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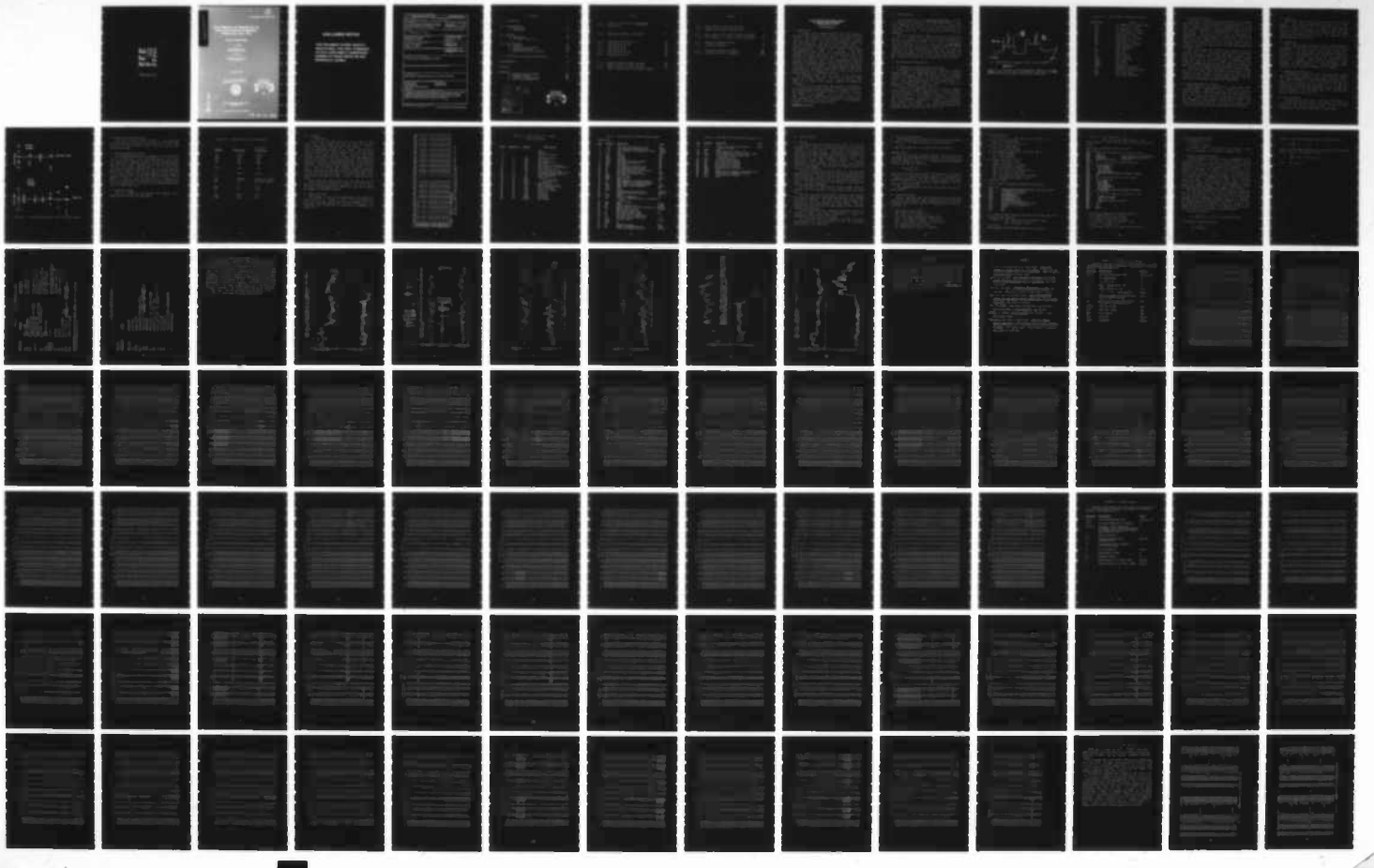

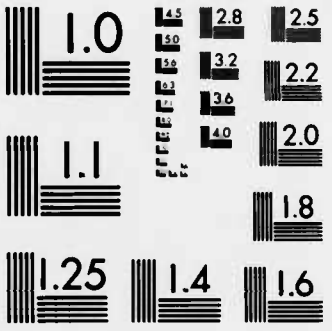

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NRL Memorandum Report 5160

Data Validation and Summary for the NRL Remote Sensing Experiment: Phelps Bank, July, 1982

Part II: Meteorology

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August 26, 1983

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

During the NRL Remote Sensing Experiment in the Phelps Bank region (40° 50'N, 69° 20'W) meteorological data were obtained by the USNS HAYES. The data is validated, summarized and plotted. Relevant atmospheric parameters describing stability and sea-air fluxes are also summarized and plotted.

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DATA VALIDATION AND SUMMARY FOR THE NRL REMOTE SENSING EXPERIMENT: PHELPS BANK, JULY, 1982

Part II: Meteorology

I. INTRODUCTION

For several years, Synthetic Aperture Radar (SAR) images of the sea surface revealed planar signatures which were remarkably similar to the bathymetric contours below the water in depths less than about 30m. Such sea-surface bathymetric signatures were also observed by side-looking airborne radar (SLAR). To address the scientific questions raised by these observations, a multi-institutional program (the Airborne Surveillance Phenomenology Program; ASPP) was established at the Naval Research Laboratory, Washington, DC (The original plans are described in Valenzuela and Chen, 1983.). In July, 1982 as the initial field effort of ASPP, a pilot experiment was conducted southeast of Nantucket Island centered around the Asia Rip of Phelps Bank (40°50'N, 60°20'W). The experiment was to establish techniques for a comprehensive experiment in 1984, to learn about the oceanographic and meteorological environs of Asia Rip, and to obtain a data set for preliminary analysis.

The Nantucket Shoals area was chosen for the experiment because SAR imagery obtained in this area by SEASAT in 1978 (Beal, et al, 1981; p.22) showed a wealth of bathymetric signatures.

During the pilot experiment, meteorological, hydrographic, radar and wave buoy data were gathered. The data was confined to the tessera 40°30' to 41°10'N and 68°55' to 69°45'W. The data was obtained in two segments: 11 to 14 and 17 to 21 July, 1982. This report summarizes the meteorological conditions in the operational area during the experiment. The hydrographic situation is summarized in Kaiser (1983).

Manuscript approved July 20, 1983.

II. INSTRUMENTATION

Sensors were placed on the USNS HAYES (T-AGOR 16) to measure air temperature, air humidity, wind speed and direction, upper ocean temperature and salinity, ship roll, heading, latitude and longitude. The ship course and speed were calculated by the Loran-C navigation aid. Ship screw speed and pitch were also monitored.

The list of data channel labels and function are given in Table 2. 1. In some cases both primary and backup systems were deployed and these are indicated. For all other variables only one sensor was used. Fig. 2. 1, a side view of the USNS HAYES, shows the location of the various environmental sensors. The air temperature and dew point/humidity sensors were 10m above the dead water line (DWL). The wind sensors were 22.5m above the DWL and the ocean temperature and salinity sensors were 7m below the DWL. The ship roll sensor was on the main deck level mid-ship.

A. Description of instrumentation:

1. Air temperature and dew point/relative humidity

The primary air temperature/dew point system was a General Eastern 2100MPS. The temperature sensor (TA1) is a platimum resistance thermometer (PRT). The dew point (TDP1) is measured directly by a PRT embedded in an optically controlled cooled mirror. Both sensors are mounted in an aspirated airway in a Dewer and external white radiation shield. The mirror is automatically "cleaned" once every 24 hours.

The backup air temperature (TA2) and relativity humidity (TDP2) sensor was a General Eastern Model 411 sensor and Model 450 signal processor. The temperature sensor is a PRT and the humidity sensor is of the sulfonated polystyrene ion exchange type with temperature compensation provided by a thermistor. Both sensors were mounted in a double-radiation-shielded aspirated horn (Climet 016-2). Both sensors were mounted on the starboard jackstaff 10m above the DWL (Fig 2. 1).

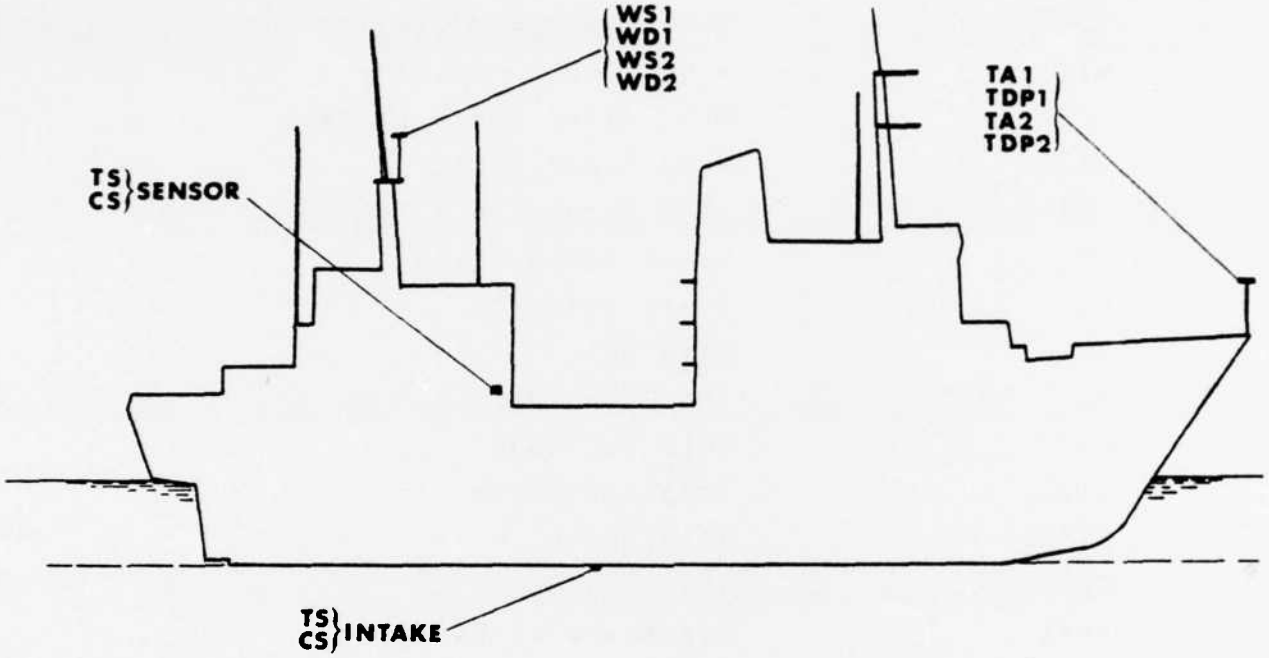


Fig. 2.1. Location of the meteorological sensors on the USNS HAYES. Water for TS and CS is pumped at 300 cc/sec through insulated hose to the sensor located in the laboratory.

Table 2. 1 Data channels, labels and functions

Channel/Label	Function
TA1	Air temperature - primary sensor
TDP1	Air dew point - primary
TA2	Air temperature - backup
TDP2	Relative humidity - backup
WS1	Wind speed - primary
WD1	Wind direction - primary
WS2	Wind speed - backup
WD2	Wind direction - backup
TS	Ocean temperature
CS	Ocean salinity
ROLL	Ship roll
HD	Ship heading
LAT	Ship latitude
LONG	Ship longitude
SPEED	Ship speed
COURSE	Ship course
RPM1	Starboard screw speed
PI1	Starboard screw blade pitch
RPM2	Port screw speed
PI2	Port screw blade pitch

2. Wind speed and direction

The primary and backup wind speed and direction instruments were Model WS201 systems manufactured by Teledyne Geotech. Wind speed is measured in with a three cup anemometer which drives an optical chopper producing a frequency output proportional to the wind speed. Direction is determined with a vane driving a potentiometer. The direction signal spans 0 to 540 degrees to suppress the discontunity between 0 and 360 degrees. Since 0 and 360 degrees points towards the bow of the ship, transiting into a headwind would cause the wind vane to oscillate around 0° and an average of this wind direction would be about 180° without the overrange to 540°.

Both wind systems were mounted on 3m masts on the aft platform (Fig. 2. 1). The primary system was on the starboard side and the backup system on the port side. They were both 22.5m above the DWL. This location was a compromise between being well above all possible sources of interference from structural members of the ship and not being so far above the water so that the correction of the wind speed to 10m was large.

Since the wind sensors were mounted on a mast 22.5m above DWL, ship roll could induce sufficient relative motion to the sensors to cause erroneous readings; hence, the wind data was corrected for this using a roll sensor mounted midship. The roll sensor was a Robinson-Halpern Model 685B inclinometer.

3. Ocean temperature and salinity:

These quantities were measured with a Plessey Model 6600T thermosalinograph. Temperature (TS) is sensed with a PRT and conductivity with a thermistor-compensated induction conductivity cell. This data is then converted to salinity (CS) directly in the unit. The water was drawn in 7m below DWL and pumped to the sensor assembly on deck through insulated plastic tubing. The nominal flow rate was 300cc/sec. The water first passed through a filter before entering the thermosalinograph sensor housing.

4. Navigation

The primary navigation aid was two Northstar 7000 Loran-C systems. These have a nominal accuracy of 0.1 km in the Nantucket Shoals area due to the excellent Loran coverage there. The Loran-C time delays, calculated latitude (LAT) and longitude (LONG), and calculated ship course (CSE) and speed (SPEED) were provided by the Loran set. The course and speed were averaged over about 100 sec.

B. CALIBRATION

Most of the sensors were calibrated either in the laboratory or in situ. WS1 and WS2 were factory calibrated at the time of manufacture. The main factors which would affect th- calibration are the bearings which are periodically checked for degradation. Intercomparison of WS1 and WS2 also verify they retain their accuracy. Four groups of calibrations were performed: 1) temperature (TA1, TDP1, TA2; laboratory), 2) wind direction (WD1, WD2; laboratory), 3) relative humidity (TDP2; laboratory), and 4) thermosalinograph (TS, CS; in situ).

1. Temperature calibration:

The temperature standard for the calibrations was a Dymec Model 2801A quartz thermometer with a least count of .0001°C. This quartz thermometer was calibrated against a standard quartz system over the range 0 to 40°C. Then the TA1, TDP1 and TA2 systems were calibrated over the range of 18 to 36°C and appropriate correction factors determined. Over the temperature range encountered in the experiment (<27°C) TA1, TA2 and TDP1 were all accurate to .05°C (Fig 2. 2).

2. Wind calibration

WS1 and WS2 were both factory calibrated to 0.5m/sec or 2% of air speed which ever is greater. WD1 and WD2 were laboratory calibrated. WD1 and WD2 errors are shown in Fig 2. 2. The maximum error is less than 2.5 degrees for both systems.

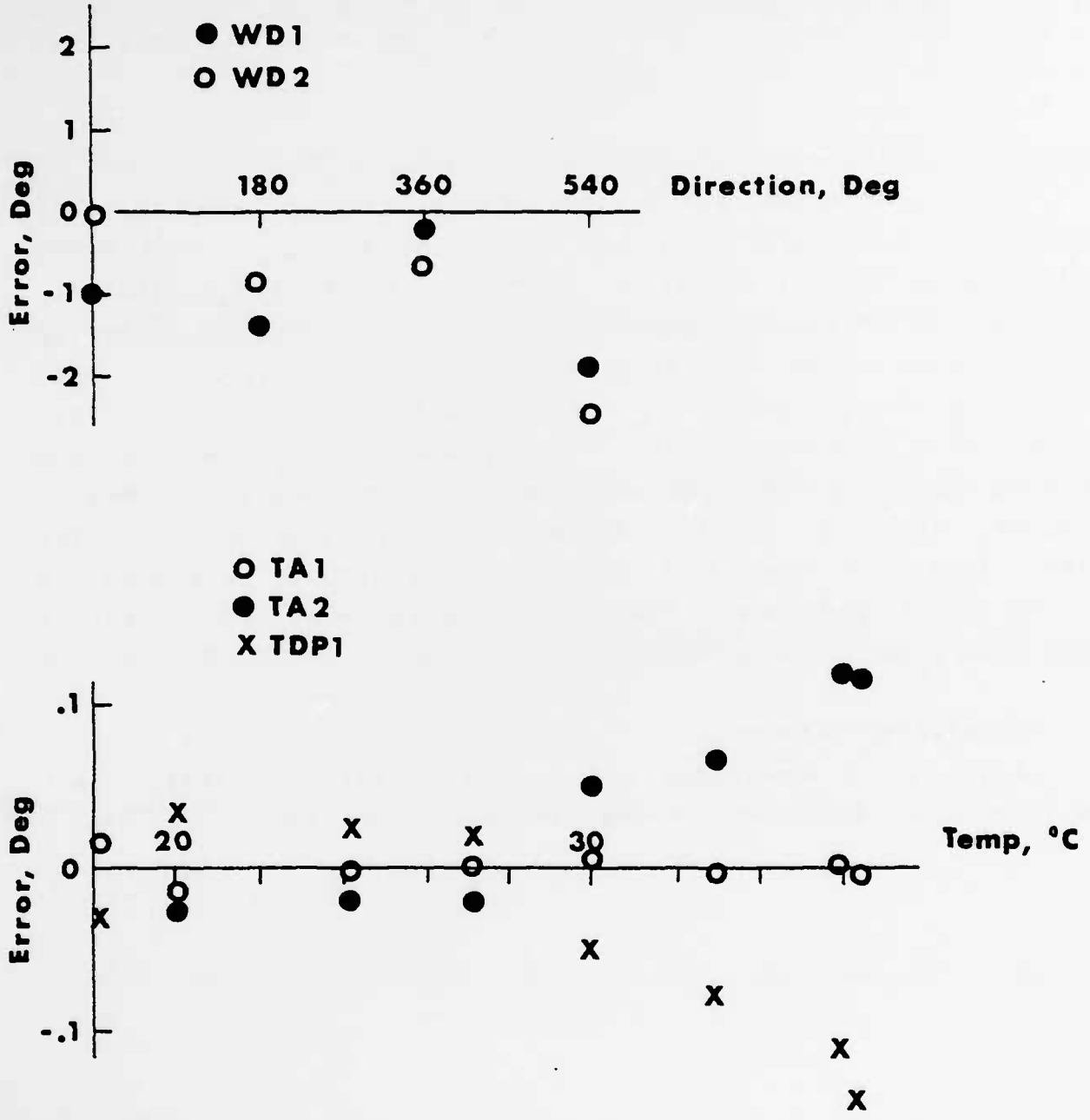


Fig. 2.2. Calibration data on WD1, WD2, TA1, TA2 and TDP1.

3. Relative Humidity Calibration

TDP2 was a relative humidity sensor. It was laboratory calibrated against saturated salt solutions which produce known relative humidities from 33% to 96.5%. The error was less than 2% over this range.

4. Thermosalinograph Calibration

The thermosalinograph measured temperature (TS) and salinity (CS) of 7m deep water. It was calibrated against a Neil Brown CTD (conductivity, temperature, depth) profiles in situ (Kaiser, 1983, describes the CTD instrument and accuracies), by selecting CTD casts with special characteristics. The calibration data could only be obtained when the CTD casts indicated homogenous water within 2 meters of the 7m depth, when the CTD down cast and up cast were the same; and when the thermosalinograph showed no temporal variation in the 7m water within 5 minutes of the cast. This left nine casts which could be used to determine the TS and CS calibrations. From these the root-mean-square errors are: TS, .065°C; CS, .031%.

5. Calibration Summary

Table 2. 2 summarizes the important data channels, their resolution and rms error or inaccurracy.

Table 2. 2. Summary of Calibrations and Errors

Channel	Resolution	rms error/ innaccuracy
TA1	.001°C	.010°C
TDP1	.001	.034
TA2	.001	.031
TS	.001	.065
TDP2	.01%	2%
CS	.001%	0.31%
WS1	.05m/sec	Greater of .5m/sec or 2% of reading
WS2	.05	
WD1	1°	1.3°
WD2	1°	1.3°
LAT	0.01'	0.1'
LONG	0.01'	0.1'

III. Database:

A. Description

The data was collected during two periods each of about seven days. Each channel was read once every two seconds. Several interruptions occurred due to the computer. Fig 3. 1 shows the operational periods of each sensor. The two second data (in original form: volts, frequency or digital) was logged directly onto digital magnetic tape. The data acquisition programs converted the raw data to digital form and passed the time of day and data to the processing system. Data processing proceeded according to guidelines established and maintained by the user. Every minute, data averages were output to disk files. Every 15 minutes, data averages, results of physical quantity calculations, and data quality assessments were output to both disk files and hard copy. A detailed discussion of the acquisition and processing system is given in Munch and Kaiser, 1983.

Some of the data channels (TA1, TDP1, TA2, WS1, WD1, TS and CS) were recorded on strip-chart recorders. For TS and CS, a portion of the strip-charts were read to fill data voids created by computer or instrument failures.

B. Contents of Files:

The contents of the 2 sec raw data tapes are the first 43 words of Table 3. 1. Tables 3. 1 and 3. 2 give the contents of the 1 minute averages file and the 15 minute averages file. The algorithms used to generate the variables and parameters are given in IV.

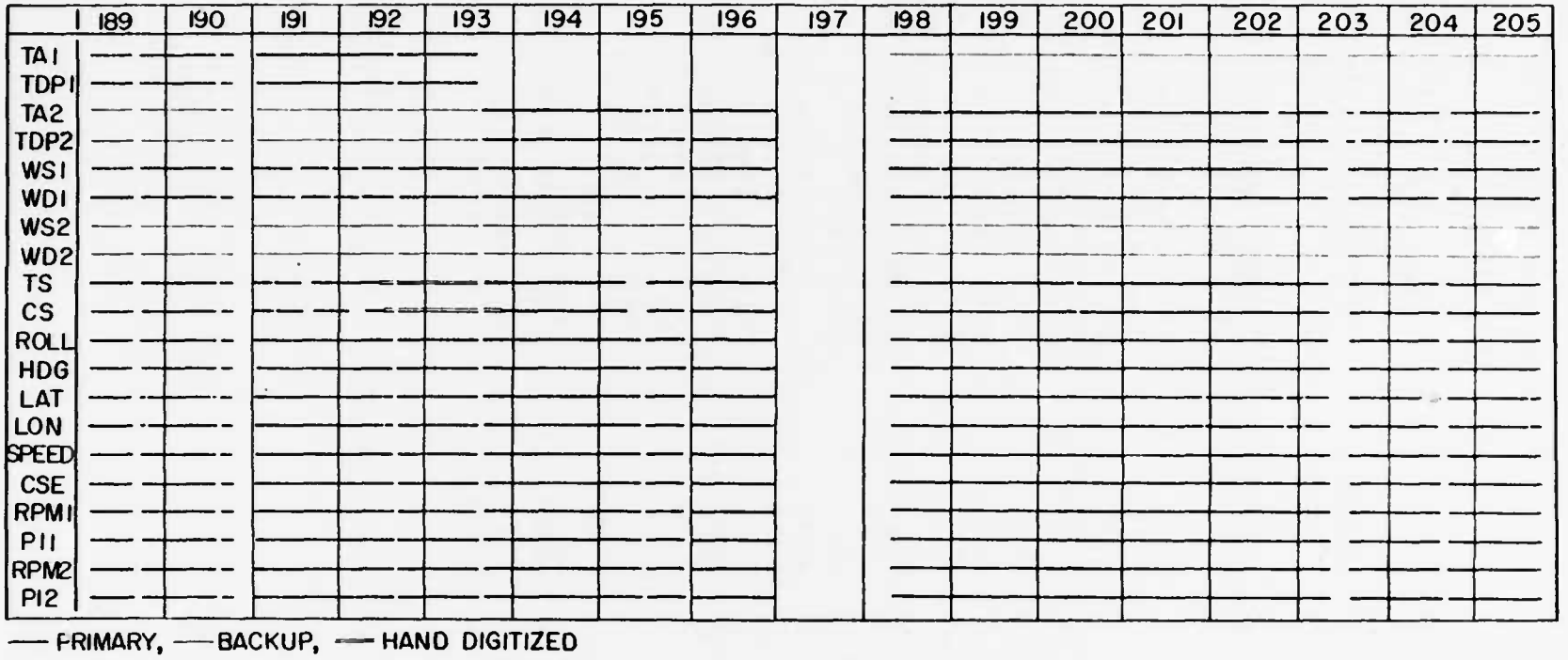


Fig. 3.1. Operational periods of all meteorological and ship parameter sensors. No line indicates no data.

Table 3. 1. Data Format for File SMIN1
(1-minute averages)

Words	Channel #	Channel	Description
0			Hours
1			Seconds
2			10's milliseconds
3			Years
4	0	TA1	Air Temperature 1
6	1	TDP1	Dew Point 1
8	2	TA2	Air Temperature 2
10	3	TDP2	Dew Point 2
12	4	WS1	Wind Speed 1, Starboard
14	5	WD1	Wind Direction 1, Starboard
16	6	WS2	Wind Speed 2, Port
18	7	WD2	Wind Direction 2, Port
20	8	TD	Thermosalinograph Temperature
22	9	CS	Thermosalinograph Salinity
24	10	TW	Water Temperature
26	11	ROLL	Ship Roll
28	12	Spare	For future use
30	13	Spare	For future use
32	14	HD	Ship Heading
34	15	RPM1	RPM, Starboard Screw
36	16	PI1	Pitch, Starboard Screw
38	17	RPM2	RPM, Port Screw
40	18	PI2	Pitch, Port Screw
42	19	PLOG	Pitot Log
44	20	LAT	Latitude
46	21	LONG	Longitude
48	22	SPEED	Ship Speed
50	23	COURSE	Ship Course

Table 3. 2. Data Format for File SMIN5 (15-minute averages)

Beginning Word

Word	Variable	Description	Units
0	I (1)	Time, hours from beginning of year	Hours
1	I (2)	Time, seconds from beginning of day	Seconds
2	I (3)	10's milliseconds from beginning of second	10 msec
3	I (4)	Year	Integer
4	LAT	Latitude	Deg.
5	RLAT	Latitude	Min.
7	LONG	Longitude	Deg.
8	RLONG	Longitude	Mn.
10	LRSPD	Ship speed calculated by Loran-C	Kts
12	PLOG	Ship speed from Pitot Log	Kts
14	HEAD	Ship heading	Deg.
16	CSE	Ship course calculated by Loran-C	Deg.
18	TA	Air temperature in physical units	°C
20	TDP	Dew point temperature in physical units	°C
22	WS	Wind speed in physical units	m/sec
24	WD	Wind direction in physical units	Deg.
26	BLANK	For future use	- - -
28	RLSPD	Ship roll speed	m/sec
30	RMSRL	RMS ship roll	Deg.
32	TW	Water temperature from towed thermistor	°C
34	TS	Water temperature from thermosalinograph	°C
36	SALIN	Water salinity from thermosalinograph	°/oo
38	SIGT	Water sigma-T from TS and SALIN	gm/cm^3
40	TATW	TA-TW	°C
42	TDPTW	TDP-TW	°C
44	H	Sensible water-to-air heat flux	$watts/m^2$
46	E	Evaporative water-to-air heat flux	$watts/m^2$
48	TVATW	TVA-TVW	°C
50	TVA	Virtual air temperature	°C
52	TVW	Virtual air temperature when air is saturated at TW	°C
54	RH	Relative humidity	%
56	QWQA	QW-QA	gm/kgm
58	QW	Specific humidity of air	gm/kgm
60	QA	Specific humidity of air when saturated at TW	gm/kgm
62	TAU	Momentum stress on water	$dyne/cm^2$
64	L	Monin-Obukhov length scale	m
66	ZO	Sea surface roughness height	cm
68	CD	Drag coefficient for momentum	- - -
70	CH	Drag coefficient for sensible heat	- - -
72	CE	Drag coefficient for latent heat	- - -
74	USTAR	Friction velocity	cm/sec
76	TSTAR	TA	- - -
78	QSTAR	QA	- - -
80	PA	Atmospheric pressure	mbar
82	HW	Height of anemometer above DWL	meters
84	DT	Time interval between data scans	seconds

Table 3. 2 Data Format for File SMIN5 (15-min averages) (Cont)

Word	Variable	Description	Units
86	HT	Heights of air temperature & dew point sensors above DWL	meters
88	RBLN2	Blank	
90	VB	Current background variances - array	
130	RVAL	Current background variance thresholds - array	
170	FLG15	Total variance flags generated in last 15-minutes - array	
230	DAT15	15-minute raw data array	
278	STA	TA variance over 15-minutes	
280	STDP	TDP variance over 15-minutes	
282	SWS	WS variance over 15-minutes	
284	SWD	WD variance over 15-minutes	
286	SPLOG	PLOG variance over 15-minutes	
288	IBLK2	Blank	
289	OPTN1	System Execution Parameters algorithm selectors	
293	RPTN2	System Execution Parameters calibrators	
301	STS	TS variance over 15-minutes	
303	IBLK5	Blank	

IV. Data Processing

A. Overview

The raw data was read once every two seconds. This data was averaged over 1 minute to eliminate variance due to ship motion (typically 6-12 sec. period). Then various quantities were calculated from these averages (correlations and variances) and these quantities were averaged over 15 minutes to minimize the variability of the lower atmospheric boundary layer. The appropriate boundary layer averaging interval is actually determined by the properties of the boundary layer existing during the measurement. The appropriate averaging period can vary from 100 to 2000 sec.

The wind data was corrected for ship roll since the wind sensors were on a 22.5m mast. Then the heading was combined with the wind direction. The wind velocity data was combined with the ship velocity data from the Loran-C to give true wind velocity at 22.5m. This wind velocity was then reduced to 10m elevation assuming a neutral atmosphere.

The dew point 2 (TDP2) sensor actually outputs relative humidity. This is converted to a vapor pressure and then to dew point.

The raw 2 sec data was wild point edited and then scanned for noise by comparing a running 60 sec variance to an average "background" variance. Any noisy records were flagged, and statistics on noise were compiled for each channel. The user selected the noise threshold for each channel and this could be changed during execution.

The one minute data, which represents atmospheric conditions averaged to remove ship motion contamination, is useful to examine variability on short time scales.

The 15 minute output is intended to provide the final characterization of the environment for all the scientists participating in the experiment.

B. Calculation of parameters

The parameters were caluclated from the one minute averages in Table 4. 1. An overbar denotes a one minute average

$(= \frac{1}{30} \sum_{1}^{30} X_i$, where X_i is a 2 second reading converted to physical units).

From the one minute average variable values the various parameters are calculated and then averaged. The parameters and units are defined in Table 3. 2. The quantities which represent 15-minute averages are formed as

$$\overline{X} = \frac{1}{15} \sum_{i=1}^{15} f(x_i)$$

where $\overline{x}$ is the one minute average. The functions f are defined in Table 4. 2; f would be the unity multiplier in the case of an unweighted average (e.g., TA, TDP); these are omitted from Table 4. 2. In Table 4. 2 the 15-minute average quantity is on the left and f $(\overline{x})$ on the right.

The parameterizations of CD, CE, CH, E and H are due to Smith (1980).

C. Special algorithms

Special algorithms were used to correct the wind speed and direction for ship course, speed, heading and roll; to calculate saturation vapor pressure from TDP; to calculate TDP from RH; to calculate σ_T .

1. Roll correction and TWIND

HW = height of wind sensor in m
DT = time interal between data scans in sec
ROLL = roll sensor in degrees - current scan
ROLLL = roll sensor in degrees - previous scan
WS - measured wind speed in m/sec
WD - measured wind direction in degrees

Roll velocity, VR:

$$VR = (1.943 \cdot Hw \cdot (ROLL - ROLLL)/(DT \cdot 57.926)) \cdot 6.0$$

Across ship wind speed (WMX):

$$WMX = WS \cdot \sin(WD/57.296) - VR$$

Along ship wind speed (WMY):

$$WMY = WS \cdot \cos(WD/57.926)$$

Roll corrected wind speed (WS') & direction (WD'):

$$WS' = [WMX^2 + WMY^2]^{1/2}$$

$$WD' = \arctan(WMY/WMX)$$

Ship motion correction to wind:

SPEED = ship speed in kts

COURSE = ship course in degrees

HDG = ship heading in degrees

DIR = wind direction in degrees (WD')

SPD = wind speed in knots (WS')

TWD = corrected wind direction in degrees

TWS = corrected wind speed in knots

Subroutine TWIND*

```
.TWIND T=00003 IS ON CR00031 USING 00002 BLKS R=0000

0001   FTN,L
0002           SUBROUTINE TWIND(SPEED,COURSE,HDG,DIR,SPD,TWD,TWS)
0003           D=(HDG+DIR)*3.14159/180.0
0004           C=COURSE*3.14159/180.0
0005           SVX=SPEED*COS(C)
0006           SVY=SPEED*SIN(C)
0007           TWX=SPD*COS(D)-SVX
0008           TWY=SPD*SIN(D)-SVY
0009           TWS=SQRT(TWX*TWX+TWY*TWY)
0010           TWD=ATAN2(TWY,TWX)*180.0/3.14159
0011           IF(TWD.LT.0.0)TWD=TWD+360.0
0012           RETURN
0013           END
0014           END$
```

2. Saturation vapor pressure from dew point or dew point from saturation vapor pressure

IPOLY = 1: DIN = Saturation vapor pressure in mbar
DOUT = Dew point in deg C

---

*Dean Clamons, NRL Code 5003 developed this subroutine

IPOLY = 2: DIN = Dew point in deg C

DOUT = Saturation vapor pressure in mbar

The polynomials in SPOLY were obtained by fitting data from List (1966).

```
&SPOLY T=00003 IS ON CR00033 USING 00005 BLKS R=0000

0001  FTN7X,L
0002        SUBROUTINE SPOLY(DIN,DOUT,IPOLY),1982 Cruise E(t) and T(e)
0003  C     *
0004        REAL*8 DIN                    !  Double precision input to subroutine
0005        REAL*8 DOUT                   !  Double precision output from subroutine
0006        INTEGER IPOLY                 !  Operational mode of subroutine
0007        REAL*8 D0,D1,D2,D3,D4,D5      !  Coefficients
0008  C     *
0009  C     *  E(t)   Saturation vapor pressure from dew point
0010  C     *
0011        IF (IPOLY.EQ.1) THEN
0012          D0=6.1183482D0
0013          D1=0.42750748D0
0014          D2=0.0169417D0
0015          D3=0.0001191286D0
0016          D4=0.0000618443D0
0017          DOUT=D0+(D1*DIN)+(D2*DIN*DIN)+(D3*DIN**3)+(D4*DIN**4)
0018        END IF
0019  C     *
0020  C     *  T(e)  Dew point from saturation vapor pressure
0021  C     *
0022        IF (IPOLY.EQ.2) THEN
0023          D0=-12.304D0
0024          D1=2.42893D0
0025          D2=-0.0626510D0
0026          D3=0.0009367920D0
0027          D4=-0.0000689041D0
0028          D5=1.93622D-8
0029          DOUT=D0+(D1*DIN)+(D2*DIN**2)+(D3*DIN**3)+(D4*DIN**4)+
0030       2    (D5*DIN**5)
0031  C       *
0032  C       *  To correct for bad fit of T(e) polynomial to table
0033  C       *
0034          IF (DOUT.LT.16.0) THEN
0035            DOUT=0.86+0.95*DOUT
0036          ELSE
0037            DOUT=DOUT+0.01*(DOUT-22.0)**2-0.31
0038          END IF
0039  C       *
0040        END  IF
0041  C     *
0042        RETURN
0043        END
```

3. To calculate dewpoint from relative humidity:

RH = relativity humidity in percent

R = mixing ratio over water in gm/gm

$R = (RH/100) \cdot (.62197 \cdot E(TA)/(PA - E(TA))$

$E(TDP) = R \cdot PA/(.62197 + R)$

Use SPOLY with IPOLY = 1 to obtain E(TA) and E(TDP).

To calculate sea water sigma-T:

T = temperature in deg C

S = salinity in $^{o}/oo$

σ_T = sigma-T in gm/cm^3

$\sigma_T = 29.42 - .270T - .0042(T-21)^2 + (.7954 - .00162T) \cdot (S-34)$

This is a quadratic fit to the data in Stommel, 1965.

D. Background Variance Procedure

A running background variance check was implemented on 20 of the 24 data channels. In the check, a 30-point (60 sec) running background variance was divided by the long-term variance for the channel and the ratio is then compared to a threshold. If the threshold is exceeded, the channel is identified as noisy and a record of the violation is written to disk. The thresholds are initially set by the user and can be altered at any time by using the program SALTR to independently modify each of the data channel thresholds. (Munch and Kaiser, 1983). Total violations for every 15 minutes are recorded on disk and appear on the 15 minute data summary hardcopy. The current background variance and thresholds for each channel also appear on the printout.

The algorithm to perform the variance check was executed on each of the 20 channels of data. Thus, in actuality, during each 1 minute variance check, 20 variance ratios are calculated and compared with 20 independent threshold values and if necessary, the running background variance must be updated. For the first one hundred minutes the background variance is assumed to be a simple average of the variance. The algorithm to perform the variance check on only one channel is outlined below.

The running variance,

$$V_s = \frac{1}{30} \sum_{i=1}^{30} (x_i - \bar{x})^2, \quad x_i = 2\text{-second data value}$$

if N <100, the background variance

$$V_B = \frac{1}{N} \sum_{i=1}^{N} V_S,$$

where N is the number of minutes (sets of 30 data points),

$$\text{If } \frac{V_S}{V_B} > T, \quad v = v + 1,$$

where T is the channel threshold and v is the number of violations. For N > 100, V_B is calculated as follows:

$$\frac{V_S}{V_B} < T, \quad V_B = .99\ V_B + .01\ V_S;$$

else $\quad V_B = V_B, \quad v = v + 1.$

Table 4. 1 One-minute Average Variables

Variable	Source	Description
TA	$\overline{TA1}$ or $\overline{TA2}$	Air temperature, °C
TDP	$\overline{TDP1}$ or $\overline{RH(TDP2)}$	*Air dew point, °C
WD	Roll correction and $\overline{TWIND}$ (WS, WD, HDG, CSE, SPEED)	*True wind direction, deg
WS 22.5	Roll correction and $\overline{TWIND}$ (WS, WD, HOG, CSE, SPEED)	True wind speed at 22.5m, m/sec
WS	WS 22.5/[1 = .076 ln(HW/10]	True windspeed at 10m, m/sec
TS	$\overline{TS}$	water temperature, °C
SIGT	$\overline{SIGMA}$ (TS, CS)*	water sigma-T, gm/cm^3
E(TA) E(TDP) E(TS)	$\overline{E}$ (T)*	saturation vapor pressure of air at temperature T, mbar
PA	operator	atmospheric pressure, mbar
HW	operator	Height of anemometer, m
CD	$(0.061 + 0.063\ \overline{WS}\ ) \times 10^{-3}$	
TVA	$[TA + 273.15]\ [1 + \frac{E(TDP)}{PA-E(TDP)}\ ]/[1 + \frac{.62197\ E(TDP)}{PA\ -\ E(TDP)}]-273.15$	
RHO	3.4838×10^{-4} PA/TVA	

*The subroutines/functions RH, TWIND, SIGMA, E and roll correction to wind are described in 4. C.

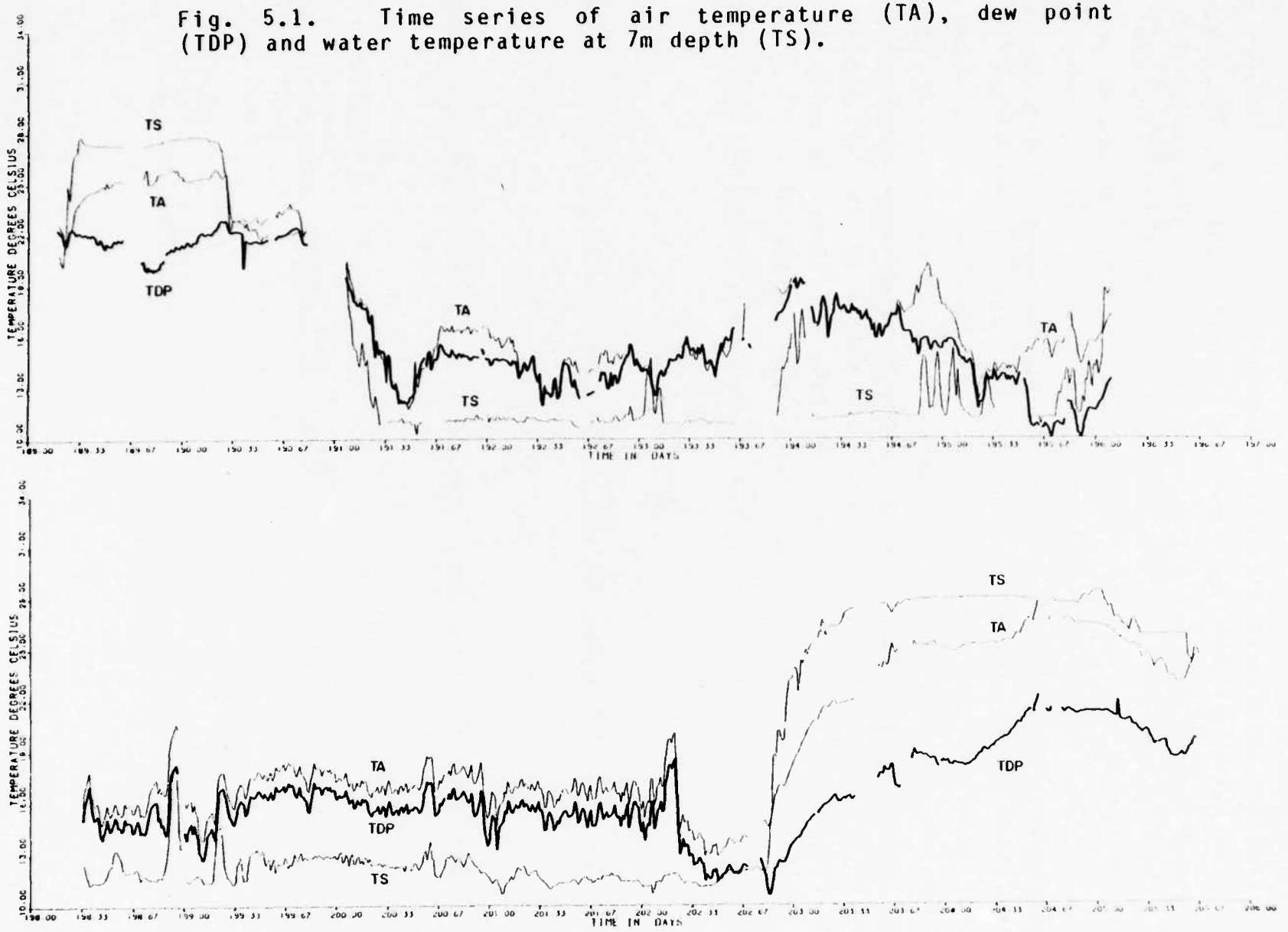
Table 4. 2 15-minute average Parameters

Parameter	Average $f(\bar{x})$
RMS ROLL	$(ROLL^2)^{1/2}$
CE	1.32×10^{-3}
USTAR	$100WS\ (CD)^{1/2}$
RH	$E(TA)[PA-E(TA)]/E(TA)[PA-E(TDP)]$
TVW	$[TA+273.15]\ [1 + \frac{E(TS)}{PA-E(TS)}]/[\frac{.62197E(TDP)}{PA - E(TS)}]-273.15$
TAU	$RHO[USTAR]^2$
H	$1046.4\ [8.7 + .99 \cdot (TS-TA) \cdot WS]RHO$
CH	$H/[1046.4\ RHO \cdot (TS-TA) \cdot WS]$
E	$1.515 \times 10^9 \cdot RHO \cdot CE \cdot WS[E(TS)-E(TDP)]/PA$
QW	$.621\ E(TS)/PA$
QA	$.621\ E(TA)/PA$
L	$-.267\ [TA + 273.15] \cdot [USTAR]^3RHO/H$
ZO	$[USTAR]^2/79,380$

V. Time Series of Variables and Parameters

The basic data of importance to the phenomena (TA, TDP, TW, WS and WD) is displayed in Figs. 5.1 and 5.2 as time series for each half of the cruise. The important parameters (U*, TAU, TVA-TVW, H and E) are plotted in Figs. 5.3 to 5.6. WD and WS are true. The variables and parameters plotted are 15 minute averages. TVA-TVW is a measure of the stability of the lower atmosphere - the virtual temperature accounts for the effect of water vapor on the density of air. If TVA-TVW < 0 the lower atmosphere is convectively unstable. The calculations of U*, TAU, H and E are based on measurements over both stable and unstable conditions. The largest deviations of the calculated U*, TAU, H and E from the true conditions are likely to occur at very small U*, below about 10 cm/sec, when TVA-TVW $\leq$0 .

Fig. 5.1. Time series of air temperature (TA), dew point (TDP) and water temperature at 7m depth (TS).



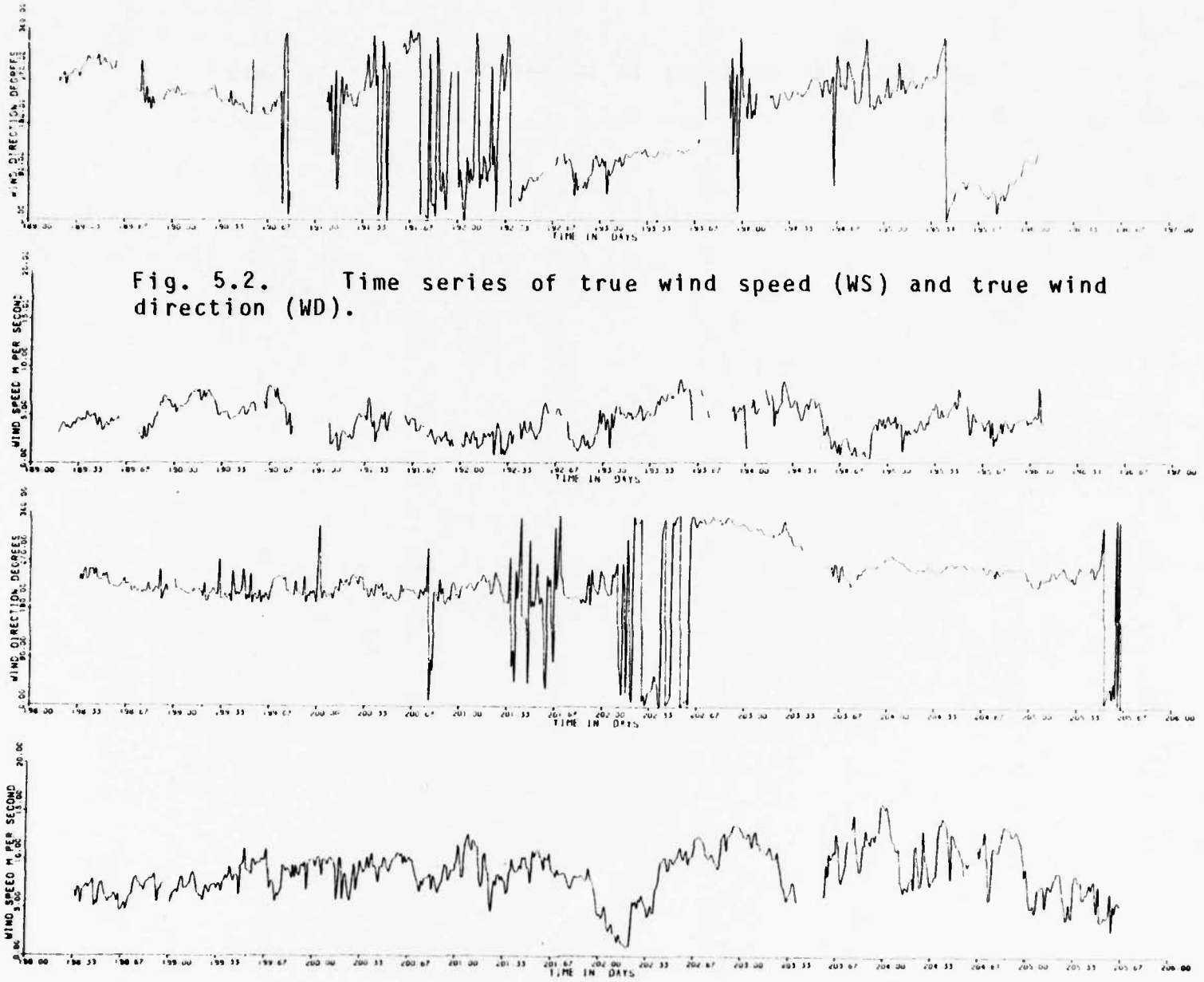


Fig. 5.2. Time series of true wind speed (WS) and true wind direction (WD).

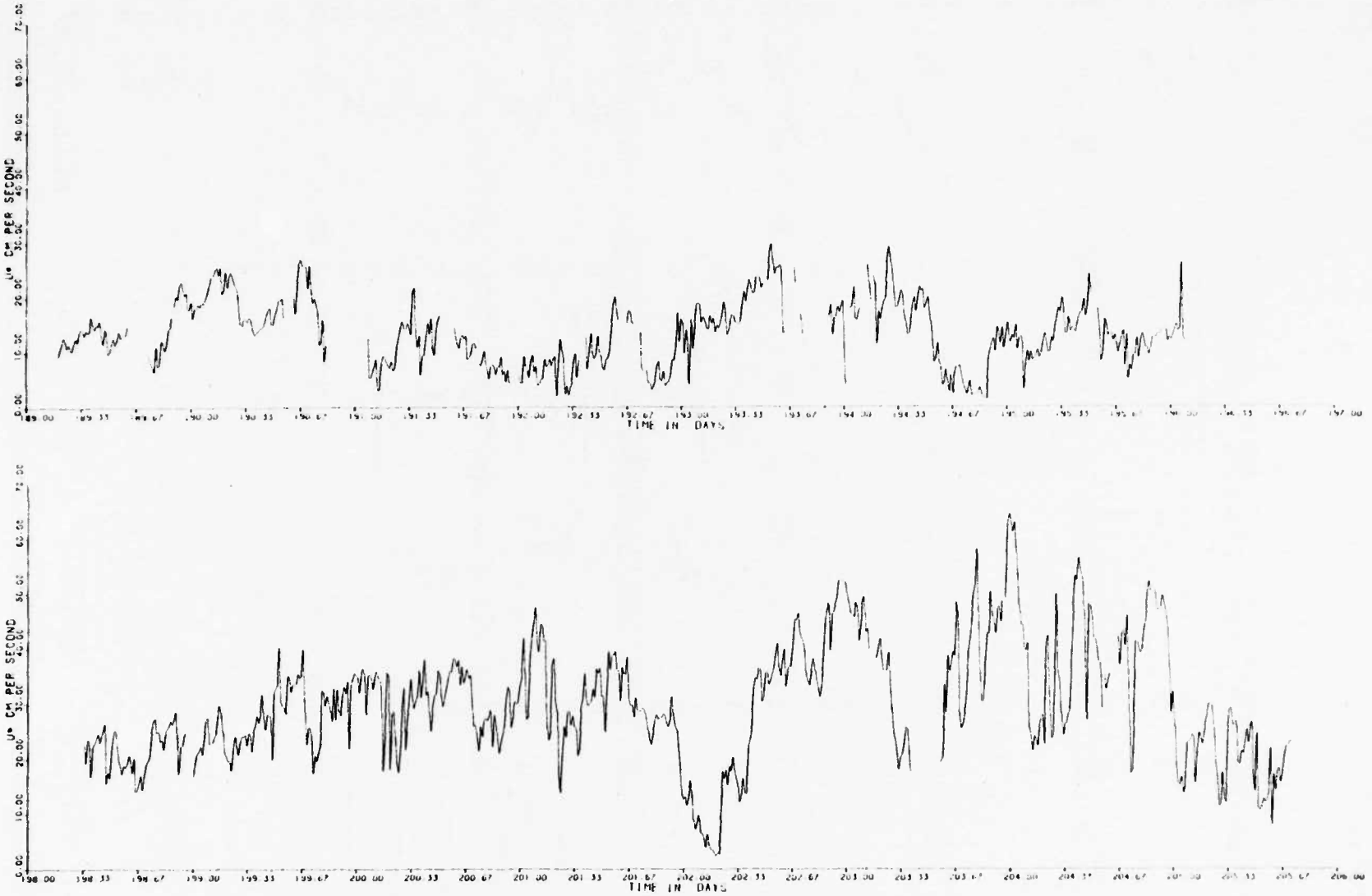


Fig. 5.3. Time series of friction velocity (U*).

