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A COMPARISON OF TELESEISMIC P WAVE
AMPLITUDES AND SPECTRA OBSERVED AT
SELECTED BASIN AND RANGE SITES
AND IN EASTERN NORTH AMERICA,
PHASE 1 FINAL REPORT - VOLUME 2

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30 May 1978

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a difference that can be accounted for by amplification of low velocity volcanics under Pahute Mesa. Thus local geology must be taken into account in order to evaluate the attenuation under a given site using amplitude data. This correction shows that with respect to corrected amplitude levels OB2NV is equivalent to Pahute Mesa stations. At all NTS sites the higher frequency content of P waves is significantly less than in the EUS. Available data suggests an attenuation effect of about .2 m.u. under NTS. Measurements at a few other Western United States (WUS) sites, including the site of the SHOAL explosion, yield similar figures. These results confirm that body-waves suffer considerable anelastic losses traversing the mantle under the WUS, including the NTS sites.

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A COMPARISON OF TELESEISMIC P WAVE AMPLITUDES AND SPECTRA
OBSERVED AT SELECTED BASIN AND RANGE SITES
AND IN EASTERN NORTH AMERICA, PHASE 1 FINAL REPORT

VOLUME 2

SEISMIC DATA ANALYSIS CENTER REPORT NO.: SDAC-TR-77-7

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ARPA Order No.: 2551
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P. O. Box 334, Alexandria, Virginia 22313

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ABSTRACT

Three Seismic Data Collection System (SDCS) stations were deployed at the Nevada Test Site (NTS) and two in the Eastern United States (EUS) to measure magnitude residuals and spectral differences between NTS and EUS stations. The deployment was intended to determine the degree of anelastic attenuation under NTS. At the Climax Stock (OB2NV) station, the teleseismic body-wave magnitudes are .17 magnitude units (m.u.) lower than at the EUS stations. The magnitudes at the two Pahute Mesa sites are about .2 m.u. higher than at OB2NV, a difference that can be accounted for by amplification of low velocity volcanics under Pahute Mesa. Thus local geology must be taken into account in order to evaluate the attenuation under a given site using amplitude data. This correction shows that with respect to corrected amplitude levels OB2NV is equivalent to Pahute Mesa stations. At all NTS sites the higher frequency content of P waves is significantly less than in the EUS. Available data suggests an attenuation effect of about .2 m.u. under NTS. Measurements at a few other Western United States (WUS) sites, including the site of the SHOAL explosion, yield similar figures. These results confirm that body-waves suffer considerable anelastic losses traversing the mantle under the WUS, including the NTS sites.

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APPENDIX A

Amplitudes, periods, and magnitude computations
for all events used in magnitude study

1	14 SEP 76	13:46:5.2	5.06	EASTER IS.	26.4S	115.8W	179.8	0.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + P			
HN-ME	84.4	74.0	0.83	5.54	5.46			
RK-CN	79.6	251.6	0.76	5.74	5.52			
CB2NV	63.6	42.7	0.94	5.27	5.24			
2	15 SEP 76	3:15:20.0	5.84	AUSTRIA	46.2N	13.3E	32.6	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + P			
HN-ME	53.6	70.0	0.81	5.27	5.18			
RK-CN	64.4	48.2	0.49	5.17	5.07			
CB2NV	85.1	56.7	1.09	5.51	5.55			
NT2NV	85.1	142.7	1.23	5.00	5.60			
					** OMITTED **			
3	15 SEP 76	9:21:18.4	5.30	AUSTRIA	46.3N	13.2E	32.6	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + P			
HN-ME	53.5	62.8	0.78	5.21	5.10			
RK-CN	64.3	100.6	0.54	5.51	5.24			
CB2NV	85.0	40.3	1.19	5.43	5.51			
NT2NV	85.0	102.1	0.91	5.57	5.63			
4	29 SEP 76	3: 0: 0.0	0.0	NOVAYA ZEMLYA	73.5N	52.7E	3.1	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + P			
HN-ME	54.7	192.4	0.85	5.46	5.60			
RK-CN	54.4	158.3	0.44	5.40	5.43			
CB2NV	69.7	39.1	0.53	5.16	5.08			
NT-NV	69.7	46.5	0.53	5.16	5.08			
NT2NV	69.7	71.8	0.48	5.28	4.68			
5	19 SEP 76	12:23:31.1	5.27	S. PANAMA	7.2N	82.4W	125.8	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + P			
HN-ME	44.0	85.2	0.71	5.11	4.96			
RK-CN	44.7	262.7	1.01	5.17	5.77			
CB2NV	43.0	180.0	1.45	5.73	5.89			
NT-NV	43.0	477.3	1.03	5.02	5.01			
NT2NV	43.0	489.2	0.95	5.84	5.82			
6	19 SEP 76	20:57:58.1	5.41	MEXICO	17.9N	100.6W	140.4	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + P			
HN-ME	39.0	80.2	0.78	4.82	4.86			
RK-CN	33.4	339.4	0.61	4.83	4.61			
CB2NV	23.8	320.4	0.86	5.44	5.38			
NT-NV	23.8	308.4	0.66	5.44	5.26			
NT2NV	23.8	308.4	0.73	5.37	5.24			
7	2 SEP 76	10:20:17.6	5.12	EL SALVADOR	13.2N	89.9W	128.6	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + P			
HN-ME	37.8	134.5	1.30	5.44	5.55			
RK-CN	37.8	353.3	0.70	5.02	5.46			
CB2NV	33.5	154.5	1.04	5.22	5.24			
NT-NV	33.8	157.5	0.85	5.54	5.47			
8	6 SEP 76	9:56:23.2	4.97	N. ATLANTIC	59.1N	32.1W	39.3	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + P			
HN-ME	24.0	138.5	0.70	5.20	5.05			
RK-CN	24.0	65.8	0.70	5.09	4.97			
CB2NV	56.0	17.9	1.06	4.80	4.82			

9	5 SEP 76	20:11:27.0	5.04	MEXICO	18.5N 101.1W 140.6	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
HN-ME	38.8	49.5	1.00	MB	MB	
RK-CN	32.9	45.5	0.80	4.82	4.82	
OB2NV	23.0	80.5	0.96	4.97	4.88	
				4.89	4.87	
10	5 SEP 76	20:11:43.6	5.17	MEXICO	18.7N 100.7W 139.5	O.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
HN-ME	38.8	106.8	0.96	MB	MB	
RK-CN	38.7	67.6	1.29	5.17	5.15	
OB2NV	23.0	105.0	1.14	5.23	5.23	
				6.12	6.18	
11	9 SEP 76	9:27:46.0	5.05	SVALBARD	77.6N 8.0E 11.8	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
HN-ME	42.2	153.7	1.13	MB	MB	
RK-CN	43.1	35.8	0.54	5.44	5.40	
OB2NV	60.0	55.1	0.71	4.42	4.15	
				4.92	4.77	
12	29 SEP 76	9:52:33.0	5.08	CUBA	19.3N 80.6W 109.9	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
RK-CN	33.1	130.3	0.70	MB	MB	
OB2NV	35.6	130.1	0.86	5.44	5.25	
NT-NV	35.9	144.6	0.61	5.36	5.25	
NT2NV	35.8	237.1	0.86	5.38	5.16	
				5.64	5.17	
13	25 SEP 76	21:47:20.6	5.13	EASTER IS.	26.4S 115.0W 179.0	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
RK-CN	79.5	147.2	0.85	MB	MB	
OB2NV	63.6	32.2	1.20	5.56	5.40	
NT-NV	63.6	38.0	1.20	5.36	5.46	
NT2NV	63.6	69.3	0.94	5.33	5.51	
				5.48	5.45	
14	26 SEP 76	6:35:49.3	4.55	KAMCHATKA	51.1N 157.2E 313.6	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
RK-CN	61.7	17.7	0.23	MB	MB	
OB2NV	60.0	8.8	0.80	4.76	4.56	
NT2NV	60.0	28.3	0.56	4.36	4.37	
				4.77	4.51	
15	26 SEP 76	7:13:36.1	4.63	ARGENTINA	29.1S 64.6W 135.6	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
RK-CN	83.0	46.1	0.70	MB	MB	
OB2NV	81.2	28.4	0.67	5.23	5.08	
NT-NV	81.4	15.0	0.67	4.84	4.67	
NT2NV	81.4	63.6	0.61	4.57	4.40	
				5.18	4.96	
16	30 SEP 76	8:41:0.9	5.21	CHILE-ARG BORDER	24.2S 68.2W 135.7	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
HN-ME	70.3	43.4	1.30	MB	MB	
RK-CN	78.3	171.4	1.10	5.35	5.46	
OB2NV	76.1	198.0	1.10	5.88	5.92	
NT-NV	76.8	563.3	0.80	5.97	5.74	
NT2NV	76.3	451.2	0.80	6.28	6.19	
				6.17	6.08	
17	25 SEP 76	10:40:47.0	4.52	EASTER IS.	24.6S 106.8W 170.5	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
RK-CN	76.3	80.3	0.70	MB	MB	
OB2NV	62.5	103.0	1.00	5.08	4.82	
NT-NV	62.5	50.1	0.94	5.67	5.34	
NT2NV	62.5	24.3	0.60	5.21	5.07	
				4.87	4.64	

18 22 SEP 76 20: 7: 1.3 5.30

STA	DIST	AMP	T
HN-ME	93.8	19.5	0.90
OB2NV	93.6	11.5	0.60

N. CHINA

39.9N 106.3E 328.7 C.

LOG10 (A/MT) + B

LOG10 (A/M) + B

MB
5.09
4.73

** OMITTED **

MB
5.05
4.51

19 22 SEP 76 2:30:30.8 4.78

STA	DIST	AMP	T
HN-ME	64.3	45.8	0.60
RK-CN	48.6	211.0	0.40
OB2NV	43.7	18.1	0.80
NT-NV	43.5	80.0	0.60
NT2NV	43.5	43.3	0.80

ALEUTIANS

51.6N 175.9W 309.1 75.

LOG10 (A/MT) + B

LOG10 (A/M) + B

MB
5.08
5.52
4.38
4.93
4.75

MB
4.86
5.12
4.28
4.71
4.66

20 22 SEP 76 8:20:27.6 5.03

STA	DIST	AMP	T
RK-CN	91.1	249.0	0.80
OB2NV	84.9	235.1	0.60
NT-NV	84.6	545.6	0.60
NT2NV	84.7	569.6	0.50

VOLCANO IS.

23.3N 142.1E 295.5 110.

LOG10 (A/MT) + B

LOG10 (A/M) + B

MB
5.00
5.53
5.61
5.93

** OMITTED **

MB
5.01
5.36
5.60
5.63

21 4 OCT 76 6:59:19.5 4.62

STA	DIST	AMP	T
RK-CN	30.7	35.1	0.80
OB2NV	22.3	42.7	1.50
NT-NV	22.5	140.4	1.10
NT2NV	22.6	105.7	1.00

C. MEXICO

20.0N 99.0W 134.1 C.

LOG10 (A/MT) + B

LOG10 (A/M) + B

MB
4.83
4.86
5.17
4.99

MB
4.74
5.04
5.21
4.99

22 4 OCT 76 23:36: 6.0 5.17

STA	DIST	AMP	T
HN-ME	47.1	73.0	1.70
RK-CN	36.8	41.6	1.10
OB2NV	22.6	51.1	0.40
NT-NV	51.8	42.9	0.50

ECUADOR

0.2S 77.5W 127.1 C.

LOG10 (A/MT) + B

LOG10 (A/M) + B

MB
5.60
4.83
4.90
4.82

MB
5.82
4.63
4.56
4.52

23 7 OCT 76 22: 1:12.5 4.60

STA	DIST	AMP	T
RK-CN	52.9	21.9	0.80
OB2NV	50.4	22.6	0.50
NT-NV	50.6	230.2	0.30
NT2NV	50.5	110.6	0.30

ECUADOR

0.8S 80.3W 130.5 C.

LOG10 (A/MT) + B

LOG10 (A/M) + B

MB
4.66
4.55
5.69
5.37

MB
4.56
4.25
5.17
4.85

24 8 OCT 76 9:22:46.6 4.55

STA	DIST	AMP	T
HN-ME	69.6	22.2	0.70
RK-CN	55.9	25.5	0.70
OB2NV	50.7	88.0	0.80
NT-NV	50.5	61.0	0.60
NT2NV	54.4	58.1	0.70

KOMANDORSKY IS.

55.1N 164.3E 316.4 C.

LOG10 (A/MT) + B

LOG10 (A/M) + B

MB
4.93
4.78
5.36
5.12
5.13

MB
4.77
4.52
5.27
4.80
4.98

25 8 OCT 76 9:22:56.3 4.53

STA	DIST	AMP	T
HN-ME	69.6	32.0	0.50
RK-CN	56.0	22.8	0.70
OB2NV	54.8	172.0	0.90
NT-NV	54.6	87.0	0.80
NT2NV	54.5	75.4	0.70

KOMANDORSKY IS.

55.1N 164.1E 316.4 C.

LOG10 (A/MT) + B

LOG10 (A/M) + B

MB
5.16
4.79
5.47
5.36
5.25

MB
4.85
4.63
5.32
5.26
5.29

26	8 OCT 76	14:38:27.9	4.76	KUFILES	49.8N	155.7E	312.7	C.
	STA	DIST	AMP	T	LOG10 (A/MT) + B		LOG10 (A/M) + B	
	HN-ME	76.8	44.4	0.70	5.19		5.73	
	RK-CN	63.3	23.3	0.60	4.83		4.61	
	OB2NV	61.4	28.7	0.90	4.54		4.49	
	NT2NV	61.2	26.2	0.60	4.87		4.65	
27	23 NOV 76	5: 3: 0.0	5.20	E. KAZAKH	50.0N	79.0E	350.4	C.
	STA	DIST	AMP	T	LOG10 (A/MT) + B		LOG10 (A/M) + B	
	HN-ME	79.0	241.4	0.80	5.76		5.66	
	RK-CN	79.2	448.5	0.50	5.92		5.62	
	NT-NV	91.9	109.6	0.70	5.71	** OMITTED **	5.56	
	NT2NV	91.0	78.5	0.90	5.66	** OMITTED **	5.61	
28	9 OCT 76	12:31: 6.6	4.97	COSTA RICA	10.7N	85.8W	126.2	C.
	STA	DIST	AMP	T	LOG10 (A/MT) + B		LOG10 (A/M) + B	
	HN-ME	38.5	71.6	1.00	5.01		5.01	
	RK-CN	40.6	40.5	0.80	4.60		4.50	
	CB2NV	37.9	106.7	1.20	5.36		5.44	
	NT-NV	38.2	424.8	1.20	5.04		5.02	
	NT2NV	38.1	239.3	1.10	5.64		5.68	
29	9 OCT 76	2:52:24.3	4.47	KUFILES	45.1N	153.5E	308.8	C.
	STA	DIST	AMP	T	LOG10 (A/MT) + B		LOG10 (A/M) + B	
	HN-ME	81.7	9.2	0.70	4.47		4.32	
	RK-CN	67.0	23.0	0.70	4.93		4.38	
	OB2NV	64.9	37.2	0.90	5.33		5.19	
	NT2NV	64.7	52.5	0.70	5.29		5.13	
30	9 OCT 76	16: 2:26.9	4.54	N. COLUMBIA	9.4N	77.5W	118.5	C.
	STA	DIST	AMP	T	LOG10 (A/MT) + B		LOG10 (A/M) + B	
	HN-ME	37.7	35.8	0.70	4.60		4.54	
	RK-CN	43.6	31.8	0.70	4.57		4.42	
	CB2NV	44.5	9.6	0.80	4.20		4.10	
	NT-NV	44.8	73.0	0.60	5.55		4.83	
	NT2NV	44.7	25.1	0.70	4.61		4.45	
31	9 OCT 76	19:41:27.1	4.31	S. PERU	15.2S	71.6W	132.6	C.
	STA	DIST	AMP	T	LOG10 (A/MT) + B		LOG10 (A/M) + B	
	RK-CN	68.8	21.8	0.50	4.83		4.53	
	OB2NV	67.0	18.2	0.60	4.79		4.57	
32	9 OCT 76	21:10:24.1	4.53	PEPU COAST	10.3S	79.5W	136.5	C.
	STA	DIST	AMP	T	LOG10 (A/MT) + B		LOG10 (A/M) + B	
	RK-CN	62.3	28.7	0.70	5.00		4.84	
	OB2NV	58.6	6.7	0.70	4.20		4.04	
33	9 OCT 76	23:48: 9.0	4.39	C. AMEP. - COAST	10.0N	91.0W	133.6	C.
	STA	DIST	AMP	T	LOG10 (A/MT) + B		LOG10 (A/M) + B	
	RK-CN	40.9	15.7	0.70	4.26		4.10	
	OB2NV	35.4	7.0	0.80	4.12		4.03	
	NT2NV	35.6	18.6	0.60	4.44		4.22	

34	10 OCT 76	2:58:56.6	4.91	KUFILES	45.4N 151.0E 310.0	C.
				LOG10 (A/MT) + B	LOG10 (A/M) + B	
STA	DIST	AMP	T	MB	MB	
HN-ME	82.5	37.1	0.90	5.36	5.31	
RK-CN	68.4	37.5	1.00	5.28	5.28	
OB2NV	66.3	14.4	1.00	4.86	4.86	
NT2NV	66.1	18.6	0.50	4.76		
35	10 OCT 76	6:19:20.8	4.46	ECUADOR	0.4S 78.2W 128.0	C.
				LOG10 (A/MT) + B	LOG10 (A/M) + B	
STA	DIST	AMP	T	MB	MB	
RK-CN	82.9	38.1	0.70	4.85	4.70	
OB2NV	51.4	5.4	1.10	4.20	4.25	
NT2NV	51.5	19.4	0.60	4.52	4.50	
36	10 OCT 76	14:32:4.9	4.59	KUFILES	43.2N 147.7E 309.3	45.
				LOG10 (A/MT) + B	LOG10 (A/M) + B	
STA	DIST	AMP	T	MB	MB	
RK-CN	71.9	19.2	0.50	4.54	4.24	
OB2NV	69.4	11.4	0.90	4.52	4.47	
NT2NV	69.3	15.6	0.50	4.40	4.19	
37	6 OCT 76	9:12:36.0	5.80	ECUADOR	0.6S 78.7W 128.7	C.
				LOG10 (A/MT) + B	LOG10 (A/M) + B	
STA	DIST	AMP	T	MB	MB	
HN-ME	47.7	212.2	2.00	5.28	5.00	
RK-CN	53.0	221.5	1.30	5.71	5.67	
NT2NV	51.4	226.1	1.20	5.89		
38	12 OCT 76	4:24:52.1	4.96	S. HONSHU, JAPAN	31.2N 141.5E 302.1	C.
				LOG10 (A/MT) + B	LOG10 (A/M) + B	
STA	DIST	AMP	T	MB	MB	
RK-CN	84.6	17.6	0.60	4.78	4.50	
OB2NV	80.4	38.4	0.90	4.98	4.94	
NT2NV	80.1	42.1	1.40	5.28	5.43	
NT2NV	80.2	87.5	0.90	5.32	5.28	
39	12 OCT 76	23:49:24.3	4.41	W CST COLUMBIA	2.8N 77.5W 124.6	C.
				LOG10 (A/MT) + B	LOG10 (A/M) + B	
STA	DIST	AMP	T	MB	MB	
HN-ME	44.1	17.0	0.60	4.42	4.20	
RK-CN	49.9	64.7	0.60	5.25	4.80	
OB2NV	49.3	11.0	0.70	4.38	4.23	
40	13 OCT 76	17:35:45.1	4.68	VENEZUELA	10.5N 62.2W 104.4	C.
				LOG10 (A/MT) + B	LOG10 (A/M) + B	
STA	DIST	AMP	T	MB	MB	
RK-CN	47.8	58.6	0.60	5.20	4.88	
OB2NV	55.1	15.2	0.80	4.64	4.50	
41	21 OCT 76	4:24:16.0	4.62	N. CHILE	22.1S 70.0W 135.8	C.
				LOG10 (A/MT) + B	LOG10 (A/M) + B	
STA	DIST	AMP	T	MB	MB	
HN-ME	68.2	21.0	0.70	4.96	4.81	
RK-CN	75.8	36.0	0.60	4.97	4.75	
OB2NV	73.8	29.0	1.00	5.73	5.53	
NT2NV	73.9	68.0	0.80	5.26	5.16	
NT2NV	73.6	39.9	1.00	5.14	5.14	
42	21 OCT 76	15:13:22.8	4.92	ALEUTIANS	52.3N 169.3W 309.9	53.
				LOG10 (A/MT) + B	LOG10 (A/M) + B	
STA	DIST	AMP	T	MB	MB	
RK-CN	44.8	16.8	0.40	4.29	3.90	
OB2NV	39.6	62.0	0.70	4.89	4.73	
NT2NV	39.5	69.7	1.00	5.77	5.07	

43	22 OCT 76	4: 4:22.6	4.64	CST OF NICARAGUA	12.1N	87.6W	126.9	70.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
HN-ME	37.9	32.2	0.90	MB			MB	
RK-CN	39.1	70.7	0.60	4.83			4.79	
CB2NV	36.8	18.1	0.60	4.98			4.76	
NT-NV	36.1	36.4	0.60	4.46			4.28	
NT2NV	36.0	49.9	0.70	4.75			4.53	
				4.94			4.78	
44	22 OCT 76	5:53:50.9	4.57	EL SALVADOR	13.2N	88.2W	126.4	79.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
HN-ME	37.9	54.6	0.70	MB			MB	
RK-CN	37.9	13.1	0.80	4.67			4.81	
CB2NV	34.6	43.7	0.70	4.40			4.31	
NT-NV	34.8	44.3	0.50	4.90			4.73	
NT2NV	34.7			4.82			4.51	
45	22 OCT 76	18:35:23.9	5.26	KODIAK PEG	56.1N	153.3W	319.4	0.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
RK-CN	34.8	118.7	1.50	MB			MB	
CB2NV	34.2	80.1	1.30	5.27			4.87	
NT2NV	31.0	192.3	1.20	5.50			5.61	
				5.82			5.00	
46	24 OCT 76	17:19:55.5	4.60	CEN. ALASKA	63.0N	149.0W	322.8	70.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
HN-ME	40.4	33.6	0.80	MB			MB	
CB2NV	32.4	36.6	0.80	4.87			4.77	
				4.69			4.59	
47	26 OCT 76	5:59:56.4	5.34	KURILE IS	46.1N	150.9E	310.7	130.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
HN-ME	81.6	189.6	0.20	MB			MB	
RK-CN	58.3	105.5	0.80	5.17			4.65	
CB2NV	58.3	127.5	0.80	5.11			5.11	
NT-NV	65.8	270.6	0.60	4.867			4.27	
NT2NV	65.9	385.0	0.60	5.00			5.58	
				5.76			5.53	
48	28 OCT 76	9:59:21.3	4.55	PEPU	14.6S	73.7W	134.0	0.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
RK-CN	67.8	26.7	0.70	MB			MB	
CB2NV	67.4	9.7	0.70	5.60			4.84	
				4.56			4.40	
49	2 NOV 76	19:23: 2.7	4.90	KURILE IS	47.0N	151.0E	311.5	0.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
HN-ME	80.8	126.4	0.70	MB			MB	
CB2NV	78.2	22.5	0.90	5.52			5.37	
NT2NV	78.1	25.9	0.80	4.89			4.85	
				4.92			4.82	
50	12 NOV 76	14:47:32.7	5.39	BAFFIN BAY	72.0N	70.0W	19.5	89.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
HN-ME	26.1	171.6	0.70	MB			MB	
NT-NV	41.8	181.1	0.70	5.10			5.73	
NT2NV	41.8	138.1	0.60	5.42			5.26	
				5.26			5.04	
51	15 NOV 76	14:14:26.6	4.60	KURILES	45.0N	148.0E	310.8	200.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
HN-ME	83.0	43.1	0.50	MB			MB	
NT2NV	67.8	35.0	0.60	4.70			4.49	
				4.57			4.35	

52 17 NOV 76 5:33:35.5 5.50

STA DIST AMP T
HN-ME 75.6 408.9 0.70
NT2NV 60.5 424.2 0.70

KURILES

LOG10 (A/MT) + B
MB
5.85
6.05

51.0N 156.0E 313.9 100.

LOG10 (A/M) + B
MB
5.70
5.89

53 22 NOV 76 20:09:2.7 4.50

STA DIST AMP T
RK-CN 47.3 120.5 0.50
NT-NV 55.0 35.2 0.50

VENEZUELA

LOG10 (A/MT) + B
MB
5.47
4.84

7.0N 72.0W 115.6 0.

LOG10 (A/M) + B
MB
5.17
4.44

54 26 NOV 76 23:43:12.6 4.80

STA DIST AMP T
HN-ME 49.2 41.7 0.80
RK-CN 55.2 80.0 0.50
NT-NV 54.1 269.5 0.60
NT2NV 54.0 175.3 0.80

PERU-ECUADOR BDR

LOG10 (A/MT) + B
MB
5.26
5.20
5.76
5.66

2.0S 77.0W 128.1 0.

LOG10 (A/M) + B
MB
4.97
4.80
5.54
5.57

55 1 DEC 76 14:15:33.2 5.00

STA DIST AMP T
HN-ME 39.0 213.1 1.30
RK-CN 41.6 83.7 1.10
NT2NV 39.5 320.8 1.00

COSTA RICA

LOG10 (A/MT) + B
MB
5.54
5.10
5.61

10.0N 85.0W 125.9 0.

LOG10 (A/M) + B
MB
5.05
5.24
5.61

56 1 DEC 76 17:44:33.8 4.50

STA DIST AMP T
RK-CN 38.7 46.5 0.70
NT2NV 34.4 129.7 0.60

CST OF CENT. AMER.

LOG10 (A/MT) + B
MB
4.67
5.34

12.0N 90.0W 130.1 0.

LOG10 (A/M) + B
MB
4.11
5.12

57 3 DEC 76 5:27:34.4 4.90

STA DIST AMP T
RK-CN 74.7 145.2 0.70
NT2NV 73.1 216.5 1.00

CHILE-BOLIVIA

LOG10 (A/MT) + B
MB
5.37
5.70

21.0S 69.0W 134.3 70.

LOG10 (A/M) + B
MB
5.22
5.70

58 3 DEC 76 23:10:23.1 4.60

STA DIST AMP T
RK-CN 76.5 80.0 0.80
NT2NV 73.1 60.1 0.70

N. CHILE

LOG10 (A/MT) + B
MB
5.42
5.24

22.0S 69.0W 134.9 0.

LOG10 (A/M) + B
MB
5.32
5.38

59 30 NOV 76 0:40:57.0 6.30

STA DIST AMP T
HN-ME 66.6 1102.7 0.60
RK-CN 74.8 400.4 0.60
NT2NV 72.9 1804.5 1.00

CHILE-BOLIVIA

LOG10 (A/MT) + B
MB
6.50
5.81
6.67

21.0S 69.0W 134.3 63.

LOG10 (A/M) + B
MB
6.20
6.50
6.67

60 4 DEC 76 5:05:29.7 4.70

STA DIST AMP T
RK-CN 74.8 58.5 0.51
OB2NV 72.9 52.0 0.80
NT-NV 73.1 100.7 0.80
NT2NV 73.0 75.2 0.80

N. CHILE

LOG10 (A/MT) + B
MB
5.46
5.31
5.53
5.30

21.0S 69.0W 134.3 0.

LOG10 (A/M) + B
MB
4.77
5.21
5.43
5.30

61 4 DEC 76 12:32:35.4 5.20

STA DIST AMP T
HN-ME 66.6 80.7 1.30
RK-CN 74.8 94.1 0.60
NT-NV 72.9 454.2 0.80
NT2NV 72.8 333.4 0.90

N. CHILE

LOG10 (A/MT) + B
MB
5.41
5.10
5.87
5.78

20.0S 69.0W 133.7 123.

LOG10 (A/M) + B
MB
5.53
4.80
5.78
5.74

62	5 DEC 76	22: 1:22.1	4.84	BONIN IS	23.ON	140.0E	296.4	303.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
PK-CN	87.8	182.4	0.60	MB			MB	
NT2NV	83.1	296.7	0.70	5.40	** OMITTED **		5.18	
				5.55			5.30	
63	6 DEC 76	19:46: 2.4	4.90	EASTER IS.	34.OS	112.0W	176.5	0.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
PK-CN	86.9	62.6	1.00	MB			MB	
NT2NV	71.8	46.8	0.90	5.49	** OMITTED **		5.49	
				5.23			5.19	
64	7 DEC 76	9:36:41.4	4.70	S. HONSHU	34.ON	137.0E	306.7	360.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
PK-CN	84.3	25.1	0.80	MB			MB	
NT-NV	81.5	163.4	1.00	4.50			4.40	
NT2NV	81.5	387.4	0.80	5.45			5.45	
				5.75			5.65	
65	9 DEC 76	4:24: 6.4	4.30	EL SALVADOR	14.ON	90.0W	127.8	0.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
PK-CN	37.2	270.3	0.70	MB			MB	
NT2NV	33.3	29.1	0.70	5.50			5.35	
				4.72			4.56	
66	9 DEC 76	9:58:19.7	4.50	OFF CST OREGON	45.ON	130.0W	311.5	0.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
HN-ME	42.6	149.7	0.80	MB			MB	
PK-CN	25.1	124.3	0.80	5.34			5.24	
NT2NV	12.7	271.9	1.30	5.20			5.11	
				5.23			6.34	
67	9 DEC 76	15:37:41.0	4.90	KURILES	44.ON	148.0E	309.9	85.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
HN-ME	84.1	53.2	0.50	MB			MB	
PK-CN	70.9	111.0	0.60	5.13			4.83	
NT2NV	68.6	81.4	0.50	5.22			5.00	
				5.65			4.76	
68	20 OCT 76	8: 0: 0.0	0.0	NOVAYA ZEMLYA	73.ON	55.0E	2.8	0.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
HN-ME	54.6	59.5	0.70	MB			MB	
PK-CN	54.4	256.1	0.40	5.21			5.06	
OE2NV	69.7	6.1	0.60	5.70			5.30	
NT-NV	69.7	58.0	0.40	4.25			4.02	
NT2NV	69.7	11.9	0.50	5.19			4.70	
				4.50			4.20	
69	19 DEC 76	14:37:30.0	0.0	KURILES	45.ON	154.0E	308.5	0.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
PK-CN	67.9	41.8	0.70	MB			MB	
NT2NV	64.4	68.1	0.60	5.19			5.04	
				5.36			5.14	
70	20 DEC 76	16:18:58.0	0.0	COLUMBIA	7.ON	75.0W	118.4	0.
STA	DIST	AMP	T	LOG10 (A/MT) + B			LOG10 (A/M) + B	
HN-ME	36.6	169.4	1.00	MB			MB	
PK-CN	46.5	228.1	1.30	5.47			5.62	
NT-NV	48.2	147.1	0.90	6.10			6.22	
				5.71			5.66	

71 15 DEC 76 12:26: 4.0 0.0

STA	DIST	AMP	T
RK-CN	90.0	17.9	0.70
NT-NV	87.9	37.9	1.00
NT2NV	87.9	32.7	1.10

JAPAN

LOG10 (A/MT) + B

MB
4.82
5.37
5.38

** OMITTED **
** OMITTED **
** OMITTED **

30.CN 131.0E 307.0

LOG10 (A/M) + B

MB
4.67
5.37
5.42

72 20 DEC 76 20:33:50.0 0.0

STA	DIST	AMP	T
HN-ME	35.6	1160.9	1.35
RK-CN	18.6	3078.0	1.30
OB2NV	18.6	948.7	1.30
NT-NV	18.5	1933.5	1.40
NT2NV	18.5	1094.8	1.80

BR. COLUMBIA

LOG10 (A/MT) + B

MB
5.50
5.34
5.83
5.49
5.12

55.CN 124.CN 345.6

LOG10 (A/M) + B

MB
6.60
5.46
5.05
5.33
6.38

73 20 DEC 76 21:22:25.0 0.0

STA	DIST	AMP	T
HN-ME	36.0	663.0	1.00
RK-CN	19.0	395.4	1.30
OB2NV	19.0	79.1	1.30
NT-NV	19.0	271.7	1.20
NT2NV	19.0	142.3	1.40

BR. COLUMBIA

LOG10 (A/MT) + B

MB
5.10
5.26
4.79
5.27
5.10

56.CN 124.CN 346.6

LOG10 (A/M) + B

MB
5.10
5.21
4.01
5.30
5.20

74 22 DEC 76 1: 1:42.0 0.0

STA	DIST	AMP	T
RK-CN	91.0	360.6	1.00
OB2NV	90.0	242.1	1.10
NT-NV	85.0	377.5	1.10
NT2NV	85.0	590.1	1.00

VOLCANO IS

LOG10 (A/MT) + B

MB
5.36
6.16
6.35
6.47

24.CN 142.0E 296.1

LOG10 (A/M) + B

** OMITTED **
** OMITTED **
6.36
5.20
6.39
6.47

75 13 DEC 76 23: 1:28.0 0.0

STA	DIST	AMP	T
RK-CN	82.4	63.7	0.60
NT2NV	77.3	111.3	0.60

N. PACIFIC

LOG10 (A/MT) + B

MB
5.27
5.48

32.CN 145.0E 300.9

LOG10 (A/M) + B

MB
5.45
5.25

76 14 DEC 76 16: 6:56.0 0.0

STA	DIST	AMP	T
RK-CN	83.5	220.0	0.80
NT-NV	81.7	472.0	1.60
NT2NV	87.0	423.9	1.50

JAPAN

LOG10 (A/MT) + B

MB
5.96
6.79
6.71

31.CN 130.0E 308.3

LOG10 (A/M) + B

** OMITTED **
** OMITTED **
** OMITTED **
5.86
7.00
6.88

77 27 DEC 76 18: 8: 8.0 0.0

STA	DIST	AMP	T
RK-CN	78.0	34.4	0.60
OB2NV	55.0	19.0	0.60
NT2NV	56.0	28.8	0.60

JAPAN

LOG10 (A/MT) + B

MB
4.87
4.61
4.79

42.CN 145.0E 309.3

LOG10 (A/M) + B

MB
4.64
4.39
4.57

78 30 DEC 76 3:57: 0.0 0.0

STA	DIST	AMP	T
RK-CN	79.4	38.6	0.60
OB2NV	92.0	18.6	0.80
NT-NV	91.0	17.4	0.50

E. KAZAKH

LOG10 (A/MT) + B

MB
4.80
4.88
4.83

50.CN 79.0E 350.4

LOG10 (A/M) + B

** OMITTED **
** OMITTED **
4.67
4.79
4.53

79 31 DEC 76 9:16:37.0 0.0

STA	DIST	AMP	T
HN-ME	88.9	53.0	1.00
RK-CN	75.7	45.9	1.70
OB2NV	72.9	25.1	1.00
NT-NV	72.6	17.0	0.50
NT2NV	72.7	27.1	0.70

JAPAN

LOG10 (A/MT) + B

MB
5.44
5.10
5.00
4.66
4.90

40.0N 145.0E 307.6

LOG10 (A/M) + B

** OMITTED **

MB
5.44
5.05
5.00
4.44
4.75

80 1 JAN 77 11:33:42.4 5.13

STA	DIST	AMP	T
RK-CN	87.6	139.3	0.80
OB2NV	83.4	48.4	0.80
NT-NV	83.2	127.9	0.80
NT2NV	83.3	199.0	0.70

JAPAN

LOG10 (A/MT) + B

MB
5.28
4.64
5.38
5.23

30.6N 137.2E 303.9 483.

LOG10 (A/M) + B

** OMITTED **

MB
5.18
4.58
4.98
5.07

81 7 DEC 76 4:57:00.0 0.0

STA	DIST	AMP	T
HN-ME	79.9	267.9	0.90
RK-CN	75.2	282.8	0.40
NT-NV	91.9	100.0	0.80
NT2NV	91.9	116.6	0.70

E. KAZAKH

LOG10 (A/MT) + B

MB
5.82
5.04
5.72
5.74

50.0N 79.0E 350.4

LOG10 (A/M) + B

** OMITTED **

MB
5.78
5.64
5.62
5.52

82 5 JAN 77 10:37:33.6 4.76

STA	DIST	AMP	T
RK-CN	86.5	31.4	0.80
OB2NV	82.3	15.9	1.00
NT-NV	82.0	12.5	0.70
NT2NV	82.1	22.9	1.30

VOLCANO IS

LOG10 (A/MT) + B

MB
4.88
4.13
4.29
4.89

25.7N 142.5E 297.1 62.

LOG10 (A/M) + B

** OMITTED **

MB
4.78
4.13
4.14
5.00

83 5 JAN 77 22:44:57.0 5.50

STA	DIST	AMP	T
RK-CN	90.7	157.9	0.90
OB2NV	86.6	135.9	0.70
NT-NV	84.3	181.7	0.90
NT2NV	84.4	263.4	0.90

VOLCANO IS.

LOG10 (A/MT) + B

MB
5.83
5.70
5.92
5.08

23.3N 143.8E 294.5

LOG10 (A/M) + B

** OMITTED **

MB
5.88
5.55
5.87
6.04

84 6 JAN 77 7:55:55.5 5.24

STA	DIST	AMP	T
HN-ME	78.2	75.6	0.80
RK-CN	64.4	76.8	0.60
OB2NV	61.5	47.3	1.20
NT-NV	61.3	50.2	0.80
NT2NV	61.4	59.7	0.80

KURILES

LOG10 (A/MT) + B

MB
5.42
5.42
5.46
5.25
5.33

49.3N 155.4E 312.3

LOG10 (A/M) + B

MB
5.32
5.10
5.54
5.15
5.24

85 6 JAN 77 16:2:3.6 5.36

STA	DIST	AMP	T
RK-CN	49.7	212.6	0.80
OB2NV	44.5	36.1	0.80
NT-NV	44.2	65.4	0.70
NT2NV	44.3	27.8	0.70

ANDREANOF IS.

LOG10 (A/MT) + B

MB
5.55
4.78
4.93
4.57

51.3N 175.4W 308.6

LOG10 (A/M) + B

MB
5.25
4.68
4.77
4.42

86 22 SEP 76 0:16:9.3 6.05

STA	DIST	AMP	T
HN-ME	83.3	675.0	0.70
RK-CN	70.0	1898.2	1.10
OB2NV	67.7	650.3	0.90
NT-NV	67.5	798.0	0.78
NT2NV	67.5	1036.5	0.70

KURILE IS.

LOG10 (A/MT) + B

MB
6.30
6.78
6.27
6.32
6.30

44.8N 149.1E 310.2 55.

LOG10 (A/M) + B

MB
6.15
6.83
6.22
6.41
6.24

87	17 JAN 77	6:23:42.6	5.32	BONIN IS.	26.7N 142.6E	297.9	76.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
RK-ON	85.6	71.8	1.00	MB	MB		
OB2NV	81.6	47.2	1.10	5.31	5.31		
NT-NV	81.4	64.3	1.10	5.11	5.11		
NT2NV	81.5	96.4	1.10	5.24	5.24		
				5.42	5.42		
				** OMITTED **			
89	17 JAN 77	9:42:22.5	4.68	S. OF ALASKA	53.6N 158.7W	313.3	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
RK-CN	36.1	49.4	0.60	MB	MB		
OB2NV	31.6	29.9	0.80	4.81	4.81		
NT-NV	31.4	39.6	0.80	4.70	4.70		
NT2NV	31.5	33.6	0.70	4.92	4.92		
				4.86	4.86		
89	24 JAN 77	6:11:30.0	4.86	KURILE IS	45.5N 150.9E	310.1	84.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
HN-ME	79.8	48.1	0.70	MB	MB		
RK-CN	66.4	67.1	0.70	4.84	4.84		
OB2NV	64.5	15.9	0.90	5.14	5.14		
NT-NV	64.3	13.4	0.60	4.61	4.61		
NT2NV	64.4	22.6	0.70	4.41	4.41		
				4.67	4.67		
90	3 FEB 77	21:30:59.0	0.0	RUSSIA-CHINA BDR	43.7N 130.0E	317.2	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
HN-ME	89.4	57.8	0.50	MB	MB		
RK-CN	78.7	290.4	0.40	5.42	5.42		
OB2NV	79.8	52.1	0.50	5.70	5.70		
NT2NV	79.7	261.4	0.50	4.93	4.93		
				5.64	5.64		
				** OMITTED **			
91	6 FEB 77	0:31:29.0	0.0	N. ATLANTIC	24.0N 48.0W	82.0	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
RK-ON	44.1	42.3	0.70	MB	MB		
OB2NV	58.8	43.4	1.00	4.82	4.82		
NT2NV	59.0	101.3	0.80	5.14	5.14		
				5.42	5.42		
92	13 FEB 77	5:51:11.0	0.0	KAMCHATKA	52.0N 160.0E	313.8	0.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
HN-ME	73.5	120.4	0.60	MB	MB		
RK-ON	59.9	139.4	0.60	5.58	5.58		
OB2NV	58.1	81.3	0.70	5.47	5.47		
NT2NV	57.9	187.6	0.80	5.28	5.28		
				5.69	5.69		
93	16 FEB 77	0:50:18.0	0.0	N ATLANTIC OCEAN	32.0N 25.0W	63.1	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
HN-ME	36.0	34.5	0.70	MB	MB		
RK-ON	53.0	85.9	0.90	4.78	4.78		
NT2NV	72.0	16.4	0.70	5.30	5.30		
				4.69	4.69		
94	16 FEB 77	1: 5:48.0	C.0	N PACIFIC OCEAN	38.0N 150.0E	303.6	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
RK-ON	75.1	20.5	0.50	MB	MB		
NT2NV	70.6	43.4	0.40	4.81	4.81		
				4.52	4.52		
95	17 FEB 77	13:32: 7.0	C.0	KOMANDORSKY IS.	56.0N 166.0E	317.1	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
RK-CN	54.6	94.6	1.00	MB	MB		
OB2NV	53.6	7.1	1.20	5.48	5.48		
NT2NV	53.3	31.9	0.80	4.48	4.48		
				4.85	4.85		

96	18 FEB 77	20:51:26.C	0.0	JAPAN	34.0N 142.0E 304.0	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
HN-ME	95.0	66.9	1.20	MB	MB	
RK-ON	82.0	416.4	0.80	5.80	5.88	
OB2NV	78.0	425.3	1.00	5.14	6.64	
NT2NV	78.0	903.8	1.00	6.23	6.23	
				6.56	6.56	
					** OMITTED **	
97	19 FEB 77	4: 1:58.0	0.0	N PACIFIC OCEAN	31.0N 147.0E 299.0	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
RK-ON	82.3	21.0	0.80	MB	MB	
OB2NV	76.7	24.1	1.20	4.87	4.77	
NT2NV	76.5	464.0	1.00	5.12	5.26	
				6.29	6.29	
98	19 FEB 77	5:51: 1.0	0.0	KAMCHATKA	51.0N 156.0E 313.9	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
RK-CN	62.3	28.7	0.60	MB	MB	
OB2NV	60.8	93.0	0.80	4.96	4.74	
NT2NV	60.6	23.1	0.60	5.47	5.37	
				4.75	4.53	
99	19 FEB 77	22:33:55.0	0.0	ALEUTIANS	53.0N 173.0E 312.3	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
HN-ME	68.0	700.1	0.90	MB	MB	
RK-ON	53.3	587.1	0.60	6.53	6.48	
OB2NV	50.0	532.6	1.00	6.33	5.81	
NT2NV	50.1	533.0	1.00	5.77	5.77	
				6.13	6.13	
100	19 FEB 77	22:47: 7.0	0.0	ALEUTIANS	49.0N 175.0E 306.9	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
RK-CN	54.0	21.6	0.60	MB	MB	
OB2NV	49.0	21.1	0.50	5.20	5.07	
NT2NV	49.7	48.5	0.70	4.53	4.23	
				4.90	4.83	
101	20 FEB 77	7: 2: 0.0	0.0	KODIAK IS. REG.	56.0N 152.0W 319.7	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
RK-CN	30.1	12.4	0.70	MB	MB	
OB2NV	30.4	5.8	0.80	4.36	4.21	
				4.02	3.93	
102	20 FEB 77	8: 0:36.0	0.0	ALEUTIANS	51.0N 174.0E 309.6	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
RK-ON	54.1	192.0	0.70	MB	MB	
OB2NV	50.0	6.4	0.50	5.65	5.50	
NT2NV	49.9	16.2	0.70	4.00	3.70	
				4.49	4.33	
103	8 MAR 77	22:46:44.0	0.0	W. BRAZIL	8.0S 63.0W 120.6	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
HN-ME	54.0	160.5	1.30	MB	MB	
RK-ON	64.0	290.7	1.00	5.82	5.03	
OB2NV	67.0	70.0	1.00	5.12	6.16	
NT2NV	67.2	163.3	1.30	5.11	5.55	
				5.90	6.22	
					5.68	
104	9 MAR 77	14:27: 5.0	5.0	N.E. CHINA BDR	42.0N 130.0E 316.4	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B	
HN-ME	90.0	930.1	0.70	MB	MB	
RK-CN	79.6	5374.3	0.80	5.65	6.49	
OB2NV	80.5	2887.5	0.80	5.09	6.99	
				5.83	6.73	
					** OMITTED **	

WONDER
BAND, INC.
E. . . .
MAYNARD

[illegible]

50.55.113

5. 17
4. 66
3. 35
2. 22

4.26
4.35
4.70
4.72

MB
6.12
6.13
6.14
6.15

4. 8
4. 9
4. 0
5. 7

113	7 MAR 77	9:11:55.0	0.0	N. PACIFIC	39.0N 149.0E	374.9	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
RK-CN	74.7	173.3	0.60	MB	MB		
OB2NV	70.9	152.7	0.70	5.20	4.57		
NT-NV	70.6	228.0	0.70	5.57	5.35		
NT2NV	70.7	202.7	0.50	5.81	5.66		
				5.70	5.40		
114	21 MAR 77	4:36:38.0	0.0	VOICANO IS.	23.0N 143.0E	294.7	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
RK-CN	90.9	9.1	0.70	MB	MB		
OB2NV	84.4	22.3	1.00	4.62	4.46		
NT-NV	84.1	13.8	0.80	5.25	5.05		
NT2NV	84.2	41.6	1.00	4.76	4.66		
				5.32	5.32		
115	21 MAR 77	6:58:18.0	0.0	MAFIANA IS.	21.0N 141.0E	294.3	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
RK-CN	93.6	26.0	0.60	MB	MB		
OB2NV	87.4	20.3	1.00	4.51	4.20		
NT-NV	86.4	20.4	0.80	5.18	5.13		
NT2NV	86.0	20.4	0.80	5.32	5.22		
				5.42	5.33		
116	23 MAR 77	2:11:25.0	0.0	CST. VENEZUELA	11.0N 69.0W	109.2	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
RK-CN	48.7	2174.6	0.50	MB	MB		
OB2NV	48.6	274.5	0.60	6.47	6.17		
NT-NV	49.9	665.9	0.70	5.71	5.40		
NT2NV	49.8	676.5	0.60	6.10	5.95		
				6.08	5.86		
117	23 MAR 77	3:46:10.0	0.0	HOKKAIDO	45.0N 145.0E	312.0	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
RK-CN	71.6	21.7	0.70	MB	MB		
OB2NV	70.1	12.7	0.80	4.81	4.65		
NT-NV	69.8	11.2	0.70	4.62	4.53		
NT2NV	69.9	12.4	0.50	4.98	4.83		
				4.51	4.21		
118	26 MAR 77	4:36:10.0	0.0	FOX IS.	52.0N 168.0W	309.5	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
RK-CN	44.3	167.5	0.80	MB	MB		
OB2NV	38.8	195.6	1.00	5.45	5.40		
NT-NV	38.6	239.7	1.10	5.41	5.41		
NT2NV	38.7	216.7	1.10	5.59	5.63		
				5.54	5.58		
119	29 MAR 77	3:57:00.0	0.0	E. KAZAKH	50.0N 78.0E	351.0	C.
STA	DIST	AMP	T	LOG10 (A/MT) + B	LOG10 (A/M) + B		
RK-CN	78.9	46.4	0.40	MB	MB		
OB2NV	91.9	32.7	0.70	5.19	4.79		
NT-NV	91.8	45.6	0.60	5.16	4.68		
				5.29	5.67		
				** OMITTED **	** OMITTED **		

APPENDIX B

Vertical short period waveforms of all
events digitized for the computation of Δt^*

DATE

STATION

HNME

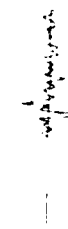
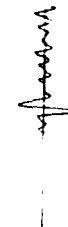
RKON

OB2NV

NT2NV

NTNV

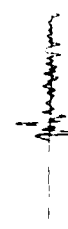
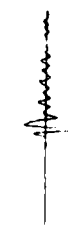
22 SEP 76 0
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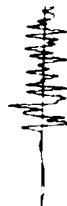
22 SEP 76 2
#19



22 SEP 76 8
#20



29 SEP 76 3
SHOT
#4



DATE

HNME

RKON

STATION

082NV

NT2NV

NTNV

30 SEP 76 8

#16

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

4 OCT 76 23

#22

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

8 OCT 76 14

#26

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

9 OCT 76 2

#29

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

DATE

STATION

HNME

RKON

OB2NV

NT2NV

NTNV

9 OCT 76 12

#28

9 OCT 76 16

#30

B-3

9 OCT 76 21

#32

9 OCT 76 23

#33

DATE

HNME

RKON

STATION

082NV

NT2NV

NTNV

10 OCT 76 2

#34

10 OCT 76 14

#36

12 OCT 76 4

#38

12 OCT 76 23

#39

DATE

STATION

HNME

RKON

OB2NV

NT2NV

NTNV

13 OCT 76 17

#40



22 OCT 76 4

#43



B-5

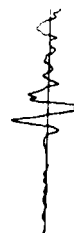
22 OCT 76 5

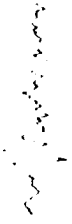
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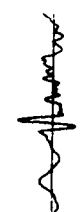


22 OCT 76 18

#45



DATE	HNME	RKON	STATION	082NV	NT2NV	NTNV
24 OCT 76 17 #46		_____			_____	_____
28 OCT 76 5 #47						
28 OCT 76 9 #48	_____				_____	_____
2 NOV 76 19 #49		_____				_____

DATE	HNME	STATION			NTNV
		RKON	OB2NV	NT2NV	
15 NOV 76 14 #51					
22 NOV 76 20 #53					
23 NOV 76 5 SHOT #27					
26 NOV 76 23 #54					

DATE

NAME

RKON

STATION

082NV

NT2NV

NTNV

30 NOV 76 00

#59

1 DEC 76 14

#55

1 DEC 76 17

#56

3 DEC 76 5

#57

DATE

HNME

RKON

STATION

082NV

NT2NV

NTNV

3 DEC 76 23
#58

4 DEC 76 5
#60

4 DEC 76 12
#61

5 DEC 76 22
#62

DATE	HNME	RKON	STATION	NT2NV	NTNV
6 DEC 76 19 #63	_____	* 	_____	* 	_____
7 DEC 76 8 #64	_____		_____		
13 DEC 76 23 #75	_____		_____		_____
14 DEC 76 16 #76	_____	* 	_____	* 	* 

DATE

STATION

HNME

RKON

OB2NV

NT2NV

NTNV

15 DEC 76 12
#71



*

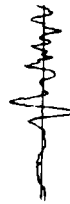
18 DEC 76 14
#69



*



20 DEC 76 10
#70



20 DEC 76 21
#73



DATE

STATION

HNME

RKON

OB2NV

NT2NV

NTNV

22 DEC 76 1

#74

*



*



x

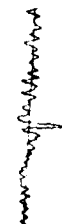


27 DEC 76 18

#77

B-12

*



x



31 DEC 76 9

#79

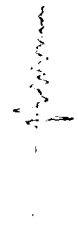
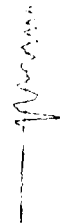
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1 JAN 77 11

#80

*



DATE

STATION

HNME

RKON

OB2NV

NT2NV

NTNV

5 JAN 77 18

#82

*

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

5 JAN 77 22

#83

*

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

6 JAN 77 7

#84

[Handwritten signature]

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[Handwritten signature]

6 JAN 77 16

#85

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[Handwritten signature]

[Handwritten signature]

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DATE

STATION

HNME

RKON

OB2NV

NT2NV

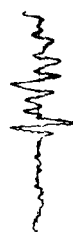
NTNV

17 JAN 77 6
#87

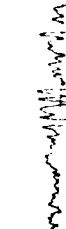


B-14

17 JAN 77 9
#88



26 JAN 77 6
#89

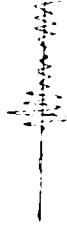


28 JAN 77 4



(This Event Inadvertently Omitted From The Data Shown In Appendix A)

STATION

DATE	HNME	RKON	OB2NV	NT2NV	NTNV
3 FEB 77 21 #90	_____			_____	_____
6 FEB 77 0 #91	_____				_____
13 FEB 77 5 #92					_____
16 FEB 77 0 #93	_____		_____		_____

DATE

HNME

RKON

STATION

OB2NV

NT2NV

NTNV

18 FEB 77 1

#94



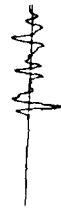
17 FEB 77 13

#95



18 FEB 77 20

#96



19 FEB 77 5

#98



DATE

HNME

RKON

STATION

OB2NV

NT2NV

NTNV

19 FEB 77 22
#100



20 FEB 77 7
#101

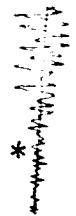


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#102



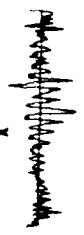
8 MAR 77 22
#103



DATE	HNME	RKON	STATION OB2NV	NT2NV	NTNV
4 MAR 77 19 #111					
7 MAR 77 0 #112					
7 MAR 77 9 #113					
12 MAR 77 2 #105					

STATION

DATE	HNME	RKON	082NV	NT2NV	NTNV
13 MAR 77 4 #106	_____	_____	_____	_____	_____
15 MAR 77 21 #108	_____	_____	_____	_____	_____
19 MAR 77 10 #110	_____	_____	_____	_____	_____
21 MAR 77 4 #114	_____	_____	_____	_____	_____

DATE	HNME	STATION	RKON	OB2NV	NT2NV	NTNV
23 MAR 77 2 #116	_____					
26 MAR 77 4 #118	_____					
29 MAR 77 3 SHOT #119	_____				_____	

APPENDIX C

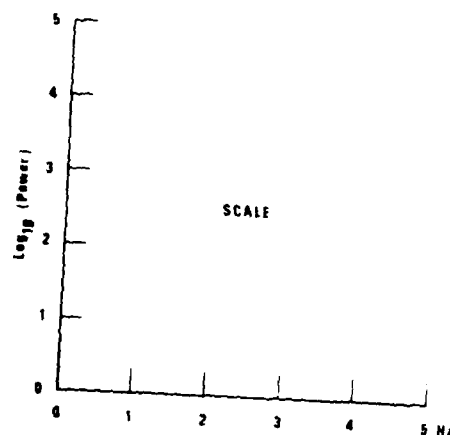
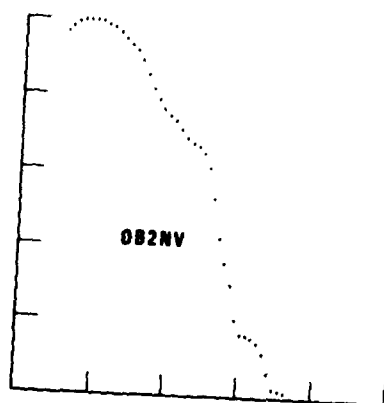
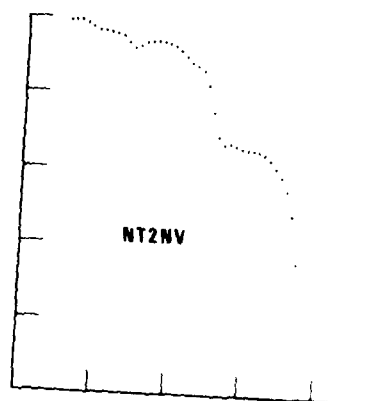
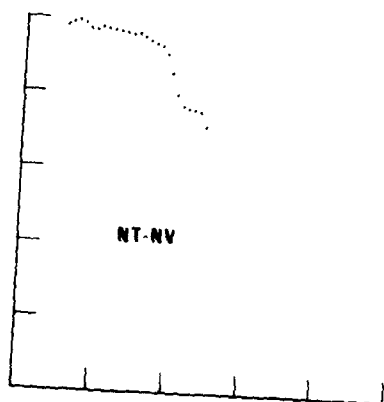
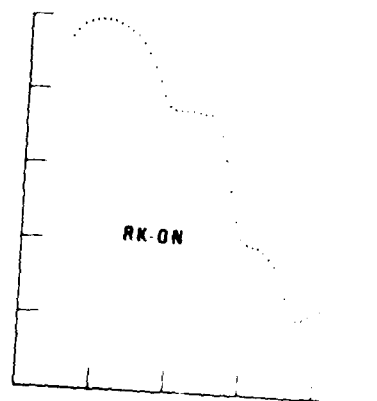
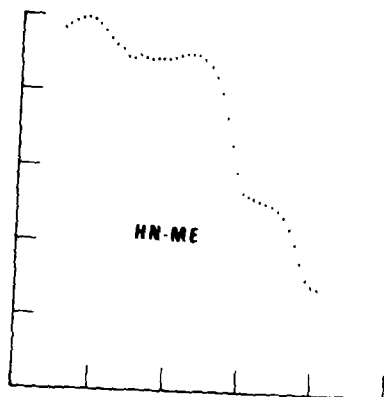
Power spectra of waveforms in Appendix B

22 SEP 76

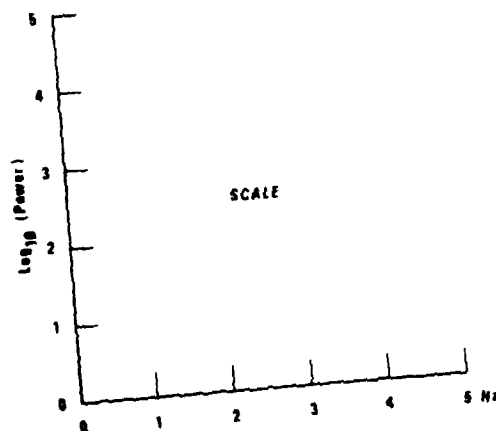
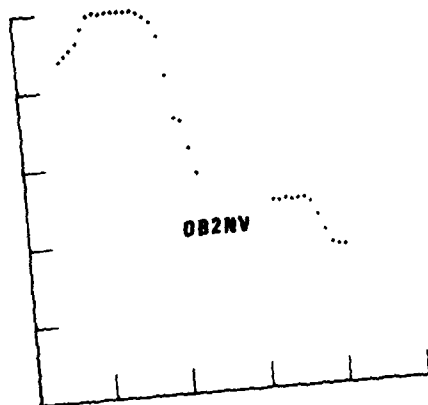
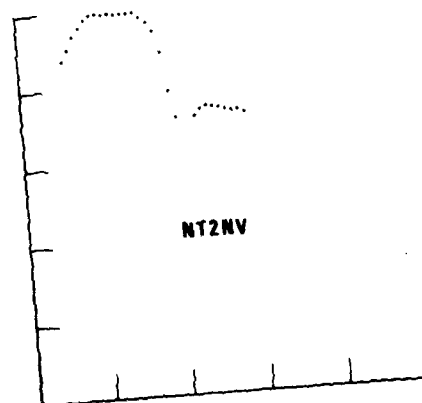
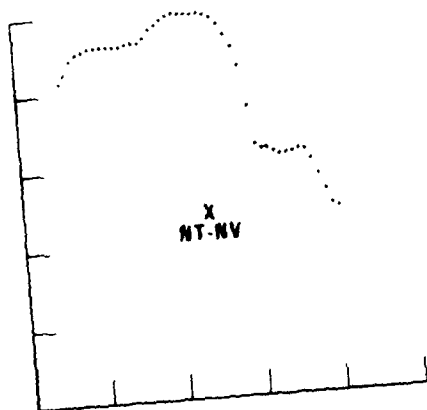
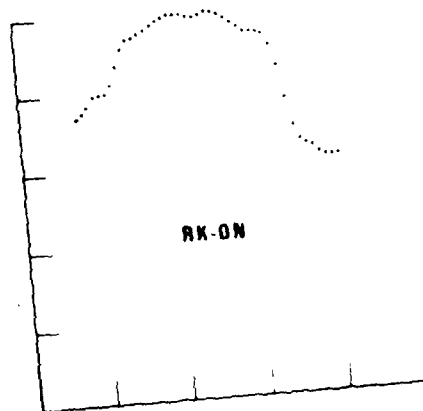
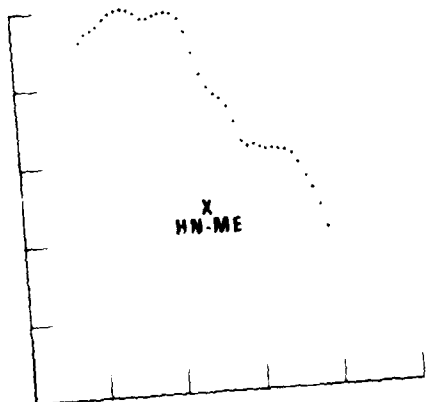
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#86

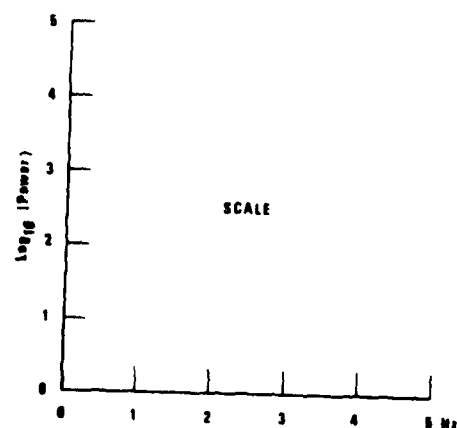
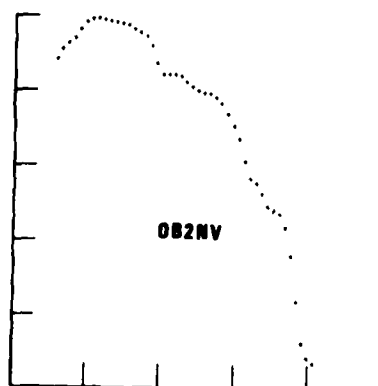
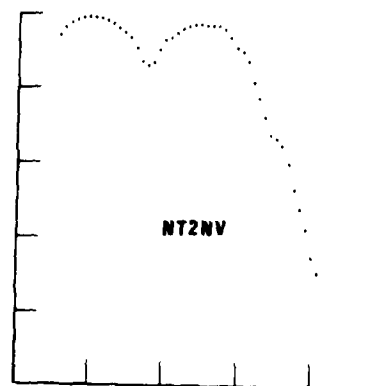
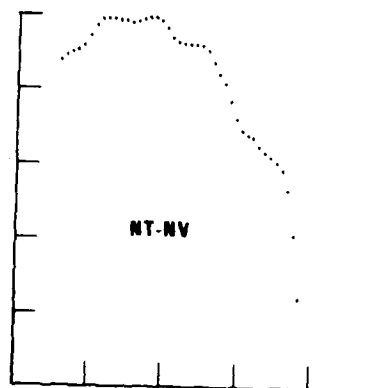
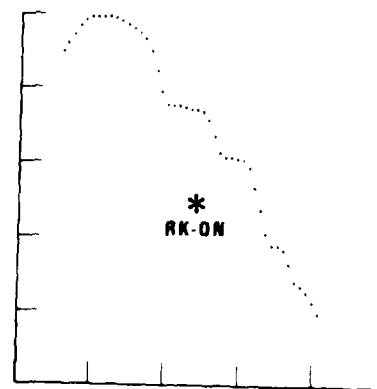
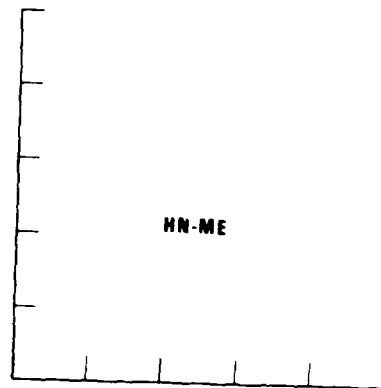


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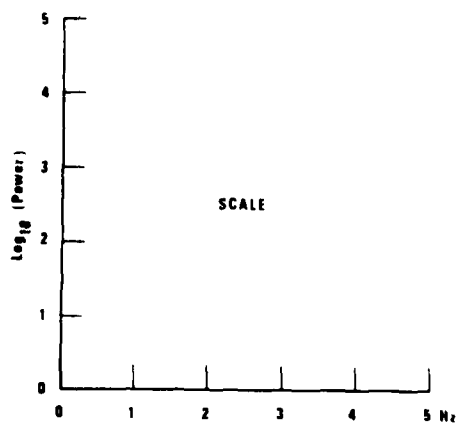
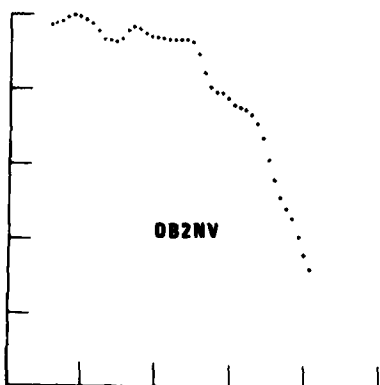
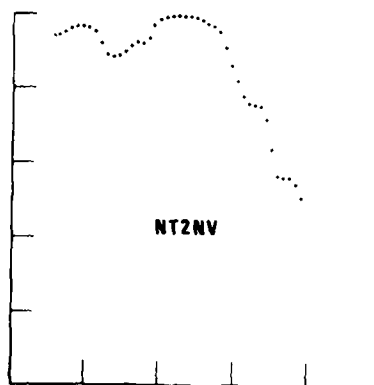
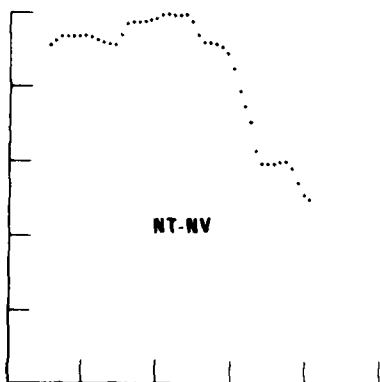
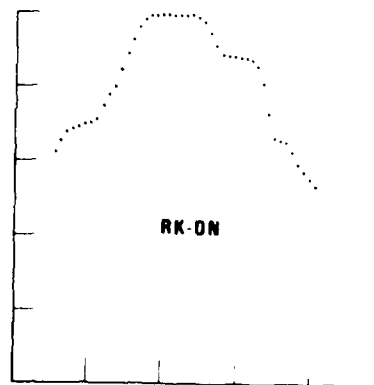
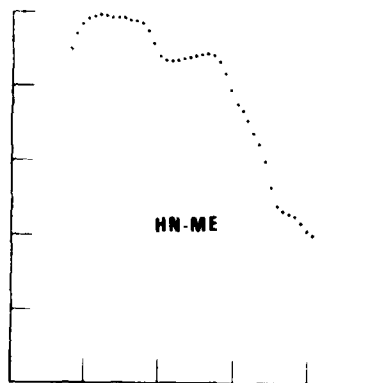
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#20



28 SEP 76
3:0:0.0
NOVAYA ZEMLYA

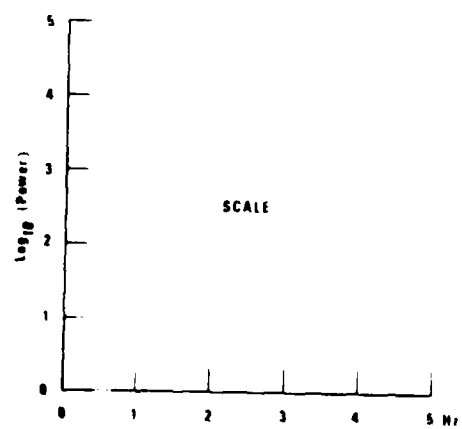
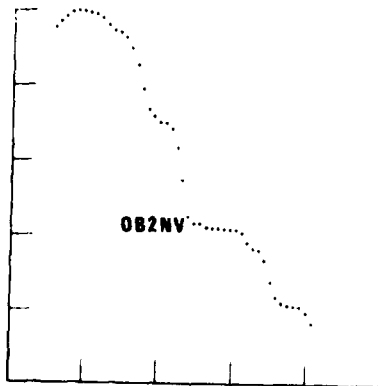
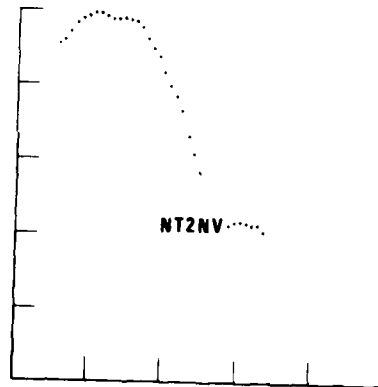
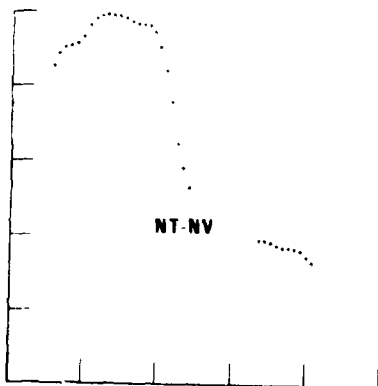
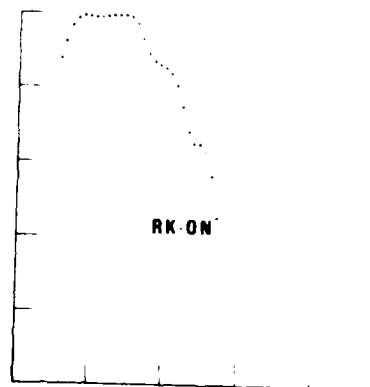
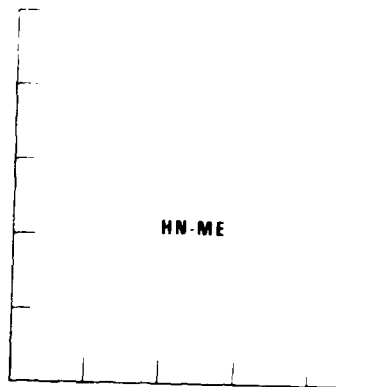
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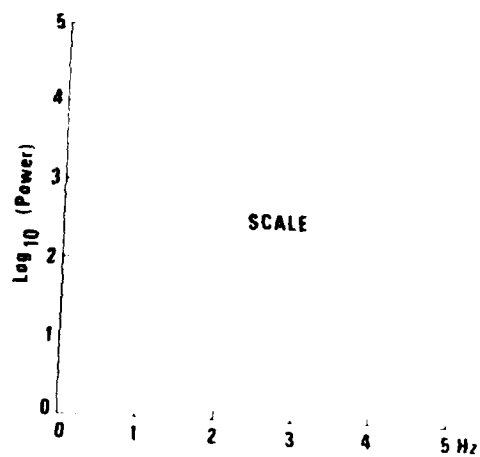
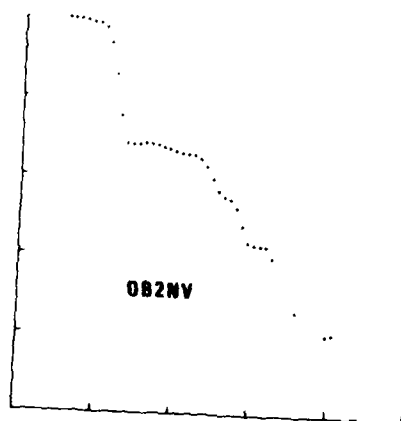
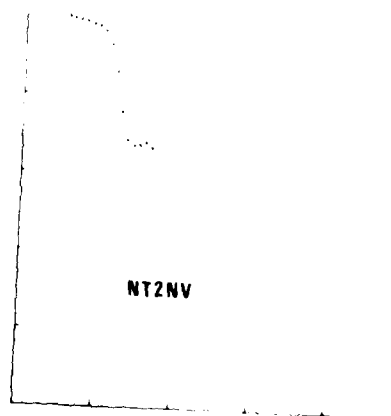
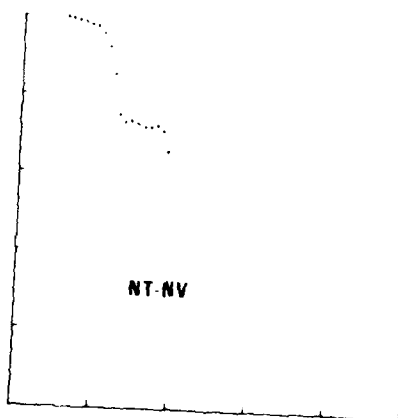
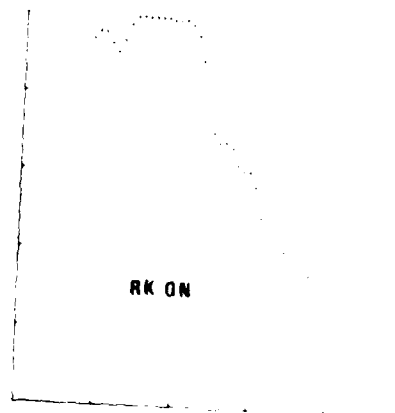
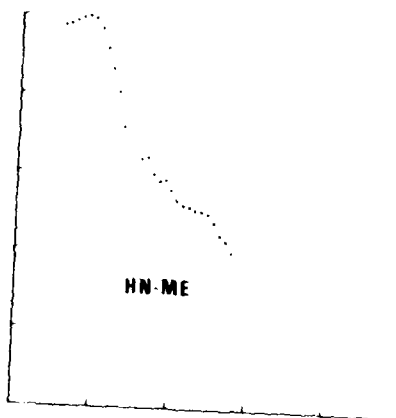
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30 SEP 76
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#16

