NOAA Technical Memorandum ERL PMEL-3

CURRENT METER MEASUREMENTS IN THE GULF OF ALASKA - PART I RESULTS FROM NEGOA MOORINGS 60, 61, 62A

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CURRENT METER MEASUREMENTS

IN THE GULF OF ALASKA - PART I

RESULTS FROM NEGOA MOORINGS 60, 61, 62A

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Three moorings in the physical oceanographic study of the Northeast Gulf of Alaska, deployed in the last half of 1974, are described. Time series analysis of the moorings with a recently developed Aanderaa processing system is described, and time series analysis plots are presented.

1. INTRODUCTION

During 1974, the Institute of Marine Sciences of the University of Alaska and the Pacific Marine Environmental Laboratory (PMEL) of NOAA began a joint study of the physical oceanography of the Northeast Gulf of Alaska (NEGOA). Three moorings were deployed on the continental shelf. The purpose of these initial moorings is to begin describing the vertical and time variability of the currents in three areas of the shelf which have differing topographical environments. Figure 1 shows the positions and dates of the three moorings.

This memorandum is a summary of the data collected of these three moorings. The computer processing is briefly discussed, then the moorings are described, including a summary of the performance of the instruments. The data summaries are found in the appendices.

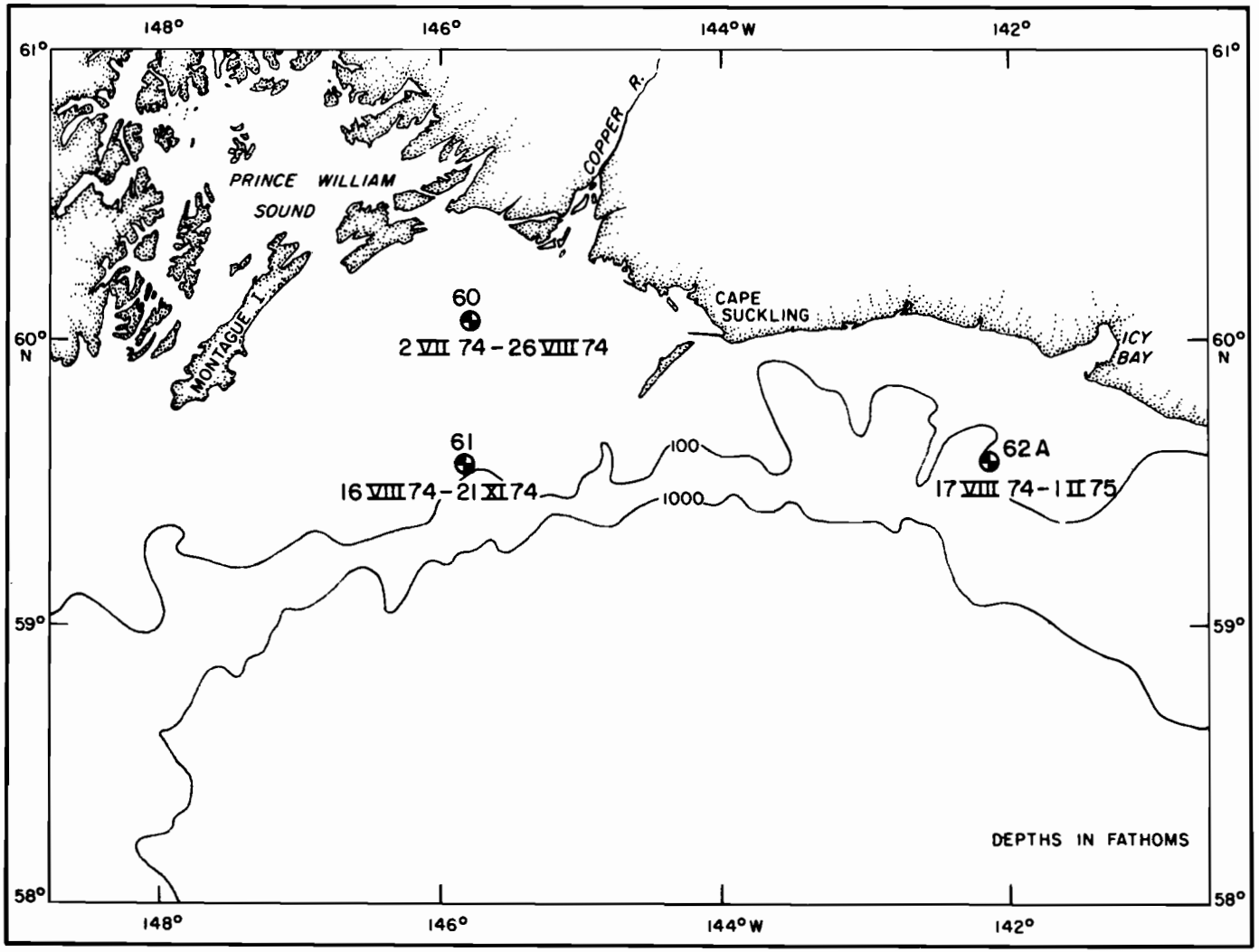


Figure 1. Location of NEGOA moorings 60, 61, 62A showing dates of deployment.

2. DATA PROCESSING OF AANDERAA CURRENT METER RECORDS

Figure 2 is a schematic of the data processing procedure. The original data tape is removed from the current meter without rewinding. This original tape is then re-recorded backwards onto a stronger 1.5 mil working tape which is used in all future data processing operations. The delicate 0.5 mil original Aanderaa tape is stored, and need not be replayed under normal circumstances. The purpose of this process is to minimize handling of the original tape.

The working tape is then played into the PMEL tape translating facility which generates a computer-compatible 7-track tape (556 bpi). The reader detects incorrect bit counts in any words, and an incorrect number of words in any data record. (A full discussion of the intricacies of the reader facility including software will appear in a forthcoming technical report.) At the time of translation, the data stream is checked by a bit display module and can be plotted on an analog chart.

Once the Aanderaa working tape has been translated onto a computer tape, two programs are required to edit the data for time-series analysis. The first program, AANCMRD, takes the first look at the data. As each data record is read, calibration equations are applied to the raw binary data giving physical values of speed, direction, etc. At this time, any irregularities from"dead zone" readings in speed or direction are noted and interpolated across. Also, magnetic deviation correction is applied, resulting in "true" compass directions, and all detected errors or interpolations are flagged. A binary tape with the processed data is created as well as a printer output. A sample of the printout is shown in Figure 3. On the

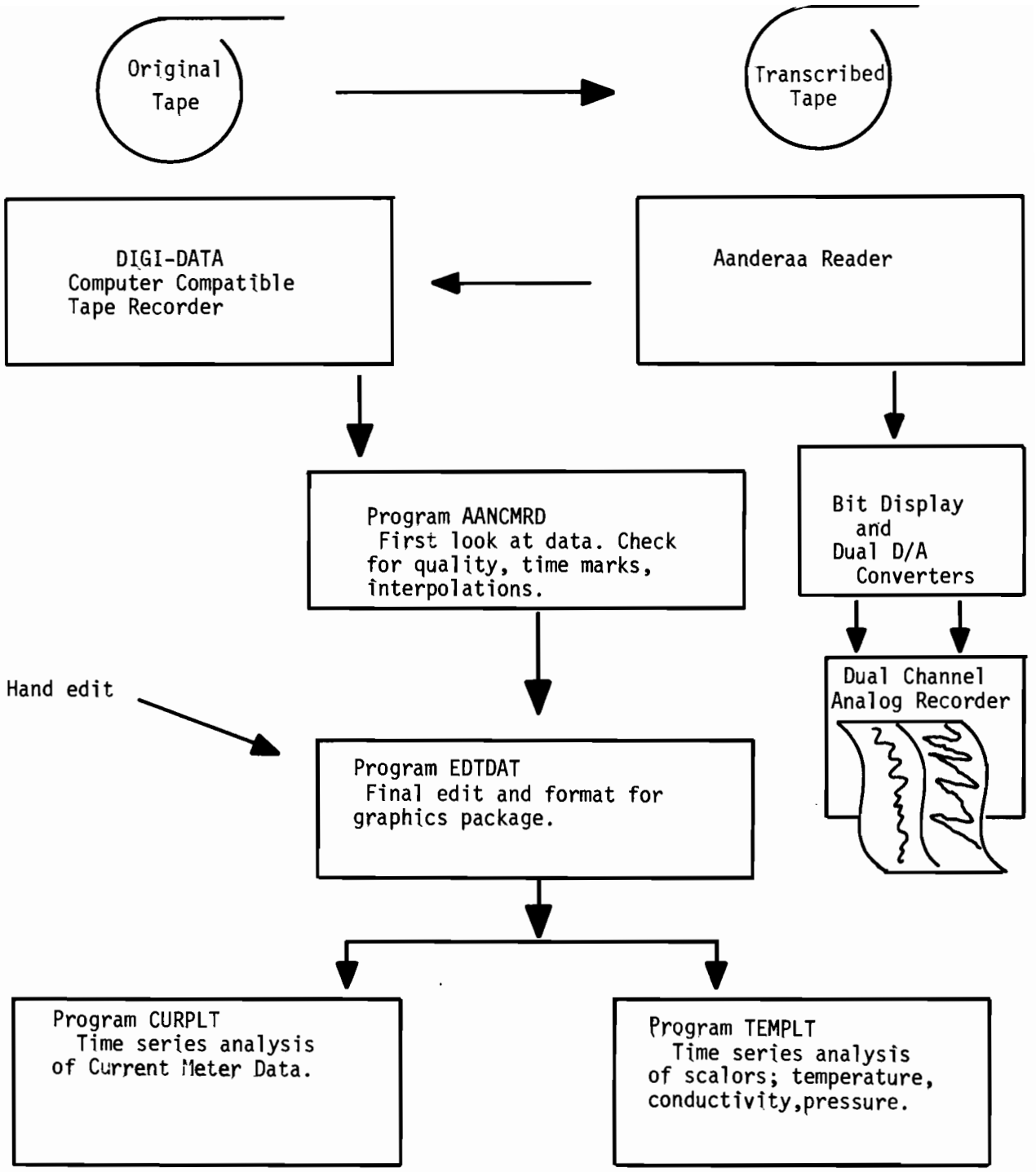


Figure 2. Block diagram of Aanderaa data processing.

	CALCULATED DATA					INTERPOLATION	RAW DATA						ERROR TYPES
RECORD	SPEED	DIR	TEMP	COND	DEPTH	FLAG	SPEED	DIR	TEMP	COND	DEPTH	REF	A B C D E
1	65.45	53.25	20.693	.867	-.38	0	468	27	1023	2	48	842	0
2	1.58	51.52	20.693	.857	-.31	0	468	22	1023	2	48	842	0
3	1.58	51.17	20.693	.867	-.38	0	468	21	1023	2	48	842	0
4	1.58	325.11	20.693	.157	-.38	0	468	806	1023	2	48	842	0
5	1.58	208.90	20.465	.867	-.45	0	468	473	1013	2	47	842	0
6	1.58	18.15	17.454	.857	-.46	0	468	958	881	2	47	842	0
7	1.58	138.86	16.222	.867	-.46	0	468	270	827	2	47	842	0
8	1.58	326.16	15.674	.867	-.38	0	468	809	883	2	48	842	0
9	1.58	309.76	15.195	.867	-.38	0	468	752	782	2	48	842	0
10	1.58	329.30	14.785	.857	-.38	0	468	818	764	2	48	842	0
11	1.58	18.13	14.488	.867	.45	0	468	935	751	2	53	842	0
12	26.37	142.25	14.306	34.425	.76	0	658	282	743	511	55	842	0
13	37.44	247.29	9.584	35.235	24.47	0	913	583	536	523	211	842	0
14	15.48	222.86	9.949	35.585	24.17	0	1022	513	552	527	209	842	0
15	22.89	224.25	10.132	35.775	23.71	1	159	517	568	531	206	842	0
16	29.38	240.34	9.744	35.437	23.25	0	363	586	543	526	203	842	0
17	34.83	239.96	9.949	35.572	22.80	0	681	562	552	528	200	842	0
18	33.62	247.29	10.040	35.775	22.50	0	836	583	556	531	198	842	0
19	33.88	257.76	10.084	36.450	22.84	1	23	613	593	541	195	842	0
20	32.39	275.21	13.656	36.112	21.53	0	249	663	583	536	192	842	0
21	29.15	259.56	10.782	36.112	21.28	0	444	618	585	536	190	842	0
22	24.87	275.21	9.949	35.572	21.13	0	615	663	552	528	189	842	0
23	23.50	298.91	10.086	35.787	21.13	0	775	708	558	538	189	842	0
24	22.53	312.20	9.533	35.302	21.13	0	938	769	534	524	189	842	0
25	22.82	319.88	9.478	35.235	21.13	1	55	791	531	523	189	842	0
26	23.89	312.90	9.105	34.965	21.13	0	213	771	515	519	189	842	0
27	22.27	306.96	9.151	34.965	21.43	0	365	754	517	519	191	842	0
28	21.18	316.04	9.265	35.100	21.89	0	509	780	522	521	194	841	0
29	23.50	312.91	9.219	35.032	22.34	0	670	771	528	528	197	842	0
30	21.04	310.10	8.991	34.830	22.65	0	813	763	518	517	199	842	0
31	19.72	303.82	9.308	34.762	23.26	0	939	745	586	516	203	842	0
32	16.46	303.82	8.672	34.560	23.41	1	7	745	496	513	204	842	0
33	14.21	316.39	8.717	34.627	23.86	0	100	781	498	514	207	842	0
34	13.25	352.33	8.193	34.222	23.86	0	186	884	475	508	207	842	0
35	11.45	321.97	8.251	34.230	24.17	0	259	797	478	509	209	842	0
36	9.84	294.85	8.466	34.432	24.17	0	320	717	487	512	209	842	0
37	12.16	301.73	9.444	34.625	24.17	0	393	739	486	511	209	842	0
38	12.98	320.92	9.581	34.692	24.17	0	482	794	492	512	209	842	0
39	9.56	323.36	10.109	35.775	24.17	0	541	801	559	531	209	842	0
40	8.47	326.85	10.747	36.517	24.82	0	592	811	587	542	208	842	0
41	10.38	209.60	10.793	36.453	23.71	0	657	475	589	541	206	842	0
42	21.63	220.77	10.314	35.377	23.41	0	797	507	568	534	204	842	0

rotor released, unit at surface

unit at depth

Figure 3. Typical output from Program AANCMRD.

right hand are the Aanderaa binary coded raw data, and on the left hand are the calculated physical values.

The printout from AANCMRD is carefully analyzed for any systematic errors. Also, the validity of all detected errors is appraised. Time-marks taken from a mooring log are compared to the recorded data (for example, Fig. 3 shows change in values when the current meter enters the water, with the prior release of the rotor).

The second program, EDTDAT, completes the data editing. This program accepts hand editing via data cards, and interpolates or deletes any desired error records. Figure 4 is a sample of the final output of this program. Each sample is given a true GMT time. Then the data are formatted onto another binary file, ready for time-series analysis and plotting by the standard PMEL time-series analysis packages, CURPLT and TEMPLT (Halpern et al., 1974).

These packages provide a complete overview of the available data. The program CURPLT performs a time-series analysis of current vectors in a rectangular coordinate system and produces Calcomp plots of histogram statistics, time-series, progressive vector diagrams, and spectra (u, v, power and rotary spectra). TEMPLT performs one-dimensional time-series analysis of any scalers such as temperature, conductivity, or pressure. Again, Calcomp plots of histogram, time-series, and power spectrum are produced.

REC. NO.	TIME	DATE	U-VEL. CM/SEC	V-VEL. CM/SEC	SPEED CM/SEC	COMPASS DEGREES	TEMP. DEG.C	COND. MV/CM	DEPTH METERS
1	0336	2 JUL 74	-5.235	16.952	17.646	342.742	5.048	27.729	1023.000
2	0346	2 JUL 74	-2.779	7.192	7.710	338.875	5.048	27.729	1023.000
3	0356	2 JUL 74	-2.823	6.883	7.296	340.633	5.026	27.729	1023.000
4	0406	2 JUL 74	-2.528	6.484	6.882	338.523	5.003	27.729	1023.000
5	0416	2 JUL 74	-1.767	6.222	6.468	344.148	5.003	27.729	1023.000
6	0426	2 JUL 74	-2.294	6.048	6.468	339.227	5.026	27.729	1023.000
7	0436	2 JUL 74	-2.182	5.647	6.054	338.875	5.003	27.729	1023.000
8	0446	2 JUL 74	-1.541	5.426	5.648	344.148	5.003	27.729	1023.000
9	0456	2 JUL 74	-.634	6.021	6.054	353.992	4.981	27.666	1023.000
10	0506	2 JUL 74	-.778	5.169	5.226	351.531	4.958	27.666	1023.000
11	0516	2 JUL 74	1.368	4.841	5.226	22.117	4.958	27.666	1023.000
12	0526	2 JUL 74	-.357	4.799	4.812	355.758	4.958	27.666	1023.000
13	0536	2 JUL 74	1.333	4.123	4.398	20.359	4.958	27.666	1023.000
14	0546	2 JUL 74	2.912	3.296	4.398	41.453	4.958	27.666	1023.000
15	0556	2 JUL 74	3.139	2.453	3.984	52.000	4.958	27.666	1023.000
16	0606	2 JUL 74	3.805	1.182	3.984	72.742	4.958	27.666	1023.000
17	0616	2 JUL 74	3.383	.876	3.984	88.914	4.958	27.666	1023.000
18	0626	2 JUL 74	3.653	-1.598	3.984	113.523	4.958	27.666	1023.000
19	0636	2 JUL 74	2.651	-2.388	3.578	131.885	4.958	27.666	1023.000
20	0646	2 JUL 74	2.308	-2.730	3.578	139.891	4.958	27.666	1023.000
21	0656	2 JUL 74	2.375	-3.199	3.984	143.486	4.981	27.729	1023.000
22	0706	2 JUL 74	2.578	-3.563	4.398	144.109	4.981	27.729	1023.000
23	0716	2 JUL 74	3.798	-4.177	5.640	137.781	4.981	27.729	1023.000
24	0726	2 JUL 74	2.392	-5.423	6.054	153.682	5.003	27.729	1023.000
25	0736	2 JUL 74	3.367	-6.511	7.710	149.031	5.003	27.729	1023.000
26	0746	2 JUL 74	4.128	-6.512	7.710	147.625	5.026	27.729	1023.000
27	0756	2 JUL 74	4.121	-7.478	8.538	151.141	5.003	27.729	1023.000
28	0806	2 JUL 74	5.636	-7.993	9.780	144.812	5.026	27.729	1023.000
29	0816	2 JUL 74	4.089	-8.465	9.366	154.656	5.026	27.729	1023.000
30	0826	2 JUL 74	4.364	-9.213	10.194	154.656	5.026	27.729	1023.000
31	0836	2 JUL 74	3.334	-10.506	11.022	162.391	5.026	27.729	1023.000
32	0846	2 JUL 74	4.784	-10.424	11.436	155.711	5.026	27.729	1023.000
33	0856	2 JUL 74	4.959	-12.598	13.506	158.875	5.026	27.729	1023.000
34	0906	2 JUL 74	4.848	-13.318	13.920	163.894	5.026	27.729	1023.000
35	0916	2 JUL 74	4.962	-12.123	13.092	157.820	5.026	27.729	1023.000
36	0926	2 JUL 74	2.966	-13.176	13.506	167.312	5.026	27.729	1023.000
37	0936	2 JUL 74	3.583	-14.326	14.748	166.258	5.003	27.666	1023.000
38	0946	2 JUL 74	2.085	-13.194	13.506	167.664	5.003	27.666	1023.000
39	0956	2 JUL 74	2.337	-13.714	13.920	170.125	5.003	27.666	1023.000

Figure 4. Typical output from Program EDTDAT.

3. THE MOORINGS

3.1 NEGOA 60

Mooring NEGOA 60 (Fig. 5) was designed and installed by the Institute of Marine Sciences, University of Alaska. The mooring depth was approximately 100 meters, and the position was 60° 5.4'N, 145° 40.7'W.

The subsurface mooring included 4 Aanderaa current meters located at 20, 30, 50 and 90 m depth. The sampling interval for the meters was 10 min. The mooring was deployed on 2 July 1974 and recovered in September. Because of weather problems, the meters were not recovered before the internal tapes had overrun.

During processing only the first 8000 data points (55.5 days) were considered, since weakening batteries began to generate excessive tape noise after this period. All four current meters produced clean readable tapes, and all sensors appear to have worked well.

3.2 NEGOA 61

Mooring NEGOA 61 was installed by PMEL at 59° 34.2'N, 145° 47.6'W in 173 m of water (Fig. 6). Five Aanderaa current meters were located at nominal depths of 20, 30, 50, 100 and 163 m depth. The sampling interval was 30 min, and all meters were operating on recovery. Table 1 shows the sensors included in the mooring and their performance.

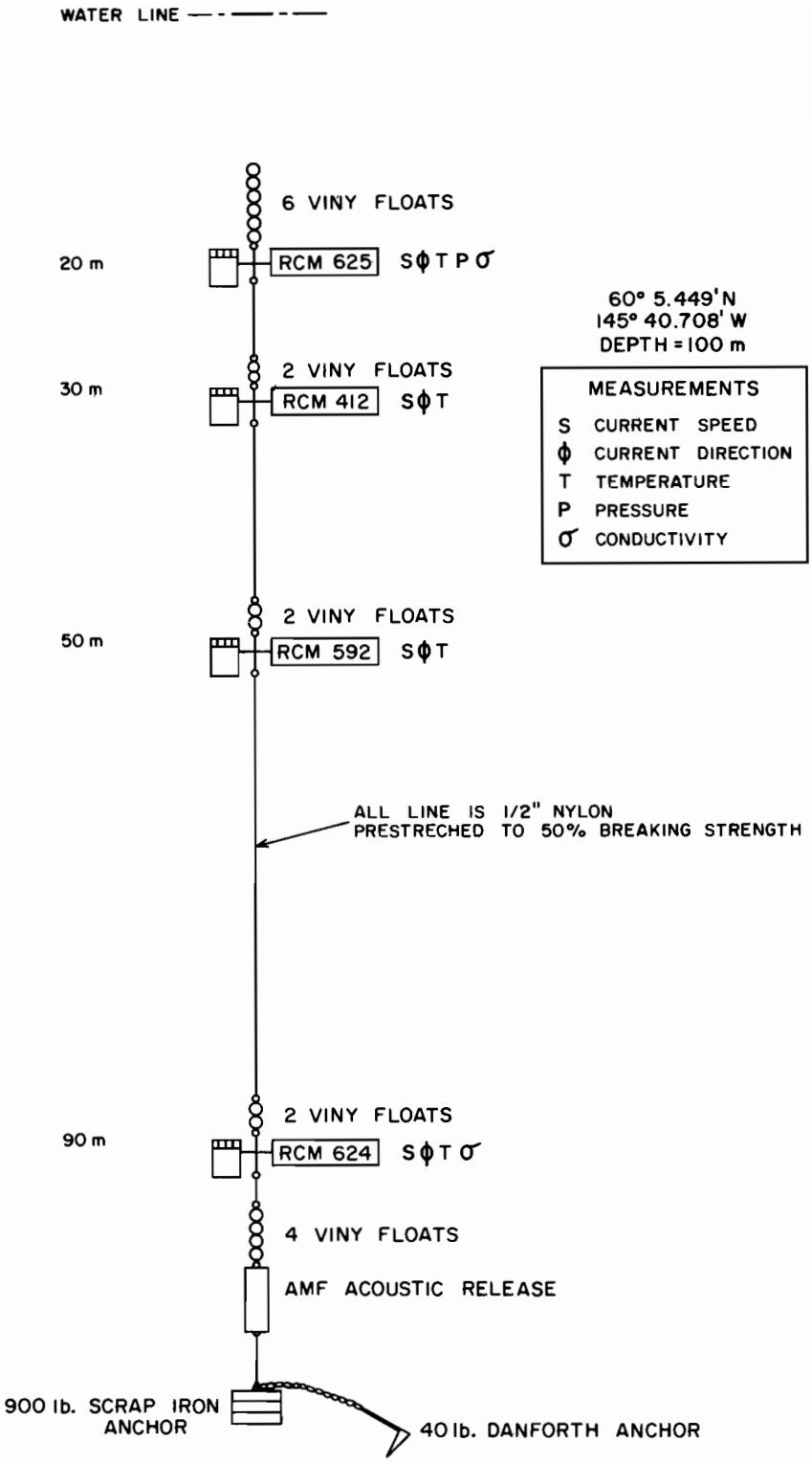


Figure 5. MOORING NEGOA 60

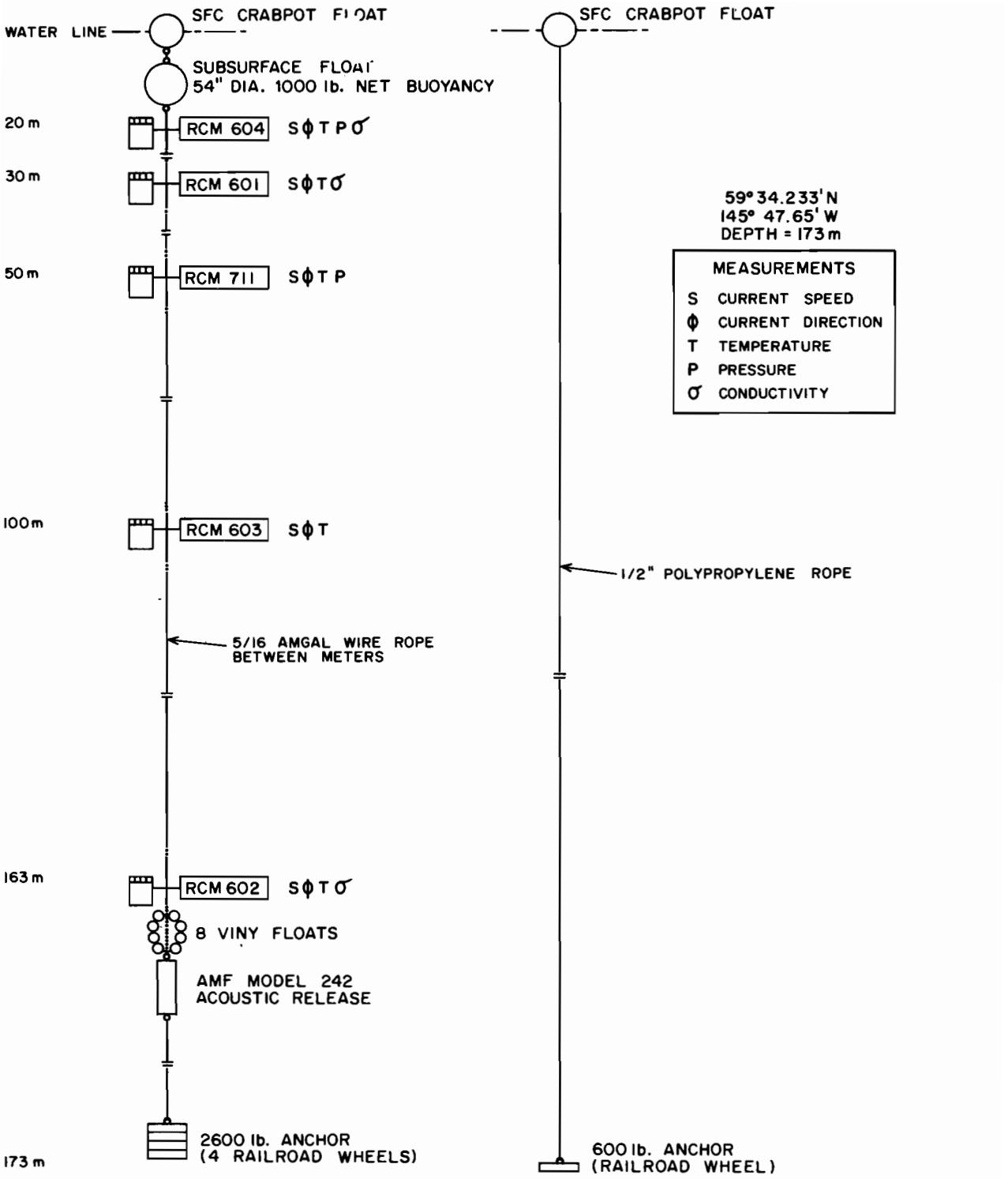


Figure 6. MOORING NEGOA 61

Table 1. Sensors Included in Mooring NEGOA 61

Current Meter	Nominal Depth (m)	S	Φ	T	P	C
604	20	✓	✓	✓	✓	✓
601	30	x	✓	✓	o	✓
711	50	✓	✓	✓	x	o
603	100	✓	✓	✓	o	o
602	163	✓	✓	✓	o	30%

✓ sensor apparently 100% operational
o sensor not included
x sensor failed totally
30% data recovered

3.3 NEGOA 62A

Mooring 62A was installed by PMEL at 59° 34.4'N, 142° 10.5'W in 188 m of water (Fig. 7). Four Aanderaa current meters were located at 24, 50, 100 and 178 m depth. The sampling interval of the instruments was 30 min. This mooring is the first in a year long series of current meter data to be collected at this location. Table 2 shows the sensors included in the mooring and their performance.

Table 2. Sensors Included in Mooring NEGOA 62A

Current Meter	Nominal Depth (m)	S	Φ	T	P	C
598	20	✓	✓	✓	✓	✓
617*	50	25%	25%	25%	o	o
616†	100	60%	60%	60%	o	o
600	178	✓	✓	✓	o	✓

✓ sensor apparently 100% operational
o sensor not included

* Even though the sensors appear operational this unit became defective after 30 days because of clock problems

† Excessive noise requires extensive interpolation.

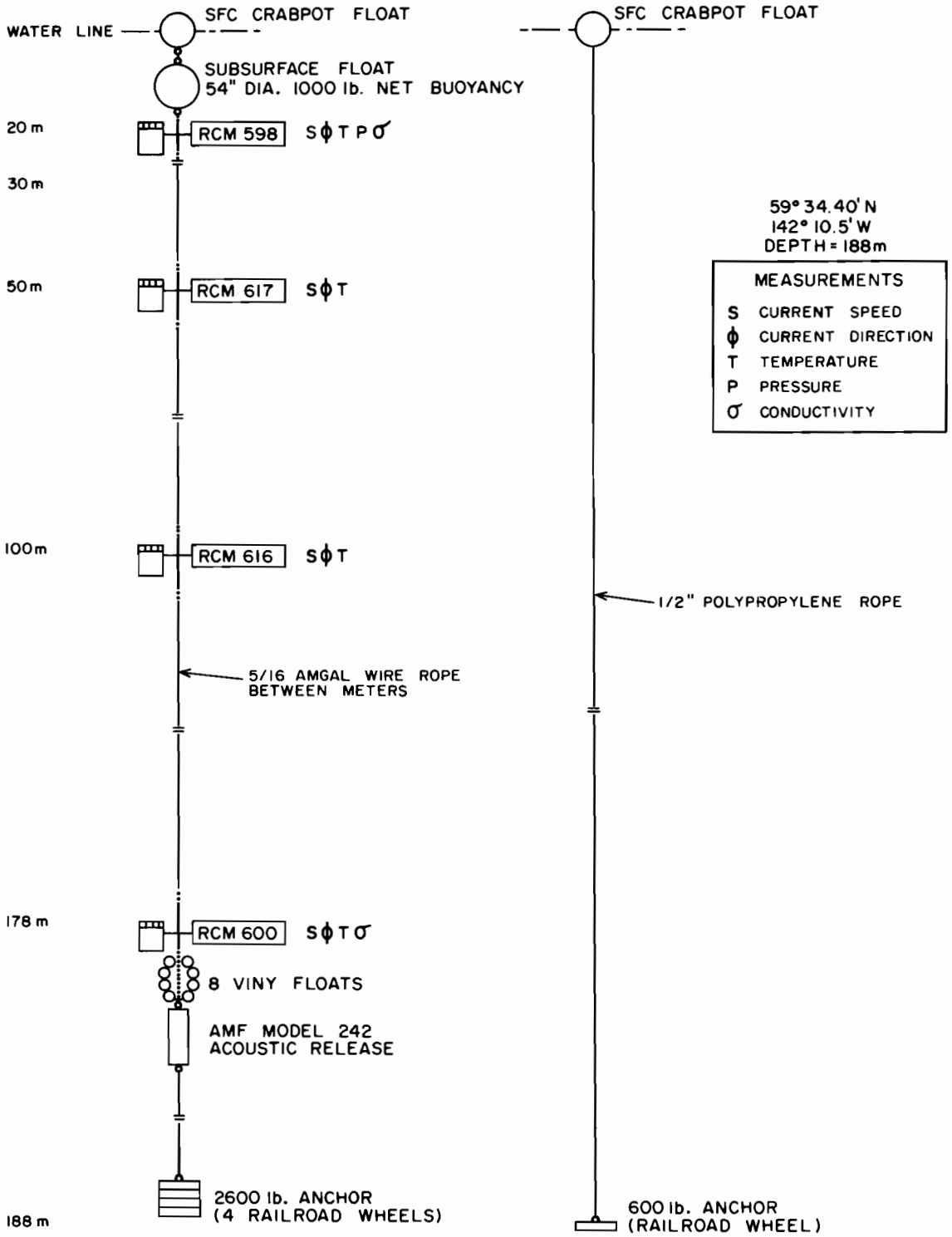


Figure 7. MOORING NEGOA 62A

4. ACKNOWLEDGMENTS

The electronic work was excellently done by Roy Newman and David Spell. James Holbrook was most helpful in sharing his experience and programming expertise. The patience of the NEGOA Project Office was most appreciated.

5. REFERENCES

Halpern, D., J.R. Holbrook and R.M. Reynolds (1974). A Compilation of wind, current and temperature measurement: Oregon, July and August 1973. CUEA Technical Report 6, Department of Oceanography, University of Washington, 190 pp.

APPENDIX A

TIME SERIES ANALYSIS OF DATA FROM NEGOA 60

A.1. Current Meter 625 at 20 meters

A.2. Current Meter 412 at 30 meters

A.3. Current Meter 392 at 50 meters

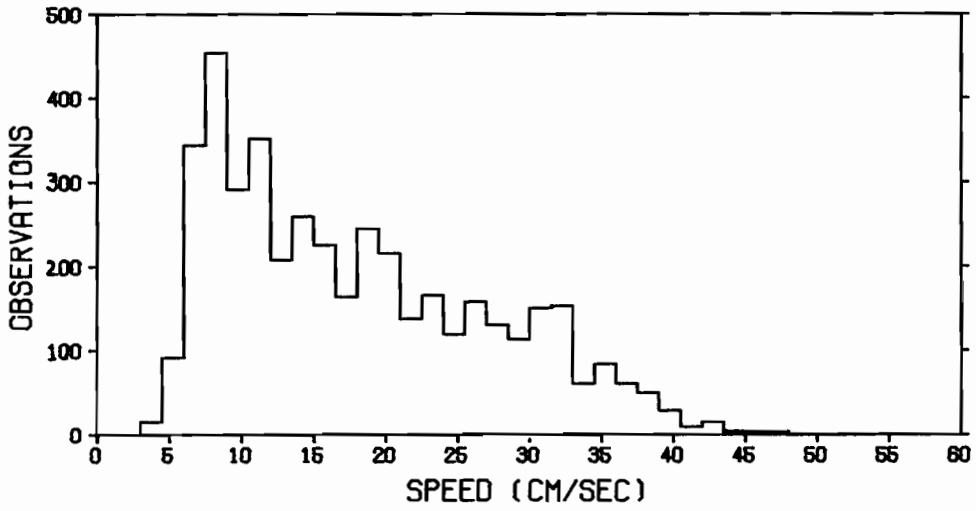
A.4. Current Meter 624 at 90 meters

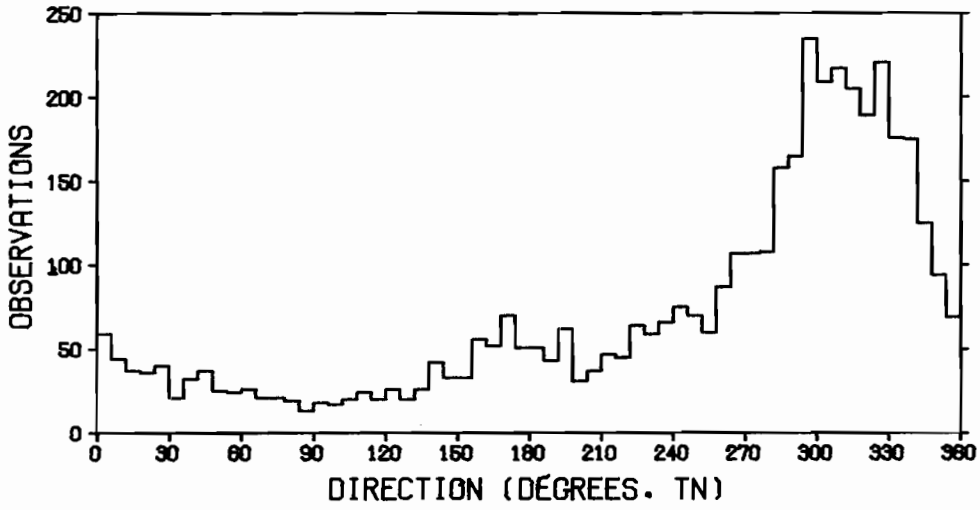
A.1. TIME SERIES ANALYSIS Current Meter 625 Nominal Depth: 20m
Part 1 of 2; 2 July - 1 August 1974

Mooring Designation NEGOA 60
Location: 60° 5.4'N 145° 47.7'W
Sensors: Speed, Direction, Temperature, Pressure, Conductivity

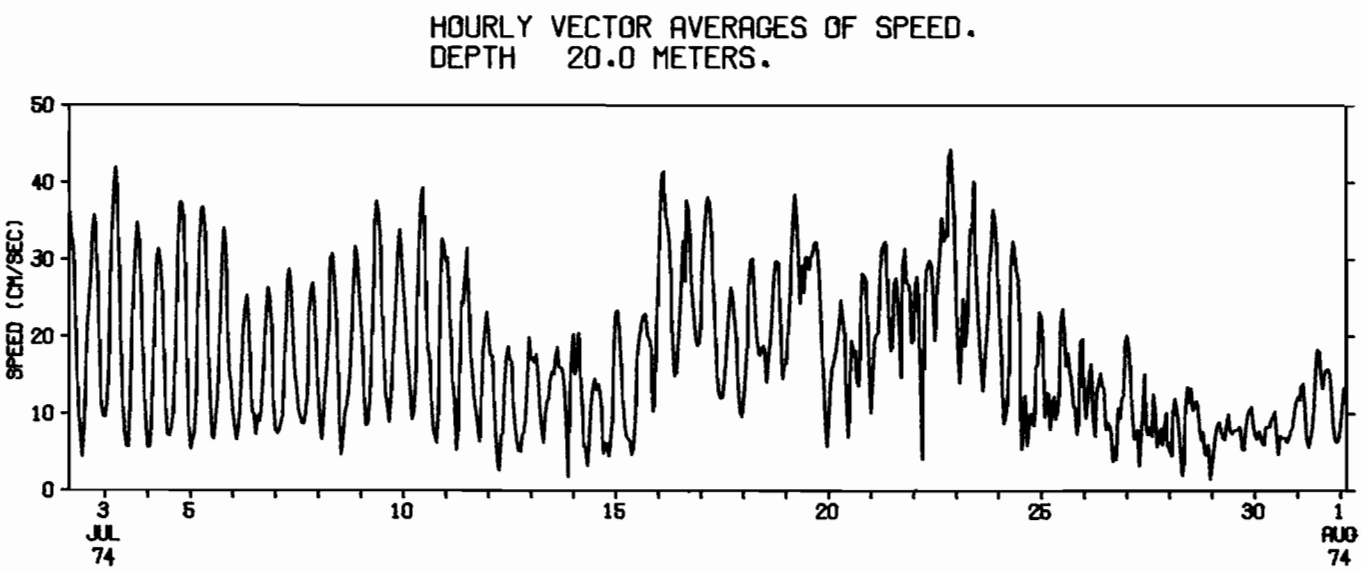
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	17.94	87.33	9.34	.629	2.44	54.08	1.50
U	-8.96	141.45	11.89	-.017	2.79	29.42	-46.28
V	5.26	159.69	12.64	-.259	2.95	41.46	-36.56

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V





A.1. TIME SERIES ANALYSIS Current Meter 625 Part 1 of 2 (Continued)



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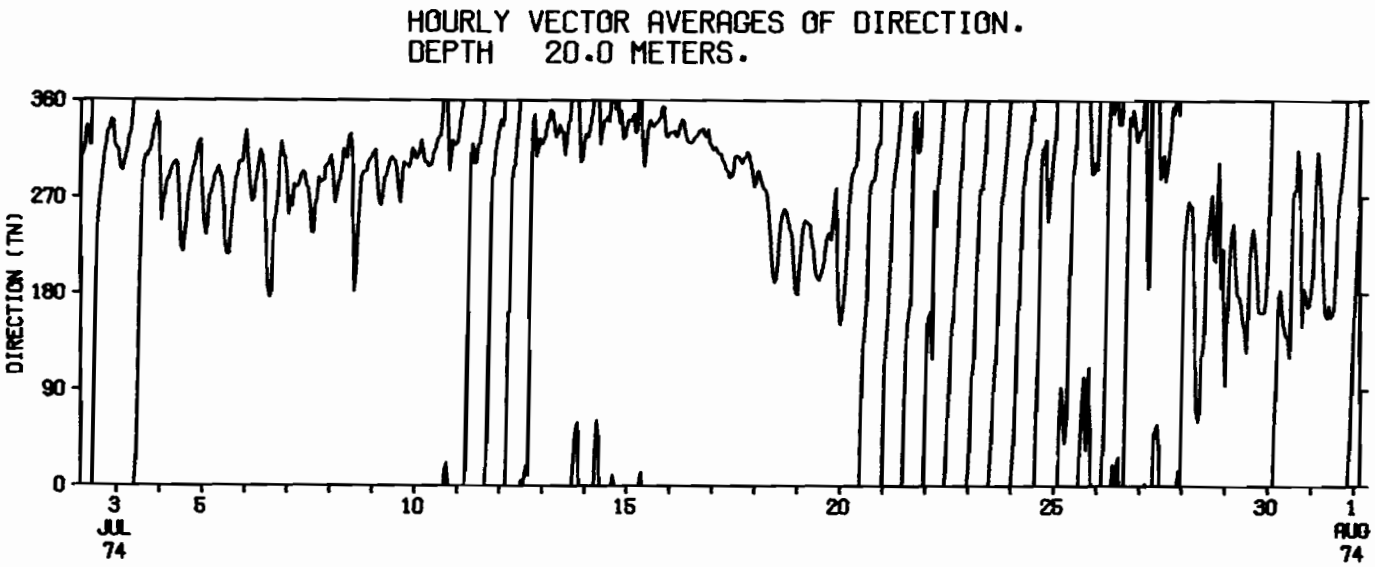
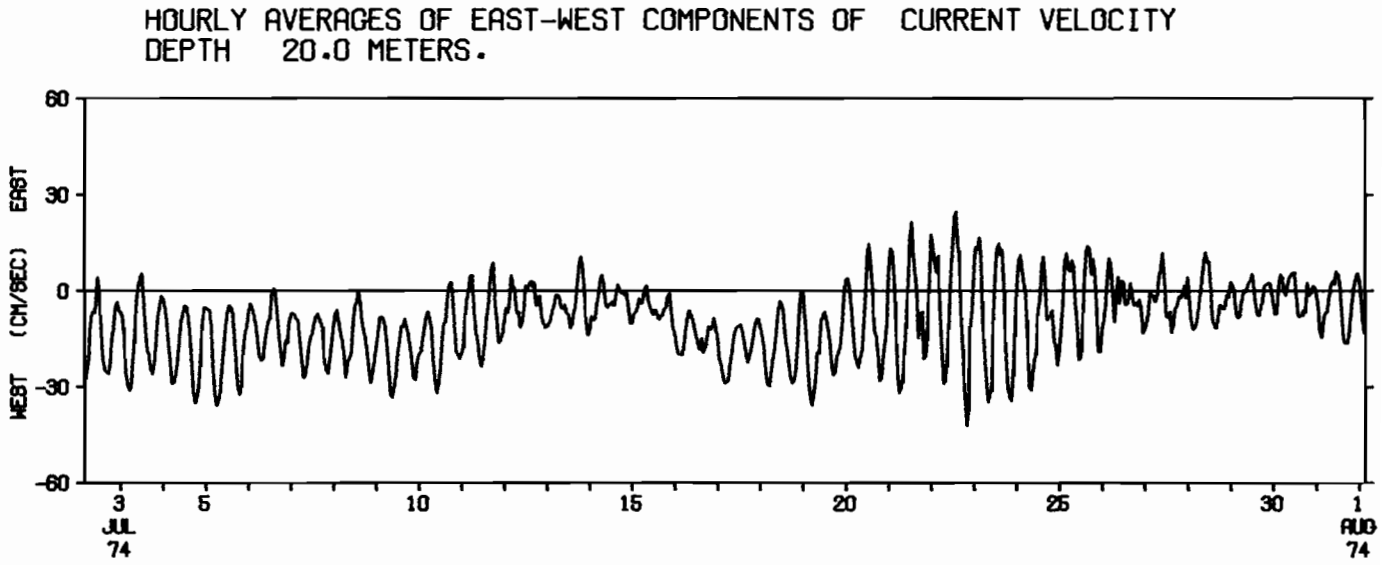


A.1. TIME SERIES ANALYSIS Current Meter 625 Part 1 of 2 (Continued)



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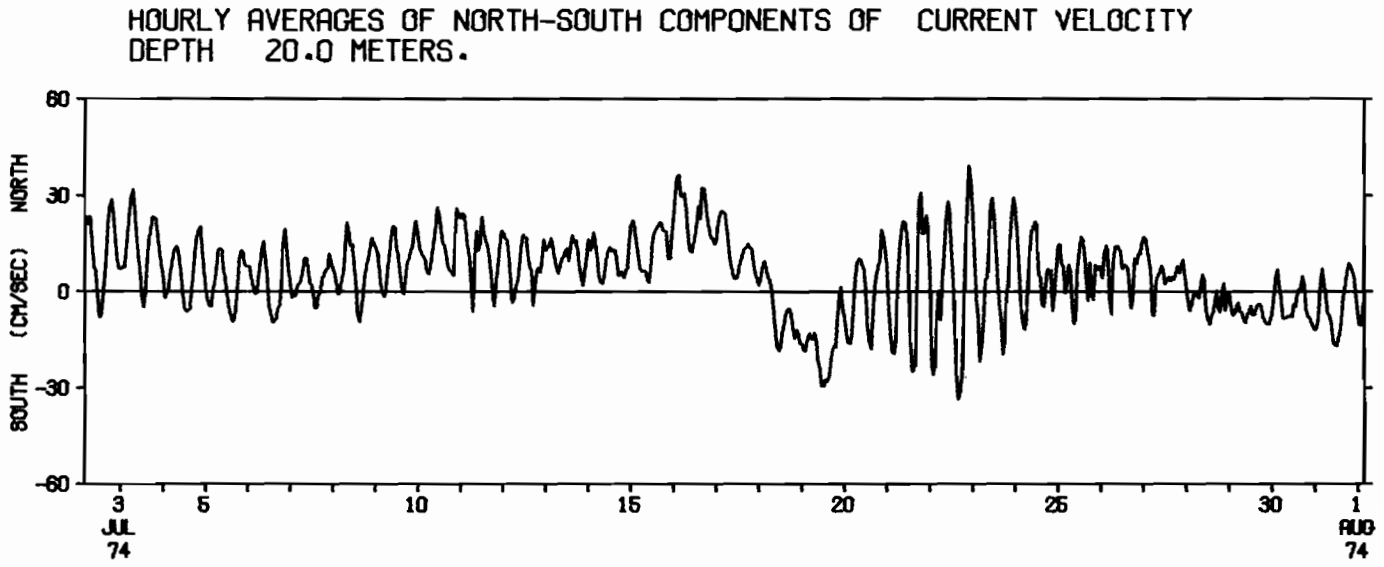
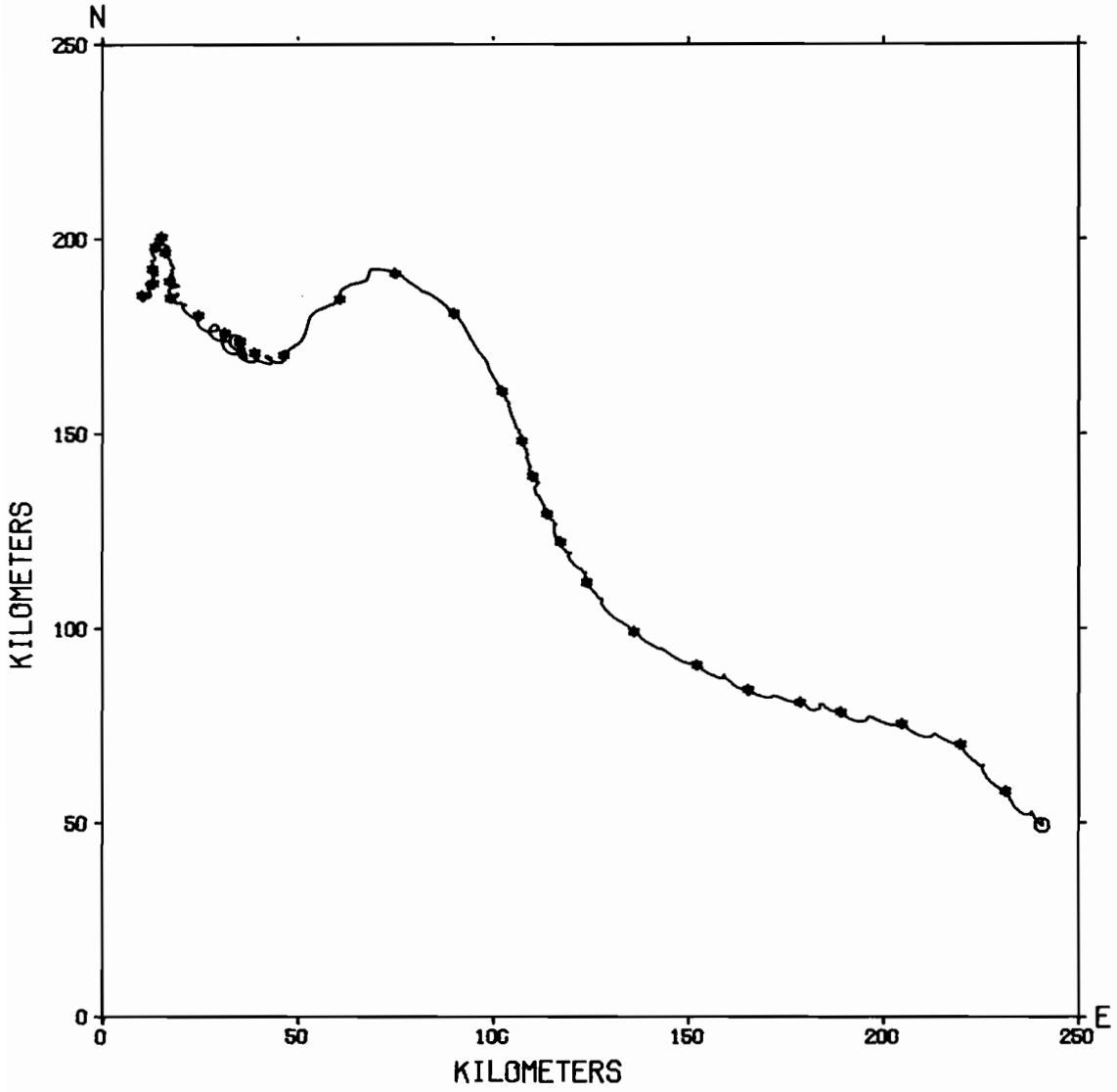
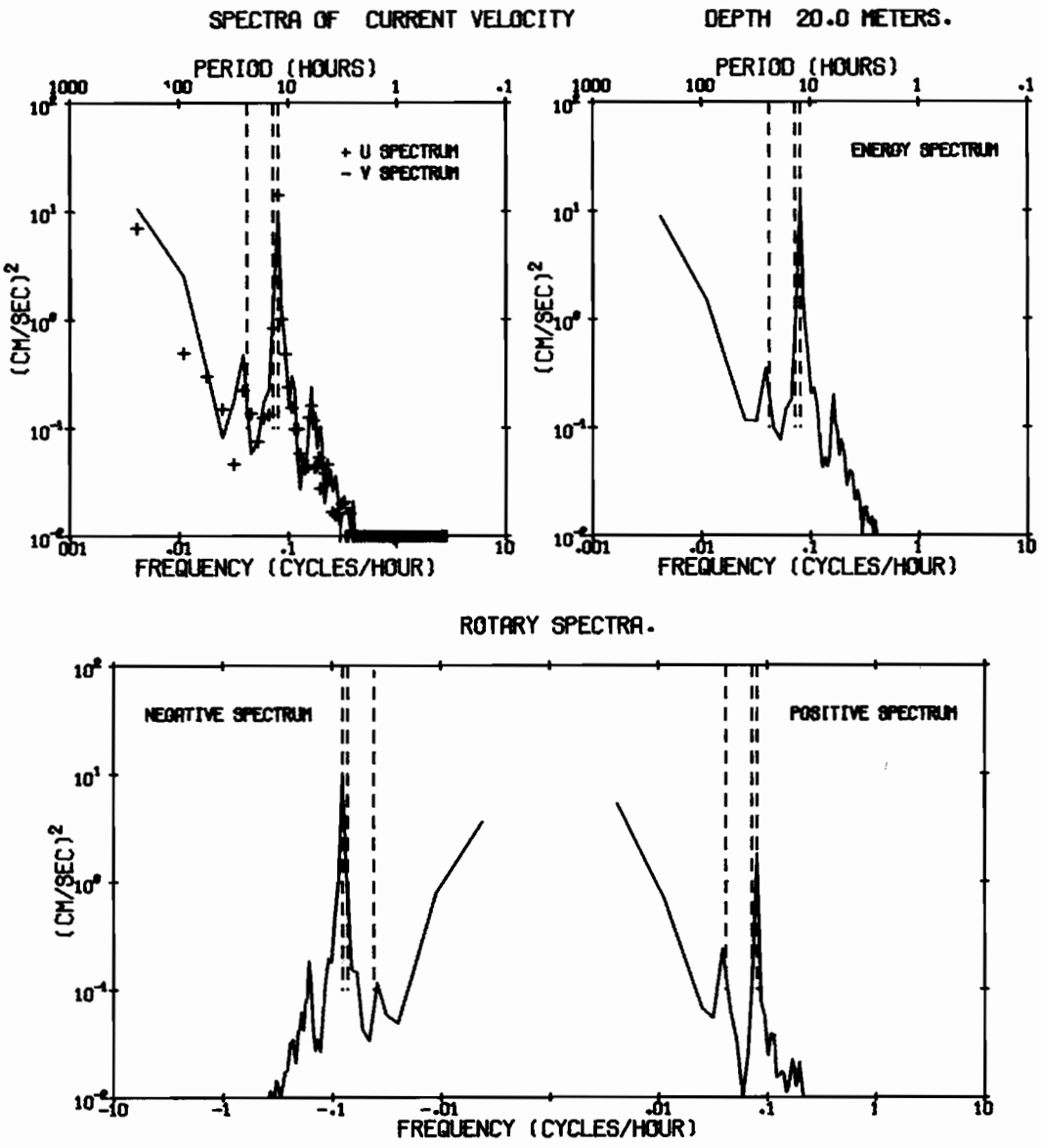


A.1. TIME SERIES ANALYSIS Current Meter 625
Part 1 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 60
OBSERVATION PERIOD 30.0 DAYS FROM 0330 GMT 2 JUL 74.
DEPTH 20.0 METERS.



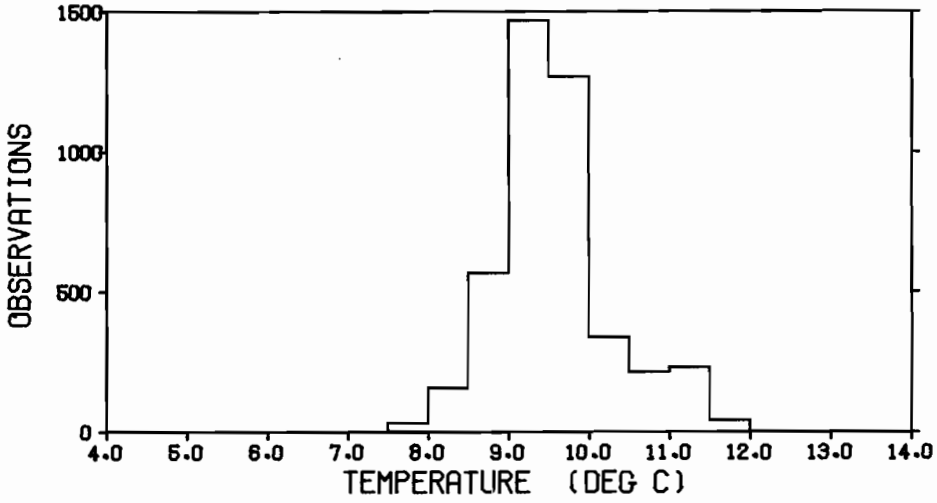
A.1. TIME SERIES ANALYSIS Current Meter 625
Part 1 of 2 (Continued)

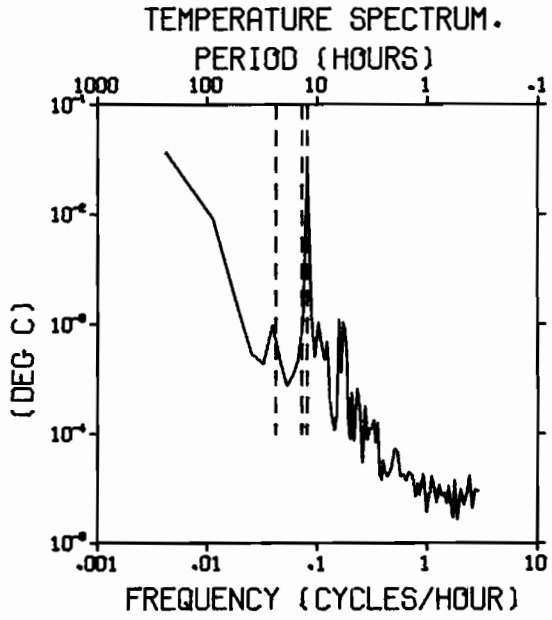


A.1. TIME SERIES ANALYSIS Current Meter 625
Part 1 of 2 (Continued)

TEMPERATURE STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 20.0 METERS NUMBER OF OBSERVATIONS = 4320
OBSERVATION PERIOD 30.0 DAYS FROM 0330 GMT 2 JUL 74

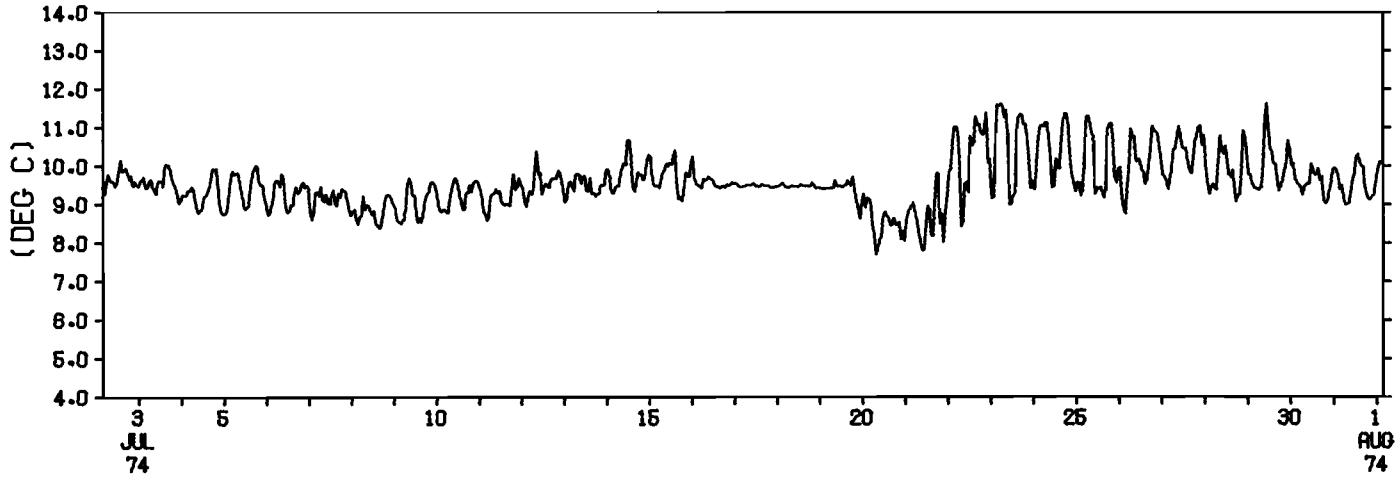
MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
9.57	.50	.71	.68	3.86	12.17	7.29





A.1. TIME SERIES ANALYSIS Current Meter 625 Part 1 of 2 (Continued)

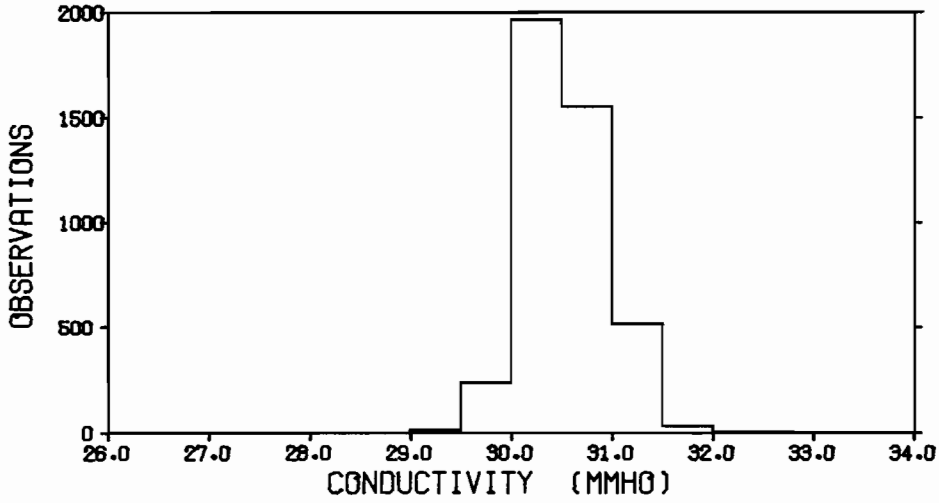
HOURLY AVERAGES OF TEMPERATURE DEPTH 20.0 METERS.

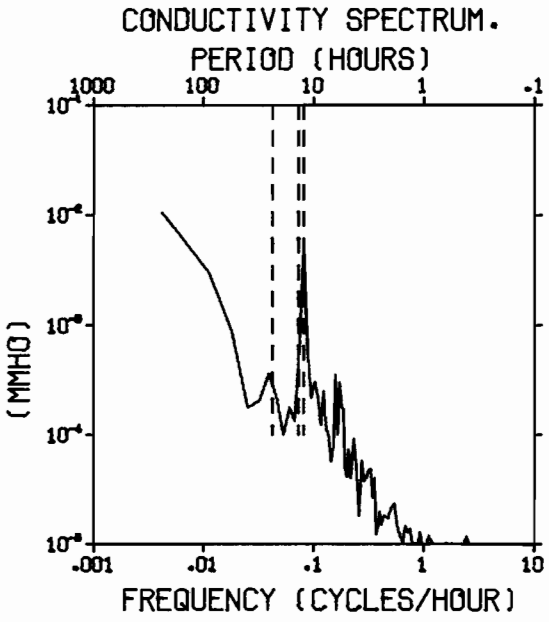


A.1. TIME SERIES ANALYSIS Current Meter 625
Part 1 of 2 (Continued)

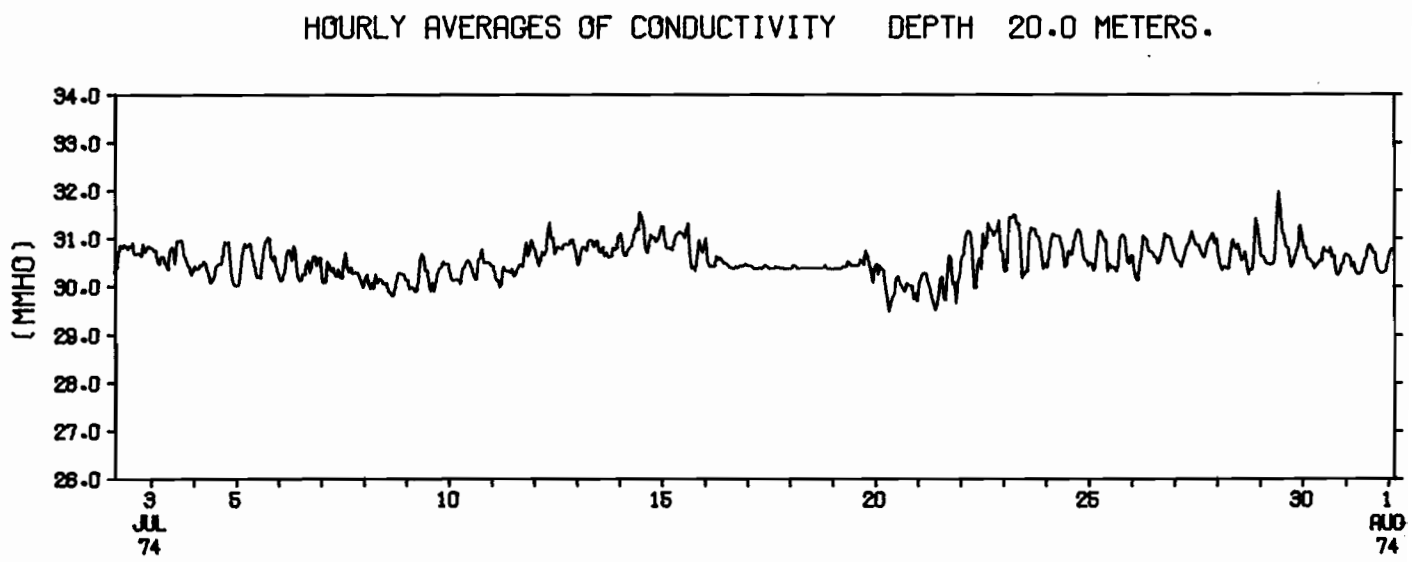
CONDUCTIVITY STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 20.0 METERS NUMBER OF OBSERVATIONS = 4320
OBSERVATION PERIOD 30.0 DAYS FROM 0330 GMT 2 JUL 74

MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
30.55	.15	.38	.21	3.35	32.67	29.16





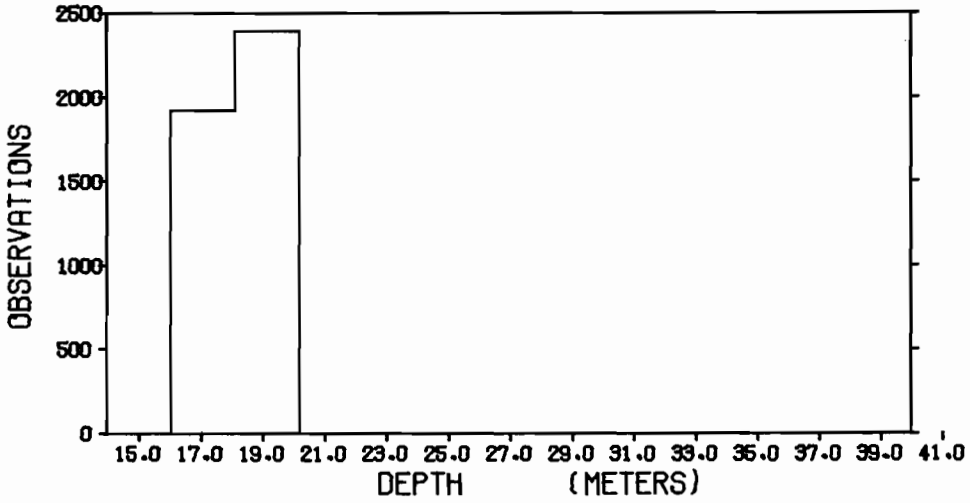
A.1. TIME SERIES ANALYSIS Current Meter 625 Part 1 of 2 (Continued)

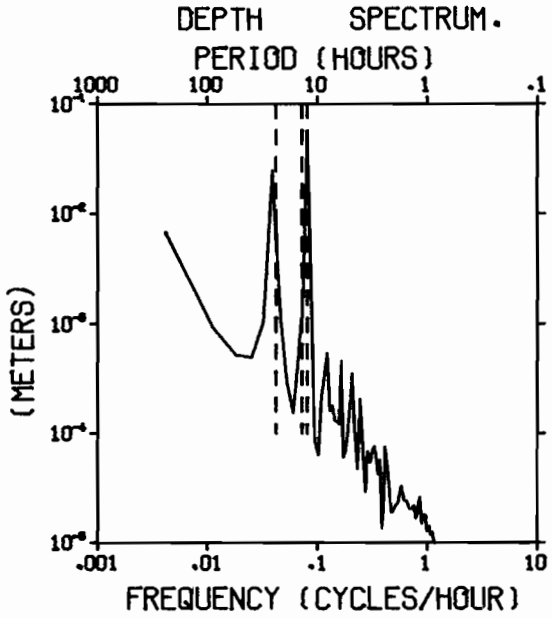


A.1. TIME SERIES ANALYSIS Current Meter 625
Part 1 of 2 (Continued)

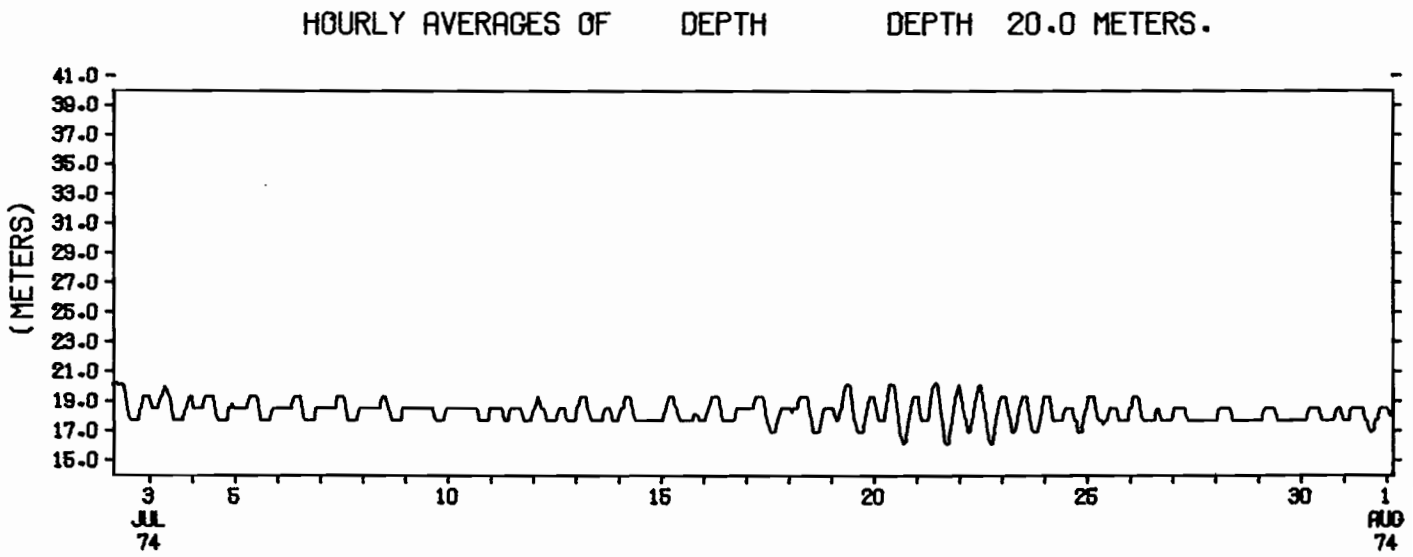
DEPTH STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 20.0 METERS NUMBER OF OBSERVATIONS = 4320
OBSERVATION PERIOD 30.0 DAYS FROM 0330 GMT 2 JUL 74

MEAN (METER)	VARIANCE (METERS)	ST-DEV (METER)	SKEW	KURT	MAX (METER)	MIN (METER)
19.15	.52	.72	.19	3.29	21.69	17.07





A.1. TIME SERIES ANALYSIS Current Meter 625 Part 1 of 2 (Continued)

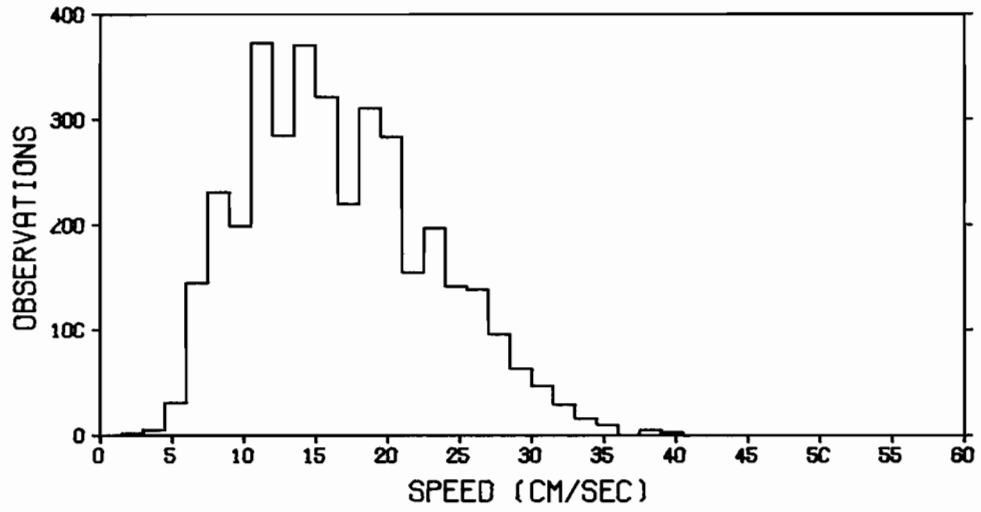


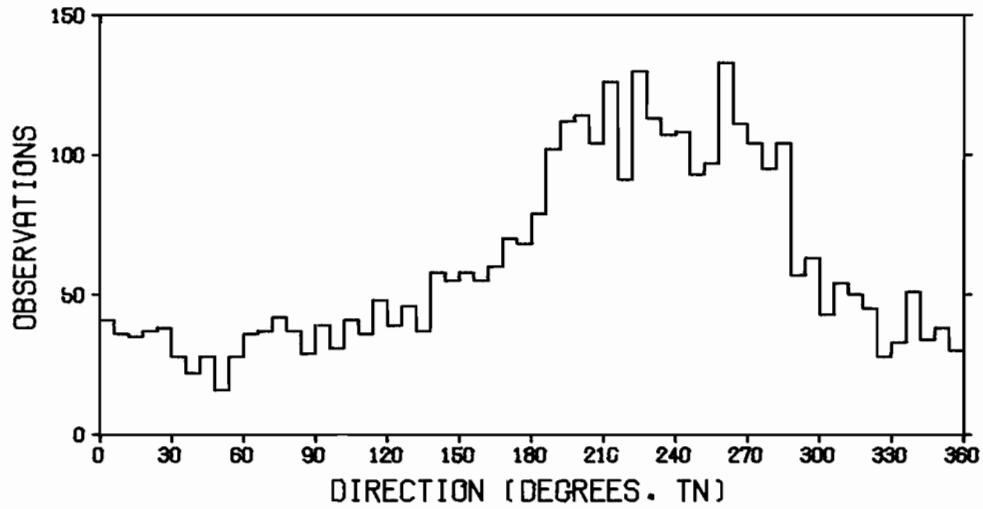
A.1. TIME SERIES ANALYSIS Current Meter 625 Nominal Depth: 20m
Part 2 of 2; 1 August - 26 August 1974

Mooring Designation NEGOA 60
Location: 60° 5.4'N 145° 47.7'W
Sensors: Speed, Direction, Temperature, Pressure, Conductivity

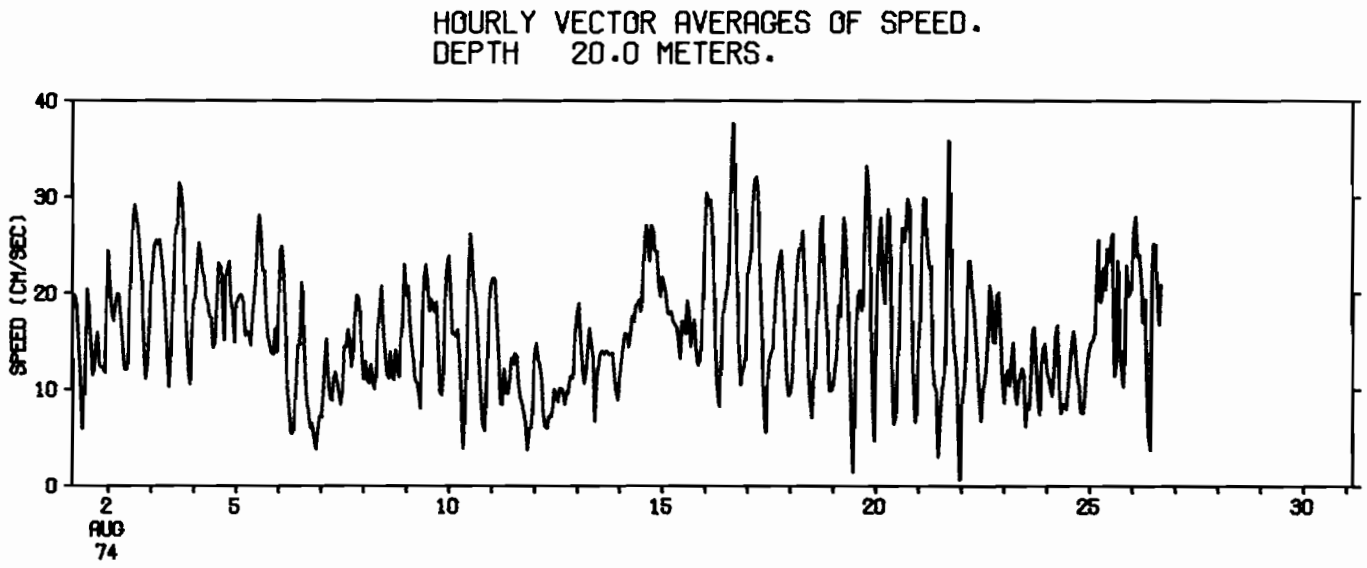
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	16.76	41.41	6.43	.487	2.71	40.00	2.74
U	-5.16	144.18	12.01	.133	2.53	28.80	-39.56
V	-4.06	134.96	11.62	.208	2.48	30.70	-37.49

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V

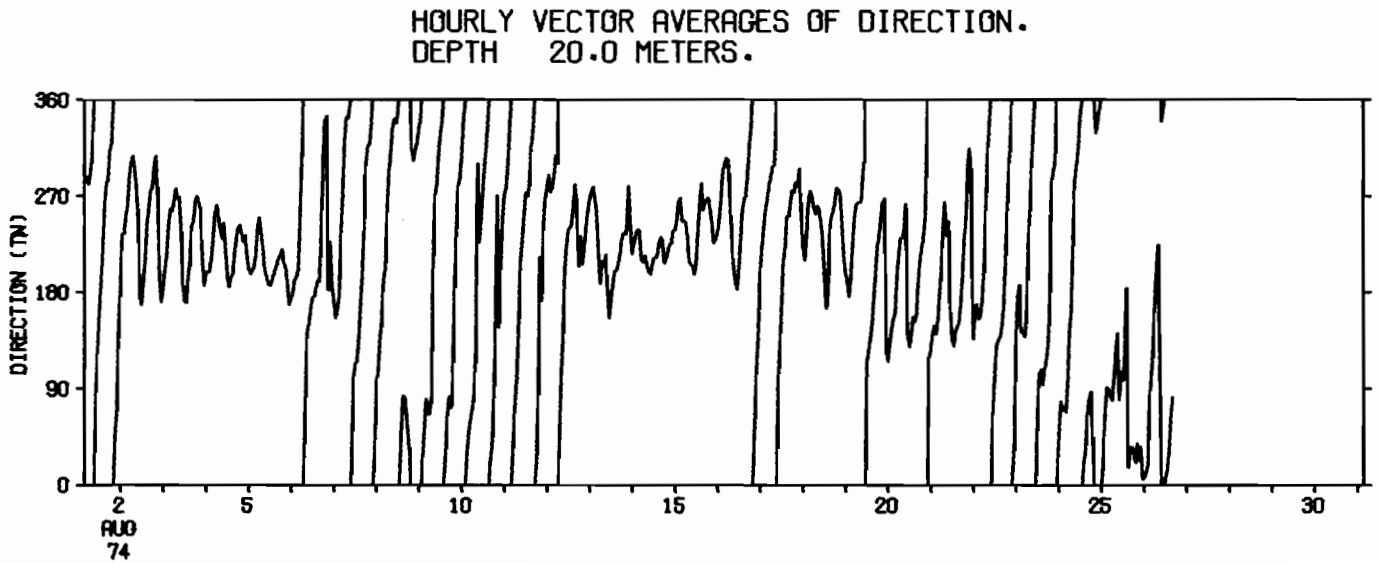




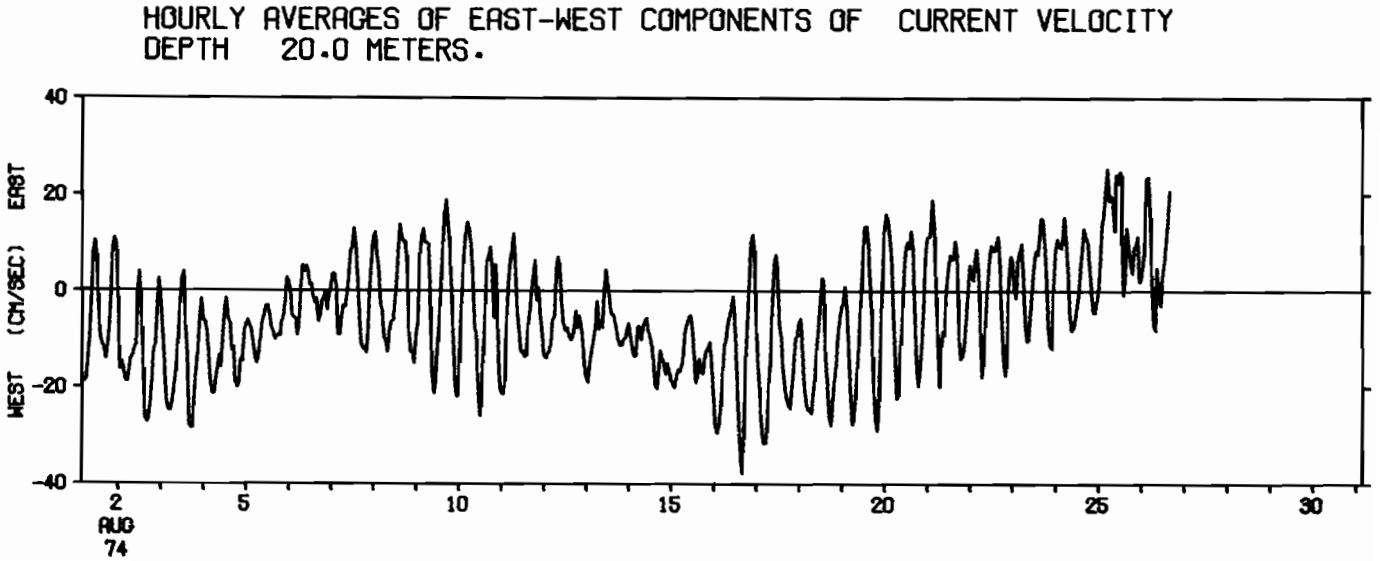
A.1. TIME SERIES ANALYSIS Current Meter 625 Part 2 of 2 (Continued)



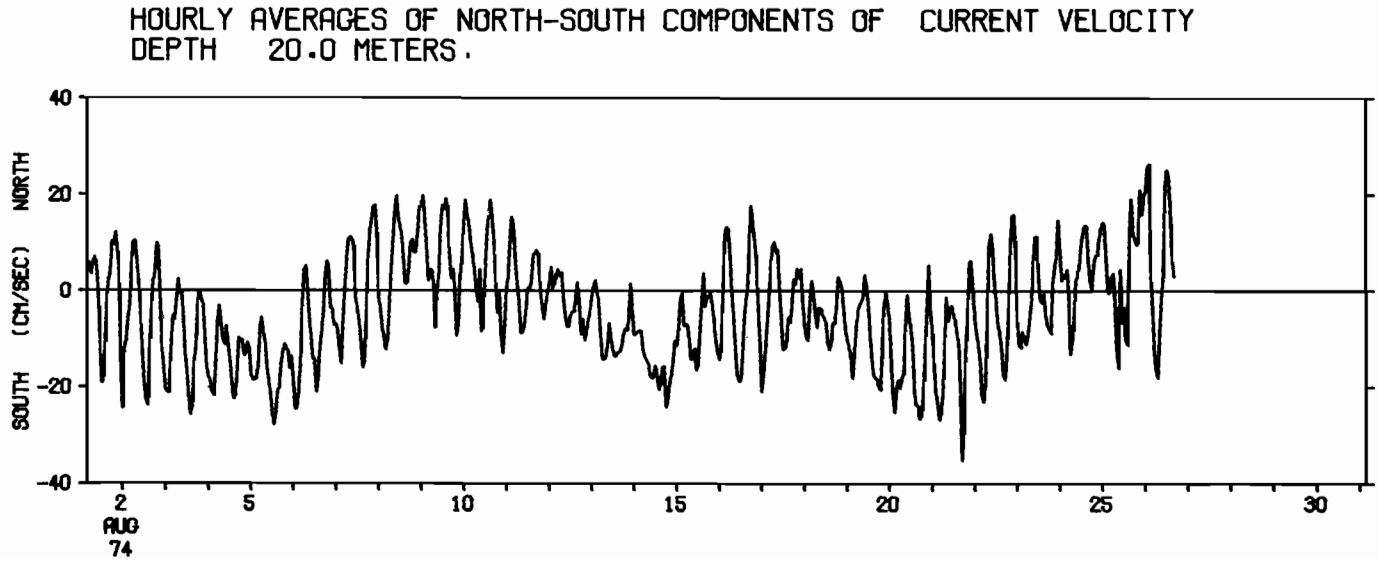
A.1. TIME SERIES ANALYSIS Current Meter 625 Part 2 of 2 (Continued)



A.1. TIME SERIES ANALYSIS Current Meter 625 Part 2 of 2 (Continued)

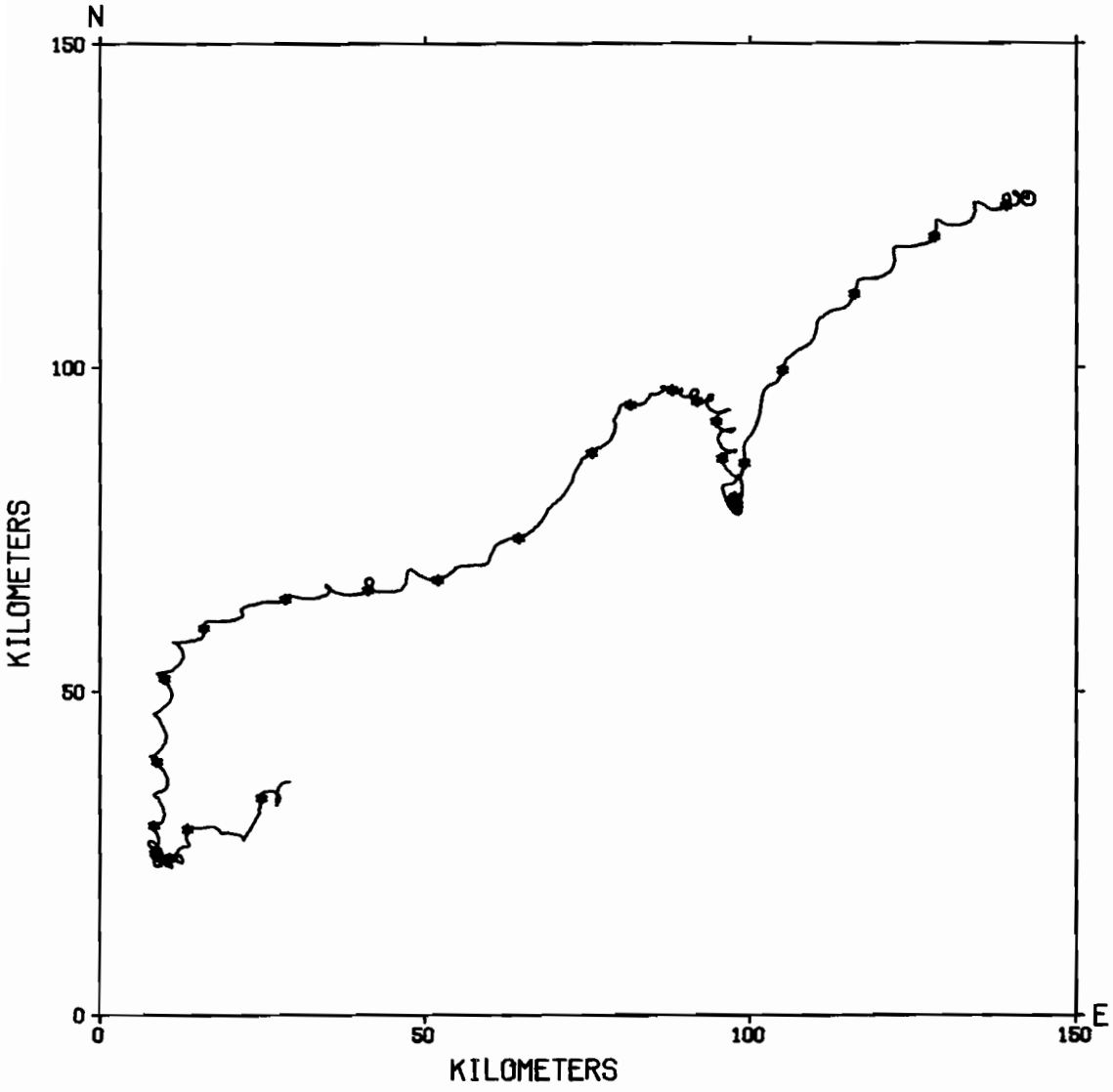


A.1. TIME SERIES ANALYSIS Current Meter 625 Part 2 of 2 (Continued)

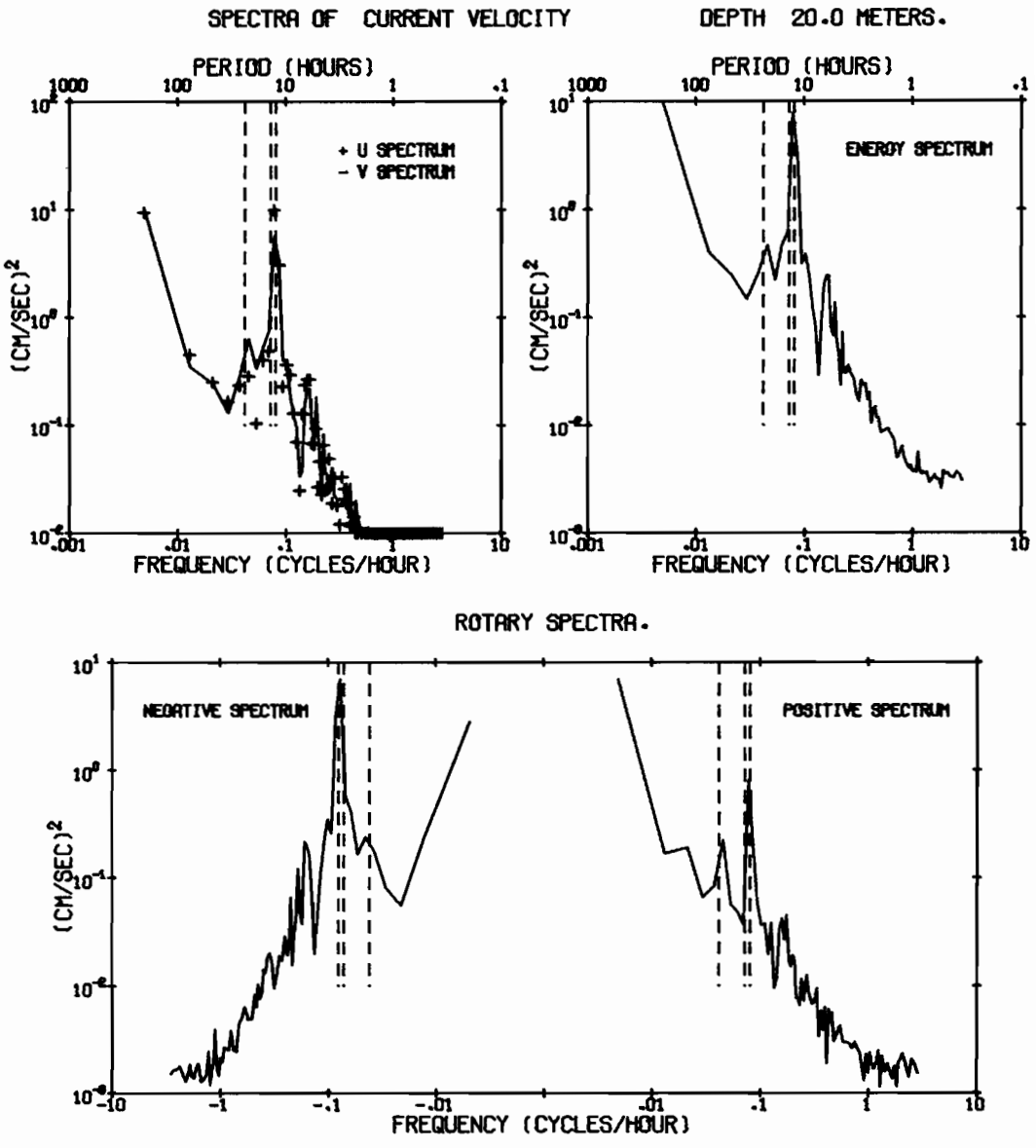


A.1. TIME SERIES ANALYSIS Current Meter 625
Part 2 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 60
OBSERVATION PERIOD 25.6 DAYS FROM 0330 GMT 1 AUG 74.
DEPTH 20.0 METERS.