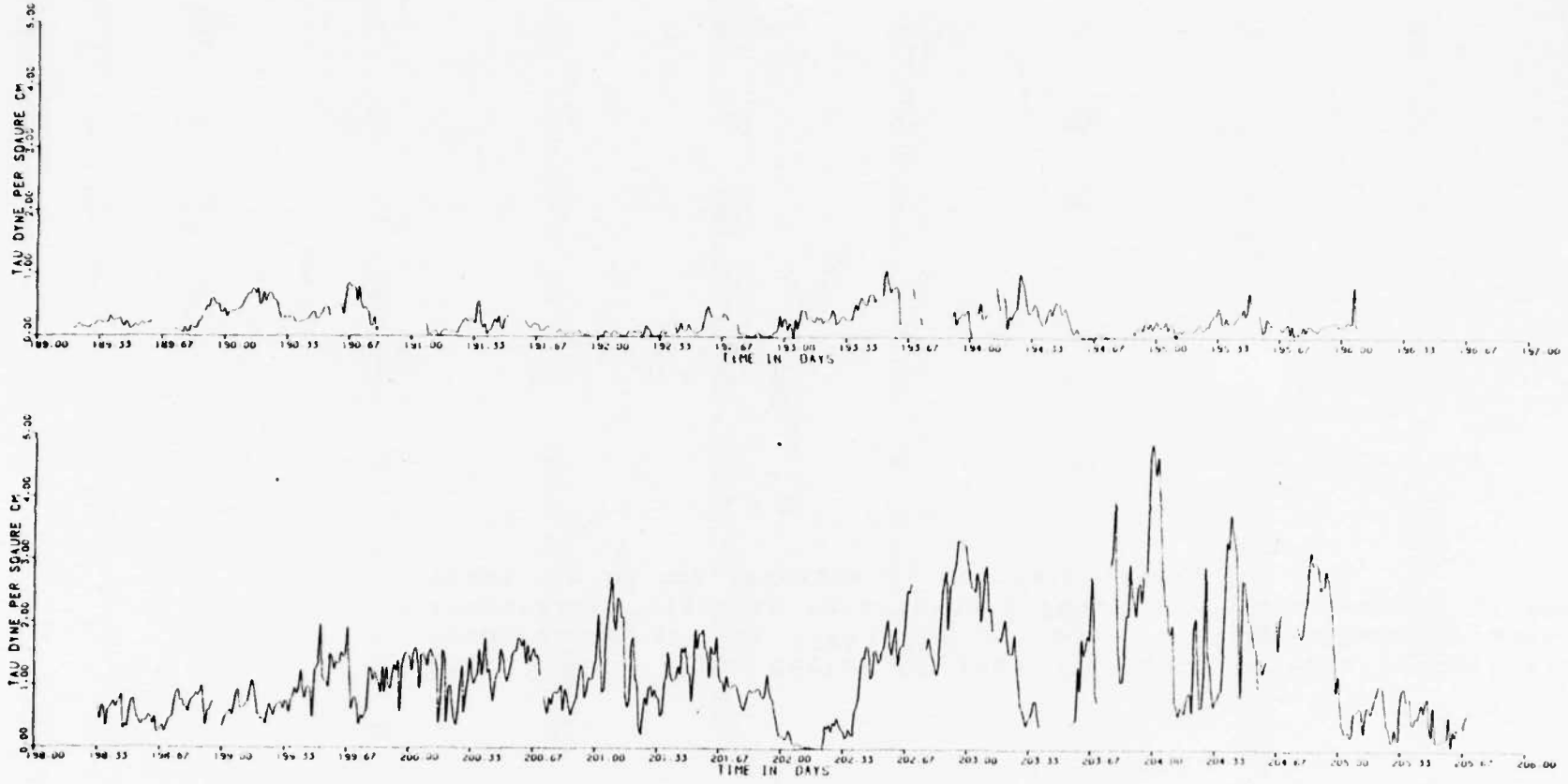


Fig. 5.4. Time series of wind stress (TAU).

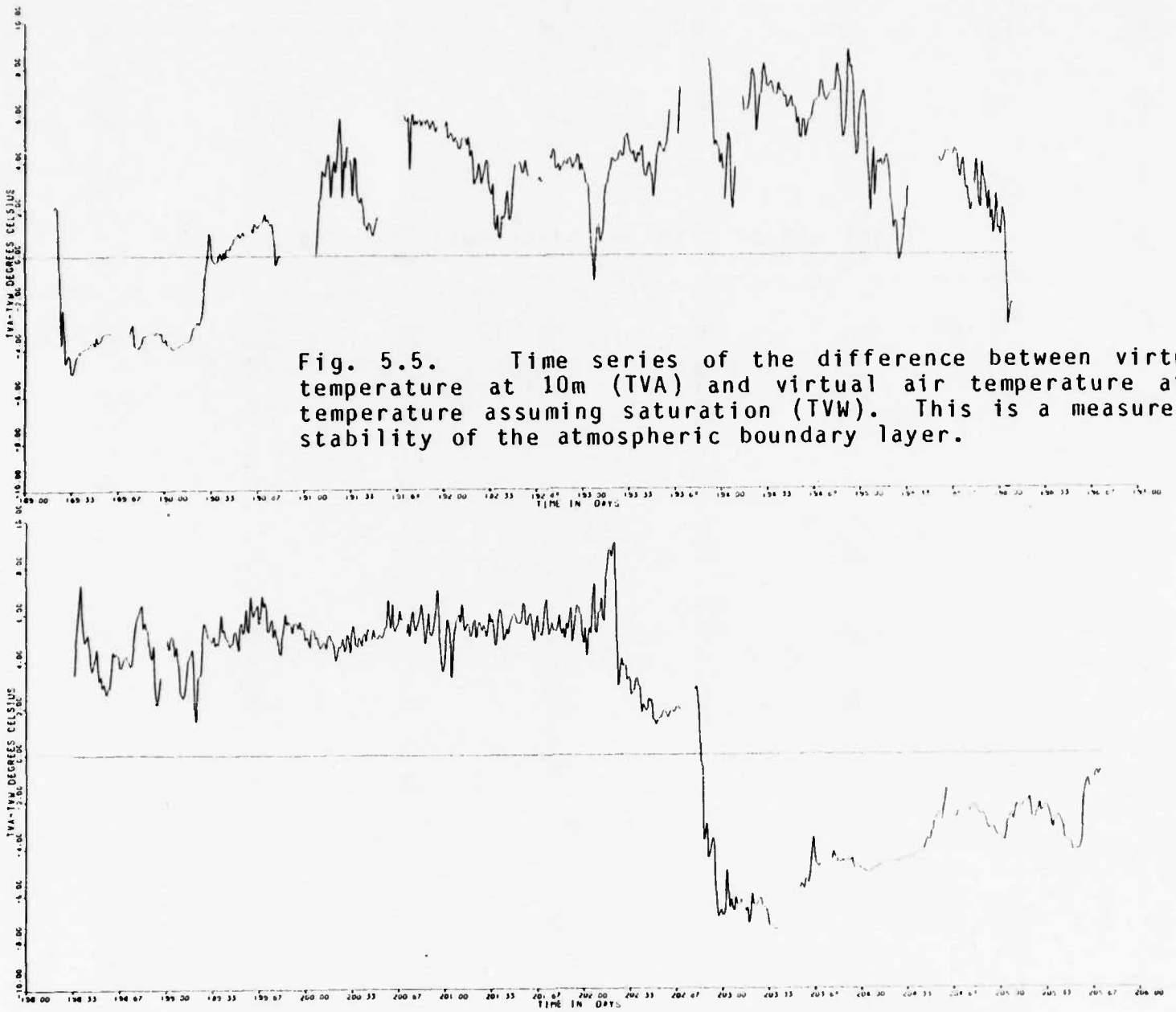
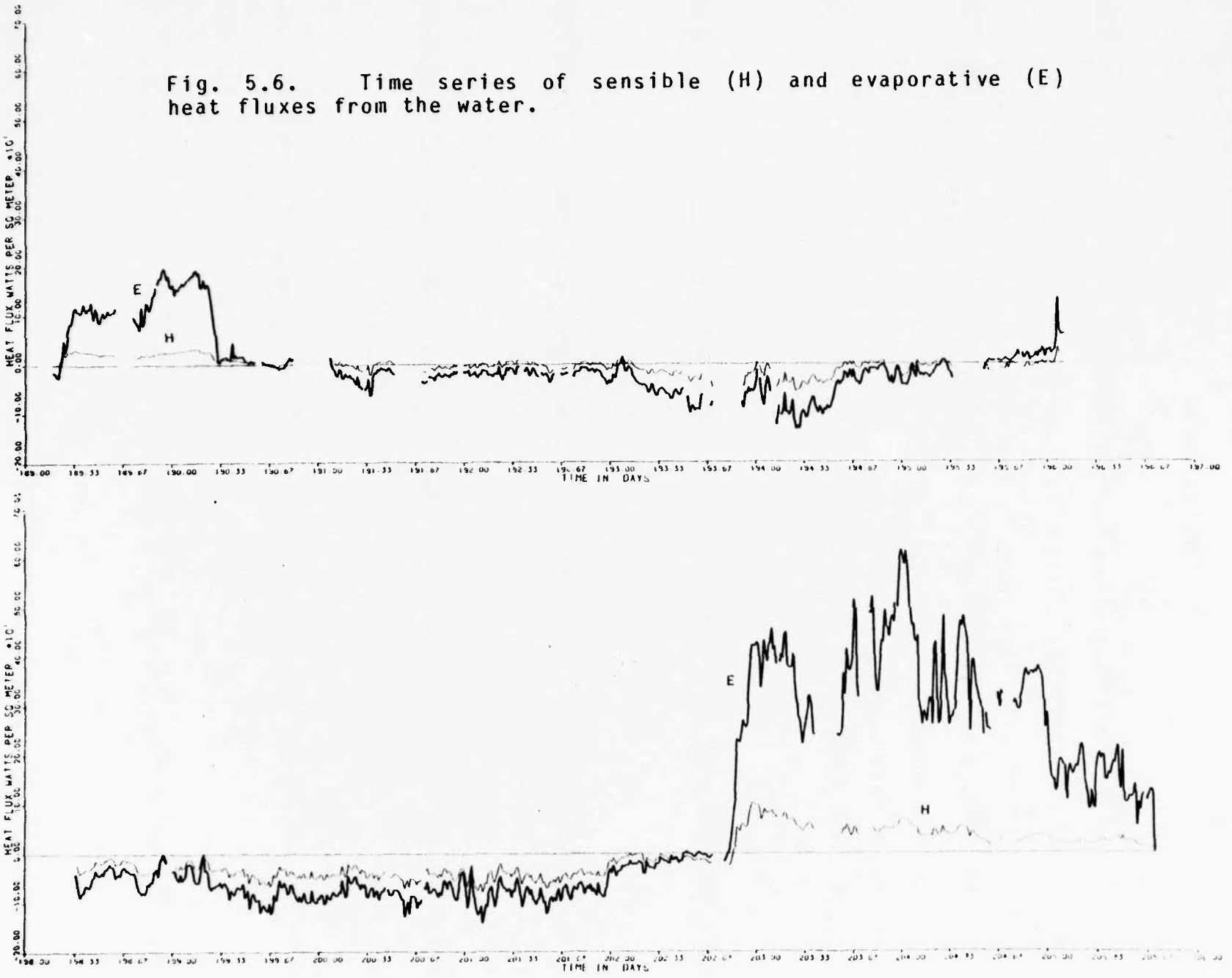


Fig. 5.5. Time series of the difference between virtual air temperature at 10m (TVA) and virtual air temperature at water temperature assuming saturation (TVW). This is a measure of the stability of the atmospheric boundary layer.

Fig. 5.6. Time series of sensible (H) and evaporative (E) heat fluxes from the water.



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APPENDIX A: Physical Variable Summary

The basic physical variables which were measured during the experiment are tabulated in time here. The entries are 15-minute averages. The quantities are:

Quantity	Discription	Units
DTG,Z	Julian day/Greenwich time	day/hour,min.
TA	Air temperature	°C
TDP	Air dew point	°C
TS	Water temperature at -7m	°C
SAL	Water salinity at -7m	°/oo
SIGT	(ρ-1) x 10^3, ρ =water density	gm/cm^3
WS	True wind speed corrected for ship motion, heading and roll	m/sec
WD	True wind direction corrected for ship motion, heading and roll	deg
SHIPS	True ship speed	m/sec
CSE	True ship course	deg
HDG	Ship heading	deg
LAT	Latitude	deg,min
LONG	Longitude	deg,min

15 MINUTE AVERAGES DATA

DTG,Z	TA	TDP	TS	SAL	SIGT	WS	WD	SHIPS	ESF	HDG	LAT		LONG	
	degC	degC	degC	ppt	g/cm**3	m/sec	deg	m/sec	deg	deg	deg	mins	deg	mins
189/0406	22.07	22.30	27.293	34.871	23.440	4.5	267	8.1	94	94	37	.69 N	71	26 73 W
189/0437	22.74	22.36	21.802	34.813	23.769	3.2	266	6.9	92	95	37	.51 N	71	18 27 W
189/0452	22.68	22.28	20.853	33.898	23.712	3.6	269	6.9	94	95	37	.42 N	71	14 07 W
189/0507	22.33	22.13	20.442	33.981	23.824	3.9	268	6.9	91	96	37	.39 N	71	9 04 W
189/0522	22.01	21.94	28.246	33.858	23.043	4.3	269	7.0	90	95	37	.38 N	71	5 60 W
189/0537	21.48	21.58	21.277	34.879	23.503	4.1	272	6.9	88	95	37	.47 N	71	1 36 W
189/0552	21.43	21.58	22.254	34.855	23.447	3.7	270	6.4	86	95	37	.73 N	70	57 25 W
189/0607	21.86	21.92	24.995	35.587	23.882	4.8	265	6.5	84	96	37	1 14 N	70	53 59 W
189/0622	22.20	22.34	24.147	35.488	23.910	3.6	270	6.6	86	96	37	1 35 N	70	49 53 W
189/0637	22.35	22.30	25.837	35.279	23.557	3.6	275	6.8	86	98	37	1.59 N	70	45 43 W
189/0652	22.78	22.42	26.461	35.839	23.534	4.0	273	6.9	92	104	37	1 65 N	70	41 22 W
189/0707	23.46	22.29	26.048	35.843	23.413	4.3	276	6.8	94	105	37	1 40 N	70	37 04 W
189/0722	23.76	22.10	26.802	35.843	23.402	4.1	280	6.8	93	105	37	1 28 N	70	32 89 W
189/0737	23.84	22.20	27.084	35.844	23.337	4.6	284	6.7	89	105	37	1.19 N	70	29 04 W
189/0752	24.02	22.20	27.765	35.844	23.115	4.8	282	6.6	88	110	37	1.21 N	70	28 26 W
189/0807	24.15	22.11	27.864	35.845	23.083	4.6	279	6.6	88	112	37	1.21 N	70	28 26 W
189/0822	24.23	22.05	27.692	35.844	23.139	4.4	269	6.6	88	115	37	1 21 N	70	28 26 W
189/0837	24.37	22.13	27.543	35.844	23.188	4.7	282	6.7	97	117	37	.87 N	70	14 87 W
189/0852	24.46	22.13	27.402	35.844	23.208	4.5	287	6.8	101	117	37	.29 N	70	8 61 W
189/0907	24.51	22.02	27.401	35.831	23.199	4.6	291	6.9	103	117	36	59.50 N	70	4 47 W
189/0922	24.61	22.00	27.448	35.811	23.194	5.4	295	5.0	103	143	36	58.88 N	70	71 W
189/0937	24.65	22.00	27.415	35.844	23.230	4.9	297	.9	33	216	36	58.84 N	69	59 82 W
189/0952	24.63	22.11	27.413	35.752	23.162	4.7	300	.9	27	197	36	59 28 N	69	57 54 W
189/1007	24.67	22.04	27.399	35.844	23.235	5.0	304	.8	26	221	36	59.64 N	69	59 32 W
189/1022	24.72	21.96	27.397	35.843	23.235	4.9	300	.7	25	228	36	59.99 N	69	59 18 W
189/1037	24.75	21.63	27.396	35.843	23.235	5.2	304	.7	23	217	37	.38 N	69	58 94 W
189/1052	24.83	21.62	27.396	35.843	23.236	4.3	302	.8	23	202	37	.65 N	69	58 74 W
189/1108	24.92	21.07	27.396	35.843	23.235	3.9	303	.8	22	208	37	1 03 N	69	58.54 W
189/1123	24.93	21.66	27.394	35.843	23.236	4.8	300	.9	26	202	37	1 44 N	69	58 32 W
189/1138	25.03	21.48	27.805	35.842	23.230	4.3	313	1.0	50	126	37	1.77 N	69	58 03 W
189/1153	24.85	21.26	27.358	35.932	23.315	3.4	289	1.7	193	236	37	2 43 N	69	57 73 W
189/1208	25.19	21.61	27.353	35.994	23.363	3.5	254	.9	69	101	37	2 74 N	69	57 51 W
189/1223	24.92	21.45	27.351	35.995	23.364	4.8	297	.0	28	232	37	2 98 N	69	57 22 W
189/1238	24.96	21.45	27.349	35.994	23.364	4.3	306	.9	136	254	37	3 34 N	69	57 04 W
189/1253	25.05	21.43	27.349	35.996	23.366	3.9	294	.8	21	211	37	3.68 N	69	56 74 W
189/1308	25.21	21.67	27.349	35.997	23.366	4.2	296	.8	30	198	37	4 03 N	69	56 72 W
189/1323	25.27	21.77	27.349	35.997	23.366	4.6	298	.9	29	201	37	4 41 N	69	56.46 W
189/1338	25.26	21.66	27.348	35.996	23.366	4.3	298	.9	31	202	37	4 78 N	69	56 19 W
189/1353	25.28	21.82	27.348	35.994	23.365	4.4	282	.9	23	194	37	5 17 N	69	55 95 W
189/1408	25.30	21.73	27.346	35.991	23.363	4.5	284	.8	27	170	37	5 56 N	69	55 71 W
189/1423	25.24	21.69	27.344	35.986	23.360	4.4	285	.9	29	194	37	5.93 N	69	55 44 W
189/1438	25.28	21.86	27.346	35.987	23.360	4.9	299	1.1	102	231	37	6.32 N	69	55 25 W
189/1453	25.47	20.48	27.359	35.966	23.340	3.4	259	1.1	38	152	37	32 24 N	69	59 20 W
189/1508	25.42	20.57	27.358	35.963	23.341	3.2	245	1.2	25	154	37	32.74 N	69	58 96 W
189/1523	25.76	20.14	27.331	35.966	23.349	2.9	246	1.3	41	116	37	33 23 N	69	58 30 W
189/1538	26.80	19.94	27.355	35.970	23.344	2.7	241	1.2	31	125	37	33.73 N	69	57 99 W
189/1553	25.09	20.23	27.391	35.969	23.332	2.4	248	1.2	166	275	37	34 21 N	69	57 82 W
189/1608	25.06	19.98	27.401	35.998	23.351	3.8	302	2.5	98	287	37	34.79 N	69	57 98 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TMP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	ESE deg	DDS deg	LAT deg	LAT mins	LONG deg	LONG mins
189/1900	25.00	20.12	27.432	35.997	23.339	2.6	235	7	21	215	***	***** *	***	***** *
189/1923	25.14	19.94	27.508	36.003	23.319	2.8	219	1.3	29	219	37	35.41 N	69	57 19 W
189/1930	25.27	20.09	27.516	36.003	23.316	4.2	253	1.9	23	204	***	***** *	***	***** *
189/1953	25.39	19.99	27.528	36.000	23.318	3.9	218	1.5	24	195	37	37.07 N	69	57 53 W
189/2000	25.70	20.13	27.542	36.000	23.305	3.6	232	2.4	195	329	37	37.07 N	69	57 37 W
189/2023	25.66	20.12	27.526	36.030	23.333	3.9	208	5.8	354	358	37	40.21 N	69	57 62 W
189/2030	25.69	20.47	27.549	36.039	23.343	4.0	234	5.8	259	358	37	43.87 N	69	57 03 W
189/2053	25.75	20.46	27.616	36.050	23.319	4.0	208	6.1	356	358	37	45.90 N	69	58 04 W
189/2100	25.78	20.63	27.663	36.054	23.306	5.4	222	6.1	357	358	37	48.97 N	69	58 20 W
189/2120	25.88	21.02	27.662	36.044	23.299	5.9	235	6.2	351	349	37	52.84 N	69	58 47 W
189/2143	25.86	21.13	27.662	36.022	23.282	6.4	235	6.1	288	341	37	55.95 N	69	58 74 W
189/2158	25.90	21.14	27.723	36.036	23.296	6.9	233	5.8	358	326	37	58.65 N	69	59 22 W
189/2213	25.80	21.32	27.817	36.046	23.249	6.9	227	1.6	71	156	38	10 N	69	59 11 W
189/2220	26.02	21.19	27.787	36.047	23.268	7.1	226	1.9	52	129	38	28 N	69	58 73 W
189/2243	25.92	21.21	27.768	36.047	23.269	6.7	234	1.9	51	114	38	1.85 N	69	57 29 W
189/2258	25.83	21.46	27.785	36.049	23.263	6.4	231	1.9	53	91	38	1.93 N	69	56 44 W
189/2313	25.90	21.36	27.824	36.052	23.252	6.6	246	1.8	51	59	38	2.52 N	69	55 41 W
189/2328	25.63	21.32	27.833	36.054	23.256	5.8	241	1.6	43	210	38	3.14 N	69	54 71 W
189/2343	25.51	21.43	27.788	36.049	23.261	5.8	247	1.9	61	190	38	3.46 N	69	53 76 W
189/2350	25.62	21.57	27.760	36.048	23.267	6.2	248	1.0	57	133	38	3.99 N	69	52 07 W
190/0013	25.34	21.38	27.741	36.049	23.277	5.3	243	.8	61	232	38	4.31 N	69	52 28 W
190/0020	25.29	21.45	27.749	36.049	23.274	5.8	238	.8	66	229	38	4.47 N	69	51 77 W
190/0043	25.31	21.66	27.751	36.049	23.273	5.8	253	1.8	31	298	38	4.87 N	69	51 35 W
190/0050	25.26	21.65	27.820	36.058	23.298	6.0	245	2.4	7	316	38	6.06 N	69	51 17 W
190/0113	25.29	21.47	27.804	36.069	23.244	5.9	241	1.9	8	304	38	7.00 N	69	51 06 W
190/0120	25.31	21.48	27.870	36.076	23.252	6.1	235	1.5	7	292	38	7.07 N	69	50 95 W
190/0143	25.34	21.66	27.877	36.086	23.259	6.1	236	1.3	7	289	38	8.53 N	69	50 86 W
190/0150	25.37	21.63	27.878	36.087	23.260	6.2	235	1.4	7	289	38	9.21 N	69	50 70 W
190/0213	25.30	21.69	27.878	36.085	23.259	6.4	241	1.4	9	290	38	9.88 N	69	50 65 W
190/0220	25.40	21.99	27.873	36.082	23.258	6.8	239	1.1	15	276	38	10.49 N	69	50 53 W
190/0243	25.39	22.15	27.866	36.079	23.258	7.1	239	.9	31	268	38	10.91 N	69	50 37 W
190/0250	25.45	22.21	27.858	36.074	23.257	7.4	240	.9	28	268	38	11.38 N	69	49 99 W
190/0313	25.49	22.21	27.856	36.073	23.256	7.3	242	.9	34	268	38	11.67 N	69	49 74 W
190/0320	25.47	22.08	27.852	36.070	23.254	7.6	238	.9	29	260	38	12.05 N	69	49 45 W
190/0343	25.47	22.13	27.857	36.064	23.250	7.7	235	.8	22	269	38	12.44 N	69	49 21 W
190/0350	25.46	22.18	27.834	36.060	23.254	7.4	236	1.3	12	296	38	12.93 N	69	49 06 W
190/0413	25.43	22.17	27.727	35.968	23.221	7.7	238	1.8	11	306	38	13.78 N	69	48 81 W
190/0420	25.58	22.11	27.645	35.796	23.139	6.5	237	.8	184	252	38	14.23 N	69	48 62 W
190/0443	25.78	22.28	27.662	35.650	23.003	6.7	237	.5	249	251	38	14.13 N	69	49 11 W
190/0450	25.85	22.37	27.660	35.616	22.970	7.4	238	.7	295	262	38	14.10 N	69	49 47 W
190/0513	25.93	22.39	27.661	35.569	22.943	6.8	236	.6	275	254	38	14.20 N	69	49 84 W
190/0529	26.01	22.50	27.662	35.695	23.037	7.3	240	.7	282	263	38	14.29 N	69	50 17 W
190/0544	25.78	22.66	27.605	35.629	23.006	7.5	241	1.0	337	299	38	14.85 N	69	50 57 W
190/0559	25.60	22.92	27.382	35.458	22.951	7.3	243	2.9	348	320	38	16.11 N	69	59 95 W
190/0614	25.49	22.96	27.083	35.377	22.987	6.9	249	2.5	293	317	38	17.41 N	69	51 22 W
190/0629	25.46	22.98	26.451	35.358	23.175	6.0	244	3.3	330	307	38	18.72 N	69	51 94 W
190/0644	25.62	22.92	25.815	35.358	23.376	6.5	251	3.6	314	301	38	19.90 N	69	53 37 W
190/0659	25.66	22.90	25.597	35.358	23.444	5.6	255	4.4	309	305	38	21.30 N	69	55 58 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	STGT g/cm**3	WS m/sec	WD deg	SDIPS m/sec	CSE deg	HDG deg	LAT deg mins	LONG deg mins
190/0714	24.47	22.60	24.214	35.350	23.866	5.0	242	4.8	336	335	30 23.15 N	69 56.95 W
190/0729	23.55	22.24	22.460	35.350	24.375	4.9	228	5.1	344	343	30 25.54 N	69 57.03 W
190/0744	23.07	22.21	22.410	35.358	24.392	5.3	227	4.8	352	347	30 27.94 N	69 58.37 W
190/0759	22.93	22.27	22.911	35.358	24.240	5.3	229	2.9	335	327	30 29.63 N	69 59.03 W
190/0814	22.90	22.28	22.970	35.358	24.229	5.1	220	.8	207	200	30 30.18 N	69 59.47 W
190/0829	22.90	22.29	23.037	34.967	23.915	5.4	223	.5	00	127	30 30.19 N	69 59.23 W
190/0844	22.92	22.27	23.050	34.049	23.216	5.3	227	.5	65	112	30 30.27 N	69 58.93 W
190/0859	22.91	22.25	22.962	34.294	23.427	4.7	225	.6	72	97	30 30.36 N	69 58.50 W
190/0914	23.04	22.21	22.016	34.228	23.419	4.5	228	.4	67	56	30 30.44 N	69 58.32 W
190/0929	23.08	22.19	22.791	34.274	23.461	4.6	220	.4	65	36	30 30.53 N	69 58.07 W
190/0944	23.09	20.12	22.772	34.304	23.550	4.7	245	.5	110	100	30 30.63 N	69 57.82 W
190/0959	22.90	21.80	22.532	34.099	23.402	4.8	217	1.2	172	103	30 30.63 N	69 57.95 W
190/1014	22.95	21.69	22.814	34.403	23.552	4.8	214	.4	155	111	30 30.66 N	69 57.78 W
190/1029	22.89	21.63	22.392	34.195	23.514	4.9	227	1.7	236	296	30 31.15 N	69 57.74 W
190/1044	22.87	21.62	22.413	34.344	23.621	5.1	219	1.3	342	329	30 31.07 N	69 58.06 W
190/1059	22.89	21.66	22.477	34.535	23.749	5.5	220	1.3	341	316	30 32.50 N	69 58.41 W
190/1114	23.00	21.70	22.373	34.563	23.799	5.0	214	.6	197	200	30 32.59 N	69 58.43 W
190/1129	23.13	21.73	22.507	34.527	23.734	5.9	219	.6	169	207	30 32.29 N	69 58.46 W
190/1144	23.14	21.75	22.297	34.453	23.737	5.0	221	2.0	315	336	30 32.59 N	69 58.43 W
190/1159	22.87	21.65	21.995	34.506	23.061	5.0	209	4.4	349	349	30 34.51 N	69 58.90 W
190/1214	22.79	21.64	21.904	31.690	24.027	5.4	207	4.5	351	347	30 36.65 N	69 59.37 W
190/1229	22.74	21.63	21.740	35.085	24.373	5.0	203	4.8	352	352	30 38.90 N	69 59.01 W
190/1244	22.88	21.69	22.034	35.460	24.575	6.2	201	5.2	355	354	30 41 42 N	70 .13 W
190/1259	22.90	21.74	22.031	35.448	24.567	6.2	199	5.2	354	354	30 43.06 N	70 .41 W
190/1314	23.01	21.74	21.936	35.338	24.510	6.3	199	5.1	354	355	30 44.47 N	70 .50 W
190/1329	23.07	21.80	22.142	35.362	24.471	5.3	303	5.1	354	187	*** ***** *	*** **** *
190/1443	23.30	21.86	22.103	35.214	24.370	6.5	203	1.0	169	194	30 59.97 N	70 .99 W
190/1450	23.14	21.95	22.105	35.215	24.370	6.3	205	.9	167	181	30 59.83 N	70 .95 W
190/1513	23.55	22.02	22.101	35.233	24.304	5.6	213	1.5	191	201	30 59.14 N	70 1 13 W
190/1528	23.37	22.00	22.067	35.242	24.401	7.1	199	1.0	131	138	30 58.59 N	70 1 00 W
190/1544	23.30	22.05	22.104	35.244	24.391	7.9	199	.5	60	119	30 58.62 N	70 .78 W
190/1559	23.47	22.08	22.122	35.244	24.386	8.1	199	.4	70	96	30 58.70 N	70 .50 W
190/1614	23.54	22.10	22.133	35.243	24.383	7.8	202	.5	68	100	30 58.77 N	70 .26 W
190/1629	23.61	22.15	22.156	35.243	24.377	7.8	205	.4	61	103	30 58.84 N	69 59.98 W
190/1644	23.72	22.23	22.181	35.243	24.370	7.8	210	.6	95	146	30 50.90 N	69 59.71 W
190/1659	23.96	22.32	22.163	35.243	24.375	6.8	224	.5	214	243	30 58.69 N	69 59.78 W
190/1714	23.67	22.39	22.199	35.243	24.364	7.9	213	.5	90	179	30 58.71 N	69 59.75 W
190/1729	23.63	22.45	22.091	35.251	24.401	6.6	227	.4	127	239	30 58.58 N	69 59.56 W
190/1744	23.56	22.49	22.198	35.243	24.364	6.1	230	.4	120	222	30 58.60 N	69 59.45 W
190/1759	23.52	22.53	22.265	35.236	24.341	6.3	234	.7	130	206	30 58.57 N	69 59.33 W
190/1814	23.63	22.53	22.264	35.239	24.343	6.0	244	.3	147	328	30 58.45 N	69 59.34 W
190/1829	23.30	22.40	22.335	35.238	24.322	5.7	30	3.9	352	110	30 59.63 N	69 59.99 W
190/1844	22.96	22.05	22.375	35.216	24.294	3.9	321	3.9	343	166	39 1 76 N	69 59.75 W
190/1859	22.01	21.75	22.294	35.178	24.288	4.1	345	.5	244	200	39 2 25 N	70 .19 W
190/1914	22.22	21.54	22.260	35.181	24.300	5.3	354	.3	154	259	39 2 14 N	70 .17 W
190/1929	22.42	21.63	22.260	35.190	24.307	3.0	11	.3	160	295	39 2 01 N	70 .10 W
190/1944	22.39	21.47	22.239	35.176	24.302	3.9	57	3.0	00	24	39 2.78 N	69 59.99 W
191/0154	20.63	19.55	20.422	34.496	24.283	4.4	216	5.1	14	15	39 59.92 N	69 40.01 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSE deg	HDG deg	LAT deg	LAT mins	LONG deg	LONG mins
191/0209	20.07	19.21	18.569	33.921	24.321	1.9	245	5.1	13	15	40	2.35 N	69	39.31 W
191/0224	19.47	18.95	17.329	33.127	24.015	2.6	204	5.2	12	15	40	4.83 N	69	38.60 W
191/0239	19.29	18.78	17.048	33.125	24.079	2.4	256	5.1	13	15	40	7.27 N	69	37.89 W
191/0254	18.97	18.54	15.706	32.966	24.265	2.7	124	5.2	13	15	40	9.74 N	69	37.19 W
191/0309	18.39	18.11	15.325	32.775	24.203	3.1	121	5.0	12	47	40	12.17 N	69	36.55 W
191/0324	18.35	18.14	15.353	32.755	24.181	1.2	284	4.2	303	318	40	13.88 N	69	37.51 W
191/0339	18.21	17.89	14.679	32.647	24.399	1.3	57	4.8	328	332	40	15.58 N	69	39.41 W
191/0354	18.21	17.98	14.318	32.488	24.448	2.9	68	4.8	226	196	40	17.21 W	69	40.41 W
191/0409	18.39	18.18	15.099	32.311	23.895	3.3	222	5.0	33	35	40	19.00 N	69	38.94 W
191/0424	18.02	17.75	15.797	32.188	23.648	3.2	223	5.1	34	35	40	21.02 N	69	37.17 W
191/0439	17.96	17.70	14.694	32.305	24.039	2.9	217	5.1	35	35	40	23.94 N	69	35.46 W
191/0454	17.99	17.75	14.352	32.618	24.292	2.7	243	5.1	34	35	40	26.03 N	69	33.53 W
191/0509	17.92	17.70	14.764	32.512	24.122	2.6	258	5.1	34	35	40	28.09 N	69	31.78 W
191/0524	17.21	17.02	13.562	32.370	24.265	3.0	231	3.4	29	35	40	29.89 N	69	30.23 W
191/0539	16.99	16.85	12.421	31.959	24.175	2.4	234	1.8	38	35	40	30.75 N	69	29.62 W
191/0554	17.42	17.37	12.127	31.966	24.237	2.6	239	4.6	27	31	40	32.26 N	69	28.61 W
191/0609	16.13	16.09	11.891	32.087	24.376	3.9	224	5.1	31	32	40	34.42 N	69	27.00 W
191/0624	14.84	14.46	12.634	32.071	24.220	4.4	214	5.0	32	31	40	36.53 N	69	25.38 W
191/0639	15.73	15.85	12.075	32.091	24.344	4.9	220	5.1	33	31	40	38.64 N	69	23.55 W
191/0655	14.99	15.17	11.607	32.114	24.451	5.2	213	4.7	33	36	40	40.69 N	69	21.84 W
191/0710	15.13	15.31	10.806	31.961	24.465	4.8	236	1.9	51	45	40	41.60 N	69	20.64 W
191/0725	14.77	15.15	******	******	******	4.9	242	2.7	48	48	40	42.43 N	69	19.47 W
191/0740	14.77	15.24	11.080	32.067	24.513	5.1	246	2.1	48	33	40	43.25 N	69	18.45 W
191/0755	14.24	15.00	11.019	32.119	24.564	4.8	244	1.9	54	58	40	44.00 N	69	17.63 W
191/0810	13.37	13.92	11.112	32.152	24.573	4.4	243	1.6	88	131	40	44.07 N	69	17.33 W
191/0825	14.06	15.02	11.053	32.153	24.584	6.7	267	1.6	88	269	40	44.07 N	69	17.33 W
191/0840	14.72	14.86	11.026	32.127	24.569	6.0	279	1.6	88	267	40	44.07 N	69	17.33 W
191/0855	13.57	13.58	11.076	32.074	24.518	4.5	315	1.9	120	59	40	43.94 N	69	18.11 W
191/0910	13.21	13.18	11.088	32.070	24.515	3.7	249	3.1	106	90	40	43.52 N	69	17.79 W
191/0925	13.12	12.98	11.071	32.111	24.549	4.4	257	2.7	139	162	40	43.27 N	69	16.18 W
191/0940	13.37	13.24	11.006	32.061	24.507	2.1	272	3.6	252	269	40	42.99 N	69	17.49 W
191/0955	12.97	12.83	11.069	32.050	24.501	3.3	351	2.9	298	154	40	42.84 N	69	19.34 W
191/1010	12.27	12.12	11.083	32.020	24.475	3.4	253	2.4	160	71	40	43.46 N	69	19.23 W
191/1025	12.37	12.27	11.161	31.973	24.425	4.4	275	2.2	75	53	40	43.34 N	69	17.81 W
191/1040	12.23	12.15	11.244	31.563	24.082	5.1	10	2.2	304	72	40	44.19 N	69	17.66 W
191/1055	12.31	12.28	11.003	31.305	23.934	4.5	26	2.3	340	106	40	45.27 N	69	18.15 W
191/1110	12.21	12.20	11.006	31.115	23.785	5.3	88	2.0	342	180	40	46.46 N	69	18.69 W
191/1125	12.00	12.14	11.104	31.582	24.131	3.7	340	3.0	267	30	40	47.89 N	69	19.29 W
191/1140	11.80	12.17	11.057	31.934	24.413	3.3	285	2.7	35	40	40	49.08 N	69	18.73 W
191/1155	12.04	12.48	11.049	31.930	24.412	4.9	287	3.7	191	238	40	49.89 N	69	18.26 W
191/1210	12.18	12.53	10.906	32.044	24.526	5.2	3	3.4	272	95	40	50.65 N	69	20.30 W
191/1225	12.40	12.64	10.893	31.919	24.431	5.5	300	2.9	113	124	40	50.80 N	69	19.16 W
191/1241	14.65	12.85	10.924	31.925	24.431	****	***	2.3	248	125	40	50.75 N	69	19.29 W
191/1257	13.25	13.79	10.313	31.694	24.368	****	***	2.8	166	194	40	50.55 N	69	18.67 W
191/1312	13.00	13.65	10.914	31.971	24.468	****	***	1.4	247	264	40	50.89 N	69	19.50 W
191/1327	13.73	14.15	10.934	31.541	24.130	****	***	4.0	262	269	40	49.89 N	69	21.23 W
191/1342	14.22	14.54	11.088	31.147	23.797	****	***	5.8	264	256	40	49.27 N	69	24.40 W
191/1357	14.14	14.60	******	******	******	****	***	4.7	252	219	40	48.48 N	69	26.80 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSE deg	HDG deg	LAT deg mins	LONG deg mins
191/1412	14.28	14.05	******	******	******	****	***	4.7	224	218	40 46.00 N	69 20.91 W
191/1432	14.30	14.43	******	******	******	5.2	334	1.0	293	287	40 45.94 N	69 30.49 W
191/1447	15.14	15.10	******	******	******	4.6	326	.0	346	138	40 46.33 N	69 30.68 W
191/1502	15.25	14.98	******	******	******	4.2	336	1.3	72	48	40 46.76 N	69 30.59 W
191/1517	14.67	14.09	******	******	******	3.9	313	3.1	107	140	40 46.79 N	69 29.11 W
191/1532	15.04	14.50	******	******	******	4.6	320	2.1	240	225	40 46.29 N	69 29.06 W
191/1547	15.42	14.74	******	******	******	4.7	326	2.5	235	235	40 45.53 N	69 30.09 W
191/1602	15.37	14.66	******	******	******	4.5	360	2.5	155	145	40 45.10 N	69 30.20 W
191/1617	15.62	14.84	******	******	******	4.7	343	2.9	85	94	40 45.01 N	69 28.29 W
191/1632	16.36	15.41	******	******	******	3.3	335	4.0	240	294	40 46.20 N	69 27.79 W
191/1647	16.73	15.61	******	******	******	3.4	345	4.7	232	229	40 40.48 N	69 28.35 W
191/1702	16.62	15.51	11.072	******	******	3.4	340	3.8	276	255	40 49.96 N	69 29.02 W
191/1717	16.36	15.18	11.031	32.148	24.585	4.8	356	4.1	153	161	40 40.70 N	69 28.97 W
191/1732	16.40	15.02	11.080	32.135	24.563	4.0	352	3.7	200	222	40 47.21 N	69 28.04 W
191/1747	16.50	15.02	11.053	32.123	24.561	3.7	11	4.4	105	94	40 46.60 N	69 27.99 W
191/1802	16.38	14.87	11.167	32.148	24.559	****	***	4.6	201	245	40 47.54 N	69 25.98 W
191/1817	16.39	14.07	11.091	32.154	24.578	3.0	20	4.5	105	112	40 49.36 N	69 26.90 W
191/1832	16.72	15.31	11.005	32.166	24.588	2.7	14	4.2	179	222	40 51.43 N	69 26.55 W
191/1847	16.33	15.06	11.170	32.154	24.563	3.1	6	4.2	184	190	40 50.54 N	69 26.99 W
191/1902	16.44	14.97	11.052	32.138	24.573	3.6	5	4.4	175	170	40 40.39 N	69 26.92 W
191/1917	16.42	14.78	11.181	32.139	24.550	2.9	317	4.6	94	153	40 47.73 N	69 24.04 W
191/1932	16.48	15.05	11.102	32.154	24.576	2.5	36	4.0	264	192	40 40.94 N	69 24.22 W
191/1947	16.50	15.06	11.107	32.186	24.600	1.9	29	4.5	70	139	40 50.93 N	69 24.50 W
191/2002	16.28	14.85	11.151	32.169	24.579	2.7	34	4.8	234	208	40 51.42 N	69 24.89 W
191/2017	16.46	15.03	11.111	32.154	24.574	2.0	8	4.9	181	190	40 49.12 N	69 25.00 W
191/2032	16.46	14.90	11.083	32.132	24.562	2.7	347	4.6	158	134	40 47.01 N	69 24.28 W
191/2047	16.49	14.94	11.290	32.134	24.525	2.2	294	4.4	90	144	40 47.04 N	69 22.27 W
191/2102	16.67	14.89	11.232	32.144	24.545	2.7	57	3.8	299	255	40 47.84 N	69 23.12 W
191/2117	16.51	14.76	11.246	32.181	24.570	2.6	54	3.9	37	59	40 49.37 N	69 23.41 W
191/2132	16.20	14.65	11.180	32.157	24.564	3.3	94	4.8	266	241	40 50.36 N	69 23.55 W
191/2147	16.43	14.81	11.187	32.151	24.558	2.2	47	5.3	181	104	40 40.14 N	69 24.24 W
191/2202	16.51	14.80	11.121	32.131	24.554	2.4	19	5.0	171	155	40 45.64 N	69 24.08 W
191/2217	16.44	14.84	11.316	32.130	24.518	1.7	105	4.5	84	88	40 45.07 N	69 21.92 W
191/2232	16.36	14.82	11.452	32.138	24.492	2.5	223	3.8	270	302	40 45.70 N	69 20.88 W
191/2247	16.35	14.85	11.203	32.177	24.575	1.6	201	3.8	137	41	40 46.92 N	69 23.36 W
191/2305	*****	*****	11.248	32.128	24.529	****	***	4.1	270	249	40 40.39 N	69 24.41 W
191/2320	16.56	15.30	11.158	32.154	24.565	****	***	5.2	173	171	40 46.42 N	69 24.59 W
191/2335	16.74	15.02	11.096	32.140	24.566	****	***	4.7	174	158	40 44.00 N	69 24.27 W
191/2355	16.62	14.75	11.510	32.141	24.490	2.0	288	4.3	101	114	40 43.06 N	69 21.46 W
192/0010	16.62	14.70	11.461	32.151	24.507	2.1	61	4.1	279	311	40 43.17 N	69 21.08 W
192/0025	16.37	14.75	11.007	32.200	24.629	1.6	97	4.5	319	336	40 44.50 N	69 24.14 W
192/0040	15.96	14.37	11.280	32.157	24.546	1.7	63	4.5	325	313	40 46.33 N	69 25.40 W
192/0055	16.01	14.43	11.247	32.122	24.525	3.3	71	3.9	105	154	40 46.10 N	69 25.98 W
192/0110	16.08	14.69	11.191	32.208	24.602	2.6	8	4.6	171	177	40 43.98 N	69 25.28 W
192/0125	15.79	14.73	11.109	32.143	24.566	2.5	63	4.3	165	147	40 42.14 N	69 25.55 W
192/0140	15.84	14.76	11.358	32.157	24.531	2.0	121	4.2	188	118	40 41 41 N	69 23.26 W
192/0155	16.02	14.62	11.305	32.147	24.533	3.0	70	4.3	262	294	40 41.63 N	69 23.64 W
192/0210	15.69	14.67	11.168	32.149	24.560	3.4	99	4.6	244	106	40 42.64 N	69 26.10 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SDEPS m/sec	CSE deg	DDG deg	LAT deg mins	LONG deg mins
192/0225	15.38	14.73	11.182	32.207	24.602	2.3	74	4.7	195	254	40 44.54 N	69 26.13 W
192/0240	15.51	14.71	11.312	32.171	24.550	2.7	83	4.1	260	326	40 45.94 N	69 27.13 W
192/0255	15.65	14.66	11.186	32.196	24.593	1.5	203	4.2	150	101	40 44.99 N	69 26.01 W
192/0310	15.79	14.64	11.097	******	******	1.7	356	4.3	150	157	40 42.75 N	69 26.69 W
192/0325	16.05	14.56	11.318	******	******	1.9	304	4.3	120	135	40 41.80 N	69 24.66 W
192/0340	16.02	14.42	11.253	******	******	2.0	60	4.4	290	320	40 41.75 N	69 24.08 W
192/0355	15.65	14.33	11.260	******	******	3.2	82	4.0	264	201	40 43.58 N	69 26.69 W
192/0410	15.87	14.63	11.149	******	******	2.6	77	5.0	161	215	40 45.73 N	69 26.58 W
192/0425	15.11	14.46	11.210	******	******	2.0	123	5.0	326	317	40 47.92 N	69 27.70 W
192/0440	15.21	14.50	11.042	******	******	3.1	110	4.2	283	258	40 49.09 N	69 30.10 W
192/0455	14.72	14.12	10.983	******	******	2.7	73	4.0	175	192	40 47.86 N	69 30.61 W
192/0510	13.79	13.50	11.007	******	******	3.1	94	4.1	303	311	40 47.77 N	69 31.61 W
192/0525	14.03	13.85	11.056	******	******	3.3	94	4.1	277	244	40 48.66 N	69 33.91 W
192/0540	14.09	13.99	11.010	******	******	.8	294	4.2	120	130	40 48.10 N	69 33.16 W
192/0555	14.59	14.48	10.974	******	******	2.6	104	4.6	85	79	40 47.59 N	69 30.63 W
192/0610	14.46	14.30	11.135	******	******	4.3	143	5.0	59	64	40 48.77 N	69 27.93 W
192/0625	14.12	14.02	11.326	******	******	3.6	18	2.5	117	103	40 49.73 N	69 26.03 W
192/0640	14.29	14.22	11.220	******	******	3.2	130	3.1	263	234	40 50.13 N	69 27.08 W
192/0655	14.55	14.48	11.247	******	******	.9	243	4.4	139	145	40 48.97 N	69 26.17 W
192/0710	14.92	14.84	11.245	******	******	1.5	295	3.4	147	163	40 47.63 N	69 24.67 W
192/0725	14.95	14.89	11.272	******	******	.8	317	3.8	175	181	40 45.70 N	69 24.40 W
192/0740	14.83	13.97	11.223	******	******	1.3	243	4.2	170	177	40 43.93 N	69 24.07 W
192/0755	13.69	13.64	11.169	******	******	1.6	272	3.6	173	173	40 42.87 N	69 23.74 W
192/0810	13.45	13.36	11.070	32.174	24.596	3.0	304	2.7	193	210	40 40.59 N	69 23.60 W
192/0825	13.92	13.82	11.110	32.169	24.586	3.4	354	2.9	172	143	40 40.08 N	69 24.64 W
192/0840	12.33	12.29	11.106	32.171	24.568	2.0	332	2.3	74	94	40 40.50 N	69 23.94 W
192/0855	12.84	11.97	11.057	32.174	24.600	3.1	25	1.4	206	151	40 40.47 N	69 23.43 W
192/0910	13.23	13.05	11.049	32.170	24.604	****	***	1.0	174	157	40 40.11 N	69 23.41 W
192/0926	12.77	12.71	11.083	32.170	24.592	****	***	3.8	281	304	40 40.50 N	69 23.81 W
192/0941	12.71	12.73	11.021	32.148	24.586	****	***	4.3	354	6	40 42.40 N	69 24.53 W
192/0956	12.70	12.62	11.138	32.146	24.563	4.4	50	.9	266	72	40 43.31 N	69 24.73 W
192/1011	12.59	12.47	11.150	32.147	24.561	2.5	46	.9	192	194	40 42.97 N	69 24.38 W
192/1026	12.72	12.62	11.104	32.144	24.568	3.5	37	1.0	238	205	40 42.60 N	69 25.20 W
192/1041	13.45	13.49	11.206	32.134	24.541	4.6	43	3.9	347	37	40 43.75 N	69 25.78 W
192/1056	13.62	13.59	11.076	32.172	24.595	3.4	69	3.1	342	151	40 45.61 N	69 26.80 W
192/1111	12.40	12.35	11.091	32.169	24.590	3.1	56	2.8	286	327	40 46.13 N	69 26.79 W
192/1126	12.59	12.48	11.095	32.202	24.615	3.3	61	2.1	276	213	40 46.46 N	69 28.08 W
192/1141	13.17	12.95	11.091	32.170	24.597	4.4	70	2.0	260	213	40 46.49 N	69 29.61 W
192/1156	14.20	14.05	11.109	32.171	24.580	3.5	79	1.0	146	54	40 46.57 N	69 29.81 W
192/1211	14.70	14.52	11.122	32.185	24.596	3.3	81	.7	120	65	40 46.76 N	69 29.46 W
192/1226	14.61	14.46	******	******	******	2.0	83	1.0	58	65	*** ***** *	*** ***** *
192/1241	14.67	14.39	11.116	32.042	24.486	2.5	75	2.1	61	65	40 47.67 N	69 27.40 W
192/1256	14.81	14.31	11.134	31.973	24.429	3.1	75	2.2	58	65	40 48.22 N	69 26.30 W
192/1311	14.67	13.95	11.117	31.961	24.423	3.2	78	2.4	59	65	40 48.01 N	69 24.99 W
192/1326	14.29	13.30	11.013	32.004	24.476	3.6	78	2.4	60	65	40 49.41 N	69 23.62 W
192/1341	14.26	13.04	10.873	32.161	24.623	4.9	84	2.5	59	65	40 50.03 N	69 22.24 W
192/1356	14.59	13.50	10.760	32.328	24.773	6.0	85	2.0	52	66	40 50.66 N	69 21.08 W
192/1411	14.10	13.02	10.706	32.246	24.720	6.4	89	1.7	54	66	40 51.20 N	69 20.13 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	STGT g/cm**3	WS m/sec	WD deg	SDDPS m/sec	CSE deg	HDG deg	LAT deg mins	LONG deg mins
192/1426	13.89	12.58	10.688	32.234	24.714	5.7	92	1.3	54	66	40 51.62 N	69 19 35 W
192/1441	13.87	12.37	10.667	32.168	24.666	5.2	91	.7	54	65	40 51.87 N	69 18 86 W
192/1558	13.85	12.59	10.837	32.200	24.666	5.0	92	.8	192	179	40 51.42 N	69 18 37 W
192/1613	13.95	12.65	10.907	32.190	24.646	5.6	107	.7	193	180	40 51.06 N	69 18 40 W
192/1628	14.09	12.67	10.907	32.350	24.770	5.6	103	.5	187	180	40 50.77 N	69 18 54 W
192/1643	14.03	12.71	11.037	32.291	24.694	5.0	110	.5	186	180	40 50.52 N	69 18 50 W
192/1658	14.02	12.76	10.967	32.204	24.702	4.9	122	.5	201	202	40 50.32 N	69 18 63 W
192/1726	14.34	13.13	11.327	32.182	24.556	4.7	133	.5	240	220	40 50.27 N	69 19 93 W
192/1741	14.39	*****	11.027	32.268	24.678	****	***	.4	191	221	40 50.09 N	69 19 54 W
192/1756	15.01	13.41	10.997	32.263	24.680	4.6	132	.5	242	250	40 49.97 N	69 19 65 W
192/1811	15.04	13.94	11.097	32.140	24.572	2.6	106	1.3	152	130	40 49.94 N	69 19 61 W
192/1826	14.90	13.70	11.077	32.218	24.630	2.4	113	.9	132	126	40 50.13 N	69 18 92 W
192/1841	15.22	13.92	10.977	32.183	24.621	2.4	114	.3	108	245	40 50.01 N	69 18 90 W
192/1856	15.10	13.46	10.967	32.230	24.660	2.4	117	.2	269	266	40 49.96 N	69 19 03 W
192/1911	14.51	12.94	10.997	32.104	24.618	1.6	104	.5	267	267	40 49.95 N	69 19 20 W
192/1926	14.50	13.05	11.007	32.148	24.509	1.7	93	1.3	263	254	40 49.92 N	69 19 05 W
192/1941	14.65	13.94	11.027	32.158	24.593	1.2	47	1.5	97	128	40 49.83 N	69 19 57 W
192/1956	14.41	13.13	11.037	32.198	24.622	1.5	92	.4	134	256	40 49.87 N	69 19 87 W
192/2011	14.91	13.77	11.317	32.146	24.530	1.0	57	.7	132	190	40 49.66 N	69 18 00 W
192/2026	14.98	13.78	11.417	32.140	24.507	2.7	67	.7	131	206	40 49.43 N	69 18 93 W
192/2041	15.05	13.26	11.217	32.228	24.612	3.0	60	.7	132	248	40 49.19 N	69 18 80 W
192/2056	14.79	13.47	11.057	32.278	24.681	1.9	65	.8	142	275	40 48.92 N	69 17 68 W
192/2111	14.72	13.95	11.137	32.250	24.644	1.8	61	.9	128	110	40 48.66 N	69 17 38 W
192/2126	14.98	14.34	11.157	32.228	24.623	2.4	75	.7	152	55	40 48.37 N	69 16 99 W
192/2141	15.07	14.51	11.237	32.203	24.509	1.5	60	1.3	123	100	40 48.05 N	69 16 42 W
192/2156	14.99	14.79	11.427	32.358	24.674	1.7	75	1.4	120	100	40 47.66 N	69 15 66 W
192/2211	14.85	14.90	11.507	32.590	24.839	1.8	84	1.3	120	101	40 47.34 N	69 14 85 W
192/2226	14.99	15.07	11.417	32.651	24.904	2.1	85	1.3	127	101	40 46.97 N	69 14 15 W
192/2241	15.53	15.63	11.977	******	******	3.1	90	1.1	129	112	40 46.59 N	69 13 52 W
192/2256	15.47	15.53	11.557	******	******	3.0	117	3.1	283	315	40 47.02 N	69 14 25 W
192/2311	14.88	14.87	11.047	32.028	24.488	3.0	116	3.9	300	318	40 47.95 N	69 16 37 W
192/2326	14.39	14.30	11.117	31.948	24.413	5.6	125	3.0	257	198	40 49.21 N	69 17 02 W
192/2341	14.70	14.65	11.187	31.837	24.314	4.0	110	.9	181	172	40 49.09 N	69 17 02 W
192/2356	14.49	14.36	11.197	31.906	24.366	5.3	102	2.3	130	106	40 48.68 N	69 17 36 W
193/0011	14.40	14.25	11.167	******	******	5.0	109	3.0	61	55	40 49.24 N	69 15 37 W
193/0026	14.17	14.01	11.337	******	******	3.4	119	2.3	103	64	40 49.81 N	69 13 99 W
193/0041	14.09	13.96	11.327	******	******	4.7	104	2.5	124	68	40 49.66 N	69 12 71 W
193/0056	14.30	14.11	11.607	******	******	4.0	114	4.9	85	02	40 50.01 N	69 9 93 W
193/0111	14.28	14.04	13.207	******	******	1.5	50	3.0	113	104	40 49.84 N	69 7 20 W
193/0126	14.34	14.10	14.057	******	******	5.3	99	3.0	105	85	40 49.02 N	69 6 03 W
193/0141	14.32	13.91	14.287	******	******	3.7	05	4.5	92	99	40 49.95 N	69 3 26 W
193/0156	13.86	13.63	14.827	******	******	4.0	09	.6	150	140	40 49.76 N	69 2 17 W
193/0211	13.35	13.21	13.007	******	******	6.0	96	4.0	5	10	40 51.10 N	69 2 02 W
193/0226	12.89	12.75	11.657	******	******	6.0	109	5.0	02	15	40 53.40 N	69 1 99 W
193/0241	12.70	12.55	11.477	******	******	6.0	110	1.6	132	100	40 54.90 N	69 1 16 W
193/0256	12.93	12.81	12.407	******	******	5.1	103	4.9	272	270	40 55.02 N	69 3 10 W
193/0311	13.70	13.61	12.957	******	******	5.4	111	5.2	269	272	40 54.97 N	69 6 52 W
193/0326	14.00	13.93	13.037	******	******	5.2	123	1.6	280	265	40 55.03 N	69 8 27 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSE deg	HDG deg	LAT deg mins	LONG deg mins
193/0341	14.09	14.06	11.007	******	******	4.8	103	5.4	260	271	40 54.91 N	69 10.92 W
193/0356	13.78	13.78	10.947	32.243	24.673	4.7	102	3.4	283	300	40 55.08 N	69 13.07 W
193/0411	13.76	13.78	10.947	32.278	24.701	5.4	110	1.1	230	113	40 54.33 N	69 14.40 W
193/0426	14.14	14.17	10.917	32.223	24.663	5.0	122	1.6	172	190	40 54.34 N	69 13.71 W
193/0441	14.27	14.29	10.937	32.200	24.648	5.3	126	1.0	254	214	40 55.12 N	69 14.50 W
193/0456	14.69	14.72	10.947	32.106	24.631	4.6	121	.7	176	157	40 54.85 N	69 14.29 W
193/0511	14.64	14.68	10.947	32.203	24.642	5.0	121	.6	199	179	40 54.54 N	69 14.86 W
193/0526	14.56	14.58	10.927	32.223	24.653	4.8	123	.8	211	190	40 54.21 N	69 15.11 W
193/0541	14.61	14.66	10.907	32.233	24.651	5.1	120	.8	211	187	40 53.86 N	69 15.32 W
193/0556	14.61	14.64	10.927	32.250	24.669	5.4	124	.7	209	190	40 53.56 N	69 15.66 W
193/0611	14.91	14.93	10.937	32.168	24.617	6.1	120	.7	200	187	40 53.24 N	69 15.98 W
193/0626	14.93	14.96	10.897	32.158	24.617	5.7	122	.7	206	195	40 52.92 N	69 16.11 W
193/0641	14.71	14.75	10.897	32.131	24.596	4.4	130	.8	222	214	40 52.61 N	69 16.40 W
193/0656	14.75	14.77	10.907	32.090	24.560	4.7	133	1.0	235	224	40 52.24 N	69 16.70 W
193/0711	15.44	15.50	10.917	32.008	24.550	5.1	127	1.1	206	190	40 51.93 N	69 17.17 W
193/0726	15.58	15.69	10.987	32.106	24.560	5.5	131	1.2	187	191	40 51.57 N	69 17.58 W
193/0741	15.73	16.04	11.067	32.162	24.589	5.4	138	1.2	208	209	40 50.02 N	69 17.66 W
193/0756	15.29	15.52	11.117	32.154	24.573	5.1	126	1.1	227	230	40 50.41 N	69 18.14 W
193/0811	14.90	15.20	10.987	32.073	24.534	5.0	122	1.1	213	229	40 50.00 N	69 18.57 W
193/0826	14.86	15.20	11.017	32.020	24.494	5.0	124	1.2	214	240	40 49.58 N	69 18.96 W
193/0841	15.02	15.37	11.007	32.065	24.524	5.1	125	1.1	248	270	40 49.10 N	69 19.54 W
193/0856	14.69	15.02	11.047	32.115	24.596	6.0	124	1.1	245	249	40 48.93 N	69 20.02 W
193/0911	14.65	15.05	11.127	******	******	6.6	121	.6	117	61	40 48.84 N	69 20.23 W
193/0926	15.13	15.39	11.107	******	******	6.1	122	.7	106	61	40 48.75 N	69 19.76 W
193/0941	14.98	15.16	11.187	******	******	6.0	126	.6	111	61	40 48.65 N	69 19.30 W
193/0956	15.10	15.34	11.147	******	******	7.3	132	.7	110	60	40 48.54 N	69 18.99 W
193/1011	15.42	15.57	11.177	******	******	6.7	132	.6	116	53	40 48.40 N	69 18.58 W
193/1026	14.42	14.84	11.007	32.010	24.473	6.5	130	.4	111	33	40 48.31 N	69 18.30 W
193/1041	14.05	14.43	11.017	32.027	24.493	6.6	129	.2	193	41	40 48.28 N	69 18.21 W
193/1056	14.00	14.42	11.007	32.029	24.496	7.3	127	.3	279	1	40 48.31 N	69 18.42 W
193/1111	14.29	14.62	10.897	32.071	24.549	7.3	127	.5	272	3	40 48.32 N	69 18.73 W
193/1126	14.55	14.66	10.947	32.053	24.526	7.3	126	.7	274	1	40 48.34 N	69 19.16 W
193/1141	14.32	14.39	11.067	32.008	24.463	6.7	124	.7	277	22	40 48.37 N	69 19.63 W
193/1156	14.05	14.11	11.007	32.046	24.509	7.0	123	.9	285	15	40 48.46 N	69 20.17 W
193/1211	13.56	13.66	10.967	32.091	24.552	****	***	1.0	292	50	40 48.62 N	69 20.04 W
193/1226	14.30	14.45	10.947	32.078	24.539	****	***	1.0	262	51	40 48.90 N	69 21.06 W
193/1241	14.70	14.90	10.927	32.047	24.525	7.1	126	1.0	123	91	40 48.88 N	69 20.60 W
193/1256	15.04	15.33	10.937	32.040	24.517	8.4	131	1.2	122	91	40 48.59 N	69 20.05 W
193/1311	15.28	15.64	10.917	32.082	24.554	8.0	133	1.0	140	91	40 48.25 N	69 19.52 W
193/1326	15.07	15.33	10.927	32.050	24.527	8.1	129	.8	205	42	40 47.94 N	69 19.09 W
193/1341	14.98	15.79	10.907	32.103	24.572	7.4	129	1.1	300	10	40 48.10 N	69 19.74 W
193/1356	14.70	15.99	10.927	32.170	24.627	7.7	132	1.3	310	24	40 48.61 N	69 20.32 W
193/1411	15.01	15.77	10.897	32.224	24.668	7.7	127	1.3	29	41	40 49.10 N	69 20.80 W
193/1426	15.23	15.70	10.907	32.250	24.686	7.0	129	1.4	17	43	40 49.82 N	69 20.14 W
193/1441	15.55	15.96	10.877	32.246	24.689	7.6	132	2.4	142	162	40 50.43 N	69 19.93 W
193/1456	16.46	16.51	10.887	32.258	24.698	4.5	132	1.6	193	152	40 49.66 N	69 20.07 W
193/1511	16.55	16.55	10.907	32.296	24.722	4.6	137	.0	199	151	40 49.24 N	69 20.65 W
193/1632	15.95	15.83	11.297	32.438	24.761	7.0	143	.5	313	158	40 50.35 N	69 19.55 W