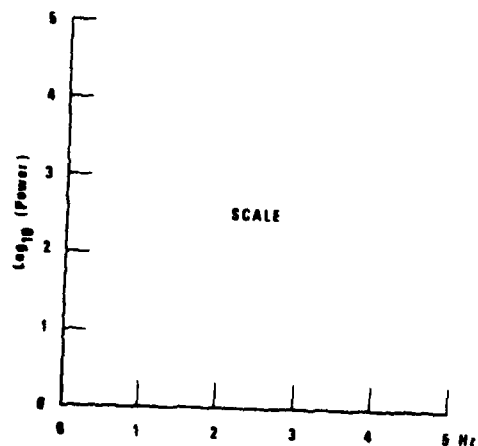
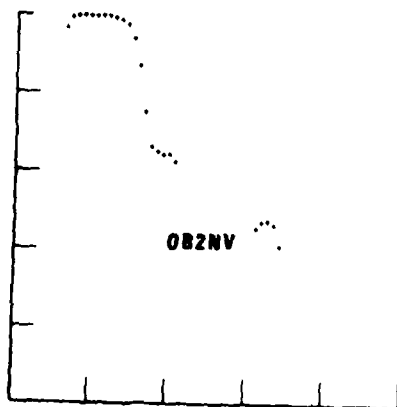
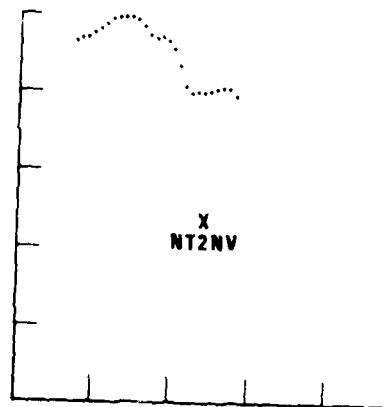
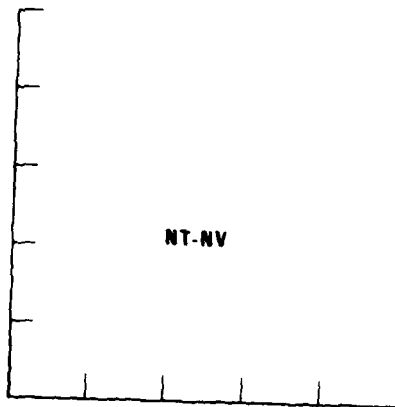
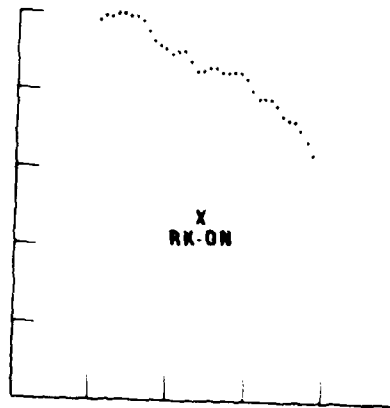
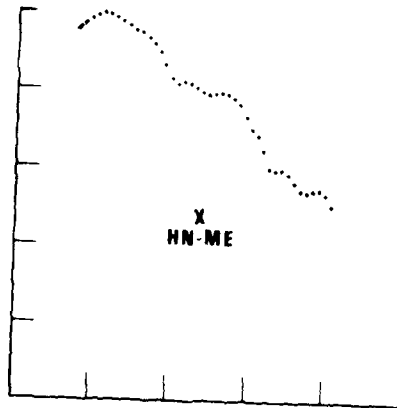


4 OCT 76 23
23 36 60
EQUADOR
#22



8 OCT 76
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KURILES

#26

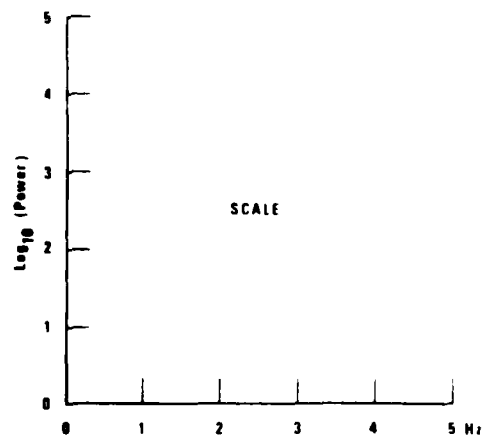
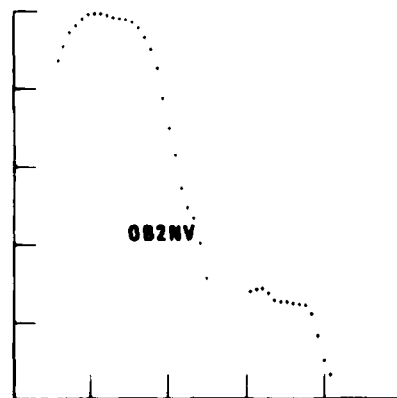
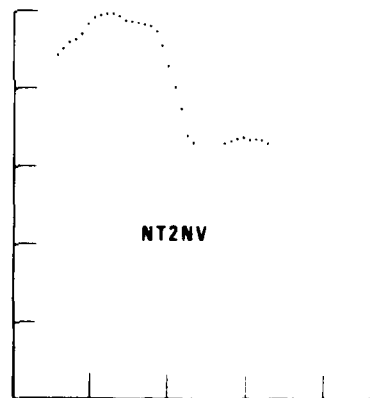
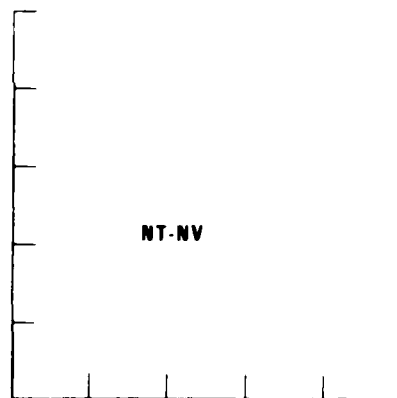
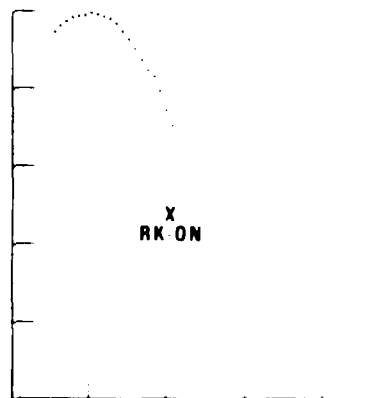
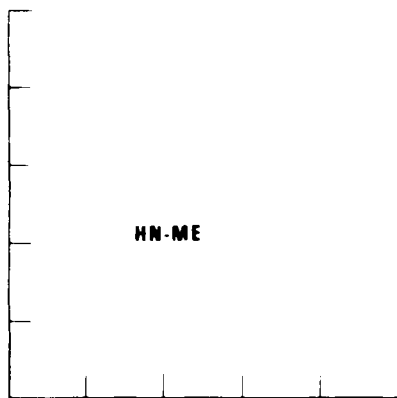


9 OCT 78

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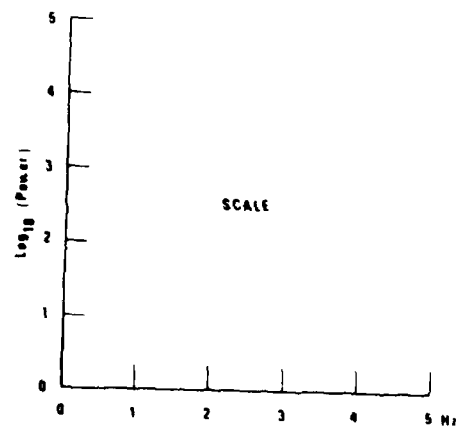
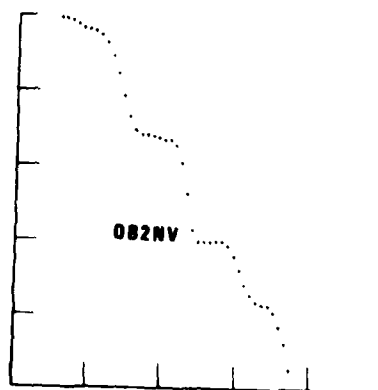
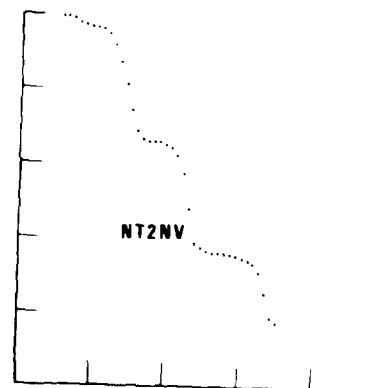
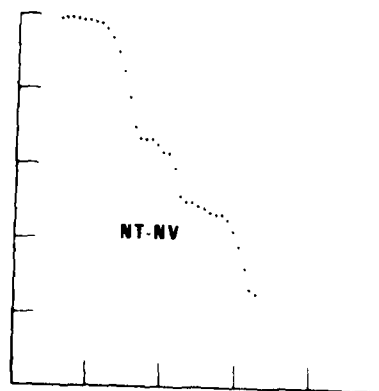
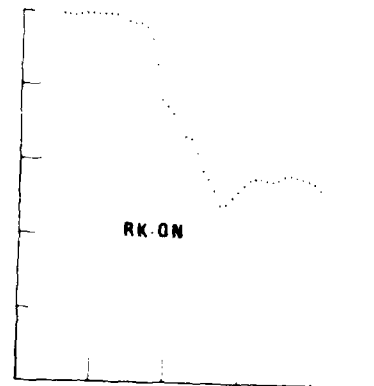
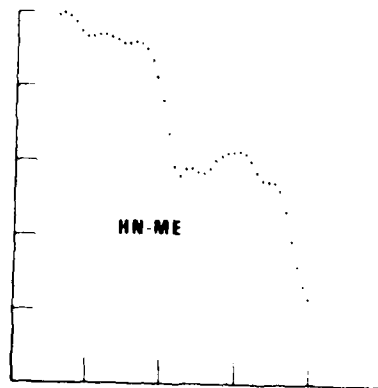
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C-8

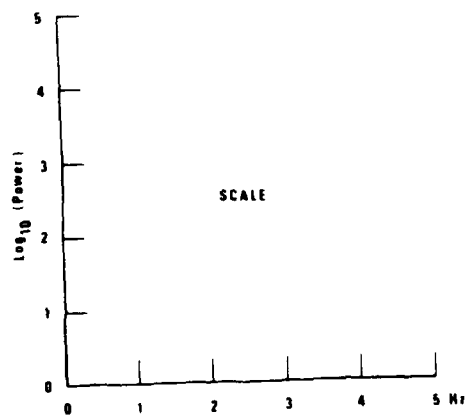
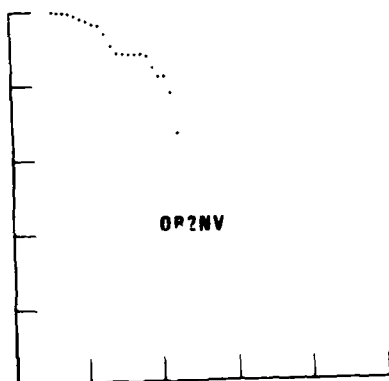
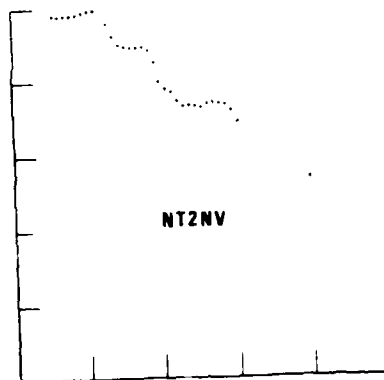
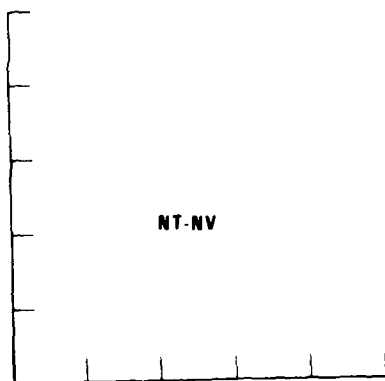
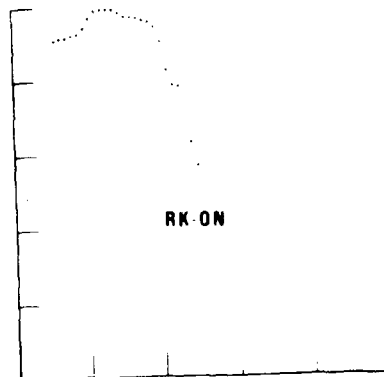
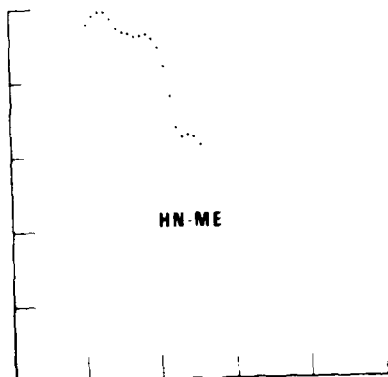
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#28



9 OCT 76
16:2:26.9
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#30

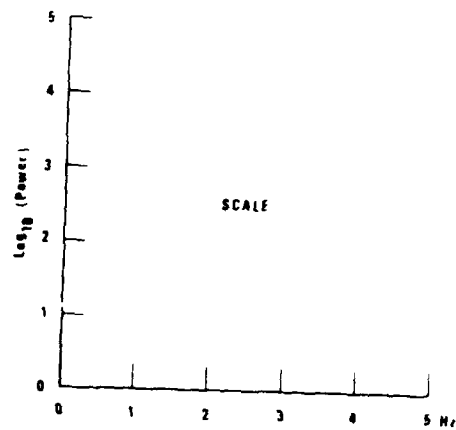
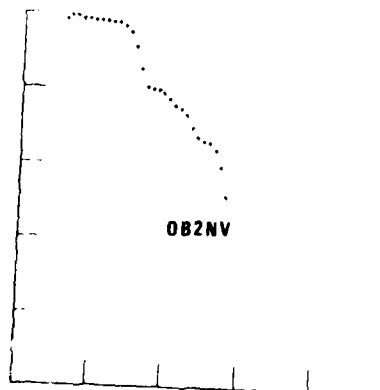
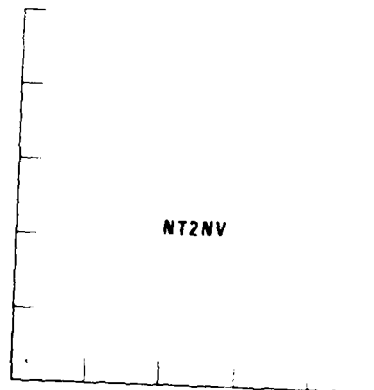
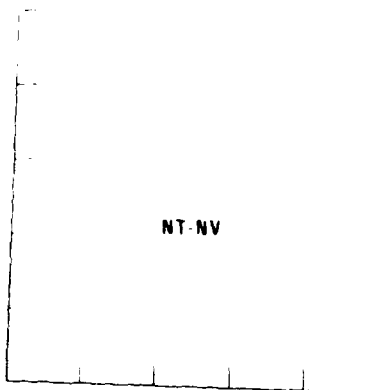
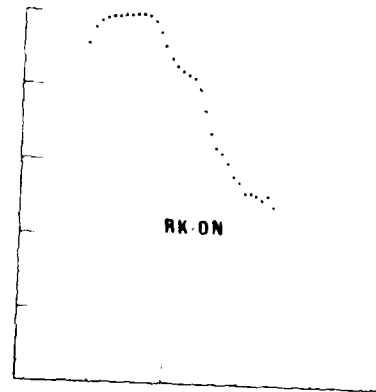
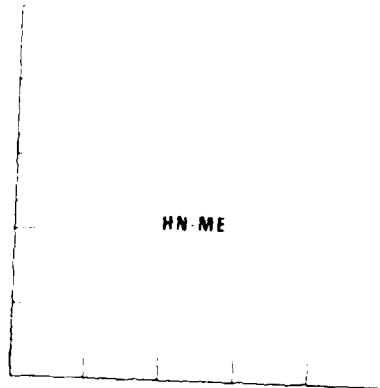


9 OCT 76

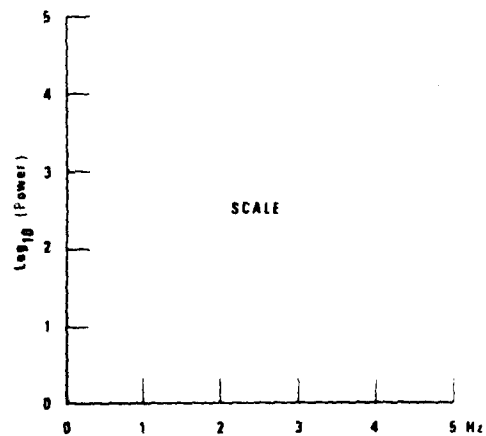
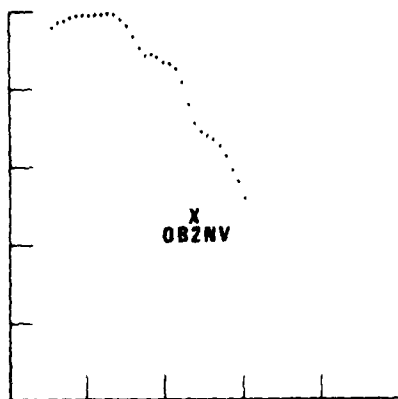
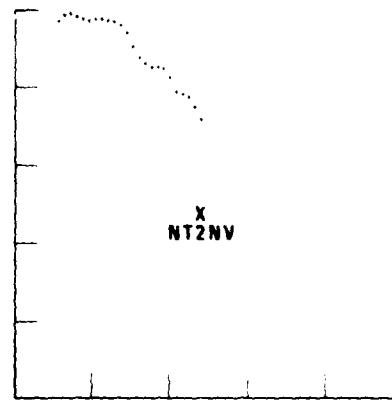
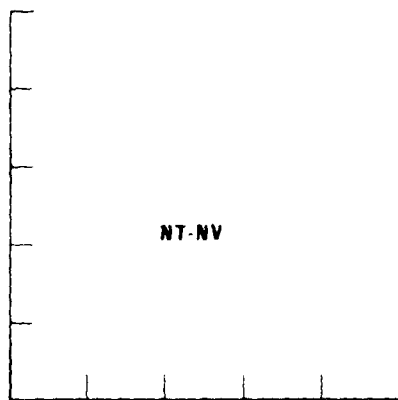
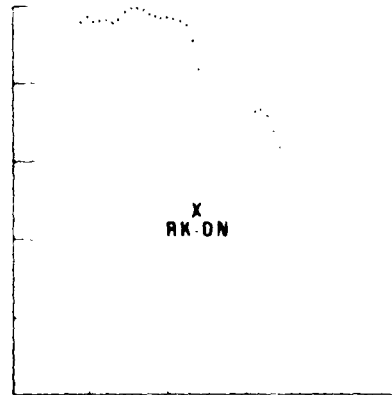
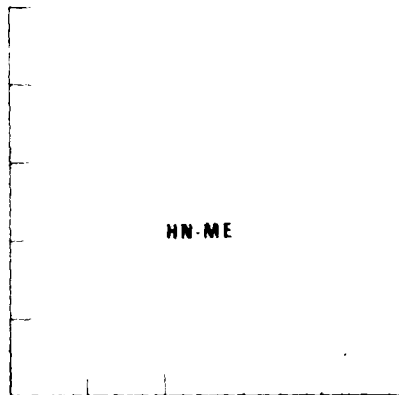
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PERU COAST

#32



9 OCT 76
23 48 90
COAST OF CEN AMERICA
#33

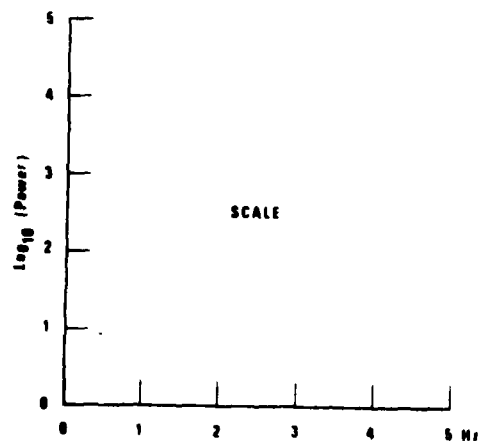
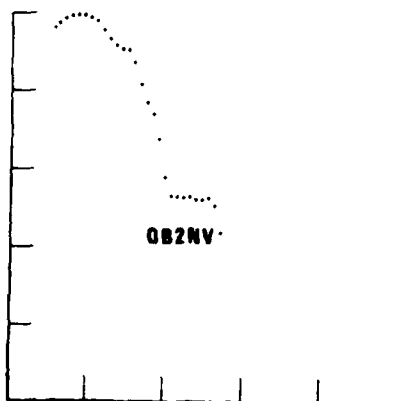
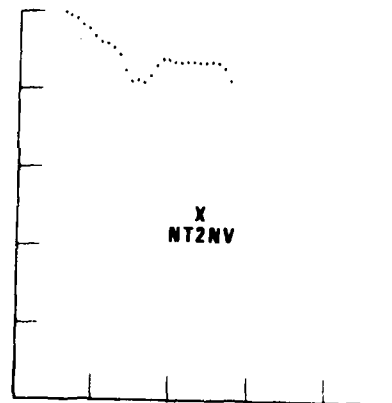
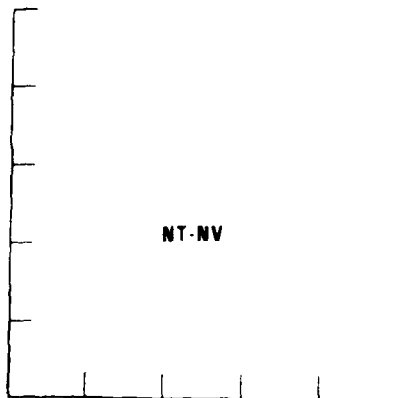
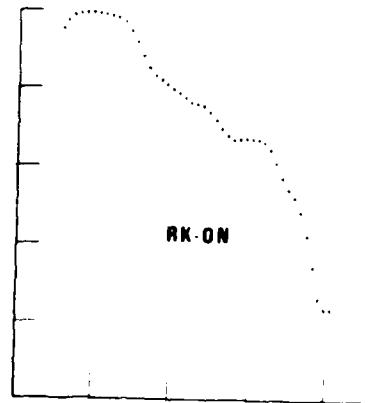
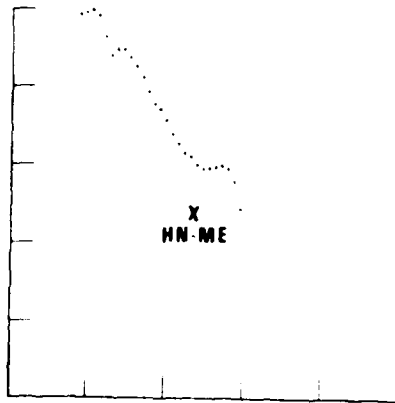


10 OCT 78

2:58:58.8

KURILES

#34

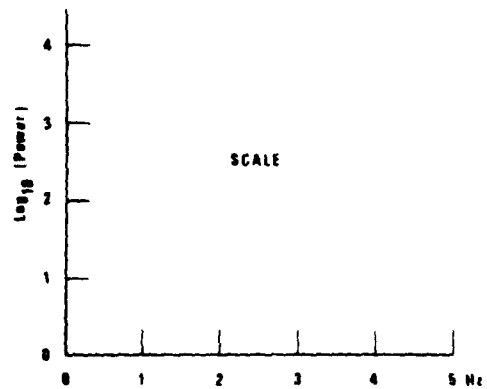
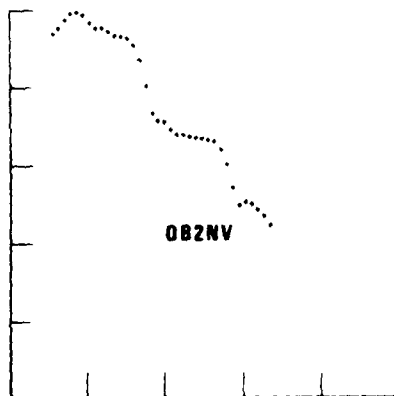
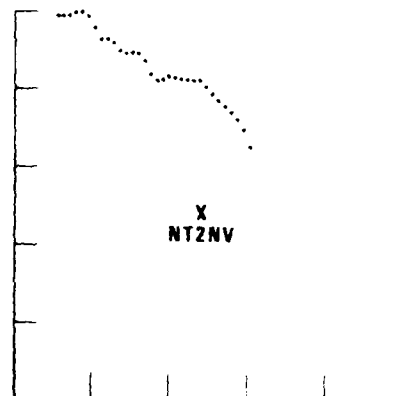
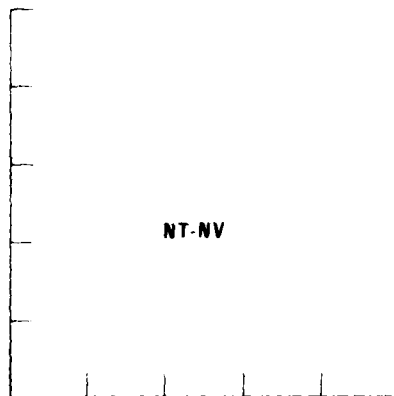
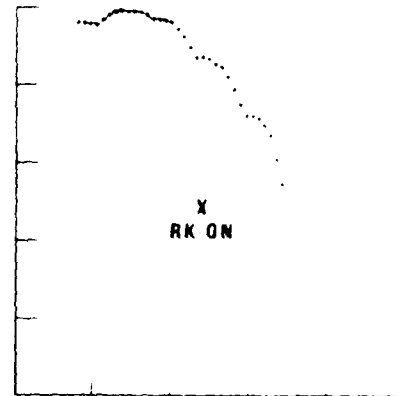
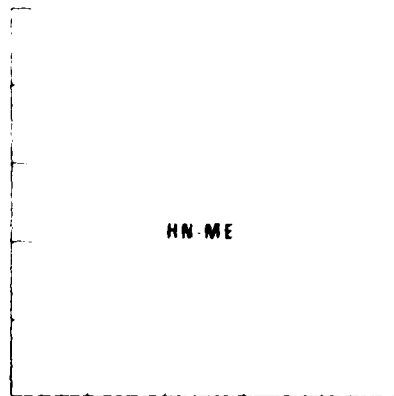


10 OCT 78

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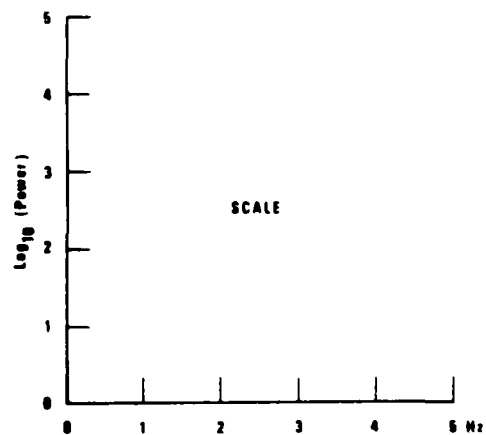
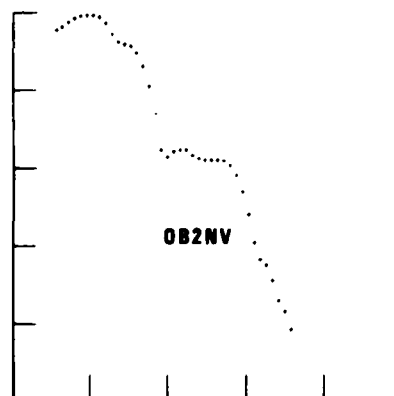
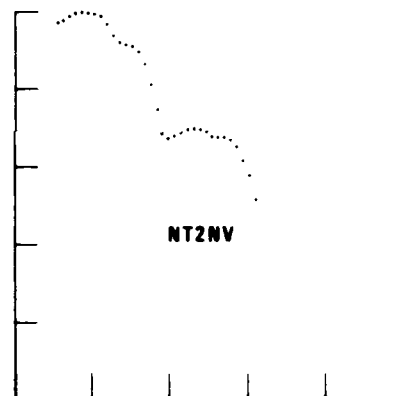
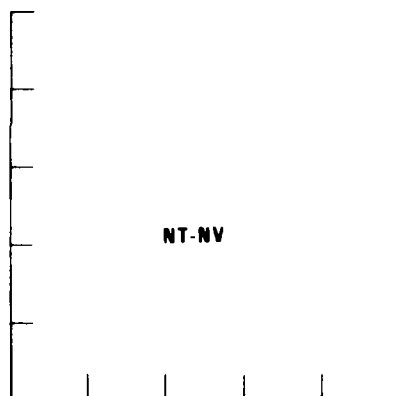
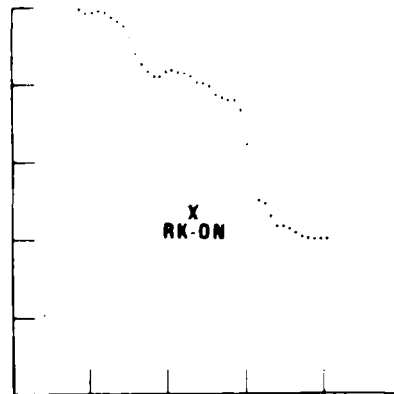
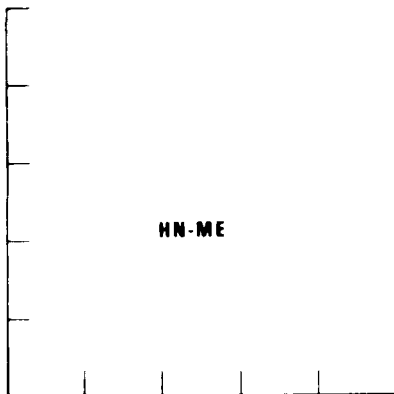
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C-14

12 OCT 76
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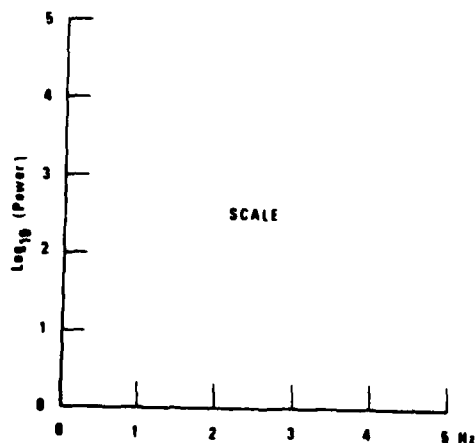
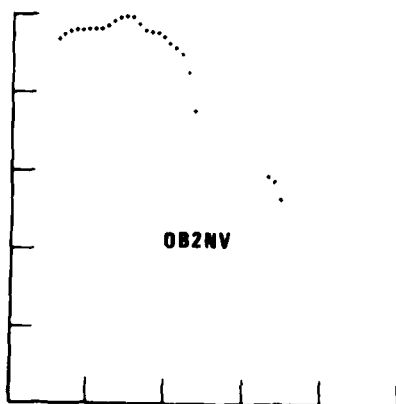
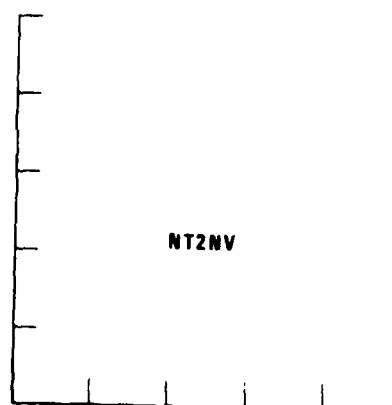
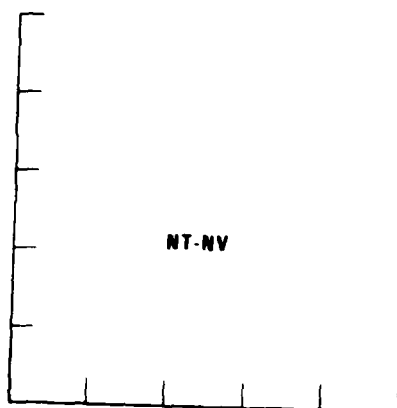
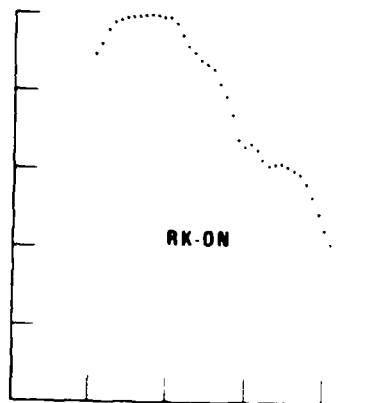
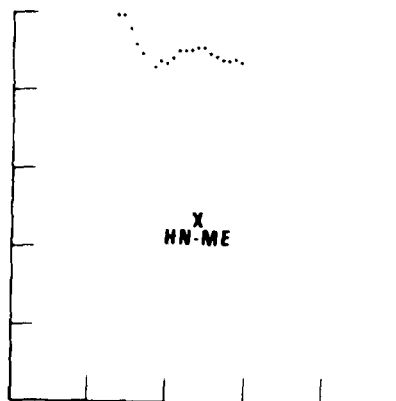
#38



C-15

12 OCT 76
23:49:24.3
COLUMBIA

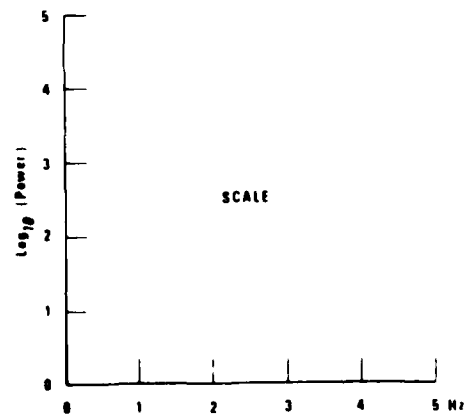
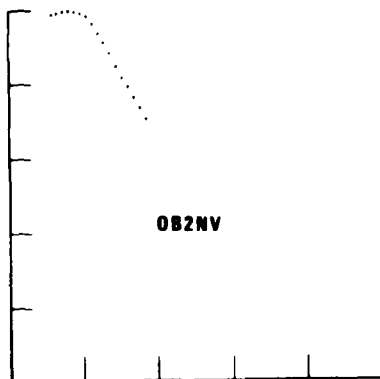
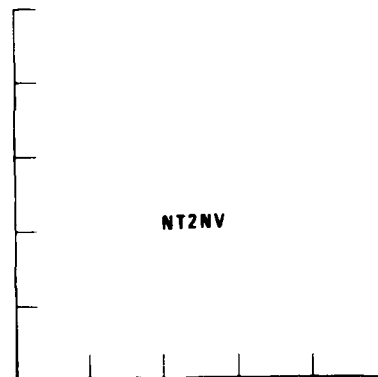
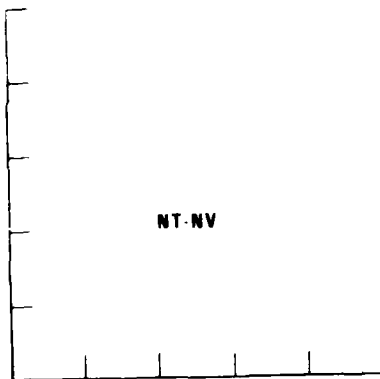
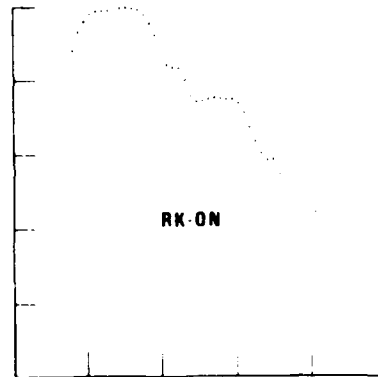
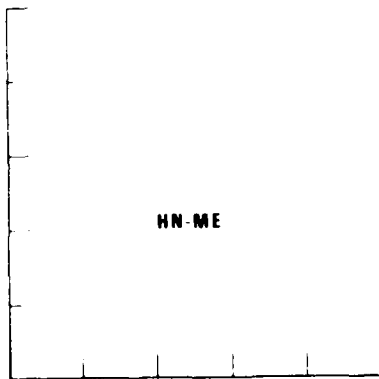
#39



C-16

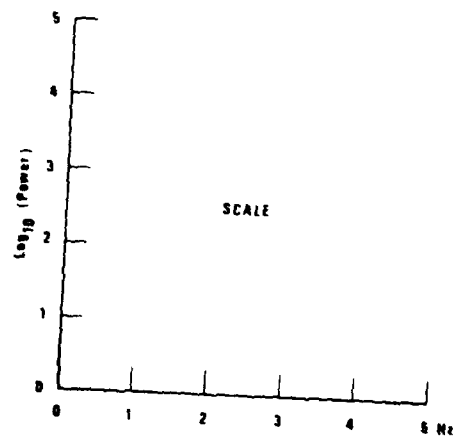
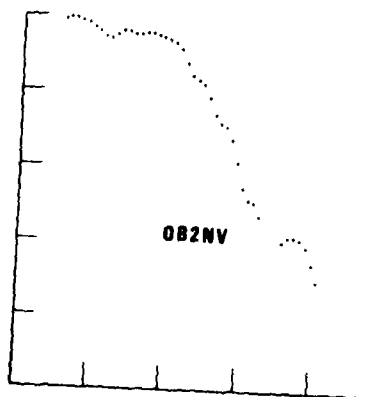
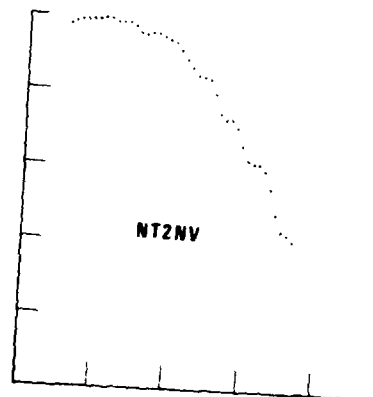
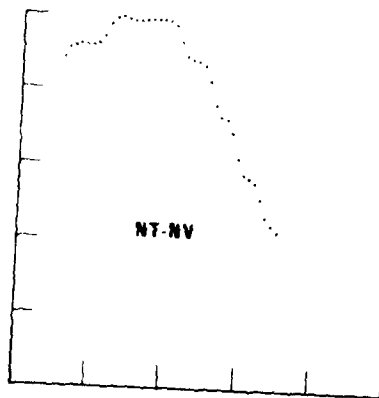
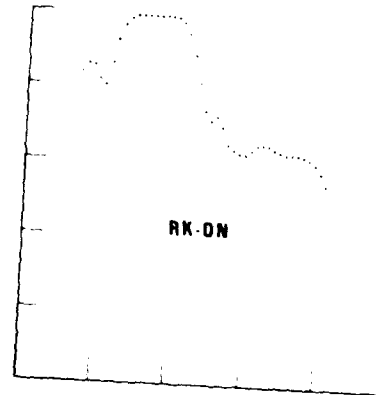
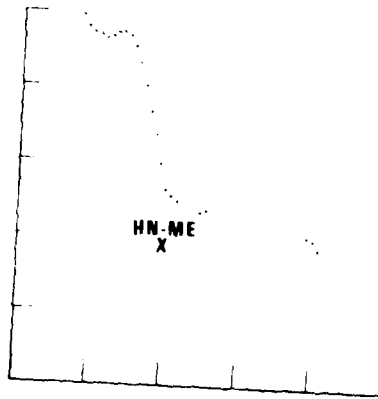
13 OCT 76
17:35:45.1
VENEZUELA

#40



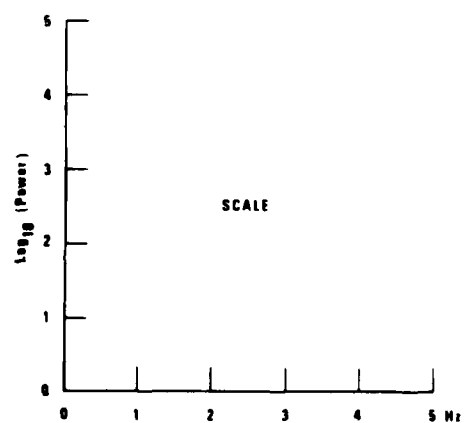
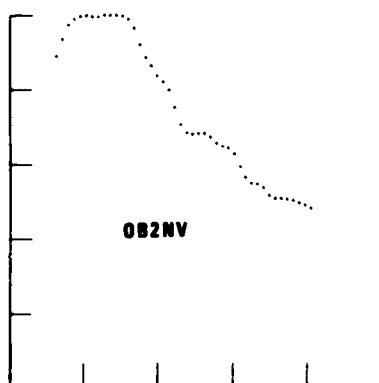
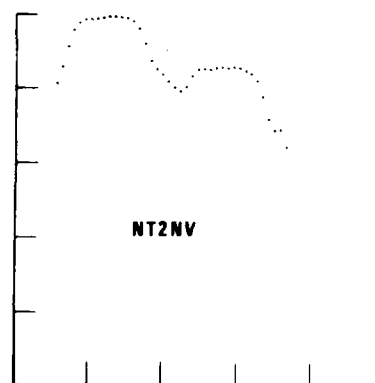
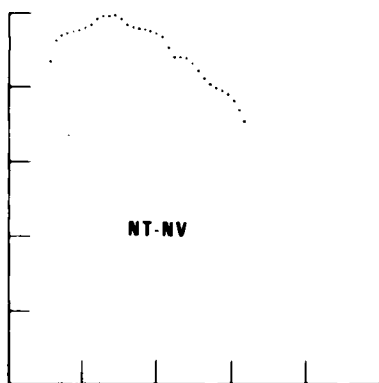
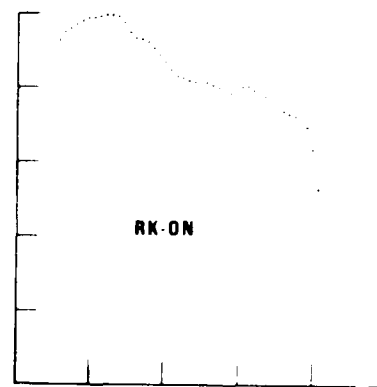
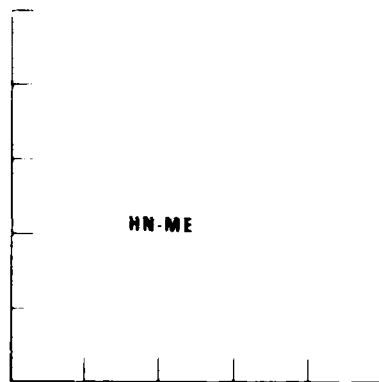
22 OCT 76
4:4:22.6
COAST OF NICARAGUA

#43



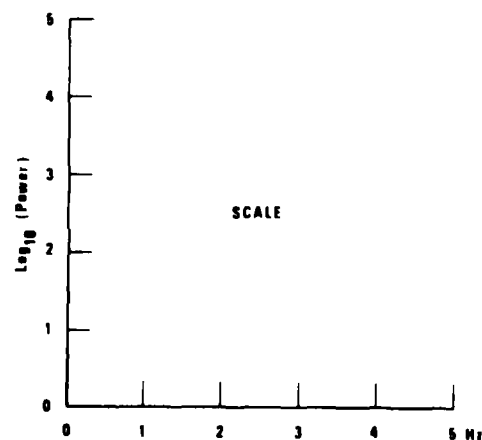
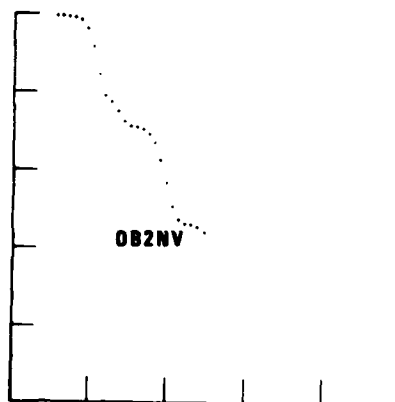
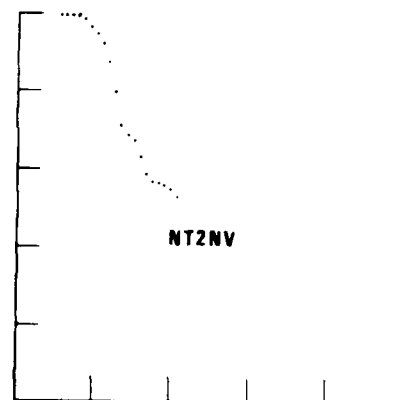
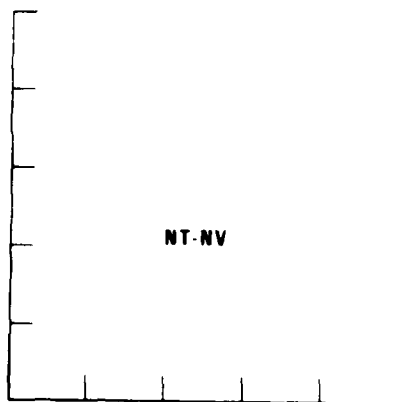
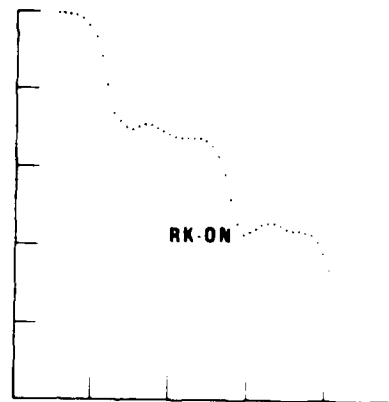
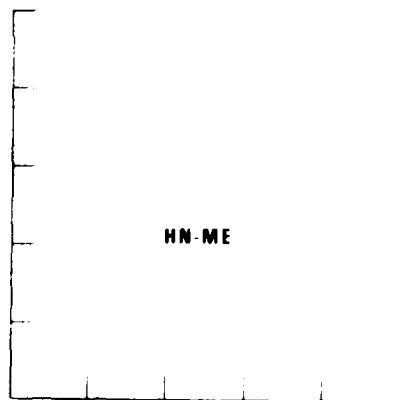
22 OCT 76
5:53:50.9
EL SALVADOR

#44



22 OCT 76
18.35:23.9
KODIAK REGION

#45

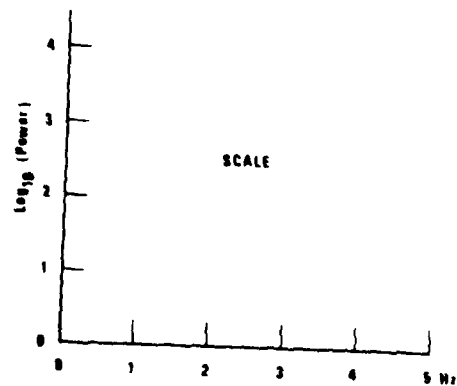
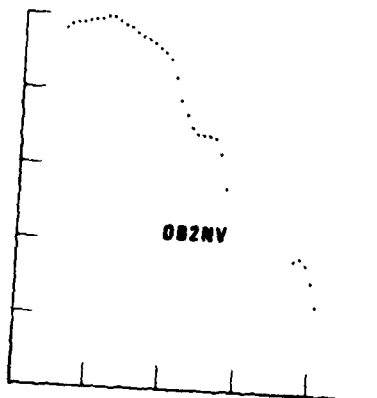
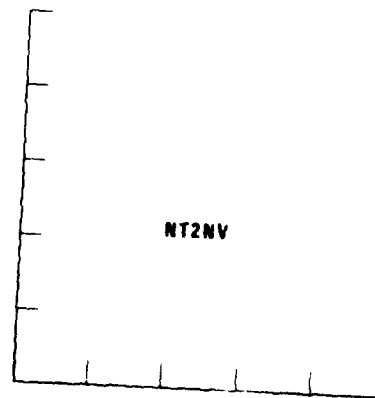
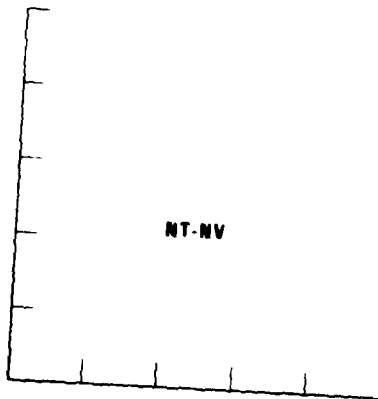
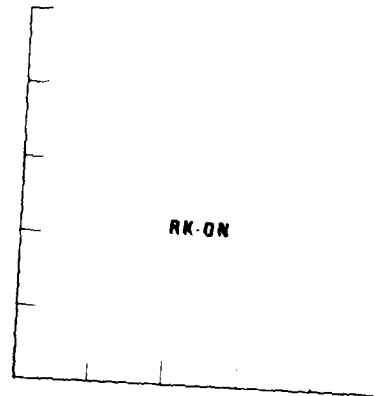
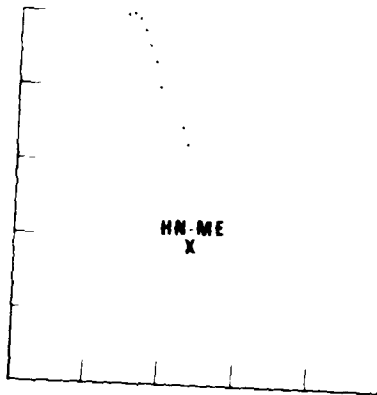


24 OCT 78

17:10:56.5

ALASKA

#46

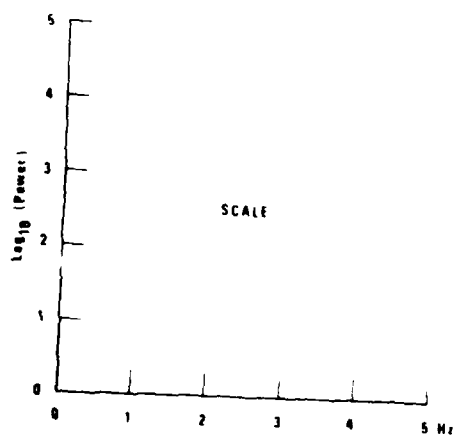
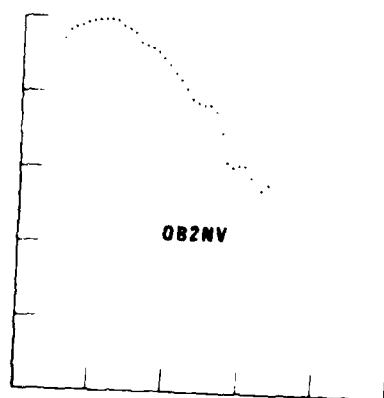
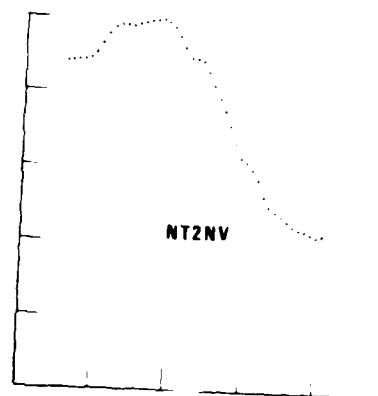
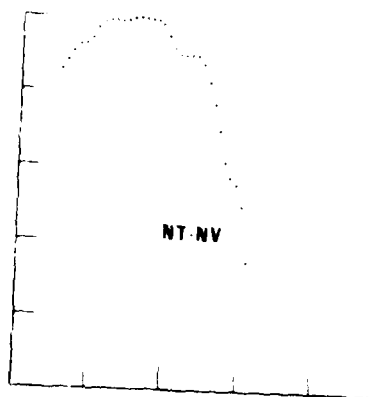
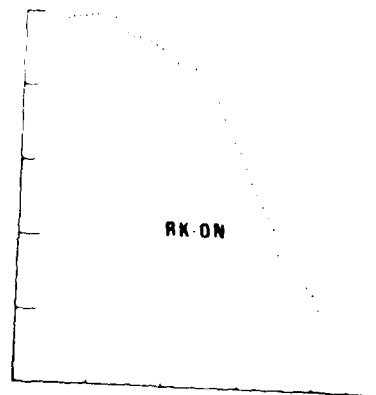
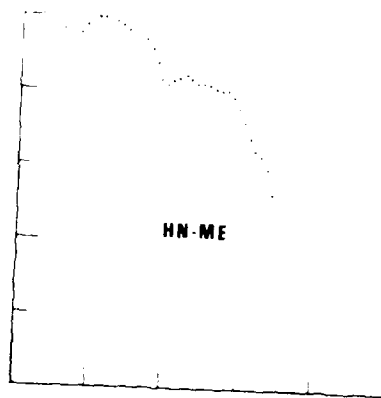


26 OCT 76

5:59:56.4

KURILES

#47

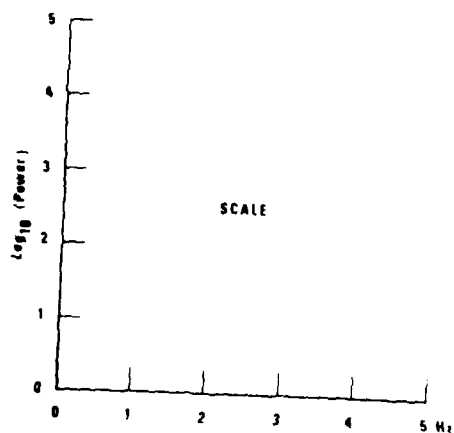
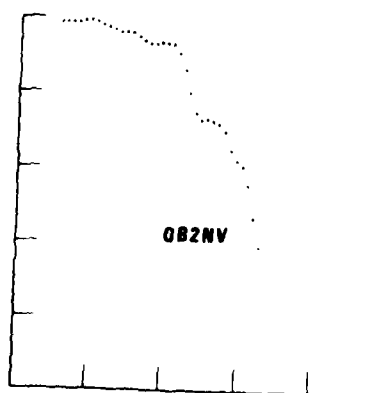
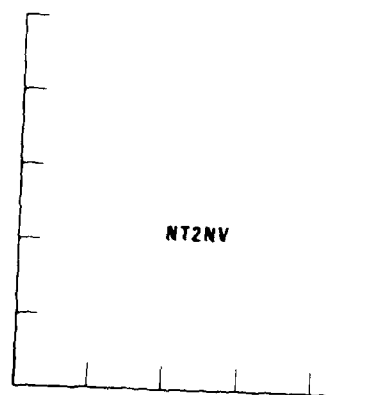
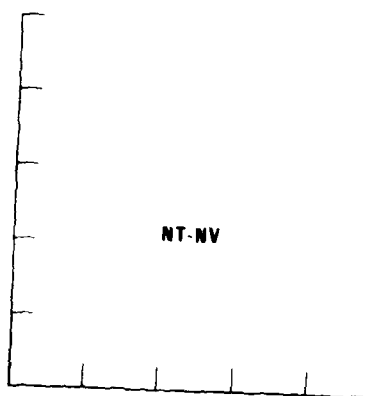
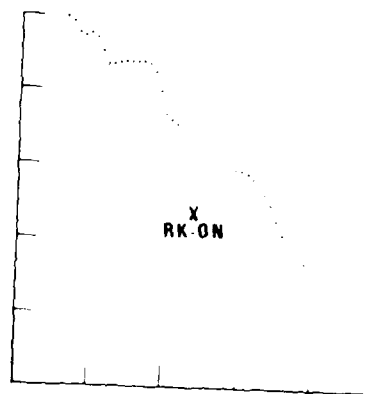
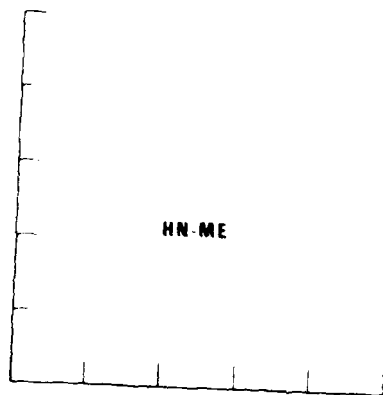


28 OCT 76

9:59:21.3

PERU

#48



2 NOV 76
19:23:27
KURILES

#49

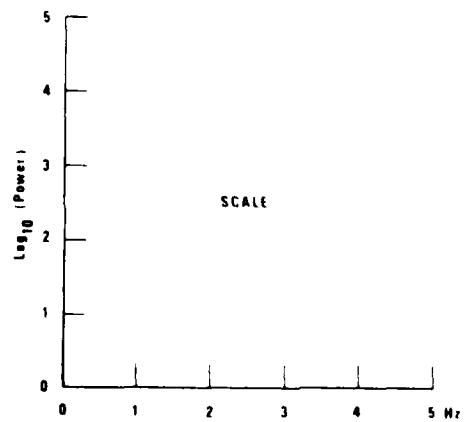
HN-ME

RK-ON

NT NV

NT2NV

OB2NV

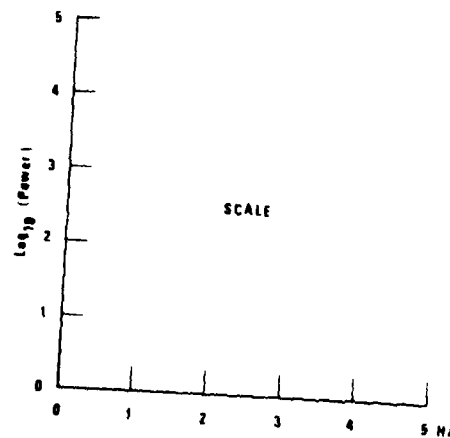
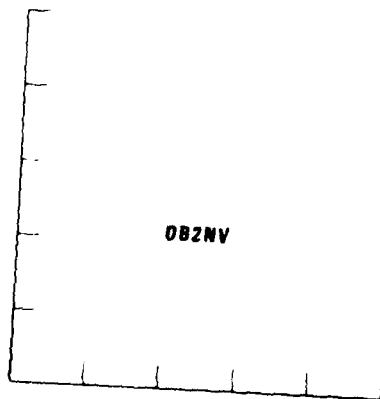
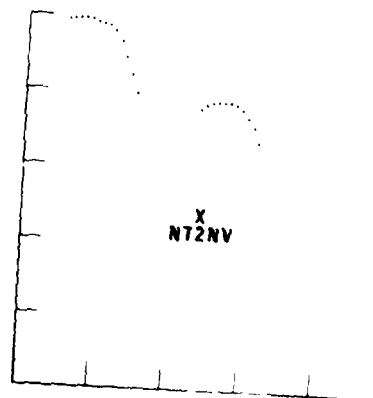
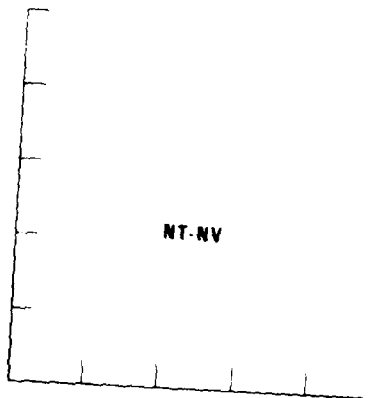
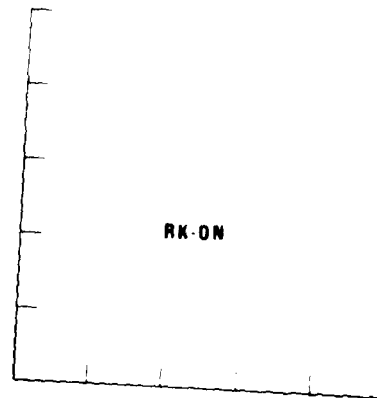
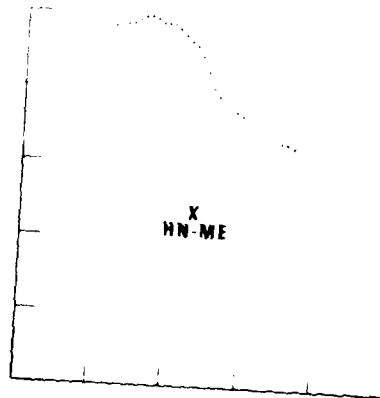


15 NOV 78

14:14:28.8

KURILES

#51

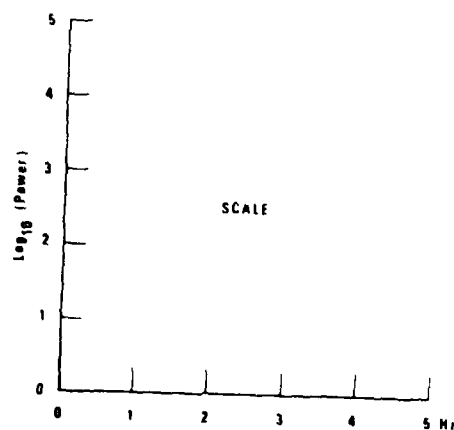
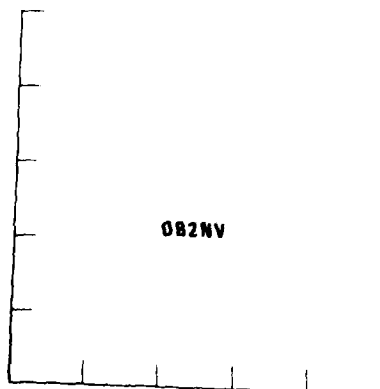
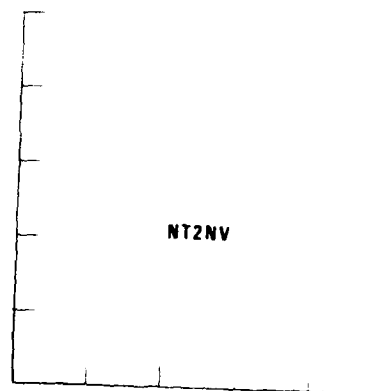
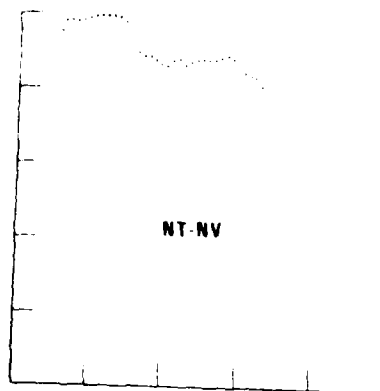
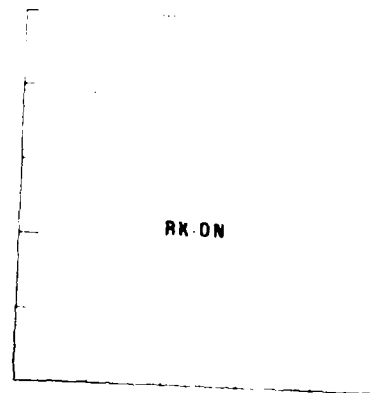
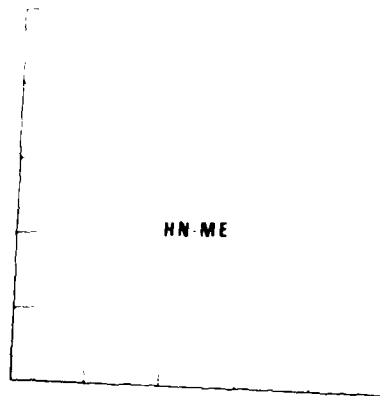


22 NOV 76

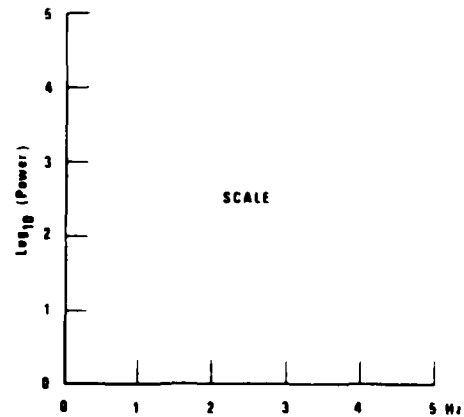
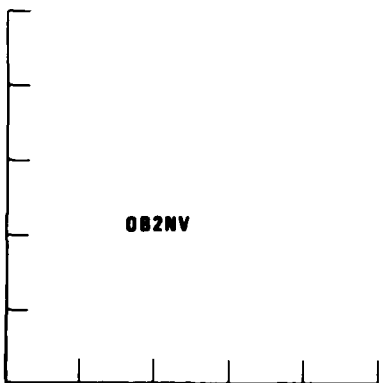
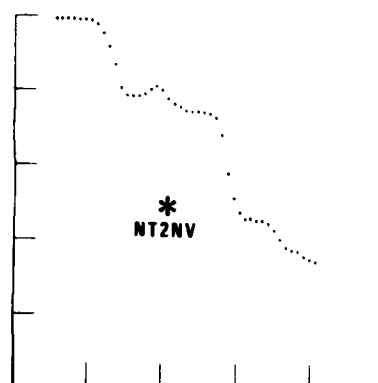
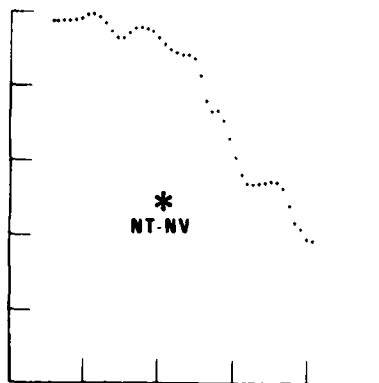
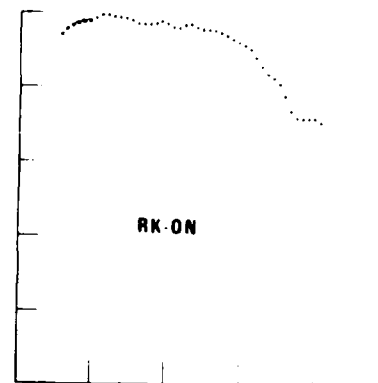
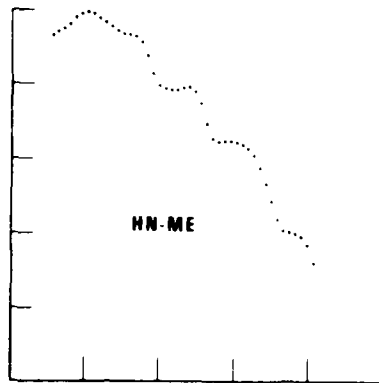
20.9.2.7

VENEZUELA

#53

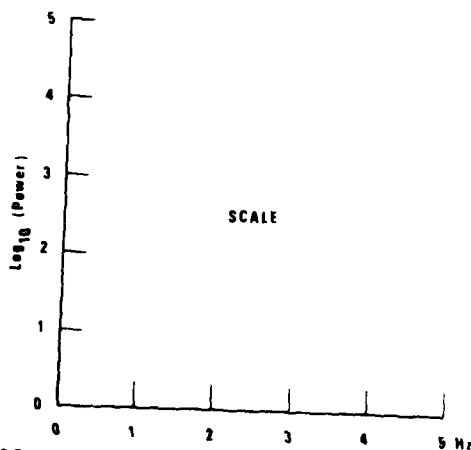
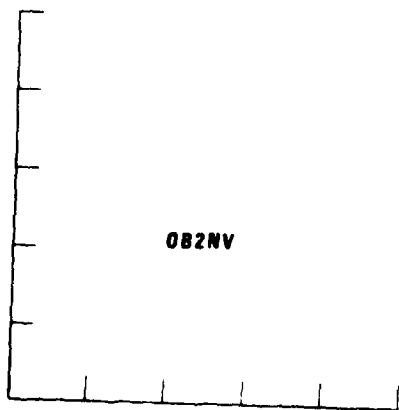
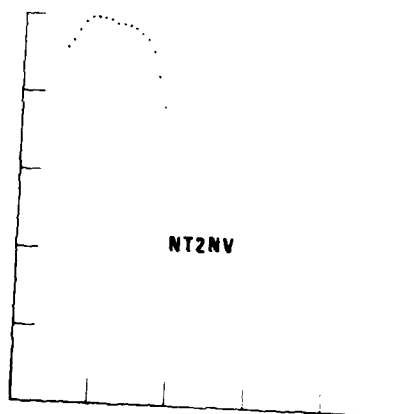
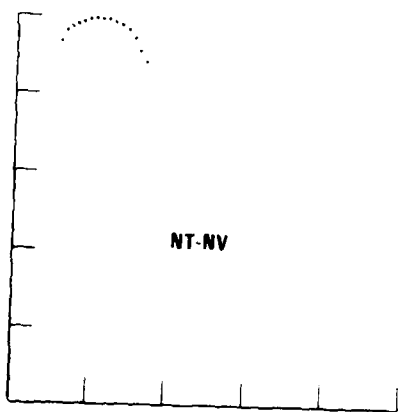
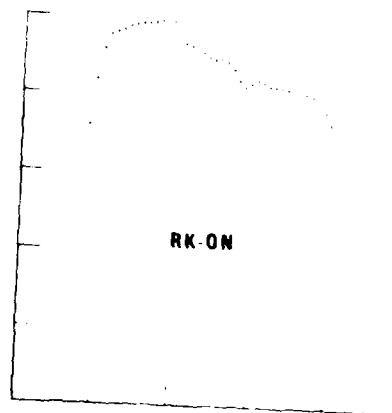
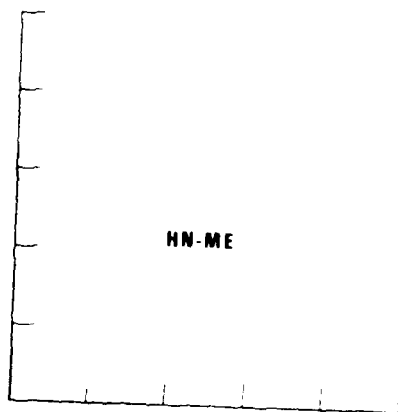


23 NOV 76
5:30.0
EAST KAZAKH
#27



26 NOV 76
23:43:12.6
PERU-ECUADOR BORDER

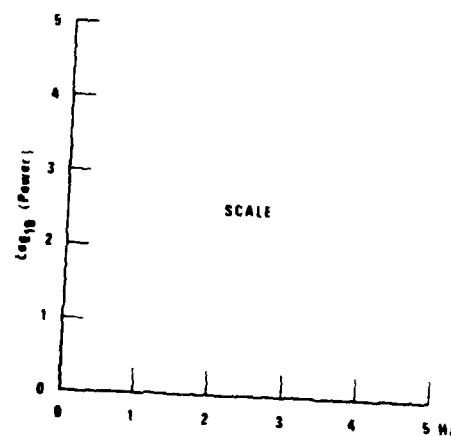
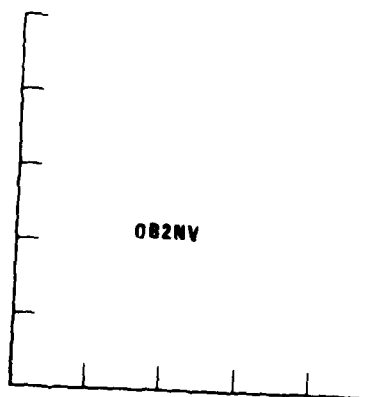
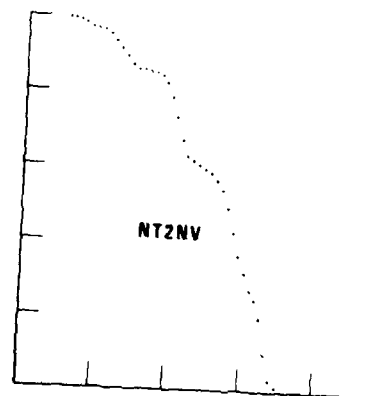
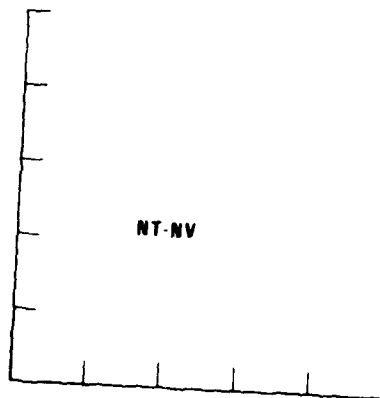
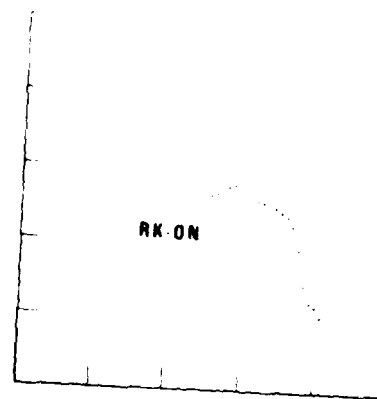
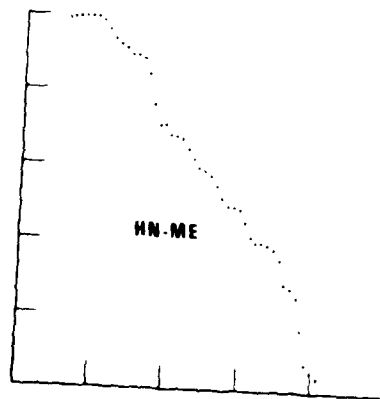
#54