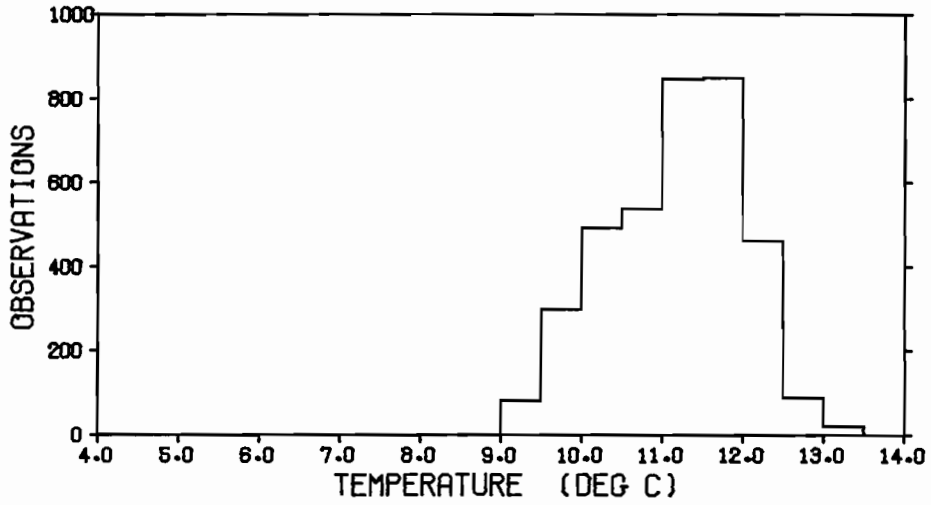
A.1. TIME SERIES ANALYSIS Current Meter 625
Part 2 of 2 (Continued)

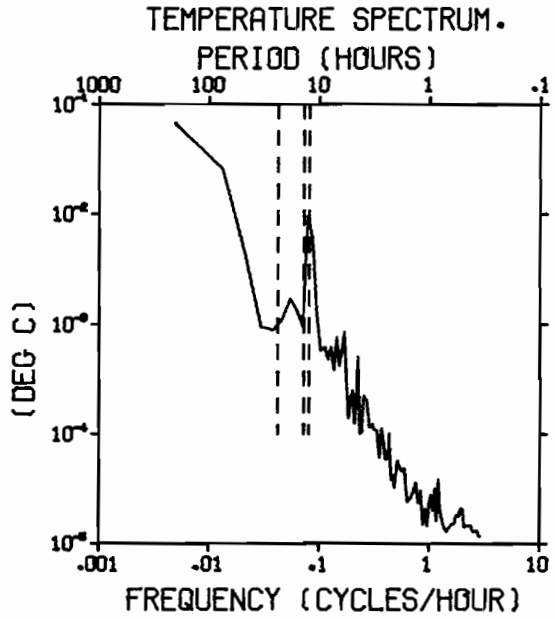


A.1. TIME SERIES ANALYSIS Current Meter 625
Part 2 of 2 (Continued)

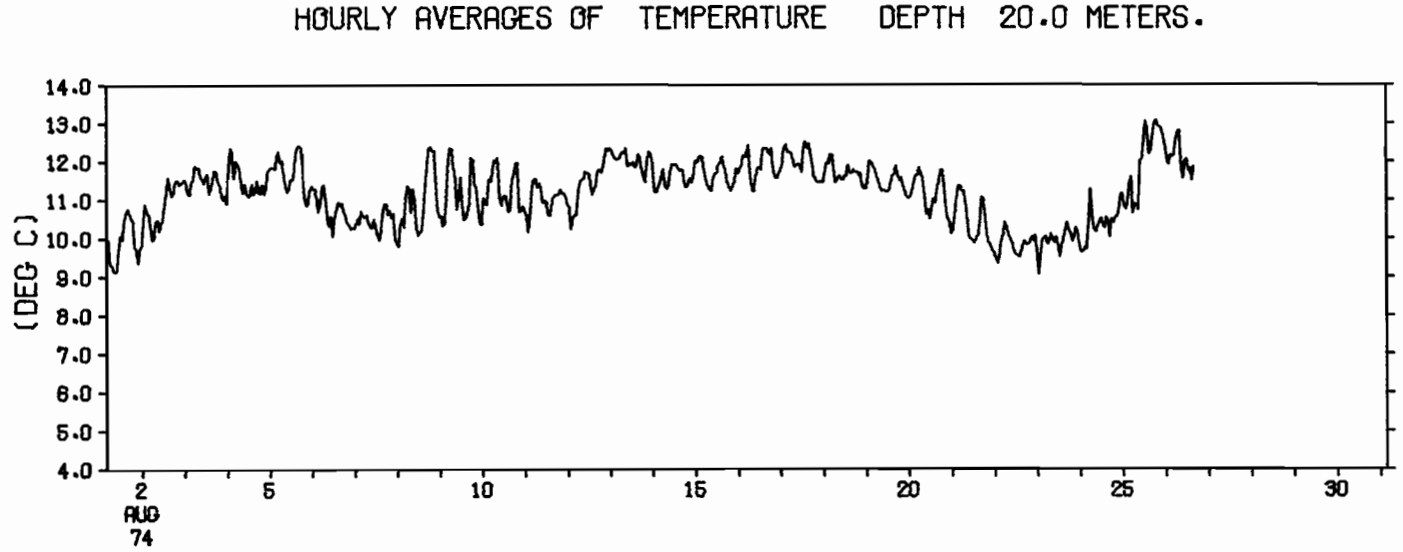
TEMPERATURE STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 20.0 METERS NUMBER OF OBSERVATIONS = 3680
OBSERVATION PERIOD 25.5 DAYS FROM 0330 GMT 1 AUG 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
11.17	.68	.82	-.26	2.41	13.18	8.87





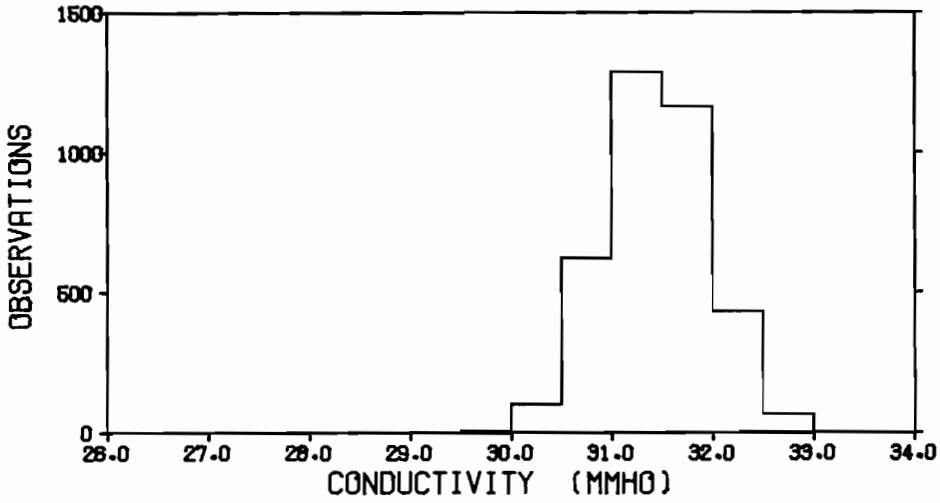
A.1. TIME SERIES ANALYSIS Current Meter 625 Part 2 of 2 (Continued)

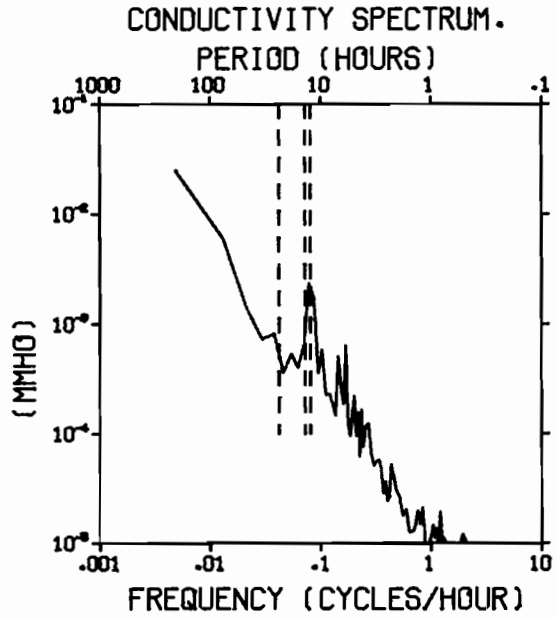


A.1. TIME SERIES ANALYSIS Current Meter 625
Part 2 of 2 (Continued)

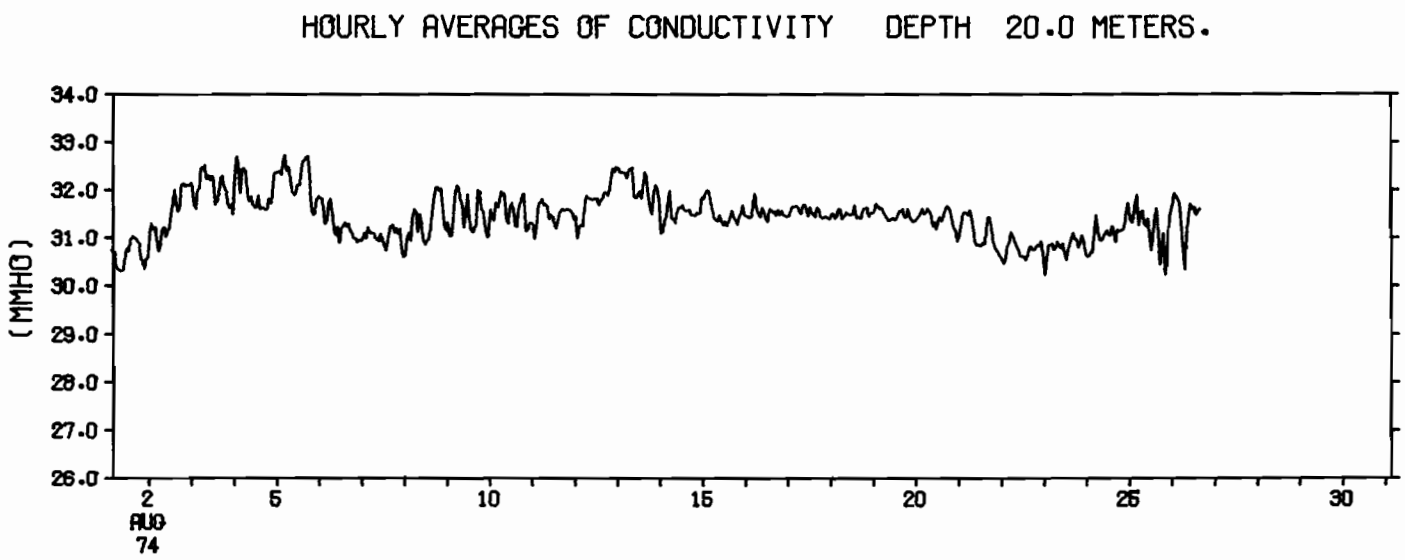
CONDUCTIVITY STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 20.0 METERS NUMBER OF OBSERVATIONS = 3680
OBSERVATION PERIOD 25.5 DAYS FROM 0330 GMT 1 AUG 74

MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
31.44	.24	.49	.13	3.09	32.91	29.83





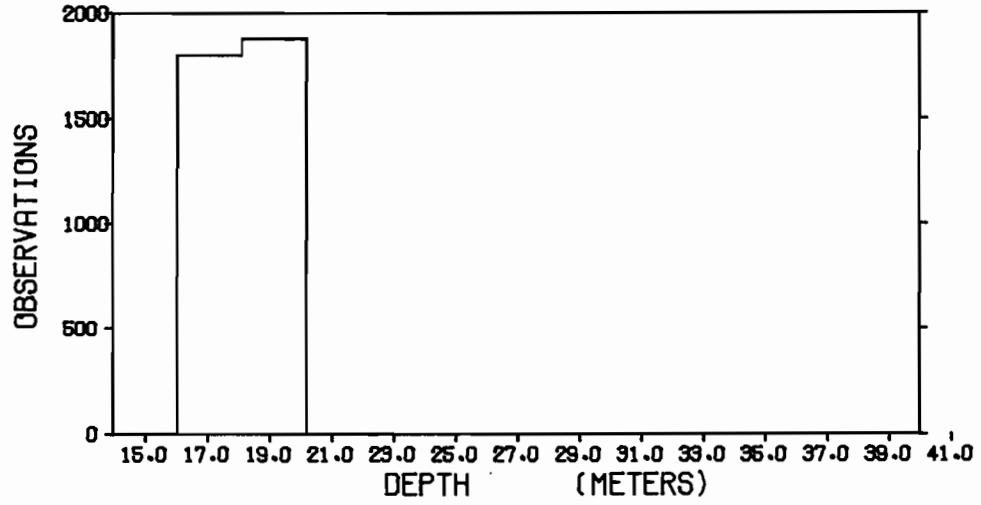
A.1. TIME SERIES ANALYSIS Current Meter 625 Part 2 of 2 (Continued)

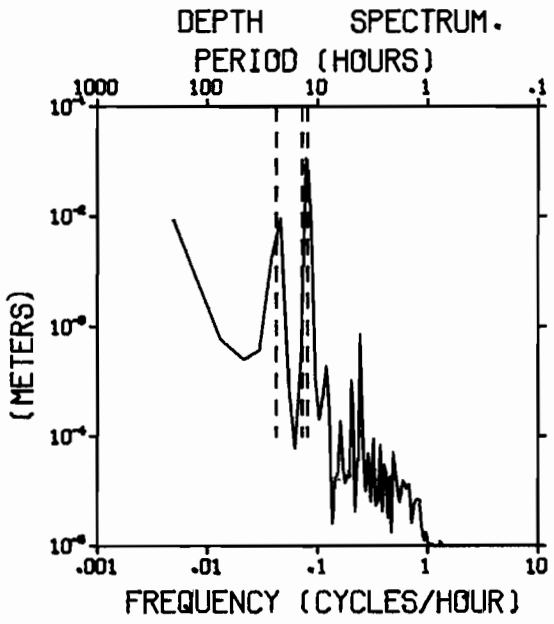


A.1. TIME SERIES ANALYSIS Current Meter 625
Part 2 of 2 (Continued)

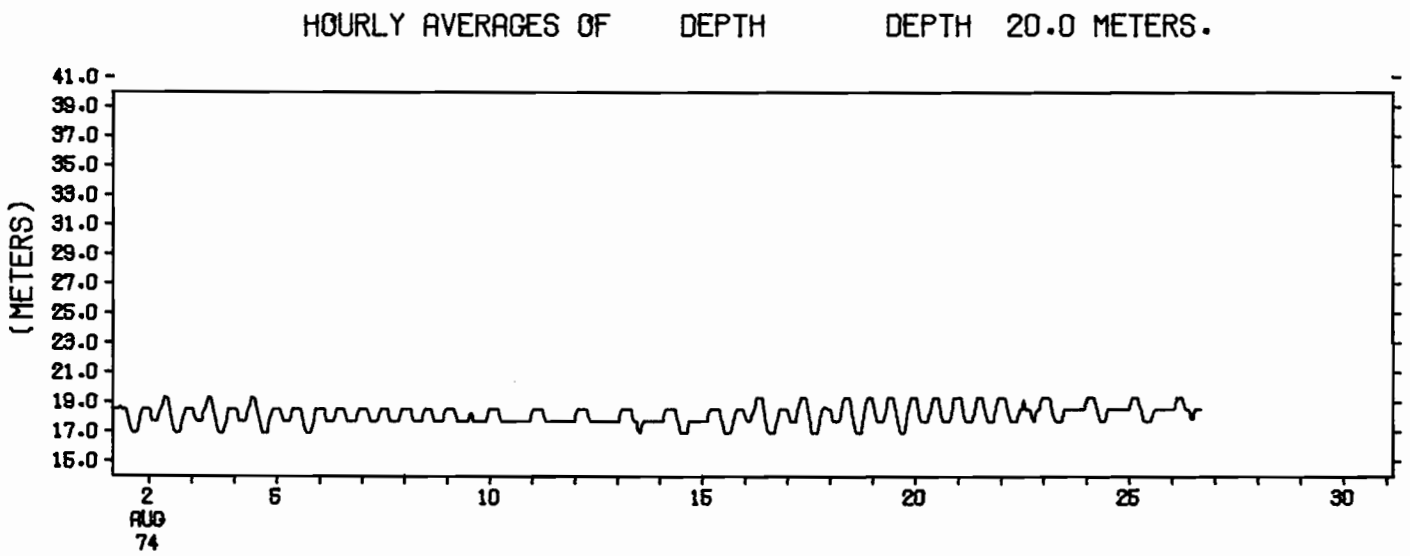
DEPTH STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 20.0 METERS NUMBER OF OBSERVATIONS = 3680
OBSERVATION PERIOD 25.5 DAYS FROM 0330 GMT 1 AUG 74

MEAN (METER)	VARIANCE (METERS)	ST-DEV (METER)	SKEW	KURT	MAX (METER)	MIN (METER)
19.03	.39	.63	.05	2.48	20.15	17.84





A.1. TIME SERIES ANALYSIS Current Meter 625 Part 2 of 2 (Continued)

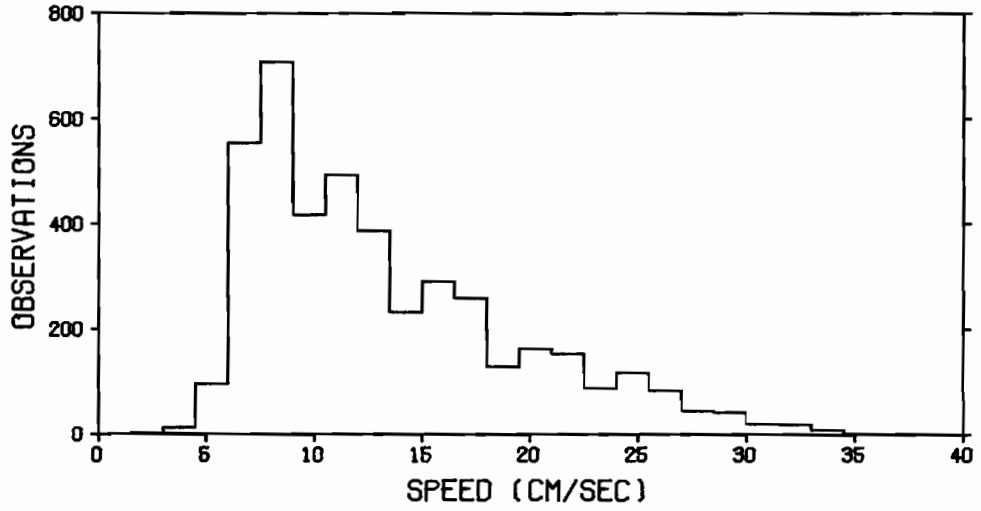


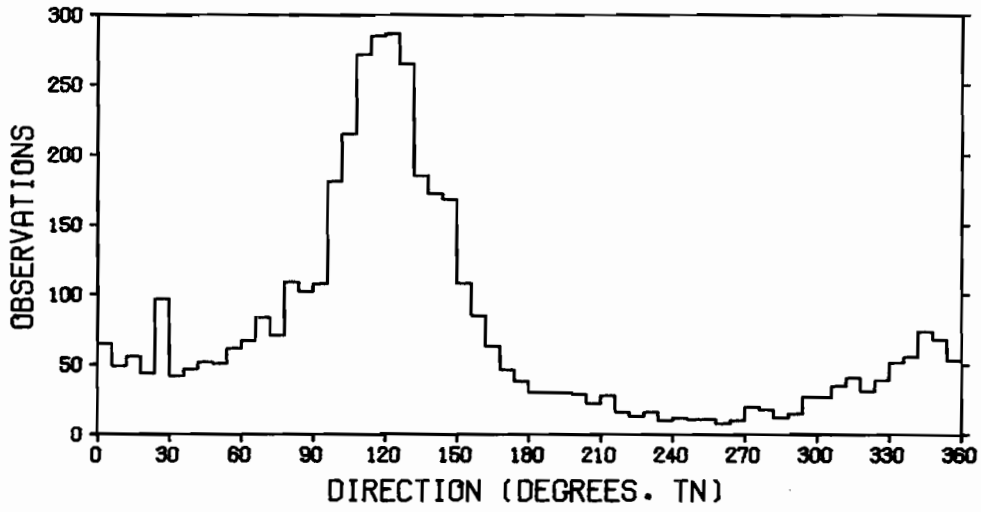
A.2. TIME SERIES ANALYSIS Current Meter 412 Nominal Depth: 30m
Part 1 of 2; 2 July - 1 August 1974

Mooring Designation NEGOA 60
Location: 60° 5.4'N 145° 47.7'W
Sensors: Speed, Direction, Temperature

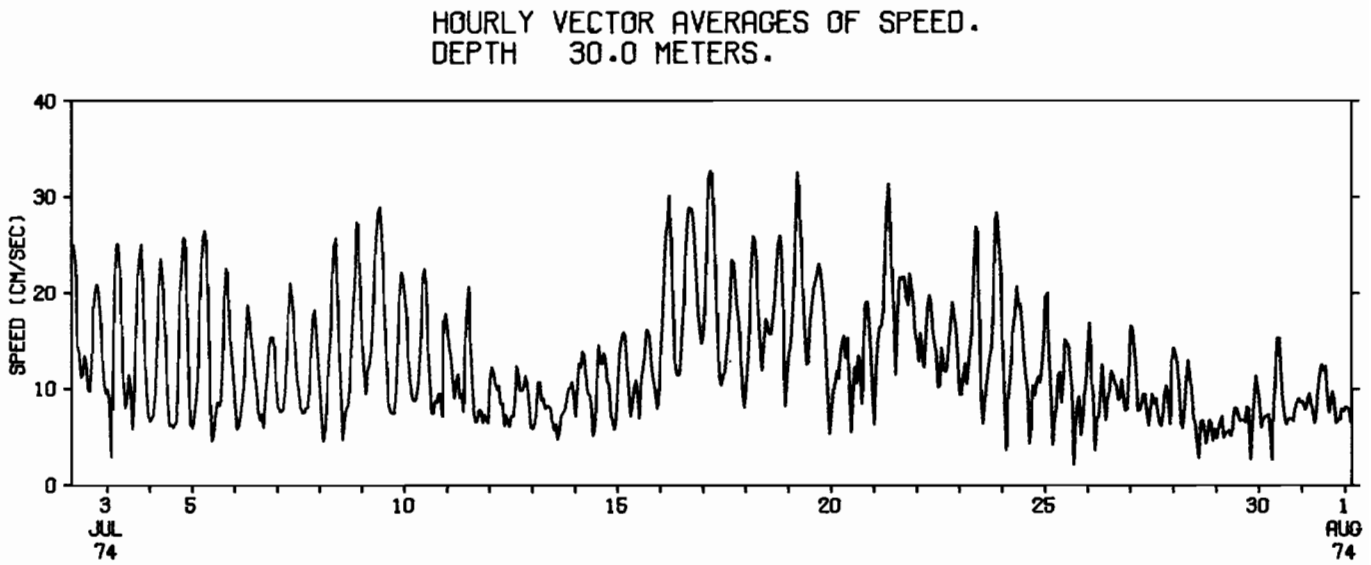
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	13.19	36.94	6.08	.962	3.25	35.12	2.32
U	7.54	73.22	8.56	-.028	2.73	31.83	-19.72
V	-2.51	74.58	8.64	.270	2.58	23.26	-25.34

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V

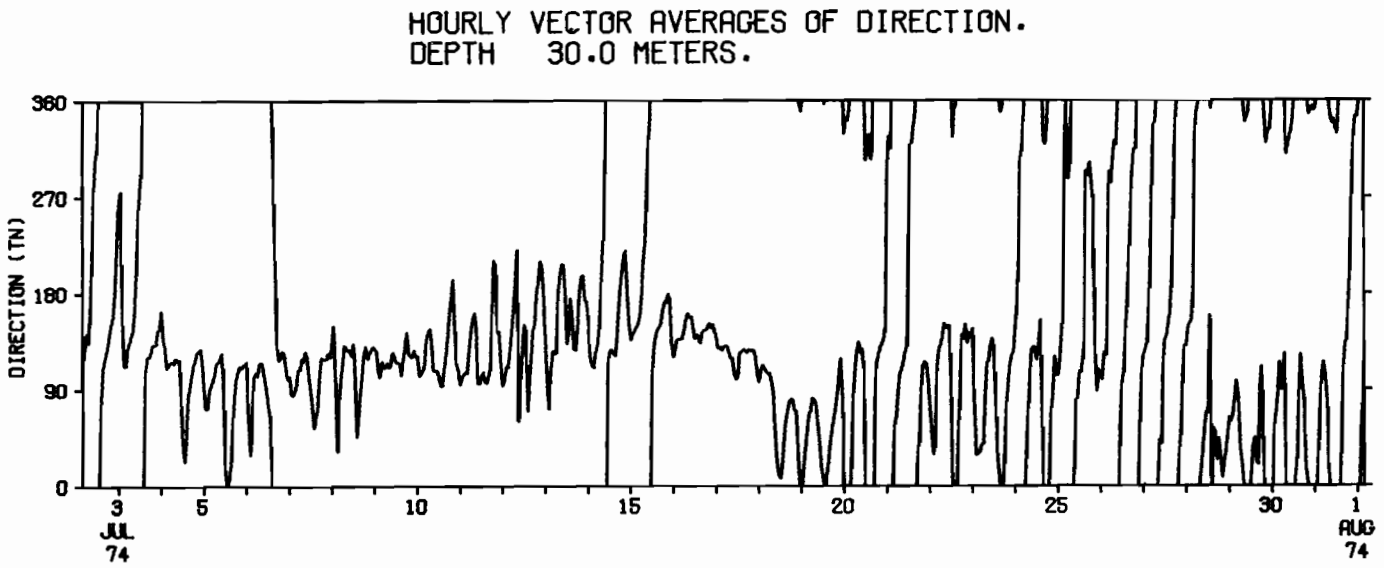




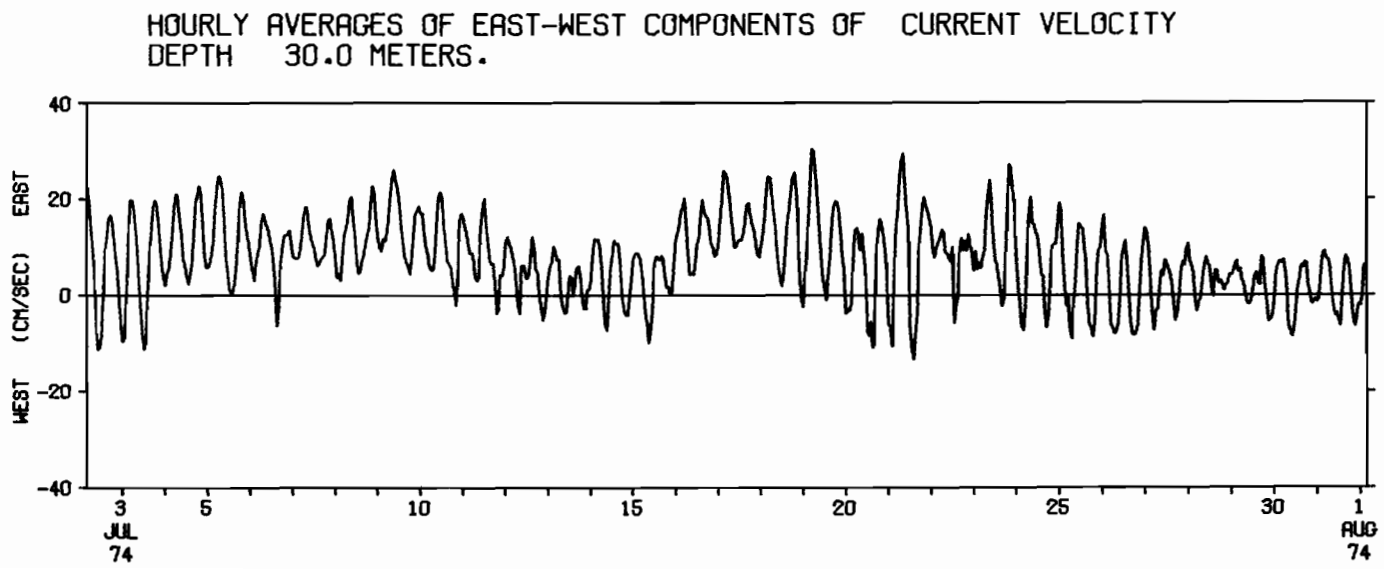
A.2. TIME SERIES ANALYSIS Current Meter 412 Part 1 of 2 (Continued)



A.2. TIME SERIES ANALYSIS Current Meter 412 Part 1 of 2 (Continued)

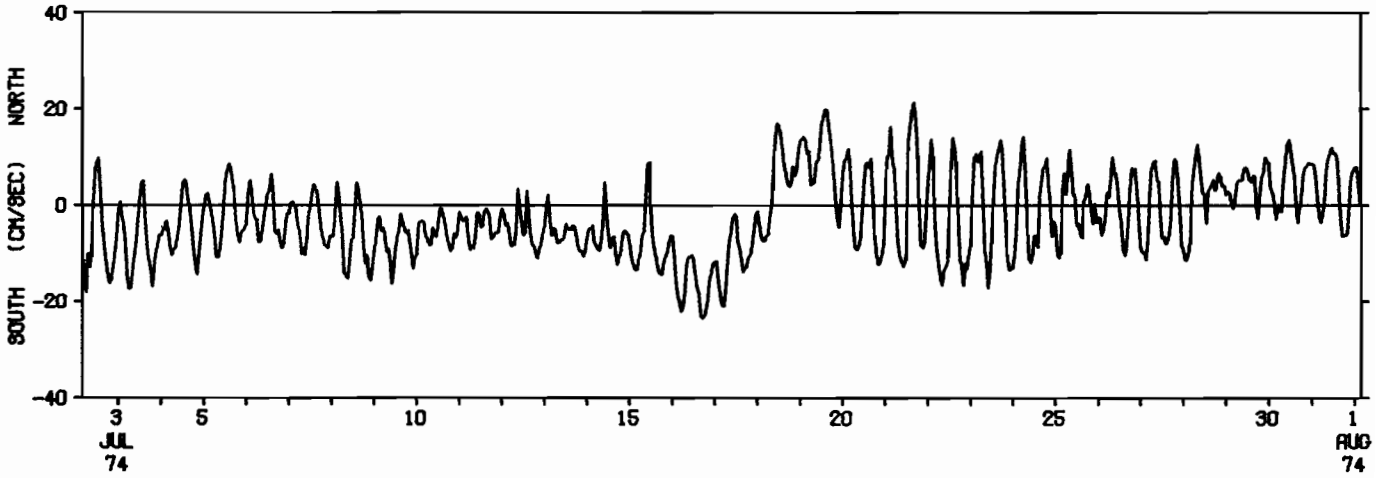


A.2. TIME SERIES ANALYSIS Current Meter 412 Part 1 of 2 (Continued)



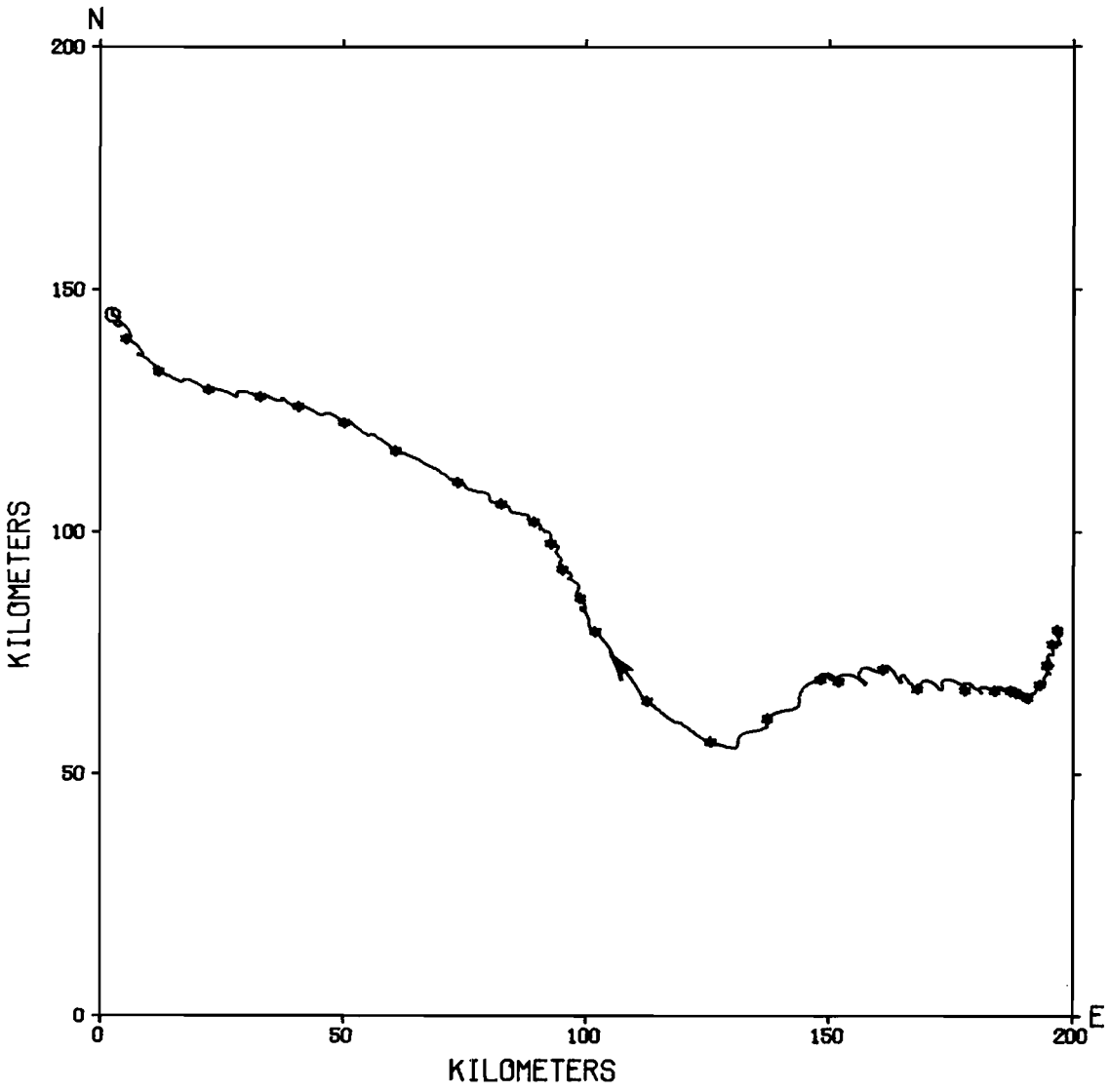
A.2. TIME SERIES ANALYSIS Current Meter 412 Part 1 of 2 (Continued)

HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 30.0 METERS.

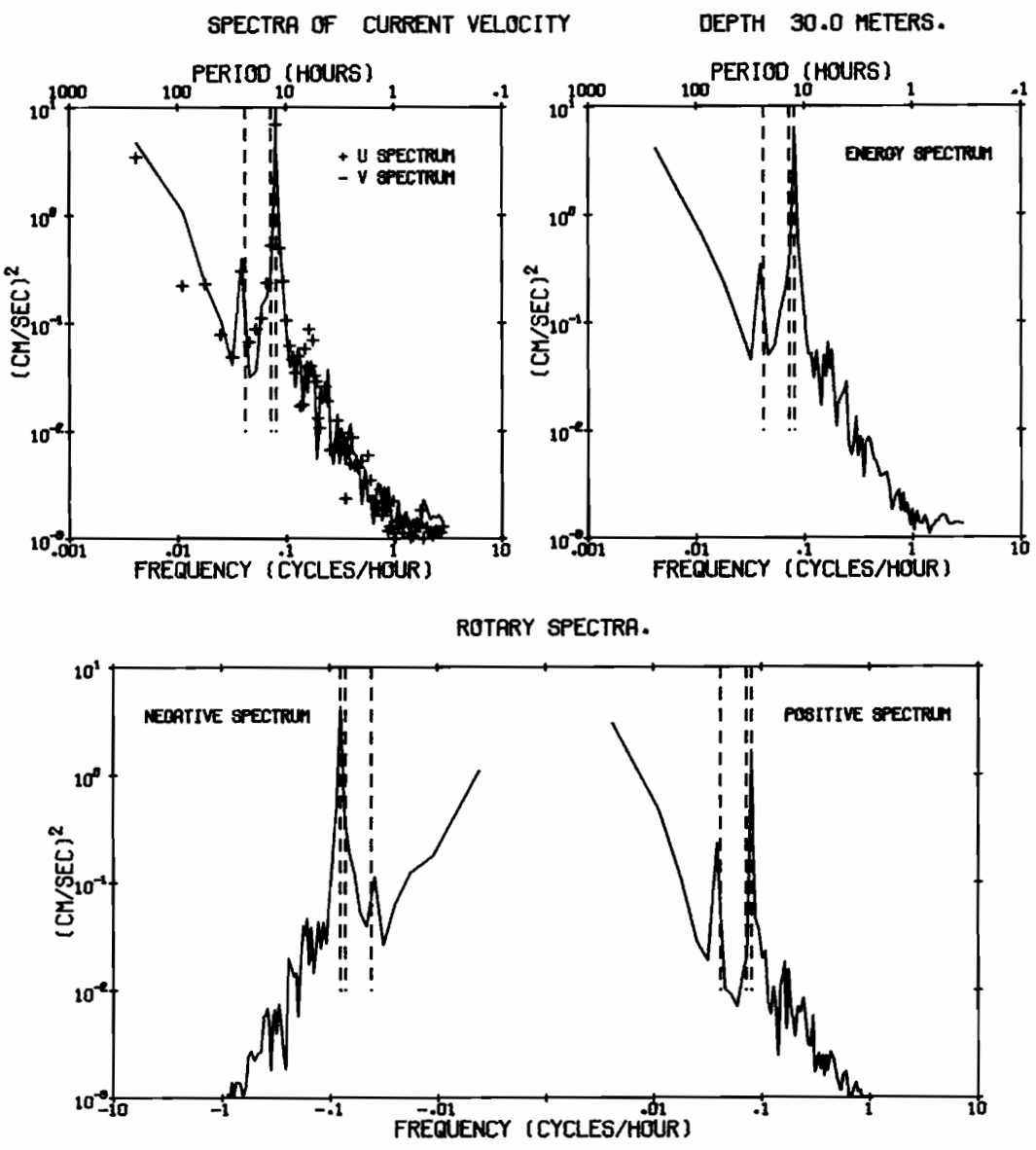


A.2. TIME SERIES ANALYSIS Current Meter 412
Part 1 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 60
OBSERVATION PERIOD 30.0 DAYS FROM 0342 GMT 2 JUL 74.
DEPTH 30.0 METERS.



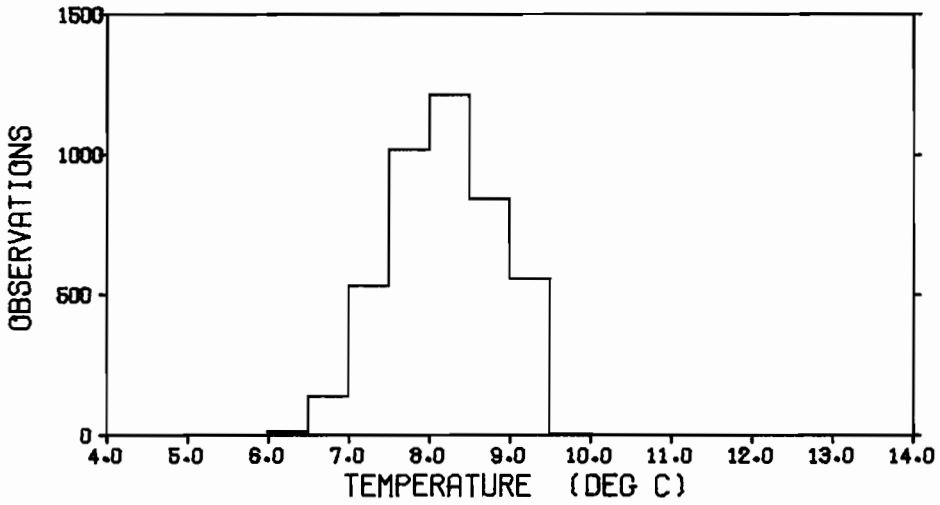
A.2. TIME SERIES ANALYSIS Current Meter 412
Part 1 of 2 (Continued)

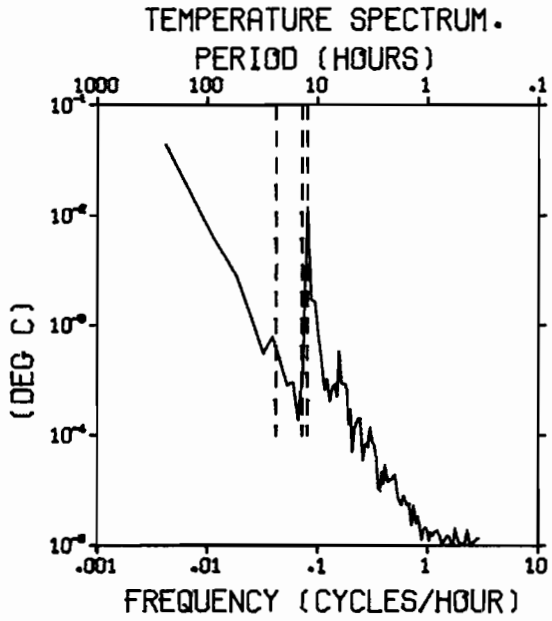


A.2. TIME SERIES ANALYSIS Current Meter 412
Part 1 of 2 (Continued)

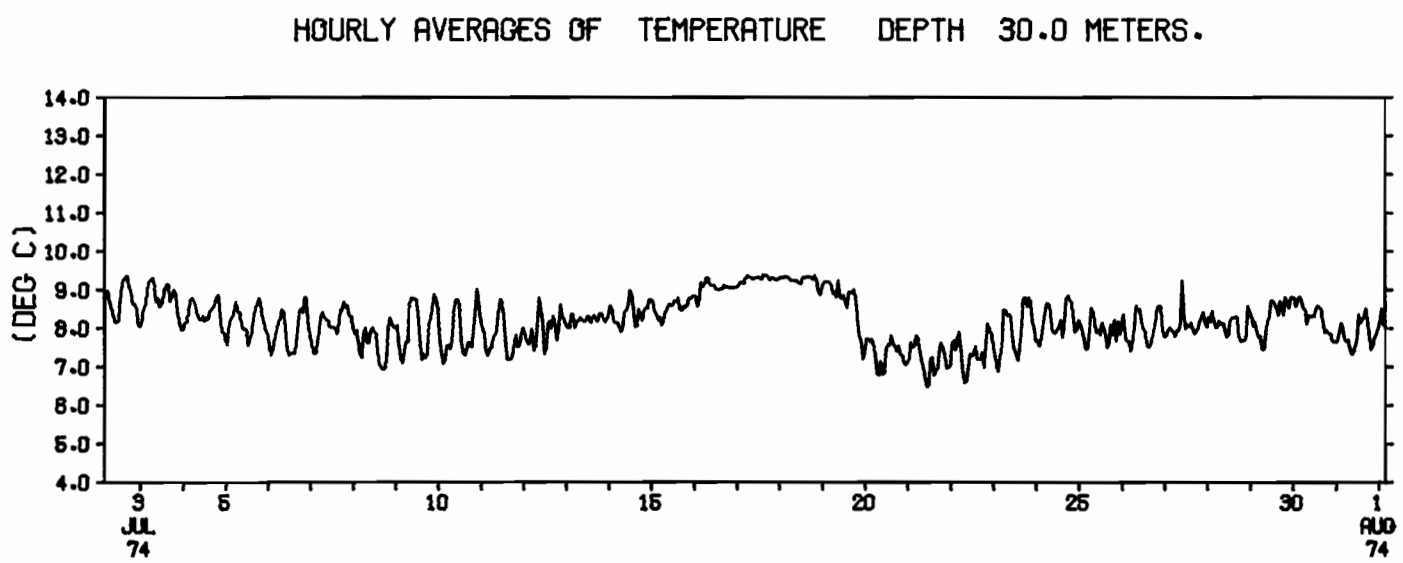
TEMPERATURE STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 30.0 METERS NUMBER OF OBSERVATIONS = 4320
OBSERVATION PERIOD 30.0 DAYS FROM 0342 GMT 2 JUL 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
8.18	.42	.65	-.08	2.44	9.79	6.43





A.2. TIME SERIES ANALYSIS Current Meter 412 Part 1 of 2 (Continued)

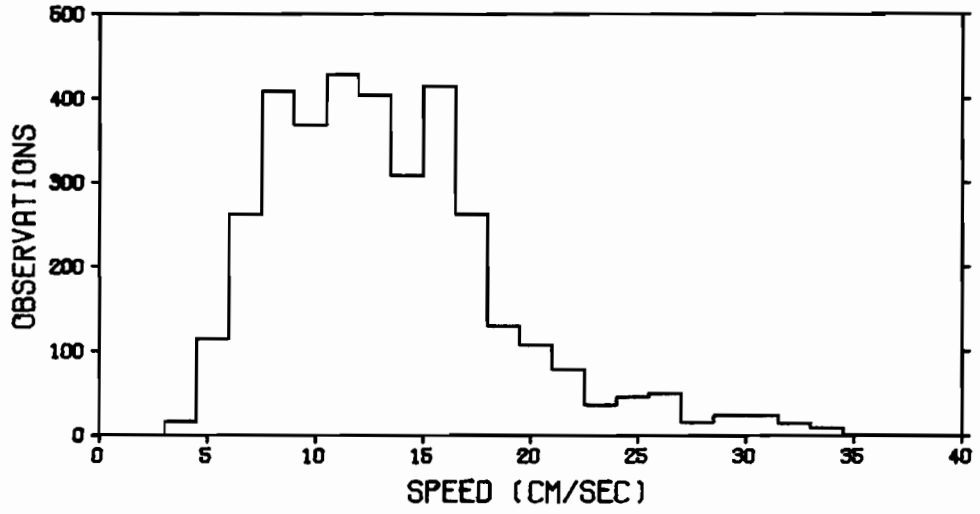


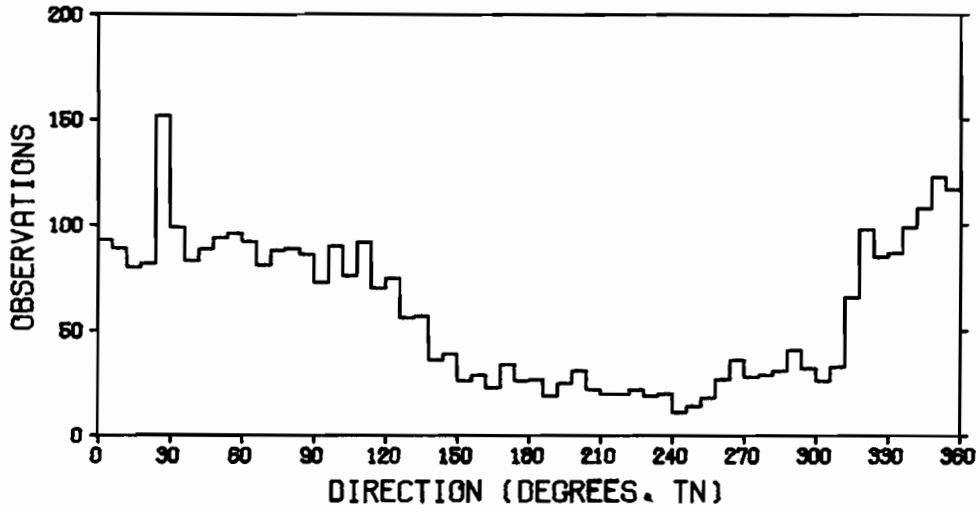
A.2. TIME SERIES ANALYSIS Current Meter 412 Nominal Depth: 30m
Part 2 of 2; 1 August - 26 August 1974

Mooring Designation NEGOA 60
Location: 60° 5.4'N 145° 47.7'W
Sensors: Speed, Direction, Temperature

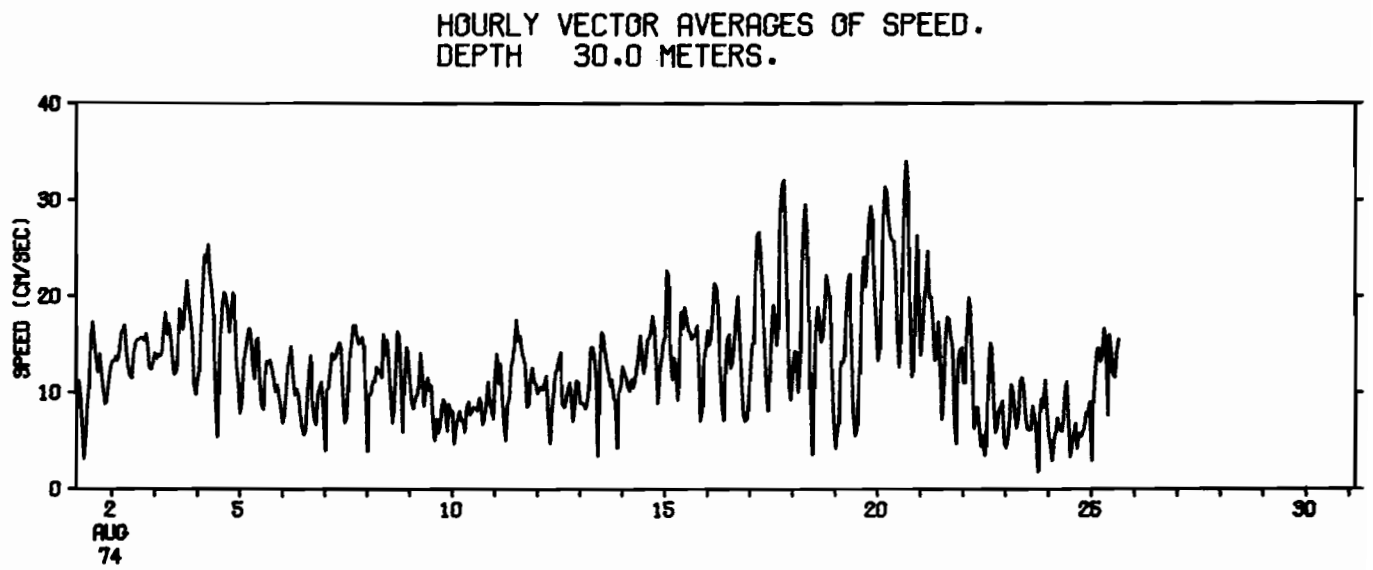
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	13.33	29.56	5.44	1.034	4.37	36.35	3.96
U	3.88	89.16	9.44	.227	2.61	33.32	-21.35
V	4.52	82.70	9.09	-.115	2.67	33.72	-25.95

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V

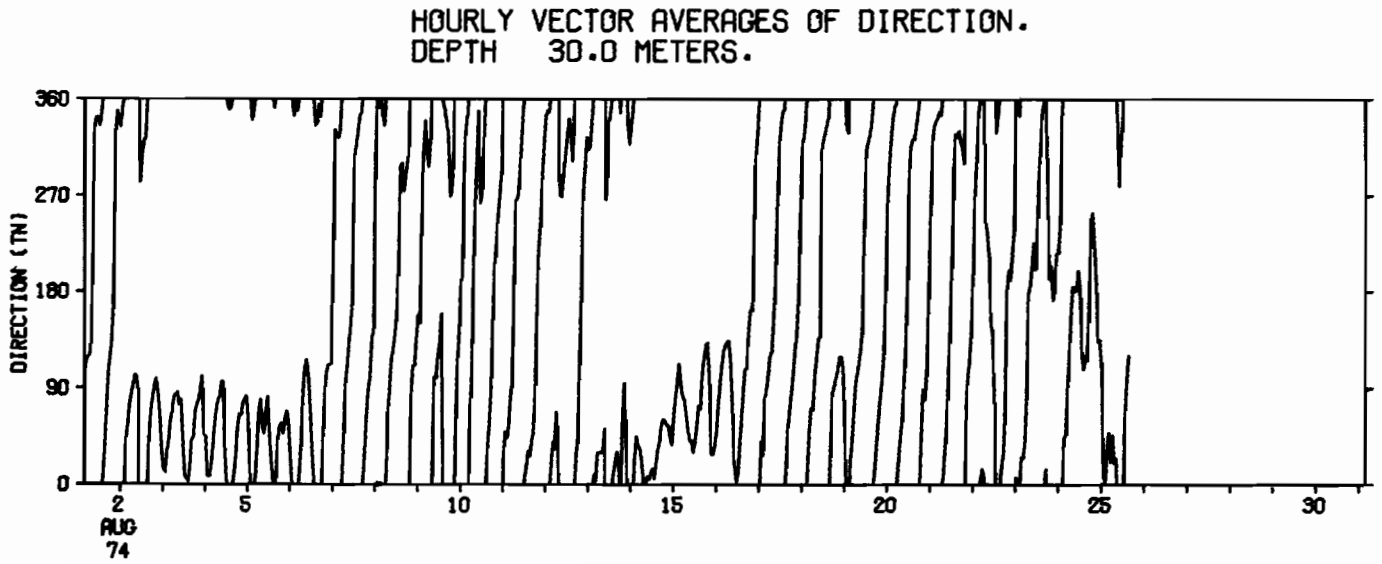




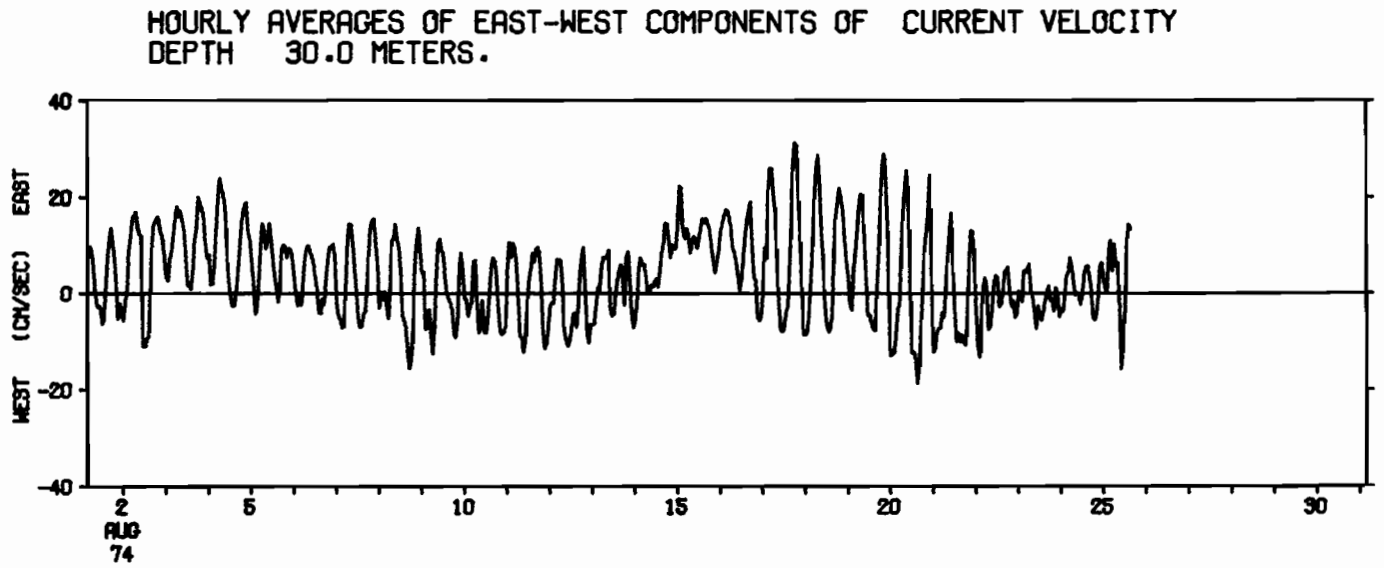
A.2. TIME SERIES ANALYSIS Current Meter 412 Part 2 of 2 (Continued)



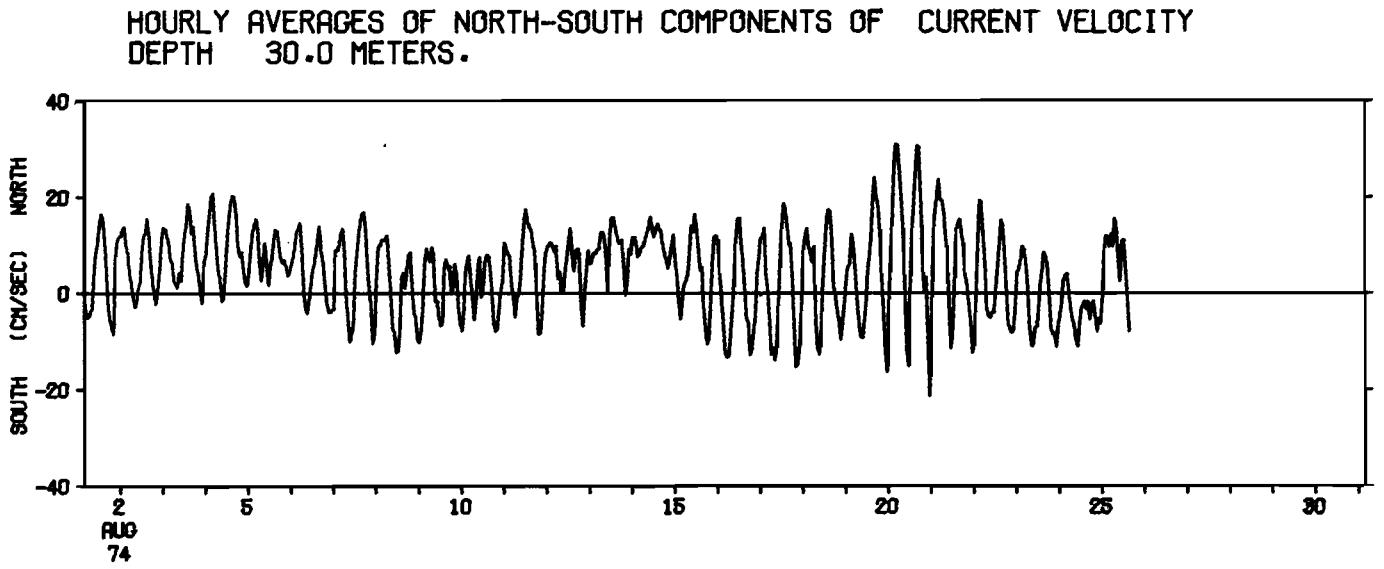
A.2. TIME SERIES ANALYSIS Current Meter 412 Part 2 of 2 (Continued)



A.2. TIME SERIES ANALYSIS Current Meter 412 Part 2 of 2 (Continued)

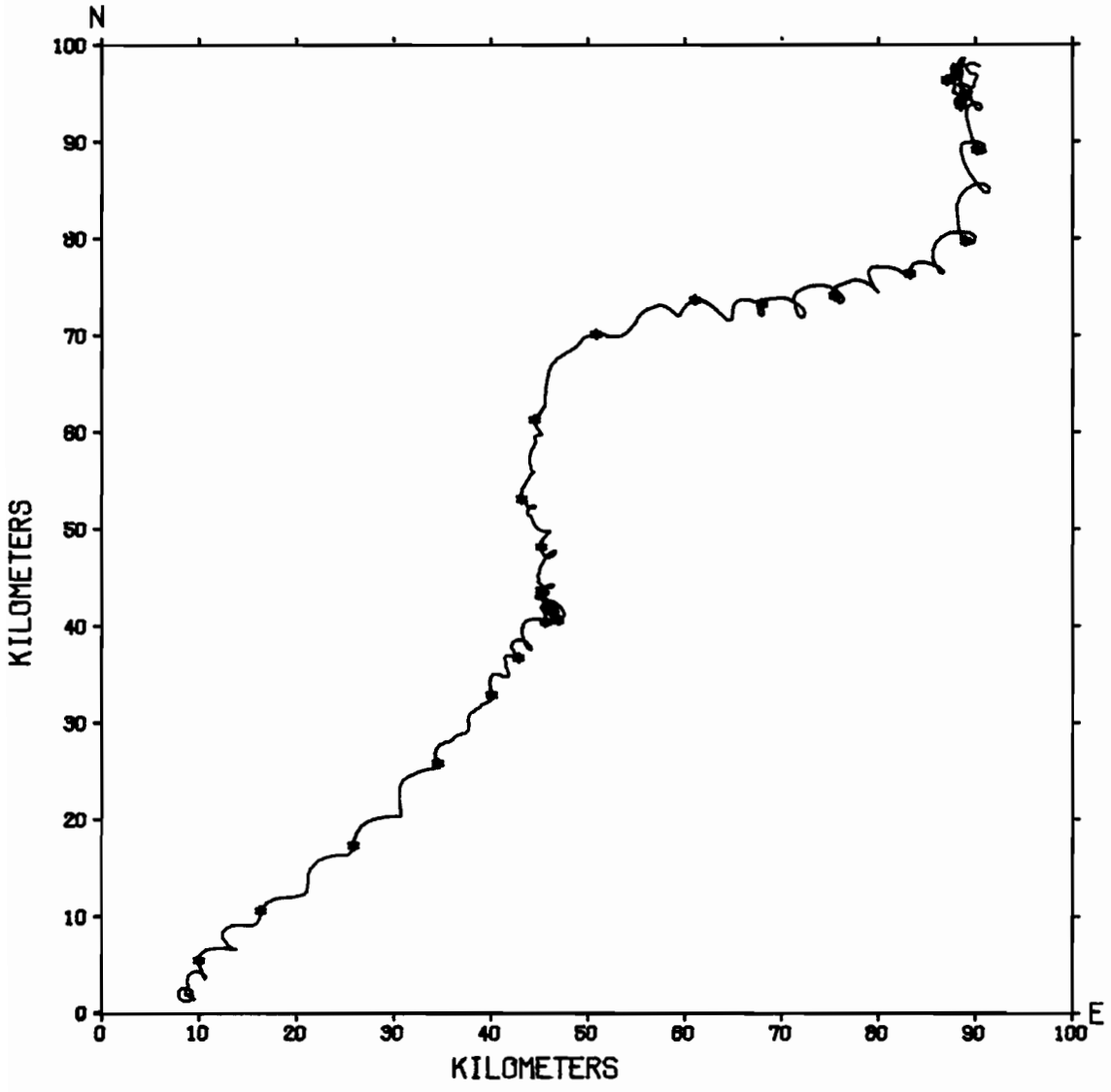


A.2. TIME SERIES ANALYSIS Current Meter 412 Part 2 of 2 (Continued)

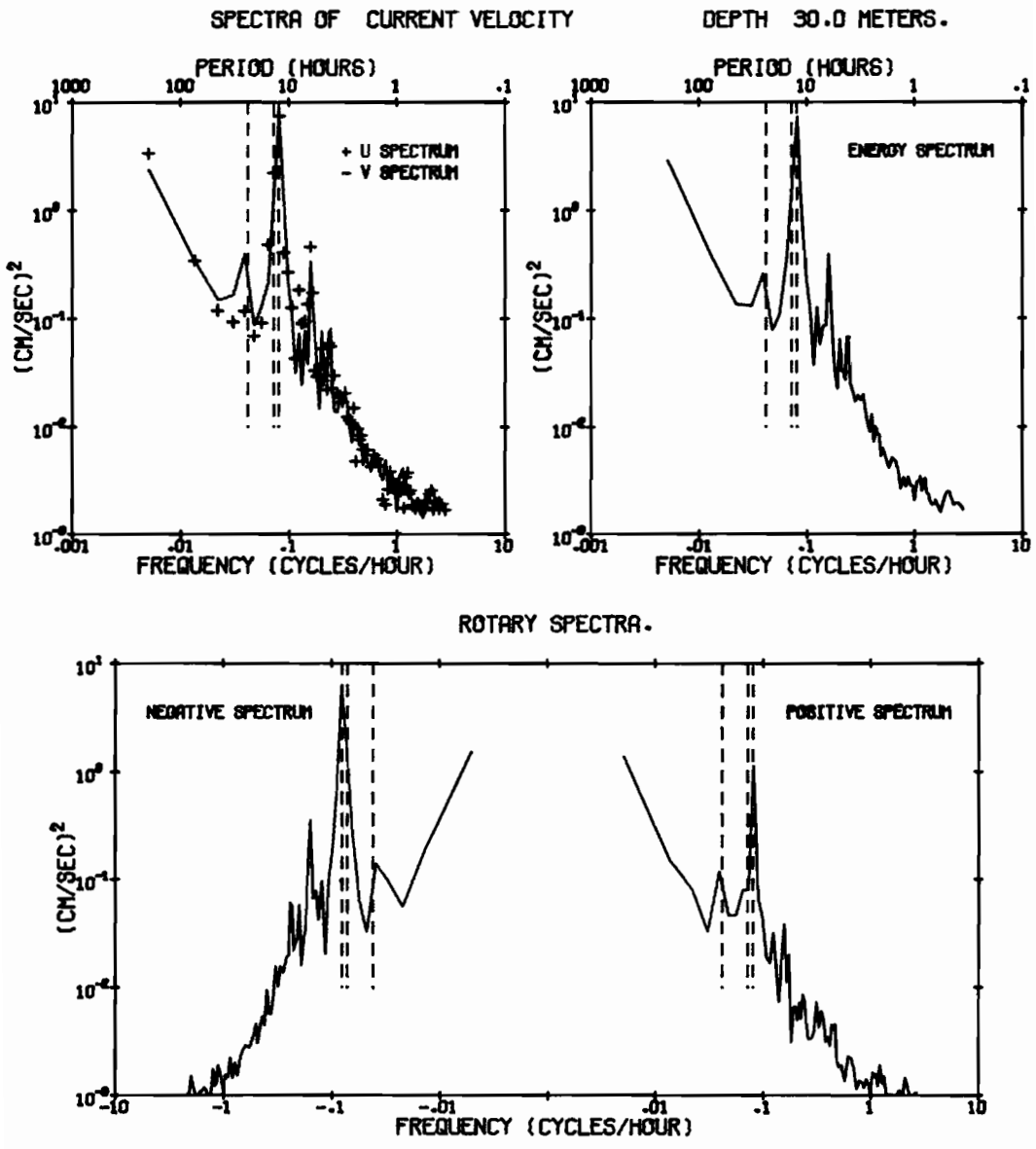


A.2. TIME SERIES ANALYSIS Current Meter 412
Part 2 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 60
OBSERVATION PERIOD 24.5 DAYS FROM 0342 GMT 1 AUG 74.
DEPTH 30.0 METERS.



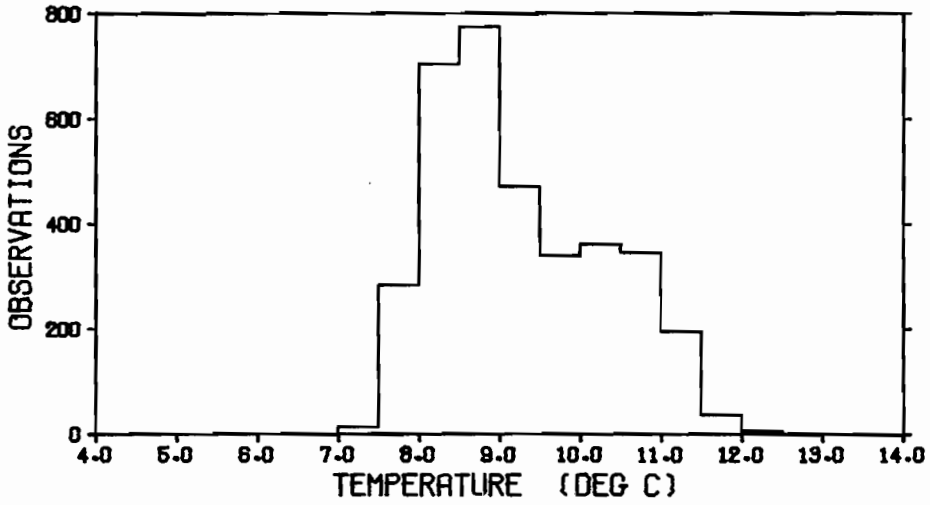
A.2. TIME SERIES ANALYSIS Current Meter 412
Part 2 of 2 (Continued)

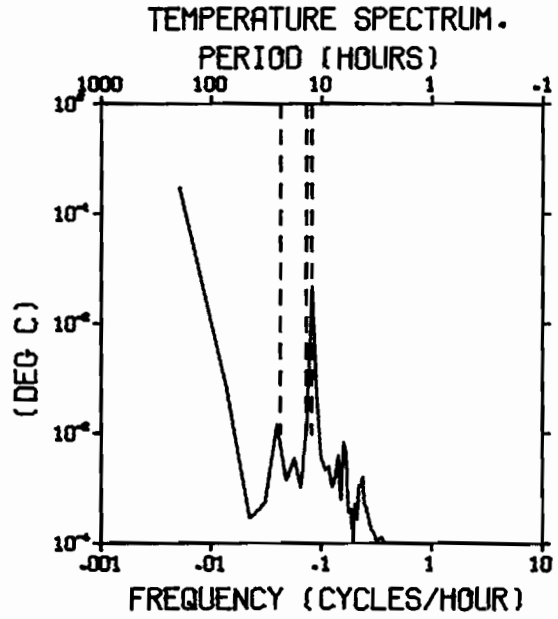


A.2. TIME SERIES ANALYSIS Current Meter 412
Part 2 of 2 (Continued)

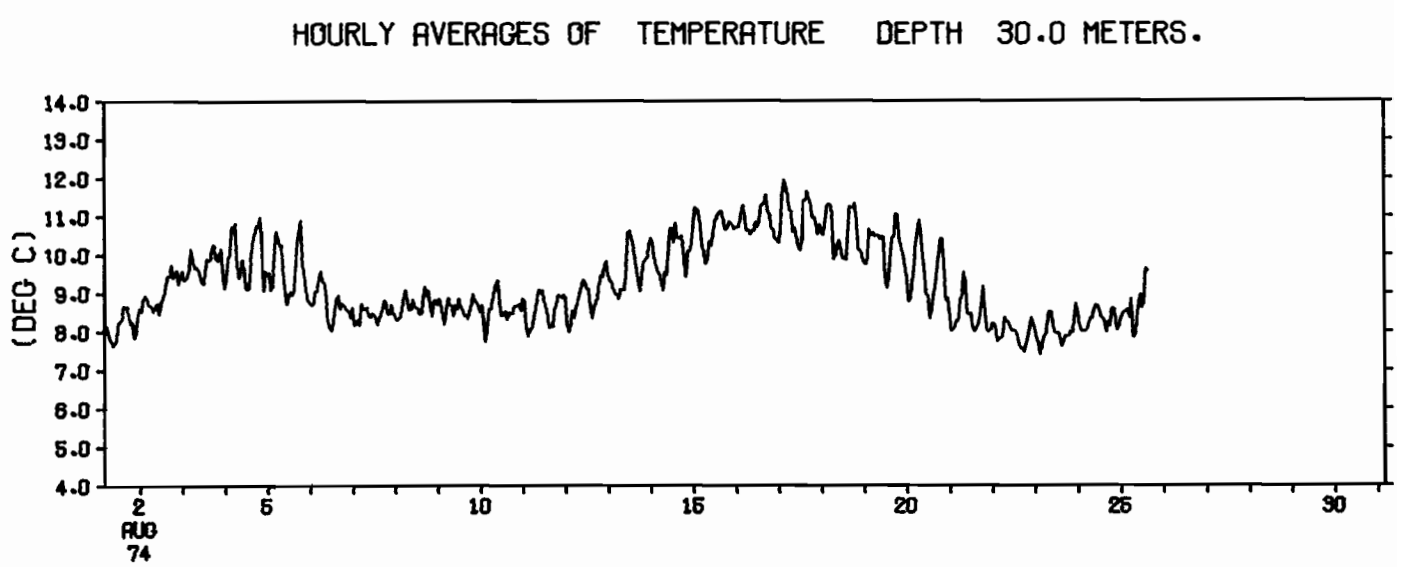
TEMPERATURE STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 30.0 METERS NUMBER OF OBSERVATIONS = 3529
OBSERVATION PERIOD 24.5 DAYS FROM 0342 GMT 1 AUG 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
9.24	1.08	1.04	.50	2.22	12.26	7.29





A.2. TIME SERIES ANALYSIS Current Meter 412 Part 2 of 2 (Continued)

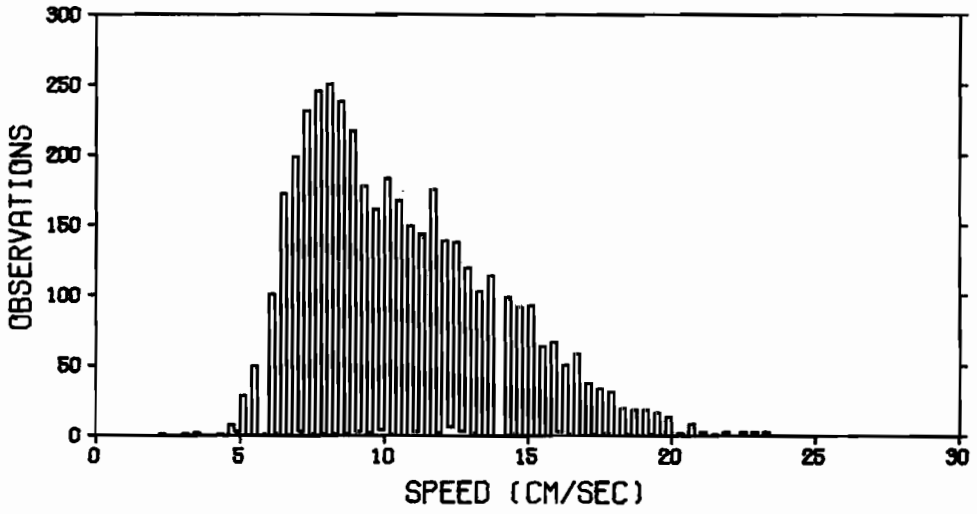


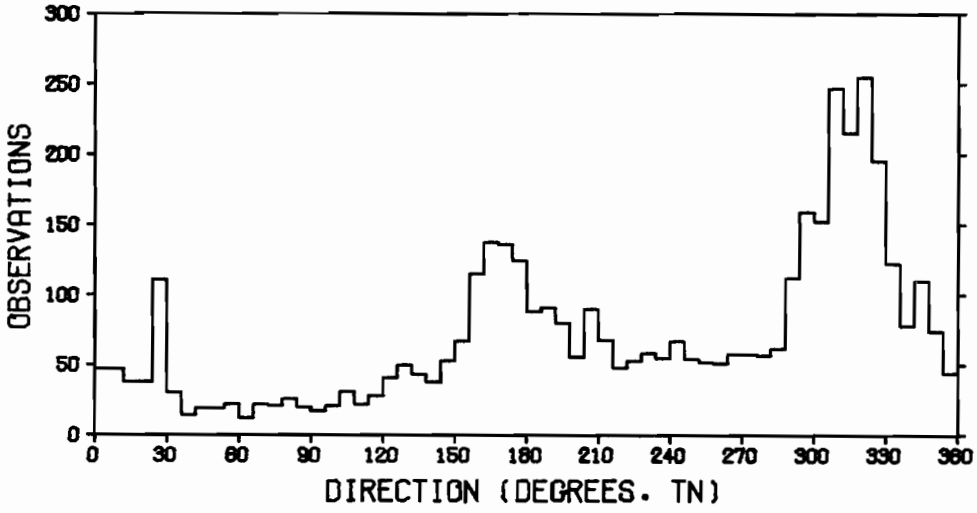
A.3. TIME SERIES ANALYSIS Current Meter 392 Nominal Depth: 50m
Part 1 of 2; 2 July - 1 August 1974

Mooring Designation NEGOA 60
Location: 60° 5.4'N 145° 47.7'W
Sensors: Speed, Direction, Temperature

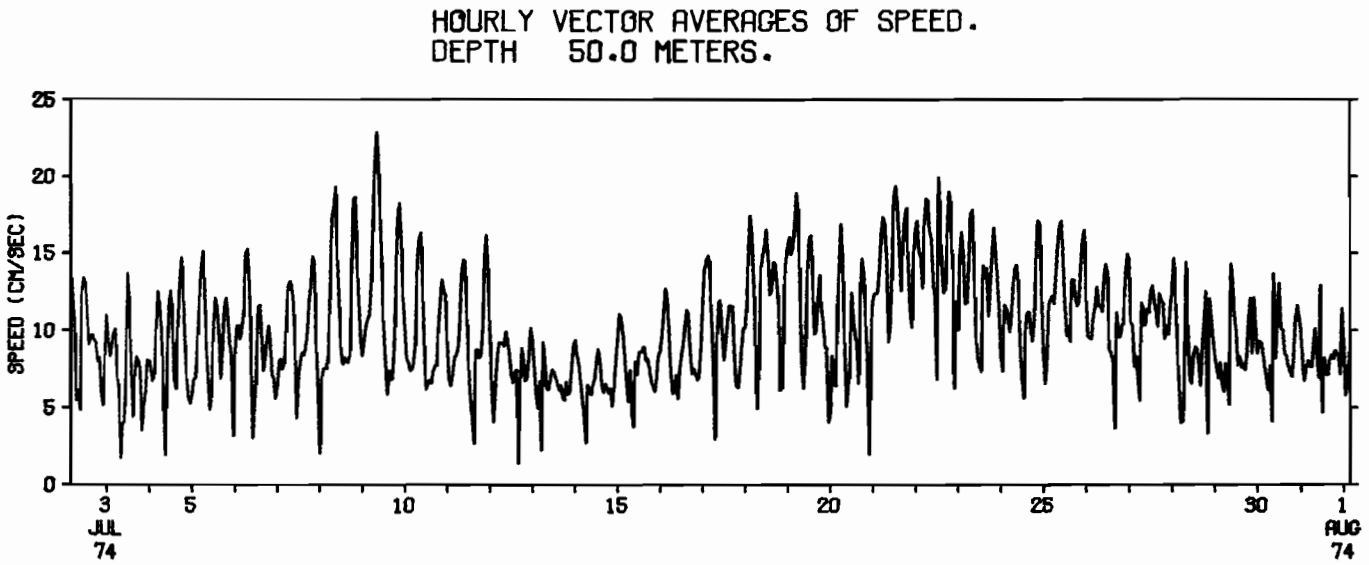
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	10.62	11.60	3.41	.712	2.99	23.23	2.32
U	-3.17	39.57	6.29	.316	2.20	13.91	-18.30
V	.80	74.18	8.61	-.207	1.92	20.75	-21.58

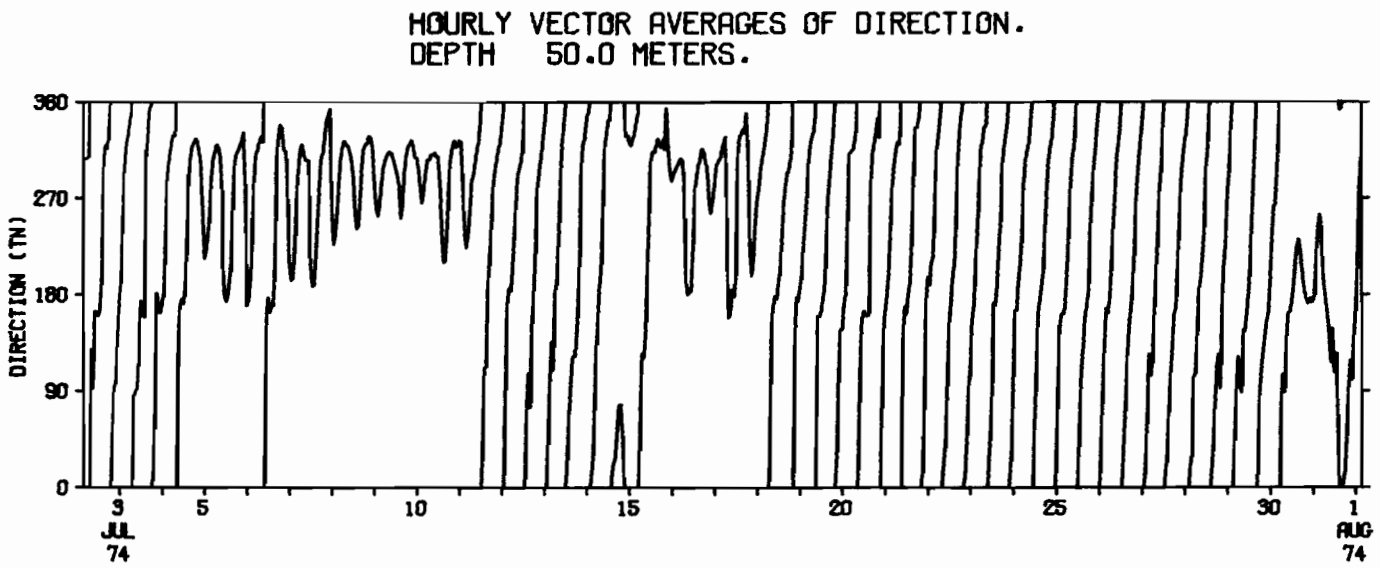
S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V





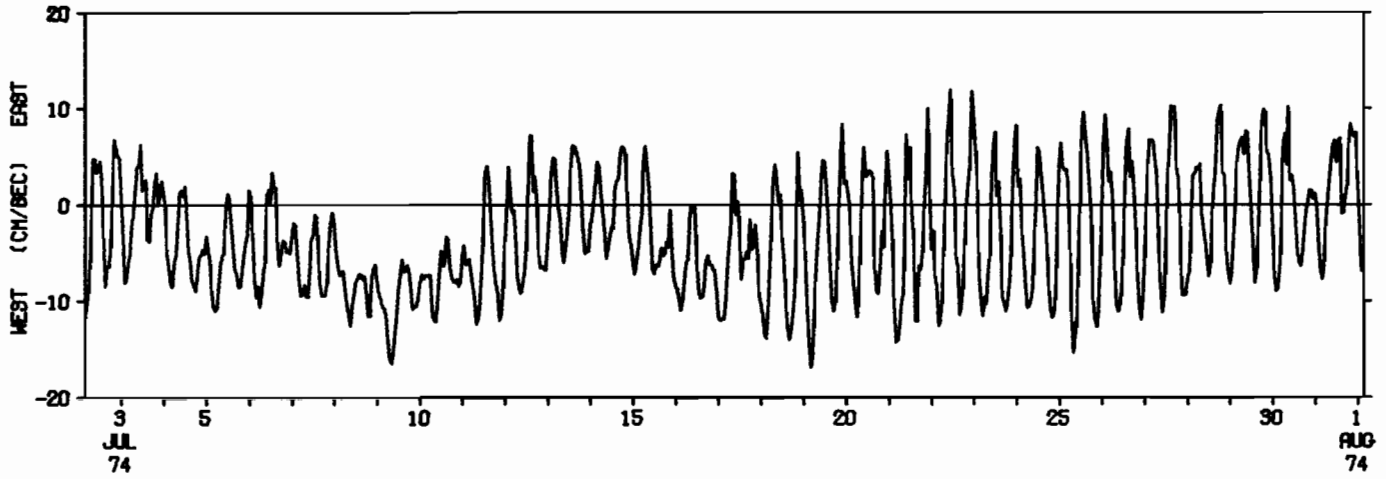
A.3. TIME SERIES ANALYSIS Current Meter 392 Part 1 of 2 (Continued)



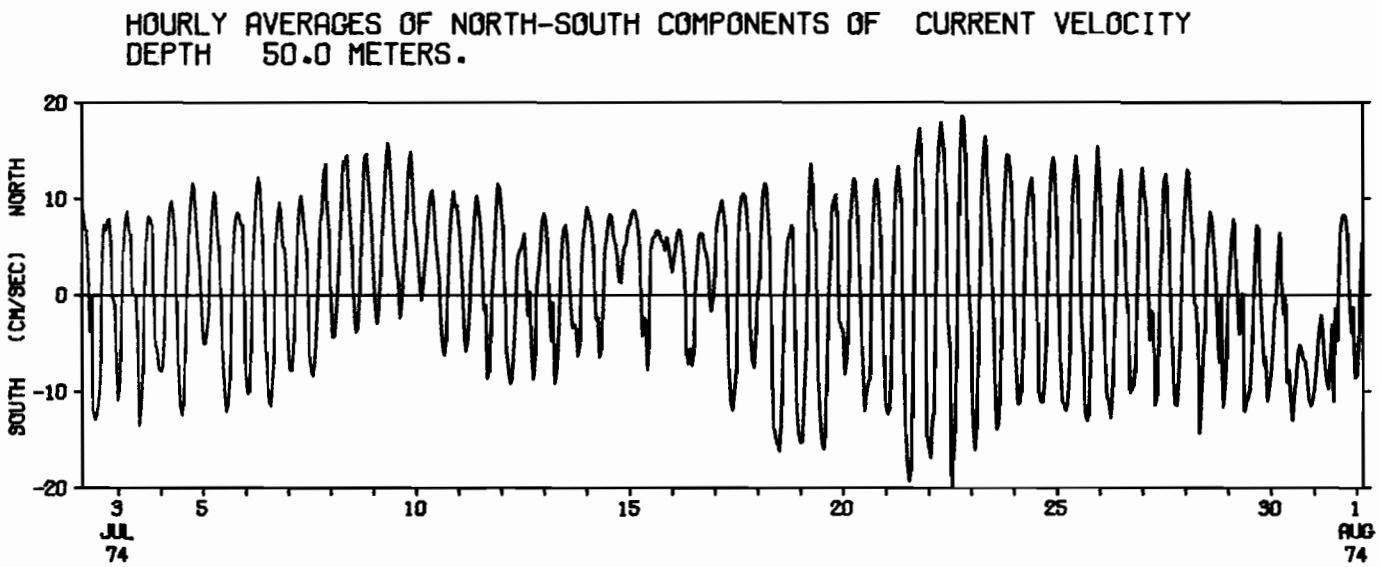

HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 50.0 METERS.
DIRECTION (TN)
360
270
180
90
0
3
JUL
74
5
10
15
20
25
30
1
AUG
74

A.3. TIME SERIES ANALYSIS Current Meter 392 Part 1 of 2 (Continued)

HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 50.0 METERS.