15 MINUTE AVERAGES DATA

DTG,Z	TA	TDP	TS	SAL	SIGT	WS	WD	SHIPS	CSE	HDG	LAT		LONG	
	degC	degC	degC	ppt	g/cm**3	m/sec	deg	m/sec	deg	deg	deg	mins	deg	mins
193/1647	18.00	15.80	11.257	32.358	24.706	7.0	155	.7	328	221	40	50.60 N	69	19.60 W
193/1732	18.58	15.57	11.157	32.403	24.759	5.5	273	.6	183	142	40	49.98 N	69	18.17 W
193/1747	18.52	15.35	******	******	******	4.7	190	.4	69	143	40	50.83 N	69	17.98 W
193/1802	18.96	15.51	11.467	32.563	24.026	5.1	280	.8	21	153	40	58.77 N	69	17.68 W
193/1851	18.94	15.30	11.487	32.595	24.047	4.2	281	.9	24	163	40	51.53 N	69	17.23 W
193/1951	19.20	15.91	11.597	32.258	24.541	4.9	287	.5	135	220	40	52.80 N	69	16.29 W
193/2041	19.65	16.93	11.227	32.298	24.659	5.0	283	1.1	161	217	40	50.63 N	69	17.25 W
193/2107	19.20	16.00	11.477	32.380	24.682	4.8	195	1.7	199	219	40	40.33 N	69	18.89 W
193/2143	18.96	16.99	11.147	32.466	24.810	5.4	206	2.7	133	126	40	47.83 N	69	17.92 W
193/2158	18.87	17.25	11.308	32.573	24.840	6.0	193	5.1	123	128	40	45.83 N	69	15.48 W
193/2213	18.79	17.43	12.458	32.775	24.882	4.4	310	2.4	138	134	40	44.69 N	69	13.59 W
193/2228	18.63	17.44	13.148	32.807	24.689	5.3	125	2.5	113	84	40	44.51 N	69	12.64 W
193/2243	18.53	17.53	14.259	32.842	24.485	5.4	288	5.5	88	85	40	44.58 N	69	9.46 W
193/2258	18.54	17.68	14.882	33.024	24.663	5.9	280	4.6	87	82	40	44.60 N	69	6.12 W
193/2313	18.63	17.87	14.429	33.088	24.639	5.6	17	2.2	105	86	40	44.64 N	69	4.56 W
193/2328	18.75	18.07	14.560	33.141	24.651	5.9	173	5.2	84	88	40	44.83 N	69	1.67 W
193/2343	18.92	18.31	15.488	33.887	24.497	6.2	348	3.9	95	98	40	44.93 N	68	58.67 W
193/2358	19.20	18.68	15.298	33.079	24.443	3.8	251	3.0	163	167	40	44.21 N	68	57.95 W
194/0013	19.49	19.05	16.243	33.056	24.214	1.5	232	5.6	194	204	40	41.73 N	68	58.69 W
194/0035	19.54	19.22	17.447	33.192	24.037	5.9	225	2.6	229	254	40	39.96 N	69	10 W
194/0050	19.61	19.39	15.977	33.089	24.299	5.8	193	5.1	278	278	40	39.83 N	69	3.20 W
194/0105	18.99	18.82	14.345	33.095	24.662	5.9	273	3.7	266	232	40	39.85 N	69	6.15 W
194/0120	19.15	19.01	14.658	33.077	24.581	6.8	225	2.9	166	145	40	39.22 N	69	6.55 W
194/0135	19.51	19.37	16.746	33.082	24.117	5.2	193	5.5	182	183	40	36.68 N	69	6.63 W
194/0150	19.38	19.26	17.643	33.256	24.039	5.2	211	1.7	280	265	40	35.12 N	69	6.85 W
194/0205	19.17	19.09	16.884	33.132	24.124	5.7	201	5.8	267	275	40	34.96 N	69	9.82 W
194/0220	19.21	19.15	15.866	32.998	24.254	5.8	244	5.3	271	276	40	34.96 N	69	12.58 W
194/0252	18.32	18.29	14.788	33.823	24.511	6.8	198	4.7	85	13	40	37.21 N	69	14.38 W
194/0323	17.72	17.72	11.609	32.689	24.835	7.8	226	2.5	237	222	40	39.56 N	69	14.59 W
194/0338	17.38	17.43	11.328	32.534	24.831	6.9	224	5.3	278	284	40	39.81 N	69	17.71 W
194/0353	16.75	16.84	11.254	32.373	24.718	6.1	226	2.8	288	313	40	40.87 N	69	19.98 W
194/0416	16.61	16.79	11.096	32.242	24.646	7.3	242	3.4	292	255	40	40.76 N	69	21.09 W
194/0431	16.72	16.83	11.095	32.235	24.640	6.8	245	1.7	282	198	40	40.49 N	69	22.62 W
194/0446	17.13	17.24	11.195	32.269	24.648	3.9	233	2.7	242	247	40	39.83 N	69	23.71 W
194/0501	17.93	18.02	11.182	32.359	24.721	5.7	240	2.8	292	309	40	39.93 N	69	25.34 W
194/0516	18.31	18.39	11.203	32.345	24.706	5.2	225	2.3	331	342	40	40.86 N	69	26.34 W
194/0531	18.11	18.19	11.174	32.311	24.684	5.8	215	2.2	342	345	40	41.89 N	69	26.80 W
194/0546	17.30	17.32	11.169	32.295	24.673	6.1	212	2.3	348	345	40	42.98 N	69	27.11 W
194/0601	15.91	15.93	11.169	32.289	24.669	6.3	221	2.1	351	344	40	44.86 N	69	27.37 W
194/0616	16.65	16.65	11.106	32.257	24.640	8.1	239	1.7	346	328	40	44.93 N	69	27.59 W
194/0631	17.34	17.30	11.281	32.254	24.635	8.6	244	1.6	344	329	40	45.70 N	69	27.90 W
194/0647	17.43	17.38	11.220	32.254	24.632	8.1	242	1.6	345	326	40	46.49 N	69	28.12 W
194/0702	18.19	18.11	11.227	32.241	24.620	7.5	244	1.5	348	319	40	47.18 N	69	28.44 W
194/0717	18.59	18.49	11.250	32.217	24.598	6.5	237	1.3	328	290	40	47.80 N	69	28.78 W
194/0732	18.24	18.14	11.253	32.186	24.573	5.8	238	.9	318	282	40	48.18 N	69	29.24 W
194/0747	17.72	17.64	11.249	32.163	24.556	5.9	227	.9	301	280	40	48.44 N	69	29.74 W
194/0802	17.65	17.57	11.228	32.134	24.537	6.2	238	.9	308	288	40	48.67 N	69	30.24 W
194/0817	17.81	17.72	11.224	32.125	24.531	6.7	237	.8	296	279	40	48.65 N	69	30.73 W

15 MINUTE AVERAGED DATA

DOY,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SDDPS m/sec	CSE deg	HDG deg	LAT deg mins	LONG deg mins
194/0032	17.92	17.81	11.250	32.117	24.520	6.5	247	.7	297	279	40 49.01 N	69 31.10 W
194/0047	17.66	17.55	11.287	32.099	24.499	5.5	246	.7	284	279	40 49.12 N	69 31.65 W
194/0902	17.48	17.37	11.330	31.750	24.219	5.1	245	.8	278	280	40 49.20 N	69 32.16 W
194/0917	17.46	17.36	11.349	31.212	23.790	4.4	240	.9	273	279	40 49.24 N	69 32.71 W
194/0932	17.63	17.52	11.516	31.150	23.719	4.5	240	.6	271	283	40 49.26 N	69 33.20 W
194/0947	10.00	17.07	11.390	31.151	23.744	5.2	242	.6	283	300	40 49.30 N	69 33.52 W
194/1002	17.61	17.49	11.361	31.200	23.793	6.0	234	.7	270	301	40 49.36 N	69 34.02 W
194/1017	17.72	17.59	11.382	31.244	23.817	6.3	239	.7	273	300	40 49.39 N	69 34.50 W
194/1032	17.60	17.47	11.387	31.272	23.838	5.6	240	.6	313	163	40 49.40 N	69 34.86 W
194/1047	17.43	17.31	11.412	31.277	23.837	6.3	246	.6	307	51	40 49.70 N	69 34.96 W
194/1102	17.57	17.44	11.459	31.234	23.795	6.0	242	.4	279	266	40 49.95 N	69 35.03 W
194/1117	17.11	16.99	11.482	31.229	23.787	6.6	259	.4	280	327	40 49.00 N	69 35.12 W
194/1132	17.21	17.10	11.503	31.106	23.688	6.7	265	.4	280	333	40 49.61 N	69 35.23 W
194/1147	17.41	17.29	11.499	31.059	23.652	5.8	272	.5	186	170	40 49.46 N	69 35.41 W
194/1202	17.60	17.46	11.503	31.157	23.727	6.0	269	.6	169	213	40 49.50 N	69 35.20 W
194/1217	17.10	17.04	11.500	31.303	23.902	6.3	274	.5	292	337	40 49.43 N	69 35.44 W
194/1232	17.14	16.99	11.429	32.010	24.403	5.6	267	.5	230	320	40 49.26 N	69 35.70 W
194/1247	16.97	16.82	11.420	32.009	24.405	4.9	265	.6	247	200	40 49.18 N	69 35.95 W
194/1302	16.40	16.35	11.471	32.010	24.396	4.0	258	.6	29	45	40 49.39 N	69 35.96 W
194/1317	16.82	16.60	11.529	31.993	24.372	2.9	247	1.0	30	45	40 49.76 N	69 35.69 W
194/1332	16.87	15.93	11.561	31.960	24.346	3.2	233	1.0	54	69	40 50.20 N	69 35.22 W
194/1347	16.01	15.90	11.553	31.973	24.351	4.0	266	.9	175	184	40 50.09 N	69 35.11 W
194/1402	16.77	16.63	11.552	31.979	24.356	2.9	263	1.7	250	249	40 49.79 N	69 35.94 W
194/1417	16.74	16.61	11.550	31.976	24.355	2.7	269	1.7	251	240	40 49.51 N	69 36.20 W
194/1432	16.05	15.95	11.539	31.977	24.357	1.5	245	1.7	254	250	40 49.27 N	69 38.81 W
194/1447	16.32	16.21	11.480	31.902	24.371	1.7	240	1.5	256	249	40 49.07 N	69 39.01 W
194/1502	16.65	16.53	11.476	31.900	24.372	2.5	266	1.5	255	250	40 48.91 N	69 39.95 W
194/1517	16.65	16.53	11.472	31.979	24.371	1.7	275	1.5	263	250	40 48.77 N	69 40.90 W
194/1532	16.77	16.64	11.474	31.979	24.371	1.0	67	1.4	262	250	40 48.66 N	69 41.04 W
194/1547	17.17	17.02	11.492	31.971	24.362	2.2	256	1.3	264	249	40 48.57 N	69 42.22 W
194/1602	17.44	17.29	11.514	31.841	24.257	.9	314	1.3	265	248	40 48.52 N	69 43.56 W
194/1617	17.38	17.23	11.505	31.695	24.145	2.2	291	2.2	112	89	40 48.63 N	69 43.48 W
194/1632	17.40	17.31	11.482	31.033	23.634	2.6	253	3.0	75	86	40 49.03 N	69 41.98 W
194/1647	17.45	17.23	11.435	31.556	24.050	2.6	257	3.0	80	55	40 49.35 N	69 39.69 W
194/1702	18.10	17.81	11.408	32.065	24.450	2.7	261	3.1	83	95	40 49.55 N	69 37.73 W
194/1717	10.00	17.67	11.377	32.134	24.509	2.3	240	2.6	73	92	40 49.84 N	69 35.86 W
194/1732	17.71	17.04	11.376	32.157	24.528	1.6	240	1.1	48	122	40 50.10 N	69 35.05 W
194/1747	17.50	16.50	11.407	32.159	24.523	1.2	304	.9	19	110	40 50.59 N	69 34.27 W
194/1002	17.30	16.31	11.390	32.161	24.528	.9	295	.8	129	190	40 50.70 N	69 34.52 W
194/1017	17.48	16.29	11.356	32.165	24.538	1.3	200	1.3	190	201	40 50.14 N	69 34.61 W
194/1032	17.57	16.32	11.308	32.147	24.533	1.8	260	1.9	190	199	40 49.36 N	69 34.70 W
194/1047	17.62	16.31	11.257	32.118	24.519	.8	267	.7	96	189	40 48.89 N	69 34.78 W
194/1902	17.72	16.32	11.291	32.117	24.512	.8	224	.7	54	179	40 49.00 N	69 34.42 W
194/1917	17.82	16.04	11.319	32.118	24.508	.9	221	.8	53	164	40 49.32 N	69 33.99 W
194/1932	17.81	15.59	11.315	32.119	24.509	.9	222	.8	57	157	40 49.55 N	69 33.55 W
194/1947	10.50	15.85	11.309	32.122	24.513	1.0	237	.9	42	150	40 49.83 N	69 33.16 W
194/2002	19.00	15.76	11.305	32.126	24.516	1.3	236	1.2	115	222	40 49.92 N	69 32.90 W
194/2017	10.48	14.08	11.276	32.120	24.517	.8	200	3.2	217	226	40 40.91 N	69 33.75 W

15 MINUTE AVERAGES DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	PSE deg	HDG deg	LAT deg mins	LONG deg mins
194/2032	18.81	15.20	11.877	32.150	24.428	.7	295	4.3	225	230	40 47.50 N	69 35.59 W
194/2047	19.54	15.81	14.115	32.101	23.943	.6	317	4.4	224	229	40 45.99 N	69 37.57 W
194/2102	19.73	15.83	14.060	32.065	23.757	.5	347	4.5	224	230	40 44.43 N	69 39.56 W
194/2117	19.91	15.90	14.029	32.061	23.761	3.2	283	4.5	97	61	40 44.47 N	69 39.91 W
194/2132	20.08	15.92	14.413	32.060	23.048	3.6	215	4.4	30	35	40 46.27 N	69 30.85 W
194/2147	20.30	15.90	12.820	32.119	24.219	4.0	217	4.2	37	34	40 47.92 N	69 36.57 W
194/2202	20.10	15.53	11.719	32.140	24.450	4.2	222	3.5	141	194	40 49.44 N	69 35.21 W
194/2217	19.47	15.16	11.872	32.125	24.409	3.5	211	.6	192	293	40 50.05 N	69 35.58 W
194/2232	19.45	15.43	11.773	32.122	24.426	4.8	210	1.6	140	243	40 49.77 N	69 35.45 W
194/2247	19.52	15.66	12.622	32.137	24.274	4.5	234	5.2	183	193	40 47.62 N	69 35.53 W
194/2302	19.47	15.70	14.362	32.067	23.065	3.9	240	3.4	180	194	40 45.44 N	69 35.82 W
194/2317	19.27	15.54	15.099	32.056	23.699	4.8	222	4.1	179	190	40 43.92 N	69 35.85 W
194/2332	18.66	15.32	14.378	32.082	23.873	3.7	228	5.2	183	186	40 41.39 N	69 36.05 W
194/2347	18.19	15.26	12.553	32.142	24.291	4.4	231	2.6	181	184	40 39.78 N	69 36.09 W
195/0002	17.86	15.31	11.739	32.228	24.515	5.1	233	5.4	180	180	40 37.49 N	69 36.17 W
195/0017	17.67	15.60	11.520	32.268	24.602	4.4	253	3.1	190	230	40 35.35 N	69 36.15 W
195/0032	17.80	15.73	11.274	32.309	24.664	4.0	273	3.1	158	140	40 34.69 N	69 35.56 W
195/0047	17.53	15.61	11.365	32.396	24.715	4.4	233	4.0	110	106	40 33.03 N	69 32.29 W
195/0102	17.57	15.85	12.189	32.589	24.708	4.2	234	4.9	116	113	40 32.90 N	69 27.93 W
195/0117	17.42	15.84	13.725	32.898	24.640	5.0	247	3.0	145	147	40 32.12 N	69 27.49 W
195/0132	17.36	15.80	14.318	33.059	24.640	3.6	249	3.3	92	73	40 32.20 N	69 26.17 W
195/0147	17.18	15.78	15.393	33.019	24.376	4.3	247	4.6	64	62	40 33.20 N	69 23.58 W
195/0202	17.02	15.69	13.736	32.946	24.675	4.4	246	4.5	57	63	40 34.37 N	69 21.81 W
195/0217	16.65	15.39	12.405	32.717	24.765	4.0	259	1.5	175	184	40 34.59 N	69 20.10 W
195/0232	16.41	15.24	14.062	32.914	24.582	1.2	303	5.2	265	277	40 34.15 N	69 22.62 W
195/0248	15.80	14.78	12.279	32.692	24.771	2.8	248	4.4	289	283	40 34.61 N	69 25.65 W
195/0303	15.57	14.75	11.874	32.476	24.601	3.6	278	2.2	316	75	40 35.25 N	69 26.60 W
195/0318	15.28	14.58	11.739	32.358	24.615	2.9	253	4.5	75	80	40 37.25 N	69 26.84 W
195/0333	15.32	14.70	11.568	32.337	24.632	3.5	248	3.3	58	58	40 39.24 N	69 26.74 W
195/0348	15.00	14.39	11.512	32.287	24.603	3.8	251	.3	249	123	40 39.53 N	69 26.84 W
195/0403	14.95	14.36	11.485	32.287	24.608	3.2	254	.3	269	121	40 39.51 N	69 27.66 W
195/0418	15.12	14.56	11.367	32.303	24.643	3.3	263	.4	228	105	40 39.52 N	69 27.19 W
195/0433	15.15	14.63	11.237	32.350	24.703	3.6	269	1.3	116	73	40 39.82 N	69 26.78 W
195/0448	14.83	14.32	11.191	32.388	24.741	3.2	267	2.4	213	45	40 40.24 N	69 26.83 W
195/0503	14.41	13.91	11.175	32.405	24.758	3.5	257	2.7	16	25	40 42.00 N	69 26.43 W
195/0518	13.46	12.95	11.207	32.375	24.728	4.1	251	2.3	49	73	40 43.01 N	69 25.69 W
195/0533	12.91	12.39	11.224	32.268	24.642	4.5	261	2.0	00	90	40 43.29 N	69 24.42 W
195/0548	12.87	11.73	11.231	32.257	24.632	4.0	259	2.1	93	96	40 43.27 N	69 23.07 W
195/0603	12.65	12.12	11.277	32.359	24.703	3.4	251	2.2	91	95	40 43.24 N	69 21.65 W
195/0618	12.67	12.14	11.374	32.468	24.769	3.5	258	2.2	85	95	40 43.31 N	69 20.21 W
195/0633	12.72	12.19	12.408	31.914	24.142	4.3	264	2.3	90	99	40 43.35 N	69 18.75 W
195/0648	13.27	12.79	13.453	32.022	24.018	4.8	263	2.4	84	97	40 43.43 N	69 17.21 W
195/0703	13.90	13.45	13.858	31.855	23.886	5.0	275	2.4	82	74	40 43.56 N	69 15.72 W
195/0718	14.07	13.64	13.633	31.754	23.775	5.2	269	3.1	395	95	40 44.70 N	69 15.49 W
195/0733	13.84	13.40	12.942	32.174	24.239	5.8	263	3.1	347	251	40 46.20 N	69 15.77 W
195/0748	13.92	13.53	12.167	32.748	24.836	5.5	261	2.4	335	334	40 47.40 N	69 16.45 W
195/0803	13.85	13.41	11.948	32.769	24.895	6.3	268	2.0	330	334	40 48.38 N	69 17.01 W
195/0818	14.44	14.01	11.727	32.782	24.947	5.9	274	1.7	343	334	40 49.18 N	69 17.37 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	STGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSE deg	HDG deg	LAT deg mins	LONG deg mins
195/0033	14.21	13.77	******	******	******	4.7	270	1.6	346	334	40 49.96 N	69 17.64 W
195/0048	13.04	13.33	******	******	******	4.7	274	1.0	300	276	40 50.47 N	69 17.99 W
195/0903	14.03	13.47	******	******	******	5.7	295	.7	203	270	40 50.50 N	69 18.45 W
195/0918	14.16	13.60	******	******	******	4.8	303	.4	227	249	40 50.60 N	69 18.88 W
195/0933	14.35	13.70	******	******	******	5.1	317	.5	117	211	40 50.54 N	69 18.63 W
195/0948	14.31	13.72	******	******	******	5.0	326	.5	230	270	40 50.37 N	69 18.22 W
195/1003	14.31	13.70	******	******	******	4.8	337	.6	231	270	40 50.18 N	69 19.03 W
195/1018	13.99	13.37	******	******	******	5.4	340	.6	240	287	40 49.99 N	69 19.50 W
195/1033	14.27	13.64	******	******	******	5.6	3	.4	90	354	40 50.02 N	69 19.51 W
195/1048	14.02	13.37	******	******	******	5.9	11	.5	152	294	40 50.00 N	69 19.53 W
195/1103	14.21	13.56	******	******	******	6.0	28	.6	160	160	40 49.81 N	69 19.59 W
195/1118	14.23	13.57	******	******	******	6.6	29	.9	164	130	40 49.48 N	69 19.95 W
195/1134	14.01	13.35	******	******	******	5.7	36	.6	73	36	40 49.39 N	69 19.14 W
195/1149	13.75	13.06	******	******	******	6.2	41	.4	95	36	40 49.41 N	69 18.84 W
195/1204	14.23	13.46	******	******	******	7.9	56	.4	122	36	40 49.33 N	69 18.59 W
195/1219	14.78	13.83	******	******	******	6.9	61	.4	133	36	40 49.20 N	69 18.39 W
195/1305	15.12	13.42	******	******	******	6.2	73	1.2	331	93	40 49.32 N	69 19.65 W
195/1320	14.97	13.01	******	******	******	6.1	70	1.3	318	329	40 49.05 N	69 20.20 W
195/1335	15.32	12.35	11.172	32.135	24.549	4.6	70	.5	231	54	40 50.01 N	69 20.44 W
195/1350	15.17	11.36	11.169	32.210	24.613	3.0	61	1.3	121	87	40 49.70 N	69 19.93 W
195/1405	15.13	10.04	11.181	32.143	24.553	3.4	60	1.7	134	124	40 49.36 N	69 19.04 W
195/1420	15.31	10.65	11.232	32.150	24.549	5.3	70	1.4	210	166	40 48.77 N	69 19.09 W
195/1435	15.50	10.70	11.217	32.172	24.568	4.9	74	1.5	216	163	40 48.12 N	69 19.86 W
195/1450	15.70	10.81	11.222	32.373	24.724	4.3	74	1.3	234	92	40 47.68 N	69 20.44 W
195/1505	15.82	10.83	11.300	32.267	24.628	4.5	75	1.0	258	107	40 47.48 N	69 21.08 W
195/1520	15.63	10.67	11.244	32.304	24.728	4.5	71	.8	262	90	40 47.43 N	69 21.63 W
195/1535	*****	*****	10.804	32.412	24.831	4.3	73	.7	224	216	40 47.42 N	69 22.17 W
195/1550	15.43	10.57	11.211	32.397	24.745	4.4	69	.9	324	22	40 47.63 N	69 22.43 W
195/1605	15.53	10.64	11.202	32.359	24.717	3.9	72	1.1	298	21	40 48.23 N	69 22.49 W
195/1620	15.79	10.84	11.216	32.330	24.690	3.4	62	1.5	283	283	40 48.44 N	69 22.28 W
195/1635	15.77	10.66	11.206	32.332	24.680	4.8	58	2.4	216	216	40 47.53 N	69 23.63 W
195/1650	15.64	10.50	11.290	32.342	24.687	4.3	52	.8	276	275	40 47.22 N	69 24.26 W
195/1705	14.96	10.15	11.246	32.302	24.665	4.7	48	2.8	223	186	40 47.94 N	69 24.53 W
195/1720	14.64	10.07	11.241	32.286	24.653	2.7	50	4.9	53	67	40 49.55 N	69 22.88 W
195/1735	15.07	10.62	11.148	32.323	24.690	4.5	44	4.6	91	95	40 49.93 N	69 19.98 W
195/1750	15.39	10.83	11.215	32.235	24.610	1.9	48	4.5	80	92	40 49.99 N	69 17.05 W
195/1805	15.54	10.89	12.074	32.637	24.760	2.0	52	4.0	87	95	40 50.00 N	69 14.05 W
195/1820	15.66	10.94	12.667	33.002	24.997	2.4	59	4.8	69	100	40 50.19 N	69 10.91 W
195/1835	15.63	10.82	12.547	33.117	25.048	3.3	55	4.8	89	100	40 50.21 N	69 7.81 W
195/1850	15.55	10.74	13.012	33.096	24.939	3.4	47	4.8	91	105	40 50.22 N	69 4.73 W
195/1905	15.53	10.71	13.390	33.068	24.839	4.3	15	1.8	261	266	40 50.28 N	69 3.96 W
195/1920	15.02	11.07	13.362	33.100	24.933	3.1	30	3.6	250	235	40 50.05 N	69 5.55 W
195/1935	*****	*****	14.096	33.103	24.783	4.4	48	4.7	248	233	40 48.96 N	69 8.10 W
195/1950	17.12	12.12	13.970	33.224	24.839	4.5	52	4.6	230	233	40 47.79 N	69 10.66 W
195/2005	17.34	12.10	13.126	33.235	25.023	4.1	53	4.4	230	224	40 46.40 N	69 12.97 W
195/2020	17.31	12.11	13.607	33.196	24.895	3.7	39	4.3	242	239	40 45.84 N	69 14.91 W
195/2035	16.46	11.61	14.050	33.184	24.793	3.7	40	4.6	262	259	40 44.56 N	69 17.70 W
195/2050	16.25	11.58	14.000	33.155	24.781	3.3	55	4.6	260	267	40 44.47 N	69 20.66 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSE deg	COG deg	LAT deg mins	LONG deg mins
195/2105	15.91	11.20	11.859	32.832	24.960	3.7	73	4.5	265	262	40 44.38 N	69 23 57 W
195/2120	14.96	10.32	11.519	32.560	24.814	4.3	77	4.5	257	258	40 43.97 N	69 26 02 W
195/2135	14.61	10.10	11.407	32.433	24.736	4.3	70	4.5	251	256	40 43.30 N	69 29 19 W
195/2150	14.32	10.03	11.527	32.424	24.707	4.3	72	4.5	252	256	40 42.74 N	69 31 96 W
195/2205	14.40	10.32	12.440	32.424	24.532	4.5	74	4.6	254	260	40 42.11 N	69 34 80 W
195/2220	14.80	10.87	12.041	32.423	24.607	4.4	83	4.6	264	267	40 41.77 N	69 37 78 W
195/2235	15.13	11.17	13.434	32.422	24.332	4.6	84	4.8	264	267	40 41.52 N	69 40 80 W
195/2250	15.42	11.50	13.344	32.415	24.345	4.6	83	4.8	263	267	40 41.25 N	69 43 86 W
195/2305	15.66	11.72	14.498	32.117	23.874	4.7	84	4.9	264	267	40 40.97 N	69 46 90 W
195/2320	15.73	11.71	14.016	32.114	23.974	4.6	93	4.9	270	275	40 40.68 N	69 50 17 W
195/2335	15.69	11.64	12.948	32.111	24.189	4.0	110	5.0	274	280	40 40.98 N	69 53 36 W
195/2350	15.67	11.63	14.309	32.121	23.967	4.3	107	5.0	280	290	40 41.59 N	69 56 44 W
196/0005	15.59	11.68	14.164	32.367	24.130	4.1	110	5.1	287	290	40 42.32 N	69 59 53 W
196/0020	15.68	11.93	14.570	32.281	23.986	4.1	112	5.1	284	290	40 42.96 N	70 2 69 W
196/0035	15.90	11.96	13.720	32.209	24.108	4.7	111	5.2	284	290	40 43.57 N	70 5 88 W
196/0050	16.05	12.12	14.147	32.103	23.930	5.0	107	5.2	285	290	40 44.22 N	70 9.11 W
196/0105	16.11	12.21	14.638	32.011	23.763	4.6	111	5.2	285	289	40 44.91 N	70 12.33 W
196/0121	16.28	12.44	16.602	31.805	23.169	4.7	109	5.1	285	289	40 45.58 N	70 15 55 W
196/0136	16.55	12.75	18.027	31.665	22.531	7.9	110	5.1	286	289	40 46.24 N	70 18 72 W
196/0151	16.63	13.04	18.622	31.643	22.565	4.3	122	5.1	280	292	40 46.90 N	70 21 86 W
196/0206	17.00	13.21	18.414	31.654	22.624	4.0	120	5.1	287	292	40 47.74 N	70 25 01 W
196/0221	17.14	13.35	18.638	31.640	22.565	4.1	123	5.1	288	291	40 48.58 N	70 28 17 W
196/0236	17.27	13.47	18.765	31.645	22.531	3.9	124	5.1	288	291	40 49.20 N	70 31 28 W
198/0000	15.89	15.12	12.885	31.734	23.925	7.2	231	6.8	181	183	40 52.27 N	69 43 18 W
198/0023	16.72	15.97	12.374	31.859	24.107	6.1	246	2.3	192	209	40 50.33 N	69 43 05 W
198/0038	17.09	16.30	12.018	31.961	24.256	7.3	244	5.3	172	177	40 48.65 N	69 42 73 W
198/0053	17.45	16.63	11.630	32.152	24.476	7.1	252	5.2	186	200	40 45.93 N	69 42 69 W
198/0908	17.92	17.08	11.278	32.203	24.582	5.5	259	2.6	190	145	40 45.19 N	69 42 43 W
198/0923	16.76	15.97	11.314	32.209	24.580	6.9	236	6.7	81	88	40 45.64 N	69 38.22 W
198/0938	16.22	15.44	11.423	32.358	24.675	7.1	237	6.7	90	100	40 45.84 N	69 34 41 W
198/0953	15.80	15.00	11.470	32.583	24.841	7.3	256	6.5	112	109	40 45.54 N	69 30.16 W
198/1008	15.95	15.17	11.419	32.458	24.753	7.5	254	2.6	88	137	40 45.12 N	69 27 30 W
198/1023	16.13	15.36	11.395	32.490	24.782	7.1	256	6.5	235	67	40 47.15 N	69 27.85 W
198/1038	15.71	14.92	11.417	32.388	24.631	7.4	244	3.5	231	293	40 49.77 N	69 27 18 W
198/1053	15.01	14.19	11.451	32.419	24.717	7.6	257	6.0	328	354	40 51.82 N	69 27 24 W
198/1108	14.77	13.93	11.460	32.106	24.535	8.0	239	4.5	172	174	40 54.65 N	69 27 18 W
198/1123	15.16	14.31	11.555	32.195	24.583	5.1	235	4.7	245	266	40 54.84 N	69 28 60 W
198/1138	15.46	14.61	11.678	32.142	24.459	5.7	234	4.4	271	270	40 54 84 N	69 31.24 W
198/1153	16.00	15.17	11.824	32.076	24.388	5.4	237	4.3	273	270	40 54.91 N	69 34 54 W
198/1208	15.58	14.73	12.155	31.900	24.242	6.9	247	2.5	198	209	40 56.47 N	69 35 71 W
198/1223	15.27	14.40	12.345	31.844	24.108	7.6	238	6.5	262	336	40 58.17 N	69 35.59 W
198/1238	15.46	14.60	12.328	31.843	24.103	7.7	240	2.5	93	153	40 59.96 N	69 35 68 W
198/1253	15.73	14.87	13.072	31.669	23.822	6.9	245	6.3	329	355	41 2.20 N	69 35 58 W
198/1308	16.11	15.25	13.271	31.598	23.727	6.3	225	3.0	242	185	41 4.65 N	69 35 87 W
198/1323	15.92	15.07	13.291	31.601	23.725	6.0	227	3.2	149	160	41 4.89 N	69 35.19 W
198/1338	15.48	14.62	13.077	31.641	23.799	5.6	227	2.3	158	161	41 2.81 N	69 34 47 W
198/1354	15.56	14.67	12.806	31.668	23.858	6.0	228	2.1	167	161	41 1.80 N	69 34 05 W
198/1409	15.33	14.41	12.671	31.711	23.934	5.9	223	2.0	162	160	41 .80 N	69 33 63 W

