
750	4,09	34,11	27,092	98,0	1,355
800	4,06	34,20	27,167	90,9	1,405
850	3,89	34,25	27,224	85,5	1,453
900	3,72	34,27	27,257	82,4	1,499
950	3,52	34,30	27,300	78,3	1,542
1000	3,35	34,32	27,333	75,2	1,585
1100	3,17	34,38	27,397	69,1	1,664
1147	3,09	34,40	27,421	66,9	1,700

RV THOMAS WASHINGTON INDOPAC LEG I 87

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME GMT	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 02. N	151 54.5E	4/24/76	1147 1550	6161M	100	13KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	15.66	34.715	5.77	0.21	5.8	0.12	2.8	237.3	0	15.66	34.715	5.77	25.624	237.3	0.000
11	15.66	34.712	5.79	0.22	5.8	0.13	2.8	237.5	10	15.66	34.713	5.79	25.622	237.5	0.024
22	15.62	34.712	5.82	0.23	5.8	0.16	2.8	236.7	20	15.63	34.712	5.82	25.629	236.8	0.048
32	15.63	34.711	5.81	0.24	5.8	0.16	2.8	237.0	30	15.63	34.712	5.81	25.629	236.9	0.071
42	15.61	34.712	5.76	0.24	5.8	0.19	2.8	236.4	50	15.59	34.714	5.76	25.639	235.9	0.119
51	15.59	34.714	5.76	0.25	5.8	0.22	2.9	235.9	75	15.58	34.711	5.66	25.638	236.0	0.178
61	15.59	34.712	5.71	0.26	6.0	0.29	3.0	236.0	100	15.58	34.710	5.67	25.638	236.0	0.238
77	15.58	34.710	5.66	0.27	6.2	0.30	2.7	236.0	125	15.57	34.711	5.60	25.641	235.7	0.298
101	15.58	34.710	5.67	0.28	6.2	0.35	3.2	236.0	150	15.56	34.711	5.53	25.644	235.5	0.358
152	15.56	34.711	5.52	0.34	6.7	0.00	4.0	235.5	200	15.47	34.710	5.53	25.663	233.6	0.478
200	15.47	34.710	5.53	0.34	6.5	0.00	4.3	233.6	250	15.21	34.658	5.48	25.681	231.9	0.597
249	15.21	34.658	5.48	0.41	7.3	0.00	4.9	231.9	300	14.90	34.620	5.46	25.719	228.4	0.716
298	14.93	34.621	5.48	0.42	7.7	0.00	5.1	228.8	400	12.97	34.480	4.92	26.015	200.2	0.940
397	13.02	34.481	4.89	0.86	15.9	0.00	11.0	201.0	500	10.74	34.316	5.88	26.309	172.3	1.137
492	11.02	34.350	5.90	0.80	16.3	0.00	9.9	174.5	600	7.96	33.988	4.87	26.593	145.3	1.306
588	7.67	33.998	5.07	1.45	35.8	0.00	19.7	148.7	700	5.59	34.012	3.27	26.845	121.4	1.448
682	5.79	34.001	3.48	2.22	64.3	0.00	30.0	124.5	800	4.71	34.107	2.22	27.022	104.7	1.570
774	4.98	34.067	2.55	2.57	83.7	0.00	35.0	110.4	1000	3.81	34.242	1.37	27.225	85.4	1.776
925A	3.86	34.236	1.31	2.91	118.4	0.14	39.8	86.5	1200	3.12	34.397	1.15	27.415	67.4	1.945
960	3.90	34.222	1.42	2.99	116.8	0.00	41.0	87.7	1500	2.54	34.487	1.06	27.538	55.7	2.155
1141	3.27	34.368	1.18	3.08	138.0	0.01	41.8	70.9	1750	2.21	34.540	1.24	27.609	49.0	2.307
1417A	2.68	34.464	1.04	3.06	156.8	0.00	43.6	58.5	2000	2.01	34.580	1.58	27.655	44.5	2.445
1663A	2.30	34.523	1.17	3.04	167.2	0.00	43.5	51.0	2250	1.86	34.611	2.01	27.693	41.0	2.574
1910A	2.08	34.567	1.42	3.01	173.1	0.00	43.1	46.0	2500	1.72	34.633	2.37	27.721	38.3	2.696
2159A	1.91	34.601	1.88	2.92	172.5	0.00	42.0	42.2	2750	1.63	34.649	2.71	27.740	36.5	2.814
2406A	1.77	34.626	2.22	2.80	171.0	0.00	41.0	39.2	3000	1.58	34.659	2.91	27.752	35.5	2.928
2653A	1.66	34.644	2.60	2.66	168.5		39.9	37.1	3250	1.54	34.666	3.10	27.761	34.6	3.041
2902A	1.60	34.656	2.84	2.64	166.8	0.00	39.2	35.8	3500	1.52	34.675	3.26	27.769	33.8	3.153
3149A	1.55	34.661	3.02	2.63	164.6	0.00	38.5	35.0	3750	1.50	34.678	3.37	27.773	33.5	3.266
3397A	1.52	34.672	3.20	2.62	163.0	0.00	38.1	34.0	4000	1.48	34.680	3.52	27.777	33.1	3.379
3644A	1.51	34.677	3.33	2.60	161.3	0.00	37.7	33.6	4250	1.47	34.685	3.64	27.781	32.7	3.492
3890A	1.48	34.677	3.44	2.55	159.8	0.00	37.6	33.3	4500	1.48	34.688	3.69	27.782	32.6	3.606
4137A	1.47	34.683	3.61	2.53	158.8	0.00	37.1	32.8	4750	1.50	34.689	3.75	27.782	32.6	3.723
4384A	1.48	34.686	3.66	2.51	158.0	0.00	37.0	32.7	5000	1.52	34.690	3.81	27.781	32.7	3.841
4630A	1.49	34.688	3.72	2.49	156.7	0.00	36.8	32.6	5250	1.54	34.691	3.88	27.780	32.8	3.962
4875A	1.51	34.689	3.78	2.47	155.2	0.00	36.4	32.6	5500	1.57	34.693	3.93	27.781	32.7	4.085
5118A	1.53	34.690	3.84	2.49	153.9	0.00	36.4	32.7	5750	1.59	34.695	3.95	27.780	32.8	4.210
5362A	1.55	34.690	3.91	2.47	151.3	0.00	36.0	32.8							
5604A	1.58	34.695	3.94	2.46	149.6	0.00	35.8	32.7							
5836A	1.60	34.694	3.95	2.46	148.3	0.00	35.7	32.9							

RV THOMAS WASHINGTON INDOPAC LEG I 88

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00.1N	150 58.5E	4/24/76	2050 GMT	6041M	100	5KT	1	080 4 10

Z	T	S	O2	PO4	SIC3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.46	34.669	5.83					258.1	0	16.46	34.669	5.83	25.406	258.1	0.000
10	16.44	34.668	5.82					257.7	10	16.44	34.668	5.82	25.410	257.7	0.026
19	16.43	34.667	5.82					257.5	20	16.40	34.666	5.82	25.416	257.1	0.052
30	15.92	34.634	5.78					248.8	30	15.92	34.634	5.78	25.503	248.8	0.077
49	14.36	34.597	5.91					218.8	50	14.35	34.598	5.90	25.821	218.6	0.124
75	14.07	34.593	5.59					213.3	75	14.07	34.593	5.59	25.877	213.3	0.178
99	13.49	34.538	5.37					205.9	100	13.47	34.536	5.37	25.958	205.6	0.231
125	12.95	34.480	5.32					199.8	125	12.95	34.480	5.32	26.020	199.8	0.283
150	12.42	34.447	5.26					192.3	150	12.42	34.447	5.26	26.099	192.3	0.333
199	11.53	34.374	5.28					181.6	200	11.51	34.373	5.27	26.214	181.3	0.428
248	10.50	34.296	4.73					169.7	250	10.45	34.292	4.73	26.341	169.3	0.518
297	9.32	34.169	4.71					160.1	300	9.23	34.162	4.70	26.446	159.3	0.603
395	6.60	33.993	4.07					135.0	400	6.50	33.990	4.03	26.712	134.0	0.756
492	5.18	33.974	3.31					119.6	500	5.13	33.980	3.24	26.874	118.7	0.888
588	4.76	34.060	2.45					108.6	600	4.70	34.077	2.34	26.999	106.8	1.006
684	4.31	34.178	1.70					95.1	700	4.25	34.190	1.63	27.138	93.6	1.113
779	3.99	34.230	1.42					88.0	800	3.93	34.243	1.38	27.213	86.6	1.210
875	3.73	34.283	1.26					81.5	1000	3.28	34.350	1.06	27.362	72.4	1.383
970	3.38	34.334	1.08					74.4							
1163	2.89	34.420	0.97					63.6							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 02. N	151 54.5E	04/24/76	0946 GMT

Z	T	S	SIGMA T	DT	DD
0	15.66	34.71	25.621	237.7	0.000
10	15.65	34.71	25.623	237.4	0.024
20	15.63	34.71	25.627	237.0	0.048
30	15.58	34.71	25.638	236.0	0.071
40	15.56	34.71	25.643	235.5	0.095
50	15.56	34.71	25.643	235.5	0.119
75	15.56	34.71	25.643	235.5	0.178
100	15.55	34.71	25.645	235.3	0.237
125	15.52	34.71	25.652	234.7	0.297
150	15.50	34.71	25.656	234.4	0.357
175	15.49	34.71	25.659	234.0	0.416
200	15.46	34.71	25.665	233.4	0.476
225	15.41	34.70	25.669	233.1	0.536
250	15.19	34.67	25.695	230.6	0.596
275	15.02	34.64	25.709	229.3	0.655
300	14.87	34.62	25.726	227.6	0.715
350	13.94	34.56	25.879	213.1	0.829
400	12.69	34.46	26.056	196.3	0.937
450	11.15	34.36	26.270	176.0	1.035
500	10.21	34.25	26.351	168.3	1.126
550	8.49	34.08	26.499	154.2	1.212
600	7.21	34.01	26.632	141.6	1.291
650	6.24	34.01	26.763	129.2	1.363
700	5.40	34.01	26.867	119.4	1.429
750	4.89	34.05	26.958	110.7	1.491
800	4.67	34.11	27.030	103.9	1.548
850	4.45	34.15	27.086	98.6	1.603
900	4.06	34.21	27.175	90.2	1.654
950	3.80	34.25	27.233	84.7	1.702
1000	3.63	34.28	27.274	80.8	1.747
1100	3.31	34.35	27.360	72.6	1.832
1200	3.05	34.39	27.416	67.3	1.910
1300	2.86	34.42	27.457	63.4	1.983
1400	2.69	34.46	27.504	58.9	2.053
1500	2.49	34.49	27.545	55.0	2.118
1600	2.358	34.517	27.578	51.9	2.180
1700	2.261	34.536	27.601	49.7	2.239
1800	2.156	34.556	27.626	47.4	2.296
1900	2.074	34.570	27.644	45.7	2.351
2000	2.012	34.585	27.660	44.1	2.405
2100	1.931	34.599	27.678	42.5	2.457
2200	1.873	34.612	27.693	41.1	2.507
2300	1.825	34.620	27.703	40.1	2.557
2400	1.771	34.630	27.715	39.0	2.606
2500	1.735	34.637	27.723	38.2	2.653
2600	1.692	34.644	27.732	37.3	2.701
2700	1.657	34.649	27.739	36.7	2.747
2800	1.634	34.654	27.745	36.2	2.793
2900	1.615	34.658	27.749	35.7	2.839
3000	1.587	34.662	27.754	35.2	2.884
3100	1.575	34.664	27.757	35.0	2.930
3200	1.552	34.668	27.762	34.5	2.975
3300	1.534	34.671	27.766	34.2	3.020
3400	1.524	34.673	27.768	34.0	3.065
3500	1.513	34.676	27.771	33.7	3.109
3600	1.506	34.677	27.772	33.5	3.154
3700	1.498	34.679	27.775	33.3	3.199
3800	1.491	34.681	27.777	33.1	3.244
3900	1.484	34.683	27.779	32.9	3.288
4000	1.484	34.684	27.780	32.8	3.333
4100	1.482	34.685	27.781	32.8	3.378
4200	1.485	34.686	27.781	32.7	3.424
4300	1.486	34.686	27.781	32.7	3.469
4400	1.490	34.687	27.782	32.7	3.515
4500	1.494	34.687	27.781	32.7	3.561
4600	1.499	34.688	27.782	32.6	3.608
4700	1.506	34.688	27.781	32.7	3.654
4800	1.512	34.689	27.782	32.7	3.701
4900	1.518	34.689	27.781	32.7	3.749
5000	1.526	34.690	27.781	32.7	3.797
5100	1.533	34.690	27.781	32.7	3.845
5200	1.540	34.691	27.781	32.7	3.893
5300	1.549	34.692	27.781	32.7	3.942
5400	1.557	34.691	27.780	32.8	3.991
5500	1.565	34.692	27.780	32.8	4.041
5600	1.575	34.693	27.780	32.8	4.090
5700	1.588	34.693	27.779	32.9	4.141
5800	1.599	34.693	27.778	33.0	4.192
5867	1.607	34.694	27.779	32.9	4.226

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00.1N	150 58.5E	04/24/76	2005 GMT

Z	T	S	SIGMA T	DT	DD
0	16.44	34.66	25.404	258.3	0.000
10	16.42	34.67	25.416	257.1	0.026
20	15.91	34.61	25.487	250.3	0.051
30	14.74	34.57	25.716	228.6	0.075
40	14.39	34.60	25.815	219.2	0.098
50	14.28	34.60	25.838	217.0	0.120
75	13.87	34.55	25.886	212.5	0.174
100	13.30	34.51	25.972	204.3	0.226
125	12.75	34.47	26.052	196.7	0.277
150	12.30	34.44	26.116	190.6	0.327
175	11.99	34.42	26.160	186.4	0.375
200	11.53	34.37	26.208	181.9	0.422
225	11.04	34.33	26.267	176.3	0.468
250	10.40	34.26	26.326	170.7	0.513
275	9.68	34.18	26.387	164.9	0.556
300	9.11	34.13	26.441	159.8	0.598
350	7.92	34.05	26.562	148.3	0.678
400	6.65	34.01	26.709	134.3	0.751
450	5.75	33.97	26.793	126.4	0.819
500	5.09	33.97	26.872	118.9	0.884
550	4.90	34.02	26.933	113.1	0.944
600	4.73	34.10	27.015	105.3	1.002
650	4.46	34.14	27.077	99.5	1.056
700	4.26	34.18	27.130	94.4	1.108
750	4.09	34.22	27.179	89.7	1.157
800	3.95	34.25	27.218	86.1	1.205
850	3.79	34.27	27.250	83.1	1.251
900	3.61	34.29	27.284	79.8	1.295
950	3.43	34.32	27.325	75.9	1.337
1000	3.28	34.35	27.363	72.3	1.378
1100	3.03	34.40	27.426	66.3	1.455
1160	2.88	34.42	27.456	63.5	1.513

RV THOMAS WASHINGTON INDOPAC LEG I 89

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 00. N	149 52. E	4/25/76	0345 0815 GMT	6094M	350	3KT	1	130 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	15.96	34.616	5.96	0.39	10.4	0.22	2.8	251.0	0	15.96	34.616	5.96	25.481	251.0	0.000
11	15.18	34.600	6.25	0.36	10.3	0.20	2.9	235.5	10	15.24	34.603	6.24	25.632	236.6	0.024
22	14.88	34.586	6.08	0.27	10.4	0.17	2.6	230.3	20	14.91	34.591	6.12	25.693	230.8	0.048
32	14.58	34.558	6.08	0.33	11.4	0.42	3.0	226.2	30	14.63	34.563	6.08	25.734	226.9	0.071
51	14.60	34.611	5.89	0.37	10.7	0.43	4.2	222.7	50	14.60	34.609	5.90	25.776	222.9	0.116
61	14.37	34.604	5.79	0.36	11.0	0.72	4.4	218.5	75	13.92	34.575	5.62	25.893	211.8	0.171
76	13.89	34.571	5.61	0.50	12.0	0.45	6.1	211.3	100	13.27	34.523	5.48	25.988	202.7	0.223
91	13.52	34.540	5.52	0.57	13.4	0.28	7.5	206.3	125	12.56	34.462	5.35	26.082	193.8	0.273
102	13.21	34.518	5.47	0.63	14.0	0.04	8.4	201.9	150	12.10	34.426	5.46	26.144	187.9	0.322
127	12.51	34.457	5.34	0.71	16.1	0.00	9.9	193.2	200	10.68	34.289	4.91	26.299	173.3	0.414
151	12.08	34.424	5.47	0.77	16.2	0.00	10.2	187.7	250	9.46	34.129	5.11	26.382	165.3	0.501
201	10.65	34.285	4.90	1.08	24.4	0.00	14.8	173.0	300	8.84	34.171	4.01	26.516	152.7	0.584
251	9.44	34.126	5.11	1.14	26.6	0.00	15.1	165.2	400	6.34	34.010	3.82	26.748	130.6	0.731
300	8.84	34.171	4.01	1.57	39.6	0.00	22.0	152.7	500	5.07	34.016	2.92	26.909	115.3	0.859
399	6.36	34.009	3.83	2.02	56.9	0.00	27.7	130.8	600	4.69	34.142	2.05	27.052	101.8	0.974
497	5.09	34.012	2.95	2.44	77.4	0.00	34.0	115.8	700	4.23	34.217	1.58	27.162	91.3	1.076
596	4.71	34.138	2.07	2.65	95.7	0.00	37.9	102.2	800	3.78	34.270	1.33	27.250	83.1	1.170
790	3.82	34.263	1.36	2.92	122.0	0.00	41.9	83.9	1000	3.20	34.364	1.08	27.382	70.6	1.338
985	3.23	34.358	1.07	3.06	140.4	0.00	43.9	71.3	1200	2.78	34.437	1.01	27.478	61.4	1.484
1029A	3.13	34.371	1.09	3.02	143.3	0.00	42.6	69.4	1500	2.36	34.521	0.93	27.581	51.7	1.676
1181	2.81	34.431	1.00	3.12	153.7	0.03	44.6	62.1	1750	2.12	34.563	1.39	27.634	46.7	1.819
1224A	2.75	34.446	1.02	3.05	156.9	0.00	43.8	60.5	2000	1.95	34.593	1.78	27.670	43.2	1.952
1418A	2.46	34.503	0.85	3.02	166.4	0.00	43.8	53.8	2250	1.79	34.623	2.20	27.707	39.6	2.077
1613A	2.24	34.541	1.13	2.95	171.4	0.00	43.4	49.2	2500	1.67	34.639	2.56	27.730	37.4	2.196
1808A	2.08	34.570	1.50	2.97	174.1	0.00	42.8	45.8	2750	1.60	34.651	2.83	27.744	36.1	2.311
2003A	1.95	34.592	1.78	2.89	174.7	0.00	42.1	43.1	3000	1.57	34.662	3.02	27.755	35.2	2.424
2292A	1.76	34.627	2.27	2.76	172.3	0.00	40.6	39.1	3250	1.54	34.671	3.18	27.764	34.3	2.537
2583A	1.64	34.644	2.66	2.71	169.4	0.00	39.7	37.0	3500	1.50	34.677	3.32	27.772	33.5	2.648
2874A	1.58	34.656	2.93	2.71	167.3	0.00	38.8	35.6	3750	1.48	34.680	3.44	27.776	33.2	2.760
3163A	1.56	34.667	3.13	2.63	165.8	0.00	38.3	34.7	4000	1.46	34.681	3.48	27.779	32.9	2.872
3451A	1.51	34.676	3.29	2.55	163.9	0.00	37.7	33.6	4250	1.47	34.684	3.58	27.780	32.8	2.984
3741A	1.48	34.679	3.44	2.50	162.0	0.00	37.5	33.2	4500	1.48	34.685	3.65	27.781	32.7	3.099
4028A	1.46	34.681	3.48	2.51	160.4	0.00	37.2	32.9	4750	1.49	34.690	3.74	27.783	32.5	3.215
4316A	1.47	34.684	3.61	2.51	158.7	0.00	36.8	32.7	5000	1.51	34.694	3.83	27.785	32.3	3.332
4605A	1.48	34.685	3.68	2.48	157.6	0.00	36.7	32.7	5250	1.53	34.695	3.89	27.784	32.4	3.452
4894A	1.50	34.693	3.80	2.47	154.7	0.00	36.3	32.3	5500	1.56	34.696	3.93	27.783	32.5	3.574
5183A	1.527	34.694	3.87	2.45	152.6	0.00	36.3	32.4	5750	1.59	34.698	3.96	27.782	32.6	3.699
5472A	1.558	34.695	3.93	2.49	150.3	0.00	35.9	32.5							
5759A	1.588	34.697	3.96	2.49	149.4	0.00	35.8	32.6							
5854A	1.606	34.697	3.99	2.47	148.7	0.00	35.6	32.7							

RV THOMAS WASHINGTON INDOPAC LEG I 90

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.4N	148 59. E	4/25/76	1311 GMT	6147M	170	4KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
2	15.95	34.649	5.95					248.4	0	15.95	34.649	5.95	25.508	248.4	0.000
12	15.06	34.643	6.08					229.9	10	15.18	34.645	6.07	25.676	232.4	0.024
23	14.85	34.637	6.05					225.9	20	14.89	34.642	6.06	25.739	226.4	0.047
32	14.34	34.595	5.65					218.6	30	14.46	34.606	5.74	25.804	220.2	0.069
52	14.09	34.597	5.55					213.4	50	14.12	34.603	5.56	25.875	213.5	0.113
77	13.77	34.564	5.46					209.5	75	13.79	34.568	5.47	25.915	209.7	0.166
102	13.54	34.561	5.72					205.2	100	13.56	34.562	5.70	25.959	205.5	0.219
127	13.09	34.493	5.44					201.5	125	13.13	34.499	5.47	25.998	201.8	0.271
153	12.70	34.487	5.45					194.5	150	12.75	34.489	5.45	26.065	195.4	0.321
202	11.45	34.367	5.09					180.7	200	11.50	34.374	5.11	26.215	181.2	0.417
252	10.50	34.270	4.97					171.6	250	10.54	34.275	4.97	26.313	171.9	0.508
302	9.16	34.157	4.60					158.5	300	9.22	34.162	4.62	26.448	159.1	0.594
403	6.99	34.062	3.81					134.8	400	7.04	34.064	3.84	26.697	135.5	0.747
503	5.92	34.106	2.83					118.2	500	5.95	34.106	2.86	26.875	118.6	0.880
604	4.68	34.090	2.24					105.5	600	4.72	34.091	2.26	27.008	106.0	0.999
703	4.21	34.158	1.72					95.6	700	4.22	34.156	1.73	27.115	95.9	1.106
802	3.87	34.238	1.34					86.2	800	3.88	34.238	1.35	27.215	86.4	1.204
899	3.53	34.298	1.13					78.5	1000	3.23	34.357	1.08	27.372	71.5	1.376
997	3.24	34.354	1.08					71.7	1200	2.84	34.426	0.96	27.464	62.8	1.525
1200	2.84	34.426	0.96					62.8							

890

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 00. N	149 52.1E	04/25/76	0140 GMT

Z	T	S	SIGMA T	DT	DD
0	16.25	34.71	25.486	250.4	0.000
10	15.31	34.66	25.660	233.9	0.024
20	14.67	34.61	25.762	224.2	0.047
30	14.39	34.60	25.815	219.2	0.069
40	14.05	34.55	25.848	216.0	0.091
50	13.54	34.53	25.939	207.4	0.113
75	13.38	34.53	25.971	204.3	0.164
100	13.19	34.52	26.002	201.4	0.216
125	12.50	34.46	26.093	192.8	0.266
150	12.17	34.44	26.141	188.2	0.314
175	11.74	34.39	26.184	184.1	0.362
200	11.10	34.32	26.248	178.1	0.408
225	10.38	34.24	26.314	171.8	0.453
250	9.87	34.13	26.316	171.7	0.497
275	9.24	34.14	26.428	161.0	0.540
300	8.91	34.15	26.488	155.3	0.581
350	7.65	34.07	26.617	143.1	0.659
400	6.56	34.01	26.721	133.2	0.731
450	5.85	34.00	26.804	125.6	0.798
500	5.19	34.02	26.900	116.3	0.861
550	4.91	34.06	26.963	110.2	0.921
600	4.70	34.11	27.027	104.2	0.977
650	4.51	34.16	27.087	98.5	1.031
700	4.39	34.21	27.140	93.5	1.082
750	3.94	34.21	27.187	89.0	1.131
800	3.79	34.26	27.242	83.8	1.178
850	3.64	34.28	27.273	80.9	1.222
900	3.50	34.31	27.310	77.3	1.265
950	3.28	34.34	27.355	73.1	1.306
1000	3.20	34.36	27.378	70.8	1.346
1100	2.98	34.40	27.431	65.9	1.421
1200	2.77	34.43	27.473	61.9	1.493
1300	2.62	34.46	27.510	58.4	1.560
1400	2.49	34.49	27.545	55.0	1.624
1500	2.37	34.51	27.572	52.6	1.686
1600	2.265	34.534	27.599	49.9	1.745
1700	2.158	34.554	27.624	47.6	1.802
1800	2.076	34.571	27.644	45.7	1.857
1900	1.995	34.586	27.663	43.9	1.910
2000	1.915	34.600	27.680	42.3	1.961
2100	1.853	34.612	27.694	40.9	2.011
2200	1.788	34.625	27.710	39.5	2.060
2300	1.735	34.634	27.721	38.4	2.107
2400	1.696	34.642	27.730	37.5	2.154
2500	1.660	34.647	27.737	36.9	2.200
2600	1.629	34.653	27.744	36.2	2.245
2700	1.603	34.658	27.750	35.6	2.291
2800	1.580	34.662	27.755	35.2	2.335
2900	1.567	34.668	27.761	34.6	2.380
3000	1.550	34.668	27.762	34.5	2.424
3100	1.537	34.671	27.765	34.2	2.468
3200	1.525	34.673	27.768	34.0	2.513
3300	1.513	34.676	27.771	33.7	2.557
3400	1.503	34.678	27.773	33.4	2.601
3500	1.497	34.679	27.775	33.3	2.645
3600	1.489	34.681	27.777	33.1	2.689
3700	1.480	34.683	27.779	32.9	2.734
3800	1.479	34.684	27.780	32.8	2.778
3900	1.477	34.685	27.781	32.7	2.822
4000	1.473	34.686	27.782	32.6	2.867
4100	1.473	34.688	27.784	32.5	2.912
4200	1.475	34.688	27.783	32.5	2.957
4300	1.478	34.688	27.783	32.5	3.002
4400	1.479	34.689	27.784	32.4	3.048
4500	1.485	34.690	27.784	32.4	3.093
4600	1.488	34.690	27.784	32.4	3.139
4700	1.493	34.691	27.785	32.4	3.186
4800	1.499	34.693	27.786	32.3	3.232
4900	1.507	34.692	27.784	32.4	3.279
5000	1.515	34.692	27.784	32.4	3.327
5100	1.522	34.693	27.784	32.4	3.374
5200	1.531	34.693	27.783	32.5	3.422
5300	1.540	34.693	27.783	32.5	3.471
5400	1.551	34.694	27.783	32.5	3.520
5500	1.563	34.693	27.781	32.7	3.569
5600	1.573	34.695	27.782	32.6	3.619
5700	1.586	34.695	27.781	32.7	3.669
5800	1.598	34.695	27.780	32.8	3.720
5857	1.605	34.696	27.780	32.8	3.749

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.4N	148 59. E	04/25/76	1236 GMT

Z	T	S	SIGMA T	DT	DD
0	15.54	34.67	25.617	238.0	0.000
10	15.07	34.64	25.698	230.3	0.023
20	14.65	34.61	25.767	223.8	0.046
30	14.36	34.60	25.821	218.6	0.068
40	14.23	34.60	25.849	216.0	0.090
50	14.17	34.60	25.861	214.8	0.112
75	13.76	34.56	25.929	208.4	0.165
100	13.52	34.56	25.966	204.8	0.217
125	13.04	34.52	26.033	198.5	0.269
150	12.53	34.48	26.103	191.9	0.318
175	11.96	34.41	26.170	185.5	0.367
200	11.38	34.37	26.236	179.2	0.413
225	10.85	34.30	26.278	175.2	0.459
250	10.30	34.24	26.329	170.5	0.503
275	9.22	34.11	26.407	162.9	0.546
300	9.00	34.14	26.466	157.4	0.588
350	8.00	34.10	26.589	145.7	0.666
400	7.24	34.08	26.683	136.8	0.740
450	6.47	34.09	26.796	126.1	0.809
500	5.93	34.09	26.865	119.5	0.874
550	4.84	34.01	26.932	113.2	0.935
600	4.66	34.08	27.007	106.0	0.993
650	4.55	34.15	27.075	99.6	1.047
700	4.18	34.16	27.122	95.1	1.099
750	4.08	34.21	27.172	90.4	1.149
800	3.89	34.24	27.216	86.3	1.196
850	3.76	34.28	27.267	81.4	1.242
900	3.54	34.30	27.298	78.5	1.285
950	3.33	34.32	27.334	75.0	1.327
1000	3.23	34.35	27.368	71.9	1.367
1100	3.04	34.40	27.425	66.4	1.444
1200	2.82	34.43	27.469	62.3	1.515

RV THOMAS WASHINGTON INDOPAC LEG I 91

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 56.5N	147 59.4E	4/25/76	2018 0048 GMT	5955M	270	8KT	2	270 4 4

Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
2	18.87	34.732	5.58	0.16	4.0	0.00	0.0	309.2	0	18.87	34.732	5.58	24.869	309.2	0.000
11	18.87	34.729	5.58	0.17	3.8	0.00	0.0	309.4	10	18.87	34.730	5.58	24.867	309.4	0.031
22	18.83	34.728	5.58	0.11	3.8	0.00	0.0	308.5	20	18.84	34.729	5.58	24.874	308.7	0.062
32	18.65	34.723	5.51	0.13	3.8	0.07	0.0	304.5	30	18.70	34.724	5.52	24.906	305.6	0.093
51	17.92	34.729	5.50	0.15	4.0	0.13	0.2	286.9	50	17.96	34.729	5.50	25.092	287.9	0.152
61	17.61	34.732	5.48	0.14	4.0	0.13	0.7	279.4	75	17.37	34.746	5.58	25.251	272.8	0.223
76	17.35	34.746	5.59	0.10	4.0	0.10	0.2	272.5	100	16.75	34.699	4.84	25.360	262.4	0.291
91	16.98	34.704	4.73	0.38	8.3	0.12	4.5	267.1	125	16.43	34.677	5.01	25.419	256.8	0.356
101	16.73	34.698	4.87	0.41	8.3	0.12	4.5	261.9	150	16.21	34.680	4.94	25.473	251.7	0.421
126	16.42	34.675	5.01	0.35	8.2	0.17	4.5	256.7	200	15.69	34.635	4.99	25.555	243.9	0.548
151	16.20	34.680	4.94	0.37	8.5	0.13	4.7	251.5	250	15.23	34.649	4.55	25.670	233.0	0.670
201	15.66	34.633	4.99	0.44	10.5	0.12	5.6	243.7	300	14.16	34.574	4.26	25.842	216.6	0.786
250	15.23	34.649	4.55	0.56	11.6	0.00	8.0	233.0	400	10.97	34.310	4.84	26.264	176.5	0.992
299	14.19	34.575	4.26	0.62	17.1	0.00	11.2	217.0	500	8.85	34.112	5.42	26.468	157.2	1.168
400	10.97	34.310	4.84	0.87	23.8	0.00	13.7	176.5	600	5.78	33.962	3.80	26.783	127.3	1.318
500	8.85	34.112	5.42	1.04	28.3	0.00	15.1	157.2	700	4.72	34.073	2.56	26.994	107.4	1.443
600	5.78	33.962	3.80	2.06	61.7	0.00	29.0	127.3	800	4.32	34.163	1.76	27.110	96.4	1.553
792A	4.39	34.164	1.80	2.69	103.8	0.290	37.1	97.0	1000	3.49	34.311	1.14	27.311	77.3	1.741
801	4.31	34.162	1.75	2.40	105.1	0.00	40.0	96.3	1200	2.97	34.406	1.04	27.436	65.4	1.900
992A	3.51	34.308	1.15	2.95	131.6	0.13	41.8	77.6	1500	2.42	34.506	1.06	27.564	53.3	2.101
1004	3.48	34.309	1.13	2.81	131.7	0.00	43.5	77.2	1750	2.16	34.555	1.36	27.624	47.6	2.248
1191A	2.96	34.410	1.05	3.00	150.7	0.13	42.7	65.0	2000	1.97	34.591	1.77	27.668	43.3	2.383
1208	2.98	34.402	1.03	2.83	148.7	0.00	44.6	65.8	2250	1.80	34.618	2.14	27.702	40.1	2.509
1392A	2.58	34.476	1.00	3.06	163.5	0.04	43.6	56.8	2500	1.68	34.639	2.47	27.728	37.6	2.628
1641A	2.26	34.534	1.20	2.98	171.7	0.03	43.6	49.9	2750	1.61	34.654	2.77	27.746	36.0	2.743
1892A	2.05	34.577	1.60	2.93	174.0	0.00	42.2	45.0	3000	1.57	34.660	2.99	27.754	35.3	2.856
2141A	1.87	34.607	1.99	2.76	175.2	0.00	40.8	41.4	3250	1.52	34.669	3.18	27.764	34.3	2.969
2390A	1.73	34.631	2.32	2.73	173.2	0.00	39.7	38.6	3500	1.49	34.676	3.31	27.772	33.5	3.080
2689A	1.62	34.652	2.71	2.69	170.8	0.00	38.6	36.2	3750	1.47	34.680	3.44	27.777	33.0	3.191
2988A	1.57	34.659	2.98	2.64	168.2	0.00	37.9	35.3	4000	1.46	34.683	3.54	27.780	32.8	3.302
3286A	1.51	34.669	3.20	2.58	164.6	0.00	36.8	34.2	4250	1.46	34.686	3.61	27.782	32.6	3.414
3584A	1.48	34.678	3.35	2.54	163.6	0.00	36.5	33.3	4500	1.48	34.691	3.68	27.785	32.5	3.528
3890A	1.46	34.681	3.51	2.51	161.2	0.00	35.6	32.9	4750	1.49	34.693	3.77	27.786	32.3	3.643
4228A	1.46	34.685	3.60	2.47	159.3	0.00	35.8	32.6	5000	1.50	34.693	3.83	27.785	32.4	3.760
4573A	1.48	34.692	3.70	2.47	157.0	0.00	35.2	32.2	5250	1.53	34.693	3.87	27.783	32.5	3.880
4869A	1.49	34.692	3.81	2.47	154.8	0.00	35.3	32.3	5500	1.56	34.695	3.92	27.782	32.6	4.002
5163A	1.522	34.692	3.85	2.46	152.4	0.00	34.8	32.5	5750	1.59	34.695	3.94	27.780	32.8	4.128
5456A	1.553	34.694	3.91	2.47	150.8	0.00	34.8	32.6							
5749A	1.591	34.694	3.94	2.46	149.3	0.00	34.7	32.8							
5844A	1.600	34.698	3.94	2.46	149.5	0.00	34.5	32.6							

RV THOMAS WASHINGTON INDOPAC LEG I 92

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 12.2N	147 00.3E	4/26/76	1510 GMT	6038M	200	28KT	5	120 10 6

Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	18.68	34.712	5.57					306.1	0	18.68	34.712	5.57	24.902	306.1	0.000
11	18.20	34.702	5.41					295.4	10	18.24	34.703	5.42	25.004	296.3	0.030
42	17.40	34.678	5.12					278.5	20	17.92	34.695	5.31	25.076	289.5	0.059
72	16.43	34.661	4.84					258.0	30	17.66	34.688	5.21	25.135	283.9	0.088
101	15.93	34.670	4.57					246.4	50	17.13	34.672	5.05	25.251	272.8	0.144
149	13.49	34.485	5.76					209.8	75	16.39	34.665	4.79	25.420	256.8	0.211
195	11.66	34.425	3.91					180.1	100	15.95	34.671	4.57	25.525	246.8	0.274
240	10.31	34.299	4.28					166.3	125	14.80	34.582	5.24	25.711	229.1	0.335
284	9.40	34.253	3.84					155.1	150	13.45	34.484	5.72	25.922	209.0	0.391
329	6.76	33.906	4.88					143.5	200	11.49	34.411	3.92	26.247	178.1	0.489
371	5.07	33.721	5.52					137.4	250	10.16	34.302	4.15	26.400	163.7	0.577
413	4.17	33.696	4.74					129.9	300	8.51	34.133	4.14	26.536	150.7	0.659
454	5.99	34.064	3.23					122.2	400	4.26	33.677	5.10	26.730	132.3	0.805
494	5.58	34.099	2.89					114.8	500	5.41	34.085	2.85	26.924	113.9	0.933
535	4.38	33.992	2.61					109.8	600	3.78	33.992	2.15	27.029	103.9	1.047
575	3.79	33.960	2.34					106.4	700	3.85	34.134	1.58	27.135	94.0	1.151
616	3.77	34.012	2.03					102.3	800	3.74	34.254	1.33	27.241	83.9	1.246
696	3.85	34.127	1.59					94.4	1000	3.12	34.383	1.05	27.404	68.5	1.412
863	3.59	34.312	1.26					78.0							
1045	2.95	34.398	0.99					65.8							
3446A	1.450	34.670						33.7							
4911A	1.486	34.686						32.7							
5892A	1.605	34.694						32.9							

910

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 56.5N	147 59.4E	04/25/76	1759 GMT

Z	T	S	SIGMA T	DT	DD
0	18.97	34.74	24.850	311.0	0.000
10	18.96	34.74	24.852	310.8	0.031
20	18.39	34.74	24.996	297.1	0.062
30	18.02	34.74	25.087	288.4	0.091
40	17.68	34.72	25.155	281.9	0.120
50	17.09	34.70	25.282	269.9	0.147
75	16.74	34.76	25.410	257.6	0.214
100	16.62	34.75	25.431	255.7	0.279
125	16.59	34.75	25.438	255.0	0.343
150	16.47	34.74	25.458	253.1	0.408
175	16.31	34.74	25.495	249.6	0.472
200	15.89	34.71	25.569	242.6	0.535
225	15.55	34.68	25.622	237.5	0.597
250	15.13	34.65	25.693	230.8	0.657
275	14.64	34.62	25.776	222.9	0.716
300	14.48	34.61	25.803	220.3	0.773
350	12.11	34.44	26.153	187.1	0.879
400	10.91	34.35	26.306	172.6	0.973
450	10.07	34.27	26.391	164.5	1.062
500	8.16	34.04	26.518	152.5	1.146
550	6.73	33.97	26.667	138.4	1.223
600	5.97	34.01	26.797	126.0	1.293
650	5.20	34.01	26.891	117.1	1.357
700	4.86	34.06	26.969	109.7	1.416
750	4.56	34.11	27.042	102.8	1.475
800	4.37	34.16	27.102	97.0	1.528
850	4.06	34.20	27.167	90.9	1.579
900	3.85	34.25	27.228	85.1	1.627
950	3.68	34.28	27.269	81.3	1.672
1000	3.47	34.31	27.313	77.0	1.716
1100	3.19	34.36	27.379	70.8	1.797
1200	2.93	34.41	27.443	64.7	1.873
1300	2.73	34.44	27.485	60.6	1.943
1400	2.56	34.47	27.524	57.1	2.010
1500	2.42	34.50	27.559	53.7	2.073
1600	2.304	34.528	27.591	50.7	2.134
1700	2.196	34.549	27.617	48.2	2.191
1800	2.093	34.568	27.640	46.0	2.247
1900	2.032	34.581	27.656	44.6	2.300
2000	1.955	34.595	27.673	43.0	2.352
2100	1.891	34.606	27.687	41.6	2.403
2200	1.829	34.619	27.702	40.2	2.453
2300	1.773	34.628	27.713	39.1	2.501
2400	1.736	34.635	27.722	38.3	2.549
2500	1.697	34.643	27.731	37.4	2.596
2600	1.657	34.649	27.739	36.7	2.642
2700	1.625	34.655	27.746	36.0	2.688
2800	1.597	34.660	27.752	35.4	2.733
2900	1.576	34.663	27.756	35.1	2.778
3000	1.557	34.666	27.760	34.7	2.823
3100	1.535	34.670	27.765	34.3	2.867
3200	1.521	34.673	27.768	33.9	2.911
3300	1.505	34.676	27.772	33.6	2.955
3400	1.496	34.678	27.774	33.4	2.999
3500	1.482	34.679	27.775	33.3	3.044
3600	1.482	34.681	27.777	33.1	3.088
3700	1.477	34.683	27.779	32.9	3.132
3800	1.477	34.684	27.780	32.8	3.176
3900	1.472	34.685	27.781	32.7	3.221
4000	1.469	34.686	27.782	32.6	3.265
4100	1.472	34.687	27.783	32.5	3.310
4200	1.474	34.688	27.784	32.5	3.355
4300	1.477	34.688	27.783	32.5	3.400
4400	1.479	34.689	27.784	32.4	3.446
4500	1.483	34.690	27.784	32.4	3.491
4600	1.486	34.690	27.784	32.4	3.537
4700	1.490	34.691	27.785	32.4	3.584
4800	1.498	34.691	27.784	32.4	3.630
4900	1.504	34.692	27.785	32.4	3.677
5000	1.511	34.692	27.784	32.4	3.725
5100	1.519	34.693	27.784	32.4	3.772
5200	1.526	34.693	27.784	32.4	3.820
5300	1.536	34.693	27.783	32.5	3.869
5400	1.546	34.694	27.783	32.5	3.917
5500	1.557	34.694	27.782	32.6	3.967
5600	1.569	34.694	27.781	32.7	4.016
5700	1.581	34.695	27.781	32.7	4.066
5800	1.595	34.695	27.780	32.8	4.117
5900	1.608	34.696	27.780	32.8	4.168

920

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 12.2N	147 00.3E	04/26/76	0408 GMT

Z	T	S	SIGMA T	DT	DD
0	18.59	34.67	24.892	307.0	0.000
10	18.36	34.69	24.965	300.0	0.030
20	18.21	34.70	25.010	295.8	0.060
30	17.87	34.68	25.070	289.2	0.090
40	17.23	34.68	25.233	274.5	0.118
50	16.96	34.69	25.297	268.4	0.145
75	16.22	34.67	25.462	252.7	0.211
100	15.62	34.64	25.576	241.9	0.273
125	14.96	34.59	25.684	231.7	0.333
150	13.28	34.44	25.922	209.0	0.389
175	12.42	34.45	26.101	192.0	0.441
200	11.40	34.37	26.228	179.9	0.488
225	10.93	34.33	26.287	174.4	0.534
250	10.16	34.29	26.386	164.8	0.577
275	9.72	34.27	26.450	158.9	0.619
300	8.41	34.15	26.566	147.9	0.659
350	4.48	33.58	26.631	141.8	0.734
400	4.57	33.69	26.708	134.4	0.804
450	4.82	33.83	26.792	126.5	0.872
500	5.21	34.04	26.913	115.0	0.935
550	4.20	33.99	26.986	108.1	0.993
600	4.17	34.05	27.036	103.3	1.048
650	3.94	34.08	27.084	98.8	1.102
700	3.85	34.16	27.156	91.9	1.152
750	3.77	34.21	27.204	87.4	1.200
800	3.66	34.25	27.247	83.3	1.246
850	3.54	34.30	27.298	78.5	1.290
900	3.35	34.33	27.340	74.4	1.331
950	3.22	34.35	27.369	71.8	1.371
1000	3.11	34.37	27.395	69.3	1.410
1100	2.84	34.39	27.435	65.5	1.484
1200	2.69	34.44	27.488	60.4	1.554
1300	2.53	34.47	27.526	56.9	1.620
1400	2.41	34.49	27.552	54.4	1.683
1500	2.29	34.52	27.586	51.2	1.743
1600	2.169	34.545	27.616	48.3	1.800
1700	2.063	34.564	27.640	46.1	1.855
1800	1.985	34.579	27.656	44.4	1.908
1900	1.921	34.591	27.672	43.0	1.960
2000	1.866	34.602	27.685	41.8	2.010
2100	1.790	34.615	27.702	40.2	2.059
2200	1.734	34.625	27.714	39.1	2.107
2300	1.692	34.632	27.723	38.2	2.154
2400	1.654	34.639	27.731	37.4	2.200
2500	1.632	34.643	27.736	37.0	2.246
2600	1.626	34.646	27.739	36.7	2.292
2700	1.607	34.649	27.743	36.3	2.338
2800	1.579	34.654	27.749	35.8	2.383
2900	1.537	34.660	27.756	35.0	2.428
3000	1.509	34.665	27.763	34.5	2.472
3100	1.488	34.668	27.766	34.1	2.516
3200	1.467	34.671	27.770	33.7	2.560
3300	1.463	34.673	27.772	33.5	2.603
3400	1.464	34.674	27.773	33.5	2.647
3500	1.465	34.675	27.774	33.4	2.691
3600	1.467	34.675	27.774	33.4	2.735
3700	1.469	34.676	27.774	33.3	2.779
3800	1.470	34.677	27.775	33.3	2.824
3900	1.477	34.678	27.775	33.2	2.869
4000	1.478	34.678	27.775	33.3	2.914
4100	1.476	34.680	27.777	33.1	2.960
4200	1.476	34.681	27.778	33.0	3.005
4300	1.473	34.682	27.779	32.9	3.051
4400	1.478	34.683	27.779	32.9	3.097
4500	1.481	34.683	27.779	32.9	3.143
4600	1.484	34.684	27.780	32.8	3.189
4700	1.492	34.684	27.779	32.9	3.236
4800	1.495	34.685	27.780	32.8	3.283
4900	1.502	34.685	27.779	32.9	3.331
5000	1.510	34.686	27.779	32.9	3.378
5100	1.522	34.686	27.778	32.9	3.426
5200	1.525	34.686	27.778	33.0	3.475
5300	1.538	34.687	27.778	33.0	3.524
5400	1.548	34.687	27.777	33.1	3.573
5500	1.563	34.687	27.776	33.2	3.623
5600	1.574	34.687	27.775	33.2	3.673
5700	1.586	34.689	27.776	33.2	3.724
5800	1.594	34.689	27.775	33.2	3.775
5900	1.609	34.689	27.774	33.3	3.826

RV THOMAS WASHINGTON INDOPAC LEG I 93

LATITUDE 34 58.2N | LONGITUDE 146 01. E | MO/DAY/YR 4/26/76 | MESSENGER TIME 2356 0506 GMT | BOTTOM 5900M | WIND 320 | SPEED 5KT | WEATHER 0 | DOMINANT WAVES 240 8 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	15.25	34.511	6.09	0.33	12.3	0.14	3.9	243.5	0	15.25	34.511	6.09	25.559	243.5	0.000
11	14.75	34.515	6.16	0.32	11.9	0.14	3.5	232.8	10	14.80	34.515	6.16	25.661	233.8	0.024
21	14.36	34.526	6.16	0.34	12.5	0.19	3.9	224.0	20	14.40	34.526	6.16	25.755	224.9	0.047
41	13.12	34.478	5.72	0.56	14.9	0.52	7.1	203.1	30	13.82	34.509	6.00	25.865	214.5	0.069
70	11.94	34.423	4.97	0.85	21.4	0.25	12.3	185.3	50	12.70	34.463	5.40	26.055	196.4	0.110
89	11.29	34.370	5.42	0.79	19.4	0.03	11.3	177.6	75	11.76	34.412	5.08	26.197	182.9	0.158
99	10.95	34.327	5.46	0.81	20.1	0.03	11.2	175.0	100	10.91	34.322	5.46	26.284	174.7	0.203
149	8.93	34.063	5.54	0.94	24.4	0.00	13.4	162.0	125	9.88	34.185	5.50	26.355	167.9	0.247
197	7.75	33.941	5.31	1.26	31.1	0.00	16.5	154.1	150	8.89	34.059	5.54	26.419	161.9	0.289
245	8.48	34.250	3.32	1.82	50.8	0.12	25.1	141.5	200	7.80	33.963	5.18	26.509	153.3	0.369
293	6.66	34.048	3.75	1.97	55.7	0.00	27.0	131.6	250	8.33	34.237	3.33	26.645	140.4	0.444
341	5.63	34.007	3.46	2.16	66.1	0.00	30.0	122.2	300	6.49	34.040	3.73	26.753	130.1	0.514
389	4.55	33.929	3.22	2.40	75.7	0.00	32.8	116.3	400	4.54	33.945	3.13	26.913	115.0	0.641
484	4.44	34.066	2.39	2.62	92.1	0.00	36.1	104.8	500	4.40	34.094	2.26	27.046	102.4	0.754
580	4.12	34.211	1.70	2.77	110.7	0.01	39.1	90.7	600	4.01	34.228	1.60	27.193	88.4	0.854
672	3.62	34.268	1.34	2.93	124.5	0.00	41.0	81.6	700	3.53	34.281	1.29	27.283	79.9	0.944
770	3.37	34.310	1.22	2.95	132.9	0.00	41.6	76.1	800	3.27	34.329	1.21	27.347	75.8	1.026
866	3.11	34.362	1.18	2.98	141.5	0.00	41.9	69.9	1000	2.86	34.414	1.10	27.453	65.8	1.176
896A	3.10	34.367	1.03	2.92	142.1	0.17	41.0	69.4	1200	2.51	34.475	1.08	27.531	56.4	1.309
962	2.94	34.399	1.11	3.02	148.1	0.00	42.2	65.6	1500	2.22	34.543	1.28	27.610	48.9	1.488
1162	2.56	34.463	1.07	3.02	162.8	0.00	42.5	57.6	1750	2.03	34.579	1.63	27.654	44.6	1.624
1396A	2.31	34.523	1.18	2.92	166.9	0.01	42.3	51.1	2000	1.87	34.608	2.05	27.689	41.4	1.751
1646A	2.10	34.565	1.47	2.92	170.2	0.00	41.6	46.3	2250	1.73	34.631	2.40	27.718	38.5	1.872
1896A	1.93	34.597	1.88	2.94	170.6	0.03	40.9	42.6	2500	1.62	34.648	2.67	27.740	36.5	1.987
2146A	1.79	34.621	2.27	2.78	170.7	0.01	39.8	39.8	2750	1.58	34.657	2.95	27.751	35.6	2.100
2397A	1.65	34.644	2.57	2.69	168.7	0.01	38.9	37.0	3000	1.53	34.665	3.17	27.761	34.6	2.211
2647A	1.60	34.652	2.81	2.60	166.4	0.03	38.5	36.1	3250	1.49	34.670	3.27	27.767	34.0	2.322
2896A	1.55	34.663	3.12	2.50	163.9	0.01	37.9	34.9	3500	1.48	34.675	3.40	27.772	33.5	2.433
3144A	1.50	34.667	3.21	2.52	161.8	0.06	37.0	34.2	3750	1.46	34.679	3.49	27.777	33.1	2.543
3394A	1.49	34.672	3.36	2.50	160.9	0.03	36.8	33.8	4000	1.45	34.681	3.56	27.779	32.9	2.655
3642A	1.47	34.678	3.45	2.49	159.3	0.03	36.5	33.2	4250	1.46	34.685	3.65	27.782	32.6	2.767
3889A	1.45	34.679	3.54	2.45	158.3	0.00	36.5	33.0	4500	1.46	34.687	3.76	27.783	32.6	2.881
4138A	1.46	34.683	3.59	2.45	157.5	0.01	36.3	32.8	4750	1.48	34.688	3.85	27.783	32.6	2.997
4385A	1.46	34.686	3.73	2.44	155.3	0.01	35.6	32.5	5000	1.51	34.691	3.90	27.783	32.5	3.114
4632A	1.47	34.686	3.79	2.43	154.3	0.00	35.7	32.6	5250	1.54	34.692	3.93	27.782	32.6	3.235
4878A	1.49	34.689	3.90	2.40	152.2	0.00	35.5	32.5	5500	1.56	34.693	3.95	27.780	32.8	3.357
5123A	1.522	34.691	3.91	2.39	150.4	0.01	35.5	32.6	5750	1.59	34.693	3.98	27.779	32.9	3.483
5367A	1.55	34.692	3.94	2.40	149.5	0.01	35.4	32.7							
5610A	1.570	34.692	3.96	2.42	148.1	0.01	35.2	32.8							
5852A	1.604	34.693	4.00		147.0	0.01	35.1	33.0							

RV THOMAS WASHINGTON INDOPAC LEG I 94

LATITUDE 34 53.6N | LONGITUDE 144 58.1E | MO/DAY/YR 4/27/76 | MESSENGER TIME 1145 GMT | BOTTOM 5807M | WIND 180 | SPEED 12KT | WEATHER | DOMINANT WAVES

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	19.34	34.724	5.44					321.2	0	19.34	34.724	5.44	24.743	321.2	0.000
11	19.33	34.723	5.44					321.0	10	19.33	34.724	5.44	24.744	321.0	0.032
21	19.28	34.720	5.39					320.0	20	19.28	34.721	5.40	24.754	320.1	0.064
31	19.29	34.722	5.32					320.1	30	19.29	34.722	5.33	24.754	320.1	0.096
50	19.27	34.725	5.23					319.4	50	19.27	34.725	5.23	24.761	319.4	0.161
74	18.50	34.709	4.89					302.0	75	18.46	34.709	4.89	24.953	301.2	0.239
96	17.77	34.709	4.83					284.8	100	17.67	34.711	4.82	25.149	282.5	0.312
119	17.27	34.713	4.72					273.0	125	17.13	34.711	4.66	25.279	270.1	0.382
141	16.79	34.701	4.51					263.1	150	16.65	34.697	4.50	25.384	260.1	0.450
182	16.18	34.682	4.45					251.0	200	15.89	34.681	4.41	25.546	244.8	0.579
222	15.47	34.664	4.38					237.0	250	14.76	34.588	4.39	25.725	227.7	0.700
260	14.46	34.555	4.40					223.9	300	13.08	34.518	3.83	26.021	199.6	0.811
331	11.67	34.428	3.64					180.1	400	7.24	33.827	5.81	26.483	155.8	0.995
395	7.43	33.842	5.86					157.1	500	5.86	33.920	4.13	26.739	131.5	1.145
456	5.97	33.786	5.23					142.8	600	4.50	33.933	3.07	26.907	115.6	1.275
514	5.82	33.957	3.79					128.2	700	4.28	34.106	2.04	27.068	102.1	1.390
570	4.51	33.881	3.42					119.4	800	4.18	34.240	1.50	27.186	89.1	1.492
624	4.50	33.970	2.77					112.7							
680	4.30	34.051	2.14					104.5							
799	4.18	34.238	1.51					89.3							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.2N	146 01. E	04/26/76	2128 GMT

Z	T	S	SIGMA T	DT	DD
0	14.68	34.50	25.675	232.5	0.000
10	14.66	34.51	25.687	231.3	0.023
20	14.59	34.51	25.702	229.9	0.046
30	14.07	34.52	25.821	218.6	0.069
40	13.11	34.46	25.972	204.3	0.090
50	12.21	34.42	26.118	190.4	0.110
75	11.51	34.37	26.212	181.5	0.157
100	10.91	34.30	26.267	176.3	0.202
125	10.12	34.21	26.336	169.8	0.246
150	9.43	34.12	26.381	165.5	0.288
175	8.41	33.98	26.433	160.5	0.330
200	7.62	33.92	26.503	153.8	0.370
225	8.49	34.23	26.616	143.1	0.408
250	7.58	34.14	26.682	136.9	0.444
275	6.31	34.02	26.761	129.4	0.478
300	6.48	34.10	26.802	125.5	0.511
350	4.74	33.92	26.872	118.9	0.574
400	4.98	34.03	26.932	113.2	0.634
450	4.46	34.04	26.997	107.0	0.692
500	4.04	34.08	27.073	99.8	0.745
550	4.20	34.15	27.112	96.1	0.797
600	4.28	34.22	27.159	91.6	0.846
650	3.87	34.22	27.202	87.6	0.894
700	3.60	34.24	27.245	83.5	0.939
750	3.38	34.25	27.274	80.8	0.983
800	3.32	34.30	27.319	76.4	1.025
850	3.15	34.32	27.351	73.4	1.066
900	3.09	34.36	27.389	69.9	1.105
950	3.02	34.38	27.411	67.8	1.142
1000	2.89	34.40	27.439	65.1	1.179
1100	2.75	34.43	27.475	61.7	1.249
1200	2.58	34.46	27.514	58.0	1.315
1300	2.45	34.48	27.541	55.5	1.379
1400	2.33	34.51	27.575	52.2	1.440
1500	2.22	34.53	27.600	49.9	1.498
1600	2.157	34.553	27.623	47.6	1.554
1700	2.058	34.574	27.648	45.3	1.608
1800	1.985	34.585	27.663	43.9	1.661
1900	1.925	34.597	27.677	42.6	1.712
2000	1.863	34.607	27.690	41.4	1.762
2100	1.791	34.619	27.705	39.9	1.811
2200	1.752	34.627	27.714	39.0	1.859
2300	1.704	34.636	27.725	38.0	1.906
2400	1.667	34.642	27.733	37.3	1.952
2500	1.630	34.648	27.740	36.6	1.997
2600	1.608	34.653	27.746	36.0	2.043
2700	1.582	34.658	27.752	35.5	2.087
2800	1.555	34.663	27.758	34.9	2.132
2900	1.530	34.666	27.762	34.5	2.176
3000	1.525	34.668	27.764	34.3	2.220
3100	1.514	34.669	27.765	34.2	2.264
3200	1.500	34.672	27.769	33.9	2.308
3300	1.491	34.675	27.772	33.6	2.352
3400	1.494	34.675	27.772	33.6	2.396
3500	1.490	34.679	27.775	33.3	2.440
3600	1.475	34.680	27.777	33.1	2.484
3700	1.475	34.680	27.777	33.1	2.528
3800	1.471	34.682	27.779	32.9	2.573
3900	1.463	34.684	27.781	32.7	2.617
4000	1.465	34.685	27.782	32.6	2.662
4100	1.471	34.685	27.781	32.7	2.706
4200	1.469	34.686	27.782	32.6	2.752
4300	1.468	34.686	27.782	32.6	2.797
4400	1.473	34.688	27.784	32.5	2.842
4500	1.478	34.688	27.783	32.5	2.888
4600	1.485	34.688	27.783	32.5	2.934
4700	1.489	34.689	27.783	32.5	2.981
4800	1.496	34.689	27.783	32.5	3.027
4900	1.504	34.689	27.782	32.6	3.074
5000	1.511	34.690	27.782	32.6	3.122
5100	1.521	34.690	27.782	32.6	3.170
5200	1.532	34.691	27.782	32.6	3.218
5300	1.542	34.691	27.781	32.7	3.267
5400	1.553	34.691	27.780	32.8	3.316
5500	1.565	34.691	27.779	32.9	3.365
5600	1.577	34.692	27.779	32.9	3.415
5700	1.587	34.692	27.779	32.9	3.466
5800	1.601	34.693	27.778	33.0	3.517
5900	1.612	34.694	27.778	33.0	3.568

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 53.6N	144 58.1E	04/27/76	1039 GMT

Z	T	S	SIGMA T	DT	DD
0	19.38	34.75	24.752	320.3	0.000
10	19.35	34.74	24.752	320.3	0.032
20	19.30	34.74	24.765	319.0	0.064
30	19.30	34.74	24.765	319.0	0.096
40	19.30	34.75	24.773	318.3	0.128
50	19.27	34.75	24.780	317.6	0.160
75	18.51	34.72	24.950	301.4	0.238
100	17.78	34.73	25.138	283.5	0.312
125	17.19	34.73	25.281	270.0	0.382
150	16.41	34.71	25.449	254.0	0.448
175	16.05	34.69	25.517	247.5	0.512
200	15.58	34.68	25.616	238.1	0.575
225	15.13	34.65	25.693	230.8	0.635
250	14.54	34.67	25.759	224.5	0.693
275	13.74	34.55	25.913	209.9	0.749
300	12.57	34.50	26.110	191.1	0.801
350	10.57	34.31	26.335	169.8	0.896
400	6.98	33.78	26.484	155.7	0.980
450	6.01	33.80	26.626	142.2	1.058
500	5.72	33.92	26.757	129.8	1.129
550	4.74	33.85	26.816	124.2	1.195
600	4.14	33.88	26.905	115.8	1.258
650	4.35	34.00	26.978	108.9	1.317
700	4.09	34.06	27.052	101.8	1.372
750	4.46	34.18	27.108	96.5	1.425
800	4.15	34.23	27.181	89.6	1.475
850	4.06	34.27	27.222	85.7	1.523
885	3.92	34.29	27.252	82.8	1.555

RV THOMAS WASHINGTON INDOPAC LEG I 95

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34 58.5N	144 00.5E	4/27/76	1851 2304 GMT	5717M		27KT	2	49

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	17.61	34.733	5.86	0.09	0.6	0.00	0.0	279.4	0	17.61	34.733	5.86	25.182	279.4	0.000
11	17.59	34.733	5.88	0.09	0.6	0.00	0.0	276.9	10	17.59	34.733	5.88	25.186	279.0	0.028
21	17.58	34.740	5.87	0.08	0.6	0.00	0.1	278.2	20	17.58	34.741	5.87	25.194	278.2	0.056
26	17.60	34.740	5.87	0.07	0.5	0.00	0.3	278.6	30	17.59	34.742	5.86	25.193	278.3	0.084
50	17.53	34.745	5.81	0.07	0.5	0.03	0.3	276.6	50	17.53	34.745	5.81	25.211	276.6	0.140
75	17.31	34.749	5.59	0.12	2.2	0.34	1.0	271.3	75	17.31	34.749	5.59	25.267	271.3	0.209
99	17.24	34.755	5.50	0.10	2.6	0.60	1.5	269.3	100	17.24	34.755	5.50	25.289	269.2	0.277
124	17.19	34.755	5.51	0.12	2.8	0.67	1.6	268.1	125	17.19	34.755	5.51	25.301	268.1	0.345
149	17.11	34.756	5.45	0.17	4.0	0.19	2.8	266.3	150	17.11	34.756	5.45	25.321	266.2	0.413
197	16.91	34.751	5.34	0.21	3.1	0.36	1.7	262.1	200	16.90	34.750	5.34	25.366	261.9	0.548
244	16.77	34.748	5.34	0.20	3.9	0.11	2.4	259.2	250	16.76	34.748	5.35	25.397	259.0	0.681
292	16.67	34.744	5.40	0.20	4.1	0.05	2.4	257.2	300	16.67	34.746	5.37	25.417	257.0	0.815
388	16.23	34.727	4.89	0.36	6.1	0.03	6.2	248.8	400	16.07	34.716	4.82	25.532	246.0	1.077
481	14.50	34.601	4.36	0.73	13.7	0.02	11.0	221.4	500	14.00	34.566	4.29	25.871	213.9	1.320
575	11.85	34.421	4.07	1.15	24.5	0.02	16.9	183.8	600	11.14	34.369	4.02	26.279	175.2	1.528
667	9.38	34.253	3.83	1.58	36.9	0.02	22.5	154.8	700	8.69	34.222	3.64	26.578	146.7	1.702
760	7.56	34.183	3.21	1.97	55.5		28.9	133.4	800	6.79	34.170	2.92	26.815	124.3	1.850
852	5.86	34.164	2.53	2.42	78.0	0.01	34.7	113.2	1000	4.58	34.197	1.79	27.108	95.9	2.089
939A	4.62	34.183	1.87	2.64	99.9		36.3	97.9	1200	3.70	34.371	1.38	27.339	74.7	2.277
945	4.83	34.207	1.91	2.60	97.4	0.01	39.2	98.3	1500	2.76	34.453	1.16	27.492	60.1	2.508
1137	3.97	34.342	1.49	2.83	120.0	0.00	42.0	79.4	1750	2.38	34.517	1.26	27.575	52.2	2.672
1138A	3.93	34.338	1.46	2.83	121.9		40.7	79.3	2000	2.09	34.573	1.60	27.643	45.7	2.817
1384A	3.01	34.422	1.14	3.00	146.1		41.6	64.5	2250	1.90	34.603	2.07	27.683	42.0	2.949
1631A	2.56	34.484	1.18	3.03	159.9		42.8	56.0	2500	1.77	34.625	2.48	27.710	39.3	3.074
1878A	2.22	34.548	1.40	3.00	167.8		42.2	48.5	2750	1.67	34.645	2.70	27.733	37.1	3.194
2125A	1.98	34.590	1.83	2.88	170.1		41.5	43.5	3000	1.60	34.656	2.94	27.748	35.8	3.310
2371A	1.83	34.611	2.29	2.72	167.8		40.3	40.8	3250	1.56	34.667	3.14	27.760	34.7	3.424
2618A	1.73	34.637	2.62	2.67	166.4		40.0	38.1	3500	1.52	34.677	3.27	27.770	33.7	3.537
2864A	1.63	34.650	2.76	2.65	165.7		38.8	36.4	3750	1.50	34.678	3.43	27.774	33.4	3.649
3108A	1.58	34.659	3.08	2.64	164.5		38.2	35.4	4000	1.48	34.681	3.52	27.777	33.1	3.762
3354A	1.54	34.671	3.17	2.63	162.4		37.7	34.2	4250	1.47	34.685	3.64	27.781	32.7	3.875
3598A	1.51	34.679	3.34	2.60	161.0		36.7	33.4	4500	1.48	34.687	3.66	27.782	32.6	3.990
3843A	1.49	34.677	3.47	2.53	159.6		36.2	33.4	4750	1.50	34.690	3.73	27.782	32.6	4.106
4086A	1.48	34.682	3.55	2.52	158.2		36.1	33.0	5000	1.52	34.691	3.82	27.782	32.6	4.224
4330A	1.47	34.686	3.67	2.52	156.6		34.8	32.6	5250	1.54	34.693	3.86	27.782	32.6	4.345
4576A	1.49	34.687	3.66	2.41	155.5		35.4	32.7	5500	1.57	34.694	3.88	27.781	32.7	4.468
4818A	1.507	34.690	3.76	2.50	152.8		34.9	32.5							
5061A	1.52	34.690	3.84	2.47	151.4		34.5	32.6							
5302A	1.545	34.693	3.86	2.45	150.5		34.3	32.6							
5543A	1.573	34.690	3.89	2.47	150.1		34.2	32.7							

RV THOMAS WASHINGTON INDOPAC LEG I 96

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 01.8N	142 57.3E	4/28/76	0515 GMT	5709M	300	12KT	2	040 10 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	17.66	34.742	5.78					279.9	0	17.66	34.742	5.78	25.177	279.9	0.000
11	17.61	34.742	5.79					278.7	10	17.61	34.743	5.79	25.188	278.8	0.028
22	17.59	34.741	5.79					278.3	20	17.59	34.742	5.79	25.193	278.3	0.056
31	17.58	34.740	5.79					278.2	30	17.58	34.741	5.79	25.194	278.2	0.084
51	17.49	34.739	5.75					276.2	50	17.50	34.740	5.75	25.214	276.3	0.139
76	17.25	34.750	5.44					269.9	75	17.26	34.750	5.45	25.279	270.1	0.208
100	17.21	34.758	5.45					268.4	100	17.21	34.758	5.45	25.297	268.4	0.276
125	17.07	34.755	5.37					265.4	125	17.07	34.755	5.37	25.328	265.4	0.344
150	16.99	34.749	5.36					264.1	150	16.99	34.749	5.36	25.343	264.1	0.411
201	16.83	34.741	5.24					261.0	200	16.83	34.742	5.24	25.374	261.1	0.545
249	16.69	34.737	5.15					258.2	250	16.69	34.738	5.15	25.405	258.2	0.679
298	16.59	34.741	5.23					255.7	300	16.59	34.742	5.22	25.432	255.6	0.811
398	15.92	34.695	4.69					244.4	400	15.89	34.694	4.68	25.555	243.9	1.072
496	14.19	34.573	4.27					217.2	500	14.11	34.570	4.25	25.849	216.0	1.315
597	11.96	34.426	3.99					185.4	600	11.87	34.419	3.99	26.182	184.3	1.529
694	9.04	34.208	4.00					152.9	700	8.88	34.197	3.99	26.529	151.4	1.711
793	6.73	34.058	3.65					131.8	800	6.60	34.055	3.59	26.750	130.4	1.864
890	5.22	34.052	2.71					114.2	1000	4.56	34.174	1.81	27.113	95.8	2.111
987	4.44	34.160	1.88					97.8	1200	3.47	34.329	1.18	27.328	75.6	2.301
1184	3.54	34.325	1.23					76.6							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 58.5N	144 00.5E	04/27/76	1722 GMT

Z	T	S	SIGMA T	DT	DD
0	17.65	34.75	25.185	279.1	0.000
10	17.61	34.74	25.187	278.9	0.028
20	17.46	34.74	25.224	275.4	0.056
30	17.40	34.75	25.246	273.3	0.083
40	17.39	34.74	25.241	273.8	0.111
50	17.37	34.75	25.253	272.6	0.138
75	17.26	34.76	25.287	269.4	0.206
100	17.22	34.76	25.297	268.5	0.274
125	17.14	34.75	25.308	267.4	0.342
150	17.03	34.76	25.342	264.2	0.410
175	16.96	34.76	25.358	262.6	0.477
200	16.85	34.75	25.377	260.8	0.544
225	16.75	34.75	25.400	258.6	0.610
250	16.68	34.75	25.417	257.0	0.677
275	16.63	34.75	25.428	255.9	0.743
300	16.56	34.74	25.437	255.1	0.809
350	16.48	34.74	25.456	253.3	0.941
400	16.07	34.72	25.535	245.8	1.072
450	15.21	34.65	25.675	232.5	1.198
500	14.11	34.58	25.859	215.0	1.316
550	12.40	34.46	26.112	190.9	1.425
600	11.12	34.37	26.283	174.7	1.523
650	9.84	34.28	26.438	160.1	1.613
700	8.58	34.21	26.587	145.9	1.696
750	7.38	34.18	26.742	131.2	1.772
800	6.26	34.15	26.870	119.0	1.840
850	5.59	34.16	26.962	110.3	1.903
900	5.16	34.18	27.029	103.9	1.961
950	4.78	34.23	27.113	96.1	2.016
1000	4.34	34.24	27.169	90.7	2.068
1100	3.95	34.33	27.281	80.1	2.163
1200	3.43	34.36	27.357	72.9	2.249
1300	3.17	34.40	27.413	67.6	2.328
1400	2.93	34.44	27.467	62.5	2.402
1500	2.66	34.46	27.507	58.7	2.472
1600	2.558	34.486	27.536	55.9	2.538
1700	2.428	34.510	27.567	53.0	2.601
1800	2.285	34.536	27.599	49.9	2.662
1900	2.188	34.553	27.621	47.9	2.720
2000	2.093	34.574	27.645	45.6	2.775
2100	2.007	34.590	27.665	43.7	2.829
2200	1.941	34.602	27.680	42.3	2.881
2300	1.870	34.616	27.696	40.7	2.932
2400	1.819	34.625	27.708	39.7	2.982
2500	1.761	34.633	27.718	38.6	3.030
2600	1.727	34.640	27.726	37.9	3.078
2700	1.686	34.648	27.736	37.0	3.125
2800	1.659	34.652	27.741	36.5	3.172
2900	1.626	34.657	27.748	35.9	3.218
3000	1.606	34.662	27.753	35.4	3.264
3100	1.582	34.666	27.758	34.9	3.309
3200	1.559	34.669	27.762	34.5	3.354
3300	1.544	34.671	27.765	34.2	3.399
3400	1.531	34.674	27.768	33.9	3.444
3500	1.521	34.676	27.770	33.7	3.489
3600	1.517	34.677	27.772	33.6	3.534
3700	1.505	34.680	27.775	33.3	3.579
3800	1.502	34.681	27.776	33.2	3.624
3900	1.491	34.684	27.779	32.9	3.669
4000	1.485	34.685	27.780	32.8	3.713
4100	1.486	34.685	27.780	32.8	3.759
4200	1.485	34.686	27.781	32.7	3.804
4300	1.482	34.687	27.782	32.6	3.849
4400	1.491	34.689	27.783	32.5	3.895
4500	1.499	34.688	27.782	32.6	3.941
4600	1.499	34.689	27.783	32.6	3.988
4700	1.503	34.690	27.783	32.5	4.034
4800	1.505	34.689	27.782	32.6	4.081
4900	1.510	34.690	27.783	32.6	4.128
5000	1.518	34.691	27.783	32.5	4.176
5100	1.524	34.692	27.783	32.5	4.224
5200	1.536	34.692	27.782	32.6	4.272
5300	1.546	34.692	27.781	32.7	4.320
5400	1.556	34.692	27.781	32.7	4.370
5500	1.567	34.693	27.781	32.7	4.419
5572	1.575	34.694	27.781	32.7	4.455

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 01.8N	142 57.3E	04/28/76	0426 GMT

Z	T	S	SIGMA T	DT	DD
0	17.64	34.74	25.180	279.5	0.000
10	17.62	34.74	25.185	279.1	0.028
20	17.59	34.74	25.192	278.4	0.056
30	17.57	34.74	25.197	277.9	0.084
40	17.54	34.75	25.212	276.5	0.112
50	17.39	34.74	25.241	273.8	0.139
75	17.23	34.76	25.294	268.7	0.208
100	17.15	34.76	25.313	266.9	0.275
125	17.04	34.76	25.340	264.4	0.343
150	16.96	34.76	25.358	262.6	0.410
175	16.88	34.75	25.370	261.5	0.476
200	16.82	34.75	25.384	260.2	0.543
225	16.76	34.75	25.398	258.8	0.610
250	16.70	34.74	25.404	258.2	0.676
275	16.64	34.74	25.418	256.9	0.743
300	16.58	34.75	25.440	254.8	0.809
350	16.31	34.73	25.488	250.3	0.940
400	16.00	34.71	25.543	245.0	1.070
450	15.14	34.64	25.683	231.8	1.195
500	14.15	34.58	25.850	215.9	1.314
550	12.86	34.48	26.038	198.1	1.424
600	11.87	34.42	26.183	184.2	1.527
650	10.71	34.32	26.318	171.4	1.623
700	9.07	34.21	26.510	153.2	1.711
750	7.70	34.11	26.641	140.8	1.791
800	6.54	34.06	26.763	129.2	1.865
850	5.63	34.04	26.863	119.7	1.932
900	5.11	34.06	26.940	112.4	1.995
950	4.77	34.14	27.043	102.7	2.054
1000	4.32	34.17	27.115	95.8	2.108
1100	3.93	34.25	27.220	85.9	2.208
1200	3.51	34.32	27.317	76.7	2.299

RV THOMAS WASHINGTON INDOPAC LEG I 97

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 03. N	142 01.4E	4/28/76	1243 1736 GMT	6984M	170	11KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	18.30	34.767	5.55	0.15	3.3	0.00	0.0	293.0	0	18.30	34.767	5.55	25.039	293.0	0.000
10	18.30	34.767	5.39	0.13	3.3	0.00	0.0	293.0	10	18.30	34.767	5.39	25.039	293.0	0.029
21	18.22	34.767	5.52	0.14	3.3	0.00	0.0	291.1	20	18.23	34.767	5.50	25.056	291.4	0.059
30	18.15	34.767	5.56	0.08	3.3	0.00	0.0	289.5	30	18.15	34.767	5.56	25.076	289.5	0.088
39	18.09	34.766	5.57	0.11	3.3	0.00	0.0	288.1	50	17.66	34.758	5.63	25.190	278.6	0.145
48	17.77	34.761	5.63	0.10	3.3	0.00	0.0	281.0	75	16.86	34.740	5.56	25.367	261.8	0.213
58	17.21	34.747	5.65	0.09	3.3	0.00	0.0	269.2	100	16.72	34.739	5.43	25.398	258.8	0.279
72	16.89	34.744	5.57	0.18	9	0.29	0.8	262.2	125	16.63	34.736	5.19	25.416	257.1	0.344
95	16.74	34.739	5.49	0.20	4.2	0.55	0.5	259.2	150	16.56	34.738	5.12	25.435	255.3	0.409
118	16.66	34.736	4.79U	0.20	3.9	0.55	1.6	257.6	200	16.48	34.741	5.39	25.456	253.3	0.539
141	16.58	34.735	5.07	0.20	4.2	0.43	1.9	255.9	250	16.35	34.729	5.11	25.477	251.3	0.669
185	16.49	34.740	5.40	0.20	4.4	0.14	2.8	253.5	300	15.84	34.692	4.64	25.565	242.9	0.796
229	16.43	34.736	5.36	0.20	5.2	0.20	3.0	252.5	400	14.48	34.604	4.36	25.797	220.9	1.038
272	16.21	34.717	4.82	0.40	8.1	0.00	5.6	249.1	500	12.91	34.488	4.22	26.033	198.5	1.260
358	14.94	34.634	4.45	0.58	12.2	0.00	9.4	228.0	600	10.14	34.310	3.67	26.409	162.8	1.454
443	13.96	34.563	4.29	0.81	16.8	0.00	11.8	213.3	700	7.18	34.211	2.83	26.794	126.3	1.610
530	12.25	34.442	4.15	1.09	23.2	0.00	15.2	189.5	800	5.28	34.211	2.10	27.039	103.0	1.735
711	6.86	34.206	2.73	2.17	68.7	0.00	30.3	122.4	1000	3.84	34.259	1.49	27.235	84.4	1.940
902	4.28	34.222	1.66	2.79	109.5	0.00	38.9	91.5	1200	3.29	34.365	1.21	27.373	71.3	2.113
936A	4.12	34.220	1.65	2.81	114.1		38.9	90.0	1500	2.59	34.476	1.17	27.526	56.9	2.331
1099	3.51	34.336	1.23	3.00	132.0		41.0	75.5	1750	2.29	34.530	1.25	27.594	50.4	2.487
1186A	3.33	34.359	1.21	2.95	138.0		41.4	72.1	2000	2.04	34.580	1.58	27.653	44.8	2.628
1439A	2.69	34.459	1.17	3.01	157.7		42.4	59.0	2250	1.88	34.610	1.89	27.690	41.3	2.758
1683A	2.37	34.514	1.17	3.00	167.0		42.8	52.2	2500	1.76	34.631	2.35	27.716	38.8	2.881
1932A	2.10	34.568	1.51	2.93	172.0		41.8	46.1	2750	1.65	34.646	2.77	27.736	37.0	3.000
2180A	1.92	34.602	1.76	2.88	171.2		40.5	42.2	3000	1.59	34.658	3.01	27.751	35.5	3.115
2428A	1.79	34.626	1.62U	2.70	172.2		39.5	39.4	3250	1.55	34.668	3.13	27.761	34.6	3.229
2676A	1.68	34.641	2.67	2.65	167.9		38.9	37.5	3500	1.51	34.674	3.22	27.770	33.8	3.341
2923A	1.60	34.654	2.95	2.69	165.3		37.8	35.9	3750	1.49	34.682	3.33	27.777	33.0	3.453
3170A	1.56	34.665	3.10	2.63	164.8		37.6	34.8	4000	1.48	34.685	3.50	27.780	32.8	3.564
3415A	1.52	34.671	3.19	2.60	162.1		37.0	34.1	4250	1.48	34.686	3.53	27.781	32.7	3.678
3709A	1.49	34.681	3.30	2.57	160.9		36.4	33.1	4500	1.49	34.689	3.56	27.783	32.5	3.792
4003A	1.48	34.684	3.50	2.52	158.7		36.2	32.8	4750	1.50	34.690	3.67	27.782	32.6	3.908
4296A	1.48	34.686	3.02U	2.52	156.8		35.9	32.7	5000	1.52	34.690	3.78	27.781	32.8	4.026
4586A	1.49	34.690	3.57	2.48	154.9		35.5	32.4	5250	1.55	34.691	3.79	27.780	32.8	4.147
4878A	1.51	34.688	3.75	2.48	153.7		34.8	32.7	5500	1.58	34.693	3.68	27.779	32.9	4.271
5167A	1.541	34.690	3.83	2.50	153.1		35.0	32.8	5750	1.61	34.693	3.71	27.777	33.1	4.398
5454A	1.577	34.692	3.68	2.49	151.3		34.7	32.9							
5740A	1.610	34.692	3.70	2.47	150.5		34.6	33.1							
5834A	1.622	34.695	3.84	2.47	150.0		34.5	33.0							

RV THOMAS WASHINGTON INDOPAC LEG I 98

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 02.4N	140 59.4E	4/29/76	0927 GMT	2309M	220	3KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	20.59	34.705	5.29					353.8	0	20.59	34.705	5.29	24.400	353.8	0.000
10	20.57	34.707	5.28					353.2	10	20.57	34.707	5.28	24.407	353.2	0.035
20	20.54	34.709	5.23					352.3	20	20.54	34.709	5.23	24.417	352.3	0.071
31	20.56	34.711	5.18					352.6	30	20.56	34.711	5.18	24.413	352.6	0.106
51	20.38	34.713	5.16					347.9	50	20.39	34.713	5.16	24.458	348.3	0.176
76	19.92	34.717	5.10					336.0	75	19.94	34.717	5.10	24.581	336.6	0.263
99	19.53	34.723	5.03					325.9	100	19.51	34.724	5.03	24.697	325.5	0.346
123	19.20	34.725	5.06					317.7	125	19.19	34.727	5.05	24.782	317.4	0.427
146	19.04	34.734	4.96					313.1	150	18.91	34.732	4.93	24.858	310.2	0.507
190	17.31	34.701	4.62					274.8	200	16.97	34.699	4.60	25.308	267.3	0.654
231	16.10	34.690	4.55					248.6	250	15.76	34.678	4.49	25.571	242.4	0.785
271	15.41	34.649	4.40					236.8	300	14.76	34.610	4.25	25.742	226.1	0.906
343	13.55	34.536	3.98					207.2	400	11.43	34.430	3.56	26.273	175.7	1.116
407	11.18	34.419	3.51					172.1	500	8.40	34.304	2.98	26.688	136.3	1.282
464	10.03	34.363	3.27					157.0	600	6.64	34.261	2.36	26.947	111.7	1.414
515	7.72	34.287	2.85					127.9	700	5.19	34.268	2.02	27.094	97.9	1.527
562	6.71	34.259	2.47					116.5							
604	6.3 K	34.262	2.36					111.3							
643	6.0 K	34.264	2.30					107.3							
717	4.87	34.267	1.89					94.2							

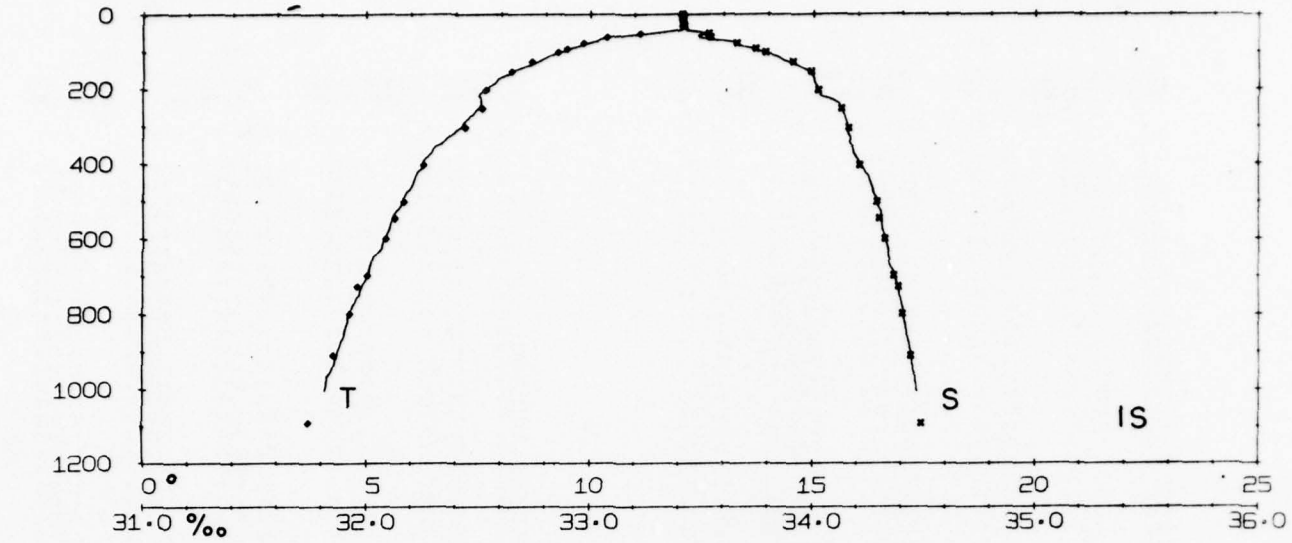
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 03. N	142 01.4E	04/28/76	1026 GMT

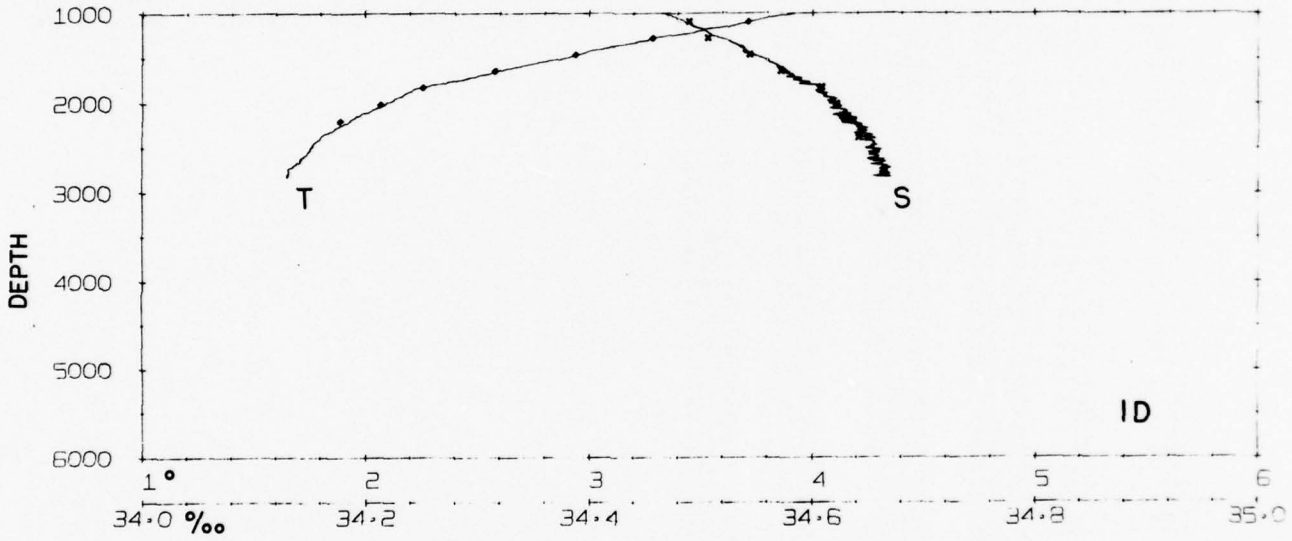
Z	T	S	SIGMA T	DT	DD
0	18.53	34.76	24.976	299.0	0.000
10	18.40	34.75	25.001	296.6	0.030
20	17.82	34.74	25.136	283.7	0.059
30	17.61	34.73	25.180	279.6	0.087
40	17.53	34.74	25.207	277.0	0.115
50	17.38	34.77	25.266	271.4	0.143
75	17.29	34.77	25.287	269.3	0.211
100	17.08	34.76	25.330	265.3	0.278
125	16.93	34.76	25.366	261.9	0.345
150	16.72	34.75	25.407	257.9	0.411
175	16.61	34.75	25.433	255.5	0.477
200	16.55	34.75	25.447	254.1	0.542
225	16.50	34.75	25.459	253.0	0.607
250	16.45	34.74	25.463	252.7	0.672
275	16.38	34.74	25.479	251.1	0.737
300	16.24	34.73	25.504	248.8	0.802
350	15.67	34.69	25.603	239.3	0.929
400	14.99	34.64	25.716	228.6	1.051
450	14.19	34.58	25.842	216.7	1.168
500	13.03	34.50	26.019	199.8	1.279
550	12.10	34.45	26.163	186.2	1.382
600	10.80	34.38	26.349	168.5	1.477
650	8.95	34.28	26.584	146.2	1.563
700	7.55	34.23	26.757	129.8	1.638
750	6.31	34.24	26.935	112.9	1.704
800	5.40	34.22	27.033	103.6	1.763
850	4.56	34.16	27.082	99.0	1.818
900	4.34	34.21	27.145	93.0	1.870
950	3.98	34.24	27.207	87.1	1.919
1000	3.77	34.29	27.268	81.4	1.966
1100	3.51	34.33	27.325	75.9	2.053
1200	3.16	34.38	27.398	69.0	2.133
1300	2.89	34.43	27.463	62.9	2.208
1400	2.72	34.45	27.494	59.9	2.277
1500	2.54	34.48	27.533	56.2	2.344
1600	2.413	34.509	27.567	53.0	2.407
1700	2.301	34.530	27.593	50.5	2.467
1800	2.192	34.552	27.620	48.0	2.525
1900	2.116	34.567	27.638	46.3	2.581
2000	2.040	34.582	27.656	44.6	2.635
2100	1.971	34.595	27.672	43.1	2.688
2200	1.899	34.608	27.688	41.5	2.739
2300	1.836	34.618	27.701	40.3	2.789
2400	1.788	34.628	27.712	39.2	2.838
2500	1.741	34.638	27.724	38.1	2.886
2600	1.703	34.642	27.730	37.6	2.933
2700	1.669	34.649	27.738	36.8	2.980
2800	1.642	34.653	27.743	36.3	3.026
2900	1.608	34.658	27.750	35.7	3.072
3000	1.586	34.663	27.755	35.1	3.118
3100	1.565	34.666	27.759	34.8	3.163
3200	1.545	34.669	27.763	34.4	3.208
3300	1.531	34.672	27.767	34.1	3.252
3400	1.524	34.675	27.769	33.8	3.297
3500	1.513	34.677	27.772	33.6	3.342
3600	1.507	34.678	27.773	33.5	3.386
3700	1.497	34.680	27.775	33.2	3.431
3800	1.492	34.681	27.777	33.1	3.476
3900	1.488	34.683	27.779	32.9	3.521
4000	1.483	34.684	27.780	32.8	3.566
4100	1.485	34.685	27.780	32.8	3.611
4200	1.484	34.686	27.781	32.7	3.656
4300	1.483	34.687	27.782	32.6	3.702
4400	1.487	34.688	27.783	32.6	3.747
4500	1.490	34.688	27.782	32.6	3.793
4600	1.493	34.689	27.783	32.5	3.840
4700	1.498	34.689	27.783	32.6	3.886
4800	1.506	34.691	27.784	32.5	3.933
4900	1.514	34.690	27.782	32.6	3.980
5000	1.524	34.690	27.782	32.7	4.028
5100	1.536	34.691	27.781	32.7	4.076
5200	1.545	34.691	27.781	32.7	4.124
5300	1.557	34.691	27.780	32.8	4.173
5400	1.568	34.691	27.779	32.9	4.223
5500	1.581	34.692	27.779	32.9	4.272
5600	1.590	34.692	27.778	33.0	4.323
5700	1.603	34.692	27.777	33.1	4.373
5800	1.617	34.693	27.777	33.1	4.424
5862	1.626	34.693	27.776	33.1	4.456

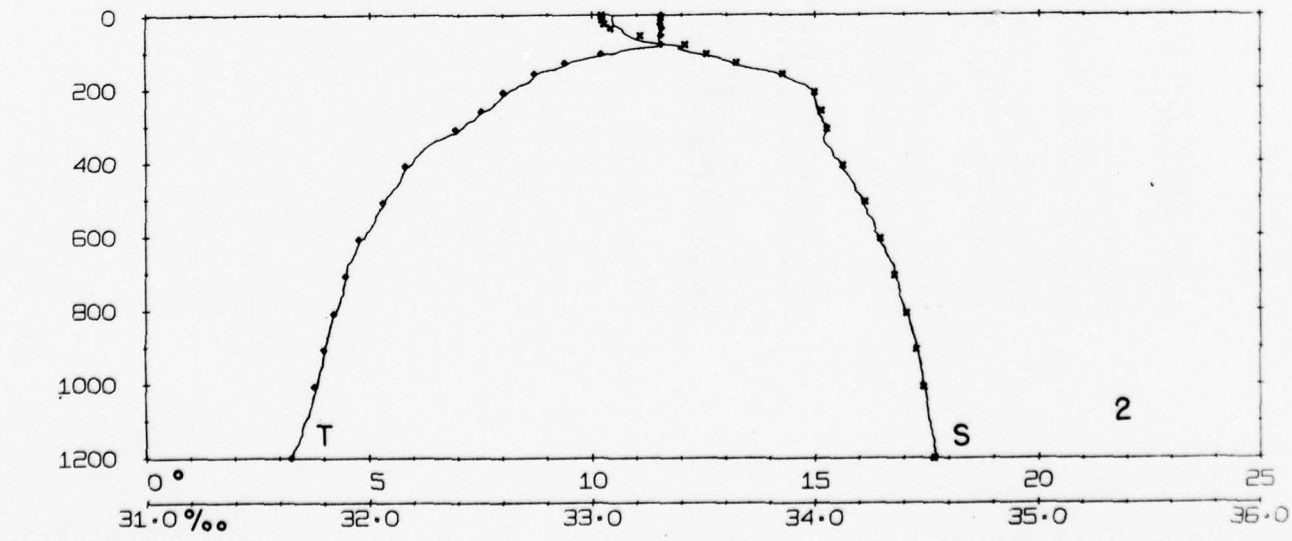
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 02.4N	140 59.4E	04/29/76	0838 GMT

Z	T	S	SIGMA T	DT	DD
0	20.56	34.70	24.404	353.4	0.000
10	20.57	34.71	24.409	353.0	0.035
20	20.57	34.72	24.417	352.2	0.071
30	20.54	34.73	24.432	350.7	0.106
40	20.45	34.73	24.456	348.4	0.141
50	20.37	34.73	24.478	346.4	0.176
75	20.11	34.73	24.547	339.9	0.262
100	19.50	34.73	24.706	324.7	0.346
125	19.18	34.74	24.796	316.1	0.427
150	18.95	34.74	24.855	310.5	0.507
175	18.38	34.73	24.990	297.6	0.584
200	17.00	34.67	25.280	270.0	0.656
225	16.12	34.68	25.493	249.8	0.723
250	15.78	34.67	25.563	243.2	0.787
275	15.29	34.65	25.657	234.2	0.848
300	14.83	34.62	25.735	226.8	0.908
350	13.43	34.53	25.961	205.3	1.020
400	11.33	34.40	26.268	176.1	1.120
450	10.13	34.36	26.451	158.8	1.209
500	8.12	34.25	26.688	136.3	1.287
550	6.73	34.25	26.887	117.5	1.355
600	6.33	34.26	26.948	111.7	1.416
650	6.03	34.26	26.986	108.0	1.476
700	4.99	34.26	27.112	96.1	1.531
750	4.60	34.29	27.180	89.6	1.581
800	4.40	34.32	27.226	85.3	1.629
850	4.09	34.34	27.275	80.7	1.674

INDOPAC LEG I







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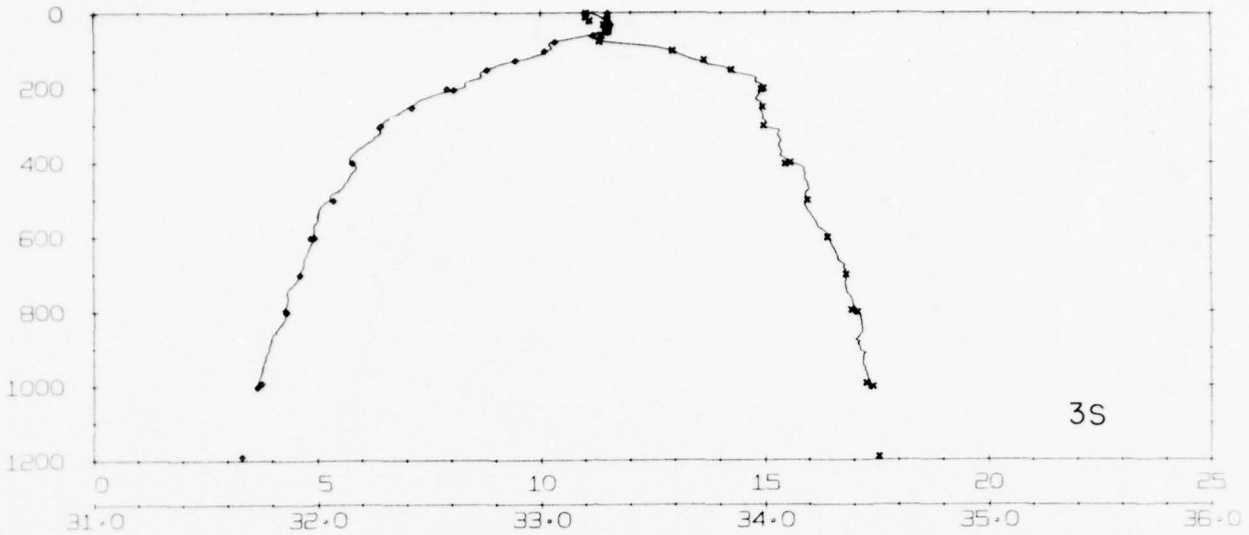

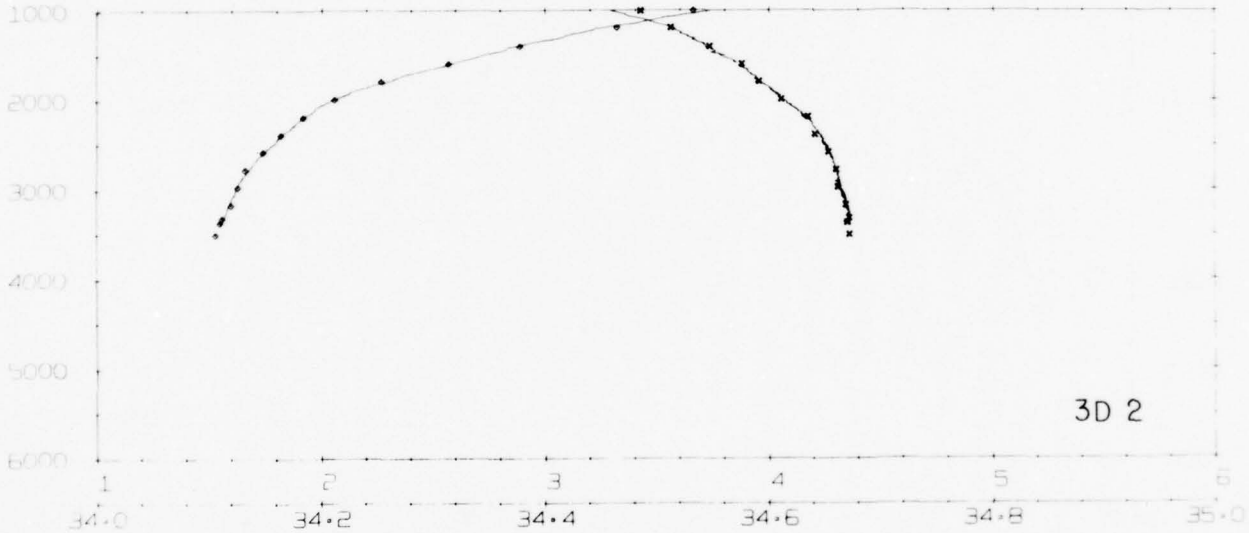

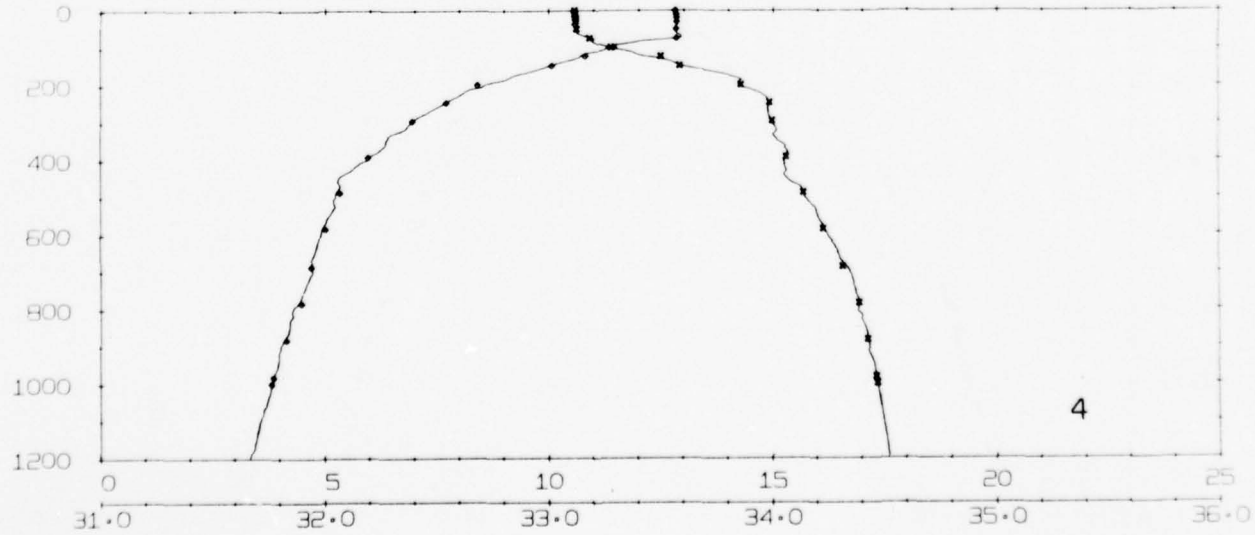

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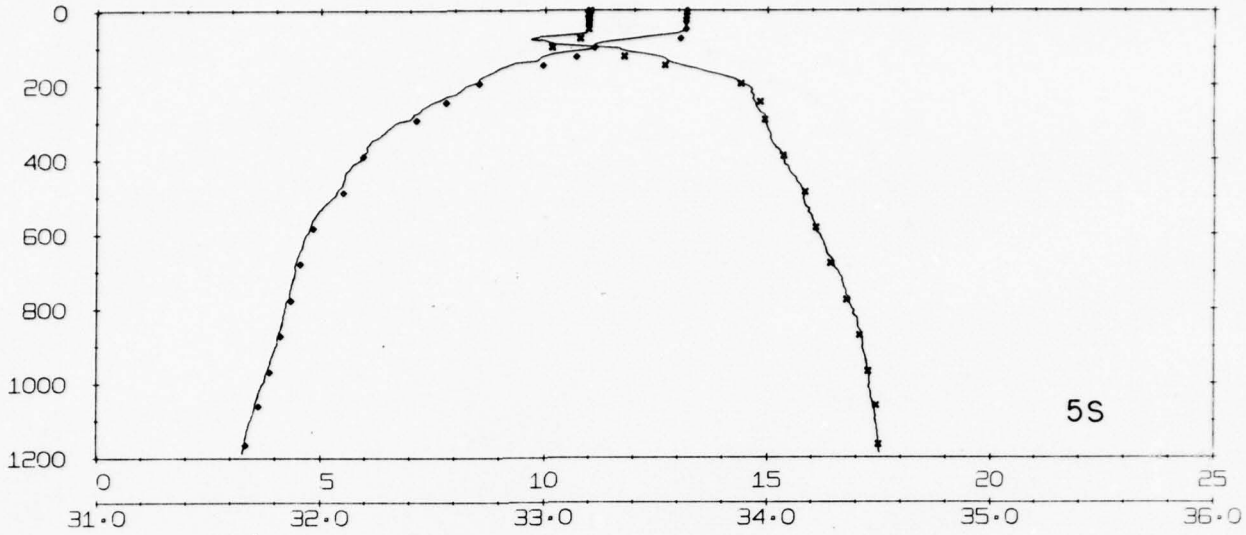

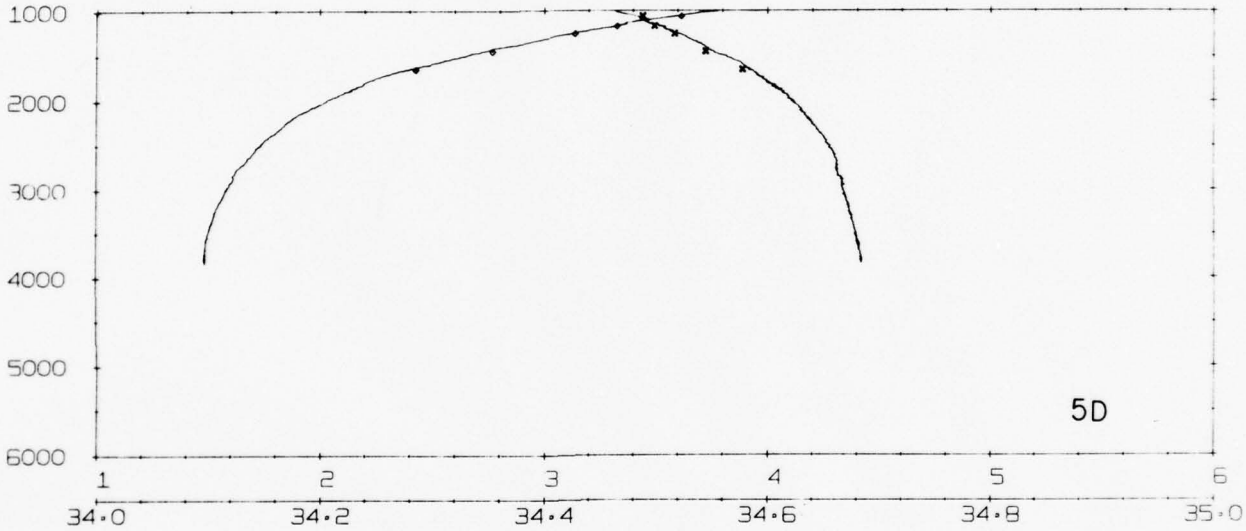

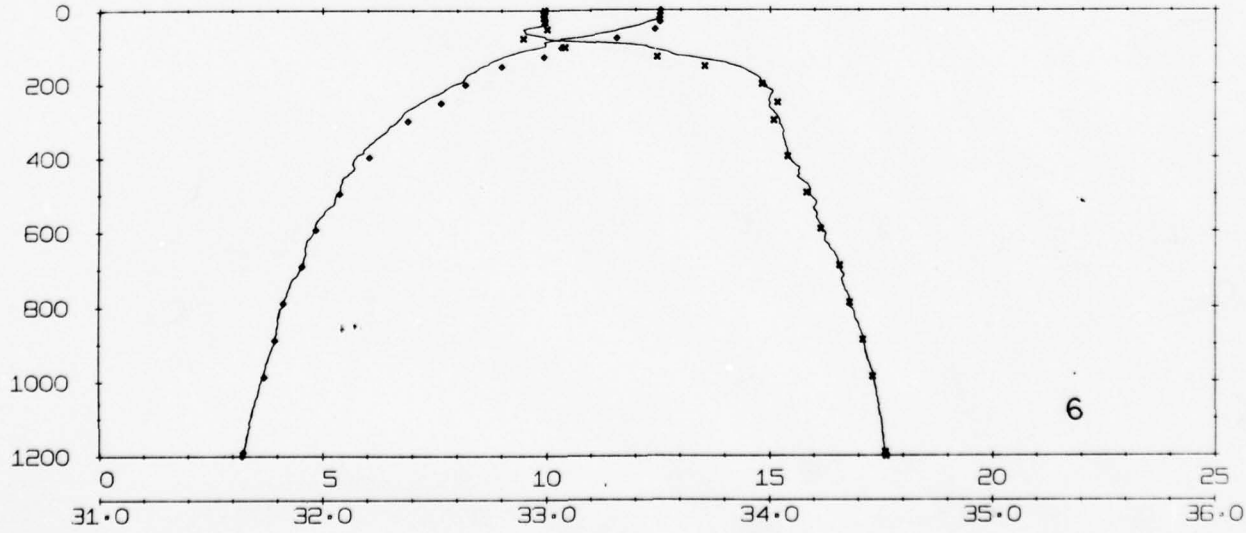

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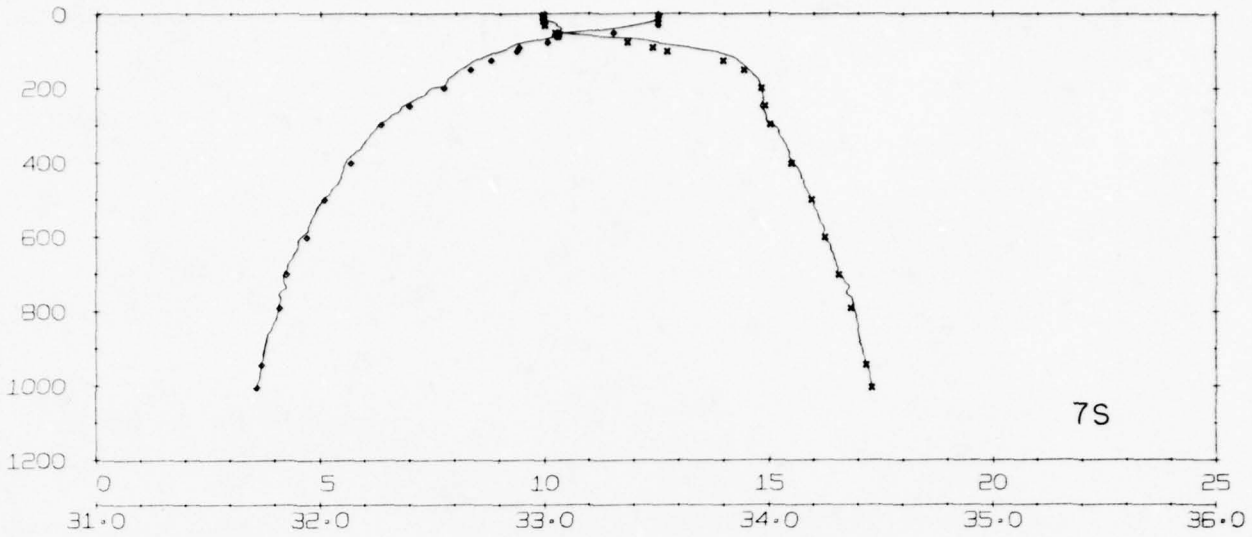

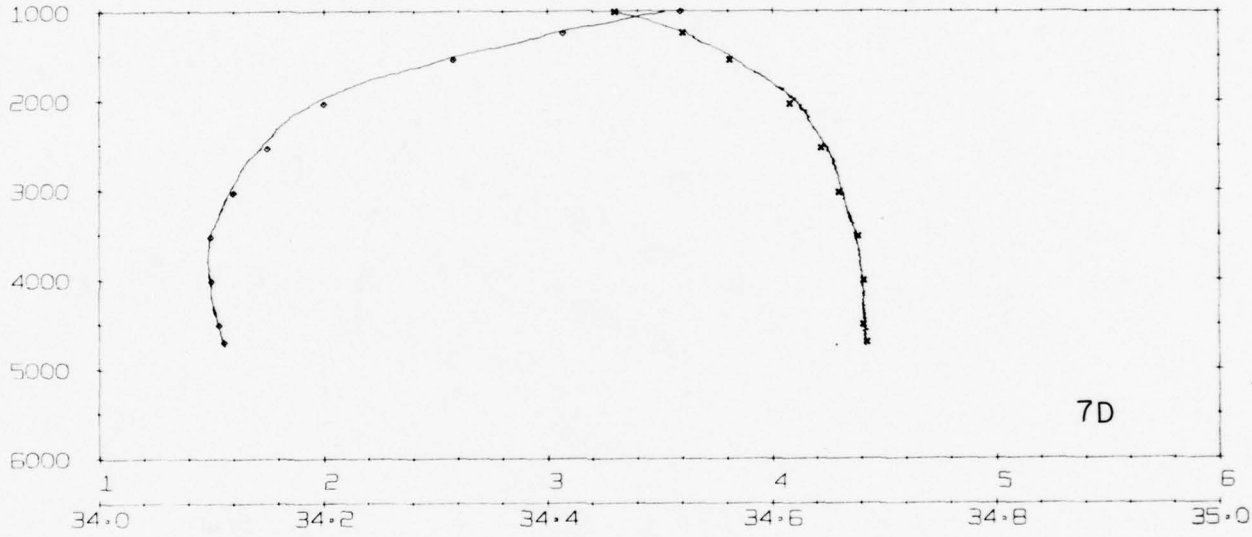

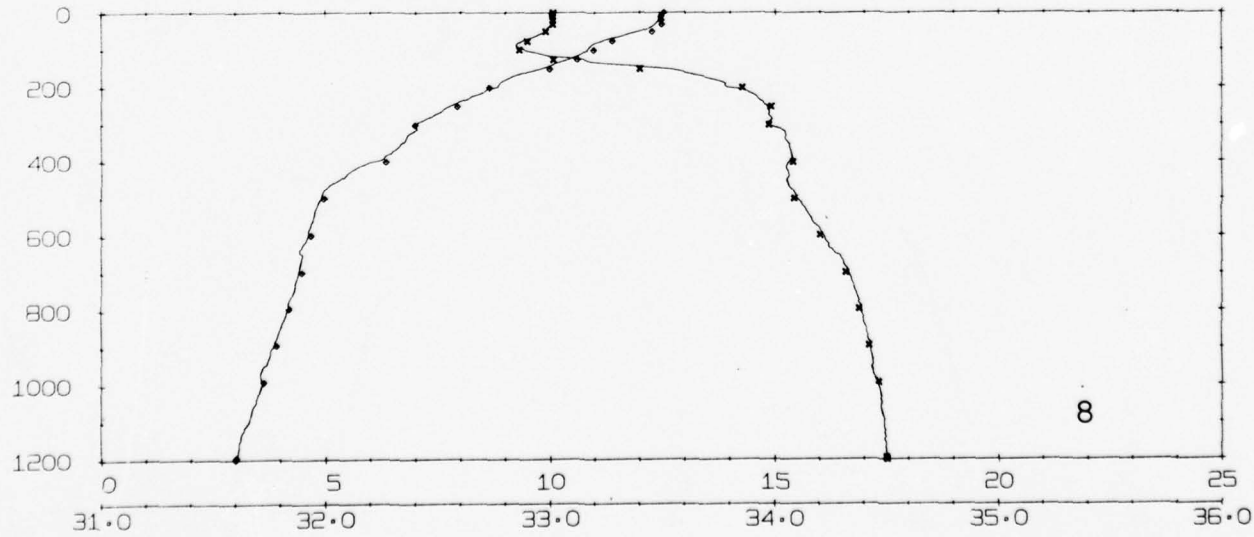

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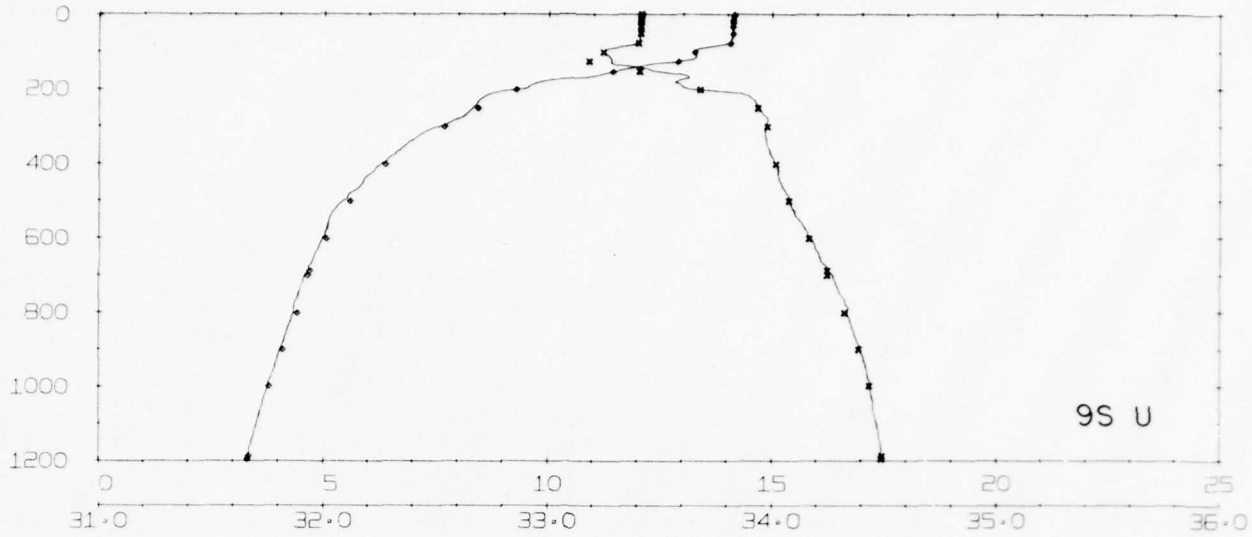

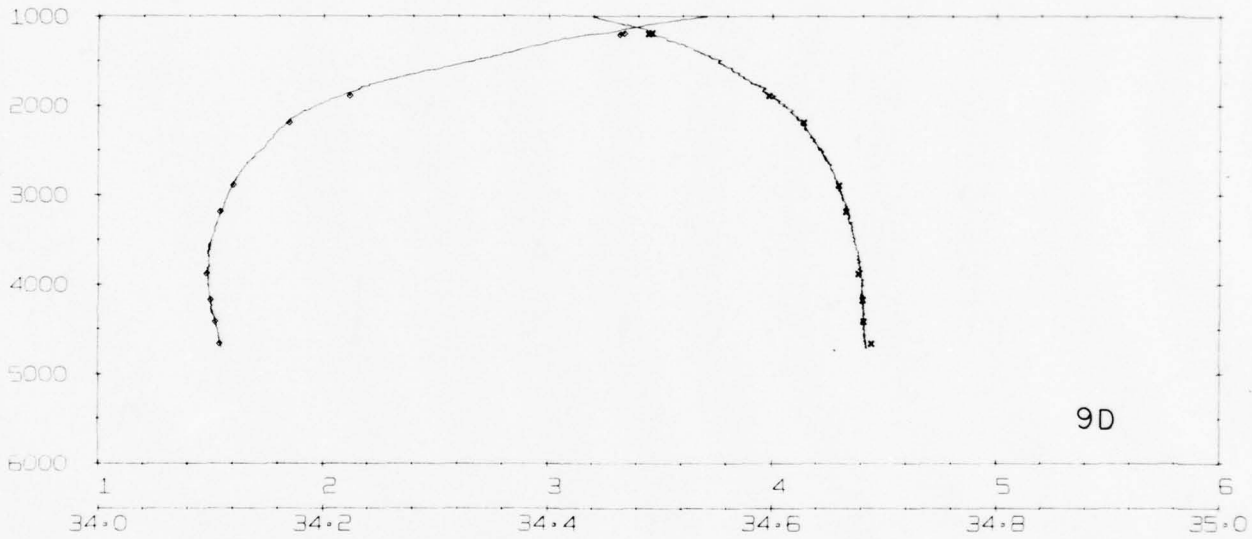

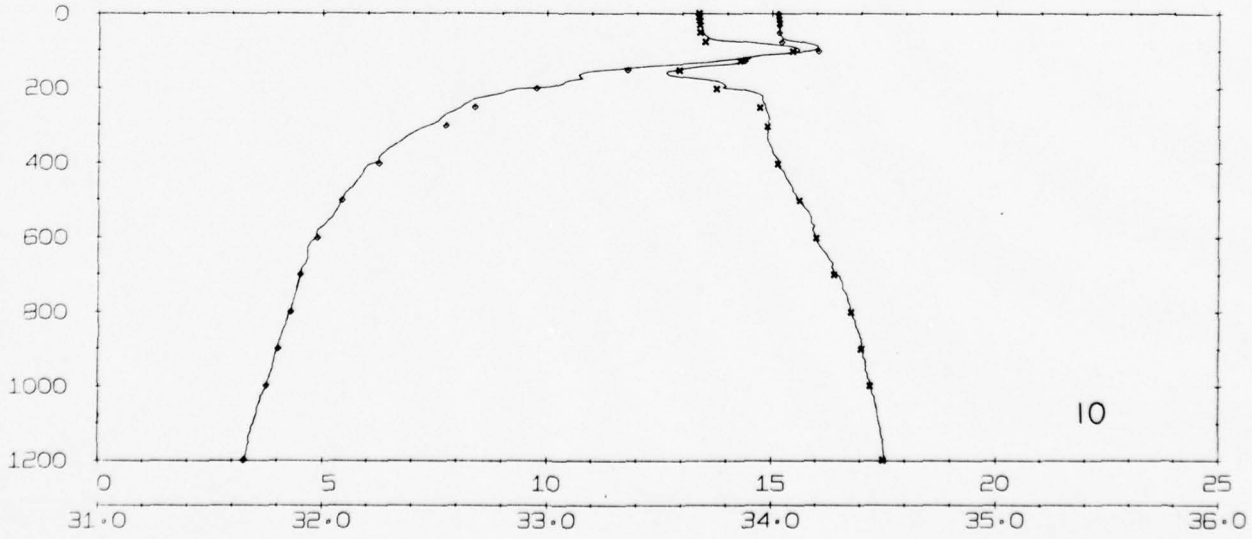

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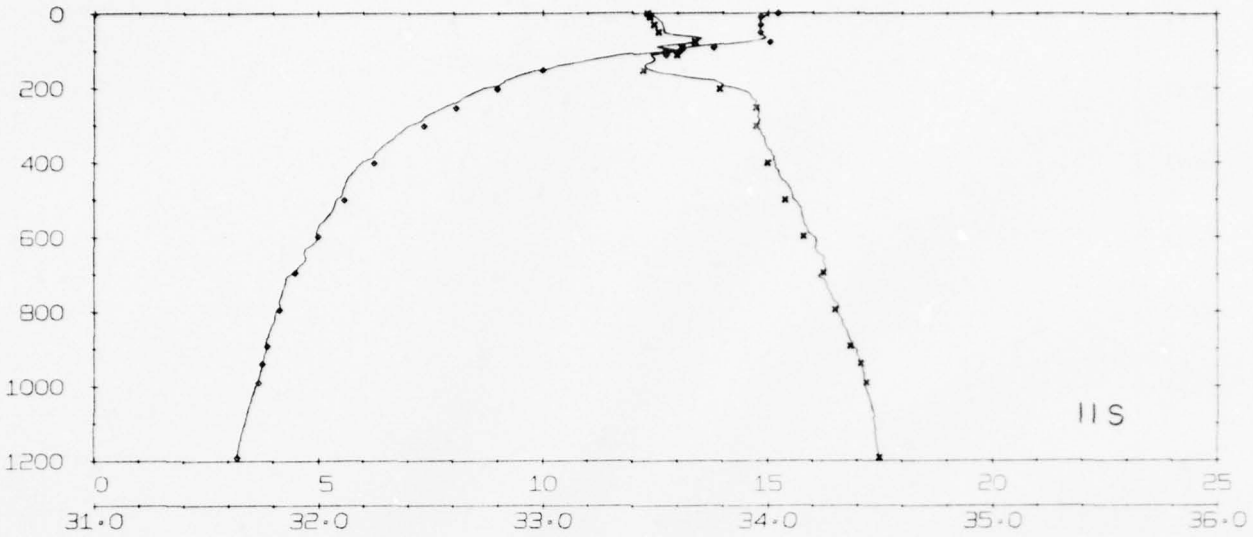

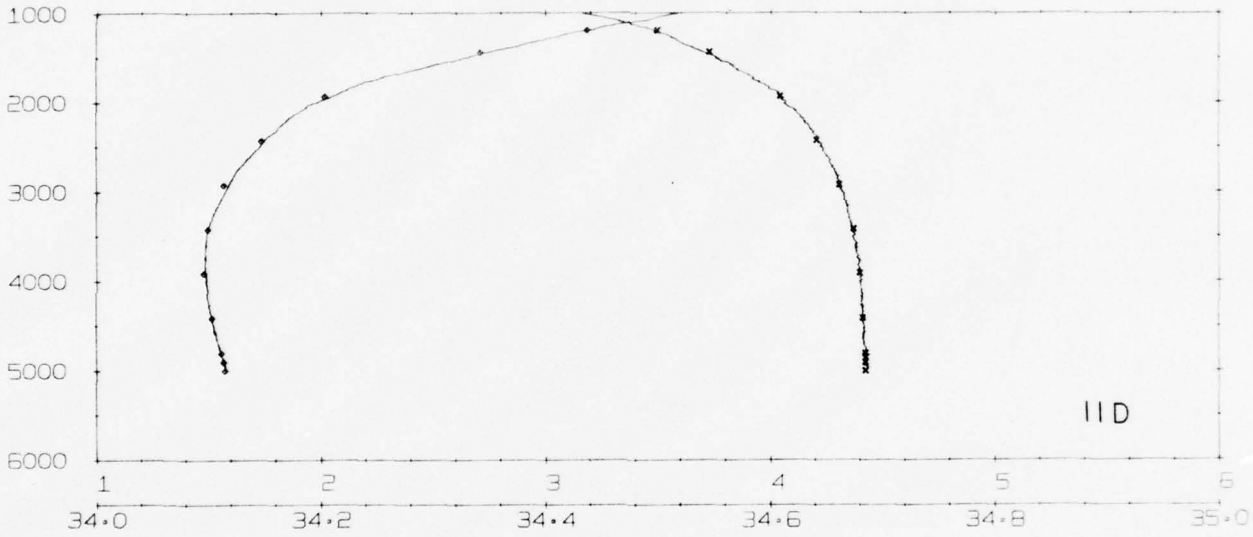

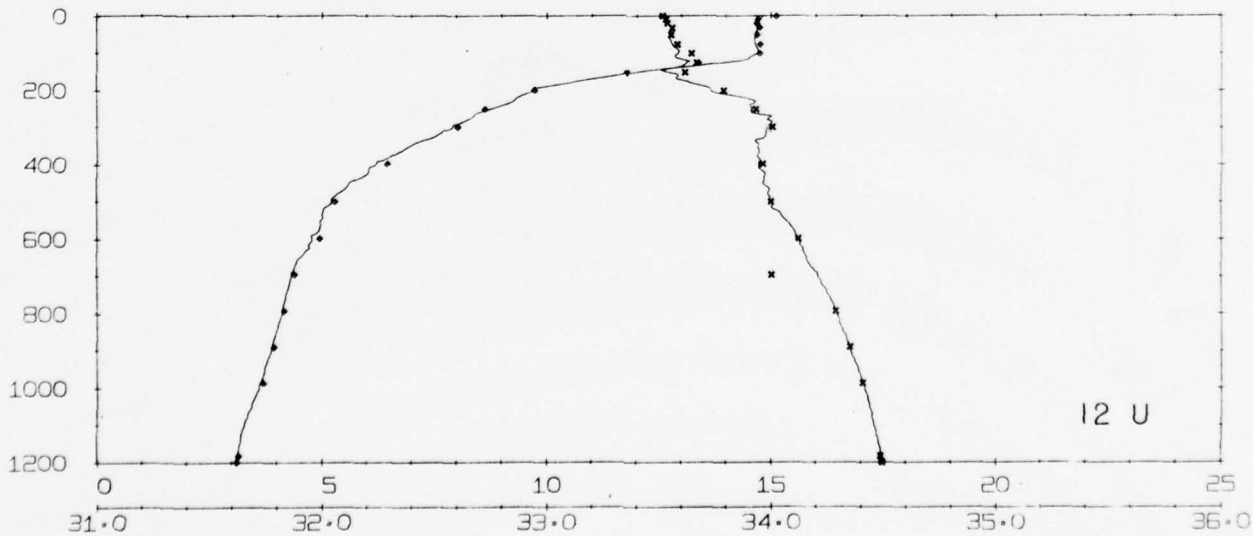

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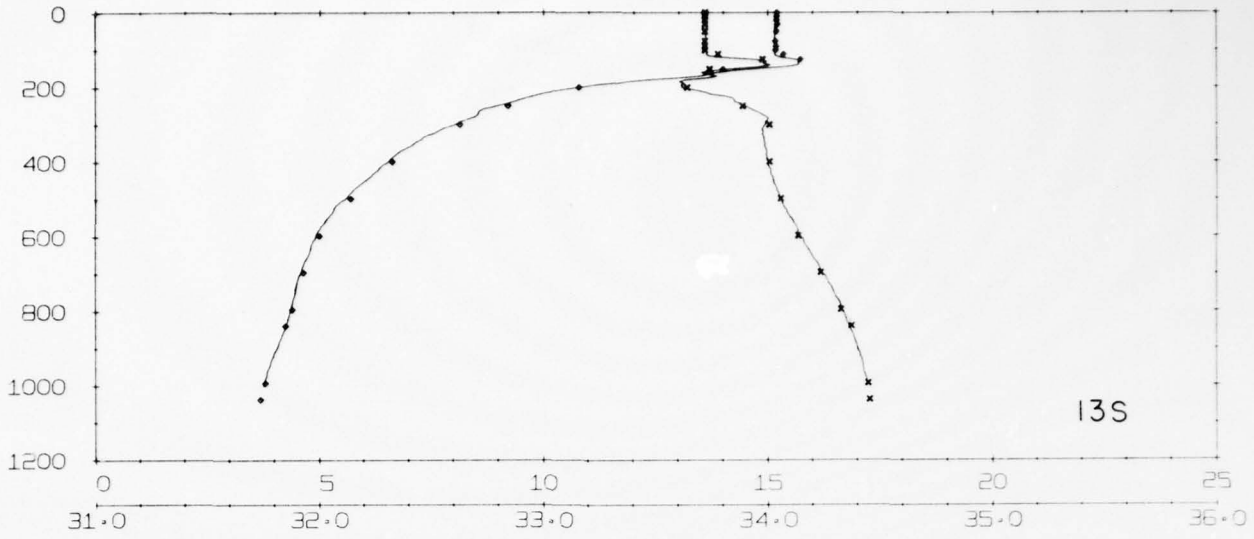

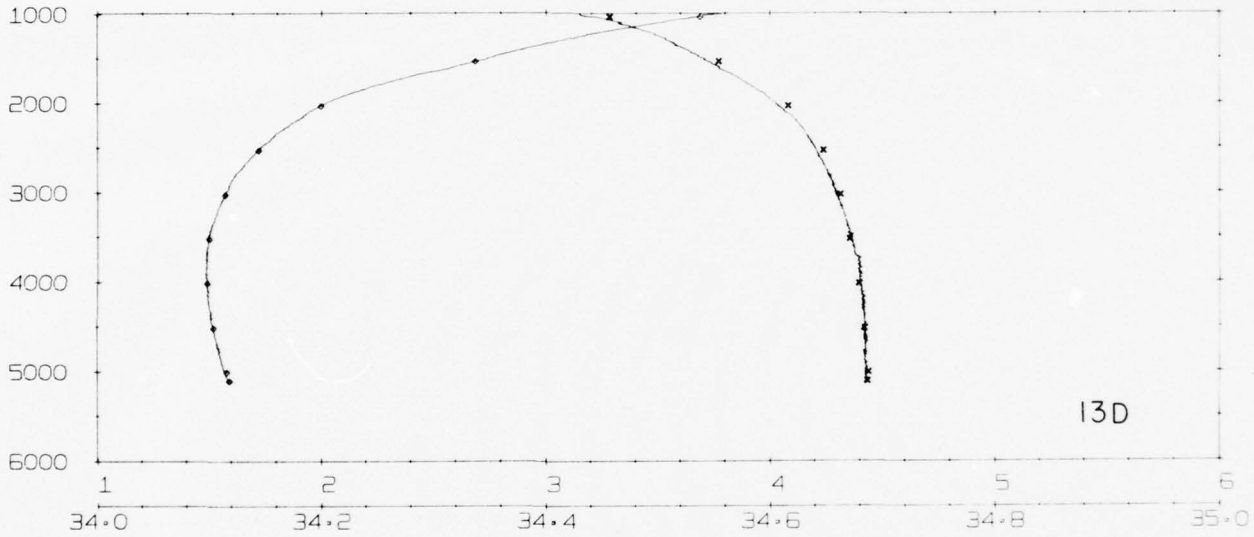

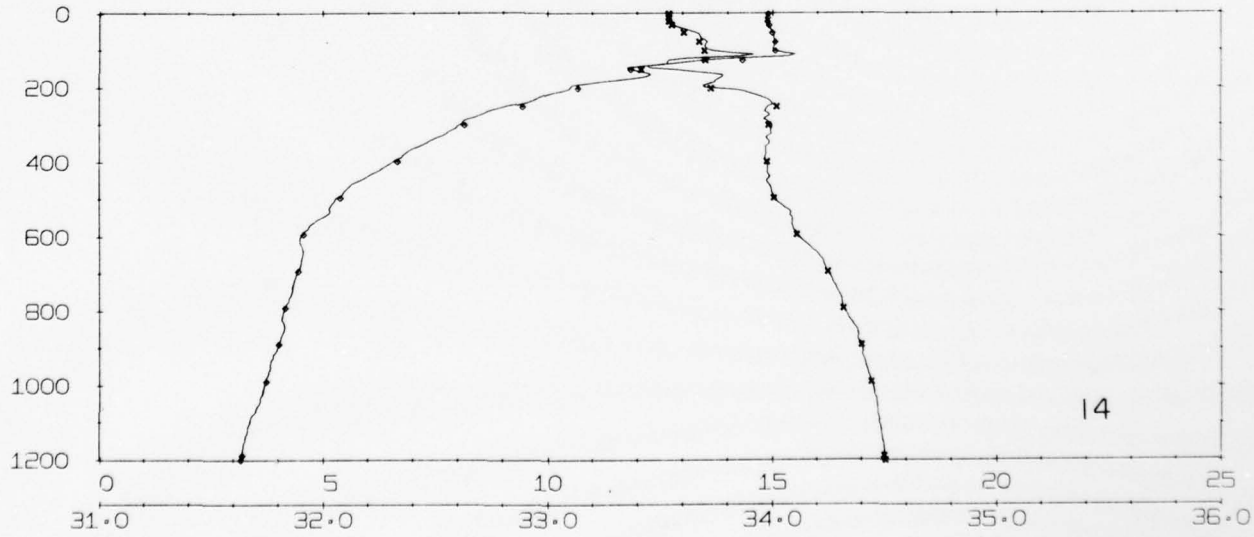

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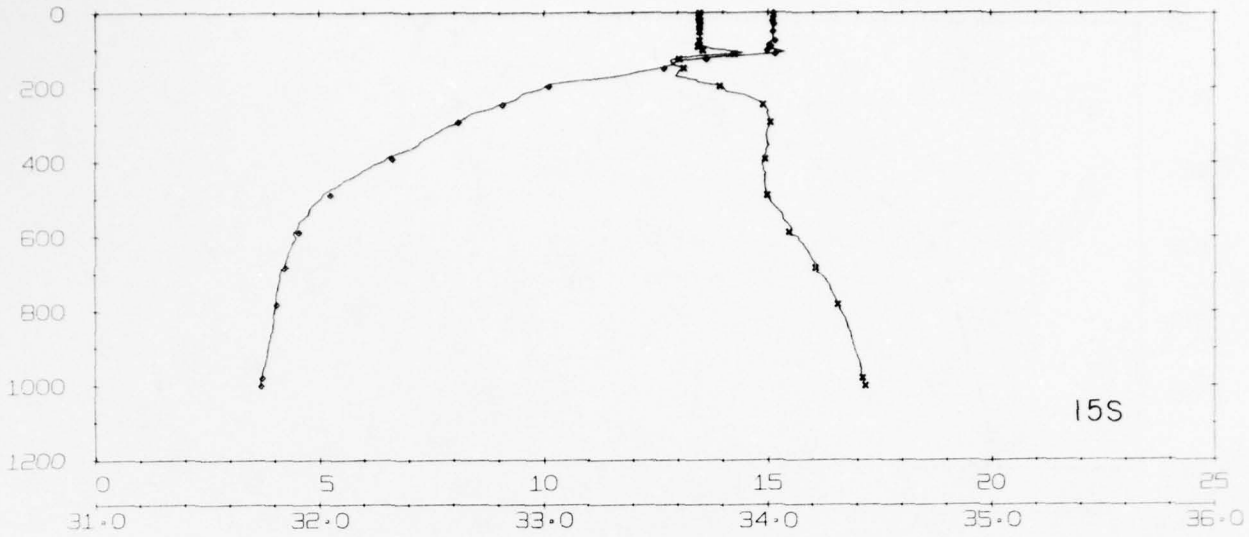

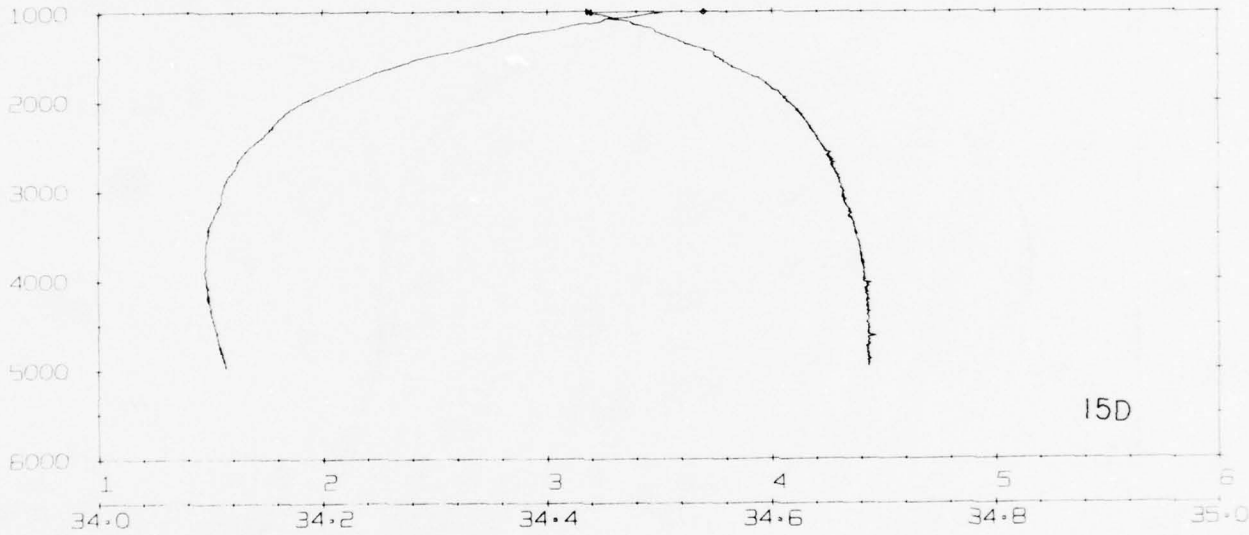

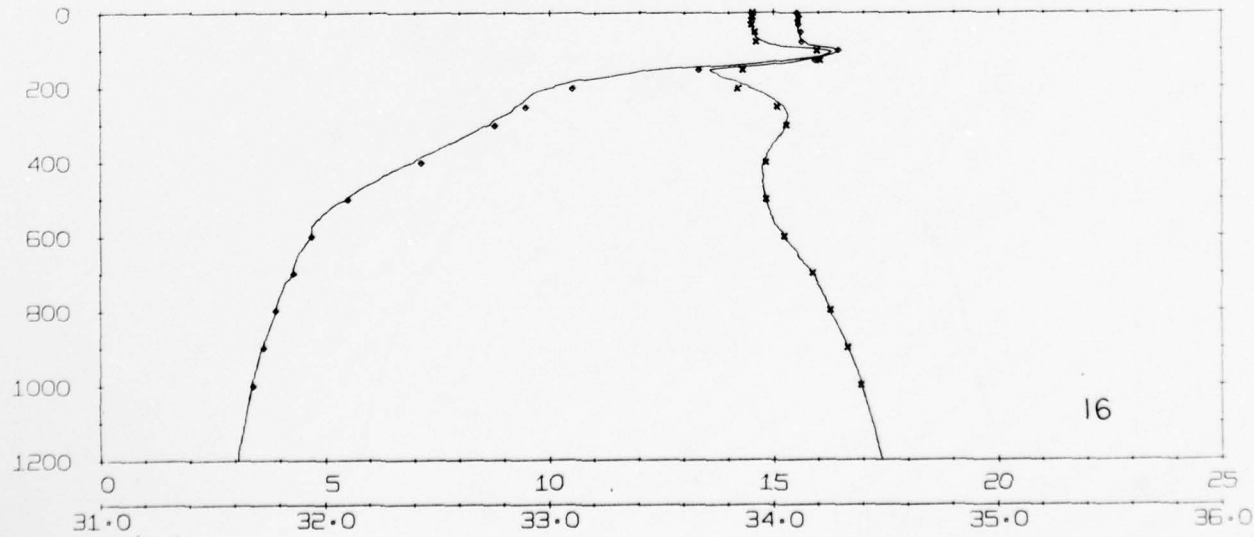

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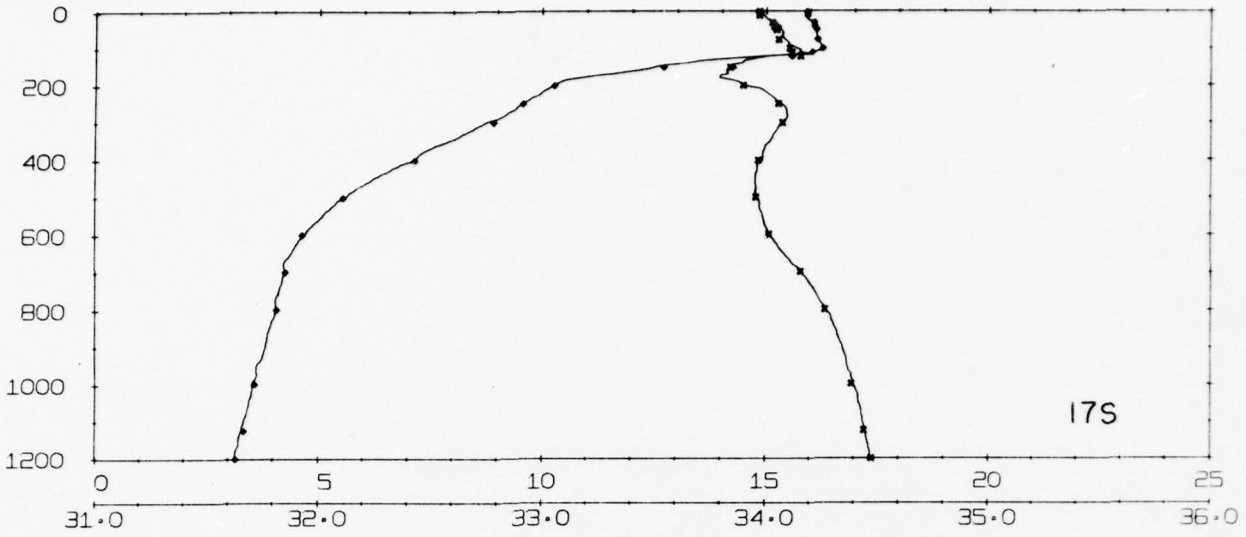

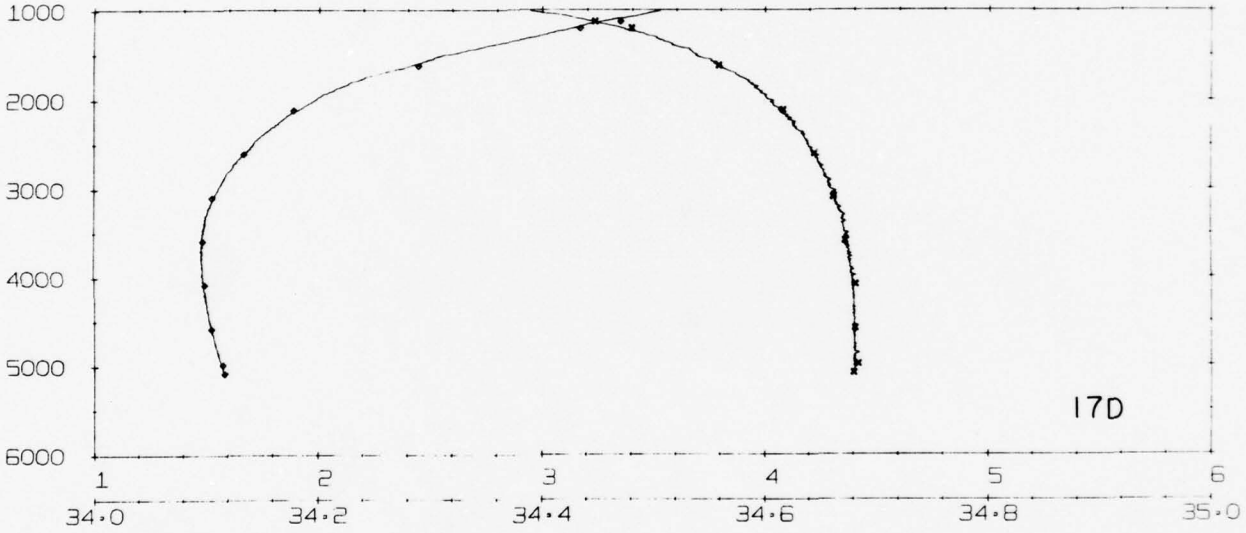

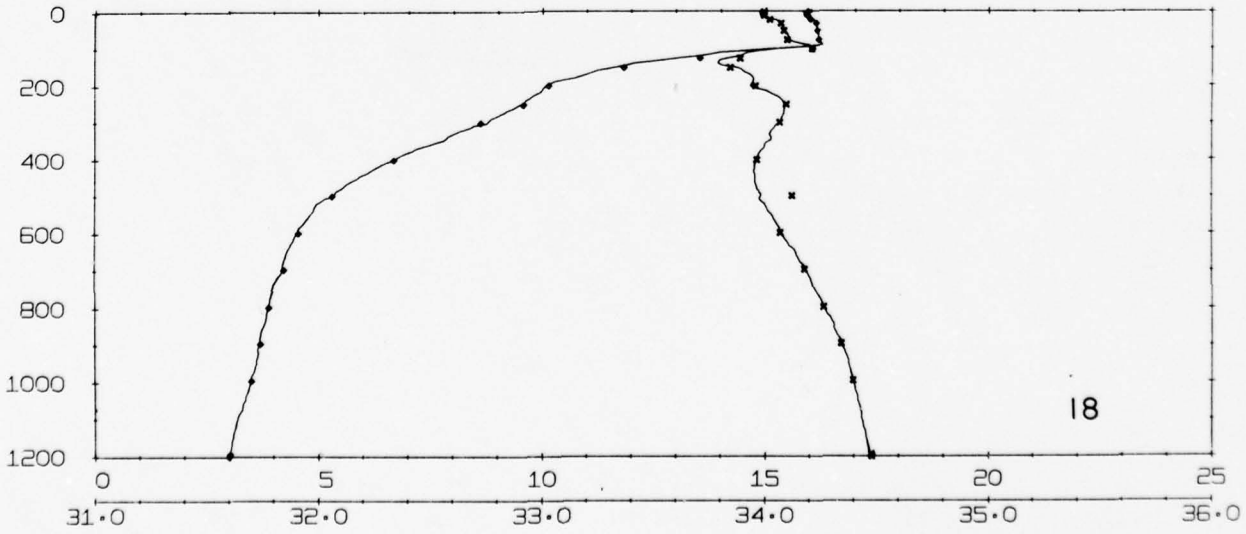

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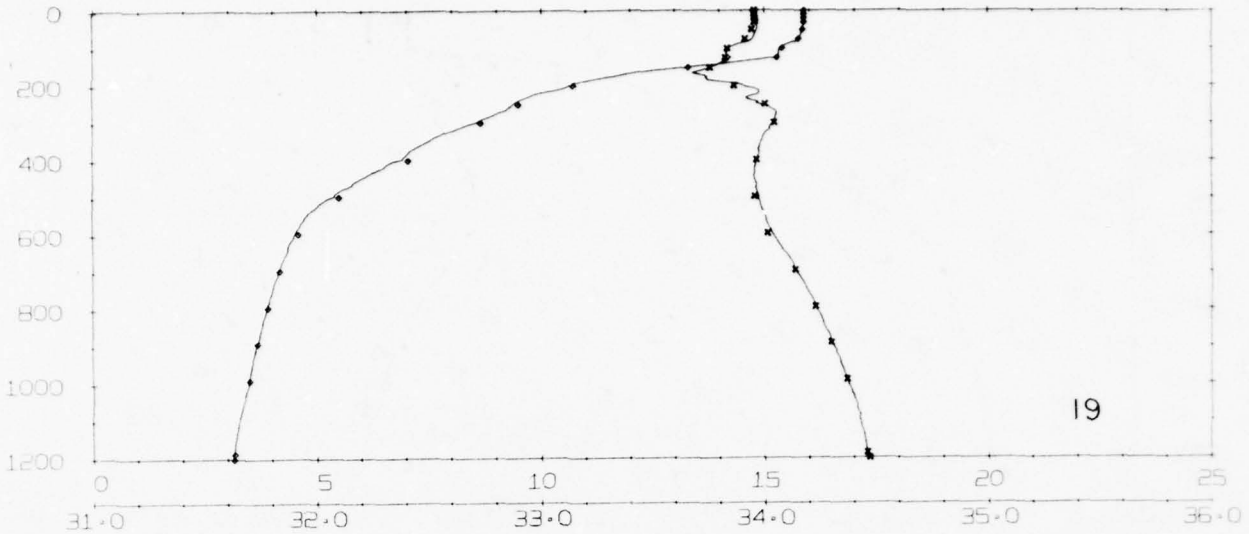

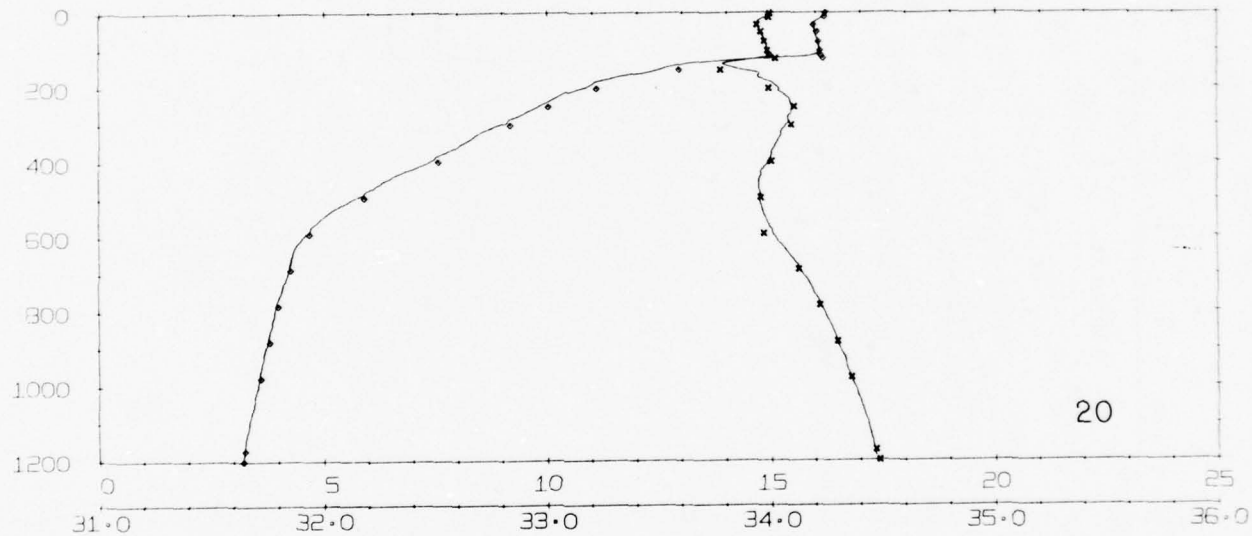

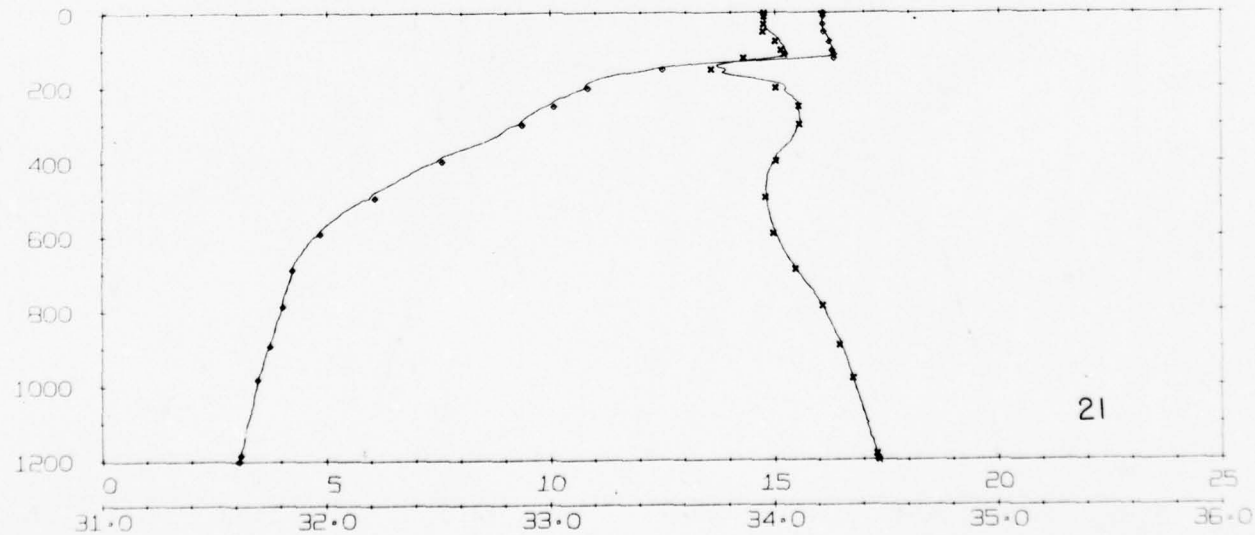

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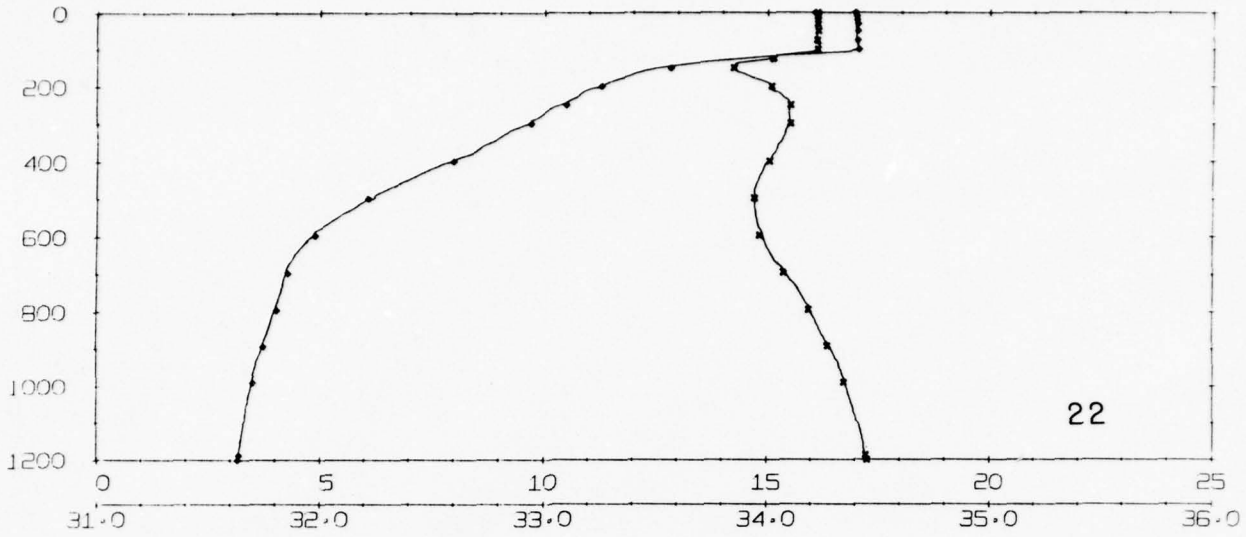

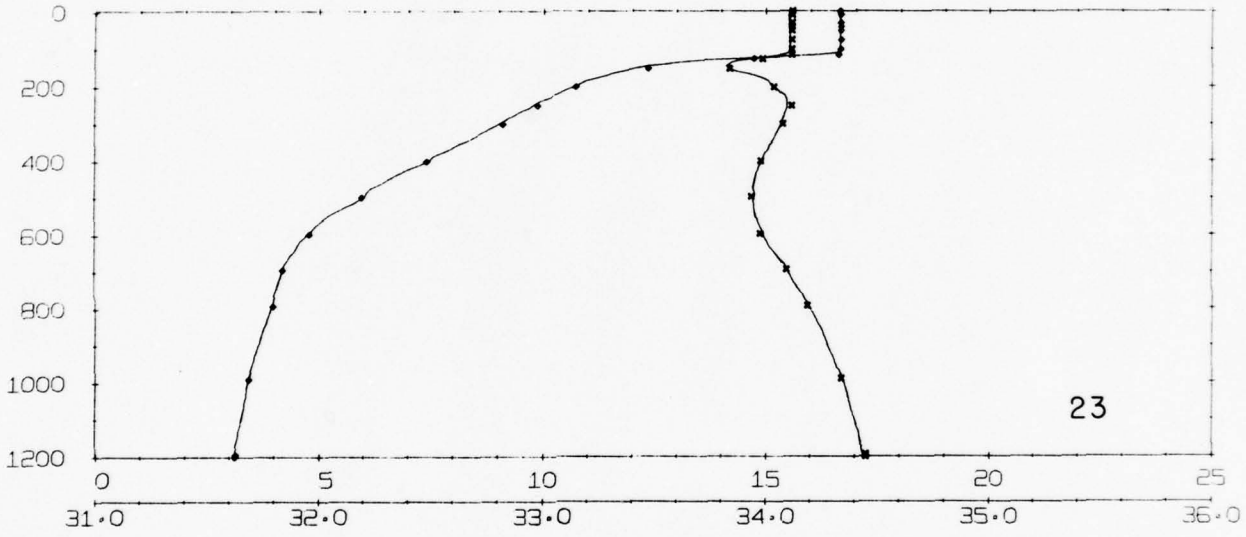

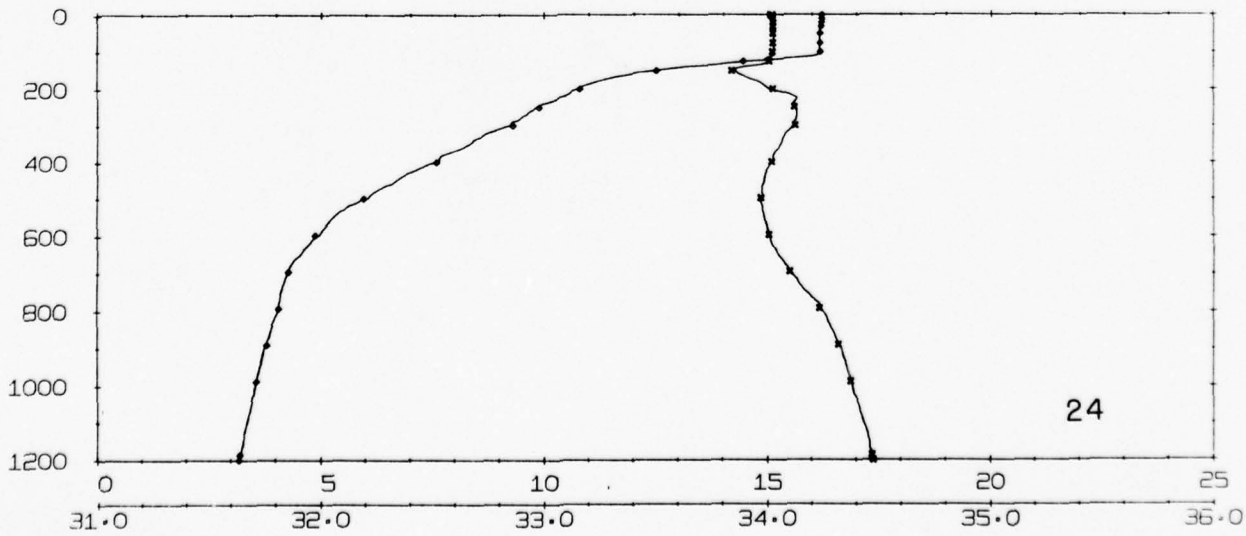

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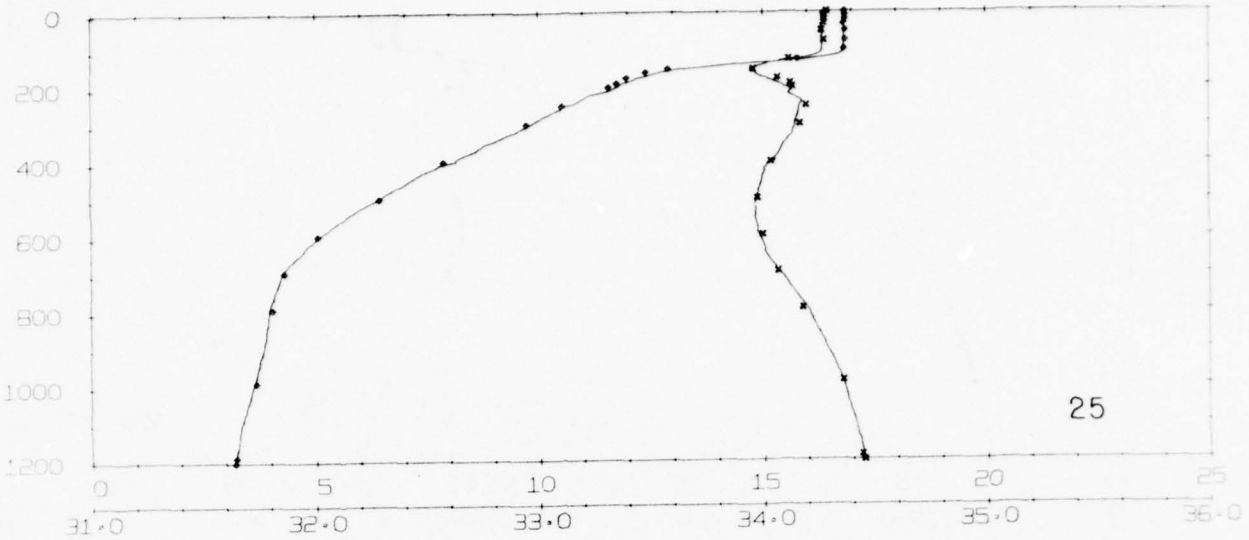

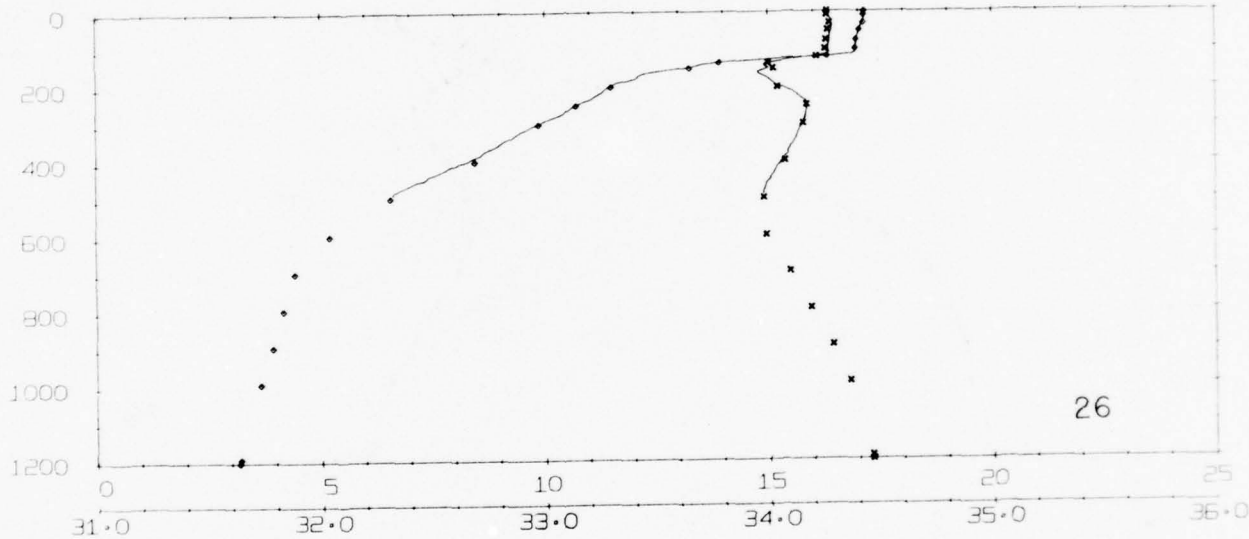

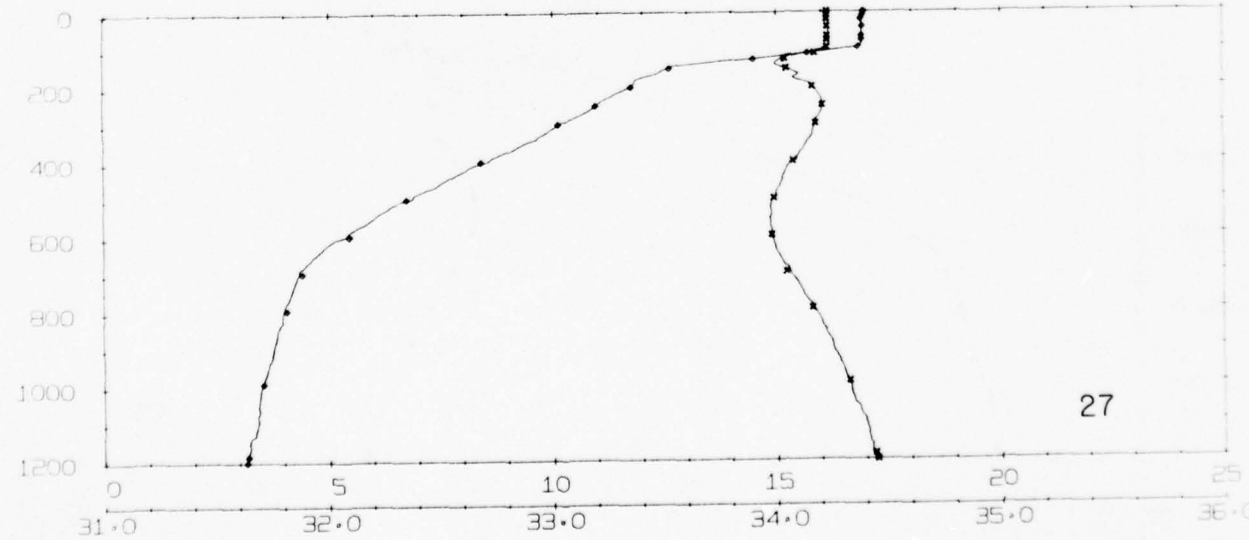

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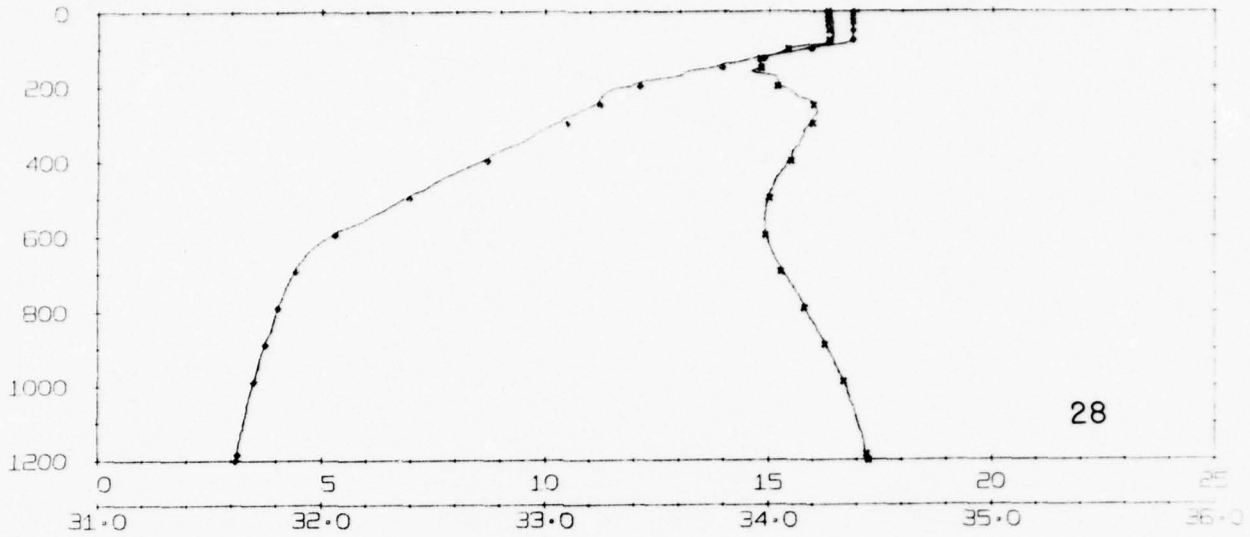

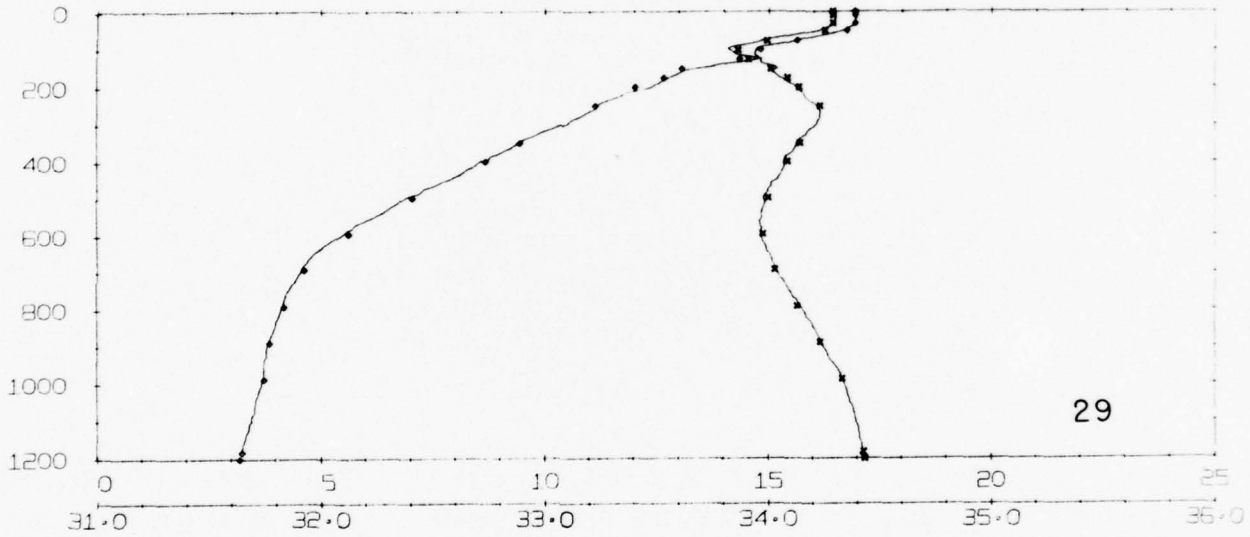

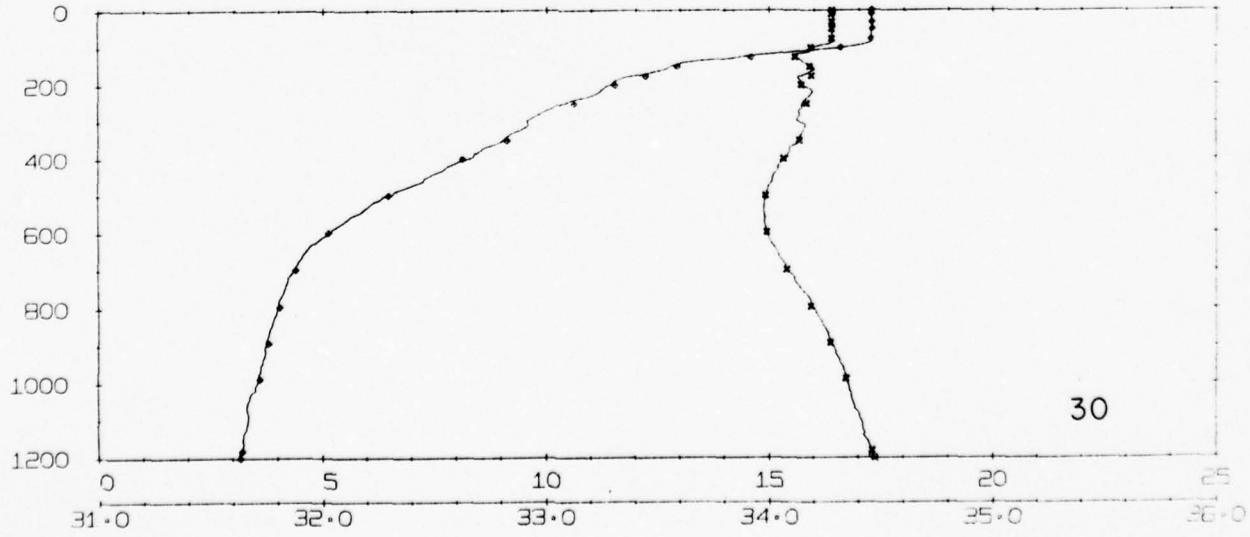

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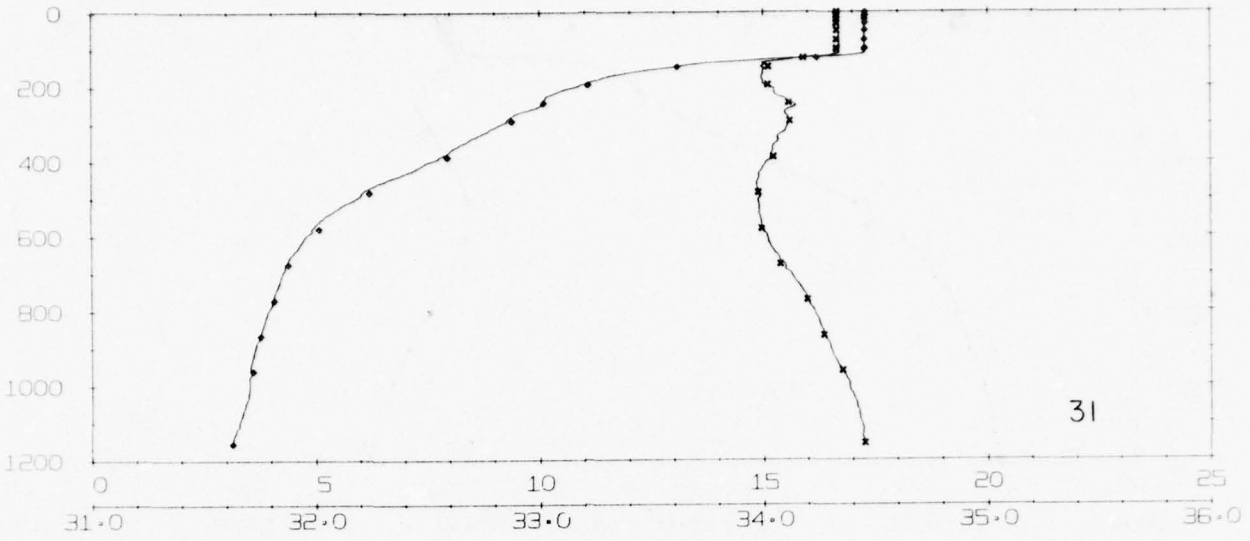

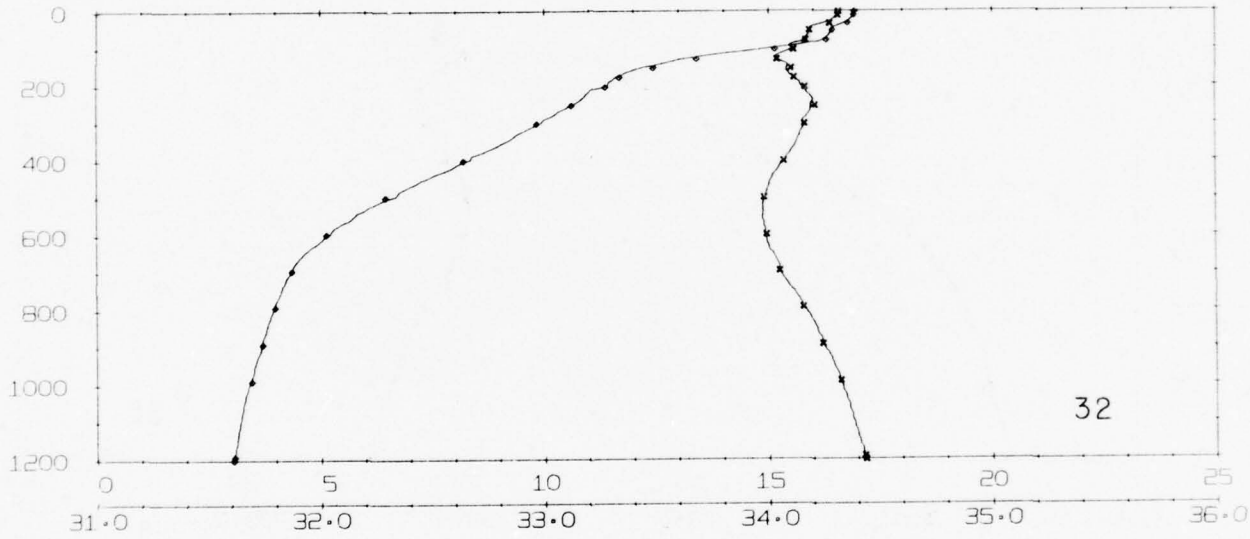

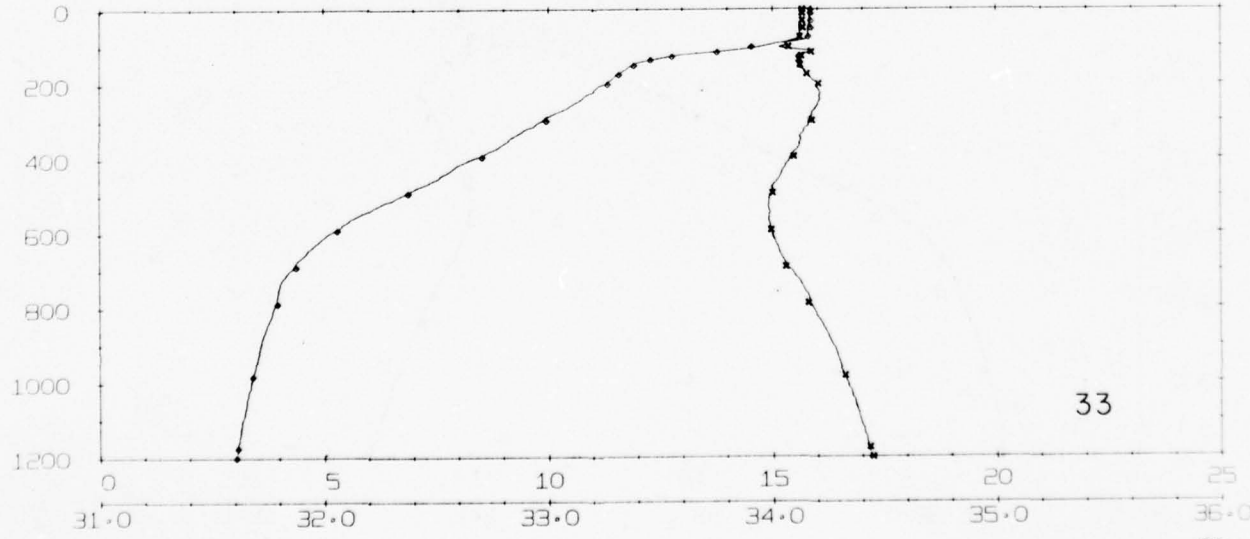

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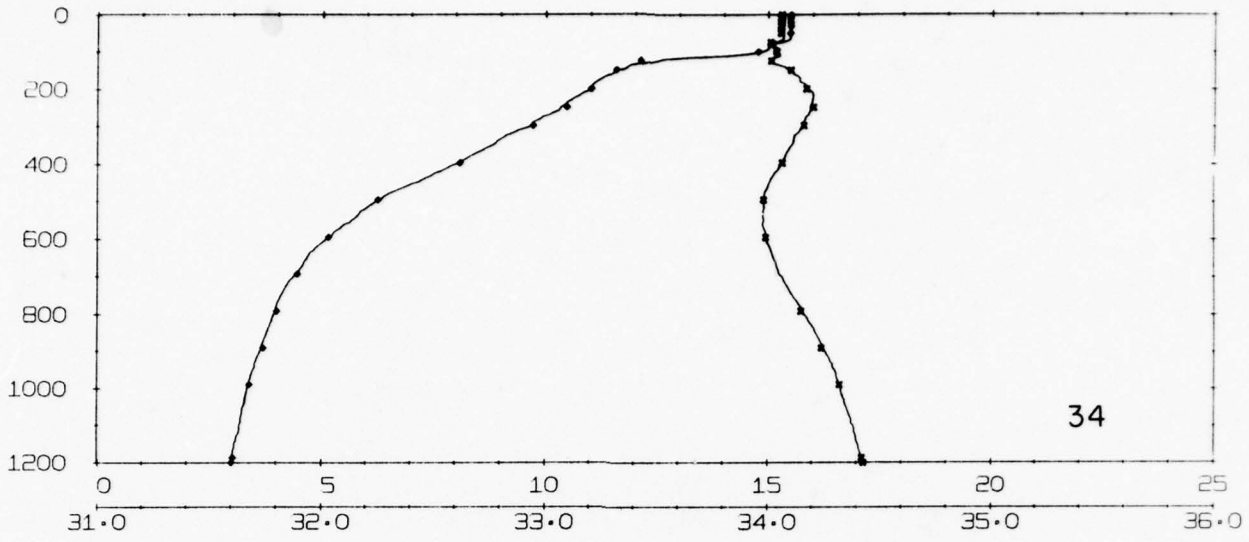

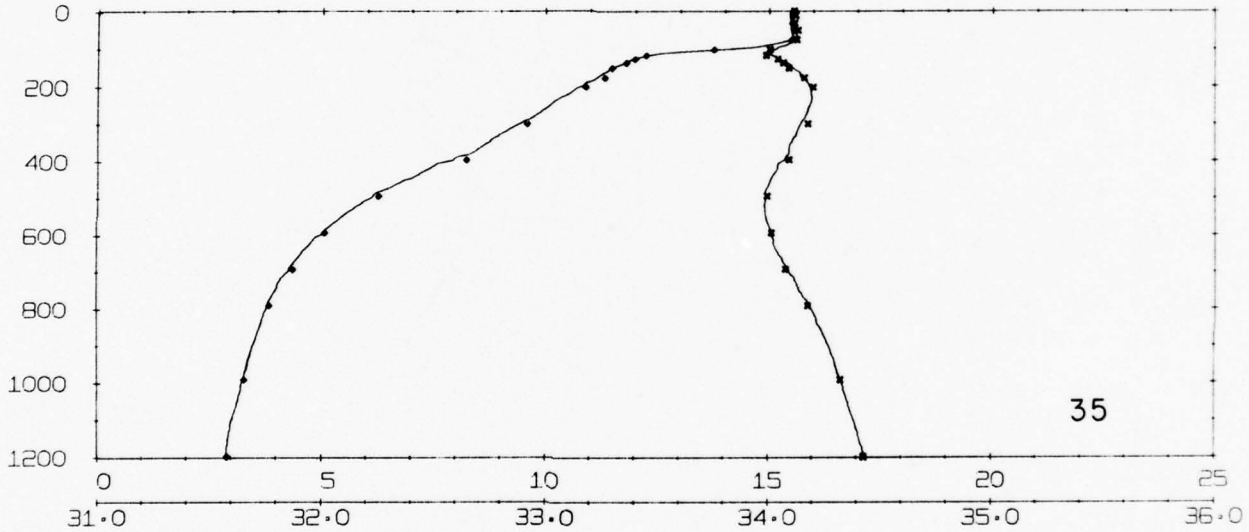

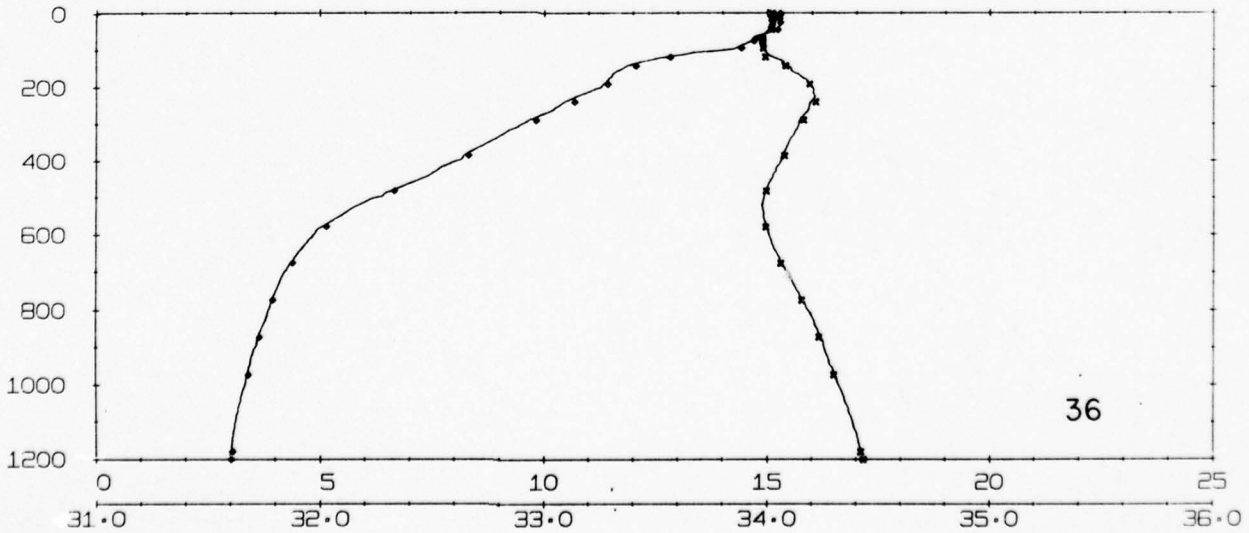

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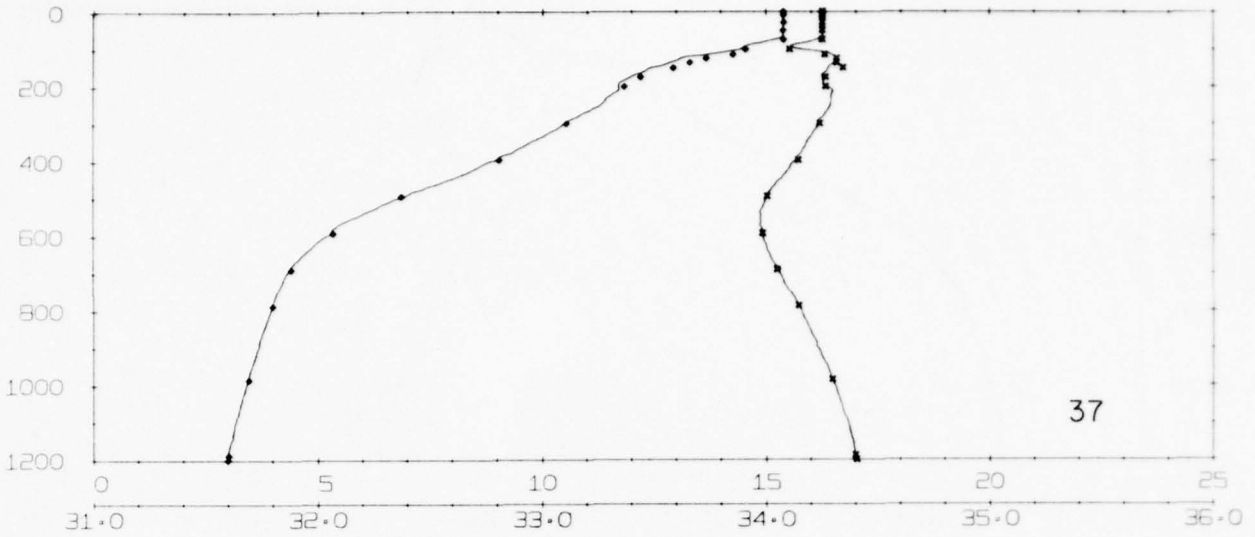

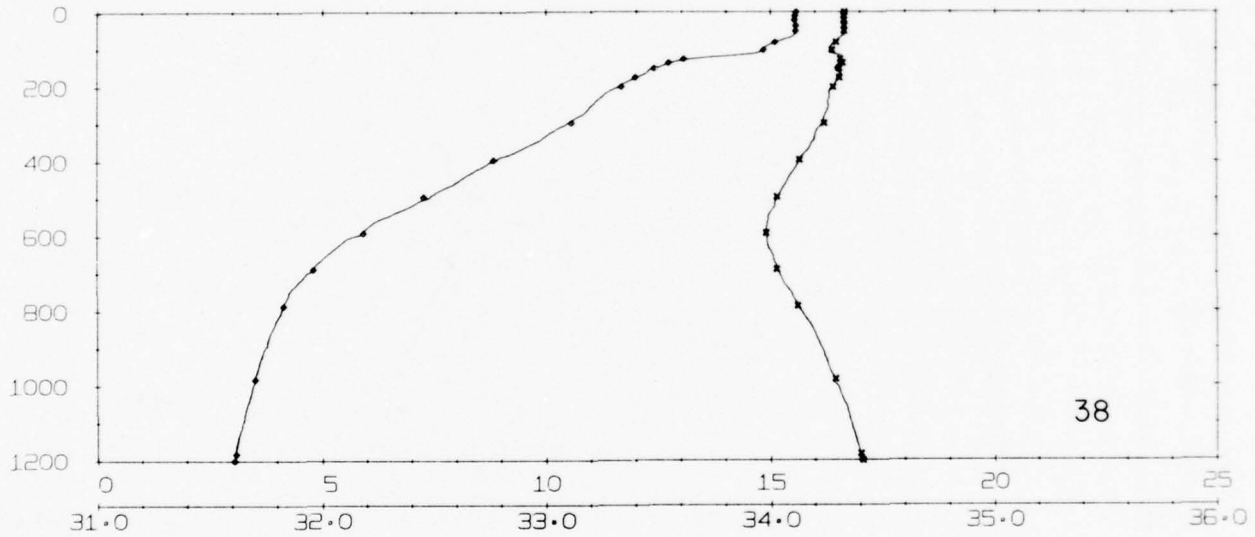

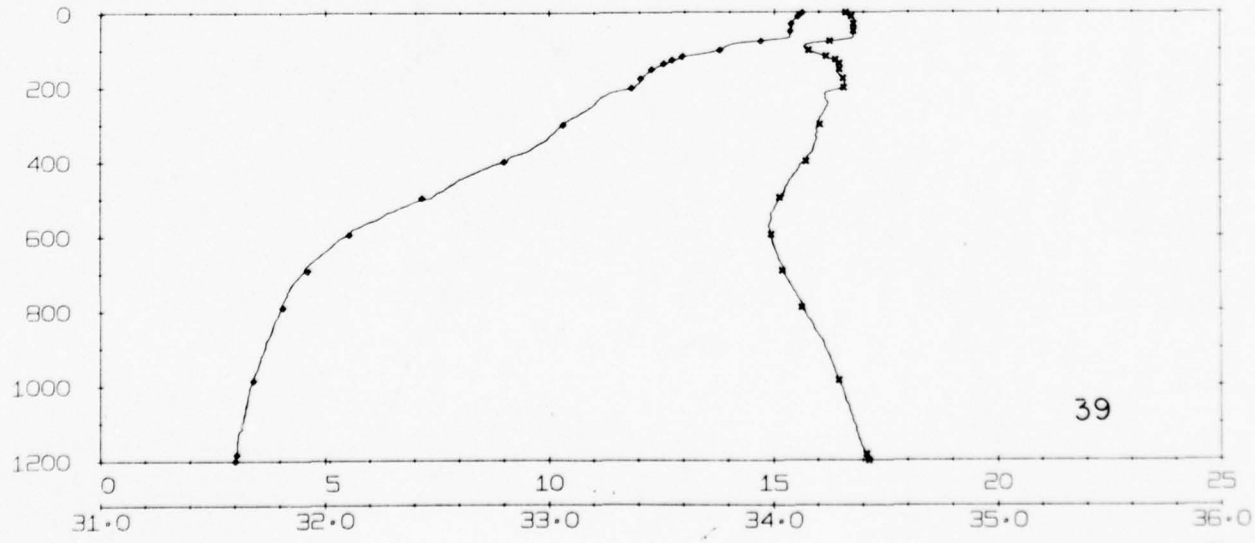

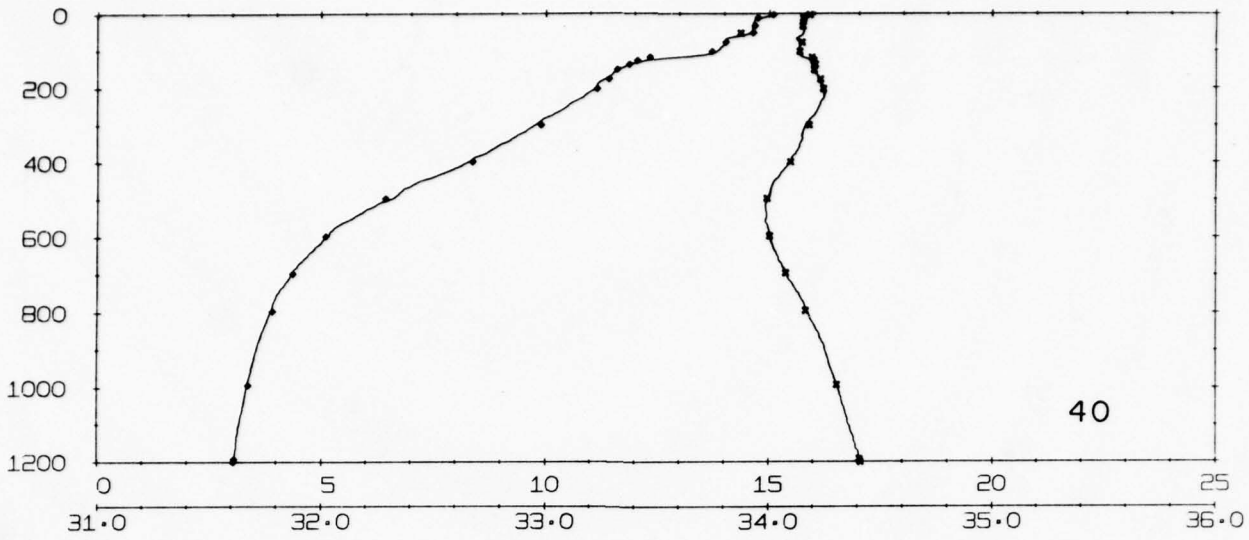
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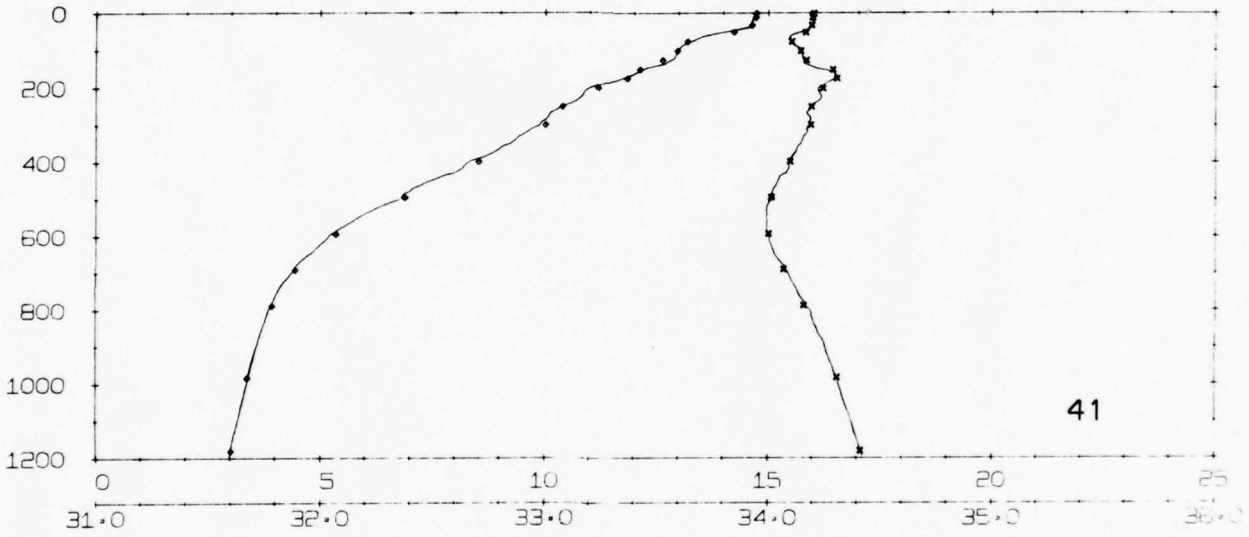
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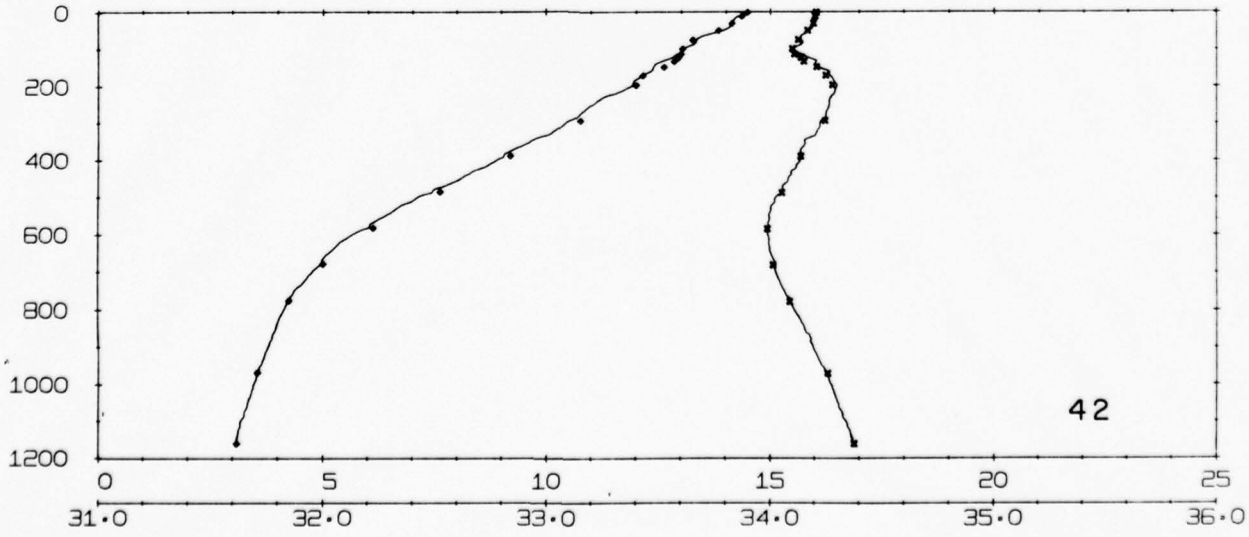
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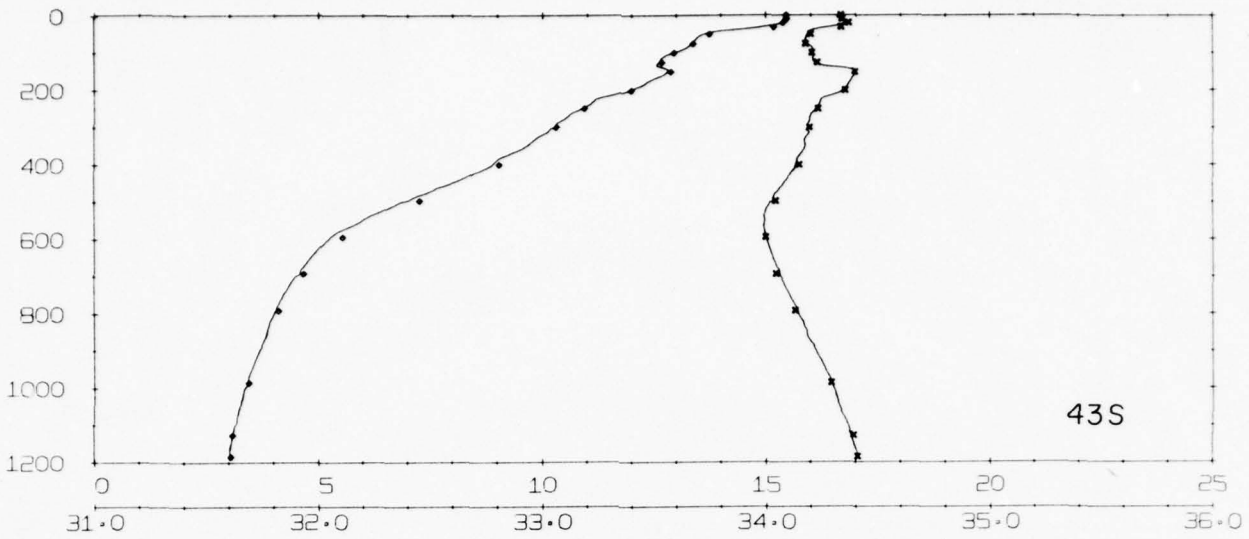

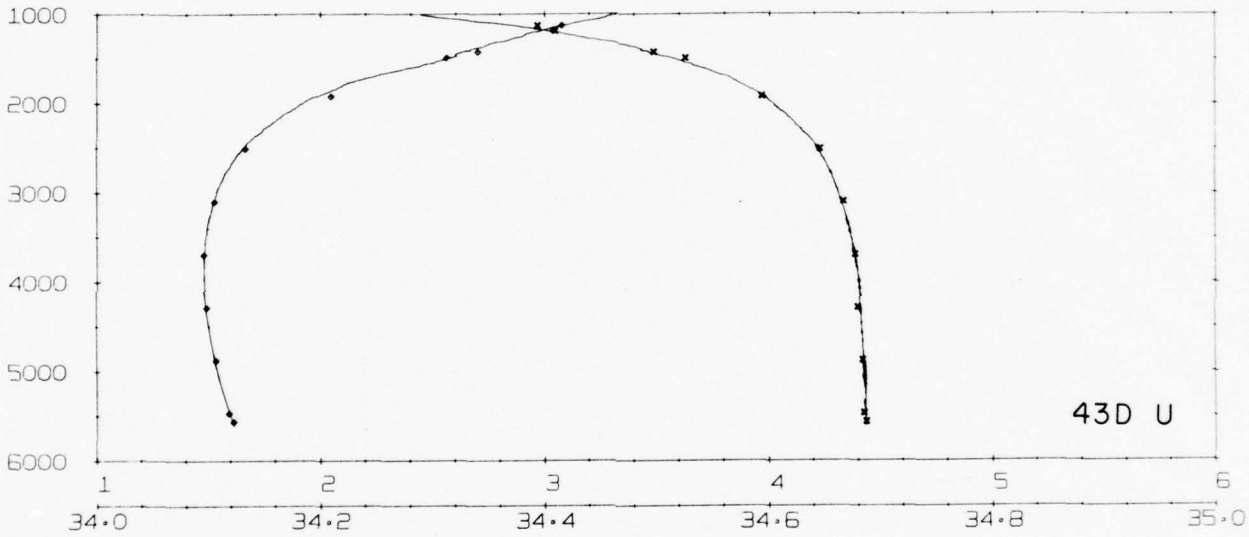

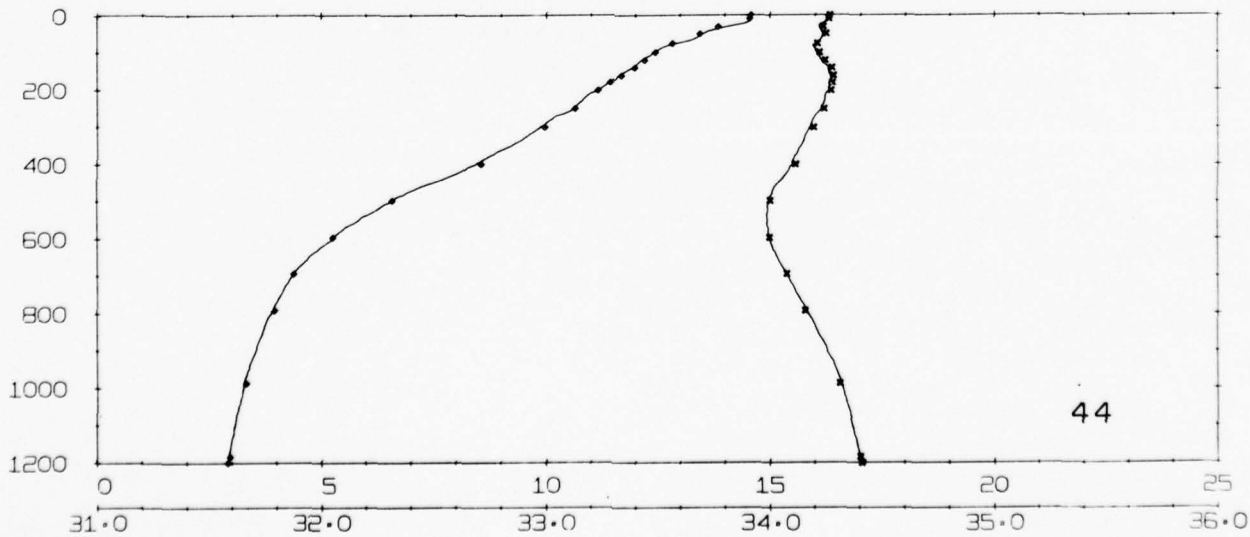

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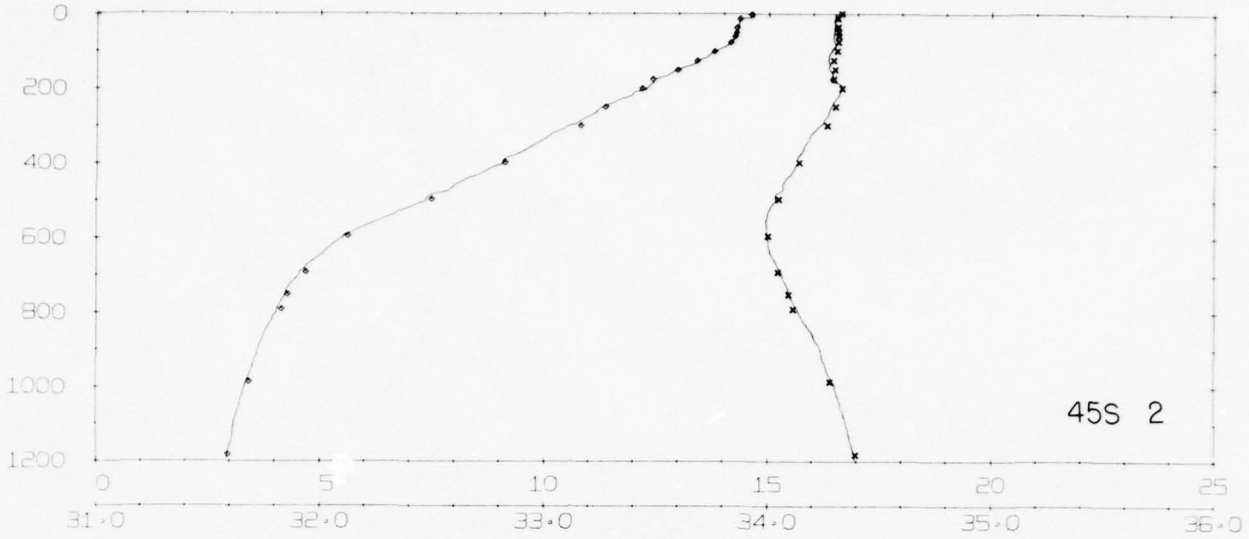

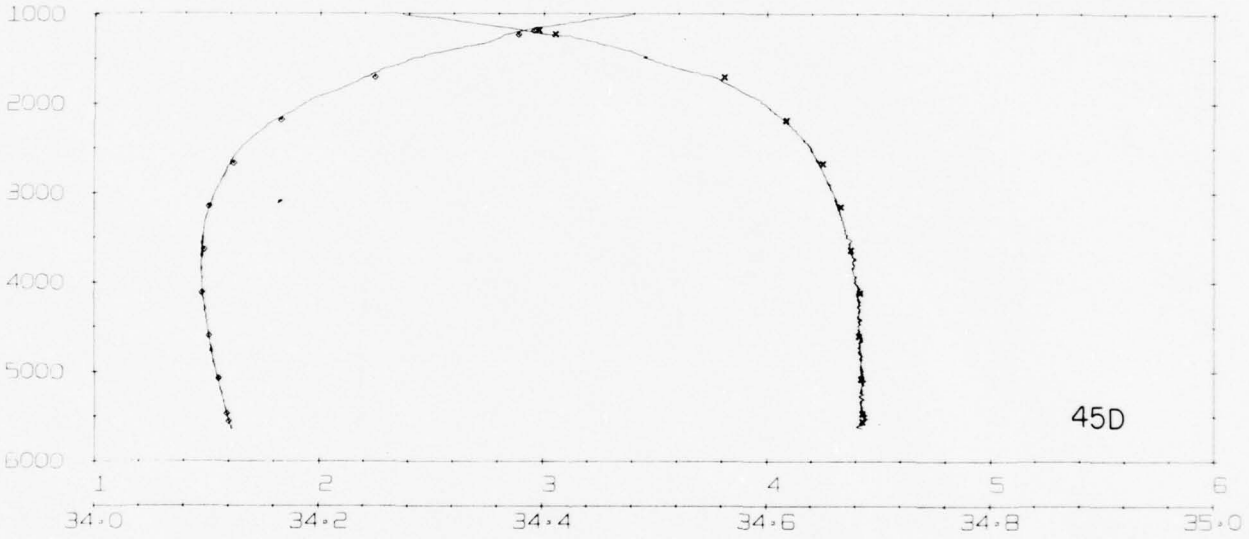

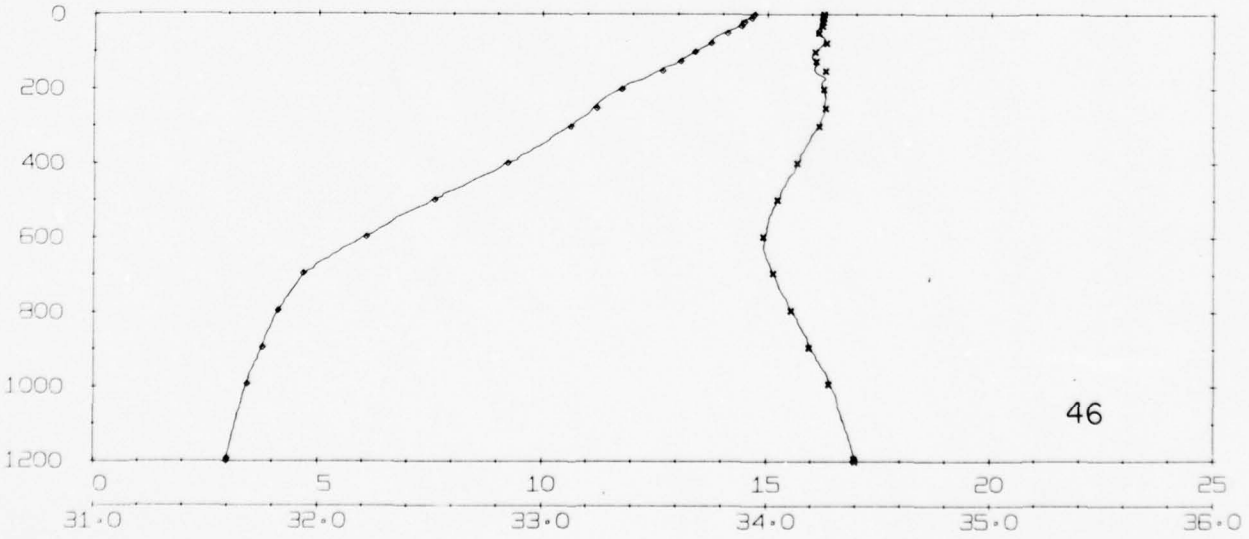

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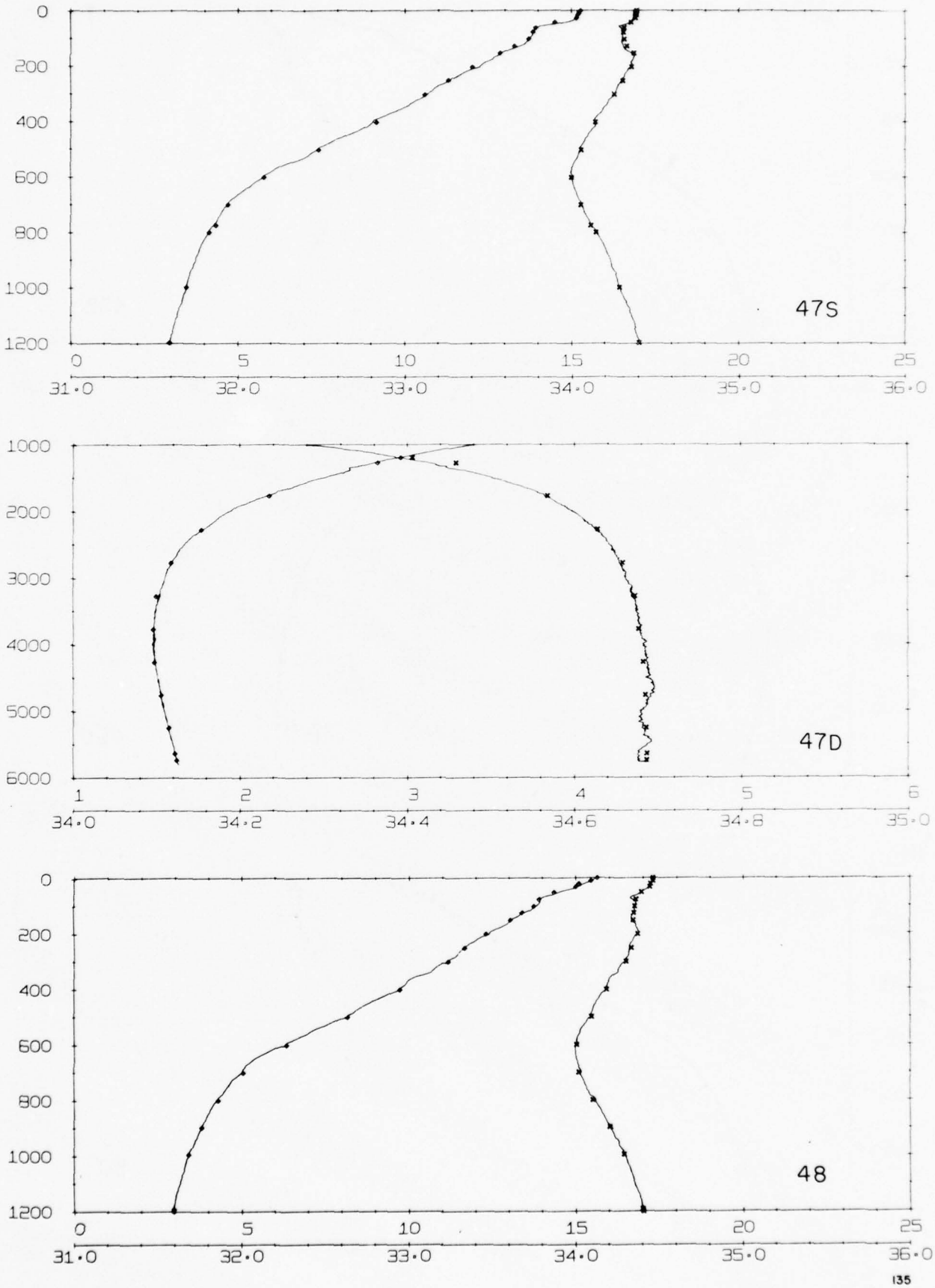

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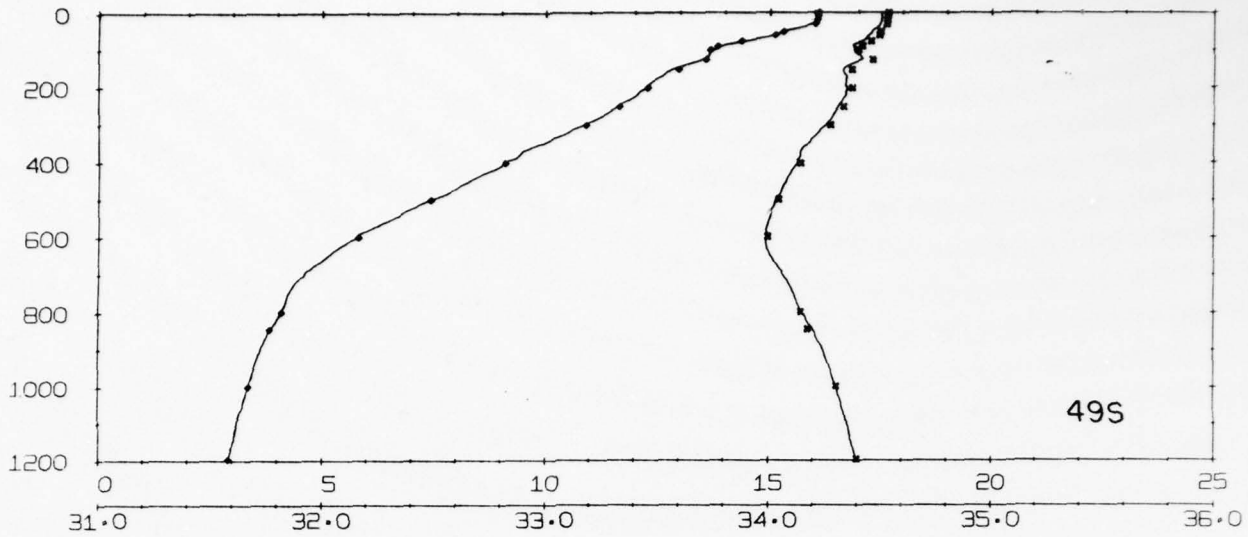

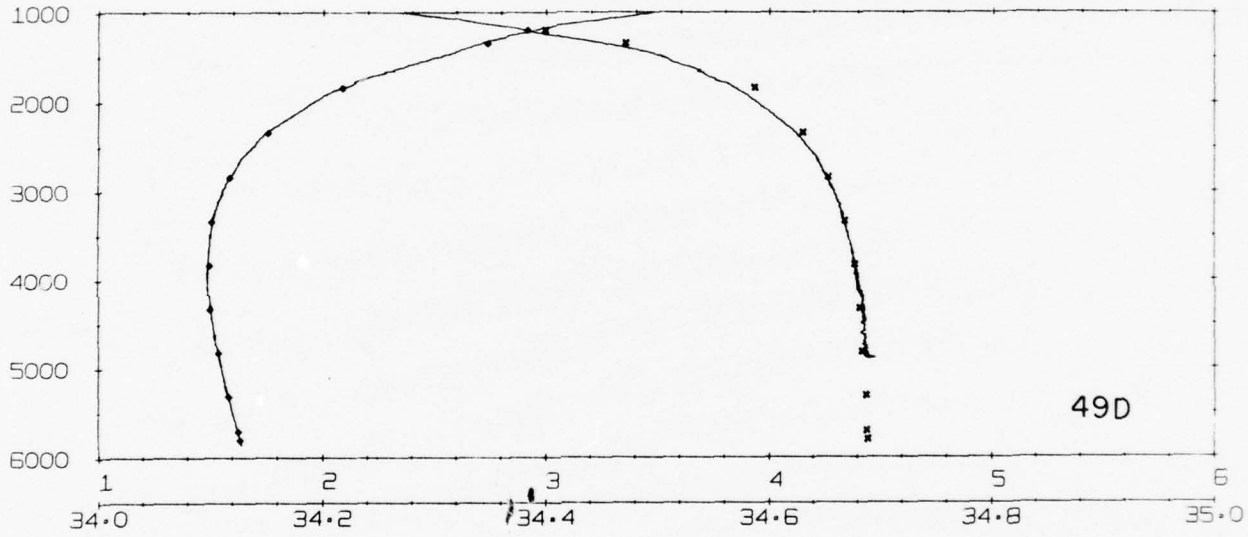

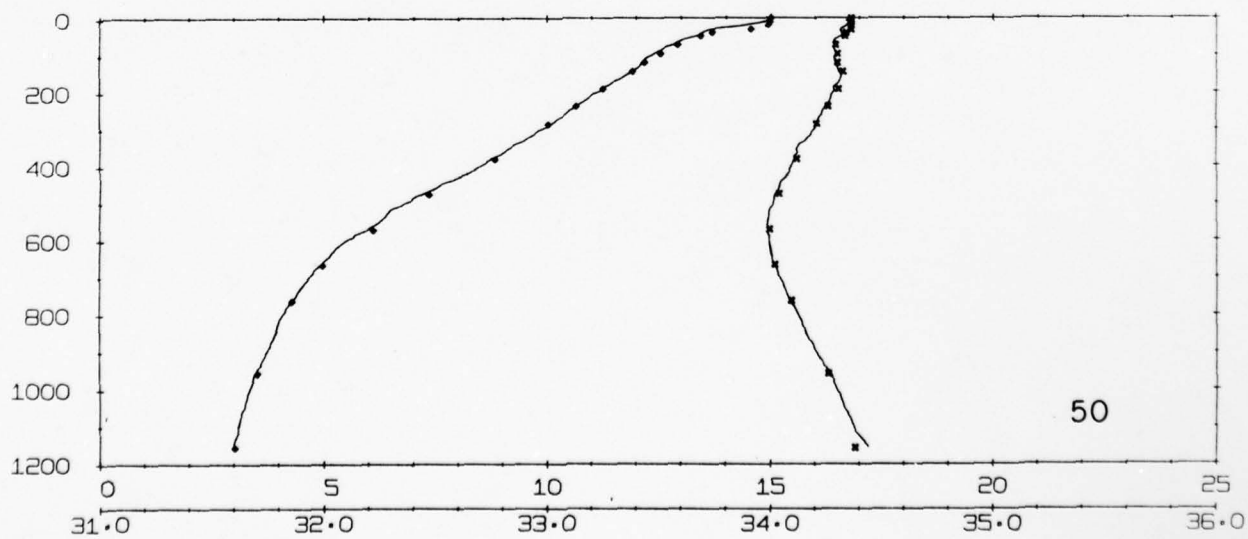

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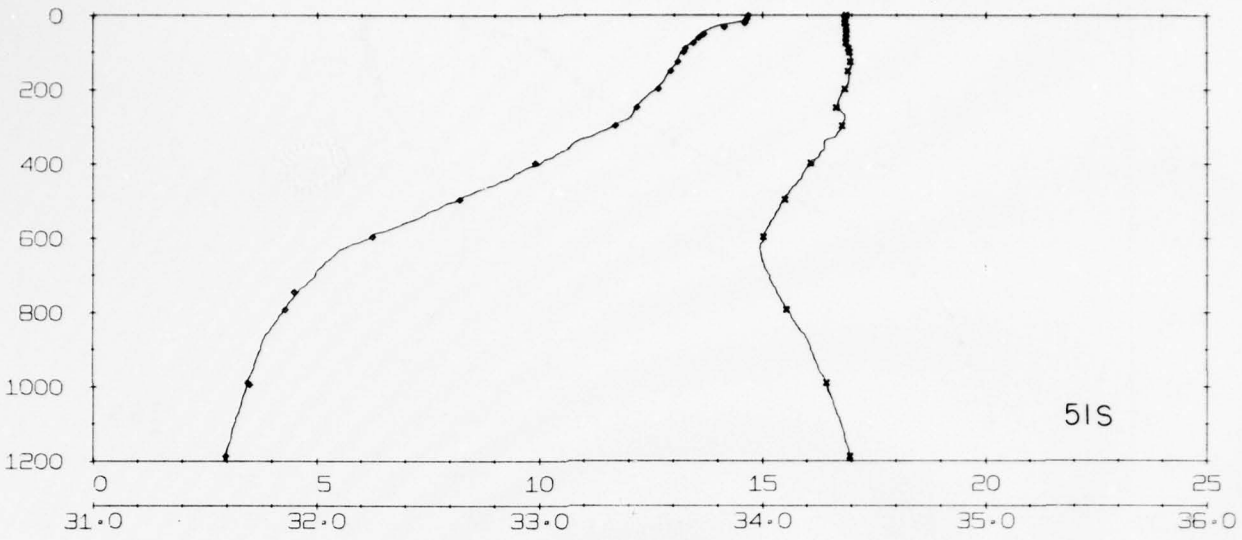

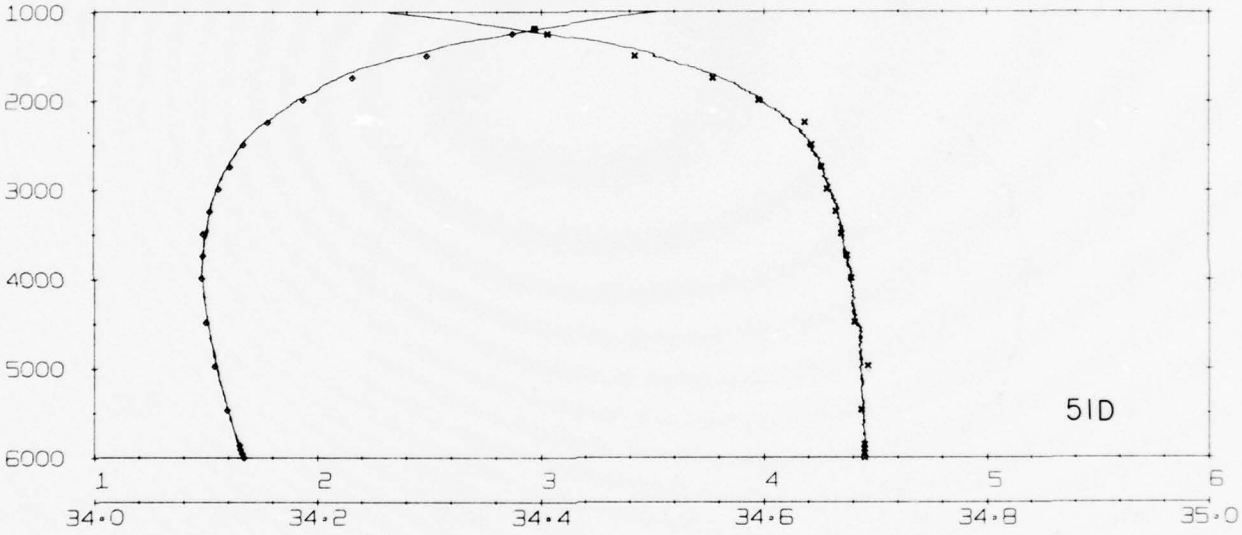

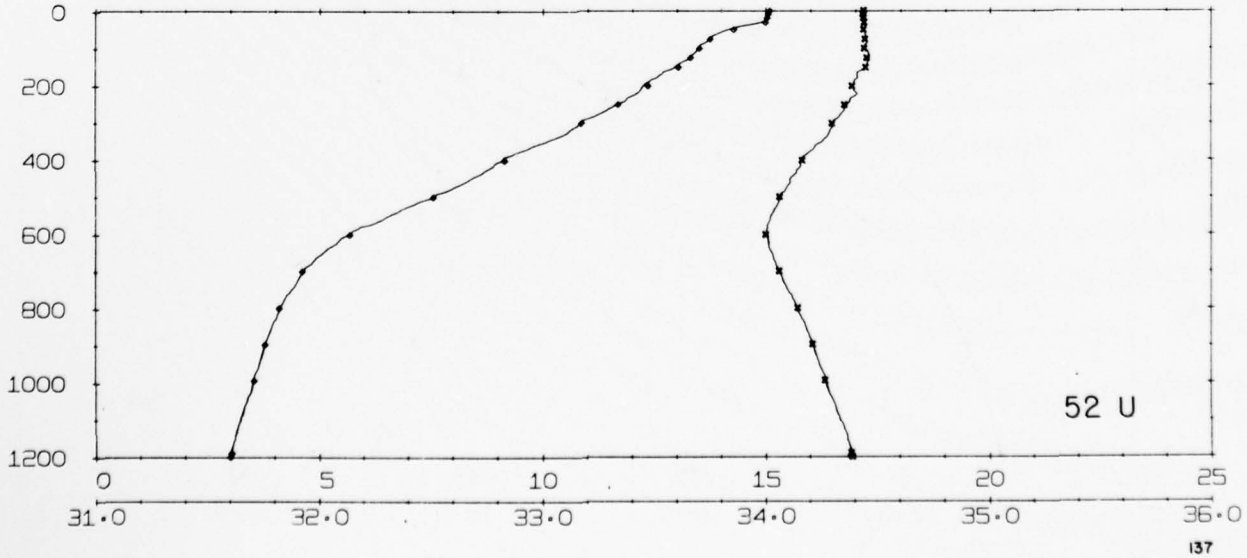

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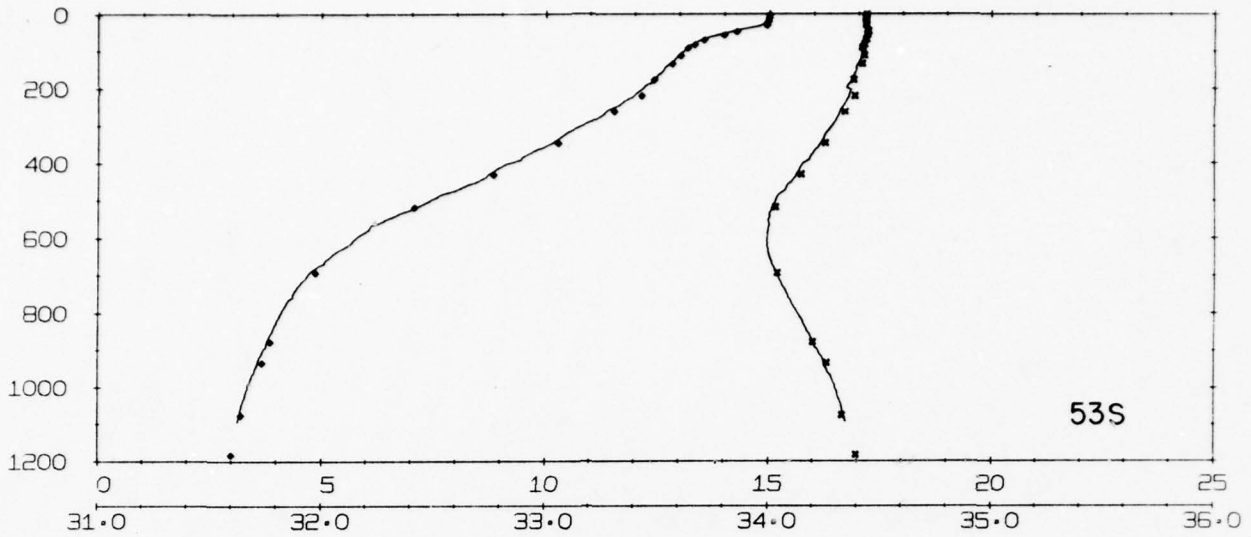

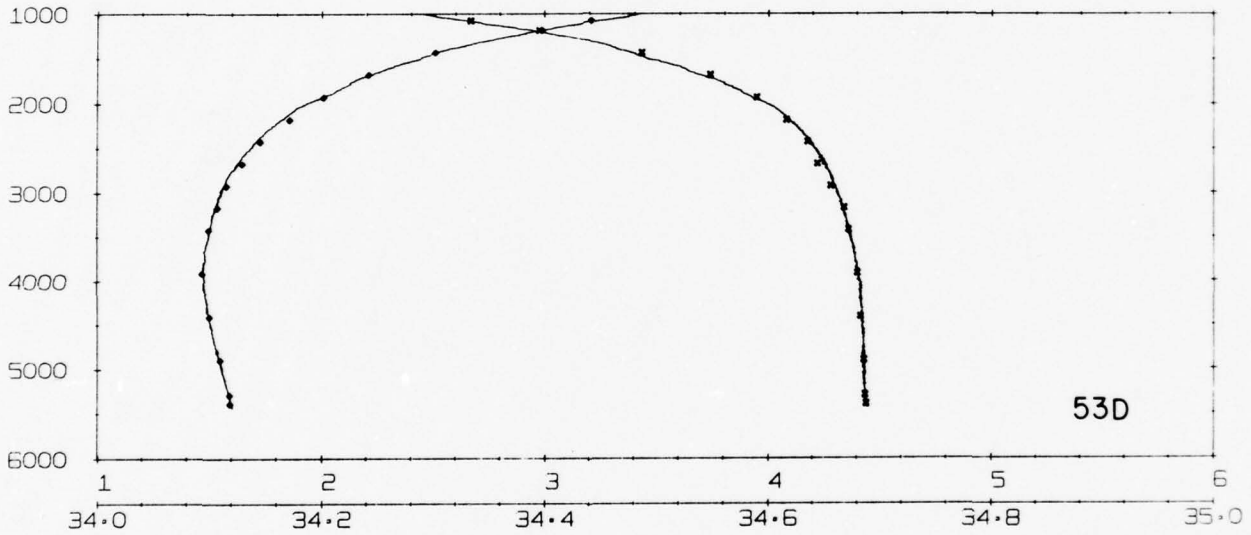

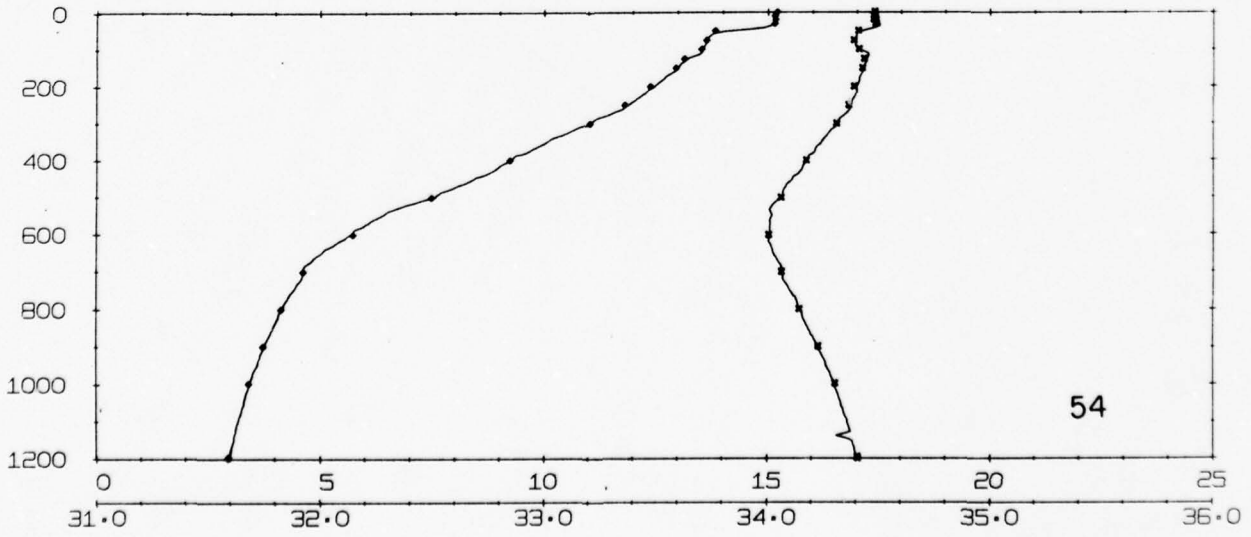

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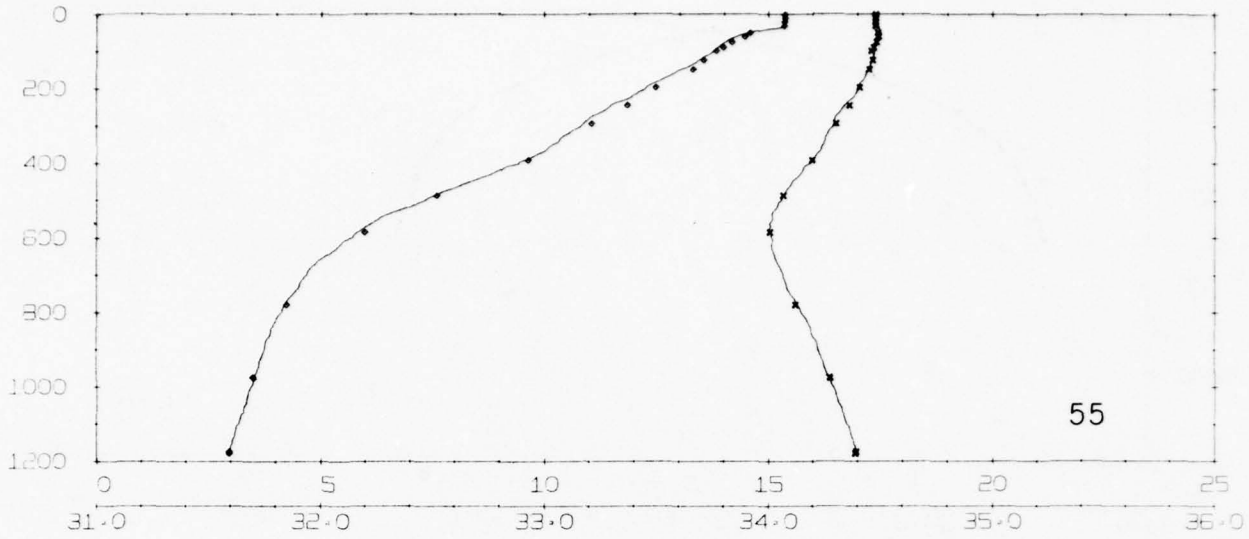