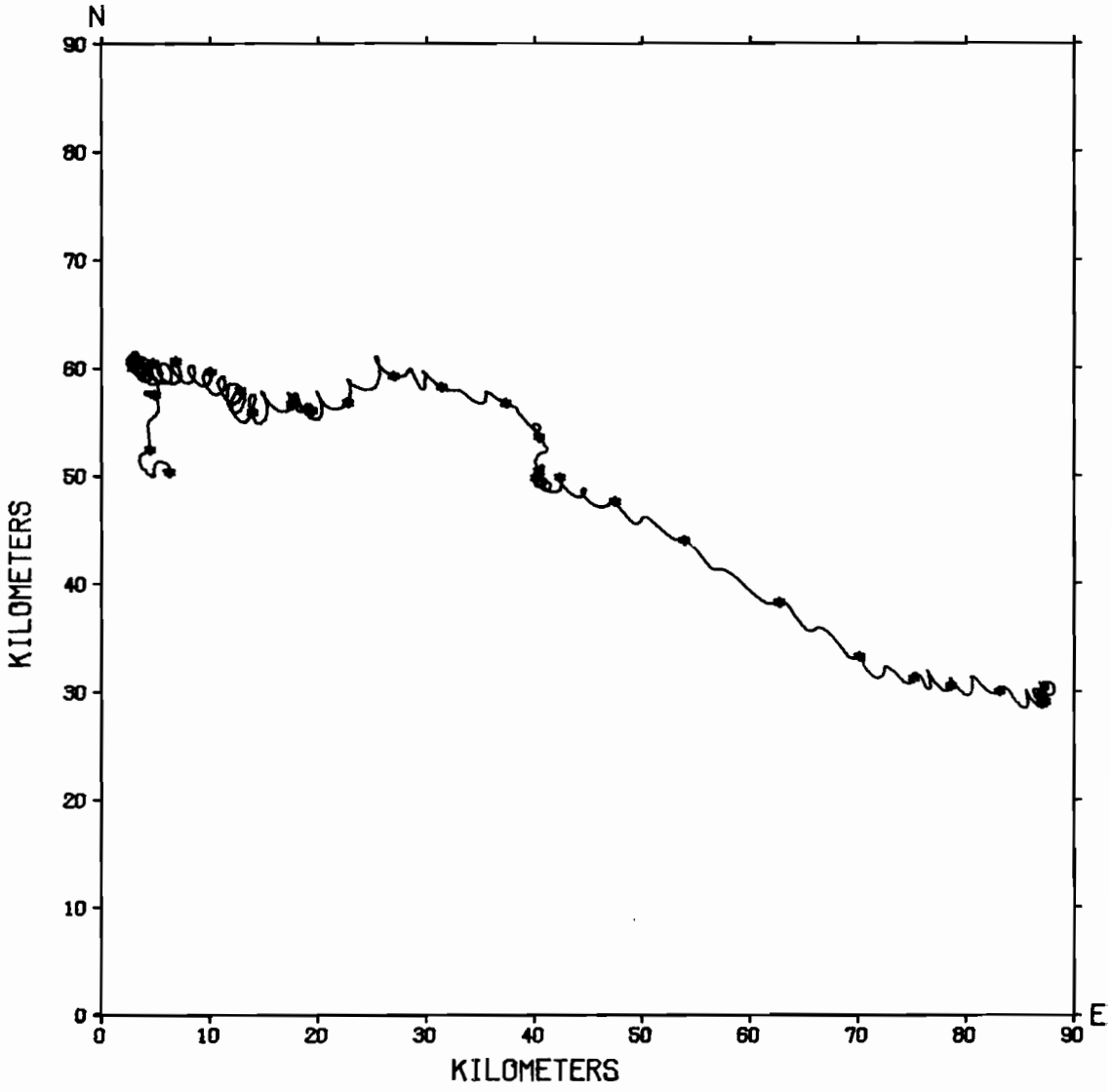


A.3. TIME SERIES ANALYSIS Current Meter 392 Part 1 of 2 (Continued)

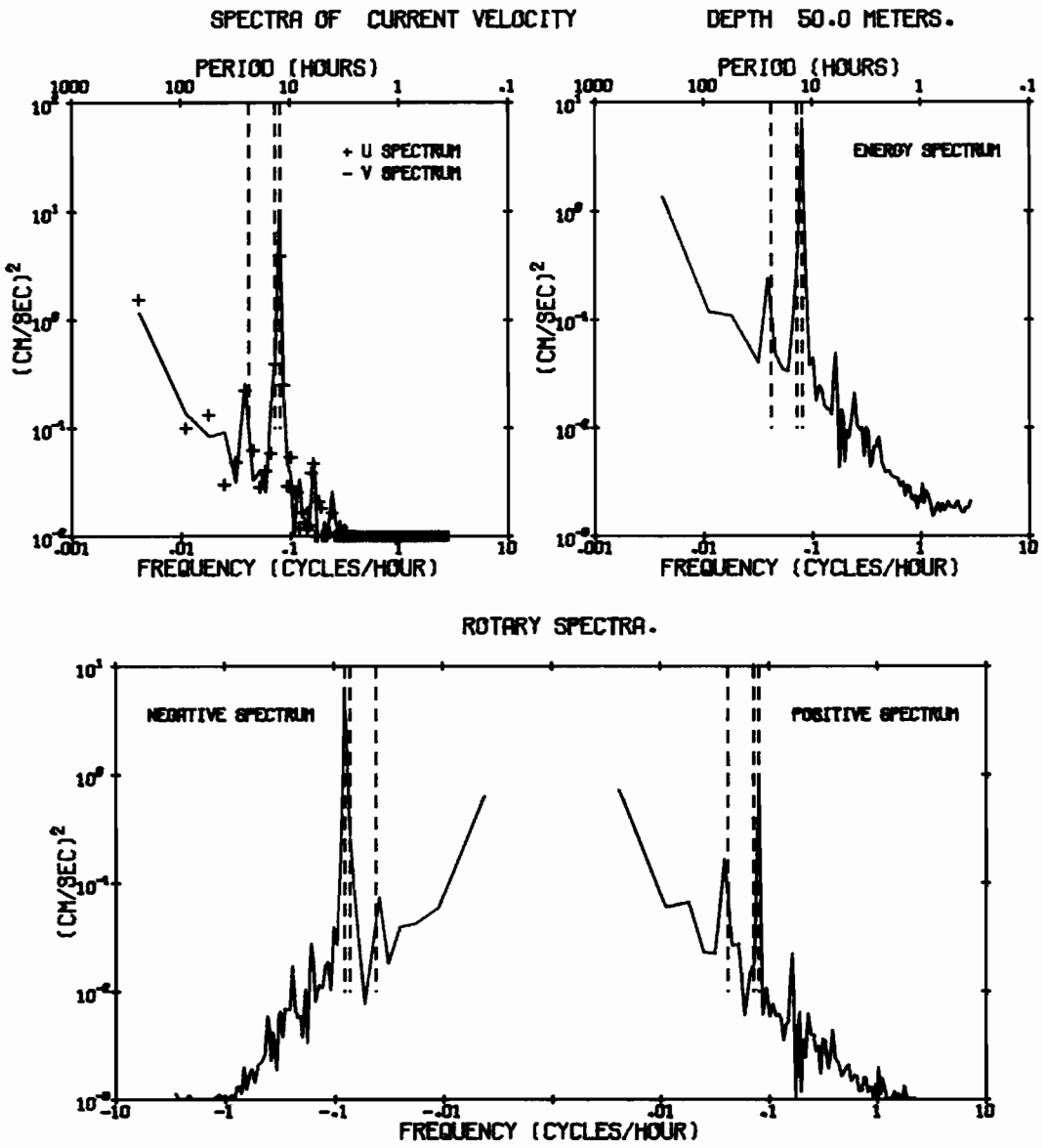


A.3. 'TIME SERIES ANALYSIS Current Meter 392
Part 1 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 60
OBSERVATION PERIOD 30.0 DAYS FROM 0324 GMT 2 JUL 74.
DEPTH 50.0 METERS.



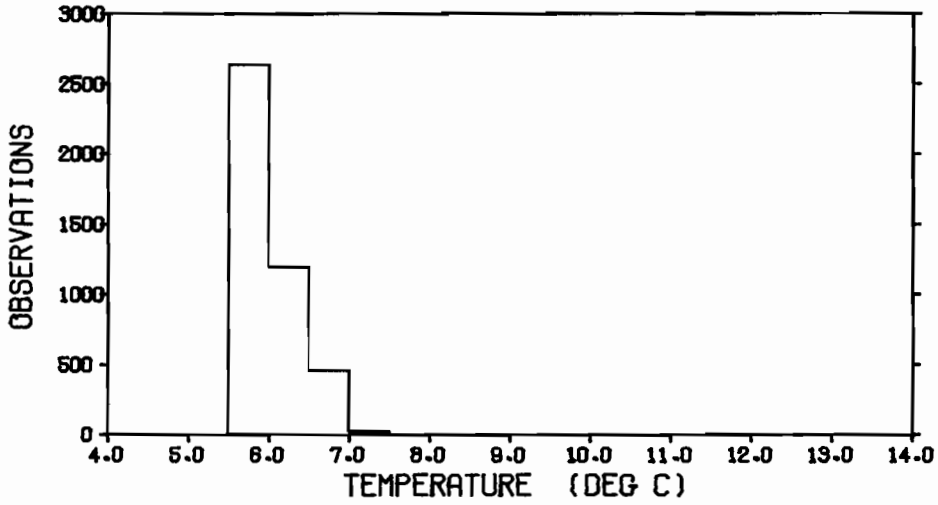
A.3. TIME SERIES ANALYSIS Current Meter 392
Part 1 of 2 (Continued)

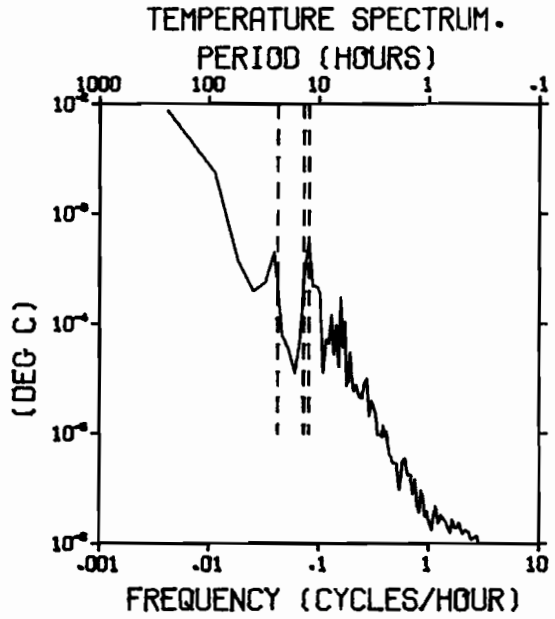


A.3. TIME SERIES ANALYSIS Current Meter 392
Part 1 of 2 (Continued)

TEMPERATURE STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 50.0 METERS NUMBER OF OBSERVATIONS = 4320
OBSERVATION PERIOD 30.0 DAYS FROM 0324 GMT 2 JUL 74

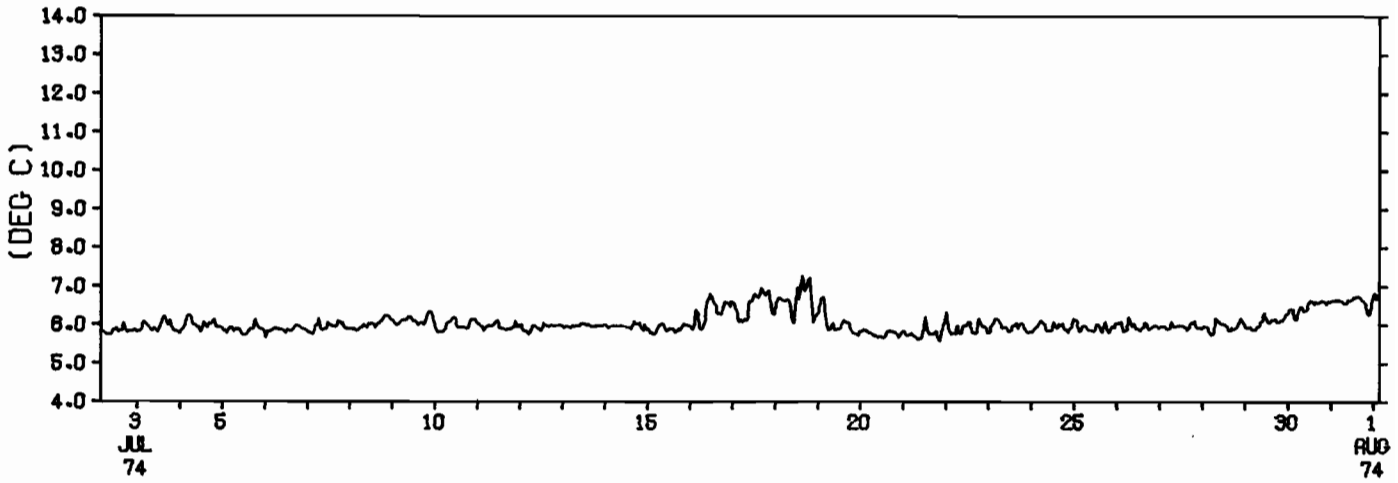
MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
6.04	.08	.28	1.55	5.23	7.62	5.52





A.3. TIME SERIES ANALYSIS Current Meter 392 Part 1 of 2 (Continued)

HOURLY AVERAGES OF TEMPERATURE DEPTH 50.0 METERS.

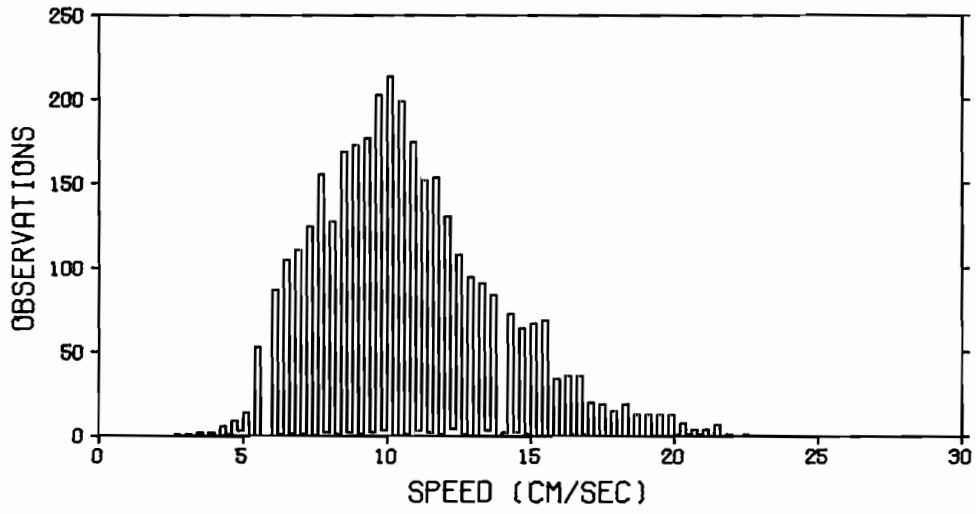


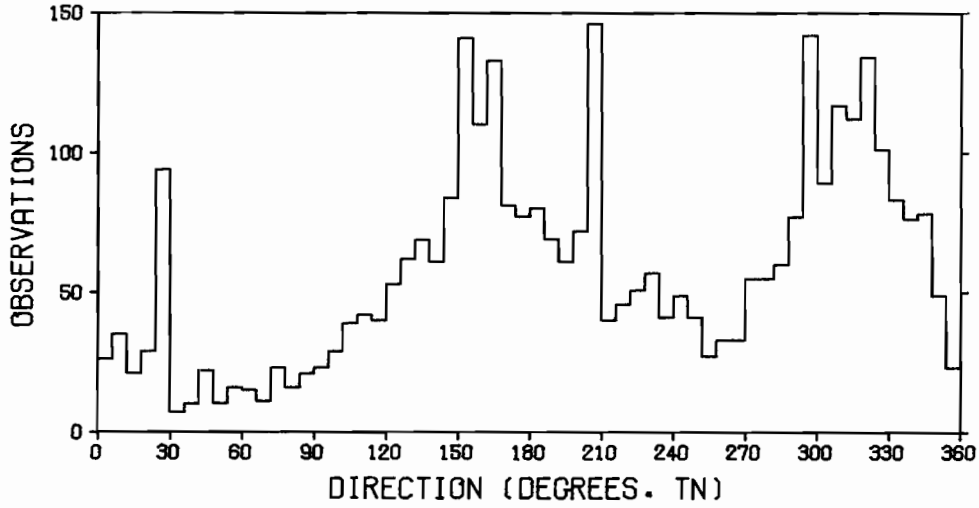
A.3. TIME SERIES ANALYSIS Current Meter 392 Nominal Depth: 50m
Part 2 of 2; 1 August - 26 August 1974

Mooring Designation NEGOA 60
Location: 60° 5.4'N 145° 47.7'W
Sensors: Speed, Direction, Temperature

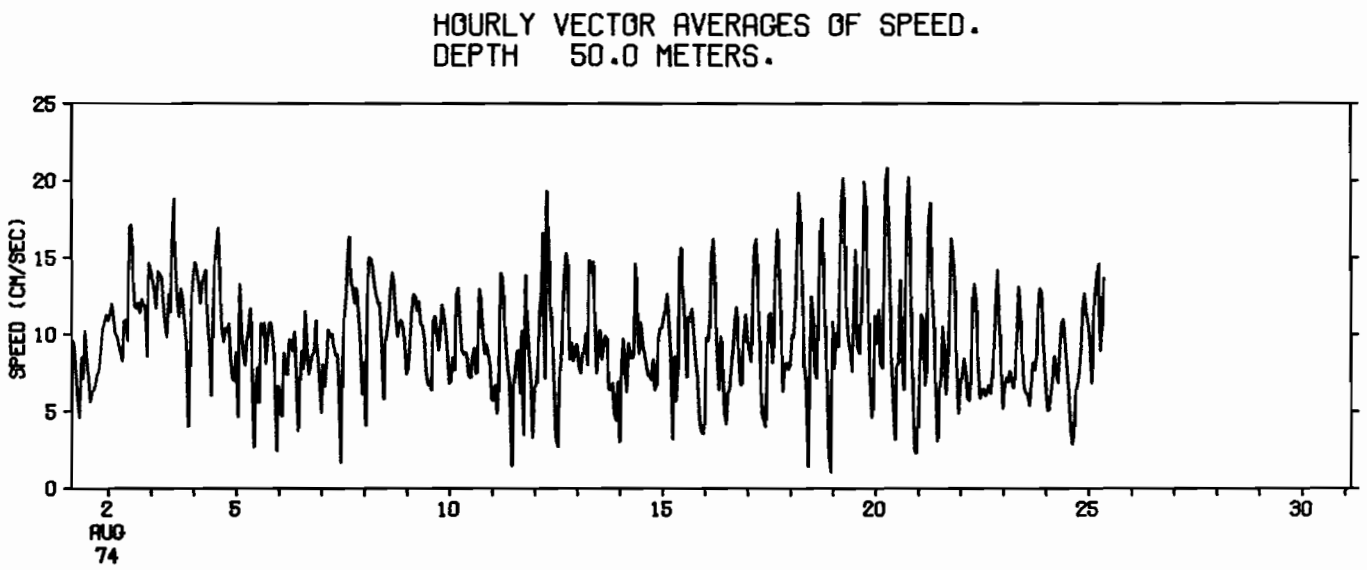
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	10.71	10.22	3.20	.688	3.38	22.41	2.73
U	-1.77	45.01	6.71	.183	1.85	14.99	-17.24
V	-1.25	75.32	8.68	.125	1.90	19.89	-20.32

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V

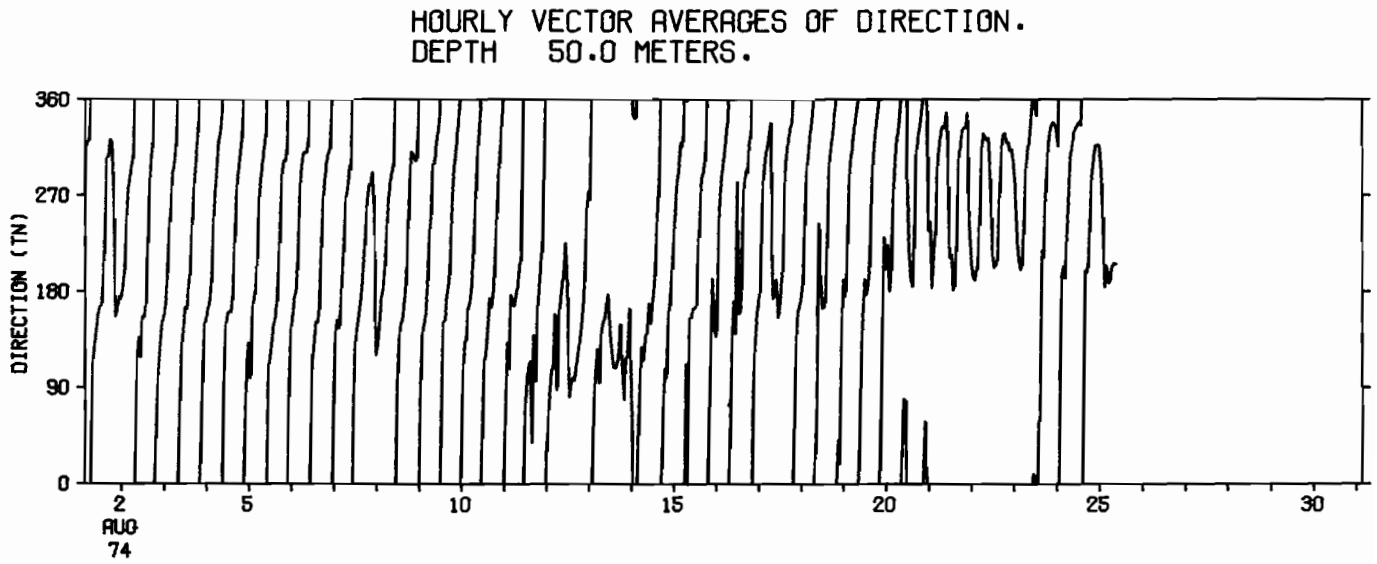




A.3. TIME SERIES ANALYSIS Current Meter 392 Part 2 of 2 (Continued)

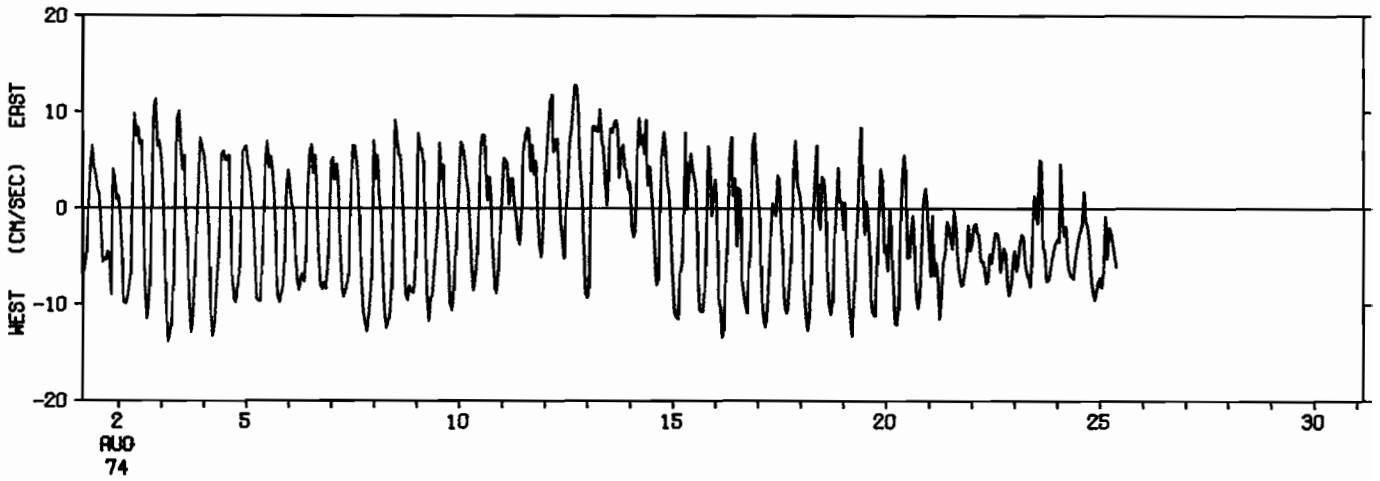


A.3. TIME SERIES ANALYSIS Current Meter 392 Part 2 of 2 (Continued)



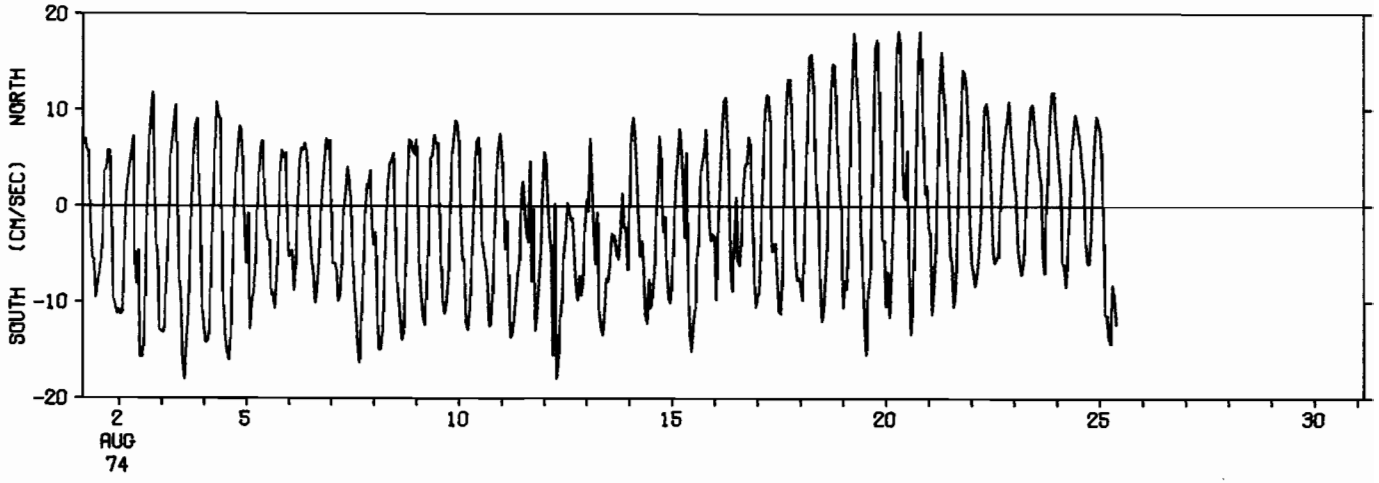
A.3. TIME SERIES ANALYSIS Current Meter 392 Part 2 of 2 (Continued)

HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 50.0 METERS.



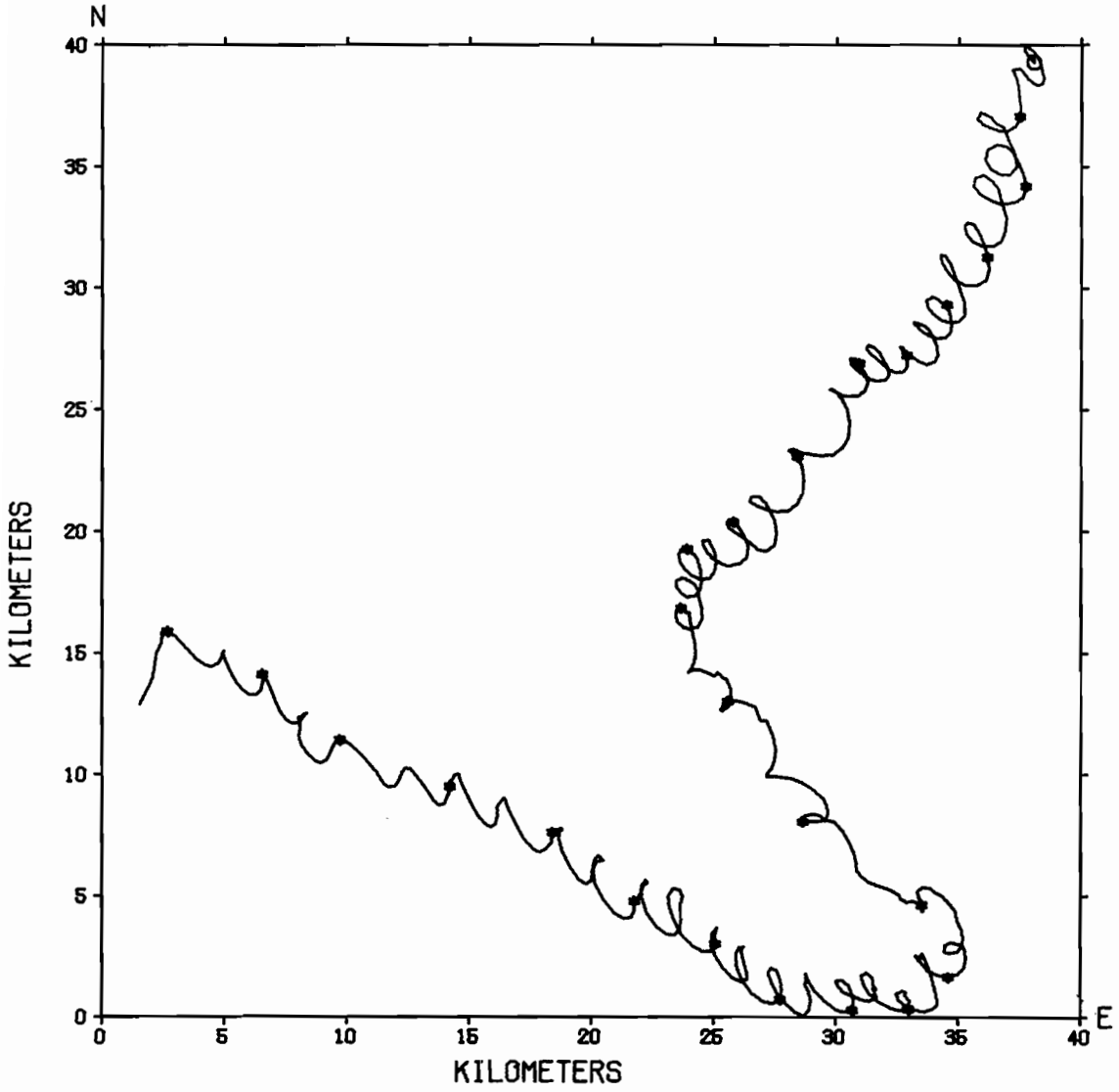
A.3. TIME SERIES ANALYSIS Current Meter 392 Part 2 of 2 (Continued)

HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 50.0 METERS.

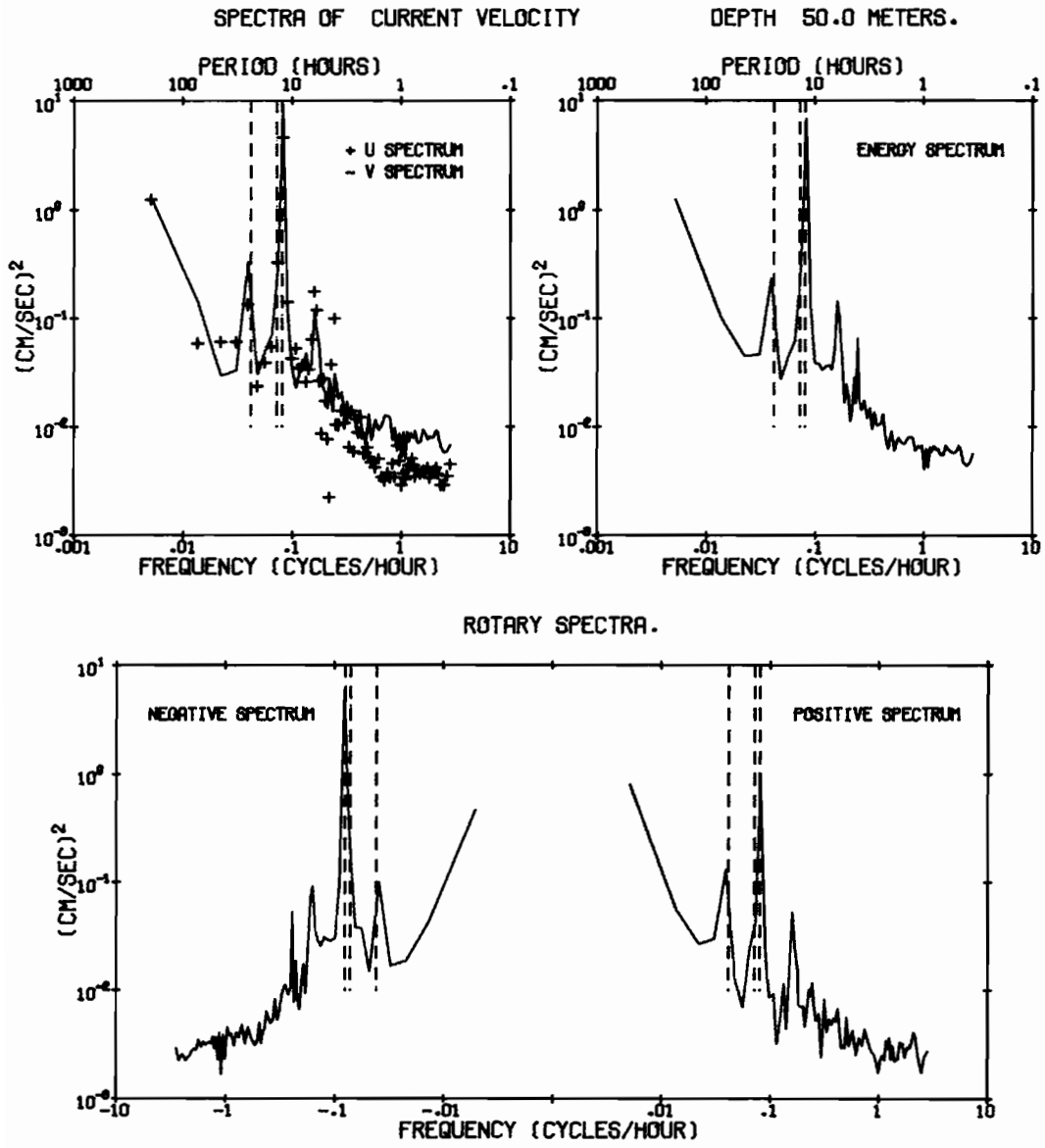


A.3. TIME SERIES ANALYSIS Current Meter 392
Part 2 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 60
OBSERVATION PERIOD 24.3 DAYS FROM 0324 GMT 1 AUG 74.
DEPTH 50.0 METERS.



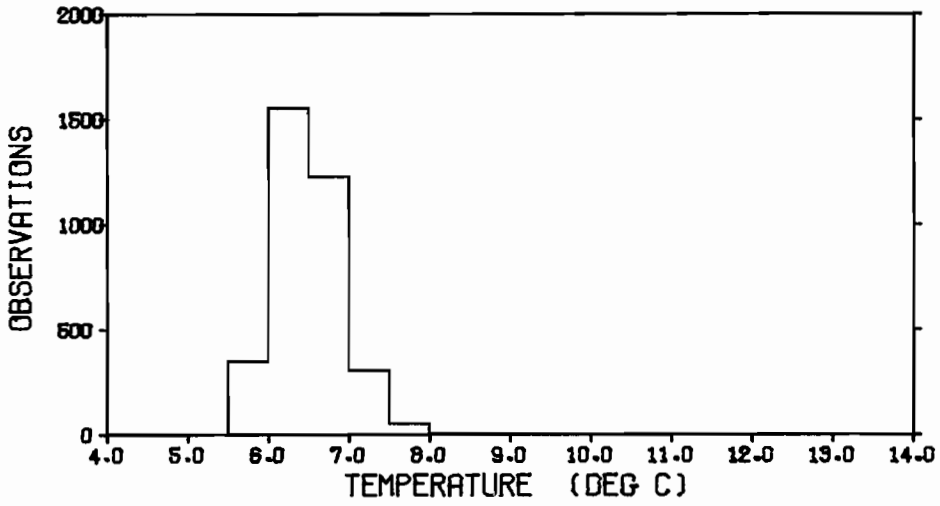
A.3. TIME SERIES ANALYSIS Current Meter 392
Part 2 of 2 (Continued)

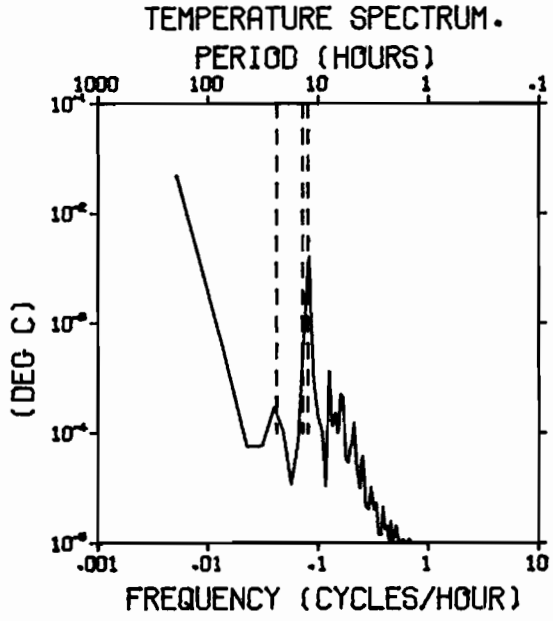


A.3. TIME SERIES ANALYSIS Current Meter 392
Part 2 of 2 (Continued)

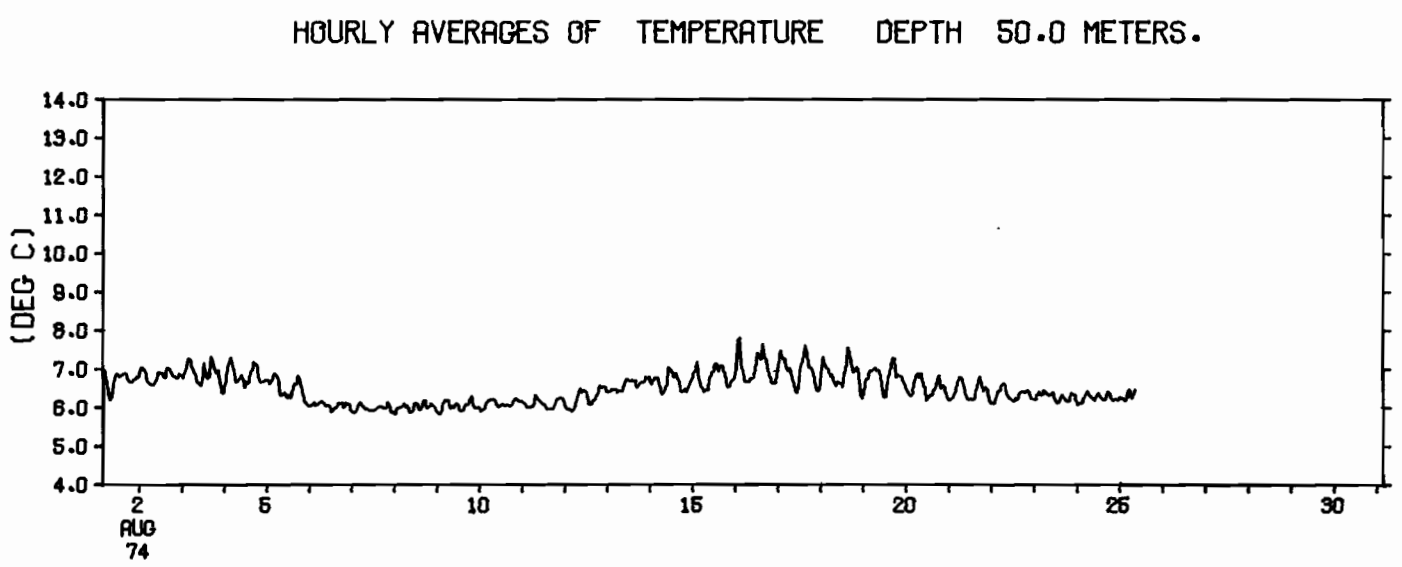
TEMPERATURE STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 50.0 METERS NUMBER OF OBSERVATIONS = 3497
OBSERVATION PERIOD 24.3 DAYS FROM 0324 GMT 1 AUG 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
6.49	.16	.40	.60	3.07	8.19	5.75





A.3. TIME SERIES ANALYSIS Current Meter 392 Part 2 of 2 (Continued)

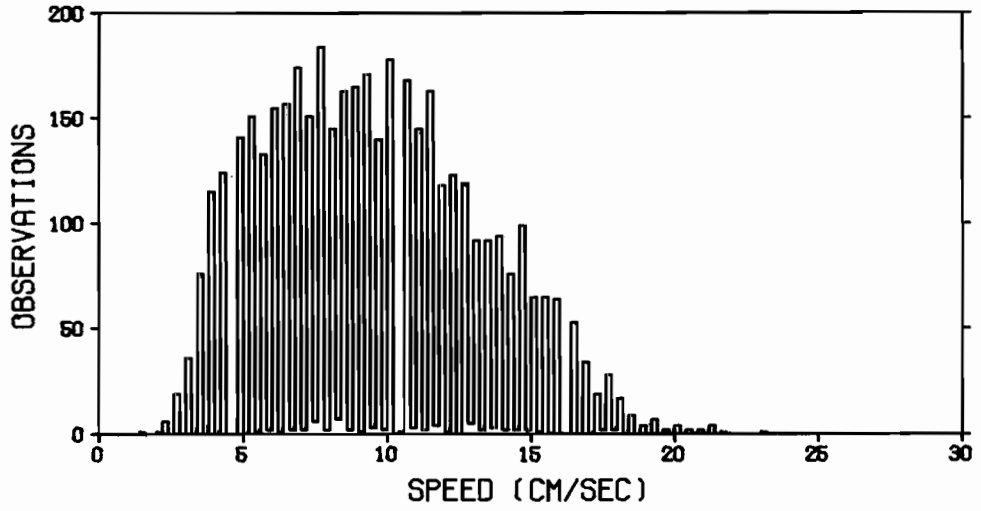


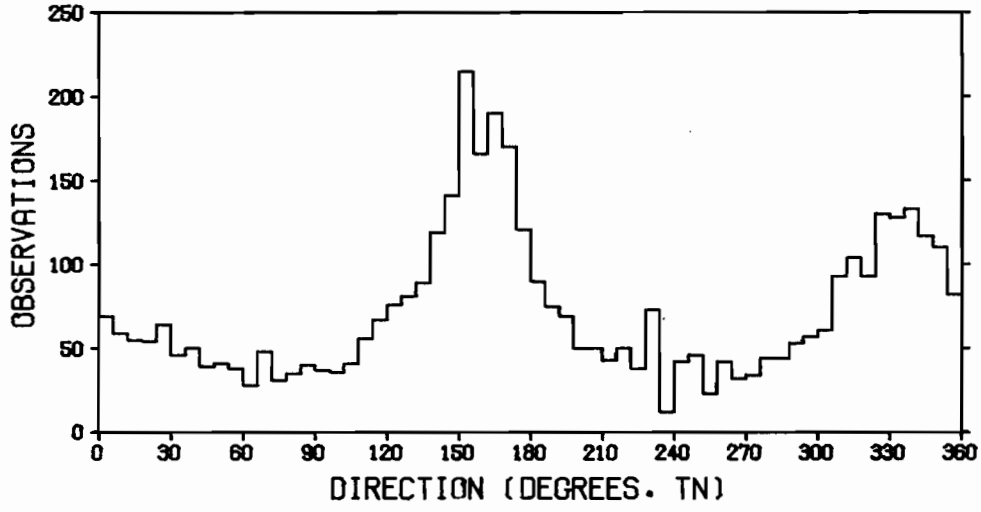
A.4. TIME SERIES ANALYSIS Current Meter 624 Nominal Depth: 90m
Part 1 of 2; 2 July - 1 August 1974

Mooring Designation NEGOA 60
Location: 60° 5.4'N 145° 47.7'W
Sensors: Speed, Direction, Temperature, Conductivity

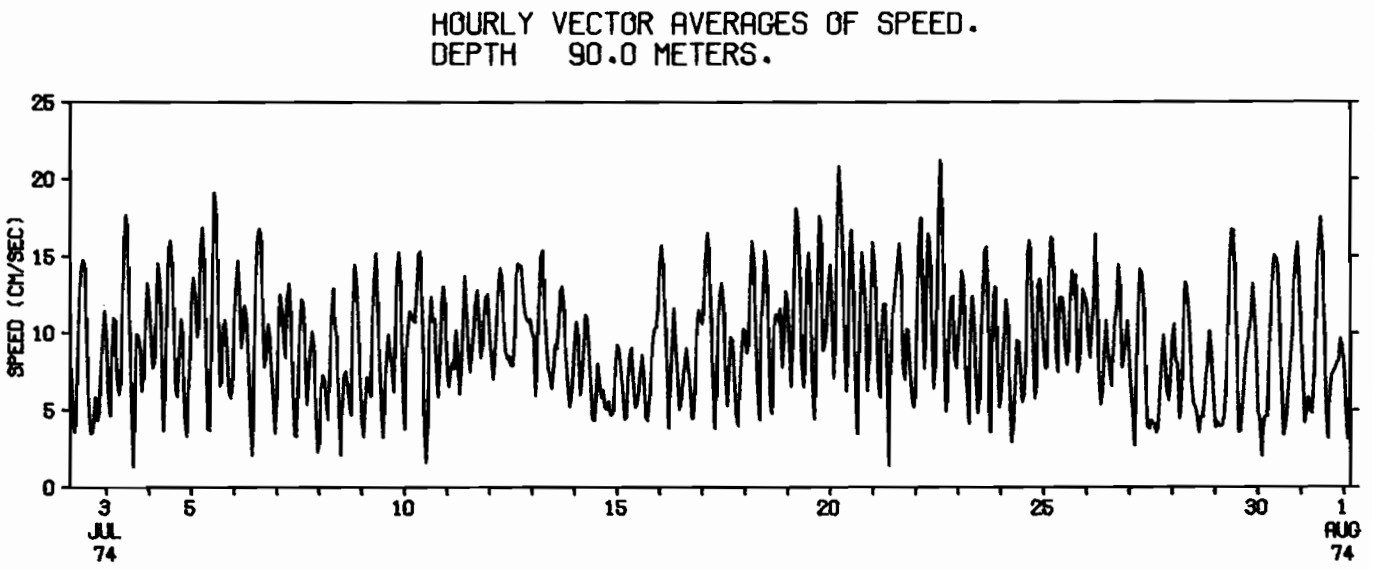
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	9.52	13.81	3.72	.358	2.47	23.03	1.50
U	.23	30.77	5.55	-.136	2.16	15.12	-14.18
V	-1.21	72.16	8.49	.070	1.99	20.45	-20.75

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V

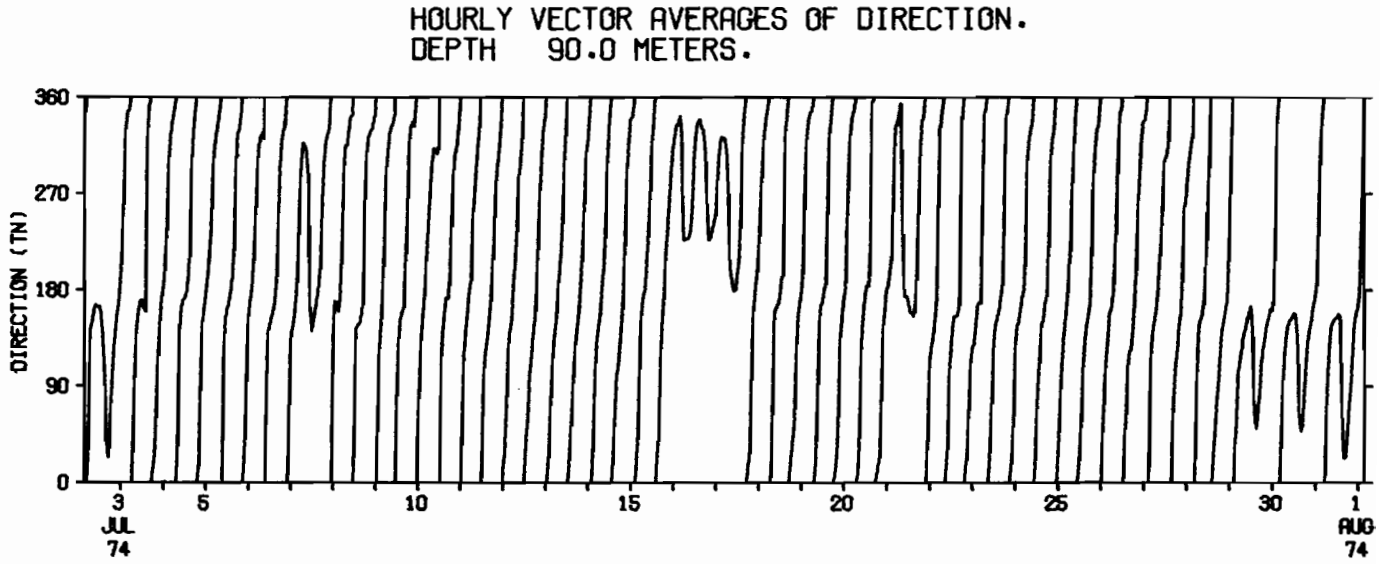




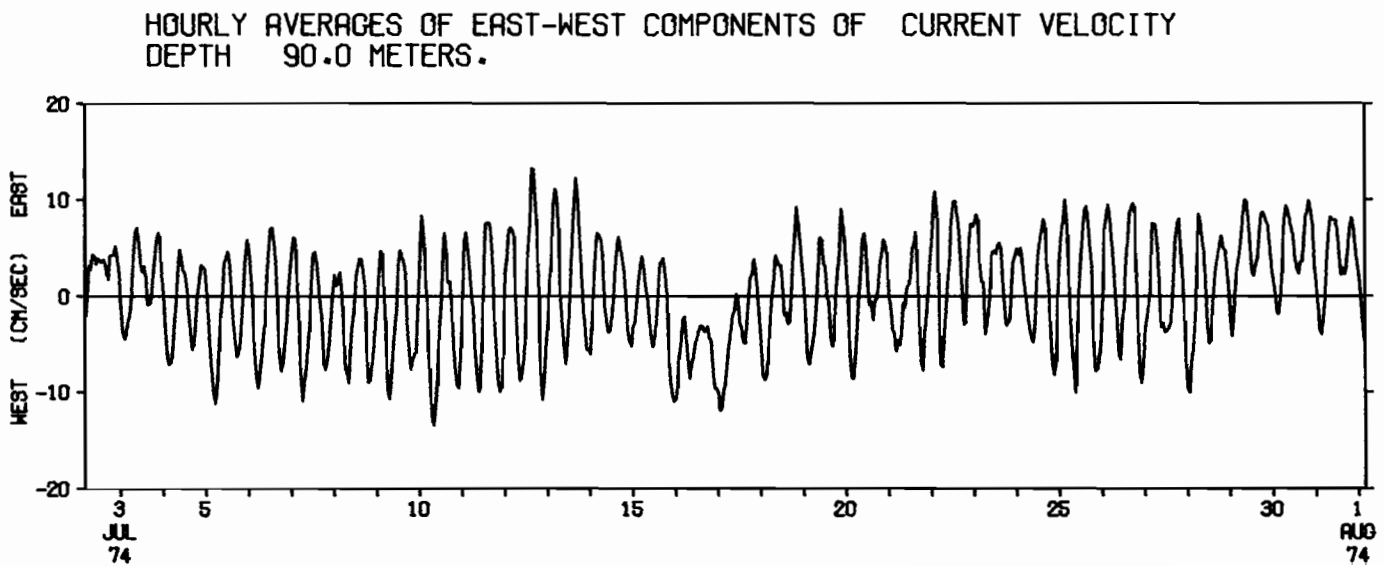
A.4. TIME SERIES ANALYSIS Current Meter 624 Part 1 of 2 (Continued)



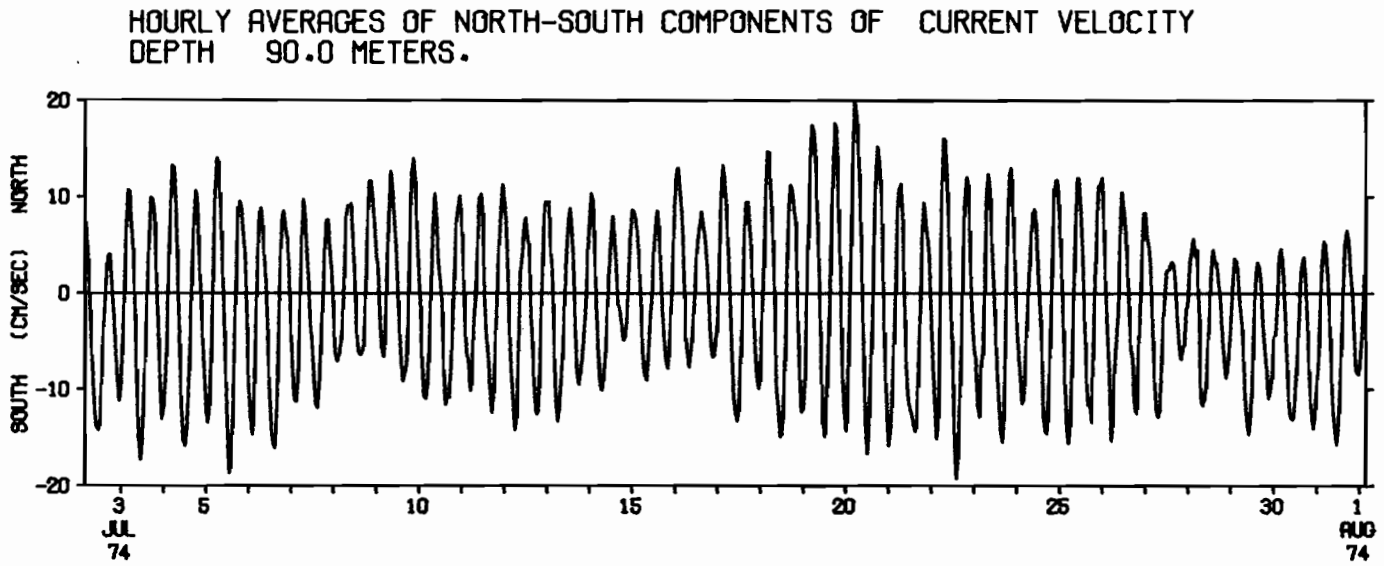
A.4. TIME SERIES ANALYSIS Current Meter 624 Part 1 of 2 (Continued)



A.4. TIME SERIES ANALYSIS Current Meter 624 Part 1 of 2 (Continued)

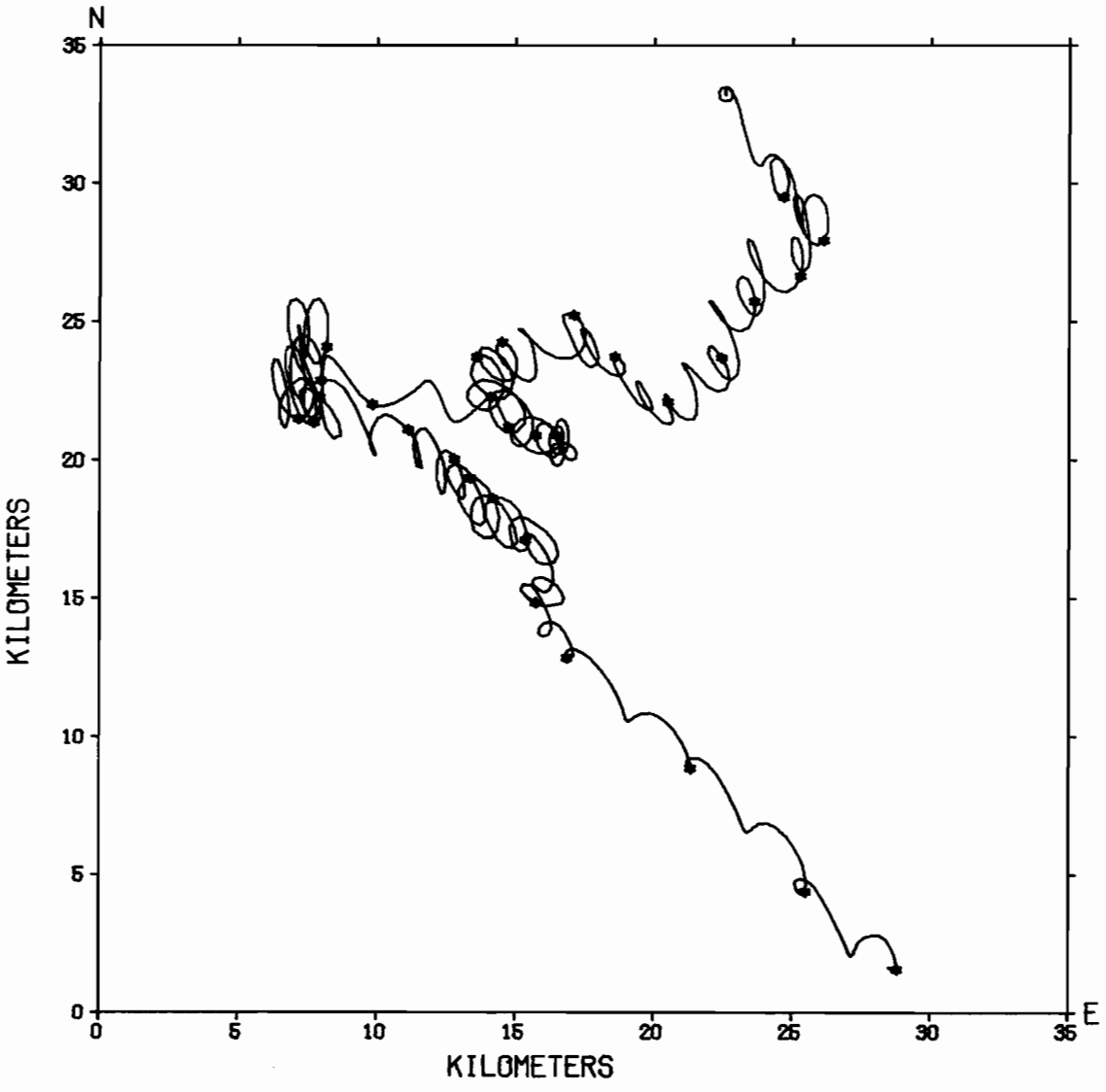


A.4. TIME SERIES ANALYSIS Current Meter 624 Part 1 of 2 (Continued)

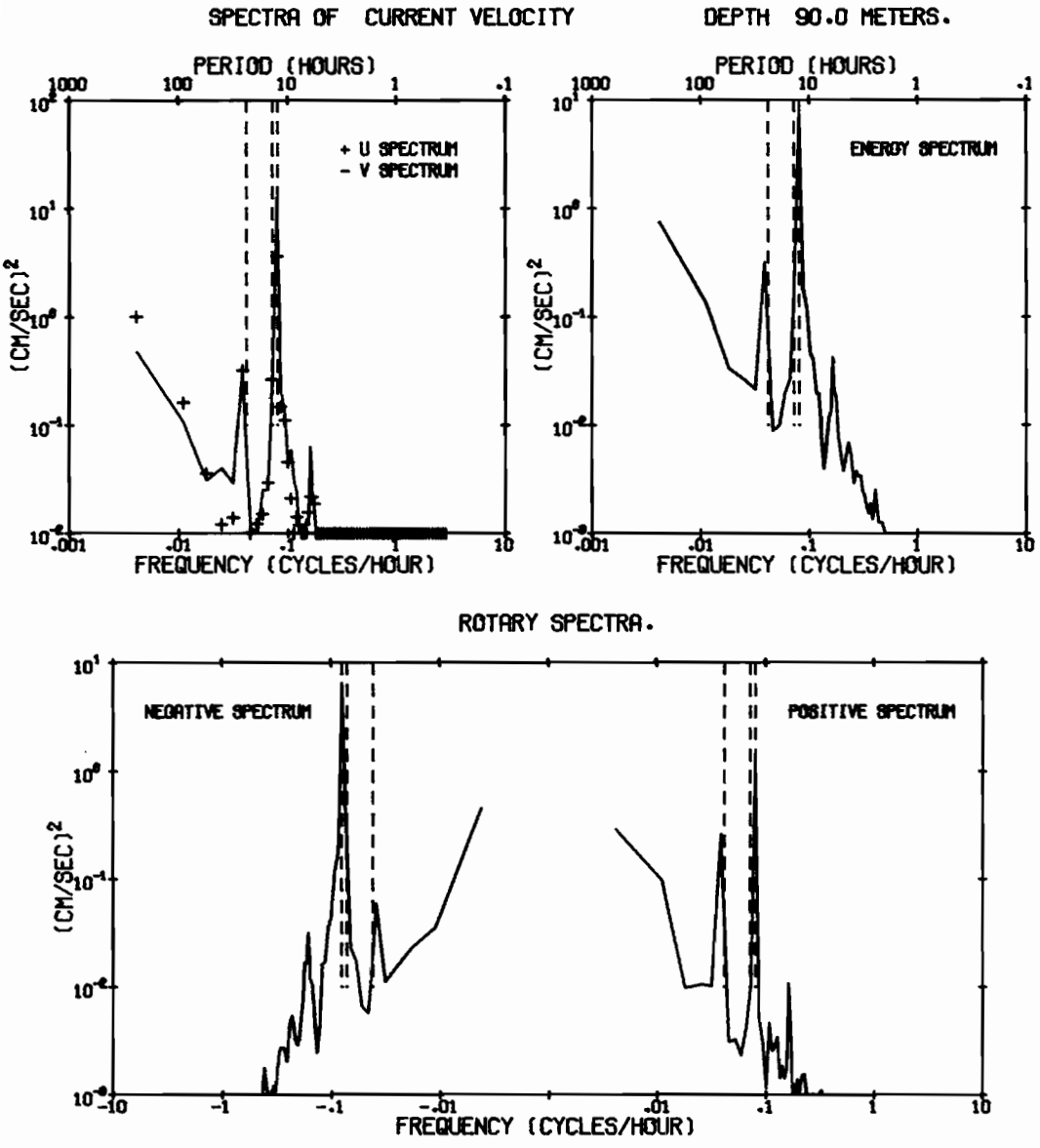


A.4. TIME SERIES ANALYSIS Current Meter 624
Part 1 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 60
OBSERVATION PERIOD 30.0 DAYS FROM 0336 GMT 2 JUL 74.
DEPTH 90.0 METERS.



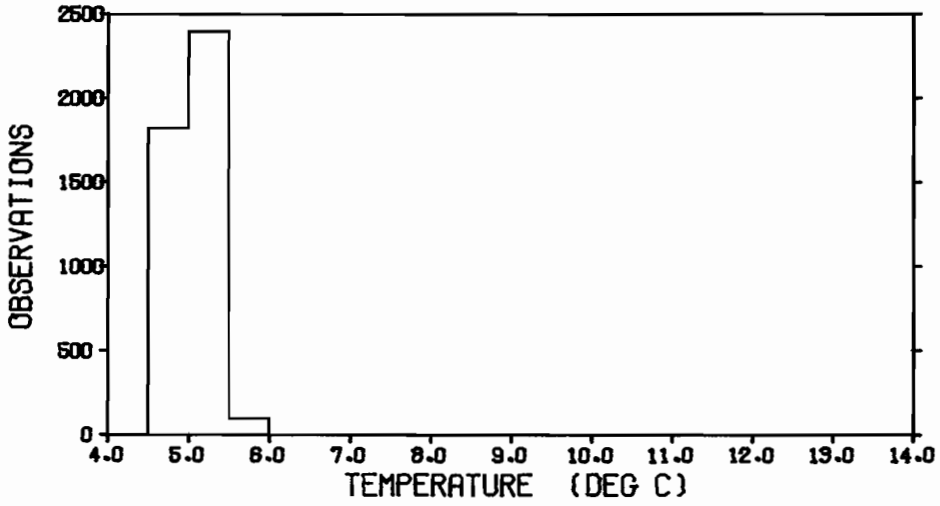
A.4. TIME SERIES ANALYSIS Current Meter 624
Part 1 of 2 (Continued)

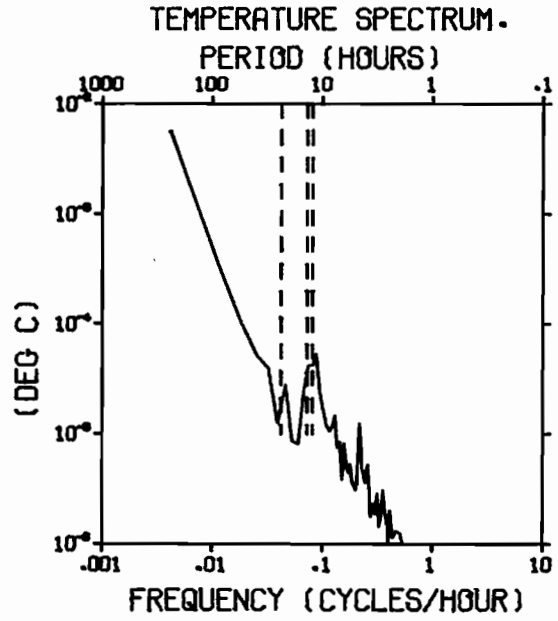


A.4. TIME SERIES ANALYSIS Current Meter 624
Part 1 of 2 (Continued)

TEMPERATURE STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 90.0 METERS NUMBER OF OBSERVATIONS = 4320
OBSERVATION PERIOD 30.0 DAYS FROM 0336 GMT 2 JUL 74

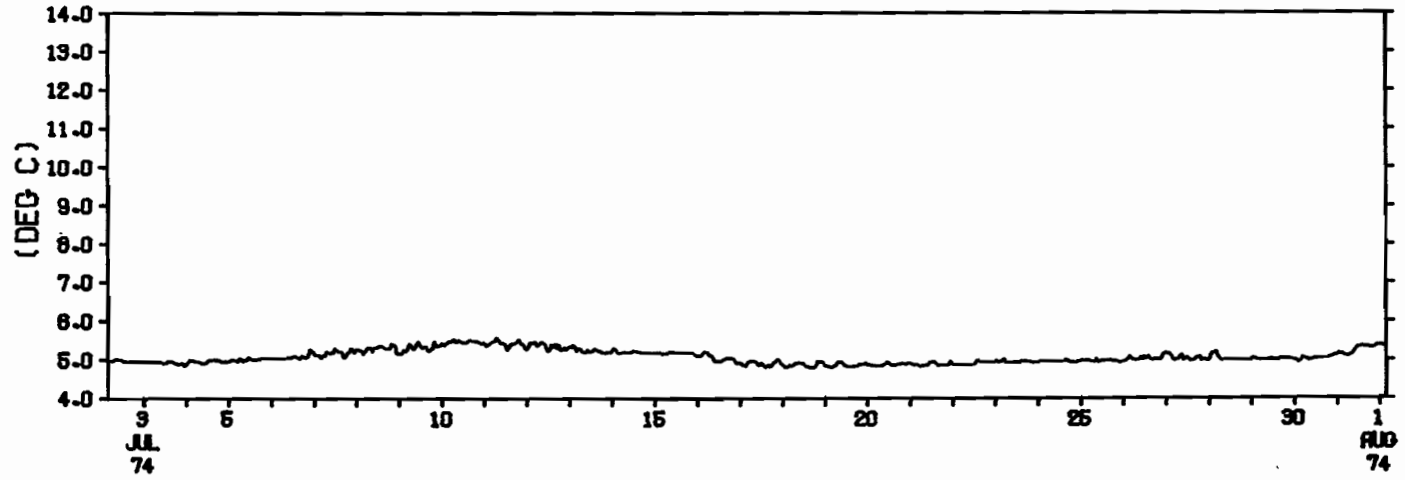
MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
5.08	.03	.18	.76	2.58	5.59	4.80





A.4. TIME SERIES ANALYSIS Current Meter 624 Part 1 of 2 (Continued)

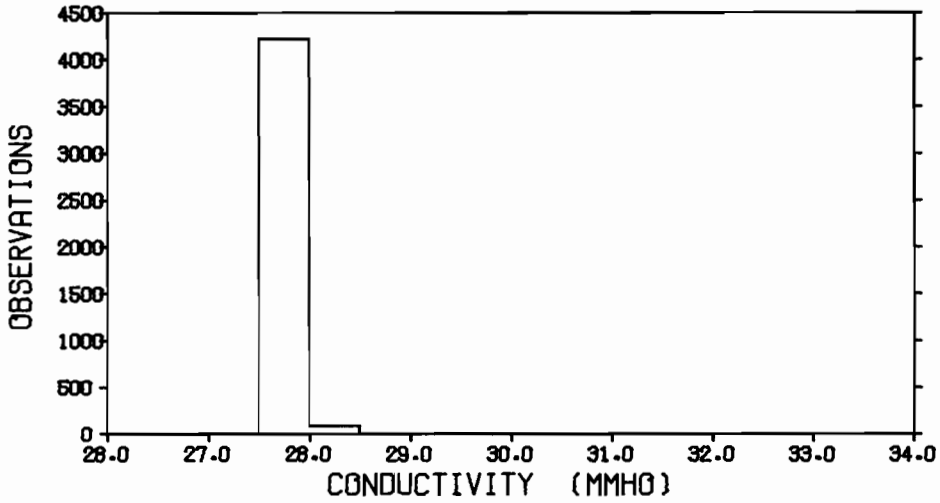
HOURLY AVERAGES OF TEMPERATURE DEPTH 90.0 METERS.

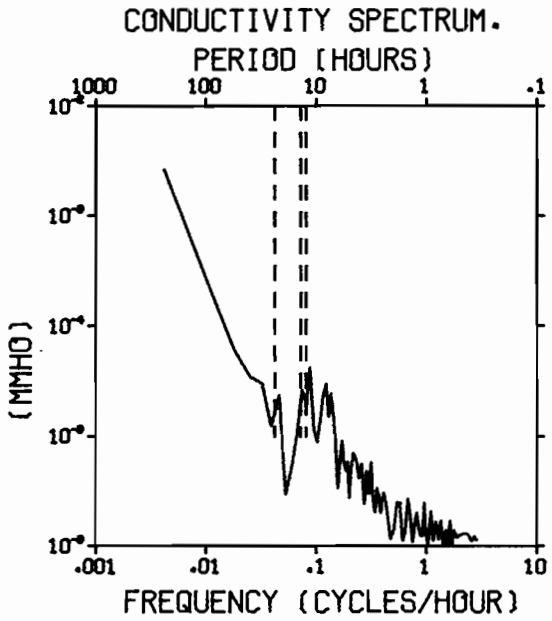


A.4. TIME SERIES ANALYSIS Current Meter 624
Part 1 of 2 (Continued)

CONDUCTIVITY STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 90.0 METERS NUMBER OF OBSERVATIONS = 4320
OBSERVATION PERIOD 30.0 DAYS FROM 0336 GMT 2 JUL 74

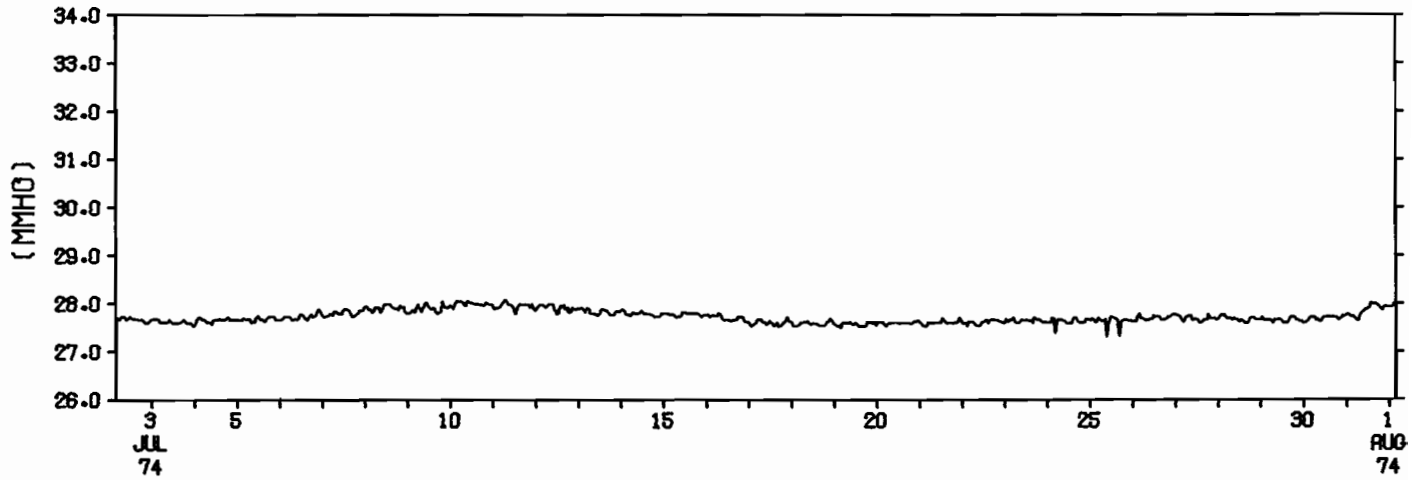
MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
27.73	.02	.14	-.97	23.21	28.11	25.88





A.4. TIME SERIES ANALYSIS Current Meter 624 Part 2 of 2 (Continued)

HOURLY AVERAGES OF CONDUCTIVITY DEPTH 90.0 METERS.