15 MINUTE AVERAGES DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSE deg	HDG deg	LAT deg mins	LONG deg mins
198/1424	15.42	14.48	12.170	31.799	24.108	6.1	220	1.7	166	168	40 59.97 N	69 33.30 W
198/1439	16.12	15.17	12.047	31.826	24.144	6.5	221	1.6	173	168	40 59.19 N	69 33.12 W
198/1454	15.85	14.87	11.968	31.832	24.164	6.2	223	1.8	171	168	40 58.35 N	69 32.94 W
198/1509	15.95	14.95	11.954	31.830	24.165	5.6	220	1.9	173	159	40 57.44 N	69 32.79 W
198/1524	15.95	14.93	12.819	31.829	24.151	6.4	238	1.9	172	167	40 56.54 N	69 32.60 W
198/1539	15.92	14.86	12.040	31.842	24.157	4.7	239	1.8	274	322	40 56.09 N	69 33.12 W
198/1554	15.48	14.34	12.017	31.826	24.150	4.8	227	1.7	319	338	40 56.60 N	69 33.86 W
198/1609	15.51	14.40	12.056	31.828	24.144	5.1	228	1.8	328	342	40 57.33 N	69 34.60 W
198/1624	15.67	14.88	12.104	31.804	24.101	5.6	228	1.8	322	345	40 58.02 N	69 35.24 W
198/1639	16.11	15.06	12.235	31.783	24.075	4.8	227	1.8	323	307	40 58.75 N	69 36.01 W
198/1654	15.88	14.03	11.964	31.803	24.142	5.5	214	2.9	148	121	40 58.57 N	69 35.40 W
198/1709	15.32	14.29	11.530	31.848	24.257	6.1	216	4.4	139	137	40 57.19 N	69 33.53 W
198/1724	15.48	14.45	11.765	31.855	24.220	6.2	221	4.8	153	150	40 56.21 N	69 31.55 W
198/1739	15.33	14.29	11.808	31.900	24.247	6.5	218	2.7	149	142	40 53.66 N	69 30.03 W
198/1754	15.30	14.33	11.803	32.055	24.368	7.6	213	3.9	171	164	40 52.22 N	69 30.23 W
198/1809	15.06	14.02	11.714	32.225	24.517	8.1	216	4.5	177	174	40 50.06 N	69 30.01 W
198/1824	16.41	15.39	11.634	32.402	24.669	8.2	215	3.9	179	178	40 48.07 N	69 29.57 W
198/1839	16.82	15.80	11.586	32.553	24.796	7.5	211	3.6	180	170	40 46.25 N	69 29.95 W
198/1854	16.98	15.94	11.560	32.579	24.819	7.7	212	3.4	181	175	40 44.53 N	69 29.97 W
198/1909	17.14	16.05	11.581	32.593	24.828	7.1	213	3.4	180	171	40 42.85 N	69 29.99 W
198/1924	17.35	16.13	11.567	32.583	24.822	7.2	216	3.2	178	174	40 41.25 N	69 29.53 W
198/1939	17.44	16.07	11.534	32.543	24.790	6.8	231	3.0	147	127	40 39.92 N	69 29.65 W
198/1954	16.69	15.86	11.663	32.623	24.835	7.5	216	3.0	82	98	40 39.87 N	69 27.87 W
198/2009	17.03	15.24	11.729	32.593	24.800	7.7	210	9	134	100	40 40.00 N	69 26.99 W
198/2024	16.67	14.69	11.620	32.607	24.831	7.8	211	3.5	89	98	40 40.14 N	69 25.21 W
198/2039	16.84	14.86	11.624	32.699	24.864	8.1	217	3.4	84	98	40 40.32 N	69 22.95 W
198/2054	16.55	14.40	12.895	32.704	24.870	7.9	223	3.5	69	81	40 40.60 N	69 20.65 W
198/2109	16.55	14.16	12.480	32.855	24.856	8.1	220	3.7	57	77	40 41.63 N	69 19.81 W
198/2124	17.13	14.64	13.212	32.915	24.758	8.5	217	3.7	56	85	40 42.65 N	69 16.80 W
198/2139	19.04	16.96	14.627	33.262	24.731	7.3	257	3.3	143	134	40 42.22 N	69 15.47 W
198/2154	19.88	17.81	16.872	33.261	24.225	5.6	198	3.8	134	124	40 40.85 N	69 13.67 W
198/2209	20.11	18.04	17.720	33.267	24.027	6.9	211	1.2	66	135	40 40.51 N	69 12.74 W
198/2224	20.40	18.10	18.241	33.243	23.883	7.8	216	4.4	125	135	40 39.72 N	69 10.96 W
198/2239	20.78	18.32	18.030	33.216	23.914	7.5	220	3.9	217	242	40 38.89 N	69 10.07 W
198/2254	20.44	17.88	17.175	33.259	24.153	7.6	215	5.1	280	274	40 39.23 N	69 12.56 W
198/2310	*****	*****	14.559	33.295	24.771	****	***	5.0	287	287	40 39.93 N	69 16.40 W
198/2325	*****	*****	13.397	33.035	24.813	****	***	6.4	270	266	40 40.44 N	69 20.43 W
199/0004	16.33	14.35	11.617	32.507	24.754	5.5	240	4.5	296	326	40 40.32 N	69 29.73 W
199/0019	15.04	13.98	11.586	32.439	24.707	6.3	221	3.0	41	355	40 42.14 N	69 29.80 W
199/0034	16.06	14.39	11.478	32.423	24.715	6.6	220	3.7	2	356	40 43.98 N	69 29.75 W
199/0049	16.16	14.68	11.422	32.371	24.685	6.7	219	3.6	3	355	40 45.76 N	69 29.63 W
199/0104	16.21	14.87	11.515	32.301	24.613	6.9	219	3.4	5	356	40 47.46 N	69 29.47 W
199/0119	15.59	14.30	11.653	32.339	24.617	6.5	216	3.7	2	354	40 49.10 N	69 29.36 W
199/0134	16.80	14.79	11.680	32.401	24.658	7.4	214	3.6	319	353	40 50.99 N	69 29.39 W
199/0149	15.48	14.31	11.734	32.271	24.549	8.1	214	3.5	355	354	40 52.75 N	69 29.56 W
199/0204	15.29	14.16	11.805	32.080	24.387	8.3	218	2.6	222	199	40 53.88 N	69 29.44 W
199/0219	14.28	13.14	11.775	32.140	24.439	7.8	209	3.3	102	91	40 54.73 N	69 27.96 W
199/0234	14.12	12.99	11.713	32.200	24.490	7.1	212	3.1	102	91	40 53.42 N	69 25.56 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	STGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSE deg	HDG deg	LAT deg mins	LONG deg mins
199/0249	13.85	12.74	11.550	32.155	24.494	7.1	213	2.9	94	81	40 53 22 N	69 23 65 W
199/0304	13.85	12.76	11.379	32.065	24.455	7.4	214	2.8	96	80	40 53 12 N	69 21 84 W
199/0319	14.42	13.47	11.398	32.064	24.451	7.5	219	2.5	60	56	40 53.33 N	69 20 35 W
199/0334	15.15	14.14	11.404	32.118	24.492	8.3	220	2.6	65	61	40 53.90 N	69 18 22 W
199/0349	15.27	14.27	11.397	32.215	24.569	8.8	210	2.9	117	101	40 53.72 N	69 17.15 W
199/0405	15.40	14.43	11.431	32.210	24.565	8.4	221	2.7	135	103	40 52.70 N	69 15.69 W
199/0420	15.59	14.64	11.308	32.365	24.687	7.6	217	2.4	150	125	40 51.82 N	69 14.[illegible] W
199/0435	15.15	14.19	11.781	32.571	24.788	6.6	214	2.6	152	125	40 50.71 N	69 14.07 W
199/0450	14.87	13.90	13.080	32.738	24.662	6.4	205	2.6	151	117	40 49.58 N	69 13.[illegible] W
199/0505	15.94	15.02	14.561	32.855	24.431	6.2	233	3.5	153	122	40 48.23 N	69 12.30 W
199/0520	17.52	16.59	14.464	32.856	24.452	6.3	196	2.4	130	106	40 47.89 N	69 11.[illegible] W
199/0535	17.27	16.82	14.656	32.856	24.411	5.7	196	2.1	148	131	40 46.17 N	69 10.48 W
199/0550	17.89	16.93	14.716	32.856	24.350	6.9	209	1.5	312	339	40 46.25 N	69 10.69 W
199/0605	17.94	16.97	13.437	32.856	24.666	7.4	211	1.5	315	341	40 46.82 N	69 11.41 W
199/0620	17.53	16.58	12.370	32.956	24.950	6.9	215	1.5	324	92	40 47.37 N	69 12.04 W
199/0635	17.80	16.14	12.044	32.993	25.050	6.5	221	1.3	337	125	40 47.99 N	69 12.13 W
199/0650	16.60	15.66	11.725	32.816	24.974	7.1	213	1.3	330	197	40 48.59 N	69 12.76 W
199/0705	16.21	15.25	11.613	32.490	24.740	7.4	209	1.3	333	288	40 49.17 N	69 13.12 W
199/0720	16.08	15.12	11.485	32.371	24.673	7.3	210	1.4	329	256	40 49.75 N	69 13.[illegible] W
199/0735	15.80	14.83	11.208	32.358	24.700	7.5	276	1.6	296	125	40 50.26 N	69 14.11 W
199/0750	15.73	14.76	11.285	32.358	24.701	7.0	200	1.5	154	107	40 49.80 N	69 13.[illegible] W
199/0005	16.19	15.23	11.484	32.277	24.600	7.6	203	1.5	145	107	40 49.16 N	69 13.[illegible] W
199/0820	16.74	15.78	12.463	32.664	24.714	7.4	204	1.5	131	107	40 48.61 N	69 12.[illegible] W
199/0835	16.90	16.02	12.573	32.854	24.830	6.7	211	1.4	120	105	40 48.22 N	69 12.07 W
199/0850	17.22	16.22	12.910	32.945	24.765	7.6	201	1.7	299	312	40 48.54 N	69 12.[illegible] W
199/0905	17.05	16.07	12.368	32.486	24.594	7.9	201	1.9	320	284	40 49.27 N	69 12.[illegible] W
199/0920	17.03	16.01	11.562	32.342	24.640	8.3	211	1.4	199	90	40 50.00 N	69 13.[illegible] W
199/0935	16.36	15.34	11.523	32.407	24.694	8.8	194	.4	194	106	40 50.24 N	69 13.[illegible] W
199/0950	16.52	15.49	11.571	32.252	24.565	8.4	254	.7	236	96	40 50.58 N	69 13.[illegible] W
199/1005	17.13	16.08	12.505	32.341	24.455	9.3	226	.9	154	165	40 50.34 N	69 13.04 W
199/1020	17.59	16.52	13.059	32.086	24.767	8.2	206	.7	164	184	40 49.97 N	69 13.04 W
199/1035	17.51	16.43	13.000	32.836	24.724	7.7	214	.9	293	98	40 50.20 N	69 13.12 W
199/1051	17.46	16.39	13.215	32.867	24.728	8.4	208	1.0	29	78	40 50.75 N	69 13.[illegible] W
199/1106	17.56	16.46	13.208	32.889	24.740	8.4	213	1.0	104	158	40 51.26 N	69 13.85 W
199/1121	17.71	16.58	13.364	32.959	24.761	8.2	218	1.0	27	103	40 51.97 N	69 13.[illegible] W
199/1136	17.95	16.79	13.112	32.927	24.788	6.3	257	1.0	190	200	40 52.05 N	69 12.79 W
199/1151	17.91	16.75	13.054	32.908	24.785	9.3	237	1.6	137	162	40 52.54 N	69 12.67 W
199/1206	17.67	16.52	13.134	32.949	24.800	9.4	198	1.2	21	96	40 53.07 N	69 12.32 W
199/1221	17.55	16.40	13.470	32.940	24.725	9.6	209	1.3	14	98	40 53.69 N	69 12.11 W
199/1236	17.82	16.66	12.780	32.922	24.849	11.2	201	2.1	250	250	40 54.44 N	69 12.37 W
199/1251	17.62	16.47	12.434	32.943	24.935	8.9	250	2.3	93	100	40 54.36 N	69 11.80 W
199/1306	17.43	16.28	12.677	32.998	24.930	8.7	193	1.2	37	97	40 54.79 N	69 11.85 W
199/1321	17.69	16.52	12.795	32.982	24.894	8.7	208	.9	111	194	40 55.21 N	69 10.73 W
199/1336	17.94	16.75	12.208	32.996	25.021	8.4	212	.7	142	261	40 55.48 N	69 10.25 W
199/1351	17.42	16.28	12.520	32.982	24.949	10.0	159	1.0	47	294	40 55.72 N	69 10.30 W
199/1406	17.62	16.47	12.020	32.987	24.891	9.9	202	.9	44	266	40 56.80 N	69 9.85 W
199/1421	10.23	17.04	12.004	33.003	25.066	9.3	218	.7	147	168	40 55.99 N	69 9.68 W
199/1436	10.00	16.82	12.329	32.998	24.998	9.7	193	.8	69	108	40 55.97 N	69 9.10 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS deg	SAL ppt	STBT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSE deg	HDG deg	LAT deg	LAT mins	LONG deg	LONG mins
199/1451	17.94	16.75	12.5xx	32.980	24.943	9.6	208	7	156	211	40	56.85 N	69	8.79 W
199/1506	18.18	16.86	12.454	32.918	24.912	9.7	202	4	121	135	40	56.83 N	69	8.80 W
199/1521	18.19	16.98	12.457	32.933	24.923	10.1	214	9	110	169	40	56.80 N	69	8.41 W
199/1536	18.39	17.89	12.507	32.948	24.918	9.9	205	1.1	61	202	40	56.22 N	69	8.16 W
199/1551	18.01	16.74	12.883	32.920	24.835	10.8	159	5	98	206	40	56.36 N	69	7.87 W
199/1606	18.25	16.97	12.745	32.927	24.861	11.1	215	1.2	136	226	40	56.10 N	69	7.56 W
199/1621	18.49	17.24	12.265	32.933	24.961	8.9	224	1.0	155	213	40	55.24 N	69	7.48 W
199/1636	18.29	17.05	12.519	32.926	24.905	7.8	237	1.7	106	232	40	54.63 N	69	7.59 W
199/1651	18.30	17.14	12.420	32.953	24.946	7.0	218	1.0	123	202	40	53.94 N	69	7.44 W
199/1706	18.30	17.05	12.619	32.945	24.901	7.0	243	9	64	52	40	53.91 N	69	7.05 W
199/1721	17.91	16.64	13.081	32.927	24.794	7.2	241	1.0	110	150	40	54.06 N	69	6.59 W
199/1736	17.64	16.41	12.812	32.918	24.841	5.6	245	1.8	204	235	40	53.43 N	69	6.84 W
199/1752	17.92	16.68	12.679	32.930	24.883	6.5	243	1.2	176	184	40	52.78 N	69	7.09 W
199/1807	18.31	17.05	12.993	32.938	24.821	6.2	243	1.2	62	68	40	52.78 N	69	6.69 W
199/1822	17.82	16.47	13.189	32.960	24.804	6.6	237	1.5	170	242	40	52.65 N	69	6.55 W
199/1837	17.74	16.43	12.730	32.922	24.859	7.0	242	1.3	183	234	40	51.84 N	69	6.98 W
199/1852	17.54	16.27	12.855	32.925	24.838	9.4	217	.6	160	320	40	51.57 N	69	6.88 W
199/1907	17.41	16.18	12.866	32.918	24.830	9.3	218	.8	264	293	40	51.45 N	69	6.90 W
199/1922	16.81	15.58	12.772	32.906	24.840	8.7	218	.8	191	161	40	51.30 N	69	7.32 W
199/1937	16.73	15.52	12.769	32.927	24.856	9.2	210	.6	220	115	40	51.86 N	69	7.36 W
199/1952	17.49	16.31	12.849	32.918	24.834	8.9	209	7	204	127	40	50.86 N	69	7.45 W
199/2007	17.81	16.64	12.822	32.924	24.814	8.6	208	4	157	119	40	50.70 N	69	7.59 W
199/2022	18.45	17.27	12.906	32.984	24.874	8.1	238	.7	121	323	40	50.51 N	69	7.50 W
199/2037	18.08	16.93	12.996	32.915	24.802	9.5	215	7	266	154	40	50.76 N	69	7.28 W
199/2052	18.12	16.97	12.879	32.929	24.836	8.1	214	.7	223	170	40	50.79 N	69	7.35 W
199/2107	18.13	17.00	13.039	32.960	24.828	9.5	210	.9	163	198	40	50.70 N	69	7.20 W
199/2122	18.05	16.93	12.947	32.882	24.706	8.5	209	.9	271	276	40	51.85 N	69	8.16 W
199/2137	17.66	16.57	12.892	32.759	24.702	8.3	207	.9	382	265	40	51.30 N	69	8.60 W
199/2152	17.97	16.68	12.807	32.851	24.790	9.2	246	.9	143	121	40	51.45 N	69	8.47 W
199/2207	18.07	16.98	12.960	32.870	24.774	9.6	194	.7	17	186	40	51.66 N	69	8.07 W
199/2222	18.09	17.01	12.943	32.858	24.768	9.3	218	1.0	254	261	40	51.94 N	69	8.16 W
199/2237	17.88	16.81	12.951	32.771	24.699	9.8	206	1.0	78	285	40	52.39 N	69	8.26 W
199/2252	18.08	17.01	12.846	32.875	24.801	6.8	217	.6	181	245	40	52.65 N	69	8.39 W
199/2307	17.81	16.75	12.903	32.889	24.800	9.6	211	7	144	142	40	52.99 N	69	8.19 W
199/2322	17.88	16.82	12.893	32.964	24.860	9.8	220	.6	212	44	40	53.28 N	69	8.23 W
199/2337	17.86	16.81	13.004	32.927	24.809	10.1	209	1.1	86	125	40	53.72 N	69	8.10 W
199/2352	17.31	16.28	12.830	32.682	24.655	10.0	195	1.4	225	279	40	54.40 N	69	8.59 W
200/0007	17.44	16.40	12.816	32.624	24.612	10.8	263	1.8	108	225	40	54.92 N	69	8.40 W
200/0022	17.59	16.55	13.118	32.891	24.758	9.3	342	1.2	77	120	40	55.10 N	69	7.95 W
200/0037	17.42	16.38	13.210	32.936	24.774	10.1	220	1.5	93	174	40	55.59 N	69	7.46 W
200/0052	17.51	16.48	12.595	32.594	24.633	10.3	202	1.3	224	225	40	56.19 N	69	7.91 W
200/0107	17.52	16.49	12.631	32.605	24.634	10.1	218	1.2	68	191	40	56.61 N	69	7.67 W
200/0123	17.80	16.83	13.070	32.900	24.775	8.4	212	.8	111	192	40	56.47 N	69	7.29 W
200/0138	17.42	16.39	12.877	32.883	24.739	10.0	204	1.9	180	260	40	56.99 N	69	7.00 W
200/0153	17.85	16.84	12.399	32.493	24.593	10.1	206	.8	95	234	40	57.67 N	69	7.14 W
200/0208	17.20	16.26	12.930	32.846	24.762	9.9	212	1.5	158	179	40	57.33 N	69	6.80 W
200/0223	17.39	16.26	13.118	32.879	24.749	9.5	214	1.1	135	300	40	57.30 N	69	6.96 W
200/0238	16.76	15.73	12.472	32.471	24.562	10.8	201	1.1	242	296	40	57.99 N	69	6.52 W

15 MINUTE AVERAGES: DATA

DTC,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSE deg	HDG deg	LAT deg min	LONG deg min
200/0253	16.86	15.84	12.475	32.529	24.606	10.2	216	.8	139	234	40 58.07 N	69 6.46 W
200/0308	17.20	16.22	12.854	32.681	24.649	9.9	224	1.4	183	223	40 57.30 N	69 6.57 W
200/0323	17.06	16.81	12.914	32.760	24.704	9.8	221	1.4	50	124	40 57.41 N	69 6.42 W
200/0338	17.81	15.94	12.523	32.575	24.633	9.3	215	.5	177	267	40 57.02 N	69 6.87 W
200/0353	17.41	16.32	12.719	32.735	24.717	5.8	240	1.9	206	235	40 57.22 N	69 6.40 W
200/0408	17.20	16.11	12.476	32.576	24.643	7.7	231	1.7	183	170	40 56.46 N	69 6.97 W
200/0423	17.35	16.26	12.866	32.912	24.826	10.2	226	1.9	63	74	40 56.71 N	69 6.73 W
200/0438	17.26	16.16	12.804	32.879	24.812	10.0	229	1.7	198	253	40 56.51 N	69 6.81 W
200/0453	16.73	15.62	12.570	32.657	24.687	5.0	238	1.7	214	243	40 55.87 N	69 6.74 W
200/0508	16.53	15.41	12.808	32.785	24.739	8.4	232	1.2	138	86	40 55.20 N	69 6.96 W
200/0523	16.39	15.27	12.399	32.576	24.658	8.5	226	.6	107	145	40 55.26 N	69 6.75 W
200/0538	16.60	15.56	12.385	32.541	24.633	7.2	239	1.5	195	230	40 54.79 N	69 6.94 W
200/0553	16.71	15.58	12.479	32.665	24.711	6.1	246	1.8	200	237	40 54.80 N	69 7.02 W
200/0608	16.79	15.64	12.449	32.559	24.634	5.7	245	1.4	199	240	40 53.25 N	69 7.05 W
200/0623	17.85	15.88	12.439	32.526	24.611	7.8	245	1.2	196	239	40 52.65 N	69 7.08 W
200/0638	16.65	15.45	12.547	32.665	24.698	8.6	235	1.3	149	116	40 52.11 N	69 7.97 W
200/0653	16.69	15.48	12.447	32.738	24.774	9.6	239	.5	96	125	40 52.14 N	69 7.61 W
200/0708	17.11	15.90	12.338	32.587	24.678	6.7	245	2.0	212	237	40 51.63 N	69 8.00 W
200/0723	17.05	15.79	12.444	32.786	24.811	8.1	241	1.6	204	231	40 50.79 N	69 8.56 W
200/0738	16.52	15.25	12.474	32.820	24.832	8.8	242	1.4	102	90	40 50.42 N	69 8.58 W
200/0753	17.12	15.84	12.317	32.566	24.666	9.9	217	1.2	177	215	40 50.41 N	69 8.10 W
200/0808	17.44	16.17	12.326	32.574	24.670	9.1	222	1.5	230	255	40 49.98 N	69 8.05 W
200/0824	17.05	15.81	12.269	32.608	24.704	8.6	222	1.5	230	252	40 49.49 N	69 9.60 W
200/0839	16.63	15.39	12.307	32.682	24.695	9.8	204	.7	224	204	40 49.17 N	69 10.14 W
200/0854	16.68	15.37	12.334	32.732	24.791	9.2	207	.7	219	174	40 49.11 N	69 10.39 W
200/0909	16.86	15.63	12.210	32.944	24.980	10.3	223	1.1	201	208	40 48.69 N	69 10.44 W
200/0924	16.80	15.65	12.314	32.948	24.963	9.1	213	.8	203	197	40 48.46 N	69 10.74 W
200/0939	16.56	15.32	12.255	32.780	24.782	9.8	206	1.3	326	297	40 49.06 N	69 10.92 W
200/0954	17.00	15.76	12.273	32.651	24.740	10.7	230	1.1	230	214	40 48.99 N	69 11.28 W
200/1009	17.09	15.84	12.285	32.932	24.956	9.2	230	.9	262	210	40 48.57 N	69 11.64 W
200/1024	16.74	15.48	12.268	32.668	24.778	9.4	228	1.7	83	185	40 49.05 N	69 11.49 W
200/1039	17.00	15.75	12.032	32.523	24.688	8.4	224	1.2	274	242	40 49.43 N	69 11.57 W
200/1054	17.24	16.01	12.401	32.771	24.808	7.6	231	1.8	171	223	40 49.82 N	69 12.02 W
200/1109	16.60	15.41	******	******	******	9.3	207	1.7	78	89	40 49.42 N	69 11.54 W
200/1124	16.88	15.61	12.353	32.699	24.762	9.2	213	1.2	170	223	40 49.85 N	69 11.22 W
200/1139	16.97	15.69	12.018	32.555	24.715	9.3	216	1.4	231	263	40 50.14 N	69 12.06 W
200/1154	16.90	15.61	12.249	32.763	24.832	10.3	202	1.3	66	130	40 50.40 N	69 11.75 W
200/1209	17.13	15.83	12.527	32.734	24.755	10.0	202	1.1	31	119	40 50.61 N	69 11.10 W
200/1224	17.00	15.76	12.503	32.691	24.726	9.1	212	1.2	55	178	40 51.17 N	69 10.96 W
200/1239	17.01	15.67	12.247	32.685	24.772	8.7	206	1.9	312	278	40 51.25 N	69 11.51 W
200/1254	16.80	15.45	12.113	32.866	24.938	9.1	202	1.8	188	146	40 52.36 N	69 11.98 W
200/1309	16.95	15.58	12.331	32.795	24.841	9.6	198	1.5	75	122	40 52.53 N	69 11.82 W
200/1324	17.29	15.87	12.525	32.777	24.789	10.0	197	1.8	73	113	40 52.73 N	69 10.97 W
200/1339	18.11	16.64	13.084	33.071	24.905	10.2	201	2.5	128	141	40 52.15 N	69 8.80 W
200/1354	18.32	16.83	13.270	33.073	24.869	10.2	204	2.1	148	158	40 51.29 N	69 8.05 W
200/1409	18.84	17.31	12.723	33.187	25.062	10.7	230	1.8	147	203	40 50.44 N	69 7.37 W
200/1424	18.65	17.14	13.240	33.193	24.967	10.7	215	1.2	114	293	40 50.49 N	69 7.10 W
200/1439	18.79	17.27	13.799	33.130	24.804	10.4	222	3.0	271	265	40 50.67 N	69 8.46 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSE deg	OBG deg	LAT deg mins	LONG deg mins
200/1454	10.74	17.21	12.793	33.246	25.099	10 7	221	3.0	262	265	40 50.49 N	69 10 76 W
200/1509	17.70	16.27	12.747	33.237	25.101	9 6	219	3.9	267	260	40 50.33 N	69 13 30 W
200/1524	16 72	15.27	11.031	32 070	24 996	10 4	222	3 9	265	270	40 50.19 N	69 15 79 W
200/1540	16 00	15 37	11 694	32.704	24 892	9 7	210	4 2	274	277	40 50.22 N	69 18 45 W
200/1555	16 06	15.49	11.670	32.666	24.060	10 0	212	4 1	274	275	40 50.42 N	69 21 09 W
200/1610	17.39	16 06	11.675	32.544	24.772	10 3	219	4 4	266	271	40 50 33 N	69 23 82 W
200/1625	17.20	15.60	11.080	32.572	24 755	9 9	213	4.4	266	273	40 50.18 N	69 26 74 W
200/1640	17.46	16.16	12.070	32.410	24.591	10.1	211	3 7	263	273	40 39 11 N	69 11 11 W
200/1655	17.72	16.34	12.267	32.350	24.514	9.1	207	4 6	260	275	40 49.01 N	69 32 59 W
200/1710	*****	*****	12.761	32.350	24.417	0.3	202	2 1	245	271	40 49.92 N	69 34 81 W
200/1725	17.63	16.29	12.083	32.350	24.393	7.9	221	7	152	163	40 49 07 N	69 35 01 W
200/1740	17.90	16.60	12.785	32.350	24.413	7.3	216	1.0	203	211	40 49 71 N	69 35 22 W
200/1755	17.64	16.27	12.973	32.350	24.375	6 7	209	.9	215	226	40 49.20 N	69 35 41 W
200/1810	18.24	16.02	12.860	31 913	24.051	7.9	224	.4	07	55	40 49.28 N	69 35 40 W
200/1825	18.40	16.91	12.702	31.926	24.094	7.4	216	1.0	25	51	40 49.63 N	69 35 39 W
200/1040	17.74	16.23	12.555	32.012	24.190	8.1	299	.5	92	85	40 49.91 N	69 34 98 W
200/1055	17.75	16.27	12.856	31.995	24 110	0.2	12	.6	198	112	40 49.70 N	69 35 03 W
200/1910	17.84	16.37	12.787	32.014	24.146	8 1	91	.5	201	111	40 49.46 N	69 35 19 W
200/1925	17.91	16.43	12.638	32.040	24.201	8 3	68	.5	197	112	40 49.21 N	69 35 21 W
200/1940	18.06	16.55	12.504	32.077	24.251	8.6	214	.5	240	154	40 49 07 N	69 35 47 W
200/1955	18.25	16.74	12.291	32.109	24 316	6.9	210	1 1	223	220	40 48.76 N	69 35 87 W
200/2010	18.01	16.47	12.496	32.095	24.265	8 4	200	1 2	253	261	40 48 50 N	69 36 52 W
200/2025	17.74	16.23	12.832	32.034	24.152	8 0	199	1 1	200	284	40 40 51 N	69 37 36 W
200/2040	17.52	16.04	13.126	31.891	23 983	7.2	240	1 4	303	322	40 40 00 N	69 38 19 W
200/2055	17.85	16.27	12.846	31.924	24.064	6.6	210	1.4	307	233	40 49.36 N	69 38 63 W
200/2110	18.32	16.62	12.680	31.954	24 119	7.2	224	1 2	25	66	40 49 91 N	69 38 58 W
200/2125	17.44	15.60	12.572	31.994	24.172	7 5	197	1 0	67	94	40 50.27 N	69 38 82 W
200/2140	17.14	15.22	12.379	32.055	24.257	7 0	192	.0	94	121	40 50.35 N	69 37 46 W
200/2155	17.21	15.30	12.298	32.100	24.308	9.0	201	1.0	141	160	40 50.13 N	69 37 16 W
200/2210	17.51	15.66	12.217	32.152	24.364	9 6	207	3.0	173	171	40 49.09 N	69 36 96 W
200/2225	17.85	16.10	12.097	32.235	24.452	9 3	199	4.2	169	161	40 47.15 N	69 36 40 W
200/2240	18.44	16.77	11.920	32.311	24.544	7.0	220	2.4	196	225	40 45.57 N	69 36 10 W
200/2255	17.67	16.07	11.963	32.336	24.556	0.3	231	4.6	81	90	40 46.15 N	69 34 08 W
200/2311	16.31	14.60	11.961	32.432	24.631	9.0	228	5 3	80	122	40 47.99 N	69 31 94 W
200/2326	15.58	13.93	11.694	32.520	24.712	8.0	200	6.0	55	77	40 49.81 N	69 29 73 W
200/2341	15.13	13.50	11.749	32.400	24.646	8.9	210	7.1	62	80	40 51 50 N	69 25 26 W
200/2356	15.30	13.74	11.627	32.282	24 578	9.6	202	4.9	65	104	40 52.67 N	69 21 60 W
201/0011	16.00	14.60	11.456	32.310	24.631	9.9	220	3.2	41	70	40 53.75 N	69 20 23 W
201/0026	16.71	15.31	11.320	32.314	24.660	11 6	226	4 0	46	71	40 55.17 N	69 18 46 W
201/0041	16.52	15.15	11.415	32.147	24.513	10.2	220	3.6	51	73	40 56.42 N	69 16 56 W
201/0056	16.32	14.98	11 550	32.207	24.534	8 1	227	3 6	41	71	40 57.64 N	69 15 00 W
201/0111	14.65	13.27	11.532	32.317	24.622	0.3	222	3 7	40	71	40 59 01 N	69 13 46 W
201/0126	15.59	14.29	11.221	32.400	24.014	10.0	220	3.7	34	56	41 43 N	69 12 82 W
201/0141	15.97	14.71	11 068	32.622	24.946	11 7	232	3 9	21	37	41 2 16 N	69 10 99 W
201/0156	16.03	14.79	10.700	32.670	25.051	12 2	233	3 7	29	37	41 3.70 N	69 9 85 W
201/0211	16.15	14.94	10.695	32.627	25.010	12.7	223	2.7	66	111	41 5.08 N	69 8 92 W
201/0226	16.71	15.55	11.151	32.513	24.846	11 3	210	1.6	169	182	41 4.62 N	69 8.52 W
201/0241	16.56	15.41	11.347	32.529	24.822	11.0	223	1 9	166	108	41 3.73 N	69 8 20 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TOP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSF deg	HDG deg	LAT deg	LAT mins		LONG deg	LONG mins	
201/0256	17.31	16.18	11.378	32.529	24.816	12.1	232	2.3	175	201	41	2.67	N	69	7.97	W
201/0311	16.93	15.81	11.560	32.538	24.709	12.0	235	2.2	183	209	41	1.57	N	69	7.93	W
201/0326	16.61	15.48	11.722	32.467	24.704	11.4	235	2.4	202	216	41	.54	N	69	8.42	W
201/0341	16.60	15.45	11.533	32.595	24.839	11.5	239	2.6	189	217	40	59.33	N	69	8.69	W
201/0356	16.90	15.75	11.716	32.668	24.876	7.9	240	2.8	195	231	40	58.03	N	69	8.98	W
201/0411	17.05	15.90	11.967	32.756	24.881	7.2	245	2.9	208	233	40	56.81	N	69	9.81	W
201/0426	16.87	15.69	12.198	32.848	24.908	7.6	234	2.8	201	214	40	55.50	N	69	10.51	W
201/0441	16.93	15.76	12.187	32.856	24.916	10.5	235	1.6	172	208	40	54.56	N	69	10.92	W
201/0456	17.38	16.12	12.067	32.820	24.911	10.8	239	1.3	174	217	40	53.93	N	69	10.56	W
201/0511	17.41	16.21	12.075	32.754	24.858	8.9	211	3.0	167	147	40	52.81	N	69	10.41	W
201/0526	16.97	15.77	12.353	32.834	24.867	8.6	215	2.8	230	204	40	52.20	N	69	9.82	W
201/0542	17.10	15.97	12.160	32.788	24.868	5.5	232	2.3	246	252	40	52.28	N	69	10.43	W
201/0557	17.08	15.87	11.827	32.654	24.829	4.6	253	3.1	202	236	40	50.92	N	69	11.28	W
201/0612	16.80	15.58	11.737	32.564	24.776	6.7	243	2.4	194	198	40	49.73	N	69	11.70	W
201/0627	16.75	15.53	11.855	32.673	24.838	7.9	236	1.2	134	69	40	49.02	N	69	11.57	W
201/0642	17.14	15.93	12.011	32.853	24.948	7.3	232	.8	73	47	40	48.94	N	69	11.68	W
201/0657	16.96	15.73	11.991	32.856	24.954	8.5	213	.8	294	20	40	49.28	N	69	11.07	W
201/0712	16.72	15.48	12.039	32.856	24.945	8.5	209	.7	301	116	40	49.49	N	69	11.32	W
201/0727	17.03	15.78	12.061	32.856	24.940	7.9	196	1.3	267	319	40	49.46	N	69	12.09	W
201/0742	17.35	16.07	11.747	32.856	25.001	8.3	198	1.1	281	333	40	49.55	N	69	12.78	W
201/0757	16.84	15.55	11.622	32.776	24.962	7.8	196	1.2	289	332	40	49.71	N	69	13.56	W
201/0812	16.89	15.61	11.520	32.413	24.700	7.8	195	1.1	273	332	40	49.81	N	69	14.25	W
201/0827	16.50	15.21	11.458	32.267	24.598	6.5	282	1.2	270	333	40	49.82	N	69	15.01	W
201/0842	15.73	14.42	11.373	32.235	24.588	6.8	25	1.2	277	333	40	49.80	N	69	15.72	W
201/0857	15.78	14.48	11.282	32.179	24.562	8.7	100	1.3	280	332	40	50.03	N	69	16.50	W
201/0912	16.57	15.30	11.156	32.145	24.559	9.0	46	1.4	298	332	40	50.31	N	69	17.30	W
201/0927	16.79	15.51	11.029	32.155	24.590	10.1	250	1.8	298	284	40	50.55	N	69	18.12	W
201/0942	16.62	15.33	11.014	32.220	24.644	9.1	202	1.8	255	256	40	50.38	N	69	19.49	W
201/0957	16.27	14.97	11.143	32.354	24.724	8.7	261	1.1	270	126	40	50.25	N	69	20.34	W
201/1012	15.73	14.43	11.179	32.392	24.747	8.8	357	.6	285	103	40	50.38	N	69	20.00	W
201/1027	15.91	14.61	11.212	32.410	24.754	9.8	172	.3	149	114	40	50.33	N	69	20.01	W
201/1042	16.28	14.97	11.258	32.397	24.736	9.5	168	.3	127	114	40	50.21	N	69	20.65	W
201/1057	16.12	14.79	11.340	32.428	24.745	9.1	167	.4	118	114	40	50.13	N	69	20.41	W
201/1112	16.50	15.18	11.362	32.436	24.747	10.3	168	.5	86	114	40	50.11	N	69	20.00	W
201/1128	16.67	15.34	11.322	32.332	24.674	10.1	44	.8	64	103	40	50.22	N	69	19.70	W
201/1143	16.84	15.51	11.332	32.238	24.599	10.4	315	.9	101	124	40	50.59	N	69	19.47	W
201/1158	16.92	15.57	11.334	32.314	24.657	9.1	187	.1	94	101	40	50.74	N	69	19.40	W
201/1213	16.77	15.42	11.310	32.287	24.641	9.2	200	.1	86	101	40	50.74	N	69	19.33	W
201/1228	16.56	15.19	11.342	32.371	24.701	7.6	188	.2	100	103	40	50.72	N	69	19.19	W
201/1243	16.62	15.25	11.419	32.390	24.701	9.3	204	.5	260	247	40	50.82	N	69	19.19	W
201/1258	16.67	15.28	11.471	32.379	24.682	11.0	271	.9	342	278	40	51.14	N	69	19.36	W
201/1313	16.85	15.45	11.531	32.528	24.787	10.3	221	1.6	239	298	40	51.69	N	69	19.76	W
201/1328	17.52	16.11	11.526	32.496	24.763	10.9	192	2.4	211	249	40	52.75	N	69	19.80	W
201/1343	17.29	15.81	11.403	32.490	24.781	10.8	207	3.0	33	44	40	53.98	N	69	19.00	W
201/1358	16.43	14.84	11.254	32.467	24.791	11.0	193	2.9	55	79	40	54.97	N	69	17.84	W
201/1413	16.53	14.97	11.389	32.457	24.758	10.3	58	2.4	79	105	40	55.40	N	69	16.22	W
201/1428	17.08	15.53	11.555	32.718	24.930	10.2	34	1.8	101	142	40	55.40	N	69	14.92	W
201/1443	17.24	15.71	11.629	32.856	25.023	9.8	249	1.0	53	108	40	55.50	N	69	14.34	W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSE deg	HDG deg	LAT deg mins	LONG deg mins
201/1458	17.04	15.50	11.685	32.860	25.015	10.4	227	1.2	37	104	40 55.98 N	69 13.88 W
201/1513	16.55	15.00	11.713	32.830	24.907	10.1	241	1.2	36	98	40 56.47 N	69 13.39 W
201/1528	16.12	14.57	11.562	32.850	25.031	10.0	130	1.1	40	99	40 56.92 N	69 12.96 W
201/1543	16.74	15.23	11.499	32.834	25.031	10.0	85	1.0	85	141	40 57.16 N	69 12.46 W
201/1558	17.10	15.60	11.546	32.757	24.962	9.0	339	2.0	279	250	40 57.42 N	69 12.39 W
201/1613	16.24	14.67	11.369	32.541	24.827	8.7	220	2.8	333	311	40 58.71 N	69 13.13 W
201/1628	16.26	14.69	11.400	32.255	24.599	8.8	259	1.0	239	265	40 59.38 N	69 13.63 W
201/1643	16.25	14.68	11.501	32.238	24.567	8.2	359	.6	127	204	40 59.23 N	69 13.36 W
201/1658	16.67	15.12	11.559	32.220	24.542	9.1	246	.6	129	204	40 59.06 N	69 13.05 W
201/1713	17.45	15.92	11.567	32.216	24.538	8.5	238	1.2	159	258	40 58.74 N	69 12.81 W
201/1728	17.57	16.05	11.417	32.254	24.595	8.5	214	2.6	200	239	40 57.64 N	69 13.28 W
201/1744	17.00	15.49	11.660	32.245	24.542	8.5	209	2.4	200	239	40 56.53 N	69 13.03 W
201/1759	16.55	15.04	11.774	32.126	24.429	8.6	206	2.5	201	246	40 55.38 N	69 14.34 W
201/1814	16.76	15.28	11.779	32.134	24.434	8.6	204	2.5	206	247	40 54.26 N	69 15.06 W
201/1829	16.94	15.48	11.723	32.107	24.424	8.2	206	2.5	210	254	40 53.18 N	69 15.81 W
201/1844	16.64	15.16	11.738	32.114	24.426	7.7	202	2.6	218	255	40 52.15 N	69 16.82 W
201/1859	16.71	15.23	11.759	32.177	24.471	7.2	204	2.4	219	253	40 51.18 N	69 17.82 W
201/1914	16.77	15.31	11.808	32.133	24.413	7.0	206	1.6	219	254	40 50.46 N	69 18.64 W
201/1929	16.90	15.47	11.800	32.207	24.486	7.5	208	1.5	222	254	40 49.88 N	69 19.26 W
201/1944	17.29	15.90	11.755	32.264	24.539	8.1	204	1.4	255	219	40 49.51 N	69 20.00 W
201/1959	16.69	15.29	11.732	32.281	24.557	8.0	201	.6	130	69	40 49.72 N	69 20.37 W
201/2014	16.51	15.11	11.742	32.324	24.588	8.1	204	.6	24	67	40 49.98 N	69 20.20 W
201/2029	16.61	15.23	11.572	32.305	24.606	8.3	194	.7	57	77	40 50.23 N	69 19.98 W
201/2044	16.05	14.64	11.424	32.329	24.652	8.2	204	.7	93	81	40 50.21 N	69 19.57 W
201/2059	16.67	15.29	11.445	32.304	24.629	8.4	197	.7	98	80	40 50.19 N	69 19.11 W
201/2114	16.40	15.02	11.431	32.274	24.608	8.3	196	.8	103	80	40 50.10 N	69 18.62 W
201/2129	16.91	15.57	11.443	32.213	24.550	8.8	230	1.8	208	244	40 49.74 N	69 18.22 W
201/2144	17.26	15.94	11.445	32.320	24.641	7.8	251	1.7	260	203	40 49.68 N	69 19.88 W
201/2159	15.90	14.55	11.425	32.318	24.644	8.1	191	.2	47	82	40 49.90 N	69 19.98 W
201/2214	16.37	15.07	11.425	32.283	24.616	9.2	260	1.0	162	140	*** ***** *	*** ***** *
201/2229	16.89	15.62	11.409	32.343	24.666	8.3	232	1.1	167	176	*** ***** *	*** ***** *
201/2244	17.32	16.07	11.446	32.308	24.631	7.9	221	1.0	129	104	40 49.97 N	69 20.24 W
201/2259	17.28	16.07	11.441	32.287	24.617	7.7	217	.6	211	171	40 50.07 N	69 20.26 W
201/2314	16.99	15.77	11.429	32.267	24.603	6.8	211	.5	328	114	40 50.23 N	69 20.93 W
201/2329	16.91	15.70	11.424	32.251	24.591	6.8	225	.7	197	113	40 50.53 N	69 20.96 W
201/2344	16.00	14.75	11.274	32.278	24.641	4.5	257	2.9	48	50	40 51.50 N	69 20.64 W
201/2359	15.58	14.31	11.173	32.294	24.672	4.3	240	3.1	22	50	40 52.98 N	69 19.92 W
202/0014	16.13	14.07	11.073	32.262	24.665	4.4	245	3.2	27	55	40 54.30 N	69 19.04 W
202/0029	15.11	13.79	11.158	32.202	24.603	3.9	222	4.0	38	64	40 55.78 N	69 17.67 W
202/0045	15.83	14.51	11.102	32.209	24.619	4.4	217	4.1	35	93	40 57.37 N	69 16.06 W
202/0100	16.13	14.78	11.070	32.224	24.636	5.3	210	2.8	316	287	40 58.74 N	69 16.33 W
202/0115	16.00	14.63	11.196	32.065	24.490	4.5	209	2.0	317	279	40 59.57 N	69 17.08 W
202/0130	17.45	16.08	11.206	32.054	24.479	3.1	214	2.5	293	269	41 .11 N	69 18.32 W
202/0145	17.46	16.07	10.694	32.085	24.596	2.6	251	1.5	221	236	41 .53 N	69 19.40 W
202/0200	15.86	14.46	10.958	32.050	24.521	3.1	244	3.3	76	91	41 .82 N	69 18.28 W
202/0215	16.22	14.82	11.398	31.836	24.274	3.4	257	3.8	115	135	41 .86 N	69 16.32 W
202/0230	16.99	15.58	11.335	31.849	24.288	2.4	272	2.8	152	161	40 59.75 N	69 15.38 W
202/0245	17.07	15.67	11.463	32.148	24.504	2.3	80	2.5	153	152	40 58.62 N	69 14.64 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SDIPS m/sec	CSF deg	DDG deg	LAT deg mins	LONG deg mins
202/0300	17.53	16.09	11.343	32.457	24.767	2.1	60	2.5	156	163	40 57.54 N	69 13.82 W
202/0315	16.93	15.40	11.525	32.650	24.009	1.5	22	2.5	179	191	40 56.35 N	69 13.64 W
202/0330	17.04	15.59	11.760	32.811	24.963	2.3	271	2.7	186	208	40 55.07 N	69 13.66 W
202/0345	16.66	17.15	11.724	32.823	24.979	1.7	220	2.0	188	216	40 53.75 N	69 13.97 W
202/0400	19.02	17.49	11.743	32.771	24.935	1.3	27	3.3	139	121	40 52.50 N	69 13.75 W
202/0415	19.76	18.20	11.788	32.833	24.975	1.4	317	2.2	127	93	40 51.72 N	69 14.02 W
202/0430	19.01	18.27	11.831	32.856	24.985	1.1	238	1.3	62	90	40 52.01 N	69 11.55 W
202/0445	19.51	17.99	11.819	32.861	24.991	.9	25	1.0	212	258	40 51.71 N	69 11.15 W
202/0500	19.96	18.44	11.817	32.792	24.930	1.1	10	1.3	196	223	40 51.28 N	69 11.92 W
202/0515	20.14	18.62	11.913	32.754	24.890	1.1	360	1.1	190	252	40 50.63 N	69 11.46 W
202/0530	18.30	16.04	11.843	32.760	24.914	3.2	343	.6	166	307	40 50.37 N	69 11.60 W
202/0545	16.08	14.67	11.744	32.771	24.935	5.7	344	.6	222	303	40 50.16 N	69 11.76 W
202/0600	14.41	12.96	11.620	32.610	24.834	5.3	349	.7	255	307	40 50.06 N	69 12.17 W
202/0615	14.79	13.35	11.433	32.437	24.734	5.0	346	.9	246	307	40 49.09 N	69 12.70 W
202/0630	15.32	13.89	11.414	32.390	24.701	5.0	355	1.1	243	307	40 49.66 N	69 13.32 W
202/0645	14.84	13.39	11.277	32.322	24.674	6.0	12	1.0	272	208	40 49.53 N	69 14.04 W
202/0700	14.99	13.55	11.344	32.404	24.726	5.7	24	.3	119	103	40 49.61 N	69 14.18 W
202/0715	14.93	13.49	11.326	32.310	24.662	6.4	4	2.0	276	307	40 49.24 N	69 14.92 W
202/0730	14.30	12.84	11.291	32.254	24.619	5.0	17	1.4	207	122	40 49.22 N	69 16.15 W
202/0745	14.44	12.99	11.295	32.262	24.624	5.4	29	.2	204	43	40 49.05 N	69 16.35 W
202/0000	14.40	12.95	11.300	32.241	24.607	5.0	28	.4	228	42	40 49.01 N	69 16.47 W
202/0015	13.78	12.32	11.332	32.212	24.579	4.1	32	.4	228	43	40 49.66 N	69 16.66 W
202/0030	13.89	12.43	11.305	32.136	24.524	4.5	30	.3	226	43	40 49.55 N	69 16.84 W
202/0045	13.87	12.41	11.217	32.125	24.532	5.4	62	.3	255	43	40 49.47 N	69 17.04 W
202/0901	14.21	12.75	11.104	32.092	24.527	4.6	49	.2	200	43	40 49.40 N	69 17.20 W
202/0916	14.21	12.75	11.072	32.108	24.546	4.5	44	.3	299	43	40 49.54 N	69 17.37 W
202/0931	13.96	12.40	11.074	32.160	24.585	2.0	8	1.0	285	247	40 49.60 N	69 18.00 W
202/0946	13.80	12.45	11.115	32.424	24.784	7.3	3	2.1	282	299	40 49.92 N	69 19.46 W
202/1001	12.68	11.43	11.120	32.447	24.800	7.8	326	.9	248	207	40 49.84 N	69 20.14 W
202/1016	13.25	11.80	11.124	32.449	24.801	9.5	347	.8	242	222	40 49.64 N	69 20.64 W
202/1031	13.08	11.63	11.130	32.450	24.799	9.9	354	.7	243	239	40 49.90 N	69 21.05 W
202/1046	12.98	11.52	11.147	32.453	24.800	9.0	4	.5	240	244	40 49.37 N	69 21.39 W
202/1101	13.12	11.66	11.167	32.464	24.805	10.4	8	.2	252	252	40 49.31 N	69 21.59 W
202/1116	13.53	12.07	11.189	32.475	24.809	10.3	14	.2	256	264	40 49.28 N	69 21.74 W
202/1131	13.42	11.95	11.204	32.475	24.807	8.9	21	.1	304	260	40 49.30 N	69 21.83 W
202/1146	13.60	12.13	11.303	32.468	24.783	9.1	349	2.3	287	276	40 49.50 N	69 22.69 W
202/1201	12.86	11.30	11.384	32.346	24.673	10.2	341	2.7	292	275	40 49.94 N	69 24.57 W
202/1216	13.01	11.52	11.540	32.295	24.604	10.2	352	2.6	276	265	40 50.23 N	69 26.02 W
202/1231	13.04	11.55	11.740	32.311	24.579	9.6	357	2.6	267	262	40 50.28 N	69 27.68 W
202/1246	13.25	11.76	11.770	32.403	24.645	9.8	360	2.6	268	262	40 50.16 N	69 29.36 W
202/1301	13.35	11.86	11.783	32.467	24.691	10.1	359	2.5	269	263	40 50.12 N	69 30.99 W
202/1316	13.40	11.90	11.818	32.503	24.713	10.3	1	2.4	269	262	40 50.11 N	69 32.59 W
202/1331	13.68	12.16	11.954	32.537	24.713	10.9	6	2.3	262	263	40 49.99 N	69 34.11 W
202/1346	13.91	12.34	12.032	32.542	24.702	11.4	6	1.6	92	349	40 50.37 N	69 34.66 W
202/1402	13.88	12.21	12.026	32.542	24.703	10.3	14	1.4	37	133	40 50.98 N	69 34.24 W
202/1417	13.75	12.01	12.008	32.542	24.707	10.0	13	1.7	52	68	40 51.49 N	69 33.92 W
202/1432	13.59	11.83	11.977	32.542	24.713	10.6	5	1.9	72	91	40 51.86 N	69 33.45 W
202/1447	13.67	11.90	11.887	32.537	24.726	11.1	344	1.9	105	123	40 51.84 N	69 31.14 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	ESE deg	HDG deg	LAT deg	LAT mins		LONG deg	LONG mins	
202/1502	13.68	11.92	11.791	32.530	24.739	9.5	358	1.6	143	168	40	51.36	N	69	30	23 W
202/1517	13.70	11.95	11.783	32.533	24.743	10.2	360	1.8	196	241	40	50.82	N	69	30	09 W
202/1532	13.66	11.92	11.852	32.535	24.731	10.4	346	6	265	272	40	50.65	N	69	30	39 W
202/1547	13.87	12.15	11.966	32.535	24.709	10.4	330	6	328	286	40	50.85	N	69	30	62 W
202/1602	14.07	12.36	12.025	32.535	24.698	11.1	345	5	224	294	40	51.82	N	69	30	75 W
202/1617	14.09	12.38	12.045	32.531	24.692	12.3	352	6	143	270	40	50.05	N	69	30	98 W
202/1632	13.96	12.25	12.042	32.525	24.687	12.2	346	5	161	275	40	50.58	N	69	30	83 W
202/1647	13.92	12.21	12.052	32.515	24.678	12.5	352	6	170	270	40	50.38	N	69	30	85 W
202/1702	*****	*****	12.056	32.508	24.671	12.5	354	.9	153	268	40	49.92	N	69	30	01 W
202/1717	*****	*****	12.073	32.494	24.657	12.2	344	1.3	229	275	40	49.57	N	69	30	22 W
202/1732	*****	*****	12.132	32.452	24.613	12.1	344	1.6	268	281	40	49.51	N	69	31	35 W
202/1747	*****	*****	12.165	32.379	24.550	11.7	346	1.7	266	282	40	49.46	N	69	32	35 W
202/1802	*****	*****	12.187	32.326	24.505	10.5	340	1.5	242	278	40	49.26	N	69	33	30 W
202/1817	*****	*****	12.183	32.303	24.488	10.4	352	1.4	225	271	40	48.80	N	69	34	04 W
202/1832	*****	*****	12.141	32.312	24.503	10.2	360	2.0	192	188	40	47.89	N	69	34	95 W
202/1847	14.60	12.65	11.978	32.445	24.638	10.3	351	5.6	175	171	40	45.55	N	69	34	37 W
202/1902	14.74	12.38	12.085	32.632	24.777	10.7	350	5.9	175	171	40	42.69	N	69	33	80 W
202/1917	14.85	12.09	12.067	32.659	24.786	10.3	353	5.3	175	174	40	39.97	N	69	33	54 W
202/1932	14.96	11.73	11.996	32.686	24.821	9.8	354	5.0	177	175	40	37.52	N	69	33	33 W
202/1947	14.68	11.01	12.093	32.914	24.979	9.5	350	5.0	179	174	40	34.86	N	69	33	23 W
202/2002	14.57	10.60	13.100	33.266	25.053	9.1	344	6.5	167	156	40	31.86	N	69	33	07 W
202/2017	14.76	10.60	14.632	33.341	24.791	9.5	347	6.7	179	176	40	28.61	N	69	32	17 W
202/2032	15.25	11.01	15.311	33.506	24.720	10.8	347	6.4	177	171	40	25.52	N	69	32	04 W
202/2048	15.94	11.69	18.727	33.579	24.820	12.3	354	7.2	178	173	40	22.14	N	69	31	84 W
202/2103	16.44	12.17	18.837	33.673	24.864	12.6	358	7.1	179	174	40	18.64	N	69	31	73 W
202/2118	16.53	12.17	18.632	33.656	24.103	12.9	354	7.0	170	173	40	15.21	N	69	31	61 W
202/2133	16.82	12.46	20.199	33.785	23.799	11.0	353	5.3	168	173	***	*****	*	***	*****	*
202/2148	17.04	12.62	20.229	33.845	23.837	12.5	348	6.8	179	174	40	8.42	N	69	31	37 W
202/2203	16.98	12.49	19.868	33.809	23.985	12.5	344	7.0	178	174	40	5.80	N	69	31	18 W
202/2218	17.01	12.50	19.616	33.806	23.968	12.8	342	7.2	177	174	40	1.53	N	69	30	96 W
202/2233	16.93	12.49	19.726	33.798	23.927	13.1	342	7.0	178	174	39	58.08	N	69	30	78 W
202/2248	17.13	12.71	21.286	34.102	23.750	13.7	343	7.0	176	174	39	54.67	N	69	30	50 W
202/2303	17.43	12.96	22.404	34.680	23.879	13.7	343	7.1	176	172	39	51.24	N	69	30	00 W
202/2318	17.70	13.30	23.136	35.004	23.915	13.7	344	7.1	172	168	39	47.81	N	69	29	47 W
202/2333	17.96	13.49	23.239	35.062	23.944	13.7	347	7.1	173	169	39	44.35	N	69	28	91 W
202/2348	18.20	13.61	23.308	35.110	23.945	13.6	343	7.0	173	169	39	40.93	N	69	28	35 W
203/0003	18.43	13.71	23.727	35.179	23.875	13.2	342	7.0	174	169	39	37.54	N	69	27	00 W
203/0018	18.65	13.84	23.925	35.117	23.769	12.9	339	7.0	175	169	39	34.16	N	69	27	38 W
203/0033	18.84	13.94	23.819	35.184	23.852	12.5	334	6.9	175	169	39	30.79	N	69	26	05 W
203/0048	18.90	13.90	22.509	34.647	23.824	12.5	332	6.9	174	170	39	27.46	N	69	26	44 W
203/0103	19.12	14.05	23.437	35.025	23.844	12.3	335	6.7	176	170	39	24.15	N	69	25	99 W
203/0118	19.40	14.25	24.329	34.891	23.478	12.9	337	6.7	173	170	39	20.90	N	69	25	49 W
203/0133	19.59	14.38	24.144	34.674	23.370	12.6	337	6.7	175	170	39	17.62	N	69	25	06 W
203/0148	19.75	14.51	24.646	35.066	23.515	11.4	339	5.6	173	170	***	*****	*	***	*****	*
203/0203	20.02	14.74	24.982	35.261	23.561	12.1	334	6.7	172	170	39	11.85	N	69	24	18 W
203/0218	20.24	14.89	24.664	34.955	23.426	12.9	337	6.8	173	174	39	7.75	N	69	23	65 W
203/0233	20.38	14.94	25.067	34.952	23.301	13.1	337	6.8	174	174	39	4.46	N	69	23	10 W
203/0248	20.56	15.11	25.250	34.999	23.280	11.7	333	6.9	175	174	39	1.13	N	69	22	74 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSE deg	HDG deg	LAT deg mins	LONG deg mins
203/0303	20.60	15.18	25.335	35.171	23.304	11.9	327	6.9	175	174	38 57.75 N	69 22.38 W
203/0318	20.81	15.29	25.248	35.064	23.330	11.1	324	6.9	174	174	38 54.38 N	69 21.87 W
203/0333	20.06	15.39	25.610	35.076	23.225	10.0	327	6.8	175	177	38 46.70 N	69 20.78 W
203/0408	21.15	15.56	26.021	35.291	23.261	10.0	324	6.8	179	180	38 43.46 N	69 20.73 W
203/0423	21.28	15.64	25.982	35.081	23.115	10.7	326	6.7	176	180	38 40.17 N	69 20.90 W
203/0438	21.47	15.70	26.722	35.295	23.342	11.1	322	6.7	174	184	38 36.90 N	69 20.80 W
203/0453	21.64	15.87	26.553	35.174	23.205	11.5	320	6.3	180	198	38 33.76 N	69 20.32 W
203/0508	21.62	15.90	25.790	34.666	22.862	10.8	328	3.2	175	205	38 31.69 N	69 20.42 W
203/0523	21.57	15.96	26.154	34.986	22.990	10.2	327	1.5	137	264	38 30.78 N	69 20.33 W
203/0538	21.60	16.06	26.240	35.093	23.043	10.2	325	.7	139	277	38 30.90 N	69 20.07 W
203/0553	21.72	16.16	26.303	35.126	23.048	10.2	331	1.6	96	283	38 30.80 N	69 19.60 W
203/0608	21.87	16.31	26.344	35.144	23.048	11.0	331	1.6	97	276	38 30.77 N	69 18.26 W
203/0623	21.97	16.42	26.346	35.149	23.051	9.5	345	1.3	74	190	38 30.85 N	69 17.44 W
203/0638	22.04	16.43	26.334	35.145	23.052	8.7	352	1.5	82	152	38 30.95 N	69 16.56 W
203/0653	21.75	16.14	26.352	35.154	23.053	7.4	334	1.0	93	273	38 30.97 N	69 15.81 W
203/0708	21.74	16.01	26.367	35.186	23.073	7.2	332	.9	100	268	38 30.92 N	69 15.23 W
203/0723	21.77	16.06	26.459	35.262	23.101	6.6	322	.8	106	257	38 30.83 N	69 14.76 W
203/0738	21.83	16.10	26.570	35.353	23.134	5.8	325	.7	104	264	38 30.73 N	69 14.28 W
203/0753	21.88	16.26	26.821	35.490	23.156	6.4	311	.8	102	260	38 30.66 N	69 13.79 W
203/0808	21.81	16.18	27.094	35.652	23.191	6.6	304	1.1	91	275	38 30.61 N	69 13.14 W
203/0823	21.80	16.31	27.206	35.679	23.174	7.0	304	.8	106	258	38 30.55 N	69 12.56 W
203/0838	21.92	16.35	27.225	35.683	23.170	7.0	303	.9	100	260	38 30.42 N	69 12.04 W
203/0853	22.00	16.40	27.304	35.726	23.177	7.7	305	.9	107	265	38 30.30 N	69 11.56 W
203/0908	21.95	16.17	27.335	35.764	23.196	6.7	307	.8	80	275	38 30.23 N	69 10.95 W
203/0923	21.99	16.22	27.345	35.781	23.205	5.7	304	.6	68	281	38 30.32 N	69 10.50 W
203/0938	22.00	16.34	27.380	35.789	23.200	5.8	296	.5	80	271	38 30.39 N	69 10.24 W
203/1323	23.62	17.44	27.606	35.657	23.027	6.1	266	3.7	269	270	38 29.91 N	69 16.46 W
203/1338	24.02	17.69	27.582	35.609	22.999	6.1	266	3.2	269	270	38 29.99 N	69 18.63 W
203/1353	23.95	17.69	27.612	35.599	22.981	6.2	263	2.8	277	270	38 30.09 N	69 20.16 W
203/1408	23.85	17.63	27.643	35.600	22.978	6.4	265	1.4	281	261	38 30.22 N	69 21.07 W
203/1423	24.22	18.06	27.630	35.602	22.978	9.7	263	4.2	89	119	38 30.56 N	69 19.81 W
203/1438	24.13	17.86	27.619	35.597	22.978	8.4	267	.7	162	267	38 30.79 N	69 18.53 W
203/1453	24.00	17.83	27.590	35.587	22.980	10.9	247	1.5	65	297	38 31.20 N	69 18.42 W
203/1508	24.17	17.86	27.364	35.498	22.986	10.2	271	3.1	39	38	38 32.25 N	69 17.62 W
203/1523	24.87	18.20	27.260	35.504	23.025	10.5	270	4.3	66	70	38 33.33 N	69 15.67 W
203/1538	25.30	18.21	27.092	35.506	23.081	11.0	246	4.6	90	97	38 33.76 N	69 12.95 W
203/1553	24.92	17.46	27.255	35.520	23.039	10.8	237	4.1	126	139	38 33.17 N	69 10.48 W
203/1608	24.72	16.92	27.387	35.494	22.976	12.9	264	2.7	147	209	38 32.14 N	69 8.89 W
203/1623	24.87	16.93	27.583	35.576	22.973	11.8	269	2.0	136	250	38 31.44 N	69 8.13 W
203/1638	24.95	16.79	27.692	35.706	23.035	8.2	248	2.7	240	266	38 30.82 N	69 7.79 W
203/1653	24.99	16.92	27.600	35.702	23.063	7.7	244	4.2	250	265	38 30.28 N	69 11.06 W
203/1708	*****	*****	27.597	35.823	23.154	8.4	243	4.2	264	270	38 29.94 N	69 13.62 W
203/1723	*****	*****	27.697	35.869	23.157	8.9	240	4.3	267	270	38 29.98 N	69 16.26 W
203/1738	*****	*****	27.811	35.830	23.089	9.8	239	4.8	271	267	38 29.89 N	69 18.85 W
203/1753	*****	*****	27.869	35.802	23.049	11.7	228	2.9	133	133	38 29.48 N	69 18.28 W
203/1808	*****	*****	27.858	35.802	23.052	12.3	230	2.7	104	133	38 29.08 N	69 17.80 W
203/1823	*****	*****	27.815	35.813	23.075	****	***	2.6	89	198	38 28.87 N	69 15.94 W
203/1838	25.10	18.56	27.813	35.807	23.072	13.2	241	1.6	72	271	38 29.25 N	69 14.38 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SOGPS m/sec	CSE deg	HDG deg	LAT deg mins	LONG deg mins
203/1853	25.13	18.87	27.815	35.824	23.083	13.5	242	3.6	125	191	38 28.67 N	69 13.02 W
203/1908	25.43	19.12	27.805	35.867	23.119	14.8	253	4.6	77	110	38 28.59 N	69 10.70 W
203/1923	25.26	18.79	27.804	35.864	23.117	12.0	250	1.3	155	269	38 29.00 N	69 9.52 W
203/1938	25.20	18.82	27.829	35.888	23.867	10.8	251	2.1	264	278	38 28.99 N	69 10.51 W
203/1953	25.18	18.80	27.921	35.791	23.024	8.9	261	2.1	265	278	38 28.89 N	69 11.83 W
203/2008	25.14	18.85	27.931	35.765	23.881	8.9	259	2.1	267	278	38 28.82 N	69 13.18 W
203/2023	25.19	18.73	27.915	35.780	22.964	10.4	266	1.2	182	278	38 28.00 N	69 14.05 W
203/2038	25.10	18.72	27.898	35.696	22.960	11.7	264	.3	168	266	38 28.75 N	69 13.92 W
203/2053	25.21	18.78	27.893	35.685	22.954	11.7	266	.4	237	266	38 28.66 N	69 14.00 W
203/2108	25.17	18.64	27.894	35.699	22.964	13.3	268	.4	232	265	38 28.55 N	69 14.27 W
203/2123	25.19	18.58	27.884	35.737	22.995	12.3	265	.3	232	266	38 28.44 N	69 14.45 W
203/2138	25.27	18.49	27.913	35.783	23.028	12.1	265	.3	241	265	38 28.34 N	69 14.63 W
203/2153	25.31	18.58	27.970	35.811	23.022	11.7	264	.7	183	275	38 28.26 N	69 14.68 W
203/2208	25.32	18.56	27.968	35.804	23.017	12.7	264	.6	137	266	38 28.38 N	69 14.19 W
203/2223	25.45	18.49	27.961	35.787	23.008	12.7	269	.1	177	265	38 28.24 N	69 14.18 W
203/2238	25.15	18.23	27.958	35.788	23.083	12.1	267	.1	211	265	38 28.18 N	69 14.28 W
203/2253	25.05	18.08	27.963	35.822	23.033	13.0	267	.1	193	265	38 28.14 N	69 14.42 W
203/2322	25.15	18.35	27.959	35.847	23.054	13.0	278	.1	182	265	38 28.05 N	69 14.29 W
203/2337	25.06	18.46	27.943	35.843	23.055	15.8	288	.3	223	266	38 27.99 N	69 14.56 W
203/2352	24.98	18.36	27.950	35.837	23.049	16.1	281	.3	237	265	38 27.98 N	69 14.52 W
204/0007	24.94	18.37	27.946	35.829	23.044	15.8	282	.3	240	265	38 27.81 N	69 14.47 W
204/0022	24.95	18.45	27.946	35.803	23.025	15.4	284	.3	236	267	38 27.72 N	69 14.86 W
204/0037	24.90	18.18	27.949	35.773	23.001	15.0	286	.3	248	266	38 27.64 N	69 15.83 W
204/0052	24.88	18.19	27.968	35.820	23.033	15.0	287	.5	251	266	38 27.56 N	69 15.28 W
204/0107	24.83	18.16	27.954	35.832	23.043	14.0	281	.5	254	265	38 27.49 N	69 15.57 W
204/0122	24.83	18.32	27.942	35.835	23.050	12.9	279	.5	254	266	38 27.42 N	69 15.82 W
204/0137	24.81	18.29	27.912	35.857	23.076	12.0	277	.6	257	266	38 27.36 N	69 16.08 W
204/0152	24.91	18.22	27.928	35.893	23.097	12.1	277	.7	262	266	38 27.32 N	69 16.71 W
204/0207	24.90	18.22	27.975	36.000	23.162	11.1	275	.8	267	266	38 27.28 N	69 17.19 W
204/0222	24.90	18.17	27.954	36.045	23.204	11.8	273	.8	271	266	38 27.28 N	69 17.68 W
204/0237	25.03	18.17	27.941	36.044	23.207	11.4	275	.0	274	266	38 27.30 N	69 18.17 W
204/0252	25.11	18.14	27.950	36.032	23.192	7.7	269	.7	299	274	38 27.39 N	69 18.64 W
204/0307	25.14	18.07	27.977	36.030	23.185	7.3	267	.5	332	275	38 27.61 N	69 18.83 W
204/0322	25.22	18.17	27.981	36.038	23.183	6.7	264	.5	333	276	38 27.83 N	69 18.99 W
204/0337	25.24	18.14	27.989	36.030	23.188	7.4	263	.5	339	275	38 28.04 N	69 19.10 W
204/0352	25.27	18.22	27.993	36.016	23.168	7.2	258	.5	339	275	38 28.27 N	69 19.22 W
204/0407	25.27	18.31	27.979	35.981	23.147	6.9	259	.5	336	276	38 28.51 N	69 19.35 W
204/0422	25.25	18.39	27.979	35.968	23.137	7.9	256	.8	189	276	38 28.76 N	69 19.23 W
204/0437	25.25	18.42	27.985	35.969	23.136	8.2	256	1.8	60	275	38 29.02 N	69 18.67 W
204/0452	25.26	18.61	27.985	35.967	23.135	8.4	254	1.8	58	274	38 29.28 N	69 18.14 W
204/0507	25.26	18.71	27.993	35.970	23.134	7.0	257	.4	78	268	38 29.48 N	69 17.99 W
204/0522	25.24	18.83	27.999	35.998	23.147	11.3	261	.6	194	243	38 29.47 N	69 17.97 W
204/0537	25.23	18.84	27.980	35.994	23.157	11.6	262	.8	218	246	38 29.12 N	69 18.14 W
204/0552	25.21	19.00	27.959	35.966	23.142	9.3	263	.7	263	263	38 28.98 N	69 18.49 W
204/0607	25.21	19.14	27.951	35.960	23.141	7.3	257	.7	306	271	38 29.16 N	69 18.88 W
204/0622	25.19	19.08	27.971	35.953	23.129	7.4	261	.7	305	278	38 29.38 N	69 19.27 W
204/0637	25.23	18.99	28.013	35.967	23.125	9.3	261	.7	298	260	38 29.56 N	69 19.66 W
204/0652	25.30	19.04	28.009	35.973	23.131	13.2	265	.6	285	244	38 29.38 N	69 19.80 W