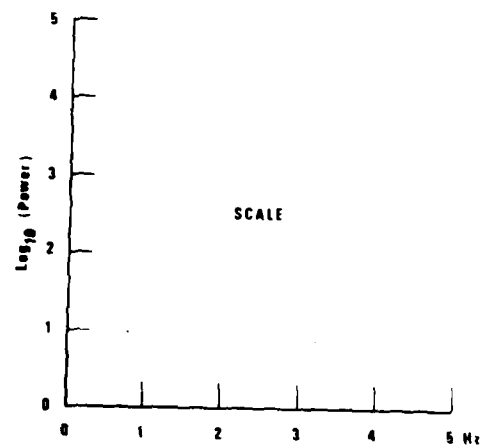
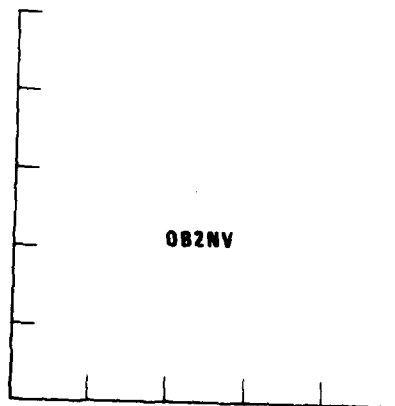
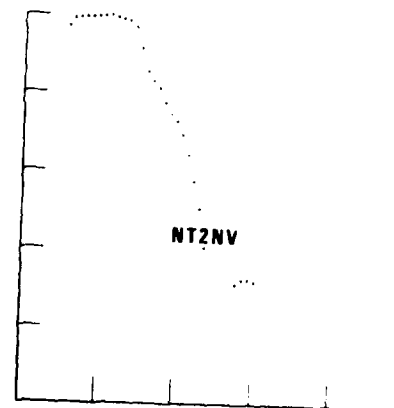
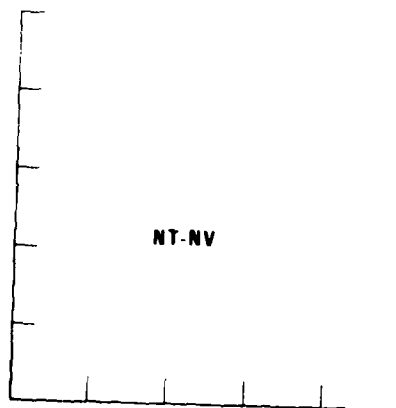
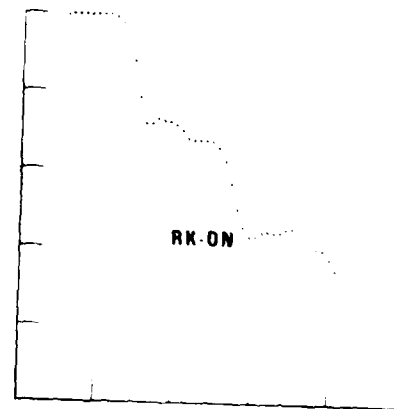
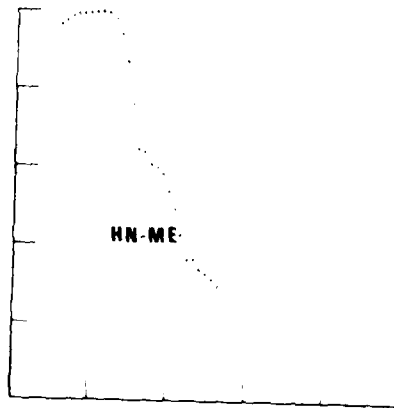
C-28

30 NOV 76
0:40:57.0
CHILE-BOLIVA BORDER

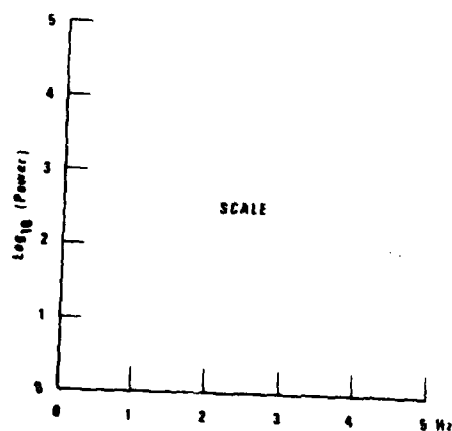
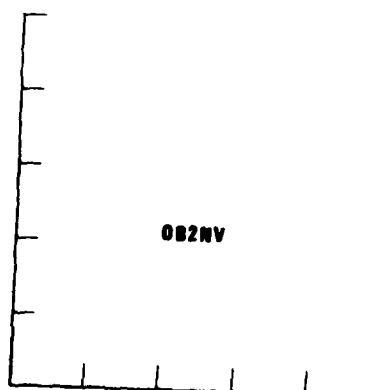
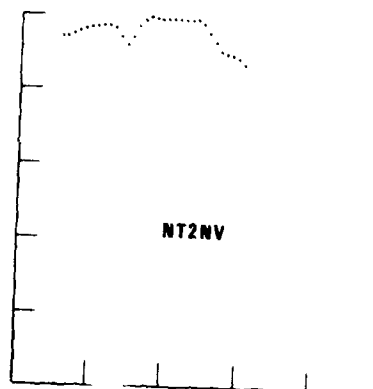
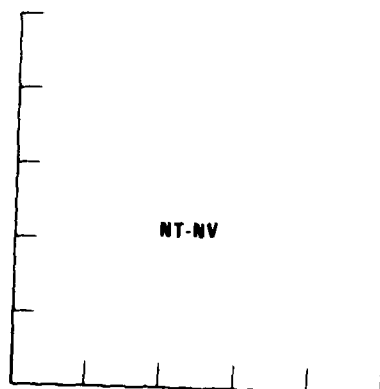
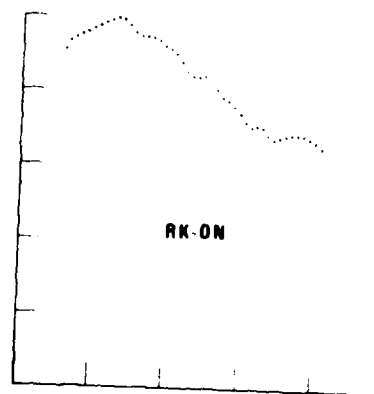
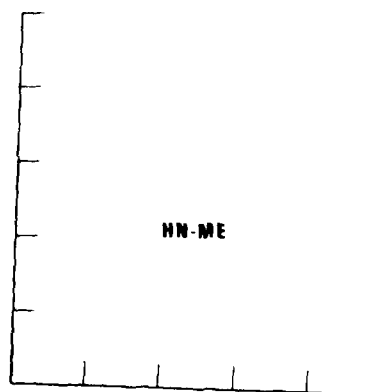
#59



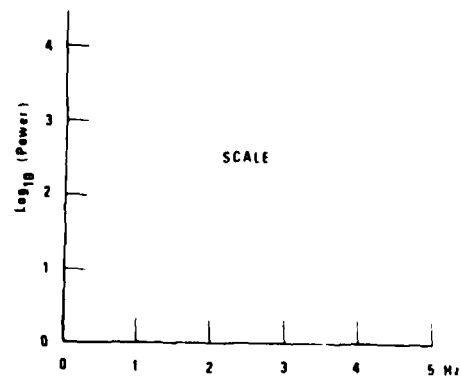
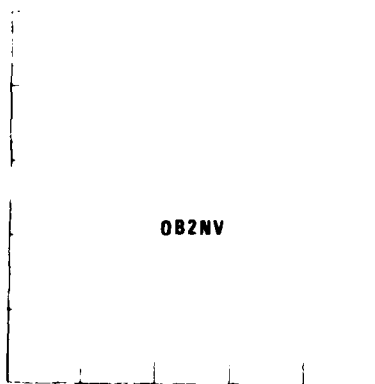
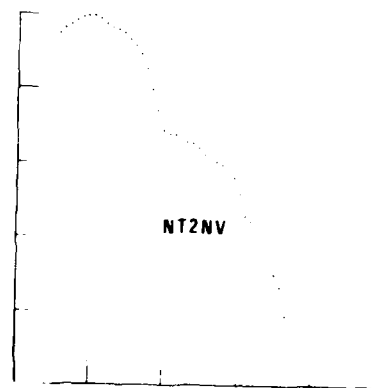
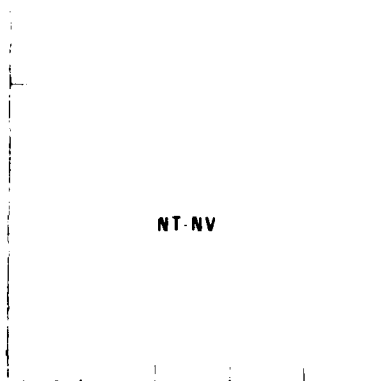
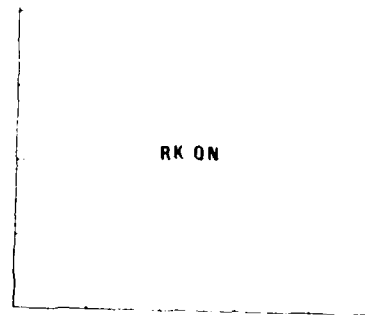
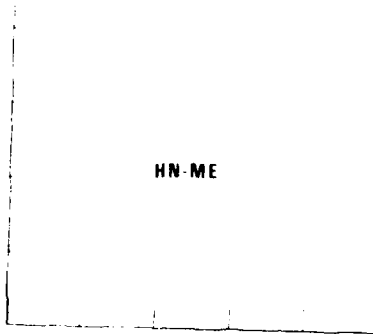
1 DEC 76
14:15:33.2
COSTA RICA
#55



1 DEC 78
17:44:33.8
COAST OF CEN. AMERICA
#56

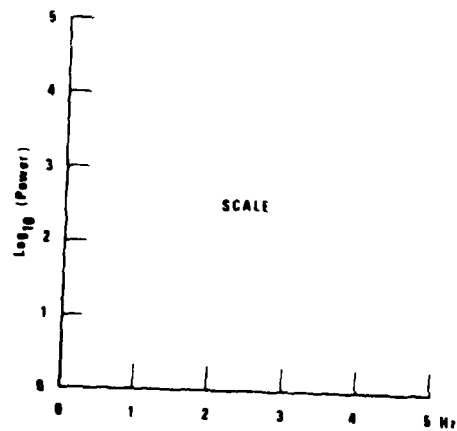
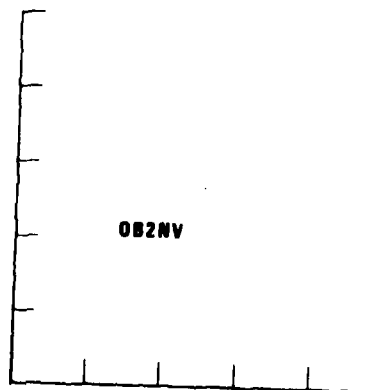
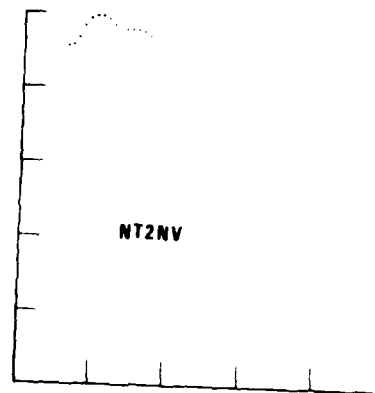
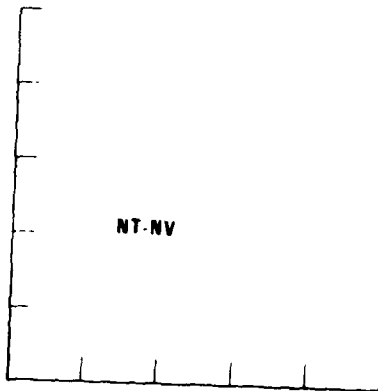
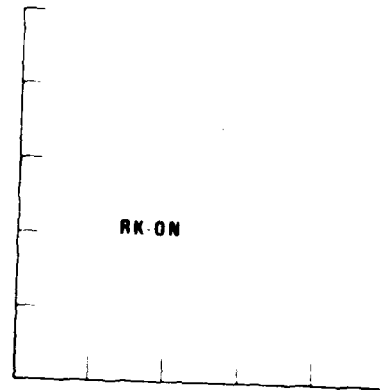
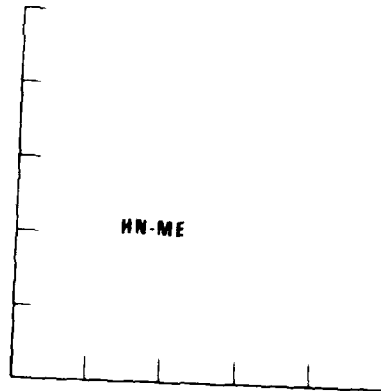


3 DEC 76
5:27:34.4
CHILE-BOLIVA BORDER
#57



3 DEC 76
23:10:23.1
N. CHILE

#58

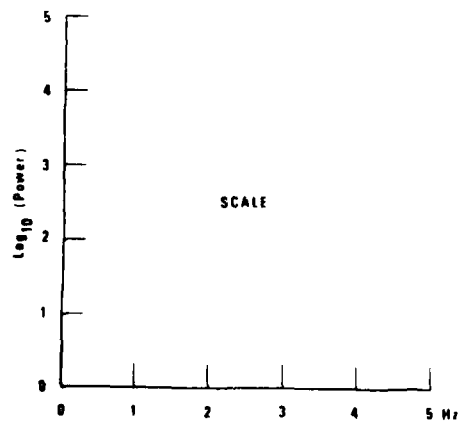
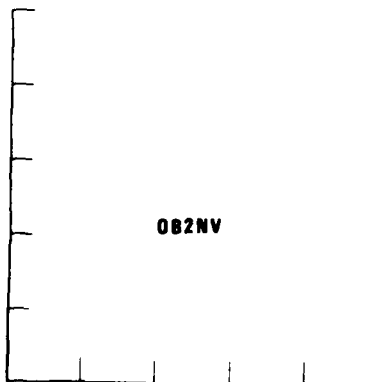
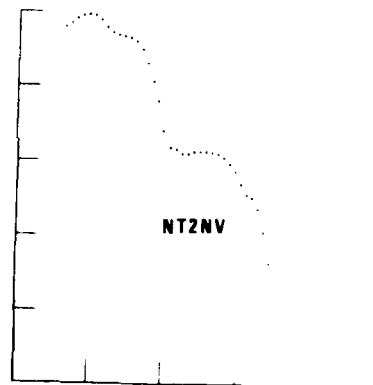
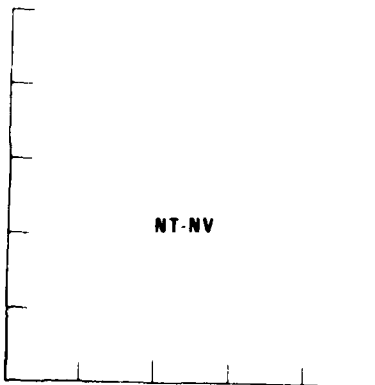
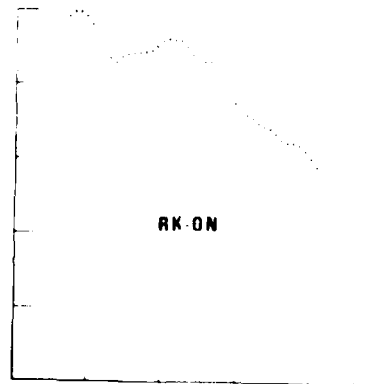
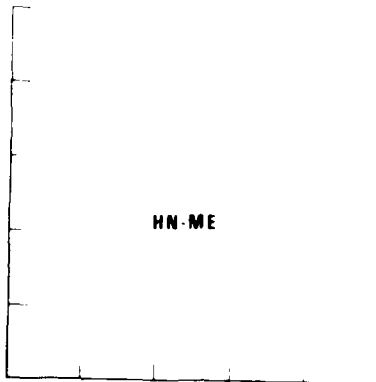


4 DEC 76

5:6 29 7

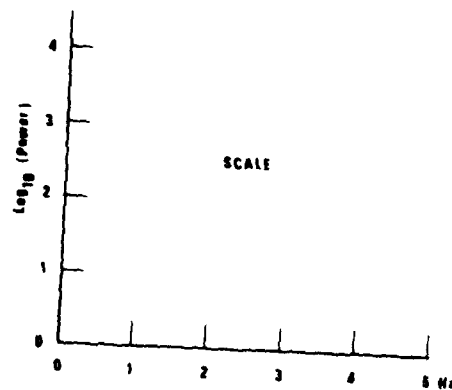
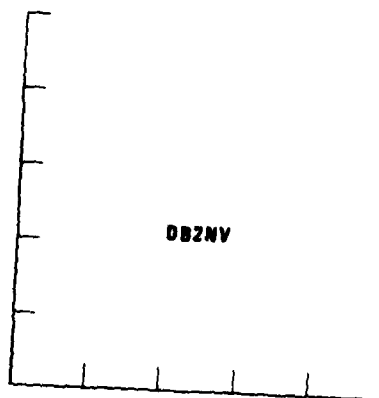
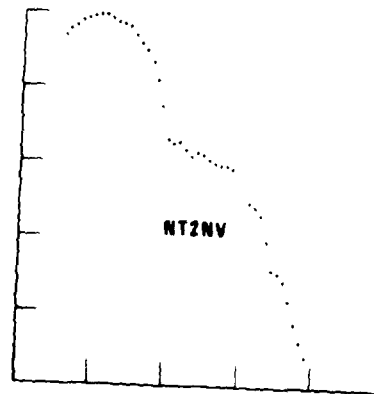
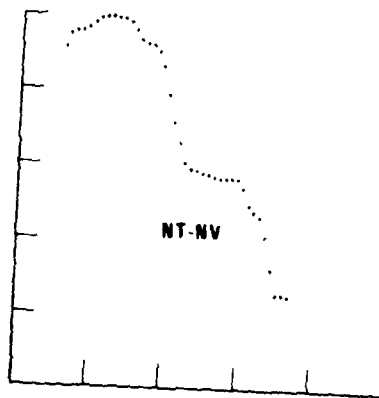
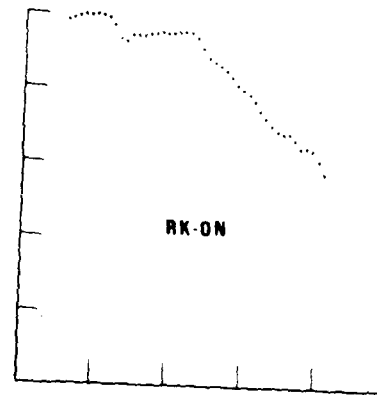
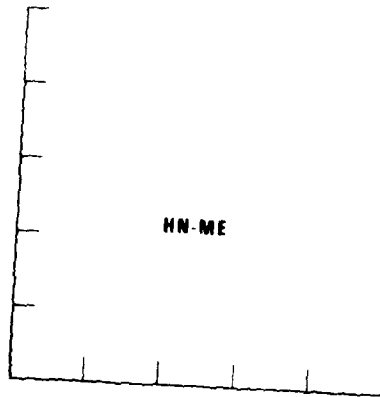
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#60

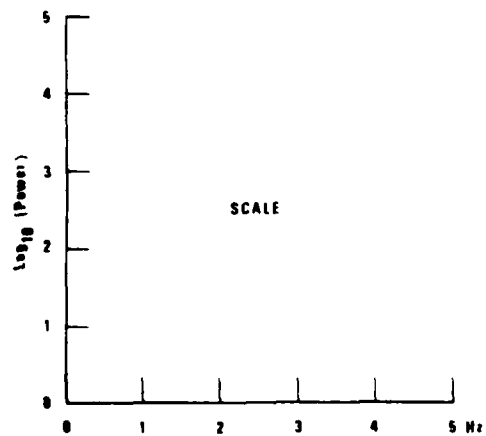
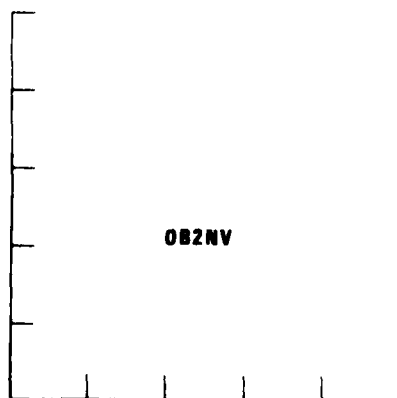
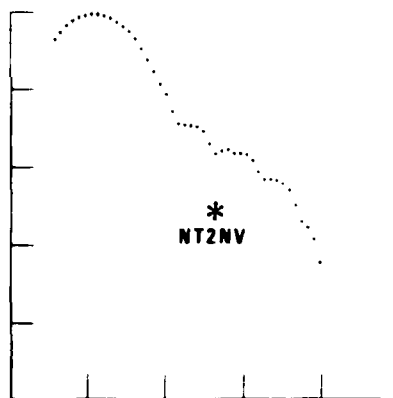
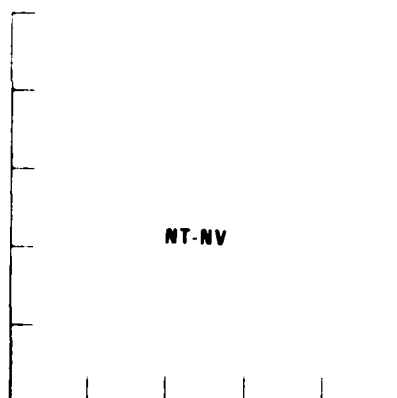
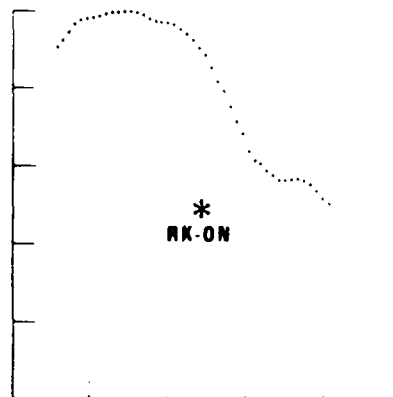
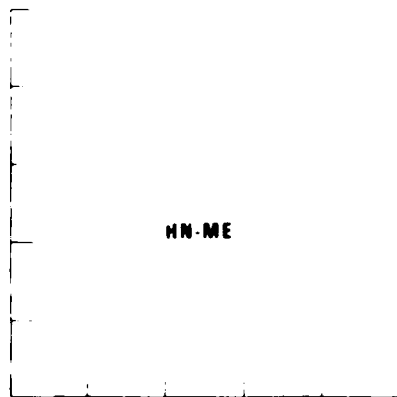


4 DEC 78
12:32:35.4
N. CHILE

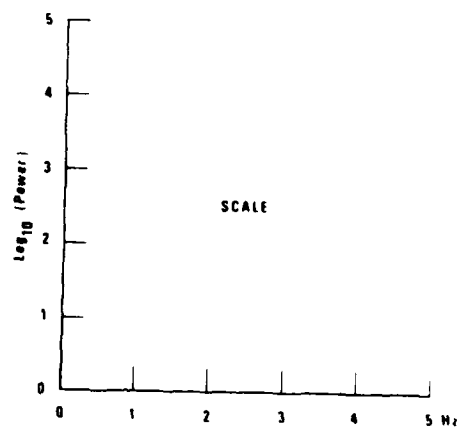
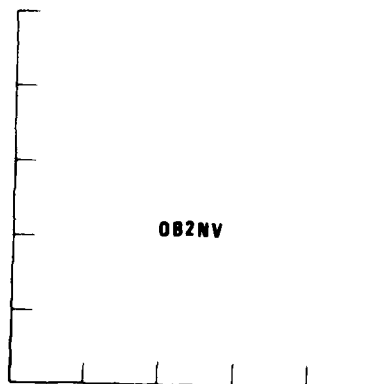
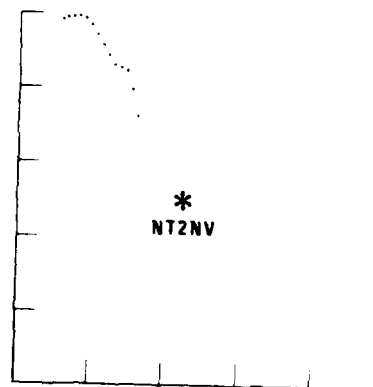
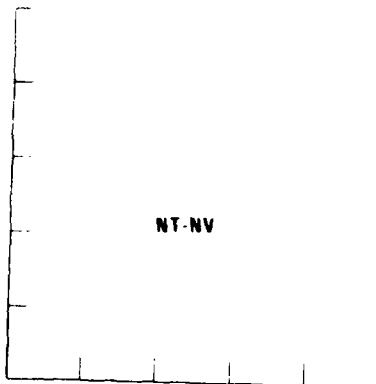
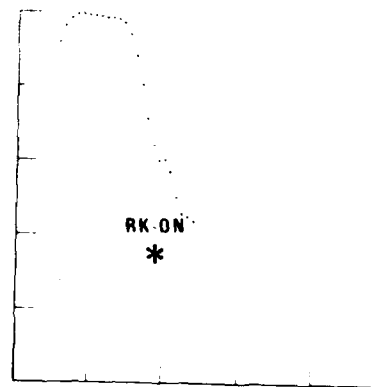
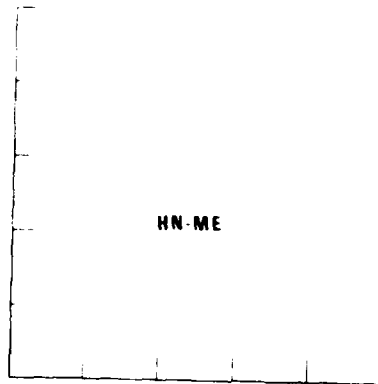
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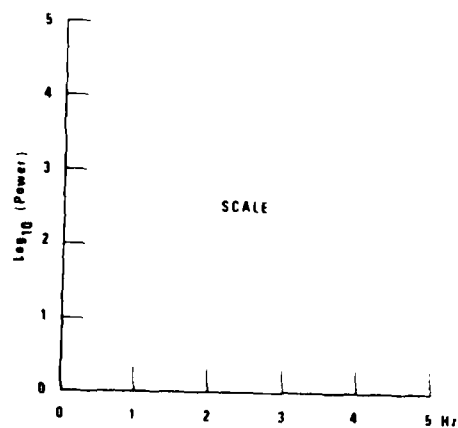
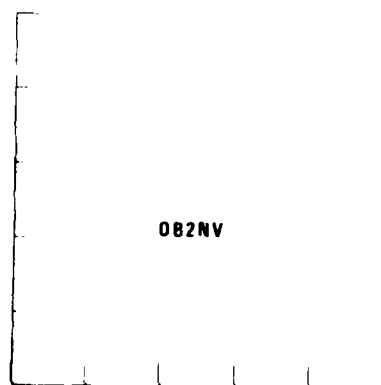
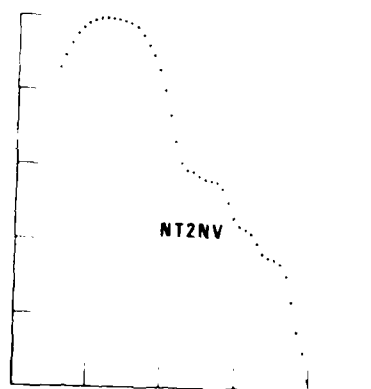
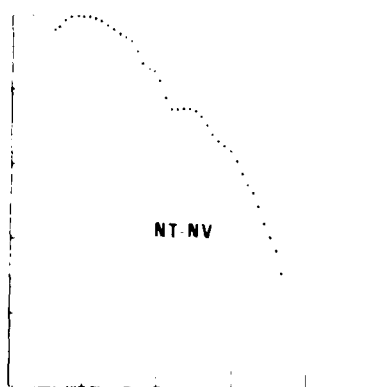
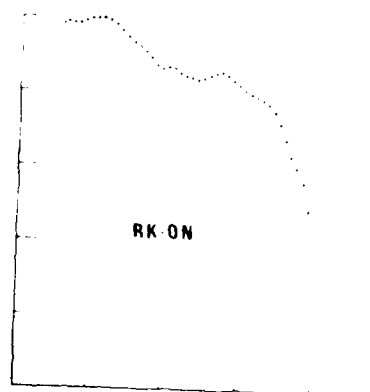
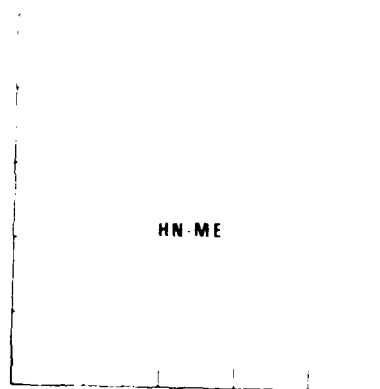
5 DEC 78
221221
BONIN ISLAND
#62



6 DEC 76
19:46:2.4
EASTER ISLAND
#63



7 DEC 76
9 38.41.4
S HONSHU
#64

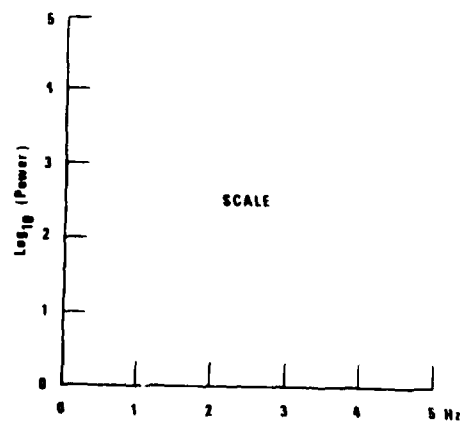
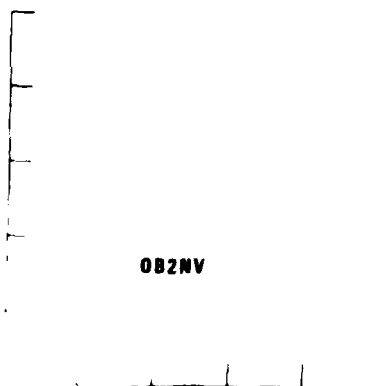
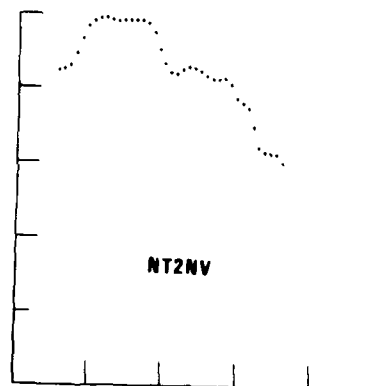
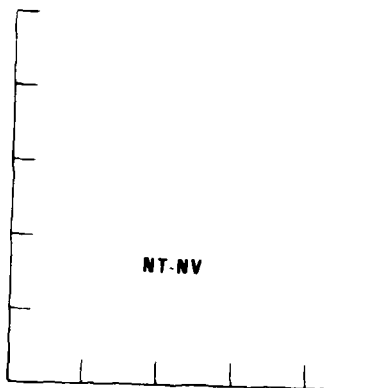
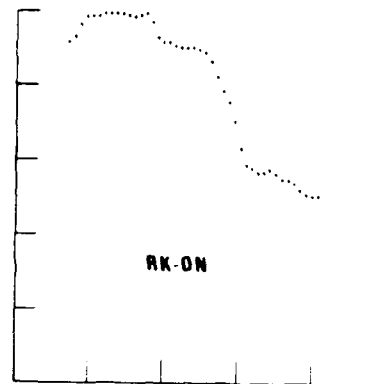
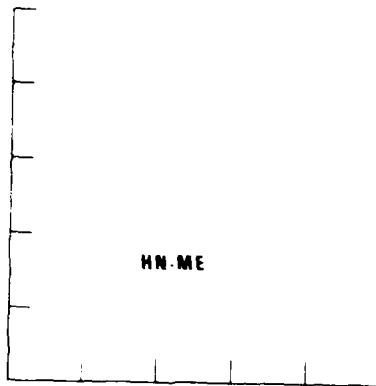


13 DEC 78

23:128.0

N.PACIFIC

#75

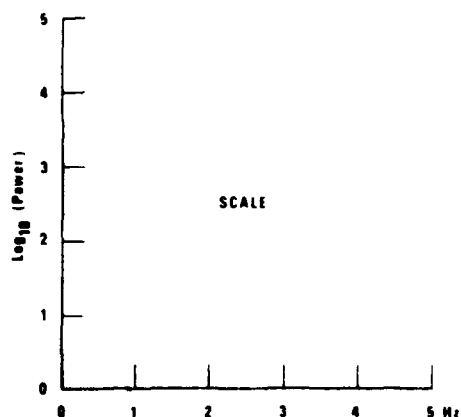
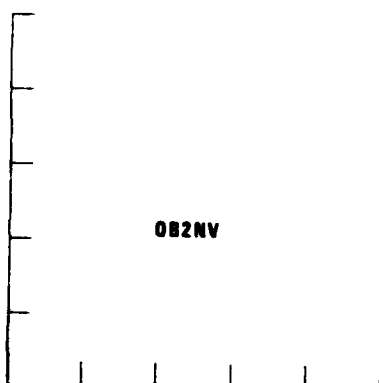
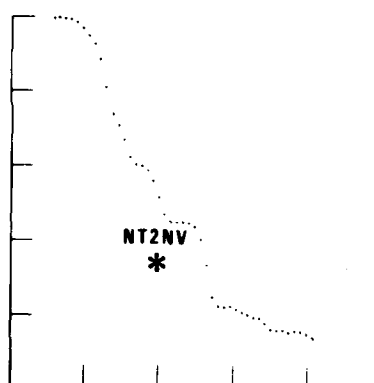
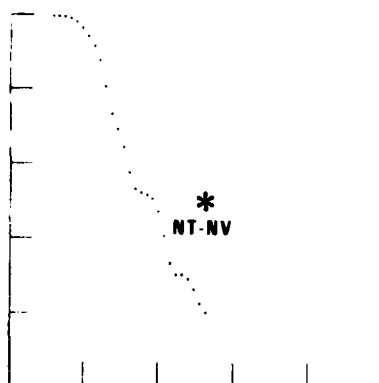
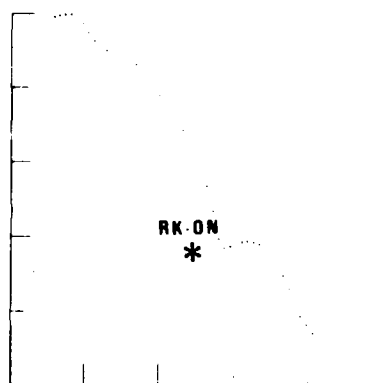
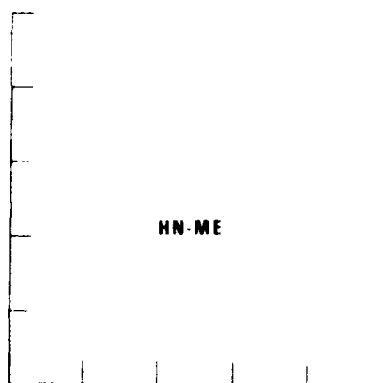


14 DEC 76

16:6:56.0

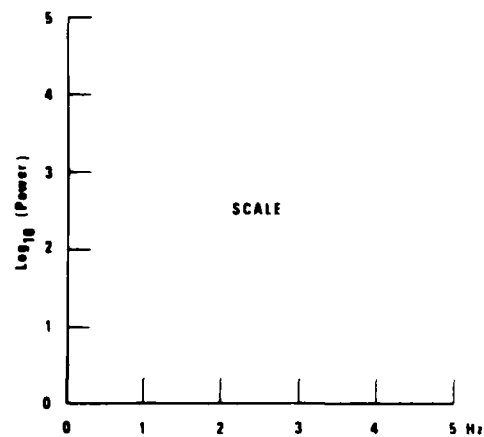
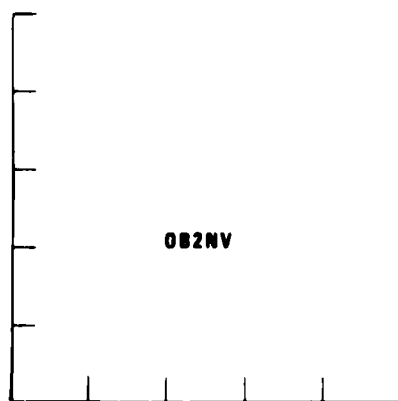
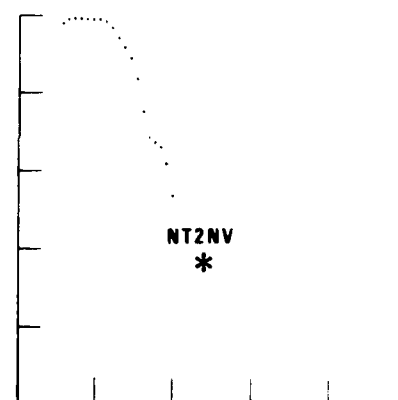
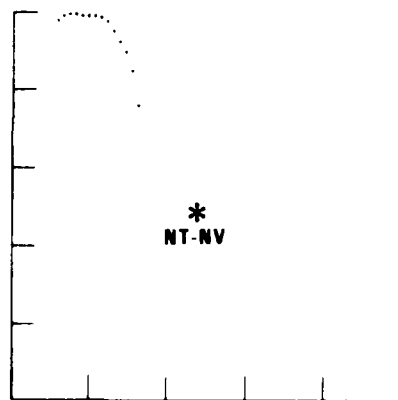
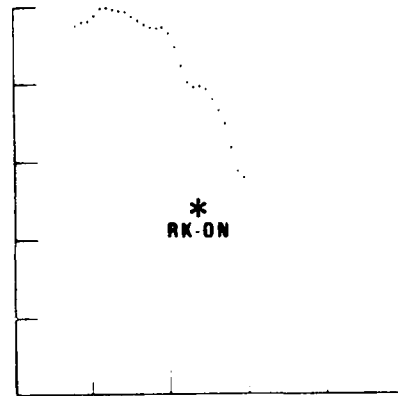
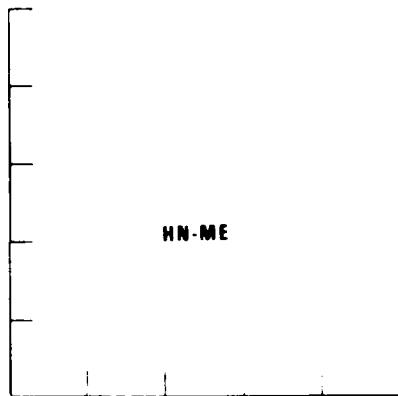
JAPAN

#76



C-40

15 DEC 78
12:28:4.0
JAPAN
#71

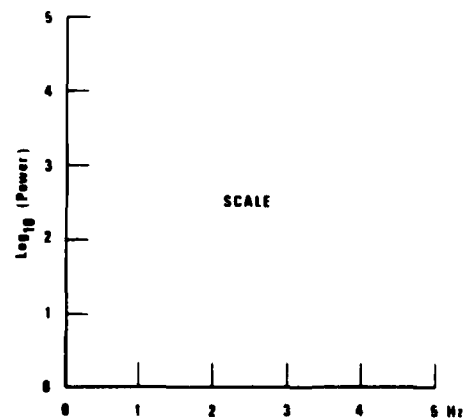
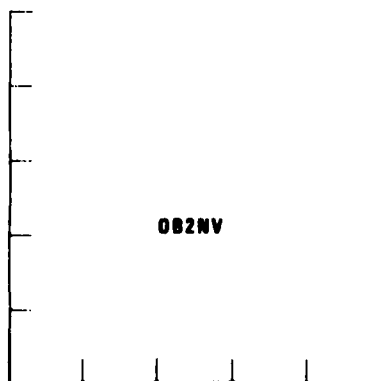
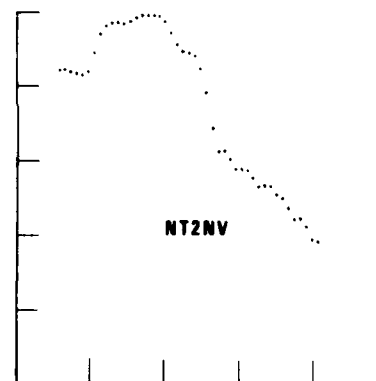
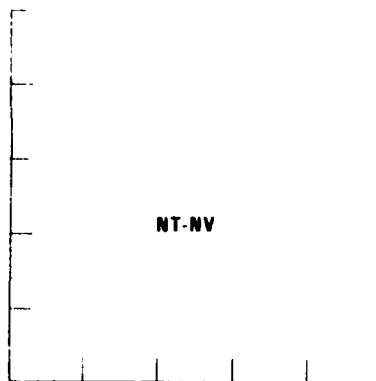
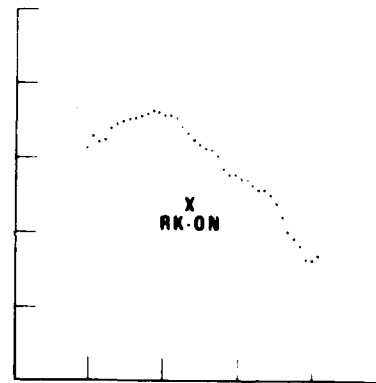
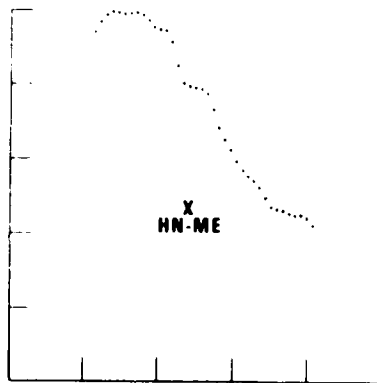


19 DEC 78

14:37:30.0

KURILES

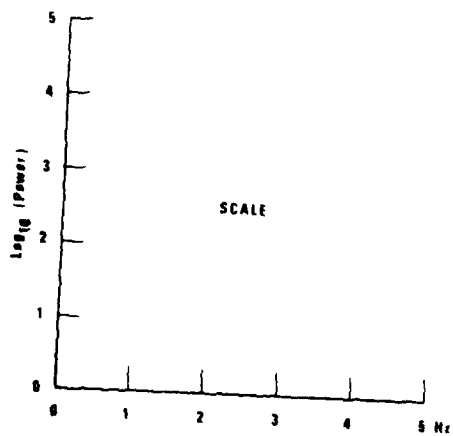
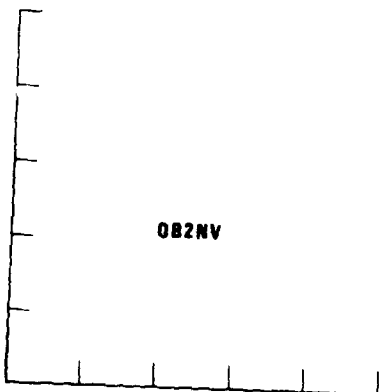
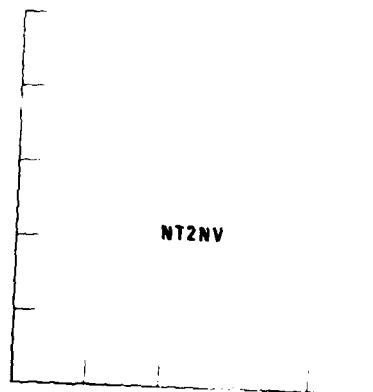
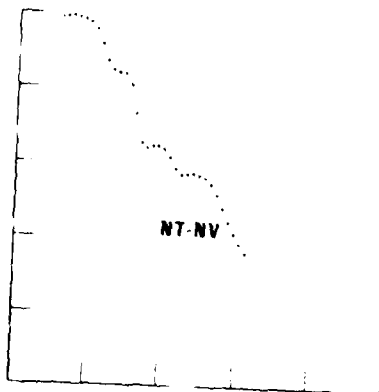
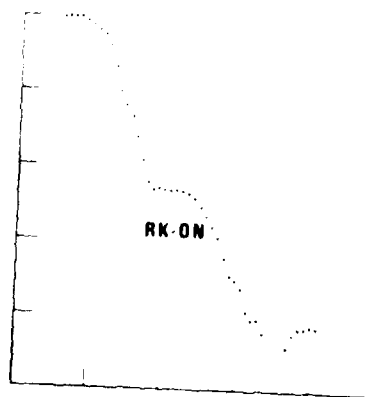
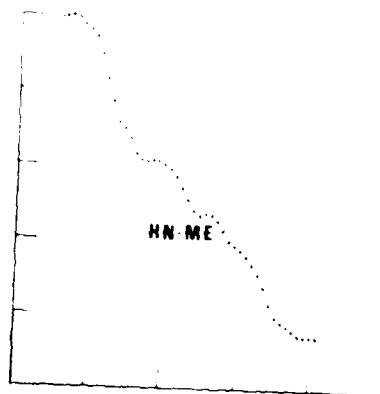
#69



C-42

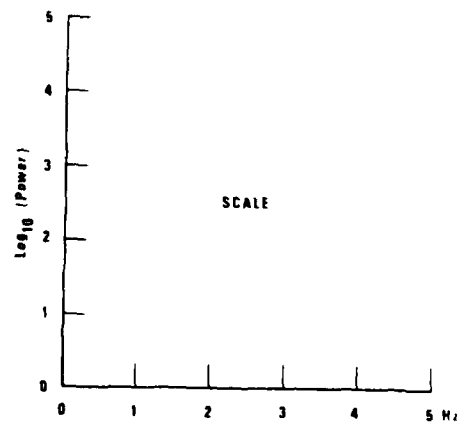
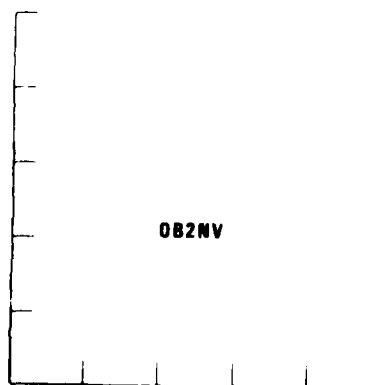
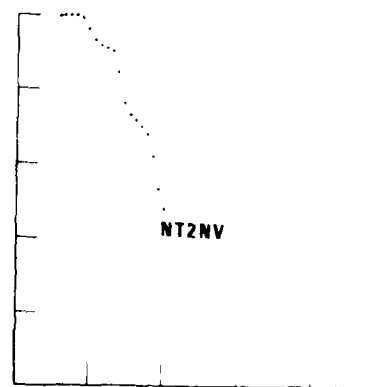
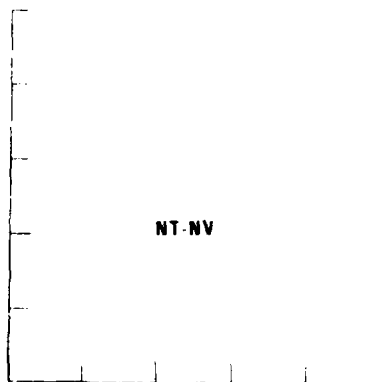
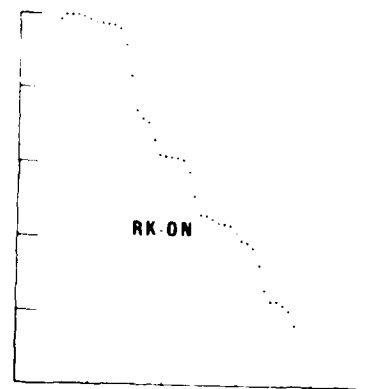
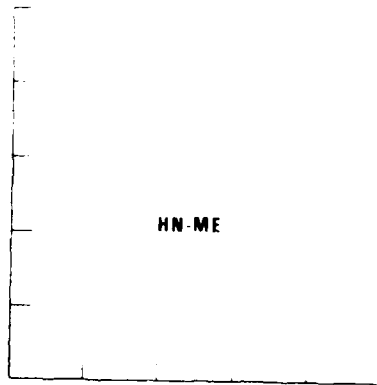
20 DEC 76
10:18:58.0
COLUMBIA

#70

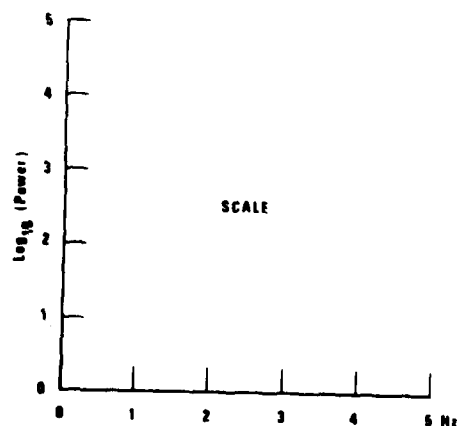
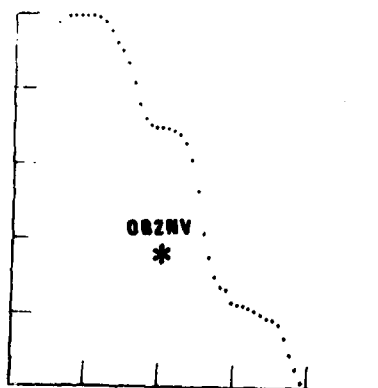
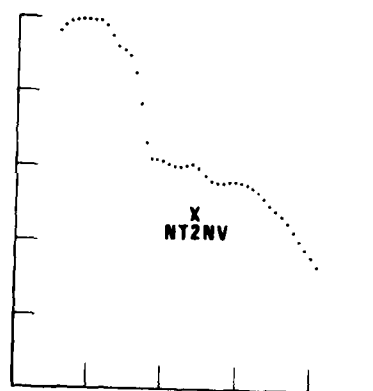
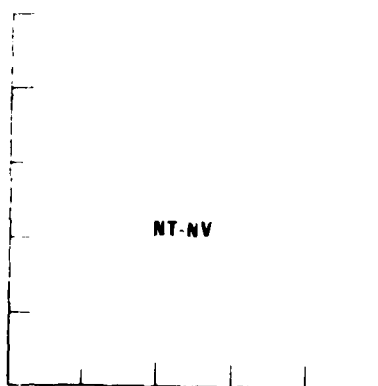
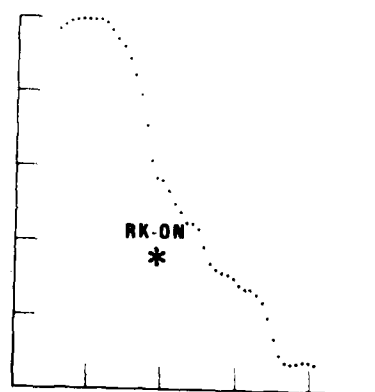
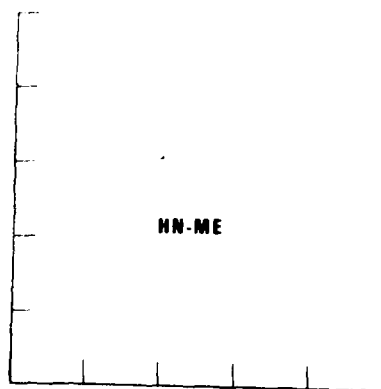


20 DEC 76
21:22:25.0
BR. COLUMBIA

#73

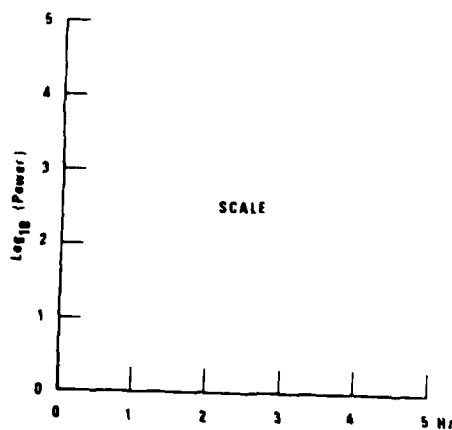
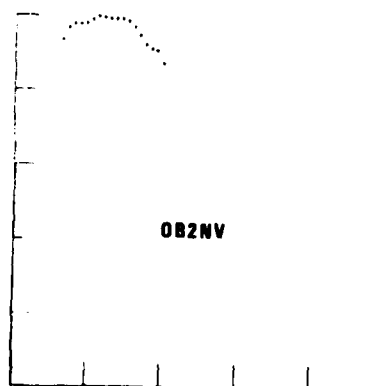
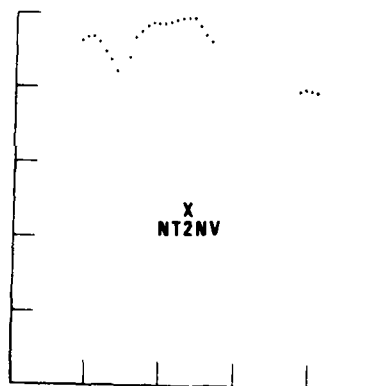
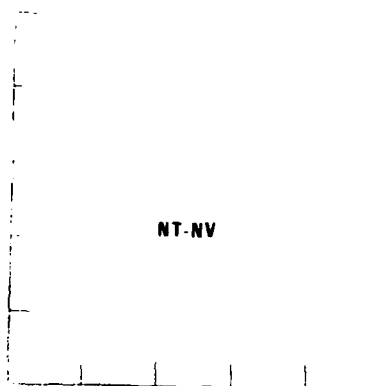
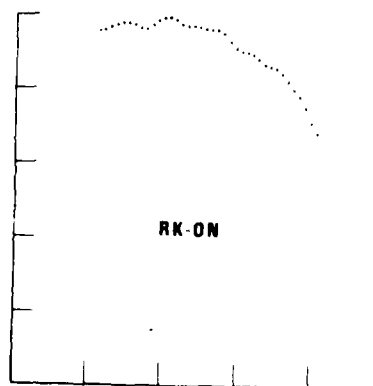
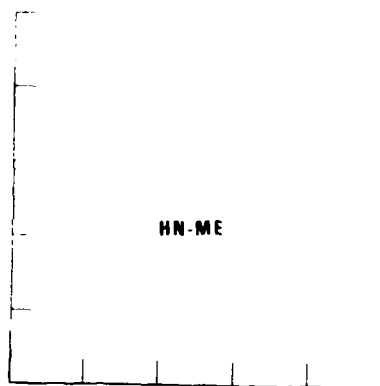


22 DEC 76
1:142.0
VOLCANO IS.
#74



27 DEC 76
18:8:8.0
JAPAN

#77

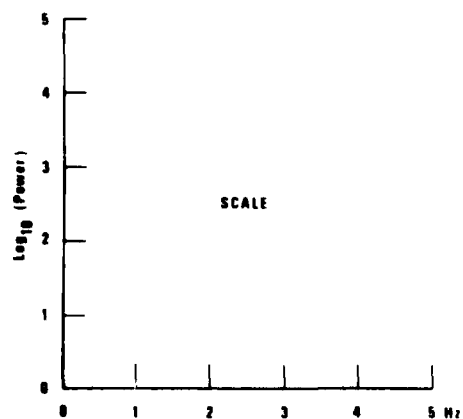
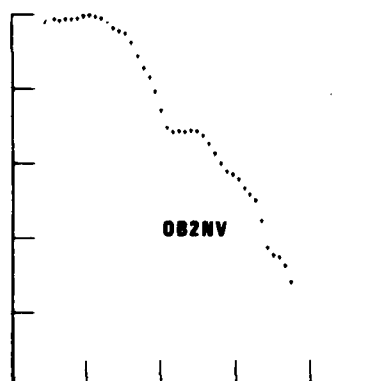
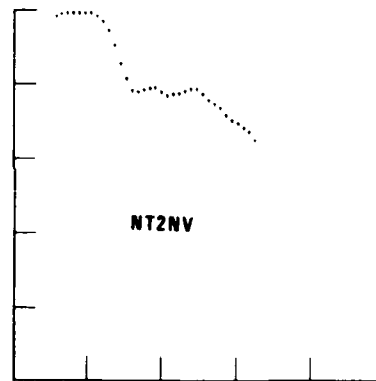
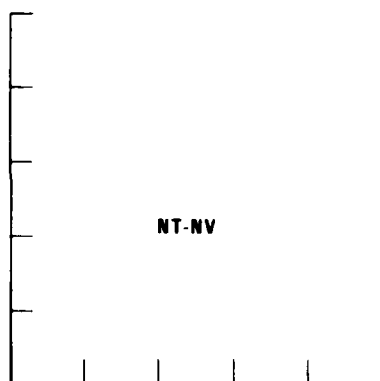
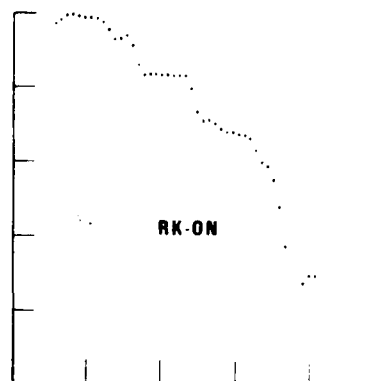
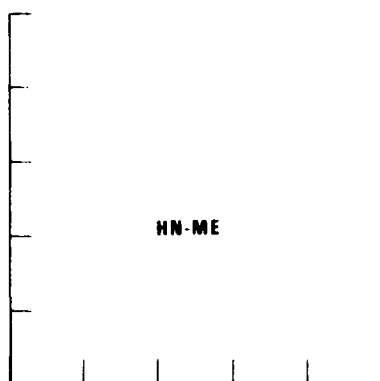


31 DEC 76

9:16:37.0

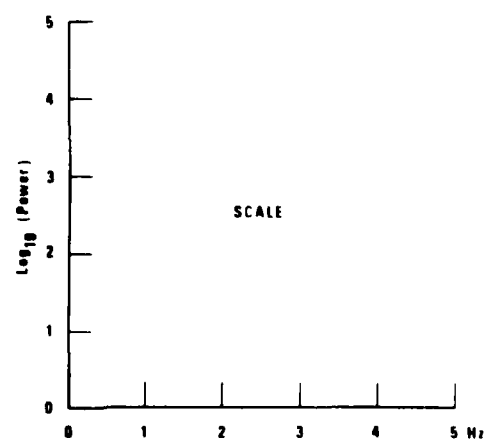
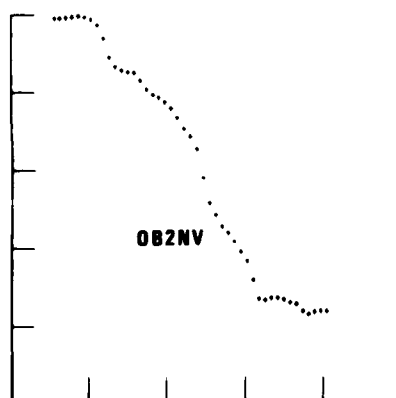
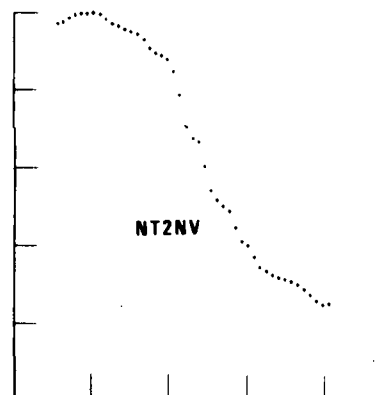
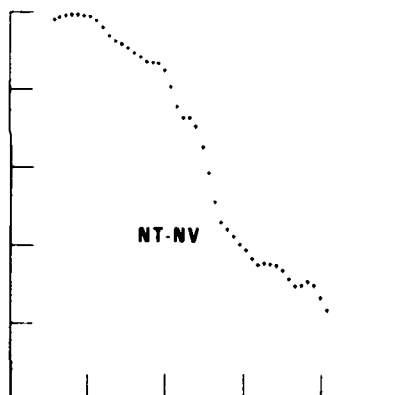
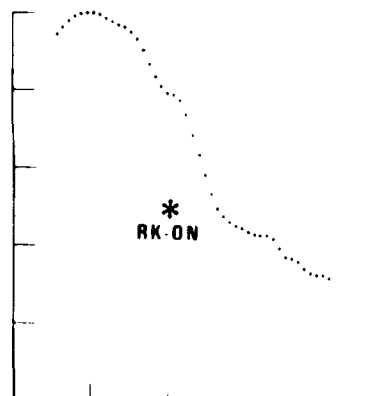
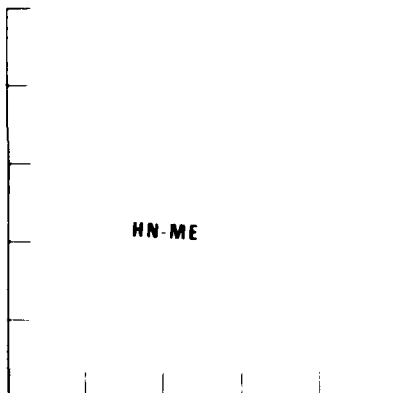
JAPAN

#79



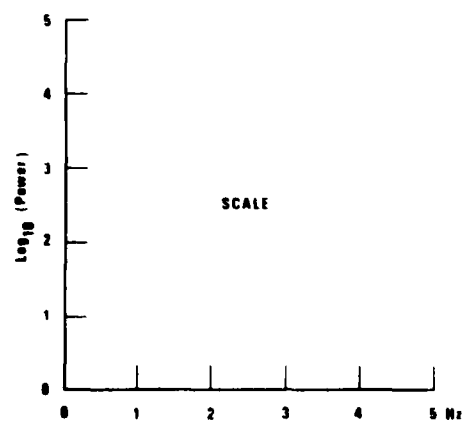
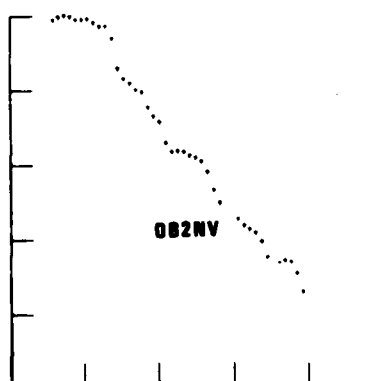
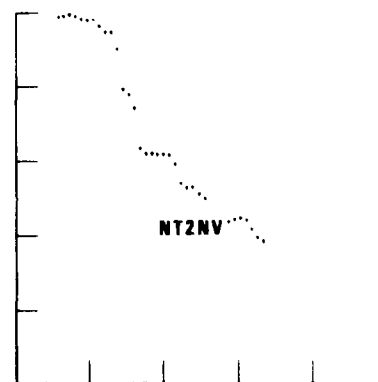
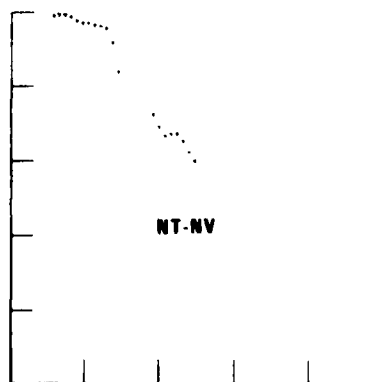
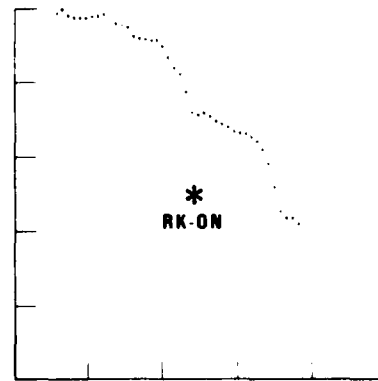
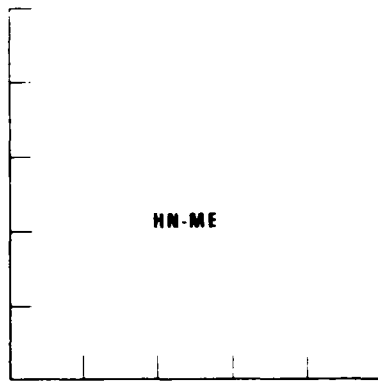
C-47

1 JAN 77
11:33:42.4
JAPAN
#80



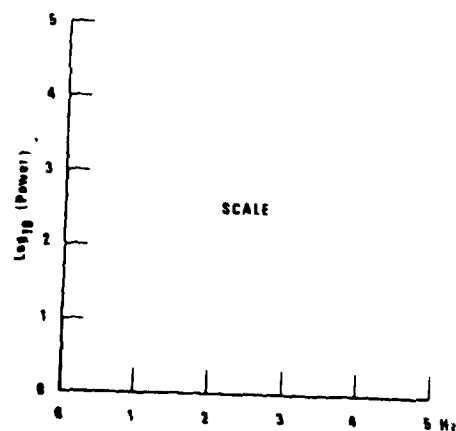
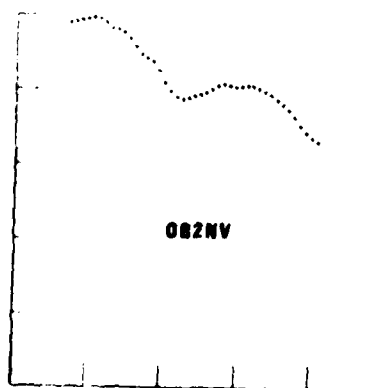
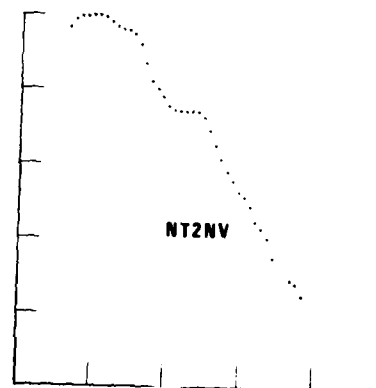
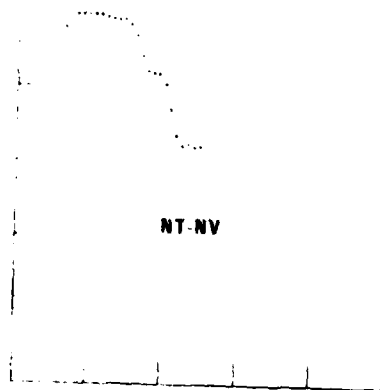
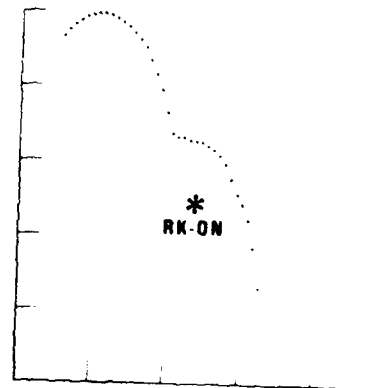
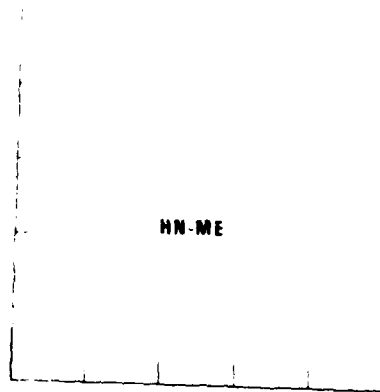
C-48

5 JAN 77
10:37:33.6
VOLCANO ISLAND
#82



5 JAN 77
22:44:57.0
VOLCANO ISLAND

#83



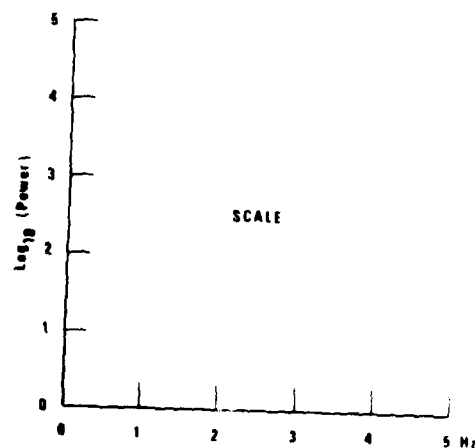
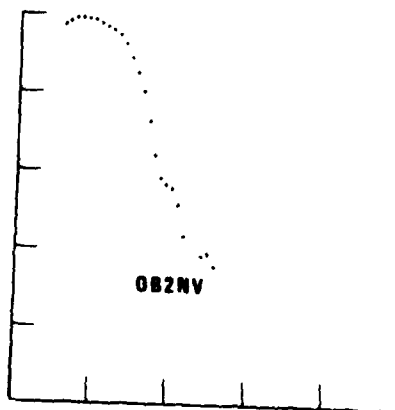
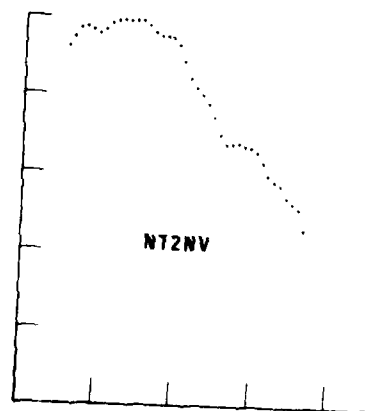
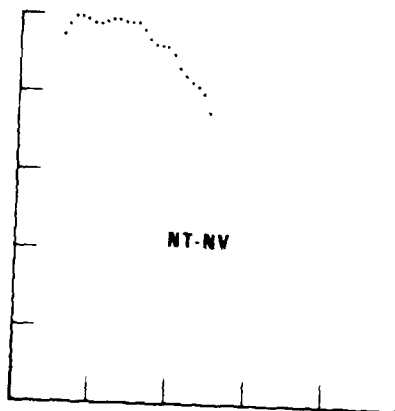
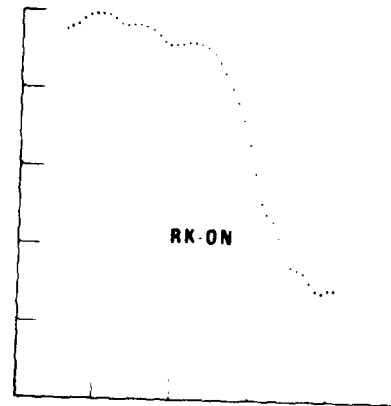
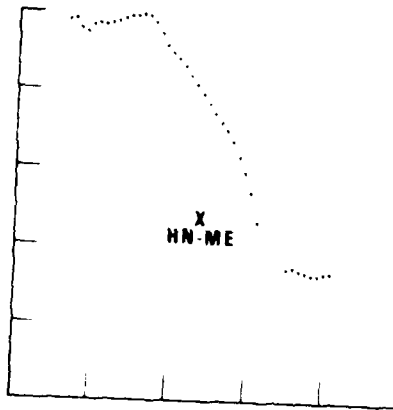
C-50

6 JAN 77

7:55 55.5

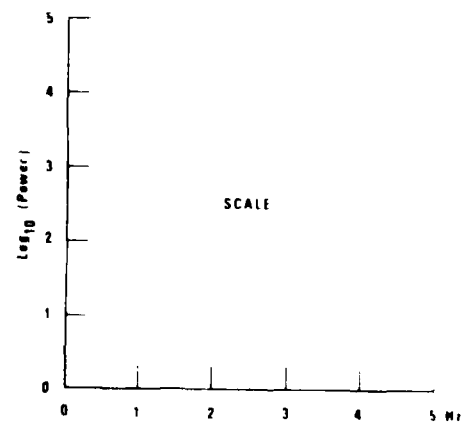
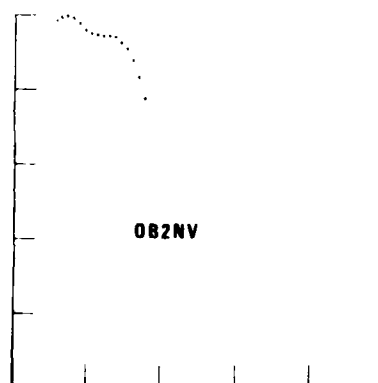
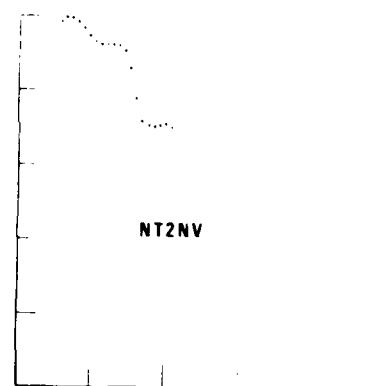
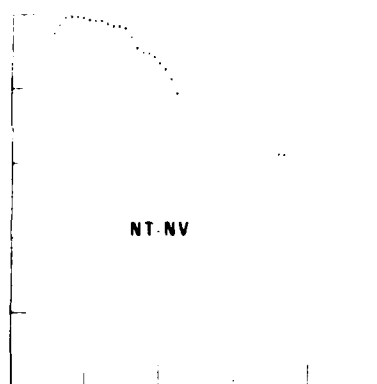
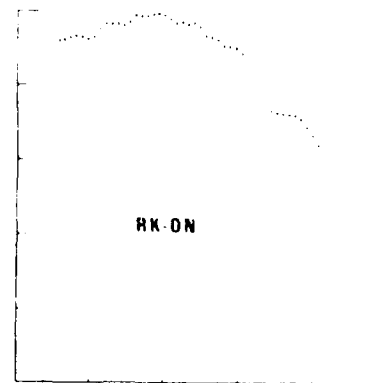
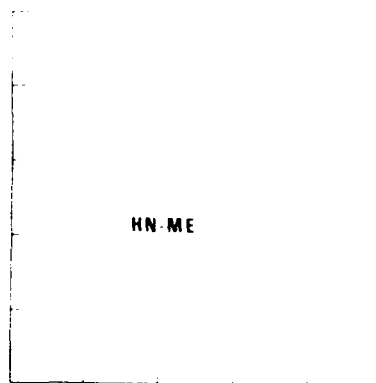
KURILES