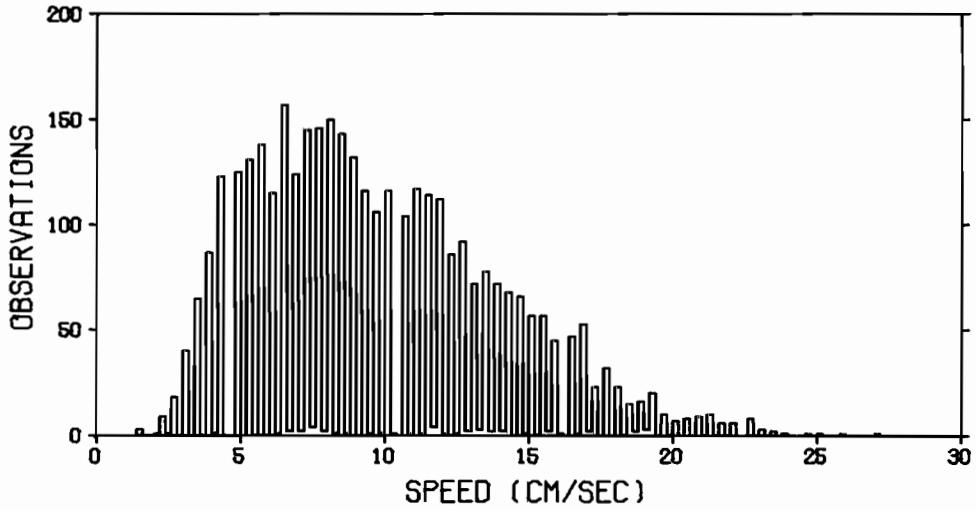


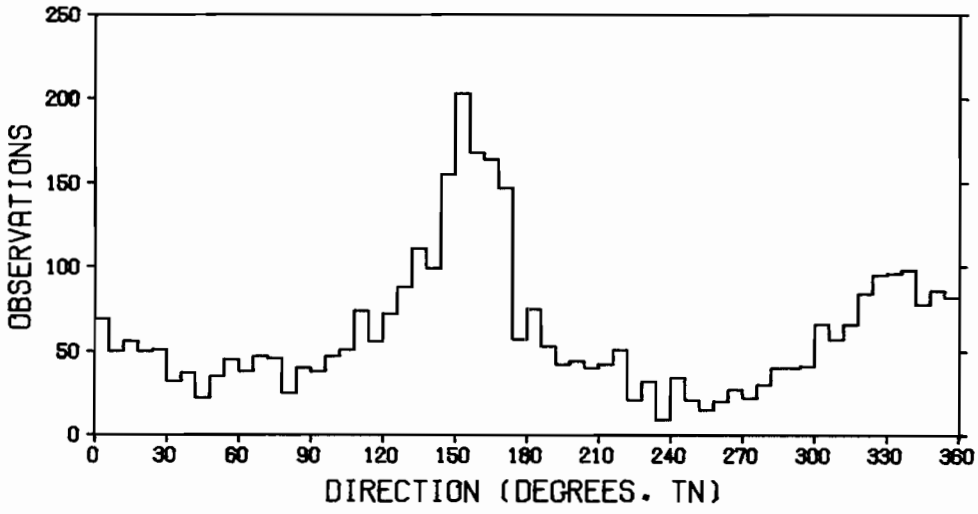
A.4. TIME SERIES ANALYSIS Current Meter 624 Nominal Depth: 90m
Part 2 of 2; 1 August - 26 August 1974

Mooring Designation NEGOA 60
Location: 60° 5.4'N 145° 47.7'W
Sensors: Speed, Direction, Temperature, Conductivity

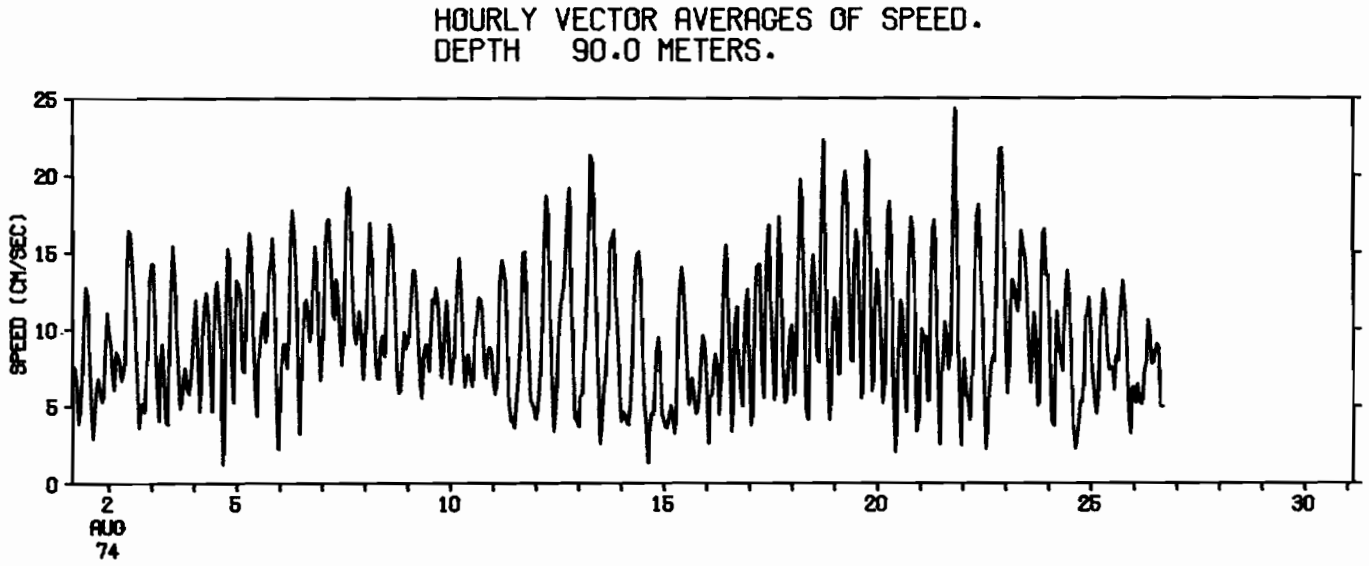
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	9.75	17.99	4.24	.631	2.95	27.17	1.50
U	.87	34.63	5.89	-.254	2.52	17.22	-17.95
V	-.97	76.71	8.76	.320	2.31	23.46	-18.72

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V

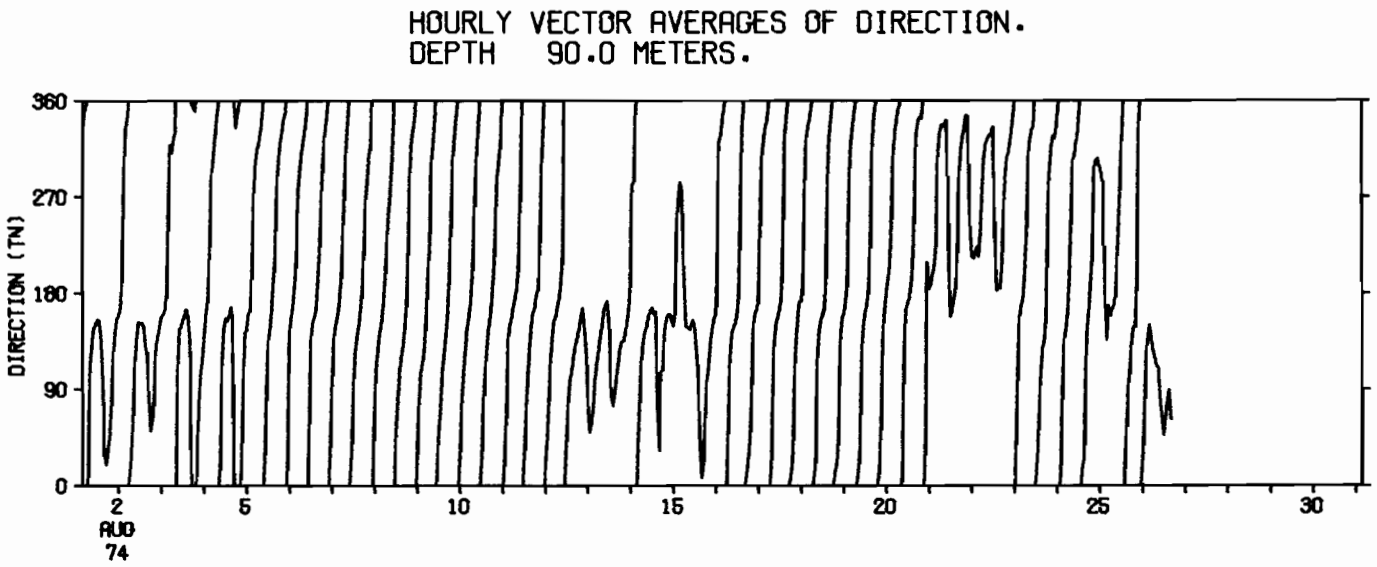




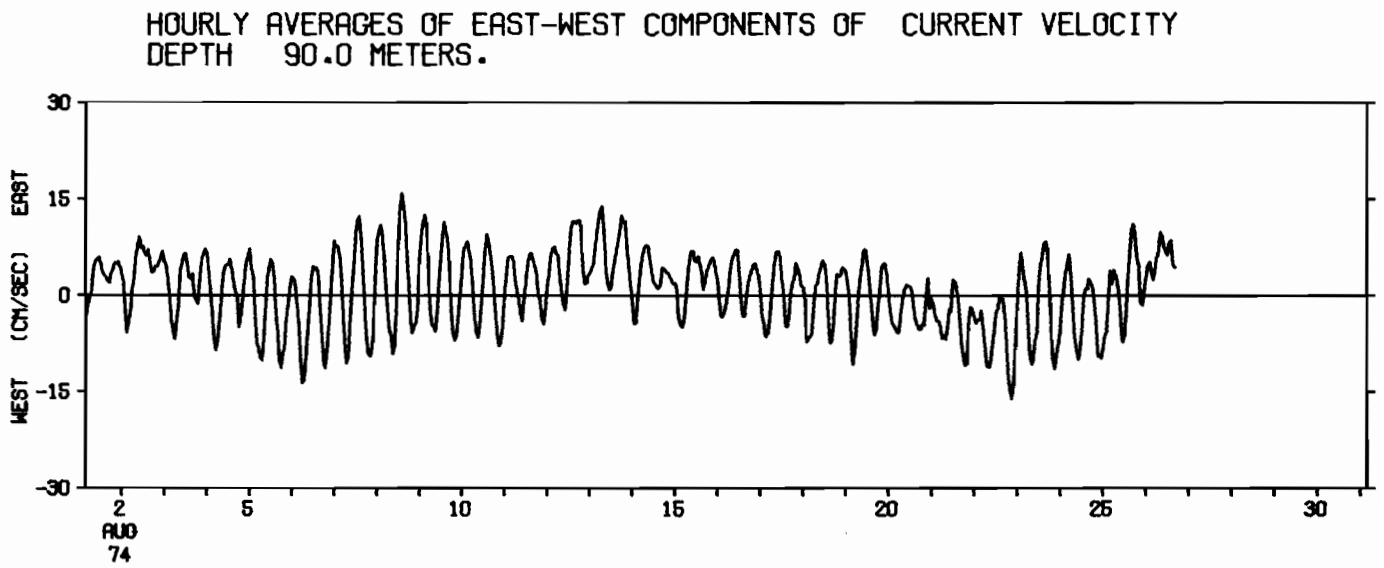
A.4. TIME SERIES ANALYSIS Current Meter 624 Part 2 of 2 (Continued)



A.4. TIME SERIES ANALYSIS Current Meter 624 Part 2 of 2 (Continued)

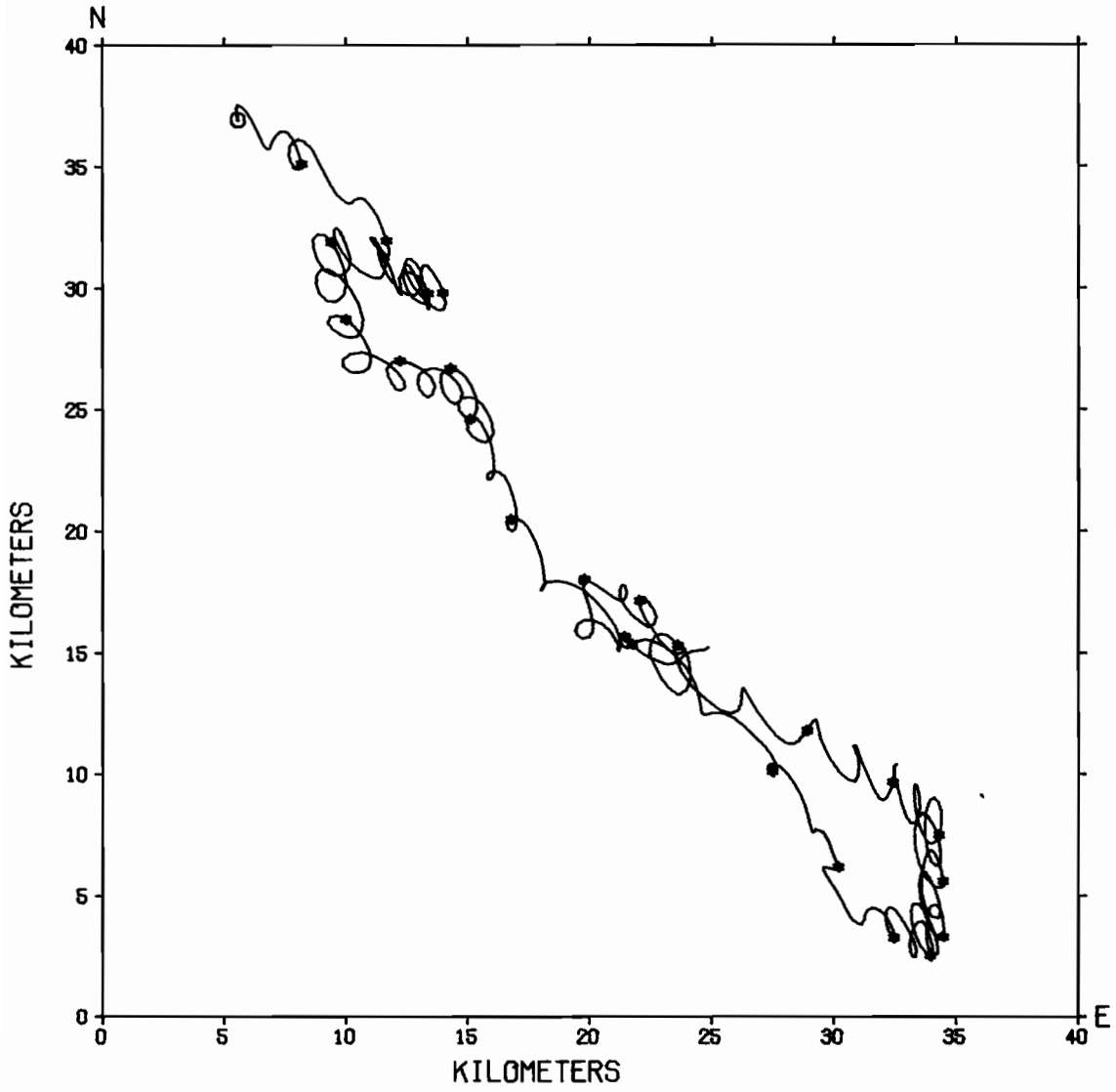


A.4. TIME SERIES ANALYSIS Current Meter 624 Part 2 of 2 (Continued)



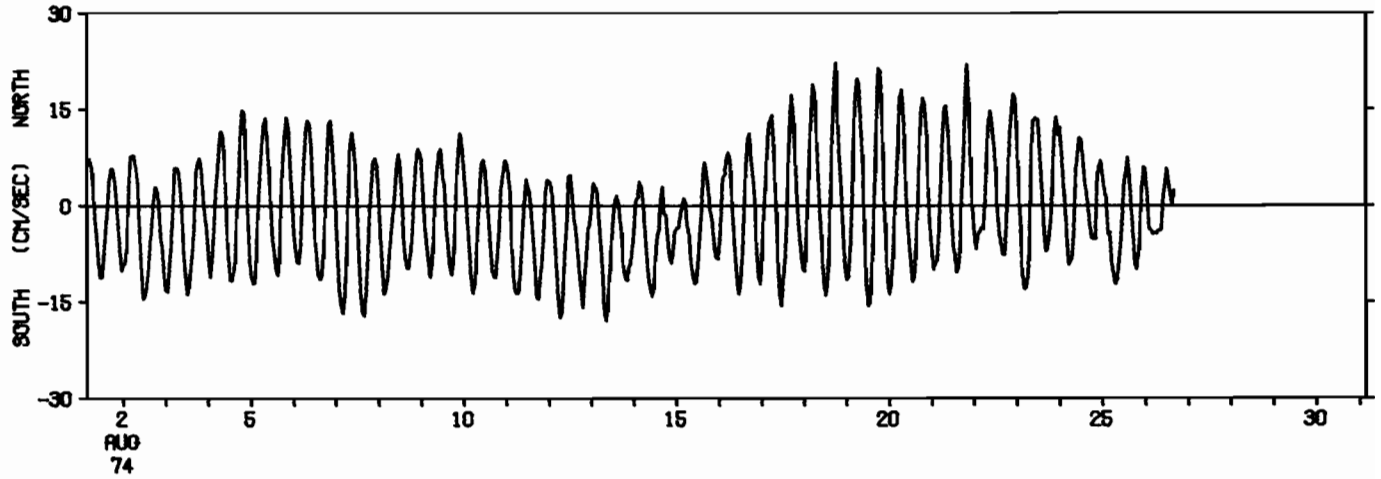
A.4. TIME SERIES ANALYSIS Current Meter 624
Part 2 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 60
OBSERVATION PERIOD 25.6 DAYS FROM 0336 GMT 1 AUG 74.
DEPTH 90.0 METERS.

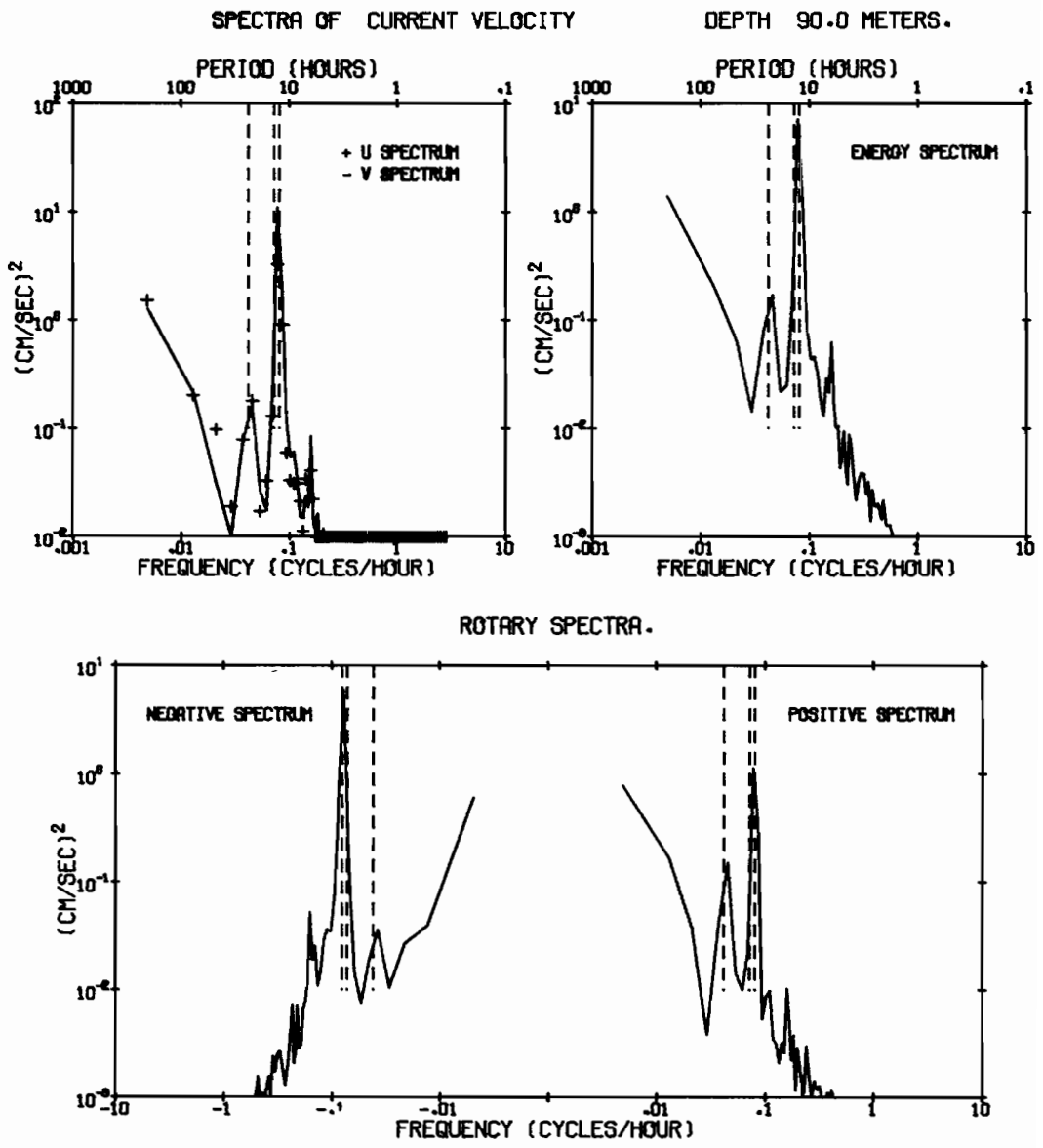


A.4. TIME SERIES ANALYSIS Current Meter 624 Part 2 of 2 (Continued)

HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 90.0 METERS.



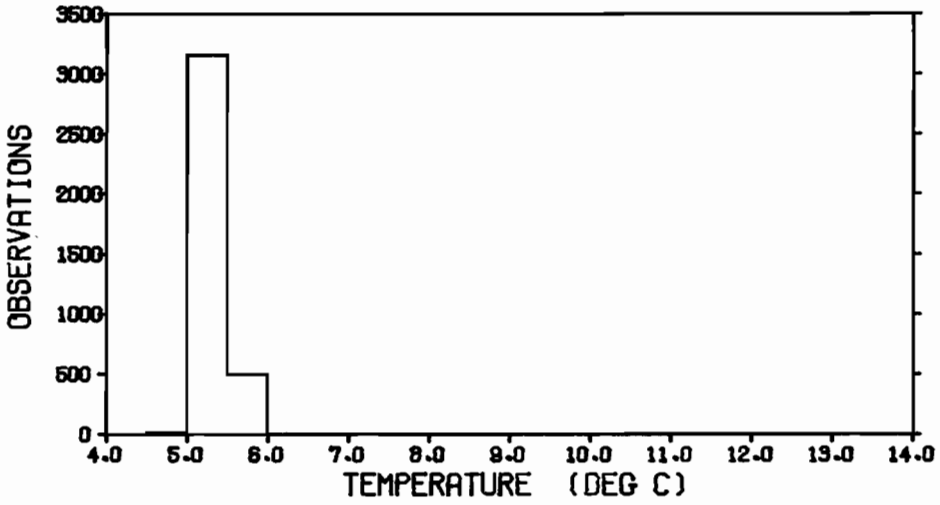
A.4. TIME SERIES ANALYSIS Current Meter 624
Part 2 of 2 (Continued)

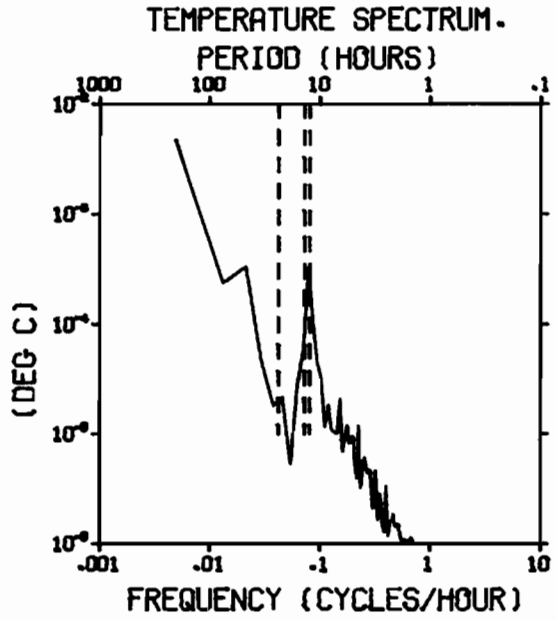


A.4. TIME SERIES ANALYSIS Current Meter 624
Part 2 of 2 (Continued)

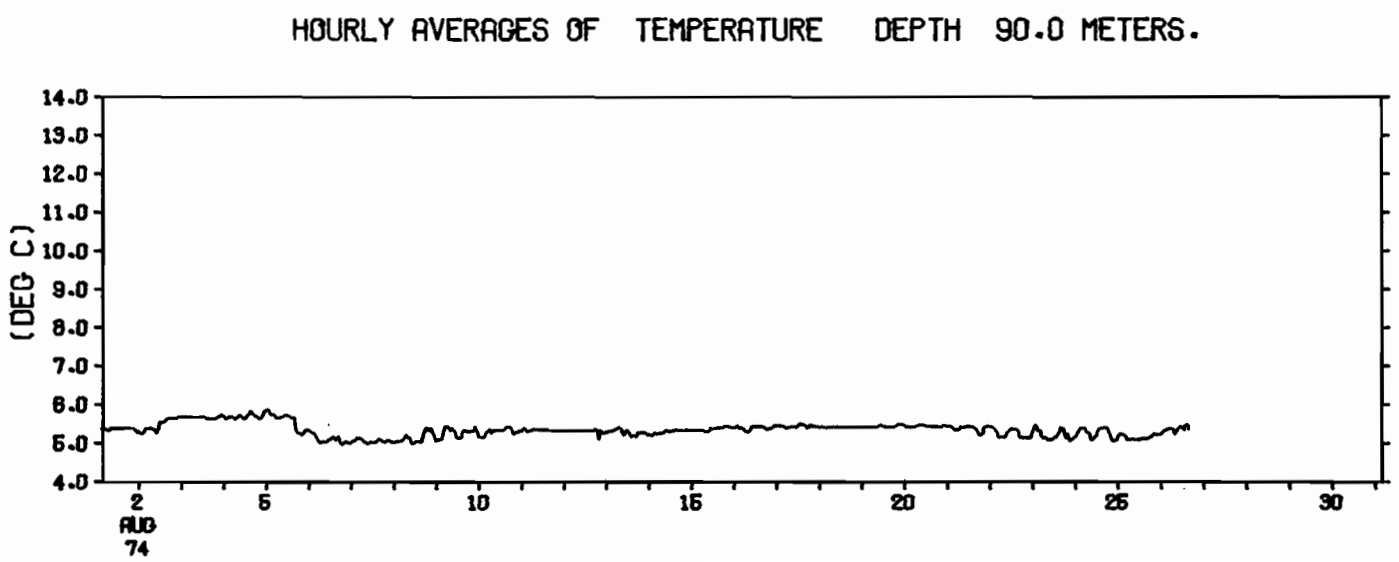
TEMPERATURE STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 90.0 METERS NUMBER OF OBSERVATIONS = 3680
OBSERVATION PERIOD 25.5 DAYS FROM 0336 GMT 1 AUG 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
5.35	.03	.18	.25	3.04	5.88	4.98





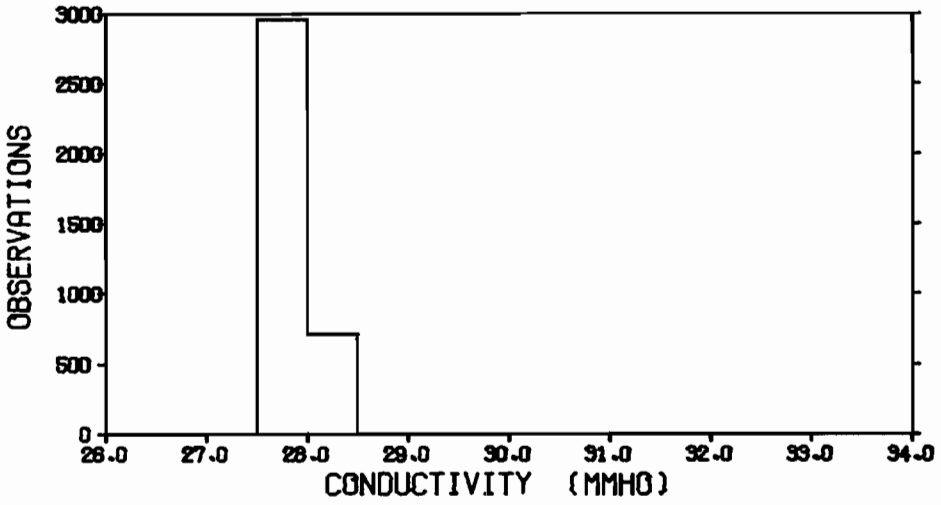
A.4. TIME SERIES ANALYSIS Current Meter 624 Part 2 of 2 (Continued)

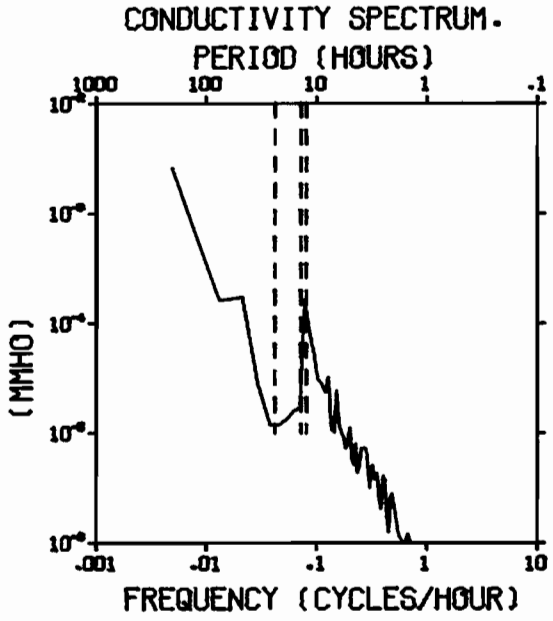


A.4. TIME SERIES ANALYSIS Current Meter 624
Part 2 of 2 (Continued)

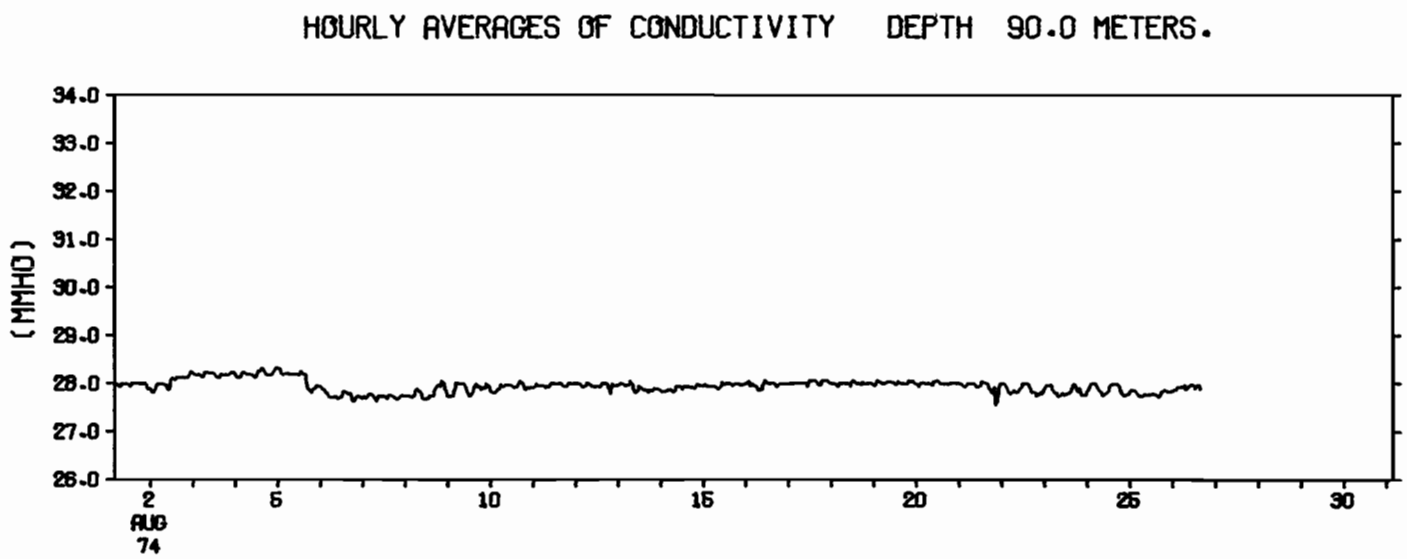
CONDUCTIVITY STATISTICS LAT. 60 05.4N LONG. 145 40.7W
DEPTH 90.0 METERS NUMBER OF OBSERVATIONS = 3680
OBSERVATION PERIOD 25.5 DAYS FROM 0336 GMT 1 AUG 74

MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
27.93	.02	.14	.11	3.12	28.37	27.41





A.4. TIME SERIES ANALYSIS Current Meter 624 Part 2 of 2 (Continued)



APPENDIX B

TIME SERIES ANALYSIS OF DATA FROM NEGOA 61

B.1. Current Meter 604 at 20 meters

B.2. Current Meter 601 at 30 meters*

B.3. Current Meter 711 at 50 meters

B.4. Current Meter 603 at 100 meters

B.5. Current Meter 602 at 162 meters

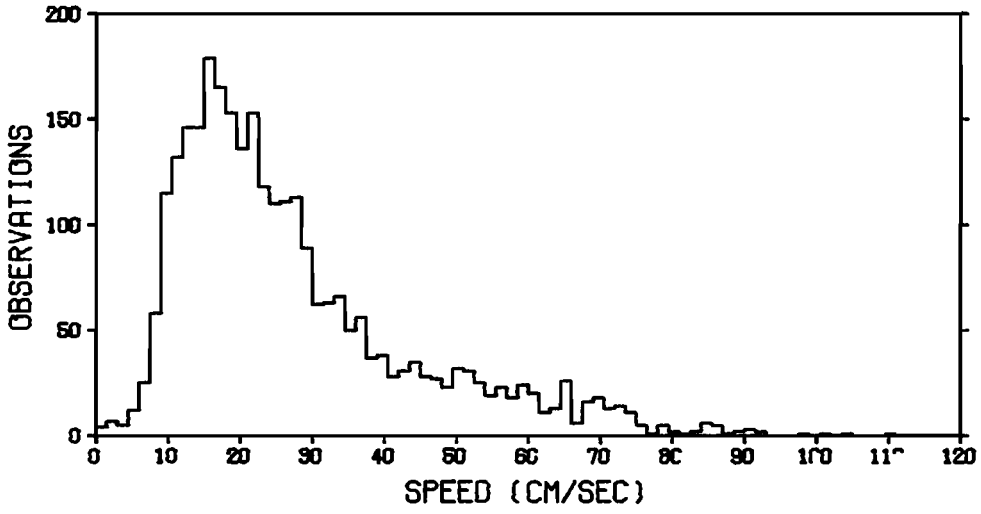
*Rotor defective for this instrument.

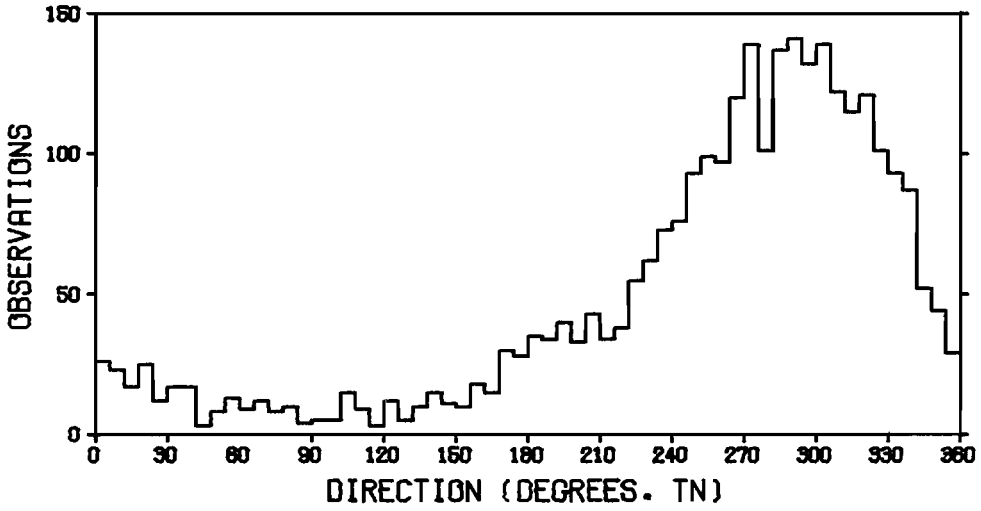
B.1. TIME SERIES ANALYSIS Current Meter 604 Nominal Depth: 20m
Part 1 of 2; 16 August - 15 October 1974

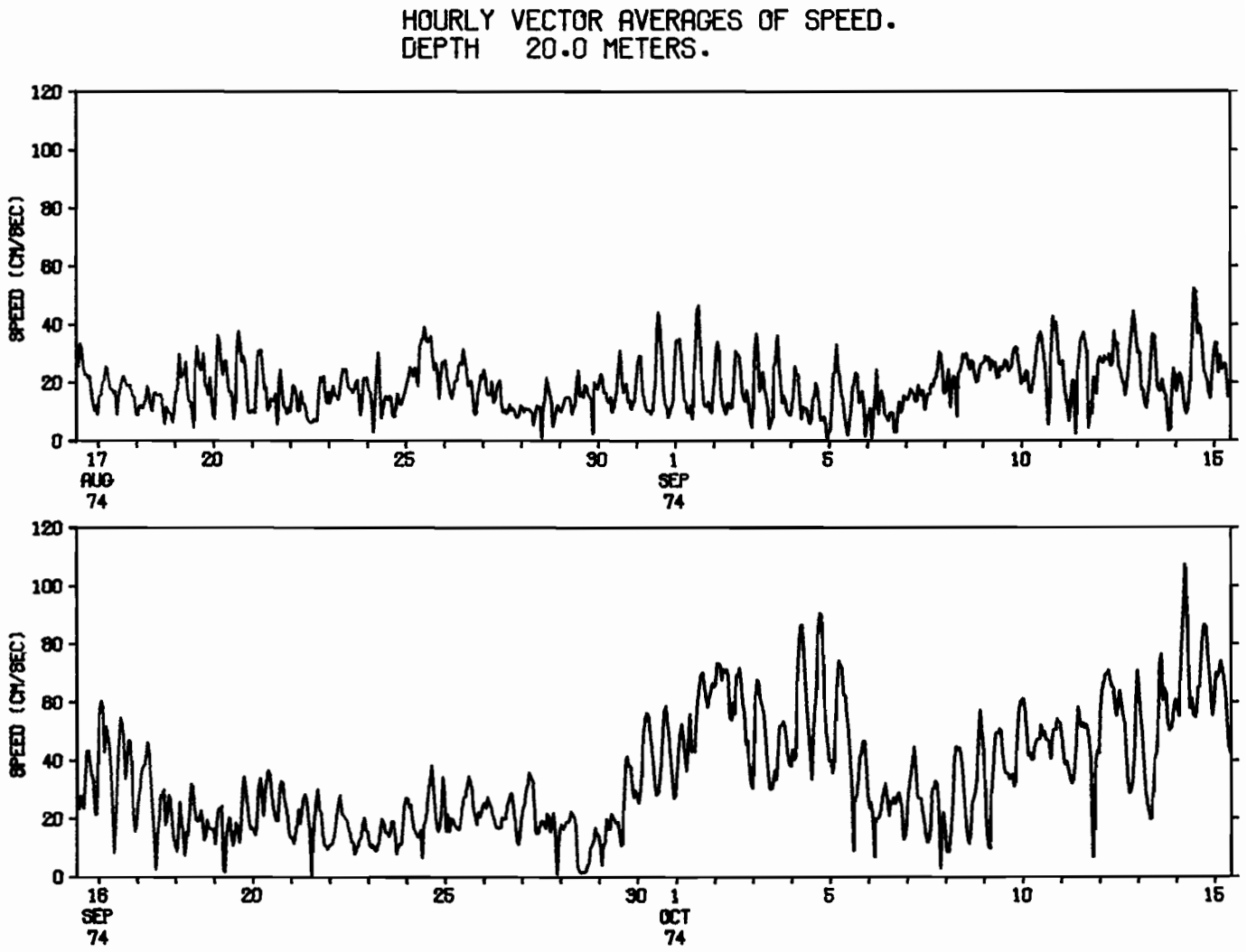
Mooring Designation NEGOA 61
Location: 59° 34.2'N 145° 47.7'W
Sensors: Speed, Direction, Temperature, Conductivity, Pressure

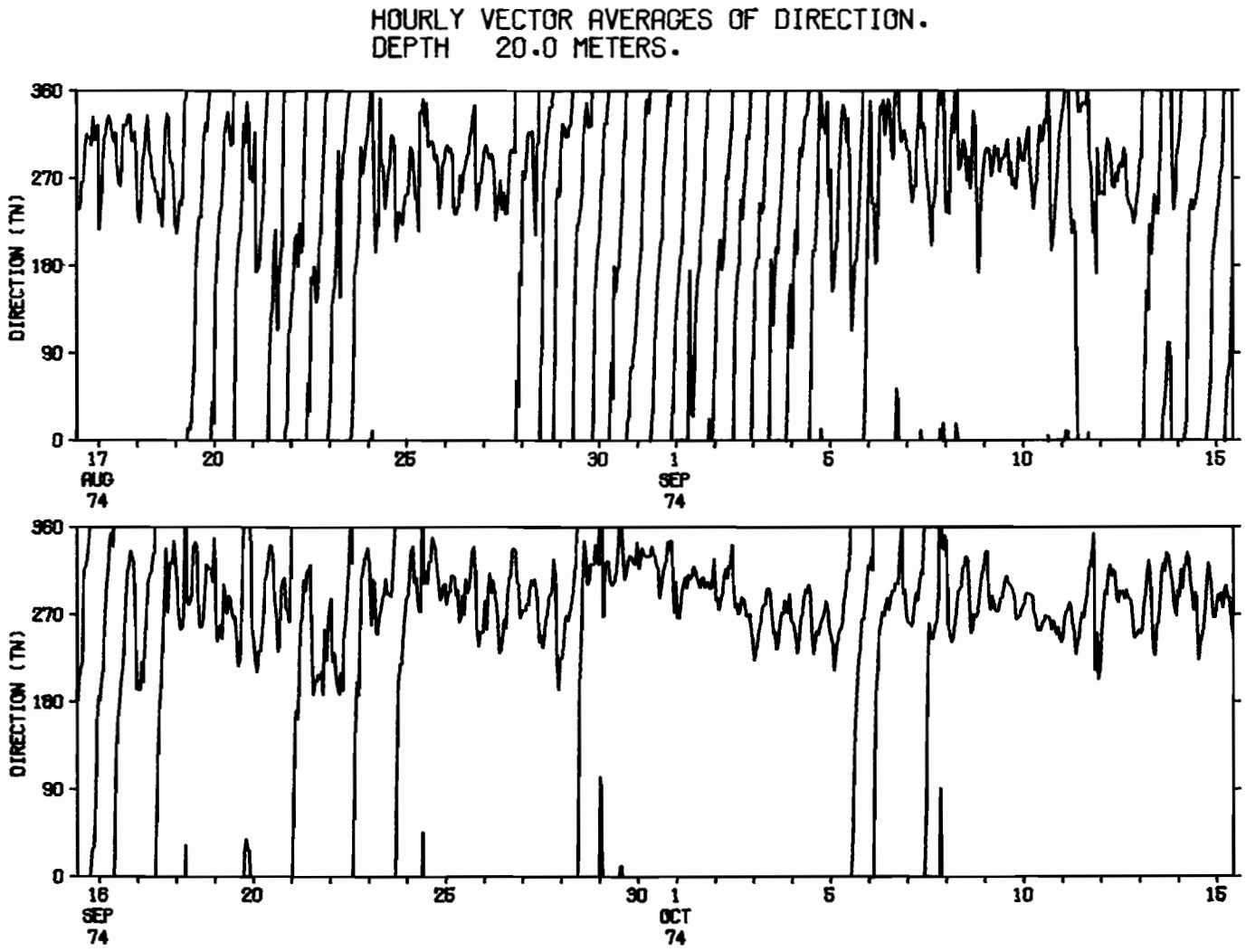
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	27.51	283 63	16.84	1.341	4.59	110.70	1.50
U	-18.21	360.19	18.98	-.766	3.77	33.72	-90.52
V	4.12	331.68	18.21	.172	4.12	97.50	-61.82

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V

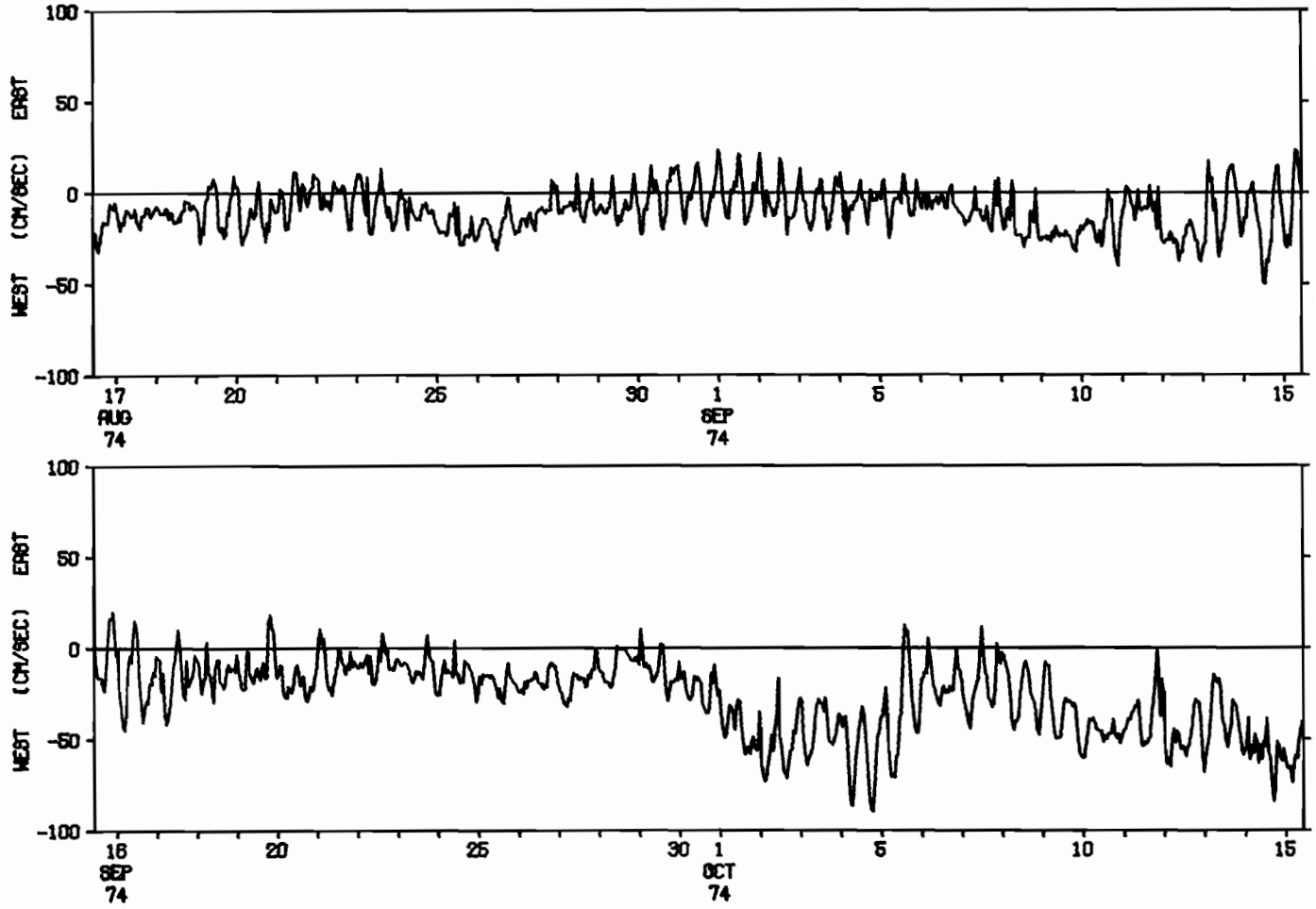




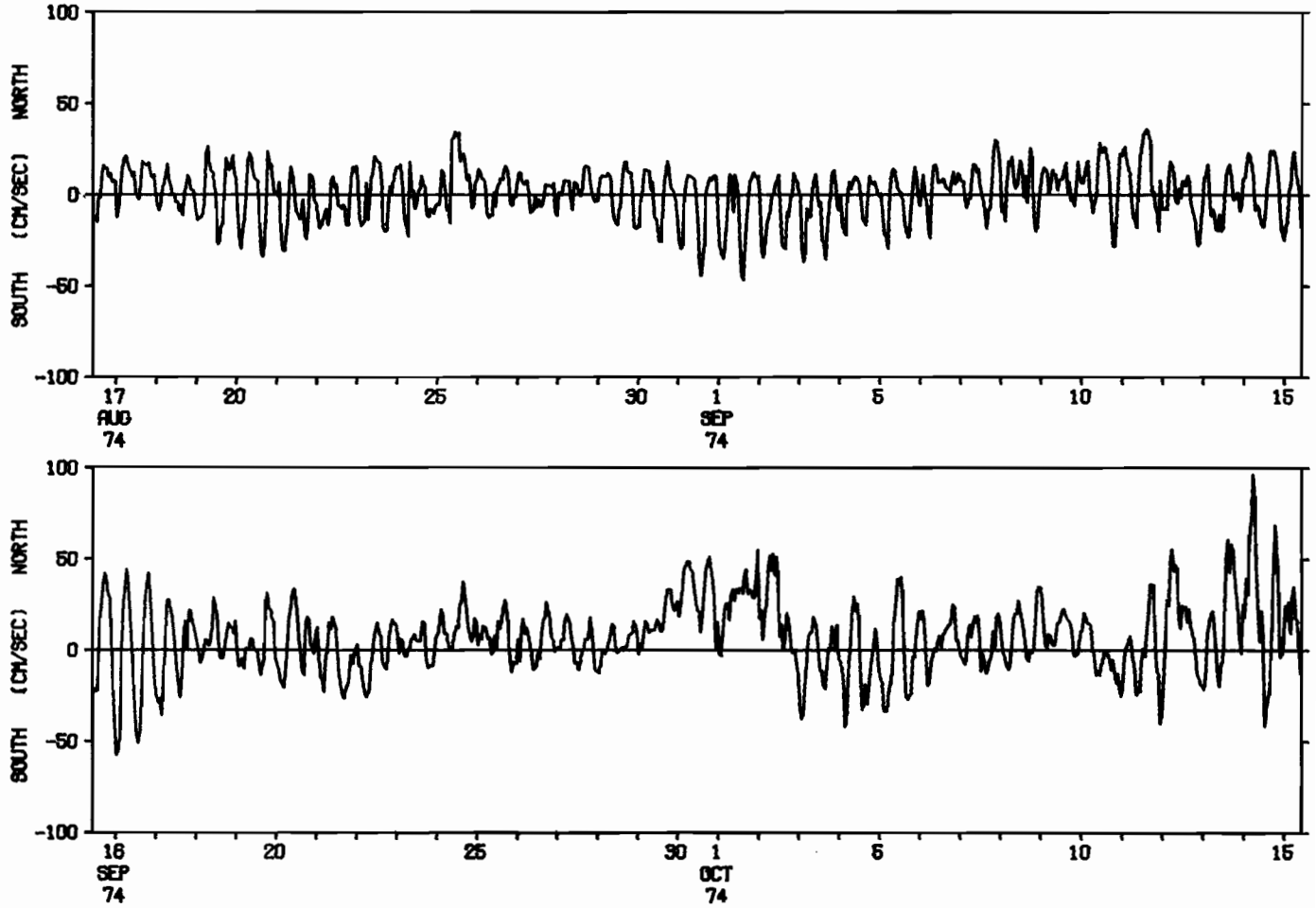

HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 20.0 METERS.
SPEED (CM/SEC)
120
100
80
60
40
20
0
17
AUG
74
20
25
30
1
SEP
74
5
10
15
SPEED (CM/SEC)
16
SEP
74
OCT
74


HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 20.0 METERS.
DIRECTION (TN)
360
270
180
90
0
17
AUG
74
20
25
30
1
SEP
74
5
10
15
DIRECTION (TN)
360
270
180
90
0
16
SEP
74
20
25
30
1
OCT
74
5
10
15

HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 20.0 METERS.

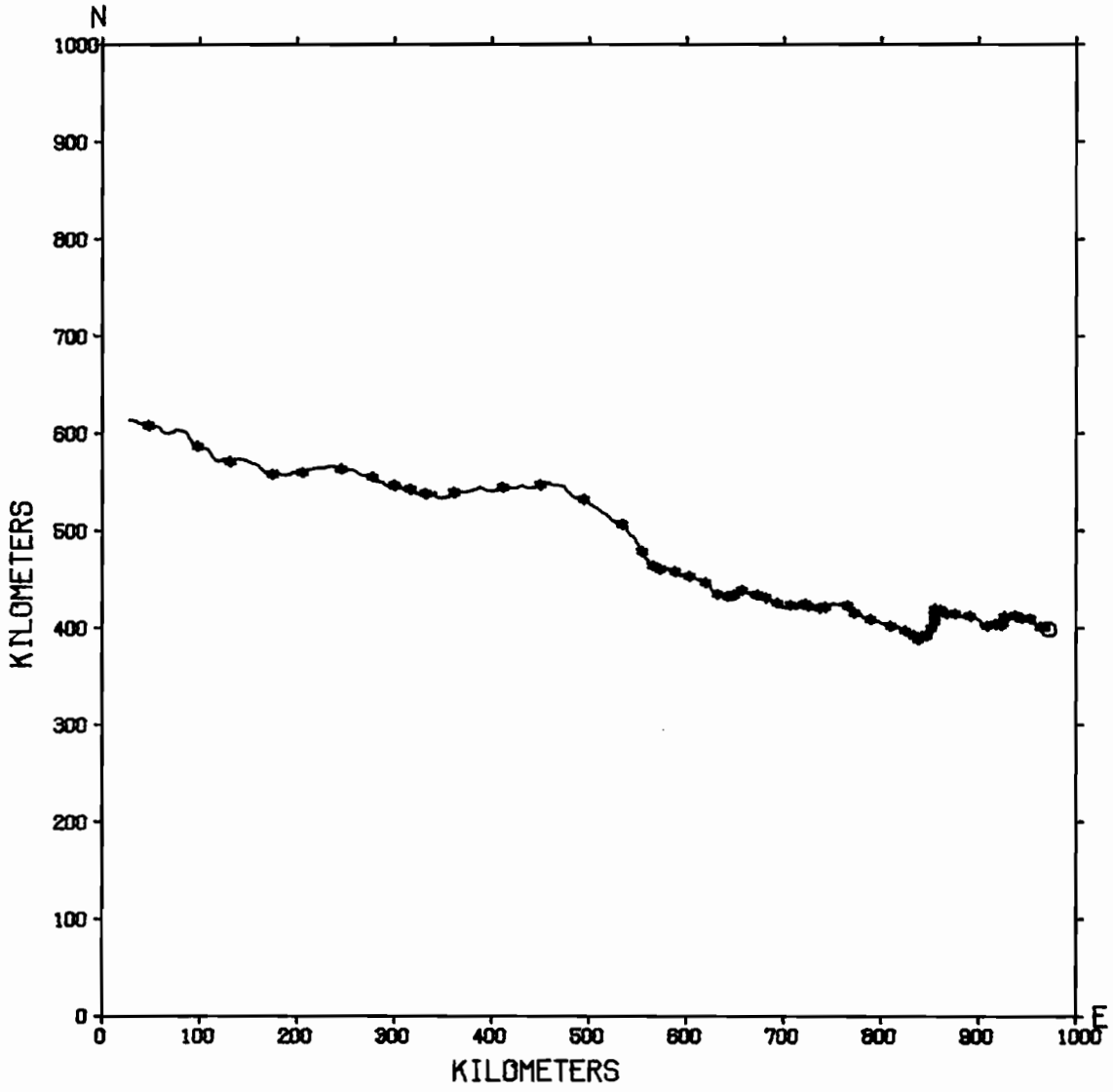


HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 20.0 METERS

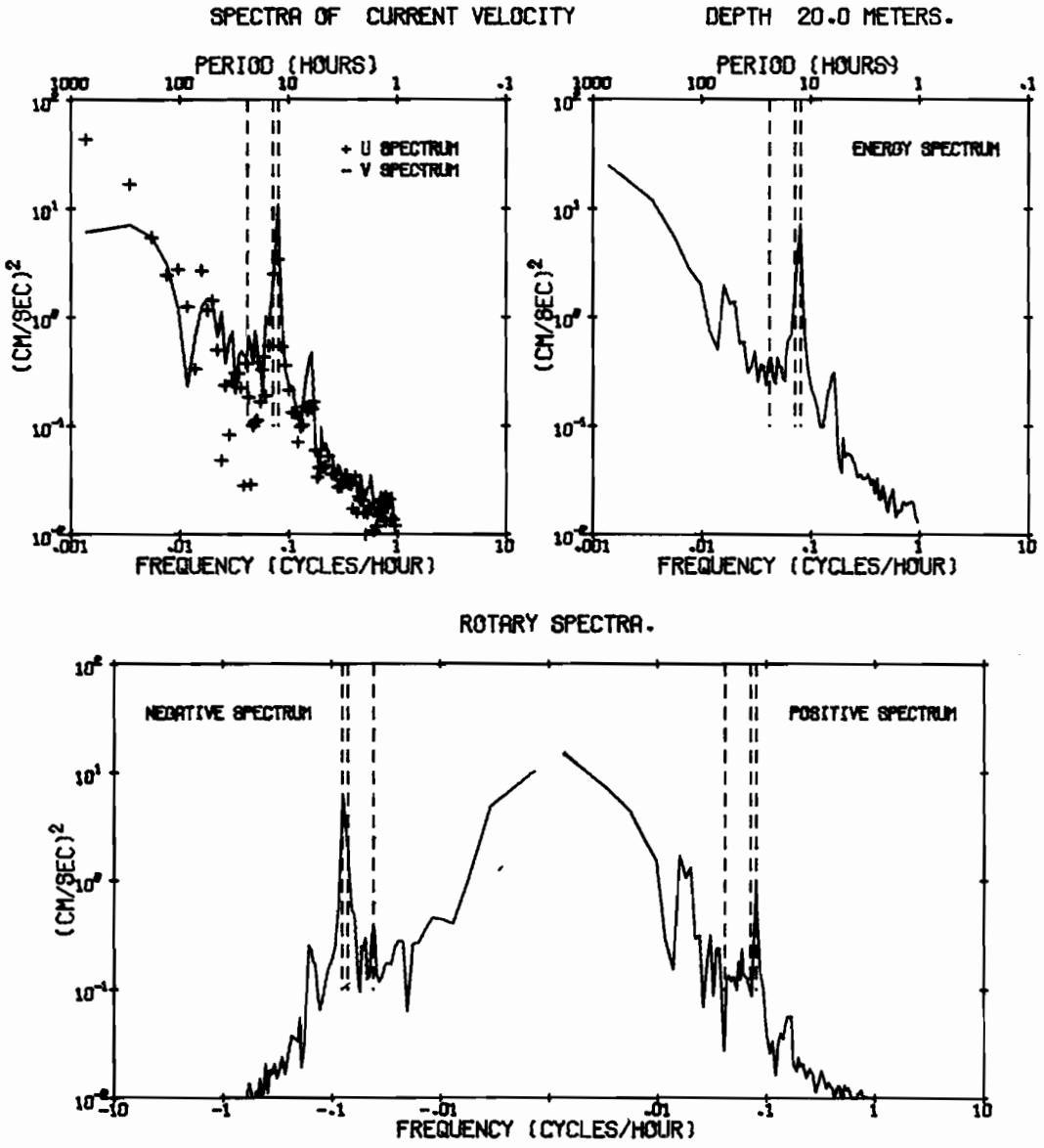


B.1. TIME SERIES ANALYSIS Current Meter 604
Part 1 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 61
OBSERVATION PERIOD 60.0 DAYS FROM 1000 GMT 16 AUG 74.
DEPTH 20.0 METERS.



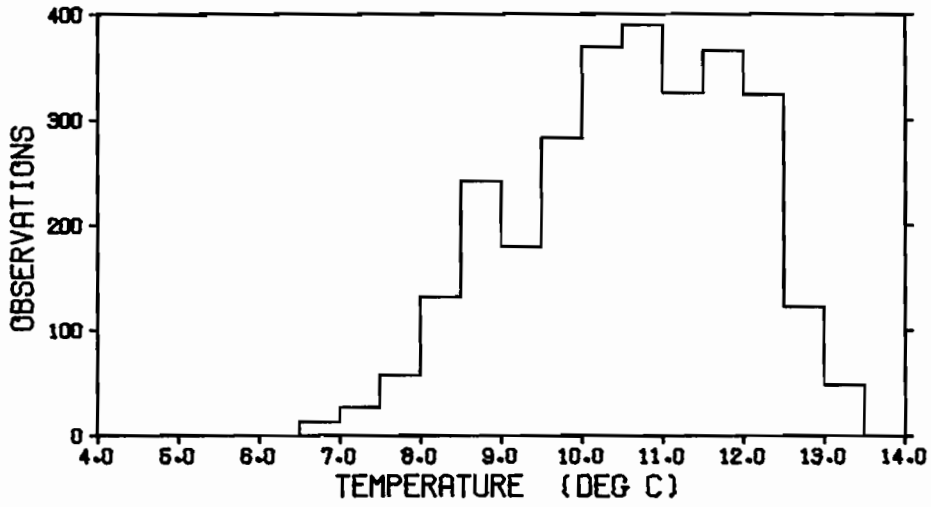
B.1. TIME SERIES ANALYSIS Current Meter 604
Part 1 of 2 (Continued)

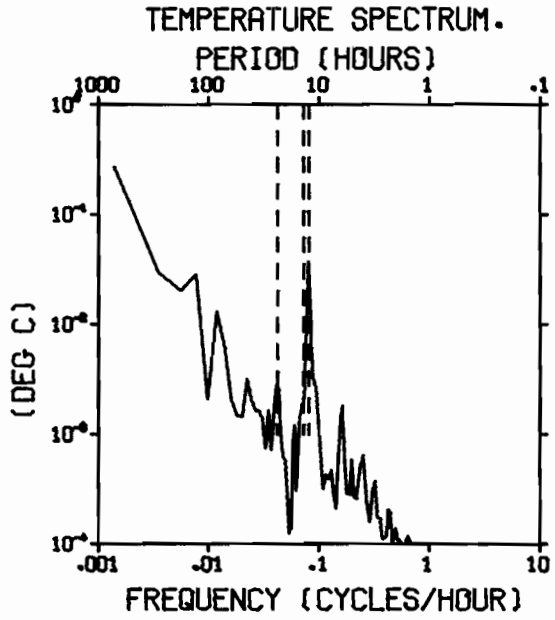


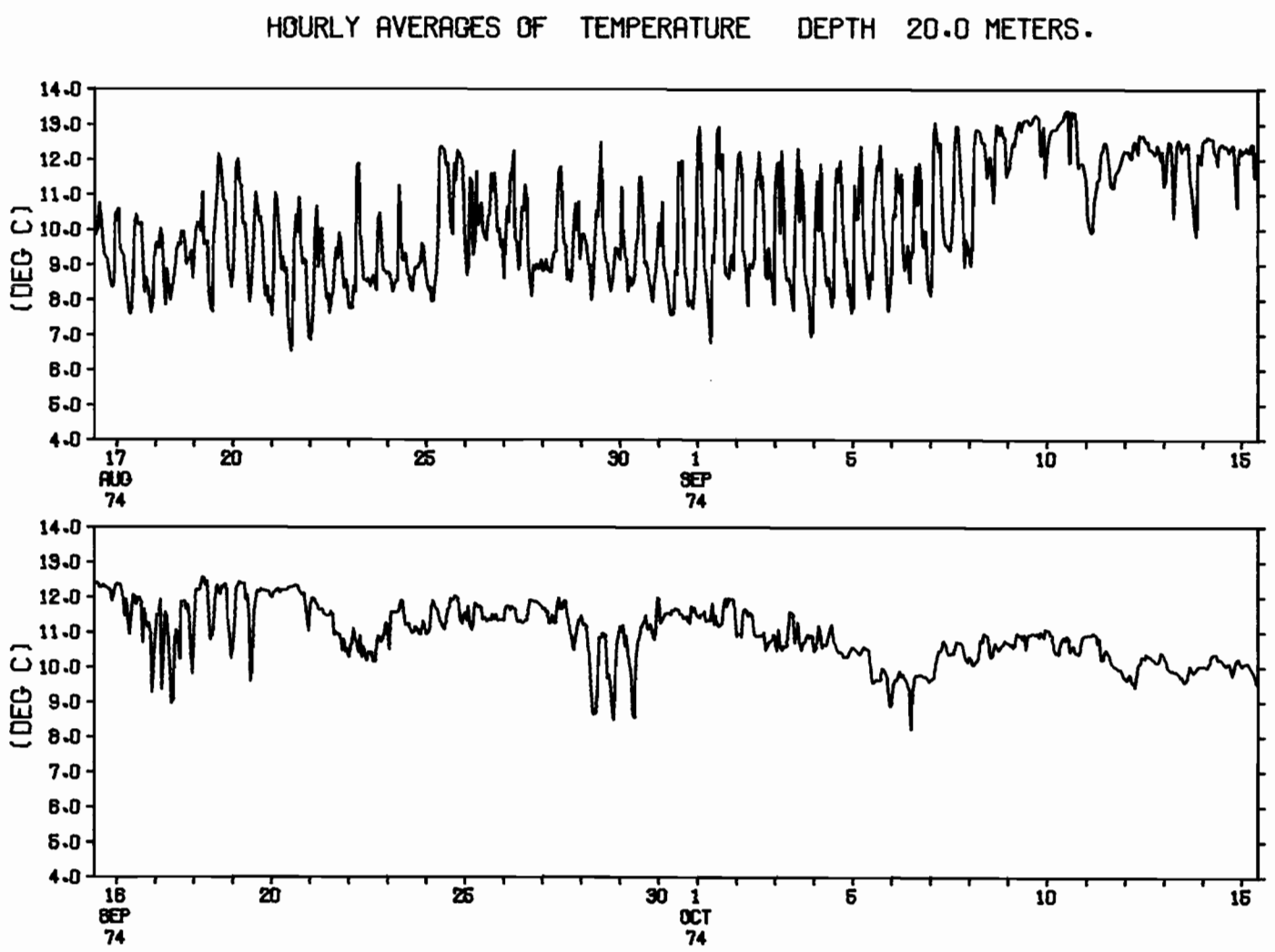
B.1. TIME SERIES ANALYSIS Current Meter 604
Part 1 of 2 (Continued)

TEMPERATURE STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 20.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 1000 GMT 16 AUG 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
10.59	1.90	1.38	-.32	2.40	13.48	6.50



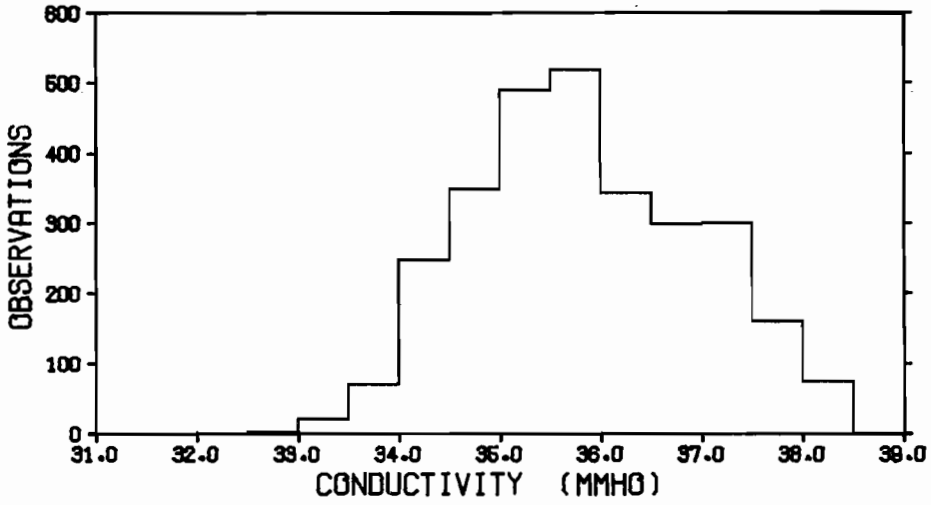


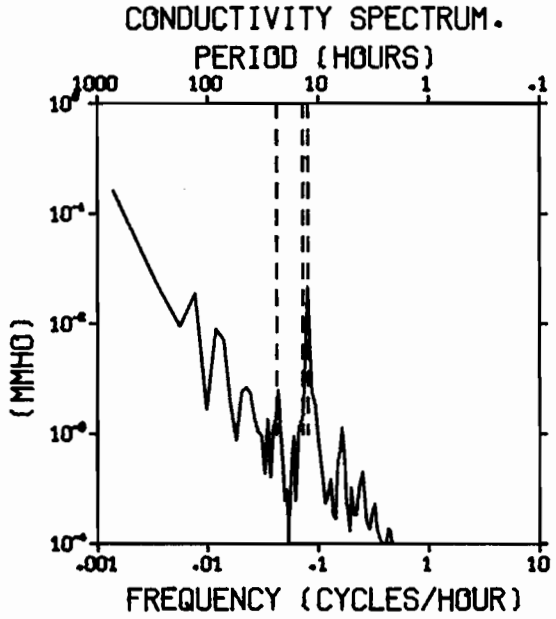

HOURLY AVERAGES OF TEMPERATURE DEPTH 20.0 METERS.
(DEG C)
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
17
AUG
74
20
25
30
1
SEP
74
5
10
15
(DEG C)
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
16
SEP
74
20
25
30
1
OCT
74
5
10
15

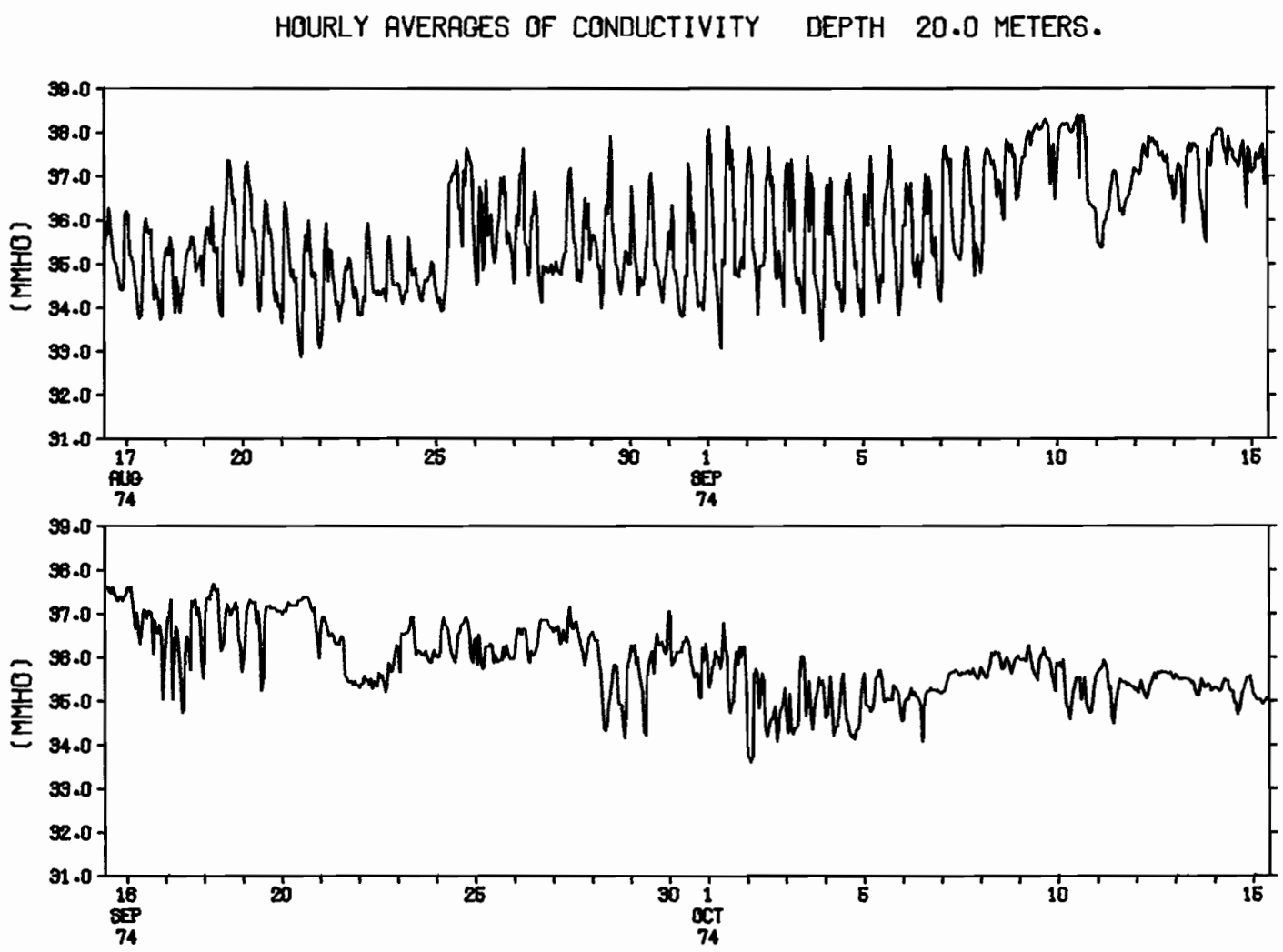
B.1. TIME SERIES ANALYSIS Current Meter 604
Part 1 of 2 (Continued)

CONDUCTIVITY STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 20.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 1000 GMT 16 AUG 74

MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
35.83	1.23	1.11	.15	2.34	38.41	32.87



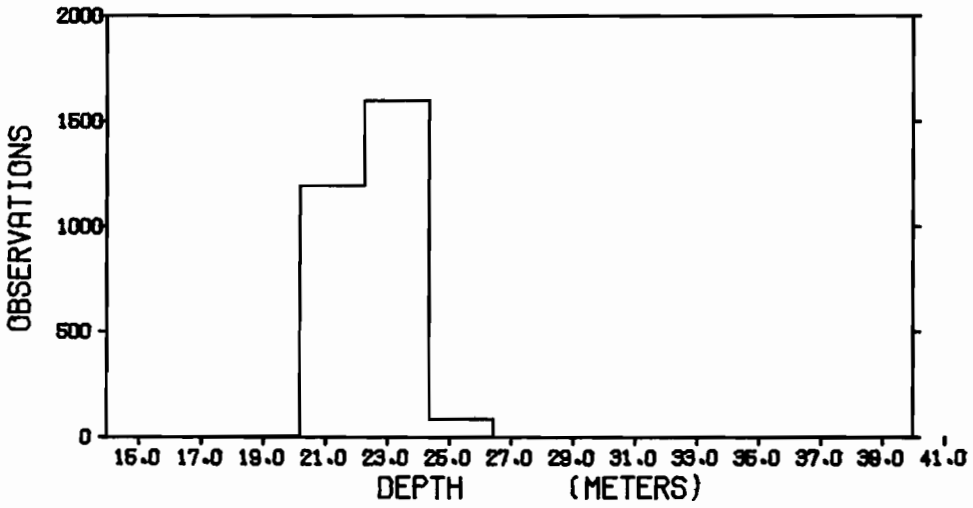


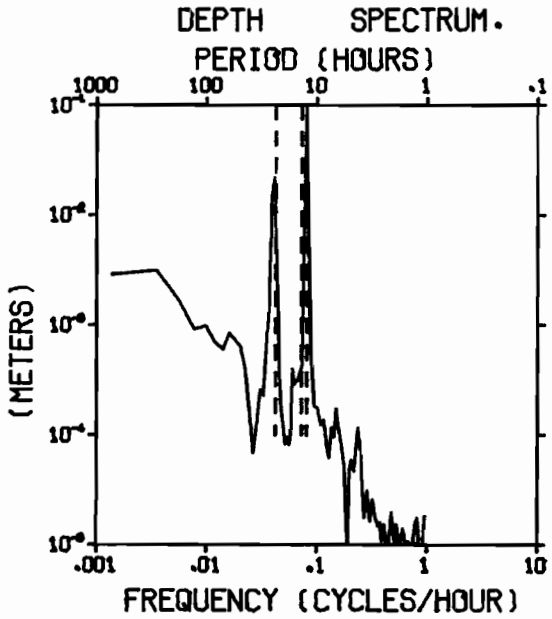

HOURLY AVERAGES OF CONDUCTIVITY DEPTH 20.0 METERS.
(MMHO)
39.0
38.0
37.0
36.0
35.0
34.0
33.0
32.0
31.0
17
AUG
74
20
25
30
1
SEP
74
5
10
15
(MMHO)
39.0
38.0
37.0
36.0
35.0
34.0
33.0
32.0
31.0
16
SEP
74
20
25
30
1
OCT
74
5
10
15

B.1. TIME SERIES ANALYSIS Current Meter 604
Part 1 of 2 (Continued)

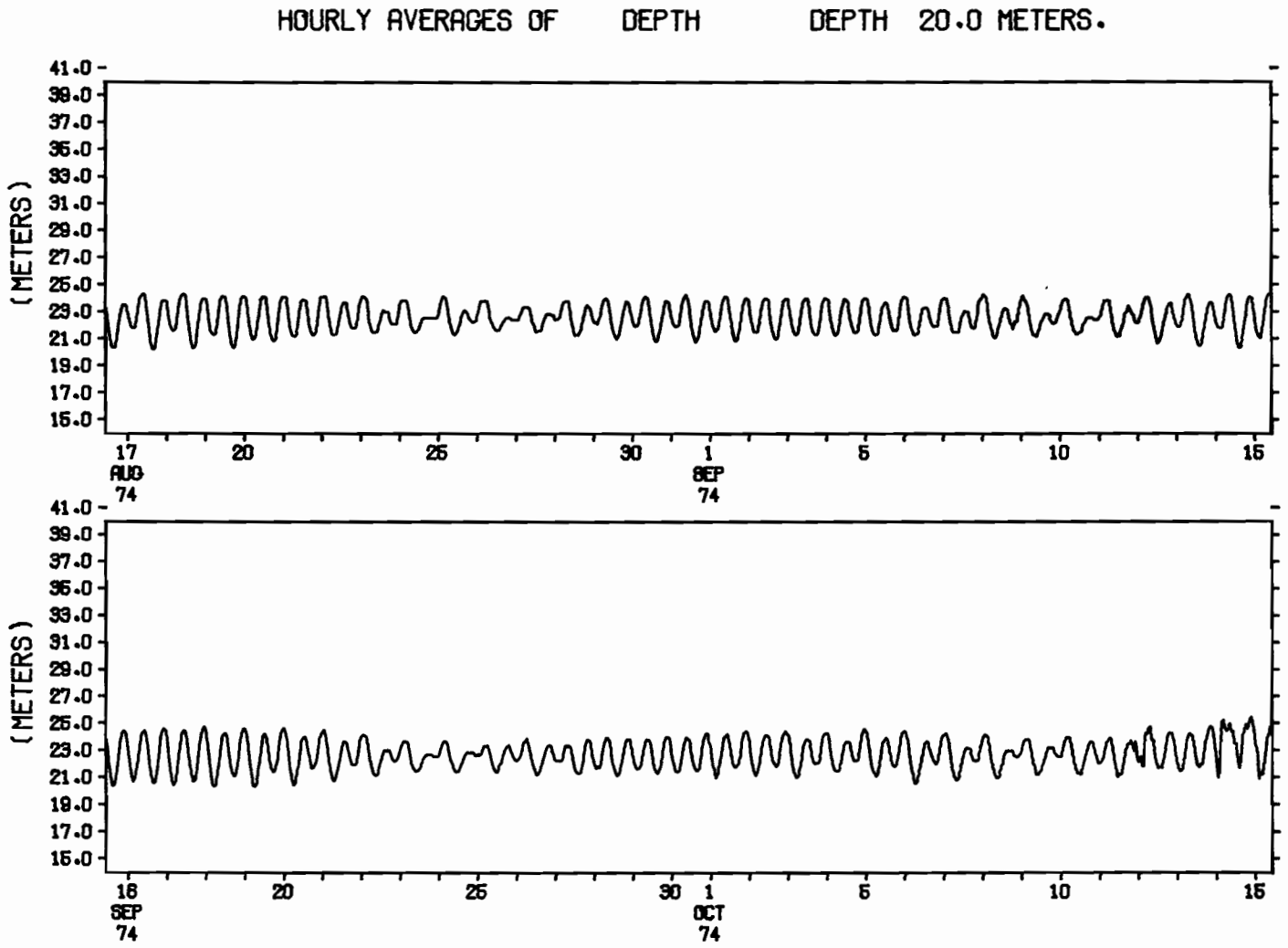
DEPTH STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 20.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 1000 GMT 16 AUG 74

MEAN (METER)	VARIANCE (METERS)	ST-DEV (METER)	SKEW	KURT	MAX (METER)	MIN (METER)
23.36	1.06	1.03	-.02	2.08	26.30	20.98





B.1. TIME SERIES ANALYSIS Current Meter 604 Part 1 of 2 (Continued)

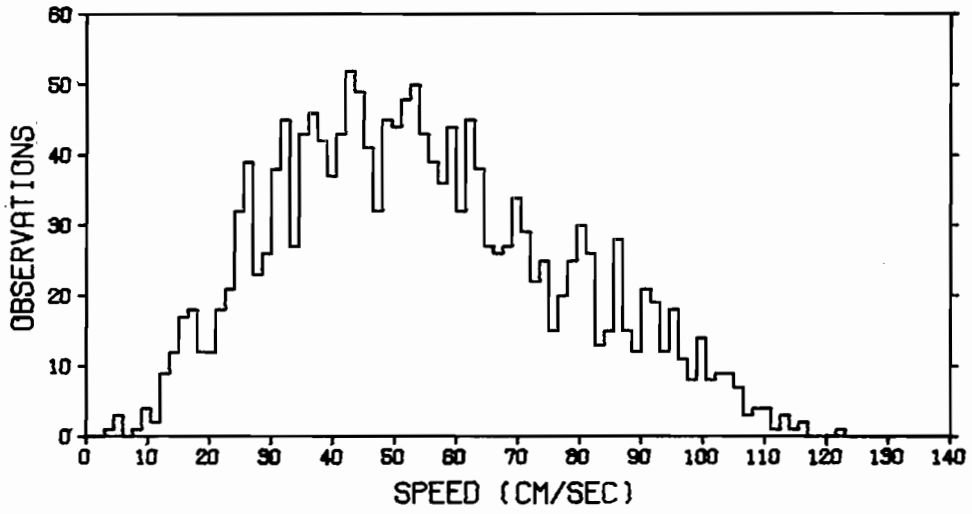


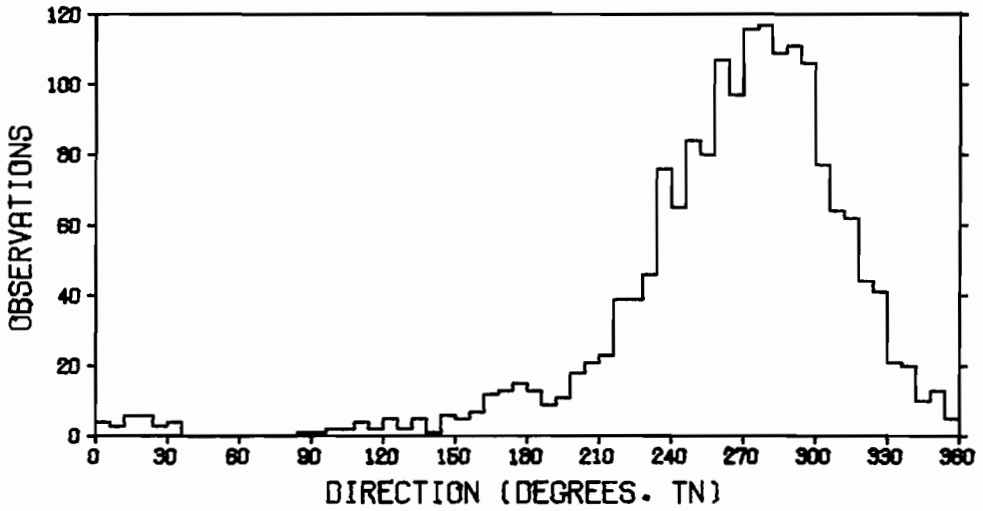
B.1. TIME SERIES ANALYSIS Current Meter 604 Nominal Depth: 20m
Part 2 of 2; 16 October - 21 November 1974

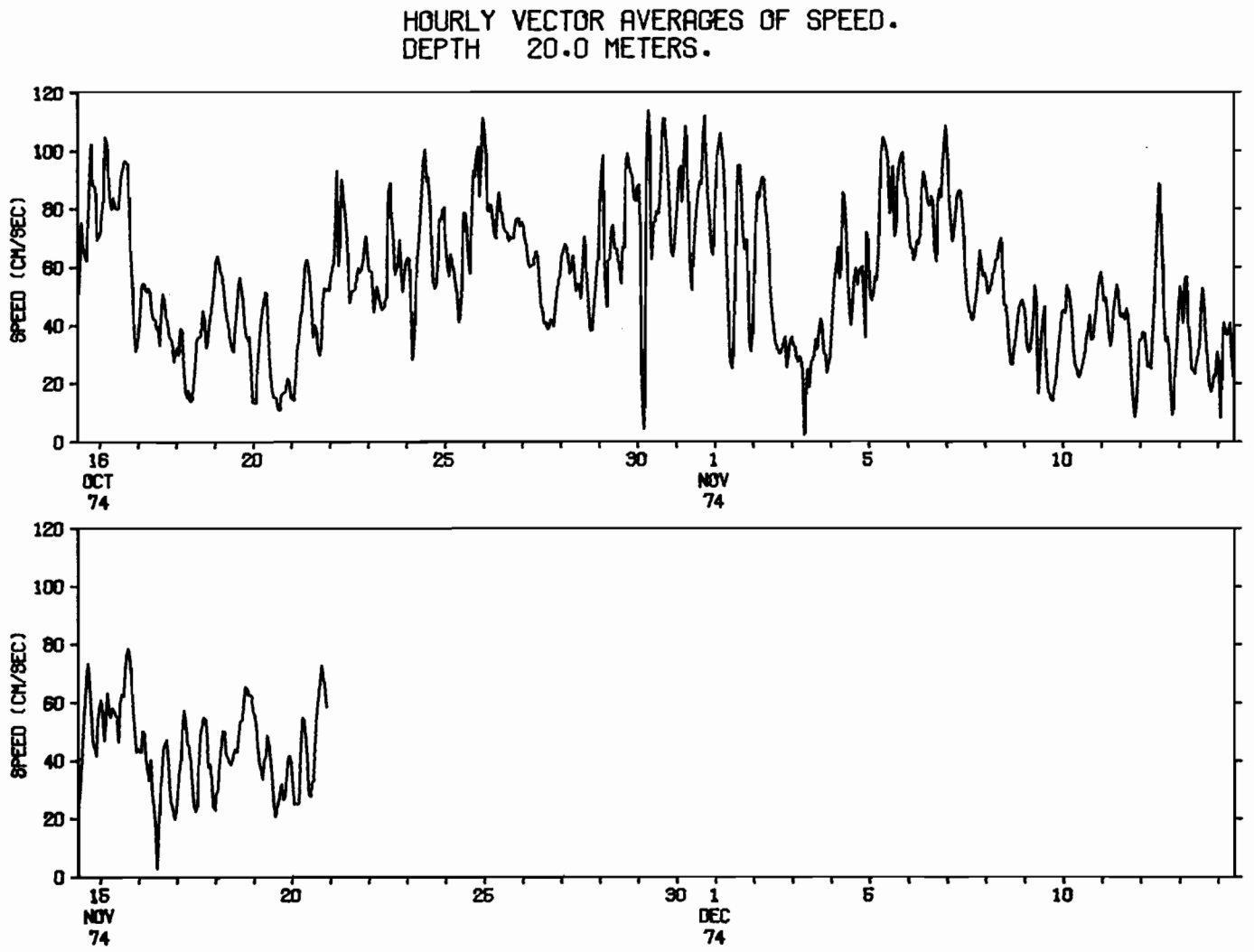
Mooring Designation NEGOA 61
Location: 59° 34.2'N 145° 47.7'W
Sensors: Speed, Direction, Temperature, Conductivity, Pressure

	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	54.58	524.19	22.90	.351	2.47	122.18	3.96
U	-43.28	718.29	26.80	.159	3.06	43.84	-119.42
V	4.00	895.21	29.92	.204	3.01	99.82	-91.32

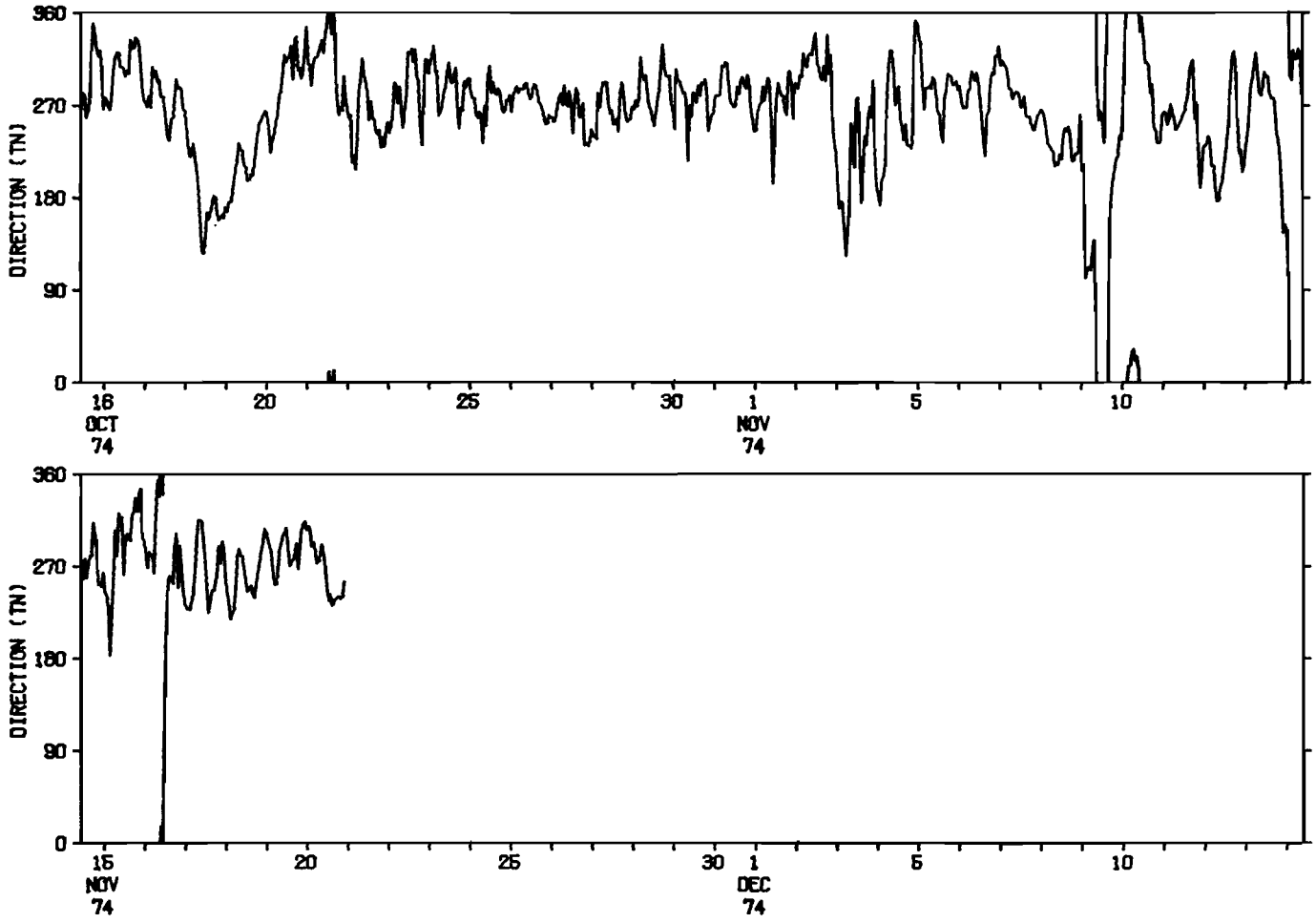
S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V



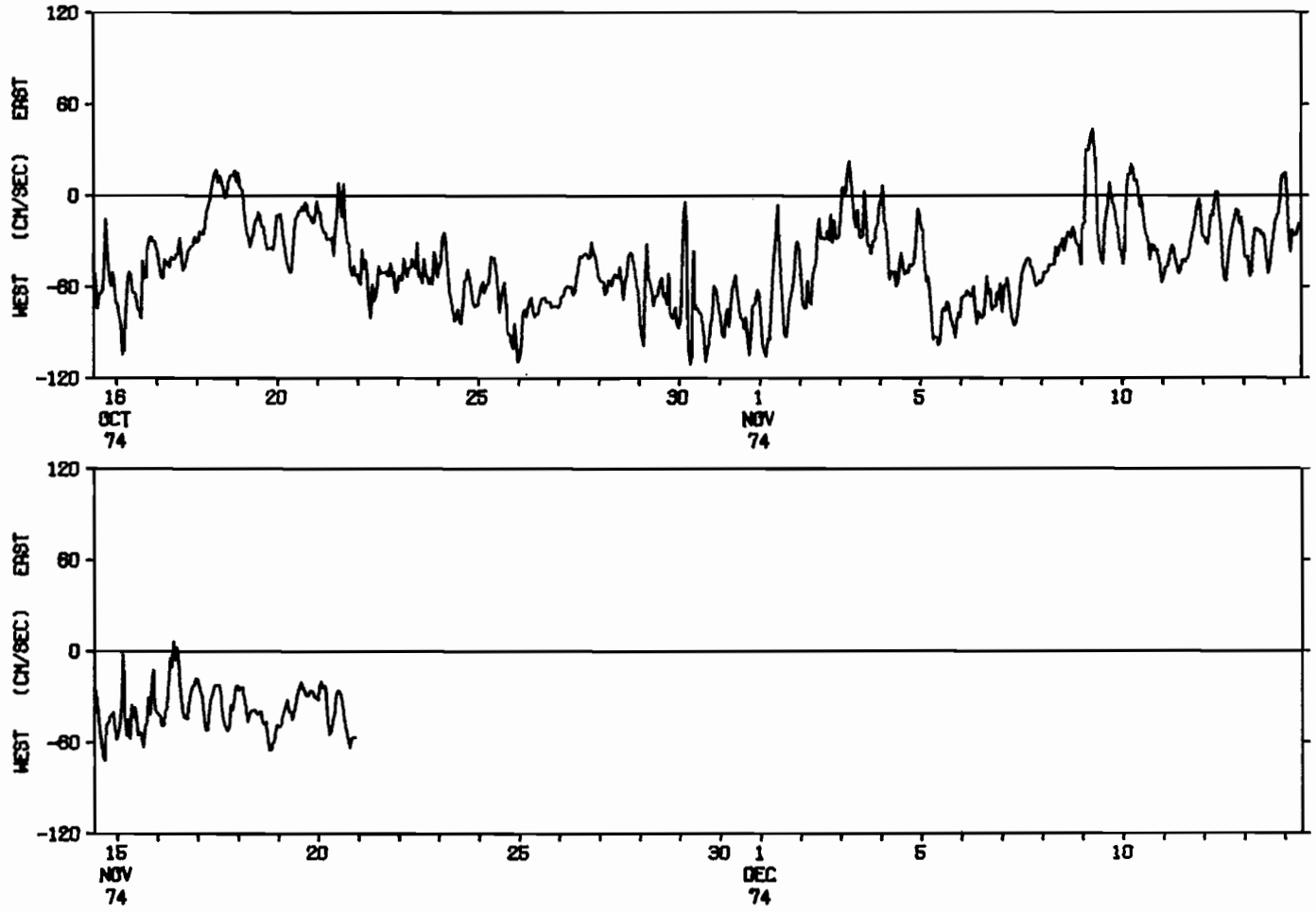



HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 20.0 METERS.
SPEED (CM/SEC)
120
100
80
60
40
20
0
16
OCT
74
20
25
30
1
NOV
74
5
10
SPEED (CM/SEC)
120
100
80
60
40
20
0
15
NOV
74
20
25
30
1
DEC
74
5
10

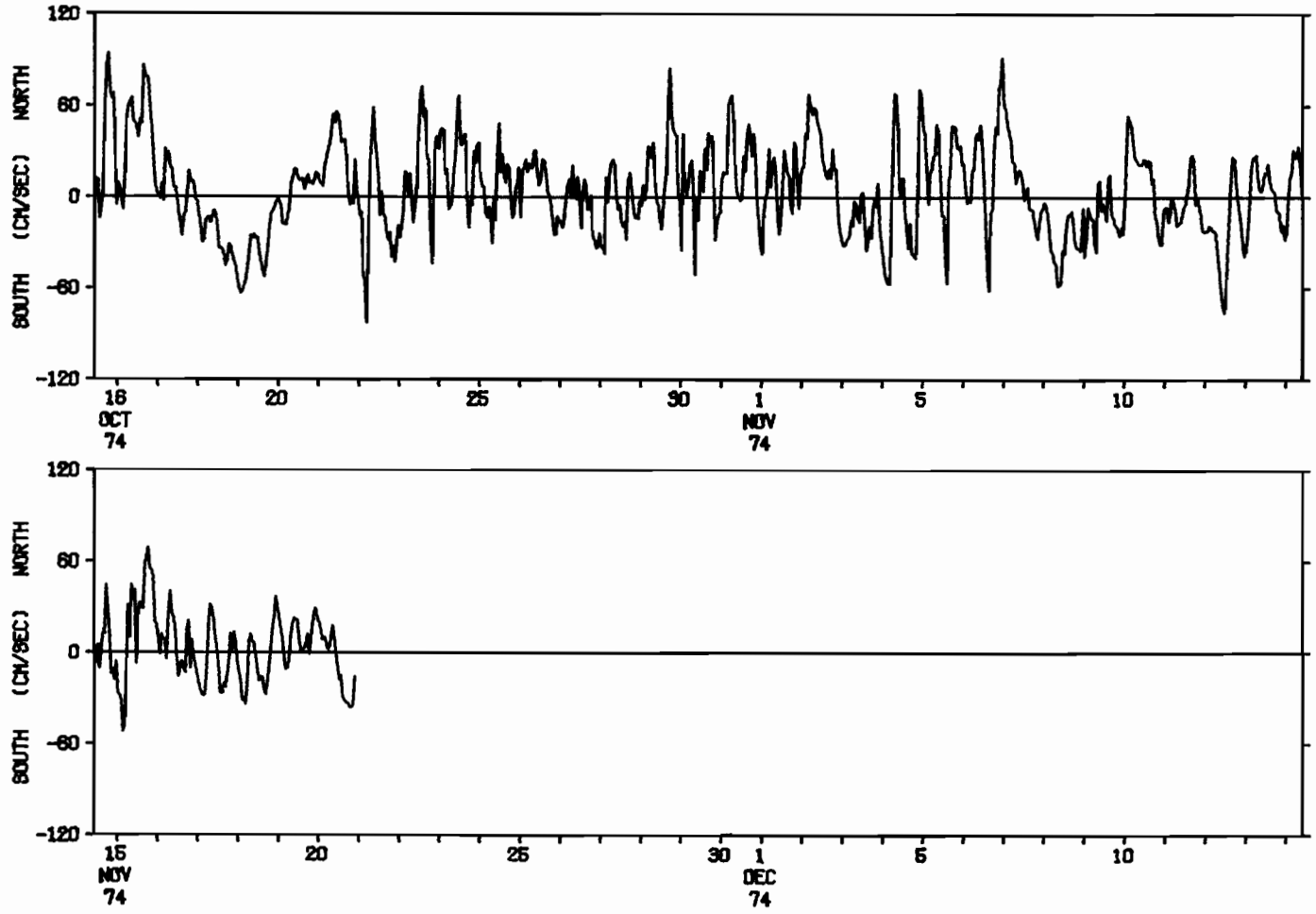
HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 20.0 METERS.



HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 20.0 METERS.

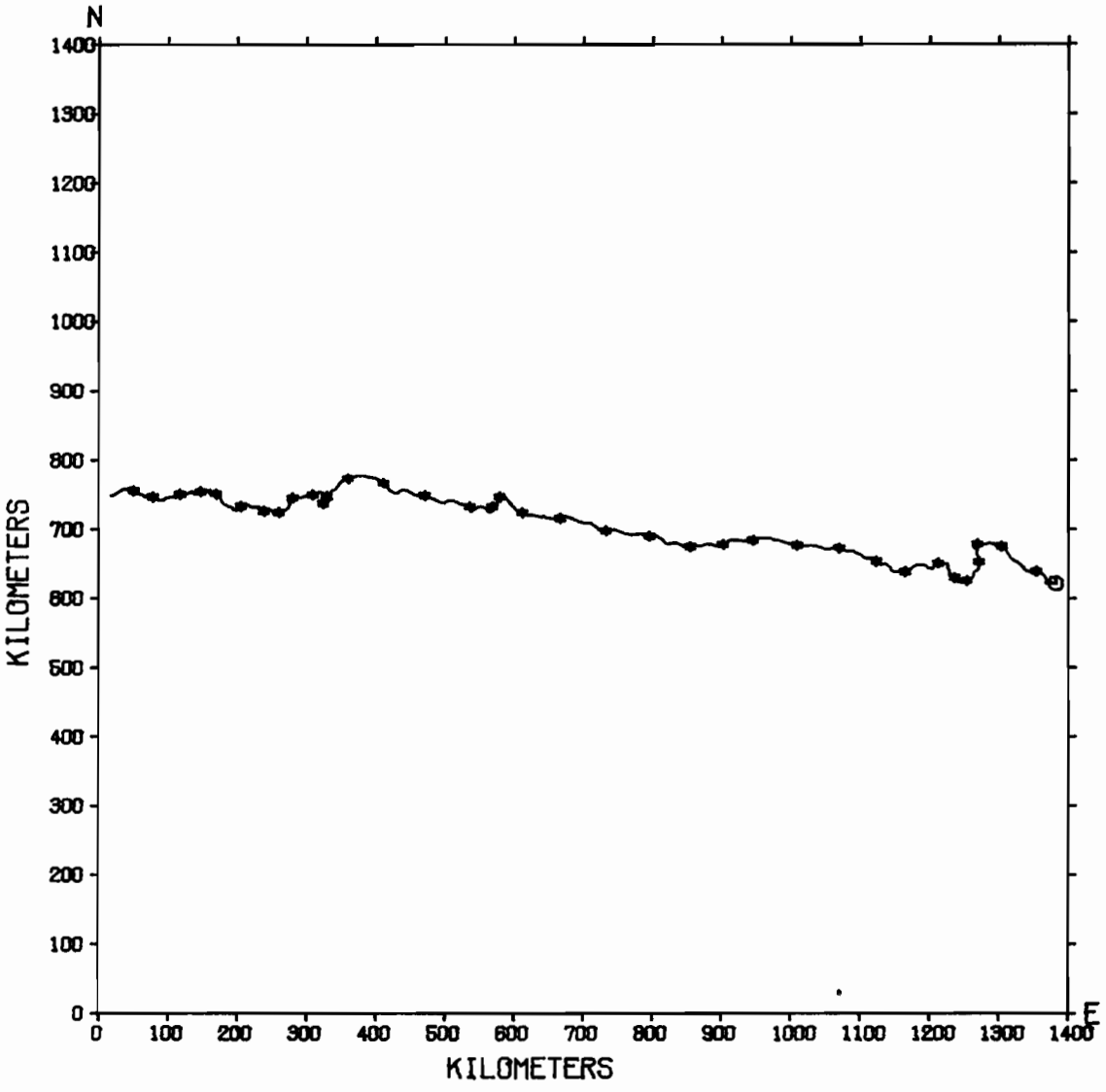


HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 20.0 METERS.

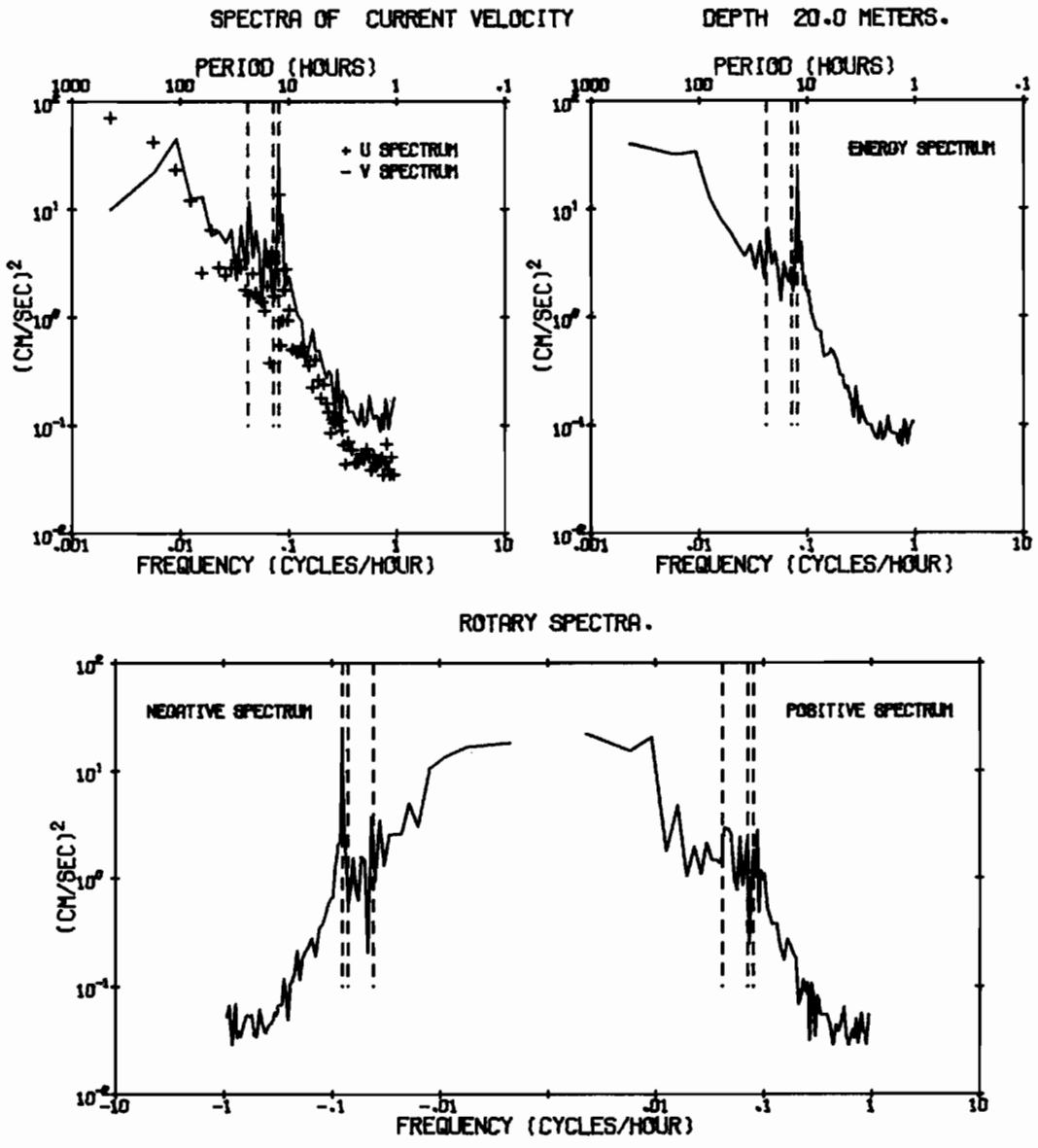


B.1. TIME SERIES ANALYSIS Current Meter 604
Part 2 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGGA - 61
OBSERVATION PERIOD 36.5 DAYS FROM 1000 GMT 15 OCT 74.
DEPTH 20.0 METERS.



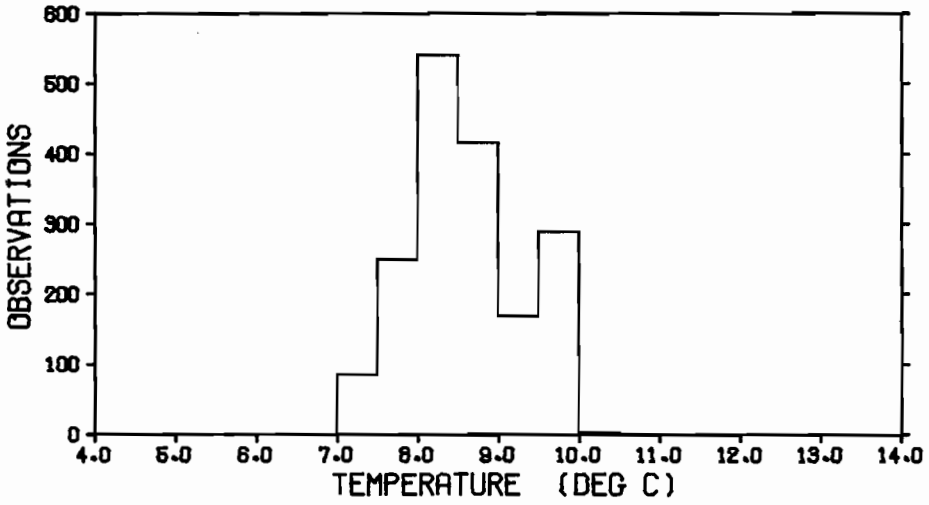
B.1. TIME SERIES ANALYSIS Current Meter 604
Part 2 of 2 (Continued)

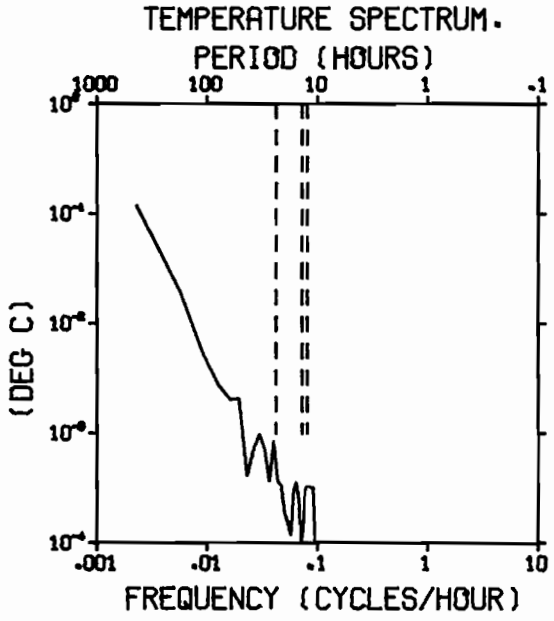


B.1. TIME SERIES ANALYSIS Current Meter 604
Part 2 of 2 (Continued)

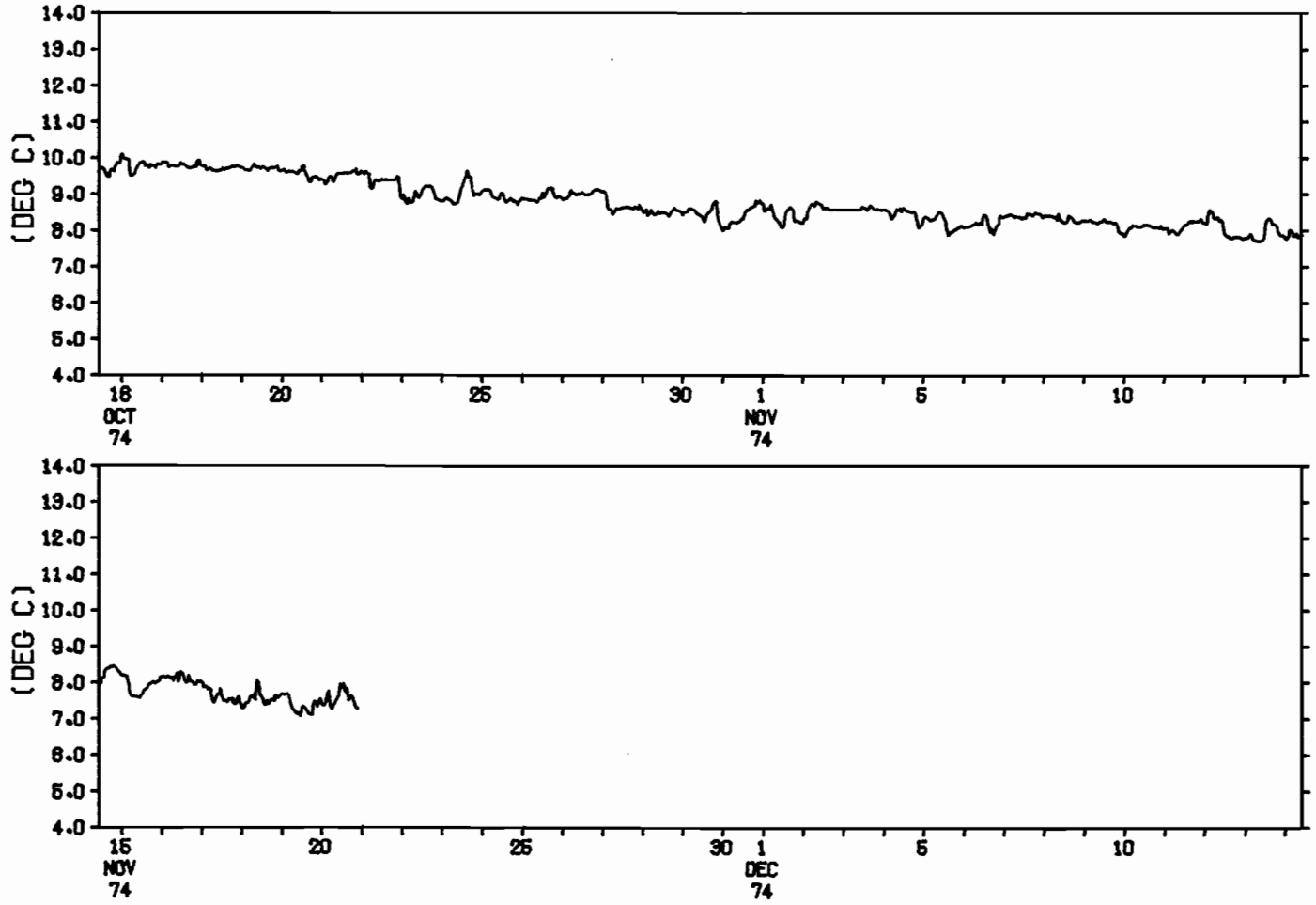
TEMPERATURE STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 20.0 METERS NUMBER OF OBSERVATIONS = 1753
OBSERVATION PERIOD 36.5 DAYS FROM 1000 GMT 15 OCT 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
8.59	.48	.69	.24	2.26	10.11	7.05





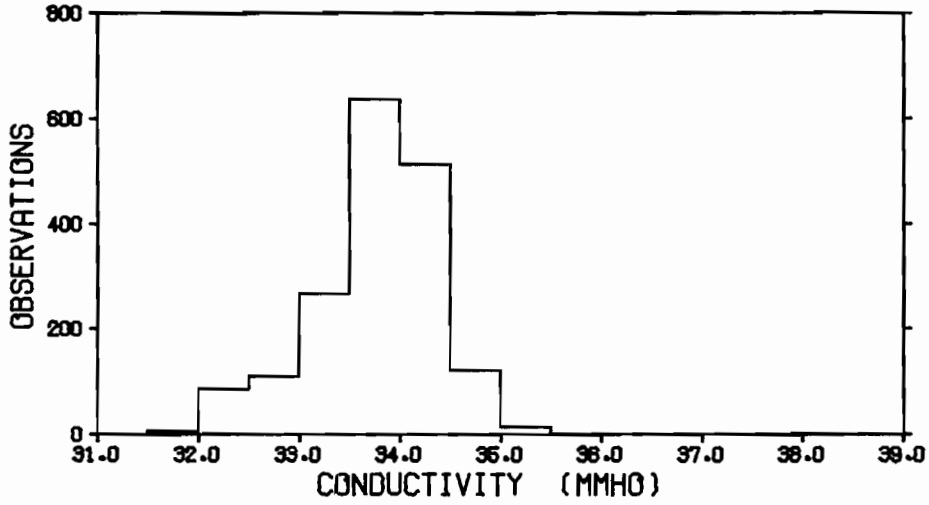
HOURLY AVERAGES OF TEMPERATURE DEPTH 20.0 METERS.

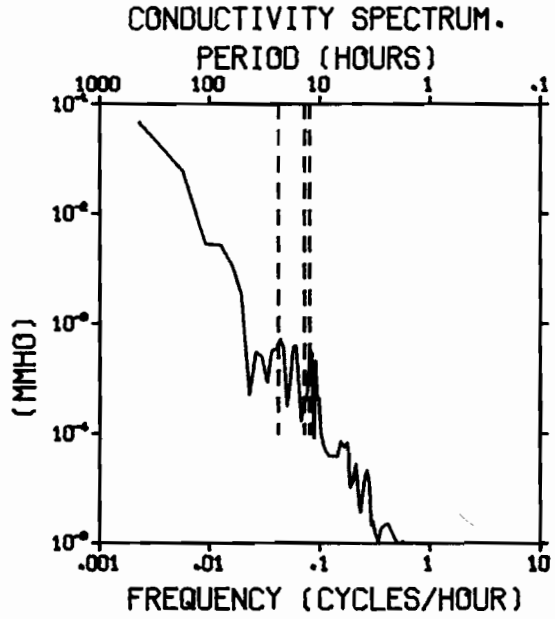


B.1. TIME SERIES ANALYSIS Current Meter 604
Part 2 of 2 (Continued)

CONDUCTIVITY STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 20.0 METERS NUMBER OF OBSERVATIONS = 1753
OBSERVATION PERIOD 36.5 DAYS FROM 1000 GMT 15 OCT 74

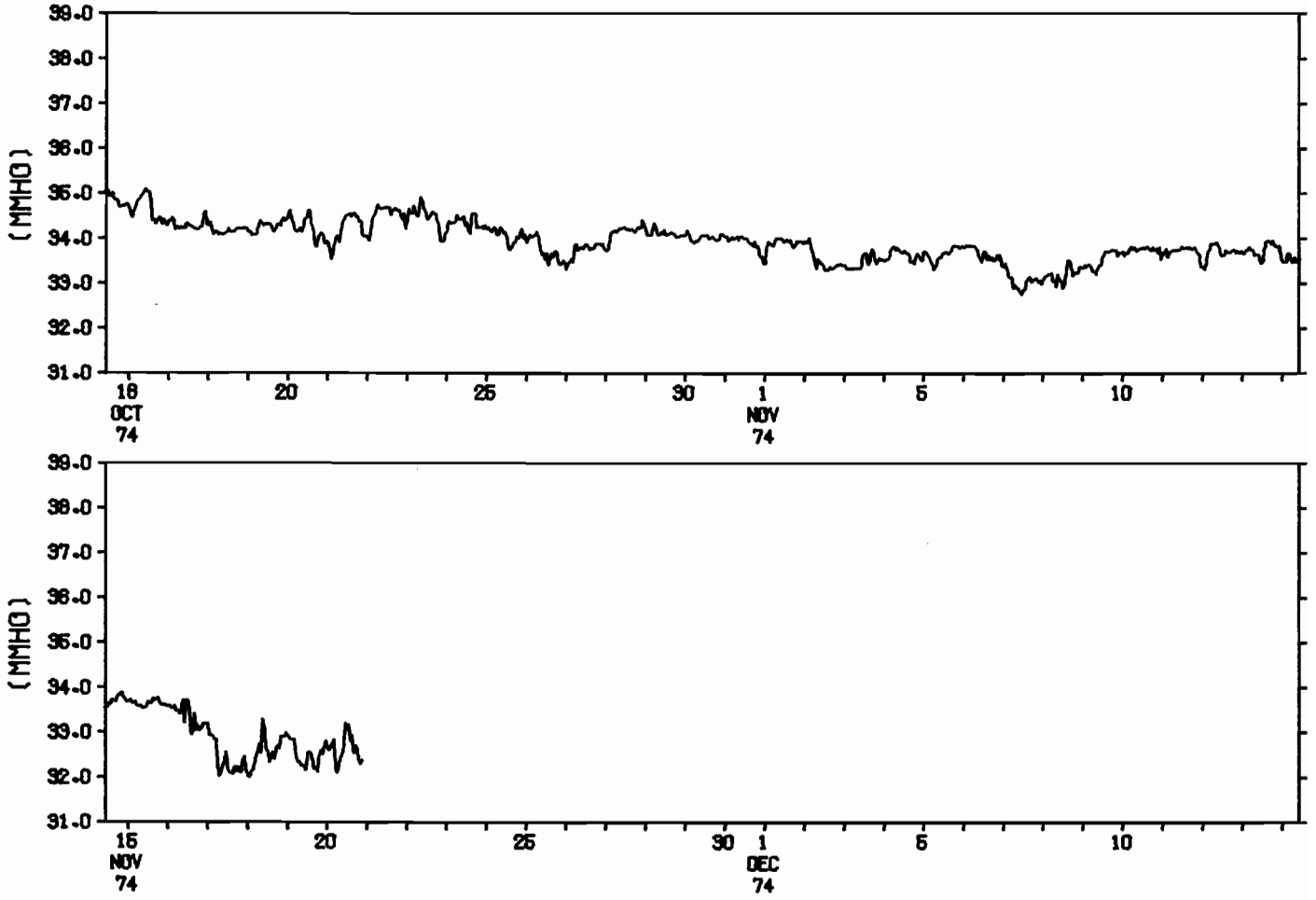
MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
33.75	.36	.60	-.70	3.55	35.10	31.86





B.1. TIME SERIES ANALYSIS Current Meter 604 Part 2 of 2 (Continued)

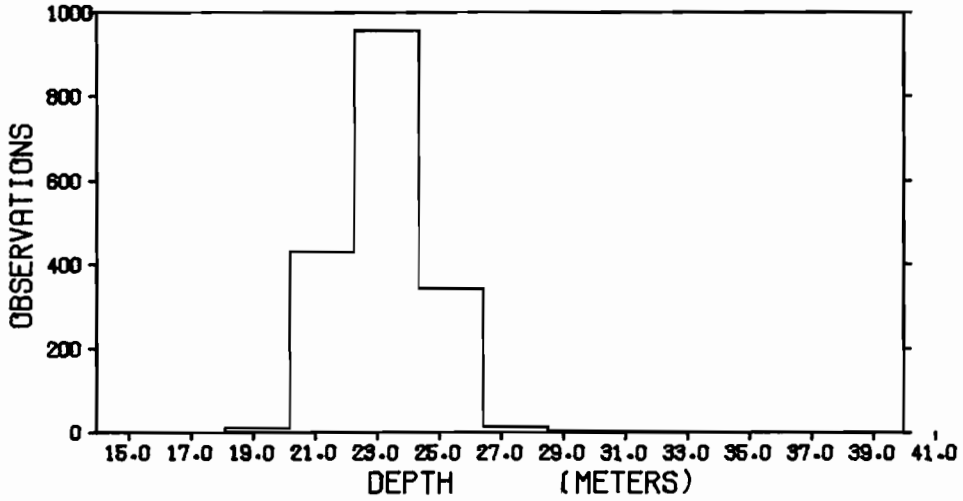
HOURLY AVERAGES OF CONDUCTIVITY DEPTH 20.0 METERS.

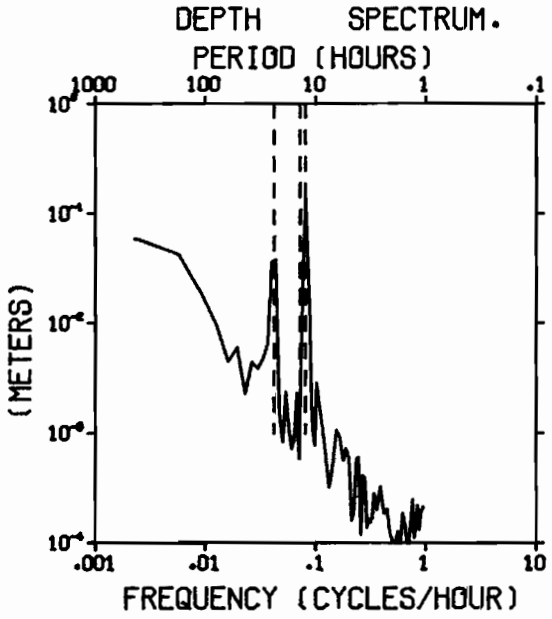


B.1. TIME SERIES ANALYSIS Current Meter 604
Part 2 of 2 (Continued)

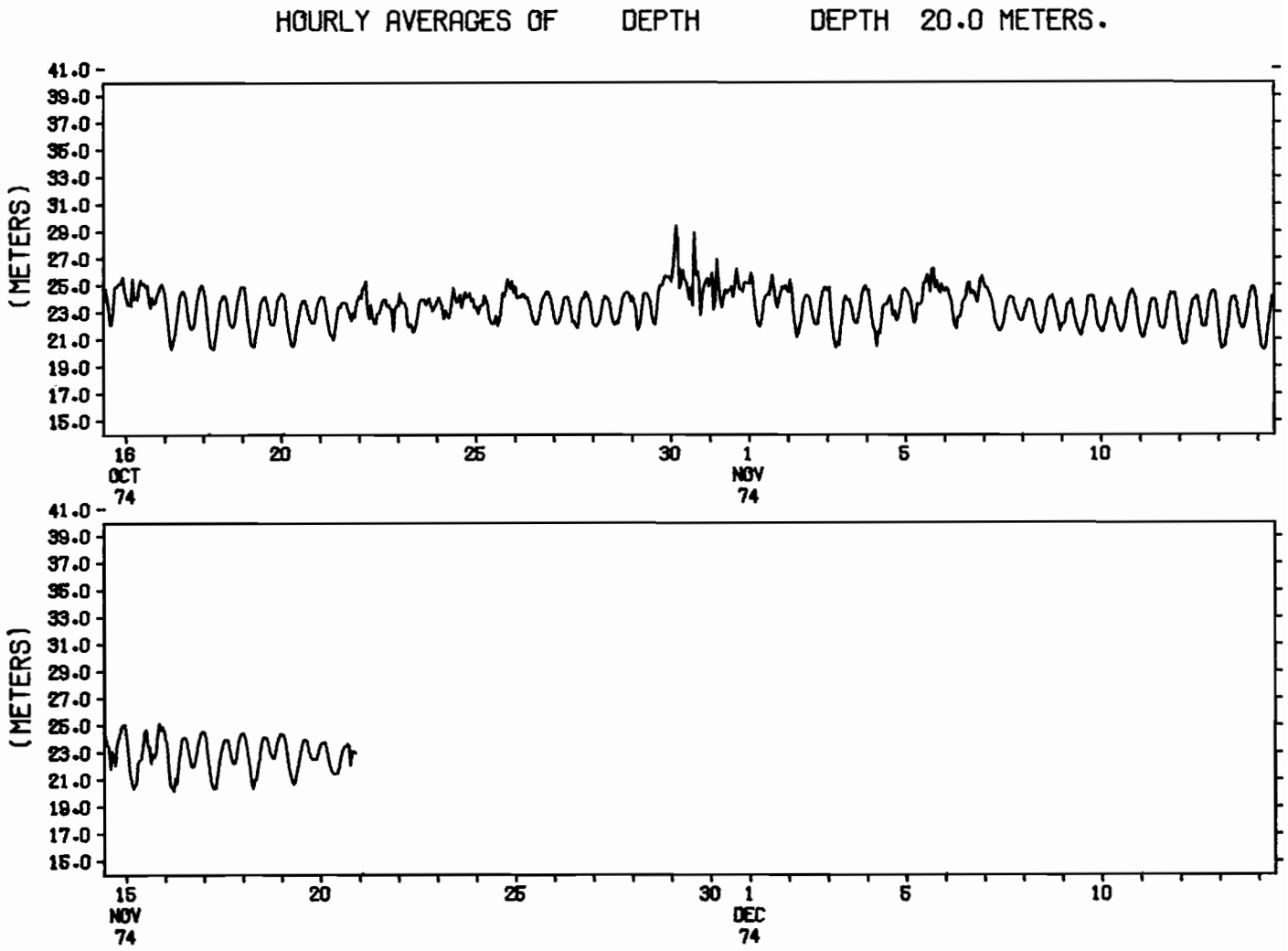
DEPTH STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 20.0 METERS NUMBER OF OBSERVATIONS = 1753
OBSERVATION PERIOD 36.5 DAYS FROM 1000 GMT 15 OCT 74

MEAN (METER)	VARIANCE (METERS)	ST-DEV (METER)	SKEW	KURT	MAX (METER)	MIN (METER)
24.03	1.67	1.29	.00	3.55	30.55	20.98





B.1. TIME SERIES ANALYSIS Current Meter 604 Part 2 of 2 (Continued)

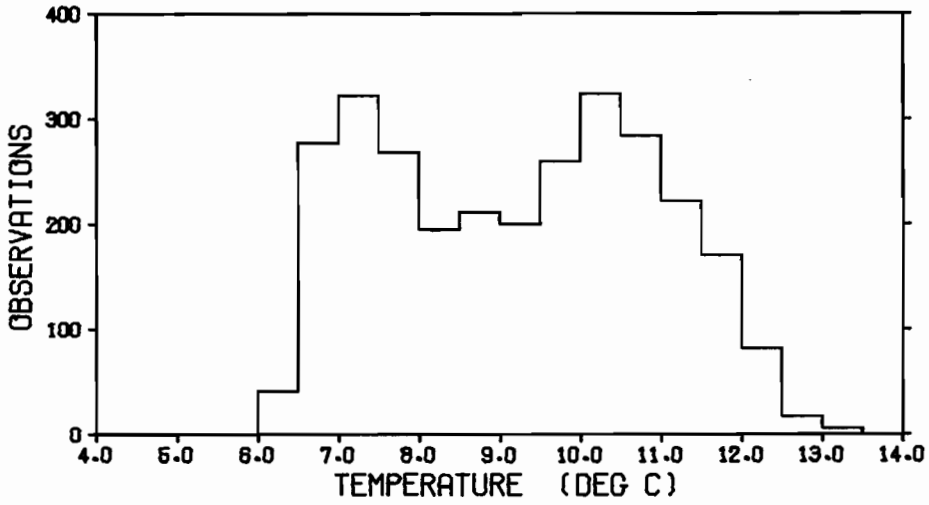


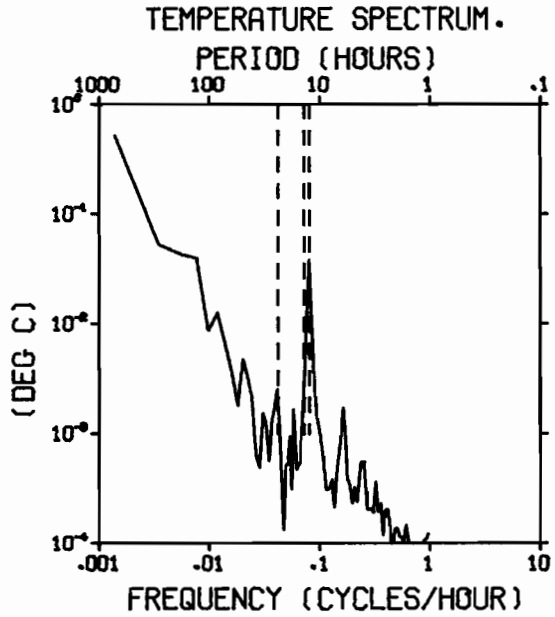
B.2. TIME SERIES ANALYSIS Current Meter 601 Nominal Depth: 30m
Part 1 of 2; 16 August - 15 October 1974

Mooring Designation NEGOA 61
Location: 59° 34.2'N 145° 47.7'W
Sensors: Speed, Direction, Temperature

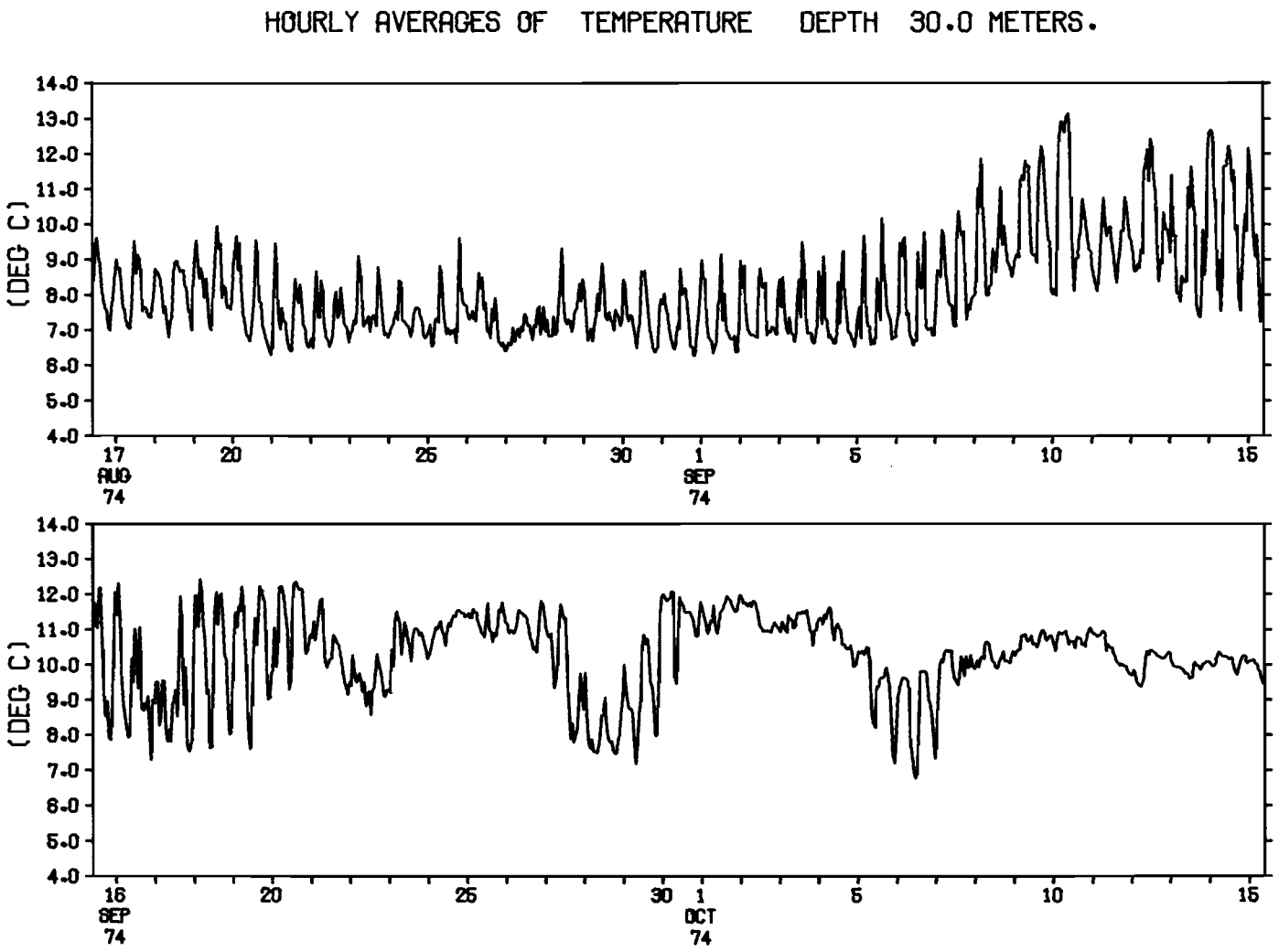
TEMPERATURE STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 30.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0932 GMT 16 AUG 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
9.22	2.87	1.69	.05	1.81	13.38	6.19





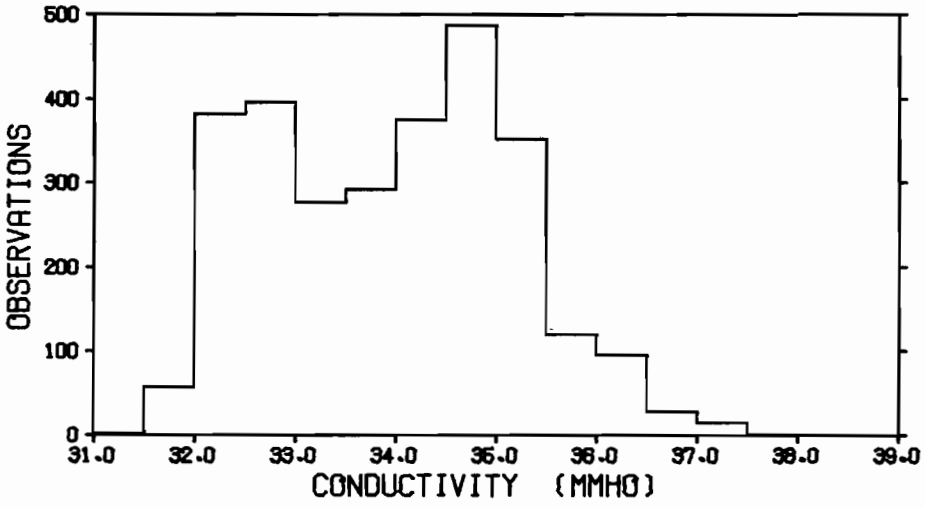
B.2. TIME SERIES ANALYSIS Current Meter 601 Part 1 of 2 (Continued)

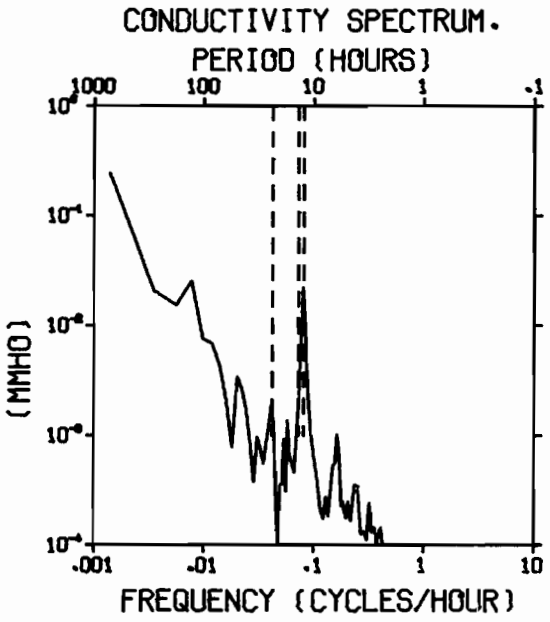


B.2. TIME SERIES ANALYSIS Current Meter 601
Part 1 of 2 (Continued)

CONDUCTIVITY STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 30.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0932 GMT 16 AUG 74

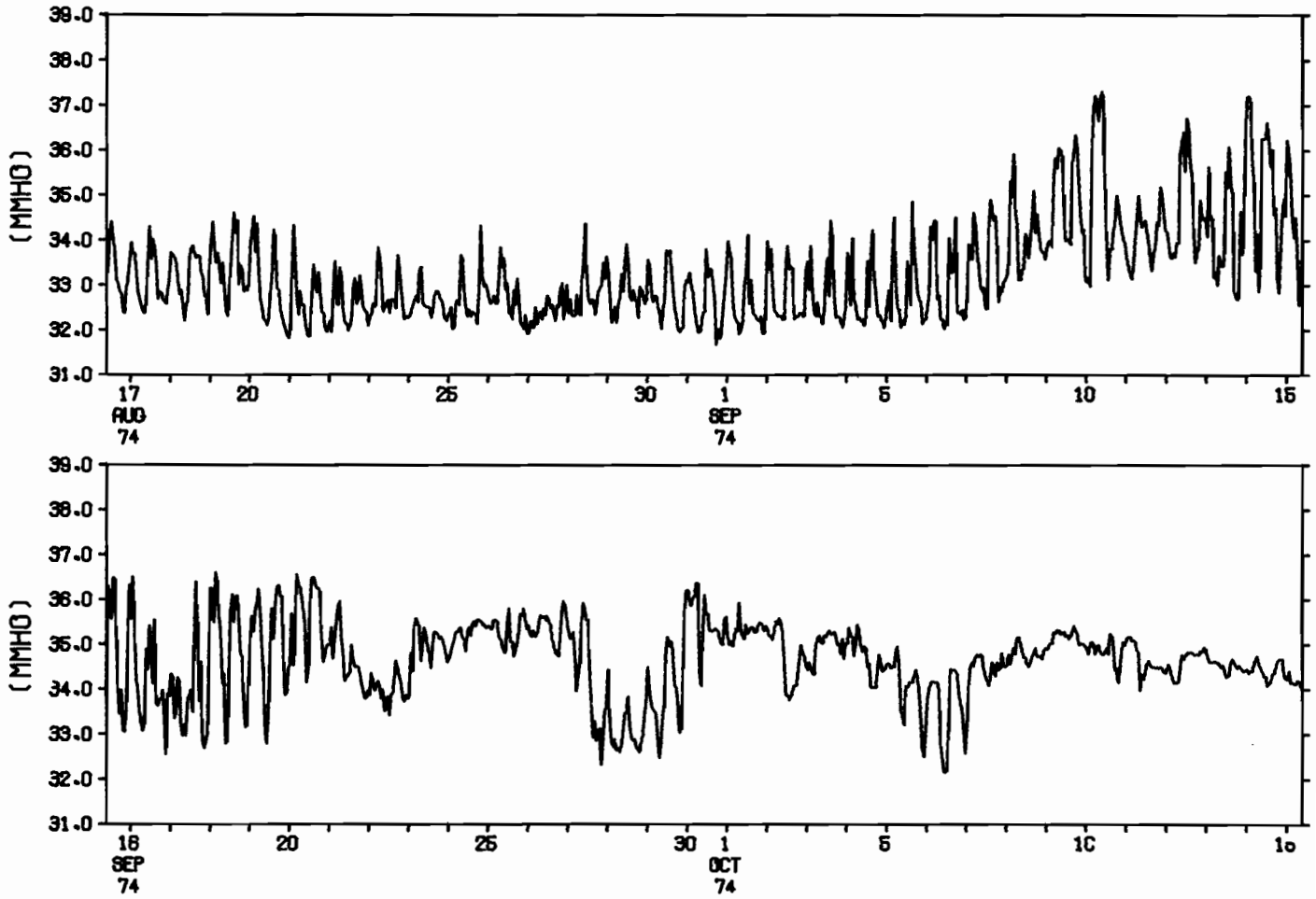
MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
33.96	1.49	1.22	.16	2.17	37.52	31.15





B.2. TIME SERIES ANALYSIS Current Meter 601 Part 1 of 2 (Continued)

HOURLY AVERAGES OF CONDUCTIVITY DEPTH 30.0 METERS.

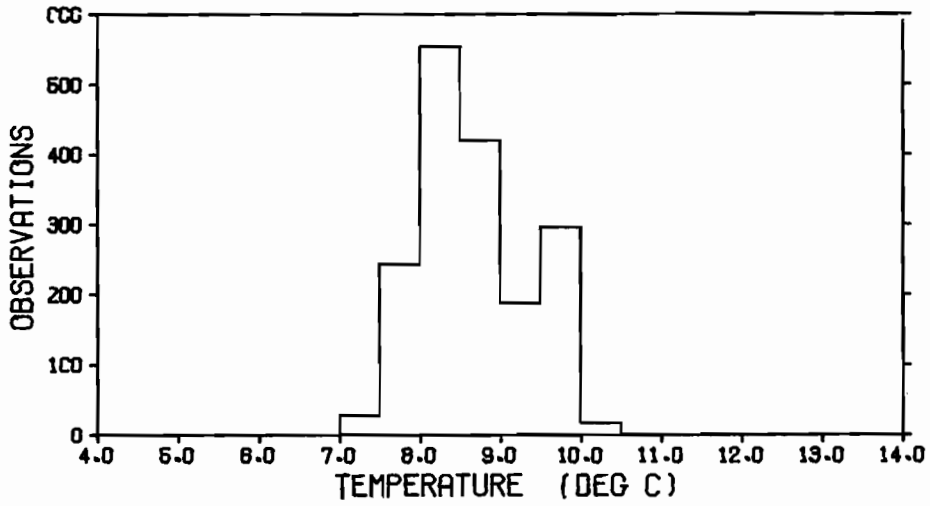


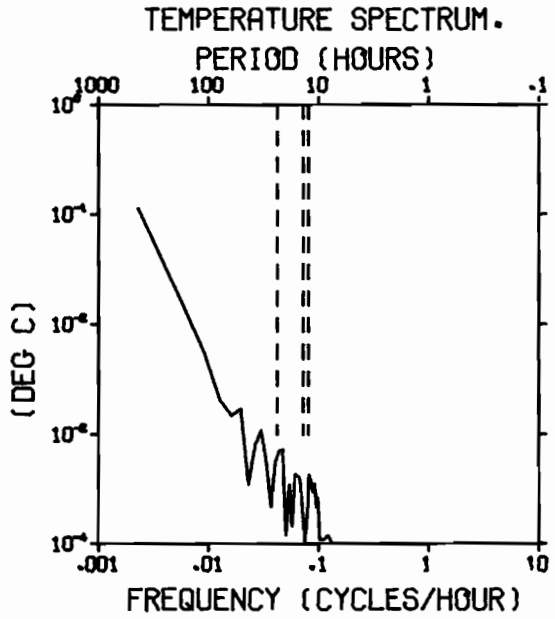
B.2. TIME SERIES ANALYSIS Current Meter 601 Nominal Depth: 30m
Part 2 of 2; 16 October - 21 November 1974

Mooring Designation NEGOA 61
Location: 59° 34.2'N 145° 47.7'W
Sensors: Speed, Direction, Temperature

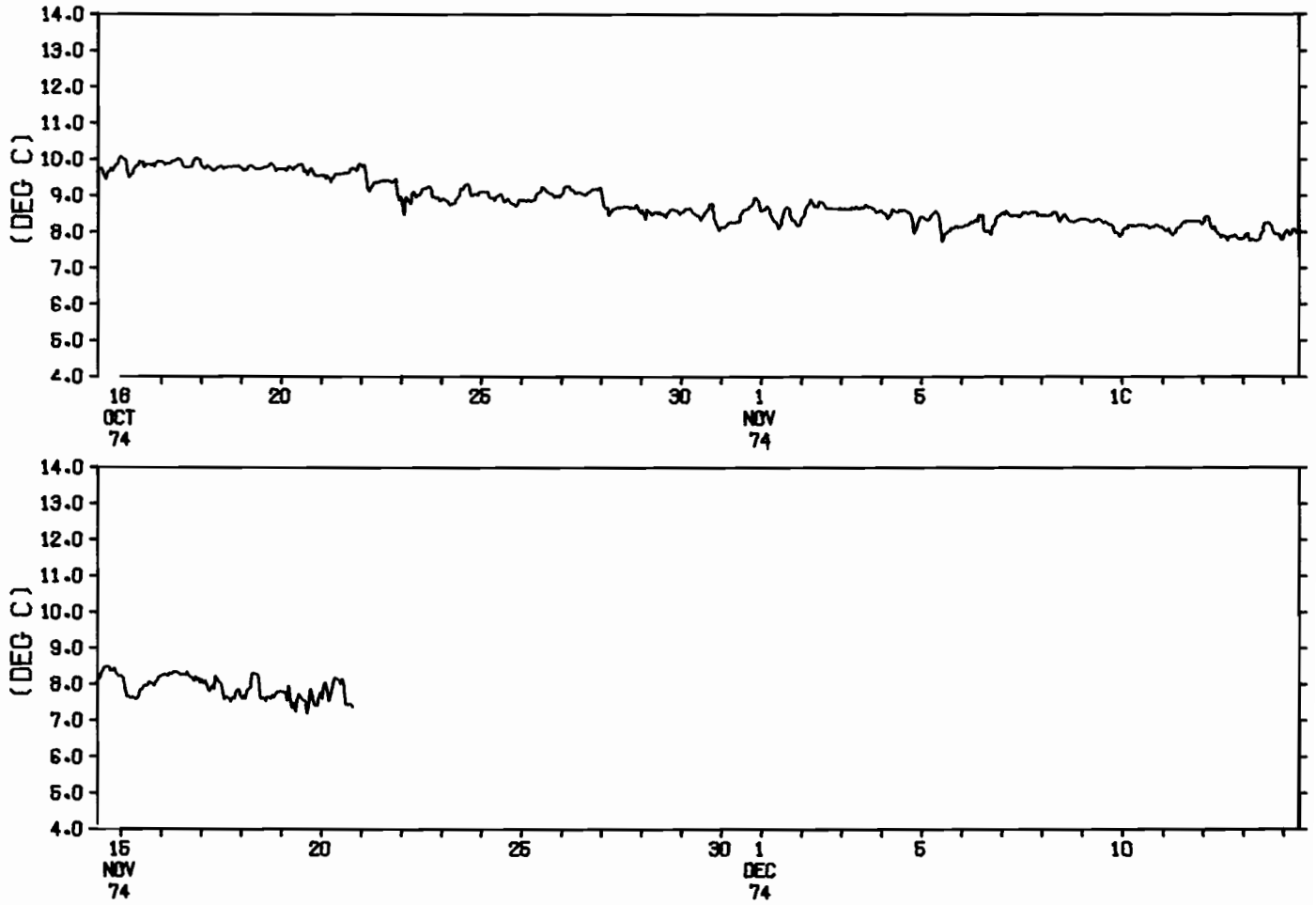
TEMPERATURE STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 30.0 METERS NUMBER OF OBSERVATIONS = 1748
OBSERVATION PERIOD 36.4 DAYS FROM 0932 GMT 15 OCT 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
8.65	.47	.69	.11	4.42	10.12	3.18





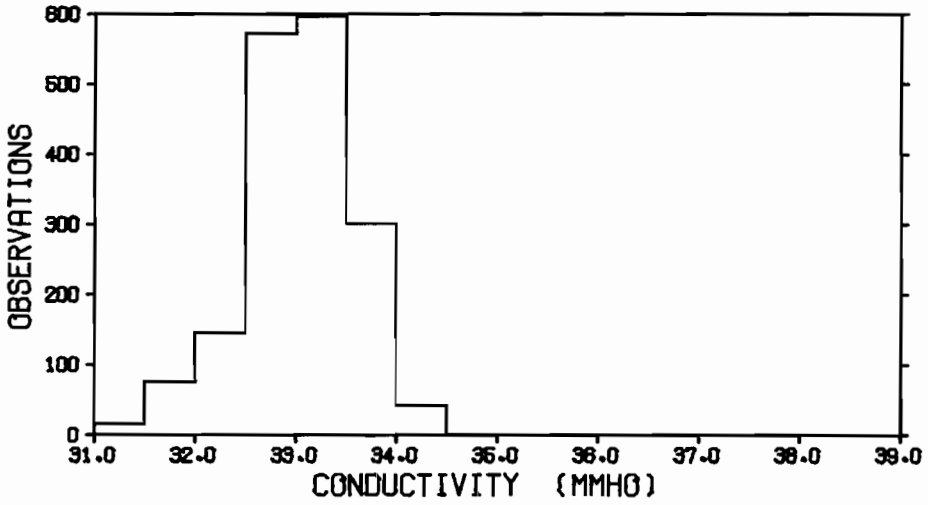
HOURLY AVERAGES OF TEMPERATURE DEPTH 30.0 METERS.

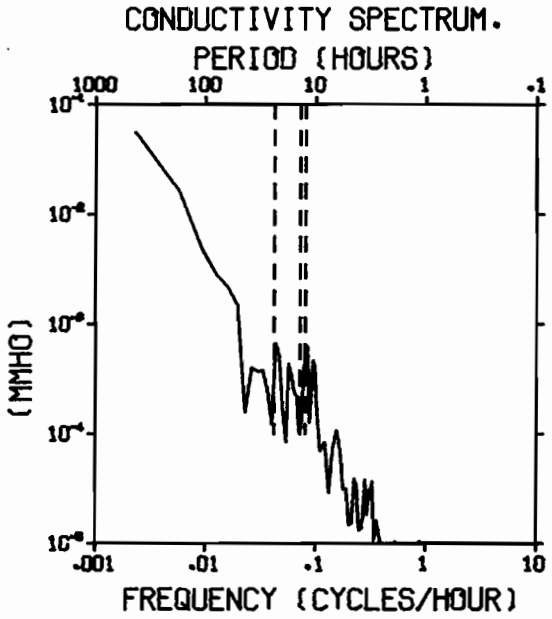


B.2. TIME SERIES ANALYSIS Current Meter 601
Part 2 of 2 (Continued)

CONDUCTIVITY STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 30.0 METERS NUMBER OF OBSERVATIONS = 1748
OBSERVATION PERIOD 36.4 DAYS FROM 0932 GMT 15 OCT 74

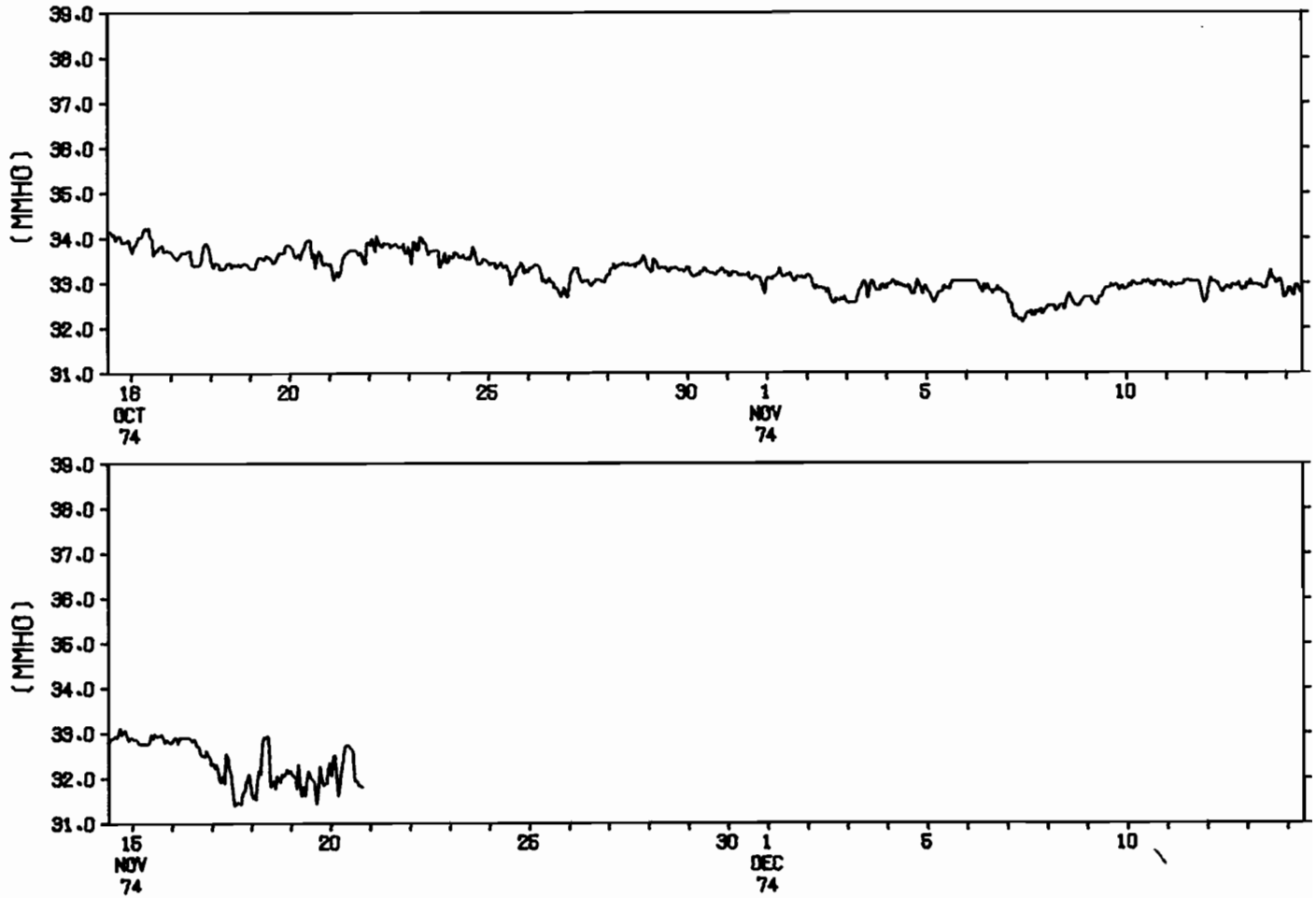
MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
33.05	.28	.53	-.51	3.40	34.23	31.36





B.2. TIME SERIES ANALYSIS Current Meter 601 Part 2 of 2 (Continued)

HOURLY AVERAGES OF CONDUCTIVITY DEPTH 30.0 METERS.

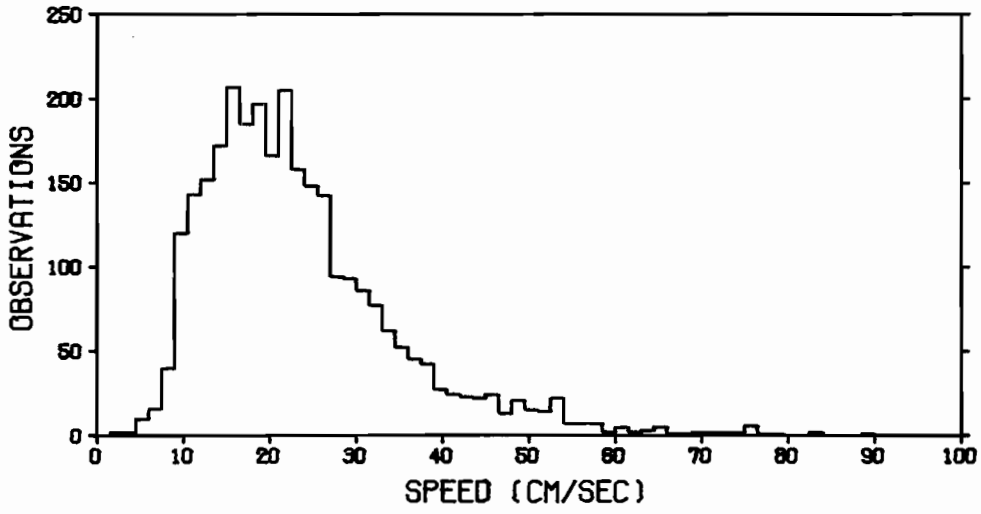


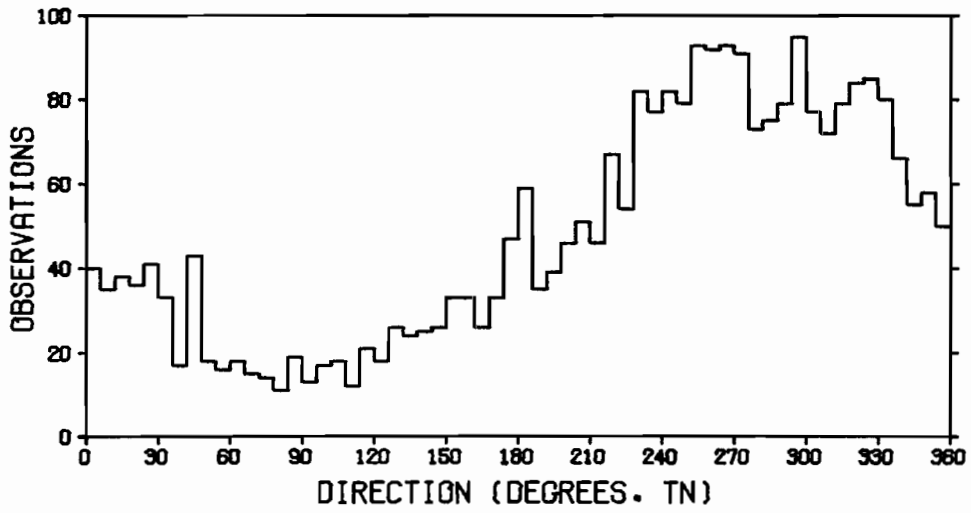
B.3. TIME SERIES ANALYSIS Current Meter 711 Nominal Depth: 50m
Part 1 of 2; 16 August - 15 October 1974

Mooring Designation NEGOA 61
Location: 59°34.2'N 145° 47.7'W
Sensors: Speed, Direction, Temperature

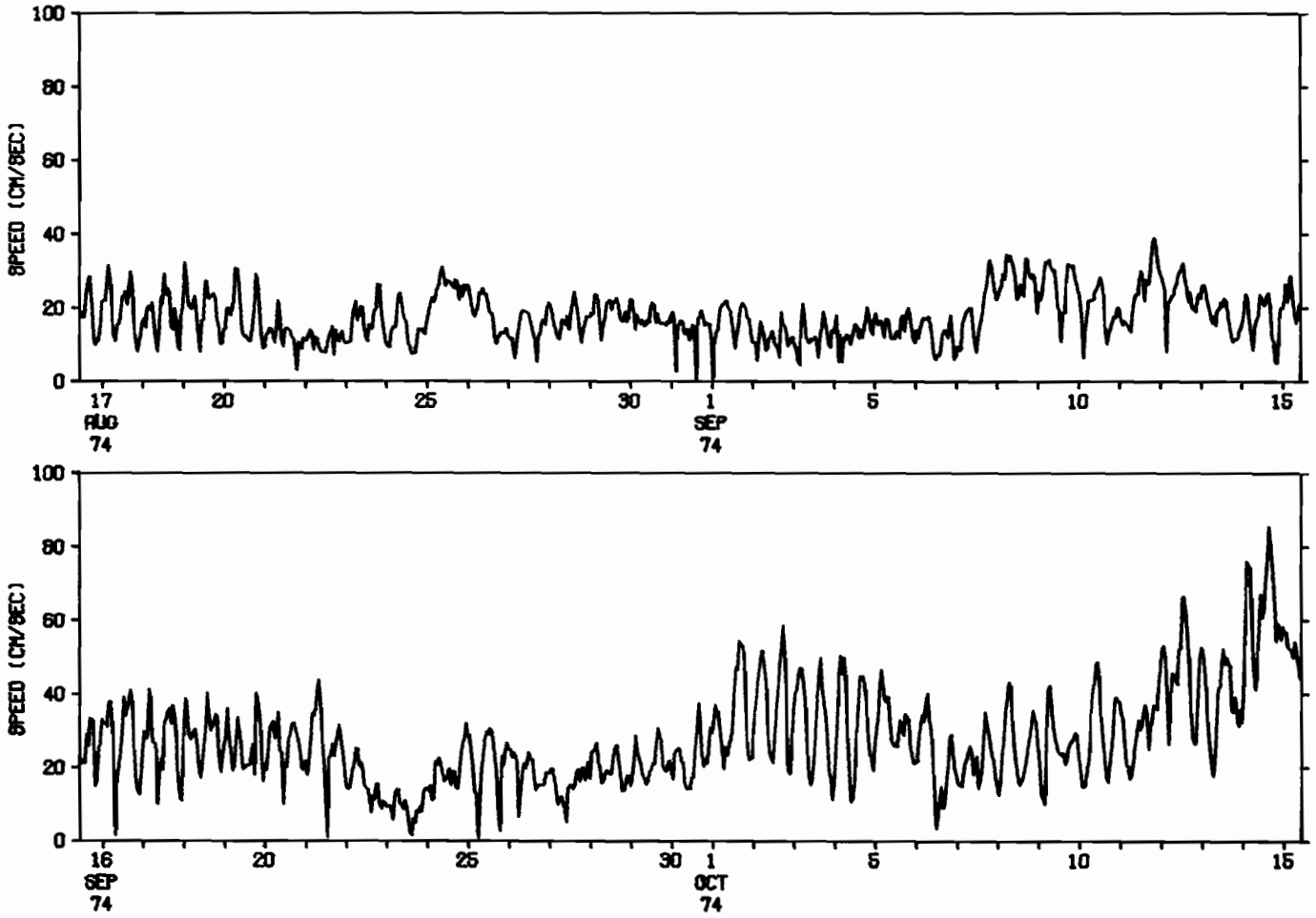
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	23.45	132.17	11.50	1.485	6.21	89.38	2.05
U	-11.45	274.45	16.57	-.410	2.93	25.86	-71.42
V	2.47	270.19	16.44	.318	2.95	80.85	-40.58

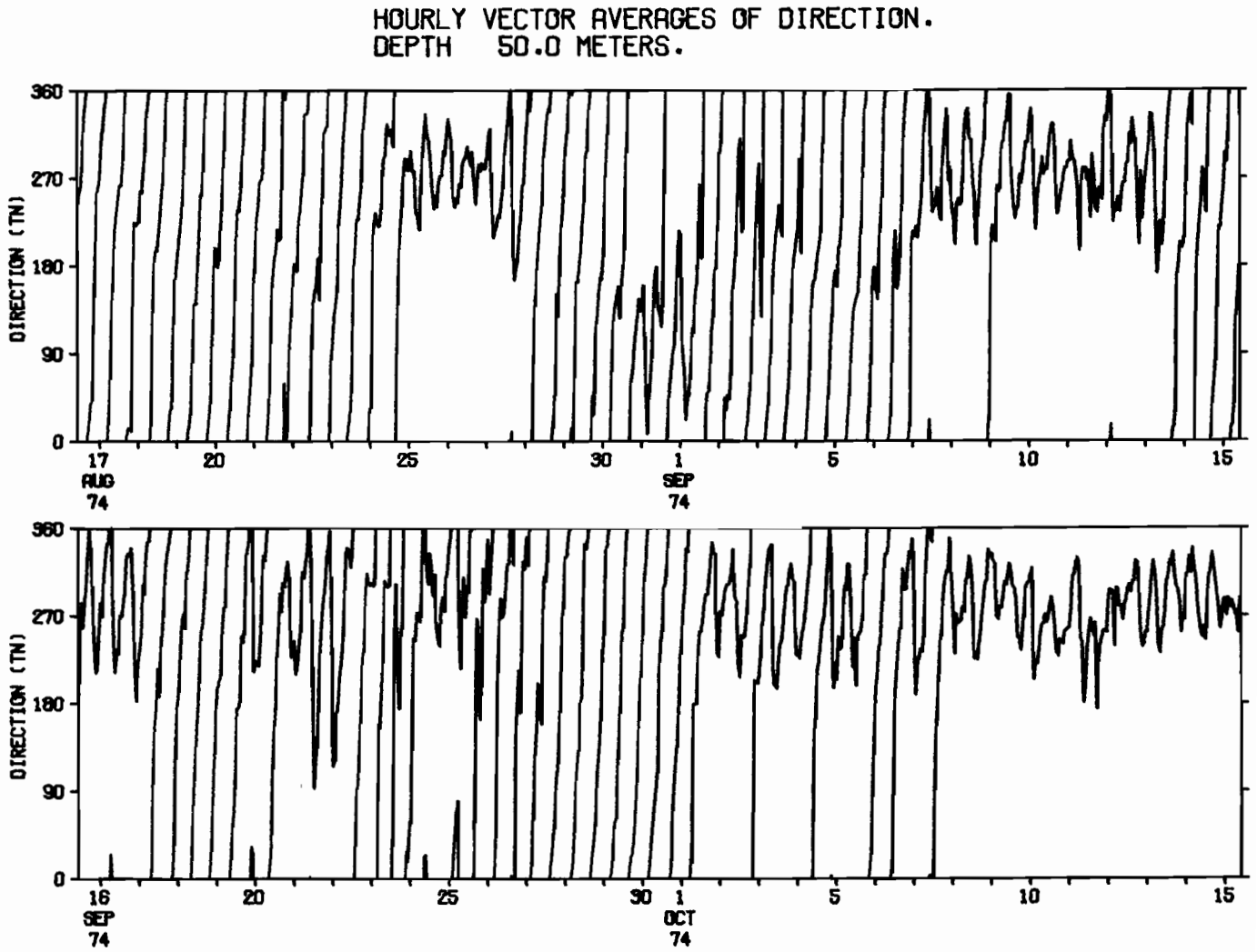
S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V



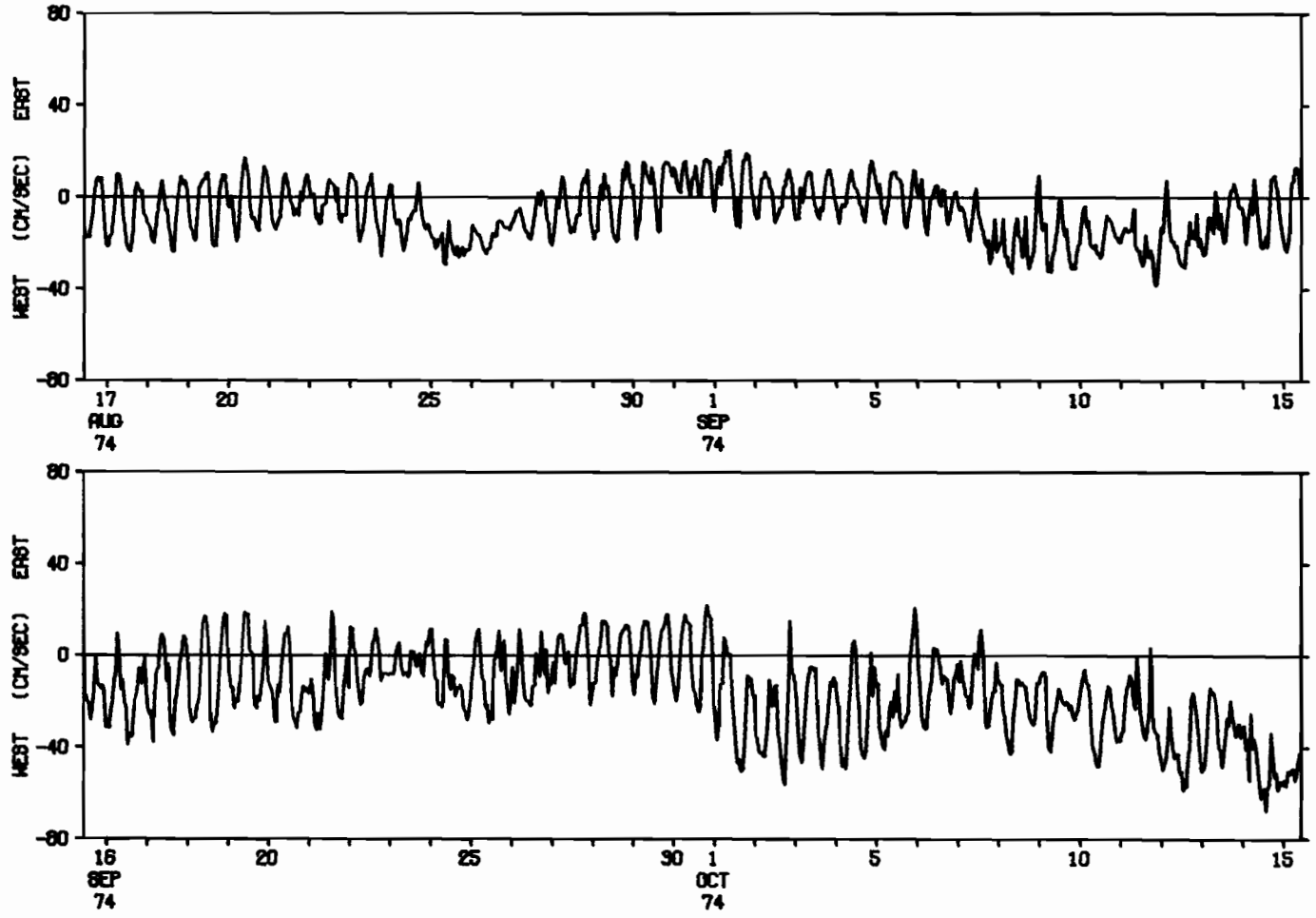


HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 50.0 METERS.