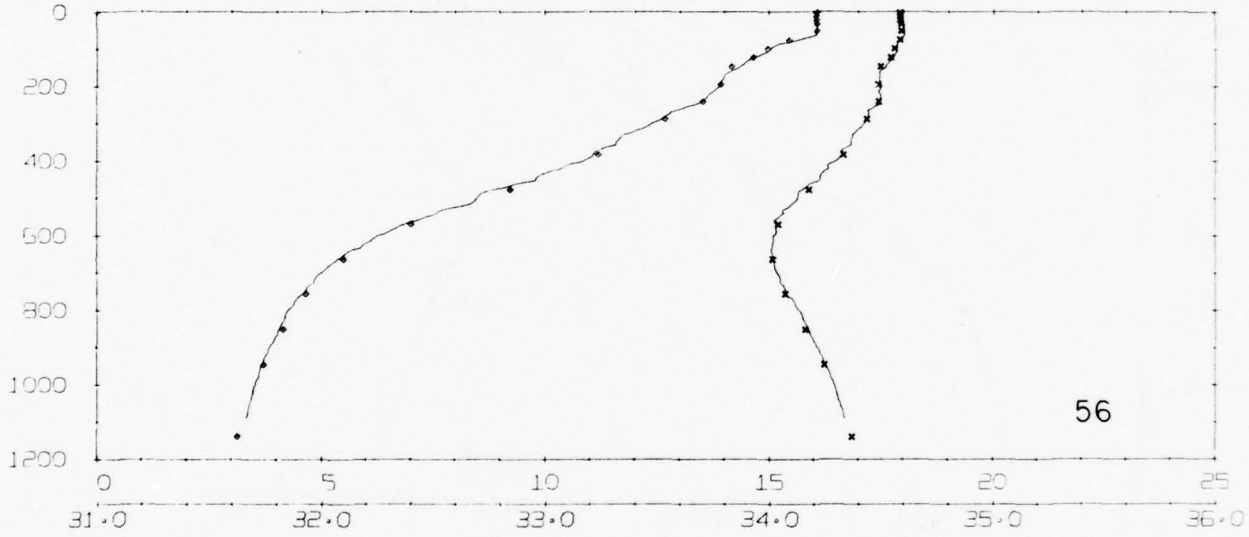

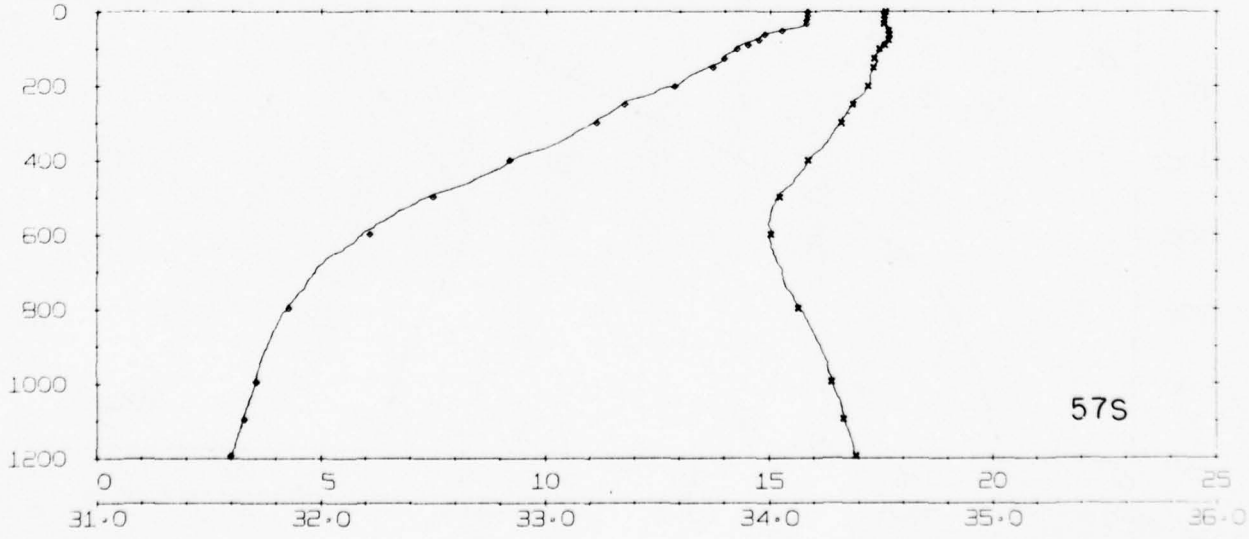

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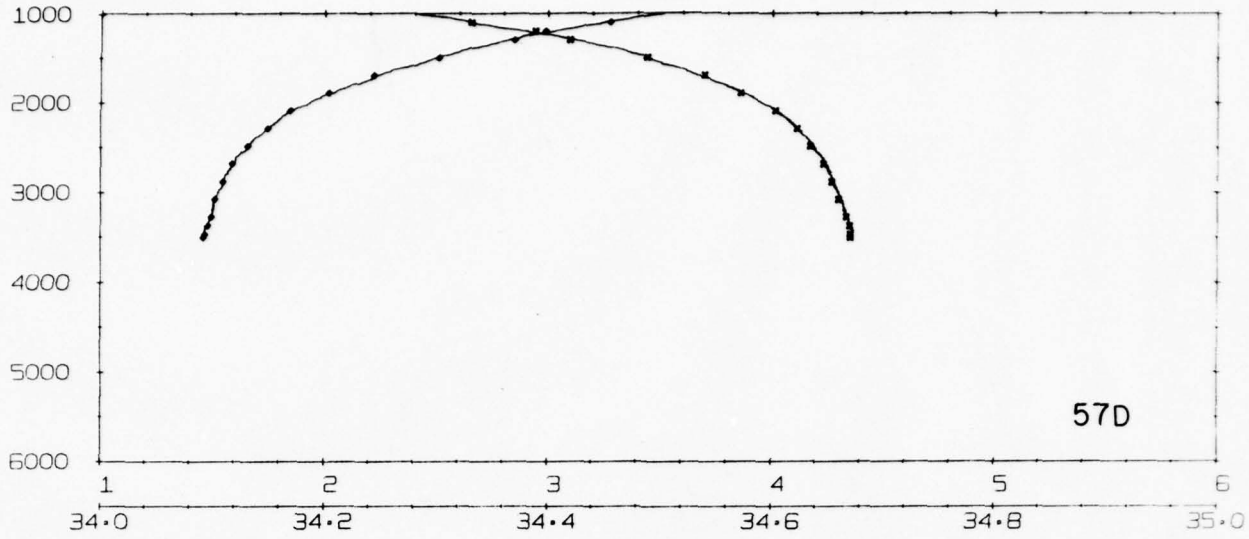

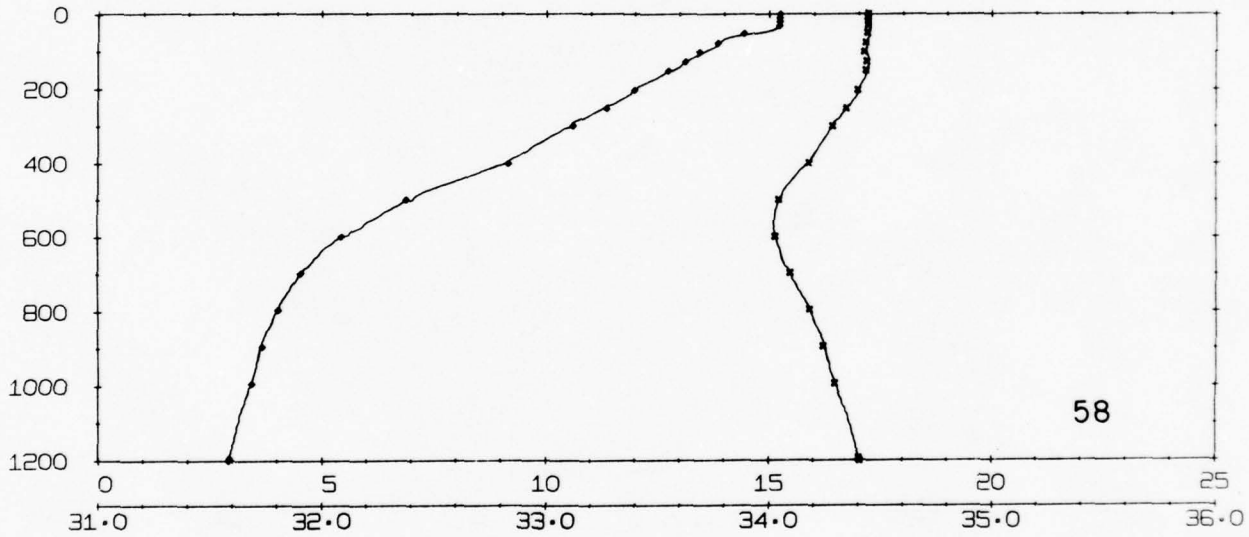

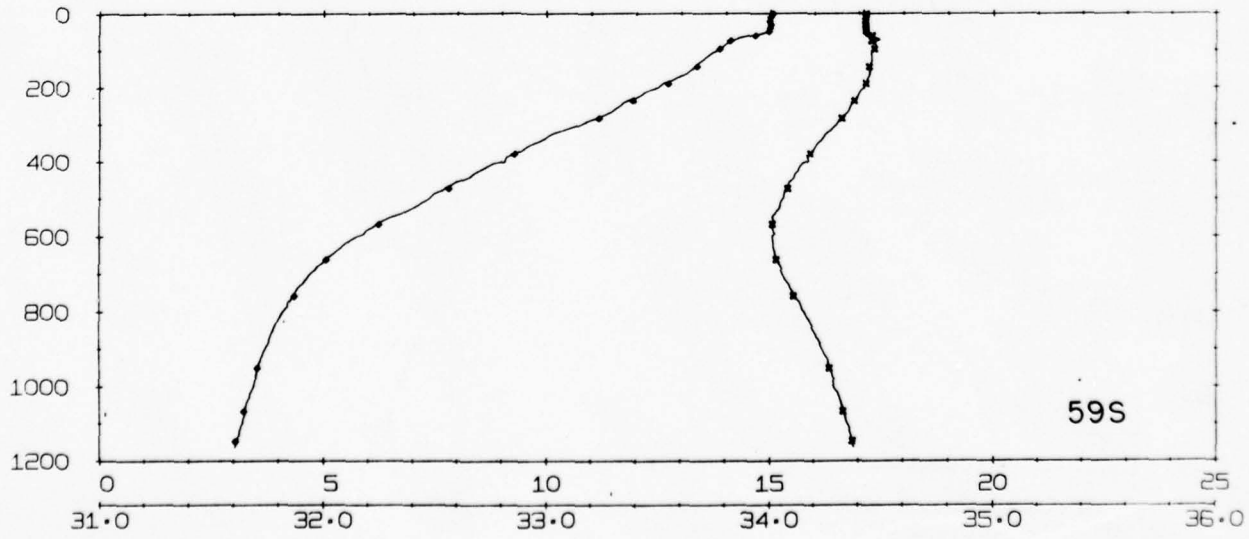

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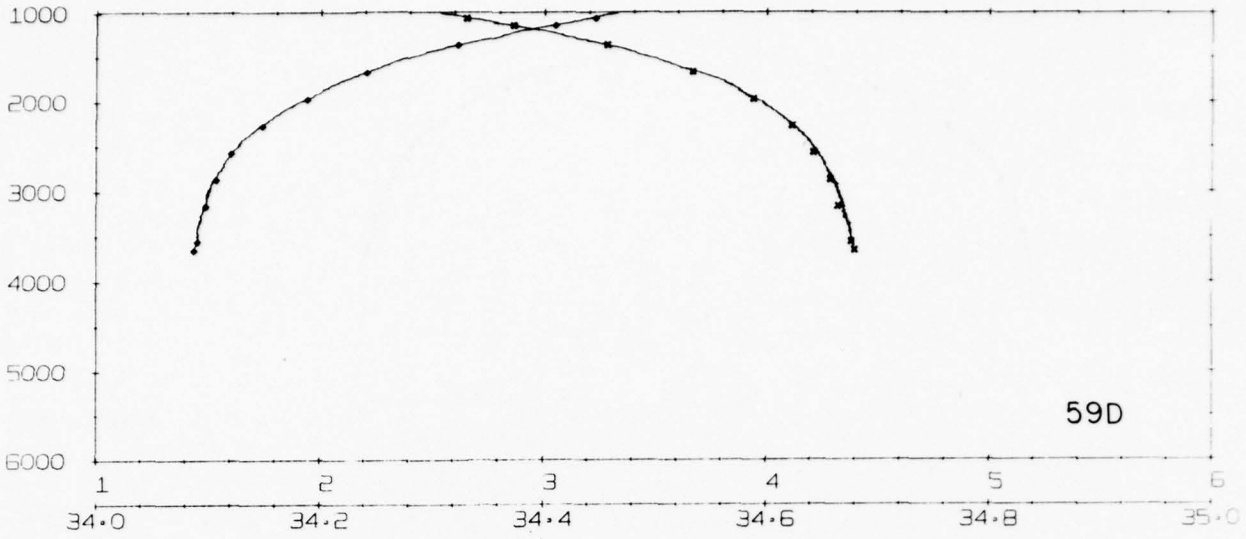

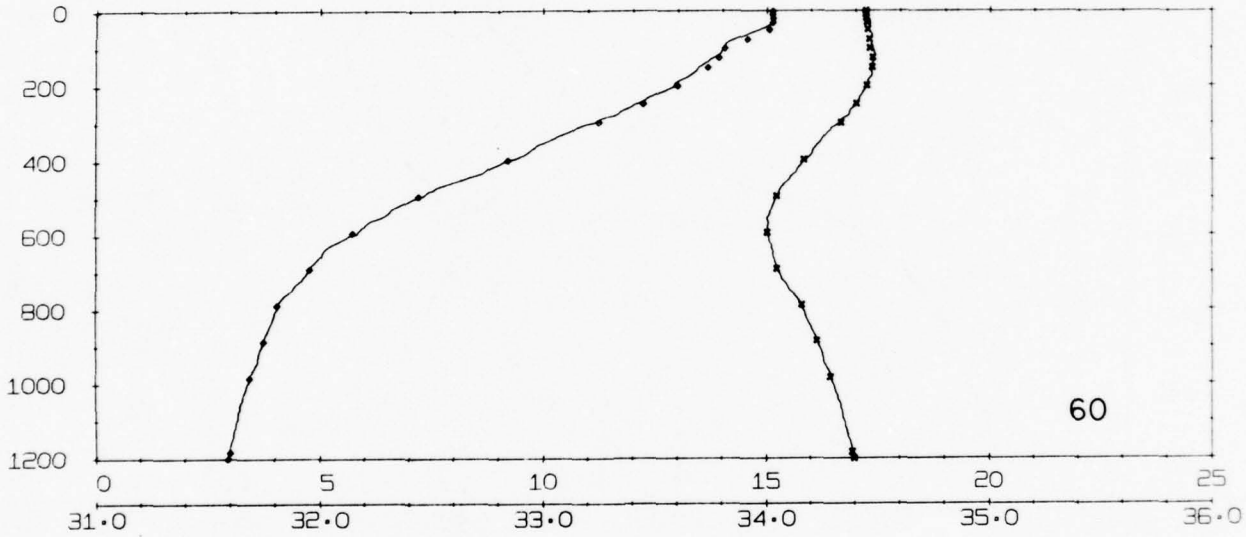

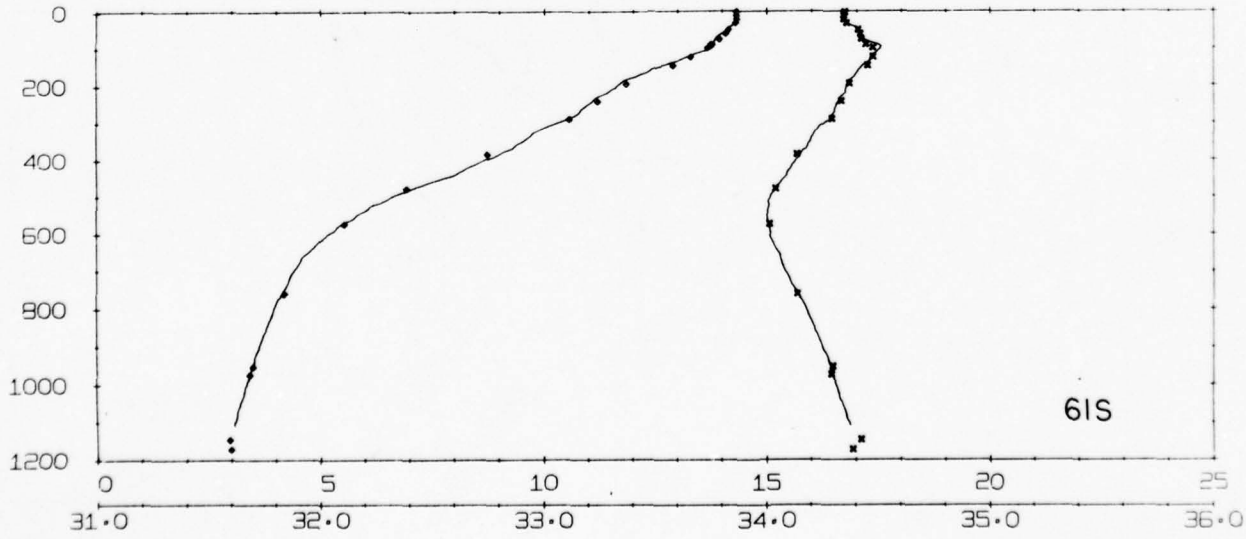

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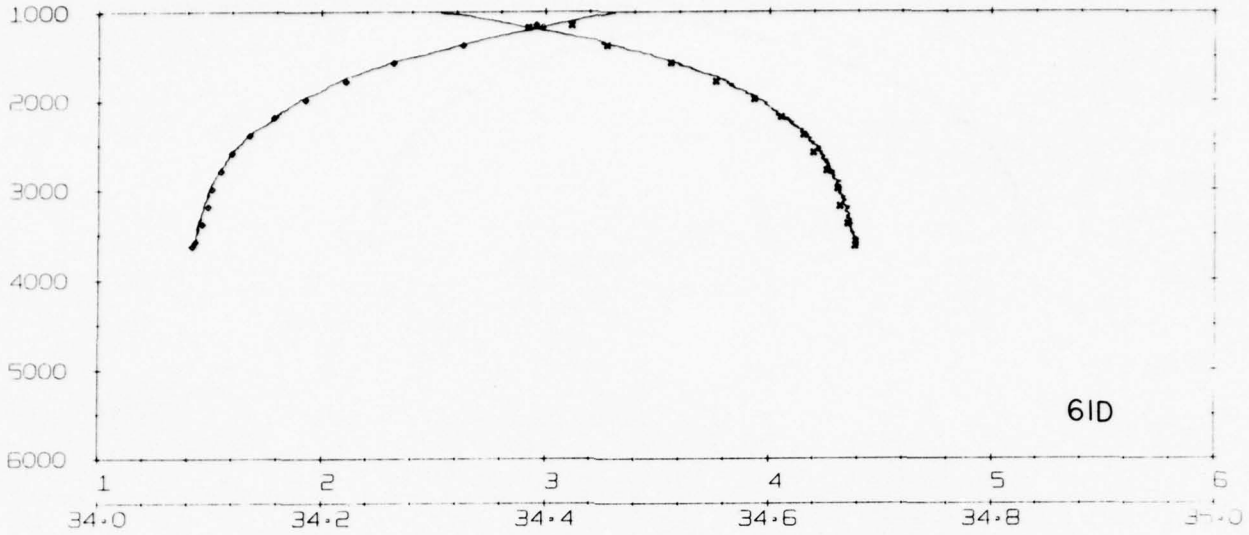

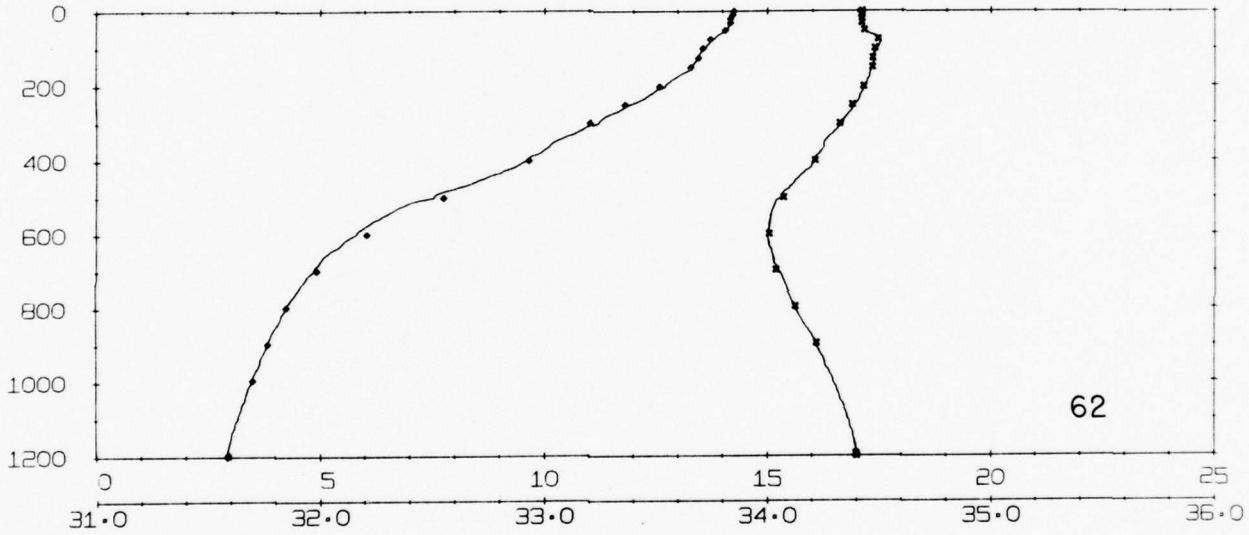

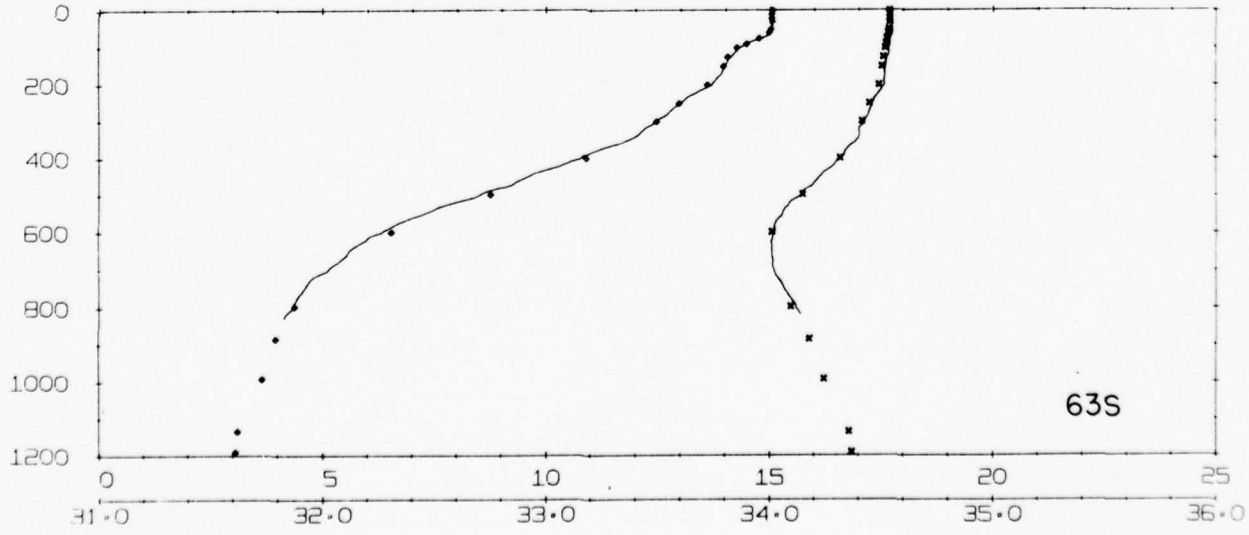

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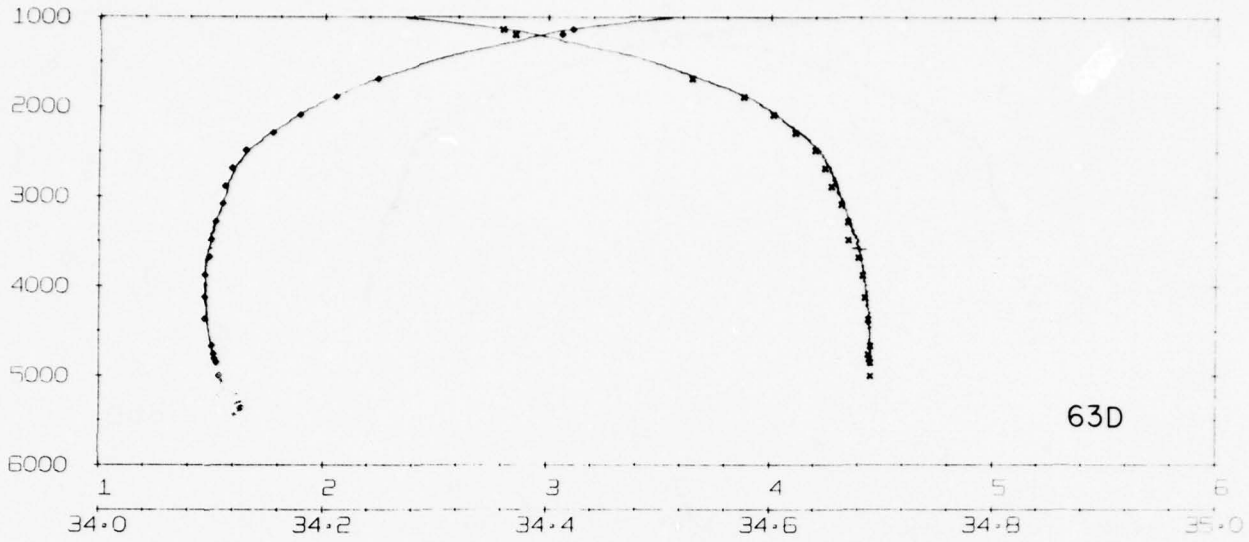

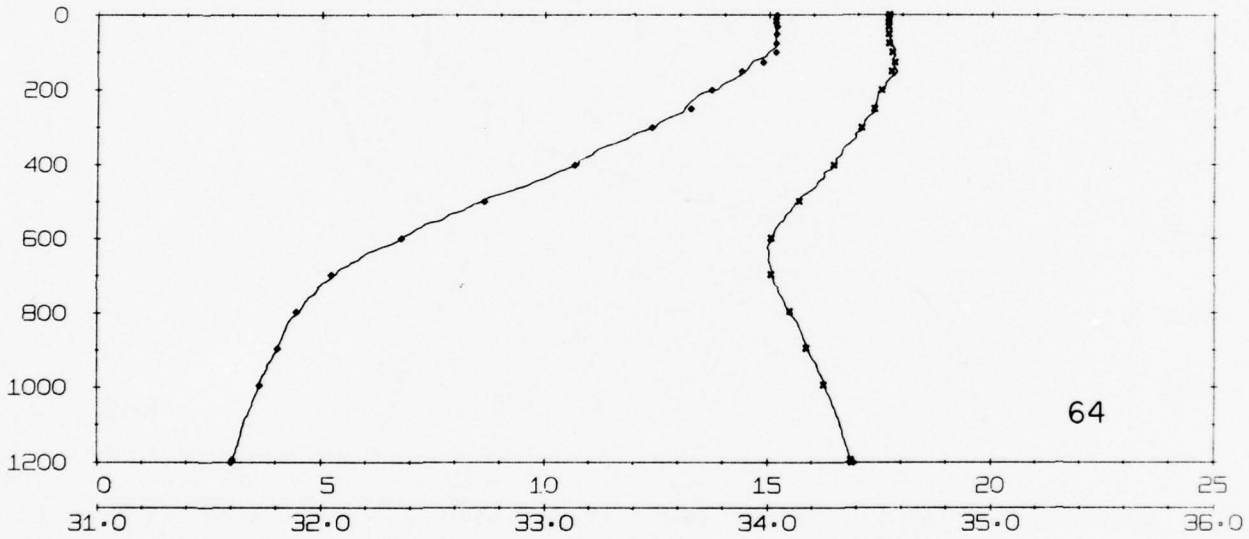

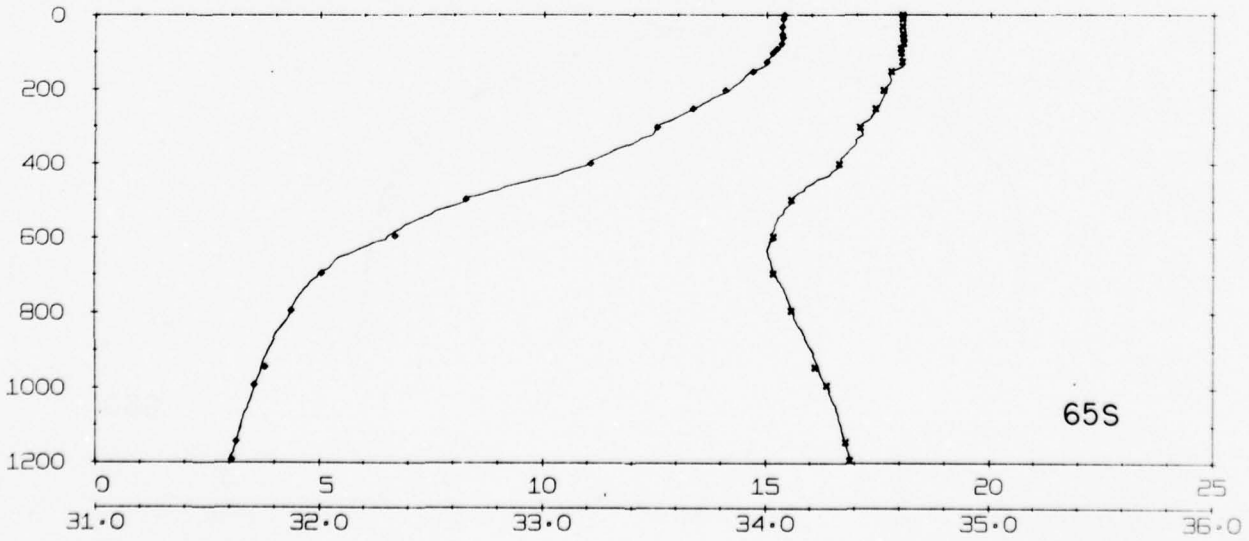

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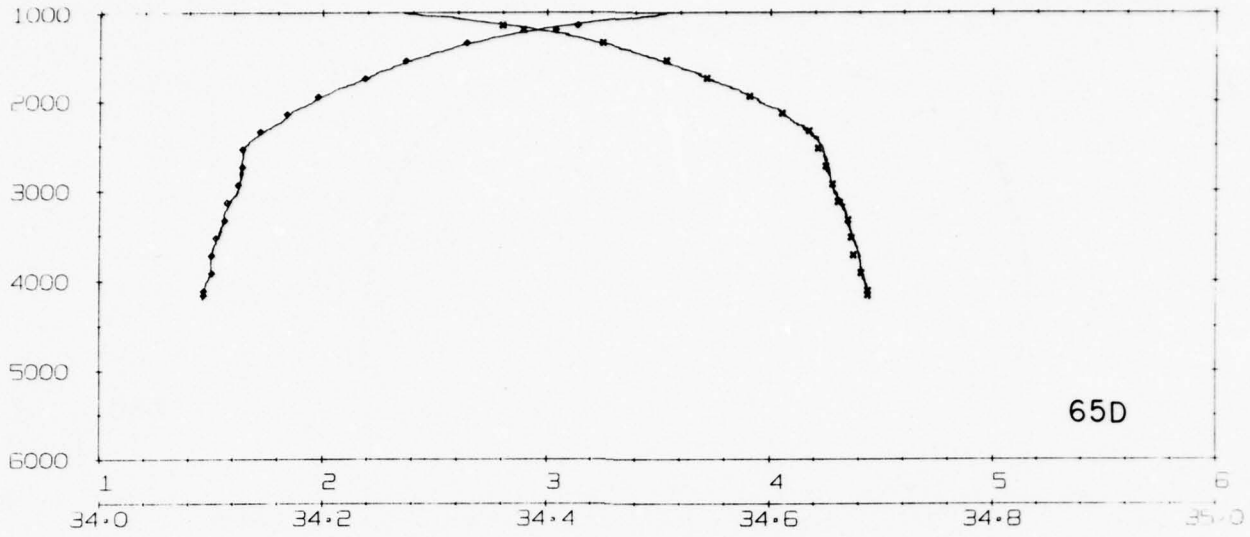

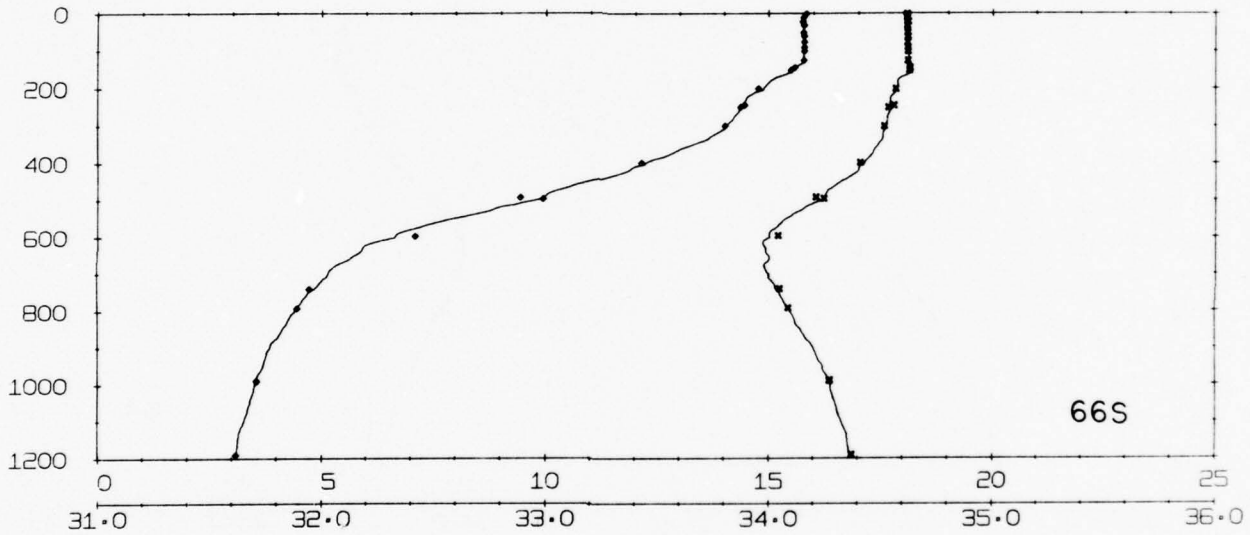

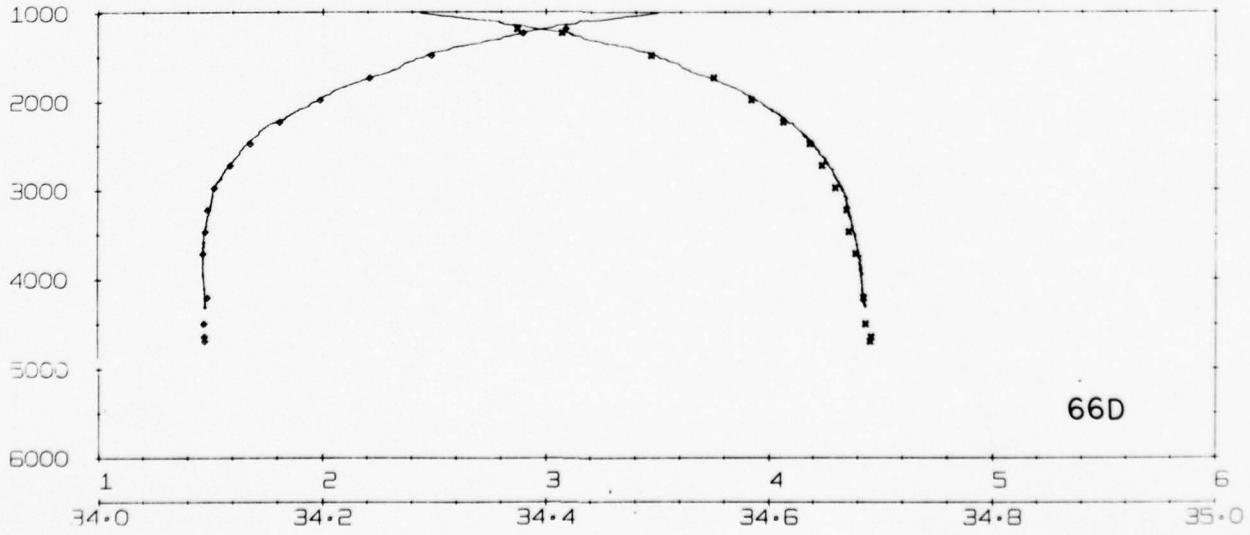

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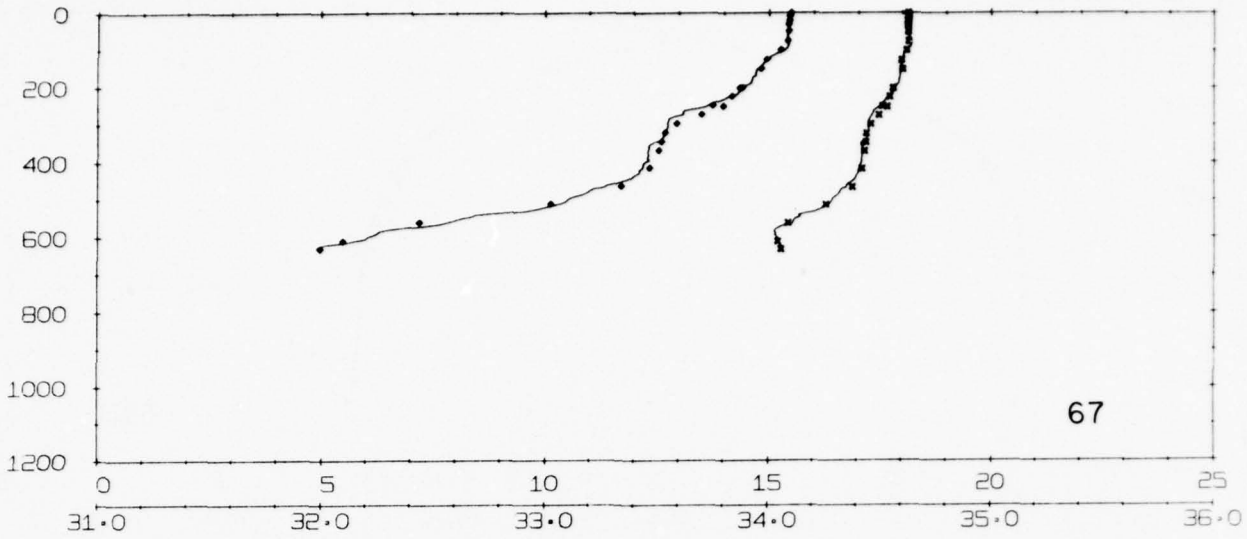

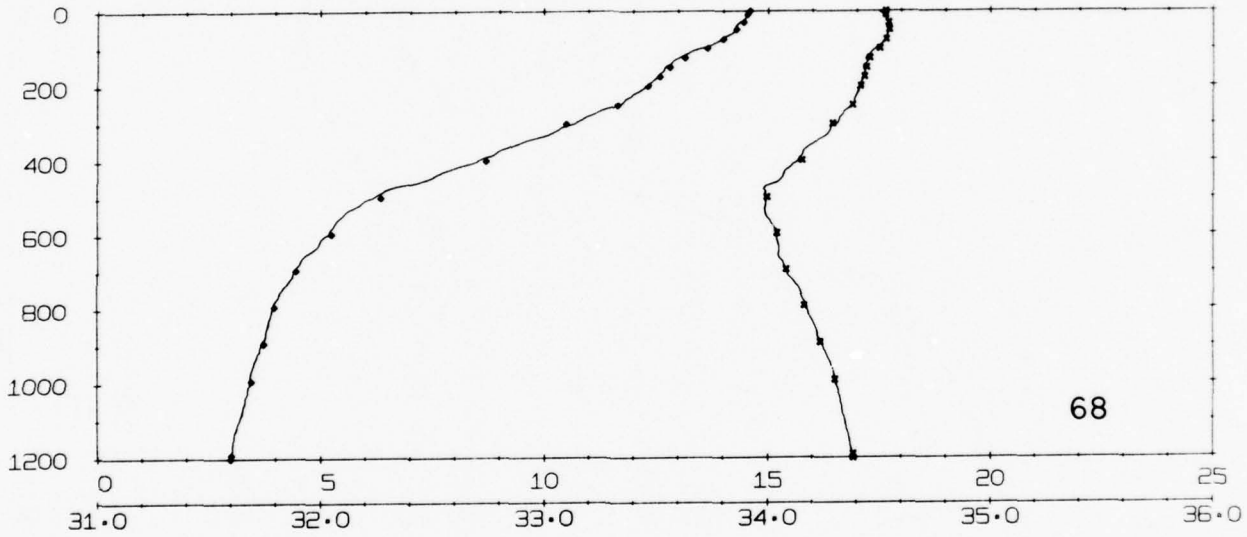

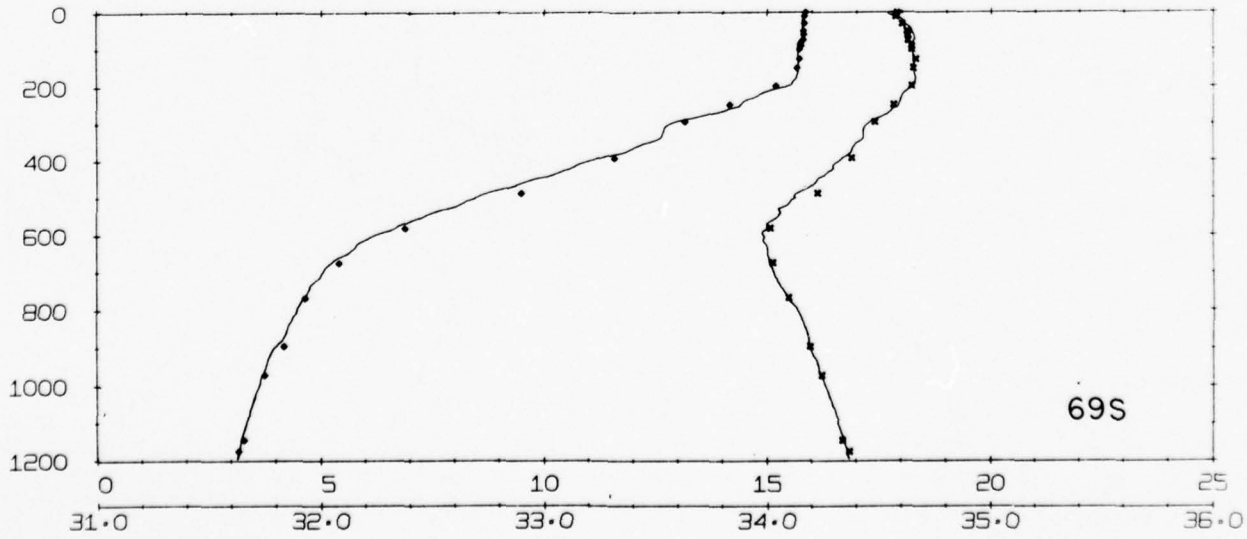

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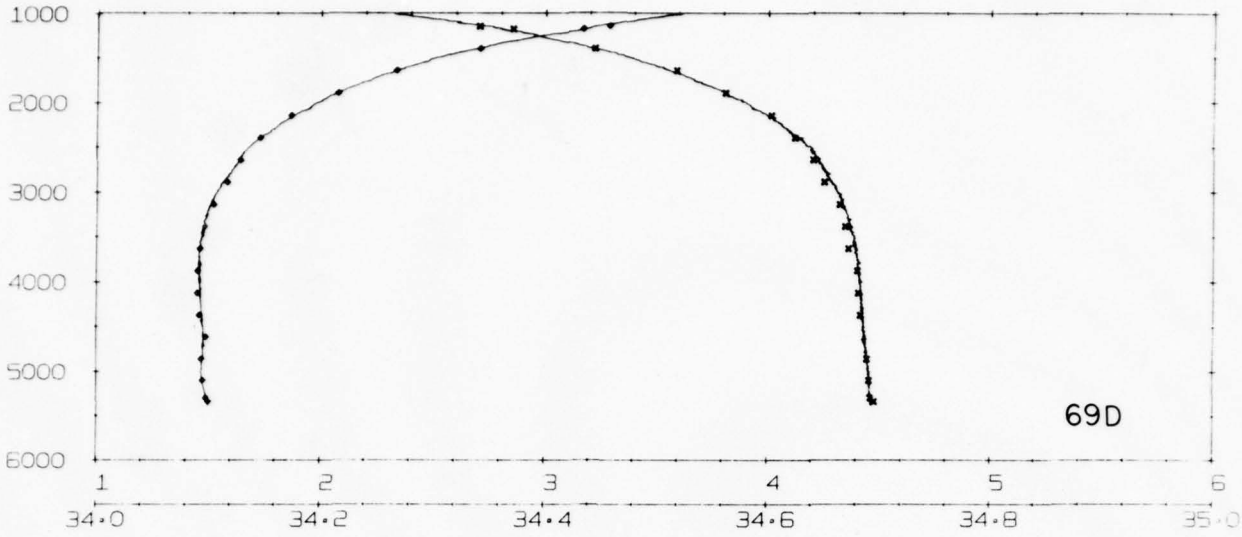

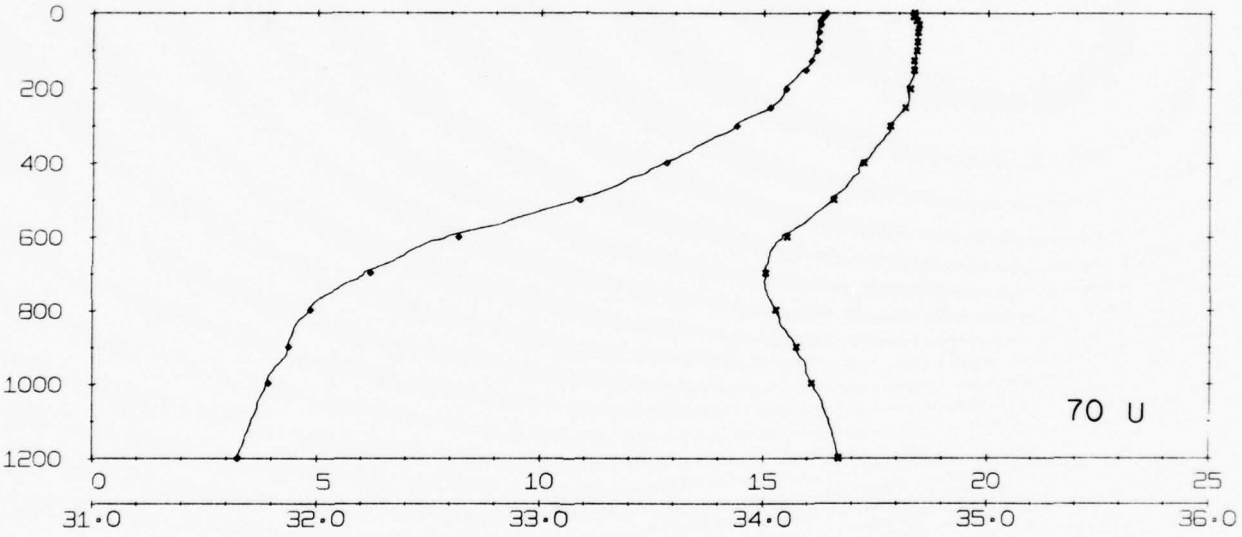

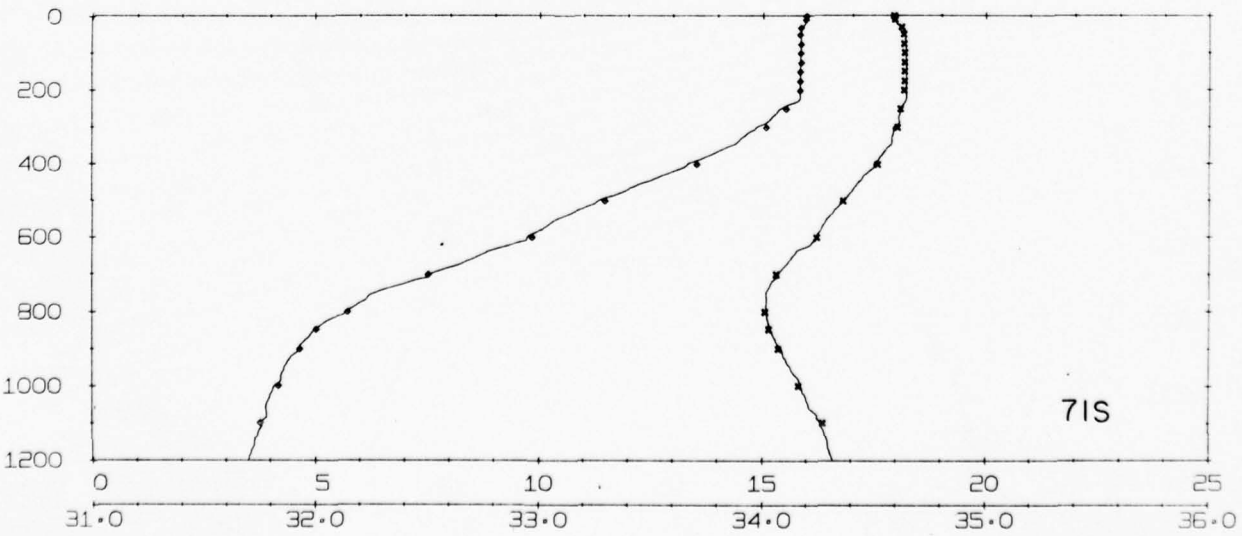

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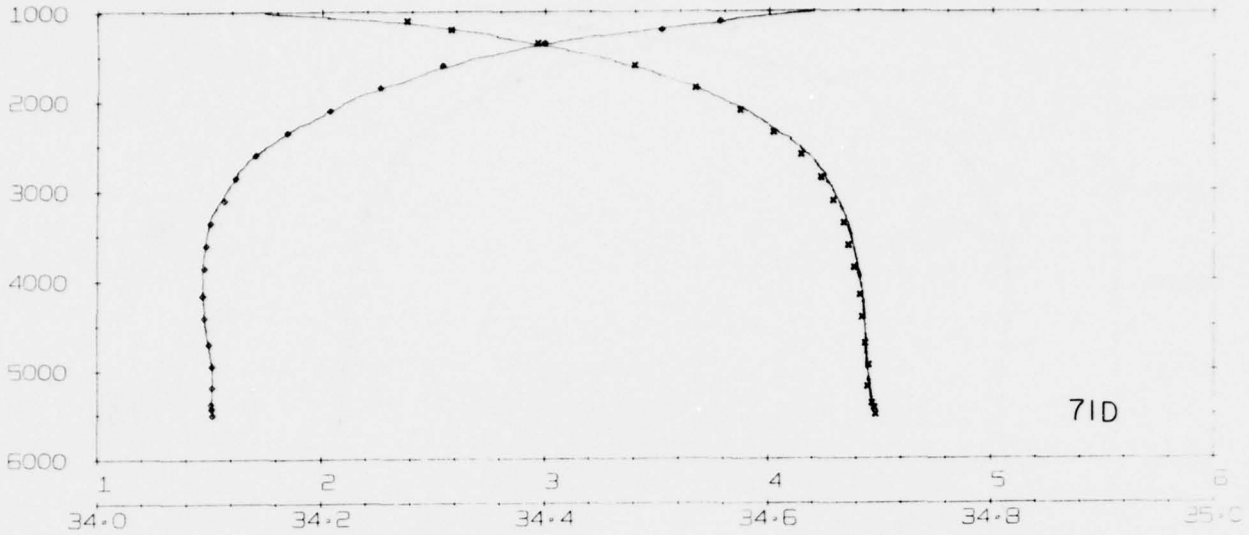

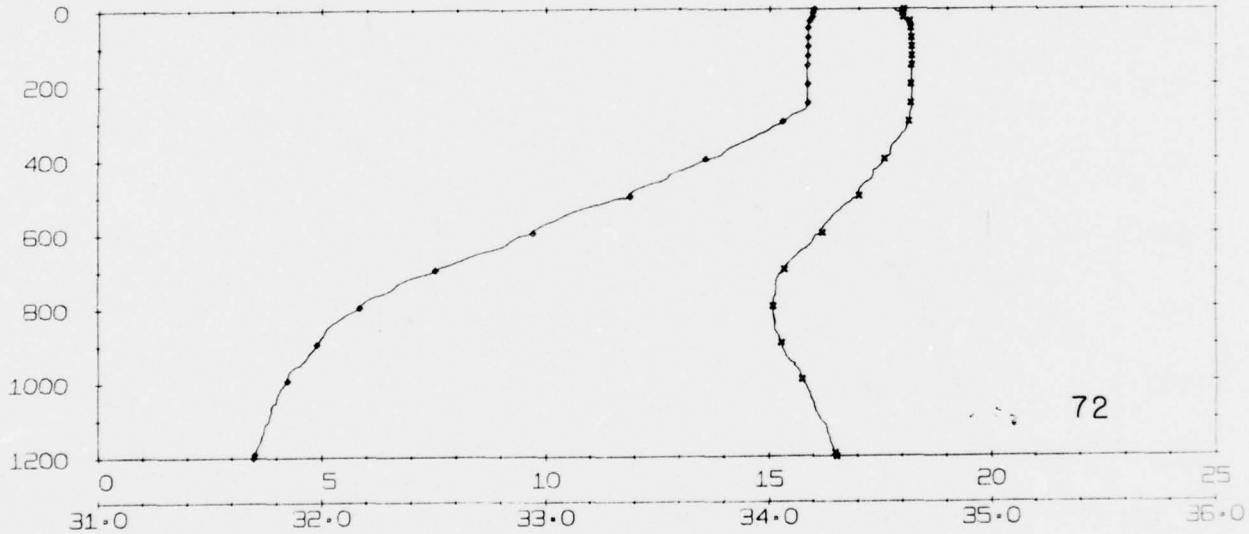

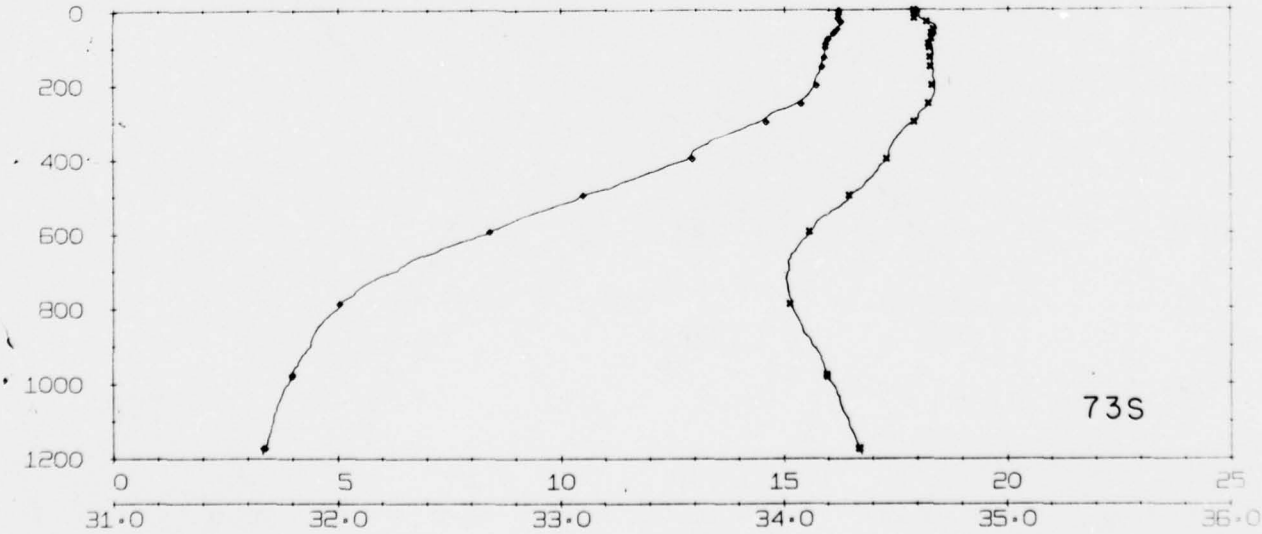

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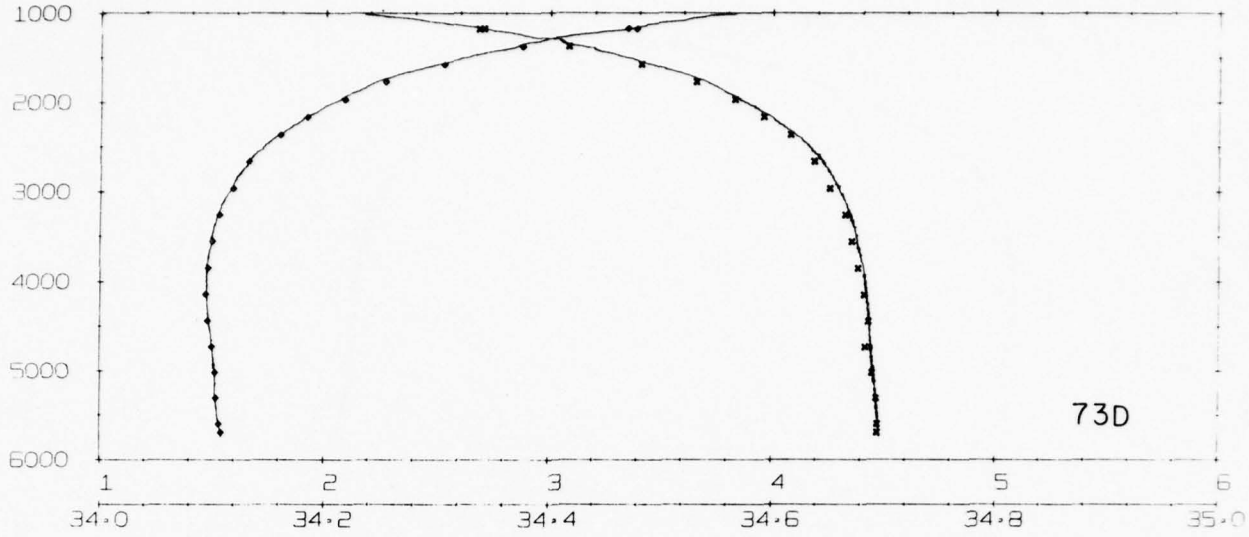

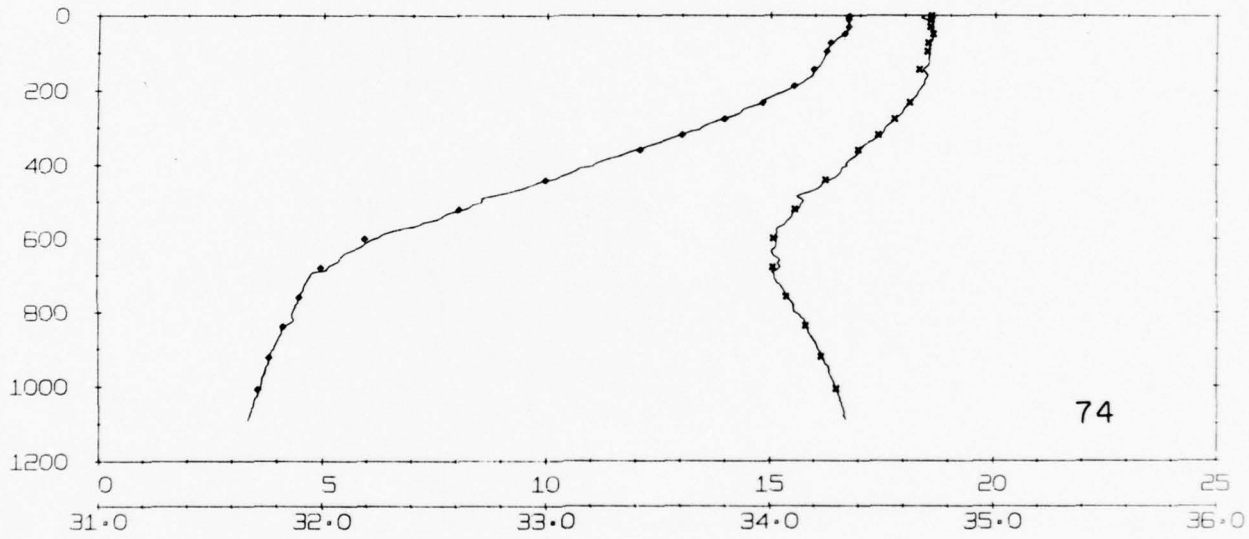

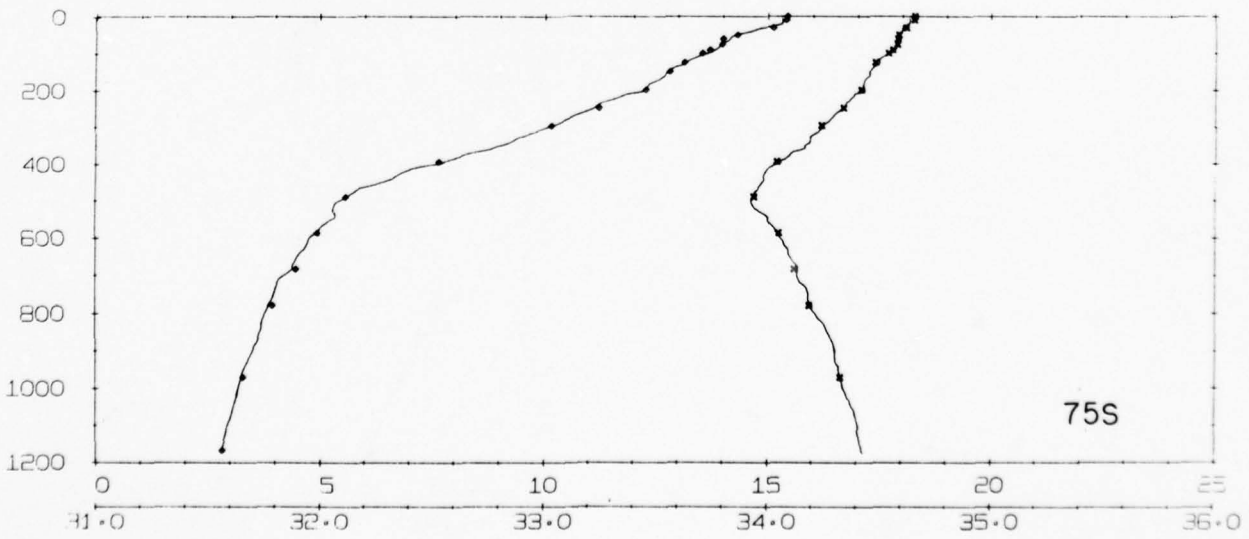

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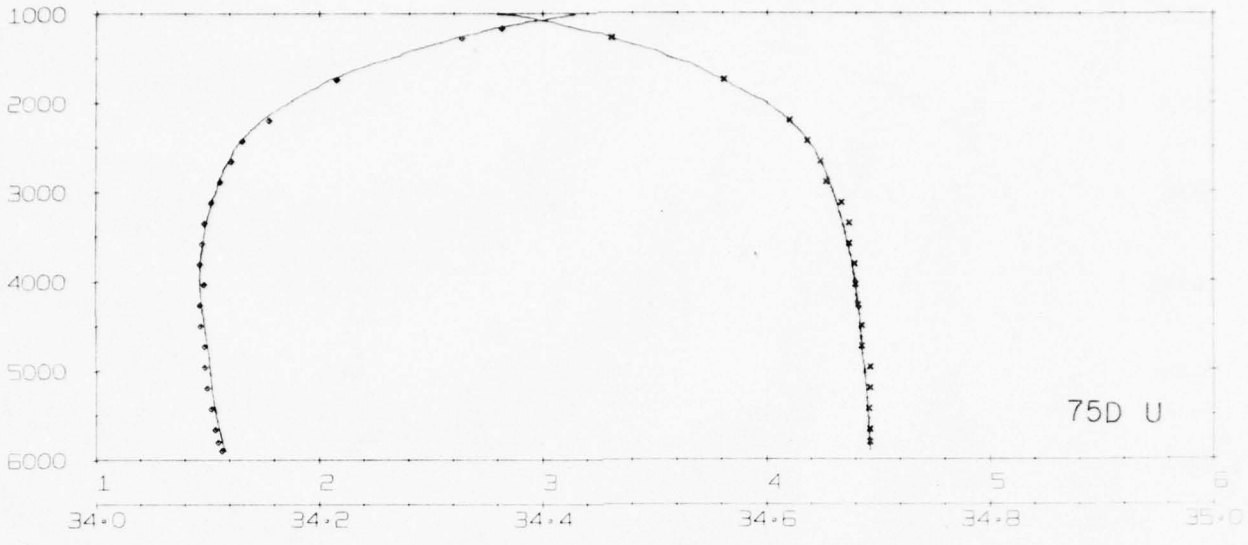

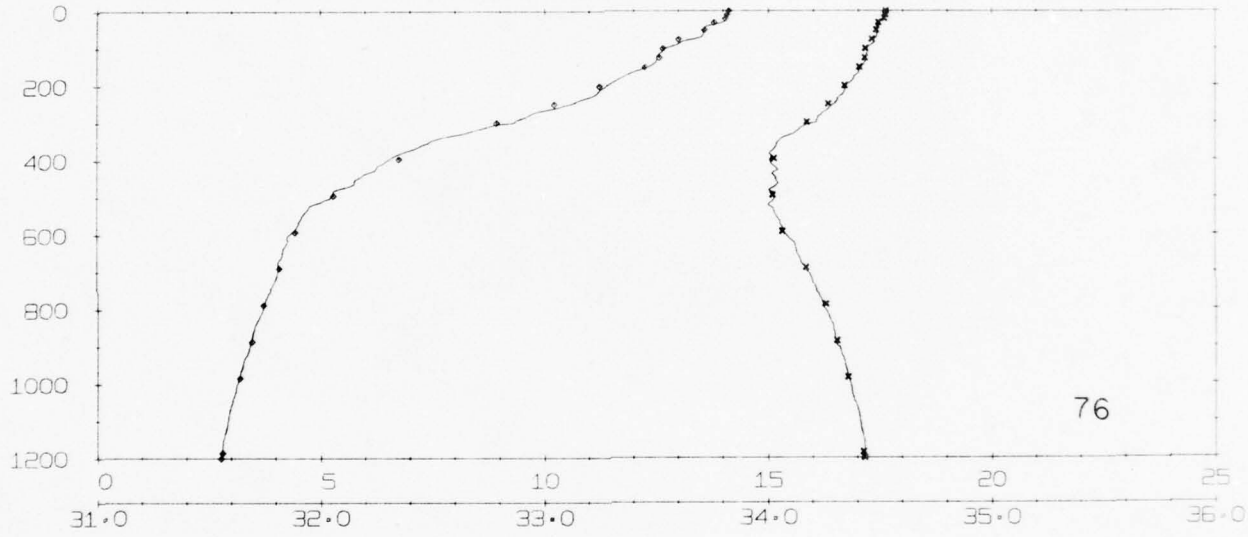

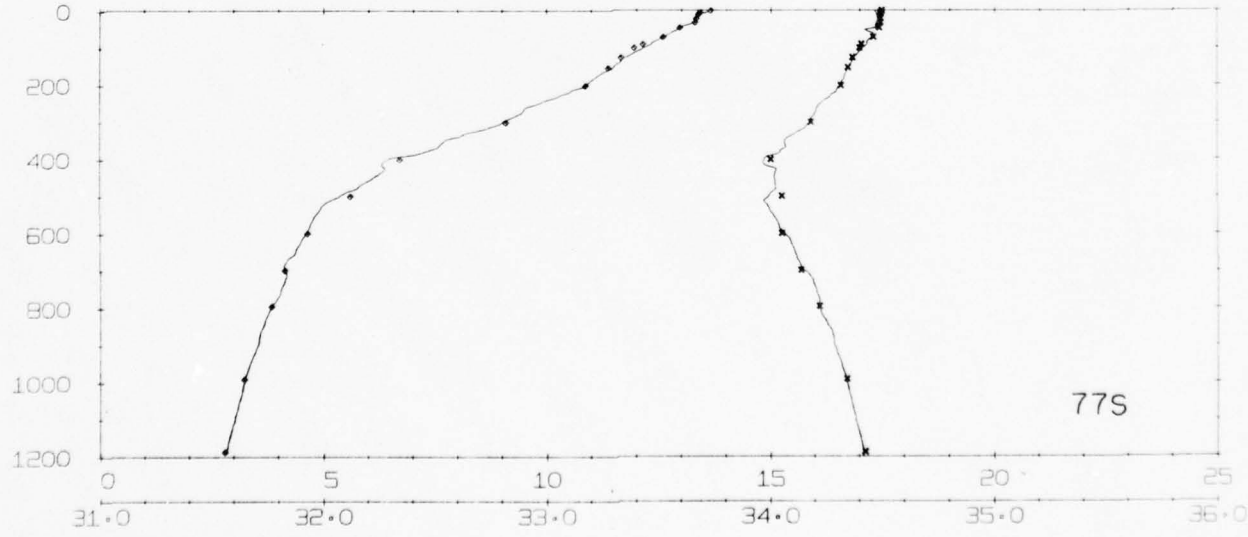

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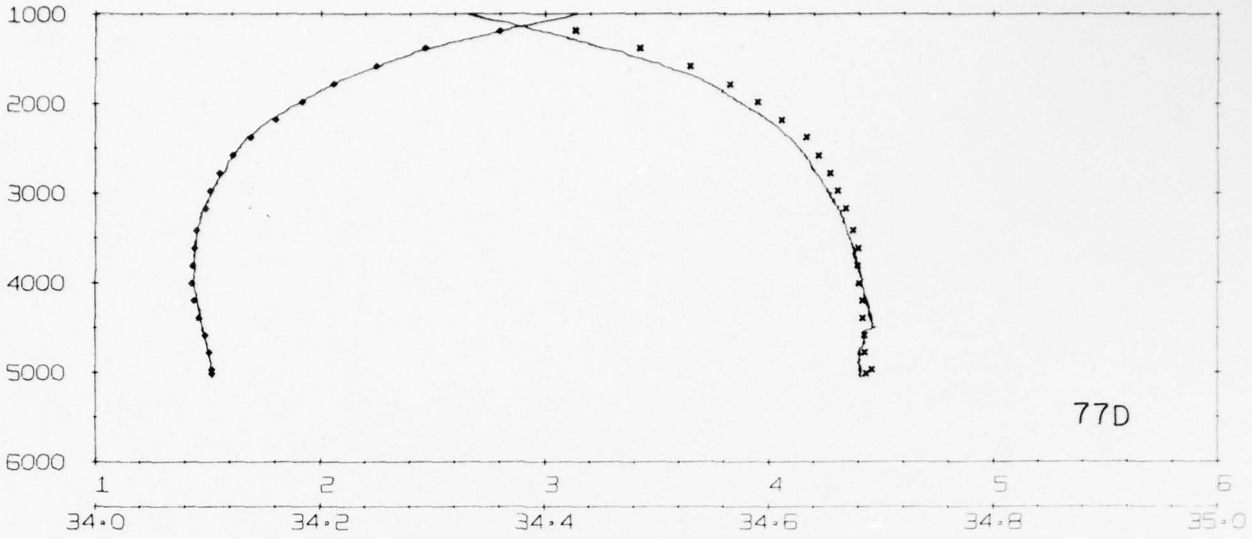

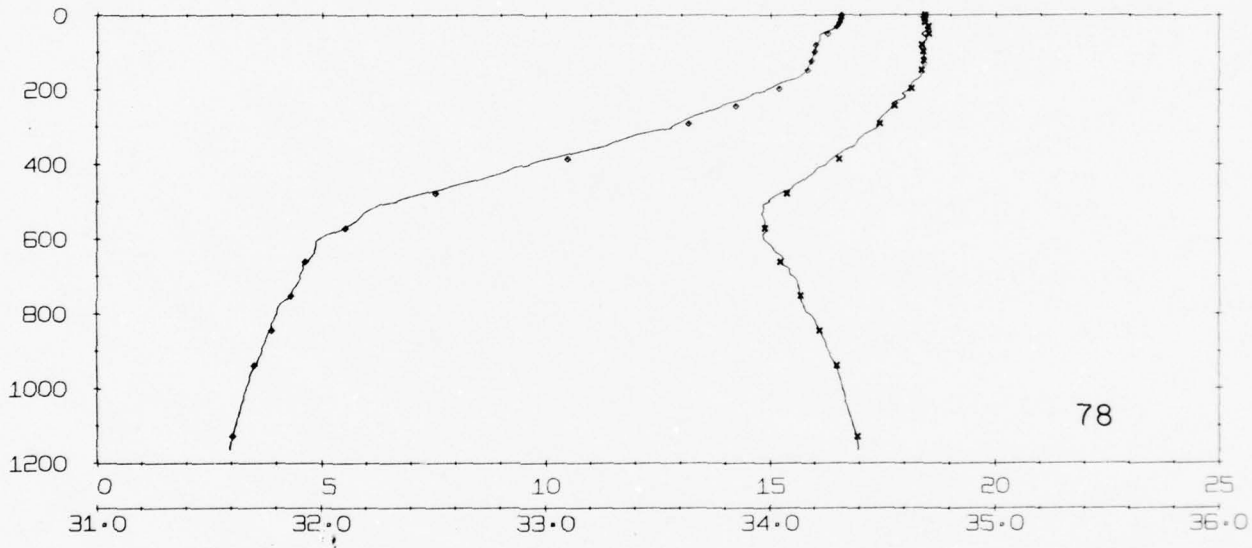

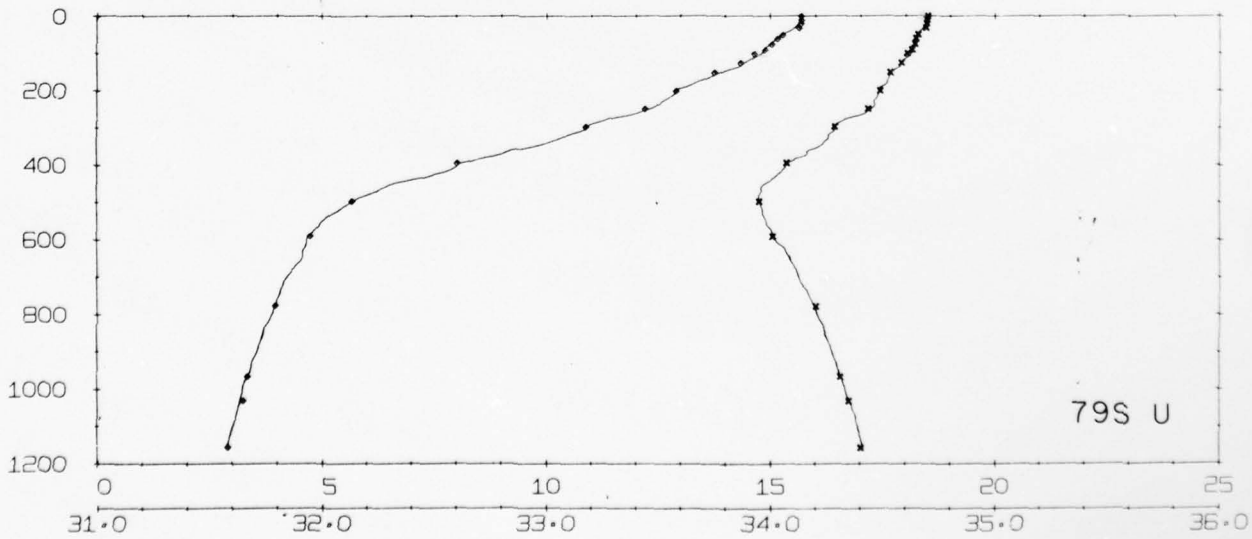

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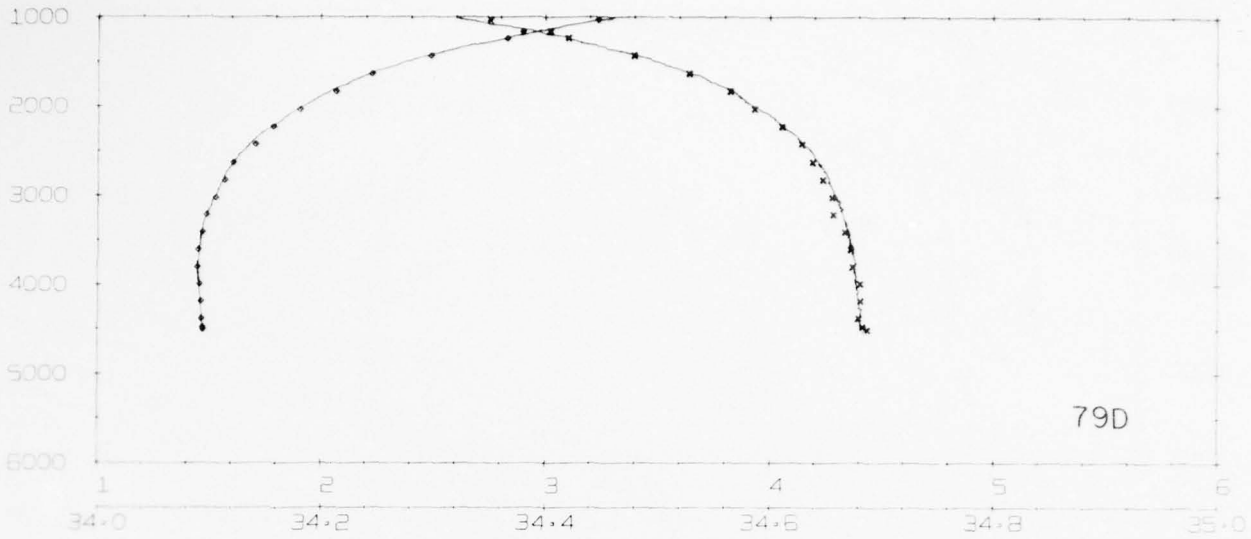

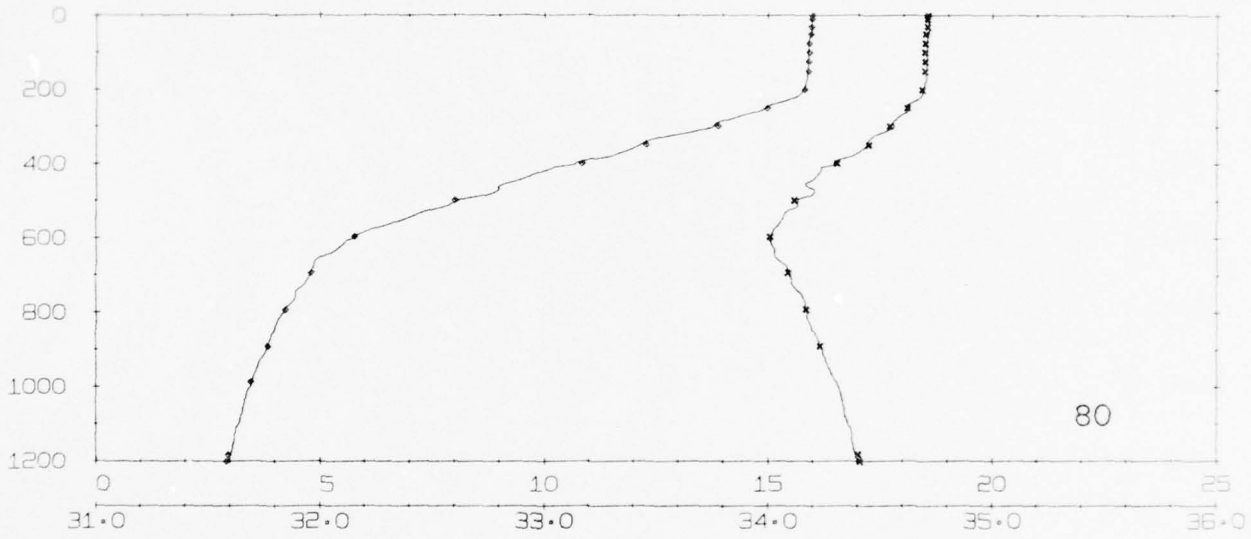

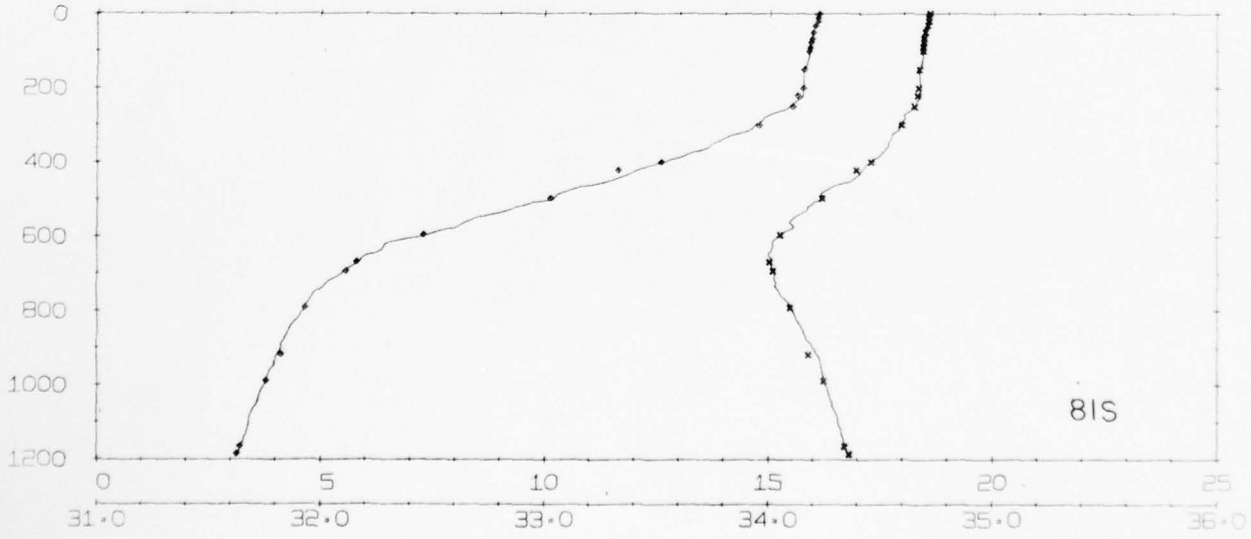

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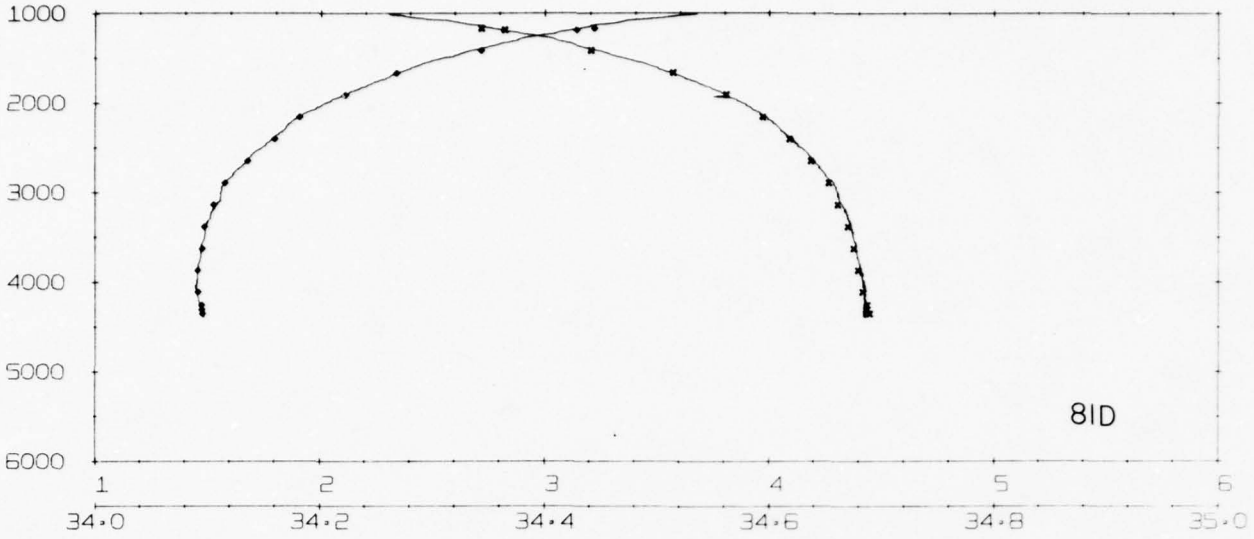

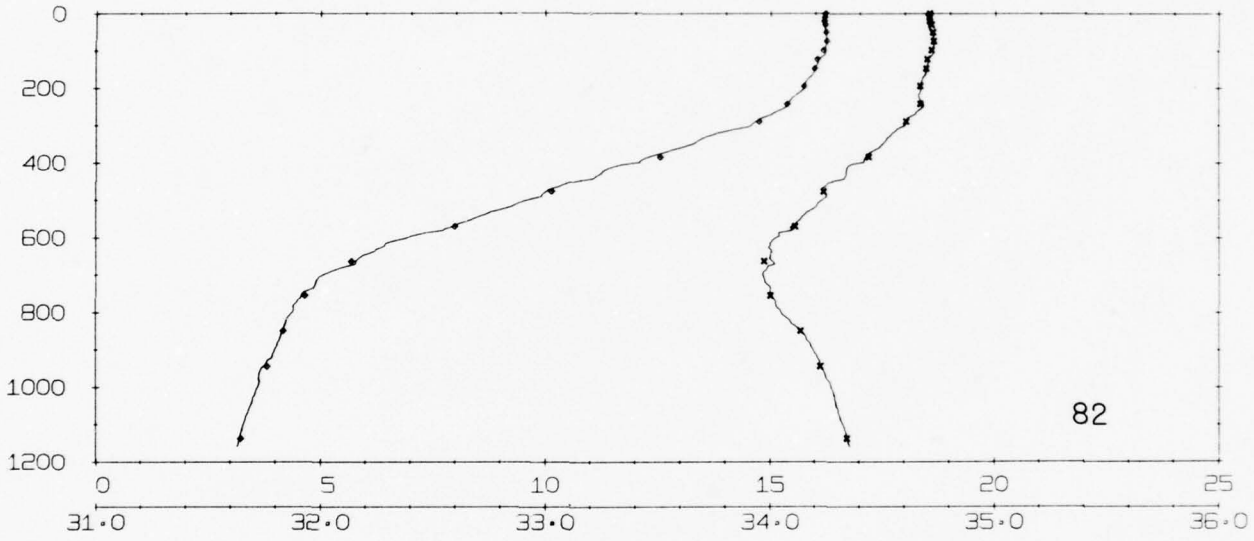

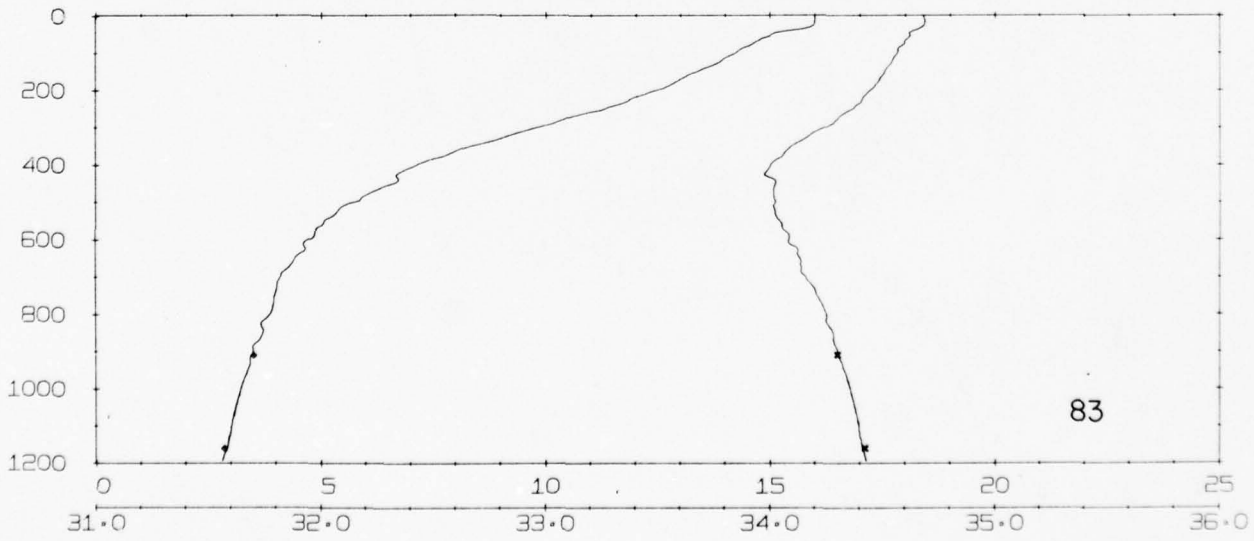

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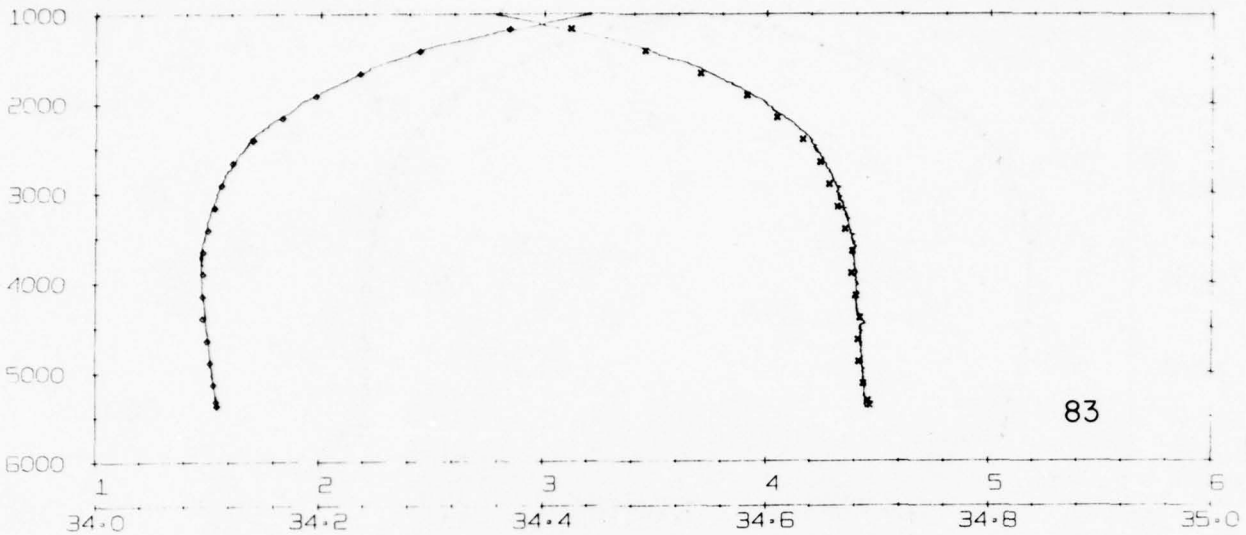

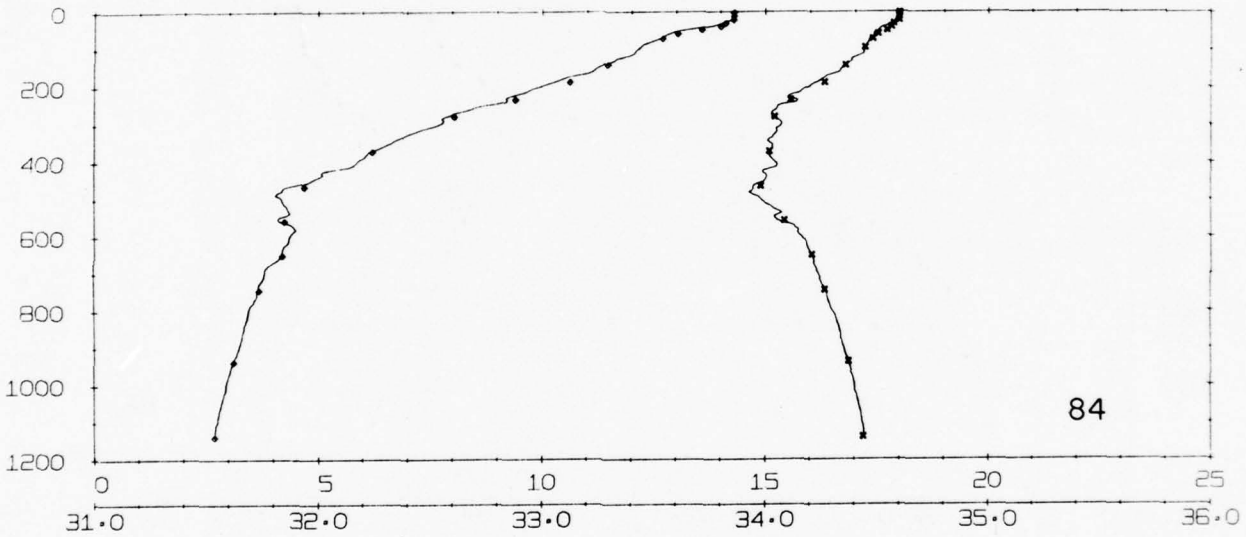

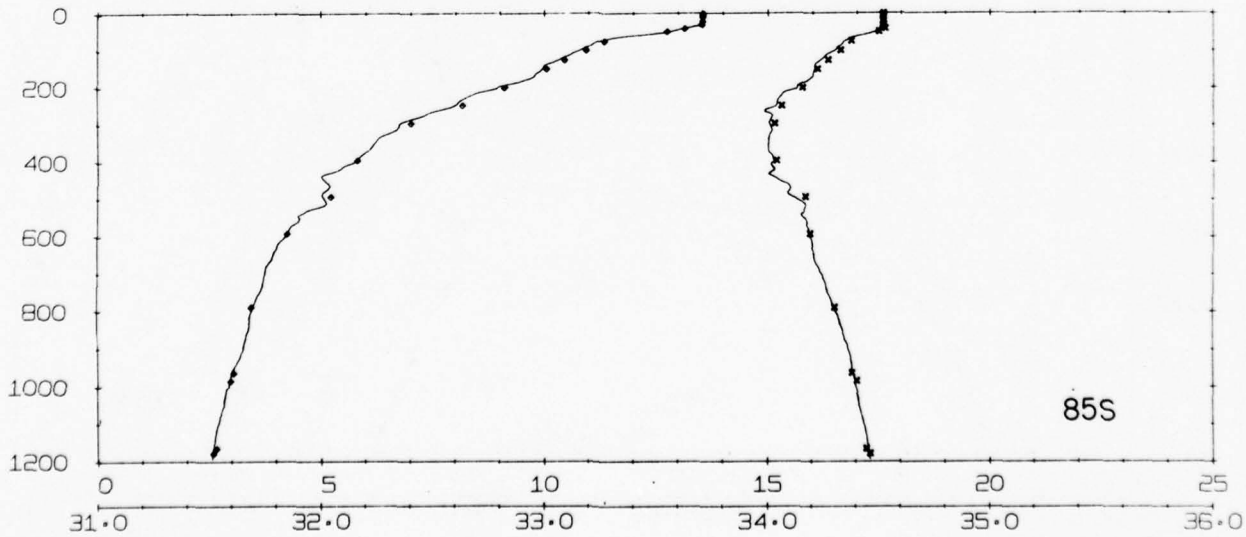

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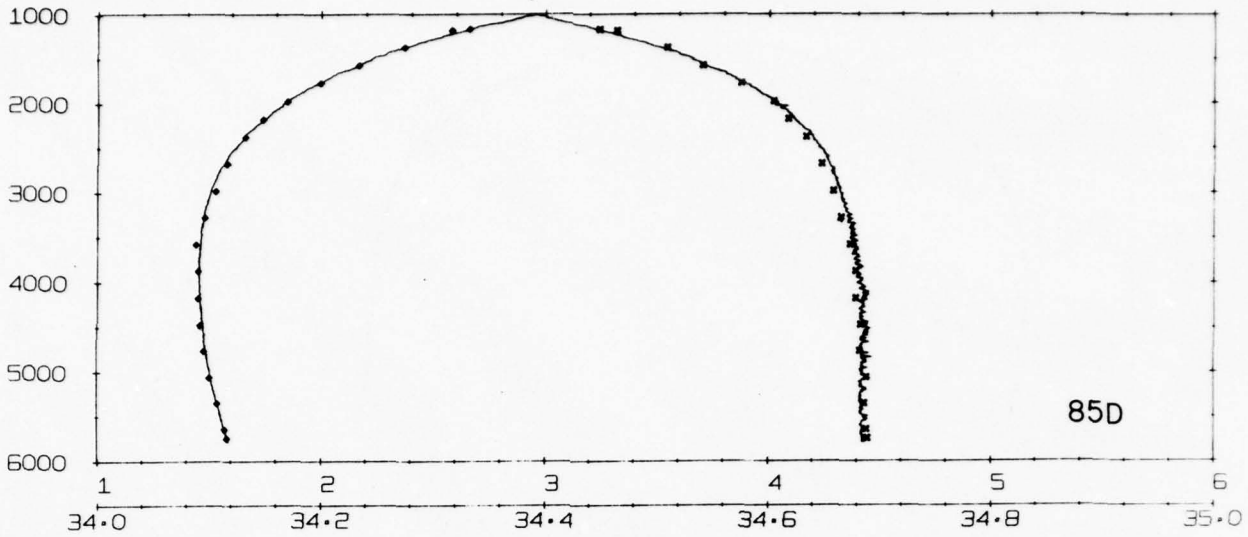

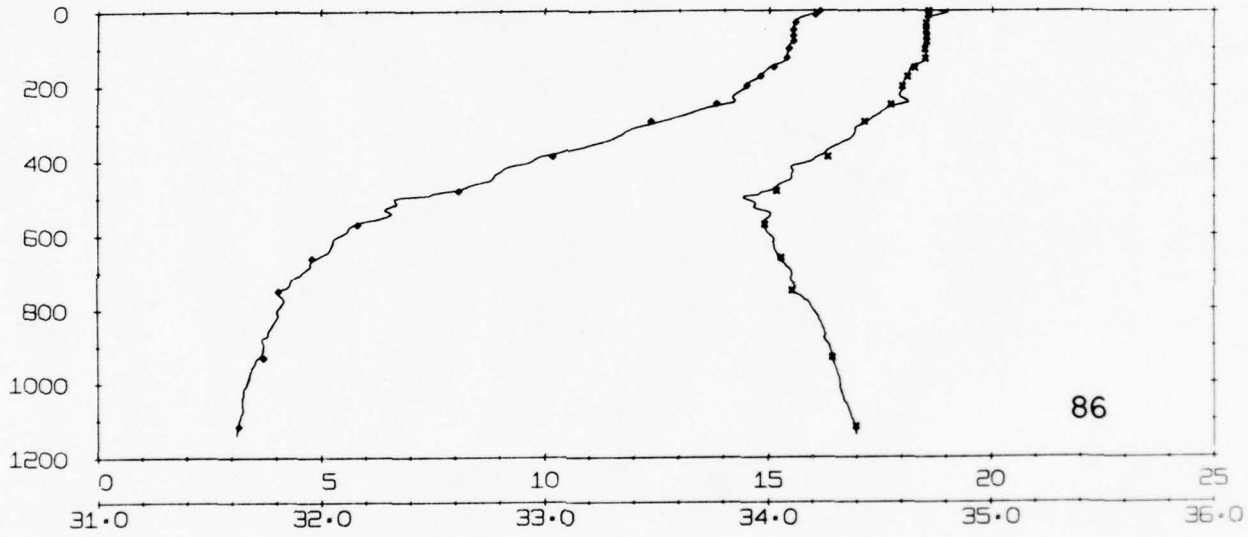

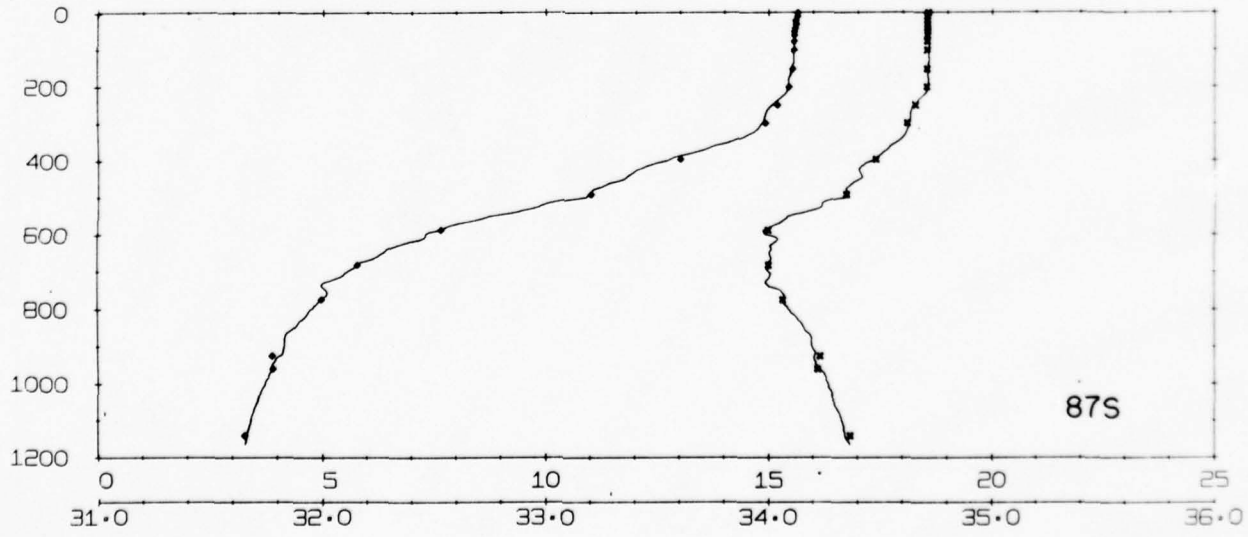

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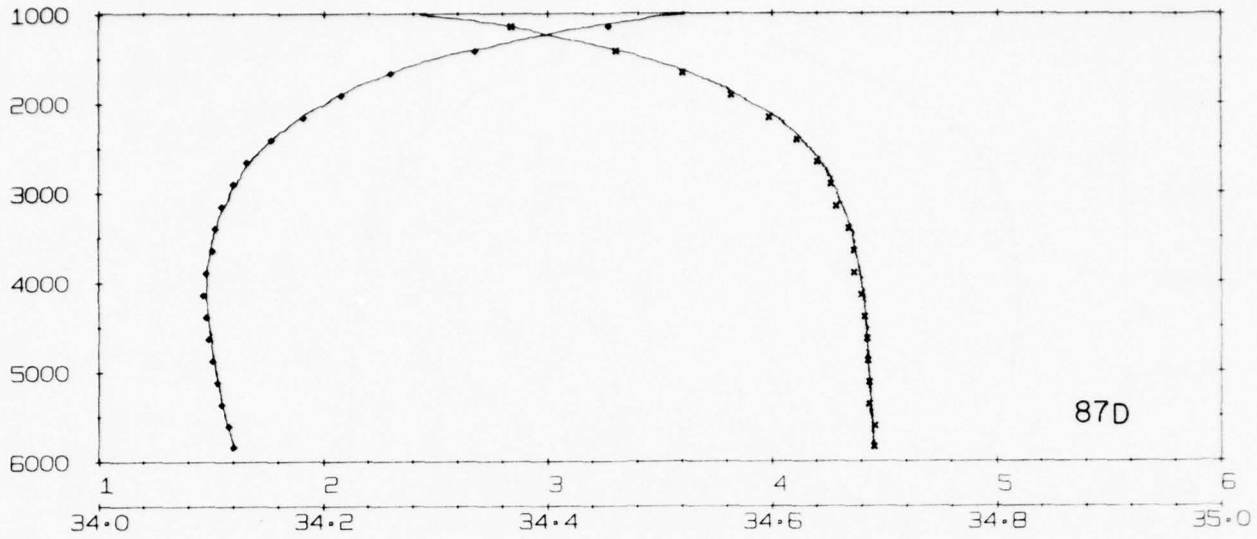

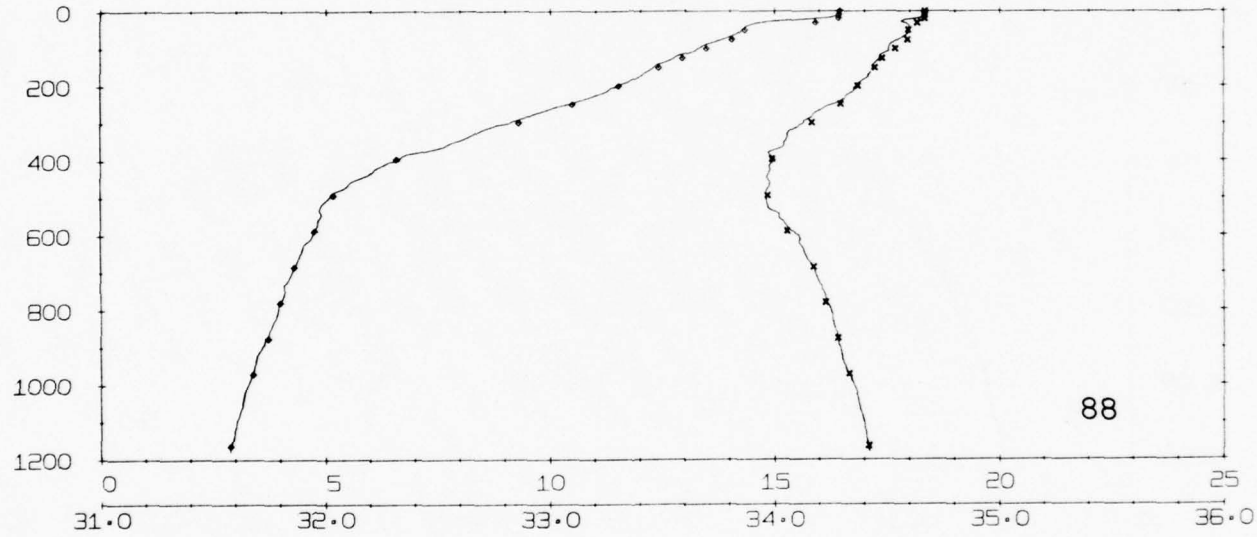

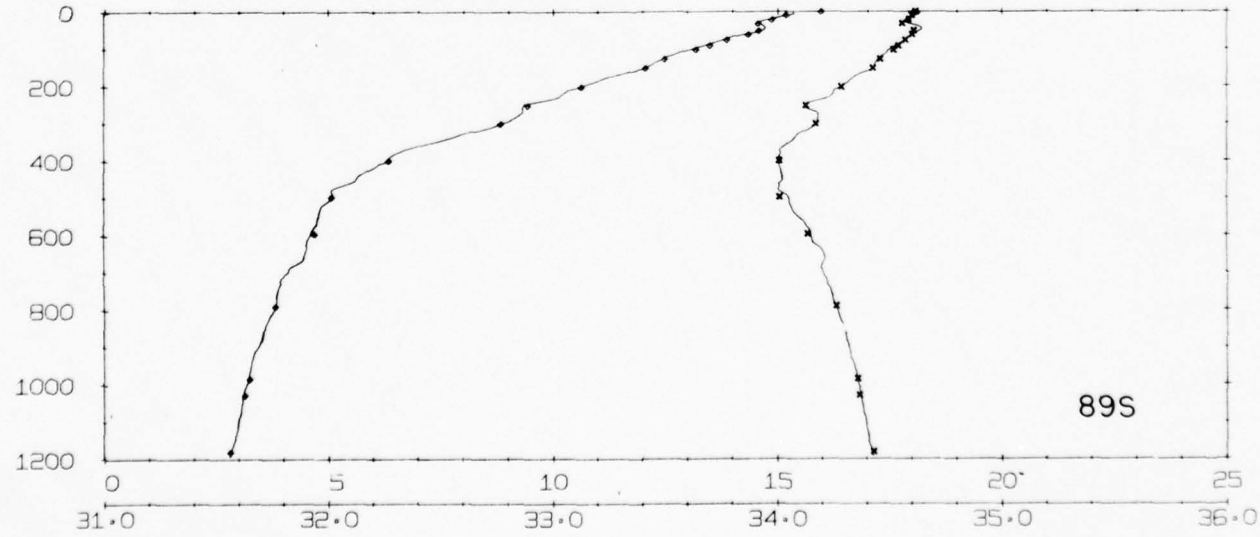

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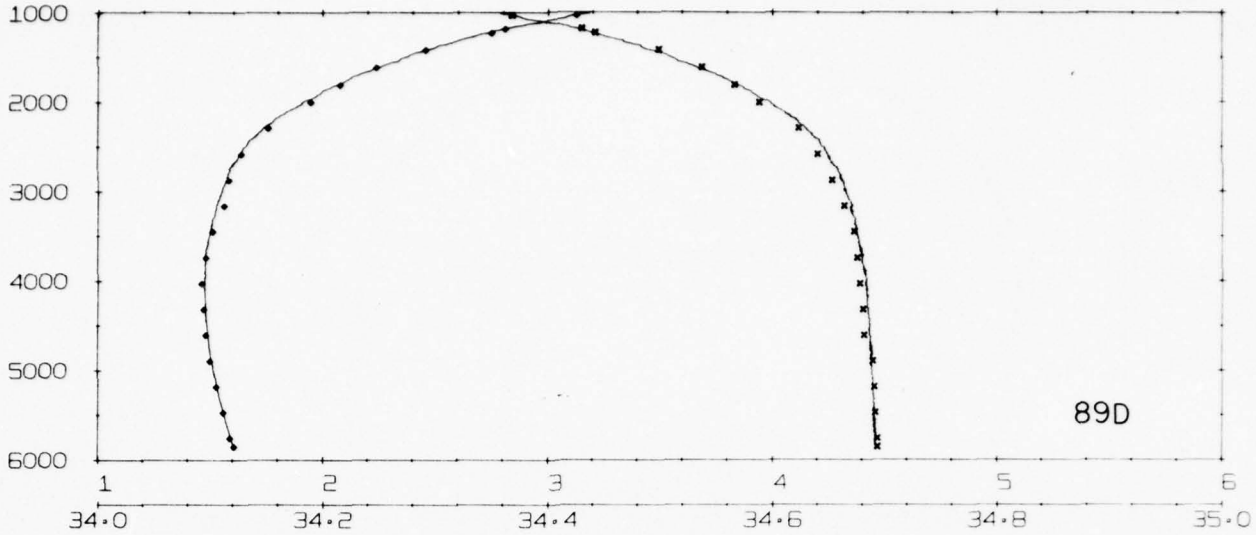

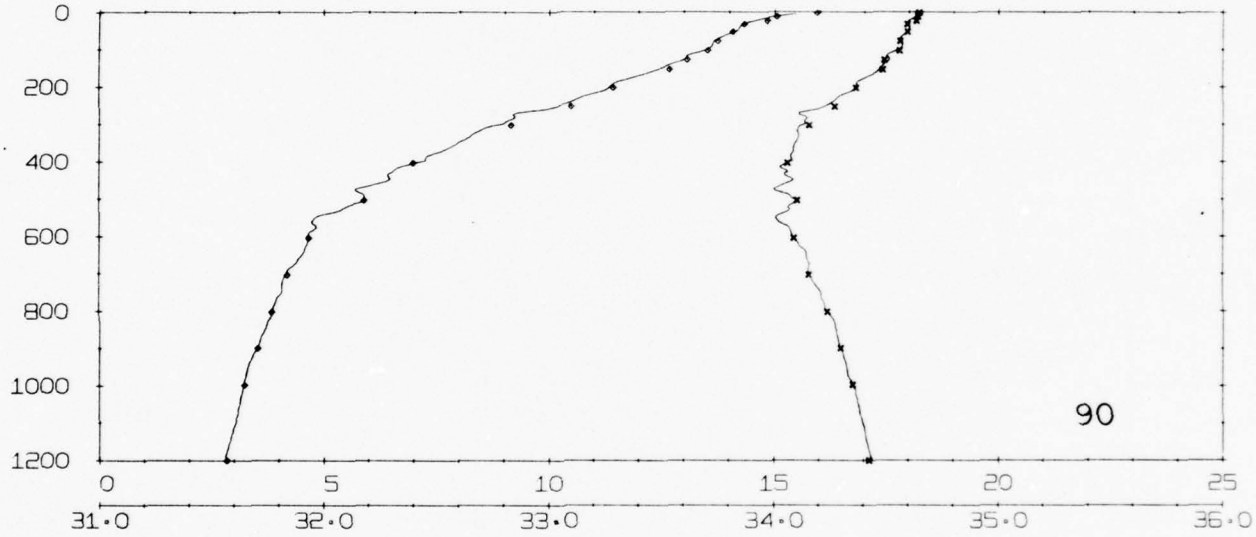

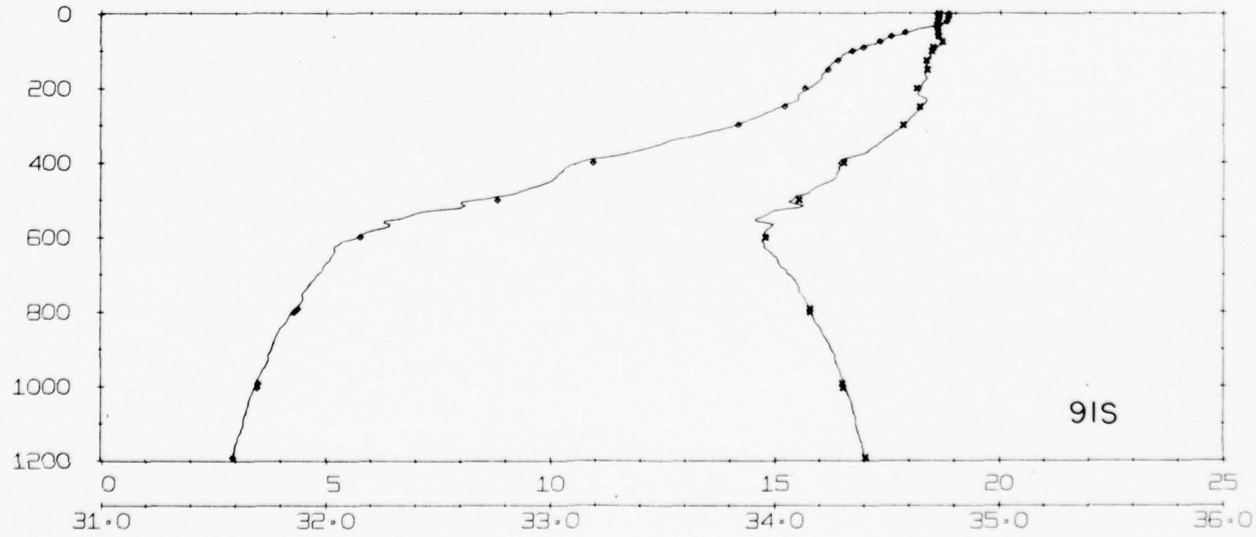

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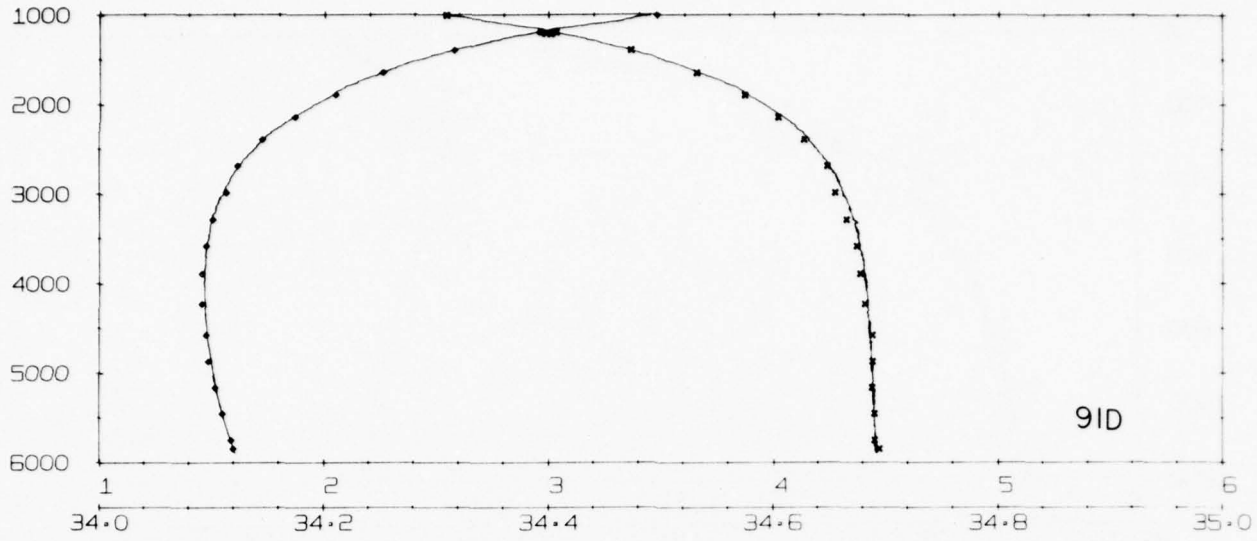

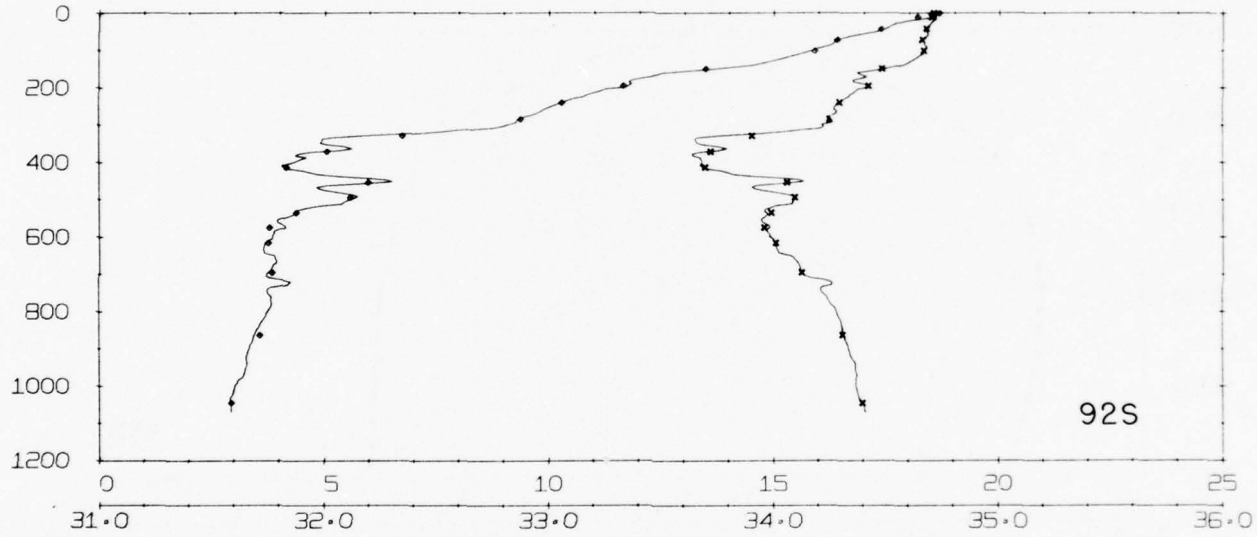

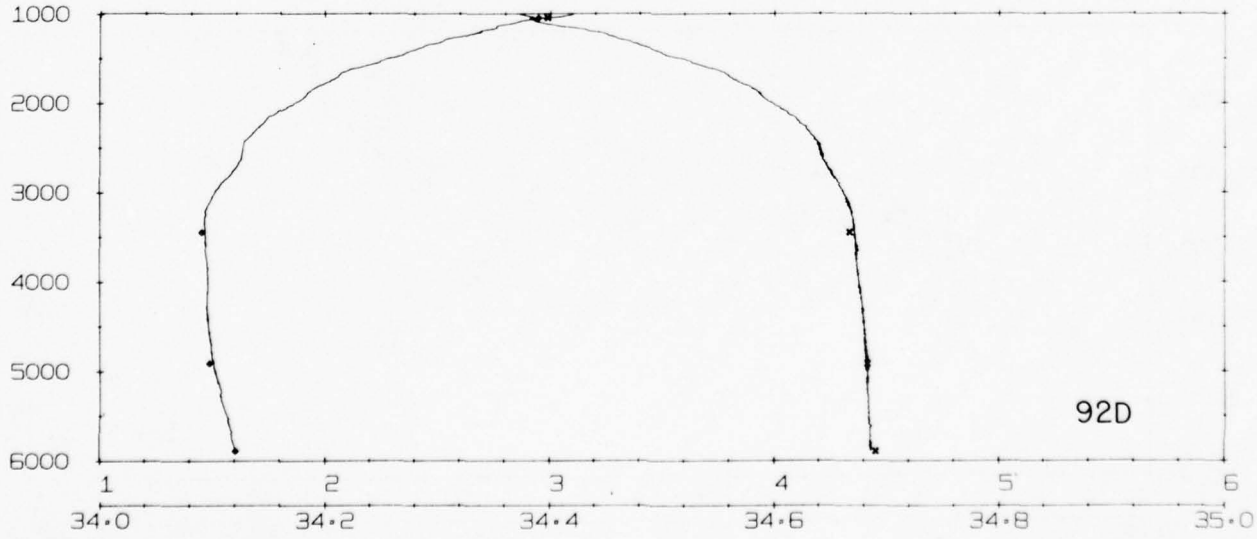

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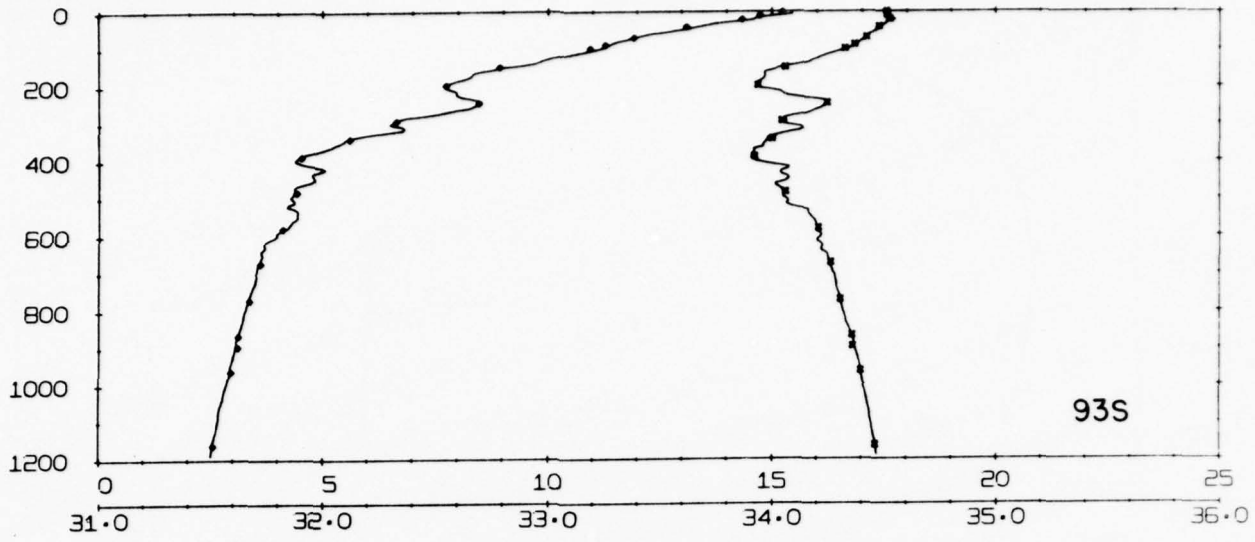

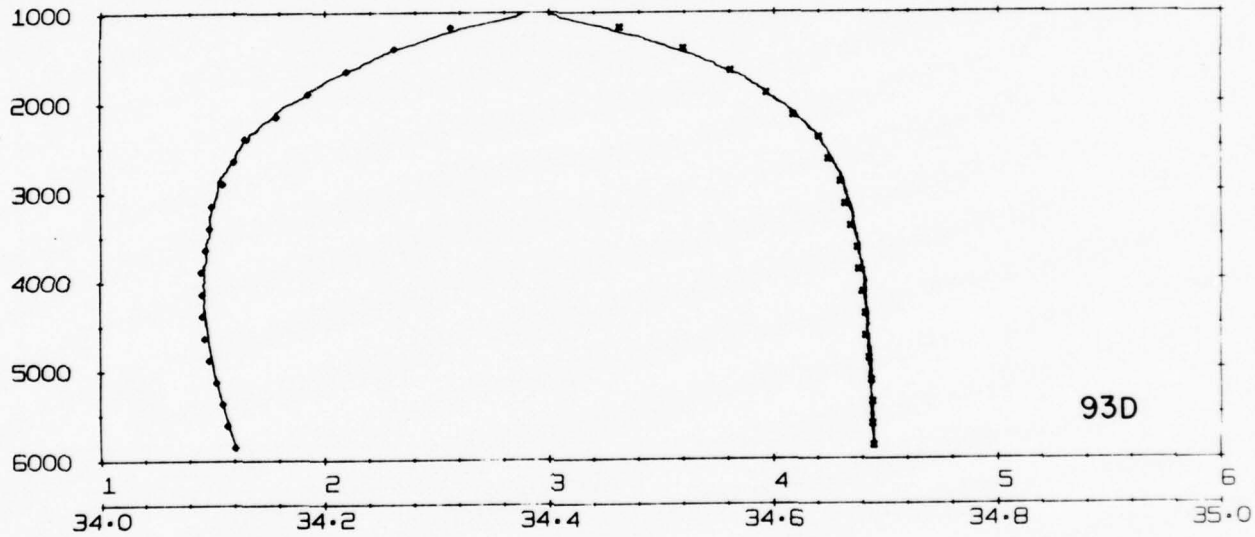

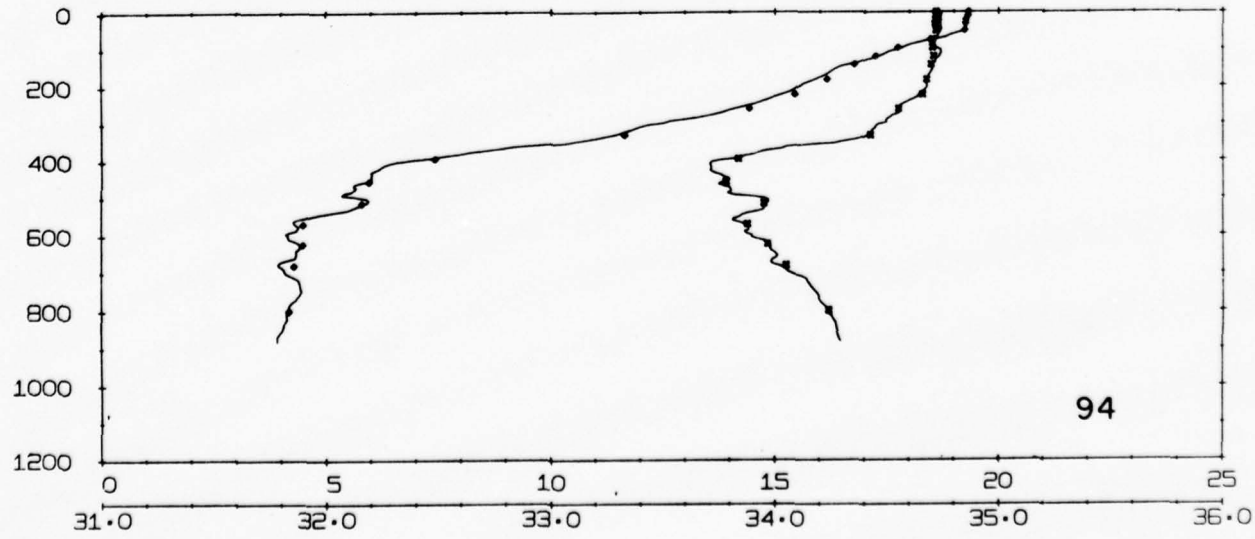

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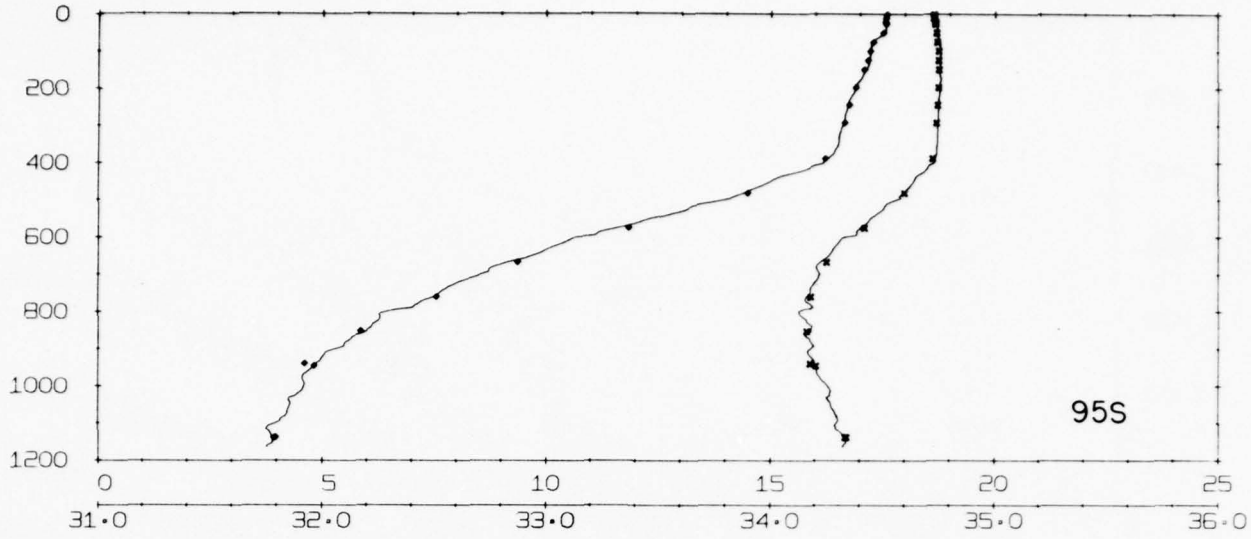

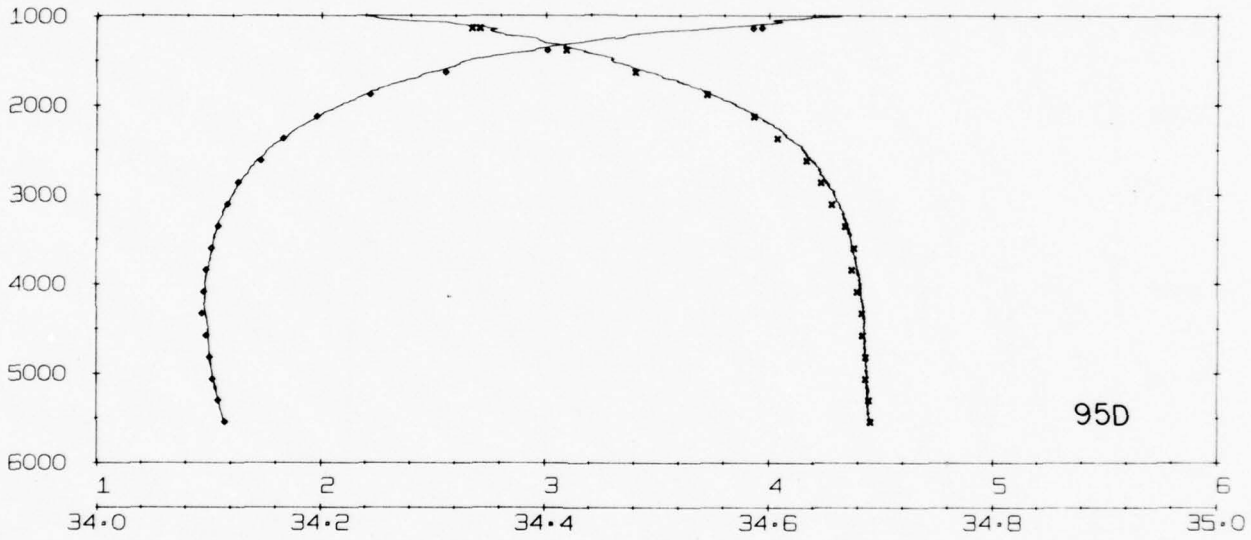

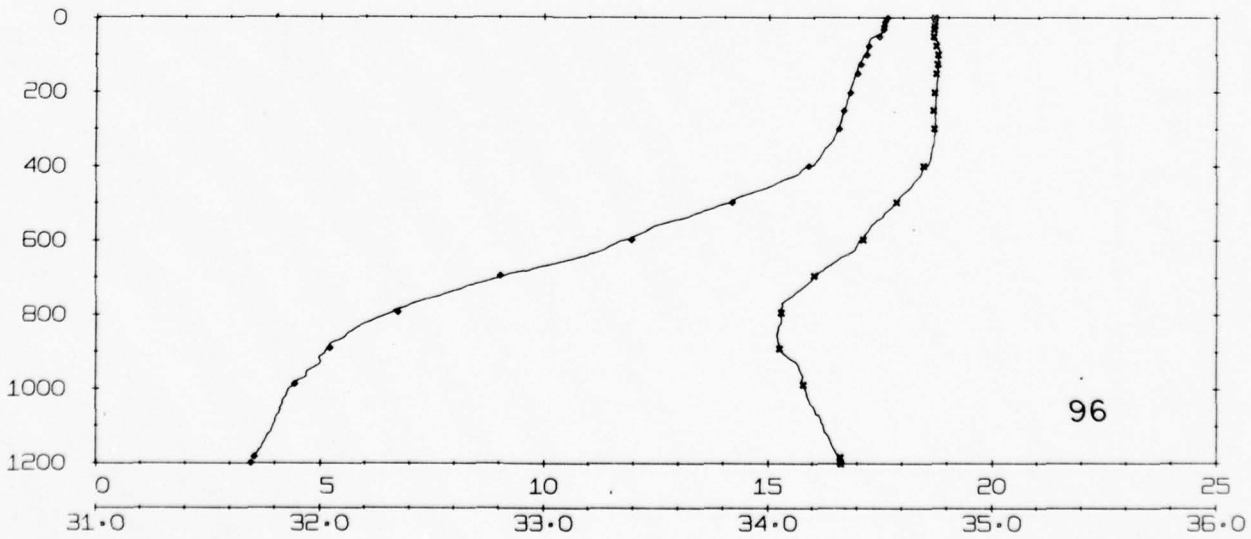

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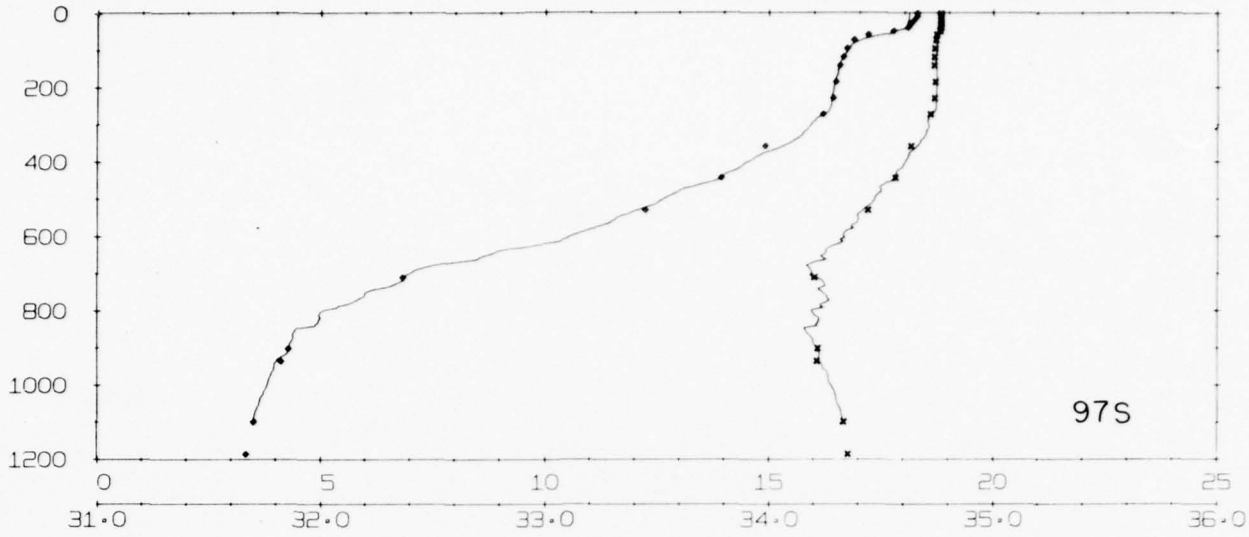

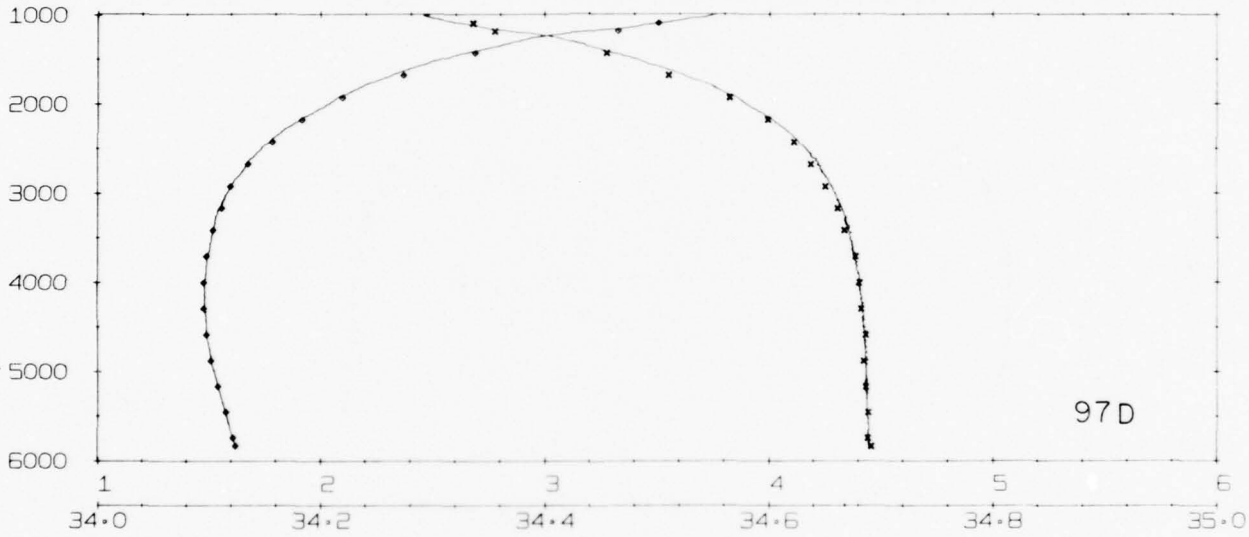

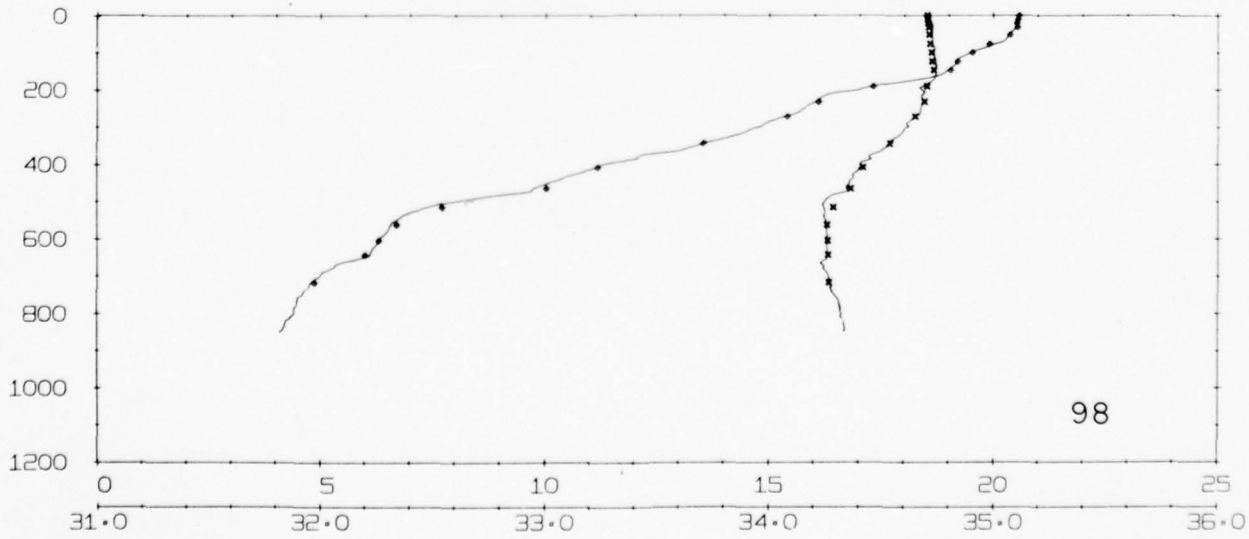

INDOPAC Leg I ALKALINITY, TOTAL CARBON DIOXIDE AND CALCIUM

Station 1
March 25, 1976 2308 0246 GMT
35° 03.3'N 121° 56.2'W

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
4	2228	2029	9.778
20	2226	2019	9.765
52	2225	2066	9.808
78	2234	2130	9.847
103	2237	2160	9.878
154	2252	2179	9.923
254			9.988
405	2299	2293	10.020
547A	2320	2331	10.052
602			10.049
800	2347	2358	10.073
911A	2355	2362	10.092
1276A	2386	2384	10.144
1643A	2401	2391	10.160
2011A	2418	2385	10.169
2384A	2427	2383	10.179

Station 3
March 26, 1976 2150 0245 GMT
35° 00.1'N 124° 00.0'W

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
2	2218	2025	
22	2215	2013	
42	2226	2018	
61	2220	2021	
102	2229	2088	
253	2261	2199	
402	2295	2292	
405A	2294	2280	
603	2323	2349	
797A	2351	2370	
802	2354	2364	
1191A	2388	2378	
1596B	2400	2371	
1990B	2419	2386	
2384B	2426	2375	
2776B	2420	2355	
3169B	2430	2364	
3368B	2429	2365	

Station 5
March 27, 1976 1700 1947 GMT
35° 00.3'N 126° 02.1°W

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
1	2214	1980	9.70
22	2215	1988	9.67
50	2215	1982	9.71
99	2201	2011	9.63
148	2219	2071	9.77
246	2255	2151	9.91
391	2272	2269	9.98
583	2326	2330	10.02
776	2349	2349	10.08
968	2368	2372	10.09
1060A			10.10
1445A	2387	2375	10.15

Station 7
March 28, 1976 1034 1458 GMT
34° 59.0'N 128° 03.0'W

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
3	2205	1987	
20	2205	1985	
51	2212	1991	
77	2219	2064	
101	2231	2102	
151	2250	2174	
248	2266	2203	
402	2295	2288	
601A	2328	2338	
791A	2354	2356	
944B	2375	2367	
1243B	2391	2376	
1541B	2405	2416	
2035B	2428	2381	
2529B	2433	2367	
3025B	2435	2386	
3518B	2427	2361	
4010B	2432	2348	
4500B	2429	2345	
4694B	2429	2346	

Station 9
March 29, 1976 0345 0712 GMT
34° 59.9'N 130° 01.9'W

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
5	2210	1977	9.727
15	2222	1995	9.724
32	2223	1980	9.728
77	2223	2002	9.730
126	2207	1986	9.705
202	2232	2104	9.838
302	2260	2166	9.853
502	2291	2292	9.957
689A	2328	2355	10.026
701	2326	2333	10.044
900	2353	2351	10.091
1187A	2382	2384	10.121
1889A	2416	2396	10.147
2188A	2422	2384	
2887A	2423	2386	10.193
3184A	2430	2365	
3873A	2427	2345	10.180
4169A	2426	2341	10.186
4412A	2427	2346	10.199
4659A			

Station 11
March 29, 1976 2155 0035 GMT
35° 01.0'N 132° 02.5'W

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
31	2222	1977	
77	2243	1980	
102	2228	2005	
153	2223	2075	
253	2247	2147	
401	2277	2245	
598	2299	2322	
794	2340	2343	
990	2370	2368	
1933A	2419	2388	
2429A	2421	2370	
2924A	2425	2356	
3419A	2423	2352	
3914A	2427	2346	
4411A	2428	2355	
4804A	2420	2329	
4904A	2424	2344	

Station 13
March 30, 1976 1312 1616 GMT
34° 59.3'N 134° 01.7'W

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
0	2242	1996	9.826
20	2239	1994	9.821
50	2238	1991	9.815
90	2235	1996	9.823
111	2233	1988	9.832
151	2234	1999	9.834
250	2241	2112	9.902
399	2270	2224	9.955
598	2313	2343	10.016
795			10.084
839A	2352	2359	
1037A	2369	2373	
1536A	2400	2378	
2032A	2420	2378	
2529A	2434	2397	
3025A	2426	2360	
3519A	2427	2350	
4015A	2418	2345	
4511A	2426	2341	
5006A	2424	2333	
5106A	2423	2336	

Station 15
March 31, 1976 0845 GMT
35° 00.4'N 136° 02.8'W

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
1	2247	1988	
22	2245	1990	
50	2234	1990	
90	2237	1986	
110	2252	2011	
246	2255	2098	
392	2275	2208	
588	2308	2316	
782	2347	2353	

Station 17
March 31, 1976 2230 0145 GMT
35° 00.6'N 137° 59.0'W

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
1	2265	1988	9.876
31	2251	2000	9.909
50	2250	1986	9.894
101	2258	1989	9.948
122	2252	2007	9.958
201	2240	2062	9.881
301	2281	2122	9.930
499	2284	2250	9.943
798	2345	2348	10.065
1124A	2384	2393	10.088
1200	2390	2383	10.111
1618A	2404	2388	10.136
2110A	2424	2382	10.164
2601A	2414	2371	
3091A	2425	2361	10.182
3583A	2426	2354	
4080A	2424	2345	10.182
4579A	2427	2341	
4982A	2426	2349	10.183
5083A	2423	2339	10.190
5083A	2428	2338	

Station 19
April 1, 1976 1803 GMT
34° 58.7'N 140° 00.5'W

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
0	2242	1984	
20	2242	1994	
51	2241	1997	
101	2236	2007	
152	2227	1999	
251	2250	2093	
400	2265	2159	
597	2325	2290	
794	2338	2354	
989	2359	2377	
989	2357	2388	

Station 21
April 2, 1976 0635 GMT
34° 58.9'N 142° 00.1'W

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
1	2243	1976	9.891
10	2247	1980	9.895
31	2246	1981	9.887
77	2253	2002	9.910
101	2243	1994	9.911
122	2254	1992	9.914
152	2236	2026	9.836
251	2263	2086	9.928
300	2258	2108	9.940
495	2278	2218	9.908
592	2297	2278	9.927
786	2343	2343	10.020
892	2360	2375	10.045
981	2374	2360	10.071
1184	2387	2412	10.106

Station 23
April 2, 1976 1857 GMT
35° 00.4'N 144° 00.8'W

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
0	2248	1972	
31	2248	1969	
126	2241	1991	
201	2247	2056	
300	2253	2094	
694	2318	2337	
1194	2382	2392	

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Station 25
April 3, 1976 0727 GMT
34° 59.6'N 146° 00.5'W

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
0	2254	1968	9.959
20	2254	1987	9.963
50	2254	1986	9.978
100	2254	1976	9.981
151	2235	2012	9.897
175	2236	2000	9.923
200	2247	2037	9.936
298	2259	2087	9.965
496	2280	2192	9.931
594	2288	2214	9.937
791	2329	2335	10.003
1186	2392	2346	10.093

Station 27
April 3, 1976 1935 GMT
34° 58.8'N 148° 00.1'W

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
0	2254	1966	
10	2254	1965	
40	2254	1975	
75	2253	1994	
110	2255	2016	
249	2260	2069	
398	2270	2120	
596	2295	2214	
1184	2378	2384	

Station 29
April 4, 1976 0725 GMT
34° 59.6'N 149° 59.5'W

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
0	2254	1972	9.986
31	2254	1969	9.996
76	2254	1985	9.902
125	2254	2010	9.895
175	2249	2042	9.936
249	2256	2078	9.982
349	2270	2125	9.961
398	2270	2117	9.947
497	2270	2174	9.929
595	2299	2248	9.940
692	2312	2298	9.970
791	2336	2336	10.004
889	2345	2349	10.030
987	2358	2366	10.055
1182	2392	2394	10.098

Station 31
April 4, 1976 2042 GMT
35° 00.4'N 152° 01.8'W

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
1	2258	1980	
20	2251	1978	
49	2254	1968	
97	2253	1975	
146	2239	2009	
242	2248	2089	
387	2266	2131	
579	2287	2267	
770	2335	2357	
960	2360	2372	
960	2371	2393	

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
Station 33			
April 5, 1976 0910 GMT			
34° 59.9'N153° 59.9'W			
2	2243	1966	9.937
32	2244	1968	9.926
75	2240	1980	9.927
115	2252	2017	9.943
135	2245	2051	9.940
174	2250	2046	9.954
298	2257	2102	9.972
493	2257	2156	9.925
690	2314	2302	9.975
788	2328	2334	10.002
788	2328	2352	
982	2362	2385	10.053
1174	2379	2385	10.096
1174	2380	2404	
Station 35			
April 6, 1976 0016 GMT			
34° 59.7'N 156° 00.5'W			
2	2241	1975	
32	2241	1970	
76	2241	1970	
117	2240	2027	
137	2247	2047	
177	2277	2050	
300	2262	2088	
495	2274	2189	
693	2310	2293	
993	2358	2381	
993	2359	2376	
Station 37			
April 6, 1976 1359 GMT			
34° 59.5'N 158° 04.1'W			
0			9.965
29			9.958
75	2252	1993	9.964
115	2252	2001	9.973
136	2258	2029	9.997
175	2259	2046	9.969
299	2261	2075	9.959
593	2300	2235	9.923
690	2308	2298	9.958
787			10.001
985	2352	2379	10.021
985	2355	2341	
1188	2377	2379	10.089
1188	2377	2399	
Station 39			
April 7, 1976 0440 GMT			
35° 00.6'N 160° 00.7'W			
1	2253	1989	
11	2257	1973	
77	2257	2009	
117	2260	2011	
136	2261	2059	
176	2259	2048	
299	2266	2082	
496	2275	2143	
692	2307	2280	
985	2359	2376	
1183	2379	2392	
1183	2378	2379	
1183	2376	2386	

Station 41
April 7, 1976 1708 GMT
35° 01.4'N 161° 59.9'W

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
0	2245	1987	9.929
31			9.943
75	2246	1997	9.901
125	2246	2014	9.928
174	2265	2051	9.963
249	2255	2073	9.925
298	2261	2080	9.945
397	2264	2123	9.915
494	2263	2164	9.918
593	2292	2231	9.911
690	2310	2307	9.958
788	2330	2323	9.992
983	2361	2393	10.054
1180	2377	2390	10.091
1481	2395	2405	10.105

Station 43
April 8, 1976 0528 0936 GMT
35° 01.2'N 163° 59.2'W

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
0	2254	1994	
20	2249	1990	
50	2253	2001	
100	2249	2005	
151	2262	2038	
250	2266	2052	
400	2264	2110	
595	2294	2232	
792	2318	2300	
1127A	2374	2387	10.076
1185	2370	2406	
1185	2389	2391	
1422A	2387	2418	10.110
1489	2395	2391	
1915A	2414	2386	10.155
2505A	2432	2367	10.164
3097A	2423	2356	10.189
3687A	2426	2353	10.183
4278A	2419	2340	10.187
4869A	2411	2345	10.186
5461A	2413	2318	10.186
5560A	2417	2334	10.180

Station 45
April 9, 1976 0031 0433 GMT
34° 58.0'N 166° 00.0'W

0			9.947
36	2256	1970	9.959
60	2271	1962	9.964
100	2263	2011	9.954
150	2260	1971	9.958
200	2284	2069	9.969
299	2271	2075	9.962
496	2270	2160	9.921
692	2309	2284	9.936
752A	2319	2306	9.947
986	2355	2364	10.040
1229A	2383	2417	
1707A	2402	2412	10.127
2189A	2417	2399	10.167
2671A	2420	2374	
3153A	2423	2361	10.174
3637A	2413	2345	
4118A	2427	2340	10.188
4600A	2420	2329	
5081A	2419	2334	10.194
5081A	2418	2334	
5465A	2412	2341	
5556A	2410	2343	

Station 47
April 9, 1976 1725 2057 GMT
35° 02.1'N 168° 00.1'W

16	2269	1980	
42	2268	1987	
77	2257	1998	
127	2256	2016	
202	2264	2062	
302	2263	2082	
502	2265	2176	
700	2305	2283	
774A	2313	2313	
997	2370	2386	
1197	2382	2392	
1275A	2398	2407	
1776A	2417	2387	
2279A	2417	2396	
2780A	2430	2357	
3279A	2428	2359	
3777A	2425	2347	
4272A	2417	2342	
4767A	2421	2331	
5257A	2418	2320	
5647A	2417	2327	
5744A	2415	2323	
5744A	2415	2329	

Station 49
April 10, 1976 1019 1334 GMT
35° 00.3'N 169° 59.5'W

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
0			10.041
20	2263	1986	10.051
51	2264	1985	10.037
76	2259	1998	10.023
100	2250	2009	10.023
152	2259	2022	10.006
251	2264	2069	10.006
401	2266	2096	9.984
599	2283	2216	9.951
844A	2342	2317	10.017
998	2365	2380	10.064
1344A	2391	2398	
1843A	2415	2403	10.150
2342A	2420	2376	
2842A	2421	2367	10.191
3341A	2403	2358	
3838A	2407	2354	
4333A	2420	2337	10.182
4826A	2420	2335	
5318A	2418	2329	10.196
5707A	2414	2308	
5805A	2414	2324	10.185

Station 51
April 11, 1976 0251 0712 GMT
34° 56.5'N 172° 01.8'W

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
20	2255	1996	
50	2264	2000	
74	2269	2004	
99	2265	2008	
150	2258	2022	
248	2262	2041	
397	2275	2096	
596	2287	2199	
744A	2311	2306	
989	2357	2363	
1244A	2383	2394	
1743A	2408	2403	
2243A	2423	2389	
2743A	2423	2362	
3241A	2422	2353	
3739A	2422	2347	
4482A	2422	2346	
4977A	2415	2329	
5467A	2417	2327	
5857A	2422	2322	
5906A	2417	2330	
5955A	2417	2351	
5955A	2417	2346	

Station 53
April 11, 1976 2110 0033 GMT
35° 00.2'N 174° 00.4'W

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
3			10.024
21	2268	2009	10.025
47	2268	1985	10.022
69	2267	2010	10.021
91	2277	1998	10.004
134	2274	2025	10.017
220	2260	2073	
347	2279	2052	9.991
518			9.950
878	2335	2339	10.014
934			10.026
1183A	2384	2406	
1681A	2423	2396	10.129
2178A	2429	2374	10.158
2675A	2422	2373	
3172A	2425	2368	10.166
3915A	2426	2350	
4901A	2428	2338	
5292A	2428	2328	10.179
5390A	2421	2334	10.192
5390A	2421	2334	

Station 55
April 12, 1976 1325 1521 GMT
34° 58.5'N 176° 01.3'W

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
21	2261	1986	
50	2266	2005	
75	2257	1998	
98	2262	2010	
148	2264	2034	
244	2267	2056	
391	2257	2081	
584	2287	2205	
974	2351	2343	
976A	2352	2355	
1382A	2390	2394	
1784A	2402	2402	
2175A	2416	2378	
2270A	2413	2378	
2270A	2414	2372	

Station 57
April 13, 1976 0436 0736 GMT
35° 00.6'N 178° 01.1'W

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
1			10.043
22	2261	2008	10.043
51	2274	2012	10.045
76	2272	2018	10.050
100	2278	2007	10.043
150	2272	2010	10.035
249			10.012
399			9.973
598	2290	2206	9.940
995	2366	2316	10.044
1095A	2372	2383	10.049
1193	2382	2384	
1492A	2404	2401	
1888A	2408	2398	
2286A	2423	2358	10.168
2681A	2421	2357	
3075A	2425	2356	10.186
3371A	2425	2336	10.174
3468A	2426	2341	10.182
3468A	2423	2335	
3500A			

Station 59
April 13, 1976 2001 2224 GMT
34° 58.8'N 179° 59.5'E

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
22	2268	1996	
40	2266	1983	
60	2275	2009	
96	2268	2023	
191	2269	2073	
285	2273	2081	
474	2272	2140	
663	2303	2259	
951	2358	2354	
1147	2380	2384	
1367A	2396	2399	
1969A	2412	2391	
2569A	2418	2356	
3161A	2430	2361	
3554A	2423	2365	
3651A	2430	2346	
3651A	2423	2342	

Station 61
April 14, 1976 1633 2112 GMT
34° 58.7'N 177° 58.1'E

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
2			9.992
22	2263	1988	9.999
50	2266	1993	10.004
75	2265	2009	10.009
98	2268	2035	10.036
146	2271	2039	10.025
241	2274	2069	10.001
384	2282	2116	9.961
572	2296	2231	9.937
952	2363	2349	10.040
1146	2382	2382	
1172A	2382	2375	10.093
1569A	2398	2412	
1984B	2419	2386	10.159
2387B	2424	2372	
2787B	2424	2360	10.177
3184B	2420	2326	10.187
3574B	2414	2358	
3623B	2424	2339	10.177

Station 63
April 15, 1976 1041 1423 GMT
34° 59.2'N 175° 58.1'E

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
22	2272	1992	
51	2284	1996	
76	2277	2024	
101	2278	2026	
151	2276	2015	
251	2275	2042	
400	2273	2081	
599	2293	2181	
992	2355	2330	
1135A	2384	2368	
1191	2380	2370	
1887A	2413	2374	
2286A	2422	2374	
2684A	2418	2351	
3081A	2424	2345	
3479A	2426	2357	
3874A	2424	2337	
4367A	2422	2327	
4760A	2425	2358	
4848A	2422	2330	
4848A	2427	2337	

Station 65
April 16, 1976 0253 0611 GMT
35° 00.1'N 173° 59.8'E

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
1			10.074
32	2277	2003	
61	2279	1998	
91	2276	2014	10.071
126	2267	2018	10.079
202	2282	2039	10.050
301	2265	2051	10.026
497	2283	2127	9.986
695	2317	2242	9.962
943A	2350	2339	10.043
991	2359	2359	10.048
1343A	2398	2394	
1740A	2408	2386	10.126
1944A	2414	2384	
2137A	2426	2397	10.169
2336A	2425	2374	10.185
2732A	2430	2357	10.174
3126A	2423	2358	10.182
3522A	2429	2372	
3913A	2425	2351	
4154A	2418	2355	10.190
4154A	2416	2348	

Station 67
April 17, 1976 0115 0227 GMT
34° 59.7'N 172° 01.3'E

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
23	2279	2010	
51	2277	1979	
101	2280	2009	
152	2282	2019	
202A	2283	2007	
250A	2280	2042	
252	2280	2035	
298A	2276	2050	
347A	2269	2052	
416A	2272	2038	
512A	2281	2101	

Station 69
April 17, 1976 1620 2014 GMT
34° 59.1'N 170° 01.7'E

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
0			10.073
30	2277	1998	
60	2281	1993	
90	2283	2018	
125	2281	2001	10.093
197	2280	2026	10.091
294	2279	2038	10.068
487	2283	2113	9.995
674	2305	2247	9.939
971	2377	2373	
1144A	2369	2370	10.054
1174	2381	2342	10.081
1394A	2389	2392	
1893A	2417	2382	10.138
2391A	2423	2375	
2889A	2427	2369	
3137A	2423	2353	10.186
3630A	2424	2341	
4122A	2426	2348	10.184
4614A	2424	2329	10.186
5099A	2419	2336	
5336A	2410	2319	10.183
5336A	2412	2324	

Station 71
April 18, 1976 1210 1541 GMT
34° 59.5'N 167° 58.7'E

Depth meters	Alkalinity µev/kg	Total CO_2 µmol/kg	Calcium mmol/kg
32	2282	1998	
77	2278	1991	
127	2282	1996	
177	2277	1997	
252	2280	2010	
403	2283	2055	
602	2275	2100	
801	2301	2218	
998	2342	2313	
1098A	2345	2341	
1201	2370	2353	
1601A	2405	2385	
2103A	2419	2385	
2606A	2424	2375	
3108A	2417	2351	
3607A	2429	2341	
4153A	2416	2327	
4696A	2425	2336	
5183A	2419	2315	
5426A	2413	2316	
5426A	2414	2328	

INDOPAC Leg I ALKALINITY, TOTAL CARBON DIOXIDE AND CALCIUM

Station 73
April 19, 1976 0513 0925 GMT
35° 01.3'N 166° 00.2'E

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
1			10.066
22	2276	2003	
52	2277	1996	10.108
77	2270	1987	10.088
101	2280	1998	10.097
152	2279	1992	10.097
251	2280	2011	10.102
399			10.025
594	2270	2155	9.971
980	2335	2344	10.011
1172	2366	2354	
1173A	2366	2372	10.084
1570A			10.132
1965A	2415	2391	10.149
2362A	2422	2377	10.167
2957A	2424	2373	
3548A			10.182
4138A	2423	2336	
4724A	2419	2353	10.185
5306A	2410	2300	
5693A	2413	2312	10.192
5693A	2413	2316	

Station 75
April 20, 1976 0020 0526 GMT
35° 03.3'N 164° 05.7'E

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
31	2280	2001	
60	2281	2039	
90	2281	2046	
124	2281	2039	
198	2281	2066	
295	2274	2083	
490	2287	2214	
683	2329	2295	
971	2368	2344	
1740A	2409	2392	
2430A	2419	2361	
2889A	2423	2348	
3348A	2425	2350	
3807A	2418	2359	
4268A	2416	2346	
4730A	2422	2325	
5195A	2410	2319	
5664A	2408	2313	
5901A	2418	2304	
5901A	2408	2291	

Station 77
April 20, 1976 2040 0103 GMT
34° 59.8'N 162° 03.4'E

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
1			10.05
11	2284	2022	
32	2281	2024	10.06
71	2280	2026	10.04
100	2277	2051	10.03
153	2276	2080	10.02
300	2284	2130	9.99
499	2298	2250	9.94
698	2368	2312	10.00
991	2371	2379	10.05
1187	2393	2384	
1380A	2402	2397	
1780A	2412	2392	10.15
2178A	2421	2384	10.16
2575A	2423	2358	
2972A	2417	2373	10.18
3169A	2424	2350	
3612A	2423	2333	
4003A	2421	2338	10.18
4391A	2420	2352	
4583A	2424	2332	10.19
4965A	2421	2344	
5013A	2422	2330	10.18
5013A	2419	2331	

Station 79
April 21, 1976 1602 2253 GMT
35° 01.2'N 160° 01.8'E

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
19	2287	2010	
50	2283	2014	
75	2279	2011	
100	2287	2032	
151	2281	2051	
248	2280	2049	
393	2284	2164	
1031A	2377	2350	
1157	2386	2376	
1432A	2399	2405	
1832A	2414	2394	
2228A	2420	2377	
2624A	2421	2352	
3019A	2430	2379	
3408A	2426	2341	
3799A	2424	2341	
4185A	2418	2327	
4378A	2420	2329	
4474A	2419	2332	
4474A	2421	2332	

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg

Station 81
April 22, 1976 1312 1637 GMT
34° 59.7'N 157° 56.7'E

0			10.102
20	2285	1999	
49	2282	1999	10.112
75	2282	1994	10.104
99	2281	2002	10.104
199	2278	1992	10.099
219	2282	2008	10.074
299	2281	2045	10.092
496	2278	2091	9.994
668	2300	2221	
693	2300	2233	9.959
988	2349	2336	10.022
1165A	2371	2368	10.060
1185	2371	2395	10.059
1661A	2410	2398	10.123
2155A	2418	2389	
2645A	2422	2383	
3135A	2423	2358	
3624A	2424	2339	10.182
4109A	2420	2340	
4303A	2421	2334	10.187
4351A	2421	2331	
4351A	2421	2328	

Station 83
April 23, 1976 0449 GMT
35° 03.3'N 155° 55.5'E

1410	2406	2388
1910	2419	2384
2408	2419	2356
2906	2434	2358
3403	2423	2346
3896	2421	2349
4389	2423	2357
4879	2420	2324
5316	2416	2332
5365	2417	2325
5365	2416	2322

Station 85
April 23, 1976 1943 2341 GMT
34° 59.0'N 153° 58.3'E

1			10.057
11	2290	2023	
31	2287	2031	10.077
49	2288	2038	10.063
99	2277	2065	10.027
149	2275	2091	10.001
247	2283	2132	9.969
395	2306	2231	9.953
592	2344	2320	10.006
984	2385	2378	
1165A	2395	2410	10.113
1178	2401	2388	10.108
1573A	2405	2390	
1978A	2426	2382	10.159
2381A	2426	2371	
2982A	2425	2345	10.187
3579A	2424	2325	
4174A	2426	2345	10.182
4765A	2416	2343	
5355A	2417	2461	10.174
5744A	2421	2323	10.176
5744A	2417	2323	

Station 87
April 24, 1976 1147 1550 GMT
35° 01.8'N 151° 56.8'E

22	2286	1998
42	2290	2009
61	2287	2017
101	2284	2005
200	2293	2023
298	2285	2025
492	2281	2076
682	2328	2218
960	2344	2334
1141	2375	2356
1417A	2393	2399
1910A	2413	2397
2406A	2422	2372
2902A	2422	2359
3397A	2417	2358
3890A	2416	2356
4384A	2417	2343
4875A	2419	2328
5362A	2418	2334
5836A	2420	2315
5836A	2418	2322

Station 89
April 25, 1976 0345 0815 GMT
34° 59.3'N 149° 58.7'E

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
1			10.08
22	2293	2010	
51	2291	1995	10.08
76	2285	2029	10.07
102			10.05
151	2280	2056	10.03
251	2302	2089	9.96
399	2291	2204	9.93
596	2339	2278	10.01
985	2371	2388	10.08
1224A	2373	2357	10.10
1613A	2408	2399	
2003A	2420	2379	10.14
2583A	2422	2348	
3163A	2428	2355	10.20
3741A	2431	2356	
4316A	2423	2314	10.17
4894A	2424	2326	10.18
5472A			10.17
5854A	2416	2322	
5854A	2416	2321	

Station 91
April 25, 1976 2018 0048 GMT
34° 57.0'N 147° 59.8'E

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
22	2320	1965	
51	2287	1980	
76	2283	1986	
101	2285	2011	
151	2287	2028	
400	2279	2110	
600	2303	2185	
992A	2365	2359	
1004	2332	2311	
1208	2383	2376	
1392A	2395	2396	
1892A	2418	2405	
2390A	2421	2366	
2988A	2419	2339	
3584A	2428	2345	
4228A	2424	2337	
4869A	2422	2323	
5456A	2410	2306	
5844A	2413	2315	

Station 93
April 26, 1976 2356 0506 GMT
34° 58.1'N 146° 00.7'E

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
1	2285	2021	10.05
21	2291	2016	
70	2289	2054	10.06
99	2284	2047	10.02
197	2270	2120	9.92
293	2292	2203	9.99
389	2303	2259	9.97
580	2347	2293	10.02
770	2360	2358	10.07
1162	2396	2386	10.13
1396A	2406	2387	
1896A	2413	2378	10.16
2397A	2393	2333	
2896A	2410	2317	10.19
3394A	2421	2367	
3889A	2415	2355	
4385A	2420	2303	10.19
4878A	2415	2325	
5367A			10.19
5610A			10.19
5852A	2414	2323	10.19
5852A	2412	2291	

Station 95
April 27, 1976 1851 2304 GMT
35° 00.0'N 143° 59.7'E

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
21	2285	1970	
50	2286	1965	
99	2285	1980	
149	2283	1982	
244	2282	1994	
388	2281	2015	
575	2278	2115	
760	2299	2198	
945	2335	2259	
1137	2358	2332	
1138A	2365	2319	
2125A	2419	2390	
2618A	2417	2373	
3108A	2421	2350	
3598A	2420	2335	
4086A	2417	2328	
4576A	2426	2327	
5543A	2415	2313	
5543A	2414	2322	

INDOPAC Leg I ALKALINITY, TOTAL CARBON DIOXIDE AND CALCIUM

Depth meters	Alkalinity μev/kg	Total CO_2 μmol/kg	Calcium mmol/kg
Station 97			
April 28, 1976 1243 1736 GMT			
35° 02.9'N 142° 01.3'E			
1			10.095
21	2283	1970	
39	2277	1962	10.108
58	2282	1968	10.100
95	2282	1988	10.109
141	2280	1983	10.111
229			10.109
358			10.098
530	2279	2097	10.033
902	2334	2310	
1099	2363	2349	10.067
1186A	2371	2355	10.082
2180A	2415	2381	11.156
2676A	2416	2364	
3170A	2420	2353	10.187
4296A	2410	2338	10.179
5454A	2410	2322	10.184
5834A	2410	2320	10.179

INDOPAC Leg I CHLOROPHYLL-A AND PHAEOPHYTIN

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3
March 25	1846 (+8)	4	0.71	0.20
		10	0.54	0.14
Station 1		20	0.65	0.19
35° 03.7'N		31	0.55	0.15
121° 56.2'W		52	0.32	0.19
		62	0.16	0.15
		78	0.04	0.10
		93	0.06	0.10
		103	0.02	0.10
		128	0.01	0.09
		154	0.01	0.08
March 27	1147 (+8)	1	0.14	0.01
		11	0.14	0.01
Station 5		22	0.13	0.02
35° 01.1'N		31	0.14	0.02
125° 59.8'W		50	0.17	0.01
		75	0.19	0.02
		99	0.17	0.06
		124	0.10	0.05
		148	0.03	0.05
		197	0.00	0.03
		246	0.00	0.02
March 28	2212 (+9)	15	0.05	0.00
		22	0.06	0.00
Station 9		32	0.06	0.00
35° 00.2'N		51	0.06	0.00
130° 01.0'W		77	0.06	0.00
		101	0.14	0.01
		126	0.14	0.01
		153	0.08	0.07
		202	0.01	0.01
		252	0.00	0.01
March 30	0716 (+9)	0	0.05	0.00
		10	0.06	0.00
Station 13		20	0.06	0.00
34° 59.2'N		31	0.05	0.00
134° 02.3'W		50	0.06	0.00
		76	0.08	0.00
		90	0.10	0.00
		100	0.09	0.00
		111	0.14	0.03
		125	0.18	0.08
		151	0.14	0.10

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3
March 26	1845 (+8)	2	0.46	0.06
		11	0.44	0.00
Station 3		22	0.45	0.04
34° 59.2'N		32	0.47	0.03
123° 59.2'W		42	0.50	0.05
		51	0.58	0.10
		61	0.51	0.05
		77	0.36	0.13
		102	0.11	0.14
		127	0.03	0.08
		153	0.01	0.07
March 28	0520 (+9)	3	0.11	0.00
		10	0.13	0.00
Station 7		20	0.14	0.00
34° 59.0'N		31	0.12	0.00
128° 03.4'W		51	0.37	0.00
		61	0.47	0.08
		77	0.17	0.08
		92	0.05	0.05
		101	0.04	0.05
		126	0.01	0.03
		151	0.00	0.03
March 29	1535 (+9)	0	0.04	0.00
		10	0.04	0.00
Station 11		31	0.05	0.00
35° 01.3'N		51	0.06	0.00
132° 04.2'W		77	0.11	0.01
		92	0.35	0.09
		102	0.20	0.26
		112	0.18	0.22
		153	0.16	0.18
		203	0.00	0.02
		253	0.00	0.01
March 30	2345 (+9)	1	0.05	0.01
		12	0.04	0.01
Station 15		22	0.05	0.01
35° 00.4'N		31	0.05	0.01
136° 02.8'W		50	0.05	0.00
		75	0.05	0.00
		90	0.05	0.01
		100	0.08	0.02
		124	0.24	0.14
		149	0.17	0.20

INDOPAC Leg I CHLOROPHYLL-A AND PHAEOPHYTIN

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m3	Phaeophytin mg/m3
March 31	1645 (+9)	1	0.04	0.00
		11	0.04	0.01
		31	0.05	0.01
Station 17		41	0.05	0.01
35° 00.0'N		50	0.04	0.00
137° 58.9'W		77	0.05	0.01
		101	0.05	0.01
		112	0.08	0.02
		122	0.24	0.00
		152	0.13	0.10
		201	0.02	0.02
		250	0.00	0.01
April 1	2135 (+9)	1	0.04	0.01
		10	0.05	0.01
		31	0.05	0.01
Station 21		51	0.04	0.01
34° 58.9'N		77	0.04	0.01
142° 00.1'W		101	0.05	0.01
		112	0.05	0.00
		122	0.09	0.02
		152	0.17	0.16
		202	0.02	0.02
		251	0.00	0.01
April 2	2127 (+10)	0	0.05	0.01
		10	0.07	0.01
		20	0.06	0.01
Station 25		31	0.06	0.01
34° 59.6'N		50	0.07	0.01
146° 00.5'W		76	0.07	0.01
		100	0.08	0.01
		125	0.21	0.13
		151	0.19	0.13
		160	0.13	0.09
		175	0.05	0.06
		190	0.03	0.02
		200	0.02	0.01
		249	0.00	0.01
April 3	2125 (+10)	0	0.08	0.01
		10	0.09	0.00
		31	0.08	0.00
Station 29		50	0.10	0.01
34° 59.6'N		76	0.13	0.02
149° 59.5'W		100	0.08U	0.24U
		125	0.19	0.09
		151	0.07	0.05
		175	0.05	0.02
		200	0.02	0.02
		249	0.00	0.00

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m3	Phaeophytin mg/m3
April 1	0903 (+9)	0	0.04	0.01
		10	0.05	0.00
		20	0.04	0.00
Station 19		31	0.05	0.00
34° 58.7'N		51	0.02	0.00
140° 00.5'W		76	0.05	0.00
		101	0.08	0.01
		126	0.11	0.02
		152	0.18	0.18
		201	0.02	0.02
		251	0.00	0.01
April 2	0857 (+10)	0	0.05	0.01
		10	0.04	0.00
		31	0.06	0.01
Station 23		41	0.06	0.01
35° 00.4'N		76	0.06	0.00
144° 00.8'W		101	0.05	0.00
		116	0.05	0.00
		126	0.06	0.00
		152	0.06	0.01
		201	0.15	0.09
		251	0.15	0.12
April 3	0935 (+10)	0	0.05	0.01
		10	0.06	0.09
		20	0.05	0.01
Station 27		65	0.06	0.01
34° 58.8'N		75	0.07	0.01
148° 00.1'W		95	0.07	0.02
		110	0.14	0.07
		125	0.25	0.18
		150	0.11	0.08
		199	0.02	0.01
		249	0.00	0.01
April 4	1042 (+10)	1	0.09	0.01
		10	0.09	0.01
		20	0.08	0.01
Station 31		30	0.09	0.01
35° 00.4'N		49	0.09	0.01
152° 01.8'W		74	0.08	0.01
		97	0.09	0.01
		122	0.13	0.06
		146	0.11	0.11
		194	0.01	0.01
		242	0.00	0.01

INDOPAC Leg I CHLOROPHYLL-A AND PHAEOPHYTIN

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3
April 4	2310 (+10)	2	0.05	0.00
		12	0.05	0.01
Station 33		32	0.06	0.01
34° 59.9'N		51	0.06	0.01
153° 59.9'W		75	0.06	0.01
		101	0.28	0.13
		115	0.18	0.19
		126	0.12	0.13
		135	0.09	0.08
		150	0.05	0.04
		174	0.01	0.01
April 6	0259 (+11)	0	0.08	0.01
		9	0.06	0.00
Station 37		29	0.06	0.01
34° 59.5'N		50	0.07	0.00
158° 04.1'W		75	0.06	0.01
		101	0.15	0.07
		115	0.10	0.06
		125	0.09	0.06
		136	0.07	0.05
		150	0.05	0.03
		175	0.03	0.01
April 7	0016 (+11)	2	0.09	0.01
		11	0.16	0.02
Station 40		32	0.15	0.02
35° 00.2'N		51	0.19	0.04
161° 02.3'W		76	0.18	0.07
		101	0.10	0.05
		117	0.05	0.04
		126	0.02	0.02
		136	0.02	0.02
		151	0.01	0.01
		176	0.00	0.00
April 8	0630 (+11)	0	0.12	0.01
		9	0.12	0.00
Station 44		30	0.21	0.03
34° 59.6'N		49	0.39	0.04
165° 00.3'W		75	0.24	0.05
		99	0.05	0.02
		120	0.03	0.02
		140	0.01	0.02
		161	0.01	0.01
		180	0.01	0.02
		201	0.01	0.01

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3
April 5	1416 (+10)	2	0.06	0.00
		12	0.06	0.00
Station 35		32	0.06	0.01
34° 59.7'N		51	0.06	0.00
156° 00.5'W		76	0.09	0.00
		102	0.37	0.13
		117	0.20	0.11
		127	0.14	0.10
		137	0.09	0.10
		151	0.06	0.04
		177	0.01	0.02
April 6	0906 (+11)	0	0.08	0.01
		10	0.10	0.02
Station 38		21	0.09	0.02
35° 00.0'N		36	0.11	0.01
159° 00.4'W		50	0.08	0.01
		80	0.18	0.07
		101	0.10	0.06
		125	0.05	0.05
		135	0.04	0.05
		150	0.02	0.04
		175	0.01	0.01
April 7	1219 (+11)	1	0.18	0.01
		11	0.17	0.01
Station 42		30	0.26	0.04
34° 58.8'N		49	0.39	0.13
162° 59.8'W		74	0.12	0.06
		98	0.14	0.07
		113	0.08	0.04
		122	0.05	0.04
		132	0.03	0.02
		147	0.01	0.02
		170	0.01	0.01
April 8	1733 (+11)	0	0.16	0.03
		13	0.28	0.06
Station 45		36	0.30	0.04
34° 56.0'N		50	0.30	0.04
166° 00.1'W		60	0.34	0.12
		76	0.33	0.08
		100	0.14	0.04
		125	0.04	0.03
		150	0.03	0.02
		175	0.01	0.01
		200	0.01	0.02

INDOPAC Leg I CHLOROPHYLL-A AND PHAEOPHYTIN

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3
April 9	0952	1	0.11	0.02
	(+11)	11	0.11	0.01
		16	0.16	0.00
Station 47		27	0.16	0.01
35° 02.2'N		42	0.18	0.07
168° 00.9'W		61	0.64	0.20
		77	0.32	0.08
		102	0.14	0.09
		127	0.04	0.04
		153	0.02	0.02
		202	0.00	0.01
April 10	2012	1	0.20	0.00
	(+11)	10	0.19	0.01
		20	0.19	0.01
Station 51		31	0.24	0.02
34° 56.6'N		50	0.17	0.01
172° 02.2'W		60	0.27	0.04
		74	0.31	0.07
		89	0.30	0.08
		99	0.28	0.06
		125	0.10	0.03
		150	0.03	0.01
April 12	0321	1	0.26	0.03
	(+12)	11	0.25	0.03
		21	0.20	0.02
Station 55		31	0.25	0.05
34° 58.3'N		50	0.24	0.07
175° 59.4'W		60	0.24	0.06
		75	0.07	0.02
		89	0.04	0.01
		98	0.03	0.02
		123	0.01	0.02
		148	0.01	0.02
April 14	1024	2	0.15	0.04
	(-12)	11	0.18	0.03
		22	0.18	0.05
Station 59		31	0.17	0.03
34° 59.8'N		40	0.18	0.03
179° 59.8'E		49	0.18	0.05
		60	0.15	0.06
		74	0.13	0.06
		96	0.05	0.03
		144	0.01	0.03
		191	0.00	0.02

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3
April 10	0234	0	0.14	0.01
	(+11)	10	0.13	0.01
		20	0.11	0.02
Station 49		30	0.11	0.02
35° 01.3'N		51	0.20	0.06
170° 00.4'W		60	0.25	0.06
		76	0.26	0.07
		90	0.20	0.05
		100	0.18	0.07
		126	0.04	0.02
		152	0.07	0.03
April 11	1233	3	0.21	0.03
	(+12)	12	0.21	0.03
		21	0.21	0.03
Station 53		30	0.20	0.04
35° 01.1'N		47	0.25	0.08
174° 03.3'W		56	0.40	0.27
		69	0.35	0.11
		82	0.26	0.10
		91	0.12	0.08
		112	0.05	0.06
		134	0.02	0.05
April 12	1936	1	0.34	0.07
	(+12)	11	0.22	0.04
		22	0.30	0.04
Station 57		32	0.32	0.06
35° 01.8'N		51	0.20	0.07
178° 01.3'W		61	0.19	0.07
		76	0.18	0.04
		90	0.20	0.06
		100	0.17	0.07
		126	0.05	0.05
		150	0.02	0.08
April 15	0912	2	0.62	0.10
	(-12)	12	0.56	0.47
		22	0.81	0.13
Station 61		32	0.70	0.11
34° 59.5'N		50	0.20	0.10
177° 58.5'E		61	0.10	0.10
		75	0.07	0.08
		89	0.03	0.07
		98	0.05	0.06
		123	0.01	0.04
		146	0.00	0.03

INDOPAC Leg I CHLOROPHYLL-A AND PHAEOPHYTIN

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3
April 16	0223	1	0.37	0.02
	(-12)	11	0.27	0.03
		22	0.36	0.02
Station 63		31	0.28	0.03
34° 58.1'N		51	0.23	0.01
175° 57.6'E		60	0.19	0.04
		76	0.14	0.04
		91	0.12	0.05
		101	0.08	0.06
		126	0.06	0.07
		151	0.05	0.06
April 17	1327	2	0.42	0.05
	(-11)	11	0.41	0.03
		23	0.48	0.03
Station 67		33	0.39	0.02
34° 59.7'N		51	0.48	0.01
172° 01.3'E		77	0.41	0.04
		101	0.15	0.07
		127	0.03	0.04
		152	0.06	0.11
		203	0.03	0.09
		252	0.02	0.06
April 19	0241	1	0.25	0.05
	(-11)	11	0.27	0.05
		32	0.21	0.07
Station 71		51	0.19	0.06
34° 59.2'N		77	0.11	0.03
168° 01.2'E		101	0.08	0.04
		127	0.06	0.04
		151	0.08	0.05
		177	0.08	0.05
		202	0.00	0.03
		252	0.00	0.01
April 20	1626	0	0.69	0.06
	(-11)	10	0.89	0.03
		31	0.56	0.15
Station 75		50	0.31	0.17
35° 04.4'N		60	0.18	0.12
164° 10.4'E		75	0.20	0.15
		90	0.07	0.11
		99	0.05	0.14
		124	0.08	0.10
		149	0.06	0.14
		198	0.01	0.07

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3
April 16	1811	1	0.38	0.06
	(-12)	11	0.40	0.04
		32	0.37	0.05
Station 65		52	0.36	0.05
34° 59.9'N		61	0.30	0.04
174° 00.8'E		77	0.18	0.08
		91	0.12	0.08
		102	0.07	0.07
		126	0.04	0.05
		152	0.03	0.14
		202	0.01	0.08
April 18	0714	0	0.33	0.06
	(-11)	10	0.35	0.10
		30	0.26	0.07
Station 69		50	0.28	0.08
34° 58.2'N		60	0.20	0.06
170° 05.0'E		75	0.17	0.06
		90	0.13	0.04
		99	0.10	0.03
		125	0.14	0.08
		149	0.15	0.09
		197	0.01	0.03
April 19	2025	1	0.52	0.09
	(-11)	11	0.34	0.05
		22	0.44	0.08
Station 73		32	0.43	0.08
35° 02.2'N		52	0.30	0.14
166° 02.2'E		62	0.18	0.11
		77	0.11	0.05
		91	0.09	0.06
		101	0.06	0.07
		127	0.04	0.05
		152	0.04	0.05
April 21	1103	1	0.30	0.04
	(-10)	6	0.36	0.00
		11	0.43	0.08
Station 77		22	0.45	0.04
34° 58.7'N		32	0.41	0.02
162° 06.0'E		46	0.34	0.30
		71	0.15	0.11
		90	0.10	0.10
		100	0.07	0.12
		126	0.04	0.13
		153	0.01	0.10

INDOPAC Leg I CHLOROPHYLL-A AND PHAEOPHYTIN

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3
April 22	0953	0	0.40	0.02
	(-11)	10	0.88	0.08
Station 79		19	0.78	0.10
35° 03.3'N		31	0.68	0.12
160° 09.6'E		50	0.19	0.13
		60	0.30	0.18
		75	0.33	0.12
		90	0.07	0.09
		100	0.03	0.05
		125	0.02	0.04
		151	0.02	0.07
April 23	2232	2	0.48	0.10
	(-10)	12	0.50	0.06
Station 84		22	0.61	0.04
34° 59.2'N		31	0.53	0.06
155° 00.6'E		40	0.54	0.05
		49	0.32	0.15
		59	0.24	0.16
		72	0.16	0.13
		95	0.07	0.09
		145	0.02	0.09
		188	0.03	0.07
April 25	0150	1	1.17	0.00
	(-10)	11	1.07	0.00
Station 87		22	1.00	0.07
35° 02.3'N		32	0.93	0.06
151° 52.4'E		42	0.90	0.03
		51	0.79	0.08
		61	0.62	0.09
		77	0.45	0.10
		101	0.47	0.10
		152	0.07	0.06
		200	0.04	0.04
April 26	1048	2	0.61	0.00
	(-10)	11	0.68	0.06
Station 91		22	0.69	0.06
34° 55.8'N		32	0.98	0.01
147° 59.1'E		51	2.02	0.00
		61	1.13	0.00
		76	0.39	0.02
		91	0.04	0.06
		101	0.05	0.06
		126	0.04	0.07
		151	0.02	0.05

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3
April 23	0337	0	0.48	0.19
	(-11)	10	0.48	0.18
Station 81		20	0.45	0.16
34° 58.8'N		31	0.38	0.14
157° 55.5'E		49	0.32	0.13
		66	0.16	0.09
		75	0.10	0.06
		90	0.06	0.05
		99	0.07	0.04
		149	0.08	0.05
		199	0.07	0.04
April 24	0941	1	0.56	0.00
	(-10)	6	0.52	0.00
Station 85		11	0.46	0.00
34° 57.9'N		22	0.58	0.00
153° 57.3'E		31	0.43	0.00
		41	0.33	0.08
		49	0.31	0.13
		74	0.12	0.08
		99	0.06	0.08
		125	0.04	0.09
		149	0.03	0.06
April 25	1815	1	0.56	0.00
	(-10)	11	0.78	0.00
Station 89		22	0.33	0.02
35° 00.5'N		32	0.48	0.04
149° 54.5'E		51	0.31	0.09
		61	0.38	0.15
		76	0.13	0.10
		91	0.09	0.07
		102	0.06	0.08
		127	0.05	0.10
		151	0.04	0.08
April 27	1506	1	0.36	0.00
	(-10)	11	0.55	0.01
Station 93		21	0.54	0.14
34° 58.2'N		41	0.77	0.24
146° 01.9'E		70	0.11	0.11
		89	0.05	0.15
		99	0.06	0.12
		149	0.03	0.10
		197	0.02	0.06
		245	0.01	0.03
		293	0.01	0.04

INDOPAC Leg I CHLOROPHYLL-A AND PHAEOPHYTIN

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3
April 28	0904	1	0.95	0.03
	(-10)	11	0.88	0.07
		21	0.91	0.04
Station 95		26	0.88	0.12
34° 57.2'N		50	0.83	0.13
144° 01.0'E		75	0.40	0.18
		99	0.17	0.12
		124	0.10	0.07
		149	0.05	0.06
		197	0.21U	0.06
		244	0.02	0.03

Date 1976	Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3
April 29	0236	1	0.16	0.02
	(-9)	10	0.16	0.03
		21	0.13	0.02
Station 97		30	0.12	0.04
35° 03.1'N		39	0.11	0.00
142° 01.4'E		48	0.18	0.04
		58	0.22	0.07
		72	0.10	0.07
		95	0.08	0.05
		118	0.09	0.07
		141	0.06	0.05

INDOPAC Leg I PRIMARY PRODUCTIVITY

Station	Date 1976	Secchi Depth meters	Incubation Period Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3	Uncorrected Production Data mgC/m^3			Total Production mgC/m^3	Production/ Chlorophyll-a mgC/mgChl-a
							Light-1	Light-2	Dark		
27	April 3	35	1106-1755	0	0.04	0.01	0.19	0.18	0.10	0.09	1.8
			(+10)	10	0.06	0.09u	0.31	0.24	0.05	0.23	3.8
34° 58.8'N				20	0.05	0.01	0.55	0.44	0.22	0.28	5.6
148° 00.1'W				40	----	----	0.39	0.30	0.10	0.24	---
				65	0.06	0.01	0.21	0.23	0.17	0.05u	0.8
				95	0.07	0.02	0.20	0.14	0.04	0.13	1.9
38	April 6	29	1030-1800	0	0.08	0.01	0.24	0.19	0.02	0.20	2.5
			(+11)	10	0.10	0.02	1.31	0.95	0.04	1.09	10.9
35° 00.0'N				21	0.09	0.02	0.94	0.72	0.02	0.80	8.9
159° 00.4'W				36	0.11	0.01	1.84	1.86	0.04	1.81	16.4
				50	0.08	0.01	1.77	1.75	0.03	1.73	21.6
				80	0.18	0.07	1.68	1.04	0.27	1.08	6.0
47	April 9	22	1130-1830	1	0.11	0.02	0.71	0.64	0.06	0.62	5.6
			(+11)	11	0.11	0.01	2.66	2.28	0.07	2.40	21.8
35° 02.2'N				16	0.16	0.00	2.27	2.18	0.07	2.16	13.5
168° 00.9'W				27	0.16	0.01	2.78	2.66	0.07	2.65	16.6
				42	0.18	0.07	1.97	1.47	0.07	1.65	9.2
				61	0.64	0.20	3.12	2.10	0.05	2.55	4.0
77	April 21	16	1315-1910	1	0.30	0.04	1.96	----	0.08	1.88	6.3
			(-11)	6	0.36	0.00	6.12	4.07	0.06	5.03	14.0
34° 58.7'N				11	0.43	0.08	3.16	0.87u	0.04	1.97u	4.6
162° 06.0'E				22	0.45	0.04	7.11	5.04	0.14	5.94	13.2
				32	0.41	0.02	3.97	3.28	0.09	3.51	8.6
				46	0.34	0.30	1.78	1.77	0.05	1.73	5.1
85	April 24	14	1105-1830	1	0.56	0.00	1.58	1.43	0.08	1.43	2.6
			(-10)	6	0.52	0.00	7.29	4.81	0.09	5.97	11.5
34° 57.9'N				11	0.46	0.00	2.84	9.90	0.09	6.28	13.4
153° 57.3'E				22	0.58	0.00	9.52	11.73	0.09	10.53	18.2
				31	0.43	0.00	6.53	4.71	0.08	5.54	12.9
				41	0.33	0.08	2.59	2.94	0.04	2.72	8.2

INDOPAC EXPEDITION LEGS II AND III

INDOPAC Expedition Legs II and III were carried out from 5 May to 19 June 1976 to study the circulation of the waters of the Philippine Sea and along the eastern edge of the Marianas Ridge. Fifty-six hydrographic stations were occupied, with sampling to the bottom, except over the deeper portions of the trenches, for temperature, salinity, oxygen, phosphate, silicate and nitrate; STD's were lowered to the bottom (6000 m maximum). Net hauls and one deep trawl were made. XBT's were taken at hourly or bi-hourly intervals. Two free-fall hydrographic casts on stations 19 and 21 were made to the bottom of the Marianas Trench for temperature, salinity, oxygen and nutrients.

Legs II and III of INDOPAC Expedition were sponsored by the National Science Foundation.

Data are presented as plots of temperature and salinity versus depth and tabulated data.

PERSONNEL

Ship's Captain: Arsenault, Albert RV THOMAS WASHINGTON

Personnel Participating in the Collection of Data:

Reid, Joseph L. Prof.	Chief Scientist, Professor, SIO
Collins, Curtis A. Dr. (3)	Program Manager, NSF/IDOE
Conway, Carol B.	Principal Engineering Aid, SIO
Costello, James P.	Staff Research Associate, SIO
Cresswell, George R. Dr. (2)	Research Scientist, Australia
Cutchin, David L. Dr. (2)	Program Associate, NSF/IDOE
Elston, Marvin D. (3)	Associate Development Engineer, SIO
Henry, Arthur J. (2)	Programmer, SIO
Hester, Arthur J.	Staff Research Associate, SIO

Kaye, H. Ross	Electronics Technician, SIO
Mantyla, Arnold W.	Associate Specialist, SIO
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Patla, Susan M.	Marine Technician, SIO
Singleton, James K.	Electronics Technician, SIO
Wilson, Robert C.	Resident Marine Technician, SIO

(2) Leg II only

(3) Leg III only

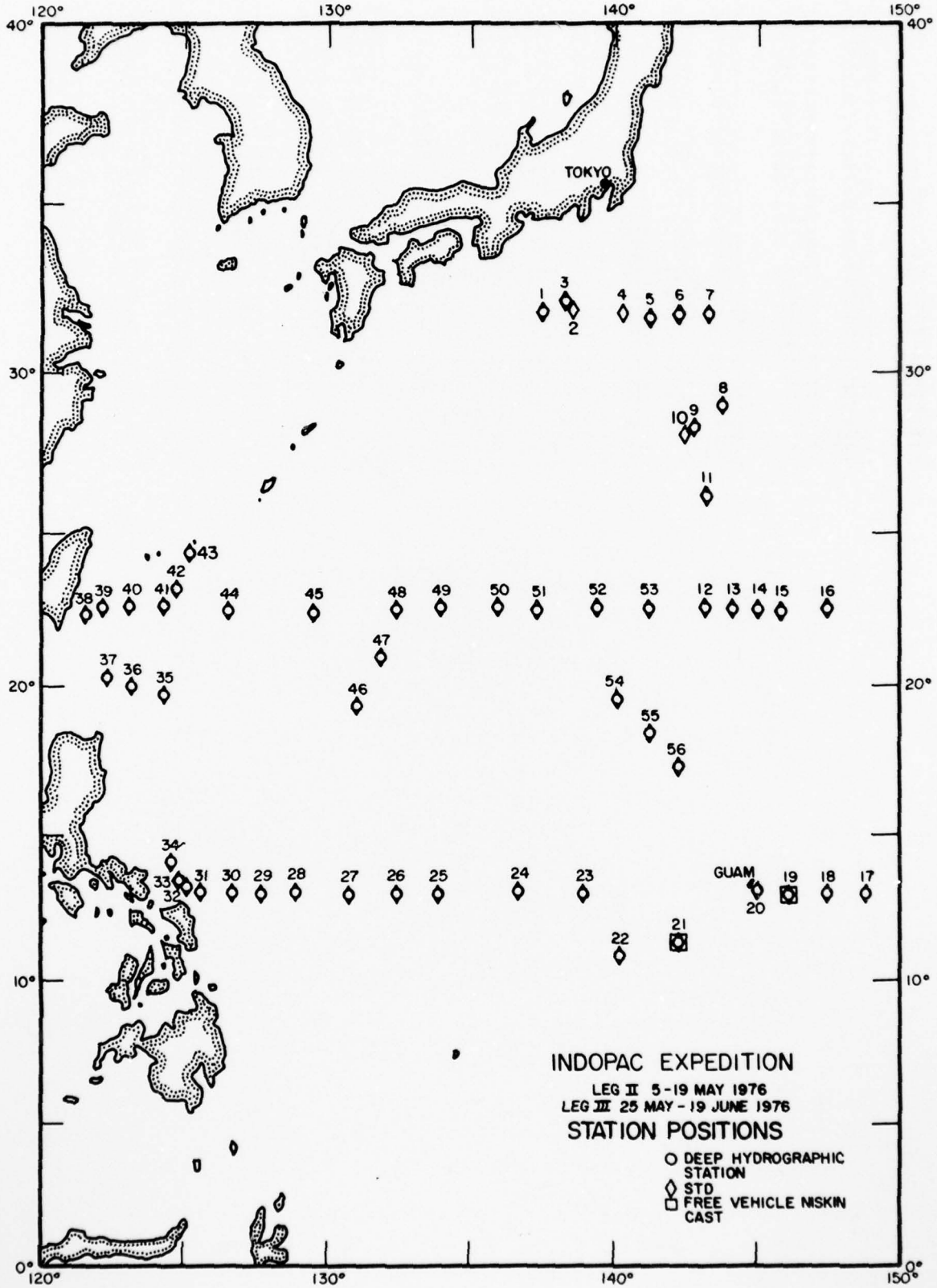

120°
130°
140°
150°
40°
30°
20°
10°
0°
TOKYO
GUAM
INDOPAC EXPEDITION
LEG II 5-19 MAY 1976
LEG III 25 MAY - 19 JUNE 1976
STATION POSITIONS
O DEEP HYDROGRAPHIC STATION
◇ STD
□ FREE VEHICLE NISKIN CAST

FIGURE 6

RV THOMAS WASHINGTON INDOP/C LEG II

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
31 49.4N	137 30.7E	5/ 6/76	0618	0759 GMT	4087M	290	16KT	0	290 5 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	18.97	34.54	5.56	0.05	6.	0.00	0.0	325.5	0	18.97	34.54	5.56	24.697	325.5	0.000
20	18.86	34.54	5.62	0.08	6.	0.01	1.4	322.9	10	18.92	34.54	5.59	24.711	324.2	0.033
51	16.09	34.650	5.21	0.34	9.	0.27	4.5	251.3	20	18.86	34.54	5.62	24.725	322.9	0.065
71	15.85	34.639	5.24	0.35	9.	0.17	4.9	246.9	30	17.98	34.57	5.49	24.966	300.0	0.096
85	15.70	34.630	5.18	0.41	10.	0.09	5.5	244.4	50	16.18	34.65	5.22	25.452	253.7	0.152
100	15.54	34.625	5.06	0.45	11.	0.03	6.7	241.3	75	15.81	34.64	5.23	25.531	246.2	0.215
116	15.18	34.603	4.67	0.58	14.	0.03	8.7	235.3	100	15.54	34.63	5.06	25.582	241.3	0.276
140	14.03	34.548	3.98	0.91	22.	0.04	13.6	215.8	125	14.80	34.58	4.40	25.713	228.9	0.336
161	12.86	34.502	3.70	1.16	28.	0.13	18.5	196.4	150	13.46	34.53	3.82	25.951	206.3	0.391
191	11.79	34.441	3.48	1.38	33.		19.2	181.2	200	11.31	34.41	3.45	26.280	175.0	0.489
220	10.26	34.355	3.36	1.69	40.	0.04	22.5	161.3	250	9.31	34.34	3.01	26.569	147.6	0.572
250	9.31	34.336	3.01	1.84	51.	0.00	25.7	147.6	300	7.94	34.29	2.74	26.747	130.7	0.644
299	7.96	34.291	2.75	2.09	62.	0.00	29.0	131.0	400	6.21	34.26	2.23	26.965	110.0	0.770
355	6.86	34.262	2.43	2.34	73.	0.02	32.0	118.2	500	5.09	34.29	1.86	27.121	95.2	0.878
440	5.73	34.270	2.07	2.52	88.	0.04	35.6	103.7	600	4.31	34.33	1.64	27.241	85.8	0.973
550	4.65	34.304	1.72	2.72	106.	0.04	38.5	89.1	700	3.81	34.38	1.56	27.332	79.2	1.059
668	3.96	34.362	1.58	2.99	121.	0.00	40.5	77.8	800	3.44	34.42	1.52	27.401	68.7	1.137
797	3.45	34.416	1.52	2.93	133.	0.00	41.1	68.9	1000	2.87	34.49	1.64	27.513	58.1	1.276
945	3.04	34.454	1.54	2.91	139.		41.5	62.3	1200	2.60	34.52	1.74	27.563	53.4	1.401
1048A	2.77	34.51	1.70		145.	0.00	41.7	55.8	1500	2.17	34.58	2.21	27.639	46.1	1.572
1095	2.78	34.490	1.64	2.94	145.		41.6	57.4	1750	1.99	34.61	2.49	27.678	42.4	1.701
1247A	2.48	34.55	1.84	2.79	150.	0.00	41.5	50.4	2000	1.82	34.63	2.80	27.710	39.4	1.823
1447A	2.22	34.57	2.15	2.73	151.	0.00	40.9	46.8	2250	1.71	34.64	3.00	27.728	37.8	1.940
1647A	2.07	34.59	2.37	2.77	152.	0.00	40.2	44.2	2500	1.61	34.66	3.23	27.749	35.6	2.053
1846A	1.92	34.62	2.60	2.66	153.	0.00	39.5	40.8	2750	1.54	34.68	3.37	27.772	33.5	2.162
2046A	1.80	34.63	2.86	2.65	152.	0.01	38.9	39.2	3000	1.50	34.68	3.51	27.775	33.2	2.269
2246A	1.716	34.64	3.00	2.53	152.		38.7	37.8	3250	1.49	34.68	3.55	27.776	33.2	2.376
2445A	1.632	34.65	3.18	2.54	150.		38.1	36.4	3500	1.50	34.69	3.63	27.781	32.6	2.485
2646A	1.564	34.68	3.33	2.53	150.	0.00	37.6	33.7	3750	1.52	34.68	3.60	27.774	33.4	2.596
2846A	1.521	34.68	3.41	2.52	149.	0.00	37.7	33.4	4000	1.54	34.69	3.62	27.776	33.1	2.710
3046A	1.490	34.68	3.54	2.53	149.	0.00	37.0	33.2							
3247A	1.491	34.68	3.55	2.47	149.	0.01	37.0	33.2							
3448A	1.495	34.69	3.63	2.45	148.	0.03	36.4	32.5							
3650A	1.512	34.68	3.60	2.49	148.	0.01	36.8	33.3							
3851A	1.535	34.68	3.410	2.46	149.		36.8	33.5							
4054A	1.546	34.69	3.62	2.52	148.	0.00	36.6	32.8							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
31 49.4N	137 30.7E	05/06/76	0651 GMT

Z	T	S	SIGMA T	DT	DD
0	19.00	34.52	24.674	327.7	0.000
10	18.96	34.52	24.684	326.7	0.033
20	18.36	34.52	24.835	312.4	0.065
30	16.84	34.62	25.280	270.1	0.094
40	16.23	34.63	25.429	255.8	0.120
50	15.98	34.63	25.487	250.4	0.146
75	15.72	34.62	25.538	245.5	0.208
100	15.44	34.60	25.585	241.0	0.270
125	14.62	34.56	25.734	226.8	0.329
150	13.47	34.50	25.930	208.3	0.384
175	12.32	34.45	26.120	190.2	0.435
200	11.36	34.40	26.263	176.7	0.482
225	10.07	34.32	26.430	160.8	0.526
250	9.34	34.32	26.552	149.2	0.566
275	8.68	34.30	26.642	140.7	0.603
300	7.94	34.27	26.731	132.2	0.639
350	6.67	34.24	26.887	117.4	0.704
400	5.97	34.24	26.978	108.8	0.763
450	5.45	34.26	27.058	101.2	0.818
500	4.99	34.27	27.120	95.3	0.870
550	4.60	34.29	27.180	89.6	0.919
600	4.31	34.32	27.235	84.4	0.965
650	3.95	34.33	27.281	80.1	1.009
700	3.79	34.36	27.321	76.3	1.051
750	3.51	34.37	27.357	72.9	1.092
800	3.39	34.40	27.392	69.5	1.130
850	3.26	34.42	27.421	66.9	1.167
900	3.12	34.43	27.442	64.9	1.203
950	3.02	34.44	27.459	63.2	1.239
1000	2.91	34.46	27.485	60.8	1.273
1100	2.71	34.48	27.519	57.6	1.339
1200	2.54	34.50	27.549	54.7	1.401
1300	2.42	34.52	27.575	52.2	1.462
1400	2.30	34.54	27.601	49.7	1.520
1500	2.20	34.56	27.625	47.4	1.576
1600	2.093	34.573	27.644	45.6	1.629
1700	2.018	34.585	27.660	44.2	1.682
1800	1.948	34.599	27.677	42.6	1.733
1900	1.889	34.612	27.692	41.2	1.783
2000	1.811	34.621	27.705	39.9	1.831
2100	1.765	34.633	27.718	38.7	1.878
2200	1.726	34.637	27.724	38.1	1.925
2300	1.677	34.649	27.737	36.8	1.971
2400	1.639	34.652	27.743	36.3	2.016
2500	1.608	34.662	27.753	35.4	2.060
2600	1.579	34.666	27.758	34.9	2.104
2700	1.560	34.668	27.761	34.6	2.148
2800	1.534	34.673	27.767	34.0	2.191
2900	1.517	34.678	27.772	33.5	2.234
3000	1.495	34.681	27.776	33.1	2.277
3100	1.488	34.685	27.780	32.8	2.319
3200	1.487	34.687	27.782	32.6	2.362
3300	1.486	34.690	27.784	32.4	2.405
3400	1.488	34.694	27.787	32.1	2.448
3500	1.495	34.694	27.787	32.2	2.490
3600	1.505	34.695	27.787	32.2	2.534
3700	1.514				
3800	1.523				
3900	1.533				
4000	1.544				
4066	1.551				

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
31 54. N	138 31. E	05/06/76	1533 GMT

Z	T	S	SIGMA T	DT	DD
0	21.07	34.61	24.199	373.0	0.000
10	21.09	34.62	24.201	372.8	0.037
20	21.01	34.61	24.215	371.5	0.075
30	20.66	34.59	24.294	363.9	0.111
40	20.17	34.58	24.417	352.2	0.147
50	19.86	34.58	24.498	344.5	0.182
75	18.58	34.62	24.857	310.3	0.265
100	17.32	34.63	25.173	280.2	0.339
125	16.88	34.66	25.301	268.1	0.409
150	16.22	34.59	25.401	258.5	0.476
175	15.72	34.63	25.546	244.8	0.540
200	15.13	34.60	25.654	234.5	0.601
225	14.66	34.60	25.757	224.7	0.660
250	13.88	34.56	25.891	211.9	0.716
275	13.17	34.52	26.006	201.0	0.770
300	12.35	34.49	26.145	187.8	0.820
350	10.36	34.39	26.434	160.4	0.911
400	8.79	34.33	26.648	140.1	0.990
450	7.77	34.29	26.772	128.4	1.061
500	6.90	34.30	26.903	115.9	1.126
550	5.93	34.28	27.015	105.3	1.185
600	5.23	34.29	27.108	96.5	1.239
650	4.73	34.31	27.181	89.5	1.289
700	4.44	34.33	27.229	85.0	1.336
750	4.04	34.36	27.296	78.7	1.380
800	3.94	34.37	27.314	77.0	1.423
850	3.77	34.39	27.347	73.8	1.464
900	3.54	34.41	27.386	70.2	1.503
950	3.40	34.43	27.415	67.4	1.541
1000	3.31	34.45	27.440	65.0	1.578
1100	3.03	34.47	27.482	61.0	1.649
1200	2.83	34.49	27.516	57.8	1.716
1300	2.69	34.51	27.544	55.1	1.780
1400	2.51	34.53	27.576	52.2	1.841
1500	2.36	34.55	27.604	49.4	1.900
1600	2.277	34.567	27.625	47.5	1.956
1700	2.150	34.586	27.650	45.1	2.011
1800	2.085	34.597	27.664	43.8	2.063
1900	2.021	34.607	27.677	42.5	2.115
2000	1.946	34.620	27.694	41.0	2.165
2100	1.910	34.626	27.701	40.3	2.215
2200	1.859	34.634	27.712	39.3	2.263
2300	1.808	34.643	27.723	38.2	2.311
2400	1.759	34.650	27.732	37.3	2.358
2500	1.727	34.656	27.739	36.7	2.404
2600	1.709	34.659	27.743	36.3	2.450

LATITUDE	LONGITUDE	MO/DAY/TR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
32 04. N	138 21.4E	5/ 6/76	210^{a} 2322 GMT	3176M	360	11KT	1	3.0 5 P

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	19.86	34.535	5.39	0.16	3.	0.00	0.1	347.7	0	19.86	34.535	5.39	24.464	347.7	0.000
10	19.83	34.534	5.46	0.13	3.	0.00	0.3	347.1	10	19.83	34.534	5.46	24.471	347.1	0.035
31	19.80	34.534	5.39	0.12	4.	0.01	0.2	346.3	20	19.82	34.535	5.43	24.475	346.7	0.069
50	18.69	34.596	4.96	0.31	6.	0.59	2.7	314.7	30	19.80	34.535	5.39	24.479	346.4	0.104
71	17.42	34.604	5.00	0.39	7.	0.22	4.0	284.4	50	18.69	34.596	4.96	24.811	314.7	0.171
91	16.78	34.683	4.34	0.60	11.	0.06	7.7	264.1	75	17.27	34.623	4.87	25.178	279.7	0.245
121	15.73	34.606	4.62	0.64	12.	0.01	8.2	246.8	100	16.44	34.668	4.42	25.410	257.7	0.313
151	15.27	34.606	4.60	0.63	14.	0.04	8.8	237.0	125	15.66	34.606	4.62	25.539	245.4	0.377
201	13.60	34.530	3.81	1.08	24.	0.03	15.0	208.6	150	15.28	34.607	4.60	25.624	237.3	0.438
250	12.10	34.457	3.55	1.32	31.	0.01	18.3	185.7	200	13.64	34.532	3.83	25.920	209.2	0.553
300	9.98	34.362	3.12	1.73	44.	0.00	23.6	156.3	250	12.10	34.457	3.55	26.168	185.7	0.664
398	7.84	34.306	2.60	2.18	64.	0.00	29.5	128.1	300	9.98	34.362	3.12	26.478	156.3	0.743
495	5.98	34.284	2.11	2.57	85.	0.00	34.8	105.6	400	7.80	34.306	2.59	26.779	127.6	0.891
639	4.56	34.319	1.70	2.80	108.	0.00	38.6	87.1	500	5.91	34.285	2.09	27.020	104.8	1.014
722A	3.87	34.363	1.43	2.86	124.		40.7	76.8	600	4.85	34.306	1.80	27.164	91.2	1.119
866A	3.47	34.409	1.45	2.89	133.		41.3	69.6	700	4.05	34.352	1.49	27.289	79.3	1.210
1008A	3.11	34.451	1.49	2.93	141.		41.7	63.2	800	3.59	34.392	1.44	27.366	72.0	1.292
1150A	2.80	34.490	1.44	2.95	147.		41.6	57.6	1000	3.13	34.449	1.49	27.456	63.5	1.442
1292A	2.54	34.525	1.82	2.97	151.		41.3	52.8	1200	2.70	34.504	1.56	27.538	55.8	1.575
1479A	2.31	34.555	2.12	2.92	153.		40.7	48.7	1500	2.28	34.560	2.14	27.618	48.2	1.753
1665A	2.11	34.588	2.30	2.92	155.		40.3	44.6	1750	2.05	34.596	2.37	27.666	43.7	1.888
1850A	1.99	34.601	2.45	2.85	155.		39.8	42.7	2000	1.92	34.618	2.61	27.693	41.1	2.014
2033A	1.91	34.620		2.79	154.		39.5	40.7	2250	1.78	34.641	2.84	27.723	38.2	2.135
2214A	1.79	34.639	2.82	2.76	154.		39.0	38.4	2500	1.70	34.652	3.04	27.737	36.9	2.251
2395A	1.744	34.646	2.94	2.78	153.		38.6	37.6	2750	1.61	34.665	3.24	27.755	35.2	2.364
2575A	1.671	34.654	3.11	2.69	152.		38.2	36.4	3000	1.54	34.673	3.41	27.767	34.1	2.475
2751A	1.607	34.664	3.24	2.64	151.		37.9	35.2							
2927A	1.548	34.670	3.36	2.58	150.		37.5	34.3							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
32 04. N	138 21. E	05/06/76	1945 GMT

Z	T	S	SIGMA T	DT	DD
0	19.80	34.54	24.483	345.9	0.000
10	19.80	34.54	24.483	345.9	0.035
20	19.78	34.54	24.489	345.4	0.069
30	18.60	34.56	24.806	315.2	0.102
40	18.03	34.60	24.978	298.8	0.133
50	17.75	34.62	25.062	290.8	0.163
75	17.17	34.71	25.270	271.0	0.234
100	16.29	34.63	25.416	257.2	0.300
125	15.89	34.66	25.530	246.3	0.364
150	15.53	34.63	25.588	240.7	0.426
175	14.97	34.59	25.682	231.9	0.486
200	13.96	34.56	25.875	213.5	0.543
225	12.63	34.48	26.083	193.7	0.596
250	11.70	34.43	26.223	180.4	0.644
275	10.81	34.40	26.363	167.2	0.689
300	10.06	34.37	26.470	157.0	0.731
350	8.42	34.27	26.659	139.1	0.808
400	7.81	34.31	26.782	127.4	0.878
450	6.89	34.28	26.889	117.3	0.943
500	6.17	34.28	26.984	108.2	1.002
550	5.46	34.29	27.081	99.1	1.058
600	4.90	34.32	27.170	90.6	1.108
650	4.42	34.33	27.232	84.8	1.155
700	4.16	34.34	27.267	81.4	1.200
750	3.83	34.36	27.317	76.7	1.243
800	3.70	34.38	27.346	73.9	1.284
850	3.55	34.39	27.369	71.8	1.324
900	3.43	34.41	27.396	69.1	1.362
950	3.20	34.43	27.434	65.6	1.399
1000	3.09	34.45	27.460	63.1	1.435
1100	2.87	34.48	27.504	58.9	1.503
1200	2.69	34.50	27.536	55.9	1.568
1300	2.53	34.52	27.566	53.1	1.629
1400	2.42	34.54	27.591	50.7	1.689
1500	2.31	34.55	27.608	49.1	1.746
1600	2.176	34.572	27.637	46.4	1.802
1700	2.087	34.586	27.655	44.6	1.855
1800	2.020	34.597	27.669	43.3	1.907
1900	1.959	34.608	27.683	42.0	1.957
2000	1.902	34.617	27.695	40.9	2.007
2100	1.842	34.626	27.706	39.8	2.056
2200	1.797	34.633	27.716	38.9	2.104
2300	1.754	34.641	27.725	38.0	2.151
2400	1.713	34.647	27.733	37.3	2.197
2500	1.689	34.651	27.738	36.8	2.243
2600	1.665	34.655	27.743	36.3	2.289
2700	1.623	34.662	27.752	35.5	2.334
2800	1.580	34.668	27.760	34.7	2.379
2900	1.572	34.669	27.761	34.6	2.423
3000	1.532	34.674	27.768	33.9	2.467
3036	1.509	34.677	27.772	33.5	2.483

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
31 44.3N	140 13.1E	05/07/76	0834 GMT

Z	T	S	SIGMA T	DT	DD
0	21.11	34.65	24.218	371.2	0.000
10	21.09	34.66	24.231	369.9	0.037
20	21.05	34.67	24.249	368.2	0.074
30	21.00	34.68	24.271	366.2	0.111
40	20.98	34.68	24.276	365.7	0.148
50	20.95	34.69	24.292	364.1	0.184
75	20.61	34.73	24.414	352.5	0.274
100	19.68	34.74	24.667	328.4	0.360
125	19.31	34.77	24.785	317.1	0.442
150	18.96	34.78	24.883	307.9	0.521
175	18.69	34.78	24.951	301.4	0.599
200	18.43	34.78	25.016	295.2	0.675
225	17.88	34.79	25.160	281.5	0.749
250	17.47	34.78	25.252	272.7	0.820
275	17.39	34.78	25.271	270.9	0.890
300	17.15	34.78	25.329	265.4	0.959
350	16.45	34.76	25.478	251.2	1.094
400	15.44	34.68	25.647	235.2	1.221
450	14.80	34.64	25.757	224.7	1.342
500	13.40	34.54	25.975	204.0	1.456
550	11.67	34.43	26.229	179.9	1.558
600	9.81	34.33	26.482	155.9	1.649
650	8.72	34.29	26.628	142.0	1.729
700	7.70	34.26	26.758	129.6	1.803
750	6.88	34.25	26.867	119.4	1.871
800	6.05	34.26	26.984	108.3	1.934
850	5.29	34.27	27.085	98.6	1.990
900	4.68	34.27	27.155	92.0	2.043
950	4.36	34.31	27.222	85.7	2.092
1000	4.08	34.34	27.276	80.6	2.138
1100	3.39	34.38	27.376	71.0	2.222
1200	3.30	34.43	27.425	66.5	2.300
1300	2.86	34.45	27.481	61.1	2.372
1400	2.60	34.49	27.536	55.9	2.439
1468	2.45	34.52	27.573	52.4	2.481

RV THOMAS WASHINGTON INDOPAC LEG II 5

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME GMT	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
31 35. N	141 12.5E	5/ 7/76	1538 1911	4066M	300	6KT	1	049 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	20,27	34,661	5,28	0,00	2.	0,00	0,2	348,9	0	20,27	34,661	5,28	24,452	348,9	0,000
20	20,27	34,660	5,32	0,01	2.	0,00	0,2	349,0	10	20,27	34,661	5,30	24,452	348,9	0,035
36	20,04	34,708	5,25	0,25	2.	0,07	0,3	339,7	20	20,27	34,660	5,32	24,451	349,0	0,070
49	19,34	34,747	5,21	0,29	2.	0,09	0,7	319,5	30	20,18	34,688	5,28	24,496	344,7	0,105
71	18,99	34,750	5,13	0,28	3.	0,07	1,5	310,8	50	19,31	34,748	5,21	24,768	316,8	0,171
94	18,58	34,768	4,81	0,32	5.	0,03	3,2	299,6	75	18,93	34,753	5,08	24,869	309,2	0,250
118	17,74	34,777	4,60	0,43	5.	0,03	5,0	279,2	100	18,37	34,772	4,74	25,025	294,3	0,326
143	17,33	34,761	4,64	0,47	6.	0,04	5,1	270,9	125	17,60	34,774	4,61	25,215	276,2	0,399
166	16,96	34,748	4,96	0,44	5.	0,04	4,2	263,5	150	17,21	34,756	4,73	25,297	268,5	0,468
195	16,70	34,739	5,24	0,41	5.	0,04	3,3	258,3	200	16,68	34,740	5,22	25,408	257,9	0,602
223	16,58	34,737	5,15	0,46	5.	0,03	4,0	255,8	250	16,25	34,713	4,88	25,488	250,2	0,733
250	16,25	34,713	4,88	0,57	7.	0,00	5,8	250,2	300	15,12	34,643	4,47	25,688	231,3	0,857
285	15,48	34,666	4,55	0,60	10.	0,01	7,2	237,0	400	12,74	34,468	4,18	26,051	196,7	1,081
321	14,63	34,607	4,39	0,71	13.	0,01	10,6	223,6	500	10,36	34,312	3,82	26,372	166,3	1,273
365	13,76	34,541	4,27	0,81	16.	0,00	12,5	211,0	600	7,66	34,140	3,56	26,669	138,1	1,435
418	12,21	34,433	4,13	1,10	23.	0,00	15,7	189,4	700	5,67	34,099	2,78	26,904	115,9	1,572
478	10,99	34,358	3,86	1,31	30.	0,00	18,9	173,4	800	4,59	34,140	1,93	27,062	100,9	1,688
545	9,03	34,219	3,74	1,64	40.	0,00	22,7	152,0	1000	3,76	34,276	1,21	27,257	82,4	1,888
630	7,01	34,110	3,42	1,88	57.	0,00	28,0	131,5	1200	3,07	34,393	1,01	27,416	67,3	2,054
801	4,58	34,139	1,92	2,62	96.	0,00	38,1	100,8	1500	2,51	34,497	1,00	27,549	54,7	2,261
832A	4,52	34,152	1,81	2,70	99.		38,0	99,2	1750	2,19	34,555	1,35	27,621	47,9	2,410
1026A	3,62	34,297	1,14	3,01	126.		41,7	79,4	2000	1,95	34,605	1,89	27,680	42,3	2,544
1222A	3,02	34,402	0,99	3,08	144.		42,7	66,1	2250	1,79	34,632	2,37	27,714	39,0	2,667
1417A	2,63	34,475	0,94	3,05	157.		43,6	57,3	2500	1,69	34,646	2,69	27,733	37,2	2,785
1611A	2,37	34,522	1,13	3,03	163.		43,1	51,7	2750	1,62	34,658	2,86	27,748	35,8	2,899
1806A	2,13	34,566	1,45	2,98	167.		42,4	46,5	3000	1,56	34,663	3,02	27,757	35,0	3,012
1999A	1,95	34,585 U	2,07U						3250	1,51	34,675	3,19	27,770	33,7	3,123
2194A	1,82	34,629	2,30	2,74	165.		40,5	39,4	3500	1,47	34,681	3,35	27,777	33,0	3,233
2390A	1,73	34,637	2,54	2,69	164.		39,7	38,1	3750	1,46	34,688	3,44	27,784	32,4	3,342
2585A	1,66	34,651	2,79	2,65	163.		39,1	36,6	4000	1,46	34,689	3,59	27,785	32,3	3,452
2780A	1,61	34,658	2,87	2,61	161.		38,8	35,7							
2976A	1,57	34,661	3,00	2,62	161.		38,2	35,2							
3173A	1,522	34,674	3,14	2,60	160.		38,1	33,9							
3370A	1,488	34,676	3,27	2,56	159.		37,8	33,5							
3568A	1,468	34,683	3,38	2,53	158.		37,4	32,8							
3769A	1,456	34,688	3,45	2,55	156.		37,0	32,4							
3970A	1,461	34,689	3,58	2,51	156.		36,9	32,3							

RV THOMAS WASHINGTON INDOPAC LEG II 6

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME GMT	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
31 42.8N	142 12.3E	5/ 8/76	0248 0817	9100M	120	6KT	1	120 4 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	18,86	34,553	5,47	0,16	4.	0,00	0,3	321,9	0	18,86	34,553	5,47	24,735	321,9	0,000
10	18,76	34,557	5,57	0,09	4.	0,00	0,2	319,2	10	18,76	34,557	5,57	24,763	319,2	0,032
26	18,21	34,641	5,64	0,10	4.	0,00	0,3	300,0	20	18,45	34,607	5,63	24,878	308,4	0,064
50	17,13	34,709	5,62	0,12	4.	0,13	0,2	270,1	30	18,01	34,657	5,64	25,025	294,3	0,094
80	17,01	34,724	5,41	0,17	4.	1,01	0,4	266,3	50	17,13	34,709	5,62	25,279	270,1	0,150
110	16,91	34,715	5,43	0,18	4.	0,87	0,7	264,7	75	17,03	34,722	5,44	25,312	267,0	0,218
139	16,84	34,710	5,45	0,18	4.	0,54	1,0	263,5	100	16,94	34,720	5,42	25,332	265,1	0,285
170	16,59	34,722	5,03	0,18	6.	0,03	4,0	257,1	125	16,88	34,712	5,44	25,340	264,4	0,352
200	15,71	34,682	4,60	0,52	9.	0,04	8,0	240,8	150	16,80	34,717	5,33	25,363	262,1	0,419
249	14,90	34,621	4,39	0,69	12.	0,04	10,1	228,1	200	15,71	34,682	4,60	25,588	240,8	0,548
347	12,17	34,430	4,16	1,11	23.	0,00	15,8	188,9	250	14,87	34,620	4,39	25,725	227,8	0,668
445	10,07	34,274	4,10	1,37	32.	0,00	19,6	164,2	300	13,55	34,521	4,24	25,933	208,0	0,781
543	7,47	34,122	3,59	1,84	52.	0,00	26,6	136,8	400	11,03	34,347	4,13	26,282	174,8	0,981
642	5,58	34,069	2,78	2,37	75.	0,00	33,5	117,0	500	8,60	34,180	3,86	26,560	148,5	1,152
740	4,59	34,135	1,94	2,72	96.	0,00	38,4	101,2	600	6,28	34,079	3,14	26,811	124,7	1,297
838	4,23	34,214	1,56	2,83	109.	0,00	40,5	91,6	700	4,90	34,102	2,26	26,997	107,0	1,421
985	3,55	34,304	1,10	3,04	129.	0,00	42,6	78,2	800	4,34	34,185	1,68	27,125	94,9	1,529
1182	3,04	34,394	0,96	3,11	144.	0,00	43,7	66,9	1000	3,50	34,313	1,09	27,311	77,2	1,716
1380	2,63	34,468	0,96	3,09	157.	0,00	44,2	57,8	1200	3,00	34,402	0,96	27,430	66,0	1,875
1559A	2,35	34,526	1,15		164.	0,00	43,0	51,2	1500	2,44	34,511	1,09	27,567	53,0	2,078
1579	2,32	34,528	1,23	3,04	164.	0,00	43,9	50,8	1750	2,14	34,558	1,56	27,628	47,2	2,223
1855A	2,07	34,579	1,64	2,84	168.	0,02	42,0	45,0	2000	1,96	34,597	1,85	27,674	42,7	2,356
2152A	1,85	34,616	2,07	2,78	169.	0,02	40,7	40,6	2250	1,79	34,626	2,24	27,709	39,3	2,481
2450A	1,70	34,646	2,56	2,68	166.	0,02	39,7	37,2	2500	1,68	34,648	2,62	27,736	36,9	2,598
2747A	1,61	34,654	2,87	2,64	163.	0,02	38,9	36,0	2750	1,61	34,655	2,87	27,747	36,0	2,712
3044A	1,54	34,665	3,17E	2,60	161.	0,02	38,1	34,7	3000	1,55	34,664	3,13	27,758	34,9	2,825
3341A	1,50	34,673	3,56U	2,45	160.	0,00	37,9	33,8	3250	1,51	34,671	3,28	27,767	34,0	2,936
3638A	1,48	34,677	3,40	2,38	158.	0,01	37,5	33,3	3500	1,49	34,676	3,37	27,772	33,5	3,047
3936A	1,48	34,685	3,50	2,44	158.	0,01	37,2	32,7	3750	1,48	34,681	3,44	27,777	33,1	3,158
4232A	1,47	34,688	3,57	2,39	155.	0,01	36,9	32,4	4000	1,48	34,686	3,52	27,781	32,7	3,270
4530A	1,471	34,690	3,66	2,39	154.	0,01	36,6	32,3	4250	1,47	34,689	3,58	27,784	32,4	3,382
4828A	1,498	34,693	3,69	2,41	153.	0,01	36,4	32,3	4500	1,47	34,690	3,65	27,785	32,3	3,496
5124A	1,522	34,694	3,74	2,42	152.	0,00	36,4	32,3	4750	1,49	34,693	3,68	27,786	32,3	3,611
5422A	1,561	34,691	3,75	2,44	152.	0,00	36,4	32,8	5000	1,51	34,694	3,72	27,795	32,3	3,728
5718A	1,600	34,692	3,76	2,45	150.	0,00	36,3	33,0	5250	1,54	34,693	3,74	27,783	32,5	3,848
6017A	1,648	34,693	3,80	2,47	150.	0,00	36,3	33,3	5500	1,57	34,692	3,74	27,779	32,9	3,971
6314A	1,688	34,693	3,80	2,47	150.	0,00	36,2	33,6	5750	1,61	34,693	3,74	27,777	33,1	4,097
6611A	1,728	34,694	3,81	2,45	149.	0,00	36,2	33,8	6000	1,65	34,694	3,80	27,775	33,3	4,227
6909A	1,776	34,696	3,81	2,42	149.	0,00	36,2	34,0	6250	1,68	34,694	3,80	27,772	33,5	4,360
7207A	1,819	34,692	3,84	2,41	149.	0,00	36,3	34,6	6500	1,71	34,694	3,81	27,770	33,7	4,496
									6750	1,75	34,696	3,81	27,769	33,9	4,635
									7000	1,79	34,695	3,82	27,766	34,1	4,778

E) A BURETTE READING ERROR OF 0.1 MILLITERS (0.79 MILLILITERS PER LITER) HAS BEEN ASSUMED.