#84



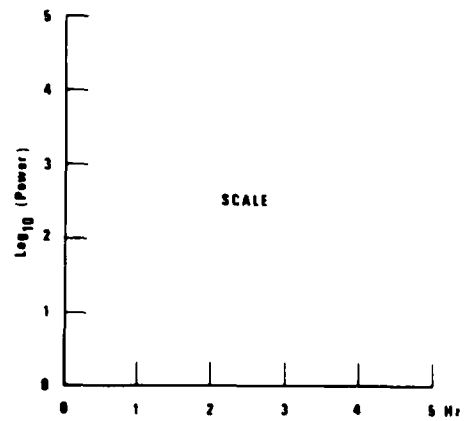
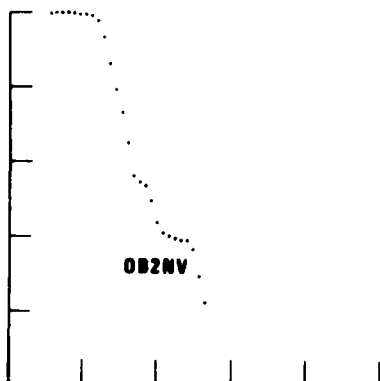
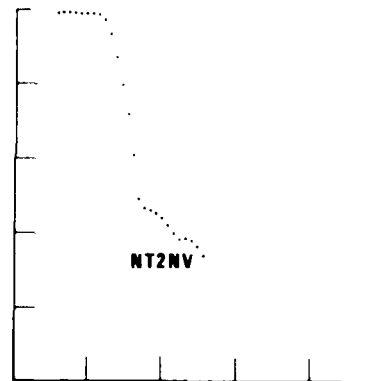
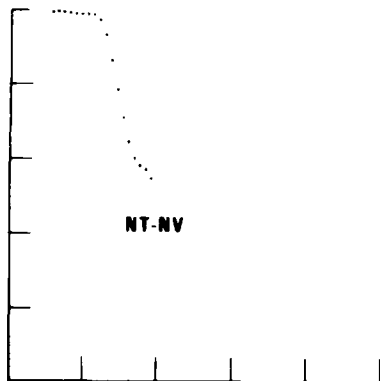
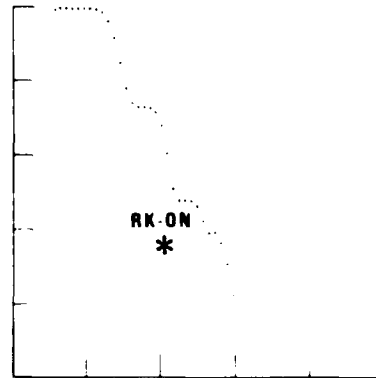
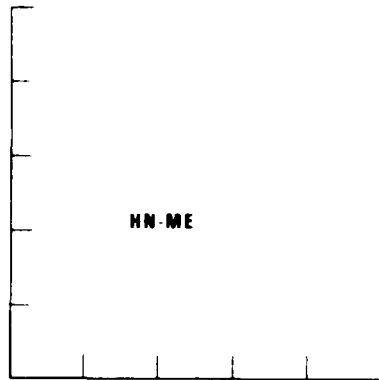
C-51

6 JAN 77
18:23.8
ANDREANOF ISLANDS
#85



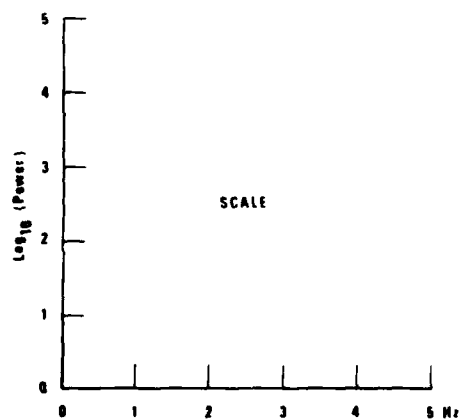
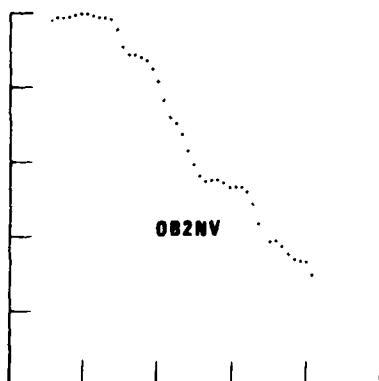
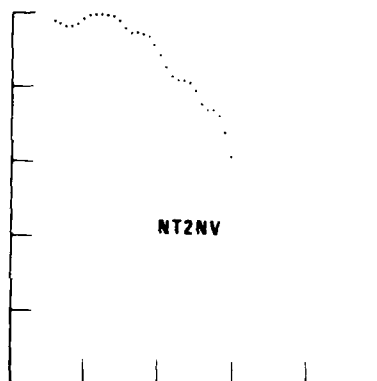
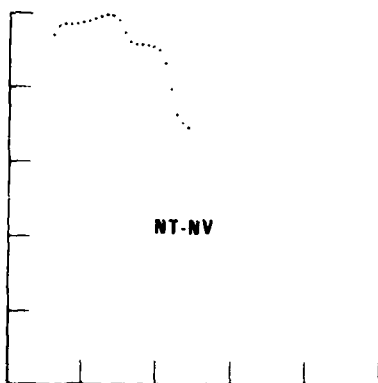
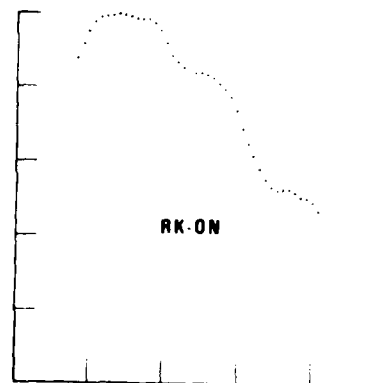
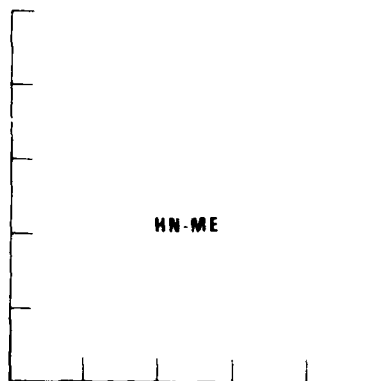
17 JAN 77
6:23:42.6
BONIN ISLAND

#87



17 JAN 77
9:42:22.5
S. ALASKA

#88

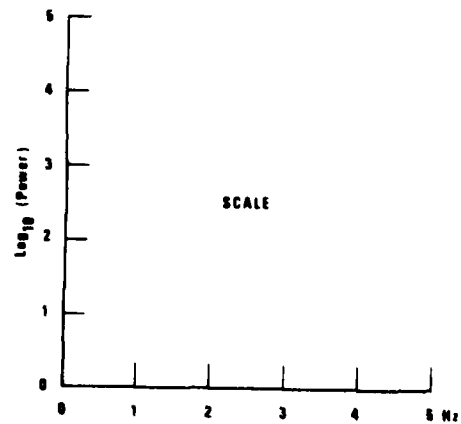
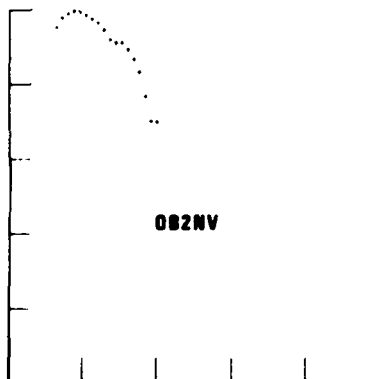
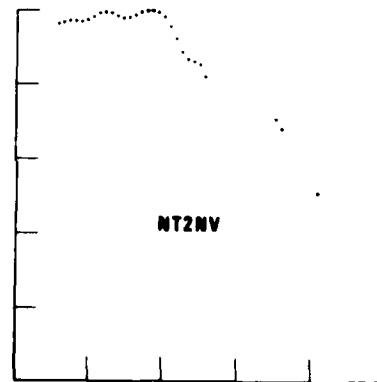
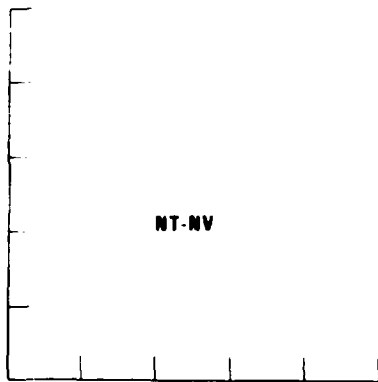
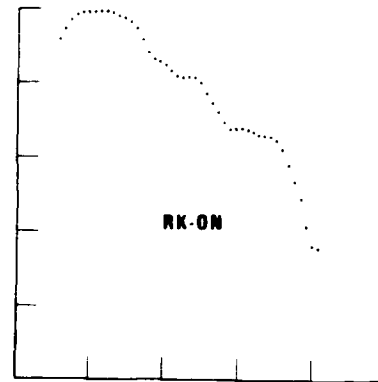
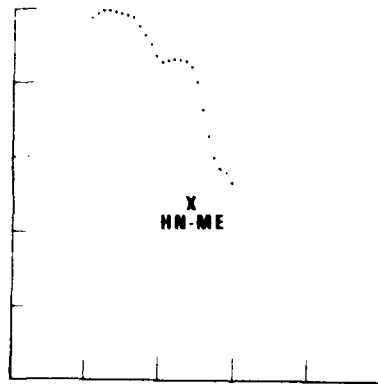


24 JAN 77

8:11:30.0

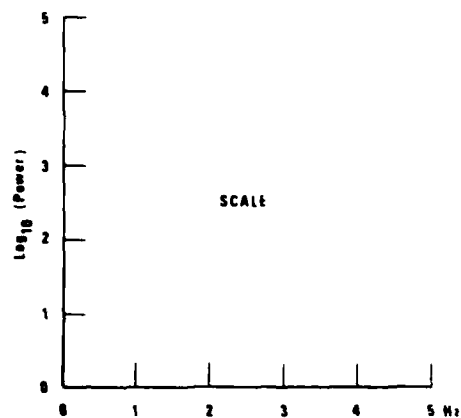
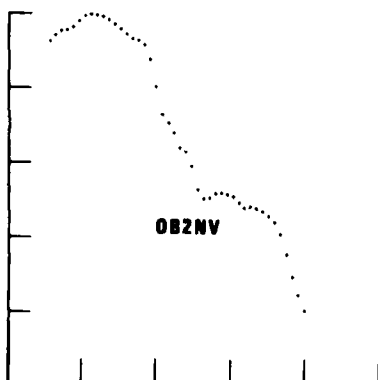
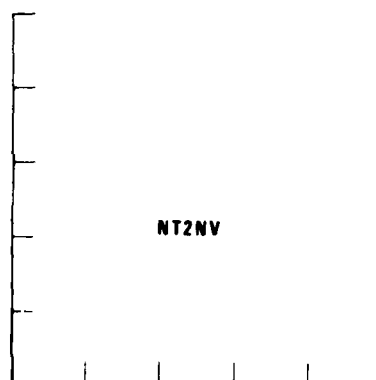
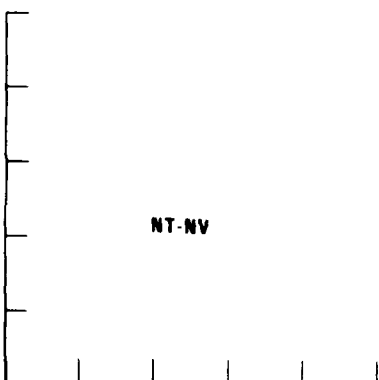
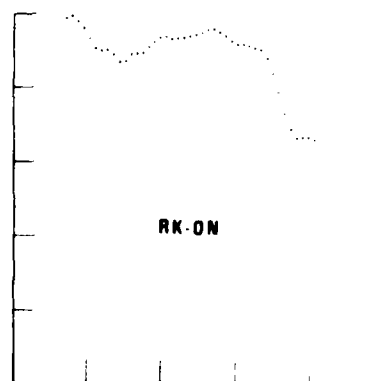
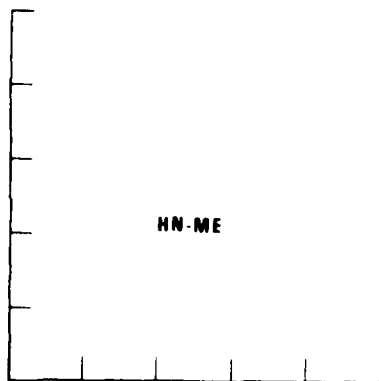
KURILES

#89



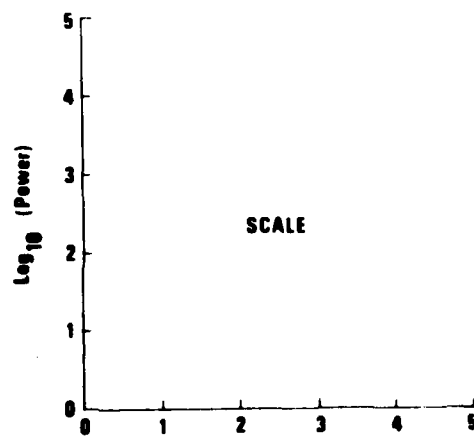
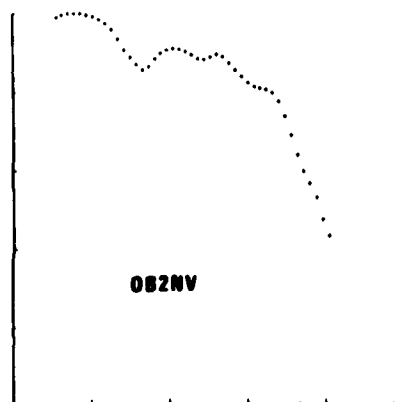
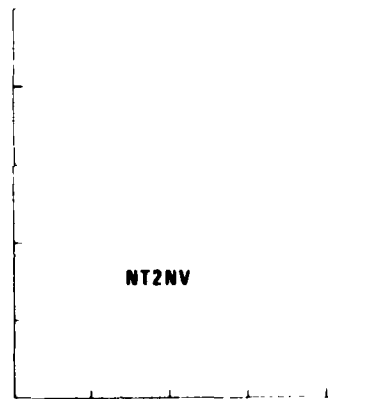
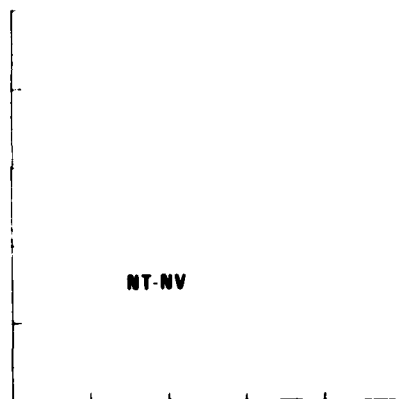
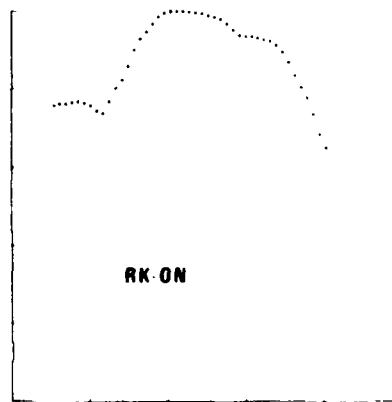
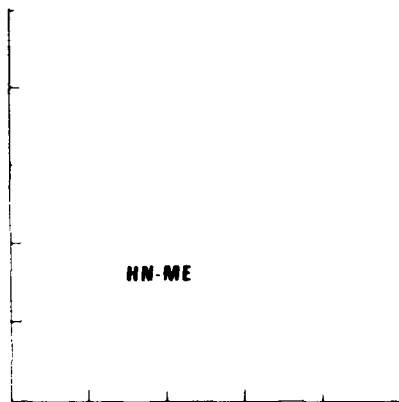
28 JAN 77
4:24:26.0
BONIN ISLANDS

(This Event Inadvertently Omitted From The Data Shown In Appendix A)



3 FEB 77 21
21:30:59.0
RUSSIA-CHINA BDR

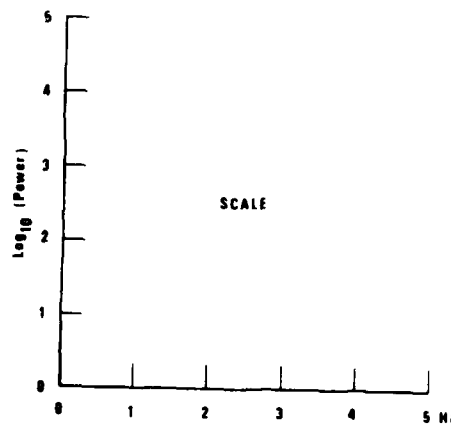
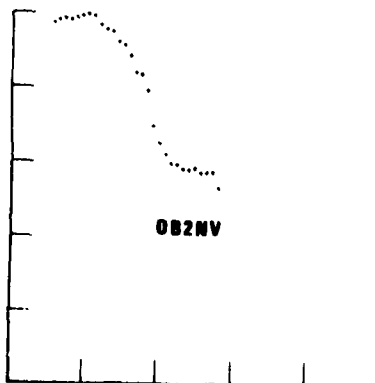
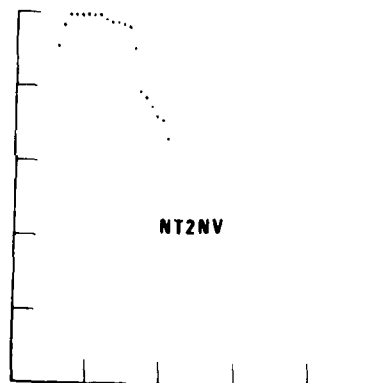
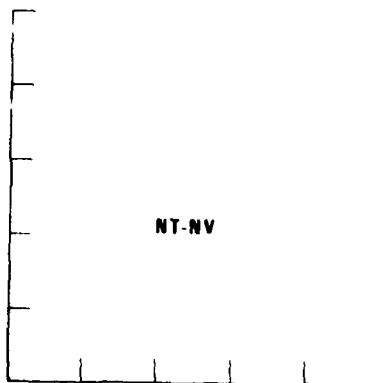
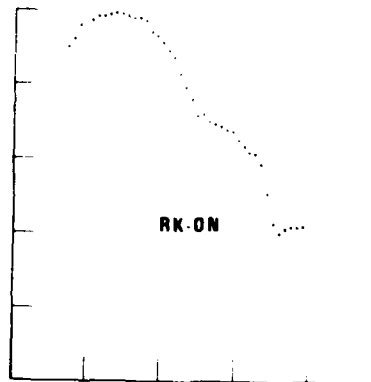
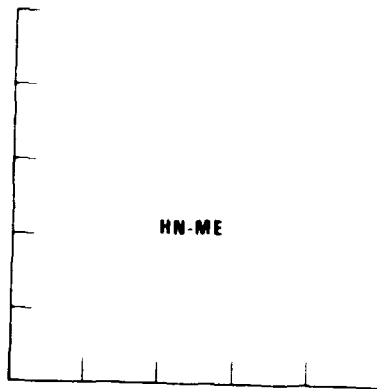
#90



C-57

6 FEB 77
0:31:29.0
N. ATLANTIC

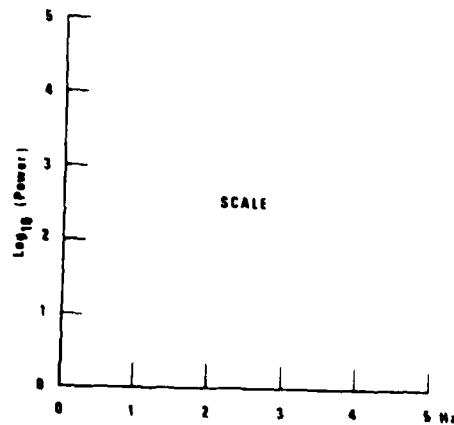
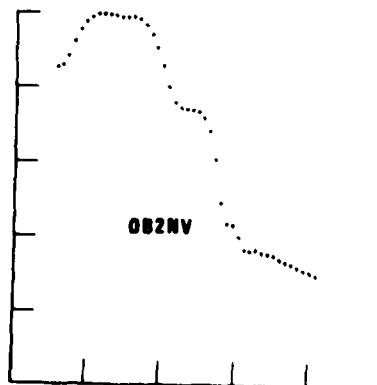
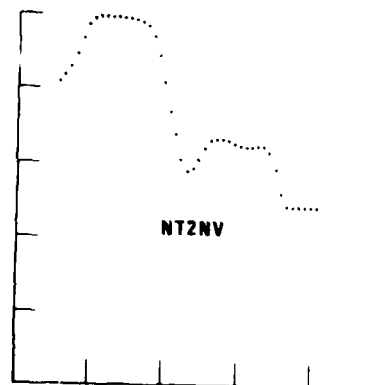
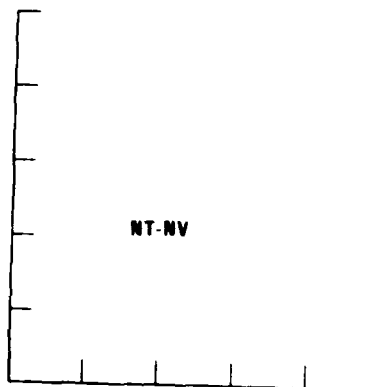
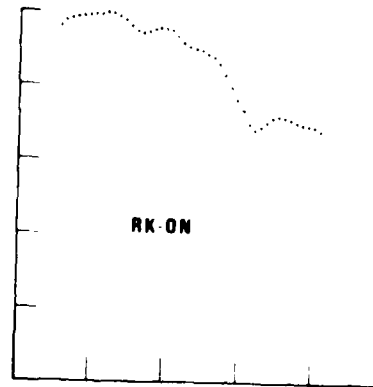
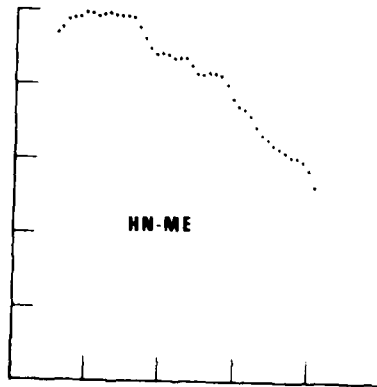
#91



C-58

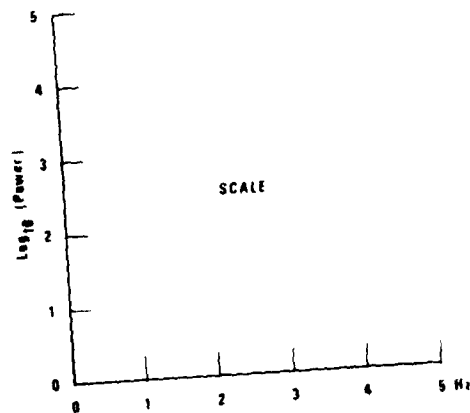
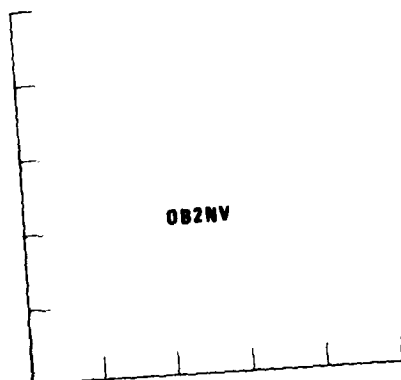
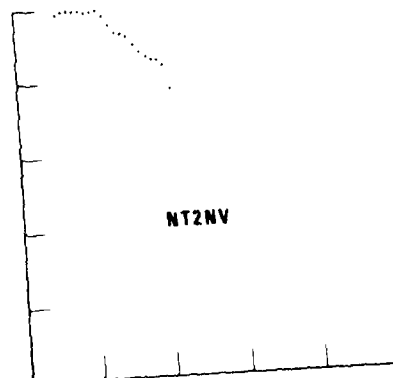
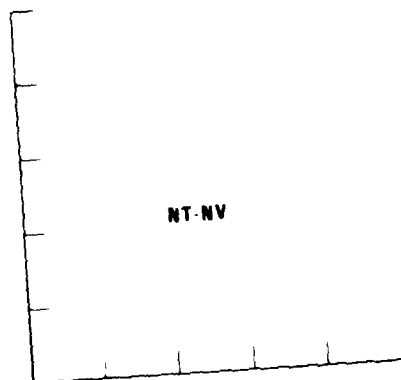
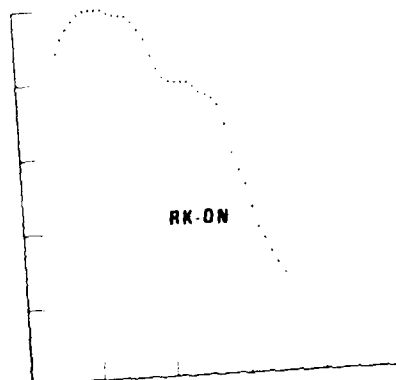
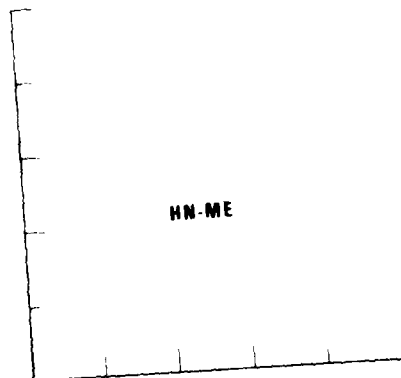
13 FEB 77
5:51:11.0
KAMCHATKA

#92

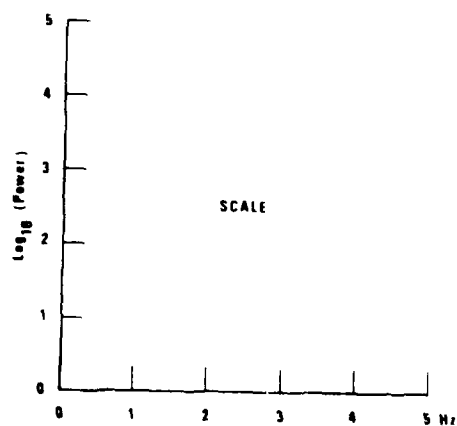
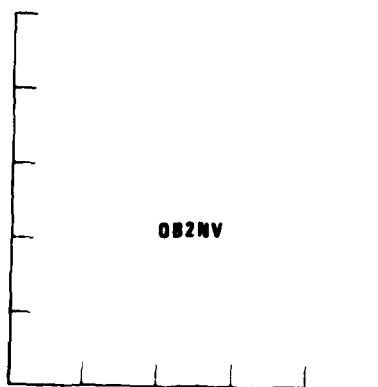
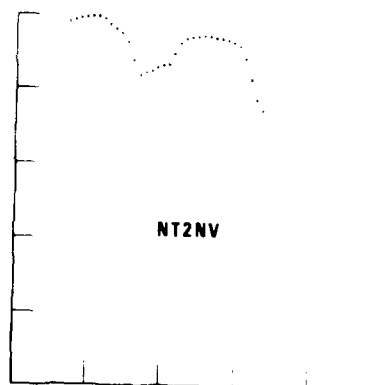
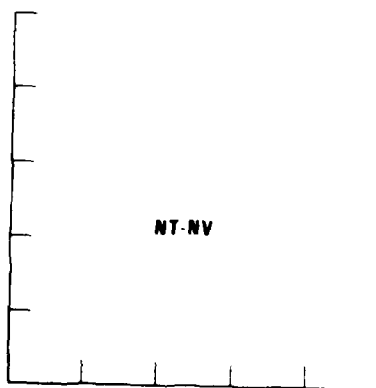
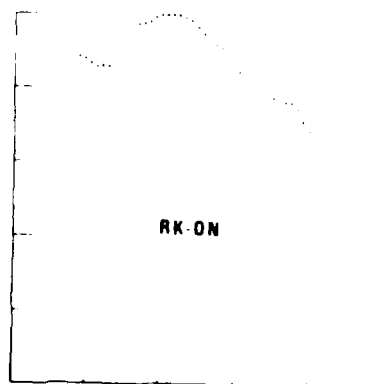
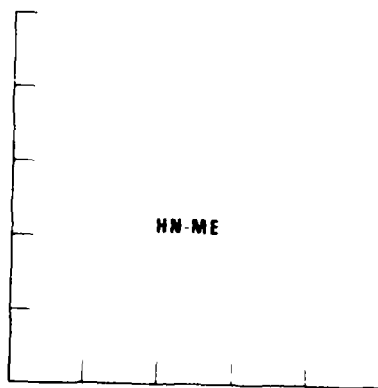


16 FEB 77
0:50:18.0
N. ATLANTIC OCEAN

#93

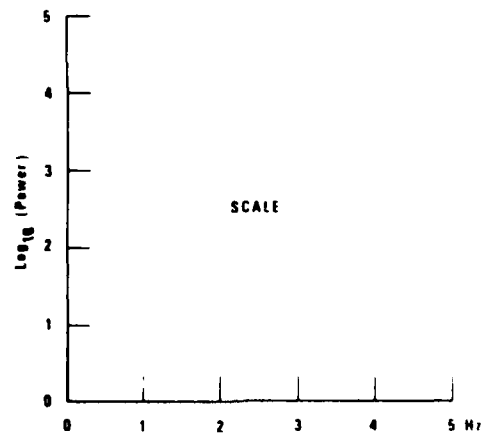
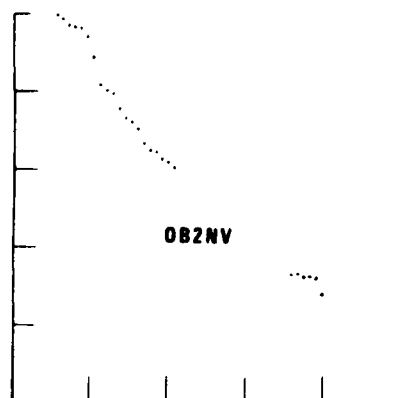
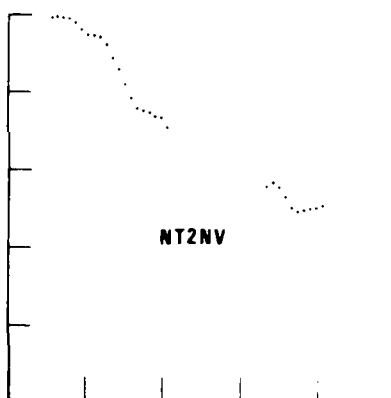
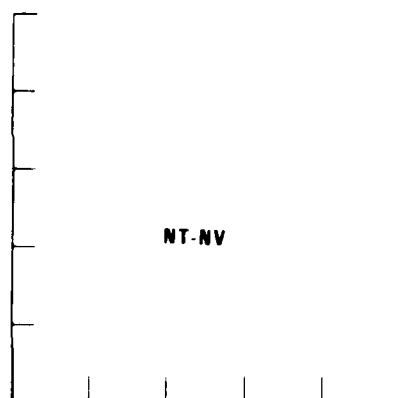
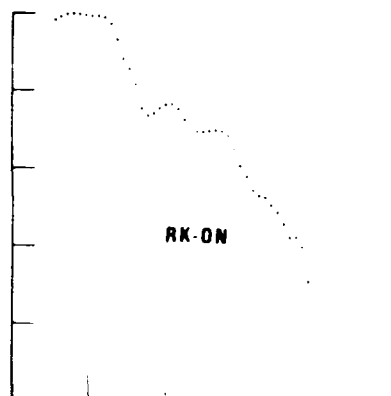
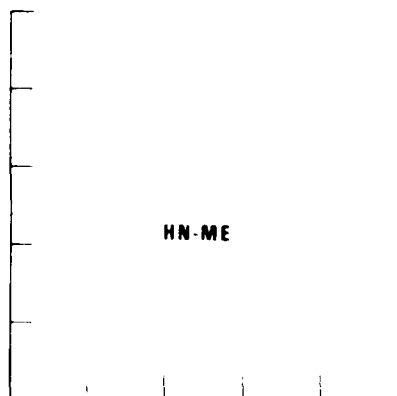


16 FEB 77
1:548.0
N. PACIFIC OCEAN
#94



17 FEB 77
13 32 7.0
KORMANDORSKI ISLAND

#95



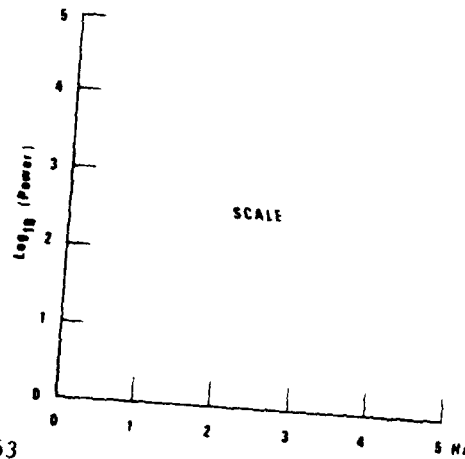
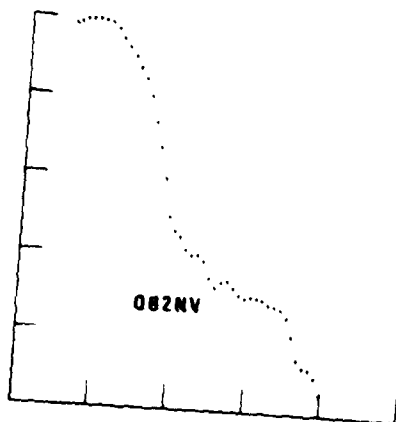
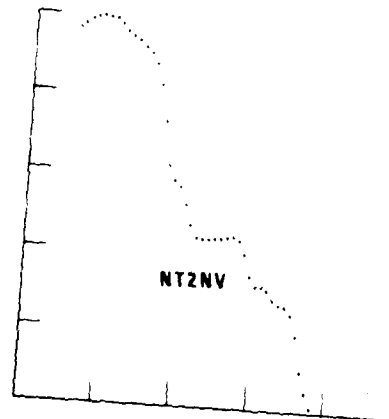
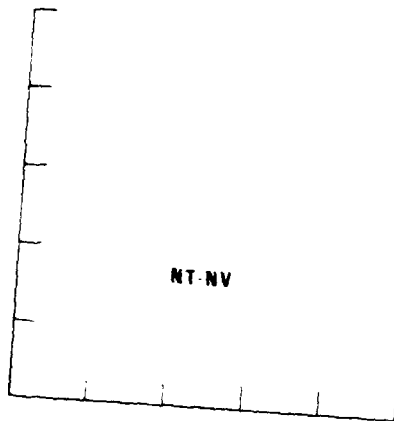
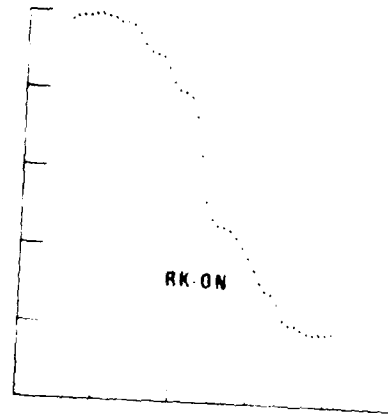
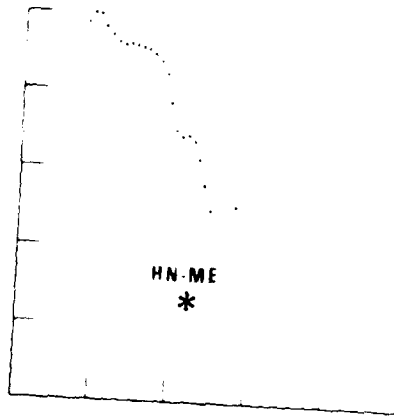
C-62

18 FEB 77

20:51:28.0

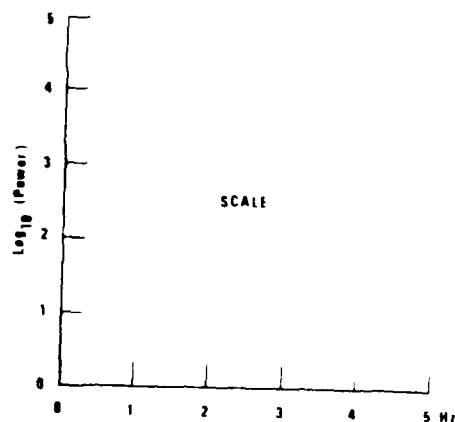
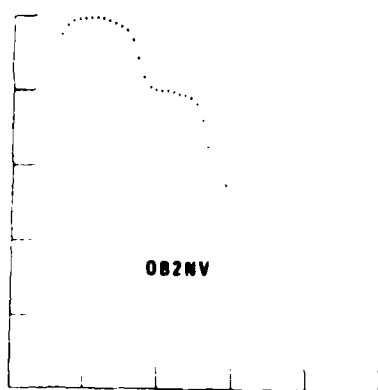
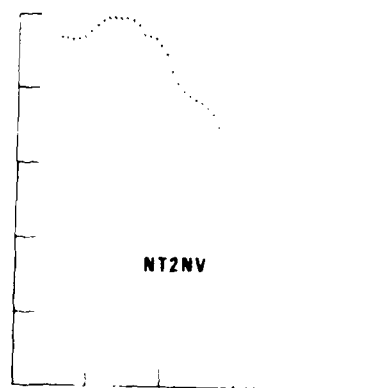
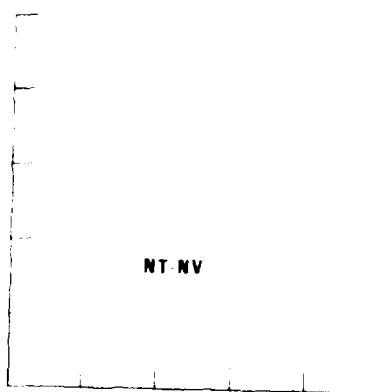
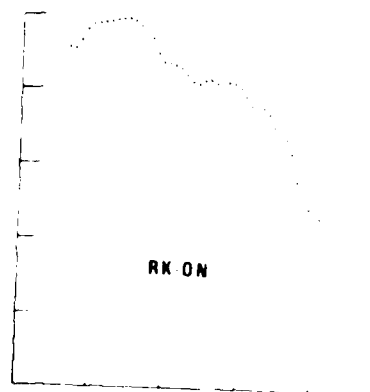
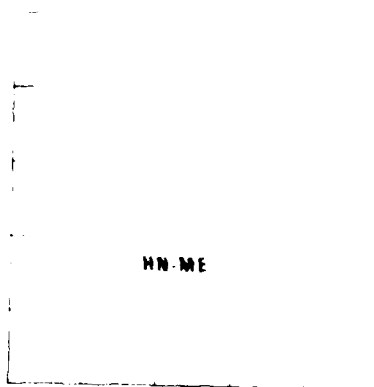
JAPAN

#96

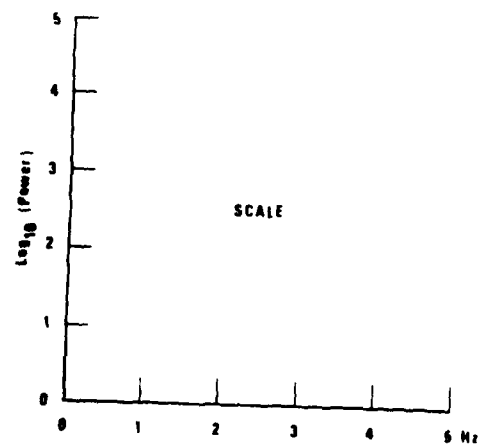
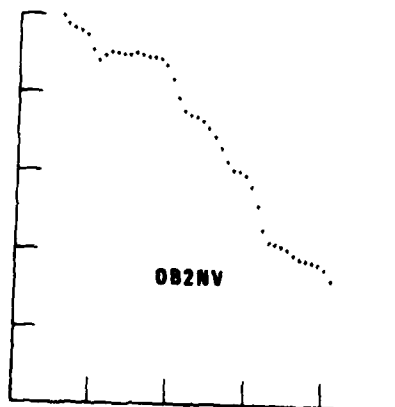
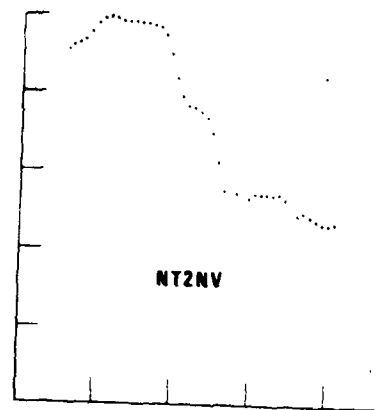
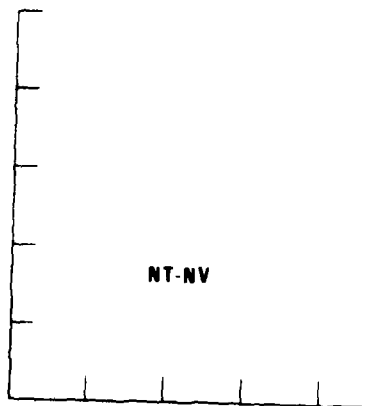
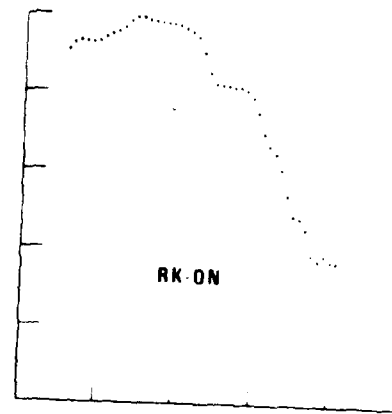
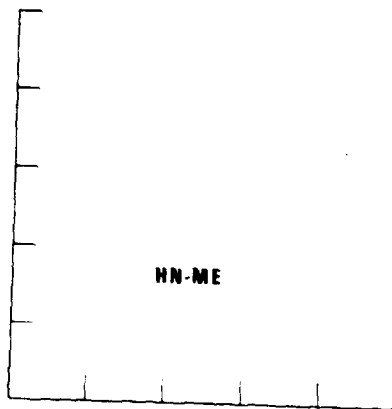


C-63

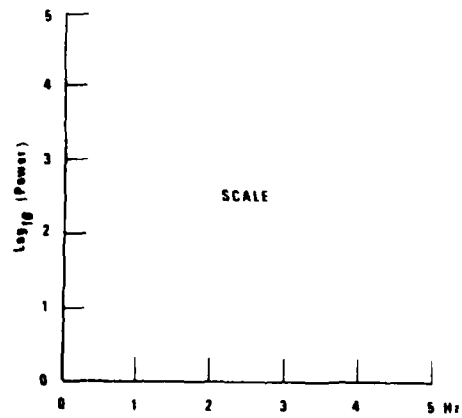
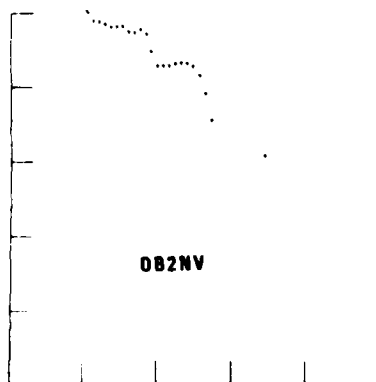
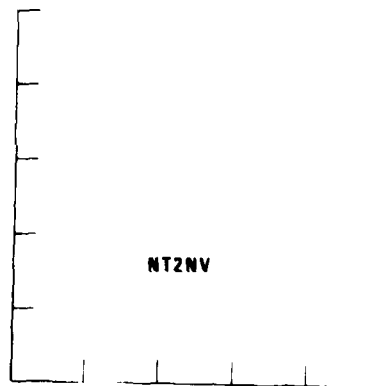
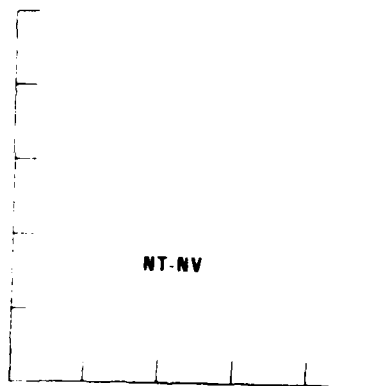
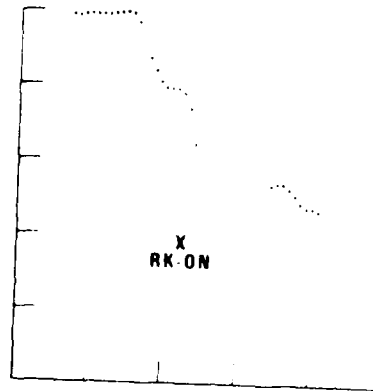
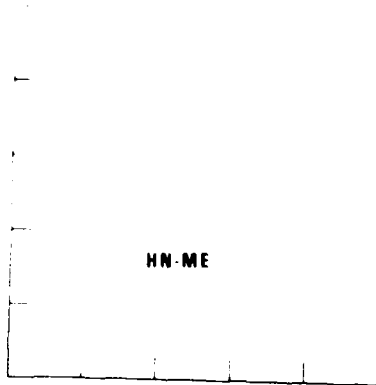
18 FEB 77
5:51:10
KAMCHATKA
#98



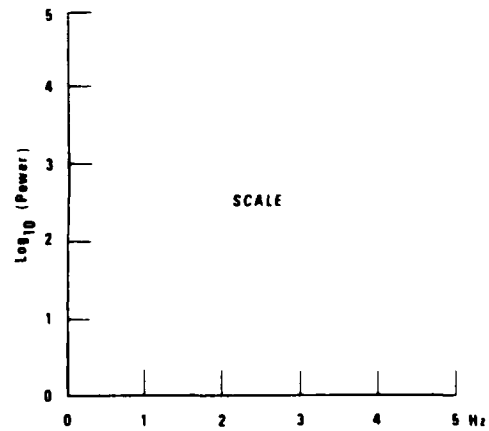
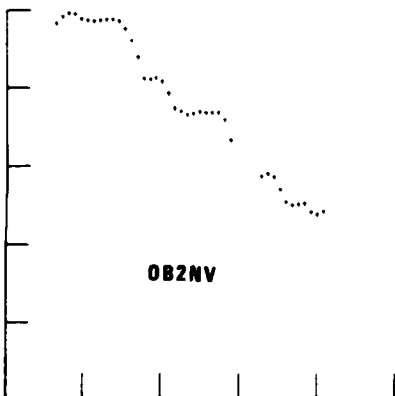
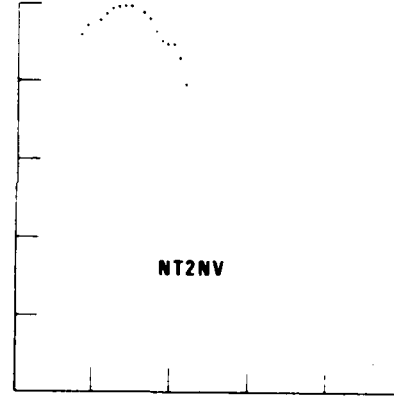
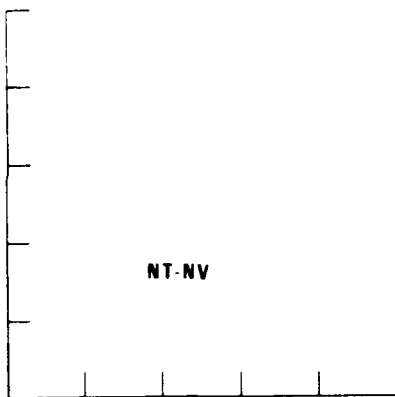
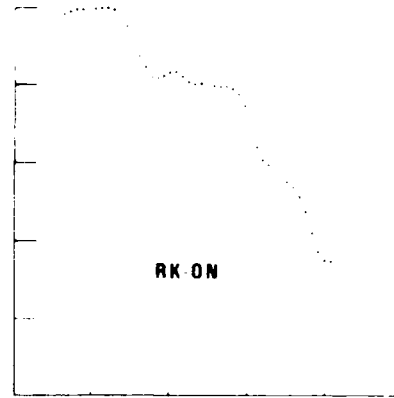
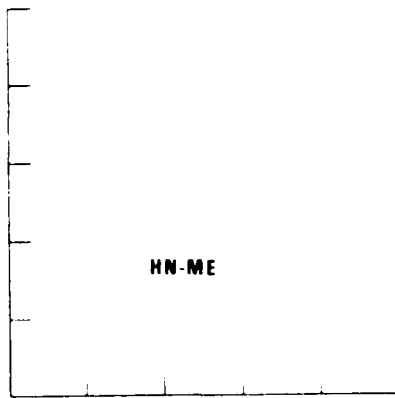
19 FEB 77
22:47:7.0
ALEUTIANS
#100



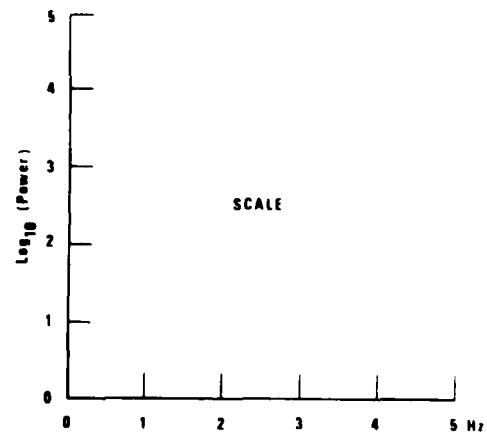
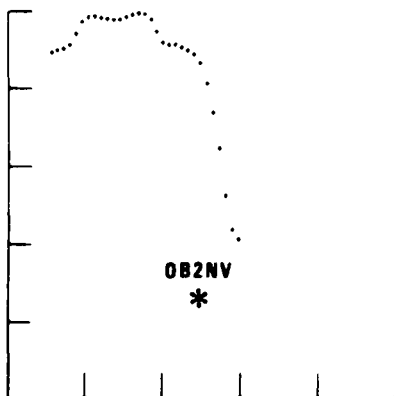
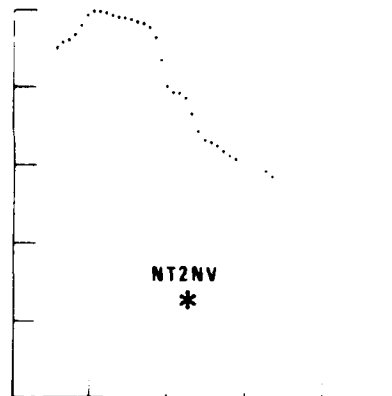
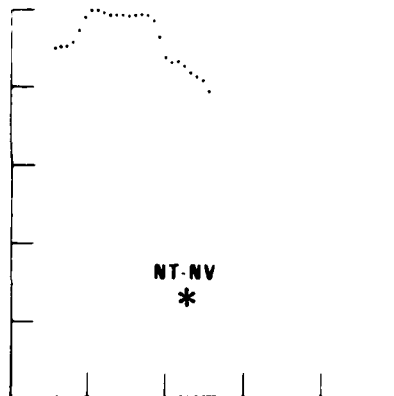
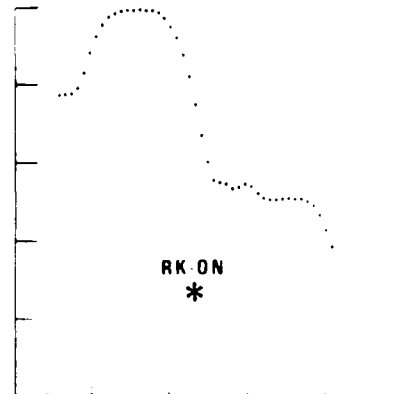
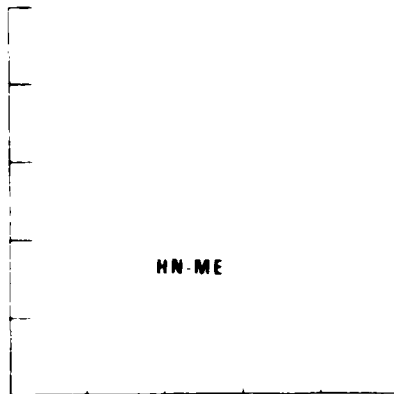
20 FEB 77
7:20.0
KODIAK IS
#101



20 FEB 77
8:03:00
ALEUTIANS
#102



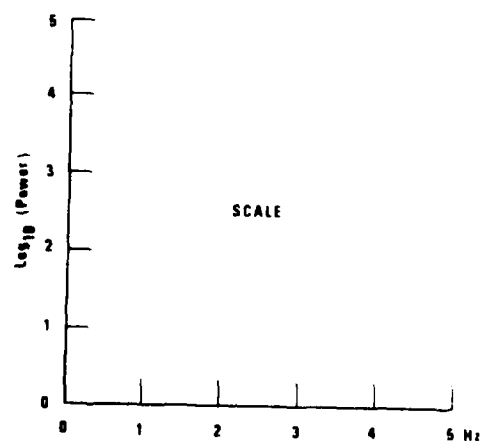
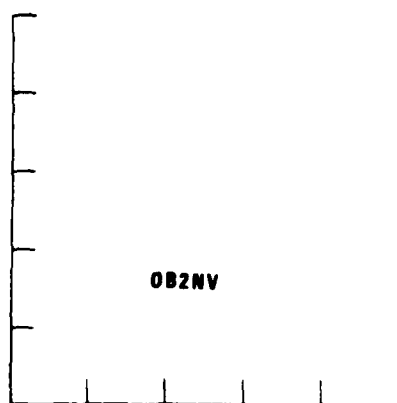
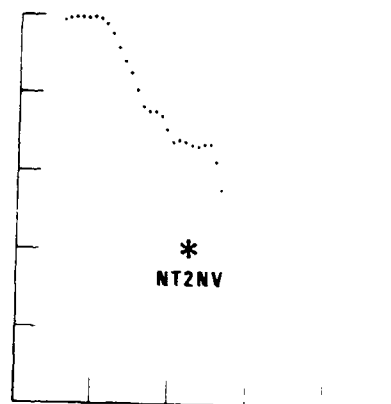
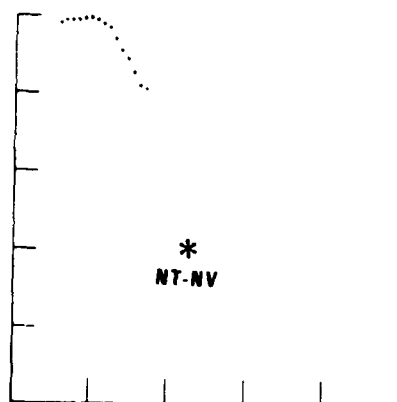
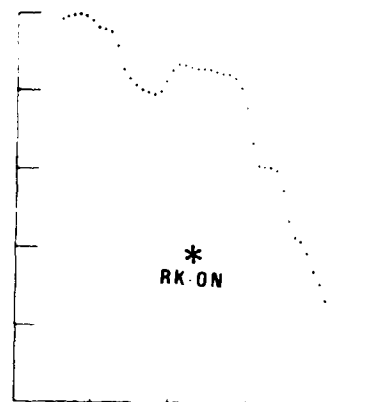
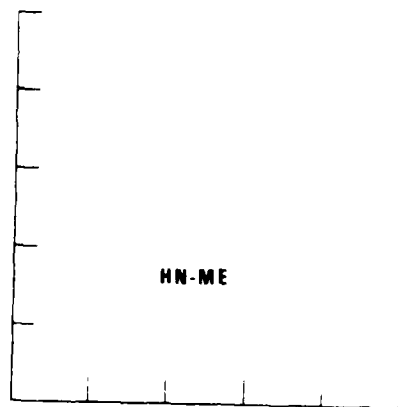
4 MAR 77
19:21:40.0
RUMANIA
#111



C-68

7 MAR 77
0:29:11.0
N.E. CHINA

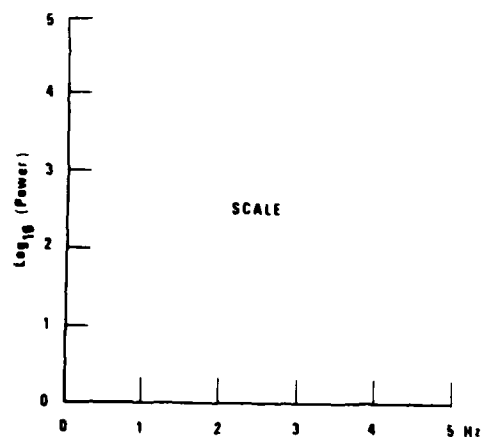
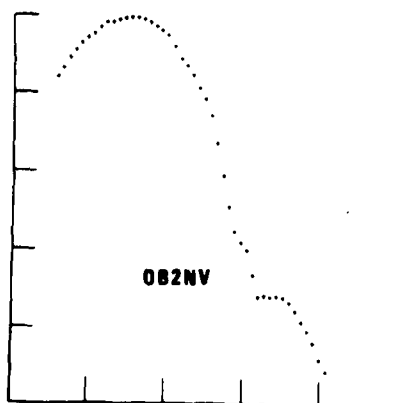
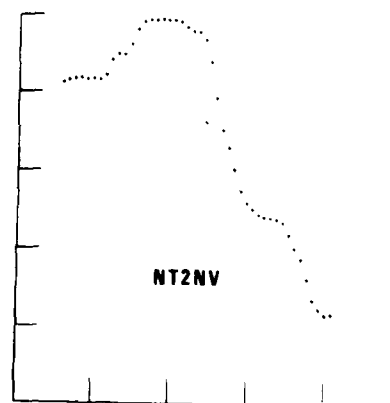
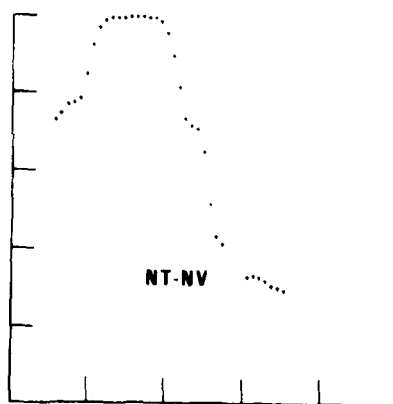
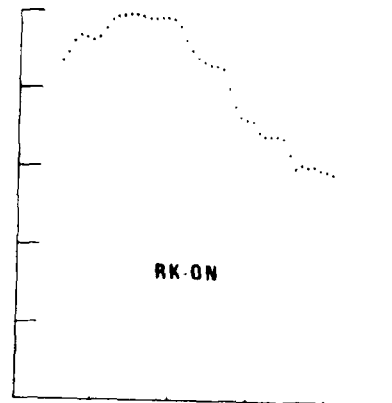
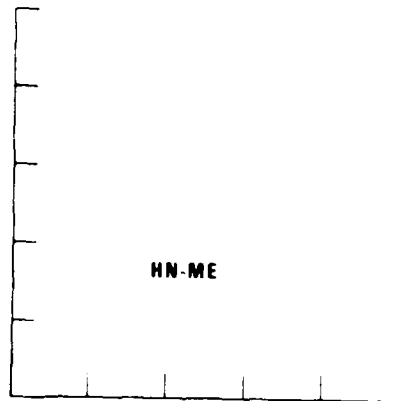
#112



C-69

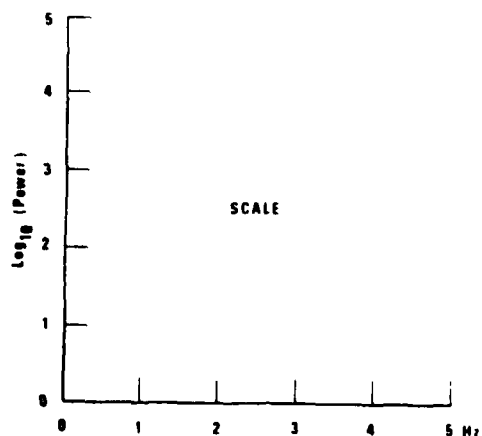
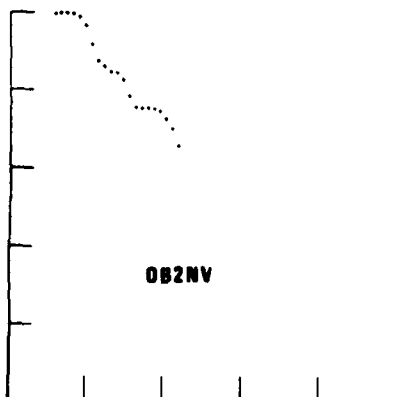
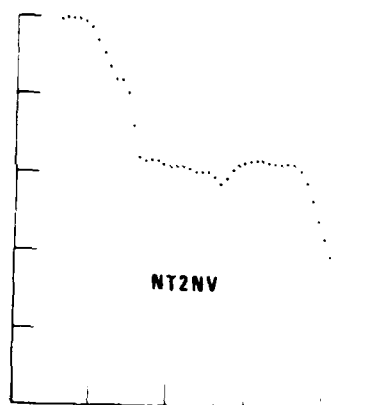
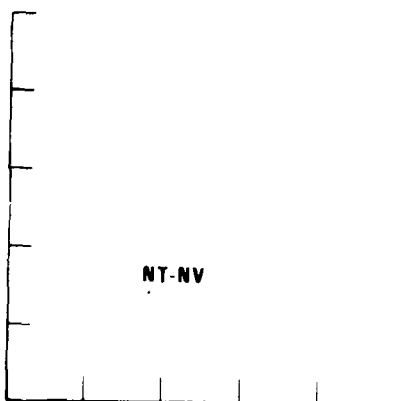
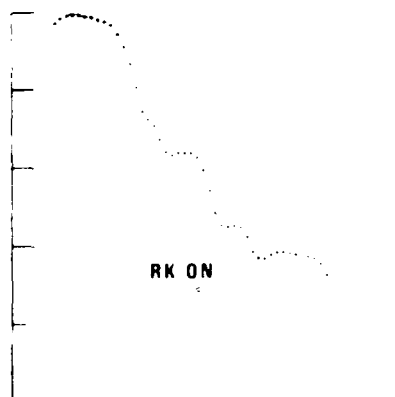
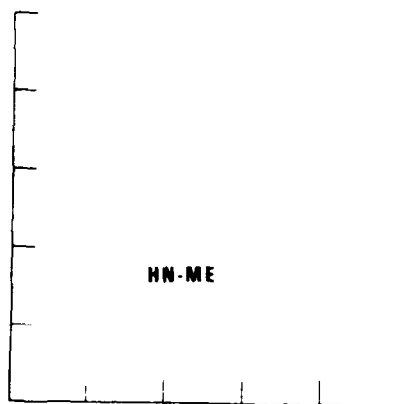
7 MAR 77
9:11:55.0
N. PACIFIC

#113



C-70

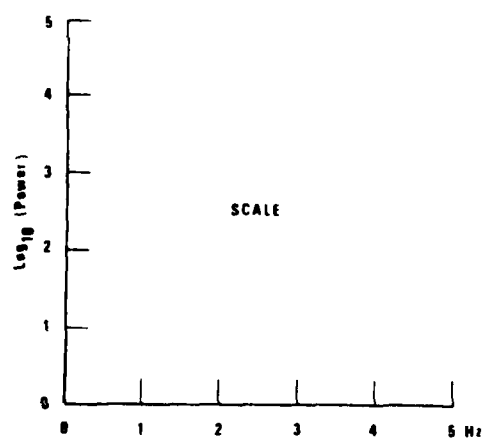
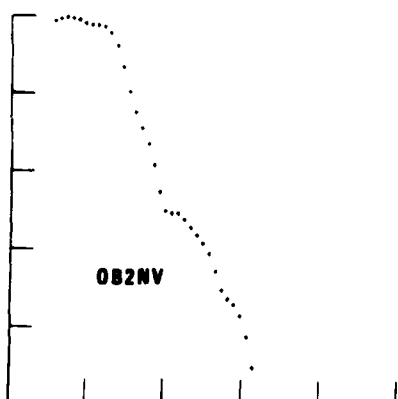
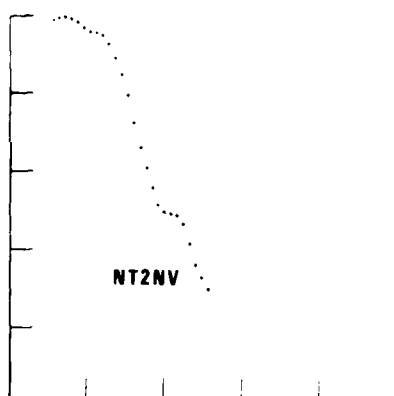
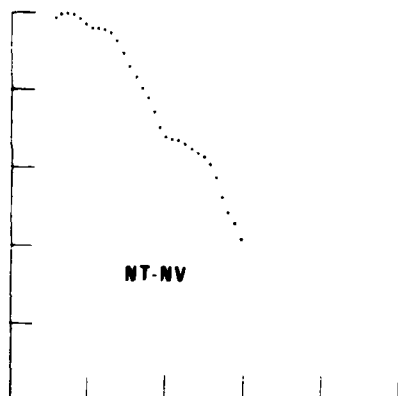
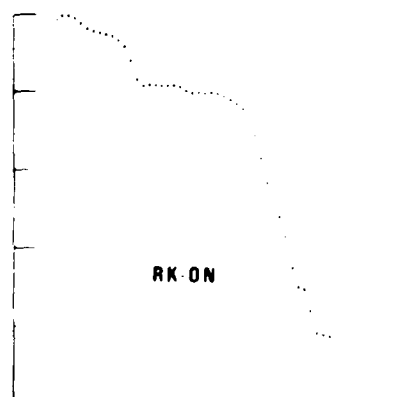
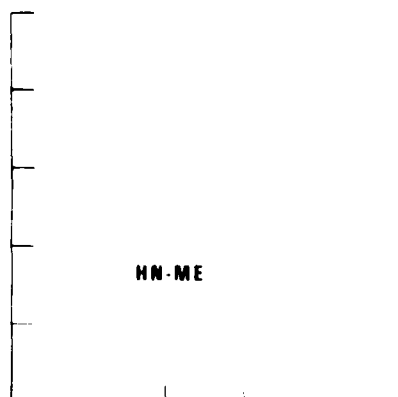
8 MAR 77
22:46:44.0
BRAZIL
#103



C-71

12 MAR 77
2:58:55.0
N. ATLANTIC RIDGE

#105



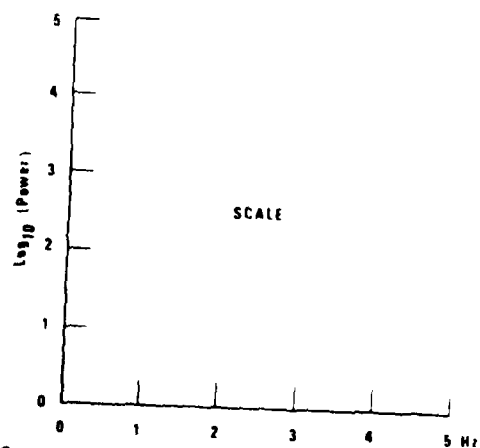
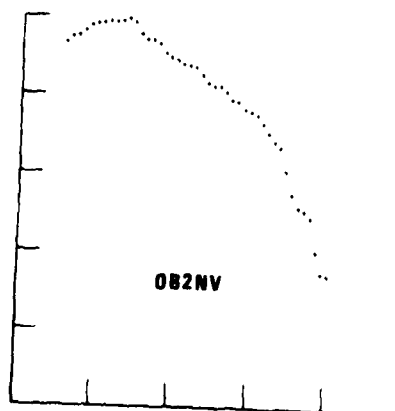
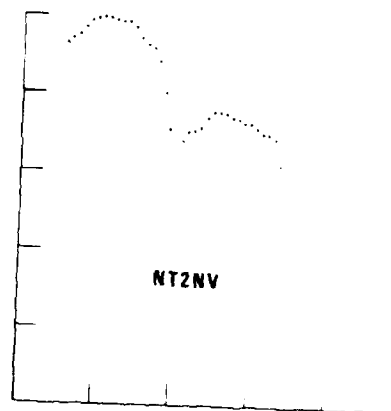
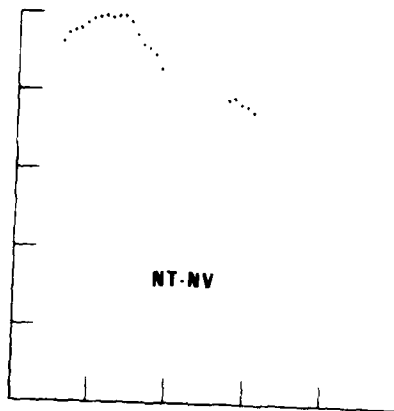
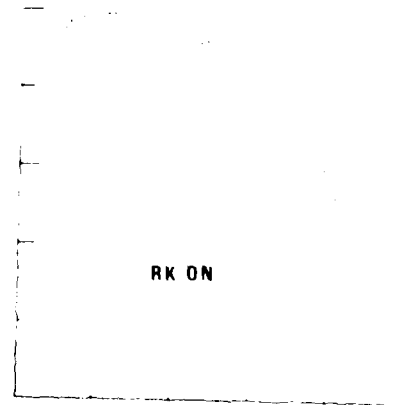
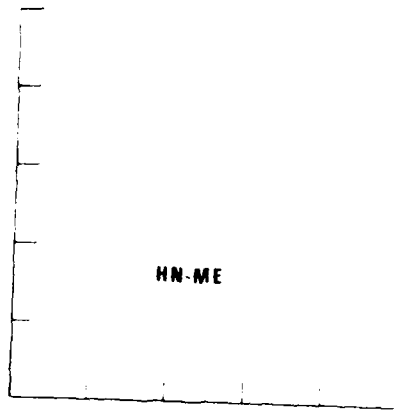
C-72

13 MAR 77

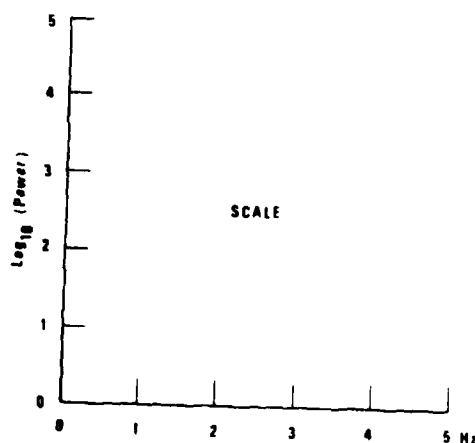
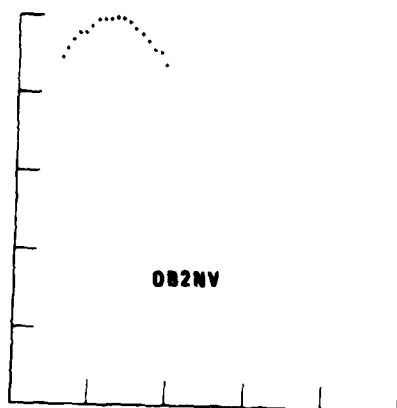
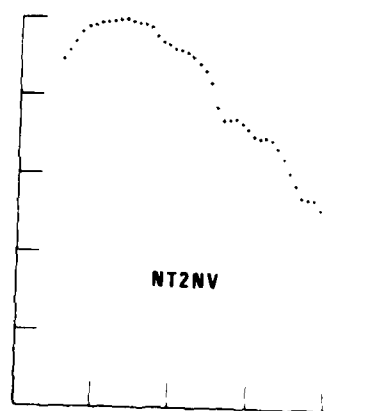
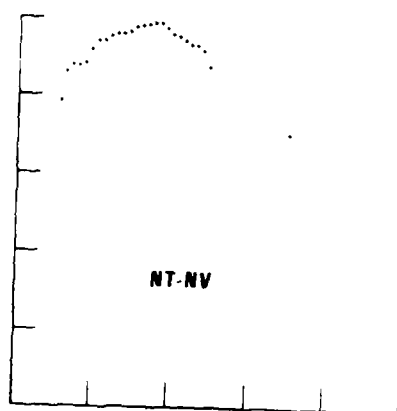
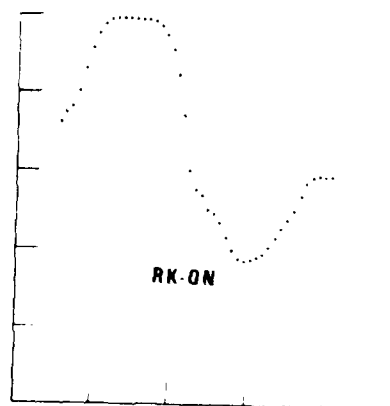
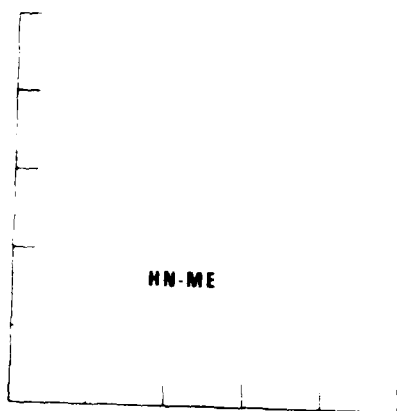
4:55:55 D