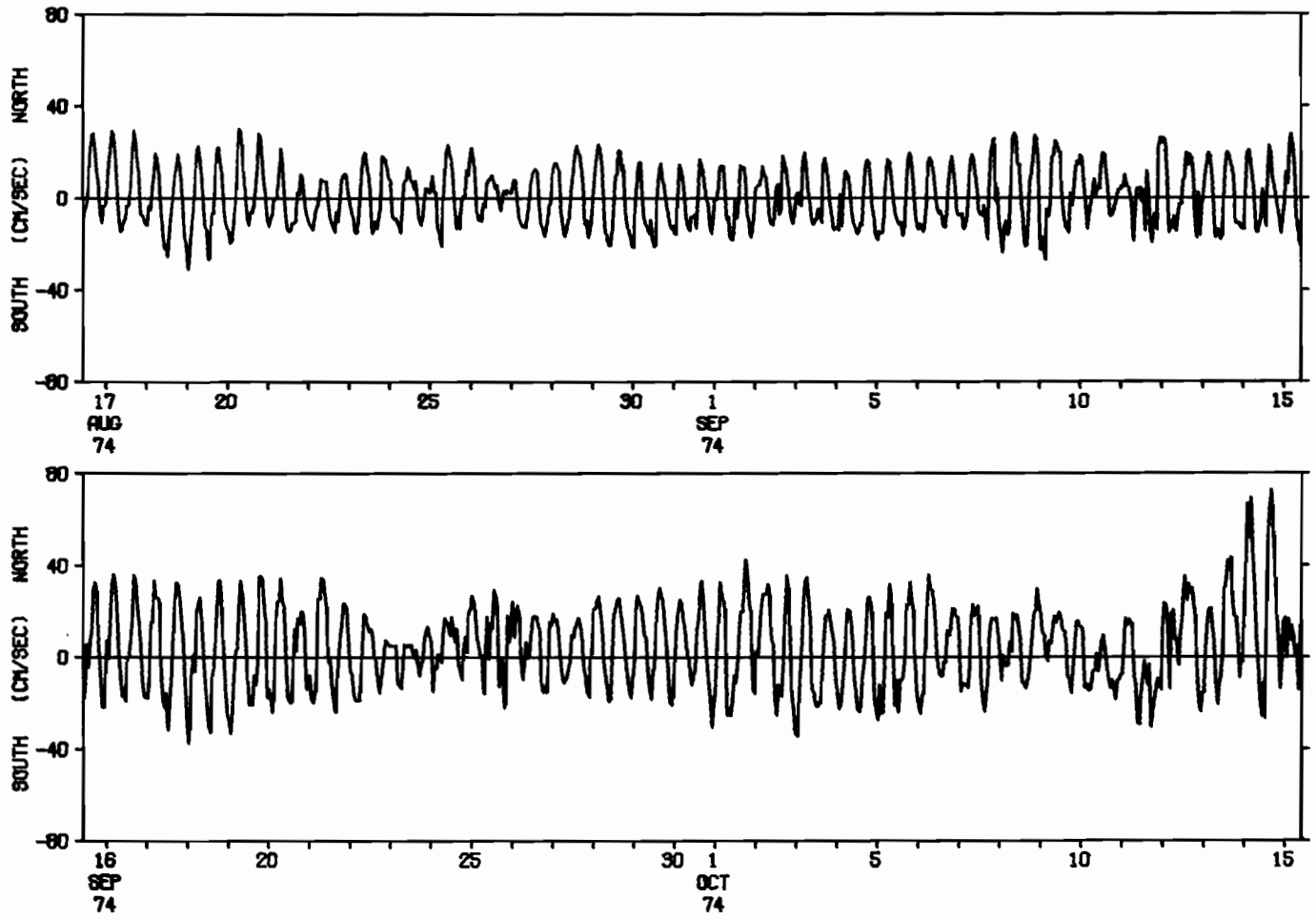



HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 50.0 METERS.
DIRECTION (TN)
360
270
180
90
0
17
AUG
74
20
25
30
1
SEP
74
5
10
15
DIRECTION (TN)
360
270
180
90
0
16
SEP
74
20
25
30
1
OCT
74
5
10
15

HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 50.0 METERS.

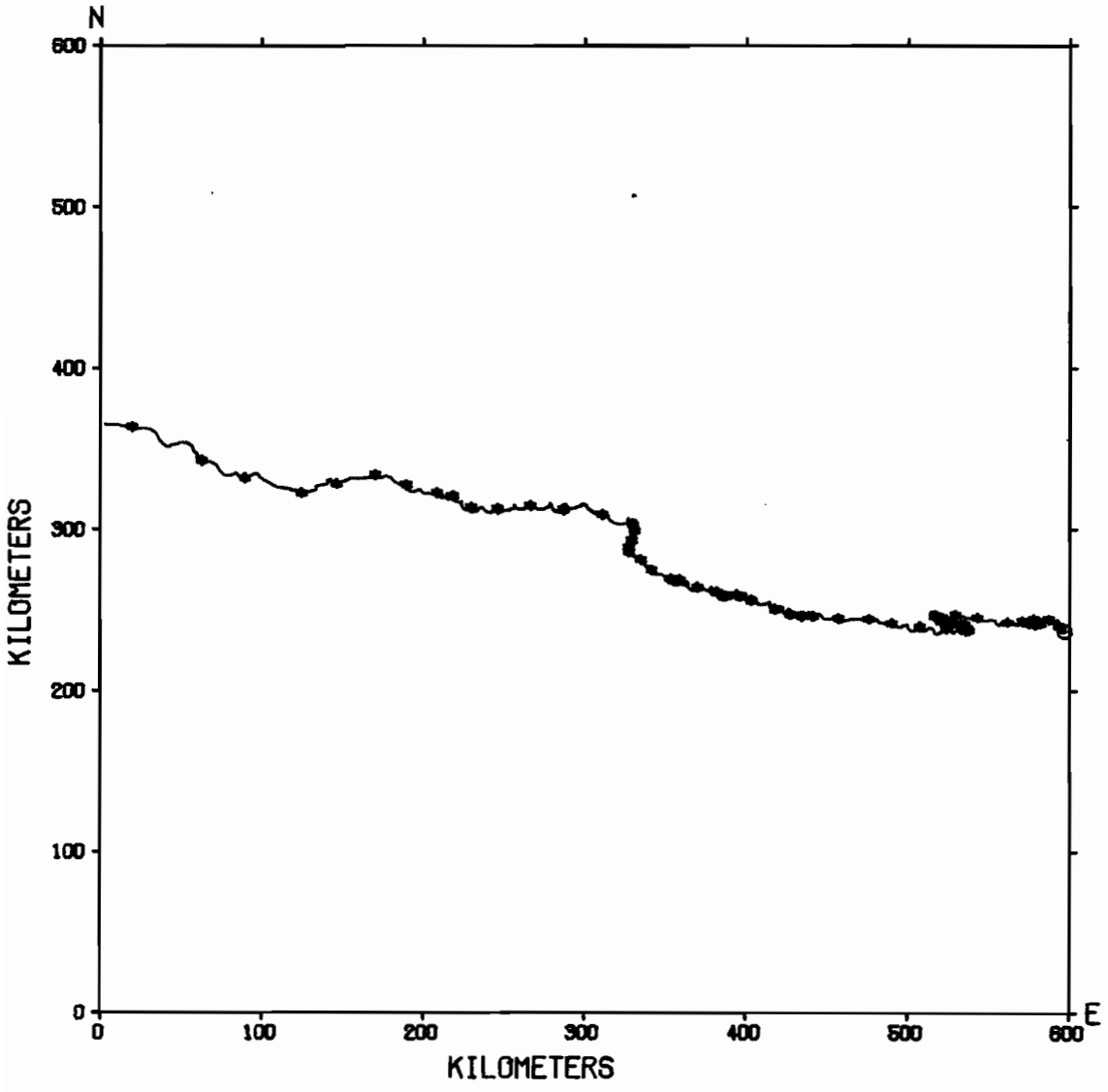


HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 50.0 METERS.

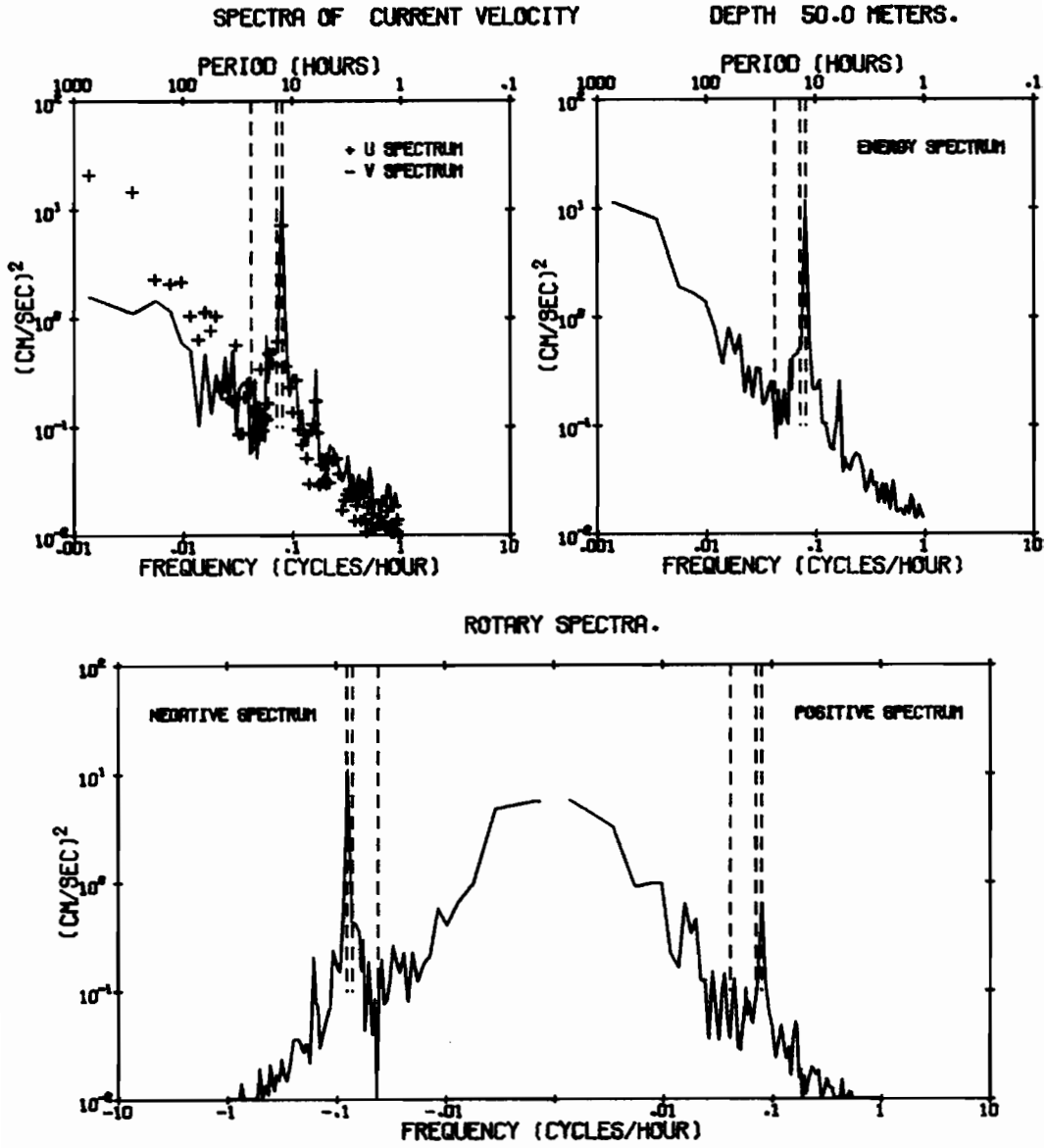


B.3. TIME SERIES ANALYSIS Current Meter 711
Part 1 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 61
OBSERVATION PERIOD 60.0 DAYS FROM 1004 GMT 16 AUG 74.
DEPTH 50.0 METERS.



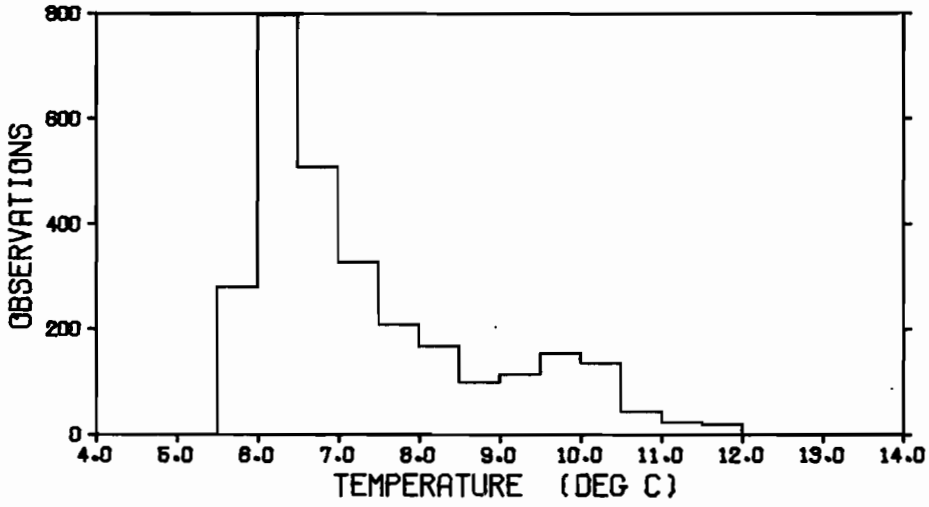
B.3. TIME SERIES ANALYSIS Current Meter 711
Part 1 of 2 (Continued)

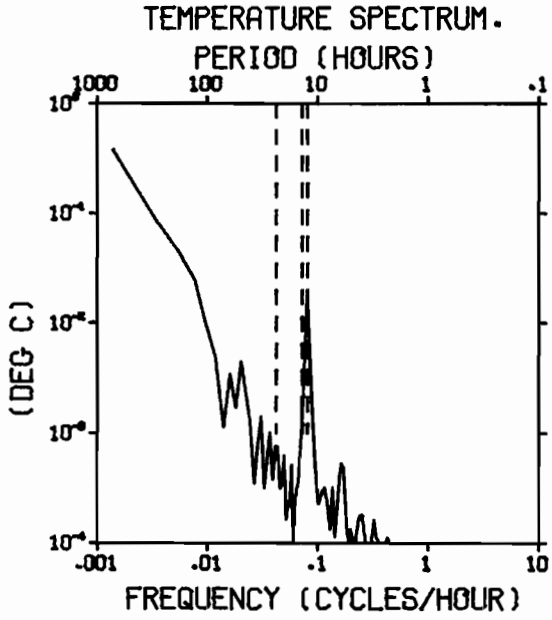


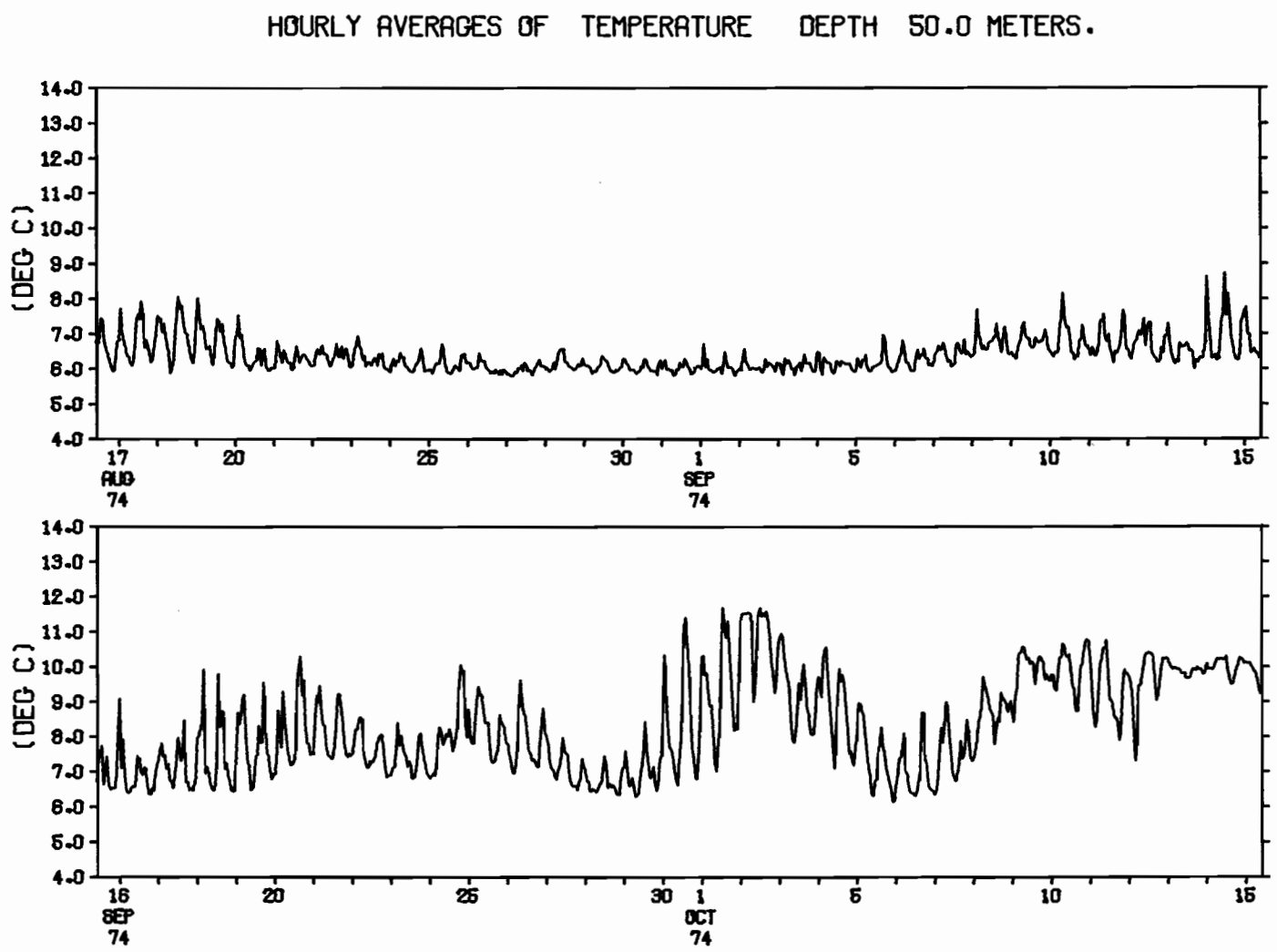
B.3. TIME SERIES ANALYSIS Current Meter 711
Part 1 of 2 (Continued)

TEMPERATURE STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 50.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 1004 GMT 16 AUG 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
7.36	2.03	1.42	1.09	3.17	12.00	5.71





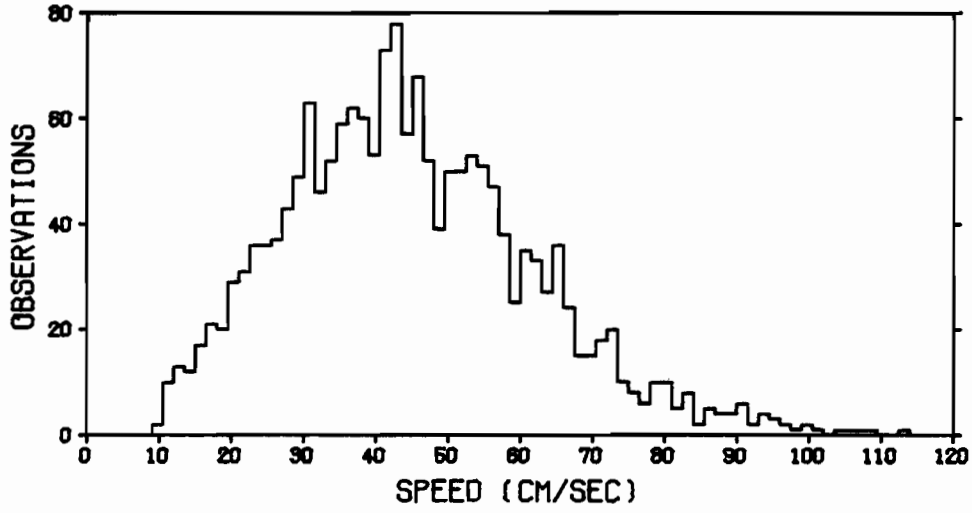

HOURLY AVERAGES OF TEMPERATURE DEPTH 50.0 METERS.
(DEG C)
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
17
AUG
74
20
25
30
1
SEP
74
5
10
15
(DEG C)
16
SEP
74
20
25
30
1
OCT
74
5
10
15

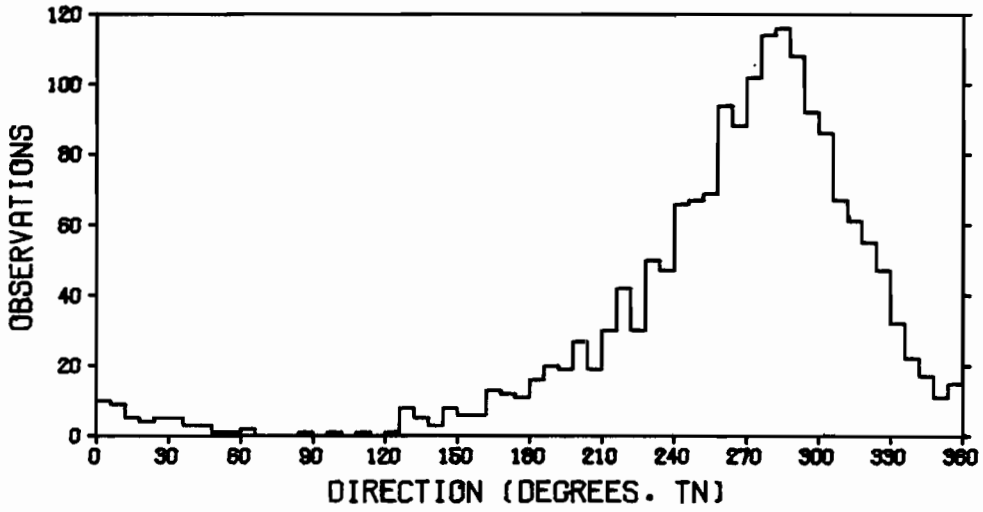
B.3. TIME SERIES ANALYSIS Current Meter 711 Nominal Depth: 50m
Part 2 of 2; 16 October - 21 November 1974

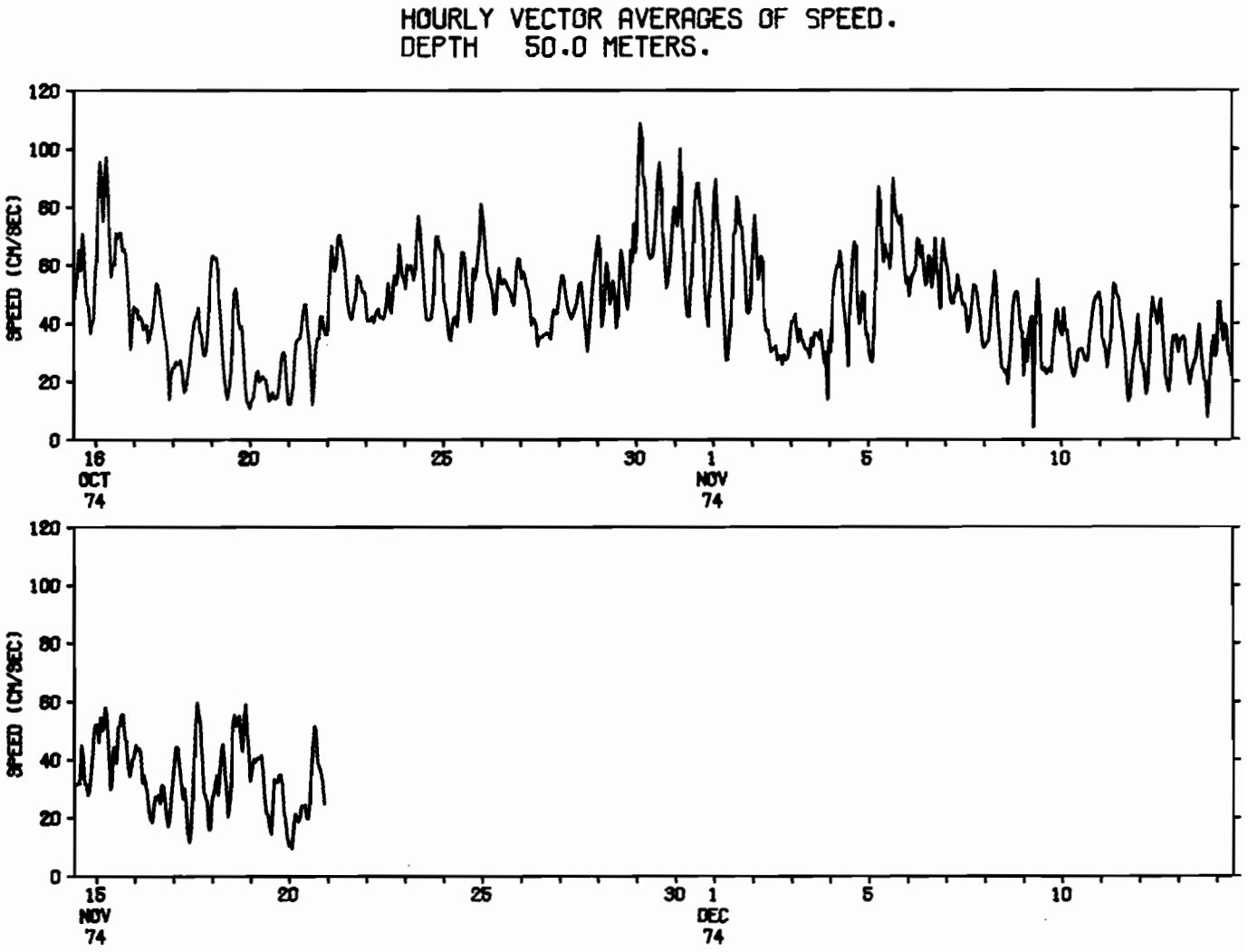
Mooring Designation NEGOA 61
Location: 59° 34.2'N 145° 47.7W
Sensors: Speed, Direction, Temperature

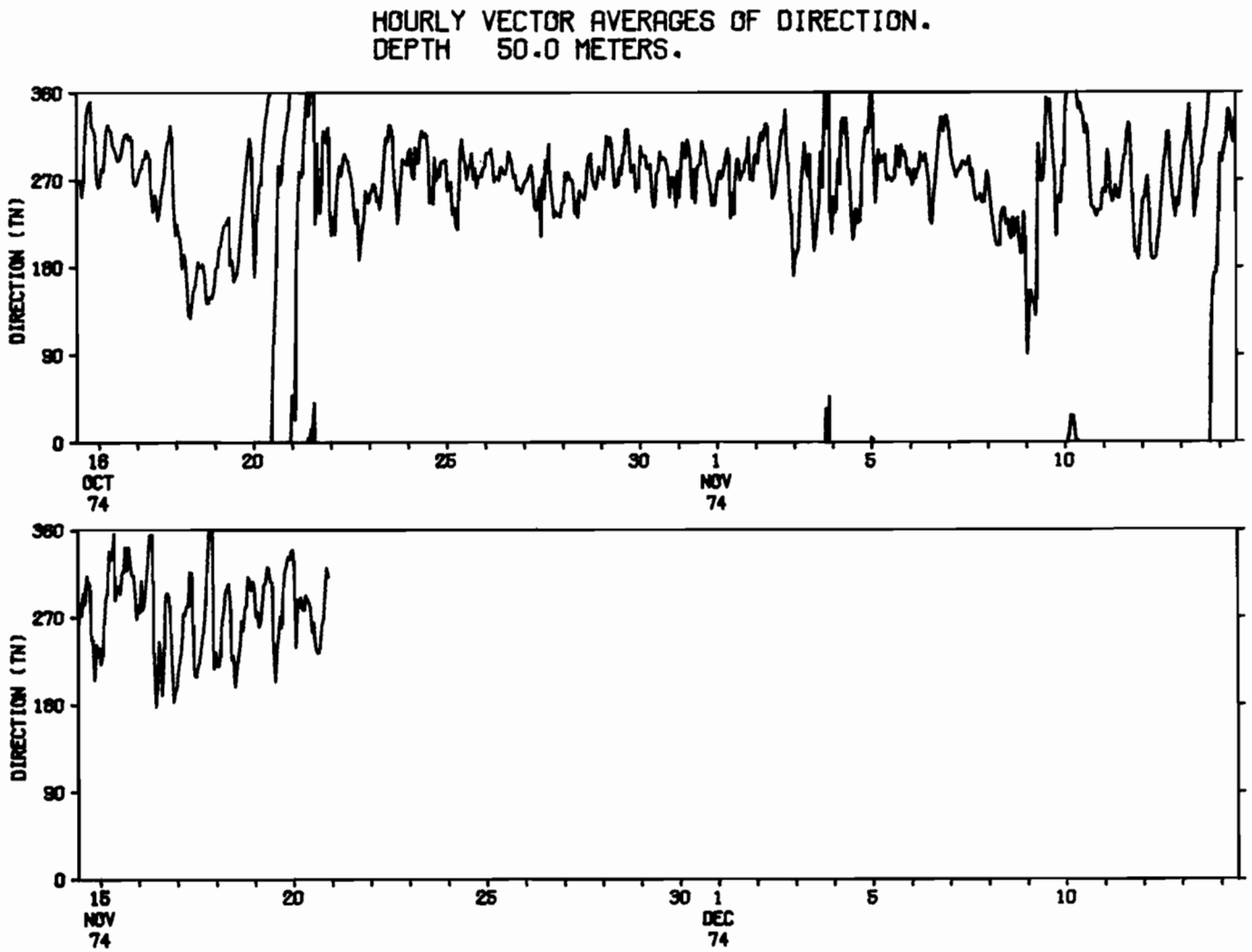
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	44.69	297.71	17.25	.557	3.31	113.57	10.25
U	-34.12	485.50	22.03	.172	3.11	33.21	-105.74
V	3.73	631.01	25.12	-.032	2.63	81.66	-63.49

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V

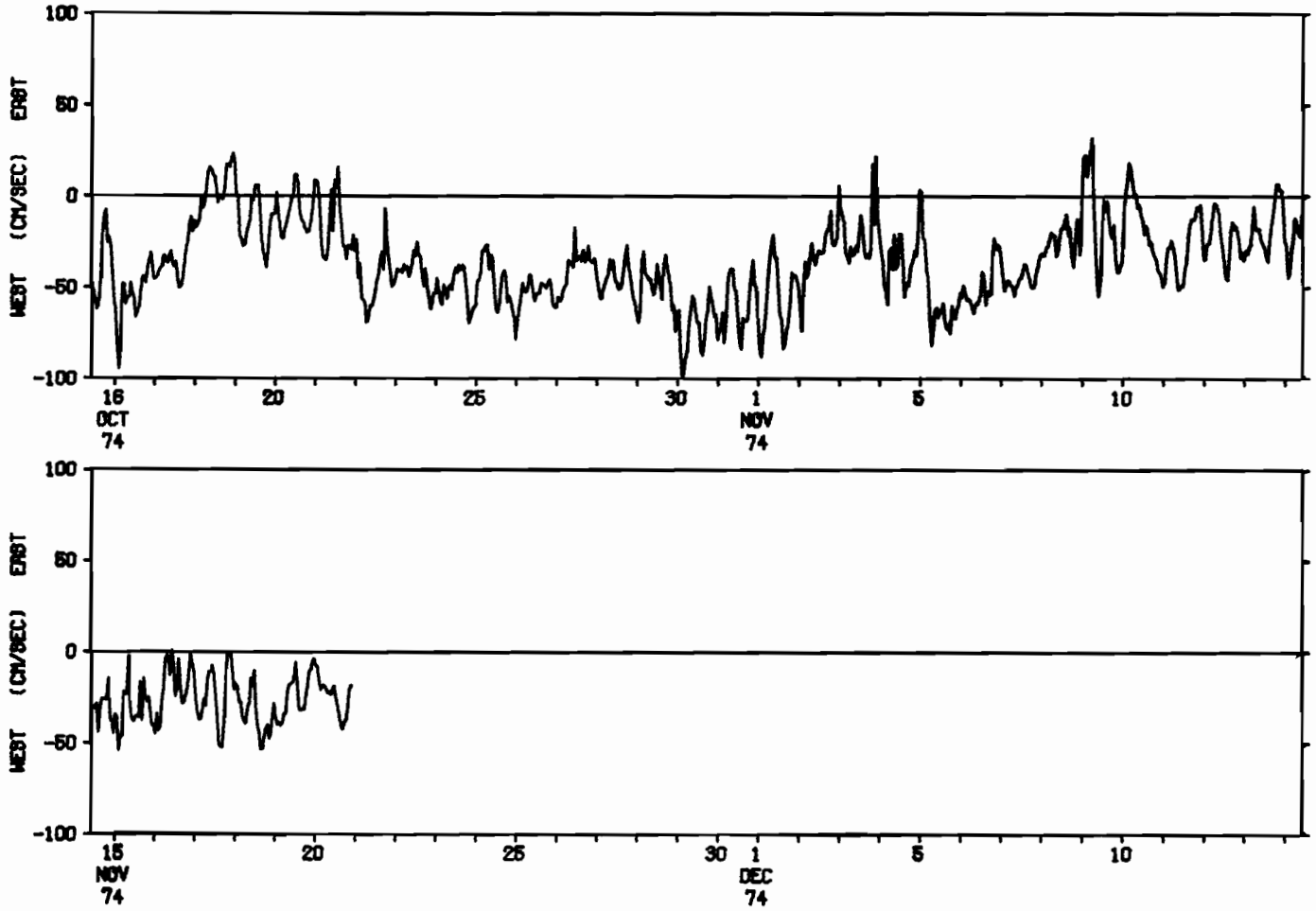




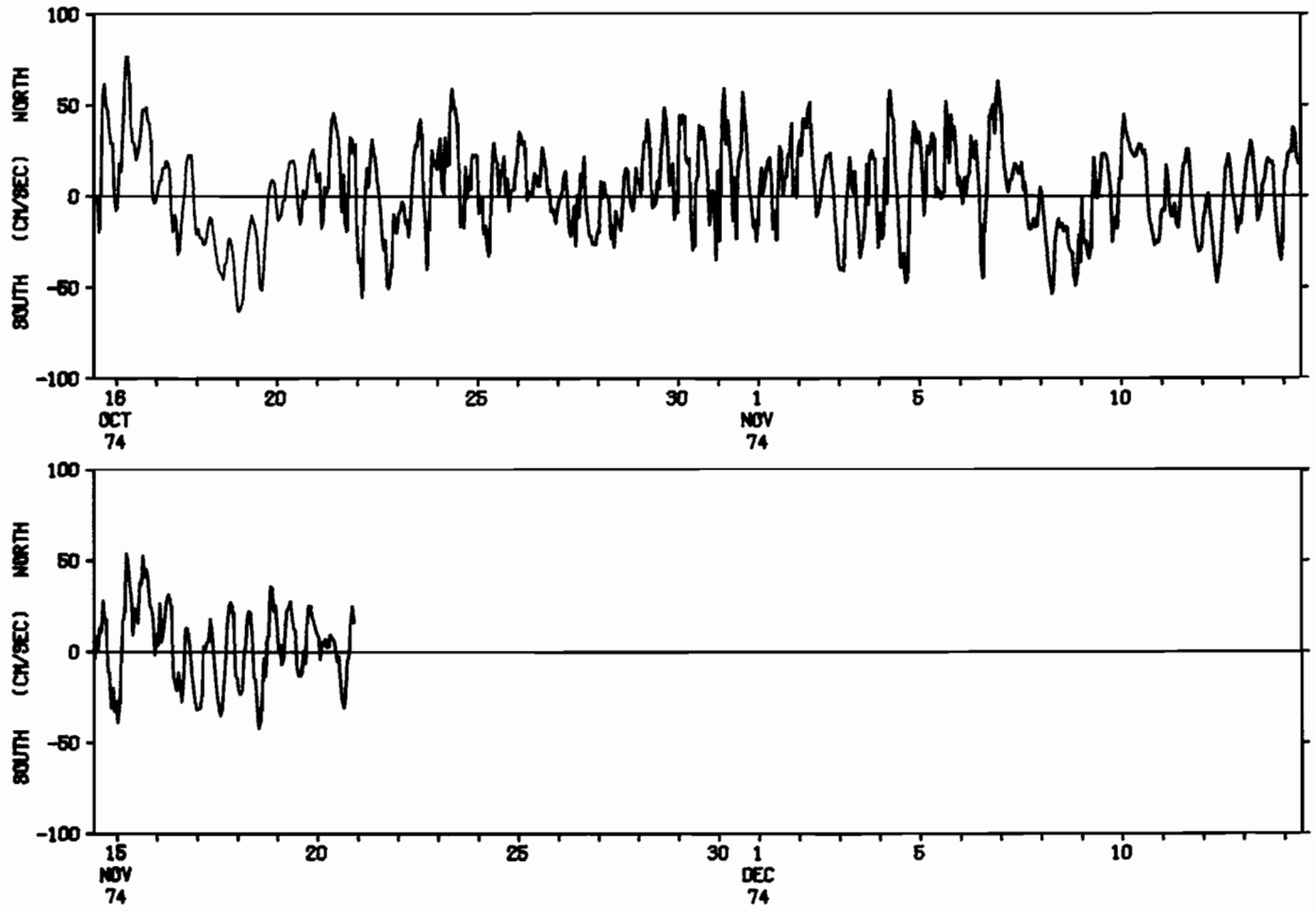

HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 50.0 METERS.
SPEED (CM/SEC)
120
100
80
60
40
20
0
16
OCT
74
20
25
30
1
NOV
74
5
10
SPEED (CM/SEC)
120
100
80
60
40
20
0
15
NOV
74
20
25
30
1
DEC
74
5
10


HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 50.0 METERS.
DIRECTION (TN)
360
270
180
90
0
16
OCT
74
20
25
30
1
NOV
74
5
10
DIRECTION (TN)
360
270
180
90
0
15
NOV
74
20
25
30
1
DEC
74
5
10

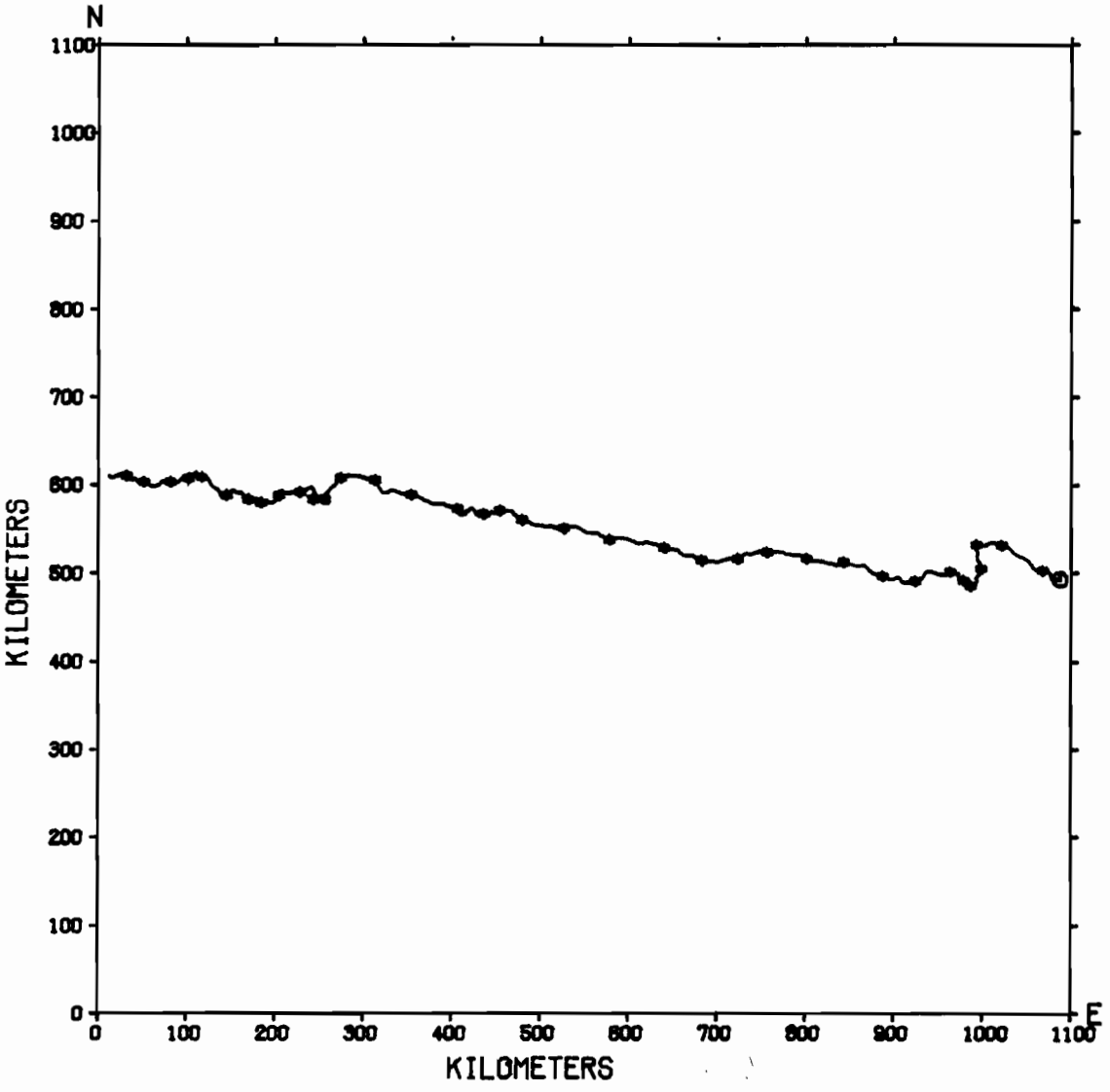
HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 50.0 METERS.



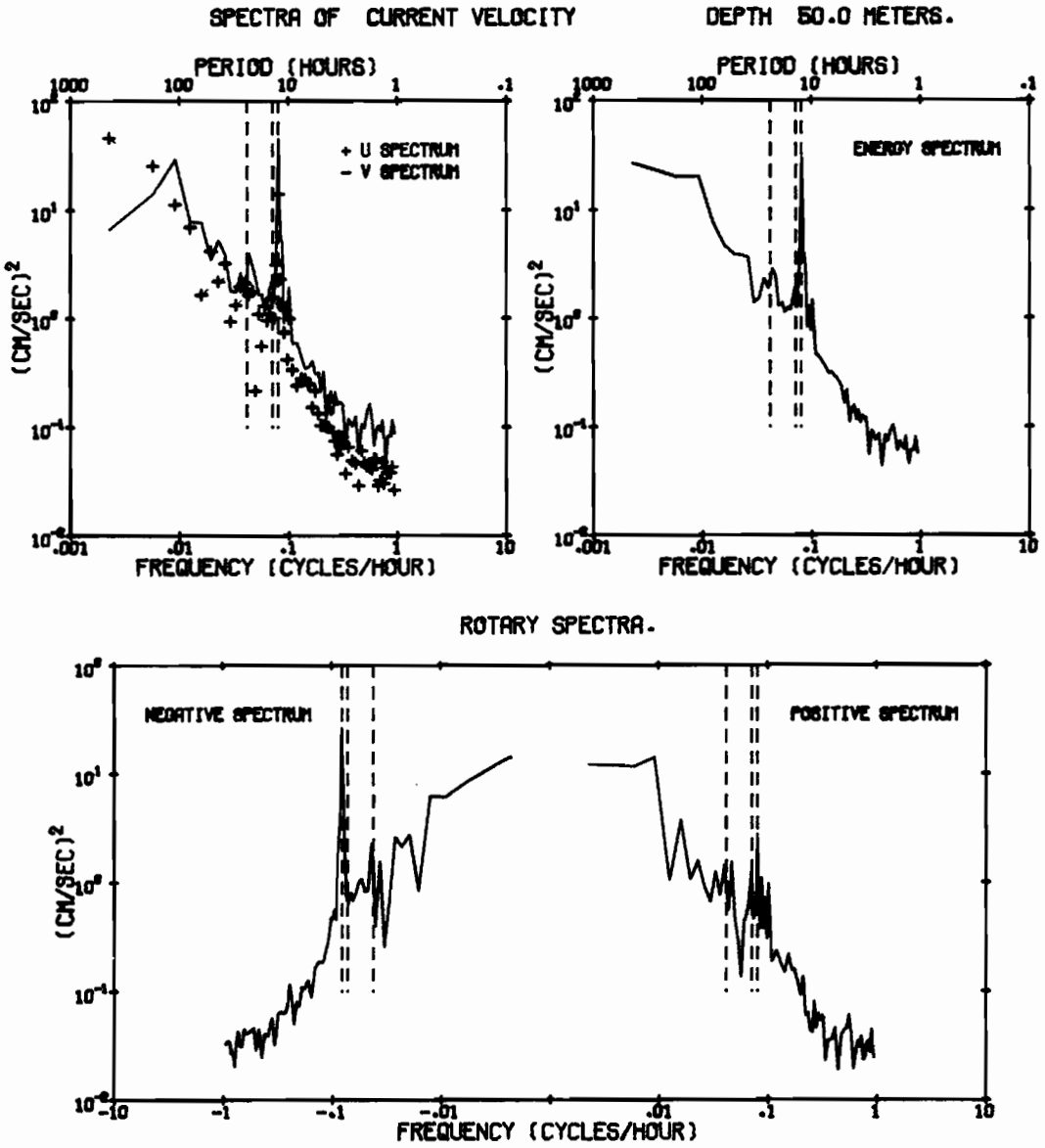
HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 50.0 METERS.



PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 61
OBSERVATION PERIOD 36.5 DAYS FROM 1004 GMT 15 OCT 74.
DEPTH 50.0 METERS.



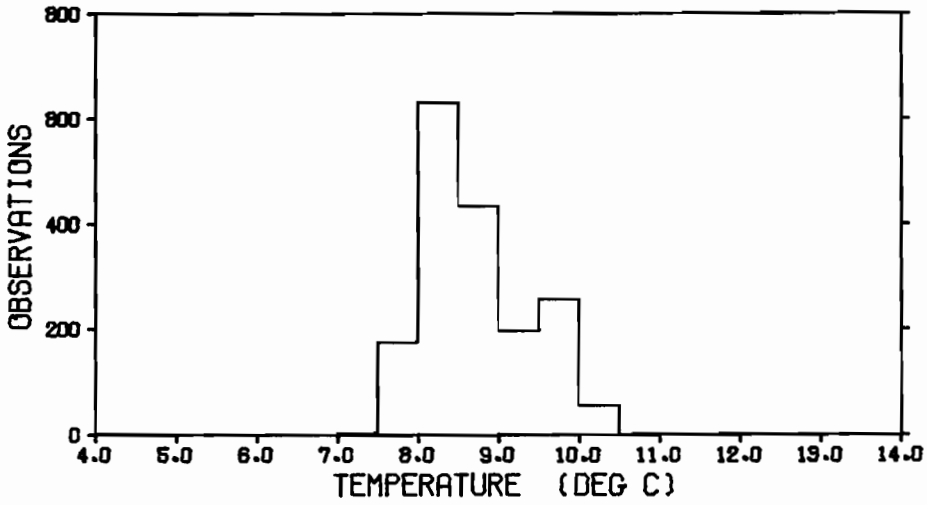
B.3. TIME SERIES ANALYSIS Current Meter 711
Part 2 of 2 (Continued)

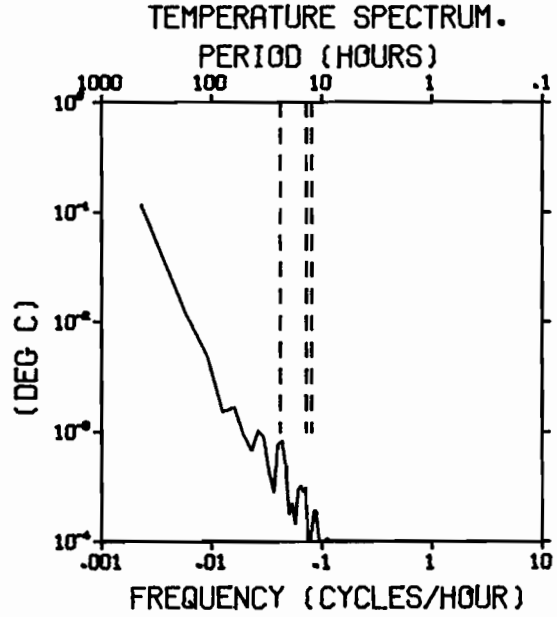


B.3. TIME SERIES ANALYSIS Current Meter 711
Part 2 of 2 (Continued)

TEMPERATURE STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 50.0 METERS NUMBER OF OBSERVATIONS = 1753
OBSERVATION PERIOD 36.5 DAYS FROM 1004 GMT 15 OCT 74

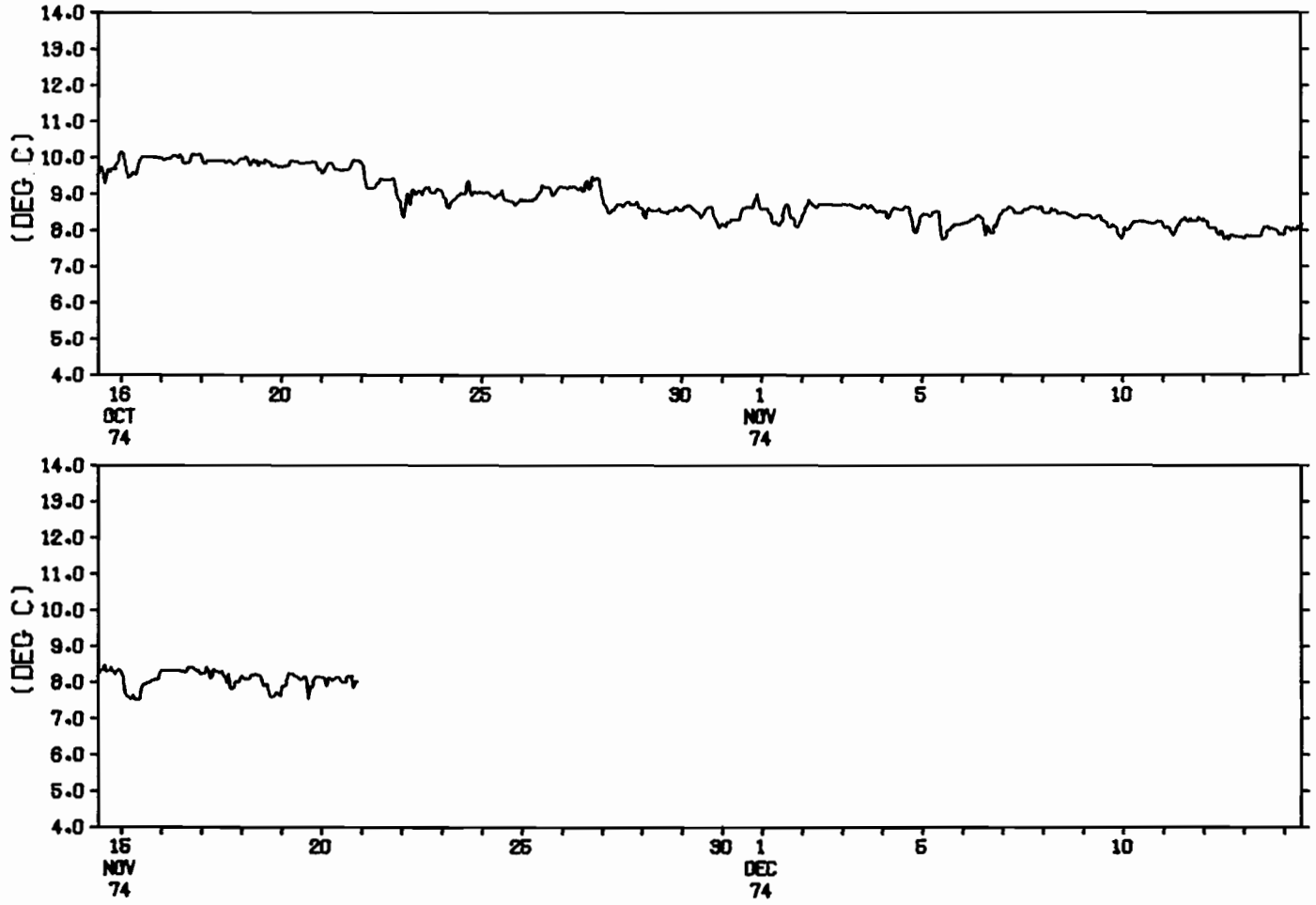
MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
8.70	.44	.66	.65	2.35	10.26	7.45





B.3. TIME SERIES ANALYSIS Current Meter 711 Part 2 of 2 (Continued)

HOURLY AVERAGES OF TEMPERATURE DEPTH 50.0 METERS.

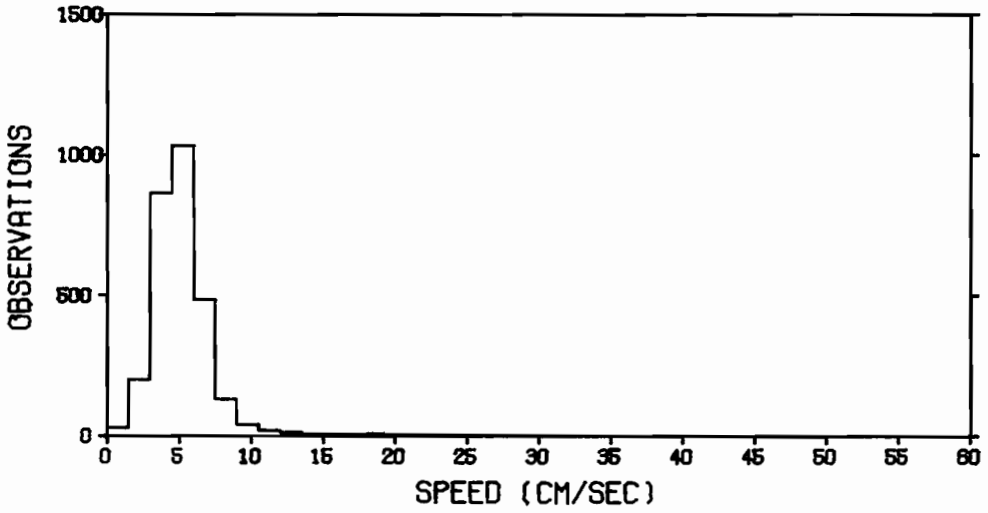


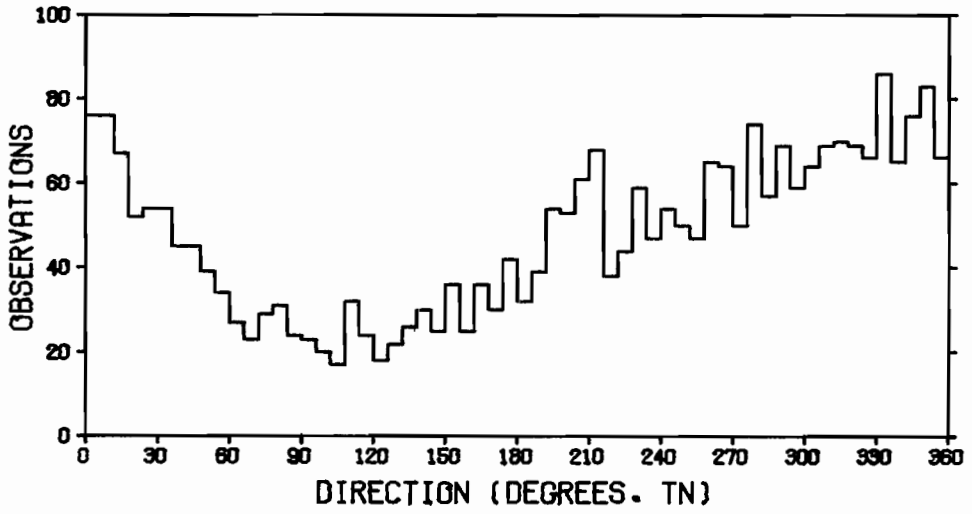
B.4. TIME SERIES ANALYSIS Current Meter 603 Nominal Depth: 100m
Part 1 of 2; 16 August - 21 November 1974

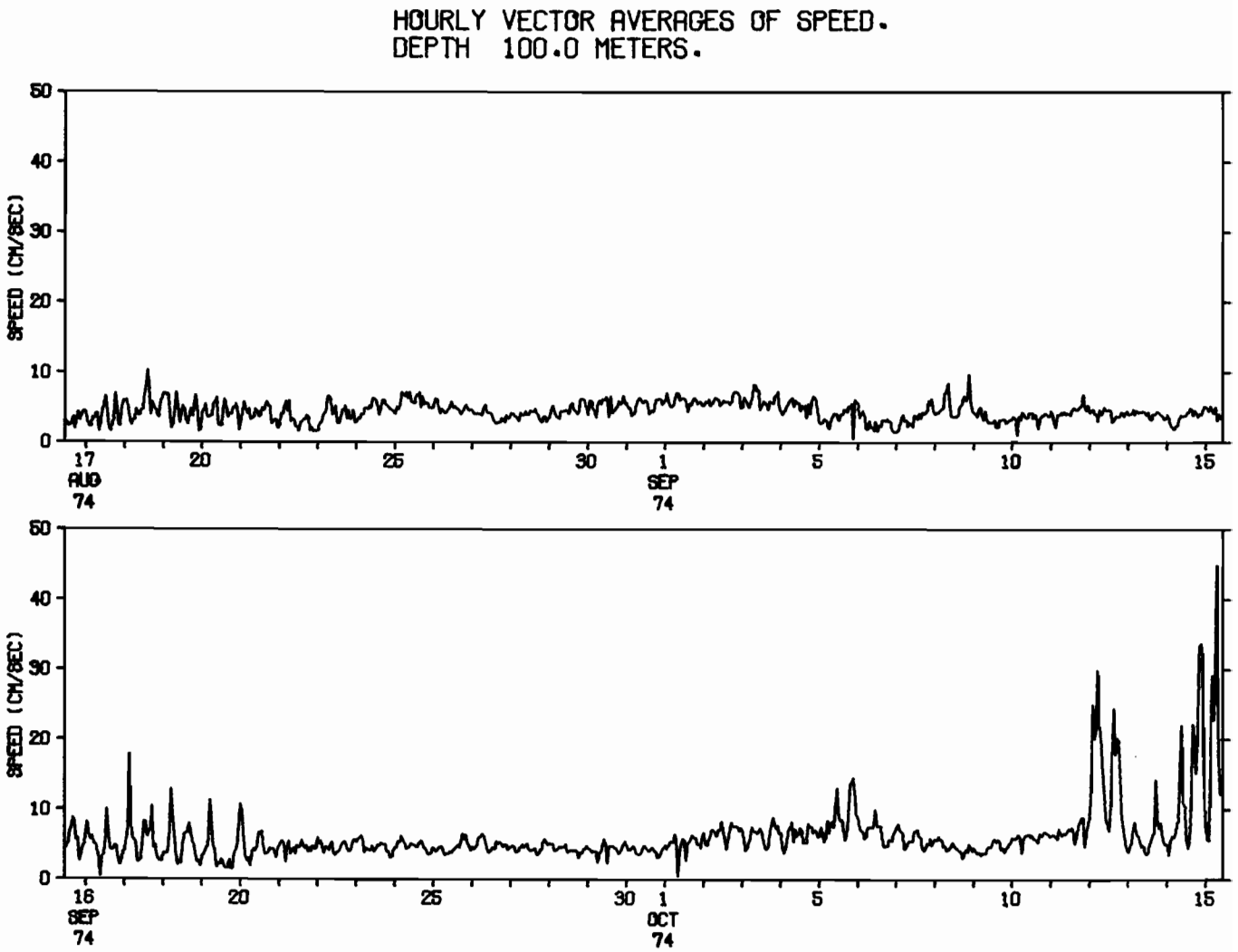
Mooring Designation NEGOA 61
Location: 59° 34.2'N 145° 47.7W
Sensors: Speed, Direction, Temperature

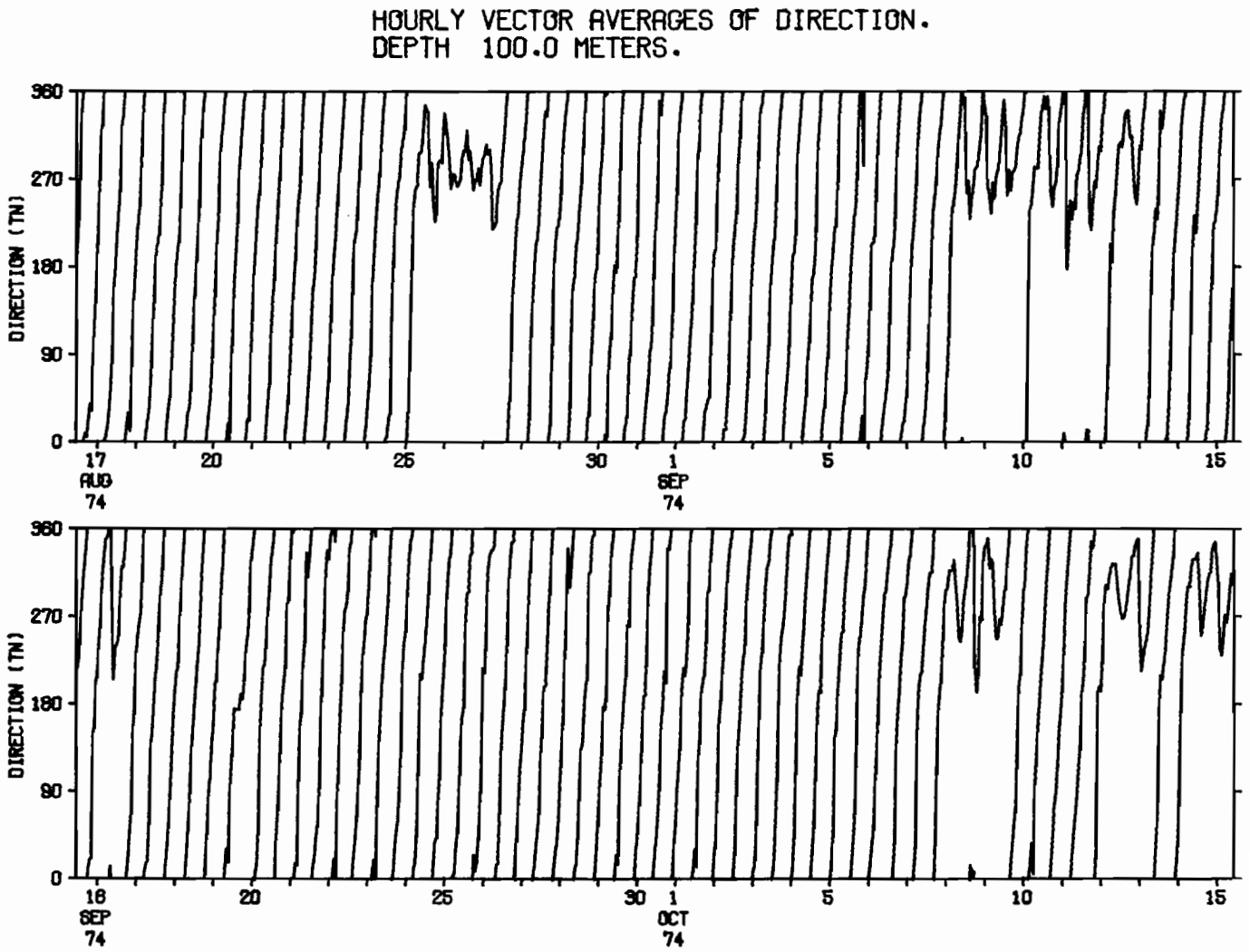
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	5.40	10.89	3.30	5.299	44.65	50.15	1.50
U	-1.45	18.91	4.35	-2.036	16.12	8.02	-50.06
V	.94	18.19	4.27	.769	7.12	34.88	-10.94

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V



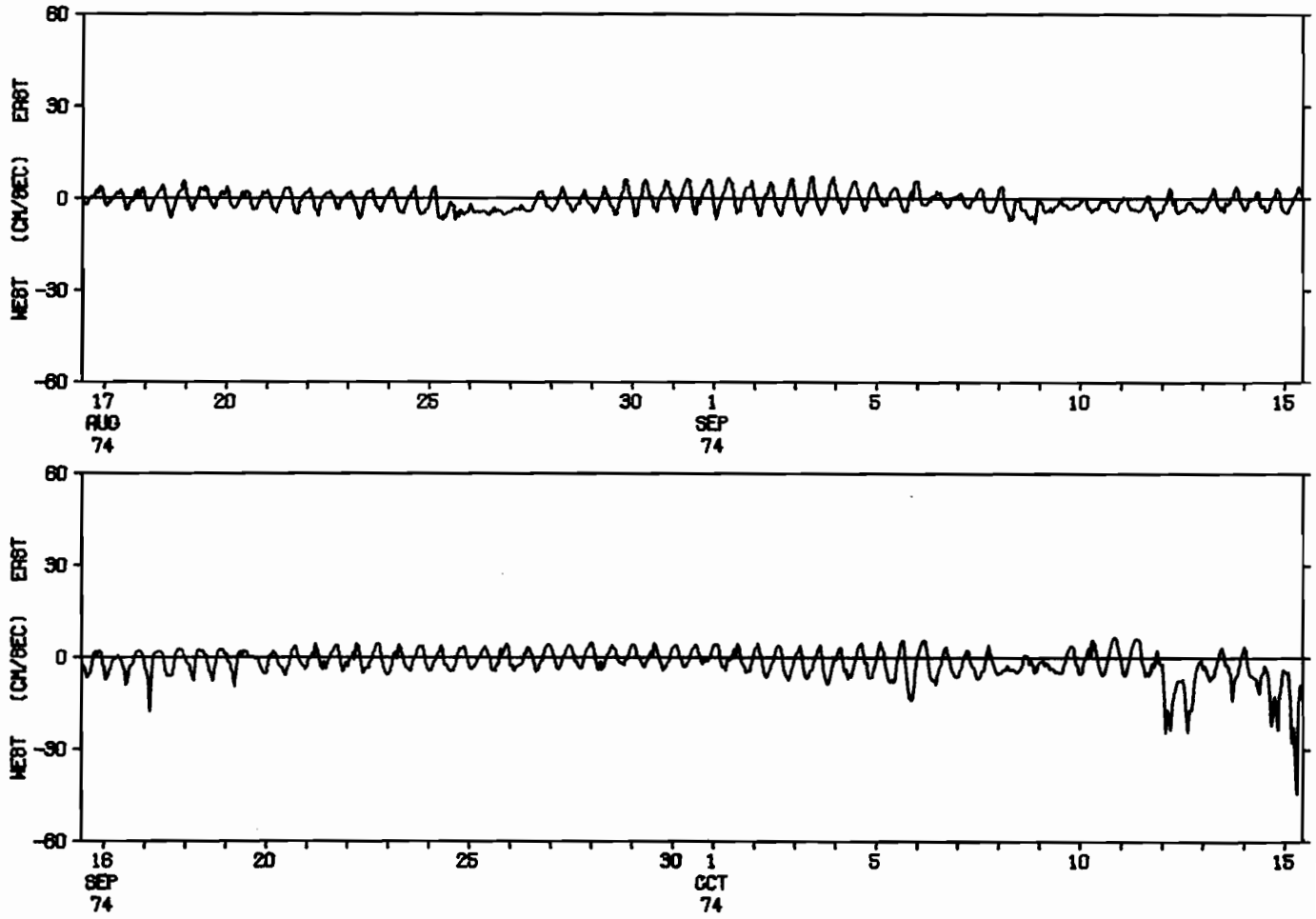



HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 100.0 METERS.
SPEED (CM/SEC)
0
10
20
30
40
50
17
AUG
74
20
25
30
1
SEP
74
5
10
15
SPEED (CM/SEC)
16
SEP
74
20
25
30
1
OCT
74
5
10
15

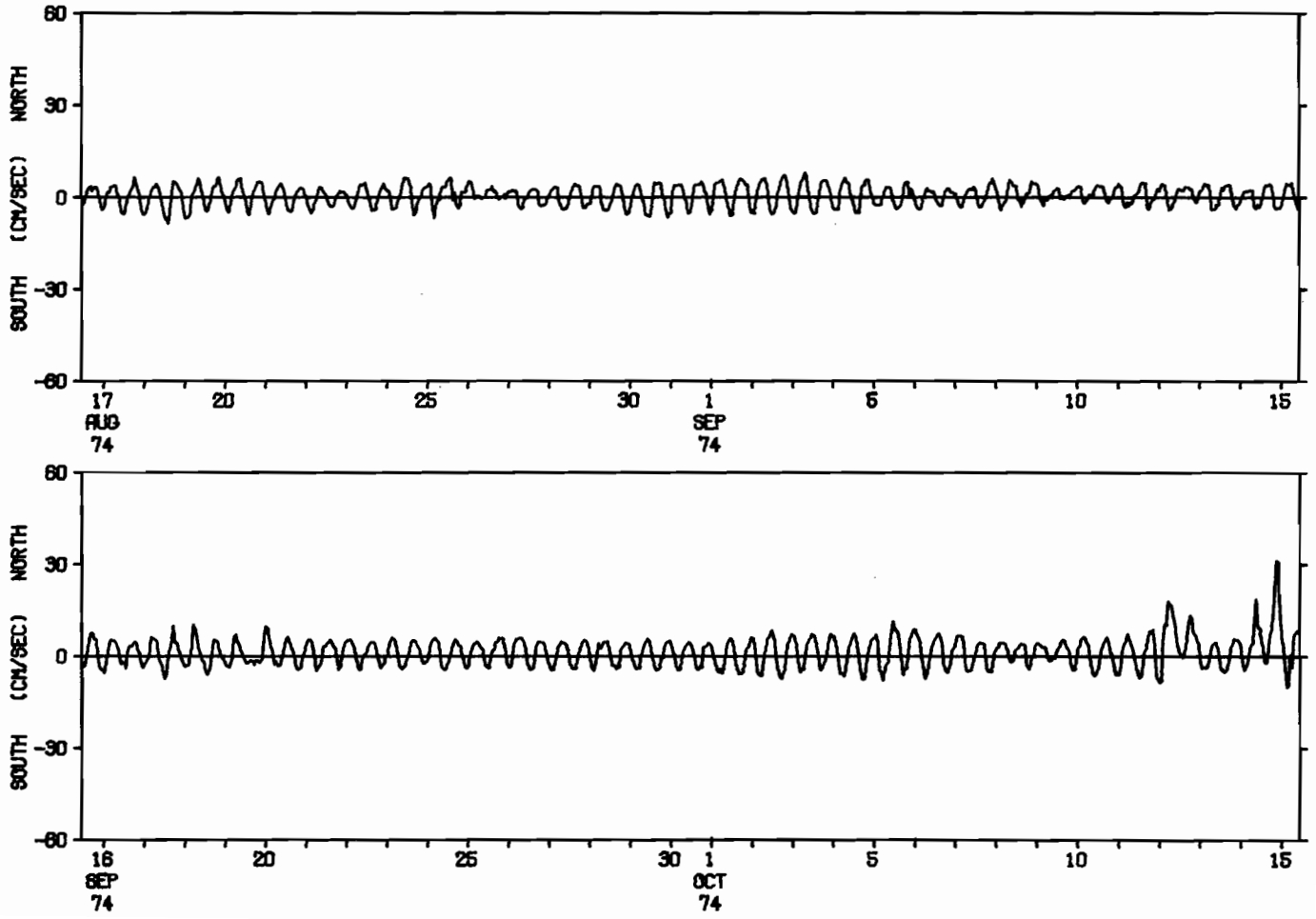

HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 100.0 METERS.
DIRECTION (TN)
360
270
180
90
0
17
AUG
74
20
25
30
1
SEP
74
5
10
15
DIRECTION (TN)
360
270
180
90
0
16
SEP
74
20
25
30
1
OCT
74
5
10
15

B.4. TIME SERIES ANALYSIS Current Meter 603 Part 1 of 2 (Continued)

HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 100.0 METERS.

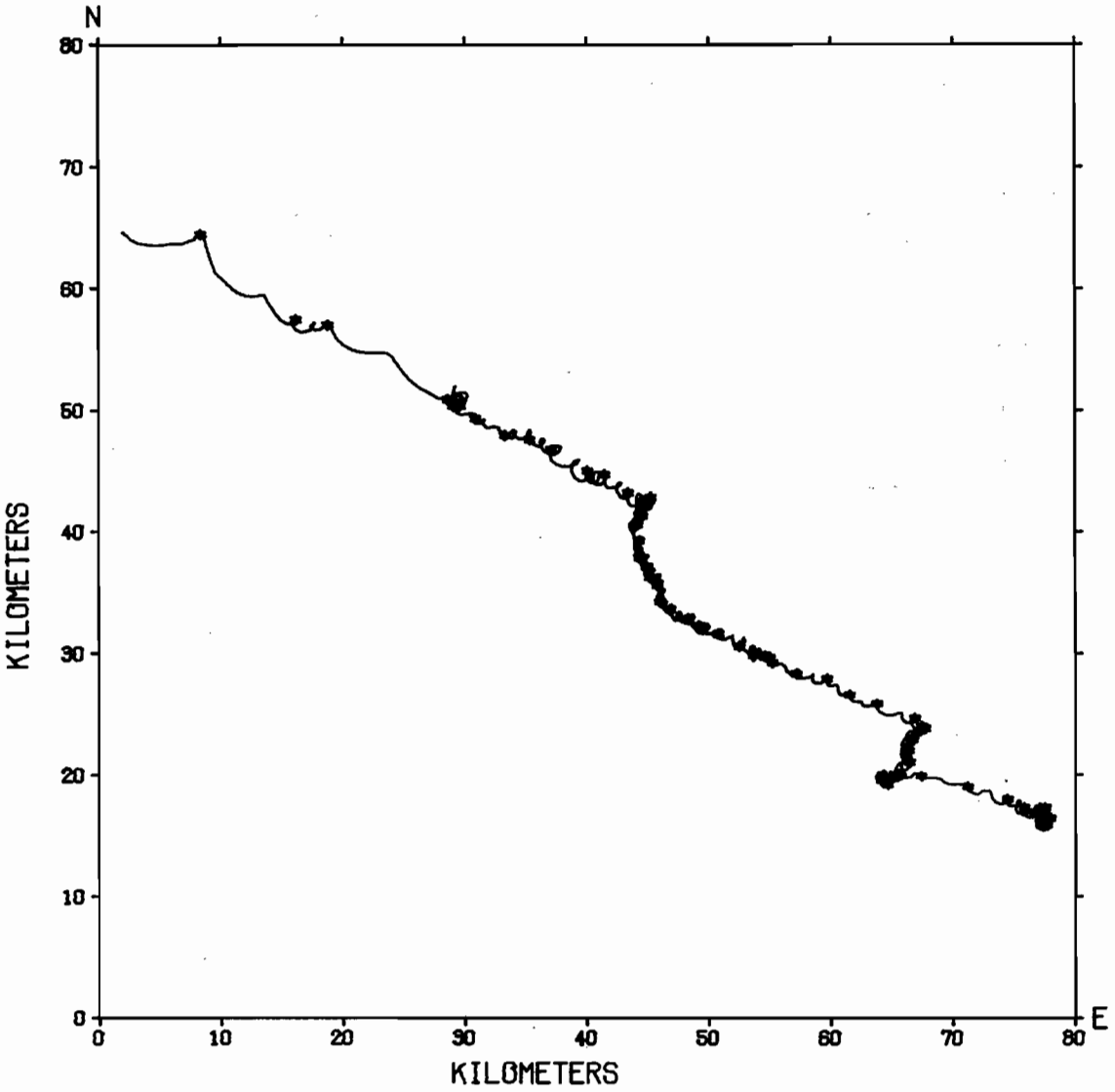


HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 100.0 METERS

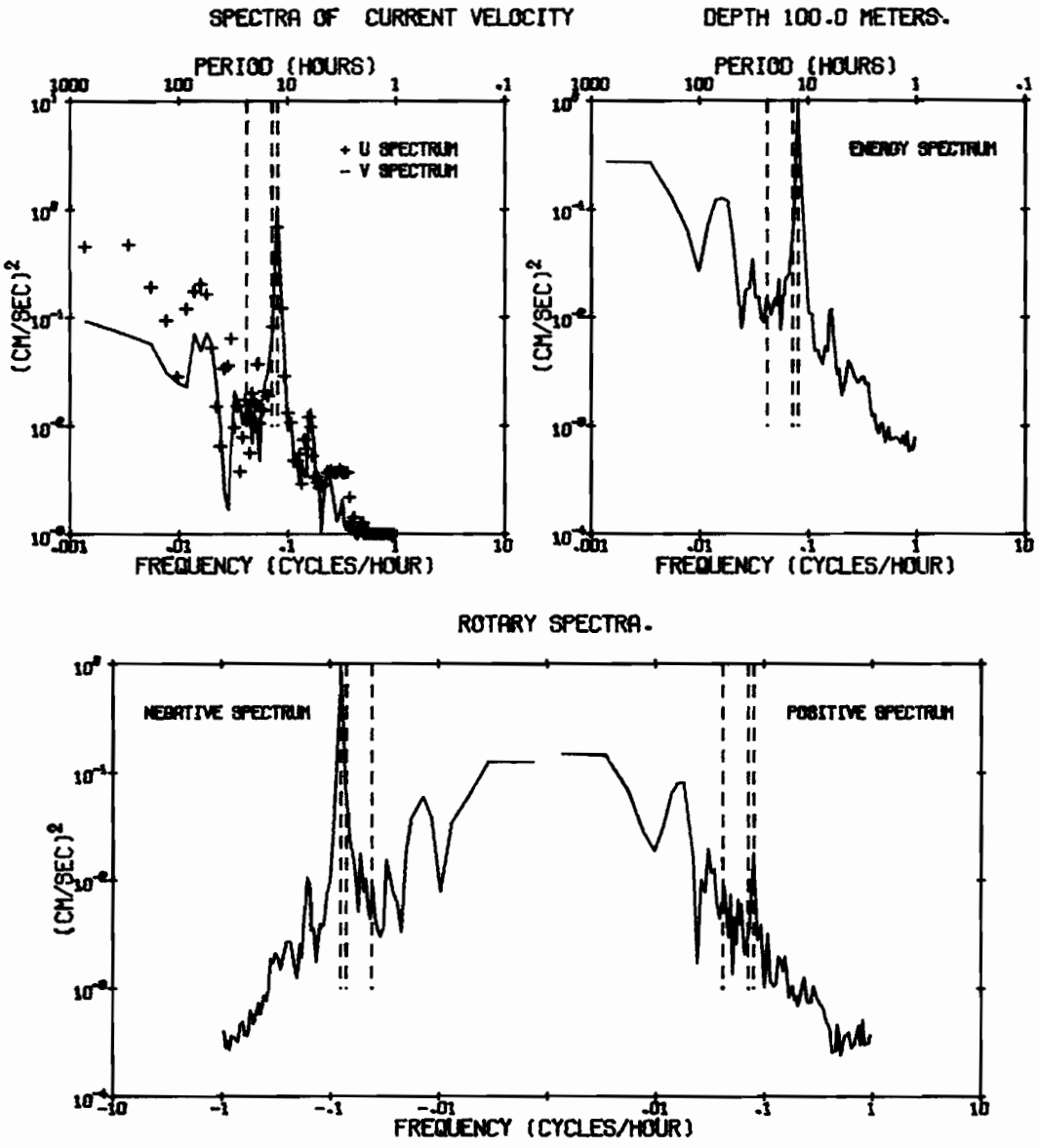


B.4. TIME SERIES ANALYSIS Current Meter 603
Part 1 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 61
OBSERVATION PERIOD 60.0 DAYS FROM 1036 GMT 16 AUG 74.
DEPTH 100.0 METERS.



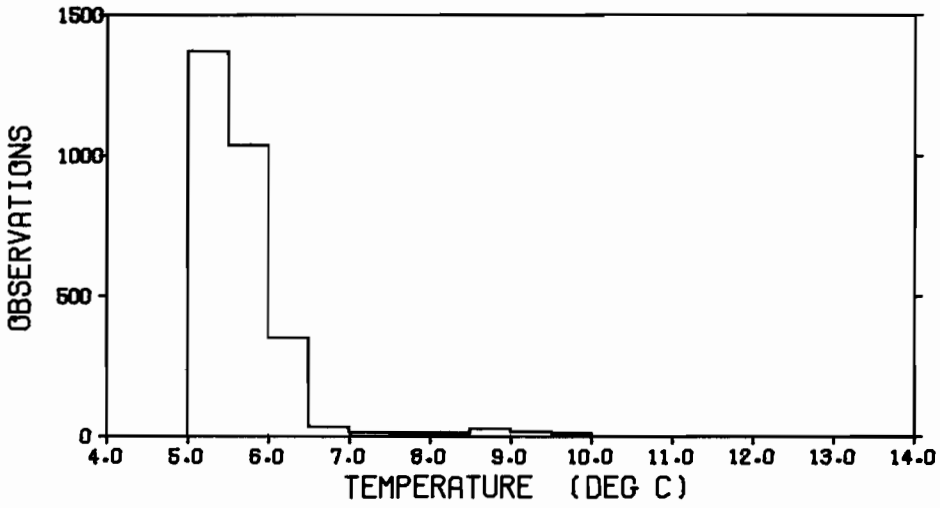
B.4. TIME SERIES ANALYSIS Current Meter 603
Part 1 of 2 (Continued)

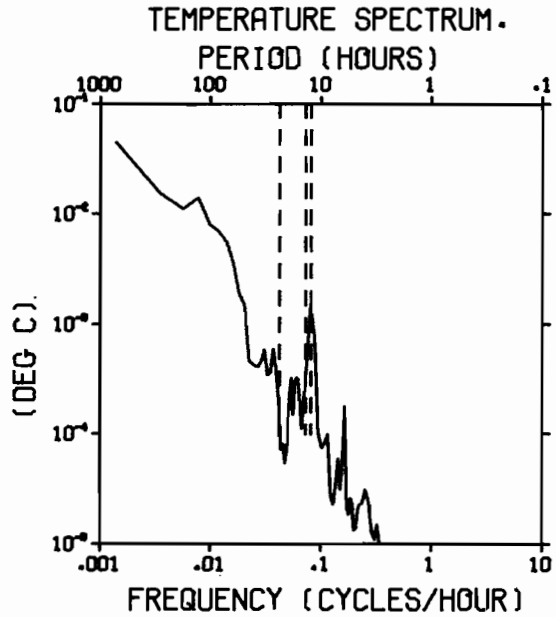


B.4. TIME SERIES ANALYSIS Current Meter 603
Part 1 of 2 (Continued)

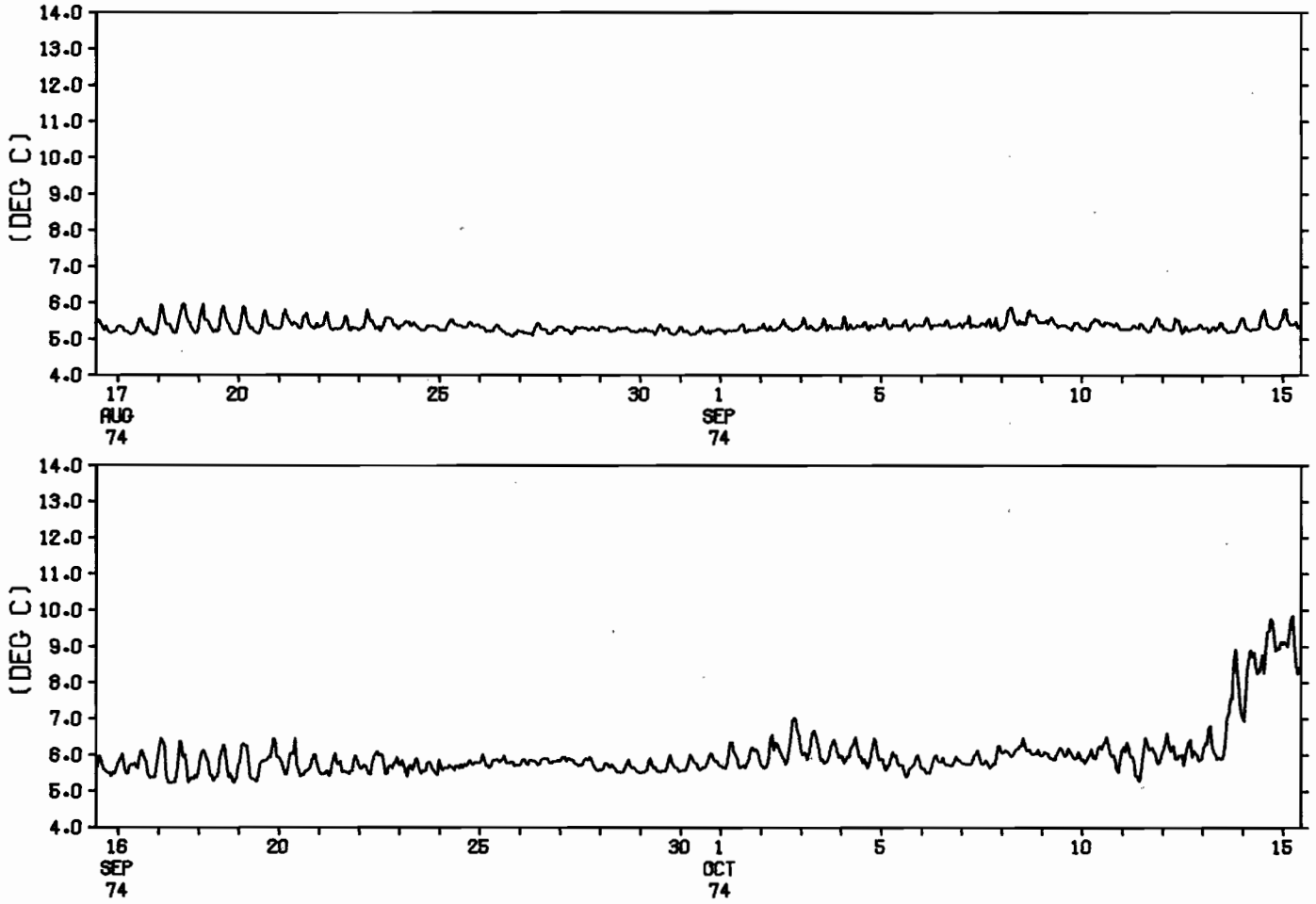
TEMPERATURE STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 100.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 1036 GMT 16 AUG 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
5.68	.40	.63	3.65	19.89	9.86	5.05





HOURLY AVERAGES OF TEMPERATURE DEPTH 100.0 METERS.