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
31 35, N	141 12,5E	05/07/76	1412 GMT

Z	T	S	SIGMA T	DT	DD
0	20.28	34.64	24.433	350.7	0.000
10	20.27	34.66	24.451	349.0	0.035
20	20.25	34.67	24.464	347.7	0.070
30	20.05	34.70	24.540	340.5	0.104
40	19.72	34.73	24.649	330.1	0.138
50	19.51	34.74	24.711	324.2	0.171
75	18.96	34.76	24.867	309.3	0.251
100	18.62	34.77	24.961	300.4	0.328
125	17.56	34.76	25.215	276.3	0.401
150	17.38	34.76	25.258	272.1	0.470
175	16.97	34.75	25.348	263.5	0.539
200	16.74	34.74	25.395	259.1	0.605
225	16.66	34.74	25.414	257.3	0.672
250	16.54	34.74	25.442	254.7	0.737
275	16.30	34.72	25.482	250.8	0.803
300	16.02	34.70	25.531	246.2	0.867
350	14.95	34.60	25.694	230.7	0.991
400	13.60	34.52	25.919	209.3	1.106
450	12.20	34.41	26.112	190.9	1.212
500	10.87	34.31	26.282	174.8	1.309
550	9.34	34.21	26.466	157.4	1.397
600	7.66	34.12	26.654	139.5	1.477
650	6.24	34.03	26.778	127.6	1.548
700	5.54	34.06	26.890	117.2	1.614
750	5.04	34.08	26.964	110.1	1.675
800	4.75	34.11	27.021	104.7	1.733
850	4.38	34.16	27.101	97.1	1.787
900	4.18	34.19	27.146	92.9	1.839
950	3.89	34.24	27.216	86.3	1.888
1000	3.70	34.27	27.259	82.2	1.934
1100	3.31	34.34	27.352	73.3	2.020
1200	3.12	34.39	27.410	67.9	2.098
1300	2.85	34.43	27.466	62.5	2.172
1400	2.67	34.46	27.506	58.8	2.240
1500	2.49	34.50	27.553	54.3	2.305
1600	2.336	34.524	27.586	51.2	2.366
1700	2.242	34.543	27.608	49.1	2.425
1800	2.115	34.566	27.637	46.3	2.481
1900	2.036	34.581	27.655	44.6	2.535
2000	1.958	34.597	27.674	42.8	2.587
2100	1.890	34.609	27.689	41.4	2.637
2200	1.827	34.622	27.704	40.0	2.687
2300	1.774	34.630	27.715	39.0	2.735
2400	1.726	34.639	27.726	37.9	2.782
2500	1.629	34.655	27.746	36.0	2.828
2600	1.579	34.664	27.757	35.0	2.873
2700	1.627	34.655	27.746	36.0	2.917
2800	1.612	34.659	27.750	35.6	2.963
2900	1.579	34.664	27.757	35.0	3.008
3000	1.557	34.668	27.762	34.6	3.052
3100	1.538	34.670	27.764	34.3	3.097
3200	1.513	34.676	27.771	33.7	3.141
3300	1.496	34.677	27.773	33.5	3.184
3400	1.482	34.680	27.777	33.1	3.228
3500	1.480	34.681	27.778	33.0	3.272
3600	1.475	34.682	27.779	32.9	3.316
3700	1.467	34.684	27.781	32.7	3.360
3800	1.467	34.685	27.782	32.7	3.404
3900	1.463	34.686	27.783	32.5	3.448
3968	1.465	34.686	27.783	32.6	3.478

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
31 42,8N	142 12,5E	05/08/76	0751 GMT

Z	T	S	SIGMA T	DT	DD
0	18.85	34.54	24.728	322.6	0.000
10	18.74	34.55	24.763	319.3	0.032
20	18.49	34.58	24.849	311.1	0.064
30	17.51	34.65	25.143	283.1	0.093
40	17.17	34.68	25.247	273.2	0.121
50	17.08	34.68	25.269	271.1	0.149
75	17.00	34.72	25.318	266.4	0.216
100	16.90	34.70	25.327	265.6	0.284
125	16.84	34.71	25.349	263.5	0.351
150	16.80	34.73	25.373	261.2	0.417
175	16.20	34.69	25.482	250.8	0.483
200	15.50	34.67	25.626	237.2	0.545
225	15.17	34.64	25.676	232.4	0.605
250	14.73	34.61	25.749	225.4	0.664
275	13.94	34.55	25.871	213.8	0.721
300	13.27	34.50	25.971	204.4	0.775
350	11.84	34.41	26.181	184.4	0.877
400	10.91	34.35	26.306	172.6	0.970
450	9.83	34.26	26.424	161.4	1.058
500	8.46	34.15	26.559	148.6	1.140
550	7.38	34.11	26.687	136.4	1.216
600	6.38	34.06	26.784	127.2	1.286
650	5.53	34.07	26.899	116.3	1.351
700	4.93	34.10	26.993	107.4	1.411
750	4.62	34.13	27.051	101.9	1.467
800	4.29	34.18	27.127	94.7	1.520
850	4.24	34.24	27.179	89.7	1.570
900	3.97	34.26	27.223	85.5	1.618
950	3.76	34.28	27.261	82.0	1.663
1000	3.47	34.32	27.321	76.3	1.707
1100	3.18	34.37	27.388	69.9	1.788
1200	2.97	34.40	27.432	65.8	1.863
1300	2.73	34.45	27.493	60.0	1.934
1400	2.58	34.47	27.522	57.3	2.001
1500	2.42	34.51	27.567	53.0	2.064
1592	2.29	34.53	27.594	50.4	2.119

RV THOMAS WASHINGTON INDOPAC LEG II 7

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
31 40.6N	143 20.4E	5/ 8/76	1714	2138 GMT	5801M	080	11KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	20.41	34.713	5.34	0.00	2.	0.00	0.1	348.7	0	20.41	34.713	5.34	24.454	348.7	0.000
15	20.35	34.713	5.38	0.04	2.	0.00	0.0	347.1	10	20.37	34.713	5.37	24.466	347.5	0.035
35	20.34	34.714	5.32	0.01	2.	0.00	0.0	346.8	20	20.35	34.714	5.37	24.471	347.1	0.070
55	19.41	34.780	5.31	0.02	2.	0.00	0.0	318.8	30	20.34	34.714	5.34	24.473	346.9	0.104
76	19.11	34.778	5.15	0.06	2.	0.17	0.9	311.6	50	19.66	34.762	5.31	24.690	326.2	0.172
100	18.46	34.774	5.15	0.07	3.	0.16	0.6	296.3	75	19.12	34.779	5.16	24.841	311.8	0.252
120	18.15	34.760	4.86	0.13	4.	0.04	2.9	290.0	100	18.46	34.774	5.15	25.004	296.3	0.329
140	17.92	34.768	4.98	0.09	4.	0.04	2.6	284.0	125	18.09	34.761	4.87	25.087	288.4	0.403
170	17.59	34.769	5.16	0.10	3.	0.12	1.8	276.3	150	17.81	34.770	5.06	25.161	281.3	0.475
199	17.23	34.750	5.05	0.13	4.	0.06	2.6	269.4	200	17.22	34.750	5.05	25.288	269.3	0.616
229	17.07	34.752	4.99	0.16	4.	0.04	3.2	265.6	250	16.88	34.752	4.94	25.371	261.4	0.752
263	16.75	34.750	4.91	0.22	5.	0.06	4.3	258.6	300	16.39	34.733	4.77	25.470	252.0	0.885
297	16.42	34.734	4.78	0.31	3.	0.07		252.4	400	15.14	34.642	4.49	25.684	231.6	1.137
337	16.04	34.707	4.70	0.30	8.	0.00	6.9	246.1	500	12.70	34.460	4.24	26.053	196.6	1.363
396	15.22	34.647	4.51	0.36	10.	0.00	8.7	232.9	600	10.31	34.291	4.09	26.365	166.9	1.558
465	13.58	34.524	4.27	0.70	16.	0.01	12.7	208.7	700	7.97	34.168	3.47	26.646	140.3	1.724
544	11.60	34.381	4.22	0.87	24.	0.01	16.2	182.3	800	5.94	34.128	2.60	26.892	116.9	1.864
643	9.35	34.230	3.91	1.17	36.	0.01	21.6	156.1	1000	4.16	34.215	1.42	27.167	90.9	2.091
791	6.07	34.127	2.67	1.96	71.	0.00	33.0	118.4	1200	3.39	34.349	1.01	27.351	73.4	2.273
895A	4.90	34.147	1.94	2.26	92.		35.9	103.6	1500	2.69	34.467	0.94	27.510	58.4	2.498
991	4.21	34.207	1.45	2.62	108.		40.9	91.9	1750	2.32	34.530	1.22	27.591	50.7	2.656
1096A	3.77	34.291	1.17	2.75	122.		40.5	81.3	2000	2.07	34.577	1.56	27.649	45.2	2.798
1319A	3.04	34.398	0.93	2.95	144.		42.2	66.6	2250	1.86	34.617	2.00	27.697	40.6	2.928
1544A	2.62	34.480	0.94	2.77	156.		43.3	56.8	2500	1.72	34.638	2.36	27.724	38.1	3.050
1793A	2.27	34.538	1.29	2.93	163.		42.6	49.7	2750	1.64	34.650	2.70	27.740	36.5	3.166
2042A	2.03	34.583	1.62	2.87	166.		41.9	44.4	3000	1.58	34.660	2.93	27.753	35.3	3.281
2315A	1.81	34.624	2.12	2.65	166.		40.6	39.7	3250	1.54	34.668	3.04	27.762	34.3	3.394
2588A	1.69	34.641	2.47	2.58	166.		39.6	37.5	3500	1.52	34.676	3.17	27.771	33.7	3.506
2887A	1.61	34.657	2.87	2.59	164.		38.8	35.8	3750	1.49	34.680	3.31	27.776	33.2	3.618
3186A	1.54		3.00	2.45	161.		38.4		4000	1.48	34.682	3.46	27.778	33.0	3.730
3460A	1.52	34.675	3.15	2.46	161.		37.6	33.8	4250	1.48	34.687	3.49	27.781	32.7	3.843
3708A	1.49	34.679	3.28	2.51	160.		37.1	33.3	4500	1.49	34.692	3.56	27.786	32.3	3.957
3931A	1.48	34.681	3.44	2.49	159.		37.1	33.0	4750	1.50	34.694	3.64	27.786	32.3	4.072
4154A	1.48	34.683	3.47	2.45	157.		36.8	32.9	5000	1.52	34.694	3.71	27.785	32.4	4.190
4403A	1.48	34.691	3.53	2.37	155.		36.2	32.3	5250	1.54	34.695	3.77	27.784	32.4	4.310
4651A	1.493	34.693	3.61	2.41	155.		36.2	32.2	5500	1.56	34.697	3.78	27.783	32.5	4.432
4925A	1.510	34.693	3.69	2.35	152.		35.9	32.3	5750	1.59	34.697	3.81	27.782	32.7	4.557
5197A	1.531	34.694	3.76	2.28	152.		35.6	32.4							
5469A	1.562	34.696	3.78	2.31	151.		35.4	32.5							
5765A	1.590	34.696	3.81	2.31	148.		35.3	32.7							

RV THOMAS WASHINGTON INDOPAC LEG II 8

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 57.5N	143 48. E	5/ 9/76	1530	1914 GMT	5862M	050	KT	2	050 6 7

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	20.48	34.732	5.46	0.14	2.	0.00	0.0	349.1	0	20.48	34.732	5.46	24.450	349.1	0.000
20	20.45	34.730	5.33	0.14	2.	0.00	0.0	348.4	10	20.47	34.731	5.40	24.453	348.8	0.035
36	19.30	34.744	5.42	0.11	2.	0.00	0.0	318.8	20	20.45	34.730	5.33	24.456	348.4	0.070
50	18.67	34.769	5.37	0.10	3.	0.06	0.0	301.7	30	19.76	34.737	5.39	24.642	330.8	0.104
71	18.25	34.781	5.42	0.17	3.	0.10	0.2	290.8	50	18.67	34.769	5.37	24.948	301.7	0.167
96	17.74	34.732	5.51	0.12	3.	0.12	0.0	282.4	75	18.16	34.774	5.44	25.079	289.1	0.242
126	17.59	34.725	5.36	0.13	3.	0.36	0.5	279.5	100	17.71	34.729	5.50	25.156	281.9	0.314
160	17.41	34.738	5.25	0.21	4.	0.22	0.0	274.4	125	17.59	34.725	5.37	25.180	279.5	0.385
200	17.10	34.741	5.31	0.37	4.	0.07	0.3	267.1	150	17.47	34.734	5.27	25.217	276.1	0.456
260	16.86	34.741	5.21	0.32	4.	0.06	2.8	261.7	200	17.10	34.741	5.31	25.311	267.1	0.594
329	16.45	34.734	5.00	0.39	6.	0.06	4.9	253.1	250	16.89	34.742	5.24	25.360	262.5	0.730
399	15.50	34.670	4.57	0.61	9.	0.04	8.3	237.2	300	16.66	34.742	5.11	25.414	257.3	0.864
457	13.85	34.545	4.32	0.86	15.	0.39	7.4	212.4	400	15.47	34.669	4.57	25.630	236.8	1.122
507	12.40	34.441	4.15	1.06	21.	0.00	15.5	192.3	500	12.60	34.456	4.17	26.069	195.0	1.350
566	10.79	34.326	4.13	1.30	28.	0.00	18.2	172.3	600	9.88	34.261	4.02	26.415	162.2	1.541
626	9.19	34.212	3.91	1.58	37.	0.00	22.0	154.9	700	7.29	34.098	3.61	26.688	136.3	1.702
686	7.64	34.114	3.71	1.84	46.	0.00	25.9	139.7	800	5.26	34.074	2.48	26.934	113.0	1.837
735	6.46	34.062	3.28	2.14	60.	0.00	29.7	128.1	1000	4.10	34.259	1.23	27.209	87.0	2.055
795	5.32	34.070	2.53	2.50	78.	0.00	34.8	114.0	1200	3.35	34.382	1.00	27.381	70.6	2.230
940A	4.27	34.200	1.46	2.63	106.	0.00	38.7	93.0	1500	2.65	34.494	1.16	27.535	56.1	2.447
997	4.11	34.255	1.24	2.97	112.	0.00	41.5	87.3	1750	2.24	34.553	1.40	27.616	48.3	2.599
1140A	3.54	34.352	1.01	2.85	129.	0.03	41.4	74.5	2000	1.97	34.593	1.77	27.669	43.3	2.735
1363A	2.92	34.443	0.99	2.96	147.		42.0	62.1	2250	1.81	34.625	2.19	27.708	39.7	2.861
1587A	2.50	34.520	1.28	2.91	157.	0.01	42.0	52.8	2500	1.69	34.644	2.53	27.732	37.2	2.979
1836A	2.13	34.566	1.48	2.91	166.	0.00	42.2	46.5	2750	1.61	34.656	2.78	27.748	35.8	3.093
2086A	1.91	34.604	1.94	2.84	167.	0.00	40.9	41.9	3000	1.56	34.665	2.98	27.758	34.8	3.206
2360A	1.75	34.635	2.34		166.	0.00	39.8	38.4	3250	1.52	34.672	3.17	27.767	34.0	3.317
2632A	1.64	34.652	2.68	2.46	164.	0.00	39.1	36.3	3500	1.50	34.677	3.29	27.772	33.5	3.428
2932A	1.57	34.662	2.92	2.55	162.	0.00	38.6	35.1	3750	1.48	34.681	3.40	27.777	33.1	3.540
3231A	1.52	34.671	3.16	2.38	159.	0.00	38.1	34.1	4000	1.47	34.684	3.54	27.780	32.8	3.651
3505A	1.497	34.676	3.29	2.37	158.	0.00	37.5	33.5	4250	1.47	34.687	3.59	27.783	32.5	3.764
3754A	1.479	34.680	3.40	2.39	158.	0.00	37.0	33.1	4500	1.47	34.690	3.71	27.785	32.3	3.877
3977A	1.467	34.683	3.50	2.37	156.	0.00	36.7	32.8	4750	1.49	34.694	3.73	27.786	32.2	3.993
4202A	1.468	34.686	3.56	2.37	154.	0.00	36.6	32.6	5000	1.51	34.693	3.79	27.784	32.4	4.110
4451A	1.469	34.689	3.71	2.30	154.	0.00	35.8	32.4	5250	1.53	34.694	3.84	27.784	32.5	4.230
4700A	1.491	34.693	3.72	2.38	151.	0.00	35.8	32.2	5500	1.55	34.695	3.89	27.783	32.5	4.352
4975A	1.504	34.692	3.78	2.36	150.	0.00	36.1	32.4	5750	1.58	34.696	3.90	27.782	32.6	4.477
5247A	1.529	34.693	3.84	2.29	147.	0.00	35.6	32.5							
5520A	1.557	34.695	3.89	2.29	147.	0.00	35.6	32.5							
5811A	1.59	34.696	3.90	2.29	146.	0.00	35.0	32.7							

7 D

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
31 40.6N	143 20.4E	05/08/76	1523 GMT

Z	T	S	SIGMA T	DT	DD
0	20.42	34.71	24.449	349.1	0.000
10	20.41	34.72	24.460	348.2	0.035
20	20.41	34.72	24.460	348.2	0.070
30	20.37	34.74	24.485	345.7	0.105
40	19.82	34.77	24.653	329.7	0.138
50	19.60	34.78	24.718	323.5	0.171
75	19.14	34.80	24.852	310.8	0.251
100	18.47	34.78	25.006	296.1	0.328
125	18.12	34.78	25.093	287.8	0.402
150	17.89	34.78	25.150	282.4	0.474
175	17.60	34.76	25.205	277.2	0.545
200	17.34	34.76	25.268	271.2	0.615
225	17.14	34.76	25.316	266.6	0.684
250	16.89	34.76	25.375	261.0	0.752
275	16.67	34.75	25.419	256.8	0.819
300	16.44	34.74	25.465	252.4	0.885
350	15.88	34.71	25.571	242.4	1.014
400	14.85	34.63	25.738	226.5	1.136
450	14.00	34.56	25.866	214.3	1.253
500	12.84	34.46	26.026	199.1	1.362
550	11.20	34.34	26.246	178.3	1.463
600	10.23	34.28	26.371	166.4	1.555
650	8.84	34.19	26.531	151.3	1.641
700	7.54	34.14	26.688	136.4	1.719
750	6.79	34.13	26.784	127.2	1.790
800	5.99	34.13	26.889	117.3	1.857
850	5.31	34.13	26.972	109.4	1.918
900	4.75	34.15	27.053	101.7	1.976
950	4.32	34.20	27.139	93.5	2.029
1000	4.01	34.24	27.203	87.4	2.079
1100	3.62	34.32	27.306	77.7	2.170
1200	3.30	34.37	27.377	71.0	2.253
1300	3.03	34.40	27.426	66.3	2.331
1400	2.83	34.44	27.476	61.6	2.403
1500	2.68	34.47	27.513	58.1	2.472
1600	2.547	34.498	27.547	54.9	2.537
1700	2.408	34.517	27.574	52.3	2.600
1800	2.287	34.537	27.600	49.9	2.660
1900	2.185	34.559	27.626	47.4	2.718
2000	2.082	34.577	27.648	45.3	2.773
2100	2.005	34.590	27.665	43.7	2.827
2200	1.918	34.606	27.685	41.8	2.879
2300	1.861	34.616	27.697	40.7	2.929
2400	1.799	34.626	27.710	39.5	2.978
2500	1.753	34.634	27.720	38.5	3.027
2600	1.704	34.642	27.730	37.6	3.074
2700	1.670	34.649	27.738	36.8	3.121
2800	1.647	34.654	27.744	36.3	3.167
2900	1.620	34.658	27.749	35.8	3.213
3000	1.593	34.663	27.755	35.2	3.259
3100	1.572	34.666	27.759	34.8	3.304
3200	1.552	34.670	27.763	34.4	3.349
3300	1.538	34.673	27.767	34.0	3.394
3400	1.527	34.675	27.769	33.8	3.438
3500	1.517	34.677	27.772	33.6	3.483
3600	1.508	34.679	27.774	33.4	3.528
3700	1.503	34.681	27.776	33.2	3.573
3800	1.499	34.682	27.777	33.1	3.617
3900	1.490	34.684	27.779	32.9	3.662
4000	1.486	34.685	27.780	32.8	3.707
4100	1.483	34.687	27.782	32.6	3.752
4200	1.481	34.688	27.783	32.5	3.797
4300	1.482	34.689	27.784	32.4	3.843
4400	1.481	34.690	27.785	32.4	3.888
4500	1.487	34.690	27.784	32.4	3.934
4600	1.484	34.693	27.787	32.2	3.980
4700	1.492	34.693	27.786	32.2	4.026
4800	1.496	34.694	27.787	32.2	4.072
4900	1.504	34.694	27.786	32.2	4.119
5000	1.511	34.694	27.786	32.3	4.166
5100	1.520	34.695	27.786	32.3	4.214
5200	1.533	34.695	27.785	32.3	4.262
5300	1.538	34.696	27.785	32.3	4.310
5400	1.548	34.696	27.785	32.4	4.359
5500	1.559	34.696	27.784	32.4	4.408
5600	1.571	34.697	27.784	32.5	4.457
5700	1.582	34.697	27.783	32.5	4.507
5781	1.593	34.697	27.782	32.6	4.548

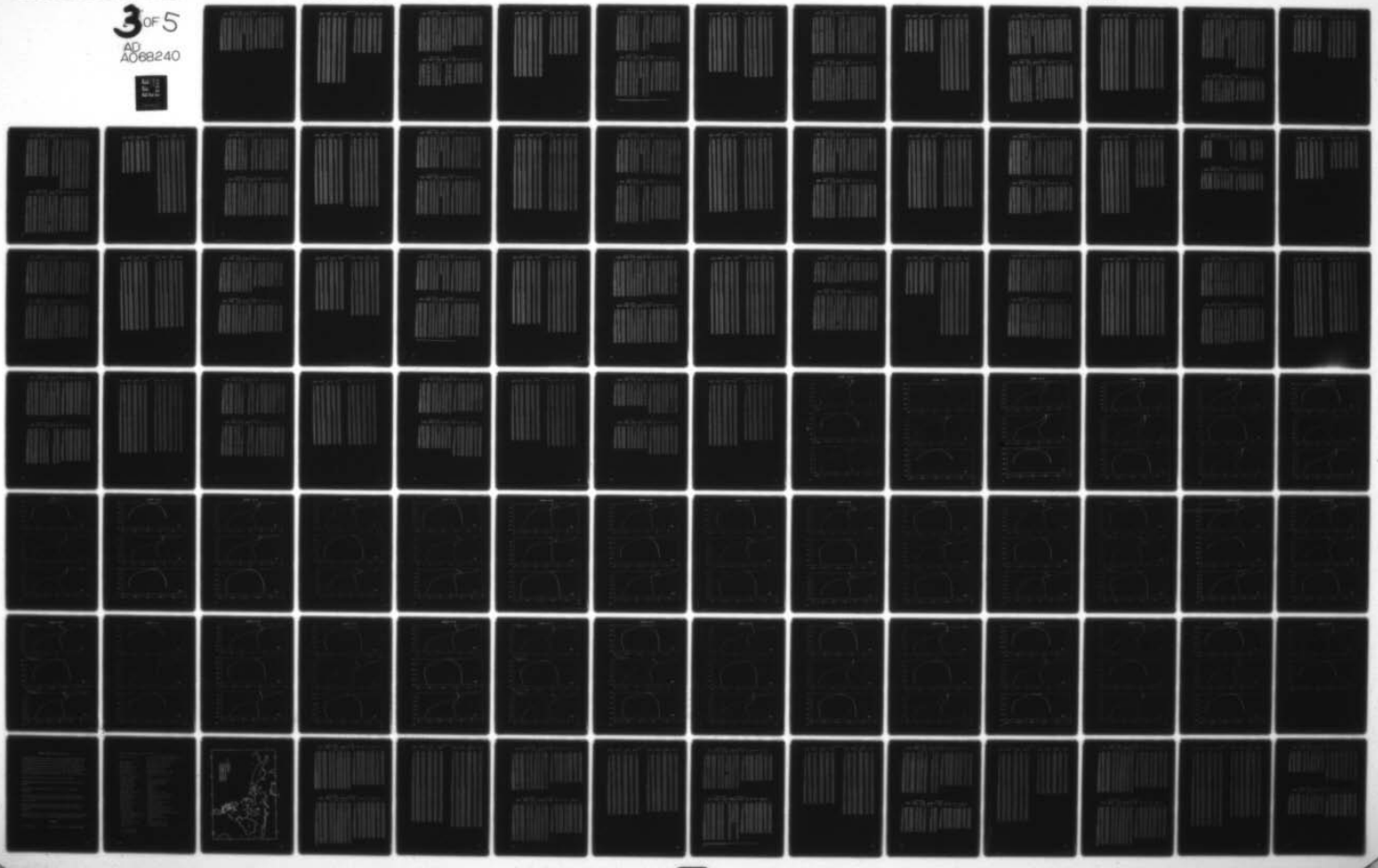
8 D

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 57.5N	143 48. E	05/09/76	1356 GMT

Z	T	S	SIGMA T	DT	DD
0	20.53	34.71	24.415	352.4	0.000
10	20.54	34.72	24.425	351.5	0.035
20	20.53	34.73	24.435	350.5	0.070
30	20.21	34.73	24.520	342.4	0.105
40	19.28	34.76	24.786	317.1	0.138
50	18.65	34.75	24.938	302.6	0.169
75	17.83	34.72	25.119	285.4	0.243
100	17.65	34.73	25.170	280.5	0.315
125	17.41	34.73	25.228	275.0	0.385
150	17.19	34.72	25.273	270.7	0.454
175	17.02	34.74	25.329	265.4	0.523
200	16.86	34.74	25.367	261.8	0.590
225	16.72	34.74	25.400	258.7	0.657
250	16.60	34.74	25.428	256.0	0.723
275	16.44	34.73	25.457	253.2	0.789
300	16.29	34.73	25.492	249.9	0.854
350	15.69	34.69	25.598	239.8	0.981
400	14.67	34.61	25.762	224.2	1.103
450	13.62	34.53	25.922	209.0	1.217
500	12.27	34.42	26.107	191.5	1.323
550	10.86	34.33	26.299	173.2	1.421
600	9.61	34.23	26.457	160.1	1.510
650	8.10	34.12	26.590	145.6	1.592
700	6.73	34.06	26.737	131.6	1.667
750	5.88	34.05	26.840	121.9	1.735
800	5.10	34.08	26.957	110.8	1.798
850	4.83	34.12	27.020	104.8	1.856
900	4.47	34.16	27.091	98.1	1.911
950	4.21	34.21	27.159	91.7	1.963
1000	4.00	34.25	27.213	86.6	2.012
1100	3.65	34.33	27.311	77.2	2.103
1200	3.24	34.39	27.399	68.9	2.185
1300	3.02	34.43	27.451	64.0	2.260
1400	2.85	34.46	27.490	60.3	2.331
1500	2.65	34.49	27.532	56.3	2.398
1600	2.467	34.528	27.578	52.0	2.461
1700	2.295	34.543	27.604	49.5	2.520
1800	2.163	34.566	27.633	46.7	2.577
1900	2.072	34.580	27.652	45.0	2.631
2000	1.961	34.595	27.671	43.1	2.684
2100	1.907	34.609	27.688	41.5	2.735
2200	1.836	34.621	27.703	40.1	2.784
2300	1.790	34.629	27.713	39.2	2.833
2400	1.749	34.636	27.722	38.3	2.880
2500	1.705	34.643	27.731	37.5	2.928
2600	1.665	34.650	27.739	36.7	2.974
2700	1.632	34.655	27.746	36.1	3.020
2800	1.608	34.659	27.751	35.6	3.065
2900	1.592	34.662	27.754	35.3	3.110
3000	1.574	34.666	27.759	34.8	3.155
3100	1.553	34.669	27.763	34.5	3.200
3200	1.541	34.672	27.766	34.1	3.244
3300	1.523	34.675	27.770	33.8	3.289
3400	1.513	34.677	27.772	33.6	3.333
3500	1.501	34.678	27.774	33.4	3.377
3600	1.491	34.680	27.776	33.2	3.422
3700	1.486	34.681	27.777	33.1	3.466
3800	1.479	34.682	27.778	33.0	3.511
3900	1.475	34.684	27.780	32.8	3.555
4000	1.474	34.685	27.781	32.7	3.600
4100	1.471	34.686	27.782	32.6	3.645
4200	1.470	34.688	27.784	32.4	3.690
4300	1.472	34.689	27.784	32.4	3.735
4400	1.474	34.690	27.785	32.3	3.780
4500	1.477	34.692	27.786	32.2	3.826
4600	1.482	34.693	27.787	32.2	3.872
4700	1.484	34.695	27.788	32.0	3.918
4800	1.494	34.695	27.788	32.1	3.964
4900	1.500	34.696	27.788	32.0	4.011
5000	1.507	34.696	27.788	32.1	4.057
5100	1.516	34.696	27.787	32.2	4.105
5200	1.525	34.697	27.787	32.1	4.153
5300	1.535	34.698	27.787	32.1	4.201
5400	1.546	34.699	27.787	32.1	4.249
5500	1.556	34.694	27.782	32.6	4.298
5600	1.564	34.695	27.783	32.6	4.348
5700	1.577	34.696	27.782	32.6	4.398
5800	1.590	34.697	27.782	32.6	4.448
5854	1.596	34.697	27.782	32.6	4.475

AD-A068 240 SCRIPPS INSTITUTION OF OCEANOGRAPHY LA JOLLA CALIF F/G 8/1
PHYSICAL, CHEMICAL AND BIOLOGICAL DATA. INDOPAC EXPEDITION, LEG--ETC(U)
DEC 78 N00014-75-C-0152
UNCLASSIFIED SIO-REF-78-21 NL

3 OF 5
AD A068240



AD
A068

RV THOMAS WASHINGTON INDOPAC LEG II

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 16.0N	142 48.7E	5/10/76	0450 1125 GMT	4949M	070	19KT	2	050 6 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.10	34.862	5.16	0.01	0.	0.00	0.0	381.9	0	22.10	34.862	5.16	24.105	381.9	0.000
22	22.09	34.859	5.16	0.00	0.	0.00	0.0	381.9	10	22.10	34.860	5.16	24.105	381.9	0.038
36	20.77	34.821	5.54	0.00	0.	0.01	0.0	350.0	20	22.09	34.859	5.16	24.106	381.9	0.076
56	19.49	34.782	5.42	0.00	1.	0.01	0.0	320.7	30	21.38	34.836	5.38	24.286	364.7	0.114
77	18.72	34.780	5.34	0.00	1.	0.02	0.0	302.1	50	19.81	34.791	5.46	24.672	327.9	0.183
96	18.28	34.776	5.30	0.00	1.	0.36	0.0	291.9	75	18.77	34.780	5.35	24.929	303.4	0.263
122	18.13	34.765	5.25	0.01	2.	0.14	0.4	289.2	100	18.25	34.774	5.29	25.055	291.4	0.338
141	17.73	34.761	5.08	0.04	2.	0.06	0.0	280.1	125	18.07	34.764	5.22	25.094	287.8	0.411
172	17.50	34.756	5.07	0.11	3.	0.08	0.4	275.2	150	17.64	34.759	5.08	25.195	278.1	0.483
211	17.12	34.751	5.05	0.12	3.	0.04	0.1	266.9	200	17.23	34.752	5.05	25.288	269.3	0.623
261	16.62	34.747	4.84	0.18	5.	0.03	0.2	255.9	250	16.73	34.750	4.89	25.403	258.3	0.758
321	15.93	34.705	4.68	0.24	7.	0.06	6.8	243.8	300	16.18	34.724	4.73	25.512	248.0	0.889
391	14.97	34.632	4.45	0.32	11.	0.04	9.4	228.8	400	14.82	34.622	4.43	25.737	226.6	1.137
458	13.66	34.532	4.29	0.70	16.	0.01	12.8	209.6	500	12.47	34.451	4.17	26.091	192.9	1.359
529	11.55	34.388	4.10	0.96	25.	0.01	17.2	180.9	600	9.18	34.204	4.12	26.486	155.5	1.545
608	8.92	34.184	4.12	1.34	36.	0.02	21.7	152.9	700	6.55	34.047	3.51	26.751	130.4	1.699
706	6.42	34.041	3.45	1.86	58.	0.01	29.6	129.2	800	5.01	34.098	2.29	26.981	108.5	1.827
834	4.69	34.136	1.87	2.42	93.	0.00	39.0	102.2	1000	3.94	34.283	1.07	27.244	83.6	2.037
970A	4.09	34.265	1.14	2.99	112.		39.0	86.3	1200	3.20	34.388	0.90	27.401	68.8	2.206
1069	3.61	34.315	0.99	2.72	126.		44.1	76.0	1500	2.55	34.506	1.08	27.553	54.3	2.416
1170A	3.28	34.372	0.90	3.09	137.		41.8	70.7	1750	2.15	34.574	1.42	27.639	46.2	2.563
1367A	2.80	34.460	0.91	3.12	151.		41.9	59.8	2000	1.95	34.605	1.74	27.680	42.2	2.694
1567A	2.44	34.525	1.18	3.05	160.		41.7	52.0	2250	1.81	34.631	2.06	27.712	39.1	2.818
1816A	2.07	34.585		2.92	161.		40.9	44.6	2500	1.70	34.645	2.40	27.732	37.3	2.936
2065A	1.92	34.608	1.82	2.82	162.		40.1	41.7	2750	1.61	34.662	2.72	27.752	35.4	3.050
2316A	1.77	34.638	2.15	2.77	162.		38.8	38.3	3000	1.56	34.671	2.91	27.763	34.4	3.162
2566A	1.68	34.647	2.49	2.67	161.		39.6	37.0	3250	1.52	34.675	3.05	27.769	33.8	3.272
2740B	1.61	34.661	2.71	2.61	161.		38.5	35.5	3500	1.49	34.682	3.28	27.777	33.1	3.382
2989B	1.56	34.670	2.90	2.69	160.		38.1	34.4	3750	1.48	34.689	3.44	27.783	32.5	3.492
3239B	1.52	34.674	3.04	2.64	159.		37.5	33.8	4000	1.46	34.690	3.52	27.786	32.3	3.603
3488B	1.49	34.681	3.27	2.57	158.		37.4	33.1	4250	1.46	34.696	3.62	27.790	31.8	3.713
3735B	1.476	34.688	3.43	2.50	157.		37.2	32.5	4500	1.47	34.696	3.66	27.789	31.9	3.825
3984B	1.463	34.689	3.51	2.48	156.		36.3	32.3	4750	1.49	34.696	3.69	27.788	32.0	3.940
4183B	1.455	34.695	3.60	2.60	155.		35.6	31.8	5000	1.51	34.696	3.72	27.787	32.1	4.056
4679B	1.482	34.695	3.68	2.51	152.		35.6	32.0							
4916B	1.502	34.696	3.71	2.41	152.		37.0	32.1							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 16.0N	142 48.7E	05/10/76	0320 GMT

Z	T	S	SIGMA T	DT	DD
0	22.72	34.87	23.936	398.1	0.000
10	22.74	34.88	23.938	397.9	0.040
20	22.72	34.88	23.944	397.3	0.080
30	22.44	34.88	24.023	389.8	0.119
40	21.60	34.86	24.243	368.8	0.157
50	20.10	34.80	24.602	334.5	0.192
75	18.79	34.75	24.903	305.9	0.273
100	18.21	34.77	25.063	290.7	0.348
125	18.05	34.77	25.103	286.9	0.422
150	17.70	34.76	25.181	279.5	0.493
175	17.36	34.75	25.255	272.4	0.564
200	17.06	34.75	25.327	265.6	0.633
225	16.88	34.75	25.370	261.5	0.700
250	16.72	34.75	25.407	257.9	0.767
275	16.47	34.74	25.458	253.1	0.833
300	16.23	34.73	25.506	248.6	0.898
350	15.52	34.67	25.621	237.6	1.024
400	14.92	34.62	25.715	228.6	1.146
450	13.46	34.51	25.940	207.4	1.261
500	12.24	34.43	26.120	190.2	1.367
550	10.65	34.31	26.321	171.1	1.463
600	8.94	34.18	26.507	153.5	1.550
650	7.52	34.08	26.643	140.6	1.629
700	6.27	34.04	26.782	127.4	1.701
750	5.44	34.04	26.886	117.6	1.767
800	5.12	34.07	26.947	111.7	1.829
850	4.85	34.12	27.018	105.1	1.887
900	4.48	34.17	27.098	97.4	1.942
950	4.19	34.23	27.177	90.0	1.993
1000	4.01	34.27	27.227	85.2	2.042
1100	3.52	34.34	27.332	75.2	2.130
1200	3.17	34.38	27.397	69.1	2.211
1300	2.92	34.42	27.452	63.9	2.286
1400	2.74	34.47	27.508	58.6	2.356
1500	2.51	34.51	27.560	53.7	2.420
1600	2.380	34.537	27.592	50.6	2.481
1700	2.206	34.564	27.628	47.2	2.538
1800	2.082	34.583	27.653	44.8	2.592
1900	2.041	34.591	27.663	43.9	2.645
2000	1.966	34.604	27.679	42.3	2.697
2100	1.908	34.615	27.693	41.1	2.747
2200	1.840	34.625	27.706	39.8	2.796
2300	1.788	34.634	27.717	38.8	2.844
2400	1.746	34.641	27.726	37.9	2.892
2500	1.720	34.647	27.733	37.3	2.938
2600	1.678	34.654	27.741	36.5	2.985
2700	1.645	34.659	27.748	35.9	3.030
2800	1.612	34.665	27.755	35.2	3.075
2900	1.587	34.669	27.760	34.7	3.120
3000	1.573	34.672	27.764	34.4	3.165
3100	1.549	34.675	27.768	34.0	3.209
3200	1.530	34.678	27.771	33.6	3.253
3300	1.523	34.680	27.774	33.4	3.297
3400	1.508	34.682	27.776	33.2	3.341
3500	1.493	34.684	27.779	32.9	3.385
3600	1.488	34.685	27.780	32.8	3.428
3700	1.478	34.687	27.782	32.6	3.472
3800	1.476	34.689	27.784	32.4	3.516
3900	1.475	34.689	27.784	32.4	3.560
4000	1.474	34.691	27.786	32.2	3.605
4100	1.470	34.692	27.787	32.1	3.649
4200	1.468	34.693	27.788	32.1	3.694
4300	1.468	34.694	27.789	32.0	3.739
4400	1.469	34.694	27.789	32.0	3.784
4500	1.478	34.695	27.789	32.0	3.829
4600	1.478	34.694	27.788	32.0	3.874
4700	1.489	34.694	27.787	32.1	3.920
4800	1.493	34.694	27.787	32.2	3.967
4900	1.500	34.695	27.787	32.1	4.013
5000	1.513	34.694	27.785	32.3	4.061
5027	1.516	34.695	27.786	32.2	4.073

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 04. N	142 30. E	05/10/76	1526 GMT

Z	T	S	SIGMA T	DT	DD
0	22.18	34.85	24.074	384.9	0.000
10	22.17	34.86	24.084	383.9	0.038
20	22.05	34.85	24.110	381.4	0.077
30	21.17	34.83	24.338	359.7	0.114
40	19.38	34.79	24.783	317.4	0.148
50	18.90	34.76	24.883	307.9	0.179
75	18.48	34.75	24.981	298.5	0.256
100	18.08	34.76	25.088	288.3	0.330
125	17.73	34.76	25.173	280.2	0.402
150	17.43	34.76	25.246	273.3	0.472
175	17.13	34.76	25.318	266.4	0.541
200	16.78	34.75	25.393	259.3	0.608
225	16.48	34.74	25.456	253.3	0.674
250	16.15	34.72	25.517	247.5	0.738
275	15.89	34.71	25.569	242.6	0.801
300	15.62	34.68	25.607	239.0	0.864
350	14.97	34.63	25.712	228.9	0.986
400	14.09	34.57	25.855	215.4	1.102
450	12.65	34.45	26.056	196.3	1.211
500	11.11	34.34	26.262	176.7	1.310
550	9.82	34.26	26.425	161.2	1.400
600	8.27	34.15	26.588	145.9	1.482
650	7.21	34.11	26.711	134.2	1.557
700	6.85	34.15	26.792	126.5	1.627
750	5.74	34.10	26.897	116.5	1.693
800	5.10	34.11	26.981	108.5	1.754
850	4.72	34.16	27.064	100.7	1.811
900	4.29	34.20	27.142	93.2	1.863
950	4.07	34.23	27.189	88.8	1.913
1000	3.68	34.28	27.269	81.3	1.960
1100	3.42	34.34	27.342	74.3	2.046
1200	3.11	34.40	27.419	67.0	2.125
1300	2.83	34.46	27.492	60.1	2.196
1400	2.71	34.48	27.519	57.6	2.263
1500	2.47	34.52	27.571	52.6	2.327
1600	2.270	34.554	27.615	48.4	2.385
1700	2.184	34.570	27.635	46.6	2.441
1800	2.108	34.585	27.653	44.8	2.495

RV THOMAS WASHINGTON — INDOPAC LEG II — 11

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
26 00.5N	143 14. E	5/11/76	0747 1045 GMT	4484M	070	17KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	23.13	34.686	4.61U	0.01	2.	0.00	0.1	422.6	0	23.13	34.686	4.61	23.679	422.6	0.000
10	23.03	34.704	5.06	0.01	2.	0.00	0.1	418.5	10	23.03	34.704	5.06	23.721	418.5	0.042
25	22.01	34.831	5.20	0.04	2.	0.00	0.1	381.8	20	22.42	34.788	5.16	23.960	395.7	0.083
45	20.44	34.822	5.34	0.04	2.	0.00	0.1	341.5	30	21.62	34.838	5.25	24.222	370.8	0.121
65	19.16	34.800	5.31	0.06	2.	0.00	0.0	311.3	50	20.08	34.816	5.33	24.621	332.7	0.192
89	18.48	34.781	5.11	0.10	3.	0.21	0.4	296.3	75	18.81	34.791	5.25	24.930	303.4	0.272
119	17.93	34.793	4.67	0.32	4.	0.04	3.4	282.4	100	18.26	34.786	4.92	25.063	290.7	0.347
149	17.36	34.765	4.85	0.31	4.	0.00	3.4	271.3	125	17.80	34.787	4.69	25.177	279.9	0.419
178	17.14	34.771	4.70	0.36	5.	0.01	4.0	265.8	150	17.35	34.765	4.85	25.269	271.1	0.489
218	16.65	34.748	3.90U	0.47	6.	0.01	4.9	256.5	200	16.89	34.761	4.56	25.376	260.9	0.625
257	16.04	34.711	4.22	0.47	6.	0.01	6.2	245.9	250	16.16	34.719	4.26	25.513	247.9	0.756
307	14.92	34.627	2.97U	0.65	10.	0.01	8.5	228.1	300	15.08	34.640	4.13	25.695	230.6	0.879
366	13.98	34.553	4.05	0.81	14.	0.00	10.3	214.4	400	13.00	34.476	3.96	26.007	200.9	1.105
436	11.79	34.387	3.84	1.14	21.	0.00	15.4	185.2	500	9.67	34.237	3.52	26.432	160.6	1.296
514	9.23	34.209	3.43	1.52	35.	0.00	21.2	155.8	600	7.19	34.099	2.77	26.703	134.8	1.453
594	7.34	34.104	2.82	1.95	51.	0.00	27.0	136.3	700	5.38	34.071	2.30	26.917	114.6	1.587
683	5.54	34.064	2.30	2.38	74.	0.00	34.0	116.9	800	4.62	34.145	1.77	27.062	100.8	1.703
754A	5.01	34.103	2.28		86.	0.00	34.8	108.1	1000	3.58	34.339	1.19	27.325	75.9	1.895
846	4.26	34.192	1.24	2.87	106.	0.00	41.1	93.5	1200	2.96	34.444	1.19	27.467	62.5	2.049
954A	3.77	34.303	1.19	2.75	122.	0.01	41.0	80.4	1500	2.49	34.519	1.42	27.568	52.8	2.247
1154A	3.06	34.426	1.17	2.94	142.	0.01	41.9	64.6	1750	2.12	34.584	1.85	27.650	45.1	2.390
1355A	2.71	34.465	1.30	2.93	151.		41.8	57.2	2000	1.86	34.622	2.34	27.701	40.3	2.517
1554A	2.41	34.531	1.48	2.87	158.	0.00	42.5	51.3	2250	1.76	34.638	2.46	27.721	38.4	2.636
1754A	2.11	34.583	1.86	2.75	161.	0.00	41.5	45.0	2500	1.69	34.650	2.60	27.736	36.9	2.752
1954A	1.88	34.616	2.28	2.68	162.	0.00	40.7	40.8	2750	1.59	34.665	3.01	27.755	35.1	2.866
2154A	1.81	34.631	2.47	2.53	161.	0.00	40.3	39.2	3000	1.55	34.674	3.17	27.766	34.2	2.976
2353A	1.72	34.643	2.45	2.53	161.	0.00	41.0	37.6	3250	1.53	34.679	3.24	27.771	33.6	3.086
2551A	1.681	34.651	2.68	2.48	160.	0.00	39.3	36.7	3500	1.50	34.684	3.40	27.778	33.0	3.196
2752A	1.593	34.664	3.01	2.43	157.	0.00	40.8	35.1	3750	1.48	34.690	3.52	27.784	32.5	3.306
2951A	1.557	34.672	3.16	2.39	157.	0.00	37.7	34.3	4000	1.48	34.694	3.62	27.787	32.2	3.417
3150A	1.546	34.676	3.20	2.51	156.	0.00	37.9	33.9	4250	1.48	34.697	3.62	27.790	31.9	3.528
3348A	1.513	34.680	3.30	2.43	155.	0.00	37.3	33.3							
3547A	1.496	34.684	3.43	2.43	153.	0.00	36.8	32.9							
3746A	1.483	34.689	3.52	2.43	152.	0.00	36.7	32.5							
3945A	1.485	34.692	3.59	2.42	151.	0.00	36.5	32.2							
4143A	1.482	34.695	3.66	2.41	149.	0.00	36.9	32.0							
4391A	1.478	34.698	3.47	2.36	146.	0.00	36.2	31.7							

RV THOMAS WASHINGTON — INDOPAC LEG II — 12

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 31.2N	143 15. E	5/12/76	0645 GMT	2281M	110	6KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	27.77	34.886	4.69	0.03	2.		0.2	544.3	0	27.77	34.886	4.69	22.405	544.3	0.000
22	27.33		4.75		2.		0.2		10	27.58	34.939	4.72	22.505	534.7	0.054
46	26.80	34.987	4.81	0.05	2.		0.2	507.2	20	27.37	34.978	4.74	22.603	525.3	0.107
72	26.39	34.943	4.84	0.08	2.		0.2	498.0	30	27.15	34.993	4.77	22.687	517.3	0.159
91	25.53	34.844	4.87	0.05	2.		0.2	479.5	50	26.76	34.985	4.82	22.805	506.1	0.262
121	24.13	34.863	4.76	0.09	3.		0.2	437.7	75	26.27	34.925	4.85	22.914	495.6	0.388
152	22.56		4.57	0.07	3.		0.3		100	25.12	34.840	4.85	23.206	467.7	0.509
181	21.16	34.859	4.73	0.12	3.		0.8	357.4	125	23.93	34.865	4.73	23.382	431.8	0.623
221	19.62	34.829	4.75	0.23	4.		0.8	320.5	150	22.66	34.866	4.58	23.950	396.7	0.728
261	18.02	34.807	4.60	0.27	5.		3.6	283.5	200	20.40	34.844	4.74	24.556	359.0	0.915
301	16.91	34.768	4.68	0.36	6.		4.9	260.9	250	18.44	34.813	4.64	25.039	293.0	1.077
351	16.21		4.64	0.52	8.		4.8		300	16.93	34.769	4.68	25.372	261.3	1.220
401	15.13	34.644	4.50	0.73	11.		6.4	231.3	400	15.16	34.649	4.50	25.685	231.5	1.477
460	13.02	34.479	4.32	1.10	18.		12.8	201.2	500	12.03	34.406	4.20	26.141	188.2	1.698
520	11.53	34.368	4.10	1.62	24.		14.6	182.0	600	8.35	34.199	3.08	26.614	143.4	1.876
600	8.35	34.199	3.08	2.19	46.		25.3	143.4	700	6.36	34.217	2.33	26.910	115.3	2.015
699	6.37	34.216	2.33	2.53	76.		32.2	115.5	800	5.62	34.230	1.95	27.014	105.4	2.135
822	5.53	34.232	1.89	2.78	87.		35.1	104.2	1000	4.27	34.362	1.36	27.272	80.9	2.341
995	4.30	34.358	1.35	2.82	110.		39.0	81.4	1200	3.41	34.483	1.57	27.456	63.5	2.504
1193	3.44	34.479	1.56	2.73	129.		39.2	64.0	1500	2.46	34.563	1.92	27.606	49.3	2.700
1391	2.67	34.543	1.77	2.69	145.		41.0	52.5	1750	2.16	34.599	2.33	27.659	44.2	2.837
1589	2.35	34.574	2.05	2.51	150.		40.5	47.6	2000	1.97	34.624	2.59	27.694	40.8	2.965
1787	2.12	34.603	2.39	2.27U	151.		39.8	43.6							
2034	1.95	34.626	2.61	2.56	152.		39.3	40.6							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
26 00.5N	143 14. E	05/11/76	0615 GMT

Z	T	S	SIGMA T	DT	DD
0	25.18	34.70	23.675	422.9	0.000
10	23.12	34.70	23.693	421.3	0.042
20	22.55	34.77	23.909	400.7	0.083
30	21.37	34.82	24.276	365.7	0.122
40	20.12	34.82	24.612	333.6	0.157
50	19.55	34.82	24.762	319.4	0.190
75	18.51	34.80	25.011	295.6	0.267
100	17.99	34.79	25.133	284.1	0.340
125	17.44	34.78	25.259	272.0	0.411
150	16.96	34.76	25.358	262.6	0.479
175	16.76	34.75	25.398	258.8	0.545
200	16.43	34.75	25.475	251.5	0.610
225	16.14	34.73	25.527	246.6	0.674
250	15.83	34.71	25.582	241.3	0.737
275	15.34	34.67	25.661	233.8	0.798
300	14.74	34.62	25.755	224.9	0.858
350	13.79	34.55	25.902	210.9	0.971
400	12.65	34.46	26.064	195.6	1.078
450	11.73	34.39	26.186	183.9	1.178
500	10.10	34.28	26.393	164.3	1.270
550	8.54	34.17	26.562	148.3	1.354
600	7.46	34.12	26.683	136.8	1.430
650	6.64	34.08	26.765	129.0	1.501
700	5.43	34.07	26.911	115.2	1.566
750	5.06	34.10	26.978	108.8	1.627
800	4.54	34.16	27.084	98.8	1.683
850	4.27	34.20	27.145	93.0	1.734
900	3.99	34.25	27.214	86.5	1.783
950	3.79	34.30	27.274	80.8	1.829
1000	3.65	34.33	27.311	77.2	1.873
1100	3.19	34.41	27.419	67.0	1.953
1200	2.96	34.45	27.472	62.0	2.025
1300	2.82	34.47	27.501	59.3	2.094
1400	2.66	34.50	27.539	55.7	2.159
1500	2.45	34.53	27.581	51.7	2.221
1600	2.315	34.555	27.612	48.7	2.279
1700	2.181	34.576	27.640	46.1	2.335
1800	2.064	34.595	27.664	43.8	2.388
1900	1.900	34.620	27.697	40.7	2.438
2000	1.868	34.625	27.704	40.0	2.487
2100	1.809	34.634	27.715	38.9	2.535
2200	1.762	34.642	27.725	38.0	2.581
2300	1.738	34.647	27.731	37.4	2.628
2400	1.715	34.651	27.736	37.0	2.674
2500	1.692	34.656	27.742	36.4	2.719
2600	1.662	34.661	27.748	35.8	2.765
2700	1.626	34.667	27.756	35.1	2.810
2800	1.593	34.672	27.762	34.5	2.854
2900	1.576	34.674	27.765	34.2	2.898
3000	1.568	34.676	27.767	34.0	2.942
3100	1.557	34.679	27.770	33.7	2.986
3200	1.539	34.682	27.774	33.4	3.030
3300	1.521	34.684	27.777	33.1	3.074
3400	1.501	34.687	27.781	32.7	3.117
3500	1.486	34.690	27.784	32.4	3.161
3600	1.485	34.691	27.785	32.3	3.204
3700	1.487	34.691	27.785	32.3	3.248
3800	1.483	34.692	27.786	32.2	3.291
3900	1.481	34.694	27.788	32.1	3.335
4000	1.469	34.695	27.789	31.9	3.379
4100	1.474	34.696	27.790	31.9	3.423
4200	1.475	34.697	27.791	31.8	3.468
4300	1.477	34.697	27.790	31.8	3.512
4400	1.479	34.697	27.790	31.8	3.557
4418	1.481	34.697	27.790	31.8	3.565

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 31.2N	143 15. E	05/12/76	0540 GMT

Z	T	S	SIGMA T	DT	DD
0	27.77	34.89	22.406	544.0	0.000
10	27.65	34.91	22.462	538.8	0.054
20	27.44	34.96	22.568	528.7	0.108
30	27.16	34.99	22.680	518.0	0.160
40	26.84	34.99	22.783	508.2	0.211
50	26.66	34.97	22.825	504.2	0.262
75	25.94	34.90	22.998	487.6	0.387
100	24.77	34.85	23.319	457.0	0.506
125	23.33	34.88	23.768	414.1	0.616
150	22.08	34.90	24.140	378.6	0.716
175	21.18	34.86	24.358	357.8	0.810
200	20.26	34.83	24.583	336.4	0.898
225	19.36	34.83	24.818	314.0	0.981
250	18.49	34.83	25.039	292.9	1.059
275	17.65	34.79	25.216	276.1	1.133
300	17.12	34.77	25.328	265.5	1.203
350	16.20	34.72	25.505	248.6	1.336
400	15.09	34.63	25.686	231.4	1.462
450	13.10	34.48	25.989	202.6	1.576
500	11.84	34.38	26.158	186.6	1.679
550	10.20	34.26	26.361	167.4	1.774
600	8.20	34.17	26.614	143.4	1.857
650	6.89	34.17	26.802	125.5	1.929
700	6.18	34.21	26.928	113.6	1.994
750	5.84	34.22	26.979	108.7	2.054
800	5.57	34.22	27.012	105.6	2.113
850	5.30	34.24	27.060	101.0	2.169
900	4.84	34.28	27.145	92.9	2.223
950	4.51	34.32	27.214	86.5	2.272
1000	4.21	34.36	27.278	80.4	2.319
1100	3.68	34.44	27.396	69.2	2.403
1200	3.30	34.48	27.465	62.7	2.478
1300	2.87	34.52	27.536	55.9	2.546
1400	2.61	34.54	27.575	52.2	2.608
1500	2.49	34.56	27.601	49.7	2.667
1600	2.309	34.581	27.633	46.7	2.724
1700	2.217	34.598	27.654	44.7	2.778
1800	2.056	34.618	27.683	42.0	2.829
1900	1.954	34.632	27.703	40.1	2.879
2000	1.945	34.635	27.706	39.8	2.927
2037	1.938	34.639	27.709	39.5	2.945

RV THOMAS WASHINGTON INDOPAC LEG II 13

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 30. N	144 11.5E	5/12/76	1515 1851 GMT	3877M	110	10KT	1	110 5 6

Z	T	S		O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.58	34.89	D	4.67	0.05	2.		0.1	538.1	0	27.58	34.89	4.67	22.470	538.1	0.000
10	27.52	34.90	D	4.70	0.03	2.		0.1	535.5	10	27.52	34.90	4.70	22.497	535.5	0.054
30	26.97	34.99	D	4.79	0.07	2.		0.1	512.1	20	27.26	34.94	4.75	22.613	524.4	0.107
45	26.73	35.00	D	4.79	0.03	2.		0.1	504.1	30	26.97	34.99	4.79	22.741	512.1	0.159
59	26.39	35.00	D	4.84	0.03	2.		0.1	493.9	50	26.62	35.00	4.81	22.861	500.7	0.260
80	25.68	34.97	D	4.84	0.00	2.		0.1	474.9	75	25.87	34.98	4.84	23.061	479.7	0.383
99	24.89	34.91	D	4.82	0.00	2.		0.2	456.1	100	24.86	34.91	4.82	23.335	455.4	0.501
119	24.27	34.91	D	4.75	0.02	2.		0.2	438.3	125	23.92	34.92	4.71	23.626	427.7	0.613
138	23.08	34.95	D	4.62	0.04	2.		0.3	402.1	150	22.32	34.95	4.56	24.114	381.1	0.715
167	21.36	34.95	D	4.49	0.18	2.		1.3	356.0	200	20.19	34.93	4.46	24.681	327.0	0.895
197	20.34	34.94	D	4.46	0.15	3.		2.0	330.4	250	18.12	34.84	4.62	25.141	283.3	1.052
232	18.63	34.87	D	4.55	0.23	3.		3.1	293.4	300	16.97	34.77	4.72	25.364	262.1	1.193
271	17.66	34.81	D	4.69	0.32	3.		3.9	274.9	400	14.54	34.61	4.45	25.791	221.5	1.445
315	16.62	34.75	D	4.74	0.41	6.		5.3	255.7	500	11.61	34.38	4.04	26.197	182.9	1.659
378	15.13	34.66	D	4.51	0.59	9.		8.0	230.1	600	8.58	34.20	3.33	26.581	146.5	1.835
476	12.36	34.43	D	4.18	0.98	18.		14.2	192.4	700	6.34	34.16	2.46	26.869	119.2	1.978
568	9.52	34.25	D	3.57	1.53	34.		22.1	157.2	800	5.25	34.24	1.63	27.064	100.7	2.097
664	6.95	34.15	D	2.82	2.14	59.		29.7	127.8	1000	4.00	34.41	1.44	27.341	74.4	2.291
780	5.41	34.22	D	1.74	2.51	84.		36.6	103.7	1200	3.25	34.48	1.50	27.466	62.6	2.445
891A	4.67	34.315		1.38	2.70	100.		39.5	88.5	1500	2.61	34.56	1.96	27.591	50.7	2.641
980	4.10	34.40	D	1.44	2.88	114.		39.2	76.3	1750	2.27	34.60	2.30	27.651	45.0	2.783
1084A	3.62	34.446		1.45	2.77	124.		40.6	68.2	2000	2.07	34.62	2.47	27.680	42.3	2.915
1277A	3.06	34.490		1.57	2.94	137.		40.9	59.8	2250	1.88	34.63	2.67	27.708	39.5	3.040
1470A	2.66	34.553		1.91	2.82	144.		39.7	51.7	2500	1.79	34.65	2.80	27.727	37.8	3.160
1662A	2.37	34.590		2.21	2.72	147.		39.2	46.5	2750	1.73	34.66	2.88	27.739	36.7	3.278
1854A	2.18	34.608		2.39	2.69	150.		39.7	43.7	3000	1.66	34.66	3.01	27.749	35.8	3.395
2045A	2.042	34.618		2.49	2.69	152.		37.9	41.9	3250	1.57	34.67	3.23	27.762	34.6	3.510
2237A	1.892	34.632		2.66	2.64	154.		38.6	39.7	3500	1.52	34.68	3.33	27.773	33.4	3.622
2432A	1.803	34.644		2.76	2.72	154.		36.2	38.1	3750	1.48	34.69	3.54	27.783	32.6	3.733
2627A	1.761	34.651		2.86	2.64	155.		37.7	37.3							
2822A	1.706	34.658		2.90	2.59	156.		37.8	36.4							
3019A	1.659	34.662		3.03	2.54	155.		36.5	35.7							
3219A	1.574	34.681	U	3.22	2.54	154.		35.5								
3417A	1.532	34.677		3.29	2.51	153.		36.6	33.7							
3618A	1.496	34.682		3.41	2.52	152.		37.0	33.1							
3810A	1.475	34.690		3.59	2.48	150.		36.5	32.3							
3861B	1.48	34.686		3.62	2.50	150.		36.1	32.7							
3864B	1.43	U 34.686		3.60	2.50	149.		35.9								

RV THOMAS WASHINGTON INDOPAC LEG II 14

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 29.9N	145 02. E	5/13/76	0122 0408 GMT	4517M	100	8KT	0	090 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.22	34.630	4.73	0.03	1.	0.00	0.1	545.7	0	27.22	34.630	4.73	22.391	545.7	0.000
15	26.72	34.613	4.76	0.05	1.	0.01	0.1	531.7	10	26.93	34.619	4.75	22.475	537.6	0.054
31	25.72	34.854	4.88	0.07	1.	0.00	0.1	484.4	20	26.47	34.684	4.79	22.669	519.1	0.107
45	24.30	34.828	5.03	0.06	2.	0.00	0.1	445.1	30	25.80	34.837	4.87	22.995	487.9	0.158
66	23.12	34.848	5.11	0.04	2.	0.00	0.1	410.6	50	23.95	34.830	5.06	23.549	435.0	0.250
86	22.38	34.855	5.09	0.03	2.	0.00	0.1	389.9	75	22.77	34.852	5.10	23.909	400.6	0.355
106	21.57	34.856	5.02	0.05	2.	0.00	0.1	368.3	100	21.61	34.854	5.04	24.180	374.8	0.453
131	20.61	34.887	4.60	0.15	2.	0.10	1.3	341.2	125	20.85	34.882	4.69	24.465	347.6	0.544
161	19.18	34.809	4.89	0.12	3.	0.04	1.0	311.1	150	19.69	34.842	4.74	24.741	321.4	0.629
202	17.99	34.758	5.02	0.16	4.	0.02	1.7	286.4	200	18.03	34.759	5.01	25.099	287.3	0.784
252	17.22	34.771	4.75	0.29	5.	0.00	4.4	267.7	250	17.25	34.771	4.76	25.298	268.3	0.927
311	16.01	34.701	4.63	0.43	7.	0.00	6.5	245.9	300	16.25	34.719	4.65	25.492	249.9	1.061
371	14.60	34.589	4.46	0.62	11.	0.04	8.8	224.3	400	13.84	34.526	4.33	25.874	213.6	1.303
430	13.00	34.458	4.20	0.89	15.	0.01	13.1	202.3	500	10.87	34.312	4.08	26.284	174.7	1.508
509	10.58	34.294	4.05	1.28	26.	0.00	17.6	171.1	600	7.77	34.146	3.18	26.658	139.2	1.675
589	8.03	34.152	3.28	1.84	45.	0.01	26.1	142.3	700	5.99	34.152	2.32	26.905	115.7	1.812
679	6.29	34.140	2.51	2.25	68.	0.05	32.3	120.2	800	4.90	34.231	1.60	27.099	97.3	1.928
778	5.11	34.211	1.71	2.65	89.	0.01	37.3	101.1	1000	3.79	34.414	1.41	27.363	72.3	2.114
868A	4.36	34.293	1.39	2.77	107.		37.6	87.0	1200	3.27	34.500	1.67	27.483	61.0	2.265
998	3.80	34.412	1.41	2.85	119.		40.7	72.5	1500	2.65	34.561	2.02	27.589	51.0	2.460
1067A	3.64	34.449	1.49	2.63	123.		39.3	68.2	1750	2.29	34.594	2.25	27.644	45.7	2.603
1267A	3.09	34.518	1.76	2.91	134.		38.7	57.9	2000	2.02	34.617	2.51	27.684	41.8	2.734
1466A	2.70	34.555	1.99	2.61	140.		39.7	51.8	2250	1.88	34.634	2.66	27.709	39.5	2.859
1666A	2.41	34.584	2.16	2.70	145.		39.3	47.3	2500	1.75	34.644	2.85	27.727	37.8	2.979
1865A	2.15	34.603	2.38	2.49	149.		38.8	43.8	2750	1.68	34.661	2.95	27.746	36.0	3.095
2065A	1.97	34.622	2.57	2.47	152.		38.4	41.0	3000	1.62	34.668	3.10	27.757	35.0	3.209
2263A	1.88	34.634	2.67	2.60	153.		38.3	39.4	3250	1.56	34.675	3.24	27.766	34.1	3.322
2464A	1.77	34.640	2.83	2.55			38.0	38.2	3500	1.52	34.677	3.33	27.771	33.7	3.434
2662A	1.70	34.659	2.91	2.61	155.		37.9	36.2	3750	1.49	34.685	3.46	27.779	32.9	3.546
2861A	1.66	34.662	3.01	2.46	155.		37.7	35.7	4000	1.48	34.688	3.58	27.783	32.5	3.657
3062A	1.60	34.670	3.14	2.38	155.		37.1	34.7	4250	1.46	34.691	3.72	27.786	32.2	3.769
3261A	1.56	34.675	3.24	2.54	154.		36.8	34.0	4500	1.46	34.695	3.80	27.790	31.8	3.881
3460A	1.53	34.675	3.31	2.55	154.		36.8	33.8							
3661A	1.50	34.682	3.43	2.54	152.		36.1	33.1							
3859A	1.485	34.687	3.50	2.48	151.		35.9	32.6							
4059A	1.471	34.688	3.61	2.52	150.		35.6	32.4							
4258A	1.464	34.691	3.72	2.48	148.		34.8	32.2							
4458A	1.458	34.695	3.79	2.46	146.		34.4	31.8							

D) THE SHALLOW CAST SALINITY SAMPLES WERE LOST. THESE VALUES WERE DETERMINED BY COMPARISON WITH THE TEMPERATURE VERSUS SALINITY CURVE FOR THE STD LOWERING.

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 30. N	144 11.5E	05/12/76	1342 GMT

Z	T	S	SIGMA T	DT	DD
0	27.54	34.90	22.490	536.1	0.000
10	27.54	34.90	22.490	536.1	0.054
20	27.24	34.95	22.625	523.3	0.107
30	26.83	35.01	22.801	506.4	0.158
40	26.60	35.01	22.874	499.5	0.209
50	26.37	35.01	22.946	492.5	0.258
75	25.62	34.98	23.157	472.4	0.380
100	24.87	34.92	23.341	454.8	0.496
125	23.79	34.91	23.656	424.8	0.608
150	22.36	34.98	24.121	380.4	0.709
175	20.98	34.96	24.488	345.4	0.802
200	20.24	34.94	24.672	327.9	0.888
225	19.12	34.90	24.955	303.0	0.968
250	18.10	34.83	25.136	283.7	1.044
275	17.54	34.81	25.258	272.2	1.115
300	17.09	34.78	25.343	264.1	1.185
350	16.07	34.73	25.543	245.1	1.317
400	14.88	34.63	25.732	227.1	1.441
450	13.10	34.48	25.989	202.6	1.554
500	11.62	34.38	26.199	182.7	1.656
550	10.06	34.27	26.392	164.4	1.749
600	8.60	34.21	26.584	146.2	1.832
650	7.47	34.15	26.705	134.7	1.908
700	6.51	34.14	26.830	122.9	1.977
750	5.80	34.18	26.952	111.3	2.040
800	5.31	34.22	27.043	102.6	2.099
850	4.97	34.27	27.123	95.1	2.153
900	4.65	34.31	27.190	88.7	2.203
950	4.33	34.38	27.281	80.1	2.250
1000	4.03	34.41	27.336	74.8	2.293
1100	3.62	34.45	27.410	67.9	2.374
1200	3.26	34.48	27.468	62.3	2.448
1300	3.02	34.51	27.515	57.9	2.517
1400	2.79	34.54	27.559	53.7	2.581
1500	2.61	34.56	27.591	50.7	2.642
1600	2.489	34.575	27.613	48.6	2.701
1700	2.362	34.592	27.638	46.3	2.757
1800	2.279	34.603	27.653	44.8	2.812
1900	2.159	34.613	27.671	43.1	2.865
2000	2.100	34.620	27.681	42.1	2.917
2100	2.012	34.629	27.696	40.6	2.967
2200	1.940	34.635	27.706	39.8	3.017
2300	1.877	34.641	27.716	38.9	3.066
2400	1.846	34.645	27.721	38.4	3.114
2500	1.798	34.651	27.730	37.6	3.162
2600	1.769	34.656	27.736	37.0	3.209
2700	1.739	34.658	27.740	36.6	3.256
2800	1.714	34.662	27.745	36.1	3.302
2900	1.690	34.665	27.749	35.7	3.348
3000	1.657	34.666	27.752	35.4	3.395
3100	1.611	34.671	27.760	34.7	3.440
3200	1.572	34.675	27.766	34.1	3.485
3300	1.542	34.678	27.771	33.7	3.530
3400	1.523	34.680	27.774	33.4	3.574
3500	1.509	34.682	27.776	33.2	3.618
3600	1.489	34.684	27.779	32.9	3.662
3700	1.474	34.685	27.781	32.7	3.706
3800	1.475	34.686	27.782	32.6	3.751
3875	1.474	34.686	27.782	32.6	3.784

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 29.9N	144 02. E	05/13/76	0000 GMT

Z	T	S	SIGMA T	DT	DD
0	26.85	34.62	22.501	535.1	0.000
10	26.62	34.65	22.597	526.0	0.053
20	26.09	34.81	22.884	498.5	0.104
30	25.56	34.89	23.108	477.1	0.153
40	24.86	34.88	23.314	457.4	0.200
50	24.36	34.89	23.472	442.3	0.245
75	22.73	34.88	23.941	397.6	0.351
100	21.55	34.88	24.272	366.0	0.447
125	20.65	34.94	24.562	338.3	0.536
150	19.28	34.82	24.831	312.7	0.619
175	18.26	34.77	25.051	291.8	0.696
200	17.85	34.79	25.167	280.8	0.769
225	17.17	34.77	25.316	266.6	0.839
250	16.63	34.75	25.428	255.9	0.906
275	16.19	34.72	25.508	248.4	0.971
300	15.70	34.68	25.588	240.7	1.035
350	14.54	34.58	25.767	223.7	1.155
400	13.20	34.49	25.959	205.5	1.268
450	11.88	34.37	26.143	188.1	1.372
500	10.44	34.28	26.335	169.8	1.467
550	8.90	34.17	26.505	153.6	1.553
600	7.62	34.14	26.676	137.5	1.631
650	6.68	34.13	26.799	125.8	1.701
700	5.91	34.16	26.923	114.1	1.766
750	5.18	34.19	27.035	103.4	1.825
800	5.00	34.26	27.111	96.2	1.879
850	4.61	34.30	27.187	89.0	1.929
900	4.15	34.33	27.260	82.1	1.976
950	4.04	34.37	27.304	78.0	2.021
1000	3.73	34.39	27.351	73.4	2.063
1100	3.55	34.47	27.432	65.7	2.141
1200	3.20	34.51	27.498	59.5	2.212
1300	2.95	34.53	27.537	55.8	2.279
1400	2.80	34.55	27.566	53.0	2.342
1500	2.66	34.56	27.587	51.1	2.403
1600	2.491	34.580	27.617	48.2	2.461
1700	2.369	34.595	27.639	46.1	2.518
1800	2.234	34.605	27.659	44.3	2.572
1900	2.132	34.612	27.673	43.0	2.624
2000	2.006	34.626	27.694	41.0	2.675
2100	1.938	34.633	27.705	39.9	2.725
2200	1.879	34.640	27.715	39.0	2.773
2300	1.843	34.644	27.721	38.4	2.821
2400	1.795	34.650	27.729	37.6	2.868
2500	1.755	34.655	27.736	36.9	2.915
2600	1.723	34.659	27.742	36.4	2.961
2700	1.701	34.662	27.746	36.0	3.007
2800	1.673	34.666	27.751	35.5	3.053
2900	1.651	34.670	27.756	35.1	3.098
3000	1.620	34.672	27.760	34.7	3.144
3100	1.588	34.675	27.765	34.2	3.189
3200	1.571	34.676	27.767	34.0	3.233
3300	1.555	34.679	27.770	33.7	3.278
3400	1.541	34.679	27.771	33.6	3.322
3500	1.530	34.680	27.773	33.5	3.367
3600	1.519	34.684	27.777	33.1	3.412
3700	1.495	34.685	27.780	32.8	3.456
3800	1.493	34.685	27.780	32.8	3.500
3900	1.483	34.686	27.781	32.7	3.545
4000	1.477	34.687	27.783	32.6	3.590
4100	1.468	34.688	27.784	32.4	3.634
4200	1.463	34.688	27.784	32.4	3.679
4300	1.460	34.686	27.783	32.5	3.724
4400	1.464	34.683	27.780	32.8	3.770
4484	1.463	34.682	27.780	32.9	3.808

RV THOMAS WASHINGTON — INDOPAC LEG II

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 28. N	145 54. E	5/13/76	1000 1708 GMT	7526M	110	5KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	26.83	34.828	4.75	0.08	2.		0.1	519.5	0	26.83	34.828	4.75	22.664	519.5	0.000
10	26.81	34.822	4.75	0.07	2.		0.1	519.4	10	26.81	34.822	4.75	22.666	519.4	0.052
26	25.65	34.837	4.84	0.04	2.		0.1	483.5	20	26.17	34.829	4.80	22.871	499.7	0.103
50	23.64	34.856	5.05	0.04	2.		0.1	424.5	30	25.31	34.839	4.88	23.148	473.2	0.152
80	21.98	34.871	4.93	0.05	2.		0.1	378.1	50	23.64	34.856	5.05	23.659	424.5	0.242
110	20.57	34.873	4.69	0.07	3.		0.3	341.2	75	22.22	34.870	4.95	24.079	384.4	0.344
140	19.04	34.804	4.91	0.12	3.		1.0	308.1	100	21.03	34.877	4.75	24.412	352.7	0.436
170	18.21	34.755	5.17	0.13	3.		1.0	291.3	125	19.77	34.840	4.77	24.720	323.3	0.522
200	17.82	34.757	4.97	0.15	4.		2.0	282.5	150	18.70	34.784	5.02	24.952	301.3	0.601
249	16.63	34.742	4.80	0.33	6.		4.5	256.5	200	17.82	34.757	4.97	25.149	282.5	0.750
350	14.99	34.634	4.53	0.60	11.		8.7	229.1	250	16.61	34.743	4.80	25.426	256.2	0.888
449	12.09	34.411	4.28	1.02	20.		14.1	188.9	300	15.82	34.707	4.66	25.582	241.3	1.017
548	9.06	34.192	3.79	1.61	35.		22.0	154.4	400	13.61	34.526	4.42	25.920	209.2	1.252
648	6.63	34.114	2.75	2.24	60.		31.5	126.3	500	10.50	34.287	4.08	26.329	170.3	1.453
747	5.15	34.173	1.72	2.70	85.		37.5	104.4	600	7.70	34.135	3.28	26.660	139.0	1.618
847	4.50		1.37	2.89	101.		39.9		700	5.74	34.134	2.17	26.922	114.1	1.754
996	3.75	34.402	1.34	2.99	119.		41.0	72.7	800	4.75	34.236	1.47	27.120	95.3	1.867
1146	3.21	34.454	1.36	2.98	132.		41.5	63.8	1000	3.73	34.405	1.34	27.362	72.4	2.051
1296	2.78	34.499	1.50	2.98	143.		41.1	56.7	1200	3.03	34.472	1.40	27.482	61.0	2.201
1408A	2.62	34.525	1.65		147.		40.9	53.4	1500	2.45	34.557	1.94	27.602	49.7	2.392
1493	2.46	34.555	1.93	2.92	145.		40.0	49.9	1750	2.20	34.588	2.17	27.647	45.3	2.532
1699A	2.25	34.581	2.10	2.75	151.		39.5	46.2	2000	1.97	34.618	2.51	27.689	41.4	2.662
1990A	1.98	34.616	2.50	2.76	151.		39.1	41.5	2250	1.82	34.640	2.67	27.718	38.6	2.784
2280A	1.81	34.642	2.68	2.64	154.		37.0	38.3	2500	1.72	34.652	2.83	27.736	36.9	2.901
2571A	1.70	34.655	2.88	2.59	155.		36.7	36.5	2750	1.65	34.662	3.00	27.749	35.7	3.015
2860A	1.63	34.666	3.07	2.58	155.		37.3	35.2	3000	1.59	34.673	3.13	27.762	34.5	3.128
3149A	1.56	34.679	3.19	2.59	155.		36.2	33.7	3250	1.55	34.680	3.24	27.771	33.6	3.239
3439A	1.53	34.681	3.33	2.47	153.		36.7	33.4	3500	1.53	34.682	3.36	27.774	33.3	3.350
3729A	1.51	34.683	3.45	2.53	151.		34.20	33.1	3750	1.51	34.684	3.46	27.778	33.0	3.462
4019A	1.48	34.692	3.57	2.34	148.		36.7	32.2	4000	1.48	34.692	3.56	27.786	32.3	3.573
4311A	1.465	34.693	3.67	2.38	147.		35.4	32.0	4250	1.47	34.693	3.65	27.788	32.1	3.685
4601A	1.475	34.695	3.77	2.37	145.		35.3	31.9	4500	1.47	34.695	3.74	27.789	32.0	3.797
4891A	1.486	34.698	3.85	2.40	142.		35.0	31.8	4750	1.48	34.697	3.81	27.790	31.8	3.912
5184A	1.509	34.693	3.91	2.40	142.		35.3	32.3	5000	1.49	34.697	3.88	27.788	32.0	4.028
5477A	1.546	34.698	3.93	2.41	141.		35.6	32.2	5250	1.52	34.695	3.91	27.785	32.3	4.146
5771A	1.584	34.700	3.97	2.43	140.		34.8	32.3	5500	1.55	34.699	3.93	27.786	32.2	4.268
6065A	1.618	34.699	3.98	2.46	139.		34.8	32.6	5750	1.58	34.700	3.97	27.785	32.3	4.392
6360A	1.654	34.699	4.02	2.43	139.		34.4	32.9	6000	1.61	34.700	3.98	27.783	32.6	4.518
6656A	1.701	34.700	4.03	2.40	139.		34.6	33.1	6250	1.64	34.700	4.01	27.780	32.8	4.648
6954A	1.742	34.697	4.01	2.42	139.		34.6	33.7	6500	1.68	34.700	4.02	27.778	33.0	4.781

RV THOMAS WASHINGTON — INDOPAC LEG II

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 31.5N	147 30.5E	5/14/76	0424 0825 GMT	5766M	100	9KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.00	34.963	4.76	0.03	2.	0.00	0.0	515.0	0	27.00	34.963	4.76	22.711	515.0	0.000
10	26.95	34.961	4.84	0.04	2.	0.03	0.0	513.6	10	26.95	34.961	4.84	22.726	513.6	0.051
20	26.52	34.961	4.78	0.06	2.	0.04	0.0	500.6	20	26.52	34.961	4.78	22.862	500.6	0.102
31	25.65	34.932	4.90	0.04	2.	0.03	0.0	476.7	30	25.75	34.935	4.88	23.084	479.4	0.151
51	22.69	34.882	5.15	0.03	2.	0.02	0.0	396.4	50	22.84	34.882	5.14	23.911	400.4	0.240
76	21.33	34.876	5.02	0.06	2.	0.00	0.2	360.6	75	21.36	34.876	5.03	24.322	361.2	0.335
100	20.21	34.844	5.08	0.05	4.	0.05	3.9	334.1	100	20.21	34.844	5.08	24.607	334.1	0.423
151	18.19	34.820	4.57	0.21	4.	0.05	3.8	286.6	125	19.15	34.830	4.64	24.874	308.7	0.504
201	16.87	34.755	4.75	0.29	5.	0.04	5.2	260.9	150	18.22	34.620	4.58	25.098	287.3	0.580
299	14.56	34.595	4.47	0.62	11.	0.01	10.1	223.1	200	16.89	34.756	4.74	25.372	261.3	0.720
399	12.00	34.389	4.29	0.97	19.	0.00	15.0	188.9	250	15.70	34.682	4.66	25.589	240.7	0.849
546	8.36	34.162	3.44	1.73	42.	0.00	25.6	146.3	300	14.53	34.594	4.47	25.778	222.7	0.969
694	5.65	34.163	1.90	2.60	78.	0.00	37.0	110.8	400	11.97	34.387	4.29	26.136	188.5	1.184
842	4.43	34.291	1.29	2.83	105.	0.02	41.4	87.0	500	9.44	34.214	3.78	26.452	158.7	1.367
990	3.70	34.397	1.24	2.91	122.	0.00	42.5	72.6	600	7.23	34.141	2.86	26.732	132.2	1.522
1189	3.09	34.486	1.53	2.91	136.	0.00	42.4	60.4	700	5.58	34.168	1.86	26.969	109.6	1.652
1397A	2.78	34.555	1.84		139.	0.01	41.6	52.5	800	4.68	34.253	1.39	27.142	93.3	1.762
1398	2.64	34.542	1.84	2.92	143.	0.00	41.7	52.3	1000	3.66	34.403	1.25	27.368	71.9	1.944
1547A	2.59	34.572	2.07	2.71	142.	0.00	41.5	49.6	1200	3.07	34.490	1.55	27.493	60.0	2.092
1696A	2.31	34.593	2.24	2.77	146.	0.00	41.1	45.8	1500	2.61	34.563	1.97	27.593	50.5	2.283
1896A	2.08	34.621	2.42	2.65	150.	0.00	40.8	41.9	1750	2.24	34.603	2.29	27.656	44.6	2.424
2096A	1.94	34.629	2.54	2.58	153.	0.00	40.5	40.3	2000	2.00	34.627	2.48	27.694	40.9	2.553
2295A	1.81	34.644	2.70	2.61	154.	0.00	40.3	38.2	2250	1.84	34.641	2.66	27.718	38.6	2.674
2495A	1.73	34.656	2.82	2.51	155.	0.00	39.7	36.7	2500	1.73	34.657	2.82	27.739	36.7	2.791
2745A	1.66	34.662	2.95	2.49	155.	0.00	39.2	35.7	2750	1.66	34.663	2.95	27.749	35.7	2.906
2994A	1.60	34.669		2.54	155.	0.00	38.9	34.8	3000	1.60	34.670	3.10	27.759	34.8	3.019
3244A	1.55	34.676	3.24	2.35	155.	0.00	38.5	33.9	3250	1.55	34.677	3.24	27.768	33.9	3.131
3493A	1.51	34.680	3.33		153.	0.00	38.3	33.3	3500	1.51	34.681	3.33	27.775	33.3	3.242
3744A	1.48	34.682	3.45	2.38	152.	0.00	37.8	33.0	3750	1.48	34.683	3.45	27.778	32.9	3.353
3993A	1.47	34.689	3.55	2.39	150.	0.00	37.6	32.4	4000	1.47	34.690	3.55	27.785	32.4	3.464
4242A	1.47	34.691	3.62	2.46	149.	0.00	37.2	32.2	4250	1.47	34.692	3.62	27.786	32.2	3.576
4493A	1.47	34.693	3.68	2.36	147.	0.00	36.7	32.1	4500	1.47	34.694	3.68	27.788	32.1	3.689
4742A	1.487	34.699	3.78	2.40	144.	0.00	36.5	31.7	4750	1.49	34.699	3.78	27.791	31.7	3.803
4991A	1.501	34.696	3.85	2.37	143.	0.01	36.2	32.1	5000	1.50	34.697	3.85	27.788	32.1	3.919
5240A	1.518	34.698	3.94	2.36	142.	0.00	36.2	32.0	5250	1.52	34.699	3.94	27.788	32.0	4.038
5489A	1.546	34.699	3.96	2.33	141.	0.00	36.0	32.1	5500	1.55	34.700	3.96	27.787	32.1	4.159
5689A	1.578	34.698	4.04	2.37	140.	0.01	35.8	32.4							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 28. N	145 54. E	05/13/76	1623 GMT

Z	T	S	SIGMA T	DT	DD
0	26.83	34.81	22.651	520.8	0.000
10	26.48	34.83	22.776	508.6	0.052
20	25.63	34.85	23.056	482.0	0.101
30	24.97	34.87	23.273	461.3	0.148
40	23.86	34.86	23.598	430.3	0.193
50	23.27	34.84	23.755	415.3	0.236
75	21.41	34.88	24.310	362.4	0.333
100	20.35	34.85	24.574	337.2	0.422
125	19.14	34.81	24.859	310.1	0.503
150	18.35	34.76	25.021	294.7	0.580
175	18.01	34.74	25.090	288.2	0.654
200	17.75	34.78	25.184	279.2	0.727
225	17.12	34.76	25.320	266.2	0.797
250	16.57	34.73	25.427	256.0	0.864
275	16.20	34.72	25.505	248.6	0.929
300	15.81	34.69	25.571	242.3	0.993
350	15.03	34.63	25.699	230.2	1.116
400	13.82	34.52	25.873	213.7	1.232
450	12.00	34.39	26.135	188.8	1.338
500	10.24	34.25	26.346	168.8	1.433
550	8.86	34.17	26.512	153.0	1.518
600	7.42	34.11	26.681	137.0	1.596
650	6.37	34.11	26.825	123.4	1.666
700	5.54	34.13	26.945	112.0	1.729
750	5.08	34.17	27.031	103.8	1.787
800	4.66	34.24	27.134	94.0	1.841
850	4.45	34.28	27.189	88.8	1.890
900	4.23	34.33	27.252	82.9	1.938
950	3.90	34.38	27.326	75.8	1.981
1000	3.72	34.41	27.368	71.8	2.022
1100	3.41	34.45	27.430	65.9	2.100
1200	3.00	34.48	27.493	60.0	2.171
1300	2.74	34.50	27.532	56.3	2.237
1400	2.59	34.53	27.569	52.8	2.300
1490	2.45	34.56	27.605	49.4	2.353

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 31.5N	147 30.5E	05/14/76	0238 GMT

Z	T	S	SIGMA T	DT	DD
0	26.93	34.95	22.724	513.8	0.000
10	26.77	34.94	22.767	509.7	0.051
20	26.13	34.94	22.969	490.4	0.101
30	24.87	34.88	23.311	457.7	0.149
40	23.35	34.87	23.754	415.4	0.193
50	22.04	34.86	24.121	380.5	0.233
75	20.74	34.86	24.477	346.4	0.324
100	19.54	34.84	24.779	317.7	0.408
125	18.56	34.83	25.022	294.6	0.485
150	17.96	34.80	25.148	282.6	0.559
175	17.27	34.77	25.292	268.9	0.629
200	16.86	34.75	25.374	261.1	0.697
225	16.45	34.74	25.463	252.7	0.762
250	16.09	34.72	25.531	246.2	0.827
275	15.56	34.68	25.620	237.7	0.889
300	15.06	34.64	25.700	230.1	0.950
350	13.78	34.53	25.889	212.1	1.065
400	12.26	34.40	26.093	192.8	1.171
450	11.04	34.33	26.267	176.3	1.268
500	9.35	34.20	26.457	158.3	1.357
550	7.81	34.14	26.648	140.1	1.436
600	6.85	34.13	26.776	128.0	1.508
650	6.18	34.14	26.873	118.8	1.574
700	5.48	34.18	26.991	107.5	1.635
750	5.04	34.22	27.075	99.6	1.691
800	4.66	34.25	27.142	93.3	1.743
850	4.40	34.30	27.210	86.8	1.792
900	4.16	34.36	27.283	79.9	1.838
950	3.88	34.38	27.328	75.6	1.881
1000	3.69	34.42	27.379	70.8	1.922
1100	3.37	34.46	27.442	64.8	1.998
1200	3.08	34.50	27.501	59.2	2.068
1300	2.89	34.52	27.534	56.1	2.134
1400	2.76	34.55	27.570	52.7	2.197
1500	2.61	34.57	27.599	49.9	2.257
1600	2.432	34.586	27.627	47.3	2.315
1700	2.325	34.596	27.644	45.7	2.370
1800	2.207	34.607	27.662	43.9	2.424
1900	2.084	34.617	27.680	42.2	2.476
2000	1.998	34.625	27.694	41.0	2.526
2100	1.942	34.632	27.703	40.0	2.575
2200	1.881	34.640	27.715	39.0	2.624
2300	1.819	34.648	27.726	37.9	2.672
2400	1.777	34.653	27.733	37.3	2.718
2500	1.743	34.656	27.738	36.8	2.765
2600	1.705	34.660	27.744	36.2	2.811
2700	1.684	34.663	27.748	35.8	2.857
2800	1.655	34.667	27.753	35.3	2.902
2900	1.632	34.670	27.757	34.9	2.947
3000	1.603	34.674	27.763	34.4	2.992
3100	1.584	34.676	27.766	34.1	3.037
3200	1.563	34.679	27.770	33.8	3.081
3300	1.545	34.681	27.773	33.5	3.125
3400	1.529	34.683	27.775	33.2	3.170
3500	1.524	34.685	27.778	33.0	3.214
3600	1.513	34.687	27.780	32.8	3.258
3700	1.502	34.688	27.782	32.7	3.302
3800	1.491	34.691	27.785	32.4	3.346
3900	1.485	34.691	27.785	32.3	3.390
4000	1.484	34.693	27.787	32.2	3.435
4100	1.480	34.694	27.788	32.1	3.479
4200	1.481	34.695	27.789	32.0	3.524
4300	1.479	34.697	27.790	31.8	3.569
4400	1.477	34.697	27.790	31.8	3.613
4500	1.478	34.699	27.792	31.7	3.659
4600	1.479	34.701	27.794	31.5	3.704
4700	1.482	34.701	27.793	31.5	3.749
4800	1.486	34.700	27.792	31.6	3.795
4900	1.493	34.699	27.791	31.8	3.841
5000	1.499	34.698	27.790	31.9	3.888
5100	1.505	34.697	27.788	32.0	3.935
5200	1.514	34.697	27.788	32.1	3.982
5300	1.525	34.696	27.786	32.2	4.030
5400	1.534	34.697	27.786	32.2	4.079
5500	1.544	34.698	27.786	32.2	4.128
5600	1.552	34.698	27.786	32.2	4.177
5700	1.561	34.698	27.785	32.3	4.226

RV THOMAS WASHINGTON — INDOPAC LEG II

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
12 59. N	148 49.8E	5/16/76	2012 2317 GMT	5769M	060	17KT	1	350 6 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.64	34.542	4.63	0.12	2.	0.00	0.1	565.0	0	27.64	34.542	4.63	22.189	565.0	0.000
59	27.63	34.539	4.63	0.21	2.	0.00	0.1	564.9	10	27.64	34.542	4.63	22.189	564.9	0.057
85	27.55	34.617	4.65	0.18	1.	0.00	0.1	556.8	20	27.64	34.542	4.63	22.190	564.9	0.113
110	26.88	34.714	4.76	0.16	1.	0.00	0.1	529.3	30	27.63	34.541	4.63	22.190	564.9	0.170
134	26.66	34.859	4.73	0.14	1.	0.00	0.1	512.1	50	27.63	34.540	4.63	22.190	564.9	0.283
164	25.67	34.950	4.67	0.15	1.	0.00	0.1	476.0	75	27.58	34.567	4.64	22.226	561.4	0.424
194	22.76	35.069	4.22	0.14	3.	0.24	0.8	384.8	100	27.16	34.671	4.72	22.441	540.8	0.563
229	18.97	34.863	3.92	0.42	5.	0.01	5.5	302.1	125	26.75	34.806	4.74	22.673	518.6	0.697
268	15.30	34.610	4.08	0.65	9.	0.01	9.5	237.3	150	26.30	34.914	4.70	22.896	497.3	0.825
303	13.07	34.453	4.15	0.90	14.	0.01	12.8	205.5	200	22.11	35.045	4.15	24.242	368.9	1.045
342	10.83	34.290	3.62	1.40	24.	0.01	19.0	175.6	250	16.88	34.723	3.98	25.349	263.5	1.207
389	8.74	34.216	2.74	2.03	39.	0.01	27.0	147.8	300	13.24	34.448	4.14	25.937	207.6	1.329
438	7.85	34.288	1.95	2.40	50.	0.01	32.0	129.6	400	8.47	34.228	2.54	26.618	143.0	1.512
497	7.30	34.374	1.62	2.54	58.	0.00	35.2	115.7	500	7.27	34.379	1.62	26.913	115.0	1.648
577	6.54	34.475	1.63	2.64	66.	0.00	37.1	98.2	600	6.35	34.485	1.65	27.122	95.1	1.762
687	5.72	34.494	1.69	2.82	76.	0.00	38.7	86.8	700	5.65	34.498	1.68	27.221	85.8	1.861
796	5.20	34.521	1.61	2.88	85.	0.00	40.0	78.8	800	5.18	34.523	1.61	27.298	78.5	1.952
935A	4.50	34.544	1.68		98.		39.5	69.5	1000	4.29	34.550	1.71	27.419	67.0	2.117
1097	3.96	34.555	1.76	2.93	109.		40.9	63.2	1200	3.51	34.571	1.94	27.515	57.9	2.261
1135A	3.77	34.561	1.85		114.		39.8	61.0	1500	2.75	34.605	2.18	27.614	48.5	2.449
1434A	2.88	34.596	2.11	2.86	132.		39.8	50.2	1750	2.37	34.628	2.40	27.665	43.7	2.588
1732A	2.39	34.626	2.39	2.84	142.		39.6	43.9	2000	2.12	34.636	2.56	27.692	41.1	2.718
2032A	2.10	34.636	2.58	2.71	148.		38.8	40.9	2250	1.95	34.643	2.73	27.711	39.3	2.842
2331A	1.90	34.645	2.78	2.68	151.		38.7	38.8	2500	1.82	34.654	2.86	27.730	37.5	2.962
2631A	1.76	34.661	2.74U	2.62	153.		38.2	36.5	2750	1.71	34.667	2.99	27.748	35.7	3.079
2930A	1.65	34.674	3.08	2.62	154.		37.7	34.7	3000	1.63	34.675	3.12	27.761	34.6	3.192
3229A	1.57	34.676	3.27	2.62	152.		37.3	34.0	3250	1.56	34.677	3.28	27.768	34.0	3.305
3528A	1.505	34.685	3.43	2.59	152.		36.7	32.9	3500	1.51	34.685	3.42	27.778	33.0	3.415
3728A	1.486	34.690	3.57	2.59	150.		36.5	32.4	3750	1.48	34.691	3.58	27.785	32.4	3.525
3928A	1.458	34.691	3.67	2.54	148.		35.9	32.1	4000	1.45	34.693	3.71	27.789	32.0	3.635
4128A	1.443	34.696	3.79	2.54	145.		35.6	31.7	4250	1.44	34.697	3.84	27.792	31.6	3.745
4427A	1.435	34.696	3.90	2.49	142.		35.4	31.6	4500	1.44	34.697	3.93	27.793	31.6	3.856
4726A	1.450	34.697	4.01	2.43	140.		34.8	31.6	4750	1.45	34.698	4.01	27.793	31.6	3.969
5027A	1.462	34.700	4.05	2.47	138.		34.9	31.5	5000	1.46	34.700	4.05	27.794	31.5	4.083
5326A	1.488	34.699	4.14	2.47	137.		34.9	31.7	5250	1.48	34.700	4.12	27.792	31.7	4.199
5625A	1.523	34.701	4.13	2.43	137.		34.8	31.8	5500	1.51	34.701	4.13	27.791	31.8	4.318
5724A	1.536	34.705	4.16	2.47	137.		33.1U	31.6							

RV THOMAS WASHINGTON — INDOPAC LEG II

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
12 59.5N	147 29.5E	5/17/76	0921 1216 GMT	5618M	060	18KT	1	070 10 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
2	27.70	34.561	4.65	0.07	1.		0.1	565.5	0	27.70	34.561	4.65	22.184	565.5	0.000
28	27.71	34.560	4.64	0.10	0.		0.1	565.8	10	27.70	34.561	4.65	22.182	565.6	0.057
52	27.71	34.560	4.62	0.19	2.		0.1	565.8	20	27.71	34.561	4.64	22.181	565.8	0.113
82	27.47	34.808	4.74	0.11	2.		0.0	540.6	30	27.71	34.560	4.64	22.180	565.8	0.170
117	26.79	34.956	4.75	0.18	2.		0.0	509.1	50	27.71	34.560	4.62	22.180	565.8	0.283
141	26.32	34.946	4.72	0.16	2.		0.1	495.6	75	27.55	34.744	4.71	22.369	547.8	0.423
166	25.49	34.985	4.61	0.14	1.		0.1	468.2	100	27.15	34.905	4.75	22.621	523.7	0.558
196	22.39	35.078	4.16	0.25	2.		0.4	374.1	125	26.65	34.955	4.75	22.816	505.0	0.688
231	19.19	34.931	4.10	0.33	5.		3.4	302.5	150	26.13	34.957	4.70	22.981	489.2	0.813
271	16.67	34.746	4.30		9.		5.4	257.1	200	21.99	35.067	4.15	24.291	364.1	1.030
311	13.93	34.509	4.32	0.72	14.		10.6	216.7	250	17.93	34.851	4.19	25.194	278.2	1.195
350	10.84	34.345	3.03	1.57	24.		21.9	171.8	300	14.72	34.575	4.31	25.724	227.8	1.325
390	8.43	34.252	2.55	2.06	44.		30.3	140.6	400	8.15	34.265	2.19	26.695	135.6	1.515
440	7.54	34.342	1.69	2.19	55.		34.9	121.3	500	6.78	34.396	1.51	26.994	107.2	1.644
499	6.79	34.395	1.51	2.42	64.		37.4	107.4	600	6.00	34.455	1.55	27.144	93.1	1.752
574	6.23	34.439	1.50	2.70	70.		39.5	97.1	700	5.32	34.498	1.69	27.261	81.7	1.847
673	5.41	34.494	1.69	2.62	82.		40.5	83.2	800	4.90	34.522	1.72	27.329	75.5	1.935
789A	4.98	34.518	1.67	2.64	85.		38.6U	76.6	1000	4.15	34.549	1.77	27.434	65.6	2.094
798	4.91	34.521	1.72	2.74	89.		41.0	75.6	1200	3.40	34.575	1.94	27.530	56.5	2.235
987A	4.09	34.550	1.75	2.90	102.		40.1	64.9	1500	2.70	34.608	2.17	27.621	47.9	2.419
994	4.17	34.548	1.76	2.80	98.			65.9	1750	2.40	34.622	2.34	27.658	44.4	2.558
1234A	3.27	34.579	1.96	2.96	121.		39.2	54.9	2000	2.09	34.636	2.61	27.694	40.9	2.688
1480A	2.73	34.606	2.16	2.91	134.		39.6	48.2	2250	1.88	34.653	2.77	27.725	38.0	2.810
1728A	2.43	34.620	2.32	2.81	138.		39.2	44.7	2500	1.77	34.662	2.90	27.740	36.5	2.927
1974A	2.12	34.634	2.59	2.73	145.		38.7	41.2	2750	1.66	34.671	3.05	27.755	35.1	3.041
2221A	1.90	34.652	2.76	2.65	148.		36.0U	38.2	3000	1.58	34.675	3.20	27.764	34.3	3.152
2467A	1.78	34.660	2.88	2.76	152.		37.3	36.7	3250	1.54	34.680	3.29	27.772	33.6	3.263
2713A	1.68	34.670	3.02	2.71	153.		37.2	35.3	3500	1.50	34.684	3.42	27.778	33.0	3.373
2959A	1.59	34.673	3.18	2.60	153.		37.6	34.4	3750	1.47	34.689	3.59	27.785	32.4	3.483
3206A	1.55	34.679	3.28	2.57	153.		36.7	33.7	4000	1.45	34.692	3.69	27.788	32.1	3.592
3452A	1.51	34.682	3.38	2.51				33.2	4250	1.44	34.695	3.82	27.791	31.7	3.703
3698A	1.47	34.688	3.57	2.57	150.		35.8	32.4	4500	1.44	34.699	3.92	27.794	31.4	3.814
3896A	1.46	34.691	3.64	2.53	150.		35.8	32.2	4750	1.44	34.699	4.00	27.795	31.4	3.926
4094A	1.44	34.691		2.48	147.		34.9	32.0	5000	1.46	34.700	4.06	27.794	31.5	4.040
4341A	1.444	34.697	3.86	2.47	146.		35.2	31.6	5250	1.48	34.700	4.08	27.792	31.6	4.156
4638A	1.435	34.699	3.96	2.40	143.		34.5	31.4	5500	1.51	34.699	4.09	27.790	31.9	4.275
4935A	1.452	34.699	4.05	2.42	142.		34.6	31.5							
5232A	1.482	34.700	4.08	2.39	141.			31.6							
5479A	1.509	34.699	4.09	2.39	141.			31.9							

17 DU

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
12 59. N	148 49.8E	05/16/76	2049 GMT

Z	T	S	SIGMA T	DT	DD
0	27.62	34.56	22.209	563.0	0.000
10	27.62	34.56	22.209	563.0	0.056
20	27.62	34.58	22.224	561.6	0.113
30	27.62	34.58	22.224	561.6	0.169
40	27.62	34.58	22.224	561.6	0.225
50	27.63	34.58	22.221	561.9	0.282
75	27.63	34.58	22.221	561.9	0.423
100	27.20	34.71	22.457	539.3	0.561
125	26.80	34.79	22.645	521.4	0.695
150	26.58	34.93	22.820	504.6	0.825
175	25.10	35.03	23.355	453.5	0.946
200	22.28	35.11	24.242	368.8	1.051
225	19.22	34.88	24.892	306.9	1.137
250	16.87	34.76	25.380	260.6	1.210
275	14.88	34.58	25.694	230.7	1.273
300	13.40	34.46	25.913	209.9	1.330
350	10.49	34.27	26.318	171.4	1.430
400	8.38	34.21	26.618	143.0	1.512
450	7.56	34.31	26.818	124.0	1.582
500	7.25	34.38	26.917	114.6	1.646
550	6.77	34.46	27.047	102.3	1.704
600	6.29	34.47	27.118	95.5	1.758
650	5.91	34.48	27.175	90.1	1.808
700	5.62	34.50	27.227	85.2	1.857
750	5.37	34.51	27.265	81.6	1.903
800	5.13	34.52	27.302	78.1	1.947
850	4.89	34.53	27.337	74.7	1.990
900	4.68	34.54	27.369	71.7	2.032
950	4.48	34.54	27.391	69.6	2.072
1000	4.25	34.55	27.424	66.5	2.111
1100	3.96	34.56	27.463	62.9	2.185
1200	3.62	34.56	27.497	59.6	2.256
1300	3.29	34.58	27.545	55.1	2.324
1400	3.03	34.59	27.577	52.0	2.387
1500	2.81	34.60	27.605	49.4	2.447
1600	2.593	34.611	27.633	46.7	2.505
1700	2.449	34.619	27.652	44.9	2.560
1800	2.311	34.627	27.670	43.2	2.613
1900	2.198	34.634	27.685	41.8	2.665
2000	2.104	34.639	27.696	40.7	2.716
2100	2.045	34.646	27.707	39.8	2.765
2200	1.976	34.649	27.714	39.0	2.814
2300	1.913	34.654	27.723	38.2	2.863
2400	1.855	34.659	27.732	37.4	2.910
2500	1.804	34.662	27.738	36.8	2.957
2600	1.773	34.665	27.743	36.3	3.003
2700	1.729	34.667	27.748	35.8	3.050
2800	1.685	34.670	27.754	35.3	3.095
2900	1.650	34.673	27.759	34.8	3.141
3000	1.621	34.676	27.763	34.4	3.186
3100	1.592	34.678	27.767	34.0	3.230
3200	1.576	34.680	27.770	33.8	3.275
3300	1.554	34.682	27.773	33.5	3.319
3400	1.535	34.684	27.776	33.2	3.363
3500	1.511	34.686	27.779	32.9	3.407
3600	1.496	34.688	27.782	32.6	3.451
3700	1.486	34.689	27.783	32.5	3.495
3800	1.477	34.690	27.785	32.3	3.539
3900	1.466	34.691	27.786	32.2	3.583
4000	1.458	34.692	27.788	32.1	3.627
4100	1.449	34.694	27.790	31.8	3.671
4200	1.443	34.695	27.791	31.7	3.715
4300	1.439	34.696	27.792	31.6	3.759
4400	1.438	34.697	27.793	31.5	3.804
4500	1.436	34.698	27.794	31.5	3.848
4600	1.439	34.698	27.794	31.5	3.893
4700	1.442	34.699	27.795	31.4	3.938
4800	1.448	34.699	27.794	31.5	3.983
4900	1.457	34.700	27.794	31.4	4.028
5000	1.461	34.700	27.794	31.5	4.074
5100	1.466	34.701	27.795	31.4	4.120
5200	1.474	34.701	27.794	31.5	4.167
5300	1.484	34.702	27.794	31.5	4.214
5400	1.495	34.703	27.794	31.5	4.261
5500	1.506	34.703	27.793	31.6	4.309
5600	1.518	34.704	27.793	31.6	4.357
5700	1.529	34.705	27.793	31.6	4.405
5749	1.535	34.705	27.793	31.6	4.429

18 D

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
12 59.5N	147 29.9E	05/17/76	0634 GMT

Z	T	S	SIGMA T	DT	DD
0	27.78	34.59	22.180	565.9	0.000
10	27.76	34.59	22.186	565.2	0.057
20	27.73	34.59	22.196	564.3	0.113
30	27.71	34.59	22.203	563.7	0.170
40	27.71	34.59	22.203	563.7	0.226
50	27.72	34.63	22.229	561.1	0.283
75	27.08	34.91	22.646	521.3	0.418
100	26.78	34.98	22.794	507.1	0.548
125	26.14	34.95	22.973	490.0	0.674
150	24.98	35.03	23.391	450.1	0.793
175	21.91	35.07	24.316	361.8	0.896
200	20.23	35.01	24.728	322.6	0.983
225	17.83	34.84	25.210	276.7	1.060
250	16.57	34.75	25.443	254.6	1.128
275	14.85	34.57	25.692	230.8	1.191
300	13.52	34.48	25.904	210.7	1.248
350	9.92	34.25	26.461	163.6	1.345
400	8.69	34.22	26.578	146.8	1.426
450	8.05	34.28	26.722	133.0	1.500
500	7.32	34.35	26.884	117.7	1.567
550	6.53	34.39	27.024	104.5	1.626
600	6.17	34.42	27.095	97.8	1.681
650	5.65	34.46	27.192	88.5	1.732
700	5.45	34.48	27.232	84.7	1.779
750	5.20	34.51	27.286	79.6	1.825
800	5.03	34.51	27.306	77.8	1.869
850	4.78	34.52	27.342	74.3	1.911
900	4.52	34.53	27.379	70.8	1.952
950	4.33	34.54	27.408	68.1	1.992
1000	4.14	34.54	27.428	66.1	2.030
1100	3.76	34.56	27.483	60.9	2.103
1200	3.46	34.57	27.521	57.4	2.172
1300	3.15	34.58	27.558	53.8	2.237
1400	2.90	34.60	27.597	50.1	2.298
1500	2.66	34.61	27.627	47.3	2.356
1600	2.527	34.618	27.644	45.6	2.411
1700	2.375	34.623	27.661	44.0	2.465
1800	2.226	34.631	27.680	42.3	2.517
1900	2.104	34.640	27.697	40.7	2.568
2000	2.042	34.645	27.706	39.8	2.617
2100	1.966	34.649	27.715	38.9	2.666
2200	1.922	34.652	27.721	38.4	2.713
2300	1.828	34.659	27.734	37.2	2.761
2400	1.769	34.663	27.742	36.4	2.807
2500	1.728	34.667	27.748	35.8	2.852
2600	1.690	34.669	27.752	35.4	2.897
2700	1.660	34.672	27.757	35.0	2.942
2800	1.621	34.674	27.762	34.5	2.986
2900	1.572	34.677	27.768	34.0	3.030
3000	1.553	34.679	27.771	33.7	3.074
3100	1.544	34.681	27.773	33.5	3.118
3200	1.536	34.681	27.773	33.4	3.161
3300	1.524	34.683	27.776	33.2	3.205
3400	1.516	34.684	27.777	33.1	3.249
3500	1.500	34.685	27.779	32.9	3.293
3600	1.483	34.689	27.784	32.5	3.337
3700	1.472	34.689	27.784	32.4	3.380
3800	1.458	34.690	27.786	32.2	3.424
3900	1.460	34.691	27.787	32.2	3.468
4000	1.445	34.693	27.790	31.9	3.512
4100	1.442	34.693	27.790	31.9	3.555
4200	1.441	34.695	27.791	31.7	3.599
4300	1.436	34.695	27.792	31.7	3.644
4400	1.444	34.696	27.792	31.7	3.688
4500	1.440	34.696	27.792	31.6	3.733
4600	1.433	34.697	27.794	31.5	3.777
4700	1.440	34.698	27.794	31.5	3.822
4800	1.444	34.700	27.795	31.4	3.868
4900	1.451	34.700	27.795	31.4	3.913
5000	1.456	34.701	27.795	31.4	3.959
5100	1.466	34.701	27.795	31.4	4.005
5200	1.476	34.701	27.794	31.5	4.051
5300	1.488	34.701	27.793	31.6	4.098
5400	1.497	34.701	27.792	31.6	4.146
5500	1.512	34.700	27.790	31.8	4.194
5541	1.518	34.699	27.789	31.9	4.213

RV THOMAS WASHINGTON — INDOPAC LEG II — 19

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
12 58.5N	146 09.5E	5/17/76	2124 0158 GMT	9978M	050	18KT	1	050 6 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	27.76	34.699	4.66	0.22	3.	0.00	0.0	557.4	0	27.76	34.699	4.66	22.268	557.4	0.000
51	27.72	34.695	4.62	0.21	3.	0.00	0.0	556.4	10	27.75	34.699	4.65	22.270	557.2	0.056
71	27.57	34.721	4.65	0.18	3.	0.00	0.0	549.9	20	27.74	34.698	4.64	22.272	557.0	0.112
91	27.03	34.875	4.73	0.13	3.	0.00	0.0	522.2	30	27.74	34.697	4.64	22.274	556.8	0.167
111	26.70	34.971	4.74	0.11	3.	0.00	0.0	505.3	50	27.72	34.696	4.62	22.278	556.5	0.279
131	26.24	34.950	4.68	0.15	3.	0.00	0.0	493.0	75	27.47	34.750	4.67	22.400	544.8	0.417
161	24.88	35.033	4.45	0.14	4.	0.00	0.1	441.2	100	26.88	34.928	4.73	22.725	513.7	0.550
197	21.97	35.083	4.12	0.24	4.	0.00	1.3	362.5	125	26.41	34.959	4.71	22.896	497.3	0.678
231	18.66	34.898	4.14	0.53	6.	0.00	3.9	292.1	150	25.35	34.997	4.53	23.253	463.2	0.799
272	15.59	34.627	3.68	0.82	13.	0.00	10.4	242.2	200	21.68	35.070	4.12	24.381	355.7	1.008
310	12.54	34.449	3.09	1.39	24.	0.00	18.1	194.3	250	17.19	34.774	3.97	25.315	266.7	1.167
351	10.82	34.410	2.40	1.80	33.	0.00	24.6	166.6	300	13.26	34.483	3.26	25.954	206.0	1.289
391	9.96	34.494	1.47	2.25	38.	0.00	30.4	146.2	400	9.74	34.501	1.46	26.626	142.2	1.471
473	8.14	34.509	1.34	2.50	52.	0.00	35.5	117.3	500	7.76	34.502	1.41	26.939	112.5	1.607
574	6.96	34.470	1.64	2.59	64.	0.00	35.7	104.0	600	6.68	34.465	1.64	27.061	100.9	1.723
699	5.80	34.461	1.64	2.78	81.	0.00	37.9	90.2	700	5.79	34.462	1.64	27.175	90.1	1.827
847	5.09	34.509	1.77	2.84	94.	0.00	39.1	78.5	800	5.28	34.493	1.73	27.262	81.6	1.922
1046	4.15	34.543	1.82	2.90	111.	0.00	40.2	66.0	1000	4.35	34.537	1.81	27.402	68.6	2.092
1243	3.48		2.00	2.90	126.	0.00	40.0		1200	3.61	34.572	1.96	27.506	58.7	2.240
1393A	3.02	34.589	2.07	2.80	135.		38.0	52.0	1500	2.77	34.599	2.18	27.607	49.2	2.430
1487	2.80	34.597	2.17	2.91	139.		39.7	49.5	1750	2.37	34.619	2.39	27.658	44.4	2.571
1693A	2.44	34.614	2.34	2.400	145.		38.6	45.3	2000	2.12	34.635	2.58	27.691	41.2	2.701
1992A	2.13	34.634	2.58	2.59	152.		38.2	41.3	2250	1.93	34.646	2.72	27.715	38.9	2.825
2291A	1.90	34.647	2.74	2.64	153.		38.1	38.6	2500	1.77	34.656	2.89	27.735	37.0	2.944
2590A	1.73	34.660	2.95	2.70	156.		37.5	36.4	2750	1.67	34.666	3.03	27.751	35.5	3.059
2890A	1.62	34.670	3.09	2.45	156.		37.5	34.8	3000	1.58	34.673	3.15	27.763	34.4	3.171
3188A	1.53	34.677	3.26	2.36	155.		36.7	33.7	3250	1.52	34.678	3.29	27.772	33.6	3.281
3488A	1.50	34.680	3.43	2.29	153.		36.5	33.3	3500	1.50	34.681	3.44	27.776	33.2	3.392
3787A	1.45	34.688	3.67	2.29	148.		35.8	32.3	3750	1.46	34.688	3.64	27.784	32.4	3.502
4087A	1.43	34.692	3.80	2.25	145.		35.8	31.9	4000	1.43	34.691	3.77	27.789	32.0	3.611
4386A	1.417	34.694	3.90	2.29	143.		35.2	31.6	4250	1.42	34.694	3.85	27.791	31.7	3.721
4685A	1.431	34.697	4.01	2.26	141.		34.8	31.5	4500	1.42	34.696	3.95	27.793	31.6	3.831
4985A	1.454	34.698	4.05	2.29	141.		34.7	31.6	4750	1.44	34.698	4.02	27.794	31.5	3.943
5286A	1.480	34.699	4.09	2.29	140.		34.5	31.7	5000	1.46	34.699	4.05	27.793	31.6	4.057
5585A	1.526	34.699	4.05	2.29			34.5	32.0	5250	1.48	34.699	4.09	27.792	31.7	4.174
5884A	1.568	34.698	4.07	2.29	142.		34.5	32.4	5500	1.51	34.700	4.06	27.790	31.9	4.293
6183A	1.608	34.700	4.10	2.29	142.		34.2	32.5	5750	1.55	34.699	4.06	27.786	32.2	4.415
6484A	1.658	34.699	4.09	2.34	144.		34.1	32.9	6000	1.58	34.699	4.08	27.784	32.4	4.541
6782A	1.703	34.700	4.06	2.37	142.			33.2	6250	1.62	34.700	4.10	27.782	32.6	4.669
7079A	1.750	34.700	4.13	2.41	142.		34.5	33.5	6500	1.66	34.700	4.09	27.779	32.9	4.801
9937B	2.262	34.701	4.12	2.35	141.		35.4	37.3	6750	1.70	34.700	4.08	27.777	33.1	4.937
9940B	2.266	34.700	4.07	2.40	141.		35.4	37.4	7000	1.74	34.701	4.11	27.774	33.4	5.076
									7250	1.78	34.701	4.13	27.770	33.7	5.220
									7500	1.83	34.701	4.13	27.767	34.1	5.367
									7750	1.87	34.700	4.13	27.763	34.4	5.519
									8000	1.91	34.700	4.13	27.760	34.7	5.675
									8250	1.96	34.701	4.13	27.756	35.0	5.835
									8500	2.00	34.701	4.13	27.753	35.4	5.999
									8750	2.05	34.701	4.12	27.749	35.7	6.168
									9000	2.09	34.701	4.12	27.746	36.0	6.341
									9250	2.14	34.701	4.12	27.743	36.4	6.519
									9500	2.18	34.701	4.12	27.739	36.7	6.700

RV THOMAS WASHINGTON — INDOPAC LEG II — 20

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
13 05.5N	145 00. E	5/18/76	1500 GMT	2920M	030	21KT	1	040 12

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	27.79	34.621	4.61	0.13	2.	0.00	0.2	563.9	0	27.79	34.621	4.61	22.200	563.9	0.000
51	27.78	34.620	4.61	0.15	3.	0.00	0.2	563.7	10	27.79	34.622	4.61	22.200	563.9	0.056
76	27.30	34.656	4.70		4.	0.00	0.1	546.3	20	27.79	34.622	4.61	22.201	563.9	0.113
101	26.98	34.809	4.69	0.11	3.	0.00	0.1	525.5	30	27.78	34.622	4.61	22.201	563.8	0.169
126	26.72	34.925	4.66	0.07	3.	0.00	0.1	509.2	50	27.78	34.621	4.61	22.202	563.7	0.282
146	25.78	34.952	4.66	0.05	2.	0.00	0.1	479.1	75	27.32	34.654	4.70	22.376	547.1	0.422
166	24.66	35.050	4.51		2.	0.07	0.1	439.4	100	26.99	34.802	4.69	22.593	526.3	0.557
186	22.60	35.103	4.14		2.	0.03	0.9	378.0	125	26.74	34.921	4.66	22.763	510.0	0.688
210	19.04	34.854	3.80	0.41	7.	0.04	5.7	304.4	150	25.60	34.971	4.64	23.157	472.4	0.812
241	17.01	34.720	3.67	0.59	11.	0.06	8.7	266.6	200	20.49	34.961	3.92	24.622	332.7	1.016
281	13.55	34.492	3.28	1.14	20.	0.09	15.9	210.4	250	16.21	34.662	3.58	25.457	253.2	1.167
330	11.22	34.358	3.10	1.40	30.	0.07	20.8	177.3	300	12.45	34.421	3.21	26.073	194.7	1.282
380	10.14	34.447	1.77	2.07	39.	0.04	29.6	152.6	400	9.52	34.405	1.87	26.569	145.7	1.460
430	8.60	34.336	2.03		51.	0.04	31.1	136.9	500	7.54	34.436	1.63	26.920	114.3	1.599
525	7.29	34.485	1.44	2.58	61.	0.01	37.1	107.3	600	6.14	34.458	1.53	27.127	94.7	1.712
624	5.83	34.443	1.56	2.70	81.	0.01	39.1	91.9	700	5.39	34.483	1.65	27.240	83.9	1.809
724	5.32	34.497	1.67	2.76	88.	0.00	39.6	82.0	800	5.00	34.517	1.70	27.314	76.9	1.899
849	4.81	34.523	1.71	2.79	96.	0.00	40.5	74.4	1000	4.23	34.539	1.75	27.417	67.2	2.062
998	4.24	34.538	1.75		106.	0.00	41.0	67.3	1200	3.53	34.567	1.92	27.510	58.4	2.207
1198	3.54	34.565	1.92	2.82	119.	0.00	40.7	58.5	1500	2.93	34.597	2.09	27.591	50.7	2.400
1396	3.11	34.587	2.01	2.87	126.	0.00	41.3	52.9	1750	2.47	34.613	2.31	27.644	45.5	2.545
1595	2.77	34.603	2.18	2.86	130.	0.00	41.2	48.8	2000	2.12	34.630	2.50	27.687	41.6	2.677
1841	2.31	34.619	2.38	2.62	139.	0.00	41.3	43.8							
2088	2.06	34.634	2.56	2.78	142.	0.00	41.1	40.9							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
12 58.5N	146 09.5E	05/18/76	0116 GMT

Z	T	S	SIGMA T	DT	DD
0	27.76	34.73	22.291	555.2	0.000
10	27.75	34.73	22.295	554.9	0.056
20	27.74	34.73	22.298	554.5	0.111
30	27.73	34.73	22.301	554.2	0.167
40	27.73	34.73	22.301	554.2	0.222
50	27.73	34.73	22.301	554.2	0.278
75	27.61	34.74	22.348	549.8	0.416
100	27.03	34.90	22.654	520.4	0.551
125	26.66	35.00	22.847	502.0	0.680
150	25.90	35.01	23.093	478.5	0.804
175	23.96	35.08	23.734	417.3	0.918
200	21.70	35.07	24.374	356.2	1.016
225	19.58	34.94	24.845	311.4	1.101
250	17.10	34.76	25.325	265.7	1.176
275	14.95	34.58	25.678	232.2	1.240
300	12.56	34.42	26.050	196.8	1.295
350	10.68	34.44	26.417	162.0	1.389
400	9.48	34.49	26.661	138.8	1.468
450	8.25	34.48	26.849	121.0	1.537
500	7.74	34.50	26.941	112.3	1.600
550	7.10	34.47	27.009	105.9	1.659
600	6.65	34.45	27.055	101.5	1.715
650	6.15	34.44	27.113	96.0	1.769
700	5.76	34.46	27.178	89.8	1.820
750	5.42	34.48	27.236	84.4	1.868
800	5.27	34.52	27.285	79.7	1.913
850	5.04	34.51	27.304	77.9	1.958
900	4.79	34.52	27.341	74.4	2.001
950	4.55	34.53	27.376	71.1	2.042
1000	4.32	34.54	27.409	68.0	2.082
1100	3.92	34.56	27.467	62.5	2.157
1200	3.57	34.57	27.510	58.4	2.227
1300	3.26	34.58	27.548	54.8	2.293
1400	3.02	34.60	27.586	51.2	2.356
1500	2.78	34.61	27.616	48.3	2.415

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
13 05.5N	145 00. E	05/18/76	1357 GMT

Z	T	S	SIGMA T	DT	DD
0	27.79	34.64	22.214	562.6	0.000
10	27.79	34.64	22.214	562.6	0.056
20	27.80	34.64	22.211	562.9	0.113
30	27.80	34.64	22.211	562.9	0.169
40	27.80	34.64	22.211	562.9	0.225
50	27.80	34.64	22.211	562.9	0.282
75	27.29	34.71	22.428	542.3	0.421
100	27.06	34.81	22.577	527.8	0.555
125	26.67	34.96	22.814	505.2	0.686
150	25.52	35.00	23.203	468.0	0.809
175	23.82	35.09	23.783	412.6	0.920
200	22.45	35.04	24.141	378.5	1.021
225	17.70	34.74	25.165	280.9	1.105
250	15.61	34.62	25.518	247.5	1.173
275	13.48	34.48	25.912	209.9	1.232
300	12.30	34.40	26.085	193.5	1.284
350	10.52	34.31	26.344	169.0	1.379
400	9.73	34.44	26.581	146.5	1.462
450	8.25	34.28	26.692	135.9	1.536
500	7.97	34.46	26.875	118.5	1.604
550	6.50	34.36	27.004	106.3	1.665
600	5.95	34.41	27.115	95.8	1.719
650	5.49	34.46	27.211	86.7	1.769
700	5.40	34.48	27.238	84.1	1.816
750	5.13	34.50	27.286	79.6	1.861
800	4.92	34.51	27.318	76.6	1.904
850	4.75	34.52	27.346	74.0	1.947
900	4.53	34.52	27.370	71.6	1.988
950	4.39	34.52	27.385	70.2	2.028
1000	4.17	34.53	27.417	67.2	2.067
1100	3.80	34.55	27.471	62.1	2.141
1200	3.43	34.56	27.516	57.8	2.210
1300	3.22	34.58	27.552	54.4	2.276
1400	3.07	34.59	27.574	52.3	2.339
1500	2.92	34.59	27.587	51.0	2.401
1600	2.721	34.603	27.616	48.4	2.460
1700	2.580	34.610	27.633	46.7	2.518
1800	2.395	34.616	27.654	44.7	2.573
1900	2.212	34.628	27.679	42.4	2.626
2000	2.128	34.634	27.690	41.3	2.678
2100	2.042	34.642	27.704	40.0	2.728

RV THOMAS WASHINGTON — INDOPAC LEG III — 21

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
11 20.0N	142 10.3E	5/27/76	1500 2310 GMT	10926M	100	6KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.28	34.433	4.72	0.10	2.		0.0	592.8
20	27.90	34.509	4.57	0.10	2.		0.0	575.4
70	27.49	34.560	4.60	0.04	2.		0.0	559.0
95	27.23	34.655	4.65	0.02	2.		0.1	544.2
120	26.40	34.901	4.65	0.12	2.		0.1	501.3
144	24.16	35.063	4.40	0.11	2.		0.1	424.2
174	20.56	35.022	4.06	0.23	3.		2.6	330.1
209	17.39	34.764	3.86	0.51	8.		6.5	272.1
249	13.17	34.493	2.89	1.26	19.		18.8	203.0
293	10.52	34.356	2.81	1.60	29.		23.7	167.0
338	9.38	34.427	1.79	2.12	39.		30.9	141.9
388	8.68	34.504	1.30	2.33	44.		34.6	125.6
447	7.76	34.470	1.45	2.35	53.		33.4	114.8
547	6.74	34.469	1.74	2.49	62.		34.8	99.8
697	5.91	34.520	1.81	2.64	71.		36.3	87.1
897	4.89	34.531	1.71	2.79	90.		38.1	74.6
1150	3.74	34.565	1.78	2.92	114.		39.4	60.4
1290A	3.40	34.575	1.94		121.		38.5	56.4
1405	3.00	34.592	2.10	2.84	128.		38.7	51.6
1587A	2.67	34.607	2.23	2.26	137.		38.2	47.6
1884A	2.20	34.628	2.49	2.52	146.		38.2	42.3
2182A	1.94	34.643	2.66	2.36	152.		37.8	39.2
2478A	1.72	34.659	2.91	2.20	154.		37.7	36.4
2774A	1.62	34.669	3.09	2.04	155.		37.6	34.9
3067B	1.55	34.674	3.17	2.38	155.		37.9	34.1
3365B	1.51	34.680	3.34	2.13	154.		37.5	33.3
3663B	1.48	34.685	3.51	2.37	149.		36.9	32.7
3960B	1.47	34.685	3.61	2.37	149.		36.9	32.7
4260B	1.460	34.690	3.72	2.38	146.		36.0	32.2
4561B	1.451	34.694	3.87	2.30	143.		35.6	31.9
4856B	1.467	34.695	3.97	2.28	142.		35.5	31.9
5154B	1.487	34.697	3.97	2.28	141.		35.5	31.9
5455B	1.518	34.697	4.06	2.20	140.		35.0	32.1
5755B	1.561	34.698	4.04	2.22	140.		35.2	32.3
6056B	1.597	34.698	4.03	2.20	140.		35.4	32.6
6355B	1.640	34.698	4.06	2.21	139.		35.1	32.9
6657B	1.688	34.700	4.07		139.		35.3	33.1
6956B	1.732	34.699	4.07	2.35	139.		35.0	33.4
10889C	2.460	34.699	4.07	2.23	139.		35.2	39.0
10892C	2.462	34.699	4.06	2.23	139.		34.8	39.0

Z	T	S	O2	SIGT	DT	DD
0	28.28	34.433	4.72	21.899	592.8	0.000
10	28.07	34.475	4.63	21.997	585.3	0.059
20	27.90	34.509	4.57	22.080	575.4	0.117
30	27.79	34.520	4.58	22.123	571.3	0.174
50	27.62	34.541	4.59	22.196	564.3	0.288
75	27.46	34.573	4.61	22.269	557.4	0.429
100	27.15	34.703	4.65	22.468	538.3	0.567
125	26.02	34.945	4.61	23.009	486.6	0.696
150	23.44	35.069	4.33	23.878	403.6	0.809
200	18.18	34.844	3.93	25.429	284.4	0.984
250	13.09	34.488	2.89	26.997	201.9	1.109
300	10.27	34.344	2.66	26.415	162.4	1.203
400	8.49	34.502	2.33	26.829	123.0	1.353
500	7.15	34.475	1.61	27.005	106.3	1.475
600	6.40	34.502	1.76	27.129	94.4	1.584
700	5.89	34.521	1.81	27.209	86.9	1.683
800	5.37	34.527	1.76	27.278	80.3	1.777
1000	4.37	34.545	1.74	27.407	68.2	1.945
1200	3.62	34.569	1.83	27.504	58.9	2.092
1500	2.80	34.602	2.18	27.607	49.2	2.283
1750	2.39	34.620	2.37	27.656	44.5	2.424
2000	2.08	34.633	2.56	27.692	40.9	2.554
2250	1.88	34.647	2.72	27.719	38.5	2.677
2500	1.71	34.660	2.93	27.743	36.2	2.793
2750	1.63	34.669	3.08	27.756	35.0	2.906
3000	1.56	34.673	3.15	27.765	34.2	3.017
3250	1.52	34.678	3.27	27.772	33.6	3.127
3500	1.50	34.683	3.42	27.777	33.0	3.237
3750	1.48	34.686	3.54	27.781	32.7	3.347
4000	1.47	34.686	3.62	27.782	32.6	3.458
4250	1.46	34.690	3.72	27.786	32.2	3.570
4500	1.45	34.694	3.84	27.789	31.9	3.683
4750	1.46	34.695	3.94	27.790	31.9	3.796
5000	1.48	34.697	3.97	27.790	31.9	3.912
5250	1.50	34.698	4.00	27.789	31.9	4.029
5500	1.52	34.698	4.06	27.787	32.1	4.149
5750	1.56	34.699	4.04	27.785	32.3	4.273
6000	1.59	34.699	4.03	27.783	32.5	4.399
6250	1.62	34.699	4.05	27.781	32.8	4.528
6500	1.66	34.700	4.06	27.778	33.0	4.660
6750	1.70	34.700	4.07	27.776	33.2	4.796
7000	1.74	34.700	4.07	27.773	33.4	4.936
7250	1.79	34.699	4.07	27.769	33.5	5.077
7500	1.83	34.699	4.07	27.765	33.6	5.218
7750	1.88	34.699	4.07	27.761	33.7	5.361
8000	1.93	34.699	4.07	27.758	33.9	5.506
8250	1.97	34.699	4.07	27.754	34.1	5.654
8500	2.02	34.699	4.07	27.750	34.4	5.804
8750	2.06	34.699	4.07	27.747	34.7	5.958
9000	2.11	34.699	4.07	27.743	35.0	6.116
9250	2.16	34.699	4.07	27.739	35.4	6.279
9500	2.20	34.699	4.07	27.735	35.8	6.447
10000	2.30	34.699	4.07	27.728	36.8	6.801

RV THOMAS WASHINGTON — INDOPAC LEG III — 22

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
10 51.9N	140 10.6E	5/28/76	1216 1602 GMT	6048M	110	6KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.50	34.398	4.60	0.21	1.	0.00	0.1	602.2
31	28.30	34.387	4.59	0.16	1.	0.00	0.1	596.7
50	28.01	34.410	4.62	0.16	1.	0.00	0.1	586.0
76	27.87	34.491	4.62	0.16	1.	0.00	0.1	575.8
100	27.03	34.732	4.75	0.17	1.	0.00	0.1	532.5
126	26.45	34.950	4.70	0.16	1.	0.00	0.1	499.3
146	25.20	34.939	4.21	0.25	3.	0.25	0.7	406.2
166	21.14	34.909	3.97	0.38	3.	0.13	3.3	353.2
186	18.61	34.810	3.77	0.59	5.	0.00	6.5	297.3
210	15.96	34.648	3.60	0.85	9.	0.00	11.1	248.6
236	13.60		3.49	1.09	16.	0.00	15.0	
271	10.79	34.349	3.12	1.59	28.	0.00	21.7	170.6
305	10.25	34.439	2.11	2.03	34.	0.00	27.5	155.0
346	9.23	34.450	1.69	2.27	42.	0.00	31.5	137.9
401	8.14	34.496	1.41	2.56	50.	0.00	34.8	118.3
460	7.48	34.506	1.54	2.64	54.	0.00	35.7	106.3
541	6.57	34.497	1.78	2.67	64.	0.00	36.7	97.0
650	5.90	34.509	1.73	2.78	73.	0.00	37.6	87.8
801	5.09	34.533	1.77	2.80	87.	0.00	39.6	76.7
945A	4.46	34.549	1.79		100.	0.03	38.8	68.7
1099	3.96	34.567	2.00	2.78	110.	0.00	39.1	62.3
1146A	3.77	34.570	2.03	2.64	114.		39.3	60.3
1346A	3.14	34.588	2.11	2.82	129.	0.03	39.5	53.1
1596A	2.58	34.613	2.32	2.66	141.	0.00	39.7	46.5
1846A	2.22	34.628	2.52	2.62	148.	0.00	39.1	42.5
2146A	1.93	34.648	2.74	2.45	152.	0.00	38.7	38.7
2446A	1.80	34.657	2.90	2.44	155.	0.00	38.5	37.1
2746A	1.67	34.666	3.04	2.43	156.		38.0	35.5
3046A	1.60	34.671	3.19	2.57	156.		37.3	34.6
3347A	1.57	34.675	3.40	2.57	156.		37.6	34.1
3597A	1.52	34.682	3.41	2.54	154.	0.00	37.2	33.2
3798A	1.52	34.684	3.47	2.53	154.	0.00	36.6	33.1
3998A	1.50	34.685	3.57	2.52	152.	0.00	36.6	32.9
4199A	1.48	34.688	3.63	2.49	151.	0.00	36.2	32.6
4448A	1.48	34.693	3.74	2.44	148.	0.00	35.2	32.1
4747A	1.471	34.696	3.88	2.45	144.	0.00	34.5	31.9
5047A	1.466	34.700	4.03	2.39	141.	0.00	35.2	31.5
5349A	1.502	34.700	4.04	2.44	141.	0.00	35.0	31.8
5649A	1.540	34.699	4.03	2.46	141.	0.01	33.9	32.1
5949A	1.580	34.702	4.07	2.45	141.	0.00	34.6	32.1

Z	T	S	O2	SIGT	DT	DD
0	28.50	34.398	4.60	21.800	602.2	0.000
10	28.47	34.411	4.60	21.819	600.5	0.060
20	28.41	34.409	4.59	21.837	596.7	0.120
30	28.31	34.390	4.59	21.856	596.9	0.180
50	28.01	34.410	4.62	21.970	586.0	0.299
75	27.88	34.486	4.62	22.069	576.5	0.445
100	27.03	34.732	4.75	22.528	532.5	0.584
125	26.47	34.930	4.70	22.854	501.3	0.715
150	22.76	34.939	4.15	23.977	394.2	0.828
200	17.01	34.715	3.66	25.311	267.1	0.996
250	12.31	34.449	3.40	26.121	190.2	1.114
300	10.27	34.422	2.26	26.474	156.6	1.203
400	8.16	34.496	1.41	26.875	115.6	1.348
500	7.01	34.502	1.67	27.047	102.3	1.466
600	6.16	34.502	1.75	27.160	91.5	1.571
700	5.62	34.517	1.74	27.241	85.9	1.667
800	5.09	34.533	1.77	27.316	76.8	1.757
1000	4.28	34.557	1.86	27.426	66.4	1.919
1200	3.58	34.576	2.05	27.513	58.1	2.063
1500	2.77	34.605	2.23	27.612	48.7	2.252
1750	2.34	34.624	2.44	27.664	43.8	2.391
2000	2.05	34.637	2.64	27.698	40.3	2.519
2250	1.88	34.651	2.80	27.723	38.1	2.640
2500	1.77	34.659	2.93	27.738	36.8	2.757
2750	1.67	34.667	3.04	27.752	35.5	2.872
3000	1.61	34.671	3.16	27.759	34.7	2.985
3250	1.58	34.675	3.34	27.764	34.3	3.098
3500	1.54	34.680	3.41	27.772	33.6	3.210
3750	1.52	34.684	3.45	27.777	33.1	3.322
4000	1.50	34.686	3.57	27.779	32.9	3.435
4250	1.48	34.690	3.65	27.784	32.4	3.548
4500	1.48	34.694	3.76	27.788	32.1	3.661
4750	1.47	34.697	3.88	27.790	31.8	3.776
5000	1.47	34.700	4.01	27.793	31.5	3.891
5250	1.49	34.700	4.04	27.792	31.6	4.007
5500	1.52	34.700	4.03	27.789	31.9	4.127
5750	1.55	34.701	4.04	27.787	32.1	4.249
6000	1.59	34.702	4.08	27.786	32.2	4.374

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
11 20. N	142 10.5E	05/27/76	2216 GMT

Z	T	S	SIGMA T	DT	DD
0	28.21	34.46	21.942	588.6	0.000
10	28.17	34.47	21.963	586.7	0.059
20	27.96	34.52	22.069	576.5	0.117
30	27.81	34.57	22.155	568.2	0.174
40	27.68	34.59	22.212	562.8	0.231
50	27.59	34.60	22.249	559.2	0.287
75	27.45	34.60	22.294	554.9	0.427
100	27.01	34.76	22.556	529.9	0.564
125	25.60	34.99	23.171	471.1	0.690
150	23.75	35.06	23.781	412.8	0.802
175	20.57	35.03	24.652	329.6	0.896
200	18.41	34.83	25.059	291.0	0.975
225	14.69	34.54	25.704	229.7	1.042
250	12.88	34.49	26.041	197.7	1.097
275	11.11	34.34	26.262	176.7	1.146
300	10.55	34.36	26.378	165.8	1.190
350	9.18	34.40	26.640	140.8	1.270
400	8.61	34.50	26.809	124.8	1.340
450	7.76	34.48	26.922	114.1	1.404
500	7.16	34.50	27.024	104.4	1.462
550	6.64	34.49	27.088	98.4	1.517
600	6.37	34.51	27.139	93.5	1.569
650	6.17	34.51	27.166	91.0	1.620
700	5.88	34.51	27.202	87.5	1.669
750	5.71	34.51	27.224	85.5	1.717
800	5.46	34.52	27.262	81.8	1.764
850	5.28	34.52	27.284	79.8	1.809
900	4.94	34.53	27.332	75.3	1.853
950	4.69	34.53	27.360	72.6	1.895
100	4.44	34.54	27.396	69.2	1.245
1100	3.90	34.56	27.469	62.3	1.956
1200	3.53	34.57	27.514	58.0	2.026
1300	3.24	34.59	27.558	53.6	2.092
1387	3.02	34.60	27.586	51.2	2.146

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
10 51.9N	140 10.6E	05/28/76	1130 GMT

Z	T	S	SIGMA T	DT	DD
0	28.67	34.44	21.775	604.6	0.000
10	28.54	34.43	21.811	601.2	0.060
20	28.34	34.42	21.869	595.6	0.120
30	28.20	34.42	21.915	591.2	0.180
40	28.07	34.42	21.958	587.1	0.239
50	28.03	34.43	21.978	585.2	0.298
75	27.73	34.53	22.151	568.6	0.442
100	27.16	34.75	22.500	535.2	0.581
125	26.62	34.90	22.785	508.0	0.713
150	23.45	34.95	23.786	412.4	0.829
175	20.22	34.86	24.616	333.2	0.924
200	17.39	34.71	25.218	276.0	1.002
225	14.70	34.55	25.709	229.2	1.066
250	13.15	34.48	25.979	203.6	1.122
275	11.24	34.34	26.238	179.0	1.172
300	9.94	34.34	26.467	157.2	1.215
350	8.78	34.45	26.743	131.1	1.291
400	8.19	34.48	26.858	120.2	1.357
450	7.54	34.49	26.962	110.3	1.418
500	7.09	34.50	27.034	103.5	1.475
550	6.62	34.49	27.090	98.1	1.530
600	6.26	34.51	27.134	92.1	1.582
650	5.97	34.51	27.191	88.6	1.631
700	5.84	34.51	27.208	87.0	1.679
750	5.57	34.52	27.249	83.1	1.727
800	5.25	34.52	27.288	79.5	1.772
850	4.89	34.53	27.337	74.7	1.815
900	4.63	34.54	27.375	71.2	1.857
950	4.40	34.55	27.408	68.0	1.896
1000	4.21	34.55	27.428	66.1	1.935
1100	3.90	34.56	27.469	62.3	2.008
1200	3.60	34.58	27.515	57.9	2.078
1300	3.39	34.58	27.536	56.0	2.145
1400	2.96	34.59	27.584	51.4	2.209
1500	2.77	34.60	27.609	49.0	2.268
1600	2.587	34.612	27.634	46.6	2.326
1700	2.422	34.622	27.657	44.5	2.380
1800	2.276	34.631	27.676	42.7	2.433
1900	2.145	34.636	27.691	41.3	2.484
2000	2.025	34.645	27.707	39.7	2.534
2100	1.945	34.649	27.717	38.8	2.582
2200	1.903	34.653	27.723	38.2	2.630
2300	1.866	34.654	27.727	37.8	2.677
2400	1.806	34.661	27.737	36.9	2.724
2500	1.740	34.665	27.745	36.1	2.770
2600	1.720	34.667	27.749	35.8	2.815
2700	1.708	34.666	27.749	35.8	2.861
2800	1.669	34.668	27.753	35.3	2.907
2900	1.645	34.669	27.756	35.1	2.952
3000	1.635	34.669	27.756	35.0	2.997
3100	1.609	34.672	27.761	34.6	3.043
3200	1.589	34.674	27.764	34.3	3.088
3300	1.567	34.676	27.767	34.0	3.133
3400	1.543	34.679	27.771	33.6	3.177
3500	1.526	34.681	27.774	33.4	3.222
3600	1.523	34.682	27.775	33.3	3.267
3700	1.522	34.683	27.776	33.2	3.311
3800	1.512	34.684	27.778	33.0	3.356
3900	1.513	34.685	27.778	33.0	3.401
4000	1.485	34.687	27.782	32.6	3.446
4100	1.483	34.689	27.784	32.5	3.491
4200	1.485	34.689	27.784	32.5	3.536
4300	1.495	34.690	27.784	32.5	3.582
4400	1.480	34.692	27.786	32.2	3.627
4500	1.465	34.694	27.789	32.0	3.673
4600	1.466	34.695	27.790	31.9	3.718
4700	1.465	34.696	27.791	31.8	3.763
4800	1.477	34.696	27.790	31.9	3.809
4900	1.480	34.697	27.790	31.8	3.856
5000	1.484	34.698	27.791	31.8	3.902
5100	1.476	34.699	27.792	31.7	3.949
5200	1.485	34.699	27.791	31.7	3.995
5300	1.496	34.700	27.791	31.7	4.043
5400	1.509	34.700	27.791	31.8	4.090
5500	1.521	34.700	27.790	31.9	4.138
5600	1.532	34.700	27.789	32.0	4.187
5700	1.548	34.699	27.787	32.2	4.236
5800	1.559	34.698	27.785	32.3	4.286
5900	1.571	34.698	27.784	32.4	4.336

RV THOMAS WASHINGTON INDOPAC LEG III 23

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
12 59.8N	138 58.9E	5/29/76	0625 0855 GMT	5000M	070	4KT	1	070 3 10

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.84	34.420	4.55	0.06	2.		0.0	611.5	0	28.84	34.420	4.55	21.704	611.5	0.000
10	28.45	34.399	4.61	0.06	2.		0.0	600.6	10	28.45	34.399	4.61	21.817	600.6	0.061
31	27.86	34.412	4.61	0.08	2.		0.0	581.1	20	28.11	34.402	4.61	21.930	589.8	0.120
45	27.81	34.414	4.58	0.06	2.		0.0	579.4	30	27.88	34.411	4.61	22.014	581.8	0.179
60	27.77	34.415	4.59	0.10	2.		0.0	578.1	50	27.80	34.415	4.58	22.043	579.0	0.295
81	27.31	34.660	4.70	0.14	2.		0.0	546.3	75	27.45	34.581	4.67	22.279	556.4	0.438
100	27.17	34.810	4.66	0.10	2.		0.0	531.2	100	27.17	34.810	4.66	22.542	531.2	0.575
121	26.77	34.898	4.65	0.10	2.		0.0	512.7	125	26.61	34.918	4.62	22.805	506.3	0.706
140	25.77	34.990	4.46	0.10	2.		0.0	476.1	150	24.95	35.023	4.34	23.396	449.6	0.826
170	22.96	35.041	4.11	0.16	3.		1.0	392.3	200	19.60	34.910	3.94	24.817	314.1	1.021
201	19.49	34.905	3.94	0.36	5.		4.3	311.7	250	15.19	34.631	4.00	25.665	233.5	1.161
235	16.05	34.685	4.06	0.57	9.		7.3	247.9	300	12.60	34.465	3.36	26.078	194.2	1.272
275	14.05	34.545	3.89	0.89	14.		12.0	216.4	400	8.72	34.325	2.25	26.655	139.5	1.446
321	11.42	34.413	2.88	1.51	27.		21.6	176.8	500	7.48	34.419	1.61	26.914	114.9	1.581
385	9.02	34.312	2.40	1.99	42.		27.0	144.9	600	6.39	34.428	1.71	27.072	99.9	1.697
486	7.66	34.418	1.61	2.41	56.		33.4	117.3	700	5.57	34.474	1.75	27.212	86.6	1.799
551	6.88	34.413	1.71	2.41	64.		36.5	107.2	800	4.91	34.517	1.87	27.324	76.0	1.889
655	5.92	34.452	1.70	2.59	78.		36.6	92.5	1000	4.15	34.546	2.04	27.432	65.8	2.049
817A	4.82	34.523	1.90	2.59	94.		38.5	74.5	1200	3.54	34.568	2.07	27.510	58.4	2.193
1017A	4.10	34.546	2.05	2.58	108.		38.6	65.3	1500	2.83	34.597	2.24	27.600	49.8	2.364
1256A	3.39	34.572	2.07	2.63	124.		39.6	56.6	1750	2.43	34.616	2.40	27.650	45.1	2.527
1505A	2.82	34.596	2.24	2.67	136.		39.2	49.7	2000	2.11	34.636	2.63	27.693	41.0	2.658
1804A	2.36	34.619	2.44	2.62	145.		39.0	44.2	2250	1.90	34.647	2.81	27.719	38.4	2.781
2102A	2.00	34.643	2.73	2.60	152.		38.4	39.6	2500	1.77	34.657	2.92	27.735	37.0	2.899
2404A	1.82	34.653	2.88	2.53	156.		39.0	37.6	2750	1.67	34.665	3.02	27.750	35.6	3.014
2702A	1.692	34.663	3.00	2.49	156.		38.1	35.9	3000	1.59	34.673	3.13	27.762	34.5	3.127
3002A	1.594	34.672	3.13	2.49	156.		37.8	34.5	3250	1.55	34.678	3.30	27.769	33.8	3.238
3301A	1.539	34.678	3.34	2.41	153.		37.1	33.7	3500	1.52	34.681	3.44	27.774	33.4	3.349
3551A	1.518	34.681	3.46	2.40	152.		36.9	33.3	3750	1.51	34.685	3.47	27.777	33.0	3.461
3751A	1.512	34.684	3.47	2.46	152.		36.6	33.0	4000	1.52	34.686	3.54	27.779	32.9	3.574
3951A	1.514	34.685	3.53	2.37	152.		36.6	33.0	4250	1.52	34.690	3.60	27.782	32.7	3.688
4142A	1.518	34.688	3.56	2.44	152.		36.3	32.8	4500	1.50	34.692	3.71	27.784	32.4	3.803
4392A	1.512	34.691	3.66	2.45	149.		35.9	32.5	4750	1.49	34.694	3.84	27.787	32.2	3.918
4697A	1.488	34.693	4.030	2.35	146.		35.8	32.2	5000	1.50	34.696	3.99	27.788	32.1	4.035

RV THOMAS WASHINGTON INDOPAC LEG III 24

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
13 03.0N	136 29.5E	5/29/76	2344 0239 GMT	5461M	070	4KT	1	070 2 8

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	29.02	34.295	4.55	0.08	1.	0.00	0.0	626.2	0	29.02	34.295	4.55	21.550	626.2	0.000
20	28.39	34.356	4.70	0.09	1.	0.00	0.0	601.8	10	28.64	34.316	4.64	21.691	612.7	0.062
41	28.26	34.503	4.74	0.09	1.	0.00	0.0	587.1	20	28.39	34.356	4.70	21.805	601.8	0.123
62	27.52	34.707	4.93	0.06	0.	0.00	0.0	549.4	30	28.33	34.419	4.72	21.870	595.5	0.183
87	27.01	34.812	4.88	0.04	0.	0.00	0.0	526.2	50	27.96	34.594	4.83	22.123	571.3	0.300
112	26.15	34.963	4.64	0.07	0.	0.00	0.0	489.3	75	27.25	34.769	4.90	22.485	536.7	0.439
132	25.45	35.012	4.51	0.08	0.	0.03	0.0	465.1	100	26.59	34.893	4.76	22.791	507.4	0.570
152	23.76	35.049	4.25	0.12	1.	0.05	0.6	413.9	125	25.75	35.000	4.56	23.132	474.8	0.694
171	22.36	35.015	4.12	0.20	2.	0.10	1.7	377.8	150	23.95	35.047	4.28	23.713	419.3	0.807
201	19.86	34.895	3.95	0.36	4.	0.06	4.2	321.6	200	19.95	34.899	3.95	24.719	323.5	0.996
231	17.40	34.788	4.16	0.43	5.	0.08	6.1	270.5	250	15.68	34.662	4.22	25.578	241.7	1.141
271	13.99	34.533	4.29	0.70	11.	0.38	8.8	216.1	300	12.71	34.439	4.13	26.035	198.3	1.255
310	12.36	34.410	4.06	1.06	18.	0.01	14.6	193.9	400	9.30	34.410	2.15	26.628	142.0	1.433
345A	10.71	34.323	3.53	1.40	24.	0.00	16.9	171.2	500	7.40	34.411	1.67	26.919	114.4	1.569
419	8.98	34.451	1.71	2.26	42.	0.14	31.9	134.0	600	6.36	34.412	1.69	27.062	100.8	1.685
510	7.25	34.400	1.66	2.49	58.	0.00	33.7	113.1	700	5.57	34.461	1.80	27.202	87.6	1.788
546A	6.87	34.394	1.65	2.52	65.	0.00	34.8	108.5	800	4.99	34.504	1.91	27.306	77.7	1.880
745A	5.28	34.489	1.87	2.65	86.	0.00	37.4	82.1	1000	4.17	34.536	2.02	27.421	66.8	2.043
995A	4.19	34.535	2.02	2.74	106.	0.00	38.6	67.0	1200	3.47	34.562	2.14	27.512	58.2	2.187
1245A	3.34	34.566	2.17	2.70	125.	0.00	38.1	56.6	1500	2.73	34.597	2.31	27.609	49.0	2.376
1544A	2.65	34.600	2.34	2.52	139.	0.02	38.6	48.0	1750	2.33	34.622	2.49	27.663	43.9	2.515
1843A	2.22	34.629	2.56	2.41	146.	0.01	38.1	42.4	2000	2.05	34.641	2.69	27.701	40.3	2.643
2141A	1.93	34.647	2.80	2.49	151.	0.01	38.6	38.8	2250	1.87	34.655	2.87	27.723	38.1	2.764
2440A	1.80	34.656	2.98	2.54	153.	0.01	38.0	37.2	2500	1.78	34.658	3.01	27.737	36.9	2.881
2738A	1.69	34.664	3.11	2.50	154.	0.00	38.0	35.8	2750	1.69	34.665	3.12	27.749	35.7	2.997
2987A	1.617	34.671	3.23	2.54	153.	0.02	37.4	34.7	3000	1.61	34.672	3.24	27.760	34.7	3.110
3186A	1.577	34.675	3.36	2.49	152.	0.02	37.1	34.2	3250	1.57	34.677	3.40	27.767	34.0	3.222
3385A	1.550	34.678	3.48	2.46	151.	0.00	36.8	33.7	3500	1.53	34.680	3.52	27.773	33.5	3.334
3585A	1.516	34.681	3.54	2.41	150.	0.01	36.3	33.3	3750	1.49	34.685	3.63	27.779	32.9	3.446
3833A	1.488	34.686	3.67	2.40	148.	0.00	36.1	32.7	4000	1.49	34.688	3.71	27.782	32.6	3.557
4133A	1.503	34.689	3.73	2.41	147.	0.00	35.8	32.6	4250	1.51	34.690	3.75	27.782	32.6	3.671
4433A	1.523	34.689	3.77	2.40	147.	0.00	36.2	32.7	4500	1.53	34.689	3.77	27.780	32.8	3.786
4734A	1.557	34.687	3.76	2.40	146.	0.01	35.5	33.1	4750	1.56	34.688	3.76	27.777	33.1	3.905
5035A	1.590	34.690	3.78	2.44	146.	0.00	36.1	33.1	5000	1.59	34.690	3.78	27.777	33.1	4.026
5338A	1.632	34.689	3.86	2.40	146.	0.00	35.6	33.5	5250	1.62	34.690	3.83	27.774	33.3	4.150

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
12 59,6N	138 58,9E	05/29/76	0454 GMT

Z	T	S	SIGMA T	DT	DD
0	28,87	34,43	21.701	611.7	0.000
10	28,53	34,42	21,807	601,6	0,061
20	27,90	34,41	21,986	584,4	0,120
30	27,86	34,42	22,026	580,6	0,178
40	27,82	34,43	22,047	578,6	0,237
50	27,80	34,43	22,053	578,0	0,295
75	27,62	34,52	22,179	565,9	0,438
100	27,18	34,79	22,524	532,9	0,576
125	26,66	34,93	22,795	507,0	0,708
150	25,30	35,04	23,301	458,7	0,830
175	23,23	35,09	23,956	396,2	0,938
200	18,83	34,87	24,984	298,2	1,027
225	17,02	34,75	25,337	264,7	1,099
250	15,47	34,64	25,609	238,7	1,163
275	14,01	34,53	25,841	216,7	1,222
300	13,41	34,50	25,942	207,1	1,277
350	11,00	34,41	26,336	169,7	1,375
400	9,14	34,32	26,584	146,2	1,458
450	8,48	34,44	26,782	127,4	1,531
500	7,53	34,40	26,893	116,9	1,596
550	6,87	34,40	26,986	108,1	1,656
600	6,24	34,42	27,086	98,6	1,712
650	5,79	34,44	27,159	91,7	1,764
700	5,45	34,47	27,224	85,5	1,813
750	5,22	34,48	27,259	82,1	1,859
800	5,03	34,51	27,306	77,8	1,903
850	4,74	34,51	27,339	74,6	1,946
900	4,56	34,52	27,367	72,0	1,987
950	4,38	34,53	27,394	69,3	2,027
1000	4,19	34,54	27,423	66,6	2,066
1100	3,81	34,55	27,470	62,2	2,140
1200	3,50	34,56	27,509	58,5	2,210
1300	3,25	34,57	27,541	55,4	2,277
1400	2,97	34,58	27,575	52,2	2,340
1500	2,79	34,59	27,599	49,9	2,400
1600	2,624	34,603	27,624	47,6	2,459
1700	2,464	34,613	27,646	45,5	2,515
1800	2,337	34,618	27,660	44,1	2,569
1900	2,209	34,625	27,677	42,6	2,622
2000	2,100	34,635	27,693	41,0	2,673
2100	1,987	34,641	27,707	39,7	2,722
2200	1,929	34,645	27,715	39,0	2,771
2300	1,869	34,650	27,724	38,1	2,819
2400	1,818	34,653	27,730	37,6	2,866
2500	1,769	34,658	27,738	36,8	2,913
2600	1,724	34,662	27,744	36,2	2,959
2700	1,700	34,665	27,748	35,8	3,005
2800	1,673	34,667	27,752	35,5	3,051
2900	1,645	34,670	27,757	35,0	3,096
3000	1,609	34,674	27,762	34,5	3,141
3100	1,581	34,676	27,766	34,1	3,186
3200	1,567	34,678	27,769	33,9	3,230
3300	1,548	34,680	27,772	33,6	3,275
3400	1,546	34,681	27,773	33,5	3,319
3500	1,529	34,683	27,775	33,2	3,363
3600	1,526	34,684	27,777	33,1	3,408
3700	1,516	34,685	27,778	33,0	3,453
3800	1,517	34,685	27,778	33,0	3,497
3900	1,516	34,685	27,778	33,0	3,542
4000	1,515	34,687	27,780	32,8	3,588
4100	1,515	34,687	27,780	32,8	3,633
4200	1,519	34,688	27,780	32,8	3,679
4300	1,515	34,687	27,780	32,8	3,725
4400	1,508	34,690	27,783	32,6	3,771
4500	1,497	34,691	27,784	32,4	3,817
4600	1,477	34,693	27,787	32,1	3,863
4700	1,483	34,693	27,787	32,2	3,909
4800	1,494	34,692	27,785	32,3	3,955
4900	1,506	34,691	27,784	32,5	4,002
5000	1,511	34,691	27,783	32,5	4,050
5042	1,510	34,691	27,783	32,5	4,070

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
13 03,0N	136 29,5E	05/30/76	0017 GMT

Z	T	S	SIGMA T	DT	DD
0	28,91	34,33	21.613	620,2	0.000
10	28,80	34,35	21,665	615,2	0,062
20	28,55	34,40	21,785	603,7	0,123
30	28,38	34,44	21,871	595,4	0,183
40	28,37	34,51	21,927	590,1	0,242
50	28,21	34,55	22,010	582,2	0,301
75	27,41	34,75	22,420	542,9	0,442
100	26,92	34,88	22,674	518,5	0,576
125	25,96	35,01	23,075	480,3	0,702
150	24,71	35,08	23,510	438,7	0,818
175	22,36	35,10	24,212	371,7	0,921
200	20,54	34,95	24,600	334,8	1,011
225	17,70	34,82	25,227	275,1	1,089
250	15,64	34,65	25,579	241,6	1,156
275	13,73	34,50	25,876	213,4	1,214
300	12,51	34,42	26,060	195,9	1,267
350	10,25	34,30	26,383	165,2	1,361
400	8,92	34,39	26,674	137,6	1,441
450	8,30	34,44	26,810	124,7	1,510
500	7,30	34,39	26,918	114,5	1,574
550	6,68	34,40	27,012	105,6	1,633
600	6,28	34,42	27,080	99,1	1,689
650	5,98	34,44	27,135	93,9	1,741
700	5,64	34,47	27,201	87,7	1,791
750	5,29	34,48	27,251	82,9	1,838
800	5,09	34,49	27,283	79,9	1,884
850	4,91	34,51	27,319	76,4	1,927
900	4,71	34,52	27,350	73,5	1,970
950	4,46	34,53	27,386	70,2	2,010
1000	4,29	34,54	27,412	67,7	2,050
1100	3,94	34,55	27,457	63,4	2,125
1200	3,58	34,56	27,504	58,9	2,196
1300	3,30	34,57	27,536	55,9	2,263
1400	3,07	34,58	27,566	53,1	2,327
1500	2,80	34,59	27,598	50,0	2,389
1600	2,591	34,601	27,625	47,5	2,447
1700	2,454	34,610	27,644	45,7	2,503
1800	2,318	34,618	27,662	44,0	2,557
1900	2,222	34,626	27,676	42,6	2,610
2000	2,109	34,633	27,691	41,2	2,661
2100	2,006	34,640	27,705	39,9	2,711
2200	1,921	34,646	27,716	38,8	2,760
2300	1,871	34,649	27,723	38,2	2,807
2400	1,814	34,653	27,730	37,5	2,855
2500	1,775	34,656	27,736	37,0	2,902
2600	1,733	34,660	27,742	36,4	2,948
2700	1,700	34,663	27,747	35,9	2,994
2800	1,674	34,665	27,750	35,6	3,040
2900	1,657	34,667	27,753	35,3	3,085
3000	1,627	34,670	27,758	34,9	3,131
3100	1,608	34,672	27,761	34,6	3,176
3200	1,593	34,673	27,763	34,4	3,221
3300	1,580	34,674	27,765	34,3	3,267
3400	1,559	34,677	27,769	33,9	3,312
3500	1,551	34,678	27,770	33,8	3,357
3600	1,534	34,679	27,772	33,6	3,402
3700	1,516	34,681	27,775	33,3	3,447
3800	1,502	34,683	27,778	33,0	3,492
3900	1,505	34,684	27,778	33,0	3,537
4000	1,498	34,685	27,779	32,9	3,582
4100	1,501	34,685	27,779	32,9	3,627
4200	1,506	34,686	27,780	32,8	3,673
4300	1,513	34,687	27,780	32,8	3,719
4400	1,521	34,687	27,779	32,9	3,765
4500	1,531	34,687	27,779	32,9	3,812
4600	1,542	34,688	27,779	32,9	3,859
4700	1,553	34,688	27,778	33,0	3,906
4800	1,563	34,688	27,777	33,1	3,954
4900	1,576	34,688	27,776	33,2	4,003
5000	1,586	34,689	27,776	33,2	4,051
5100	1,599	34,690	27,776	33,2	4,101
5200	1,611	34,690	27,775	33,3	4,150
5300	1,624	34,690	27,774	33,4	4,201
5365	1,632	34,691	27,774	33,3	4,233

RV THOMAS WASHINGTON INDOPAC LEG III 25

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
12 59.3N	133 58.2E	5/30/76	1659 2037	GMT 5517M	040	8KT	1	060 2 8

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.77	34.486	4.53	0.08	1.	0.00	0.0	604.5	0	28.77	34.486	4.53	21.776	604.5	0.000
26	28.36	34.474	4.59	0.05	1.	0.00	0.0	592.4	10	28.61	34.480	4.55	21.825	599.8	0.060
50	28.02	34.481	4.64	0.09	1.	0.00	0.0	581.2	20	28.45	34.476	4.58	21.874	595.2	0.120
76	27.15	34.676	4.70	0.08	1.	0.00	0.0	540.2	30	28.32	34.470	4.60	21.913	591.4	0.179
100	26.86	34.753	4.70	0.08	1.	0.00	0.0	525.8	50	28.02	34.481	4.64	22.020	581.2	0.297
126	26.08	34.921	4.51	0.08	1.	0.00	0.0	490.5	75	27.18	34.668	4.70	22.451	541.8	0.458
151	24.38	34.945	4.16	0.22	2.	0.14	0.9	438.9	100	26.86	34.753	4.70	22.598	525.8	0.572
181	21.04	34.938	3.91	0.56	4.	0.00	3.0	348.5	125	26.12	34.914	4.[illegible]	22.956	492.0	0.761
211	18.17	34.799	3.76	0.54	7.	0.00	7.0	287.6	150	24.47	34.946	4.[illegible]	23.462	441.4	0.819
251	14.64	34.602	3.35	1.05	15.	0.00	14.5	224.2	200	19.18	34.858	3.82	24.885	307.6	1.009
300	12.07	34.433	3.08	1.41	23.	0.00	19.6	186.9	250	14.72	34.688	3.36	25.749	225.5	1.146
351	9.75	34.308	2.79	1.69	34.	0.00	25.1	156.6	300	12.07	34.433	3.08	26.155	186.9	1.253
410	8.14	34.334	1.89	2.26	50.	0.00	32.2	130.5	400	8.35	34.324	2.04	26.711	134.1	1.421
499	7.02	34.403	1.57	2.48	62.	0.00	36.5	109.8	500	7.01	34.404	1.57	26.969	109.6	1.550
598	6.18	34.440	1.66	2.56	72.	0.00	37.8	96.4	600	6.17	34.441	1.66	27.112	96.1	1.661
747	5.25	34.496	1.85	2.64	84.	0.00	38.6	81.[illegible]	700	5.50	34.481	1.79	27.226	85.3	1.760
897A	4.67	34.522	1.94		97.		37.2	73.0	800	5.06	34.508	1.89	27.303	78.0	1.851
999	4.20	34.540	1.99	2.71	104.		39.6	66.8	1000	4.20	34.541	1.99	27.422	66.7	2.014
1096A	3.86	34.553	2.02	2.44	113.		38.6	62.4	1200	3.56	34.564	2.09	27.506	58.7	2.159
1347A	3.19	34.577	2.19	2.76	127.		38.4	54.4	1500	2.84	34.594	2.26	27.597	50.2	2.351
1596A	2.65	34.602	2.31	2.39	138.		39.0	47.9	1750	2.41	34.617	2.42	27.655	44.1	2.494
1896A	2.23	34.627	2.54	2.31	146.		38.6	42.6	2000	2.12	34.632	2.62	27.689	41.3	2.625
2197A	1.94	34.643	2.76	2.37	150.		38.8	39.2	2250	1.90	34.646	2.79	27.717	38.7	2.749
2497A	1.75	34.657	2.93	2.33	152.		37.9	36.8	2500	1.75	34.658	2.93	27.738	36.7	2.867
2797A	1.65	34.664	3.15	2.22	152.		37.7	35.5	2750	1.66	34.663	3.12	27.749	35.7	2.981
3098A	1.563	34.673	3.79U	2.41	150.		36.8	34.2	3000	1.59	34.670	3.27	27.761	34.6	3.094
3397A	1.565	34.674	3.44	2.40	149.		36.6	34.2	3250	1.56	34.674	3.39	27.765	34.2	3.206
3695A	1.566	34.678	3.48	2.42	149.		36.5	33.9	3500	1.57	34.676	3.45	27.767	34.1	3.319
3946A	1.574	34.680	3.66	2.34	148.		35.3	33.8	3750	1.57	34.679	3.53	27.769	33.8	3.433
4146A	1.568	34.680	3.56	2.46	148.		35.8	33.9	4000	1.58	34.681	3.64	27.770	33.8	3.549
4345A	1.615	34.680	3.54	2.47	148.		36.4	34.1	4250	1.60	34.681	3.55	27.768	34.0	3.668
4595A	1.644	34.681	3.29U	2.48	148.		35.7	34.2	4500	1.63	34.681	3.54	27.766	34.1	3.789
4895A	1.679	34.680	3.55	2.46	148.		35.7	34.5	4750	1.66	34.681	3.55	27.764	34.3	3.913
5196A	1.718	34.682	3.61	2.43	148.		36.8	34.6	5000	1.69	34.681	3.57	27.762	34.5	4.040

RV THOMAS WASHINGTON INDOPAC LEG III 26

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
13 00.5N	132 29. E	5/31/76	0548 0849	GMT 5717M	040	11KT	1	070 2 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	29.25	34.449	4.61	0.11	2.	0.00	0.0	622.5	0	29.25	34.449	4.61	21.588	622.5	0.000
26	28.44	34.449	4.65	0.09	2.	0.00	0.0	596.7	10	28.90	34.435	4.62	21.694	612.4	0.062
51	27.94	34.560	4.70	0.09	2.	0.00	0.0	573.0	20	28.60	34.439	4.64	21.797	602.5	0.123
77	27.37	34.585	4.81	0.10	2.	0.00	0.0	553.5	30	28.35	34.467	4.66	21.900	592.7	0.182
101	26.69	34.675	4.76	0.08	2.	0.00	0.0	526.3	50	27.96	34.556	4.70	22.096	573.9	0.299
126	25.88	34.827	4.64	0.08	2.	0.01	0.0	491.1	75	27.42	34.585	4.80	22.292	555.1	0.441
151	24.58	35.012	4.29	0.19	2.	0.03	0.4	439.8	100	26.72	34.671	4.76	22.580	527.6	0.577
180	22.68	34.988	4.10	0.25	3.	0.06	0.8	388.5	125	25.92	34.820	4.65	22.945	492.7	0.706
211	19.55	34.903	3.92	0.39	5.	0.11	4.8	313.4	150	24.64	35.006	4.30	23.476	442.0	0.824
241	16.95	34.746	3.98	0.59	8.	0.04	7.4	263.4	200	20.70	34.937	3.97	24.547	339.8	1.023
271	14.89	34.589	3.95	0.78	12.	0.11	10.6	230.3	250	16.31	34.701	3.97	25.464	252.5	1.175
300	12.73	34.443	3.62	1.16	19.	0.11	15.6	198.3	300	12.73	34.443	3.62	26.035	198.3	1.291
340	10.64	34.315	3.33	1.56	29.	0.03	20.4	170.6	400	8.90	34.285	2.60	26.594	145.2	1.471
402	8.87	34.286	2.57	2.02	43.	0.00	27.3	144.6	500	7.44	34.415	1.62	26.916	114.6	1.609
453	8.33	34.412	1.65	2.41	50.	0.00	33.1	127.3	600	6.28	34.428	1.69	27.087	98.5	1.724
495A	7.52	34.414	1.62	2.44	58.	0.01	33.4	115.7	700	5.49	34.474	1.81	27.222	85.7	1.824
607	6.22	34.429	1.69	2.73U	74.	0.00	36.2	97.7	800	4.93	34.508	1.91	27.315	76.9	1.914
694A	5.53	34.471	1.80	2.36	83.		36.8	86.3	1000	4.14	34.545	2.06	27.431	65.9	2.076
945A	4.34	34.537	2.03	2.58	104.		37.6	68.4	1200	3.54	34.562	2.15	27.506	58.8	2.219
1194A	3.56	34.561	2.15	2.61	122.		39.0	59.0	1500	2.83	34.591	2.33	27.595	50.3	2.412
1495A	2.84	34.589	2.33	2.37U	137.		39.2	50.4	1750	2.45	34.612	2.50	27.645	45.5	2.556
1795A	2.39	34.614	2.53	2.61	146.		39.2	44.8	2000	2.15	34.627	2.65	27.683	41.9	2.689
2095A	2.05	34.634	2.71	2.58	152.		38.6	40.7	2250	1.92	34.642	2.82	27.712	39.1	2.814
2396A	1.83	34.650	2.92	2.61	154.		38.5	37.9	2500	1.77	34.654	2.99	27.733	37.2	2.933
2696A	1.69	34.660	3.10	2.57	155.		37.9	36.1	2750	1.67	34.662	3.13	27.748	35.8	3.049
2996A	1.60	34.668	3.26	2.54	154.		37.9	34.9	3000	1.60	34.669	3.26	27.758	34.8	3.162
3297A	1.571	34.673	3.41	2.56	153.		37.3	34.3	3250	1.57	34.673	3.39	27.763	34.3	3.275
3547A	1.544	34.678	3.47	2.52	151.		36.3	33.7	3500	1.55	34.678	3.46	27.769	33.8	3.388
3748A	1.543	34.680	3.49	2.58	151.		36.2	33.6	3750	1.54	34.681	3.49	27.772	33.6	3.501
3947A	1.560	34.680	3.50	2.54	151.		36.7	33.7	4000	1.57	34.680	3.51	27.770	33.7	3.617
4199A	1.592	34.679	3.55	2.55	150.		35.8	34.0	4250	1.60	34.680	3.56	27.768	34.0	3.735
4499A	1.620	34.681	3.58	2.61	150.		35.8	34.0	4500	1.62	34.682	3.58	27.767	34.0	3.856
4801A	1.664	34.681	3.56	2.58	150.		36.8	34.3	4750	1.66	34.682	3.56	27.764	34.3	3.979
5101A	1.701	34.681	3.57	2.61	150.		36.1	34.6	5000	1.69	34.682	3.57	27.762	34.5	4.106
5402A	1.734	34.682	3.55	2.58	150.		35.8	34.7	5250	1.72	34.682	3.56	27.760	34.7	4.236
5703A	1.779	34.682	3.57	2.58	150.		36.0	35.1	5500	1.75	34.683	3.55	27.758	34.8	4.369

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
12 59.3N	133 58.2E	05/30/76	1917 GMT

Z	T	S	SIGMA T	DT	DD
0	28.97	34.51	21.728	609.1	0.000
10	28.93	34.52	21.749	607.2	0.061
20	28.74	34.53	21.819	600.4	0.121
30	28.46	34.52	21.905	592.2	0.181
40	28.31	34.51	21.947	588.2	0.240
50	28.18	34.52	21.997	583.4	0.299
75	27.48	34.64	22.315	553.0	0.442
100	27.08	34.71	22.496	535.6	0.579
125	26.84	34.78	22.625	523.3	0.712
150	26.29	34.92	22.904	496.6	0.841
175	24.68	34.97	23.436	445.7	0.960
200	21.93	34.96	24.227	370.3	1.064
225	19.18	34.84	24.872	308.9	1.151
250	16.99	34.73	25.328	265.4	1.225
275	15.30	34.62	25.632	236.6	1.289
300	13.68	34.56	25.933	208.0	1.347
350	11.33	34.36	26.237	179.1	1.448
400	9.28	34.31	26.554	149.0	1.534
450	8.14	34.33	26.748	130.6	1.608
500	7.27	34.36	26.899	116.3	1.674
550	6.78	34.41	27.006	106.2	1.733
600	6.35	34.44	27.087	98.5	1.789
650	6.03	34.44	27.128	94.5	1.841
700	5.71	34.46	27.184	89.2	1.892
750	5.37	34.48	27.242	83.8	1.939
800	5.12	34.50	27.287	79.5	1.985
850	4.91	34.51	27.319	76.4	2.029
900	4.65	34.52	27.357	72.9	2.071
950	4.38	34.53	27.394	69.3	2.111
1000	4.20	34.54	27.422	66.8	2.150
1100	3.86	34.55	27.465	62.6	2.224
1200	3.58	34.56	27.501	59.2	2.295
1300	3.30	34.57	27.536	55.9	2.362
1400	3.09	34.58	27.564	53.3	2.427
1500	2.83	34.59	27.596	50.3	2.488
1600	2.639	34.602	27.622	47.8	2.547
1700	2.472	34.612	27.644	45.7	2.603
1800	2.380	34.619	27.658	44.4	2.657
1900	2.246	34.626	27.674	42.8	2.711
2000	2.132	34.633	27.689	41.4	2.762
2100	2.036	34.639	27.702	40.2	2.812
2200	1.944	34.643	27.712	39.2	2.862
2300	1.867	34.649	27.723	38.2	2.910
2400	1.808	34.654	27.731	37.4	2.957
2500	1.756	34.658	27.739	36.7	3.004
2600	1.714	34.661	27.744	36.2	3.050
2700	1.671	34.664	27.750	35.7	3.095
2800	1.645	34.666	27.753	35.3	3.141
2900	1.613	34.669	27.758	34.9	3.186
3000	1.590	34.671	27.761	34.6	3.230
3100	1.574	34.671	27.763	34.5	3.275
3200	1.571	34.674	27.765	34.2	3.320
3300	1.572	34.674	27.765	34.2	3.365
3400	1.570	34.675	27.766	34.1	3.410
3500	1.567	34.676	27.767	34.0	3.455
3600	1.569	34.677	27.768	34.0	3.501
3700	1.574	34.677	27.767	34.0	3.547
3800	1.570	34.678	27.769	33.9	3.593
3900	1.573	34.679	27.769	33.8	3.640
4000	1.580	34.679	27.769	33.9	3.686
4100	1.587	34.680	27.769	33.9	3.733
4200	1.596	34.680	27.768	33.9	3.781
4300	1.606	34.681	27.768	33.9	3.829
4400	1.616	34.681	27.768	34.0	3.877
4500	1.628	34.681	27.767	34.1	3.926
4600	1.639	34.681	27.766	34.1	3.975
4700	1.650	34.682	27.766	34.1	4.024
4800	1.664	34.681	27.764	34.3	4.075
4900	1.677	34.681	27.763	34.4	4.125
5000	1.689	34.681	27.762	34.5	4.176
5100	1.703	34.681	27.761	34.6	4.228
5200	1.717	34.681	27.760	34.7	4.280
5300	1.729	34.682	27.760	34.7	4.333
5400	1.743	34.682	27.759	34.8	4.386
5500	1.757	34.681	27.757	35.0	4.440
5522	1.759	34.681	27.757	35.0	4.452

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
13 00.5N	132 29. E	05/31/76	0626 GMT

Z	T	S	SIGMA T	DT	DD
0	29.50	34.43	21.557	625.5	0.000
10	29.50	34.43	21.557	625.5	0.063
20	29.52	34.44	21.558	625.4	0.125
30	29.10	34.46	21.647	616.9	0.187
40	28.04	34.58	22.088	574.7	0.247
50	27.96	34.60	22.129	570.8	0.305
75	27.51	34.63	22.297	554.6	0.446
100	26.80	34.70	22.577	527.8	0.582
125	26.00	34.85	22.942	493.0	0.711
150	24.53	35.07	23.557	434.2	0.828
175	22.92	35.04	24.007	391.3	0.933
200	20.52	34.98	24.681	327.0	1.024
225	18.02	34.90	25.209	276.8	1.102
250	16.06	34.68	25.507	248.5	1.169
275	13.90	34.52	25.856	215.3	1.229
300	12.39	34.43	26.091	193.0	1.282
350	9.99	34.30	26.428	161.0	1.374
400	8.90	34.28	26.591	145.5	1.455
450	8.34	34.40	26.772	128.3	1.527
500	7.40	34.40	26.912	115.1	1.592
550	6.82	34.40	26.993	107.4	1.652
600	6.30	34.42	27.078	99.3	1.708
650	5.97	34.45	27.144	93.1	1.760
700	5.52	34.47	27.216	86.3	1.809
750	5.23	34.48	27.258	82.2	1.856
800	4.96	34.50	27.306	77.7	1.900
850	4.76	34.51	27.336	74.8	1.943
900	4.56	34.52	27.367	72.0	1.984
950	4.30	34.53	27.403	68.5	2.024
1000	4.15	34.54	27.427	66.3	2.062
1100	3.75	34.55	27.476	61.6	2.136
1200	3.43	34.56	27.516	57.8	2.205
1300	3.22	34.57	27.544	55.2	2.271
1400	2.99	34.58	27.573	52.4	2.334
1500	2.79	34.59	27.599	49.9	2.395
1600	2.623	34.598	27.620	47.9	2.453
1700	2.531	34.605	27.634	46.7	2.510
1800	2.381	34.611	27.651	45.0	2.566
1900	2.252	34.622	27.671	43.2	2.619
2000	2.155	34.629	27.684	41.9	2.671
2100	2.072	34.631	27.692	41.1	2.722
2200	1.971	34.639	27.707	39.7	2.772
2300	1.887	34.646	27.719	38.6	2.821
2400	1.844	34.650	27.726	38.0	2.869
2500	1.782	34.654	27.733	37.2	2.916
2600	1.747	34.657	27.738	36.7	2.963
2700	1.712	34.661	27.744	36.2	3.009
2800	1.672	34.663	27.749	35.7	3.055
2900	1.642	34.667	27.754	35.2	3.101
3000	1.615	34.669	27.756	34.9	3.146
3100	1.590	34.672	27.762	34.5	3.191
3200	1.581	34.673	27.764	34.3	3.236
3300	1.580	34.674	27.765	34.3	3.281
3400	1.564	34.675	27.767	34.1	3.327
3500	1.556	34.676	27.768	34.0	3.372
3600	1.558	34.677	27.769	33.9	3.417
3700	1.560	34.677	27.768	33.9	3.463
3800	1.562	34.678	27.769	33.8	3.509
3900	1.567	34.678	27.769	33.9	3.555
4000	1.575	34.679	27.769	33.9	3.602
4100	1.583	34.679	27.768	33.9	3.649
4200	1.593	34.679	27.768	34.0	3.696
4300	1.603	34.679	27.767	34.0	3.744
4400	1.614	34.679	27.766	34.1	3.793
4500	1.626	34.679	27.765	34.2	3.842
4600	1.637	34.679	27.764	34.3	3.891
4700	1.650	34.679	27.763	34.4	3.941
4800	1.662	34.679	27.763	34.5	3.991
4900	1.675	34.679	27.762	34.5	4.042
5000	1.688	34.679	27.761	34.6	4.093
5100	1.700	34.679	27.760	34.7	4.145
5200	1.713	34.680	27.760	34.7	4.197
5300	1.726	34.680	27.758	34.8	4.250
5400	1.740	34.680	27.757	34.9	4.303
5500	1.752	34.681	27.757	35.0	4.357
5600	1.765	34.682	27.757	35.0	4.411
5700	1.779	34.682	27.756	35.1	4.466
5724	1.781	34.682	27.756	35.1	4.479

RV THOMAS WASHINGTON INDOPAC LEG III

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
12 59.2N	130 47.7E	5/31/76	1935 2320 GMT	5939M	110	6KT	1	110 2 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.82	34.403	4.55	0.12	2.	0.00	0.1	612.0
10	28.81	34.403	4.58	0.12	2.	0.00	0.1	611.7
20	28.70	34.402	4.57	0.09	2.	0.00	0.1	608.3
31	28.55	34.396	4.55	0.09	2.	0.00	0.1	604.0
50	28.24	34.435	4.63	0.12	1.	0.00	0.1	591.4
75	27.84	34.517	4.68	0.09	2.	0.00	0.1	573.0
100	27.28	34.608	4.67	0.08	2.	0.00	0.1	549.1
125	27.03	34.819	4.66	0.13	2.	0.00	0.1	526.3
174	23.48	34.963	4.02	0.28	3.	0.06	1.3	412.4
248	17.00	34.740	3.78	0.60	8.	0.03	7.4	264.9
346	11.10	34.365	3.29	1.45	26.	0.09	19.6	174.7
443	8.21	34.398	1.64	2.32	50.	0.13	31.9	126.6
540	6.63	34.418	1.60	2.62	68.	0.03	35.4	103.6
687	5.38	34.481	1.82	2.69	85.	0.01	37.5	83.9
835	4.64	34.524	1.99	2.71	96.	0.00	38.8	72.5
984	4.01	34.548	2.06	2.73	110.	0.03	38.2	64.3
1096A	3.71	34.556	2.04	2.55	116.		37.1	60.7
1296A	3.20	34.584	2.11	2.40U	126.		36.3	53.9
1496A	2.78	34.599	2.26	2.63	135.		37.7	49.2
1695A	2.47	34.616	2.45	2.55	141.		38.8	45.3
1944A	2.17	34.634	2.61	2.48	146.		38.2	41.6
2194A	1.94	34.647	2.75	2.49	150.		38.2	38.9
2443A	1.78	34.657	2.94	2.48	152.		37.7	37.0
2743A	1.67	34.665	3.10	2.43	152.		37.2	35.6
3041A	1.61	34.673	3.25	2.36	151.		36.9	34.5
3340A	1.56	34.676	3.41	2.38	149.		37.1	34.0
3639A	1.548	34.680	3.45	2.45	149.		36.2	33.6
3888A	1.565	34.684	3.48	2.39	149.		36.1	33.4
4088A	1.574	34.682	3.55	2.48	149.		35.6	33.6
4287A	1.599	34.682	3.55	2.45	149.		36.4	33.8
4486A	1.624	34.684	3.49	2.46	149.		35.2	33.8
4786A	1.658	34.684	3.50	2.49	149.		34.9	34.1
5086A	1.697	34.685	3.54	2.49	149.		36.1	34.2
5386A	1.736	34.686	3.51	2.49	149.		35.6	34.5
5634A	1.769	34.686	3.53	2.52	149.		34.6	34.7
5882A	1.805	34.684	3.55	2.49	149.		36.2	35.1

Z	T	S	O2	SIGT	DT	DD
0	28.82	34.403	4.55	21.696	612.0	0.000
10	28.81	34.403	4.58	21.701	611.7	0.061
20	28.70	34.402	4.57	21.757	608.3	0.122
30	28.56	34.397	4.55	21.777	604.4	0.183
50	28.24	34.435	4.63	21.913	591.4	0.303
75	27.84	34.517	4.68	22.106	573.0	0.449
100	27.28	34.608	4.67	22.355	549.1	0.590
125	27.03	34.819	4.66	22.594	526.3	0.726
150	25.51	34.925	4.36	23.151	473.0	0.852
200	21.18	34.899	3.89	24.349	354.9	1.062
250	16.85	34.730	3.78	25.361	262.3	1.221
300	13.49	34.523	3.61	25.943	207.0	1.342
400	9.23	34.371	2.34	26.609	143.8	1.525
500	7.17	34.412	1.62	26.964	111.1	1.661
600	6.01	34.444	1.67	27.134	94.0	1.771
700	5.30	34.486	1.84	27.254	82.6	1.868
800	4.79	34.517	1.96	27.338	74.7	1.955
1000	3.96	34.550	2.06	27.454	63.7	2.111
1200	3.44	34.571	2.06	27.522	57.1	2.251
1500	2.77	34.601	2.26	27.608	49.1	2.438
1750	2.40	34.620	2.49	27.656	44.4	2.579
2000	2.11	34.637	2.64	27.693	40.9	2.709
2250	1.90	34.650	2.79	27.720	38.4	2.831
2500	1.75	34.659	2.97	27.739	36.7	2.949
2750	1.67	34.666	3.10	27.751	35.6	3.063
3000	1.62	34.672	3.23	27.760	34.7	3.176
3250	1.57	34.676	3.37	27.766	34.1	3.289
3500	1.55	34.679	3.44	27.770	33.7	3.401
3750	1.56	34.683	3.46	27.773	33.5	3.515
4000	1.57	34.684	3.52	27.772	33.5	3.630
4250	1.59	34.683	3.55	27.770	33.6	3.747
4500	1.63	34.685	3.49	27.768	33.6	3.868
4750	1.65	34.685	3.50	27.767	34.0	3.991
5000	1.69	34.685	3.53	27.765	34.2	4.117
5250	1.72	34.686	3.52	27.763	34.4	4.247
5500	1.75	34.687	3.52	27.761	34.5	4.379
5750	1.79	34.686	3.54	27.758	34.9	4.515

RV THOMAS WASHINGTON INDOPAC LEG III

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
13 01.1N	128 58.6E	6/ 1/76	1024 1350 GMT	5737M	070	2KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.72	34.247	4.63	0.03	2.		0.0	620.1
26	28.22	34.386	4.65	0.01	2.		0.0	594.3
50	28.06	34.423	4.65	0.03	2.		0.0	586.6
75	27.78	34.487	4.70	0.03	2.		0.0	573.3
100	26.84	34.681	4.70	0.04	2.		0.0	530.4
120	26.10	34.840	4.64	0.01	2.		0.0	496.7
139	25.45	34.973	4.44	0.06	2.		0.0	467.9
155	24.12	35.036	4.23	0.12	2.		0.0	425.0
169	23.00	35.030	4.12	0.17	2.		1.1	394.2
190	21.08	34.971	3.99	0.32	3.		2.9	347.2
209	19.09	34.892	4.05	0.40	5.		4.2	302.9
239	16.87	34.740	4.03	0.54	8.		6.7	262.0
269	15.13	34.611	4.14	0.69	11.		8.4	233.7
309	13.43	34.489	3.96	0.93	16.		13.2	208.3
359	11.09	34.369	3.17	1.52	27.		18.6	174.3
418	9.05	34.309	2.42		41.		25.9	145.6
497	7.44	34.382	1.67	2.45	58.		34.2	117.0
622	6.24	34.426	1.62	2.71	73.		35.6	98.2
746	5.43	34.478	1.80	2.65	85.		36.0	84.7
851A	4.78	34.508	1.90	2.59	96.		32.3	75.2
944	4.41	34.535	2.04	2.83	102.		38.3	69.3
1050A	3.90	34.549	2.07	2.43U	113.		35.3	63.1
1251A	3.28	34.574	2.16	2.54	126.		36.5	55.4
1450A	2.89	34.593	2.26	2.62	135.		37.2	50.6
1701A	2.43	34.613	2.46	2.63	143.		34.9	45.2
1950A	2.12	34.631	2.66	2.51	149.		33.8	41.5
2199A	1.87	34.649	2.85	2.59	153.		34.4	38.2
2498A	1.73	34.660	3.00	2.41	154.		35.0	36.4
2798A	1.64	34.669	3.20	2.46	153.		36.9	35.1
3098A	1.57	34.673	3.32	2.42	152.		37.5	34.3
3396A	1.541	34.677	3.43	2.49	152.		36.3	33.8
3645A	1.543	34.681	3.48	2.41	150.		35.7	33.5
3845A	1.547	34.682	3.56	2.53	150.		35.4	33.4
4044A	1.572	34.684	3.50	2.49	150.		35.9	33.5
4245A	1.588	34.684	3.50	2.51	150.		36.8	33.6
4543A	1.623	34.684	3.55	2.53	150.		35.5	33.8
4842A	1.660	34.684	3.55	2.51	150.		36.6	34.1
5142A	1.719	34.685	3.56	2.54	150.		34.3	34.4
5391A	1.732	34.685	3.56	2.54	150.		34.0	34.5
5639A	1.777	34.684	3.59	2.51	149.		31.4	34.9

Z	T	S	O2	SIGT	DT	DD
0	28.72	34.247	4.63	21.614	620.1	0.000
10	28.49	34.313	4.64	21.740	608.0	0.061
20	28.31	34.364	4.65	21.838	598.6	0.122
30	28.19	34.395	4.65	21.900	592.6	0.181
50	28.06	34.423	4.65	21.963	586.6	0.300
75	27.78	34.487	4.70	22.103	573.3	0.445
100	26.84	34.681	4.70	22.350	530.4	0.584
125	25.98	34.879	4.60	22.572	490.1	0.713
150	24.57	35.022	4.29	23.508	438.9	0.830
200	20.06	34.929	4.01	24.722	328.1	1.024
250	16.18	34.690	4.07	25.486	250.4	1.171
300	13.79	34.515	4.00	25.875	213.9	1.291
400	9.59	34.319	2.63	26.508	155.4	1.483
500	7.40	34.384	1.67	26.899	116.3	1.626
600	6.38	34.423	1.63	27.070	100.1	1.742
700	5.71	34.460	1.72	27.185	89.2	1.846
800	5.08	34.495	1.85	27.267	79.5	1.939
1000	4.14	34.544	2.06	27.431	65.9	2.103
1200	3.41	34.570	2.13	27.525	57.0	2.245
1500	2.79	34.599	2.30	27.605	49.4	2.433
1750	2.36	34.617	2.50	27.657	44.4	2.574
2000	2.06	34.635	2.70	27.695	40.7	2.703
2250	1.84	34.651	2.88	27.726	37.8	2.824
2500	1.73	34.661	3.00	27.742	36.4	2.940
2750	1.65	34.668	3.17	27.754	35.2	3.053
3000	1.59	34.672	3.29	27.762	34.5	3.165
3250	1.55	34.675	3.38	27.767	34.0	3.277
3500	1.54	34.679	3.45	27.771	33.6	3.389
3750	1.55	34.682	3.53	27.773	33.4	3.502
4000	1.57	34.684	3.52	27.773	33.4	3.616
4250	1.59	34.685	3.50	27.772	33.6	3.734
4500	1.62	34.685	3.54	27.770	33.8	3.854
4750	1.65	34.685	3.55	27.768	34.0	3.977
5000	1.69	34.685	3.56	27.765	34.3	4.103
5250	1.72	34.686	3.56	27.763	34.4	4.233
5500	1.75	34.685	3.57	27.760	34.6	4.365

27 DD

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
12 59.2N	130 47.7E	05/31/76	2015 GMT

Z	T	S	SIGMA T	DT	DD
0	28.78	34.42	21.724	609.6	0.000
10	28.77	34.44	21.742	607.8	0.061
20	28.64	34.45	21.793	602.9	0.121
30	28.55	34.44	21.815	600.8	0.182
40	28.42	34.47	21.880	594.5	0.242
50	28.21	34.46	21.942	588.6	0.301
75	27.71	34.57	22.188	565.1	0.446
100	27.20	34.66	22.420	542.9	0.585
125	26.75	34.87	22.721	514.1	0.719
150	25.14	34.93	23.267	461.9	0.842
175	23.06	35.03	23.959	395.8	0.951
200	20.40	34.97	24.652	329.8	1.043
225	18.64	34.86	25.024	294.4	1.123
250	16.26	34.69	25.468	252.1	1.193
275	14.77	34.60	25.733	227.0	1.255
300	13.35	34.50	25.954	205.9	1.311
350	10.97	34.36	26.303	172.9	1.410
400	8.75	34.29	26.623	142.5	1.493
450	8.10	34.40	26.809	124.8	1.563
500	7.17	34.39	26.936	112.8	1.627
550	6.58	34.42	27.041	102.9	1.685
600	6.06	34.44	27.125	94.9	1.738
650	5.65	34.46	27.192	88.5	1.788
700	5.30	34.48	27.250	83.0	1.835
750	5.01	34.50	27.300	78.3	1.880
800	4.75	34.51	27.338	74.7	1.922
850	4.53	34.53	27.378	70.9	1.963
900	4.37	34.54	27.403	68.5	2.002
950	4.16	34.54	27.426	66.4	2.041
1000	3.95	34.55	27.456	63.5	2.078
1100	3.62	34.56	27.497	59.6	2.148
1200	3.35	34.58	27.539	55.6	2.215
1300	3.17	34.59	27.564	53.2	2.279
1400	2.92	34.59	27.587	51.0	2.340
1500	2.77	34.60	27.609	49.0	2.400
1600	2.594	34.609	27.631	46.9	2.457
1700	2.464	34.616	27.648	45.3	2.512
1800	2.355	34.623	27.663	43.9	2.567
1900	2.234	34.631	27.679	42.3	2.619
2000	2.116	34.637	27.694	41.0	2.670
2100	2.033	34.642	27.704	40.0	2.720
2200	1.941	34.647	27.716	38.9	2.769
2300	1.854	34.653	27.727	37.8	2.817
2400	1.806	34.656	27.733	37.2	2.864
2500	1.764	34.659	27.739	36.7	2.910
2600	1.722	34.662	27.744	36.2	2.956
2700	1.687	34.665	27.749	35.7	3.002
2800	1.655	34.668	27.754	35.3	3.047
2900	1.640	34.669	27.756	35.1	3.093
3000	1.615	34.672	27.760	34.7	3.138
3100	1.594	34.674	27.764	34.4	3.183
3200	1.580	34.675	27.765	34.2	3.227
3300	1.571	34.677	27.768	34.0	3.272
3400	1.562	34.678	27.769	33.8	3.317
3500	1.559	34.679	27.770	33.7	3.362
3600	1.560	34.679	27.770	33.7	3.408
3700	1.562	34.680	27.771	33.7	3.453
3800	1.564	34.680	27.771	33.7	3.499
3900	1.570	34.681	27.771	33.7	3.545
4000	1.578	34.681	27.770	33.7	3.592
4100	1.586	34.681	27.770	33.6	3.639
4200	1.594	34.681	27.769	33.8	3.686
4300	1.604	34.681	27.768	33.9	3.734
4400	1.614	34.681	27.768	34.0	3.782
4500	1.626	34.681	27.767	34.1	3.831
4600	1.637	34.681	27.766	34.1	3.880
4700	1.649	34.681	27.765	34.2	3.930
4800	1.660	34.681	27.764	34.3	3.980
4900	1.673	34.681	27.763	34.4	4.030
5000	1.685	34.681	27.762	34.5	4.081
5100	1.698	34.682	27.762	34.5	4.133
5200	1.711	34.682	27.761	34.6	4.185
5300	1.723	34.682	27.760	34.7	4.238
5400	1.736	34.682	27.759	34.8	4.291
5500	1.750	34.682	27.758	34.9	4.344
5600	1.763	34.683	27.758	34.9	4.399
5700	1.777	34.683	27.757	35.0	4.453
5800	1.791	34.684	27.757	35.0	4.508
5900	1.805	34.684	27.756	35.1	4.564

28 DD

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
13 01.1N	128 58.6E	06/01/76	1113 GMT

Z	T	S	SIGMA T	DT	DD
0	28.70	34.37	21.713	610.6	0.000
10	28.58	34.41	21.783	603.9	0.061
20	28.31	34.43	21.887	593.9	0.121
30	28.20	34.45	21.923	590.5	0.180
40	28.15	34.44	21.947	588.2	0.239
50	28.09	34.46	21.981	584.9	0.298
75	27.87	34.50	22.083	575.1	0.444
100	27.24	34.63	22.384	546.3	0.585
125	26.59	34.81	22.727	513.6	0.718
150	25.36	35.02	23.268	461.9	0.842
175	23.05	35.09	24.008	391.2	0.950
200	20.38	34.99	24.673	327.8	1.041
225	18.33	34.88	25.117	285.5	1.120
250	16.45	34.70	25.432	255.6	1.189
275	15.09	34.61	25.671	232.9	1.253
300	14.12	34.55	25.853	217.4	1.311
350	11.71	34.38	26.182	184.3	1.415
400	9.86	34.32	26.465	157.4	1.505
450	8.22	34.35	26.752	130.3	1.581
500	7.35	34.38	26.903	115.9	1.647
550	6.66	34.39	27.006	106.1	1.706
600	6.27	34.41	27.074	99.7	1.762
650	5.94	34.44	27.140	93.5	1.814
700	5.59	34.45	27.191	88.6	1.864
750	5.37	34.47	27.234	84.6	1.912
800	5.14	34.48	27.269	81.2	1.958
850	4.85	34.50	27.318	76.5	2.002
900	4.56	34.52	27.367	72.0	2.044
950	4.36	34.53	27.396	69.1	2.084
1000	4.17	34.55	27.417	67.2	2.123
1100	3.79	34.54	27.464	62.7	2.197
1200	3.44	34.56	27.515	57.9	2.267
1300	3.16	34.58	27.557	53.9	2.332
1400	2.94	34.58	27.578	52.0	2.395
1500	2.73	34.59	27.604	49.4	2.455
1600	2.595	34.601	27.625	47.5	2.513
1700	2.444	34.610	27.645	45.6	2.568
1800	2.306	34.619	27.664	43.8	2.622
1900	2.179	34.626	27.680	42.3	2.675
2000	2.083	34.631	27.692	41.2	2.726
2100	1.988	34.638	27.705	39.9	2.775
2200	1.895	34.647	27.719	38.6	2.824
2300	1.831	34.652	27.728	37.7	2.871
2400	1.768	34.655	27.734	37.2	2.918
2500	1.740	34.659	27.741	36.5	2.964
2600	1.694	34.663	27.747	35.9	3.010
2700	1.688	34.665	27.749	35.7	3.055
2800	1.650	34.667	27.754	35.3	3.101
2900	1.620	34.670	27.758	34.8	3.146
3000	1.597	34.672	27.762	34.5	3.191
3100	1.581	34.674	27.765	34.3	3.235
3200	1.574	34.675	27.766	34.1	3.280
3300	1.565	34.676	27.767	34.0	3.325
3400	1.559	34.678	27.769	33.8	3.370
3500	1.555	34.678	27.770	33.8	3.415
3600	1.551	34.680	27.771	33.6	3.460
3700	1.556	34.680	27.771	33.6	3.506
3800	1.556	34.681	27.772	33.6	3.551
3900	1.565	34.681	27.771	33.6	3.597
4000	1.572	34.681	27.771	33.7	3.644
4100	1.581	34.681	27.770	33.7	3.691
4200	1.591	34.681	27.769	33.8	3.738
4300	1.601	34.682	27.769	33.8	3.786
4400	1.611	34.681	27.768	34.0	3.834
4500	1.623	34.681	27.767	34.0	3.882
4600	1.633	34.682	27.767	34.0	3.931
4700	1.645	34.682	27.766	34.1	3.981
4800	1.656	34.682	27.765	34.2	4.031
4900	1.668	34.682	27.764	34.3	4.081
5000	1.682	34.682	27.763	34.4	4.132
5100	1.693	34.683	27.763	34.4	4.184
5200	1.706	34.683	27.762	34.5	4.236
5300	1.719	34.683	27.761	34.6	4.288
5400	1.732	34.683	27.761	34.7	4.341
5500	1.745	34.684	27.760	34.7	4.395
5600	1.759	34.685	27.760	34.7	4.448
5660	1.767	34.685	27.759	34.7	4.481

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
12 59.4N	127 42.8E	6/ 1/76	2226	0211 GMT	5442M	080	6KT	1	090 2 3

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	28.48	34.389	4.66	0.09	2.	0.00	0.0	602.3	0	28.48	34.389	4.66	21.800	602.3	0.000
10	28.39	34.386	4.67	0.08	2.	0.00	0.0	599.6	10	28.39	34.386	4.67	21.827	599.6	0.060
30	28.13	34.371	4.71	0.08	2.	0.00	0.1	592.5	20	28.25	34.379	4.69	21.867	595.9	0.120
50	28.08	34.376	4.72	0.09	2.	0.00	0.1	590.6	30	28.13	34.371	4.71	21.901	592.5	0.179
70	27.96	34.392	4.67	0.10	2.	0.00	0.1	585.7	50	28.08	34.376	4.72	21.921	590.6	0.298
89	27.66	34.489	4.72	0.10	2.	0.03	0.1	569.4	75	27.89	34.414	4.68	22.012	582.0	0.445
119	27.17	34.647	4.74	0.06	2.	0.03	0.1	542.9	100	27.52	34.543	4.73	22.229	561.2	0.589
138	26.53	34.786	4.67	0.10	2.	0.02	0.1	513.5	125	27.03	34.690	4.73	22.497	535.5	0.727
168	23.76	35.026	4.35	0.14	2.	0.02	0.7	415.6	150	25.54	34.891	4.58	23.116	476.3	0.855
208	20.40	34.962	4.16	0.28	4.	0.02	3.0	330.4	200	21.04	34.996	4.18	24.499	344.4	1.064
257	16.77	34.742	4.32	0.48	7.	0.02	6.7	259.6	250	17.27	34.781	4.31	25.300	268.1	1.221
297	13.82	34.514	3.86	0.84	14.	0.01	12.4	214.1	300	13.61	34.500	3.82	25.901	211.0	1.344
336	11.34	34.370	3.34	1.39	24.	0.01	19.6	178.5	400	9.07	34.353	2.23	26.621	142.7	1.529
425	8.57	34.374	1.85	2.21	46.	0.01	32.5	133.6	500	7.46	34.472	1.59	26.959	110.6	1.664
516	7.31	34.490	1.53	2.52	56.	0.01	37.3	107.2	600	6.56	34.506	1.63	27.111	96.2	1.776
615	6.45	34.503	1.65	2.60	65.		38.3	95.0	700	5.81	34.503	1.78	27.206	87.2	1.877
795	5.18	34.502	1.90	2.65	86.		39.6	80.0	800	5.15	34.503	1.90	27.286	79.6	1.969
895A	4.62	34.517	1.95		99.		37.1	72.8	1000	4.16	34.537	2.00	27.423	66.6	2.134
1096A	3.82	34.554	2.05	2.45	114.		37.6	62.0	1200	3.50	34.568	2.09	27.515	58.0	2.278
1345A	3.12	34.580	2.17	2.76	130.		37.7	53.5	1500	2.79	34.597	2.31	27.603	49.5	2.468
1596A	2.62	34.604	2.39	2.49	139.		38.8	47.5	1750	2.36	34.616	2.47	27.654	44.7	2.609
1846A	2.25	34.621	2.52	2.52	147.		38.1	43.2	2000	2.08	34.632	2.66	27.692	41.0	2.740
2096A	1.99	34.639	2.74	2.45	150.		38.5	39.9	2250	1.88	34.646	2.81	27.719	38.4	2.862
2346A	1.82	34.651	2.85	2.33	152.		37.7	37.7	2500	1.74	34.657	2.96	27.739	36.6	2.979
2596A	1.70	34.661	3.03	2.28	153.		37.5	36.1	2750	1.66	34.665	3.12	27.751	35.5	3.094
2847A	1.64	34.667	3.18	2.54	152.		37.3	35.2	3000	1.59	34.671	3.27	27.760	34.7	3.206
3097A	1.57	34.672	3.32	2.49	152.		37.6	34.3	3250	1.56	34.675	3.37	27.766	34.1	3.318
3347A	1.555	34.676	3.39	2.49	151.		36.8	33.9	3500	1.55	34.678	3.43	27.769	33.8	3.431
3597A	1.545	34.678	3.46	2.43	151.		35.6	33.7	3750	1.55	34.680	3.52	27.772	33.6	3.544
3797A	1.545	34.680	3.53	2.46	150.		34.8	33.6	4000	1.56	34.681	3.51	27.771	33.7	3.659
3998A	1.561	34.680	3.51	2.47	150.		35.4	33.7	4250	1.59	34.681	3.53	27.769	33.8	3.777
4199A	1.581	34.680	3.53	2.50	150.		34.5	33.8	4500	1.62	34.683	3.55	27.768	33.9	3.897
4449A	1.610	34.682	3.55	2.51	150.		34.7	33.9	4750	1.65	34.682	3.55	27.765	34.2	4.021
4700A	1.642	34.681	3.55	2.44	150.		36.3	34.2	5000	1.68	34.683	3.54	27.764	34.3	4.147
4950A	1.675	34.682	3.54	2.50	149.		35.3	34.3	5250	1.71	34.683	3.56	27.762	34.5	4.277
5201A	1.704	34.683	3.55	2.43	149.		35.4	34.5							
5401A	1.734	34.681	3.61	2.44	149.		36.7	34.8							

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
12 59.4N	126 40. E	6/ 2/76	0948	1244 GMT	5374M	110	10KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.48	34.478	4.67	0.05	2.		0.2	595.9	0	28.48	34.478	4.67	21.867	595.9	0.000
26	28.01	34.465	4.71	0.06	2.		0.2	582.0	10	28.26	34.472	4.69	21.934	589.4	0.059
51	27.87	34.461	4.65	0.06	2.		0.2	577.9	20	28.09	34.468	4.70	21.987	584.3	0.118
81	27.85	34.457	4.68	0.05	2.		0.3	577.6	30	27.97	34.465	4.70	22.022	580.9	0.176
106	26.61	34.612	4.65	0.06	2.		0.5	528.4	50	27.87	34.462	4.65	22.053	578.0	0.293
131	25.72	34.763	4.51	0.08	2.		0.5	491.0	75	27.85	34.458	4.67	22.057	577.7	0.438
156	24.21	34.930	4.27	0.11	2.		0.8	435.2	100	26.94	34.569	4.66	22.432	541.7	0.579
186	21.45	34.993	4.09	0.22	3.		2.6	355.2	125	25.95	34.727	4.55	22.866	500.2	0.710
220	18.39	34.841	4.40	0.27	5.		4.3	289.8	150	24.63	34.893	4.33	23.393	449.8	0.830
260	16.17	34.706	4.46	0.45	8.		7.3	249.0	200	20.12	34.939	4.20	24.703	324.9	1.027
300	13.47	34.502	3.89	0.92	16.		13.9	208.1	250	16.68	34.745	4.45	25.413	257.3	1.176
340	10.78	34.345	3.25	1.49	30.		20.3	170.7	300	13.47	34.502	3.89	25.931	208.1	1.297
390	9.06	34.321	2.40	2.00	42.		27.6	144.9	400	8.78	34.309	2.38	26.632	141.7	1.479
439	7.94	34.282	2.30	2.18	53.		31.5	131.3	500	7.40	34.429	1.73	26.934	113.0	1.615
508	7.37	34.451	1.66	2.45	58.		34.4	110.9	600	6.74	34.496	1.78	27.079	99.3	1.729
583	6.86	34.494	1.77	2.50	61.		36.2	100.9	700	6.07	34.498	1.84	27.168	90.7	1.834
680	6.20	34.495	1.83	2.58	69.		37.6	92.5	800	5.52	34.515	1.88	27.250	83.0	1.930
803	5.51	34.515	1.88	2.68	80.		37.0	82.8	1000	4.75	34.534	1.93	27.358	72.8	2.107
906A	5.15	34.524	1.86	2.55	86.		35.1	78.0	1200	3.84	34.555	2.07	27.471	62.1	2.263
1106A	4.23	34.544	2.03	2.42	105.		35.9	66.8	1500	2.96	34.586	2.27	27.579	51.8	2.465
1306A	3.45	34.566	2.12	2.51	122.		36.6	57.6	1750	2.50	34.609	2.47	27.638	46.2	2.612
1506A	2.95	34.585	2.28	2.61	133.		38.2	51.7	2000	2.19	34.627	2.61	27.679	42.4	2.747
1756A	2.49	34.608	2.47	2.61	142.		37.5	46.1	2250	1.87	34.644	2.88	27.720	38.4	2.872
2005A	2.18	34.626	2.61	2.60	147.		37.5	42.3	2500	1.70	34.657	3.08	27.741	36.3	2.988
2306A	1.81	34.651	2.94	2.46	152.		36.8	37.6	2750	1.62	34.666	3.21	27.754	35.2	3.101
2606A	1.67	34.661	3.14	2.42	153.		37.2	35.9	3000	1.57	34.673	3.32	27.764	34.3	3.213
2905A	1.585	34.671	3.27	2.36	152.		37.6	34.5	3250	1.55	34.676	3.45	27.768	33.9	3.324
3204A	1.550	34.675	3.43	2.38	151.		36.6	34.0	3500	1.53	34.679	3.53	27.771	33.6	3.435
3505A	1.532	34.678	3.53	2.42	150.		36.6	33.6	3750	1.53	34.681	3.53	27.773	33.5	3.548
3755A	1.533	34.680	3.53	2.41	149.		36.6	33.5	4000	1.56	34.683	3.57	27.772	33.5	3.663
4004A	1.560	34.682	3.57	2.49	150.		36.6	33.5	4250	1.59	34.682	3.55	27.770	33.8	3.780
4254A	1.586	34.681	3.55	2.49	149.		36.7	33.8	4500	1.62	34.684	3.57	27.769	33.8	3.900
4504A	1.616	34.683	3.57	2.47	149.		37.3	33.8	4750	1.65	34.684	3.62	27.767	34.1	4.023
4704A	1.639	34.683	3.62	2.47	149.		36.6	34.0	5000	1.68	34.683	3.58	27.764	34.3	4.150
5003A	1.678	34.682	3.58	2.42	149.		37.2	34.3	5250	1.71	34.684	3.58	27.762	34.5	4.279
5303A	1.720	34.683	3.58	2.48	149.		36.7	34.6							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
12 59.4N	127 42.8E	06/01/76	2302 GMT

Z	T	S	SIGMA T	DT	DD
0	28.42	34.41	21.835	598.9	0.000
10	28.37	34.42	21.859	596.6	0.060
20	28.23	34.42	21.905	592.1	0.298
30	28.13	34.41	21.931	589.7	0.180
40	28.10	34.41	21.941	588.8	0.239
50	28.07	34.41	21.950	587.8	0.298
75	27.95	34.44	22.012	581.9	0.444
100	27.48	34.58	22.270	557.3	0.588
125	26.93	34.73	22.559	529.6	0.725
150	25.51	35.02	23.221	466.3	0.851
175	23.04	35.05	23.980	393.8	0.960
200	20.43	34.96	24.637	331.3	1.052
225	18.36	34.86	25.095	287.7	1.131
250	16.88	34.76	25.377	260.8	1.202
275	14.89	34.61	25.714	228.8	1.265
300	13.18	34.48	25.973	204.1	1.321
350	10.65	34.36	26.360	167.4	1.418
400	9.16	34.35	26.604	144.2	1.500
450	7.83	34.33	26.794	126.2	1.571
500	7.08	34.38	26.941	112.3	1.635
550	7.11	34.50	27.031	103.8	1.693
600	6.64	34.49	27.088	98.4	1.748
650	6.05	34.47	27.149	92.6	1.800
700	5.72	34.46	27.183	89.4	1.850
750	5.53	34.50	27.238	84.1	1.898
800	5.18	34.50	27.280	80.2	1.944
850	4.89	34.50	27.314	77.0	1.988
900	4.67	34.51	27.347	73.9	2.030
950	4.46	34.52	27.378	70.9	2.071
1000	4.26	34.53	27.407	68.1	2.111
1100	3.90	34.54	27.453	63.8	2.187
1200	3.61	34.56	27.498	59.5	2.258
1300	3.25	34.57	27.541	55.4	2.325
1400	3.07	34.58	27.566	53.1	2.389
1500	2.87	34.59	27.592	50.6	2.451
1600	2.669	34.596	27.615	48.5	2.510
1700	2.500	34.603	27.635	46.6	2.567
1800	2.374	34.610	27.651	45.0	2.623
1900	2.226	34.620	27.671	43.1	2.676
2000	2.103	34.628	27.688	41.6	2.728
2100	2.014	34.636	27.701	40.3	2.778
2200	1.940	34.640	27.710	39.4	2.827
2300	1.877	34.644	27.718	38.7	2.876
2400	1.810	34.649	27.727	37.6	2.923
2500	1.755	34.654	27.735	37.0	2.970
2600	1.718	34.658	27.741	36.5	3.017
2700	1.686	34.661	27.746	36.0	3.063
2800	1.656	34.663	27.750	35.6	3.108
2900	1.636	34.665	27.753	35.3	3.154
3000	1.621	34.667	27.756	35.1	3.199
3100	1.589	34.671	27.762	34.6	3.244
3200	1.569	34.672	27.764	34.3	3.289
3300	1.568	34.673	27.765	34.3	3.334
3400	1.559	34.674	27.766	34.1	3.380
3500	1.553	34.675	27.767	34.0	3.425
3600	1.550	34.676	27.768	33.9	3.470
3700	1.549	34.677	27.769	33.8	3.516
3800	1.555	34.677	27.769	33.9	3.562
3900	1.561	34.678	27.769	33.8	3.608
4000	1.569	34.678	27.769	33.9	3.655
4100	1.578	34.679	27.769	33.9	3.702
4200	1.586	34.679	27.768	33.9	3.749
4300	1.596	34.679	27.767	34.0	3.797
4400	1.606	34.680	27.767	34.0	3.845
4500	1.617	34.680	27.767	34.1	3.894
4600	1.629	34.680	27.766	34.2	3.943
4700	1.640	34.680	27.765	34.2	3.992
4800	1.654	34.680	27.764	34.3	4.042
4900	1.665	34.681	27.764	34.3	4.093
5000	1.677	34.681	27.763	34.4	4.144
5100	1.691	34.681	27.762	34.5	4.195
5200	1.704	34.682	27.762	34.5	4.247
5300	1.717	34.682	27.761	34.6	4.300
5400	1.730	34.683	27.761	34.6	4.353

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
12 59.4N	126 40. E	06/02/76	0741 GMT

Z	T	S	SIGMA T	DT	DD
0	28.86	34.50	21.757	606.4	0.000
10	28.53	34.48	21.852	597.3	0.060
20	28.20	34.49	21.968	586.2	0.119
30	28.04	34.49	22.020	581.2	0.178
40	27.98	34.49	22.040	579.3	0.236
50	27.92	34.49	22.059	577.4	0.294
75	27.87	34.49	22.076	575.9	0.439
100	27.58	34.51	22.185	565.4	0.582
125	26.64	34.66	22.598	525.9	0.720
150	25.17	34.90	23.235	464.9	0.845
175	23.20	34.96	23.866	404.7	0.956
200	20.59	34.90	24.548	339.7	1.050
225	18.31	34.78	25.046	292.3	1.131
250	16.66	34.71	25.391	259.5	1.202
275	15.41	34.60	25.592	240.4	1.267
300	14.05	34.51	25.817	219.0	1.326
350	10.73	34.31	26.307	172.5	1.428
400	9.21	34.29	26.549	149.5	1.512
450	7.95	34.29	26.745	130.9	1.586
500	7.20	34.32	26.877	118.4	1.652
550	6.53	34.35	26.992	107.5	1.713
600	6.66	34.49	27.085	98.6	1.769
650	5.91	34.40	27.112	96.1	1.822
700	5.79	34.43	27.151	92.4	1.873
750	5.79	34.49	27.198	87.9	1.923
800	5.52	34.51	27.247	83.3	1.971
850	5.31	34.51	27.273	80.9	2.017
900	5.08	34.51	27.300	78.3	2.062
950	4.95	34.52	27.323	76.1	2.106
1000	4.71	34.52	27.350	73.5	2.149
1100	4.23	34.54	27.418	67.1	2.229
1200	3.87	34.55	27.464	62.7	2.305
1300	3.46	34.57	27.521	57.4	2.375
1400	3.25	34.57	27.541	55.4	2.442
1500	2.99	34.58	27.573	52.4	2.506
1600	2.779	34.591	27.601	49.8	2.567
1700	2.574	34.602	27.628	47.2	2.626
1800	2.438	34.612	27.647	45.4	2.682
1900	2.291	34.620	27.666	43.6	2.736
2000	2.179	34.627	27.681	42.2	2.789
2100	2.049	34.634	27.697	40.7	2.840
2200	1.893	34.645	27.718	38.7	2.889
2300	1.786	34.652	27.732	37.4	2.936
2400	1.745	34.653	27.735	37.0	2.982
2500	1.696	34.660	27.745	36.1	3.028
2600	1.674	34.662	27.748	35.8	3.073
2700	1.653	34.663	27.750	35.6	3.119
2800	1.614	34.667	27.756	35.0	3.164
2900	1.588	34.670	27.761	34.6	3.208
3000	1.581	34.670	27.761	34.6	3.253
3100	1.564	34.673	27.765	34.2	3.297
3200	1.565	34.674	27.764	34.2	3.342
3300	1.552	34.675	27.767	34.0	3.387
3400	1.547	34.676	27.769	33.9	3.431
3500	1.543	34.677	27.770	33.8	3.476
3600	1.539	34.679	27.772	33.6	3.522
3700	1.542	34.680	27.772	33.5	3.567
3800	1.547	34.680	27.772	33.6	3.612
3900	1.555	34.681	27.772	33.6	3.658
4000	1.564	34.681	27.771	33.6	3.705
4100	1.573	34.682	27.771	33.6	3.751
4200	1.583	34.681	27.770	33.7	3.798
4300	1.594	34.682	27.770	33.8	3.846
4400	1.604	34.682	27.769	33.8	3.894
4500	1.616	34.683	27.769	33.8	3.942
4600	1.628	34.682	27.767	34.0	3.991
4700	1.641	34.682	27.766	34.1	4.041
4800	1.654	34.682	27.766	34.2	4.091
4900	1.666	34.682	27.765	34.3	4.141
5000	1.679	34.682	27.764	34.4	4.192
5100	1.692	34.683	27.763	34.4	4.243
5200	1.706	34.682	27.762	34.5	4.295
5300	1.719	34.682	27.761	34.6	4.348

RV THOMAS WASHINGTON — INDOPAC LEG III — 31

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
13 01.5N	125 37. E	6/ 2/76	2032	0037 GMT	4076M	060	12KT	1	080 3 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.42	34.469	4.58	0.05	2.		0.1	594.6	0	28.42	34.469	4.58	21.880	594.6	0.000
20	28.31	34.460	4.61	0.05	2.		0.1	591.8	10	28.37	34.465	4.60	21.894	593.2	0.059
40	27.95	34.449	4.60	0.04	2.		0.1	581.3	20	28.31	34.460	4.61	21.909	591.8	0.119
60	27.93	34.458	4.61	0.06	2.		0.1	580.0	30	28.12	34.454	4.61	21.965	586.4	0.178
85	27.67	34.469	4.62	0.08	2.		0.1	571.1	50	27.94	34.458	4.60	22.026	580.4	0.295
110	26.84	34.667	4.54	0.12	2.		0.1	531.4	75	27.62	34.487	4.62	22.088	574.7	0.440
134	26.19	34.886	4.47	0.10	2.		0.1	496.1	100	27.20	34.576	4.58	22.356	549.0	0.581
160	25.86	34.928	4.25	0.13	2.		0.4	425.4	125	26.51	34.614	4.50	22.755	510.8	0.715
179	22.38	35.014	4.09	0.15	2.		0.9	378.5	150	24.84	34.914	4.34	23.348	454.2	0.837
204	20.61	34.983	4.05	0.23	4.		1.9	334.2	200	20.83	34.996	4.06	24.540	340.5	1.039
244	17.47	34.790	4.43	0.32	5.		4.1	272.0	250	17.25	34.779	4.43	25.304	267.8	1.195
273	16.51	34.728	4.42	0.40	7.		5.7	254.9	300	15.01	34.610	4.08	25.688	231.3	1.324
322	13.66	34.512	3.73	0.94	15.		12.3	211.1	400	10.25	34.330	2.83	26.406	163.0	1.529
371	11.26	34.369	3.18	1.47	26.		19.7	177.2	500	7.91	34.298	2.08	26.756	129.6	1.684
470	8.49	34.295	2.14	2.09	48.		28.8	138.3	600	6.52	34.346	1.88	26.989	107.7	1.812
594	6.59	34.340	1.89	2.52	70.		34.1	109.0	700	5.61	34.433	1.83	27.174	90.2	1.920
719	5.48	34.448	1.83	2.63	85.		37.6	87.5	800	4.91	34.494	1.82	27.306	77.7	2.012
847	4.63	34.511	1.81	2.75	99.		38.1	73.4	1000	4.01	34.533	2.04	27.435	65.4	2.174
993A	4.03	34.531	2.03		112.		36.2	65.7	1200	3.46	34.560	2.13	27.510	58.3	2.316
1193A	3.50	34.559	2.13		123.		35.7	58.6	1500	2.84	34.587	2.29	27.591	50.6	2.508
1393A	3.05	34.576	2.25	2.60	131.		35.8	53.2	1750	2.44	34.614	2.42	27.648	45.3	2.652
1593A	2.68	34.597	2.32	2.35	139.		38.1	48.5	2000	2.11	34.632	2.62	27.689	41.4	2.784
1794A	2.38	34.617	2.45	2.40	144.		36.9	44.8	2250	1.88	34.646	2.85	27.719	38.5	2.908
1993A	2.12	34.630	2.61	2.25	148.		38.1	41.5	2500	1.74	34.657	3.03	27.739	36.7	3.025
2193A	1.92	34.644	2.80	2.17	150.		36.5	39.0	2750	1.64	34.666	3.13	27.753	35.3	3.139
2492A	1.74	34.656	3.03	2.29	151.		36.7	36.8	3000	1.58	34.670	3.30	27.761	34.6	3.251
2792A	1.63	34.667	3.15	2.42	150.		35.9	35.1	3250	1.56	34.674	3.43	27.765	34.2	3.363
3092A	1.57	34.671	3.37	2.37	150.		36.8	34.4	3500	1.56	34.678	3.45	27.769	33.8	3.476
3391A	1.559	34.676	3.45	2.36	149.		36.2	34.0	3750	1.56	34.681	3.48	27.771	33.7	3.590
3690A	1.562	34.680	3.46	2.36	149.		35.0	33.7	4000	1.57	34.681	3.54	27.770	33.7	3.705
3991A	1.568	34.680	3.54	2.44	149.		35.2	33.7	4250	1.60	34.682	3.52	27.769	33.9	3.823
4291A	1.603	34.681	3.51	2.45	149.		36.1	33.9	4500	1.63	34.682	3.52	27.767	34.0	3.944
4590A	1.641	34.682	3.52	2.45	148.		34.0	34.1	4750	1.66	34.682	3.51	27.765	34.2	4.068
4891A	1.674	34.681	3.51	2.33	148.		34.2	34.4	5000	1.69	34.682	3.54	27.762	34.5	4.195
5194A	1.712	34.682	3.58	2.45	148.		36.0	34.6	5250	1.72	34.683	3.57	27.761	34.6	4.325
5490A	1.754	34.682	3.54	2.47	148.		34.5	34.9	5500	1.76	34.683	3.54	27.758	34.9	4.458
5741A	1.787	34.682	3.54	2.41	148.		35.1	35.1	5750	1.79	34.683	3.54	27.755	35.1	4.595

RV THOMAS WASHINGTON — INDOPAC LEG III — 32

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
13 15.8N	125 07.9E	6/ 3/76	0502	0752 GMT	3214M	080	13KT	1	090 5 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.61	34.471	4.60	0.09	2.		0.0	600.5	0	28.61	34.471	4.60	21.818	600.5	0.000
15	28.56	34.467	4.62	0.10	2.		0.0	599.2	10	28.58	34.469	4.61	21.827	599.6	0.060
36	28.13	34.458	4.66	0.11	2.		0.1	586.3	20	28.46	34.465	4.63	21.861	596.4	0.120
56	27.96	34.465	4.66	0.08	2.		0.1	580.5	30	28.26	34.460	4.65	21.925	590.3	0.179
82	27.23	34.582	4.73	0.11	2.		0.1	549.4	50	28.02	34.459	4.66	22.004	582.7	0.297
113	25.94	34.751	4.57	0.13	2.		0.1	498.3	75	27.47	34.544	4.72	22.245	559.6	0.440
142	23.91	35.026	4.18	0.19	2.		0.7	419.8	100	26.56	34.672	4.67	22.630	522.8	0.577
172	22.24	35.036	4.06	0.20	2.		1.9	373.1	125	25.12	34.871	4.41	23.228	465.6	0.701
212	18.80	34.869	4.18	0.38	5.		4.2	297.5	150	23.48	35.050	4.13	23.852	406.0	0.812
256	16.75	34.730	4.15	0.54	8.		7.3	260.1	200	19.83	34.920	4.13	24.766	318.9	0.996
300	14.40	34.562	3.84	0.87	13.		12.2	222.2	250	16.98	34.751	4.15	25.346	263.8	1.145
349	12.42	34.432	3.66	1.19	19.		15.0	193.4	300	14.40	34.562	3.84	25.783	222.2	1.271
394A	10.00	34.315	2.93	1.44	34.		18.7	160.1	400	9.78	34.306	2.88	26.467	157.2	1.469
445	8.58	34.270	2.57	2.05	46.		27.5	141.5	500	7.80	34.317	1.97	26.789	126.7	1.619
519A	7.61	34.339	1.77	2.09	56.		27.7	122.5	600	6.54	34.365	1.76	27.003	106.4	1.745
668A	5.76	34.383	1.76	2.35	83.		31.7	95.6	700	5.52	34.409	1.79	27.167	90.9	1.852
817A	4.88	34.498	1.94	2.56	93.		35.4	77.0	800	4.95	34.486	1.92	27.295	78.7	1.946
992A	4.11	34.540	2.03	2.64	109.		35.5	65.9	1000	4.08	34.542	2.04	27.435	65.5	2.108
1191A	3.45	34.558	2.18	2.65	123.		37.0	58.2	1200	3.43	34.559	2.18	27.515	57.9	2.250
1391A	3.038	34.576	2.24	2.62	131.		36.8	53.1	1500	2.83	34.589	2.31	27.594	50.4	2.441
1590A	2.656	34.598	2.38	2.63	138.		36.3	48.2	1750	2.35	34.617	2.52	27.658	44.4	2.583
1789A	2.290	34.620	2.55	2.51	145.		37.5	43.6	2000	2.11	34.633	2.65	27.690	41.3	2.714
1988A	2.121	34.631	2.64	2.61	147.		37.5	41.5	2250	1.88	34.645	2.82	27.718	38.6	2.837
2187A	1.932	34.641	2.77	2.64	151.		37.5	39.3	2500	1.72	34.660	3.05	27.742	36.3	2.954
2385A	1.784	34.653	2.94	2.58	153.		37.1	37.3	2750	1.63	34.669	3.22	27.756	35.0	3.067
2584A	1.680	34.664	3.12	2.68	153.		37.1	35.7	3000	1.58	34.673	3.36	27.764	34.3	3.178
2784A	1.622	34.669	3.24	2.60	152.		37.1	34.9							
2933A	1.590	34.671	3.33	2.56	151.		37.2	34.6							
3084A	1.560	34.675	3.40	2.58	151.		36.5	34.0							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
13 01.5N	125 37. E	06/02/76	2113 GMT

Z	T	S	SIGMA T	DT	DD
0	28.42	34.50	21.903	592.4	0.000
10	28.42	34.51	21.910	591.7	0.059
20	28.32	34.52	21.951	587.6	0.118
30	28.05	34.50	22.024	580.8	0.177
40	27.98	34.50	22.047	578.6	0.235
50	27.94	34.50	22.060	577.3	0.293
75	27.84	34.51	22.100	573.5	0.437
100	27.12	34.65	22.438	541.2	0.578
125	26.51	34.84	22.774	509.0	0.710
150	24.30	34.98	23.558	434.1	0.829
175	22.38	35.06	24.176	375.1	0.932
200	20.59	35.02	24.639	331.0	1.022
225	18.33	34.88	25.117	285.5	1.101
250	17.25	34.79	25.312	267.0	1.172
275	16.39	34.76	25.492	249.9	1.239
300	14.91	34.65	25.741	226.2	1.300
350	12.48	34.48	26.112	190.9	1.409
400	10.43	34.36	26.399	163.8	1.502
450	9.11	34.30	26.573	147.2	1.584
500	7.82	34.29	26.764	129.1	1.657
550	7.20	34.30	26.861	119.9	1.724
600	6.62	34.34	26.972	109.3	1.786
650	6.15	34.41	27.089	98.3	1.842
700	5.67	34.44	27.174	90.3	1.894
750	5.19	34.46	27.247	83.3	1.941
800	4.83	34.49	27.313	77.1	1.986
850	4.52	34.50	27.355	73.0	2.028
900	4.53	34.54	27.386	70.1	2.068
950	4.34	34.54	27.407	68.2	2.107
1000	4.20	34.54	27.422	66.8	2.146
1100	3.86	34.55	27.465	62.6	2.220
1200	3.54	34.56	27.505	58.9	2.291
1300	3.30	34.56	27.528	56.6	2.358
1400	3.04	34.58	27.569	52.8	2.423
1500	2.85	34.59	27.594	50.4	2.484
1600	2.660	34.599	27.618	48.2	2.543
1700	2.510	34.606	27.636	46.4	2.600
1800	2.351	34.615	27.657	44.5	2.655
1900	2.213	34.624	27.676	42.7	2.708
2000	2.113	34.630	27.688	41.5	2.759
2100	2.010	34.638	27.703	40.1	2.809
2200	1.929	34.644	27.714	39.0	2.858
2300	1.868	34.649	27.723	38.2	2.906
2400	1.809	34.653	27.731	37.5	2.954
2500	1.755	34.657	27.738	36.8	3.000
2600	1.717	34.661	27.744	36.2	3.046
2700	1.673	34.664	27.750	35.7	3.092
2800	1.657	34.666	27.752	35.4	3.137
2900	1.613	34.669	27.758	34.9	3.182
3000	1.604	34.671	27.760	34.7	3.227
3100	1.585	34.672	27.763	34.5	3.272
3200	1.581	34.673	27.764	34.5	3.317
3300	1.571	34.675	27.766	34.1	3.362
3400	1.568	34.676	27.767	34.0	3.407
3500	1.568	34.676	27.767	34.0	3.453
3600	1.565	34.677	27.768	33.9	3.498
3700	1.567	34.678	27.769	33.9	3.544
3800	1.568	34.678	27.769	33.9	3.590
3900	1.574	34.679	27.769	33.8	3.637
4000	1.580	34.679	27.769	33.9	3.683
4100	1.587	34.679	27.768	33.9	3.730
4200	1.595	34.680	27.768	33.9	3.778
4300	1.605	34.680	27.768	34.0	3.826
4400	1.614	34.680	27.767	34.0	3.874
4500	1.626	34.680	27.766	34.1	3.923
4600	1.635	34.680	27.765	34.2	3.972
4700	1.648	34.680	27.764	34.3	4.022
4800	1.660	34.680	27.763	34.4	4.072
4900	1.673	34.680	27.763	34.5	4.123
5000	1.685	34.680	27.762	34.5	4.174
5100	1.698	34.680	27.761	34.6	4.225
5200	1.711	34.681	27.760	34.7	4.278
5300	1.724	34.681	27.760	34.7	4.330
5400	1.738	34.681	27.758	34.8	4.384
5500	1.751	34.681	27.757	34.9	4.437
5600	1.765	34.682	27.757	35.0	4.491
5700	1.779	34.683	27.757	35.0	4.546
5800	1.793	34.683	27.756	35.1	4.601
5900	1.807	34.684	27.756	35.1	4.657

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
13 15.8N	125 07.9E	06/03/76	0332 GMT

Z	T	S	SIGMA T	DT	DD
0	28.58	34.51	21.857	596.7	0.000
10	28.56	34.51	21.864	596.1	0.060
20	28.46	34.49	21.882	594.4	0.119
30	28.23	34.49	21.958	587.1	0.178
40	28.12	34.48	21.986	584.4	0.237
50	28.04	34.46	21.998	583.3	0.296
75	27.44	34.56	22.267	557.5	0.439
100	26.68	34.74	22.645	521.3	0.575
125	25.07	35.02	23.356	453.4	0.698
150	23.05	35.00	23.940	397.7	0.805
175	20.90	34.96	24.510	343.3	0.900
200	19.12	34.88	24.918	304.5	0.982
225	17.81	34.80	25.184	279.1	1.057
250	16.56	34.70	25.407	258.0	1.126
275	15.51	34.63	25.593	240.3	1.190
300	14.65	34.58	25.743	226.0	1.251
350	11.92	34.40	26.158	186.6	1.358
400	10.19	34.31	26.401	163.5	1.450
450	8.43	34.25	26.641	140.7	1.530
500	7.81	34.32	26.789	126.7	1.601
550	7.01	34.32	26.904	115.9	1.666
600	6.41	34.36	27.016	105.2	1.725
650	5.86	34.36	27.087	98.5	1.781
700	5.60	34.40	27.151	92.4	1.833
750	5.11	34.45	27.249	83.1	1.881
800	4.88	34.48	27.299	78.4	1.926
850	4.72	34.51	27.341	74.4	1.968
900	4.46	34.52	27.378	70.9	2.009
950	4.30	34.54	27.411	67.8	2.049
1000	4.12	34.53	27.422	66.7	2.087
1100	3.72	34.54	27.471	62.0	2.161
1200	3.46	34.56	27.513	58.1	2.230
1300	3.19	34.57	27.547	54.9	2.296
1400	3.02	34.58	27.570	52.7	2.359
1500	2.81	34.59	27.597	50.1	2.420
1600	2.598	34.599	27.623	47.7	2.479
1700	2.412	34.614	27.651	45.0	2.534
1800	2.295	34.618	27.664	43.8	2.588
1900	2.212	34.625	27.676	42.6	2.641
2000	2.051	34.634	27.697	40.7	2.691
2100	1.990	34.638	27.705	39.9	2.741
2200	1.894	34.645	27.718	38.7	2.789
2300	1.818	34.652	27.729	37.6	2.837
2400	1.763	34.657	27.737	36.8	2.883
2500	1.706	34.660	27.744	36.2	2.929
2600	1.678	34.663	27.749	35.8	2.974
2700	1.637	34.667	27.755	35.2	3.019
2800	1.617	34.667	27.756	35.0	3.064
2900	1.598	34.670	27.760	34.7	3.109
3000	1.569	34.673	27.765	34.3	3.153
3100	1.561	34.674	27.766	34.1	3.197

RV THOMAS WASHINGTON — INDOPAC LEG III — 33

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
13 25.8N	124 51.6E	6/ 3/76	1200 GMT	2031M	090	10KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	28.45	34.460						596.2	0	28.45	34.460		21.863	596.2	0.000
26	28.41	34.458						595.1	10	28.44	34.460		21.867	595.8	0.060
55	27.93	34.440						581.3	20	28.42	34.459		21.872	595.4	0.119
85	26.66	34.655						526.8	30	28.38	34.450		21.878	594.7	0.179
116	25.60	34.961						473.2	50	28.06	34.437		21.975	585.5	0.297
146	22.45	35.034						378.9	75	27.11	34.565		22.376	547.1	0.439
186	19.70	34.912						316.4	100	26.27	34.816		22.852	503.5	0.571
231	16.83	34.739						261.2	125	24.72	34.995		23.445	444.9	0.691
275	15.25	34.638						234.2	150	22.13	35.029		24.222	370.7	0.794
325	12.89	34.459						200.2	200	18.73	34.853		24.954	296.9	0.964
400	10.16	34.312						162.9	250	16.10	34.699		25.511	246.1	1.104
498	7.85	34.329						126.6	300	14.08	34.546		25.838	217.0	1.224
625	6.42	34.372						104.4	400	10.16	34.312		26.408	162.9	1.422
775	5.43	34.473						85.0	500	7.82	34.330		26.796	126.1	1.575
976	4.55	34.533						70.9	600	6.61	34.364		26.992	107.5	1.701
1225	3.60	34.564						59.1	700	5.86	34.424		27.136	93.8	1.811
1475	2.99	34.587						51.9	800	5.30	34.484		27.253	82.8	1.908
1723	2.55	34.612						46.3	1000	4.45	34.538		27.393	69.5	2.080
2019	2.02	34.637						40.2	1200	3.68	34.563		27.492	60.0	2.230
									1500	2.94	34.590		27.585	51.3	2.427
									1750	2.50	34.615		27.643	45.7	2.573
									2000	2.05	34.636		27.697	40.6	2.705

RV THOMAS WASHINGTON — INDOPAC LEG III — 34

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
14 02.3N	124 35.0E	6/ 3/76	1713 GMT	1403M	090	7KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	28.48	34.462	4.58	0.11	2.	0.00	0.0	597.0	0	28.48	34.462	4.58	21.855	597.0	0.000
25	28.28	34.448	4.65	0.11	2.	0.00	0.0	591.7	10	28.44	34.457	4.61	21.869	595.7	0.060
49	27.91	34.438	4.67	0.13	2.	0.00	0.0	580.8	20	28.34	34.451	4.64	21.894	593.3	0.119
78	26.71	34.711	4.66	0.13	2.	0.00	0.0	524.3	30	28.23	34.438	4.66	21.917	591.0	0.178
108	23.31	35.044	4.12					401.7	50	27.89	34.446	4.67	22.034	579.8	0.296
136	19.85	34.888	4.18	0.33	4.	0.00	3.2	321.9	75	26.90	34.676	4.66	22.527	532.7	0.436
166	17.93	34.801	4.29	0.40	5.	0.00	4.4	281.8	100	24.34	34.974	4.26	23.541	435.7	0.557
205	17.12	34.763	4.33	0.43	6.	0.00	5.0	266.0	125	21.13	34.966	4.16	24.452	348.8	0.657
249	15.55	34.656	4.17	0.61	10.	0.00	8.3	239.3	150	18.77	34.841	4.23	24.978	298.8	0.739
293	14.14	34.557	3.91	0.87	16.	0.00	11.9	217.3	200	17.19	34.769	4.32	25.311	267.1	0.883
343	11.79	34.412	3.45	1.34	27.	0.00	18.4	183.4	250	15.52	34.655	4.17	25.609	238.8	1.013
416	9.40	34.292	2.79	1.76	40.	0.09	25.3	152.2	300	13.82	34.535	3.85	25.885	212.6	1.130
492	7.94	34.287	2.37	2.18	57.	0.04	29.7	131.0	400	9.83	34.311	2.92	26.463	157.7	1.323
591	6.68	34.345	1.97	2.44	74.	0.04	34.6	109.7	500	7.82	34.291	2.33	26.765	129.0	1.475
715	5.765	34.408	1.88	2.60	87.	0.00	36.9	93.6	600	6.59	34.350	1.96	26.983	108.3	1.602
840	5.269	34.484	1.90	2.70	90.	0.00	37.7	82.4	700	5.84	34.401	1.89	27.121	95.3	1.713
1008	4.314	34.539	1.99	2.81		0.00	39.6	68.0	800	5.41	34.462	1.89	27.221	85.7	1.813
									1000	4.37	34.538	1.98	27.401	68.6	1.987

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
13 25.8N	124 51.6E	06/03/76	1044 GMT

Z	T	S	SIGMA T	DT	DD
0	28.49	34.46	21.850	597.5	0.000
10	28.49	34.46	21.850	597.5	0.060
20	28.49	34.46	21.850	597.5	0.120
30	28.38	34.44	21.871	595.4	0.179
40	28.18	34.42	21.922	590.6	0.239
50	28.10	34.42	21.948	588.1	0.298
75	27.33	34.58	22.318	552.7	0.441
100	26.08	34.82	22.894	497.5	0.573
125	24.56	35.02	23.510	438.7	0.691
150	22.54	35.03	24.108	381.6	0.795
175	20.74	34.96	24.553	339.2	0.887
200	19.25	34.88	24.885	307.7	0.969
225	17.38	34.75	25.251	272.8	1.044
250	16.23	34.70	25.483	250.7	1.111
275	15.38	34.64	25.629	236.8	1.174
300	14.27	34.56	25.809	219.7	1.233
350	11.80	34.38	26.165	185.9	1.339
400	10.07	34.30	26.414	162.3	1.430
450	8.77	34.30	26.628	142.0	1.510
500	7.64	34.33	26.822	123.6	1.581
550	7.10	34.36	26.922	114.1	1.645
600	6.57	34.37	27.003	106.5	1.704
650	6.06	34.41	27.101	97.2	1.759
700	5.74	34.45	27.173	90.3	1.811
750	5.57	34.46	27.202	87.6	1.860
800	5.35	34.51	27.268	81.3	1.907
850	5.06	34.52	27.310	77.3	1.951
900	4.80	34.52	27.340	74.5	1.994
950	4.65	34.53	27.365	72.2	2.036
1000	4.27	34.52	27.398	69.0	2.076
1100	3.87	34.54	27.456	63.5	2.152
1200	3.64	34.56	27.495	59.8	2.224
1300	3.32	34.57	27.534	56.1	2.291
1400	3.08	34.58	27.565	53.2	2.356
1500	2.97	34.59	27.583	51.5	2.418
1600	2.746	34.599	27.610	48.9	2.478
1700	2.565	34.607	27.632	46.8	2.536
1800	2.412	34.615	27.652	45.0	2.592
1900	2.266	34.625	27.672	43.0	2.645
2000	2.151	34.633	27.688	41.5	2.697
2037	1.992	34.643	27.708	39.6	2.716

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
14 02.3N	124 35.0E	06/03/76	1630 GMT

Z	T	S	SIGMA T	DT	DD
0	28.48	34.50	21.883	594.3	0.000
10	28.47	34.50	21.886	594.0	0.059
20	28.48	34.50	21.883	594.3	0.119
30	28.30	34.48	21.927	590.0	0.178
40	28.11	34.48	21.990	584.1	0.237
50	28.04	34.47	22.005	582.6	0.296
75	27.13	34.68	22.457	539.3	0.436
100	25.54	34.90	23.122	475.8	0.564
125	22.08	34.96	24.185	374.3	0.672
150	19.49	4.89	24.830	312.8	0.759
175	18.11	34.83	25.134	284.0	0.835
200	17.26	34.78	25.302	267.9	0.905
225	16.52	34.74	25.447	254.2	0.972
250	15.79	34.68	25.568	242.6	1.036
275	15.09	34.64	25.694	230.7	1.097
300	14.06	34.55	25.842	216.6	1.155
350	11.21	34.35	26.252	177.7	1.258
400	9.79	34.31	26.469	157.1	1.346
450	8.69	34.29	26.632	141.6	1.425
500	7.65	34.27	26.774	128.2	1.496
550	7.12	34.31	26.860	118.1	1.562
600	6.59	34.35	26.984	108.2	1.623
650	6.03	34.38	27.081	99.0	1.679
700	5.80	34.39	27.118	95.5	1.732
750	5.62	34.44	27.180	89.7	1.783
800	5.57	34.47	27.210	86.9	1.832
850	5.22	34.50	27.275	80.6	1.879
900	4.89	34.52	27.330	75.5	1.923
950	4.59	34.53	27.371	71.5	1.965
1000	4.31	34.54	27.410	67.9	2.005

RV THOMAS WASHINGTON INDOPAC LEG III 55

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
19 38.1N	123 52.8E	6/ 5/76	0010 0428 GMT	5452M	160	2KT	0	1PD 5 S