15 MINUTE AVERAGES: DATA

DDD,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	HSE deg	HDG deg	LAT deg mins	LONG deg mins
204/0708	25.34	19.10	28.012	35.983	23.138	10.1	262	.5	245	261	38 29.26 N	69 28.11 W
204/0723	25.37	19.27	28.028	35.990	23.140	9.7	263	.2	95	260	38 29.38 N	69 28.14 W
204/0738	25.33	19.25	28.028	35.985	23.136	8.4	259	.3	21	264	38 29.51 N	69 28.18 W
204/0753	25.31	19.43	27.985	35.955	23.125	7.4	259	.4	318	269	38 29.69 N	69 28.11 W
204/0808	25.26	19.53	27.982	35.939	23.115	7.9	253	.4	199	278	38 29.98 N	69 28.13 W
204/0823	25.34	19.56	27.981	35.928	23.107	7.9	257	.4	140	276	38 30.13 N	69 28.13 W
204/0838	25.30	19.64	27.979	35.927	23.106	8.4	251	.5	102	278	38 30.37 N	69 28.13 W
204/0853	25.28	19.66	27.980	35.926	23.103	8.5	254	.5	131	270	38 30.63 N	69 28.07 W
204/0908	25.30	19.71	27.991	35.922	23.099	10.5	257	.4	99	265	38 30.86 N	69 28.05 W
204/0923	25.46	19.02	27.997	35.927	23.101	12.6	261	.1	156	254	38 30.91 N	69 19.92 W
204/0938	25.44	19.76	27.986	35.922	23.100	13.9	263	.1	110	251	38 30.89 N	69 19.83 W
204/0953	25.44	19.04	27.988	35.918	23.093	13.7	263	.2	142	252	38 30.85 N	69 19.84 W
204/1008	25.45	19.96	27.962	35.878	23.075	14.6	270	.2	107	251	38 30.82 N	69 19.73 W
204/1023	25.41	20.12	27.960	35.893	23.084	14.2	269	.2	101	252	38 30.79 N	69 19.60 W
204/1038	25.46	20.28	27.960	35.912	23.099	13.9	268	.2	95	251	38 30.79 N	69 19.36 W
204/1053	25.59	20.34	27.961	35.906	23.097	13.6	273	.3	110	243	38 30.76 N	69 19.32 W
204/1108	25.75	20.48	27.958	35.903	23.098	11.3	270	.7	191	247	38 30.67 N	69 19.18 W
204/1123	25.92	20.65	27.933	35.894	23.097	8.1	265	.8	303	269	38 30.71 N	69 19.40 W
204/1138	25.80	20.62	27.922	35.908	23.112	12.8	268	.6	224	242	38 30.60 N	69 19.71 W
204/1153	25.79	20.68	27.915	35.939	23.137	12.0	270	.7	209	241	38 30.48 N	69 19.97 W
204/1208	26.11	20.85	27.909	35.963	23.157	12.3	270	.7	210	241	38 30.10 N	69 20.14 W
204/1223	26.16	20.89	27.904	35.980	23.171	11.5	268	.3	175	241	38 29.87 N	69 20.26 W
204/1238	26.49	21.16	27.900	35.993	23.179	11.5	268	.3	164	241	38 29.76 N	69 20.18 W
204/1253	26.59	21.25	27.904	35.994	23.182	11.2	270	.2	164	240	38 29.63 N	69 20.12 W
204/1308	26.67	21.31	27.903	36.000	23.186	10.5	268	.3	167	240	38 29.50 N	69 20.00 W
204/1323	26.81	21.41	27.901	36.007	23.192	10.5	265	.3	176	239	38 29.36 N	69 20.06 W
204/1338	26.72	21.35	27.894	36.010	23.197	8.6	262	.0	255	205	38 29.48 N	69 20.07 W
204/1357	26.46	21.26	27.894	36.009	23.196	10.0	271	2.3	19	342	38 30.54 N	69 19.81 W
204/1412	26.97	21.65	27.912	35.995	23.180	9.4	267	3.2	41	61	*** ***** *	*** ***** *
204/1427	27.20	21.90	27.922	35.969	23.157	9.8	262	3.6	64	73	38 32.64 N	69 17.07 W
204/1442	27.75	22.23	27.929	35.955	23.144	10.1	261	3.5	89	118	38 32.94 N	69 14.85 W
204/1600	26.69	21.32	27.888	36.008	23.197	11.6	262	9	140	227	38 31.39 N	69 10.29 W
204/1615	26.59	21.21	27.867	36.012	23.207	10.4	267	1.4	85	238	38 31.31 N	69 9.60 W
204/1630	26.59	21.23	27.862	36.014	23.211	11.7	258	1.9	83	183	38 31.40 N	69 8.48 W
204/1645	26.84	21.47	27.862	36.014	23.211	11.8	254	2.8	85	154	38 31.52 N	69 7.25 W
204/1700	*****	*****	27.864	36.016	23.211	11.9	255	2.8	82	154	38 31.65 N	69 6.02 W
204/1715	*****	*****	27.823	36.021	23.229	13.2	263	2.8	204	239	38 31.24 N	69 5.36 W
204/1730	*****	*****	27.695	36.016	23.267	10.3	265	4.8	250	254	38 30.45 N	69 8.10 W
204/1745	*****	*****	27.673	36.006	23.267	5.9	259	5.2	265	264	38 30.08 N	69 11.34 W
204/1800	*****	*****	27.668	35.997	23.261	6.1	258	5.2	266	265	38 29.98 N	69 14.57 W
204/1815	*****	*****	27.668	35.998	23.262	9.2	247	3.5	196	193	38 29.68 N	69 16.75 W
204/1830	26.77	21.36	27.671	35.993	23.258	11.4	262	2.4	75	232	38 29.41 N	69 15.68 W
204/1845	26.62	21.22	27.667	35.997	23.262	11.4	255	1.2	49	263	38 30.00 N	69 15.05 W
204/1900	26.68	21.31	27.657	35.998	23.266	11.1	258	2.0	112	163	38 29.92 N	69 14.26 W
204/1915	26.79	21.39	27.667	35.986	23.254	10.9	254	2.4	116	161	38 29.41 N	69 12.91 W
204/1930	26.83	21.41	27.647	35.975	23.252	11.1	255	2.5	119	161	38 28.86 N	69 11.56 W
204/1945	26.75	21.35	27.656	35.966	23.242	11.9	261	2.2	121	188	38 28.30 N	69 10.26 W
204/2000	26.65	21.27	27.670	35.970	23.240	12.2	262	.7	136	232	38 27.98 N	69 9.72 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec.	WD deg	SHIPS m/sec	CSE deg	HDG deg	LAT deg mins	LONG deg mins
204/2015	26.57	21.22	27.671	35.980	23.240	13.2	260	1.4	177	232	30 27.61 N	69 9.64 W
204/2030	26.45	21.15	27.653	35.999	23.260	13.7	260	3.0	239	231	30 26.57 N	69 10.67 W
204/2045	26.42	21.14	27.637	36.006	23.279	13.3	262	3.0	220	232	30 25.44 N	69 11.89 W
204/2059	26.44	21.18	27.574	35.966	23.270	13.3	262	3.0	223	231	30 24.35 N	69 13.17 W
204/2114	26.45	21.20	27.700	35.946	23.213	13.4	259	3.1	223	232	30 23.25 N	69 14.40 W
204/2129	26.49	21.20	27.805	35.931	23.167	13.2	261	3.1	226	231	30 22.17 N	69 15.62 W
204/2144	26.47	21.23	28.000	35.980	23.136	12.5	259	3.0	230	235	30 21.17 N	69 17.27 W
204/2159	26.39	21.23	28.095	36.001	23.124	12.7	259	3.1	231	235	30 20.21 N	69 18.28 W
204/2214	26.42	21.29	28.037	35.929	23.089	12.7	259	3.1	231	235	30 19.26 N	69 20.20 W
204/2229	26.41	21.27	28.037	35.819	23.006	13.1	260	3.0	231	234	30 18.32 N	69 21.77 W
204/2244	26.38	21.25	28.011	35.663	22.890	12.9	261	2.9	233	235	30 17.43 N	69 23.23 W
204/2259	26.39	21.25	28.136	35.729	22.906	12.4	260	3.0	235	235	30 16.50 N	69 24.24 W
204/2314	26.30	21.27	28.266	35.871	22.969	11.8	259	3.0	236	234	30 15.75 N	69 26.30 W
204/2329	26.35	21.24	28.306	35.948	23.014	10.5	251	3.1	237	235	30 14.92 N	69 27.91 W
204/2344	26.36	21.27	28.305	35.990	23.045	8.4	240	3.1	240	235	30 14.14 N	69 29.56 W
204/2359	26.30	21.29	28.347	36.081	23.099	9.4	243	3.3	241	236	30 13.38 N	69 31.27 W
205/0014	26.34	21.26	28.364	36.053	23.072	7.0	259	3.5	242	235	30 12.57 N	69 33.13 W
205/0029	26.29	21.23	28.375	36.036	23.056	5.9	238	3.5	243	236	30 11.77 N	69 35.17 W
205/0044	26.26	21.24	28.307	36.010	23.033	5.1	227	3.5	243	235	30 10.98 N	69 37.12 W
205/0059	26.24	21.25	28.096	35.797	22.970	5.0	229	3.5	244	236	30 10.22 N	69 39.08 W
205/0114	26.30	21.30	27.757	35.422	22.801	5.5	230	3.5	241	234	30 9.43 N	69 41.02 W
205/0129	26.21	21.26	27.643	35.358	22.790	4.6	227	3.5	230	231	30 8.53 N	69 42.89 W
205/0144	26.13	21.22	27.405	35.358	22.868	5.1	231	3.5	237	231	30 7.60 N	69 44.75 W
205/0159	26.07	21.13	27.306	35.358	22.875	7.1	243	3.6	238	232	30 6.66 N	69 46.65 W
205/0214	26.03	21.12	27.505	35.358	22.836	7.1	243	3.7	239	232	30 5.73 N	69 48.57 W
205/0229	25.93	21.01	27.130	35.358	22.955	7.2	236	3.6	241	232	30 4.84 N	69 50.54 W
205/0244	25.79	20.90	26.749	35.358	23.000	7.5	239	3.6	240	231	30 3.97 N	69 52.51 W
205/0259	25.76	20.98	26.013	35.358	23.060	7.3	244	3.7	243	234	30 3.13 N	69 54.50 W
205/0314	25.67	21.93	26.876	35.350	23.040	5.1	241	4.0	251	243	30 2.47 N	69 56.24 W
205/0329	25.60	20.84	26.703	35.197	22.974	6.7	242	4.1	238	228	30 1.62 N	69 59.00 W
205/0344	25.48	20.72	26.565	33.561	21.787	7.6	256	4.2	232	227	30 .69 N	70 1.03 W
205/0359	25.45	20.70	26.386	33.327	21.660	7.3	257	4.3	232	228	37 59.11 N	70 3.11 W
205/0414	25.37	20.67	26.298	33.220	21.615	7.0	253	4.4	228	225	37 57.73 N	70 5.20 W
205/0429	25.30	20.71	26.251	33.129	21.560	7.5	246	4.6	222	221	37 56.14 N	70 7.12 W
205/0444	25.26	20.77	26.227	33.101	21.547	8.1	250	4.6	222	221	37 54.46 N	70 9.02 W
205/0459	25.18	20.82	25.976	32.993	21.544	8.4	251	4.7	223	222	37 52.77 N	70 10.98 W
205/0514	25.11	20.74	26.219	33.000	21.473	8.8	259	4.7	225	225	37 51.14 N	70 13.01 W
205/0529	25.14	20.47	26.611	33.525	21.746	8.8	257	4.8	230	231	37 49.59 N	70 15.17 W
205/0544	25.26	20.43	26.697	33.599	21.774	8.2	265	4.8	234	234	37 48.17 N	70 17.52 W
205/0559	25.15	20.46	26.639	33.430	21.671	7.5	259	4.8	234	235	37 46.79 N	70 19.92 W
205/0614	25.06	20.30	26.333	33.701	21.966	6.1	248	4.9	235	235	37 45.42 N	70 22.40 W
205/0629	24.97	20.15	26.154	34.251	22.435	5.5	250	4.9	235	233	37 44.05 N	70 24.08 W
205/0644	24.82	20.11	25.762	34.340	22.619	3.9	241	4.9	234	232	37 42.65 N	70 27.54 W
205/0659	24.30	19.98	25.733	34.340	22.634	4.0	240	4.9	231	231	37 41.10 N	70 29.76 W
205/0714	24.45	20.10	25.733	34.313	22.614	5.7	247	4.9	230	231	37 39.60 N	70 32.84 W
205/0729	24.51	20.16	25.733	34.341	22.635	4.3	236	4.9	230	230	37 38.17 N	70 34.36 W
205/0744	24.64	20.20	25.733	34.341	22.635	4.1	236	4.9	230	229	37 36.61 N	70 36.60 W
205/0759	24.69	20.08	25.733	34.342	22.635	7.8	253	4.8	229	229	37 35.05 N	70 38.94 W

15 MINUTE AVERAGES: DATA

DTG,Z	TA degC	TDP degC	TS degC	SAL ppt	SIGT g/cm**3	WS m/sec	WD deg	SHIPS m/sec	CSE deg	HDG deg	LAT deg mins	LONG deg mins
205/0014	24.52	19.84	25.733	34.341	22.635	0.5	256	4.7	229	229	37 33.52 N	70 41 14 W
205/0029	24.35	19.66	25.733	34.342	22.635	0.6	266	4.7	229	229	37 32.01 N	70 43 33 W
205/0044	24.14	19.49	25.733	34.324	22.622	2.0	260	4.7	238	238	37 30.53 N	70 45 55 W
205/0059	23.79	19.26	25.733	34.341	22.635	0.0	262	4.6	229	241	37 29.04 N	70 47 21 W
205/0914	24.08	19.40	25.733	34.342	22.636	0.1	259	4.6	229	241	37 27.56 N	70 49 07 W
205/0929	24.13	19.41	25.733	34.342	22.636	6.1	253	4.8	229	240	37 26.06 N	70 52 05 W
205/0944	24.21	19.48	25.733	34.290	22.602	6.0	254	4.7	231	238	37 24.57 N	70 54 38 W
205/0959	24.31	19.48	25.733	34.265	22.578	6.7	256	4.7	230	229	37 23.11 N	70 56 52 W
205/1014	24.20	19.48	25.733	34.256	22.571	6.6	256	4.7	238	231	37 21.62 N	70 58 21 W
205/1029	24.04	19.51	25.733	34.230	22.557	7.1	262	4.7	230	232	37 20.15 N	71 0 24 W
205/1044	23.88	19.52	25.733	34.225	22.548	7.7	263	4.7	238	231	37 18.66 N	71 3 17 W
205/1059	23.43	19.02	25.733	34.231	22.552	7.1	245	4.7	229	242	37 17 16 N	71 5 35 W
205/1113	23.32	18.82	25.733	34.236	22.556	7.0	251	4.7	228	231	37 15.67 N	71 7 58 W
205/1128	23.31	18.58	25.733	34.249	22.566	8.0	262	4.9	226	230	37 14.09 N	71 9 29 W
205/1143	23.27	18.60	25.733	34.233	22.553	5.6	264	5.0	227	240	37 12.40 N	71 11 20 W
205/1158	23.35	18.52	25.733	34.229	22.551	4.7	274	5.1	227	228	37 10.71 N	71 14 24 W
205/1213	23.23	18.54	25.733	34.247	22.564	7.6	301	6.9	200	238	37 8.31 N	71 15.12 W
205/1228	22.93	18.56	25.733	34.242	22.561	3.8	344	5.2	225	228	37 6.33 N	71 16 96 W
205/1243	22.90	18.64	25.733	34.249	22.566	3.7	8	5.1	227	238	37 4.60 N	71 19 24 W
205/1258	22.91	18.70	25.733	34.316	22.616	3.9	10	5.1	223	229	37 2.81 N	71 21 41 W
205/1313	22.90	18.82	25.733	34.346	22.638	4.3	25	5.1	235	244	37 1.16 N	71 23 23 W
205/1328	22.96	18.62	25.733	34.331	22.627	4.1	33	5.0	250	260	37 .20 N	71 26 54 W
205/1343	23.11	18.63	25.733	34.272	22.583	4.2	40	4.8	278	286	36 59.80 N	71 29 34 W
205/1359	23.34	18.01	25.733	34.270	22.588	4.6	18	.5	229	224	36 59.82 N	71 30 05 W
205/1414	23.62	19.03	24.466	34.328	23.011	6.9	49	4.1	228	37	*** ***** *	*** ***** *
205/1429	23.84	19.16	24.330	34.362	23.075	2.0	19	2.1	54	49	37 1.97 N	71 31 08 W
205/1444	23.95	19.22	24.205	34.369	23.136	5.6	357	5.1	95	97	*** ***** *	*** ***** *
205/1459	24.21	19.49	24.364	34.372	23.076	4.7	4	2.2	134	141	*** ***** *	*** ***** *
205/1514	24.50	19.68	24.940	34.332	22.872	5.7	352	2.8	183	190	36 59.47 N	71 26.25 W
205/1529	24.50	19.59	24.969	34.308	22.045	5.9	2	2.8	216	228	36 59.25 N	71 27.53 W
205/1544	*****	*****	24.811	34.271	22.065	5.4	5	2.7	254	275	36 57.64 N	71 28 97 W
205/1559	24.34	19.41	24.507	34.299	22.977	5.6	6	2.3	290	300	36 57.04 N	71 30.36 W
205/1614	24.48	19.58	24.383	34.353	23.055	6.4	8	1.4	265	281	36 58.03 N	71 31.40 W
205/1629	24.51	19.64	24.358	34.412	23.108	6.9	22	3.3	256	281	36 58.64 N	71 33.25 W
205/1644	24.50	19.64	24.525	34.409	23.055	6.9	6	.6	240	257	36 58.47 N	71 33 58 W
205/1659	24.64	19.74	24.478	34.410	23.070	7.1	5	.5	227	265	36 58.30 N	71 34 03 W
205/1714	24.50	19.68	24.528	34.415	23.059	7.2	11	2.2	238	237	36 57.94 N	71 34 45 W
205/1729	24.85	19.89	24.619	34.384	23.008	6.9	29	3.1	216	233	36 56.73 N	71 35.56 W

APPENDIX B: Parameter Summary

Parameters, calculated from the variables in accordance with IV. B, are tabulated in time here. The entrees are 15-minute averages. The parameters are:

Parameter	Description	Units
DTG, Z	Julian day/Greenwich time	day/hour, min
TA-TW	Air-water temperature difference	°C
TVA-TVW	Air-water virtual temperature difference (TVW is evaluated assuming air temperature and dew point equals water temp.-see IV.B).	°C
RH	Relative humidity	%
TAU	Stress from Smith (1980) parameterization	$dyne/cm^2$
CD	Drag Coefficient for momentum $\times 10^3$ (Smith, 1980)	- -
U*	Friction velocity	cm/sec
L	Monin-Obukhov length	m
ZO	Roughness height	cm
H	Sensible heat flux (Smith, 1980)	$watt/m^2$
E	Evaporatine heat flux (Smith, 1980)	$watt/m^2$

15 MINUTE AVERAGES, PARAMETERS

DTC.Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CD X10-3	DK cm/sec	L m	Z0 cm	H w/m**2	E w/m**2
189/0406	.58	.59	96	.210	.09	13.56	-22.3	.2244E-02	7.567	-.867
189/0437	1.74	2.00	98	.095	.01	9.99	-16.0	.1011E-02	4.031	-15.813
189/0452	1.75	2.00	98	.131	.04	10.55	-36.9	.1401E-02	2.965	-17.959
189/0507	1.99	2.20	99	.150	.06	11.54	-86.0	.1670E-02	1.660	-21.116
189/0522	1.77	2.07	**	.195	.08	12.83	-130.6	.2074E-02	1.422	-26.260
189/0537	.20	.24	**	.175	.07	12.15	-17.1	.1859E-02	9.791	-4.851
189/0552	-.83	-.97	**	.138	.04	10.70	-8.0	.1463E-02	14.570	10.473
189/0607	-3.13	-3.77	**	.161	.06	11.64	-5.7	.1706E-02	26.844	49.756
189/0622	-1.06	-2.23	**	.132	.04	10.55	-5.7	.1401E-02	19.069	26.474
189/0637	-2.69	-3.25	**	.125	.03	10.20	-4.5	.1332E-02	23.476	38.968
189/0652	-3.69	-4.57	98	.163	.06	11.74	-5.2	.1737E-02	28.776	69.024
189/0707	-3.36	-4.30	93	.191	.08	12.73	-6.0	.2041E-02	28.432	84.007
189/0722	-3.12	-4.16	90	.167	.07	11.91	-6.8	.1788E-02	26.136	82.884
189/0737	-3.25	-4.32	90	.221	.90	13.69	-8.3	.2362E-02	28.799	96.286
189/0752	-3.74	-4.99	89	.244	.91	14.39	-8.6	.2610E-02	32.458	116.357
189/0807	-3.72	-5.00	88	.229	.90	13.97	-8.0	.2448E-02	31.739	117.228
189/0822	-3.46	-4.71	87	.203	.89	13.14	-7.2	.2175E-02	29.261	108.371
189/0837	-3.17	-4.37	87	.234	.91	14.11	-9.1	.2509E-02	28.287	118.262
189/0852	-3.02	-4.28	87	.216	.90	13.56	-8.5	.2315E-02	27.329	105.895
189/0907	-2.97	-4.17	86	.229	.90	13.97	-9.3	.2460E-02	27.467	109.864
189/0922	-2.84	-4.03	85	.327	.95	16.68	-14.0	.3506E-02	29.335	135.550
189/0937	-2.77	-3.95	85	.261	.92	14.92	-11.4	.2805E-02	27.299	114.968
189/0952	-2.78	-3.95	86	.238	.91	14.25	-10.1	.2559E-02	26.680	108.434
189/1007	-2.73	-3.91	85	.226	.93	15.35	-12.3	.2968E-02	27.418	116.526
189/1022	-2.67	-3.86	84	.255	.92	14.75	-11.3	.2739E-02	26.501	114.809
189/1037	-2.65	-3.90	82	.296	.94	15.89	-13.7	.3179E-02	27.389	127.848
189/1052	-2.57	-3.81	82	.194	.08	12.87	-8.2	.2085E-02	24.174	186.770
189/1108	-2.40	-3.60	83	.153	.06	11.41	-6.2	.1640E-02	22.410	92.454
189/1123	-2.46	-3.70	82	.244	.91	14.43	-11.2	.2623E-02	24.984	117.803
189/1138	-2.46	-3.62	80	.190	.08	12.73	-8.4	.2041E-02	22.942	102.624
189/1153	-2.51	-3.81	80	.111	.02	9.73	-4.1	.1192E-02	21.031	82.376
189/1208	-2.16	-3.39	80	.122	.03	10.22	-5.0	.1315E-02	19.946	86.512
189/1223	-2.43	-3.69	81	.163	.06	11.70	-6.8	.1747E-02	22.585	100.380
189/1238	-2.39	-3.65	80	.190	.08	12.73	-8.3	.2041E-02	23.129	107.353
189/1253	-2.30	-3.57	80	.151	.05	11.34	-6.3	.1620E-02	21.507	97.328
189/1308	-2.14	-3.36	80	.179	.07	12.35	-8.2	.1922E-02	21.513	101.232
189/1323	-2.80	-3.20	81	.229	.90	13.97	-11.4	.2460E-02	22.485	118.762
189/1338	-2.00	-4.31	80	.187	.08	12.63	-8.0	.2008E-02	21.429	105.269
189/1353	-2.06	-3.26	81	.204	.09	13.21	-9.9	.2190E-02	21.756	104.660
189/1408	-2.05	-3.26	80	.210	.09	13.38	-10.3	.2256E-02	21.804	107.293
189/1423	-2.10	-3.32	80	.205	.09	13.24	-9.9	.2210E-02	21.973	107.013
189/1438	-2.07	-3.25	81	.260	.93	14.09	-13.4	.2792E-02	22.904	115.258
189/1738	-1.89	-3.32	73	.112	.02	9.79	-4.7	.1208E-02	18.476	97.870
189/1753	-1.93	-3.35	74	.092	.01	9.19	-3.9	.1047E-02	18.178	90.812
189/1808	-1.57	-3.05	71	.077	.79	8.13	-3.1	.8334E-03	16.169	85.188
189/1823	-1.36	-2.87	69	.064	.70	7.49	-2.5	.6873E-03	15.005	80.114
189/1838	-2.30	-3.78	74	.051	.76	6.59	-1.5	.5473E-03	17.395	78.581
189/1853	-2.34	-3.06	73	.148	.05	11.24	-6.1	.1592E-02	21.613	117.045

15 MINUTE AVERAGES, PARAMETERS

DTG,Z	Ta-Tw deqC	Tva-Tvw deqC	RH %	TAU d/cm**2	CD X10-3	Ua cm/sec	L m	Zo cm	H w/m**2	λE w/m**2
189/1900	-2.35	-3.87	73	.863	.70	7.36	-2.8	.6016E-03	18.229	79.403
189/1923	-2.32	-3.93	72	.870	.70	7.23	-2.5	.5922E-03	18.605	85.750
189/1938	-2.25	-3.79	72	.177	.87	12.50	-7.9	.1901E-02	22.842	127.230
189/1953	-2.14	-3.69	71	.155	.86	11.51	-6.8	.1669E-02	20.838	121.252
189/2008	-1.85	-3.30	71	.127	.84	10.41	-5.6	.1366E-02	18.714	109.909
189/2023	-1.86	-3.39	71	.153	.86	11.44	-7.2	.1691E-02	19.484	112.503
189/2038	-1.85	-3.33	72	.240	.91	14.35	-12.9	.2504E-02	21.332	139.674
189/2053	-1.87	-3.36	72	.251	.91	14.64	-13.6	.2700E-02	21.592	134.808
189/2108	-1.89	-3.37	73	.321	.95	16.57	-18.5	.3460E-02	22.949	150.207
189/2123	-1.86	-3.20	74	.406	.98	18.64	-25.1	.4375E-02	24.057	166.634
189/2143	-1.80	-3.19	75	.407	1.01	20.41	-32.2	.5240E-02	24.639	177.262
189/2158	-1.87	-3.29	74	.457	1.00	19.76	-29.1	.4921E-02	24.762	174.856
189/2213	-1.94	-3.34	75	.590	1.05	22.46	-39.2	.6354E-02	26.938	192.648
189/2228	-1.76	-3.18	74	.614	1.05	22.93	-41.8	.6623E-02	25.709	192.980
189/2243	-1.84	-3.25	75	.545	1.03	21.60	-35.7	.5879E-02	25.637	187.824
189/2258	-1.95	-3.32	76	.492	1.02	20.62	-31.2	.5302E-02	25.065	174.328
189/2313	-1.85	-3.24	75	.520	1.03	21.10	-34.5	.5609E-02	25.372	182.100
189/2328	-2.21	-3.62	77	.381	.97	18.04	-21.8	.4188E-02	26.119	161.875
189/2343	-2.28	-3.66	78	.376	.97	17.93	-20.3	.4050E-02	26.548	156.717
189/2358	-2.15	-3.49	78	.448	1.06	19.57	-26.2	.4822E-02	26.247	164.803
190/0013	-2.40	-3.77	78	.306	.94	16.17	-15.2	.3296E-02	25.994	143.262
190/0028	-2.46	-3.82	79	.307	.90	18.19	-20.0	.4168E-02	28.016	152.103
190/0043	-2.44	-3.77	80	.384	.98	18.11	-19.9	.4134E-02	27.056	152.145
190/0058	-2.56	-3.91	80	.417	.99	18.86	-21.8	.4481E-02	29.207	159.746
190/0113	-2.59	-3.99	79	.394	.98	18.38	-19.8	.4236E-02	29.101	161.656
190/0128	-2.56	-3.96	79	.435	.99	19.27	-22.5	.4679E-02	29.674	168.159
190/0143	-2.54	-3.90	80	.426	.99	19.08	-22.1	.4588E-02	29.347	162.710
190/0158	-2.51	-3.87	79	.452	1.00	19.65	-24.0	.4864E-02	29.526	167.823
190/0213	-2.58	-3.86	80	.493	1.02	20.52	-26.7	.5307E-02	30.178	172.379
190/0228	-2.40	-3.78	81	.568	1.04	22.03	-32.8	.6013E-02	31.159	174.942
190/0243	-2.47	-3.74	82	.626	1.06	23.13	-36.1	.6737E-02	31.903	177.643
190/0258	-2.41	-3.67	82	.685	1.07	24.20	-41.0	.7375E-02	32.227	182.803
190/0313	-2.37	-3.62	82	.676	1.07	24.04	-40.0	.7279E-02	31.710	180.755
190/0328	-2.39	-3.67	81	.741	1.09	25.16	-45.4	.7974E-02	32.755	192.069
190/0343	-2.39	-3.66	81	.765	1.10	25.56	-47.2	.8251E-02	33.007	192.582
190/0358	-2.37	-3.62	82	.680	1.07	24.12	-41.1	.7327E-02	31.793	181.287
190/0413	-2.29	-3.52	82	.769	1.10	25.64	-48.9	.8289E-02	32.169	187.217
190/0428	-2.07	-3.28	81	.504	1.02	20.75	-31.8	.5426E-02	26.937	155.941
190/0443	-1.88	-3.09	80	.545	1.03	21.60	-36.2	.5879E-02	25.967	159.568
190/0458	-1.81	-2.98	81	.723	1.09	24.08	-52.8	.7796E-02	27.199	174.270
190/0513	-1.73	-2.89	80	.557	1.04	21.03	-39.1	.6006E-02	24.047	156.834
190/0529	-1.65	-2.79	81	.657	1.07	23.22	-49.5	.7802E-02	25.102	163.916
190/0544	-1.82	-2.92	82	.716	1.08	24.26	-51.9	.7721E-02	27.244	168.169
190/0559	-1.78	-2.77	85	.673	1.07	24.00	-48.7	.7254E-02	26.438	165.761
190/0614	-1.59	-2.58	86	.508	1.05	22.42	-43.8	.6332E-02	24.907	154.588
190/0629	-.99	-1.76	85	.566	1.04	21.99	-42.6	.6093E-02	18.848	183.704
190/0644	-.19	-.80	85	.511	1.02	20.91	-38.8	.5507E-02	12.169	79.727
190/0659	.06	-.49	84	.359	.97	17.42	-49.2	.3868E-02	10.281	63.646

15 MINUTE AVERAGES: PARAMETERS

DTG Z	TA-TW deqC	TVA-TVW deqC	RH %	TKE d/cm**2	CD X10-3	UA cm/sec	L m	ZO cm	Q w/m**2	F w/m**2
190/0714	.25	-.06	89	.270	.92	15.17	-35.5	.2900E-02	9.160	32.45
190/0729	1.09	1.05	92	.262	.92	14.92	-74.0	.2885E-02	4.199	6.354
190/0744	.66	.63	95	.313	.94	16.58	-62.2	.3340E-02	6.473	3.858
190/0759	.02	-.10	96	.307	.94	16.19	-36.0	.3201E-02	10.639	13.035
190/0814	-.08	-.21	96	.298	.93	15.67	-31.9	.3094E-02	11.235	13.931
190/0829	-.14	-.28	96	.324	.95	16.57	-36.4	.3460E-02	11.666	15.712
190/0844	-.13	-.28	96	.309	.94	16.17	-34.1	.3296E-02	11.589	16.057
190/0859	-.05	-.19	96	.236	.91	13.15	-24.9	.2522E-02	11.041	15.944
190/0914	.22	.11	95	.209	.89	13.31	-23.1	.2233E-02	9.539	10.419
190/0929	.29	.18	95	.221	.90	13.69	-26.2	.2362E-02	9.140	10.595
190/0944	.32	-.14	83	.233	.90	14.04	-29.8	.2484E-02	8.922	45.207
190/0959	.37	.24	93	.245	.91	15.39	-32.4	.2610E-02	8.598	15.238
190/1014	.13	-.07	92	.253	.91	14.64	-29.4	.2700E-02	9.969	20.240
190/1029	.50	.36	92	.262	.92	14.89	-39.7	.2792E-02	7.763	14.124
190/1044	.45	.32	93	.287	.93	15.60	-44.0	.3066E-02	7.900	15.157
190/1059	.42	.27	93	.336	.95	16.86	-56.2	.3583E-02	7.965	16.724
190/1114	.63	.51	92	.381	.97	17.97	-85.5	.4064E-02	6.329	14.602
190/1129	.63	.49	92	.408	.98	18.41	-93.4	.4270E-02	6.233	17.134
190/1144	.84	.75	92	.274	.93	15.24	-59.8	.2927E-02	5.598	10.346
190/1159	.80	.82	93	.269	.92	15.10	-59.2	.2873E-02	5.487	6.351
190/1214	.88	.84	93	.333	.95	16.79	-90.5	.3552E-02	4.083	5.203
190/1229	1.00	.99	93	.383	.97	18.08	-148.7	.4083E-02	3.660	2.386
190/1244	.84	.79	93	.459	1.00	19.73	-166.1	.4902E-02	4.311	8.891
190/1259	.95	.91	93	.458	1.00	19.54	-194.9	.4886E-02	3.570	6.733
190/1314	1.08	1.05	92	.479	1.01	20.14	-310.4	.5111E-02	2.395	4.607
190/1329	.93	.88	92	.318	.95	16.16	-88.5	.3400E-02	4.623	6.954
190/1344	1.20	1.25	91	.506	1.02	20.72	-1368.	.5406E-02	610	5.003
190/1359	1.03	1.02	93	.479	1.01	20.14	-200.8	.5111E-02	2.723	3.650
190/1513	1.45	1.45	91	.351	.96	17.27	-530.2	.3756E-02	.092	1.685
190/1528	1.30	1.30	92	.626	1.06	23.05	2209.8	.6691E-02	-.517	1.824
190/1544	1.20	1.20	93	.820	1.11	26.32	2064.2	.8763E-02	-.029	1.604
190/1559	1.35	1.35	92	.861	1.12	27.05	724.9	.9204E-02	-2.541	1.179
190/1614	1.41	1.42	91	.789	1.10	25.09	600.4	.8442E-02	-2.695	.870
190/1629	1.46	1.47	91	.769	1.10	24.89	512.9	.8442E-02	-3.154	.042
190/1644	1.54	1.56	91	.776	1.10	24.60	416.3	.8310E-02	-3.796	-1.920
190/1659	1.79	1.84	90	.557	1.04	21.76	236.3	.5963E-02	-4.864	-3.964
190/1714	1.47	1.52	92	.801	1.10	26.09	495.6	.8575E-02	-3.341	-5.604
190/1729	1.54	1.63	93	.524	1.03	21.10	518.6	.5609E-02	-1.689	-9.829
190/1744	1.36	1.43	94	.430	.99	19.12	-1059.	.4606E-02	615	-6.671
190/1759	1.26	1.32	94	.469	1.01	19.95	-682.1	.5015E-02	1.006	-6.253
190/1814	1.37	1.43	93	.414	.99	18.75	-819.2	.4420E-02	.750	-6.080
190/1829	.96	.99	95	.373	.97	17.78	-131.0	.3903E-02	4.001	-1.405
190/1844	.58	.53	95	.153	.06	11.37	-17.2	.1630E-02	7.974	4.240
190/1859	-.20	-.38	98	.173	.07	12.08	-13.5	.1849E-02	12.199	8.463
190/1914	-.04	-.17	96	.315	.94	16.32	-36.7	.3355E-02	11.041	14.306
190/1929	.16	.05	95	.083	.88	8.35	-5.3	.0791E-03	10.181	7.824
190/1944	.15	.02	94	.158	.06	11.58	-14.4	.1688E-02	10.020	11.313
191/0154	.21	.07	93	.199	.88	12.93	-28.8	.2107E-02	9.716	12.857