BRAZIL

#106



15 MAR 77
21:28:9.0
COSTA RICA
#108



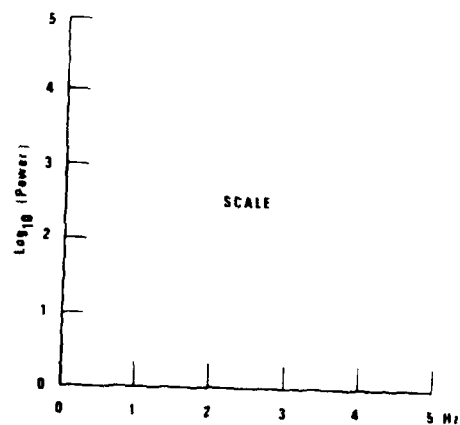
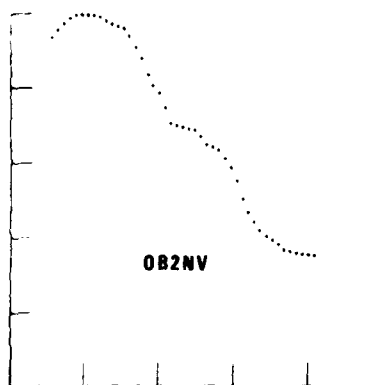
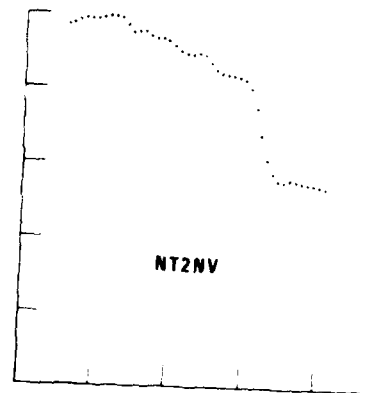
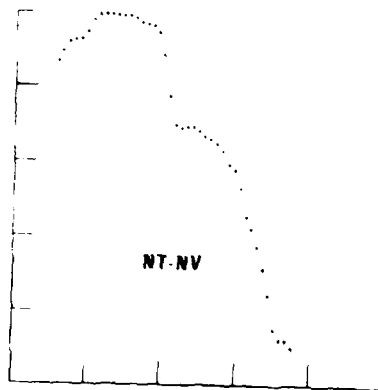
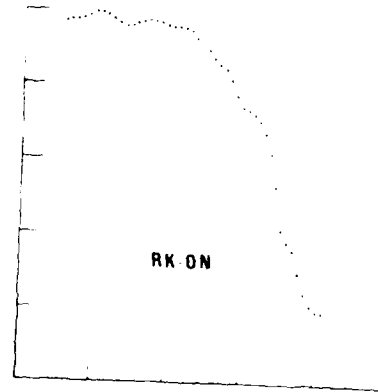
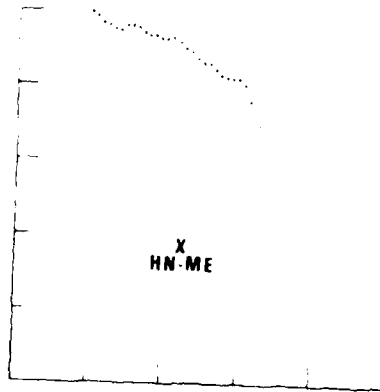
C-74

19 MAR 77

10 56 6 0

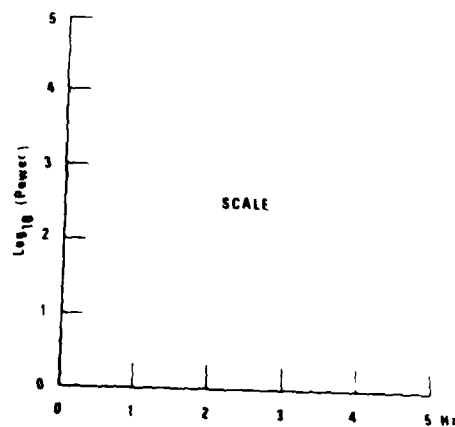
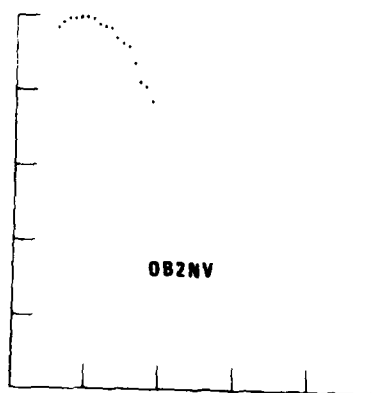
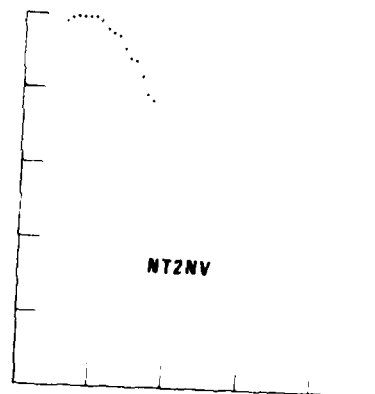
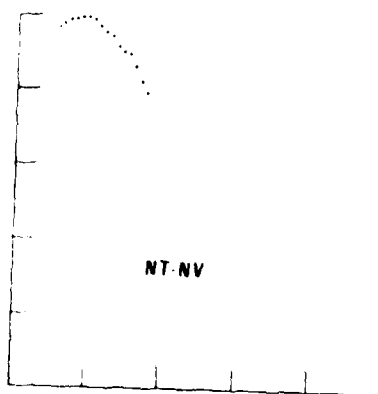
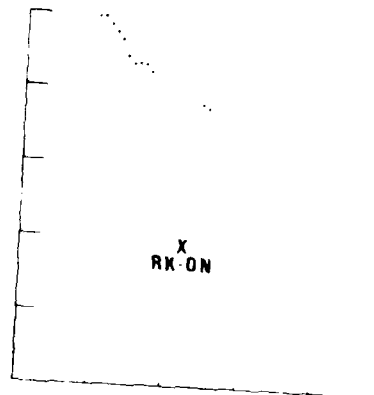
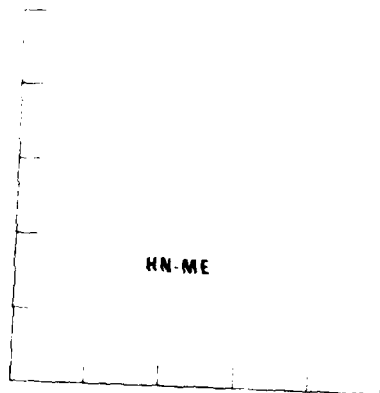
KURILES

#110



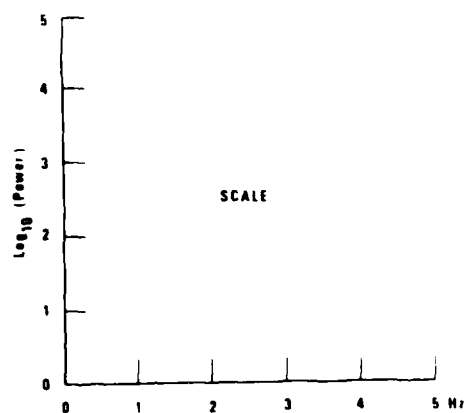
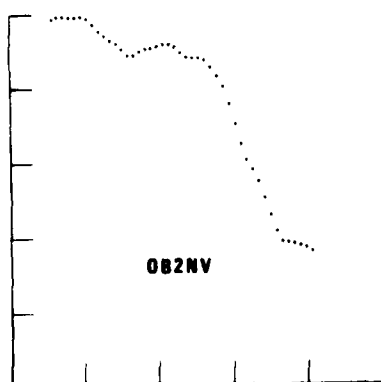
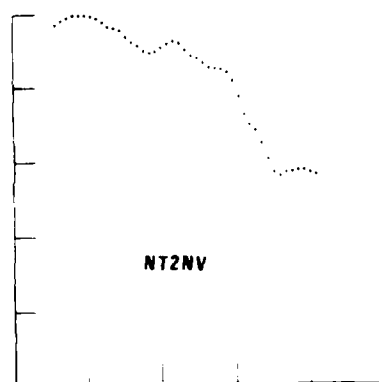
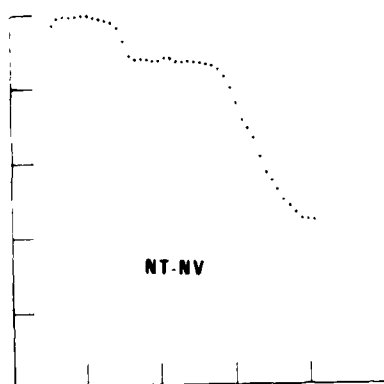
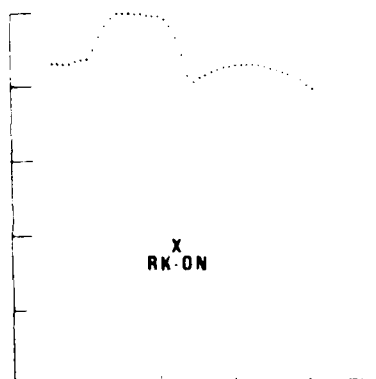
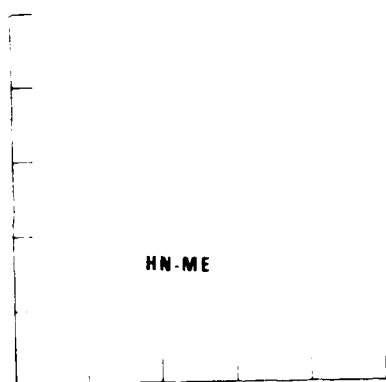
21 MAR 77
4:38:38.0
VOLCANO ISLAND

#114

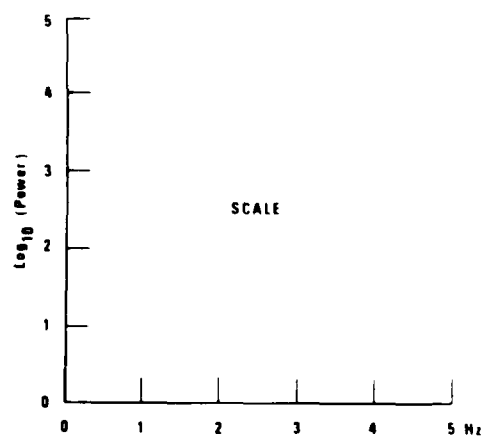
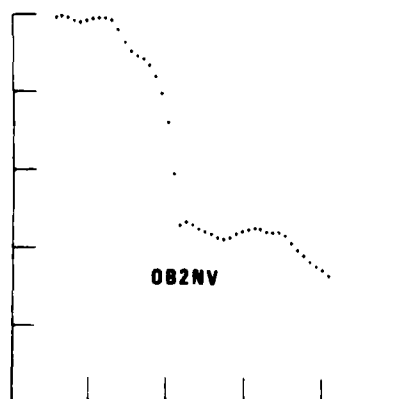
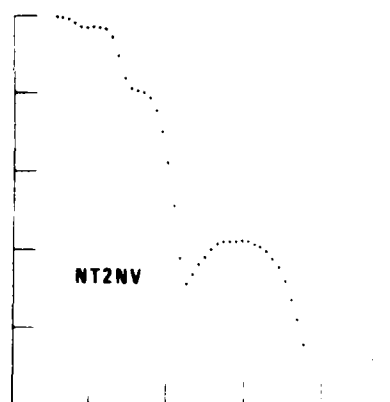
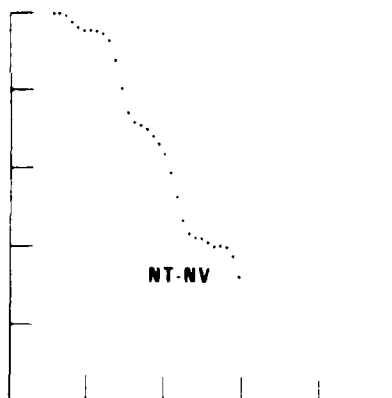
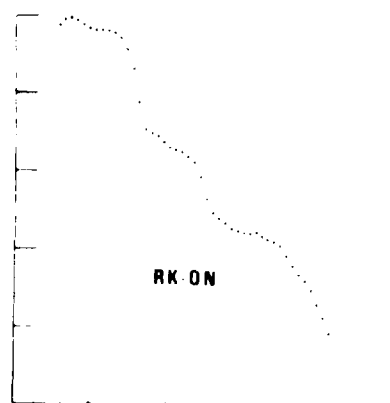
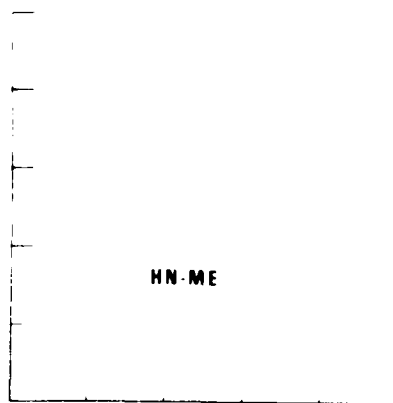


23 MAR 77
2:11:25.0
VENEZUELA

#116



26 MAR 77
4:36:10 0
FOX ISLAND
#118

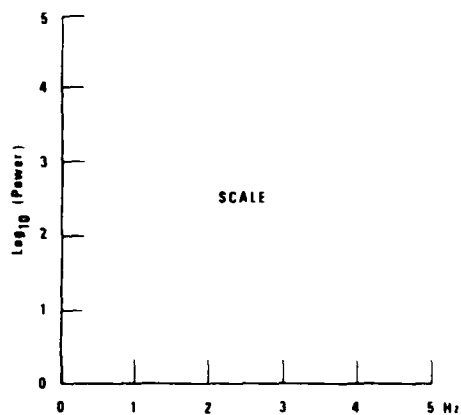
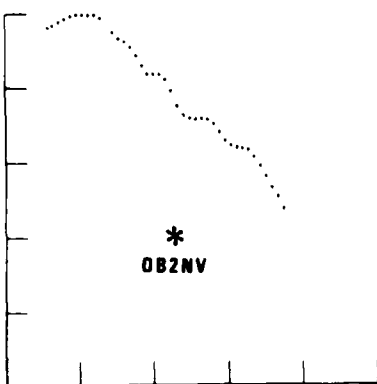
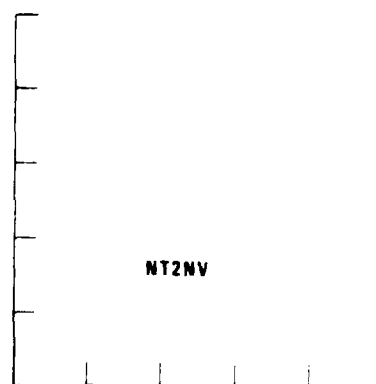
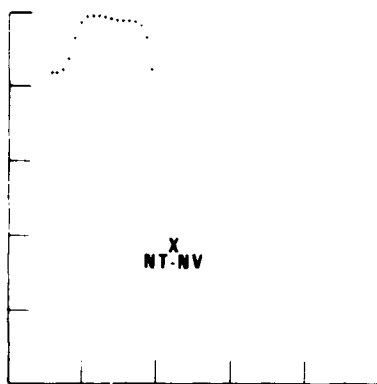
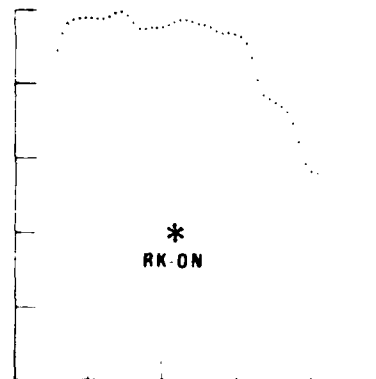
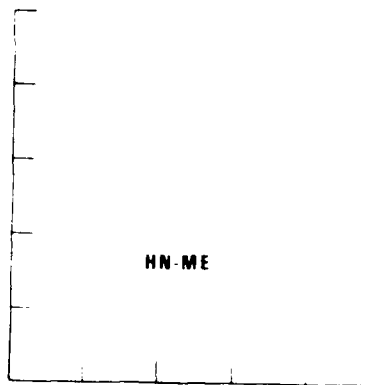


29 MAR 77

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E. KAZAKH

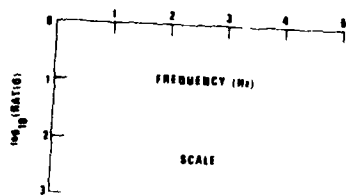
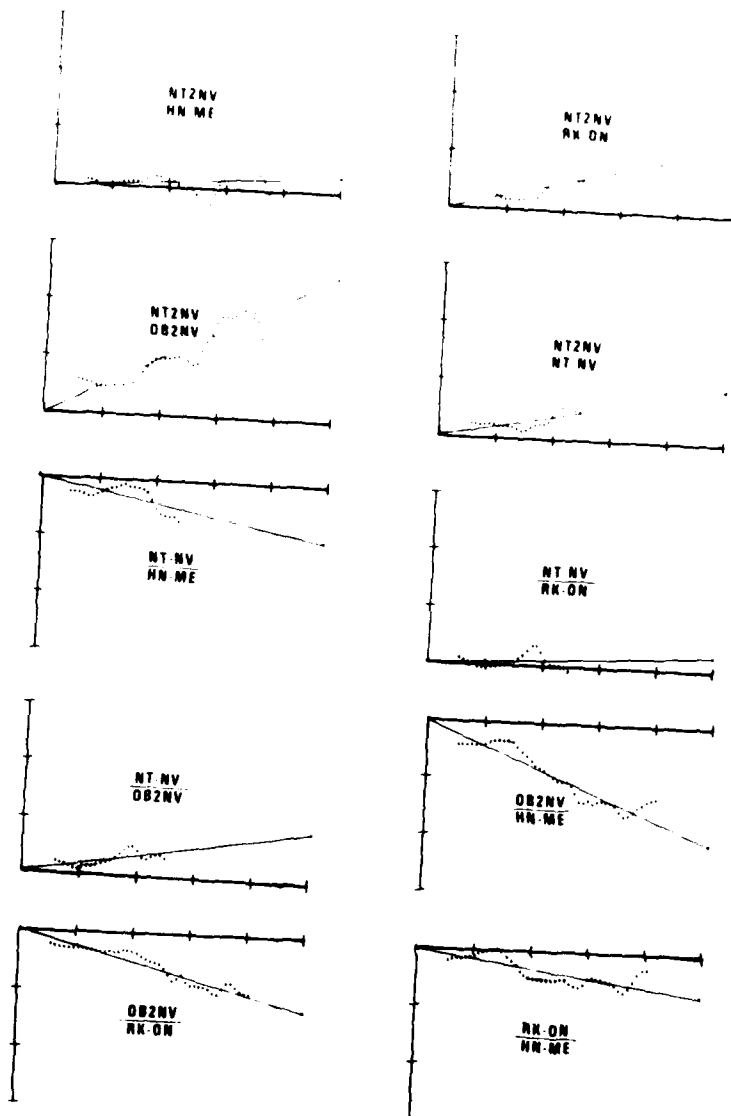
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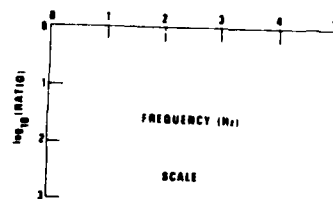
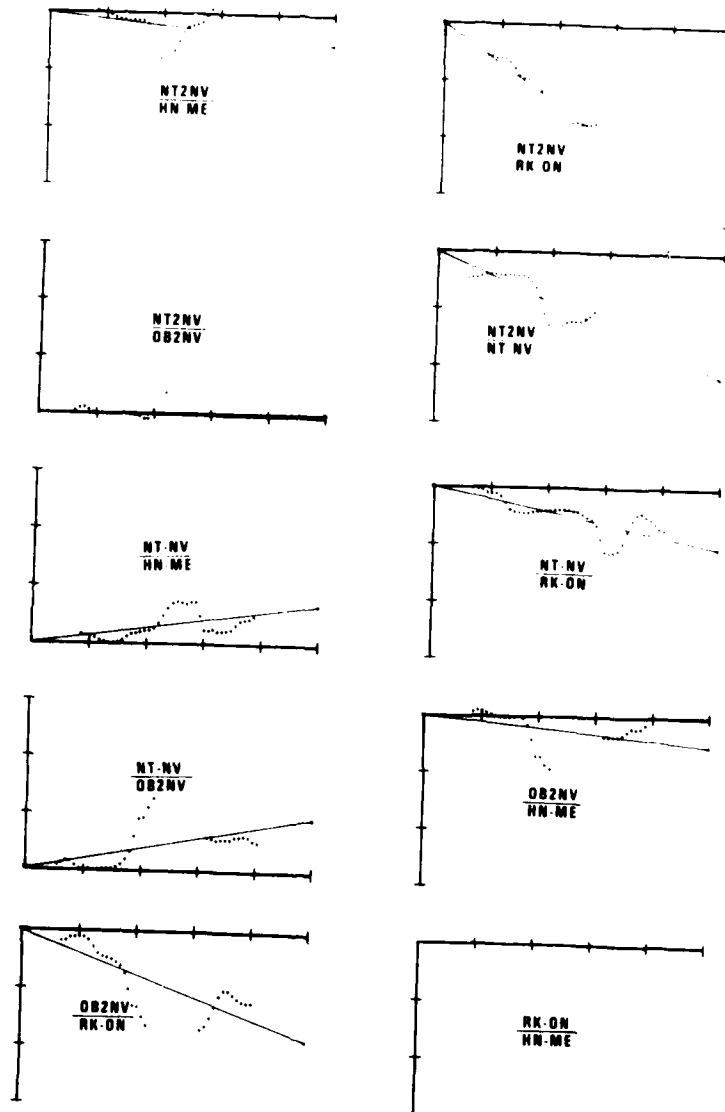
APPENDIX D

Amplitude spectral ratios of waveforms in Appendix B

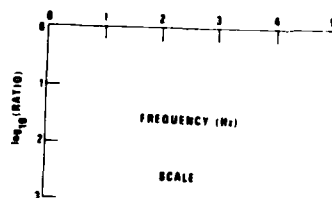
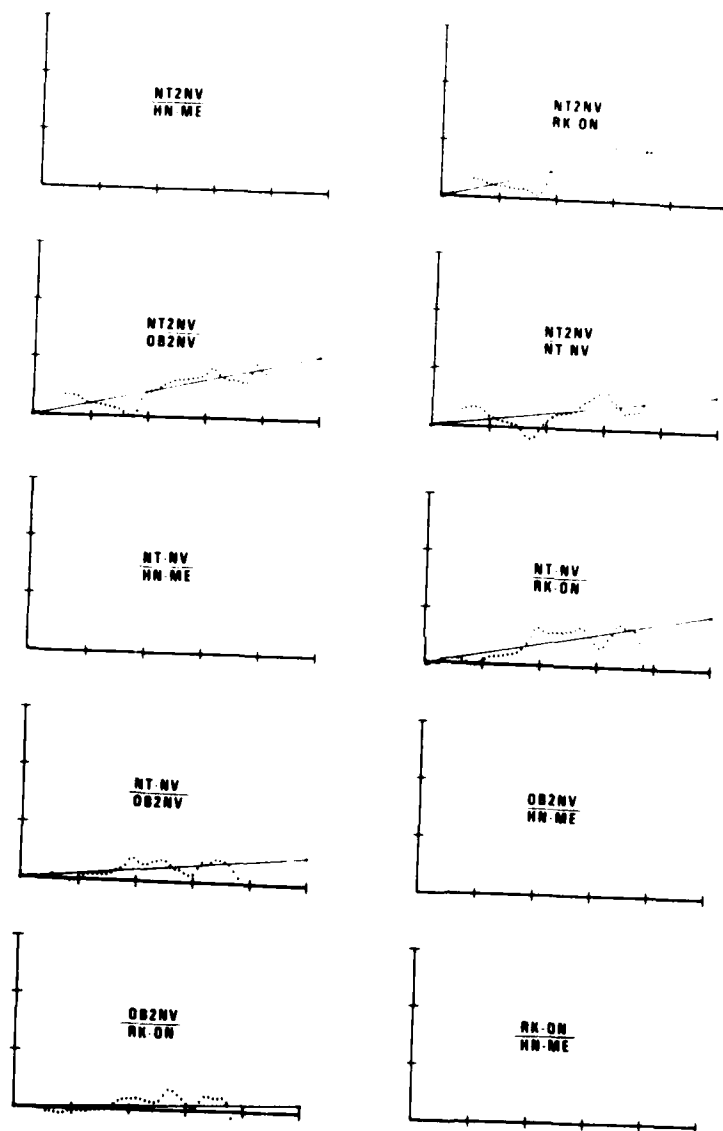
22 SEP 76
 01693
 KURILES
 #00



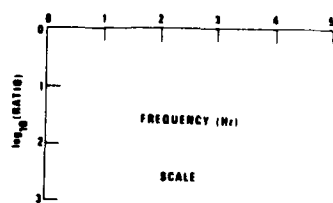
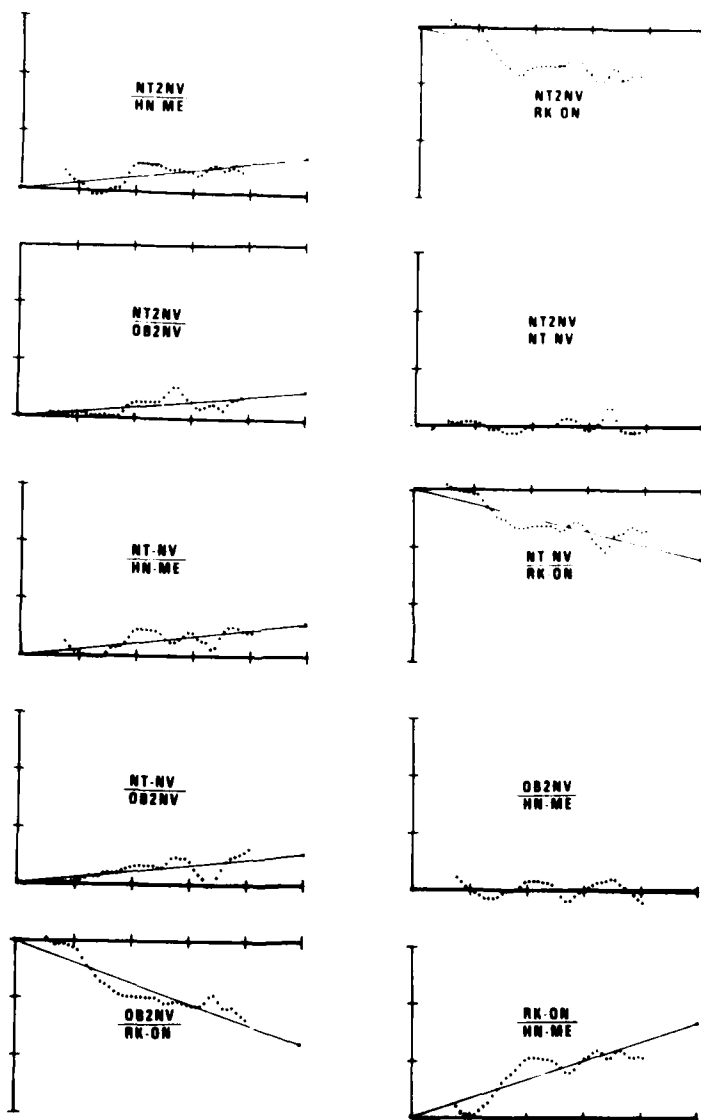
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2 30 30 8
ALEUTIANS
#19



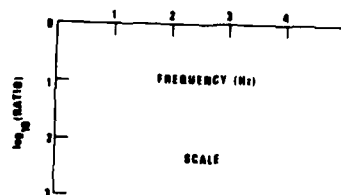
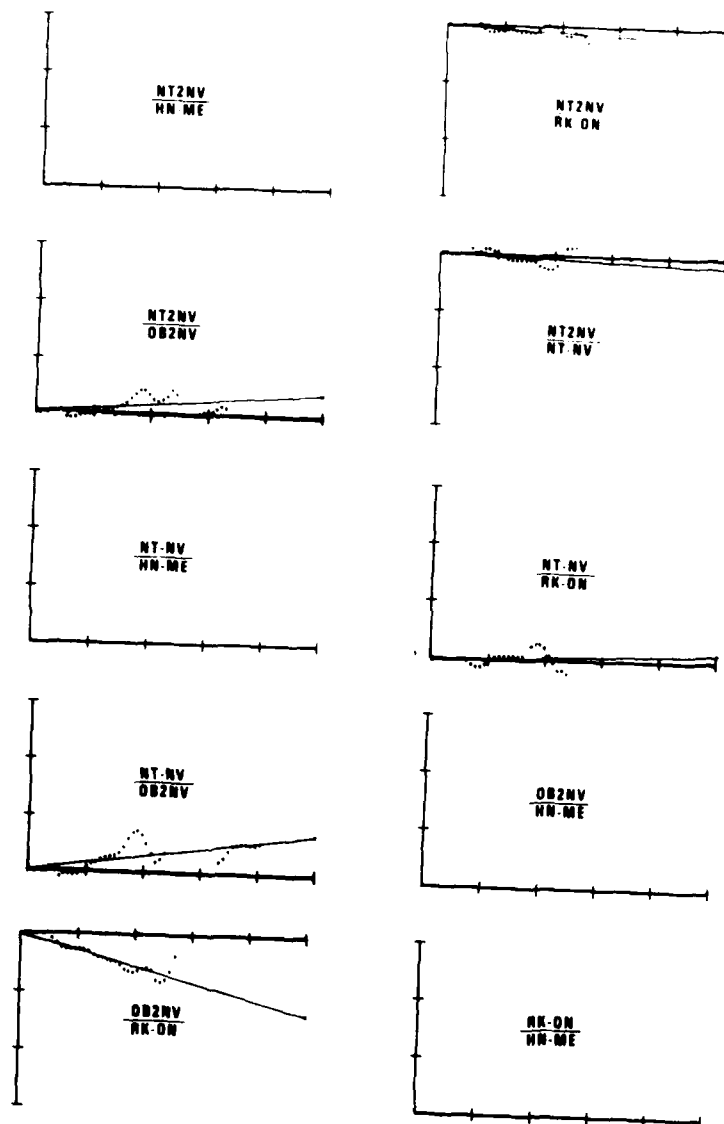
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29 SEP 78
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NOVAYA ZEMLYA
#4

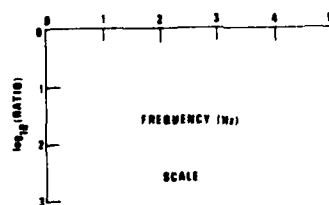
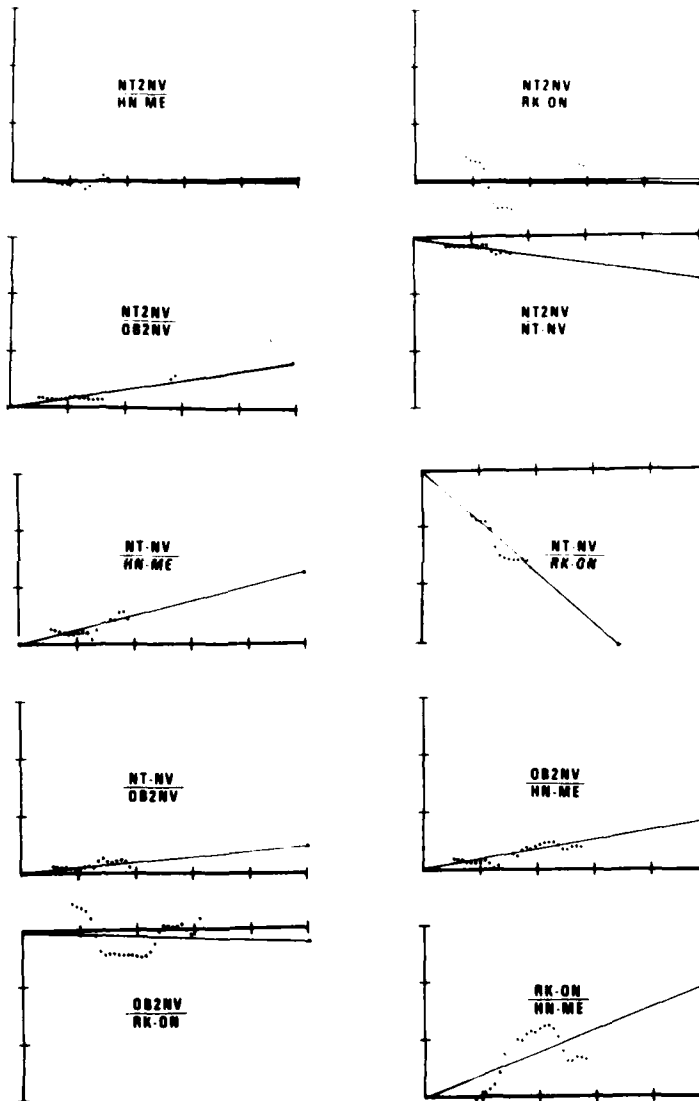


30 SEP 78
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 CHILE-ARGENTINA BDR
 #16

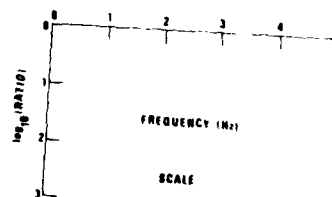
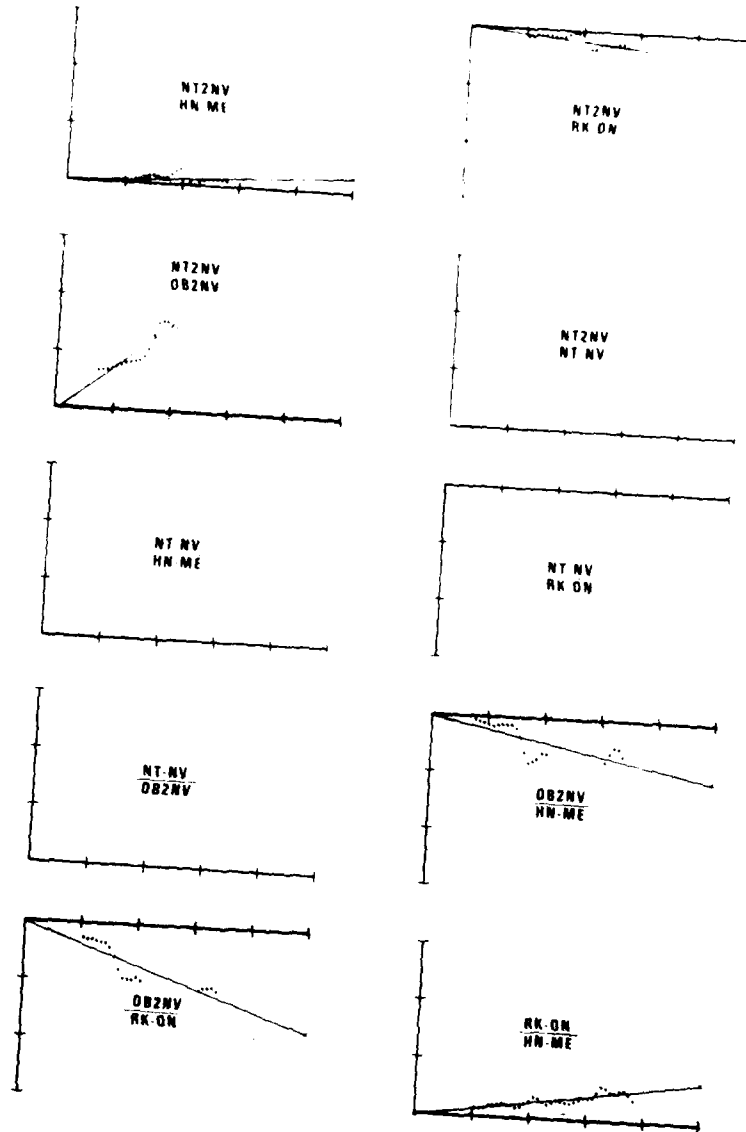


4 OCT 78
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ECUADOR

#22



8 OCT 76
14 38 27.9
KURILES
#26

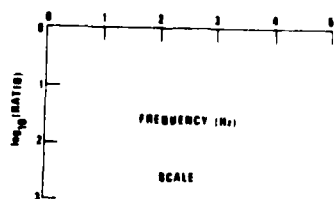
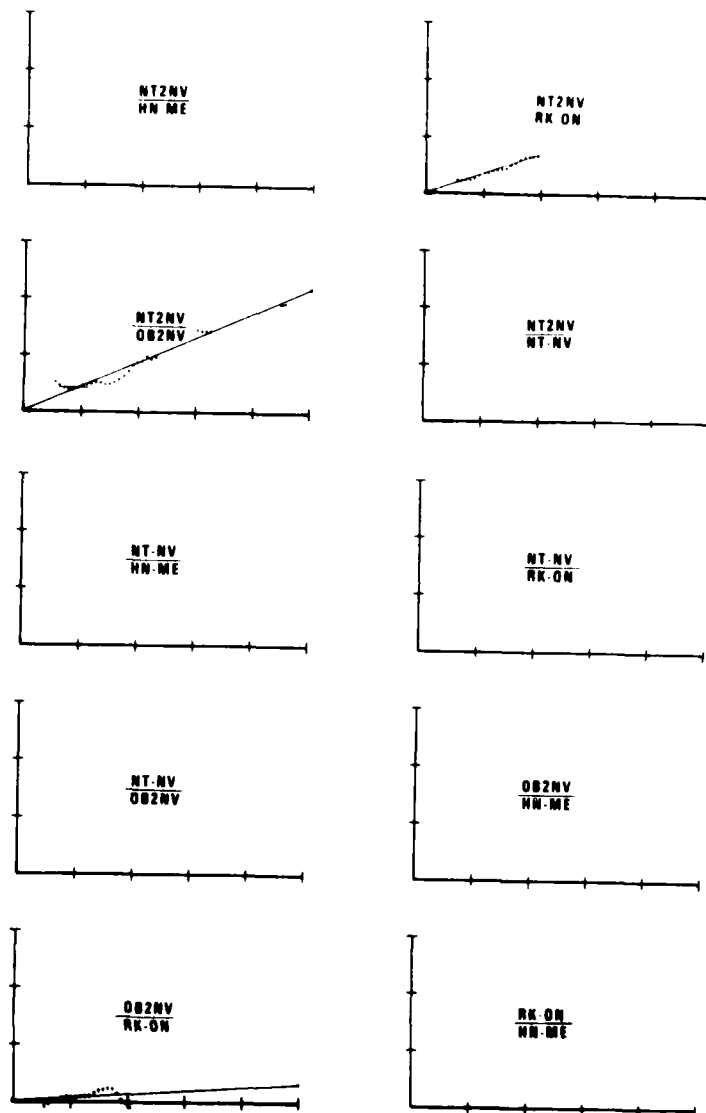


8 OCT 78

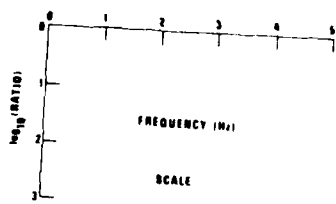
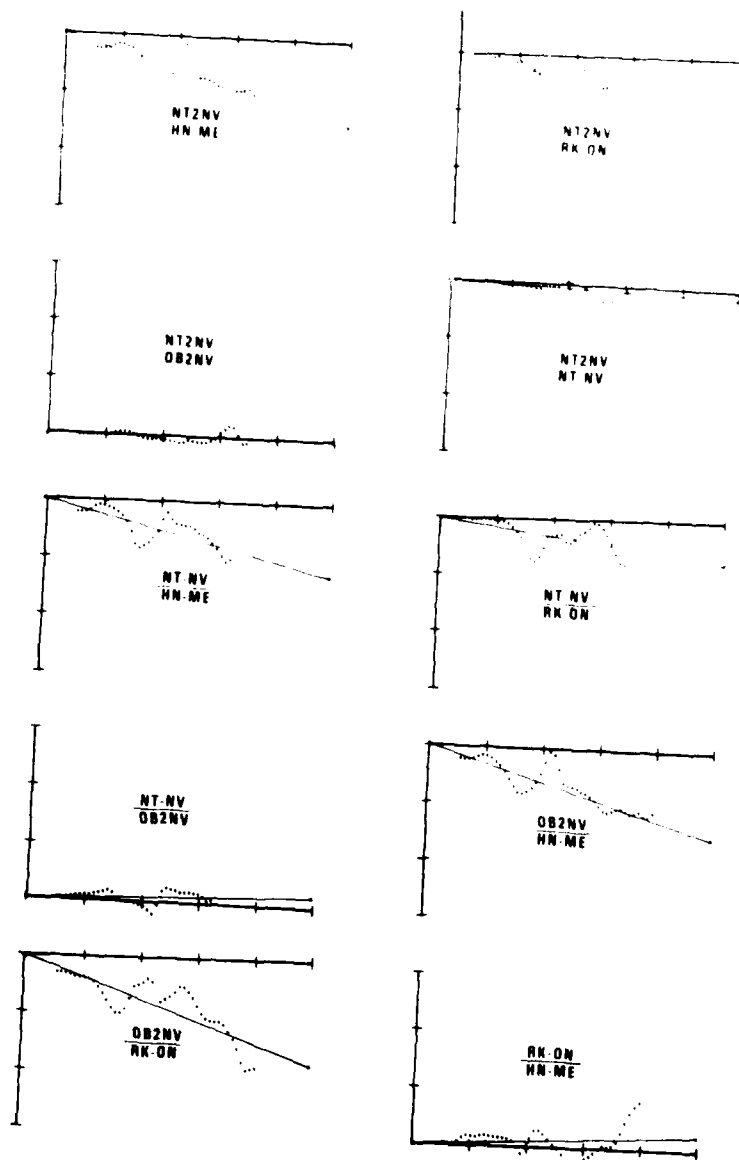
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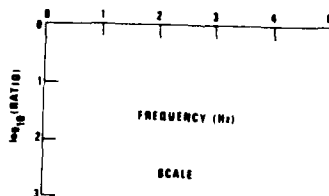
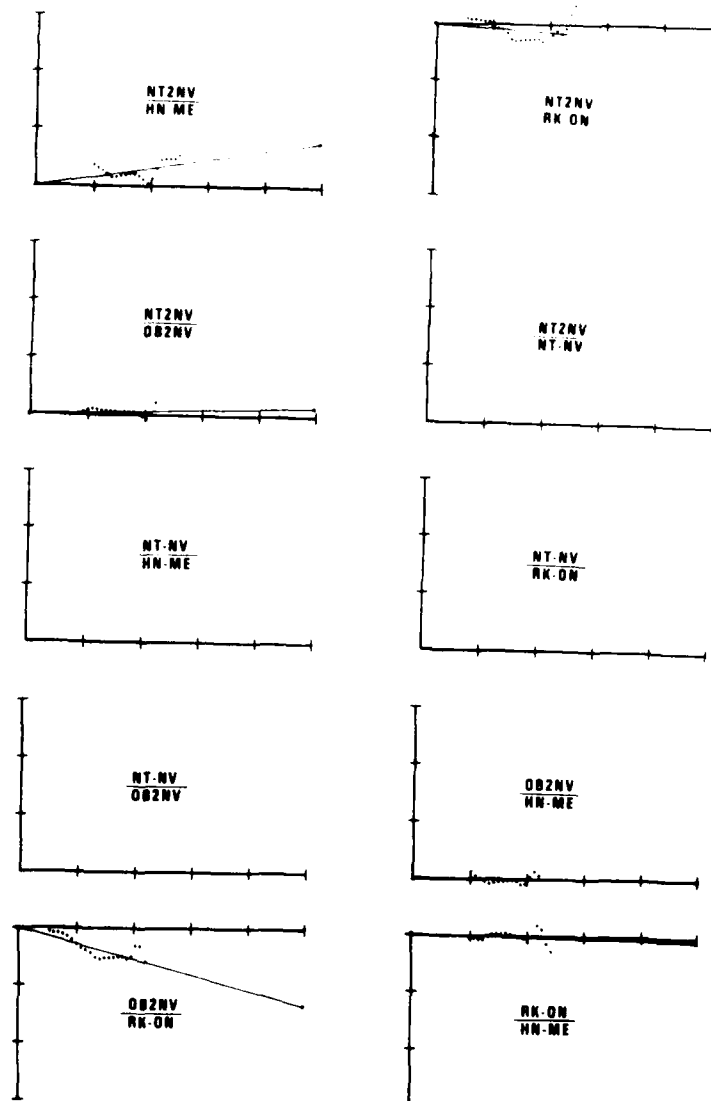
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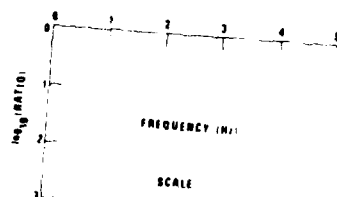
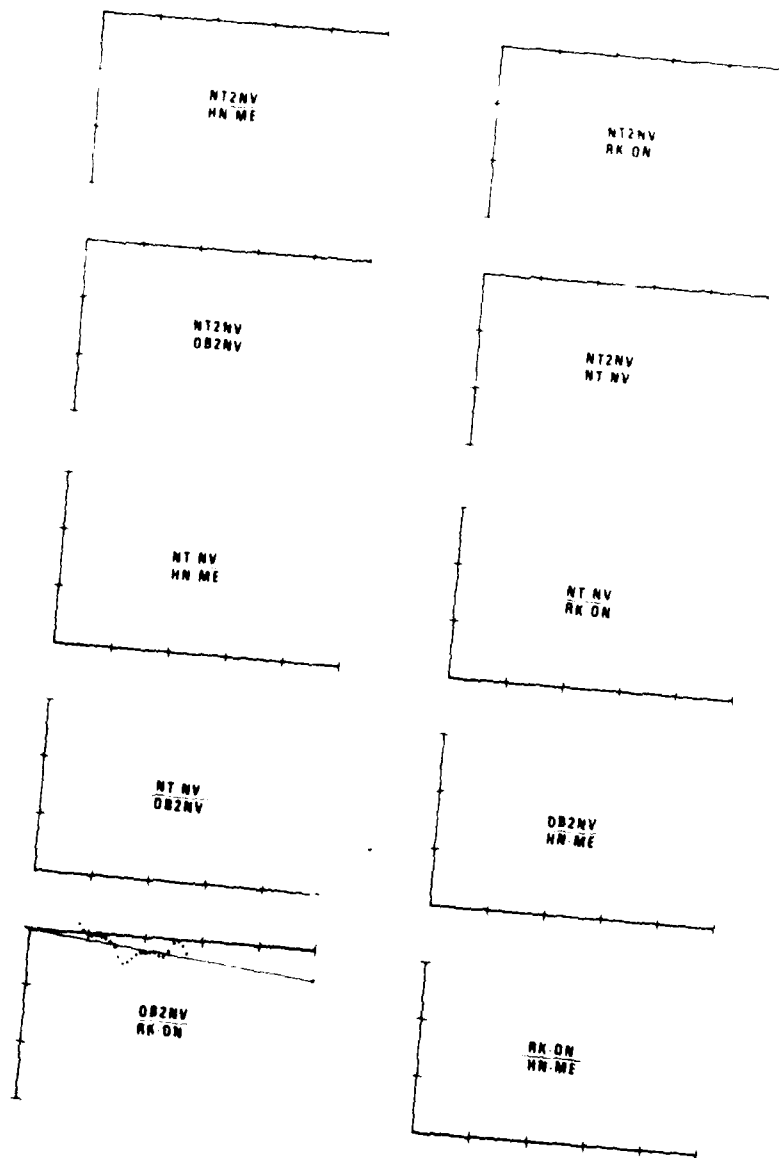
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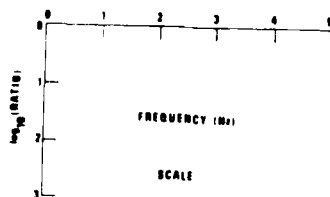
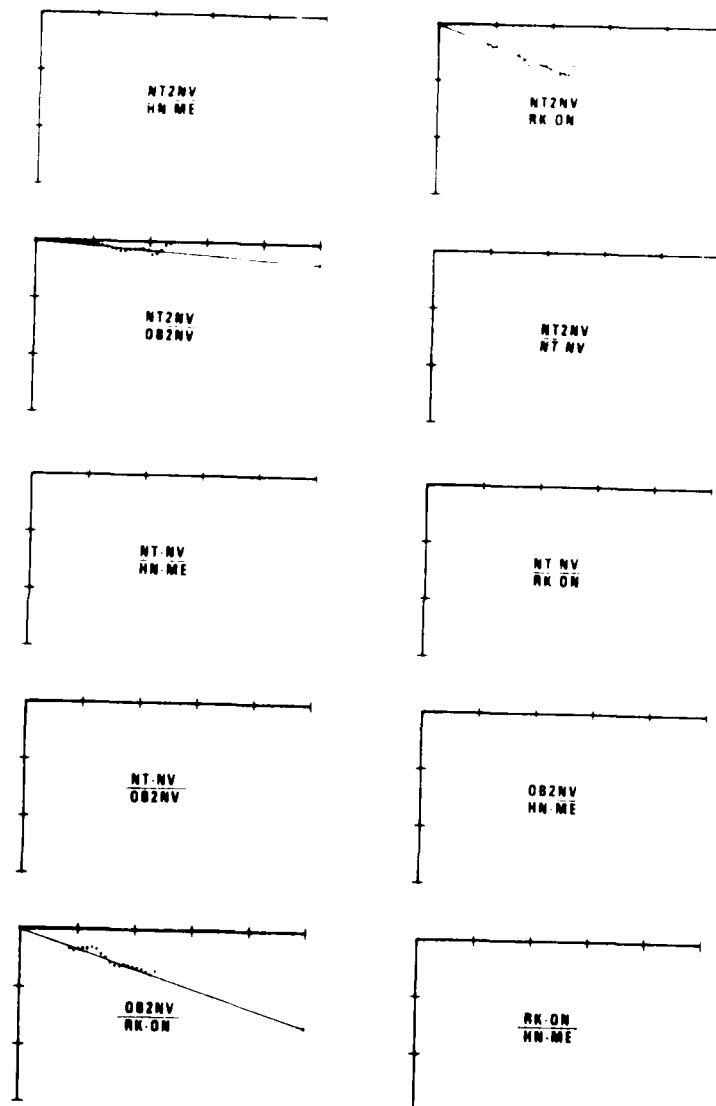
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16 2 26 9
N COLUMBIA
#30



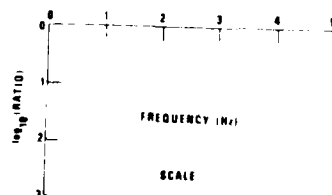
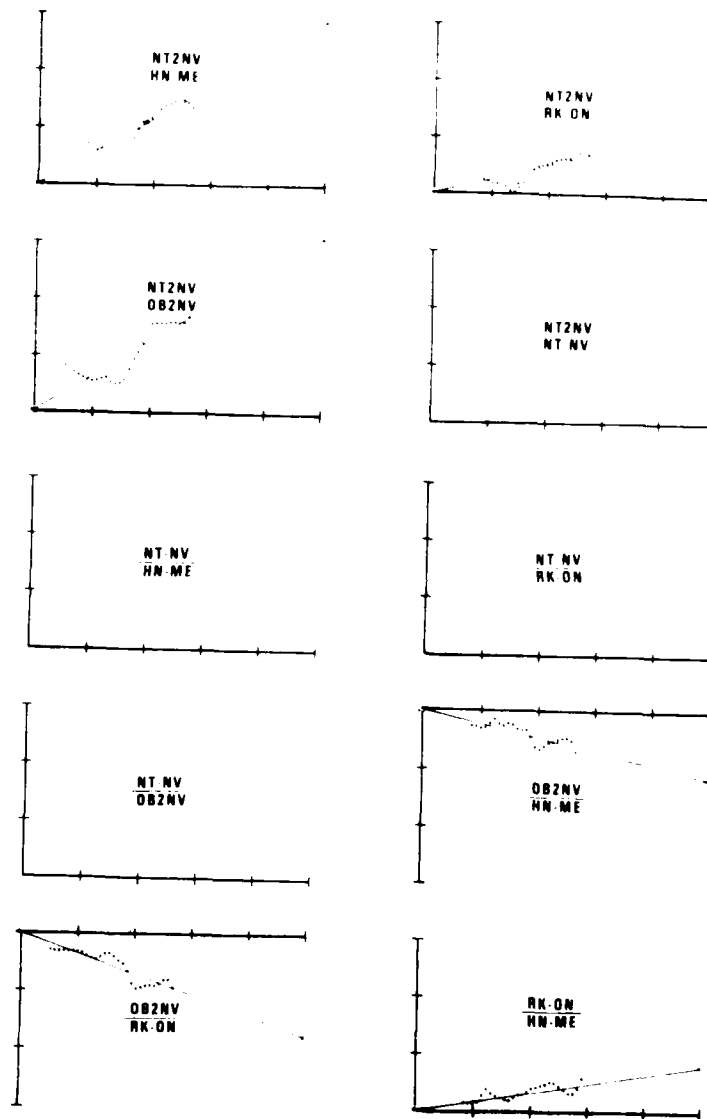
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2110 24.1
PERU
#32



9 OCT 78
23 48 00
C AMERICA COAST
#33



10 OCT 76
2 58 58 6
KURILES
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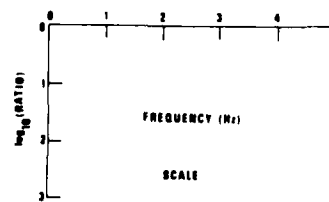
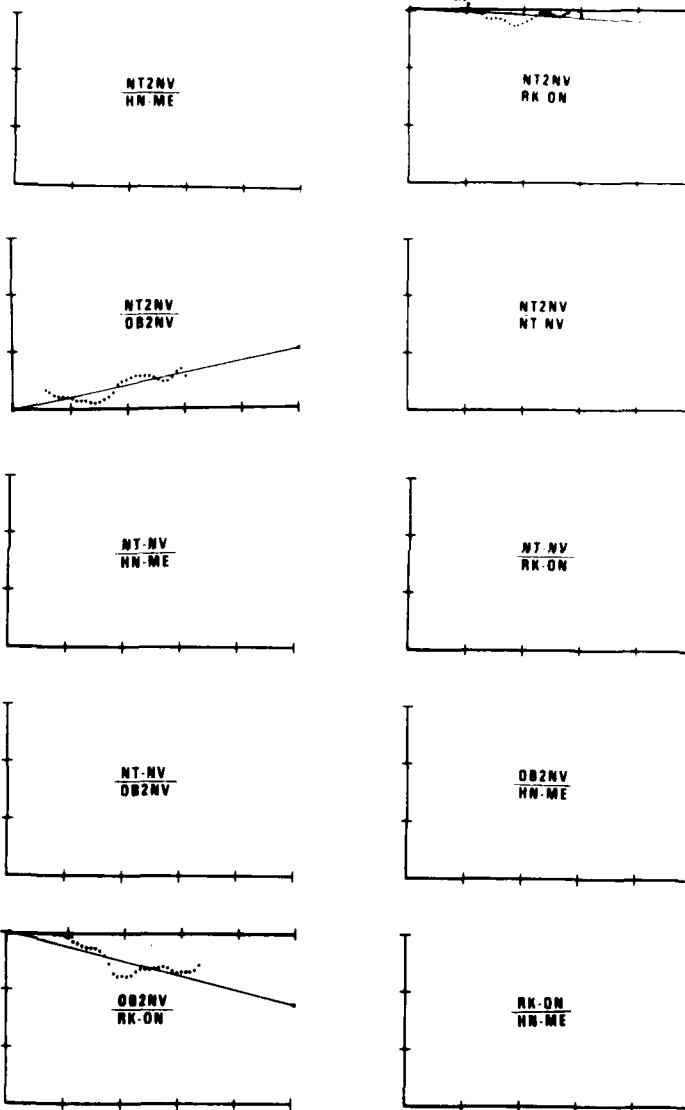


18 OCT 78

14 32 4 8

KURILES

#36

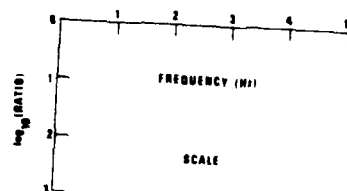
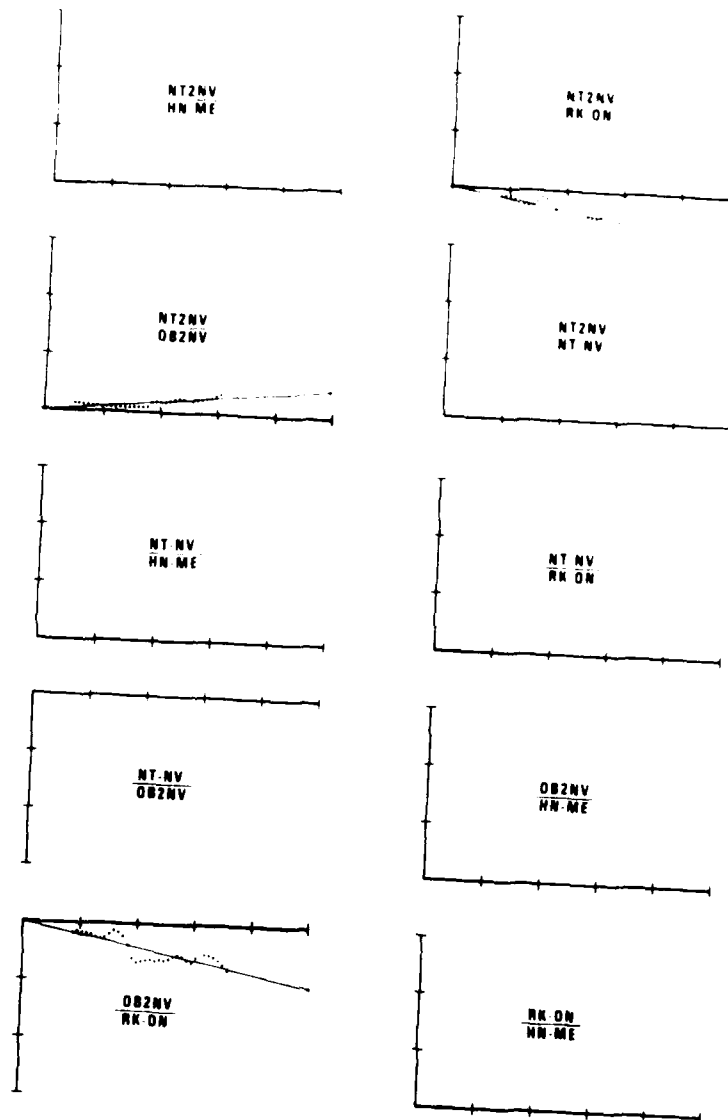


12 OCT 78

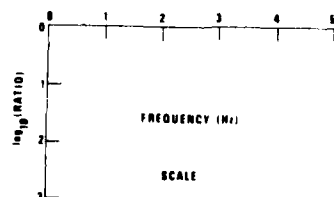
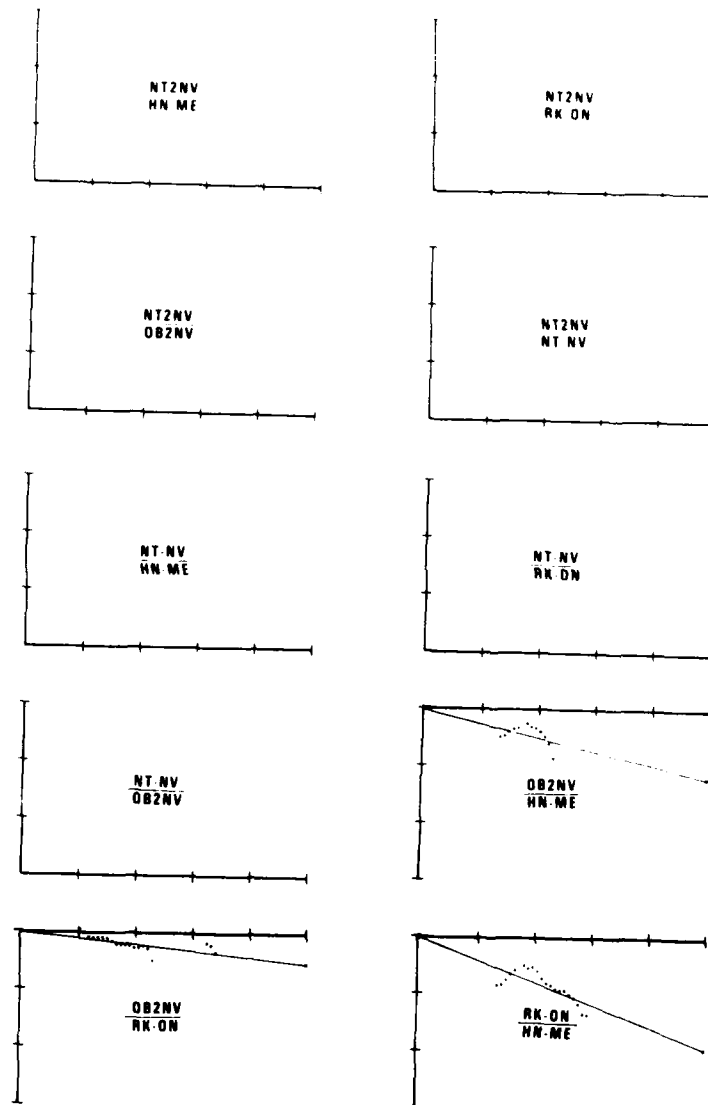
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JAPAN

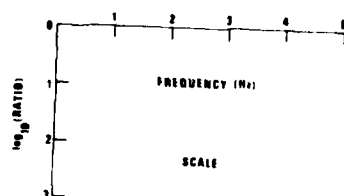
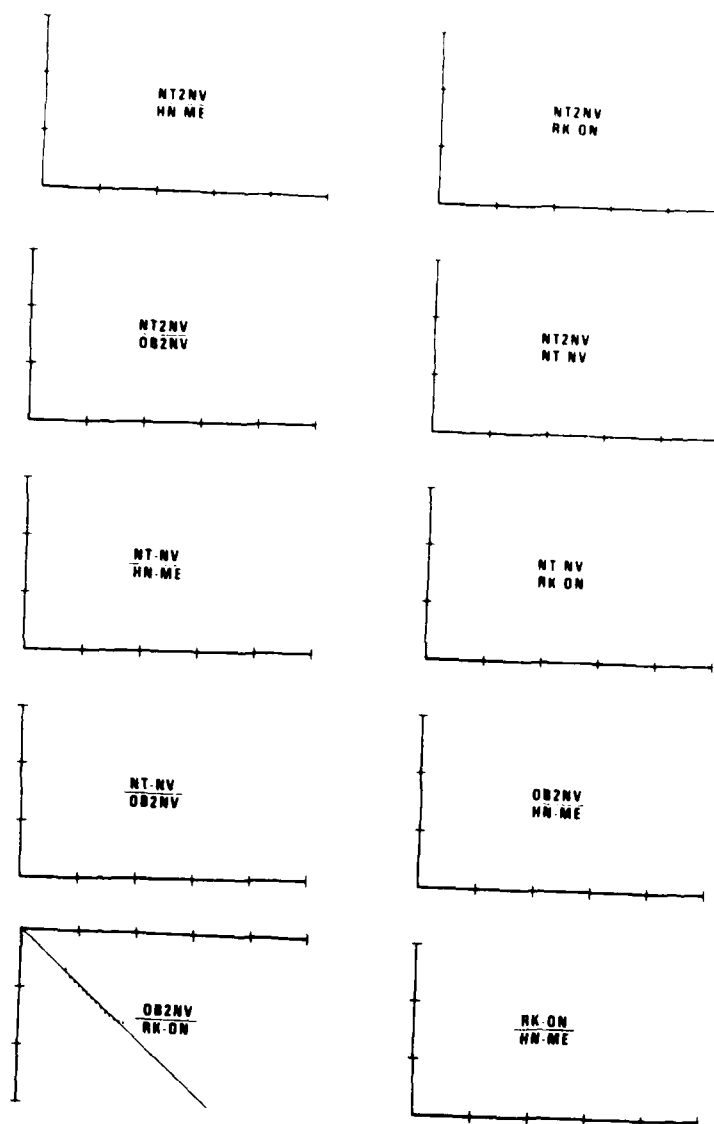
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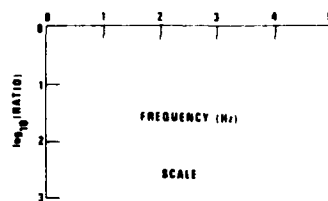
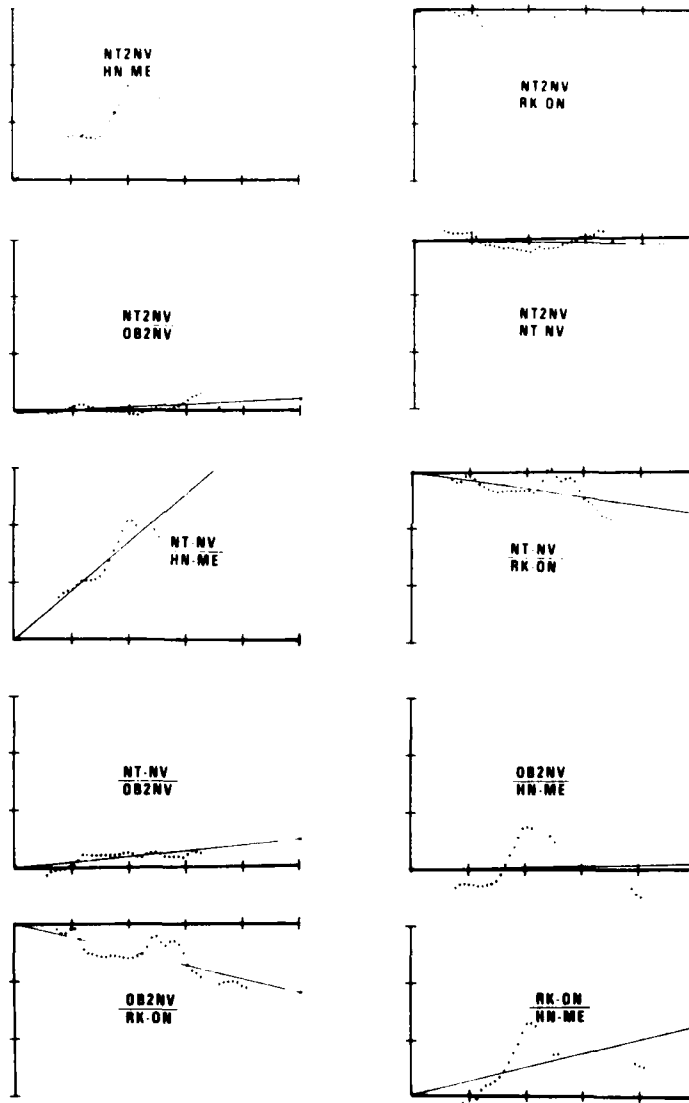
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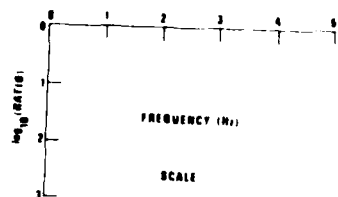
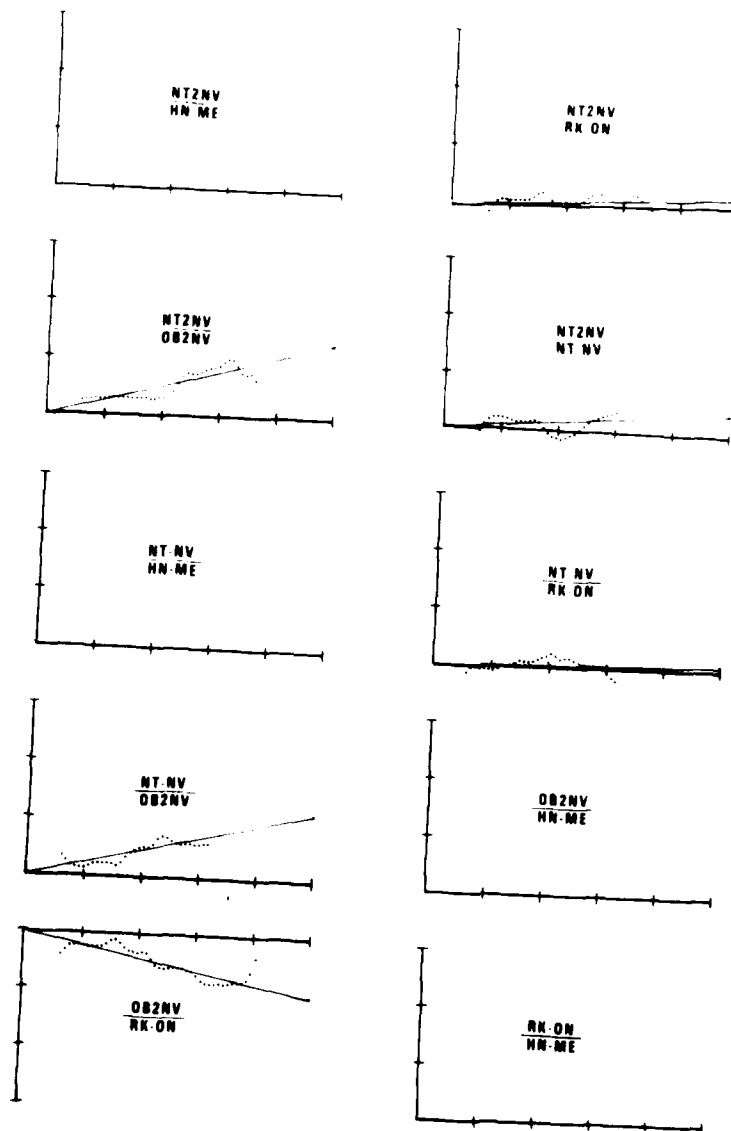
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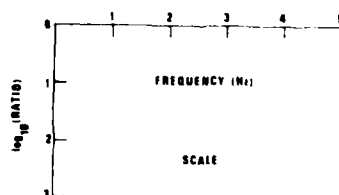
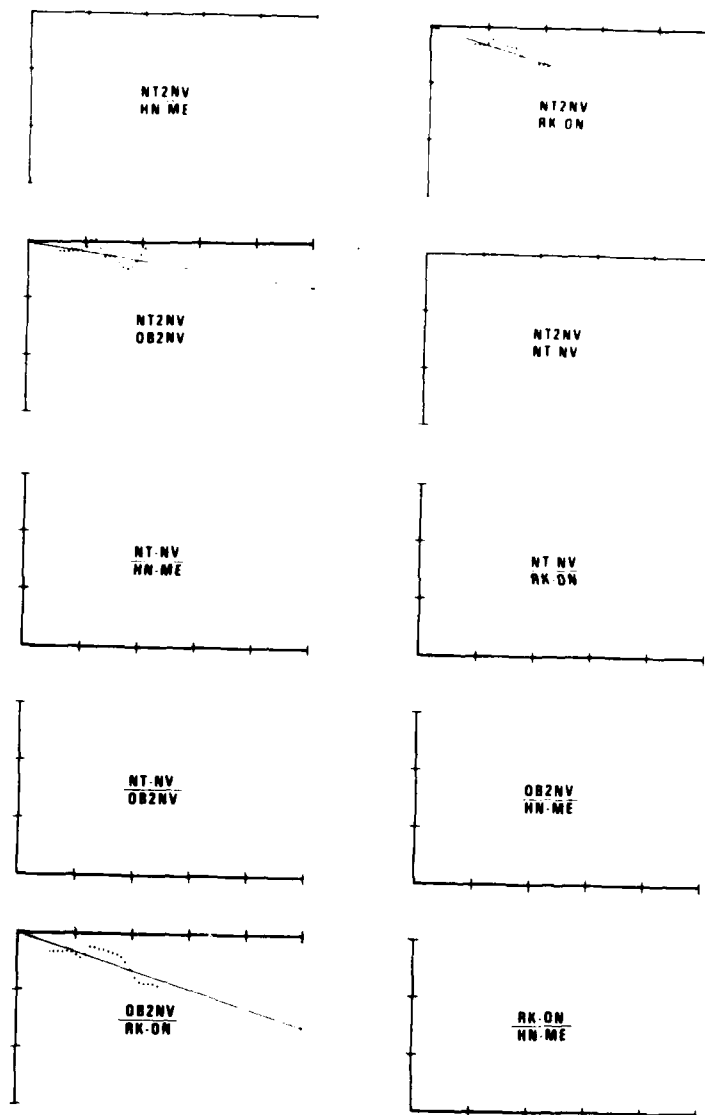
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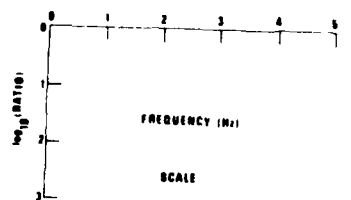
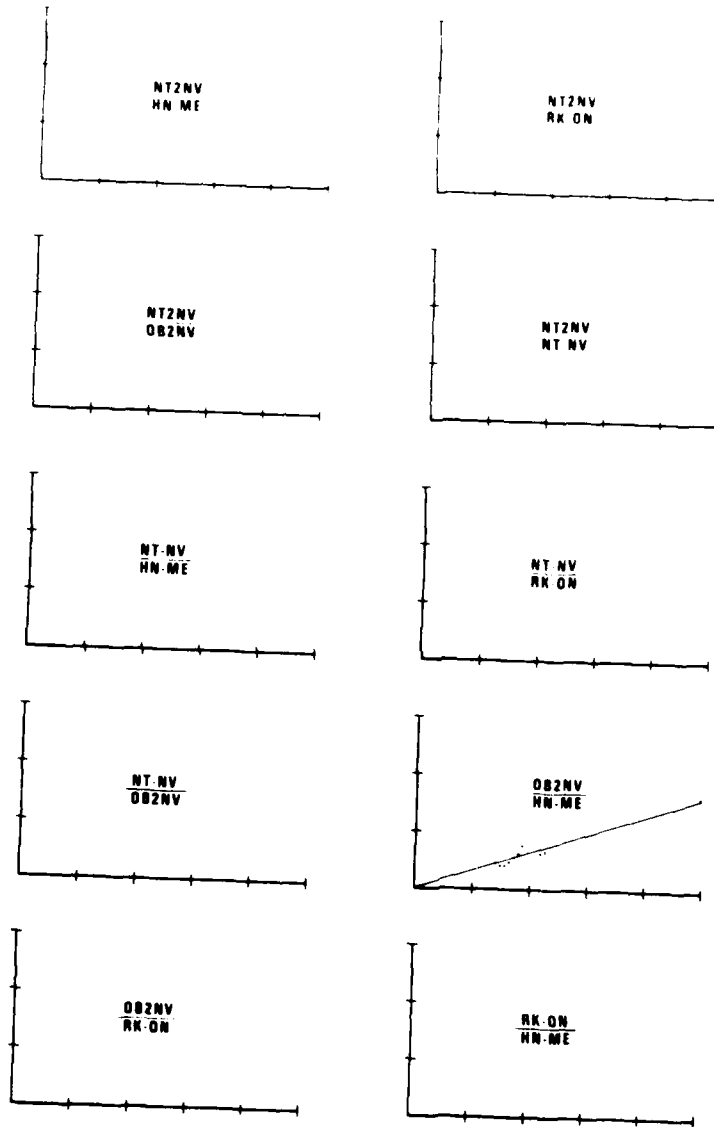
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 #44