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.92	34.233	4.64	0.04	1.	0.00	0.3	595.9	0	27.92	34.233	4.64	21.866	595.9	0.000
20	27.63	34.231	4.66	0.14	1.	0.00	0.3	587.0	10	27.78	34.222	4.65	21.902	592.5	0.059
36	27.36	34.295	4.58	0.12	1.	0.00	0.3	574.1	20	27.63	34.231	4.66	21.959	587.0	0.118
51	27.14	34.347	4.64	0.13	1.	0.00	0.3	563.6	30	27.46	34.269	4.61	22.041	579.1	0.177
66	26.90	34.412	4.66	0.09	1.	0.00	0.3	551.6	50	27.15	34.344	4.63	22.196	564.3	0.292
91	24.65	34.049	4.60	0.05	1.	0.04	0.3	511.2	75	26.09	34.263	4.64	22.472	538.0	0.430
122	25.08	34.721	4.63	0.02	1.	0.03	0.3	475.2	100	24.70	34.214	4.61	22.861	500.6	0.561
157	23.09	34.756	4.55	0.06	1.	0.13	0.8	416.4	125	24.90	34.740	4.63	23.178	470.4	0.683
301	17.29	34.777	4.38	0.40	3.	0.00	5.9	268.8	150	23.58	34.777	4.57	23.616	428.6	0.797
361	15.46	34.654	4.26	0.52	7.	0.00	9.3	237.5	200	21.05	34.797	4.49	24.345	359.1	0.997
429	12.75	34.451	3.89	0.97	14.	0.00	15.2	198.1	250	19.01	34.814	4.44	24.896	306.6	1.167
508	10.14	34.314	3.25	1.61	26.	0.00	22.8	162.4	300	17.32	34.778	4.38	25.267	269.4	1.316
598	7.82	34.241	2.54	2.13	44.	0.00	30.0	132.7	400	13.92	34.534	4.07	25.865	214.7	1.568
697	6.34	34.320	1.95	2.43	65.	0.00	35.2	107.3	500	10.38	34.325	3.32	26.380	165.6	1.769
798	5.33	34.362	1.79	2.68	83.	0.00	37.6	92.2	600	7.78	34.243	2.52	26.732	132.1	1.929
898	4.64	34.399	1.79	2.85	98.	0.00	38.8	81.9	700	6.30	34.323	1.94	27.000	106.7	2.058
1000	3.99	34.474	1.86	2.86	113.	0.00	39.7	69.6	800	5.31	34.364	1.79	27.156	92.0	2.167
1064A	3.79	34.492	1.86	2.82	122.	0.00	39.8	66.3	1000	3.99	34.474	1.86	27.391	69.6	2.347
1160A	3.46	34.520	1.90	2.79	128.	0.00	39.8	61.1	1200	3.35	34.532	1.95	27.501	59.3	2.494
1403A	2.95	34.579	2.23	2.79	135.	0.00	39.2	52.1	1500	2.80	34.591	2.29	27.598	50.0	2.686
1696A	2.54	34.602	2.38	2.80	142.	0.00	39.4	47.0	1750	2.47	34.607	2.42	27.639	46.1	2.830
1939A	2.25	34.621	2.56	2.81	146.	0.00	39.2	43.2	2000	2.19	34.625	2.60	27.677	42.4	2.965
2236A	2.01	34.641	2.77	2.76	149.	0.00	39.0	39.9	2250	2.00	34.642	2.78	27.707	39.7	3.092
2522A	1.82	34.653	2.95	2.70	152.	0.00	38.6	37.6	2500	1.86	34.653	2.94	27.728	37.7	3.214
2815A	1.70	34.661	3.13	2.67	152.	0.00	38.0	36.1	2750	1.72	34.660	3.09	27.742	36.4	3.332
3107A	1.630	34.670	3.24	2.64	151.	0.00	37.5	34.9	3000	1.65	34.667	3.20	27.753	35.3	3.447
3401A	1.590	34.675	3.33	2.60	151.	0.00	37.4	34.3	3250	1.61	34.673	3.28	27.761	34.6	3.562
3645A	1.566	34.678	3.48	2.56	150.	0.00	37.1	33.9	3500	1.58	34.677	3.40	27.766	34.1	3.676
3841A	1.571	34.681	3.45	2.64	149.	0.00	36.9	33.7	3750	1.57	34.680	3.47	27.770	33.7	3.790
4037A	1.574	34.683	3.48	2.57	150.	0.00	37.0	33.5	4000	1.57	34.683	3.47	27.772	33.6	3.904
4234A	1.584	34.685	3.51	2.55	149.	0.00	36.9	33.5	4250	1.59	34.686	3.51	27.773	33.5	4.023
4479A	1.606	34.684	3.57	2.59	148.	0.00	36.8	33.7	4500	1.61	34.685	3.57	27.771	33.7	4.143
4775A	1.636	34.686	3.59	2.59	149.	0.00	36.8	33.7	4750	1.63	34.687	3.59	27.770	33.7	4.265
5070A	1.672	34.686	3.63	2.59	149.	0.00	36.8	34.0	5000	1.66	34.687	3.62	27.768	33.9	4.390
5366A	1.709	34.686	3.57	2.61	149.	0.00	36.8	34.3	5250	1.69	34.687	3.61	27.766	34.2	4.518

RV THOMAS WASHINGTON INDOPAC LEG III 56

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
19 59.7N	123 13.2E	6/ 5/76	1047 1451 GMT	5206M	190	2KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.79	34.388	4.68	0.03	2.	0.00	0.2	580.7	0	27.79	34.388	4.68	22.025	580.7	0.000
20	27.55	34.358	4.70	0.03	2.	0.00	0.2	575.4	10	27.67	34.374	4.69	22.053	578.1	0.059
36	27.00	34.392	4.69	0.03	2.	0.00	0.2	556.1	20	27.55	34.358	4.70	22.080	575.4	0.118
51	26.77	34.403	4.66	0.06	2.	0.00	0.2	548.3	30	27.21	34.370	4.69	22.205	563.4	0.178
67	26.55	34.415	4.67	0.04	2.	0.00	0.3	540.8	50	26.78	34.403	4.66	22.360	548.4	0.294
91	25.71	34.587	4.68	0.04	2.	0.03	0.2	503.3	75	26.30	34.465	4.68	22.557	529.8	0.430
131	24.40	34.788	4.63	0.04	2.	0.22	0.1	450.8	100	25.44	34.658	4.67	22.369	490.3	0.548
157	23.18	34.680	4.51	0.15	2.	0.28	0.8	424.4	125	24.61	34.776	4.64	23.310	457.8	0.668
201	20.76	34.896	4.30	0.21	2.	0.03	2.6	344.3	150	23.53	34.710	4.55	23.561	432.0	0.780
260	17.60	34.789	4.51	0.32	5.	0.00	5.4	275.1	200	20.62	34.889	4.30	24.479	346.5	0.978
329	16.23	34.718	4.54	0.42	7.	0.00	7.2	249.4	250	18.07	34.819	4.46	25.136	285.7	1.139
407	13.94	34.542	4.10	0.81	13.	0.00	12.6	214.4	300	16.69	34.755	4.53	25.418	256.9	1.274
496	10.49	34.331	3.22	1.60	30.	0.00	22.5	166.9	400	14.18	34.560	4.16	25.829	217.8	1.527
595	7.92	34.261	2.31	2.27	52.	0.00	31.0	132.6	500	10.67	34.326	3.18	26.383	165.3	1.729
643A	6.94	34.277	2.03	2.42	66.	0.00	34.0	118.9	600	7.80	34.262	2.28	26.744	130.9	1.888
694	6.36	34.289	1.88	2.56	72.	0.00	35.6	109.9	700	6.31	34.295	1.86	26.977	109.0	2.018
743A	5.96	34.329	1.77	2.72	81.	0.00	36.8	102.0	800	5.35	34.378	1.76	27.163	91.2	2.127
796	5.40	34.377	1.76	2.72	89.	0.00	36.0	91.9	1000	4.00	34.461	1.77	27.389	70.7	2.308
844A	4.88	34.391	1.75	2.79	103.	0.00	36.7	85.0	1200	3.32	34.535	2.04	27.508	58.7	2.455
900	4.51	34.416	1.71	2.83	106.	0.00	39.2	79.3	1500	2.75	34.594	2.36	27.605	49.4	2.645
1094A	3.63	34.499	1.89	2.83	126.	0.00	39.9	64.3	1750	2.45	34.608	2.47	27.642	45.7	2.788
1392A	2.93	34.580	2.29	2.84	137.	0.00	39.7	51.9	2000	2.21	34.623	2.60	27.674	42.6	2.923
1643A	2.56	34.602	2.42	2.82	143.	0.00	39.6	47.1	2250	1.97	34.640	2.79	27.707	39.7	3.050
1944A	2.27	34.619	2.57	2.76	146.	0.00	39.40	43.5	2500	1.81	34.650	3.03	27.727	37.8	3.172
2243A	1.98	34.639	2.78	2.75	151.	0.06	39.1	39.8	2750	1.71	34.660	3.15	27.742	36.5	3.289
2542A	1.79	34.651	3.07	2.70	151.	0.00	38.5	37.5	3000	1.64	34.668	3.24	27.755	35.1	3.404
2844A	1.689	34.663	3.17	2.68	151.	0.00	38.0	35.9	3250	1.60	34.673	3.34	27.762	34.4	3.518
3143A	1.608	34.672	3.31	2.61	151.	0.00	37.7	34.6	3500	1.58	34.676	3.41	27.765	34.2	3.632
3393A	1.586	34.674	3.38	2.59	151.	0.00	37.5	34.3	3750	1.57	34.678	3.44	27.768	33.9	3.747
3593A		34.676	3.43	2.63	150.	0.00	37.4		4000	1.57	34.683	3.52	27.772	33.6	3.863
3792A	1.570	34.678	3.45	2.56	150.	0.00	36.7	33.5	4250	1.58	34.682	3.54	27.775	33.3	3.980
3992A	1.574	34.682	3.52	2.61	150.	0.00	36.9	33.6	4500	1.60	34.685	3.57	27.771	33.6	4.099
4243A	1.582	34.687	3.54	2.56	149.	0.00	36.9	33.3	4750	1.63	34.685	3.59	27.769	33.9	4.221
4542A	1.606	34.684	3.58	2.56	149.	0.00	36.6	33.7	5000	1.66	34.685	3.60	27.767	34.0	4.347
4841A	1.640	34.684	3.59	2.56	148.	0.00	36.7	33.9							
5142A	1.678	34.685	3.60	2.58	148.	0.00	36.8	34.1							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
19 38.1N	123 52.8E	06/04/76	2346 GMT

Z	T	S	SIGMA T	DT	DD
0	27.58	34.24	21.982	584.8	0.000
10	27.58	34.27	22.005	582.7	0.058
20	27.58	34.28	22.012	581.9	0.117
30	27.49	34.29	22.049	578.4	0.175
40	27.25	34.33	22.156	568.2	0.232
50	26.96	34.39	22.293	555.0	0.289
75	25.44	34.16	22.595	526.1	0.424
100	24.77	34.39	22.972	490.1	0.552
125	24.04	34.75	23.462	443.5	0.670
150	23.36	34.97	23.676	422.9	0.780
175	22.54	34.1[illegible]	23.904	401.1	0.884
200	21.24	34.79	24.289	364.4	0.982
225	20.44	34.80	24.512	343.1	1.072
250	19.21	34.83	24.857	310.3	1.156
275	18.28	34.80	25.069	290.1	1.233
300	17.13	34.77	25.326	265.7	1.305
350	15.57	34.65	25.595	240.1	1.436
400	13.66	34.50	25.891	212.0	1.555
450	11.73	34.37	26.171	185.4	1.659
500	10.25	34.31	26.391	164.5	1.752
550	9.08	34.27	26.555	149.0	1.836
600	7.64	34.24	26.752	130.3	1.911
650	7.05	34.29	26.874	118.6	1.978
700	6.38	34.31	26.981	108.6	2.040
750	5.96	34.33	27.051	101.9	2.097
800	5.48	34.35	27.126	94.8	2.151
850	5.14	34.36	27.174	90.2	2.203
900	4.68	34.40	27.258	82.2	2.250
950	4.28	34.44	27.334	75.1	2.294
1000	4.00	34.46	27.379	70.8	2.335
1100	3.66	34.51	27.453	63.7	2.412
1200	3.30	34.55	27.520	57.4	2.481
1300	3.12	34.56	27.545	55.1	2.547
1400	2.91	34.57	27.572	52.5	2.610
1500	2.74	34.59	27.604	49.5	2.670
1600	2.624	34.598	27.620	47.9	2.728
1700	2.511	34.605	27.635	46.5	2.785
1800	2.390	34.615	27.654	44.8	2.840
1900	2.293	34.621	27.666	43.6	2.894
2000	2.209	34.626	27.677	42.5	2.947
2100	2.111	34.633	27.691	41.2	2.999
2200	2.026	34.638	27.702	40.2	3.049
2300	1.931	34.644	27.714	39.1	3.099
2400	1.875	34.648	27.721	38.3	3.147
2500	1.832	34.649	27.726	38.0	3.195
2600	1.793	34.651	27.730	37.5	3.243
2700	1.755	34.655	27.736	36.9	3.290
2800	1.722	34.658	27.741	36.5	3.337
2900	1.688	34.662	27.747	35.9	3.384
3000	1.657	34.664	27.751	35.6	3.430
3100	1.638	34.667	27.755	35.2	3.476
3200	1.622	34.669	27.757	34.9	3.522
3300	1.605	34.671	27.760	34.7	3.568
3400	1.592	34.673	27.763	34.4	3.614
3500	1.583	34.675	27.765	34.2	3.660
3600	1.574	34.677	27.767	34.0	3.705
3700	1.571	34.678	27.768	33.9	3.751
3800	1.569	34.680	27.770	33.7	3.797
3900	1.570	34.681	27.771	33.7	3.843
4000	1.571	34.682	27.772	33.6	3.890
4100	1.574	34.683	27.772	33.5	3.937
4200	1.578	34.684	27.773	33.5	3.984
4300	1.585	34.684	27.772	33.5	4.031
4400	1.594	34.685	27.772	33.5	4.079
4500	1.604	34.685	27.772	33.6	4.127
4600	1.615	34.685	27.771	33.7	4.175
4700	1.624	34.685	27.770	33.7	4.224
4800	1.636	34.686	27.770	33.7	4.273
4900	1.648	34.686	27.769	33.8	4.323
5000	1.659	34.686	27.768	33.9	4.374
5100	1.672	34.686	27.767	34.0	4.424
5200	1.684	34.686	27.766	34.1	4.476
5300	1.697	34.686	27.765	34.2	4.528
5400	1.710	34.685	27.764	34.3	4.580

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
19 59.7N	123 13.2E	06/05/76	0400 GMT

Z	T	S	SIGMA T	DT	DD
0	27.82	34.39	22.017	581.5	0.000
10	27.80	34.39	22.023	580.9	0.058
20	27.70	34.38	22.048	578.5	0.116
30	27.61	34.39	22.085	575.0	0.174
40	27.49	34.36	22.101	573.4	0.231
50	26.96	34.39	22.293	555.0	0.288
75	26.60	34.48	22.475	537.6	0.425
100	25.71	34.65	22.866	500.2	0.556
125	24.41	34.80	23.389	450.2	0.676
150	23.01	34.64	23.679	422.6	0.786
175	22.73	34.79	23.873	404.1	0.891
200	21.62	34.89	24.260	367.2	0.989
225	20.21	34.87	24.627	332.2	1.079
250	19.33	34.86	24.849	311.1	1.161
275	18.55	34.82	25.017	295.1	1.239
300	17.38	34.78	25.273	270.7	1.312
350	15.76	34.66	25.560	243.5	1.446
400	13.91	34.52	25.854	215.4	1.566
450	11.65	34.36	26.178	184.7	1.671
500	10.18	34.31	26.403	163.4	1.764
550	8.69	34.27	26.617	143.1	1.846
600	8.02	34.30	26.743	131.1	1.919
650	6.79	34.27	26.894	116.7	1.986
700	6.28	34.29	26.978	108.8	2.047
750	5.97	34.35	27.049	102.1	2.105
800	5.43	34.37	27.148	92.7	2.159
850	4.91	34.39	27.224	85.4	2.208
900	4.55	34.42	27.289	79.4	2.254
950	4.36	34.43	27.317	76.7	2.297
1000	4.06	34.45	27.365	72.1	2.339
1100	3.64	34.49	27.440	65.1	2.417
1200	3.28	34.54	27.514	58.0	2.487
1300	3.09	34.57	27.556	54.0	2.553
1400	2.89	34.58	27.582	51.5	2.614
1500	2.69	34.59	27.608	49.1	2.674
1600	2.593	34.600	27.624	47.5	2.732
1700	2.505	34.605	27.636	46.5	2.788
1800	2.436	34.611	27.647	45.4	2.844
1900	2.326	34.618	27.661	44.0	2.898
2000	2.232	34.624	27.674	42.9	2.952
2100	2.145	34.632	27.687	41.6	3.004
2200	2.034	34.638	27.701	40.3	3.055
2300	1.955	34.644	27.712	39.2	3.104
2400	1.911	34.647	27.718	38.7	3.153
2500	1.850	34.651	27.726	37.9	3.201
2600	1.777	34.656	27.735	37.0	3.249
2700	1.741	34.657	27.739	36.7	3.296
2800	1.718	34.658	27.741	36.5	3.343
2900	1.675	34.663	27.749	35.8	3.389
3000	1.658	34.666	27.752	35.4	3.435
3100	1.638	34.668	27.755	35.1	3.481
3200	1.617	34.670	27.759	34.8	3.527
3300	1.611	34.671	27.760	34.7	3.573
3400	1.601	34.673	27.762	34.5	3.619
3500	1.591	34.676	27.765	34.2	3.665
3600	1.585	34.677	27.767	34.1	3.711
3700	1.587	34.677	27.766	34.1	3.757
3800	1.580	34.680	27.769	33.8	3.803
3900	1.579	34.681	27.770	33.7	3.849
4000	1.578	34.682	27.771	33.6	3.896
4100	1.581	34.683	27.772	33.6	3.943
4200	1.587	34.684	27.772	33.6	3.990
4300	1.589	34.685	27.773	33.5	4.037
4400	1.595	34.684	27.771	33.6	4.085
4500	1.603	34.684	27.771	33.7	4.133
4600	1.614	34.684	27.770	33.7	4.182
4700	1.624	34.684	27.769	33.8	4.231
4800	1.635	34.684	27.769	33.9	4.280
4900	1.645	34.683	27.767	34.0	4.330
5000	1.658	34.683	27.766	34.1	4.381
5100	1.671	34.683	27.765	34.2	4.432
5158	1.678	34.683	27.765	34.3	4.461

RV THOMAS WASHINGTON INDOPAC LEG III 37

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
20 21. N	122 21. E	6/ 6/76	0113 0308 GMT	3224M	170	3KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.53	34.455	4.78	0.10	2.	0.00	0.0	599.1	0	28.53	34.455	4.78	21.833	599.1	0.000
10	27.95	34.458	4.67		2.	0.00	0.0	580.6	10	27.95	34.458	4.67	22.026	580.6	0.059
20	27.91	34.453	4.67	0.08	2.	0.00	0.0	579.8	20	27.91	34.453	4.67	22.035	579.8	0.117
31	27.67	34.464	4.69	0.08	2.	0.00	0.0	571.5	30	27.70	34.464	4.69	22.116	572.4	0.175
51	27.17	34.413	4.69	0.08	2.	0.00	0.0	559.8	50	27.19	34.415	4.69	22.237	560.4	0.288
76	26.79	34.615	4.68	0.05	2.	0.00	0.0	533.6	75	26.80	34.607	4.68	22.507	534.6	0.426
91	26.72	34.647	4.67	0.04	2.	0.00	0.1	529.2	100	26.35	34.651	4.71	22.680	518.0	0.558
101	26.30	34.650	4.71	0.03	2.	0.00	0.1	516.3	125	24.47	34.728	4.78	23.316	457.3	0.681
121	24.76	34.710	4.79	0.04	2.	0.00	0.1	466.9	150	22.98	34.837	4.64	23.837	407.5	0.791
151	22.93	34.841	4.63	0.11	2.	0.07	0.4	405.9	200	21.01	34.880	4.36	24.420	351.9	0.984
180	21.97	34.885	4.34	0.13	2.	0.03	1.2	376.6	250	18.46	34.830	4.40	25.048	292.1	1.149
257	18.08	34.820	4.41	0.28	5.	0.00	4.0	284.0	300	16.34	34.727	4.36	25.477	251.3	1.289
353	14.43	34.585	4.29	0.64	13.	0.00	10.4	221.1	400	12.75	34.478	3.98	26.058	196.2	1.523
449	11.09	34.380	3.56	1.33	30.	0.00	19.6	173.4	500	9.41	34.297	3.06	26.521	152.1	1.707
548	8.10	34.253	2.62	2.00	52.	0.00	28.4	135.8	600	7.40	34.269	2.35	26.808	124.9	1.855
650	6.86	34.286	2.11	2.32	69.	0.00	32.5	116.4	700	6.00	34.286	1.80	27.010	105.6	1.980
696A	6.05	34.283	1.80	2.47	80.	0.00	34.1	106.5	800	5.24	34.376	1.71	27.175	98.1	2.087
796A	5.26	34.372	1.71	2.66	95.	0.00	37.0	90.7	1000	3.96	34.466	1.67	27.403	88.5	2.264
896A	4.69	34.445	1.79	2.77	105.	0.00	37.2	79.0	1200	3.40	34.535	2.08	27.498	59.5	2.411
996A	3.97	34.484	1.87	2.84	119.	0.00	38.9	68.7	1500	2.84	34.583	2.33	27.588	51.0	2.605
1096A	3.76	34.502	1.87	2.89	123.	0.00	39.1	65.3	1750	2.46	34.605	2.49	27.639	46.1	2.750
1196A	3.41	34.533	2.08	2.92	129.	0.00	39.6	59.7	2000	2.15	34.631	2.65	27.687	41.7	2.884
1397A	3.020	34.570	2.20	2.91	135.	0.00	39.6	53.4	2250	1.90	34.645	2.93	27.717	38.7	3.008
1596A	2,688	34.590	2.44	2.87	140.	0.00	39.3	49.1	2500	1.76	34.657	3.09	27.736	36.9	3.126
1796A	2,397	34.609	2.50	2.87	144.	0.00	39.2	45.3	2750	1.70	34.664	3.22	27.747	35.9	3.242
1996A	2,136	34.629	2.65	2.83	148.	0.00	38.7	41.7	3000	1.61	34.671	3.30	27.759	34.8	3.355
2195A	1,940	34.642	2.89	2.81	149.	0.00	38.7	39.3							
2394A	1,805	34.653	3.02	2.82	150.	0.00	38.8	37.5							
2594A	1,732	34.659	3.15	2.77	150.	0.00	37.5	36.5							
2794A	1,686	34.664	3.24	2.76	150.	0.00	37.7	35.8							
2993A	1,613	34.670	3.30	2.73	149.	0.00	37.3	34.8							
3194A	1,582	34.674	3.36	2.73	148.	0.00	37.5	34.3							

RV THOMAS WASHINGTON INDOPAC LEG III 38

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 22.0N	121 36.9E	6/ 6/76	1501 1733 GMT	3943M	170	6KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	26.83	34.364	4.78	0.04	2.		0.1	552.9	0	26.83	34.364	4.78	22.315	552.9	0.000
20	26.39	34.573	4.78	0.10	2.	0.00	0.1	524.6	10	26.70	34.483	4.78	22.444	540.6	0.055
40	25.20	34.683	4.78	0.19	2.	0.00	0.1	481.5	20	26.39	34.573	4.78	22.611	524.6	0.108
65	24.29	34.714	4.75	0.17	2.	0.00	0.3	453.0	30	25.62	34.639	4.78	22.839	502.8	0.159
90	22.68	34.636	4.49	0.20	3.	0.00	2.2	413.9	50	24.84	34.711	4.77	23.196	469.0	0.257
115	22.45	34.708	4.51	0.45	3.	0.10	1.4	402.5	75	23.61	34.679	4.64	23.535	436.3	0.371
146	20.33	34.755	4.39	0.38	5.	0.04	3.4	343.6	100	22.58	34.661	4.50	23.815	409.6	0.477
180	19.43	34.799	4.42	0.40	5.	0.03	2.8	318.0	125	21.81	34.722	4.47	24.080	384.3	0.578
220	18.12	34.762	4.35	0.40	8.	0.14	4.5	289.1	150	20.19	34.762	4.39	24.550	339.5	0.869
271	15.52	34.655	4.25	0.71	12.	0.03	8.8	238.7	200	18.85	34.790	4.39	24.923	304.0	0.833
331	12.71	34.475	3.83	0.73	22.	0.00	15.2	195.6	250	16.64	34.703	4.31	25.390	259.6	0.978
406	10.29	34.332	3.36	1.60	35.	0.00	21.1	163.5	300	14.10	34.568	4.06	25.851	215.8	1.101
464A	8.64	34.269	2.86	1.99	49.	0.00	25.9	142.4	400	10.46	34.342	3.40	26.380	165.6	1.300
548	7.59	34.305	2.42	2.28	62.	0.00	29.1	124.8	500	8.09	34.277	2.64	26.713	133.9	1.458
615A	6.78	34.345	2.20	2.43	76.	0.00	30.6	111.0	600	6.95	34.337	2.24	26.924	113.9	1.591
765A	5.57	34.420	2.03	2.85	94.	0.00	33.6	90.6	700	6.03	34.391	2.10	27.090	98.2	1.707
965A	4.39	34.491	2.19	2.91	115.	0.00	35.3	72.4	800	5.33	34.435	2.04	27.210	86.8	1.809
1163A	3.67	34.540	2.30	2.76	127.	0.00	37.0	61.6	1000	4.24	34.502	2.21	27.387	70.0	1.985
1364A	3.22	34.566	2.39	2.91	134.	0.00	37.0	55.5	1200	3.58	34.546	2.32	27.490	60.3	2.134
1564A	2.79	34.591	2.50	2.82	141.	0.00	37.1	49.9	1500	2.92	34.585	2.47	27.582	51.5	2.332
1763A	2.50	34.603	2.55	2.75	143.	0.00	39.0	46.6	1750	2.52	34.603	2.55	27.633	46.8	2.479
1963A	2,209	34.622	2.68	2.74	146.	0.00	38.4	42.8	2000	2.15	34.626	2.71	27.681	42.1	2.614
2163A	1,937	34.640	2.86	2.73	149.	0.00	38.4	39.4	2250	1.87	34.645	2.94	27.719	38.6	2.739
2363A	1,803	34.649	3.04	2.81	149.	0.00	37.6	37.7	2500	1.74	34.656	3.11	27.738	36.7	2.856
2563A	1,710	34.659	3.14	2.68	149.	0.00	37.0	36.3	2750	1.65	34.663	3.27	27.750	35.6	2.970
2764A	1,649	34.663	3.28	2.63	149.	0.00	37.0	35.6	3000	1.62	34.671	3.34	27.759	34.8	3.084
2963A	1,621	34.670	3.33	2.66	148.	0.00	36.7	34.9	3250	1.59	34.674	3.42	27.764	34.3	3.197
3162A	1,599	34.672	3.39	2.70	148.	0.00	36.4	34.5	3500	1.58	34.678	3.47	27.767	34.0	3.310
3362A	1,581	34.676	3.45	2.70	148.	0.00	36.2	34.1	3750	1.58	34.682	3.48	27.771	33.6	3.424
3563A	1,578	34.678	3.47	2.66	148.	0.00	36.7	34.0							
3763A	1,575	34.682	3.48	2.64	148.	0.00	36.4	33.6							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
20 21. N	122 21. E	06/06/76	0000 GMT

Z	T	S	SIGMA T	DT	DD
0	28.22	34.44	21.924	590.4	0.000
10	28.01	34.42	21.977	585.3	0.059
20	27.87	34.44	22.036	579.4	0.117
30	27.50	34.43	22.150	568.7	0.175
40	27.19	34.48	22.288	555.6	0.231
50	26.90	34.52	22.410	543.6	0.286
75	26.71	34.64	22.561	529.4	0.421
100	25.74	34.56	22.804	506.2	0.551
125	23.64	34.82	23.632	427.1	0.669
150	22.16	34.88	24.102	382.2	0.771
175	20.29	34.90	24.628	332.1	0.862
200	19.22	34.88	24.892	306.9	0.944
225	18.53	34.84	25.037	293.2	1.021
250	17.73	34.80	25.204	277.3	1.094
275	16.55	34.73	25.432	255.6	1.163
300	15.65	34.67	25.592	240.4	1.227
350	14.58	34.59	25.766	223.8	1.348
400	12.72	34.47	26.058	196.1	1.458
450	11.08	34.37	26.291	174.0	1.555
500	9.04	34.27	26.561	148.5	1.641
550	7.89	34.23	26.707	134.5	1.716
600	7.32	34.29	26.837	122.2	1.785
650	6.51	34.29	26.948	111.7	1.848
700	5.54	34.31	27.087	98.5	1.905
750	5.30	34.35	27.147	92.8	1.958
800	5.14	34.41	27.214	86.5	2.007
850	4.84	34.43	27.264	81.7	2.054
900	4.59	34.44	27.300	78.3	2.098
950	4.27	34.46	27.351	73.5	2.141
1000	4.07	34.48	27.388	70.0	2.181
1100	3.64	34.51	27.455	63.6	2.257
1200	3.32	34.54	27.510	58.3	2.327
1300	3.12	34.56	27.545	55.1	2.393
1400	3.02	34.58	27.570	52.7	2.456
1500	2.78	34.59	27.600	49.9	2.517
1600	2.625	34.598	27.620	48.0	2.575
1700	2.492	34.603	27.635	46.5	2.632
1800	2.355	34.615	27.657	44.5	2.687
1900	2.213	34.622	27.674	42.9	2.740
2000	2.146	34.628	27.684	41.9	2.792
2100	2.021	34.638	27.702	40.2	2.843
2200	1.921	34.645	27.716	38.9	2.891
2300	1.873	34.648	27.722	38.3	2.939
2400	1.797	34.654	27.732	37.3	2.987
2500	1.777	34.655	27.735	37.1	3.033
2600	1.723	34.659	27.742	36.4	3.080
2700	1.705	34.661	27.745	36.1	3.126
2800	1.680	34.663	27.748	35.8	3.172
2900	1.657	34.665	27.752	35.5	3.218
3000	1.623	34.669	27.757	34.9	3.263
3100	1.602	34.670	27.760	34.7	3.309
3200	1.580	34.673	27.764	34.3	3.354

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 22.0N	121 36.9E	06/06/76	1323 GMT

Z	T	S	SIGMA T	DT	DD
0	27.02	34.40	22.282	556.1	0.000
10	26.82	34.47	22.398	545.0	0.055
20	26.33	34.56	22.620	523.7	0.109
30	25.62	34.63	22.894	497.6	0.160
40	25.04	34.68	23.109	477.0	0.209
50	24.99	34.69	23.132	474.8	0.256
75	24.06	34.67	23.395	449.7	0.373
100	23.60	34.67	23.531	436.8	0.484
125	22.16	34.72	23.981	393.8	0.589
150	20.69	34.76	24.415	352.4	0.684
175	19.56	34.78	24.729	322.5	0.769
200	19.00	34.78	24.872	308.8	0.850
225	17.38	34.69	25.205	277.2	0.925
250	15.86	34.62	25.506	248.5	0.993
275	14.27	34.54	25.794	221.2	1.053
300	13.63	34.50	25.897	211.4	1.109
350	11.81	34.39	26.171	185.4	1.213
400	9.69	34.27	26.455	158.4	1.303
450	8.79	34.26	26.593	145.3	1.383
500	7.98	34.25	26.709	134.3	1.457
550	7.54	34.32	26.829	123.0	1.526
600	6.92	34.33	26.924	113.9	1.589
650	6.44	34.34	26.996	107.1	1.649
700	6.05	34.36	27.063	100.8	1.706
750	5.71	34.39	27.129	94.5	1.759
800	5.36	34.42	27.195	88.2	1.810
850	5.08	34.44	27.244	83.6	1.858
900	4.64	34.46	27.310	77.3	1.903
950	4.41	34.48	27.351	73.4	1.945
1000	4.25	34.49	27.377	71.0	1.986
1100	3.77	34.53	27.458	63.3	2.063
1200	3.50	34.55	27.501	59.2	2.133
1300	3.30	34.56	27.528	56.6	2.201
1400	3.10	34.57	27.555	54.1	2.266
1500	2.92	34.58	27.579	51.8	2.329
1600	2.705	34.588	27.605	49.4	2.390
1700	2.549	34.598	27.627	47.3	2.448
1800	2.389	34.608	27.648	45.3	2.504
1900	2.303	34.615	27.661	44.1	2.558
2000	2.135	34.626	27.683	41.9	2.611
2100	2.004	34.636	27.702	40.2	2.661
2200	1.926	34.641	27.712	39.2	2.710
2300	1.852	34.645	27.721	38.4	2.758
2400	1.819	34.648	27.726	37.9	2.806
2500	1.766	34.653	27.734	37.2	2.853
2600	1.723	34.658	27.741	36.5	2.899
2700	1.690	34.661	27.746	36.0	2.945
2800	1.661	34.664	27.751	35.6	2.991
2900	1.641	34.666	27.754	35.3	3.037
3000	1.620	34.669	27.758	34.9	3.082
3100	1.609	34.671	27.760	34.7	3.127
3200	1.600	34.672	27.762	34.6	3.173
3300	1.597	34.675	27.764	34.3	3.218
3400	1.586	34.677	27.767	34.1	3.263
3500	1.582	34.678	27.768	34.0	3.309
3600	1.570	34.680	27.770	33.7	3.354
3700	1.569	34.681	27.771	33.7	3.400
3763	1.578	34.681	27.770	33.7	3.429

RV THOMAS WASHINGTON — INDOPAC LEG III — 39

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME GMT	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 35. N	122 11. E	6/ 6/76	2223	0203	4600M	180	6KT	1	180 2 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.20	34.505	4.63	0.05	2.	0.00	0.0	585.1	0	28.20	34.505	4.63	21.979	585.1	0.000
31	28.00	34.504	4.64	0.05	2.	0.00	0.0	578.9	10	28.14	34.505	4.63	22.000	583.1	0.058
55	27.48	34.482	4.66	0.07	2.	0.00	0.0	564.3	20	28.07	34.505	4.63	22.021	581.1	0.117
81	26.52	34.672	4.80	0.04	2.	0.00	0.0	521.4	30	28.01	34.505	4.64	22.042	579.1	0.175
106	25.20	34.724	4.63	0.11	2.	0.00	0.0	478.5	50	27.62	34.480	4.66	22.150	568.7	0.290
131	23.21	34.679	4.43	0.13	2.	0.04	0.4	410.9	75	26.78	34.626	4.78	22.527	532.6	0.428
161	22.19	34.850	4.58	0.13	2.	0.04	0.4	386.6	100	25.57	34.713	4.69	22.973	490.0	0.557
191	21.16	34.908	4.24	0.26	3.	0.00	1.6	353.8	125	23.67	34.843	4.47	23.641	426.2	0.673
220	18.96	34.864	4.30	0.27	4.	0.00	3.3	301.8	150	22.48	34.857	4.53	23.995	392.4	0.776
260	17.22	34.764	4.55	0.36	5.	0.00	5.2	268.2	200	20.50	34.898	4.26	24.572	337.5	0.962
299	15.85	34.686	4.43	0.57	10.	0.00	8.3	243.5	250	17.57	34.792	4.50	25.237	274.1	1.119
349	14.24	34.570	4.13	0.83	14.	0.00	11.8	218.4	300	15.82	34.684	4.43	25.565	242.9	1.252
397	12.88	34.498	3.79	1.15	24.	0.00	15.1	197.1	400	12.79	34.495	3.75	26.065	195.6	1.481
443A	11.40	34.447	3.19	1.51	37.	0.00	18.8	173.9	500	9.62	34.349	2.91	26.527	151.6	1.665
518	9.09	34.318	2.86	1.82	48.	0.00	26.4	145.5	600	7.01	34.262	2.25	26.857	120.3	1.811
594A	7.11	34.259	2.28	2.46	66.		26.8	121.7	700	5.84	34.333	1.92	27.067	100.3	1.930
747A	5.57	34.378	1.87	2.68	89.		32.6	93.7	800	5.17	34.407	1.86	27.207	87.1	2.033
912A	4.49	34.454	1.85	2.74	111.		36.0	76.2	1000	4.08	34.492	1.95	27.395	69.3	2.208
1111A	3.68	34.529	2.11	2.71	127.		38.0	62.5	1200	3.39	34.546	2.18	27.508	58.6	2.354
1360A	2.99	34.564	2.26	2.82	138.		38.0	53.6	1500	2.75	34.582	2.34	27.595	50.3	2.546
1610A	2.61	34.593	2.40	2.83	143.		38.0	48.2	1750	2.42	34.605	2.51	27.642	45.7	2.689
1909A	2.22	34.619	2.64	2.74	147.		39.7	43.1	2000	2.10	34.627	2.71	27.686	41.6	2.822
2207A	1.882	34.646	2.86	2.72	150.		38.5	38.5	2250	1.85	34.648	2.90	27.723	38.1	2.944
2506A	1.719	34.660	3.10	2.61	150.		37.9	36.3	2500	1.72	34.660	3.10	27.743	36.3	3.061
2806A	1.623	34.668	3.27	2.62	149.		37.9	35.0	2750	1.64	34.667	3.25	27.754	35.2	3.174
3105A	1.573	34.675	3.30	2.59	149.		37.4	34.1	3000	1.59	34.673	3.29	27.763	34.4	3.286
3404A	1.550	34.677	3.39	2.57	149.		37.2	33.8	3250	1.56	34.676	3.34	27.768	33.9	3.397
3655A	1.560	34.680	3.46	2.57	150.		34.9	33.7	3500	1.55	34.679	3.42	27.770	33.8	3.509
3904A	1.570	34.682	3.46	2.54	149.		35.5	33.6	3750	1.56	34.681	3.46	27.771	33.6	3.623
4203A	1.591	34.684	3.50	2.60	149.		35.6	33.6	4000	1.58	34.683	3.47	27.772	33.6	3.739
4503A	1.616	34.685	3.52	2.65	149.		36.1	33.7	4250	1.59	34.685	3.50	27.772	33.6	3.856
4803A	1.642	34.686	3.51	2.57	149.		36.3	33.8	4500	1.62	34.686	3.52	27.771	33.7	3.976
									4750	1.64	34.686	3.51	27.770	33.8	4.099

RV THOMAS WASHINGTON — INDOPAC LEG III — 40

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME GMT	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 35.3N	123 06.1E	6/ 7/76	0919	1340	5661M	140	7KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.86	34.640	4.71	0.03	2.	0.00	0.0	564.8	0	27.86	34.640	4.71	22.191	564.8	0.000
20	27.34	34.634	4.73	0.01	2.	0.00	0.0	549.1	10	27.59	34.639	4.72	22.277	556.6	0.056
41	26.85	34.616	4.77	0.01	2.	0.00	0.1	535.4	20	27.34	34.634	4.73	22.355	549.1	0.111
60	26.58	34.632	4.83	0.02	2.	0.00	0.1	526.1	30	27.09	34.625	4.75	22.427	542.2	0.166
86	24.85	34.683	4.99	0.03	2.	0.00	0.1	471.3	50	26.76	34.622	4.79	22.530	532.4	0.274
121	23.95	34.695	4.94	0.03	2.	0.00	0.1	444.8	75	25.62	34.659	4.93	22.915	495.6	0.403
151	22.73	34.714	4.73	0.04	2.	0.13	0.4	409.6	100	24.43	34.694	4.97	23.304	458.4	0.523
181	21.78	34.749	4.65	0.11	2.	0.04	1.4	381.6	125	23.79	34.697	4.91	23.494	440.2	0.637
220	20.64	34.843	4.44	0.17	3.	0.03	2.7	345.1	150	22.77	34.714	4.74	23.802	410.8	0.744
260	19.21	34.831	4.46	0.23	4.	0.00	4.0	310.2	200	21.23	34.798	4.54	24.297	363.7	0.941
310	17.51	34.790	4.53	0.32	5.	0.00	5.6	272.9	250	19.58	34.639	4.46	24.770	318.6	1.116
368	16.27	34.718	4.51	0.42	8.	0.00	7.6	250.3	300	17.82	34.800	4.52	25.181	279.4	1.270
438	14.22	34.569	4.17	0.78	15.	0.00	12.4	218.1	400	15.41	34.658	4.39	25.636	236.2	1.538
506	11.63	34.389	3.55	1.36	24.	0.00	19.6	182.2	500	11.86	34.403	3.61	26.171	185.3	1.761
576	9.60	34.326	2.98	1.78	42.	0.00	25.7	152.9	600	9.07	34.327	2.84	26.600	144.6	1.938
657	8.04	34.344	2.59	2.06	62.	0.00	30.4	128.1	700	7.43	34.365	2.47	26.880	118.1	2.081
739	6.95	34.378	2.37	2.33	76.	0.00	33.4	110.8	800	6.26	34.374	2.11	27.046	102.4	2.202
814A	6.12	34.372	2.05	2.38	86.	0.00	35.1	100.7	1000	4.66	34.447	1.94	27.297	78.6	2.405
913A	5.23	34.410	1.97	2.63	99.	0.00	37.1	87.5	1200	3.63	34.522	2.09	27.466	62.6	2.567
1013A	4.59	34.451	1.96	2.82	110.	0.00	38.2	77.5	1500	2.81	34.571	2.32	27.581	51.6	2.767
1113A	4.05	34.496	2.04	2.79	120.	0.00	38.7	68.6	1750	2.39	34.600	2.47	27.641	46.0	2.913
1263A	3.37	34.555	2.12	2.85	131.	0.00	39.0	59.2	2000	2.11	34.624	2.70	27.683	42.0	3.046
1513A	2.79	34.571	2.33	2.81	141.	0.00	39.5	51.4	2250	1.90	34.642	2.89	27.715	38.9	3.170
1762A	2.37	34.600	2.48	2.81	146.	0.00	39.6	45.8	2500	1.75	34.653	3.07	27.735	37.0	3.289
2013A	2.10	34.624	2.71	2.78	147.	0.00	39.4	41.8	2750	1.66	34.662	3.22	27.748	35.7	3.404
2314A	1.85	34.647	2.93	2.76	149.	0.00	39.0	38.2	3000	1.61	34.669	3.31	27.758	34.9	3.517
2614A	1.70	34.657	3.15	2.67	149.	0.00	38.5	36.4	3250	1.58	34.673	3.39	27.763	34.4	3.630
2915A	1.625	34.667	3.28	2.63	149.	0.00	38.1	35.1	3500	1.56	34.676	3.45	27.767	34.0	3.744
3218A	1.586	34.672	3.38	2.62	149.	0.00	38.0	34.5	3750	1.57	34.679	3.51	27.769	33.8	3.858
3520A	1.564	34.676	3.46	2.61	149.	0.00	37.9	34.0	4000	1.58	34.680	3.51	27.769	33.8	3.974
3799P	1.573	34.679	3.52	2.60	148.	0.00	37.7	33.8	4250	1.60	34.680	3.56	27.767	34.0	4.093
4062P	1.581	34.680	3.51	2.59	148.	0.00	37.7	33.8	4500	1.62	34.683	3.56	27.768	34.0	4.214
4310P	1.608	34.679	3.57	2.59	148.		37.6	34.1	4750	1.65	34.684	3.57	27.767	34.0	4.337
4564P	1.628	34.683	3.55	2.59	148.	0.00	37.6	33.9	5000	1.67	34.683	3.57	27.765	34.3	4.463
4814P	1.651	34.683	3.58	2.58	147.	0.00	37.7	34.1	5250	1.70	34.683	3.59	27.763	34.5	4.592
5096P	1.680	34.682	3.57	2.56	147.	0.00	37.7	34.4							
5356P	1.712	34.683	3.61	2.61	147.	0.00	37.8	34.5							

P) THESE NANSEN BOTTLES POSTTRIPPED, CAUSING THE DEPTHS TO BE UNCERTAIN.

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 35. N	122 11. E	06/06/76	2042 GMT

Z	T	S	SIGMA T	DT	DD
0	27.99	34.47	22.021	581.0	0.000
10	27.99	34.50	22.044	578.9	0.058
20	27.99	34.51	22.051	578.2	0.116
30	27.96	34.52	22.069	576.5	0.174
40	27.91	34.51	22.078	575.7	0.232
50	27.80	34.50	22.106	573.0	0.289
75	26.95	34.57	22.432	541.7	0.429
100	25.67	34.72	22.946	492.6	0.559
125	24.28	34.86	23.473	442.2	0.677
150	22.75	34.86	23.920	399.6	0.784
175	21.62	34.90	24.268	366.4	0.881
200	20.35	34.93	24.635	331.4	0.970
225	18.41	34.84	25.067	290.3	1.050
250	17.16	34.76	25.311	267.1	1.121
275	16.38	34.69	25.441	254.8	1.188
300	16.15	34.70	25.501	249.0	1.254
350	14.80	34.61	25.734	226.9	1.377
400	13.32	34.51	25.968	204.6	1.490
450	10.98	34.43	26.355	167.9	1.589
500	8.81	34.30	26.621	142.6	1.671
550	7.79	34.24	26.730	132.4	1.745
600	7.12	34.26	26.841	121.8	1.813
650	6.46	34.33	26.986	108.1	1.875
700	6.00	34.32	27.038	103.2	1.933
750	5.64	34.35	27.106	96.7	1.987
800	5.30	34.36	27.155	92.0	2.039
850	4.95	34.39	27.220	85.9	2.088
900	4.64	34.43	27.287	79.6	2.134
950	4.39	34.46	27.338	74.7	2.178
1000	4.20	34.48	27.374	71.3	2.219
1100	3.81	34.51	27.438	65.2	2.297
1200	3.44	34.54	27.499	59.4	2.368
1300	3.12	34.55	27.537	55.8	2.435
1400	2.90	34.57	27.573	52.4	2.499
1500	2.74	34.58	27.596	50.3	2.559
1600	2.562	34.593	27.622	47.8	2.617
1700	2.388	34.605	27.646	45.5	2.673
1800	2.286	34.613	27.661	44.1	2.727
1900	2.128	34.624	27.682	42.1	2.779
2000	2.034	34.631	27.695	40.8	2.830
2100	1.931	34.640	27.711	39.4	2.879
2200	1.853	34.644	27.720	38.5	2.927
2300	1.817	34.647	27.725	38.0	2.974
2400	1.756	34.652	27.734	37.2	3.021
2500	1.710	34.656	27.740	36.5	3.067
2600	1.674	34.660	27.746	36.0	3.112
2700	1.650	34.663	27.751	35.6	3.158
2800	1.626	34.666	27.755	35.2	3.203
2900	1.601	34.669	27.759	34.8	3.247
3000	1.588	34.671	27.762	34.5	3.292
3100	1.580	34.673	27.764	34.3	3.337
3200	1.565	34.676	27.767	34.0	3.382
3300	1.562	34.678	27.769	33.8	3.426
3400	1.556	34.680	27.771	33.6	3.471
3500	1.552	34.679	27.771	33.7	3.516
3600	1.553	34.680	27.771	33.6	3.561
3700	1.559	34.681	27.772	33.6	3.606
3800	1.563	34.682	27.772	33.5	3.652
3900	1.570	34.683	27.772	33.5	3.698
4000	1.575	34.683	27.772	33.5	3.744
4100	1.580	34.684	27.773	33.5	3.791
4200	1.587	34.685	27.773	33.5	3.838
4300	1.597	34.686	27.773	33.5	3.886
4400	1.606	34.686	27.772	33.5	3.933
4500	1.613	34.686	27.772	33.6	3.981
4600	1.623	34.686	27.771	33.7	4.030
4700	1.634	34.687	27.771	33.7	4.079
4800	1.642	34.685	27.769	33.9	4.129

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 35.3N	123 06.1E	06/07/76	0718 GMT

Z	T	S	SIGMA T	DT	DD
0	28.34	34.59	21.997	563.4	0.000
10	27.87	34.60	22.158	547.9	0.058
20	27.44	34.64	22.327	551.7	0.114
30	27.03	34.64	22.459	539.1	0.168
40	26.63	34.64	22.586	527.0	0.222
50	26.06	34.65	22.772	509.2	0.274
75	24.80	34.70	23.197	468.6	0.397
100	23.89	34.71	23.476	442.0	0.511
125	22.93	34.73	23.770	413.9	0.619
150	22.29	34.74	23.959	395.8	0.722
175	21.96	34.81	24.105	381.9	0.821
200	21.08	34.82	24.355	358.1	0.915
225	20.16	34.87	24.640	331.0	1.003
250	19.16	34.81	24.854	310.5	1.085
275	18.79	34.81	24.949	301.6	1.164
300	18.06	34.81	25.131	284.2	1.239
350	16.15	34.70	25.501	249.0	1.378
400	14.90	34.61	25.712	229.0	1.503
450	12.76	34.44	26.027	199.1	1.616
500	11.19	34.36	26.263	176.7	1.715
550	9.84	34.32	26.469	157.1	1.805
600	8.81	34.33	26.645	140.4	1.885
650	7.98	34.31	26.761	129.4	1.958
700	7.33	34.34	26.874	118.6	2.025
750	6.94	34.36	26.945	112.0	2.089
800	6.29	34.36	27.032	103.7	2.148
850	5.55	34.38	27.141	93.4	2.203
900	5.15	34.43	27.228	85.1	2.253
950	4.74	34.43	27.275	80.6	2.299
1000	4.47	34.45	27.321	76.3	2.344
1100	3.89	34.49	27.414	67.4	2.425
1200	3.54	34.52	27.473	61.9	2.500
1300	3.18	34.54	27.524	57.1	2.569
1400	2.96	34.55	27.552	54.4	2.634
1500	2.74	34.58	27.596	50.3	2.695
1600	2.602	34.581	27.608	49.1	2.754
1700	2.452	34.591	27.629	47.1	2.812
1800	2.336	34.606	27.651	45.0	2.867
1900	2.204	34.614	27.668	43.4	2.921
2000	2.096	34.624	27.685	41.8	2.973
2100	2.007	34.634	27.700	40.4	3.023
2200	1.948	34.638	27.708	39.6	3.072
2300	1.882	34.645	27.719	38.6	3.121
2400	1.831	34.650	27.727	37.9	3.169
2500	1.769	34.653	27.734	37.2	3.216
2600	1.729	34.656	27.739	36.7	3.262
2700	1.677	34.660	27.746	36.0	3.308
2800	1.650	34.661	27.749	35.7	3.354
2900	1.638	34.662	27.751	35.6	3.400
3000	1.621	34.664	27.754	35.3	3.445
3100	1.605	34.667	27.757	35.0	3.491
3200	1.595	34.669	27.760	34.7	3.537
3300	1.578	34.671	27.762	34.5	3.582
3400	1.569	34.673	27.765	34.3	3.627
3500	1.567	34.674	27.766	34.2	3.673
3600	1.562	34.676	27.768	34.0	3.719
3700	1.565	34.676	27.767	34.0	3.765
3800	1.566	34.677	27.768	33.9	3.811
3900	1.575	34.678	27.768	33.9	3.857
4000	1.582	34.679	27.768	33.9	3.904
4100	1.589	34.679	27.768	34.0	3.951
4200	1.597	34.680	27.768	33.9	3.999
4300	1.605	34.681	27.768	33.9	4.046
4400	1.612	34.681	27.768	34.0	4.095
4500	1.619	34.682	27.768	33.9	4.143
4600	1.627	34.682	27.768	34.0	4.192
4700	1.636	34.682	27.767	34.0	4.241
4800	1.644	34.683	27.767	34.0	4.291
4900	1.655	34.683	27.766	34.1	4.341
5000	1.667	34.683	27.765	34.2	4.392
5100	1.678	34.683	27.765	34.3	4.443
5200	1.690	34.683	27.764	34.4	4.495
5300	1.703	34.683	27.763	34.5	4.547
5400	1.717	34.683	27.762	34.5	4.600
5500	1.729	34.683	27.761	34.6	4.653
5600	1.743	34.683	27.760	34.7	4.707
5636	1.748	34.683	27.759	34.8	4.726

RV THOMAS WASHINGTON — INDOPAC LEG III

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 36.7N	124 19.5E	6/ 8/76	0448 0817 GMT	5735M	190	13KT	1	180 2 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.79	34.563	4.77	0.06	2.	0.00	0.0	568.1	0	27.79	34.563	4.77	22.156	568.1	0.000
20	27.46	34.563	4.69	0.06	2.	0.00	0.0	557.9	10	27.66	34.559	4.71	22.195	564.4	0.057
40	26.84	34.600	4.73	0.09	2.	0.00	0.0	536.2	20	27.46	34.563	4.69	22.263	557.9	0.113
60	26.08	34.639	4.88	0.07	2.	0.00	0.1	510.5	30	27.18	34.580	4.71	22.366	548.0	0.168
86	25.29	34.657	4.92	0.07	2.	0.00	0.3	485.9	50	26.46	34.622	4.80	22.625	523.3	0.276
116	24.32	34.681	4.87	0.07	2.	0.14	0.1	456.2	75	25.61	34.653	4.90	22.912	495.8	0.404
146	23.44	34.687	4.78	0.07	2.	0.04	0.3	431.1	100	24.84	34.670	4.91	23.163	471.9	0.526
180	23.03	34.706	4.63	0.10	2.	0.01	0.3	418.4	125	24.03	34.684	4.85	23.415	447.8	0.642
220	22.06	34.740	4.55	0.13	2.	0.00	0.6	389.7	150	23.39	34.690	4.76	23.607	429.4	0.753
260	21.12	34.783	4.73	0.13	2.	0.00	0.8	361.8	200	22.58	34.722	4.59	23.864	404.9	0.964
300	19.86	34.848	4.40	0.23	4.	0.00	2.6	325.0	250	21.37	34.771	4.70	24.239	369.2	1.162
340	17.89	34.801	4.49	0.29	5.	0.00	4.4	280.9	300	19.86	34.848	4.40	24.702	325.0	1.341
390	16.52	34.733	4.66	0.45	7.	0.00	6.2	254.7	400	16.21	34.712	4.61	25.496	249.5	1.639
449	14.47	34.578	4.20	0.77	13.	0.00	11.6	222.5	500	12.12	34.417	3.65	26.133	189.0	1.871
508	11.75	34.396	3.56	1.27	24.	0.00	18.5	183.8	600	8.91	34.300	2.75	26.604	144.3	2.049
578	9.38	34.307	2.90	1.81	40.	0.00	26.2	150.8	700	7.10	34.278	2.28	26.857	120.2	2.193
648	8.08	34.289	2.50	2.13	55.	0.00	29.8	132.8	800	6.11	34.352	2.00	27.049	102.1	2.315
723	6.72	34.279	2.20	2.41	71.	0.00	34.6	115.2	1000	4.61	34.446	1.88	27.302	78.1	2.516
841A	5.90	34.393	1.94	2.48	89.	0.00	36.0	96.5	1200	3.68	34.504	1.94	27.447	64.4	2.679
940A	5.04	34.422	1.89	2.64	103.	0.00	37.4	84.5	1500	2.85	34.565	2.25	27.573	52.4	2.883
1040A	4.37	34.460	1.88	2.76	114.	0.00	38.1	74.5	1750	2.49	34.592	2.41	27.626	47.4	3.032
1139A	3.91	34.484	1.87	2.79	122.	0.00	39.2	68.1	2000	2.21	34.616	2.59	27.668	43.3	3.170
1338A	3.24	34.544	2.14	2.74	131.	0.00	38.7	57.3	2250	1.97	34.637	2.81	27.705	39.8	3.298
1539A	2.77	34.567	2.27	2.83	142.	0.00	40.0	51.5	2500	1.79	34.652	3.03	27.731	37.4	3.419
1838A	2.40	34.600	2.47	2.80	145.	0.00	39.0	46.0	2750	1.69	34.661	3.17	27.746	36.0	3.535
2138A	2.07	34.629	2.70	2.71	147.	0.00	39.0	41.2	3000	1.63	34.669	3.25	27.757	35.0	3.649
2439A	1.82	34.650	2.98	2.68	150.	0.00	38.7	37.8	3250	1.60	34.672	3.36	27.761	34.6	3.763
2740A	1.69	34.660	3.17	2.62	150.	0.00	38.4	36.1	3500	1.58	34.675	3.46	27.765	34.3	3.877
3040A	1.619	34.670	3.26	2.59	149.	0.00	37.7	34.8	3750	1.57	34.678	3.50	27.768	33.9	3.992
3342A	1.591	34.672	3.41	2.58	149.	0.00	37.7	34.5	4000	1.58	34.681	3.53	27.770	33.7	4.108
3643A	1.570	34.676	3.49	2.55	149.	0.00	37.5	34.0	4250	1.59	34.683	3.55	27.770	33.7	4.226
3944A	1.572	34.680	3.52	2.60	149.	0.00	36.7	33.7	4500	1.61	34.684	3.58	27.769	33.8	4.346
4246A	1.591	34.682	3.55	2.56	149.	0.00	37.5	33.7	4750	1.64	34.684	3.60	27.768	34.0	4.469
4546A	1.618	34.683	3.59	2.54	148.	0.00	37.2	33.8	5000	1.66	34.684	3.63	27.766	34.2	4.595
4847A	1.646	34.683	3.60	2.55	148.	0.00	37.5	34.0	5250	1.69	34.684	3.66	27.764	34.3	4.723
5149A	1.679	34.683	3.66	2.54	148.	0.00	37.9	34.3	5500	1.73	34.685	3.66	27.761	34.5	4.855
5449A	1.721	34.684	3.66	2.53	148.	0.00	38.2	34.5							
5748A	1.763	34.684	3.67	2.57	147.	0.01		34.8							

RV THOMAS WASHINGTON — INDOPAC LEG III

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
23 14.5N	124 43.4E	6/ 8/76	1446 1912 GMT	6566M	180	15KT	1	180 5 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.54	34.634	4.68	0.07	2.	0.00	0.2	555.3	0	27.54	34.634	4.68	22.291	555.3	0.000
10	27.54	34.635	4.69	0.04	2.	0.00	0.2	555.2	10	27.54	34.635	4.69	22.291	555.2	0.056
31	27.35	34.618	4.71	0.03	2.	0.00	0.2	550.5	20	27.46	34.629	4.70	22.312	553.2	0.111
51	27.26	34.608	4.70	0.03	2.	0.00	0.2	548.5	30	27.36	34.620	4.71	22.337	550.8	0.166
82	25.76	34.648	4.89	0.07	2.	0.00	0.2	500.4	50	27.26	34.610	4.70	22.360	548.6	0.277
112	24.50	34.680	4.85	0.07	2.	0.00	0.2	461.5	75	26.16	34.636	4.85	22.729	513.3	0.410
152	23.30	34.685	4.80	0.07	2.	0.13	0.1	427.3	100	24.97	34.670	4.87	23.121	475.9	0.534
192	22.31	34.746	4.62	0.13	2.	0.03	0.7	395.9	125	24.07	34.682	4.84	23.401	449.1	0.651
232	20.76	34.826	4.41	0.18	3.	0.00	2.1	349.4	150	23.35	34.685	4.80	23.614	428.8	0.762
272	19.26	34.830	4.39	0.30	5.	0.00	3.8	311.5	200	22.02	34.764	4.57	24.055	386.9	0.969
351	16.77	34.746	4.43	0.45	7.	0.00	6.1	259.3	250	20.07	34.834	4.40	24.636	331.4	1.153
449	12.54	34.450	3.80	1.09	21.	0.00	15.8	194.3	300	18.39	34.819	4.40	25.056	291.3	1.313
547	9.97	34.341	3.16	1.66	38.	0.00	23.2	157.7	400	14.63	34.589	4.16	25.753	225.0	1.582
647	7.71	34.302	2.39	2.18	60.	0.00	31.2	126.6	500	11.08	34.383	3.47	26.301	173.1	1.793
746	6.16	34.320	1.96	2.63	79.	0.00	35.2	105.1	600	8.71	34.312	2.74	26.647	140.2	1.961
849	5.39	34.379	1.85	2.64	92.	0.00	35.7	91.6	700	6.79	34.307	2.12	26.923	114.0	2.099
883A	4.95	34.410	1.87	2.57	101.	0.00	35.3	84.4	800	5.76	34.348	1.90	27.089	98.2	2.215
1031A	4.48	34.491	2.13	2.48	113.	0.00	35.0	73.3	1000	4.58	34.494	2.08	27.343	74.2	2.408
1177A	3.59	34.518	2.08	2.57	129.	0.00	36.2	62.5	1200	3.50	34.524	2.10	27.480	61.2	2.563
1375A	3.02	34.563	2.25	2.66	137.	0.00	37.3	53.9	1500	2.75	34.577	2.29	27.591	50.7	2.759
1572A	2.62	34.581	2.32	2.64	140.	0.00	37.7	49.2	1750	2.36	34.601	2.49	27.644	45.7	2.903
1768A	2.34	34.602	2.51	2.70	146.	0.00	38.0	45.4	2000	2.07	34.625	2.72	27.687	41.5	3.035
2062A	2.01	34.631	2.77	2.61	148.	0.00	37.7	40.6	2250	1.88	34.642	2.90	27.716	38.7	3.158
2357A	1.82	34.649	2.97	2.49	149.	0.00	37.6	37.9	2500	1.75	34.654	3.06	27.735	36.9	3.276
2651A	1.69	34.659	3.15	2.52	150.	0.00	37.3	36.2	2750	1.66	34.662	3.20	27.749	35.7	3.391
2945A	1.61	34.667	3.28	2.46	149.	0.00	38.0	35.0	3000	1.60	34.669	3.30	27.758	34.8	3.504
3240A	1.569	34.673	3.37	2.54	150.	0.00	36.5	34.3	3250	1.57	34.674	3.37	27.765	34.2	3.617
3534A	1.551	34.676	3.41	2.43	150.	0.00	37.0	33.9	3500	1.55	34.676	3.41	27.768	33.9	3.730
3828A	1.546	34.679	3.53	2.53	149.	0.00	36.9	33.7	3750	1.55	34.679	3.50	27.770	33.7	3.843
4124A	1.575	34.681	3.53	2.49	148.	0.00	36.5	33.7	4000	1.56	34.681	3.53	27.771	33.7	3.959
4420A	1.589	34.681	3.52	2.48	148.	0.00	36.4	33.8	4250	1.58	34.682	3.53	27.770	33.7	4.076
4715A	1.634	34.682	3.53	2.51	147.	0.00	37.0	34.0	4500	1.60	34.682	3.52	27.769	33.9	4.196
5012A	1.667	34.683	3.53	2.48	147.	0.00	37.5	34.2	4750	1.64	34.683	3.53	27.767	34.1	4.319
5308A	1.701	34.683	3.58	2.47	147.	0.00	37.6	34.4	5000	1.67	34.684	3.53	27.765	34.2	4.445
5605A	1.742	34.683	3.59	2.47	147.	0.00	37.6	34.7	5250	1.69	34.684	3.57	27.763	34.4	4.574
5902A	1.784	34.684	3.61	2.46	147.	0.00	37.7	35.0	5500	1.73	34.684	3.59	27.761	34.6	4.705

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 36.7N	124 19.5E	06/08/76	0257 GMT

Z	T	S	SIGMA T	DT	DD
0	27.81	34.54	22.153	570.4	0.000
10	27.81	34.54	22.133	570.4	0.057
20	27.68	34.58	22.205	563.5	0.114
30	27.49	34.58	22.266	557.6	0.170
40	27.30	34.59	22.335	551.0	0.226
50	26.95	34.61	22.462	538.9	0.280
75	25.96	34.66	22.811	505.5	0.411
100	24.90	34.70	23.166	471.5	0.534
125	24.04	34.70	23.424	447.0	0.650
150	23.61	34.71	23.558	434.1	0.762
175	22.95	34.69	23.734	417.4	0.870
200	22.36	34.71	23.917	399.9	0.974
225	21.86	34.78	24.110	381.5	1.073
250	21.06	34.79	24.338	359.7	1.168
275	20.16	34.84	24.617	333.1	1.257
300	19.28	34.87	24.869	309.1	1.340
350	17.41	34.78	25.266	271.3	1.490
400	16.08	34.70	25.518	247.5	1.626
450	14.89	34.61	25.714	228.8	1.751
500	12.66	34.45	26.054	196.5	1.864
550	10.58	34.33	26.349	168.5	1.961
600	9.00	34.30	26.591	145.5	2.046
650	8.10	34.28	26.715	133.8	2.121
700	7.16	34.26	26.836	122.3	2.191
750	6.63	34.29	26.932	113.2	2.255
800	6.16	34.34	27.033	103.6	2.315
850	5.70	34.39	27.130	94.4	2.370
900	5.27	34.42	27.206	87.2	2.421
950	4.87	34.42	27.253	82.8	2.468
1000	4.44	34.44	27.316	76.7	2.513
1100	4.01	34.47	27.386	70.1	2.597
1200	3.66	34.50	27.445	64.5	2.674
1300	3.39	34.53	27.496	59.7	2.746
1400	3.05	34.55	27.544	55.2	2.813
1500	2.86	34.57	27.577	52.0	2.876
1600	2.648	34.575	27.600	49.9	2.937
1700	2.542	34.590	27.621	47.9	2.996
1800	2.441	34.600	27.637	46.3	3.052
1900	2.303	34.610	27.657	44.5	3.108
2000	2.181	34.622	27.677	42.6	3.161
2100	2.090	34.630	27.690	41.3	3.212
2200	1.975	34.639	27.706	39.8	3.263
2300	1.893	34.646	27.719	38.6	3.311
2400	1.821	34.649	27.727	37.9	3.359
2500	1.759	34.649	27.731	37.4	3.406
2600	1.710	34.654	27.739	36.7	3.453
2700	1.675	34.658	27.745	36.1	3.499
2800	1.662	34.660	27.747	35.9	3.545
2900	1.637	34.663	27.752	35.5	3.591
3000	1.617	34.666	27.755	35.1	3.636
3100	1.600	34.668	27.758	34.9	3.682
3200	1.593	34.670	27.760	34.7	3.727
3300	1.590	34.672	27.762	34.5	3.772
3400	1.578	34.674	27.765	34.2	3.818
3500	1.573	34.677	27.767	34.0	3.863
3600	1.570	34.677	27.768	34.0	3.909
3700	1.569	34.678	27.769	33.9	3.955
3800	1.569	34.680	27.770	33.7	4.001
3900	1.569	34.680	27.770	33.7	4.047
4000	1.571	34.683	27.772	33.5	4.094
4100	1.577	34.684	27.773	33.5	4.140
4200	1.582	34.683	27.772	33.6	4.187
4300	1.590	34.684	27.772	33.6	4.235
4400	1.597	34.683	27.771	33.7	4.282
4500	1.607	34.684	27.771	33.7	4.331
4600	1.616	34.684	27.770	33.6	4.379
4700	1.626	34.683	27.768	33.9	4.428
4800	1.637	34.684	27.768	33.9	4.478
4900	1.648	34.684	27.768	34.0	4.528
5000	1.660	34.683	27.766	34.1	4.578
5100	1.672	34.683	27.765	34.2	4.629
5200	1.684	34.683	27.764	34.3	4.681
5300	1.697	34.683	27.763	34.4	4.733
5400	1.711	34.683	27.762	34.5	4.785
5500	1.724	34.683	27.761	34.6	4.839
5600	1.739	34.683	27.760	34.7	4.892
5700	1.752	34.682	27.758	34.9	4.946
5767	1.761	34.682	27.757	34.9	4.983

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
23 14.5N	124 43.4E	06/08/76	1238 GMT

Z	T	S	SIGMA T	DT	DD
0	27.60	34.63	22.268	557.4	0.000
10	27.60	34.63	22.268	557.4	0.056
20	27.58	34.63	22.275	556.8	0.112
30	27.44	34.64	22.327	551.7	0.167
40	27.35	34.64	22.357	549.0	0.222
50	27.28	34.63	22.371	547.5	0.277
75	26.38	34.62	22.650	520.9	0.411
100	25.16	34.67	23.065	481.2	0.538
125	23.96	34.69	23.440	445.4	0.654
150	23.23	34.68	23.646	425.8	0.765
175	22.80	34.73	23.807	410.4	0.871
200	22.11	34.78	24.040	388.1	0.972
225	21.59	34.87	24.253	367.8	1.069
250	20.33	34.82	24.557	338.9	1.159
275	19.40	34.82	24.800	315.7	1.243
300	18.61	34.81	24.994	297.3	1.322
350	16.71	34.72	25.387	259.9	1.467
400	15.32	34.61	25.620	237.7	1.597
450	13.37	34.48	25.935	207.8	1.714
500	11.52	34.40	26.233	179.5	1.817
550	10.30	34.36	26.421	161.6	1.908
600	8.51	34.27	26.645	140.4	1.990
650	7.78	34.28	26.762	129.3	2.062
700	6.63	34.28	26.924	113.9	2.128
750	6.12	34.30	27.007	106.1	2.189
800	5.81	34.33	27.069	100.1	2.245
850	5.42	34.36	27.157	91.9	2.298
900	4.91	34.40	27.232	84.7	2.348
950	4.64	34.42	27.279	80.3	2.394
1000	4.47	34.45	27.321	76.3	2.438
1100	4.06	34.49	27.397	69.1	2.521
1200	3.55	34.51	27.464	62.7	2.596
1300	3.24	34.53	27.510	58.4	2.667
1400	3.01	34.55	27.547	54.8	2.733
1500	2.82	34.57	27.580	51.7	2.796
1600	2.601	34.570	27.600	49.9	2.856
1700	2.447	34.583	27.623	47.6	2.914
1800	2.334	34.597	27.644	45.7	2.970
1900	2.221	34.607	27.661	44.0	3.024
2000	2.104	34.618	27.680	42.3	3.077
2100	2.023	34.627	27.693	41.0	3.128
2200	1.934	34.637	27.708	39.6	3.177
2300	1.865	34.643	27.718	38.6	3.226
2400	1.804	34.648	27.727	37.8	3.273
2500	1.765	34.653	27.734	37.2	3.320
2600	1.720	34.657	27.740	36.5	3.367
2700	1.685	34.661	27.746	36.0	3.413
2800	1.665	34.663	27.749	35.7	3.459
2900	1.643	34.665	27.753	35.4	3.504
3000	1.621	34.668	27.757	35.0	3.550
3100	1.604	34.670	27.760	34.7	3.595
3200	1.587	34.672	27.763	34.5	3.640
3300	1.580	34.673	27.764	34.3	3.685
3400	1.570	34.674	27.765	34.2	3.731
3500	1.567	34.676	27.767	34.0	3.776
3600	1.567	34.676	27.767	34.0	3.822
3700	1.564	34.678	27.769	33.9	3.868
3800	1.567	34.679	27.770	33.8	3.914
3900	1.568	34.679	27.769	33.8	3.960
4000	1.572	34.681	27.771	33.7	4.006
4100	1.578	34.681	27.770	33.7	4.053
4200	1.585	34.681	27.770	33.8	4.101
4300	1.592	34.682	27.770	33.7	4.148
4400	1.601	34.682	27.769	33.8	4.196
4500	1.610	34.682	27.769	33.9	4.244
4600	1.621	34.682	27.768	33.9	4.293
4700	1.630	34.682	27.767	34.0	4.343
4800	1.640	34.682	27.767	34.1	4.392
4900	1.652	34.682	27.766	34.2	4.442
5000	1.663	34.682	27.765	34.2	4.493
5100	1.674	34.681	27.763	34.4	4.544
5200	1.686	34.681	27.762	34.5	4.596
5300	1.698	34.681	27.761	34.6	4.648
5400	1.712	34.682	27.761	34.6	4.701
5500	1.725	34.682	27.760	34.7	4.754
5600	1.738	34.683	27.760	34.7	4.808
5700	1.752	34.683	27.759	34.8	4.862
5800	1.765	34.683	27.758	34.9	4.917
5900	1.780	34.684	27.758	34.9	4.972

RV THOMAS WASHINGTON — INDOPAC LEG III

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
24 20.0N	125 19.5E	6/ 9/76	0245	GMT	1565M	210	17KT	1	210 5 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.35	34.647	4.67	0.10	2.	0.00	0.3	548.5	0	27.35	34.647	4.67	22.362	548.5	0.000
20	27.24	34.646	4.73	0.03	2.	0.00	0.3	545.1	10	27.30	34.647	4.70	22.379	546.8	0.055
40	26.30	34.654	4.75	0.02	2.	0.00	0.3	516.1	20	27.24	34.646	4.73	22.396	545.1	0.109
59	24.50	34.693	4.91	0.03	2.	0.00	0.3	460.5	30	26.88	34.649	4.74	22.512	534.1	0.164
79	23.17	34.717	4.78	0.08	2.	0.04	0.3	421.4	50	25.38	34.672	4.84	23.000	487.4	0.266
119	21.09	34.777	4.51		2.	0.04	2.2	361.5	75	23.41	34.714	4.82	23.620	426.2	0.381
138	20.73	34.792	4.43	0.24	3.	0.06	2.6	351.1	100	21.92	34.750	4.63	24.071	385.2	0.484
168	19.57	34.814	4.38	0.28	5.	0.13	3.7	320.3	125	20.97	34.783	4.48	24.357	357.9	0.577
207	18.76	34.819	4.30	0.24	5.	0.01	4.5	300.2	150	20.28	34.801	4.40	24.555	339.1	0.666
237	17.89	34.789	4.38	0.36	5.	0.06	5.5	281.8	200	18.89	34.807	4.31	24.932	303.1	0.829
287	16.95	34.758	4.44	0.40	7.	0.01	6.3	262.5	250	17.62	34.782	4.40	25.217	276.1	0.978
336	15.89	34.690	4.42	0.57	10.	0.04	8.4	244.1	300	16.69	34.744	4.43	25.410	257.7	1.116
396	14.29	34.572	4.13	0.83	14.	0.00	12.0	219.2	400	14.17	34.564	4.11	25.833	217.5	1.364
470	11.99	34.430	3.73	1.19	25.	0.00	17.9	185.6	500	10.92	34.374	3.45	26.321	171.1	1.569
543	9.47	34.318	3.01	1.79	43.	0.04	25.5	151.4	600	8.07	34.310	2.53	26.743	131.1	1.731
643	7.23	34.319	2.24	2.33	68.	0.13	33.1	118.9	700	6.25	34.327	2.03	27.011	105.7	1.860
741	5.67	34.334	1.93	2.56	89.	0.00	37.7	98.2	800	5.00	34.347	1.75	27.179	89.7	1.967
841	4.66	34.364	1.69	2.75	106.	0.00	40.9	84.7	1000	3.99	34.500	1.98	27.411	67.8	2.142
938	4.31	34.477	2.00	2.71	115.	0.00	40.2	72.6	1200	3.13	34.521	1.97	27.512	58.1	2.286
1086	3.55	34.504	1.95	2.73	126.	0.00	41.6	63.2	1500	2.49	34.570	2.18	27.609	49.0	2.472
1281	2.90	34.531	2.01	2.78	139.	0.00	42.3	55.3							
1475	2.55	34.567	2.16	2.76	139.	0.00	40.9	49.5							

RV THOMAS WASHINGTON — INDOPAC LEG III

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 28. N	126 32.2E	6/ 9/76	1739	2211 GMT	5919M	180	9KT	1	150 5 3

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.89	34.697	4.71	0.05	2.	0.00	0.0	561.6	0	27.89	34.697	4.71	22.224	561.6	0.000
10	27.89	34.696	4.67	0.03	2.	0.00	0.0	561.7	10	27.89	34.696	4.67	22.224	561.7	0.056
26	27.12	34.753	4.75	0.00	2.	0.00	0.0	533.8	20	27.56	34.732	4.72	22.359	548.7	0.112
50	23.01	34.769	5.18	0.00	2.	0.00	0.0	413.3	30	26.47	34.750	4.82	22.720	514.2	0.165
76	21.45	34.769	5.16	0.01	2.	0.00	0.0	371.4	50	23.01	34.769	5.18	23.776	413.3	0.258
111	20.37	34.803	4.71	0.12	3.	0.11	0.9	341.1	75	21.48	34.770	5.16	24.209	372.0	0.357
151	19.46	34.827	4.44	0.21	4.	0.08	2.3	316.7	100	20.63	34.792	4.87	24.455	348.6	0.448
191	17.95	34.805	4.48	0.31	5.	0.02	4.8	282.0	125	20.07	34.816	4.58	24.624	332.5	0.534
250	16.86	34.759	4.65	0.31	5.	0.01	4.8	260.4	150	19.48	34.827	4.44	24.784	317.5	0.616
325	15.35	34.662	4.48	0.53	10.	0.01	8.7	234.6	200	17.74	34.800	4.51	25.201	277.6	0.768
399	13.36	34.504	4.20	0.84	16.	0.01	13.0	205.9	250	16.86	34.759	4.65	25.381	260.4	0.906
507	10.08	34.288	3.76	1.44	33.	0.12	20.8	163.4	300	15.89	34.701	4.57	25.562	243.3	1.036
617	6.69	34.174	2.59	2.22	65.	0.00	31.7	122.6	400	13.33	34.502	4.20	25.960	205.5	1.270
687	5.87	34.193	2.21	2.45	79.	0.00	35.4	111.1	500	10.30	34.301	3.80	26.374	166.1	1.467
797	5.13	34.333	1.80		95.	0.03	37.8	92.1	600	7.13	34.181	2.77	26.777	127.9	1.624
898	4.58	34.422	1.92	2.76	106.	0.00	38.1	79.5	700	5.76	34.208	2.14	26.979	108.7	1.751
998	3.94	34.483	1.72	2.82	120.	0.00	39.9	72.2	800	5.11	34.339	1.80	27.159	91.7	1.860
1021A	3.69	34.434	1.69	2.84	125.	0.00	40.0	69.7	1000	3.92	34.434	1.72	27.367	72.0	2.042
1119A	3.39	34.465	1.70	2.71	131.	0.00	37.40	64.6	1200	3.19	34.495	1.83	27.486	60.6	2.192
1217A	3.15	34.501	1.86	2.78	136.	0.00	37.10	59.8	1500	2.54	34.562	2.20	27.599	50.0	2.384
1315A	2.92	34.529	2.04	2.77	140.	0.00	39.1	55.6	1750	2.23	34.598	2.49	27.652	44.9	2.524
1511A	2.52	34.563	2.21	2.73	142.	0.00	39.1	49.7	2000	1.99	34.627	2.74	27.695	40.9	2.653
1707A	2.28	34.591	2.44	2.77	147.	0.00	39.3	45.7	2250	1.84	34.642	2.93	27.719	38.5	2.774
2001A	1.99	34.626	2.74	2.63	149.	0.00	39.2	40.9	2500	1.74	34.653	3.06	27.735	37.0	2.892
2295A	1.82	34.645	2.96	2.64	150.	0.00	36.30	38.2	2750	1.66	34.661	3.21	27.748	35.8	3.007
2590A	1.71	34.656	3.10	2.57	151.	0.00	37.7	36.5	3000	1.60	34.667	3.32	27.757	35.0	3.120
2891A	1.62	34.665	3.29	2.58	150.	0.00	37.6	35.2	3250	1.57	34.671	3.36	27.762	34.5	3.233
3180A	1.579	34.669	3.35	2.58	150.	0.00	37.0	34.6	3500	1.55	34.674	3.42	27.766	34.1	3.347
3476A	1.555	34.673	3.41	2.59	150.		36.7	34.2	3750	1.55	34.678	3.50	27.769	33.8	3.461
3771A	1.547	34.677	3.51	2.54	150.		36.2	33.8	4000	1.56	34.679	3.51	27.770	33.8	3.576
4066A	1.566	34.679	3.51	2.55	149.		36.8	33.8	4250	1.57	34.682	3.53	27.771	33.6	3.694
4363A	1.575	34.683	3.55	2.55	149.	0.00	36.6	33.5	4500	1.60	34.684	3.55	27.771	33.6	3.813
4660A	1.620	34.684	3.56	2.53	149.	0.00	37.7	33.8	4750	1.63	34.684	3.57	27.768	33.9	3.935
4955A	1.657	34.682	3.60	2.54	148.	0.00	37.2	34.2	5000	1.66	34.683	3.60	27.765	34.2	4.061
5253A	1.694	34.682	3.63	2.56	148.	0.00	37.7	34.5	5250	1.69	34.683	3.63	27.763	34.5	4.190
5551A	1.731		3.65	2.49	149.	0.00	37.8		5500	1.72	34.682	3.65	27.760	34.7	4.322
5848A	1.777	34.682	3.61	2.53	148.	0.00	37.4	35.0	5750	1.76	34.683	3.63	27.757	34.9	4.457

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
24 20.0N	125 15.5E	06/09/76	0151 GMT

Z	T	S	SIGMA T	DT	DD
0	27.30	34.66	22.388	546.0	0.000
10	27.28	34.67	22.402	544.6	0.055
20	27.09	34.66	22.455	539.5	0.109
30	26.44	34.66	22.661	519.8	0.162
40	25.68	34.67	22.905	496.5	0.213
50	24.70	34.70	23.227	465.8	0.261
75	23.47	34.72	23.606	429.5	0.374
100	22.28	34.75	23.970	394.8	0.478
125	20.96	34.79	24.365	357.2	0.573
150	20.30	34.80	24.550	339.6	0.661
175	19.48	34.82	24.780	317.7	0.744
200	18.97	34.83	24.918	304.5	0.824
225	18.18	34.80	25.094	287.8	0.900
250	17.60	34.79	25.228	275.0	0.972
275	16.98	34.76	25.354	263.0	1.041
300	16.47	34.73	25.451	253.8	1.108
350	15.42	34.65	25.628	236.9	1.236
400	14.29	34.57	25.813	219.4	1.355
450	12.81	34.46	26.032	198.6	1.465
500	10.71	34.35	26.342	169.2	1.563
550	9.15	34.32	26.583	146.3	1.647
600	7.93	34.30	26.756	129.9	1.722
650	7.19	34.32	26.878	118.2	1.789
700	6.43	34.31	26.974	109.2	1.851
750	5.48	34.33	27.110	96.3	1.907
800	4.98	34.36	27.193	88.5	1.958
850	4.82	34.41	27.251	83.0	2.005
900	4.73	34.46	27.300	78.3	2.050
950	4.18	34.46	27.360	72.6	2.092
1000	3.79	34.47	27.409	68.0	2.132
1100	3.51	34.50	27.460	63.1	2.206
1200	3.11	34.52	27.514	58.0	2.275
1300	2.86	34.54	27.553	54.3	2.340
1400	2.60	34.56	27.592	50.6	2.401
1500	2.50	34.57	27.608	49.1	2.459

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 28. N	128 32.2E	06/09/76	1526 GMT

Z	T	S	SIGMA T	DT	DD
0	28.05	34.67	22.152	568.5	0.000
10	28.04	34.70	22.178	566.1	0.057
20	27.67	34.72	22.313	553.1	0.113
30	26.56	34.75	22.676	518.4	0.166
40	25.60	34.72	22.968	490.5	0.217
50	24.06	34.67	23.395	449.7	0.264
75	21.87	34.75	24.085	383.9	0.369
100	21.03	34.77	24.331	360.4	0.463
125	20.40	34.83	24.546	339.9	0.551
150	19.64	34.79	24.715	323.8	0.636
175	18.98	34.82	24.908	305.5	0.716
200	18.43	34.82	25.047	292.3	0.792
225	17.73	34.79	25.196	278.0	0.865
250	17.20	34.77	25.309	267.3	0.935
275	16.56	34.74	25.437	255.1	1.002
300	16.14	34.72	25.519	247.3	1.067
350	15.24	34.65	25.668	233.1	1.192
400	13.51	34.50	25.922	209.1	1.308
450	11.74	34.38	26.177	184.8	1.412
500	9.91	34.26	26.410	162.7	1.504
550	8.82	34.21	26.549	149.5	1.587
600	7.78	34.19	26.692	135.9	1.664
650	6.84	34.17	26.809	124.8	1.734
700	6.08	34.17	26.909	115.3	1.799
750	5.48	34.22	27.023	104.5	1.858
800	5.14	34.29	27.119	95.5	1.913
850	5.10	34.36	27.179	89.8	1.964
900	4.78	34.39	27.239	84.0	2.012
950	4.37	34.40	27.292	79.0	2.058
1000	3.92	34.42	27.356	73.0	2.100
1100	3.42	34.45	27.429	66.0	2.178
1200	3.17	34.50	27.493	60.0	2.250
1300	2.94	34.53	27.539	55.7	2.316
1400	2.70	34.54	27.567	53.0	2.379
1500	2.51	34.56	27.600	49.9	2.439
1600	2.350	34.579	27.625	47.5	2.496
1700	2.202	34.594	27.646	45.5	2.551
1800	2.199	34.612	27.667	43.5	2.605
1900	2.121	34.620	27.680	42.3	2.656
2000	2.011	34.626	27.693	41.0	2.707
2100	1.926	34.636	27.708	39.6	2.756
2200	1.862	34.642	27.718	38.7	2.804
2300	1.826	34.645	27.723	38.2	2.852
2400	1.790	34.649	27.729	37.6	2.899
2500	1.746	34.651	27.734	37.2	2.946
2600	1.710	34.653	27.738	36.8	2.992
2700	1.682	34.657	27.743	36.3	3.039
2800	1.660	34.659	27.747	36.0	3.085
2900	1.636	34.662	27.751	35.6	3.130
3000	1.616	34.665	27.755	35.2	3.176
3100	1.602	34.667	27.757	35.0	3.221
3200	1.590	34.669	27.760	34.7	3.267
3300	1.582	34.671	27.762	34.5	3.312
3400	1.571	34.673	27.764	34.3	3.358
3500	1.568	34.675	27.766	34.1	3.403
3600	1.565	34.675	27.766	34.1	3.449
3700	1.566	34.676	27.767	34.0	3.495
3800	1.564	34.677	27.768	33.9	3.541
3900	1.566	34.679	27.770	33.8	3.587
4000	1.569	34.680	27.770	33.7	3.634
4100	1.574	34.681	27.771	33.7	3.681
4200	1.580	34.682	27.771	33.7	3.728
4300	1.586	34.682	27.771	33.7	3.775
4400	1.595	34.682	27.770	33.8	3.823
4500	1.604	34.683	27.770	33.7	3.871
4600	1.614	34.683	27.769	33.8	3.920
4700	1.624	34.682	27.768	34.0	3.969
4800	1.636	34.684	27.768	33.9	4.019
4900	1.647	34.684	27.768	34.0	4.069
5000	1.659	34.683	27.766	34.1	4.119
5100	1.672	34.684	27.766	34.2	4.170
5200	1.685	34.683	27.764	34.3	4.222
5300	1.697	34.683	27.763	34.4	4.274
5400	1.709	34.683	27.762	34.5	4.326
5500	1.720	34.683	27.761	34.6	4.379
5600	1.732	34.683	27.761	34.7	4.433
5700	1.746	34.683	27.759	34.7	4.487
5800	1.760	34.683	27.758	34.9	4.541
5900	1.774	34.683	27.757	35.0	4.597

RV THOMAS WASHINGTON — INDOPAC LEG III

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 26.2N	129 34.3E	6/10/76	1532	1909 GMT	6231M	180	10KT	6	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.73	34.528	4.53	0.08	2.	0.00	0.1	600.2	0	28.73	34.528	4.53	21.021	600.2	0.000
10	28.74	34.528	4.58	0.05	2.	0.00	0.1	600.5	10	28.74	34.528	4.58	21.018	600.5	0.060
26	28.47	34.551	4.57	0.05	2.	0.00	0.1	596.3	20	28.63	34.539	4.58	21.062	596.3	0.119
51	26.71	34.669	4.72	0.05	2.	0.00	0.1	527.5	30	28.22	34.570	4.59	22.021	561.1	0.179
76	25.70	34.684	4.79	0.04	2.	0.00	0.1	496.0	50	26.79	34.665	4.71	22.554	530.1	0.298
112	24.04	34.872	4.42	0.11	2.	0.04	0.1	434.5	75	25.75	34.684	4.79	23.099	497.1	0.419
152	22.11	34.788	4.53	0.10	2.	0.13	0.9	387.5	100	24.61	34.812	4.55	23.330	455.1	0.539
192	20.62	34.773	4.66	0.10	2.	0.07	1.7	349.7	125	23.39	34.856	4.46	23.752	417.5	0.659
252	19.18	34.841	4.36	0.23	4.	0.01	3.9	308.8	150	22.20	34.795	4.52	24.026	389.5	0.752
327	17.16	34.778	4.54	0.33	5.	0.00	5.7	265.8	200	20.41	34.743	4.63	24.504	345.5	0.938
403	15.31	34.657	4.41	0.55	10.	0.00	9.1	234.1	250	19.22	34.839	4.37	24.861	309.9	1.105
512	11.66	34.377	3.66	1.25	22.	0.00	18.5	183.6	300	17.89	34.812	4.46	25.174	280.1	1.257
622	8.25	34.188	3.09	1.90	45.	0.00	27.3	142.7	400	15.39	34.664	4.42	25.646	235.3	1.526
692	6.73	34.171	2.38	2.30	64.	0.00	33.0	123.4	500	12.08	34.407	3.75	26.132	189.1	1.750
751	5.79	34.197	1.91	2.63	78.	0.03	35.5	109.9	600	8.87	34.214	3.22	26.544	150.0	1.932
802	5.37	34.214	1.77	2.66	87.	0.00	38.2	103.7	700	6.58	34.175	2.30	26.847	121.2	2.078
894A	4.73	34.345	1.49	2.84	102.	0.00	40.1	86.9	800	5.38	34.214	1.77	27.030	104.0	2.200
993A	4.20	34.412	1.53	2.74	112.	0.00	40.4	76.4	1000	4.17	34.416	1.54	27.326	75.8	2.399
1193A	3.46	34.491	1.74	2.76	128.	0.00	41.0	63.3	1200	3.44	34.494	1.75	27.462	62.9	2.556
1494A	2.62	34.556	2.10	2.73	140.	0.00	39.9	51.1	1500	2.61	34.558	2.11	27.589	50.9	2.754
1793A	2.24	34.595	2.43	2.69	145.	0.00	39.9	45.1	1750	2.28	34.592	2.39	27.644	45.7	2.897
2093A	1.94	34.628	2.69	2.72	148.	0.00	39.4	40.3	2000	2.02	34.620	2.61	27.687	41.6	3.028
2393A	1.79	34.646	2.94	2.65	148.		38.7	37.9	2250	1.85	34.637	2.85	27.714	38.9	3.151
2693A	1.69	34.658	3.07	2.61	148.	0.01	38.4	36.3	2500	1.75	34.651	2.99	27.733	37.2	3.270
2992A	1.63	34.664	3.27	2.58	148.	0.01	38.3	35.4	2750	1.68	34.660	3.11	27.745	36.1	3.385
3291A	1.574	34.674	3.42	2.56	147.	0.01	37.9	34.2	3000	1.63	34.665	3.27	27.753	35.3	3.500
3592A	1.566	34.678	3.50	2.54	148.	0.00	37.7	33.9	3250	1.58	34.673	3.40	27.765	34.4	3.614
3892A	1.558	34.681	3.51	2.53	147.	0.00	37.5	33.6	3500	1.57	34.678	3.48	27.768	33.9	3.727
4191A	1.573	34.683	3.51	2.51	147.	0.00	37.4	33.5	3750	1.56	34.680	3.51	27.770	33.7	3.841
4493A	1.596	34.687	3.55	2.54	147.	0.00	37.5	33.4	4000	1.56	34.682	3.51	27.772	33.6	3.956
4792A	1.631	34.686	3.60	2.53	147.	0.00	37.4	33.7	4250	1.58	34.685	3.52	27.773	33.5	4.073
5092A	1.664	34.687	3.62	2.53	146.	0.00	37.4	33.9	4500	1.60	34.688	3.55	27.774	33.4	4.192
5391A	1.701	34.687	3.63	2.44	146.	0.00	37.4	34.1	4750	1.63	34.687	3.59	27.771	33.7	4.314
5690A	1.736	34.687	3.63	2.46	146.	0.00	37.5	34.4	5000	1.65	34.687	3.62	27.769	33.8	4.439
5989A	1.778	34.687	3.67	2.43	146.	0.00	37.5	34.7	5250	1.68	34.688	3.63	27.767	34.0	4.566

RV THOMAS WASHINGTON — INDOPAC LEG III

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
19 19.8N	131 05.5E	6/11/76	1749	2150 GMT	5993M	120	6KT	1	120 3 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.57	34.549	4.58	0.08	2.	0.00	0.1	593.6	0	28.57	34.549	4.58	21.090	593.6	0.000
15	28.56	34.547	4.60	0.09	2.	0.00	0.1	593.4	10	28.57	34.549	4.60	21.091	593.5	0.059
26	28.54	34.546	4.59	0.07	2.	0.00	0.1	592.9	20	28.55	34.547	4.59	21.095	593.2	0.119
51	27.37	34.577	4.77	0.09	2.	0.00	0.2	554.1	30	28.39	34.540	4.61	21.948	588.1	0.178
78	26.56	34.650	4.78	0.09	2.	0.00	0.2	524.2	50	27.43	34.576	4.76	22.242	556.1	0.293
114	24.96	34.840	4.34	0.15	2.	0.13	0.5	463.2	75	26.65	34.641	4.78	22.581	527.5	0.429
149	23.11	34.900	4.30	0.14	2.	0.05	0.8	406.6	100	25.64	34.747	4.52	22.992	488.1	0.557
184	21.79	34.937	4.35	0.15	2.	0.11	0.8	368.2	125	24.37	34.865	4.33	23.452	444.3	0.674
214	20.86	34.972	4.15	0.20	3.	0.05	1.6	341.4	150	23.07	34.900	4.30	23.860	405.3	0.782
274	18.01	34.828	4.17	0.34	5.	0.05	3.5	291.8	200	21.30	34.961	4.25	24.401	353.7	0.975
354	15.73	34.681	4.15	0.50	8.	0.03	6.2	241.3	250	19.17	34.895	4.16	24.917	304.6	1.145
452	12.20	34.409	3.89	1.11	20.	0.00	15.3	191.0	300	17.20	34.786	4.16	25.320	266.2	1.291
550	8.95	34.238	2.95	1.85	40.	0.00	25.4	149.3	400	14.11	34.550	4.09	25.836	217.2	1.543
651	6.93	34.250	1.98	2.43	63.	0.00	34.5	120.0	500	10.51	34.305	3.47	26.341	169.3	1.747
672A	6.83	34.250	1.91	2.41	64.	0.00	27.80	118.7	600	7.71	34.236	2.40	26.736	131.6	1.908
750	5.67	34.305	1.59	2.71	83.	0.00	37.6	100.4	700	6.46	34.265	1.79	26.935	113.0	2.040
853	4.94	34.375	1.54	2.80	96.	0.00	38.8	86.9	800	5.26	34.330	1.67	27.143	93.2	2.153
872A	4.81	34.392	1.56	2.71	99.	0.00	37.7	84.2	1000	4.09	34.470	1.75	27.379	70.6	2.335
1071A	3.76	34.498	1.86	2.75	119.	0.00	36.7	65.6	1200	3.32	34.540	2.00	27.510	58.3	2.483
1269A	3.14	34.555						55.6	1500	2.72	34.587	2.27	27.602	49.7	2.672
1517A	2.70	34.587	2.28	2.80	137.	0.00	38.2	49.4	1750	2.37	34.606	2.49	27.648	45.4	2.814
1765A	2.35	34.606	2.50	2.72	145.	0.00	38.4	45.1	2000	2.10	34.627	2.65	27.686	41.6	2.946
2062A	2.05	34.632	2.69	2.65	148.	0.00	38.4	40.9	2250	1.91	34.641	2.79	27.713	39.0	3.070
2357A	1.85	34.647	2.85	2.63	151.	0.00	37.2	38.2	2500	1.79	34.651	2.97	27.730	37.4	3.190
2652A	1.74	34.656	3.09	2.64	152.	0.00	38.3	36.8	2750	1.71	34.660	3.11	27.743	36.3	3.307
2948A	1.672	34.666	3.15	2.63	152.	0.00	37.1	35.5	3000	1.66	34.669	3.18	27.753	35.3	3.422
3144A	1.645	34.671	3.28	2.48	151.	0.00	36.5	35.0	3250	1.63	34.672	3.31	27.759	34.8	3.537
3439A	1.607	34.673	3.35	2.57	149.	0.00	35.5	34.5	3500	1.60	34.674	3.36	27.763	34.4	3.652
4030A	1.577	34.680	3.48	2.55	148.	0.00	35.5	33.8	3750	1.59	34.677	3.42	27.766	34.1	3.768
4326A	1.586	34.685	3.57	2.41	146.	0.00	36.1	33.5	4000	1.58	34.680	3.47	27.769	33.8	3.885
4623A	1.618	34.684	3.57	2.52	146.	0.00	35.4	33.8	4250	1.58	34.684	3.55	27.772	33.5	4.002
4920A	1.644	34.685	3.57	2.45	146.	0.00	36.1	33.9	4500	1.60	34.685	3.57	27.771	33.6	4.122
5219A	1.676	34.686	3.64	2.51	145.	0.00	36.1	34.0	4750	1.63	34.685	3.57	27.769	33.8	4.244
5518A	1.712	34.688	3.64	2.50	145.	0.00	34.8	34.1	5000	1.65	34.686	3.59	27.768	33.9	4.369
5817A	1.756	34.686	3.62	2.40	144.	0.00	35.4	34.6	5250	1.68	34.687	3.64	27.767	34.0	4.497
									5500	1.71	34.689	3.64	27.766	34.1	4.627
									5750	1.75	34.687	3.63	27.762	34.5	4.761

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 26.2N	129 34.3E	06/10/76	1329 GMT

Z	T	S	SIGMA T	DT	DD
0	28.76	34.56	21.835	598.9	0.000
10	28.76	34.57	21.843	598.1	0.060
20	28.75	34.57	21.846	597.8	0.120
30	28.57	34.57	21.906	592.1	0.179
40	27.71	34.63	22.233	560.8	0.237
50	27.25	34.67	22.411	543.7	0.293
75	26.13	34.68	22.773	509.1	0.425
100	24.63	34.76	23.293	459.4	0.547
125	23.69	34.82	23.618	428.5	0.659
150	22.24	34.79	24.011	390.9	0.762
175	21.35	34.77	24.243	368.8	0.859
200	20.58	34.79	24.467	347.4	0.950
225	20.04	34.79	24.611	333.8	1.037
250	18.91	34.84	24.941	302.3	1.119
275	17.68	34.79	25.209	276.8	1.193
300	17.09	34.77	25.335	264.8	1.263
350	16.01	34.71	25.541	245.2	1.396
400	14.63	34.60	25.763	224.1	1.519
450	12.94	34.46	26.006	201.0	1.631
500	11.28	34.34	26.231	179.7	1.732
550	9.91	34.25	26.402	163.4	1.823
600	8.73	34.21	26.564	148.1	1.907
650	7.64	34.18	26.705	134.8	1.983
700	6.66	34.17	26.833	122.5	2.052
750	5.80	34.19	26.960	110.5	2.116
800	5.17	34.24	27.076	99.6	2.173
850	4.90	34.29	27.146	92.6	2.225
900	4.71	34.35	27.215	86.3	2.275
950	4.43	34.38	27.270	81.1	2.322
1000	4.19	34.41	27.320	76.4	2.366
1100	3.73	34.46	27.407	68.2	2.447
1200	3.40	34.49	27.463	62.8	2.522
1300	3.11	34.51	27.506	58.7	2.592
1400	2.77	34.54	27.561	53.5	2.657
1500	2.61	34.56	27.591	50.7	2.718
1600	2.461	34.568	27.610	48.9	2.776
1700	2.344	34.583	27.632	46.8	2.833
1800	2.196	34.603	27.660	44.2	2.887
1900	2.125	34.614	27.675	42.8	2.940
2000	2.016	34.625	27.692	41.1	2.991
2100	1.933	34.629	27.702	40.2	3.040
2200	1.875	34.635	27.711	39.3	3.089
2300	1.820	34.641	27.720	38.5	3.137
2400	1.772	34.648	27.729	37.6	3.184
2500	1.738	34.653	27.736	37.0	3.231
2600	1.710	34.655	27.740	36.6	3.277
2700	1.694	34.658	27.743	36.3	3.323
2800	1.674	34.661	27.747	35.9	3.369
2900	1.654	34.664	27.751	35.5	3.415
3000	1.630	34.667	27.755	35.1	3.461
3100	1.606	34.671	27.760	34.7	3.506
3200	1.588	34.673	27.763	34.4	3.551
3300	1.579	34.674	27.765	34.3	3.597
3400	1.573	34.675	27.766	34.1	3.642
3500	1.571	34.677	27.768	34.0	3.687
3600	1.567	34.678	27.769	33.9	3.733
3700	1.564	34.679	27.770	33.8	3.779
3800	1.566	34.681	27.771	33.6	3.824
3900	1.567	34.681	27.771	33.6	3.871
4000	1.568	34.682	27.772	33.6	3.917
4100	1.573	34.683	27.772	33.5	3.964
4200	1.578	34.683	27.772	33.6	4.011
4300	1.584	34.684	27.772	33.5	4.058
4400	1.592	34.684	27.772	33.6	4.106
4500	1.599	34.685	27.772	33.6	4.154
4600	1.608	34.685	27.771	33.6	4.202
4700	1.619	34.685	27.770	33.7	4.251
4800	1.630	34.685	27.770	33.8	4.300
4900	1.639	34.685	27.769	33.8	4.350
5000	1.650	34.686	27.769	33.8	4.400
5100	1.661	34.686	27.768	33.9	4.451
5200	1.673	34.686	27.767	34.0	4.502
5300	1.684	34.687	27.767	34.0	4.553
5400	1.697	34.686	27.765	34.2	4.605
5500	1.709	34.687	27.765	34.2	4.658
5600	1.722	34.687	27.764	34.3	4.711
5700	1.734	34.687	27.764	34.4	4.765
5800	1.747	34.688	27.763	34.4	4.819
5900	1.762	34.688	27.762	34.5	4.873

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
19 19.8N	131 05.5E	06/11/76	1535 GMT

Z	T	S	SIGMA T	DT	DD
0	28.60	34.57	21.896	593.1	0.000
10	28.60	34.56	21.888	593.8	0.059
20	28.61	34.56	21.885	594.1	0.119
30	28.54	34.55	21.901	592.6	0.178
40	28.14	34.58	22.055	577.8	0.237
50	27.92	34.60	22.142	569.5	0.294
75	26.48	34.68	22.664	519.6	0.431
100	25.71	34.76	22.964	490.9	0.558
125	24.54	34.87	23.403	448.9	0.677
150	23.51	34.89	23.723	418.4	0.787
175	22.66	34.94	24.006	391.4	0.890
200	21.53	34.98	24.353	358.3	0.985
225	20.37	34.93	24.630	331.9	1.073
250	19.05	34.89	24.943	302.1	1.154
275	17.96	34.81	25.155	281.9	1.230
300	17.23	34.78	25.309	267.2	1.301
350	15.32	34.65	25.651	234.8	1.431
400	13.68	34.52	25.902	210.9	1.548
450	11.77	34.37	26.163	186.1	1.653
500	10.30	34.26	26.359	167.5	1.746
550	8.78	34.22	26.564	148.1	1.831
600	7.78	34.24	26.731	132.2	1.906
650	6.91	34.25	26.862	119.8	1.974
700	6.38	34.29	26.965	110.1	2.036
750	5.69	34.30	27.061	101.0	2.094
800	5.20	34.34	27.151	92.4	2.147
850	4.68	34.38	27.220	85.9	2.196
900	4.59	34.41	27.276	80.5	2.242
950	4.34	34.45	27.335	74.9	2.286
1000	4.13	34.46	27.366	72.1	2.327
1100	3.69	34.50	27.442	64.8	2.405
1200	3.34	34.53	27.501	59.3	2.476
1300	3.10	34.55	27.539	55.6	2.542
1400	2.88	34.57	27.575	52.2	2.605
1500	2.75	34.58	27.595	50.4	2.666
1600	2.596	34.594	27.619	48.0	2.725
1700	2.466	34.599	27.634	46.6	2.781
1800	2.362	34.610	27.652	44.9	2.836
1900	2.237	34.620	27.670	43.2	2.890
2000	2.136	34.627	27.684	41.9	2.942
2100	2.051	34.634	27.697	40.7	2.993
2200	1.978	34.639	27.706	39.8	3.043
2300	1.909	34.645	27.716	38.8	3.091
2400	1.863	34.649	27.723	38.2	3.140
2500	1.817	34.652	27.729	37.6	3.187
2600	1.774	34.655	27.735	37.1	3.235
2700	1.740	34.657	27.739	36.7	3.282
2800	1.717	34.659	27.742	36.4	3.328
2900	1.699	34.660	27.745	36.2	3.375
3000	1.672	34.663	27.749	35.7	3.422
3100	1.656	34.665	27.752	35.5	3.468
3200	1.649	34.667	27.754	35.3	3.514
3300	1.631	34.669	27.757	35.0	3.561
3400	1.622	34.671	27.759	34.8	3.607
3500	1.615	34.673	27.761	34.6	3.654
3600	1.605	34.674	27.763	34.4	3.700
3700	1.596	34.676	27.765	34.2	3.747
3800	1.593	34.677	27.766	34.1	3.793
3900	1.589	34.679	27.768	34.0	3.840
4000	1.588	34.680	27.769	33.9	3.887
4100	1.588	34.681	27.770	33.8	3.934
4200	1.589	34.682	27.770	33.7	3.981
4300	1.595	34.683	27.771	33.7	4.029
4400	1.603	34.683	27.770	33.7	4.077
4500	1.607	34.684	27.771	33.7	4.125
4600	1.616	34.685	27.771	33.7	4.173
4700	1.623	34.685	27.770	33.7	4.222
4800	1.632	34.686	27.770	33.7	4.272
4900	1.642	34.686	27.770	33.8	4.321
5000	1.651	34.687	27.770	33.8	4.372
5100	1.660	34.687	27.769	33.8	4.422
5200	1.671	34.686	27.769	33.8	4.473
5300	1.683	34.688	27.768	33.9	4.525
5400	1.696	34.688	27.767	34.0	4.577
5500	1.709	34.688	27.766	34.1	4.629
5600	1.722	34.688	27.765	34.2	4.682
5700	1.735	34.688	27.764	34.3	4.735
5800	1.749	34.688	27.763	34.4	4.790
5988	1.762	34.688	27.762	34.5	4.892

RV THOMAS WASHINGTON — INDOPAC LEG III

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
20 55. N	131 56.5E	6/12/76	0848 1243 GMT	5478M	140	9KT	1	140 3 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.96	34.658	4.56	0.07	2.	0.00	0.2	598.[illegible]	0	28.96	34.658	4.56	21.842	598.2	0.000
10	28.95	34.658	4.58	0.07	2.	0.00	0.1	597.[illegible]	10	28.95	34.658	4.58	21.845	597.9	0.060
31	28.68	34.658	4.55	0.06	2.	0.00	0.0	589.[illegible]	20	28.88	34.658	4.57	21.868	595.7	0.119
50	27.91	34.671	4.74	0.05	2.	0.00	0.0	564.1	30	28.70	34.659	4.55	21.927	590.0	0.179
91	26.17	34.738	4.80	0.06	2.	0.00	0.0	506.1	50	27.91	34.671	4.74	22.198	564.1	0.294
131	24.86	34.833	4.56	0.10	2.	0.00	0.0	466.[illegible]	75	26.85	34.737	4.76	22.572	526.3	0.432
191	22.52	34.882	4.48	0.11	2.	0.04	0.6	386.[illegible]	100	25.87	34.760	4.75	22.915	495.6	0.561
250	19.87	34.933	4.25	0.26	4.	0.01	2.9	319.1	125	25.05	34.820	4.60	23.210	467.3	0.682
325	16.70	34.744	4.41	0.41	7.	0.00	5.5	257.9	150	24.09	34.853	4.52	23.525	437.5	0.796
423	13.22	34.483	4.19	0.87	16.	0.00	12.9	204.7	200	21.95	34.895	4.44	24.174	375.4	1.005
521	9.99	34.281	5.30	1.60	32.	0.00	23.4	162.4	250	19.87	34.933	4.25	24.764	319.1	1.181
566	8.66	34.239	2.67	2.01	43.	0.00	28.8	144.9	300	17.74	34.821	4.34	25.214	275.8	1.334
615	7.48	34.216	2.25	2.31	54.	0.00	32.9	129.4	400	13.99	34.544	4.24	25.856	215.3	1.590
694	6.49	34.263	1.77	2.58	68.	0.00	37.5	113.4	500	10.65	34.316	3.55	26.325	170.8	1.794
720A	6.29	34.268	1.70	2.55	73.	0.00	37.8	110.6	600	7.80	34.220	2.36	26.711	134.1	1.957
793	5.63	34.331	1.56	2.76	81.	0.00	40.0	99.[illegible]	700	6.44	34.267	1.75	26.938	114.[illegible]	2.090
821A	5.38	34.344	1.51	2.75	90.	0.00	40.2	94.1	800	5.57	34.335	1.55	27.103	97.0	2.205
893	4.85	34.389	1.55	2.63	96.	0.00	41.2	84.9	1000	4.31	34.431	1.59	27.323	76.2	2.398
920A	4.72	34.400	1.55	2.61	103.	0.00	41.0	82.7	1200	3.45	34.495	1.80	27.462	62.9	2.556
1120A	3.74	34.473	1.70	2.83	124.	0.00	41.7	67.3	1500	2.71	34.572	2.16	27.590	50.8	2.755
1421A	2.85								1750	2.38	34.606	2.45	27.646	45.5	2.898
1721A	2.42	34.601	2.43	2.77	146.	0.00	40.5	46.1	2000	2.10	34.627	2.60	27.686	41.7	3.031
2021A	2.08	34.627	2.61	2.73	151.	0.04	40.2	41.5	2250	1.91	34.641	2.77	27.712	39.1	3.155
2320A	1.87	34.645	2.82	2.66	152.	0.00	39.7	38.5	2500	1.80	34.650	2.89	27.729	37.5	3.275
2622A	1.76	34.654	2.93	2.67	154.	0.00	39.2	37.1	2750	1.73	34.658	3.02	27.740	36.6	3.392
2920A	1.69	34.661	3.13	2.66	153.	0.00	38.8	36.0	3000	1.67	34.664	3.17	27.749	35.8	3.509
3221A	1.634	34.668	3.27	2.60	152.	0.00	38.2	35.1	3250	1.63	34.669	3.28	27.756	35.0	3.625
3522A	1.602	34.673	3.38	2.50	151.	0.00	37.9	34.[illegible]	3500	1.60	34.673	3.37	27.762	34.5	3.740
3820A	1.585	34.676	3.44	2.57	151.	0.00	37.6	34.1	3750	1.59	34.676	3.43	27.765	34.2	3.856
4122A	1.593	34.680	3.47	2.51	151.	0.00	37.2	33.9	4000	1.59	34.679	3.46	27.767	34.0	3.973
4421A	1.604	34.682	3.54	2.56	149.	0.00	37.0	33.6	4250	1.60	34.682	3.50	27.769	33.8	4.092
4721A	1.625	34.683	3.56	2.54	149.	0.00	36.7	33.9	4500	1.61	34.683	3.55	27.769	33.8	4.212
5021A	1.652	34.684	3.57	2.54	149.	0.00	36.5	34.0	4750	1.63	34.684	3.56	27.768	33.9	4.335
5321A	1.684	34.685	3.61	2.54	149.	0.00	36.4	34.2	5000	1.65	34.685	3.57	27.767	34.0	4.460
5621A	1.721	34.686	3.61	2.48	149.	0.00	36.4	34.[illegible]	5250	1.68	34.685	3.60	27.766	34.1	4.588
5922A	1.762	34.686	3.67	2.54	149.	0.00	36.1	34.6	5500	1.71	34.686	3.61	27.764	34.3	4.718

RV THOMAS WASHINGTON — INDOPAC LEG III

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 30.5N	132 27. E	6/12/76	2340 0333 GMT	5592M	160	9KT	1	160 4 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.18	34.861	4.69	0.00	3.	0.00	0.0	558.9	0	28.18	34.861	4.69	22.253	558.9	0.000
20	27.45	34.855	4.74	0.00	3.	0.00	0.0	536.[illegible]	10	27.81	34.857	4.72	22.372	547.4	0.055
36	23.32	34.784	5.30	0.00	2.	0.00	0.0	420.7	20	27.45	34.855	4.74	22.492	536.0	0.110
55	22.05	34.787	5.41	0.00	3.	0.00	0.0	386.0	30	24.88	34.792	5.09	23.241	464.4	0.160
86	20.90	34.814	5.07	0.02	2.	0.00	0.0	353.9	50	22.17	34.788	5.38	24.029	389.2	0.245
116	20.02	34.815	4.79	0.07	3.	0.39	0.9	331.4	75	21.23	34.805	5.22	24.304	362.0	0.340
151	18.73	34.799	4.63	0.16	5.	0.04	3.5	300.9	100	20.49	34.817	4.93	24.515	343.1	0.429
186	17.64	34.783	4.59	0.29	5.	0.03	4.6	276.4	125	19.69	34.811	4.73	24.718	323.5	0.513
225	16.88	34.764	4.68	0.30	7.	0.04	5.5	260.5	150	18.77	34.799	4.63	24.946	301.8	0.593
272	16.05	34.714	4.66	0.42	8.	0.00	7.0	245.[illegible]	200	17.34	34.778	4.62	25.282	269.8	0.738
321	15.26	34.654	4.51	0.58	10.	0.00	8.8	233.[illegible]	250	16.43	34.741	4.67	25.466	252.2	0.873
380	13.68	34.532	4.20	0.80	16.	0.00	12.6	210.0	300	15.62	34.684	4.59	25.608	238.8	1.000
450	11.45	34.376	3.90	1.15	27.	0.00	18.1	180.[illegible]	400	13.06	34.487	4.10	26.003	201.4	1.229
520	9.28	34.236	3.78	1.55	41.	0.00	22.9	154.5	500	9.89	34.272	3.83	26.423	161.4	1.421
599	7.09	34.153	3.02	2.06	62.	0.00	29.9	129.4	600	7.07	34.154	3.01	26.764	129.1	1.576
698	5.64	34.182	2.13	2.47	85.	0.00	36.1	109.2	700	5.62	34.184	2.12	26.977	108.9	1.704
799	4.73	34.247	1.67	2.73	103.	0.00	39.3	94.2	800	4.73	34.249	1.67	27.132	94.1	1.814
978	3.81	34.373	1.50	2.90	125.	0.00	42.0	75.0	1000	3.64	34.442	1.44	27.367	72.0	1.997
995A	3.67	34.395	1.43	2.90	129.	0.00	40.8	72.[illegible]	1200	3.01	34.489	1.65	27.498	59.5	2.144
1146A	3.17	34.469	1.57	2.85	141.	0.00	41.4	62.4	1500	2.43	34.568	2.19	27.612	48.7	2.331
1296A	2.76	34.517	1.82	2.75	147.	0.00	40.9	55.2	1750	2.14	34.606	2.53	27.666	43.6	2.467
1495A	2.44	34.566	2.14	2.72	152.	0.00	39.8	48.9	2000	1.93	34.627	2.75	27.700	40.3	2.593
1695A	2.20	34.599						44.[illegible]	2250	1.79	34.644	2.93	27.724	38.0	2.713
1895A	2.00	34.618	2.67	2.70	155.	0.00	39.6	41.[illegible]	2500	1.71	34.655	3.09	27.739	36.6	2.828
2095A	1.87	34.634	2.82	2.67	154.	0.00	38.6	39.4	2750	1.66	34.658	3.16	27.745	36.1	2.943
2344A	1.75	34.650	2.99	2.59	155.	0.00	38.3	37.[illegible]	3000	1.61	34.668	3.26	27.757	35.0	3.057
2594A	1.69	34.657	3.13	2.56	155.	0.00	38.5	36.[illegible]	3250	1.58	34.673	3.35	27.763	34.4	3.170
2744A	1.66	34.657	3.16	2.59	154.	0.00	38.2	36.1	3500	1.57	34.676	3.45	27.766	34.1	3.284
3020A	1.608	34.668	3.27	2.55	154.	0.00	37.9	34.9	3750	1.55	34.679	3.53	27.770	33.8	3.398
3294A	1.581	34.673	3.36	2.55	154.	0.00	37.7	34.[illegible]	4000	1.56	34.681	3.55	27.771	33.6	3.513
3569A	1.563	34.676	3.48	2.52	153.	0.00	37.5	34.0	4250	1.58	34.683	3.57	27.772	32.6	3.631
3843A	1.553	34.679	3.55	2.53	153.	0.00	37.5	33.7	4500	1.60	34.684	3.62	27.771	33.7	3.750
4119A	1.569	34.682	3.55	2.52	153.	0.00	37.6	33.[illegible]	4750	1.62	34.684	3.64	27.769	33.9	3.872
4393A	1.586	34.683	3.60	2.49	152.	0.00	37.3	33.6	5000	1.65	34.685	3.63	27.768	34.0	3.997
4668A	1.615	34.683	3.65	2.52	152.	0.00	37.2	33.8	5250	1.67	34.684	3.65	27.765	34.2	4.125
4943A	1.640	34.684	3.63	2.49	151.	0.00	37.1	33.9	5500	1.70	34.686	3.65	27.765	34.2	4.255
5218A	1.670	34.683	3.65	2.50	151.	0.00	37.2	34.[illegible]							
5492A	1.702	34.686	3.64	2.50	150.	0.00	37.1	34.2							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
20 55. N	131 56.5E	06/12/76	0703 GMT

Z	T	S	SIGMA T	DT	DD
0	29.00	34.67	21.838	598.6	0.000
10	28.81	34.66	21.894	593.5	0.060
20	28.69	34.66	21.933	589.4	0.119
30	28.54	34.66	21.983	584.7	0.178
40	27.67	34.69	22.291	555.3	0.235
50	27.05	34.70	22.498	535.4	0.289
75	26.23	34.74	22.787	507.8	0.421
100	25.35	34.76	23.090	478.8	0.545
125	24.59	34.85	23.373	451.6	0.662
150	23.33	34.85	23.745	416.3	0.772
175	22.57	34.87	23.979	394.0	0.875
200	21.60	34.87	24.250	368.1	0.972
225	20.77	34.84	24.454	348.7	1.063
250	19.94	34.93	24.743	321.1	1.149
275	18.72	34.85	24.997	297.0	1.229
300	17.89	34.81	25.173	280.3	1.303
350	15.63	34.64	25.574	242.1	1.439
400	13.79	34.50	25.864	214.5	1.558
450	12.55	34.41	26.045	197.4	1.667
500	10.70	34.30	26.304	172.7	1.765
550	9.11	34.22	26.511	153.1	1.852
600	8.04	34.21	26.669	138.1	1.930
650	6.86	34.22	26.846	121.4	2.000
700	6.36	34.24	26.928	113.5	2.063
750	5.80	34.27	27.023	104.5	2.123
800	5.54	34.32	27.095	97.7	2.178
850	5.18	34.34	27.154	92.2	2.231
900	4.88	34.38	27.220	85.9	2.280
950	4.42	34.40	27.287	79.5	2.326
1000	4.12	34.42	27.335	75.0	2.369
1100	3.74	34.46	27.406	68.3	2.450
1200	3.40	34.50	27.471	62.1	2.525
1300	3.06	34.53	27.527	56.8	2.593
1400	2.86	34.55	27.561	53.5	2.657
1500	2.68	34.57	27.593	50.5	2.719
1600	2.545	34.584	27.616	48.4	2.777
1700	2.438	34.597	27.635	46.5	2.834
1800	2.328	34.610	27.655	44.7	2.889
1900	2.189	34.621	27.675	42.7	2.942
2000	2.112	34.628	27.687	41.6	2.993
2100	2.031	34.634	27.698	40.6	3.044
2200	1.949	34.640	27.709	39.5	3.093
2300	1.887	34.646	27.719	38.6	3.142
2400	1.853	34.648	27.723	38.2	3.190
2500	1.822	34.650	27.727	37.8	3.237
2600	1.789	34.653	27.732	37.3	3.285
2700	1.762	34.655	27.736	37.0	3.332
2800	1.729	34.657	27.740	36.6	3.379
2900	1.708	34.658	27.742	36.4	3.426
3000	1.683	34.660	27.746	36.0	3.473
3100	1.664	34.662	27.749	35.8	3.520
3200	1.640	34.665	27.753	35.4	3.567
3300	1.625	34.667	27.756	35.1	3.613
3400	1.613	34.669	27.758	34.9	3.659
3500	1.605	34.671	27.760	34.7	3.706
3600	1.601	34.673	27.762	34.5	3.752
3700	1.596	34.674	27.763	34.4	3.799
3800	1.593	34.675	27.764	34.3	3.846
3900	1.595	34.676	27.765	34.2	3.893
4000	1.593	34.677	27.766	34.1	3.940
4100	1.595	34.679	27.767	34.0	3.987
4200	1.597	34.679	27.767	34.0	4.035
4300	1.600	34.681	27.769	33.9	4.082
4400	1.605	34.683	27.770	33.8	4.130
4500	1.610	34.682	27.769	33.9	4.179
4600	1.616	34.683	27.769	33.8	4.228
4700	1.621	34.685	27.770	33.7	4.277
4800	1.631	34.684	27.769	33.9	4.326
4900	1.640	34.684	27.768	33.9	4.376
5000	1.648	34.684	27.768	34.0	4.426
5100	1.658	34.685	27.768	34.0	4.477
5200	1.667	34.684	27.766	34.1	4.528
5300	1.679	34.684	27.765	34.2	4.580
5400	1.690	34.684	27.764	34.3	4.632
5500	1.703	34.684	27.763	34.4	4.684
5600	1.716	34.684	27.762	34.5	4.738
5700	1.728	34.684	27.762	34.5	4.791
5800	1.743	34.684	27.760	34.7	4.845
5900	1.758	34.684	27.759	34.8	4.900

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 30.5N	132 27. E	06/12/76	2145 GMT

Z	T	S	SIGMA T	DT	DD
0	27.88	34.68	22.365	548.1	0.000
10	27.85	34.87	22.387	547.9	0.055
20	27.52	34.86	22.467	536.4	0.109
30	26.44	34.85	22.804	506.2	0.162
40	25.51	34.78	23.640	426.3	0.208
50	22.11	34.79	24.048	387.4	0.249
75	21.01	34.81	24.367	357.0	0.343
100	20.25	34.80	24.563	338.5	0.430
125	19.23	34.79	24.821	313.7	0.513
150	18.61	34.79	24.979	298.7	0.591
175	17.78	34.78	25.177	279.9	0.664
200	17.11	34.76	25.323	266.0	0.734
225	16.62	34.74	25.423	256.4	0.801
250	16.18	34.72	25.510	248.2	0.866
275	16.00	34.70	25.536	245.7	0.930
300	15.46	34.66	25.627	237.0	0.992
350	14.25	34.57	25.821	218.6	1.111
400	12.67	34.45	26.052	196.7	1.220
450	11.72	34.39	26.188	183.7	1.320
500	9.84	34.26	26.422	161.6	1.412
550	8.68	34.21	26.571	147.4	1.494
600	7.00	34.14	26.764	129.2	1.568
650	6.33	34.15	26.861	119.9	1.635
700	5.60	34.18	26.977	108.9	1.696
750	5.04	34.21	27.067	100.4	1.753
800	4.56	34.26	27.161	91.5	1.805
850	4.20	34.30	27.231	84.8	1.853
900	3.99	34.34	27.285	79.7	1.898
950	3.76	34.37	27.329	75.5	1.941
1000	3.57	34.40	27.375	71.2	1.982
1100	3.25	34.45	27.445	64.5	2.057
1200	2.95	34.49	27.505	58.9	2.127
1300	2.72	34.51	27.542	55.4	2.192
1400	2.54	34.54	27.581	51.7	2.254
1500	2.40	34.57	27.617	48.3	2.312
1600	2.281	34.580	27.635	46.6	2.367
1700	2.193	34.595	27.654	44.7	2.421
1800	2.065	34.607	27.674	42.9	2.473
1900	1.985	34.616	27.687	41.6	2.523
2000	1.940	34.625	27.698	40.6	2.573
2100	1.875	34.632	27.709	39.6	2.622
2200	1.830	34.636	27.715	38.9	2.670
2300	1.798	34.640	27.722	38.3	2.717
2400	1.758	34.645	27.728	37.7	2.764
2500	1.722	34.649	27.734	37.2	2.811
2600	1.701	34.651	27.737	36.9	2.857
2700	1.678	34.655	27.742	36.4	2.903
2800	1.658	34.657	27.745	36.1	2.950
2900	1.643	34.661	27.750	35.7	2.995
3000	1.633	34.664	27.753	35.4	3.041
3100	1.618	34.666	27.755	35.1	3.087
3200	1.600	34.666	27.758	34.9	3.133
3300	1.594	34.670	27.760	34.7	3.178
3400	1.586	34.672	27.763	34.5	3.224
3500	1.579	34.674	27.765	34.3	3.270
3600	1.571	34.675	27.766	34.1	3.316
3700	1.568	34.677	27.768	34.0	3.362
3800	1.567	34.678	27.769	33.9	3.408
3900	1.566	34.679	27.770	33.8	3.454
4000	1.570	34.681	27.771	33.7	3.501
4100	1.572	34.681	27.771	33.7	3.548
4200	1.577	34.682	27.771	33.6	3.595
4300	1.583	34.683	27.772	33.6	3.642
4400	1.589	34.683	27.771	33.6	3.690
4500	1.596	34.684	27.771	33.6	3.738
4600	1.605	34.684	27.771	33.7	3.786
4700	1.614	34.685	27.771	33.7	3.835
4800	1.623	34.685	27.770	33.7	3.884
4900	1.633	34.684	27.769	33.9	3.934
5000	1.642	34.685	27.769	33.9	3.984
5100	1.652	34.684	27.767	34.0	4.035
5200	1.663	34.684	27.766	34.1	4.086
5300	1.675	34.683	27.765	34.2	4.137
5400	1.688	34.683	27.764	34.3	4.189
5500	1.700	34.682	27.762	34.5	4.242

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 30.5N	133 59.6E	6/13/76	1438 1927 GMT	5450M	180	6KT	1	180 4 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.87	34.834	4.68	0.05	2.	0.00	0.2	551.1	0	27.87	34.834	4.68	22.334	551.1	0.000
10	27.89	34.835	4.66	0.03	1.	0.00	0.2	551.7	10	27.89	34.835	4.66	22.328	551.7	0.055
20	27.85	34.837	4.62	0.03	1.	0.00	0.2	550.3	20	27.85	34.837	4.62	22.343	550.3	0.110
31	24.56	34.802	5.14	0.01	2.	0.00	0.2	455.0	30	24.92	34.801	5.09	23.237	464.8	0.161
51	22.35	34.814	5.28	0.05	2.	0.00	0.2	392.1	50	22.39	34.815	5.27	23.987	395.2	0.247
76	20.89	34.800	5.29	0.03	2.	0.00	0.2	354.6	75	20.93	34.801	5.29	24.382	355.6	0.341
101	19.85	34.791	5.10	0.07	3.	0.03	0.2	328.9	100	19.89	34.791	5.11	24.652	329.8	0.428
131	18.94	34.793	4.73	0.18	3.	0.07	1.3	306.4	125	19.10	34.792	4.80	24.856	310.4	0.509
171	18.01	34.786	4.65	0.24	3.	0.03	3.1	284.8	150	18.47	34.791	4.69	25.014	295.4	0.586
220	16.97	34.763	4.58	0.37	5.	0.00	5.0	262.6	200	17.39	34.776	4.60	25.268	271.2	0.730
271	15.87	34.699	4.58	0.48	8.	0.00	6.7	243.0	250	16.33	34.729	4.58	25.483	250.8	0.864
350	14.02	34.562	4.38	0.70	14.	0.00	11.4	214.6	300	15.21	34.653	4.53	25.677	232.3	0.989
449	11.52	34.380	4.01	1.15	25.	0.00	17.2	180.9	400	12.83	34.475	4.24	26.039	197.9	1.214
548	8.07	34.193	3.02	1.94	50.	0.00	27.5	139.8	500	9.72	34.262	3.55	26.443	159.5	1.403
591A	6.98	34.189	2.52	2.15	64.	0.00	26.9	125.2	600	6.85	34.188	2.48	26.822	123.6	1.554
649	6.26	34.185	2.31	2.40	73.	0.03	33.2	116.4	700	5.54	34.215	1.93	27.011	105.7	1.677
690A	5.63	34.211	1.95	2.41	86.	0.00	34.5	106.9	800	4.57	34.295	1.53	27.187	88.9	1.783
750	5.13	34.238	1.84	2.68	93.	0.03	37.3	99.3	1000	3.65	34.394	1.40	27.362	72.4	1.961
789A	4.65	34.287	1.54	2.72	105.	0.09	36.4	90.4	1200	3.02	34.486	1.61	27.495	59.8	2.109
939A	3.93	34.353	1.36	2.70	122.	0.04	38.0	78.2	1500	2.44	34.562	2.12	27.607	49.2	2.297
1088A	3.30	34.450	1.51	2.81	134.	0.00	39.8	64.9	1750	2.11	34.603	2.49	27.666	43.6	2.434
1286A	2.86	34.503	1.70	2.70	145.	0.00	40.2	57.1	2000	1.93	34.624	2.72	27.697	40.6	2.560
1486A	2.46	34.559	2.10	2.63	148.	0.00	39.3	49.6	2250	1.81	34.637	2.93	27.717	38.7	2.661
1784A	2.08	34.605	2.53	2.73	151.	0.00	38.4	43.1	2500	1.70	34.650	3.08	27.736	36.9	2.798
2084A	1.89	34.628	2.78	2.61	153.	0.00	38.0	40.0	2750	1.62	34.661	3.19	27.750	35.6	2.912
2384A	1.75	34.644	3.03	2.56	153.	0.00	38.3	37.7	3000	1.59	34.668	3.32	27.759	34.8	3.024
2684A	1.636	34.658	3.15	2.55	153.	0.00	37.1	35.9	3250	1.55	34.673	3.45	27.765	34.2	3.136
2984A	1.587	34.667	3.31	2.54	152.	0.00	36.5	34.8	3500	1.54	34.677	3.46	27.770	33.8	3.249
3285A	1.550	34.673	3.46	2.52	152.	0.00	37.1	34.1	3750	1.54	34.680	3.49	27.771	33.6	3.362
3586A	1.536	34.678	3.46	2.46	151.	0.00	36.9	33.7	4000	1.56	34.681	3.52	27.771	33.6	3.477
3886A	1.547	34.680	3.51	2.46	150.	0.00	36.7	33.6	4250	1.58	34.681	3.56	27.770	33.8	3.594
4192A	1.571	34.680	3.54	2.46	149.	0.00	36.7	33.7	4500	1.60	34.683	3.63	27.770	33.8	3.714
4495A	1.596	34.682	3.63	2.50	149.	0.00	37.3	33.8	4750	1.62	34.684	3.60	27.769	33.9	3.836
4797A	1.626	34.683	3.59	2.44	148.	0.00	36.8	33.9	5000	1.65	34.684	3.61	27.767	34.0	3.961
5101A	1.656	34.683	3.62	2.45	148.	0.00	36.9	34.1	5250	1.67	34.684		27.765	34.2	4.089
5404A	1.686	34.684	3.810	2.48	148.	0.00	36.7	34.2							

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 32.4N	135 58.5E	6/14/76	0737 1210 GMT	5294M	160	7KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.78	34.826	4.73	0.07	3.		0.6	548.9	0	27.78	34.826	4.73	22.357	548.9	0.000
10	27.67	34.817	4.71	0.06	3.		0.2	546.1	10	27.67	34.817	4.71	22.386	546.1	0.055
20	27.62	34.869	4.73	0.07	3.		0.0	540.8	20	27.62	34.869	4.73	22.441	540.8	0.109
30	27.41	34.870	4.75	0.07	3.		0.0	534.3	30	27.41	34.870	4.75	22.510	534.3	0.163
40	26.42	34.810	4.86	0.13	3.		0.0	508.4	50	25.74	34.805	4.96	22.988	488.6	0.266
70	24.57	34.824	5.10	0.08	3.		0.0	453.1	75	24.16	34.814	5.10	23.474	442.2	0.383
90	23.01	34.792	5.12	0.07	3.		0.7	411.6	100	22.51	34.798	5.08	23.942	397.5	0.488
115	21.92	34.809	5.03	0.08	3.		0.6	381.0	125	21.54	34.802	5.09	24.215	371.5	0.586
145	20.81	34.786	5.17	0.09	3.		0.6	353.6	150	20.60	34.787	5.13	24.459	348.2	0.677
179	19.43	34.802	4.79	0.16	3.		0.5	317.7	200	18.70	34.804	4.66	24.967	299.8	0.842
223	18.02	34.800	4.60	0.28	6.		0.5	284.0	250	17.46	34.787	4.65	25.259	272.0	0.989
283	16.90	34.758	4.74	0.32	6.		2.1	261.4	300	16.58	34.741	4.72	25.433	255.5	1.125
337	15.82	34.688	4.63	0.46	9.		3.6	242.7	400	14.26	34.567	4.43	25.816	219.1	1.372
433	13.28	34.488	4.28	0.85	20.		7.5	205.5	500	10.90	34.323	3.88	26.287	174.4	1.580
498	10.96	34.326	3.90	1.32	30.		18.1	175.2	600	8.35	34.203	3.09	26.616	143.1	1.750
560	9.20	34.237	3.38	1.68	45.		24.1	153.2	700	6.03	34.195	2.07	26.935	112.9	1.888
612	8.09	34.193	3.00	1.97	56.		31.7	140.1	800	4.87	34.258	1.61	27.124	95.0	2.001
620A	7.16	34.173	2.61	2.02	75.		34.0	128.8	1000	3.73	34.404	1.41	27.361	72.5	2.185
721A	5.73	34.203	1.93	2.38	100.		39.8	108.7	1200	3.11	34.482	1.59	27.484	60.9	2.335
821A	4.69	34.274	1.55	2.67	119.		43.6	91.8	1500	2.54	34.555	2.07	27.593	50.6	2.528
921A	4.10	34.347	1.37	2.76	131.		43.9	80.3	1750	2.19	34.599	2.43	27.656	44.5	2.668
1021A	3.65	34.416	1.43	2.63	139.		43.2	70.7	2000	1.97	34.625	2.71	27.695	40.9	2.796
1120A	3.30	34.456	1.48	2.80	144.		41.9	64.5	2250	1.85	34.641	2.89	27.717	38.7	2.918
1321A	2.88	34.513	1.79	2.78	152.		39.40	56.5	2500	1.76	34.647	2.99	27.729	37.6	3.037
1621A	2.35	34.578	2.25	2.71	156.		41.0	47.3	2750	1.67	34.657	3.17	27.744	36.2	3.155
1920A	2.03	34.617	2.63	2.69	153.		40.8	41.8	3000	1.60	34.664	3.31	27.754	35.2	3.268
2220A	1.86	34.639	2.88	2.55	152.		42.1	38.9	3250	1.57	34.670	3.38	27.762	34.5	3.381
2520A	1.749	34.647	3.00	2.56	153.		41.8	37.5	3500	1.56	34.675	3.43	27.766	34.1	3.494
2821A	1.648	34.659	3.22	2.45	152.		40.8	35.9	3750	1.56	34.679	3.48	27.769	33.8	3.608
3120A	1.582	34.667	3.35	2.52	152.		40.3	34.8	4000	1.56	34.681	3.54	27.771	33.6	3.724
3420A	1.557	34.673	3.41	2.49	150.		39.9	34.2	4250	1.57	34.682	3.59	27.771	33.6	3.841
3720A	1.560	34.678	3.47	2.45	148.		39.5	33.8	4500	1.59	34.684	3.64	27.771	33.6	3.960
4019A	1.556	34.680	3.54	2.50	148.		39.5	33.6	4750	1.61	34.684	3.64	27.770	33.8	4.082
4319A	1.576	34.682	3.61	2.40	149.		38.1	33.6	5000	1.64	34.684	3.63	27.767	34.0	4.207
4619A	1.599	34.684	3.65	2.43	149.		39.3	33.6							
4919A	1.631	34.683	3.62	2.41	148.		41.40	33.9							
5220A	1.669	34.684	3.64	2.41	147.		41.30	34.1							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 30.5N	133 59.6E	06/13/76	1238 GMT

Z	T	S	SIGMA T	DT	DD
0	27.94	34.84	22.315	552.9	0.000
10	27.91	34.84	22.325	551.9	0.055
20	27.07	34.71	22.499	535.3	0.110
30	25.84	34.72	23.498	439.9	0.159
40	22.59	34.76	23.905	401.0	0.201
50	21.88	34.79	24.112	381.5	0.240
75	20.89	34.78	24.376	356.1	0.333
100	19.52	34.77	24.731	322.3	0.416
125	18.69	34.77	24.943	302.1	0.497
150	18.01	34.77	25.113	286.0	0.572
175	17.25	34.76	25.289	269.2	0.643
200	16.87	34.74	25.364	262.0	0.711
225	16.38	34.72	25.464	252.6	0.777
250	15.98	34.70	25.540	245.3	0.841
275	15.58	34.67	25.608	238.9	0.903
300	15.22	34.65	25.673	232.7	0.964
350	13.84	34.53	25.877	213.3	1.080
400	12.46	34.44	26.085	193.5	1.187
450	11.38	34.36	26.228	180.0	1.285
500	9.89	34.27	26.421	161.6	1.376
550	8.13	34.18	26.632	141.6	1.457
600	7.05	34.19	26.796	126.1	1.529
650	6.26	34.21	26.918	114.5	1.593
700	5.47	34.21	27.016	105.2	1.652
750	4.95	34.24	27.101	97.1	1.707
800	4.66	34.27	27.158	91.8	1.759
850	4.37	34.30	27.213	86.5	1.807
900	4.03	34.34	27.281	80.1	1.853
950	3.75	34.37	27.333	75.1	1.896
1000	3.48	34.40	27.384	70.4	1.936
1100	3.23	34.45	27.447	64.3	2.011
1200	2.96	34.48	27.496	59.7	2.081
1300	2.74	34.52	27.548	54.6	2.146
1400	2.57	34.54	27.578	51.9	2.208
1500	2.40	34.56	27.609	49.0	2.266
1600	2.267	34.578	27.634	46.6	2.322
1700	2.186	34.589	27.650	45.1	2.376
1800	2.053	34.605	27.673	42.9	2.428
1900	1.986	34.614	27.686	41.7	2.479
2000	1.932	34.620	27.695	40.9	2.529
2100	1.876	34.628	27.705	39.9	2.578
2200	1.828	34.635	27.713	39.1	2.626
2300	1.787	34.637	27.719	38.5	2.674
2400	1.737	34.643	27.728	37.7	2.721
2500	1.703	34.647	27.734	37.2	2.767
2600	1.673	34.650	27.738	36.7	2.813
2700	1.640	34.654	27.744	36.2	2.859
2800	1.622	34.657	27.748	35.8	2.905
2900	1.607	34.660	27.751	35.5	2.950
3000	1.585	34.663	27.755	35.1	2.996
3100	1.574	34.665	27.758	34.9	3.041
3200	1.563	34.668	27.761	34.6	3.086
3300	1.551	34.670	27.764	34.4	3.131
3400	1.545	34.672	27.766	34.2	3.176
3500	1.542	34.674	27.767	34.0	3.222
3600	1.541	34.675	27.768	33.9	3.267
3700	1.540	34.677	27.770	33.8	3.312
3800	1.542	34.678	27.771	33.7	3.358
3900	1.546	34.678	27.770	33.7	3.404
4000	1.553	34.679	27.771	33.7	3.450
4100	1.559	34.679	27.770	33.7	3.497
4200	1.568	34.680	27.770	33.7	3.544
4300	1.576	34.680	27.770	33.6	3.592
4400	1.584	34.680	27.769	33.6	3.639
4500	1.593	34.681	27.769	33.8	3.688
4600	1.603	34.682	27.769	33.6	3.736
4700	1.613	34.682	27.769	33.9	3.785
4800	1.623	34.683	27.769	33.9	3.834
4900	1.633	34.683	27.768	34.0	3.884
5000	1.643	34.683	27.767	34.0	3.934
5100	1.654	34.683	27.766	34.1	3.985
5200	1.663	34.684	27.766	34.1	4.036
5300	1.673	34.684	27.766	34.2	4.088
5400	1.684	34.684	27.765	34.2	4.140

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 32.4N	135 58.5E	06/14/76	0410 GMT

Z	T	S	SIGMA T	DT	DD
0	28.07	34.82	22.258	558.4	0.000
10	27.74	34.83	22.357	548.9	0.055
20	27.55	34.85	22.450	540.0	0.110
30	27.17	34.85	22.572	528.3	0.163
40	26.36	34.80	22.792	507.3	0.215
50	25.90	34.80	22.935	493.6	0.266
75	23.51	34.80	23.659	424.9	0.391
100	22.20	34.78	24.015	390.5	0.504
125	20.70	34.78	24.428	351.2	0.577
150	19.73	34.79	24.692	326.0	0.693
175	19.05	34.80	24.875	308.6	0.744
200	18.22	34.79	25.076	289.5	0.820
225	17.62	34.77	25.208	276.9	0.893
250	16.92	34.74	25.353	263.1	0.962
275	16.39	34.72	25.461	252.8	1.029
300	15.94	34.70	25.549	244.4	1.093
350	14.92	34.60	25.700	230.1	1.217
400	13.54	34.47	25.953	208.0	1.331
450	11.96	34.30	26.151	189.1	1.436
500	10.36	34.27	26.337	169.6	1.531
550	8.92	34.21	26.534	151.0	1.617
600	7.58	34.16	26.697	135.4	1.693
650	6.50	34.15	26.819	122.0	1.762
700	5.74	34.18	26.960	110.6	1.825
750	5.18	34.22	27.059	101.2	1.882
800	4.69	34.25	27.139	93.6	1.935
850	4.34	34.29	27.208	87.0	1.984
900	4.11	34.34	27.272	80.9	2.031
950	3.83	34.37	27.325	75.9	2.074
1000	3.61	34.41	27.374	70.8	2.115
1100	3.26	34.45	27.445	64.6	2.190
1200	3.05	34.49	27.496	59.7	2.261
1300	2.82	34.51	27.533	56.2	2.327
1400	2.62	34.54	27.574	52.3	2.389
1500	2.47	34.56	27.603	49.6	2.448
1600	2.336	34.575	27.626	47.4	2.505
1700	2.209	34.589	27.648	45.3	2.560
1800	2.127	34.610	27.671	43.1	2.613
1900	2.049	34.617	27.683	42.0	2.664
2000	1.974	34.624	27.695	40.9	2.714
2100	1.911	34.634	27.708	39.7	2.763
2200	1.871	34.638	27.714	39.1	2.811
2300	1.825	34.641	27.720	38.5	2.859
2400	1.797	34.644	27.724	38.1	2.906
2500	1.768	34.647	27.729	37.6	2.954
2600	1.728	34.652	27.736	37.0	3.001
2700	1.704	34.655	27.740	36.6	3.047
2800	1.665	34.658	27.746	36.1	3.094
2900	1.639	34.660	27.749	35.7	3.140
3000	1.619	34.662	27.752	35.4	3.185
3100	1.609	34.663	27.754	35.3	3.231
3200	1.591	34.665	27.757	35.0	3.277
3300	1.579	34.668	27.760	34.7	3.323
3400	1.574	34.669	27.761	34.6	3.368
3500	1.561	34.673	27.765	34.2	3.414
3600	1.553	34.675	27.767	34.0	3.460
3700	1.553	34.679	27.771	33.7	3.505
3800	1.549	34.679	27.771	33.7	3.551
3900	1.549	34.679	27.771	33.7	3.597
4000	1.553	34.680	27.771	33.6	3.643
4100	1.558	34.682	27.773	33.5	3.690
4200	1.564	34.681	27.771	33.6	3.737
4300	1.571	34.682	27.772	33.6	3.784
4400	1.578	34.682	27.771	33.6	3.832
4500	1.586	34.683	27.771	33.6	3.879
4600	1.595	34.684	27.771	33.6	3.928
4700	1.606	34.685	27.771	33.6	3.976
4800	1.616	34.684	27.770	33.8	4.026
4900	1.627	34.684	27.769	33.8	4.075
5000	1.639	34.684	27.768	33.9	4.125
5100	1.652	34.684	27.767	34.0	4.176
5200	1.663	34.683	27.766	34.2	4.227
5287	1.668	34.683	27.765	34.2	4.266

RV THOMAS WASHINGTON — INDOPAC LEG III

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 29.2N	137 19.5E	6/15/76	0105 0356 GMT	4490M	180	12KT	1	180 4 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	27.48	34.898	4.66	0.00	4.		0.1	534.4	0	27.48	34.898	4.66	22.508	534.4	0.000
10	27.33	34.896	4.68	0.01	3.		0.1	529.9	10	27.33	34.896	4.68	22.555	529.9	0.053
20	25.95	34.856	4.86	0.06	2.		0.1	491.1	20	25.95	34.856	4.86	22.962	491.1	0.104
36	23.46	34.795	5.09	0.06	2.		0.1	423.8	30	24.31	34.809	5.02	23.427	446.6	0.151
51	22.78	34.812	5.11	0.02	3.		0.1	403.9	50	22.81	34.810	5.11	23.866	404.7	0.237
72	21.07	34.818	5.12	0.01	5.		0.1	358.0	75	20.89	34.815	5.13	24.404	355.4	0.332
96	19.90	34.791	5.16	0.02	5.		0.1	330.2	100	19.77	34.788	5.13	24.680	327.2	0.418
122	19.23	34.775	4.95	0.14	5.		1.1	314.8	125	19.18	34.775	4.93	24.823	313.5	0.499
157	18.69	34.782	4.81	0.15	5.		1.9	301.2	150	18.79	34.780	4.83	24.927	303.7	0.577
221	17.46	34.766	4.76	0.32	7.		3.7	273.5	200	17.85	34.773	4.78	25.153	282.1	0.727
255	17.01	34.756	4.71	0.38	7.		3.9	264.0	250	17.08	34.758	4.72	25.329	265.3	0.867
304	16.11	34.717	4.70	0.46	10.		5.3	246.9	300	16.19	34.722	4.70	25.508	248.4	1.000
364	14.70	34.612	4.45	0.70	15.		9.6	224.7	400	13.65	34.530	4.33	25.915	209.7	1.239
418	13.08	34.485	4.27	0.92	22.		12.6	201.9	500	9.99	34.273	3.90	26.407	163.0	1.436
519	9.29	34.236	3.80	1.51	46.		23.2	154.7	600	7.28	34.145	3.28	26.728	132.5	1.594
622	6.84	34.133	3.06	2.14	71.		31.2	127.6	700	5.55	34.161	2.22	26.967	109.9	1.724
655A	6.17	34.138	2.55	2.28	82.		32.0	118.8	800	4.74	34.249	1.61	27.131	94.5	1.834
755A	5.05	34.200	2.04	2.52	97.		35.5	101.2	1000	3.71	34.406	1.43	27.366	72.1	2.017
856A	4.44	34.307	1.58	2.81	113.		41.1	86.7	1200	3.01	34.491	1.60	27.499	59.4	2.169
956A	3.91	34.380	1.40	2.87	125.		43.1	75.9	1500	2.52	34.567	2.13	27.603	49.6	2.356
1155A	3.13	34.475	1.54	2.89	141.		42.5	61.6	1750	2.27	34.599	2.42	27.650	45.1	2.494
1355A	2.72	34.531	1.85	2.82	147.		41.9	53.8	2000	2.01	34.621	2.74	27.689	41.3	2.624
1556A	2.46	34.576	2.23	2.72	149.		41.8	46.3	2250	1.84	34.638	2.97	27.715	38.8	2.744
1756A	2.263	34.598	2.43	2.69	149.		41.0	45.1	2500	1.76	34.650	3.12	27.731	37.3	2.865
2056A	1.954	34.626	2.81	2.65	150.		40.4	40.6	2750	1.70	34.659	3.19	27.743	36.3	2.981
2356A	1.804	34.645	3.04	2.61	150.		40.5	38.1	3000	1.64	34.667	3.24	27.754	35.5	3.096
2657A	1.724	34.655	3.18	2.66	151.		40.3	36.7	3250	1.59	34.674	3.35	27.765	34.4	3.210
2956A	1.651	34.665	3.22	2.59	151.		39.8	35.4	3500	1.56	34.678	3.44	27.768	33.9	3.324
3257A	1.589	34.673	3.35	2.59	150.		39.3	34.4	3750	1.55	34.682	3.57	27.774	33.5	3.437
3557A	1.558	34.678	3.46	2.47	151.		39.2	33.9	4000	1.52	34.685	3.64	27.777	33.1	3.550
3857A	1.516	34.684	3.63	2.47	149.		38.7	33.1	4250	1.54	34.686	3.65	27.776	33.1	3.666
4158A	1.536	34.685	3.65	2.51	148.		38.8	33.1	4500	1.57	34.686	3.66	27.775	33.3	3.783
4458A	1.565	34.686	3.66	2.52	147.		38.6	33.2							

RV THOMAS WASHINGTON — INDOPAC LEG III

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 32.5N	139 25. E	6/15/76	1619 1930 GMT	4523M	210	11KT	1	150 5 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.09	34.670	4.66	0.06	2.		0.3	569.8	0	28.09	34.670	4.66	22.139	569.8	0.000
10	28.08	34.669	4.66	0.01	2.		0.3	569.5	10	28.08	34.669	4.66	22.141	569.5	0.057
20	26.96	34.720	4.81	0.05	1.		0.3	531.3	20	26.96	34.720	4.81	22.541	531.3	0.112
31	26.04	34.718	4.84	0.01	1.		0.3	503.7	30	26.11	34.720	4.84	22.810	505.6	0.164
51	25.39	34.713	4.83	0.19	2.		0.3	484.8	50	25.41	34.717	4.83	23.020	485.5	0.263
72	24.25	34.787	4.85	0.15	0.		0.3	446.6	75	24.10	34.797	4.85	23.477	441.9	0.380
102	22.71	34.815	4.65	0.13	1.		0.3	401.8	100	22.81	34.815	4.85	23.968	404.6	0.487
133	20.87	34.795	4.94	0.15	0.		0.3	354.5	125	21.31	34.799	4.93	24.476	365.6	0.584
173	19.89	34.834	4.61	0.25	0.		1.5	326.8	150	20.37	34.812	4.82	24.339	340.5	0.673
253	17.12	34.772	4.66	0.41	2.		4.0	265.3	200	18.98	34.824	4.63	24.911	305.1	0.838
353	14.56	34.588	4.38	0.71	9.		9.5	223.6	250	17.23	34.776	4.66	25.307	267.5	0.985
451	11.10	34.330	3.94	1.35	27.		17.9	177.3	300	15.92	34.704	4.56	25.554	245.6	1.117
548	8.35	34.188	3.26	1.92	51.		25.8	144.2	400	12.92	34.456	4.19	26.008	200.9	1.343
647	6.24	34.166	2.35	2.45	82.		33.6	117.6	500	9.63	34.245	3.63	26.445	159.4	1.539
745A	5.27	34.225		2.70	101.		35.9	101.8	600	7.19	34.164	2.76	26.764	129.1	1.693
746	5.29	34.204	1.87	2.78	101.		37.0	103.6	700	5.72	34.197	2.05	26.976	109.0	1.821
845A	4.74	34.330	1.41	2.70	114.		40.1	88.1	800	4.99	34.273	1.62	27.122	95.2	1.932
847	4.66	34.330	1.44	2.92	113.		39.1	87.3	1000	3.88	34.431	1.52	27.368	71.8	2.117
945A	4.05	34.393	1.45	2.72	129.		41.3	76.3	1200	3.33	34.509	1.78	27.485	60.7	2.267
1095A	3.68	34.484	1.68	2.61	139.		40.6	65.9	1500	2.85	34.541	2.11	27.581	51.6	2.462
1243A	3.18	34.514	1.82	2.83	143.		41.2	59.0	1750	2.30	34.597	2.41	27.646	45.5	2.605
1444A	2.63	34.529						53.2	2000	2.04	34.625	2.69	27.690	41.4	2.736
1743A	2.309	34.595	2.40	2.73	148.		41.0	45.6	2250	1.87	34.633	2.88	27.713	39.0	2.859
2042A	1.999	34.627	2.73	2.73	149.		40.1	40.9	2500	1.77	34.649	3.00	27.729	37.5	2.979
2341A	1.832	34.643	2.93	2.68	151.		40.1	38.4	2750	1.69	34.658	3.11	27.743	36.3	3.095
2641A	1.726	34.653	3.06	2.65	151.		38.8	36.9	3000	1.62	34.667	3.24	27.755	35.1	3.210
2941A	1.635	34.664	3.21	2.69	147.		38.2	35.4	3250	1.57	34.675	3.36	27.765	34.2	3.325
3240A	1.572	34.674	3.36	2.52	148.		38.0	34.2	3500	1.53	34.680	3.49	27.772	33.5	3.439
3541A	1.528	34.680	3.51	2.56	150.		37.5	33.5	3750	1.51	34.683	3.60	27.776	33.1	3.547
3840A	1.505	34.683	3.63	2.58	149.		37.8	33.1	4000	1.51	34.685	3.66	27.777	33.0	3.660
4140A	1.521	34.685	3.67	2.52	148.		36.9	33.0	4250	1.52	34.686	3.69	27.778	33.0	3.775
4443A	1.526	34.687	3.73	2.50	146.		37.8	32.9	4500	1.55	34.687	3.74	27.779	32.9	3.891

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 29.2N	137 19.5E	06/14/76	2335 GMT

Z	T	S	SIGMA T	DT	DD
0	27.39	34.91	22.546	530.6	0.000
10	26.98	34.80	22.655	520.4	0.053
20	25.04	34.77	23.177	470.5	0.102
30	23.59	34.79	23.624	427.8	0.147
40	23.07	34.80	23.785	412.7	0.189
50	22.39	34.78	23.962	395.6	0.230
75	20.20	34.78	24.561	338.5	0.322
100	19.45	34.77	24.749	320.5	0.405
125	18.94	34.77	24.880	308.1	0.485
150	18.32	34.77	25.036	293.3	0.561
175	17.92	34.77	25.135	283.9	0.635
200	17.24	34.76	25.292	268.9	0.705
225	16.89	34.75	25.367	261.7	0.773
250	16.39	34.73	25.469	252.1	0.840
275	16.02	34.71	25.539	245.4	0.904
300	15.53	34.68	25.627	237.1	0.966
350	14.58	34.60	25.774	223.1	1.086
400	13.39	34.51	25.954	206.0	1.198
450	11.43	34.35	26.211	181.6	1.301
500	9.67	34.25	26.443	159.6	1.391
550	8.63	34.19	26.564	148.1	1.473
600	7.58	34.16	26.697	135.4	1.549
650	6.52	34.13	26.821	123.6	1.618
700	5.75	34.17	26.951	111.4	1.682
750	5.07	34.18	27.040	102.9	1.740
800	4.68	34.25	27.140	93.5	1.793
850	4.41	34.30	27.209	86.9	1.842
900	4.11	34.34	27.272	80.9	1.888
950	3.89	34.37	27.319	76.5	1.932
1000	3.63	34.40	27.369	71.8	1.973
1100	3.26	34.45	27.445	64.6	2.049
1200	3.02	34.48	27.491	60.2	2.120
1300	2.82	34.51	27.533	56.2	2.186
1400	2.68	34.55	27.577	52.0	2.248
1500	2.55	34.57	27.604	49.5	2.308
1600	2.407	34.581	27.625	47.5	2.365
1700	2.298	34.595	27.645	45.6	2.420
1800	2.195	34.606	27.663	43.9	2.473
1900	2.100	34.614	27.677	42.6	2.526
2000	1.962	34.627	27.696	40.7	2.576
2100	1.947	34.632	27.703	40.1	2.625
2200	1.900	34.637	27.711	39.4	2.674
2300	1.841	34.642	27.719	38.6	2.722
2400	1.800	34.647	27.727	37.9	2.770
2500	1.776	34.650	27.731	37.5	2.817
2600	1.733	34.654	27.737	36.9	2.864
2700	1.713	34.655	27.739	36.6	2.910
2800	1.686	34.658	27.744	36.2	2.957
2900	1.655	34.660	27.748	35.9	3.003
3000	1.636	34.664	27.752	35.4	3.049
3100	1.617	34.667	27.756	35.0	3.095
3200	1.600	34.669	27.759	34.8	3.140
3300	1.586	34.672	27.763	34.5	3.186
3400	1.580	34.674	27.765	34.3	3.231
3500	1.568	34.675	27.766	34.1	3.277
3600	1.552	34.678	27.770	33.8	3.322
3700	1.541	34.680	27.772	33.5	3.368
3800	1.519	34.682	27.775	33.2	3.413
3900	1.519	34.684	27.777	33.1	3.458
4000	1.529	34.684	27.776	33.2	3.504
4100	1.534	34.685	27.777	33.1	3.550
4200	1.541	34.685	27.776	33.2	3.596
4300	1.550	34.686	27.776	33.2	3.643
4400	1.559	34.686	27.776	33.2	3.690

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 32.5N	137 29. E	06/15/76	2245 GMT

Z	T	S	SIGMA T	DT	DD
0	28.10	34.68	22.143	569.4	0.000
10	28.03	34.69	22.174	566.5	0.057
20	27.06	34.78	22.555	530.0	0.112
30	26.14	34.75	22.823	504.4	0.164
40	25.86	34.75	22.916	495.4	0.214
50	25.34	34.74	23.063	481.4	0.263
75	23.42	34.80	23.681	422.4	0.376
100	22.47	34.86	23.999	392.0	0.479
125	21.18	34.80	24.313	362.1	0.574
150	20.48	34.81	24.509	343.4	0.664
175	19.79	34.87	24.737	321.7	0.748
200	18.53	34.83	25.023	293.9	0.827
225	17.83	34.81	25.187	278.9	0.900
250	17.34	34.79	25.291	269.0	0.971
275	16.75	34.75	25.403	258.6	1.039
300	16.12	34.71	25.516	247.6	1.104
350	14.65	34.59	25.751	225.3	1.227
400	13.19	34.47	25.964	205.1	1.340
450	11.20	34.33	26.236	179.0	1.441
500	9.76	34.27	26.443	159.5	1.531
550	8.59	34.21	26.585	146.1	1.612
600	7.12	34.14	26.747	130.7	1.686
650	6.52	34.10	26.844	121.5	1.754
700	5.70	34.19	26.973	109.3	1.816
750	5.18	34.21	27.051	101.9	1.873
800	4.89	34.28	27.140	93.5	1.927
850	4.71	34.32	27.193	88.5	1.976
900	4.28	34.33	27.247	83.4	2.024
950	4.13	34.37	27.294	78.8	2.069
1000	3.90	34.41	27.350	73.6	2.111
1100	3.63	34.47	27.425	66.5	2.190
1200	3.23	34.50	27.487	60.5	2.262
1300	2.92	34.51	27.524	57.1	2.330
1400	2.65	34.52	27.556	54.1	2.394
1500	2.52	34.54	27.583	51.5	2.455
1600	2.410	34.569	27.615	48.5	2.513
1700	2.365	34.581	27.629	47.1	2.570
1800	2.264	34.595	27.648	45.3	2.625
1900	2.153	34.606	27.664	43.8	2.679
2000	2.060	34.616	27.681	42.1	2.731
2100	1.960	34.623	27.695	40.9	2.781
2200	1.902	34.630	27.705	39.9	2.831
2300	1.848	34.634	27.712	39.2	2.879
2400	1.804	34.641	27.721	38.4	2.928
2500	1.760	34.645	27.728	37.7	2.975
2600	1.734	34.649	27.733	37.2	3.022
2700	1.702	34.654	27.739	36.6	3.069
2800	1.678	34.656	27.743	36.3	3.115
2900	1.656	34.661	27.749	35.8	3.162
3000	1.641	34.664	27.752	35.5	3.208
3100	1.610	34.667	27.757	35.0	3.253
3200	1.588	34.670	27.761	34.6	3.299
3300	1.571	34.673	27.764	34.3	3.344
3400	1.551	34.675	27.766	34.0	3.389
3500	1.533	34.677	27.770	33.7	3.434
3600	1.525	34.679	27.773	33.5	3.479
3700	1.517	34.681	27.775	33.3	3.524
3800	1.506	34.683	27.777	33.1	3.569
3900	1.506	34.684	27.778	33.0	3.614
4000	1.511	34.685	27.778	32.9	3.659
4100	1.515	34.686	27.779	32.9	3.705
4200	1.523	34.687	27.779	32.9	3.750
4300	1.531	34.687	27.779	32.9	3.797
4400	1.542	34.688	27.779	32.9	3.843
4458	1.548	34.688	27.778	33.0	3.870

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 31.8N	141 11.2E	6/16/76	0549 0818 GMT	4032M	180	3KT	1	180 5 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	28.10	34.857	4.52	0.04	1.	0.00	0.3	556.7	0	28.10	34.857	4.52	22.276	556.7	0.000
10	27.68	34.838	3.33U	0.00	1.	0.00	0.3	544.9	10	27.68	34.838	4.55	22.399	544.9	0.055
20	27.15	34.791	3.15U	0.07	1.	0.00	0.3	532.0	20	27.15	34.791	4.58	22.534	532.0	0.109
31	26.57	34.733	3.58U	0.11	1.	0.00	0.3	518.5	30	26.62	34.739	4.62	22.662	519.7	0.162
51	25.68	34.696	4.69	0.01	1.	0.00	0.3	494.6	50	25.71	34.697	4.69	22.915	495.6	0.264
72	25.41	34.687	4.77	0.02	1.	0.00	0.3	487.3	75	25.39	34.687	4.77	23.008	486.7	0.387
101	24.90	34.722	4.76	0.03	1.	0.00	0.3	469.9	100	24.93	34.719	4.76	23.172	471.0	0.508
122	23.86	34.850	4.68	0.07	1.	0.00	0.3	451.1	125	23.70	34.857	4.67	23.643	426.0	0.621
167	21.59	34.889	4.52	0.12	2.	0.00	0.8	366.4	150	22.42	34.893	4.58	24.040	388.2	0.724
232	19.26	34.872	4.37	0.23	4.	0.00	2.7	308.5	200	20.32	34.892	4.42	24.613	333.5	0.907
315	16.65	34.748	4.69	0.37	6.	0.00	5.8	256.5	250	18.64	34.849	4.43	25.016	295.2	1.068
402	14.42	34.585	4.63	0.67	12.	0.00	10.7	220.9	300	17.04	34.772	4.63	25.349	263.5	1.213
470	12.61	34.447	4.27	1.01	19.	0.00	14.8	195.8	400	14.47	34.590	4.63	25.790	221.6	1.466
570	9.63	34.245	3.71	1.52	35.	0.00	22.9	159.3	500	11.71	34.380	4.12	26.182	184.3	1.680
641	7.84	34.161	3.16	1.96	50.	0.14	28.5	138.9	600	8.83	34.203	3.50	26.541	150.2	1.859
696A	6.75	34.148	2.59	2.19	65.	0.00	30.9	125.3	700	6.68	34.153	2.56	26.816	124.1	2.007
724	6.35	34.173	2.38	2.46	71.	0.00	35.5	118.4	800	5.74	34.213	1.81	26.984	108.2	2.135
745A	6.29	34.179	2.19	2.42	73.	0.00	34.1	117.2	1000	4.02	34.373	1.43	27.307	77.6	2.338
847A	5.15	34.253	1.60	2.74	94.	0.00	38.2	98.3	1200	3.26	34.467	1.57	27.457	63.3	2.497
946A	4.34	34.332	1.42	2.87	112.	0.00	40.7	83.8	1500	2.67	34.538	1.91	27.568	52.9	2.698
1096A	3.60	34.431	1.45	2.88	127.	0.00	41.5	69.1	1750	2.33	34.586	2.28	27.635	46.6	2.844
1246A	3.15	34.478	1.63	2.89	137.	0.00	42.1	61.5	2000	2.09	34.614	2.54	27.676	42.5	2.979
1397A	2.861	34.514	1.75	2.90	143.	0.00	41.6	56.3	2250	1.91	34.635	2.74	27.708	39.6	3.104
1596A	2.514	34.558	2.08	2.88	147.	0.00	41.1	50.1	2500	1.78	34.653	2.93	27.732	37.4	3.224
1898A	2.186	34.605	2.44	2.76	149.	0.00	40.4	43.9	2750	1.72	34.659	3.04	27.742	36.4	3.341
2199A	1.944	34.631	2.70	2.68	151.	0.00	39.6	40.1	3000	1.65	34.667	3.16	27.753	35.4	3.457
2498A	1.783	34.652	2.93	2.64	152.	0.00	39.0	37.4	3250	1.60	34.674	3.32	27.762	34.5	3.571
2798A	1.708	34.660	3.06	2.63	152.	0.00	38.5	36.2	3500	1.55	34.680	3.48	27.772	33.6	3.684
3100A	1.627	34.669	3.22	2.60	151.	0.00	38.0	35.0	3750	1.50	34.687	3.59	27.781	32.7	3.796
3401A	1.574	34.677	3.43	2.58	150.	0.00	38.1	34.0	4000	1.49	34.692	3.65	27.785	32.3	3.907
3703A	1.497	34.686	3.57	2.54	148.		37.5	32.8							
4008A	1.486	34.691	3.65	2.51	147.	0.00	37.7	32.3							

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
19 31.1N	140 06.2E	6/17/76	0404 GMT	4964M	140	5KT	1	140 4 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	29.15	34.627	4.61	0.10	2.	0.00	0.2	606.5	0	29.15	34.627	4.61	21.755	606.5	0.000
50	25.85	34.694	4.98	0.07	2.	0.00	0.2	499.8	10	28.55	34.641	4.71	21.964	586.5	0.060
100	21.77	34.820	4.97	0.08	2.	0.00	0.2	376.2	20	27.92	34.653	4.80	22.180	565.8	0.117
151	19.66	34.838	4.61	0.19	3.	0.01	1.7	320.8	30	27.26	34.666	4.88	22.403	544.5	0.173
200	18.43	34.801	4.66	0.21	4.	0.00	3.3	293.6	50	25.85	34.694	4.98	22.871	499.8	0.278
251	17.07	34.772	4.64	0.40	5.	0.00	5.3	264.2	75	23.73	34.750	4.98	23.552	434.7	0.395
326	15.52	34.665	4.48	0.59	9.	0.00	7.8	238.0	100	21.77	34.820	4.97	24.166	376.2	0.497
401	13.02	34.478	4.12	0.98	18.	0.00	13.8	201.2	125	20.55	34.843	4.79	24.515	342.8	0.588
551	8.15	34.204	2.80	2.02	49.	0.01	27.3	140.1	150	19.69	34.839	4.62	24.740	321.4	0.672
701	5.75	34.205	1.92	2.59	81.	0.00	36.1	108.8	200	18.43	34.801	4.66	25.032	293.6	0.829
900	4.33	34.422	1.53	2.93	110.	0.00	41.0	76.9	250	17.10	34.773	4.64	25.336	264.7	0.972
1100	3.51	34.516	1.89	2.90	127.	0.00	41.0	61.9	300	16.08	34.714	4.56	25.528	246.5	1.105
1349	2.85	34.567	2.16	2.84	139.	0.00	40.6	52.2	400	13.06	34.481	4.13	25.999	201.7	1.339
1597	2.50	34.595	2.38	2.85	145.	0.00	40.7	47.2	500	9.66	34.266	3.27	26.456	158.3	1.529
1896	2.136	34.621	2.56	2.84	150.	0.03	40.2	42.3	600	7.17	34.187	2.46	26.777	127.9	1.682
2195	1.905	34.639	2.79	2.73	152.	0.00	39.8	39.2	700	5.76	34.206	1.92	26.977	108.9	1.809
2495	1.770	34.654	2.98	2.71	153.	0.00	39.6	37.1	800	4.88	34.310	1.73	27.164	91.2	1.918
2793	1.669	34.664	3.16	2.69	153.	0.00	38.6	35.6	1000	3.87	34.481	1.67	27.409	67.9	2.095
3089	1.588	34.674	3.31	2.54	152.	0.00	38.6	34.3	1200	3.20	34.543	2.01	27.523	57.1	2.237
3393	1.520	34.684	3.51	2.55	150.	0.00	38.0	33.1	1500	2.62	34.587	2.30	27.611	48.8	2.422
3694	1.500	34.686	3.59	2.52	149.	0.00	37.9	32.8	1750	2.30	34.608	2.47	27.654	44.5	2.561
3995	1.497	34.691	3.64	2.54	148.	0.00	38.1	32.4	2000	2.04	34.627	2.64	27.691	41.1	2.691
4347	1.508	34.691	3.73	2.57	146.	0.00	37.6	32.5	2250	1.88	34.642	2.83	27.716	38.8	2.814
4700	1.546	34.692	3.75	2.26U	147.	0.00	37.8	32.7	2500	1.77	34.655	2.98	27.735	37.1	2.932
									2750	1.68	34.663	3.14	27.748	35.8	3.048
									3000	1.61	34.672	3.26	27.760	34.7	3.161
									3250	1.55	34.680	3.42	27.771	33.6	3.273
									3500	1.51	34.685	3.55	27.778	32.9	3.383
									3750	1.50	34.688	3.60	27.781	32.7	3.493
									4000	1.50	34.692	3.64	27.784	32.4	3.605
									4250	1.50	34.692	3.71	27.784	32.5	3.718
									4500	1.52	34.692	3.74	27.783	32.5	3.832

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
22 31.8N	141 11.2E	06/16/76	0434 GMT

Z	T	S	SIGMA T	DT	DD
0	28.05	34.80	22.250	559.2	0.000
10	27.78	34.82	22.353	549.3	0.055
20	27.32	34.83	22.509	534.4	0.110
30	27.02	34.80	22.582	527.5	0.163
40	26.52	34.76	22.711	515.0	0.215
50	25.92	34.72	22.869	500.0	0.266
75	25.51	34.70	22.980	489.3	0.390
100	24.98	34.72	23.157	472.4	0.511
125	23.85	34.85	23.593	430.8	0.625
150	22.26	34.87	24.066	385.6	0.729
175	21.32	34.89	24.343	359.3	0.825
200	20.06	34.86	24.659	329.2	0.911
225	19.10	34.85	24.900	306.2	0.992
250	18.19	34.81	25.099	287.3	1.069
275	17.49	34.78	25.247	273.2	1.141
300	16.93	34.76	25.366	261.9	1.210
350	15.73	34.68	25.582	241.4	1.341
400	14.48	34.57	25.772	223.2	1.462
450	13.14	34.47	25.974	204.1	1.575
500	11.66	34.36	26.176	184.9	1.678
550	9.94	34.25	26.397	165.9	1.771
600	8.76	34.19	26.543	150.1	1.855
650	7.76	34.15	26.664	138.7	1.933
700	6.86	34.13	26.775	128.1	2.005
750	6.33	34.16	26.869	119.1	2.072
800	5.83	34.19	26.957	110.9	2.135
850	5.13	34.24	27.080	99.1	2.192
900	4.72	34.30	27.175	90.2	2.244
950	4.31	34.32	27.235	84.4	2.292
1000	3.99	34.36	27.301	78.2	2.338
1100	3.56	34.42	27.392	69.6	2.420
1200	3.29	34.46	27.450	64.1	2.496
1300	3.01	34.49	27.500	59.4	2.566
1400	2.82	34.51	27.533	56.2	2.633
1500	2.63	34.54	27.573	52.4	2.696
1600	2.510	34.558	27.598	50.0	2.756
1700	2.384	34.575	27.622	47.6	2.814
1800	2.258	34.594	27.648	45.3	2.870
1900	2.172	34.605	27.664	43.6	2.923
2000	2.105	34.615	27.677	42.6	2.976
2100	2.016	34.627	27.694	41.0	3.027
2200	1.951	34.636	27.701	40.3	3.077
2300	1.886	34.637	27.712	39.3	3.126
2400	1.831	34.643	27.721	38.4	3.174
2500	1.781	34.647	27.728	37.7	3.222
2600	1.759	34.650	27.732	37.3	3.269
2700	1.734	34.651	27.735	37.1	3.316
2800	1.710	34.654	27.739	36.7	3.364
2900	1.674	34.659	27.746	36.1	3.410
3000	1.658	34.664	27.751	35.6	3.456
3100	1.628	34.667	27.755	35.1	3.502
3200	1.602	34.671	27.761	34.6	3.548
3300	1.578	34.673	27.764	34.3	3.594
3400	1.569	34.676	27.767	34.0	3.639
3500	1.550	34.680	27.772	33.6	3.684
3600	1.522	34.686	27.778	32.9	3.729
3700	1.497	34.688	27.782	32.6	3.773
3800	1.487	34.690	27.784	32.4	3.817
3900	1.483	34.689	27.784	32.5	3.861
4000	1.486	34.690	27.784	32.4	3.906

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
19 31.1N	140 06.2E	06/17/76	0232 GMT

Z	T	S	SIGMA T	DT	DD
0	28.94	34.64	21.835	598.6	0.000
10	28.82	34.64	21.875	595.0	0.060
20	28.56	34.62	21.947	588.2	0.119
30	28.24	34.66	22.097	573.4	0.177
40	27.56	34.67	22.311	553.3	0.234
50	26.30	34.64	22.675	519.5	0.287
75	23.92	34.79	23.527	437.1	0.407
100	21.83	34.80	24.134	379.2	0.510
125	20.50	34.82	24.512	343.2	0.602
150	19.75	34.83	24.717	323.9	0.686
175	19.03	34.82	24.895	306.7	0.766
200	18.54	34.80	25.004	296.3	0.843
225	17.83	34.78	25.166	281.0	0.917
250	17.17	34.76	25.302	267.9	0.988
275	16.64	34.75	25.411	257.6	1.055
300	15.97	34.69	25.535	245.9	1.121
350	14.87	34.61	25.719	228.3	1.244
400	13.24	34.47	25.954	206.0	1.358
450	11.40	34.36	26.224	180.3	1.460
500	8.73	34.20	26.556	148.9	1.547
550	7.83	34.17	26.669	139.1	1.623
600	6.89	34.15	26.786	127.0	1.694
650	6.30	34.18	26.889	117.3	1.760
700	5.59	34.22	27.010	105.8	1.820
750	5.08	34.30	27.134	94.1	1.874
800	4.72	34.35	27.214	86.4	1.923
850	4.44	34.39	27.277	80.5	1.969
900	4.23	34.42	27.323	76.1	2.013
950	3.95	34.45	27.376	71.0	2.054
1000	3.77	34.48	27.413	67.5	2.092
1100	3.48	34.50	27.467	62.5	2.166
1200	3.16	34.53	27.518	57.7	2.234
1300	2.91	34.55	27.556	54.0	2.299
1400	2.75	34.57	27.587	51.1	2.360
1500	2.59	34.58	27.609	49.0	2.419
1600	2.461	34.593	27.630	47.0	2.476
1700	2.310	34.605	27.652	44.9	2.530
1800	2.202	34.615	27.669	43.3	2.583
1900	2.112	34.623	27.683	42.0	2.635
2000	2.053	34.628	27.692	41.2	2.685
2100	1.967	34.635	27.704	40.0	2.735
2200	1.909	34.641	27.713	39.1	2.784
2300	1.858	34.645	27.720	38.4	2.832
2400	1.807	34.650	27.728	37.7	2.879
2500	1.778	34.653	27.733	37.3	2.926
2600	1.764	34.655	27.736	37.0	2.973
2700	1.729	34.657	27.740	36.6	3.020
2800	1.679	34.662	27.748	35.9	3.066
2900	1.657	34.666	27.752	35.4	3.112
3000	1.620	34.670	27.758	34.8	3.158
3100	1.595	34.674	27.764	34.4	3.203
3200	1.572	34.677	27.768	34.0	3.247
3300	1.532	34.680	27.773	33.5	3.292
3400	1.528	34.682	27.775	33.3	3.336
3500	1.523	34.683	27.776	33.2	3.380
3600	1.515	34.686	27.778	32.9	3.425
3700	1.509	34.687	27.780	32.8	3.469
3800	1.502	34.690	27.783	32.5	3.513
3900	1.500	34.691	27.784	32.4	3.558
4000	1.502	34.691	27.784	32.4	3.602
4100	1.508	34.692	27.784	32.4	3.647
4200	1.513	34.692	27.784	32.4	3.693
4300	1.518	34.693	27.784	32.4	3.738
4400	1.525	34.694	27.785	32.4	3.784
4500	1.532	34.695	27.785	32.3	3.830
4600	1.538	34.695	27.784	32.4	3.877
4700	1.547	34.695	27.784	32.4	3.924

RV THOMAS WASHINGTON — INDOPAC LEG III — 55

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
18 26.2N	141 14.0E	6/17/76	1616 GMT	4656M	120	7KT	1	120 3 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.67	34.724	4.63	0.05	1.	0.00	0.0	584.2
50	27.52	34.793	4.77	0.02	1.	0.00	0.0	543.2
100	26.19	34.738	4.55	0.11	2.	0.00	0.0	506.7
152	24.35	34.936	4.40	0.11	2.	0.14	0.2	438.7
201	20.91	34.979	4.07	0.28	3.	0.01	2.7	342.2
251	17.89	34.819	4.47	0.29	5.	0.00	4.4	279.6
326	15.60	34.672	4.56	0.48	8.	0.00	7.1	239.2
401	12.50	34.424	4.08	1.03	18.	0.12	14.2	195.4
552	7.90	34.267	2.16	2.19	53.	0.00	31.5	131.9
702	6.10	34.325	1.50	2.64	78.	0.00	38.2	104.0
827	5.46	34.436	1.58	2.76	88.	0.00	39.4	88.1
1003	4.45	34.500	1.74	2.84	106.	0.00	40.7	72.3
1253	3.29	34.548	2.08	2.76	132.	0.00	40.3	57.5
1504	2.72	34.577	2.21	2.76	142.	0.00	41.5	50.3
1804	2.356	34.606	2.37	2.70	147.	0.00	40.4	45.2
2104	2.031	34.632	2.64	2.69	152.	0.03	40.4	40.7
2405	1.835	34.648	2.87	2.63	153.	0.00	39.9	38.1
2705	1.717	34.661	3.06	2.55	153.	0.00	39.5	36.2
3005	1.643	34.670	3.340	2.56	153.	0.00	38.9	35.0
3307	1.556	34.679	3.39	2.49	151.	0.00	38.9	33.7
3608	1.502	34.684	3.54	2.37	150.	0.00	38.5	33.0
3909	1.490	34.689	3.65	2.38	149.	0.00	38.5	32.5
4212	1.492	34.692	3.70	2.41	147.	0.00	38.2	32.3
4514	1.518	34.692	3.76	2.40	147.	0.00	38.2	32.5

Z	T	S	O2	SIGT	DT	DD
0	28.67	34.724	4.63	21.988	584.2	0.000
10	28.45	34.748	4.66	22.078	575.6	0.058
20	28.23	34.767	4.69	22.165	567.3	0.115
30	28.00	34.781	4.71	22.251	559.1	0.172
50	27.52	34.793	4.77	22.417	543.2	0.282
75	26.89	34.758	4.68	22.592	526.4	0.417
100	26.19	34.738	4.55	22.768	506.7	0.547
125	25.45	34.830	4.49	23.097	478.2	0.671
150	24.44	34.927	4.41	23.476	442.0	0.787
200	20.99	34.979	4.07	24.501	344.2	0.987
250	17.94	34.823	4.46	25.170	280.5	1.147
300	16.29	34.751	4.53	25.494	249.7	1.284
400	12.54	34.428	4.09	26.059	196.0	1.517
500	9.20	34.283	2.62	26.545	149.9	1.699
600	7.11	34.276	1.84	26.854	120.5	1.844
700	6.11	34.325	1.50	27.026	104.2	1.966
800	5.57	34.413	1.56	27.165	91.1	2.073
1000	4.47	34.500	1.74	27.360	72.5	2.257
1200	3.50	34.541	2.01	27.494	59.9	2.409
1500	2.73	34.578	2.21	27.594	50.4	2.603
1750	2.41	34.603	2.34	27.641	45.9	2.747
2000	2.13	34.623	2.54	27.680	42.1	2.880
2250	1.92	34.639	2.76	27.710	39.3	3.006
2500	1.79	34.652	2.93	27.731	37.4	3.128
2750	1.71	34.663	3.08	27.746	36.0	3.242
3000	1.64	34.671	3.22	27.757	35.0	3.357
3250	1.57	34.678	3.36	27.768	33.9	3.470
3500	1.52	34.683	3.49	27.775	33.2	3.581
3750	1.50	34.687	3.60	27.781	32.7	3.692
4000	1.49	34.691	3.67	27.784	32.4	3.803
4250	1.49	34.693	3.71	27.785	32.3	3.915
4500	1.52	34.693	3.76	27.784	32.5	4.030

RV THOMAS WASHINGTON — INDOPAC LEG III — 56

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
17 21.3N	142 15.2E	6/18/76	0312 GMT	4315M	120	7KT	1	120 4 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.80	34.857	4.66	0.10	1.	0.00	0.0	578.8
50	27.23	34.855	4.76	0.05	1.	0.00	0.0	529.8
100	26.18	34.905	4.76	0.05	1.	0.00	0.0	494.4
152	24.29	34.910	4.55	0.05	1.	0.01	0.3	438.3
202	21.04	34.967	4.32	0.12	2.	0.00	1.5	346.4
252	18.01	34.817	4.62	0.27	3.	0.00	4.0	282.6
328	15.63	34.682	4.62	0.50	8.	0.00	6.5	239.1
403	12.93	34.452	4.22	0.94	16.	0.00	12.7	201.4
553	8.08	34.270	2.07	2.33	49.	0.00	30.7	134.2
703	6.02	34.347	1.54	2.79	80.	0.00	38.0	101.4
829	5.19	34.454	1.71	2.86	90.	0.00	39.5	83.7
1003	4.43	34.514	1.94	2.90	103.	0.00	39.7	71.1
1253	3.53	34.553	2.03	2.85	121.	0.00	40.3	59.3
1502	2.95	34.579	2.18	2.87	134.	0.00	41.4	52.1
1751	2.510	34.603	2.33	2.81	142.	0.00	40.4	46.6
2001	2.157	34.623	2.54	2.73	148.	0.00	40.1	42.3
2251	1.959	34.640	2.76	2.73	151.	0.00	39.9	39.4
2502	1.788	34.655	2.92	2.71	153.	0.00	39.8	37.2
2751	1.708	34.661	3.06	2.59	152.	0.00	39.3	36.2
3004	1.658	34.669	3.17	2.54	152.	0.00	39.4	35.2
3255	1.594	34.673	3.33	2.58	151.	0.00	38.9	34.4
3508	1.536	34.682	3.49	2.53	149.	0.00	39.1	33.4
3761	1.502	34.686	3.62	2.53	147.	0.00	38.9	32.8
4005	1.486	34.690	3.72	2.53	147.	0.00	38.6	32.4

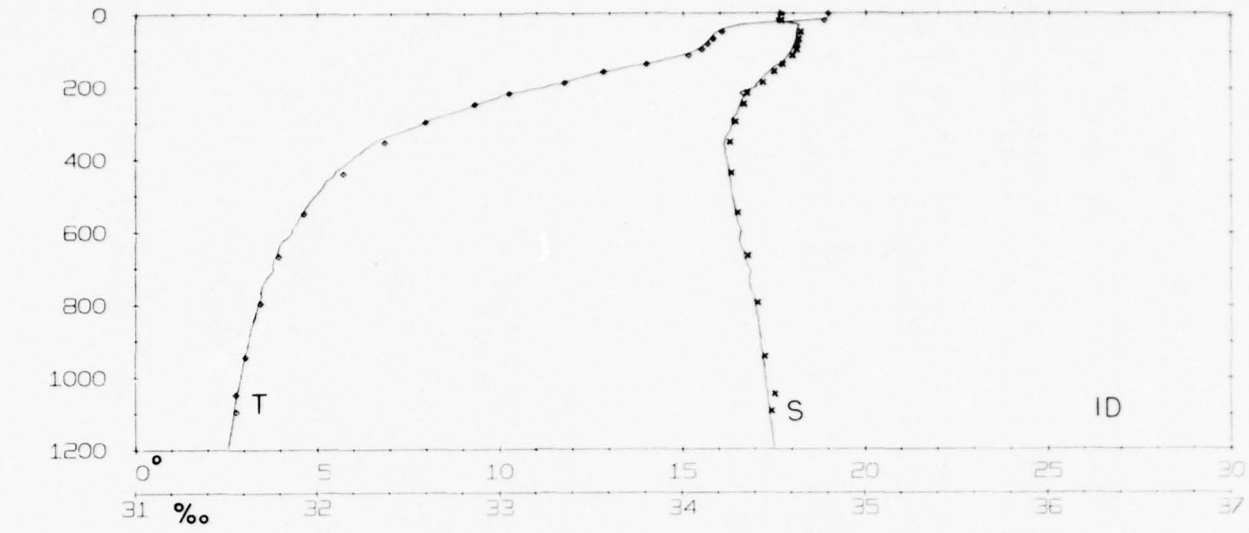
Z	T	S	O2	SIGT	DT	DD
0	28.80	34.857	4.66	22.045	578.8	0.000
10	28.44	34.851	4.69	22.158	567.9	0.057
20	28.11	34.848	4.71	22.266	557.6	0.114
30	27.80	34.848	4.73	22.369	547.8	0.169
50	27.23	34.855	4.76	22.557	529.8	0.277
75	26.72	34.880	4.76	22.739	512.4	0.408
100	26.18	34.905	4.76	22.927	494.4	0.535
125	25.42	34.908	4.67	23.167	471.5	0.657
150	24.38	34.909	4.56	23.480	441.6	0.772
200	21.18	34.965	4.32	24.438	350.2	0.973
250	18.12	34.624	4.61	25.127	284.6	1.136
300	16.37	34.740	4.62	25.460	251.0	1.274
400	13.04	34.461	4.24	25.987	202.9	1.511
500	9.59	34.291	2.84	26.487	155.4	1.700
600	7.22	34.284	1.90	26.845	121.4	1.849
700	6.04	34.346	1.55	27.052	101.8	1.970
800	5.33	34.432	1.65	27.207	87.1	2.074
1000	4.44	34.514	1.94	27.375	71.2	2.252
1200	3.70	34.548	2.02	27.479	61.3	2.404
1500	2.95	34.580	2.18	27.575	52.2	2.605
1750	2.51	34.604	2.33	27.634	46.7	2.753
2000	2.16	34.624	2.54	27.679	42.4	2.889
2250	1.94	34.641	2.76	27.710	39.4	3.015
2500	1.79	34.656	2.92	27.734	37.2	3.135
2750	1.71	34.662	3.06	27.745	36.2	3.251
3000	1.66	34.670	3.17	27.755	35.2	3.366
3250	1.60	34.674	3.33	27.763	34.5	3.480
3500	1.54	34.682	3.49	27.774	33.4	3.593
3750	1.50	34.686	3.61	27.780	32.8	3.704
4000	1.49	34.690	3.72	27.784	32.4	3.816

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
18 26.2N	141 14.0E	06/17/76	1451 GMT

Z	T	S	SIGMA T	DT	DD
0	28.73	34.74	21.980	585.0	0.000
10	28.63	34.75	22.021	581.1	0.056
20	28.38	34.78	22.126	571.0	0.116
30	28.15	34.76	22.202	563.6	0.173
40	27.83	34.78	22.306	553.8	0.229
50	27.55	34.79	22.405	544.3	0.284
75	27.20	34.82	22.540	531.4	0.419
100	26.17	34.77	22.828	503.8	0.549
125	25.41	34.85	23.124	475.6	0.673
150	24.04	34.97	23.628	427.5	0.787
175	21.90	35.01	24.273	365.9	0.888
200	20.48	34.95	24.616	333.5	0.977
225	18.14	34.81	25.111	286.1	1.056
250	17.29	34.78	25.295	268.6	1.127
275	16.83	34.75	25.381	260.4	1.196
300	16.33	34.72	25.475	251.5	1.262
350	14.85	34.60	25.715	228.6	1.387
400	13.14	34.46	25.966	204.6	1.500
450	11.15	34.31	26.231	179.6	1.602
500	9.40	34.25	26.487	155.4	1.690
550	8.32	34.26	26.666	138.4	1.769
600	7.34	34.28	26.826	123.2	1.839
650	6.44	34.27	26.941	112.3	1.903
700	6.15	34.32	27.018	105.0	1.962
750	5.76	34.36	27.099	97.3	2.017
800	5.05	34.41	27.224	85.5	2.067
850	5.12	34.42	27.224	85.5	2.115
900	4.89	34.46	27.282	80.0	2.161
950	4.73	34.46	27.300	78.3	2.206
1000	4.33	34.49	27.368	71.6	2.248
1100	3.88	34.51	27.431	65.9	2.327
1200	3.42	34.53	27.493	60.0	2.399
1300	3.12	34.55	27.537	55.8	2.466
1400	2.91	34.56	27.564	53.4	2.530
1500	2.68	34.58	27.601	49.8	2.591
1600	2.541	34.588	27.619	48.0	2.649
1700	2.435	34.599	27.637	46.3	2.705
1800	2.324	34.607	27.653	44.9	2.760
1900	2.220	34.616	27.668	43.4	2.814
2000	2.110	34.622	27.682	42.1	2.866
2100	2.011	34.632	27.698	40.6	2.916
2200	1.944	34.636	27.707	39.8	2.966
2300	1.885	34.641	27.715	38.9	3.015
2400	1.830	34.646	27.723	38.2	3.063
2500	1.786	34.649	27.729	37.6	3.110
2600	1.752	34.653	27.735	37.1	3.157
2700	1.717	34.656	27.740	36.6	3.204
2800	1.692	34.660	27.745	36.1	3.250
2900	1.665	34.664	27.750	35.6	3.297
3000	1.638	34.666	27.755	35.1	3.342
3100	1.616	34.670	27.759	34.8	3.388
3200	1.585	34.676	27.766	34.1	3.433
3300	1.568	34.678	27.769	33.9	3.478
3400	1.542	34.682	27.774	33.4	3.522
3500	1.520	34.685	27.778	33.0	3.567
3600	1.506	34.687	27.780	32.8	3.611
3700	1.493	34.688	27.782	32.6	3.655
3800	1.487	34.689	27.783	32.5	3.699
3900	1.487	34.689	27.783	32.5	3.743
4000	1.485	34.691	27.785	32.3	3.788
4100	1.489	34.691	27.785	32.3	3.833
4200	1.492	34.691	27.785	32.4	3.878
4300	1.502	34.691	27.784	32.4	3.923
4400	1.508	34.691	27.783	32.5	3.969
4500	1.518	34.692	27.784	32.5	4.015

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
17 21.5N	142 15.2E	06/18/76	0216 GMT

Z	T	S	SIGMA T	DT	DD
0	28.57	34.88	22.138	569.8	0.000
10	28.44	34.88	22.181	565.7	0.057
20	28.36	34.87	22.200	563.9	0.113
30	28.33	34.88	22.217	562.4	0.170
40	28.08	34.86	22.291	555.2	0.226
50	27.88	34.86	22.345	549.9	0.281
75	26.30	34.87	22.673	518.6	0.414
100	26.31	34.91	22.890	497.9	0.542
125	25.38	34.90	23.171	471.1	0.664
150	24.27	34.92	23.523	437.8	0.779
175	22.59	35.00	24.071	385.1	0.884
200	21.00	34.97	24.491	345.2	0.977
225	19.30	34.89	24.879	308.2	1.060
250	18.08	34.82	25.134	284.0	1.136
275	17.22	34.77	25.304	267.7	1.207
300	16.28	34.72	25.487	250.4	1.274
350	14.85	34.60	25.715	228.6	1.399
400	12.94	34.44	25.991	202.5	1.512
450	10.70	34.30	26.304	172.7	1.611
500	8.97	34.27	26.572	147.3	1.698
550	8.02	34.27	26.719	133.4	1.771
600	7.12	34.26	26.841	121.8	1.839
650	6.44	34.30	26.965	110.1	1.902
700	6.07	34.32	27.029	104.0	1.960
750	5.73	34.38	27.119	95.5	2.014
800	5.40	34.42	27.191	88.6	2.065
850	5.16	34.44	27.235	84.4	2.113
900	4.92	34.46	27.279	80.3	2.160
950	4.71	34.49	27.326	75.8	2.204
1000	4.53	34.51	27.362	72.4	2.246
1100	4.07	34.52	27.419	67.0	2.326
1200	3.73	34.53	27.462	62.9	2.401
1300	3.41	34.55	27.510	58.4	2.472
1400	3.18	34.56	27.546	55.6	2.539
1500	2.96	34.58	27.576	52.1	2.603
1600	2.761	34.584	27.597	50.2	2.664
1700	2.596	34.595	27.620	47.9	2.723
1800	2.442	34.607	27.643	45.8	2.779
1900	2.290	34.616	27.663	43.9	2.834
2000	2.167	34.621	27.677	42.6	2.887
2100	2.064	34.627	27.690	41.3	2.939
2200	1.971	34.637	27.705	39.9	2.989
2300	1.913	34.643	27.715	39.0	3.038
2400	1.846	34.651	27.726	37.9	3.086
2500	1.798	34.653	27.731	37.4	3.133
2600	1.764	34.656	27.736	36.9	3.180
2700	1.738	34.658	27.740	36.6	3.227
2800	1.711	34.664	27.747	35.9	3.274
2900	1.688	34.665	27.749	35.7	3.320
3000	1.665	34.666	27.752	35.5	3.366
3100	1.631	34.668	27.756	35.1	3.412
3200	1.599	34.674	27.764	34.4	3.457
3300	1.572	34.675	27.766	34.1	3.502
3400	1.549	34.676	27.768	33.9	3.547
3500	1.534	34.680	27.773	33.5	3.592
3600	1.518	34.681	27.775	33.3	3.637
3700	1.506	34.685	27.779	32.9	3.682
3800	1.495	34.687	27.781	32.7	3.726
3900	1.486	34.688	27.783	32.6	3.771
4000	1.481	34.691	27.785	32.3	3.815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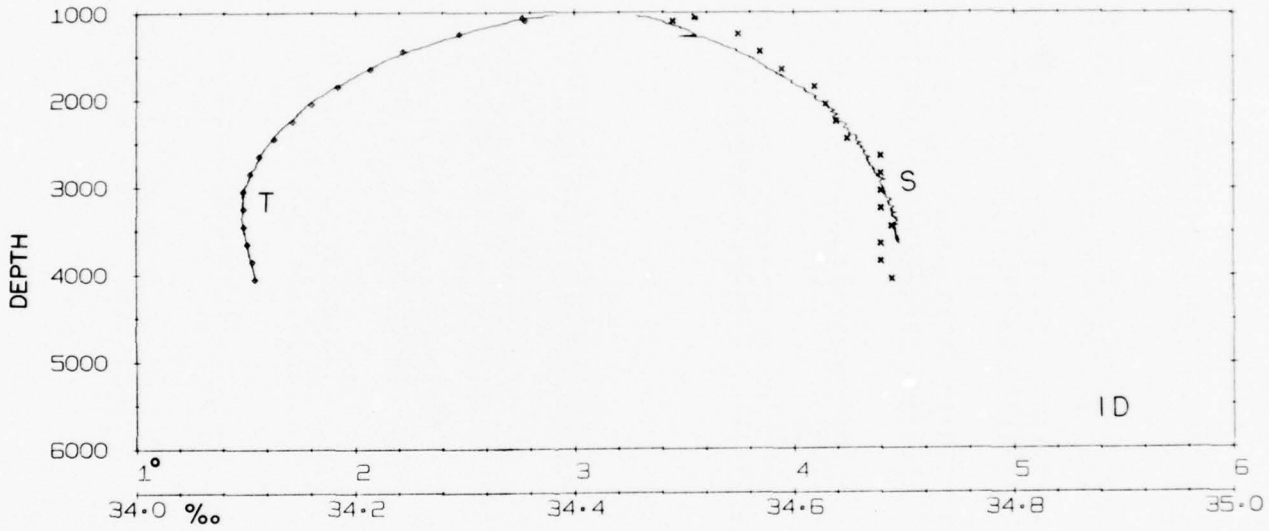
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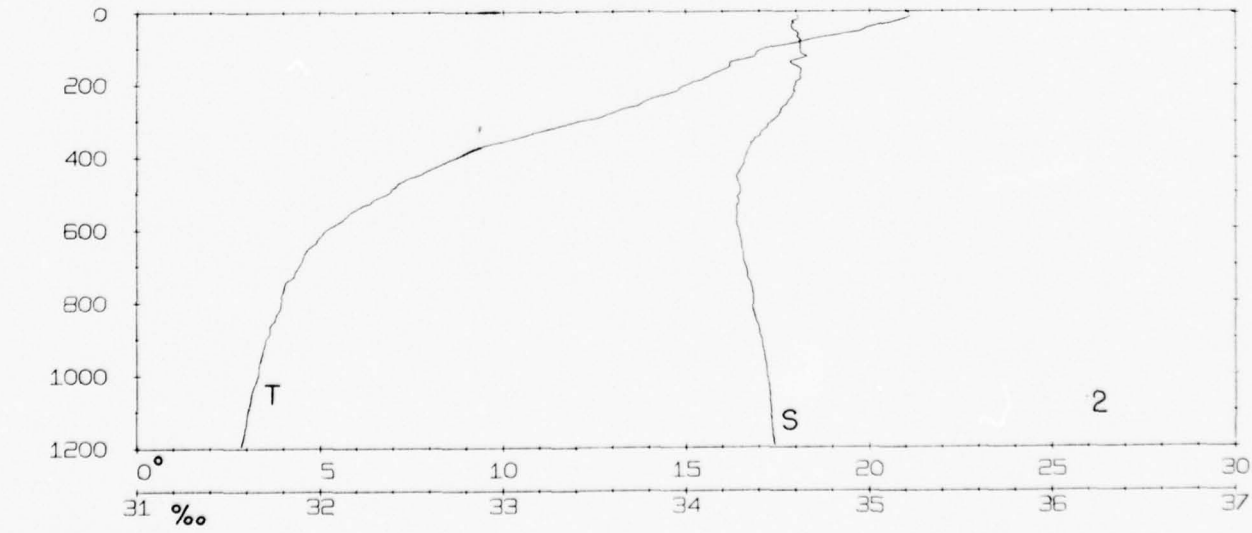
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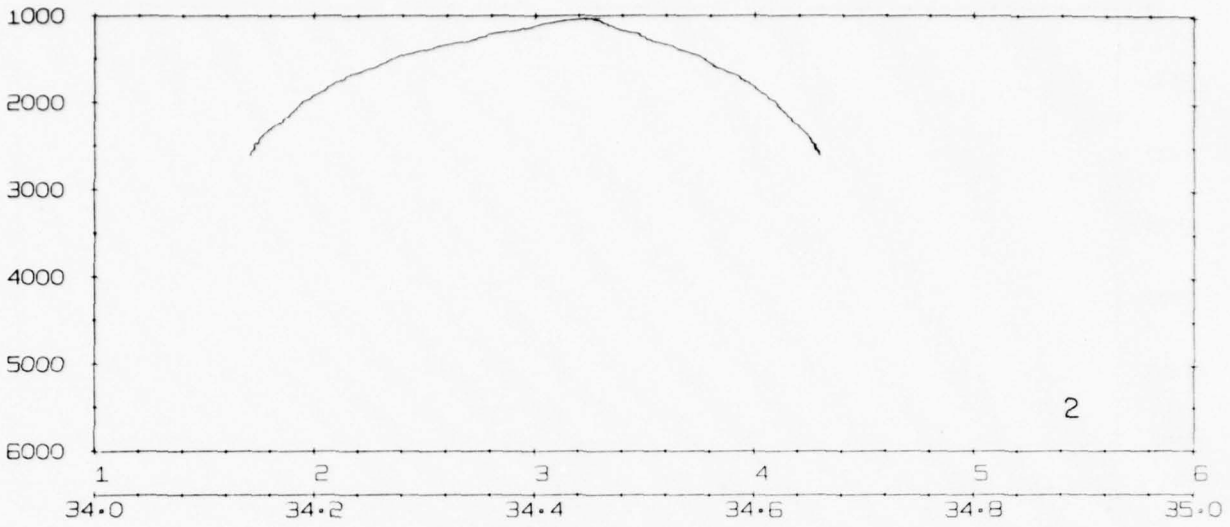

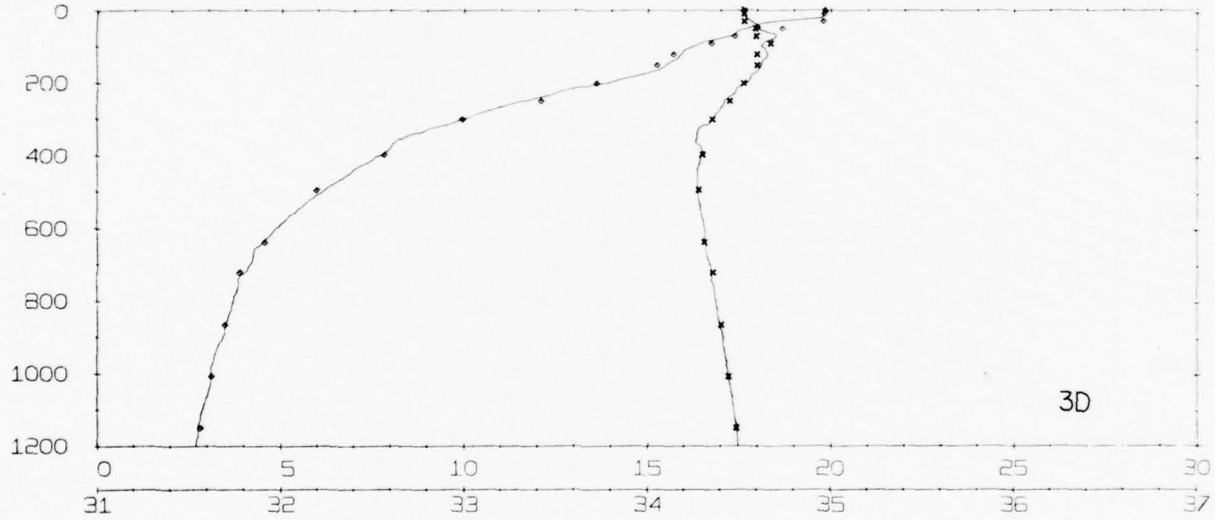

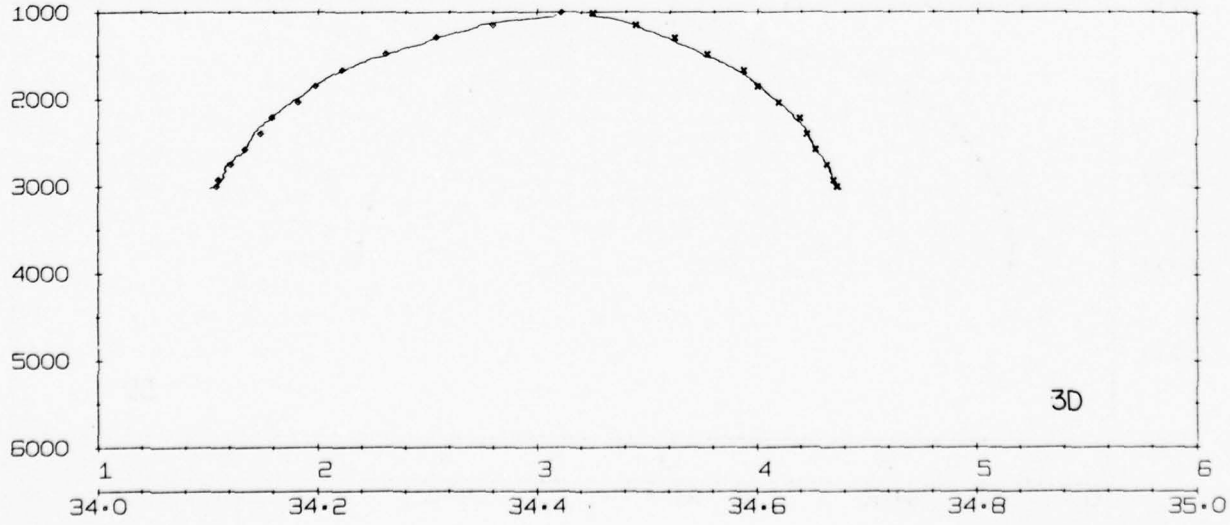

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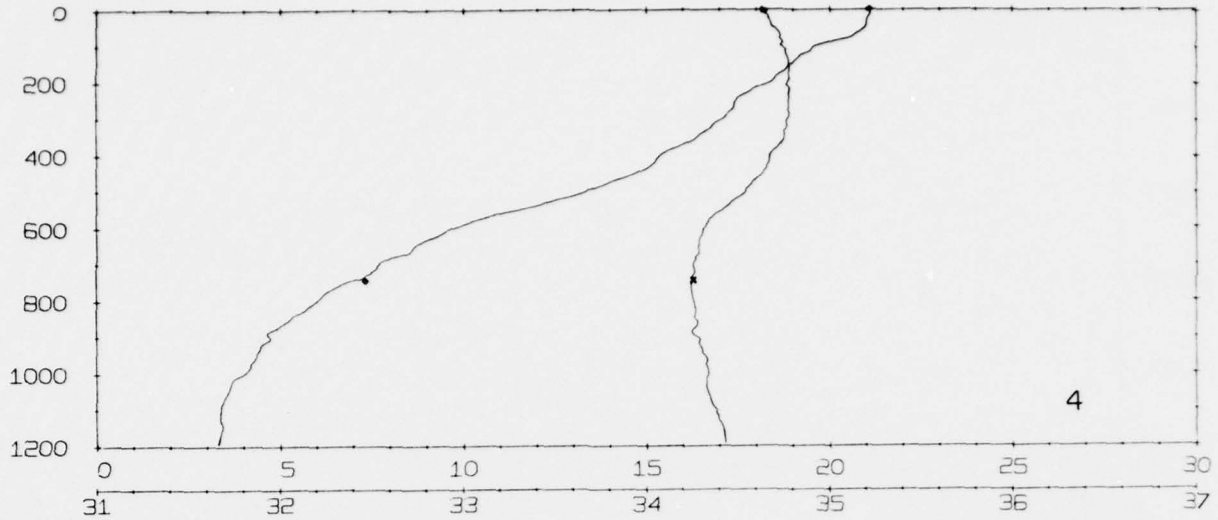

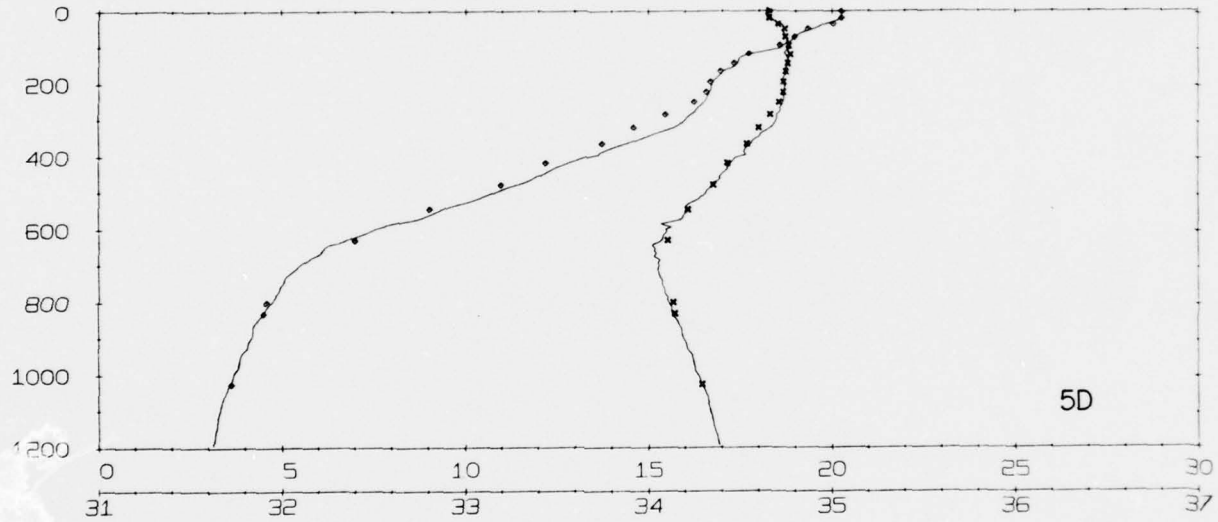

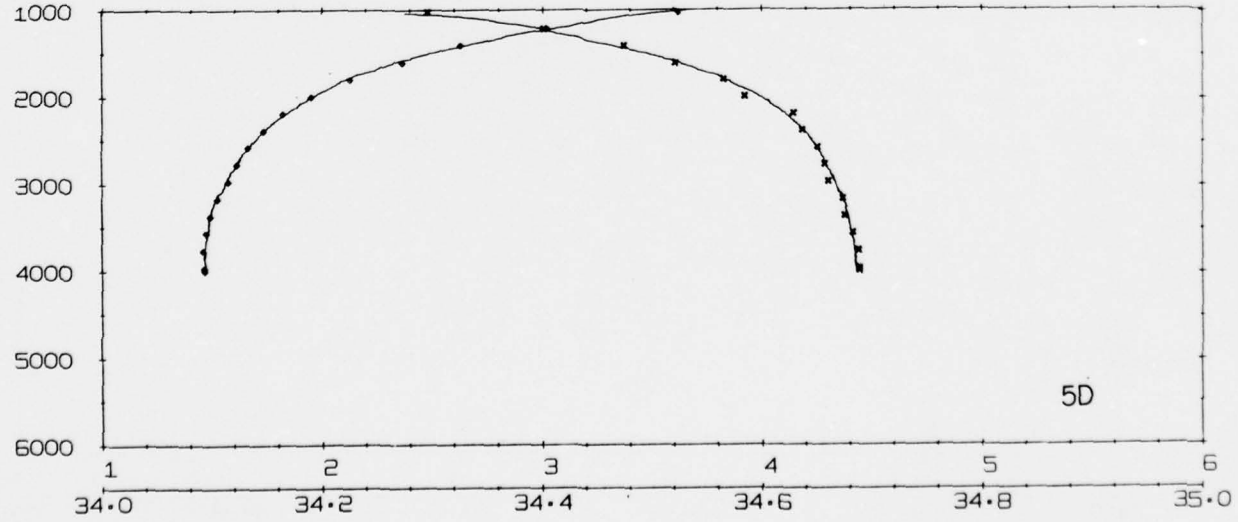

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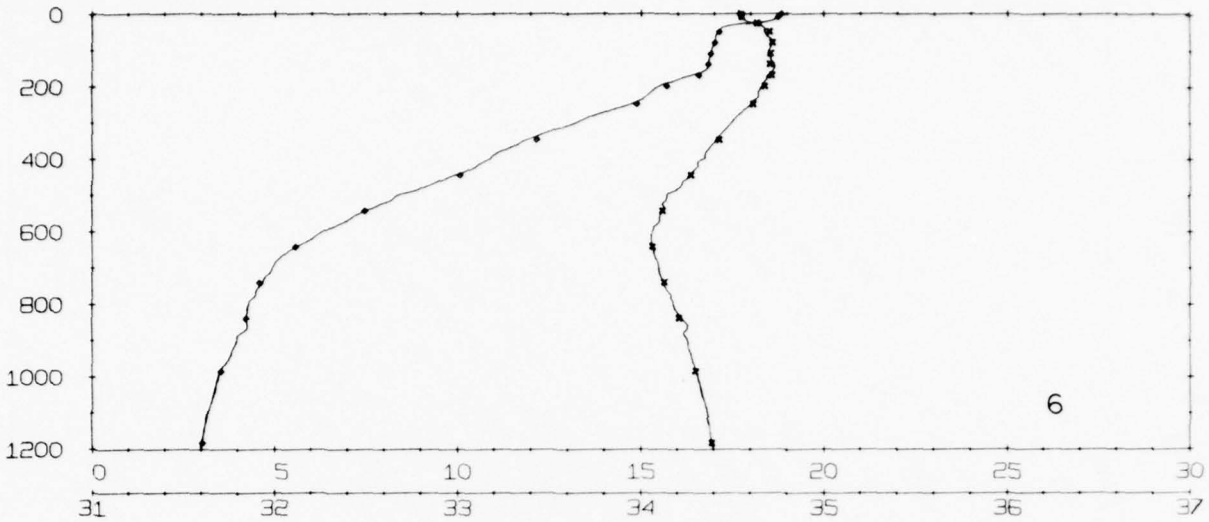

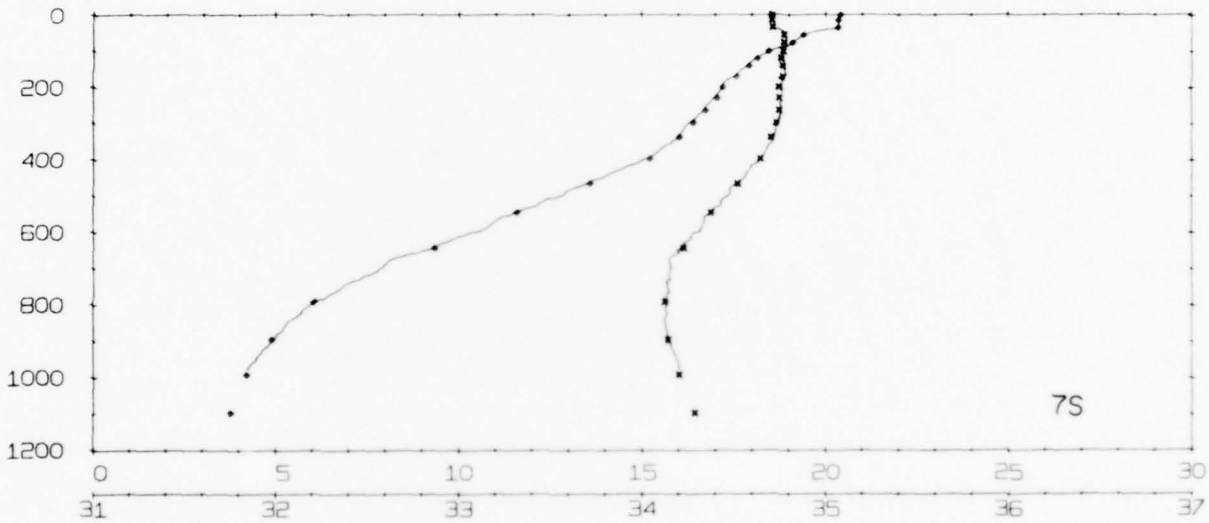

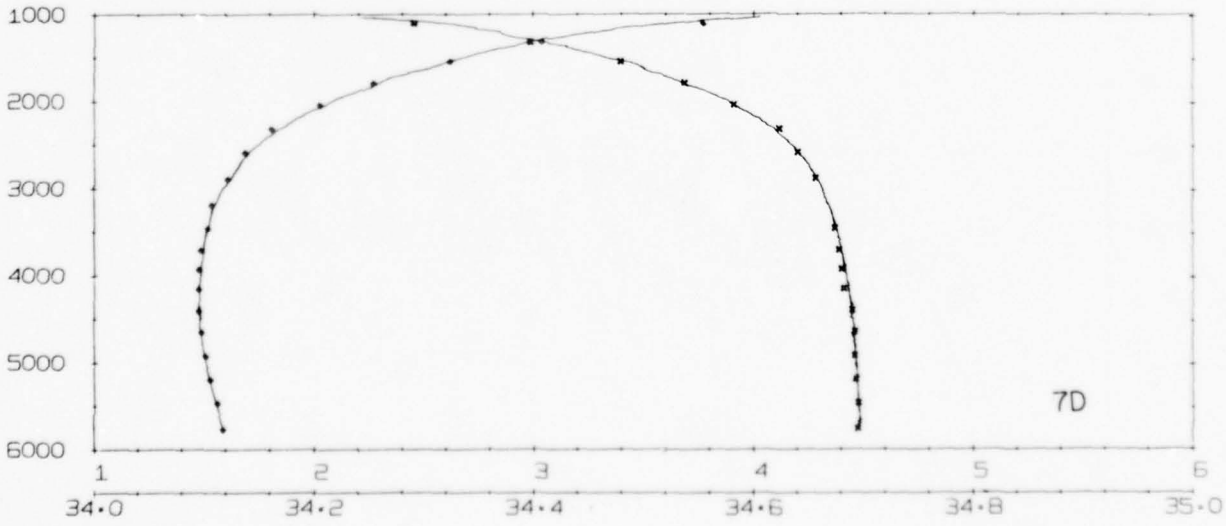

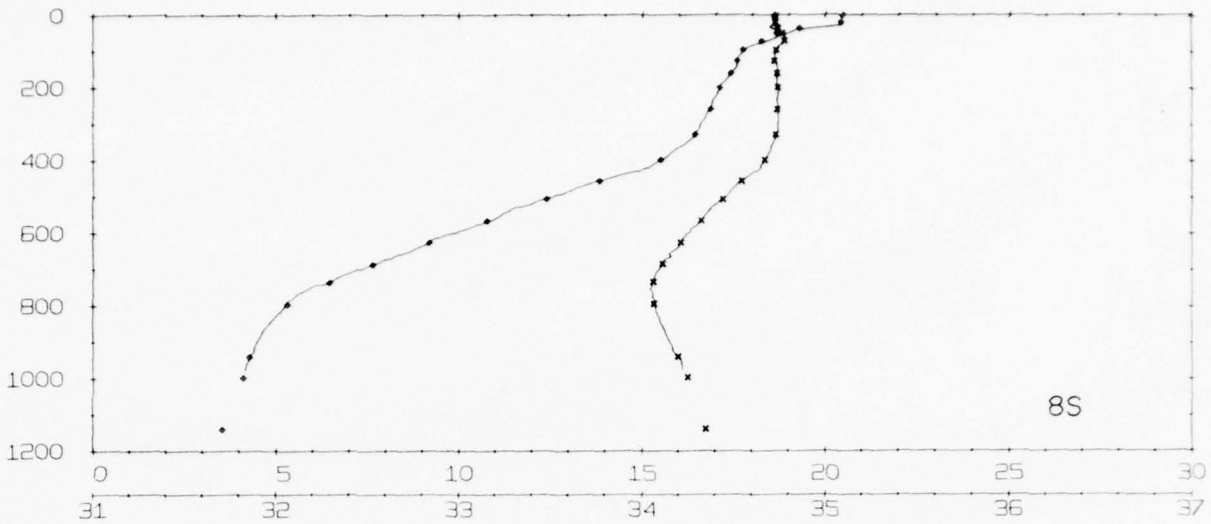
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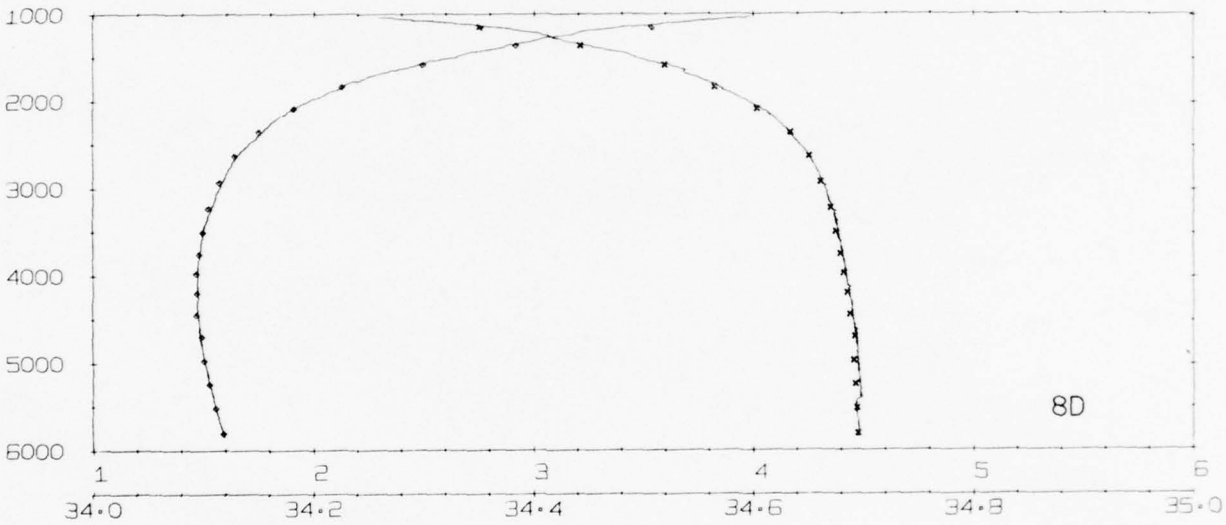
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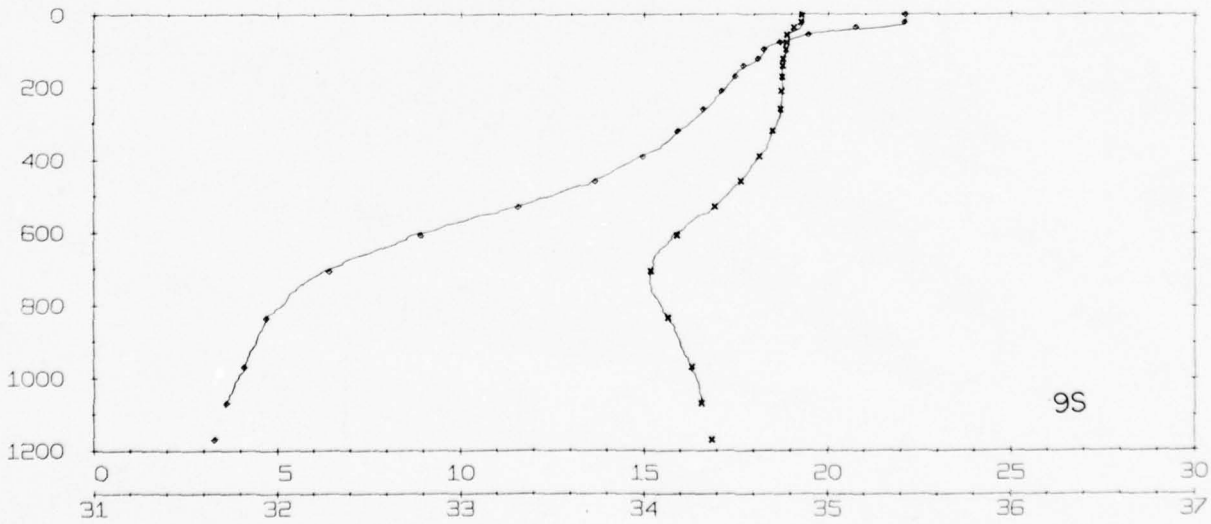
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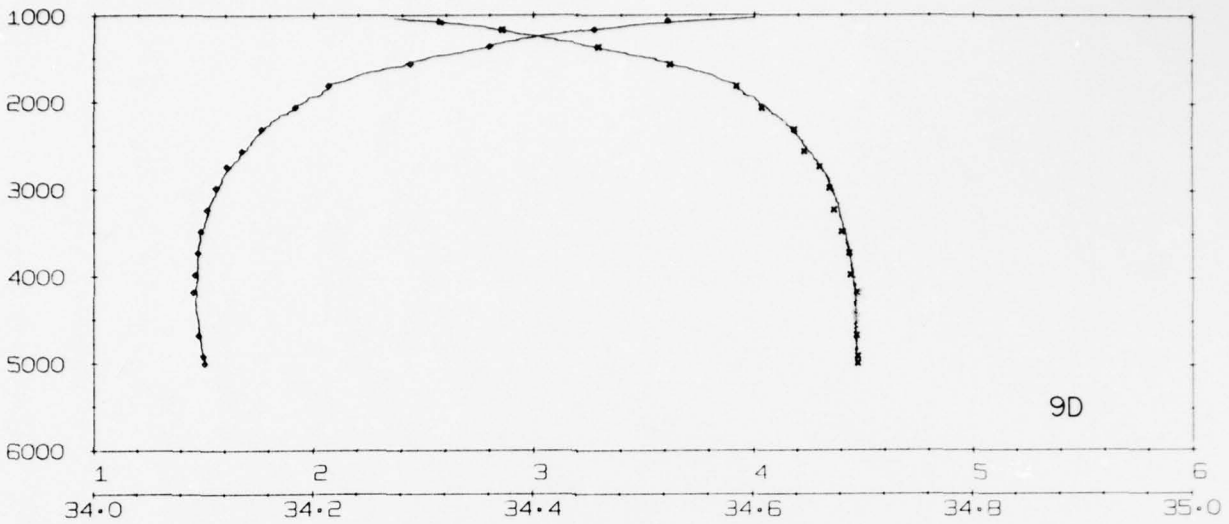

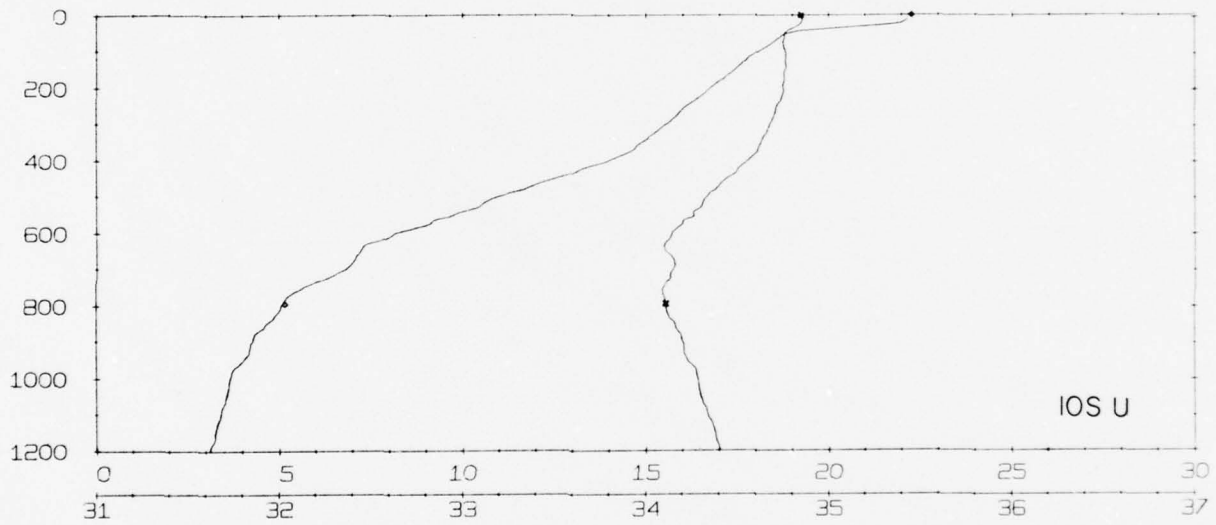

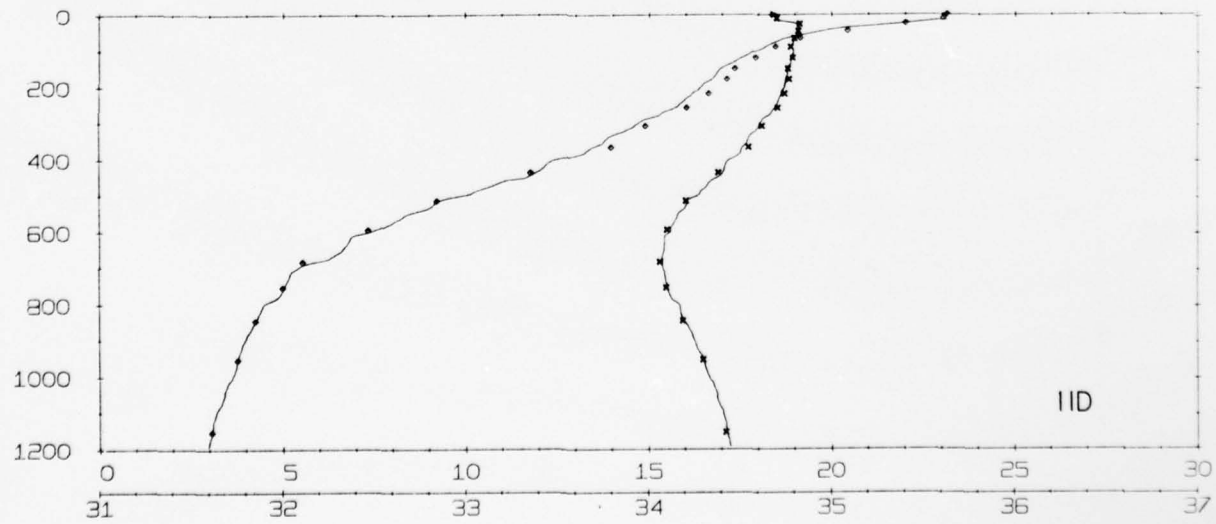

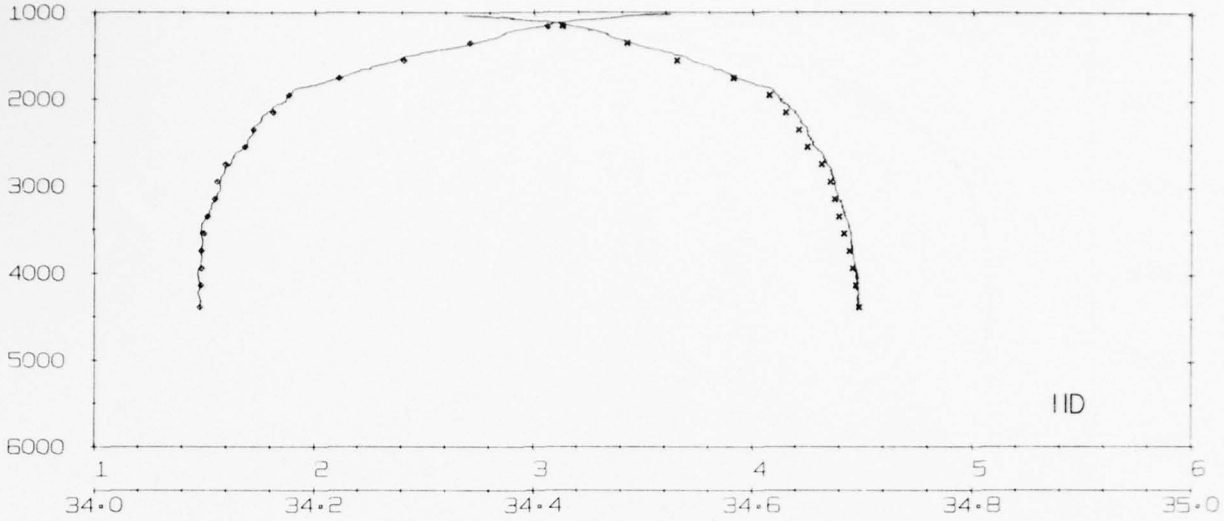
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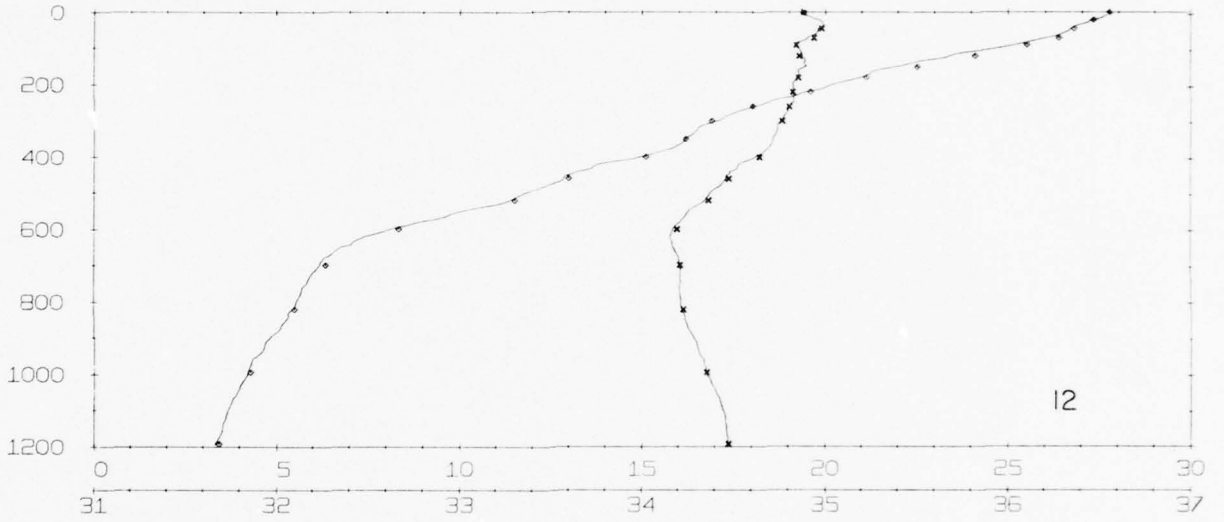
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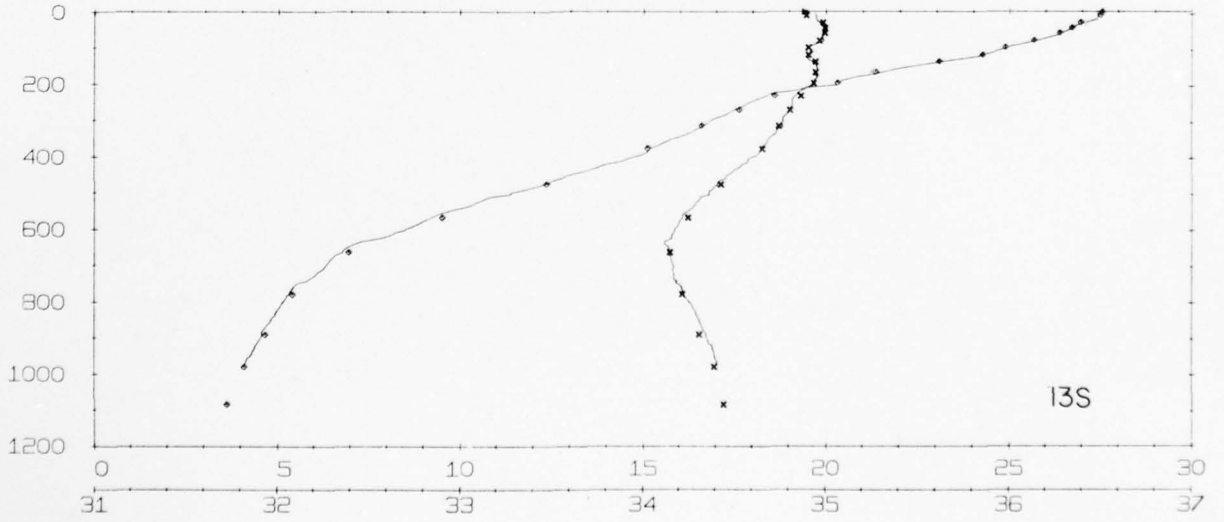
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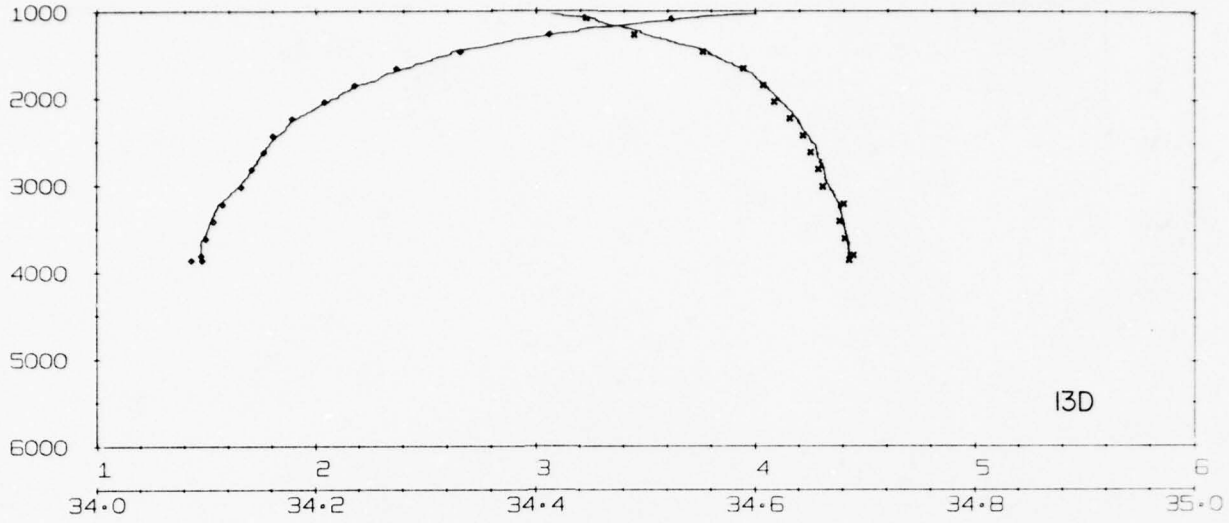