15 MINUTE AVERAGES: PARAMETERS

DOY.Z	TA-TW degF	TVA-TVW degF	RH %	TAU d/cm**2	CD X10-3	UA cm/sec	L m	Z0 cm	H w/m**2	E w/m**2
191/0209	1.50	1.61	95	.033	.73	5.22	-1.8	.3933E-03	7.275	-3.959
191/0224	2.14	2.39	97	.036	.74	5.40	-2.0	.3790E-03	5.537	-10.000
191/0239	2.24	2.50	97	.052	.76	6.56	-6.1	.5423E-03	4.294	-12.572
191/0254	3.26	3.67	97	.070	.70	7.62	-58.7	.7402E-03	-.102	-22.765
191/0309	3.07	3.46	98	.096	.81	8.92	-63.2	.1003E-02	-3.051	-25.866
191/0324	3.00	3.39	99	.012	.60	3.11	-.4	.1222E-03	6.508	-9.523
191/0339	3.53	3.97	98	.015	.70	3.56	-.8	.1596E-03	5.005	-12.143
191/0354	3.90	4.39	98	.070	.79	8.07	-16.4	.8206E-03	-2.995	-28.640
191/0409	3.29	3.71	98	.100	.82	9.50	-30.2	.1137E-02	-2.655	-28.395
191/0424	2.22	2.58	98	.102	.81	9.71	-36.5	.1069E-02	2.084	-18.229
191/0439	2.27	3.68	98	.083	.88	8.32	-53.2	.8725E-03	-1.853	-24.707
191/0454	3.64	4.09	98	.071	.78	7.67	-28.8	.7402E-03	-1.464	-25.759
191/0509	3.16	3.56	99	.061	.77	7.14	-40.9	.6423E-03	.833	-21.184
191/0524	3.65	4.18	99	.087	.88	8.40	-21.1	.9059E-03	-2.705	-27.700
191/0539	4.57	5.12	99	.053	.76	6.65	-9.9	.5574E-03	-2.784	-27.465
191/0554	5.29	5.95	**	.064	.78	7.29	-5.7	.6702E-03	-6.398	-35.532
191/0609	4.24	4.74	**	.156	.85	11.34	-19.2	.1620E-02	-9.602	-48.568
191/0624	2.21	2.47	**	.207	.89	13.04	-104.5	.2141E-02	-1.124	-24.834
191/0639	3.65	4.10	**	.265	.92	14.78	-26.6	.2752E-02	-11.359	-45.079
191/0655	3.38	3.79	**	.306	.94	15.85	-33.9	.3165E-02	-11.087	-44.616
191/0710	4.24	4.74	**	.250	.91	14.32	-19.2	.2584E-02	-14.323	-50.037
191/0725	******	******	**	.251	.91	14.31	******	.2588E-02	********	*********
191/0740	3.69	4.16	**	.290	.93	15.42	-27.5	.2996E-02	-12.461	-58.423
191/0755	3.23	3.67	**	.253	.91	14.39	-33.5	.2610E-02	-8.330	-49.071
191/0810	2.26	2.56	**	.215	.89	13.24	-130.3	.2218E-02	-1.572	-20.069
191/0825	3.01	4.25	**	.550	1.03	21.41	-43.9	.5774E-02	-28.930	-62.758
191/0840	3.69	4.12	**	.505	1.04	21.91	-47.0	.6049E-02	-28.688	-61.560
191/0855	2.58	2.76	**	.217	.89	13.31	-74.3	.2243E-02	-2.973	-25.494
191/0910	2.13	2.35	99	.145	.85	10.80	-1410.2	.1490E-02	1.020	-17.111
191/0925	2.05	2.25	99	.215	.89	13.24	-522.1	.2210E-02	-.417	-19.073
191/0940	2.28	2.51	99	.042	.74	5.84	-3.8	.4297E-03	4.951	-10.473
191/0955	1.90	2.09	99	.110	.82	9.47	-25.1	.1130E-02	3.174	-13.081
191/1010	1.19	1.30	99	.115	.82	9.66	-13.9	.1176E-02	6.080	-7.695
191/1025	1.20	1.32	99	.209	.89	13.04	-46.4	.2141E-02	4.474	-10.765
191/1040	.90	1.00	99	.297	.93	15.53	-72.6	.3030E-02	4.034	-10.196
191/1055	1.31	1.43	99	.220	.89	13.38	-60.3	.2256E-02	3.727	-11.786
191/1110	1.20	1.33	**	.332	.95	16.43	-138.2	.3400E-02	3.007	-14.842
191/1125	.90	1.01	**	.141	.84	10.71	-16.5	.1445E-02	6.972	-8.470
191/1140	.74	.85	**	.112	.82	9.53	-10.1	.1145E-02	8.074	-8.282
191/1155	.99	1.14	**	.266	.92	14.71	-58.0	.2726E-02	5.027	-15.582
191/1210	1.28	1.44	**	.310	.94	15.09	-136.0	.3179E-02	2.762	-18.673
191/1225	1.51	1.69	**	.350	.95	16.06	-642.7	.3583E-02	.699	-21.212
191/1241	******	******	**	********	*****	******	******	**********	********	*********
191/1257	******	******	**	********	*****	******	******	**********	********	*********
191/1312	******	******	**	********	*****	******	******	**********	********	*********
191/1327	******	******	**	********	*****	******	******	**********	********	*********
191/1342	******	******	**	********	*****	******	******	**********	********	*********
191/1357	******	******	**	********	*****	******	******	**********	********	*********

15 MINUTE AVERAGES: PARAMETERS

DTG.Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CD X10-3	UA cm/sec	L m	ZB cm	H w/m**2	E w/m**2
191/1412	******	******	**	*******	*****	******	******	*********	********	*********
191/1432	******	******	**	.268	.92	14.78	******	.2753E-02	********	*********
191/1447	******	******	**	.202	.80	12.86	******	.2004E-02	********	*********
191/1502	******	******	98	.162	.76	11.91	******	.1660E-02	********	*********
191/1517	******	******	96	.141	.84	10.74	******	.1453E-02	********	*********
191/1532	******	******	97	.200	.88	12.78	******	.2050E-02	********	*********
191/1547	******	******	96	.215	.89	13.20	******	.2220E-02	********	*********
191/1602	******	******	95	.192	.80	12.92	******	.1974E-02	********	*********
191/1617	******	******	95	.210	.89	13.16	******	.2162E-02	********	*********
191/1632	******	******	94	.094	.81	8.80	******	.9240E-03	********	*********
191/1647	******	******	93	.100	.83	9.00	******	.1039E-02	********	*********
191/1702	5.55	6.06	93	.116	.82	9.78	6.9	.1204E-02	-12.661	-36.107
191/1717	5.33	5.88	93	.165	.86	11.67	9.6	.1714E-02	-15.563	-39.836
191/1732	5.32	5.77	91	.168	.86	11.80	9.8	.1755E-02	-15.749	-37.230
191/1747	5.53	5.98	90	.141	.84	10.70	8.8	.1464E-02	-14.692	-34.702
191/1802	3.66	3.69	91	*******	*****	******	******	*********	********	*********
191/1817	5.30	5.73	91	.004	.80	0.34	6.3	.8756E-03	-0.617	-26.288
191/1832	5.63	6.12	91	.071	.78	7.65	5.8	.7360E-03	-8.292	-27.446
191/1847	5.16	5.60	92	.093	.80	8.77	7.8	.9605E-03	-8.920	-28.473
191/1902	5.39	5.84	91	.132	.84	10.42	7.9	.1360E-02	-13.332	-33.280
191/1917	5.23	5.65	90	.079	.79	8.16	6.3	.8257E-03	-7.025	-24.346
191/1932	5.30	5.83	91	.057	.77	6.84	5.3	.5900E-03	-5.652	-25.069
191/1947	5.39	5.85	91	.033	.73	5.24	6.5	.3456E-03	-2.876	-10.110
191/2002	5.13	5.55	91	.071	.78	7.65	6.4	.7335E-03	-6.584	-23.000
191/2017	5.35	5.80	91	.075	.79	7.89	5.9	.7836E-03	-7.042	-26.040
191/2032	5.30	5.82	90	.066	.78	7.39	5.5	.6838E-03	-6.825	-23.806
191/2047	5.20	5.62	90	.044	.75	6.04	6.1	.4600E-03	-3.300	-19.057
191/2102	5.43	5.86	89	.070	.78	7.50	5.5	.7247E-03	-7.472	-23.412
191/2117	5.27	5.67	89	.065	.78	7.35	5.8	.6800E-03	-6.404	-21.000
191/2132	5.02	5.42	90	.108	.82	9.44	8.1	.1132E-02	-9.776	-26.026
191/2147	5.24	5.65	90	.044	.75	6.01	6.0	.4545E-03	-3.406	-10.721
191/2202	5.39	5.82	90	.056	.76	6.77	5.3	.5775E-03	-5.522	-21.681
191/2217	5.12	5.53	90	.025	.72	4.57	-141.1	.2628E-03	.063	-14.190
191/2232	4.90	5.29	90	.057	.77	6.88	7.1	.5965E-03	-4.270	-12.831
191/2247	5.15	5.57	91	.024	.71	4.41	-21.5	.2445E-03	.372	-14.195
191/2305	******	******	**	*******	*****	******	******	*********	********	*********
191/2320	2.72	2.86	**	*******	*****	******	******	*********	********	*********
191/2335	2.67	2.82	**	*******	*****	******	******	*********	********	*********
191/2355	5.11	5.49	89	.037	.74	5.57	7.7	.3903E-03	-2.104	-15.721
192/0010	5.16	5.53	88	.048	.74	5.74	6.8	.4146E-03	-2.568	-16.009
192/0025	5.36	5.78	90	.022	.71	4.29	-37.0	.2324E-03	.200	-14.083
192/0040	4.68	5.03	90	.025	.72	4.52	-7.7	.2571E-03	1.119	-12.152
192/0055	4.77	5.13	90	.107	.82	9.38	9.0	.1100E-02	-8.613	-24.430
192/0110	4.89	5.29	91	.066	.78	7.38	7.2	.6864E-03	-5.233	-21.720
192/0125	4.68	5.09	93	.058	.77	6.94	8.5	.6061E-03	-3.694	-21.300
192/0140	4.49	4.88	93	.034	.73	5.38	-1105.	.3535E-03	.014	-15.751
192/0155	4.71	5.09	91	.089	.80	8.56	8.5	.9220E-03	-6.877	-23.614
192/0210	4.53	4.92	94	.112	.82	9.61	10.3	.1164E-02	-8.039	-27.584

15 MINUTE AVERAGES: PARAMETERS

DTG_Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	ED X10-3	U* cm/sec	L m	Z0 cm	H w/m**2	E w/m**2
192/0225	4.19	4.59	96	.050	.76	6.41	19.8	.5120E-03	-1.244	-19.462
192/0240	4.20	4.58	95	.069	.78	7.55	12.5	.7177E-03	-3.214	-21.721
192/0255	4.47	4.86	94	.040	.78	3.85	-1.9	.1078E-03	2.879	-11.065
192/0310	4.69	5.09	93	.024	.71	4.42	-6.2	.2460E-03	1.294	-13.734
192/0325	4.74	5.12	91	.031	.73	5.02	267.7	.3169E-03	-.044	-14.213
192/0340	4.77	5.13	90	.034	.73	5.30	20.3	.3543E-03	-.605	-14.478
192/0355	4.39	4.74	92	.097	.81	8.96	10.6	.1011E-02	-6.345	-22.549
192/0410	4.72	5.12	92	.065	.78	7.33	8.1	.6766E-03	-4.567	-21.467
192/0425	3.90	4.26	96	.076	.79	7.00	16.9	.7832E-03	-7.723	-21.540
192/0440	4.17	4.56	96	.095	.81	8.82	12.3	.9805E-03	-5.240	-25.710
192/0455	3.73	4.00	96	.069	.78	7.54	24.7	.7153E-03	-1.625	-19.536
192/0510	2.78	3.05	99	.096	.81	8.86	-419.1	.9804E-03	.155	-18.275
192/0525	2.97	3.27	99	.100	.82	9.47	61.9	.1110E-02	-1.264	-21.133
192/0540	3.07	3.39	99	.005	.66	2.01	-.1	.5074E-04	8.082	-5.361
192/0555	3.61	4.00	99	.065	.77	7.28	43.6	.6674E-03	-.020	-21.364
192/0610	3.32	3.68	99	.194	.88	12.60	37.8	.2008E-02	-6.748	-32.245
192/0625	2.79	3.09	99	.132	.84	10.48	66.5	.1362E-02	-1.582	-22.506
192/0640	3.07	3.48	**	.104	.81	9.24	58.6	.1075E-02	-1.458	-22.665
192/0655	3.31	3.67	**	.006	.66	2.25	-.1	.6384E-04	7.453	-6.640
192/0710	3.68	4.08	99	.019	.70	3.96	-1.4	.1973E-03	4.163	-12.726
192/0725	3.69	4.08	**	.005	.66	2.11	-.1	.5594E-04	7.203	-7.035
192/0740	2.81	3.11	**	.015	.69	3.46	-.6	.1501E-03	6.446	-8.488
192/0755	2.52	2.79	**	.023	.71	4.32	-1.3	.2351E-03	5.960	-9.160
192/0810	2.37	2.62	99	.090	.00	8.59	-29.5	.9305E-03	2.015	-15.773
192/0825	2.81	3.10	99	.119	.83	9.87	83.6	.1226E-02	-1.076	-21.410
192/0840	1.22	1.34	**	.036	.74	5.40	-1.0	.3668E-03	0.100	-5.209
192/0855	.99	1.08	**	.093	.80	8.71	-8.4	.9557E-03	7.347	-6.180
192/0910	1.75	1.77	99	*******	*****	******	******	*********	********	*********
192/0926	.76	.77	**	*******	*****	******	******	*********	********	*********
192/0941	.71	.72	**	*******	*****	******	******	*********	********	*********
192/0956	1.56	1.71	99	.206	.88	12.96	-88.6	.2117E-02	2.533	-14.436
192/1011	1.44	1.58	99	.059	.77	6.93	-4.7	.6059E-03	6.584	-7.363
192/1026	1.62	1.77	99	.126	.83	10.15	-24.0	.1297E-02	3.944	-11.086
192/1041	2.24	2.48	**	.227	.90	14.63	143.5	.2339E-02	-1.775	-23.706
192/1056	2.54	2.81	**	.119	.83	9.85	-985.7	.1222E-02	.099	-19.677
192/1111	1.39	1.52	99	.096	.81	8.83	-11.3	.9838E-03	5.699	-8.691
192/1126	1.49	1.64	99	.113	.82	9.57	-17.0	.1154E-02	4.830	-10.262
192/1141	2.08	2.28	99	.211	.89	13.11	445.9	.2166E-02	-.474	-18.403
192/1156	3.09	3.41	99	.123	.83	10.03	37.7	.1267E-02	-2.504	-23.222
192/1211	3.58	3.95	99	.107	.82	9.30	20.8	.1088E-02	-3.717	-26.147
192/1226	******	******	99	.065	.77	7.29	******	.6695E-03	********	*********
192/1241	3.55	3.91	98	.056	.76	6.80	-399.9	.5026E-03	.074	-18.776
192/1256	3.68	4.03	97	.094	.80	8.76	19.4	.9676E-03	-3.251	-22.885
192/1311	3.56	3.87	95	.098	.81	8.90	22.0	.1016E-02	-4.882	-20.633
192/1326	3.28	3.53	94	.129	.83	10.29	27.9	.1334E-02	-3.655	-18.456
192/1341	3.39	3.63	92	.274	.92	14.97	41.3	.2824E-02	-10.050	-23.053
192/1356	3.83	4.13	93	.432	.99	18.81	34.0	.4459E-02	-17.901	-36.942
192/1411	3.48	3.72	93	.501	1.01	20.26	46.1	.5170E-02	-16.095	-32.809

15 MINUTE AVERAGES: PARAMETERS

DIG.Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	ED X10-3	UB cm/sec	L m	ZO cm	H w/m**2	E w/m**2
192/1426	3.20	3.40	97	.300	.97	17.05	43.9	.3997E-02	-12.072	-23.709
192/1441	3.20	3.38	98	.311	.94	15.95	30.1	.3607E-02	-9.997	-19.330
192/1558	3.02	3.20	92	.205	.93	15.27	41.5	.2930E-02	-8.041	-19.302
192/1613	3.05	3.24	92	.376	.97	17.54	47.4	.5078E-02	-10.644	-21.743
192/1628	3.10	3.38	91	.372	.96	17.44	43.1	.5043E-02	-11.526	-21.901
192/1643	2.99	3.10	92	.285	.93	15.27	42.2	.2936E-02	-7.892	-18.719
192/1658	3.05	3.25	92	.274	.92	14.97	39.6	.2823E-02	-7.930	-17.710
192/1726	3.01	3.21	92	.244	.91	14.14	39.1	.2518E-02	-6.769	-17.154
192/1741	******	******	**	*******	*****	******	*****	*********	********	*********
192/1756	4.01	4.27	90	.235	.90	13.80	20.4	.2427E-02	-12.298	-25.240
192/1811	3.94	4.26	93	.061	.77	7.89	20.2	.6326E-03	-1.689	-16.674
192/1826	3.82	4.12	93	.052	.76	6.54	24.5	.5396E-03	-.352	-14.696
192/1841	4.24	4.56	92	.054	.76	6.64	15.5	.5510E-03	-1.771	-16.220
192/1856	4.21	4.49	89	.055	.76	6.75	15.3	.5741E-03	-1.089	-13.779
192/1911	3.51	3.72	90	.023	.71	4.33	-4.9	.2360E-03	3.913	-7.057
192/1926	3.50	3.72	91	.024	.72	4.46	-2.2	.2506E-03	3.741	-7.610
192/1941	3.62	3.94	95	.012	.68	3.09	-.5	.1206E-03	5.686	-7.912
192/1956	3.38	3.60	92	.019	.70	3.98	-1.3	.1994E-03	4.714	-7.857
192/2011	3.59	3.86	93	.029	.72	4.87	-3.7	.2983E-03	2.900	-10.241
192/2026	3.56	3.82	92	.072	.78	7.67	34.6	.7409E-03	-1.221	-14.952
192/2041	3.83	4.06	89	.006	.60	0.38	16.9	.8057E-03	-3.264	-13.793
192/2056	3.73	4.00	92	.032	.73	5.09	-5.6	.3261E-03	2.214	-10.299
192/2111	3.58	3.89	95	.027	.72	4.72	-3.1	.2810E-03	3.147	-11.422
192/2126	3.82	4.18	96	.054	.76	6.67	48.5	.5517E-03	-.574	-17.963
192/2141	3.84	4.20	96	.018	.70	3.89	-1.4	.1907E-03	3.970	-11.293
192/2156	3.56	3.94	99	.025	.72	4.52	-2.5	.2574E-03	3.500	-13.509
192/2211	3.35	3.73	**	.020	.72	4.77	-2.8	.2866E-03	3.589	-14.427
192/2226	3.57	3.99	**	.039	.74	5.63	-9.5	.3990E-03	1.765	-16.099
192/2241	3.55	3.98	**	.092	.88	8.72	24.0	.9579E-03	-2.697	-27.776
192/2256	3.91	4.37	**	.088	.88	8.52	15.3	.9153E-03	-3.782	-29.161
192/2311	3.83	4.26	**	.147	.85	11.00	17.3	.1525E-02	-7.192	-34.883
192/2326	3.27	3.62	99	.371	.96	17.44	41.8	.5030E-02	-12.109	-41.692
192/2341	3.59	3.97	99	.171	.86	11.85	21.7	.1769E-02	-7.166	-32.873
192/2356	3.29	3.64	99	.320	.94	16.20	36.7	.3306E-02	-10.850	-39.067
193/0011	3.24	3.58	99	.203	.93	15.22	35.3	.2919E-02	-9.367	-35.941
193/0026	2.83	3.13	99	.116	.82	9.76	88.9	.1201E-02	-1.877	-21.180
193/0041	2.76	3.05	99	.248	.91	14.24	50.1	.2553E-02	-5.394	-28.091
193/0056	2.69	2.97	99	.167	.86	11.69	60.7	.1722E-02	-2.466	-23.473
193/0111	1.08	1.17	90	.020	.71	4.07	-.7	.2091E-03	9.825	-3.129
193/0126	.28	.29	90	.310	.94	16.13	-42.6	.3280E-02	9.239	-.530
193/0141	.03	-.01	97	.137	.84	10.59	-18.1	.1412E-02	18.908	3.473
193/0156	-.97	-1.11	99	.260	.91	14.60	-17.1	.3684E-02	17.071	14.788
193/0211	.34	.37	99	.434	.99	18.83	-73.3	.4468E-02	8.531	-2.977
193/0226	1.23	1.35	99	.443	.99	19.08	-320.8	.4546E-02	1.732	-14.976
193/0241	1.22	1.34	99	.430	.99	18.78	-321.8	.4407E-02	1.910	-14.394
193/0256	.52	.57	99	.291	.93	15.41	-43.0	.2991E-02	7.020	-4.728
193/0311	.74	.82	99	.333	.95	16.50	-69.1	.3429E-02	6.080	-8.308
193/0326	.96	1.06	**	.307	.94	15.86	-77.5	.3160E-02	4.821	-11.253

15 MINUTE AVERAGES: PARAMETERS

DTG,Z	TA-TW degC	TVA-TVW degF	RH %	TAU d/cm**2	LD X10-3	U* cm/sec	L m	Z0 cm	H w/m**2	E w/m**2
193/0341	2.29	2.54	**	.251	.91	14.34	105.0	.2591E-02	-2.630	-25.306
193/0356	2.25	3.05	**	.246	.91	14.19	50.5	.2546E-02	-5.304	-29.787
193/0411	2.02	3.12	**	.343	.95	16.76	54.5	.3530E-02	-0.247	-35.230
193/0426	3.22	3.57	**	.282	.92	15.19	35.6	.2900E-02	-9.226	-37.560
193/0441	3.33	3.70	**	.326	.95	16.35	36.2	.3369E-02	-11.303	-41.341
193/0456	3.25	4.17	**	.220	.90	13.69	29.7	.2361E-02	-10.562	-40.483
193/0511	3.20	4.11	**	.270	.92	15.10	26.6	.2871E-02	-12.024	-43.530
193/0526	3.50	3.98	**	.255	.91	14.47	26.9	.2632E-02	-10.591	-40.360
193/0541	3.65	4.06	**	.293	.93	15.51	28.3	.3038E-02	-12.354	-43.726
193/0556	3.69	4.10	**	.332	.95	16.51	30.4	.3432E-02	-13.065	-45.542
193/0611	3.97	4.42	**	.457	1.00	19.32	34.6	.4729E-02	-19.677	-57.819
193/0626	4.04	4.49	**	.387	.97	17.82	29.4	.4002E-02	-10.043	-54.764
193/0641	3.82	4.24	**	.212	.89	13.19	21.0	.2193E-02	-10.226	-39.941
193/0656	3.84	4.27	**	.242	.90	14.00	22.5	.2490E-02	-11.594	-42.803
193/0711	4.53	5.05	**	.301	.93	15.74	20.0	.3121E-02	-10.272	-56.364
193/0726	4.59	5.13	**	.345	.95	16.86	21.9	.3581E-02	-20.476	-61.824
193/0741	4.66	5.24	**	.343	.95	16.80	21.3	.3557E-02	-20.850	-65.909
193/0756	4.17	4.60	**	.208	.93	15.39	22.0	.2905E-02	-15.485	-53.552
193/0811	3.92	4.40	**	.201	.92	15.20	21.2	.2909E-02	-13.509	-51.100
193/0826	3.84	4.31	**	.200	.92	15.17	21.9	.2900E-02	-13.118	-47.676
193/0841	4.02	4.51	**	.299	.93	15.67	24.2	.3695E-02	-14.907	-53.540
193/0856	3.64	4.09	**	.438	.99	18.96	38.4	.4529E-02	-16.686	-56.868
193/0911	3.52	3.96	**	.546	1.03	21.17	48.6	.5646E-02	-10.259	-61.744
193/0926	3.94	4.42	**	.447	.99	19.16	34.4	.4629E-02	-19.154	-61.494
193/0941	3.79	4.24	**	.581	1.04	21.06	45.8	.6019E-02	-21.355	-64.424
193/0956	4.04	4.51	**	.661	1.06	23.31	46.8	.6847E-02	-25.525	-71.055
193/1011	4.24	4.74	**	.564	1.03	21.54	37.9	.5834E-02	-24.705	-71.043
193/1026	3.33	3.75	**	.522	1.02	20.68	51.2	.5388E-02	-16.174	-57.544
193/1041	3.03	3.40	**	.540	1.02	21.02	61.9	.5567E-02	-14.064	-52.334
193/1056	2.99	3.36	**	.693	1.07	23.82	76.0	.7147E-02	-16.467	-57.903
193/1111	3.40	3.81	**	.687	1.07	23.73	62.3	.7093E-02	-20.070	-63.210
193/1126	3.61	4.02	**	.694	1.07	23.86	57.5	.7172E-02	-22.130	-63.410
193/1141	3.26	3.62	**	.575	1.04	21.71	57.5	.5930E-02	-16.673	-52.294
193/1156	3.05	3.38	**	.625	1.05	22.63	60.7	.6451E-02	-15.805	-50.184
193/1211	2.46	2.40	**	*******	*****	******	******	*********	********	*********
193/1226	3.22	3.25	**	*******	*****	******	******	*********	********	*********
193/1241	3.85	4.30	**	.651	1.06	23.11	49.3	.6729E-02	-23.455	60.029
193/1256	4.11	4.60	**	.981	1.14	29.39	66.0	.1016E-01	-62.454	-68.043
193/1311	4.37	4.90	**	1.009	1.16	29.94	67.5	.1129E-01	-37.192	-99.514
193/1326	4.14	4.64	**	.806	1.12	26.99	59.2	.9179E-02	-31.059	-84.595
193/1341	3.99	4.54	**	.720	1.08	24.32	53.4	.7452E-02	-26.207	-87.399
193/1356	3.85	4.43	**	.797	1.10	25.59	59.3	.8246E-02	-26.432	-95.186
193/1411	4.11	4.66	**	.785	1.09	25.40	53.4	.8127E-02	-28.220	-90.260
193/1426	4.32	4.87	**	.826	1.10	26.06	52.4	.8556E-02	-31.602	-92.132
193/1441	4.67	5.25	**	.751	1.09	24.88	43.3	.7796E-02	-33.228	-92.856
193/1456	5.57	6.23	**	.219	.89	13.46	11.3	.2284E-02	-20.451	-62.070
193/1511	5.64	6.30	**	.230	.90	13.79	11.4	.2394E-02	-21.466	-63.673
193/1632	4.66	5.18	99	.805	1.10	25.77	36.5	.8365E-02	-34.413	-105.765

15 MINUTE AVERAGES. PARAMETERS

DTG Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CD X10-3	U* cm/sec	L m	Z0 cm	Q w/m**2	T w/m**2
193/1647	6.75	7.30	87	.672	1.05	27.74	22.9	.6542E-02	48.041	-78.301
193/1732	7.34	7.87	83	.340	.96	17.83	11.7	.3651E-02	-39.392	-57.956
193/1747	******	******	16	.215	.89	13.34	******	.2242E-02	********	*********
193/1802	7.49	7.98	80	.206	.93	15.44	9.5	.3002E-02	-36.245	-49.117
193/1851	7.45	7.91	79	.188	.88	12.51	6.5	.1973E-02	-28.250	-38.454
193/1951	7.60	8.13	81	.259	.92	14.69	8.5	.2717E-02	-34.989	-50.923
193/2041	8.43	9.13	84	.276	.92	15.10	7.9	.2902E-02	-41.240	-70.504
193/2107	7.80	8.46	85	.250	.91	14.43	7.9	.2623E-02	-35.372	-63.294
193/2143	7.01	8.52	88	.333	.95	16.67	10.4	.3499E-02	-41.534	-70.306
193/2158	7.40	8.20	90	.440	.99	18.94	14.1	.4518E-02	-45.034	-88.059
193/2213	6.34	6.90	92	.209	.89	13.10	9.0	.2189E-02	-23.923	-57.341
193/2228	5.49	6.05	93	.325	.95	16.46	16.3	.3413E-02	-25.606	-61.063
193/2243	4.27	4.71	94	.336	.95	16.72	24.5	.3521E-02	-17.058	-48.635
193/2258	4.46	4.95	95	.408	.98	18.44	27.0	.4282E-02	-21.721	-58.872
193/2313	4.28	4.67	95	.358	.96	17.28	26.6	.3761E-02	-18.162	-53.352
193/2328	4.19	4.67	96	.387	.90	18.41	29.6	.4270E-02	-19.690	-57.900
193/2343	3.52	3.93	96	.457	1.00	19.52	43.3	.4801E-02	-16.066	-51.087
193/2358	3.91	4.39	97	.145	.85	10.99	16.0	.1522E-02	-7.392	-37.104
194/0013	3.25	3.67	97	.020	.71	4.08	-1.4	.2102E-03	4.964	-12.973
194/0035	2.10	2.37	98	.412	.98	18.57	133.2	.4344E-02	-4.492	-32.765
194/0050	3.63	4.14	99	.386	.97	17.96	36.1	.4063E-02	-14.998	-59.225
194/0105	4.65	5.27	99	.409	.98	18.40	25.5	.4301E-02	-23.899	-75.120
194/0120	4.49	5.11	99	.577	1.04	21.95	36.5	.6068E-02	-27.861	-85.458
194/0135	2.76	3.16	99	.308	.94	16.04	55.0	.3242E-02	-7.016	-42.231
194/0150	1.74	1.99	99	.299	.94	15.82	1608.5	.3151E-02	-.230	-26.276
194/0205	2.29	2.62	99	.320	.97	17.90	98.1	.3094E-02	-5.160	-38.270
194/0220	3.34	3.83	**	.394	.90	18.15	42.3	.4151E-02	-13.199	-57.036
194/0252	3.54	4.02	**	.420	.99	18.78	40.0	.4405E-02	-15.277	-59.358
194/0323	6.11	6.87	**	.817	1.10	26.05	33.9	.8546E-02	-48.788	-123.441
194/0338	6.06	6.80	**	.608	1.04	22.30	25.2	.6264E-02	-41.206	-107.824
194/0353	5.49	6.16	**	.455	1.00	19.48	21.9	.4743E-02	-31.249	-85.705
194/0416	5.51	6.19	**	.692	1.07	23.93	32.5	.7213E-02	-39.486	-103.424
194/0431	5.63	6.31	**	.586	1.04	22.01	26.9	.6102E-02	-37.068	-97.370
194/0446	5.94	6.67	**	.157	.86	11.40	7.7	.1637E-02	-17.934	-59.208
194/0501	6.75	7.60	**	.371	.97	17.57	13.9	.3809E-02	-36.598	-99.260
194/0516	7.11	8.01	**	.388	.94	16.00	10.9	.3226E-02	-35.251	-97.391
194/0531	6.93	7.81	**	.393	.97	18.09	14.2	.4121E-02	-39.071	-104.742
194/0546	6.13	6.88	**	.451	1.00	19.34	18.8	.4714E-02	-35.973	-95.819
194/0601	4.74	5.29	**	.492	1.01	20.14	20.6	.5111E-02	-26.698	-73.545
194/0616	5.46	6.11	**	.883	1.12	27.82	41.7	.9190E-02	-44.233	-109.341
194/0631	6.14	6.88	**	1.040	1.15	29.36	42.0	.1086E-01	-55.292	-132.029
194/0647	6.21	6.96	**	.892	1.12	27.20	36.2	.9318E-02	-51.924	-126.420
194/0702	6.97	7.82	99	.734	1.08	24.71	26.0	.7691E-02	-54.101	-133.113
194/0717	7.34	8.25	99	.524	1.02	20.90	17.5	.5502E-02	-48.939	-124.219
194/0732	6.90	7.84	99	.394	.98	18.10	14.0	.4127E-02	-39.444	-102.935
194/0747	6.47	7.26	99	.404	.98	18.32	15.8	.4226E-02	-36.301	-95.194
194/0802	6.42	7.20	99	.468	1.00	19.70	18.4	.4890E-02	-38.926	-100.103
194/0817	6.59	7.39	99	.552	1.03	21.41	20.9	.5772E-02	-43.855	-110.376

15 MINUTE AVERAGES: PARAMETERS

DTG Z	TA-TW deg C	TVA-TVW deg C	RH %	TAU d/cm**2	CD X10-3	UA cm/sec	L m	ZO cm	H w/m**2	E w/m**2
194/0032	6.67	7.48	99	.511	1.02	20.61	19.1	.5349E-02	-42.750	-100.330
194/0047	6.38	7.14	99	.351	.96	17.07	14.1	.3671E-02	-32.919	-87.910
194/0902	6.14	6.88	99	.294	.93	15.62	12.6	.3074E-02	-28.241	-78.233
194/0917	6.11	6.85	99	.212	.89	13.27	9.5	.2212E-02	-22.975	-67.690
194/0932	6.11	6.85	99	.219	.89	13.50	9.8	.2295E-02	-23.460	-69.221
194/0947	6.61	7.41	99	.302	.94	15.03	11.7	.3158E-02	-31.667	-86.146
194/1002	6.25	7.01	99	.426	.99	18.00	17.4	.4454E-02	-35.743	-93.369
194/1017	6.33	7.10	99	.486	1.01	20.00	19.4	.5000E-02	-39.002	-100.312
194/1032	6.21	6.96	99	.365	.96	17.40	15.2	.3812E-02	-32.472	-86.201
194/1047	6.01	6.73	99	.480	1.01	19.94	20.5	.5011E-02	-36.246	-95.904
194/1102	6.11	6.85	99	.504	1.04	22.02	24.3	.6189E-02	-41.136	-104.185
194/1117	5.62	6.29	99	.539	1.03	21.12	24.9	.5620E-02	-35.484	-91.562
194/1132	5.71	6.39	99	.562	1.03	21.58	25.4	.5865E-02	-36.939	-95.802
194/1147	5.91	6.62	99	.388	.97	17.95	17.1	.4057E-02	-31.510	-83.611
194/1202	6.10	6.83	99	.433	.99	18.95	18.2	.4524E-02	-34.877	-91.561
194/1217	5.67	6.34	99	.491	1.01	20.17	22.6	.5125E-02	-33.965	-88.690
194/1232	5.71	6.39	99	.365	.96	17.40	16.9	.3812E-02	-29.049	-78.588
194/1247	5.55	6.20	99	.278	.92	14.95	13.5	.2916E-02	-23.237	-66.698
194/1302	5.01	5.59	99	.164	.86	11.64	10.6	.1706E-02	-13.896	-48.817
194/1317	5.29	5.91	99	.001	.79	8.18	6.2	.0438E-03	-0.238	-37.445
194/1332	4.51	5.02	99	.099	.81	9.02	9.9	.1025E-02	-6.918	-34.819
194/1347	4.46	4.97	99	.171	.86	11.89	13.6	.1781E-02	-11.603	-43.123
194/1402	5.22	5.83	99	.001	.79	8.19	6.4	.0458E-03	-0.007	-36.921
194/1417	5.20	5.80	99	.069	.78	7.57	6.1	.7211E-03	-6.612	-34.279
194/1432	4.51	5.03	99	.019	.78	4.80	-2.4	.2015E-03	2.589	-16.335
194/1447	4.83	5.39	99	.026	.78	4.63	-16.4	.2699E-03	.566	-20.146
194/1502	5.17	5.78	99	.058	.77	6.93	6.8	.6051E-03	-5.199	-31.461
194/1517	5.18	5.79	99	.025	.72	4.53	-386.3	.2586E-03	.023	-21.302
194/1532	5.30	5.92	99	.009	.67	2.67	-.4	.9010E-04	4.175	-13.205
194/1547	5.67	6.34	99	.042	.75	5.07	4.1	.4340E-03	-4.272	-29.993
194/1602	5.92	6.63	99	.007	.67	2.37	-.3	.7080E-04	4.105	-13.460
194/1617	5.88	6.58	99	.042	.75	5.07	3.9	.4340E-03	-4.019	-31.255
194/1632	6.00	6.72	99	.064	.78	7.31	4.2	.6729E-03	-6.695	-38.805
194/1647	6.01	6.72	99	.061	.77	7.10	4.1	.6357E-03	-6.235	-37.547
194/1702	6.78	7.49	98	.069	.78	7.59	3.5	.7245E-03	-11.606	-44.561
194/1717	6.70	7.40	97	.040	.76	6.34	2.9	.5056E-03	-8.287	-37.033
194/1732	6.34	7.03	96	.021	.71	4.21	4.6	.2220E-03	-1.523	-22.453
194/1747	6.09	6.71	94	.013	.69	3.37	-2.2	.1340E-03	1.490	-16.002
194/1802	5.99	6.58	93	.006	.66	2.25	-.2	.6355E-04	4.457	-10.549
194/1817	6.13	6.72	93	.014	.69	3.37	-3.1	.1430E-03	1.168	-15.545
194/1832	6.27	6.86	92	.027	.72	4.77	3.5	.2871E-03	-2.927	-21.891
194/1847	6.37	6.97	92	.005	.66	1.94	-.1	.4724E-04	4.970	-9.362
194/1902	6.43	7.03	91	.006	.66	2.16	-.2	.5956E-04	4.247	-10.325
194/1917	6.50	7.06	89	.007	.67	2.44	-.9	.7491E-04	3.328	-10.820
194/1932	6.50	7.01	87	.006	.67	2.31	-.3	.6715E-04	3.713	-9.195
194/1947	7.19	7.73	84	.008	.67	2.53	-.7	.8079E-04	2.195	-10.720
194/2002	7.70	8.24	81	.015	.69	3.55	2.1	.1592E-03	-1.979	-14.464
194/2017	7.20	7.63	79	.005	.66	2.01	-.2	.5003E-04	3.920	-6.614

15 MINUTE AVERAGES: PARAMETERS

DTG.Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CD X10-3	UA cm/sec	L m	ZO cm	H d/m**2	E d/m**2
194/2032	6.93	7.34	79	.003	.65	1.71	-.1	.3669E-04	5.167	-5.339
194/2047	5.42	5.66	79	.003	.65	1.40	-.0	.2747E-04	6.997	-2.550
194/2102	4.07	5.02	78	.002	.64	1.38	-.0	.2403E-04	7.613	-1.399
194/2117	5.00	5.24	77	.102	.81	9.32	7.8	.1070E-02	-9.444	-9.204
194/2132	5.67	5.89	77	.133	.84	10.57	7.5	.1406E-02	-14.226	-14.321
194/2147	7.47	7.80	75	.169	.86	11.98	5.9	.1783E-02	-26.539	-31.145
194/2202	8.30	8.85	75	.187	.88	12.52	5.6	.1975E-02	-33.006	-38.749
194/2217	7.60	8.01	76	.119	.83	9.98	4.3	.1254E-02	-21.798	-27.300
194/2232	7.67	8.12	77	.250	.92	14.67	8.4	.2711E-02	-39.264	-48.780
194/2247	6.90	7.29	78	.212	.89	13.29	8.1	.2226E-02	-27.239	-36.552
194/2302	5.11	5.30	78	.159	.86	11.59	10.2	.1677E-02	-14.066	-18.720
194/2317	4.17	4.25	79	.255	.93	14.50	28.6	.2679E-02	-14.083	-15.699
194/2332	4.29	4.43	81	.136	.84	10.62	13.0	.1421E-02	-0.681	-8.959
194/2347	5.64	5.98	83	.202	.88	12.95	10.3	.2113E-02	-19.674	-29.044
195/0002	6.12	6.55	85	.298	.93	15.53	12.6	.3637E-02	-27.901	-45.005
195/0017	6.35	6.84	86	.203	.88	12.98	8.7	.2122E-02	-23.592	-43.051
195/0032	6.53	7.06	87	.167	.86	11.76	7.8	.1744E-02	-21.673	-43.033
195/0047	6.17	6.67	88	.209	.89	13.17	9.3	.2180E-02	-23.082	-45.260
195/0102	5.38	5.83	89	.187	.88	12.46	10.4	.1957E-02	-17.341	-30.241
195/0117	3.70	3.97	90	.278	.92	15.17	27.0	.2900E-02	-12.005	-27.294
195/0132	3.04	3.25	91	.132	.84	10.45	39.1	.1377E-02	-2.736	-14.861
195/0147	1.79	1.85	91	.198	.88	12.00	-143.9	.2063E-02	1.363	-4.563
195/0202	3.28	3.53	92	.204	.89	13.00	29.6	.2129E-02	-6.944	-22.087
195/0217	4.25	4.61	92	.165	.86	11.66	14.6	.1713E-02	-10.156	-22.347
195/0232	2.34	2.50	93	.012	.69	3.14	-.4	.1256E-03	7.479	-3.651
195/0248	3.52	3.82	94	.078	.79	8.03	30.5	.8078E-03	-1.574	-17.222
195/0303	3.78	4.03	95	.130	.84	10.36	18.5	.1352E-02	-5.619	-24.714
195/0318	3.54	3.86	96	.081	.79	8.18	27.3	.8422E-03	-1.076	-19.689
195/0333	3.75	4.11	96	.125	.83	10.15	17.6	.1297E-02	-5.553	-26.225
195/0348	3.40	3.81	96	.087	.80	8.45	27.4	.9005E-03	-2.864	-20.323
195/0403	3.46	3.79	96	.100	.81	9.05	24.8	.1031E-02	-2.799	-21.510
195/0418	3.75	4.11	96	.106	.82	9.33	17.1	.1097E-02	-4.383	-24.649
195/0433	3.91	4.29	97	.135	.84	10.52	15.9	.1394E-02	-6.048	-28.987
195/0448	3.64	3.98	97	.098	.81	8.96	20.8	.1011E-02	-3.362	-23.002
195/0503	3.23	3.53	97	.121	.83	9.96	30.5	.1251E-02	-3.040	-21.078
195/0518	2.25	2.44	97	.175	.87	11.95	362.1	.1808E-02	-.442	-15.937
195/0533	1.68	1.81	97	.224	.89	13.52	-154.6	.2302E-02	1.497	-11.721
195/0548	1.04	1.10	96	.169	.86	11.71	-25.5	.1729E-02	5.903	-4.385
195/0603	1.38	1.47	97	.120	.83	9.96	-17.6	.1234E-02	5.150	-6.449
195/0618	1.29	1.38	97	.124	.83	10.06	-17.6	.1276E-02	5.432	-5.910
195/0633	.31	.29	97	.198	.88	12.71	-20.2	.2034E-02	9.497	2.091
195/0648	-.18	-.25	97	.171	.86	11.82	-12.8	.1759E-02	12.086	6.393
195/0703	.04	-.00	97	.203	.92	15.20	-30.3	.2912E-02	10.850	5.813
195/0718	.44	.44	97	.315	.94	16.05	-47.2	.3245E-02	8.200	-.104
195/0733	.98	.95	97	.398	.97	18.84	-120.4	.4099E-02	4.560	-6.369
195/0748	1.80	1.95	97	.359	.96	17.14	316.4	.3699E-02	-1.490	-17.766
195/0803	1.90	2.07	97	.488	1.01	19.99	183.9	.5033E-02	-4.067	-21.450
195/0818	2.72	2.97	97	.409	.98	18.30	63.9	.4220E-02	-0.983	-31.478

15 MINUTE AVERAGES: PARAMETERS

DTG.Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CD X10-3	U* cm/sec	L m	Z0 cm	H w/m**2	E w/m**2
195/0833	******	******	97	.216	.89	13.26	******	.2215E-02	********	********
195/0848	******	******	97	.218	.89	13.31	******	.2231E-02	********	********
195/0903	******	******	96	.331	.95	16.41	******	.3392E-02	********	********
195/0918	******	******	96	.229	.90	13.65	******	.2346E-02	********	********
195/0933	******	******	96	.258	.91	14.58	******	.2650E-02	********	********
195/0948	******	******	96	.246	.91	14.16	******	.2526E-02	********	********
195/1003	******	******	96	.224	.89	13.51	******	.2300E-02	********	********
195/1018	******	******	96	.296	.93	15.53	******	.3048E-02	********	********
195/1033	******	******	96	.326	.94	16.31	******	.3350E-02	********	********
195/1048	******	******	96	.367	.96	17.27	******	.3759E-02	********	********
195/1103	******	******	96	.373	.96	17.45	******	.3828E-02	********	********
195/1118	******	******	96	.474	1.00	19.64	******	.4860E-02	********	********
195/1134	******	******	96	.331	.95	16.42	******	.3395E-02	********	********
195/1149	******	******	96	.411	.98	18.28	******	.4211E-02	********	********
195/1204	******	******	95	.726	1.08	24.32	******	.7453E-02	********	********
195/1219	******	******	94	.523	1.02	20.66	******	.5375E-02	********	********
195/1305	******	******	89	.413	.98	18.36	******	.4247E-02	********	********
195/1320	******	******	88	.393	.97	17.92	******	.4045E-02	********	********
195/1335	4.15	4.20	82	.232	.90	13.84	19.8	.2401E-02	-12.970	-11.962
195/1350	4.00	4.04	78	.085	.88	8.33	14.2	.8744E-03	-3.810	-1.262
195/1405	3.95	3.94	75	.116	.82	9.75	14.8	.1198E-02	-5.857	2.451
195/1420	4.07	4.04	73	.319	.94	16.20	24.9	.3406E-02	-16.036	6.400
195/1435	4.29	4.26	73	.273	.92	14.97	20.2	.2822E-02	-15.564	5.681
195/1450	4.47	4.46	72	.203	.88	12.92	15.1	.2104E-02	-13.453	3.769
195/1505	4.52	4.50	72	.223	.90	13.54	15.9	.2311E-02	-14.693	4.535
195/1520	4.39	4.36	72	.210	.89	13.39	16.4	.2259E-02	-13.719	5.432
195/1535	******	******	**	*******	.87	11.96	******	.1803E-02	********	********
195/1550	4.22	4.18	72	.210	.89	13.14	17.2	.2176E-02	-12.387	5.987
195/1605	4.33	4.30	72	.157	.85	11.35	13.6	.1623E-02	-10.106	4.527
195/1620	4.58	4.56	72	.110	.83	9.84	10.3	.1219E-02	-8.667	2.707
195/1635	4.48	4.44	71	.165	.86	11.65	13.1	.1711E-02	-11.344	5.189
195/1650	4.35	4.30	71	.201	.88	12.87	15.8	.2086E-02	-12.656	7.120
195/1705	3.72	3.63	72	.230	.90	13.98	23.8	.2462E-02	-10.744	10.613
195/1720	3.40	3.30	74	.067	.78	7.41	128.2	.6911E-03	-.297	6.459
195/1735	3.92	3.89	74	.218	.89	13.39	20.3	.2258E-02	-11.103	4.965
195/1750	4.17	4.15	74	.031	.73	5.04	-9.5	.3196E-03	1.261	1.532
195/1805	3.47	3.37	73	.073	.78	7.76	42.3	.7504E-03	-1.036	7.082
195/1820	2.99	2.84	73	.052	.76	6.55	-12.5	.5410E-03	2.110	9.058
195/1835	3.08	2.92	73	.111	.82	9.54	43.9	.1147E-02	-1.855	12.607
195/1850	2.54	2.33	73	.112	.82	9.61	-247.1	.1162E-02	.336	16.809
195/1905	2.13	1.87	73	.199	.88	12.79	404.9	.2060E-02	-.484	25.918
195/1920	2.46	2.24	73	.096	.81	8.98	-47.7	.9969E-03	1.382	16.178
195/1935	******	******	79	.180	.87	12.11	******	.1847E-02	********	********
195/1950	3.14	2.95	72	.220	.89	13.50	34.2	.2296E-02	-6.734	19.797
195/2005	4.21	4.13	71	.180	.87	12.22	15.8	.1881E-02	-10.830	9.762
195/2020	3.70	3.56	71	.139	.84	10.73	19.0	.1451E-02	-6.114	12.920
195/2035	2.41	2.16	73	.144	.85	10.90	409.0	.1498E-02	-.297	24.332
195/2050	2.25	2.00	73	.107	.82	9.41	-44.4	.1114E-02	1.756	18.566