22 OCT 76
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KODIAK REGION
#45



24 OCT 76
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ALASKA
#46

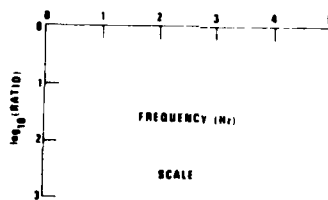
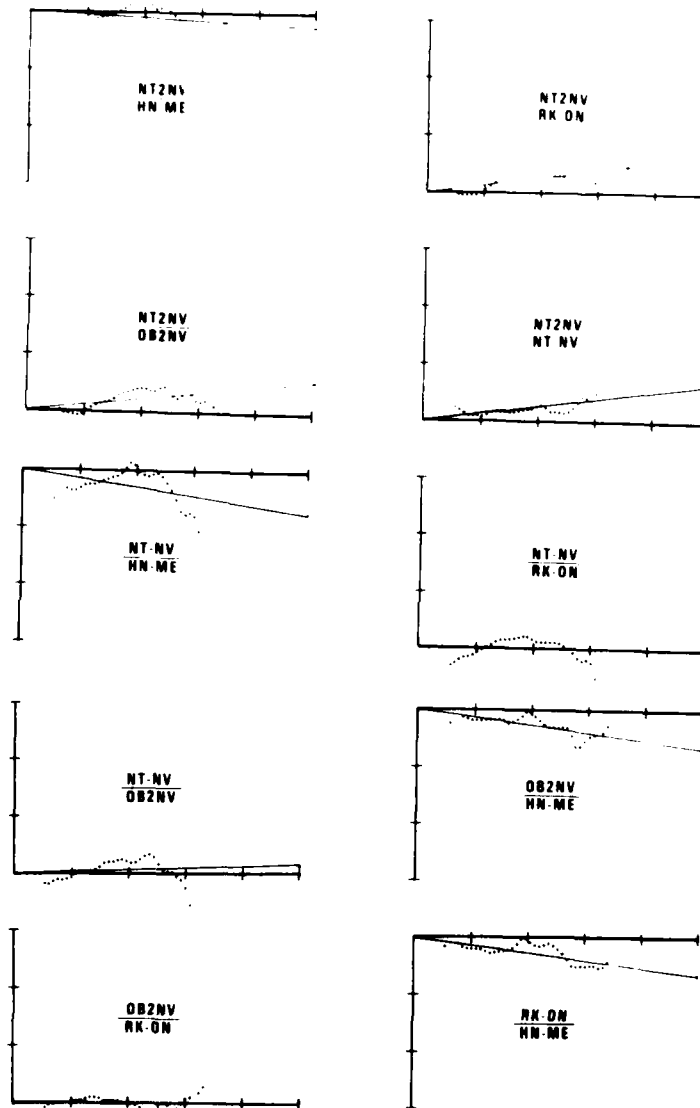


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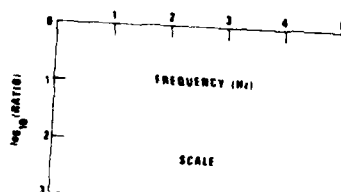
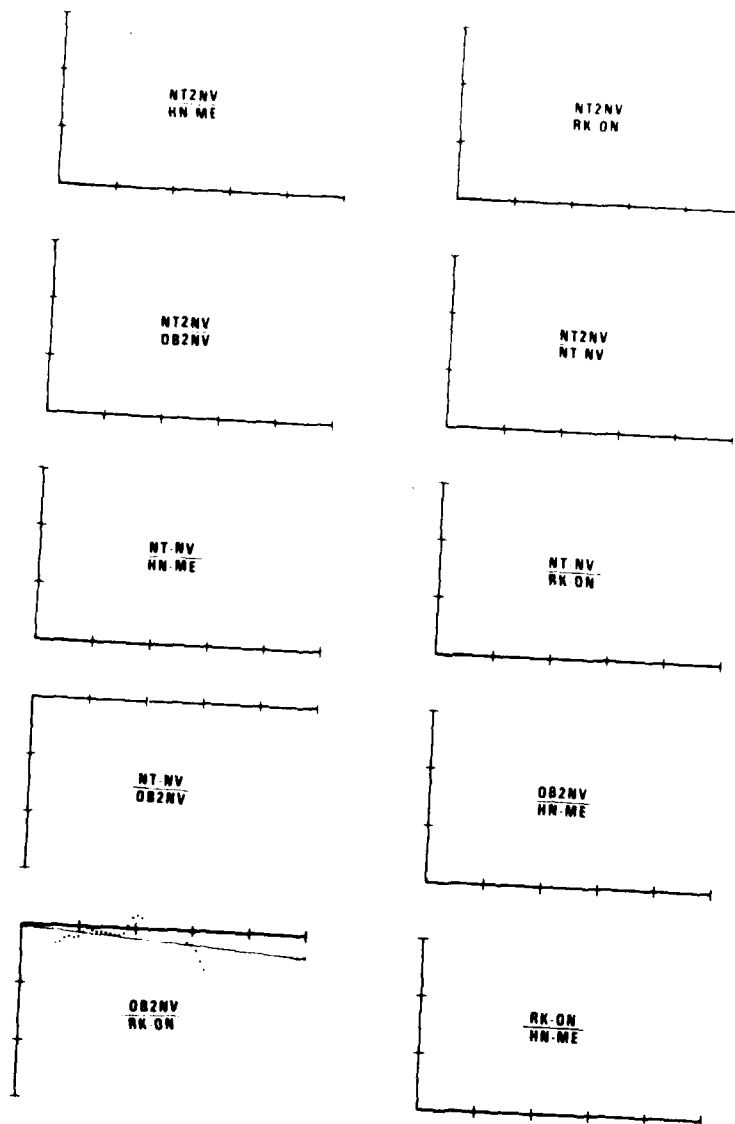
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KURILES

#47



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 PERU
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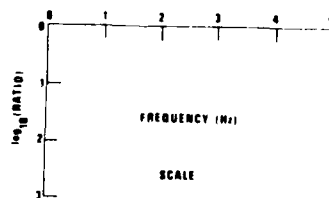
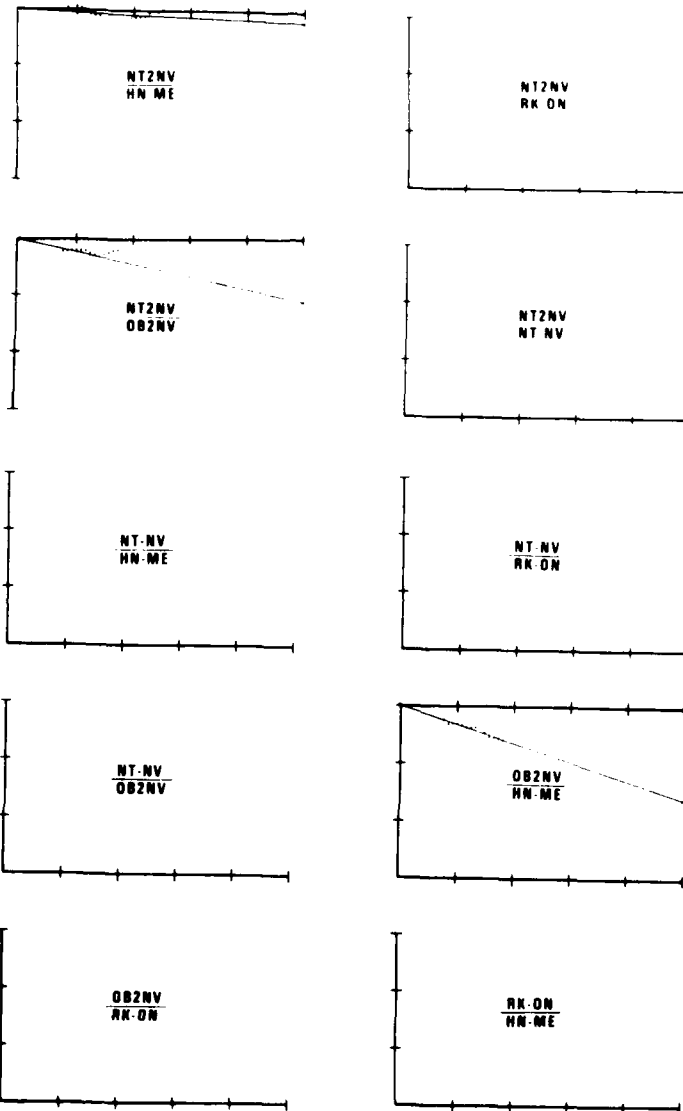


2 NOV 76

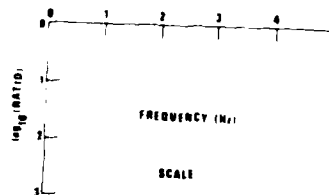
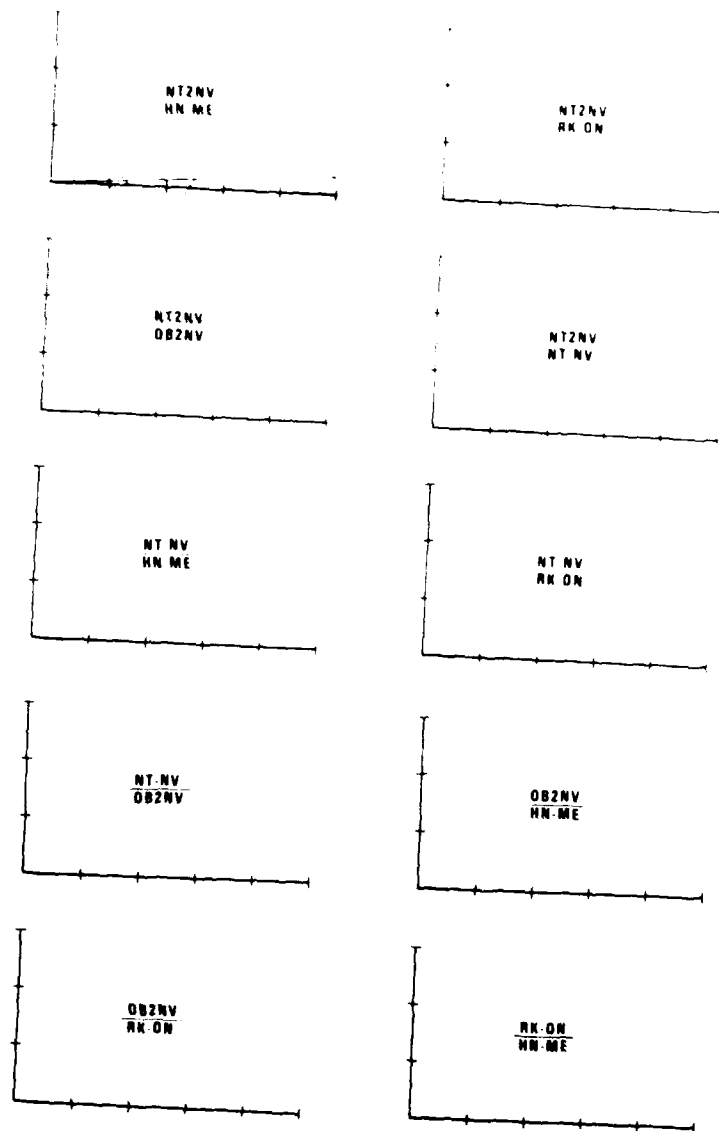
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KURILES

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15 NOV 78
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KURILES
451

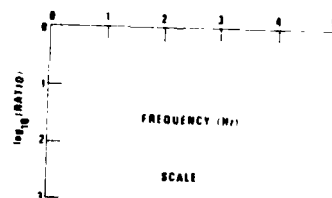
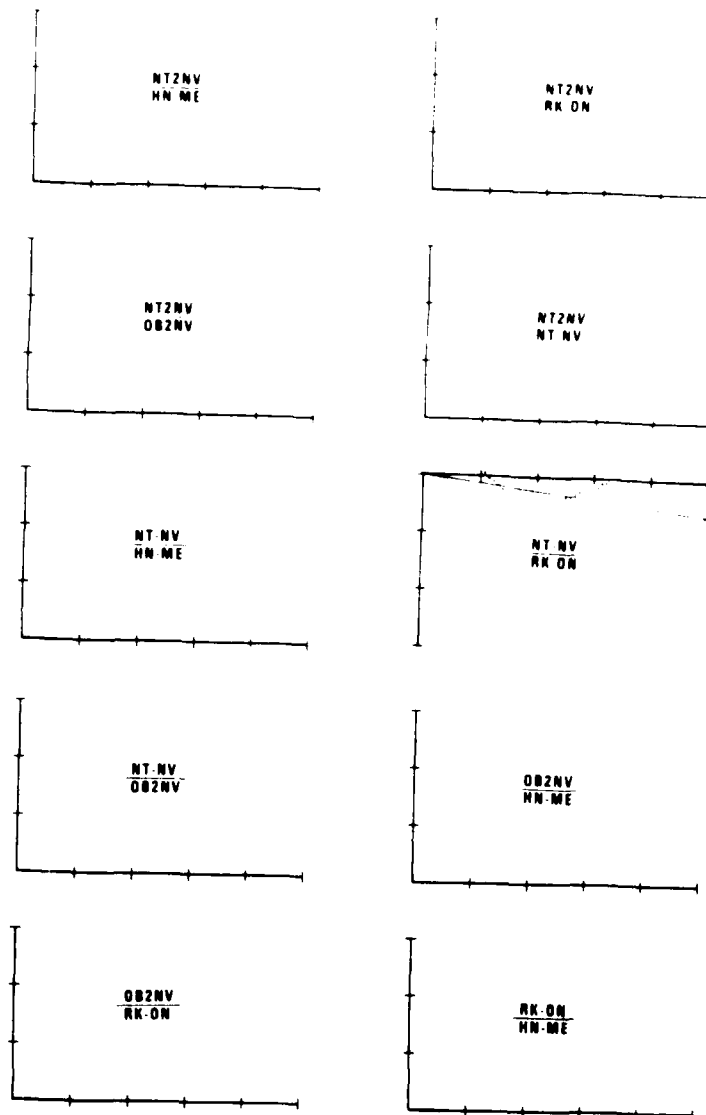


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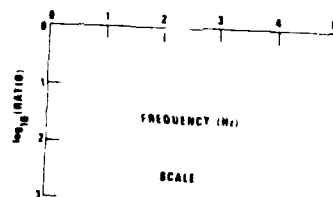
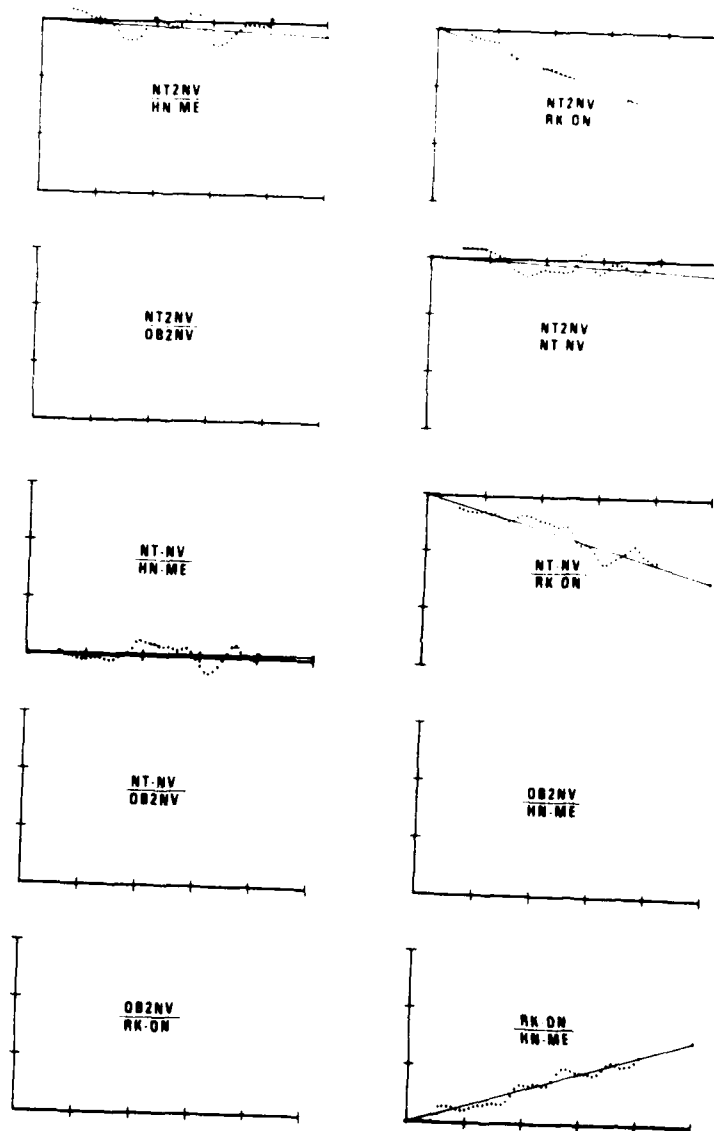
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VENEZUELA

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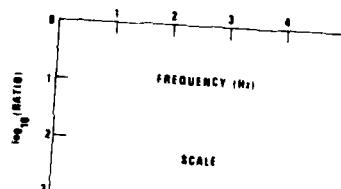
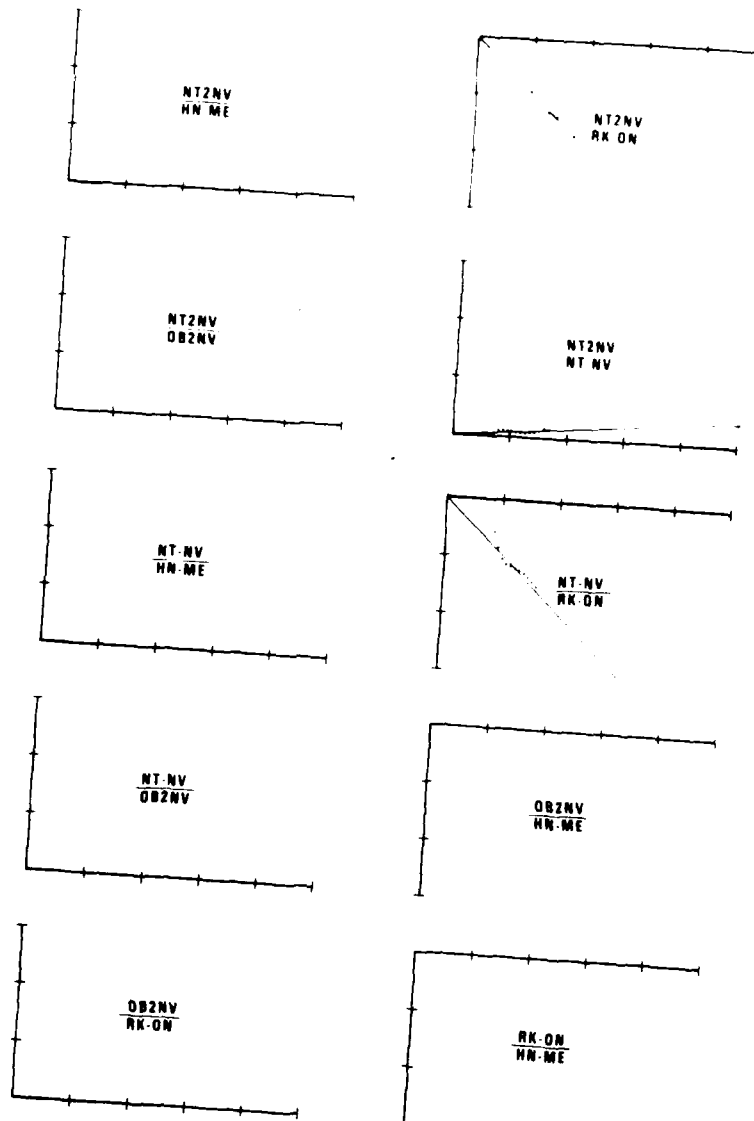


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 #27



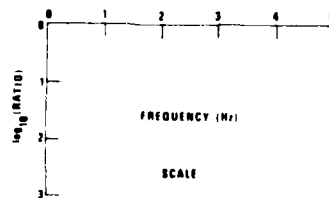
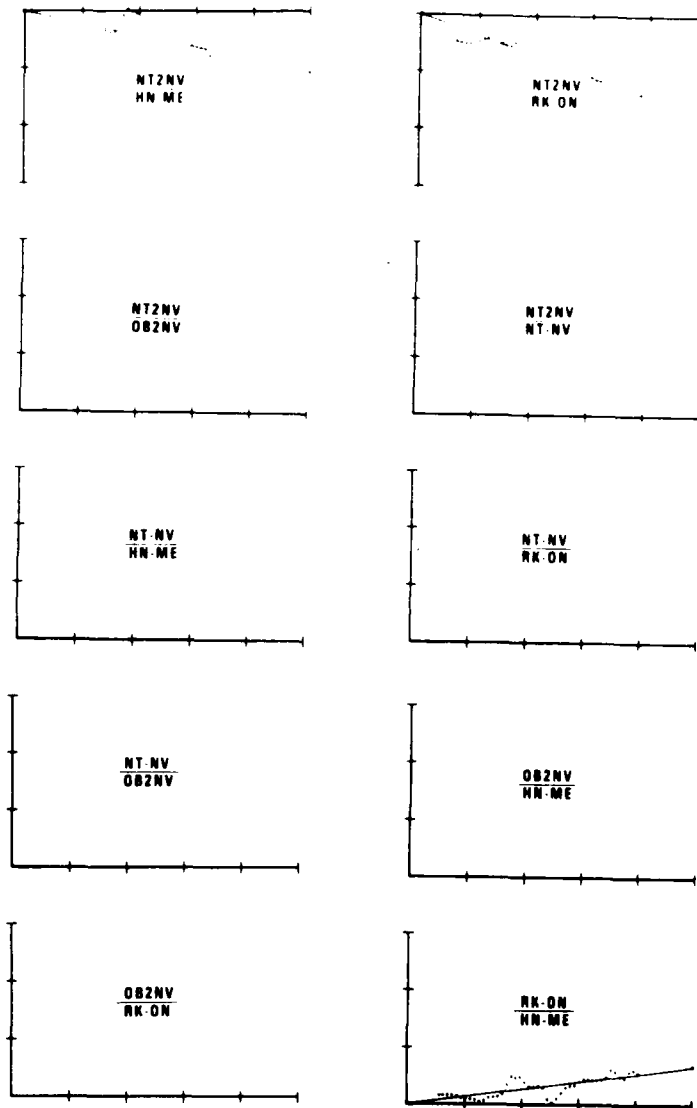
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PERU ECUADOR BDR

#54

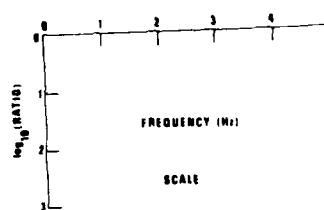
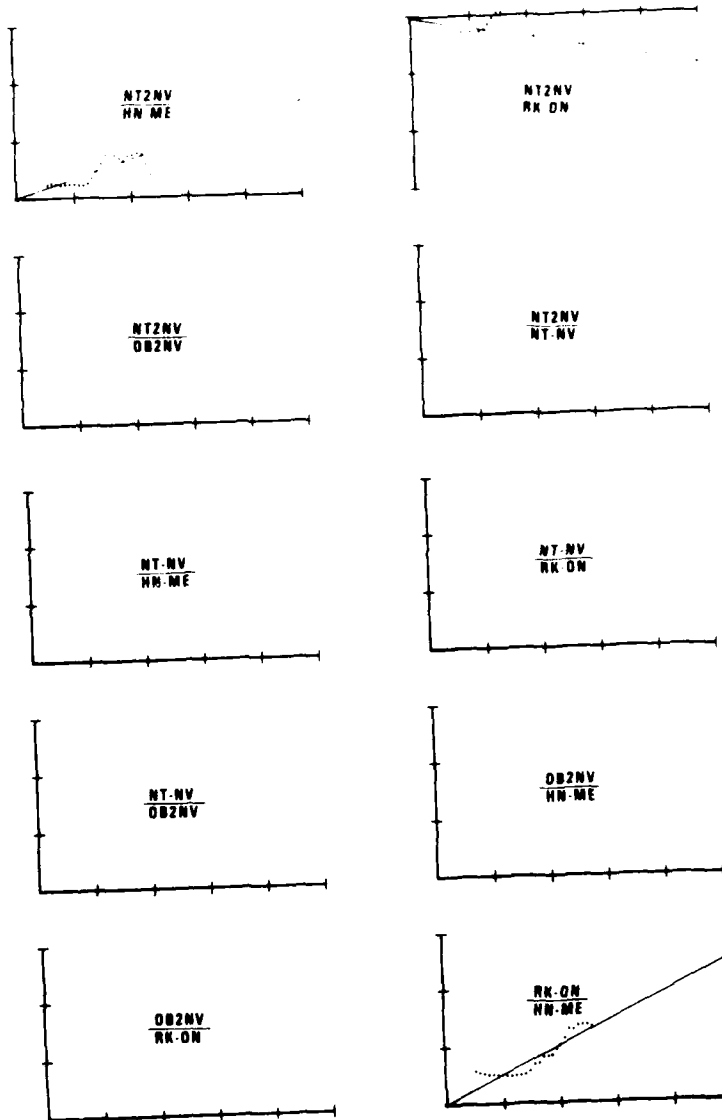


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CHILE BOLIVIA

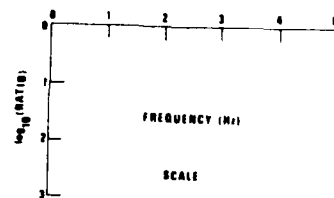
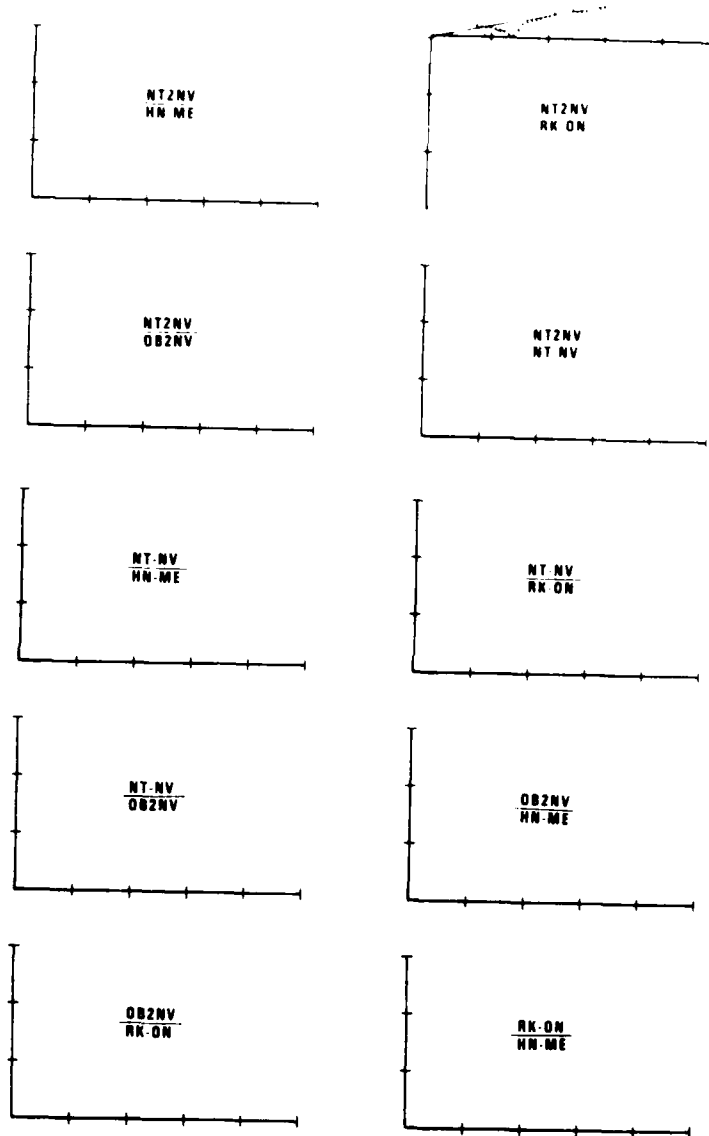
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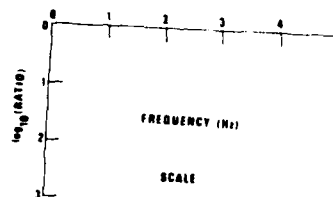
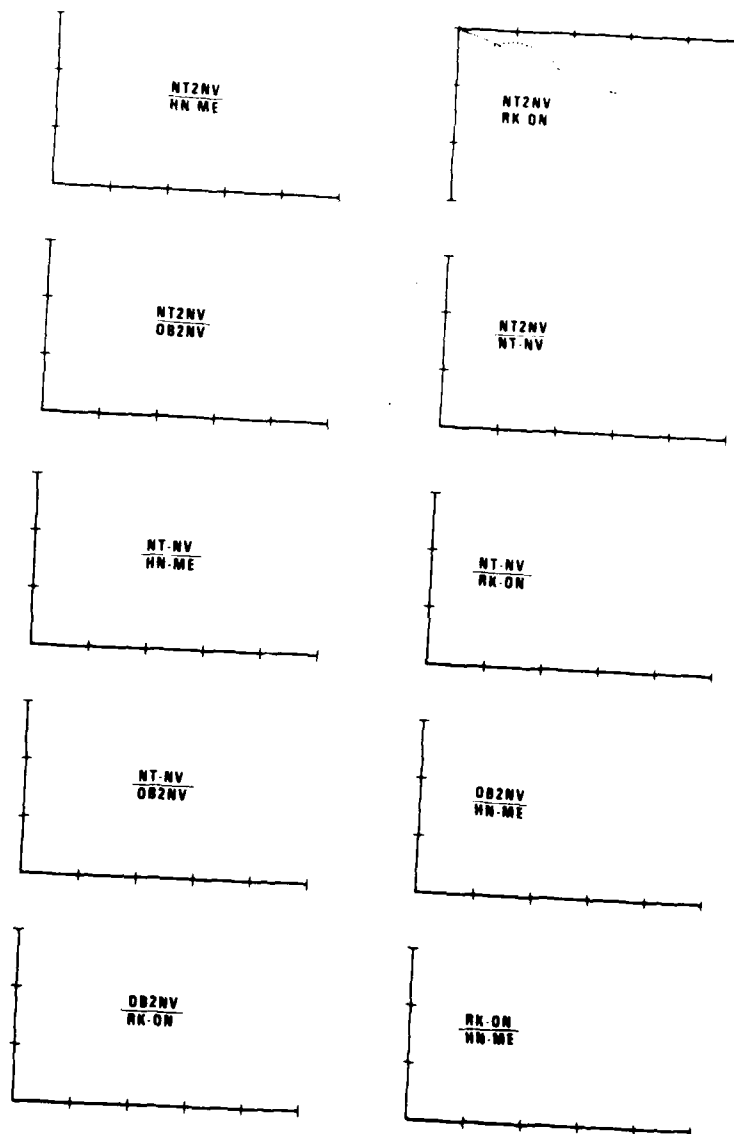
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COSTA RICA
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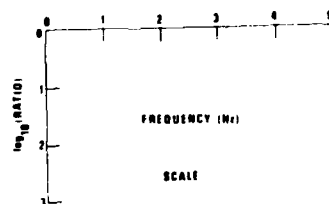
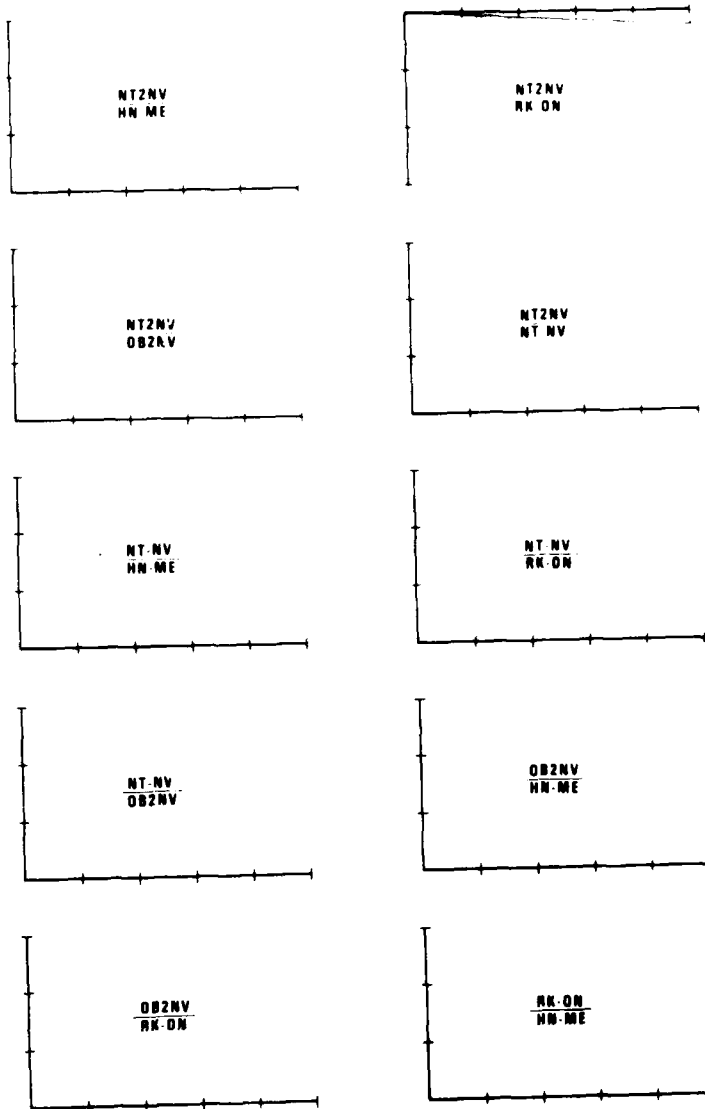
1 DEC 78
17 44 33 0
C AMERICAN COAST
#56



3 DEC 78
 5 27 37 4
 CHILE BOLIVIA BDR
 #57

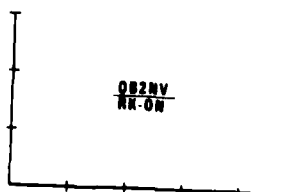
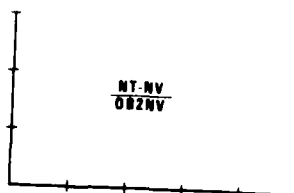
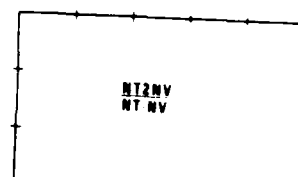


3 DEC 76
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N CHILE
#58

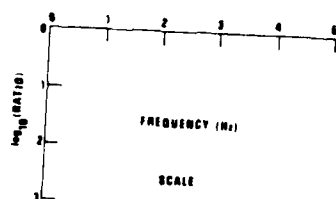
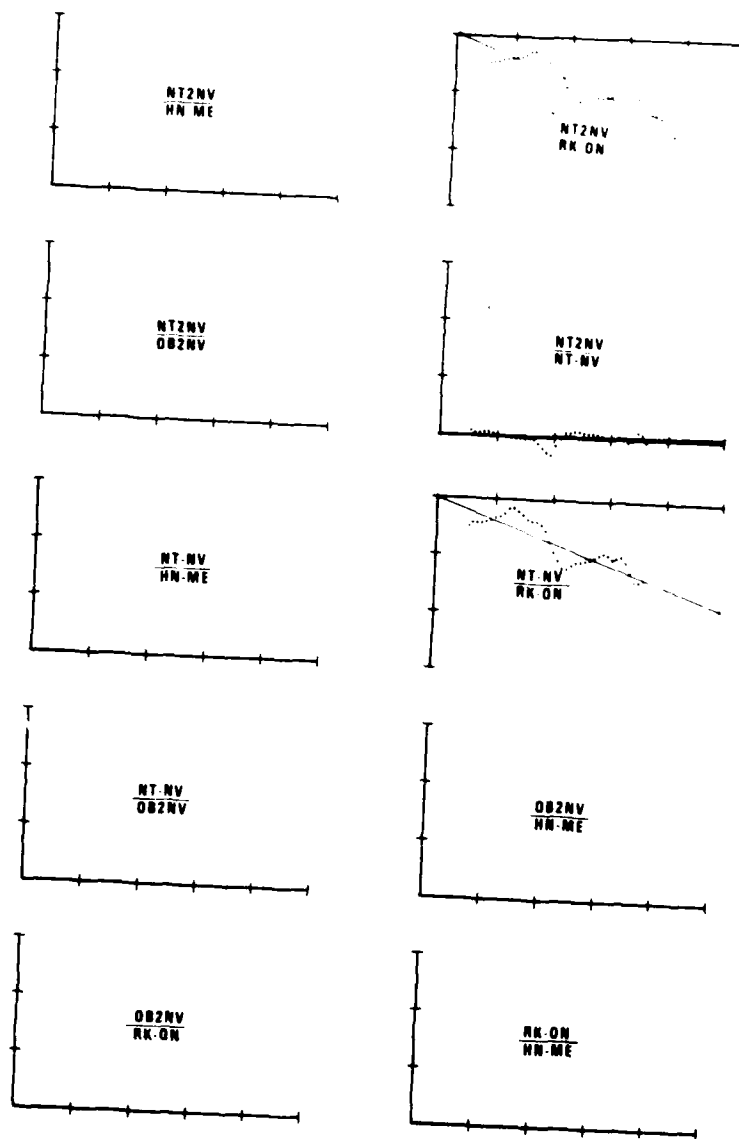


D-33

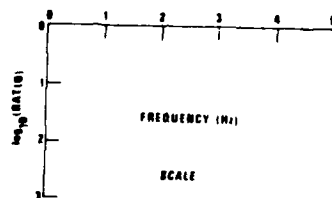
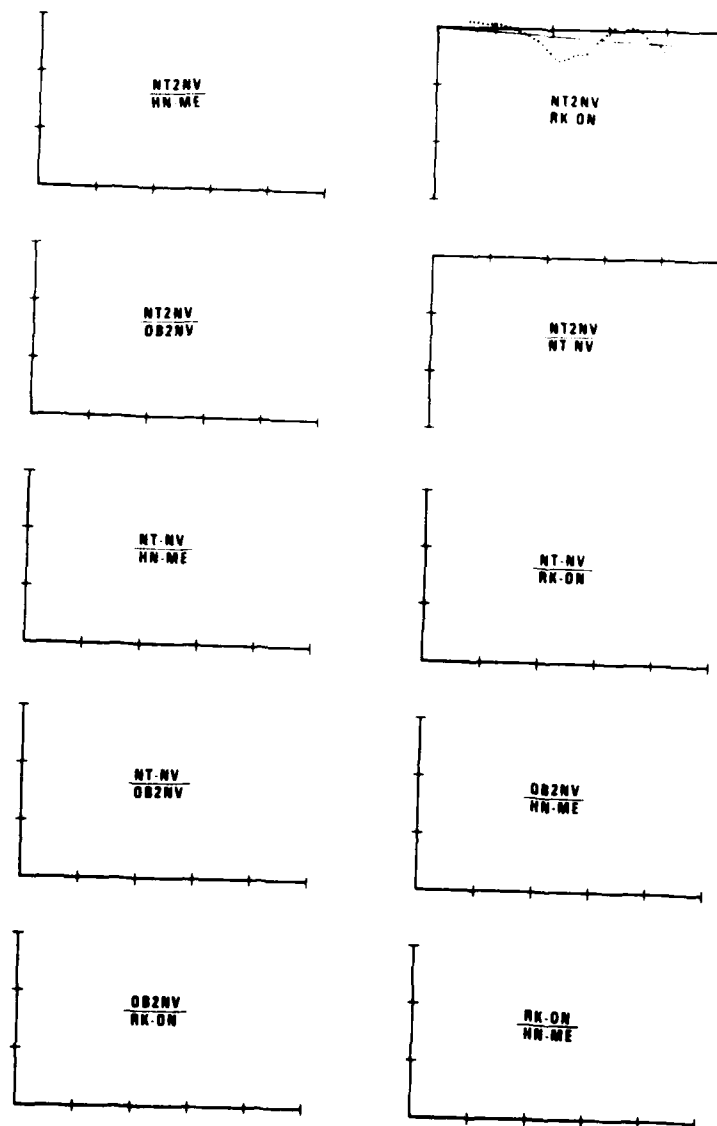
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50207
N CHILE
#60



4 DEC 78
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N CHILE
#61

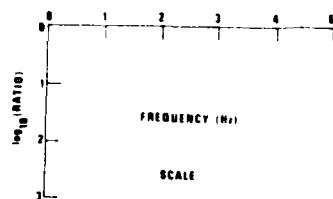
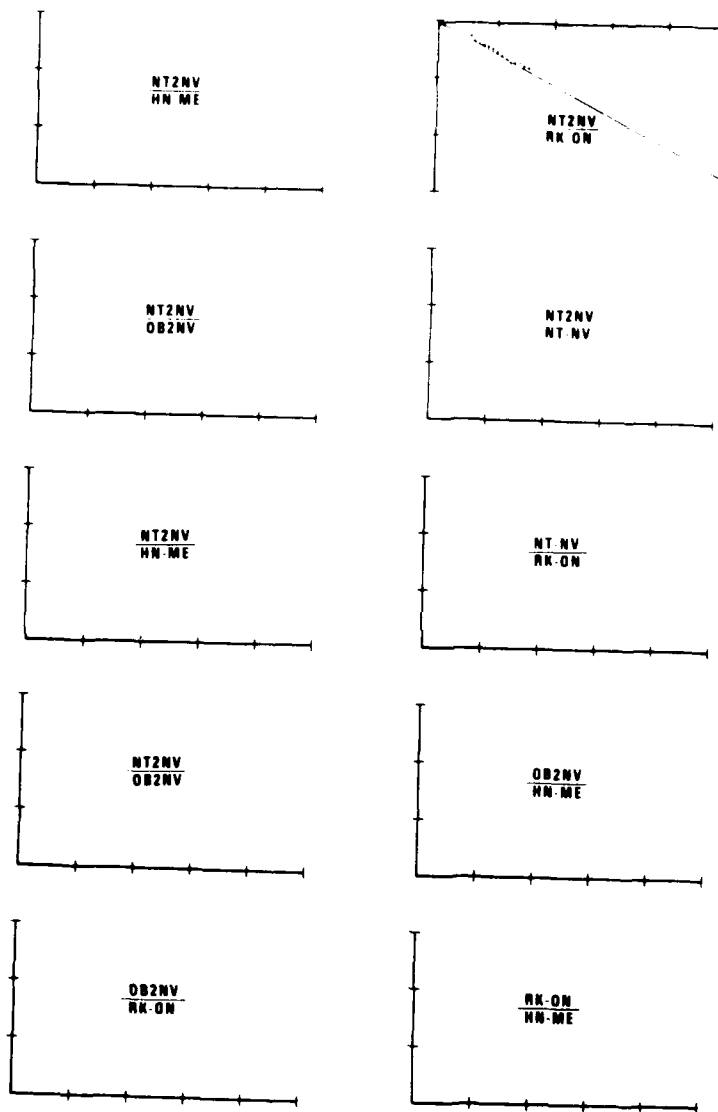


6 DEC 78
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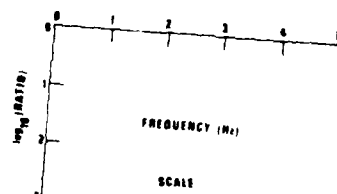
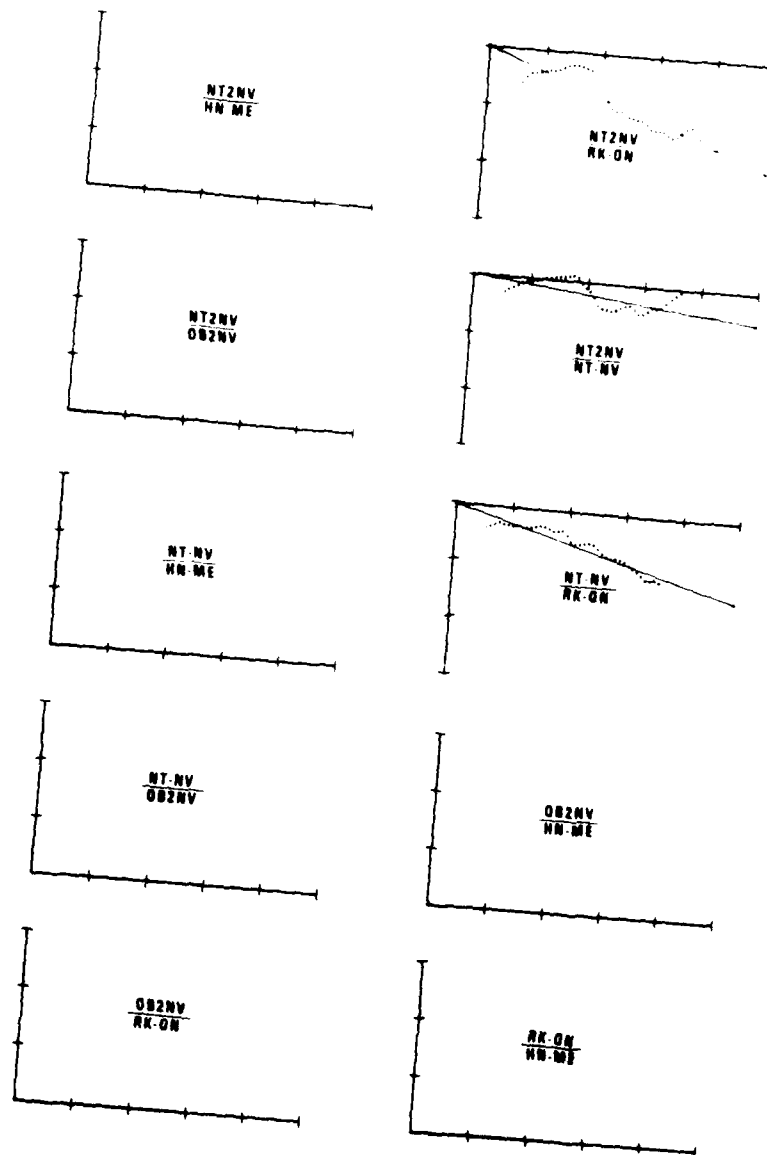


6 DEC 76
19 46 2 4
EASTER ISLAND

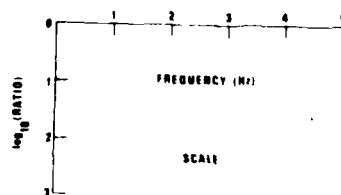
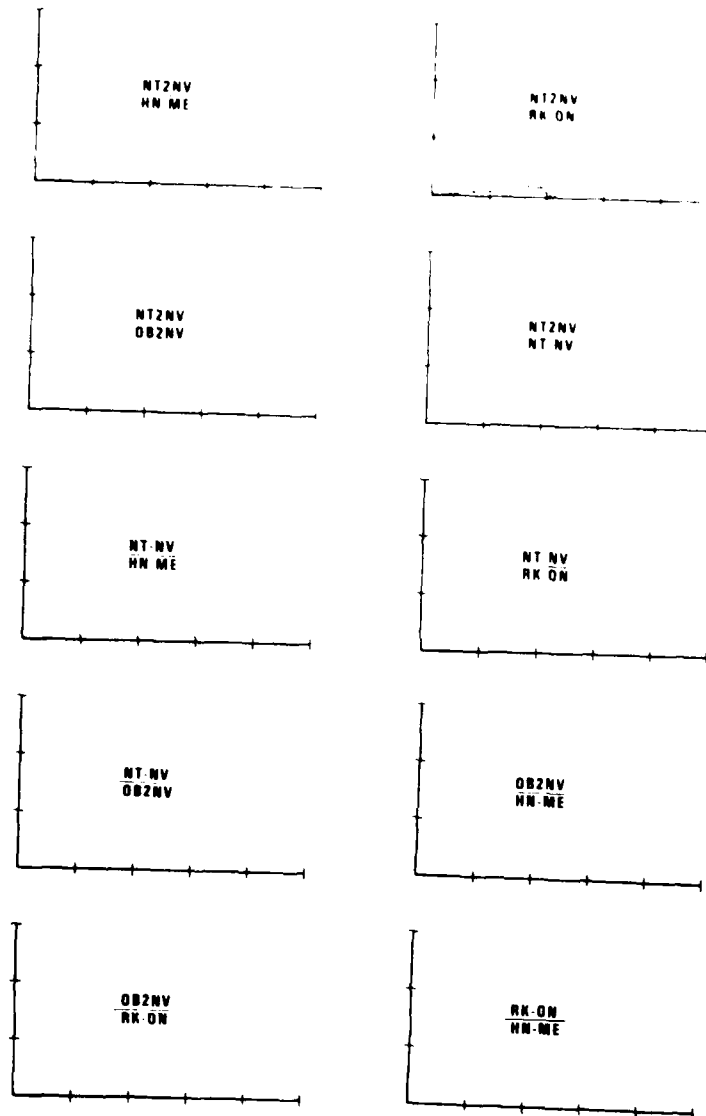
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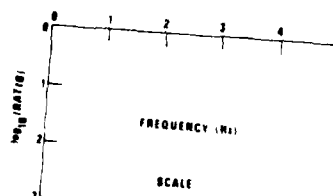
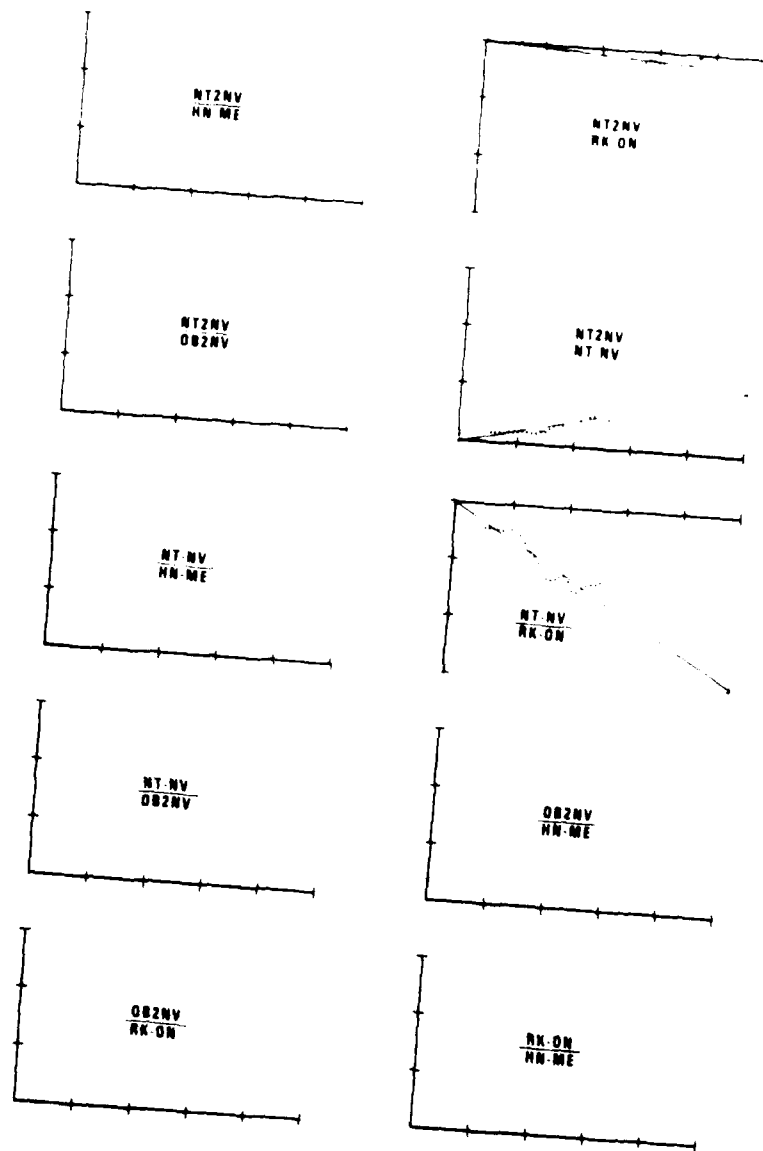
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13 DEC 76
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 N PACIFIC
 #75

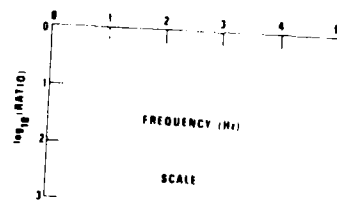
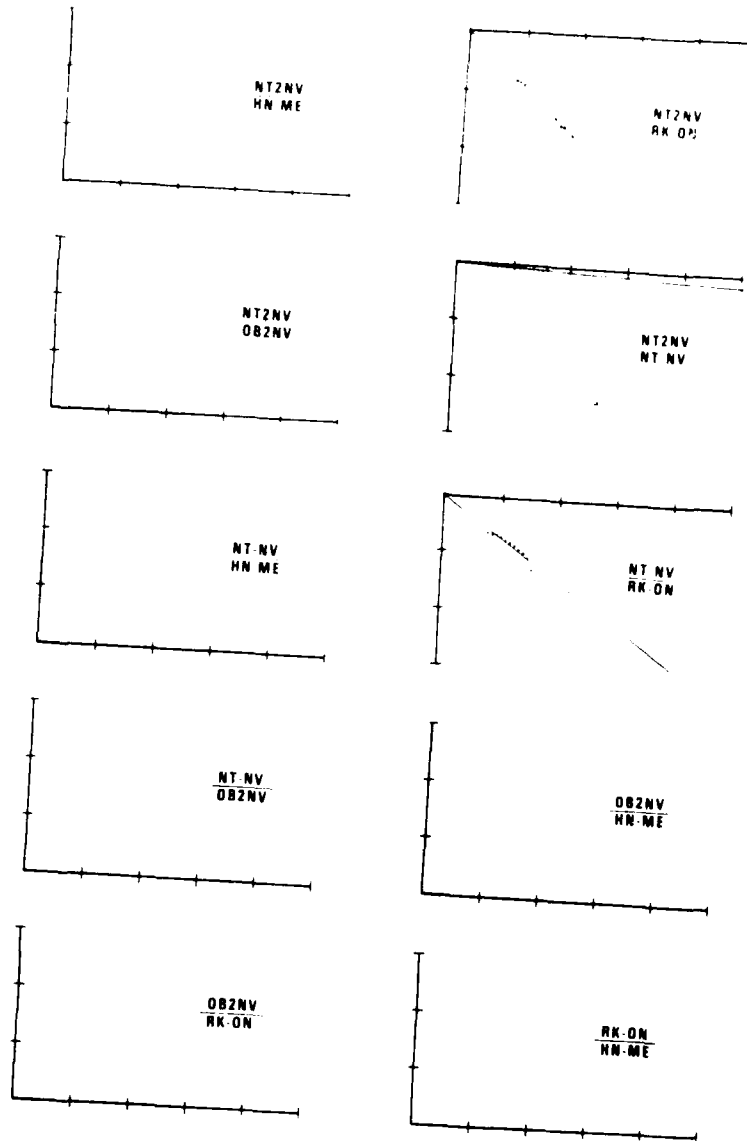


14 DEC 78
 10 6 58 0
 JAPAN
 #70



15 DEC 76
12 26 40
JAPAN

#71

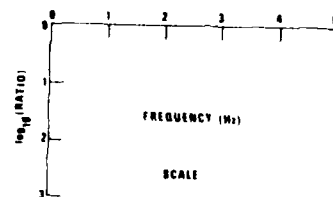
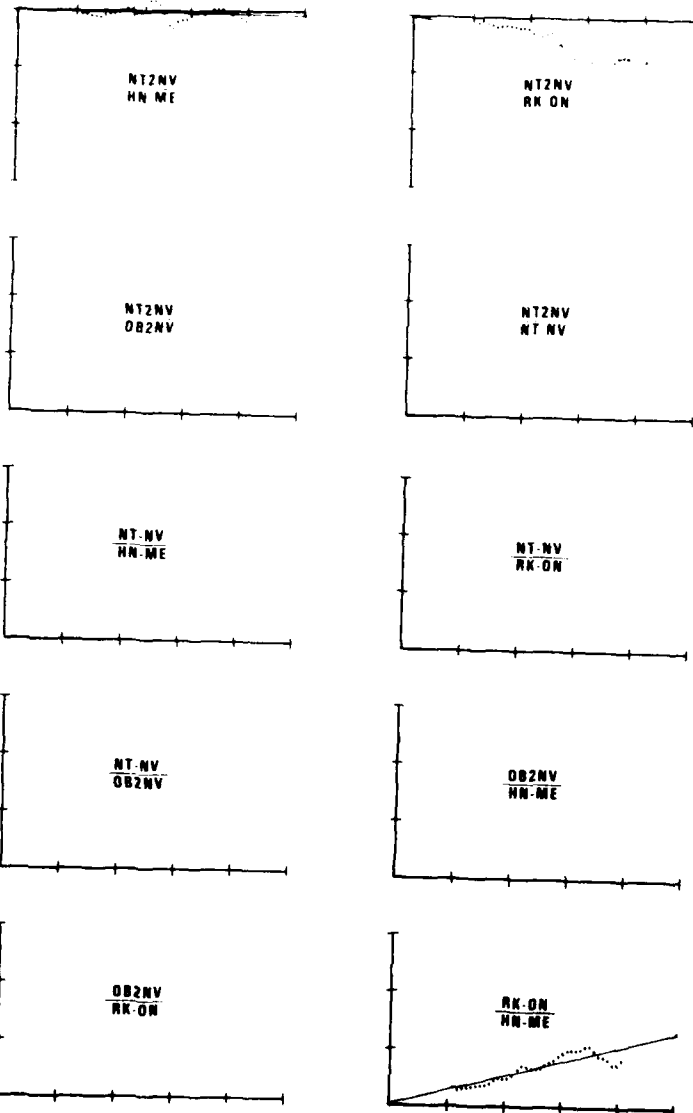


19 DEC 76

14 37 30 0

KURILES

#69



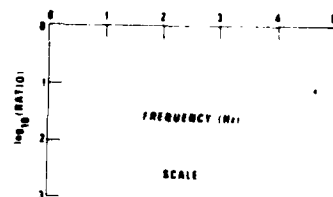
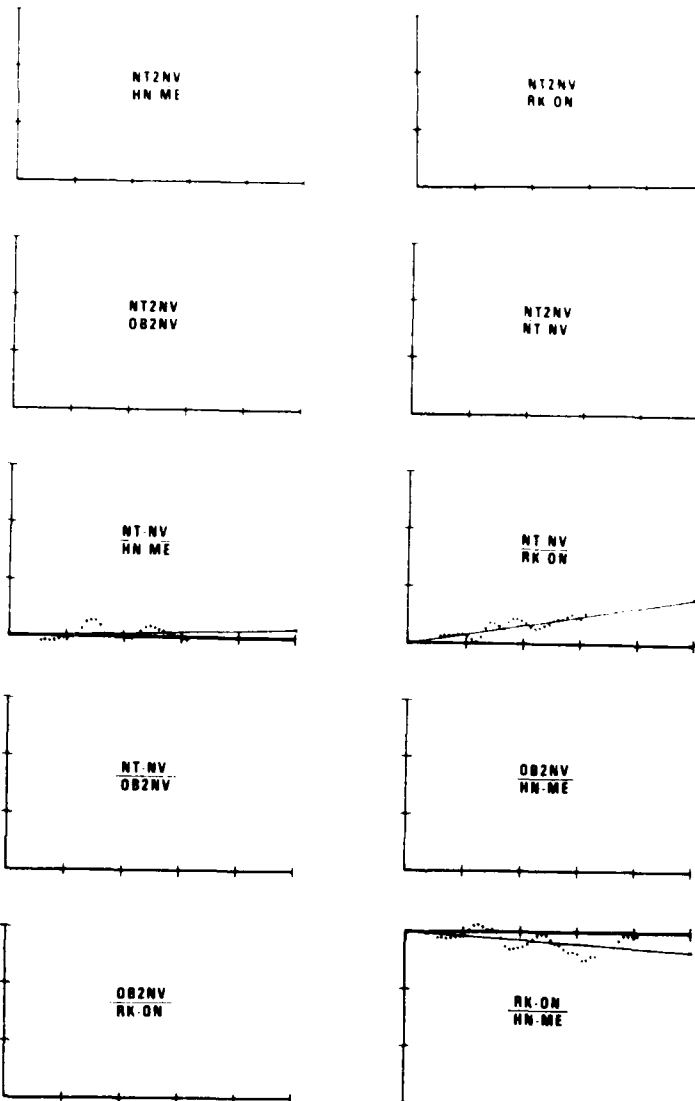
D-42

20 DEC 76

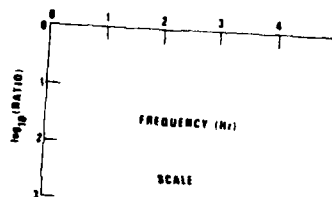
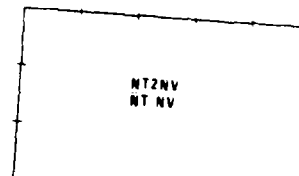
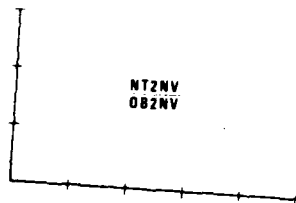
10 18 58 0

COLUMBIA

#7.

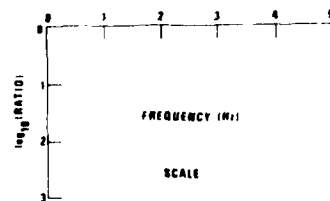
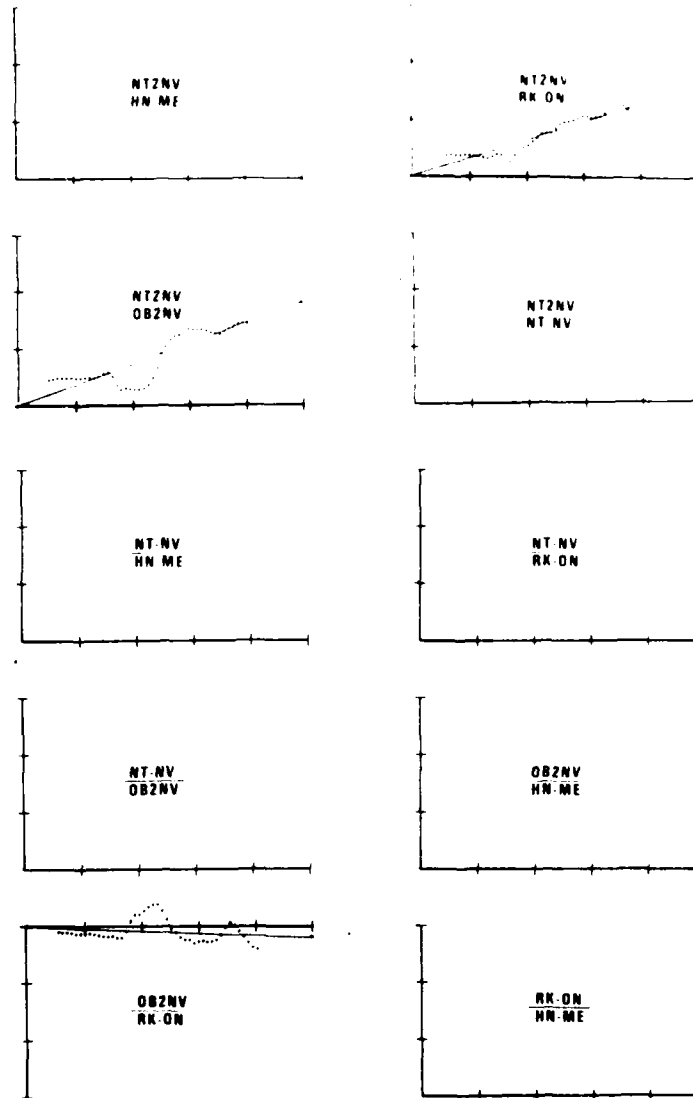


20 DEC 76
2122 25 0
BR COLUMBIA
#73



22 DEC 76
1142 0
VOLCANO ISLANDS

#74



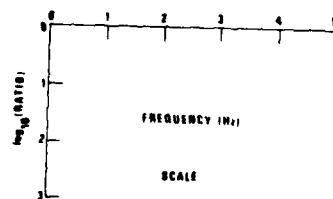
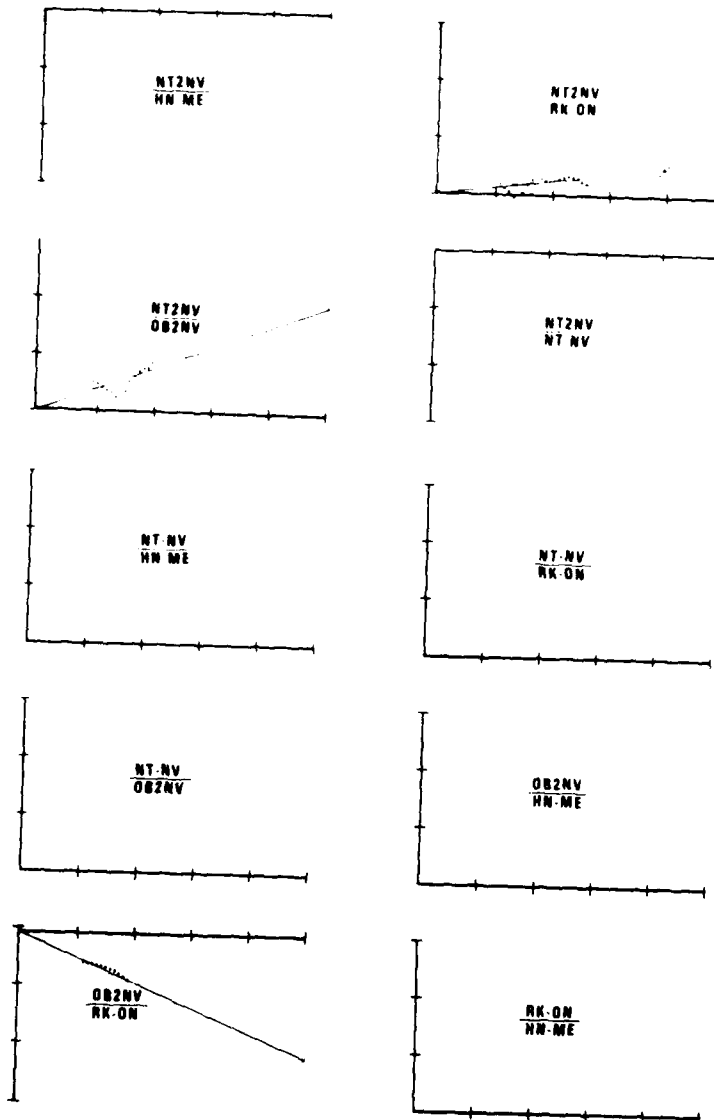
D-45

27 DEC 76

18 8 8 8

JAPAN

#77

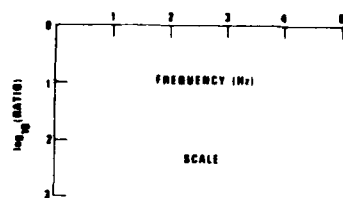
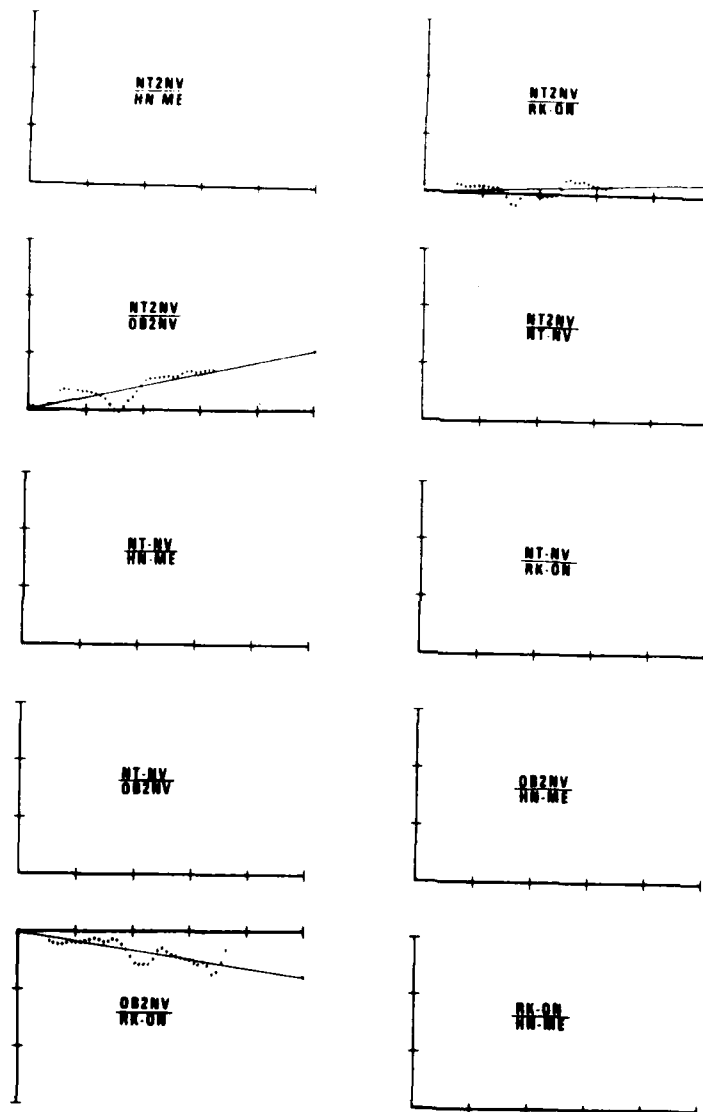


31 DEC 78

9 10 37 0

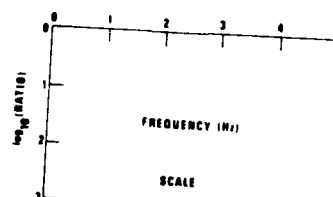
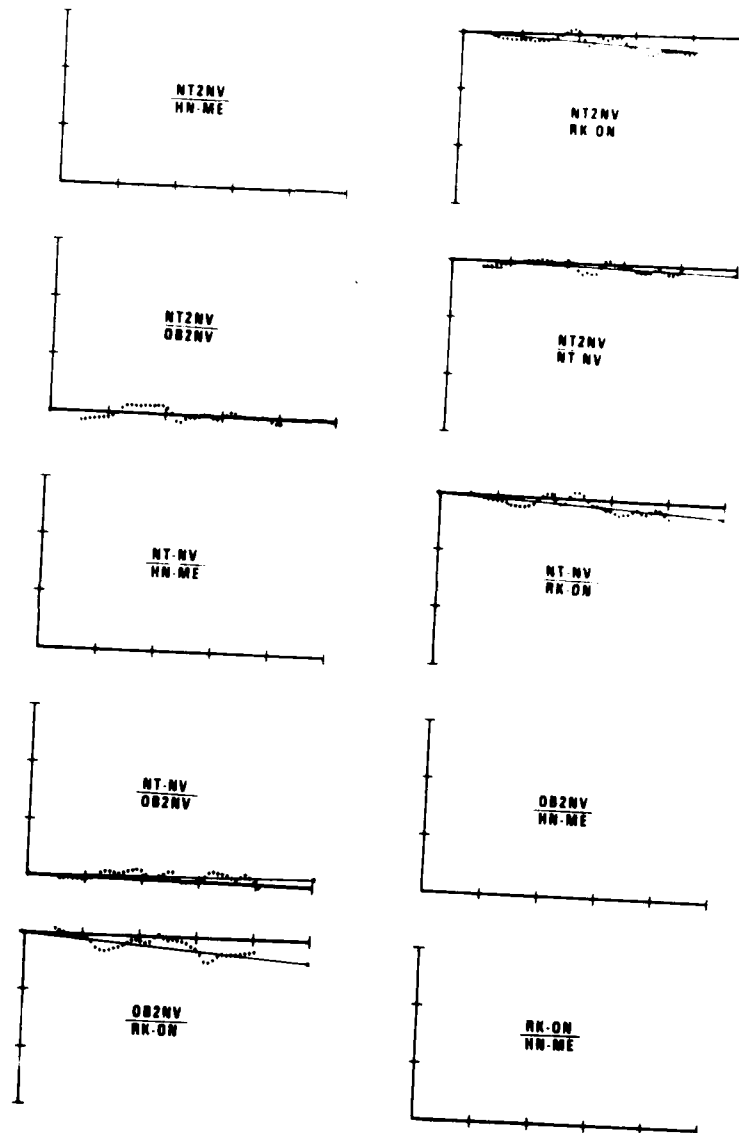
JAPAN