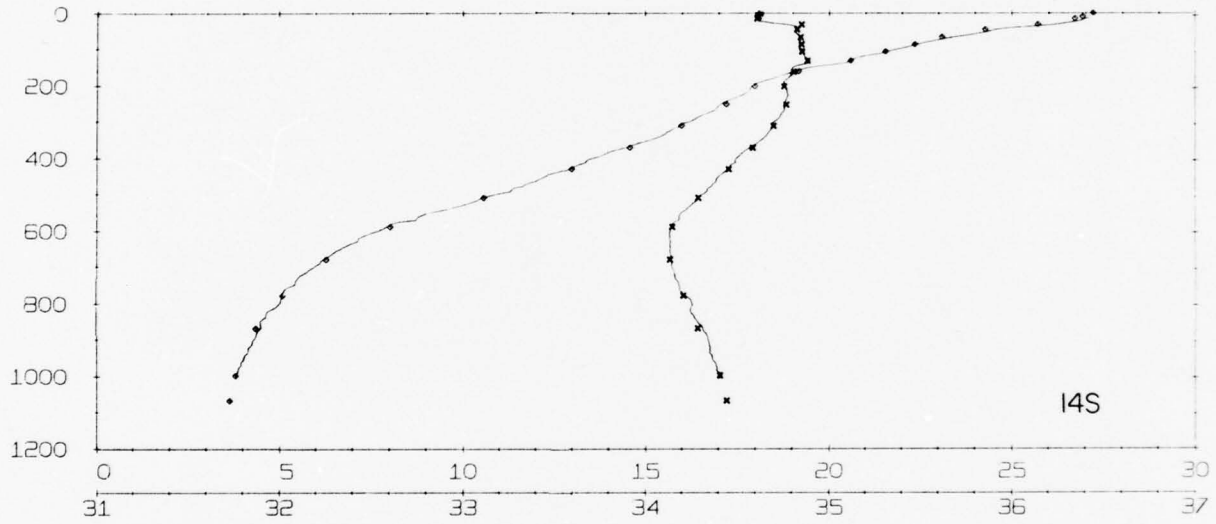

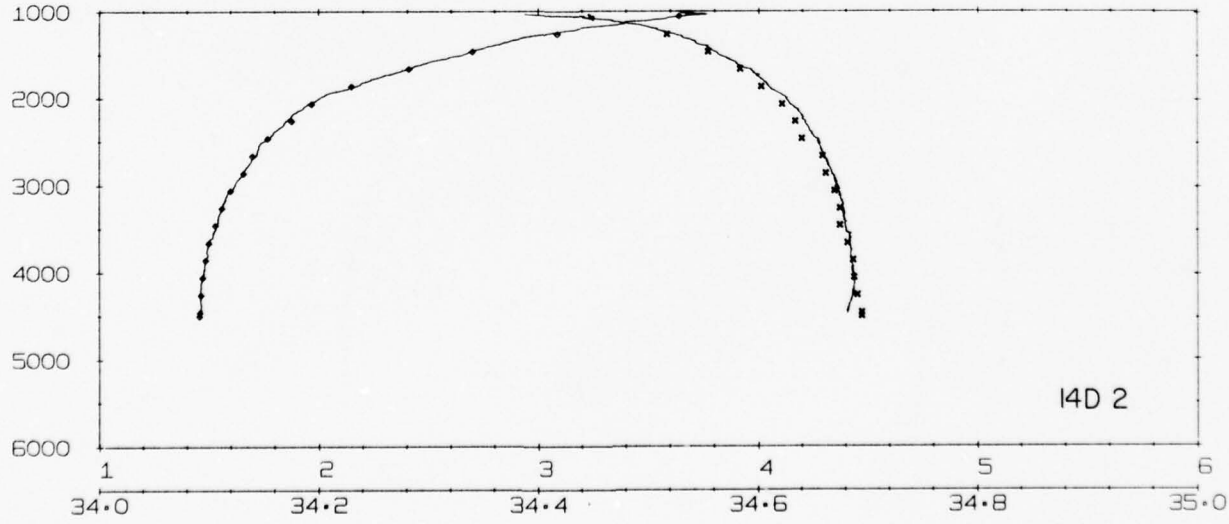

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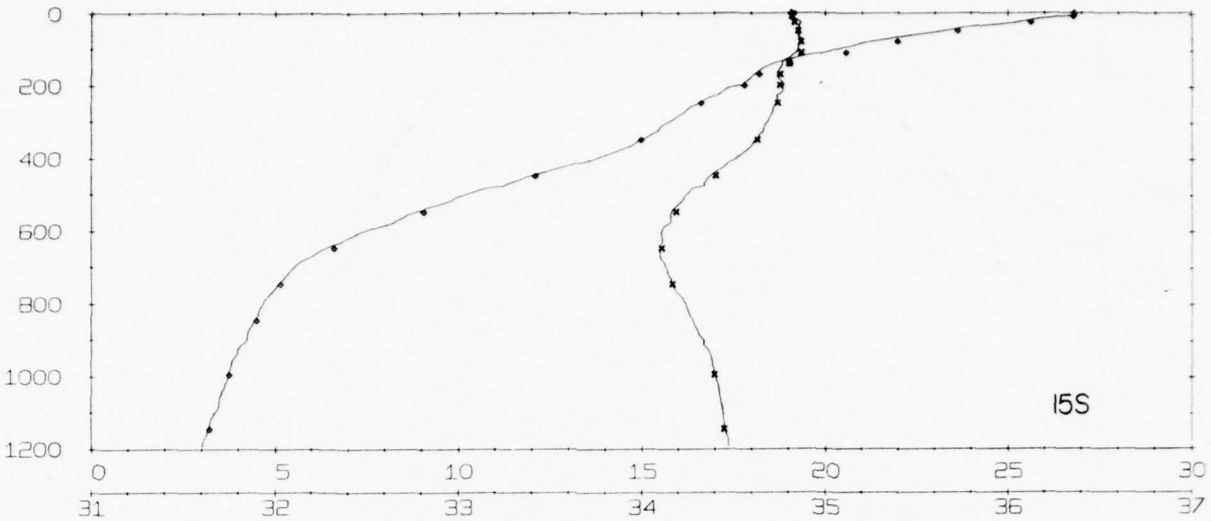

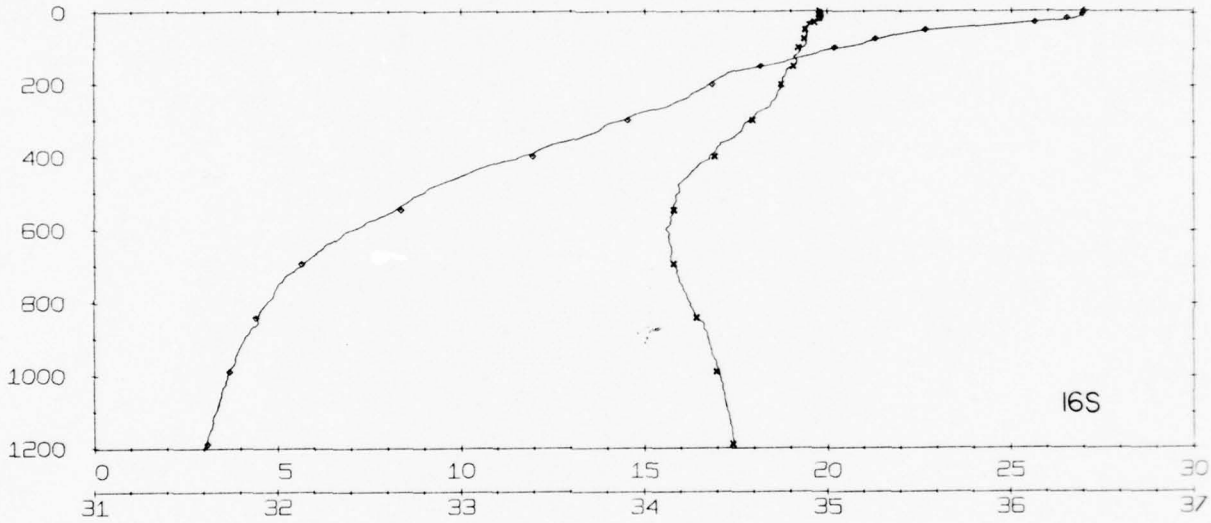

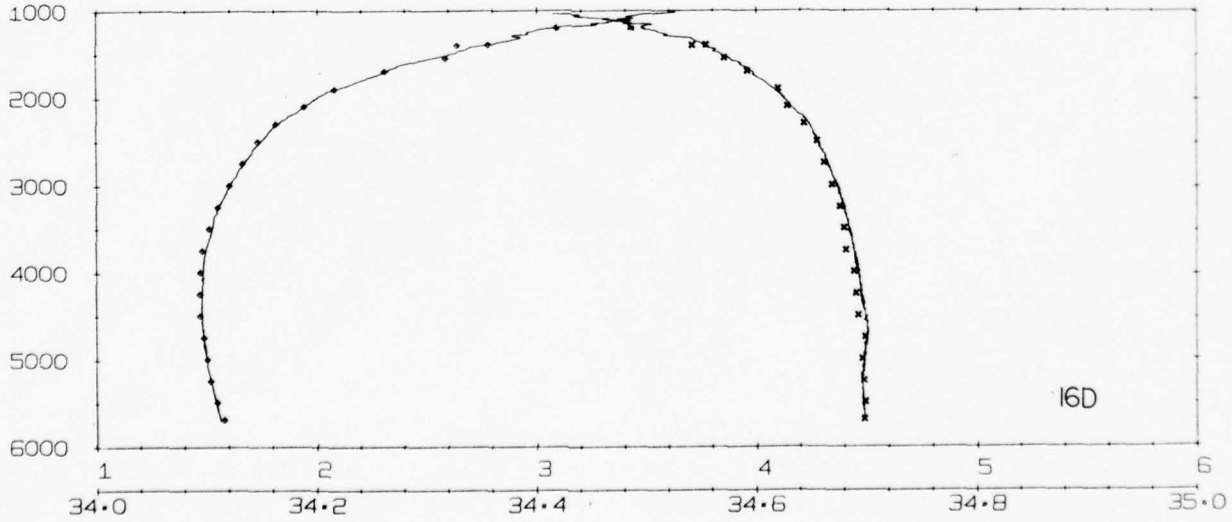

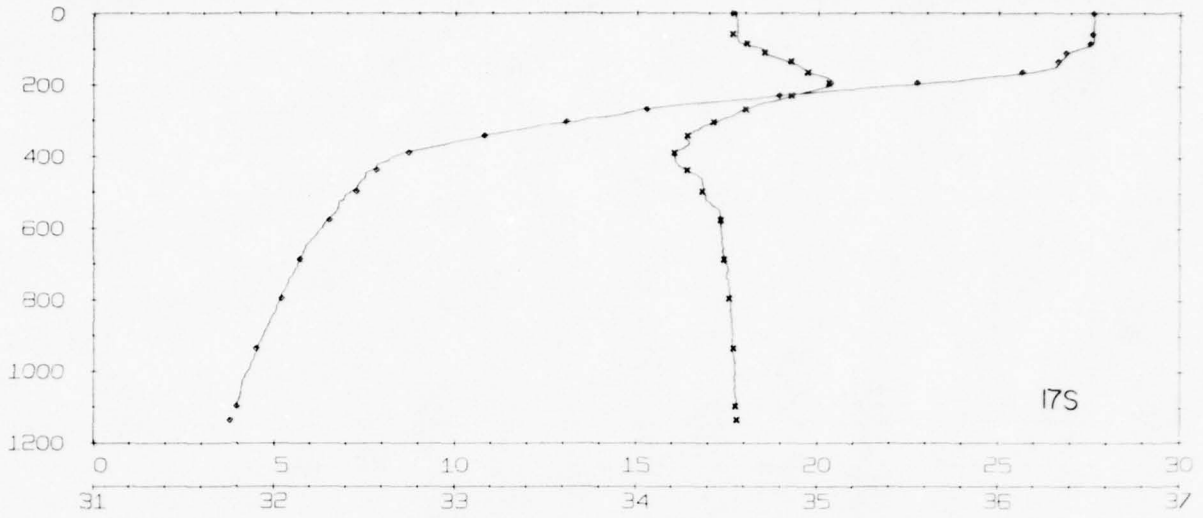
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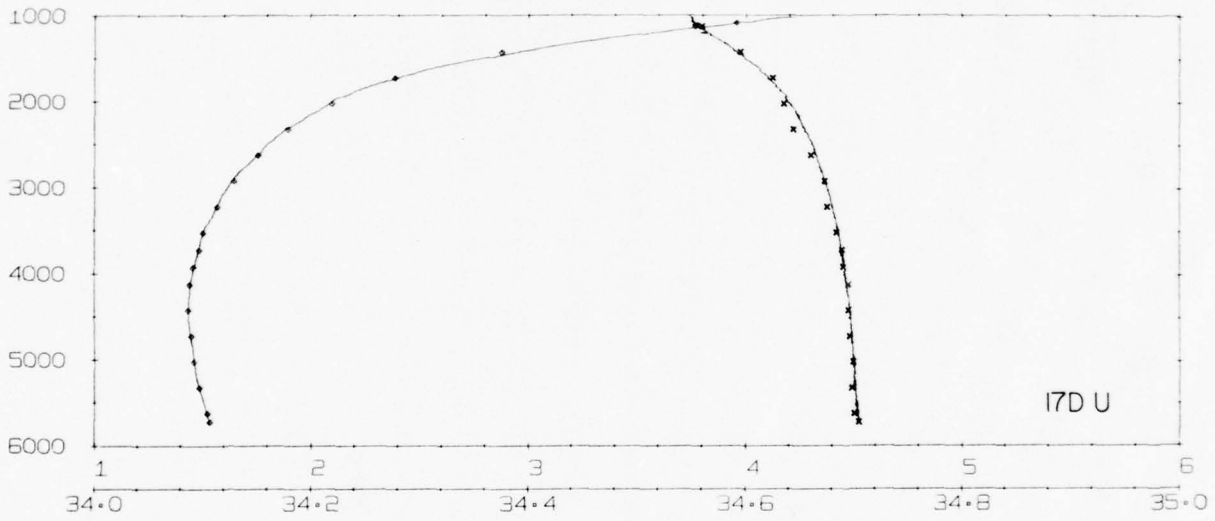
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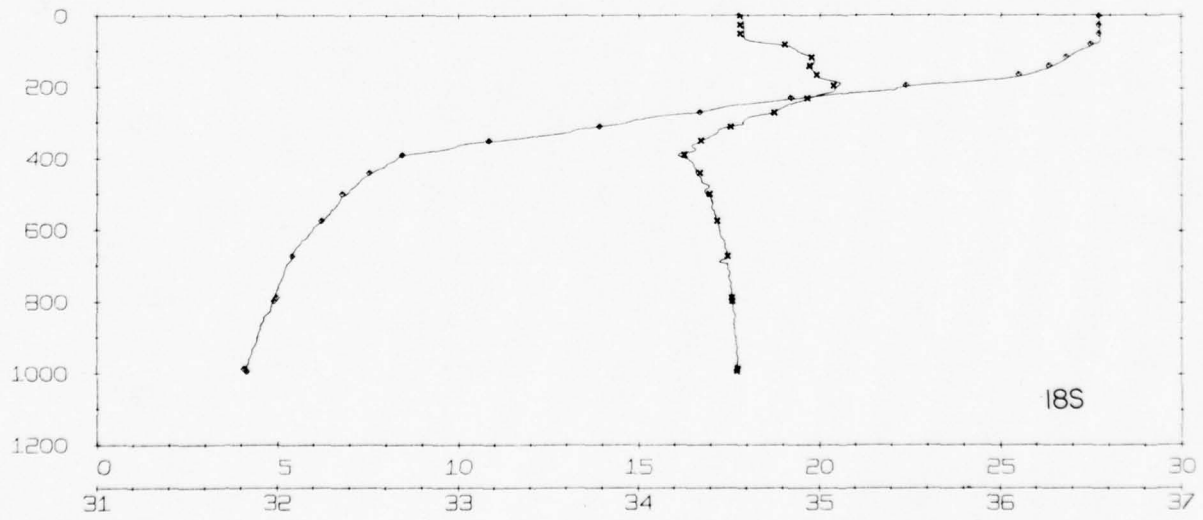
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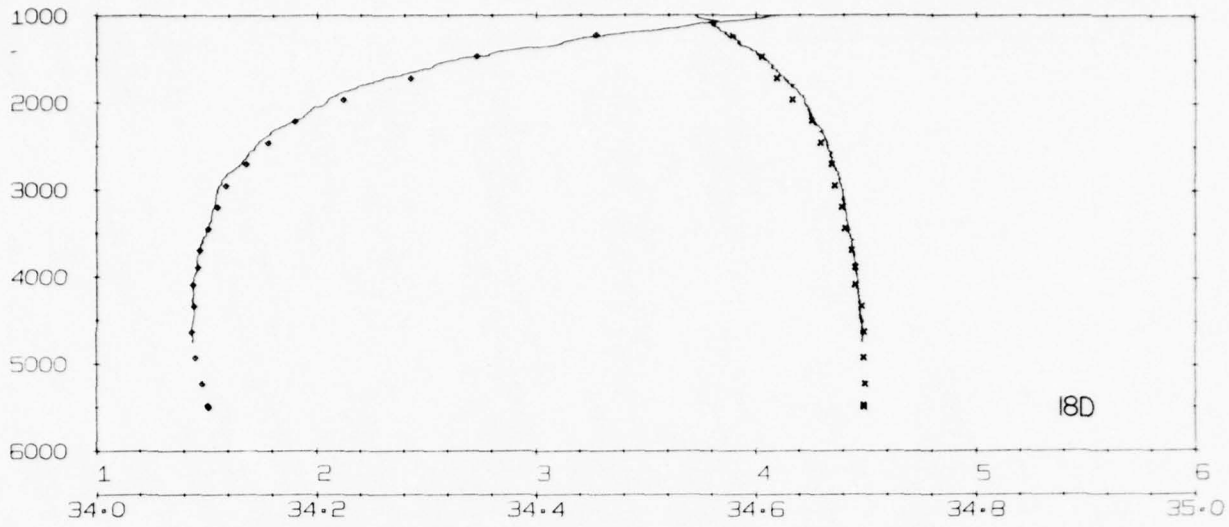
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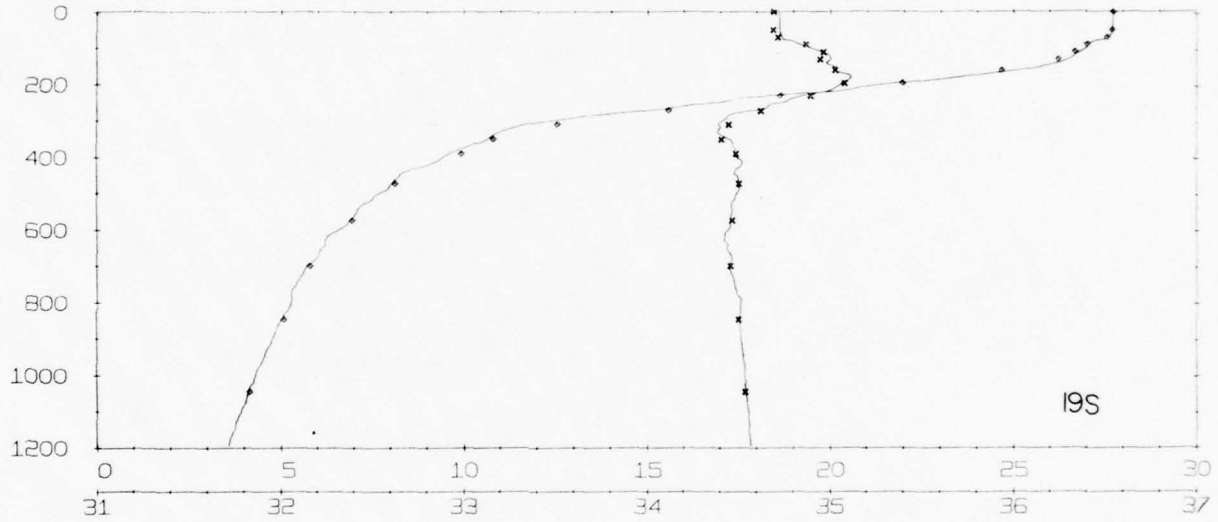
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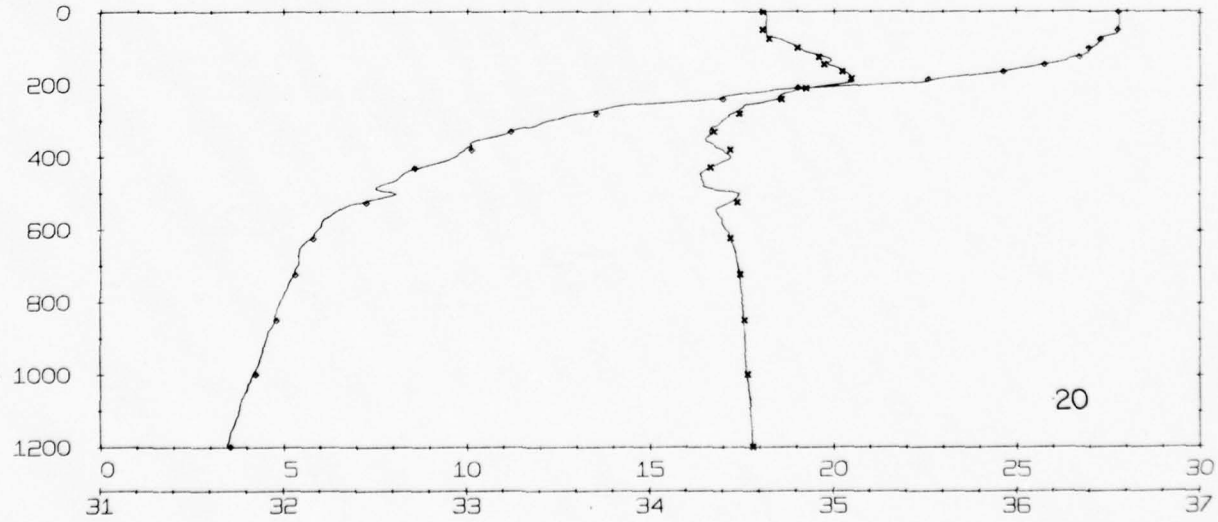
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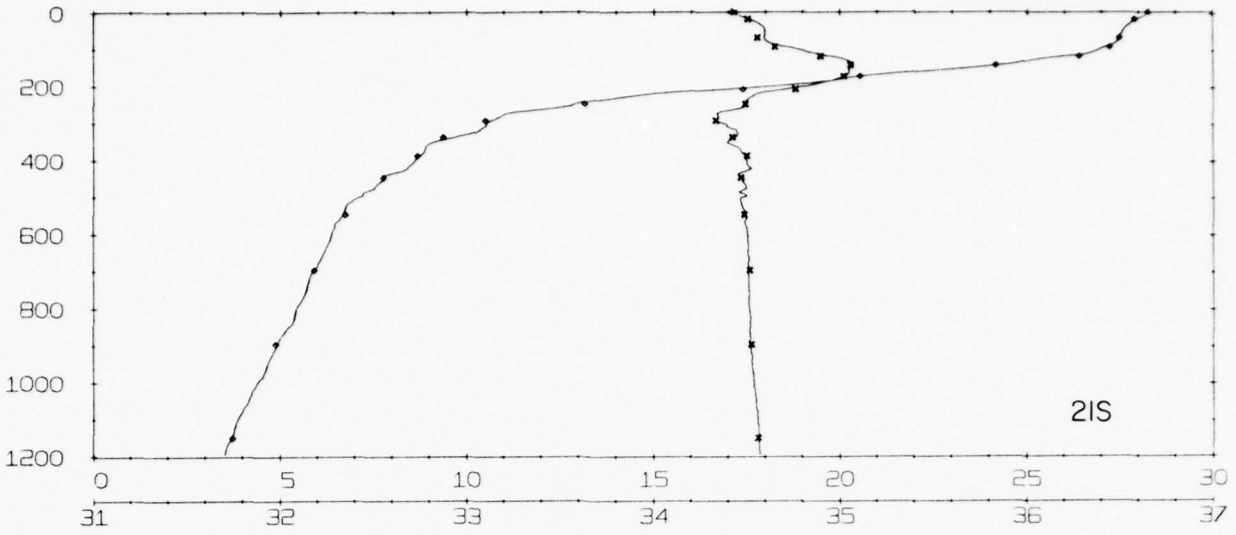

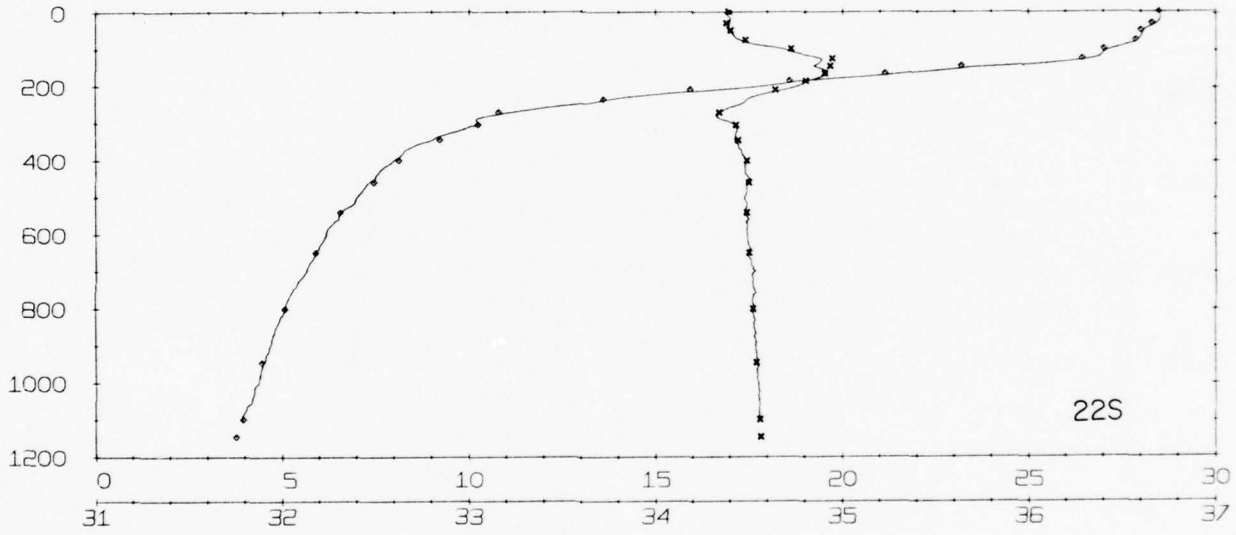

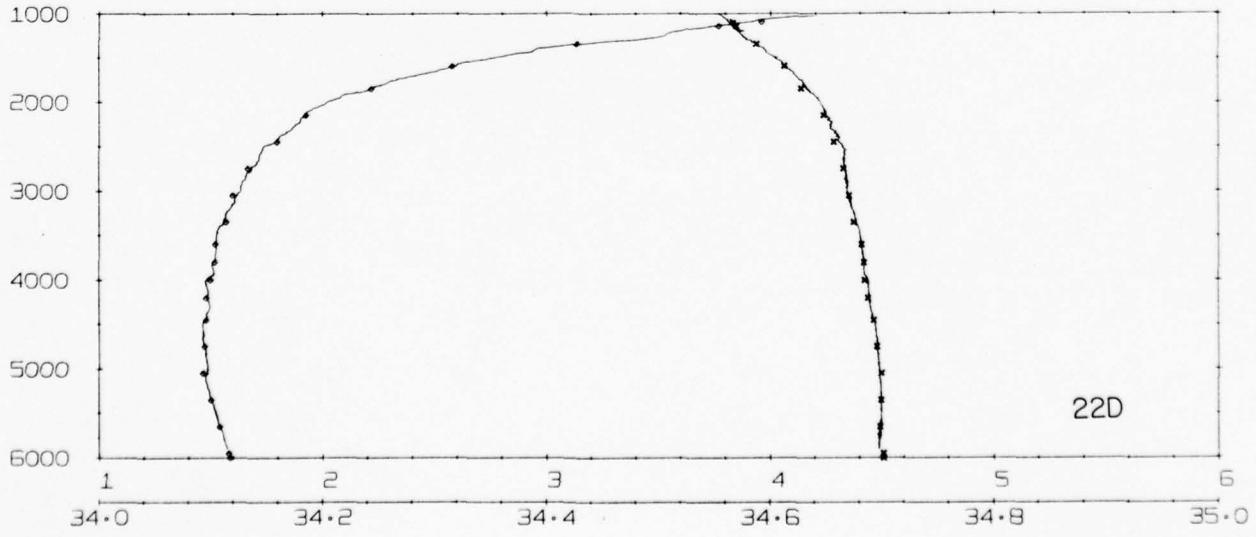

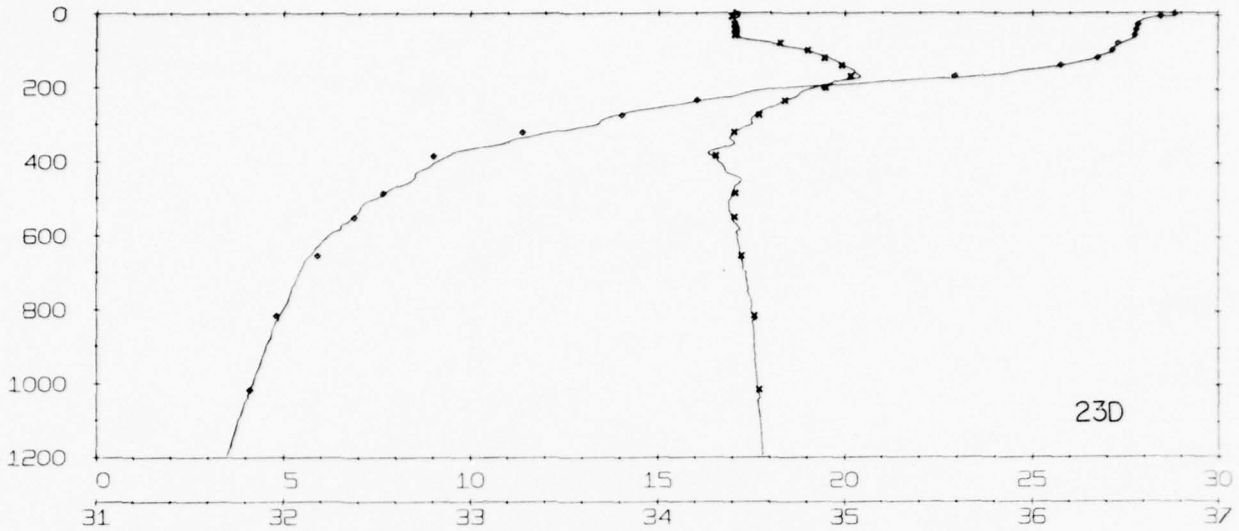
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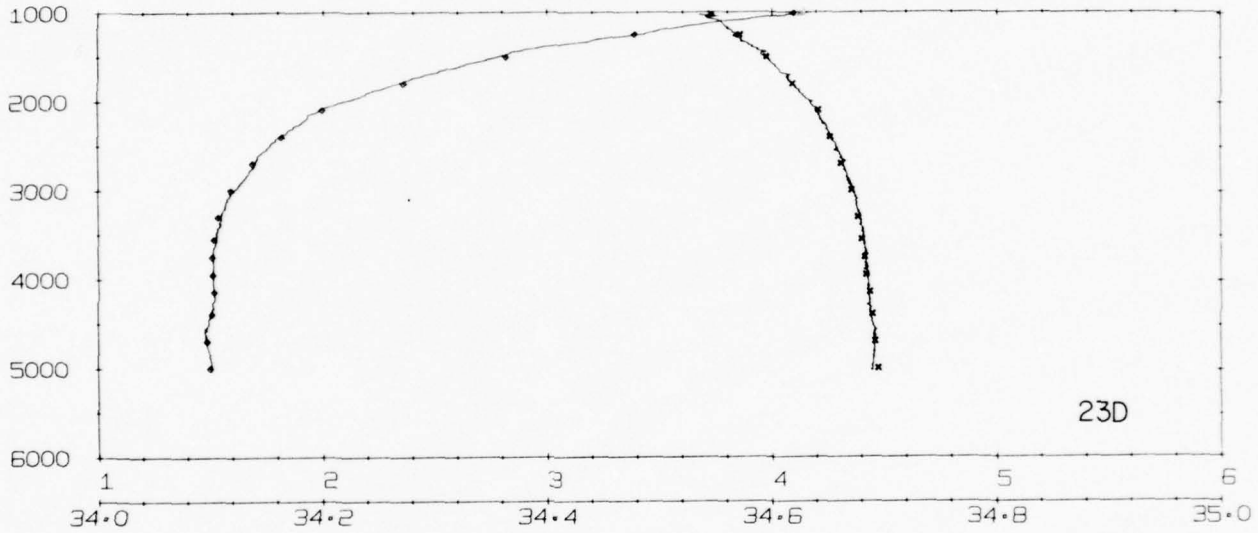
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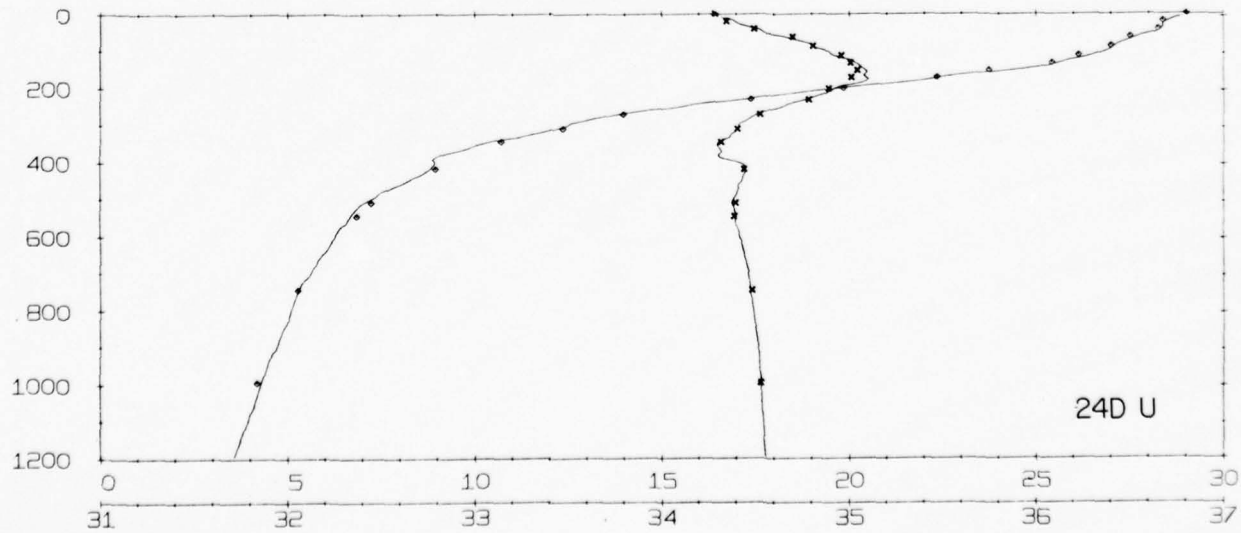
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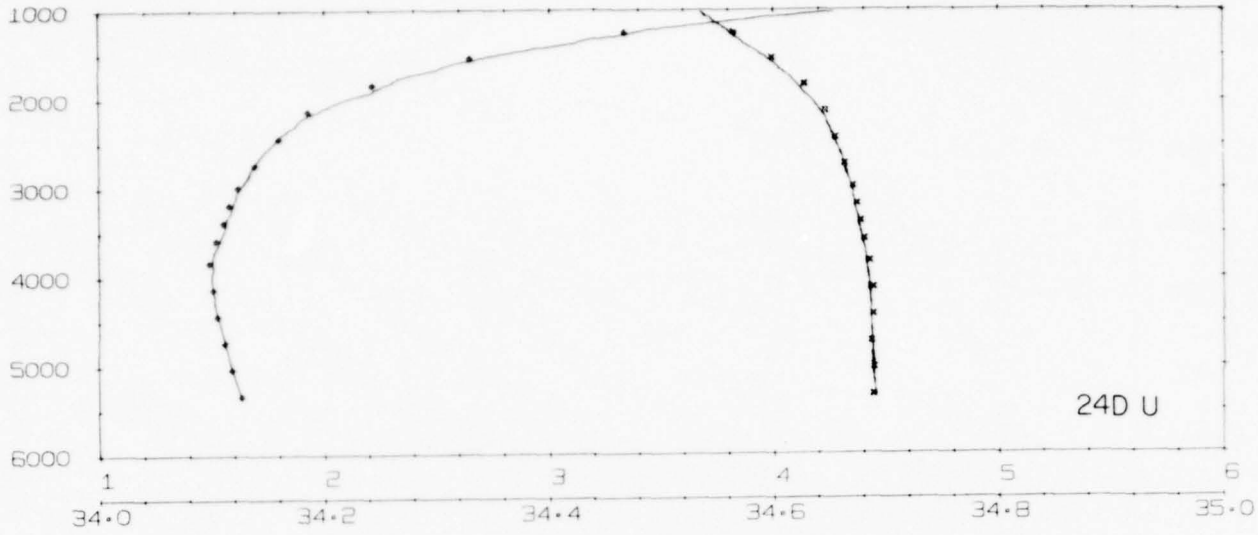

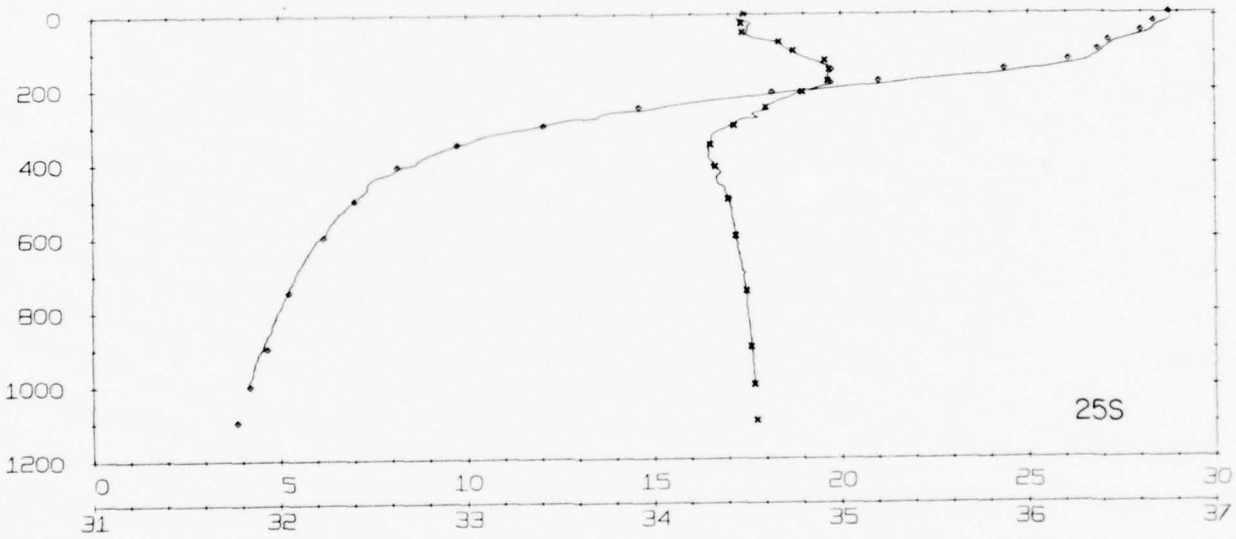

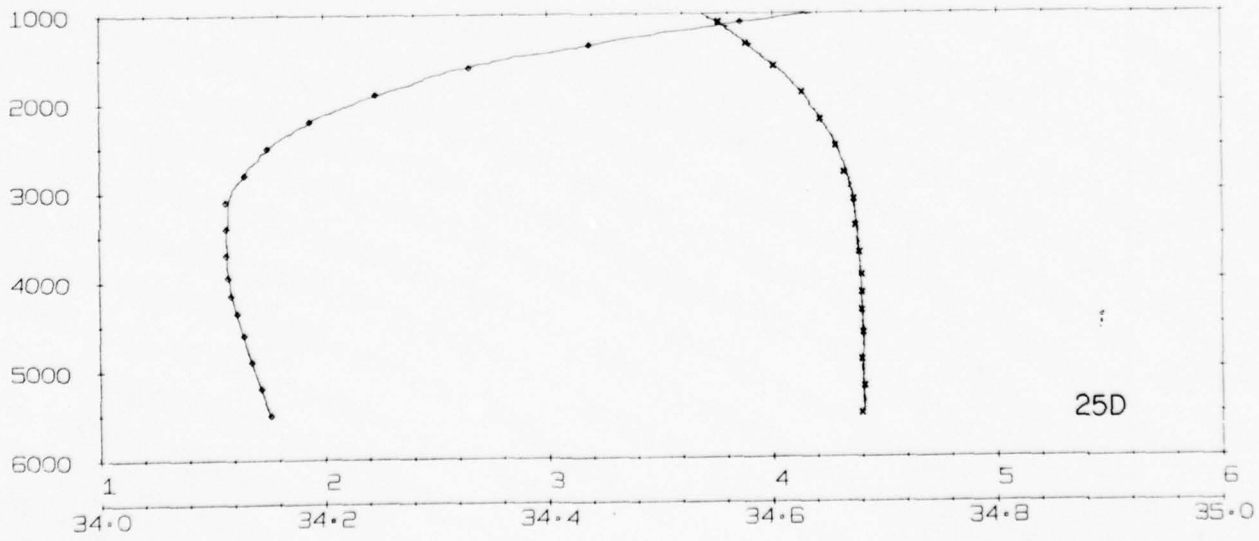

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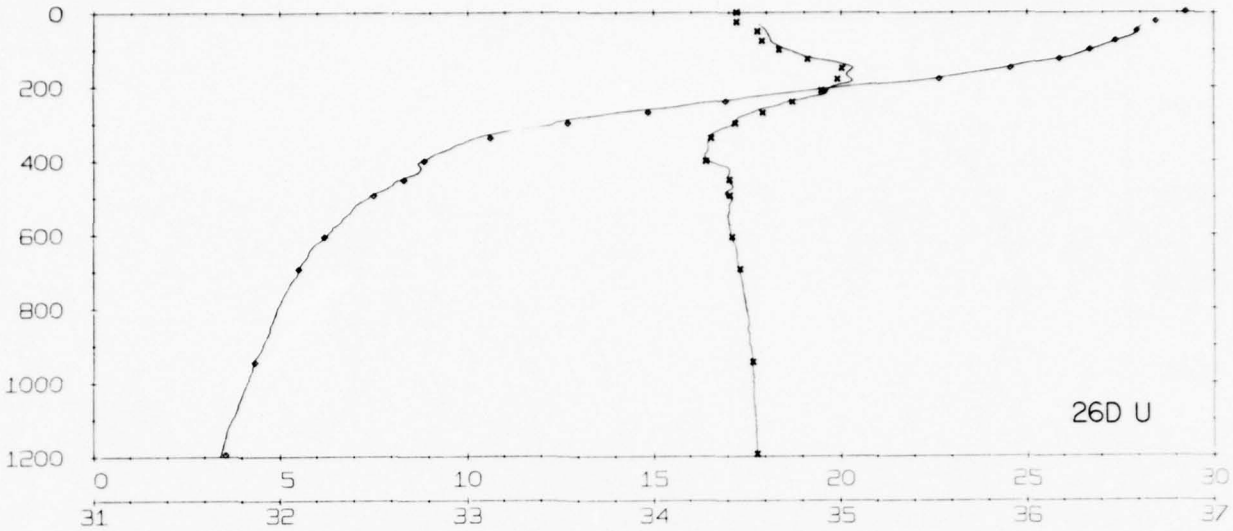

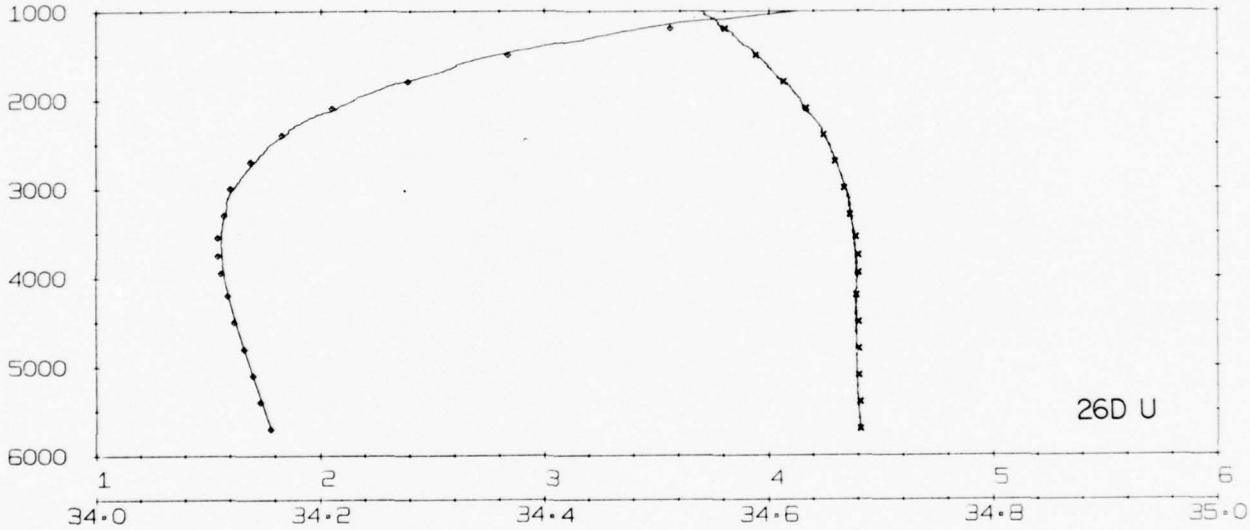

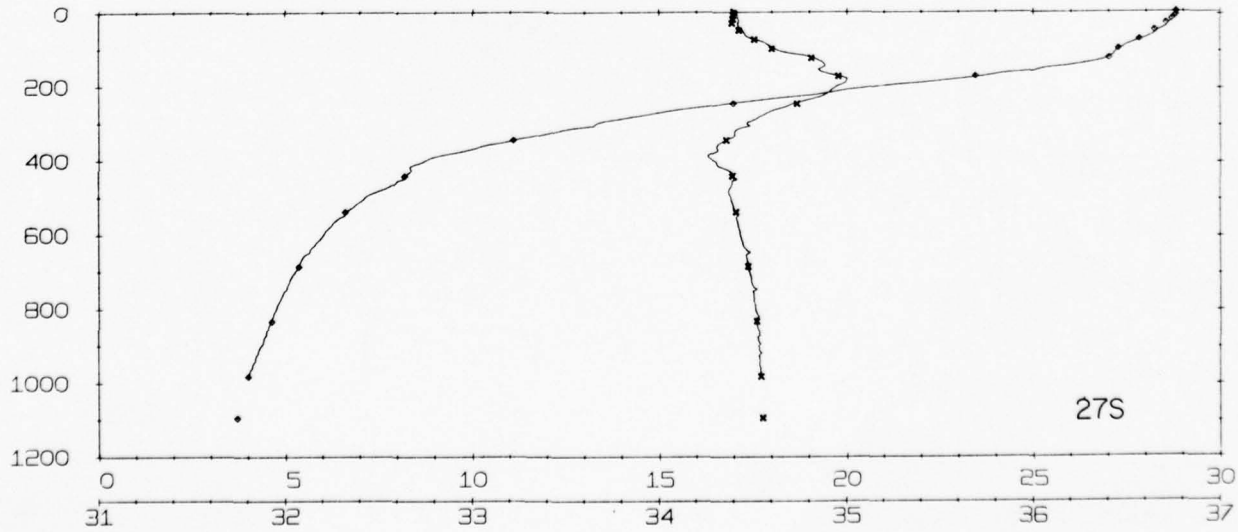

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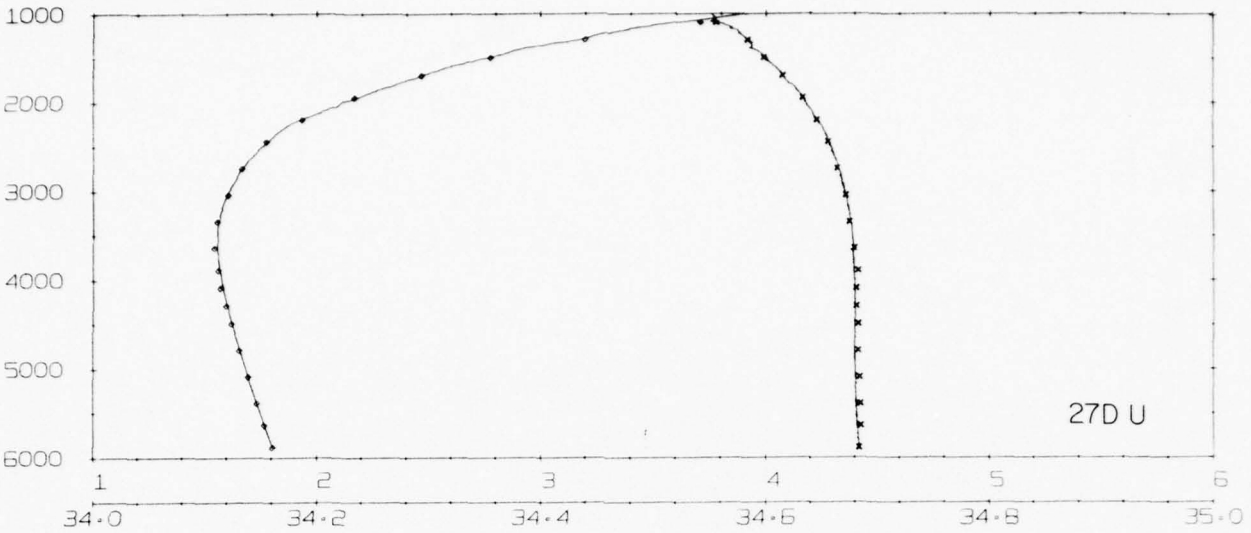

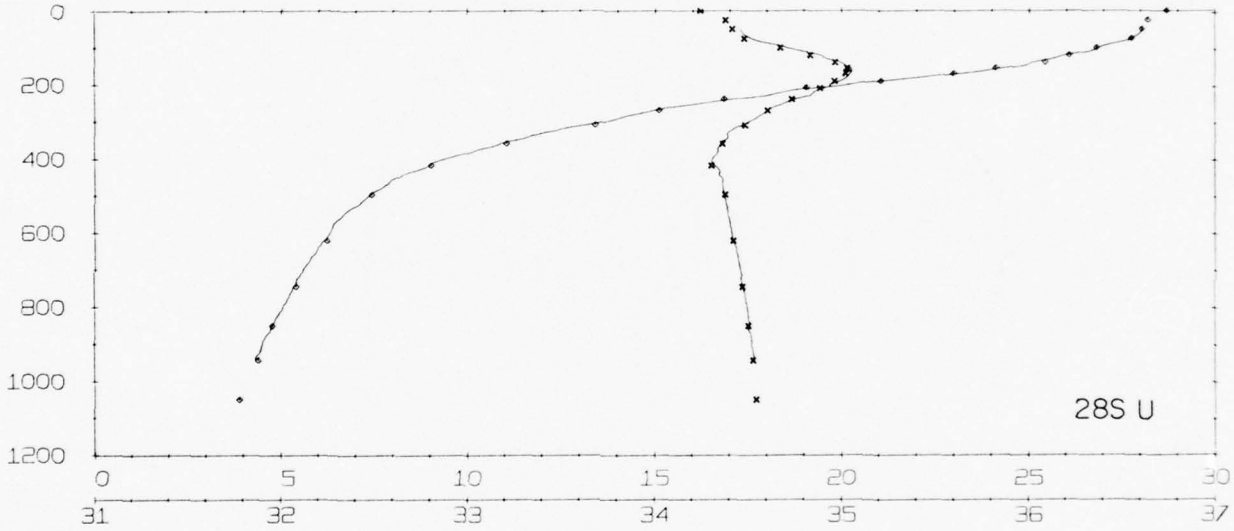

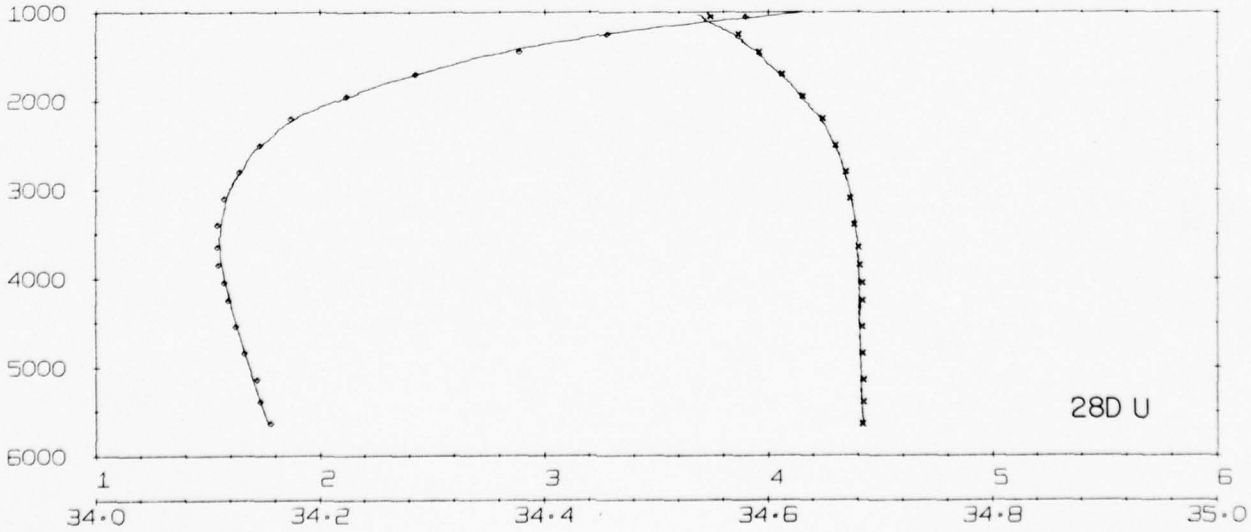

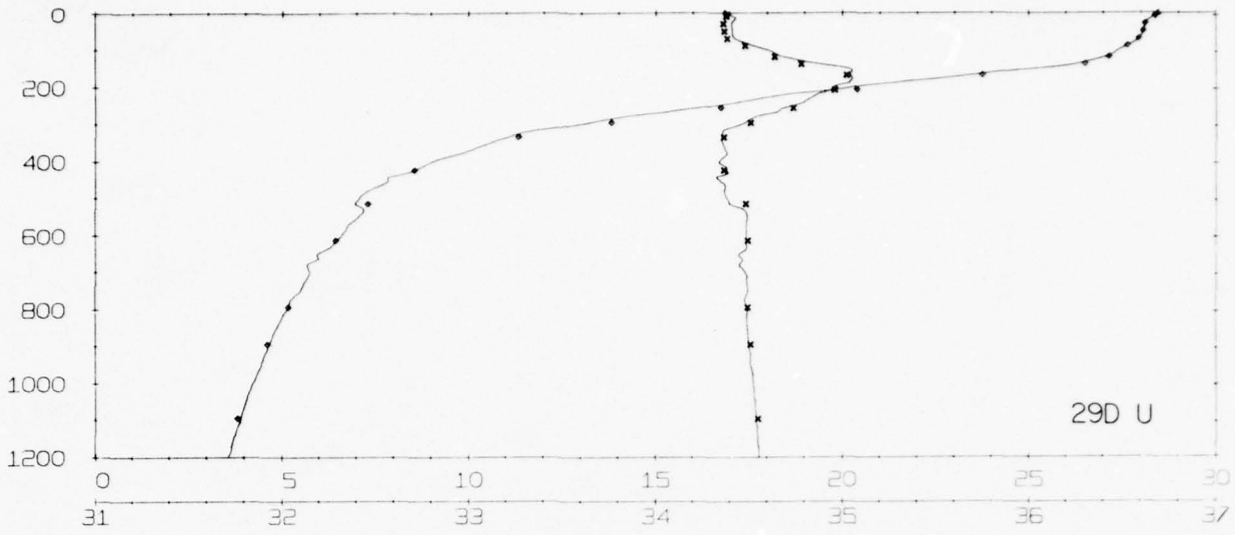
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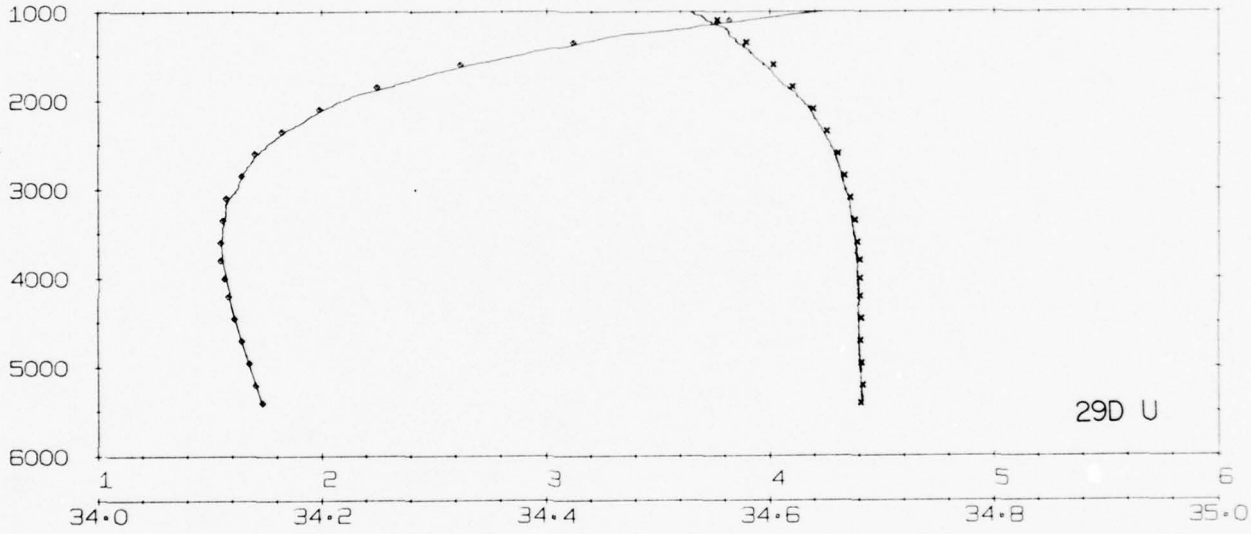
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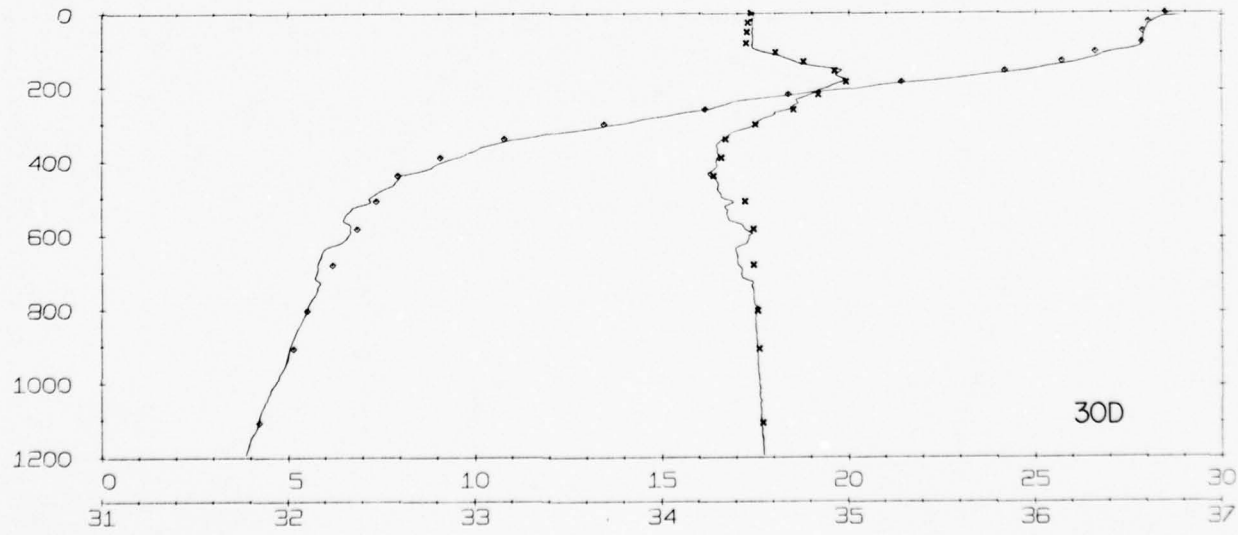
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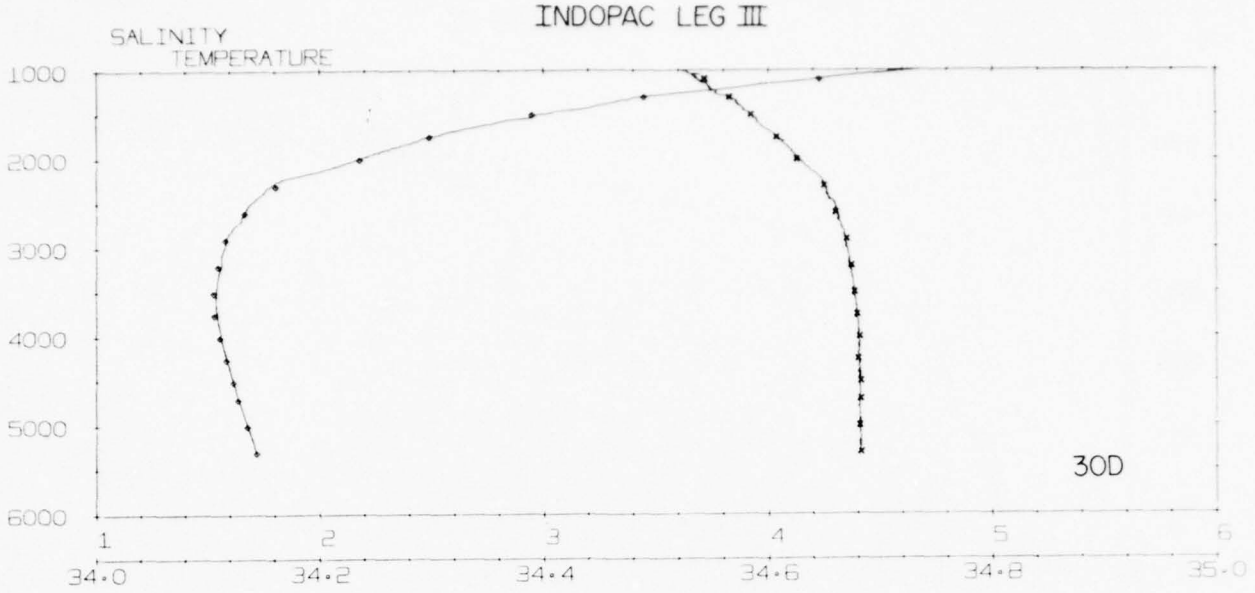
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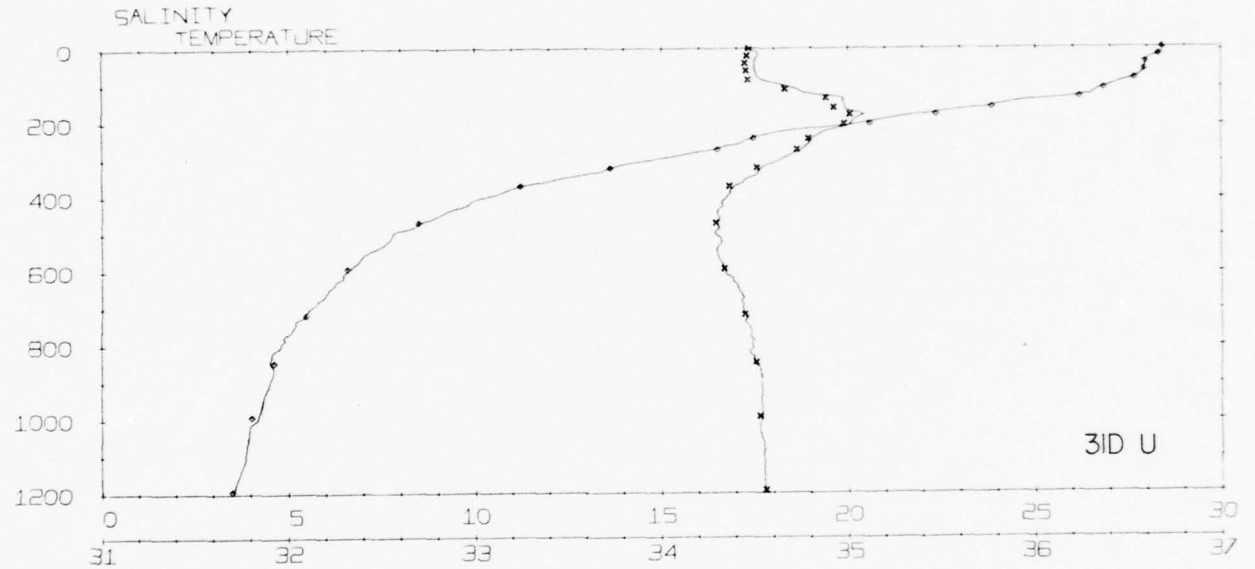
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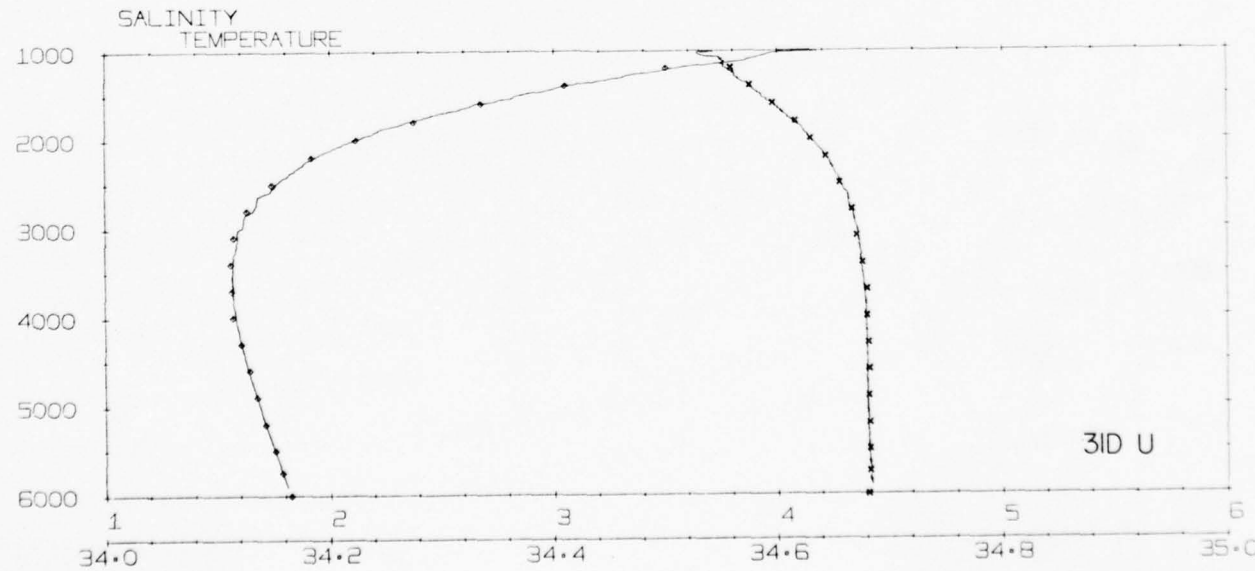
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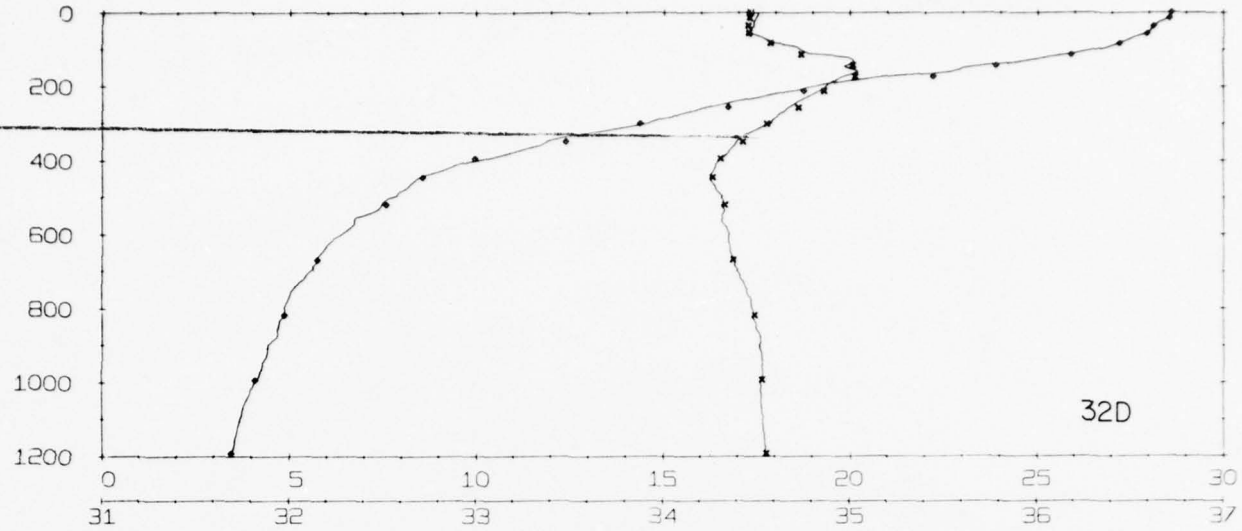
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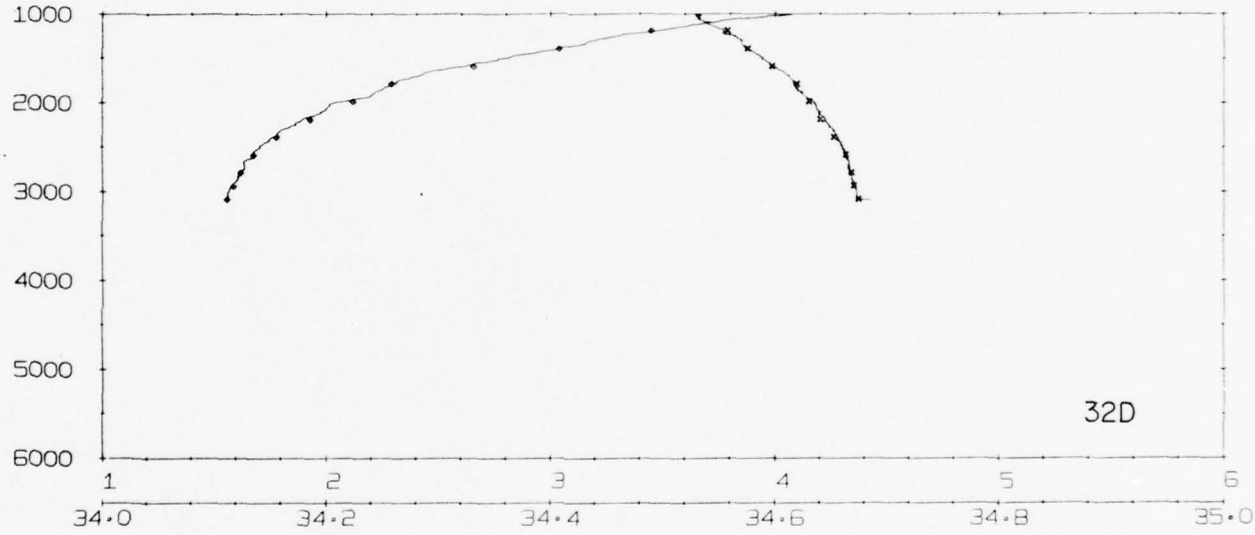
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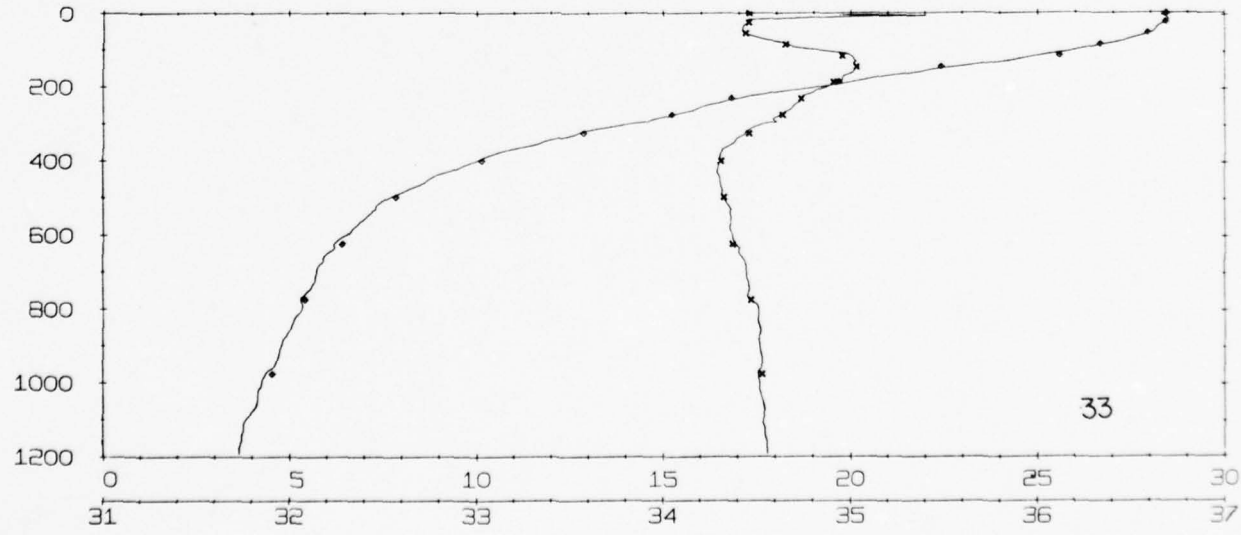
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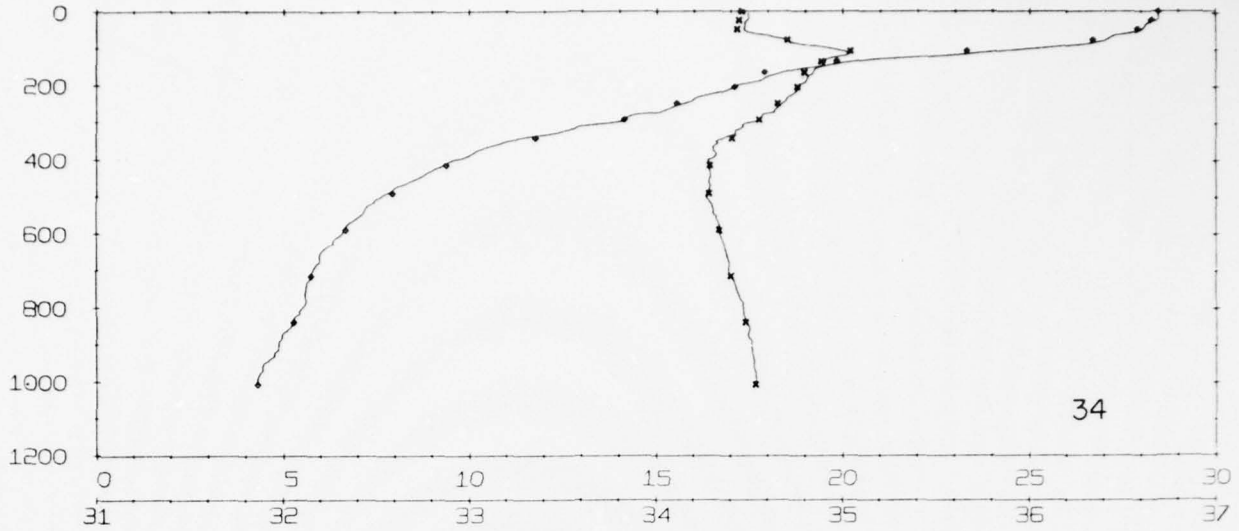
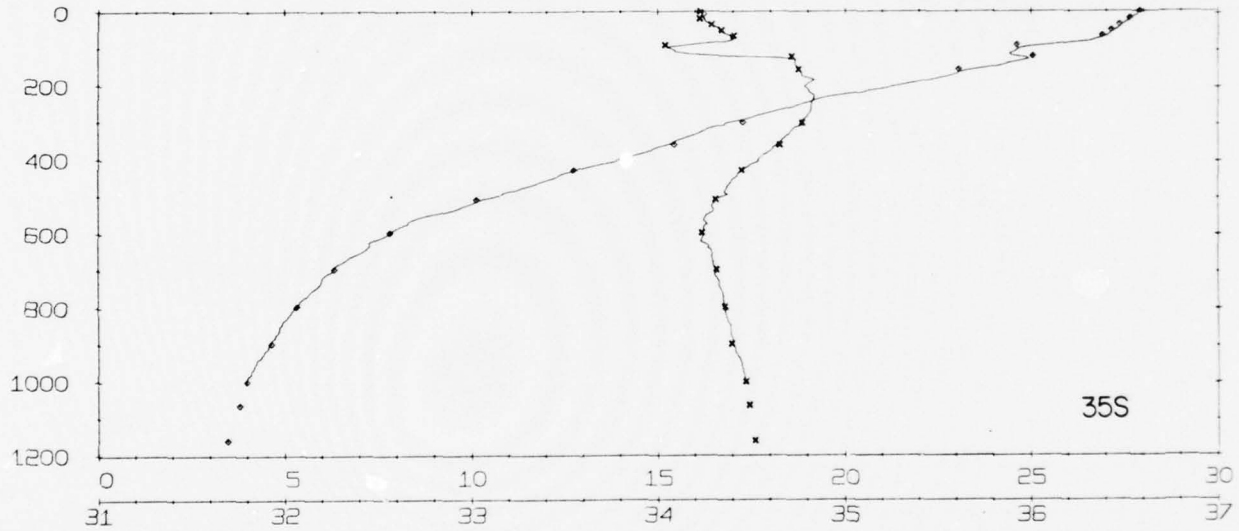
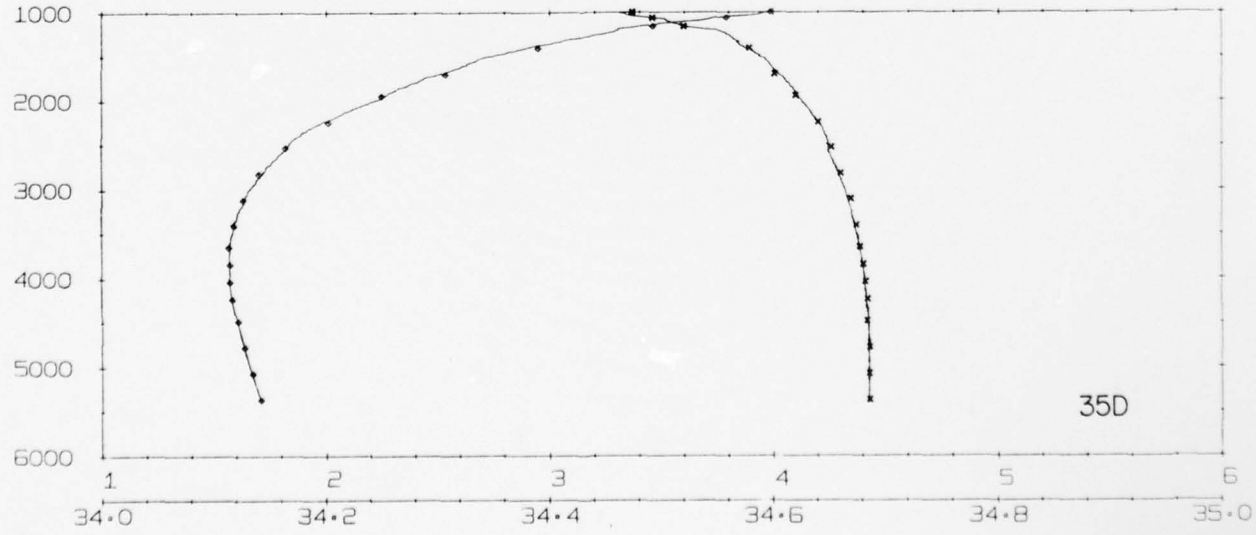
INDOPAC LEG III







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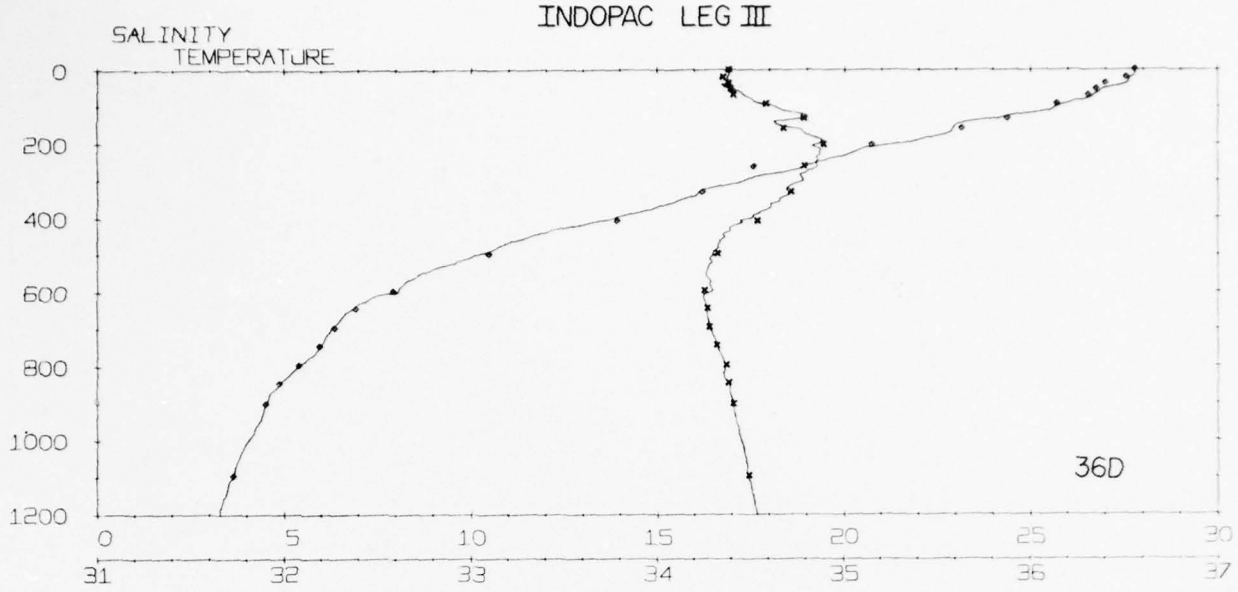

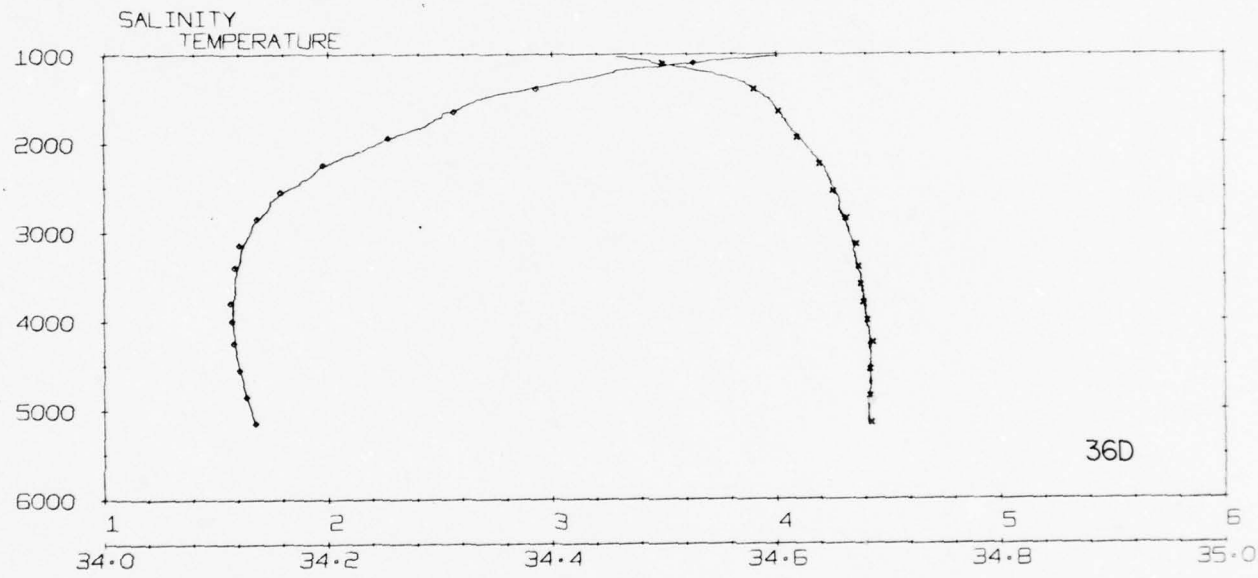

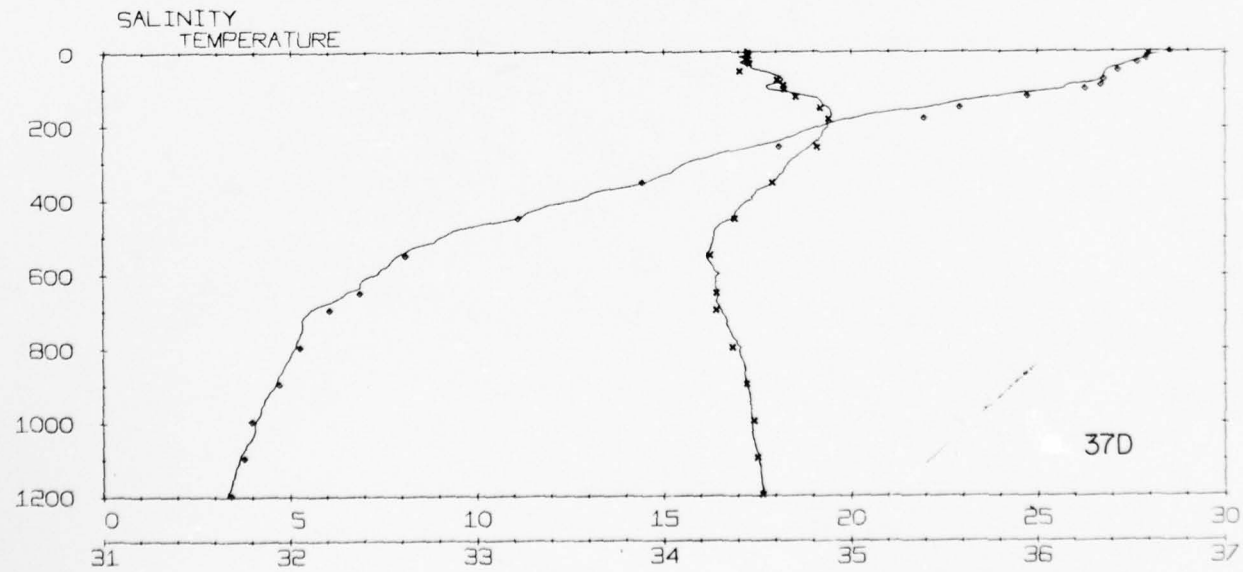

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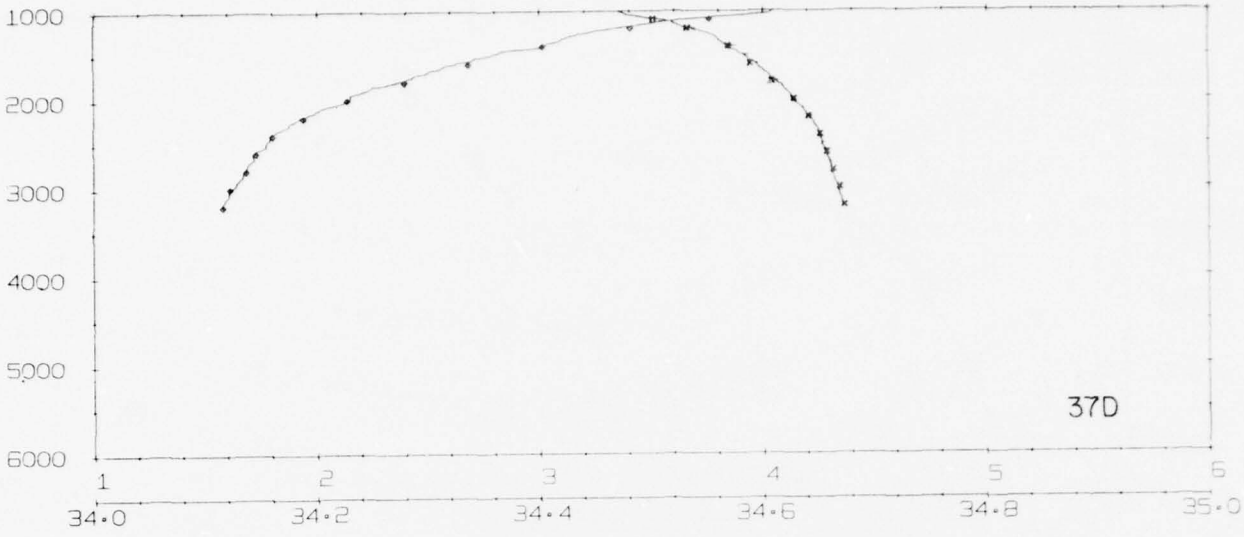

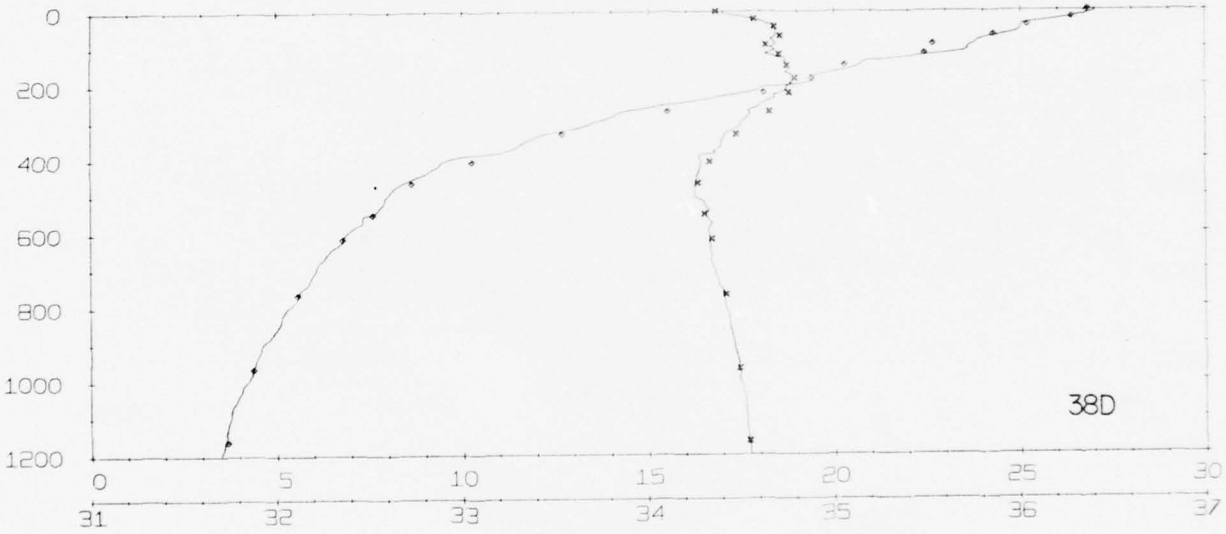

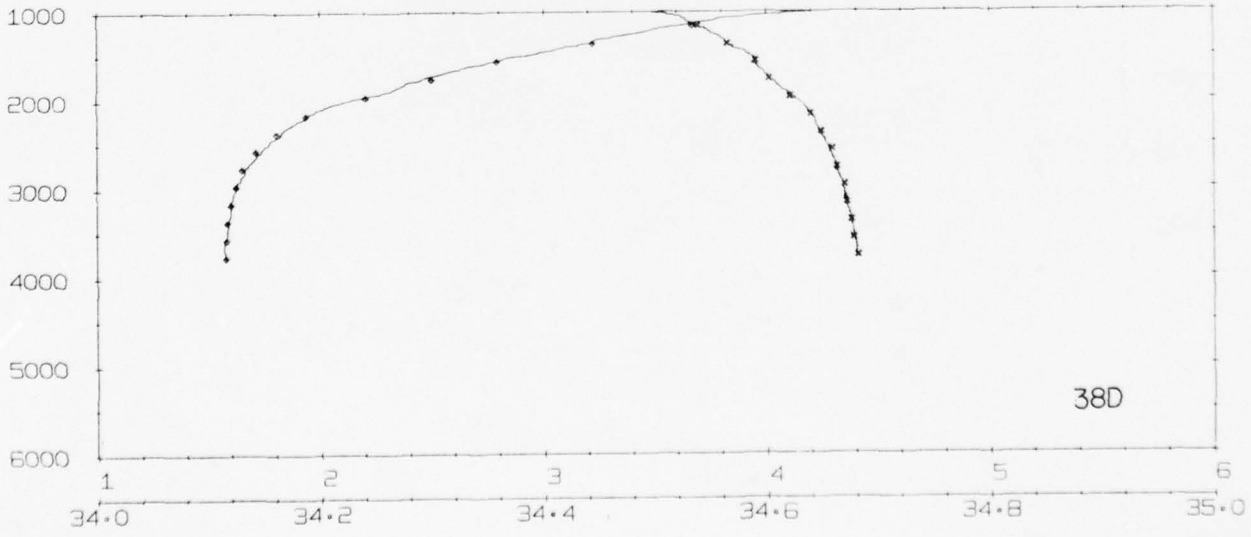

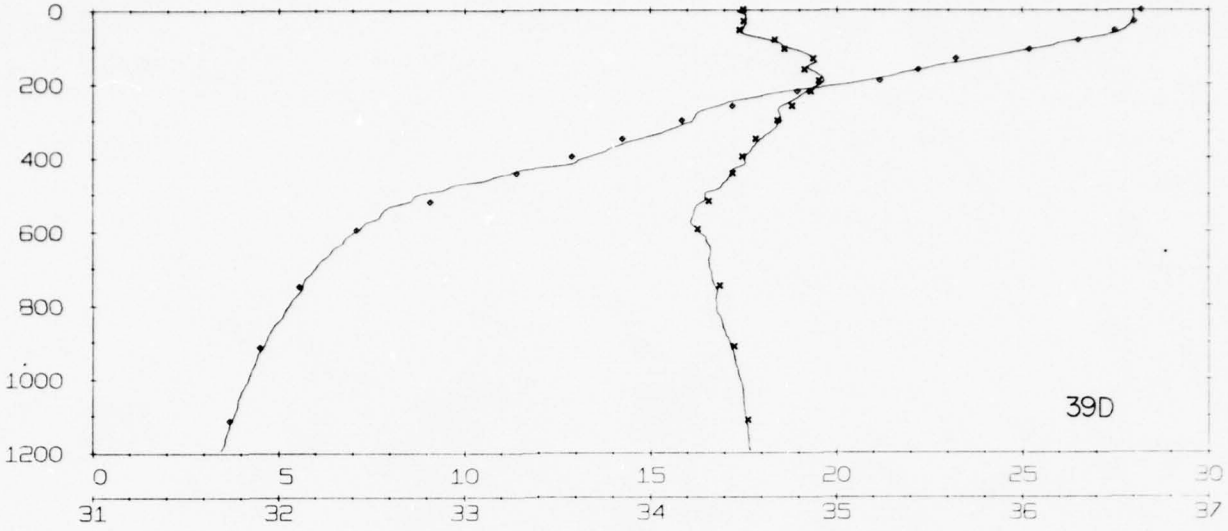
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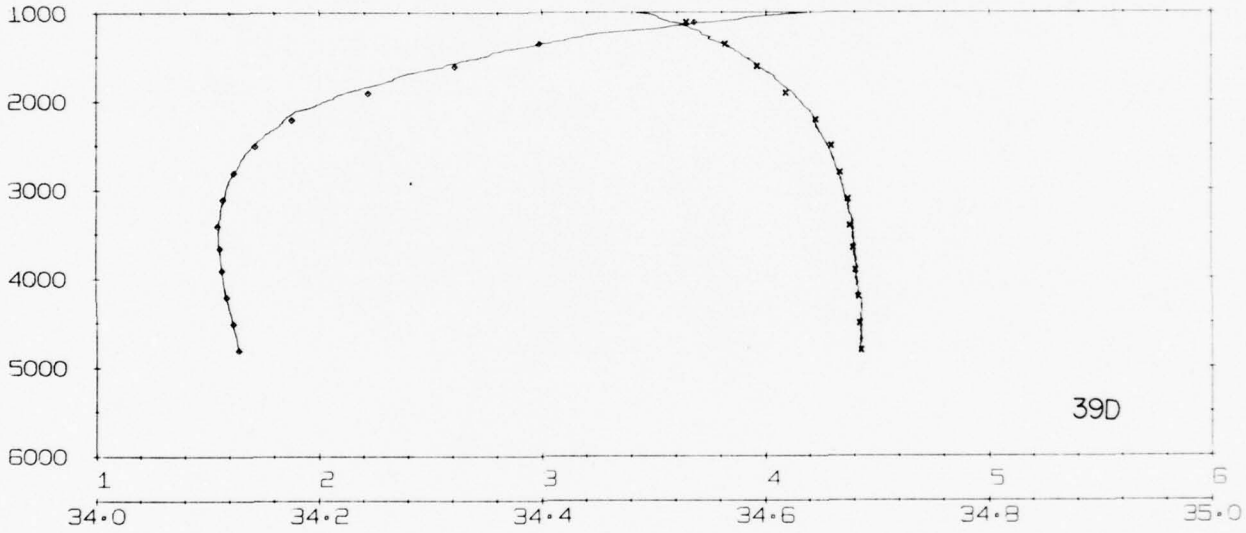
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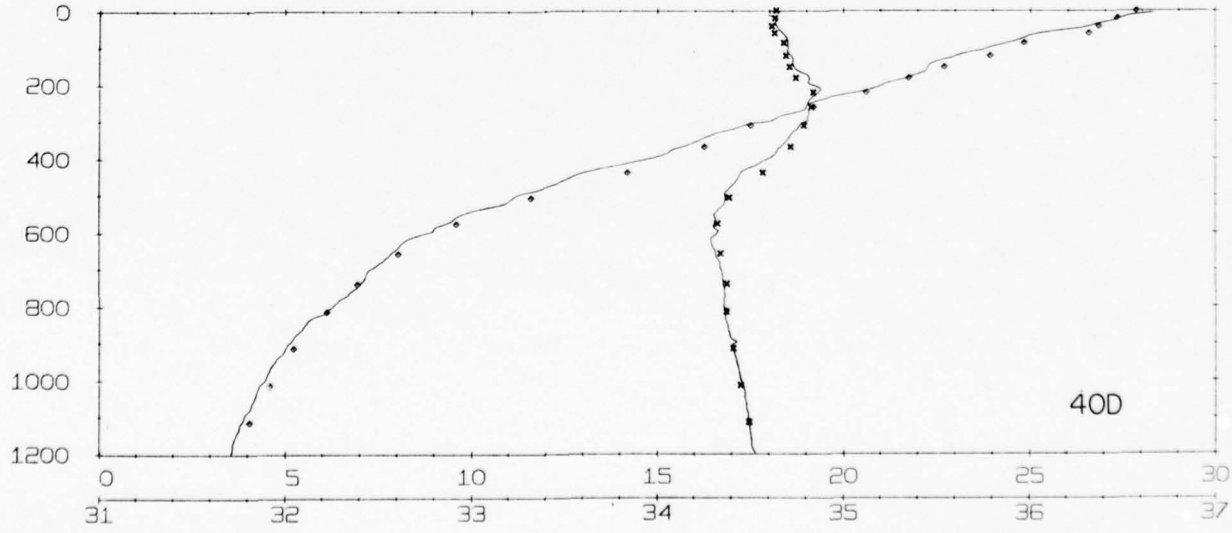
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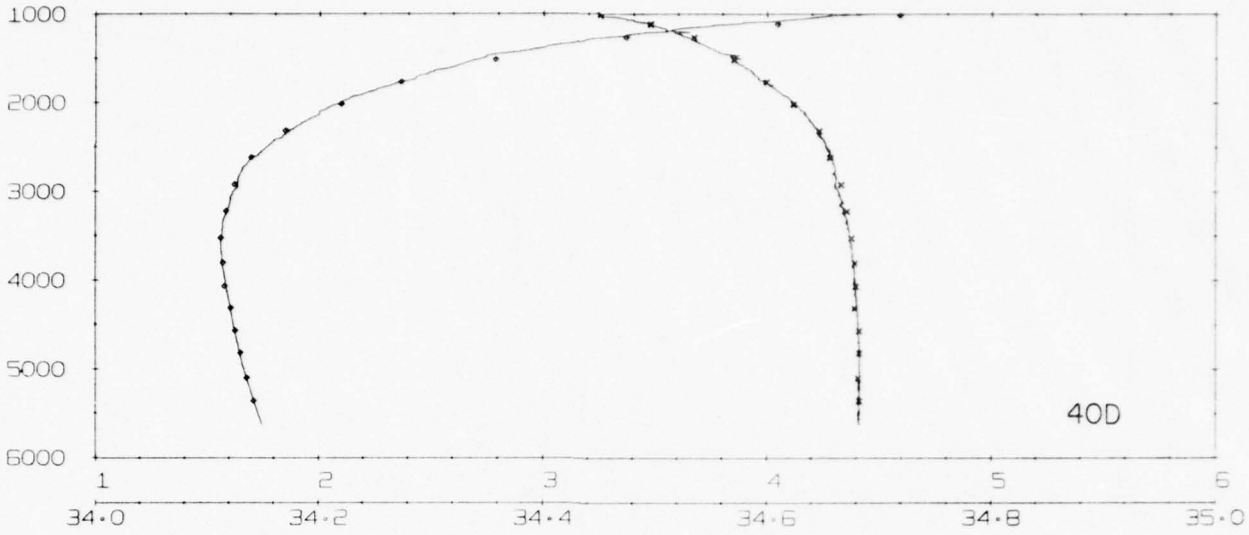
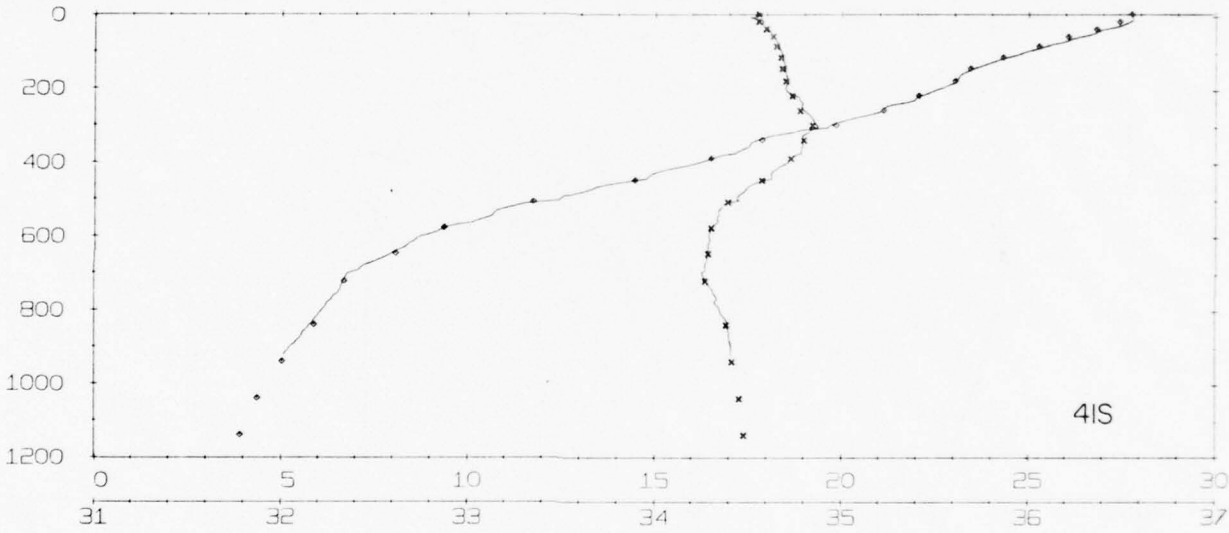
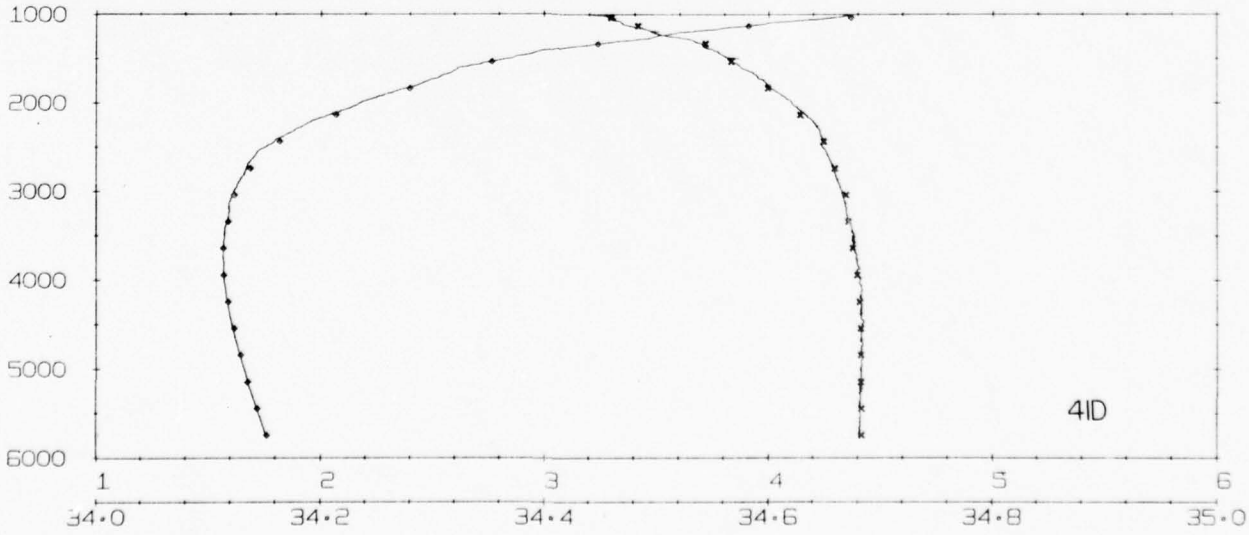
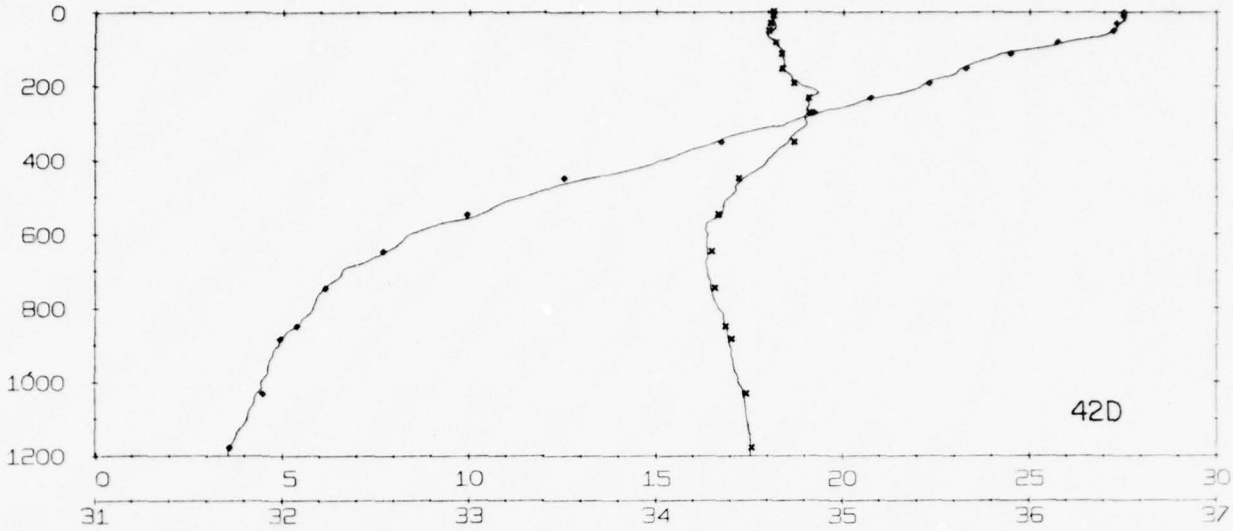
INDOPAC LEG III





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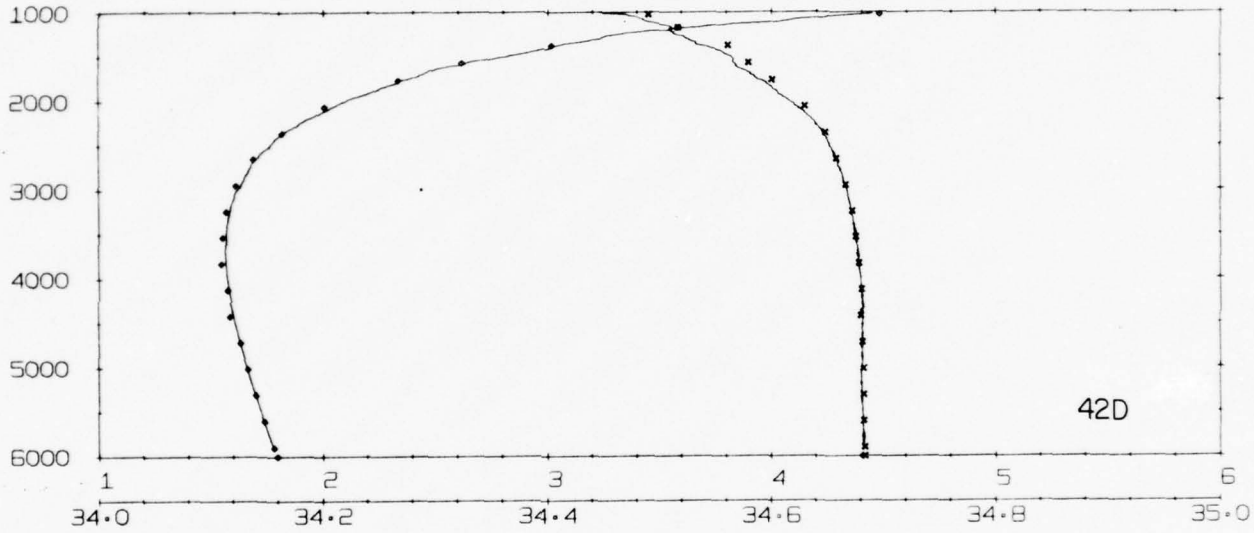
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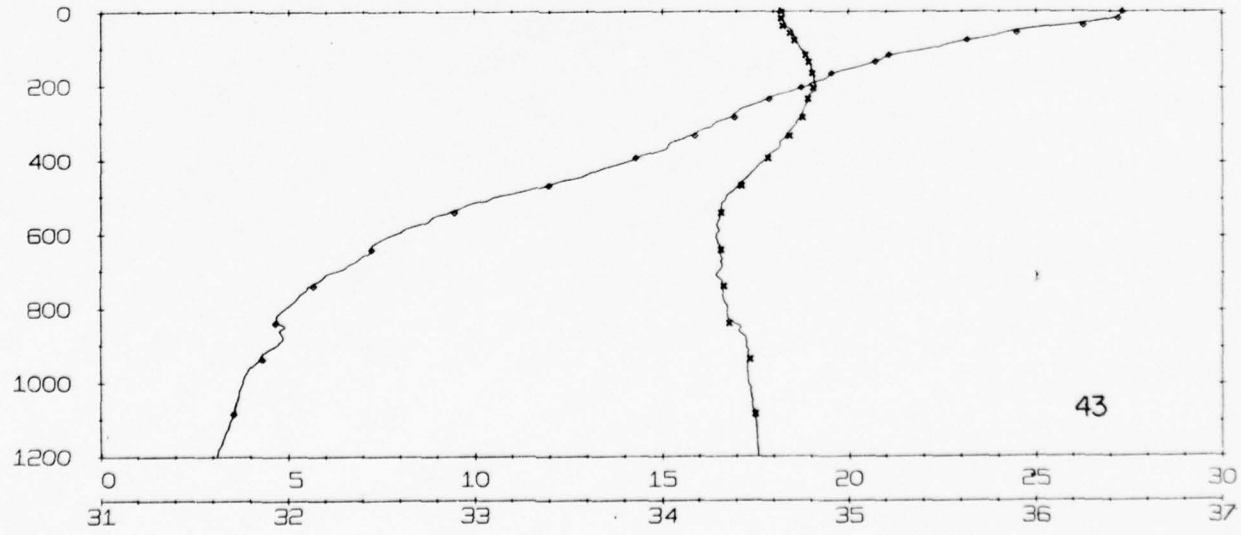
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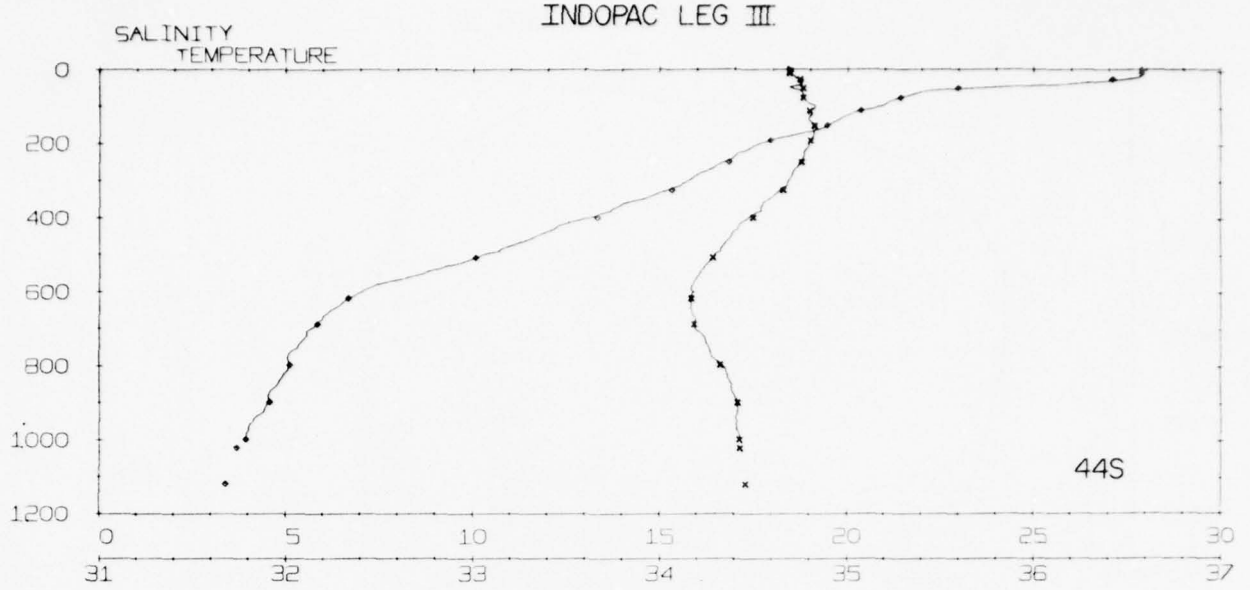
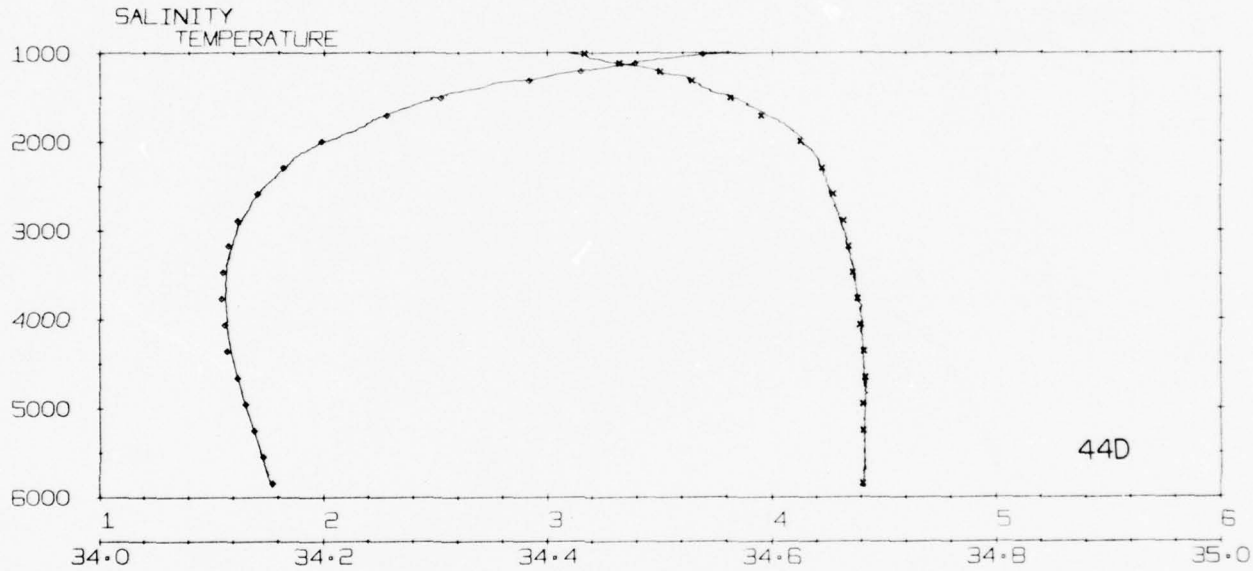
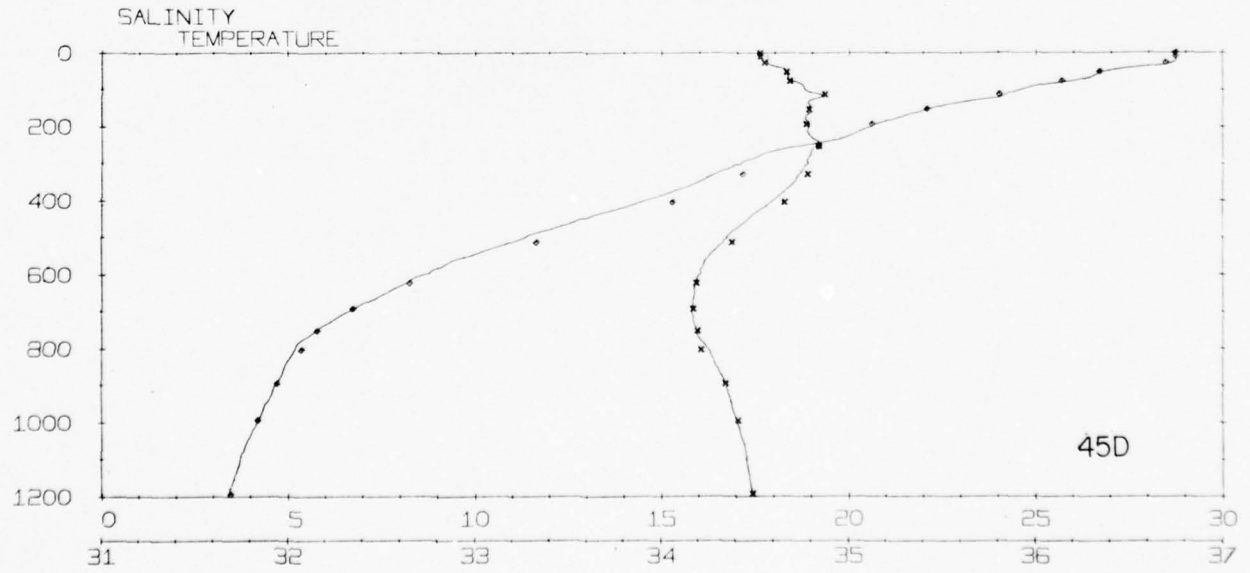
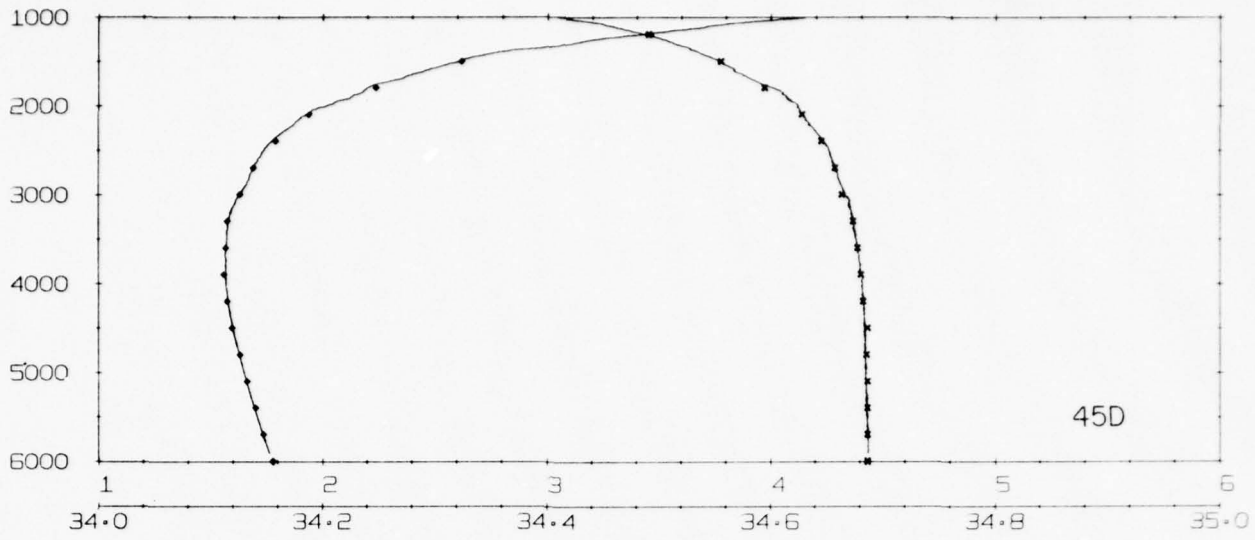
INDOPAC LEG III





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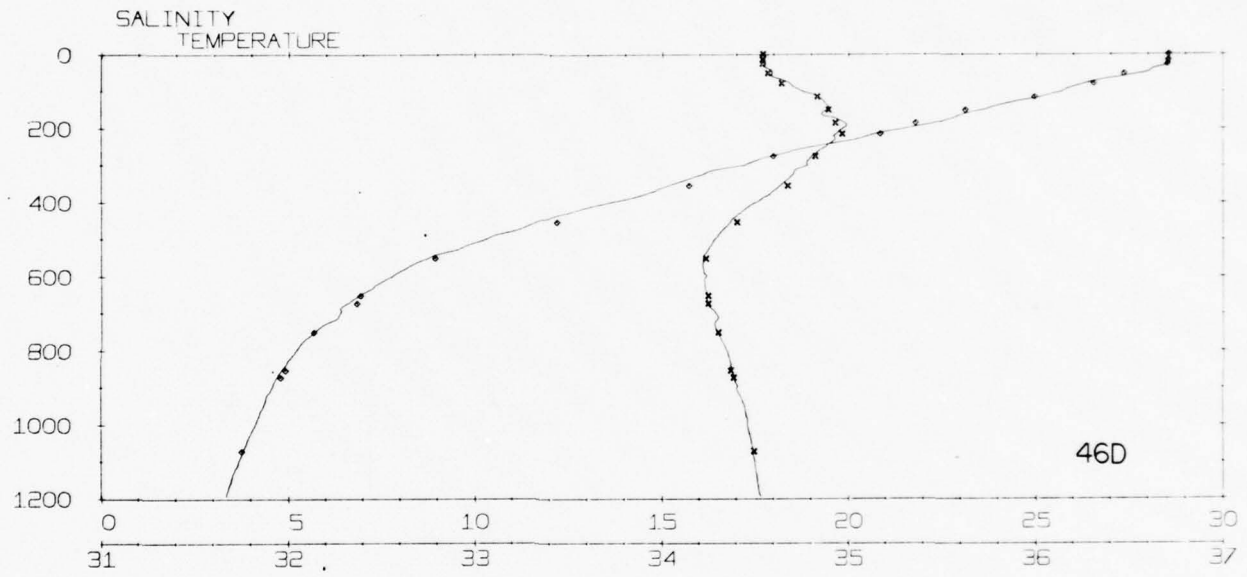
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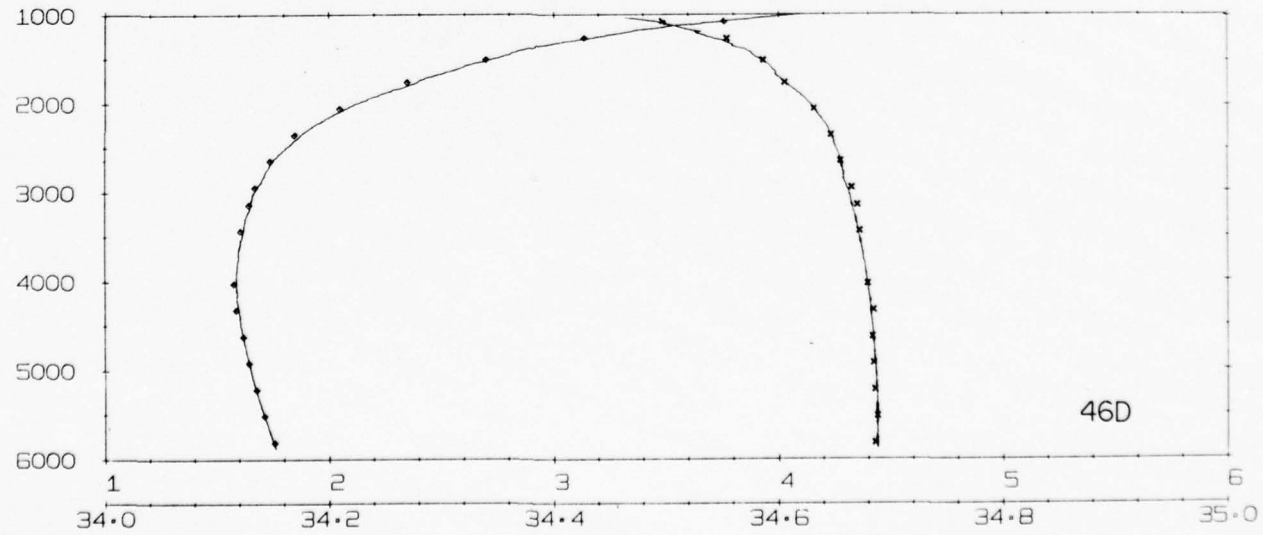
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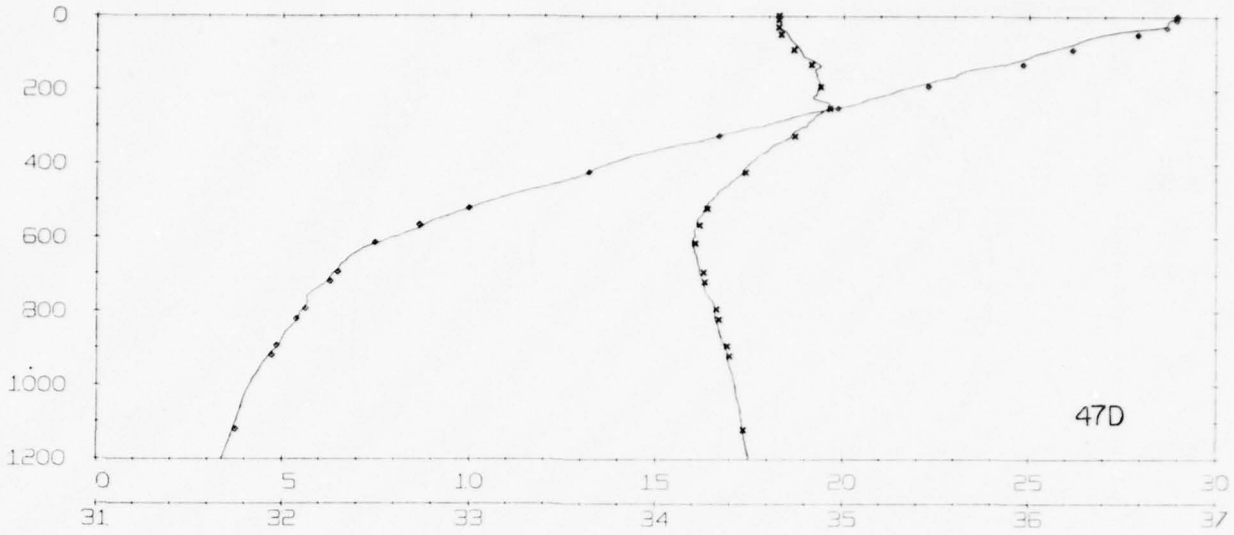

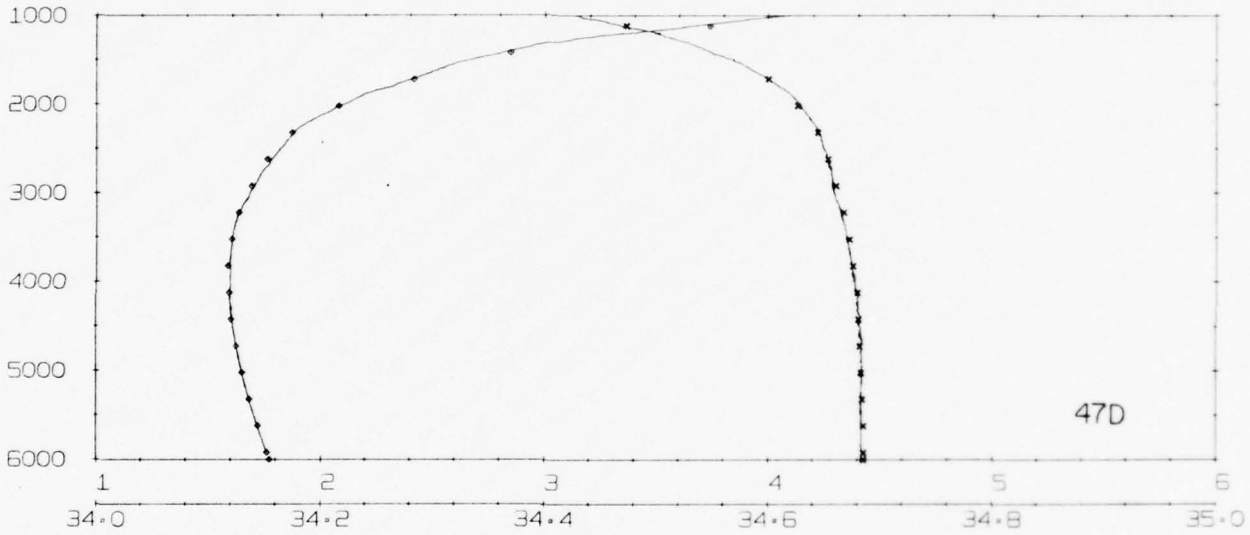

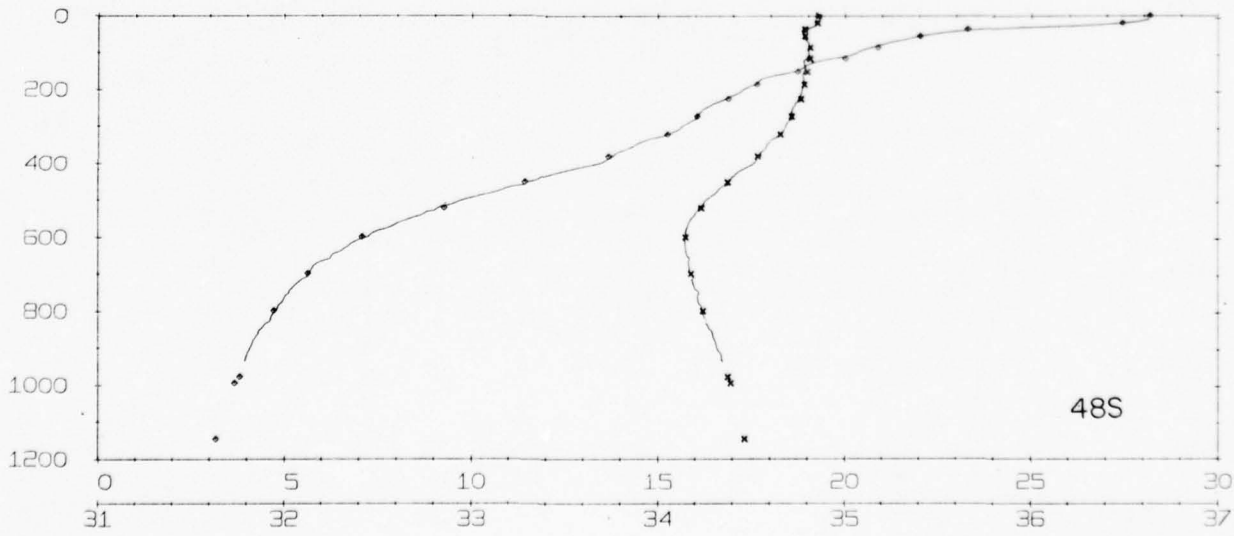

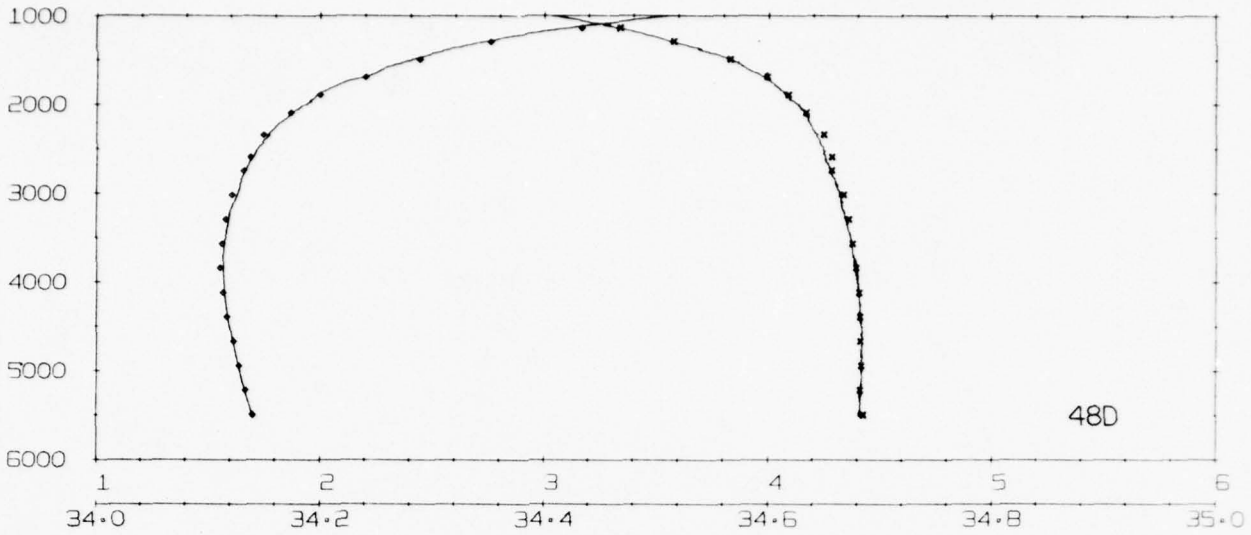
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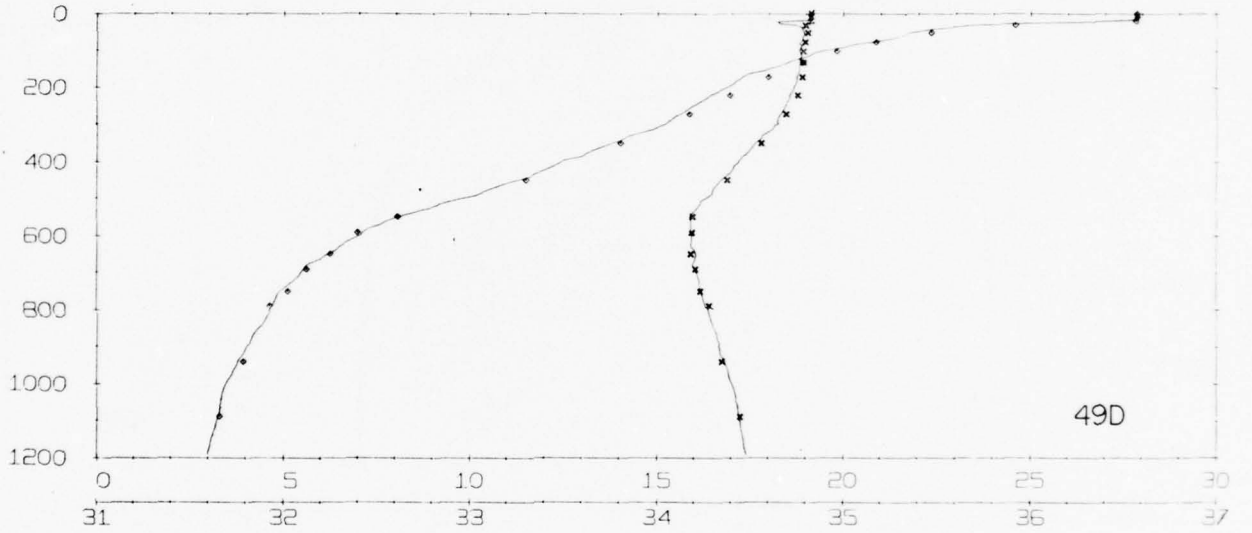
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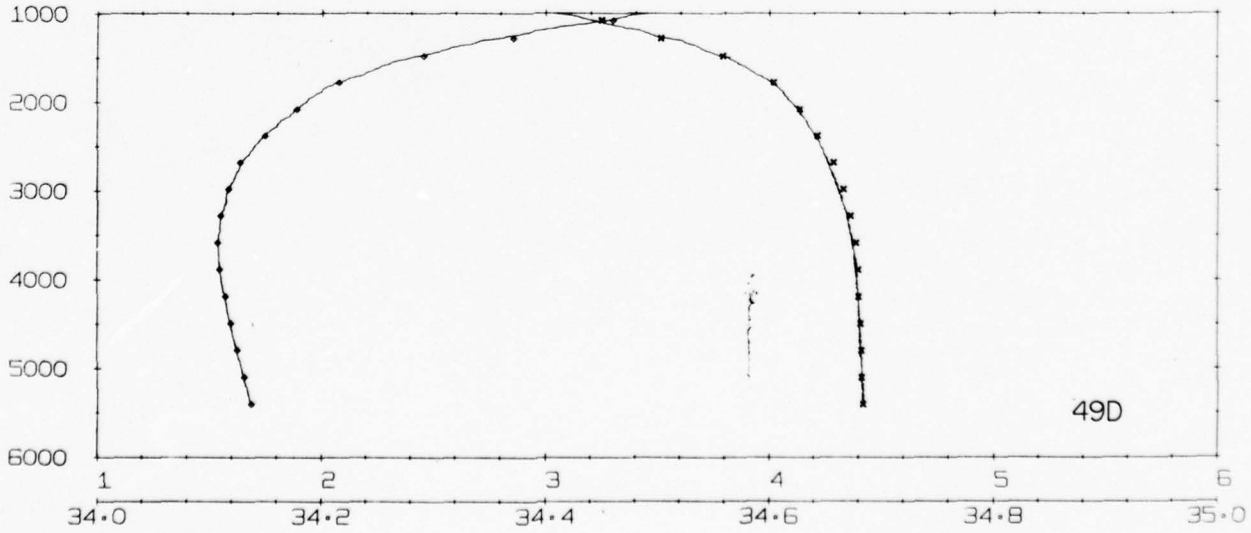
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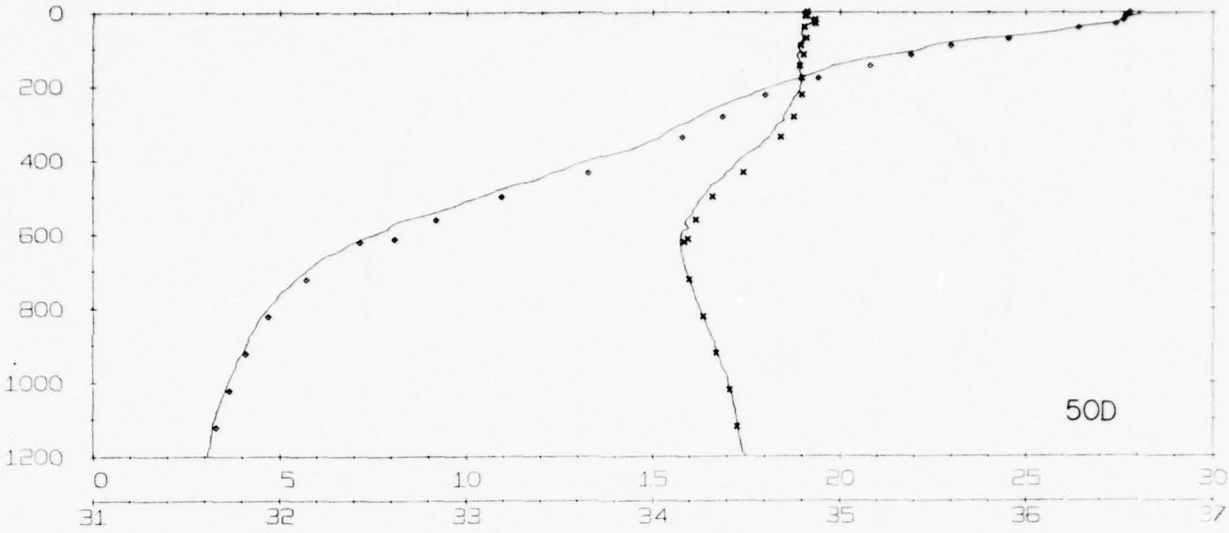
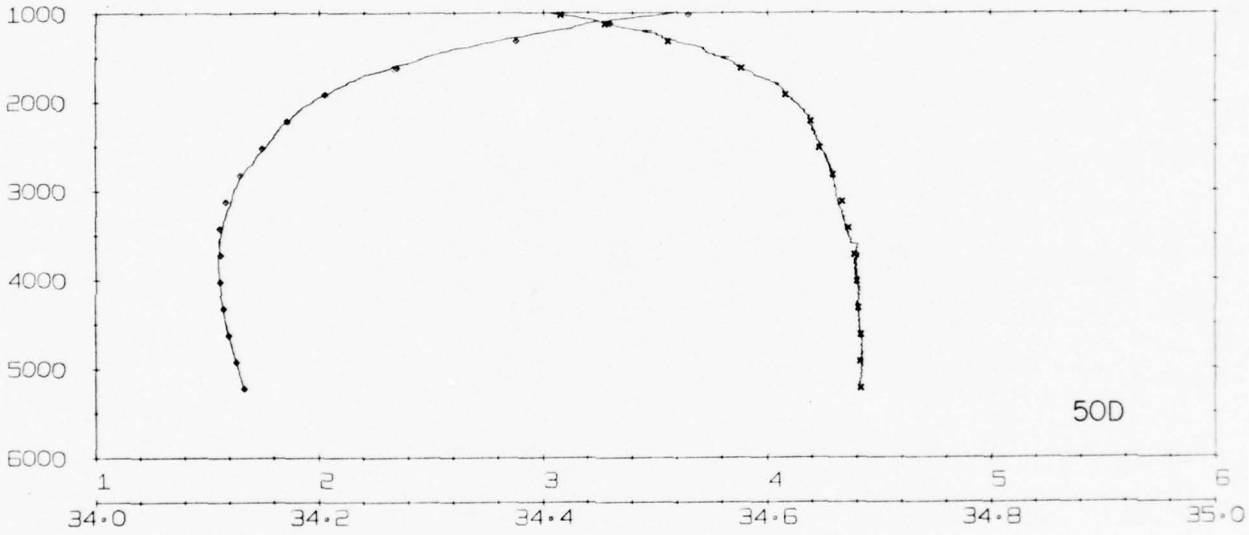
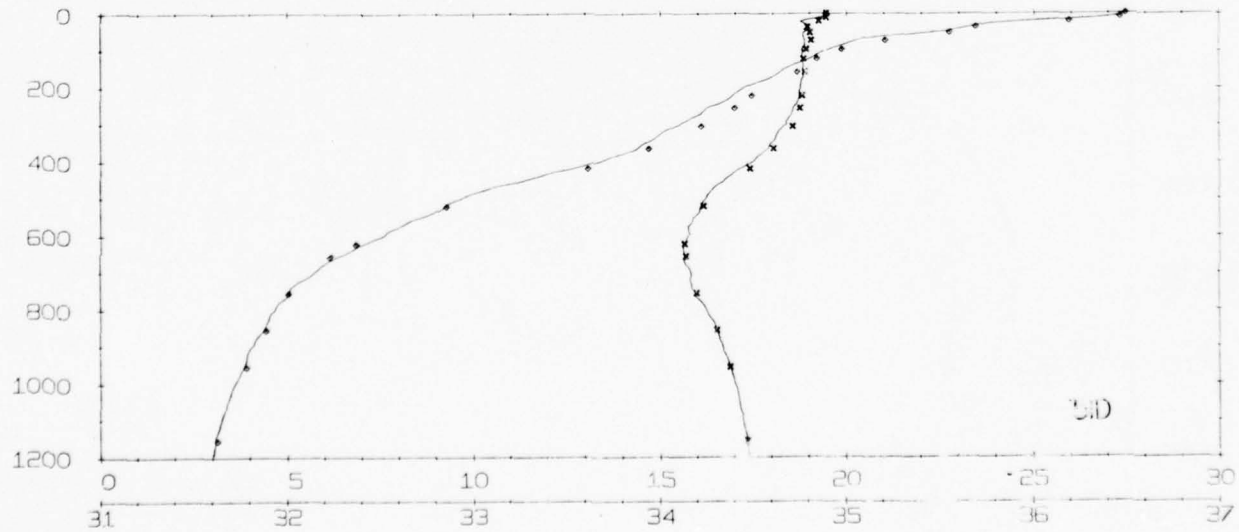
INDOPAC LEG III







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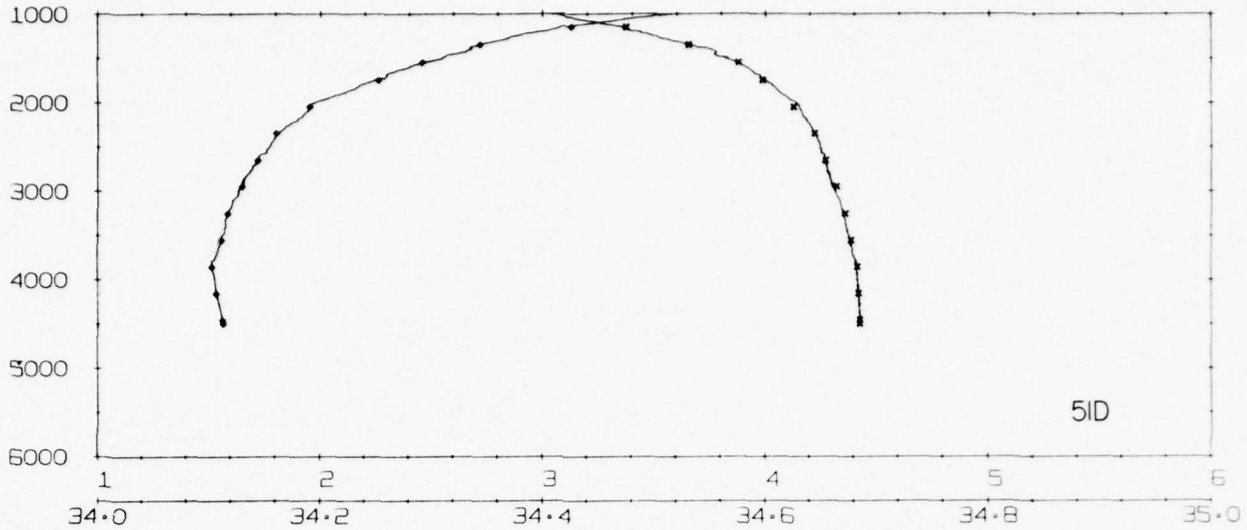

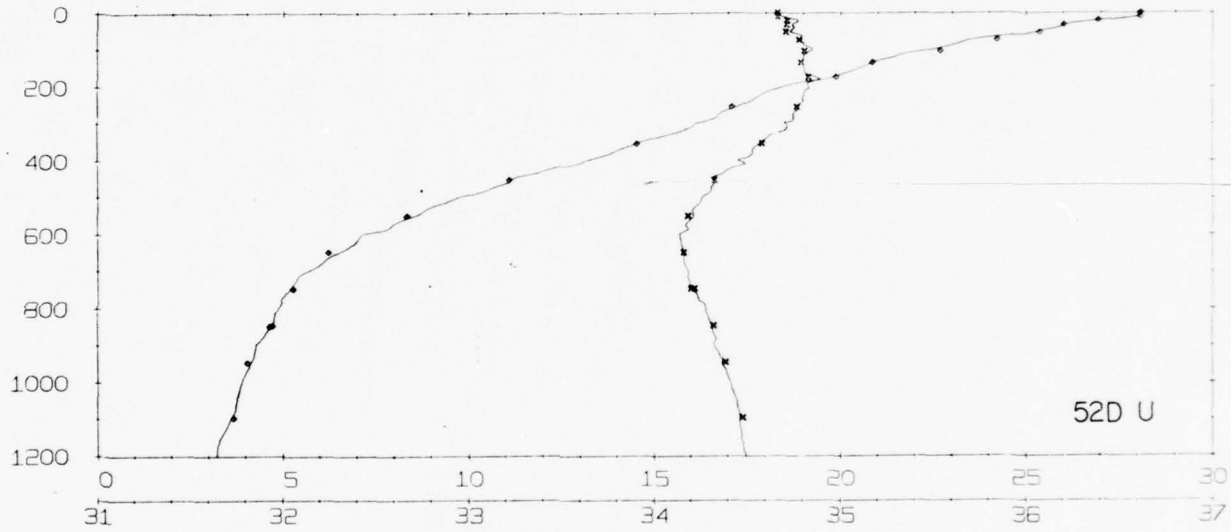

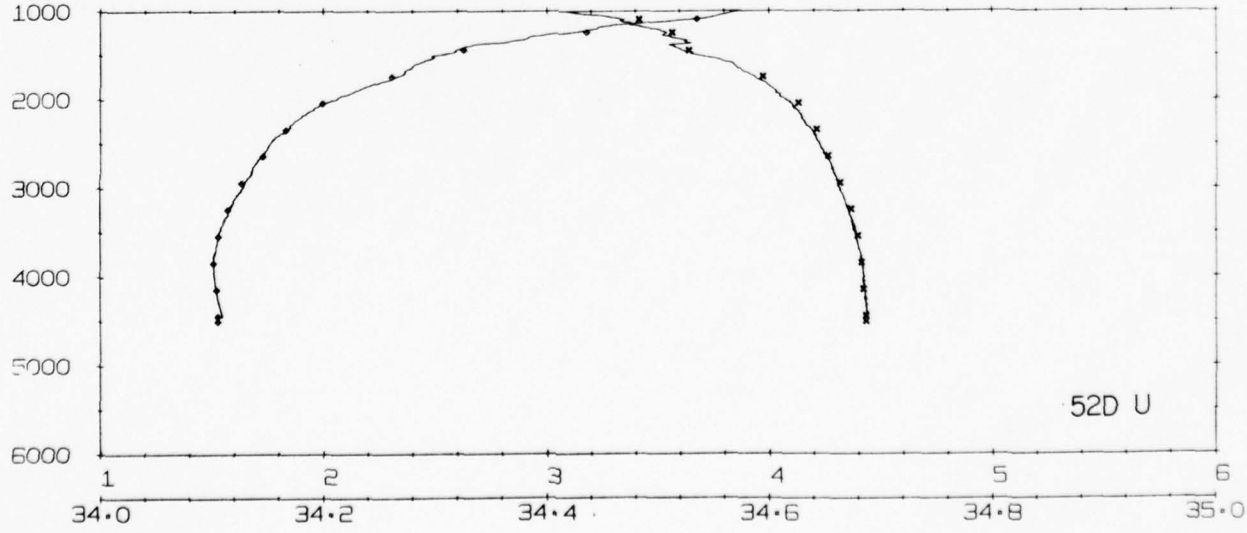

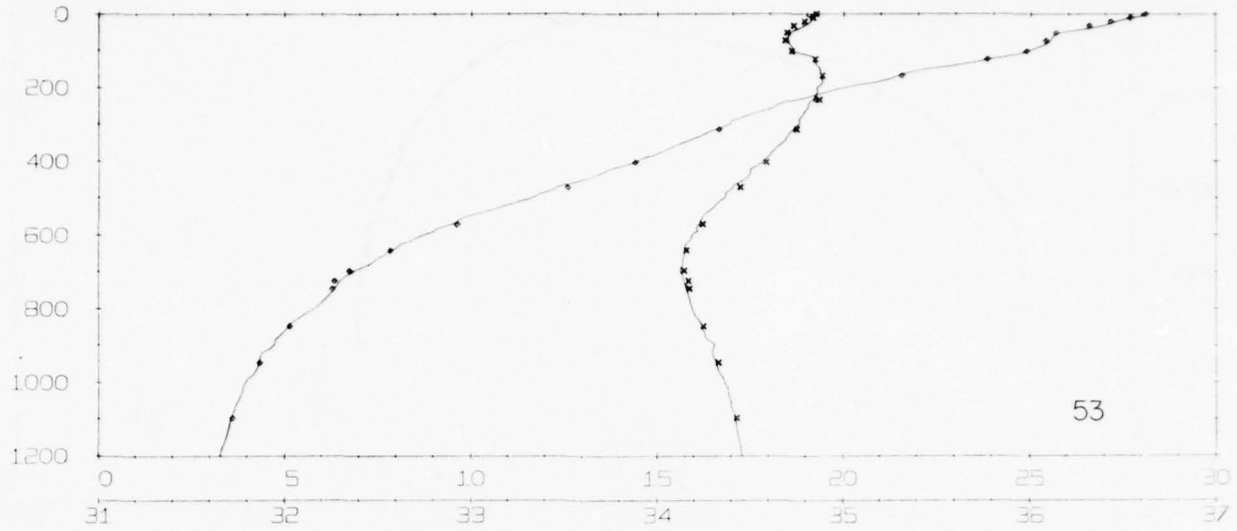
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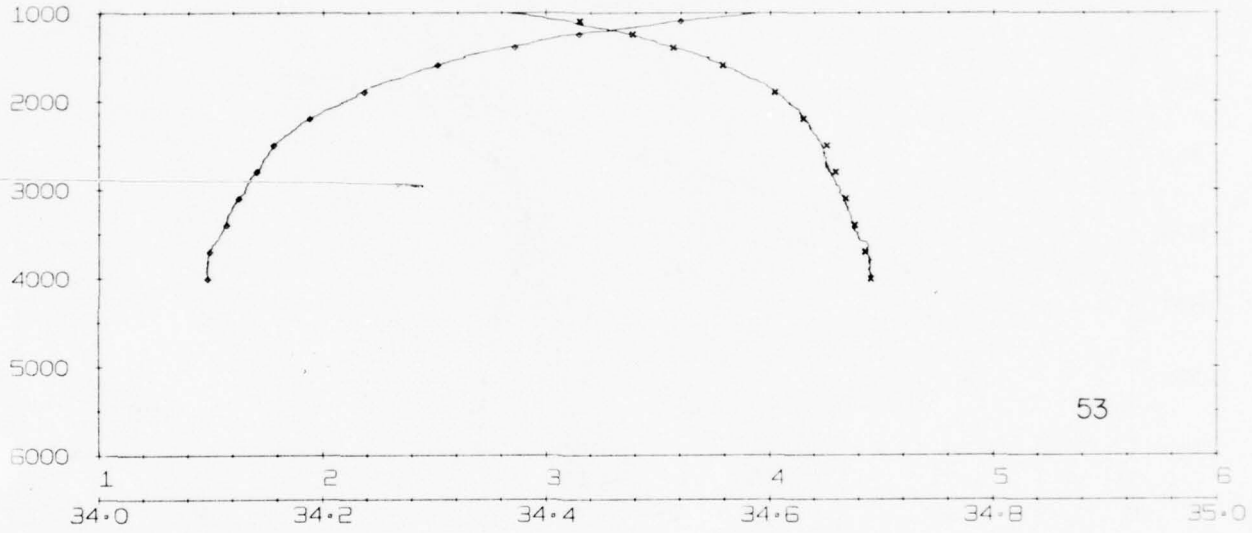
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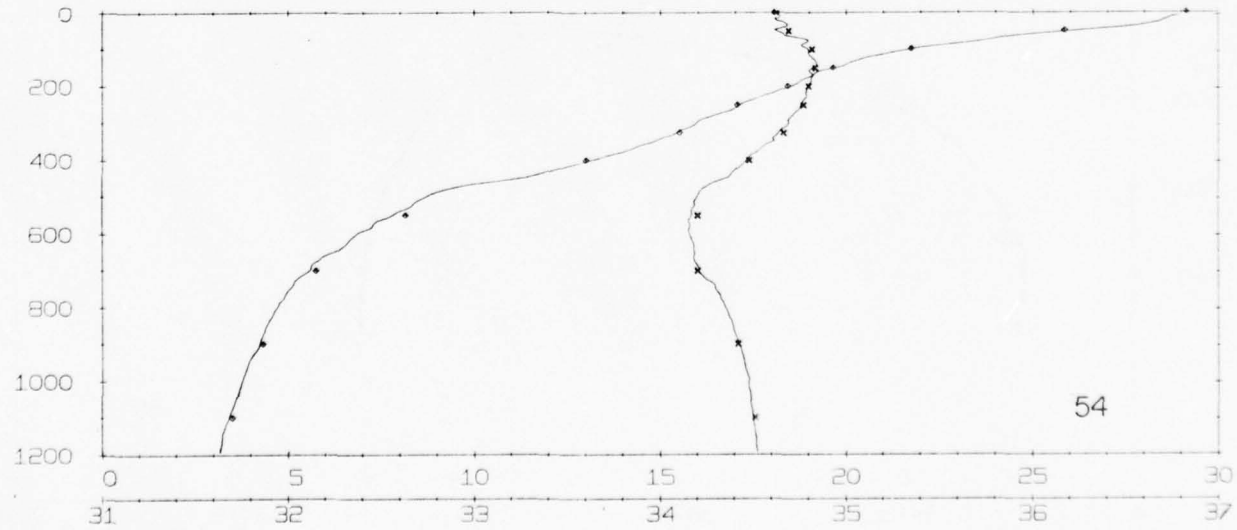
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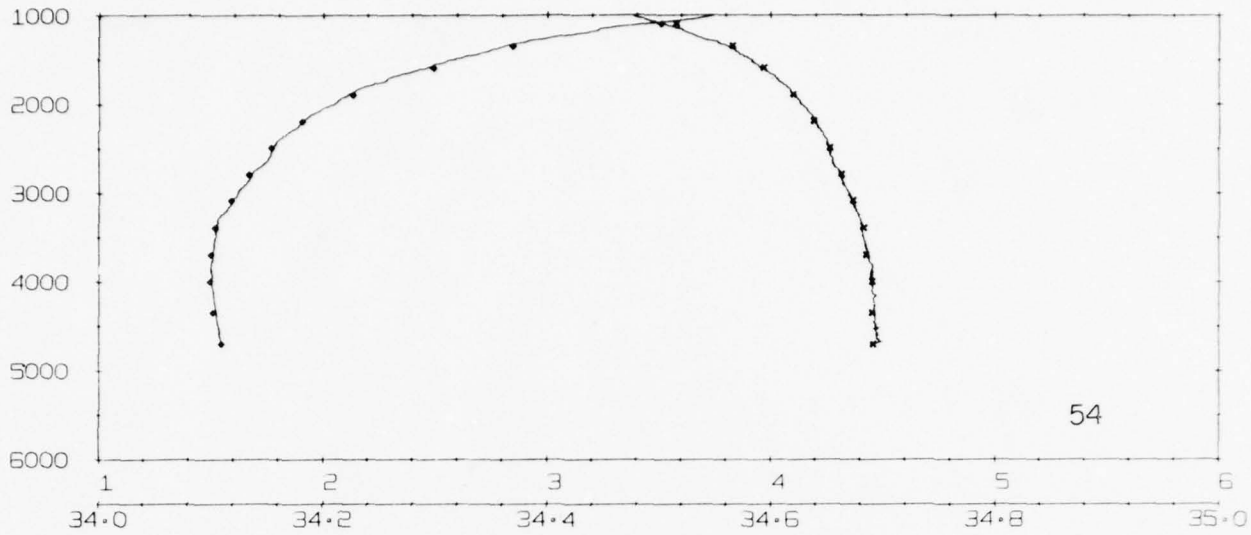
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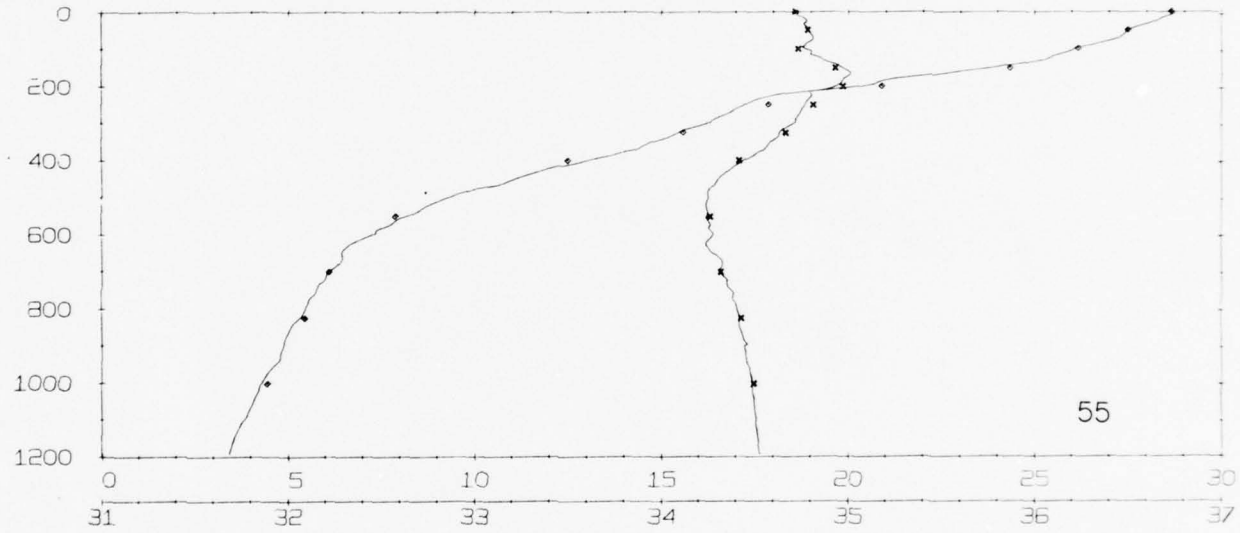
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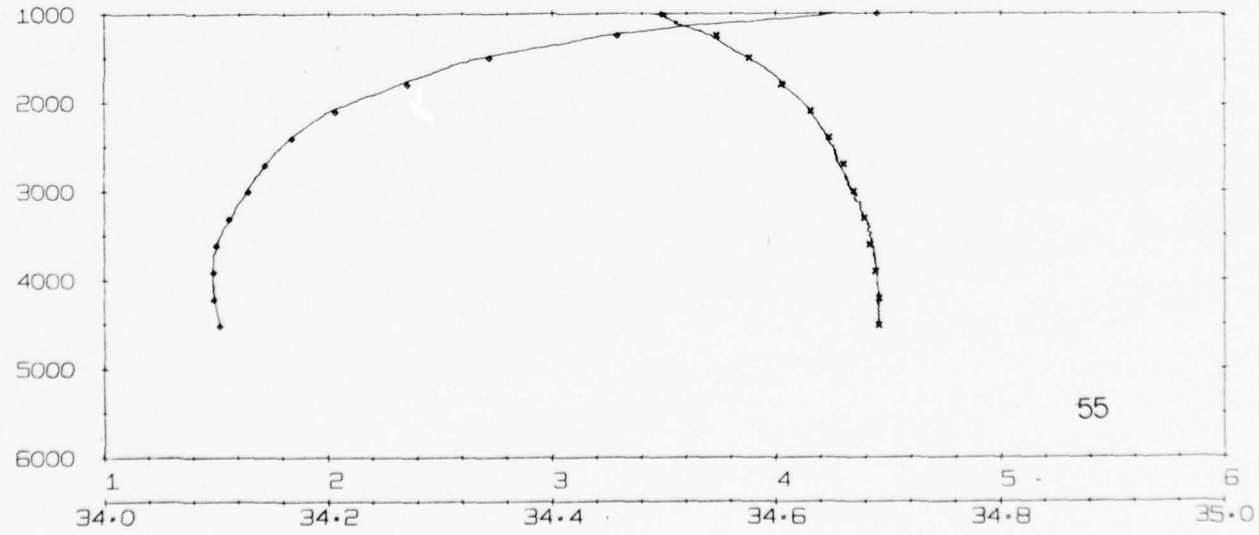
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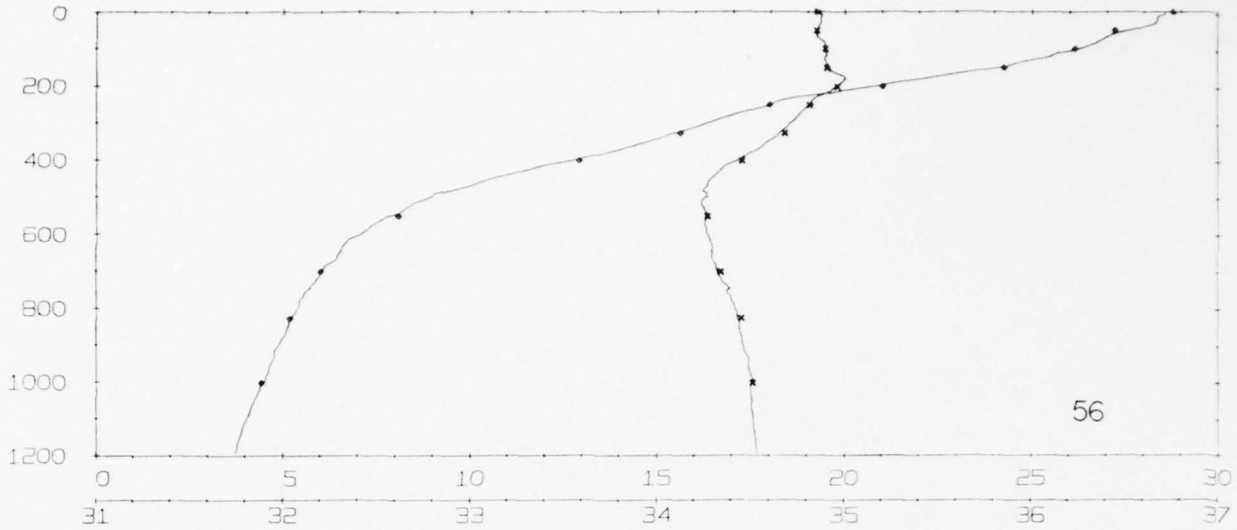
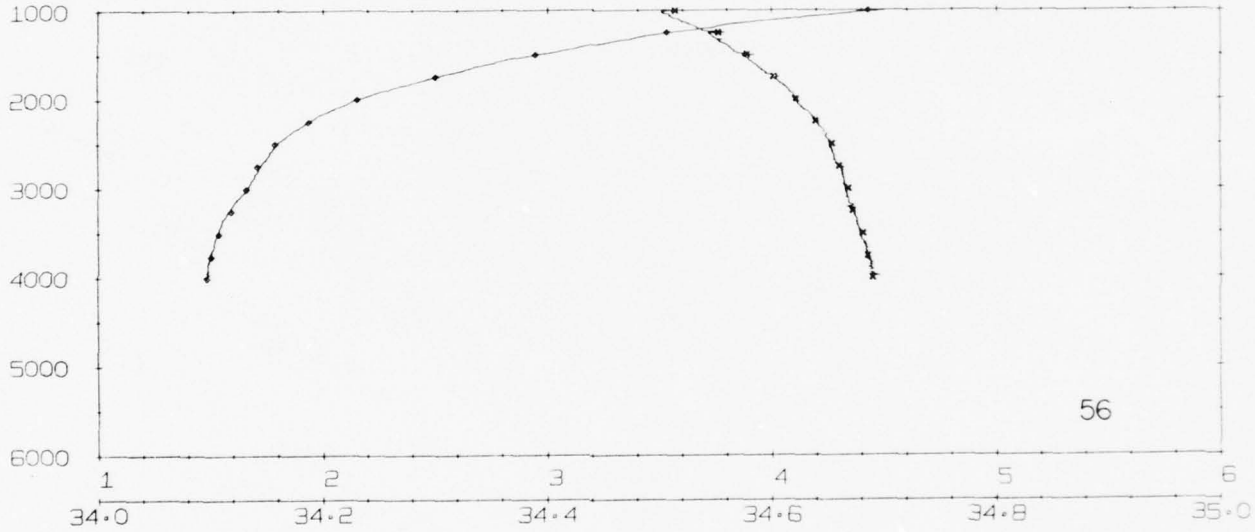
INDOPAC LEG III





INDOPAC EXPEDITION LEGS VII AND VIII

On INDOPAC Expedition Legs VII and VIII, nineteen hydrographic and STD casts were made and two current meters were deployed between 14 to 29 August and 2 to 30 September 1976 to study the flow of water from the Pacific to the Indian Ocean. These observations were coordinated with a similar traverse of the Lamont-Doherty Geological Observatory RV VEMA, made one month earlier, on which six of the same positions were occupied and various additional chemical measurements were made, including pCO_2, ΣCO_2, C^{14}, Ra^{228}, and Rn^{222}.

A major portion of both legs was devoted to geophysical work.

INDOPAC Expedition Legs VII and VIII were sponsored by the Office of Naval Research.

All salinities were run on the University of Washington conductive salinometer.

The STD had some salinity spiking associated with stopping to hang bottles on the wire. These were removed from the tabulated data but still appear in some of the plots.

Data are presented as tabulated data and curves of temperature and salinity versus depth from the STD with observed sample bottle data plotted for comparison.

The curve for station 1D 2 U has a different temperature scale from the other deep stations because of the unusually warm deep water in the Sulu Basin.

PERSONNEL

Ship's Captain:	Arsenault, Albert	RV THOMAS WASHINGTON

Personnel Participating in the Collection of Data:

Silver, Eli A. Dr. (7)	Chief Scientist, Associate Professor, University of California, Santa Cruz (UCSC)
Shor, George G. Dr. (8)	Chief Scientist, Professor, SIO
Battey, Roger K.	Electronics Technician, SIO
Berry, Ronald F. (8)	Graduate Student, Australia
Chao, Benjamin F.	Graduate Student, SIO
Coatsworth, James L.	Resident Marine Technician, SIO
Costello, James P. (7)	Staff Research Associate, SIO
Das Gupta, Tirthanker (8)	India
Ferreira, Simon M.	Electronics Technician, SIO
Golding, Terry (7)	Oceanographer, Australia
Jacobson, Randell S.	Graduate Student, SIO
Joyodiwiryo, Yoko	Indonesia
Karta, Komar	Indonesia
Kieckhofer, Robert M. (8)	Graduate Student, SIO
McGowan, Delpha D.	Staff Research Associate, SIO
McKee, Joseph G. (8)	Electronics Technician, SIO
Moe, Ronald L.	Programmer, SIO
Moore, James C. (7)	Assistant Professor, UCSC
Moreton, David (7)	Student, Australia
Muus, David A.	Staff Research Associate, SIO
O'Neill, Paul V.	Laboratory Assistant, SIO
Patzert, William C. Dr. (7)	Assistant Research Oceanographer, SIO
Phillips, Richard P. Dr. (8)	Professor, UCSD
Raitt, Russell W. Dr. (8)	Professor Emeritus, SIO
Rao, Beta R. (8)	India
Shor, Elizabeth N. (8)	Laboratory Helper, SIO
Utomo, Driyo	Oceanographer, Indonesia

(7) Leg VII only

(8) Leg VIII only

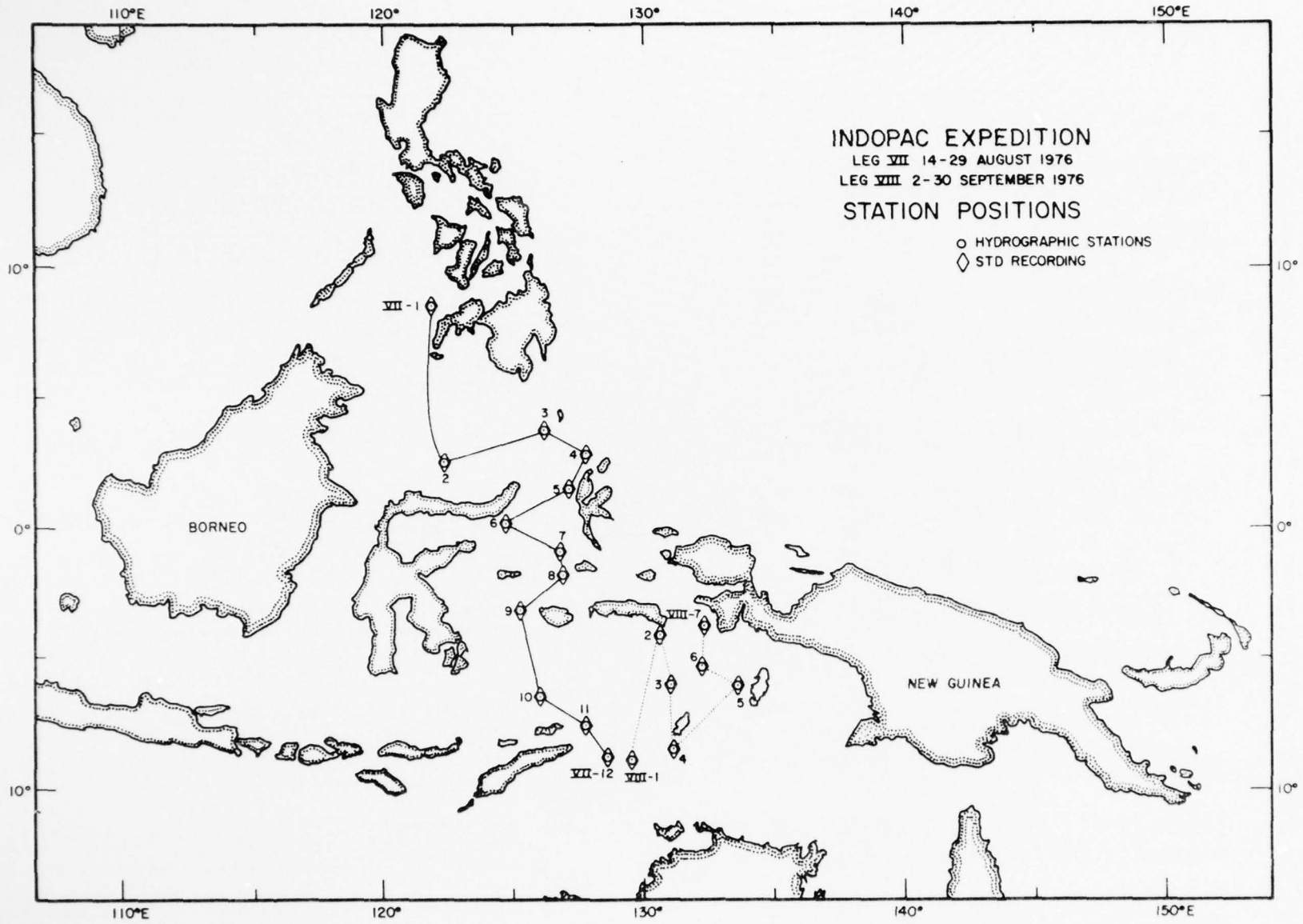

INDOPAC EXPEDITION
LEG VII 14-29 AUGUST 1976
LEG VIII 2-30 SEPTEMBER 1976
STATION POSITIONS
HYDROGRAPHIC STATIONS
STD RECORDING
110°E
120°
130°
140°
150°E
10°
0°
BORNEO
NEW GUINEA
VII-1
VII-12
VIII-1
VIII-7

FIGURE 7

RV THOMAS WASHINGTON INDOPAC LEG VII 1

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
8 32.5N	121 52.3E	8/16/76	0023 0715 GMT	4987M	280	9KT	1	290 2 2

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	29.27	33.635	4.60	0.10	3.4	0.00	0.0	681.7
10	29.14	33.635	4.67	0.06	3.1	0.01	0.0	677.5
20	28.78	33.639	4.62	0.08	3.2	0.00	0.4	665.7
30	28.65	33.784	4.69	0.06	3.4	0.01	0.3	651.1
50	27.79	34.338	4.65	0.14	3.4	0.04	0.3	584.3
75	25.77	34.414	3.79	0.52	9.2	0.18	4.2	517.6
99	23.62	34.327	2.81	0.83	15.2	0.05	10.6	462.1
125	20.78	34.359	2.20	1.14	22.0	0.03	15.7	383.7
150	17.45	34.442	2.01	1.42	28.8	0.03	19.4	296.9
200	14.75	34.476	1.63	1.70	39.4	0.03	24.4	235.7
250	13.62	34.471	1.47	1.89	47.0	0.02	26.4	213.3
300	12.72	34.466	1.43	2.04	52.2	0.00	27.8	196.4
401	11.70	34.473	1.71	2.06	51.8	0.04	27.5	177.3
502	10.88	34.463	1.80	2.04	56.8	0.03	28.5	163.7
653	10.41	34.458	1.87	2.10	59.6	0.03	28.8	156.2
803	10.18	34.460	1.67	2.25	66.4	0.03	29.6	152.3
995	10.08	34.456	1.58	2.28	71.1	0.03	30.1	150.9
1183	10.08	34.460	1.55	2.33	72.6	0.02	30.2	150.6
1367	10.09	34.464	1.45	2.30	76.2	0.02	30.3	150.5
1446A	10.07	34.469	1.50	2.34	79.8	0.00	31.0	149.3
1644A	10.11	34.470	1.55	2.29	80.6	0.00	30.7	150.4
1843A	10.12	34.471	1.47	2.24	83.0	0.00	30.8	150.5
2042A	10.16	34.477	1.43	2.38	85.9	0.00	31.0	150.7
2439B	10.19	34.473	1.43	2.40	88.6	0.00	30.9	151.5
2685B	10.25	34.478	1.52	2.33	89.0	0.00	30.9	152.1
2931B	10.27	34.478	1.62	2.32	90.0	0.00	30.8	152.4
3177B	10.31	34.476	1.50	2.30	91.2	0.00	30.5	153.2
3424B	10.36	34.481	1.51	2.29	91.6	0.00	30.4	153.7
3671B	10.39	34.478	1.45	2.37	92.0	0.00	30.4	154.4
3919B	10.43	34.477	1.37	2.44	89.4	0.00	30.2	155.1
4167B	10.47	34.480	1.35	2.38	89.5	0.00	30.4	155.6
4418B	10.52	34.478	1.33	2.33	90.2	0.02	30.3	156.5
4519B	10.54	34.478	1.38	2.36	90.0	0.04	30.4	156.9
4619B	10.55	34.481	1.34	2.37	90.2	0.02	30.3	156.8
4721B	10.57	34.480	1.36	2.43	90.0	0.00	30.2	157.2
4822B	10.59	34.480	1.36	2.43	89.6	0.00	30.1	157.6
4924B	10.61	34.480	1.34	2.43	90.0	0.00	30.0	157.9

Z	T	S	O2	SIGT	DT	DD
0	29.27	33.635	4.60	20.972	681.7	0.000
10	29.14	33.635	4.67	21.016	677.5	0.068
20	28.78	33.639	4.62	21.139	665.7	0.135
30	28.65	33.784	4.69	21.290	651.1	0.201
50	27.79	34.338	4.65	21.988	584.3	0.325
75	25.77	34.414	3.79	22.685	517.6	0.463
100	23.52	34.328	2.78	23.294	459.3	0.586
125	20.78	34.359	2.20	24.087	383.7	0.693
150	17.45	34.442	2.01	24.998	296.9	0.779
200	14.75	34.476	1.63	25.642	235.7	0.915
250	13.62	34.471	1.47	25.877	213.3	1.030
300	12.72	34.466	1.43	26.054	196.4	1.136
400	11.71	34.474	1.71	26.255	177.4	1.332
500	10.89	34.464	1.80	26.397	163.9	1.513
600	10.51	34.460	1.85	26.462	157.8	1.687
700	10.32	34.459	1.82	26.495	154.6	1.858
800	10.18	34.461	1.67	26.519	152.3	2.027
1000	10.08	34.457	1.58	26.534	150.9	2.369
1200	10.08	34.461	1.54	26.537	150.6	2.716
1500	10.08	34.469	1.51	26.544	150.0	3.251
1750	10.12	34.471	1.51	26.539	150.4	3.710
2000	10.15	34.476	1.44	26.537	150.6	4.182
2250	10.18	34.476	1.43	26.532	151.0	4.667
2500	10.20	34.475	1.45	26.527	151.6	5.166
2750	10.26	34.479	1.56	26.521	152.2	5.678
3000	10.28	34.478	1.59	26.516	152.6	6.203
3250	10.32	34.478	1.50	26.508	153.4	6.741
3500	10.37	34.481	1.50	26.503	153.9	7.292
3750	10.40	34.478	1.42	26.495	154.6	7.856
4000	10.44	34.479	1.36	26.488	155.3	8.434
4250	10.49	34.480	1.34	26.481	155.9	9.024
4500	10.54	34.481	1.37	26.473	156.9	9.627
4750	10.58	34.481	1.36	26.466	157.4	10.244

RV THOMAS WASHINGTON INDOPAC LEG VII 2

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
2 31.2N	122 21.5E	8/18/76	0038 0346 GMT	5427M	160	8KT	0	160 2 3

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	28.72	34.222	4.69	0.01	1.9	0.02	0.2	621.9
10	28.63	34.198	4.65	0.04	1.7	0.00	0.0	620.7
19	28.18	34.163	4.69	0.07	1.4	0.00	0.0	609.1
29	27.87	34.192	4.67	0.05	1.2	0.00	0.0	597.3
47	25.65	34.427	4.18	0.25	2.3	0.74	0.3	513.1
71	24.26	34.698	4.06	0.32	2.6	0.16	1.7	453.3
93	23.14	34.747	3.95	0.34	3.2	0.12	2.6	418.4
116	19.78	34.767	3.75	0.60	5.7	0.07	5.5	328.9
139	18.14	34.694	3.57	0.75	10.2	0.01	8.7	294.6
161	17.22	34.638	3.41	0.88	13.9	0.03	10.9	277.4
183	16.77	34.617	3.35	0.96	15.4	0.01	11.9	268.7
226	14.15	34.559	3.42	1.18	16.3	0.01	14.4	217.4
269	13.12	34.517	3.40	1.25	18.1	0.01	16.3	200.3
312	12.46	34.497	3.15	1.40	21.8	0.12	18.6	189.3
353	11.21	34.452	2.92	1.64	27.3	0.06	22.0	170.2
436	8.42	34.462	2.12	2.18	46.0	0.02	32.1	124.8
518	7.65	34.508	2.16	2.22	51.4	0.02	34.2	110.5
684	6.03	34.543	2.24	2.67	68.0	0.06	36.5	86.8
861	5.08	34.560	2.23	2.74	89.8	0.00	38.4	74.6
953A	4.50	34.572	2.26	2.73	98.1	0.00	38.7	67.4
1054	4.45	34.572	2.23	2.82	104.7	0.00	38.9	66.9
1201A	3.91	34.583	2.26	2.83	110.7	0.00	39.6	60.6
1448A	3.74	34.589	2.29	2.86	114.0	0.02	39.3	58.6
1697A	3.64	34.591	2.16	2.97	117.3	0.00	39.4	57.5
1946A	3.60	34.589	2.22	2.99	119.4	0.00	40.1	57.2
2195A	3.57	34.591	2.24	2.98	120.3	0.01	40.1	56.8
2444A	3.56	34.593	2.18	2.99	121.9	0.03	40.3	56.7
2693A	3.58	34.591	2.21	2.88	122.5	0.01	40.4	56.9
2943A	3.59	34.591	2.10	2.87	124.9	0.01	40.4	57.0
3192A	3.61	34.594	2.13	2.81	125.2	0.03	40.6	56.9
3443A	3.62	34.592	2.13	2.90	125.2	0.03	40.5	57.2
3693A	3.65	34.592	2.13	2.90	125.7	0.01	40.4	57.5
3942A	3.68	34.596	2.14	2.84	126.6	0.01	40.5	57.5
4193A	3.72	34.593	2.13	2.84	126.5	0.00	40.6	58.1
4442A	3.76	34.593	2.12	2.89	125.9	0.01	40.8	58.4
4692A	3.826	34.596	2.13	2.94	125.7	0.00	40.8	58.9
4941A	3.826	34.594	2.15	2.91	124.6	0.02	39.6	59.0
5191A	3.862	34.594	2.09	2.93	124.0	0.02	40.6	59.4
5291A	3.85 K	34.594	2.21	2.90	124.8	0.00	40.6	59.2
5390A	3.892	34.595	2.17	2.90	124.3	0.02	40.9	59.6

Z	T	S	O2	SIGT	DT	DD
0	28.72	34.222	4.69	21.595	621.9	0.000
10	28.63	34.198	4.65	21.607	620.7	0.062
20	28.16	34.164	4.69	21.736	608.4	0.124
30	27.76	34.202	4.65	21.894	593.2	0.184
50	25.42	34.470	4.17	22.834	503.3	0.294
75	24.13	34.718	4.04	23.411	448.1	0.413
100	22.14	34.751	3.89	24.009	391.2	0.519
125	18.99	34.746	3.68	24.848	311.2	0.608
150	17.61	34.664	3.48	25.128	284.5	0.683
200	15.78	34.589	3.37	25.500	249.1	0.820
250	13.45	34.536	3.41	25.961	205.3	0.936
300	12.66	34.504	3.23	26.096	192.5	1.040
400	9.53	34.442	2.44	26.616	143.2	1.215
500	7.74	34.500	2.15	26.941	112.3	1.351
600	6.61	34.530	2.21	27.096	97.6	1.465
700	5.93	34.546	2.24	27.224	85.5	1.566
800	5.37	34.557	2.23	27.301	78.1	1.657
1000	4.48	34.573	2.25	27.417	67.2	1.823
1200	3.91	34.584	2.26	27.485	60.7	1.972
1500	3.71	34.590	2.26	27.511	58.2	2.185
1750	3.63	34.591	2.17	27.520	57.4	2.363
2000	3.59	34.590	2.22	27.523	57.1	2.544
2250	3.57	34.593	2.23	27.527	56.8	2.729
2500	3.58	34.594	2.19	27.527	56.8	2.918
2750	3.58	34.592	2.18	27.525	56.9	3.111
3000	3.59	34.593	2.10	27.525	57.0	3.310
3250	3.61	34.595	2.13	27.525	57.0	3.513
3500	3.63	34.593	2.13	27.522	57.3	3.721
3750	3.66	34.594	2.13	27.520	57.5	3.934
4000	3.69	34.597	2.14	27.518	57.6	4.152
4250	3.73	34.594	2.13	27.512	58.2	4.377
4500	3.78	34.595	2.12	27.508	58.6	4.607
4750	3.83	34.597	2.14	27.505	58.9	4.844
5000	3.84	34.596	2.14	27.502	59.1	5.086
5250	3.85	34.595	2.17	27.500	59.3	5.334

1D

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
08 32.5N	121 52.3E	08/16/76	0622 GMT

Z	T	S	SIGMA T	DT	DD
0	29.37	33.63	20.935	685.2	0.000
10	29.36	33.64	20.946	684.2	0.068
20	28.77	33.70	21.187	661.0	0.136
30	28.45	33.96	21.503	630.7	0.200
40	27.89	34.32	21.942	588.7	0.262
50	27.54	34.41	22.123	571.4	0.320
75	25.56	34.40	22.739	512.4	0.456
100	23.14	34.32	23.400	449.3	0.577
125	20.89	34.38	24.073	385.0	0.682
150	18.40	34.44	24.764	319.1	0.771
175	16.11	34.47	25.334	264.9	0.846
200	14.64	34.47	25.661	233.6	0.909
225	13.94	34.47	25.810	219.7	0.968
250	13.39	34.46	25.915	209.7	1.023
275	12.89	34.46	26.016	200.1	1.076
300	12.66	34.45	26.054	196.5	1.127
350	12.20	34.46	26.151	187.3	1.227
400	11.62	34.46	26.261	176.8	1.323
450	11.24	34.46	26.331	170.1	1.415
500	10.90	34.46	26.393	164.3	1.504
550	10.70	34.46	26.429	160.9	1.591
600	10.56	34.46	26.454	158.5	1.677
650	10.42	34.46	26.478	156.2	1.763
700	10.32	34.46	26.496	154.6	1.848
750	10.25	34.46	26.508	153.4	1.933
800	10.18	34.46	26.520	152.3	2.017
850	10.15	34.46	26.525	151.8	2.102
900	10.12	34.46	26.530	151.3	2.187
950	10.10	34.46	26.534	151.0	2.272
1000	10.09	34.46	26.535	150.8	2.358
1100	10.08	34.46	26.537	150.6	2.531
1200	10.07	34.46	26.539	150.5	2.705
1300	10.08	34.47	26.545	149.9	2.881
1400	10.08	34.46	26.537	150.6	3.060
1500	10.09	34.47	26.543	150.1	3.240
1600	10.092	34.468	26.541	150.2	3.422
1700	10.100	34.469	26.541	150.3	3.606
1800	10.111	34.470	26.539	150.4	3.793
1900	10.130	34.472	26.538	150.6	3.981
2000	10.140	34.472	26.536	150.7	4.171
2100	10.152	34.472	26.534	150.9	4.364
2200	10.165	34.474	26.533	151.0	4.559
2300	10.178	34.473	26.530	151.3	4.755
2400	10.191	34.474	26.529	151.4	4.954
2500	10.204	34.474	26.527	151.6	5.155
2600	10.217	34.475	26.525	151.8	5.358
2700	10.230	34.475	26.523	152.0	5.563
2800	10.245	34.477	26.522	152.1	5.771
2900	10.260	34.476	26.518	152.4	5.980
3000	10.275	34.477	26.517	152.6	6.191
3100	10.290	34.477	26.514	152.8	6.405
3200	10.306	34.478	26.512	153.0	6.620
3300	10.323	34.478	26.509	153.3	6.838
3400	10.338	34.478	26.506	153.5	7.058
3500	10.354	34.478	26.504	153.8	7.280
3600	10.370	34.477	26.500	154.1	7.504
3700	10.387	34.478	26.498	154.3	7.730
3800	10.404	34.478	26.495	154.6	7.958
3900	10.420	34.478	26.492	154.9	8.188
4000	10.436	34.478	26.489	155.2	8.421
4100	10.455	34.478	26.486	155.5	8.655
4200	10.472	34.478	26.483	155.7	8.892
4300	10.489	34.479	26.481	156.0	9.130
4400	10.507	34.479	26.478	156.3	9.371
4500	10.524	34.480	26.475	156.5	9.614
4600	10.542	34.480	26.472	156.8	9.858
4700	10.560	34.480	26.469	157.1	10.105
4800	10.578	34.480	26.466	157.4	10.354
4900	10.595	34.480	26.463	157.7	10.605

2D

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
02 31.2N	122 21.5E	08/17/76	2308 GMT

Z	T	S	SIGMA T	DT	DD
0	28.67	34.16	21.565	624.7	0.000
10	28.65	34.17	21.579	623.4	0.062
20	28.32	34.18	21.696	612.2	0.124
30	27.74	34.31	21.983	584.7	0.184
40	26.32	34.43	22.526	532.6	0.240
50	25.19	34.51	22.935	493.6	0.292
75	23.80	34.62	23.434	446.0	0.410
100	22.64	34.78	23.891	402.4	0.517
125	18.89	34.72	24.855	310.5	0.607
150	17.84	34.67	25.078	289.3	0.683
175	16.20	34.58	25.398	258.8	0.753
200	13.96	34.54	25.859	215.0	0.813
225	12.88	34.48	26.034	198.4	0.866
250	12.77	34.48	26.055	196.4	0.917
275	12.70	34.48	26.069	195.0	0.968
300	12.25	34.47	26.149	187.4	1.018
350	9.95	34.40	26.512	153.0	1.106
400	8.64	34.43	26.749	130.5	1.181
450	8.28	34.47	26.836	122.2	1.248
500	7.87	34.49	26.914	114.9	1.312
550	7.44	34.52	27.000	106.7	1.371
600	6.98	34.53	27.073	99.8	1.428
650	6.56	34.54	27.138	93.7	1.481
700	6.24	34.54	27.180	89.6	1.531
750	5.88	34.54	27.226	85.3	1.580
800	5.50	34.55	27.281	80.1	1.626
850	5.19	34.56	27.326	75.8	1.670
900	4.91	34.56	27.359	72.7	1.713
950	4.65	34.57	27.396	69.2	1.753
1000	4.56	34.57	27.406	68.2	1.793
1100	4.25	34.58	27.448	64.3	1.869
1200	4.06	34.58	27.468	62.3	1.944
1300	3.92	34.58	27.483	61.0	2.017
1400	3.85	34.58	27.490	60.3	2.089
1500	3.78	34.59	27.505	58.9	2.161
1600	3.705	34.591	27.513	58.1	2.233
1700	3.674	34.592	27.517	57.7	2.305
1800	3.645	34.593	27.521	57.4	2.376
1900	3.625	34.593	27.523	57.2	2.449
2000	3.611	34.594	27.525	57.0	2.522
2100	3.597	34.593	27.526	56.9	2.595
2200	3.589	34.592	27.526	56.9	2.669
2300	3.586	34.594	27.527	56.7	2.744
2400	3.589	34.594	27.527	56.8	2.819
2500	3.582	34.594	27.528	56.7	2.895
2600	3.580	34.592	27.526	56.8	2.972
2700	3.581	34.593	27.527	56.8	3.050
2800	3.586	34.593	27.527	56.8	3.128
2900	3.590	34.596	27.529	56.6	3.207
3000	3.592	34.594	27.527	56.8	3.286
3100	3.598	34.595	27.527	56.8	3.367
3200	3.606	34.593	27.525	57.0	3.448
3300	3.613	34.595	27.526	56.9	3.530
3400	3.621	34.597	27.526	56.8	3.613
3500	3.629	34.596	27.525	57.0	3.697
3600	3.639	34.595	27.523	57.1	3.781
3700	3.650	34.596	27.523	57.2	3.866
3800	3.662	34.595	27.521	57.4	3.952
3900	3.676	34.596	27.520	57.4	4.040
4000	3.688	34.596	27.519	57.5	4.128
4100	3.702	34.595	27.517	57.7	4.216
4200	3.715	34.596	27.516	57.8	4.306
4300	3.728	34.596	27.515	57.9	4.397
4400	3.742	34.597	27.514	58.0	4.488
4500	3.755	34.596	27.512	58.2	4.581
4600	3.769	34.596	27.511	58.3	4.674
4700	3.783	34.597	27.510	58.4	4.768
4800	3.798	34.595	27.507	58.7	4.864
4900	3.812	34.595	27.506	58.8	4.960
5000	3.826	34.594	27.503	59.0	5.057
5100	3.842	34.595	27.503	59.1	5.155
5200	3.856	34.593	27.500	59.4	5.254
5300	3.871	34.594	27.499	59.4	5.354
5400	3.886	34.593	27.496	59.7	5.455

RV THOMAS WASHINGTON INDOPAC LEG VII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
3 45.0N	126 14.6E	8/19/76	0842 1105 GMT	3905M	180	19KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	27.94	34.351		0.09	1.0	0.00	0.1	588.0
10	27.94	34.349	4.76	0.03	1.0	0.00	0.1	588.2
19	27.93	34.350	4.74	0.02	1.5	0.00	0.2	587.8
30	27.95	34.350	4.76	0.07	0.8	0.01	0.2	588.4
49	27.94	34.365	4.56	0.04	1.1	0.00	0.1	587.0
74	27.30	34.692	4.87	0.05	1.3	0.00	0.1	543.7
98	23.95	34.893	4.36	0.20	2.9	0.11	1.0	430.5
123	19.07	34.812	3.75	0.58	5.0	0.05	6.3	308.2
148	17.11	34.713	3.62	0.78	9.1	0.01	10.6	269.4
172	15.56	34.634	3.37	1.07	12.6	0.03	13.9	241.1
197	13.98	34.578	3.04	1.31	17.5	0.05	17.6	212.6
246	10.30	34.387	2.78	1.84	30.9	0.02	24.7	159.6
295	9.67	34.418	2.58	2.01	38.6	0.00	27.2	147.2
345	8.89	34.433	2.27	2.27	44.1	0.11	30.1	134.0
394	8.41	34.516	2.32	2.35	49.5	0.02	31.6	120.7
492	7.91	34.529	2.24	2.41	51.1	0.01	32.8	112.6
591	7.17	34.530	2.33	2.48	55.2	0.01	34.0	102.3
789	5.37	34.551	2.50	2.66	77.6	0.01	36.6	78.5
985	4.71	34.557	2.37	2.75	88.6	0.01	38.2	70.8
1182	3.77	34.575	2.40	2.82	109.7	0.00	39.1	59.9
1206A	3.47	34.587		2.80	118.8	0.02	39.0	56.2
1404A	3.07	34.598	2.43	2.81	127.4	0.02	39.1	51.7
1605A	2.77	34.608	2.52	2.81	133.0	0.02	38.9	48.4
1805A	2.55	34.623	2.64	2.80	137.9	0.02	39.3	45.5
2004A	2.43	34.624	2.67	2.74	141.1	0.00	40.2	44.4
2204A	2.40	34.624	2.70	2.74	138.2	0.00	40.3	44.2
2405A	2.38	34.633	2.70	2.77	142.2	0.00	41.0	43.3
2603A	2.37	34.632	2.72	2.74	142.4	0.02	41.0	43.3
2803A	2.37	34.633	2.72	2.75	142.5	0.00	41.0	43.2
3001A	2.39	34.635	2.72	2.76	141.7	0.00	40.4	43.3
3200A	2.41	34.634	2.76	2.76	143.8	0.02	40.2	43.5
3397A	2.4 K	34.634	2.72	2.76	143.4	0.02	39.8	43.4
3593A		34.636	2.74	2.70	143.2	0.02	39.6	
3691A	2.466	34.634	2.72	2.73	142.5	0.00	39.2	43.9
3792A	2.481	34.634	2.74	2.71	142.3	0.02	38.8	44.1
3889A	2.493	34.636	2.77	2.70	141.5	0.13U	38.8	44.0

Z	T	S	O2	SIGT	DT	DD
0	27.94	34.351		21.948	588.0	0.000
10	27.94	34.349	4.76	21.947	588.2	0.059
20	27.93	34.351	4.74	21.950	587.8	0.118
30	27.95	34.350	4.76	21.945	588.4	0.177
50	27.91	34.362	4.57	21.965	586.5	0.294
75	27.20	34.705	4.86	22.453	539.7	0.436
100	23.53	34.886	4.30	23.734	419.3	0.557
125	18.85	34.806	3.73	24.929	303.4	0.648
150	16.97	34.706	3.60	25.314	266.8	0.720
200	13.72	34.562	3.02	25.925	208.7	0.842
250	10.25	34.400	2.76	26.461	157.9	0.936
300	9.59	34.419	2.54	26.587	145.9	1.015
400	8.37	34.521	2.32	26.861	119.9	1.155
500	7.86	34.530	2.24	26.947	111.8	1.278
600	7.08	34.531	2.34	27.059	101.1	1.394
700	6.14	34.539	2.44	27.192	88.5	1.498
800	5.32	34.552	2.49	27.304	77.9	1.591
1000	4.69	34.556	2.37	27.380	70.6	1.759
1200	3.54	34.584	2.40	27.522	57.1	1.907
1500	2.92	34.604	2.47	27.598	50.1	2.097
1750	2.60	34.621	2.61	27.639	46.2	2.242
2000	2.43	34.626	2.67	27.658	44.4	2.382
2250	2.39	34.627	2.70	27.662	44.0	2.521
2500	2.37	34.633	2.71	27.669	43.3	2.661
2750	2.37	34.634	2.72	27.669	43.3	2.804
3000	2.39	34.636	2.72	27.670	43.3	2.949
3250	2.41	34.635	2.75	27.667	43.5	3.098
3500	2.42	34.635	2.73	27.666	43.6	3.250
3750	2.47	34.635	2.73	27.662	44.0	3.407

RV THOMAS WASHINGTON INDOPAC LEG VII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
2 50.8N	127 48.4E	8/20/76	0049 0300 GMT	3630M	190	14KT	0	180 4 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	26.85	34.272	4.72	0.15	1.5	0.00	0.1	560.1
10	26.79	34.267	4.74	0.15	1.5	0.02	0.1	558.7
20	26.74	34.266	4.72	0.14	1.4	0.00	0.0	557.2
30	26.74	34.270	4.68	0.12	1.4	0.00	0.0	556.9
50	26.75	34.271	4.64	0.18	1.3	0.02	0.1	557.2
75	26.74	34.281	4.64	0.13	1.3	0.02	0.2	556.2
99	26.30	34.355	4.46	0.20	2.2	0.33	0.6	537.6
124	19.95	34.547	3.62	0.69	7.8	0.02	7.9	349.1
150	17.43	34.704	3.49	0.84	10.4	0.00	10.6	277.3
174	14.84	34.591	3.18	1.26	21.2	0.02	16.4	229.1
199	13.47	34.545	3.19	1.41	22.0	0.00	17.4	205.0
248	12.04	34.508	2.87	1.64	27.8	0.02	21.8	180.8
297	10.68	34.531	2.54	1.91	37.8	0.00	25.7	155.3
348	9.37	34.475	2.29	2.19	42.5	0.00	29.0	138.2
397	9.04	34.525	2.29	2.25	46.7	0.00	29.8	129.4
495	7.68	34.505	2.07	2.46	49.3	0.00	32.6	111.1
594	6.81	34.544	2.47	2.46	48.7	0.02	33.5	96.5
792	5.58	34.536	2.32	2.68	69.6	0.02	35.8	82.0
985A	4.51	34.566	2.36	2.73	95.5	0.00	37.8	68.0
990	4.40	34.569	2.34	2.77	96.0	0.00	37.9	66.6
1184A	3.89	34.576	2.33	2.76	107.8	0.00	38.5	61.0
1189	3.84	34.576	2.29	2.83	106.8	0.04	38.8	60.5
1384A	3.39	34.586	2.34	2.82	117.0	0.00	39.0	55.5
1584A	2.81	34.608	2.46	2.78	130.2	0.00	39.2	48.7
1784A	2.43	34.624	2.63	2.75	136.3	0.00	38.8	44.4
1984A	2.19	34.634	2.76	2.56	141.3	0.02	38.9	41.8
2184A	1.93	34.653	2.93	2.67	146.0	0.00	38.3	38.4
2383A	1.82	34.655	3.01	2.62	146.7	0.02	37.6	37.4
2583A	1.75	34.659	3.12	2.71	147.9	0.00	37.7	36.6
2782A	1.76	34.664	3.12	2.71	148.0	0.00	37.5	36.3
3278A	1.787	34.662	3.15	2.67	148.0	0.15U	37.4	36.6
3376A	1.801	34.662	3.15	2.70	147.8	0.00	37.1	36.7
2981A	1.77	34.660	3.13	2.72	148.4	0.00	37.5	36.7
3179A	1.8 K	34.659	3.13	2.73	147.9	0.00	37.5	37.0
3474A	1.812	34.660	3.18	2.72	147.4	0.00	37.6	37.0
3573A	1.824	34.663	3.19	2.74	148.0	0.00	37.5	36.8

Z	T	S	O2	SIGT	DT	DD
0	26.85	34.272	4.72	22.240	560.1	0.000
10	26.79	34.267	4.74	22.255	558.7	0.056
20	26.74	34.266	4.72	22.270	557.2	0.112
30	26.74	34.270	4.68	22.273	556.9	0.168
50	26.75	34.271	4.64	22.271	557.2	0.279
75	26.74	34.281	4.64	22.282	556.2	0.419
100	26.07	34.356	4.43	22.549	530.6	0.556
125	19.82	34.559	3.62	24.493	345.0	0.666
150	17.43	34.704	3.49	25.203	277.3	0.745
200	13.43	34.544	3.19	25.971	204.3	0.868
250	11.98	34.510	2.86	26.231	179.7	0.967
300	10.59	34.528	2.52	26.501	154.1	1.054
400	9.00	34.526	2.28	26.767	128.9	1.203
500	7.63	34.507	2.09	26.962	110.3	1.330
600	6.77	34.545	2.47	27.113	96.0	1.442
700	6.10	34.545	2.39	27.202	87.6	1.543
800	5.54	34.537	2.32	27.266	81.4	1.638
1000	4.37	34.571	2.34	27.426	66.3	1.806
1200	3.81	34.578	2.29	27.491	60.2	1.953
1500	3.05	34.599	2.40	27.582	51.5	2.151
1750	2.48	34.622	2.60	27.651	45.0	2.297
2000	2.17	34.637	2.77	27.688	41.5	2.430
2250	1.88	34.656	2.96	27.727	37.9	2.553
2500	1.77	34.657	3.08	27.736	36.9	2.670
2750	1.76	34.664	3.12	27.743	36.3	2.787
3000	1.77	34.664	3.13	27.742	36.5	2.905
3250	1.79	34.663	3.15	27.740	36.6	3.026
3500	1.81	34.662	3.18	27.736	36.9	3.150

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
03 45.0N	126 14.6E	08/19/76	0732 GMT

Z	T	S	SIGMA T	DT	DD
0	28.02	34.34	21.914	591.5	0.000
10	28.02	34.35	21.922	590.6	0.059
20	28.03	34.35	21.918	590.9	0.118
30	28.02	34.36	21.929	589.9	0.177
40	28.00	34.36	21.936	589.3	0.236
50	27.88	34.45	22.042	579.0	0.295
75	25.83	34.96	23.077	480.0	0.428
100	23.80	34.88	23.631	427.2	0.542
125	18.35	34.82	25.067	290.3	0.633
150	16.46	34.66	25.395	259.1	0.703
175	15.44	34.57	25.562	243.2	0.767
200	14.86	34.59	25.706	229.6	0.827
225	11.19	34.35	26.255	177.4	0.880
250	10.35	34.39	26.436	160.2	0.923
275	10.11	34.41	26.493	154.8	0.964
300	9.48	34.41	26.599	144.8	1.003
350	8.44	34.49	26.828	123.1	1.073
400	8.17	34.50	26.877	118.4	1.137
450	8.01	34.51	26.909	115.4	1.199
500	7.81	34.52	26.946	111.8	1.260
550	7.32	34.52	27.017	105.1	1.319
600	6.75	34.51	27.089	98.3	1.374
650	6.24	34.53	27.172	90.4	1.426
700	5.80	34.54	27.236	84.3	1.474
750	5.41	34.55	27.292	79.0	1.519
800	5.33	34.55	27.302	78.1	1.563
850	5.23	34.56	27.321	76.2	1.607
900	5.08	34.57	27.347	73.6	1.650
950	4.87	34.57	27.371	71.5	1.691
1000	4.60	34.56	27.394	69.4	1.732
1100	3.96	34.56	27.479	61.4	1.807
1200	3.49	34.59	27.534	56.1	1.876
1300	3.20	34.60	27.562	53.5	1.940
1400	3.08	34.60	27.581	51.7	2.003
1500	3.02	34.60	27.586	51.2	2.064
1600	2.787	34.607	27.613	48.6	2.124
1700	2.614	34.616	27.635	46.5	2.182
1800	2.547	34.619	27.643	45.7	2.236
1900	2.490	34.621	27.650	45.1	2.294
2000	2.422	34.625	27.659	44.3	2.350
2100	2.407	34.626	27.663	43.9	2.405
2200	2.400	34.629	27.664	43.8	2.460
2300	2.392	34.629	27.665	43.7	2.516
2400	2.380	34.631	27.667	43.5	2.572
2500	2.372	34.632	27.669	43.3	2.628
2600	2.375	34.633	27.669	43.3	2.685
2700	2.372	34.632	27.669	43.3	2.742
2800	2.373	34.6346	27.670	43.2	2.799
2900	2.380	34.635	27.670	43.2	2.857
3000	2.390	34.633	27.668	43.4	2.916
3100	2.398	34.634	27.668	43.4	2.975
3200	2.407	34.634	27.667	43.5	3.034
3300	2.418	34.635	27.667	43.5	3.095
3400	2.428	34.635	27.666	43.6	3.156
3500	2.439	34.634	27.665	43.7	3.217
3600	2.450	34.636	27.665	43.7	3.279
3700	2.462	34.635	27.664	43.8	3.342
3800	2.474	34.636	27.663	43.9	3.406
3900	2.486	34.634	27.661	44.1	3.470

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
02 50.8N	127 48.4E	08/19/76	2348 GMT

Z	T	S	SIGMA T	DT	DD
0	26.82	34.27	22.248	559.4	0.000
10	26.77	34.26	22.256	558.6	0.056
20	26.75	34.27	22.270	557.3	0.112
30	26.75	34.27	22.270	557.3	0.168
40	26.75	34.27	22.270	557.3	0.223
50	26.75	34.27	22.270	557.3	0.279
75	26.74	34.28	22.281	556.2	0.419
100	26.48	34.35	22.415	543.3	0.557
125	20.32	34.73	24.491	345.2	0.670
150	17.53	34.68	25.161	281.4	0.749
175	16.56	34.59	25.322	266.0	0.819
200	14.88	34.58	25.694	230.7	0.882
225	13.44	34.52	25.951	206.2	0.938
250	12.72	34.50	26.081	193.9	0.990
275	12.07	34.49	26.199	182.7	1.039
300	11.12	34.46	26.353	168.1	1.084
350	9.75	34.43	26.570	147.5	1.167
400	9.28	34.51	26.710	134.2	1.241
450	8.71	34.48	26.778	127.8	1.311
500	7.71	34.49	26.937	112.7	1.375
550	7.21	34.53	27.041	102.9	1.433
600	6.88	34.55	27.087	98.5	1.488
650	6.49	34.52	27.131	94.3	1.541
700	6.23	34.53	27.173	90.3	1.592
750	5.85	34.53	27.222	85.7	1.641
800	5.60	34.53	27.253	82.7	1.688
850	5.05	34.54	27.327	75.7	1.733
900	4.91	34.55	27.351	73.4	1.775
950	4.73	34.56	27.379	70.8	1.816
1000	4.50	34.56	27.405	68.3	1.856
1100	4.13	34.57	27.453	63.8	1.932
1200	3.89	34.58	27.486	60.7	2.005
1300	3.62	34.58	27.513	58.1	2.075
1400	3.39	34.59	27.543	55.2	2.143
1500	3.10	34.60	27.579	51.9	2.207
1600	2.805	34.611	27.614	48.5	2.267
1700	2.618	34.620	27.638	46.2	2.325
1800	2.461	34.626	27.656	44.5	2.380
1900	2.339	34.631	27.671	43.2	2.434
2000	2.214	34.636	27.685	41.8	2.486
2100	2.024	34.646	27.708	39.6	2.537
2200	1.951	34.649	27.716	38.8	2.585
2300	1.858	34.654	27.728	37.8	2.633
2400	1.828	34.656	27.732	37.4	2.680
2500	1.785	34.657	27.736	37.0	2.727
2600	1.760	34.660	27.740	36.6	2.774
2700	1.762	34.662	27.741	36.5	2.820
2800	1.766	34.660	27.739	36.6	2.867
2900	1.771	34.661	27.740	36.6	2.915
3000	1.777	34.660	27.739	36.7	2.963
3100	1.784	34.660	27.738	36.8	3.011
3200	1.787	34.661	27.739	36.7	3.060
3300	1.795	34.661	27.738	36.8	3.109
3400	1.804	34.661	27.737	36.8	3.158
3500	1.817	34.663	27.738	36.8	3.208
3600	1.822	34.662	27.737	36.9	3.259

RV THOMAS WASHINGTON — INDOPAC LEG VII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
1 29.6N	127 08.2E	8/21/76	0718 0910 GMT	3025M	220	17KT	2	220 5 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	26.87	34.247	4.77	0.10	0.4	0.09	0.1	562.5
10	26.87	34.246	4.77	0.15	0.6	0.07	0.1	562.6
20	26.86	34.246	4.75	0.11	0.5	0.07	0.1	562.3
31	26.86	34.247	4.76	0.14	0.7	0.00	0.1	562.2
50	26.58	34.285	4.64	0.15	0.8	0.15	0.0	551.0
76	26.33	34.328	4.52	0.21	1.0	0.38	0.2	540.4
100	23.61	34.513	3.96	0.39	3.8	0.27	4.0	448.4
126	20.46	34.676	3.61	0.67	8.0	0.09	7.2	352.6
151	18.39	34.658	3.51	0.81	10.6	0.00	9.8	303.1
175	16.28	34.624	3.38	1.08	15.9	0.09	12.5	257.4
201	13.76	34.581	2.94	1.43	26.0	0.00	18.4	206.0
251	12.44	34.561	2.80	1.69	31.2	0.05	22.2	184.2
301	10.49	34.563	2.52	2.03	39.7	0.05	26.2	149.8
400	9.30	34.540	2.40	2.20	42.3	0.02	29.1	132.3
500	7.54	34.547	2.27	2.46	44.1	0.00	32.6	106.1
600	6.59	34.542	2.36	2.53	51.7	0.00	33.2	93.9
699	5.87	34.553	2.41	2.63	62.1	0.11	34.6	84.2
798	5.51	34.556	2.41	2.70		0.04	34.2	79.7
898	5.00	34.562	2.37	2.74		0.07	36.5	73.5
997	4.56	34.569	2.37	2.79		0.13	37.1	68.3
1011A	4.43	34.573	2.34	2.72	98.4	0.04	37.0	66.6
1210A	3.76	34.585	2.38	2.69	110.8	0.00	37.5	59.0
1408A	3.22	34.594	2.38	2.78	121.7	0.05	37.7	53.4
1608A	2.74	34.610	2.52	2.77	130.7	0.02	39.0	48.0
1807A	2.33	34.629	2.67	2.75	138.5	0.05	38.5	43.2
2006A	2.15	34.637	2.78	2.76	142.9	0.05	37.7	41.2
2204A	2.00	34.647	2.92	2.78	145.7	0.05	38.1	39.3
2403A	1.88	34.653	3.01	2.69	146.5	0.00	37.4	38.0
2602A	1.84	34.655	3.05	2.76	147.0	0.05	37.7	37.6
2800A	1.848	34.659	3.08	2.73	147.0	0.05	37.3	37.3
2849A	1.843	34.659	3.09	2.71	148.1	0.00	37.2	37.3
2898A	1.849	34.657	3.09	2.68	148.4	0.00	37.1	37.5
2947A	1.85	34.659	3.09	2.69	148.7	0.09	36.9	37.3
2997A	1.845	34.657	3.09	2.57	146.5	0.00	35.9	37.4

Z	T	S	O2	SIGT	DT	DD
0	26.87	34.247	4.77	22.215	562.5	0.000
10	26.87	34.246	4.77	22.214	562.6	0.056
20	26.86	34.246	4.75	22.217	562.3	0.113
30	26.86	34.248	4.76	22.218	562.2	0.169
50	26.58	34.285	4.64	22.335	551.0	0.281
75	26.34	34.327	4.53	22.442	540.8	0.418
100	23.61	34.513	3.96	23.409	448.4	0.542
125	20.57	34.672	3.62	24.379	355.8	0.644
150	18.47	34.662	3.51	24.917	304.6	0.727
200	13.85	34.583	2.96	25.915	209.7	0.859
250	12.45	34.562	2.80	26.182	184.3	0.960
300	10.53	34.563	2.53	26.539	150.4	1.047
400	9.30	34.540	2.40	26.730	132.3	1.196
500	7.54	34.547	2.27	27.007	106.1	1.323
600	6.59	34.542	2.38	27.135	93.9	1.432
700	5.87	34.554	2.41	27.238	84.1	1.530
800	5.50	34.557	2.41	27.286	79.6	1.622
1000	4.53	34.571	2.36	27.409	67.9	1.789
1200	3.77	34.582	2.38	27.499	59.4	1.938
1500	2.99	34.601	2.43	27.589	50.8	2.134
1750	2.43	34.625	2.63	27.657	44.4	2.278
2000	2.15	34.638	2.78	27.690	41.3	2.409
2250	1.97	34.649	2.95	27.714	39.0	2.533
2500	1.85	34.654	3.03	27.727	37.7	2.654
2750	1.85	34.659	3.07	27.732	37.4	2.774
3000	1.84	34.658	3.09	27.732	37.3	2.896

RV THOMAS WASHINGTON — INDOPAC LEG VII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
0 06.2N	124 43.4E	8/23/76	0729 0950 GMT	4134M	090	3KT	1	330 2 2

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	26.90	34.165	4.91	0.09	E	0.11	0.0	569.4
10	26.34	34.061	4.99	0.07		0.00	0.0	559.9
20	26.06	34.023	4.85	0.12		0.09	0.2	554.3
30	25.53	34.090	4.51	0.22		0.31	1.4	533.8
50	25.44	34.268	4.34	0.29		0.67	1.8	518.4
75	23.62	34.407	3.66	0.47		0.18	6.4	456.3
99	22.11	34.742	3.94	0.44		0.20	4.6	390.9
124	20.56	34.670	3.65	0.64		0.09	7.7	355.6
149	17.78	34.636	3.32	0.95		0.02	12.0	290.4
173	15.75	34.614	3.17	1.17		0.00	14.7	246.6
199	14.96	34.598	3.15	1.27		0.00	15.6	231.1
248	12.55	34.567	2.82	1.63		0.00	20.7	185.8
298	10.75	34.586	2.59	1.95		0.00	25.0	152.4
349	9.49	34.588	2.47	2.20		0.00	27.3	131.7
398	8.95	34.604	2.55	2.23		0.00	27.8	122.2
498	7.69	34.570	2.41	2.40		0.00	30.0	106.4
599	6.92	34.563	2.46	2.46		0.00	31.1	96.6
799	5.74	34.558	2.44	2.60		0.02	32.9	82.3
997	4.55	34.571	2.38	2.78		0.02	34.7	68.0
1007A	4.52	34.573	2.33	2.64E		0.00	E	67.6
1193	3.85 V	34.593 V	2.45V	2.77		0.00	35.0	
1207A	3.88	34.590	2.41	2.69		0.00		59.8
1406A	3.12	34.606	2.49	2.69		0.00		51.6
1605A	2.72	34.619	2.60	2.76		0.00		47.2
1804A	2.45	34.627	2.68	2.73		0.00		44.3
2005A	2.28	34.637	2.77	2.57		0.00		42.2
2254A	2.17	34.644	2.82	2.59		0.04		40.9
2505A	2.14	34.641	2.85	2.61		0.04		40.9
2755A	2.16	34.644	2.84	2.72		0.02		40.8
3004A	2.18	34.644	2.85	2.73		0.02		40.9
3254A	2.21	34.643	2.77	2.74		0.04		41.2
3503A	2.24	34.644	2.72	2.80		0.02		41.4
3752A	2.272	34.643	2.70	2.73		0.15U		41.7
3951A	2.305	34.642	2.64	2.83		0.00		42.1
4000A	2.307	34.645	2.66	2.78		0.00		41.8
4049A	2.312	34.644	2.63	2.83		0.02		42.0
4099A	2.318	34.643	2.66	2.80		0.04		42.1

Z	T	S	O2	SIGT	DT	DD
0	26.90	34.165	4.91	22.144	569.4	0.000
10	26.34	34.061	4.99	22.242	559.9	0.056
20	26.06	34.023	4.85	22.301	554.3	0.112
30	25.53	34.090	4.51	22.515	533.8	0.167
50	25.44	34.268	4.34	22.677	518.4	0.272
75	23.62	34.407	3.66	23.326	456.3	0.395
100	22.06	34.744	3.93	24.027	389.4	0.501
125	20.45	34.668	3.64	24.408	353.1	0.595
150	17.68	34.635	3.31	25.090	288.1	0.676
200	14.91	34.598	3.14	25.699	230.2	0.809
250	12.47	34.569	2.81	26.183	184.3	0.915
300	10.69	34.587	2.58	26.529	151.4	1.003
400	8.92	34.605	2.53	26.840	121.8	1.146
500	7.67	34.571	2.41	27.005	106.2	1.269
600	6.91	34.564	2.46	27.108	96.5	1.379
700	6.30	34.560	2.45	27.188	88.9	1.481
800	5.73	34.557	2.44	27.257	82.2	1.577
1000	4.54	34.570	2.36	27.407	67.9	1.748
1200	3.90	34.590	2.41	27.491	60.1	1.897
1500	2.90	34.614	2.54	27.608	49.1	2.092
1750	2.51	34.626	2.66	27.651	45.0	2.234
2000	2.28	34.637	2.77	27.680	42.3	2.369
2250	2.17	34.645	2.82	27.695	40.9	2.499
2500	2.14	34.642	2.83	27.695	40.9	2.629
2750	2.16	34.645	2.84	27.696	40.8	2.762
3000	2.18	34.645	2.85	27.694	40.9	2.898
3250	2.21	34.644	2.77	27.691	41.2	3.038
3500	2.24	34.645	2.72	27.689	41.4	3.181
3750	2.27	34.644	2.70	27.686	41.7	3.328
4000	2.31	34.645	2.66	27.684	41.8	3.479

E) ALL SILICATES AND THE DEEP NITRATES WERE DELETED BECAUSE THE VALUES WERE VERY ERRATIC. THE DEEP PHOSPHATES ARE SOMEWHAT DOUBTFUL.