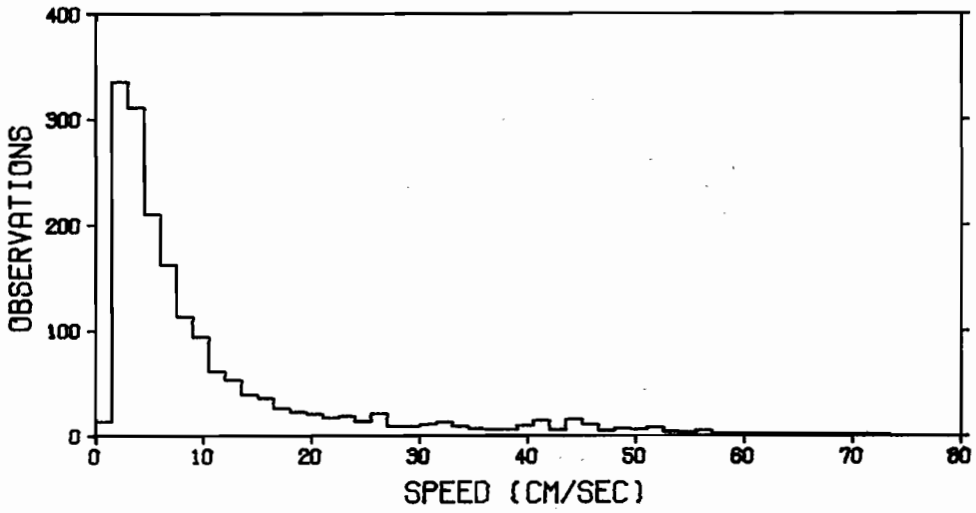


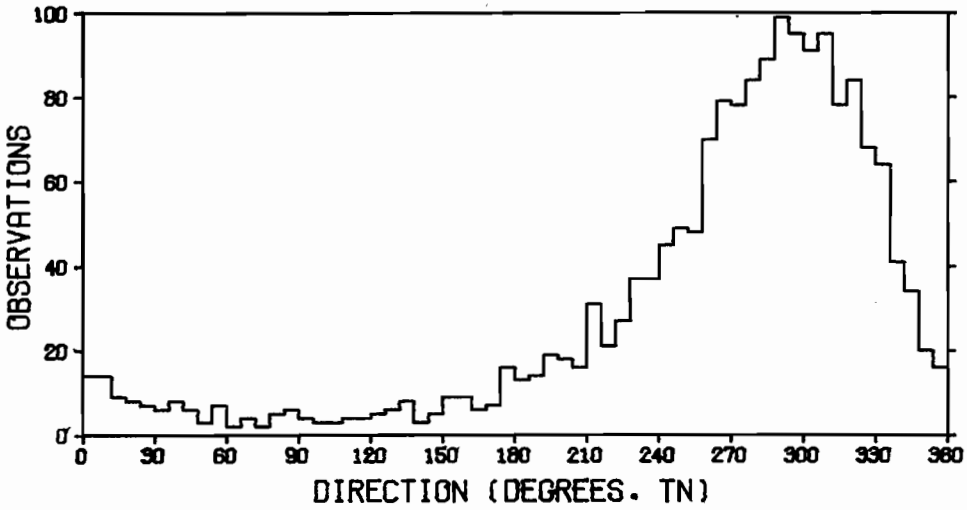
B.4. TIME SERIES ANALYSIS Current Meter 603 Nominal Depth: 100m
Part 2 of 2; 16 October - 21 November 1974

Mooring Designation NEGOA 61
Location: 59° 34.2'N 145° 47.7'W
Sensors: Speed, Direction, Temperature

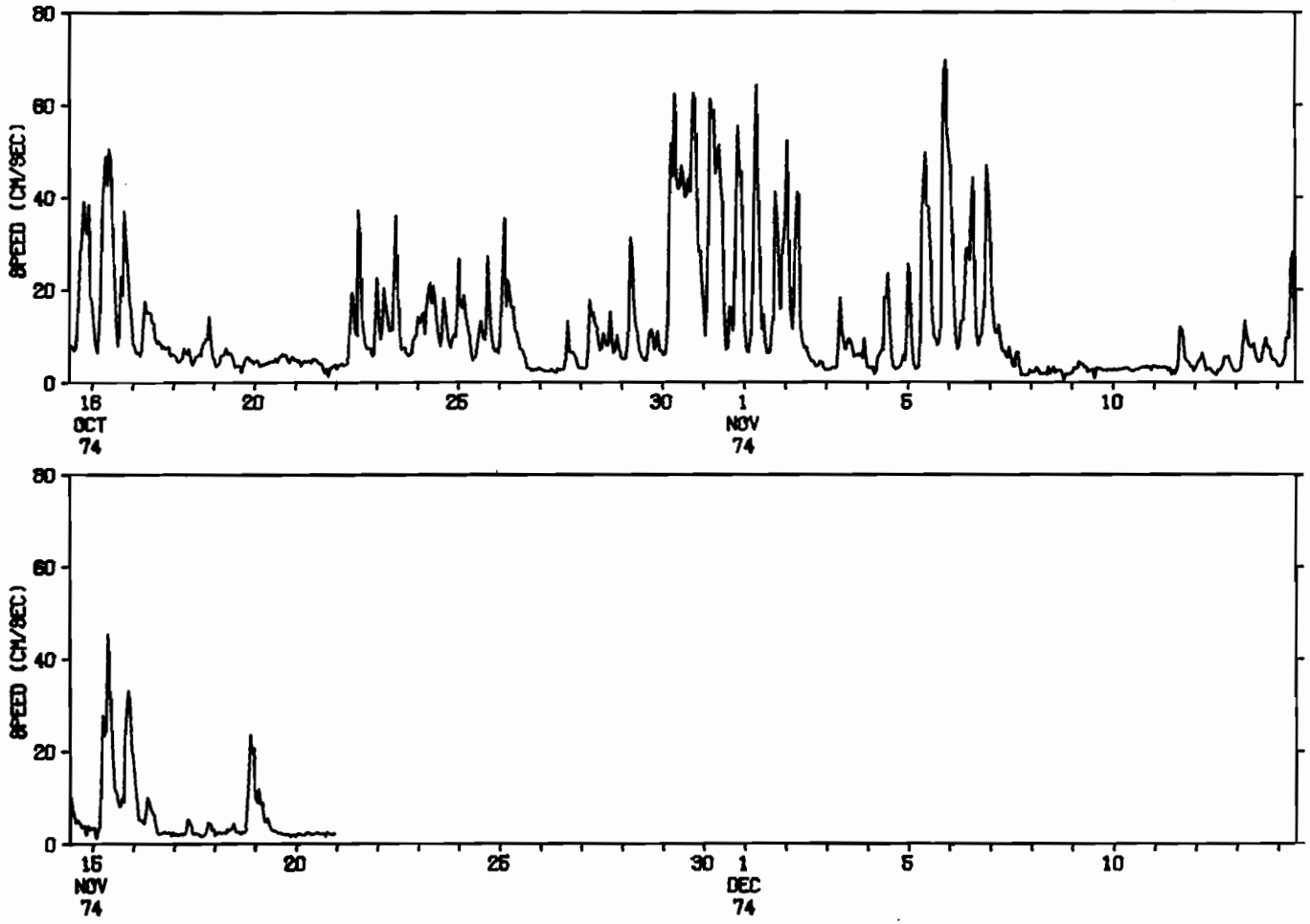
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	10.95	156.13	12.50	2.204	7.64	72.29	1.50
U	-8.15	130.83	11.44	-2.203	8.23	6.37	-71.46
V	3.33	67.56	8.22	1.973	9.12	52.79	-26.57

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V

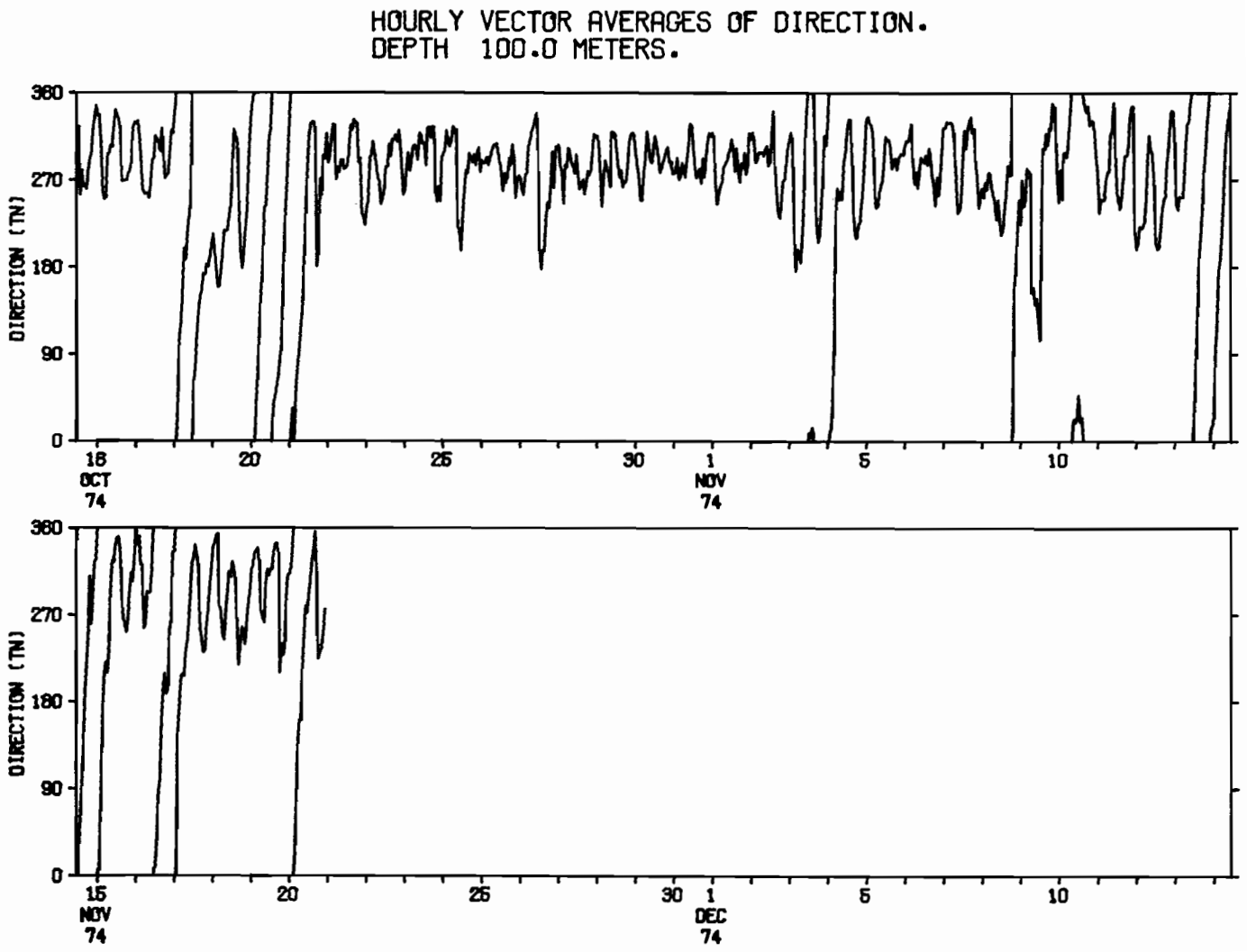




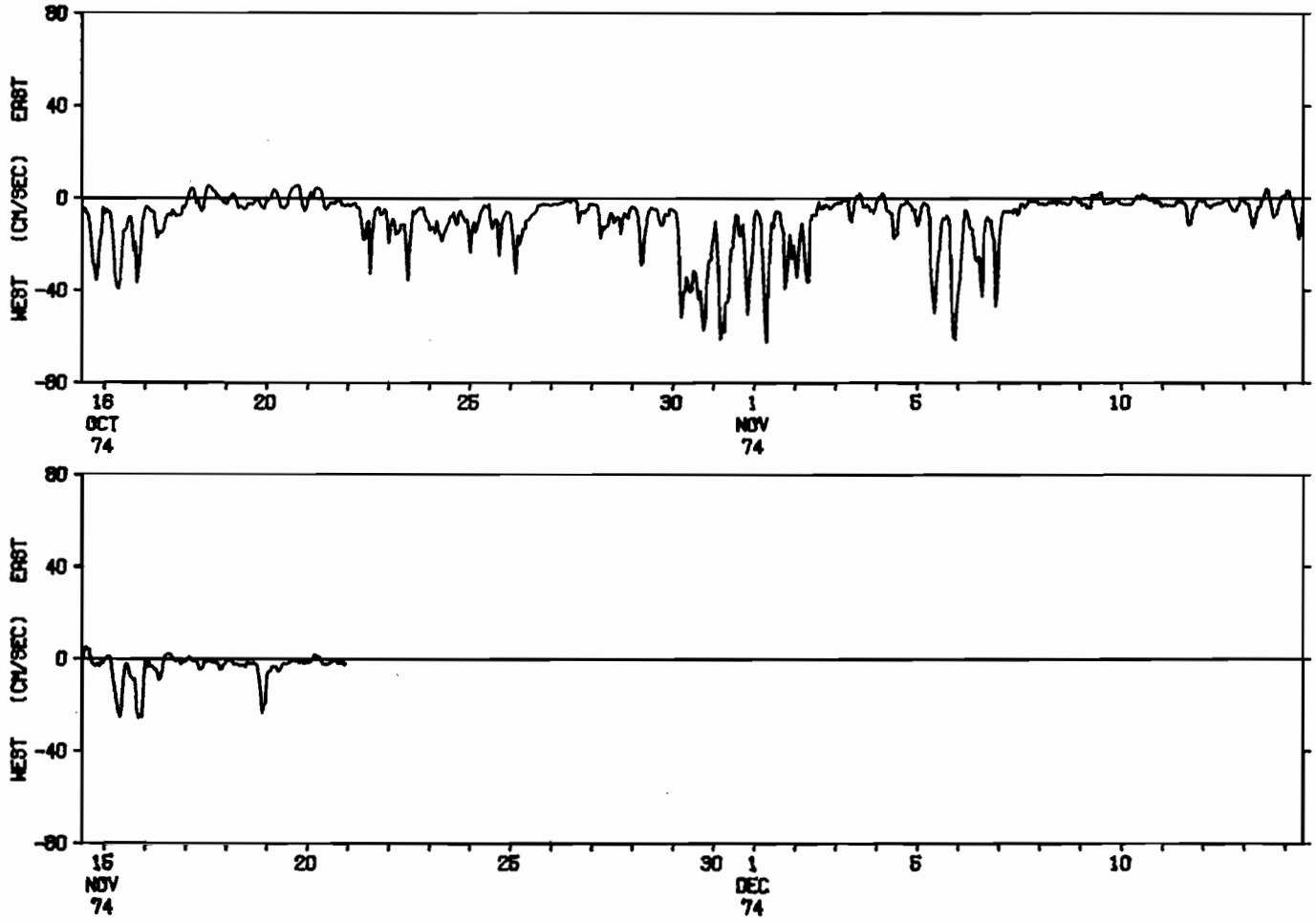
HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 100.0 METERS.



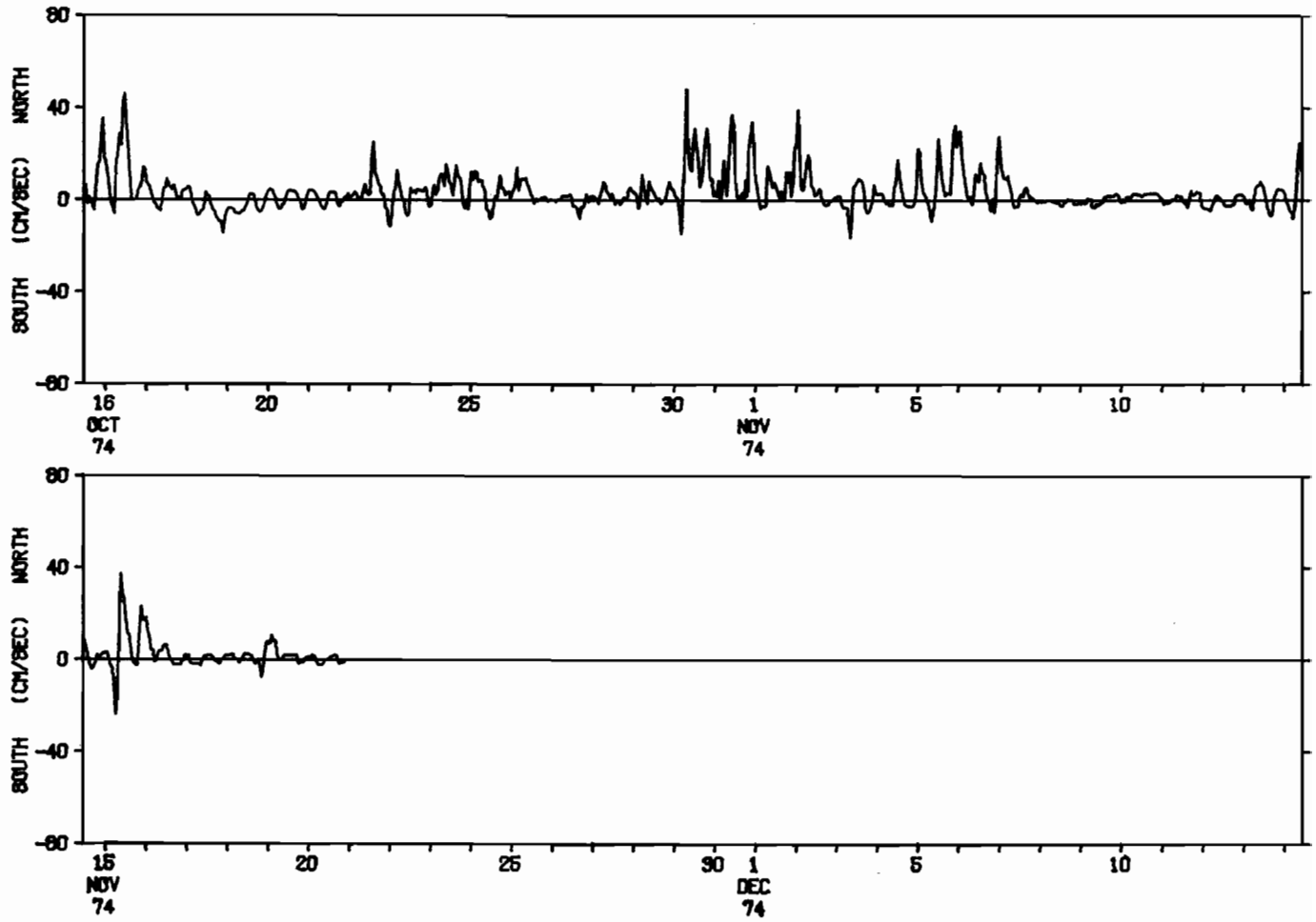
B.4. TIME SERIES ANALYSIS Current Meter 603 Part 2 of 2 (Continued)



HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 100.0 METERS.

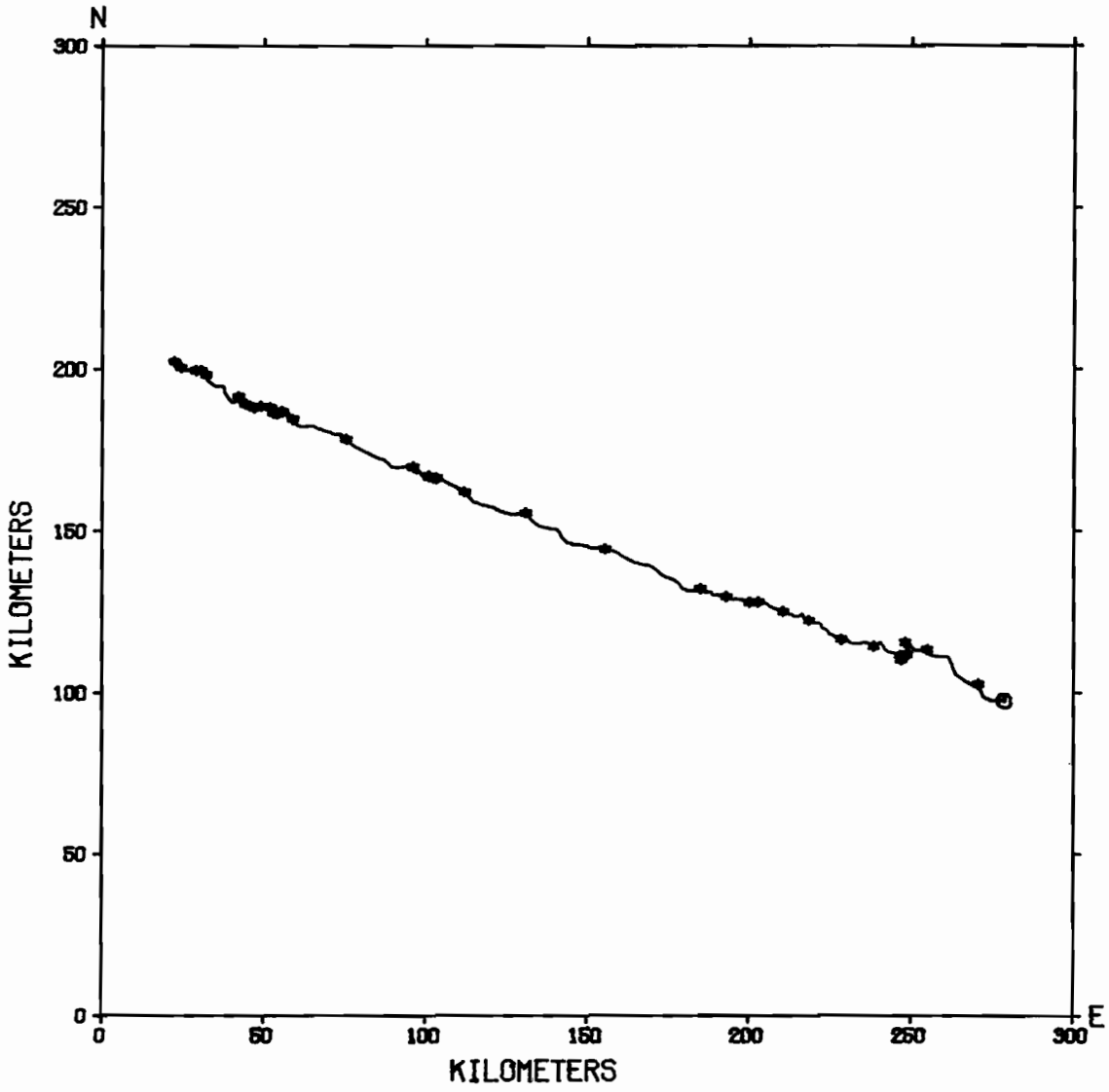


HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 100.0 METERS.

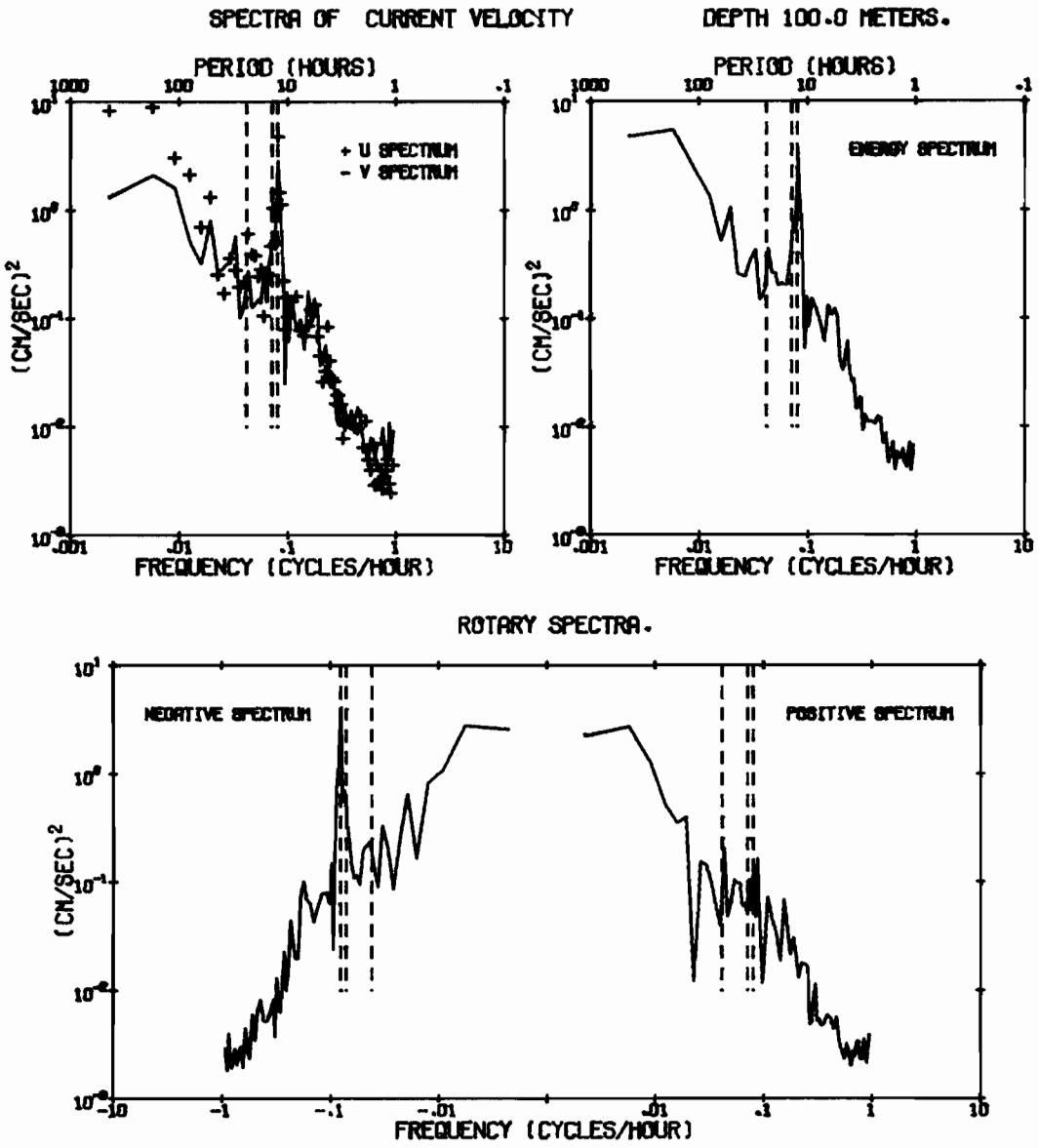


B.4. TIME SERIES ANALYSIS Current Meter 603
Part 2 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 61
OBSERVATION PERIOD 36.5 DAYS FROM 1036 GMT 15 OCT 74.
DEPTH 100.0 METERS.



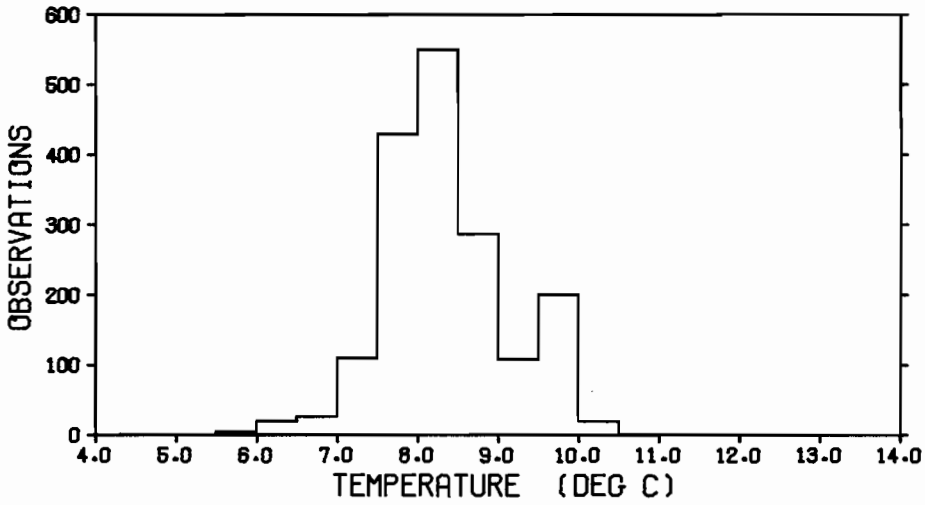
B.4. TIME SERIES ANALYSIS Current Meter 604
Part 2 of 2 (Continued)

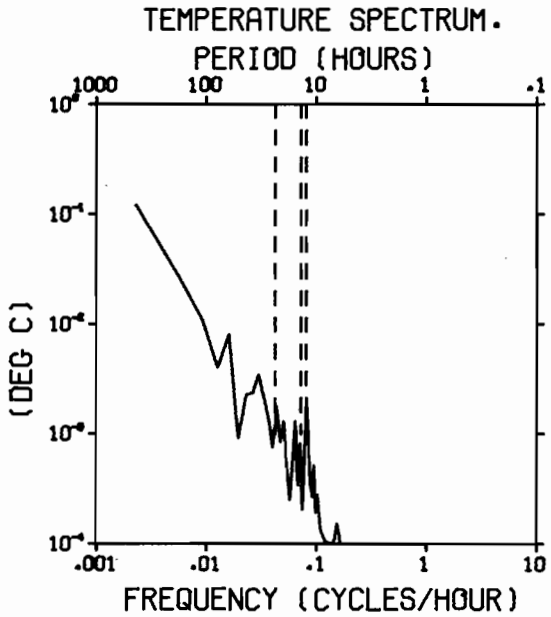


B.4. TIME SERIES ANALYSIS Current Meter 603
Part 2 of 2 (Continued)

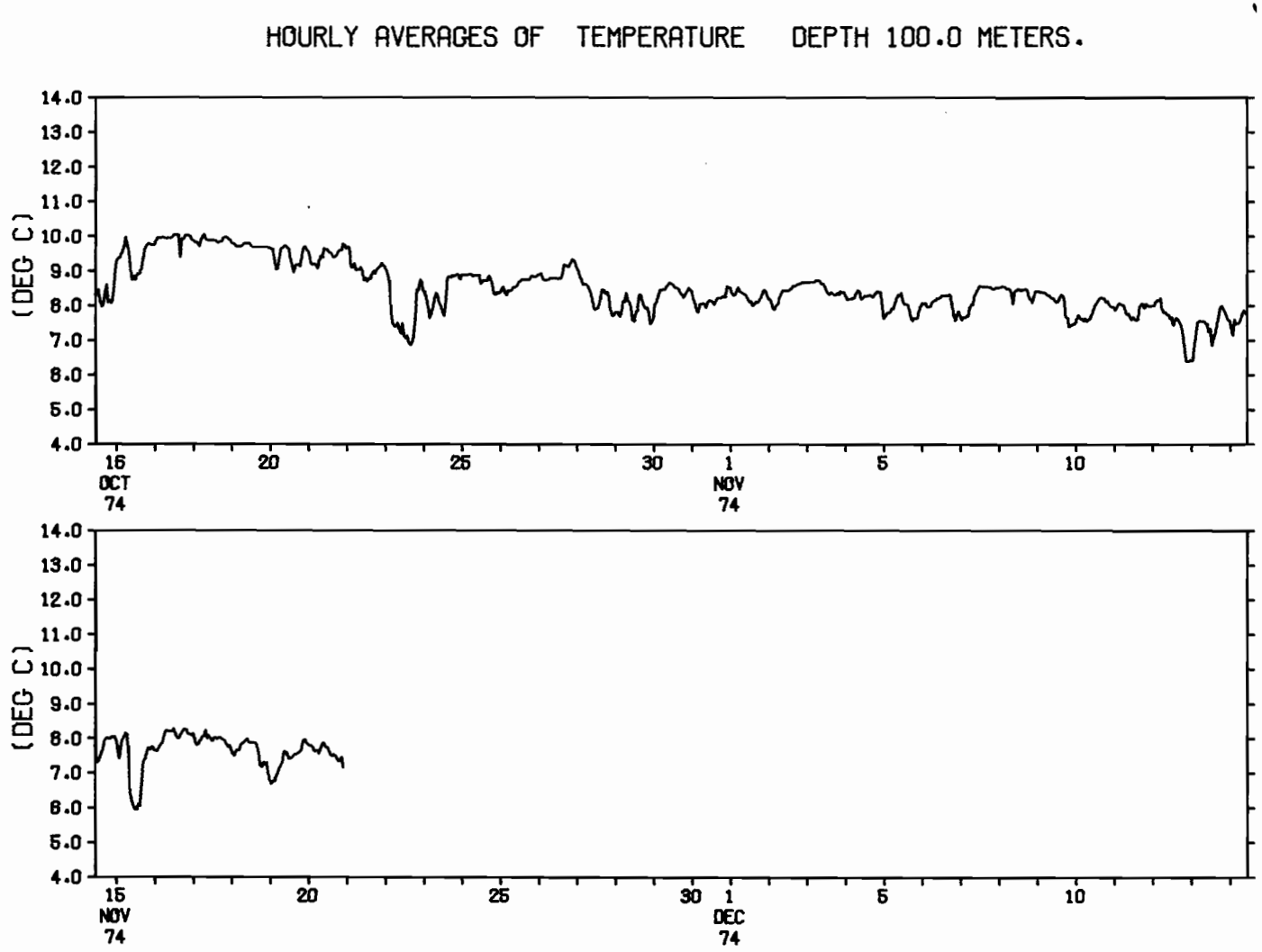
TEMPERATURE STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 100.0 METERS NUMBER OF OBSERVATIONS = 1753
OBSERVATION PERIOD 36.5 DAYS FROM 1036 GMT 15 OCT 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
8.35	.60	.78	.25	3.10	10.09	5.94





B.4. TIME SERIES ANALYSIS Current Meter 603 Part 2 of 2 (Continued)

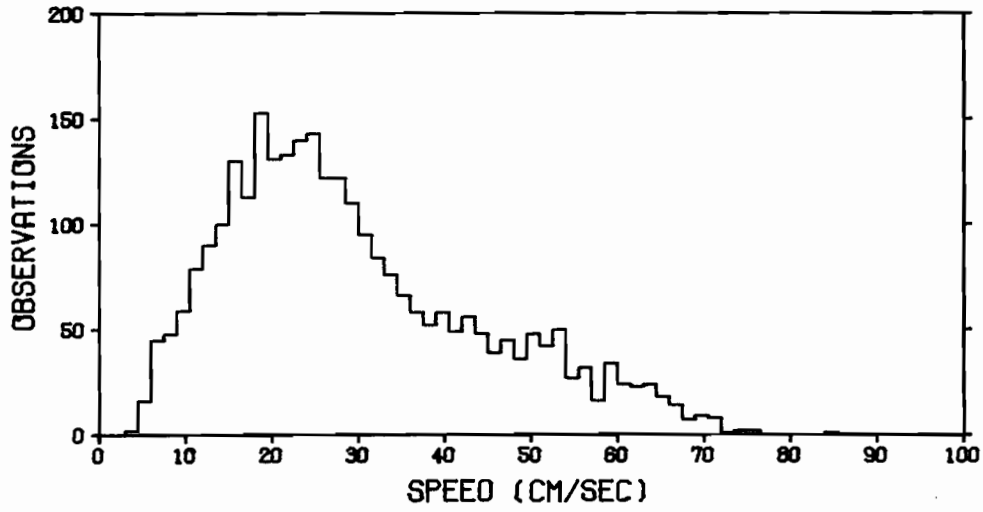


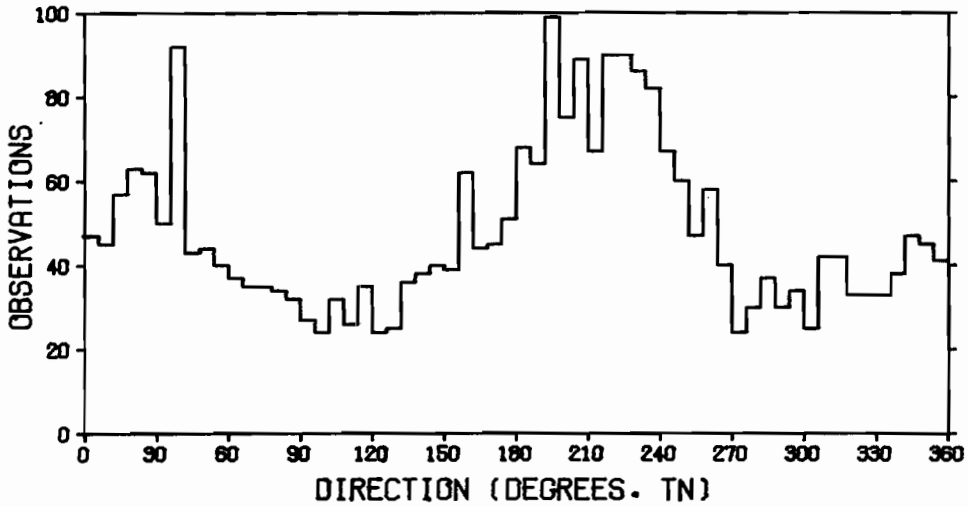
B.5. TIME SERIES ANALYSIS Current Meter 602 Nominal Depth: 162m
Part 1 of 2; 16 August - 15 October 1974

Mooring Designation NEGOA 61
Location: 59° 34.2'N 145° 47.7'W
Sensors: Speed, Direction, Temperature

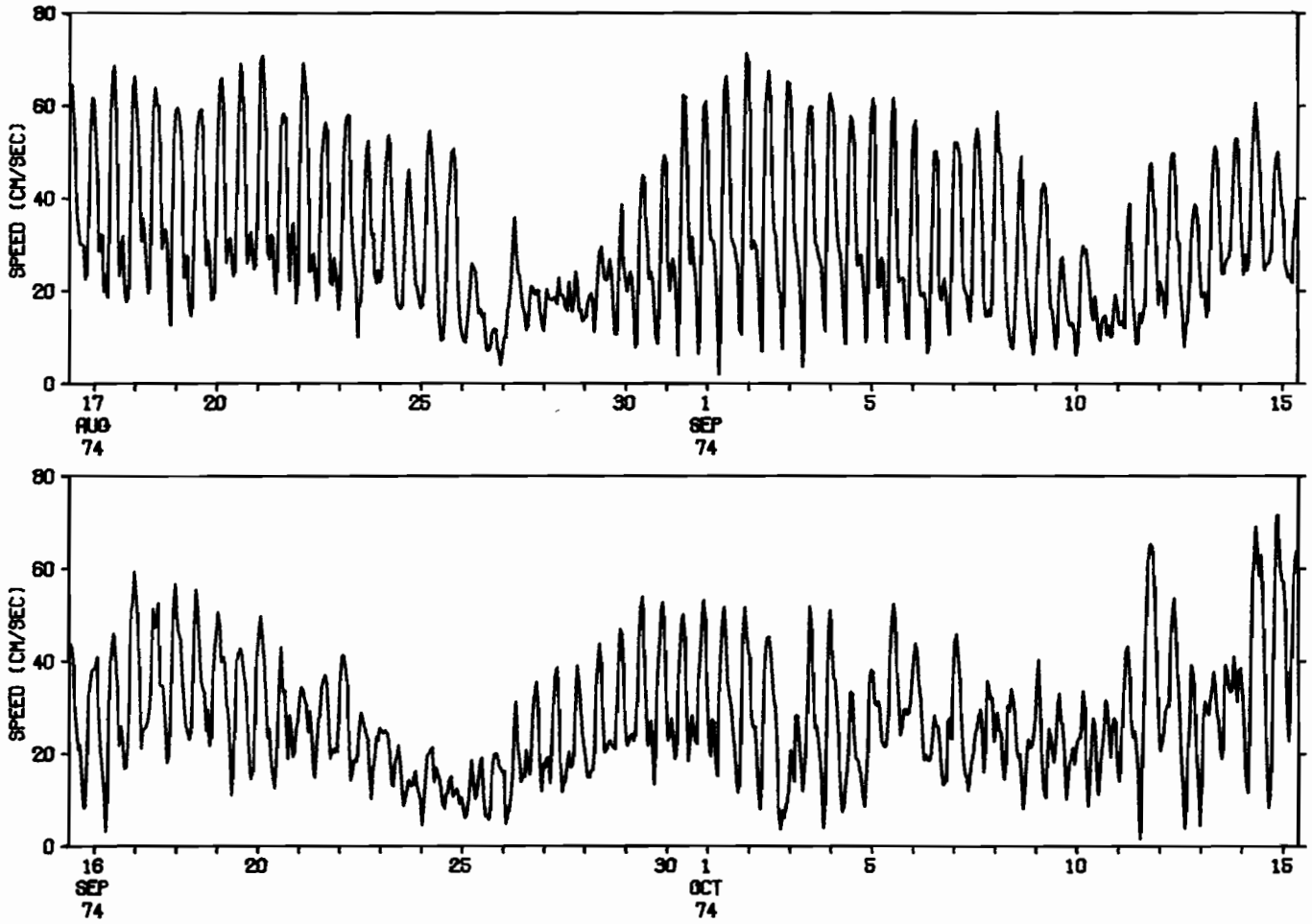
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	29.54	225.56	15.02	.747	2.86	85.41	3.41
U	-7.19	438.17	20.93	-.499	2.46	42.88	-78.64
V	-6.87	561.09	23.69	-.302	2.16	53.01	-73.64

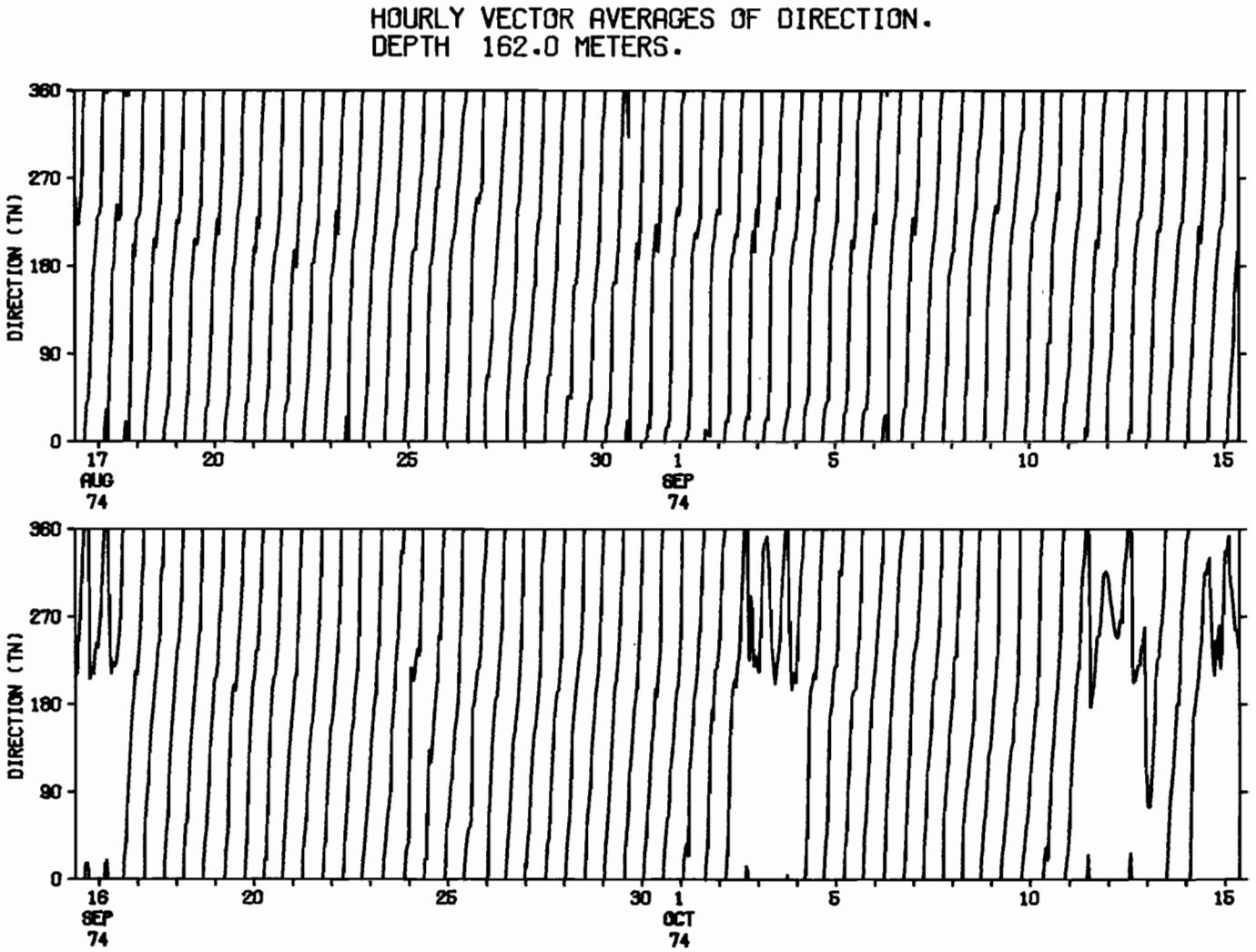
S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY. EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY. NORTH = POSITIVE V



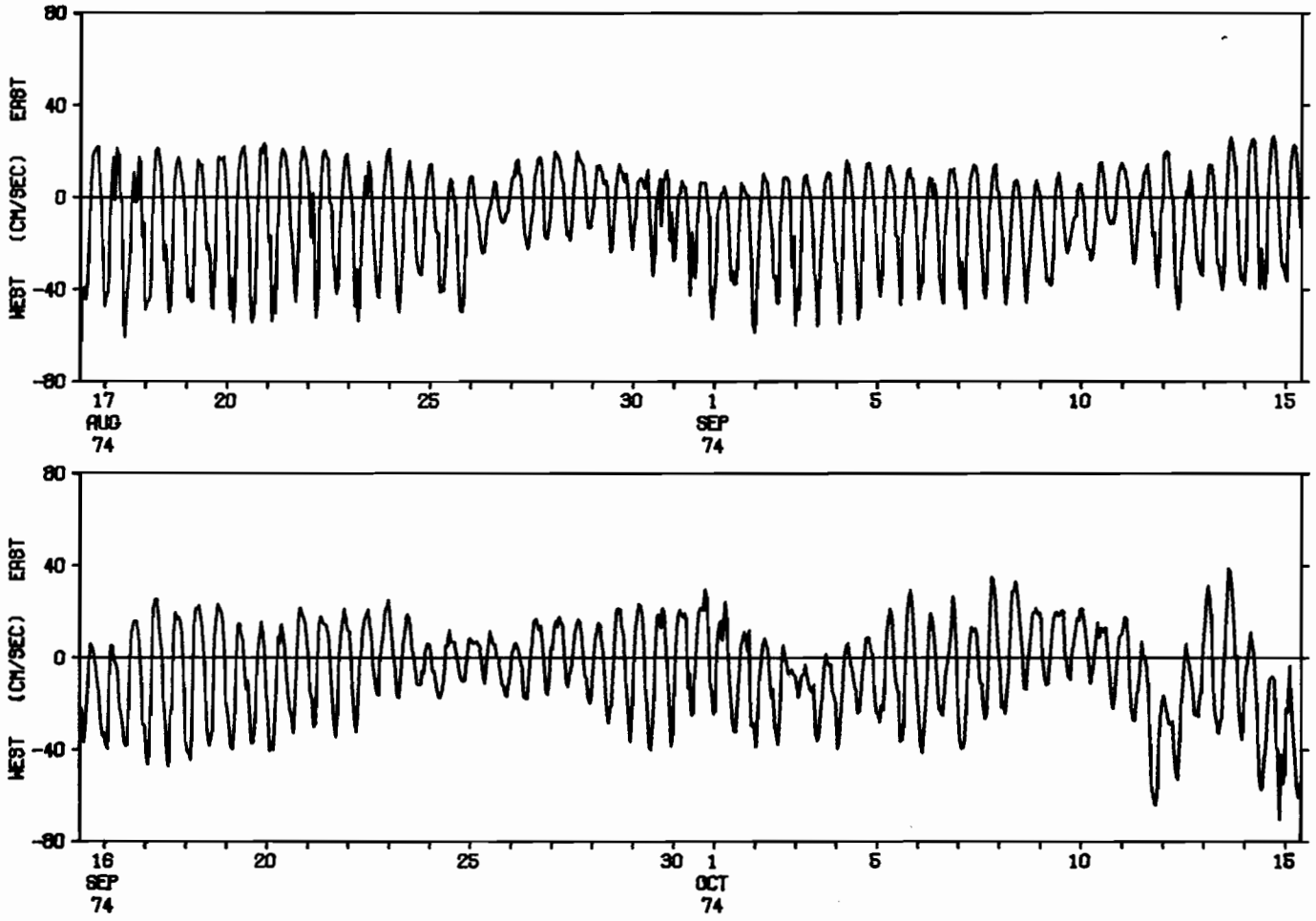


HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 162.0 METERS.

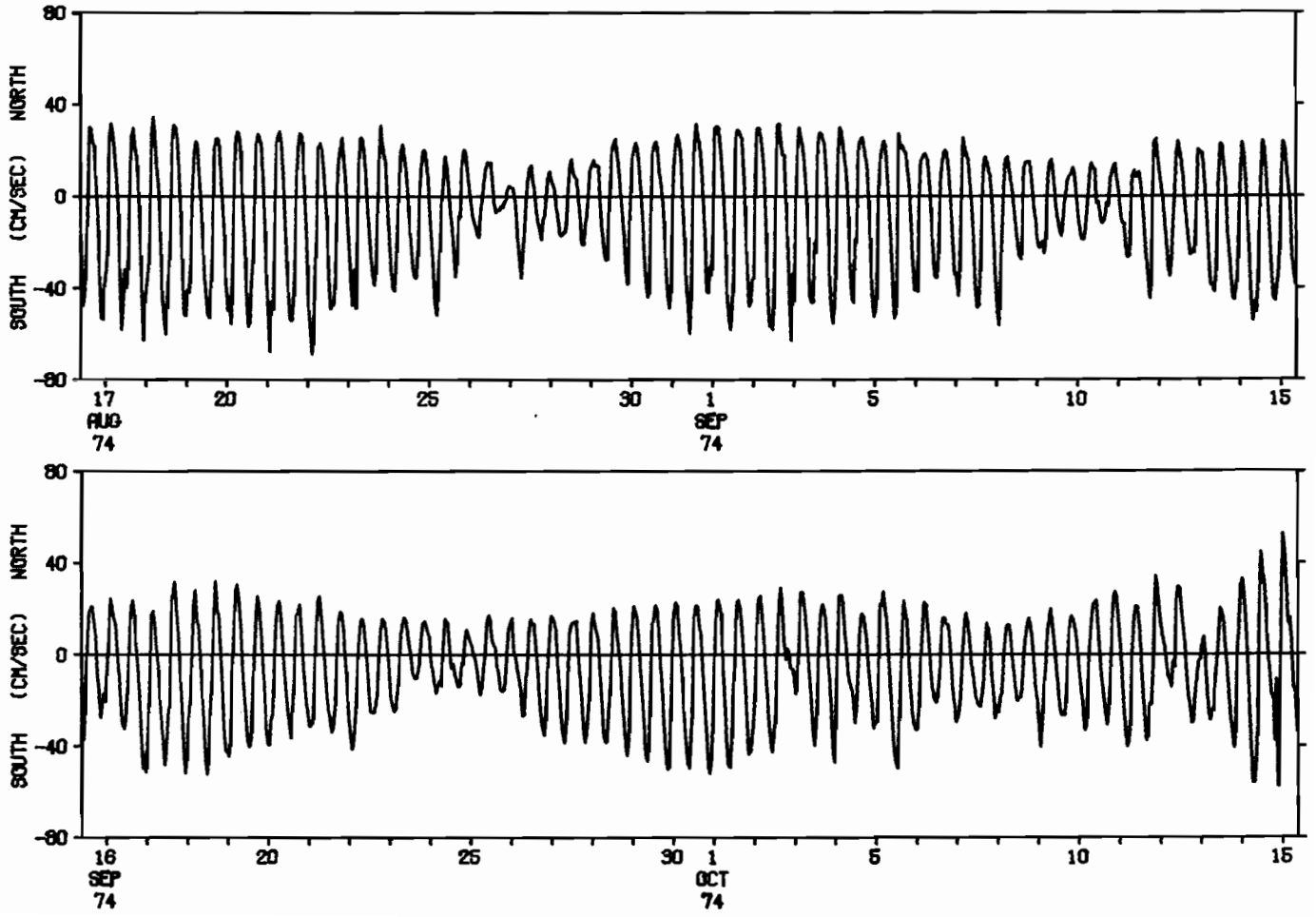



HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 162.0 METERS.
DIRECTION (TN)
360
270
180
90
0
17
AUG
74
20
25
30
1
SEP
74
5
10
15
DIRECTION (TN)
360
270
180
90
0
16
SEP
74
20
25
30
1
OCT
74
5
10
15

HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 162.0 METERS.

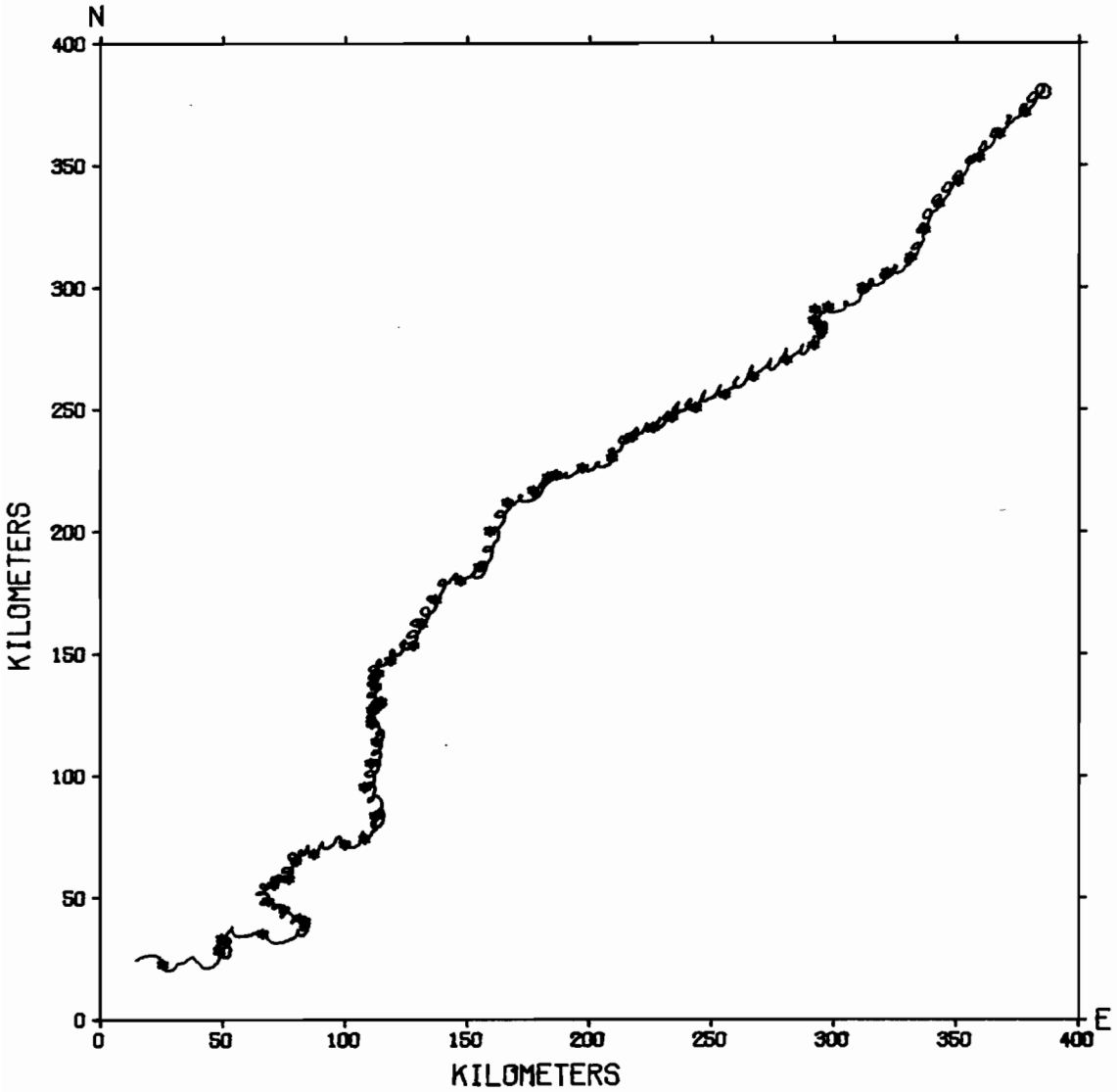


HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 162.0 METERS.

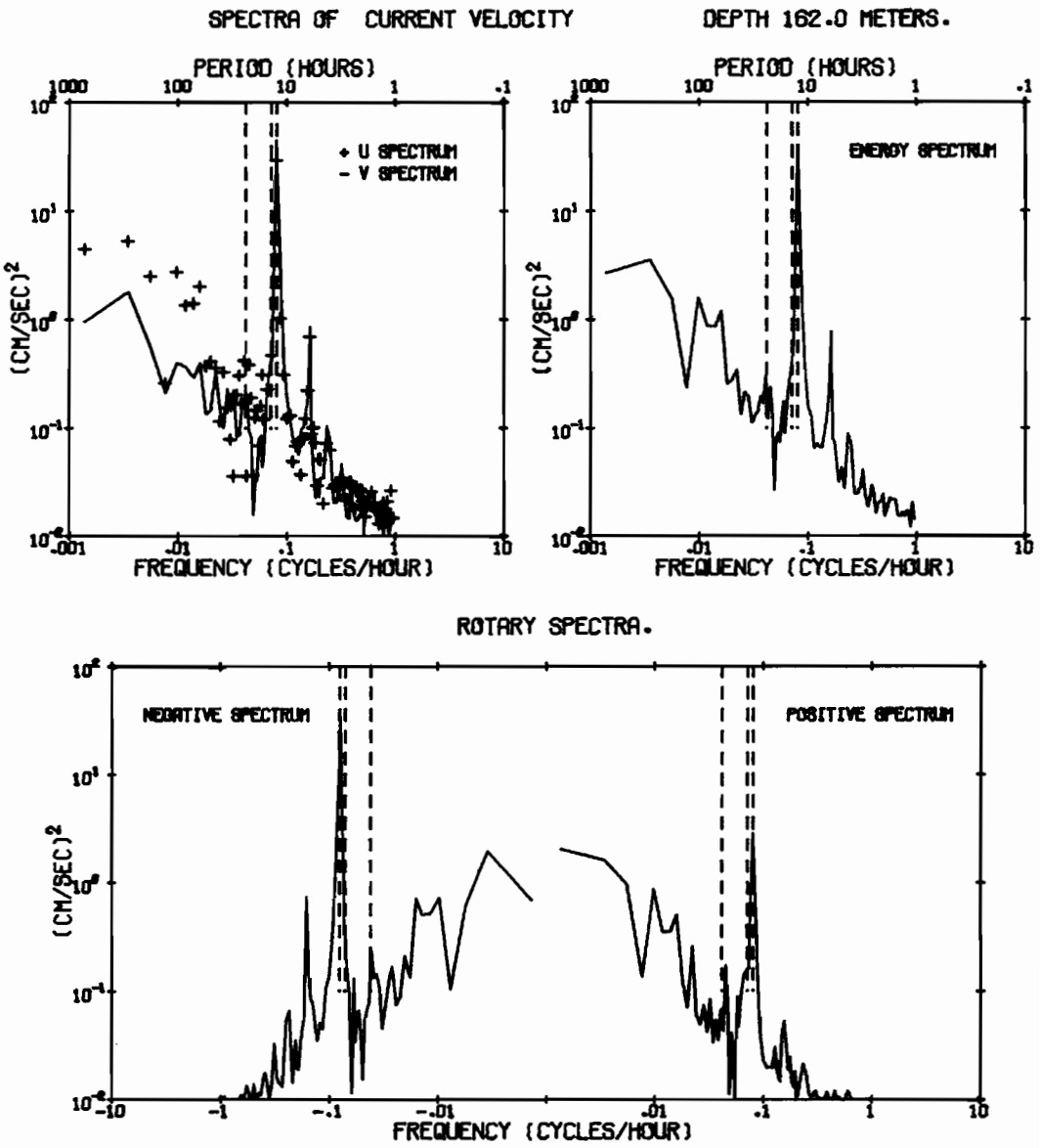


B.5. TIME SERIES ANALYSIS Current Meter 602
Part 1 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 61
OBSERVATION PERIOD 60.0 DAYS FROM 0908 GMT 16 AUG 74.
DEPTH 162.0 METERS.



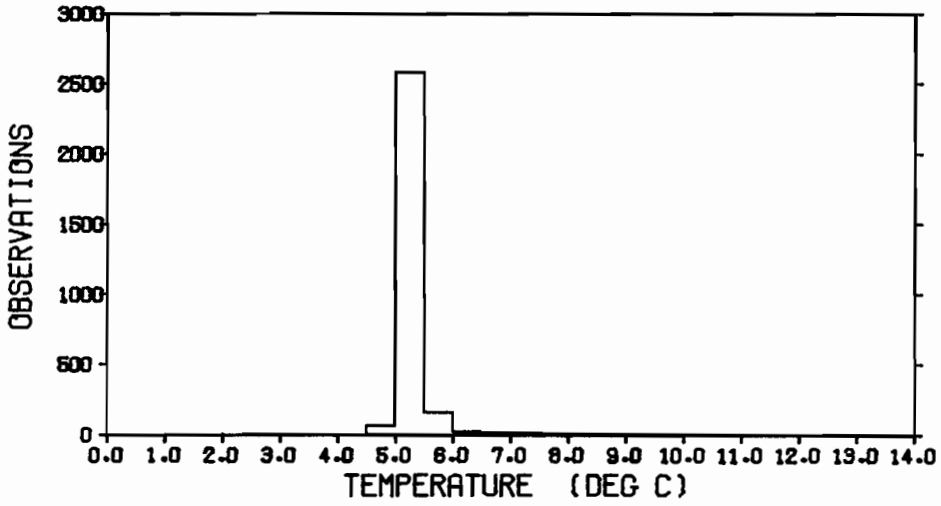
B.5. TIME SERIES ANALYSIS Current Meter 602
Part 1 of 2 (Continued)

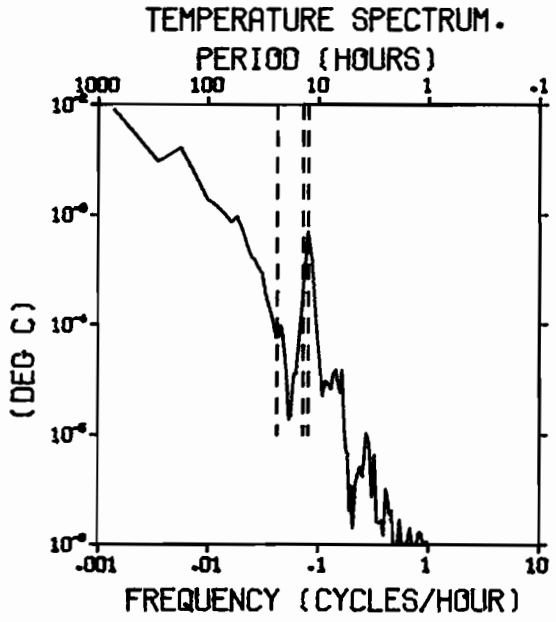


B.5. TIME SERIES ANALYSIS Current Meter 602
Part 1 of 2 (Continued)

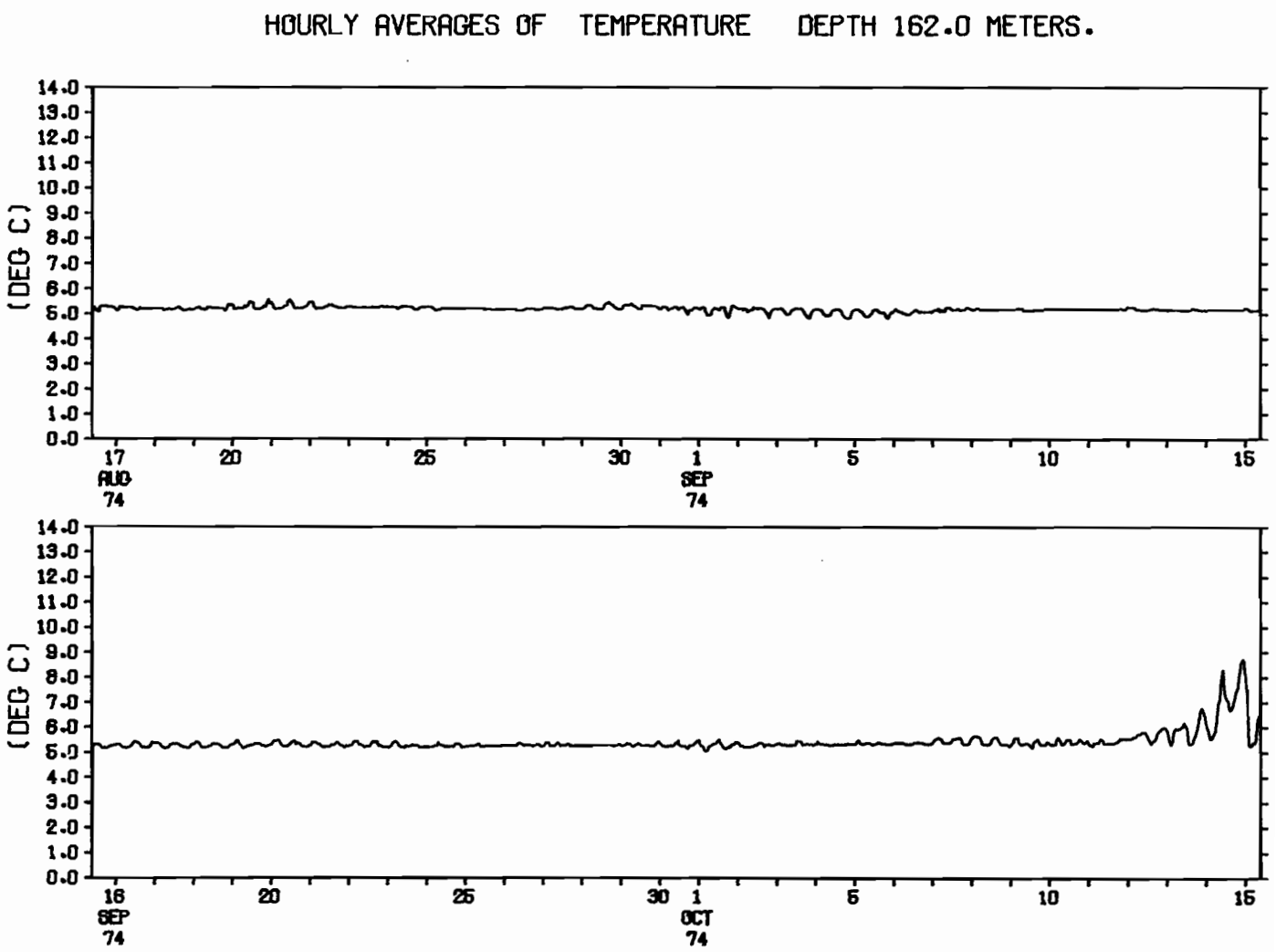
TEMPERATURE STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 162.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0908 GMT 16 AUG 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
5.30	.10	.32	6.08	50.99	8.74	4.78





B.5. TIME SERIES ANALYSIS Current Meter 602 Part 1 of 2 (Continued)

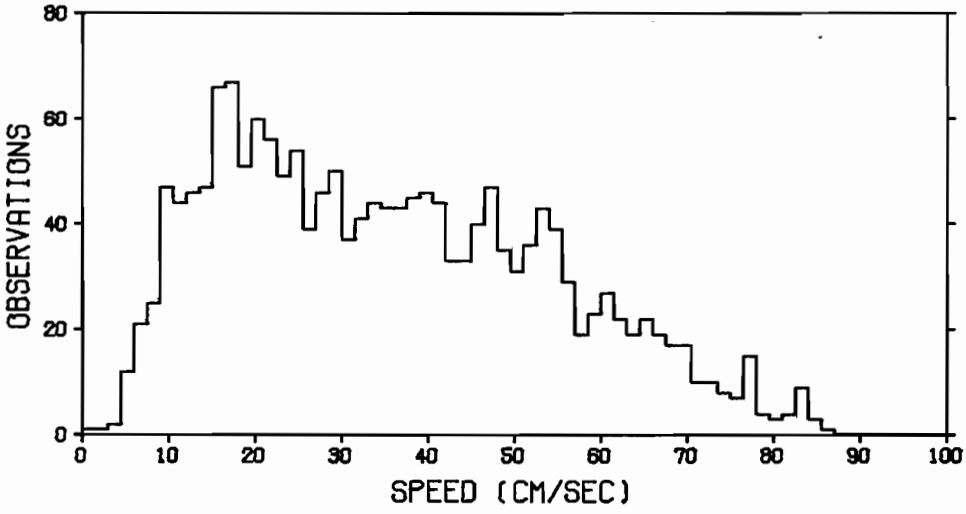


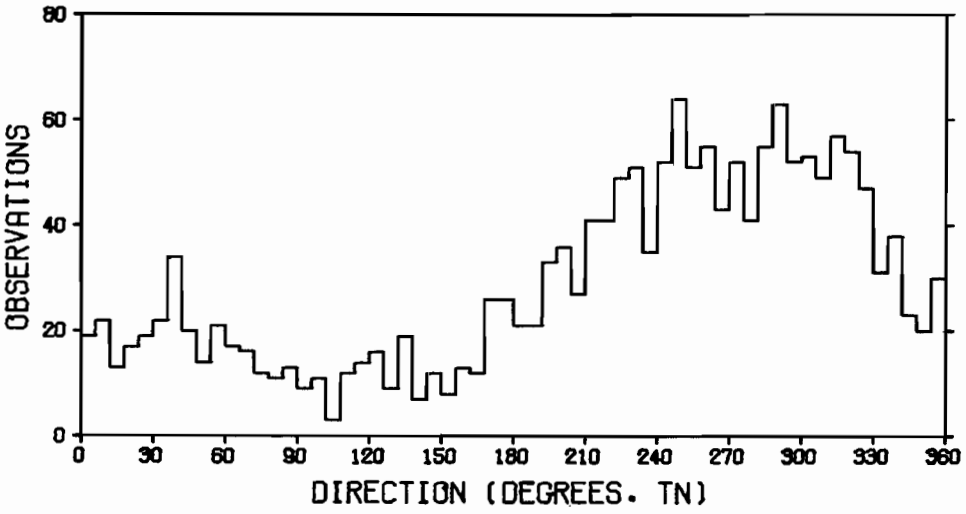
B.5. TIME SERIES ANALYSIS Current Meter 602 Nominal Depth: 162m
Part 2 of 2; 16 October - 21 November 1974

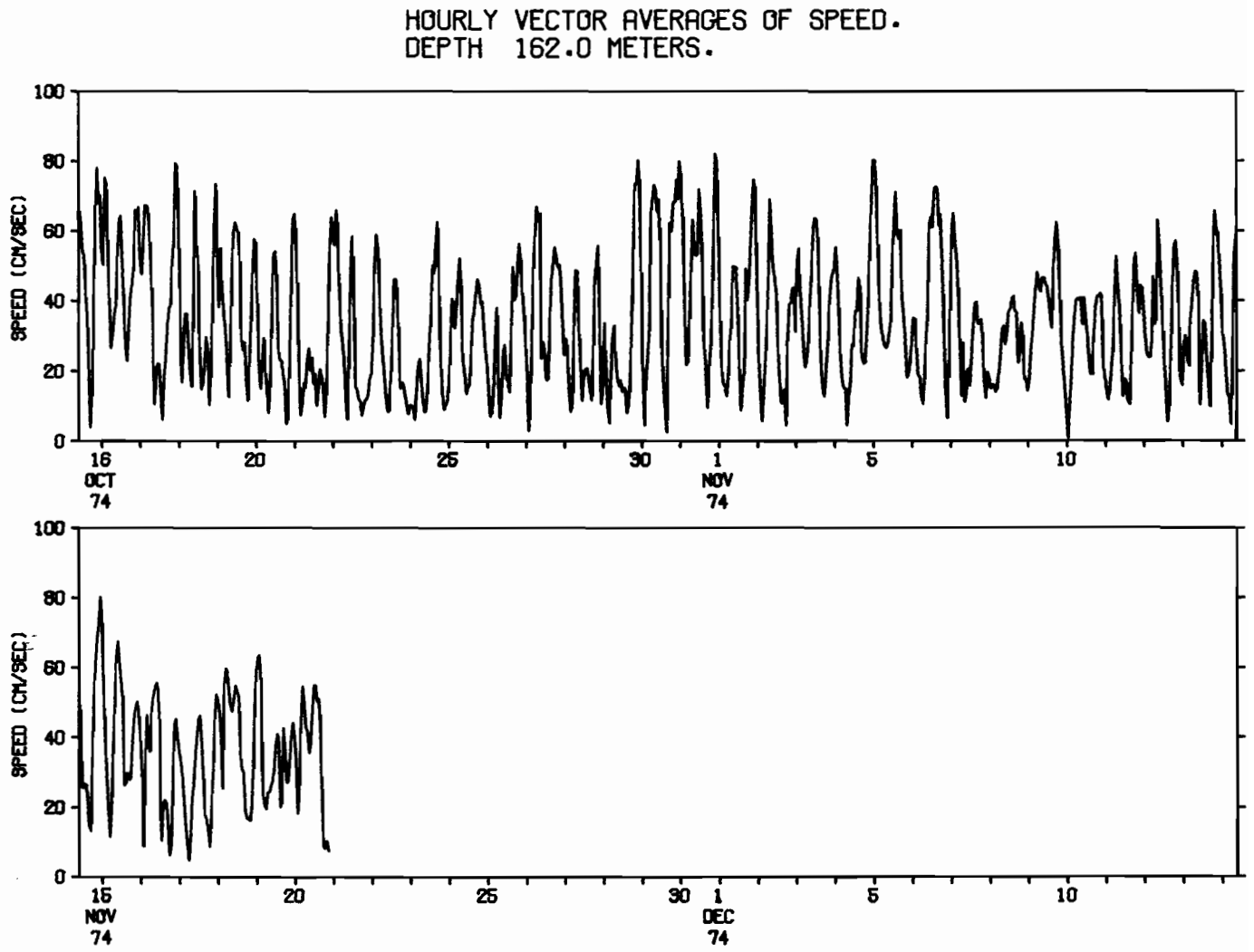
Mooring kesignation NEGOA 61
Location: 59° 34.2'N 145° 47.7'W
Sensors: Speed, Direction, Temperature

	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	35.61	354.25	18.82	.438	2.31	86.10	.27
U	-18.05	663.90	25.77	-.106	2.38	44.91	-84.36
V	-.96	631.42	25.13	-.412	2.97	67.18	-84.80

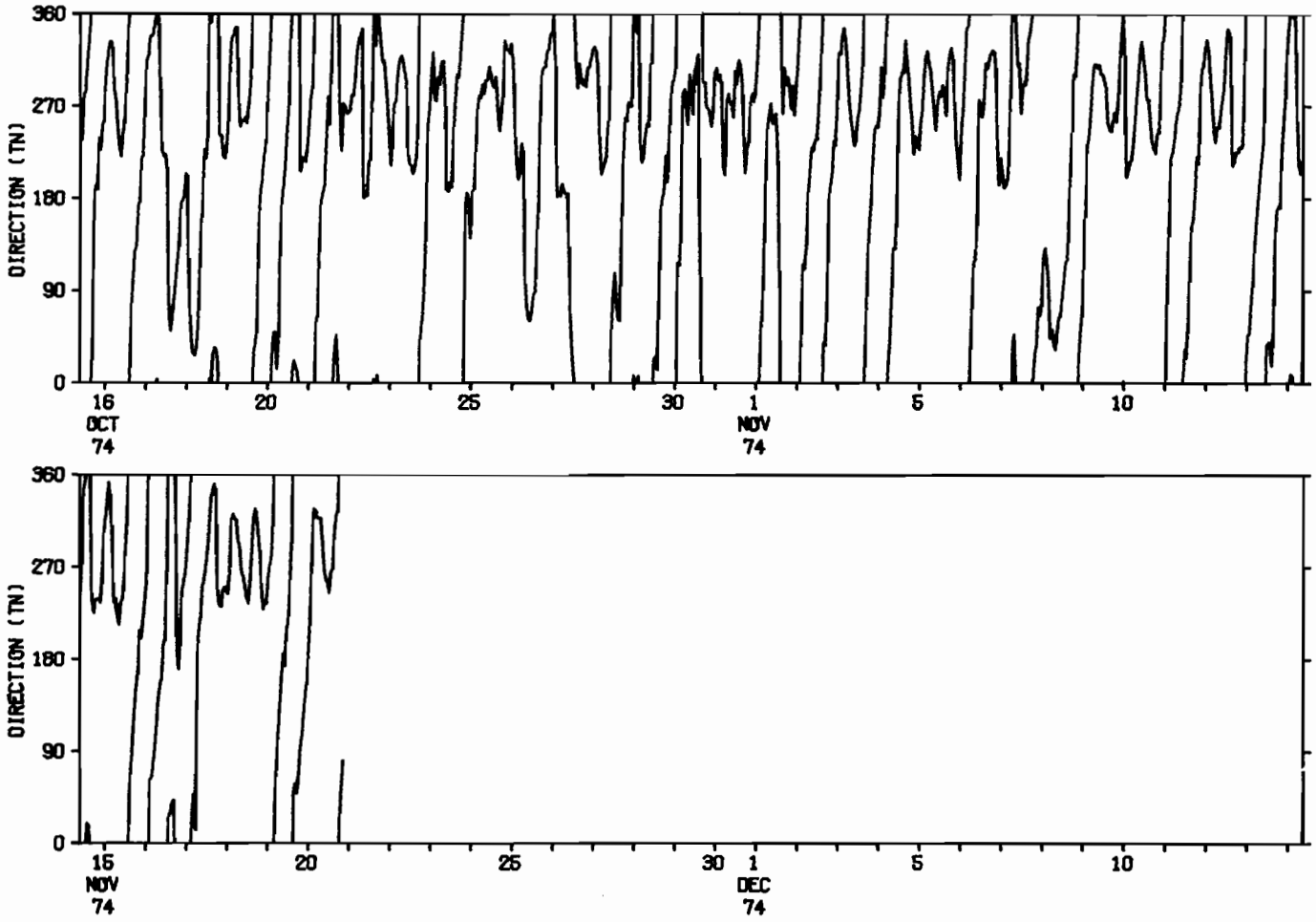
S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V



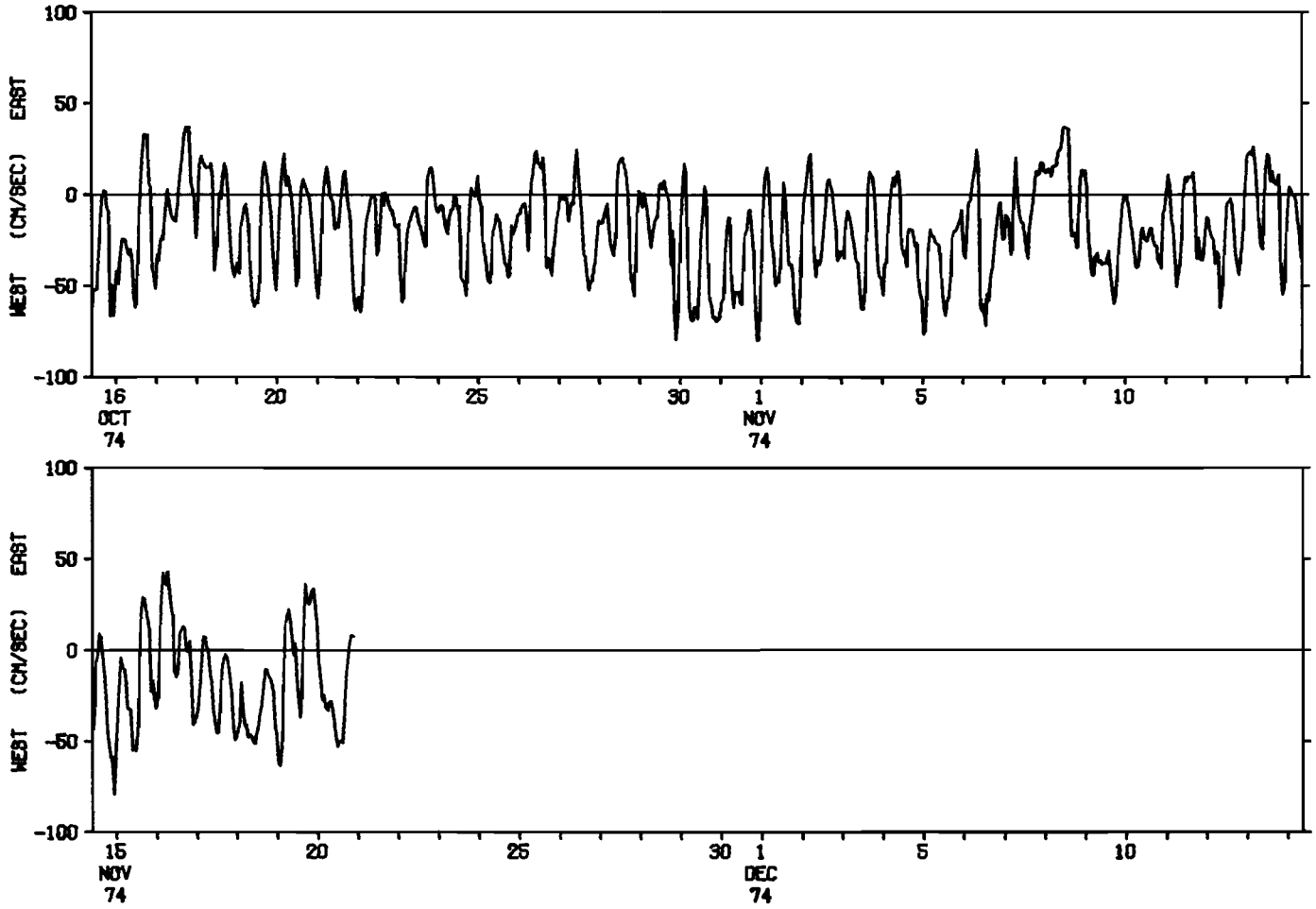



HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 162.0 METERS.
SPEED (CM/SEC)
100
80
60
40
20
0
16
OCT
74
20
25
30
1
NOV
74
5
10
SPEED (CM/SEC)
100
80
60
40
20
0
15
NOV
74
20
25
30
1
DEC
74
5
10

HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 162.0 METERS.

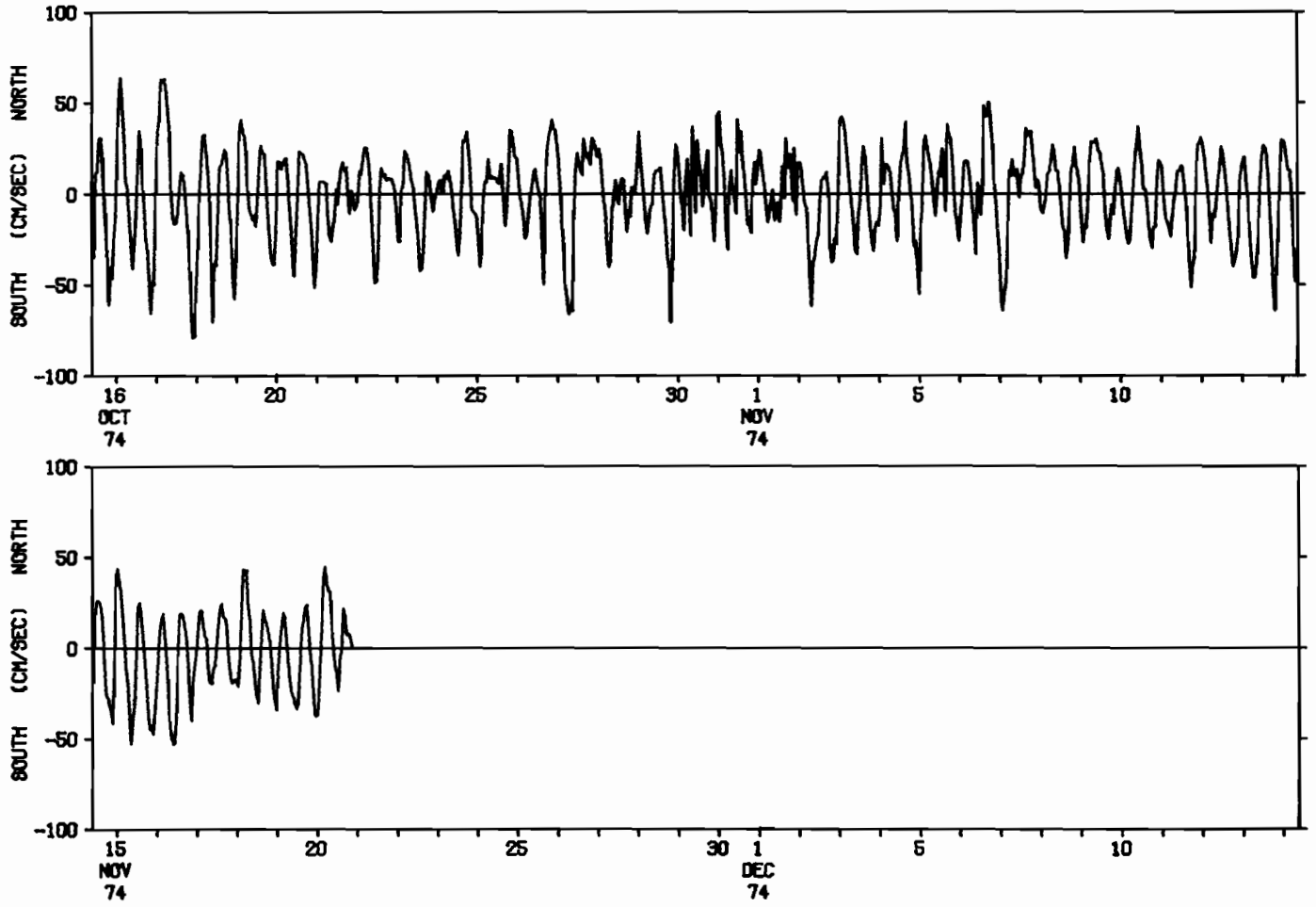


HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 162.0 METERS.