#79



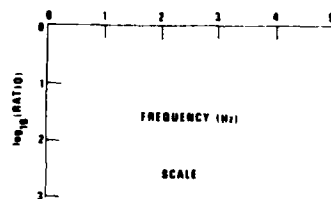
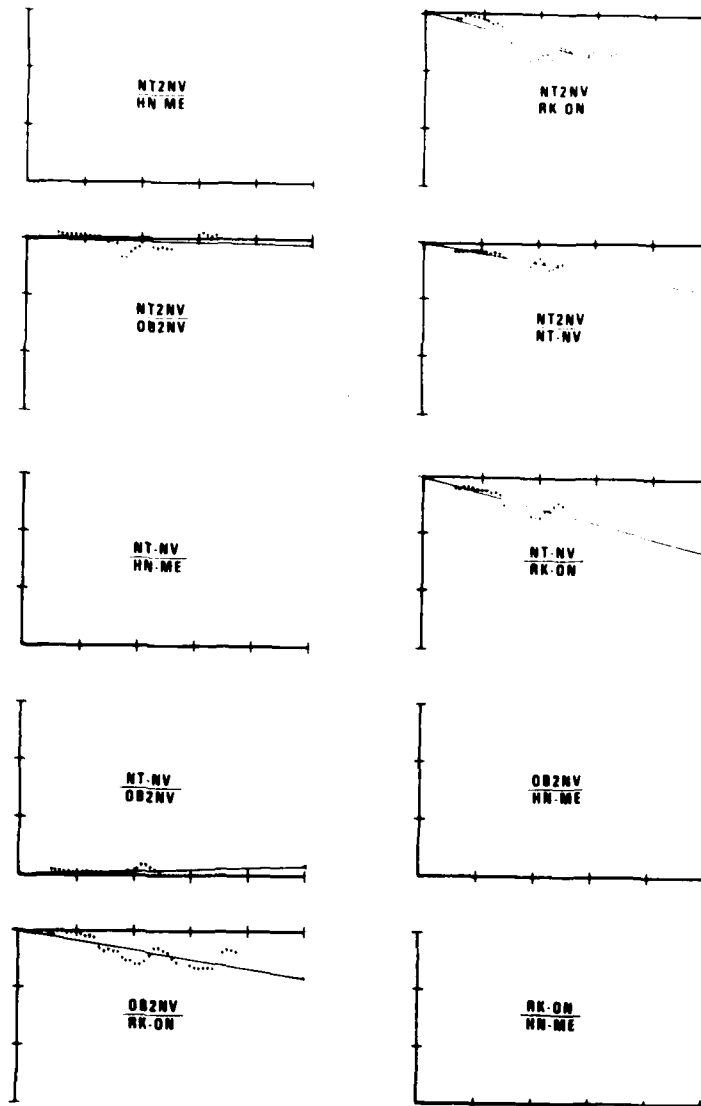
D-47

1 JAN 77
11 33 42.4
JAPAN
#80



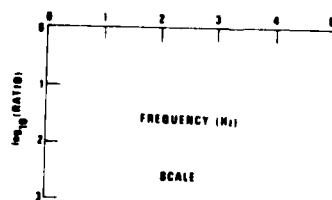
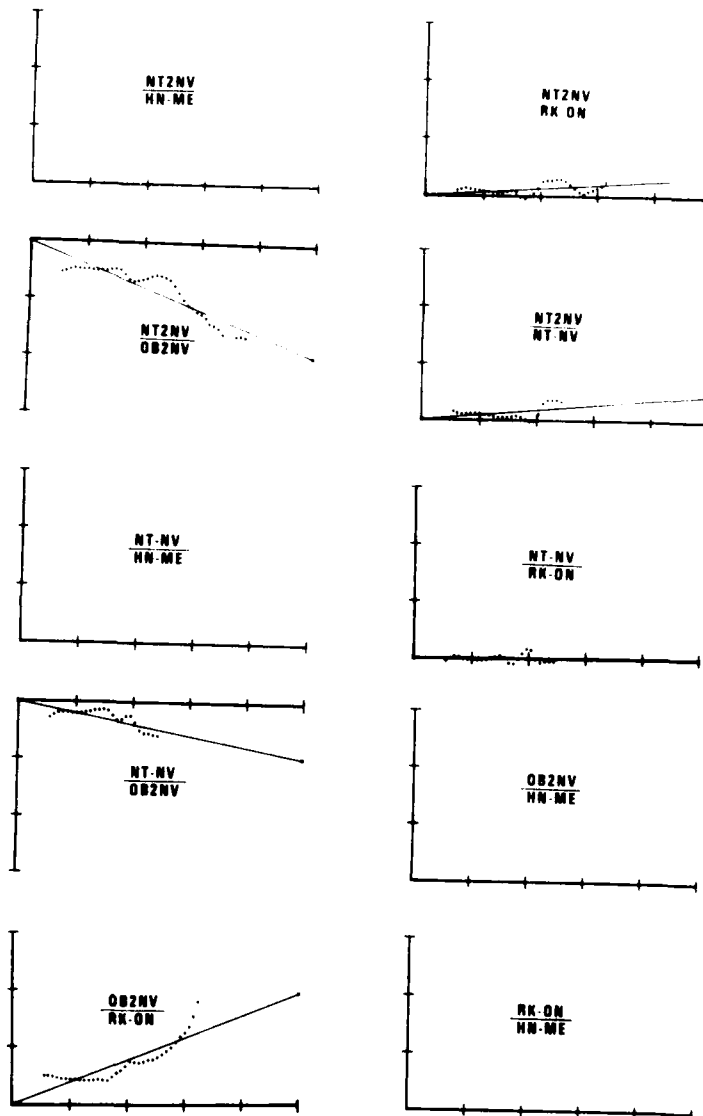
5 JAN 77
10 37 33 6
VOLCANO ISLAND

#82



D-49

5 JAN 77
22 44 570
VOLCANO IS
#83

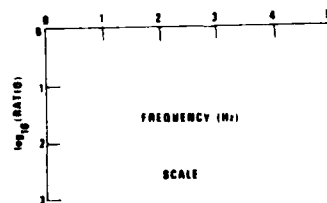
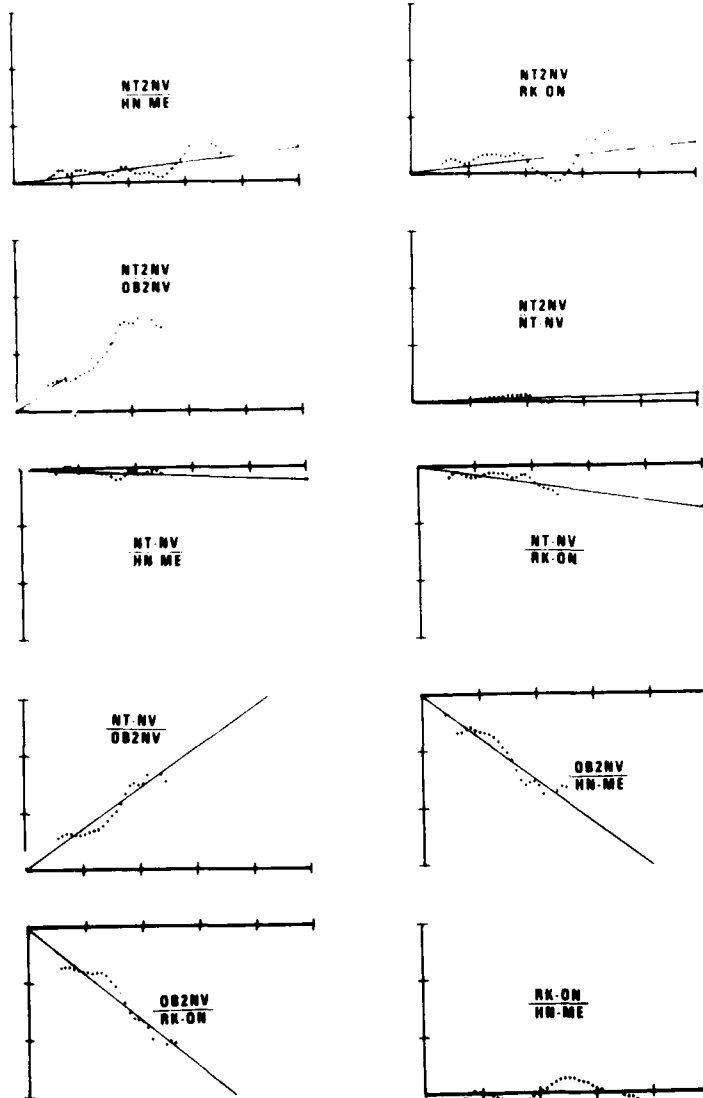


6 JAN 77

7 56 56 5

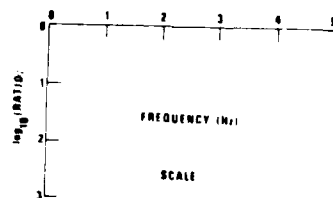
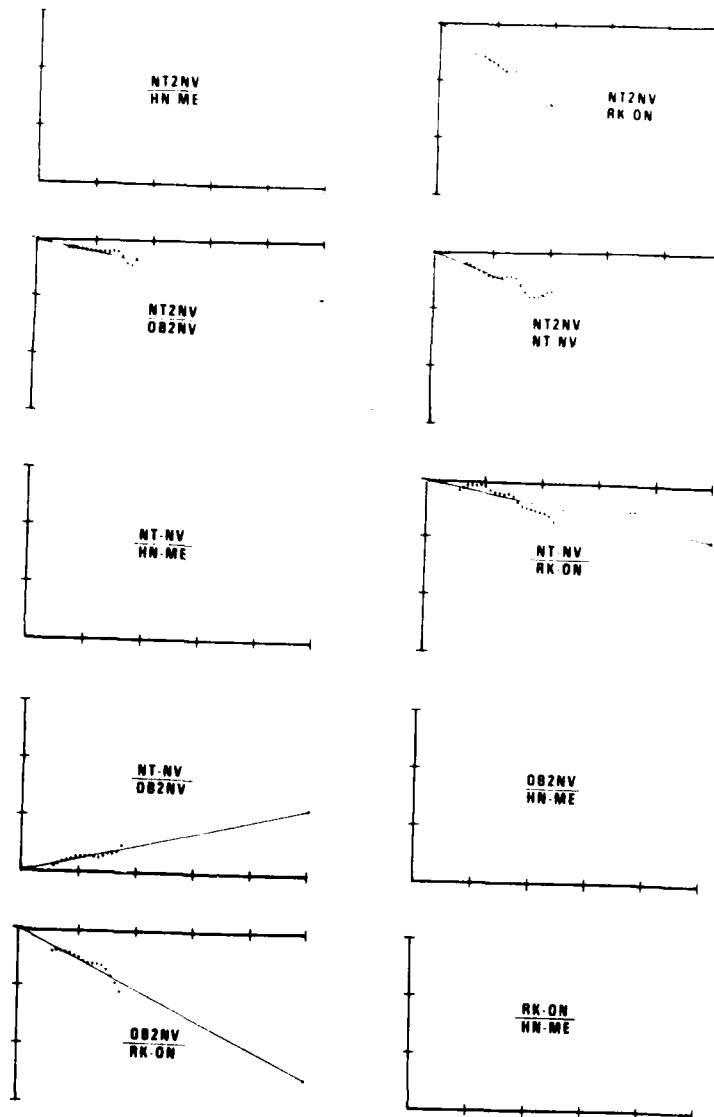
KURILES

#84

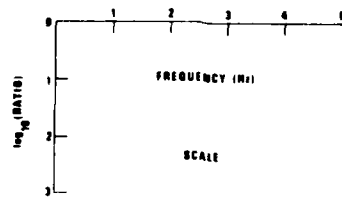
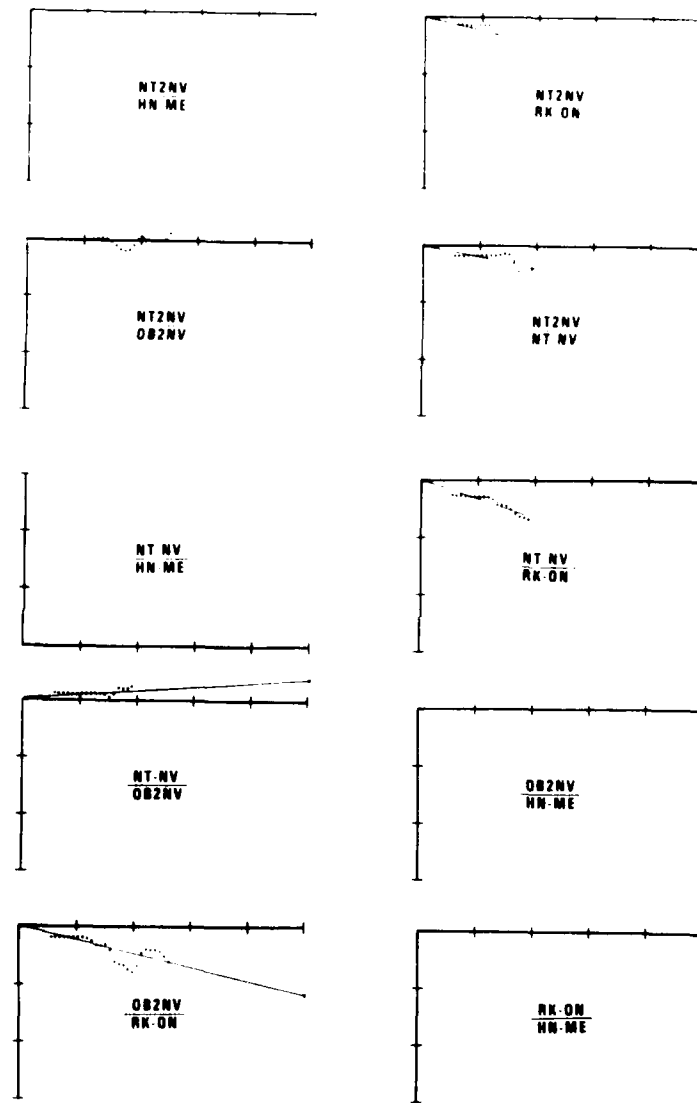


D-51

6 JAN 77
16 23 6
ANDREANOF IS
#85

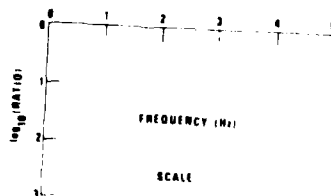
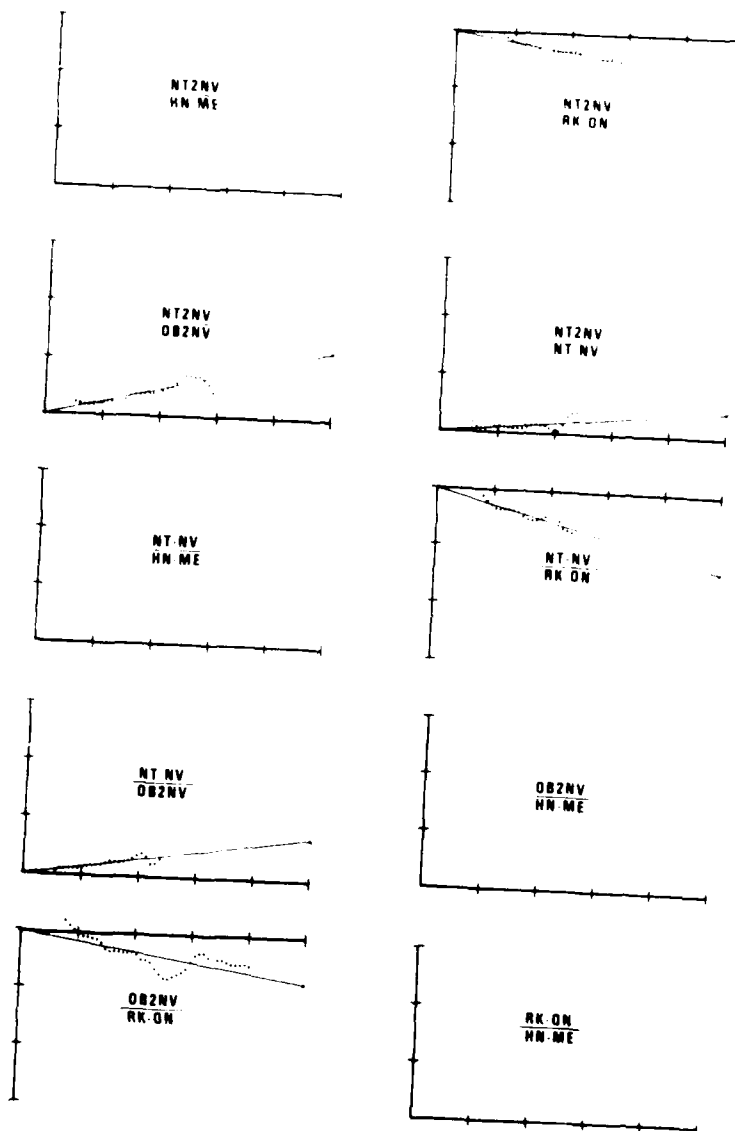


17 JAN 77
 6 23 42 6
 BONIN IS
 #87



17 JAN 77
 042225
 ALASKA PENINSULA

F30

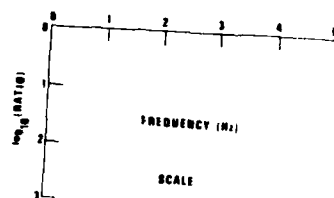
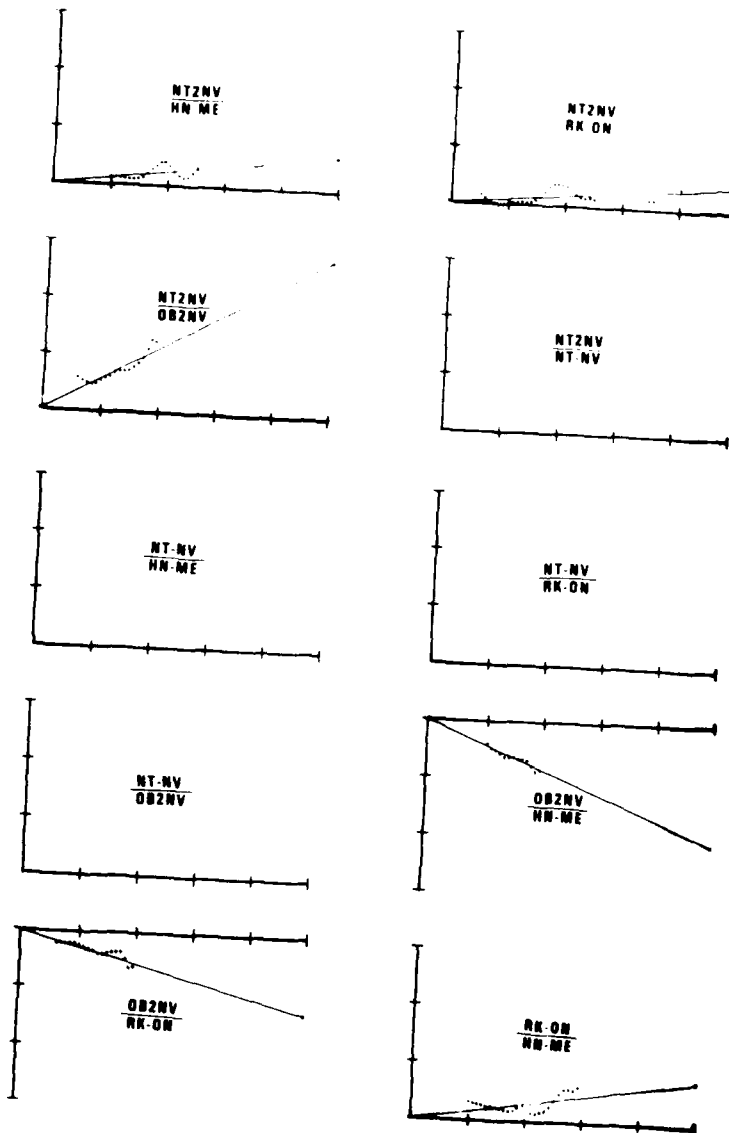


24 JAN 77

0 11 30 0

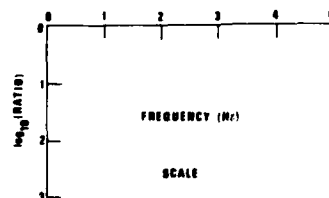
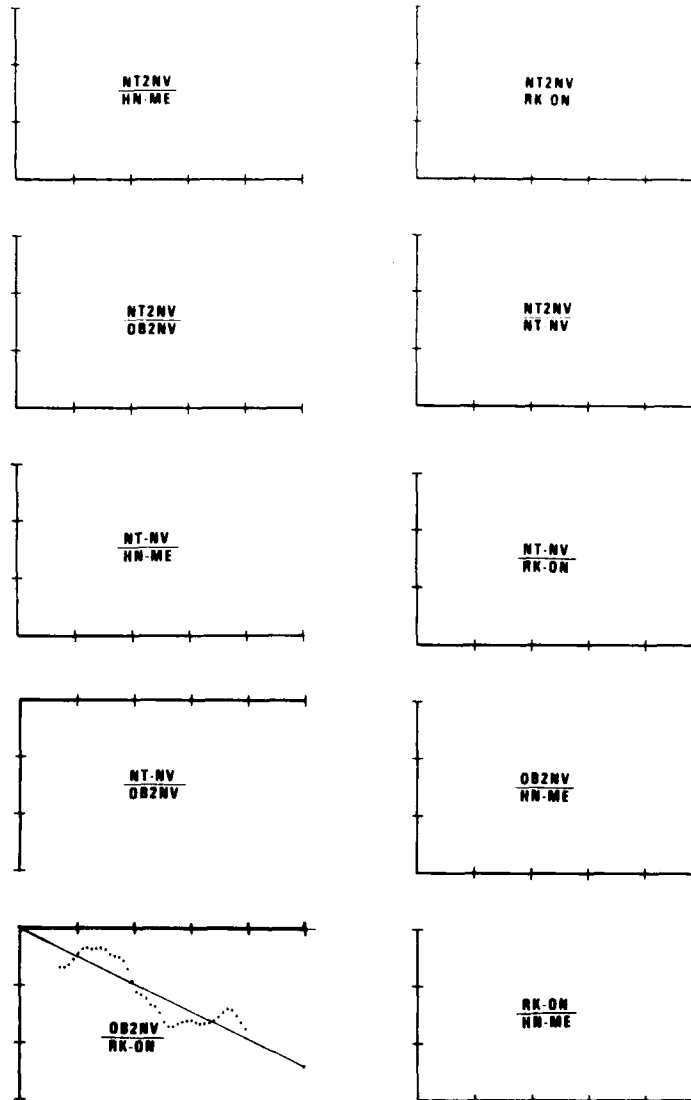
KURILES

#53



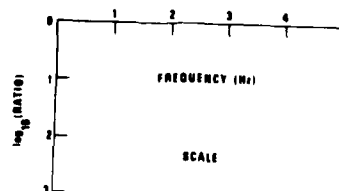
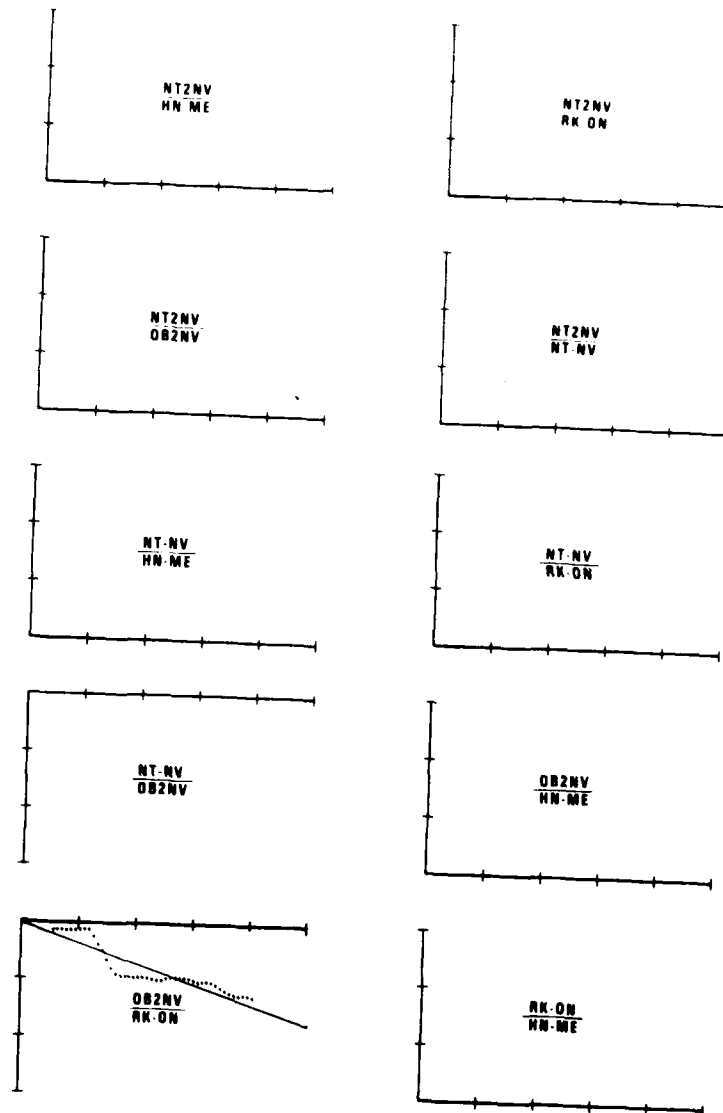
28 JAN 77
4 24 26 0
BONIN ISLANDS

(This Event Inadvertently Omitted From The Data Shown In Appendix A)

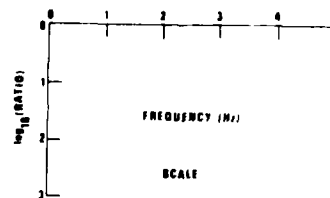
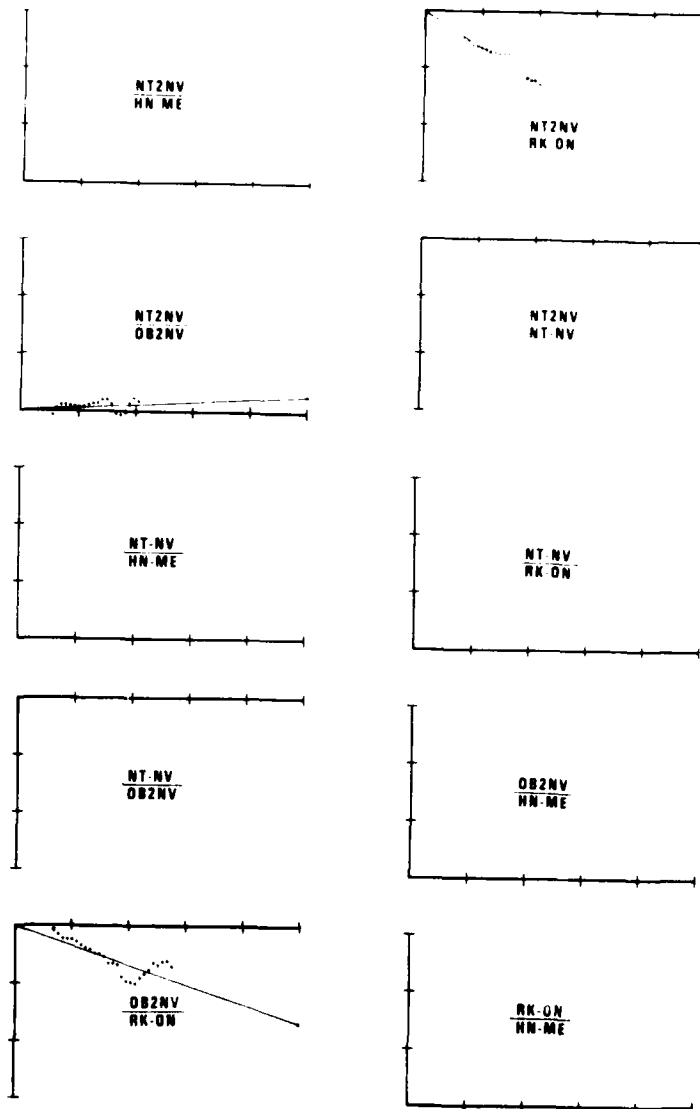


3 FEB 77
21 30 69 0
RUSSIA-CHINA BDR

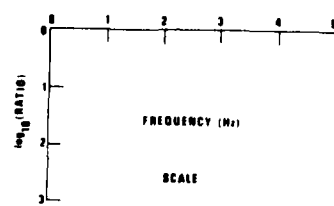
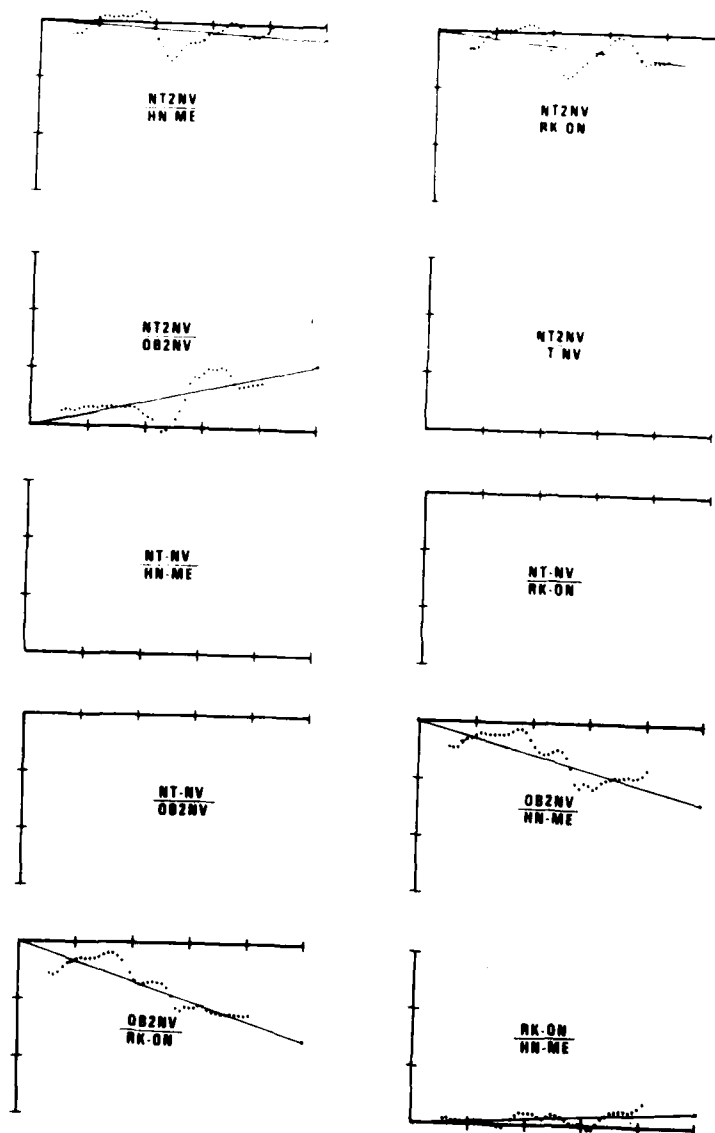
#90



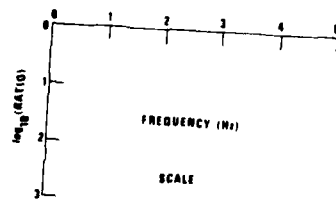
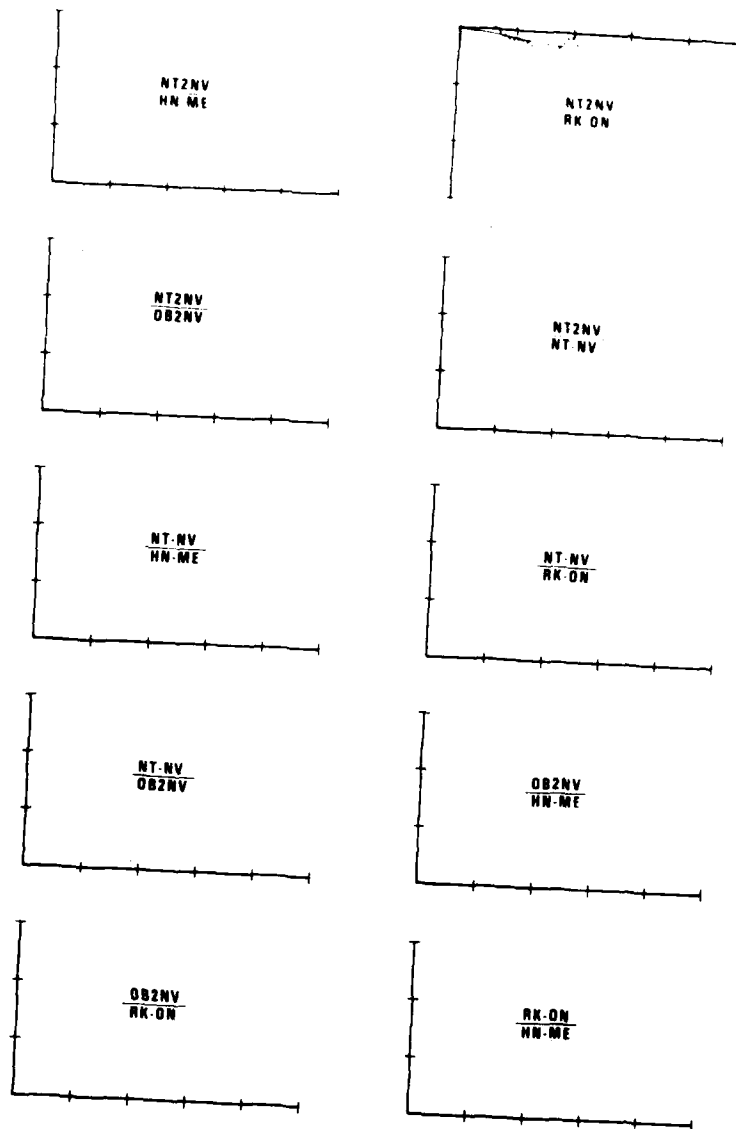
8 FEB 77
031280
N ATLANTIC
#91



13 FEB 77
 5 5111 D
 KAMCHATKA
 #92

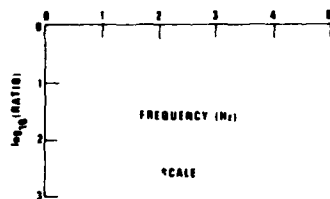
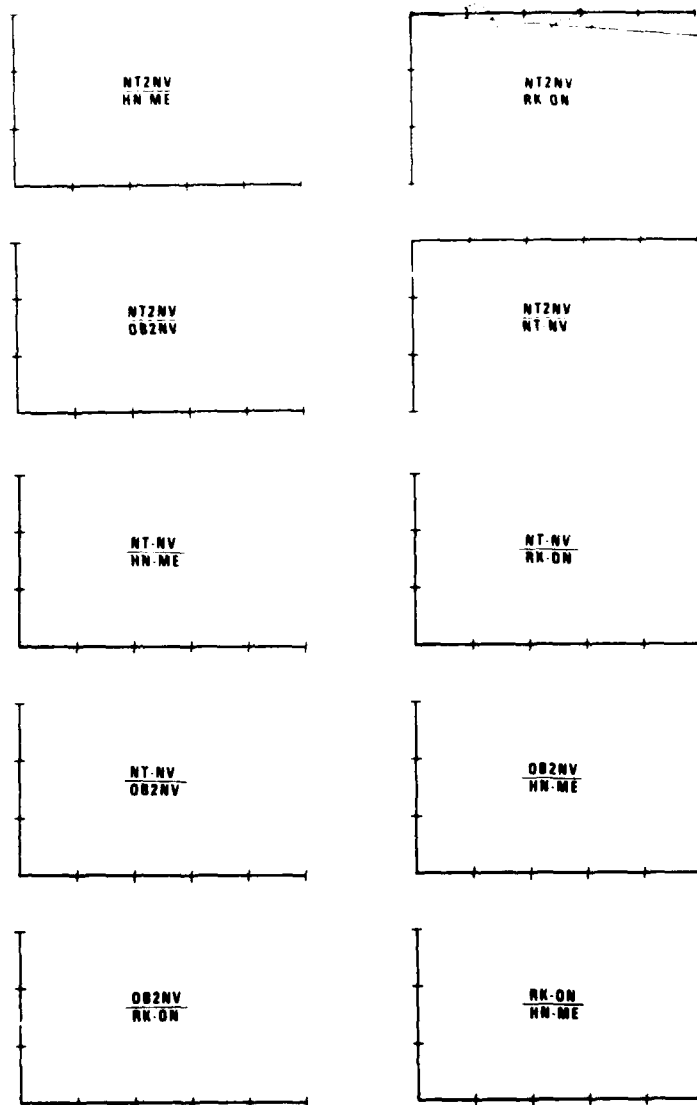


18 FEB 77
 050100
 N ATLANTIC
 #33



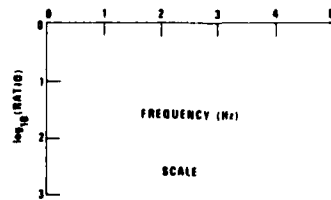
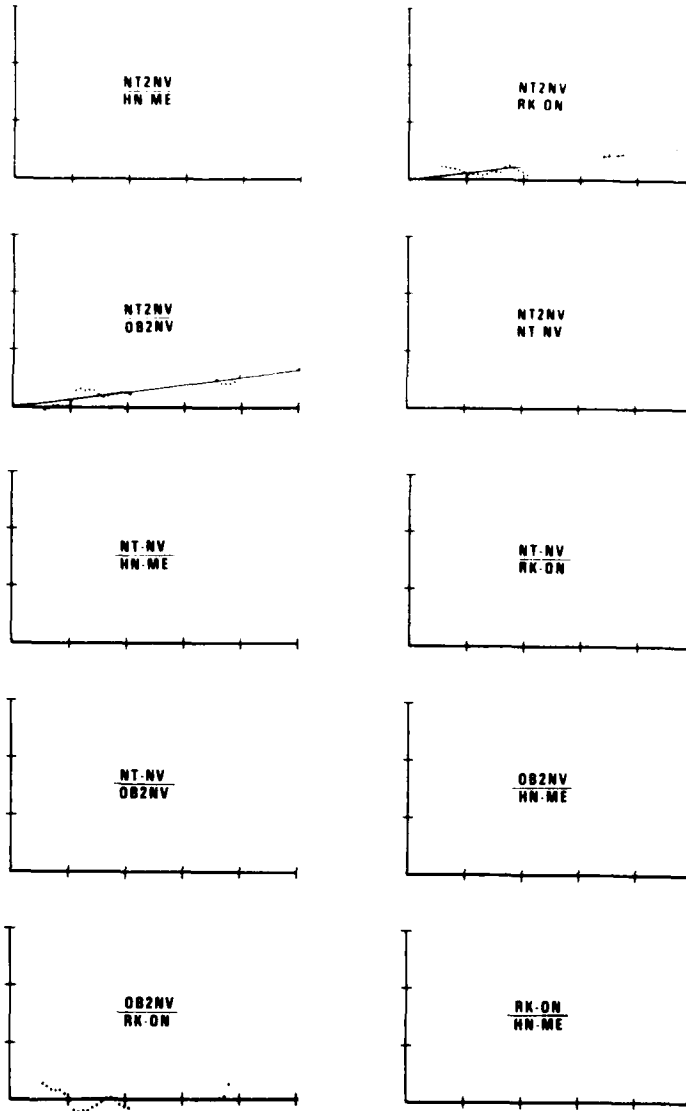
D-60

18 FEB 77
15480
N PACIFIC
#94



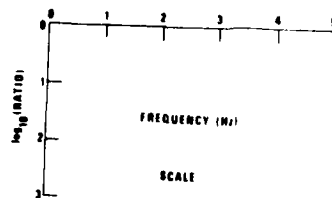
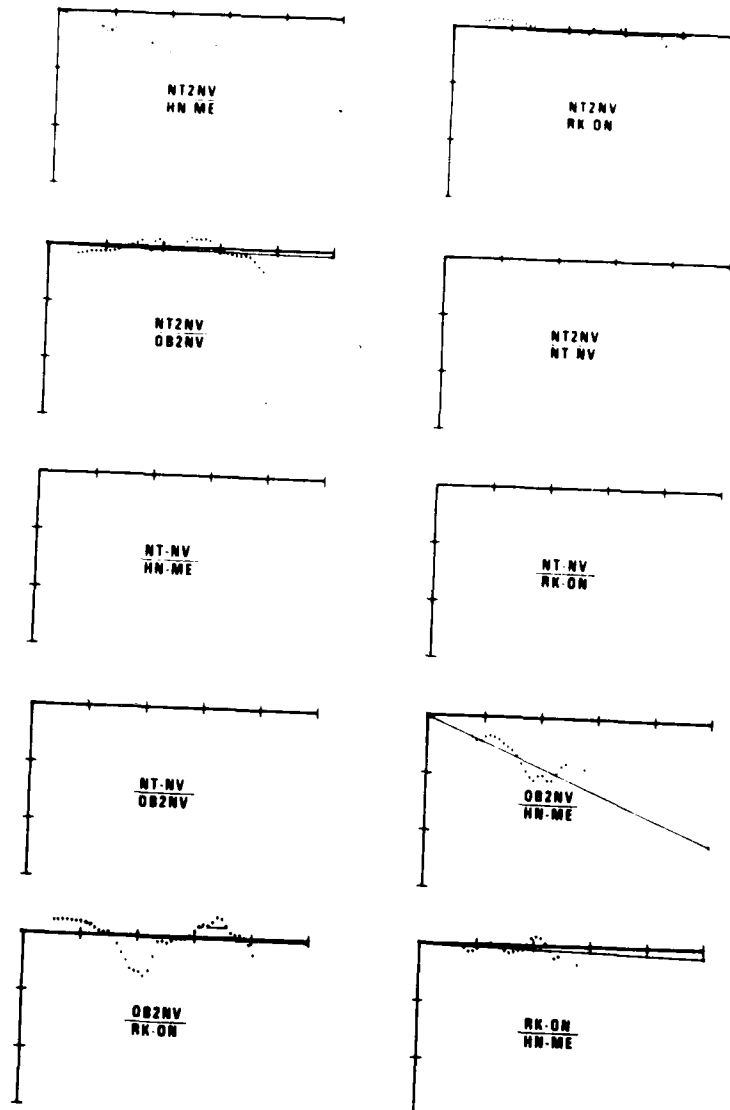
17 FEB 77
13 32 70
KOMANDORSKI

#95



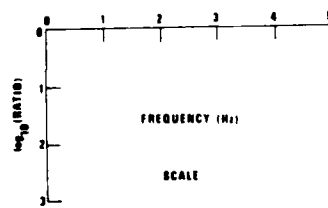
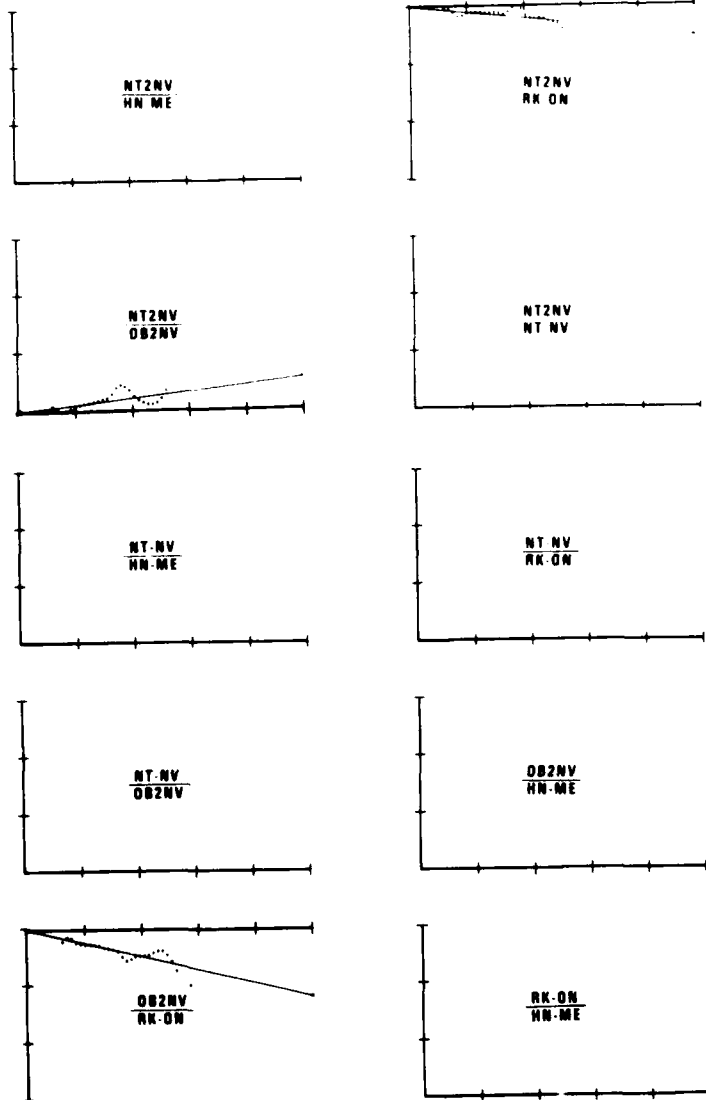
D-62

18 FEB 77
20 5126 0
JAPAN
#30



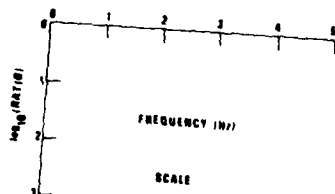
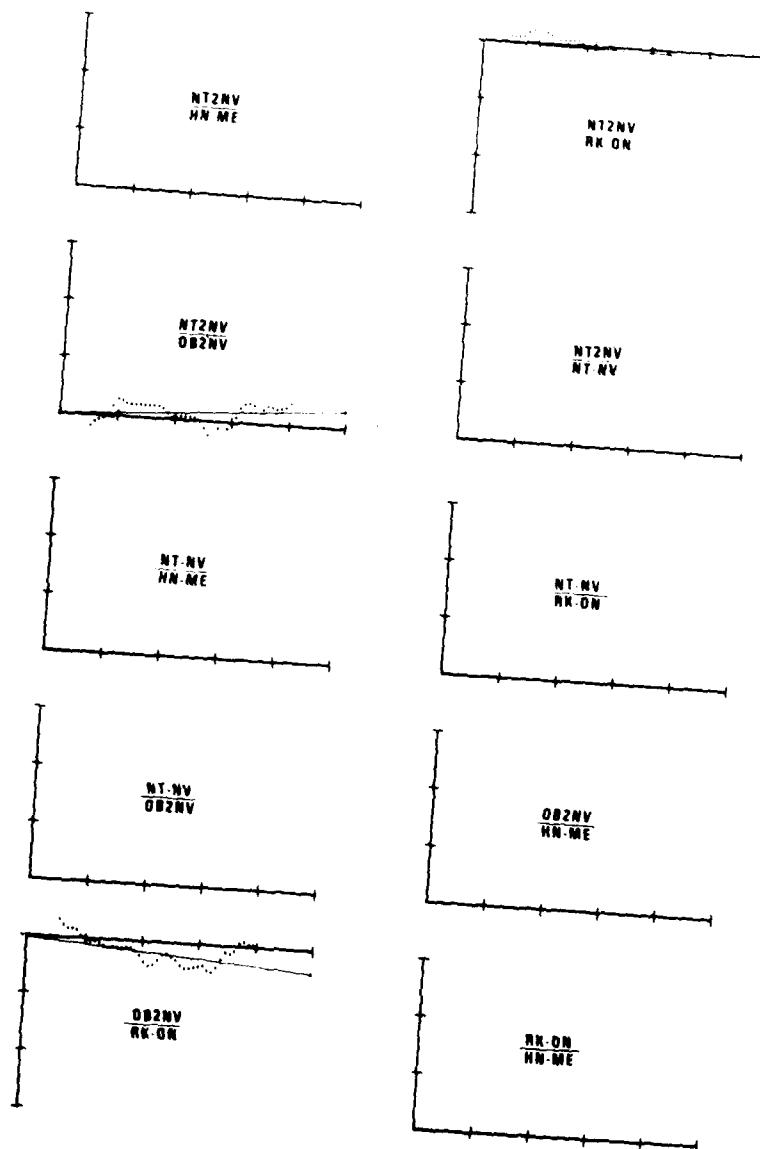
18 FEB 77
 5 5110
 KAMCHATKA

#93

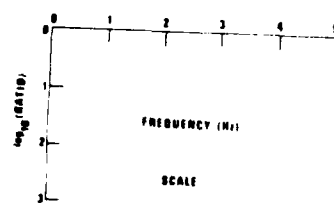
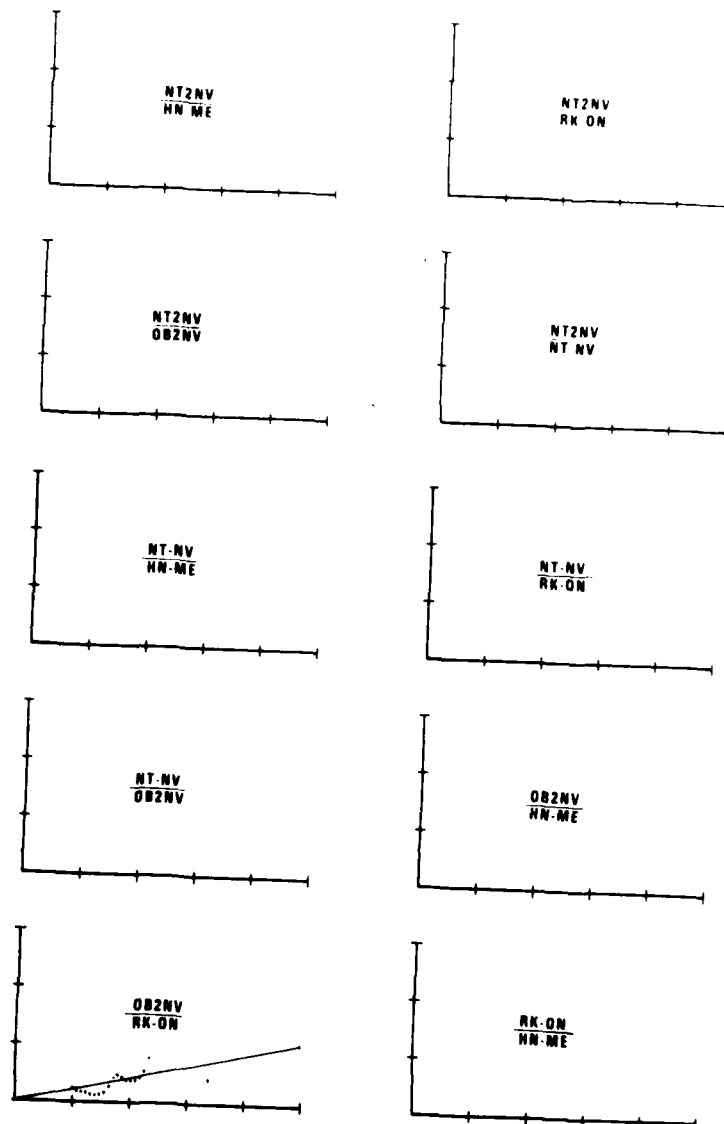


D-64

18 FEB 77
22 47 7 0
ALEUTIANS
#100



20 FEB 77
 7200
 KODIAK ISLAND
 #101

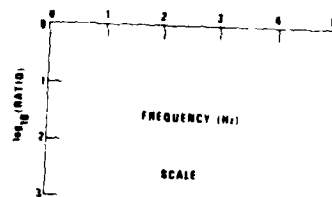
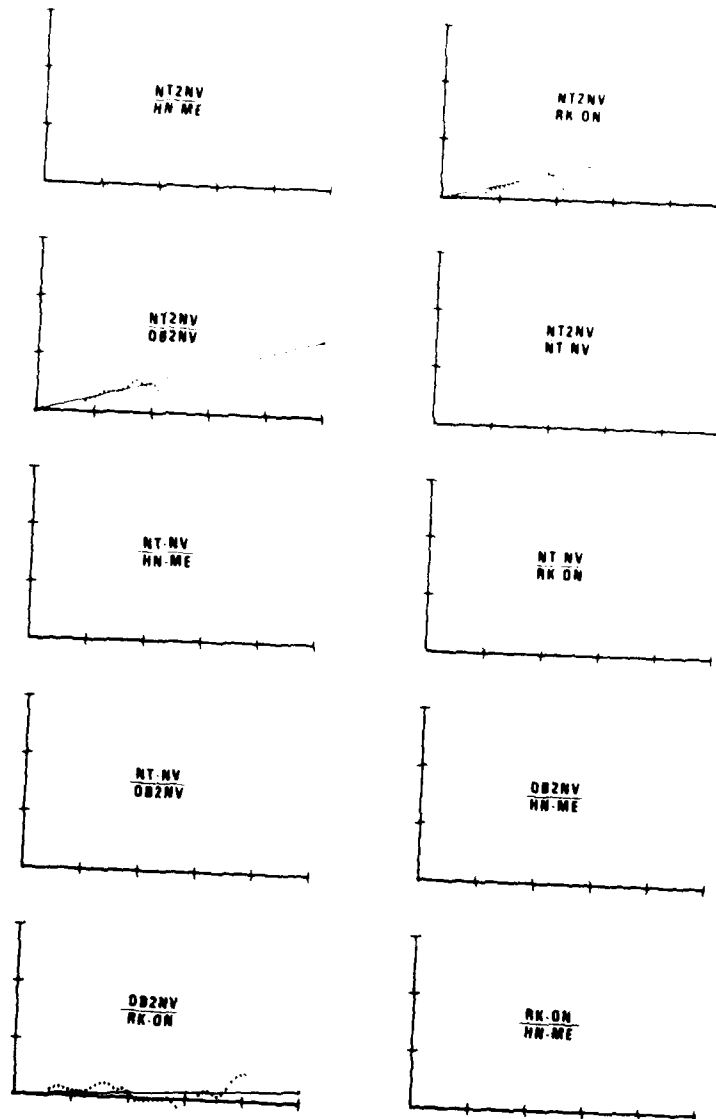


20 FEB 77

8 0 38 0

ALEUTIANS

#102

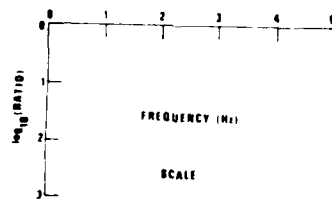
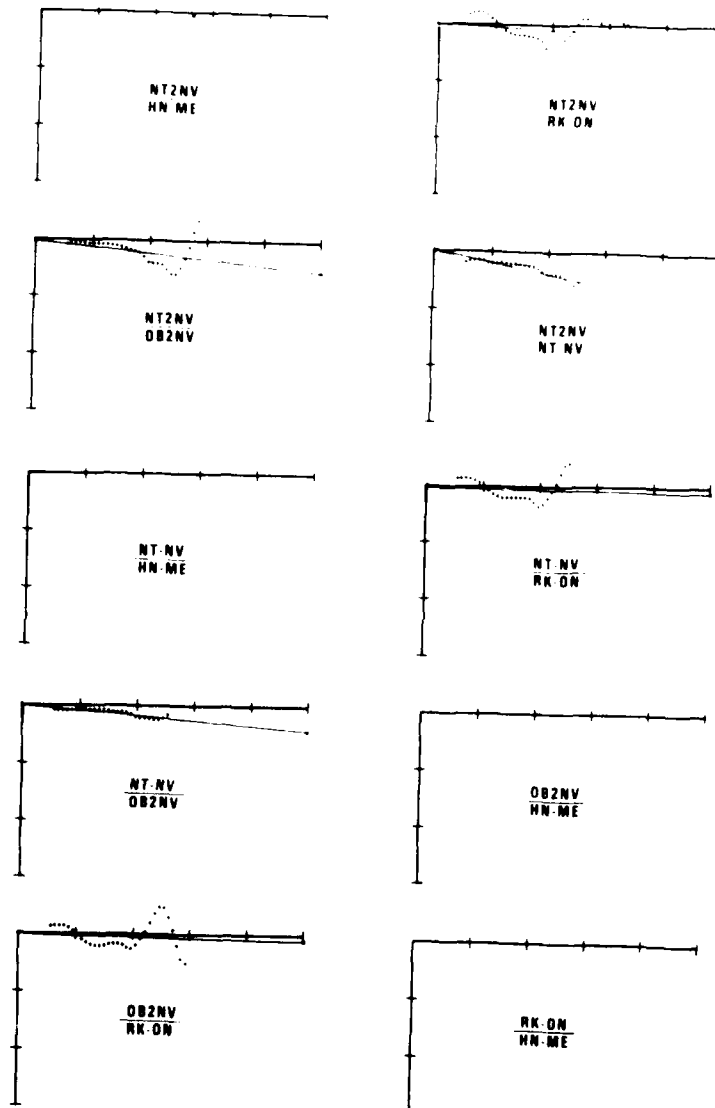


4 MAR 77

19 21 40 0

RUMANIA

#111

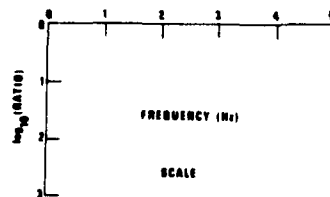
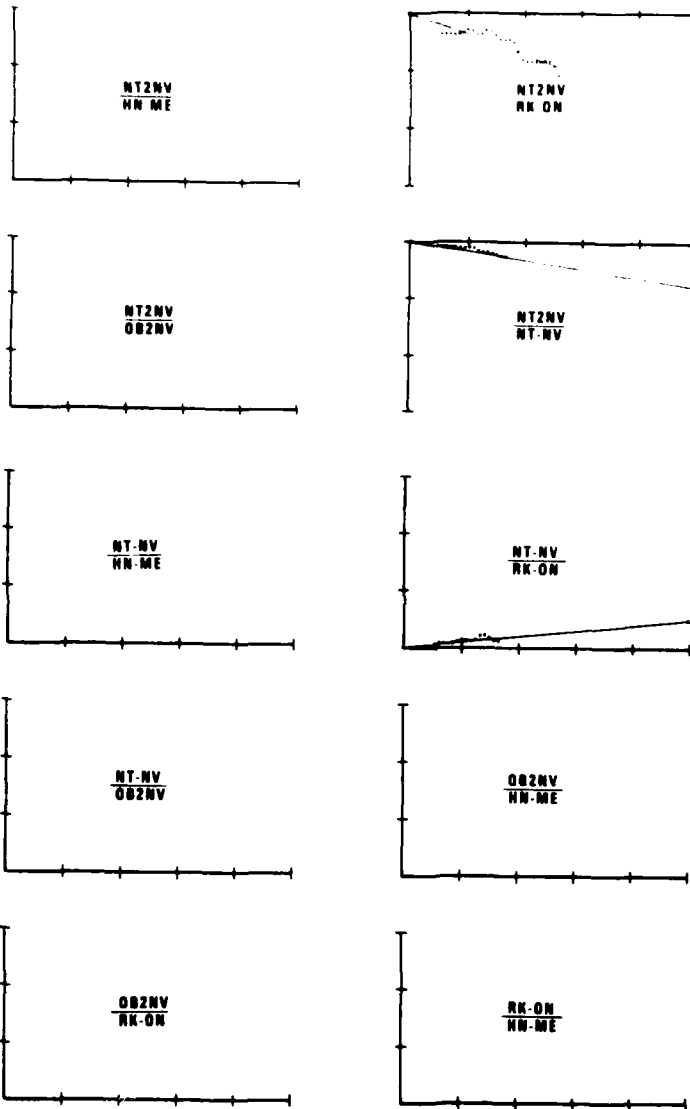


7 MAR 77

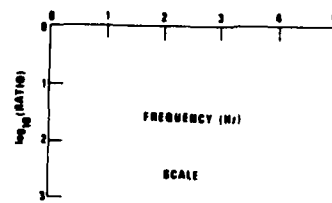
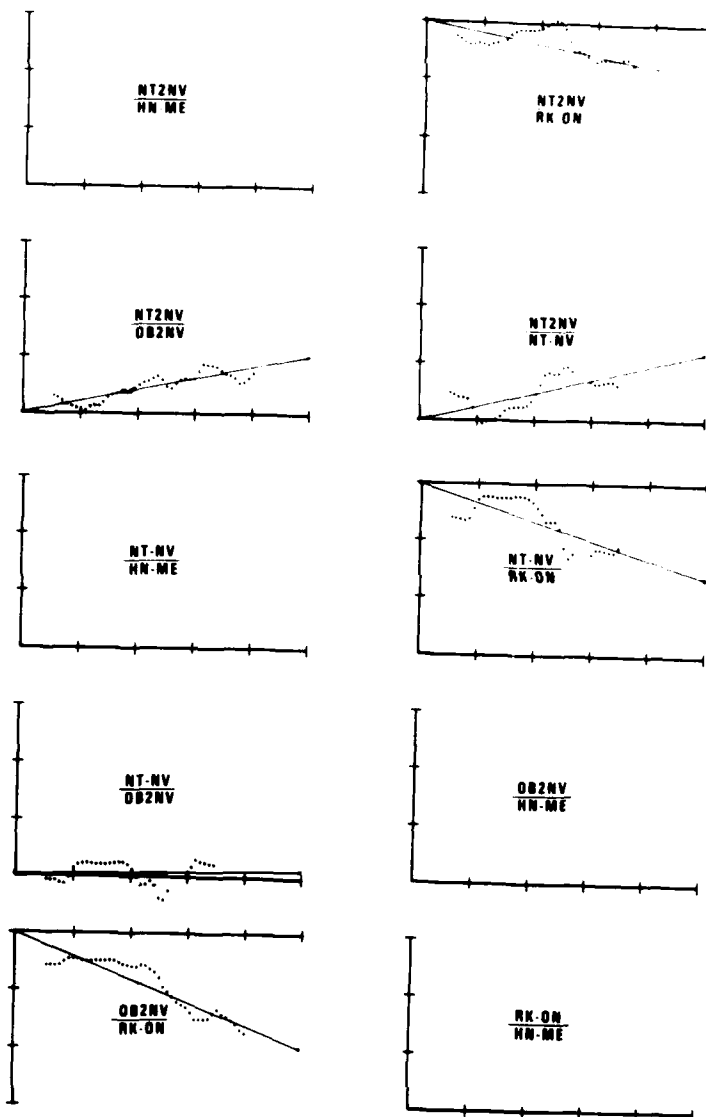
0 20 11 0

CHINA

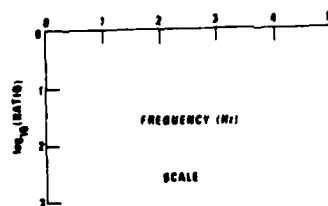
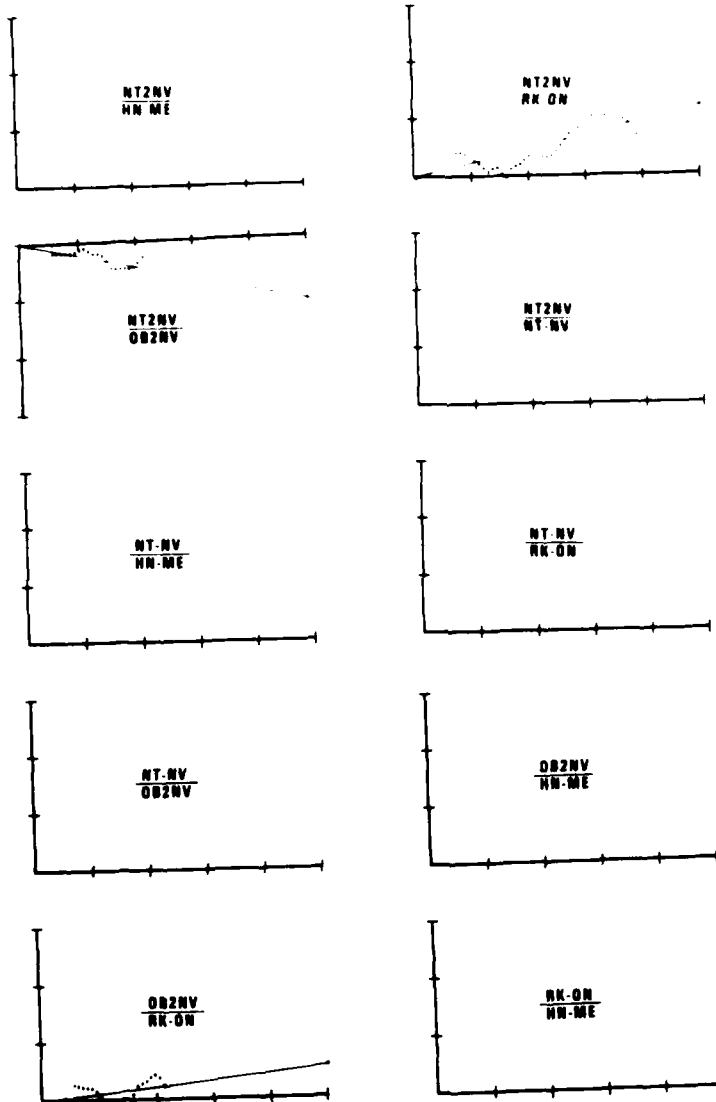
#112



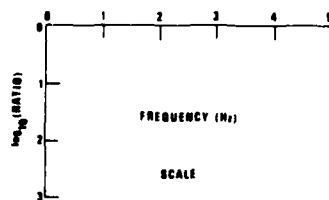
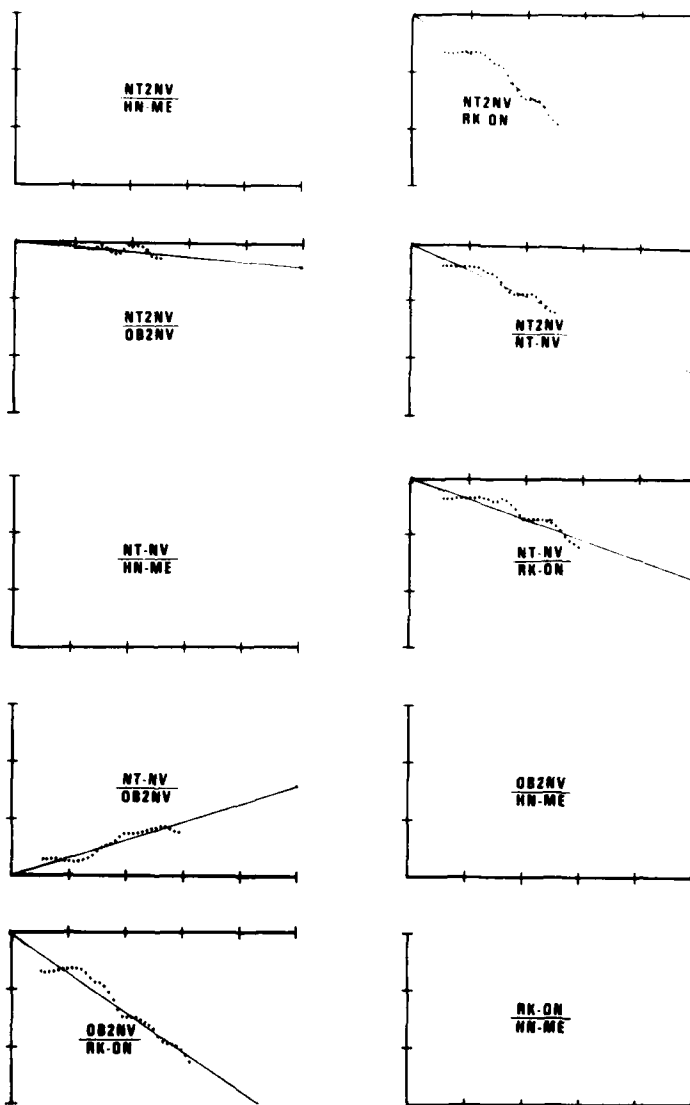
7 MAR 77
 9 11 66 0
 N PACIFIC
 #113



8 MAR 77
22 48 44 0
BRAZIL
#103



12 MAR 77
2 58 55 0
N ATLANTIC
#105

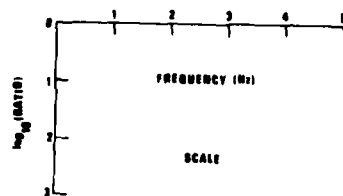
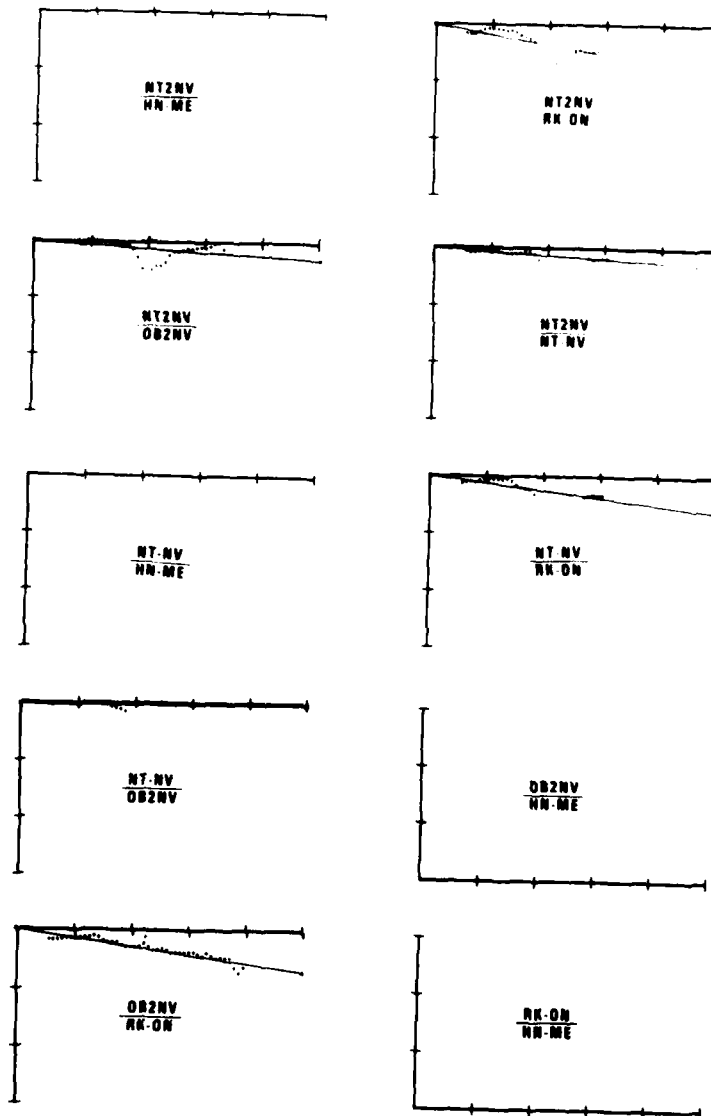


13 MAR 77

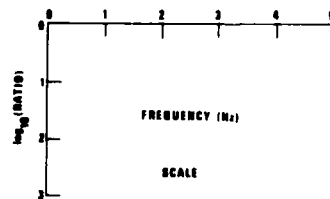
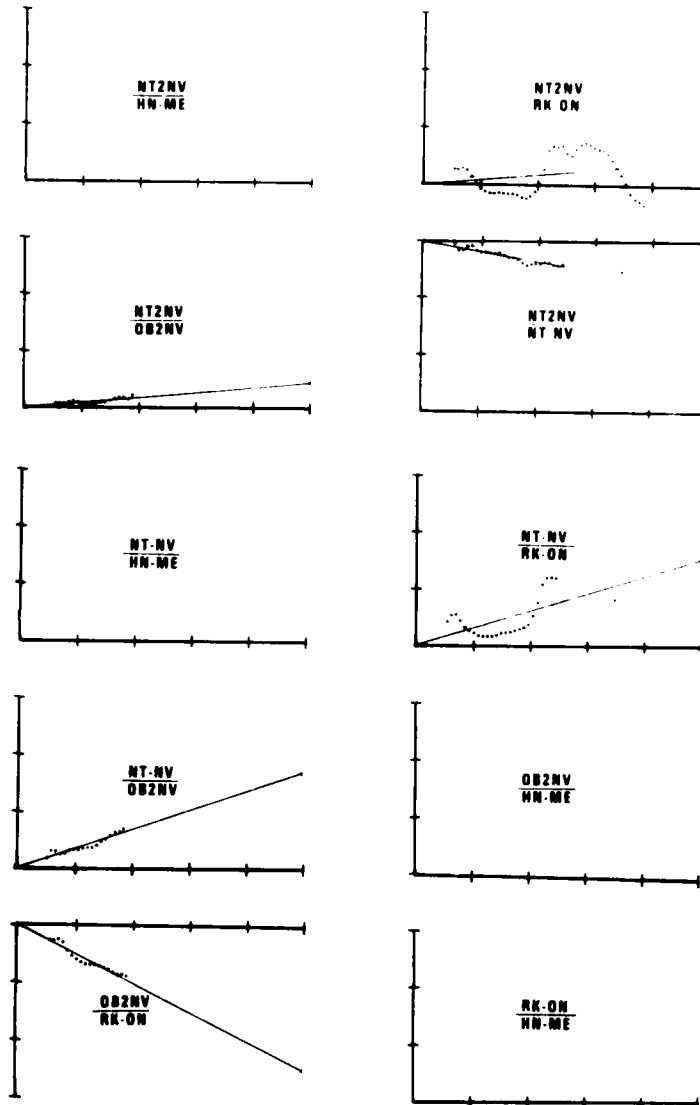
4 55 55 0