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
1 29.6N	127 08.2E	06/21/76	0633 GMT

Z	T	S	SIGMA T	DT	DD
0	26.99	34.24	22.171	566.7	0.000
10	26.95	34.24	22.184	565.5	0.057
20	26.91	34.24	22.197	564.3	0.113
30	26.82	34.25	22.233	560.8	0.170
40	26.75	34.26	22.263	558.0	0.226
50	26.63	34.28	22.316	552.9	0.281
75	26.33	34.33	22.447	540.3	0.419
100	22.04	34.70	23.994	392.0	0.536
125	19.56	34.67	24.640	331.0	0.627
150	18.07	34.63	24.991	297.6	0.707
175	15.30	34.59	25.609	238.8	0.775
200	13.95	34.56	25.877	213.3	0.833
225	13.16	34.55	26.032	198.6	0.886
250	12.55	34.54	26.145	187.6	0.936
275	12.15	34.56	26.238	179.0	0.984
300	11.67	34.55	26.322	171.1	1.029
350	9.99	34.53	26.607	144.0	1.112
400	9.60	34.55	26.688	136.3	1.186
450	8.30	34.55	26.896	116.6	1.253
500	7.46	34.52	26.997	107.0	1.313
550	7.07	34.52	27.052	101.7	1.369
600	6.79	34.53	27.099	97.3	1.424
650	6.39	34.53	27.153	92.3	1.476
700	5.95	34.54	27.217	86.1	1.525
750	5.67	34.54	27.252	82.8	1.572
800	5.53	34.56	27.285	79.7	1.617
850	5.08	34.54	27.323	76.1	1.661
900	4.94	34.56	27.355	73.0	1.704
950	4.70	34.56	27.383	70.4	1.745
1000	4.51	34.56	27.420	66.9	1.784
1100	4.07	34.58	27.467	62.4	1.859
1200	3.79	34.59	27.504	59.0	1.930
1300	3.46	34.58	27.529	56.6	1.998
1400	3.25	34.59	27.557	53.9	2.064
1500	2.95	34.60	27.593	50.5	2.128
1600	2.748	34.609	27.618	48.1	2.186
1700	2.576	34.616	27.639	46.2	2.243
1800	2.335	34.629	27.669	43.3	2.297
1900	2.269	34.632	27.677	42.5	2.350
2000	2.163	34.637	27.690	41.3	2.401
2100	2.102	34.642	27.699	40.5	2.452
2200	2.021	34.645	27.708	39.6	2.502
2300	1.936	34.650	27.718	38.6	2.551
2400	1.888	34.650	27.722	38.3	2.599
2500	1.856	34.656	27.729	37.6	2.647
2600	1.349	34.654	27.728	37.7	2.695
2700	1.843	34.654	27.729	37.7	2.743
2800	1.841	34.655	27.730	37.6	2.792
2900	1.846	34.657	27.731	37.4	2.840
3000	1.849	34.659	27.732	37.3	2.889

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
0 06.2N	124 43.4E	08/23/76	0624 GMT

Z	T	S	SIGMA T	DT	DD
0	27.37	34.20	22.020	581.2	0.000
10	26.97	34.17	22.125	571.1	0.058
20	26.51	34.08	22.266	557.7	0.114
30	26.15	34.04	22.286	555.8	0.170
40	25.70	34.07	22.448	540.3	0.225
50	25.37	34.16	22.617	524.1	0.278
75	25.29	34.39	22.814	505.2	0.408
100	23.50	34.51	23.439	445.5	0.527
125	20.71	34.66	24.334	360.2	0.629
150	17.64	34.62	25.088	288.3	0.711
175	15.69	34.59	25.522	247.1	0.779
200	14.49	34.57	25.770	223.5	0.840
225	12.74	34.56	26.100	192.1	0.893
250	12.33	34.57	26.211	181.6	0.941
275	11.11	34.57	26.441	159.8	0.985
300	10.09	34.56	26.613	143.4	1.025
350	9.30	34.56	26.746	130.8	1.097
400	8.84	34.58	26.835	122.3	1.164
450	8.13	34.56	26.930	113.4	1.227
500	7.47	34.54	27.011	105.6	1.286
550	7.22	34.54	27.047	102.2	1.342
600	6.66	34.55	27.130	94.4	1.395
650	6.37	34.54	27.163	91.3	1.447
700	6.01	34.55	27.218	86.1	1.496
750	5.82	34.55	27.242	83.8	1.543
800	5.62	34.56	27.274	80.7	1.589
850	5.21	34.57	27.332	75.3	1.633
900	4.88	34.57	27.370	71.6	1.675
950	4.72	34.57	27.388	69.9	1.715
1000	4.49	34.57	27.414	67.5	1.755
1100	4.18	34.56	27.455	63.6	1.831
1200	3.86	34.59	27.497	59.6	1.903
1300	3.56	34.60	27.535	56.0	1.971
1400	3.13	34.61	27.584	51.4	2.035
1500	2.98	34.60	27.590	50.8	2.097
1600	2.725	34.609	27.620	48.0	2.156
1700	2.567	34.619	27.642	45.9	2.213
1800	2.450	34.626	27.657	44.4	2.268
1900	2.368	34.628	27.666	43.6	2.322
2000	2.287	34.631	27.675	42.7	2.375
2100	2.226	34.634	27.682	42.0	2.428
2200	2.180	34.638	27.689	41.4	2.480
2300	2.156	34.639	27.692	41.1	2.532
2400	2.147	34.640	27.694	41.0	2.584
2500	2.144	34.642	27.695	40.8	2.637
2600	2.149	34.641	27.694	40.9	2.690
2700	2.158	34.644	27.696	40.8	2.743
2800	2.164	34.642	27.694	41.0	2.797
2900	2.172	34.640	27.692	41.2	2.851
3000	2.183	34.641	27.692	41.2	2.906
3100	2.193	34.643	27.692	41.1	2.962
3200	2.206	34.642	27.690	41.3	3.018
3300	2.217	34.643	27.690	41.3	3.074
3400	2.228	34.646	27.692	41.2	3.132
3500	2.241	34.647	27.692	41.2	3.189
3600	2.252	34.647	27.691	41.3	3.247
3700	2.263	34.647	27.690	41.4	3.306
3800	2.276	34.647	27.689	41.4	3.365
3900	2.289	34.647	27.688	41.6	3.425
4000	2.301	34.646	27.686	41.7	3.486
4100	2.314	34.647	27.685	41.7	3.547

RV THOMAS WASHINGTON INDOPAC LEG VII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
0 56.8S	126 48.6E	8/24/76	0910 1140 GMT	4770M	120	3KT	2	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	27.15	34.315	4.81	0.17	2.3		0.2	566.2
10	27.02	34.481	4.87	0.24	2.5		0.2	550.3
20	26.96	34.472	4.80	0.25	2.5		0.3	549.1
31	26.64	34.45	4.81	0.30	2.5		0.4	547.0
50	25.87	34.489	4.44	0.34	4.2		2.2	515.1
75	25.20	34.468	4.06	0.46	5.5		4.2	496.9
100	23.47	34.509	3.67	0.73	8.3		6.9	444.8
125	19.85	34.616	3.42	0.91	14.1		10.9	341.6
150	18.19	34.632	3.34	1.01	16.4		12.6	300.2
175	17.22	34.630	3.27	1.14	18.9		14.0	277.9
200	16.14	34.620	3.16	1.26	22.5		15.7	254.6
249	12.76	34.604	2.75	1.78	39.2		23.3	187.4
299	11.83	34.616	2.69	1.97	43.0		25.2	169.1
399	9.22	34.640	2.60	2.27	56.0		29.5	123.7
498	7.67	34.590	2.46	2.46	63.9		32.4	104.7
598	7.00	34.574	2.41	2.55	65.9		33.6	96.8
698	6.37	34.555	2.44	2.7	66.40		34.7	90.1
796	5.88	34.592	2.44	2.8	86.3		35.2	81.4
897	5.28	34.563	2.38	2.8	83.20		36.6	76.6
943A	4.69	34.581	2.35	2.8	95.8		37.4	68.7
996	4.97	34.584	2.43	2.8	94.0		36.6	71.5
1144A	4.01	34.586	2.38	2.8	107.7		38.0	61.4
1343A	3.40	34.603	2.48	2.9	119.5		38.2	54.3
1543A	2.86	34.613	2.56	2.9	128.8		38.7	49.0
1742A	2.48	34.626	2.68	2.9	135.9		38.5	44.7
1942A	2.25	34.637	2.76	2.9	140.0		38.4	42.0
2191A	2.11	34.643	2.86	2.9	142.0		38.3	40.5
2441A	2.05	34.646	2.89	2.9	144.2		38.3	39.8
2691A	2.01	34.650	2.94	2.9	145.1		38.1	39.2
2940A	2.02	34.650	2.96	2.9	145.0		38.1	39.3
3190A	2.04	34.651	2.97	2.9	145.2		38.1	39.3
3440A	2.07	34.650	2.94	2.9	145.0		37.6	39.6
3689A	2.09	34.651	2.96	2.9	144.9		37.6	39.7
3939A	2.12	34.651	2.97	2.9	144.8		37.8	39.9
4187A	2.15	34.652	2.97	2.9	144.7		37.7	40.1
4438A	2.182	34.652	2.98	2.9	144.8		37.9	40.3
4538A	2.20	34.652	2.98	2.9	145.2		37.8	40.5
4636A	2.207	34.651	2.98	2.9	144.3		37.7	40.6
4686A	2.211	34.651	2.98	2.9	145.0		37.8	40.7
4737A	2.219	34.650	2.97	2.9	144.6		37.6	40.8

Z	T	S	O2	SIGT	DT	DD
0	27.15	34.315	4.81	22.177	566.2	0.000
10	27.02	34.481	4.87	22.343	550.3	0.056
20	26.96	34.472	4.80	22.355	549.1	0.111
30	26.86	34.456	4.81	22.375	547.2	0.166
50	25.87	34.489	4.44	22.711	515.1	0.272
75	25.20	34.468	4.06	22.901	496.9	0.369
100	23.47	34.509	3.67	23.447	444.8	0.518
125	19.85	34.616	3.42	24.528	341.6	0.617
150	18.19	34.632	3.34	24.963	300.2	0.699
200	16.14	34.620	3.16	25.442	254.6	0.840
250	12.75	34.606	2.75	26.156	186.8	0.954
300	11.80	34.617	2.69	26.348	168.6	1.046
400	9.20	34.640	2.60	26.824	125.4	1.200
500	7.65	34.591	2.46	27.024	104.4	1.322
600	6.99	34.575	2.41	27.106	96.7	1.431
700	6.36	34.556	2.44	27.177	89.9	1.535
800	5.87	34.592	2.44	27.267	81.4	1.631
1000	4.96	34.585	2.43	27.372	71.4	1.805
1200	3.79	34.592	2.40	27.504	58.9	1.957
1500	2.98	34.612	2.54	27.599	50.0	2.152
1750	2.47	34.628	2.68	27.656	44.5	2.295
2000	2.21	34.640	2.79	27.685	41.5	2.427
2250	2.09	34.644	2.87	27.701	40.3	2.555
2500	2.04	34.648	2.90	27.708	39.6	2.681
2750	2.01	34.651	2.95	27.712	39.2	2.809
3000	2.02	34.651	2.96	27.712	39.3	2.938
3250	2.05	34.652	2.96	27.710	39.4	3.071
3500	2.07	34.651	2.94	27.708	39.7	3.207
3750	2.10	34.652	2.96	27.706	39.8	3.346
4000	2.13	34.652	2.97	27.704	40.0	3.489
4250	2.16	34.653	2.97	27.702	40.1	3.635
4500	2.19	34.653	2.98	27.699	40.4	3.785

RV THOMAS WASHINGTON INDOPAC LEG VII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
1 50.0S	126 56.6E	8/25/76	0442 GMT	2025M	160	12KT	0	160 4 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	26.27	34.465	4.94	0.35	4.1		0.6	528.8
10	26.21	34.462	4.89	0.37	4.1		0.7	527.2
21	26.08	34.459	4.77	0.37	4.0		0.9	523.5
30	25.79	34.448	4.57	0.40	4.5		2.0	515.7
48	24.46	34.249	3.98	0.44	7.6		5.7	491.4
73	23.79	34.270	3.81	0.72	9.6		7.2	470.9
95	23.48	34.317	3.67	0.78	10.4		8.1	458.9
118	23.24	34.330	3.63	0.86	11.4		8.3	451.3
144	19.14	34.571	3.28	1.05	19.3		13.0	327.4
167	16.38	34.602	3.06	1.33	25.4		17.0	261.2
191	15.07	34.618	2.95	1.39	30.3		19.3	231.9
283	11.63	34.636	2.64	1.84	45.9		25.8	164.0
377	9.38	34.595	2.47	2.16	57.9		30.0	129.5
469	8.49	34.598	2.49	2.24	64.1		31.3	115.8
561	7.47	34.575	2.42	2.47	64.6		33.1	103.0
650	6.53	34.592	2.44	2.41	76.7		34.5	89.4
736	6.42	34.598	2.47	2.50	83.6		34.6	87.5
821	6.26	34.596	2.45	2.54	84.1		34.8	85.7
904	5.36	34.580	2.44	2.75	88.7		36.3	76.2
1059	4.298	34.590	2.44	2.79	104.7		37.5	64.0
1220	4.05 K	34.599	2.48	2.72	111.4		38.0	60.8
1373	3.745	34.601	2.51	2.73	114.7		38.2	57.7
1525	3.512	34.602	2.55	2.76	118.0		38.6	55.4
1602	3.256	34.607	2.55	2.86	120.4		38.4	52.7

Z	T	S	O2	SIGT	DT	DD
0	26.27	34.465	4.94	22.568	528.8	0.000
10	26.21	34.462	4.89	22.584	527.2	0.053
20	26.10	34.460	4.79	22.617	524.0	0.105
30	25.79	34.448	4.57	22.704	515.7	0.158
50	24.37	34.245	3.97	22.980	489.3	0.258
75	23.75	34.275	3.80	23.187	469.6	0.379
100	23.43	34.321	3.67	23.316	457.2	0.495
125	22.28	34.385	3.55	23.692	421.4	0.606
150	18.31	34.588	3.21	24.899	306.4	0.699
200	14.65	34.623	2.91	25.775	223.0	0.834
250	12.65	34.640	2.73	26.202	182.4	0.938
300	11.13	34.630	2.60	26.483	155.7	1.026
400	9.10	34.598	2.48	26.806	125.1	1.174
500	8.15	34.591	2.47	26.950	111.5	1.301
600	7.00	34.582	2.43	27.109	96.4	1.414
700	6.47	34.597	2.46	27.194	88.3	1.516
800	6.30	34.598	2.46	27.217	86.2	1.614
1000	4.61	34.585	2.44	27.412	67.7	1.790
1200	4.06	34.600	2.47	27.483	61.0	1.940
1500	3.56	34.603	2.54	27.536	55.9	2.151

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
0 58.8S	126 48.6E	08/24/76	0900 GMT

Z	T	S	SIGMA T	DT	DD
0	27.45	34.45	22.182	565.7	0.000
10	27.13	34.47	22.299	554.4	0.056
20	26.96	34.46	22.346	550.0	0.111
30	26.70	34.46	22.429	542.1	0.166
40	26.30	34.46	22.555	530.0	0.220
50	25.99	34.45	22.644	521.5	0.273
75	25.61	34.50	22.799	506.6	0.402
100	24.90	34.46	22.986	488.6	0.527
125	22.86	34.52	23.631	427.2	0.643
150	19.95	34.59	24.482	346.0	0.740
175	18.05	34.59	24.965	300.0	0.823
200	16.34	34.61	25.389	259.7	0.894
225	13.85	34.59	25.921	209.1	0.954
250	12.40	34.61	26.229	179.9	1.004
275	10.66	34.57	26.521	152.1	1.047
300	9.84	34.63	26.710	134.2	1.085
350	8.87	34.58	26.831	122.6	1.152
400	8.25	34.56	26.927	113.6	1.215
450	7.53	34.57	27.026	104.2	1.273
500	7.16	34.56	27.071	100.0	1.328
550	6.68	34.55	27.130	94.4	1.381
600	6.39	34.54	27.160	91.5	1.431
650	6.24	34.54	27.180	89.6	1.481
700	5.99	34.56	27.244	83.6	1.529
750	5.33	34.55	27.302	78.1	1.574
800	5.28	34.56	27.331	75.3	1.617
850	4.99	34.56	27.366	72.1	1.659
900	4.73	34.57	27.387	70.0	1.699
950	4.60	34.57	27.402	68.6	1.739
1000	4.38	34.56	27.434	65.6	1.776
1100	4.11	34.58	27.463	62.8	1.852
1200	3.79	34.59	27.504	59.0	1.923
1300	3.47	34.60	27.544	55.2	1.991
1400	3.00	34.61	27.596	50.2	2.053
1500	2.91	34.62	27.610	48.7	2.113
1600	2.766	34.621	27.625	47.4	2.171
1700	2.577	34.630	27.650	45.1	2.227
1800	2.418	34.636	27.668	43.4	2.281
1900	2.316	34.636	27.677	42.6	2.334
2000	2.195	34.642	27.691	41.2	2.386
2100	2.159	34.643	27.695	40.9	2.437
2200	2.103	34.646	27.702	40.2	2.487
2300	2.078	34.647	27.705	39.9	2.538
2400	2.062	34.648	27.707	39.7	2.588
2500	2.048	34.648	27.708	39.6	2.639
2600	2.024	34.650	27.711	39.3	2.690
2700	2.019	34.650	27.712	39.3	2.741
2800	2.018	34.652	27.714	39.1	2.792
2900	2.023	34.649	27.711	39.4	2.844
3000	2.029	34.650	27.711	39.3	2.896
3100	2.036	34.649	27.710	39.5	2.949
3200	2.045	34.649	27.709	39.5	3.002
3300	2.056	34.649	27.708	39.6	3.056
3400	2.064	34.650	27.708	39.6	3.110
3500	2.074	34.649	27.707	39.7	3.165
3600	2.084	34.649	27.706	39.8	3.220
3700	2.094	34.650	27.706	39.8	3.276
3800	2.104	34.649	27.704	40.0	3.333
3900	2.116	34.649	27.703	40.1	3.390
4000	2.128	34.649	27.702	40.2	3.447
4100	2.139	34.649	27.701	40.2	3.506
4200	2.152	34.650	27.701	40.3	3.564
4300	2.163	34.650	27.700	40.4	3.624
4400	2.176	34.650	27.699	40.4	3.684
4500	2.188	34.649	27.697	40.6	3.744
4600	2.200	34.650	27.697	40.6	3.805
4700	2.213	34.653	27.699	40.5	3.867

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
1 50.0S	126 56.0E	08/25/76	0301 GMT

Z	T	S	SIGMA T	DT	DD
0	26.31	34.45	22.544	531.0	0.000
10	26.26	34.46	22.567	528.8	0.053
20	26.18	34.46	22.592	526.4	0.106
30	25.94	34.45	22.659	520.0	0.158
40	25.29	34.40	22.822	504.5	0.210
50	24.84	34.35	22.921	495.0	0.260
75	24.32	34.34	23.069	480.8	0.382
100	23.60	34.30	23.251	463.5	0.501
125	21.63	34.49	23.954	396.3	0.610
150	18.53	34.59	24.846	311.3	0.699
175	15.89	34.60	25.484	250.6	0.771
200	14.33	34.60	25.827	218.0	0.831
225	12.26	34.57	26.225	180.3	0.882
250	11.74	34.62	26.363	167.2	0.927
275	11.74	34.63	26.370	166.4	0.970
300	11.69	34.64	26.388	164.8	1.013
350	10.06	34.60	26.649	140.0	1.093
400	9.45	34.58	26.737	131.7	1.165
450	8.93	34.59	26.829	122.9	1.233
500	8.64	34.61	26.890	117.1	1.298
550	7.96	34.57	26.963	110.2	1.359
600	7.07	34.58	27.099	97.3	1.416
650	6.61	34.58	27.163	91.3	1.468
700	6.52	34.60	27.190	88.7	1.518
750	6.36	34.60	27.209	86.9	1.567
800	5.97	34.60	27.262	81.9	1.615
850	5.42	34.58	27.315	76.9	1.660
900	4.93	34.59	27.380	70.7	1.702
950	4.66	34.59	27.411	67.8	1.741
1000	4.46	34.60	27.441	64.9	1.780
1100	4.23	34.59	27.458	63.3	1.854
1200	4.14	34.60	27.476	61.6	1.928
1300	3.80	34.60	27.511	58.3	1.999
1400	3.75	34.60	27.516	57.8	2.069
1500	3.71	34.60	27.520	57.4	2.139
1600	2.885	34.610	27.607	49.2	2.204
1700	2.697	34.612	27.625	47.5	2.262
1800	2.562	34.618	27.641	45.9	2.320
1900	2.327	34.628	27.669	43.3	2.374
2000	2.331	34.627	27.668	43.4	2.428

RV THOMAS WASHINGTON — INDOPAC LEG VII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
3 15.0S	125 20.2E	8/25/76	1859 2208 GMT	5334M	140	17KT	2	140 4 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	26.10	34.089	4.80	0.32	1.3	0.13	0.5	550.7	0	26.10	34.089	4.80	22.338	550.7	0.000
10	26.05	34.088	4.76	0.30	1.3	0.07	0.5	549.3	10	26.05	34.088	4.76	22.353	549.3	0.055
20	26.05	34.084	4.80	0.27	1.2	0.15	0.4	549.6	20	26.05	34.084	4.80	22.350	549.6	0.110
31	25.98	34.086	4.77	0.36	1.2	0.18	0.6	547.4	30	25.99	34.087	4.77	22.371	547.6	0.165
50	23.05	34.328	3.36	0.92	11.0	0.16	9.5	446.2	50	23.05	34.328	3.36	23.432	446.2	0.265
75	21.84	34.410	3.24	1.04	13.1	0.04	11.0	407.7	75	21.84	34.410	3.24	23.835	407.7	0.372
100	20.32	34.477	3.28	1.14	15.4	0.04	11.8	363.5	100	20.32	34.477	3.28	24.299	363.5	0.469
125	19.78	34.525	3.25	1.22	16.7	0.02	12.8	346.5	125	19.78	34.525	3.25	24.477	346.5	0.559
150	17.87	34.587	3.12	1.27	21.6	0.04	15.2	296.0	150	17.87	34.587	3.12	25.007	296.0	0.640
175	16.71	34.607	3.04	1.35	24.4	0.02	17.0	268.1	200	16.21	34.602	2.99	25.413	257.4	0.781
200	16.21	34.602	2.99	1.40	26.4	0.02	17.7	257.4	250	13.78	34.573	2.78	25.922	209.0	0.901
250	13.78	34.573	2.78	1.65	33.7	0.00	21.5	209.0	300	12.47	34.560	2.62	26.176	184.9	1.003
300	12.47	34.560	2.62	1.83	39.1	0.00	24.0	184.9	400	8.86	34.553	2.46	26.811	124.7	1.166
399	8.88	34.552	2.46	2.19	55.1	0.00	30.6	125.0	500	7.48	34.574	2.30	27.035	103.4	1.288
499	7.49	34.572	2.30	2.40	67.5	0.00	33.2	103.6	600	6.69	34.599	2.37	27.166	91.0	1.394
598	6.70	34.597	2.37	2.59	80.2	0.00	34.2	91.2	700	6.01	34.602	2.40	27.258	82.2	1.490
796	5.45	34.597	2.42	2.66	93.7	0.00	36.0	76.0	800	5.43	34.598	2.42	27.327	75.7	1.579
996	4.56	34.603	2.45	2.67	105.9	0.00	37.0	65.7	1000	4.55	34.604	2.45	27.434	65.6	1.740
1193	3.97	34.609	2.46	2.72	114.5	0.00	37.6	59.3	1200	4.00	34.610	2.46	27.497	59.6	1.887
1218A	4.08	34.609	2.400	2.70	114.2	0.00	37.6	60.4	1500	3.61	34.612	2.49	27.538	55.7	2.094
1388	3.64	34.613	2.47	2.77	120.0	0.00	38.1	55.8	1750	3.40	34.616	2.50	27.562	53.4	2.262
1417A	3.66	34.611	2.49	2.75	119.9	0.02	38.0	56.1	2000	3.25	34.616	2.50	27.577	52.1	2.429
1616A	3.48	34.615	2.49	2.81	123.8	0.03	38.2	54.2	2250	3.11	34.620	2.56	27.593	50.5	2.595
1816A	3.37	34.616	2.51	2.85	125.9	0.01	38.6	53.1	2500	3.06	34.620	2.59	27.598	50.1	2.761
2016A	3.24	34.615	2.50	2.83	127.9	0.01	38.6	52.0	2750	3.03	34.619	2.61	27.600	49.9	2.930
2265A	3.10	34.619	2.56	2.89	129.7	0.01	38.8	50.4	3000	3.03	34.620	2.62	27.600	49.8	3.102
2514A	3.06	34.619	2.59	2.91	129.6	0.03	38.6	50.1	3250	3.05	34.619	2.64	27.598	50.0	3.278
2764A	3.03	34.618	2.61	2.82	130.2	0.03	38.8	49.9	3500	3.06	34.619	2.61	27.597	50.1	3.459
3013A	3.03	34.619	2.62	2.85	129.8	0.01	38.8	49.8	3750	3.09	34.620	2.61	27.595	50.3	3.644
3262A	3.05	34.618	2.64	2.82	130.0	0.05	38.9	50.1	4000	3.12	34.622	2.62	27.594	50.4	3.833
3511A	3.06	34.618	2.61	2.87	130.2	0.01	39.0	50.1	4250	3.15	34.621	2.61	27.590	50.8	4.027
3760A	3.09	34.619	2.61	2.86	130.2	0.00	38.9	50.3	4500	3.18	34.621	2.62	27.587	51.0	4.226
4009A	3.12	34.621	2.62	2.9	132.2	0.00	39.0	50.4	4750	3.21	34.621	2.60	27.584	51.3	4.430
4259A	3.15	34.620	2.61	2.84	132.7	0.01	39.0	50.8	5000	3.25	34.620	2.61	27.580	51.7	4.639
4508A	3.18	34.620	2.62	2.89	131.8	0.02	39.2	51.1	5250	3.28	34.621	2.63	27.578	51.9	4.854
4757A	3.214	34.620	2.60	2.86	131.5	0.00	39.0	51.4							
5007A	3.249	34.619	2.61	2.92	130.7	0.02	38.9	51.7							
5108A	3.263	34.620	2.67	2.9	130.6	0.04	38.9	51.8							
5208A	3.278	34.620	2.62	2.9	131.6	0.02	38.9	51.9							
5309A	3.285	34.620	2.64	2.94	131.6	0.04	39.0	52.0							

RV THOMAS WASHINGTON — INDOPAC LEG VII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
6 27.0S	126 00.2E	8/26/76	2338 0152 GMT	4398M	120	18KT	0	130 6 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	26.04	34.115	4.82	0.17	3.1	0.05	0.4	547.1	0	26.04	34.115	4.82	22.376	547.1	0.000
10	26.02	34.114	4.80	0.22	3.0	0.05	0.4	546.6	10	26.02	34.114	4.80	22.382	546.6	0.055
20	26.02	34.115	4.82	0.19	3.0	0.07	0.6	546.5	20	26.02	34.115	4.82	22.383	546.5	0.109
31	25.99	34.114	4.79	0.20	3.0	0.07	0.6	545.7	30	25.99	34.115	4.79	22.390	545.8	0.164
50	25.99	34.117	4.77	0.20	3.2	0.11	0.6	545.5	50	25.99	34.117	4.77	22.393	545.5	0.274
75	24.90	34.231	4.22	0.39	5.5	0.58	3.2	505.3	75	24.90	34.231	4.22	22.813	505.3	0.406
99	22.45	34.509	3.61	0.90	15.5	0.00	13.0	416.8	100	22.37	34.516	3.60	23.767	414.2	0.521
125	20.31	34.586	3.44	0.75	12.9	0.02	9.6	355.3	125	20.31	34.586	3.44	24.384	355.3	0.618
150	17.82	34.600	3.40	0.91	17.3	0.02	12.0	293.9	150	17.82	34.600	3.40	25.029	293.9	0.701
174	15.33	34.572	3.18	1.17	22.7	0.02	16.0	240.7	200	13.83	34.568	2.76	25.908	210.3	0.829
200	13.83	34.568	2.76	1.64	31.4	0.02	21.0	210.3	250	11.44	34.531	2.56	26.350	168.4	0.927
250	11.44	34.531	2.56	1.89	40.9	0.00	25.3	168.4	300	10.01	34.529	2.42	26.603	144.4	1.008
300	10.01	34.529	2.42	2.03	48.4	0.02	28.4	144.4	400	8.46	34.542	2.32	26.865	119.5	1.147
400	8.46	34.542	2.32	2.27	58.4	0.00	31.6	119.5	500	7.28	34.558	2.24	27.053	101.7	1.266
500	7.28	34.558	2.24	2.44	69.6	0.00	33.4	101.7	600	6.56	34.563	2.27	27.156	91.9	1.371
601	6.55	34.563	2.27	2.56	77.3	0.02	34.7	91.8	700	5.97	34.574	2.29	27.241	83.8	1.468
701	5.96	34.573	2.29	2.62	87.4	0.02	35.3	83.8	800	5.38	34.583	2.33	27.321	76.3	1.558
802	5.37	34.582	2.33	2.61	96.0	0.02	36.0	76.2	1000	4.56	34.600	2.40	27.430	65.9	1.720
984A	4.56	34.602	2.38	2.6	107.4	0.00	37.3	65.8	1200	4.17	34.606	2.43	27.476	61.6	1.870
1000	4.56	34.600	2.40	2.66	108.0	0.02	36.9	65.9	1500	3.58	34.612	2.43	27.542	55.4	2.081
1196	4.18	34.604	2.43	2.71	114.0	0.00	37.4	61.7	1750	3.39	34.616	2.45	27.564	53.3	2.249
1234A	4.08	34.607	2.41	2.78	115.7	0.03	37.7	60.5	2000	3.22	34.617	2.49	27.580	51.7	2.415
1483A	3.60	34.611	2.43	2.80	124.3	0.00	38.2	55.6	2250	3.17	34.618	2.50	27.586	51.2	2.581
1732A	3.40	34.615	2.45	2.8	127.9	0.00	38.5	53.4	2500	3.12	34.618	2.48	27.591	50.7	2.750
1983A	3.23	34.616	2.49	2.8	130.2	0.03	38.7	51.8	2750	3.08	34.619	2.54	27.595	50.4	2.921
2232A	3.17	34.617	2.50	2.82	132.0	0.06	38.8	51.2	3000	3.07	34.621	2.53	27.598	50.1	3.095
2481A	3.12	34.617	2.48	2.77	132.7	0.06	38.8	50.7	3250	3.07	34.621	2.55	27.597	50.1	3.272
2732A	3.08	34.617	2.54	2.78	132.7	0.04	38.8	50.4	3500	3.10	34.619	2.55	27.593	50.5	3.454
2981A	3.07	34.620	2.53	2.82	133.1	0.04	38.9	50.1	3750	3.13	34.619	2.54	27.590	50.8	3.640
3230A	3.07	34.620	2.55	2.8	133.4	0.05	39.2	50.1	4000	3.16	34.620	2.56	27.588	51.0	3.832
3479A	3.10	34.618	2.55	2.88	133.3	0.03	38.9	50.5	4250	3.20	34.622	2.54	27.586	51.1	4.028
3728A	3.13	34.618	2.54	2.86	133.5	0.03	38.7	50.8							
3977A	3.158	34.619	2.56	2.8	133.2	0.01	38.9	50.9							
4078A	3.177	34.619	2.54	2.79	133.4	0.00	38.9	51.1							
4177A	3.185	34.620	2.54	2.8	133.1	0.04	38.8	51.1							
4276A	3.204	34.621	2.54	2.81	133.1	0.04	38.8	51.2							
4376A	3.210	34.617	2.51	2.82	133.0	0.02	38.9	51.5							

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
3 15.0S	125 20.2E	08/25/76	1740 GMT

Z	T	S	SIGMA T	DT	DD
0	26.09	34.09	22.342	550.4	0.000
10	26.09	34.09	22.342	550.4	0.055
20	26.09	34.09	22.342	550.4	0.110
30	26.09	34.09	22.342	550.4	0.165
40	26.08	34.07	22.345	550.1	0.220
50	25.98	34.16	22.384	546.4	0.275
75	22.26	34.37	23.688	421.6	0.397
100	20.23	34.49	24.333	360.3	0.496
125	19.73	34.52	24.487	345.6	0.585
150	17.48	34.58	25.097	287.5	0.665
175	15.94	34.56	25.457	253.4	0.734
200	14.67	34.56	25.724	227.9	0.795
225	13.71	34.57	25.935	207.8	0.851
250	12.74	34.56	26.113	190.9	0.903
275	11.73	34.56	26.318	171.4	0.950
300	10.74	34.53	26.476	156.4	0.992
350	9.78	34.54	26.650	139.9	1.070
400	8.65	34.56	26.850	121.0	1.139
450	8.17	34.56	26.924	114.0	1.202
500	7.79	34.57	26.988	107.6	1.261
550	7.37	34.56	27.041	102.8	1.318
600	7.00	34.58	27.109	96.3	1.373
650	6.72	34.60	27.163	91.2	1.424
700	6.44	34.60	27.201	87.7	1.474
750	6.06	34.59	27.243	83.7	1.522
800	5.93	34.59	27.259	82.1	1.569
850	5.75	34.59	27.282	80.0	1.615
900	5.46	34.60	27.326	75.9	1.659
950	5.21	34.60	27.355	73.0	1.702
1000	4.93	34.60	27.388	69.9	1.744
1100	4.58	34.61	27.436	65.4	1.823
1200	4.24	34.61	27.473	61.9	1.898
1300	3.92	34.61	27.506	58.7	1.970
1400	3.74	34.61	27.525	57.0	2.040
1500	3.60	34.62	27.547	54.9	2.108
1600	3.462	34.615	27.554	54.2	2.175
1700	3.408	34.620	27.566	53.1	2.241
1800	3.374	34.619	27.568	52.9	2.308
1900	3.326	34.620	27.573	52.4	2.374
2000	3.266	34.620	27.579	51.8	2.441
2100	3.190	34.619	27.586	51.2	2.507
2200	3.160	34.618	27.588	51.0	2.574
2300	3.104	34.618	27.593	50.5	2.640
2400	3.085	34.618	27.595	50.4	2.707
2500	3.074	34.621	27.598	50.0	2.774
2600	3.059	34.618	27.597	50.1	2.841
2700	3.037	34.619	27.600	49.9	2.909
2800	3.033	34.620	27.601	49.8	2.977
2900	3.038	34.622	27.602	49.7	3.045
3000	3.038	34.622	27.602	49.7	3.114
3100	3.048	34.618	27.598	50.0	3.184
3200	3.050	34.621	27.600	49.8	3.255
3300	3.050	34.620	27.599	49.9	3.326
3400	3.057	34.621	27.600	49.9	3.398
3500	3.067	34.622	27.599	49.9	3.471
3600	3.073	34.623	27.600	49.9	3.544
3700	3.085	34.626	27.601	49.8	3.618
3800	3.095	34.625	27.599	49.9	3.692
3900	3.108	34.623	27.596	50.2	3.767
4000	3.120	34.625	27.597	50.1	3.843
4100	3.133	34.623	27.594	50.4	3.920
4200	3.144	34.622	27.592	50.6	3.998
4300	3.158	34.622	27.591	50.7	4.076
4400	3.169	34.622	27.590	50.8	4.156
4500	3.180	34.620	27.587	51.1	4.236
4600	3.191	34.621	27.587	51.1	4.317
4700	3.203	34.622	27.587	51.1	4.399
4800	3.216	34.620	27.584	51.4	4.481
4900	3.228	34.620	27.583	51.5	4.564
5000	3.241	34.620	27.582	51.6	4.649
5100	3.254	34.619	27.580	51.8	4.734
5200	3.268	34.618	27.577	52.0	4.819
5300	3.282	34.618	27.576	52.1	4.906

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
6 27.0S	126 00.2E	08/26/76	2238 GMT

Z	T	S	SIGMA T	DT	DD
0	25.97	34.12	22.402	544.7	0.000
10	25.98	34.12	22.399	544.9	0.054
20	25.98	34.12	22.399	544.9	0.109
30	25.98	34.13	22.406	544.2	0.164
40	25.98	34.13	22.406	544.2	0.218
50	25.97	34.13	22.409	543.9	0.273
75	25.09	34.22	22.747	511.6	0.405
100	24.25	34.38	23.120	476.0	0.550
125	21.98	34.57	23.918	399.8	0.640
150	19.62	34.56	24.561	338.5	0.734
175	16.68	34.58	25.287	269.4	0.811
200	14.72	34.53	25.690	231.1	0.875
225	13.43	34.54	25.969	204.6	0.931
250	12.30	34.53	26.186	183.9	0.981
275	11.39	34.51	26.343	169.1	1.027
300	10.60	34.52	26.493	154.8	1.069
350	9.17	34.51	26.728	132.5	1.144
400	8.57	34.54	26.847	121.3	1.211
450	7.70	34.54	26.978	108.8	1.273
500	7.24	34.55	27.052	101.8	1.329
550	6.99	34.55	27.087	98.5	1.383
600	6.51	34.55	27.152	92.3	1.435
650	6.16	34.56	27.206	87.2	1.485
700	5.98	34.57	27.237	84.2	1.532
750	5.66	34.57	27.277	80.4	1.578
800	5.36	34.58	27.322	76.2	1.622
850	5.12	34.59	27.358	72.8	1.664
900	4.90	34.59	27.382	70.5	1.705
950	4.64	34.60	27.421	66.8	1.745
1000	4.54	34.60	27.432	65.7	1.783
1100	4.31	34.60	27.457	63.4	1.858
1200	4.12	34.61	27.486	60.7	1.931
1300	3.79	34.61	27.520	57.4	2.002
1400	3.67	34.61	27.532	56.3	2.070
1500	3.56	34.61	27.543	55.3	2.138
1600	3.483	34.615	27.554	54.2	2.205
1700	3.407	34.617	27.563	53.3	2.272
1800	3.346	34.616	27.568	52.8	2.338
1900	3.259	34.616	27.577	52.1	2.404
2000	3.202	34.616	27.582	51.5	2.470
2100	3.187	34.617	27.584	51.3	2.536
2200	3.165	34.617	27.586	51.1	2.603
2300	3.157	34.617	27.587	51.1	2.670
2400	3.137	34.619	27.591	50.7	2.737
2500	3.112	34.618	27.592	50.6	2.805
2600	3.097	34.616	27.592	50.6	2.873
2700	3.080	34.618	27.595	50.3	2.941
2800	3.074	34.616	27.594	50.4	3.010
2900	3.068	34.617	27.595	50.3	3.080
3000	3.072	34.617	27.595	50.3	3.150
3100	3.071	34.616	27.596	50.2	3.220
3200	3.074	34.617	27.595	50.3	3.291
3300	3.080	34.616	27.593	50.5	3.363
3400	3.089	34.618	27.594	50.4	3.436
3500	3.098	34.621	27.596	50.2	3.509
3600	3.107	34.620	27.594	50.4	3.583
3700	3.118	34.619	27.592	50.6	3.657
3800	3.130	34.621	27.593	50.5	3.733
3900	3.142	34.620	27.591	50.7	3.809
4000	3.155	34.620	27.590	50.8	3.886
4100	3.169	34.621	27.589	50.9	3.964
4200	3.181	34.618	27.586	51.2	4.042
4300	3.194	34.622	27.588	51.0	4.122
4400	3.208	34.620	27.585	51.3	4.202

RV THOMAS WASHINGTON INDOPAC LEG VII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
7 37.2S	127 49.5E	8/27/76	1620 GMT	3767M	130	13KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	25.50	33.920	4.86	0.24	2.6	0.20	0.4	545.2
20	25.53	33.919	4.84	0.20	2.6	0.20	0.4	546.1
50	25.56	34.001	4.83	0.24	2.5	0.20	0.4	541.1
75	24.41	34.317	3.94	0.57	7.2	0.56	5.5	485.1
99	22.46	34.520	2.89	0.89	14.6	0.07	13.1	416.3
149	18.55	34.612	2.72	1.22	22.9	0.04	17.2	310.2
199	15.05	34.593	2.71	1.46	30.3	0.02	20.7	233.3
297	11.25	34.551	2.43	1.91	45.0	0.02	27.1	163.6
496	7.27	34.564	2.25	2.44	69.5	0.02	34.2	101.1
744	5.86	34.579	2.28	2.6	87.6	0.00	36.3	82.1
992	4.64	34.597	2.37	2.71	106.8	0.02	37.8	67.0
1241	3.98	34.606	2.43	2.78	118.0	0.00	38.2	59.6
1491	3.59	34.611	2.44	2.76	124.0	0.00	38.8	55.5
1740	3.38	34.612	2.45	2.80	127.7	0.00	39.1	53.5
1988	3.27	34.615	2.46	2.8	129.5	0.00	39.2	52.2
2335	3.09	34.618	2.52	2.78	132.1	0.00	39.5	50.4
2683	3.07	34.617	2.53	2.78	133.6	0.00	39.6	50.3
3026	3.07	34.624	2.56	2.78	133.8	0.00	39.5	49.8
3467	3.107	34.619	2.55	2.8	134.1	0.00	39.5	50.5
3711	3.138	34.617	2.54	2.81	133.8	0.00	39.5	50.9

Z	T	S	O2	SIGT	DT	DD
0	25.50	33.920	4.86	22.396	545.2	0.000
10	25.52	33.921	4.85	22.392	545.6	0.055
20	25.53	33.919	4.84	22.386	546.1	0.109
30	25.54	33.948	4.84	22.404	544.5	0.164
50	25.56	34.001	4.83	22.439	541.1	0.273
75	24.41	34.317	3.94	23.025	485.1	0.402
100	22.38	34.529	2.89	23.771	413.8	0.515
125	20.39	34.603	2.80	24.375	356.2	0.612
150	18.47	34.613	2.72	24.877	308.4	0.696
200	15.00	34.594	2.71	25.677	232.3	0.834
250	12.74	34.578	2.58	26.135	188.7	0.943
300	11.16	34.551	2.42	26.416	162.1	1.034
400	8.72	34.560	2.29	26.838	122.0	1.183
500	7.23	34.565	2.25	27.065	100.6	1.302
600	6.43	34.582	2.26	27.187	88.9	1.405
700	5.96	34.585	2.27	27.250	83.0	1.501
800	5.55	34.584	2.30	27.301	78.2	1.591
1000	4.61	34.599	2.37	27.422	66.7	1.757
1200	4.06	34.607	2.42	27.488	60.4	1.906
1500	3.58	34.612	2.44	27.542	55.4	2.114
1750	3.37	34.613	2.45	27.562	53.4	2.282
2000	3.26	34.616	2.46	27.575	52.2	2.449
2250	3.13	34.619	2.51	27.589	50.8	2.616
2500	3.08	34.619	2.52	27.595	50.4	2.783
2750	3.07	34.620	2.53	27.596	50.2	2.953
3000	3.07	34.625	2.53	27.600	49.8	3.126
3250	3.09	34.623	2.54	27.597	50.0	3.303
3500	3.11	34.620	2.55	27.593	50.5	3.485

RV THOMAS WASHINGTON INDOPAC LEG VII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
8 49.7S	128 34.7E	8/28/76	0307 GMT	2070M	120	8KT	1	130 2 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	25.64	33.953	4.92	0.22	0.7	0.00	0.1	546.9
15	25.45	33.947	4.91	0.21	0.7	0.02	0.1	541.8
31	25.41	33.944	4.90	0.21	0.9	0.02	0.1	540.8
50	23.77	34.341	3.03	0.80	11.6	0.06	10.5	465.3
75	22.23	34.539	2.74	0.94	15.7	0.03	13.6	408.7
99	20.75	34.585	2.72	1.13	18.5	0.03	15.1	366.6
150	17.77	34.598	2.68	1.35	24.7	0.01	18.0	292.9
200	14.35	34.590	2.55	1.62	34.3	0.01	22.6	219.1
299	11.41	34.557	2.47	1.97	44.2	0.02	26.6	166.0
400	9.16	34.559	2.30	2.25	57.0	0.02	31.0	128.7
500	7.80	34.566	2.26	2.42	67.8	0.02	33.5	108.3
601	6.91	34.570	2.24	2.55	76.0	0.00	35.0	95.9
700	6.13	34.580	2.31	2.59	86.5	0.00	36.1	85.3
801	5.48	34.589	2.32	2.69	96.5	0.01	36.8	76.9
1000	4.75	34.597	2.37	2.76	107.3	0.01	36.9	68.2
1201	4.10	34.612	2.44	2.84	117.6	0.00	37.3	60.3
1400	3.52	34.639	2.58	2.76	123.4	0.00	37.5	52.7
1600	3.06	34.677	2.83	2.70	128.7	0.00	36.8	45.7
1797	2.913	34.689	2.92	2.74	130.2	0.01	36.8	43.5
1994	2.788	34.702	3.02	2.73	130.5	0.02	36.8	41.5

Z	T	S	O2	SIGT	DT	DD
0	25.64	33.953	4.92	22.378	546.9	0.000
10	25.50	33.950	4.91	22.419	543.0	0.055
20	25.44	33.947	4.91	22.435	541.5	0.109
30	25.41	33.946	4.90	22.441	540.9	0.163
50	23.77	34.341	3.03	23.232	465.3	0.264
75	22.23	34.539	2.74	23.824	408.7	0.374
100	20.69	34.587	2.72	24.282	365.1	0.471
125	19.25	34.604	2.71	24.674	327.8	0.559
150	17.77	34.598	2.68	25.040	292.9	0.638
200	14.35	34.590	2.55	25.815	219.1	0.768
250	12.50	34.587	2.50	26.190	183.5	0.872
300	11.38	34.557	2.47	26.380	165.5	0.963
400	9.16	34.559	2.30	26.768	128.7	1.117
500	7.80	34.566	2.26	26.984	108.3	1.244
600	6.92	34.571	2.24	27.113	96.0	1.355
700	6.13	34.580	2.31	27.226	85.3	1.455
800	5.49	34.590	2.32	27.314	77.0	1.546
1000	4.75	34.597	2.37	27.406	68.2	1.713
1200	4.10	34.613	2.44	27.489	60.4	1.863
1500	3.26	34.660	2.71	27.610	48.9	2.061
1750	2.93	34.688	2.91	27.663	43.8	2.206
2000	2.78	34.702	3.02	27.689	41.4	2.343

AD-A068 240 SCRIPPS INSTITUTION OF OCEANOGRAPHY LA JOLLA CALIF F/G 8/1
PHYSICAL, CHEMICAL AND BIOLOGICAL DATA. INDOPAC EXPEDITION, LEG--ETC(U)
DEC 78 N00014-75-C-0152
UNCLASSIFIED SIO-REF-78-21 NL

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
7 37.2S	127 49.5E	08/27/76	1517 GMT

Z	T	S	SIGMA T	DT	DD
0	25.60	33.92	22.366	548.1	0.000
10	25.56	33.92	22.378	546.9	0.055
20	25.55	33.92	22.381	546.7	0.110
30	25.56	33.93	22.385	546.2	0.164
40	25.57	33.96	22.405	544.4	0.219
50	25.60	34.04	22.456	539.5	0.273
75	24.82	34.34	22.919	495.2	0.403
100	22.37	34.53	23.778	413.2	0.518
125	19.21	34.60	24.682	327.0	0.611
150	17.94	34.60	25.000	296.7	0.690
175	16.74	34.59	25.280	270.0	0.762
200	15.00	34.57	25.660	234.0	0.827
225	13.86	34.57	25.903	210.6	0.884
250	13.06	34.55	26.052	196.7	0.936
275	11.75	34.55	26.291	174.0	0.984
300	10.58	34.52	26.497	154.4	1.027
350	9.30	34.52	26.714	133.6	1.103
400	8.31	34.54	26.887	117.5	1.169
450	7.62	34.54	26.990	107.7	1.229
500	7.24	34.55	27.052	101.8	1.285
550	7.01	34.55	27.084	98.7	1.340
600	6.55	34.56	27.155	92.0	1.392
650	6.41	34.56	27.173	90.3	1.442
700	6.14	34.57	27.217	86.2	1.491
750	5.76	34.58	27.273	80.8	1.537
800	5.52	34.58	27.302	78.0	1.582
850	5.33	34.59	27.333	75.1	1.626
900	5.05	34.59	27.366	72.0	1.668
950	4.87	34.60	27.395	69.3	1.708
1000	4.76	34.60	27.408	68.1	1.748
1100	4.47	34.60	27.440	65.0	1.825
1200	4.18	34.60	27.471	62.0	1.900
1300	3.93	34.61	27.505	58.6	1.972
1400	3.73	34.61	27.526	56.9	2.042
1500	3.59	34.61	27.540	55.6	2.110
1600	3.500	34.613	27.551	54.5	2.178
1700	3.415	34.614	27.560	53.6	2.245
1800	3.359	34.615	27.566	53.0	2.312
1900	3.287	34.616	27.576	52.2	2.378
2000	3.267	34.617	27.577	52.1	2.445
2100	3.207	34.616	27.582	51.6	2.511
2200	3.171	34.618	27.587	51.1	2.578
2300	3.112	34.617	27.591	50.7	2.645
2400	3.097	34.615	27.591	50.7	2.711
2500	3.077	34.619	27.596	50.2	2.779
2600	3.069	34.618	27.596	50.2	2.846
2700	3.061	34.618	27.597	50.2	2.914
2800	3.064	34.617	27.596	50.3	2.983
2900	3.065	34.617	27.596	50.3	3.052
3000	3.064	34.617	27.596	50.3	3.122
3100	3.066	34.617	27.596	50.3	3.192
3200	3.072	34.616	27.596	50.2	3.264
3300	3.080	34.618	27.595	50.3	3.335
3400	3.090	34.618	27.594	50.4	3.408
3500	3.101	34.618	27.593	50.5	3.481
3600	3.112	34.617	27.591	50.7	3.555
3700	3.125	34.617	27.590	50.8	3.630

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LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
8 49.7S	128 34.7E	08/28/76	0138 GMT

Z	T	S	SIGMA T	DT	DD
0	25.62	33.95	22.382	546.6	0.000
10	25.51	33.95	22.416	543.3	0.055
20	25.44	33.95	22.437	541.3	0.109
30	25.42	33.95	22.443	540.7	0.163
40	25.40	33.96	22.457	539.4	0.217
50	25.25	33.97	22.510	534.3	0.271
75	22.76	33.48	22.874	499.6	0.401
100	21.44	34.54	24.044	387.7	0.513
125	19.21	34.60	24.682	327.0	0.603
150	17.81	34.58	25.017	295.1	0.682
175	15.57	34.60	25.556	243.8	0.750
200	14.05	34.56	25.856	215.3	0.809
225	12.49	34.55	26.165	186.0	0.861
250	12.13	34.55	26.234	179.4	0.908
275	11.76	34.55	26.301	173.0	0.954
300	11.38	34.54	26.368	166.7	0.998
350	9.68	34.55	26.675	137.5	1.077
400	8.88	34.54	26.798	125.9	1.147
450	8.31	34.55	26.894	116.7	1.212
500	7.66	34.56	27.000	106.8	1.272
550	7.26	34.56	27.057	101.3	1.328
600	6.88	34.57	27.118	95.5	1.382
650	6.42	34.57	27.180	89.6	1.433
700	6.06	34.58	27.235	84.4	1.481
750	5.67	34.59	27.292	79.0	1.527
800	5.45	34.59	27.319	76.5	1.571
850	5.27	34.59	27.340	74.4	1.613
900	5.04	34.60	27.375	71.1	1.655
950	4.82	34.60	27.401	68.7	1.695
1000	4.70	34.61	27.422	66.7	1.734
1100	4.40	34.61	27.455	63.5	1.810
1200	4.11	34.62	27.495	59.8	1.883
1300	3.89	34.62	27.517	57.7	1.953
1400	3.51	34.64	27.572	52.5	2.020
1500	3.20	34.66	27.617	48.2	2.082
1600	3.058	34.677	27.644	45.6	2.140
1700	2.974	34.684	27.657	44.4	2.196
1800	2.905	34.690	27.668	43.4	2.252
1900	2.822	34.698	27.682	42.1	2.307
2000	2.764	34.703	27.690	41.4	2.361

RV THOMAS WASHINGTON INDOPAC LEG VIII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
8 52.8S	129 28.6E	9/ 6/76	0257 0416 GMT	2139M	270	6KT	1	270 2 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	26.78	33.871	4.72	0.17	1.5	0.00	0.0	586.9
10	26.25	33.867	4.92	0.17	1.2	0.00	0.0	571.2
20	26.00	33.865	4.88	0.15	1.4	0.00	0.0	563.9
31	25.15	33.736	4.99	0.19	2.4	0.01	0.0	548.2
50	24.43	34.068	3.82	0.54	7.5	0.43	6.1	503.6
75	21.30	34.537	2.79	1.05	17.2	0.05	14.3	384.3
100	19.44	34.588	2.60	1.15	21.0	0.03	16.5	333.5
124	17.74	34.616	2.58	1.30	25.0	0.03	18.1	290.9
150	16.32	34.608	2.50	1.50	29.9	0.03	20.0	259.4
199	14.21	34.601	2.38	1.69	36.0	0.03	22.8	215.5
249	12.12	34.573	2.45	1.77	41.6	0.01	25.4	177.5
297	10.78	34.562	2.37	2.01	47.5	0.02	27.3	154.7
397	9.06	34.556	2.27	2.23	56.5	0.01	30.6	127.4
495	7.68	34.570	2.26	2.37	68.2	0.00	33.0	106.3
594	6.80	34.579	2.27	2.48	77.3	0.00	34.3	93.8
692	6.26	34.582	2.25	2.52	84.6	0.00	35.0	86.7
789	5.71	34.590	2.27	2.55	92.5	0.00	35.6	79.5
830A	5.49	34.591	2.24	2.65	95.7	0.02	36.0	76.9
985	4.72	34.615	2.28	2.73	111.3	0.00	36.3	66.5
1027A	4.64	34.614	2.27	2.76	113.0	0.00	36.7	65.7
1225A	4.06	34.626	2.37	2.74	119.3	0.00	36.8	58.9
1422A	3.530	34.648	2.56	2.76	124.7	0.00	37.2	52.1
1621A	3.040	34.684	2.79	2.68	129.7	0.00	36.7	45.0
1820A	2.890	34.697	2.87	2.68	131.6	0.02	36.7	42.7
2018A	2.823	34.702	2.91	2.68	131.7	0.02	36.7	41.8
2120A	2.798	34.703	2.97	2.66	131.8	0.02	36.6	41.5

Z	T	S	O2	SIGT	DT	DD
0	26.78	33.871	4.72	21.961	586.9	0.000
10	26.25	33.867	4.92	22.124	571.2	0.058
20	26.00	33.865	4.88	22.201	563.9	0.115
30	25.23	33.747	4.99	22.346	550.0	0.171
50	24.43	34.068	3.82	22.831	503.6	0.276
75	21.30	34.537	2.79	24.081	384.3	0.388
100	19.44	34.588	2.60	24.613	333.5	0.478
125	17.68	34.617	2.58	25.076	289.5	0.557
150	16.32	34.608	2.50	25.392	259.4	0.627
200	14.16	34.602	2.38	25.863	214.7	0.748
250	12.09	34.574	2.45	26.260	176.9	0.849
300	10.72	34.562	2.37	26.505	153.7	0.935
400	9.01	34.557	2.27	26.789	126.7	1.082
500	7.63	34.572	2.26	27.013	105.5	1.206
600	6.76	34.581	2.27	27.141	93.3	1.315
700	6.21	34.584	2.25	27.217	86.1	1.414
800	5.65	34.591	2.26	27.294	78.8	1.506
1000	4.69	34.616	2.28	27.427	66.2	1.672
1200	4.14	34.624	2.35	27.494	59.9	1.821
1500	3.31	34.663	2.66	27.608	49.1	2.018
1750	2.92	34.695	2.85	27.671	43.2	2.163
2000	2.63	34.703	2.91	27.685	41.8	2.301

RV THOMAS WASHINGTON INDOPAC LEG VIII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
4 09.1S	130 35.7E	9/ 9/76	1300 1422 GMT	3854M	220	2KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	26.47	34.471	5.00	0.24	3.1	0.09	1.1	534.3
9	26.35	34.466	5.12	0.24	3.0	0.13	1.1	531.1
19	26.13	34.461	5.06	0.24	3.2	0.18	1.1	524.9
30	25.24	34.342	4.84	0.28	3.6	0.51	1.9	507.2
49	23.35	34.409	3.61	0.64	9.7	0.20	8.5	448.6
74	21.90	34.521	3.30	0.89	14.5	0.06	11.5	401.2
98	20.10	34.566	3.11	1.01	18.1	0.04	13.7	351.5
123	19.57	34.563	3.05	1.03	19.5	0.03	14.6	338.5
148	18.07	34.591	2.98	1.18	22.6	0.01	16.2	300.4
198	16.37	34.637	2.70	1.43	29.1	0.01	19.6	258.4
247	12.98	34.607	2.61	1.73	39.8	0.00	24.3	191.0
297	11.18	34.588	2.45	2.00	46.6	0.00	27.2	159.7
397	9.07	34.584	2.35	2.22	58.3	0.00	30.8	125.5
496	7.79	34.592	2.36	2.35	69.3	0.00	32.8	106.2
597	6.89	34.592	2.30	2.50	78.6	0.00	34.1	94.0
696	6.02	34.593	2.28	2.55	88.2	0.00	35.2	83.0
796	5.43	34.597	2.32	2.59	95.8	0.00	35.9	75.7
996	4.79	34.604	2.35	2.67	105.2	0.00	36.8	68.1
1196	4.09	34.608	2.39	2.72	116.1	0.00	37.7	60.5
1494	3.57	34.613	2.41	2.78	128.5	0.00	38.2	55.1
2954A	3.066	34.620	2.49	2.89	137.4	0.00	38.7	50.0
3249A	3.082	34.619	2.49	2.88	138.6	0.00	38.7	50.3
3545A	3.108	34.620	2.53	2.89	136.6	0.00	38.7	50.4
3839A	3.140	34.619	2.47	2.89	137.8	0.00	38.9	50.8

Z	T	S	O2	SIGT	DT	DD
0	26.47	34.471	5.00	22.510	534.3	0.000
10	26.34	34.468	5.11	22.547	530.7	0.053
20	26.07	34.451	5.05	22.620	523.7	0.106
30	25.24	34.342	4.84	22.794	507.2	0.158
50	23.28	34.415	3.60	23.429	446.5	0.253
75	21.82	34.524	3.29	23.928	398.8	0.360
100	20.05	34.568	3.10	24.438	350.2	0.454
125	19.46	34.566	3.05	24.590	335.7	0.541
150	18.00	34.596	2.97	24.981	298.5	0.621
200	16.23	34.636	2.70	25.432	255.5	0.762
250	12.84	34.607	2.60	26.139	188.5	0.877
300	11.10	34.589	2.45	26.456	158.3	0.967
400	9.02	34.586	2.35	26.809	124.8	1.116
500	7.75	34.593	2.36	27.011	105.6	1.239
600	6.86	34.593	2.30	27.138	93.6	1.348
700	5.99	34.594	2.28	27.254	82.6	1.445
800	5.41	34.598	2.32	27.329	75.5	1.534
1000	4.77	34.605	2.35	27.409	67.9	1.698
1200	4.08	34.609	2.39	27.488	60.4	1.849
1500	3.57	34.614	2.41	27.544	55.1	2.057

1D

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
8 52.3S	129 28.6E	09/06/76	0225 GMT

Z	T	S	SIGMA T	DT	DD
0	26.85	33.87	21.958	589.1	0.000
10	26.41	33.80	22.084	575.1	0.058
20	26.23	33.94	22.186	565.4	0.115
30	25.25	33.75	22.345	550.1	0.171
40	25.03	33.82	22.464	538.7	0.226
50	24.66	33.90	22.675	516.5	0.279
75	21.91	34.49	23.877	403.8	0.395
100	20.43	34.59	24.355	358.1	0.491
125	18.83	34.61	24.636	312.3	0.575
150	16.80	34.62	25.289	269.2	0.649
175	15.57	34.59	25.549	244.5	0.715
200	14.58	34.61	25.782	222.4	0.774
225	13.50	34.59	25.993	202.3	0.829
250	12.35	34.55	26.192	183.4	0.879
275	11.62	34.56	26.339	169.4	0.924
300	10.74	34.55	26.492	154.9	0.967
350	9.72	34.54	26.660	138.9	1.044
400	8.94	34.54	26.788	126.3	1.114
450	8.34	34.55	26.890	117.1	1.179
500	7.68	34.56	26.997	107.0	1.239
550	7.28	34.57	27.062	100.6	1.295
600	6.92	34.57	27.112	96.0	1.349
650	6.57	34.57	27.160	91.5	1.401
700	6.22	34.58	27.214	86.4	1.450
750	5.93	34.58	27.251	82.9	1.498
800	5.65	34.59	27.294	78.6	1.543
850	5.32	34.59	27.334	75.0	1.587
900	5.14	34.60	27.364	72.2	1.629
950	4.90	34.61	27.400	68.6	1.669
1000	4.68	34.62	27.432	65.7	1.708
1100	4.47	34.62	27.456	63.5	1.784
1200	4.17	34.63	27.496	59.7	1.857
1300	3.84	34.63	27.531	56.4	1.927
1400	3.57	34.65	27.574	52.4	1.992
1500	3.23	34.67	27.622	47.7	2.054
1600	3.075	34.681	27.646	45.5	2.112
1700	2.966	34.688	27.661	44.0	2.168
1800	2.898	34.693	27.671	43.1	2.223
1900	2.837	34.699	27.682	42.1	2.278
2000	2.823	34.703	27.686	41.7	2.333
2100	2.795	34.704	27.689	41.4	2.387

2D

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
4 09.1S	130 35.7E	09/09/76	1335 GMT

Z	T	S	SIGMA T	DT	DD
0	26.38	34.43	22.507	534.6	0.000
10	26.39	34.46	22.526	532.7	0.053
20	26.25	34.45	22.563	529.2	0.107
30	25.65	34.40	22.712	515.0	0.159
40	25.08	34.40	22.886	498.4	0.210
50	23.93	34.41	23.237	464.8	0.258
75	22.06	34.48	23.827	408.5	0.368
100	20.40	34.54	24.325	360.9	0.465
125	19.70	34.55	24.517	342.7	0.554
150	18.09	34.57	24.940	302.4	0.635
175	17.24	34.63	25.192	278.4	0.709
200	16.03	34.61	25.460	252.9	0.777
225	14.23	34.61	25.856	215.3	0.837
250	12.81	34.58	26.125	189.8	0.890
275	12.06	34.59	26.279	175.1	0.937
300	11.09	34.59	26.460	158.0	0.980
350	9.83	34.58	26.673	137.7	1.058
400	9.07	34.57	26.791	126.6	1.128
450	8.47	34.58	26.893	116.8	1.193
500	7.71	34.58	27.008	106.0	1.252
550	7.29	34.58	27.069	100.2	1.308
600	6.88	34.60	27.142	93.3	1.361
650	6.52	34.59	27.182	89.4	1.412
700	5.96	34.59	27.255	82.5	1.459
750	5.59	34.60	27.310	77.4	1.504
800	5.35	34.60	27.339	74.6	1.547
850	5.18	34.60	27.359	72.7	1.589
900	5.05	34.60	27.374	71.2	1.630
950	4.96	34.60	27.385	70.2	1.671
1000	4.76	34.61	27.416	67.3	1.710
1100	4.32	34.61	27.464	62.7	1.786
1200	4.04	34.61	27.494	59.9	1.859
1300	3.84	34.61	27.515	57.9	1.929
1400	3.68	34.61	27.531	56.4	1.998
1500	3.58	34.62	27.549	54.7	2.065
1600	3.488	34.619	27.557	53.9	2.132
1700	3.404	34.620	27.566	53.1	2.198
1800	3.353	34.620	27.571	52.6	2.265
1900	3.300	34.620	27.576	52.1	2.331
2000	3.238	34.620	27.582	51.6	2.397
2100	3.202	34.620	27.585	51.2	2.463
2200	3.176	34.620	27.588	51.0	2.530
2300	3.144	34.620	27.591	50.7	2.597
2400	3.124	34.620	27.593	50.6	2.663
2500	3.104	34.619	27.594	50.4	2.731
2600	3.093	34.619	27.595	50.4	2.799
2700	3.063	34.619	27.597	50.1	2.867
2800	3.063	34.619	27.597	50.1	2.935
2900	3.058	34.618	27.597	50.1	3.005
3000	3.061	34.619	27.598	50.1	3.074
3100	3.068	34.618	27.596	50.2	3.145
3200	3.075	34.618	27.596	50.3	3.216
3300	3.081	34.618	27.595	50.3	3.288
3400	3.088	34.619	27.595	50.3	3.360
3500	3.097	34.619	27.594	50.4	3.433
3600	3.106	34.618	27.593	50.5	3.507
3700	3.118	34.619	27.592	50.6	3.582
3800	3.128	34.619	27.591	50.7	3.657
3860	3.138	34.620	27.591	50.7	3.718

RV THOMAS WASHINGTON INDOPAC LEG VIII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
6 06.0S	131 03.0E	9/10/76	1041 1549 GMT	7154M	130	12KT	1	130 3 5

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	25.51	33.970	4.98	0.28	3.0	0.18	0.5	541.9	0	25.51	33.970	4.98	22.431	541.9	0.000
10	25.51	33.991	5.03	0.26	3.2	0.18	0.4	540.4	10	25.51	33.991	5.03	22.447	540.4	0.054
20	25.15	34.190	4.86	0.24	3.1	0.22	0.5	515.5	20	25.15	34.190	4.86	22.706	515.5	0.107
31	24.95	34.203	4.75	0.34	4.4	0.58	1.3	508.8	30	24.96	34.205	4.76	22.773	509.1	0.158
50	24.51	34.440	4.48	0.38	4.3	0.76	1.7	479.0	50	24.51	34.440	4.48	23.088	479.0	0.257
75	22.11	34.531	2.87	0.52	6.8	0.93	3.7	406.1	75	22.11	34.531	2.87	23.852	406.1	0.369
100	19.63	34.568	3.04	0.95	14.6	0.15	12.9	339.6	100	19.63	34.568	3.04	24.549	339.6	0.463
125	18.46	34.637	2.80	1.05	18.3	0.00	14.1	306.3	125	18.46	34.637	2.80	24.900	306.3	0.544
150	17.40	34.627	2.82	1.28	22.8	0.00	16.9	282.3	150	17.40	34.627	2.82	25.152	282.3	0.619
200	14.76	34.613	2.55	1.31	24.8	0.00	17.6	225.8	200	14.76	34.613	2.55	25.745	225.8	0.749
250	11.90	34.587	2.46	1.64	32.8	0.00	21.8	172.5	250	11.90	34.587	2.46	26.307	172.5	0.851
299	10.76	34.591	2.36	1.91	42.9		25.9	152.2	300	10.74	34.592	2.36	26.524	151.9	0.936
399	9.01	34.588	2.34	2.06	50.0		28.1	124.3	400	8.99	34.589	2.34	26.817	124.1	1.081
499	7.69	34.580	2.27	2.31	59.6		30.6	105.7	500	7.68	34.582	2.27	27.012	105.5	1.204
600	6.86	34.588	2.25	2.42	68.2		32.8	93.9	600	6.86	34.588	2.25	27.135	93.9	1.313
698	6.13	34.590	2.29	2.56	78.5		34.0	84.6	700	6.12	34.592	2.29	27.236	84.4	1.411
798	5.48	34.595	2.31	2.65	86.4		34.9	76.5	800	5.47	34.596	2.31	27.320	76.3	1.502
897	5.05	34.599	2.35	2.67	94.4		35.8	71.3	1000	4.74	34.598	2.36	27.408	68.1	1.667
996A	4.78	34.602	2.32	2.74	105.8		37.0V	68.1	1200	4.15	34.609	2.36	27.481	61.2	1.818
997	4.75	34.597	2.36	2.70	101.2		36.4	68.2	1500	3.65	34.614	2.39	27.536	55.9	2.030
1194	4.11	34.607	2.39	2.78	114.		37.2	60.8	1750	3.39	34.613	2.40	27.560	53.4	2.199
1196A	4.16	34.608	2.36	2.83	115.0		37.6	61.2	2000	3.25	34.616	2.41	27.577	51.9	2.366
1396A	3.80	34.612	2.39	2.85	121.3		38.0	57.4	2250	3.16	34.619	2.43	27.587	51.0	2.533
1596A	3.53	34.613	2.39	2.86	126.7		38.4	54.8	2500	3.11	34.619	2.45	27.593	50.6	2.701
1894A	3.30	34.615	2.41	2.86	130.9		38.6	52.5	2750	3.06	34.620	2.43	27.597	50.1	2.871
2192A	3.18	34.618	2.42	2.89	133.1		38.7	51.2	3000	3.07	34.622	2.43	27.598	50.0	3.044
2489A	3.11	34.618	2.45	2.91	135.2		39.0	50.6	3250	3.08	34.620	2.50	27.595	50.3	3.222
2784A	3.06	34.619	2.45	2.91	137.1		38.9	50.1	3500	3.09	34.621	2.48	27.595	50.3	3.403
2981A	3.07	34.621	2.42	2.93	137.3		39.1	50.0	3750	3.12	34.620	2.46	27.592	50.6	3.589
3177A	3.08	34.618	2.50	2.91	137.0		38.9	50.3	4000	3.14	34.621	2.45	27.591	50.7	3.780
3471A	3.09	34.620	2.48	2.94	137.6		39.3	50.3	4250	3.18	34.622	2.44	27.588	51.0	3.975
3762A	3.12	34.619	2.46	2.95	137.8		39.0	50.6	4500	3.22	34.623	2.43	27.585	51.3	4.176
4054A	3.15	34.620	2.45	2.89	138.1		39.0	50.8	4750	3.26	34.623	2.40	27.581	51.6	4.382
4343A	3.20	34.621	2.44	2.91	139.7		39.1	51.2	5000	3.29	34.622	2.38	27.577	52.0	4.593
4612P	3.24	34.622	2.42	2.92	140.5		39.1	51.4	5250	3.32	34.621	2.36	27.574	52.3	4.809
4863P	3.271	34.621	2.39	2.94	141.8		39.4	51.8	5500	3.36	34.621	2.33	27.570	52.8	5.031
5113P	3.305	34.620	2.38	2.92	142.6		39.2	52.2	5750	3.40	34.621	2.31	27.566	53.0	5.258
5360P	3.340	34.620	2.35	2.94	143.2		39.2	52.5	6000	3.44	34.621	2.30	27.563	53.3	5.490
5606P	3.378	34.619	2.32	2.95	144.8		39.4	52.9	6250	3.47	34.621	2.28	27.559	53.7	5.727
5688P	3.391	34.620	2.31	2.94	145.		39.4	53.0	6500	3.52	34.621	2.29	27.555	54.1	5.970
6357C	3.490	34.620	2.28	2.9	142.2		38.5	53.9	6750	3.56	34.621	2.30	27.551	54.5	6.218
6734C	3.556	34.620	2.30	2.9	141.9		38.7	54.5	7000	3.61	34.620	2.31	27.546	55.0	6.473
7025C	3.610	34.619	2.31	2.9	142.2		38.9	55.1							

RV THOMAS WASHINGTON INDOPAC LEG VIII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
8 31.1S	131 10.0E	9/13/76	1617 1741 GMT	1455M	110	8KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	25.78	33.711	4.86	0.18	1.7	0.00	0.0	568.5	0	25.78	33.711	4.86	22.153	568.5	0.000
7	25.78	33.708	4.85	0.17	1.6	0.00	0.0	568.7	10	25.78	33.710	4.85	22.151	568.7	0.057
15	25.78	33.710	4.86	0.17	1.6	0.00	0.0	568.6	20	25.78	33.712	4.84	22.153	568.5	0.114
24	25.78	33.711	4.82	0.16	1.5	0.00	0.0	568.5	30	25.60	33.709	4.83	22.205	563.5	0.170
39	25.30	33.703	4.86	0.14	2.2	0.00	0.0	555.0	50	25.23	33.705	4.80	22.315	553.0	0.282
59	25.18	33.704	4.75	0.17	2.6	0.08	0.0	551.4	75	22.76	34.242	3.24	23.448	444.7	0.408
78	22.26	34.358	2.95	0.92	14.1	0.05	12.3	422.6	100	20.69	34.677	2.55	24.352	358.4	0.509
97	20.84	34.654	2.54	1.14	18.9	0.03	15.9	363.9	125	19.69	34.728	2.66	24.654	329.6	0.596
116	20.03	34.733	2.68	1.16	19.6	0.03	16.2	337.6	150	18.79	34.681	2.55	24.850	311.0	0.677
152	18.72	34.675	2.54	1.30	23.8	0.03	18.0	309.7	200	16.45	34.671	2.51	25.411	257.6	0.822
187	17.35	34.702	2.56	1.38	27.9	0.03	19.5	275.6	250	13.39	34.598	2.35	26.021	199.6	0.940
221	14.91	34.622	2.42	1.59	34.2	0.02	22.4	228.3	300	11.45	34.582	2.28	26.386	164.9	1.034
288	11.87	34.583	2.30	1.97	45.7	0.02	26.6	172.2	400	8.86	34.562	2.25	26.817	124.1	1.186
354	9.88	34.571	2.21	2.12	54.6	0.02	29.6	139.2	500	7.80	34.599	2.19	27.009	106.2	1.310
421	8.51	34.559	2.27	2.28	59.4	0.02	31.6	119.0	600	6.86	34.537	2.23	27.095	98.3	1.421
490	7.89	34.580	2.18	2.44	69.4	0.00	32.9	108.5	700	6.20	34.565	2.24	27.204	88.0	1.523
564	7.16	34.572	2.23	2.55	71.7	0.00	33.8	99.1	800	5.64	34.591	2.28	27.295	78.7	1.617
565A	7.15	34.569	2.23	2.54	72.1	0.00	33.7	99.2	1000	4.70	34.611	2.30	27.422	66.7	1.783
717A	6.11	34.579	2.24	2.65	85.9	0.04	35.1	85.1	1200	4.22	34.621	2.33	27.483	61.0	1.934
877A	5.26	34.600	2.32	2.79	100.3	0.02	36.1	73.6							
1046A	4.53	34.613	2.29	2.81	112.4	0.00	36.8	64.7							
1230A	4.20	34.620	2.34	2.86	115.8	0.00	37.1	60.7							

P) THESE NANSEN BOTTLES POSSTRIPPED, CAUSING THE DEPTHS TO BE UNCERTAIN.
C) THESE THREE NANSEN BOTTLES WERE LOWERED ON THE HYDRO WIRE IN CONJUNCTION WITH THE GRAVITY CORE.

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
6 06.0S	131 03.0E	09/10/76	0921 GMT

Z	T	S	SIGMA T	DT	DD
0	25.75	33.91	22.312	553.3	0.000
10	25.68	33.97	22.379	546.9	0.055
20	25.64	34.04	22.444	540.7	0.109
30	25.54	34.11	22.527	532.7	0.163
40	25.09	34.17	22.710	515.2	0.216
50	24.72	34.25	22.882	498.6	0.267
75	23.67	34.52	23.397	449.5	0.386
100	20.46	34.56	24.325	361.0	0.488
125	19.28	34.57	24.641	330.9	0.575
150	18.35	34.61	24.906	305.6	0.656
175	17.43	34.61	25.132	284.2	0.731
200	15.70	34.59	25.520	247.3	0.799
225	14.39	34.58	25.799	220.7	0.859
250	13.19	34.59	26.056	196.3	0.913
275	11.91	34.57	26.292	173.9	0.961
300	11.37	34.58	26.401	163.6	1.005
350	10.32	34.58	26.589	145.7	1.086
400	9.28	34.56	26.749	130.5	1.159
450	8.44	34.58	26.898	116.4	1.225
500	7.74	34.58	27.004	106.4	1.284
550	7.36	34.58	27.058	101.2	1.341
600	6.98	34.58	27.112	96.1	1.395
650	6.54	34.59	27.180	89.7	1.446
700	6.20	34.59	27.225	85.4	1.495
750	5.96	34.59	27.255	82.5	1.541
800	5.60	34.59	27.300	78.2	1.587
850	5.35	34.60	27.339	74.6	1.630
900	5.09	34.60	27.370	71.7	1.672
950	4.89	34.60	27.393	69.5	1.712
1000	4.80	34.61	27.411	67.7	1.752
1100	4.50	34.61	27.445	64.6	1.830
1200	4.20	34.61	27.477	61.5	1.904
1300	4.08	34.61	27.490	60.3	1.977
1400	3.85	34.61	27.514	58.0	2.048
1500	3.67	34.62	27.540	55.6	2.117
1600	3.550	34.618	27.550	54.6	2.185
1700	3.467	34.615	27.556	54.0	2.253
1800	3.370	34.616	27.566	53.1	2.320
1900	3.310	34.618	27.573	52.4	2.386
2000	3.272	34.617	27.576	52.1	2.453
2100	3.237	34.616	27.579	51.9	2.520
2200	3.202	34.620	27.585	51.2	2.587
2300	3.168	34.618	27.587	51.1	2.654
2400	3.139	34.618	27.590	50.8	2.722
2500	3.114	34.620	27.593	50.5	2.789
2600	3.093	34.619	27.595	50.4	2.857
2700	3.082	34.619	27.596	50.3	2.925
2800	3.070	34.620	27.598	50.1	2.994
2900	3.070	34.620	27.598	50.1	3.063
3000	3.068	34.621	27.599	50.0	3.133
3100	3.070	34.620	27.598	50.1	3.203
3200	3.076	34.621	27.598	50.1	3.274
3300	3.082	34.620	27.596	50.2	3.346
3400	3.092	34.621	27.596	50.2	3.418
3500	3.099	34.622	27.596	50.2	3.491
3600	3.108	34.622	27.596	50.3	3.565
3700	3.119	34.621	27.594	50.4	3.640
3800	3.130	34.622	27.594	50.5	3.715
3900	3.143	34.623	27.593	50.5	3.791
4000	3.154	34.622	27.591	50.7	3.868
4100	3.166	34.623	27.591	50.7	3.945
4200	3.178	34.623	27.590	50.8	4.023
4300	3.191	34.622	27.588	51.0	4.102
4400	3.204	34.622	27.587	51.1	4.182
4500	3.216	34.622	27.586	51.2	4.263
4600	3.230	34.622	27.584	51.3	4.345
4700	3.243	34.621	27.582	51.5	4.427
4800	3.257	34.622	27.582	51.6	4.510
4900	3.270	34.624	27.582	51.6	4.594
5000	3.285	34.623	27.580	51.8	4.679
5100	3.298	34.622	27.578	52.0	4.765
5200	3.312	34.621	27.576	52.2	4.851
5300	3.327	34.621	27.574	52.3	4.939
5400	3.342	34.619	27.571	52.6	5.027
5500	3.356	34.620	27.571	52.6	5.116
5600	3.371	34.620	27.569	52.8	5.206
5700	3.386	34.619	27.567	53.0	5.297
5800	3.401	34.618	27.565	53.2	5.389
5900	3.418	34.617	27.562	53.4	5.481

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
8 31.1S	131 10.0E	09/13/76	1522 GMT

Z	T	S	SIGMA T	DT	DD
0	25.78	33.71	22.152	568.6	0.000
10	25.78	33.71	22.152	568.6	0.057
20	25.78	33.71	22.152	568.6	0.114
30	25.57	33.72	22.224	561.7	0.170
40	25.24	33.68	22.295	554.9	0.226
50	25.16	33.69	22.327	551.8	0.282
75	23.23	34.12	23.225	465.9	0.410
100	20.88	34.66	24.288	364.5	0.514
125	19.75	34.70	24.618	333.0	0.602
150	18.69	34.66	24.859	310.1	0.684
175	17.57	34.69	25.159	281.6	0.759
200	15.96	34.62	25.484	250.7	0.827
225	14.26	34.58	25.827	218.1	0.887
250	13.13	34.57	26.053	196.6	0.941
275	11.99	34.55	26.261	176.8	0.989
300	11.26	34.55	26.398	163.9	1.034
350	9.92	34.55	26.634	141.4	1.114
400	8.97	34.54	26.783	127.3	1.185
450	8.33	34.55	26.891	117.0	1.250
500	7.69	34.56	26.995	107.2	1.310
550	7.26	34.55	27.049	102.0	1.367
600	6.91	34.56	27.106	96.7	1.421
650	6.43	34.56	27.171	90.5	1.472
700	6.17	34.57	27.213	86.5	1.521
750	5.99	34.58	27.244	83.6	1.569
800	5.60	34.58	27.293	79.0	1.615
850	5.36	34.59	27.330	75.5	1.658
900	5.19	34.59	27.350	73.5	1.701
950	4.97	34.60	27.384	70.3	1.742
1000	4.78	34.60	27.405	68.3	1.782
1100	4.45	34.61	27.450	64.1	1.860
1200	4.25	34.61	27.472	62.0	1.934
1300	4.06	34.62	27.500	59.3	2.007

RV THOMAS WASHINGTON INDOPAC LEG VIII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
6 02.5S	133 38.7E	9/18/76	0410 0558 GMT	3537M	160	10KT	1	160 3 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	26.28	33.938	4.85	0.35E	2.4	0.00	0.1	567.0
10	26.08	33.925	5.01	0.29	2.3	0.00	0.1	562.0
20	25.99	33.922	4.93	0.27	2.2	0.00	0.1	559.5
31	25.93	33.947	4.93	0.25	2.1	0.02	0.1	555.9
50	25.81	34.278	4.76	0.27	2.2	0.17	0.5	528.5
76	22.70	34.530	3.19	0.86	12.6	0.11	11.9	422.1
100	21.41	34.663	2.90	1.01	16.3	0.06	14.1	378.1
125	19.19	34.695	2.59	1.24	22.0	0.04	17.5	319.6
150	17.58	34.720	2.50	1.39	26.5	0.02	19.5	279.6
198	15.02	34.676	2.38	1.63	34.6	0.00	23.0	226.6
247	12.36	34.611	2.26	1.90	44.4	0.00	26.8	179.1
295	10.89	34.590	2.29	2.03	49.7	0.00	28.4	154.5
393	8.86	34.587	2.14	2.27	62.2	0.00	32.2	122.1
493	7.65	34.589	2.15	2.43	72.5	0.00	34.0	104.5
560A	7.22	34.595	2.15	2.48	78.5	0.05	34.1	98.2
597	6.97	34.589	2.17	2.51	77.9	0.00	34.9	95.3
658A	6.65	34.591	2.24	2.59	83.3	0.04	34.7	91.0
757A	6.17	34.596	2.23	2.65	90.5	0.02	35.1	84.6
854A	5.52	34.604	2.23	2.73	99.4	0.00	36.1	76.2
1051A	4.73	34.611	2.28	2.81	110.1	0.05	36.7	66.9
1248A	4.19	34.618	2.33	2.85	117.4	0.00	37.3	60.8
1444A	4.00	34.624	2.35	2.86	121.0	0.02	37.6	58.4
1640A	3.94	34.627	2.35	2.90	122.5	0.02	37.9	57.6
1837A	3.93	34.631	2.35	2.88	124.0	0.02	37.4	57.2
2034A	3.93	34.634	2.38	2.90	124.4	0.02	37.4	57.0
2231A	3.92	34.635	2.39	2.83	122.9	0.02	37.4	56.8
2429A	3.93	34.636	2.41	2.84	123.6	0.00	37.4	56.9
2627A	3.94	34.638	2.40	2.86	124.3	0.02	37.5	56.8
2825A	3.96	34.637	2.38	2.91	124.4	0.02	37.5	57.1
3024A	3.97	34.637	2.35	2.92	125.6	0.00	37.5	57.2
3224A	3.996	34.640	2.31	2.91	126.9	0.00	37.4	57.2
3424A	4.022	34.639	2.17	3.02	129.7	0.02	37.2	57.5
3524A	4.027	34.639	2.19	2.98	130.9	0.02	36.9	57.6

Z	T	S	O2	SIGT	DT	DD
0	26.28	33.938	4.85	22.168	567.0	0.000
10	26.08	33.925	5.01	22.221	562.0	0.056
20	25.99	33.922	4.93	22.247	559.5	0.113
30	25.93	33.943	4.93	22.279	556.5	0.168
50	25.81	34.278	4.76	22.570	528.5	0.277
75	22.83	34.522	3.25	23.640	426.3	0.397
100	21.41	34.663	2.90	24.146	378.1	0.499
125	19.19	34.695	2.59	24.759	319.6	0.587
150	17.58	34.720	2.50	25.179	279.6	0.663
200	14.90	34.673	2.37	25.760	224.4	0.792
250	12.25	34.610	2.26	26.258	177.2	0.895
300	10.76	34.590	2.28	26.518	152.4	0.981
400	8.75	34.588	2.14	26.855	120.5	1.124
500	7.60	34.591	2.15	27.032	103.7	1.244
600	6.95	34.590	2.17	27.123	95.1	1.353
700	6.45	34.594	2.24	27.194	88.4	1.454
800	5.88	34.600	2.23	27.273	80.9	1.549
1000	4.89	34.611	2.26	27.401	68.7	1.721
1200	4.29	34.617	2.32	27.472	62.0	1.875
1500	3.97	34.626	2.35	27.513	58.1	2.093
1750	3.93	34.630	2.35	27.520	57.4	2.274
2000	3.93	34.635	2.37	27.524	57.0	2.458
2250	3.92	34.636	2.39	27.526	56.8	2.647
2500	3.93	34.638	2.41	27.526	56.8	2.841
2750	3.95	34.638	2.39	27.525	57.0	3.040
3000	3.97	34.638	2.35	27.523	57.2	3.245
3250	4.00	34.641	2.29	27.522	57.2	3.455
3500	4.03	34.640	2.19	27.518	57.6	3.671

RV THOMAS WASHINGTON INDOPAC LEG VIII

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
5 20.9S	132 10.7E	9/20/76	0633 GMT	781M	150	5KT	1	160 2 4

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	26.52	34.530	5.05	0.24	3.2	0.07	0.3	531.6
10	26.08	34.531	4.99	0.25	3.4	0.09	0.3	518.3
20	26.10	34.611	5.12	0.23	2.3	0.00	0.2	513.2
30	26.08	34.641	5.03	0.21	3.0	0.00	0.3	510.4
49	22.84	34.508	3.34	0.84	11.9	0.35	10.5	427.5
65	21.64	34.534	3.10	1.00	15.6	0.05	12.6	393.4
74	20.92	34.548	3.00	1.06	16.5	0.02	13.6	373.6
98	19.30	34.628	2.78	1.24	21.5	0.00	16.4	327.2
123	18.25	34.652	2.68	1.36	23.9	0.00	17.9	300.2
149	17.77	34.730	2.67	1.43	25.6	0.00	18.7	283.3
198	15.72	34.697	2.55	1.61	31.8	0.00	21.4	239.9
247	13.35	34.639	2.35	1.88	41.3	0.00	25.0	195.8
297	11.44	34.614	2.25	2.08	50.5	0.00	27.8	162.3
347	9.96	34.592	2.26	2.18	56.0	0.00	29.9	138.9
397	9.08	34.588	2.28	2.35	61.2	0.00	31.2	125.4
447	8.30	34.591	2.19	2.42	67.8	0.00	32.4	113.5
547	7.12	34.592	2.19	2.56	78.6	0.02	34.1	97.0
649	6.78	34.590	2.19	2.62	83.1	0.02	34.6	92.7
751	6.40	34.594	2.15	2.68	87.4	0.07	35.0	87.6

Z	T	S	O2	SIGT	DT	DD
0	26.52	34.530	5.05	22.538	531.6	0.000
10	26.08	34.531	4.99	22.677	518.3	0.053
20	26.10	34.611	5.12	22.731	513.2	0.104
30	26.08	34.641	5.03	22.760	510.4	0.155
50	22.75	34.509	3.33	23.655	424.9	0.249
75	20.84	34.552	2.99	24.216	371.4	0.349
100	19.19	34.631	2.77	24.709	324.4	0.437
125	18.21	34.659	2.68	24.978	298.8	0.516
150	17.74	34.731	2.67	25.149	282.5	0.590
200	15.62	34.695	2.54	25.617	238.0	0.723
250	13.22	34.638	2.34	26.086	193.4	0.834
300	11.34	34.614	2.25	26.432	160.6	0.926
400	9.03	34.589	2.28	26.811	124.6	1.076
500	7.59	34.593	2.19	27.035	103.4	1.198
600	6.89	34.593	2.19	27.133	94.1	1.306
700	6.59	34.592	2.17	27.173	90.3	1.408

E) ALL PHOSPHATES FOR THIS STATION WERE RUN ON THE AUTOANALYZER.

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
6 02.5S	133 38.7E	09/16/76	0313 GMT

Z	T	S	SIGMA T	DT	DD
0	26.25	33.94	22.179	566.0	0.000
10	26.10	33.94	22.226	561.5	0.056
20	26.00	33.94	22.257	558.5	0.112
30	25.93	34.05	22.362	548.5	0.166
40	25.86	34.26	22.541	531.3	0.222
50	25.68	34.38	22.687	517.3	0.275
75	22.55	34.54	23.735	417.3	0.392
100	21.26	34.66	24.185	374.4	0.492
125	19.46	34.69	24.686	326.6	0.580
150	17.59	34.70	25.162	281.3	0.658
175	16.96	34.71	25.320	266.2	0.727
200	15.64	34.68	25.602	239.4	0.792
225	14.18	34.63	25.882	212.8	0.850
250	12.50	34.59	26.194	183.2	0.901
275	11.43	34.57	26.382	165.4	0.946
300	10.55	34.57	26.541	150.5	0.987
350	9.75	34.57	26.679	137.2	1.063
400	8.90	34.57	26.818	124.0	1.132
450	8.36	34.56	26.895	116.7	1.196
500	7.71	34.57	27.000	106.7	1.256
550	7.32	34.57	27.056	101.4	1.313
600	6.97	34.57	27.106	96.7	1.367
650	6.68	34.58	27.153	92.2	1.419
700	6.52	34.58	27.175	90.2	1.469
750	6.17	34.59	27.229	85.0	1.518
800	5.91	34.59	27.262	81.9	1.565
850	5.53	34.60	27.317	76.7	1.610
900	5.26	34.61	27.357	72.8	1.653
950	5.03	34.61	27.385	70.3	1.694
1000	4.86	34.61	27.404	68.4	1.735
1100	4.60	34.61	27.433	65.8	1.813
1200	4.28	34.62	27.477	61.5	1.888
1300	4.11	34.62	27.495	59.8	1.961
1400	4.04	34.62	27.502	59.1	2.033
1500	3.98	34.62	27.508	58.5	2.105
1600	3.947	34.623	27.514	58.0	2.177
1700	3.929	34.627	27.519	57.5	2.250
1800	3.922	34.631	27.523	57.1	2.323
1900	3.924	34.631	27.523	57.2	2.396
2000	3.925	34.632	27.523	57.1	2.471
2100	3.926	34.633	27.524	57.0	2.546
2200	3.925	34.633	27.524	57.0	2.622
2300	3.925	34.636	27.527	56.8	2.698
2400	3.929	34.635	27.525	56.9	2.776
2500	3.933	34.636	27.526	56.9	2.854
2600	3.939	34.637	27.526	56.9	2.933
2700	3.946	34.636	27.524	57.0	3.013
2800	3.952	34.636	27.524	57.1	3.094
2900	3.961	34.637	27.524	57.1	3.175
3000	3.968	34.638	27.524	57.1	3.258
3100	3.976	34.638	27.523	57.1	3.341
3200	3.984	34.638	27.522	57.2	3.425
3300	3.993	34.639	27.522	57.2	3.511
3400	4.005	34.639	27.521	57.4	3.597
3500	4.012	34.639	27.520	57.4	3.684

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
5 20.9S	132 10.7E	09/20/76	0559 GMT

Z	T	S	SIGMA T	DT	DD
0	26.11	34.55	22.682	517.9	0.000
10	26.12	34.60	22.716	514.6	0.052
20	26.11	34.64	22.749	511.4	0.103
30	25.28	34.53	22.923	494.8	0.153
40	23.44	34.48	23.434	446.0	0.201
50	21.86	34.51	23.906	401.0	0.243
75	20.01	34.57	24.451	348.9	0.337
100	19.07	34.65	24.756	320.0	0.422
125	18.11	34.62	24.973	299.2	0.500
150	17.66	34.72	25.160	281.5	0.574
175	16.35	34.67	25.432	255.6	0.642
200	15.10	34.65	25.699	230.2	0.704
225	13.64	34.64	26.003	201.3	0.760
250	12.77	34.61	26.156	186.8	0.810
275	11.93	34.61	26.319	171.3	0.856
300	11.23	34.59	26.434	160.4	0.900
350	9.69	34.58	26.697	135.5	0.977
400	8.90	34.58	26.826	123.2	1.046
450	8.13	34.58	26.945	111.9	1.108
500	7.62	34.59	27.029	104.0	1.166
550	6.95	34.58	27.116	95.7	1.221
600	6.85	34.58	27.130	94.4	1.273
650	6.69	34.59	27.160	91.6	1.324
700	6.55	34.59	27.178	89.8	1.374

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
3 46.9S	132 21.9E	9/21/76	1044 1221 GMT	2112M	150	3KT	1	0

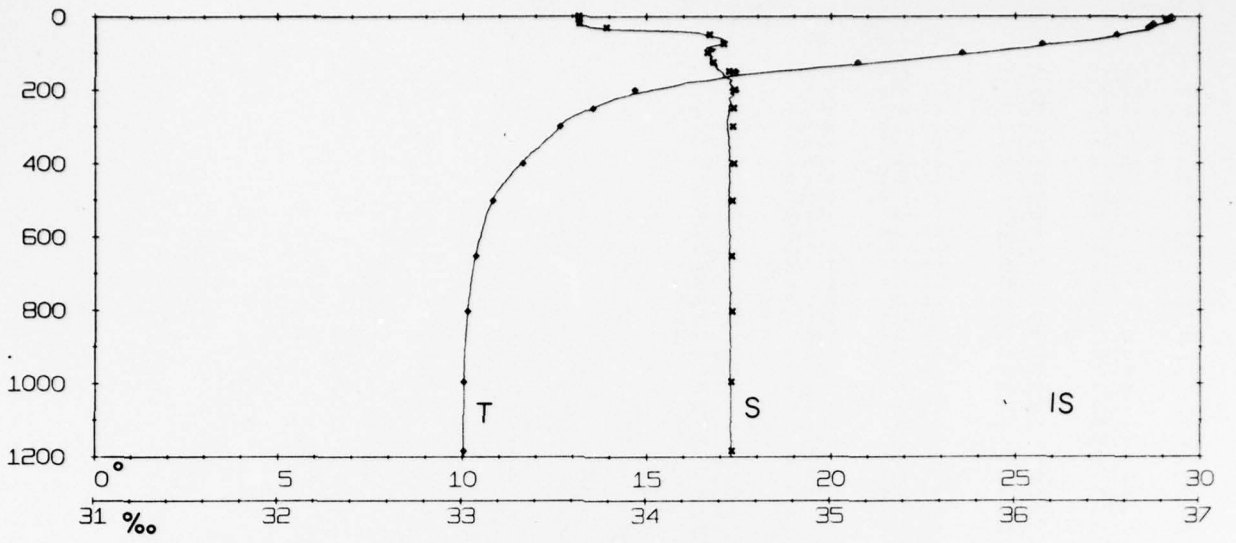
Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0E	26.07	34.696	6.02	0.17	2.2	0.00	0.0	506.2	0	26.07	34.696	6.02	22.804	506.2	0.000
10	26.05	34.693	6.00	0.16	2.1	0.00	0.2	505.8	10	26.05	34.693	6.00	22.808	505.8	0.051
19	25.89	34.693	5.81	0.19	2.0	0.03	0.2	501.0	20	25.88	34.694	5.74	22.861	500.7	0.101
30	25.77	34.694	4.99	0.27	2.2	0.20	0.2	497.4	30	25.77	34.694	4.99	22.896	497.4	0.151
49	23.51	34.652	4.10	0.72	9.8	0.07	8.8	435.6	50	23.46	34.657	4.08	23.560	433.9	0.244
74	22.78	34.725	3.76	0.84	11.7	0.07	10.3	410.2	75	22.73	34.721	3.74	23.819	409.2	0.350
97	21.60	34.611	3.25	1.04	15.6	0.03	13.1	386.8	100	21.49	34.611	3.20	24.083	384.0	0.450
122	20.54	34.649	2.96	1.14	19.0	0.05	15.3	356.6	125	20.32	34.663	2.94	24.438	350.2	0.543
146	18.67	34.754	2.83	1.28	22.9	0.03	17.4	302.8	150	18.56	34.755	2.83	25.015	295.3	0.625
194	15.54	34.716	2.89	1.59	32.3	0.03	20.8	234.7	200	15.34	34.717	2.86	25.697	230.4	0.759
242	14.13	34.693	2.60	1.75	36.0	0.01	23.7	207.2	250	13.76	34.679	2.57	26.008	200.9	0.870
290	11.85	34.615	2.45	2.02	47.4	0.01	27.4	169.5	300	11.47	34.608	2.41	26.404	163.3	0.965
385	9.15	34.592	2.19	2.33	61.5	0.01	31.7	126.1	400	8.95	34.594	2.19	26.828	123.0	1.115
480	8.28	34.593	2.27	2.39	66.8	0.00	32.5	113.1	500	8.09	34.594	2.27	26.961	110.4	1.241
576	7.41	34.594	2.29	2.56	77.1	0.00	33.6	100.8	600	7.22	34.597	2.27	27.091	98.1	1.354
671	6.66	34.600	2.23	2.65	84.9	0.00	34.7	90.4	700	6.38	34.604	2.24	27.210	86.8	1.457
769	5.84	34.604	2.26	2.72	95.9	0.00	35.7	80.0	800	5.73	34.606	2.23	27.296	78.8	1.550
804A	5.72	34.603	2.23	2.73	97.5	0.00	35.6	78.7	1000	4.88	34.607	2.34	27.398	68.9	1.719
967	4.92	34.608	2.32	2.80	106.4	0.00	36.7	69.2	1200	4.18	34.616	2.40	27.483	61.0	1.871
1001A	4.88	34.607	2.34	2.80	107.2	0.00	36.4	68.8	1500	3.89	34.609	2.53	27.508	58.6	2.088
1197A	4.19	34.615	2.40	2.86	115.7	0.00	36.6	61.0	1750	3.86	34.612	2.51	27.513	58.0	2.269
1394A	3.95	34.609	2.48	2.88	116.4	0.00	37.4	59.1	2000	3.64	34.611	2.51	27.515	57.9	2.455
1591A	3.87	34.609	2.55	2.81	118.1	0.00	37.4	58.3							
1788A	3.856	34.611	2.50	2.85	118.6	0.00	37.4	58.0							
1984A	3.842	34.610	2.52	2.86	119.0	0.00	37.6	58.0							
2082A	3.828	34.610	2.45	2.88	120.7	0.00	37.4	57.8							

E) THE BOTTOM DEPTH RECORDED WAS INFERRED FROM THE PINGER AND THE DEEPEST BOTTLE. THE DEPTH RECORDER INDICATED 1940 METERS WHICH WAS PROBABLY A STRONG SIDE ECHO.

70 INDOPAC LEG VIII

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
3 46.9S	132 21.9E	09/21/76	1012 GMT

Z	T	S	SIGMA T	DT	DD
0	26.00	34.70	22.829	503.8	0.000
10	25.91	34.69	22.849	501.8	0.050
20	25.82	34.70	22.885	498.4	0.100
30	25.68	34.70	22.928	494.3	0.150
40	24.79	34.61	23.132	474.6	0.199
50	23.34	34.65	23.591	431.0	0.244
75	22.61	34.74	23.869	404.5	0.349
100	20.88	34.64	24.273	366.0	0.446
125	19.71	34.70	24.629	332.0	0.535
150	17.66	34.73	25.168	280.7	0.612
175	16.69	34.77	25.430	255.8	0.681
200	15.12	34.70	25.733	227.0	0.742
225	14.20	34.69	25.924	208.8	0.798
250	13.67	34.64	25.997	201.9	0.851
275	12.51	34.62	26.215	181.2	0.901
300	11.23	34.59	26.434	160.4	0.946
350	9.82	34.61	26.698	135.3	1.023
400	8.87	34.59	26.838	122.0	1.091
450	8.43	34.59	26.907	115.5	1.155
500	8.21	34.59	26.941	112.3	1.216
550	7.58	34.56	27.027	104.2	1.275
600	7.32	34.60	27.080	99.1	1.330
650	6.84	34.60	27.147	92.8	1.383
700	6.32	34.60	27.217	86.2	1.433
750	5.89	34.60	27.272	80.9	1.480
800	5.72	34.61	27.301	78.1	1.525
850	5.40	34.61	27.341	74.4	1.568
900	5.17	34.61	27.368	71.6	1.610
950	4.95	34.61	27.394	69.4	1.650
1000	4.87	34.62	27.411	67.6	1.690
1100	4.42	34.62	27.461	63.0	1.767
1200	4.16	34.62	27.487	60.5	1.840
1300	4.06	34.61	27.492	60.1	1.912
1400	3.94	34.61	27.504	58.9	1.984
1500	3.88	34.61	27.511	58.3	2.055
1600	3.862	34.613	27.515	57.9	2.127
1700	3.850	34.613	27.516	57.8	2.199
1800	3.845	34.611	27.515	57.9	2.272
1900	3.836	34.600	27.507	58.7	2.347
2000	3.829	34.615	27.520	57.4	2.422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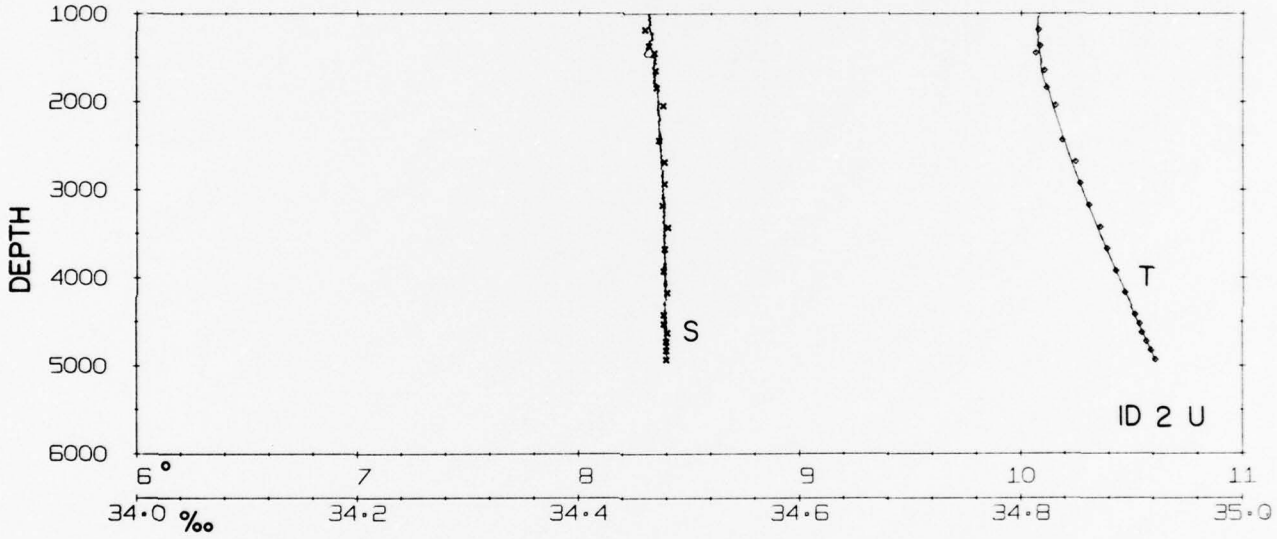
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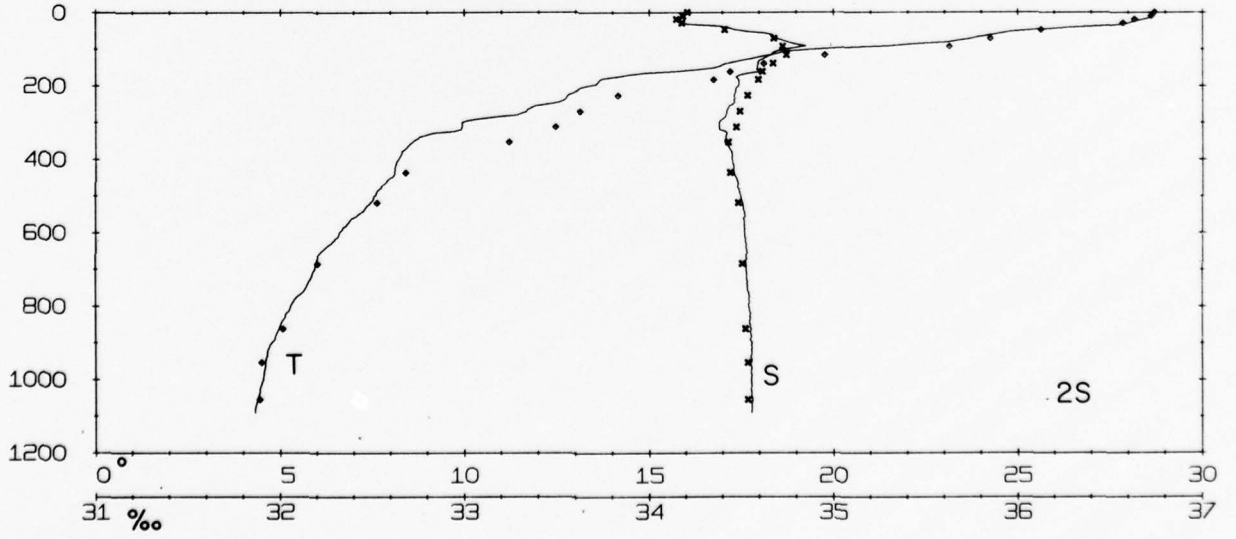
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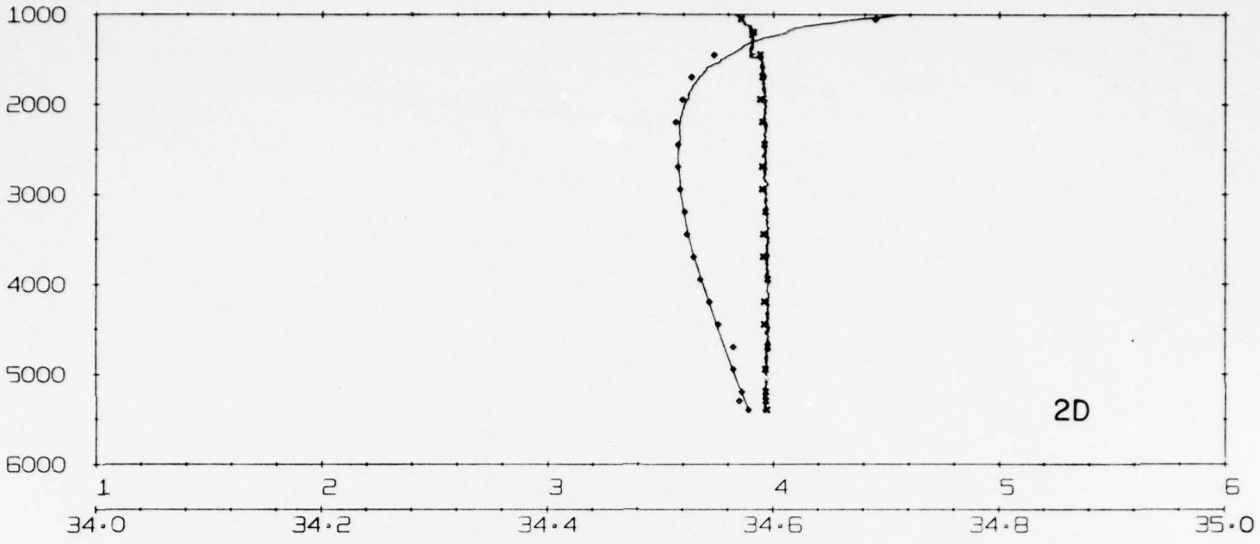
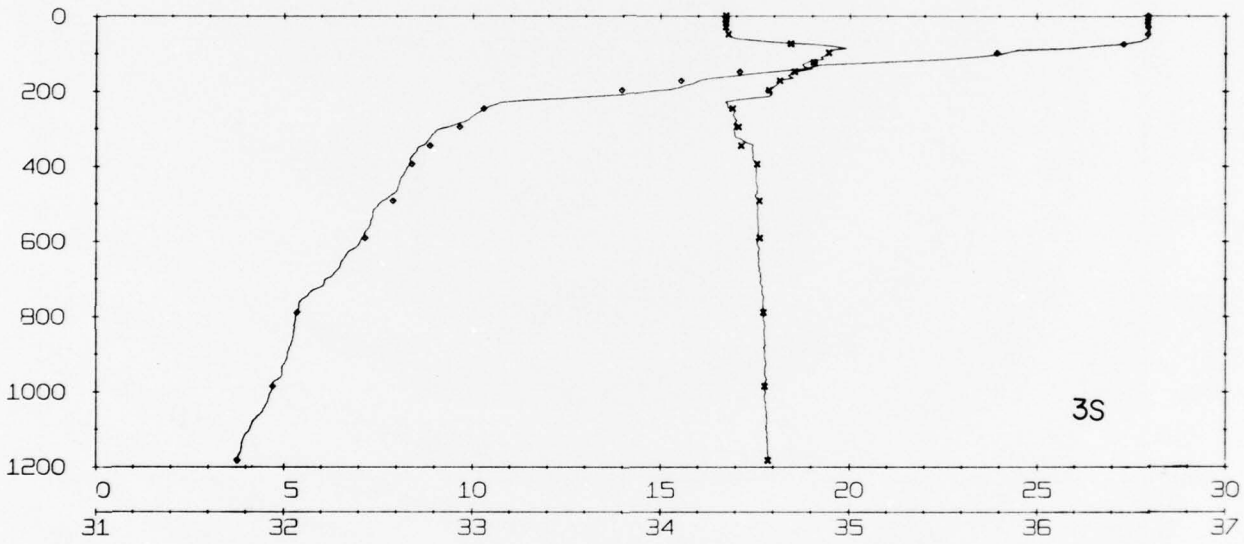
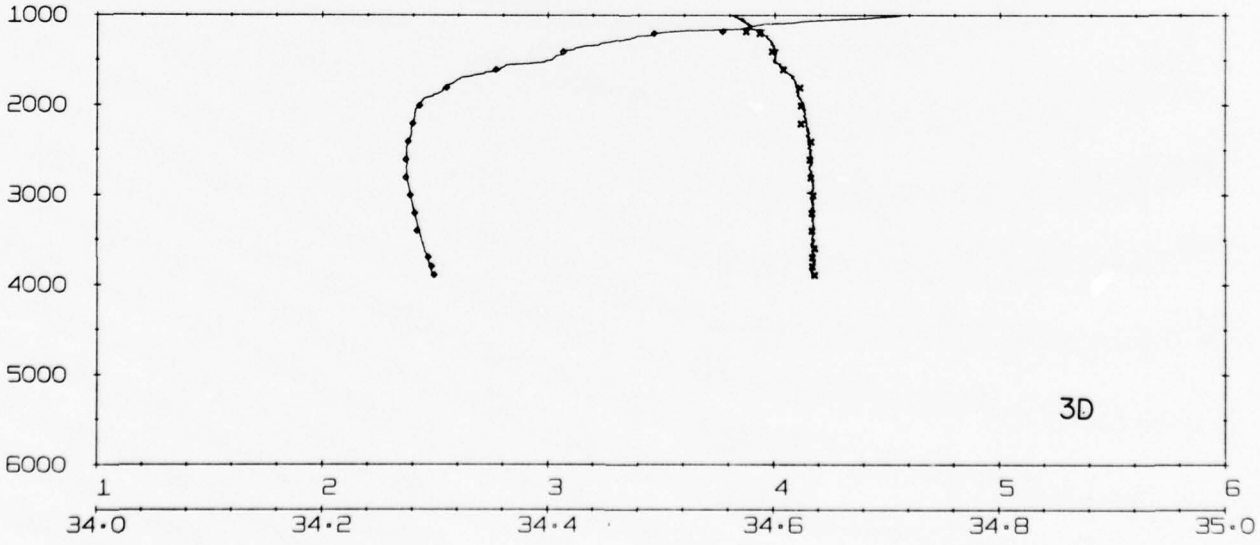
INDOPAC LEG VII







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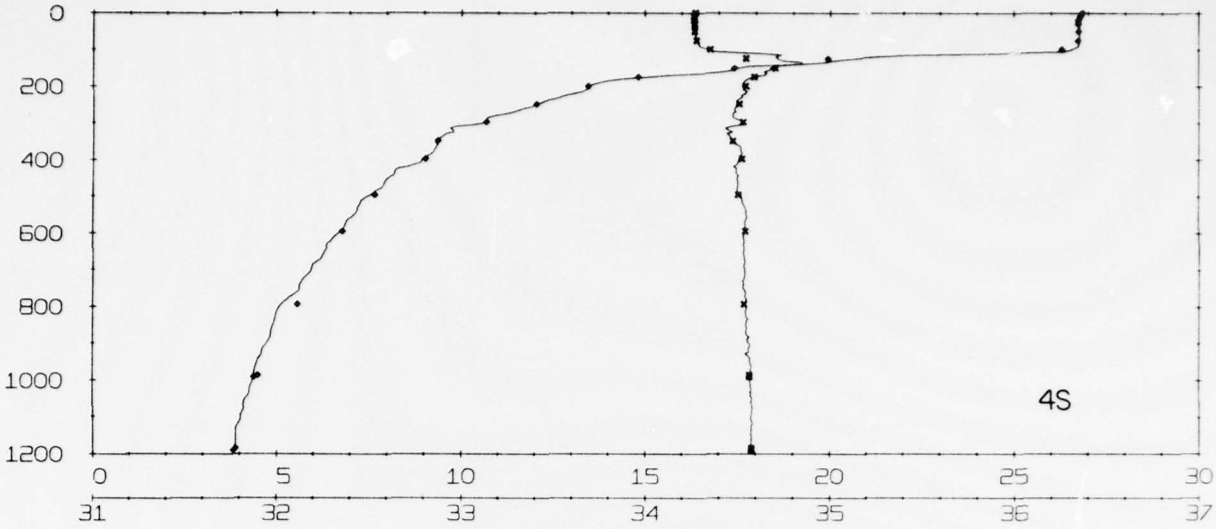

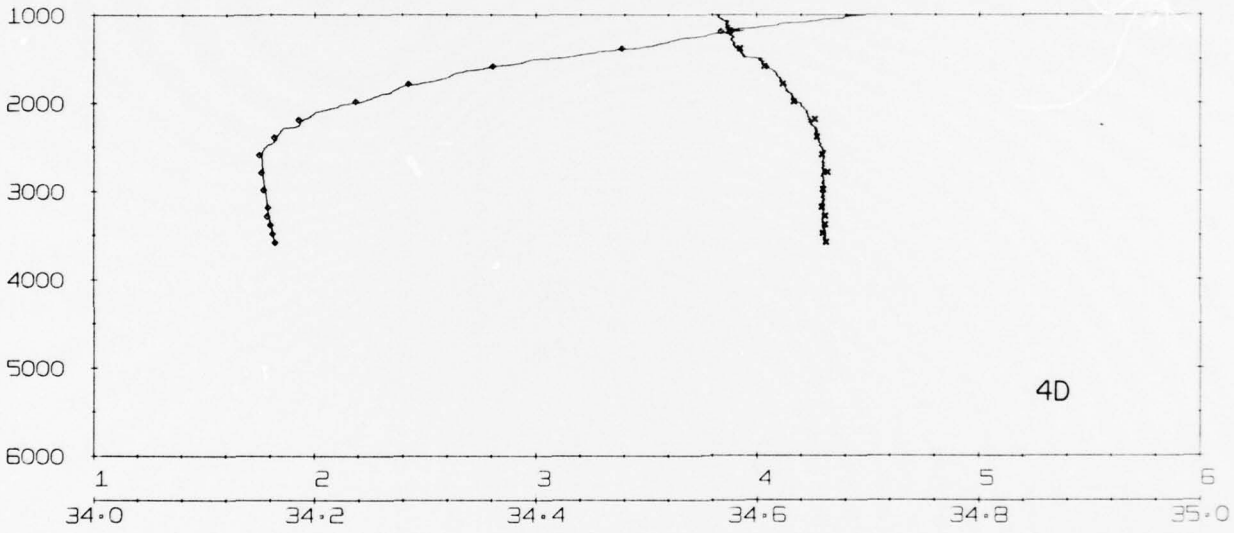

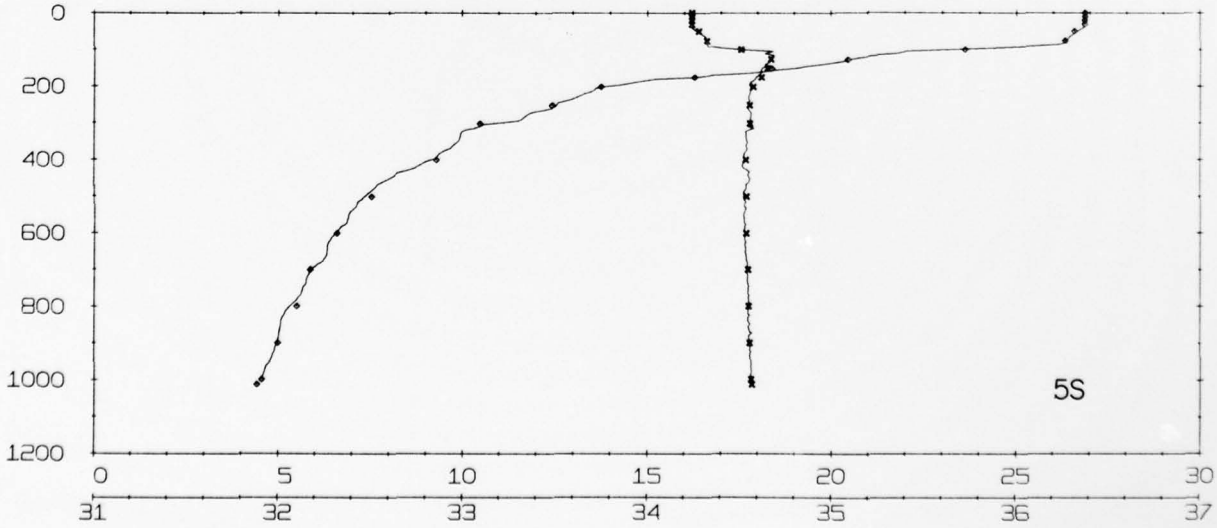

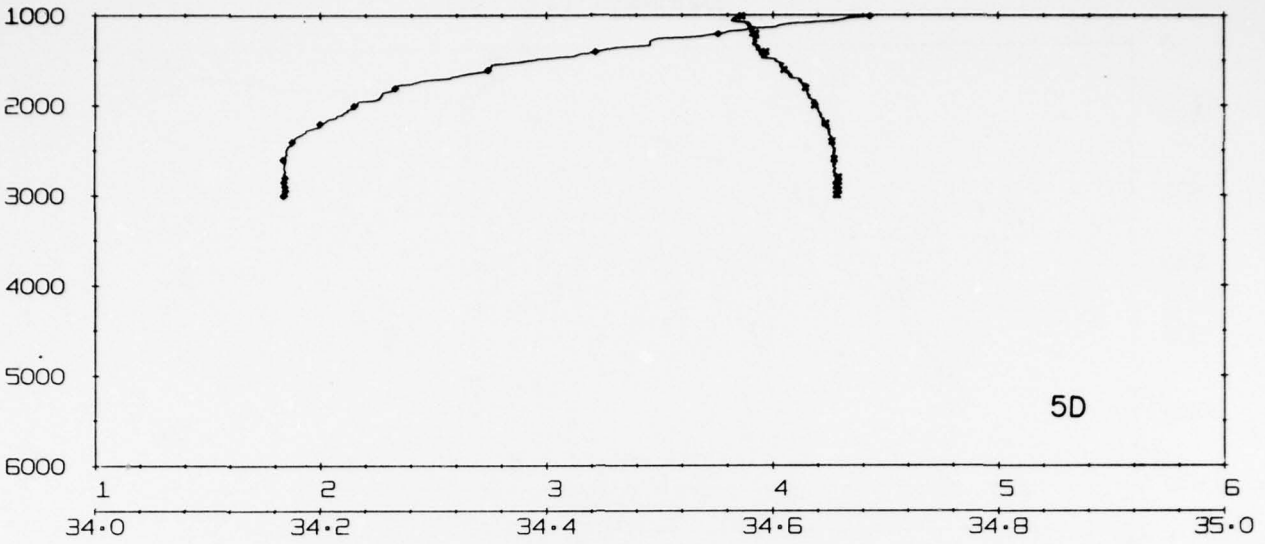
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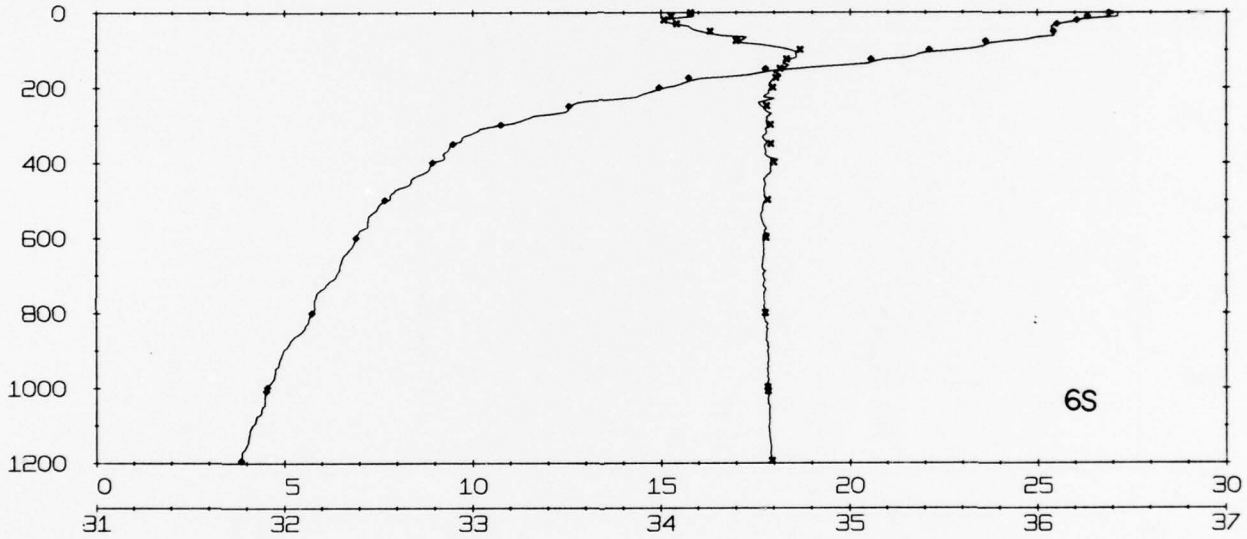
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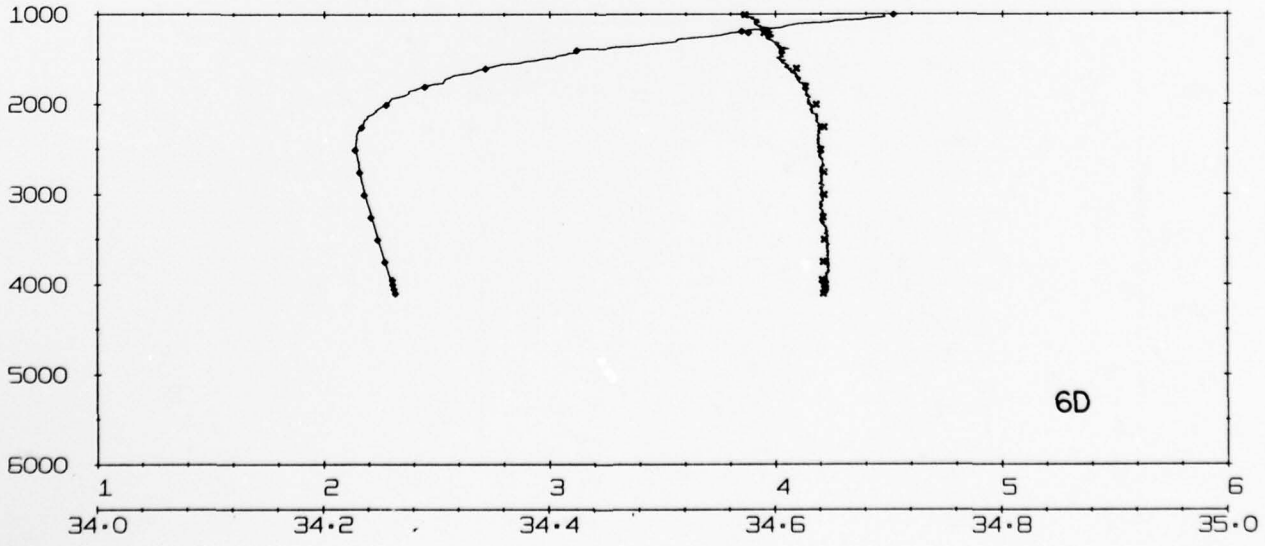
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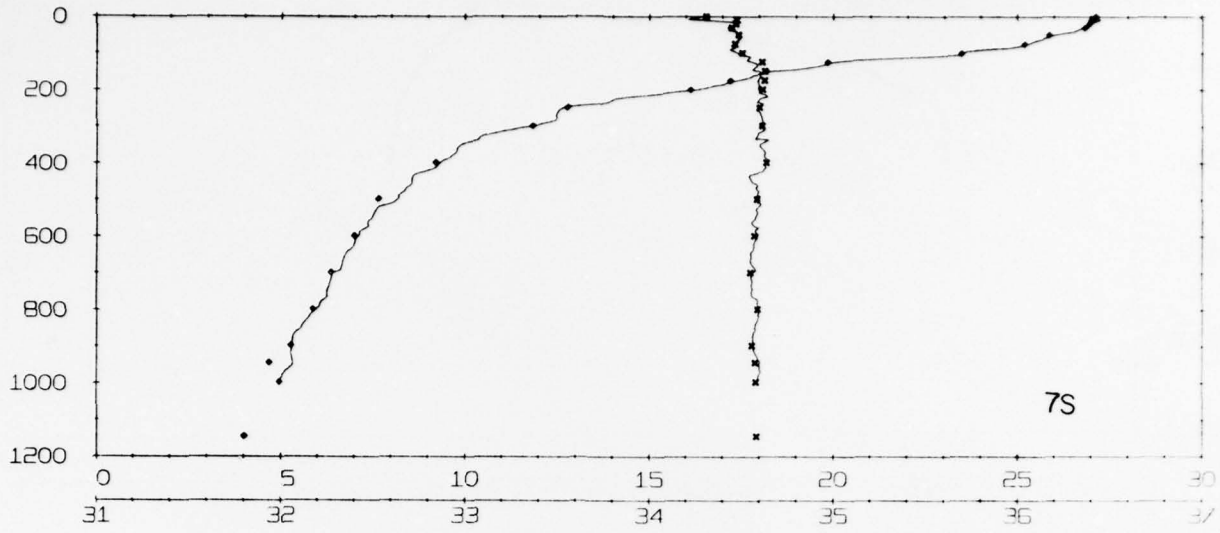
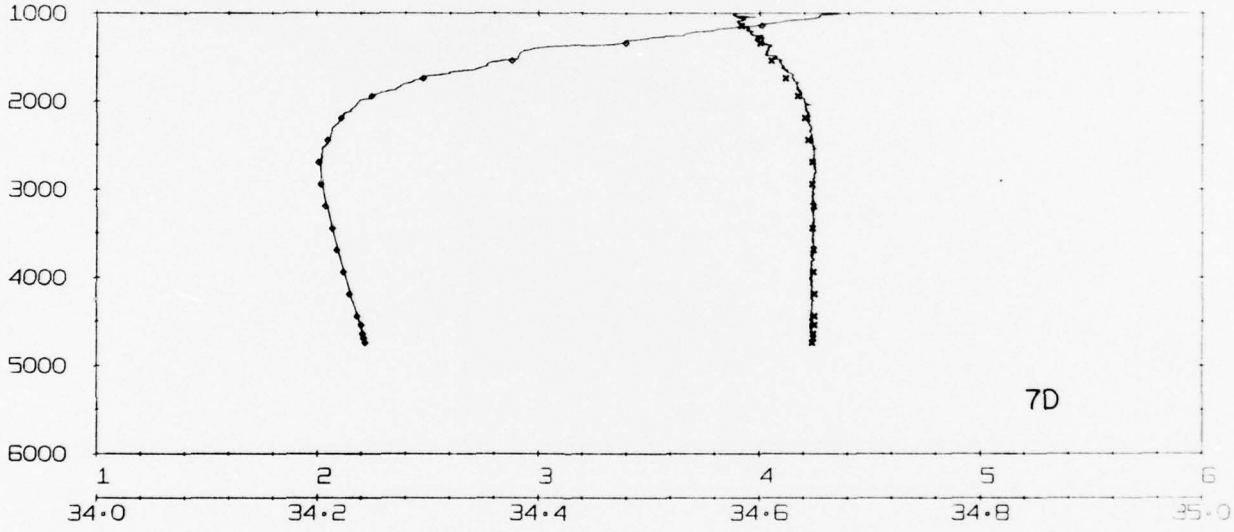
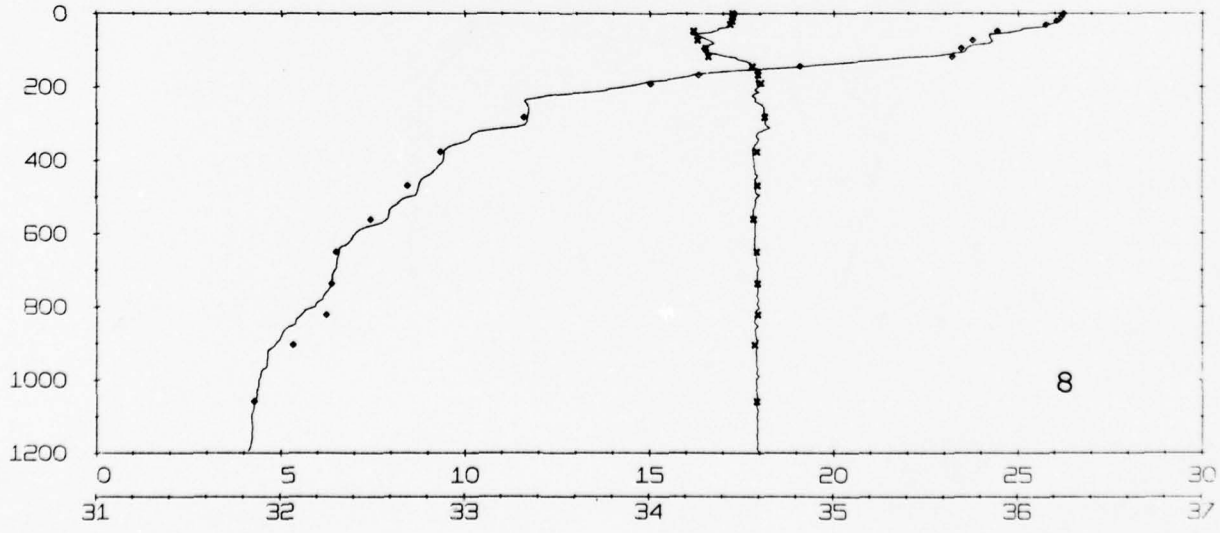
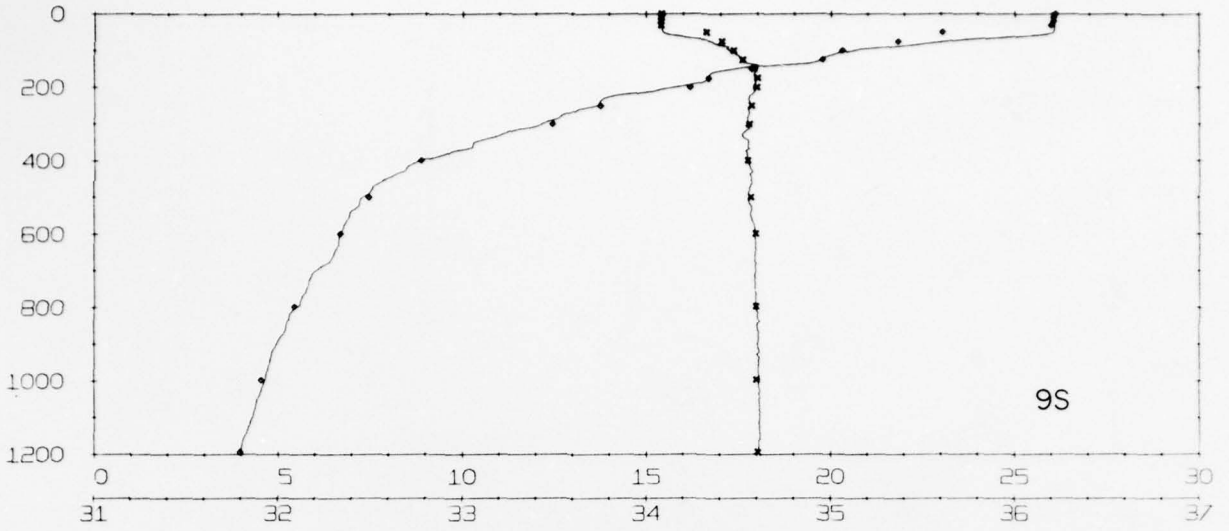
INDOPAC LEG VII





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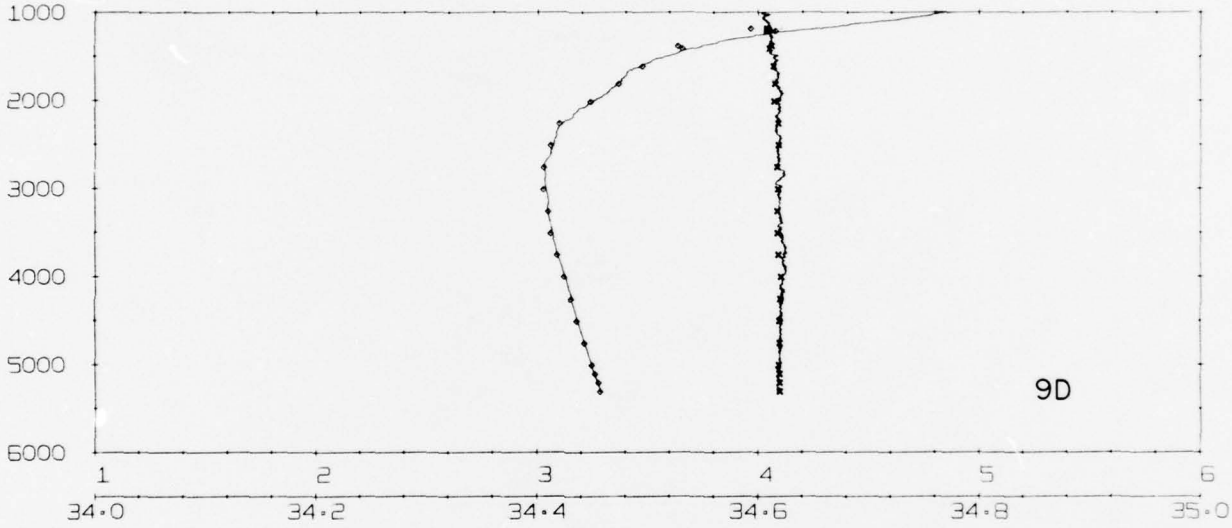
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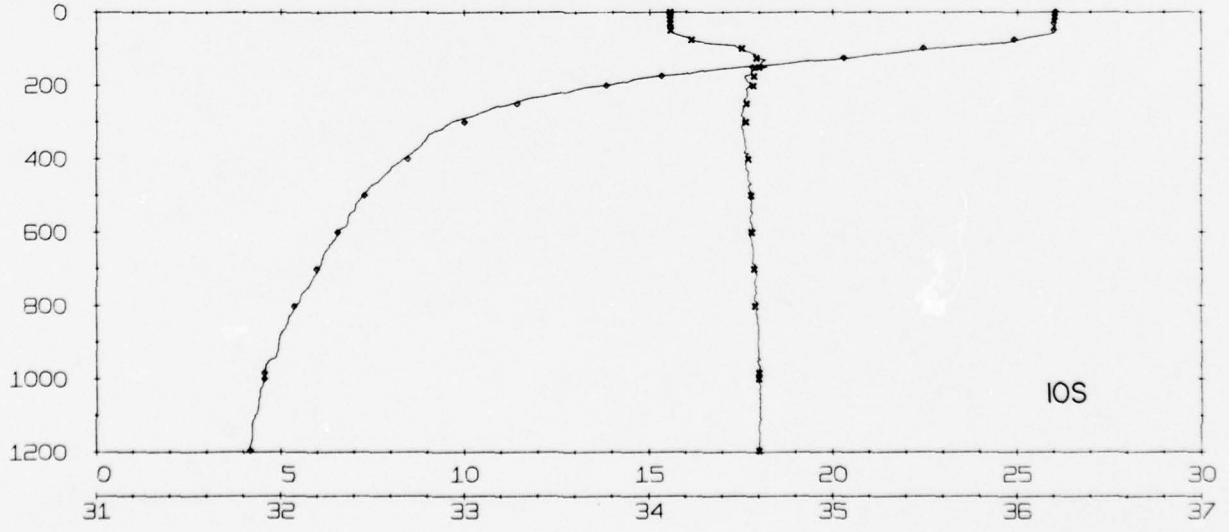
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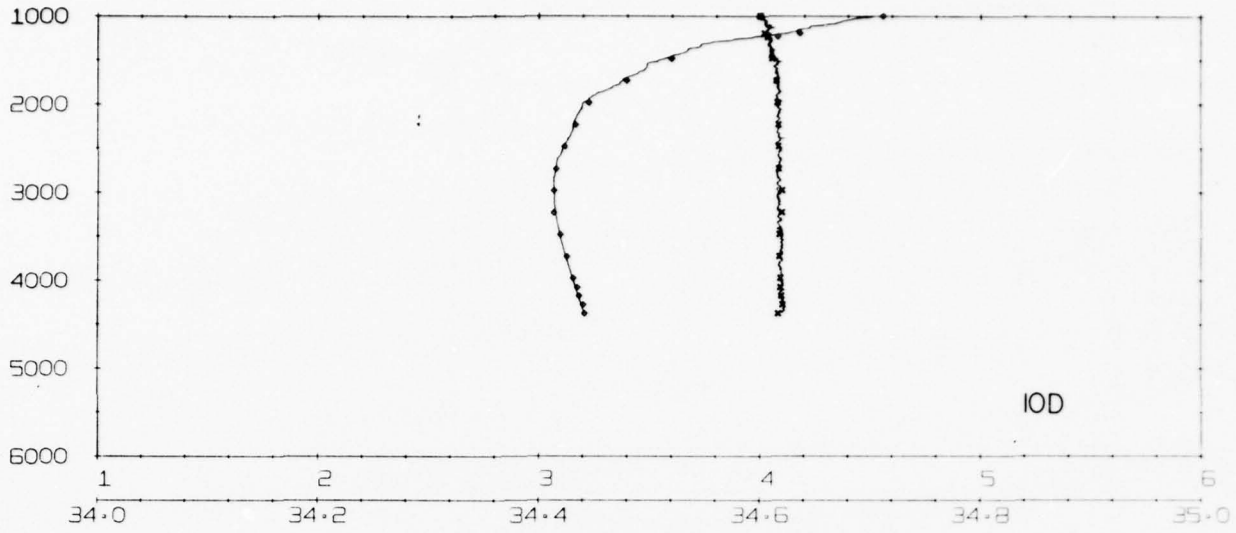
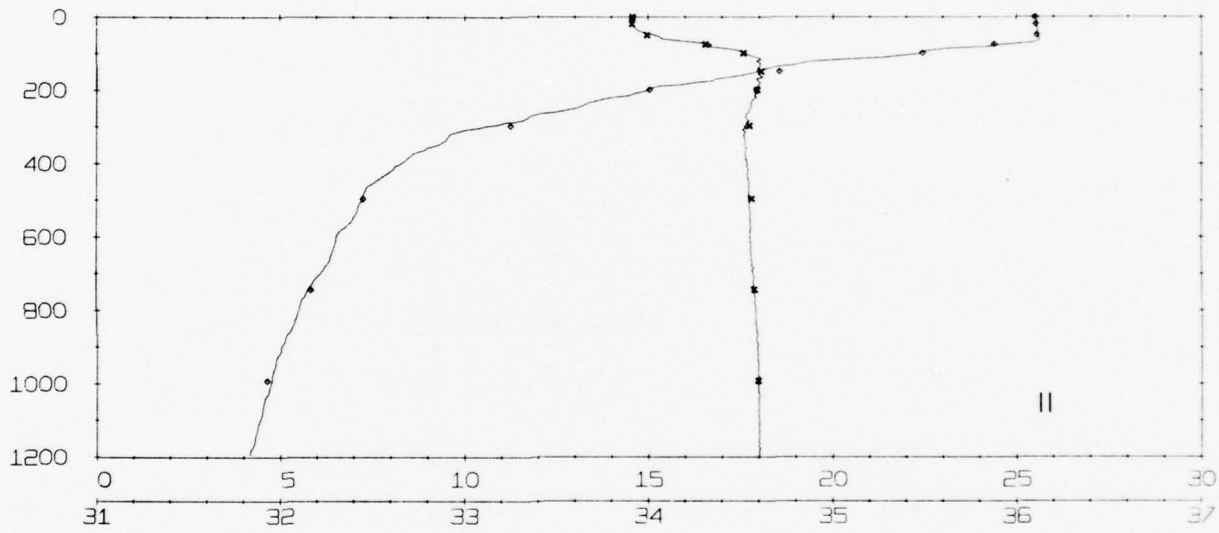
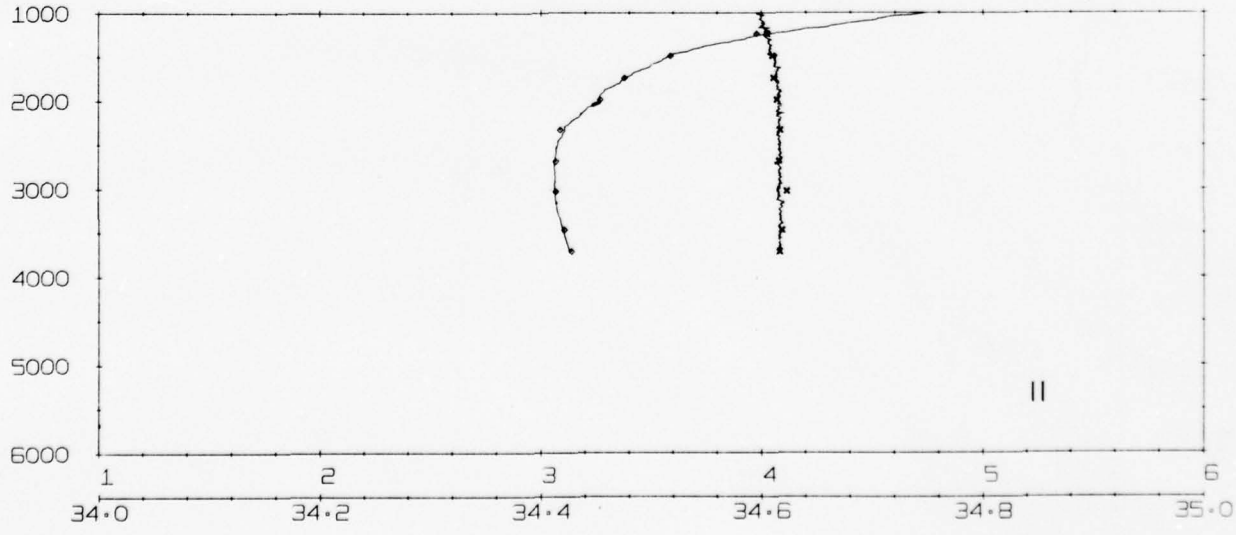
INDOPAC LEG VII







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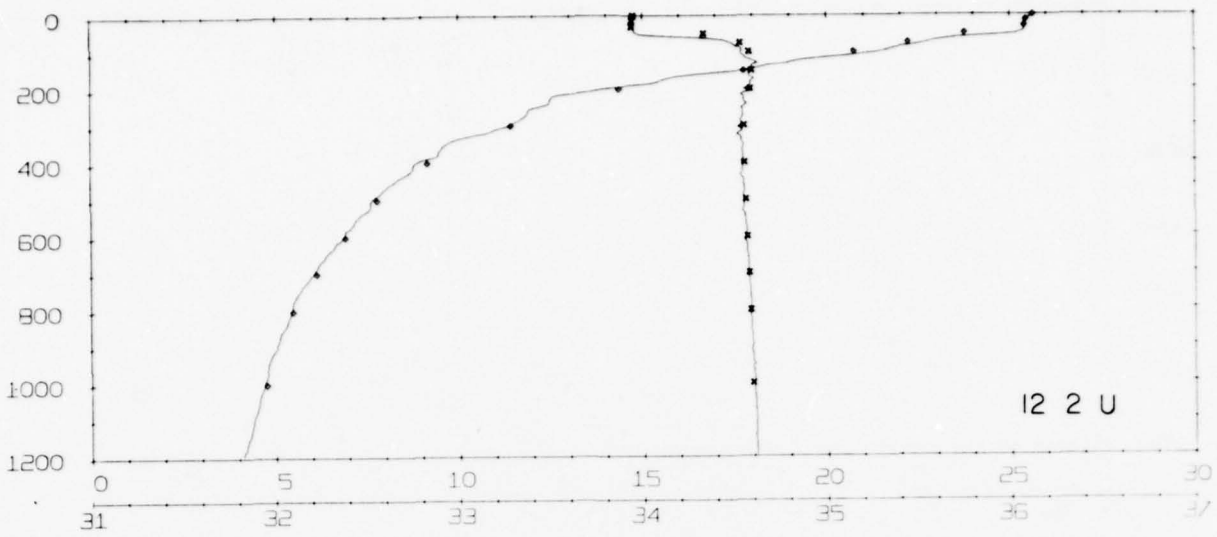

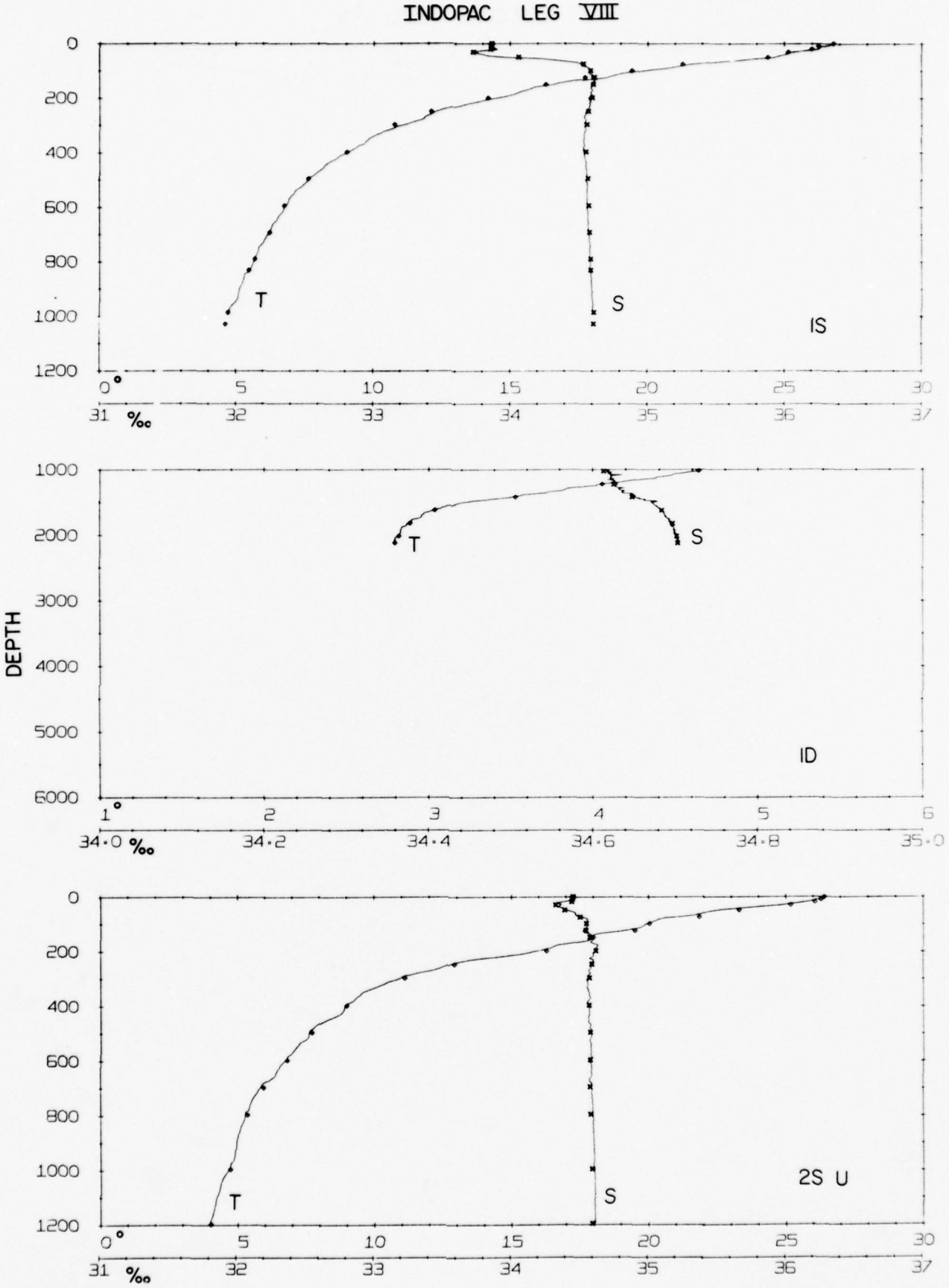
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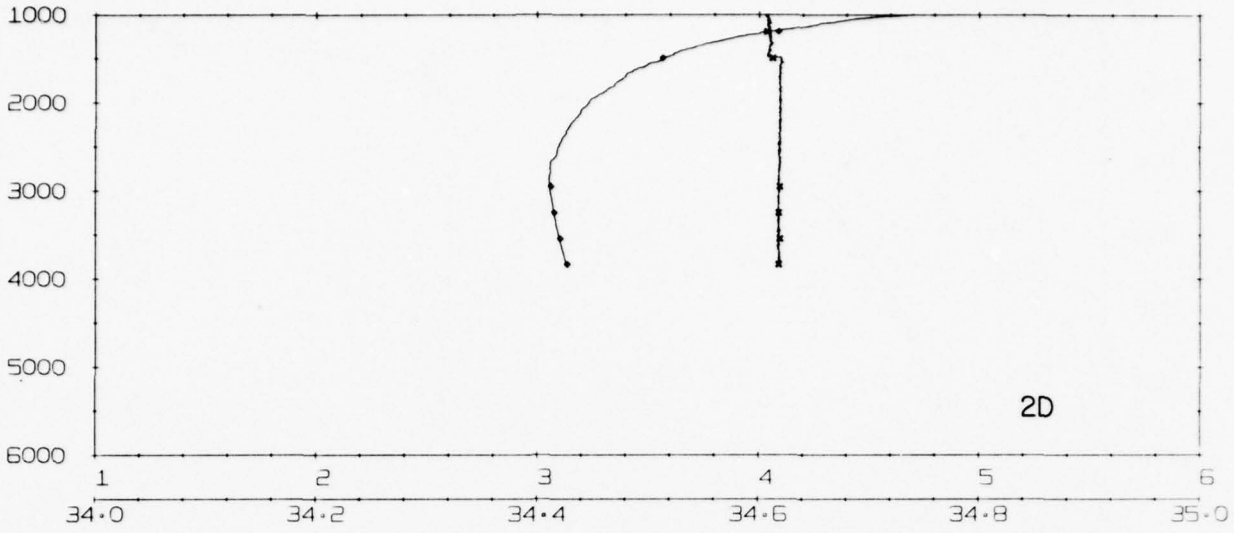

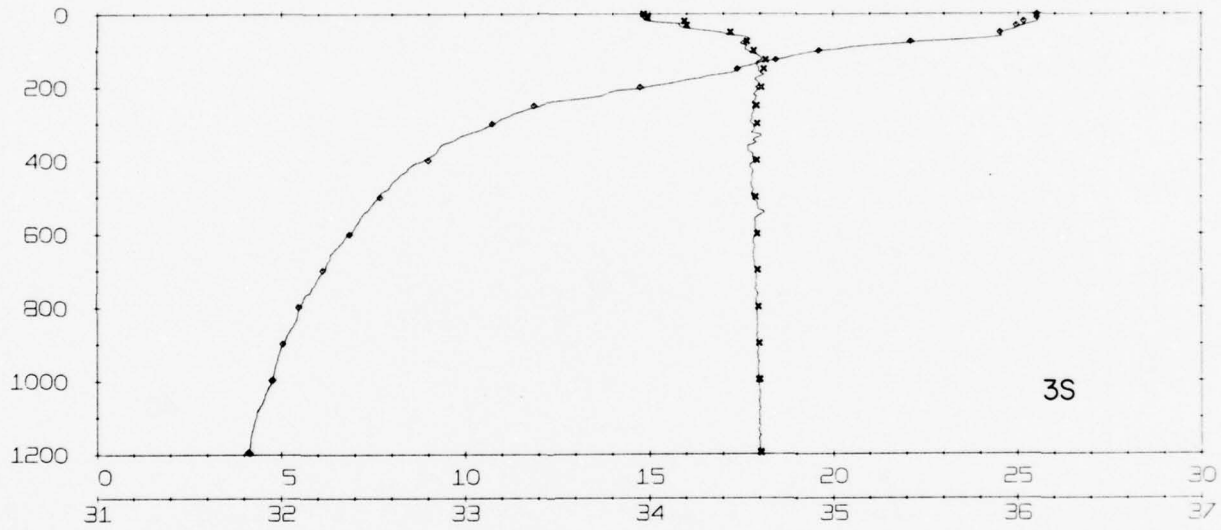

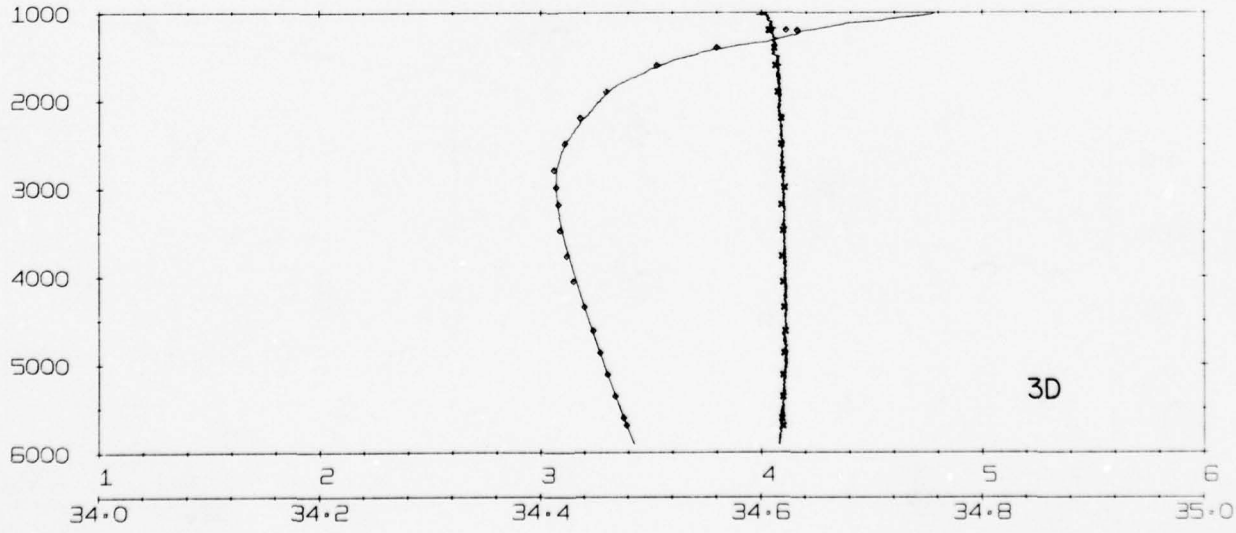

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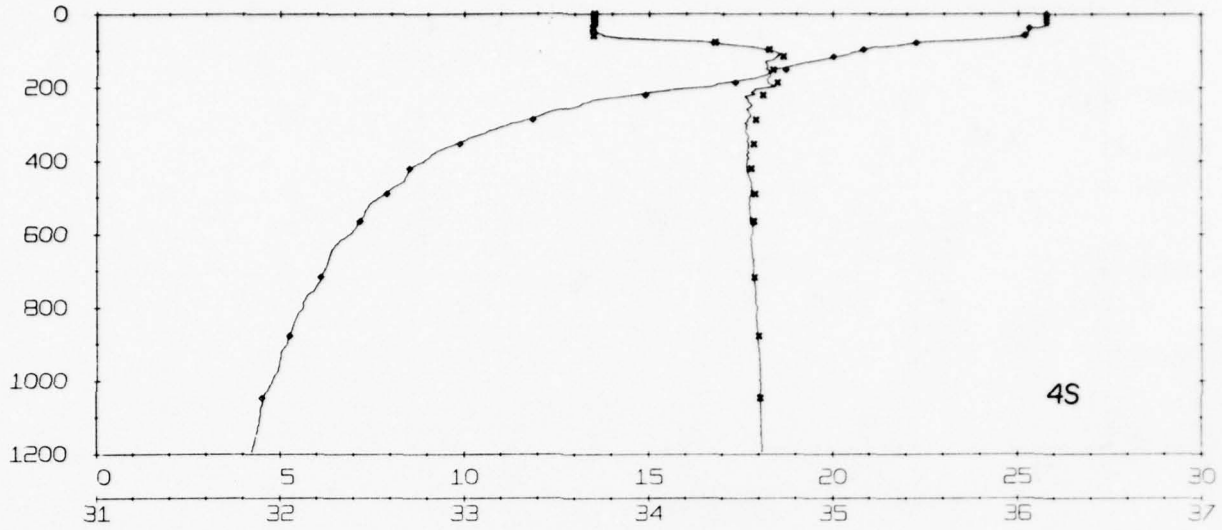

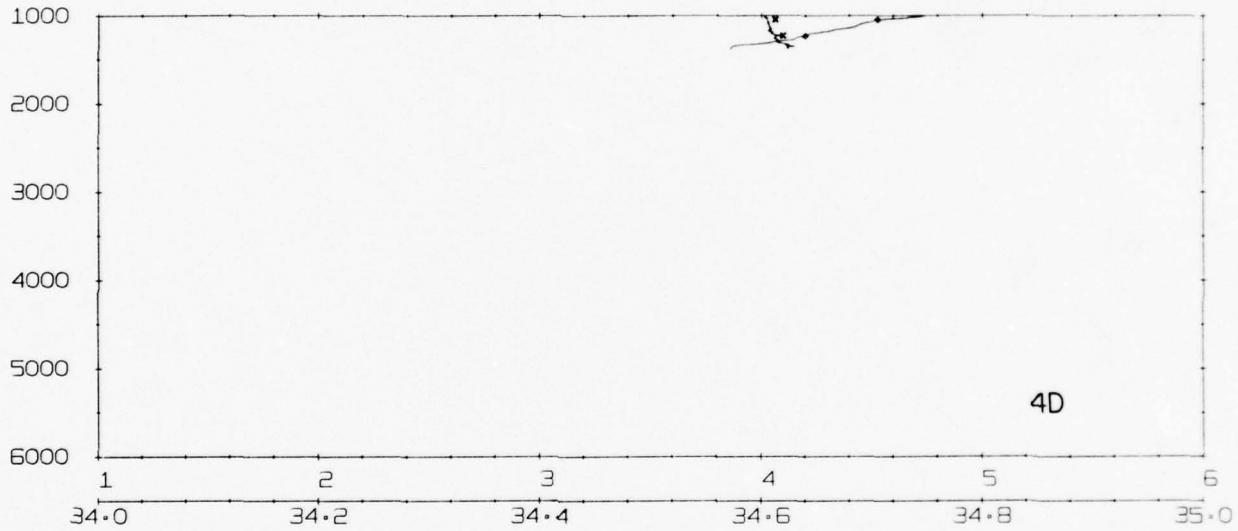

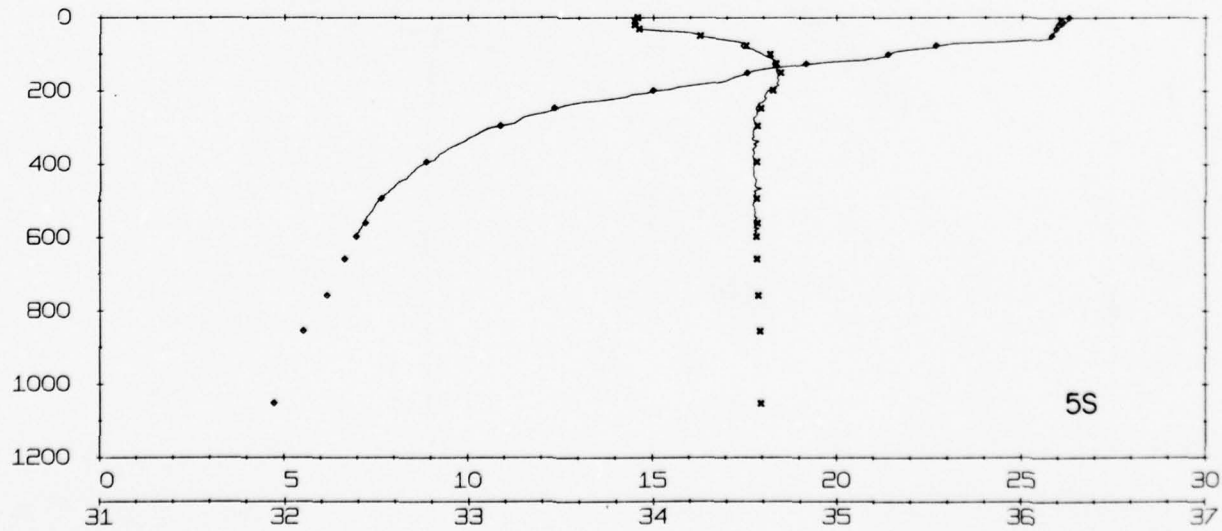

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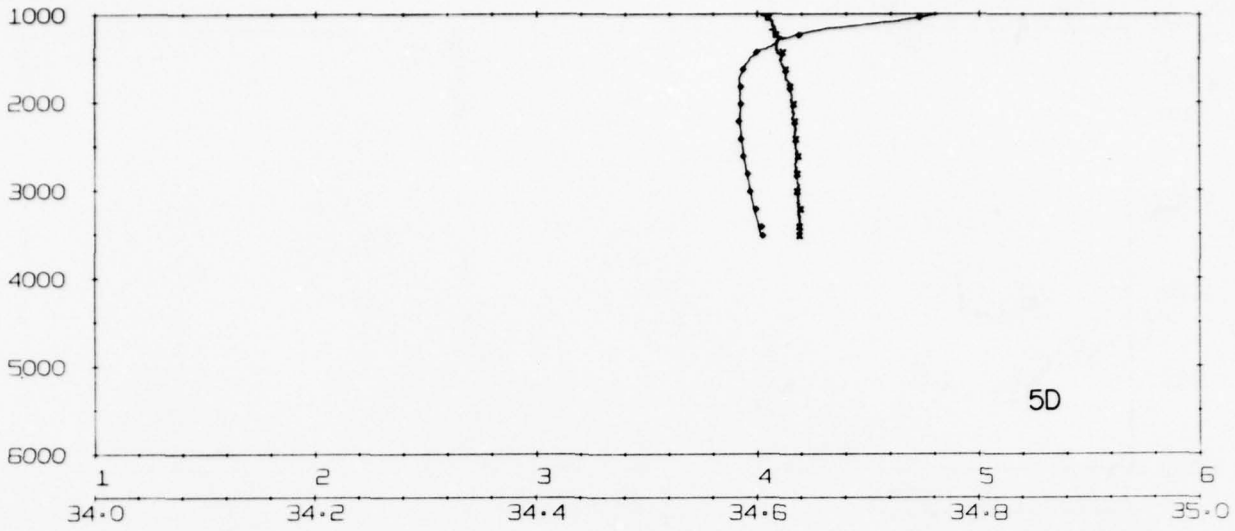

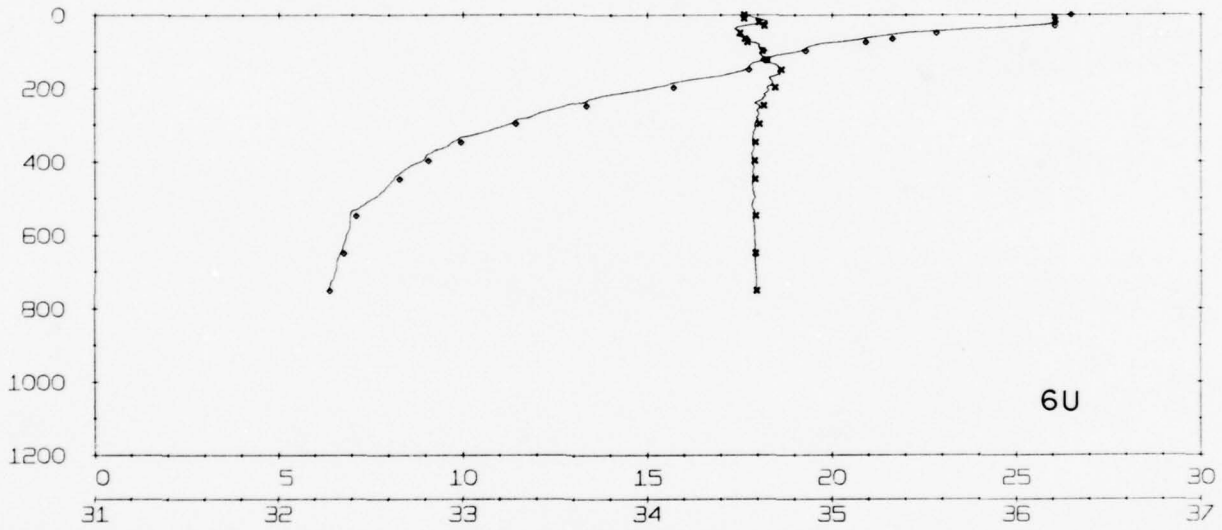

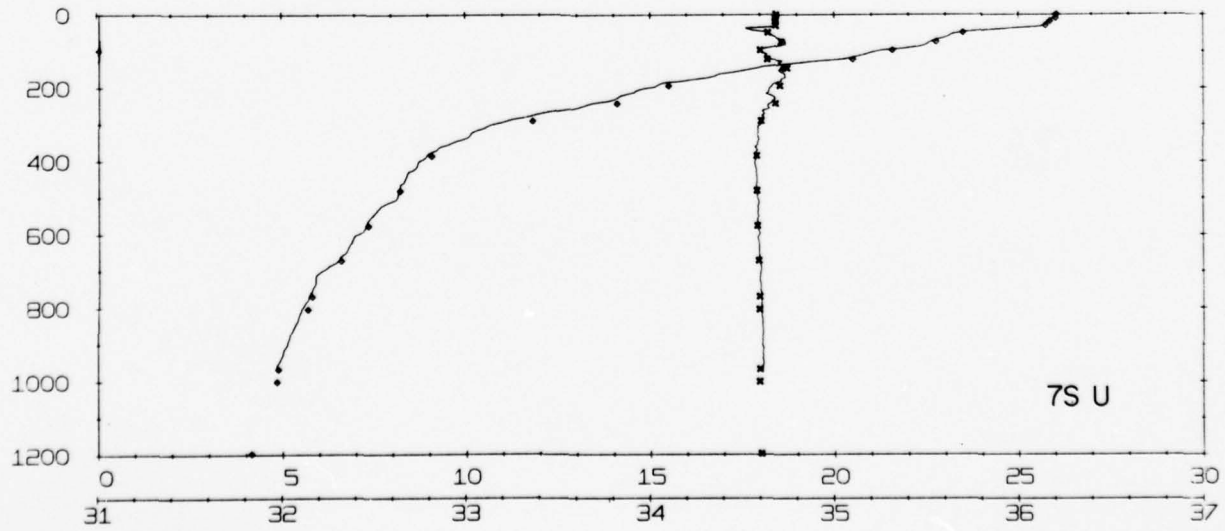

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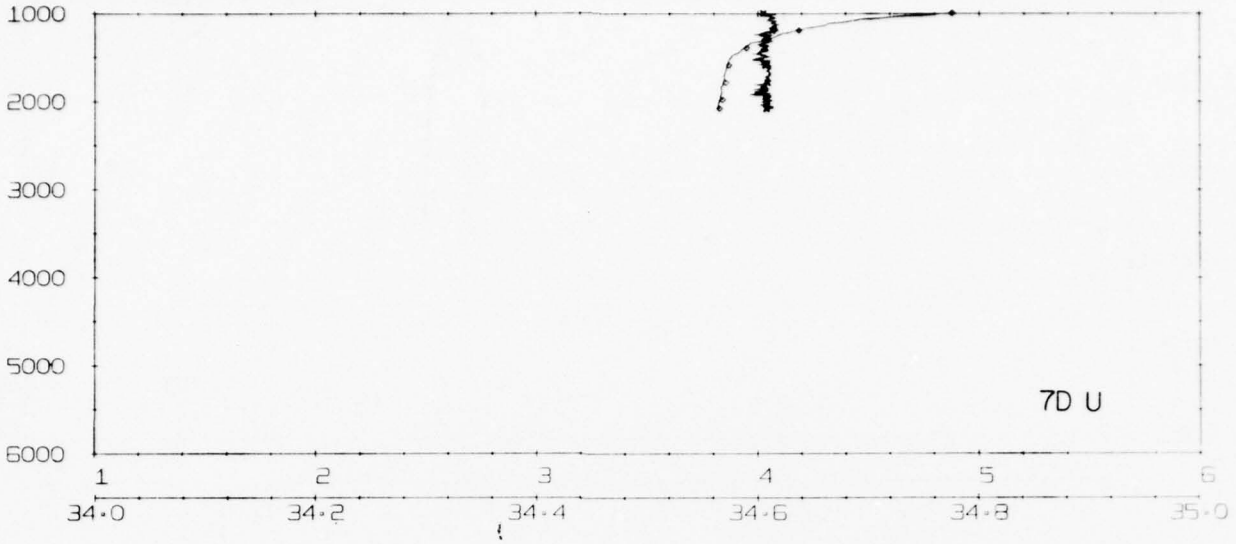


INDOPAC EXPEDITION LEG XV

INDOPAC Expedition Leg XV, 3 to 30 June 1977, was primarily concerned with making deep-sea biological measurements. Studies were also made of the physical and biological structure of the water column. Thirty-six STD lowerings were made with 20 of the lowerings taken over a 24 hour period at one station to study the stability of the density structure of the water column. In addition, 32 zooplankton samples were collected with a 1-meter net. Chorophyll samples were taken at the same stations to study the effects of spatial variability.

INDOPAC Expedition Leg XV was sponsored by the National Science Foundation, the Office of Naval Research and the University of California, Scripps Institution of Oceanography.

Data are presented as tabulated data and curves of temperature and salinity versus depth from the STD.

Since most bottle casts were not made in conjunction with STD lowerings, all bottle cast data are tabulated first followed by the STD data. No bottle cast values are plotted on the STD curves.

Bottle cast stations are numbered according to the purpose of the cast. "CHL" numbers indicate the cast was for chlorophyll determination. "S" means the cast was made primarily to check the STD: the number following the "S" corresponds to the STD station number.

STD station numbers refer to the data logger sequence number. On stations having single lowerings, only the down recording (or up if the down had problems) is reported even though both down and up were assigned numbers. Stations 34 through 74 U were a continuous time series and all down and up recordings are reported.

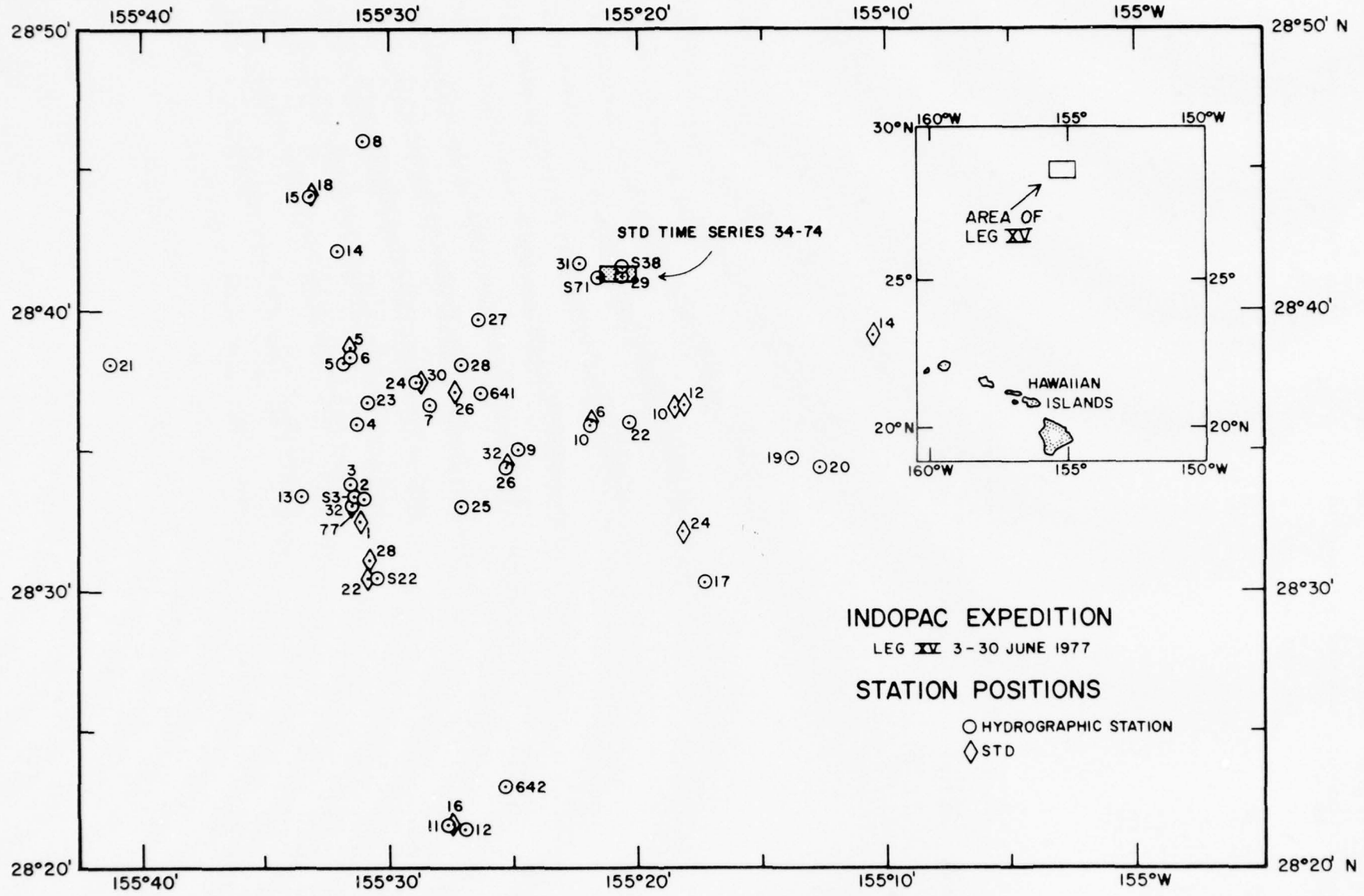
One or two check sample bottles were placed on the STD wire on some stations in addition to the "S" hydrographic stations mentioned previously.

PERSONNEL

Ship's Captain: Clark, Geoffrey C. RV THOMAS WASHINGTON

Personnel Participating in the Collection of Data:

Smith, Kenneth L. Dr.	Chief Scientist, Assistant Research Biologist, SIO
Baldwin, Roberta J.	Laboratory Assistant, SIO
Bennett, John C.	Graduate Student, SIO
Burnett, Bryan	Staff Research Associate, SIO
Charters, James S.	Programmer, SIO
Hayward, Thomas L.	Graduate Student, SIO
Holmes, G.	Staff Volunteer, SIO
Hoopes, Edward A.	Staff Research Associate, SIO
Kaye, H. Ross	Electronics Technician, SIO
Laver, Michael B.	Marine Technician, SIO
Michaelson, J.	Graduate Student, SIO
Minor, Brit	Staff Research Associate, SIO
Olson, Robert J.	Graduate Student, SIO
Venrick, Elizabeth L. Dr.	Assistant Research Oceanographer, SIO
Van Boxtel, Ron	Staff Research Associate, SIO
White, G. Allen	Marine Technician, SIO
Williams, Peter M. Dr.	Research Chemist, SIO
Wilson, George D.	Staff Research Associate, SIO
Wilson, Robert C.	Resident Marine Technician, SIO
Yayanos, A. Aristides Dr.	Assistant Research Physiologist, SIO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AREA OF LEG XV
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155°
150°W
25°
20°N
HAWAIIAN ISLANDS
INDOPAC EXPEDITION
LEG XV 3-30 JUNE 1977
STATION POSITIONS
HYDROGRAPHIC STATION
STD

FIGURE 8

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 1

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
25 25.7N	156 25.7W	6/ 4/77	1146 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	23.90	35.185						408.0	0	23.90	35.185		23.831	408.0	0.000
10	23.76	35.174						404.9	10	23.76	35.174		23.864	404.9	0.041
30	23.71	35.173						403.5	20	23.74	5.173		23.871	404.2	0.081
50	22.84								30	23.71	35.173		23.878	403.5	0.122
70	22.07	35.349						345.9	50	22.84	35.227		24.172	375.5	0.200
90	21.91	35.374						339.9	75	22.00	35.355		24.506	343.6	0.290
100	21.82	35.377						337.2	100	21.82	35.377		24.574	337.2	0.376
110	21.72	35.376						334.7	125						
120	21.65	35.38						332.4	150						
130		35.384							200						
150		35.372													
203		35.142													

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 2

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 33.3N	155 31.4W	6/ 5/77	2120 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
2	22.54								0	22.54					
16									10	22.33					
31	21.58								20	22.00					
47	20.83								30	21.62					
61	19.72								50	20.61					
76	18.60								75	18.67					
91									100	17.58					
96	17.67								125	16.79					
101															
106	17.44														
111															
116	17.09														
121															
126															
131	16.59														
136															
141															

RV THOMAS WASHINGTON INDOPAC LEG XV S 3

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 33.2N	155 31.1W	6/ 5/77	2336 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.56	35.279						364.2	0	22.56	35.279		24.291	364.2	0.000
11	22.58	35.274						365.1	10	22.58	35.273		24.282	365.1	0.036
21	22.55	35.274						364.3	20	22.55	35.274		24.289	364.4	0.073
31	21.41	35.220						337.8	30	21.54	35.226		24.537	340.8	0.108
52	19.96	35.055						312.5	50	20.07	35.073		24.818	314.0	0.174
72	18.57	34.893						290.3	75	18.42	34.872		25.089	288.2	0.250
102	17.33	34.708						274.8	100	17.39	34.719		25.223	275.4	0.321
152	15.66	34.497						253.2	125	16.51	34.599		25.339	264.5	0.390
203	14.25	34.383						231.9	150	15.72	34.504		25.449	254.0	0.455
251	12.82	34.329						208.4	200	14.31	34.388		25.668	233.2	0.580
299	11.84	34.300						192.5	250	12.85	34.330		25.924	208.9	0.693
396	9.78	34.177						166.7	300	11.82	34.300		26.099	192.2	0.797
493	7.80	34.049						146.7	400	9.70	34.172		26.377	165.8	0.984
590	6.04	34.003						127.4	500	7.66	34.043		26.593	145.3	1.147
688	4.79	34.067						108.4	600	5.88	34.006		26.804	125.3	1.291
786	4.40	34.215						93.2	700	4.72	34.086		27.004	106.3	1.414
886	4.036	34.315						82.1	800	4.35	34.232		27.161	91.4	1.520
986	3.699	34.381						73.8							

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 3

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 33.7N	155 31.6W	6/ 6/77	0403 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	22.56							
16	22.58							
32	21.43							
46	20.15							
61	19.19							
75	18.70							
90	18.39							
101	18.03							
104	17.77							
109								
114								
120								
125								
129								
134								
139								
149								
173	15.05							

Z	T
0	22.56
10	22.57
20	22.36
30	21.62
50	19.85
75	18.70
100	18.08

S	O2	SIGT	DT	DD

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 4

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 35.8N	155 31.3W	6/ 6/77	0945 GMT	M	0	KT		0

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	22.46							
9	22.47							
21	22.49							
31	20.48							
41	20.33							
61	19.23							
75								
79								
81	18.53							
95								
101								
108								
117								
120								
125								
130								
135								
140	16.57							
142								
160								
178	14.90							
179	14.88							

Z	T
0	22.46
10	22.47
20	22.49
30	20.68
50	19.88
75	18.72
100	17.93
125	17.10
150	16.06

S	O2	SIGT	DT	DD

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 5

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 38.1N	155 31.8W	6/ 6/77	1220 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	22.47							
14	22.47							
21	22.48							
41	20.73							
45	20.45							
61	18.98							
79								
81								
92	18.44							
101								
103								
109								
115								
121								
123								
137								
141								
150	16.52							
156								
161								
180	15.44							

Z	T
0	22.47
10	22.47
20	22.48
30	21.82
50	19.98
75	18.74
100	18.22
125	17.43
150	16.52

S	O2	SIGT	DT	DD

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 6

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 38.3N	155 31.7W	6/ 6/77	1621 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.26								0	22.25					
16	22.26								10	22.26					
31	20.72								20	21.91					
46	19.46								30	20.84					
61	18.92								50	19.28					
76	18.43								75	18.46					
91									100	17.42					
96									125	16.91					
101	17.38								150	16.16					
106															
111															
116															
121															
126															
131															
136															
141	16.55														
151	16.11														

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 7

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 35.6N	155 28.4W	6/ 8/77	1031 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	22.39								0	22.39					
10	22.38								10	22.38					
16	22.38								20	22.39					
20	22.39								30	21.74					
39	20.96								50	20.40					
45	20.69								75	19.03					
59									100	17.97					
79									125	17.00					
87	18.41								150	16.13					
99	18.01														
106															
111															
117															
119															
126	16.96														
132															
139															
159															
176	15.44														
178	15.40														

RV THOMAS WASHINGTON INDOPAC LEG XV 641

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 37.0N	155 26.3W	6/ 7/77	2347 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
3881	1.49								4000	1.47					
4073	1.47								4250	1.49					
4268	1.49								4500	1.49					
4465	1.49								4750	1.52					
4663	1.51								5000	1.52					
4863	1.52								5250	1.53					
5063	1.52								5500	1.58					
5261	1.53														
5460	1.57														
5659	1.59														

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 8

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 45.9N	155 31.1W	6/ 9/77	1236 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	22.14							
21	22.02							
32	20.54							
41	20.22							
55	19.63							
61	19.24							
80								
94								
100	17.18							
104	17.54							
109								
114								
120								
124								
132	16.90							
140								
147								
160								
167	15.81							
180	15.05							

Z	T
0	22.14
10	22.09
20	22.03
30	20.80
50	19.87
75	18.50
100	17.18
125	17.06
150	16.45

S	O2	SIGT	DT	DD

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 9

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 35.0N	155 24.8W	6/10/77	0841 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	22.95							
6	22.90							
21	22.38							
41	20.91							
47	20.64							
61	19.72							
81								
83								
100	18.08							
101	18.08							
111								
115								
121								
124								
132	16.69							
141								
150								
153								
160	15.42							
180	14.93							

Z	T
0	22.95
10	22.81
20	22.43
30	21.72
50	20.45
75	18.87
100	18.08
125	17.12
150	15.84

S	O2	SIGT	DT	DD

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 10

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 35.8N	155 21.9W	6/10/77	1050 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	22.99							
4	22.99							
21	22.53							
41	21.42							
43	21.17							
53	20.43							
61								
80								
88	18.16							
99	17.90							
109								
113								
119								
121								
132	16.56							
139								
160	15.50							
169								
181	14.77							
200	13.94							

Z	T
0	22.99
10	22.90
20	22.57
30	22.22
50	20.61
75	18.85
100	17.86
125	16.88
150	15.87
200	13.94

S	O2	SIGT	DT	DD

RV THOMAS WASHINGTON INDOPAC LEG XV 642

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 22.9N	155 25.3W	6/10/77	1815 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
4970	1.52								5000	1.52					
5020	1.52								5250	1.54					
5070	1.53								5500	1.52					
5120	1.52														
5170	1.50														
5220	1.52														
5271	1.54														
5321	1.50														
5371	1.49														
5421	1.51														
5471	1.51														
5521	1.53														
5571	1.52														
5621	1.53														
5671	1.54														

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 11

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 21.6N	155 27.7W	6/13/77	1135 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	24.30								0	24.30					
50	21.11								10	23.56					
99	18.95								20	22.90					
149	17.26								30	22.27					
199	14.51								50	21.11					
224	13.72								75	19.92					
249	13.04								100	18.92					
274	12.46								125	18.10					
298	11.74								150	17.20					
323	11.26								200	14.47					
348	10.70								250	13.02					
373	10.26								300	11.70					

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 12

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 21.4N	155 27.0W	6/13/77	1410 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	24.24								0	24.24					
16	23.19								10	23.53					
31	22.84								20	23.09					
46	21.90								30	22.86					
61	20.75								50	21.59					
76	19.89								75	19.94					
91	19.32								100	19.04					
100	19.04								125	18.04					
105									150	16.86					
110															
115															
120															
125															
130															
135	17.58														
140															
150															
176	15.48														

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 13

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 33.3N	155 33.6W	6/14/77	0558 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	23.78								0	23.78					
15	22.35								10	22.71					
30	21.97								20	22.23					
45	20.48								30	21.97					
60	20.02								50	20.32					
75	18.64								75	18.64					
90	18.29								100	17.69					
95	18.01								125	16.44					
100									150	16.06					
105															
110															
115															
120															
125															
130	16.25														
135															
140															
150	16.06														

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 14

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 42.1N	155 32.1W	6/14/77	0808 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	23.38								0	23.38					
10	22.79								10	22.79					
21									20	22.01					
40	20.50								30	21.25					
41									50	20.00					
57									75	18.90					
61									100	17.76					
80	18.71								125	17.07					
87									150	16.00					
99	17.77														
100															
107	17.68														
111	17.53														
120															
123	17.14														
140															
145															
160	15.49														
179															
180															

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 15

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 43.9N	155 33.2W	6/14/77	1035 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	23.07								0	23.07					
3	23.06								10	22.73					
20									20	22.13					
37	20.78								30	21.39					
40									50	20.12					
60									75	19.02					
65									100	18.04					
80	18.83								125	17.03					
82									150	15.92					
99	18.07														
100															
109	17.78														
112	17.68														
120															
125	17.03														
139															
145															
160															
170															
179	14.85														

RV THOMAS WASHINGTON INDOPAC LEG XV S 22

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 30.4N	155 30.5W	6/15/77	1621 GMT	M	0	KT		0

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	24.50	35.391		0.04	2.5	0.00	0.1	410.2	0	24.50	35.391		23.808	410.2	0.000
11	23.89	35.375		0.03	2.5	0.00	0.1	394.0	10	23.98	35.383		23.956	396.1	0.040
21		35.148	U	0.02	3.2	0.00	0.1		20	22.70	35.240		24.222	370.8	0.079
31	22.53	35.270		0.02	2.9	0.00	0.1	364.0	30	22.53	35.265		24.289	364.4	0.116
51	20.19	35.016		0.03	3.8	0.00	0.0	321.1	50	20.32	35.029		24.718	323.5	0.185
70	19.29	34.980		0.03	4.1	0.00	0.1	301.4	75	19.07	34.964		24.995	297.1	0.263
101	18.00	34.858		0.06	4.1	0.00	0.0	279.3	100	18.04	34.862		25.176	279.9	0.336
150	16.33	34.583		0.16	5.7	0.04	1.3	261.5	125	17.14	34.720		25.285	269.6	0.405
201	14.84	34.471		0.41	6.8	0.01	5.2	237.9	150	16.33	34.583		25.370	261.5	0.473
251	13.07	34.348		0.60	9.8	0.00	8.5	211.7	200	14.87	34.473		25.613	238.4	0.600
301	11.75	34.301		0.86	13.2	0.00	11.9	190.8	250	13.10	34.351		25.888	212.2	0.716
401	9.62	34.162		1.21	22.3	0.00	17.4	165.3	300	11.77	34.303		26.110	191.2	0.820
501	7.60	34.034		1.75	36.8	0.01	24.9	145.1	400	9.64	34.165		26.380	165.5	1.006
601	5.75	34.013		2.46	60.9	0.00	35.3	123.2	500	7.62	34.036		26.594	145.3	1.170
700	4.79	34.076		2.89	83.6	0.00	40.6	107.7	600	5.77	34.014		26.824	123.4	1.312
798	4.31	34.212		3.18	102.4	0.01	44.9	92.5	700	4.79	34.076		26.990	107.7	1.435
896	3.96	34.299		3.26	114.2	0.01	45.8	82.5	800	4.30	34.215		27.152	92.3	1.542
992	3.69	34.389		3.25	124.6	0.00	45.8	73.1	1000	3.68	34.393		27.358	72.7	1.723

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 17

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 30.2N	155 17.3W	6/16/77	0803 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	24.43								0	24.43					
10	24.12								10	24.12					
21									20	23.59					
24									30	22.99					
41	22.25								50	21.58					
59									75	19.94					
61									100	18.96					
75									125	18.13					
80	19.65								150	17.28					
92	19.23														
100															
110															
116															
120	18.30														
126															
140															
149	17.31														
160	16.92														
173	16.38														
181	15.76														

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 19

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 34.7N	155 13.8W	6/20/77	0749 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	24.63								0	24.63					
11	24.63								10	24.63					
17									20	24.09					
21									30	23.32					
41	22.29								50	21.66					
47									75	20.46					
51									100	19.21					
62	20.94								125	18.39					
82	20.21								150	17.63					
88															
102	19.10														
112															
121	18.50														
126															
128															
141	17.94														
161	17.22														
170															
179															
181	16.40														

RV THOMAS WASHINGTON — INDOPAC LEG XV — CHL 20

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 34.3N	155 12.7W	6/20/77	1100 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	24.59							
13	24.59							
15								
21								
41	22.37							
53								
61								
81	19.91							
89	19.67							
101								
108	19.16							
111								
121	18.66							
123								
125								
134	18.14							
141	17.84							
157								
161								
181	15.86							

Z	T
0	24.59
10	24.59
20	24.16
30	23.40
50	21.69
75	20.19
100	19.39
125	18.50
150	17.43

S	O2	SIGT	DT	DD

RV THOMAS WASHINGTON — INDOPAC LEG XV — CHL 21

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 38.0N	155 41.3W	6/20/77	1721 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	23.98							
16	23.26							
31								
46								
61	20.22							
76								
90								
95	18.37							
100	18.20							
105								
110	17.94							
115								
120	17.73							
125								
130								
135	17.30							
140	17.18							
150	16.78							

Z	T
0	23.98
10	23.57
20	23.00
30	22.35
50	20.99
75	19.36
100	18.20
125	17.59
150	16.78

S	O2	SIGT	DT	DD

RV THOMAS WASHINGTON — INDOPAC LEG XV — CHL 22

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 35.9N	155 20.3W	6/21/77	0435 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	24.90							
16	24.54							
31								
46								
60	20.62							
75								
80								
85	19.21							
90	18.91							
94								
100	18.53							
104								
110	18.30							
115								
119								
124	17.59							
134	17.02							
140	16.88							

Z	T
0	24.90
10	24.74
20	24.23
30	23.42
50	21.62
75	19.75
100	18.53
125	17.52

S	O2	SIGT	DT	DD

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 23

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 36.7N	155 30.9W	6/22/77	0846 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	24.77							
2	24.78							
21								
32								
41	21.85							
55								
61								
81	19.43							
94	18.66							
100								
104	18.38							
111								
114	17.90							
119								
129								
139								
157	16.21							
164								
170	15.58							
176	15.27							

Z	T	S	O2	SIGT	DT	DD
0	24.77					
10	24.42					
20	23.79					
30	22.98					
50	21.28					
75	19.77					
100	18.49					
125	17.47					
150	16.49					

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 24

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 37.3N	155 28.9W	6/22/77	1107 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	24.74							
21	23.82							
37								
41								
47	21.76							
60								
81								
83	19.90							
99	18.96							
101								
111	18.23							
115								
121	17.86							
124								
131								
140								
154	16.46							
161								
168	15.99							
181	15.08							

Z	T	S	O2	SIGT	DT	DD
0	24.74					
10	24.40					
20	23.88					
30	23.13					
50	21.59					
75	20.28					
100	18.89					
125	17.69					
150	16.63					

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 25

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 32.9N	155 27.1W	6/24/77	0933 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	25.03							
6								
21								
41	22.05							
43								
53	21.24							
61								
81	19.78							
84								
101	19.20							
102	19.17							
111	18.92							
120								
122	18.54							
124								
141								
150								
160								
169	16.72							
180	16.32							

Z	T	S	O2	SIGT	DT	DD
0	25.03					
10	24.32					
20	23.56					
30	22.83					
50	21.44					
75	20.04					
100	19.22					
125	18.43					
150	17.46					

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 26

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 34.3N	155 25.2W	6/24/77	1133 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	24.71							
3								
21								
28	23.48							
41								
57	21.28							
61								
81	20.09							
91								
100	19.50							
101	19.45							
112	19.18							
117								
122	18.90							
125								
141								
156								
161								
162	17.20							
181	16.40							

Z	T
0	24.71
10	24.39
20	23.93
30	23.33
50	21.81
75	20.34
100	19.50
125	18.79
150	17.76

Z	S	O2	SIGT	DT	DD

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 27

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 39.7N	155 26.4W	6/25/77	0105 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	25.13							
21								
26								
36	22.42							
41								
61	21.02							
69								
81	19.68							
83								
94	19.36							
100	19.04							
104	18.80							
113								
120	18.15							
125								
136								
140								
141								
159	15.96							
178	15.30							

Z	T
0	25.13
10	24.35
20	23.55
30	22.82
50	21.63
75	20.04
100	19.04
125	17.86
150	16.45

Z	S	O2	SIGT	DT	DD

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 28

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 38.0N	155 27.1W	6/25/77	0232 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
1	25.05							
4								
10								
21	24.55							
41								
59	21.12							
66								
81	19.86							
93								
101	19.14							
106	18.92							
111	18.71							
117								
121	18.36							
127								
141								
143								
149								
160	16.76							
180	15.46							

Z	T
0	25.05
10	24.94
20	24.60
30	23.81
50	22.01
75	20.15
100	19.17
125	18.23
150	17.25

Z	S	O2	SIGT	DT	DD

RV THOMAS WASHINGTON — INDOPAC LEG XV — S 38

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 41.5N	155 20.6W	6/26/77	0755 GMT	M	0	KT		0

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	24.68	35.314		0.05	2.3	0.01	0.1	420.9	0	24.68	35.314		23.696	420.9	0.000
11	24.68	35.309		0.05	2.3	0.02	0.1	421.3	10	24.68	35.309		23.695	421.3	0.042
21	24.66	35.310		0.04	2.3	0.00	0.0	420.6	20	24.66	35.309		23.698	420.7	0.084
31	23.44	35.300		0.03	2.3	0.00	0.0	386.8	30	23.59	35.300		24.011	390.8	0.125
52	21.35	35.249		0.01	3.0	0.00	0.0	338.1	50	21.51	35.254		24.566	338.0	0.198
72	20.31	35.211		0.03	3.2	0.00	0.0	310.1	75	20.19	35.202		24.885	307.6	0.279
102	19.21	35.094		0.06	3.7	0.03	0.1	291.2	100	19.28	35.104		25.048	292.0	0.355
152	17.13	34.760		0.20	5.2	0.05	1.8	266.4	125	18.51	34.954		25.179	279.6	0.428
202	14.46	34.389		0.38	6.8	0.03	4.8	236.1	150	17.22	34.776		25.308	267.4	0.497
252	12.85	34.337		0.66	10.4	0.01	9.2	208.4	200	14.56	34.401		25.624	237.3	0.626
302	11.79	34.298		0.82	13.1	0.00	11.7	191.8	250	12.90	34.337		25.919	209.3	0.741
401	9.76	34.166		1.13	21.5	0.00	16.4	167.2	300	11.83	34.301		26.098	192.3	0.844
499	7.79	34.045		1.69	37.0	0.03	24.5	146.9	400	9.78	34.169		26.360	167.4	1.032
597	5.72	34.002						123.6	500	7.77	34.045		26.580	146.6	1.197
695	4.81	34.077		2.90	84.1	0.00	40.5	107.9	600	5.68	34.004		26.827	123.1	1.340
791	4.30	34.209		3.16	100.1	0.01	44.8	92.6	700	4.78	34.085		26.997	107.0	1.462
888	3.99	34.321		3.25	111.2	0.00	45.0	81.1	800	4.27	34.221		27.161	91.5	1.569
983	3.59	34.418		2.98	113.4	0.02	41.6	70.0	1000	3.53	34.430		27.403	68.6	1.744

RV THOMAS WASHINGTON — INDOPAC LEG XV — CHL 29

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 41.2N	155 20.6W	6/26/77	1822 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1									0						
21	24.53								10						
26	23.99								20						
41									30	23.60					
61	21.22								50	21.94					
74									75	20.55					
77									100	19.45					
81									125	18.46					
98									150	17.14					
100															
105															
111	19.01														
113	18.90														
120	18.64														
130	18.25														
140	17.64														
158															
159															
165	16.58														
179	16.27														

RV THOMAS WASHINGTON — INDOPAC LEG XV — S 71

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 41.0N	155 21.6W	6/27/77	0134 GMT	M	0	KT		0

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	24.78	35.343						421.7	0	24.78	35.343		23.688	421.7	0.000
11	24.75	35.340						421.1	10	24.75	35.340		23.694	421.1	0.042
21	24.57	35.335						416.3	20	24.59	35.335		23.740	416.7	0.084
31	23.53	35.310						388.6	30	23.65	35.312		24.001	391.8	0.125
51	21.99	35.261						350.1	50	22.06	35.263		24.422	351.7	0.199
71	20.64	35.230						317.1	75	20.44	35.219		24.831	312.7	0.283
101	19.39	35.133						292.7	100	19.42	35.137		25.036	293.2	0.359
151	17.84	34.901						272.5	125	18.64	35.032		25.157	281.7	0.432
200	15.84	34.622						248.0	150	17.87	34.906		25.251	272.8	0.503
250	13.71	34.403						220.1	200	15.84	34.622		25.512	248.0	0.636
300	12.04	34.298						196.3	250	13.71	34.403		25.806	220.1	0.756
349		34.258							300	12.04	34.298		26.056	196.3	0.864
398	9.92	34.179						168.8	400	9.87	34.177		26.351	168.3	1.054
497	7.67	34.040						145.6	500	7.60	34.039		26.598	144.9	1.218
595	5.76	34.011						123.4	600	5.69	34.014		26.834	122.5	1.360
693	4.79	34.091						106.6	700	4.74	34.101		27.013	105.4	1.481
791	4.31	34.222						91.8	800	4.28	34.233		27.169	90.6	1.587
889	4.00	34.324						81.0	1000	3.69	34.401		27.364	72.2	1.765
986	3.72	34.392						73.2							

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 31

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 41.6N	155 22.3W	6/27/77	0410 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	24.79														
2	24.78														
3	24.75														
4	24.73														
6	24.74														
7															
9	24.68														
10	24.65														
12	24.64														
13															
15															
16	24.56														

RV THOMAS WASHINGTON INDOPAC LEG XV CHL 32

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 33.0N	155 31.5W	6/28/77	0236 GMT					

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	24.79														
2	24.79														
3															
4	24.79														
6	24.79														
7	24.79														
9	24.79														
10	24.79														
12															
13	24.79														
15															
16	24.78														

STD 1 INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 32.4N	155 31.2W	06/05/77	1703 GMT

Z	T	S	SIGMA T	DT	DD
0	22.54	35.27	24.290	364.3	0.000
10	22.55	35.27	24.287	364.6	0.036
20	22.55	35.27	24.287	364.6	0.073
30	21.42	35.24	24.581	336.6	0.108
40	20.85	35.20	24.706	324.7	0.141
50	20.64	35.21	24.770	318.5	0.174
75	18.84	34.97	25.058	291.2	0.250
100	17.86	34.82	25.188	278.8	0.322
125	16.71	34.69	25.364	262.1	0.391
150	15.74	34.53	25.464	252.5	0.456
175	14.80	34.43	25.596	240.1	0.519
200	14.34	34.45	25.710	229.2	0.579
225	13.63	34.40	25.820	218.7	0.636
250	12.86	34.38	25.960	205.4	0.691
275	12.26	34.34	26.047	197.2	0.743
300	11.59	34.29	26.135	188.8	0.793

STD 3

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 33.3N	155 31.4W	06/05/77	2239 GMT

Z	T	S	SIGMA T	DT	DD
0	22.56	35.27	24.284	364.8	0.000
10	22.56	35.28	24.292	364.1	0.036
20	22.54	35.28	24.297	363.6	0.073
30	21.52	35.19	24.515	342.8	0.108
40	20.82	35.21	24.722	323.2	0.142
50	20.25	35.14	24.821	313.7	0.174
75	18.40	34.89	25.107	286.4	0.249
100	17.46	34.77	25.247	273.2	0.320
125	16.52	34.63	25.362	262.2	0.388
150	15.51	34.49	25.485	250.5	0.453
175	14.99	34.45	25.570	242.5	0.516
200	14.40	34.45	25.697	230.4	0.576
225	13.56	34.38	25.819	218.8	0.634
250	12.84	34.37	25.956	205.8	0.689
275	12.33	34.35	26.041	197.7	0.741
300	11.81	34.32	26.117	190.5	0.791
350	10.73	34.26	26.268	176.2	0.886
400	9.76	34.20	26.389	164.7	0.976
450	8.84	34.14	26.492	155.0	1.060
500	7.85	34.07	26.588	145.9	1.139
550	6.91	34.04	26.697	135.4	1.213
600	6.05	34.03	26.803	125.5	1.283
650	5.41	34.05	26.897	116.5	1.347
700	4.82	34.09	26.997	107.0	1.407
750	4.49	34.15	27.081	99.0	1.462
800	4.11	34.23	27.185	89.2	1.512
850	4.18	34.28	27.218	86.1	1.560
900	4.05	34.32	27.263	81.8	1.606
950	3.86	34.35	27.306	77.7	1.650
1000	3.70	34.39	27.354	73.2	1.692

STD 5 INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 38.7N	155 31.6W	06/06/77	1313 GMT

Z	T	S	SIGMA T	DT	DD
0	22.33	35.23	24.319	361.5	0.000
10	22.32	35.24	24.330	360.5	0.036
20	22.32	35.24	24.330	360.5	0.072
30	22.15	35.25	24.385	355.2	0.108
40	20.81	35.19	24.709	324.3	0.142
50	20.11	35.13	24.851	310.9	0.174
75	18.96	35.02	25.065	290.4	0.250
100	17.80	34.84	25.217	276.0	0.321
125	17.15	34.77	25.321	266.1	0.390
150	16.77	34.71	25.365	262.0	0.457
175	16.21	34.61	25.419	256.9	0.523
200	15.03	34.44	25.553	244.1	0.587
225	13.72	34.37	25.778	222.7	0.647
250	13.23	34.38	25.886	212.4	0.703
275	12.52	34.36	26.012	200.5	0.756
300	11.85	34.34	26.125	189.8	0.807
350	10.73	34.26	26.268	176.2	0.902
400	9.95	34.20	26.357	167.8	0.992
450	8.70	34.12	26.498	154.4	1.077
500	7.68	34.07	26.612	143.5	1.156
550	6.67	34.05	26.722	133.1	1.229
600	5.93	34.03	26.818	124.0	1.297
650	5.20	34.06	26.930	113.4	1.360
700	4.79	34.11	27.016	105.2	1.418
750	4.49	34.17	27.097	97.5	1.473
800	4.28	34.23	27.167	90.9	1.523
850	4.10	34.28	27.226	85.3	1.571
900	4.04	34.34	27.280	80.2	1.617
950	3.86	34.37	27.322	76.2	1.660
1000	3.68	34.40	27.364	72.2	1.701

STD6 2

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 36.0N	155 21.8W	06/10/77	1129 GMT

Z	T	S	SIGMA T	DT	DD
0	22.98	35.37	24.240	369.1	0.000
10	22.98	35.38	24.247	368.4	0.037
20	22.55	35.33	24.332	360.2	0.073
30	22.46	35.33	24.358	357.6	0.109
40	22.08	35.25	24.405	353.3	0.145
50	20.88	35.22	24.713	324.0	0.179
75	19.26	35.04	25.004	296.3	0.257
100	17.91	34.79	25.152	282.2	0.330
125	17.32	34.77	25.280	270.0	0.400
150	16.22	34.60	25.409	257.8	0.467
175	15.01	34.39	25.519	247.3	0.532
200	14.39	34.41	25.668	233.1	0.593
225	13.57	34.35	25.794	221.2	0.651
250	12.93	34.36	25.931	208.2	0.706
275	12.33	34.34	26.033	198.5	0.759
300	11.82	34.32	26.115	190.7	0.809
350	10.89	34.27	26.247	178.1	0.905
400	9.76	34.20	26.389	164.7	0.995
450	8.76	34.13	26.496	154.5	1.079
500	7.60	34.07	26.624	142.4	1.157
550	6.61	34.04	26.738	131.6	1.230
600	5.86	34.04	26.834	122.4	1.297
650	5.23	34.07	26.934	113.0	1.360
700	4.68	34.11	27.029	104.0	1.418
750	4.47	34.16	27.091	98.1	1.472
800	4.36	34.23	27.159	91.7	1.523
850	4.21	34.29	27.222	85.7	1.571
900	4.04	34.32	27.264	81.7	1.617
950	3.90	34.36	27.310	77.3	1.661
1000	3.76	34.40	27.356	73.0	1.703

STD 10 INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 36.5N	155 18.5W	06/11/77	1137 GMT

Z	T	S	SIGMA T	DT	DD
0	23.07	35.35	24.199	373.0	0.000
10	22.97	35.37	24.242	368.8	0.037
20	22.51	35.34	24.351	358.4	0.074
30	22.31	35.32	24.393	354.5	0.109
40	21.19	35.20	24.613	333.5	0.144
50	20.42	35.16	24.791	316.5	0.176
75	19.19	35.05	25.030	293.9	0.253
100	18.04	34.85	25.166	280.9	0.326
125	17.07	34.75	25.325	265.8	0.395
150	16.21	34.61	25.419	256.9	0.462
175	15.21	34.49	25.552	244.2	0.525
200	14.14	34.39	25.706	229.6	0.586
225	13.58	34.40	25.830	217.6	0.643
250	12.70	34.36	25.976	203.9	0.698
275	12.22	34.35	26.062	195.7	0.749
300	11.83	34.33	26.121	190.1	0.799
350	10.62	34.27	26.295	173.6	0.894
400	9.53	34.19	26.419	161.8	0.982
450	8.58	34.13	26.524	151.8	1.064
500	7.39	34.06	26.646	140.3	1.141
550	6.48	34.04	26.755	130.0	1.213
600	5.72	34.04	26.852	120.8	1.279
650	5.03	34.07	26.958	110.8	1.341
700	4.63	34.12	27.042	102.7	1.398
750	4.36	34.18	27.119	95.4	1.451
800	4.24	34.26	27.195	88.2	1.500
850	4.09	34.32	27.259	82.2	1.547
900	3.94	34.35	27.298	78.5	1.591
950	3.81	34.39	27.343	74.2	1.633
1000	3.67	34.42	27.381	70.6	1.673

STD 12

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 36.6N	155 18.1W	06/11/77	1443 GMT

Z	T	S	SIGMA T	DT	DD
0	23.07	35.36	24.206	372.3	0.000
10	23.01	35.37	24.231	369.9	0.037
20	22.81	35.36	24.281	365.2	0.074
30	22.36	35.33	24.386	355.1	0.110
40	21.60	35.22	24.516	342.8	0.145
50	20.83	35.19	24.704	324.9	0.179
75	19.35	35.06	24.996	297.1	0.257
100	17.91	34.81	25.168	280.7	0.330
125	17.01	34.73	25.324	265.9	0.399
150	16.46	34.65	25.392	259.4	0.466
175	15.68	34.55	25.493	249.8	0.531
200	14.42	34.40	25.654	234.5	0.593
225	13.75	34.39	25.787	221.8	0.651
250	12.89	34.37	25.947	206.7	0.706
275	12.37	34.35	26.033	198.5	0.759
300	11.96	34.34	26.104	191.7	0.809
350	10.88	34.28	26.257	177.2	0.905
400	9.86	34.21	26.380	165.6	0.995
450	8.78	34.14	26.501	154.1	1.079
500	7.77	34.08	26.607	144.0	1.158
550	6.82	34.04	26.710	134.3	1.231
600	5.97	34.04	26.821	123.8	1.300
650	5.25	34.06	26.924	113.9	1.363
700	4.79	34.10	27.009	105.9	1.422
750	4.45	34.16	27.094	97.5	1.476
800	4.29	34.23	27.166	91.0	1.527
850	4.15	34.29	27.229	85.1	1.575
900	3.98	34.34	27.286	79.6	1.620
950	3.82	34.36	27.334	75.1	1.663
1000	3.68	34.40	27.364	72.2	1.704

STD 14 INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 39.1N	155 10.5W	06/12/77	1219 GMT

Z	T	S	SIGMA T	DT	DD
0	23.34	35.25	24.045	387.7	0.000
10	22.97	35.25	24.152	377.5	0.036
20	22.52	35.33	24.341	359.4	0.075
30	21.95	35.26	24.449	349.2	0.111
40	20.96	35.20	24.676	327.5	0.145
50	20.29	35.15	24.818	314.0	0.177
75	19.07	35.04	25.053	291.7	0.253
100	18.36	34.95	25.163	281.1	0.326
125	17.15	34.74	25.298	268.3	0.395
150	16.32	34.58	25.370	261.5	0.462
175	15.48	34.46	25.469	252.1	0.528
200	14.22	34.38	25.681	231.9	0.590
225	13.63	34.40	25.820	218.7	0.647
250	12.71	34.35	25.967	204.8	0.702
275	12.24	34.34	26.051	196.8	0.754
300	11.69	34.32	26.140	188.4	0.804
350	10.57	34.25	26.289	174.2	0.898
400	9.75	34.20	26.390	164.6	0.987
450	8.72	34.13	26.503	153.9	1.071
500	7.80	34.07	26.595	145.2	1.149
550	6.72	34.04	26.723	133.0	1.223
600	5.79	34.04	26.843	121.6	1.291
650	5.20	34.06	26.930	113.4	1.353
700	4.70	34.10	27.019	105.0	1.411
750	4.43	34.16	27.096	97.7	1.465
800	4.30	34.24	27.173	90.3	1.516
850	4.15	34.30	27.237	84.3	1.564
900	3.96	34.33	27.280	80.2	1.609
950	3.82	34.38	27.334	75.1	1.652
1000	3.69	34.42	27.379	70.8	1.692
1100	3.43	34.46	27.436	65.4	1.769
1200	3.19	34.49	27.483	61.0	1.840
1300	3.02	34.52	27.523	57.2	1.905

STD 16

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 21.6N	155 27.5W	06/13/77	1201 GMT

Z	T	S	SIGMA T	DT	DD
0	24.20	35.31	23.837	407.5	0.000
10	24.03	35.27	23.857	405.6	0.041
20	23.22	35.28	24.102	382.2	0.080
30	23.17	35.28	24.117	380.8	0.118
40	22.79	35.35	24.279	365.3	0.156
50	21.82	35.33	24.538	340.6	0.191
75	20.16	35.20	24.885	307.6	0.273
100	19.25	35.12	25.067	290.5	0.348
125	18.39	34.99	25.186	278.9	0.420
150	17.50	34.86	25.306	267.6	0.490
175	16.35	34.72	25.471	251.9	0.556
200	14.96	34.54	25.645	235.3	0.618
225	13.79	34.42	25.802	220.4	0.677
250	13.09	34.36	25.914	209.8	0.732
275	12.48	34.35	26.012	200.5	0.785
300	11.74	34.33	26.134	188.5	0.836
350	10.67	34.26	26.279	175.2	0.930
400	9.69	34.19	26.393	164.4	1.019
450	8.63	34.14	26.524	151.8	1.102
500	7.64	34.08	26.626	142.2	1.180
550	6.56	34.02	26.729	132.5	1.253
600	5.65	34.01	26.837	122.2	1.320
650	4.92	34.04	26.946	111.8	1.382
700	4.51	34.11	27.047	102.2	1.439
750	4.29	34.17	27.119	95.5	1.492
800	4.28	34.25	27.183	89.4	1.542
850	4.11	34.30	27.241	83.9	1.589
900	3.98	34.34	27.286	79.6	1.634
950	3.82	34.38	27.334	75.1	1.676
1000	3.69	34.42	27.379	70.8	1.717

STD 18 INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 44.0N	155 33.2W	06/14/77	1100 GMT

Z	T	S	SIGMA T	DT	DD
0	23.08	35.14	24.037	388.4	0.000
10	23.10	35.15	24.039	388.3	0.039
20	22.00	35.09	24.306	362.8	0.076
30	21.64	35.10	24.414	352.5	0.112
40	20.58	35.15	24.741	321.3	0.146
50	20.12	35.12	24.840	311.9	0.178
75	19.11	35.06	25.058	291.2	0.254
100	17.85	34.83	25.198	277.9	0.326
125	16.82	34.64	25.300	268.2	0.395
150	16.13	34.55	25.391	259.5	0.462
175	14.97	34.40	25.536	245.8	0.526
200	14.28	34.45	25.723	228.0	0.587
225	13.64	34.42	25.833	217.5	0.644
250	12.88	34.38	25.956	205.8	0.698
275	12.30	34.36	26.054	196.4	0.750
300	11.69	34.32	26.140	188.4	0.800
350	10.67	34.26	26.279	175.2	0.895
400	9.84	34.20	26.375	166.0	0.984
450	8.86	34.14	26.488	155.3	1.069
500	7.90	34.08	26.588	145.8	1.148
550	6.69	34.03	26.719	133.4	1.222
600	5.74	34.02	26.834	122.5	1.290
650	5.21	34.05	26.921	114.2	1.353
700	4.77	34.08	26.995	107.2	1.412
750	4.42	34.16	27.097	97.6	1.467
800	4.22	34.22	27.166	91.0	1.517
850	4.05	34.26	27.231	84.8	1.565
900	3.90	34.32	27.278	80.3	1.610
950	3.77	34.36	27.323	76.1	1.653
971	3.73	34.37	27.335	74.9	1.671

STD 22

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 30.4N	155 30.8W	06/15/77	1548 GMT

Z	T	S	SIGMA T	DT	DD
0	24.53	35.38	23.791	411.9	0.000
10	23.73	35.35	24.006	391.3	0.040
20	22.62	35.23	24.237	369.3	0.078
30	22.52	35.26	24.303	363.0	0.115
40	20.81	35.06	24.610	333.8	0.150
50	20.28	35.05	24.745	321.0	0.183
75	18.82	34.94	25.040	292.9	0.260
100	18.01	34.88	25.197	278.0	0.332
125	17.07	34.72	25.302	268.0	0.401
150	16.31	34.58	25.373	261.2	0.469
175	15.56	34.53	25.505	248.7	0.534
200	14.97	34.48	25.597	239.9	0.596
225	13.73	34.38	25.784	222.2	0.655
250	13.17	34.36	25.883	212.6	0.711
275	12.46	34.34	26.008	200.9	0.765
300	11.81	34.31	26.109	191.2	0.815
350	10.73	34.27	26.276	175.4	0.911
400	9.75	34.19	26.383	165.3	1.000
450	8.81	34.13	26.488	155.3	1.084
500	7.80	34.07	26.595	145.2	1.164
550	6.67	34.04	26.730	132.4	1.237
600	5.79	34.03	26.835	122.4	1.305
650	5.20	34.05	26.922	114.1	1.367
700	4.76	34.09	27.004	106.4	1.426
750	4.44	34.16	27.095	97.8	1.481
800	4.30	34.22	27.157	91.8	1.532
850	4.15	34.28	27.221	85.8	1.580
900	3.96	34.32	27.272	80.9	1.626
950	3.81	34.37	27.327	75.7	1.669
1000	3.66	34.40	27.366	72.0	1.710

STD 24 INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 32.1N	155 18.2W	06/16/77	1033 GMT

Z	T	S	SIGMA T	DT	DD
0	24.41	35.32	23.782	412.8	0.000
10	24.19	35.31	23.840	407.2	0.041
20	23.35	35.36	24.125	380.0	0.080
30	23.23	35.37	24.167	376.0	0.118
40	22.03	35.25	24.419	352.0	0.155
50	21.12	35.21	24.640	330.9	0.189
75	19.89	35.19	24.954	301.0	0.269
100	18.74	35.00	25.106	286.6	0.343
125	17.64	34.82	25.241	273.7	0.414
150	16.54	34.62	25.350	263.4	0.482
175	15.50	34.49	25.488	250.3	0.548
200	14.58	34.39	25.612	238.5	0.610
225	13.81	34.38	25.767	223.7	0.669
250	12.69	34.35	25.971	204.4	0.724
275	12.29	34.33	26.033	198.5	0.776
300	11.63	34.30	26.135	188.8	0.827
350	10.57	34.25	26.289	174.2	0.921
400	9.50	34.17	26.409	162.8	1.009
450	8.55	34.11	26.513	152.9	1.092
500	7.60	34.06	26.616	143.1	1.170
550	6.75	34.03	26.711	134.1	1.244
600	5.97	34.03	26.813	124.5	1.312
650	5.13	34.04	26.922	114.1	1.376
700	4.60	34.07	27.006	106.2	1.434
750	4.41	34.15	27.090	98.2	1.489
800	4.28	34.22	27.159	91.6	1.540
850	4.15	34.28	27.221	85.8	1.588
900	3.88	34.31	27.272	80.9	1.634
950	3.85	34.36	27.315	76.9	1.677
1000	3.74	34.40	27.358	72.8	1.719

STD 26

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 37.1N	155 27.3W	06/18/77	1605 GMT

Z	T	S	SIGMA T	DT	DD
0	24.46	35.27	23.729	417.8	0.000
10	24.44	35.29	23.750	415.8	0.042
20	22.67	35.08	24.109	381.5	0.082
30	22.05	35.11	24.307	362.7	0.119
40	21.40	35.07	24.457	348.4	0.155
50	20.80	35.15	24.681	327.0	0.189
75	19.39	35.02	24.955	300.9	0.268
100	18.22	34.89	25.152	282.2	0.341
125	17.05	34.70	25.291	269.0	0.411
150	16.39	34.61	25.377	260.8	0.478
175	14.86	34.34	25.513	247.9	0.543
200	14.35	34.40	25.669	233.1	0.605
225	13.44	34.39	25.851	215.8	0.662
250	12.68	34.34	25.965	205.0	0.716
275	12.16	34.32	26.050	196.8	0.768
300	11.65	34.31	26.139	188.4	0.818
350	10.55	34.25	26.292	173.9	0.912
400	9.47	34.18	26.421	161.6	1.000
450	8.36	34.10	26.535	150.9	1.082
500	7.30	34.05	26.651	139.8	1.159
550	6.50	34.02	26.737	131.7	1.231
600	5.70	34.03	26.846	121.3	1.298
650	5.13	34.06	26.938	112.6	1.360
700	4.66	34.10	27.023	104.5	1.418
750	4.41	34.16	27.098	97.5	1.472
800	4.31	34.24	27.172	90.4	1.522
850	4.13	34.30	27.239	84.1	1.570
900	3.97	34.33	27.279	80.3	1.615
950	3.83	34.37	27.325	75.9	1.658
1000	3.67	34.40	27.365	72.1	1.699

STD 28 — INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 31.0N	155 30.8W	06/21/77	1336 GMT

Z	T	S	SIGMA T	DT	DD
0	24.59	35.33	23.735	417.2	0.000
10	24.60	35.34	23.740	416.8	0.042
20	24.20	35.31	23.837	407.5	0.083
30	23.43	35.32	24.071	385.1	0.123
40	22.41	35.35	24.367	355.0	0.160
50	21.64	35.32	24.581	336.6	0.195
75	20.43	35.21	24.827	313.2	0.276
100	19.17	35.10	25.073	289.7	0.353
125	18.39	35.00	25.194	278.2	0.425
150	16.87	34.76	25.380	260.6	0.493
175	15.54	34.51	25.494	249.7	0.558
200	14.32	34.35	25.637	236.1	0.620
225	13.75	34.42	25.811	219.6	0.679
250	12.71	34.36	25.974	204.1	0.733
275	11.91	34.32	26.098	192.3	0.784
300	11.31	34.29	26.187	183.9	0.833
350	10.35	34.24	26.319	171.3	0.925
400	9.27	34.17	26.446	159.3	1.012
450	8.33	34.10	26.539	150.4	1.093
500	7.31	34.05	26.650	140.0	1.170
550	6.29	34.02	26.764	129.1	1.241
600	5.52	34.03	26.868	119.2	1.307
650	4.95	34.06	26.959	110.6	1.368
700	4.76	34.13	27.036	103.4	1.425
750	4.45	34.18	27.109	96.4	1.478
800	4.23	34.24	27.180	89.6	1.528
850	4.14	34.28	27.222	85.7	1.576
900	3.96	34.32	27.272	80.9	1.622
950	3.81	34.35	27.311	77.2	1.665
1000	3.73	34.39	27.351	73.4	1.707

STD 30

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 37.3N	155 28.7W	06/22/77	1136 GMT

Z	T	S	SIGMA T	DT	DD
0	24.69	35.33	23.705	420.1	0.000
10	24.70	35.34	23.709	419.6	0.042
20	24.54	35.34	23.758	415.0	0.084
30	23.59	35.31	24.017	390.3	0.124
40	22.71	35.34	24.294	363.9	0.162
50	21.89	35.28	24.481	346.1	0.198
75	20.42	35.22	24.837	312.2	0.281
100	19.17	35.00	24.997	297.0	0.357
125	17.88	34.83	25.190	278.6	0.430
150	16.67	34.61	25.312	267.0	0.500
175	15.95	34.55	25.432	255.6	0.566
200	14.56	34.34	25.578	241.7	0.630
225	13.87	34.43	25.793	221.3	0.689
250	13.00	34.37	25.925	208.8	0.744
275	12.36	34.34	26.027	199.0	0.797
300	11.89	34.32	26.102	191.9	0.848
350	10.83	34.27	26.258	177.1	0.944
400	9.77	34.19	26.379	165.6	1.034
450	8.69	34.12	26.499	154.2	1.118
500	7.73	34.07	26.605	144.2	1.196
550	6.67	34.03	26.722	133.1	1.270
600	5.76	34.02	26.829	123.0	1.338
650	5.19	34.06	26.931	113.3	1.400
700	4.73	34.09	27.007	106.0	1.459
750	4.46	34.15	27.085	98.7	1.514
800	4.33	34.21	27.146	92.9	1.565
850	4.22	34.27	27.205	87.3	1.614
900	4.03	34.31	27.257	82.4	1.660
950	3.88	34.35	27.304	77.9	1.705
1000	3.73	34.40	27.359	72.7	1.746

STD 32 — INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 34.4N	155 25.2W	06/24/77	1201 GMT

Z	T	S	SIGMA T	DT	DD
0	24.77	35.33	23.681	422.4	0.000
10	24.70	35.35	23.717	418.9	0.042
20	24.47	35.33	23.771	413.8	0.084
30	23.25	35.27	24.086	383.7	0.124
40	22.08	35.27	24.420	351.9	0.161
50	21.48	35.27	24.587	336.0	0.195
75	20.46	35.23	24.834	312.5	0.277
100	19.48	35.16	25.038	293.0	0.353
125	18.73	35.05	25.147	282.7	0.426
150	17.65	34.89	25.292	268.9	0.496
175	16.72	34.73	25.392	259.4	0.564
200	15.74	34.62	25.533	246.0	0.628
225	14.65	34.52	25.697	230.4	0.689
250	13.63	34.45	25.858	215.1	0.747
275	12.62	34.34	25.977	203.8	0.801
300	12.12	34.34	26.074	194.6	0.852
350	11.01	34.30	26.249	178.0	0.949
400	9.90	34.20	26.365	167.0	1.040
450	8.83	34.14	26.493	154.8	1.124
500	7.66	34.07	26.615	143.2	1.203
550	6.66	34.03	26.723	133.0	1.276
600	5.88	34.04	26.832	122.7	1.344
650	5.17	34.05	26.926	113.6	1.407
700	4.79	34.10	27.009	105.9	1.465
750	4.51	34.13	27.063	100.7	1.521
800	4.34	34.22	27.153	92.2	1.573
850	4.09	34.27	27.219	86.0	1.621
900	4.01	34.33	27.275	80.7	1.667
950	3.82	34.36	27.318	76.6	1.710
1000	3.72	34.39	27.352	73.3	1.751

STD 34

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.2N	155 20.6W	06/26/77	0550 GMT

Z	T	S	SIGMA T	DT	DD
0	24.69	35.31	23.690	421.5	0.000
10	24.69	35.32	23.697	420.8	0.042
20	24.68	35.32	23.700	420.5	0.084
30	23.81	35.30	23.945	397.2	0.125
40	22.94	35.24	24.153	377.4	0.164
50	21.84	35.28	24.495	344.8	0.200
75	20.12	35.22	24.917	304.6	0.282
100	19.20	35.12	25.080	289.0	0.357
125	18.36	35.01	25.209	276.8	0.429
150	17.17	34.79	25.331	265.1	0.498
175	16.40	34.69	25.436	255.2	0.564
200	15.11	34.56	25.628	237.0	0.627
225	13.94	34.43	25.779	222.6	0.686
250	13.15	34.38	25.902	210.9	0.742
275	12.47	34.34	26.006	201.0	0.795
300	11.92	34.33	26.104	191.7	0.846
350	10.98	34.28	26.239	178.9	0.942
400	9.90	34.21	26.373	166.2	1.033
450	8.79	34.13	26.492	155.0	1.117
500	7.72	34.08	26.614	143.3	1.196
550	6.44	34.03	26.752	130.2	1.268
600	5.71	34.04	26.853	120.7	1.335
650	5.21	34.05	26.921	114.2	1.397
700	4.82	34.11	27.013	105.5	1.456
750	4.52	34.17	27.094	97.8	1.510
800	4.31	34.22	27.156	91.9	1.561
850	4.15	34.26	27.221	85.8	1.610
900	4.01	34.33	27.275	80.7	1.655
950	3.85	34.37	27.323	76.1	1.698
1000	3.71	34.40	27.361	72.5	1.740

STD35U INDOPAC LEG XV STD 36

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 20.4W	06/26/77	0613 GMT

Z	T	S	SIGMA T	DT	DD
0	24.69	35.32	23.697	420.8	0.000
10	24.69	35.32	23.697	420.8	0.042
20	24.67	35.32	23.703	420.2	0.084
30	23.71	35.31	23.982	393.7	0.125
40	22.89	35.39	24.281	365.2	0.163
50	21.70	35.32	24.564	338.2	0.198
75	20.01	35.23	24.953	301.1	0.279
100	19.19	35.12	25.083	288.8	0.353
125	18.23	34.99	25.226	275.2	0.425
150	17.18	34.78	25.321	266.1	0.494
175	16.26	34.72	25.491	249.9	0.559
200	14.75	34.52	25.676	232.4	0.621
225	13.83	34.41	25.786	221.9	0.679
250	12.89	34.36	25.939	207.4	0.735
275	12.48	34.35	26.012	200.5	0.787
300	11.88	34.33	26.112	191.0	0.838
350	10.91	34.28	26.251	177.7	0.934
400	9.88	34.21	26.376	165.9	1.024
450	8.73	34.14	26.509	153.3	1.108
500	7.63	34.07	26.620	142.8	1.186
550	6.39	34.04	26.767	128.9	1.258
600	5.67	34.04	26.858	120.2	1.324
650	5.19	34.05	26.923	114.0	1.386
700	4.74	34.12	27.030	103.9	1.444
750	4.50	34.18	27.104	96.9	1.498
800	4.27	34.23	27.168	90.8	1.549
850	4.15	34.28	27.221	85.8	1.597
900	3.99	34.33	27.277	80.5	1.642
950	3.84	34.37	27.324	76.0	1.685
1000	3.70	34.41	27.370	71.7	1.726

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.2N	155 20.4W	06/26/77	0635 GMT

Z	T	S	SIGMA T	DT	DD
0	24.70	35.31	23.687	421.8	0.000
10	24.69	35.32	23.697	420.8	0.042
20	24.69	35.32	23.697	420.8	0.084
30	24.50	35.30	23.740	416.8	0.126
40	23.33	35.30	24.085	383.8	0.166
50	22.01	35.23	24.409	352.9	0.203
75	20.04	35.18	24.907	305.5	0.286
100	19.24	35.10	25.055	291.5	0.362
125	18.28	34.98	25.206	277.1	0.434
150	17.20	34.78	25.317	266.6	0.503
175	16.26	34.70	25.476	251.4	0.569
200	15.06	34.56	25.639	235.9	0.631
225	13.98	34.44	25.779	222.7	0.690
250	12.99	34.36	25.919	209.3	0.746
275	12.41	34.34	26.013	199.9	0.798
300	11.83	34.32	26.113	190.9	0.849
350	10.82	34.27	26.260	177.0	0.945
400	9.73	34.20	26.394	164.2	1.034
450	8.58	34.12	26.517	152.6	1.117
500	7.53	34.06	26.626	142.2	1.195
550	6.35	34.03	26.764	129.1	1.267
600	5.67	34.04	26.858	120.2	1.333
650	5.22	34.05	26.920	114.4	1.395
700	4.78	34.11	27.018	105.1	1.454
750	4.53	34.17	27.093	97.9	1.508
800	4.31	34.22	27.156	91.9	1.559
850	4.16	34.27	27.212	86.7	1.608
900	4.01	34.32	27.267	81.4	1.654
950	3.86	34.36	27.314	76.9	1.697
1000	3.71	34.40	27.361	72.5	1.739

STD37U INDOPAC LEG XV STD 38

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.3N	155 20.5W	06/26/77	0700 GMT

Z	T	S	SIGMA T	DT	DD
0	24.69	35.31	23.690	421.5	0.000
10	24.68	35.32	23.700	420.5	0.042
20	23.99	35.36	23.937	397.9	0.083
30	23.39	35.32	24.083	384.0	0.122
40	22.22	35.31	24.411	352.8	0.159
50	21.25	35.28	24.658	329.2	0.194
75	19.83	35.19	24.970	299.5	0.273
100	19.03	35.10	25.109	286.3	0.347
125	18.09	34.95	25.230	274.8	0.418
150	17.13	34.79	25.341	264.2	0.486
175	16.13	34.68	25.491	250.0	0.552
200	14.60	34.49	25.685	231.6	0.613
225	13.55	34.41	25.844	216.4	0.671
250	12.78	34.36	25.961	205.4	0.725
275	12.30	34.34	26.039	197.9	0.777
300	11.77	34.32	26.125	189.8	0.827
350	10.74	34.27	26.274	175.6	0.923
400	9.69	34.20	26.400	163.6	1.011
450	8.61	34.13	26.520	152.3	1.094
500	7.51	34.07	26.637	141.2	1.172
550	6.33	34.03	26.767	128.9	1.243
600	5.66	34.04	26.859	120.1	1.309
650	5.12	34.05	26.931	113.2	1.371
700	4.73	34.12	27.031	103.8	1.429
750	4.51	34.18	27.103	97.0	1.483
800	4.28	34.22	27.159	91.6	1.534
850	4.15	34.28	27.221	85.8	1.582
900	4.00	34.33	27.276	80.6	1.628
950	3.84	34.37	27.324	76.0	1.671
1000	3.70	34.41	27.370	71.7	1.712

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.4N	155 20.6W	06/26/77	0723 GMT

Z	T	S	SIGMA T	DT	DD
0	24.68	35.31	23.693	421.2	0.000
10	24.68	35.31	23.693	421.2	0.042
20	24.65	35.31	23.702	420.4	0.084
30	23.50	35.30	24.036	388.5	0.125
40	22.93	35.30	24.201	372.8	0.163
50	21.73	35.27	24.518	342.6	0.199
75	20.19	35.20	24.893	306.8	0.281
100	19.37	35.12	25.037	293.2	0.356
125	18.40	34.97	25.168	280.6	0.429
150	17.38	34.78	25.273	270.7	0.499
175	16.42	34.70	25.439	254.9	0.566
200	14.92	34.48	25.608	238.9	0.629
225	13.75	34.42	25.811	219.6	0.688
250	13.02	34.35	25.905	210.6	0.744
275	12.44	34.34	26.012	200.5	0.797
300	11.84	34.32	26.111	191.0	0.847
350	10.87	34.27	26.251	177.8	0.943
400	9.75	34.20	26.390	164.6	1.033
450	8.74	34.13	26.499	154.2	1.117
500	7.76	34.06	26.593	145.4	1.196
550	6.52	34.01	26.726	132.7	1.269
600	5.73	34.03	26.843	121.7	1.337
650	5.17	34.05	26.926	113.8	1.399
700	4.76	34.12	27.028	104.1	1.457
750	4.46	34.16	27.092	98.0	1.511
800	4.23	34.22	27.165	91.1	1.562
850	4.13	34.29	27.231	84.9	1.610
900	3.95	34.33	27.281	80.1	1.655
950	3.80	34.37	27.328	75.6	1.698
1000	3.66	34.40	27.366	72.0	1.739

STD39U INDOPAC LEG XV STD 40

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.5N	155 20.6W	06/26/77	0806 GMT

Z	T	S	SIGMA T	DT	DD
0	24.65	35.31	23.702	420.4	0.000
10	24.64	35.32	23.712	419.4	0.042
20	24.63	35.32	23.716	419.1	0.084
30	24.04	35.30	23.877	403.7	0.125
40	22.96	35.28	24.177	375.0	0.164
50	21.94	35.27	24.459	348.2	0.201
75	20.56	35.26	24.830	312.9	0.284
100	19.53	35.15	25.018	295.0	0.361
125	18.48	35.01	25.179	279.6	0.433
150	17.45	34.82	25.287	269.4	0.503
175	16.67	34.73	25.404	258.3	0.570
200	14.77	34.42	25.594	240.2	0.634
225	14.02	34.44	25.770	223.5	0.694
250	12.94	34.36	25.929	208.4	0.749
275	12.43	34.34	26.014	200.3	0.802
300	11.86	34.32	26.108	191.4	0.853
350	10.84	34.25	26.241	178.8	0.949
400	9.76	34.18	26.373	166.2	1.039
450	8.76	34.13	26.496	154.5	1.124
500	7.74	34.07	26.604	144.3	1.202
550	6.50	34.02	26.737	131.7	1.275
600	5.71	34.02	26.837	122.2	1.343
650	5.18	34.04	26.917	114.7	1.405
700	4.79	34.10	27.009	105.9	1.464
750	4.43	34.16	27.096	97.7	1.519
800	4.29	34.22	27.158	91.7	1.570
850	4.12	34.29	27.232	84.8	1.618
900	3.94	34.34	27.290	79.2	1.663
950	3.80	34.37	27.328	75.6	1.705
1000	3.65	34.40	27.367	71.9	1.746

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.5N	155 20.7W	06/26/77	0843 GMT

Z	T	S	SIGMA T	DT	DD
0	24.63	35.32	23.716	419.1	0.000
10	24.63	35.32	23.716	419.1	0.042
20	24.63	35.31	23.708	419.8	0.084
30	24.06	35.32	23.886	402.8	0.125
40	23.18	35.30	24.129	379.6	0.164
50	22.19	35.24	24.366	357.0	0.201
75	20.79	35.26	24.768	318.8	0.286
100	19.61	35.15	24.997	296.9	0.364
125	18.64	35.01	25.139	283.5	0.438
150	17.59	34.84	25.269	271.1	0.508
175	16.84	34.74	25.371	261.3	0.576
200	15.14	34.45	25.537	245.7	0.641
225	14.17	34.45	25.746	225.8	0.701
250	13.00	34.36	25.917	209.5	0.757
275	12.41	34.33	26.010	200.7	0.810
300	11.84	34.30	26.096	192.5	0.861
350	10.96	34.26	26.227	180.1	0.958
400	9.76	34.19	26.381	165.5	1.049
450	8.71	34.11	26.489	155.3	1.133
500	7.62	34.06	26.613	143.4	1.212
550	6.45	34.01	26.735	131.8	1.284
600	5.71	34.02	26.837	122.2	1.352
650	5.15	34.05	26.928	113.6	1.414
700	4.77	34.11	27.019	105.0	1.473
750	4.42	34.16	27.097	97.6	1.527
800	4.27	34.22	27.160	91.5	1.578
850	4.15	34.27	27.213	86.6	1.626
900	4.01	34.32	27.267	81.4	1.672
950	3.84	34.36	27.316	76.8	1.716
1000	3.70	34.39	27.354	73.2	1.757

STD41U INDOPAC LEG XV STD 42

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.4N	155 20.8W	06/26/77	0908 GMT

Z	T	S	SIGMA T	DT	DD
0	24.59	35.33	23.735	417.2	0.000
10	24.60	35.32	23.725	418.2	0.042
20	24.61	35.33	23.729	417.8	0.084
30	24.26	35.36	23.857	405.6	0.125
40	23.25	35.32	24.124	380.1	0.164
50	22.38	35.24	24.313	362.1	0.202
75	20.83	35.27	24.765	319.1	0.287
100	19.63	35.16	24.999	296.7	0.365
125	18.59	35.03	25.167	280.8	0.438
150	17.58	34.85	25.279	270.2	0.508
175	16.82	34.77	25.399	258.7	0.576
200	15.36	34.53	25.549	244.4	0.640
225	14.28	34.47	25.738	226.5	0.700
250	12.95	34.36	25.927	208.6	0.756
275	12.33	34.34	26.033	198.5	0.809
300	11.77	34.31	26.117	190.5	0.859
350	10.91	34.27	26.244	178.5	0.955
400	9.80	34.19	26.374	166.1	1.046
450	8.69	34.12	26.499	154.2	1.130
500	7.64	34.06	26.610	143.7	1.208
550	6.47	34.02	26.741	131.3	1.281
600	5.70	34.02	26.838	122.1	1.348
650	5.08	34.06	26.944	112.1	1.410
700	4.71	34.12	27.033	103.6	1.468
750	4.38	34.16	27.101	97.1	1.522
800	4.26	34.22	27.161	91.4	1.572
850	4.12	34.28	27.224	85.5	1.620
900	3.98	34.32	27.270	81.1	1.666
950	3.82	34.36	27.318	76.6	1.709
1000	3.66	34.41	27.374	71.3	1.750

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.4N	155 20.8W	06/26/77	0927 GMT

Z	T	S	SIGMA T	DT	DD
0	24.70	35.31	23.687	421.8	0.000
10	24.61	35.30	23.706	419.9	0.042
20	24.61	35.31	23.714	419.2	0.084
30	24.05	35.29	23.866	404.7	0.125
40	23.27	35.30	24.103	382.1	0.165
50	22.27	35.28	24.374	356.3	0.202
75	20.81	35.27	24.770	318.6	0.287
100	19.60	35.16	25.007	296.0	0.365
125	18.52	35.02	25.177	279.9	0.437
150	17.58	34.85	25.279	270.2	0.507
175	16.86	34.75	25.374	261.1	0.575
200	15.54	34.55	25.525	246.8	0.640
225	14.30	34.47	25.734	226.9	0.701
250	13.24	34.38	25.884	212.6	0.757
275	12.45	34.33	26.002	201.4	0.811
300	11.84	34.31	26.104	191.8	0.862
350	11.02	34.27	26.224	180.4	0.959
400	9.86	34.20	26.369	166.6	1.049
450	8.73	34.11	26.485	155.6	1.134
500	7.73	34.07	26.605	144.2	1.213
550	6.62	34.03	26.729	132.5	1.286
600	5.73	34.02	26.835	122.4	1.354
650	5.11	34.06	26.940	112.4	1.416
700	4.71	34.12	27.033	103.6	1.474
750	4.37	34.17	27.110	96.3	1.527
800	4.27	34.23	27.168	90.8	1.578
850	4.12	34.29	27.232	84.8	1.625
900	3.97	34.33	27.279	80.3	1.671
950	3.81	34.37	27.327	75.7	1.714
1000	3.68	34.40	27.364	72.2	1.755

STD43U — INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.5N	155 20.8W	06/26/77	0948 GMT

Z	T	S	SIGMA T	DT	DD
0	24.59	35.33	23.735	417.2	0.000
10	24.61	35.32	23.722	418.5	0.042
20	24.57	35.32	23.734	417.3	0.084
30	23.46	35.30	24.047	387.4	0.124
40	22.71	35.32	24.279	365.3	0.162
50	21.51	35.26	24.571	337.5	0.197
75	20.52	35.27	24.848	311.1	0.279
100	19.45	35.14	25.031	293.7	0.355
125	18.24	34.99	25.224	275.4	0.427
150	17.23	34.78	25.309	267.2	0.496
175	16.61	34.73	25.418	256.9	0.563
200	15.04	34.48	25.582	241.4	0.627
225	14.17	34.47	25.761	224.3	0.686
250	12.99	34.35	25.911	210.1	0.742
275	12.41	34.34	26.018	199.9	0.795
300	11.79	34.31	26.113	190.9	0.846
350	10.96	34.27	26.235	179.3	0.942
400	9.93	34.20	26.360	167.4	1.033
450	8.92	34.14	26.479	156.2	1.118
500	7.88	34.07	26.583	146.3	1.198
550	6.85	34.02	26.690	136.2	1.273
600	5.86	34.02	26.819	123.9	1.342
650	5.15	34.05	26.928	113.6	1.405
700	4.72	34.12	27.032	103.7	1.463
750	4.38	34.16	27.101	97.1	1.516
800	4.26	34.24	27.177	89.9	1.567
850	4.11	34.29	27.233	84.7	1.614
900	3.95	34.33	27.281	80.1	1.659
950	3.80	34.37	27.328	75.6	1.702
1000	3.65	34.40	27.367	71.9	1.743

STD 44

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.5N	155 20.8W	06/26/77	1013 GMT

Z	T	S	SIGMA T	DT	DD
0	24.60	35.31	23.717	418.9	0.000
10	24.60	35.31	23.717	418.9	0.042
20	24.59	35.31	23.720	418.6	0.084
30	24.11	35.25	23.818	409.3	0.125
40	23.06	35.30	24.164	376.3	0.165
50	22.04	35.26	24.424	351.5	0.201
75	20.76	35.26	24.776	318.0	0.286
100	19.56	35.15	25.010	295.7	0.363
125	18.44	34.98	25.166	280.9	0.436
150	17.33	34.79	25.293	268.8	0.506
175	16.75	34.73	25.385	260.1	0.573
200	15.16	34.43	25.517	247.5	0.638
225	14.35	34.45	25.708	229.4	0.699
250	13.18	34.36	25.881	213.0	0.756
275	12.51	34.33	25.990	202.5	0.810
300	11.85	34.31	26.102	192.0	0.861
350	11.02	34.28	26.232	179.6	0.958
400	10.02	34.21	26.353	168.1	1.049
450	9.01	34.15	26.472	156.8	1.134
500	7.84	34.06	26.581	146.5	1.214
550	6.85	34.02	26.690	136.2	1.289
600	5.87	34.02	26.817	124.0	1.358
650	5.16	34.05	26.927	113.7	1.421
700	4.73	34.12	27.031	103.8	1.479
750	4.39	34.17	27.108	96.5	1.533
800	4.27	34.24	27.176	90.0	1.583
850	4.12	34.29	27.232	84.8	1.631
900	3.99	34.32	27.269	81.2	1.676
950	3.84	34.36	27.316	76.8	1.720
1000	3.71	34.40	27.361	72.5	1.761

STD45U — INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.5N	155 20.8W	06/26/77	1037 GMT

Z	T	S	SIGMA T	DT	DD
0	24.59	35.31	23.720	418.6	0.000
10	24.58	35.32	23.731	417.6	0.042
20	24.56	35.33	23.744	416.3	0.084
30	23.43	35.30	24.056	386.6	0.124
40	22.88	35.44	24.321	361.3	0.161
50	21.64	35.31	24.573	337.3	0.196
75	20.78	35.27	24.778	317.8	0.279
100	19.56	35.15	25.010	295.7	0.356
125	18.59	35.04	25.174	280.1	0.429
150	17.41	34.83	25.305	267.7	0.499
175	16.80	34.75	25.389	259.7	0.566
200	15.27	34.50	25.546	244.7	0.631
225	14.31	34.46	25.724	227.9	0.691
250	13.13	34.36	25.891	212.0	0.748
275	12.53	34.34	25.994	202.2	0.801
300	11.83	34.32	26.113	190.9	0.852
350	10.93	34.27	26.240	178.8	0.948
400	9.94	34.21	26.366	166.9	1.039
450	8.96	34.14	26.473	156.8	1.124
500	7.83	34.06	26.583	146.3	1.204
550	6.80	34.04	26.712	134.0	1.278
600	5.86	34.03	26.827	123.2	1.346
650	5.17	34.05	26.926	113.8	1.409
700	4.72	34.12	27.032	103.7	1.467
750	4.38	34.17	27.109	96.4	1.521
800	4.27	34.24	27.176	90.0	1.571
850	4.11	34.30	27.241	83.9	1.619
900	3.97	34.33	27.279	80.3	1.664
950	3.84	34.36	27.316	76.8	1.707
1000	3.70	34.40	27.362	72.4	1.748

STD 46

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.5N	155 21.0W	06/26/77	1105 GMT

Z	T	S	SIGMA T	DT	DD
0	24.60	35.31	23.717	418.9	0.000
10	24.60	35.33	23.732	417.5	0.042
20	24.59	35.32	23.728	417.9	0.084
30	23.79	35.30	23.951	396.6	0.124
40	23.16	35.29	24.127	379.8	0.163
50	22.15	35.25	24.385	355.2	0.200
75	20.92	35.27	24.740	321.4	0.286
100	19.66	35.15	24.984	298.2	0.364
125	18.71	35.02	25.129	284.4	0.438
150	17.48	34.82	25.280	270.0	0.508
175	16.81	34.72	25.363	262.1	0.576
200	15.22	34.47	25.534	245.9	0.641
225	14.27	34.45	25.725	227.8	0.701
250	13.15	34.34	25.871	213.8	0.758
275	12.54	34.34	25.992	202.3	0.812
300	11.84	34.31	26.104	191.8	0.863
350	10.93	34.27	26.240	178.8	0.960
400	9.96	34.19	26.347	168.7	1.050
450	8.99	34.14	26.468	157.2	1.136
500	7.85	34.06	26.580	146.6	1.216
550	6.88	34.03	26.694	135.8	1.291
600	5.95	34.03	26.815	124.3	1.360
650	5.34	34.04	26.898	116.4	1.424
700	4.88	34.09	26.991	107.6	1.484
750	4.51	34.15	27.079	99.2	1.539
800	4.28	34.21	27.151	92.4	1.591
850	4.14	34.28	27.222	85.7	1.639
900	4.01	34.32	27.267	81.4	1.685
950	3.87	34.35	27.305	77.8	1.729
1000	3.75	34.39	27.349	73.6	1.771

STD47U INDOPAC LEG XV STD 48

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.4N	155 20.8W	06/26/77	1138 GMT

Z	T	S	SIGMA T	DT	DD
0	24.56	35.32	23.737	417.1	0.000
10	24.56	35.32	23.737	417.1	0.042
20	24.56	35.31	23.729	417.8	0.084
30	23.84	35.33	23.959	395.9	0.124
40	23.24	35.30	24.111	381.3	0.163
50	22.22	35.30	24.403	353.5	0.200
75	20.94	35.28	24.742	321.2	0.285
100	19.82	35.20	24.980	298.5	0.363
125	19.00	35.09	25.109	286.3	0.437
150	17.72	34.91	25.291	269.0	0.508
175	16.72	34.70	25.369	261.6	0.576
200	15.91	34.65	25.518	247.4	0.641
225	14.30	34.43	25.703	229.8	0.702
250	13.33	34.38	25.866	214.4	0.759
275	12.61	34.35	25.986	202.9	0.813
300	11.94	34.31	26.085	193.6	0.864
350	11.00	34.28	26.235	179.3	0.961
400	10.05	34.21	26.347	168.6	1.052
450	9.00	34.14	26.466	157.4	1.138
500	7.83	34.07	26.591	145.6	1.218
550	6.91	34.03	26.689	136.2	1.293
600	5.92	34.02	26.811	124.6	1.362
650	5.20	34.06	26.930	113.4	1.425
700	4.80	34.11	27.015	105.3	1.483
750	4.41	34.16	27.098	97.5	1.538
800	4.27	34.23	27.168	90.8	1.588
850	4.12	34.29	27.232	84.8	1.636
900	3.98	34.33	27.278	80.4	1.681
950	3.85	34.36	27.315	76.9	1.725
1000	3.72	34.39	27.352	73.3	1.766