15 MINUTE AVERAGES. PARAMETERS

DTG.Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CD X10-3	U* cm/sec	L m	Z0 cm	H w/m**2	E w/m**2
195/2105	4.05	4.01	73	.141	.84	10.78	15.8	.1463E-02	-7.858	5.335
195/2120	3.44	3.35	73	.196	.88	12.67	35.5	.2035E-02	-7.401	10.794
195/2135	3.21	3.11	74	.195	.88	12.65	30.7	.2016E-02	-6.188	10.914
195/2150	2.80	2.67	75	.190	.88	12.24	47.6	.1964E-02	-4.872	13.590
195/2205	2.85	1.85	76	.233	.89	13.54	484.5	.2401E-02	-.572	20.661
195/2220	2.84	2.74	77	.215	.89	13.28	45.2	.2220E-02	-4.050	11.537
195/2235	1.70	1.48	77	.230	.90	13.76	-193.6	.2384E-02	1.260	23.573
195/2250	2.07	1.89	77	.237	.90	13.95	242.0	.2454E-02	-1.852	32.500
195/2305	1.17	.87	77	.240	.91	14.20	-66.5	.2571E-02	4.100	31.343
195/2320	1.72	1.48	77	.237	.90	13.96	253.4	.2456E-02	1.807	25.050
195/2335	2.74	2.63	76	.169	.86	11.70	54.8	.1749E-02	-2.008	11.862
195/2350	1.36	1.08	77	.199	.88	12.79	-52.2	.2060E-02	3.784	27.166
196/0005	1.43	1.16	77	.181	.87	12.19	-46.8	.1873E-02	3.631	24.841
196/0020	1.11	.81	77	.207	.89	13.04	-42.2	.2146E-02	4.925	29.646
196/0035	2.18	2.08	77	.247	.91	14.25	143.5	.2558E-02	-1.089	19.443
196/0050	1.90	1.70	77	.277	.92	15.10	379.2	.2871E-02	-.850	23.075
196/0105	1.47	1.22	77	.229	.90	13.74	-95.4	.2379E-02	2.550	26.058
196/0121	-.33	-.82	78	.240	.91	14.29	-21.1	.2573E-02	12.965	50.711
196/0136	-2.20	-3.06	78	.844	1.11	26.40	-51.2	.8779E-02	33.690	132.070
196/0151	-1.79	-2.52	78	.196	.88	12.72	-9.5	.2036E-02	28.663	66.132
196/0206	-1.41	-2.08	78	.171	.86	11.90	-8.7	.1705E-02	18.176	50.805
196/0221	-1.50	-2.19	78	.173	.87	11.97	-8.6	.1809E-02	18.658	52.870
196/0236	-1.50	-2.19	78	.160	.86	11.50	-7.8	.1665E-02	18.355	50.192
198/0808	3.08	3.36	95	.658	1.86	23.29	71.0	.6835E-02	-16.653	-41.185
198/0823	4.35	4.79	95	.405	.99	17.18	29.8	.4636E-02	-22.157	-54.283
198/0838	5.60	5.68	95	.681	1.87	23.75	35.6	.7183E-02	-35.287	-78.195
198/0853	5.62	6.43	95	.632	1.85	22.98	27.8	.6684E-02	-40.314	-104.156
198/0908	6.64	7.35	95	.343	.95	16.80	13.1	.3590E-02	-34.288	-79.412
198/0923	5.44	5.99	95	.618	1.05	22.46	29.2	.6353E-02	-36.310	-78.987
198/0938	4.80	5.27	95	.637	1.85	22.92	35.0	.6620E-02	-31.500	-68.308
198/0953	4.41	4.82	95	.687	1.87	23.79	43.1	.7128E-02	-29.254	-62.801
198/1008	4.53	4.96	95	.744	1.88	24.77	44.8	.7720E-02	-31.751	-67.783
198/1023	4.73	5.19	95	.642	1.86	23.81	36.7	.6671E-02	-31.044	-67.614
198/1038	4.29	4.69	95	.726	1.88	24.45	47.8	.7533E-02	-29.117	-62.192
198/1053	3.56	3.87	95	.767	1.89	25.10	64.2	.7935E-02	-23.853	-48.258
198/1108	3.31	3.59	95	.858	1.11	26.54	78.8	.8872E-02	-24.214	-45.814
198/1123	3.60	3.91	95	.295	.93	15.56	29.2	.3051E-02	-12.871	-33.814
198/1138	3.78	4.12	95	.385	.97	17.72	32.7	.3986E-02	-16.133	-39.916
198/1153	4.10	4.57	95	.343	.95	16.56	24.7	.3456E-02	-17.180	-43.549
198/1208	3.43	3.73	95	.607	1.85	22.35	55.8	.6295E-02	-18.742	-43.891
198/1223	2.92	3.16	94	.760	1.09	25.00	86.9	.7875E-02	-16.838	-37.628
198/1238	3.13	3.40	95	.782	1.89	25.37	79.8	.8109E-02	-19.168	-43.162
198/1253	2.65	2.87	95	.600	1.04	22.23	86.3	.6225E-02	-11.912	-30.793
198/1308	2.83	3.08	95	.476	1.88	19.80	64.9	.4943E-02	-11.217	-31.124
198/1323	2.63	2.85	95	.430	.99	18.62	71.3	.4462E-02	-8.751	-26.029
198/1338	2.41	2.59	94	.362	.96	17.26	87.9	.3755E-02	-5.811	-21.236
198/1354	2.67	2.89	94	.438	.99	18.99	69.4	.4542E-02	-9.237	-26.522
198/1409	2.66	2.87	94	.419	.98	18.55	60.2	.4337E-02	-8.762	-25.840

15 MINUTE AVERAGES PARAMETERS

DIG.Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CD X10-3	U* cm/sec	L m	Z0 cm	H w/m**2	E w/m**2
198/1424	3.25	3.52	94	.446	.99	19.17	42.7	.4644E-02	-13.017	-33.758
198/1439	4.07	4.40	94	.525	1.02	20.86	37.9	.5454E-02	-22.272	-49.559
198/1454	3.80	4.22	94	.472	1.00	19.71	37.1	.4692E-02	-19.324	-43.600
198/1509	3.99	4.34	94	.372	.97	17.51	29.2	.3860E-02	-17.220	-40.030
198/1524	3.93	4.27	94	.583	1.01	20.96	33.4	.5221E-02	-20.573	-45.047
198/1539	3.08	4.21	93	.244	.91	14.10	22.4	.2533E-02	-11.903	-32.072
198/1554	3.46	3.73	93	.252	.91	14.59	28.0	.2600E-02	-9.697	-26.455
198/1609	3.45	3.72	93	.300	.93	15.76	32.2	.3110E-02	-11.275	-28.704
198/1624	3.69	4.00	93	.360	.96	17.22	32.5	.3736E-02	-14.712	-35.206
198/1639	3.07	4.21	93	.252	.91	14.45	23.0	.2614E-02	-12.100	-32.913
198/1654	3.92	4.25	93	.349	.96	16.97	20.6	.3629E-02	-15.908	-37.869
198/1709	3.70	4.10	93	.446	.99	19.16	36.0	.4625E-02	-17.905	-39.293
198/1724	3.71	4.02	94	.476	1.00	19.79	40.1	.4933E-02	-18.110	-39.030
198/1739	3.52	3.01	93	.514	1.02	20.57	46.4	.5330E-02	-17.571	-37.914
198/1754	3.58	3.87	93	.765	1.09	25.09	63.7	.7930E-02	-23.225	-45.441
198/1809	4.15	4.51	93	.895	1.12	27.16	60.1	.9293E-02	-31.233	-60.316
198/1824	4.77	5.21	94	.926	1.13	27.65	51.7	.9630E-02	-30.256	-74.798
198/1839	5.24	5.74	94	.746	1.09	24.04	37.3	.7775E-02	-38.452	-77.617
198/1854	5.42	5.94	93	.773	1.09	25.29	37.0	.8055E-02	-40.827	-81.952
198/1909	5.56	6.09	93	.649	1.06	23.19	30.3	.6773E-02	-38.542	-70.374
198/1924	5.70	6.33	92	.676	1.07	23.67	30.0	.7055E-02	-41.356	-81.492
198/1939	5.91	6.45	92	.570	1.04	21.73	24.7	.5950E-02	-38.057	-75.157
198/1954	5.02	5.42	90	.741	1.08	24.74	39.0	.7711E-02	-36.328	-61.286
198/2009	5.30	5.72	89	.794	1.10	25.64	39.1	.8280E-02	-40.352	-65.656
198/2024	5.05	5.41	88	.813	1.10	25.92	42.5	.8466E-02	-38.409	-66.941
198/2039	5.01	5.37	88	.893	1.12	27.15	46.9	.9204E-02	-39.097	-59.802
198/2054	4.46	4.73	87	.841	1.11	26.36	51.6	.8752E-02	-33.256	-43.530
198/2109	4.07	4.27	86	.902	1.12	27.29	62.4	.9300E-02	-30.503	-32.623
198/2124	3.92	4.10	85	1.004	1.15	28.83	73.0	.1047E-01	-30.727	-30.083
198/2139	4.41	4.74	88	.679	1.07	23.88	43.5	.7134E-02	-28.981	-46.302
198/2154	2.92	3.07	88	.358	.96	17.32	52.0	.3727E-02	-9.333	-15.400
198/2209	2.38	2.44	88	.603	1.05	22.47	131.0	.6358E-02	-9.549	-6.609
198/2224	2.16	2.17	87	.606	1.05	22.55	138.5	.6404E-02	-7.735	1.407
198/2239	2.67	2.73	86	.720	1.08	24.59	100.7	.7616E-02	-13.802	-6.779
198/2254	3.27	3.39	85	.749	1.09	25.06	74.3	.7911E-02	-19.809	-15.947
198/2310	******	******	**	*******	*****	******	******	*********	********	*********
198/2325	******	******	**	*******	*****	******	******	*********	********	*********
199/0004	4.71	5.03	88	.345	.95	16.87	21.1	.3585E-02	-21.262	-35.129
199/0019	4.26	4.52	88	.477	1.00	19.83	32.5	.4952E-02	-22.453	-33.991
199/0034	4.50	4.91	90	.530	1.02	21.06	32.6	.5590E-02	-26.019	-44.905
199/0049	4.74	5.11	91	.559	1.03	21.47	32.2	.5807E-02	-20.733	-51.496
199/0104	4.69	5.08	92	.610	1.05	22.44	35.4	.6341E-02	-29.832	-56.302
199/0119	3.94	4.24	92	.528	1.02	20.86	37.9	.5481E-02	-21.207	-48.635
199/0134	4.31	4.67	92	.705	1.07	24.11	45.6	.7325E-02	-28.800	-54.554
199/0149	3.75	4.05	93	.901	1.12	27.22	69.2	.9336E-02	-27.383	-49.409
199/0204	3.40	3.75	93	.937	1.13	27.76	79.7	.9705E-02	-25.126	-45.009
199/0219	2.50	2.66	93	.636	1.05	22.02	99.0	.6561E-02	-11.161	-22.014
199/0234	2.41	2.55	93	.644	1.06	22.95	109.0	.6637E-02	-10.394	-20.600

15 MINUTE AVERAGES: PARAMETERS

DTG.Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CD X10-3	U* cm/sec	L m	Z0 cm	H w/m**2	E w/m**2
199/0249	2.30	2.43	93	.655	1.06	23.13	121.0	.6743E-02	-9.505	-19.079
199/0304	2.47	2.62	93	.712	1.07	24.13	110.6	.7337E-02	-11.986	-22.038
199/0319	3.03	3.24	93	.754	1.09	24.86	85.0	.7783E-02	-17.750	-33.990
199/0334	3.75	4.05	94	.943	1.13	27.83	72.1	.9759E-02	-20.010	-52.721
199/0349	3.87	4.20	94	1.080	1.16	29.90	78.9	.1129E-01	-31.724	-52.004
199/0405	3.97	4.31	94	.973	1.14	28.29	68.6	.1000E-01	-30.000	-59.204
199/0420	4.21	4.50	94	.761	1.09	25.03	54.5	.7896E-02	-19.114	-58.306
199/0435	3.45	3.74	94	.591	1.02	21.80	49.9	.5599E-02	-17.573	-30.613
199/0450	1.86	1.97	94	.512	1.02	20.51	235.5	.5390E-02	-4.031	-13.925
199/0505	1.38	1.44	94	.465	1.00	19.57	-2356.	.4025E-02	.299	-7.486
199/0520	3.06	3.34	94	.474	1.00	19.83	56.5	.4954E-02	-12.925	-35.939
199/0535	3.12	3.41	94	.305	.97	17.07	47.1	.4025E-02	-13.332	-33.871
199/0550	3.18	3.40	94	.500	1.04	22.11	62.4	.6153E-02	-16.191	-41.567
199/0605	4.58	4.96	94	.712	1.08	24.32	43.9	.7452E-02	-30.641	-69.335
199/0620	5.16	5.60	94	.600	1.04	22.31	31.0	.6270E-02	-33.520	-74.005
199/0635	5.04	5.53	94	.526	1.02	20.07	28.2	.5486E-02	-30.137	-66.050
199/0650	4.87	5.34	94	.654	1.06	23.26	36.1	.6813E-02	-32.609	-68.671
199/0705	4.60	5.02	94	.713	1.08	24.26	42.3	.7457E-02	-31.638	-64.997
199/0720	4.59	5.01	94	.780	1.07	24.03	41.5	.7277E-02	-31.302	-63.970
199/0735	4.51	4.92	94	.730	1.08	24.52	44.1	.7576E-02	-31.285	-62.644
199/0750	4.44	4.84	94	.617	1.05	22.55	38.5	.6403E-02	-27.835	-57.111
199/0805	4.71	5.14	94	.754	1.09	24.94	43.1	.7834E-02	-33.674	-68.015
199/0820	4.28	4.60	94	.700	1.08	24.20	46.4	.7379E-02	-28.570	-61.230
199/0835	4.41	4.83	94	.555	1.03	21.42	35.6	.5782E-02	-25.845	-58.097
199/0850	4.31	4.72	94	.771	1.09	25.28	50.0	.8040E-02	-30.193	-64.708
199/0905	4.68	5.14	94	.824	1.11	26.12	47.6	.8594E-02	-35.045	-73.871
199/0920	5.53	6.07	94	.955	1.14	28.11	44.5	.9956E-02	-46.725	-92.250
199/0935	4.83	5.28	94	.859	1.11	26.63	47.3	.8939E-02	-37.390	-73.419
199/0950	4.95	5.41	94	.961	1.14	28.18	51.3	.1000E-01	-40.818	-79.404
199/1005	4.62	5.06	93	1.245	1.20	32.11	72.6	.1299E-01	-42.687	-83.851
199/1020	4.53	4.97	93	.918	1.13	27.59	55.3	.9590E-02	-35.524	-73.613
199/1035	4.43	4.86	93	.783	1.10	25.49	48.9	.8183E-02	-31.655	-66.774
199/1051	4.25	4.65	93	.967	1.14	28.32	63.4	.1010E-01	-33.528	-60.965
199/1106	4.36	4.70	93	.980	1.14	28.51	63.9	.1024E-01	-35.020	-71.415
199/1121	4.35	4.76	93	.908	1.13	27.45	57.9	.9494E-02	-33.445	-68.044
199/1136	4.84	5.31	93	.482	1.01	20.02	27.7	.5048E-02	-27.080	-60.502
199/1151	4.65	5.33	93	1.258	1.20	32.33	69.4	.1317E-01	-45.578	-89.021
199/1206	4.53	4.97	93	1.297	1.21	32.81	77.7	.1356E-01	-42.520	-82.987
199/1221	4.08	4.45	93	1.367	1.22	33.68	93.6	.1429E-01	-38.175	-73.751
199/1236	5.03	5.52	93	1.986	1.32	40.61	105.6	.2077E-01	-59.302	-111.039
199/1251	5.19	5.69	93	1.123	1.17	30.52	56.0	.1174E-01	-46.807	-91.520
199/1306	4.75	5.20	93	1.067	1.16	29.74	68.3	.1114E-01	-40.036	-88.140
199/1321	4.69	5.36	93	1.055	1.16	29.59	57.5	.1103E-01	-42.115	-83.270
199/1336	5.73	6.30	93	.965	1.14	28.31	43.3	.1010E-01	-48.999	-96.997
199/1351	4.90	5.36	93	1.512	1.24	35.40	82.3	.1579E-01	-50.457	-95.707
199/1406	4.79	5.25	93	1.449	1.23	34.67	81.0	.1514E-01	-48.113	-92.403
199/1421	6.22	6.85	93	1.251	1.20	32.26	51.2	.1311E-01	-61.313	-117.010
199/1436	5.67	6.23	93	1.300	1.22	33.86	63.1	.1444E-01	-57.577	-111.417

15 minute averages: Parameters

DAY.Z	TA-TW deqC	TVA-TVW deqC	RH %	TAU d/cm**2	CD X10-3	UA cm/sec	L m	ZO cm	U w/m**2	E w/m**2
199/1451	5.40	5.93	9	1.340	1.21	33.46	65.3	.1410E-01	-53.646	-103.772
199/1506	5.64	6.20	92	1.374	1.22	33.00	63.2	.1439E-01	-57.022	-109.440
199/1521	5.73	6.29	92	1.548	1.25	35.70	69.0	.1613E-01	-61.354	-115.761
199/1536	5.80	6.46	92	1.454	1.23	34.79	64.0	.1524E-01	-61.529	-117.304
199/1551	5.13	5.69	92	1.493	1.24	35.22	77.1	.1563E-01	-52.976	-99.693
199/1606	5.50	6.04	92	1.947	1.31	40.24	93.4	.2040E-01	-65.240	-124.961
199/1621	6.23	6.86	92	1.124	1.17	30.50	45.9	.1178E-01	-50.260	-114.526
199/1636	5.77	6.35	92	.617	1.05	22.65	22.7	.6470E-02	-39.330	-81.955
199/1651	5.96	6.55	92	.794	1.10	25.71	34.1	.8329E-02	-46.523	-94.672
199/1706	5.68	6.25	92	.804	1.10	25.86	36.6	.8425E-02	-44.232	-89.581
199/1721	4.85	5.29	93	.663	1.06	24.47	37.3	.6939E-02	-32.427	-66.591
199/1736	4.82	5.20	92	.366	.96	17.43	24.7	.3878E-02	-22.049	-51.755
199/1752	5.24	5.75	92	.523	1.02	20.84	26.7	.5469E-02	-31.656	-67.167
199/1807	5.32	5.84	92	.464	1.00	19.65	23.5	.4864E-02	-30.166	-65.877
199/1822	4.63	5.05	92	.507	1.03	21.30	33.0	.5716E-02	-27.420	-56.574
199/1837	5.08	5.47	92	.619	1.05	24.67	33.3	.6473E-02	-32.687	-66.122
199/1852	4.65	5.07	92	1.206	1.20	32.66	74.6	.1394E-01	-43.709	-81.440
199/1907	4.54	4.96	92	1.258	1.20	32.27	75.1	.1314E-01	-41.958	-78.982
199/1922	4.04	4.50	92	1.074	1.16	29.01	74.6	.1119E-01	-33.211	-64.733
199/1937	3.96	4.38	92	1.216	1.19	31.71	86.1	.1266E-01	-34.646	-63.449
199/1952	4.64	5.08	93	1.109	1.17	30.62	64.4	.1156E-01	-40.473	-78.638
199/2007	4.99	5.47	93	1.034	1.15	29.31	58.1	.1082E-01	-42.725	-84.887
199/2022	5.54	6.11	93	.875	1.12	26.99	41.1	.9179E-02	-44.725	-93.649
199/2037	5.09	5.59	93	1.311	1.21	34.02	68.3	.1373E-01	-49.245	-97.537
199/2052	5.24	5.76	93	.804	1.12	22.11	44.4	.8256E-02	-41.905	-86.122
199/2107	5.09	5.60	93	1.303	1.21	32.91	67.8	.1364E-01	-49.139	-98.152
199/2122	5.10	5.62	93	1.000	1.15	28.83	51.8	.1047E-01	-33.216	-68.519
199/2137	4.77	5.24	93	.943	1.13	27.98	54.2	.9864E-02	-38.545	-78.940
199/2152	5.16	5.68	93	1.211	1.19	31.72	61.9	.1268E-01	-48.275	-97.301
199/2207	5.11	5.62	93	1.339	1.21	34.36	69.4	.1402E-01	-50.820	-100.604
199/2222	5.15	5.67	93	1.231	1.19	31.99	63.1	.1289E-01	-48.468	-98.303
199/2237	4.93	5.43	93	1.418	1.23	34.32	76.6	.1484E-01	-49.324	-98.319
199/2252	5.23	5.76	93	.570	1.04	21.92	29.5	.6053E-02	-33.481	-75.910
199/2307	4.90	5.39	93	1.356	1.22	34.40	73.4	.1412E-01	-47.009	-95.703
199/2322	4.90	5.40	93	1.435	1.23	34.93	76.2	.1503E-01	-50.211	-100.313
199/2337	4.86	5.34	93	1.539	1.25	35.75	84.9	.1611E-01	-50.352	-100.257
199/2352	4.40	4.91	94	1.500	1.24	35.26	90.9	.1566E-01	-45.898	-88.321
200/0007	4.62	5.07	94	1.484	1.24	35.07	86.6	.1550E-01	-46.603	-91.774
200/0022	4.42	4.91	94	1.242	1.19	32.10	75.7	.1298E-01	-40.873	-82.728
200/0037	4.20	4.60	94	1.517	1.24	35.47	99.9	.1585E-01	-41.772	-82.530
200/0052	4.92	5.40	94	1.610	1.26	36.65	87.7	.1690E-01	-52.390	-102.353
200/0107	4.09	5.38	94	1.527	1.25	35.59	83.2	.1595E-01	-50.655	-99.515
200/0123	4.01	5.29	93	.957	1.14	28.19	53.4	.1001E-01	-39.210	-82.071
200/0138	4.54	4.98	94	1.510	1.24	35.38	90.1	.1577E-01	-45.907	-90.504
200/0153	4.65	5.10	94	1.529	1.25	35.58	88.4	.1595E-01	-47.701	-92.419
200/0208	4.35	4.77	94	1.448	1.23	34.64	91.1	.1512E-01	-42.603	-84.101
200/0223	4.17	4.56	94	1.305	1.21	32.80	86.0	.1362E-01	-38.334	-76.670
200/0238	4.29	4.68	94	1.518	1.24	35.39	96.4	.1573E-01	-42.840	-81.600

15 MINUTE AVERAGES: PARAMETERS

DAY/T	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CD X10-3	UU cm/sec	L m	ZO cm	H w/m**2	E w/m**2
200/0253	4.39	4.80	94	1.502	1.25	36.17	90.1	.1640E-01	-45.140	-86.250
200/0308	4.42	4.84	93	1.463	1.23	34.86	90.1	.1527E-01	-43.004	-85.359
200/0323	4.15	4.53	93	1.463	1.23	34.44	95.6	.1494E-01	-39.990	-77.522
200/0338	4.40	4.90	93	1.262	1.20	32.32	76.3	.1316E-01	-41.305	-80.264
200/0353	4.69	5.14	93	.389	.97	17.96	23.8	.4862E-02	-22.796	-52.907
200/0408	4.73	5.17	93	.793	1.10	25.63	45.4	.8277E-02	-34.742	-71.034
200/0423	4.48	4.91	93	1.571	1.25	36.89	95.5	.1641E-01	-46.169	-88.520
200/0438	4.45	4.87	93	1.401	1.24	35.84	90.5	.1546E-01	-44.462	-85.144
200/0453	4.16	4.53	93	.402	.98	18.22	29.5	.4103E-02	-19.348	-44.375
200/0508	3.72	4.09	93	.982	1.14	28.49	76.5	.1022E-01	-28.293	-54.906
200/0523	3.99	4.33	93	1.010	1.15	28.88	71.2	.1051E-01	-31.646	-60.345
200/0538	4.30	4.60	93	.673	1.07	23.58	44.6	.7006E-02	-27.009	-56.980
200/0553	4.24	4.61	93	.444	.99	19.16	31.0	.4627E-02	-21.265	-46.977
200/0608	4.34	4.72	93	.374	.97	17.50	25.8	.3873E-02	-19.707	-44.944
200/0623	4.61	5.03	93	.617	1.05	22.59	36.9	.6430E-02	-29.213	-60.211
200/0638	4.10	4.45	93	1.033	1.15	29.24	70.3	.1076E-01	-33.220	-62.399
200/0653	4.25	4.61	92	1.338	1.21	33.26	86.5	.1394E-01	-39.026	-71.905
200/0708	4.78	5.21	92	.569	1.04	21.71	32.6	.5936E-02	-29.327	-60.139
200/0723	4.60	5.01	92	.901	1.12	27.31	56.0	.9395E-02	-35.935	-68.159
200/0738	4.05	4.30	92	1.009	1.16	29.94	75.1	.1133E-01	-33.606	-68.149
200/0753	4.80	5.24	92	1.463	1.23	34.88	61.3	.1527E-01	-40.541	-87.107
200/0808	5.12	5.59	92	1.182	1.18	31.30	60.8	.1234E-01	-47.174	-87.949
200/0824	4.76	5.19	92	1.032	1.15	29.23	58.0	.1076E-01	-40.315	-75.530
200/0839	4.32	4.70	92	1.141	1.17	30.71	72.2	.1190E-01	-37.543	-68.020
200/0854	4.27	4.63	92	1.207	1.19	31.58	77.5	.1256E-01	-38.807	-68.544
200/0909	4.65	5.07	92	1.603	1.26	36.41	92.5	.1670E-01	-40.837	-86.900
200/0924	4.57	4.97	92	1.176	1.18	31.19	69.5	.1226E-01	-38.865	-75.165
200/0939	4.31	4.68	92	1.431	1.23	34.39	90.7	.1490E-01	-41.977	-74.845
200/0954	4.73	5.15	92	1.781	1.30	38.39	101.1	.1852E-01	-52.373	-92.668
200/1009	4.88	5.23	92	1.214	1.19	31.71	67.4	.1266E-01	-44.223	-81.474
200/1024	4.47	4.86	92	1.280	1.20	32.54	72.6	.1334E-01	-41.566	-74.568
200/1039	4.97	5.42	92	.973	1.14	28.38	51.8	.1015E-01	-41.287	-77.184
200/1054	4.84	5.29	92	.760	1.09	25.10	42.2	.7934E-02	-35.069	-68.041
200/1109	******	******	92	1.080	1.16	29.71	******	.1112E-01	********	********
200/1124	4.53	4.92	92	1.215	1.19	31.71	72.5	.1267E-01	-41.137	-79.330
200/1139	4.96	5.40	92	1.235	1.19	31.97	65.9	.1287E-01	-46.418	-83.721
200/1154	4.68	5.06	92	1.599	1.26	36.37	92.2	.1666E-01	-40.811	-85.290
200/1209	4.61	5.01	92	1.504	1.24	35.30	80.0	.1570E-01	-46.755	-82.900
200/1224	4.57	4.97	92	1.192	1.18	31.42	78.4	.1243E-01	-41.212	-74.403
200/1239	4.76	5.18	92	1.062	1.16	29.65	59.6	.1108E-01	-40.096	-73.992
200/1254	4.69	5.09	92	1.198	1.19	31.48	68.3	.1249E-01	-42.704	-74.909
200/1309	4.62	5.02	91	1.337	1.21	33.26	77.7	.1394E-01	-44.290	-76.942
200/1324	4.76	5.18	91	1.494	1.24	35.17	83.9	.1558E-01	-48.580	-83.001
200/1339	5.03	5.49	91	1.569	1.25	36.11	83.1	.1643E-01	-53.014	-94.101
200/1354	5.05	5.51	91	1.552	1.25	35.93	81.2	.1626E-01	-52.944	-94.709
200/1409	6.11	6.71	91	1.777	1.29	38.49	75.5	.1866E-01	-70.604	-120.776
200/1424	5.41	5.92	91	1.745	1.28	38.12	65.3	.1831E-01	-60.759	-109.639
200/1439	4.99	5.45	91	1.631	1.26	36.06	87.0	.1712E-01	-53.367	-96.620

15 MINUTE AVERAGES PARAMETERS

DTG,Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CD X10-3	H& m/sec	L m	Z0 cm	H w/m**2	E w/m**2
200/1454	5.95	6.52	91	1.749	1.20	30.18	76.6	.1034E-01	-67.946	-122.896
200/1509	5.83	5.40	91	1.340	1.21	33.45	71.0	.1410E-01	-49.315	-86.074
200/1524	4.89	5.30	91	1.669	1.22	37.04	90.1	.1251E-01	-52.804	-86.875
200/1540	5.10	5.54	91	1.398	1.22	33.88	71.4	.1446E-01	-50.955	-86.244
200/1555	5.19	5.65	91	1.506	1.24	35.40	76.0	.1570E-01	-54.160	-92.690
200/1610	5.72	6.25	92	1.610	1.26	36.51	77.9	.1602E-01	-62.612	-111.137
200/1625	5.32	5.80	92	1.459	1.23	34.77	71.6	.1522E-01	-54.877	-97.711
200/1640	5.30	5.80	92	1.516	1.24	35.46	73.6	.1504E-01	-56.650	-102.465
200/1655	5.45	5.96	91	1.165	1.10	31.10	55.6	.1211E-01	-50.646	-92.348
200/1710	******	******	**	*******	1.10	26.87	*****	.0561E-02	********	*********
200/1725	4.75	5.10	92	.833	1.11	26.29	47.4	.8707E-02	-35.845	-63.902
200/1740	5.19	5.67	92	.682	1.07	23.00	34.9	.7133E-02	-36.161	-71.409
200/1755	4.67	5.09	91	.556	1.03	21.47	33.0	.5808E-02	-28.034	-56.530
200/1810	5.37	5.80	91	.825	1.11	26.19	40.2	.8642E-02	-41.752	-80.632
200/1825	5.70	6.23	91	.699	1.07	24.13	31.8	.7332E-02	-41.274	-88.107
200/1840	5.18	5.64	91	.892	1.12	27.21	45.3	.9320E-02	-43.569	-75.517
200/1855	4.90	5.33	91	.916	1.13	27.57	50.0	.9574E-02	-39.177	-71.600
200/1910	5.86	6.51	91	.802	1.12	27.06	46.3	.9227E-02	-40.870	-74.041
200/1925	5.28	5.75	91	.943	1.13	27.59	46.9	.9066E-02	-45.741	-88.462
200/1940	5.55	6.06	91	1.025	1.15	29.18	47.9	.1073E-01	-48.555	-87.021
200/1955	5.96	6.52	91	.598	1.04	22.29	25.7	.6262E-02	-48.297	-93.191
200/2010	5.51	6.01	91	.965	1.14	28.32	45.5	.1010E-01	-46.746	-84.845
200/2025	4.91	5.34	91	.848	1.11	26.53	46.2	.8862E-02	-37.790	-68.942
200/2040	4.39	4.76	91	.667	1.06	23.59	42.6	.6972E-02	-30.618	-53.760
200/2055	5.08	5.44	90	.537	1.03	21.12	29.2	.5619E-02	-30.205	-57.674
200/2110	5.63	6.13	90	.662	1.06	23.47	30.6	.6941E-02	-39.503	-77.547
200/2125	4.87	5.24	89	.745	1.09	24.84	41.1	.7776E-02	-34.706	-64.532
200/2140	4.76	5.11	88	.822	1.10	26.09	46.4	.8574E-02	-35.006	-64.768
200/2155	4.91	5.28	88	1.142	1.10	30.75	61.7	.1191E-01	-44.896	-86.125
200/2210	5.29	5.71	89	1.339	1.21	33.32	66.2	.1399E-01	-52.387	-98.425
200/2225	5.75	6.24	89	1.257	1.20	32.31	56.4	.1315E-01	-56.003	-95.160
200/2240	6.52	7.12	90	.799	1.18	25.70	30.7	.8324E-02	-52.166	-95.179
200/2255	5.78	6.20	90	.929	1.13	27.76	41.8	.9708E-02	-47.829	-84.117
200/2311	4.35	4.67	90	1.140	1.17	30.67	71.3	.1185E-01	-37.859	-68.320
200/2326	3.69	3.92	90	1.095	1.16	30.02	65.1	.1135E-01	-29.746	-49.023
200/2341	3.30	3.58	90	1.119	1.17	30.34	92.9	.1159E-01	-26.609	-45.993
200/2356	3.67	3.91	90	1.345	1.21	33.26	104.1	.1392E-01	-33.094	-46.822
201/0011	4.63	4.99	91	1.461	1.23	34.71	84.4	.1518E-01	-46.396	-73.299
201/0026	5.39	5.86	91	2.163	1.34	42.28	105.5	.2252E-01	-67.092	-110.335
201/0041	5.10	5.54	91	1.566	1.25	35.97	86.5	.1629E-01	-54.077	-90.801
201/0056	4.77	5.17	92	.896	1.12	27.20	50.2	.9322E-02	-37.574	-66.657
201/0111	3.12	3.31	91	.944	1.13	27.82	94.0	.9749E-02	-21.455	-32.967
201/0126	4.37	4.72	92	1.889	1.29	38.59	111.8	.1076E-01	-40.144	-76.813
201/0141	4.90	5.32	92	2.213	1.34	42.21	130.1	.2298E-01	-60.737	-99.205
201/0156	5.33	5.79	92	2.492	1.38	45.33	123.3	.2589E-01	-70.713	-116.145
201/0211	5.45	5.93	92	2.766	1.41	47.77	134.2	.2874E-01	-75.994	-125.989
201/0226	5.55	6.07	93	2.044	1.32	41.11	96.1	.2129E-01	-67.670	-112.342
201/0241	5.21	5.69	93	1.894	1.30	39.57	95.5	.1972E-01	-60.602	-107.180

15 MINUTE AVERAGES. PARAMETERS

DTG.Z	TA-TW degC	TVA-TVW degC	RH %	TAO d/cm**2	CD X10-3	U* cm/sec	L m	Z0 cm	H w/m**2	E w/m**2
201/0256	5.93	6.51	91	2.421	1.37	44.77	106.0	.2592E-01	-70.704	-142.329
201/0311	5.37	5.00	93	2.367	1.36	44.26	116.6	.2460E-01	-69.550	-124.307
201/0326	4.89	5.33	93	2.091	1.33	41.57	114.2	.2177E-01	-58.805	-104.141
201/0341	5.06	5.52	93	2.110	1.33	41.01	111.0	.2205E-01	-61.732	-100.600
201/0356	5.10	5.66	93	.855	1.11	26.40	42.2	.8690E-02	-40.217	-77.960
201/0411	5.00	5.56	93	.664	1.06	23.45	34.7	.6927E-02	-34.255	-70.060
201/0426	4.67	5.09	93	.772	1.09	25.27	44.8	.8046E-02	-33.715	-66.351
201/0441	4.74	5.10	93	1.690	1.27	37.19	95.9	.1770E-01	-51.416	-93.035
201/0456	5.24	5.73	93	1.798	1.29	38.60	90.5	.1877E-01	-59.430	-103.079
201/0511	5.34	5.04	92	1.124	1.17	30.57	54.0	.1174E-01	-48.517	-92.100
201/0526	4.62	5.83	93	1.017	1.15	29.05	59.5	.1063E-01	-50.506	-72.947
201/0542	5.02	5.40	92	.354	.96	17.13	19.0	.3597E-02	-23.757	-52.505
201/0557	5.25	5.74	92	.233	.90	13.89	12.9	.2425E-02	-19.391	-46.049
201/0612	5.07	5.52	92	.570	1.04	21.71	30.1	.5935E-02	-31.005	-63.107
201/0627	4.90	5.34	92	.832	1.11	26.23	45.2	.8664E-02	-37.366	-70.069
201/0642	5.13	5.61	92	.695	1.07	23.99	35.0	.7252E-02	-36.067	-71.139
201/0657	4.97	5.42	92	.993	1.14	28.67	52.0	.1035E-01	-41.735	-78.050
201/0712	4.69	5.10	92	1.009	1.15	28.88	57.7	.1051E-01	-39.052	-71.920
201/0727	4.97	5.42	92	.826	1.11	26.14	44.1	.8611E-02	-37.690	-72.310
201/0742	5.61	6.13	92	.947	1.13	28.02	43.5	.9887E-02	-47.299	-88.975
201/0757	5.22	5.60	92	.810	1.10	25.89	40.6	.8445E-02	-39.957	-74.437
201/0812	5.37	5.85	92	.800	1.10	25.86	39.1	.8422E-02	-41.366	-77.205
201/0827	5.04	5.47	92	.514	1.02	20.62	27.5	.5354E-02	-29.815	-58.083
201/0842	4.35	4.70	92	.507	1.04	22.00	37.9	.6095E-02	-26.304	-48.851
201/0857	4.50	4.86	92	1.069	1.16	29.67	63.2	.1105E-01	-30.243	-67.376
201/0912	5.42	5.90	92	1.162	1.18	30.98	55.4	.1209E-01	-50.297	-87.020
201/0927	5.76	6.28	92	1.555	1.25	35.86	67.1	.1620E-01	-62.242	-108.534
201/0942	5.61	6.10	92	1.175	1.18	31.16	53.7	.1225E-01	-52.717	-92.930
201/0957	5.13	5.57	92	1.076	1.16	29.80	53.7	.1119E-01	-45.274	-79.044
201/1012	4.56	4.92	92	1.105	1.17	30.17	65.0	.1146E-01	-39.565	-66.930
201/1027	4.70	5.09	92	1.142	1.17	30.68	64.6	.1186E-01	-41.061	-71.249
201/1042	5.02	5.45	92	1.321	1.21	33.02	69.0	.1373E-01	-48.033	-83.531
201/1057	4.78	5.17	92	1.188	1.18	31.30	65.9	.1234E-01	-43.534	-74.255
201/1112	5.14	5.59	92	1.624	1.26	36.63	82.0	.1690E-01	-55.521	-94.134
201/1128	5.35	5.82	92	1.539	1.25	35.67	71.8	.1603E-01	-56.749	-97.312
201/1143	5.51	6.00	92	1.635	1.26	36.77	77.1	.1703E-01	-60.379	-104.125
201/1158	5.59	6.08	92	1.198	1.19	31.49	55.2	.1249E-01	-52.933	-93.423
201/1213	5.46	5.94	92	1.209	1.19	31.62	57.1	.1260E-01	-51.775	-98.380
201/1228	5.72	5.67	91	.755	1.09	24.98	37.8	.7860E-02	-30.555	-69.635
201/1243	5.20	5.65	91	1.265	1.20	32.34	63.5	.1317E-01	-49.064	-85.677
201/1258	5.20	5.64	91	1.926	1.31	39.90	97.6	.2005E-01	-60.907	-101.120
201/1313	5.32	5.70	91	1.604	1.26	36.42	70.0	.1671E-01	-57.377	-97.396
201/1328	5.99	6.54	91	1.849	1.30	39.15	99.7	.1931E-01	-70.470	-122.601
201/1343	5.89	6.41	91	1.837	1.29	39.02	80.7	.1918E-01	-68.071	-116.060
201/1358	5.18	5.59	90	1.920	1.30	39.07	97.6	.1996E-01	-60.575	-93.405
201/1413	5.14	5.56	90	1.607	1.26	36.44	82.0	.1673E-01	-55.266	-87.305
201/1428	5.52	5.99	90	1.560	1.25	35.94	73.3	.1627E-01	-59.232	-97.952
201/1443	5.61	6.10	91	1.130	1.17	30.70	52.1	.1107E-01	-51.907	-89.062

15 MINUTE AVERAGES: PARAMETERS

DTG.Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CE X10-3	UE cm/sec	L m	Z0 cm	H w/m**2	E w/m**2
201/1430	5.35	5.81	90	1.460	1.22	37.04	81.0	.1220E-01	-50.757	-96.308
201/1515	4.84	5.22	90	1.592	1.24	35.46	83.5	.1581E-01	-49.964	-79.233
201/1530	4.56	4.90	90	1.514	1.24	35.33	89.1	.1523E-01	-46.343	-71.358
201/1545	5.24	5.60	91	1.811	1.29	38.20	90.0	.1806E-01	-59.756	-96.397
201/1600	5.96	6.84	91	1.156	1.00	38.94	53.6	.1286E-01	-50.201	-81.685
201/1615	4.88	5.26	90	1.069	1.16	29.69	52.9	.1111E-01	-42.345	-67.900
201/1630	4.86	5.24	90	1.068	1.16	29.96	59.1	.1141E-01	-42.603	-68.198
201/1645	4.75	5.11	90	.923	1.13	27.60	55.9	.9593E-02	-37.920	-61.032
201/1700	5.11	5.53	90	1.105	1.18	31.30	68.7	.1234E-01	-47.274	-77.255
201/1715	5.89	6.48	91	1.000	1.15	28.08	43.4	.1045E-01	-51.524	-90.535
201/1730	6.16	6.71	91	.984	1.14	28.57	40.4	.1025E-01	-54.010	-95.240
201/1744	5.34	5.79	91	1.006	1.15	28.85	48.9	.1049E-01	-45.947	-79.125
201/1759	4.77	5.16	91	1.035	1.15	29.24	52.7	.1077E-01	-40.520	-67.605
201/1814	4.90	5.39	91	1.024	1.15	29.10	54.3	.1067E-01	-43.583	-72.771
201/1829	5.22	5.67	91	.904	1.12	27.65	45.2	.9423E-02	-42.329	-74.499
201/1844	4.91	5.31	91	.783	1.09	25.44	42.5	.8152E-02	-36.272	-63.506
201/1859	4.95	5.36	91	.666	1.06	23.47	36.0	.6940E-02	-33.639	-60.410
201/1914	4.80	5.29	91	.619	1.05	22.63	34.2	.6451E-02	-31.717	-58.072
201/1929	5.18	5.53	91	.747	1.09	24.86	38.7	.7784E-02	-37.161	-67.582
201/1944	5.53	6.03	91	.890	1.12	27.15	41.5	.9268E-02	-45.006	-80.612
201/1959	4.96	5.38	91	.959	1.14	28.15	50.1	.9983E-02	-40.059	-71.001
201/2014	4.77	5.16	91	.903	1.12	27.31	50.6	.9399E-02	-37.670	-66.182
201/2029	5.04	5.47	91	.936	1.13	27.84	48.9	.9765E-02	-41.282	-72.048
201/2044	4.62	4.99	91	.924	1.13	27.60	53.6	.9591E-02	-36.699	-62.333
201/2059	5.22	5.67	91	.974	1.14	28.37	48.6	.1014E-01	-44.015	-77.666
201/2114	4.97	5.38	91	.951	1.13	28.02	50.4	.9896E-02	-40.020	-71.184
201/2129	5.46	5.95	92	.850	1.11	26.52	48.2	.8868E-02	-43.450	-77.470
201/2144	5.01	6.34	92	.812	1.10	25.94	35.2	.8479E-02	-45.704	-85.770
201/2159	4.47	4.83	92	.903	1.12	27.27	54.7	.9371E-02	-34.760	-59.882
201/2214	4.95	5.37	92	1.210	1.19	33.60	64.3	.1258E-01	-45.924	-79.689
201/2229	5.48	5.98	92	.940	1.13	27.68	44.2	.9795E-02	-45.900	-84.459
201/2244	5.07	6.42	92	.821	1.10	26.09	35.6	.8576E-02	-46.616	-88.932
201/2259	5.04	6.39	92	.777	1.09	25.57	33.9	.8107E-02	-45.063	-86.933
201/2314	5.56	6.87	92	.577	1.04	21.05	27.0	.6015E-02	-36.170	-71.650
201/2329	5.48	5.99	92	.435	.99	18.98	24.0	.4536E-02	-30.398	-62.517
201/2344	4.72	5.12	92	.223	.90	13.57	14.7	.2318E-02	-15.865	-37.180
201/2359	4.41	4.76	92	.193	.88	12.59	15.0	.1998E-02	-12.589	-30.970
202/0014	5.05	5.49	92	.211	.89	13.21	12.6	.2197E-02	-17.067	-39.546
202/0029	3.95	4.24	92	.162	.86	10.52	16.0	.1673E-02	-8.520	-23.765
202/0045	4.72	5.11	92	.207	.89	13.05	13.9	.2145E-02	-14.980	-34.036
202/0100	5.06	5.46	92	.318	.94	16.19	17.7	.3301E-02	-23.449	-45.856
202/0115	4.00	5.19	91	.218	.89	13.39	14.8	.2260E-02	-16.010	-36.129
202/0130	6.24	6.82	92	.091	.80	8.69	4.7	.9505E-03	-13.923	-36.357
202/0145	6.76	7.39	91	.063	.77	7.23	3.2	.6502E-03	-10.920	-33.490
202/0200	4.90	5.29	91	.091	.80	8.67	2.8	.9427E-03	-2.010	-24.860
202/0215	4.82	5.21	91	.110	.83	9.00	2.3	.1230E-02	-9.765	-27.866
202/0230	5.66	6.16	91	.052	.76	6.57	1.5	.5448E-03	-5.085	-24.390
202/0245	5.61	6.11	91	.049	.76	6.40	1.6	.5150E-03	-5.331	-23.785

15 MINUTE AVERAGED PARAMETERS

DTG Z	TA-TW deqC	TVA-TVW deqC	RH %	TAU d/cm**2	CD X10-3	DA cm/sec	L m	ZO cm	H w/m**2	E w/m**2
202/0300	6.10	6.75	91	.030	.74	5.63	3.3	.5999E-03	-5.016	-26.987
202/0315	5.41	5.87	91	.010	.70	3.80	-5.0	.1893E-03	1.181	-43.992
202/0330	5.20	5.73	91	.050	.76	6.35	5.6	.5243E-03	-4.479	-31.992
202/0345	6.94	7.61	91	.024	.72	4.49	2.4	.2548E-03	-3.552	-23.052
202/0400	7.20	8.01	91	.014	.69	3.46	9.3	.1508E-03	-.976	-12.314
202/0415	7.97	8.80	91	.015	.70	3.59	3.7	.1628E-03	-2.541	-22.227
202/0430	7.90	8.81	91	.010	.68	2.87	-332.8	.1038E-03	.007	-10.560
202/0445	7.69	8.48	91	.007	.67	2.45	-.7	.7524E-04	1.060	-15.177
202/0500	8.15	9.01	91	.011	.68	3.00	3.5	.1135E-03	-.710	-19.289
202/0515	8.23	9.11	91	.009	.68	2.78	98.3	.9764E-04	-.071	-18.965
202/0530	6.46	7.80	91	.183	.81	9.25	4.9	.1077E-02	-15.127	-40.018
202/0545	4.34	4.60	91	.307	.92	17.87	26.4	.4024E-02	-20.217	-39.922
202/0600	2.79	2.94	91	.329	.95	16.48	53.7	.3395E-02	-7.721	-16.239
202/0615	3.36	3.58	91	.403	.90	18.19	41.4	.4170E-02	-13.613	-25.540
202/0630	3.90	4.10	91	.283	.93	15.26	24.5	.2945E-02	-13.583	-28.697
202/0645	3.56	3.80	91	.434	.99	18.86	39.6	.4485E-02	-15.882	-28.907
202/0700	3.65	3.90	91	.304	.97	17.75	34.6	.3971E-02	-15.167	-28.716
202/0715	3.61	3.85	91	.587	1.01	20.40	44.8	.5243E-02	-18.879	-31.635
202/0730	3.01	3.18	91	.394	.97	17.96	58.2	.4064E-02	-10.824	-20.012
202/0745	3.14	3.33	91	.332	.95	16.49	41.3	.3426E-02	-10.174	-20.443
202/0800	3.18	3.29	91	.287	.93	15.35	39.1	.2962E-02	-9.670	-18.721
202/0815	2.45	2.56	91	.101	.87	12.15	101.3	.1061E-02	-1.661	-9.852
202/0830	2.50	2.71	91	.224	.89	13.53	63.1	.2386E-02	-3.661	-11.436
202/0845	2.65	2.78	91	.335	.95	16.55	61.3	.3449E-02	-6.922	-14.255
202/0901	3.10	3.20	91	.227	.90	13.65	35.1	.2346E-02	-6.775	-16.748
202/0916	3.14	3.32	91	.225	.90	13.50	34.1	.2322E-02	-6.876	-16.944
202/0931	2.79	2.93	91	.622	1.05	22.56	99.9	.6411E-02	-13.468	-28.473
202/0946	2.76	2.91	91	.692	1.07	23.79	88.0	.7139E-02	-14.333	-21.585
202/1001	1.76	1.79	91	.031	1.10	26.02	261.6	.6528E-02	-6.311	-5.189
202/1016	2.12	2.20	91	1.339	1.21	33.04	234.0	.1376E-01	-14.454	-14.825
202/1031	1.95	2.00	91	1.494	1.24	34.90	297.6	.1535E-01	-15.309	-10.626
202/1046	1.83	1.87	91	1.462	1.23	34.51	329.1	.1508E-01	-11.708	-7.915
202/1101	1.95	2.01	91	1.662	1.26	36.82	321.5	.1702E-01	-14.545	-11.147
202/1116	2.34	2.44	91	1.641	1.26	36.61	236.1	.1688E-01	-19.473	-20.091
202/1131	2.21	2.30	91	1.138	1.17	30.48	191.4	.1170E-01	-13.861	-14.584
202/1146	2.30	2.39	91	1.200	1.18	31.31	187.1	.1235E-01	-15.388	-16.554
202/1201	1.48	1.49	91	1.503	1.25	35.91	547.2	.1624E-01	-7.930	173
202/1216	1.47	1.47	91	1.591	1.25	36.01	558.4	.1633E-01	-7.835	.381
202/1231	1.30	1.29	91	1.302	1.22	33.56	752.0	.1419E-01	-4.707	4.850
202/1246	1.48	1.49	91	1.449	1.23	34.30	524.7	.1489E-01	-7.250	.219
202/1301	1.57	1.58	91	1.572	1.25	35.82	478.5	.1616E-01	-8.998	-1.659
202/1316	1.58	1.59	91	1.642	1.26	36.61	484.2	.1689E-01	-9.499	-1.936
202/1331	1.72	1.75	90	1.895	1.30	39.34	449.4	.1956E-01	-12.690	-5.151
202/1346	1.88	1.92	90	2.092	1.33	41.36	416.8	.2159E-01	-15.935	-7.940
202/1402	1.65	1.68	89	1.650	1.26	36.73	352.9	.1699E-01	-13.153	-4.263
202/1417	1.74	1.75	89	1.516	1.24	35.19	325.2	.1560E-01	-10.806	.821
202/1432	1.61	1.60	89	1.764	1.28	37.95	406.6	.1815E-01	-10.531	5.432
202/1447	1.78	1.79	89	1.977	1.31	40.19	435.1	.2035E-01	-13.906	-.334