BRAZIL

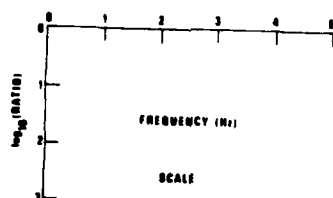
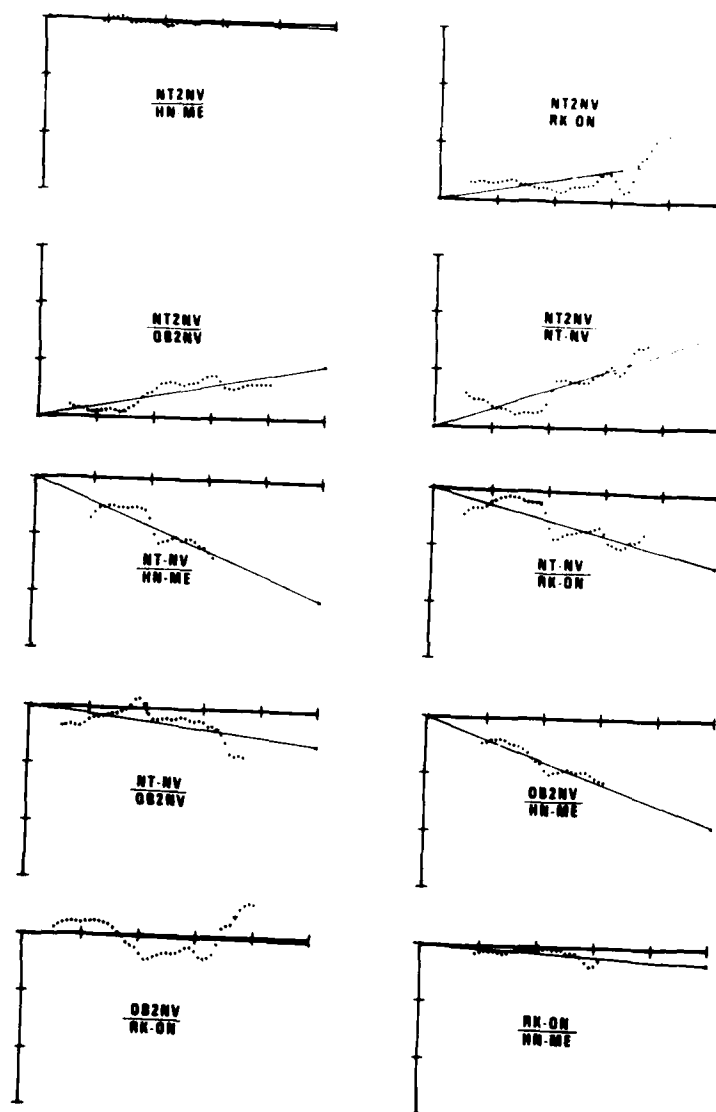
#106



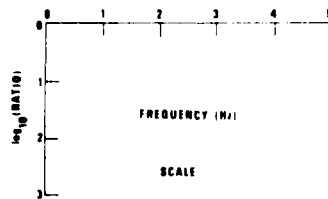
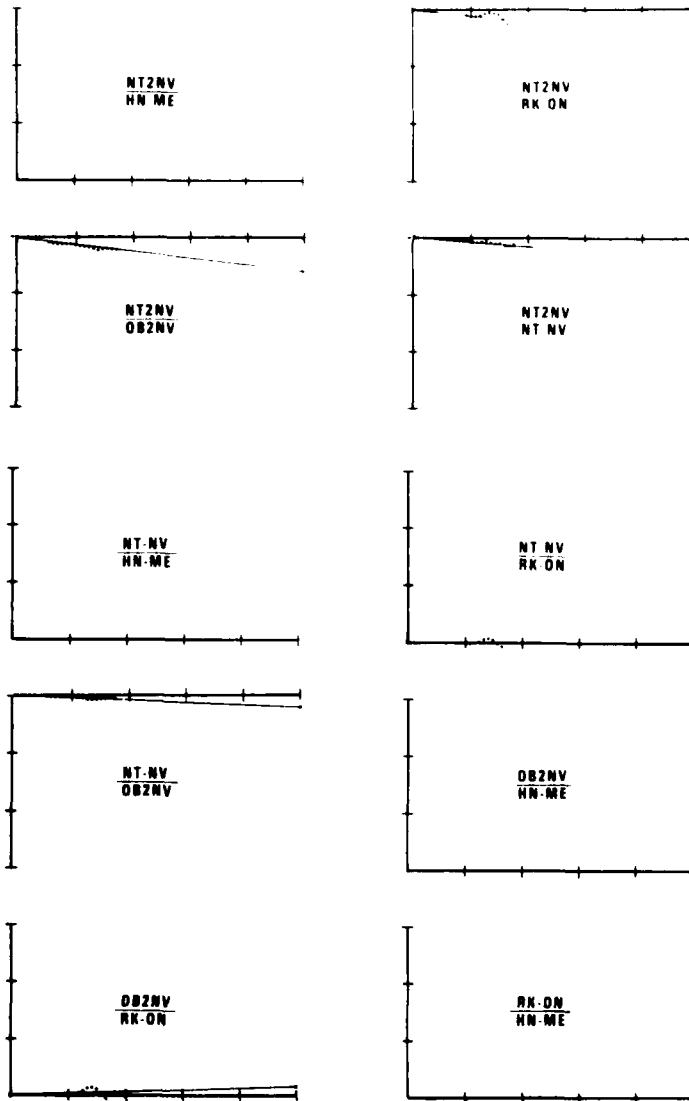
15 MAR 77
212000
COSTA RICA
#108



18 MAR 77
10 56 50
KURILES
#110

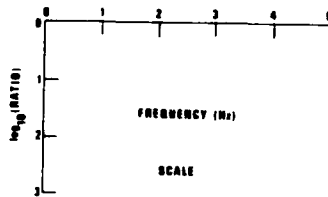
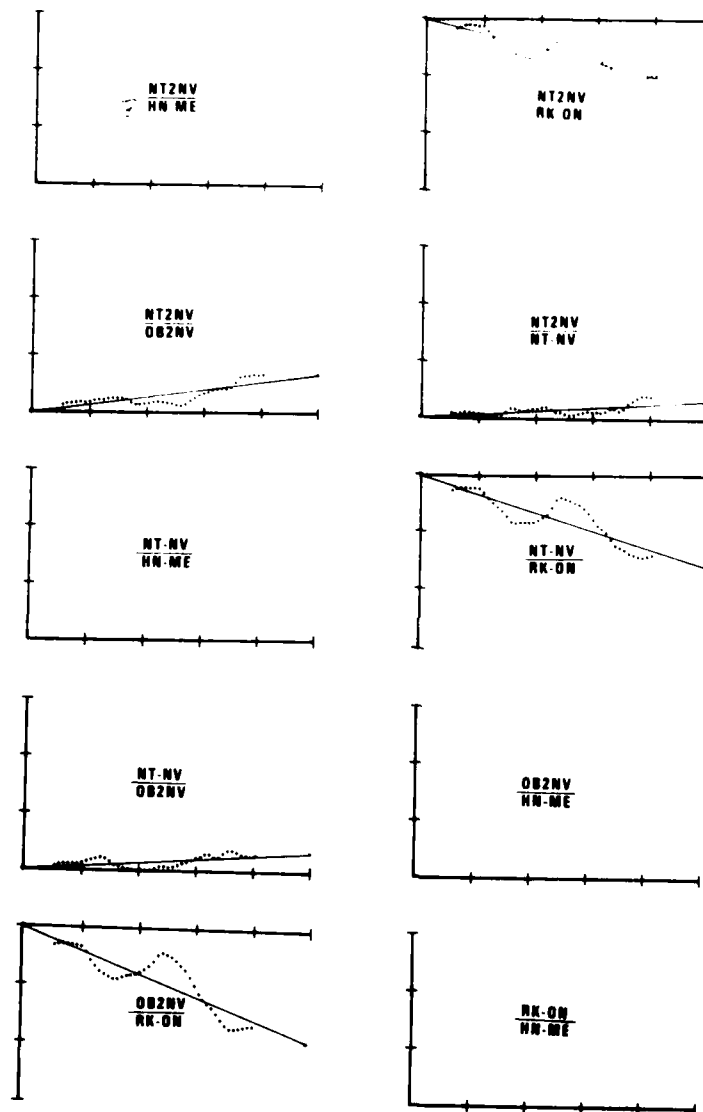


21 MAR 77
4 36 38 D
VOLCANO ISLAND
#114



23 MAR 77
2 11 26 0
VENEZUELA COAST

#116



D-77

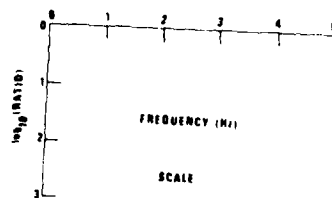
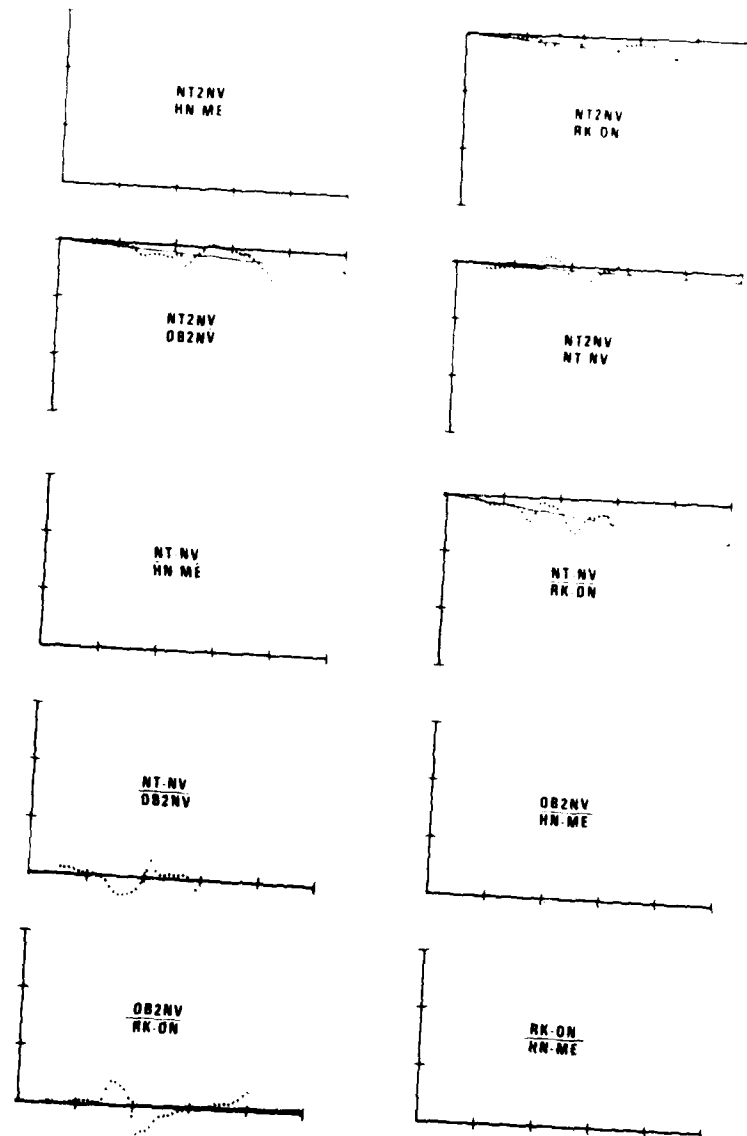
2

26 MAR 77

4 36 10 0

FOX ISLAND

#118



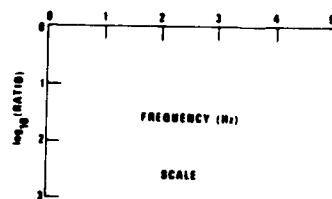
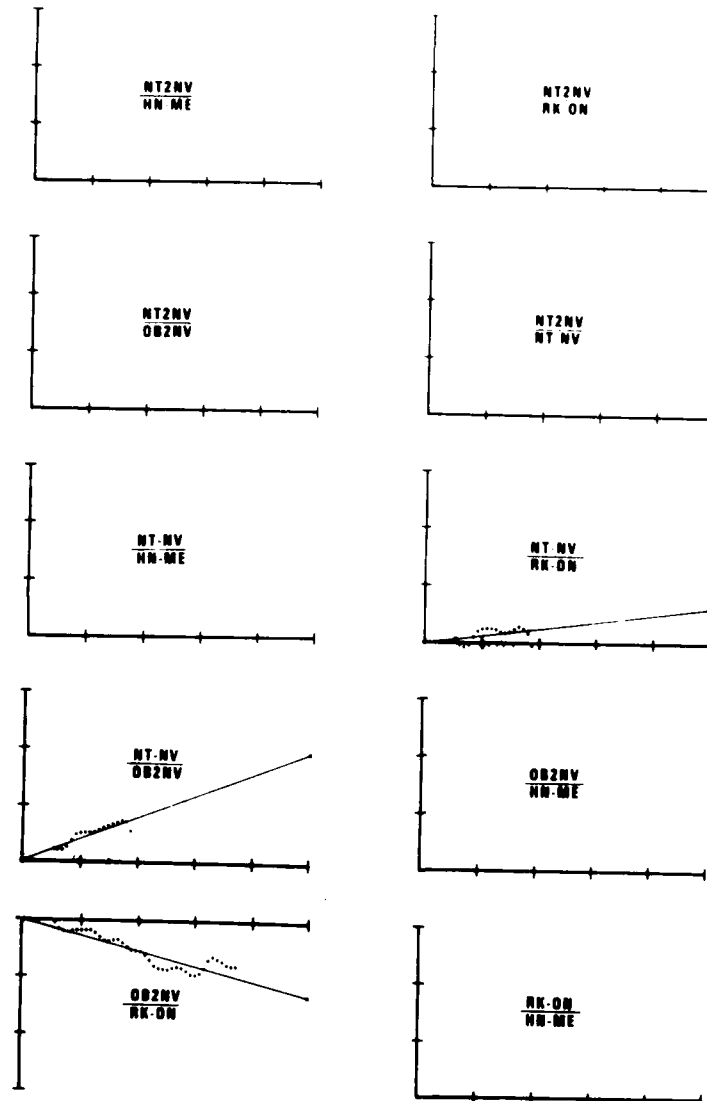
D-78

28 MAR 77

3 57 00

E KAZAKH

119



D-79

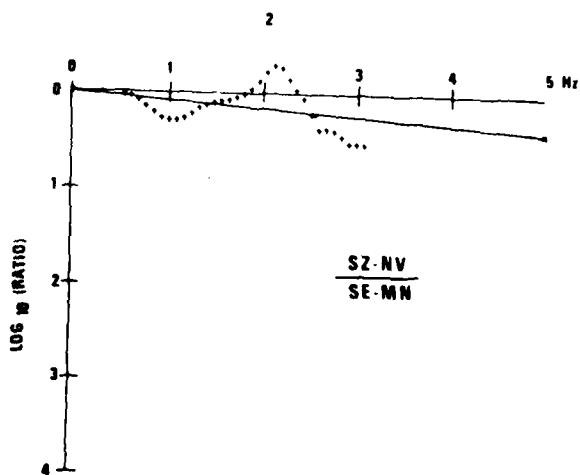
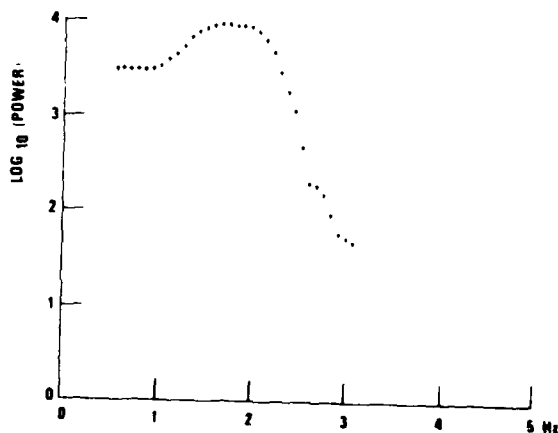
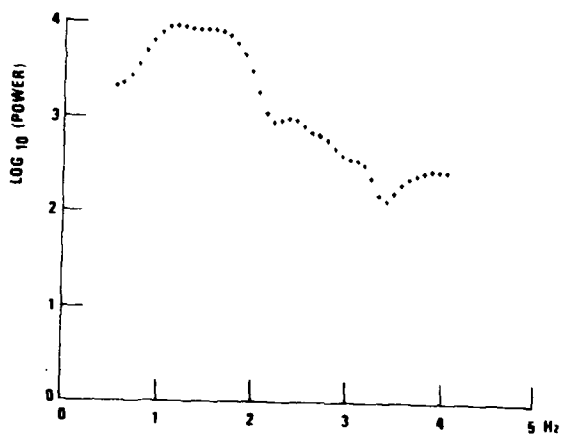
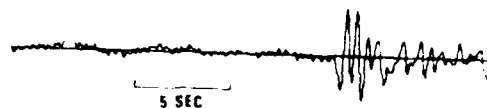
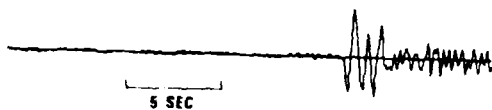
APPENDIX E

Vertical short period waveforms, power spectra, and
amplitude spectral ratios for events at SE-MN and SZ-NV

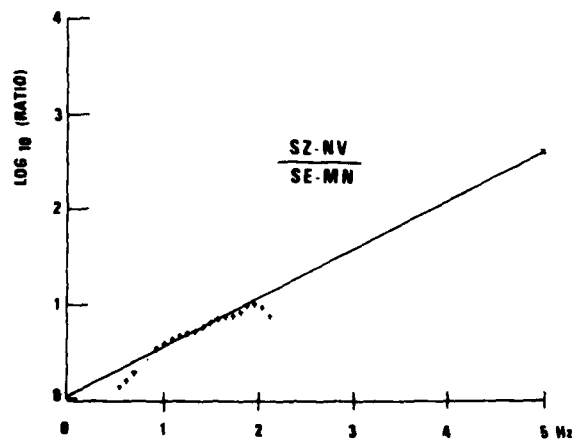
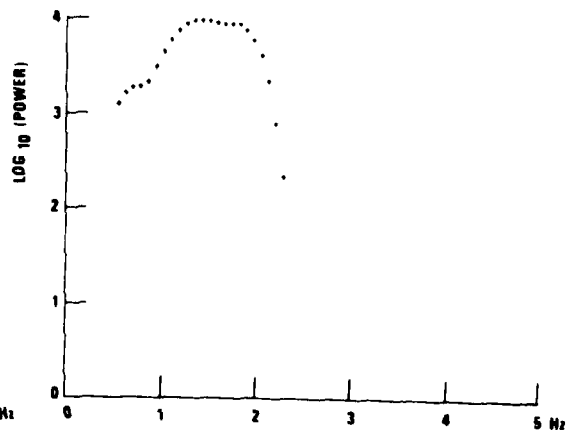
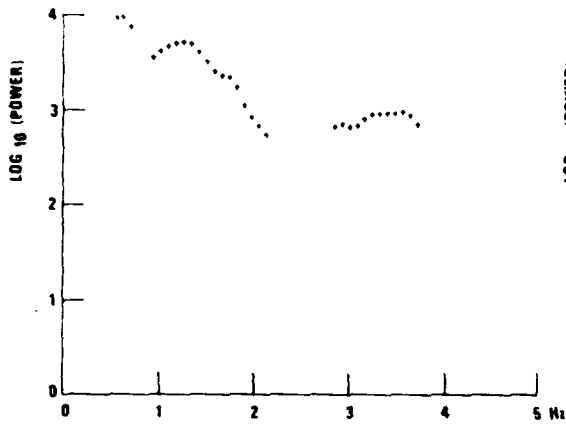
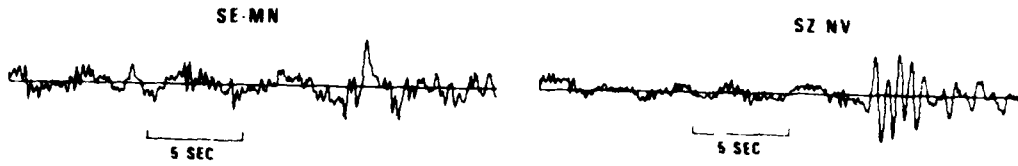
5 JAN 63
17 43 33.1

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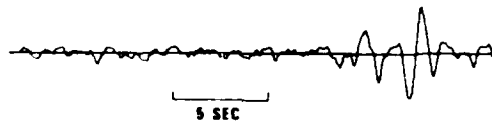


8 JAN 63
15:46:44.1

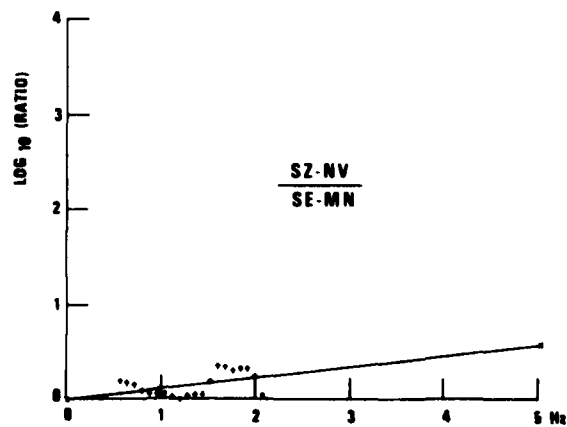
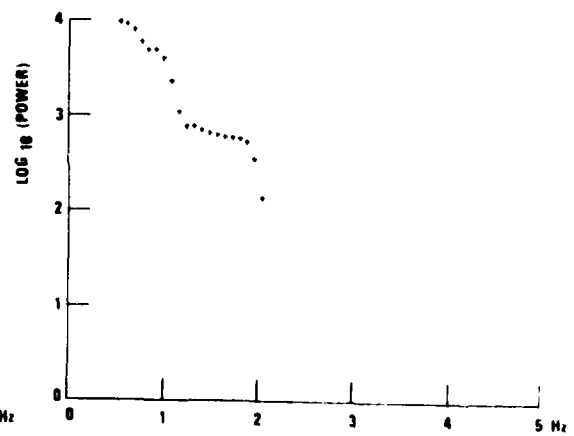
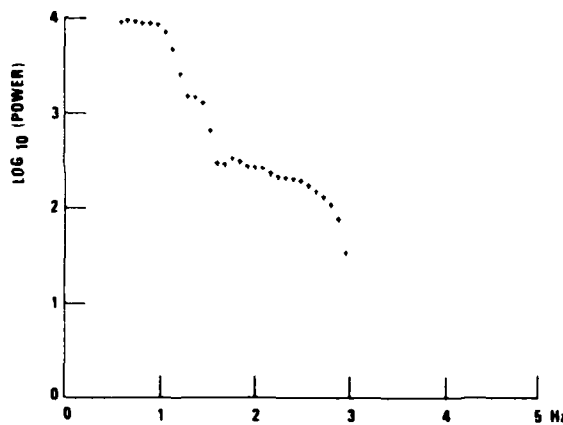
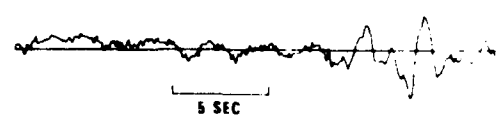


11 JAN 63
12:12:16.9

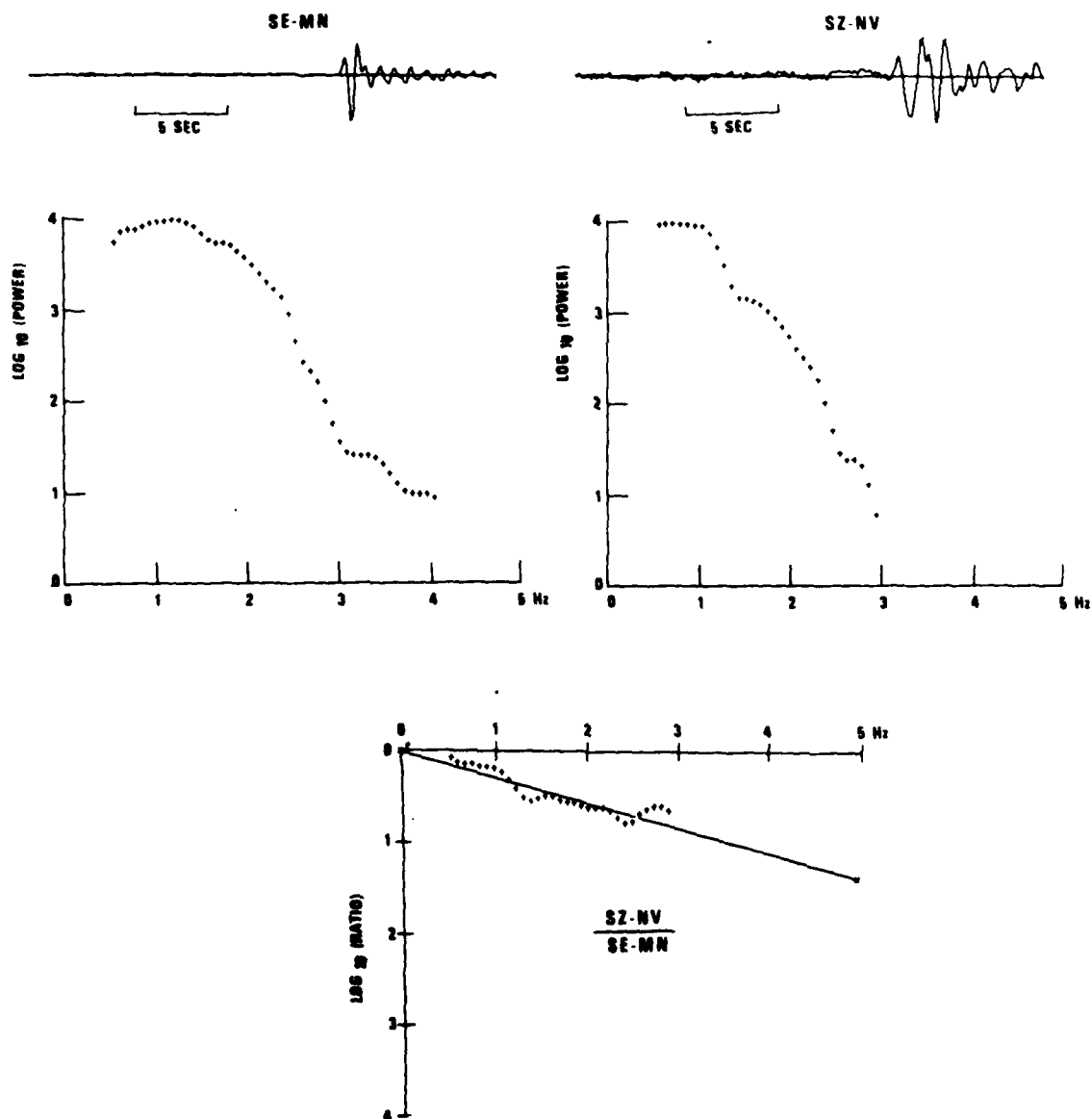
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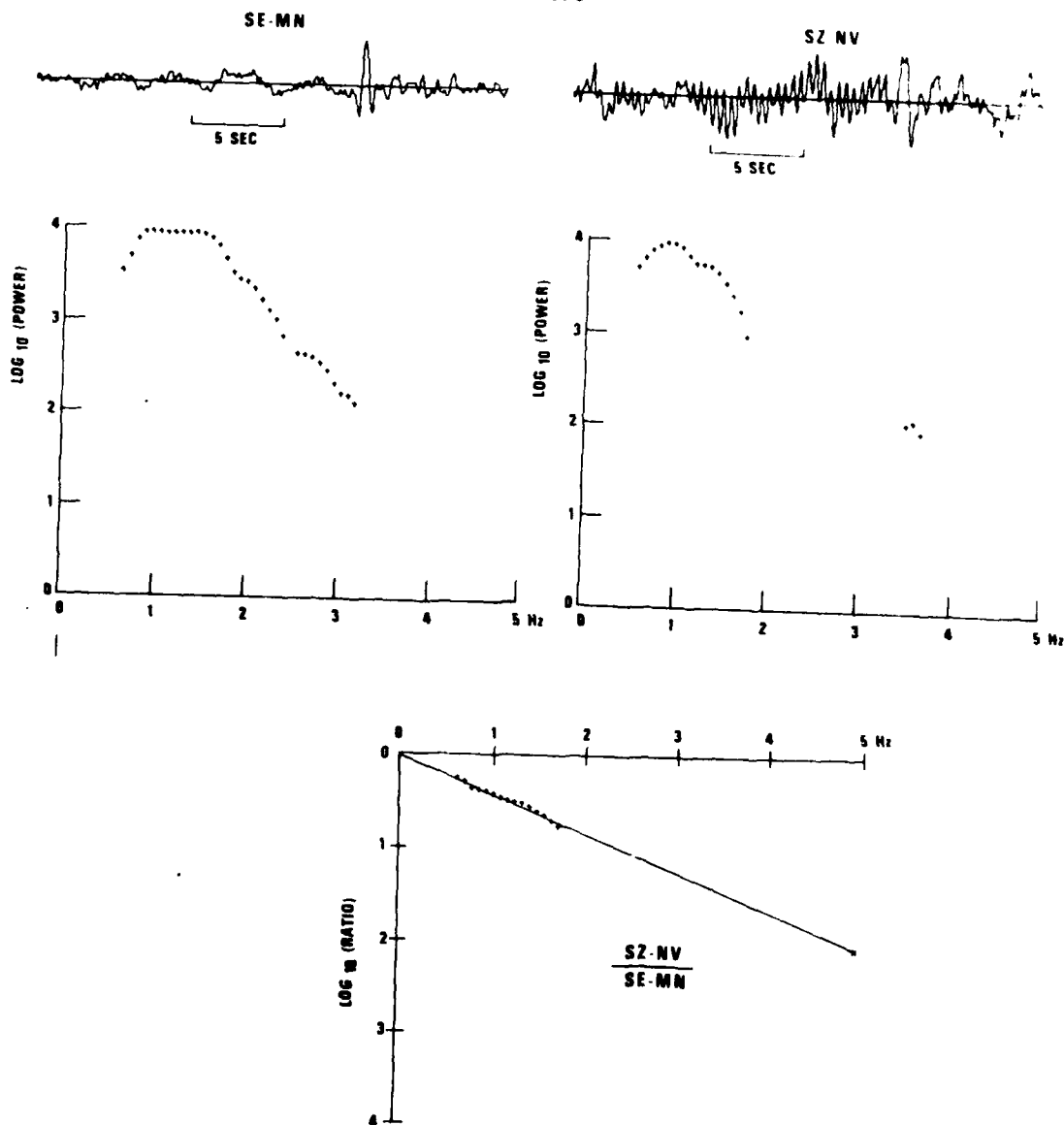
SZ NV



12 JAN 63
3:40:33.1

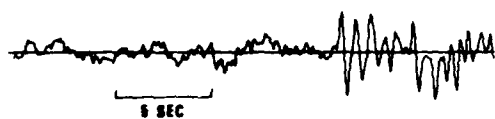


13 JAN 63
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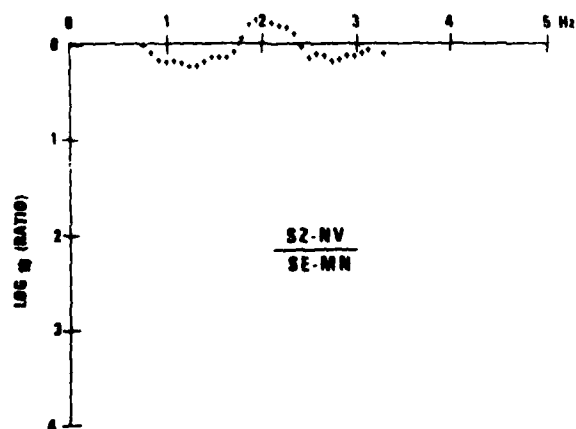
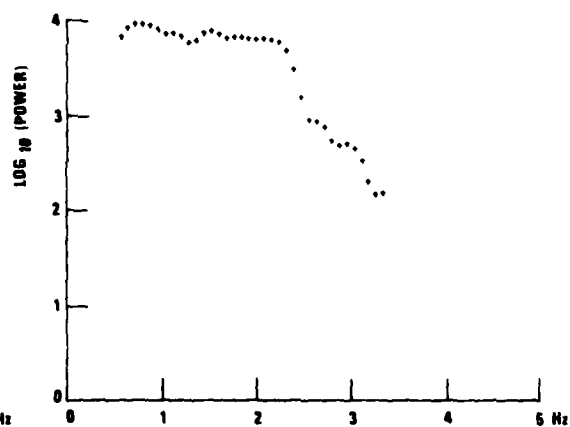
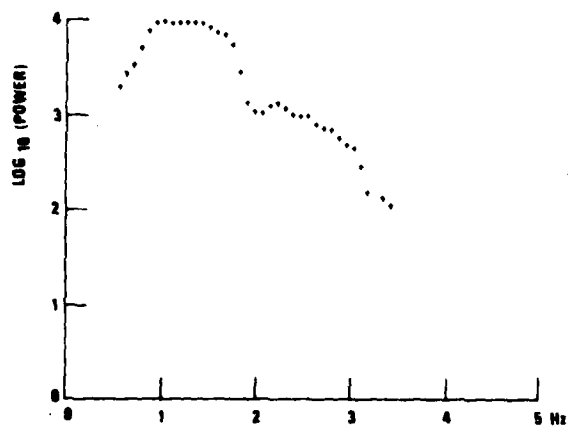
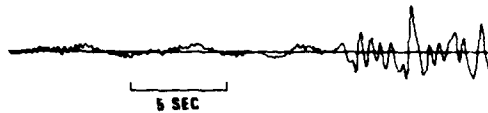


16 JAN 63
5:44:54.4

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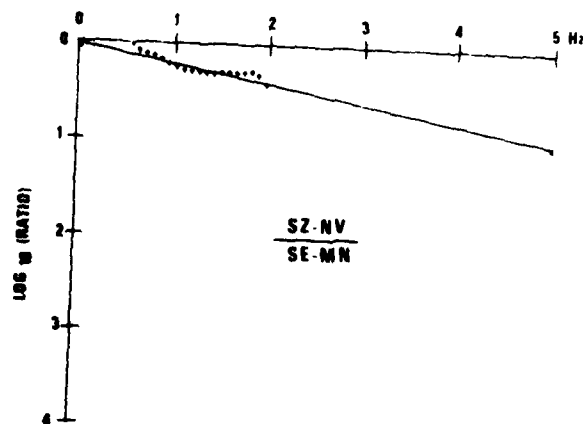
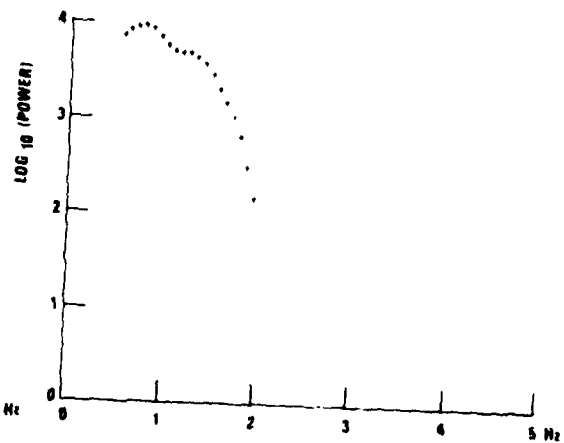
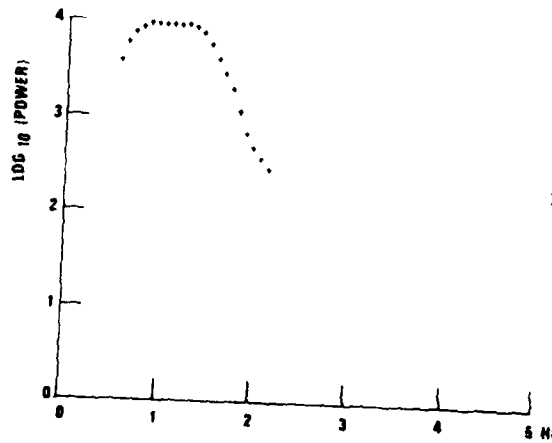
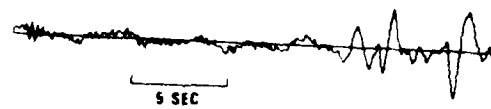


16 JAN 63
12 32:37.1

SE MN



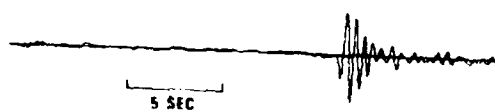
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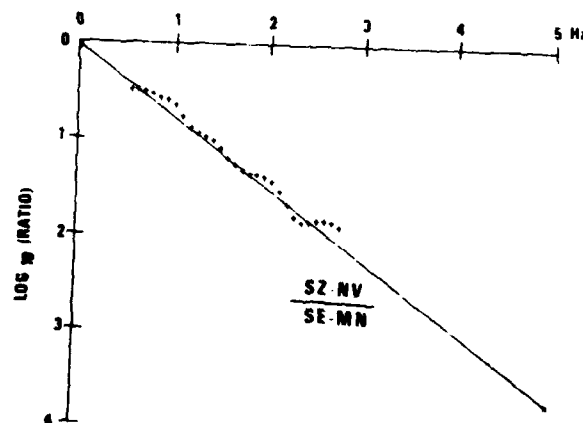
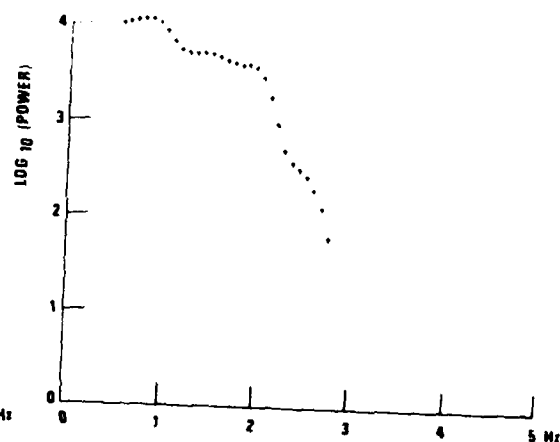
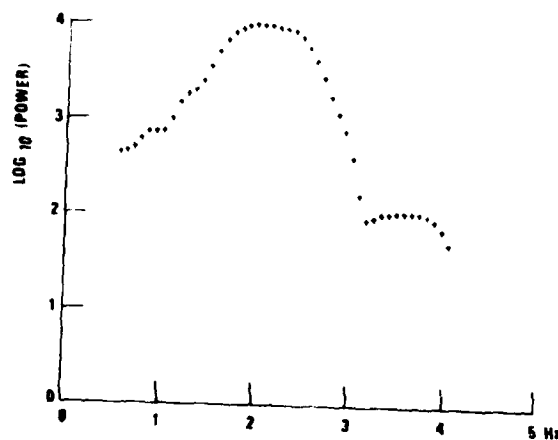
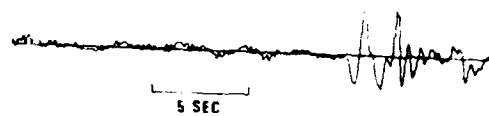
16 JAN 63

15:09:11.4

SE MN



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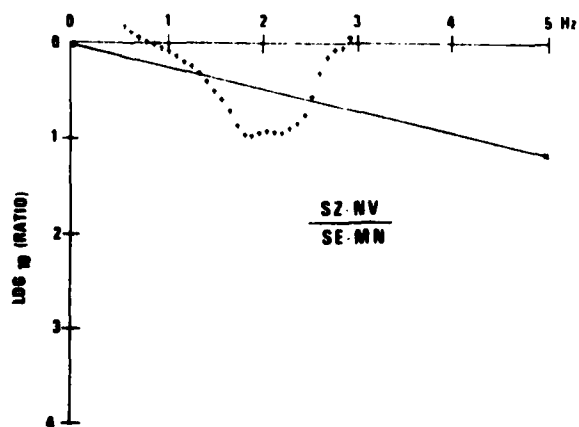
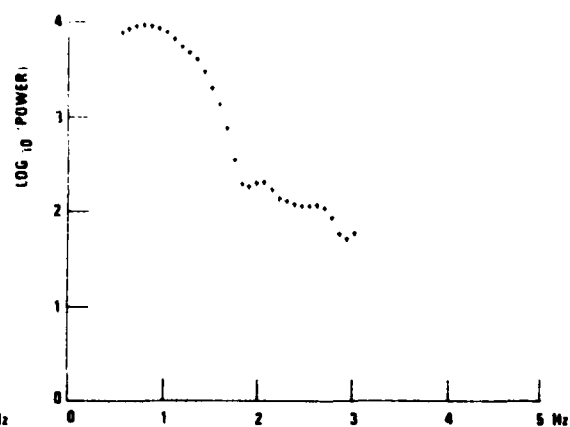
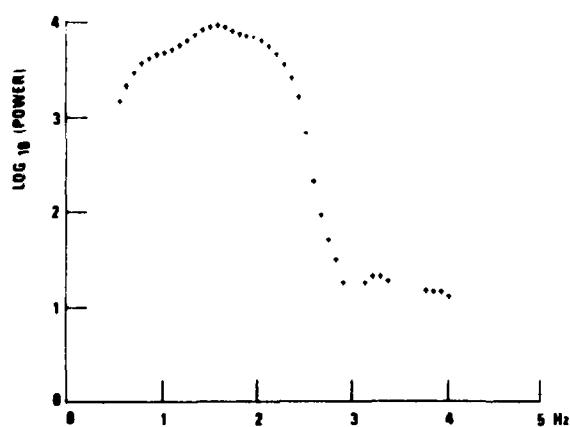
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21 JAN 63
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SE MN

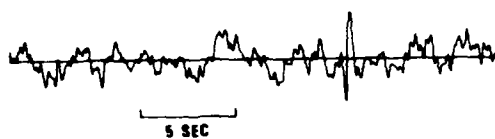


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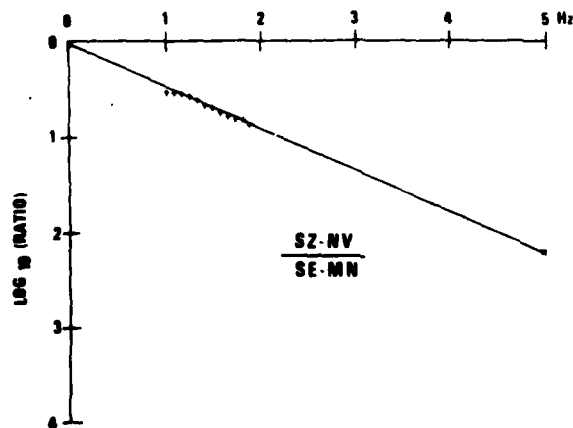
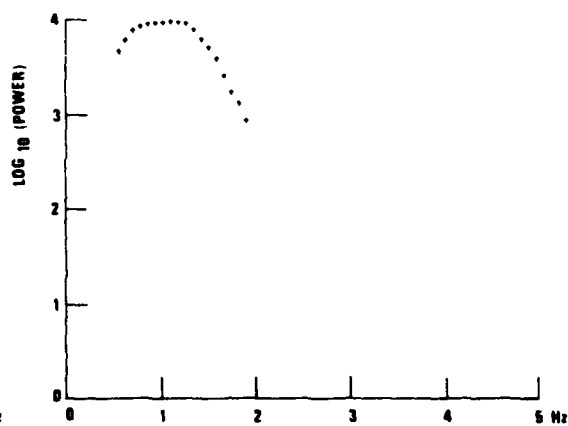
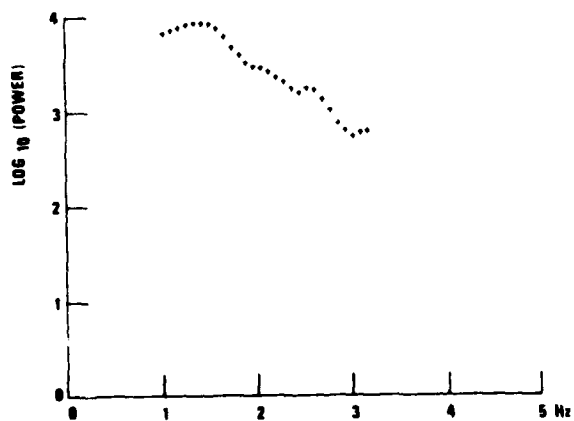
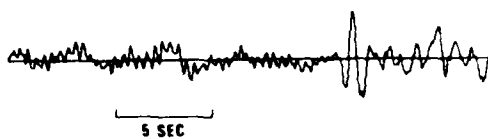


21 JAN 63
4:25:04.6

SE-MN



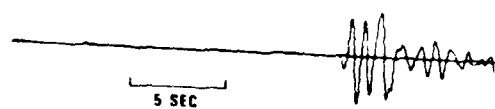
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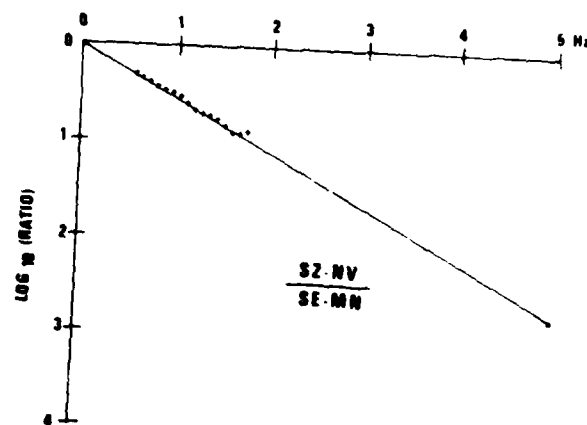
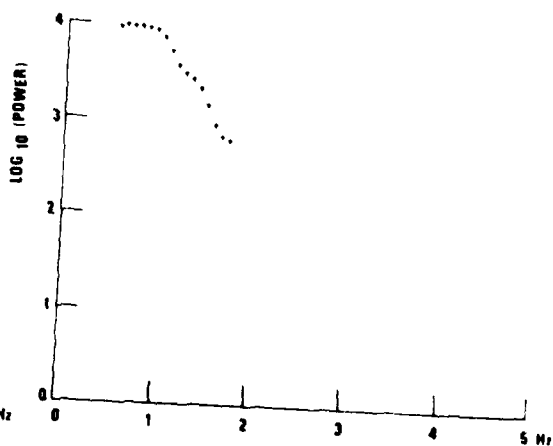
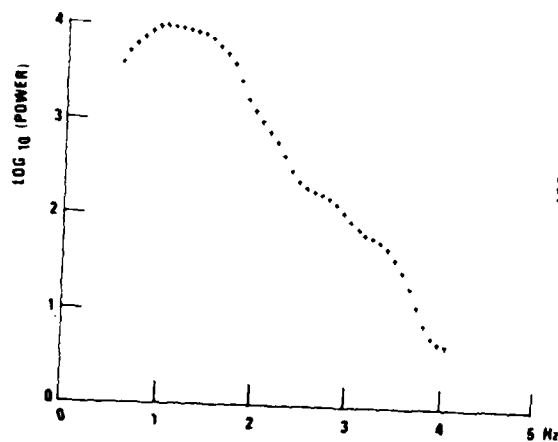
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27 JAN 63
19 35 16.3

SE-MN



SZ-NV



E-11

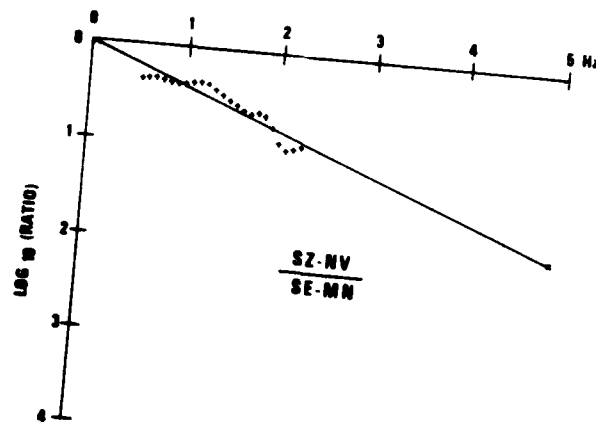
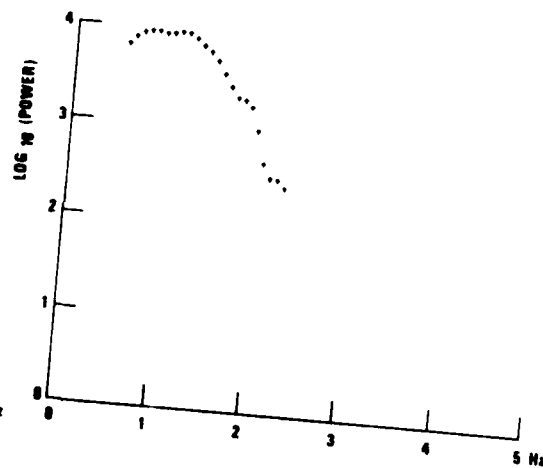
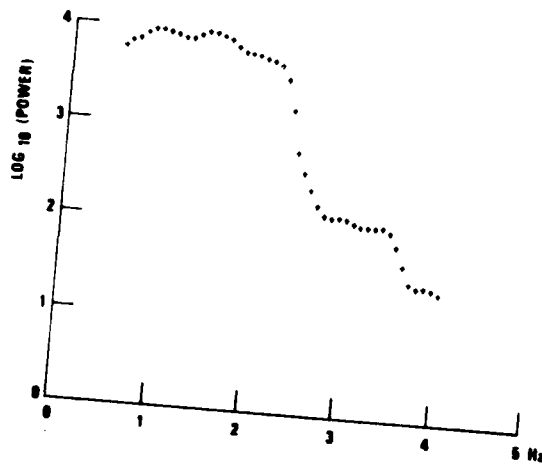
28 JAN 63
2:12:13.3

SE-MN

SZ-NV

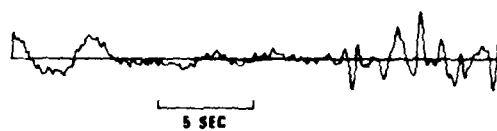
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5 SEC

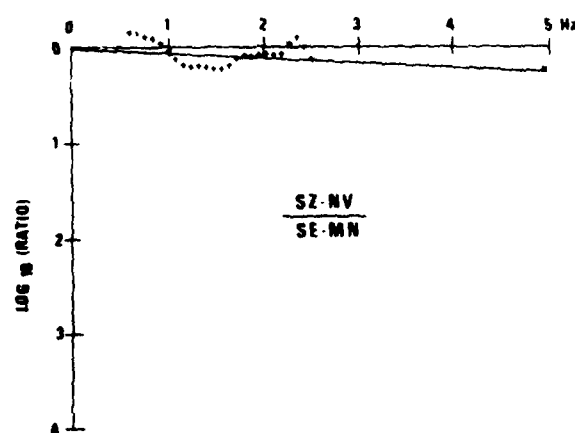
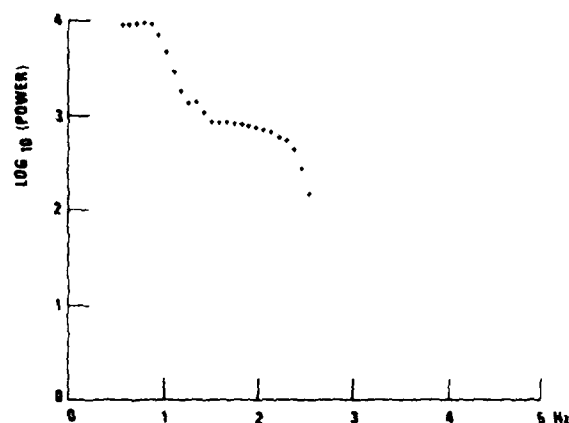
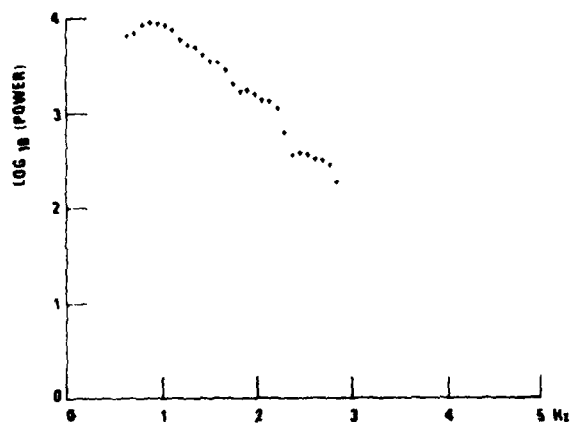
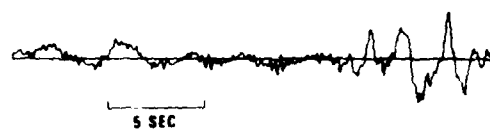


28 JAN 63
4:05:31.8

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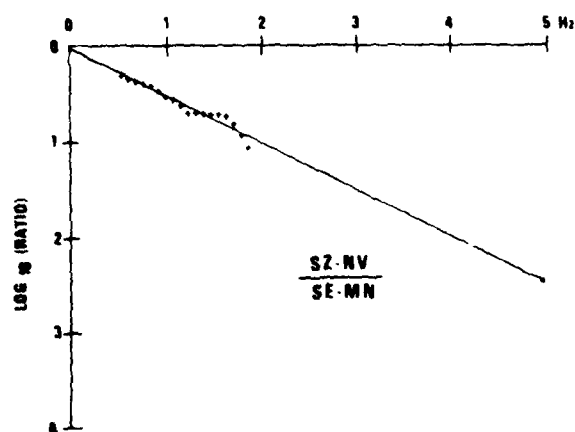
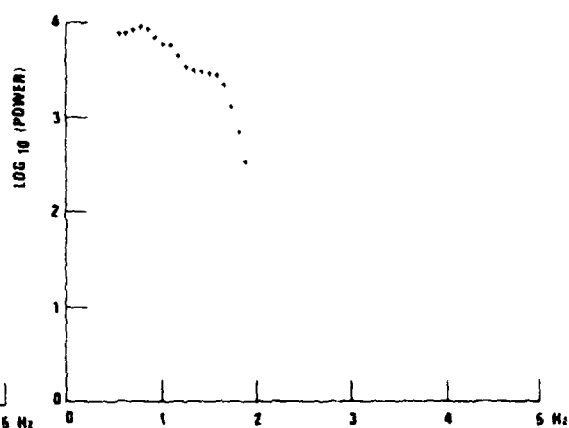
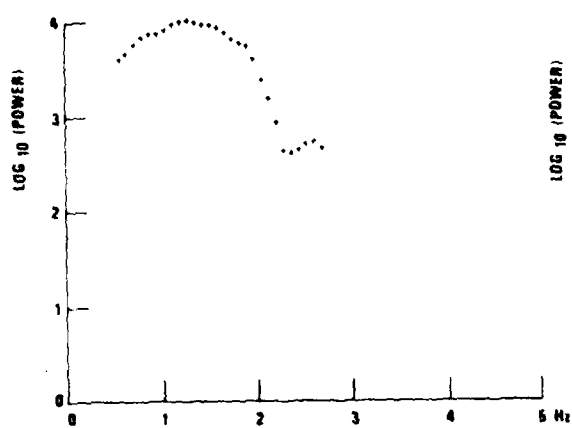
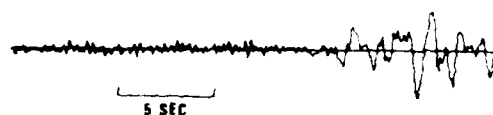
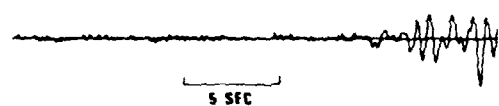
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28 JAN 63
13 00 48.1

SE-MN

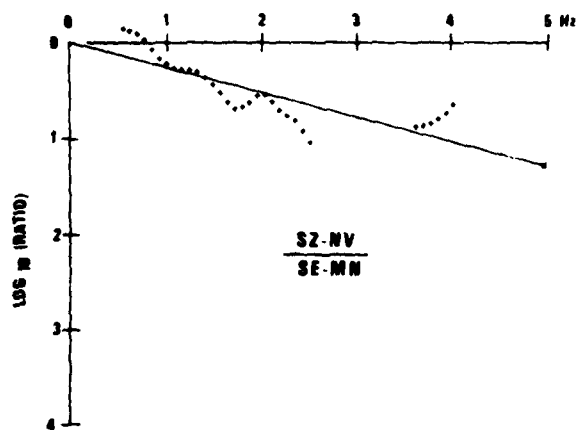
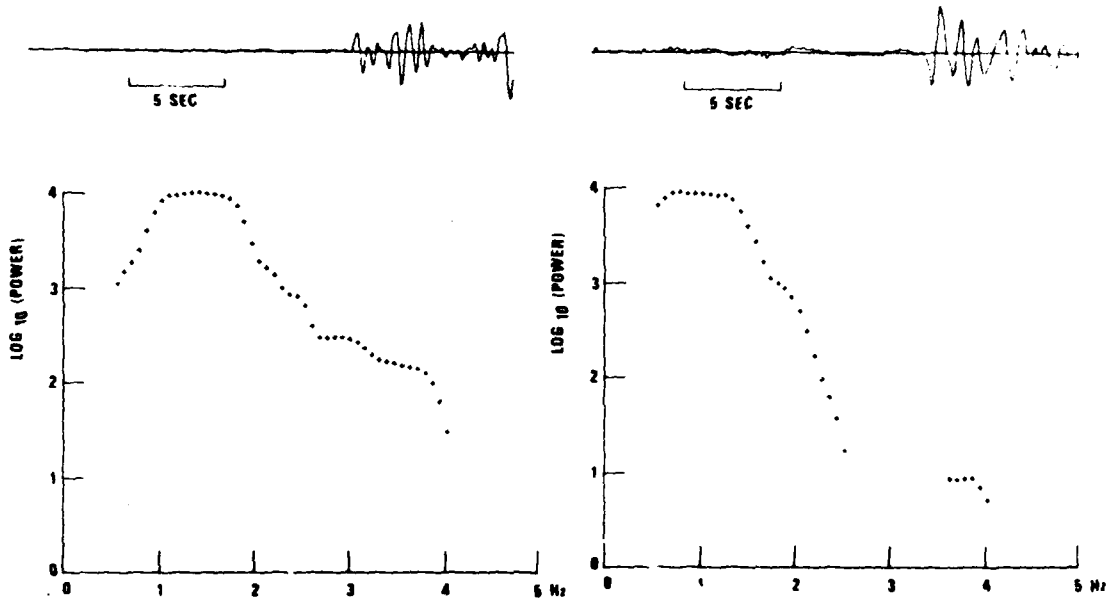
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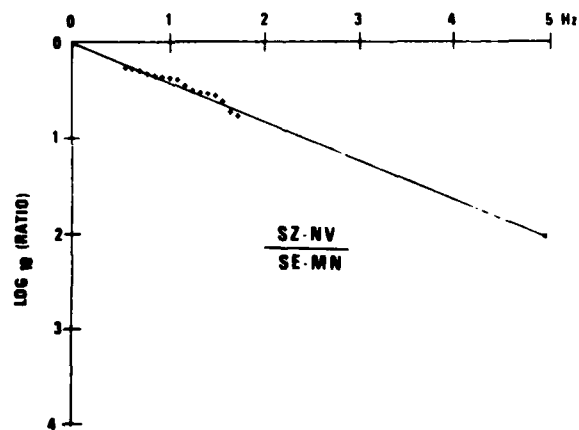
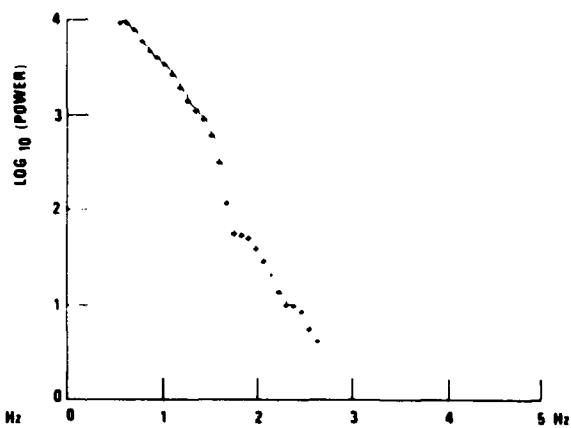
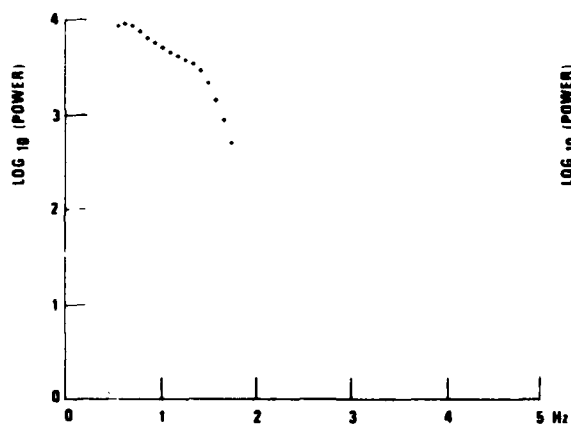
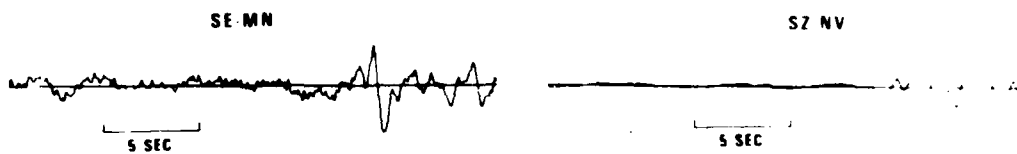
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9 21:16.2

SE-MN

SZ-NV

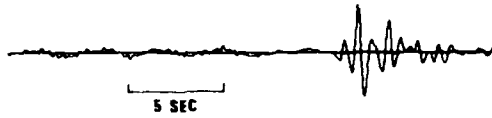


31 JAN 63
5 06 43.4

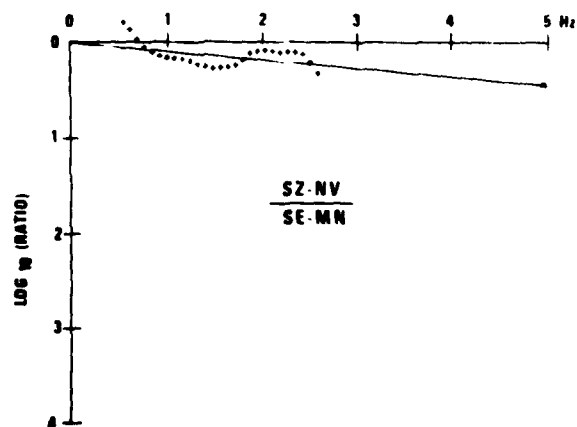
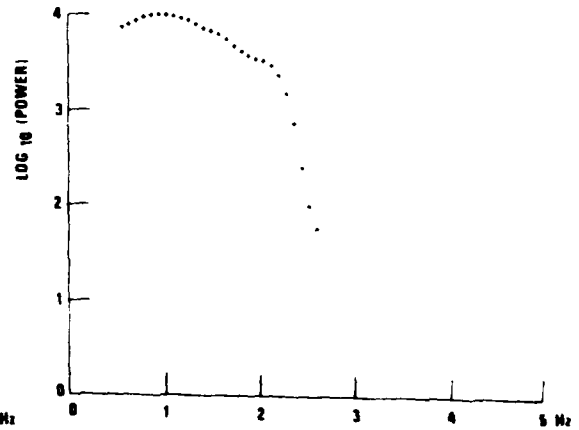
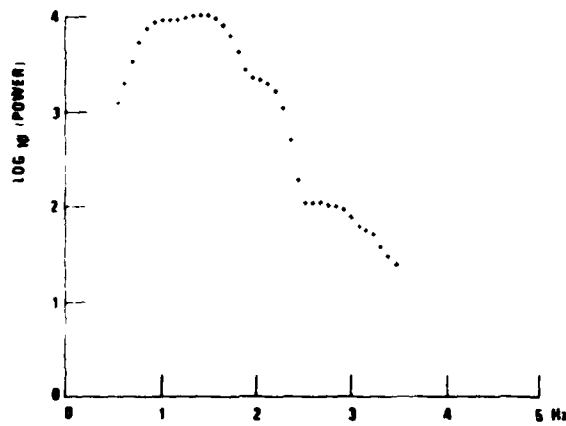
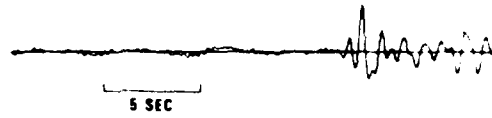


5 FEB 63
12:08 20.5

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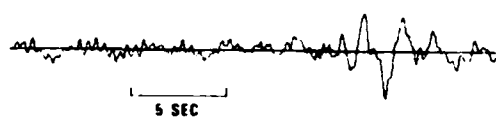


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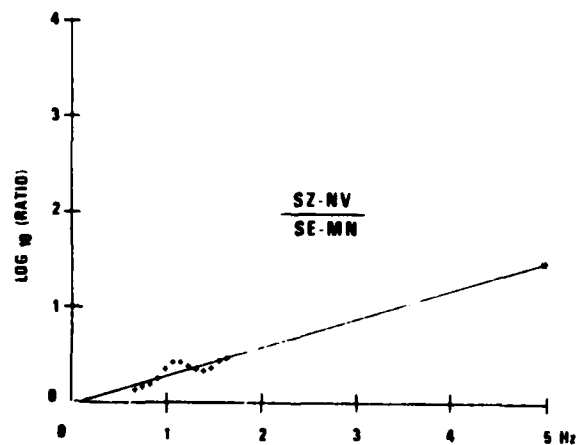
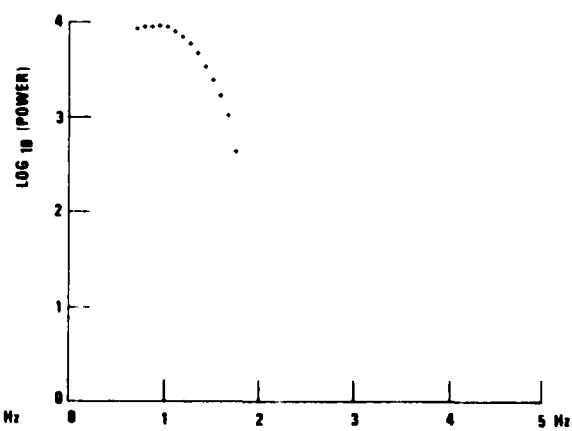
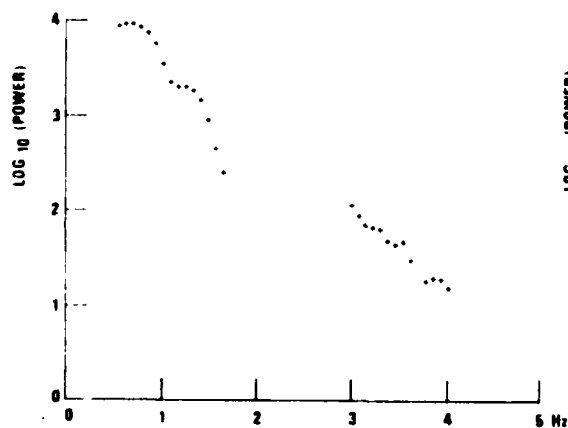
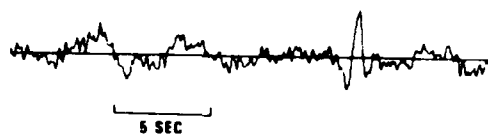


5 FEB 63
17 49 57.3

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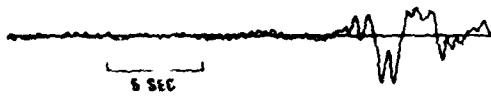


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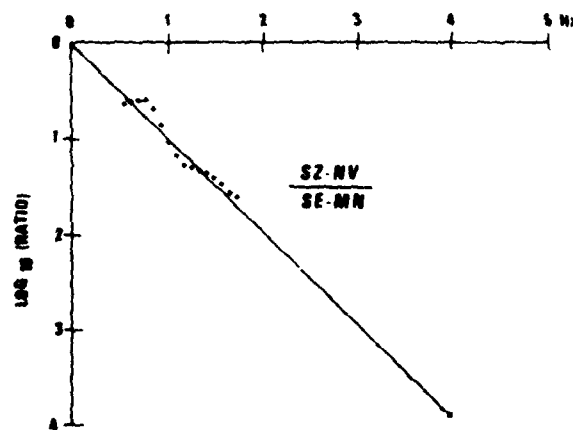
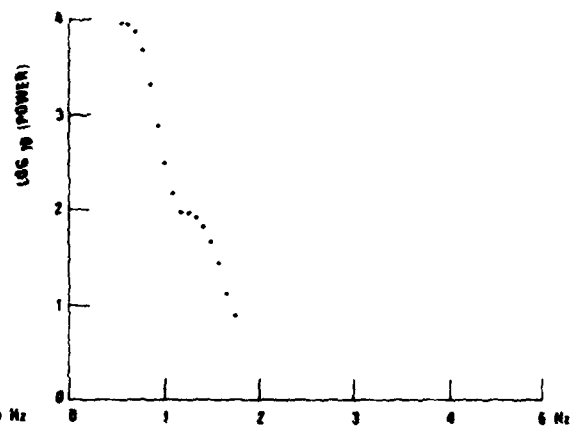
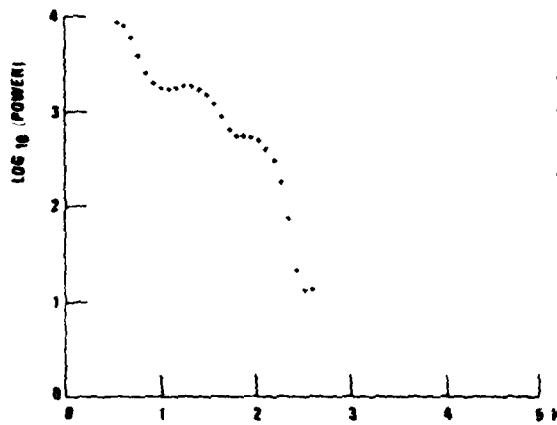
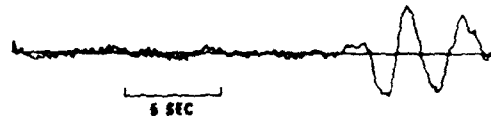


5 FEB 63
20:39:20.4

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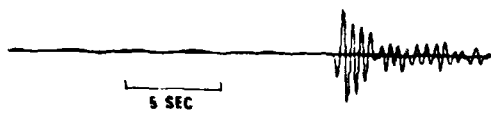


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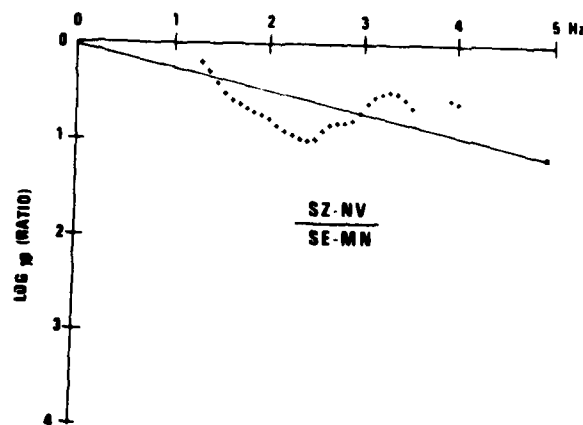
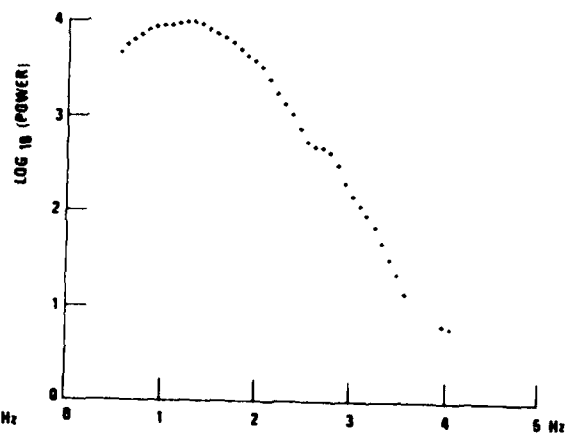
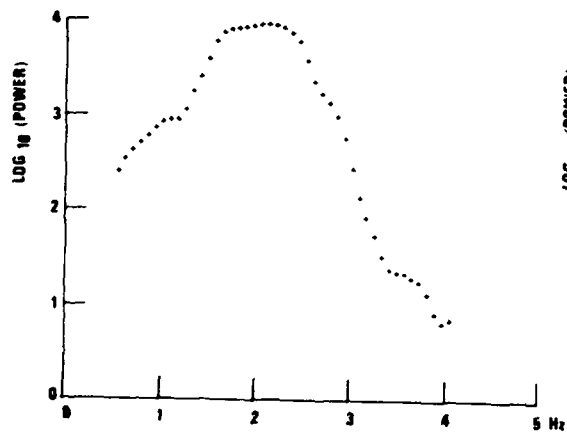
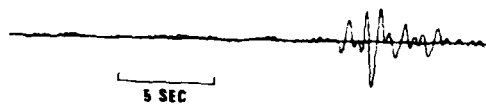


6 FEB 63
3:27:56.9

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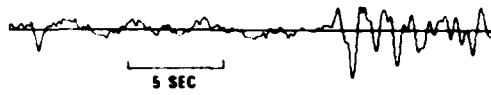


SZ-NV



6 FEB 63
18:17:11.3

SE-MN



SZ-NV