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.3N	155 20.4W	06/26/77	1215 GMT

Z	T	S	SIGMA T	DT	DD
0	24.56	35.32	23.737	417.1	0.000
10	24.56	35.32	23.737	417.1	0.042
20	24.56	35.32	23.737	417.1	0.083
30	24.18	35.33	23.858	405.5	0.125
40	23.37	35.31	24.081	384.2	0.164
50	22.48	35.22	24.269	366.3	0.202
75	21.06	35.28	24.710	324.3	0.289
100	19.79	35.18	24.973	299.2	0.368
125	18.98	35.07	25.098	287.3	0.442
150	17.77	34.90	25.271	270.9	0.513
175	16.68	34.68	25.363	262.1	0.581
200	15.95	34.64	25.501	249.0	0.646
225	14.47	34.43	25.667	233.3	0.708
250	13.31	34.36	25.854	215.4	0.766
275	12.67	34.35	25.975	204.0	0.820
300	11.96	34.33	26.098	192.5	0.871
350	11.02	34.28	26.232	179.6	0.968
400	9.94	34.20	26.358	167.6	1.059
450	8.93	34.12	26.462	157.8	1.145
500	7.84	34.06	26.581	146.5	1.225
550	6.88	34.02	26.686	136.6	1.300
600	5.92	34.02	26.811	124.6	1.369
650	5.22	34.05	26.920	114.4	1.432
700	4.76	34.10	27.012	105.6	1.491
750	4.43	34.16	27.096	97.7	1.545
800	4.28	34.22	27.159	91.6	1.596
850	4.11	34.28	27.225	85.4	1.645
900	4.00	34.32	27.268	81.3	1.690
950	3.86	34.35	27.306	77.7	1.734
1000	3.71	34.40	27.361	72.5	1.776

STD49U INDOPAC LEG XV STD 50

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 20.2W	06/26/77	1239 GMT

Z	T	S	SIGMA T	DT	DD
0	24.56	35.31	23.729	417.8	0.000
10	24.56	35.32	23.737	417.1	0.042
20	24.53	35.32	23.746	416.2	0.083
30	24.02	35.33	23.905	400.9	0.124
40	23.41	35.32	24.077	384.6	0.164
50	22.71	35.35	24.302	363.1	0.201
75	21.13	35.29	24.698	325.4	0.288
100	19.79	35.18	24.973	299.2	0.367
125	18.97	35.08	25.109	286.3	0.441
150	17.73	34.89	25.273	270.7	0.512
175	16.74	34.70	25.364	262.0	0.580
200	15.88	34.65	25.525	246.8	0.645
225	14.23	34.44	25.725	227.7	0.706
250	13.12	34.36	25.893	211.8	0.762
275	12.54	34.34	25.992	202.3	0.816
300	11.90	34.32	26.100	192.1	0.867
350	10.89	34.27	26.247	178.1	0.963
400	9.76	34.19	26.381	165.5	1.053
450	8.72	34.14	26.510	153.2	1.137
500	7.69	34.07	26.611	143.6	1.215
550	6.68	34.02	26.713	134.0	1.289
600	5.91	34.02	26.812	124.5	1.357
650	5.24	34.05	26.917	114.6	1.421
700	4.77	34.11	27.019	105.0	1.479
750	4.47	34.15	27.084	98.8	1.534
800	4.31	34.21	27.148	92.7	1.585
850	4.14	34.28	27.222	85.7	1.634
900	4.01	34.32	27.267	81.4	1.680
950	3.87	34.35	27.305	77.8	1.723
1000	3.74	34.39	27.350	73.5	1.765

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 20.1W	06/26/77	1304 GMT

Z	T	S	SIGMA T	DT	DD
0	24.55	35.32	23.740	416.8	0.000
10	24.55	35.32	23.740	416.8	0.042
20	24.55	35.32	23.740	416.8	0.083
30	24.51	35.32	23.752	415.6	0.125
40	23.65	35.30	23.992	392.7	0.166
50	23.12	35.30	24.146	378.0	0.204
75	21.27	35.25	24.630	331.9	0.294
100	19.88	35.17	24.942	302.2	0.374
125	19.08	35.07	25.073	289.7	0.449
150	17.87	34.86	25.216	276.2	0.521
175	16.75	34.69	25.354	263.0	0.589
200	15.86	34.62	25.506	248.5	0.655
225	14.19	34.43	25.726	227.6	0.716
250	13.04	34.35	25.901	211.0	0.772
275	12.54	34.34	25.992	202.3	0.826
300	11.86	34.31	26.100	192.1	0.877
350	10.85	34.25	26.239	178.9	0.973
400	9.78	34.18	26.370	166.5	1.064
450	8.84	34.12	26.476	156.5	1.149
500	7.79	34.06	26.589	145.8	1.228
550	6.84	34.02	26.691	136.0	1.303
600	6.07	34.02	26.792	126.4	1.372
650	5.40	34.04	26.891	117.1	1.437
700	4.80	34.08	26.992	107.5	1.497
750	4.55	34.14	27.067	100.4	1.553
800	4.31	34.20	27.140	93.4	1.605
850	4.17	34.26	27.203	87.5	1.654
900	4.01	34.31	27.259	82.2	1.700
950	3.91	34.35	27.301	78.2	1.744
1000	3.71	34.40	27.361	72.5	1.786

STD51U INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 20.0W	06/26/77	1330 GMT

Z	T	S	SIGMA T	DT	DD
0	24.53	35.32	23.746	416.2	0.000
10	24.54	35.33	23.750	415.8	0.042
20	24.53	35.32	23.746	416.2	0.083
30	23.98	35.34	23.925	399.1	0.124
40	23.35	35.33	24.102	382.2	0.163
50	22.55	35.32	24.325	361.0	0.201
75	20.92	35.29	24.755	319.9	0.286
100	19.62	35.16	25.002	296.5	0.364
125	18.72	35.05	25.149	282.5	0.438
150	17.28	34.80	25.313	266.9	0.507
175	16.52	34.68	25.401	258.6	0.574
200	15.55	34.61	25.569	242.6	0.638
225	14.01	34.42	25.756	224.8	0.698
250	12.96	34.35	25.917	209.5	0.754
275	12.46	34.34	26.008	200.9	0.807
300	11.73	34.30	26.117	190.6	0.858
350	10.81	34.26	26.254	177.5	0.954
400	9.82	34.19	26.371	166.4	1.044
450	8.89	34.12	26.468	157.2	1.129
500	7.81	34.07	26.593	145.3	1.209
550	6.80	34.03	26.704	134.8	1.283
600	6.04	34.02	26.796	126.1	1.352
650	5.29	34.04	26.904	115.9	1.416
700	4.75	34.08	26.997	107.0	1.476
750	4.49	34.14	27.073	99.8	1.531
800	4.30	34.20	27.141	93.3	1.583
850	4.16	34.27	27.212	86.7	1.632
900	4.01	34.31	27.259	82.2	1.678
950	3.88	34.35	27.304	77.9	1.722
1000	3.73	34.38	27.343	74.2	1.764

STD 53

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 20.1W	06/26/77	1353 GMT

Z	T	S	SIGMA T	DT	DD
0	24.54	35.32	23.743	416.5	0.000
10	24.54	35.32	23.743	416.5	0.042
20	24.53	35.32	23.746	416.2	0.083
30	24.09	35.33	23.885	402.9	0.124
40	23.36	35.33	24.099	382.5	0.164
50	22.39	35.29	24.348	358.8	0.201
75	20.88	35.28	24.759	319.6	0.286
100	19.58	35.15	25.005	296.2	0.364
125	18.71	35.03	25.136	283.7	0.438
150	17.24	34.78	25.307	267.5	0.508
175	16.46	34.66	25.399	258.7	0.575
200	15.48	34.59	25.569	242.6	0.639
225	14.00	34.42	25.759	224.6	0.699
250	12.94	34.34	25.913	209.8	0.755
275	12.44	34.34	26.012	200.5	0.808
300	11.71	34.30	26.120	190.2	0.858
350	10.81	34.26	26.254	177.5	0.954
400	9.94	34.19	26.351	168.3	1.044
450	9.00	34.14	26.466	157.4	1.130
500	7.91	34.06	26.571	147.4	1.211
550	7.01	34.04	26.684	136.7	1.286
600	6.09	34.02	26.790	126.7	1.356
650	5.42	34.04	26.888	117.3	1.420
700	4.84	34.07	26.979	108.7	1.481
750	4.54	34.15	27.076	99.5	1.536
800	4.31	34.20	27.140	93.4	1.588
850	4.16	34.26	27.204	87.4	1.638
900	4.01	34.31	27.259	82.2	1.684
950	3.87	34.35	27.305	77.8	1.728
1000	3.72	34.38	27.344	74.1	1.770

STD54U INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 20.2W	06/26/77	1422 GMT

Z	T	S	SIGMA T	DT	DD
0	24.52	35.32	23.749	415.9	0.000
10	24.53	35.31	23.738	416.9	0.042
20	24.49	35.32	23.758	415.1	0.083
30	23.49	35.31	24.046	387.5	0.124
40	23.00	35.31	24.188	374.0	0.162
50	22.03	35.31	24.464	347.7	0.198
75	20.73	35.27	24.791	316.5	0.282
100	19.54	35.16	25.023	294.5	0.359
125	18.66	35.05	25.164	281.0	0.432
150	17.31	34.82	25.321	266.1	0.501
175	16.42	34.68	25.424	256.4	0.568
200	15.37	34.60	25.601	239.5	0.631
225	13.83	34.43	25.802	220.5	0.690
250	12.91	34.35	25.927	208.5	0.745
275	12.40	34.34	26.020	199.8	0.798
300	11.71	34.31	26.128	189.5	0.849
350	10.82	34.27	26.260	177.0	0.944
400	9.95	34.21	26.364	167.0	1.034
450	9.04	34.14	26.460	158.0	1.119
500	7.94	34.07	26.574	147.1	1.200
550	7.00	34.03	26.677	137.4	1.275
600	6.09	34.02	26.790	126.7	1.345
650	5.42	34.04	26.888	117.3	1.410
700	4.80	34.09	27.000	106.8	1.470
750	4.48	34.14	27.074	99.7	1.525
800	4.30	34.22	27.157	91.6	1.577
850	4.12	34.28	27.224	85.5	1.625
900	4.00	34.32	27.268	81.3	1.671
950	3.84	34.36	27.316	76.8	1.714
1000	3.71	34.39	27.353	73.3	1.756

STD 55

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 20.2W	06/26/77	1447 GMT

Z	T	S	SIGMA T	DT	DD
0	24.54	35.32	23.743	416.5	0.000
10	24.53	35.32	23.746	416.2	0.042
20	24.52	35.32	23.749	415.9	0.083
30	23.86	35.31	23.938	397.8	0.124
40	23.22	35.27	24.095	382.9	0.163
50	22.25	35.27	24.372	356.5	0.200
75	20.89	35.26	24.741	321.3	0.286
100	19.64	35.15	24.989	297.7	0.364
125	18.79	35.04	25.124	284.9	0.438
150	17.54	34.82	25.265	271.4	0.508
175	16.47	34.67	25.405	258.2	0.576
200	15.58	34.61	25.562	243.3	0.640
225	14.11	34.43	25.743	226.0	0.700
250	13.00	34.34	25.902	211.0	0.756
275	12.40	34.33	26.012	200.5	0.810
300	11.76	34.31	26.119	190.4	0.860
350	10.79	34.26	26.257	177.2	0.956
400	9.96	34.20	26.355	167.9	1.046
450	9.03	34.14	26.461	157.8	1.132
500	8.01	34.07	26.564	148.1	1.213
550	7.06	34.03	26.669	138.2	1.288
600	6.10	34.02	26.788	126.8	1.359
650	5.44	34.04	26.886	117.6	1.424
700	4.85	34.07	26.978	108.8	1.484
750	4.53	34.14	27.069	100.2	1.540
800	4.31	34.21	27.148	92.7	1.592
850	4.14	34.28	27.222	85.7	1.640
900	4.00	34.32	27.268	81.3	1.686
950	3.85	34.36	27.315	76.9	1.729
1000	3.70	34.41	27.370	71.7	1.771

STD56U INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 20.2W	06/26/77	1515 GMT

Z	T	S	SIGMA T	DT	DD
0	24.56	35.32	23.737	417.1	0.000
10	24.52	35.32	23.749	415.9	0.042
20	24.52	35.32	23.749	415.9	0.083
30	23.92	35.31	23.920	399.6	0.124
40	23.06	35.33	24.186	374.2	0.163
50	21.89	35.28	24.481	346.1	0.199
75	20.67	35.27	24.808	315.0	0.282
100	19.50	35.15	25.026	294.2	0.359
125	18.76	35.06	25.147	282.7	0.432
150	17.58	34.89	25.309	267.3	0.502
175	16.44	34.67	25.412	257.5	0.569
200	15.49	34.61	25.582	241.3	0.633
225	14.16	34.45	25.748	225.6	0.693
250	12.94	34.34	25.913	209.8	0.749
275	12.35	34.32	26.014	200.3	0.802
300	11.74	34.32	26.130	189.3	0.852
350	10.77	34.27	26.269	176.1	0.947
400	9.81	34.19	26.372	166.3	1.037
450	8.89	34.13	26.476	156.5	1.122
500	7.83	34.06	26.583	146.3	1.202
550	6.98	34.03	26.680	137.1	1.277
600	6.07	34.02	26.792	126.4	1.347
650	5.31	34.03	26.893	116.9	1.411
700	4.78	34.08	26.994	107.3	1.471
750	4.46	34.15	27.085	98.7	1.526
800	4.28	34.23	27.167	90.9	1.577
850	4.11	34.28	27.225	85.4	1.625
900	3.98	34.32	27.270	81.1	1.671
950	3.84	34.36	27.316	76.6	1.714
1000	3.70	34.40	27.362	72.4	1.756

STD 57

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 20.3W	06/26/77	1542 GMT

Z	T	S	SIGMA T	DT	DD
0	24.57	35.32	23.734	417.3	0.000
10	24.51	35.32	23.752	415.6	0.042
20	24.52	35.32	23.749	415.9	0.083
30	23.99	35.30	23.892	402.3	0.124
40	23.25	35.33	24.131	379.4	0.164
50	22.25	35.29	24.387	355.0	0.200
75	20.92	35.27	24.740	321.4	0.286
100	19.61	35.15	24.997	296.9	0.364
125	18.82	35.06	25.132	284.2	0.437
150	17.77	34.89	25.263	271.7	0.508
175	16.60	34.68	25.382	260.4	0.576
200	15.59	34.61	25.560	243.5	0.640
225	14.21	34.42	25.714	228.8	0.701
250	13.11	34.36	25.895	211.6	0.757
275	12.44	34.32	25.996	202.0	0.811
300	11.88	34.31	26.096	192.5	0.862
350	10.86	34.26	26.245	178.4	0.958
400	9.80	34.19	26.374	166.1	1.048
450	8.87	34.13	26.479	156.2	1.133
500	7.85	34.07	26.588	145.9	1.213
550	7.01	34.03	26.676	137.5	1.288
600	6.07	34.02	26.792	126.4	1.358
650	5.31	34.03	26.893	116.9	1.423
700	4.79	34.09	27.001	106.7	1.482
750	4.51	34.15	27.079	99.2	1.537
800	4.29	34.22	27.158	91.7	1.589
850	4.14	34.28	27.222	85.7	1.637
900	4.01	34.32	27.267	81.4	1.683
950	3.86	34.36	27.314	76.9	1.726
1000	3.69	34.41	27.371	71.6	1.767

STD58U INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 20.3W	06/26/77	1605 GMT

Z	T	S	SIGMA T	DT	DD
0	24.50	35.31	23.747	416.1	0.000
10	24.50	35.32	23.755	415.3	0.042
20	24.48	35.33	23.768	414.0	0.083
30	23.62	35.33	24.023	389.7	0.123
40	23.05	35.35	24.204	372.4	0.162
50	21.96	35.28	24.461	348.0	0.198
75	20.76	35.27	24.783	317.3	0.282
100	19.65	35.18	25.009	295.8	0.359
125	18.92	35.10	25.137	283.7	0.432
150	17.90	34.92	25.254	272.5	0.503
175	16.77	34.73	25.380	260.5	0.571
200	15.90	34.65	25.520	247.2	0.636
225	14.55	34.52	25.719	228.3	0.697
250	13.17	34.38	25.898	211.3	0.754
275	12.42	34.32	26.000	201.6	0.807
300	11.85	34.32	26.109	191.2	0.858
350	10.83	34.26	26.250	177.9	0.954
400	9.80	34.19	26.374	166.1	1.044
450	8.89	34.13	26.476	156.5	1.129
500	7.76	34.06	26.593	145.4	1.208
550	6.92	34.03	26.688	136.3	1.283
600	5.99	34.02	26.802	125.5	1.352
650	5.28	34.06	26.921	114.3	1.416
700	4.78	34.09	27.002	106.6	1.475
750	4.52	34.15	27.078	99.3	1.530
800	4.29	34.22	27.158	91.7	1.581
850	4.13	34.28	27.223	85.6	1.630
900	4.00	34.32	27.268	81.3	1.675
950	3.84	34.36	27.316	76.8	1.719
1000	3.70	34.39	27.354	73.2	1.760

STD 59

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.2N	155 20.4W	06/26/77	1636 GMT

Z	T	S	SIGMA T	DT	DD
0	24.50	35.32	23.755	415.3	0.000
10	24.50	35.32	23.755	415.3	0.042
20	24.49	35.32	23.758	415.1	0.083
30	24.19	35.36	23.878	403.6	0.124
40	23.27	35.32	24.118	380.7	0.164
50	22.33	35.30	24.372	356.4	0.201
75	20.90	35.27	24.746	320.9	0.286
100	19.72	35.17	24.984	298.2	0.364
125	19.01	35.09	25.106	286.6	0.438
150	17.86	34.92	25.264	271.6	0.509
175	16.66	34.69	25.375	261.0	0.577
200	15.85	34.64	25.524	246.9	0.642
225	14.50	34.50	25.714	228.8	0.703
250	13.14	34.37	25.897	211.5	0.759
275	12.38	34.33	26.016	200.1	0.813
300	11.80	34.31	26.111	191.1	0.863
350	10.80	34.26	26.256	177.4	0.959
400	9.81	34.19	26.372	166.3	1.049
450	8.89	34.13	26.476	156.5	1.134
500	7.79	34.06	26.589	145.8	1.214
550	6.94	34.03	26.685	136.6	1.288
600	6.06	34.02	26.794	126.3	1.358
650	5.32	34.04	26.900	116.2	1.423
700	4.76	34.09	27.004	106.4	1.482
750	4.54	34.15	27.076	99.5	1.537
800	4.31	34.22	27.156	91.9	1.589
850	4.14	34.28	27.222	85.7	1.637
900	4.02	34.32	27.266	81.5	1.683
950	3.87	34.35	27.305	77.8	1.726
1000	3.72	34.39	27.352	73.3	1.768

STD60U INDOPAC LEG XV STD 61

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.2N	155 20.4W	06/26/77	1700 GMT

Z	T	S	SIGMA T	DT	DD
0	24.58	35.33	23.738	416.9	0.000
10	24.50	35.31	23.747	416.1	0.042
20	24.47	35.31	23.756	415.2	0.083
30	23.78	35.32	23.969	394.9	0.124
40	23.22	35.31	24.125	380.0	0.163
50	22.24	35.29	24.390	354.7	0.200
75	20.66	35.28	24.818	314.0	0.284
100	19.61	35.17	25.012	295.5	0.361
125	18.78	35.07	25.149	282.5	0.434
150	17.73	34.91	25.288	269.3	0.504
175	16.47	34.67	25.405	258.2	0.571
200	15.54	34.62	25.578	241.7	0.635
225	14.20	34.48	25.763	224.2	0.695
250	12.94	34.36	25.929	208.4	0.751
275	12.26	34.32	26.031	198.7	0.803
300	11.80	34.32	26.119	190.3	0.854
350	10.77	34.27	26.269	176.1	0.949
400	9.82	34.19	26.371	166.4	1.039
450	8.84	34.13	26.484	155.7	1.123
500	7.75	34.06	26.594	145.2	1.203
550	6.87	34.03	26.695	135.7	1.277
600	5.98	34.03	26.812	124.6	1.346
650	5.16	34.04	26.919	114.4	1.410
700	4.74	34.10	27.014	105.4	1.468
750	4.55	34.14	27.067	100.4	1.523
800	4.30	34.22	27.157	91.8	1.575
850	4.14	34.28	27.222	85.7	1.623
900	4.01	34.32	27.267	81.4	1.669
950	3.85	34.36	27.315	76.9	1.713
1000	3.71	34.39	27.353	73.3	1.754

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.2N	155 20.5W	06/26/77	1843 GMT

Z	T	S	SIGMA T	DT	DD
0	24.50	35.32	23.755	415.3	0.000
10	24.50	35.32	23.755	415.3	0.042
20	24.49	35.32	23.758	415.1	0.083
30	23.83	35.31	23.946	397.0	0.124
40	23.10	35.29	24.144	378.2	0.163
50	22.17	35.26	24.387	355.0	0.200
75	20.52	35.24	24.825	313.5	0.284
100	19.63	35.16	24.999	296.7	0.361
125	18.60	35.02	25.157	281.8	0.434
150	17.49	34.83	25.285	269.5	0.504
175	16.46	34.66	25.399	258.7	0.571
200	15.50	34.59	25.564	243.0	0.636
225	14.37	34.46	25.711	229.1	0.696
250	12.98	34.34	25.905	210.6	0.753
275	12.46	34.33	26.000	201.6	0.806
300	12.01	34.32	26.074	194.1	0.857
350	10.79	34.26	26.257	177.2	0.954
400	9.92	34.20	26.362	167.3	1.044
450	8.78	34.11	26.477	156.3	1.129
500	7.78	34.06	26.590	145.6	1.209
550	6.77	34.01	26.693	135.9	1.283
600	5.81	34.02	26.825	123.3	1.352
650	5.08	34.04	26.928	113.6	1.415
700	4.75	34.09	27.005	106.3	1.473
750	4.53	34.15	27.077	99.4	1.528
800	4.27	34.22	27.160	91.5	1.580
850	4.13	34.27	27.215	86.4	1.628
900	4.01	34.32	27.267	81.4	1.674
950	3.85	34.35	27.307	77.6	1.718
1000	3.69	34.39	27.355	73.1	1.759

STD62U INDOPAC LEG XV STD 63

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.2N	155 20.7W	06/26/77	1910 GMT

Z	T	S	SIGMA T	DT	DD
0	24.53	35.31	23.738	416.9	0.000
10	24.52	35.32	23.749	415.9	0.042
20	24.49	35.33	23.765	414.3	0.083
30	23.67	35.32	24.001	391.8	0.124
40	23.12	35.37	24.199	372.9	0.162
50	22.22	35.29	24.396	354.2	0.199
75	20.48	35.29	24.874	308.7	0.282
100	19.58	35.16	25.012	295.5	0.358
125	18.52	35.02	25.177	279.9	0.431
150	17.45	34.86	25.316	266.4	0.501
175	16.28	34.67	25.449	254.0	0.567
200	15.23	34.58	25.617	238.0	0.630
225	14.14	34.46	25.760	224.4	0.689
250	12.86	34.34	25.929	208.3	0.745
275	12.30	34.32	26.024	199.4	0.798
300	11.97	34.32	26.087	193.4	0.848
350	10.85	34.27	26.254	177.5	0.945
400	9.92	34.20	26.362	167.3	1.035
450	8.75	34.11	26.482	155.9	1.120
500	7.75	34.06	26.594	145.2	1.199
550	6.70	34.02	26.710	134.2	1.273
600	5.75	34.02	26.832	122.6	1.341
650	4.98	34.03	26.932	113.2	1.404
700	4.73	34.09	27.007	106.0	1.462
750	4.51	34.15	27.079	99.2	1.517
800	4.26	34.23	27.169	90.7	1.568
850	4.14	34.27	27.214	86.5	1.617
900	3.99	34.32	27.269	81.2	1.662
950	3.84	34.35	27.308	77.5	1.706
1000	3.69	34.39	27.355	73.1	1.748

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 20.9W	06/26/77	1954 GMT

Z	T	S	SIGMA T	DT	DD
0	24.58	35.32	23.731	417.6	0.000
10	24.54	35.32	23.743	416.5	0.042
20	24.52	35.32	23.749	415.9	0.083
30	23.73	35.29	23.961	395.7	0.124
40	22.67	35.30	24.276	365.7	0.162
50	21.82	35.22	24.455	348.6	0.198
75	20.30	35.24	24.884	307.7	0.281
100	19.34	35.13	25.052	291.7	0.356
125	18.27	34.98	25.209	276.8	0.429
150	17.20	34.79	25.324	265.8	0.497
175	16.04	34.65	25.488	250.2	0.563
200	15.18	34.57	25.620	237.7	0.626
225	14.15	34.43	25.735	226.8	0.685
250	12.90	34.35	25.929	208.4	0.741
275	12.28	34.31	26.020	199.8	0.794
300	11.91	34.31	26.090	193.0	0.845
350	10.81	34.26	26.254	177.5	0.941
400	9.91	34.20	26.363	167.1	1.031
450	8.74	34.12	26.492	155.0	1.116
500	7.79	34.06	26.589	145.8	1.195
550	6.74	34.03	26.713	134.0	1.269
600	5.80	34.02	26.826	123.2	1.338
650	5.10	34.03	26.918	114.5	1.401
700	4.76	34.09	27.004	106.4	1.460
750	4.53	34.14	27.069	100.2	1.515
800	4.30	34.21	27.149	92.6	1.567
850	4.15	34.27	27.213	86.6	1.615
900	4.01	34.31	27.259	82.2	1.661
950	3.85	34.35	27.307	77.6	1.705
1000	3.70	34.38	27.346	73.9	1.747

STD64U INDOPAC LEG XV STD 65

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 21.1W	06/26/77	2015 GMT

Z	T	S	SIGMA T	DT	DD
0	24.57	35.33	23.741	416.6	0.000
10	24.56	35.33	23.744	416.3	0.042
20	24.52	35.32	23.749	415.9	0.083
30	23.64	35.36	24.040	388.1	0.124
40	22.61	35.35	24.330	360.4	0.161
50	21.70	35.23	24.496	344.7	0.197
75	20.15	35.21	24.901	306.1	0.279
100	19.28	35.14	25.075	289.5	0.354
125	18.25	34.98	25.213	276.4	0.425
150	17.12	34.78	25.336	264.7	0.494
175	15.90	34.64	25.513	247.9	0.560
200	15.06	34.55	25.631	236.7	0.622
225	13.95	34.43	25.777	222.8	0.680
250	12.81	34.37	25.963	205.2	0.736
275	12.28	34.32	26.027	199.0	0.788
300	11.83	34.31	26.106	191.6	0.838
350	10.75	34.25	26.257	177.3	0.934
400	9.77	34.19	26.379	165.6	1.024
450	8.73	34.12	26.493	154.8	1.108
500	7.77	34.06	26.592	145.5	1.188
550	6.64	34.02	26.718	133.5	1.261
600	5.73	34.02	26.835	122.4	1.329
650	5.02	34.04	26.935	112.9	1.392
700	4.72	34.10	27.016	105.2	1.450
750	4.47	34.15	27.084	98.8	1.504
800	4.30	34.22	27.157	91.6	1.556
850	4.14	34.27	27.214	86.5	1.604
900	3.99	34.32	27.269	81.2	1.650
950	3.84	34.36	27.316	76.6	1.693
1000	3.69	34.39	27.355	73.1	1.735

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.0N	155 21.2W	06/26/77	2036 GMT

Z	T	S	SIGMA T	DT	DD
0	24.57	35.32	23.734	417.3	0.000
10	24.56	35.32	23.737	417.1	0.042
20	24.54	35.32	23.743	416.5	0.083
30	23.86	35.26	23.915	400.0	0.124
40	22.79	35.30	24.241	368.9	0.163
50	21.84	35.26	24.479	346.2	0.199
75	20.33	35.18	24.830	312.8	0.282
100	19.29	35.10	25.042	292.7	0.358
125	18.30	34.97	25.193	278.3	0.431
150	17.22	34.79	25.320	266.3	0.500
175	16.03	34.64	25.483	250.7	0.566
200	15.12	34.54	25.610	238.7	0.628
225	14.05	34.45	25.771	223.4	0.688
250	12.85	34.35	25.939	207.4	0.743
275	12.31	34.32	26.022	199.6	0.796
300	11.84	34.31	26.104	191.8	0.846
350	10.82	34.27	26.260	177.0	0.942
400	9.83	34.20	26.377	165.8	1.032
450	8.74	34.12	26.492	155.0	1.116
500	7.77	34.06	26.592	145.5	1.196
550	6.57	34.02	26.727	132.6	1.269
600	5.72	34.02	26.836	122.3	1.337
650	5.03	34.04	26.934	113.0	1.399
700	4.72	34.11	27.024	104.4	1.457
750	4.46	34.16	27.092	98.0	1.511
800	4.31	34.22	27.156	91.9	1.562
850	4.15	34.26	27.205	87.3	1.611
900	4.02	34.31	27.258	82.3	1.657
950	3.85	34.35	27.307	77.6	1.701
1000	3.70	34.39	27.354	73.2	1.743

STD66U INDOPAC LEG XV STD 67

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.0N	155 21.3W	06/26/77	2103 GMT

Z	T	S	SIGMA T	DT	DD
0	24.64	35.32	23.712	419.4	0.000
10	24.58	35.33	23.738	416.9	0.042
20	24.52	35.33	23.756	415.2	0.083
30	23.97	35.34	23.928	398.8	0.124
40	23.04	35.34	24.200	372.9	0.163
50	21.94	35.27	24.459	348.2	0.199
75	20.45	35.27	24.867	309.3	0.282
100	19.46	35.15	25.036	293.2	0.358
125	18.39	35.01	25.202	277.5	0.430
150	17.30	34.83	25.331	265.2	0.499
175	15.99	34.64	25.492	249.9	0.565
200	15.07	34.57	25.644	235.4	0.627
225	13.93	34.44	25.788	221.7	0.686
250	12.84	34.36	25.949	206.5	0.741
275	12.30	34.32	26.024	199.4	0.793
300	11.87	34.32	26.106	191.6	0.844
350	10.85	34.25	26.239	178.9	0.940
400	9.84	34.19	26.367	166.7	1.031
450	8.74	34.12	26.492	155.0	1.115
500	7.77	34.06	26.592	145.5	1.195
550	6.58	34.03	26.734	132.0	1.268
600	5.71	34.02	26.837	122.2	1.335
650	5.02	34.04	26.935	112.9	1.398
700	4.72	34.11	27.024	104.4	1.456
750	4.40	34.16	27.099	97.3	1.510
800	4.28	34.22	27.159	91.6	1.561
850	4.14	34.27	27.214	86.5	1.609
900	4.01	34.32	27.267	81.4	1.655
950	3.84	34.35	27.308	77.5	1.699
1000	3.69	34.39	27.355	73.1	1.740

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 20.7W	06/26/77	2157 GMT

Z	T	S	SIGMA T	DT	DD
0	24.60	35.33	23.732	417.5	0.000
10	24.57	35.32	23.734	417.3	0.042
20	24.29	35.28	23.787	412.2	0.083
30	23.42	35.28	24.044	387.7	0.123
40	22.30	35.28	24.366	357.1	0.161
50	21.47	35.24	24.567	337.9	0.196
75	20.31	35.24	24.881	308.0	0.277
100	19.31	35.14	25.067	290.3	0.353
125	18.26	34.98	25.211	276.6	0.424
150	17.14	34.78	25.331	265.2	0.493
175	16.03	34.65	25.491	250.0	0.559
200	15.04	34.55	25.635	236.2	0.621
225	14.18	34.47	25.759	224.5	0.680
250	12.86	34.34	25.929	208.3	0.736
275	12.36	34.33	26.020	199.8	0.789
300	11.85	34.31	26.102	192.0	0.839
350	10.77	34.26	26.261	176.8	0.935
400	9.76	34.19	26.381	165.5	1.025
450	8.72	34.12	26.495	154.7	1.109
500	7.81	34.06	26.586	146.0	1.188
550	6.73	34.03	26.714	133.9	1.262
600	5.80	34.02	26.826	123.2	1.331
650	5.10	34.04	26.926	113.8	1.393
700	4.75	34.10	27.013	105.5	1.452
750	4.45	34.16	27.094	97.9	1.506
800	4.28	34.22	27.159	91.6	1.557
850	4.13	34.28	27.223	85.6	1.605
900	3.98	34.32	27.270	81.1	1.651
950	3.82	34.36	27.318	76.6	1.695
1000	3.68	34.39	27.356	73.0	1.736

STD68U — INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.2N	155 22.0W	06/26/77	2243 GMT

Z	T	S	SIGMA T	DT	DD
0	24.65	35.33	23.717	418.9	0.000
10	24.64	35.33	23.720	418.6	0.042
20	24.54	35.33	23.750	415.8	0.084
30	23.68	35.32	23.998	392.1	0.124
40	22.54	35.31	24.320	361.4	0.162
50	21.86	35.27	24.481	346.0	0.198
75	20.48	35.24	24.836	312.3	0.280
100	19.36	35.14	25.054	291.5	0.357
125	18.39	35.00	25.194	278.2	0.429
150	17.53	34.86	25.298	268.3	0.498
175	16.19	34.64	25.446	254.2	0.565
200	15.31	34.59	25.607	239.0	0.628
225	14.41	34.51	25.741	226.2	0.688
250	13.08	34.36	25.901	211.0	0.744
275	12.36	34.34	26.027	199.0	0.797
300	11.87	34.32	26.106	191.6	0.847
350	10.86	34.26	26.245	178.4	0.944
400	9.86	34.20	26.372	166.3	1.034
450	8.78	34.12	26.485	155.6	1.119
500	7.89	34.08	26.590	145.7	1.198
550	6.78	34.03	26.707	134.5	1.272
600	5.78	34.02	26.829	123.0	1.340
650	5.06	34.05	26.938	112.6	1.403
700	4.73	34.11	27.023	104.5	1.461
750	4.40	34.16	27.099	97.3	1.515
800	4.25	34.22	27.163	91.3	1.566
850	4.12	34.28	27.224	85.5	1.614
900	3.96	34.33	27.280	80.2	1.659
950	3.79	34.37	27.329	75.5	1.702
1000	3.68	34.40	27.364	72.2	1.743

STD 69

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.0N	155 21.6W	06/27/77	0001 GMT

Z	T	S	SIGMA T	DT	DD
0	24.67	35.33	23.711	419.5	0.000
10	24.66	35.33	23.714	419.2	0.042
20	24.34	35.34	23.816	409.3	0.083
30	22.99	35.31	24.191	373.7	0.123
40	22.14	35.26	24.396	354.2	0.159
50	21.45	35.24	24.572	337.4	0.194
75	19.88	35.15	24.927	303.6	0.275
100	19.04	35.09	25.096	287.3	0.349
125	18.18	34.95	25.208	276.9	0.421
150	17.26	34.81	25.325	265.7	0.490
175	16.06	34.63	25.468	252.1	0.556
200	15.17	34.56	25.615	238.2	0.618
225	14.27	34.48	25.748	225.6	0.678
250	13.02	34.37	25.921	209.2	0.734
275	12.29	34.33	26.033	198.5	0.787
300	11.78	34.31	26.115	190.7	0.837
350	10.84	34.27	26.256	177.3	0.933
400	9.82	34.19	26.371	166.4	1.023
450	8.75	34.13	26.498	154.4	1.107
500	7.71	34.06	26.600	144.7	1.186
550	6.66	34.02	26.715	133.7	1.260
600	5.77	34.03	26.838	122.1	1.327
650	5.06	34.05	26.938	112.6	1.390
700	4.72	34.11	27.024	104.4	1.447
750	4.44	34.16	27.095	97.8	1.502
800	4.28	34.24	27.175	90.1	1.552
850	4.14	34.28	27.222	85.7	1.600
900	3.96	34.33	27.280	80.2	1.645
950	3.80	34.36	27.320	76.4	1.689
1000	3.67	34.40	27.365	72.1	1.730

STD70U — INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.0N	155 21.6W	06/27/77	0023 GMT

Z	T	S	SIGMA T	DT	DD
0	24.74	35.32	23.682	422.2	0.000
10	24.67	35.33	23.711	419.5	0.042
20	24.61	35.34	23.737	417.1	0.084
30	23.84	35.34	23.966	395.2	0.125
40	22.71	35.36	24.309	362.4	0.163
50	22.03	35.30	24.457	348.4	0.198
75	20.36	35.26	24.883	307.8	0.281
100	19.20	35.12	25.080	289.0	0.356
125	18.40	35.01	25.199	277.7	0.428
150	17.58	34.87	25.294	268.7	0.498
175	16.29	34.68	25.454	253.5	0.564
200	15.65	34.63	25.561	243.3	0.628
225	14.56	34.49	25.694	230.7	0.689
250	13.34	34.39	25.872	213.8	0.746
275	12.48	34.32	25.989	202.7	0.800
300	11.94	34.32	26.093	192.8	0.851
350	10.95	34.27	26.237	179.2	0.948
400	9.88	34.20	26.369	166.6	1.038
450	8.74	34.12	26.492	155.0	1.123
500	7.70	34.06	26.602	144.5	1.202
550	6.63	34.02	26.719	133.4	1.275
600	5.76	34.03	26.839	122.0	1.343
650	5.12	34.06	26.939	112.5	1.405
700	4.72	34.11	27.024	104.4	1.463
750	4.42	34.17	27.105	96.8	1.517
800	4.27	34.23	27.168	90.8	1.567
850	4.14	34.28	27.222	85.7	1.615
900	3.95	34.33	27.281	80.1	1.661
950	3.78	34.36	27.322	76.2	1.704
1000	3.67	34.40	27.365	72.1	1.745

STD 71

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 40.9N	155 21.5W	06/27/77	0054 GMT

Z	T	S	SIGMA T	DT	DD
0	24.74	35.32	23.682	422.2	0.000
10	24.73	35.32	23.685	421.9	0.042
20	24.63	35.32	23.716	419.1	0.084
30	24.08	35.36	23.910	400.5	0.125
40	23.00	35.28	24.166	376.1	0.164
50	22.16	35.27	24.397	354.0	0.201
75	20.51	35.24	24.828	313.0	0.285
100	19.50	35.14	25.018	294.9	0.362
125	18.53	35.01	25.166	280.8	0.435
150	17.77	34.90	25.271	270.9	0.505
175	16.58	34.70	25.402	258.5	0.572
200	15.80	34.62	25.520	247.2	0.637
225	14.76	34.52	25.673	232.6	0.699
250	13.53	34.38	25.825	218.2	0.757
275	12.63	34.33	25.967	204.8	0.811
300	12.02	34.31	26.070	195.0	0.863
350	11.02	34.27	26.224	180.4	0.961
400	10.10	34.21	26.339	169.4	1.052
450	8.84	34.12	26.476	156.5	1.138
500	7.78	34.06	26.590	145.6	1.218
550	6.64	34.02	26.718	133.5	1.291
600	5.77	34.02	26.830	122.9	1.359
650	5.20	34.04	26.914	114.9	1.422
700	4.76	34.11	27.020	104.9	1.481
750	4.43	34.15	27.088	98.4	1.535
800	4.29	34.23	27.166	91.0	1.586
850	4.14	34.28	27.222	85.7	1.634
900	3.97	34.33	27.279	80.3	1.680
950	3.79	34.36	27.321	76.3	1.723
1000	3.66	34.40	27.366	72.0	1.764

STD72U — INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.1N	155 21.7W	06/27/77	0143 GMT

Z	T	S	SIGMA T	DT	DD
0	24.77	35.33	23.681	422.4	0.000
10	24.73	35.33	23.693	421.2	0.042
20	24.65	35.33	23.717	418.9	0.084
30	24.12	35.28	23.838	407.4	0.126
40	23.20	35.31	24.131	379.5	0.165
50	22.34	35.30	24.369	356.7	0.202
75	20.72	35.21	24.749	320.6	0.287
100	19.58	35.16	25.012	295.5	0.365
125	18.60	35.02	25.157	281.8	0.438
150	17.95	34.93	25.250	272.9	0.509
175	16.89	34.75	25.367	261.7	0.577
200	15.86	34.63	25.514	247.6	0.642
225	14.86	34.53	25.659	234.0	0.704
250	13.68	34.43	25.833	217.5	0.762
275	12.70	34.33	25.953	206.1	0.817
300	12.13	34.32	26.056	196.3	0.869
350	10.99	34.27	26.229	179.9	0.967
400	9.99	34.20	26.350	168.4	1.058
450	8.78	34.12	26.485	155.6	1.143
500	7.75	34.06	26.594	145.2	1.222
550	6.67	34.02	26.714	133.9	1.296
600	5.80	34.02	26.826	123.2	1.364
650	5.26	34.03	26.899	116.3	1.428
700	4.77	34.10	27.011	105.7	1.487
750	4.47	34.15	27.084	98.8	1.542
800	4.28	34.22	27.159	91.6	1.593
850	4.13	34.28	27.223	85.6	1.641
900	3.96	34.33	27.280	80.2	1.687
950	3.80	34.36	27.320	76.4	1.730
1000	3.67	34.40	27.365	72.1	1.771

STD 73

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.2N	155 21.8W	06/27/77	0210 GMT

Z	T	S	SIGMA T	DT	DD
0	24.80	35.34	23.679	422.5	0.000
10	24.77	35.34	23.688	421.7	0.042
20	24.73	35.34	23.700	420.5	0.084
30	24.26	35.34	23.842	407.0	0.126
40	23.53	35.29	24.019	390.1	0.166
50	22.50	35.31	24.332	360.3	0.204
75	20.92	35.24	24.717	323.6	0.290
100	19.60	35.15	25.000	296.7	0.368
125	18.58	35.02	25.162	281.3	0.441
150	17.88	34.92	25.259	272.0	0.511
175	16.76	34.73	25.383	260.3	0.579
200	15.83	34.63	25.521	247.2	0.644
225	14.68	34.52	25.691	231.0	0.706
250	13.74	34.42	25.813	219.4	0.764
275	12.85	34.34	25.931	208.2	0.819
300	12.18	34.32	26.047	197.2	0.871
350	11.18	34.28	26.203	182.4	0.970
400	10.14	34.21	26.332	170.1	1.062
450	9.06	34.14	26.457	158.3	1.149
500	7.84	34.06	26.581	146.5	1.229
550	6.76	34.03	26.710	134.3	1.303
600	5.87	34.03	26.825	123.3	1.372
650	5.29	34.03	26.896	116.6	1.435
700	4.76	34.08	26.996	107.1	1.495
750	4.54	34.16	27.084	98.8	1.550
800	4.31	34.23	27.164	91.2	1.601
850	4.14	34.28	27.222	85.7	1.649
900	3.98	34.33	27.278	80.4	1.695
950	3.84	34.36	27.316	76.8	1.738
1000	3.69	34.41	27.371	71.6	1.779

STD74U — INDOPAC LEG XV

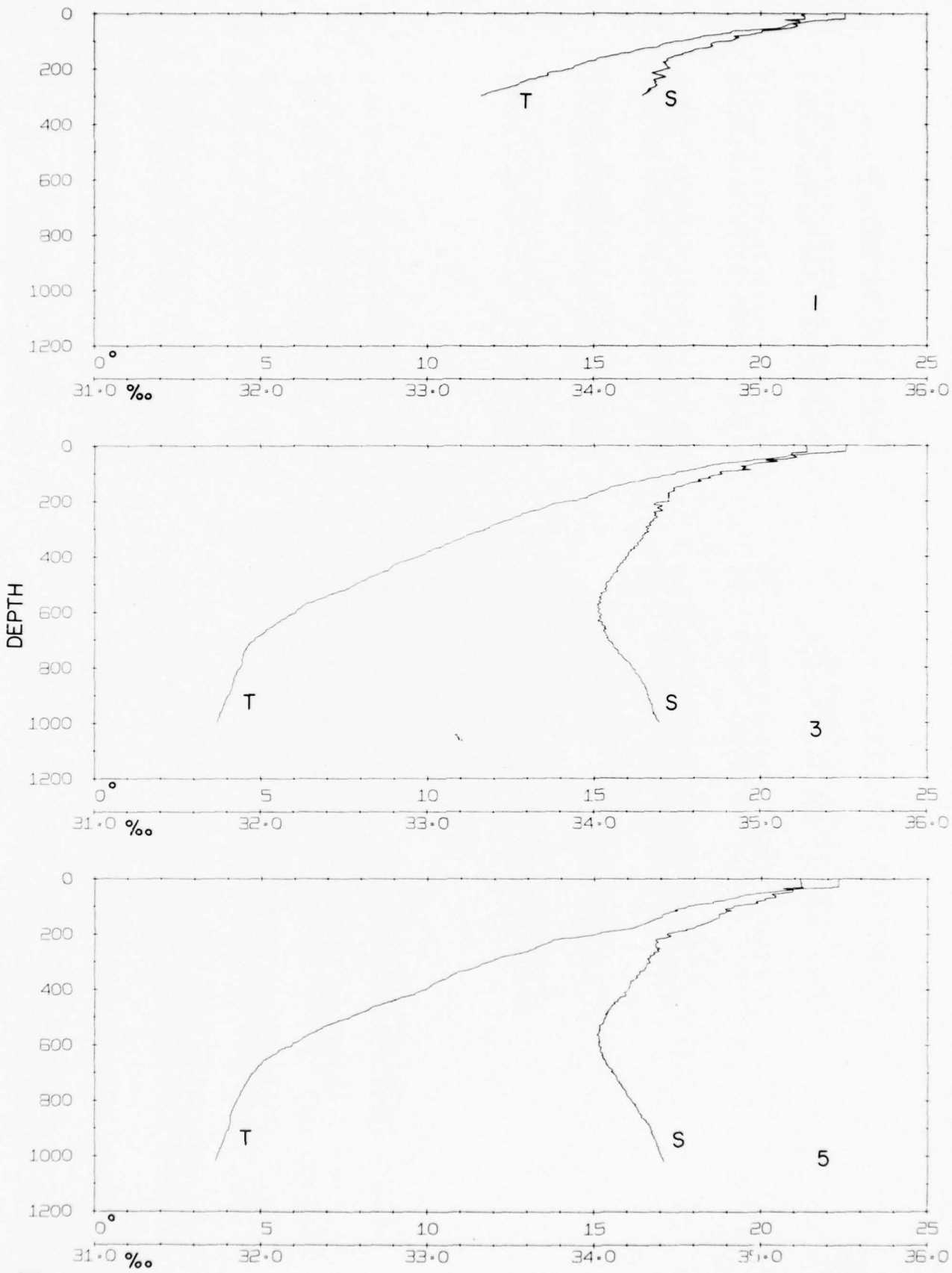
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 41.3N	155 21.9W	06/27/77	0233 GMT

Z	T	S	SIGMA T	DT	DD
0	24.85	35.36	23.679	422.5	0.000
10	24.82	35.35	23.681	422.4	0.042
20	24.55	35.32	23.740	416.8	0.084
30	23.60	35.32	24.022	389.9	0.125
40	22.75	35.31	24.260	367.1	0.163
50	22.13	35.31	24.436	350.3	0.199
75	20.73	35.26	24.784	317.2	0.283
100	19.47	35.16	25.041	292.6	0.360
125	18.46	35.02	25.192	278.4	0.432
150	17.75	34.92	25.291	269.0	0.502
175	16.36	34.68	25.438	255.0	0.569
200	15.58	34.64	25.585	241.1	0.632
225	14.34	34.51	25.756	224.8	0.692
250	13.21	34.37	25.882	212.6	0.748
275	12.46	34.32	25.992	202.3	0.802
300	11.98	34.33	26.093	192.8	0.853
350	10.89	34.26	26.240	178.9	0.950
400	9.88	34.20	26.369	166.6	1.040
450	8.85	34.13	26.482	155.9	1.125
500	7.74	34.08	26.612	143.6	1.204
550	6.64	34.02	26.718	133.5	1.277
600	5.81	34.02	26.825	123.3	1.345
650	5.26	34.04	26.907	115.5	1.409
700	4.79	34.10	27.009	105.9	1.468
750	4.47	34.16	27.091	98.1	1.522
800	4.29	34.23	27.166	91.0	1.573
850	4.14	34.28	27.222	85.7	1.621
900	3.97	34.33	27.279	80.3	1.667
950	3.82	34.37	27.326	75.8	1.710
1000	3.69	34.41	27.371	71.6	1.751

STD77U — INDOPAC LEG XV

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
28 33.0N	155 31.5W	06/28/77	0259 GMT

Z	T	S	SIGMA T	DT	DD
0	24.84	35.29	23.630	427.3	0.000
10	24.81	35.30	23.646	425.7	0.043
20	24.81	35.31	23.656	425.0	0.085
30	23.65	35.22	23.931	398.5	0.127
40	22.15	35.19	24.340	359.6	0.165
50	21.45	35.21	24.550	339.5	0.200
75	20.02	35.13	24.875	308.6	0.281
100	19.15	35.04	25.052	293.6	0.357
125	18.46	34.96	25.196	282.8	0.430
150	17.28	34.75	25.275	276.6	0.501
175	16.40	34.62	25.382	266.3	0.568
200	15.19	34.48	25.549	249.5	0.633
225	13.97	34.38	25.734	226.9	0.693
250	13.00	34.29	25.863	214.7	0.750
275	12.29	34.28	25.995	202.1	0.804
300	11.66	34.22	26.068	195.2	0.855
350	10.54	34.16	26.224	180.4	0.953
400	9.60	34.11	26.345	168.9	1.044
450	8.44	34.04	26.476	156.5	1.129
500	7.41	33.99	26.588	145.8	1.209
550	6.36	33.97	26.716	133.7	1.283
600	5.52	33.98	26.829	123.0	1.350
650	5.02	34.02	26.919	114.4	1.413
700	4.75	34.09	27.005	106.3	1.472
750	4.45	34.16	27.094	97.9	1.527
800	4.26	34.22	27.161	91.4	1.578
850	4.14	34.28	27.222	85.7	1.626
900	3.98	34.31	27.262	81.9	1.672
950	3.85	34.35	27.307	77.6	1.715
1000	3.70	34.39	27.354	73.2	1.757
1100	3.46	34.45	27.425	66.4	1.835
1200	3.26	34.49	27.476	61.6	1.908
1300	3.06	34.53	27.527	56.8	1.976
1400	2.87	34.56	27.568	52.9	2.040
1500	2.71	34.57	27.590	50.8	2.101
1600	2.570	34.584	27.614	48.6	2.160
1700	2.386	34.597	27.640	46.1	2.216
1800	2.283	34.611	27.659	44.2	2.271
1900	2.169	34.621	27.677	42.6	2.323
2000	2.049	34.633	27.696	40.8	2.374
2100	1.966	34.640	27.708	39.6	2.423
2200	1.891	34.645	27.718	38.7	2.472
2300	1.826	34.651	27.728	37.8	2.519
2400	1.764	34.656	27.736	36.9	2.566
2500	1.712	34.662	27.745	36.1	2.611
2600	1.667	34.665	27.751	35.6	2.656
2700	1.637	34.667	27.755	35.2	2.701
2800	1.599	34.699	27.783	32.5	2.745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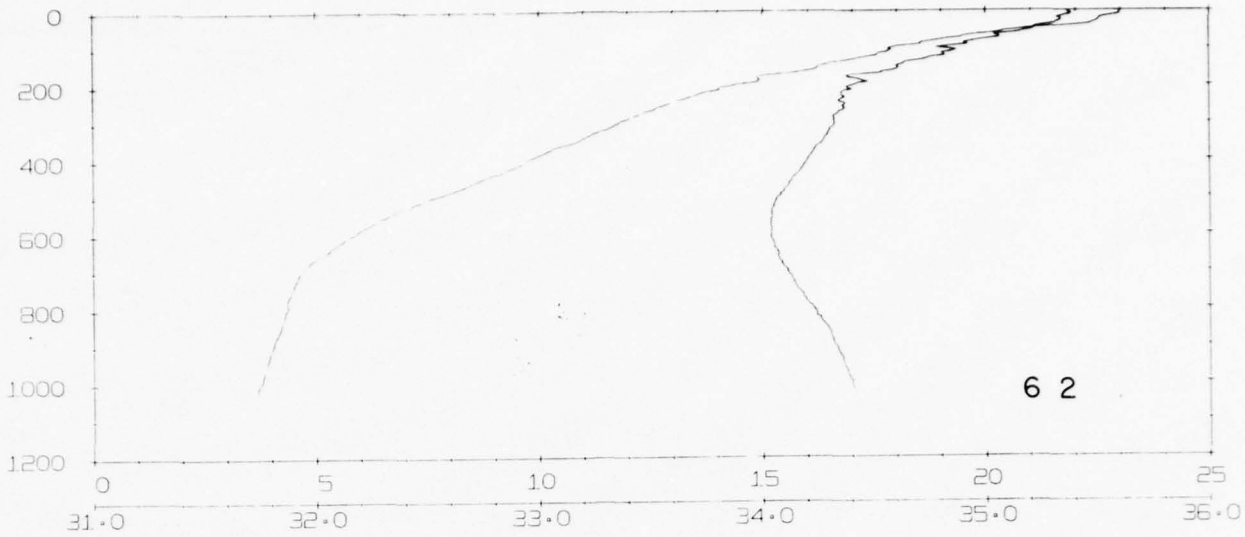
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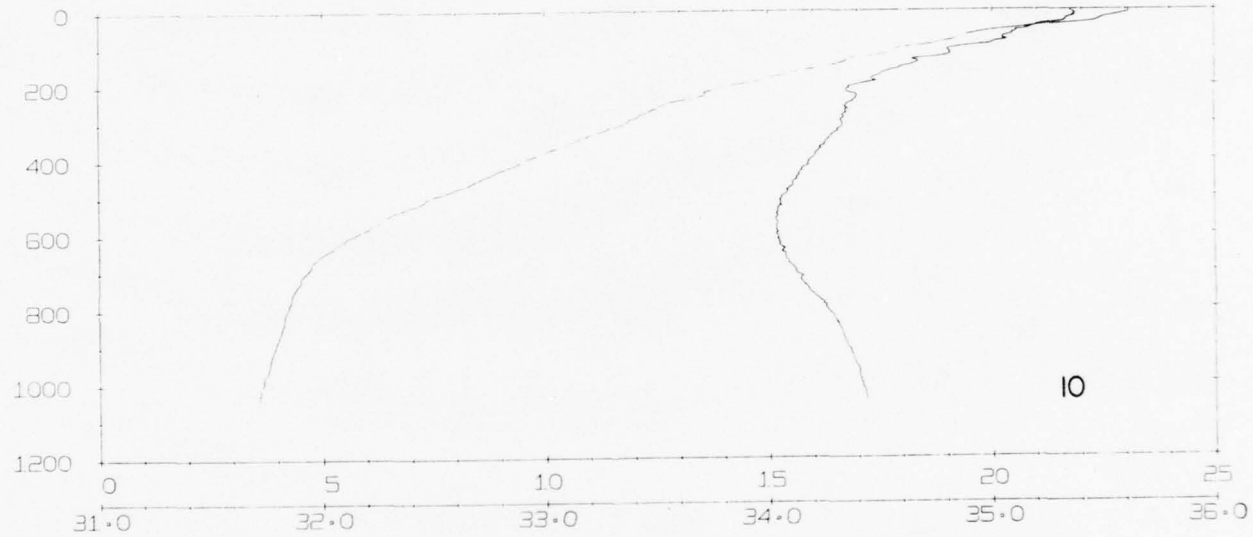
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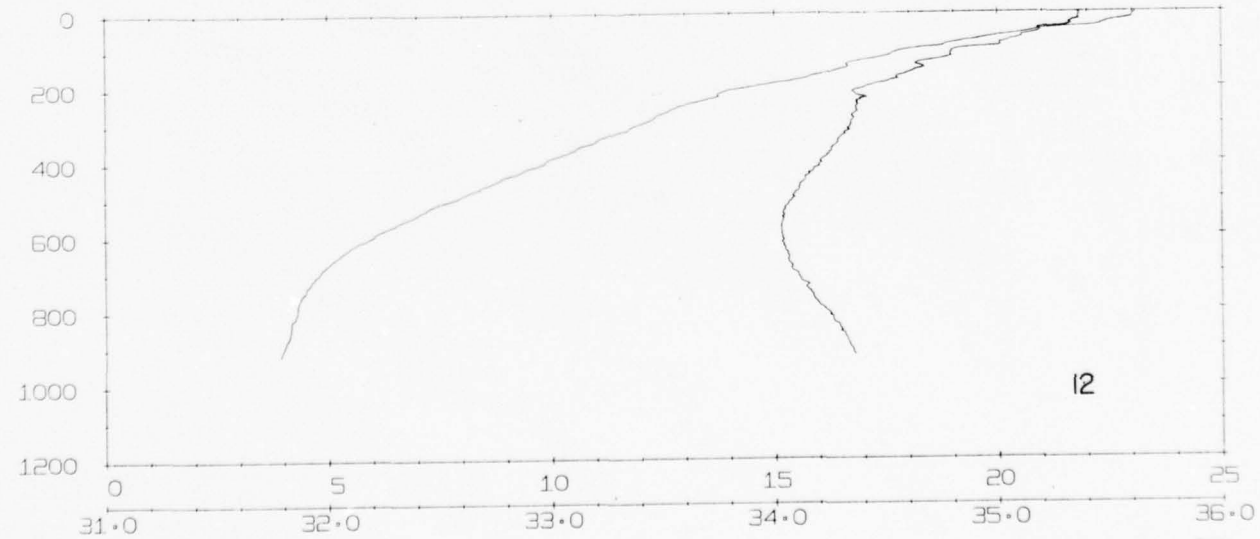
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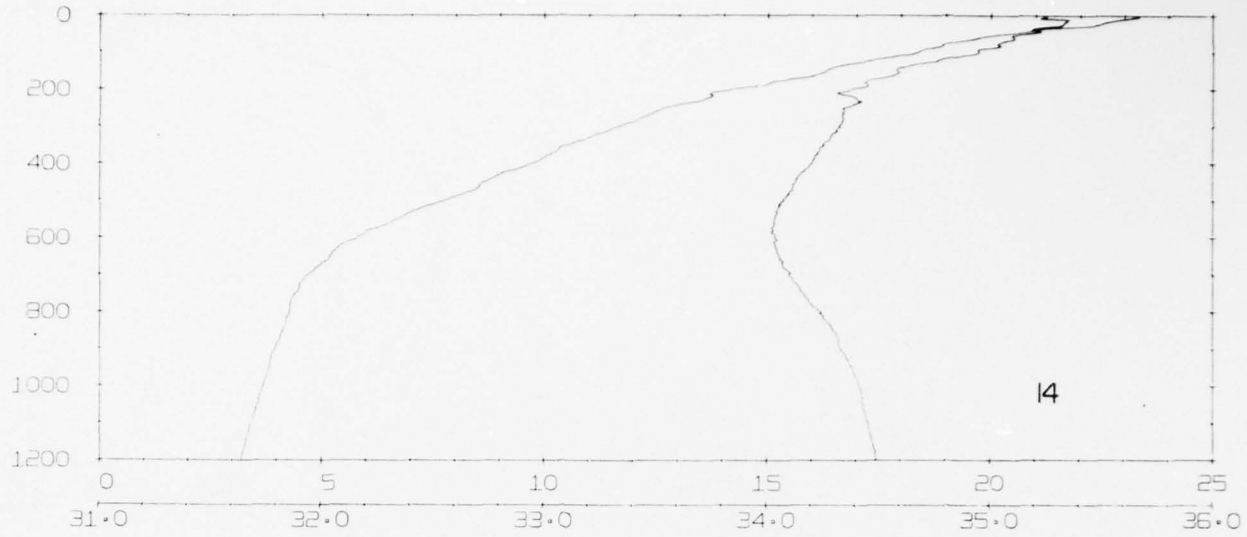
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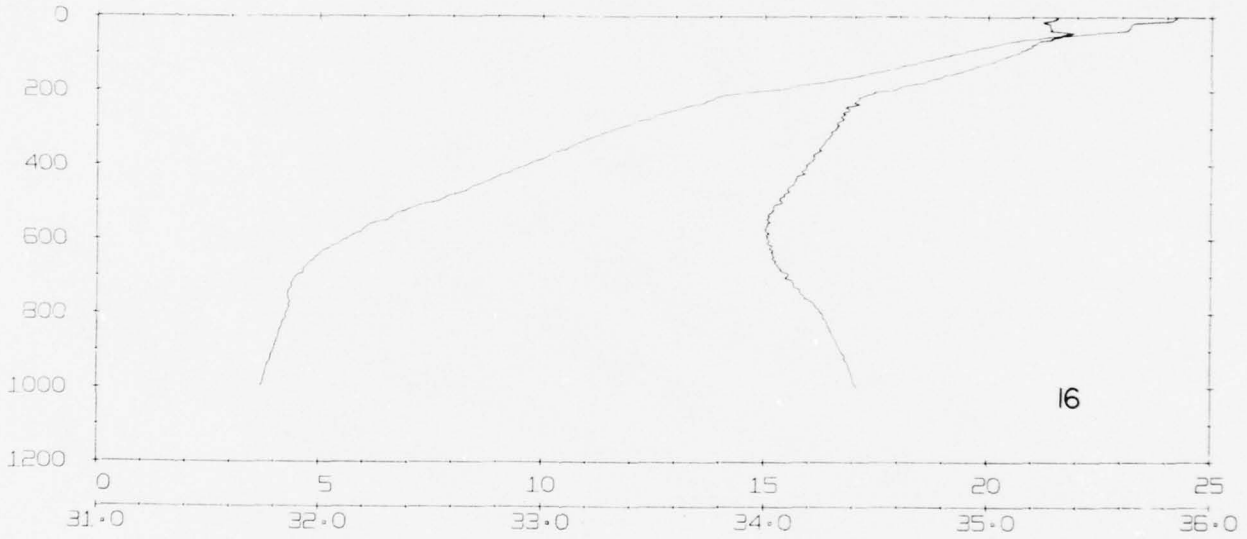
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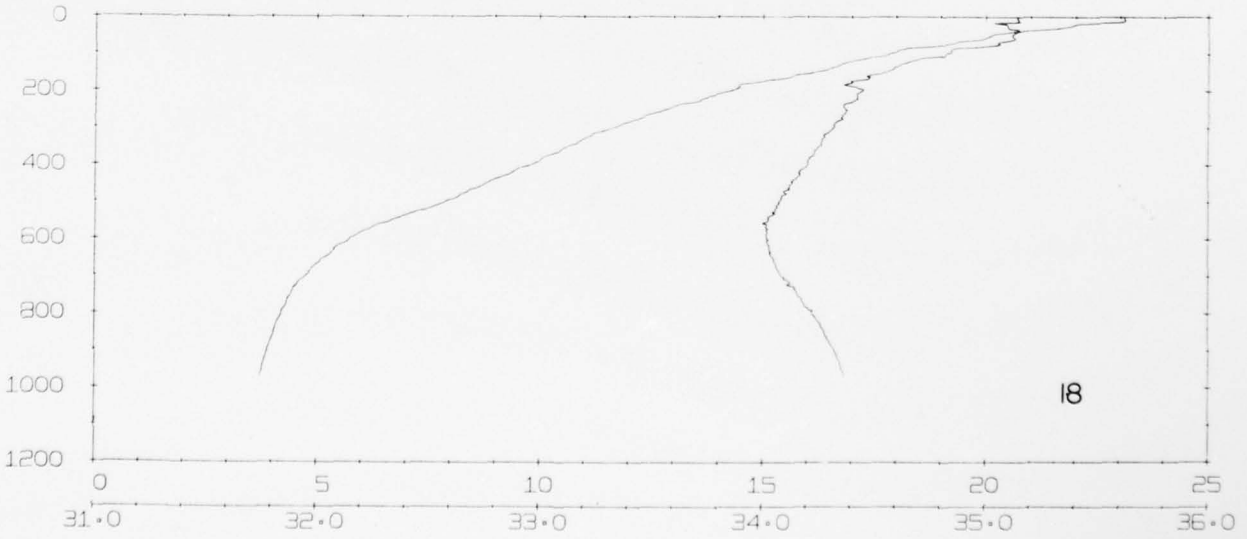
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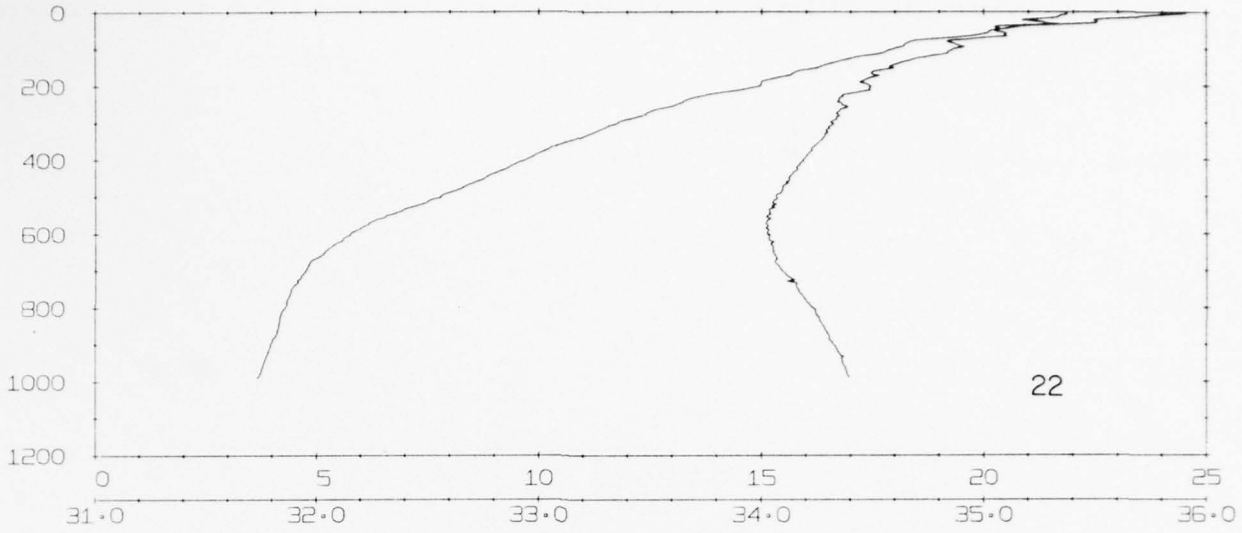
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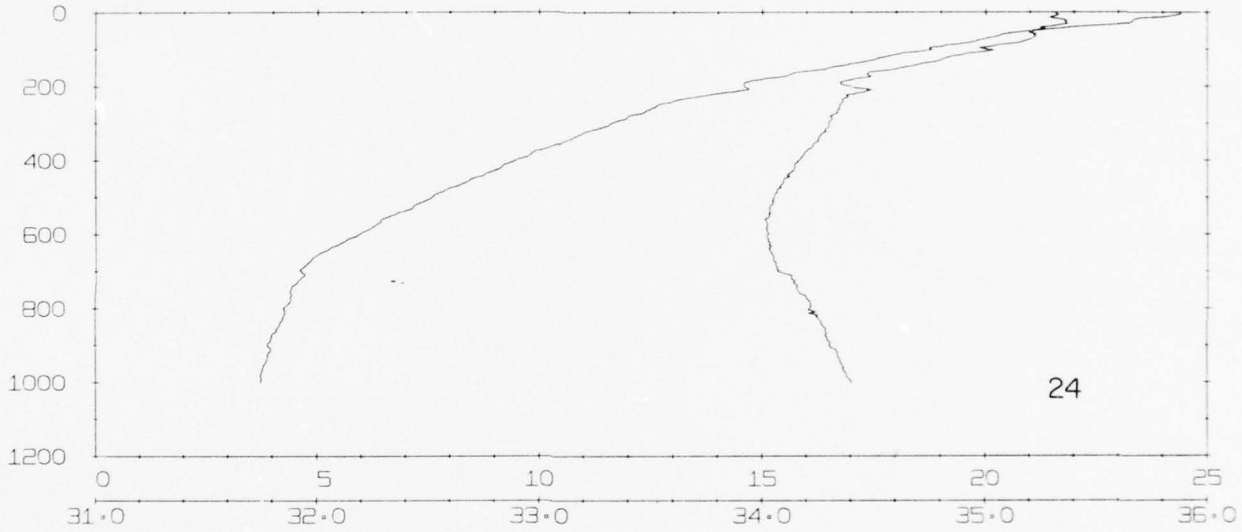
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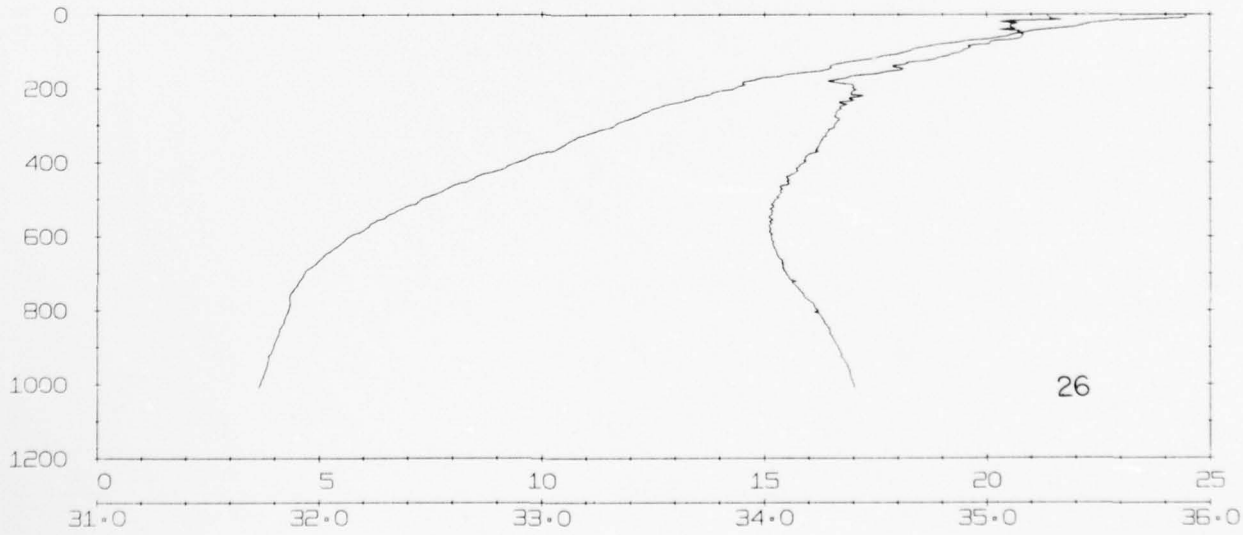
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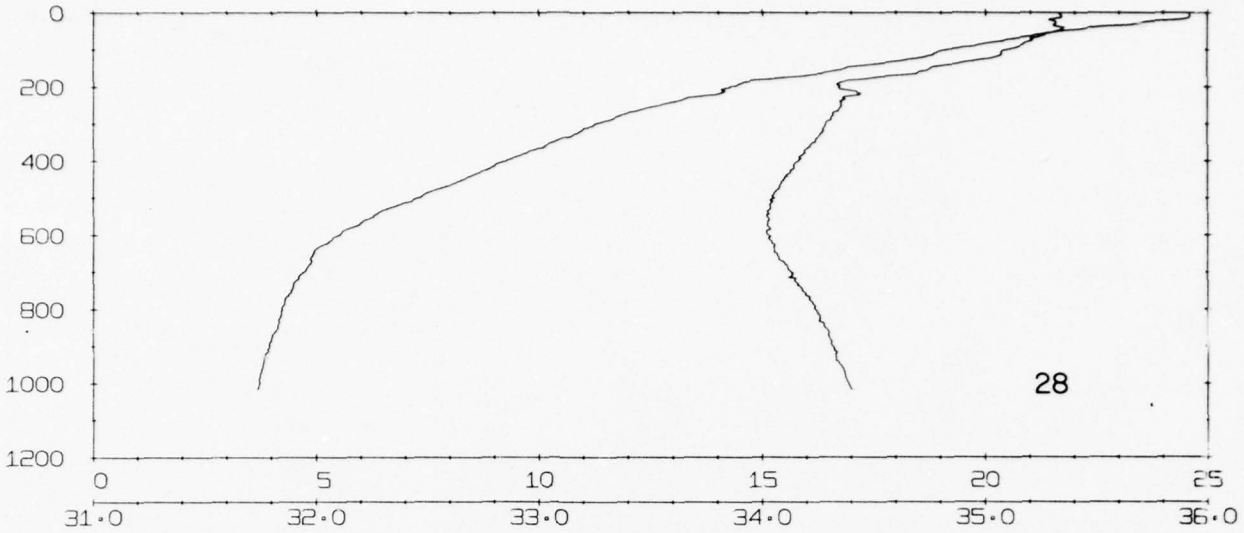
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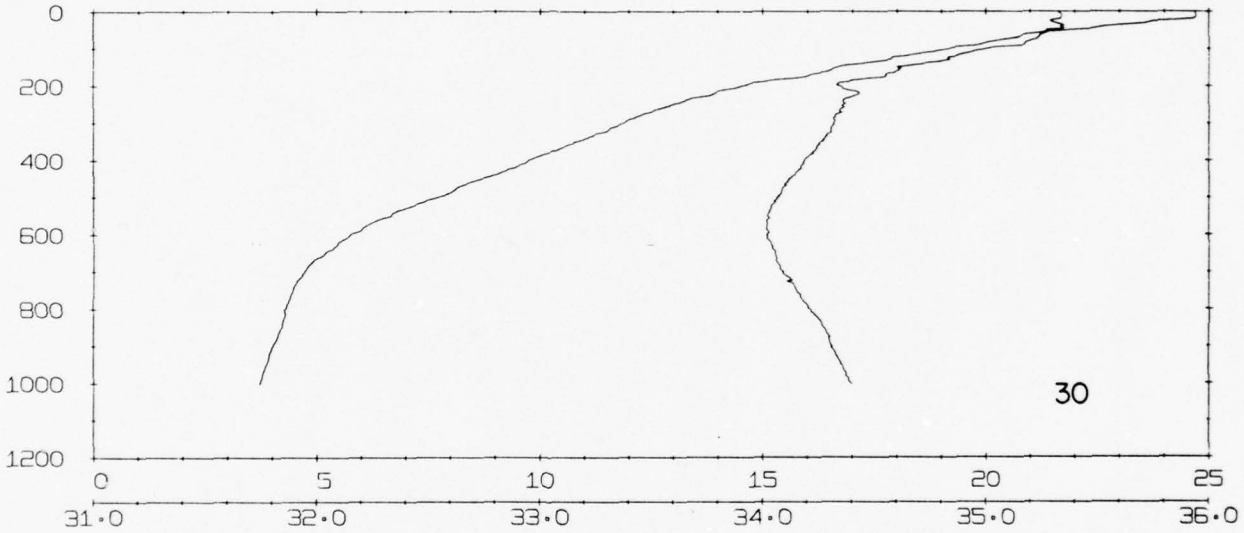
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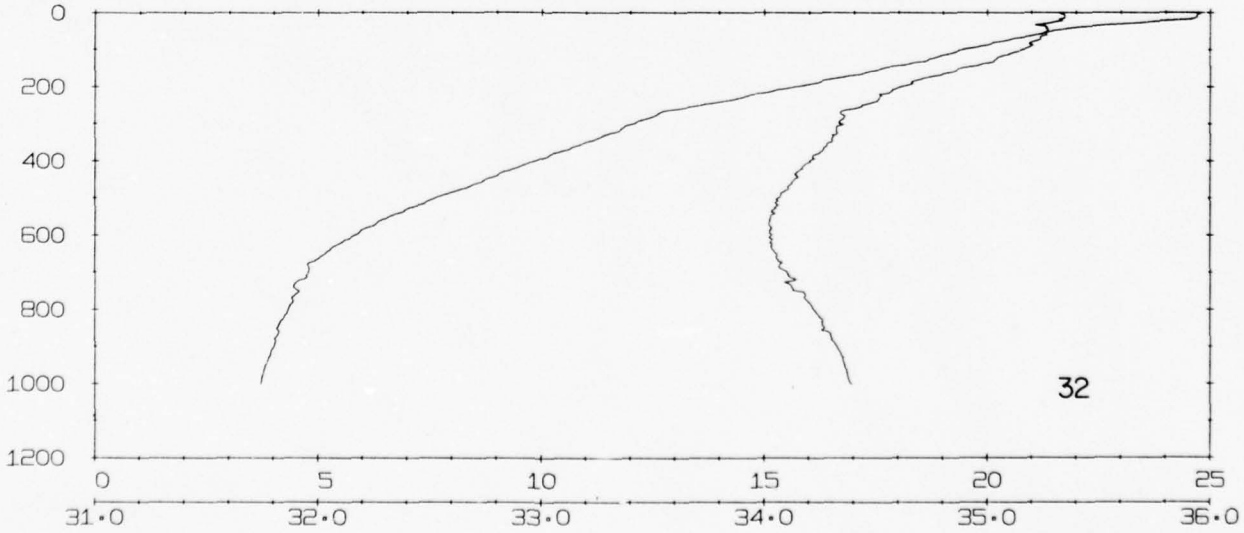
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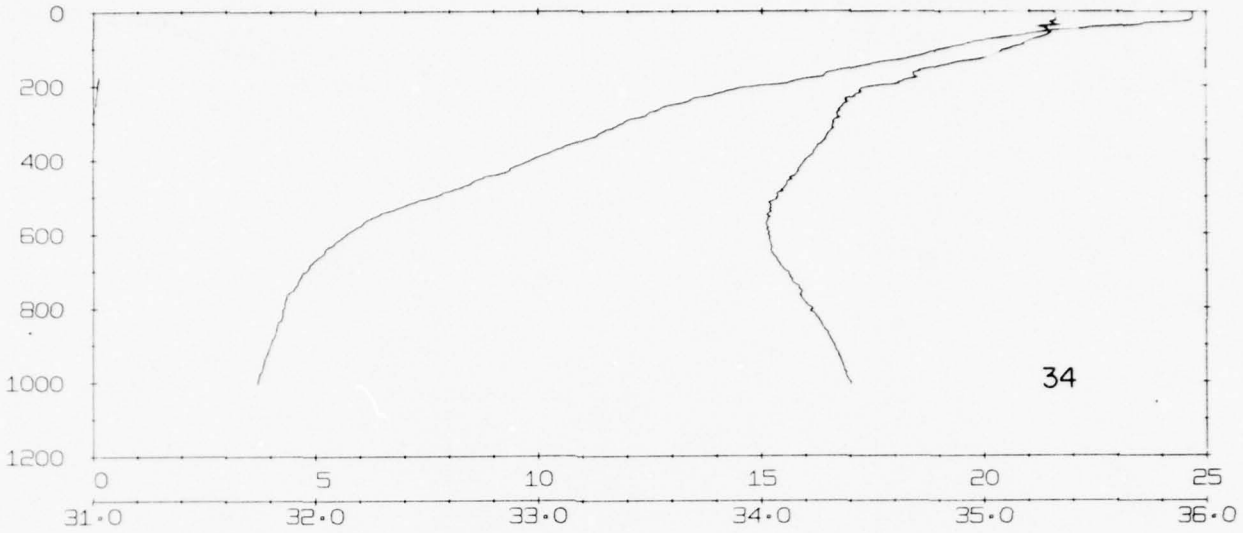

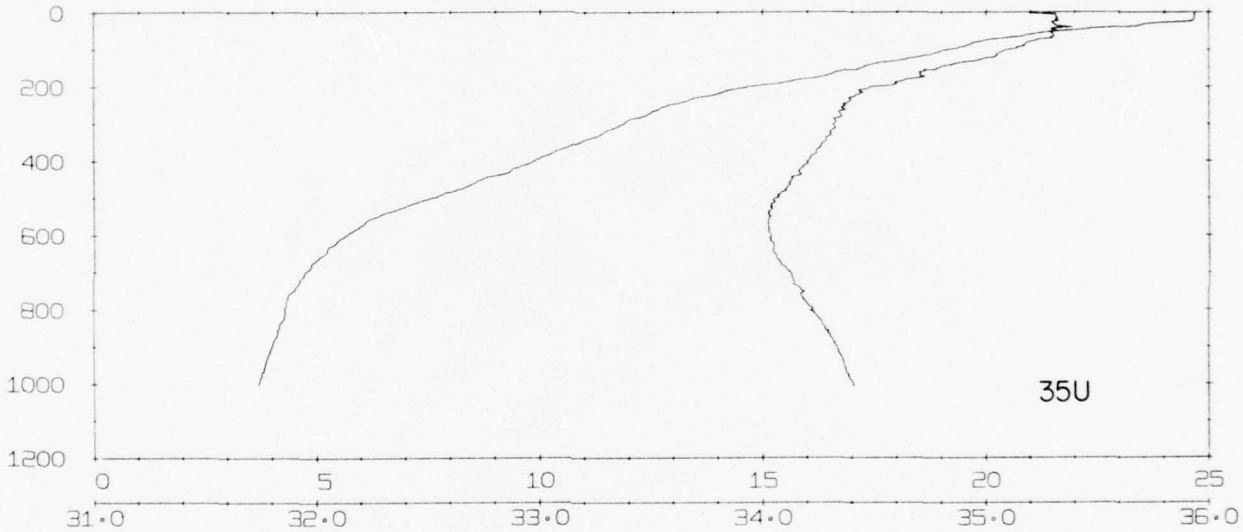

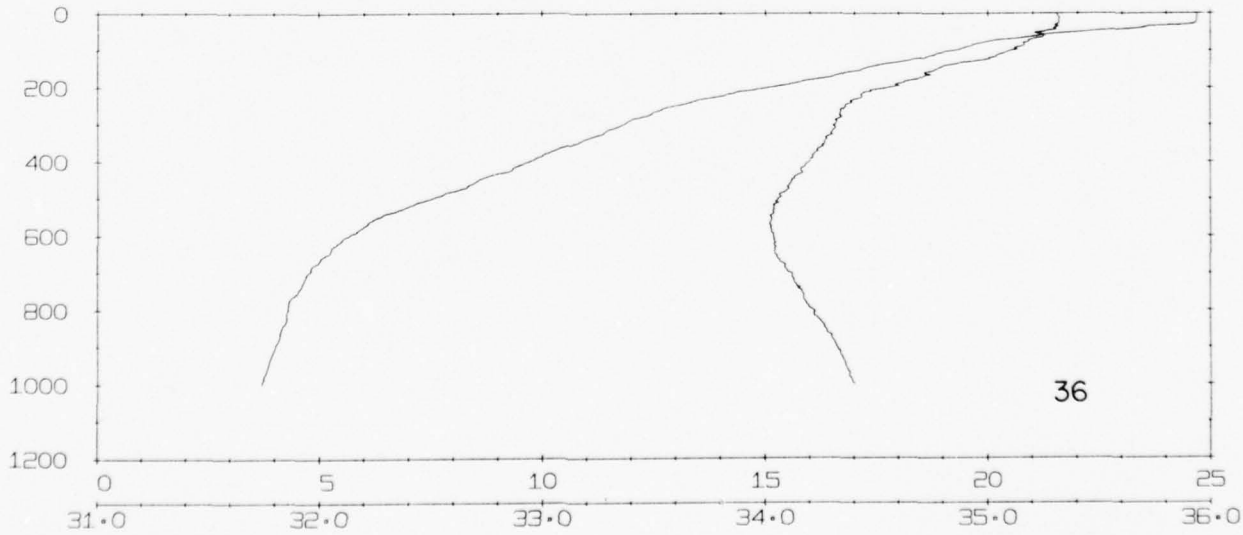

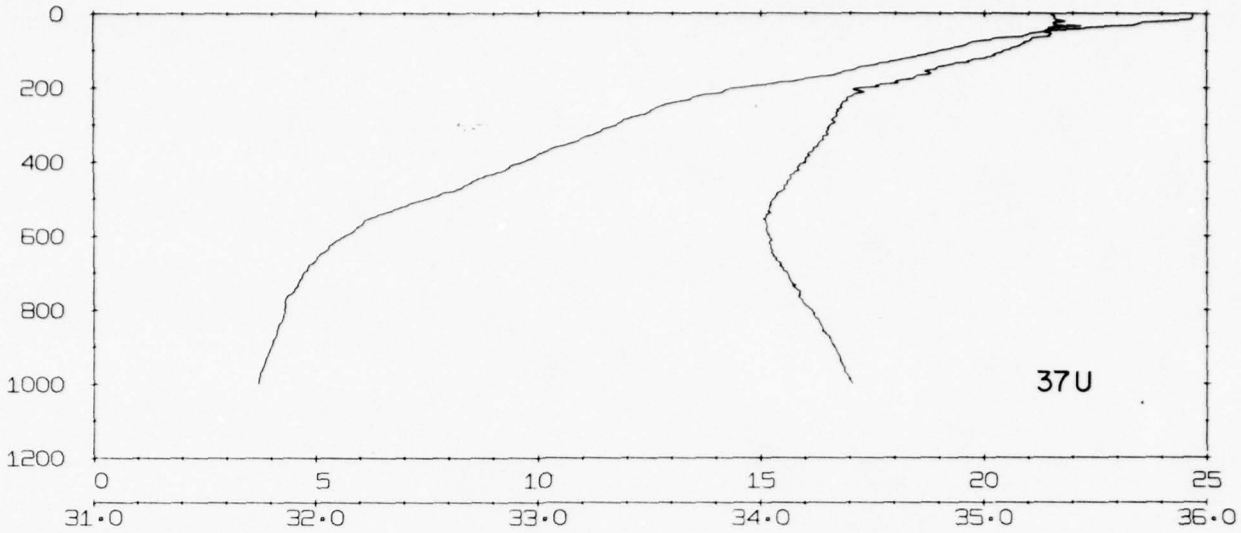
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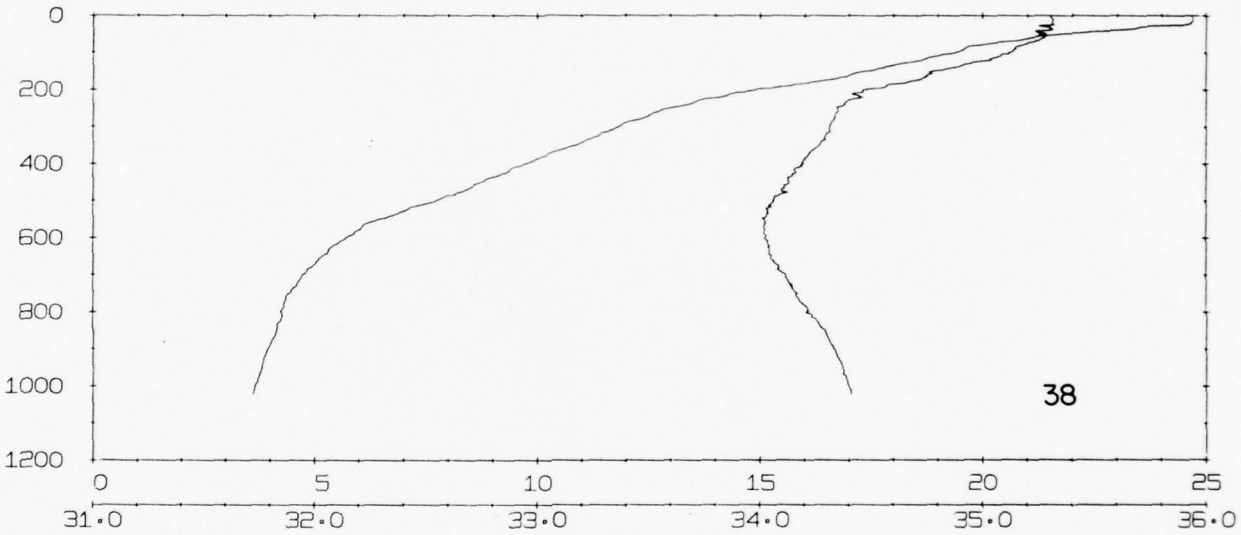
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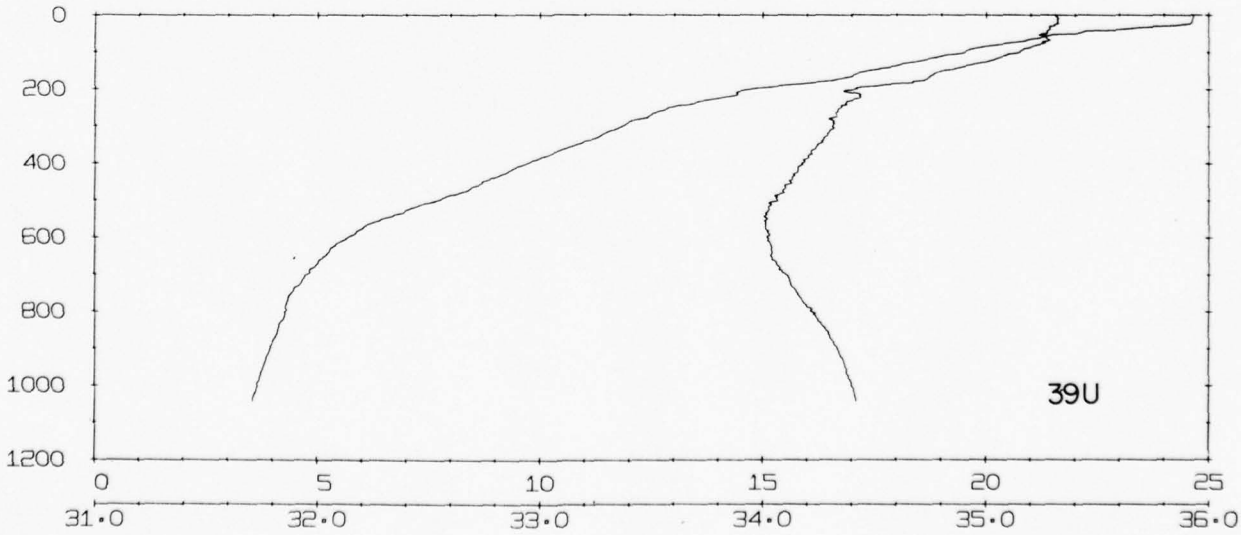
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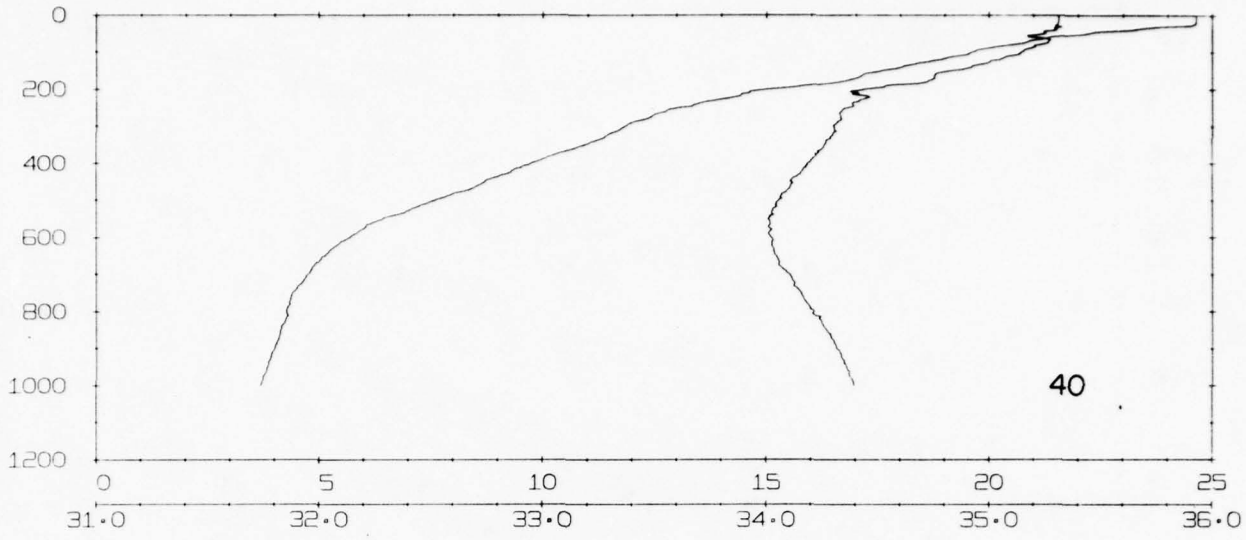
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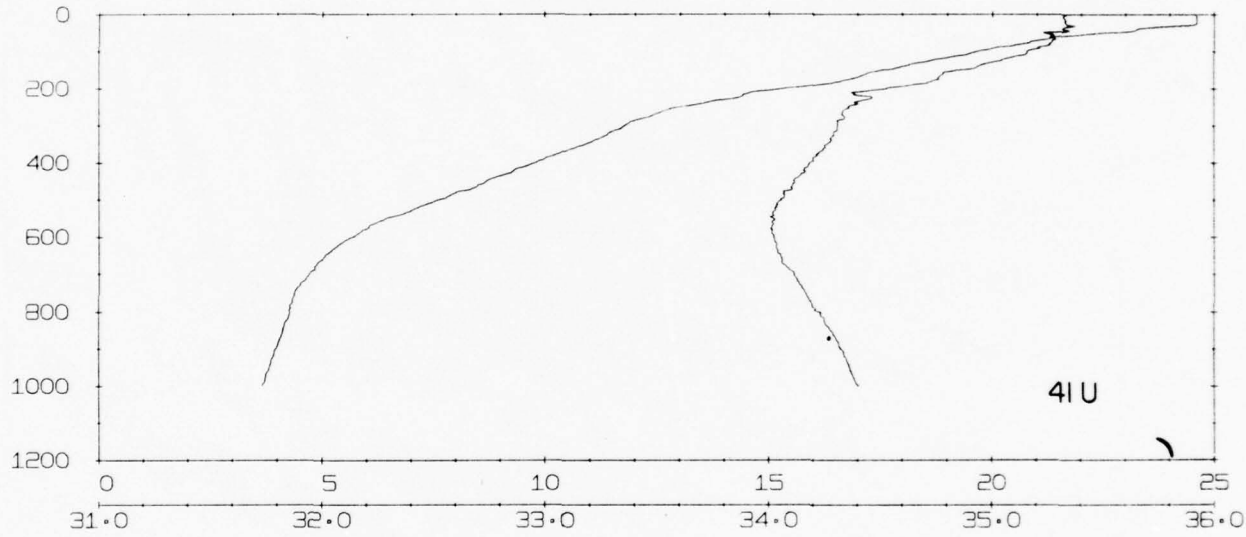
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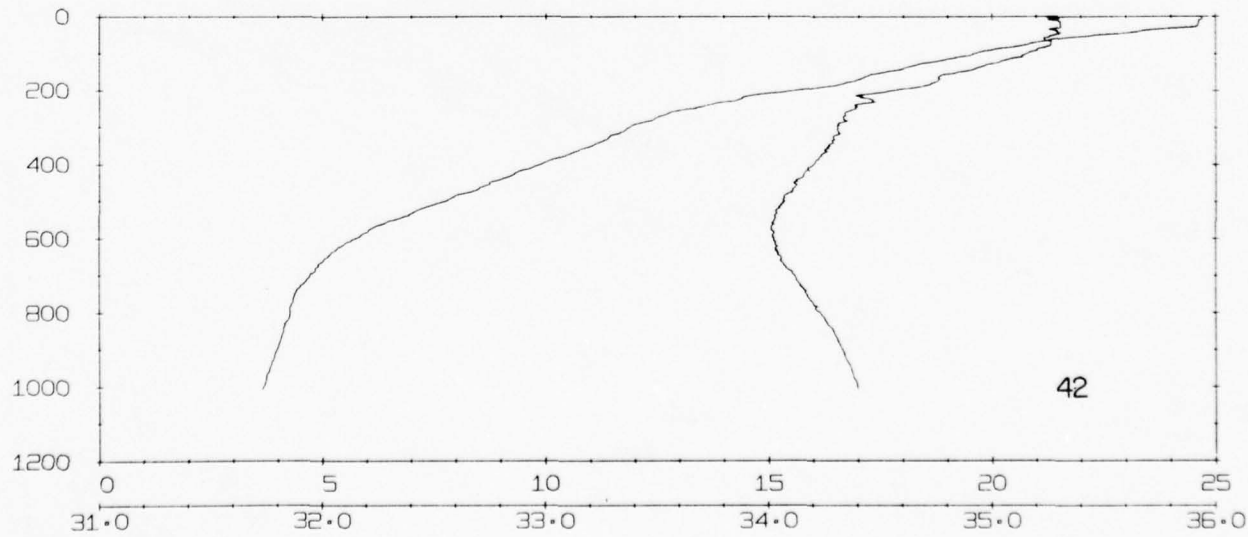
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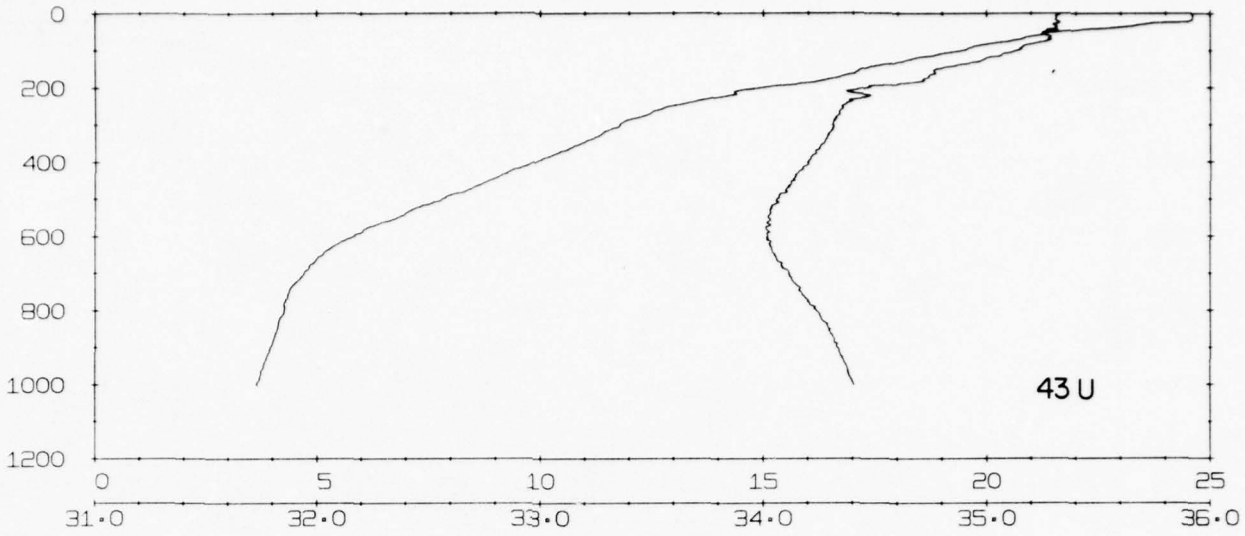
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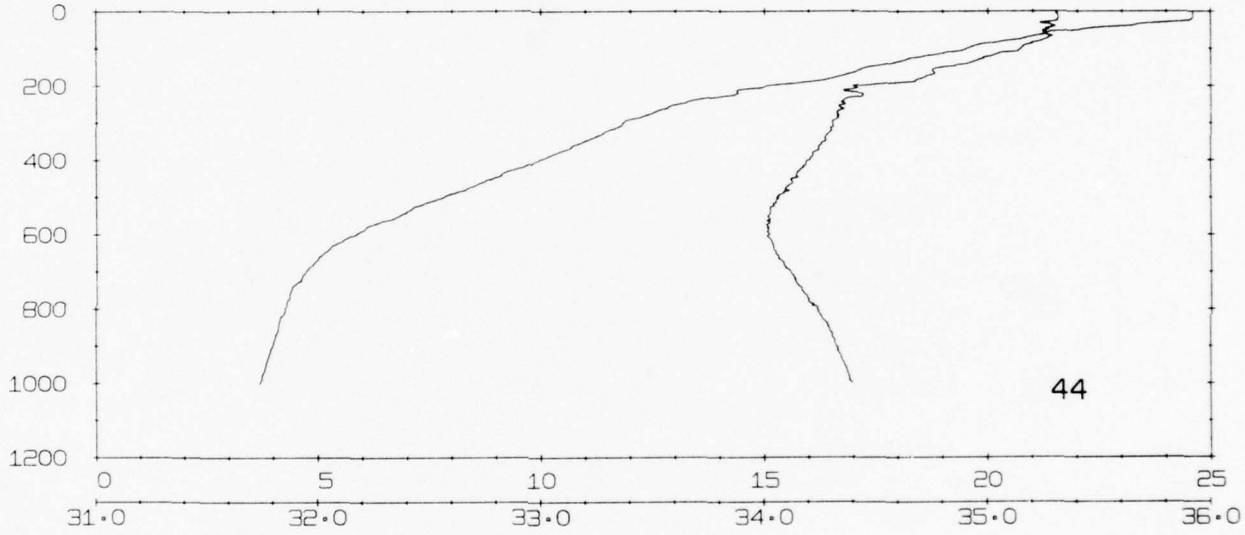
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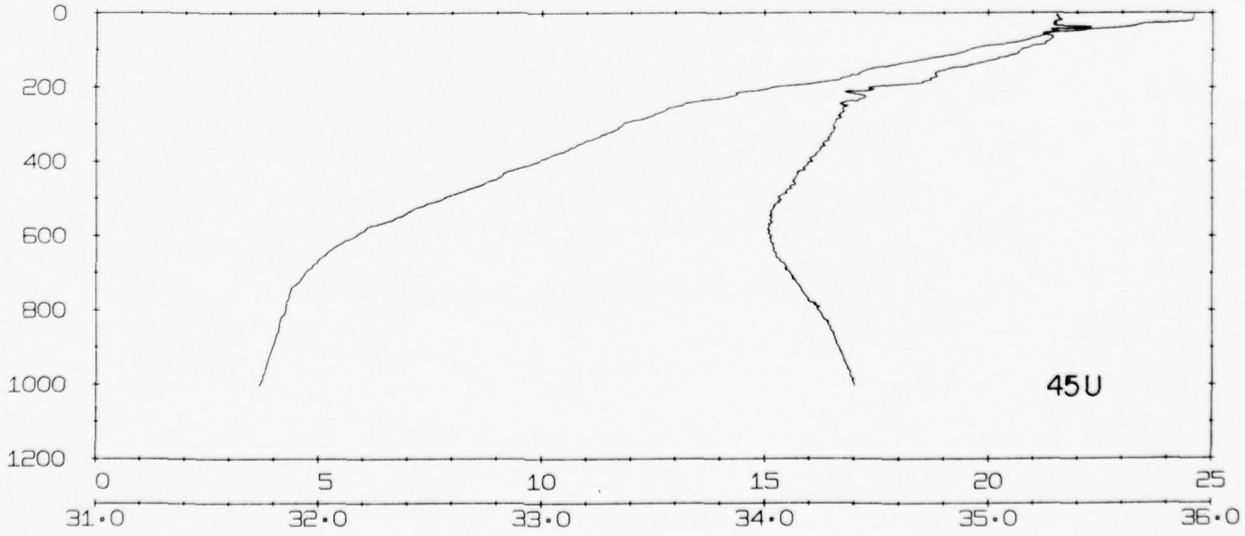
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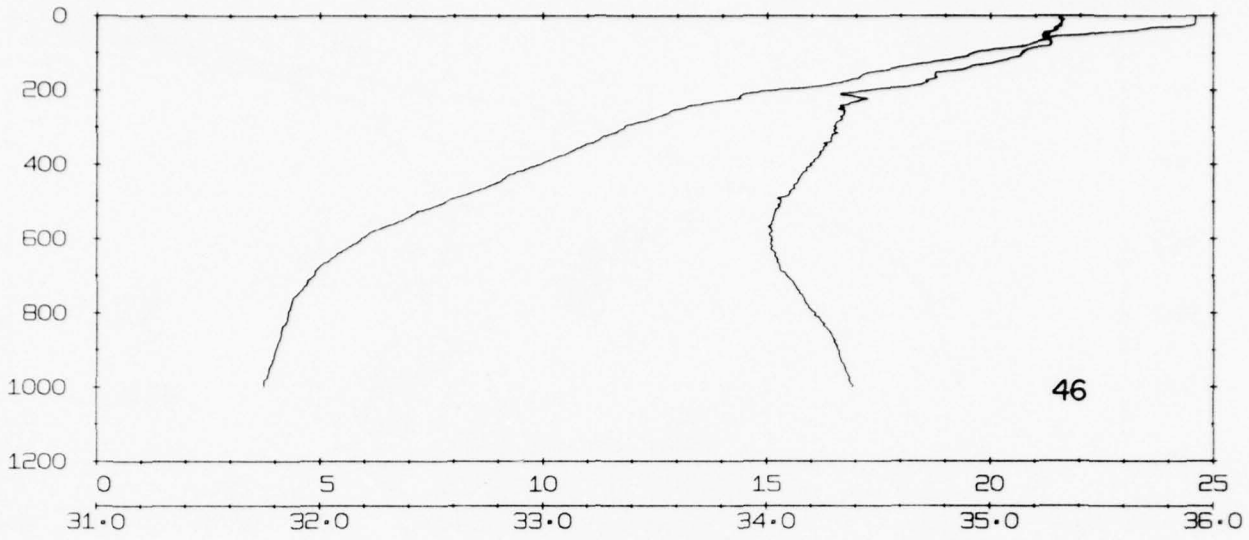

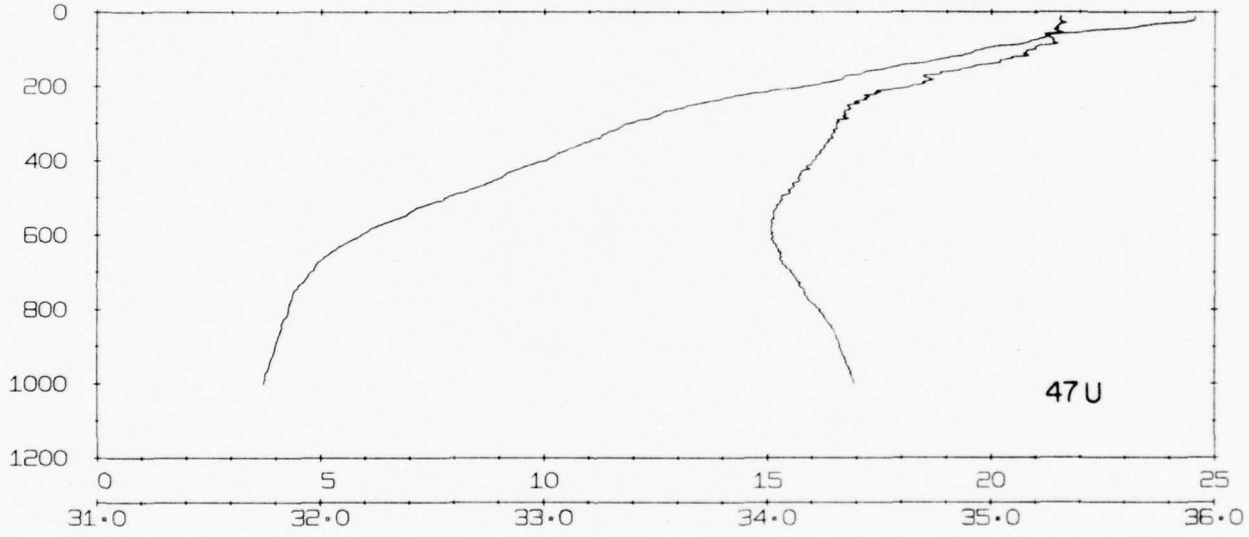

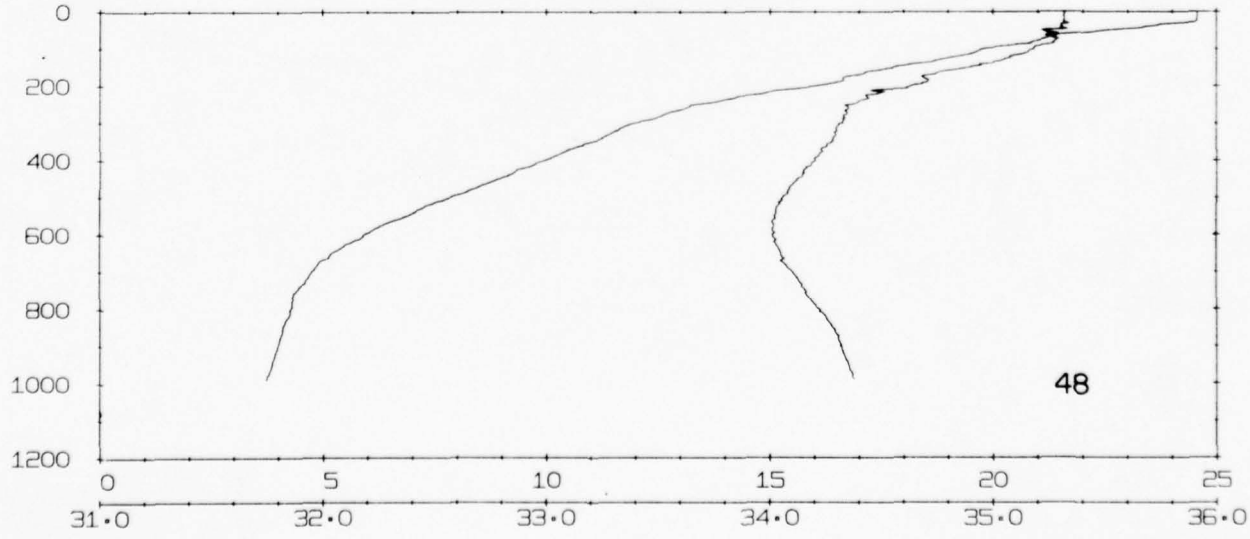

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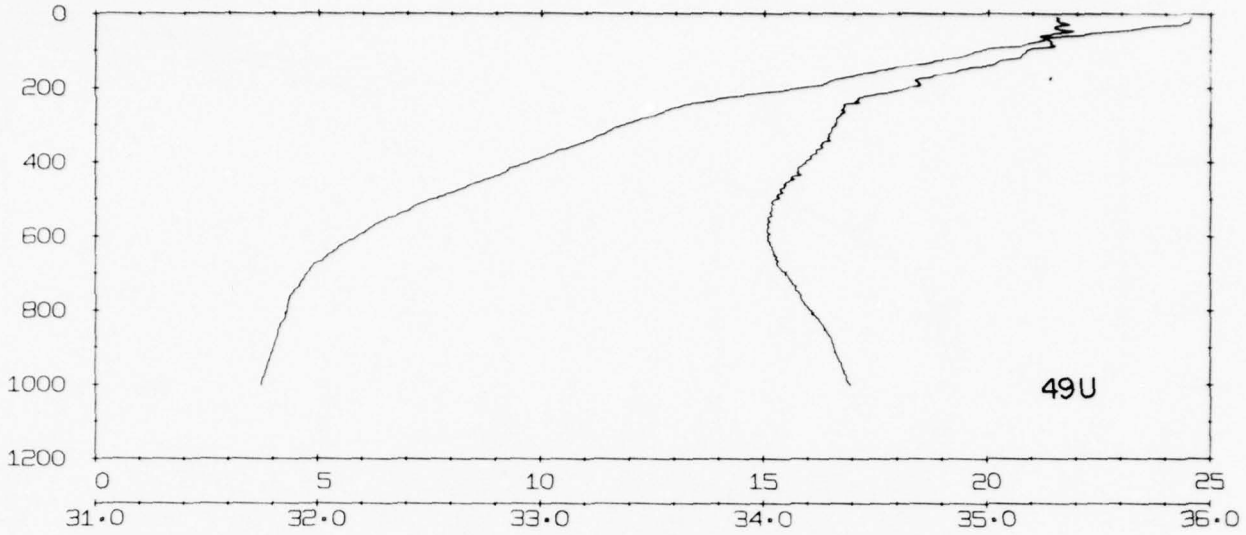

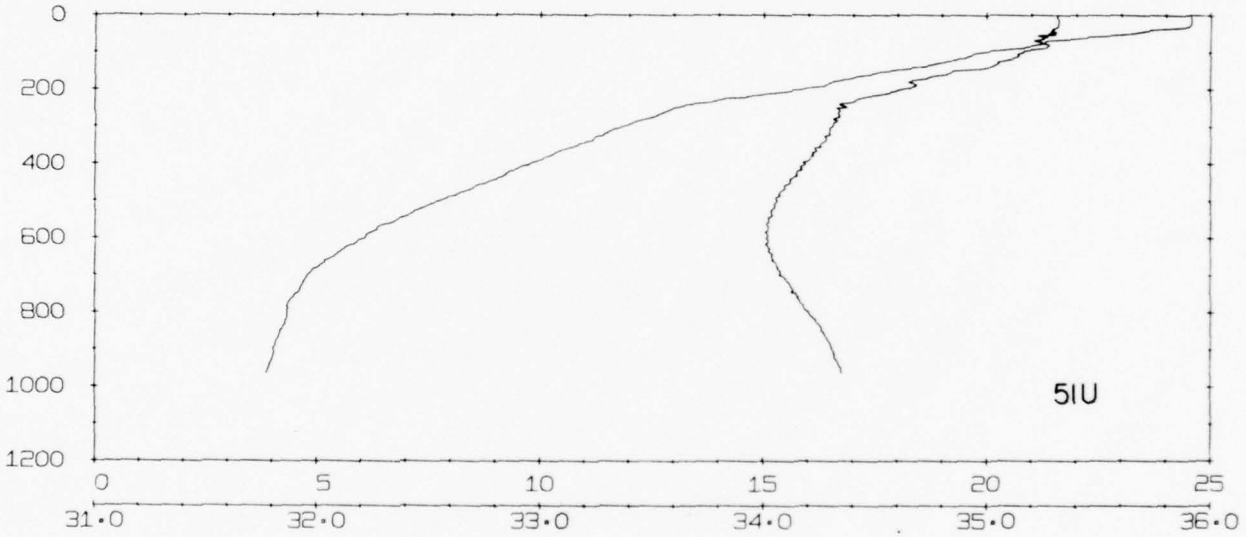

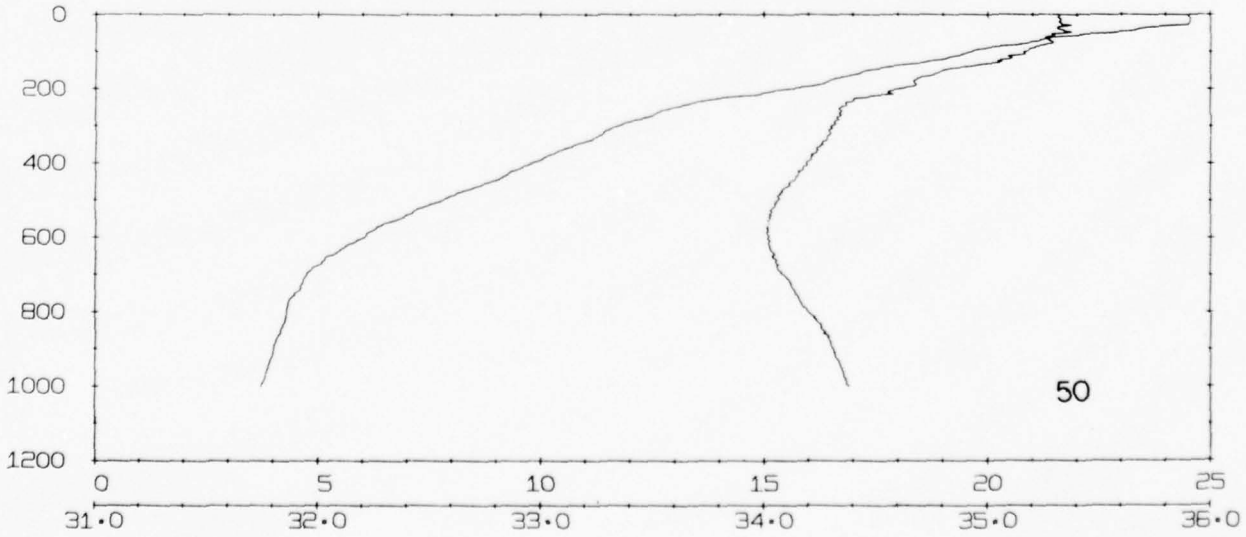

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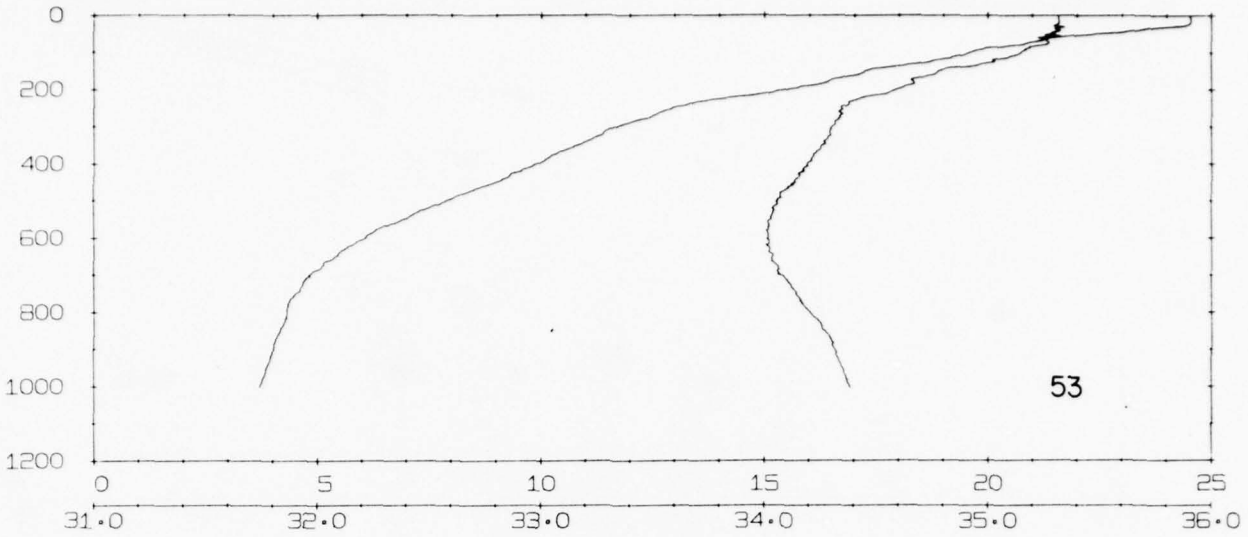

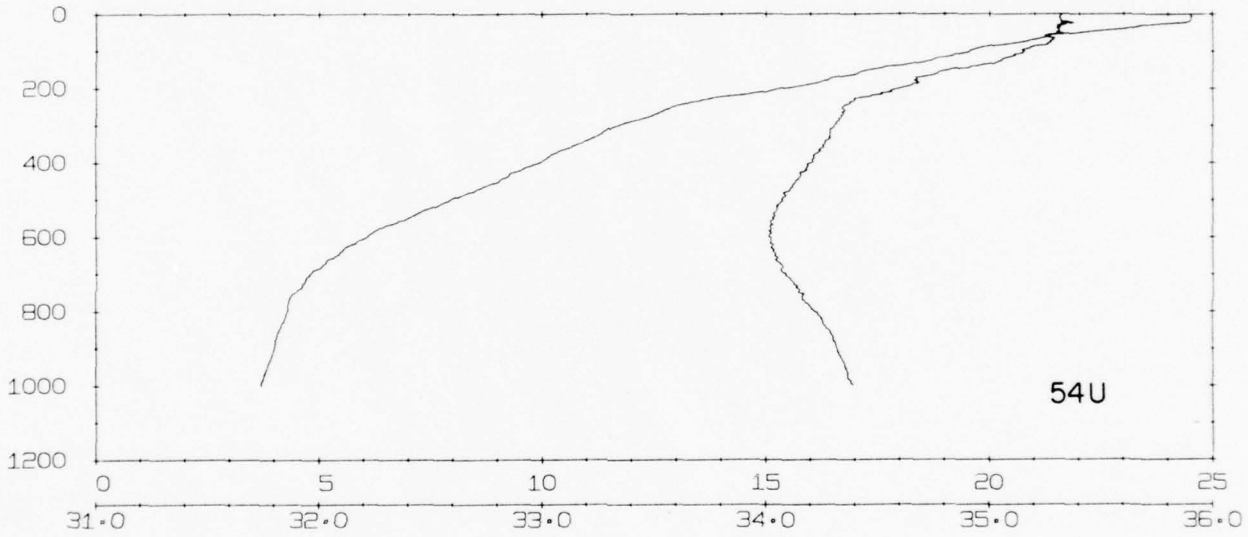

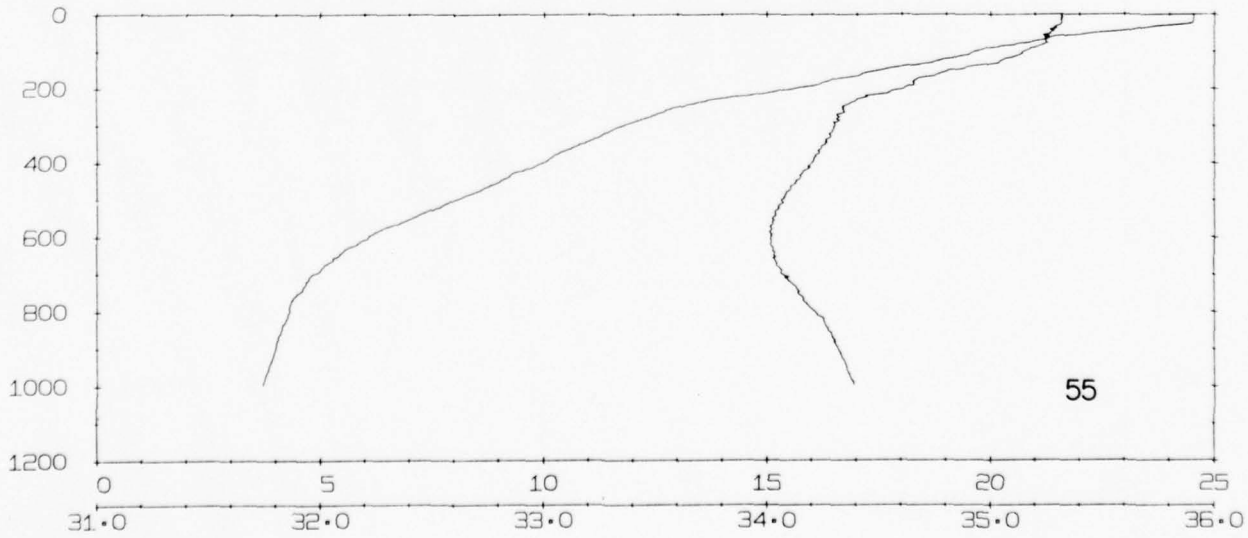

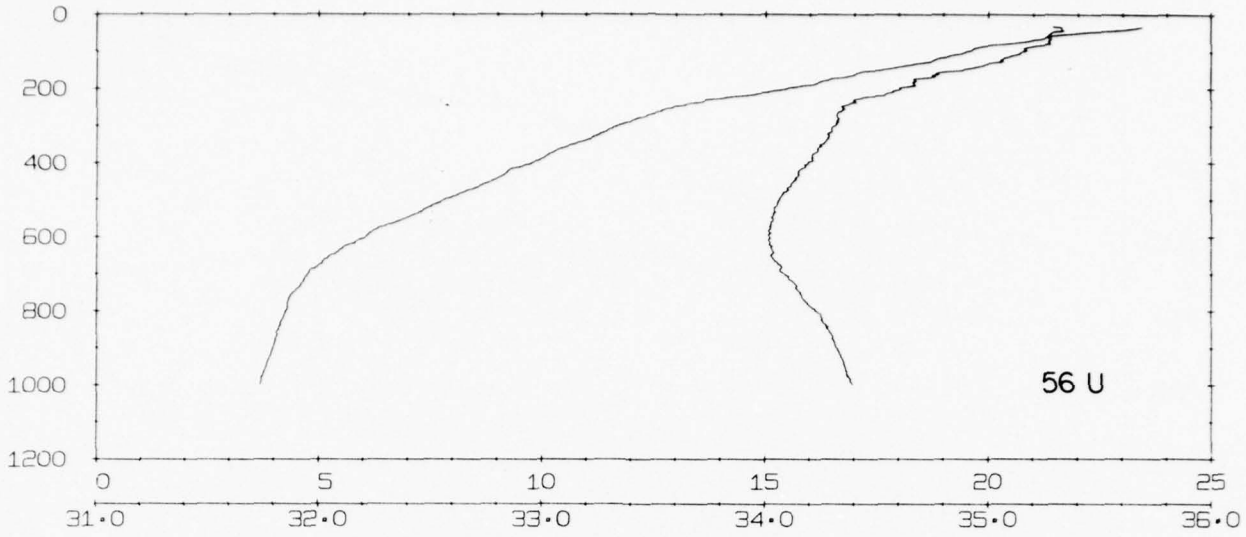
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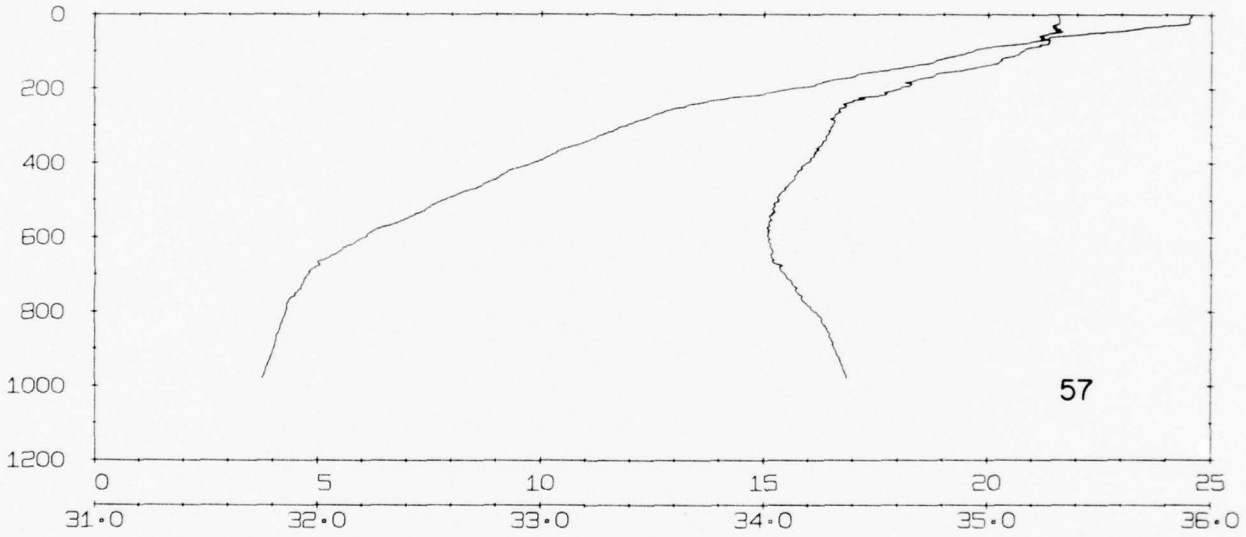
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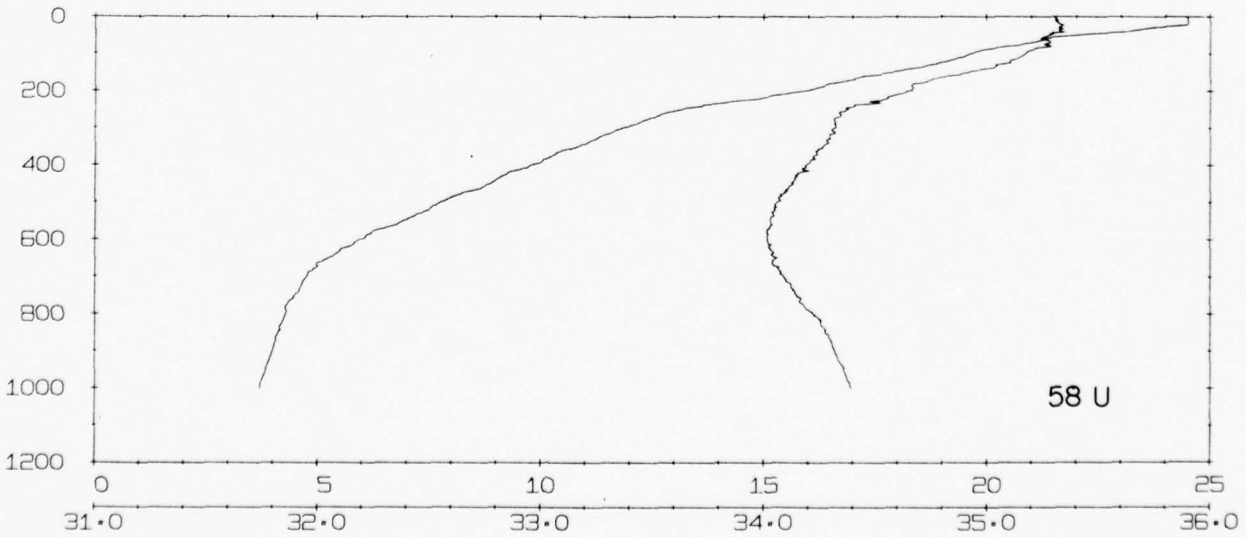
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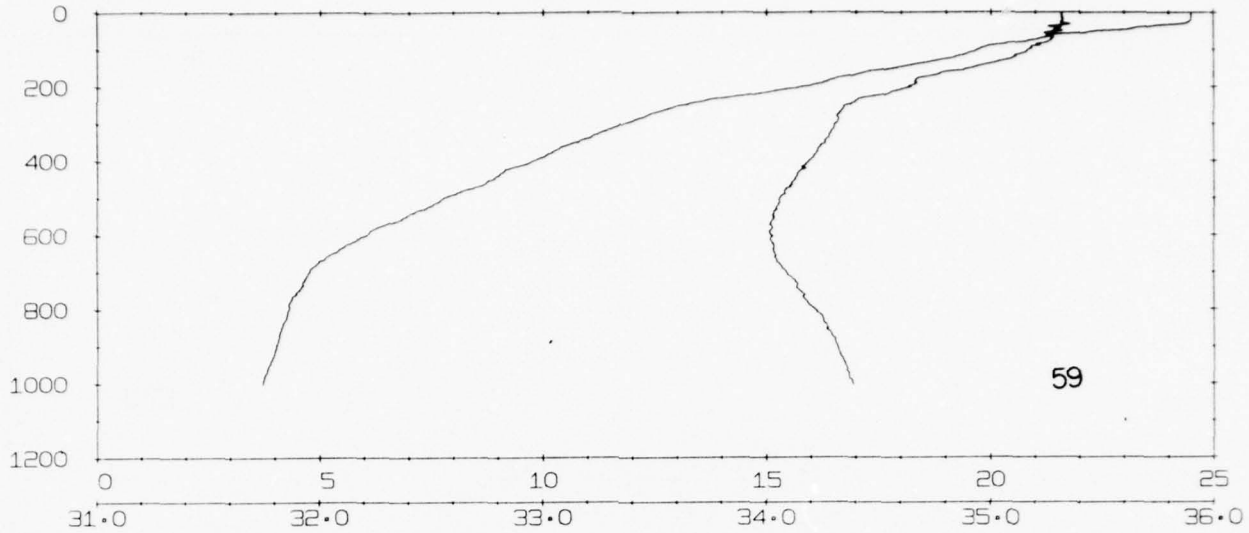

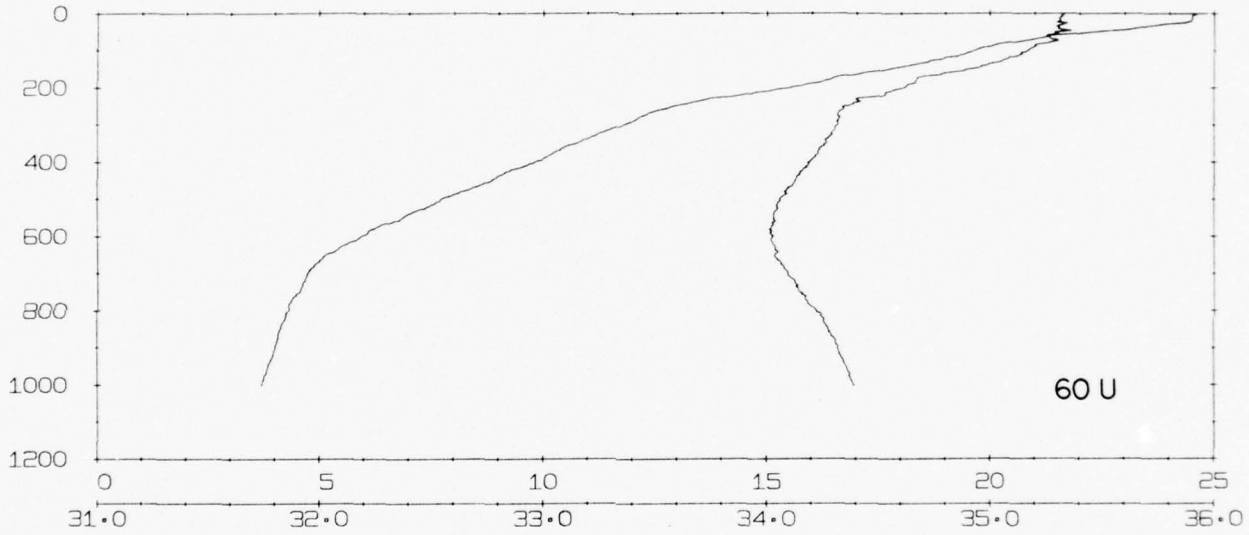

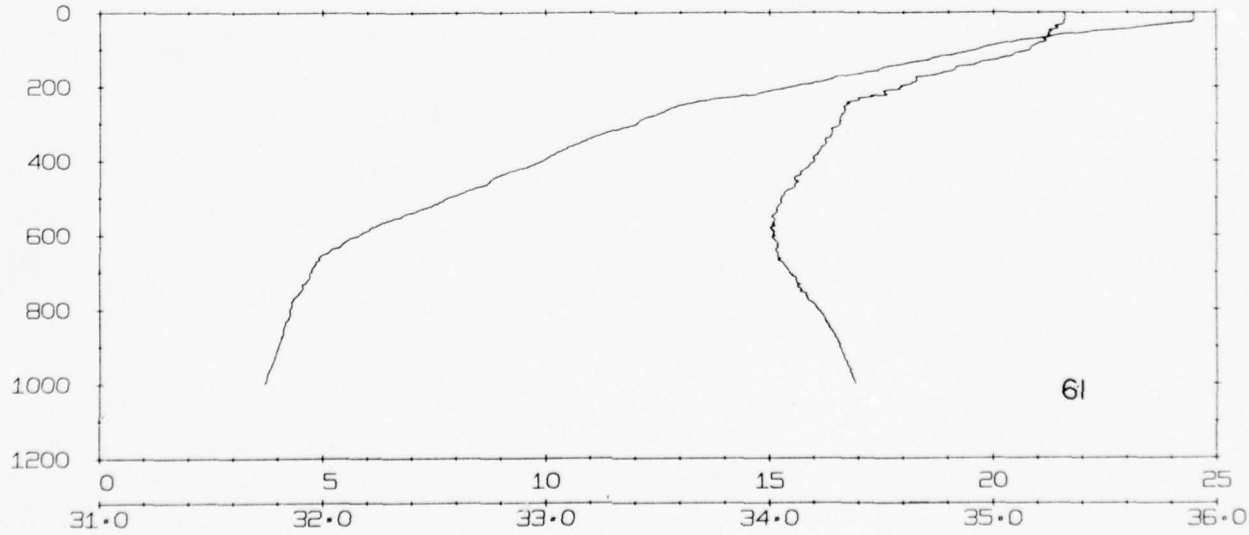

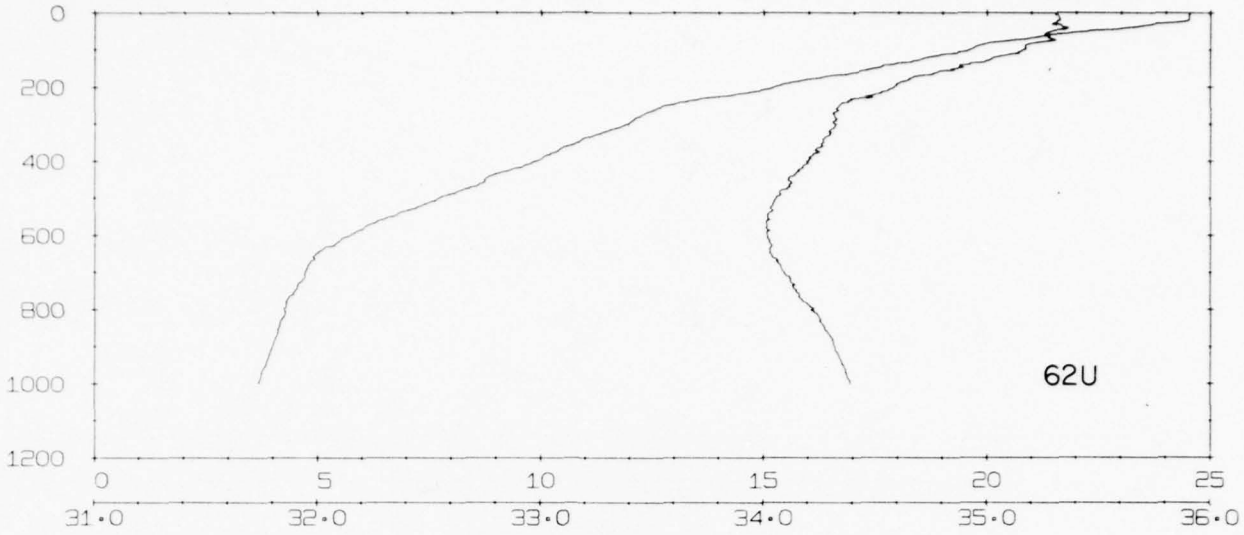
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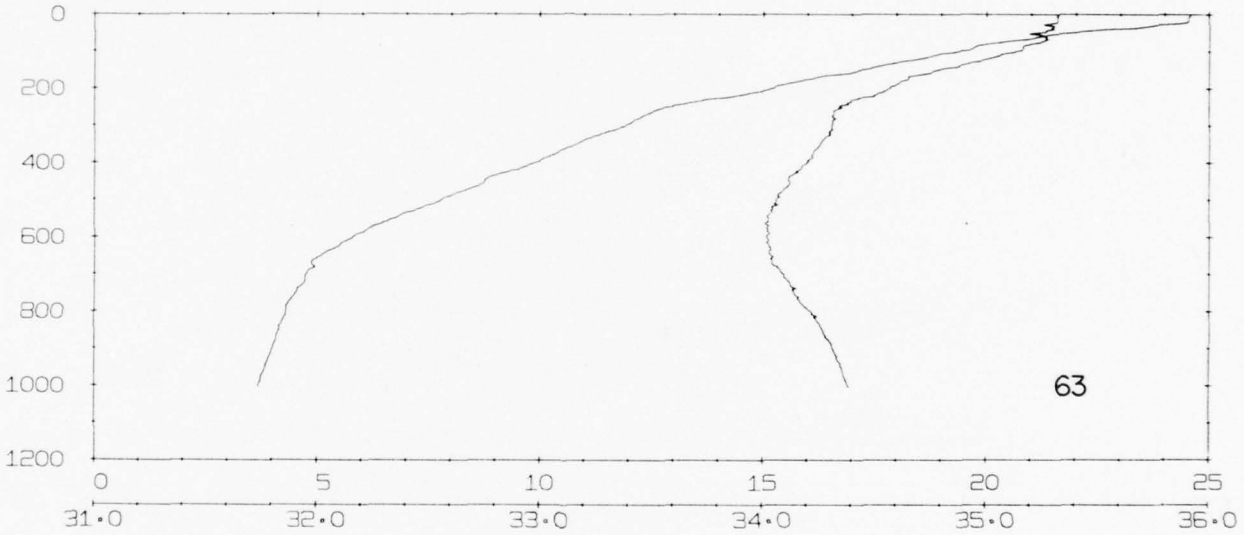
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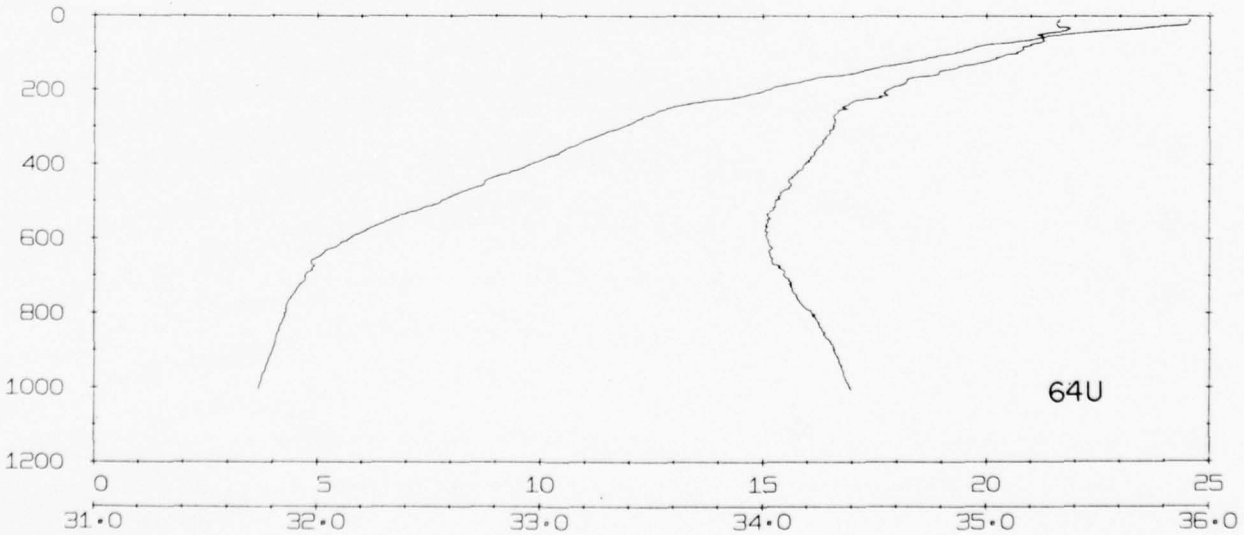
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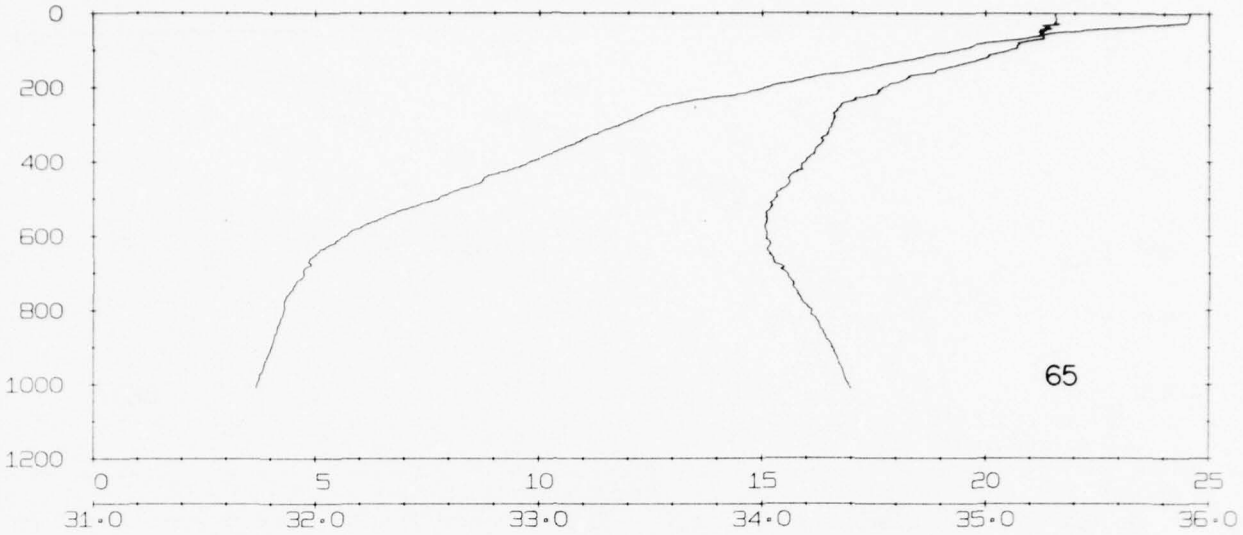

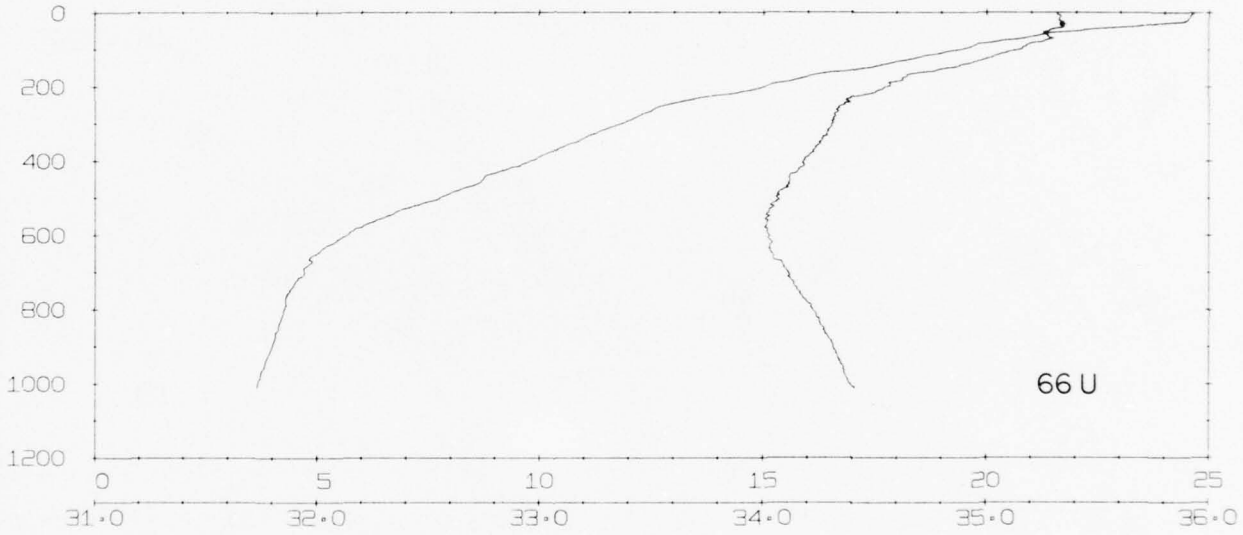

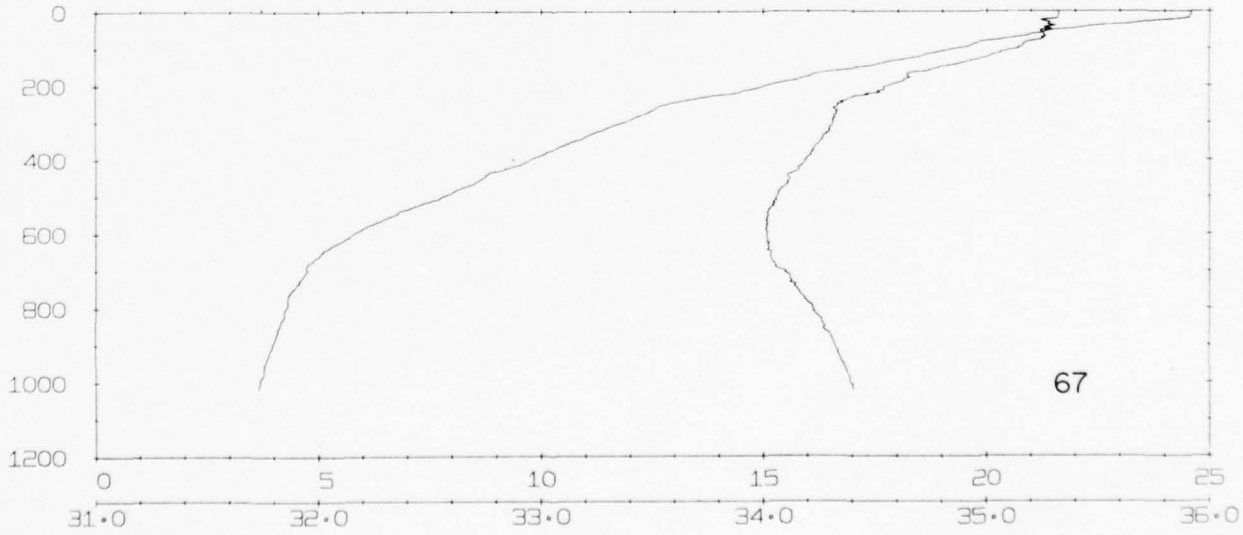

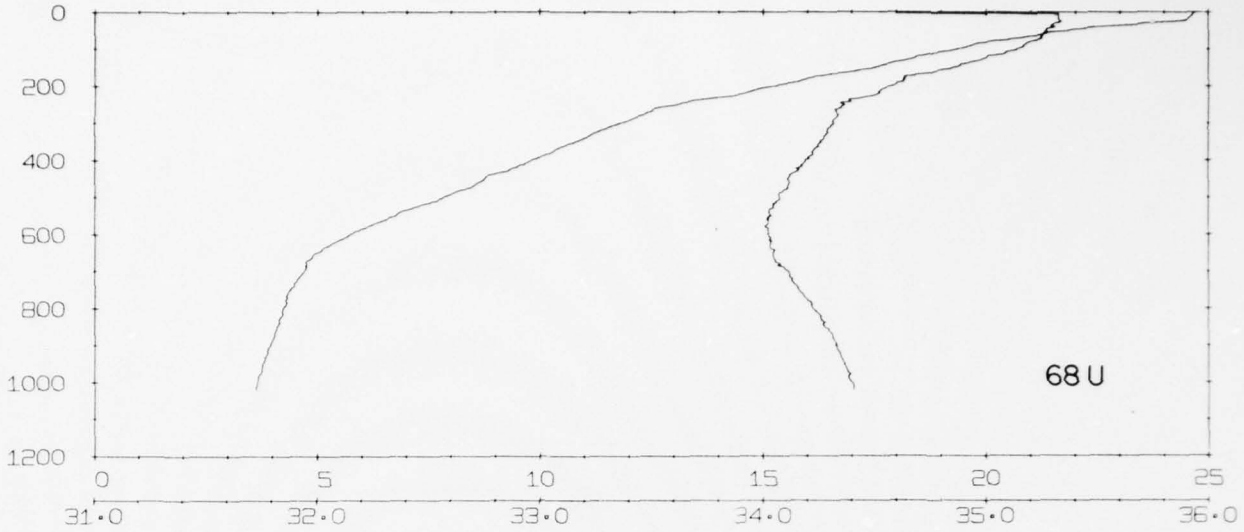
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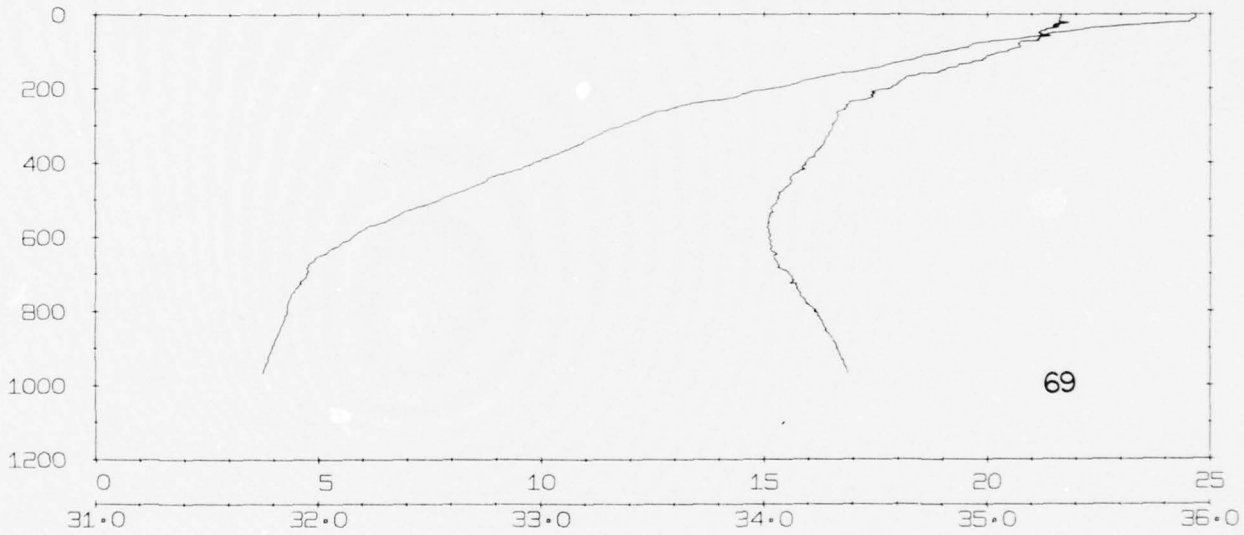
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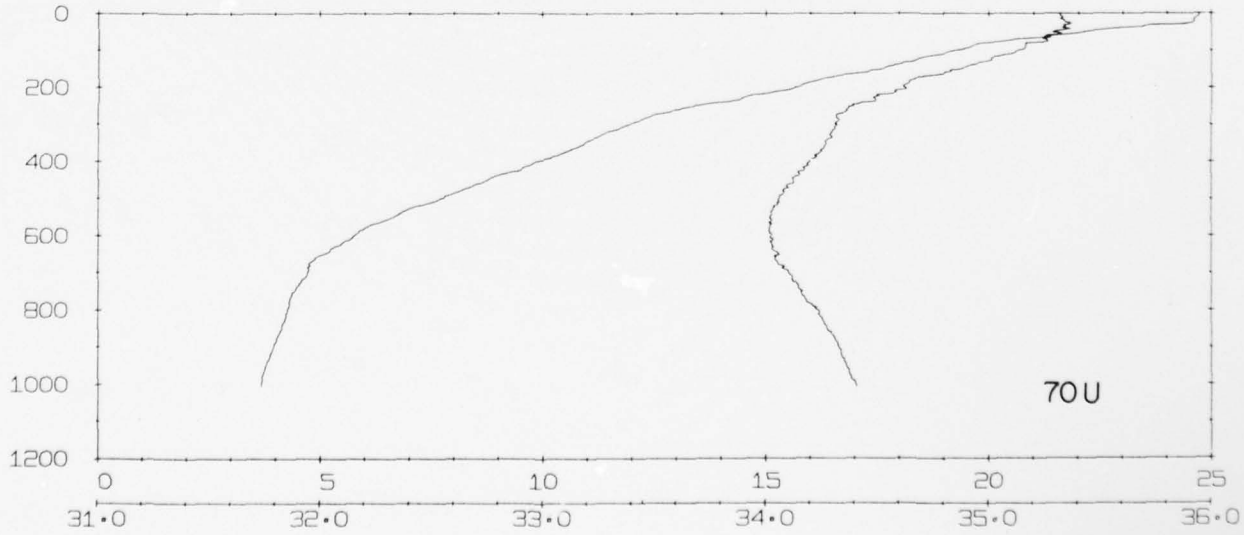
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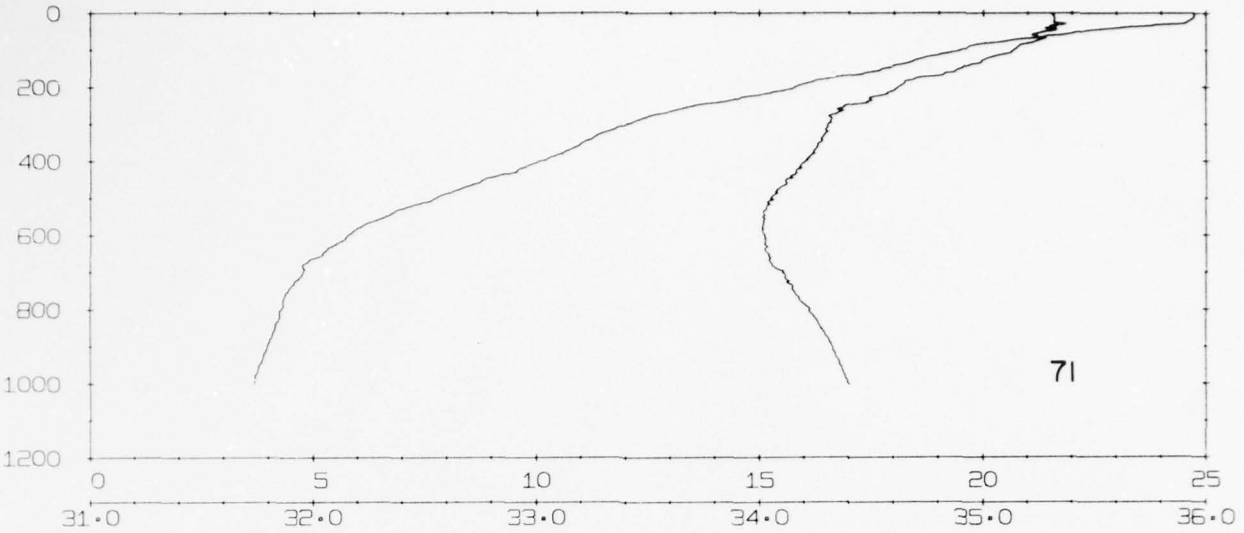
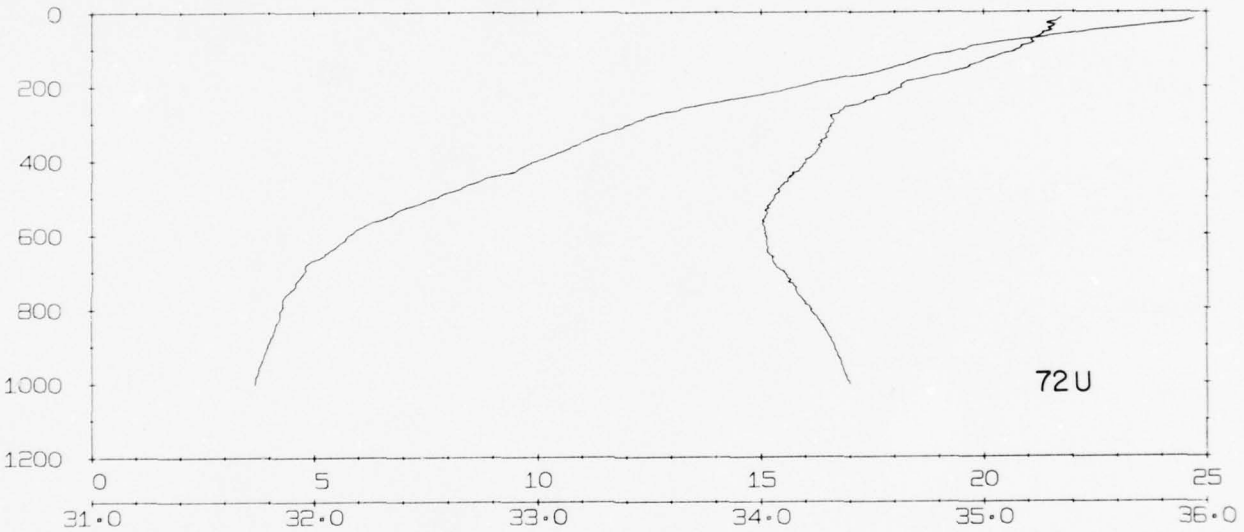
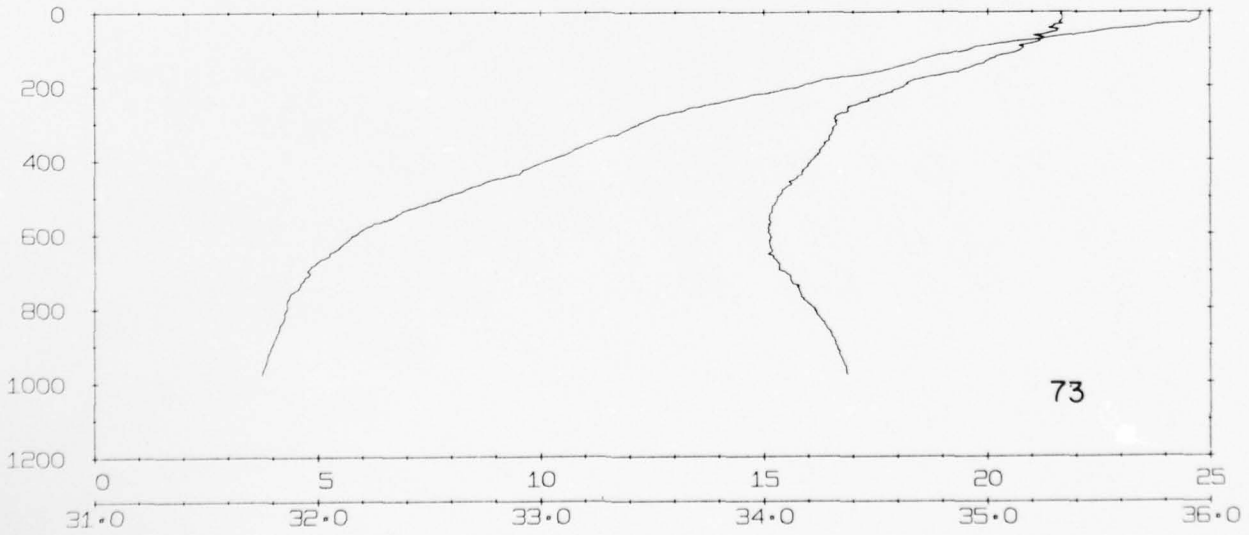
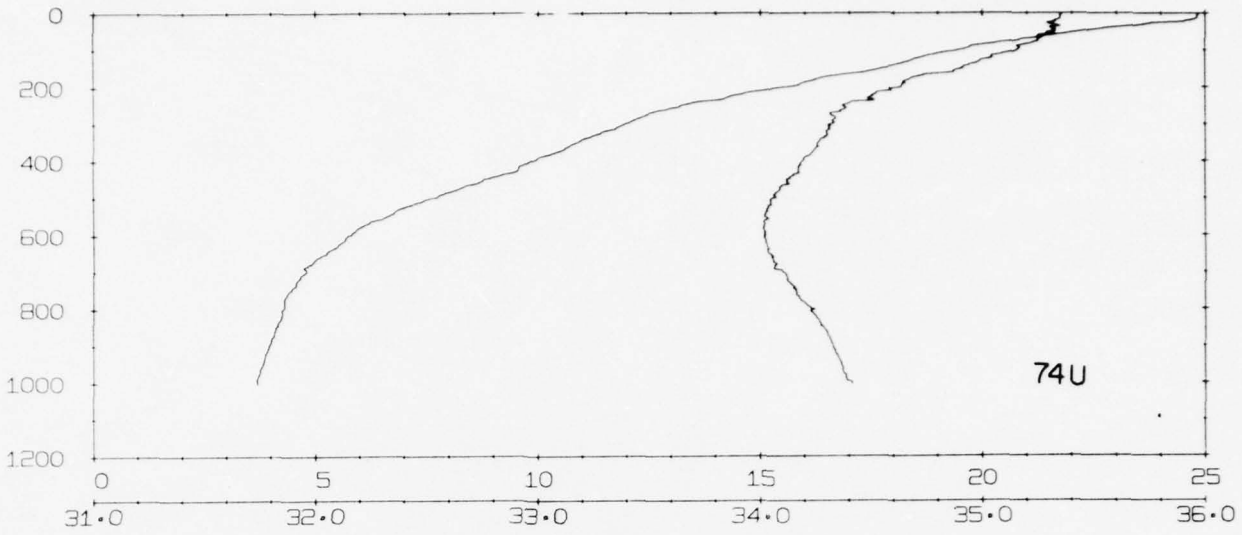
INDOPAC LEG XV





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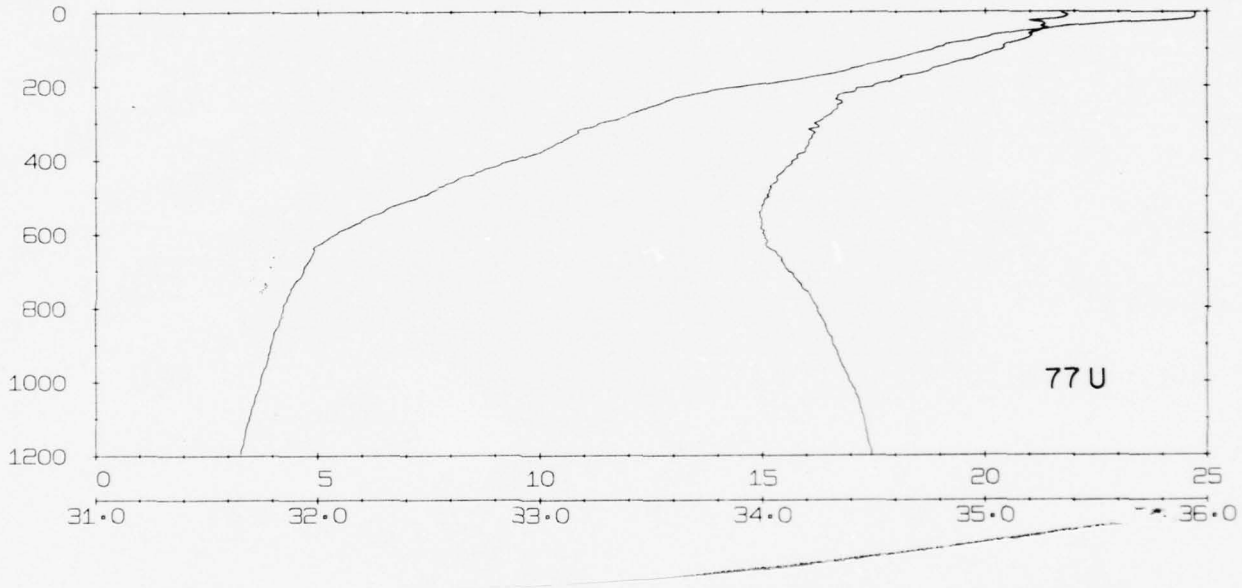
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INDOPAC - LEG XV - CHLOROPHYLL-A AND PHAEOPHYTIN

Station 1: 4 June 1977 1146 GMT

25° 25.7'N 156° 25.7'W

Z	CHLa	PHAEO
0	0.06	0.00
10	0.05	0.00
30	0.05	0.00
70	0.07	0.01
90	0.08	0.02
100	0.11	0.02
110	0.11	0.03
120	0.16	0.06
130	0.15	0.11
150	0.09	0.07
203	0.03	0.04

Station 2: 5 June 1977 2120 GMT

28° 33.3'N 155° 31.4'W

Z	CHLa	PHAEO
2	0.06	0.01
16	0.05	0.00
31	0.06	0.01
47	0.06	0.01
61	0.09	0.01
76	0.09	0.02
91	0.12	0.03
96	0.13	0.02
101	0.12	0.04
106	0.15	0.05
111	0.17	0.10
116	0.16	0.08
121	0.13	0.07
126	0.17	0.11
131	0.15	0.11
136	0.15	0.10
141	0.11	0.09

Station 3: 6 June 1977 0403 GMT

28° 33.7'N 155° 31.6'W

Z	CHLa	PHAEO
1	0.05	0.00
16	0.04	0.00
32	0.06	0.01
46	0.08	0.02
61	0.09	0.01
75	0.11	0.01
90	0.11	0.03
101	0.20	0.13
104	0.26	0.12
109	0.28	0.15
114	0.24	0.13
120	0.17	0.12
125	0.24	0.15
129	0.20	0.17
134	0.18	0.15
139	0.17	0.14
149	0.12	0.10
173	0.05	0.05

Station 4: 6 June 1977 0945 GMT

28° 35.8'N 155° 31.3'W

Z	CHLa	PHAEO
1	0.05	0.01
9	0.04	0.00
21	0.04	0.03
31	0.07	0.02
41	0.07	0.01
61	0.08	0.01
75	0.09	0.01
79	0.08	0.01
81	0.12	0.02
95	0.16	0.07
101	0.15	0.19
108	0.20	0.15
117	0.19	0.15
120	0.19	0.16
125	0.17	0.18
130	0.19	0.16
135	0.15	0.10
140	0.15	0.11
142	0.12	0.10
160	0.08	0.05
179	0.05	0.04

Station 5: 6 June 1977 1220 GMT

28° 38.1'N 155° 31.8'W

Z	CHLa	PHAEO
1	0.06	0.01
14	0.05	0.01
21	0.06	0.00
41	0.08	0.01
45	0.11	0.01
61	0.08	0.01
79	0.09	0.02
81	0.07	0.02
92	0.11	0.03
101	0.14	0.06
103	0.15	0.08
109	0.16	0.08
115	0.13	0.10
121	0.14	0.12
123	0.14	0.11
137	0.13	0.10
141	0.11	0.11
150	0.11	0.10
156	0.10	0.07
161	0.11	0.07

Station 6: 6 June 1977 1621 GMT

28° 38.3'N 155° 31.7'N

Z	CHLa	PHAEO
1	0.07	0.01
16	0.07	0.01
31	0.08	0.01
46	0.07	0.01
61	0.07	0.01
76	0.09	0.02
91	0.12	0.02
96	0.15	0.06
101	0.15	0.08
106	0.15	0.09
111	0.15	0.22
116	0.19	0.15
121	0.15	0.16
126	0.15	0.17
131	0.14	0.14
136	0.12	0.13
141	0.10	0.08
151	0.06	0.05

Station 7: 8 June 1977 1031 GMT

28° 35.6'N 155° 28.4'W

Z	CHLa	PHAEO
0	0.04	0.00
10	0.04	0.00
16	0.04	0.00
20	0.05	0.00
39	0.05	0.01
45	0.19	0.00
59	0.05	0.01
79	0.05	0.00
87	0.07	0.01
99	0.10	0.03
106	0.10	0.03
111	0.13	0.07
117	0.14	0.10
119	0.15	0.09
126	0.17	0.11
132	0.15	0.11
139	0.12	0.11
159	0.09	0.07
176	0.05	0.03
178	0.04	0.03

Station 8: 9 June 1977 1236 GMT

28° 45.9'N 155° 31.1'W

Z	CHLa	PHAEO
1	0.06	0.01
21	0.06	0.01
32	0.06	0.01
41	0.07	0.01
55	0.07	0.01
61	0.07	0.01
80	0.08	0.02
94	0.13	0.05
100	0.14	0.06
104	0.22	0.11
109	0.22	0.11
114	0.20	0.09
120	0.15	0.08
124	0.16	0.09
132	0.15	0.09
140	0.12	0.07
147	0.06	0.04
160	0.10	0.06
167	0.10	0.02
180	0.07	0.05

INDOPAC - LEG XV - CHLOROPHYLL-A AND PHAEOPHYTIN

Station 9: 10 June 1977 0841 GMT
28° 35.0'N 155° 24.8'W

Z	CHLa	PHAEO
1	0.06	0.00
6	0.04	0.00
21	0.05	0.00
41	0.06	0.00
47	0.07	0.00
61	0.05	0.00
81	0.08	0.00
83	0.07	0.00
100	0.12	0.03
101	0.12	0.03
111	0.20	0.09
115	0.21	0.10
121	0.20	0.09
124	0.21	0.10
132	0.17	0.09
141	0.13	0.09
150	0.09	0.06
153	0.08	0.05
160	0.06	0.03
180	0.04	0.01

Station 10: 10 June 1977 1050 GMT
28° 35.8'N 155° 21.9'W

Z	CHLa	PHAEO
0	0.04	0.01
4	0.04	0.00
21	0.04	0.00
41	0.06	0.01
43	0.05	0.01
53	0.05	0.02
61	0.05	0.02
80	0.07	0.03
88	0.10	0.03
99	0.12	0.06
109	0.24	0.15
113	0.19	0.12
119	0.19	0.11
121	0.19	0.14
132	0.15	0.12
139	0.12	0.10
160	0.05	0.05
169	0.04	0.03
181	0.02	0.02
200	0.01	0.01

Station 11: 13 June 1977 1135 GMT
28° 21.6'N 155° 27.7'W

Z	CHLa	PHAEO
0	0.05	0.00
50	0.06	0.00
99	0.27	0.17
125	0.08	0.08
149	0.01	0.02
175	0.00	0.02
199	0.00	0.01
224	0.00	0.01
249	0.00	0.00
274	0.00	0.01
298	0.00	0.00
348	0.00	0.00

Station 12: 13 June 1977 1410 GMT
28° 21.4'N 155° 27.0'W

Z	CHLa	PHAEO
1	0.05	0.00
16	0.04	0.00
31	0.05	0.00
46	0.06	0.00
61	0.06	0.01
76	0.09	0.02
91	0.15	0.09
100	0.24	0.12
105	0.19	0.15
110	0.19	0.15
115	0.19	0.12
120	0.14	0.12
125	0.12	0.13
130	0.10	0.13
135	0.11	0.11
140	0.08	0.08
150	0.04	0.04
176	0.01	0.01

Station 13: 14 June 1977 0558 GMT
28° 33.3'N 155° 33.6'W

Z	CHLa	PHAEO
0	0.07	0.02
15	0.05	0.00
30	0.06	0.01
45	0.06	0.01
60	0.06	0.00
75	0.07	0.01
90	0.07	0.01
95	0.12	0.04
100	0.13	0.07
105	0.18	0.10
110	0.20	0.11
115	0.15	0.12
120	0.13	0.10
125	0.12	0.10
130	0.10	0.08
135	0.11	0.07
140	0.10	0.08
150	0.07	0.08

Station 14: 14 June 1977 0808 GMT
28° 42.1'N 155° 32.1'W

Z	CHLa	PHAEO
1	0.05	0.01
10	0.05	0.01
21	0.06	0.01
40	0.06	0.01
41	0.05	0.01
57	0.06	0.00
61	0.07	0.02
80	0.08	0.03
87	0.08	0.03
99	0.10	0.04
100	0.10	0.04
107	0.11	0.07
111	0.11	0.10
120	0.12	0.11
123	0.11	0.14
140	0.09	0.10
145	0.09	0.10
160	0.05	0.06
179	0.01	0.01
180	0.01	0.00

Station 15: 14 June 1977 1035 GMT
28° 43.9'N 155° 33.2'W

Z	CHLa	PHAEO
0	0.05	0.01
3	0.05	0.00
20	0.05	0.00
37	0.06	0.01
40	0.06	0.01
60	0.07	0.01
65	0.08	0.02
80	0.08	0.02
82	0.08	0.02
99	0.06	0.03
100	0.09	0.03
109	0.10	0.05
112	0.12	0.07
120	0.10	0.07
125	0.12	0.09
139	0.10	0.09
145	0.10	0.10
160	0.08	0.21
170	0.04	0.05
179	0.04	0.07

Station 17: 16 June 1977 0803 GMT
28° 30.2'N 155° 17.3'W

Z	CHLa	PHAEO
1	0.04	0.00
10	0.03	0.01
21	0.03	0.01
24	0.03	0.01
41	0.05	0.01
59	0.06	0.01
61	0.06	0.01
75	0.06	0.02
80	0.07	0.03
92	0.15	0.11
100	0.20	0.17
110	0.15	0.20
116	0.12	0.22
120	0.11	0.17
126	0.09	0.11
140	0.19	0.30
149	0.05	0.08
160	0.06	0.06
173	0.03	0.05
181	0.03	0.06

INDOPAC - LEG XV - CHLOROPHYLL-A AND PHAEOPHYTIN

Station 19: 20 June 1977 0749 GMT

28° 34.7'N 155° 13.8'W

Z	CHLa	PHAEO
1	0.03	0.01
11	0.03	0.01
17	0.03	0.01
21	0.03	0.01
41	0.04	0.01
47	0.05	0.02
51	0.05	0.02
62	0.06	0.02
82	0.08	0.03
88	0.12	0.13
102	0.08	0.12
112	0.09	0.21
121	0.08	0.19
126	0.10	0.17
128	0.09	0.16
141	0.10	0.12
161	0.04	0.09
170	0.04	0.07
179	0.02	0.03
181	0.02	0.03

Station 20: 20 June 1977 1100 GMT

28° 34.3'N 155° 12.7'W

Z	CHLa	PHAEO
1	0.03	0.01
13	0.03	0.01
15	0.03	0.01
21	0.03	0.01
41	0.04	0.01
53	0.04	0.01
61	0.05	0.02
81	0.06	0.02
89	0.06	0.02
101	0.10	0.05
108	0.11	0.06
111	0.13	0.10
121	0.12	0.13
123	0.11	0.13
125	0.08	0.14
134	0.08	0.15
141	0.08	0.10
157	0.04	0.08
161	0.04	0.05
181	0.01	0.01

Station 21: 20 June 1977 1721 GMT

28° 38.0'N 155° 41.3'W

Z	CHLa	PHAEO
1	0.05	0.01
16	0.04	0.01
46	0.06	0.02
61	0.06	0.02
76	0.04	0.01
90	0.06	0.03
95	0.06	0.03
100	0.07	0.03
105	0.08	0.04
110	0.07	0.04
115	0.07	0.04
120	0.08	0.04
125	0.08	0.06
130	0.06	0.05
135	0.08	0.08
140	0.07	0.09
150	0.08	0.09

Station 22: 21 June 1977 0435 GMT

28° 35.9'N 155° 20.3'W

Z	CHLa	PHAEO
1	0.03	0.01
16	0.03	0.01
31	0.04	0.01
46	0.04	0.01
60	0.05	0.02
75	0.07	0.03
80	0.11	0.07
85	0.15	0.13
90	0.14	0.11
94	0.11	0.09
100	0.12	0.09
104	0.11	0.10
110	0.10	0.09
115	0.10	0.13
119	0.12	0.16
124	0.11	0.12
134	0.08	0.12
140	0.06	0.13

Station 23: 22 June 1977 0846 GMT
28° 36.7'N 155° 30.9'W

Z	CHLa	PHAEO
1	0.03	0.01
2	0.03	0.00
21	0.03	0.01
32	0.04	0.01
41	0.05	0.01
55	0.04	0.01
61	0.06	0.01
81	0.05	0.02
94	0.07	0.02
100	0.09	0.03
104	0.08	0.03
111	0.12	0.06
114	0.12	0.06
119	0.11	0.09
129	0.13	0.13
139	0.12	0.15
157	0.19	0.13
164	0.08	0.05
170	0.05	0.04
176	0.03	0.07

Station 24: 22 June 1977 1107 GMT
28° 37.3'N 155° 28.9'W

Z	CHLa	PHAEO
1	0.02	0.00
21	0.03	0.00
37	0.03	0.00
41	0.03	0.00
47	0.04	0.01
60	0.04	0.00
81	0.05	0.01
83	0.06	0.01
99	0.06	0.02
101	0.08	0.02
111	0.09	0.04
115	0.10	0.05
121	0.10	0.06
124	0.10	0.08
131	0.11	0.07
140	0.11	0.08
154	0.07	0.07
161	0.08	0.07
168	0.05	0.04
181	0.03	0.02

Station 25: 24 June 1977 0933 GMT
28° 32.9'N 155° 27.1'W

Z	CHLa	PHAEO
1	0.03	0.01
6	0.03	0.01
21	0.03	0.01
41	0.04	0.01
43	0.04	0.01
53	0.04	0.01
61	0.05	0.01
81	0.07	0.04
84	0.09	0.03
101	0.19	0.23
102	0.22	0.20
111	0.19	0.17
120	0.11	0.27
122	0.12	0.13
124	0.11	0.13
141	0.10	0.11
150	0.05	0.09
160	0.05	0.06
169	0.04	0.04
180	0.03	0.03

Station 26: 24 June 1977 1133 GMT
28° 34.3'N 155° 25.2'W

Z	CHLa	PHAEO
1	0.03	0.00
3	0.03	0.00
21	0.03	0.00
28	0.03	0.00
41	0.04	0.00
57	0.05	0.00
61	0.04	0.00
81	0.05	0.01
91	0.07	0.02
100	0.11	0.05
101	0.13	0.07
112	0.15	0.14
117	0.18	0.12
122	0.16	0.15
125	0.18	0.12
141	0.08	0.11
156	0.06	0.07
161	0.03	0.08
162	0.05	0.05
181	0.03	0.03

INDOPAC - LEG XV - CHLOROPHYLL-A AND PHAEOPHYTIN

Station 27: 25 June 1977 0105 GMT

28° 39.7'N 155° 26.4'W

Z	CHLa	PHAEO
1	0.03	0.00
21	0.04	0.00
26	0.03	0.00
36	0.05	0.00
41	0.05	0.01
61	0.06	0.00
69	0.06	0.00
81	0.09	0.04
83	0.10	0.04
94	0.12	0.06
100	0.21	0.15
104	0.24	0.13
113	0.23	0.23
120	0.19	0.15
125	0.19	0.17
136	0.10	0.07
140	0.11	0.08
141	0.10	0.09
159	0.07	0.06
178	0.03	0.03

Station 28: 25 June 1977 0232 GMT

28° 38.0'N 155° 27.1'W

Z	CHLa	PHAEO
1	0.03	0.00
4	0.03	0.00
10	0.03	0.00
21	0.04	0.00
41	0.06	0.01
59	0.06	0.00
66	0.06	0.00
81	0.10	0.04
93	0.12	0.11
101	0.25	0.21
106	0.23	0.20
111	0.23	0.18
117	0.17	0.17
121	0.17	0.18
127	0.15	0.16
141	0.11	0.10
143	0.09	0.12
149	0.10	0.09
160	0.05	0.05
180	0.03	0.04

Station 29: 26 June 1977 1822 GMT

28° 41.2'N 155° 20.6'W

Z	CHLa	PHAEO
1	0.02	0.00
21	0.03	0.00
26	0.03	0.00
41	0.04	0.00
61	0.06	0.00
74	0.06	0.01
77	0.06	0.01
81	0.08	0.03
98	0.10	0.06
100	0.12	0.08
105	0.13	0.10
111	0.20	0.17
113	0.19	0.12
120	0.17	0.13
130	0.11	0.09
140	0.09	0.08
158	0.07	0.06
159	0.07	0.06
165	0.04	0.05
179	0.03	0.02

Station 31: 27 June 1977 0410 GMT

28° 41.6'N 155° 22.3'W

Z	CHLa	PHAEO
0	0.03	0.00
2	0.03	0.00
3	0.03	0.00
4	0.03	0.00
6	0.04	0.00
7	0.03	0.00
9	0.03	0.00
10	0.03	0.00
12	0.04	0.00
13	0.04	0.00
15	0.04	0.00
16	0.04	0.00

Station 32: 28 June 1977 0236 GMT

28° 33.0'N 155° 31.5'W

Z	CHLa	PHAEO
0	0.04	0.00
2	0.04	0.00
3	0.04	0.00
4	0.08	0.00
6	0.04	0.00
7	0.04	0.00
9	0.04	0.00
10	0.04	0.00
12	0.04	0.00
13	0.04	0.00
15	0.04	0.00
16	0.04	0.00

INDOPAC Leg XV PRIMARY PRODUCTIVITY

Station	Date 1977	Secchi Depth meters	Incubation Period Local Time	Depth meters	Chlorophyll-a mg/m^3	Phaeophytin mg/m^3	Uncorrected Production Data mgC/m^3			Total Production mgC/m^3	Production/ Chlorophyll-a mgC/mgChl-a
							Light-1	Light-2	Dark		
1	June 9	37	1120-1935 (+10)	0	0.05	.00	0.27	0.47	0.13	0.24	5.2
				12	0.05	.00	1.41	2.37	0.06	1.83	38.3
28° 23.5'N				23	0.05	.00	2.67	1.75	0.08	2.13	41.2
155° 27.2'W				44	0.06	.00	1.90	1.61	0.06	1.70	26.3
				68	0.08	.01	0.58	0.90	0.10	0.64	7.8
				101	0.11	.01	0.44	0.66	0.06	0.49	4.3
2	June 15	37 (assumed)	1130-2040 (+10)	0	0.06	.01	0.89	0.83	0.22	0.63	11.1
				12	0.04	.00	2.97	1.23	0.10	1.20	48.8
28° 31.2'N				23	0.05	.00	1.61	1.72	0.10	1.57	33.4
155° 24.7'W				44	0.05	.01	2.00	2.33	0.15	2.01	36.9
				68	0.07	.02	1.50	1.64	0.11	1.46	19.9
				101	0.10	.06	0.61	1.02	0.28	0.54	5.5
3	June 21	37 (assumed)	1150-1930 (+10)	0	0.04	.00	0.76	1.14	0.06	0.90	22.1
				11	0.04	.00	1.09	1.50	0.04	1.26	30.4
28° 38.7'N				21	0.04	.00	1.33	0.97	0.08	1.07	27.0
155° 20.7'W				41	0.05	.00	1.42	1.05	0.03	1.21	23.8
				62	0.06	.01	0.75	0.72	0.07	0.67	11.8
				93	0.10	.03	0.20	0.64	0.03	0.39	44.0
4	June 24	34	1147-1947 (+10)	0	0.03	.01	0.60	0.70	0.04	0.61	19.4
				11	0.03	.00	1.52	1.10	0.05	1.26	39.9
28° 35.6'N				21	0.04	.01	1.82	1.88	0.07	1.78	49.8
155° 27.4'W				39	0.05	.01	1.46	2.17	0.08	1.73	33.4
				60	0.06	.00	0.82	0.18	0.08	0.41	7.0
				90	0.11	.09	0.63	0.69	0.07	0.59	5.2
5	June 26	33	1213-1930 (+10)	0	0.04	.00	0.80	0.83	0.05	0.72	21.2
				12	0.04	.00	1.02	1.43	0.05	1.17	29.3
28° 41'N				22	0.05	.00	1.81	1.59	0.07	1.63	33.5
155" 20.6'W				42	0.06	.00	1.47	1.51	0.12	1.38	23.4
				64	0.08	.00	0.75	0.89	0.09	0.73	9.7
				96	0.10	.02	0.43	0.50	0.06	0.41	3.9
in situ	June 17	37 (assumed)	0430-1900 (+10)	0	.06	.01	0.77	3.26	0.21	1.81	30.9
				12	.05	.01	3.87	2.25	0.08	2.98	63.5
28° 36.9'N				23	.04	.01	2.22	2.14	0.10	2.08	46.3
155° 30.0'W				44	.05	.01	2.23	1.74	0.10	1.88	37.5
				68	.05	.02	1.05	1.07	0.13	0.94	19.1
				85	.06	.03	0.93	0.77	0.08	0.77	12.2
				101	.08	.04	0.73	0.81	0.06	0.71	8.9
				110	.08	.07	0.74	0.75	0.03	0.72	9.0
				125	.09	.11	0.55	0.57	0.04	0.52	5.6
				150	.04	.07	0.16	0.17	0.03	0.13	3.1
simulated in situ	June 17	37 (assumed)	0430-1900 (+10)	0	.06	.01	3.01	2.88	0.30	2.65	45.3
				12	.05	.01	1.42	4.39	0.15	2.76	58.8
				23	.04	.01	4.48	4.84	0.11	4.55	101.4
				44	.05	.01	2.30	4.28	0.30	2.99	59.6
				68	.05	.02	1.28	1.41	0.15	1.19	24.4
				101	.08	.04	0.48	0.34	0.20	0.20	2.6

INDOPAC EXPEDITION LEG XVI

The hydrographic data reported herein were collected to complete the deep data not obtained on Leg I of INDOPAC Expedition because of winch problems. The same station pattern used on Leg I was used on Leg XVI with multiple casts to the bottom every even degree of longitude and single casts to 1200 meters every odd degree of longitude between 163°W and 139°W. Thirteen deep stations and thirteen shallow stations were occupied 5 to 31 July 1977.

The Food Chain Research Group also collected biological and chemical data on this leg.

INDOPAC Expedition Leg XVI was sponsored by the National Science Foundation, the Office of Naval Research and the University of California, Scripps Institution of Oceanography.

Sampling procedures were essentially the same as Leg I except Nansen bottles were used instead of Niskin bottles and the primary instrument for nutrient analyses was a Beckman DU spectrophotometer rather than the Technicon AutoAnalyzer. No alkalinity, total carbon dioxide or calcium data were obtained.

Data are presented as tabulated data and curves of temperature and salinity versus depth from the STD with observed sample bottle data plotted for comparison.

PERSONNEL

Ship's Captain: Clark, Geoffrey C. RV THOMAS WASHINGTON

Personnel Participating in the Collection of Data:

Mullin, Michael M. Dr.	Chief Scientist, Research Biologist, SIO
Anderson, George C.	Staff Research Associate, SIO

Andreae, Meinat O.	Graduate Student, SIO
Barlow, Jay P.	Graduate Student, SIO
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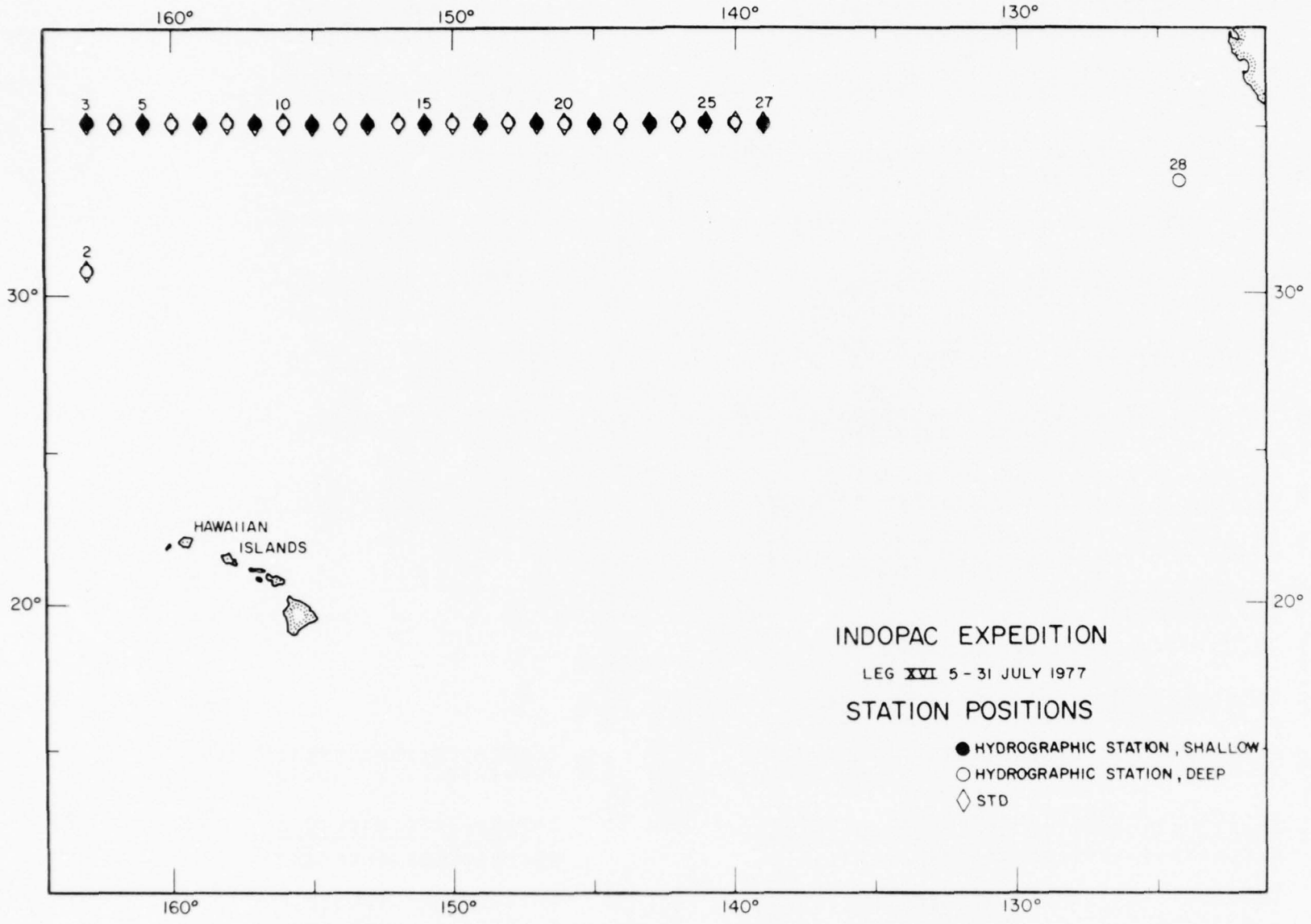
Ferreira, Michael K.	Cadet, U.S. Merchant Marine Academy
Henry, Arthur J.	Programmer, SIO
Kaye, H. Ross	Electronics Technician, SIO
Kling, Stanley A. Dr.	Assistant Research Biologist, SIO
Landry, Michael R. Dr.	Post Graduate Research Biologist, SIO
Mead, Richard V.	Marine Technician, SIO
Richter, Kenneth E.	Graduate Student, SIO
Snider, Leslie J.	Graduate Student, SIO
Star, Jeffrey L.	Graduate Student, SIO
Tsuchiya, Mizuki Dr.	Associate Research Oceanographer, SIO
Vakassian, Leslie	Graduate Student, SIO
Zakar, Karen S.	Staff Research Associate, SIO


160°
150°
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130°
3
5
10
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30°
20°
HAWAIIAN
ISLANDS
INDOPAC EXPEDITION
LEG XVI 5 - 31 JULY 1977
STATION POSITIONS
HYDROGRAPHIC STATION, SHALLOW
HYDROGRAPHIC STATION, DEEP
STD

FIGURE 9

RV THOMAS WASHINGTON INDOPAC LEG XVI

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 46.2N	163 30.4W	7/10/77	1720 0635 GMT	5741M	120	16KT	1	090 8 8

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	25.66	35.338	4.66	0.01	2.	0.00	0.0	447.8	0	25.66	35.338	4.66	23.415	447.8	0.000
11	25.64	35.339	4.88	0.01	2.	0.01	0.1	447.1	10	25.64	35.338	4.87	23.421	447.2	0.045
22	25.42	35.318	4.87	0.00	2.	0.01	0.0	442.1	20	25.46	35.321	4.87	23.464	443.1	0.089
41	21.73	35.154	5.46	0.00	2.	0.00	0.0	351.0	30	24.02	35.240	5.10	23.838	407.4	0.132
71	19.32	35.037	5.48	0.05	3.	0.01	0.0	298.0	50	20.72	35.116	5.47	24.676	327.5	0.206
99	18.15	34.917	5.40	0.08	3.	0.03	0.0	278.6	75	19.13	35.024	5.48	25.024	294.4	0.264
123	16.82	34.735	5.22	0.20	4.	0.15	1.7	261.3	100	18.09	34.909	5.39	25.198	277.8	0.356
148	15.79	34.611	5.18	0.30	6.	0.05	3.6	247.7	125	16.73	34.723	5.22	25.385	260.0	0.424
172	15.08	34.537	4.99	0.41	7.	0.01	5.0	238.0	150	15.72	34.604	5.17	25.524	246.8	0.489
196	14.46	34.494	4.90	0.52	8.	0.01	6.8	228.4	200	14.35	34.486	4.91	25.735	226.8	0.610
245	13.20	34.402	5.14	0.63	10.	0.02	8.3	210.2	250	13.10	34.397	5.13	25.925	208.7	0.722
295	12.26	34.354	5.08	0.77	12.	0.02	10.6	196.2	300	12.17	34.350	5.08	26.071	194.9	0.826
392	10.47	34.241	5.01	1.04	19.	0.02	14.6	173.2	400	10.32	34.231	4.99	26.317	171.5	1.017
490	8.51	34.110	4.43	1.51	32.	0.00	21.1	152.3	500	8.26	34.095	4.29	26.545	149.9	1.187
587	6.28	34.005	2.96	2.26	57.	0.00	31.0	130.1	600	6.07	34.007	2.77	26.781	127.5	1.334
686	5.06	34.044	1.74	2.78	81.	0.01	38.5	113.0	700	4.97	34.054	1.64	26.951	111.4	1.461
783	4.56	34.112	1.16	3.02	96.	0.00	41.0	102.6	800	4.48	34.130	1.05	27.066	100.5	1.574
882	4.10	34.215	0.60	3.17	113.	0.00	43.2	90.2	1000	3.63	34.328	0.41	27.311	77.2	1.768
980	3.69	34.310	0.39	3.20	127.	0.00	44.8	79.1	1200	3.20	34.451	0.65	27.450	64.0	1.926
1178	3.24	34.443	0.57	3.27	142.	0.00	44.6	64.9	1500	2.66	34.541	0.95	27.571	52.6	2.127
1213A	3.18	34.455	0.69	3.13	138.		43.5	63.5	1750	2.29	34.581	1.26	27.634	46.7	2.273
1460A	2.72	34.532	0.91	3.07	150.		42.1	53.7	2000	2.00	34.608	1.61	27.679	42.4	2.407
1708A	2.35	34.574	1.21	3.08	161.		41.4	47.6	2250	1.81	34.627	1.99	27.709	39.5	2.531
1957A	2.04	34.602	1.54	2.94	168.		40.4	43.0	2500	1.67	34.642	2.32	27.732	37.3	2.649
2205A	1.84	34.624	1.93	2.85	169.		40.2	39.9	2750	1.57	34.656	2.62	27.751	35.5	2.763
2453A	1.70	34.639	2.25	2.82	172.		40.1	37.8	3000	1.55	34.662	2.81	27.757	35.0	2.875
2700A	1.57	34.654	2.57	2.73	170.		39.6	35.7	3250	1.52	34.669	2.94	27.764	34.3	2.987
2948A	1.55	34.660	2.78	2.69	169.		38.2	35.1	3500	1.49	34.674	3.14	27.770	33.7	3.098
3196A	1.53	34.667	2.90	2.68	169.		37.4	34.5	3750	1.48	34.677	3.30	27.774	33.3	3.210
3444A	1.49	34.672	3.10	2.64	166.		37.0	33.8	4000	1.47	34.680	3.42	27.777	33.1	3.322
3692A	1.48	34.676	3.27	2.58	164.		36.0	33.4	4250	1.47	34.683	3.52	27.779	32.9	3.435
3940A	1.47	34.679	3.38	2.54	161.		36.4	33.1	4500	1.48	34.684	3.52	27.780	32.8	3.550
4188A	1.47	34.682	3.52	2.49	160.		35.8	32.9	4750	1.51	34.685	3.59	27.778	33.0	3.667
4436A	1.47	34.683	3.51	2.55			36.6	32.8	5000	1.54	34.683	3.68	27.775	33.3	3.787
4684A	1.50	34.685	3.56	2.50	155.		35.0	32.9							
4931A	1.53	34.682	3.66	2.50	152.		34.8	33.3							

RV THOMAS WASHINGTON INDOPAC LEG XVI

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 11.2N	162 59.4W	7/12/77	0747 GMT	5844M	100	14KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.07	34.357	5.26					417.6	0	22.07	34.357	5.26	23.731	417.6	0.000
11	21.31	34.409	5.37					393.8	10	21.43	34.410	5.35	23.943	397.4	0.041
20	19.43	34.373	5.55					348.9	20	19.43	34.373	5.55	24.452	348.9	0.078
40	15.04	34.386	6.37					248.2	30	17.05	34.368	5.97	25.037	293.2	0.110
70	13.21	34.335	6.09					215.4	50	14.06	34.360	6.28	25.700	230.2	0.163
98	12.38	34.312	5.72					201.5	75	13.03	34.331	6.02	25.888	212.3	0.219
123	12.04	34.302	5.59					196.0	100	12.35	34.313	5.70	26.008	200.9	0.271
148	11.54	34.233	5.77					192.1	125	12.00	34.298	5.60	26.063	195.6	0.321
173	11.04	34.170	5.85					188.1	150	11.49	34.228	5.78	26.104	191.8	0.370
197	10.84	34.173	5.84					184.5	200	10.83	34.177	5.84	26.185	184.1	0.466
247	10.71	34.219	5.81					178.9	250	10.68	34.219	5.79	26.244	178.5	0.559
296	10.17	34.191	5.33					172.0	300	10.13	34.190	5.30	26.317	171.5	0.650
395	9.06	34.131	4.74					159.0	400	8.98	34.127	4.72	26.458	158.1	0.822
493	7.34	34.030	4.17					141.9	500	7.21	34.026	4.09	26.644	140.5	0.979
593	5.63	33.992	2.90					123.3	600	5.54	33.995	2.82	26.837	122.2	1.118
691	4.60	34.043	1.86					108.2	700	4.53	34.051	1.78	26.997	107.0	1.239
790	4.04	34.127	1.10					96.2	800	4.00	34.137	1.05	27.122	95.2	1.347
887	3.70	34.209	0.69					86.8	1000	3.37	34.281	0.42	27.299	78.2	1.535
986	3.41	34.273	0.44					79.3	1200	2.92	34.403	0.26	27.439	65.2	1.693
1182	2.95	34.393	0.27					66.2							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
30 46.2N	163 30.3W	07/10/77	1758 GMT

Z	T	S	SIGMA T	DT	DD
0	25.41	35.25	23.425	446.8	0.000
10	25.39	35.26	23.439	445.4	0.045
20	24.17	35.24	23.793	411.7	0.088
30	22.57	35.12	24.168	375.9	0.127
40	20.89	35.06	24.589	335.8	0.163
50	20.31	35.04	24.729	322.4	0.196
75	18.54	35.00	25.156	281.8	0.272
100	17.02	34.76	25.344	263.9	0.341
125	16.18	34.68	25.479	251.1	0.406
150	15.27	34.56	25.592	240.3	0.469
175	14.38	34.50	25.740	226.3	0.528
200	13.67	34.42	25.827	218.0	0.585
225	13.09	34.40	25.930	208.3	0.640
250	12.70	34.39	26.000	201.7	0.692
275	12.23	34.36	26.068	195.2	0.744
300	11.79	34.33	26.129	189.4	0.793
350	10.99	34.28	26.237	179.1	0.889
400	9.86	34.19	26.364	167.1	0.980
450	8.94	34.13	26.468	157.2	1.065
500	8.13	34.08	26.554	149.1	1.146
550	7.12	34.02	26.653	139.7	1.223
600	6.26	34.00	26.752	130.2	1.294
650	5.60	34.01	26.843	121.7	1.361
700	5.01	34.04	26.936	112.8	1.424
750	4.62	34.10	27.028	104.1	1.482
800	4.33	34.15	27.099	97.4	1.536
850	4.18	34.19	27.146	92.9	1.587
900	3.96	34.26	27.225	85.4	1.636
950	3.76	34.29	27.269	81.3	1.681
1000	3.64	34.32	27.304	77.9	1.725
1100	3.40	34.40	27.391	69.6	1.807
1200	3.19	34.45	27.451	64.0	1.882
1300	3.00	34.49	27.501	59.3	1.952
1400	2.80	34.52	27.542	55.3	2.018
1500	2.61	34.55	27.583	51.5	2.080
1600	2.454	34.564	27.608	49.1	2.140
1700	2.279	34.579	27.634	46.6	2.196
1800	2.176	34.590	27.651	45.0	2.251
1900	2.084	34.600	27.667	43.5	2.303
2000	2.028	34.609	27.678	42.4	2.355
2100	1.944	34.619	27.693	41.0	2.406
2200	1.856	34.626	27.705	39.9	2.455
2300	1.788	34.639	27.721	38.4	2.503
2400	1.741	34.638	27.724	38.1	2.551
2500	1.695	34.638	27.727	37.8	2.598
2600	1.659	34.650	27.739	36.6	2.644
2700	1.624	34.656	27.747	35.9	2.690
2800	1.595	34.657	27.750	35.7	2.735
2900	1.564	34.662	27.756	35.1	2.780
3000	1.548	34.665	27.760	34.7	2.824
3100	1.542	34.668	27.763	34.5	2.869
3200	1.535	34.670	27.765	34.3	2.914
3300	1.523	34.668	27.764	34.3	2.958
3400	1.501	34.675	27.771	33.6	3.003
3500	1.494	34.675	27.772	33.6	3.047
3600	1.487	34.680	27.776	33.2	3.092
3700	1.478	34.671	27.770	33.8	3.136
3800	1.477	34.680	27.777	33.1	3.181
3900	1.474	34.681	27.778	33.0	3.226
4000	1.474	34.682	27.779	32.9	3.271
4100	1.475	34.683	27.779	32.9	3.316
4200	1.478	34.684	27.780	32.8	3.361
4300	1.483	34.680	27.777	33.1	3.407
4400	1.488	34.682	27.778	33.0	3.453
4500	1.495	34.683	27.778	33.0	3.500
4600	1.500	34.683	27.778	33.0	3.546
4700	1.508	34.681	27.775	33.2	3.593
4800	1.515	34.683	27.777	33.1	3.641
4900	1.523	34.683	27.776	33.2	3.689
5000	1.530	34.683	27.775	33.2	3.737
5100	1.539	34.683	27.775	33.3	3.786
5200	1.547	34.684	27.775	33.3	3.835
5300	1.558	34.683	27.773	33.4	3.884
5400	1.568	34.683	27.773	33.5	3.934
5500	1.578	34.684	27.773	33.5	3.985
5600	1.588	34.685	27.773	33.5	4.035
5700	1.601	34.686	27.773	33.5	4.086

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 11.1N	163 00.0W	07/12/77	0707 GMT

Z	T	S	SIGMA T	DT	DD
0	22.07	34.36	23.734	417.4	0.000
10	21.66	34.37	23.855	405.8	0.041
20	19.68	34.34	24.363	357.4	0.079
30	18.93	34.33	24.547	339.8	0.114
40	15.63	34.32	25.328	265.5	0.145
50	14.61	34.42	25.629	236.9	0.170
75	12.92	34.30	25.887	212.4	0.227
100	12.36	34.31	26.004	201.2	0.279
125	11.89	34.28	26.071	194.9	0.329
150	11.45	34.23	26.114	190.8	0.378
175	11.03	34.16	26.152	187.2	0.426
200	10.77	34.17	26.191	183.5	0.474
225	10.82	34.23	26.229	179.9	0.520
250	10.52	34.21	26.266	176.3	0.566
275	10.22	34.19	26.303	172.9	0.611
300	10.05	34.19	26.332	170.1	0.656
350	9.47	34.15	26.398	163.9	0.742
400	8.73	34.12	26.493	154.8	0.826
450	7.97	34.06	26.562	148.3	0.905
500	7.06	34.01	26.653	139.6	0.981
550	6.20	33.98	26.744	131.0	1.052
600	5.43	34.00	26.855	120.5	1.119
650	4.92	34.01	26.923	114.1	1.181
700	4.52	34.05	26.999	106.8	1.240
750	4.24	34.09	27.061	101.0	1.295
800	4.02	34.13	27.115	95.8	1.348
850	3.83	34.17	27.166	91.0	1.398
900	3.65	34.22	27.224	85.5	1.445
950	3.51	34.25	27.261	81.9	1.491
1000	3.35	34.29	27.309	77.5	1.534
1100	3.11	34.34	27.371	71.6	1.616
1160	2.95	34.38	27.417	67.2	1.678

RV THOMAS WASHINGTON — INDOPAC LEG XVI

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 09.2N	162 01.2W	7/12/77	1502 1914 GMT	5653M	130	16KT	1	120 8 8

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.31	34.019	5.05	0.08	5.	0.00	0.1	448.5	0	22.31	34.019	5.05	23.408	448.5	0.000
11		34.020	5.28	0.10	5.	0.01	0.0		10	22.31	34.020	5.24	23.409	448.4	0.045
21	18.72	34.221	5.93	0.09	6.	0.00	0.0	342.7	20	19.11	34.197	5.86	24.400	353.9	0.085
41	14.41	34.149	7.03	0.13	3.	0.00	0.0	252.7	30	16.46	34.218	6.52	25.060	291.0	0.117
71	12.30	34.184	6.20	0.47	10.	0.30	5.1	209.4	50	13.43	34.164	6.91	25.679	232.1	0.170
100	11.63	34.159	5.91	0.63	12.	0.10	7.8	199.2	75	12.16	34.183	6.14	25.944	206.9	0.225
125	11.32	34.165	5.91	0.65	12.	0.03	8.4	193.3	100	11.63	34.159	5.91	26.026	199.2	0.276
150	11.05	34.161	5.86	0.69	13.	0.02	9.4	188.9	125	11.32	34.165	5.91	26.088	193.3	0.326
175	10.71	34.148	5.90	0.73	13.	0.02	9.9	184.1	150	11.05	34.161	5.86	26.134	188.9	0.375
200	10.52	34.145	5.90	0.77	14.	0.02	10.4	181.2	200	10.52	34.145	5.90	26.216	181.2	0.469
250	10.23	34.151	5.77	0.85	16.	0.01	10.8	175.9	250	10.23	34.151	5.77	26.271	175.9	0.561
299	10.16 U	34.152	5.25	1.07	21.	0.00	14.8		300	9.70	34.138	5.24	26.349	168.5	0.650
399	8.20	34.072	4.53	1.50	33.	0.00	21.0	150.6	400	8.18	34.072	4.52	26.539	150.4	0.816
497	6.29	33.986	3.52	2.08	54.	0.00	29.4	131.7	500	6.25	33.987	3.49	26.742	131.2	0.964
596	5.14	33.998	2.51	2.53	75.	0.00	34.4	117.4	600	5.10	34.001	2.47	26.894	116.8	1.094
695	4.42	34.066	1.57	2.86	94.	0.00	38.0	104.6	700	4.39	34.071	1.54	27.028	104.0	1.211
794	3.96	34.150	1.04	3.07	110.	0.00	42.0	93.7	800	3.94	34.157	1.00	27.144	93.0	1.316
893	3.61	34.243	0.48	3.20	126.	0.00	44.0	83.4	1000	3.33	34.310	0.30	27.326	75.7	1.499
992	3.35	34.304	0.31	3.26	134.	0.00	45.0	76.4	1200	2.95	34.412	0.24	27.443	64.7	1.655
1163A	2.99	34.406	0.19	3.24	149.		43.6	65.5	1500	2.47	34.522	0.59	27.572	52.5	1.855
1192	2.960	34.410	0.23	3.30.	151.	0.00	45.3	65.0	1750	2.14	34.571	1.00	27.638	46.2	1.999
1412A	2.60	34.498	0.46	3.19	161.		44.2	55.3	2000	1.90	34.605	1.45	27.685	41.9	2.129
1659A	2.25	34.553		3.15	170.		44.2	48.4	2250	1.76	34.626	1.86	27.712	39.2	2.252
1906A	1.97	34.593	1.28	3.06	182.		43.2	43.2	2500	1.64	34.641	2.22	27.733	37.2	2.369
2155A	1.81	34.618	1.71	2.96	178.		42.0	40.1	2750	1.58	34.653	2.54	27.748	35.8	2.483
2404A	1.68	34.636	2.08	2.89	176.		41.8	37.8	3000	1.53	34.664	2.78	27.759	34.8	2.595
2651A	1.60	34.648	2.42	2.83	173.		40.6	36.4	3250	1.50	34.672	3.00	27.769	33.8	2.705
2899A	1.55	34.660	2.70	2.74	171.		39.4	35.1	3500	1.48	34.678	3.18	27.775	33.3	2.815
3146A	1.51	34.667	2.90	2.69	167.		39.4	34.3	3750	1.46	34.678	3.28	27.776	33.2	2.926
3394A	1.481	34.678	3.13	2.63	167.		38.6	33.3	4000	1.47	34.681	3.41	27.778	33.0	3.038
3640A	1.47	34.677	3.23	2.60	166.		38.2	33.3	4250	1.47	34.685	3.46	27.781	32.7	3.151
3887A	1.46	34.678	3.35	2.57	162.		38.0	33.1	4500	1.49	34.686	3.49	27.781	32.7	3.265
4135A	1.475	34.683	3.46	2.56	164.		38.3	32.9	4750	1.51	34.686	3.56	27.779	32.9	3.382
4382A	1.470	34.686	3.47	2.54	163.		37.4	32.6	5000	1.54	34.688	3.63	27.778	33.0	3.502
4630A	1.506	34.685	3.52	2.51	161.		37.2	32.9	5250	1.56	34.687	3.66	27.776	33.2	3.624
4876A	1.521	34.686	3.60	2.51	156.		36.8	32.9	5500	1.59	34.688	3.67	27.775	33.3	3.749
5123A	1.551	34.688	3.65	2.51	155.		37.0	33.0							
5321A	1.569	34.686	3.66	2.50	155.		37.0	33.3							
5471A	1.584	34.687	3.68	2.50	155.		36.7	33.3							
5571A	1.599	34.689	3.67	2.51	155.		36.7	33.3							
5620A	1.601	34.688	3.68		156.		36.6	33.4							

RV THOMAS WASHINGTON — INDOPAC LEG XVI

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 10.9N	161 01.1W	7/13/77	0218 GMT	5817M	120	15KT	2	120 6 7

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.60	34.055	5.20					453.7	0	22.60	34.055	5.20	23.554	453.7	0.000
11	21.70	34.177	5.37					420.8	10	21.79	34.137	5.34	23.642	426.2	0.044
21	18.43	34.131	5.85					342.3	20	18.78	34.134	5.80	24.434	350.6	0.083
41	15.29	34.250	6.47					263.4	30	16.65	34.180	6.20	24.987	297.9	0.115
70	13.23	34.296	6.06					218.6	50	14.46	34.288	6.41	25.559	243.5	0.170
99	11.77	34.141	5.87					203.0	75	12.91	34.270	6.02	25.866	214.4	0.227
124	11.66	34.149	5.77					200.4	100	11.77	34.143	5.86	25.987	202.8	0.280
149	11.24	34.162	5.72					192.1	125	11.64	34.150	5.77	26.016	200.1	0.331
174	11.04	34.190	5.64					186.6	150	11.23	34.165	5.71	26.103	191.8	0.381
200	10.71	34.159	5.84					183.3	200	10.71	34.159	5.84	26.193	183.3	0.477
250	10.38	34.160	5.69					177.7	250	10.38	34.160	5.69	26.252	177.7	0.569
299	9.81	34.158	5.20					168.6	300	9.80	34.159	5.19	26.349	168.5	0.659
399	8.30	34.077	4.65					151.7	400	8.28	34.077	4.64	26.528	151.5	0.825
498	6.36	33.989	3.59					132.3	500	6.33	33.990	3.57	26.734	132.0	0.974
600	5.21	34.000	2.51					118.0	600	5.21	34.000	2.51	26.881	118.0	1.106
699	4.43	34.068	1.53					104.6	700	4.42	34.070	1.52	27.024	104.5	1.224
797	3.99	34.149	0.95					94.1	800	3.98	34.153	0.93	27.137	93.8	1.330
895	3.65	34.241	0.51					83.9	1000	3.34	34.315	0.27	27.329	75.6	1.513
993	3.36	34.310	0.27					76.0	1200	2.98	34.412	0.27	27.440	65.0	1.669
1192	2.99	34.408	0.27					65.4							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 09.6N	162 01.3W	07/12/77	1324 GMT

Z	T	S	SIGMA T	DT	DD
0	22.42	34.00	23.363	452.8	0.000
10	22.41	34.00	23.366	452.5	0.045
20	19.98	34.01	24.034	388.8	0.087
30	17.63	34.10	24.694	325.9	0.123
40	15.76	34.10	25.130	284.3	0.154
50	13.83	34.13	25.571	242.5	0.180
75	12.16	34.17	25.934	207.9	0.237
100	11.53	34.16	26.045	197.3	0.288
125	11.31	34.17	26.094	192.7	0.338
150	10.96	34.16	26.149	187.5	0.386
175	10.68	34.14	26.184	184.2	0.433
200	10.41	34.13	26.223	180.4	0.480
225	10.25	34.14	26.259	177.1	0.526
250	10.12	34.15	26.289	174.2	0.571
275	9.94	34.15	26.319	171.3	0.615
300	9.66	34.15	26.366	166.8	0.659
350	8.93	34.10	26.446	159.3	0.744
400	8.22	34.06	26.525	151.8	0.825
450	7.32	34.02	26.625	142.3	0.902
500	6.51	34.00	26.720	133.3	0.975
550	5.71	33.98	26.806	125.2	1.043
600	5.12	34.00	26.892	117.0	1.106
650	4.72	34.04	26.969	109.7	1.166
700	4.38	34.07	27.030	103.9	1.223
750	4.15	34.11	27.086	98.6	1.277
800	3.92	34.17	27.157	91.8	1.328
850	3.76	34.21	27.205	87.3	1.376
900	3.61	34.25	27.252	82.9	1.422
950	3.46	34.29	27.298	78.5	1.466
1000	3.34	34.31	27.326	75.9	1.509
1100	3.12	34.38	27.402	68.6	1.588
1200	2.92	34.42	27.452	63.9	1.662
1300	2.76	34.46	27.498	59.5	1.732
1400	2.59	34.50	27.545	55.1	1.797
1500	2.47	34.52	27.571	52.6	1.859
1600	2.316	34.540	27.600	49.9	1.918
1700	2.203	34.558	27.624	47.6	1.975
1800	2.070	34.576	27.649	45.2	2.030
1900	1.981	34.590	27.667	43.5	2.082
2000	1.901	34.603	27.684	41.9	2.133
2100	1.844	34.612	27.695	40.8	2.183
2200	1.783	34.623	27.709	39.6	2.232
2300	1.738	34.630	27.718	38.7	2.280
2400	1.694	34.637	27.727	37.9	2.327
2500	1.658	34.640	27.732	37.4	2.373
2600	1.621	34.647	27.740	36.6	2.419
2700	1.599	34.649	27.743	36.3	2.465
2800	1.568	34.653	27.749	35.8	2.510
2900	1.545	34.658	27.754	35.2	2.555
3000	1.528	34.661	27.758	34.9	2.599
3100	1.511	34.663	27.761	34.6	2.644
3200	1.495	34.667	27.765	34.2	2.688
3300	1.489	34.669	27.767	34.0	2.732
3400	1.480	34.672	27.770	33.7	2.777
3500	1.475	34.672	27.771	33.7	2.821
3600	1.474	34.676	27.774	33.4	2.865
3700	1.467	34.678	27.776	33.2	2.910
3800	1.468	34.677	27.775	33.3	2.954
3900	1.468	34.679	27.777	33.1	2.999
4000	1.470	34.680	27.777	33.1	3.044
4100	1.476	34.681	27.778	33.0	3.089
4200	1.477	34.681	27.778	33.0	3.135
4300	1.481	34.683	27.779	32.9	3.181
4400	1.487	34.683	27.779	32.9	3.227
4500	1.493	34.683	27.778	33.0	3.273
4600	1.498	34.683	27.778	33.0	3.320
4700	1.508	34.686	27.779	32.9	3.367
4800	1.515	34.685	27.778	33.0	3.414
4900	1.525	34.687	27.779	32.9	3.462
5000	1.531	34.687	27.779	32.9	3.510
5100	1.537	34.688	27.779	32.9	3.558
5200	1.549	34.688	27.778	33.0	3.607
5300	1.561	34.690	27.779	32.9	3.656
5400	1.571	34.689	27.777	33.1	3.705
5500	1.585	34.689	27.776	33.2	3.755
5600	1.595	34.689	27.775	33.2	3.806

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 10.9N	161 01.1W	07/13/77	0149 GMT

Z	T	S	SIGMA T	DT	DD
0	22.52	33.96	23.304	458.4	0.000
10	21.02	33.96	23.719	418.8	0.044
20	18.63	34.03	24.394	354.4	0.083
30	17.29	34.19	24.844	311.6	0.116
40	15.39	34.20	25.290	269.2	0.145
50	14.62	34.22	25.473	251.7	0.171
75	12.78	34.13	25.783	222.3	0.231
100	11.73	34.10	25.962	205.3	0.285
125	11.51	34.12	26.018	199.9	0.336
150	11.16	34.14	26.098	192.4	0.386
175	10.89	34.13	26.139	188.5	0.435
200	10.68	34.15	26.191	183.5	0.482
225	10.42	34.12	26.214	181.3	0.529
250	10.28	34.13	26.246	178.3	0.575
275	10.03	34.13	26.289	174.2	0.621
300	9.72	34.12	26.333	170.0	0.665
350	8.97	34.08	26.424	161.4	0.751
400	8.23	34.04	26.508	153.5	0.833
450	7.32	34.00	26.609	143.8	0.911
500	6.33	33.97	26.720	133.3	0.984
550	5.73	33.96	26.787	126.9	1.052
600	5.19	33.98	26.868	119.3	1.117
650	4.72	34.01	26.945	111.9	1.178
700	4.39	34.05	27.013	105.5	1.236
750	4.14	34.10	27.079	99.3	1.290
800	3.98	34.14	27.127	94.7	1.342
850	3.78	34.18	27.179	89.7	1.392
900	3.64	34.22	27.225	85.4	1.439
950	3.48	34.26	27.272	80.9	1.484
1000	3.36	34.30	27.316	76.8	1.527
1100	3.14	34.36	27.384	70.3	1.608
1200	2.97	34.39	27.424	66.6	1.685

RV THOMAS WASHINGTON INDOPAC LEG XVI 6

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 10.8N	159 59.2W	7/13/77	0955 1440 GMT	5879M	120	16KT	1	120 8 8

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.93	34.337	5.11	0.09		0.00	0.1	442.3	0	22.93	34.337	5.11	23.473	442.3	0.000
16	19.88	34.298	5.68	0.08		0.00	0.0	365.4	10	21.39	34.276	5.39	23.856	405.7	0.042
21	18.32	34.373	5.99	0.08		0.00	0.1	322.1	20	18.63	34.357	5.93	24.643	330.7	0.079
41	15.54	34.399	6.33	0.10		0.00	0.0	257.8	30	16.65	34.421	6.14	25.171	280.5	0.110
71	13.62	34.374	5.63	0.36		0.14	4.6	220.4	50	14.78	34.405	6.15	25.580	241.5	0.162
100	12.51	34.246	5.84	0.41		0.29	4.8	208.7	75	13.42	34.355	5.65	25.828	218.0	0.220
125	12.27	34.278	5.57	0.49		0.04	7.4	201.9	100	12.51	34.246	5.84	25.926	208.7	0.274
150	11.89	34.248	5.67	0.59		0.03	7.8	197.2	125	12.27	34.278	5.57	25.997	201.9	0.326
175	11.80	34.270	5.56	0.65		0.01	8.8	194.0	150	11.89	34.248	5.67	26.046	197.2	0.377
200	11.48	34.257	5.63	0.69		0.01	9.4	189.3	200	11.48	34.257	5.63	26.130	189.3	0.476
250	10.82	34.191	5.83	0.73		0.01	10.2	182.8	250	10.82	34.191	5.83	26.198	182.8	0.571
298	10.28	34.144	5.80	0.82		0.00	11.3	177.3	300	10.26	34.145	5.79	26.260	177.0	0.664
399	8.99	34.122	4.91	1.26		0.00	18.0	158.6	400	8.97	34.122	4.90	26.456	158.4	0.839
497	7.00	34.016	3.90	1.88		0.00	26.6	138.4	500	6.94	34.015	3.86	26.672	137.8	0.994
596	5.38	33.991	2.63	2.45		0.00	33.9	120.6	600	5.34	33.993	2.59	26.860	120.0	1.130
694	4.55	34.047	1.72	2.80		0.00	38.6	107.4	700	4.51	34.053	1.67	27.002	106.6	1.251
793	4.02	34.222 U	0.98	3.05		0.00	42.4		800	3.99	34.144	0.94	27.128	94.6	1.358
891	3.67	34.224	0.57	3.17		0.00	43.6	85.4	1000	3.38	34.297	0.60	27.310	77.3	1.544
992	3.40	34.291	0.61	3.18		0.00	44.5	77.8	1200	2.95	34.398	0.25	27.431	65.9	1.703
1190	2.96	34.392	0.24	3.18		0.00	43.7	66.3	1500	2.57	34.518	0.57	27.561	53.6	1.906
1385A	2.76	34.480	0.37	3.21			42.8	58.0	1750	2.21	34.573	1.07	27.633	46.7	2.053
1632A	2.35	34.550	0.85	3.16			44.1	49.4	2000	1.98	34.604	1.46	27.677	42.5	2.186
1879A	2.09	34.589	1.29	3.07			42.2	44.4	2250	1.80	34.625	1.81	27.708	39.5	2.310
2125A	1.88	34.615	1.63	3.00			41.4	40.9	2500	1.68	34.641	2.23	27.730	37.4	2.429
2372A	1.73	34.634	2.00	2.96			40.8	38.3	2750	1.59	34.654	2.54	27.747	35.9	2.543
2619A	1.64	34.647	2.42	2.85			40.0	36.7	3000	1.53	34.664	2.76	27.760	34.7	2.655
2865A	1.56	34.659	2.63	2.76			39.2	35.3	3250	1.50	34.670	2.96	27.767	34.0	2.766
3111A	1.51	34.667	2.86	2.74			38.9	34.3	3500	1.48	34.676	3.13	27.773	33.4	2.876
3357A	1.49	34.671	3.03	2.69			38.6	33.9	3750	1.47	34.681	3.28	27.778	32.9	2.987
3604A	1.467	34.679	3.20	2.65			37.9	33.1	4000	1.47	34.683	3.38	27.779	32.9	3.098
3851A	1.467	34.682	3.33	2.64			38.2	32.9	4250	1.48	34.685	3.44	27.780	32.8	3.212
4097A	1.47	34.682	3.40	2.61			36.6	32.9	4500	1.49	34.687	3.52	27.781	32.7	3.326
4344A	1.48	34.685	3.46	2.57			37.0	32.7	4750	1.51	34.688	3.59	27.780	32.8	3.443
4591A	1.489	34.687	3.55	2.57			36.8	32.7	5000	1.54	34.689	3.61	27.779	32.9	3.562
4839A	1.521	34.687	3.60	2.55			36.2	32.9	5250	1.57	34.690	3.65	27.778	33.0	3.684
5086A	1.545	34.689	3.61	2.54			37.0	32.9	5500	1.60	34.689	3.64	27.775	33.3	3.809
5334A	1.58	34.690	3.66	2.55			36.8	33.1	5750	1.62	34.691	3.69	27.775	33.3	3.936
5533A	1.599	34.688	3.64	2.55			37.0	33.3							
5682A	1.612		3.69	2.51			36.8								
5782A	1.626	34.691	3.69	2.54			36.7	33.3							
5832A	1.64	34.692	3.70	2.53			36.4	33.3							

RV THOMAS WASHINGTON INDOPAC LEG XVI 7

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 10.4N	158 59.6W	7/13/77	2110 GMT	5928M	120	15KT	1	120 7 7

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	23.23	34.569	5.08					433.8	0	23.23	34.569	5.08	23.562	433.8	0.000
11	23.13	34.572	5.10					430.8	10	23.14	34.573	5.10	23.590	431.1	0.043
21	21.18	34.583	5.39					377.8	20	21.41	34.583	5.36	24.083	384.0	0.084
41	17.80	34.448	5.89					304.5	30	19.54	34.529	5.64	24.542	340.3	0.120
71	15.06	34.356	5.99					250.9	50	16.77	34.419	5.92	25.141	283.3	0.183
100	13.46	34.243	5.80					226.9	75	14.77	34.337	5.97	25.530	246.3	0.250
125	13.05	34.261	5.57					217.7	100	13.46	34.243	5.80	25.734	226.9	0.309
150	12.67	34.224	5.61					213.3	125	13.05	34.261	5.57	25.831	217.7	0.366
175	12.26	34.212	5.64					206.6	150	12.67	34.224	5.61	25.877	213.3	0.421
200	12.04	34.217	5.65					202.2	200	12.04	34.217	5.65	25.994	202.2	0.527
250	11.57	34.239	5.46					192.2	250	11.57	34.239	5.46	26.099	192.2	0.628
299	10.71	34.163	5.90					183.0	300	10.70	34.164	5.90	26.198	182.8	0.725
399	9.81	34.174	5.03					167.4	400	9.79	34.174	5.02	26.362	167.2	0.907
497	7.98	34.070	4.36					147.7	500	7.92	34.067	4.33	26.574	147.1	1.073
597	6.10	33.986	3.33					129.3	600	6.06	33.987	3.29	26.767	128.8	1.219
695	4.91	34.024	2.08					112.9	700	4.86	34.029	2.03	26.943	112.1	1.347
795	4.18	34.108	1.17					99.0	800	4.16	34.113	1.13	27.087	98.5	1.459
894	3.81	34.199	0.62					88.6	1000	3.48	34.288	0.34	27.294	78.6	1.651
991	3.50	34.285	0.34					79.2	1200	3.08	34.405	0.23	27.426	66.4	1.812
1191	3.10	34.400	0.23					66.9							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 10.4N	159 58.7W	07/13/77	0808 GMT

Z	T	S	SIGMA T	DT	DD
0	22.88	34.32	23.474	442.2	0.000
10	22.92	34.30	23.448	444.7	0.044
20	20.38	34.20	24.073	385.1	0.086
30	17.54	34.37	24.922	304.2	0.120
40	16.22	34.42	25.271	270.9	0.149
50	15.02	34.43	25.548	244.6	0.175
75	13.58	34.34	25.784	222.2	0.234
100	12.79	34.31	25.920	209.2	0.289
125	12.36	34.28	25.981	203.4	0.341
150	12.06	34.30	26.054	196.5	0.392
175	11.77	34.27	26.086	193.5	0.441
200	11.43	34.23	26.118	190.4	0.490
225	11.07	34.21	26.168	185.6	0.539
250	10.85	34.21	26.208	181.9	0.586
275	10.80	34.22	26.225	180.3	0.633
300	10.49	34.21	26.272	175.8	0.679
350	9.92	34.17	26.338	169.5	0.769
400	9.10	34.12	26.435	160.4	0.855
450	8.49	34.10	26.515	152.8	0.937
500	7.62	34.05	26.605	144.2	1.015
550	6.64	33.99	26.694	135.7	1.089
600	5.91	33.98	26.781	127.5	1.159
650	5.25	34.00	26.877	118.4	1.224
700	4.76	34.03	26.957	110.9	1.285
750	4.36	34.08	27.040	103.0	1.342
800	4.08	34.13	27.109	96.4	1.396
850	3.88	34.18	27.169	90.7	1.446
900	3.74	34.22	27.215	86.3	1.494
950	3.58	34.26	27.263	81.8	1.539
1000	3.40	34.30	27.312	77.2	1.583
1100	3.17	34.36	27.381	70.6	1.664
1200	2.98	34.41	27.439	65.1	1.740
1300	2.85	34.46	27.490	60.3	1.811
1400	2.72	34.49	27.526	56.9	1.878
1500	2.57	34.52	27.563	53.4	1.941
1600	2.405	34.543	27.595	50.3	2.002
1700	2.268	34.565	27.624	47.6	2.059
1800	2.157	34.580	27.645	45.6	2.114
1900	2.049	34.595	27.666	43.7	2.168
2000	1.956	34.604	27.680	42.3	2.219
2100	1.895	34.614	27.693	41.1	2.269
2200	1.832	34.622	27.704	40.0	2.319
2300	1.767	34.630	27.715	38.9	2.367
2400	1.720	34.638	27.725	38.0	2.414
2500	1.678	34.642	27.732	37.4	2.461
2600	1.636	34.648	27.740	36.6	2.507
2700	1.602	34.652	27.745	36.1	2.552
2800	1.579	34.657	27.751	35.5	2.598
2900	1.559	34.660	27.755	35.2	2.642
3000	1.539	34.663	27.759	34.8	2.687
3100	1.517	34.666	27.763	34.4	2.732
3200	1.504	34.669	27.766	34.1	2.776
3300	1.495	34.672	27.769	33.8	2.820
3400	1.486	34.674	27.771	33.6	2.864
3500	1.477	34.674	27.772	33.6	2.908
3600	1.471	34.678	27.776	33.2	2.953
3700	1.471	34.679	27.777	33.1	2.997
3800	1.470	34.679	27.777	33.1	3.041
3900	1.471	34.682	27.779	32.9	3.086
4000	1.476	34.681	27.778	33.0	3.131
4100	1.477	34.682	27.779	32.9	3.176
4200	1.481	34.683	27.779	32.9	3.222
4300	1.486	34.684	27.779	32.9	3.267
4400	1.490	34.684	27.779	32.9	3.313
4500	1.496	34.685	27.780	32.9	3.360
4600	1.502	34.686	27.780	32.8	3.406
4700	1.508	34.686	27.779	32.9	3.453
4800	1.517	34.687	27.780	32.8	3.500
4900	1.528	34.687	27.779	32.9	3.548
5000	1.535	34.688	27.779	32.9	3.596
5100	1.544	34.688	27.778	32.9	3.644
5200	1.553	34.688	27.778	33.0	3.693
5300	1.564	34.689	27.778	33.0	3.742
5400	1.574	34.689	27.777	33.1	3.792
5500	1.587	34.690	27.777	33.1	3.842
5600	1.599	34.690	27.776	33.2	3.893
5700	1.611	34.690	27.775	33.3	3.944
5800	1.624	34.690	27.774	33.4	3.995

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 10.4N	158 59.7W	07/13/77	2032 GMT

Z	T	S	SIGMA T	DT	DD
0	23.19	34.56	23.567	433.3	0.000
10	23.17	34.56	23.572	432.8	0.043
20	22.69	34.45	23.627	427.6	0.086
30	20.00	34.35	24.287	364.6	0.126
40	18.24	34.39	24.766	319.0	0.160
50	17.25	34.43	25.037	293.2	0.191
75	15.01	34.31	25.458	253.2	0.260
100	13.46	34.23	25.724	227.9	0.321
125	13.01	34.26	25.838	217.1	0.377
150	12.61	34.21	25.878	213.2	0.432
175	12.16	34.20	25.958	205.7	0.485
200	11.98	34.21	26.000	201.7	0.537
225	11.79	34.23	26.051	196.8	0.588
250	11.55	34.25	26.111	191.0	0.638
275	10.96	34.18	26.165	186.0	0.687
300	10.64	34.17	26.214	181.3	0.734
350	10.42	34.19	26.268	176.2	0.827
400	9.63	34.16	26.379	165.6	0.917
450	8.83	34.11	26.470	157.0	1.001
500	7.77	34.05	26.584	146.2	1.081
550	6.79	34.00	26.682	136.9	1.156
600	5.85	33.99	26.796	126.1	1.226
650	5.24	34.00	26.878	118.3	1.291
700	4.75	34.04	26.966	110.0	1.351
750	4.37	34.08	27.039	103.1	1.408
800	4.10	34.13	27.107	96.6	1.462
850	3.92	34.16	27.159	92.6	1.512
900	3.76	34.21	27.205	87.3	1.561
950	3.61	34.25	27.252	82.9	1.607
1000	3.46	34.29	27.298	78.5	1.651
1100	3.25	34.35	27.366	72.0	1.734
1186	3.11	34.40	27.419	67.0	1.801

RV THOMAS WASHINGTON — INDOPAC LEG XVI

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 09.2N	158 00.0W	7/14/77	0440 1010 GMT	6000M	090	16KT	1	100 8 8