15 MINUTE AVERAGES PARAMETERS

DTG Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CD X10-3	DA cm/sec	L m	ZO cm	H w/m**2	E w/m**2
202/1502	1.89	1.91	89	1.344	1.21	33.14	291.6	.1304E-01	-11.698	-2.627
202/1517	1.91	1.94	89	1.601	1.25	36.17	325.1	.1640E-01	-13.641	-3.729
202/1532	1.81	1.82	89	1.676	1.27	37.00	374.3	.1724E-01	-12.600	-1.661
202/1547	1.90	1.93	89	1.665	1.26	36.90	339.9	.1715E-01	-13.849	-4.220
202/1602	2.05	2.09	89	1.998	1.31	40.39	346.9	.2051E-01	-17.747	-0.550
202/1617	2.04	2.09	89	2.561	1.30	45.77	434.9	.2640E-01	-20.664	-9.342
202/1632	1.92	1.95	89	2.513	1.30	45.54	471.5	.2569E-01	-10.518	-5.613
202/1647	1.87	1.90	89	2.672	1.40	46.74	518.0	.2754E-01	-10.477	-4.427
202/1702	******	******	**	*******	1.35	44.10	******	.2346E-01	********	*********
202/1717	******	******	**	*******	1.33	41.97	******	.2219E-01	********	*********
202/1732	******	******	**	*******	1.33	41.38	******	.2157E-01	********	*********
202/1747	******	******	**	*******	1.31	39.95	******	.2011E-01	********	*********
202/1802	******	******	**	*******	1.24	34.93	******	.1537E-01	********	*********
202/1817	******	******	**	*******	1.22	34.16	******	.1470E-01	********	*********
202/1832	******	******	**	*******	1.21	34.90	******	.1489E-01	********	*********
202/1847	2.70	2.70	87	1.611	1.26	36.35	108.3	.1665E-01	-23.090	-15.737
202/1902	2.73	2.78	86	1.800	1.29	38.42	285.5	.1860E-01	-25.063	-11.961
202/1917	2.78	2.80	83	1.645	1.26	36.74	104.0	.1701E-01	-25.257	-.466
202/1932	2.97	2.96	81	1.447	1.23	34.66	149.0	.1496E-01	-25.720	5.789
202/1947	2.59	2.50	70	1.343	1.21	33.10	170.5	.1387E-01	-20.001	22.420
202/2002	1.47	1.23	77	1.201	1.18	31.36	497.4	.1245E-01	-5.815	50.602
202/2017	.13	-.29	76	1.345	1.21	33.28	-359.3	.1389E-01	9.549	-89.274
202/2032	-.06	-.53	75	1.829	1.29	38.76	-458.0	.1892E-01	11.916	110.021
202/2048	-2.78	-3.67	75	2.570	1.39	46.00	-160.0	.2666E-01	54.307	233.001
202/2103	-2.39	-3.24	75	2.712	1.41	47.30	-202.5	.2815E-01	48.987	228.067
202/2118	-2.10	-2.92	75	2.875	1.42	48.71	-239.9	.2989E-01	45.133	225.665
202/2133	-3.30	-4.42	75	1.919	1.30	39.82	-102.5	.1993E-01	57.697	245.005
202/2148	-3.19	-4.22	75	2.644	1.40	46.76	-156.9	.2754E-01	61.034	272.111
202/2203	-2.80	-3.87	74	2.667	1.40	46.95	-172.1	.2777E-01	56.370	261.212
202/2218	-2.66	-3.54	74	2.832	1.42	48.30	-200.5	.2949E-01	52.910	255.925
202/2233	-2.80	-3.76	75	2.968	1.43	49.53	-200.1	.3090E-01	56.802	265.962
202/2248	-4.15	-5.36	75	3.370	1.48	52.79	-167.2	.3511E-01	82.455	348.507
202/2303	-4.98	-6.37	75	3.332	1.47	52.52	-141.0	.3472E-01	96.270	396.940
202/2318	-5.43	-6.93	75	3.325	1.47	52.50	-130.5	.3472E-01	103.085	425.307
202/2333	-5.20	-6.78	75	3.303	1.47	52.35	-133.0	.3452E-01	101.057	423.400
202/2348	-5.18	-6.68	74	3.273	1.47	52.14	-136.0	.3424E-01	97.610	421.047
203/0003	-5.29	-6.86	74	3.042	1.44	50.28	-121.2	.3186E-01	98.243	429.600
203/0018	-5.20	-6.87	73	2.869	1.43	48.85	-113.0	.3007E-01	95.967	426.417
203/0033	-4.98	-6.54	73	2.597	1.39	46.49	-106.0	.2725E-01	80.151	401.317
203/0048	-3.61	-4.90	72	2.600	1.39	46.52	-141.1	.2727E-01	66.041	336.369
203/0103	-4.32	-5.79	72	2.530	1.39	45.92	-117.5	.2656E-01	77.153	374.023
203/0118	-4.93	-6.56	72	2.850	1.42	48.75	-120.5	.2994E-01	90.039	433.062
203/0133	-4.55	-6.13	71	2.689	1.41	47.37	-120.9	.2829E-01	82.338	409.710
203/0148	-4.09	-6.56	71	2.055	1.33	41.45	-83.3	.2162E-01	79.930	389.674
203/0203	-4.97	-6.68	71	2.391	1.37	44.71	-98.2	.2511E-01	85.209	424.915
203/0218	-4.42	-6.05	71	2.826	1.42	48.62	-132.1	.2970E-01	81.457	429.192
203/0233	-4.69	-6.40	70	2.959	1.44	49.77	-132.5	.3124E-01	87.067	458.616
203/0248	-4.69	-6.42	70	2.223	1.35	43.16	-95.2	.2346E-01	79.057	414.460

15 MINUTE AVERAGES PARAMETERS

DIG Z	TA-TW degC	TVA-TVW degC	RH %	TAO J/cm**2	CO X10-3	OE cm/sec	L m	ZO cm	D W/m**2	F W/m**2
203/0403	-4.66	-6.40	70	2.207	1.36	43.70	-99.1	.2414E-01	79.247	421.499
203/0510	-4.44	-6.14	70	1.922	1.31	40.14	81.4	.2030E-01	71.690	385.641
203/0353	-4.76	-6.54	70	1.796	1.29	38.61	-93.5	.1898E-01	68.423	398.743
203/0408	-4.87	-6.72	70	1.801	1.29	38.87	-92.5	.1905E-01	75.063	406.225
203/0423	-4.70	-6.53	70	1.755	1.28	38.49	-92.6	.1857E-01	72.909	397.885
203/0438	-5.25	-7.24	70	1.924	1.31	40.21	-94.5	.2032E-01	69.765	447.865
203/0453	-4.99	-6.85	69	2.107	1.34	42.10	-96.6	.2243E-01	88.569	454.161
203/0508	-4.17	-5.91	69	1.706	1.29	38.26	-82.3	.1893E-01	66.224	383.174
203/0523	-4.58	-6.41	70	1.555	1.25	35.16	-84.6	.1697E-01	68.401	359.306
203/0538	-4.64	-6.47	70	1.542	1.25	36.01	-83.4	.1634E-01	68.964	370.245
203/0553	-4.59	-6.42	70	1.564	1.26	36.27	-85.0	.1656E-01	68.662	380.501
203/0608	-4.47	-6.30	70	1.073	1.30	39.71	-82.1	.1987E-01	71.306	406.369
203/0623	-4.37	-6.17	70	1.298	1.21	33.06	-94.5	.1377E-01	61.978	348.846
203/0638	-4.30	-6.10	70	1.048	1.16	29.71	-43.1	.1112E-01	56.909	310.734
203/0653	-4.60	-6.45	70	.705	1.08	24.36	-25.6	.7476E-02	52.824	277.971
203/0708	-4.63	-6.50	69	.646	1.06	23.33	-23.0	.6845E-02	51.626	271.116
203/0723	-4.69	-6.57	69	.522	1.02	20.96	-17.7	.5536E-02	40.639	250.347
203/0738	-4.74	-6.64	70	.399	.90	10.10	-12.4	.4125E-02	44.619	222.338
203/0753	-4.94	-6.89	70	.469	1.01	20.29	-15.0	.5100E-02	49.582	251.017
203/0808	-5.28	-7.31	70	.528	1.02	21.09	-16.4	.5603E-02	53.645	269.510
203/0823	-5.32	-7.37	70	.619	1.05	22.83	-19.6	.5565E-02	56.895	282.139
203/0838	-5.31	-7.35	70	.800	1.10	25.95	-26.4	.8402E-02	61.050	321.065
203/0853	-5.31	-7.36	70	.788	1.10	25.63	-25.7	.8274E-02	61.295	319.715
203/0908	-5.39	-7.48	69	.551	1.03	21.53	-16.9	.5841E-02	55.226	292.324
203/0923	-5.36	-7.44	69	.377	.97	17.03	-10.9	.4004E-02	48.512	270.595
203/0938	-5.30	-7.30	69	.385	.97	18.01	-11.3	.4005E-02	48.397	241.614
203/1323	-3.79	-5.77	67	.466	.99	19.25	-17.1	.4659E-02	58.902	241.419
203/1338	-3.57	-5.50	67	.444	1.00	19.43	-16.2	.4744E-02	57.407	247.950
203/1353	-3.67	-5.61	67	.468	1.00	19.76	-18.7	.4921E-02	58.623	242.597
203/1408	-3.80	-5.76	68	.497	1.02	20.53	-19.9	.5307E-02	48.603	252.620
203/1423	-3.41	-5.30	68	1.349	1.22	33.85	-71.0	.1443E-01	51.035	366.161
203/1438	-3.49	-5.41	67	.949	1.14	28.39	-45.9	.1015E-01	46.572	322.559
203/1453	-3.59	-5.51	68	1.797	1.29	39.05	-95.8	.1921E-01	58.366	415.802
203/1508	-3.20	-5.05	67	1.520	1.25	35.93	-86.1	.1626E-01	50.364	376.995
203/1523	-2.39	-4.16	66	1.630	1.27	37.24	-117.3	.1747E-01	41.175	370.603
203/1538	-1.79	-3.51	64	1.850	1.30	39.71	-169.3	.1987E-01	34.590	388.230
203/1553	-2.33	-4.21	63	1.764	1.29	38.74	-131.6	.1891E-01	41.309	406.111
203/1608	-2.67	-4.66	61	2.797	1.42	48.76	-205.5	.2996E-01	52.773	515.457
203/1623	-2.71	-4.75	61	2.212	1.35	43.38	-153.6	.2370E-01	49.693	481.402
203/1638	-2.75	-4.83	60	.901	1.13	27.60	-51.9	.9653E-02	38.239	343.062
203/1653	-2.61	-4.65	60	.768	1.10	25.97	-44.4	.8237E-02	35.230	315.982
203/1708	******	******	**	*******	1.11	26.45	******	.8816E-02	********	*********
203/1723	******	******	**	*******	1.14	28.45	******	.1020E-01	********	*********
203/1738	******	******	**	*******	1.19	31.04	******	.1277E-01	********	*********
203/1753	******	******	**	*******	1.30	39.79	******	.1995E-01	********	*********
203/1808	******	******	**	*******	1.34	42.30	******	.2254E-01	********	*********
203/1823	******	******	**	*******	1.39	46.47	******	.2721E-01	********	*********
203/1838	-2.71	-4.57	66	2.947	1.44	50.11	-217.1	.3163E-01	54.172	409.152

15 MINUTE AVERAGES - PARAMETERS

DOY/Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CD X10-3	UA cm/sec	L m	ZO cm	H w/m**2	E w/m**2
203/1853	-2.60	-4.50	68	3.134	1.46	51.60	-235.4	.3364E-01	54.002	407.210
203/1908	-2.37	-4.14	67	3.994	1.55	59.37	-347.0	.4292E-01	54.414	522.044
203/1923	-2.54	-4.36	67	2.298	1.36	44.26	-162.8	.2468E-01	47.707	454.700
203/1938	-2.63	-4.45	67	1.457	1.24	35.24	-95.9	.1565E-01	42.663	363.432
203/1953	-2.74	-4.59	67	1.085	1.17	30.41	-65.3	.1165E-01	40.280	327.658
203/2008	-2.79	-4.64	67	1.101	1.17	30.64	-65.5	.1182E-01	41.032	328.644
203/2023	-2.73	-4.59	67	1.617	1.27	37.12	-105.6	.1736E-01	45.271	385.356
203/2038	-2.72	-4.57	67	2.176	1.35	43.86	-151.1	.2336E-01	49.324	433.614
203/2053	-2.69	-4.53	67	2.144	1.34	42.75	-142.7	.2302E-01	48.756	430.662
203/2108	-2.72	-4.59	66	3.010	1.45	50.65	-222.0	.3231E-01	54.691	495.271
203/2123	-2.69	-4.57	66	2.471	1.39	45.69	-176.2	.2653E-01	51.055	460.607
203/2138	-2.64	-4.53	65	2.382	1.38	45.06	-172.1	.2557E-01	49.667	458.851
203/2153	-2.66	-4.55	66	2.151	1.35	42.02	-151.7	.2310E-01	48.387	441.171
203/2208	-2.65	-4.55	66	2.645	1.41	47.49	-194.7	.2841E-01	51.414	479.042
203/2223	-2.51	-4.42	65	2.686	1.41	47.87	-206.9	.2886E-01	49.542	483.921
203/2238	-2.81	-4.75	65	2.363	1.37	44.87	-162.3	.2537E-01	52.896	470.195
203/2253	-2.91	-4.88	65	2.812	1.43	48.93	-193.5	.3012E-01	56.615	502.614
203/2322	-2.81	-4.74	65	2.858	1.43	49.34	-203.3	.3062E-01	55.295	504.345
203/2337	-2.89	-4.79	66	4.718	1.61	63.39	-359.6	.5063E-01	66.210	601.769
203/2352	-2.97	-4.89	66	4.925	1.62	64.76	-369.4	.5283E-01	68.717	617.525
204/0007	-3.01	-4.93	66	4.678	1.60	63.11	-349.6	.5017E-01	68.363	609.736
204/0022	-3.00	-4.91	67	4.416	1.58	61.32	-329.9	.4737E-01	66.993	597.488
204/0037	-3.04	-5.00	66	4.718	1.61	63.37	-343.3	.5060E-01	69.295	615.076
204/0052	-3.08	-5.03	66	4.138	1.56	59.35	-291.5	.4437E-01	67.031	586.301
204/0107	-3.12	-5.08	66	3.467	1.49	54.31	-233.6	.3716E-01	64.106	548.551
204/0122	-3.11	-5.05	67	2.755	1.42	48.42	-178.5	.2953E-01	59.425	494.215
204/0137	-3.10	-5.03	66	2.324	1.37	44.47	-146.6	.2491E-01	56.862	462.234
204/0152	-3.01	-4.96	66	2.349	1.37	44.72	-152.8	.2519E-01	55.807	467.771
204/0207	-3.00	-4.95	65	1.905	1.31	40.29	-119.2	.2044E-01	51.298	433.365
204/0222	-2.98	-4.93	65	1.865	1.30	39.85	-116.7	.2000E-01	50.662	430.137
204/0237	-2.91	-4.86	65	2.016	1.33	41.93	-130.5	.2162E-01	50.940	442.960
204/0252	-2.84	-4.80	65	.763	1.10	25.49	-41.5	.8180E-02	37.336	304.207
204/0307	-2.84	-4.81	64	.679	1.07	24.84	-36.1	.7282E-02	36.007	299.965
204/0322	-2.76	-4.72	64	.540	1.03	21.45	-27.9	.5796E-02	33.007	264.316
204/0337	-2.75	-4.72	64	.690	1.08	24.26	-37.7	.7412E-02	35.404	290.107
204/0352	-2.73	-4.68	64	.644	1.06	23.43	-34.9	.6918E-02	34.492	288.400
204/0407	-2.71	-4.65	65	.586	1.05	22.55	-31.2	.6293E-02	33.445	267.356
204/0422	-2.73	-4.66	65	.801	1.11	26.13	-45.3	.8602E-02	36.774	302.019
204/0437	-2.74	-4.66	65	.902	1.13	27.73	-52.3	.9686E-02	38.124	316.540
204/0452	-2.73	-4.62	66	.931	1.14	28.18	-54.5	.1000E-01	38.373	315.695
204/0507	-2.73	-4.61	66	.598	1.05	22.50	-31.0	.6424E-02	33.815	261.495
204/0522	-2.76	-4.63	67	1.971	1.32	40.98	-132.5	.2116E-01	48.557	418.956
204/0537	-2.75	-4.61	67	2.134	1.34	42.65	-146.0	.2291E-01	49.634	438.733
204/0552	-2.75	-4.50	60	1.213	1.20	32.16	-79.4	.1303E-01	41.768	358.762
204/0607	-2.74	-4.55	60	.662	1.07	23.76	-35.9	.7109E-02	34.806	261.172
204/0622	-2.78	-4.60	60	.696	1.08	24.36	-37.8	.7474E-02	35.743	268.013
204/0637	-2.79	-4.63	60	1.227	1.20	32.34	-74.7	.1317E-01	42.296	382.805
204/0652	-2.71	-4.54	60	2.974	1.44	50.38	-219.8	.3195E-01	54.277	483.770

15 MINUTE AVERAGES. PARAMETERS

DOY.Z	TA-TW deg C	TVA-TVW deg C	RH %	TAU d/cm**2	ED X10-3	UE cm/sec	L m	ZO cm	H w/m**2	E w/m**2
204/0700	-2.67	-4.40	68	1.484	1.25	35.58	-92.8	.1595E-01	43.360	363.069
204/0723	-2.65	-4.46	68	1.359	1.22	34.04	-87.7	.1460E-01	42.040	348.955
204/0730	-2.69	-4.50	68	.934	1.14	28.22	-55.2	.1004E-01	38.039	300.603
204/0753	-2.67	-4.44	69	.606	1.07	24.19	-38.2	.7374E-02	34.645	259.350
204/0800	-2.72	-4.47	70	.821	1.11	26.46	-46.9	.8022E-02	36.911	276.522
204/0823	-2.65	-4.40	70	.821	1.11	26.46	-47.7	.8019E-02	36.220	275.590
204/0830	-2.68	-4.41	70	.947	1.14	28.32	-56.3	.1017E-01	38.001	287.704
204/0853	-2.71	-4.44	70	.957	1.14	28.52	-56.5	.1020E-01	38.515	290.715
204/0900	-2.61	-4.34	70	1.643	1.27	37.44	-111.4	.1765E-01	44.005	352.435
204/0923	-2.53	-4.24	70	2.635	1.41	47.43	-201.2	.2834E-01	49.525	420.720
204/0930	-2.54	-4.26	70	3.356	1.48	53.52	-267.4	.3609E-01	53.546	473.029
204/0953	-2.54	-4.24	71	3.243	1.47	52.61	-256.7	.3486E-01	52.969	462.343
204/1000	-2.52	-4.19	71	3.791	1.53	56.89	-313.9	.4077E-01	55.122	484.127
204/1023	-2.55	-4.20	72	3.522	1.50	54.83	-282.3	.3787E-01	54.523	463.262
204/1030	-2.50	-4.14	72	3.345	1.48	53.43	-262.7	.3599E-01	52.824	450.237
204/1053	-2.37	-3.90	72	3.140	1.46	51.85	-242.1	.3387E-01	49.664	433.432
204/1100	-2.20	-3.78	72	1.981	1.32	41.15	-159.3	.2133E-01	40.844	355.241
204/1123	-2.01	-3.56	72	.851	1.12	26.98	-60.5	.9167E-02	30.283	247.524
204/1130	-2.12	-3.67	73	2.740	1.42	40.40	-242.2	.2951E-01	43.694	395.034
204/1153	-2.13	-3.68	72	2.705	1.42	40.09	-238.1	.2913E-01	43.603	393.494
204/1200	-1.88	-3.30	72	2.440	1.38	45.78	-220.4	.2631E-01	37.360	367.015
204/1223	-1.74	-3.24	72	2.066	1.34	42.05	-190.7	.2228E-01	34.935	341.647
204/1230	-1.42	-2.87	72	2.067	1.34	42.09	-229.2	.2232E-01	30.360	330.717
204/1253	-1.31	-2.74	72	1.906	1.31	40.42	-210.8	.2050E-01	28.271	316.540
204/1300	-1.23	-2.65	72	1.652	1.27	37.64	-169.1	.1785E-01	26.321	296.050
204/1323	-1.09	-2.49	72	1.652	1.27	37.65	-202.9	.1785E-01	24.542	292.985
204/1330	-1.10	-2.50	72	.996	1.15	27.24	-102.1	.1077E-01	22.842	240.737
204/1357	-1.43	-2.86	72	1.455	1.24	35.31	-146.9	.1571E-01	27.961	283.676
204/1423	-.94	-2.29	72	1.235	1.20	32.57	-151.0	.1334E-01	21.250	263.065
204/1427	-.64	-1.95	72	1.371	1.23	34.34	-207.8	.1435E-01	18.170	255.108
204/1442	-.18	-1.43	71	1.470	1.25	35.58	-329.5	.1595E-01	12.747	247.962
204/1600	-1.20	-2.61	72	2.112	1.34	42.56	-262.5	.2202E-01	27.406	325.604
204/1615	-1.28	-2.70	72	1.609	1.27	37.15	-179.2	.1730E-01	26.695	295.603
204/1630	-1.27	-2.69	72	2.157	1.35	43.01	-259.5	.2330E-01	28.607	330.699
204/1645	-1.02	-2.40	72	2.206	1.35	43.51	-305.0	.2385E-01	25.195	325.278
204/1700	******	******	**	*******	1.31	40.54	******	.2071E-01	********	*********
204/1715	******	******	**	*******	1.39	46.50	******	.2724E-01	********	*********
204/1730	******	******	**	*******	1.22	33.07	******	.1445E-01	********	*********
204/1745	******	******	**	*******	.96	17.30	******	.3007E-02	********	*********
204/1800	******	******	**	*******	.97	17.97	******	.4069E-02	********	*********
204/1815	******	******	**	*******	1.16	29.65	******	.1100E-01	********	*********
204/1830	-.90	-2.25	72	2.024	1.33	41.68	-293.6	.2108E-01	23.607	306.213
204/1845	-1.05	-2.42	72	2.034	1.33	41.76	-271.1	.2197E-01	25.075	312.344
204/1900	-.90	-2.33	72	1.883	1.31	40.19	-255.1	.2035E-01	23.747	298.852
204/1915	-.87	-2.21	72	1.809	1.30	39.40	-250.8	.1955E-01	22.110	291.469
204/1930	-.82	-2.15	72	1.885	1.31	40.22	-264.3	.2038E-01	21.501	294.350
204/1945	-.91	-2.25	72	2.253	1.36	43.97	-335.3	.2435E-01	23.655	318.804
204/2000	-1.02	-2.38	72	2.408	1.38	45.45	-341.5	.2602E-01	25.650	331.765

15 MINUTE AVERAGES PARAMETERS

DTG.Z	TA-TW degC	TVA-TVW degC	RH Z	TAU d/cm**2	CD X10**3	HE cm/sec	L m	ZR cm	D w/m**2	F w/m**2
204/2015	-1.11	-2.48	72	2.937	1.44	50.10	-417.1	.3172E-01	28.265	360.889
204/2030	-1.20	-2.58	72	3.210	1.47	52.54	-443.7	.3474E-01	30.453	376.162
204/2045	-1.22	-2.69	72	2.982	1.45	50.56	-399.9	.3219E-01	30.143	364.654
204/2059	-1.14	-2.49	72	3.009	1.45	50.78	-422.2	.3249E-01	28.947	359.054
204/2114	-1.25	-2.63	72	3.036	1.45	51.01	-408.5	.3221E-01	30.775	368.564
204/2129	-1.32	-2.73	72	2.932	1.44	50.13	-374.7	.3166E-01	31.632	370.497
204/2144	-1.53	-3.08	72	2.574	1.40	46.96	-385.2	.2779E-01	33.908	363.699
204/2159	-1.70	-3.19	73	2.629	1.41	47.46	-272.0	.2830E-01	36.600	372.355
204/2214	-1.62	-3.08	73	2.643	1.31	47.59	-283.4	.2853E-01	35.476	366.645
204/2229	-1.63	-3.09	73	2.901	1.44	49.86	-317.2	.3132E-01	36.466	380.133
204/2244	-1.65	-3.09	73	2.759	1.32	48.69	-297.0	.2931E-01	36.813	372.992
204/2259	-1.75	-3.24	73	2.482	1.39	46.11	-238.6	.2679E-01	36.804	366.258
204/2314	-1.88	-3.41	73	2.223	1.36	43.64	-206.4	.2395E-01	37.520	357.326
204/2329	-1.96	-3.50	73	1.625	1.27	37.31	-136.9	.1754E-01	35.392	319.097
204/2344	-1.94	-3.48	73	.922	1.14	20.18	-62.1	.1001E-01	30.256	253.650
204/2359	-1.97	-3.52	73	1.239	1.28	32.48	-96.8	.1327E-01	32.950	289.812
205/0014	-2.03	-3.58	73	.784	1.18	25.92	-54.6	.8464E-02	29.776	257.771
205/0029	-2.08	-3.65	73	.486	.98	18.65	-23.6	.4380E-02	25.611	183.488
205/0044	-2.13	-3.78	73	.280	.93	15.48	-14.6	.3818E-02	23.716	156.589
205/0059	-1.86	-3.34	73	.270	.92	15.20	-15.8	.2989E-02	24.842	146.796
205/0114	-1.40	-2.86	73	.331	.95	16.84	-21.9	.3574E-02	28.373	142.905
205/0129	-1.44	-2.80	74	.219	.90	13.68	-12.9	.2359E-02	18.564	123.598
205/0144	-1.27	-2.58	74	.284	.93	15.49	-19.1	.3060E-02	18.585	132.938
205/0159	-1.32	-2.64	74	.625	1.06	23.14	-52.6	.6744E-02	24.998	186.890
205/0214	-1.48	-2.83	74	.620	1.06	23.18	-49.7	.6728E-02	23.558	191.595
205/0229	-1.20	-2.48	74	.649	1.06	23.56	-52.7	.6994E-02	24.168	184.872
205/0244	-.96	-2.15	74	.782	1.08	24.58	-71.0	.8564E-02	19.458	177.004
205/0259	-1.85	-2.25	74	.666	1.07	23.86	-63.5	.7370E-02	19.952	179.450
205/0314	-1.20	-2.25	79	.203	.93	15.55	-19.4	.3045E-02	18.081	102.553
205/0329	-1.18	-2.30	74	.534	1.03	21.37	-46.6	.5754E-02	19.565	168.816
205/0344	-1.88	-2.27	74	.727	1.09	24.92	-70.2	.7824E-02	20.569	179.969
205/0359	-.94	-2.08	74	.664	1.07	23.85	-66.5	.7144E-02	18.948	167.769
205/0414	-.93	-2.06	75	.681	1.85	22.65	-58.6	.6464E-02	18.524	158.870
205/0429	-.95	-2.06	75	.722	1.08	24.82	-73.8	.7758E-02	19.342	168.634
205/0444	-.97	-2.07	76	.854	1.12	27.48	-91.2	.9182E-02	20.148	178.099
205/0459	-.88	-1.83	76	.939	1.14	28.31	-112.7	.1009E-01	18.776	173.992
205/0514	-1.11	-2.21	76	1.065	1.17	30.13	-113.8	.1146E-01	22.594	195.454
205/0529	-1.47	-2.72	75	1.043	1.16	29.82	-94.8	.1120E-01	26.340	238.040
205/0544	-1.44	-2.71	74	1.037	1.16	29.75	-95.0	.1115E-01	25.809	232.331
205/0559	-1.49	-2.74	75	.725	1.09	24.87	-59.1	.7789E-02	24.297	189.314
205/0614	-1.27	-2.48	74	.429	.99	19.13	-32.5	.4609E-02	20.083	146.919
205/0629	-1.19	-2.37	74	.340	.96	17.03	-24.8	.3655E-02	18.628	131.516
205/0644	-.96	-2.07	75	.152	.85	11.56	-9.0	.1626E-02	15.222	86.276
205/0659	-1.35	-2.47	76	.165	.86	11.83	-8.9	.1763E-02	17.325	90.854
205/0714	-1.28	-2.38	76	.372	.97	17.78	-26.7	.3982E-02	19.628	134.514
205/0729	-1.22	-2.31	76	.188	.88	12.64	-11.1	.2013E-02	17.048	93.599
205/0744	-1.18	-2.18	76	.168	.87	11.97	-9.9	.1806E-02	16.115	88.208
205/0759	-1.05	-2.15	75	.799	1.18	26.88	-88.1	.8569E-02	20.676	174.220

15 MINUTE AVERAGES: PARAMETERS

DTG:Z	TA-TW degC	TVA-TVW degC	RH %	TAU d/cm**2	CD X10-3	CH cm/sec	L m	Z0 cm	Q w/m**2	I w/m**2
205/0014	-1.21	-2.35	75	984	1.15	28.96	-92.1	.1054E-01	23.209	196.626
205/0829	-1.38	-2.55	75	1.014	1.15	29.37	-93.7	.1006E-01	25.252	204.315
205/0844	-1.59	-2.79	75	790	1.10	26.85	-63.6	.8546E-02	25.946	182.837
205/0859	-1.94	-3.10	75	.834	1.11	26.60	-59.4	.8216E-02	29.633	199.369
205/0914	-1.66	-2.87	75	854	1.12	26.93	-67.5	.9134E-02	27.083	197.402
205/0929	-1.60	-2.81	74	.436	.99	19.24	-29.1	.4661E-02	22.626	149.324
205/0944	-1.53	-2.74	74	424	.99	18.99	-29.1	.4542E-02	21.947	147.868
205/0959	-1.42	-2.62	74	.540	1.03	21.57	-42.0	.5864E-02	22.362	160.692
205/1014	-1.53	-2.73	74	.517	1.02	20.97	-37.5	.5539E-02	22.971	158.230
205/1029	-1.69	-2.89	75	.635	1.06	23.22	-46.0	.6794E-02	25.434	172.350
205/1044	-1.85	-3.05	76	.770	1.10	25.57	-55.4	.8258E-02	28.204	186.913
205/1059	-2.30	-3.58	76	.618	1.05	22.09	-36.7	.6602E-02	30.560	181.920
205/1113	-2.41	-3.72	75	.792	1.10	25.98	-48.1	.8450E-02	33.748	206.391
205/1128	-2.43	-3.78	74	.854	1.12	26.89	-52.5	.9132E-02	34.646	210.954
205/1143	-2.47	-3.81	75	.358	.96	17.42	-17.8	.3824E-02	27.698	152.325
205/1158	-2.30	-3.74	74	.233	.90	14.06	-10.7	.2489E-02	24.362	128.032
205/1213	-2.50	-3.85	74	.743	1.09	25.90	-43.1	.7924E-02	33.989	207.803
205/1228	-2.00	-4.15	76	.144	.05	11.04	-5.3	.1532E-02	23.759	103.509
205/1243	-2.03	-4.18	76	.137	.04	10.28	-4.2	.1463E-02	23.641	100.373
205/1258	-2.03	-4.16	77	.153	.06	11.39	-5.7	.1635E-02	24.252	104.654
205/1313	-2.25	-4.07	77	.197	.08	12.90	-7.2	.2095E-02	25.386	114.902
205/1328	-2.27	-4.12	76	.174	.07	12.14	-6.8	.1856E-02	24.735	111.632
205/1343	-2.63	-3.97	75	.102	.08	12.58	-7.6	.1292E-02	24.413	113.920
205/1359	-2.39	-3.70	75	.225	.90	13.80	-10.1	.2390E-02	24.190	121.082
205/1414	-.85	-1.84	75	.577	1.04	22.12	-56.7	.6168E-02	17.835	138.163
205/1429	-.50	-1.44	75	.071	.79	9.70	-3.5	.7631E-03	12.420	54.300
205/1444	-.25	-1.15	74	.352	.96	17.30	-30.8	.3765E-02	12.455	102.778
205/1459	-.16	-1.05	74	.235	.91	14.14	-22.7	.2519E-02	11.632	85.515
205/1514	-.44	-1.42	74	.367	.97	17.66	-37.5	.3928E-02	13.720	113.717
205/1529	-.47	-1.47	74	.397	.98	18.37	-41.2	.4249E-02	14.058	120.014
205/1544	******	******	**	*******	.93	15.55	*******	.3046E-02	********	**********
205/1559	-.16	-1.10	73	.355	.96	17.30	-41.4	.3004E-02	11.026	106.754
205/1614	.09	-.78	74	.495	1.02	20.52	-80.9	.5304E-02	9.971	115.683
205/1629	.15	-.71	74	.589	1.05	22.30	-110.9	.6309E-02	9.438	122.241
205/1644	-.03	-.92	74	.591	1.05	22.42	-96.3	.6334E-02	10.933	127.337
205/1659	.16	-.71	74	.630	1.06	23.15	-124.9	.6752E-02	9.277	126.917
205/1714	.05	-.84	74	.640	1.06	23.55	-115.6	.6866E-02	10.202	130.755
205/1729	.23	-.65	73	.587	1.05	22.35	-119.0	.6295E-02	8.766	123.899

APPENDIX C: Sample of data available

Three data files are available: 2 second (raw) data; 1-minute average (raw) data; and 15-minute average corrected data, calculated parameters and data quality assessment (variances, flags).

The 2-second data is on digital tape and the 1-minute data is on disc files. A sample listing of each is in Figs C.1 and C.2. The only difference between them is the 1-minute data contains latitude, longitude, ship course and ship speed. The channel numbers are identified in Table 3. 1.

The 15-minute summaries were produced in real time on the ship. Fig C.3 is a sample of the on-line printout. The top line is time; below is latitude and longitude. PLOG is the output of an uncalibrated pilot log; LORSPEED is SHIPS. WS 10 is true wind speed reduced to the 10m level. TW was water temperature from a thermistor towed behind the ship. This channel was highly intermittent since the tow could not remain in the water continuously. SIGMAS are standard deviations over 15-minute intervals of the various quantities. Below is the data quality assessment. BVAR are background variances, RVAL are threshold variances (operator settable) which if exceeded generate a FLAG. 15 data is the 100 min variance of that channel. The bottom contains operator settable options and variables.

```
SIR:  CHAN =  9 DATA =        24.796875
SIR:  CHAN = 10 DATA =     13450.939000
SIR:  CHAN = 11 DATA =         -.262280
SIR:  CHAN = 12 DATA =        10.029697
SIR:  CHAN = 13 DATA =         0.000000
SIR:  CHAN = 14 DATA =       264.099980
SIR:  CHAN = 15 DATA =         -.000010
SIR:  CHAN = 16 DATA =        89.949997
SIR:  CHAN = 17 DATA =         .000010
SIR:  CHAN = 18 DATA =        63.349998
SIR:  CHAN = 19 DATA =         3.900000
SIR:  CHAN = 20 DATA =         0.000000
SIR:  CHAN = 21 DATA =         0.000000
SIR:  CHAN = 22 DATA =         0.000000
SIR:  CHAN = 23 DATA =         0.000000
SIR: DAY = 196 HR =  13 MIN =  9 SEC =  43
SIR:  CHAN =  0 DATA =         0.000000
SIR:  CHAN =  1 DATA =         -.000010
SIR:  CHAN =  2 DATA =         3.048749
SIR:  CHAN =  3 DATA =         3.580099
SIR:  CHAN =  4 DATA =          .020760
SIR:  CHAN =  5 DATA =          .257570
SIR:  CHAN =  6 DATA =          .027100
SIR:  CHAN =  7 DATA =          .282580
SIR:  CHAN =  8 DATA =        -1.580078
SIR:  CHAN =  9 DATA =        24.796875
SIR:  CHAN = 10 DATA =     13452.460000
SIR:  CHAN = 11 DATA =         -.262530
SIR:  CHAN = 12 DATA =        10.029686
SIR:  CHAN = 13 DATA =         0.000000
SIR:  CHAN = 14 DATA =       264.099980
SIR:  CHAN = 15 DATA =         0.000000
SIR:  CHAN = 16 DATA =        89.949997
SIR:  CHAN = 17 DATA =          .000020
SIR:  CHAN = 18 DATA =        63.375000
SIR:  CHAN = 19 DATA =         3.900000
SIR:  CHAN = 20 DATA =         0.000000
SIR:  CHAN = 21 DATA =         0.000000
SIR:  CHAN = 22 DATA =         0.000000
SIR:  CHAN = 23 DATA =         0.000000
SIR: DAY = 196 HR =  13 MIN =  9 SEC =  45
SIR:  CHAN =  0 DATA =         0.000000
SIR:  CHAN =  1 DATA =         -.000020
SIR:  CHAN =  2 DATA =         3.048790
```

```
SIR:  CHAN =  3 DATA =         3.580710
SIR:  CHAN =  4 DATA =          .021050
SIR:  CHAN =  5 DATA =          .256170
SIR:  CHAN =  6 DATA =          .029160
SIR:  CHAN =  7 DATA =          .284630
SIR:  CHAN =  8 DATA =        -1.580078
SIR:  CHAN =  9 DATA =        24.796875
SIR:  CHAN = 10 DATA =     13455.900000
SIR:  CHAN = 11 DATA =         -.259260
SIR:  CHAN = 12 DATA =        10.029707
SIR:  CHAN = 13 DATA =         0.000000
SIR:  CHAN = 14 DATA =       264.099980
SIR:  CHAN = 15 DATA =         -.000010
SIR:  CHAN = 16 DATA =        89.949997
SIR:  CHAN = 17 DATA =          .000030
SIR:  CHAN = 18 DATA =        63.349998
SIR:  CHAN = 19 DATA =         3.600000
SIR:  CHAN = 20 DATA =         0.000000
SIR:  CHAN = 21 DATA =         0.000000
SIR:  CHAN = 22 DATA =         0.000000
SIR:  CHAN = 23 DATA =         0.000000
SIR: DAY = 196 HR =  13 MIN =  9 SEC =  47
SIR:  CHAN =  0 DATA =         -.000010
SIR:  CHAN =  1 DATA =         -.000010
SIR:  CHAN =  2 DATA =         3.048790
SIR:  CHAN =  3 DATA =         3.583509
SIR:  CHAN =  4 DATA =          .021290
SIR:  CHAN =  5 DATA =          .255300
SIR:  CHAN =  6 DATA =          .031330
SIR:  CHAN =  7 DATA =          .283830
SIR:  CHAN =  8 DATA =        -1.580078
SIR:  CHAN =  9 DATA =        24.812500
SIR:  CHAN = 10 DATA =     13458.340000
SIR:  CHAN = 11 DATA =         -.259980
SIR:  CHAN = 12 DATA =        10.029726
SIR:  CHAN = 13 DATA =         0.000000
SIR:  CHAN = 14 DATA =       264.000000
SIR:  CHAN = 15 DATA =         0.000000
SIR:  CHAN = 16 DATA =        89.975006
SIR:  CHAN = 17 DATA =         -.000020
SIR:  CHAN = 18 DATA =        63.349998
SIR:  CHAN = 19 DATA =         3.700000
SIR:  CHAN = 20 DATA =         0.000000
SIR:  CHAN = 21 DATA =         0.000000
```

Fig. C.1. Sample listing of 2-second raw data.

```
S1R: DAY = 204 HR =  16 MIN =  0 SEC =  26
S1R:  CHAN =  0 DATA =          2.706607
S1R:  CHAN =  1 DATA =          0.000000
S1R:  CHAN =  2 DATA =          3.264798
S1R:  CHAN =  3 DATA =          3.587064
S1R:  CHAN =  4 DATA =           .218335
S1R:  CHAN =  5 DATA =           .320761
S1R:  CHAN =  6 DATA =           .192084
S1R:  CHAN =  7 DATA =           .400479
S1R:  CHAN =  8 DATA =         28.147765
S1R:  CHAN =  9 DATA =         36.152542
S1R:  CHAN = 10 DATA =      11172.012000
S1R:  CHAN = 11 DATA =          -.226255
S1R:  CHAN = 12 DATA =         10.000000
S1R:  CHAN = 13 DATA =          0.000000
S1R:  CHAN = 14 DATA =        255.120000
S1R:  CHAN = 15 DATA =           .652405
S1R:  CHAN = 16 DATA =         89.623352
S1R:  CHAN = 17 DATA =           .231956
S1R:  CHAN = 18 DATA =         55.160004
S1R:  CHAN = 19 DATA =          2.070000
S1R:  CHAN = 20 DATA =         38.570752
S1R:  CHAN = 21 DATA =        -69.118564
S1R:  CHAN = 22 DATA =          1.573333
S1R:  CHAN = 23 DATA =        136.799990
S1R: DAY = 204 HR =  16 MIN =  1 SEC =  26
S1R:  CHAN =  0 DATA =          2.706689
S1R:  CHAN =  1 DATA =          0.000000
S1R:  CHAN =  2 DATA =          3.265563
S1R:  CHAN =  3 DATA =          3.585802
S1R:  CHAN =  4 DATA =           .183412
S1R:  CHAN =  5 DATA =           .359585
S1R:  CHAN =  6 DATA =           .145674
S1R:  CHAN =  7 DATA =           .384049
S1R:  CHAN =  8 DATA =         28.140301
S1R:  CHAN =  9 DATA =         36.153061
S1R:  CHAN = 10 DATA =      11202.711000
S1R:  CHAN = 11 DATA =          -.211657
S1R:  CHAN = 12 DATA =         10.000000
S1R:  CHAN = 13 DATA =          0.000000
S1R:  CHAN = 14 DATA =        255.853330
S1R:  CHAN = 15 DATA =           .653091
S1R:  CHAN = 16 DATA =         89.601669
S1R:  CHAN = 17 DATA =           .225308
S1R:  CHAN = 18 DATA =         56.681679
S1R:  CHAN = 19 DATA =           .733333
S1R:  CHAN = 20 DATA =         38.520897
S1R:  CHAN = 21 DATA =        -69.167816
S1R:  CHAN = 22 DATA =          1.533333
S1R:  CHAN = 23 DATA =        121.866670
S1R: DAY = 204 HR =  16 MIN =  2 SEC =  26
S1R:  CHAN =  0 DATA =          2.706223
S1R:  CHAN =  1 DATA =          0.000000
S1R:  CHAN =  2 DATA =          3.265290
S1R:  CHAN =  3 DATA =          3.580568
S1R:  CHAN =  4 DATA =           .123361
S1R:  CHAN =  5 DATA =           .348668
S1R:  CHAN =  6 DATA =           .144965
S1R:  CHAN =  7 DATA =           .375942
S1R:  CHAN =  8 DATA =         28.139324
S1R:  CHAN =  9 DATA =         36.152863
S1R:  CHAN = 10 DATA =      11215.441000
S1R:  CHAN = 11 DATA =          -.213623
S1R:  CHAN = 12 DATA =         10.000000
S1R:  CHAN = 13 DATA =          0.000000
S1R:  CHAN = 14 DATA =        261.133360
S1R:  CHAN = 15 DATA =           .649017
S1R:  CHAN = 16 DATA =         89.594208
S1R:  CHAN = 17 DATA =           .233698
S1R:  CHAN = 18 DATA =         56.630013
S1R:  CHAN = 19 DATA =           .646667
S1R:  CHAN = 20 DATA =         38.521034
S1R:  CHAN = 21 DATA =        -69.166748
S1R:  CHAN = 22 DATA =          1.543334
S1R:  CHAN = 23 DATA =         93.199997
S1R: DAY = 204 HR =  16 MIN =  3 SEC =  26
S1R:  CHAN =  0 DATA =          2.696892
S1R:  CHAN =  1 DATA =          0.000000
S1R:  CHAN =  2 DATA =          3.265504
S1R:  CHAN =  3 DATA =          3.583267
S1R:  CHAN =  4 DATA =           .107628
S1R:  CHAN =  5 DATA =           .350315
S1R:  CHAN =  6 DATA =           .124303
S1R:  CHAN =  7 DATA =           .380816
S1R:  CHAN =  8 DATA =         28.137695
S1R:  CHAN =  9 DATA =         36.153122
```

Fig. C.2. Sample listing of 1-minute raw data.

AD-A132 105 DATA VALIDATION AND SUMMARY FOR THE NRL REMOTE SENSING EXPERIMENT: PHELPS..(U) NAVAL RESEARCH LAB WASHINGTON DC J A KAISER ET AL. 26 AUG 83 NRL-MR-5160 2/2

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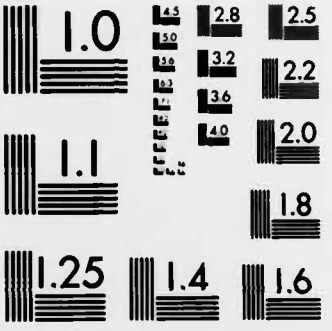

```
          HAYES   CRUISE   82-16-09          CC=RM

      192/2356
 40 48.68 N       69 17.36 W
LORSPEED = 4.4 kts,  PLOG = 12. kts  HEAD = 106 deg,  CSE = 130 deg

--------------- CORRECTIONS TO 10m ---------------
TA = 14.490 C  TDP = 14.362 C  WS10 =  5.277 MPS  TRUE WD = 101.65

------------- CORRECTIONS FOR SHIP ROLL ----------
ROLL SPEED =   .0 m/s   RMS ROLL =  .6
--------------------------------------------------

TW = 11.60 C   TS = 15.49 C
SAL. = 30.00   SIGT = 22.02 g/cm**3
--------------------------------------------------

TA-TW = 2.886 C   TDP-TW = 2.757 C   eW-e = -.271E+01 mbar
H = -.708E+01 w/m**2                 E = -.346E+02 w/m**2
TVA-TVW = 2.915 C TVA = 14.57 C      TVW = 11.66 C
RH =   99.1602 %  QW-QA = -1.66 g/kg
QW = 8.373 g/kg   QA = 10.03 g/kg
TAU =  .28 d/cm**2   L = 45.6 m
Zo =       .002873 cm
Cd = .92E-03   Ch = .36E-03 Ce = .13E-02
U* = 15.10cm/sec    T* = -.9E-01 C   Q* = .00E+00g/kgm

--------------------------------------------------
SIGMAS: TA = .1208E+00   TDP = .1297E+00   WS = .1415E+02
        WD = .3632E+03   PLOG = .5010E+01
        TS = .0000E+00     CS = .0000E+00
--------------------------------------------------
```

CHAN.	1S FLAG	CUM. FLAG.	BVAR	RVAL	1S DATA
0	0	0.0	.1000E-05	.1000E+04	.1451E+01
1	0	0.0	.1000E-05	.1000E+04	.1473E+01
2	0	0.0	.1000E-05	.1000E+04	.2699E+01
3	0	0.0	.1000E-05	.1000E+04	.4727E+01
4	0	0.0	.1000E-05	.1000E+04	.1379E+00
5	0	0.0	.1000E-05	.1000E+04	.3504E+00
6	0	0.0	.1000E-05	.1000E+04	.1363E+00
7	0	0.0	.1000E-05	.1000E+04	.3859E+00
8	0	0.0	.1000E-05	.1000E+04	.1549E+02
9	0	0.0	.1000E-05	.1000E+04	.3000E+02
10	0	0.0	.1000E-05	.1000E+04	.8221E+04
11	0	0.0	.1000E-05	.1000E+04	-.184E+00
12	0	0.0	.1000E-05	.1000E+04	.1000E+02
13	0	0.0	.1000E-05	.1000E+04	.0000E+00
14	0	0.0	.1000E-05	.1000E+04	.1062E+03
15	0	0.0	.1000E-05	.1000E+04	.1250E+01
16	0	0.0	.1000E-05	.1000E+04	.3027E+02
17	0	0.0	.1000E-05	.1000E+04	.2000E-04
18	0	0.0	.1000E-05	.1000E+04	.6292E+02
19	0	0.0	.1000E-05	.1000E+04	.1266E+02
20					.4081E+02
21					-.693E+02
22					.4422E+01
23					.1301E+03

```
OPTIONS: TA.TDP=1 ROLL COR.WIND=1 SHIP COR.WIND=1 WS1.WS2 OR BOTH=1
         PA = 1013.00   HT =   10.00  HW =   22.50   DT =  2.00
```

Fig. C.3. Sample of the 15-minute data and parameter summary provided on-line during the experiment.

APPENDIX D: List of Instruments Used

TA1, TDP1: General Eastern 1200 MPS, S/N 91005-91008
Sensors: TA1: Rosemount PRT 78-39-3, S/N 95014
TDP1: Rosemount PRT 146RB, S/N 14119
TA2, TDP2: General Eastern 450, S/N 95005
Sensors: TA1, TDP1: General Eastern 450B, S/N
WS1, WD1: Teledyne Geotech WS 201, S/N none
(NRL Equipment No. 38417)
Sensors: WS1: S/N 036
WD1: S/N 037
WS2, WD2: Teledyne Geotech WS 201, S/N none
(NRL Equipment No. none)
Sensors: WS2: S/N 095
WD2: S/N 115
TS, CS: Plessey Thermosalinograph 6600T
ROLL: Robinson-Halpern Model 685B, S/N 1588
Seconday Temperature Calibration Standards:
Dymec Quartz Thermometer 2801A, S/N 618-00031
Probes: Ch. 1: S/N 972-1
Ch. 2: S/N 978-20

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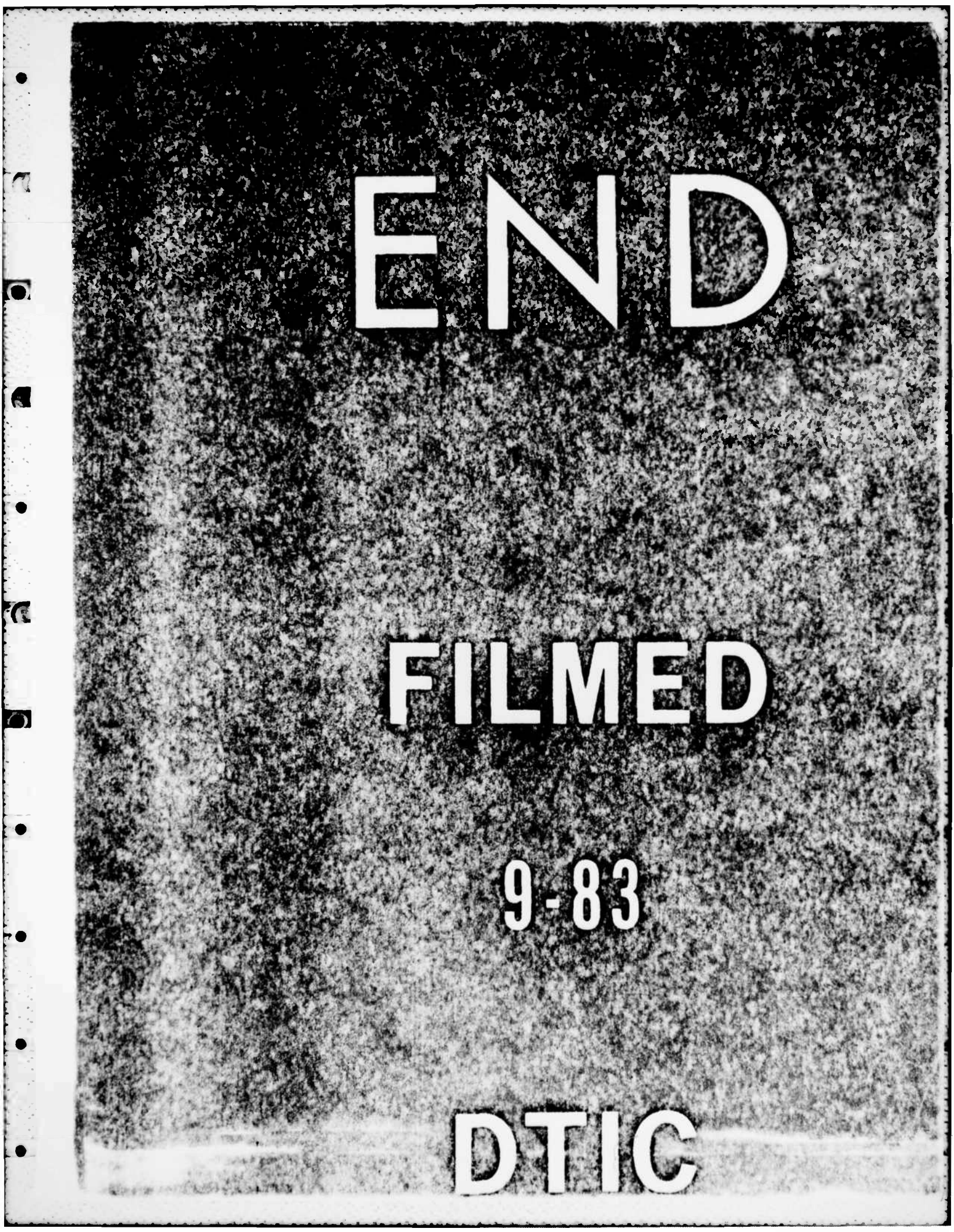
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