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	23.18	34.534	5.05	0.06	6.1	0.01	0.0	434.9	0	23.18	34.534	5.05	23.550	434.9	0.000
16	23.18	34.529	5.13	0.06	6.1	0.05	0.0	435.3	10	23.18	34.532	5.10	23.548	435.1	0.044
21	23.17	34.528	5.11	0.06	5.9	0.04	0.1	435.1	20	23.17	34.529	5.11	23.548	435.1	0.087
41	17.18	34.453	6.16	0.07	6.8	0.03	0.0	289.9	30	20.80	34.467	5.52	24.163	376.5	0.128
70	14.49	34.354	6.38	0.13	7.3	0.04	2.4	239.3	50	15.89	34.410	6.23	25.338	264.5	0.192
99	13.28	34.318	5.83	0.38	8.9	0.43	5.0	218.0	75	14.22	34.346	6.30	25.654	234.5	0.255
123	12.78	34.310	5.69	0.49	9.9	0.08	7.4	209.0	100	13.25	34.319	5.82	25.833	217.5	0.312
148	12.28	34.275	5.24U	0.65	11.2	0.02	8.6	202.3	125	12.74	34.308	5.69	25.928	208.4	0.366
173	11.81	34.241	5.60	0.63	11.	0.01	9.2	196.3	150	12.24	34.272	5.65	25.998	201.8	0.418
198	11.56	34.247	5.39	0.73	12.	0.02	10.9	191.5	200	11.54	34.249	5.39	26.111	191.1	0.519
247	11.11	34.253	5.28	0.85	15.	0.01	13.0	183.2	250	11.06	34.252	5.28	26.201	182.5	0.615
296	10.29	34.204	5.26	1.01	19.	0.00	17.0	173.0	300	10.23	34.202	5.24	26.309	172.3	0.706
396	8.90	34.122	4.68	1.34	28.	0.00	22.4	157.2	400	8.84	34.119	4.66	26.475	156.6	0.878
495	7.31	34.032	4.09	1.75	42.	0.00	29.3	141.3	500	7.22	34.029	4.04	26.645	140.5	1.034
596	5.67	33.987	2.99	2.31	63.	0.00	35.5	124.2	600	5.62	33.989	2.94	26.823	123.5	1.173
695	4.69	34.041	1.88	2.65	83.	0.00	40.3	109.3	700	4.65	34.046	1.83	26.980	108.6	1.296
794	4.05	34.121	1.07	3.04	106.	0.00	44.4	96.8	800	4.03	34.128	1.03	27.112	96.1	1.406
893	3.76	34.214	0.58	3.16	119.	0.01	45.2	87.0	1000	3.45	34.299	0.31	27.306	77.7	1.594
991	3.47	34.292	0.31	3.23	132.	0.00	46.4	78.4	1200	3.04	34.412	0.25	27.434	65.6	1.753
1190	3.06	34.407	0.25	3.27	147.	0.02	46.2	66.1	1500	2.59	34.520	0.61	27.560	53.6	1.957
1261A	2.95	34.439	0.28	3.08	152.		44.8	62.7	1750	2.22	34.576	1.12	27.636	46.5	2.103
1508A	2.58	34.522	0.63	3.19	159.		45.3	53.3	2000	1.95	34.605	1.45	27.680	42.3	2.236
1757A	2.21	34.576	1.13	3.06	172.		43.2	46.3	2250	1.77	34.628	1.82	27.712	39.2	2.359
2005A	1.95	34.604	1.46	3.01	176.		41.7	42.2	2500	1.67	34.642	2.15	27.732	37.3	2.477
2253A	1.77	34.627	1.82	2.92	180.		40.7	39.2	2750	1.60	34.656	2.47	27.748	35.8	2.591
2500A	1.67	34.642	2.15	2.85	176.		40.5	37.3	3000	1.53	34.666	2.77	27.761	34.6	2.703
2748A	1.60	34.655	2.47	2.75	177.		40.4	35.8	3250	1.50	34.671	2.96	27.767	34.0	2.814
2996A	1.53	34.665	2.77	2.75	172.		38.7	34.6	3500	1.47	34.678	3.16	27.775	33.3	2.924
3244A	1.50	34.670	2.95	2.68	170.		37.8	34.0	3750	1.46	34.682	3.26	27.779	32.9	3.034
3492A	1.472	34.677	3.16	2.65	164.		37.6	33.3	4000	1.47	34.686	3.39	27.781	32.7	3.145
3740A	1.462	34.681	3.25	2.61	167.		37.3	32.9	4250	1.48	34.689	3.46	27.783	32.5	3.258
3988A	1.47	34.685	3.38	2.60	162.		37.3	32.7	4500	1.48	34.688	3.47	27.782	32.6	3.372
4236A	1.48	34.688	3.46	2.56	166.		37.2	32.5	4750	1.52	34.691	3.55	27.782	32.7	3.489
4483A	1.48	34.687	3.47	2.56	159.		36.3	32.6	5000	1.53	34.690	3.60	27.780	32.8	3.608
4731A	1.52	34.690	3.54	2.55	159.		37.2	32.6	5250	1.56	34.694	3.64	27.781	32.7	3.729
4979A	1.532	34.689	3.60	2.54	155.		37.6	32.8	5500	1.58	34.694	3.68	27.780	32.8	3.853
5227A	1.56	34.693	3.64	2.54	156.		37.0	32.7	5750	1.62	34.694	3.72	27.777	33.1	3.979
5474A	1.58	34.702 U	3.68	2.54	158.		37.4		6000	1.65	34.695	3.72	27.776	33.2	4.109
5672A	1.610	34.695	3.71	2.51	154.		36.0	32.9							
5822A	1.631	34.691	3.74	2.54	152.		36.5	33.3							
5921A	1.645	34.693	3.77	2.45	153.		37.0	33.3							
5970A	1.65	34.695	3.72	2.54	151.		37.4	33.2							

RV THOMAS WASHINGTON — INDOPAC LEG XVI

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 10.4N	157 02.3W	7/14/77	1642 GMT	5998M			1	100 6 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.66	34.353	5.17					433.8	0	22.66	34.353	5.17	23.562	433.8	0.000
11	21.65	34.292	5.30					411.2	10	21.77	34.300	5.28	23.772	413.8	0.042
21	20.24	34.204	5.51					381.3	20	20.40	34.212	5.49	24.077	384.6	0.082
41	16.63	34.267	6.21					291.1	30	18.59	34.209	5.83	24.540	340.5	0.119
71	14.03	34.250	6.39					237.6	50	15.61	34.277	6.26	25.300	268.2	0.180
100	12.70	34.174	5.96					217.5	75	13.79	34.241	6.34	25.663	233.7	0.243
125	12.03	34.147	5.72					207.2	100	12.70	34.174	5.96	25.833	217.5	0.300
150	11.81	34.178	5.75					201.0	125	12.03	34.147	5.72	25.941	207.2	0.354
175	11.36	34.135	5.74					196.2	150	11.81	34.178	5.75	26.007	201.0	0.406
200	11.16	34.161	5.67					190.8	200	11.16	34.161	5.67	26.114	190.8	0.506
250	10.68	34.180	5.52					181.2	250	10.68	34.180	5.52	26.215	181.2	0.601
299	10.01	34.121	5.65					174.6	300	10.00	34.122	5.64	26.287	174.4	0.693
398	8.74	34.106	4.70					156.0	400	8.71	34.105	4.69	26.484	155.7	0.865
497	7.22	34.020	4.02					141.0	500	7.17	34.019	3.99	26.644	140.5	1.021
597	5.66	33.975	2.91					125.0	600	5.62	33.977	2.87	26.813	124.4	1.160
695	4.58	34.032	1.74					108.8	700	4.54	34.037	1.69	26.985	108.1	1.284
795	4.05	34.125	0.99					96.5	800	4.03	34.131	0.96	27.114	95.9	1.393
892	3.74	34.224	0.50					86.0							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 09.0N	157 59.8W	07/14/77	0310 GMT

Z	T	S	SIGMA T	DT	DD
0	23.35	34.56	23.520	437.7	0.000
10	23.31	34.55	23.524	437.4	0.044
20	23.16	34.53	23.553	434.7	0.087
30	20.88	34.40	24.091	383.3	0.128
40	18.29	34.43	24.784	317.3	0.164
50	16.10	34.31	25.214	276.4	0.193
75	14.17	34.33	25.653	234.6	0.258
100	13.19	34.31	25.840	216.8	0.315
125	12.71	34.31	25.936	207.7	0.369
150	12.26	34.27	25.993	202.3	0.421
175	11.73	34.23	26.062	195.7	0.471
200	11.53	34.25	26.115	190.7	0.521
225	11.20	34.25	26.176	184.9	0.569
250	10.97	34.25	26.217	181.0	0.616
275	10.66	34.23	26.257	177.2	0.662
300	10.35	34.22	26.304	172.8	0.708
350	9.65	34.17	26.384	165.2	0.796
400	8.84	34.12	26.476	156.5	0.880
450	8.01	34.07	26.564	148.1	0.960
500	7.19	34.04	26.659	139.1	1.035
550	6.34	34.00	26.742	131.2	1.107
600	5.62	33.99	26.825	123.4	1.174
650	5.00	34.02	26.922	114.2	1.237
700	4.60	34.05	26.990	107.7	1.296
750	4.32	34.09	27.052	101.8	1.352
800	4.08	34.13	27.109	96.4	1.405
850	3.88	34.19	27.177	89.9	1.455
900	3.72	34.23	27.225	85.4	1.502
950	3.58	34.27	27.271	81.1	1.548
1000	3.43	34.31	27.317	76.7	1.591
1100	3.20	34.38	27.394	69.3	1.671
1200	3.03	34.42	27.442	64.8	1.746
1300	2.90	34.46	27.486	60.7	1.817
1400	2.76	34.50	27.530	56.5	1.885
1500	2.62	34.52	27.558	53.8	1.948
1600	2.464	34.544	27.591	50.7	2.009
1700	2.310	34.567	27.622	47.8	2.067
1800	2.193	34.581	27.643	45.8	2.123
1900	2.087	34.596	27.663	43.9	2.176
2000	1.996	34.606	27.679	42.4	2.228
2100	1.913	34.616	27.693	41.0	2.279
2200	1.849	34.627	27.707	39.7	2.328
2300	1.791	34.631	27.714	39.0	2.376
2400	1.731	34.639	27.725	38.0	2.424
2500	1.693	34.644	27.732	37.3	2.470
2600	1.648	34.649	27.739	36.6	2.517
2700	1.618	34.655	27.747	36.0	2.562
2800	1.594	34.659	27.752	35.5	2.607
2900	1.570	34.662	27.756	35.1	2.652
3000	1.543	34.665	27.760	34.7	2.697
3100	1.526	34.668	27.764	34.3	2.741
3200	1.511	34.672	27.768	33.9	2.785
3300	1.500	34.673	27.770	33.8	2.829
3400	1.493	34.676	27.772	33.5	2.874
3500	1.483	34.677	27.774	33.4	2.918
3600	1.480	34.679	27.776	33.2	2.962
3700	1.477	34.681	27.778	33.0	3.006
3800	1.475	34.681	27.778	33.0	3.051
3900	1.476	34.683	27.779	32.9	3.095
4000	1.476	34.683	27.779	32.9	3.140
4100	1.480	34.684	27.780	32.8	3.185
4200	1.483	34.684	27.780	32.8	3.231
4300	1.489	34.685	27.780	32.8	3.276
4400	1.494	34.686	27.780	32.8	3.322
4500	1.502	34.687	27.781	32.7	3.368
4600	1.506	34.688	27.781	32.7	3.415
4700	1.514	34.688	27.781	32.7	3.462
4800	1.519	34.689	27.781	32.7	3.509
4900	1.527	34.690	27.781	32.7	3.557
5000	1.537	34.690	27.781	32.8	3.604
5100	1.549	34.691	27.780	32.8	3.653
5200	1.558	34.691	27.780	32.8	3.701
5300	1.570	34.692	27.780	32.8	3.751
5400	1.579	34.690	27.777	33.0	3.800
5500	1.590	34.692	27.778	33.0	3.850
5600	1.601	34.693	27.778	33.0	3.901
5700	1.610	34.693	27.778	33.0	3.951
5800	1.624	34.693	27.777	33.1	4.003
5900	1.637	34.693	27.776	33.2	4.054

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 10.2N	157 02.1W	07/14/77	1608 GMT

Z	T	S	SIGMA T	DT	DD
0	22.67	34.32	23.534	436.4	0.000
10	22.65	34.34	23.555	434.4	0.044
20	21.15	34.13	23.813	409.9	0.086
30	19.10	34.19	24.398	354.1	0.124
40	17.63	34.20	24.770	318.6	0.158
50	15.78	34.17	25.179	279.7	0.188
75	13.84	34.22	25.638	236.1	0.253
100	12.71	34.15	25.812	219.5	0.310
125	12.06	34.14	25.930	208.3	0.365
150	11.83	34.17	25.997	201.9	0.417
175	11.39	34.13	26.048	197.1	0.467
200	11.14	34.15	26.109	191.3	0.517
225	10.76	34.13	26.162	186.3	0.565
250	10.47	34.12	26.205	182.2	0.613
275	10.08	34.08	26.241	178.7	0.659
300	9.97	34.12	26.291	174.0	0.705
350	9.42	34.13	26.390	164.6	0.793
400	8.73	34.10	26.478	156.3	0.877
450	8.00	34.05	26.550	149.4	0.957
500	7.06	34.01	26.653	139.6	1.033
550	6.12	33.98	26.754	130.0	1.104
600	5.40	33.98	26.843	121.6	1.171
650	4.81	34.01	26.935	112.9	1.233
700	4.45	34.05	27.006	106.1	1.291
750	4.18	34.10	27.075	99.6	1.345
800	4.01	34.13	27.116	95.7	1.398
850	3.84	34.19	27.181	89.6	1.448
900	3.70	34.23	27.227	85.2	1.495
950	3.54	34.27	27.275	80.7	1.540
1000	3.38	34.30	27.314	77.0	1.583
1100	3.13	34.36	27.385	70.2	1.664
1200	2.94	34.40	27.434	65.6	1.740

RV THOMAS WASHINGTON INDOPAC LEG XVI

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 09.9N	156 02.4W	7/15/77	0051 0638 GMT	5801M	100	12KT	1	100 6 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.92	34.307	5.12	0.09	6.0	0.01	0.0	444.2	0	22.92	34.307	5.12	23.453	444.2	0.000
16	22.59	34.286	5.21	0.09	6.1	0.00	0.0	436.7	10	22.72	34.295	5.17	23.500	439.7	0.044
21	20.14	34.229	5.59	0.09	6.1	0.00	0.0	376.9	20	20.65	34.236	5.51	24.027	389.4	0.086
41	16.78	34.302	6.04	0.10	6.7	0.00	0.0	291.9	30	17.92	34.261	5.79	24.744	321.0	0.121
71	13.74	34.191	6.18	0.20	7.2	0.04	0.1	236.2	50	15.65	34.283	6.08	25.296	268.6	0.181
100	12.54	34.094	5.76	0.40	8.6	0.10	3.8	220.4	75	13.50	34.174	6.13	25.673	232.7	0.244
124	12.27	34.136	5.69	0.49	9.	0.04	5.1	212.4	100	12.54	34.094	5.76	25.802	220.4	0.301
149	12.08	34.186	5.57	0.57	10.	0.02	6.8	205.2	125	12.26	34.140	5.68	25.890	212.1	0.356
174	11.75	34.183	5.64	0.62	11.	0.02	7.7	199.5	150	12.07	34.187	5.57	25.965	205.0	0.409
199	11.52	34.222	5.49	0.72	12.	0.02	8.8	192.6	200	11.50	34.222	5.50	26.097	192.4	0.510
248	10.73	34.144	5.75	0.77	14.	0.01	10.0	184.7	250	10.72	34.147	5.73	26.182	184.4	0.607
297	10.46	34.206	5.24	0.97	17.	0.01	12.6	175.6	300	10.43	34.207	5.23	26.279	175.1	0.700
396	9.04	34.121	4.89	1.29	26.	0.01	18.2	159.4	400	8.97	34.118	4.86	26.452	158.7	0.874
494	7.31	34.027	4.06	1.79	42.	0.00	25.2	141.7	500	7.20	34.023	3.99	26.643	140.6	1.031
593	5.63	33.984	2.85	2.38	66.	0.00	33.4	123.9	600	5.54	33.987	2.77	26.831	122.8	1.170
692	4.62	34.036	1.82	2.79	88.	0.00	39.2	108.9	700	4.56	34.043	1.75	26.988	107.9	1.292
791	4.08	34.116	1.07	3.04	105.	0.00	43.4	97.5	800	4.05	34.126	1.02	27.108	96.5	1.401
890	3.76	34.207	0.60	3.17	119.	0.03	44.5	87.5	1000	3.45	34.289	0.33	27.297	78.5	1.591
990	3.48	34.282	0.33	3.24	131.	0.00	46.2	79.3	1200	3.00	34.397	0.24	27.426	66.3	1.751
1192	3.01	34.392	0.24	3.31	150.	0.02	46.5	66.8	1500	2.52	34.518	0.58	27.565	53.2	1.955
1303A	2.83	34.449	0.26		156.			60.9	1750	2.19	34.576	1.12	27.638	46.3	2.100
1551A	2.44	34.530	0.69	3.19	164.		44.6	51.6	2000	1.94	34.609	1.50	27.684	41.9	2.232
1799A	2.14	34.583	1.22	3.01	169.		41.4	45.3	2250	1.76	34.629	1.83	27.715	38.9	2.354
2047A	1.90	34.612	1.56	2.95	177.		41.0	41.3	2500	1.63	34.645	2.23	27.737	36.8	2.470
2293A	1.73	34.632	1.89	2.90	181.		39.8	38.5	2750	1.57	34.663	2.56	27.755	35.1	2.583
2541A	1.61	34.647	2.30	2.85	175.		38.4	36.5	3000	1.52	34.668	2.84	27.764	34.3	2.693
2788A	1.57	34.665	2.60	2.74	176.		38.0	34.9	3250	1.49	34.670	3.01	27.768	34.0	2.803
3035A	1.51	34.668	2.88	2.75	171.		37.4	34.2	3500	1.47	34.681	3.17	27.777	33.0	2.913
3282A	1.49	34.670	3.03	2.65	171.		37.0	34.0	3750	1.47	34.683	3.30	27.779	32.9	3.023
3529A	1.473	34.682	3.19	2.62	166.		37.7	32.9	4000	1.46	34.687	3.40	27.783	32.5	3.134
3776A	1.465	34.682	3.31	2.61	168.		38.3	32.9	4250	1.48	34.686	3.46	27.781	32.7	3.246
4023A	1.46	34.687	3.41	2.60	164.		37.3	32.4	4500	1.48	34.685	3.49	27.780	32.8	3.361
4270A	1.48	34.685	3.46	2.56	167.		36.6	32.7	4750	1.51	34.690	3.57	27.782	32.6	3.477
4517A	1.481	34.684	3.49	2.59	162.		37.1	32.8	5000	1.54	34.692	3.59	27.781	32.7	3.596
4764A	1.514	34.690	3.58	2.55	160.		37.5	32.6	5250	1.57	34.692	3.67	27.779	32.9	3.718
5011A	1.546	34.691	3.59	2.55	155.		36.5	32.7	5500	1.59	34.692	3.68	27.778	33.0	3.843
5256A	1.57	34.691	3.67	2.53	157.		35.7	32.9	5750	1.62	34.692	3.73	27.776	33.2	3.970
5454A	1.586	34.691	3.68	2.52	152.		36.4	33.0							
5602A	1.607	34.692	3.68	2.48	154.		35.4	33.1							
5606A		34.701 U	3.70	2.54	152.		36.5								
5700A	1.617	34.690	3.77	2.47	153.		36.2	33.3							
5750A	1.618	34.692	3.73	2.52	151.		37.0	33.2							

RV THOMAS WASHINGTON INDOPAC LEG XVI

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 10.8N	154 59.7W	7/15/77	1353 GMT	5713M	100	14KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.73	34.313	5.16					438.6	0	22.73	34.313	5.16	23.512	438.6	0.000
11	22.72	34.312	5.17					438.4	10	22.72	34.313	5.17	23.514	438.4	0.044
22	19.33	34.158	5.77					362.0	20	20.02	34.181	5.65	24.151	377.6	0.085
42	16.91	34.088	6.07					310.4	30	18.05	34.122	5.95	24.608	334.0	0.120
73	14.04	34.077	6.67					250.5	50	16.06	34.079	6.27	25.046	292.4	0.183
102	12.52	34.075	6.25					221.5	75	13.90	34.078	6.66	25.514	247.8	0.251
128	11.97	34.094	5.85					210.0	100	12.59	34.076	6.29	25.778	222.8	0.311
153	11.39	34.158	5.61					195.0	125	12.02	34.092	5.89	25.900	211.1	0.366
179	11.01	34.150	5.62					189.0	150	11.46	34.152	5.63	26.052	196.7	0.417
204	10.69	34.129	5.68					185.2	200	10.73	34.133	5.67	26.168	185.7	0.515
255	10.51	34.193	5.28					177.4	250	10.52	34.186	5.33	26.247	178.2	0.608
305	9.98	34.183	5.02					169.5	300	10.04	34.187	5.04	26.330	170.3	0.698
407	8.35	34.084	4.54					151.9	400	8.48	34.093	4.58	26.510	153.2	0.867
506	6.46	33.988	3.59					133.6	500	6.57	33.993	3.66	26.705	134.7	1.018
607	5.10	33.991	2.33					117.5	600	5.18	33.989	2.42	26.876	118.5	1.151
706	4.35	34.059	1.44					104.4	700	4.38	34.055	1.48	27.017	105.2	1.270
806	3.90	34.159	0.84					92.5	800	3.92	34.154	0.87	27.144	93.1	1.376
905	3.60	34.243	0.47					83.3	1000	3.34	34.307	0.31	27.323	76.1	1.559
1004	3.33	34.309	0.31					75.9	1200	3.00	34.416	0.26	27.442	64.9	1.715
1199	3.00	34.415	0.26					64.9							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 10.2N	156 01.7W	07/14/77	2255 GMT

Z	T	S	SIGMA T	DT	DD
0	22.87	34.32	23.477	441.9	0.000
10	22.82	34.30	23.476	442.0	0.044
20	20.34	34.16	24.053	387.0	0.086
30	18.60	34.25	24.570	337.7	0.122
40	17.59	34.27	24.833	312.6	0.155
50	15.90	34.21	25.183	279.3	0.184
75	13.09	34.08	25.683	231.8	0.249
100	12.39	34.08	25.820	218.7	0.306
125	12.36	34.18	25.904	210.6	0.360
150	11.85	34.18	26.001	201.5	0.412
175	11.62	34.21	26.067	195.2	0.463
200	11.31	34.22	26.132	189.1	0.512
225	10.72	34.14	26.177	184.9	0.560
250	10.44	34.14	26.226	180.2	0.607
275	10.54	34.22	26.271	175.9	0.653
300	10.24	34.21	26.315	171.7	0.698
350	9.38	34.14	26.405	163.2	0.785
400	8.68	34.10	26.485	155.6	0.868
450	7.88	34.06	26.575	147.0	0.948
500	6.96	34.03	26.683	136.6	1.022
550	6.22	34.00	26.757	129.6	1.093
600	5.62	34.00	26.832	122.6	1.159
650	5.00	34.02	26.922	114.2	1.222
700	4.64	34.04	26.978	108.9	1.281
750	4.28	34.10	27.064	100.6	1.337
800	4.05	34.14	27.120	95.4	1.390
850	3.88	34.18	27.169	90.7	1.440
900	3.71	34.23	27.226	85.3	1.487
950	3.59	34.26	27.262	81.9	1.533
1000	3.44	34.30	27.308	77.5	1.577
1100	3.17	34.36	27.381	70.6	1.658
1200	2.98	34.41	27.439	65.1	1.734
1300	2.84	34.45	27.483	60.9	1.805
1400	2.65	34.48	27.524	57.1	1.872
1500	2.55	34.52	27.564	53.2	1.936
1600	2.393	34.543	27.596	50.2	1.996
1700	2.257	34.562	27.622	47.7	2.053
1800	2.155	34.582	27.647	45.4	2.108
1900	2.057	34.596	27.666	43.6	2.161
2000	1.971	34.604	27.679	42.4	2.213
2100	1.889	34.615	27.694	40.9	2.263
2200	1.814	34.624	27.707	39.7	2.312
2300	1.757	34.633	27.719	38.6	2.360
2400	1.701	34.640	27.728	37.7	2.407
2500	1.657	34.644	27.735	37.1	2.453
2600	1.630	34.651	27.743	36.4	2.499
2700	1.602	34.656	27.749	35.8	2.544
2800	1.577	34.659	27.753	35.4	2.589
2900	1.553	34.665	27.759	34.8	2.634
3000	1.535	34.666	27.762	34.6	2.678
3100	1.517	34.669	27.765	34.2	2.722
3200	1.503	34.672	27.769	33.9	2.766
3300	1.487	34.673	27.771	33.7	2.810
3400	1.481	34.676	27.773	33.4	2.854
3500	1.476	34.677	27.774	33.3	2.898
3600	1.469	34.679	27.777	33.1	2.942
3700	1.464	34.683	27.780	32.8	2.986
3800	1.464	34.682	27.779	32.9	3.031
3900	1.466	34.683	27.780	32.8	3.075
4000	1.466	34.685	27.782	32.6	3.120
4100	1.474	34.686	27.782	32.6	3.164
4200	1.476	34.686	27.782	32.6	3.210
4300	1.484	34.686	27.781	32.7	3.255
4400	1.489	34.688	27.782	32.6	3.301
4500	1.493	34.687	27.781	32.7	3.347
4600	1.502	34.687	27.781	32.7	3.393
4700	1.510	34.689	27.782	32.6	3.440
4800	1.517	34.690	27.782	32.6	3.487
4900	1.528	34.690	27.781	32.7	3.535
5000	1.537	34.690	27.781	32.8	3.582
5100	1.547	34.690	27.780	32.8	3.631
5200	1.555	34.691	27.780	32.8	3.679
5300	1.567	34.690	27.778	33.0	3.729
5400	1.581	34.691	27.778	33.0	3.778
5500	1.591	34.692	27.778	33.0	3.828
5600	1.603	34.693	27.778	33.0	3.879
5700	1.615	34.692	27.776	33.1	3.930

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 10.8N	154 59.5W	07/15/77	1401 GMT

Z	T	S	SIGMA T	DT	DD
0	22.65	34.29	23.517	438.1	0.000
10	20.42	34.24	24.092	383.2	0.041
20	17.34	34.11	24.771	318.5	0.076
30	15.72	34.09	25.131	284.2	0.106
40	14.11	34.06	25.458	253.1	0.133
50	13.39	34.06	25.607	239.0	0.158
75	12.37	34.05	25.801	220.5	0.216
100	11.97	34.08	25.901	211.0	0.270
125	11.59	34.09	25.980	203.5	0.323
150	11.36	34.14	26.061	195.8	0.374
175	11.09	34.14	26.110	191.2	0.423
200	10.68	34.11	26.160	186.4	0.471
225	10.41	34.09	26.192	183.4	0.519
250	10.34	34.15	26.251	177.8	0.565
275	10.27	34.17	26.279	175.2	0.611
300	9.98	34.16	26.321	171.2	0.655
350	9.10	34.11	26.427	161.1	0.742
400	8.39	34.07	26.507	153.5	0.824
450	7.51	34.02	26.598	144.9	0.902
500	6.51	33.98	26.704	134.8	0.976
550	5.71	33.97	26.798	125.9	1.044
600	5.17	33.98	26.870	119.0	1.109
650	4.70	34.01	26.947	111.7	1.170
700	4.34	34.06	27.026	104.3	1.227
750	4.06	34.11	27.095	97.7	1.281
800	3.87	34.16	27.154	92.1	1.332
850	3.70	34.20	27.203	87.5	1.380
900	3.58	34.24	27.247	83.3	1.426
950	3.45	34.28	27.291	79.1	1.470
1000	3.32	34.31	27.328	75.7	1.512
1100	3.14	34.37	27.392	69.6	1.593
1200	2.98	34.42	27.447	64.4	1.667

RV THOMAS WASHINGTON INDOPAC LEG XVI

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 09,9N	153 58,0W	7/17/77	0304 0651 GMT	5646M	100	17KT	1	090 7 7

Z	T	S	O2	PO4	SiO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	23,00	34,470	5,10	0,09	5,8	0,02	0,0	434,6	0	23,00	34,470	5,10	23,553	434,6	0,000
16	22,98	34,465	5,17	0,09	5,8	0,01	0,0	434,4	10	22,99	34,468	5,14	23,554	434,5	0,043
21	22,91	34,454	5,13	0,09	5,8	0,01	0,0	433,3	20	22,92	34,457	5,13	23,565	433,5	0,087
41	16,84	34,194	6,09	0,11	6,4	0,00	0,0	301,1	30	20,54	34,304	5,50	24,109	381,7	0,128
70	14,15	34,150	6,22	0,16	6,8	0,01	0,0	247,3	50	15,57	34,192	6,13	25,241	273,7	0,194
99	12,28	33,898	5,83	0,42	8,0	0,12	3,8	230,1	75	13,72	34,094	6,16	25,564	243,1	0,259
124	12,34	34,117	5,75	0,49	9,2	0,04	5,4	215,1	100	12,28	33,909	5,83	25,708	229,4	0,318
148	11,86	34,115	5,53	0,60	11.	0,02	7,5	206,5	125	12,33	34,120	5,74	25,863	214,6	0,374
173	11,25	34,093	5,45	0,72	12.	0,01	9,4	197,4	150	11,80	34,113	5,52	25,957	205,8	0,428
198	11,12	34,177	5,32	0,82	14.	0,01	11,2	188,9	200	11,10	34,181	5,31	26,140	188,4	0,528
248	10,39	34,174	5,15	0,99	18.	0,01	13,8	176,8	250	10,36	34,174	5,15	26,265	176,4	0,622
296	9,67	34,136	5,07	1,14	21.	0,00	15,8	168,0	300	9,62	34,135	5,06	26,361	167,4	0,711
398	8,24	34,072	4,51	1,49	33.	0,00	21,2	151,2	400	8,20	34,070	4,49	26,534	150,9	0,877
498	6,43	33,973	3,57	2,06	51.	0,00	28,6	134,4	500	6,40	33,974	3,54	26,712	134,0	1,026
598	5,12	33,983	2,29	2,61	75.	0,00	36,0	118,3	600	5,10	33,985	2,27	26,882	118,0	1,159
697	4,34	34,059	1,44	2,94	96.	0,00	40,4	104,3	700	4,32	34,063	1,42	27,029	103,9	1,276
796	3,92	34,160	0,76	3,13	113.	0,00	43,0	92,6	800	3,90	34,164	0,75	27,154	92,2	1,381
896	3,56	34,240	0,50	3,22	128.	0,00	44,6	83,1	1000	3,28	34,315	0,29	27,335	75,0	1,562
996	3,28	34,313	0,29	3,29	140.	0,00	45,6	75,1	1200	2,98	34,435	0,30	27,458	63,3	1,715
1159A	3,09	34,394	0,24	3,32	149.		45,2	67,3	1500	2,65	34,525	0,73	27,559	53,7	1,916
1193	2,99	34,430	0,29	3,27	149.	0,00	45,7	63,7	1750	2,25	34,573	1,14	27,631	47,0	2,064
1407A	2,80	34,501	0,59	3,26	158.		44,6	56,7	2000	1,99	34,606	1,51	27,678	42,4	2,198
1654A	2,38	34,556	0,98	3,18	168.		44,4	49,1	2250	1,80	34,626	1,83	27,708	39,5	2,322
1900A	2,08	34,592	1,38	3,09	177.		43,2	44,1	2500	1,68	34,639	2,17	27,729	37,6	2,440
2148A	1,87	34,620	1,69	3,01	182.		42,2	40,4	2750	1,60	34,652	2,48	27,745	36,1	2,556
2397A	1,72	34,633	2,03	2,94	182.		41,4	38,4	3000	1,54	34,661	2,76	27,757	35,0	2,668
2644A	1,63	34,647	2,35	2,85	180.		40,4	36,7	3250	1,49	34,668	3,02	27,766	34,1	2,780
2889A	1,57	34,657	2,64	2,79	177.		39,4	35,5	3500	1,47	34,674	3,20	27,772	33,6	2,891
3138A	1,51	34,665	2,91	2,74	173.		38,6	34,5	3750	1,47	34,679	3,30	27,776	33,2	3,002
3386A	1,481	34,671	3,14	2,69	171.		38,2	33,8	4000	1,47	34,681	3,40	27,778	33,0	3,114
3634A	1,468	34,676	3,25	2,66	168.		37,4	33,3	4250	1,48	34,683	3,45	27,779	32,9	3,227
3880A	1,47	34,680	3,36	2,62	167.		37,4	33,1	4500	1,49	34,685	3,52	27,779	32,9	3,342
4126A	1,47	34,681	3,43	2,61	167.		37,1	33,0	4750	1,51	34,686	3,58	27,779	32,9	3,459
4326A	1,481	34,683	3,47	2,60	165.		37,0	32,9	5000	1,54	34,688	3,63	27,778	33,0	3,579
4623A	1,504	34,685	3,55	2,59	164.		37,0	32,9	5250	1,57	34,690	3,69	27,778	33,0	3,701
4869A	1,525	34,686	3,60	2,56	160.		36,9	33,0	5500	1,59	34,690	3,66	27,775	33,2	3,826
5117A	1,56	34,689	3,65	2,57	157.		36,7	33,0							
5314A	1,57	34,689	3,70	2,52	157.		36,4	33,1							
5462A	1,588	34,689	3,66	2,54	157.		36,3	33,2							
5562A	1,607														
5612A	1,616	34,689	3,66	2,54	155.		36,4	33,4							

RV THOMAS WASHINGTON INDOPAC LEG XVI

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 10,3N	153 00,6W	7/17/77	1317 GMT	5881M	340	13KT	1	

Z	T	S	O2	PO4	SiO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22,56	34,173	5,17					444,1	0	22,56	34,173	5,17	23,454	444,1	0,000
11	22,56	34,172	5,18					444,2	10	22,56	34,173	5,18	23,453	444,1	0,044
21	20,22	34,128	5,61					386,3	20	20,50	34,131	5,56	23,988	393,2	0,086
41	16,29	34,150	6,08					292,2	30	18,28	34,132	5,88	24,559	338,7	0,123
70	13,84	33,969	6,11					254,5	50	15,27	34,108	6,09	25,245	273,4	0,184
99	12,45	33,910	5,72					232,3	75	13,53	33,952	6,05	25,494	249,8	0,250
124	11,98	33,950	5,53					220,8	100	12,43	33,912	5,71	25,683	231,8	0,311
149	11,32	33,991	5,36					206,1	125	11,95	33,952	5,52	25,804	220,2	0,368
174	11,25	34,128	5,47					194,8	150	11,32	33,998	5,37	25,958	205,6	0,422
199	11,17	34,222	5,17					186,5	200	11,16	34,223	5,17	26,163	186,2	0,522
249	10,23	34,181	5,15					173,7	250	10,21	34,181	5,15	26,296	173,5	0,615
298	9,49	34,151	4,92					164,1	300	9,46	34,151	4,91	26,399	163,8	0,702
397	8,08	34,069	4,45					149,2	400	8,02	34,067	4,42	26,558	148,6	0,864
496	6,28	33,985	3,38					131,6	500	6,22	33,985	3,33	26,745	131,0	1,011
597	5,03	33,997	2,16					116,2	600	5,00	34,000	2,13	26,905	115,8	1,141
696	4,29	34,078	1,33					102,4	700	4,27	34,083	1,30	27,051	101,9	1,256
796	3,89	34,168	0,76					91,7	800	3,88	34,173	0,74	27,163	91,3	1,359
895	3,67	34,253	0,41					83,2	1000	3,39	34,333	0,26	27,339	74,7	1,540
995	3,40	34,328	0,26					75,1	1200	3,02	34,438	0,31	27,457	63,4	1,693
1194	3,026	34,435	0,31					63,7							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 09.8N	153 59.2W	07/17/77	0138 GMT

Z	T	S	SIGMA T	DT	DD
0	23.13	34.47	23.516	438.2	0.000
10	23.10	34.46	23.517	438.1	0.044
20	22.94	34.46	23.563	433.7	0.087
30	22.60	34.35	23.577	432.4	0.131
40	18.55	34.20	24.544	340.2	0.170
50	17.04	34.22	24.926	303.7	0.202
75	14.46	34.09	25.407	258.0	0.273
100	13.12	33.97	25.592	240.4	0.336
125	12.17	33.97	25.778	222.8	0.394
150	11.71	34.07	25.942	207.1	0.449
175	11.40	34.11	26.031	198.7	0.500
200	11.12	34.18	26.136	188.7	0.550
225	10.77	34.19	26.207	182.0	0.597
250	10.34	34.16	26.259	177.1	0.644
275	10.09	34.17	26.310	172.2	0.689
300	9.64	34.15	26.370	166.5	0.733
350	8.88	34.10	26.454	158.5	0.817
400	8.16	34.07	26.542	150.2	0.898
450	7.09	34.01	26.649	140.0	0.974
500	6.28	33.98	26.734	132.0	1.045
550	5.54	33.98	26.826	123.2	1.112
600	5.01	34.00	26.905	115.8	1.175
650	4.61	34.04	26.981	108.5	1.234
700	4.29	34.08	27.047	102.2	1.290
750	4.08	34.12	27.101	97.2	1.343
800	3.92	34.17	27.157	91.8	1.394
850	3.73	34.20	27.200	87.7	1.442
900	3.59	34.24	27.246	83.4	1.489
950	3.45	34.28	27.291	79.1	1.533
1000	3.34	34.31	27.326	75.9	1.575
1100	3.15	34.38	27.399	68.9	1.655
1200	3.08	34.44	27.453	63.8	1.729
1300	2.94	34.47	27.490	60.3	1.800
1400	2.80	34.50	27.526	56.8	1.867
1500	2.64	34.52	27.556	54.0	1.931
1600	2.470	34.546	27.592	50.6	1.992
1700	2.322	34.565	27.619	48.0	2.050
1800	2.190	34.581	27.643	45.8	2.106
1900	2.074	34.595	27.664	43.8	2.159
2000	1.984	34.605	27.679	42.4	2.211
2100	1.914	34.615	27.692	41.1	2.262
2200	1.843	34.624	27.705	39.9	2.311
2300	1.787	34.631	27.715	39.0	2.359
2400	1.733	34.637	27.724	38.1	2.407
2500	1.685	34.641	27.730	37.5	2.454
2600	1.649	34.647	27.738	36.8	2.500
2700	1.612	34.652	27.745	36.2	2.546
2800	1.584	34.655	27.749	35.7	2.591
2900	1.559	34.660	27.755	35.2	2.636
3000	1.542	34.663	27.758	34.8	2.681
3100	1.519	34.665	27.762	34.5	2.725
3200	1.505	34.669	27.766	34.1	2.769
3300	1.491	34.671	27.769	33.9	2.814
3400	1.481	34.672	27.770	33.7	2.858
3500	1.476	34.675	27.773	33.5	2.902
3600	1.470	34.676	27.774	33.4	2.946
3700	1.467	34.677	27.775	33.3	2.991
3800	1.465	34.679	27.777	33.1	3.035
3900	1.467	34.680	27.778	33.0	3.080
4000	1.471	34.681	27.778	33.0	3.125
4100	1.473	34.681	27.778	33.0	3.170
4200	1.478	34.682	27.778	32.9	3.215
4300	1.484	34.683	27.779	32.9	3.261
4400	1.490	34.683	27.778	33.0	3.307
4500	1.497	34.683	27.778	33.0	3.354
4600	1.504	34.685	27.779	32.9	3.400
4700	1.509	34.685	27.779	32.9	3.447
4800	1.518	34.687	27.780	32.9	3.495
4900	1.526	34.687	27.779	32.9	3.542
5000	1.536	34.686	27.777	33.0	3.590
5100	1.545	34.687	27.778	33.0	3.639
5200	1.557	34.687	27.777	33.1	3.688
5300	1.566	34.687	27.776	33.2	3.737
5400	1.579	34.688	27.776	33.2	3.787
5500	1.593	34.689	27.776	33.2	3.837
5600	1.606	34.688	27.774	33.4	3.888

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 10.0N	153 00.2W	07/17/77	1234 GMT

Z	T	S	SIGMA T	DT	DD
0	22.56	34.16	23.444	445.0	0.000
10	22.56	34.16	23.444	445.0	0.045
20	22.14	34.14	23.547	435.2	0.089
30	19.29	34.27	24.410	352.9	0.128
40	16.98	34.16	24.895	306.7	0.161
50	15.76	34.11	25.138	283.6	0.191
75	13.71	33.92	25.434	255.5	0.259
100	12.61	33.90	25.639	236.0	0.321
125	12.01	33.92	25.770	223.6	0.379
150	11.35	33.97	25.931	208.2	0.434
175	11.29	34.11	26.051	196.8	0.485
200	11.21	34.22	26.151	187.3	0.534
225	10.79	34.20	26.211	181.6	0.582
250	10.28	34.16	26.269	176.1	0.628
275	9.85	34.15	26.335	169.9	0.672
300	9.55	34.15	26.385	165.1	0.716
350	8.78	34.10	26.470	157.0	0.799
400	8.01	34.06	26.556	148.8	0.879
450	7.05	34.00	26.647	140.2	0.955
500	6.25	33.99	26.746	130.9	1.026
550	5.54	33.98	26.826	123.2	1.093
600	4.99	34.01	26.915	114.8	1.155
650	4.54	34.04	26.989	107.8	1.214
700	4.27	34.09	27.057	101.3	1.270
750	4.07	34.13	27.110	96.3	1.322
800	3.92	34.17	27.157	91.8	1.373
850	3.77	34.21	27.204	87.4	1.421
900	3.72	34.26	27.249	83.1	1.467
950	3.50	34.29	27.294	78.8	1.511
1000	3.37	34.32	27.331	75.4	1.554
1100	3.18	34.38	27.396	69.2	1.633
1200	3.02	34.42	27.443	64.7	1.708

RV THOMAS WASHINGTON INDOPAC LEG XVI 14

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 10.1N	151 57.0W	7/17/77	2116 0655 GMT	5785M	060	13KT	1	090 4 7

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.58	34.177	5.13	0.10	5.6	0.00	0.0	444.3	0	22.58	34.177	5.13	23.452	444.3	0.000
16	22.51	34.169	5.20	0.09	5.7	0.00	0.0	443.0	10	22.54	34.173	5.17	23.460	443.5	0.044
21	21.60	34.343	5.43	0.07	5.2	0.00	0.0	406.2	20	21.80	34.308	5.38	23.768	414.1	0.087
41	17.37	34.254	5.99	0.09	5.6	0.00	0.0	308.7	30	19.65	34.371	5.73	24.394	354.4	0.126
72	14.24	34.104	6.31	0.15	6.5	0.00	0.0	252.5	50	16.16	34.213	6.08	25.125	284.8	0.190
101	12.87	34.052	5.98	0.28	7.7	0.09	1.1	229.7	75	14.04	34.096	6.29	25.499	249.2	0.257
126	12.46	34.094		0.47	8.8	0.09	5.4	219.0	100	12.90	34.054	6.00	25.700	230.1	0.318
151	11.99	34.143	5.39	0.61	10.4	0.01	7.8	206.8	125	12.47	34.093	5.68	25.814	219.3	0.375
176	11.66	34.196	5.19	0.73	12.	0.01	10.2	197.0	150	12.01	34.142	5.40	25.941	207.3	0.429
200	11.40	34.215	5.17	0.81	14.	0.00	11.4	191.0	200	11.40	34.215	5.17	26.112	191.0	0.530
250	10.69	34.210	5.18	0.94	17.	0.01	13.4	179.2	250	10.69	34.210	5.18	26.236	179.2	0.626
299	9.97	34.174	5.12	1.08	20.	0.00	15.2	170.0	300	9.95	34.174	5.12	26.335	169.8	0.716
399	8.22	34.078	4.52	1.50	32.	0.02	21.2	150.5	400	8.20	34.078	4.51	26.541	150.3	0.882
497	6.46	33.992	3.58	2.04	50.	0.00	28.9	133.3	500	6.41	33.992	3.54	26.726	132.7	1.031
597	5.00	33.998	2.24	2.65	77.	0.00	37.6	115.8	600	4.97	34.000	2.21	26.908	115.4	1.162
696	4.31	34.064	1.34	2.97	97.	0.00	41.8	103.7	700	4.29	34.068	1.31	27.037	103.2	1.277
796	3.90	34.160	0.80	3.13	113.	0.00	44.0	92.4	800	3.89	34.165	0.78	27.155	92.0	1.382
895	3.67	34.247	0.47	3.25	126.	0.00	45.4	83.6	1000	3.33	34.323	0.32	27.336	74.8	1.562
995	3.34	34.319	0.32	3.27	137.	0.00	46.1	75.2	1200	3.00	34.436	0.31	27.457	63.4	1.716
1192	3.01	34.432	0.30	3.28	149.	0.00	46.3	63.7	1500	2.58	34.530	0.76	27.569	52.7	1.915
1295A	2.85	34.470	0.44	3.27	154.		46.4	59.5	1750	2.22	34.586	1.20	27.644	45.7	2.060
1544A	2.52	34.540	0.84	3.20	162.		45.4	51.5	2000	1.97	34.608	1.56	27.682	42.1	2.191
1791A	2.16	34.592	1.27	3.11	173.		44.2	44.7	2250	1.79	34.629	1.89	27.712	39.2	2.314
2038A	1.94	34.609	1.61	3.01	177.		43.1	41.8	2500	1.68	34.642	2.20	27.731	37.4	2.432
2286A	1.77	34.632		2.96	181.		42.2	38.8	2750	1.60	34.653	2.50	27.746	36.0	2.547
2535A	1.67	34.643	2.24	2.87	177.		41.4	37.2	3000	1.54	34.662	2.76	27.757	34.9	2.659
2783A	1.59	34.654	2.54	2.80	174.		40.6	35.8	3250	1.50	34.670	3.00	27.766	34.1	2.771
3031A	1.53	34.662	2.79	2.73	172.		39.9	34.8	3500	1.48	34.677	3.17	27.774	33.4	2.881
3278A	1.50	34.670	3.02	2.68	169.		39.2	34.0	3750	1.48	34.680	3.29	27.777	33.1	2.992
3525A	1.48	34.677	3.18	2.61	168.		39.0	33.3	4000	1.48	34.683	3.37	27.779	32.9	3.104
3774A		34.682		2.63	165.		38.3								
4022A	1.476	34.683	3.37	2.60	164.		38.0	32.9							

RV THOMAS WASHINGTON INDOPAC LEG XVI 15

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 10.1N	150 59.0W	7/18/77	1332 GMT	5677M	090	7KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.27	34.310	5.16					426.4	0	22.27	34.310	5.16	23.640	426.4	0.000
11	22.27	34.306	5.18					426.7	10	22.27	34.307	5.18	23.637	426.6	0.043
21	22.28	34.311	5.18					426.6	20	22.28	34.311	5.18	23.638	426.6	0.085
41	19.65	34.576	5.69					339.6	30	21.32	34.435	5.38	23.997	392.3	0.126
71	15.49	34.119	6.05					277.2	50	18.27	34.460	5.85	24.812	314.6	0.197
100	14.14	34.083	6.00					252.1	75	15.23	34.111	6.04	25.255	272.4	0.271
125	12.84	33.929	5.75					238.2	100	14.14	34.083	6.00	25.470	252.1	0.337
150	11.86	33.885	5.67					223.4	125	12.84	33.929	5.75	25.616	238.2	0.399
175	11.17	33.934	5.37					207.7	150	11.86	33.885	5.67	25.771	223.4	0.458
200	10.85	34.011	5.25					196.6	200	10.85	34.011	5.25	26.053	196.6	0.565
250	10.15	34.119	5.10					177.0	250	10.15	34.119	5.10	26.260	177.0	0.661
299	9.47	34.116	4.97					166.4	300	9.46	34.117	4.97	26.373	166.2	0.749
399	7.99	34.052	4.45					149.2	400	7.97	34.052	4.44	26.555	149.0	0.913
498	6.30	33.972	3.39					132.8	500	6.27	33.973	3.37	26.728	132.5	1.061
598	5.13	33.989	2.28					117.9	600	5.11	33.991	2.26	26.885	117.6	1.193
697	4.31	34.061	1.40					103.9	700	4.29	34.065	1.38	27.035	103.5	1.310
797	3.89	34.163	0.78					92.1	800	3.88	34.167	0.77	27.158	91.8	1.414
896	3.63	34.254	0.41					82.7	1000	3.35	34.330	0.28	27.340	74.8	1.595
995	3.36	34.323	0.28					75.1	1200	2.96	34.426	0.27	27.453	63.8	1.748
1194	2.971	34.423	0.27					64.1							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 09.6N	151 57.2W	07/17/77	1909 GMT

Z	T	S	SIGMA T	DT	DD
0	22.44	34.16	23.478	441.8	0.000
10	22.44	34.16	23.478	441.8	0.044
20	22.42	34.16	23.484	441.2	0.088
30	19.70	34.13	24.198	373.1	0.129
40	18.26	34.36	24.738	321.7	0.164
50	15.86	34.11	25.115	285.8	0.195
75	14.09	34.10	25.493	249.8	0.262
100	12.82	34.05	25.713	228.9	0.322
125	12.32	34.09	25.842	216.7	0.379
150	11.97	34.14	25.947	206.6	0.433
175	11.67	34.19	26.043	197.6	0.484
200	11.39	34.22	26.118	190.4	0.534
225	11.00	34.21	26.181	184.4	0.582
250	10.68	34.21	26.238	179.0	0.629
275	10.35	34.20	26.288	174.3	0.674
300	9.98	34.18	26.336	169.7	0.719
350	9.26	34.13	26.417	162.1	0.805
400	8.48	34.09	26.509	153.4	0.887
450	7.61	34.04	26.599	144.8	0.965
500	6.57	33.99	26.704	134.8	1.039
550	5.68	33.98	26.809	124.8	1.107
600	5.14	34.00	26.890	117.2	1.171
650	4.66	34.02	26.960	110.6	1.231
700	4.34	34.06	27.026	104.3	1.288
750	4.06	34.12	27.103	97.0	1.342
800	3.88	34.17	27.161	91.4	1.392
850	3.76	34.22	27.213	86.5	1.440
900	3.62	34.26	27.259	82.2	1.486
950	3.50	34.30	27.302	78.1	1.530
1000	3.32	34.33	27.343	74.2	1.571
1100	3.10	34.39	27.412	67.7	1.650
1200	2.96	34.44	27.464	62.7	1.723
1300	2.84	34.48	27.507	58.7	1.791
1400	2.69	34.51	27.544	55.1	1.857
1500	2.56	34.53	27.571	52.6	1.919
1600	2.427	34.555	27.603	49.6	1.979
1700	2.294	34.570	27.626	47.4	2.036
1800	2.158	34.588	27.651	45.0	2.091
1900	2.051	34.605	27.673	42.9	2.143
2000	1.965	34.612	27.686	41.7	2.194
2100	1.896	34.620	27.698	40.6	2.244
2200	1.833	34.628	27.709	39.6	2.293
2300	1.780	34.635	27.718	38.6	2.341
2400	1.730	34.642	27.728	37.8	2.388
2500	1.697	34.646	27.733	37.2	2.434
2600	1.660	34.652	27.741	36.5	2.480
2700	1.623	34.658	27.749	35.8	2.526
2800	1.589	34.660	27.753	35.4	2.571
2900	1.568	34.661	27.755	35.2	2.616
3000	1.541	34.666	27.761	34.6	2.660
3100	1.524	34.669	27.765	34.2	2.705
3200	1.505	34.672	27.768	33.9	2.749
3300	1.495	34.673	27.770	33.7	2.793
3400	1.485	34.677	27.774	33.4	2.837
3500	1.484	34.676	27.773	33.5	2.881
3600	1.477	34.678	27.775	33.2	2.925
3700	1.473	34.679	27.776	33.2	2.969
3800	1.473	34.679	27.776	33.2	3.014
3900	1.476	34.680	27.777	33.1	3.059
4000	1.473	34.678	27.776	33.2	3.104
4100	1.476	34.680	27.777	33.1	3.149
4200	1.481	34.681	27.777	33.0	3.195
4300	1.485	34.682	27.778	33.0	3.241
4400	1.494	34.683	27.778	33.0	3.287
4500	1.501	34.683	27.778	33.0	3.333
4600	1.507	34.683	27.777	33.1	3.380
4700	1.514	34.685	27.778	33.0	3.427
4800	1.523	34.685	27.778	33.0	3.475
4900	1.529	34.685	27.777	33.1	3.522
5000	1.540	34.688	27.779	32.9	3.571
5100	1.552	34.687	27.777	33.1	3.619
5200	1.558	34.687	27.777	33.1	3.668
5300	1.569	34.688	27.777	33.1	3.718
5400	1.582	34.689	27.776	33.1	3.767
5500	1.595	34.689	27.775	33.2	3.818
5600	1.610	34.689	27.774	33.3	3.868
5700	1.622	34.690	27.774	33.3	3.920

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 09.8N	150 58.7W	07/18/77	1237 GMT

Z	T	S	SIGMA T	DT	DD
0	22.30	34.31	23.631	427.2	0.000
10	22.28	34.31	23.637	426.6	0.043
20	22.28	34.32	23.644	425.9	0.085
30	20.94	34.40	24.074	384.9	0.126
40	19.63	34.52	24.513	343.1	0.163
50	17.57	34.20	24.784	317.2	0.196
75	15.18	34.06	25.228	275.0	0.270
100	14.16	34.07	25.455	253.4	0.337
125	12.96	33.92	25.585	241.1	0.399
150	11.94	33.88	25.752	225.2	0.459
175	11.27	33.92	25.907	210.5	0.514
200	10.84	34.02	26.062	195.8	0.566
225	10.40	34.07	26.178	184.7	0.615
250	10.14	34.12	26.262	176.8	0.661
275	9.78	34.12	26.323	171.0	0.706
300	9.38	34.13	26.397	163.9	0.749
350	8.61	34.06	26.465	157.5	0.833
400	7.73	34.05	26.590	145.7	0.912
450	6.91	34.00	26.666	138.4	0.986
500	6.05	33.98	26.763	129.2	1.056
550	5.43	33.98	26.840	122.0	1.122
600	4.93	34.02	26.929	113.4	1.184
650	4.53	34.03	26.982	108.5	1.243
700	4.23	34.08	27.054	101.6	1.299
750	3.97	34.13	27.120	95.3	1.351
800	3.85	34.17	27.164	91.2	1.401
850	3.72	34.22	27.217	86.2	1.449
900	3.61	34.25	27.252	82.9	1.494
950	3.47	34.28	27.289	79.3	1.538
1000	3.34	34.31	27.326	75.9	1.581
1100	3.12	34.36	27.386	70.1	1.661
1200	2.96	34.40	27.432	65.7	1.737

RV THOMAS WASHINGTON — INDOPAC LEG XVI

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 10.4N	149 59.5W	7/18/77	2036 0040 GMT	5709M	310	8KT	1	120 3 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.71	34.519	5.14	0.04	4.4	0.00	0.0	423.1	0	22.71	34.519	5.14	23.673	423.1	0.000
16	22.23	34.507	5.25	0.03	4.5	0.00	0.0	411.1	10	22.42	34.512	5.21	23.749	415.9	0.042
21	18.11	34.021	5.85	0.07	4.9	0.00	0.0	342.8	20	18.95	34.105	5.73	24.370	356.8	0.081
41	16.66	34.024	5.97	0.08	5.0	0.00	0.0	309.5	30	17.46	34.021	5.90	24.674	327.8	0.115
71	15.24	33.969	6.02	0.12	5.2	0.00	0.0	282.9	50	16.15	34.010	5.98	24.972	299.4	0.178
100	14.51	33.957	5.96	0.15	5.4	0.00	0.0	268.7	75	15.13	33.969	6.02	25.169	280.6	0.251
125	13.75	33.922	5.86	0.20	6.1	0.14	0.0	256.1	100	14.51	33.957	5.96	25.294	268.7	0.320
150	13.05	33.894	5.86	0.28	6.8	0.01	1.4	244.7	125	13.75	33.922	5.86	25.427	256.1	0.387
175	12.45	33.892	5.79	0.39	7.8	0.01	3.2	233.6	150	13.05	33.894	5.86	25.547	244.7	0.450
200	11.82	33.898	5.86	0.48	8.6	0.00	4.8	221.8	200	11.82	33.898	5.86	25.788	221.8	0.569
250	10.93	34.054	5.23	0.82	13.1	0.00	10.4	194.8	250	10.93	34.054	5.23	26.072	194.8	0.676
299	10.26	34.140	5.09	1.01	18.	0.00	13.8	177.2	300	10.25	34.141	5.09	26.260	177.0	0.771
400	8.69	34.081	4.76	1.36	27.	0.00	18.6	157.1	400	8.69	34.081	4.76	26.469	157.1	0.945
498	7.09	34.005	3.99	1.83	43.	0.00	25.7	140.4	500	7.05	34.004	3.96	26.649	140.1	1.101
599	5.49	33.969	2.64	2.45	68.	0.00	34.0	123.5	600	5.48	33.971	2.63	26.826	123.3	1.240
697	4.55	34.035	1.62	2.87	91.	0.00	39.7	108.3	700	4.53	34.039	1.59	26.988	107.9	1.363
796	4.10	34.135	0.91	3.08	109.	0.00	42.6	96.2	800	4.09	34.140	0.89	27.116	95.8	1.472
893	3.82	34.231	0.49	3.24	122.	0.00	44.5	86.3	1000	3.59	34.331	0.27	27.317	76.7	1.659
992	3.60	34.323	0.26	3.27	133.	0.00	45.6	77.3	1200	3.18	34.435	0.37	27.440	65.1	1.817
1192	3.22	34.434	0.40	3.30	145.	0.00	45.6	65.4	1500	2.67	34.531	0.85	27.562	53.4	2.021
1212A	3.12	34.434	0.33	3.30	148.		45.3	64.6	1750	2.29	34.576	1.21	27.630	47.0	2.169
1464A	2.73	34.422	0.79	3.25	156.		45.0	54.6	2000	2.00	34.604	1.57	27.675	42.7	2.303
1711A	2.34	34.569	1.15	3.16	167.		44.0	47.9	2250	1.82	34.625	1.88	27.707	39.7	2.428
1959A	2.04	34.598	1.52	3.06	177.		43.0	43.4	2500	1.70	34.640	2.17	27.728	37.7	2.548
2209A	1.84	34.622	1.83	2.99	181.		42.4	40.1	2750	1.60	34.652	2.46	27.745	36.1	2.663
2455A	1.72	34.637	2.12	2.89	181.		41.4	38.1	3000	1.55	34.660	2.72	27.755	35.1	2.776
2704A	1.61	34.650	2.41	2.84	180.		40.6	36.3	3250	1.50	34.668	2.98	27.765	34.2	2.888
2951A	1.56	34.658	2.66	2.81	174.		39.8	35.3	3500	1.48	34.675	3.16	27.772	33.5	2.998
3200A	1.51	34.666	2.93	2.73	171.		39.3	34.4	3750	1.47	34.678	3.28	27.775	33.2	3.110
3446A	1.480	34.673	3.13	2.68	170.		39.0	33.7	4000	1.47	34.680	3.37	27.777	33.1	3.222
3696A	1.471	34.677	3.26	2.65	168.		38.8	33.3	4250	1.48	34.684	3.43	27.779	32.9	3.335
3943A	1.471	34.679	3.35	2.64	167.		38.1	33.1	4500	1.49	34.687	3.49	27.781	32.7	3.450
4192A	1.48	34.682	3.42	2.59	165.		37.8	33.0	4750	1.53	34.686	3.55	27.778	33.0	3.567
4440A	1.483	34.686	3.48	2.61	164.		37.6	32.7	5000	1.55	34.686	3.62	27.776	33.1	3.688
4687A	1.52	34.686	3.53	2.57	161.		37.6	32.9	5250	1.58	34.689	3.68	27.776	33.2	3.810
4936A	1.54	34.685	3.60	2.56	158.		37.5	33.2	5500	1.60	34.689	3.70	27.774	33.4	3.936
5184A	1.57	34.688	3.68	2.55	156.		37.4	33.1							
5382A	1.591	34.688	3.67	2.54	155.		37.0	33.3							
5532A	1.606	34.688	3.70	2.53	155.		37.2	33.4							
5632A	1.617	34.688	3.64	2.55	155.		37.4	33.5							
5678A	1.632	34.688	3.65	2.55	154.		37.2	33.6							

RV THOMAS WASHINGTON — INDOPAC LEG XVI

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 10.0N	148 59.1W	7/19/77	1440 GMT	5471M	360	11KT	6	010 2 3

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	21.90	34.165	5.22					427.0	0	21.90	34.165	5.22	23.633	427.0	0.000
11	21.87	34.164	5.26					426.3	10	21.87	34.166	5.26	23.640	426.3	0.043
21	21.80	34.178	5.26					423.4	20	21.81	34.178	5.26	23.668	423.7	0.085
40	17.28	34.006	5.92					324.7	30	19.81	34.078	5.55	24.129	379.7	0.125
70	15.35	33.976	6.03					284.7	50	16.24	33.998	5.96	24.943	302.2	0.194
99	14.23	33.891	6.00					267.9	75	15.12	33.959	6.02	25.162	281.3	0.267
124	13.85	33.946	5.88					256.3	100	14.22	33.895	6.00	25.307	267.5	0.337
148	12.65	33.877	5.80					238.4	125	13.80	33.945	5.87	25.432	255.6	0.403
173	11.93	33.871	5.89					225.7	150	12.58	33.876	5.81	25.625	237.3	0.465
198	11.41	33.932	5.63					212.0	200	11.38	33.941	5.61	25.903	210.9	0.579
248	10.72	34.111	5.18					187.0	250	10.69	34.115	5.17	26.161	186.4	0.681
297	10.08	34.134	5.09					174.7	300	10.04	34.135	5.09	26.290	174.1	0.774
398	8.65	34.082	4.72					156.5	400	8.61	34.081	4.70	26.480	156.1	0.946
497	6.76	33.985	3.73					137.6	500	6.71	33.985	3.69	26.680	137.1	1.100
598	5.35	33.975	2.45					121.4	600	5.33	33.977	2.43	26.849	121.1	1.236
698	4.41	34.047	1.47					105.9	700	4.40	34.050	1.46	27.011	105.7	1.356
799	3.95	34.142	1.07					94.2	800	3.95	34.144	1.06	27.133	94.1	1.463
897	3.79	34.255	0.38					84.2	1000	3.57	34.332	0.28	27.320	76.8	1.648
996	3.58	34.324	0.28					77.0	1200	3.18	34.427	0.30	27.434	65.6	1.807
1195	3.19	34.425	0.30					65.9							

AD-A068 240 SCRIPPS INSTITUTION OF OCEANOGRAPHY LA JOLLA CALIF F/G 8/1
PHYSICAL, CHEMICAL AND BIOLOGICAL DATA, INDOPAC EXPEDITION, LEG--ETC(U)
DEC 78 N00014-75-C-0152

UNCLASSIFIED SIO-REF-78-21 NL

5 OF 5
AD A068240

END
DATE FILMED
6-79
DDC

AD
A068

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 10.2N	149 59.4W	07/18/77	1908 GMT

Z	T	S	SIGMA T	DT	DD
0	22.39	34.51	23.757	415.1	0.000
10	22.34	34.51	23.771	413.8	0.041
20	22.31	34.51	23.780	413.0	0.083
30	18.20	33.98	24.463	347.9	0.121
40	17.39	34.00	24.675	327.7	0.155
50	16.63	33.99	24.847	311.3	0.187
75	15.30	33.96	25.125	284.8	0.262
100	14.48	33.90	25.257	272.3	0.332
125	13.85	33.91	25.397	259.0	0.399
150	13.33	33.90	25.496	249.6	0.464
175	12.82	33.89	25.590	240.6	0.526
200	12.24	33.89	25.702	229.9	0.586
225	11.64	33.92	25.839	216.9	0.643
250	11.19	33.98	25.968	204.7	0.697
275	10.84	34.06	26.093	192.8	0.749
300	10.55	34.13	26.199	182.8	0.797
350	9.66	34.12	26.343	169.1	0.888
400	8.80	34.09	26.459	158.1	0.974
450	7.93	34.05	26.560	148.5	1.054
500	7.07	34.01	26.652	139.8	1.130
550	6.14	33.98	26.752	130.3	1.201
600	5.48	33.98	26.834	122.5	1.268
650	4.90	34.00	26.917	114.6	1.331
700	4.52	34.05	26.999	106.8	1.390
750	4.19	34.11	27.082	99.0	1.444
800	4.00	34.16	27.141	93.4	1.496
850	3.88	34.22	27.201	87.7	1.545
900	3.77	34.26	27.244	83.6	1.591
950	3.66	34.31	27.294	78.8	1.636
1000	3.56	34.35	27.336	74.9	1.678
1100	3.36	34.42	27.411	67.7	1.757
1200	3.14	34.45	27.456	63.5	1.831
1300	2.96	34.48	27.496	59.7	1.901
1400	2.85	34.52	27.538	55.7	1.968
1500	2.68	34.54	27.569	52.8	2.031
1600	2.489	34.560	27.601	49.7	2.091
1700	2.339	34.568	27.620	47.9	2.149
1800	2.205	34.584	27.644	45.7	2.205
1900	2.108	34.597	27.662	43.9	2.258
2000	2.008	34.606	27.678	42.5	2.310
2100	1.925	34.615	27.691	41.2	2.361
2200	1.860	34.625	27.704	40.0	2.410
2300	1.807	34.631	27.713	39.1	2.459
2400	1.758	34.637	27.722	38.3	2.507
2500	1.716	34.642	27.729	37.6	2.554
2600	1.679	34.647	27.736	37.0	2.600
2700	1.637	34.654	27.744	36.2	2.646
2800	1.603	34.657	27.749	35.7	2.692
2900	1.575	34.659	27.753	35.4	2.737
3000	1.551	34.663	27.758	34.9	2.782
3100	1.533	34.665	27.761	34.6	2.827
3200	1.512	34.669	27.766	34.2	2.871
3300	1.500	34.672	27.769	33.9	2.915
3400	1.491	34.673	27.770	33.7	2.960
3500	1.484	34.673	27.771	33.7	3.004
3600	1.476	34.676	27.774	33.4	3.048
3700	1.475	34.678	27.775	33.2	3.093
3800	1.472	34.679	27.776	33.1	3.138
3900	1.473	34.680	27.777	33.1	3.182
4000	1.477	34.680	27.777	33.1	3.227
4100	1.479	34.680	27.777	33.1	3.273
4200	1.485	34.682	27.778	33.0	3.318
4300	1.488	34.683	27.779	32.9	3.364
4400	1.491	34.683	27.778	33.0	3.410
4500	1.500	34.683	27.778	33.0	3.457
4600	1.508	34.685	27.779	32.9	3.503
4700	1.514	34.684	27.777	33.0	3.550
4800	1.524	34.685	27.778	33.0	3.598
4900	1.531	34.685	27.777	33.1	3.646
5000	1.541	34.685	27.776	33.2	3.694
5100	1.553	34.686	27.776	33.2	3.743
5200	1.563	34.686	27.775	33.2	3.792
5300	1.574	34.686	27.775	33.3	3.842
5400	1.586	34.688	27.775	33.2	3.892
5500	1.598	34.687	27.774	33.4	3.942
5600	1.611	34.688	27.773	33.4	3.993
5700	1.623	34.688	27.773	33.5	4.044

LATITUDE	LONGITUDE	MO/
35 09.8N	148 59.5W	07

Z	T	S	SIGMA
0	21.87	34.15	23.6
10	21.86	34.15	23.6
20	21.84	34.16	23.6
30	20.84	34.05	23.8
40	17.90	34.00	24.5
50	17.00	34.01	24.7
75	15.55	33.98	25.0
100	14.54	33.90	25.2
125	13.95	33.92	25.3
150	12.72	33.85	25.5
175	12.17	33.86	25.6
200	11.49	33.90	25.8
225	11.04	33.98	25.9
250	10.74	34.09	26.1
275	10.52	34.13	26.2
300	10.01	34.12	26.2
350	9.29	34.09	26.3
400	8.54	34.06	26.4
450	7.80	34.03	26.5
500	6.73	33.97	26.6
550	5.95	33.96	26.7
600	5.32	33.97	26.8
650	4.80	34.00	26.9
700	4.37	34.05	27.0
750	4.11	34.09	27.0
800	3.92	34.15	27.1
850	3.78	34.20	27.1
900	3.76	34.26	27.2
950	3.67	34.30	27.2
1000	3.48	34.33	27.3
1100	3.34	34.39	27.3
1177	3.16	34.42	27.4

RV THOMAS WASHINGTON — INDOPAC LEG XVI — 18

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 10.4N	147 58.3W	7/20/77	1904 2231 GMT	5516M	020	15KT	1	020 8 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1'	21.57	33.980	5.27	0.12	5.5	0.00	0.0	431.7	0	21.57	33.980	5.27	23.584	431.7	0.000
16	21.07	33.943	5.39	0.12	5.5	0.00	0.0	421.3	10	21.27	33.959	5.34	23.649	425.5	0.043
21	17.87	33.752	5.98	0.14	5.0	0.00	0.0	356.8	20	18.53	33.783	5.86	24.230	370.1	0.083
40	14.84	33.709	6.08	0.16	4.8	0.00	0.0	293.6	30	16.43	33.720	6.03	24.684	326.9	0.118
70	13.56	33.919	6.40	0.17	6.3	0.00	0.0	252.7	50	14.18	33.784	6.22	25.230	274.8	0.178
98	12.31	33.863	5.97	0.37	7.5	0.31	2.4	233.2	75	13.52	33.917	6.34	25.511	248.2	0.244
123	11.74	33.852	5.79	0.51	9.0	0.03	5.2	223.7	100	12.26	33.863	5.95	25.676	232.4	0.304
147	10.97	33.862	5.68	0.66	10.8	0.01	7.9	209.6	125	11.67	33.852	5.78	25.780	222.5	0.362
172	10.91	33.961	5.61	0.70	12.	0.01	8.9	201.3	150	10.96	33.877	5.67	25.928	208.5	0.417
197	10.70	34.059	5.37	0.84	14.	0.01	11.4	190.5	200	10.68	34.070	5.35	26.128	189.5	0.518
246	10.29	34.154	5.19	1.00	18.	0.00	14.4	176.7	250	10.23	34.154	5.18	26.273	175.7	0.612
294	9.50	34.119	5.05	1.14	22.	0.00	16.6	166.6	300	9.41	34.116	5.03	26.380	165.6	0.700
394	8.02	34.043	4.51	1.54	33.	0.00	22.4	150.3	400	7.92	34.038	4.46	26.552	149.2	0.864
494	6.33	33.975	3.56	2.06	53.	0.00	29.4	133.0	500	6.23	33.975	3.47	26.735	131.9	1.011
593	4.97	33.991	2.19	2.65	79.	0.00	37.5	116.0	600	4.91	33.997	2.12	26.913	115.0	1.141
691	4.30	34.066	1.44	2.92	98.	0.00	41.0	103.4	700	4.26	34.075	1.38	27.046	102.4	1.256
791	3.90	34.150	0.85	3.12	113.	0.00	43.8	93.1	800	3.87	34.160	0.81	27.153	92.2	1.360
889	3.61	34.240	0.49	3.21	126.	0.00	45.3	83.6	1000	3.36	34.315	0.33	27.327	75.7	1.542
988	3.39	34.306	0.34	3.25	136.	0.00	46.2	76.6	1200	3.07	34.442	0.40	27.455	63.6	1.697
1111A	3.15	34.390	0.23	3.32	146.		46.4	68.1	1500	2.55	34.530	0.88	27.572	52.5	1.896
1186	3.09	34.435	0.39	3.31	147.	0.00	46.2	64.2	1750	2.22	34.578	1.29	27.637	46.4	2.041
1346A	2.79	34.487	0.52	3.26	154.		46.0	57.7	2000	1.98	34.607	1.60	27.680	42.3	2.173
1586A	2.43	34.549	1.10	3.17	165.		45.2	50.1	2250	1.81	34.625	1.90	27.707	39.6	2.298
1827A	2.14	34.587	1.36	3.09	174.		44.0	44.9	2500	1.71	34.638	2.18	27.725	37.9	2.417
2070A	1.92	34.612	1.70	3.02	178.		42.7	41.4	2750	1.62	34.649	2.47	27.741	36.5	2.533
2314A	1.78	34.629	1.97	2.94	182.		41.8	39.1	3000	1.55	34.659	2.75	27.754	35.3	2.647
2559A	1.69	34.640	2.25	2.86	180.		41.4	37.6	3250	1.51	34.666	2.98	27.763	34.4	2.759
2804A	1.60	34.650	2.53	2.81	177.		40.7	36.2	3500	1.48	34.673	3.15	27.770	33.7	2.871
3050A	1.54	34.660	2.80	2.76	175.		40.2	35.0	3750	1.48	34.677	3.26	27.774	33.4	2.982
3296A	1.50	34.667	3.02	2.70	172.		39.2	34.2	4000	1.47	34.680	3.37	27.777	33.1	3.095
3542A	1.48	34.673	3.17	2.67	170.		39.0	33.7	4250	1.48	34.682	3.42	27.777	33.0	3.208
3788A	1.480	34.677	3.28	2.65	168.		38.8	33.3	4500	1.50	34.683	3.47	27.777	33.0	3.324
4035A	1.47	34.680	3.38	2.64	168.		38.5	33.1	4750	1.53	34.686	3.52	27.778	33.0	3.442
4282A	1.48	34.681	3.42	2.61	168.		38.5	33.0	5000	1.55	34.687	3.59	27.776	33.2	3.562
4530A	1.503	34.683	3.48	2.60	164.		38.2	33.0	5250	1.58	34.687	3.61	27.774	33.3	3.685
4776A	1.530	34.686	3.53	2.57	162.		38.0	33.0	5500	1.61	34.686	3.63	27.772	33.6	3.811
5023A	1.555	34.686	3.60	2.57	159.		37.8	33.2							
5220A	1.576	34.686	3.61	2.55	158.		37.8	33.3							
5368A	1.588	34.687	3.62	2.54	156.		37.8	33.3							
5466A	1.598	34.687	3.63	2.56	156.		37.8	33.4							
5516A	1.61	34.686	3.62	2.56	157.		37.8	33.6							

RV THOMAS WASHINGTON — INDOPAC LEG XVI — 19

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 09.8N	147 00.4W	7/21/77	1915 GMT	5366M	060	8KT	1	020 3 7

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	21.71	34.147	5.24					423.3	0	21.71	34.147	5.24	23.672	423.3	0.000
11	21.61	34.142	5.28					421.0	10	21.62	34.143	5.28	23.694	421.2	0.042
21	21.58	34.140	5.26					420.4	20	21.58	34.141	5.26	23.702	420.4	0.084
41	17.11	33.966	5.95					323.8	30	19.77	34.039	5.54	24.109	381.6	0.125
71	15.27	34.100	5.97					274.0	50	16.25	34.013	5.96	24.950	301.5	0.193
100	13.45	33.907	6.01					251.4	75	15.02	34.084	5.98	25.282	269.9	0.265
125	11.97	33.736	5.99					236.4	100	13.45	33.907	6.01	25.477	251.4	0.331
150	11.18	33.706	5.97					224.7	125	11.97	33.736	5.99	25.635	236.4	0.392
175	11.05	33.860	5.79					211.1	150	11.18	33.706	5.97	25.757	224.7	0.451
200	10.99	34.015	5.49					198.7	200	10.99	34.015	5.49	26.031	198.7	0.559
250	10.44	34.146	5.13					179.7	250	10.44	34.146	5.13	26.230	179.7	0.656
300	9.50	34.113	5.01					167.1	300	9.50	34.113	5.01	26.364	167.1	0.745
399	7.87	34.040	4.41					148.4	400	7.85	34.040	4.40	26.563	148.2	0.909
498	6.18	33.967	3.30					131.7	500	6.15	33.968	3.27	26.740	131.4	1.056
597	4.95	33.990	2.00					115.9	600	4.92	33.994	1.97	26.909	115.4	1.186
695	4.27	34.083	1.15					101.8	700	4.25	34.089	1.12	27.058	101.3	1.300
795	4.05	34.183	0.61					92.1	800	4.04	34.189	0.59	27.159	91.6	1.404
894	3.80	34.272	0.33					83.0	1000	3.53	34.344	0.26	27.334	75.0	1.585
993	3.54	34.339	0.25					75.5	1200	3.24	34.454	0.41	27.450	64.1	1.741
1193	3.25	34.451	0.40					64.4							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 10.4N	148 00.2W	07/20/77	1722 GMT

Z	T	S	SIGMA T	DT	DD
0	21.50	33.97	23.596	430.6	0.000
10	21.51	33.97	23.593	430.8	0.043
20	21.36	33.96	23.627	427.6	0.086
30	17.63	33.68	24.373	356.5	0.125
40	15.91	33.70	24.790	316.8	0.159
50	14.94	33.69	24.997	297.1	0.190
75	13.38	33.82	25.424	256.4	0.260
100	12.88	33.89	25.578	241.8	0.322
125	11.92	33.84	25.725	227.8	0.382
150	11.30	33.83	25.832	217.6	0.438
175	10.97	33.96	25.992	202.4	0.492
200	10.78	34.03	26.080	194.0	0.542
225	10.56	34.11	26.182	184.4	0.591
250	10.29	34.13	26.244	178.5	0.637
275	9.91	34.12	26.301	173.0	0.683
300	9.52	34.12	26.366	166.9	0.727
350	8.81	34.08	26.449	159.0	0.811
400	8.01	34.04	26.540	150.3	0.892
450	7.02	33.99	26.643	140.6	0.968
500	6.28	33.97	26.726	132.7	1.040
550	5.70	33.97	26.799	125.8	1.108
600	5.06	33.99	26.891	117.1	1.172
650	4.59	34.04	26.983	108.3	1.231
700	4.26	34.08	27.051	101.9	1.287
750	4.01	34.12	27.108	96.5	1.340
800	3.83	34.17	27.166	91.0	1.390
850	3.67	34.22	27.222	85.7	1.438
900	3.51	34.27	27.277	80.4	1.483
950	3.39	34.30	27.313	77.1	1.525
1000	3.30	34.33	27.345	74.0	1.567
1100	3.15	34.40	27.415	67.4	1.645
1200	3.03	34.45	27.466	62.6	1.718
1300	2.84	34.48	27.507	58.7	1.787
1400	2.70	34.50	27.535	56.0	1.852
1500	2.58	34.53	27.570	52.7	1.915
1600	2.414	34.549	27.599	50.0	1.975
1700	2.277	34.569	27.626	47.4	2.032
1800	2.157	34.583	27.647	45.4	2.087
1900	2.066	34.594	27.663	43.9	2.140
2000	1.981	34.604	27.678	42.5	2.192
2100	1.907	34.614	27.692	41.2	2.243
2200	1.850	34.620	27.701	40.3	2.292
2300	1.794	34.627	27.711	39.3	2.341
2400	1.743	34.635	27.721	38.4	2.389
2500	1.696	34.639	27.728	37.7	2.436
2600	1.649	34.644	27.735	37.0	2.482
2700	1.625	34.648	27.740	36.5	2.529
2800	1.592	34.652	27.746	36.0	2.574
2900	1.565	34.656	27.751	35.5	2.620
3000	1.546	34.658	27.754	35.2	2.665
3100	1.524	34.663	27.760	34.7	2.709
3200	1.511	34.665	27.762	34.5	2.754
3300	1.497	34.666	27.764	34.3	2.799
3400	1.482	34.670	27.769	33.9	2.843
3500	1.475	34.671	27.770	33.8	2.888
3600	1.470	34.673	27.772	33.6	2.932
3700	1.469	34.675	27.773	33.4	2.977
3800	1.467	34.677	27.775	33.3	3.021
3900	1.466	34.678	27.776	33.2	3.066
4000	1.469	34.679	27.777	33.1	3.111
4100	1.470	34.680	27.777	33.1	3.156
4200	1.472	34.681	27.778	33.0	3.202
4300	1.482	34.681	27.777	33.1	3.248
4400	1.489	34.682	27.778	33.0	3.294
4500	1.496	34.683	27.778	33.0	3.340
4600	1.503	34.684	27.778	33.0	3.387
4700	1.510	34.684	27.778	33.0	3.434
4800	1.518	34.686	27.779	32.9	3.481
4900	1.528	34.685	27.777	33.1	3.529
5000	1.536	34.685	27.777	33.1	3.577
5100	1.545	34.685	27.776	33.2	3.626
5200	1.557	34.687	27.777	33.1	3.675
5300	1.570	34.687	27.776	33.2	3.724
5400	1.582	34.685	27.773	33.4	3.774

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 09.8N	147 00.1W	07/21/77	1837 GMT

Z	T	S	SIGMA T	DT	DD
0	21.63	34.15	23.697	420.9	0.000
10	21.62	34.14	23.692	421.4	0.042
20	21.59	34.14	23.700	420.6	0.084
30	19.64	33.89	24.031	389.1	0.125
40	18.12	33.95	24.460	348.2	0.162
50	16.63	33.92	24.793	316.4	0.195
75	15.12	34.07	25.249	273.0	0.269
100	13.92	33.92	25.390	259.6	0.337
125	12.24	33.75	25.594	240.2	0.400
150	11.25	33.68	25.725	227.8	0.459
175	10.97	33.85	25.907	210.5	0.515
200	11.00	34.00	26.018	199.9	0.567
225	10.82	34.10	26.128	189.5	0.617
250	10.49	34.14	26.217	181.0	0.665
275	10.13	34.14	26.279	175.1	0.711
300	9.66	34.12	26.343	169.1	0.755
350	8.68	34.06	26.454	158.5	0.840
400	7.92	34.04	26.554	149.1	0.920
450	7.06	33.99	26.637	141.1	0.996
500	6.18	33.96	26.731	132.3	1.068
550	5.58	33.96	26.806	125.2	1.136
600	4.91	34.00	26.916	114.7	1.199
650	4.53	34.03	26.982	108.5	1.258
700	4.27	34.09	27.057	101.3	1.313
750	4.13	34.15	27.120	95.4	1.366
800	4.04	34.19	27.161	91.5	1.416
850	3.91	34.24	27.214	86.5	1.464
900	3.77	34.28	27.260	82.1	1.510
950	3.64	34.31	27.296	78.6	1.554
1000	3.53	34.34	27.331	75.3	1.596
1100	3.40	34.40	27.391	69.6	1.677
1200	3.22	34.45	27.448	64.2	1.752

RV THOMAS WASHINGTON — INDOPAC LEG XVI — 20

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 10.4N	145 59.1W	7/22/77	0208 0502 GMT	5319M	090	10KT	1	049 5 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	22.03	34.443	5.12	0.05	4.3	0.00	0.0	410.3	0	22.03	34.443	5.12	23.808	410.3	0.000
16	21.91	34.480	5.23	0.03	4.2	0.00	0.0	401.8	10	21.85	34.459	5.19	23.870	404.3	0.041
21	21.83	34.504	5.21	0.04	4.2	0.00	0.0	400.6	20	21.83	34.498	5.21	23.905	401.0	0.081
41	18.61	34.076	5.78	0.08	4.6	0.00	0.0	350.6	30	20.60	34.324	5.43	24.107	381.8	0.120
71	16.95	34.259	5.85	0.08	4.4	0.00	0.0	298.9	50	17.89	34.104	5.80	24.634	331.6	0.192
100	15.81	34.104	5.84	0.11	4.7	0.00	0.0	285.1	75	16.77	34.244	5.85	25.008	296.0	0.271
125	15.09	34.084	5.80	0.16	5.1	0.04	0.0	271.4	100	15.81	34.104	5.84	25.122	285.1	0.344
150	13.45	33.849	5.79	0.27	6.2	0.03	1.0	255.7	125	15.09	34.084	5.80	25.267	271.4	0.415
174	12.46	33.897	5.55	0.47	8.0	0.02	4.1	233.4	150	13.45	33.849	5.79	25.432	255.7	0.481
199	11.71	33.940	5.42	0.62	9.8	0.01	7.0	216.7	200	11.69	33.945	5.41	25.848	216.1	0.601
249	10.96	34.136	5.09	0.88	14.	0.01	12.0	189.2	250	10.94	34.138	5.09	26.135	188.8	0.705
298	9.96	34.143	5.03	1.09	19.	0.00	15.4	172.1	300	9.93	34.143	5.03	26.316	171.7	0.798
397	8.39	34.069	4.61	1.44	30.	0.00	20.7	153.6	400	8.34	34.067	4.59	26.512	153.1	0.967
496	6.63	33.978	3.60	2.01	49.	0.00	28.6	136.5	500	6.57	33.978	3.54	26.694	135.8	1.119
595	5.25	33.979	2.21	2.62	73.	0.00	37.2	120.0	600	5.19	33.983	2.15	26.869	119.2	1.253
695	4.36	34.060	1.28		97.	0.00	42.0	104.5	700	4.34	34.068	1.24	27.032	103.7	1.371
794	4.03	34.185	0.64	3.17	114.	0.00	44.6	91.8	800	4.01	34.190	0.61	27.163	91.3	1.476
839A	3.90	34.215	0.46	3.22	117.		45.4	88.3	1000	3.59	34.347	0.25	27.331	75.4	1.657
894	3.81	34.267	0.39	3.26	124.	0.00	46.0	83.5	1200	3.14	34.453	0.40	27.458	63.4	1.812
994	3.60	34.342	0.25	3.31	132.	0.00	45.6	75.8	1500	2.60	34.538	0.85	27.573	52.4	2.011
1087A	3.37	34.400	0.29	3.28	139.		46.0	69.4	1750	2.20	34.580	1.28	27.640	46.1	2.156
1334A	2.90	34.497	0.58	3.26	153.		45.8	57.9	2000	1.94	34.608	1.66	27.683	42.0	2.287
1583A	2.46	34.552	0.99	3.18	164.		45.0	50.1	2250	1.79	34.626	1.94	27.709	39.4	2.411
1830A	2.10	34.589	1.42	3.09	174.		44.0	44.5	2500	1.68	34.641	2.17	27.730	37.5	2.529
2078A	1.89	34.613	1.75	3.03	178.		43.1	41.1	2750	1.61	34.652	2.45	27.744	36.2	2.644
2326A	1.76	34.631	2.01	2.93	182.		42.2	38.8	3000	1.55	34.662	2.71	27.756	35.0	2.757
2575A	1.65	34.644	2.24	2.88	179.		41.6	37.0	3250	1.51	34.668	2.93	27.765	34.2	2.869
2822A	1.60	34.654	2.54	2.81	177.		40.9	35.9	3500	1.48	34.674	3.11	27.771	33.6	2.980
3070A	1.537	34.664	2.77	2.79	174.		40.6	34.7	3750	1.48	34.678	3.24	27.774	33.3	3.092
3318A	1.498	34.669	2.98	2.71	172.		39.4	34.1	4000	1.47	34.681	3.31	27.777	33.0	3.204
3567A	1.482	34.675	3.15	2.67	173.		38.7	33.5	4250	1.49	34.685	3.36	27.779	32.9	3.318
3814A	1.48	34.678	3.27	2.65	171.		38.6	33.3	4500	1.51	34.685	3.42	27.778	33.0	3.433
4062A	1.47	34.681	3.32	2.62			38.6	33.0	4750	1.53	34.685	3.51	27.777	33.1	3.552
4311A	1.50	34.685	3.37	2.61	169.		38.4	32.9	5000	1.56	34.687	3.56	27.776	33.2	3.672
4558A	1.51	34.684	3.44	2.58	165.		38.4	33.0	5250	1.59	34.688	3.58	27.775	33.3	3.795
4807A	1.54	34.685	3.53	2.60	164.		38.2	33.2							
5006A	1.562	34.686	3.56	2.58	162.		37.9	33.2							
5155A	1.566														
5248A	1.58	34.689	3.58	2.56	160.		37.6	33.1							
5251A	1.590	34.688						33.3							

RV THOMAS WASHINGTON — INDOPAC LEG XVI — 21

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 09.8N	144 59.4W	7/22/77	1125 GMT	5340M	180	6KT	1	0

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	21.54	34.190	5.25					415.7	0	21.54	34.190	5.25	23.752	415.7	0.000
11	21.52	34.185	5.25					415.5	10	21.52	34.186	5.25	23.753	415.5	0.042
21	21.51	34.184	5.25					415.3	20	21.51	34.185	5.25	23.755	415.4	0.083
41	18.60	34.376	5.76					328.6	30	20.32	34.270	5.46	24.142	378.5	0.123
71	17.00	34.289	5.83					297.8	50	17.94	34.340	5.78	24.802	315.6	0.193
99	15.55	34.011	5.86					286.4	75	16.75	34.237	5.83	25.008	295.9	0.270
124	15.75	34.280	5.66					271.0	100	15.56	34.022	5.85	25.114	285.8	0.343
149	13.19	33.854	5.73					251.8	125	15.66	34.265	5.66	25.278	270.3	0.413
174	11.90	33.829	5.66					228.3	150	13.12	33.629	5.73	25.483	250.8	0.479
199	11.59	33.990	5.25					210.9	200	11.57	33.994	5.25	25.909	210.3	0.597
298	9.32	34.075	4.97					167.1	250	10.43	34.092	5.11	26.189	183.7	0.698
348	8.73	34.078	4.75					157.9	300	9.30	34.077	4.96	26.369	166.6	0.788
397	7.88	34.035						148.9	400	7.83	34.033	4.36	26.561	148.4	0.952
497	6.24	33.965	3.35					132.6	500	6.19	33.966	3.31	26.733	132.1	1.099
597	4.96	33.988	2.08					116.2	600	4.93	33.991	2.05	26.905	115.7	1.229
696	4.29	34.074	1.16					102.7	700	4.27	34.080	1.13	27.048	102.2	1.345
795	3.97	34.186	0.60					91.1	800	3.96	34.191	0.58	27.170	90.6	1.448
893	3.746	34.271	0.35					82.6	1000	3.45	34.349	0.29	27.345	73.9	1.627
992	3.47	34.345	0.28					74.4	1200	3.12	34.455	0.42	27.462	63.0	1.780
1192	3.13	34.451	0.41					63.4							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 09,9N	145 59,0W	07/22/77	0045 GMT

Z	T	S	SIGMA T	DT	DD
0	22.26	34.49	23.779	413.1	0.000
10	22.20	34.48	23.788	412.2	0.041
20	21.84	34.52	23.919	399.7	0.082
30	19.35	34.08	24.250	368.2	0.120
40	17.86	34.04	24.592	335.6	0.156
50	17.81	34.34	24.833	312.6	0.188
75	16.48	34.18	25.027	294.2	0.265
100	15.96	34.20	25.162	281.3	0.337
125	14.40	33.91	25.281	269.9	0.407
150	13.34	33.85	25.455	253.5	0.473
175	12.27	33.89	25.697	230.5	0.535
200	11.47	33.97	25.909	210.3	0.591
225	11.20	34.08	26.044	197.5	0.643
250	10.77	34.13	26.160	186.4	0.693
275	10.26	34.14	26.257	177.2	0.739
300	9.93	34.15	26.321	171.1	0.784
350	9.17	34.11	26.415	162.2	0.871
400	8.28	34.06	26.516	152.7	0.953
450	7.34	34.01	26.614	143.3	1.031
500	6.38	33.98	26.721	133.2	1.103
550	5.62	33.98	26.817	124.1	1.171
600	5.04	34.00	26.901	116.1	1.234
650	4.61	34.04	26.981	108.5	1.294
700	4.30	34.08	27.046	102.4	1.350
750	4.19	34.14	27.106	96.7	1.403
800	4.02	34.19	27.163	91.3	1.453
850	3.90	34.24	27.215	86.4	1.501
900	3.78	34.29	27.267	81.5	1.547
950	3.67	34.33	27.309	77.4	1.591
1000	3.56	34.36	27.344	74.1	1.632
1100	3.31	34.41	27.408	68.1	1.711
1200	3.08	34.45	27.461	63.0	1.785
1300	2.94	34.49	27.506	58.8	1.854
1400	2.80	34.52	27.542	55.3	1.920
1500	2.62	34.54	27.574	52.3	1.983
1600	2.445	34.561	27.606	49.3	2.042
1700	2.301	34.576	27.630	47.0	2.099
1800	2.159	34.589	27.652	44.9	2.154
1900	2.057	34.599	27.668	43.4	2.206
2000	1.974	34.609	27.683	42.0	2.258
2100	1.903	34.618	27.695	40.8	2.308
2200	1.842	34.626	27.706	39.8	2.357
2300	1.791	34.631	27.714	39.0	2.405
2400	1.741	34.637	27.723	38.2	2.453
2500	1.700	34.642	27.730	37.5	2.500
2600	1.662	34.646	27.736	37.0	2.546
2700	1.625	34.653	27.744	36.2	2.592
2800	1.602	34.655	27.748	35.9	2.638
2900	1.581	34.658	27.752	35.5	2.683
3000	1.549	34.661	27.756	35.0	2.728
3100	1.537	34.664	27.760	34.7	2.773
3200	1.518	34.668	27.764	34.3	2.817
3300	1.502	34.670	27.767	34.0	2.862
3400	1.495	34.673	27.770	33.7	2.906
3500	1.485	34.674	27.771	33.6	2.951
3600	1.478	34.677	27.774	33.3	2.995
3700	1.477	34.678	27.775	33.2	3.039
3800	1.479	34.679	27.776	33.2	3.084
3900	1.476	34.681	27.778	33.0	3.129
4000	1.482	34.682	27.778	33.0	3.174
4100	1.486	34.683	27.779	32.9	3.219
4200	1.490	34.682	27.778	33.0	3.265
4300	1.494	34.682	27.777	33.1	3.311
4400	1.502	34.684	27.778	33.0	3.357
4500	1.509	34.684	27.778	33.0	3.403
4600	1.515	34.685	27.778	33.0	3.450
4700	1.525	34.685	27.777	33.0	3.498
4800	1.533	34.685	27.777	33.1	3.545
4900	1.542	34.686	27.777	33.1	3.593
5000	1.550	34.687	27.777	33.1	3.642
5100	1.560	34.687	27.777	33.1	3.690
5200	1.571	34.687	27.776	33.2	3.739
5300	1.584	34.686	27.774	33.4	3.789

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 09,7N	144 59,6W	07/22/77	1045 GMT

Z	T	S	SIGMA T	DT	DD
0	21.48	34.16	23.745	416.3	0.000
10	21.49	34.21	23.781	412.9	0.041
20	21.48	34.21	23.783	412.7	0.083
30	20.66	34.15	23.960	395.8	0.123
40	19.46	34.37	24.442	349.8	0.161
50	17.92	34.27	24.753	320.2	0.194
75	16.96	34.31	25.014	295.4	0.272
100	15.68	34.02	25.087	288.5	0.345
125	15.58	34.29	25.316	266.6	0.416
150	12.97	33.75	25.452	253.8	0.482
175	11.92	33.84	25.725	227.8	0.543
200	11.45	33.96	25.905	210.7	0.599
225	10.69	34.00	26.073	194.7	0.651
250	10.24	34.06	26.198	182.8	0.699
275	9.80	34.12	26.320	171.3	0.745
300	9.31	34.11	26.393	164.3	0.788
350	8.69	34.08	26.468	157.2	0.872
400	7.86	34.05	26.570	147.5	0.951
450	7.04	34.00	26.648	140.1	1.026
500	6.25	33.98	26.738	131.6	1.098
550	5.46	33.97	26.828	123.0	1.165
600	4.94	34.00	26.913	115.0	1.227
650	4.55	34.04	26.988	107.9	1.286
700	4.26	34.09	27.058	101.2	1.342
750	4.08	34.14	27.117	95.6	1.394
800	3.95	34.19	27.170	90.6	1.444
850	3.83	34.23	27.214	86.5	1.492
900	3.71	34.26	27.250	83.1	1.538
950	3.53	34.29	27.291	79.1	1.582
1000	3.35	34.33	27.331	75.4	1.624
1100	3.30	34.37	27.377	71.0	1.705
1200	3.14	34.41	27.424	66.5	1.782

RV THOMAS WASHINGTON INDOPAC LEG XVI

LATITUDE 35 10.3N | LONGITUDE 143 59.8W | MO/DAY/YR 7/22/77 | MESSENGER TIME 1818 2115 GMT | BOTTOM 5041M | WIND 060 | SPEED 14KT | WEATHER 1 | DOMINANT WAVES 060 4 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	21.42	34.444	5.23	0.04	4.0	0.00	0.0	394.2	0	21.42	34.444	5.23	23.977	394.2	0.000
15	21.30	34.442	5.29	0.04	4.0	0.00	0.0	391.2	10	21.33	34.443	5.27	24.002	391.8	0.039
20	21.29	34.443	5.27	0.04	3.9	0.00	0.0	390.8	20	21.29	34.443	5.27	24.012	390.8	0.079
40	21.06	34.429	5.34	0.03	3.9	0.00	0.0	385.9	30	21.18	34.437	5.31	24.038	388.4	0.118
70	17.13	34.233	5.87	0.06	4.1	0.00	0.0	304.8	50	19.84	34.358	5.52	24.334	360.2	0.193
99	15.86	34.078	5.87	0.11	4.4	0.00	0.0	288.1	75	16.85	34.214	5.87	24.966	299.9	0.276
124	14.19	33.848	5.90	0.18	4.8	0.01	0.0	270.3	100	15.79	34.068	5.87	25.098	287.4	0.350
149	13.25	33.867	5.58	0.35	6.3	0.08	2.4	250.5	125	14.15	33.849	5.89	25.286	269.5	0.420
174	11.79	33.774	5.46	0.58	8.5	0.02	5.9	230.4	150	13.19	33.864	5.57	25.495	249.7	0.486
199	10.78	33.807	5.30	0.80	11.	0.00	9.8	209.5	200	10.70	33.813	5.29	25.925	208.7	0.603
249	9.99	34.080	5.07	1.04	17.	0.00	14.5	181.0	250	9.98	34.033	5.07	26.222	180.6	0.702
298	9.30	34.089	4.97	1.21	22.	0.00	17.8	165.7	300	9.27	34.090	4.96	26.383	165.3	0.792
398	7.64	34.080	4.32	1.65	36.	0.00	23.8	146.7	400	7.60	34.019	4.30	26.583	146.3	0.954
497	5.96	33.955	3.08	2.24	58.	0.00	31.6	130.0	500	5.92	33.956	3.04	26.760	129.5	1.098
598	4.93	33.991	1.97	2.74	79.	0.00	37.8	115.6	600	4.91	33.994	1.95	26.910	115.3	1.227
696	4.26	34.074	1.19	3.00	99.	0.00	42.8	102.4	700	4.24	34.080	1.16	27.051	101.9	1.342
795	3.93	34.187	0.65	3.18	116.	0.00	45.0	90.6	800	3.91	34.193	0.63	27.175	90.1	1.444
894	3.65	34.272	0.38	3.27	125.	0.00	45.7	81.6	1000	3.40	34.346	0.24	27.348	73.7	1.622
994	3.41	34.342	0.24	3.31	136.	0.00	46.4	74.1	1200	3.14	34.458	0.46	27.462	62.9	1.775
1056A	3.29	34.379	0.25	3.30	140.		46.4	70.2	1500	2.55	34.539	0.90	27.579	51.8	1.973
1192	3.16	34.455	0.45	3.30	145.	0.00	46.3	63.3	1750	2.21	34.583	1.29	27.642	45.9	2.116
1302A	2.88	34.488	0.55	3.23	153.		46.4	58.4	2000	1.97	34.609	1.62	27.682	42.1	2.248
1551A	2.49	34.550	1.00	3.17	163.		45.2	50.5	2250	1.81	34.626	1.92	27.708	39.6	2.372
1799A	2.15	34.587	1.36	3.08	173.		44.2	45.0	2500	1.70	34.640	2.21	27.728	37.7	2.491
2046A	1.94	34.611	1.68	3.00	178.		43.1	41.6	2750	1.60	34.651	2.46	27.744	36.2	2.606
2293A	1.79	34.628	1.97	2.92	181.		42.1	39.2	3000	1.54	34.660	2.74	27.756	35.1	2.719
2541A	1.66	34.642	2.25	2.88	178.		41.8	37.4	3250	1.50	34.669	2.99	27.766	34.1	2.831
2789A	1.592	34.652	2.50	2.82	174.		41.8	36.0	3500	1.47	34.676	3.18	27.773	33.4	2.941
3036A	1.537	34.661	2.78	2.76	172.		40.2	35.0	3750	1.46	34.678	3.25	27.776	33.2	3.052
3284A	1.492	34.669	3.02	2.65	168.		39.5	34.0	4000	1.48	34.681	3.34	27.777	33.1	3.164
3532A	1.47	34.676	3.20	2.66	168.		39.4	33.4	4250	1.48	34.685	3.48	27.778	33.0	3.278
3780A	1.46	34.678	3.25	2.63	168.		38.8	33.1	4500	1.51	34.685	3.47	27.778	33.0	3.393
4029A	1.48	34.681	3.35	2.60	169.		38.6	33.0	4750	1.52	34.687	3.53	27.778	33.0	3.511
4275A	1.485	34.682	3.49	2.60	167.		38.0	33.0	5000	1.55	34.687	3.61	27.777	33.1	3.631
4525A	1.510	34.685	3.47	2.60	164.		38.4	32.9							
4723A	1.523	34.686	3.52	2.57	161.		38.3	33.0							
4872A	1.534	34.687	3.57	2.55	158.		37.9	33.0							
4972A	1.544	34.687	3.62	2.55	158.		37.9	33.0							
5021A	1.556	34.686	3.59	2.55	157.		38.0	33.2							

RV THOMAS WASHINGTON INDOPAC LEG XVI

LATITUDE 35 10.4N | LONGITUDE 143 00.3W | MO/DAY/YR 7/23/77 | MESSENGER TIME 0340 GMT | BOTTOM 5338M | WIND 060 | SPEED 19KT | WEATHER 1 | DOMINANT WAVES 060 6 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	21.19	34.302	5.26					398.4	0	21.19	34.302	5.26	23.932	398.4	0.000
11	21.18	34.301	5.29					398.3	10	21.18	34.302	5.29	23.934	398.3	0.040
21	20.88	34.410	5.36					382.6	20	20.91	34.400	5.35	24.081	384.2	0.079
41	20.46	34.379	5.44					374.1	30	20.74	34.410	5.39	24.136	379.0	0.117
70	16.70	34.010	5.92					311.4	50	19.26	34.245	5.60	24.397	354.2	0.191
99	15.82	33.919	5.79					298.9	75	16.55	34.000	5.92	24.873	308.8	0.274
124	15.82	34.043	5.76					289.8	100	15.82	33.924	5.79	24.981	298.6	0.351
148	14.07	33.795	5.60					271.8	125	15.76	34.036	5.75	25.079	289.2	0.425
173	12.40	33.687	5.61					247.8	150	13.92	33.782	5.60	25.282	269.9	0.496
198	11.41	33.721	5.46					227.6	200	11.34	33.730	5.44	25.746	225.8	0.622
248	9.87	33.925	5.11					186.8	250	9.83	33.933	5.10	26.168	185.7	0.727
296	9.08	34.039	4.97					166.1	300	9.01	34.042	4.95	26.387	164.9	0.818
396	7.43	33.997	4.17					145.5	400	7.37	33.996	4.12	26.598	144.9	0.979
495	6.00	33.957	2.84					130.3	500	5.93	33.959	2.78	26.760	129.5	1.122
594	4.86	34.002	1.71					114.0	600	4.82	34.010	1.65	26.933	113.1	1.250
693	4.41	34.115	0.89					100.8	700	4.38	34.123	0.85	27.071	100.0	1.363
793	4.02	34.201	0.50					90.5	800	4.00	34.209	0.48	27.179	89.8	1.464
891	3.82	34.297	0.28					81.3	1000	3.63	34.378	0.28	27.351	73.4	1.643
990	3.65	34.373	0.27					74.0	1200	3.22	34.463	0.45	27.459	63.3	1.796
1188	3.24	34.458	0.44					63.8							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 10.4N	144 00.8E	07/22/77	1656 GMT

Z	T	S	SIGMA T	DT	DD
0	21.25	34.43	24.013	390.7	0.000
10	21.25	34.43	24.013	390.7	0.039
20	21.20	34.42	24.019	390.2	0.078
30	21.08	34.42	24.052	387.0	0.117
40	19.70	34.23	24.274	365.9	0.155
50	17.66	34.06	24.656	329.5	0.190
75	16.66	34.16	24.970	299.6	0.269
100	15.30	33.91	25.087	288.5	0.345
125	14.29	33.81	25.228	275.1	0.414
150	13.27	33.80	25.431	255.6	0.482
175	11.89	33.72	25.637	236.1	0.544
200	10.72	33.79	25.905	210.7	0.601
225	10.36	33.93	26.076	194.4	0.653
250	9.93	34.04	26.235	179.3	0.701
275	9.50	34.07	26.331	170.3	0.746
300	9.05	34.07	26.404	163.3	0.789
350	8.23	34.04	26.508	153.5	0.871
400	7.36	33.99	26.596	145.1	0.949
450	6.43	33.96	26.699	135.3	1.022
500	5.69	33.96	26.792	126.4	1.091
550	5.15	33.98	26.873	118.8	1.155
600	4.69	34.02	26.956	110.9	1.215
650	4.35	34.06	27.025	104.4	1.272
700	4.13	34.12	27.096	97.6	1.326
750	3.96	34.19	27.169	90.7	1.376
800	3.80	34.23	27.217	86.2	1.424
850	3.69	34.27	27.260	82.1	1.469
900	3.58	34.30	27.294	78.8	1.513
950	3.48	34.34	27.336	74.9	1.555
1000	3.36	34.38	27.379	70.8	1.595
1100	3.26	34.43	27.429	66.1	1.671
1200	3.06	34.46	27.471	62.1	1.743
1300	2.86	34.49	27.513	58.1	1.812
1400	2.72	34.52	27.550	54.6	1.876
1500	2.56	34.54	27.579	51.8	1.938
1600	2.396	34.562	27.611	48.8	1.997
1700	2.265	34.577	27.634	46.7	2.053
1800	2.126	34.590	27.655	44.6	2.107
1900	2.041	34.600	27.670	43.2	2.160
2000	1.973	34.609	27.683	42.0	2.211
2100	1.899	34.619	27.696	40.7	2.261
2200	1.833	34.627	27.708	39.6	2.310
2300	1.792	34.633	27.716	38.9	2.358
2400	1.747	34.637	27.722	38.3	2.406
2500	1.706	34.642	27.730	37.6	2.453
2600	1.664	34.649	27.738	36.8	2.499
2700	1.625	34.652	27.744	36.3	2.545
2800	1.595	34.655	27.748	35.8	2.590
2900	1.571	34.658	27.752	35.4	2.636
3000	1.542	34.663	27.758	34.8	2.680
3100	1.525	34.665	27.761	34.6	2.725
3200	1.509	34.670	27.767	34.1	2.769
3300	1.491	34.672	27.769	33.8	2.813
3400	1.488	34.674	27.771	33.6	2.858
3500	1.479	34.675	27.773	33.5	2.902
3600	1.474	34.676	27.774	33.4	2.946
3700	1.472	34.679	27.776	33.1	2.990
3800	1.473	34.680	27.777	33.1	3.035
3900	1.476	34.681	27.778	33.0	3.080
4000	1.477	34.681	27.778	33.0	3.125
4100	1.478	34.682	27.778	32.9	3.170
4200	1.486	34.684	27.779	32.9	3.215
4300	1.492	34.683	27.778	33.0	3.261
4400	1.498	34.683	27.778	33.0	3.307
4500	1.504	34.684	27.778	33.0	3.354
4600	1.511	34.685	27.778	32.9	3.401
4700	1.518	34.686	27.779	32.9	3.448
4800	1.527	34.686	27.778	33.0	3.495
4900	1.535	34.686	27.778	33.0	3.543
5000	1.548	34.687	27.777	33.1	3.591

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 10.0N	142 59.4E	07/23/77	0303 GMT

Z	T	S	SIGMA T	DT	DD
0	21.19	34.30	23.931	396.8	0.000
10	21.17	34.31	23.944	397.5	0.040
20	20.99	34.39	24.053	386.9	0.079
30	20.83	34.45	24.127	379.5	0.118
40	20.43	34.37	24.188	374.0	0.155
50	17.84	34.09	24.623	332.6	0.191
75	16.29	33.94	24.887	307.5	0.271
100	15.84	33.94	24.989	297.7	0.348
125	15.11	33.88	25.105	286.7	0.421
150	13.36	33.72	25.351	263.4	0.491
175	12.44	33.79	25.587	240.9	0.555
200	10.63	33.67	25.827	218.1	0.614
225	10.01	33.84	26.066	195.4	0.666
250	9.65	33.95	26.212	181.5	0.715
275	9.31	34.02	26.323	171.0	0.760
300	8.93	34.04	26.399	163.7	0.803
350	8.10	34.02	26.511	153.1	0.886
400	7.26	33.99	26.610	143.8	0.963
450	6.44	33.96	26.697	135.5	1.036
500	5.90	33.96	26.766	128.9	1.105
550	5.27	33.97	26.851	120.9	1.171
600	4.75	34.01	26.942	112.3	1.232
650	4.44	34.06	27.015	105.3	1.289
700	4.37	34.13	27.078	99.3	1.344
750	4.10	34.16	27.131	94.3	1.395
800	3.96	34.21	27.185	89.2	1.445
850	3.86	34.26	27.235	84.5	1.492
900	3.78	34.30	27.275	80.7	1.537
950	3.70	34.35	27.322	76.2	1.580
1000	3.63	34.38	27.353	73.3	1.621
1100	3.47	34.44	27.416	67.2	1.700

RV THOMAS WASHINGTON INDOPAC LEG XVI 24

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 09.3N	142 00.3W	7/23/77	1043 1339 GMT	5307M	120	10KT	1	060 4 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	20.89	33.979	5.30	0.10	4.0	0.01	0.0	414.1	0	20.89	33.979	5.30	23.769	414.1	0.000
16	20.85	33.975	5.33	0.10	4.0	0.01	0.0	413.3	10	20.87	33.978	5.32	23.772	413.7	0.041
21	20.83	33.974	5.39	0.10	4.1	0.01	0.0	412.9	20	20.83	33.975	5.38	23.780	413.0	0.083
41	18.28	33.881	5.79	0.11	4.2	0.00	0.0	356.9	30	19.87	33.933	5.57	24.002	391.8	0.123
70	16.20	33.835	5.97	0.13	4.1	0.00	0.0	313.2	50	17.37	33.856	5.85	24.568	337.9	0.196
99	15.85	33.880	5.85	0.13	4.2	0.00	0.0	302.4	75	16.14	33.840	5.96	24.845	311.5	0.278
124	15.84	33.971	5.76	0.13	4.2	0.00	0.0	295.5	100	15.85	33.886	5.85	24.945	302.0	0.355
149	15.75	34.006	5.68	0.15	4.3	0.11	0.0	291.0	125	15.84	33.973	5.76	25.015	295.3	0.431
174	14.77	33.844	5.70	0.20	4.7	0.10	0.2	282.3	150	15.73	34.002	5.68	25.062	290.8	0.505
199	13.13	33.726	5.62	0.38	6.2	0.02	2.2	258.6	200	13.06	33.727	5.61	25.414	257.4	0.645
249	10.50	33.833	5.27	0.84	12.8	0.01	10.5	203.9	250	10.47	33.839	5.26	25.985	203.1	0.762
298	9.68	34.044	5.03	1.10	20.	0.01	15.5	175.0	300	9.65	34.048	5.02	26.288	174.3	0.859
398	8.00	34.022	4.47	1.54	32.	0.01	22.2	151.5	400	7.96	34.021	4.44	26.532	151.1	1.029
498	6.23	33.954	2.95	2.24	55.	0.00	32.0	133.3	500	6.20	33.955	2.92	26.723	133.0	1.177
598	5.17	34.009	1.63	2.80	77.	0.00	39.4	116.9	600	5.16	34.012	1.61	26.896	116.6	1.309
697	4.66	34.123	0.82	3.11	95.	0.00	43.0	102.8	700	4.65	34.128	0.80	27.045	102.4	1.425
797	4.44	34.251	0.37	3.26	107.	0.00	44.6	90.9	800	4.43	34.255	0.36	27.170	90.6	1.529
811A	4.40	34.264	0.33	3.26	108.		45.0	89.5	1000	3.64	34.349	0.26	27.327	75.8	1.711
896	3.95	34.301	0.35	3.28	119.	0.00	45.6	82.3	1200	3.18	34.457	0.38	27.457	63.4	1.867
996	3.65	34.345	0.26	3.31	131.	0.00	45.8	76.1	1500	2.64	34.532	0.82	27.565	53.1	2.068
1057A	3.49	34.392	0.26	3.31	134.		46.6	71.0	1750	2.24	34.576	1.21	27.634	46.7	2.215
1303A	2.99	34.483	0.52	3.25	151.		46.2	59.7	2000	1.98	34.608	1.62	27.680	42.3	2.347
1550A	2.56	34.541	0.90	3.19	163.		45.4	51.7	2250	1.82	34.628	1.91	27.709	39.5	2.472
1796A	2.18	34.581	1.28	3.09	173.		44.2	45.7	2500	1.71	34.640	2.16	27.727	37.8	2.591
2042A	1.95	34.611	1.69	3.00	177.		43.0	41.7	2750	1.64	34.651	2.41	27.741	36.5	2.707
2287A	1.80	34.629	1.94	2.95	181.		42.4	39.2	3000	1.56	34.660	2.69	27.754	35.3	2.821
2534A	1.70	34.641	2.19	2.88	181.		41.8	37.6	3250	1.52	34.667	2.91	27.763	34.4	2.934
2780A	1.63	34.651	2.44	2.83	177.		41.0	36.4	3500	1.49	34.673	3.09	27.770	33.8	3.045
3026A	1.553	34.660	2.72	2.75	176.		40.4	35.1	3750	1.48	34.677	3.23	27.774	33.4	3.157
3271A	1.513	34.667	2.93	2.70	172.		39.8	34.3	4000	1.47	34.681	3.31	27.777	33.1	3.269
3517A	1.49	34.673	3.10	2.66	169.		39.3	33.7	4250	1.49	34.683	3.38	27.777	33.0	3.383
3763A	1.48	34.677	3.24	2.64	169.		38.6	33.3	4500	1.51	34.685	3.45	27.778	33.0	3.499
4008A	1.469	34.680	3.31	2.60	168.		38.6	33.0	4750	1.53	34.686	3.52	27.777	33.1	3.617
4253A	1.492	34.682	3.38	2.60	167.		38.3	33.0	5000	1.55	34.687	3.58	27.777	33.1	3.737
4499A	1.51	34.684	3.45	2.60	164.		38.2	33.0							
4745A	1.530	34.685	3.52	2.57	162.		37.9	33.1							
4941A	1.547	34.686	3.58	2.56	159.		37.8	33.1							
5087A	1.560														
5186A	1.576	34.689	3.58	2.55	158.		37.6	33.1							
5234A	1.58	34.688	3.60	2.55	157.		37.6	33.2							

RV THOMAS WASHINGTON INDOPAC LEG XVI 25

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 09.9N	141 00.0W	7/23/77	1943 GMT	5253M	170	9KT	1	170 4 2

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	21.06	33.873	5.29					426.1	0	21.06	33.873	5.29	23.642	426.1	0.000
11	20.96	33.904	5.33					421.3	10	20.97	33.902	5.33	23.688	421.8	0.042
21	18.64	33.879	5.76					365.6	20	18.90	33.882	5.71	24.211	371.9	0.082
41	16.32	33.823	5.90					316.7	30	17.31	33.854	5.82	24.583	336.5	0.118
71	15.82	33.860	5.78					303.2	50	16.17	33.835	5.88	24.833	312.6	0.183
100	15.72	33.933	5.77					295.7	75	15.81	33.877	5.78	24.945	301.9	0.260
125	15.10	33.835	5.76					289.8	100	15.72	33.933	5.77	25.011	295.7	0.335
150	13.95	33.662	5.63					279.1	125	15.10	33.835	5.76	25.073	289.8	0.409
175	12.97	33.644	5.62					261.5	150	13.95	33.662	5.63	25.185	279.1	0.481
200	11.77	33.693	5.57					236.0	200	11.77	33.693	5.57	25.639	236.0	0.612
250	10.28	33.928	5.16					193.2	250	10.28	33.928	5.16	26.089	193.2	0.722
300	9.43	34.043	4.97					171.2	300	9.43	34.043	4.97	26.321	171.2	0.816
400	7.68	34.010	4.28					148.0	400	7.68	34.010	4.28	26.565	148.0	0.982
500	6.08	33.962	2.90					130.9	500	6.08	33.962	2.90	26.745	130.9	1.128
600	4.94	33.997	1.77					115.3	600	4.94	33.997	1.77	26.910	115.3	1.257
699	4.41	34.096	1.00					102.3	700	4.41	34.098	0.99	27.049	102.1	1.373
799	4.06	34.207	0.49					90.4	800	4.06	34.209	0.49	27.173	90.3	1.476
897	3.82	34.292	0.31					81.7	1000	3.52	34.360	0.27	27.347	73.9	1.655
997	3.53	34.357	0.27					74.1	1200	3.17	34.447	0.38	27.451	64.0	1.809
1197	3.179	34.446	0.38					64.2							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 09.8N	142 00.5W	07/23/77	0912 GMT

Z	T	S	SIGMA T	DT	DD
0	20.86	33.98	23.777	413.2	0.000
10	20.86	33.98	23.777	413.2	0.041
20	20.86	33.98	23.777	413.2	0.083
30	19.99	33.88	23.932	398.5	0.123
40	18.32	33.85	24.334	360.2	0.161
50	17.32	33.84	24.570	337.7	0.196
75	15.98	33.83	24.873	308.8	0.278
100	15.75	33.88	24.964	300.2	0.355
125	15.90	34.00	25.022	294.6	0.430
150	15.79	34.01	25.054	291.6	0.504
175	14.02	33.69	25.192	278.5	0.576
200	12.75	33.72	25.472	251.8	0.644
225	11.40	33.69	25.705	229.7	0.705
250	10.38	33.85	26.011	200.6	0.760
275	9.98	33.99	26.188	183.8	0.810
300	9.60	34.04	26.291	174.0	0.856
350	8.88	34.05	26.415	162.2	0.943
400	7.89	34.01	26.535	150.9	1.025
450	6.97	33.97	26.634	141.4	1.101
500	6.16	33.97	26.741	131.3	1.173
550	5.58	33.99	26.829	122.9	1.240
600	5.19	34.04	26.915	114.8	1.302
650	4.76	34.08	26.996	107.1	1.361
700	4.54	34.14	27.068	100.3	1.417
750	4.42	34.20	27.129	94.5	1.469
800	4.42	34.26	27.176	90.0	1.519
850	4.25	34.31	27.234	84.6	1.566
900	3.93	34.32	27.275	80.6	1.612
950	3.71	34.34	27.313	77.0	1.655
1000	3.59	34.37	27.349	73.6	1.697
1100	3.42	34.43	27.413	67.5	1.775
1200	3.16	34.47	27.470	62.2	1.849
1300	2.97	34.49	27.503	59.0	1.918
1400	2.81	34.52	27.542	55.4	1.984
1500	2.66	34.54	27.571	52.6	2.047
1600	2.488	34.556	27.598	50.0	2.107
1700	2.328	34.575	27.627	47.3	2.164
1800	2.195	34.589	27.649	45.2	2.219
1900	2.088	34.603	27.669	43.3	2.272
2000	1.987	34.609	27.682	42.1	2.324
2100	1.912	34.618	27.695	40.9	2.374
2200	1.846	34.625	27.705	39.9	2.423
2300	1.801	34.633	27.715	38.9	2.472
2400	1.754	34.641	27.725	38.0	2.519
2500	1.713	34.643	27.730	37.6	2.566
2600	1.676	34.647	27.736	37.0	2.613
2700	1.642	34.652	27.742	36.4	2.659
2800	1.611	34.653	27.746	36.1	2.705
2900	1.583	34.658	27.752	35.5	2.750
3000	1.557	34.660	27.755	35.2	2.795
3100	1.538	34.664	27.760	34.7	2.840
3200	1.522	34.667	27.763	34.4	2.885
3300	1.506	34.670	27.767	34.1	2.929
3400	1.498	34.672	27.769	33.8	2.974
3500	1.488	34.673	27.770	33.7	3.018
3600	1.481	34.676	27.773	33.4	3.063
3700	1.477	34.677	27.774	33.3	3.107
3800	1.476	34.678	27.775	33.2	3.152
3900	1.481	34.680	27.777	33.1	3.197
4000	1.481	34.681	27.777	33.0	3.242
4100	1.485	34.681	27.777	33.1	3.287
4200	1.491	34.681	27.777	33.1	3.333
4300	1.495	34.683	27.778	33.0	3.379
4400	1.502	34.684	27.778	33.0	3.425
4500	1.507	34.683	27.777	33.1	3.472
4600	1.517	34.686	27.779	32.9	3.518
4700	1.522	34.685	27.778	33.0	3.566
4800	1.531	34.686	27.778	33.0	3.613
4900	1.540	34.686	27.777	33.1	3.661
5000	1.551	34.688	27.778	33.0	3.710
5100	1.561	34.687	27.776	33.1	3.758
5200	1.574	34.687	27.775	33.2	3.808

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 10.0N	141 00.5W	07/23/77	1909 GMT

Z	T	S	SIGMA T	DT	DD
0	20.98	33.86	23.654	425.0	0.000
10	20.96	33.86	23.659	424.5	0.042
20	20.85	33.93	23.742	416.6	0.085
30	18.97	33.88	24.195	373.5	0.124
40	17.39	33.81	24.530	341.5	0.160
50	16.32	33.82	24.788	316.9	0.193
75	15.81	33.88	24.950	301.5	0.271
100	15.77	33.96	25.021	294.8	0.346
125	15.11	33.82	25.059	291.1	0.420
150	13.93	33.62	25.157	281.8	0.493
175	12.93	33.66	25.390	259.6	0.561
200	11.76	33.70	25.646	235.3	0.624
225	10.53	33.77	25.922	209.0	0.681
250	10.29	33.98	26.127	189.5	0.732
275	9.71	34.01	26.249	178.0	0.779
300	9.46	34.04	26.314	171.9	0.825
350	8.56	34.05	26.465	157.5	0.910
400	7.78	34.02	26.559	148.6	0.990
450	6.92	33.98	26.649	140.0	1.065
500	6.11	33.96	26.740	131.4	1.137
550	5.37	33.98	26.847	121.3	1.203
600	4.91	34.01	26.924	114.0	1.265
650	4.62	34.06	26.996	107.1	1.323
700	4.38	34.10	27.054	101.7	1.379
750	4.16	34.16	27.125	94.9	1.431
800	4.02	34.22	27.187	89.0	1.481
850	3.85	34.25	27.228	85.1	1.528
900	3.72	34.29	27.273	80.9	1.573
950	3.50	34.30	27.302	78.1	1.616
1000	3.52	34.35	27.340	74.5	1.658
1100	3.30	34.38	27.385	70.2	1.739
1200	3.16	34.42	27.430	66.0	1.815

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 10.6N	139 58.0W	7/24/77	0221 0523 GMT	5457M	150	7KT	1	49 2

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	21.56	33.901	5.31	0.11	4.3	0.01	0.0	437.1	0	21.56	33.901	5.31	23.527	437.1	0.000
16	20.77	33.969	5.36	0.10	4.1	0.00	0.0	411.7	10	21.03	33.953	5.33	23.710	419.7	0.043
21	20.61	33.973	5.39	0.09	4.2	0.00	0.0	407.4	20	20.65	33.975	5.38	23.829	408.3	0.084
41	17.30	33.740	5.97	0.13	4.4	0.01	0.0	344.6	30	19.30	33.872	5.63	24.105	382.0	0.124
71	15.01	33.706	6.15	0.16	4.7	0.01	0.0	297.4	50	16.38	33.715	6.02	24.693	326.0	0.195
100	13.97	33.679	6.06	0.19	4.7	0.00	0.0	278.3	75	14.83	33.705	6.15	25.031	293.8	0.273
125	13.21	33.643	5.93	0.28	5.2	0.12	0.3	266.2	100	13.97	33.679	6.06	25.194	278.3	0.345
150	11.90	33.591	5.76	0.49	7.2	0.04	3.7	245.8	125	13.21	33.643	5.93	25.321	266.2	0.414
175	11.36	33.754	5.51	0.65	9.7	0.01	7.0	224.3	150	11.90	33.591	5.76	25.536	245.8	0.479
200	10.15	33.730	5.49	0.86	14.	0.01	10.6	205.8	200	10.15	33.730	5.49	25.957	205.8	0.593
250	9.57	34.026	5.23	1.10	20.	0.00	15.5	174.6	250	9.57	34.026	5.23	26.285	174.6	0.691
300	8.82	34.052	4.88	1.33	26.	0.00	19.0	161.2	300	8.82	34.052	4.88	26.426	161.2	0.777
400	7.30	33.989	4.16	1.76	40.	0.00	25.1	144.4	400	7.30	33.989	4.16	26.603	144.4	0.936
499	5.58	33.950	2.64	2.45	65.	0.00	34.8	125.9	500	5.57	33.952	2.63	26.800	125.7	1.077
598	4.64	34.013	1.52	2.90	88.	0.00	40.8	110.9	600	4.63	34.016	1.51	26.959	110.6	1.201
697	4.12	34.103	0.99	3.09	105.	0.00	43.0	98.8	700	4.11	34.108	0.97	27.087	98.5	1.312
799	3.85	34.213	0.52	3.23	120.	0.00	45.3	87.9	800	3.85	34.215	0.52	27.200	87.8	1.412
896	3.61	34.300	0.29	3.29	130.	0.00	46.1	79.1	1000	3.45	34.379	0.25	27.369	71.8	1.586
963A	3.50	34.348	0.22	3.29	134.		46.2	74.5	1200	3.08	34.469	0.46	27.476	61.6	1.735
996	3.46	34.375	0.25	3.33	136.	0.00	46.2	72.1	1500	2.56	34.545	0.93	27.583	51.5	1.930
1211A	3.06	34.471	0.47	3.29	147.		46.4	61.2	1750	2.20	34.584	1.32	27.644	45.7	2.073
1459A	2.63	34.537	0.86	3.20	160.		45.4	52.6	2000	1.94	34.612	1.65	27.687	41.6	2.203
1706A	2.26	34.577	1.26	3.12	172.		44.2	46.6	2250	1.79	34.630	1.93	27.713	39.1	2.326
1955A	1.97	34.606	1.60	3.03	181.		43.0	42.2	2500	1.68	34.643	2.21	27.731	37.4	2.444
2203A	1.82	34.627	1.88	2.98	182.		42.1	39.5	2750	1.61	34.654	2.43	27.746	36.0	2.559
2452A	1.70	34.640	2.16	2.91	184.		41.8	37.7	3000	1.55	34.663	2.67	27.757	35.0	2.671
2699A	1.62	34.651	2.39	2.84	182.		41.2	36.3	3250	1.51	34.668	2.91	27.764	34.3	2.783
2948A	1.56	34.661	2.61	2.78	182.		40.1	35.1	3500	1.48	34.676	3.09	27.772	33.5	2.894
3196A	1.522	34.665	2.87	2.72	178.		39.8	34.5	3750	1.47	34.680	3.25	27.777	33.1	3.006
3445A	1.489	34.674	3.04	2.68	177.		39.4	33.6	4000	1.47	34.681	3.33	27.778	33.0	3.117
3692A	1.474	34.679	3.23	2.66	173.		38.8	33.2	4250	1.48	34.685	3.39	27.780	32.8	3.231
3940A	1.47	34.680	3.31	2.63	173.		38.6	33.1	4500	1.51	34.687	3.46	27.780	32.8	3.346
4188A	1.47	34.683	3.38	2.61	170.		38.4	32.8	4750	1.53	34.687	3.50	27.778	33.0	3.464
4437A	1.511	34.687	3.44	2.58	165.		37.8	32.8	5000	1.56	34.688	3.57	27.777	33.1	3.584
4684A	1.523	34.686	3.50	2.58	164.		37.8	33.0	5250	1.59	34.688	3.58	27.774	33.3	3.707
4932A	1.553	34.688	3.53	2.58	164.		37.7	33.0							
5131A	1.571	34.687	3.63	2.57	164.		37.5	33.2							
5279A	1.593	34.687	3.57	2.56	162.		37.6	33.4							
5379A	1.606	34.688	3.57	2.57	161.		37.6	33.4							
5428A	1.62	34.687	3.58	2.57	162.		37.6	33.6							

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
35 09.5N	139 01.1W	7/24/77	1108 GMT	5122M	200	7KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	21.12	33.927	5.33					423.8	0	21.12	33.927	5.33	23.667	423.8	0.000
11	20.61	33.884	5.38					413.8	10	20.66	33.888	5.37	23.761	414.8	0.042
21	20.15	33.870	5.44					403.2	20	20.21	33.873	5.43	23.869	404.5	0.083
41	17.54	33.767	5.90					348.1	30	19.06	33.823	5.64	24.128	379.8	0.122
70	15.43	33.686	6.00					307.6	50	16.71	33.739	5.93	24.635	331.5	0.194
99	14.57	33.618	5.95					294.8	75	15.25	33.678	6.00	24.919	304.4	0.274
124	13.61	33.526	5.89					282.5	100	14.54	33.616	5.95	25.025	294.4	0.349
149	11.92	33.441	5.69					257.2	125	13.55	33.522	5.88	25.159	281.6	0.422
173	10.67	33.569	5.50					226.2	150	11.86	33.446	5.68	25.430	255.9	0.490
198	10.10	33.710	5.35					206.4	200	10.06	33.725	5.34	25.967	204.8	0.607
248	9.32	33.996	5.02					172.9	250	9.29	34.002	5.01	26.310	172.2	0.703
297	8.69	34.049	4.78					159.5	300	8.64	34.049	4.76	26.451	158.6	0.789
397	6.96	33.977	3.95					140.8	400	6.91	33.977	3.91	26.646	140.3	0.944
496	5.55	33.956	2.53					125.1	500	5.51	33.958	2.49	26.812	124.6	1.082
595	4.70	34.007	1.61					112.0	600	4.67	34.013	1.57	26.953	111.3	1.206
695	4.17	34.118	0.85					98.2	700	4.16	34.126	0.82	27.097	97.6	1.317
795	3.95	34.241	0.42					86.8	800	3.94	34.247	0.41	27.215	86.3	1.415
893	3.712	34.314	0.27					79.0	1000	3.42	34.373	0.26	27.367	72.0	1.588
994	3.43	34.368	0.26					72.3	1200	3.06	34.470	0.46	27.479	61.3	1.737
1192	3.07	34.466	0.45					61.7							

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 10.5N	139 57.9W	07/24/77	0107 GMT

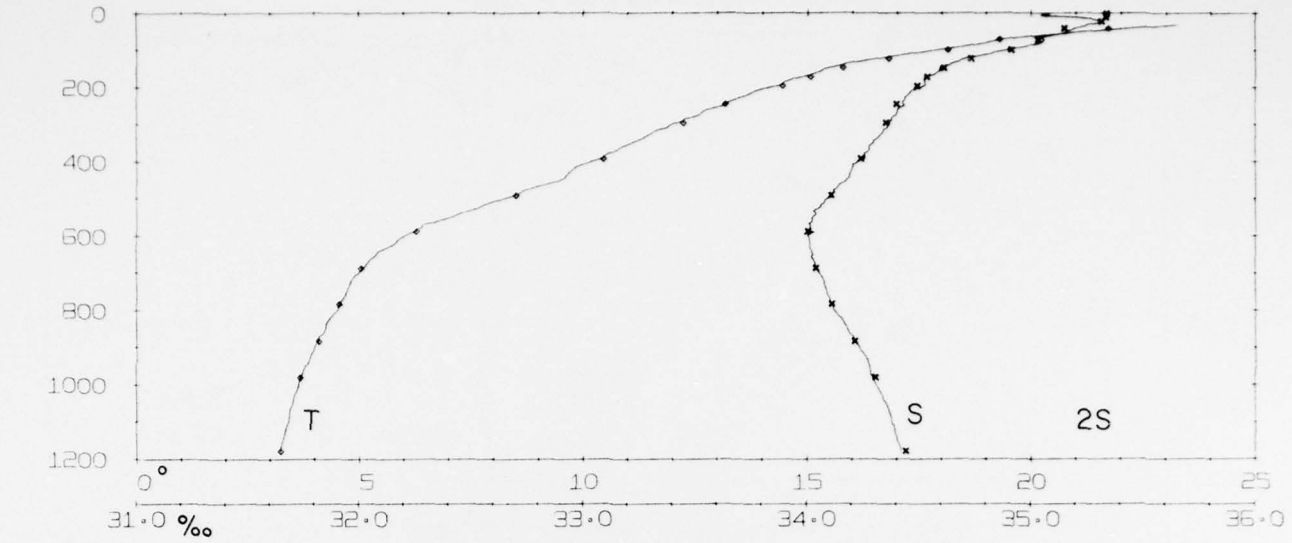
Z	T	S	SIGMA T	DT	DD
0	21.17	33.96	23.678	422.7	0.000
10	20.96	33.97	23.743	416.5	0.042
20	20.55	33.99	23.868	404.6	0.083
30	19.64	33.92	24.054	386.9	0.123
40	17.87	33.78	24.391	354.7	0.160
50	17.04	33.73	24.552	339.4	0.195
75	15.19	33.82	25.042	292.8	0.274
100	14.03	33.66	25.167	280.9	0.347
125	12.80	33.52	25.308	267.5	0.416
150	11.92	33.61	25.547	244.8	0.481
175	11.30	33.75	25.770	223.5	0.540
200	10.16	33.79	26.002	201.5	0.594
225	9.74	33.92	26.174	185.1	0.644
250	9.59	34.05	26.300	173.1	0.690
275	9.27	34.07	26.368	166.7	0.733
300	8.95	34.08	26.427	161.1	0.776
350	8.16	34.04	26.518	152.5	0.857
400	7.07	33.99	26.636	141.3	0.934
450	6.20	33.96	26.728	132.5	1.005
500	5.57	33.98	26.823	123.5	1.072
550	5.08	34.00	26.897	116.6	1.135
600	4.60	34.04	26.982	108.4	1.194
650	4.28	34.08	27.048	102.2	1.250
700	4.13	34.14	27.112	96.1	1.303
750	3.98	34.19	27.167	90.9	1.353
800	3.84	34.24	27.221	85.8	1.400
850	3.70	34.29	27.275	80.7	1.445
900	3.63	34.33	27.313	77.0	1.488
950	3.50	34.36	27.350	73.6	1.529
1000	3.44	34.39	27.380	70.7	1.569
1100	3.25	34.44	27.438	65.3	1.645
1200	3.08	34.48	27.485	60.7	1.716
1300	2.92	34.51	27.524	57.1	1.784
1400	2.74	34.53	27.556	54.0	1.848
1500	2.56	34.55	27.587	51.1	1.909
1600	2.409	34.570	27.616	48.3	1.967
1700	2.264	34.585	27.640	46.1	2.023
1800	2.137	34.598	27.661	44.1	2.076
1900	2.025	34.607	27.677	42.6	2.128
2000	1.935	34.617	27.692	41.1	2.179
2100	1.876	34.625	27.703	40.1	2.228
2200	1.821	34.631	27.712	39.2	2.276
2300	1.768	34.638	27.722	38.3	2.324
2400	1.723	34.643	27.729	37.6	2.371
2500	1.687	34.646	27.734	37.1	2.417
2600	1.655	34.651	27.741	36.5	2.463
2700	1.619	34.657	27.748	35.8	2.508
2800	1.597	34.659	27.751	35.5	2.554
2900	1.569	34.661	27.755	35.2	2.598
3000	1.553	34.664	27.758	34.8	2.643
3100	1.533	34.667	27.762	34.5	2.688
3200	1.519	34.669	27.765	34.2	2.732
3300	1.502	34.673	27.769	33.8	2.777
3400	1.493	34.674	27.771	33.7	2.821
3500	1.484	34.676	27.773	33.5	2.865
3600	1.480	34.677	27.774	33.3	2.909
3700	1.478	34.680	27.777	33.1	2.954
3800	1.474	34.679	27.776	33.2	2.998
3900	1.474	34.681	27.778	33.0	3.043
4000	1.478	34.682	27.778	32.9	3.088
4100	1.480	34.682	27.778	33.0	3.133
4200	1.486	34.684	27.779	32.9	3.179
4300	1.493	34.685	27.780	32.8	3.224
4400	1.498	34.684	27.779	32.9	3.270
4500	1.506	34.684	27.778	33.0	3.317
4600	1.515	34.686	27.779	32.9	3.364
4700	1.525	34.686	27.778	33.0	3.411
4800	1.536	34.686	27.777	33.0	3.459
4900	1.546	34.687	27.778	33.0	3.507
5000	1.557	34.686	27.776	33.2	3.555
5100	1.567	34.686	27.775	33.3	3.604
5200	1.579	34.687	27.775	33.3	3.653
5300	1.592	34.687	27.774	33.4	3.703
5400	1.603	34.686	27.772	33.5	3.753

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
35 09.3N	139 00.5W	07/24/77	1032 GMT

Z	T	S	SIGMA T	DT	DD
0	21.15	33.93	23.661	424.3	0.000
10	20.64	33.89	23.768	414.1	0.042
20	20.25	33.88	23.864	405.0	0.083
30	19.93	33.89	23.956	396.3	0.123
40	18.10	33.71	24.282	365.2	0.161
50	16.68	33.66	24.583	336.5	0.197
75	15.41	33.70	24.901	306.1	0.277
100	14.68	33.63	25.006	296.1	0.353
125	13.66	33.46	25.089	288.3	0.427
150	11.92	33.40	25.384	260.2	0.496
175	10.70	33.56	25.730	227.4	0.558
200	10.06	33.73	25.972	204.3	0.613
225	9.73	33.91	26.166	185.7	0.663
250	9.31	34.00	26.307	172.5	0.709
275	9.08	34.04	26.375	166.0	0.753
300	8.68	34.05	26.446	159.3	0.795
350	7.71	34.02	26.569	147.6	0.874
400	6.84	33.98	26.660	139.0	0.949
450	6.02	33.95	26.743	131.1	1.019
500	5.44	33.97	26.831	122.8	1.086
550	4.96	33.99	26.902	116.0	1.148
600	4.62	34.02	26.964	110.1	1.208
650	4.33	34.07	27.035	103.4	1.264
700	4.12	34.14	27.113	96.0	1.317
750	3.96	34.20	27.177	90.0	1.367
800	3.92	34.25	27.221	85.8	1.414
850	3.77	34.28	27.260	82.1	1.459
900	3.67	34.32	27.301	78.2	1.503
950	3.54	34.34	27.330	75.4	1.545
1000	3.40	34.37	27.368	71.9	1.586
1100	3.21	34.42	27.425	66.4	1.663

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
33 20.7N	124 15.8W	7/27/77	0925 1150 GMT	4668M	350	21KT	0	350 8 6

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
1	16.24	32.828	5.85	0.37	2.2	0.00	0.0	387.6	0	16.24	32.828	5.85	24.047	387.6	0.000
11	16.20	32.8[illegible]	5.86	0.36	2.2	0.00	0.0	386.9	10	16.20	32.829	5.86	24.054	386.9	0.039
16	15.64	32.806	5.94	0.36	2.1	0.01	0.0	376.4	20	15.34	32.800	5.99	24.224	370.7	0.077
31	14.81	32.811	6.09	0.37	2.1	0.01	0.0	358.8	30	14.84	32.810	6.08	24.340	359.6	0.113
56	14.03	33.056	6.28	0.36	2.9	0.01	0.1	325.2	50	14.22	32.999	6.25	24.617	333.3	0.183
71	13.16	33.075	6.30	0.39	3.2	0.02	0.0	307.0	75	12.92	33.093	6.27	24.952	301.3	0.262
86	12.17	33.121	6.10	0.52	4.9	0.07	1.4	285.3	100	10.89	33.096	5.75	25.334	265.0	0.334
99	10.96	33.090	5.78	0.77	7.6	0.13	5.6	266.4	125	9.76	33.272	5.09	25.666	233.4	0.397
125	9.76	33.272	5.09	1.17	14.1	0.06	12.8	233.4	150	9.44	33.500	4.51	25.896	211.5	0.453
150	9.44	33.500	4.51	1.40	19.	0.04	17.1	211.5	200	8.73	33.886	3.24	26.310	172.2	0.551
175	9.03	33.741	3.74	1.70	26.	0.02	22.6	187.4	250	7.93	33.991	2.86	26.513	152.9	0.634
210	8.61	33.922	3.10	1.94	32.	0.01	26.0	167.7	300	7.16	34.021	2.45	26.647	140.2	0.709
276	7.48	34.000	2.77	2.15	44.	0.01	29.4	146.0	400	6.17	34.100	1.16	26.841	121.8	0.845
370	6.41	34.071	1.44	2.71	64.	0.01	36.6	126.8	500	5.59	34.191	0.56	26.987	108.0	0.966
470	5.74	34.165	0.69	3.04	79.	0.01	38.8	111.7	600	5.15	34.267	0.32	27.099	97.3	1.075
610	5.11	34.273	0.31	3.23	97.	0.00	42.6	96.4	700	4.74	34.331	0.28	27.197	88.1	1.175
748	4.56	34.357	0.27	3.29	110.	0.00	43.8	84.2	800	4.41	34.385	0.30	27.275	80.6	1.267
896	4.16	34.426	0.39	3.29	120.	0.00	44.4	74.9	1000	3.85	34.461	0.52	27.395	69.3	1.434
1047	3.71	34.473	0.59	3.26	130.	0.00	44.4	67.0	1200	3.36	34.510	0.80	27.483	61.0	1.582
1195	3.37	34.508	0.79	3.23	139.	0.00	44.4	61.2	1500	2.69	34.560	1.10	27.584	51.4	1.777
1338A	3.00	34.546	0.97	3.18	145.		44.1	55.1	1750	2.37	34.586	1.39	27.631	46.9	1.923
1511A	2.67	34.560	1.11	3.14	157.		43.8	51.2	2000	2.06	34.617	1.79	27.681	42.2	2.057
1685A	2.46	34.576	1.28	3.12	162.		43.6	48.3	2250	1.90	34.635	2.06	27.708	39.6	2.183
1859A	2.23	34.600	1.58	3.02	168.		42.7	44.7	2500	1.76	34.648	2.27	27.729	37.6	2.303
2042A	2.02	34.620	1.85	2.98	172.		42.2	41.5	2750	1.68	34.657	2.48	27.743	36.3	2.419
2207A	1.93	34.632	2.02	2.92	173.		41.6	40.0	3000	1.60	34.666	2.64	27.756	35.1	2.534
2406A	1.80	34.642	2.18	2.88	177.		41.0	38.3	3250	1.54	34.671	2.84	27.765	34.3	2.646
2603A	1.73	34.653	2.37	2.84	177.		40.6	36.9	3500	1.50	34.680	3.03	27.774	33.3	2.757
2802A	1.66	34.657	2.52	2.80	177.		40.3	36.1	3750	1.47	34.683	3.20	27.779	32.9	2.868
3001A	1.60	34.665	2.64	2.76	178.		40.0	35.1	4000	1.49	34.687	3.26	27.781	32.7	2.980
3200A	1.55	34.669	2.80	2.75	181.		39.8	34.4	4250	1.52	34.687	3.32	27.779	32.9	3.093
3399A	1.512	34.675	2.780	2.70	179.		38.8	33.7	4500	1.53	34.690	3.37	27.780	32.8	3.209
3597A	1.49	34.683	3.10	2.67	176.		38.6	33.0							
3796A	1.47	34.682	3.22	2.65	173.		38.6	32.9							
3995A	1.489	34.686	3.26	2.62	172.		38.2	32.7							
4193A	1.511	34.685	3.30	2.62	171.		38.0	32.9							
4392A	1.529	34.689	3.37	2.60	169.		38.0	32.8							
4490A	1.530	34.689	3.36	2.60	168.		37.8	32.8							
4590A	1.54	34.688	3.45	2.60	168.		38.0	32.9							
4640A	1.56	34.689	3.42	2.58	168.		38.0	33.0							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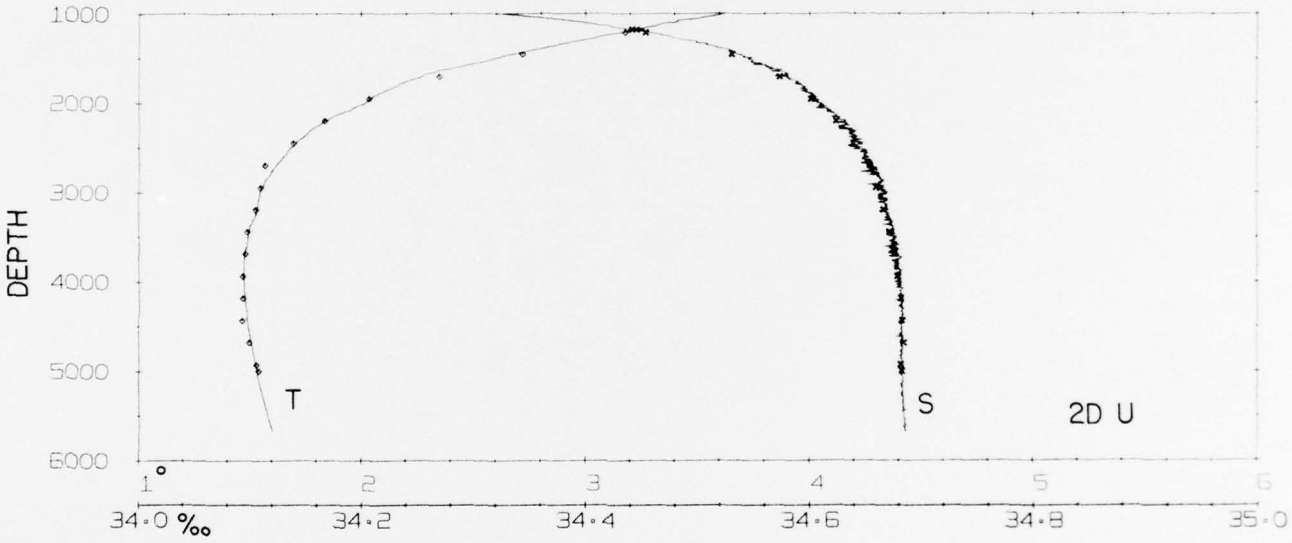
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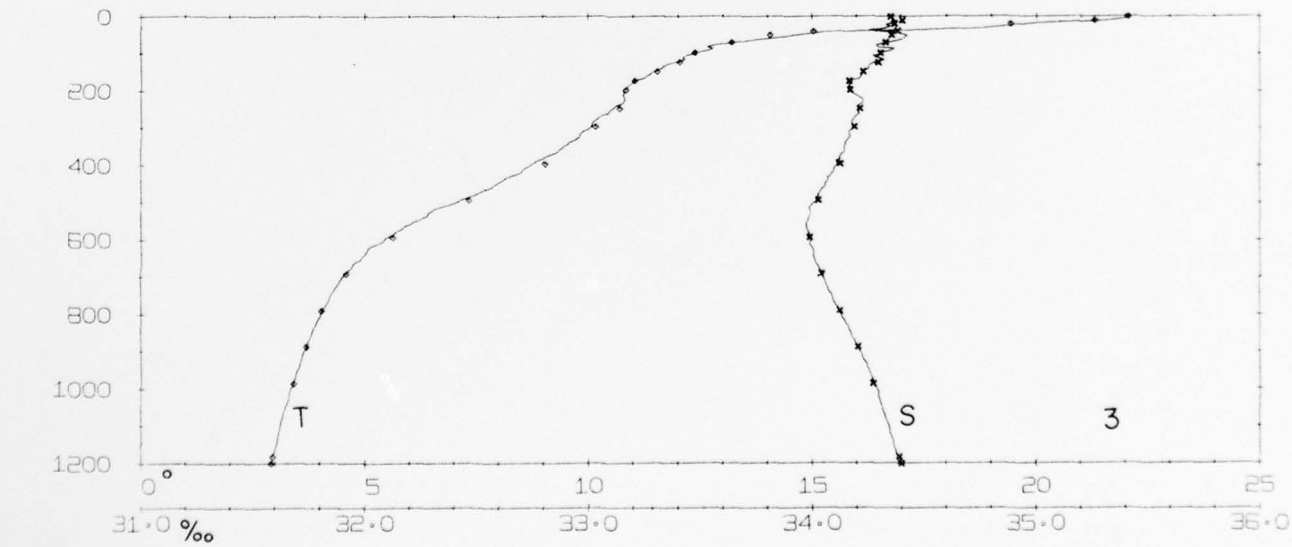
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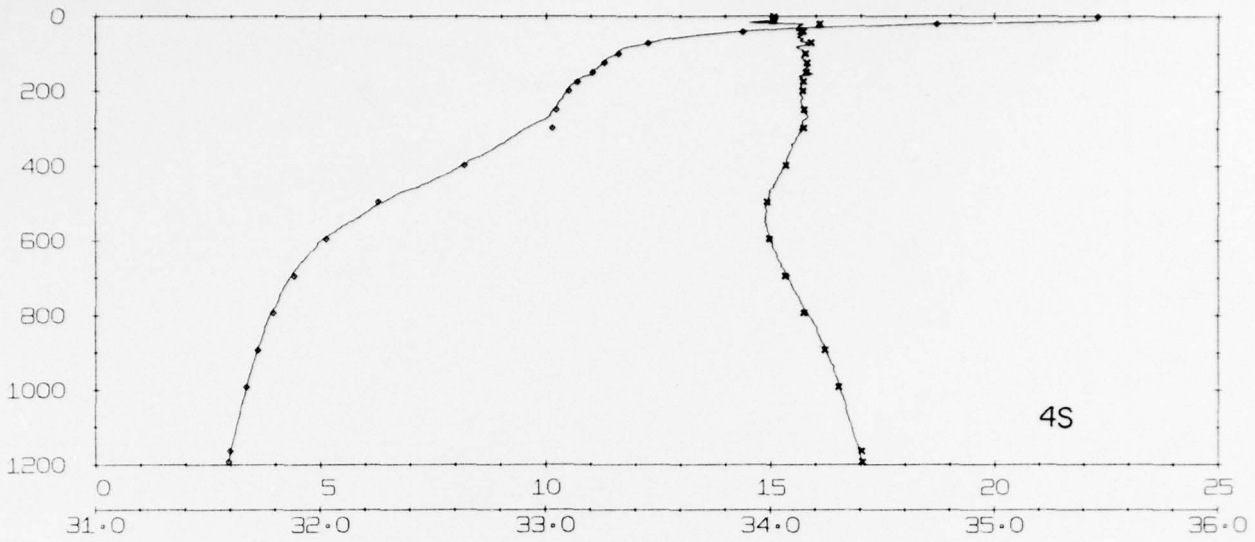
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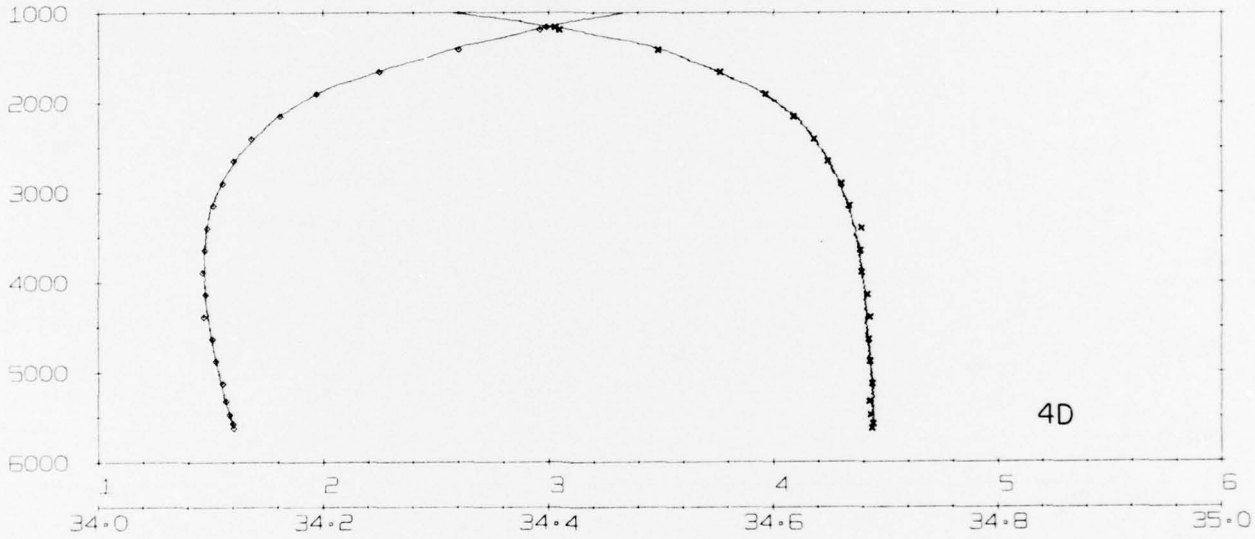
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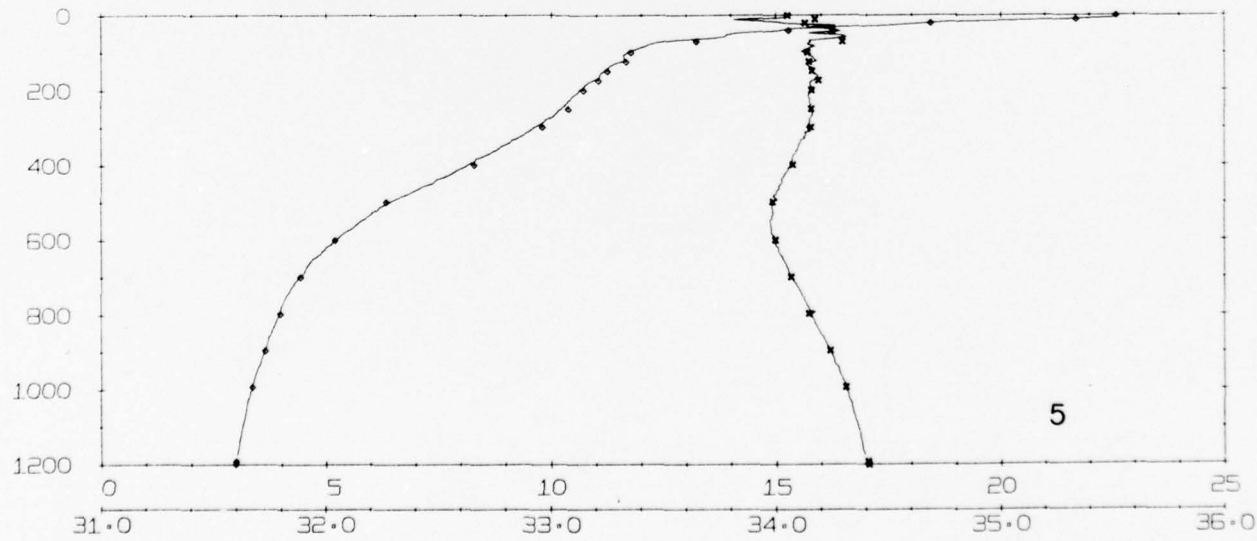
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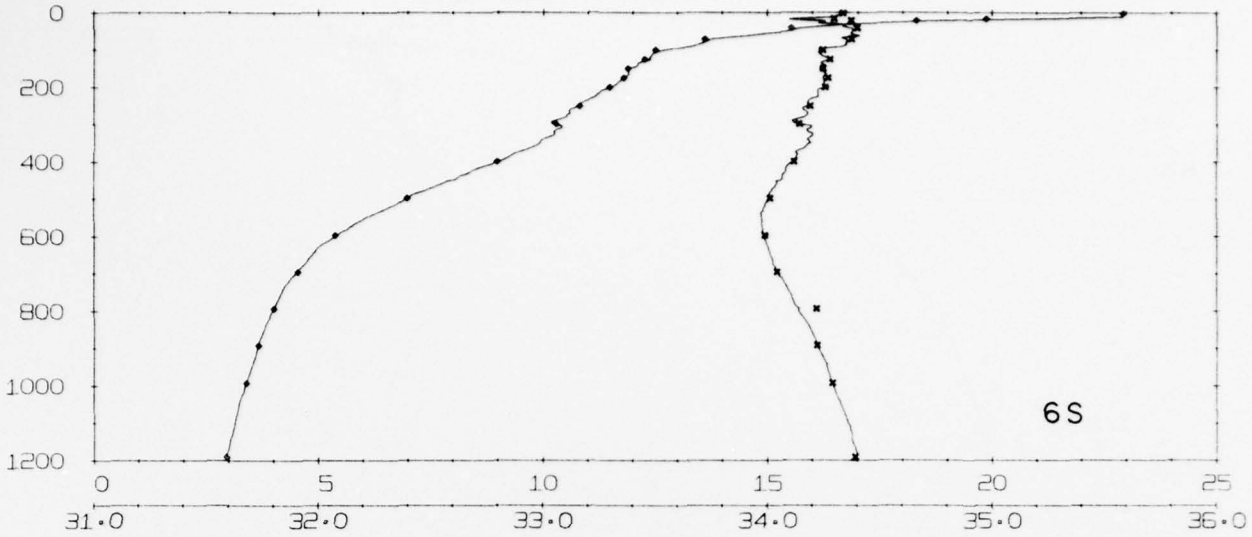
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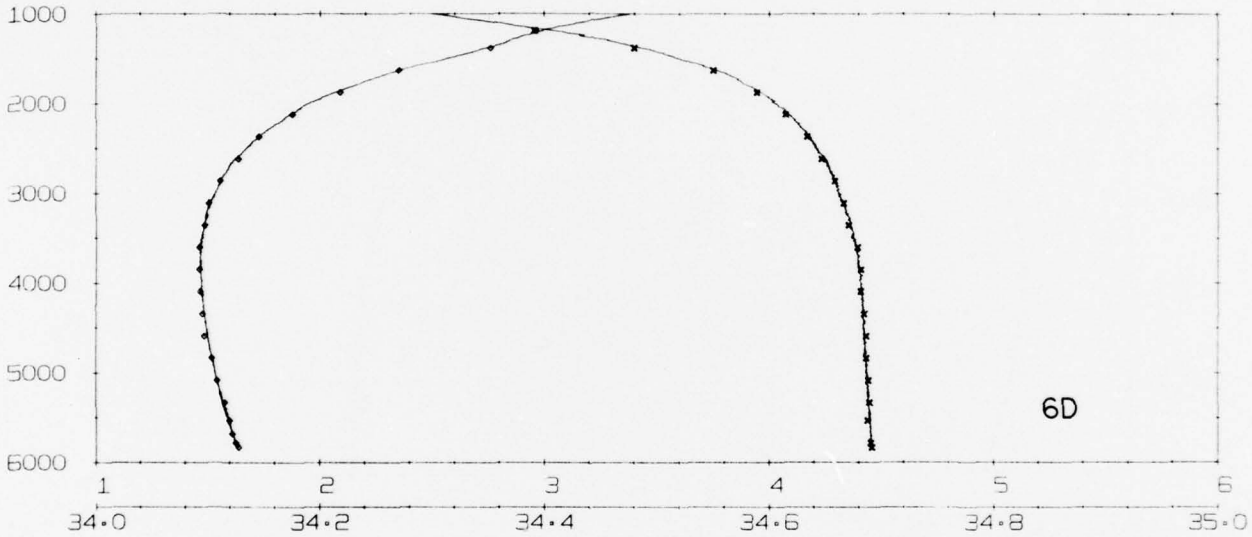
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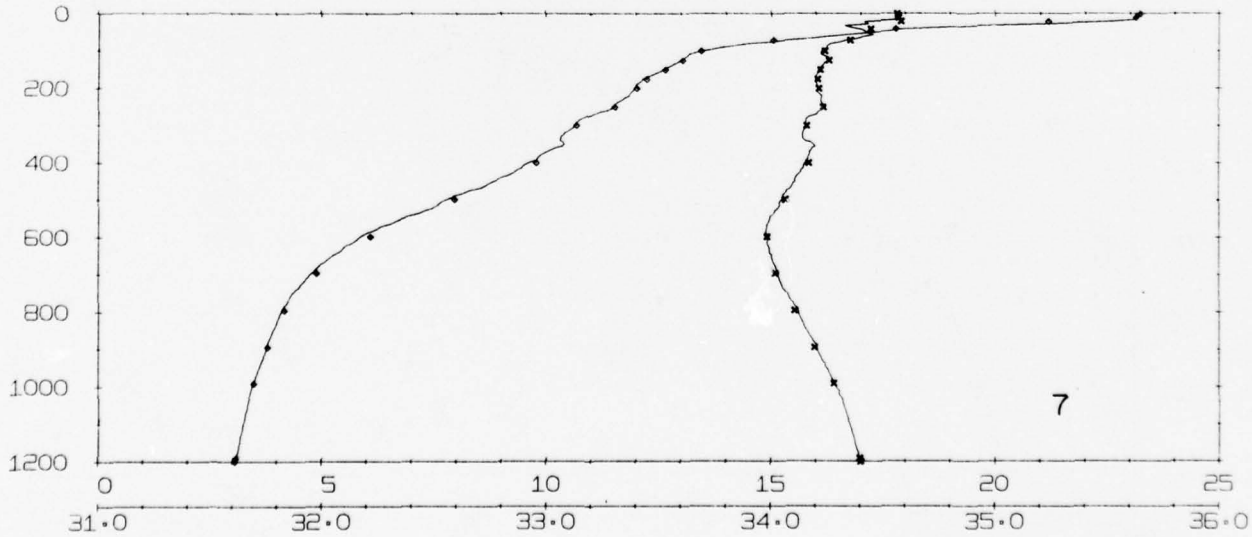
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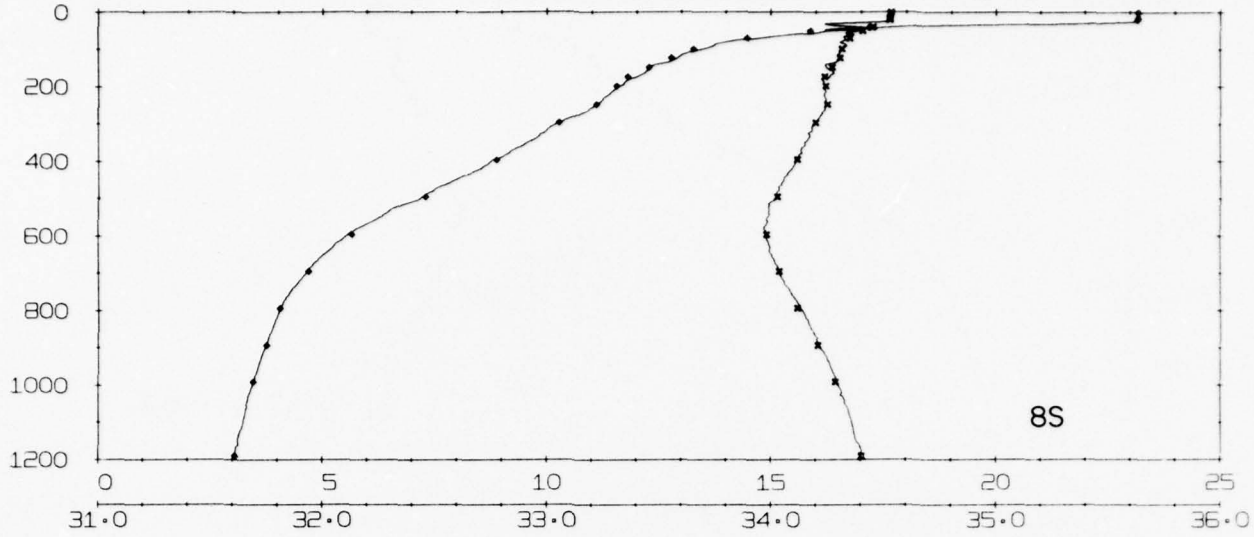
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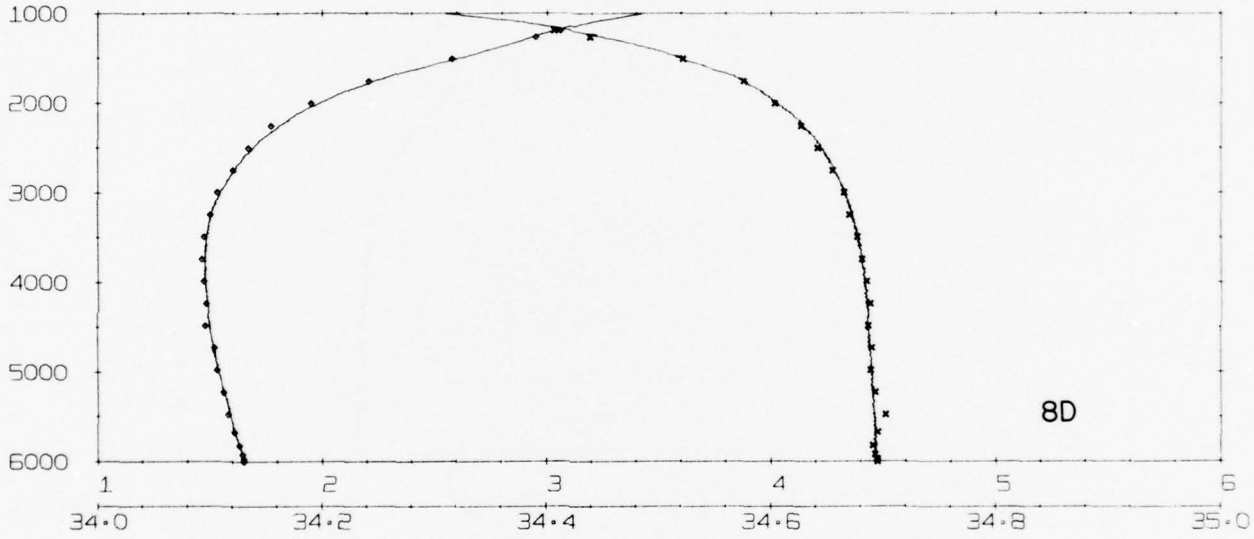
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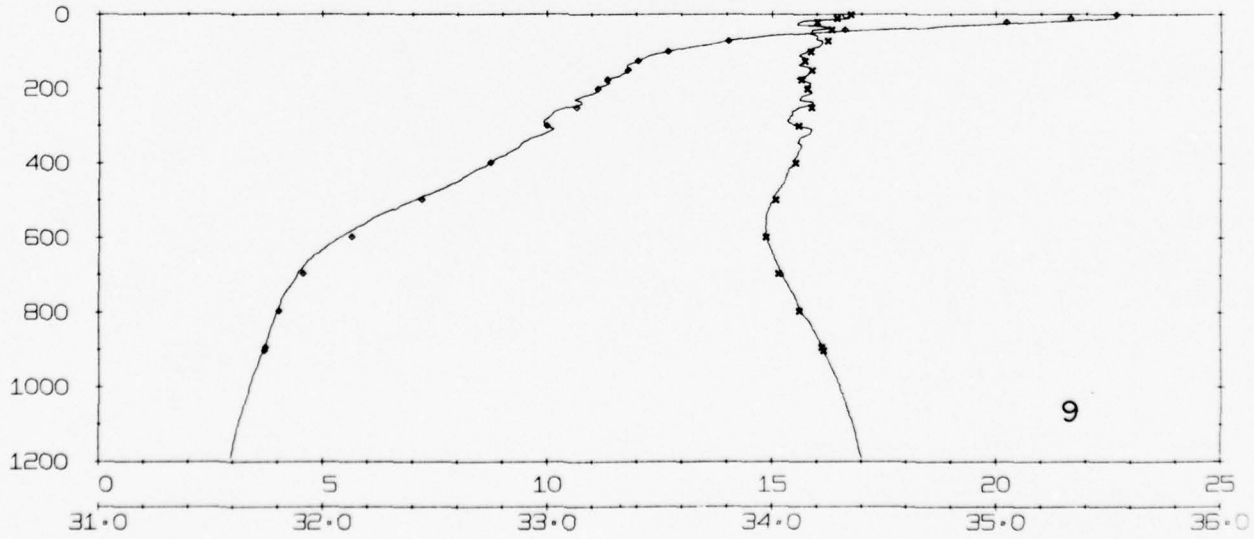
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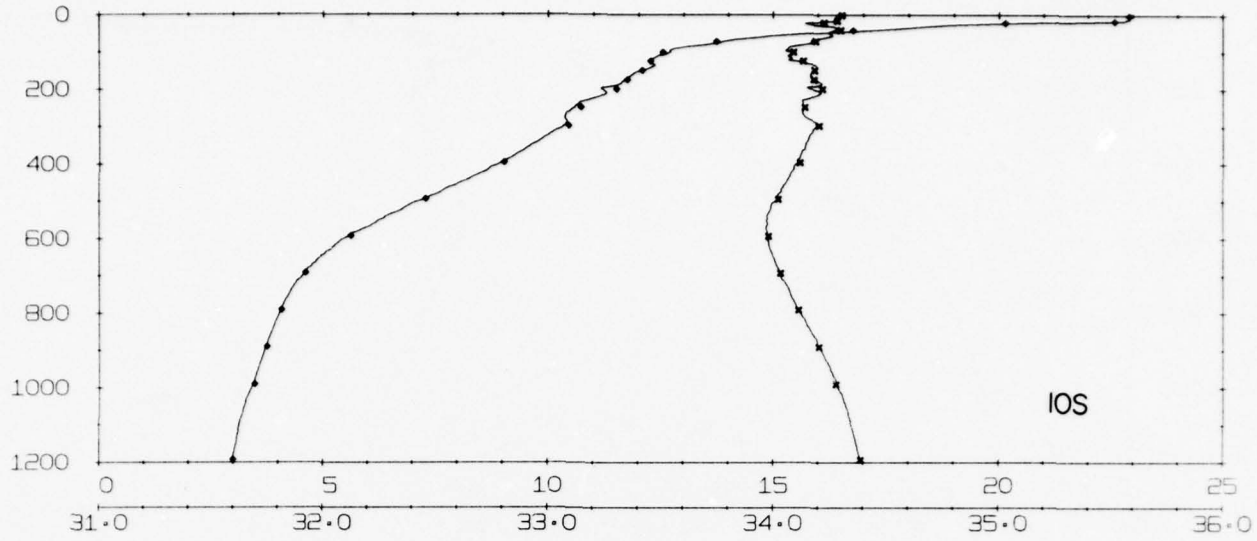

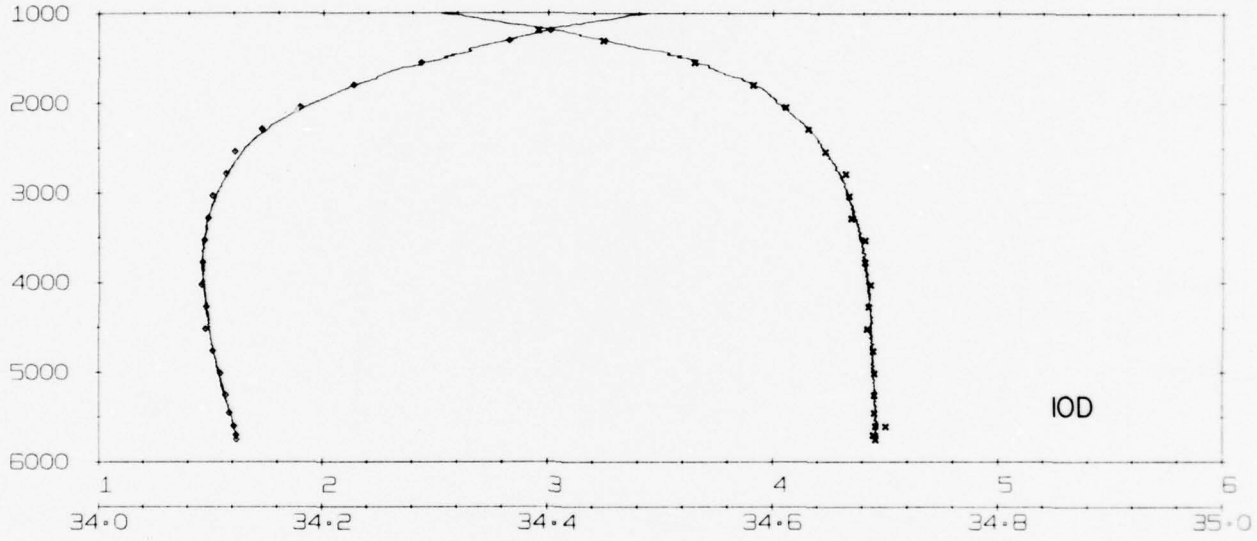

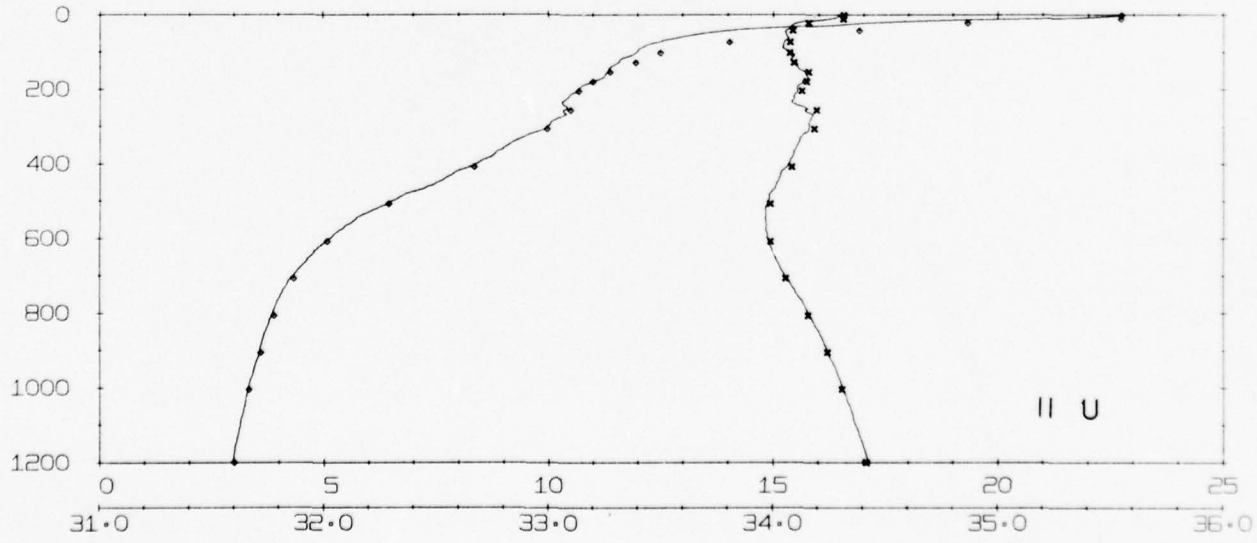

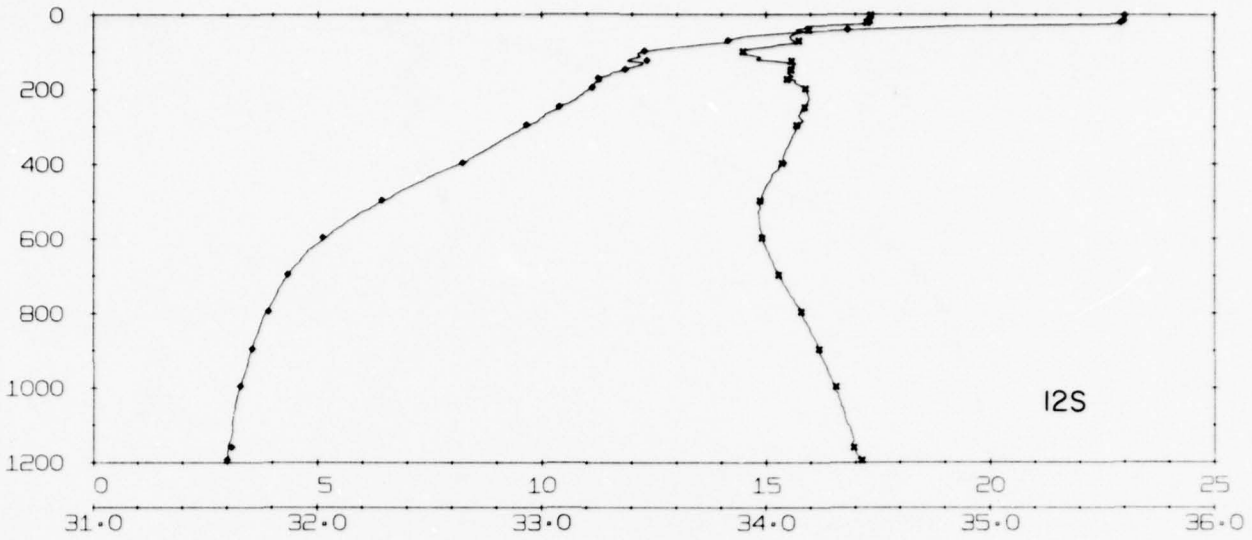
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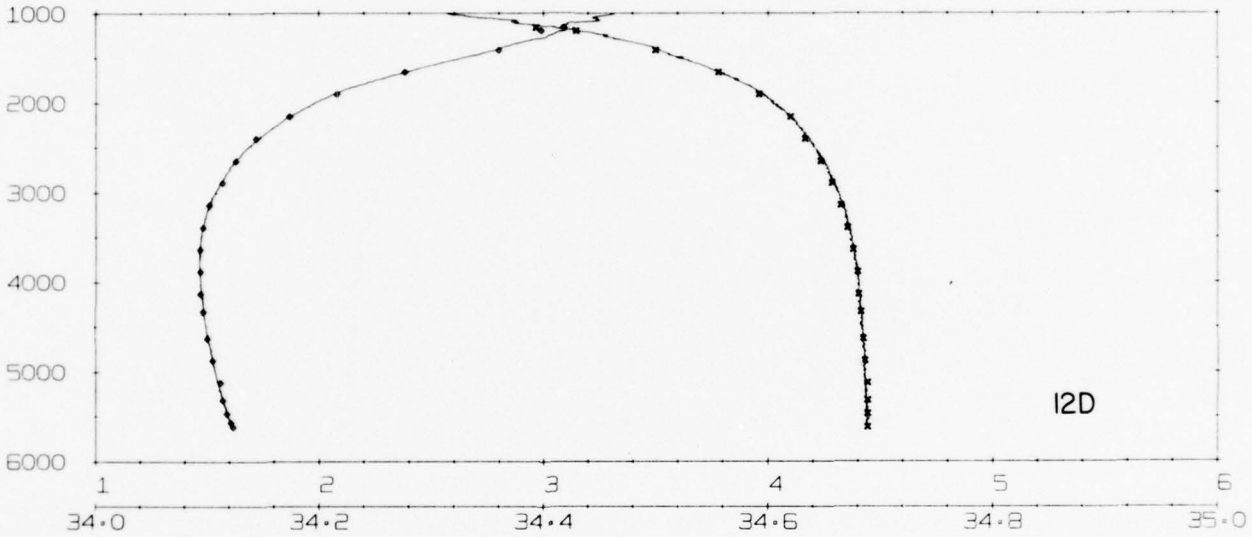
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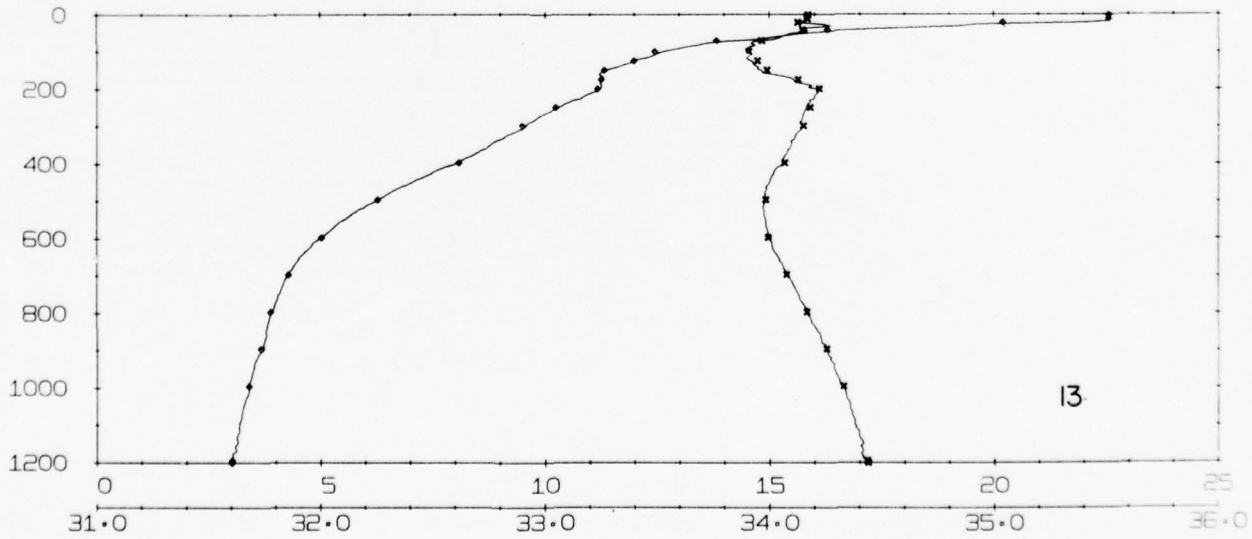
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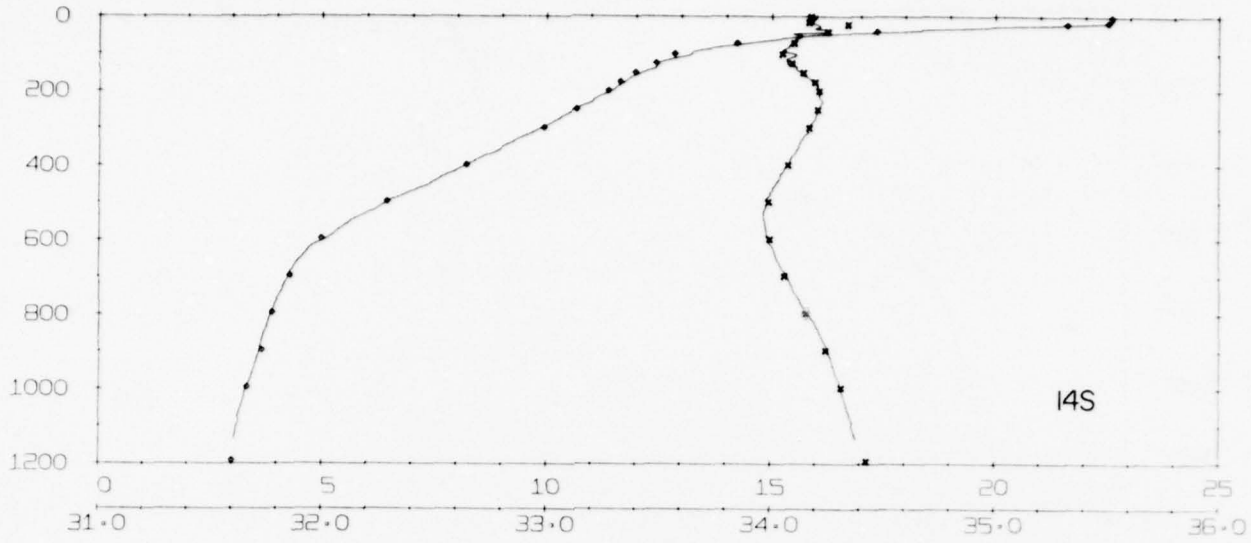
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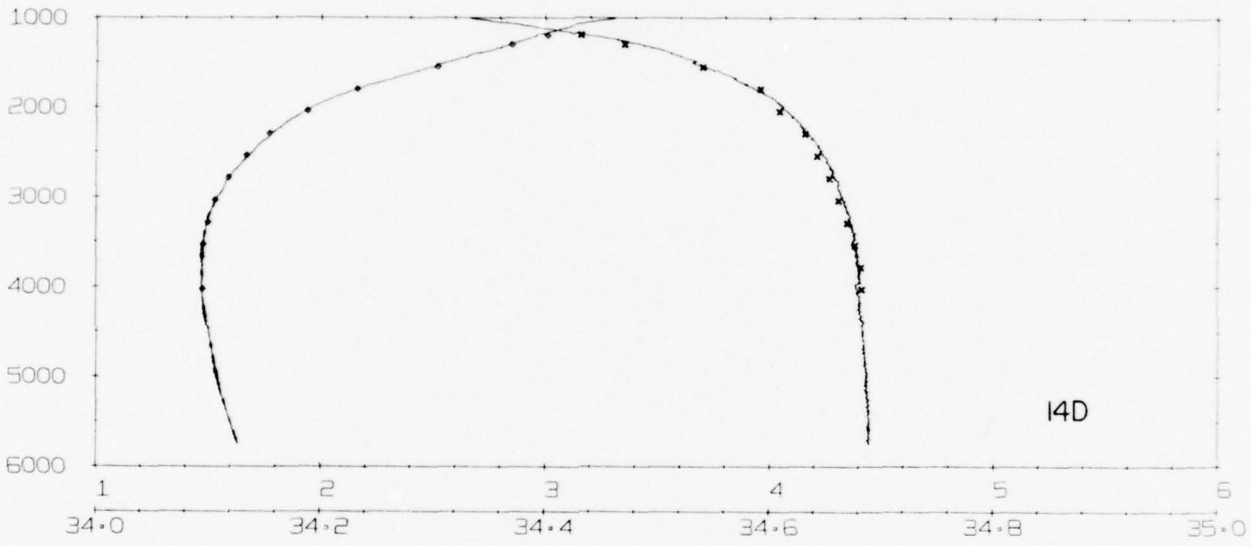
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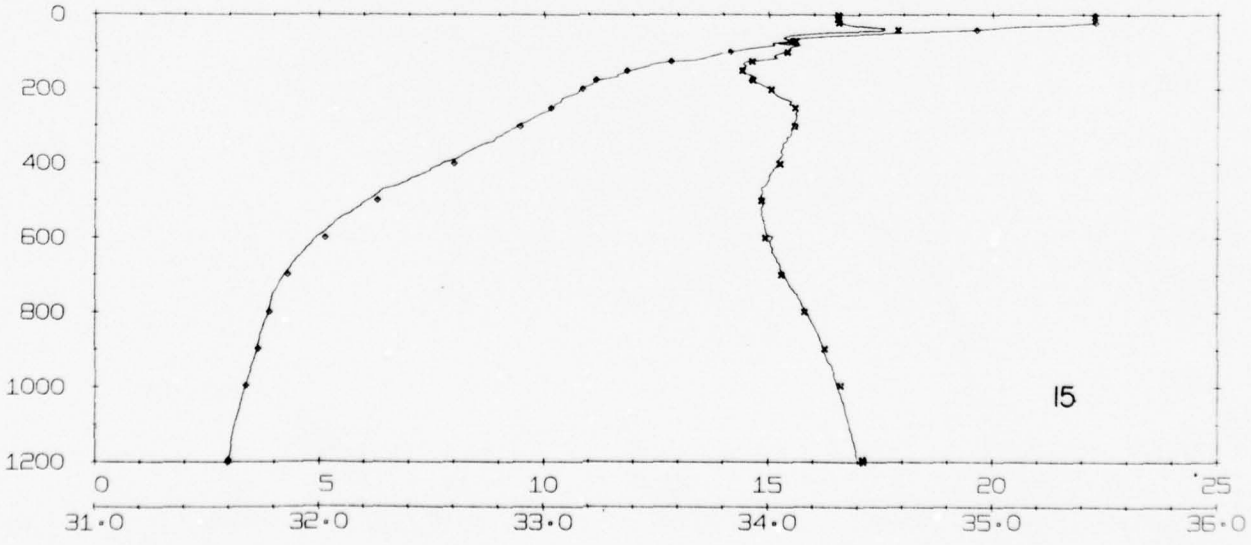
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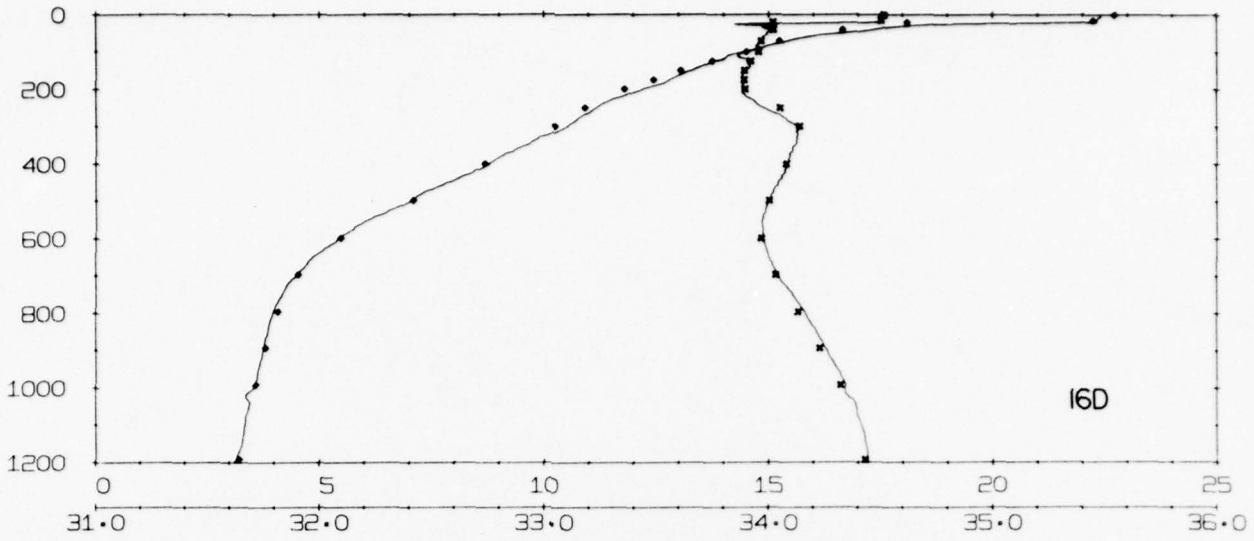
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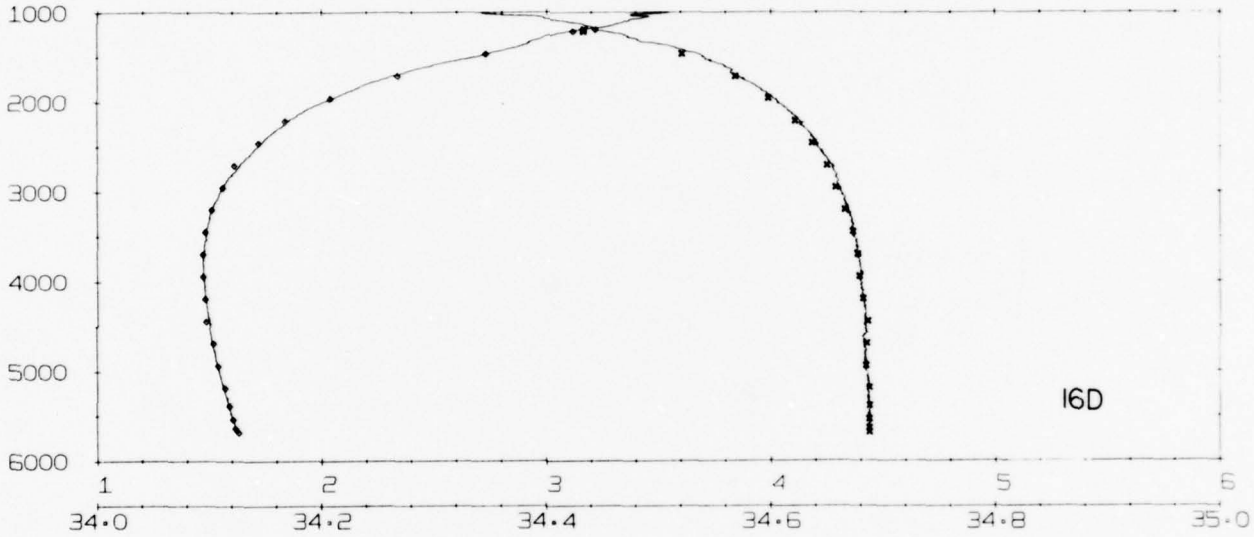
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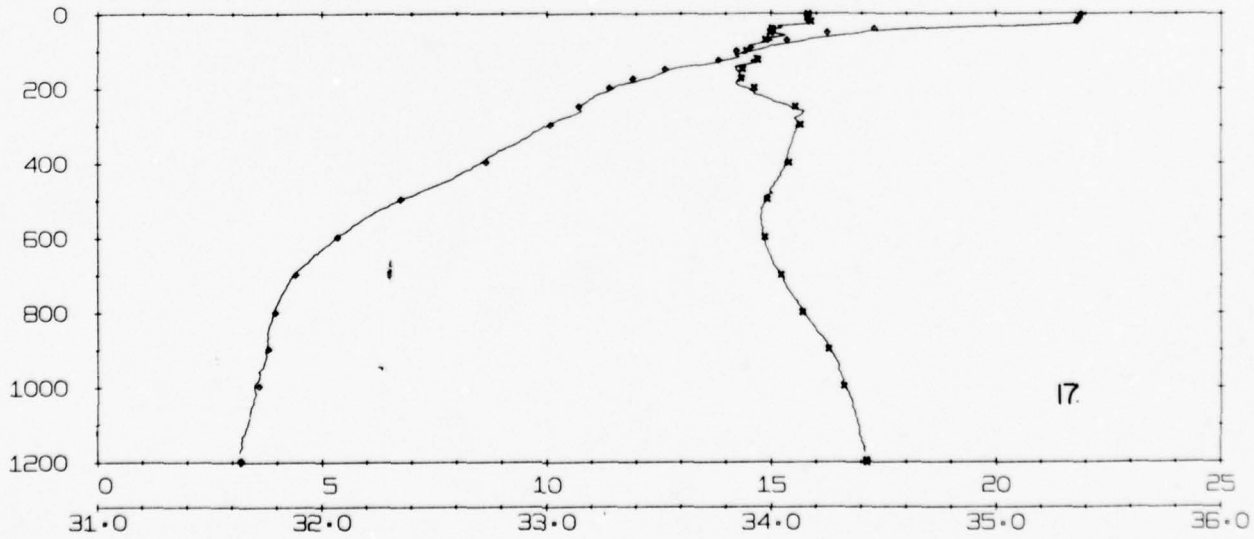
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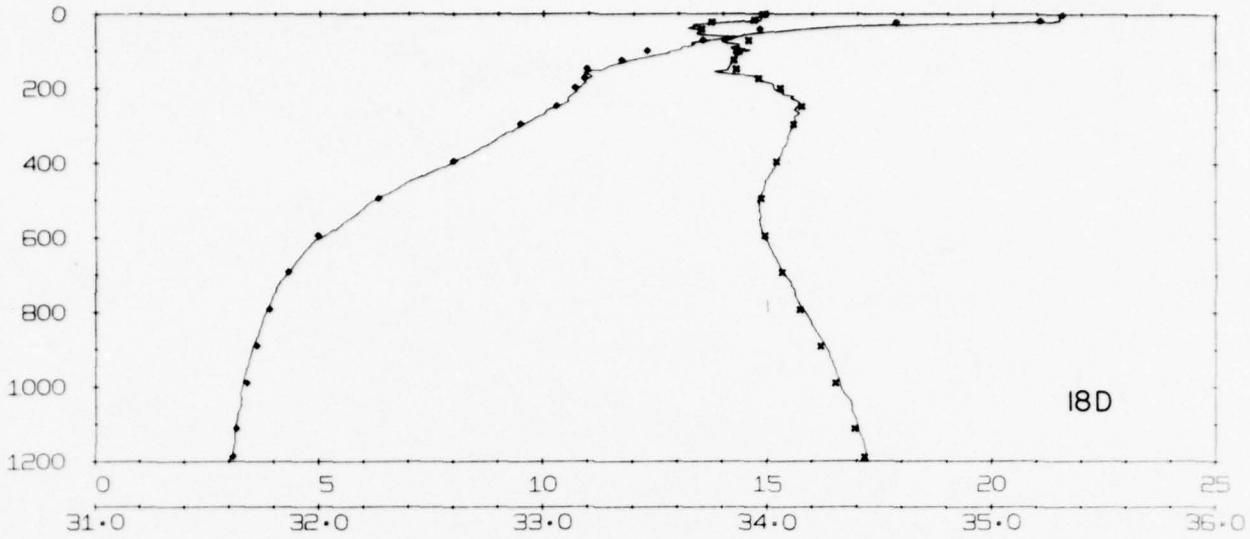

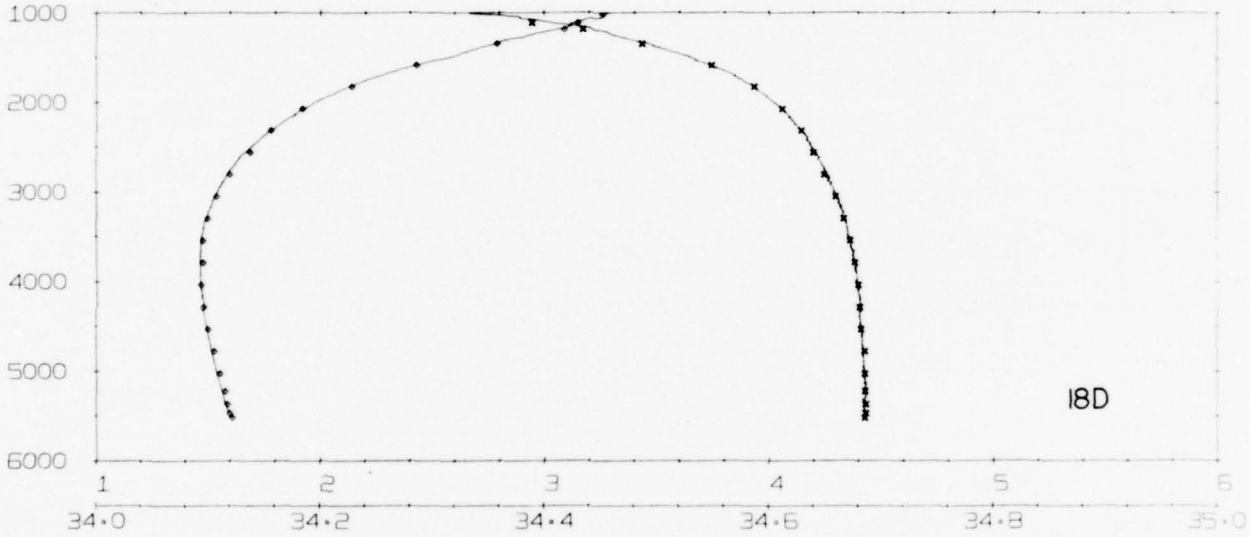

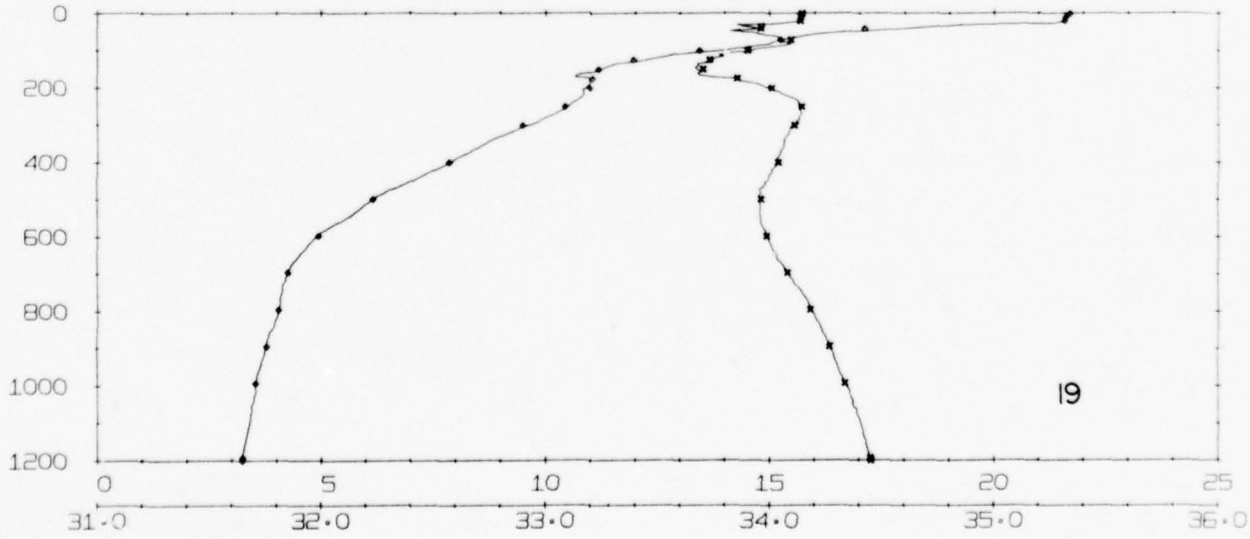

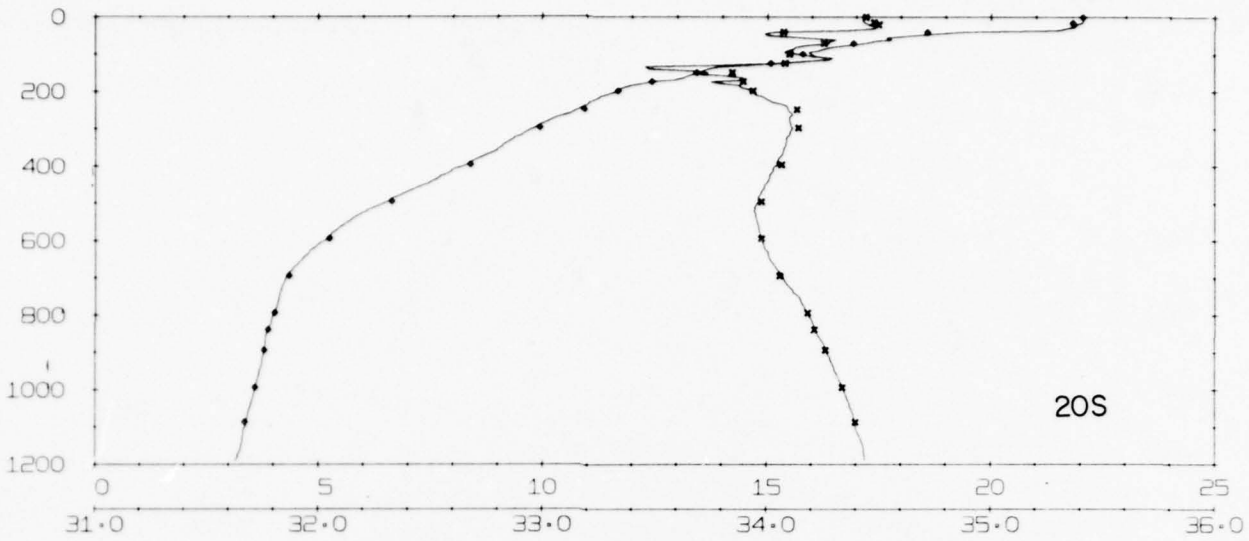
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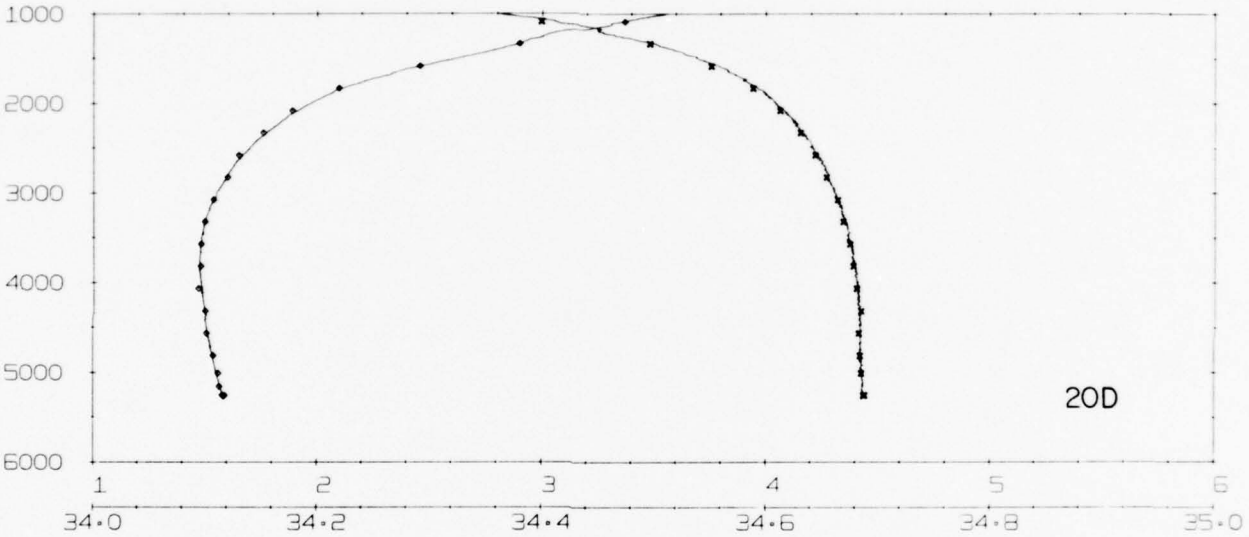
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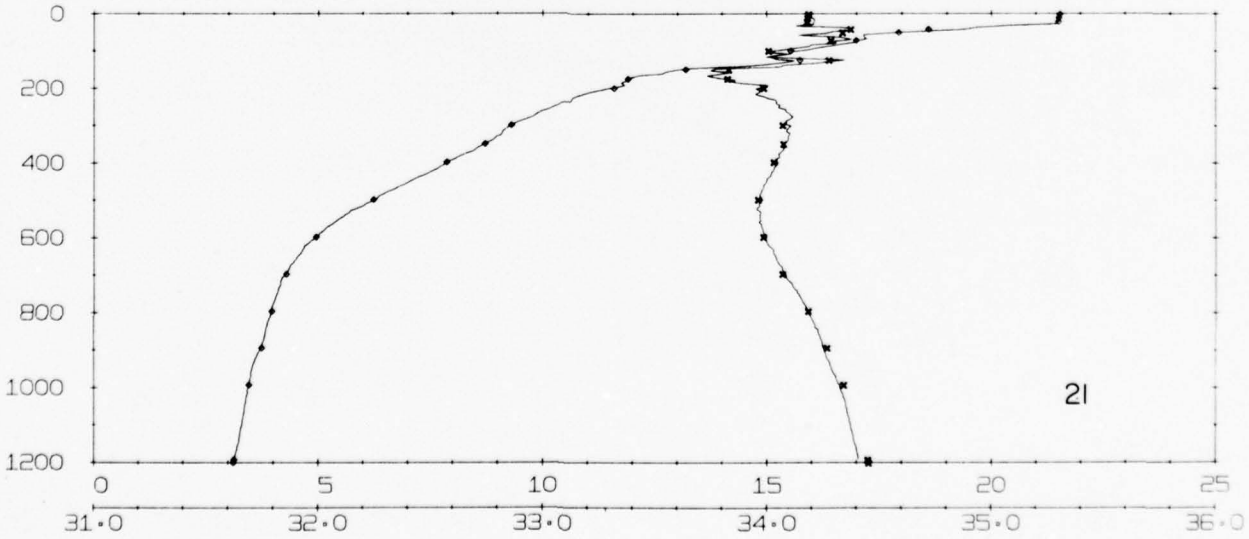
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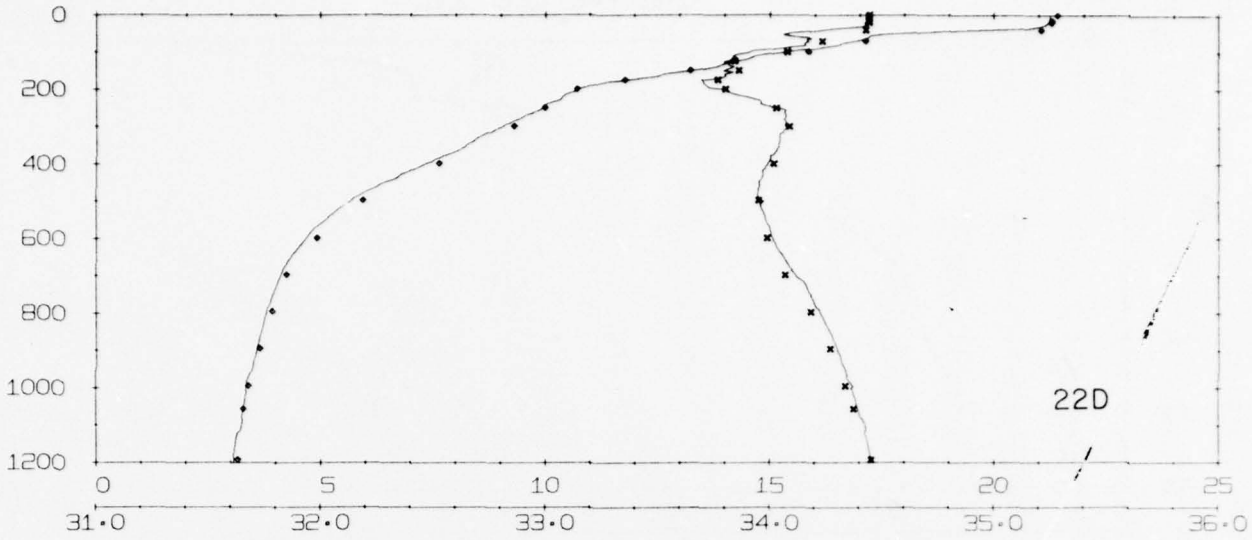

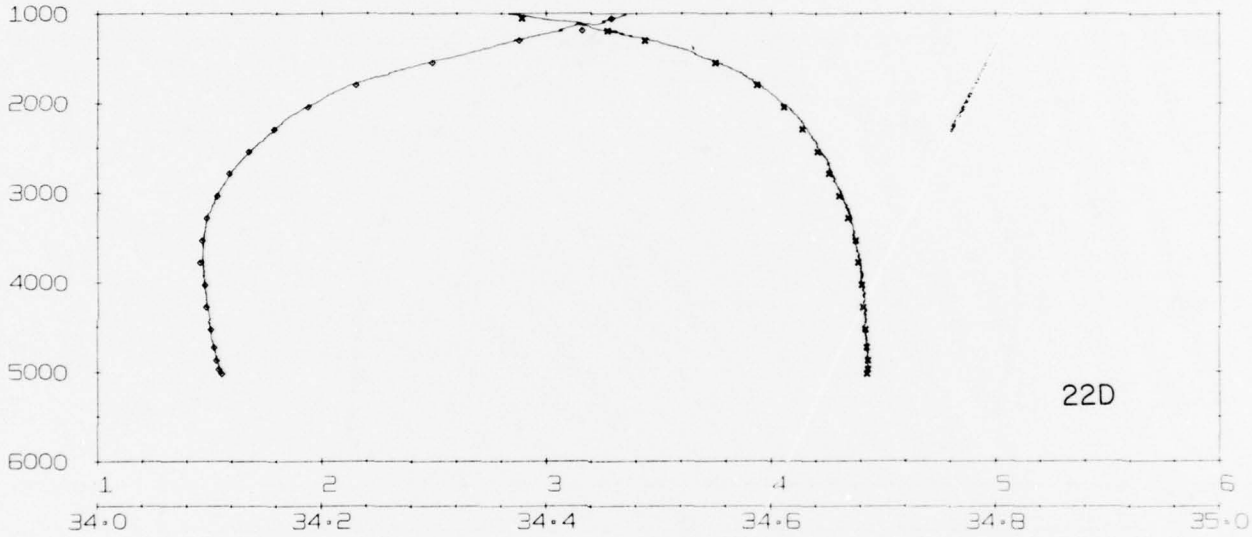

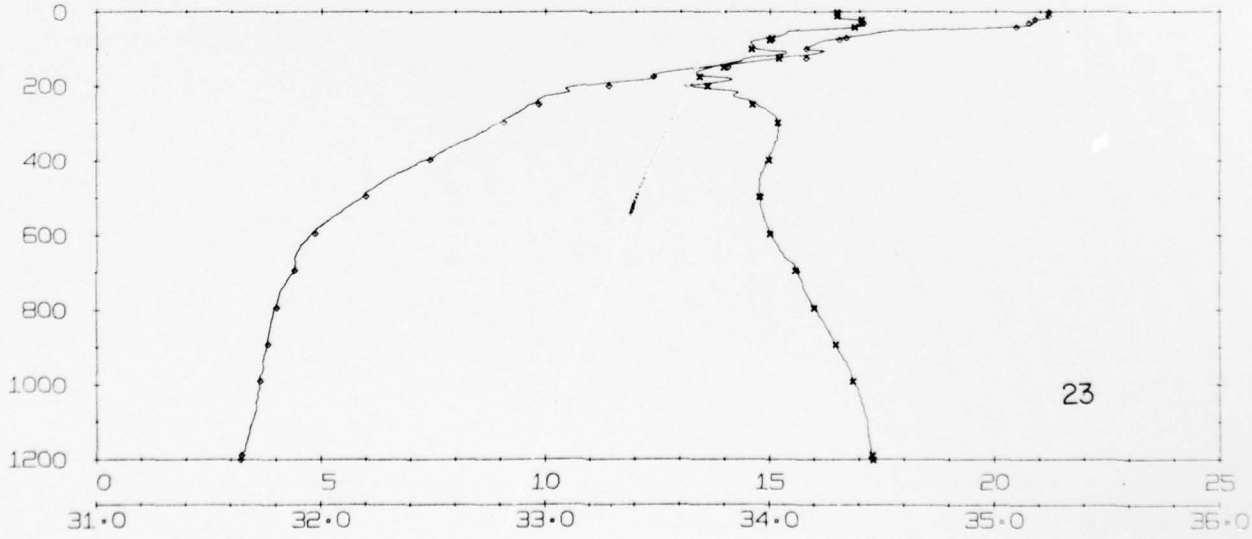

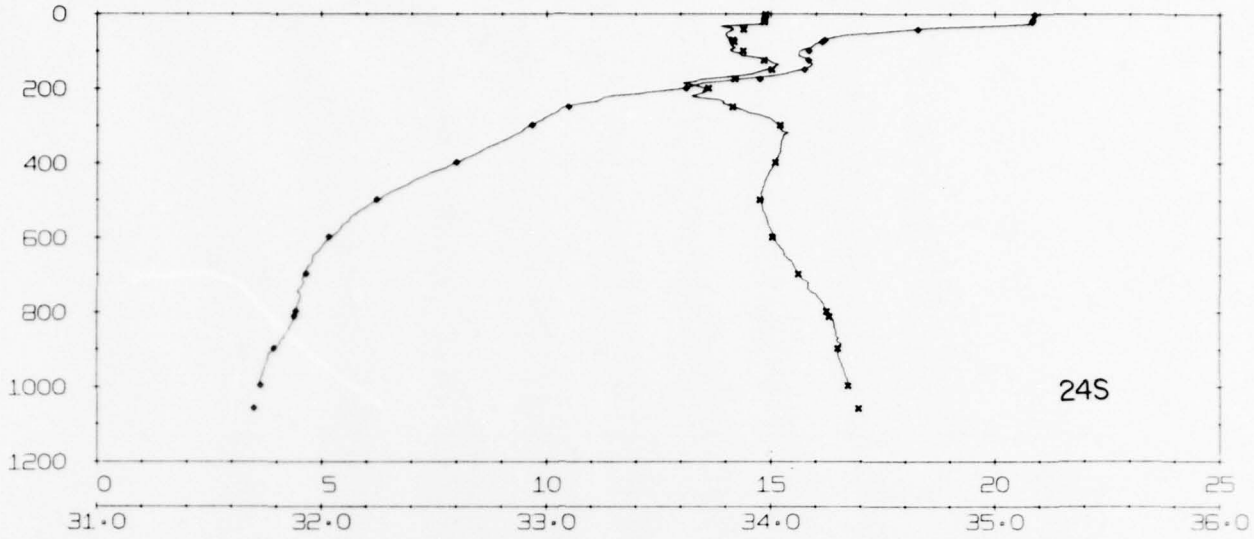
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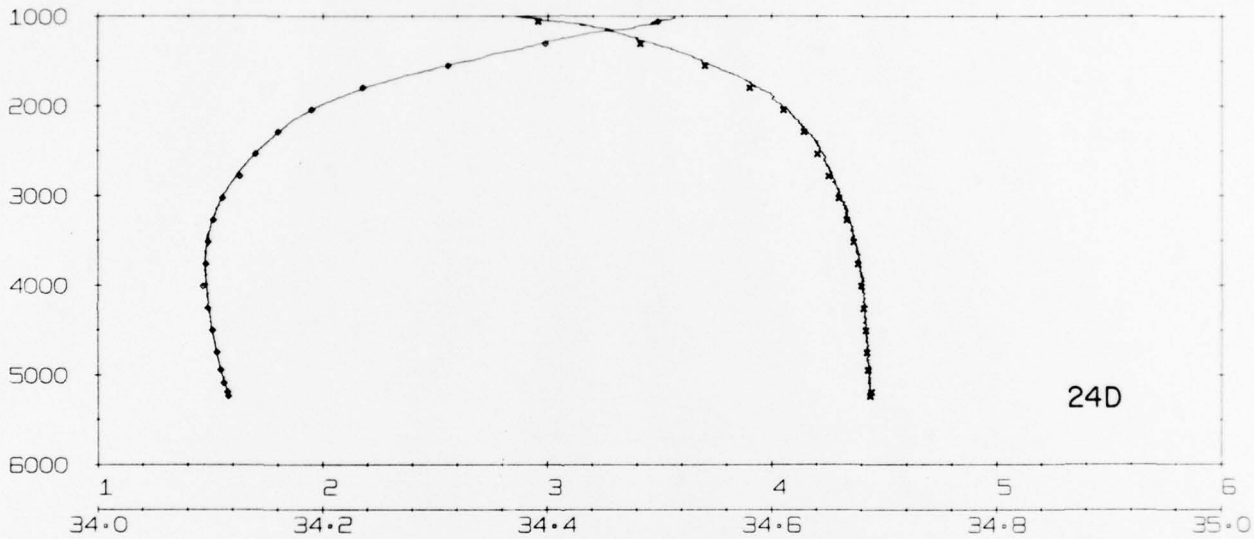
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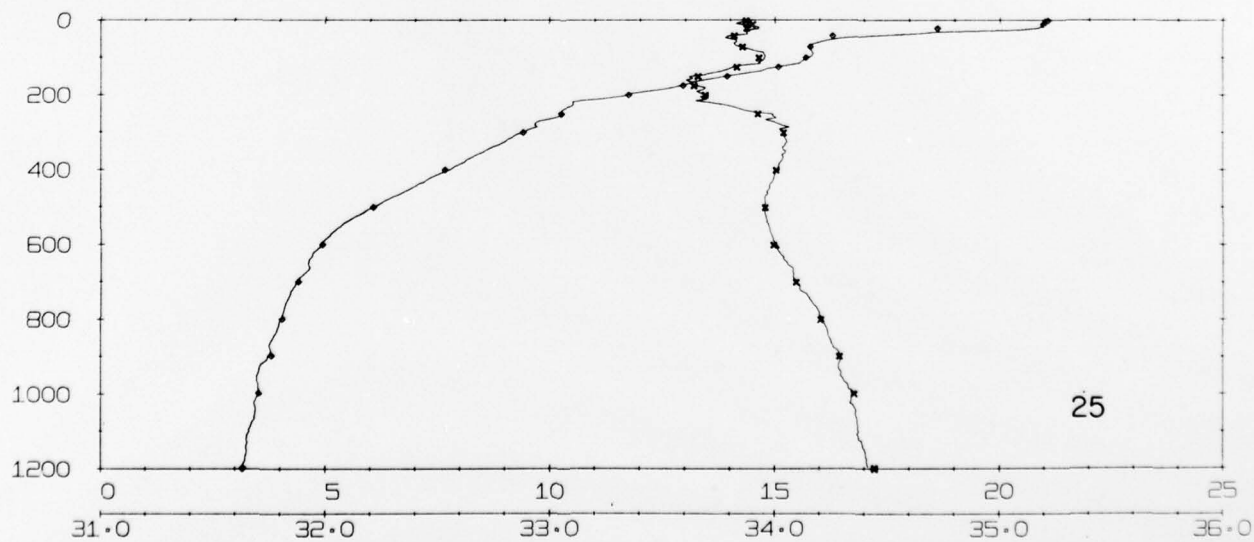
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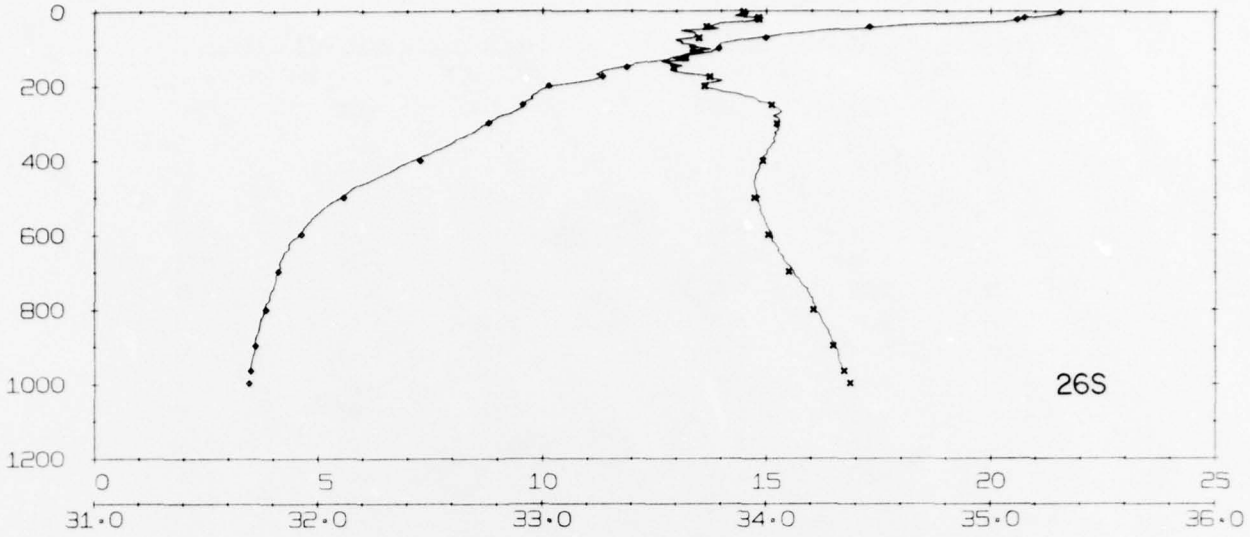

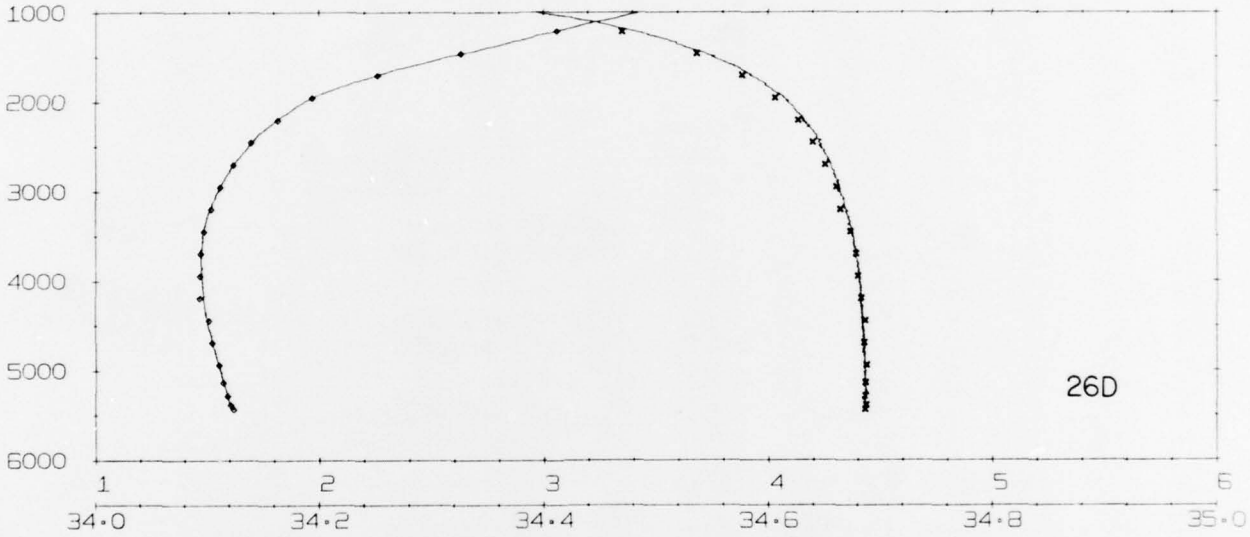

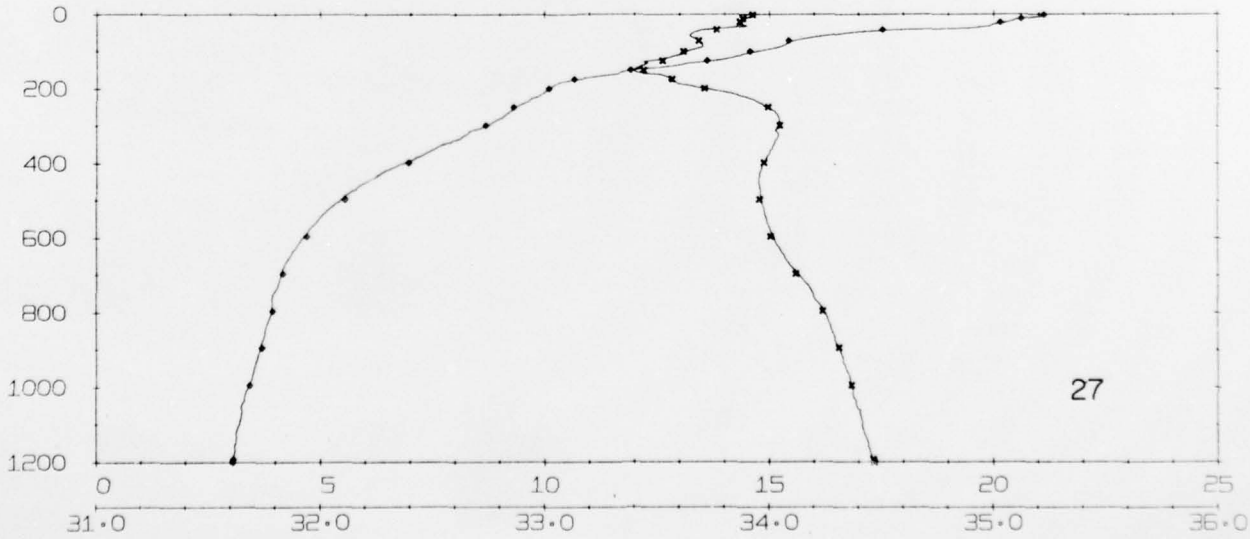

Station 2: 10 July 1977 0635 GMT

30° 46.2'N 163° 30.4'W

Z	CHLa	PHAEO
1	0.03	0.00
22	0.02	0.00
41	0.04	0.01
71	0.05	0.01
99	0.08	0.05
123	0.15	0.10
148	0.04	0.06
172	0.02	0.02
196	0.01	0.02
245	0.00	0.01
295	0.00	0.01
392	0.00	0.01

Station 4: 12 July 1977 1914 GMT

35° 09.2'N 162° 01.2'W

Z	CHLa	PHAEO
1	0.05	0.00
21	0.08	0.03
41	0.16	0.00
71	0.38	0.12
100	0.14	0.04
125	0.07	0.05
150	0.03	0.03
175	0.02	0.02
200	0.01	0.02
250	0.01	0.02
299	0.01	0.02
399	0.00	0.01

Station 6: 13 July 1977 1440 GMT

35° 10.8'N 159° 59.2'W

Z	CHLa	PHAEO
1	0.05	0.00
10	0.06	0.01
21	0.06	0.00
41	0.08	0.01
50	0.14	0.00
60	0.17	0.05
71	0.24	0.10
80	0.33	0.11
90	0.25	0.13
100	0.25	0.08
125	0.08	0.03
150	0.03	0.00
175	0.01	0.02
200	0.00	0.02

Station 8: 14 July 1977 1010 GMT

35° 09.2'N 158° 00.0'W

Z	CHLa	PHAEO
1	0.04	0.00
10	0.04	0.00
21	0.04	0.00
41	0.07	0.01
51	0.09	0.01
61	0.17	0.02
70	0.47	0.16
80	0.39	0.22
90	0.33	0.20
99	0.25	0.15
123	0.11	0.07
148	0.02	0.01
173	0.00	0.01
198	0.00	0.01

Station 10: 15 July 1977 0638 GMT

35° 09.9'N 156° 02.4'W

Z	CHLa	PHAEO
1	0.06	0.00
10	0.04	0.01
21	0.04	0.00
31	0.05	0.00
41	0.05	0.00
51	0.06	0.01
61	0.12	0.03
71	0.41	0.10
81	0.30	0.12
91	0.21	0.17
100	0.16	0.08
124	0.06	0.05
149	0.02	0.01
174	0.01	0.01
199	0.00	0.00

Station 12: 17 July 1977 0651 GMT

35° 09.9'N 153° 58.0'W

Z	CHLa	PHAEO
1	0.06	0.00
10	0.04	0.00
21	0.05	0.00
31	0.05	0.00
41	0.05	0.01
50	0.06	0.00
60	0.11	0.00
70	0.13	0.03
80	0.27	0.10
90	0.42	0.17
99	0.28	0.11
124	0.08	0.06
148	0.03	0.01
173	0.01	0.01
198	0.00	0.01

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Station 14: 17 July 1977 0655 GMT

35° 10.1'N 151° 57.0'W

Z	CHLa	PHAEO
1	0.05	0.00
10	0.05	0.00
21	0.04	0.00
31	0.05	0.00
41	0.05	0.00
51	0.06	0.01
61	0.06	0.03
72	0.11	0.02
81	0.15	0.03
91	0.24	0.11
101	0.29	0.21
126	0.13	0.13
151	0.06	0.03
176	0.02	0.02
200	0.00	0.01

Station 16: 18 July 1977 0040 GMT

35° 10.4'N 149° 59.5'W

Z	CHLa	PHAEO
1	0.05	0.00
10	0.03	0.01
21	0.04	0.00
31	0.04	0.00
41	0.05	0.00
51	0.05	0.00
61	0.06	0.01
71	0.07	0.01
81	0.08	0.01
91	0.11	0.03
100	0.14	0.05
125	0.19	0.13
150	0.05	0.04
175	0.03	0.02
200	0.01	0.01

Station 18: 20 July 1977 2231 GMT

35° 10.4'N 147° 58.3'W

Z	CHLa	PHAEO
1	0.06	0.00
10	0.06	0.00
21	0.06	0.00
31	0.06	0.00
40	0.07	0.00
50	0.11	0.00
60	0.15	0.00
70	0.24	0.05
80	0.49	0.20
89	0.50	0.25
98	0.30	0.18
123	0.12	0.11
147	0.02	0.01
172	0.01	0.01
197	0.01	0.01

Station 20: 22 July 1977 0502 GMT

35° 10.4'N 145° 59.1'W

Z	CHLa	PHAEO
1	0.07	0.00
10	0.06	0.00
21	0.06	0.00
31	0.06	0.01
41	0.06	0.01
51	0.07	0.00
61	0.07	0.00
71	0.07	0.01
81	0.09	0.01
91	0.10	0.02
100	0.12	0.03
125	0.15	0.14
150	0.10	0.07
174	0.05	0.03
199	0.02	0.02

Station 22: 22 July 1977 2115 GMT

35° 10.3'N 143° 59.8'W

Z	CHLa	PHAEO
0	0.07	0.00
10	0.07	0.00
20	0.06	0.00
30	0.07	0.00
40	0.07	0.00
50	0.08	0.00
60	0.07	0.00
70	0.07	0.00
81	0.09	0.01
91	0.10	0.01
99	0.13	0.01
124	0.17	0.14
149	0.10	0.13
174	0.05	0.07
199	0.02	0.01

Station 24: 23 July 1977 1339 GMT

35° 09.3'N 142° 00.3'W

Z	CHLa	PHAEO
1	0.07	0.00
10	0.07	0.00
21	0.07	0.00
31	0.08	0.00
41	0.07	0.00
51	0.08	0.00
60	0.07	0.00
70	0.07	0.01
80	0.09	0.01
90	0.09	0.01
99	0.10	0.02
124	0.14	0.11
149	0.12	0.12
174	0.06	0.07
199	0.04	0.06

Station 26: 24 July 1977 0523 GMT

35° 10.6'N 139° 58.0'W

Z	CHLa	PHAEO
1	0.07	0.00
10	0.07	0.00
21	0.06	0.00
31	0.06	0.00
41	0.06	0.00
51	0.07	0.00
61	0.08	0.00
71	0.07	0.00
81	0.13	0.01
90	0.12	0.01
100	0.15	0.09
125	0.19	0.21
150	0.07	0.11
175	0.04	0.04
200	0.01	0.01

LITERATURE CITED

Anderson, G. C., compiler, 1971. "Oxygen Analysis", Marine Technician's Handbook, SIO Ref. No. 71-8, Sea Grant Pub. No. 9.

Anderson, G. C., compiler, 1971. "Phosphate Analysis", Marine Technician's Handbook, SIO Ref. No. 71-10, Sea Grant Pub. No. 11.

Atlas, E. L., S. W. Hager, L. I. Gordon, and R. K. Park, 1971. A practical manual for use of the Technicon AutoAnalyzer^{R} in seawater nutrient analyses, revised. Dep. Oceanogr., Oregon State Univ. Ref. 71-22. 49 pp.

Bendschneider, K., and R. J. Robinson, 1952. A new spectrophotometric method for the determination of nitrite in sea water. *J. Mar. Res.*, *11*: 87-96.

Bissett Berman Corporation, 1967. Operation and Maintenance Manual, Laboratory Salinometer Model 6220.

Bissett Berman Corporation, 1970. Instruction Manual, Laboratory Salinometer Model 6230N.

Bissett Berman Corporation (HYTECH), 1965. Instruction Manual, *In situ* Salinity/Temperature/Depth Monitoring and Recording System, Model 9006.

Carpenter, J. H., 1965. The Chesapeake Bay Institute technique for Winkler dissolved oxygen method. *Limnol. and Oceanogr.*, *10*: 141-143.

Edmond, J. M., 1970. High precision determination of titration alkalinity and total carbon dioxide content of sea water by potentiometric titration. *Deep-Sea Res.*, *17*: 737-750.

Hitachi Ltd., 1977. Instruction Manual for the Model 100-10, -20, -30, -40 Spectrophotometers.

Holm-Hansen, O., C. J. Lorenzen, R. W. Holmes, and J. D. H. Strickland, 1965. Fluorometric determination of chlorophyll. *J. Cons. perm. int. Explor. Mer*, *30*: 3-15.

Klein, Hans T., 1973. A new technique for processing physical oceanographic data. SIO Ref. No. 73-14.

Matthews, D. J., 1939. Tables of the velocity of sound in pure water and seawater for use in echo-sounding and sound-ranging. Second Edition. Hydrographic Department, Admiralty, H. D. 282, 52 pp.

Murphy, J., and J. P. Riley, 1962. A modified single solution method for the determination of phosphate in natural waters. *Anal. Chem. Acta.*, *27*: 31.

Owen, R. W. and B. Zeitschel, 1970. Phytoplankton production: seasonal change in the oceanic Eastern tropical Pacific. *Mar. Biol.*, *7*: 32-36.

Plessey Environmental Systems, 1974. Instruction Manual, *In Situ* Salinity/Temperature/Depth Monitoring and Recording System, Model 9040.

Plessey Environmental Systems, 1974. Instruction Manual, Digital Data Logger Model 8400.

Steemann Nielsen, E., 1952. The use of radioactive carbon (C^{14}) for measuring organic production in the sea. *J. Cons. perm. int. Explor. Mer*, *18*: 117-140.

Strickland, J. D. H. and T. R. Parsons, 1968. A practical handbook of seawater analysis. Fish Res. Brd. Can., Bull. 167: 311 pp.

Sverdrup, H. U., M. W. Johnson, and R. H. Fleming, 1942. *The Oceans: their Physics, Chemistry, and General Biology*. Prentice-Hall, New Jersey, 1087 pp.

Tsunogai, S., M. Nishimura and S. Nakaya, 1968. Complexometric titration of calcium in the presence of larger amounts of magnesium. *Talanta*, *15*: 385-390.

University of Washington, 1960. Univ. of Wash. Dept. of Oceanography, Oct. 1960. Tech. Rep. UW Ref. No. 60-18.

Venrick, E. L., J. R. Beers, and J. F. Heinbokel, 1977. Possible consequences of containing microplankton for physiological rate measurements. *J. Exp. Mar. Biol. Ecol.*, *26*: 55-76.

Wood, E. D., F. A. J. Armstrong, and F. A. Richards, 1967. Determination of nitrate in sea water by cadmium-copper reduction to nitrite. *J. Mar. Biol. Assn. U.K.*, *47*: 23-31.

Yentsch, C. S. and D. W. Menzel, 1963. A method for the determination of phytoplankton chlorophyll and phaeophytin by fluorescence. *Deep-Sea Res.*, *10*: 221-231.

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