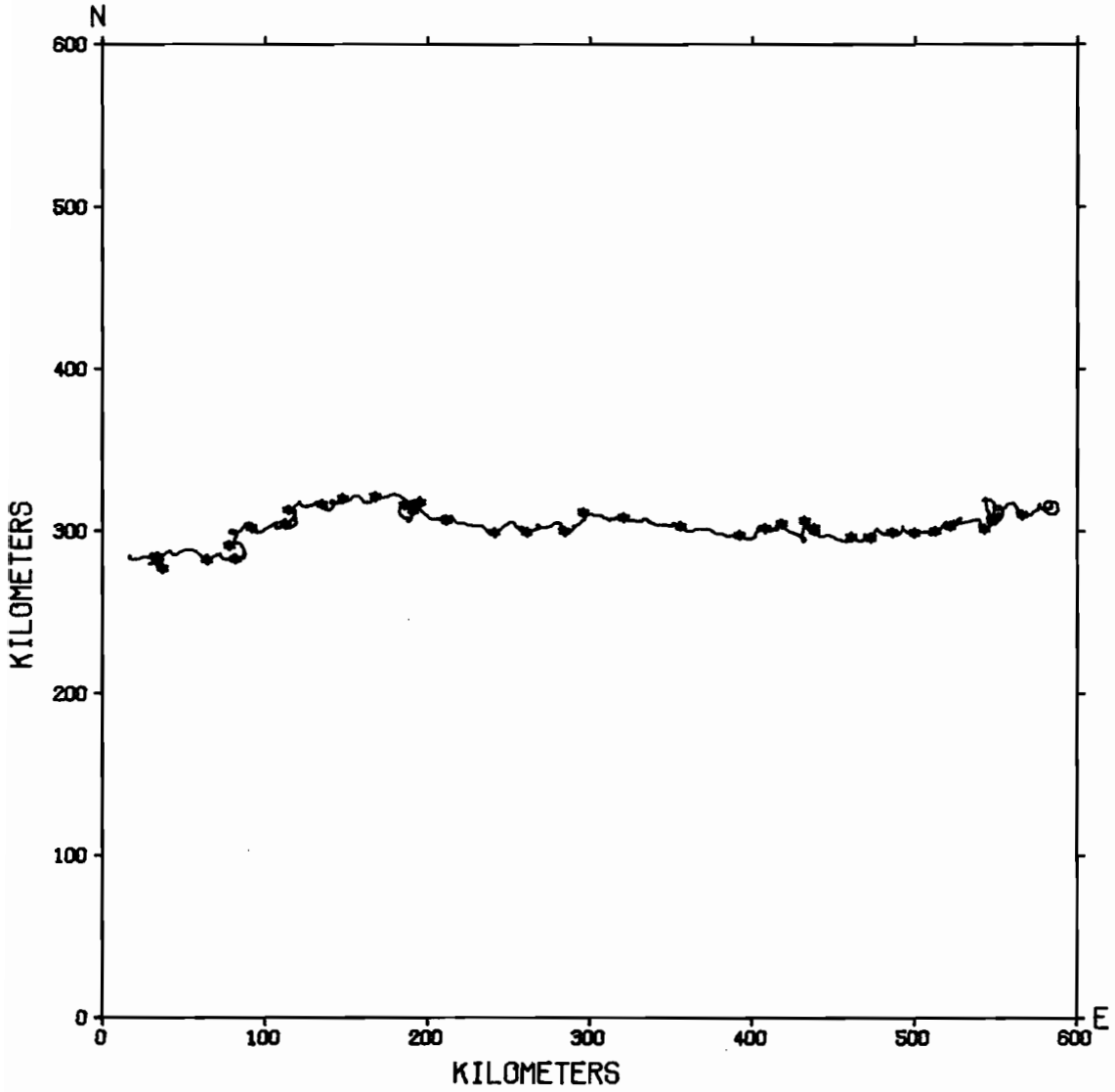
B.5. TIME SERIES ANALYSIS Current Meter 602 Part 2 of 2 (Continued)

HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 162.0 METERS.

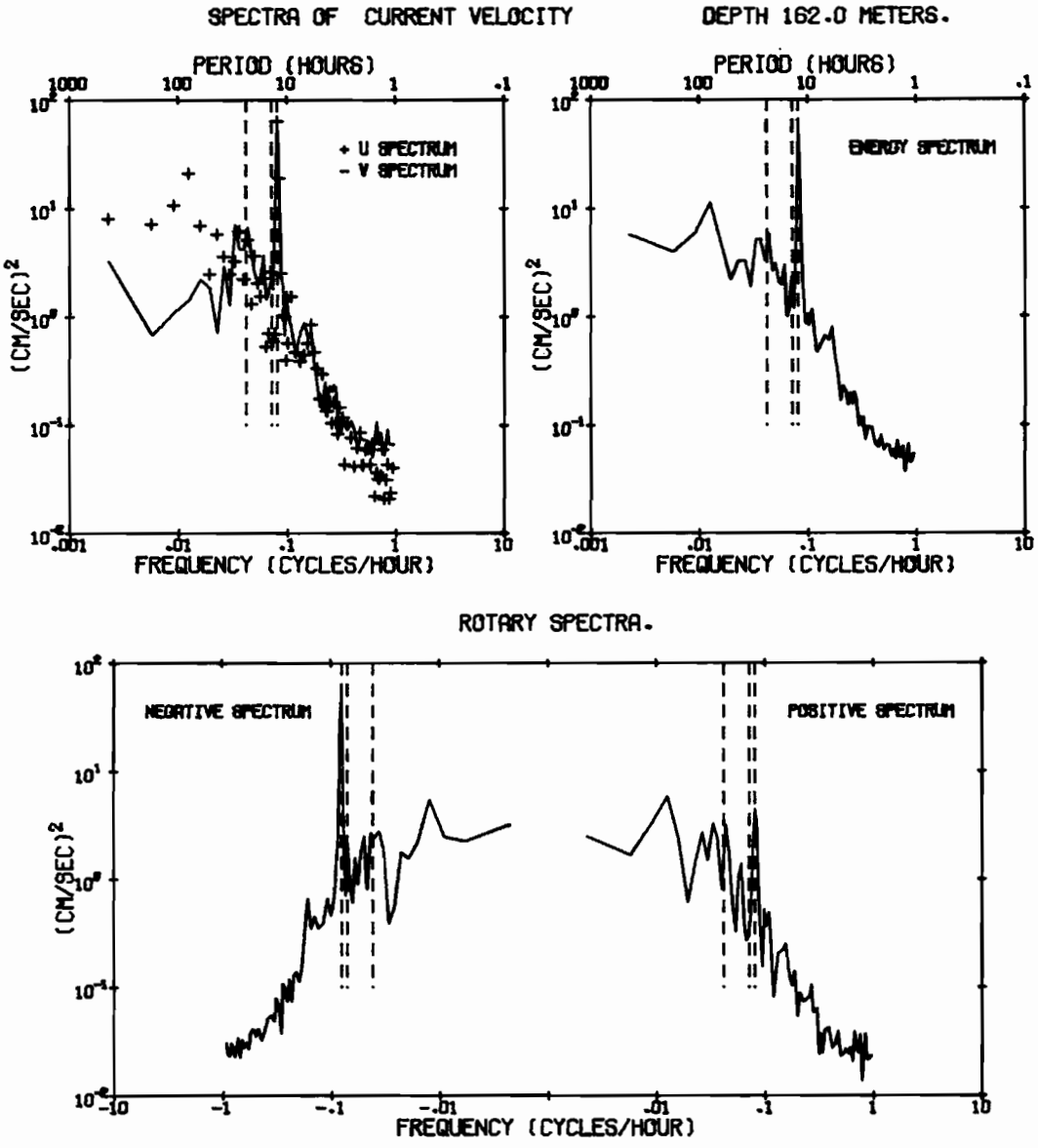


B.5. TIME SERIES ANALYSIS Current Meter 602
Part 2 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 61
OBSERVATION PERIOD 36.5 DAYS FROM 0908 GMT 15 OCT 74.
DEPTH 162.0 METERS.



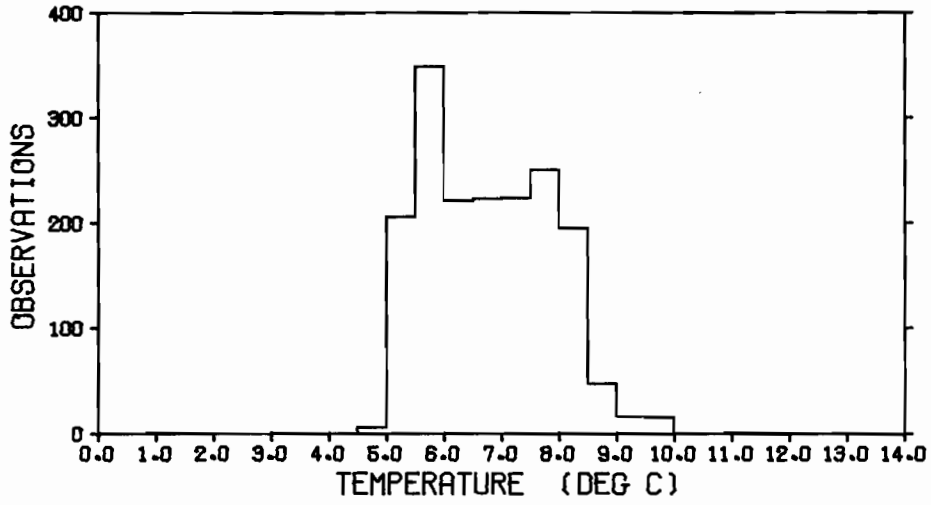
B.5. TIME SERIES ANALYSIS Current Meter 602
Part 2 of 2 (Continued)

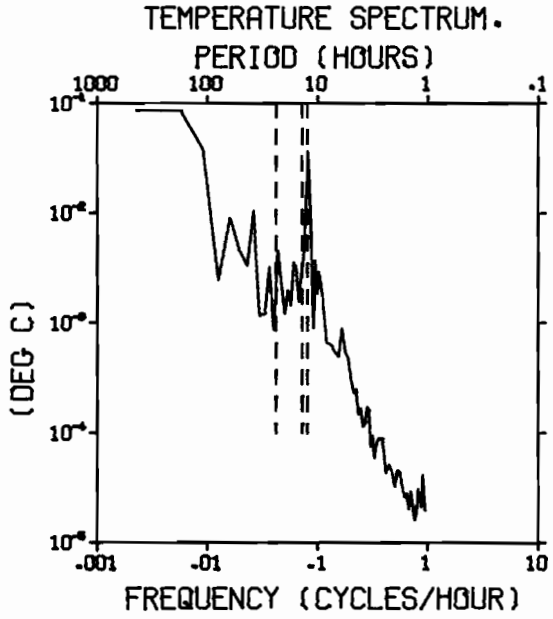


B.5. TIME SERIES ANALYSIS Current Meter 602
Part 2 of 2 (Continued)

TEMPERATURE STATISTICS LAT. 59 34.2N LONG. 145 47.7W
DEPTH 162.0 METERS NUMBER OF OBSERVATIONS = 1752
OBSERVATION PERIOD 36.5 DAYS FROM 0908 GMT 15 OCT 74

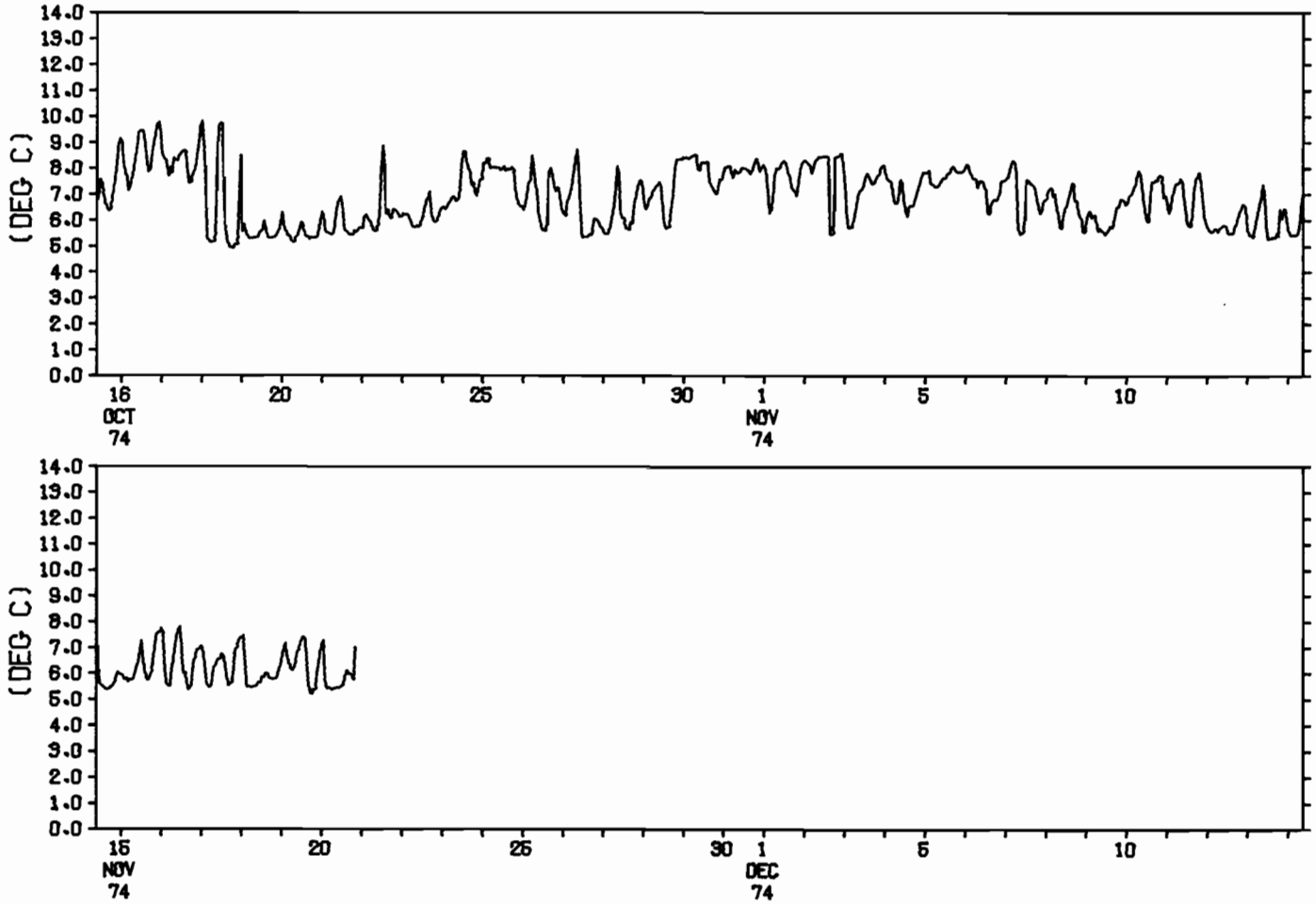
MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
6.79	1.15	1.07	.33	2.17	9.83	4.89





B.5. TIME SERIES ANALYSIS Current Meter 602 Part 2 of 2 (Continued)

HOURLY AVERAGES OF TEMPERATURE DEPTH 162.0 METERS.



APPENDIX C

TIME SERIES ANALYSIS OF DATA FROM NEGOA 62A

C.1 Current Meter 598 at 20 meters

C.2 Current Meter 617 at 50 meters

C.3 Current Meter 616 at 100 meters

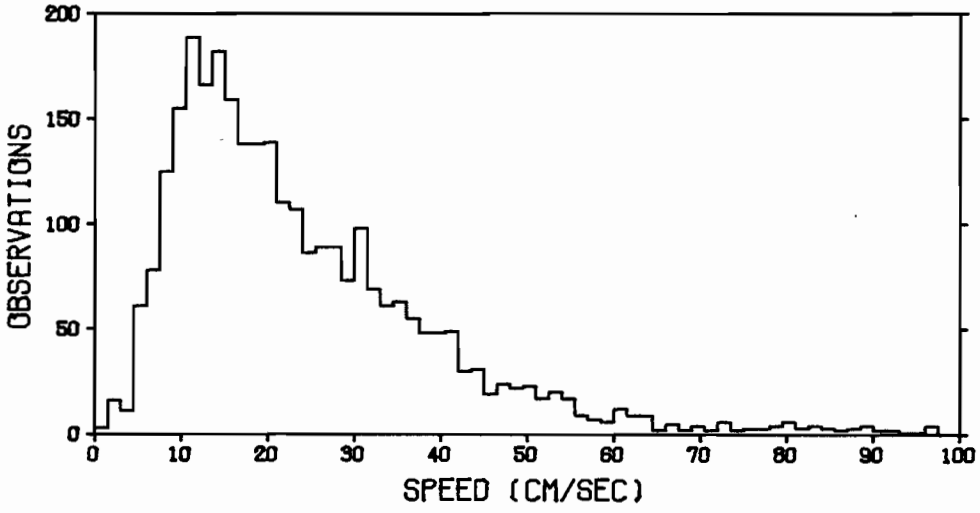
C.4 Current Meter 600 at 178 meters

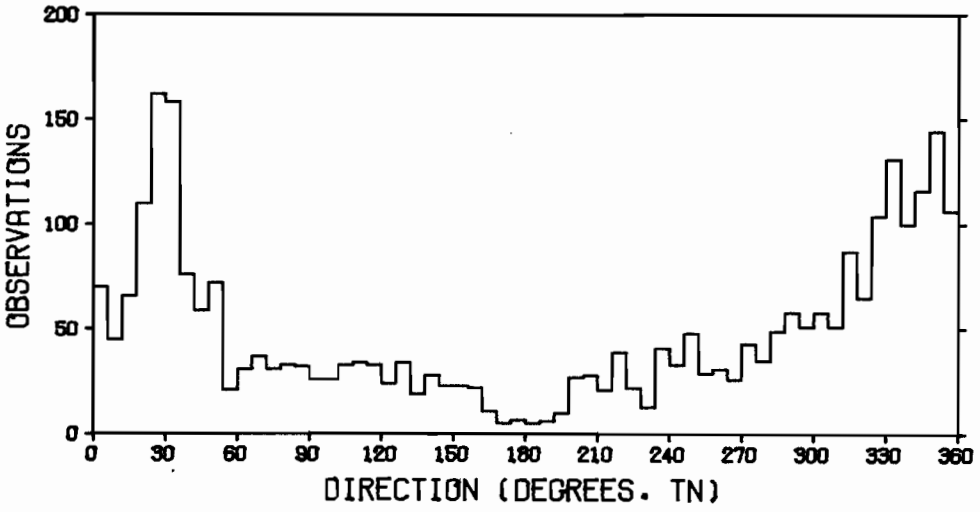
C.1. TIME SERIES ANALYSIS Current Meter 598 Nominal Depth: 20m
Part 1 of 3; 17 August - 16 October 1974

Mooring Designation NEGOA 62A
Location: 59° 34.4'N 142° 10.5'W
Sensors: Speed, Direction, Temperature, Conductivity, Pressure

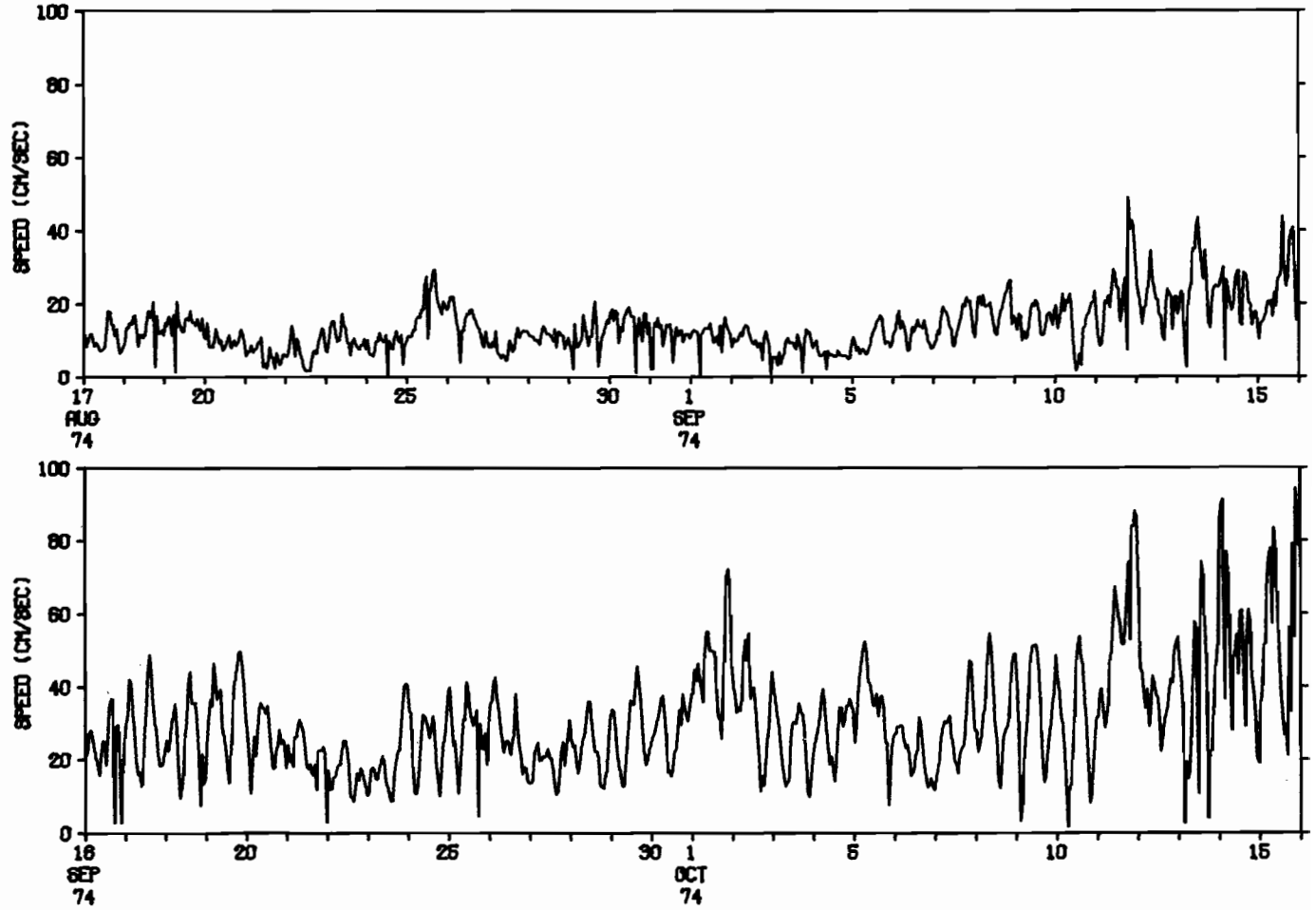
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	23.96	236.36	15.37	1.536	6.10	97.41	1.50
U	-2.85	278.40	16.69	-.594	4.31	78.05	-89.28
V	13.34	345.92	18.60	.675	4.03	95.96	-43.07

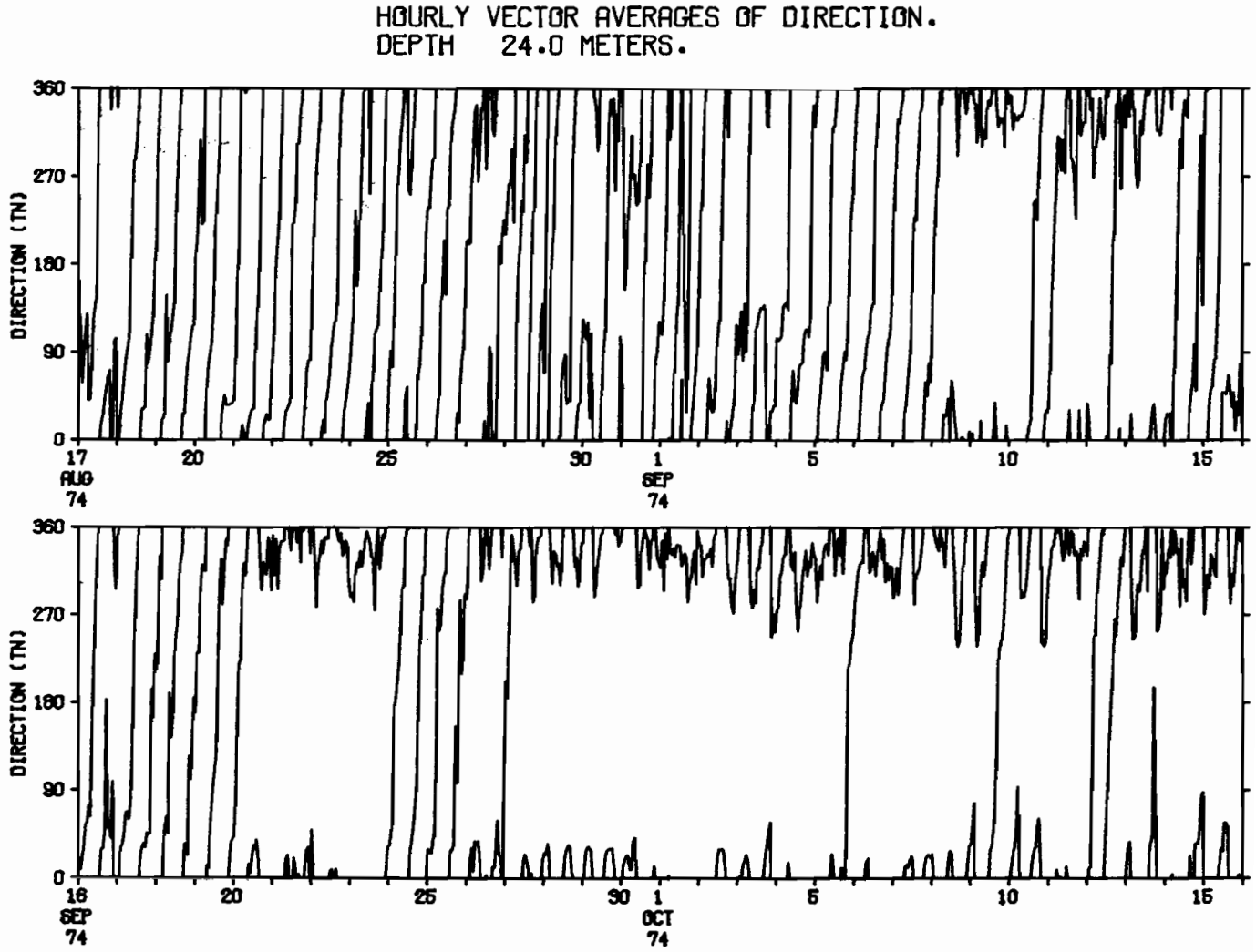
S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY. EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY. NORTH = POSITIVE V



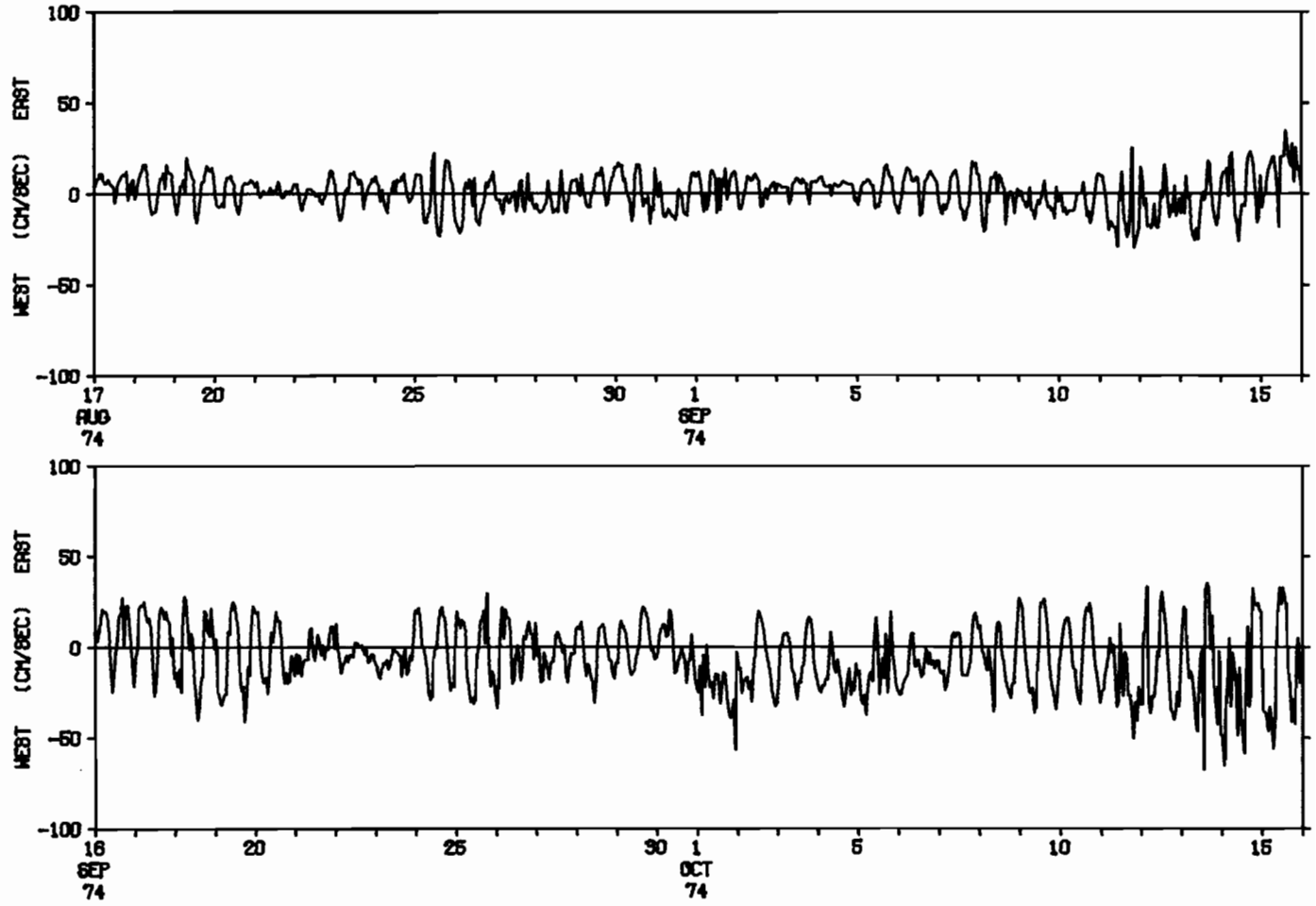


HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 24.0 METERS.

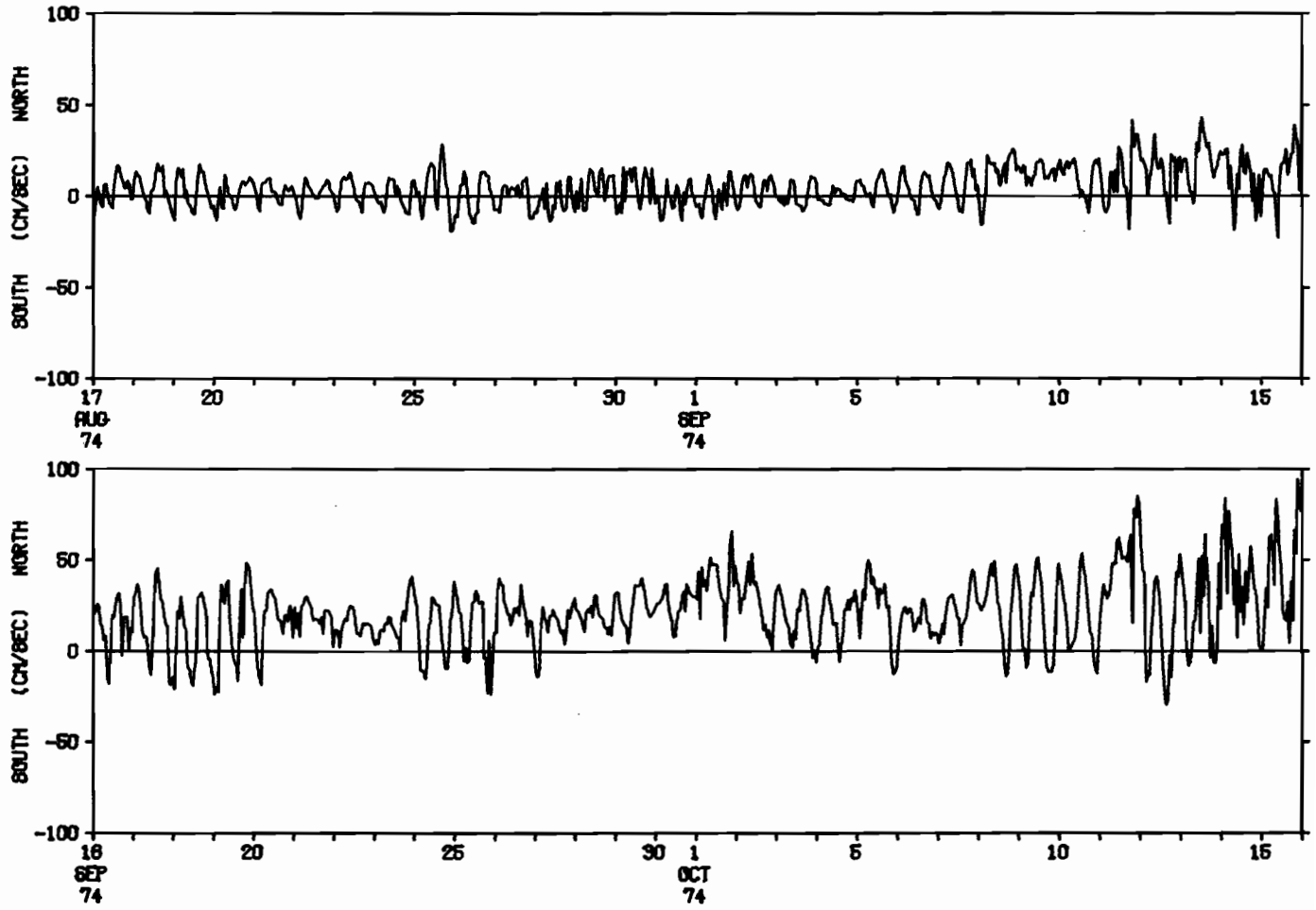



HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 24.0 METERS.
DIRECTION (TN)
360
270
180
90
0
17
AUG
74
20
25
30
1
SEP
74
5
10
15
DIRECTION (TN)
360
270
180
90
0
16
SEP
74
20
25
30
1
OCT
74
5
10
15

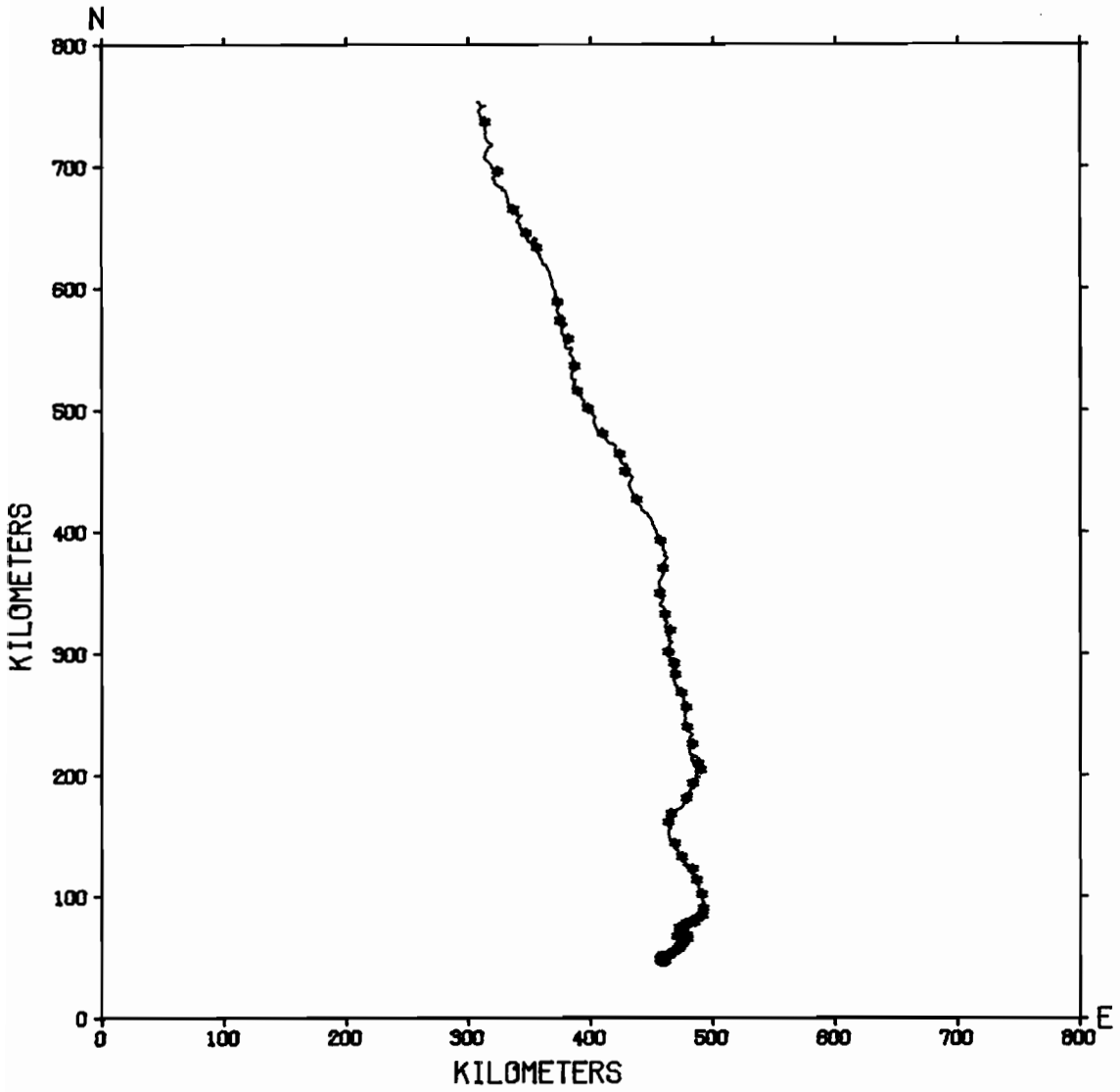
HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 24.0 METERS.



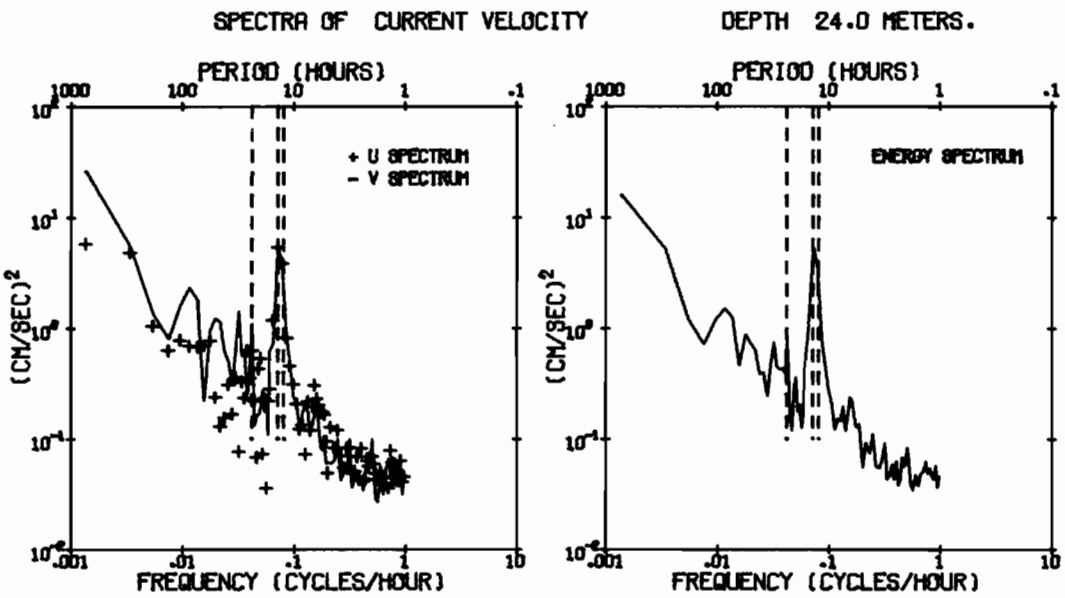
HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 24.0 METERS.

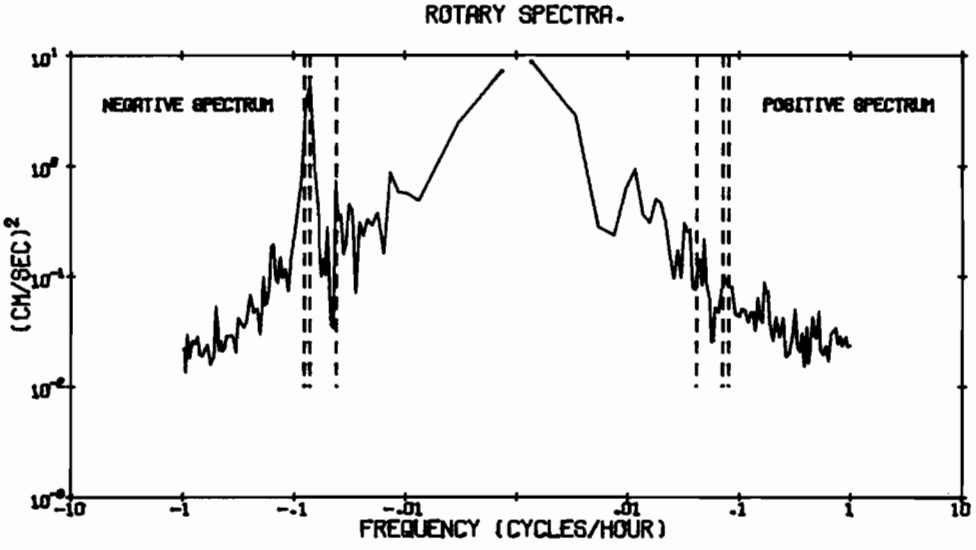


PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF CURRENTS
OBSERVATION PERIOD 61.0 DAYS FROM 0000 GMT 17 AUG 74.
DEPTH 24.0 METERS.



C.1. TIME SERIES ANALYSIS Current Meter 598
Part 1 of 3 (Continued)

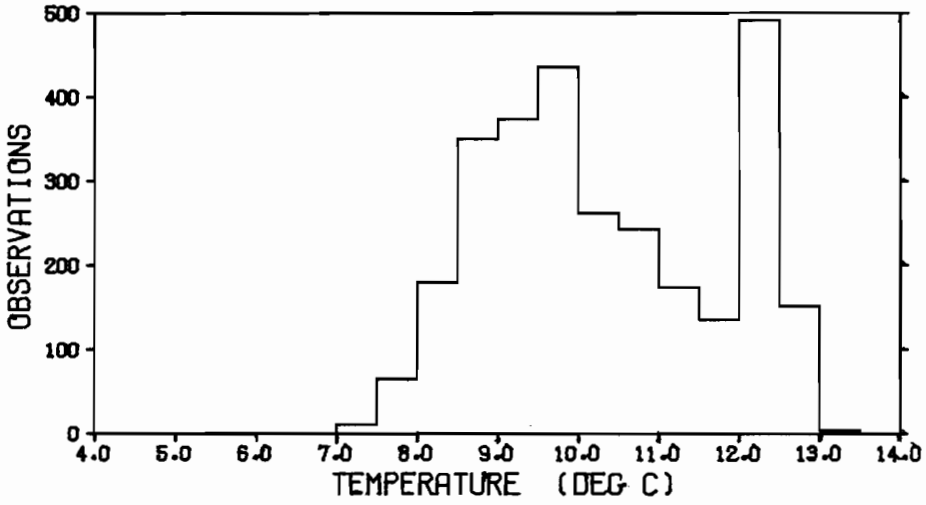


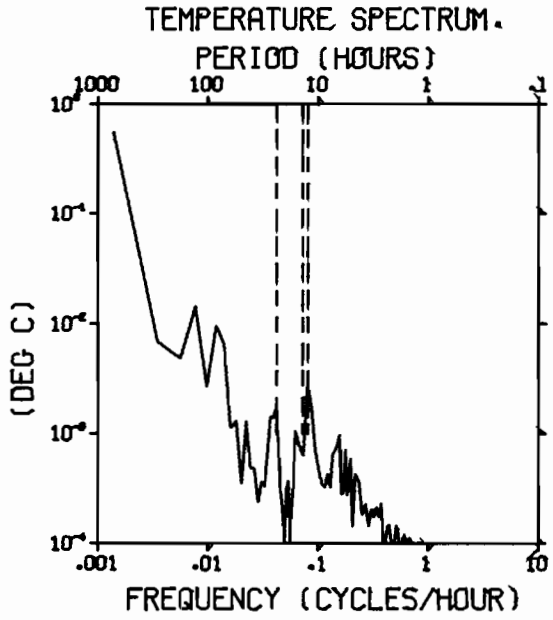


C.1. TIME SERIES ANALYSIS Current Meter 598
Part 1 of 3 (Continued)

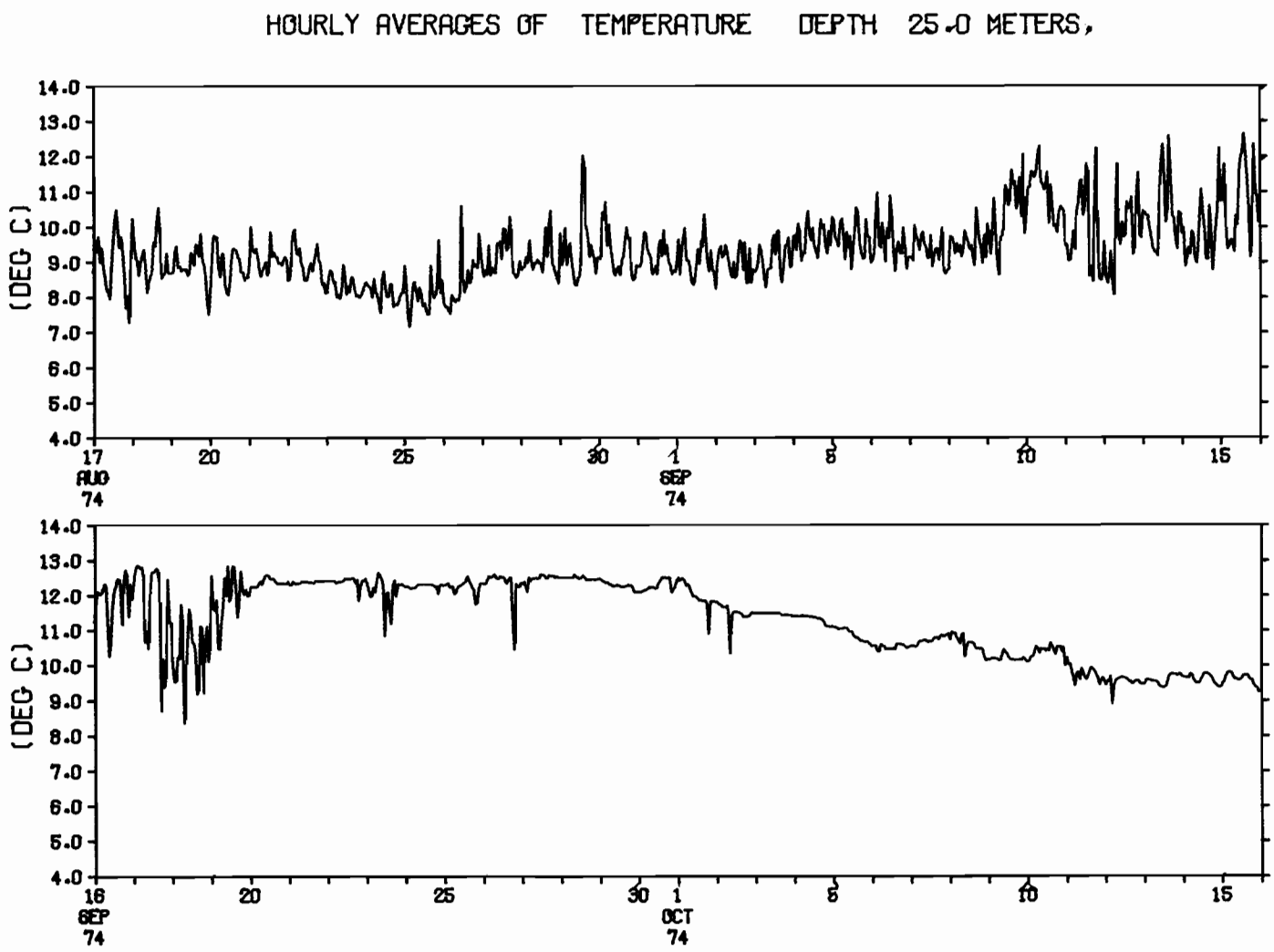
TEMPERATURE STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 25.0 METERS NUMBER OF OBSERVATIONS - 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0000 GMT 17 AUG 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
10.33	2.09	1.44	.18	1.81	13.10	7.06





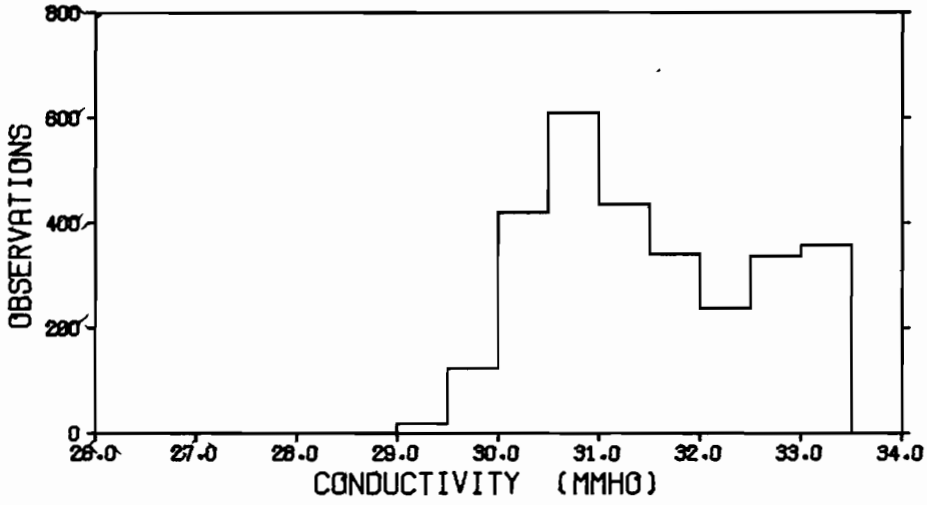
C.1. TIME SERIES ANALYSIS Current Meter 598 Part 1 of 3 (Continued)

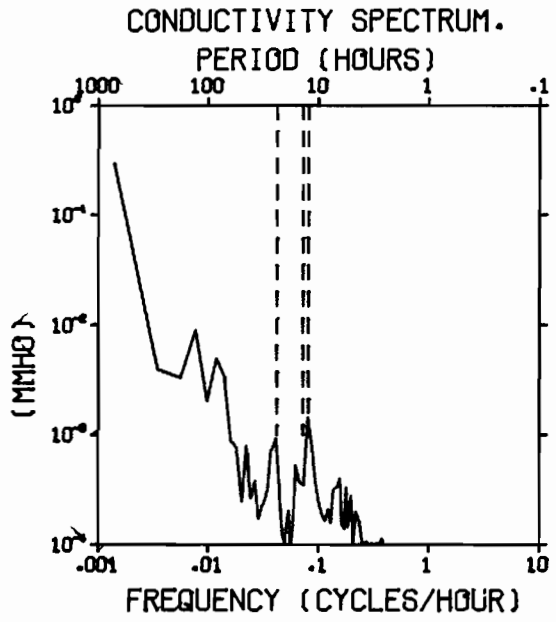


C.1. TIME SERIES ANALYSIS Current Meter 598
Part 1 of 3 (Continued)

CONDUCTIVITY STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DERTH 25.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0000 GMT 17 AUG 74

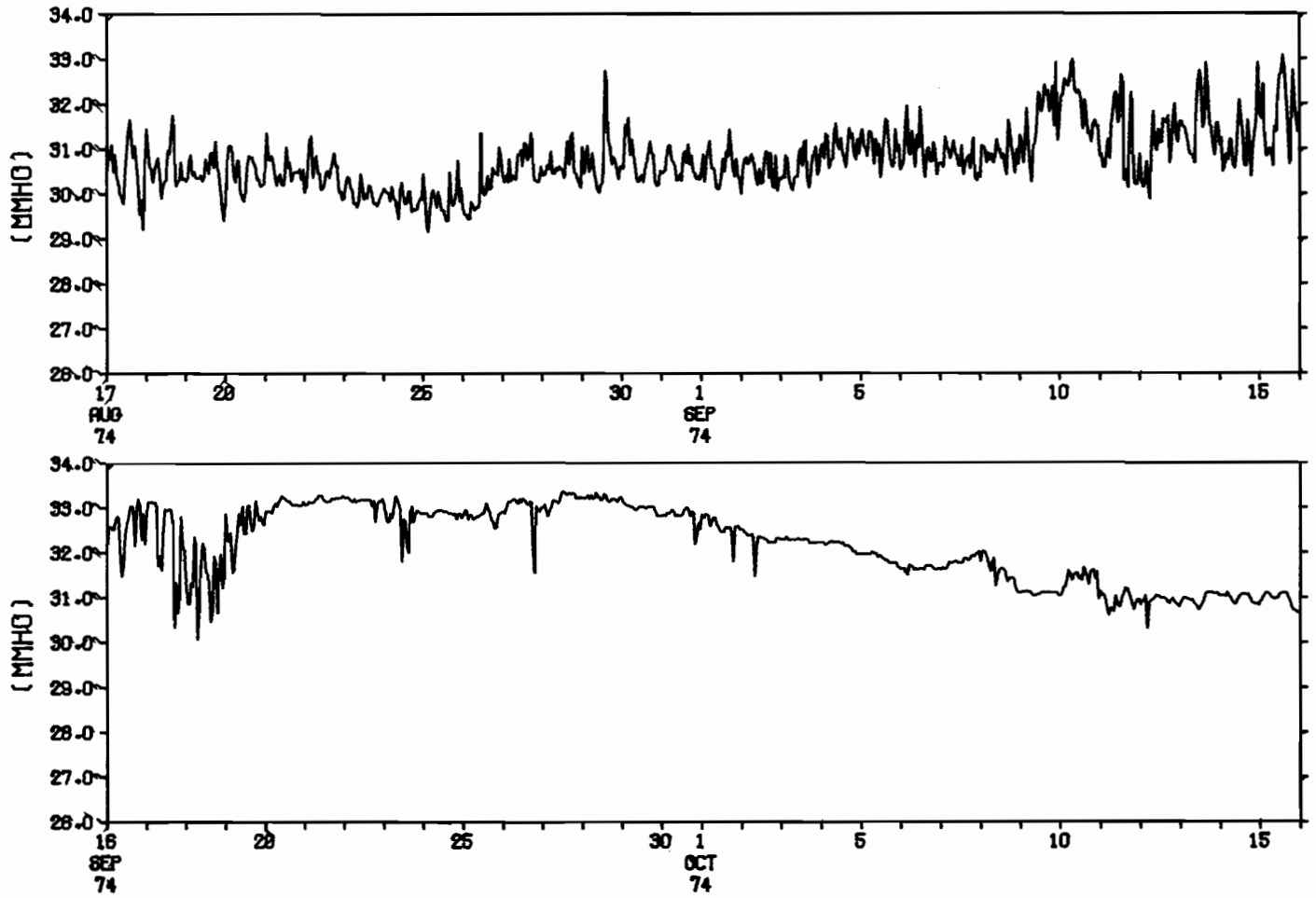
MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
31.48	1.12	1.06	.24	1.87	33.67	29.08





C.1. TIME SERIES ANALYSIS Current Meter 598 Part 1 of 3 (Continued)

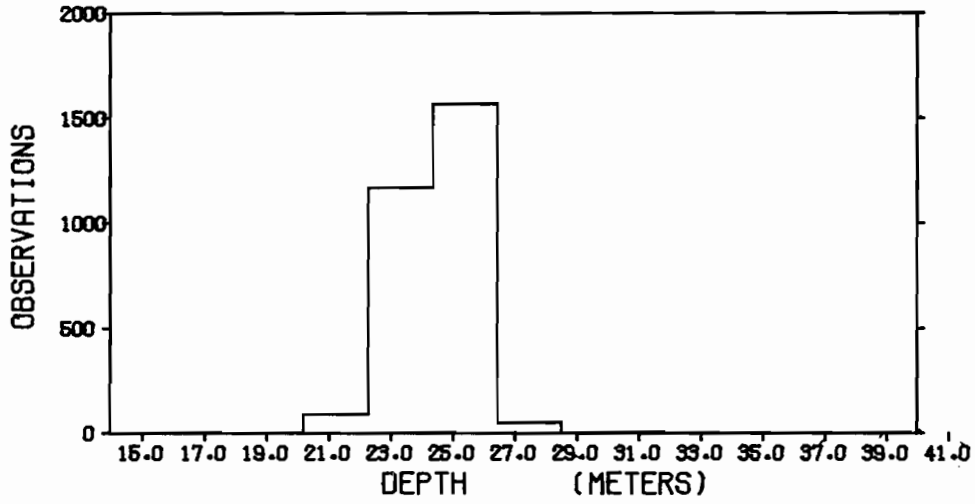
HOURLY AVERAGES OF CONDUCTIVITY DEPTH 25.0 METERS.

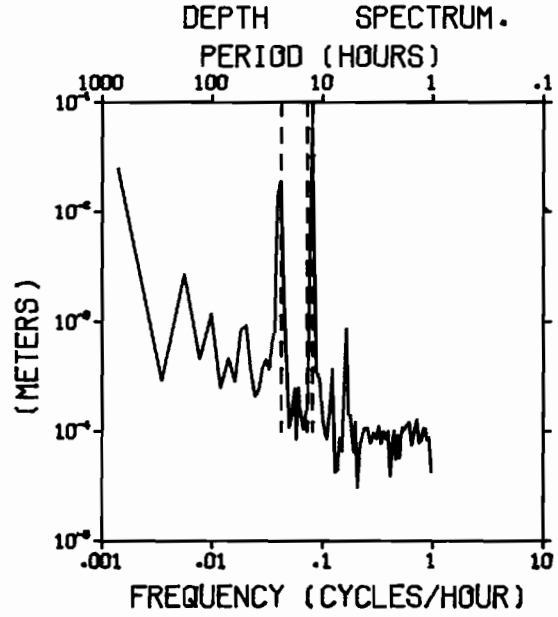


C.1. TIME SERIES ANALYSIS Current Meter 598
Part 1 of 3 (Continued)

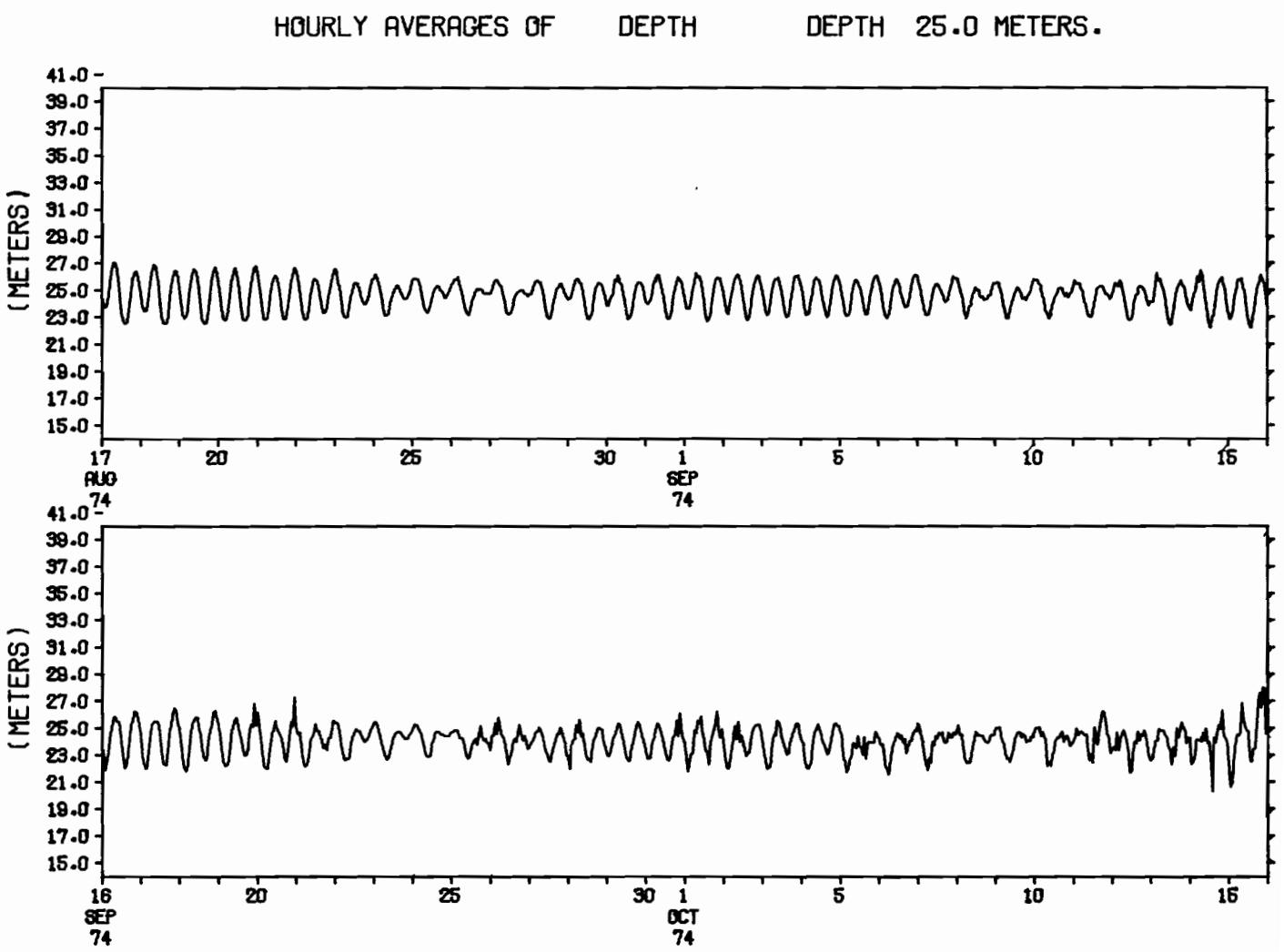
DEPTH STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 25.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0000 GMT 17 AUG 74

MEAN (METER)	VARIANCE (METERS)	ST-DEV (METER)	SKEW	KURT	MAX (METER)	MIN (METER)
25.00	1.19	1.09	-.15	2.95	29.85	21.09





C.1. TIME SERIES ANALYSIS Current Meter 598 Part 1 of 3 (Continued)

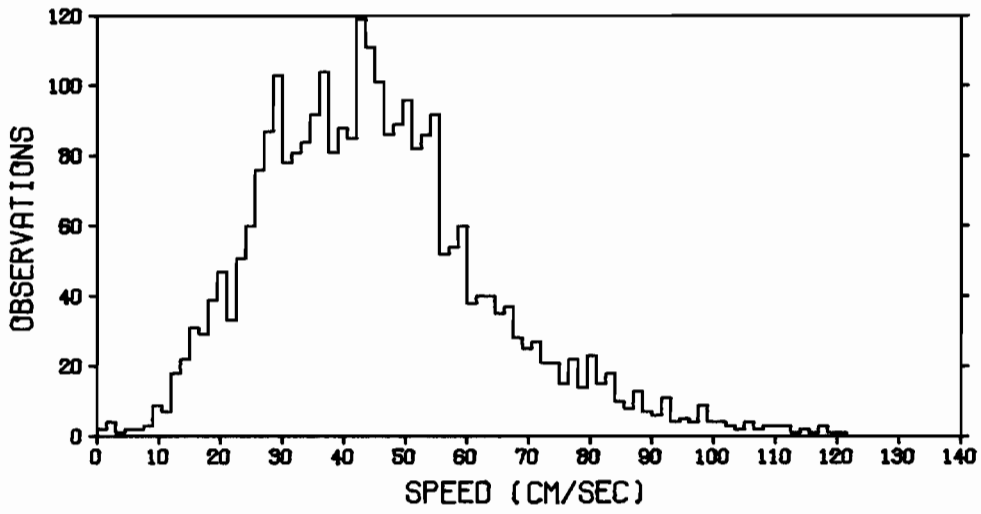


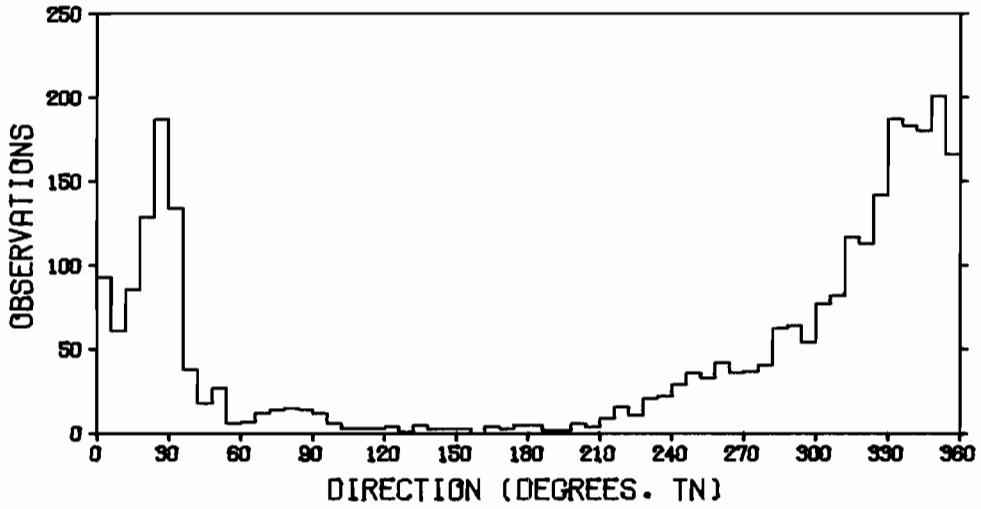
C.1. TIME SERIES ANALYSIS Current Meter 598 Nominal Depth: 20m
Part 2 of 3; 17 October - 16 December 1974

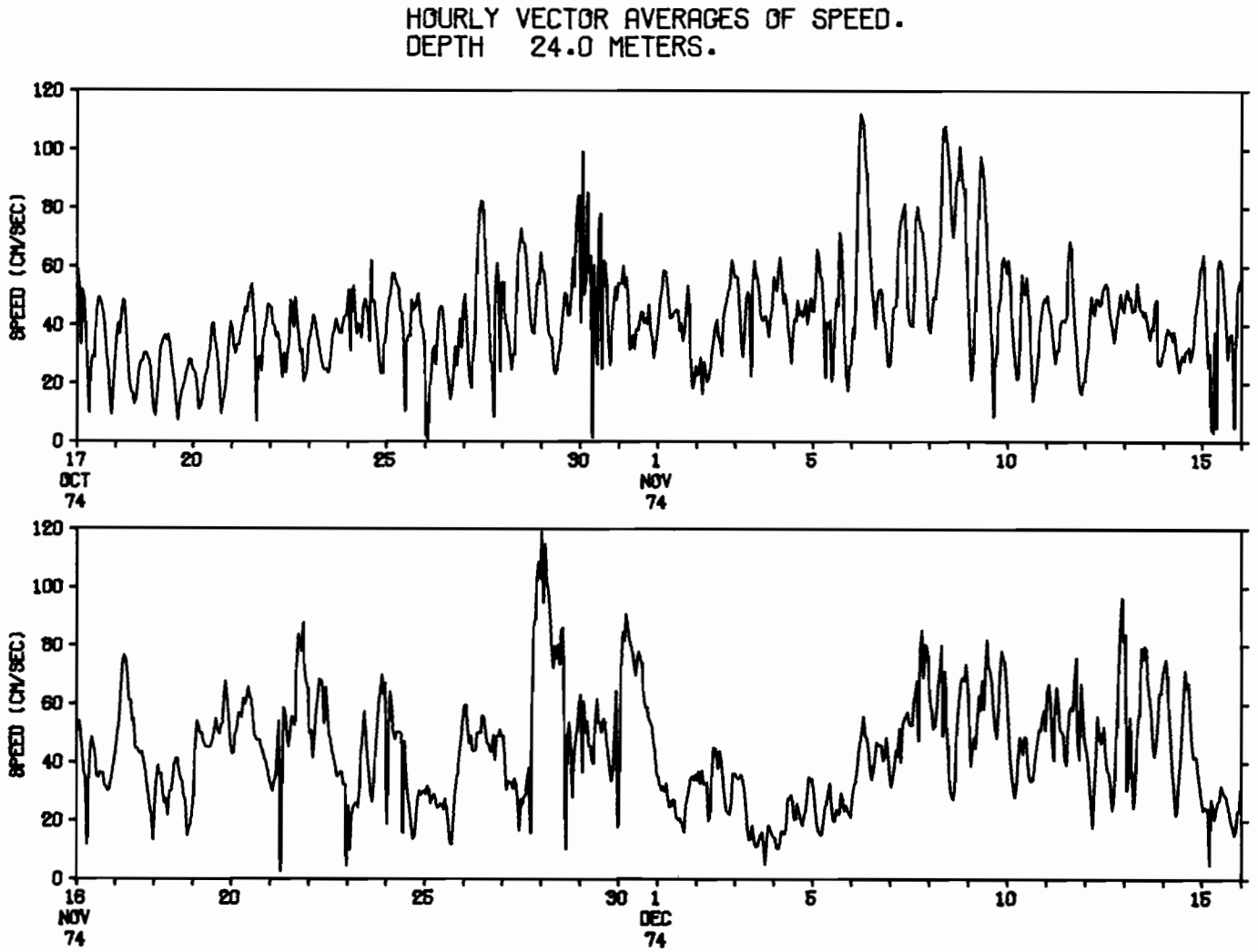
Mooring Designation NEGOA 62A
Location: 59° 34.4'N 142° 10.5'W
Sensors: Speed, Direction, Temperature, Conductivity, Pressure

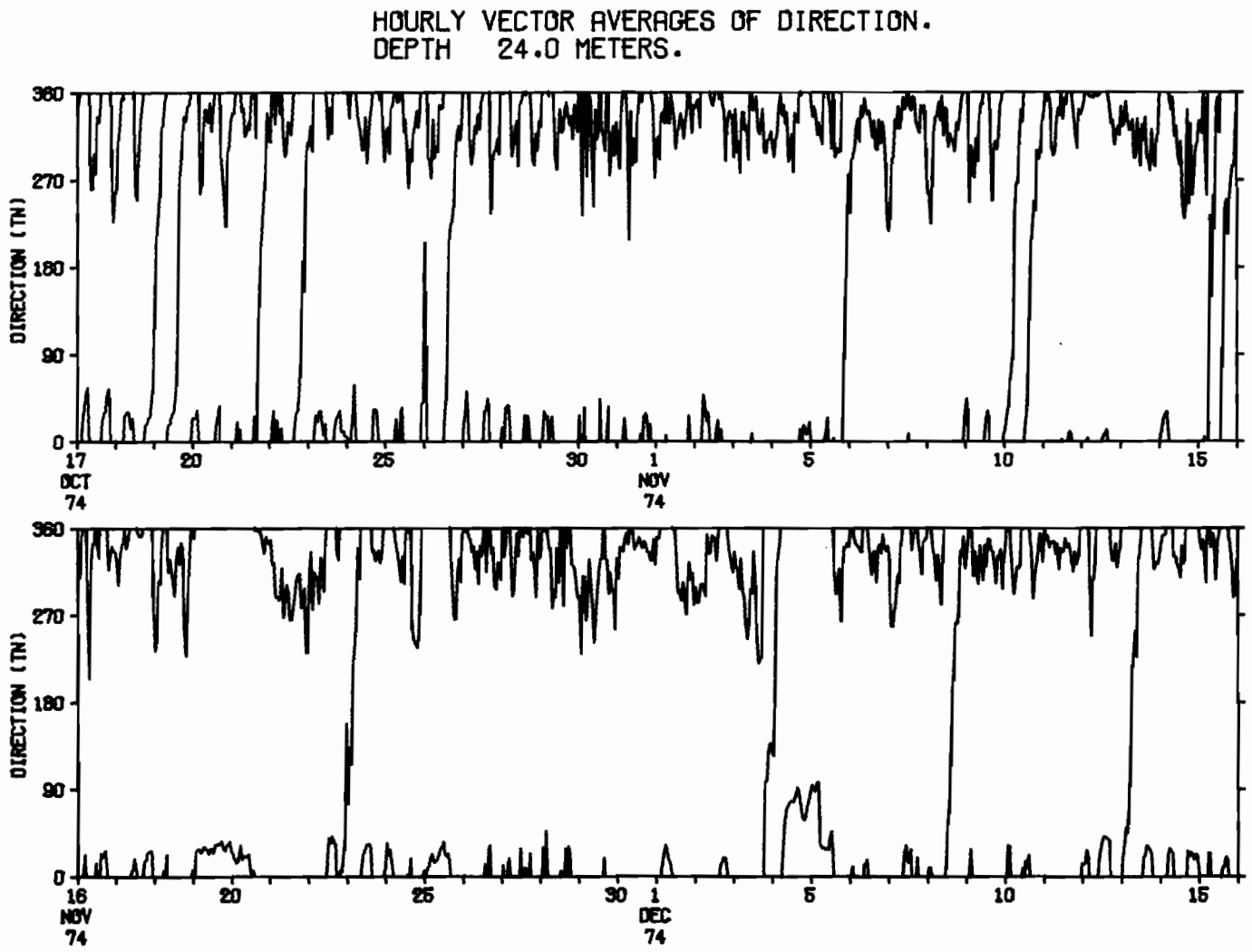
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	45.44	358.54	18.94	.773	3.87	120.32	.67
U	-12.29	635.17	25.20	-.139	3.32	108.38	-101.24
V	31.71	631.36	25.13	-.314	3.94	117.06	-98.49

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V

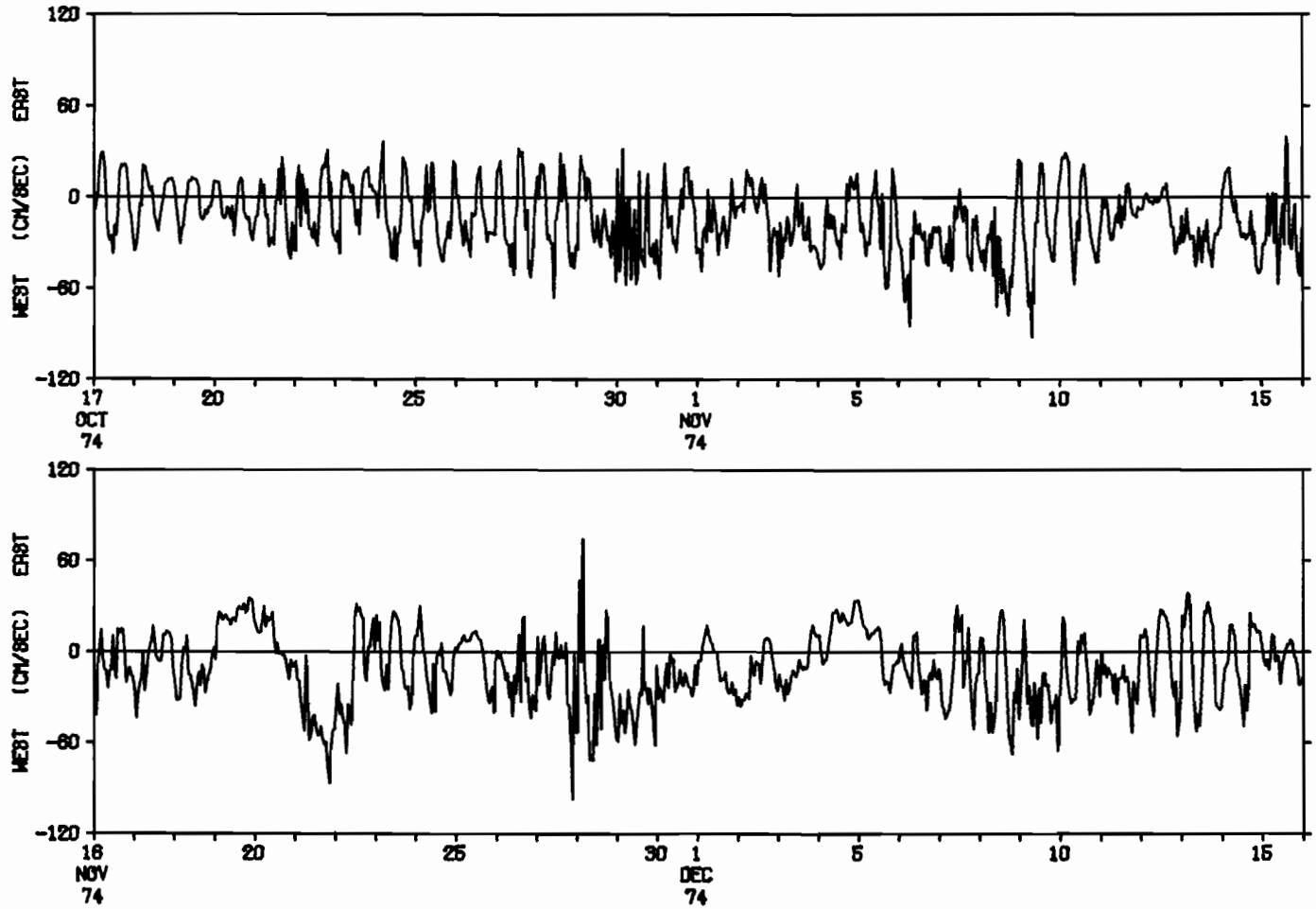




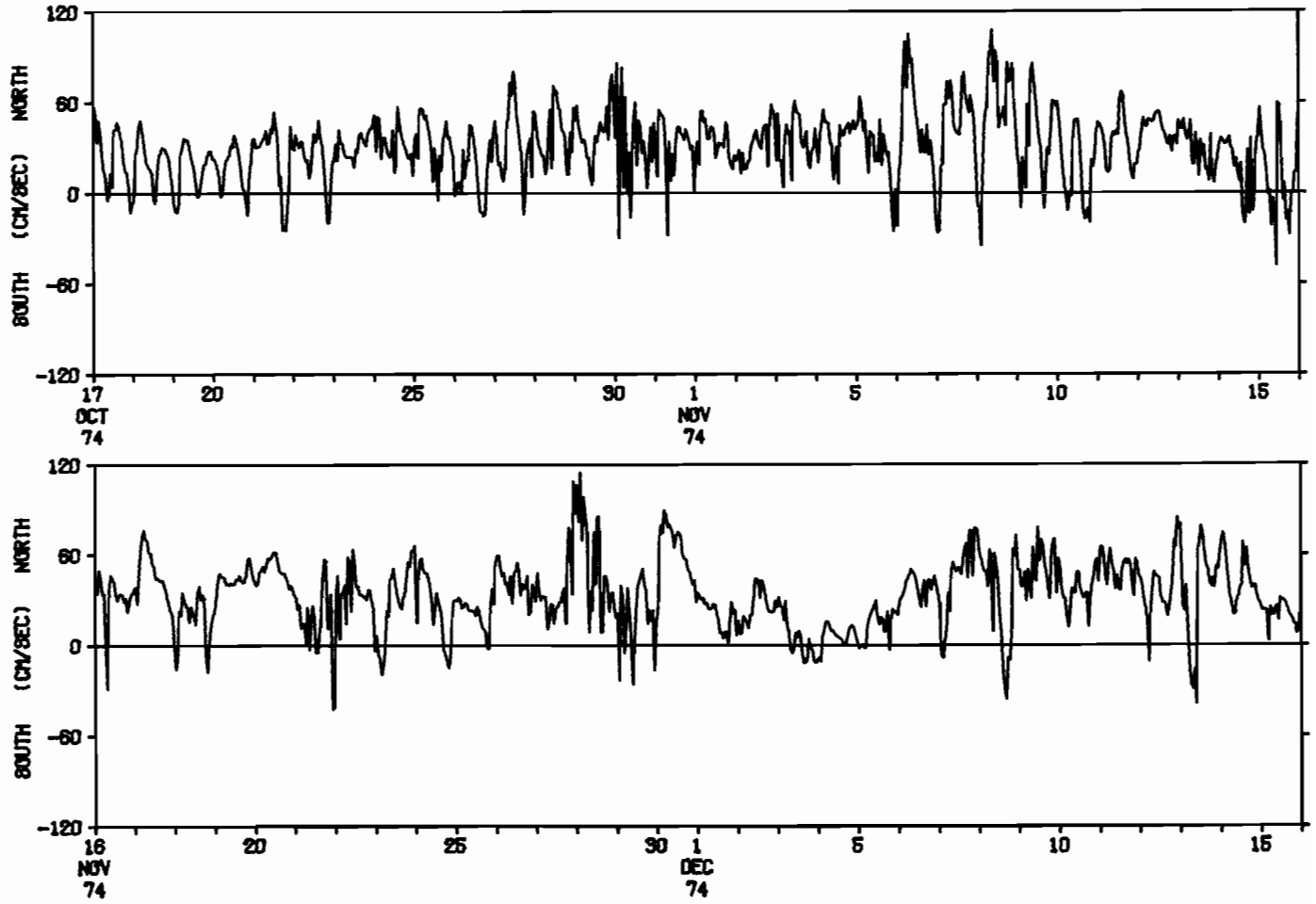

HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 24.0 METERS.
SPEED (CM/SEC)
120
100
80
60
40
20
0
17
OCT
74
20
25
30
1
NOV
74
5
10
15
SPEED (CM/SEC)
16
NOV
74
DEC
74


HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 24.0 METERS.
DIRECTION (TN)
360
270
180
90
0
17
OCT
74
20
25
30
1
NOV
74
5
10
15
DIRECTION (TN)
360
270
180
90
0
16
NOV
74
20
25
30
1
DEC
74
5
10
15

HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 24.0 METERS.

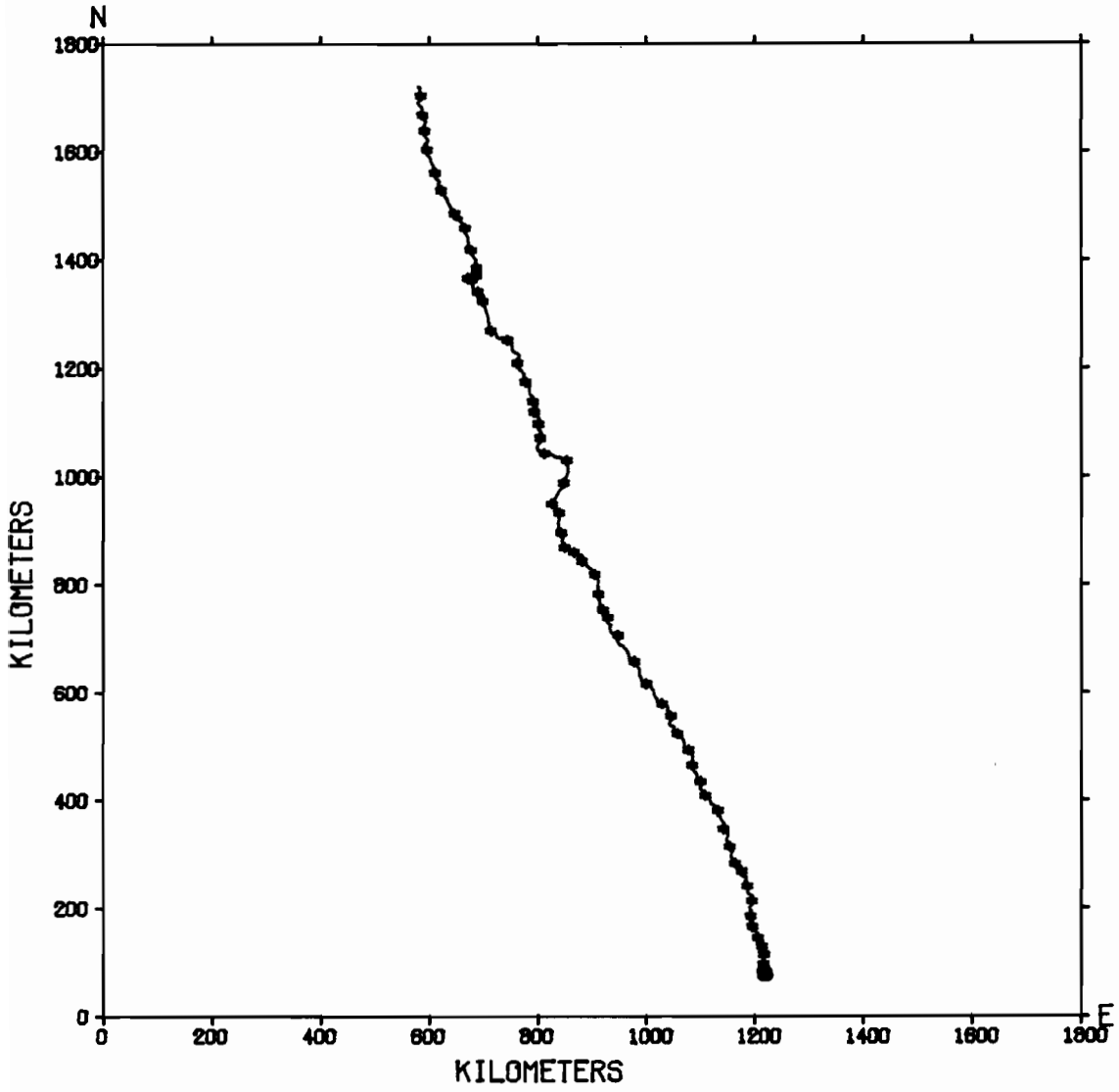


HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 24.0 METERS.

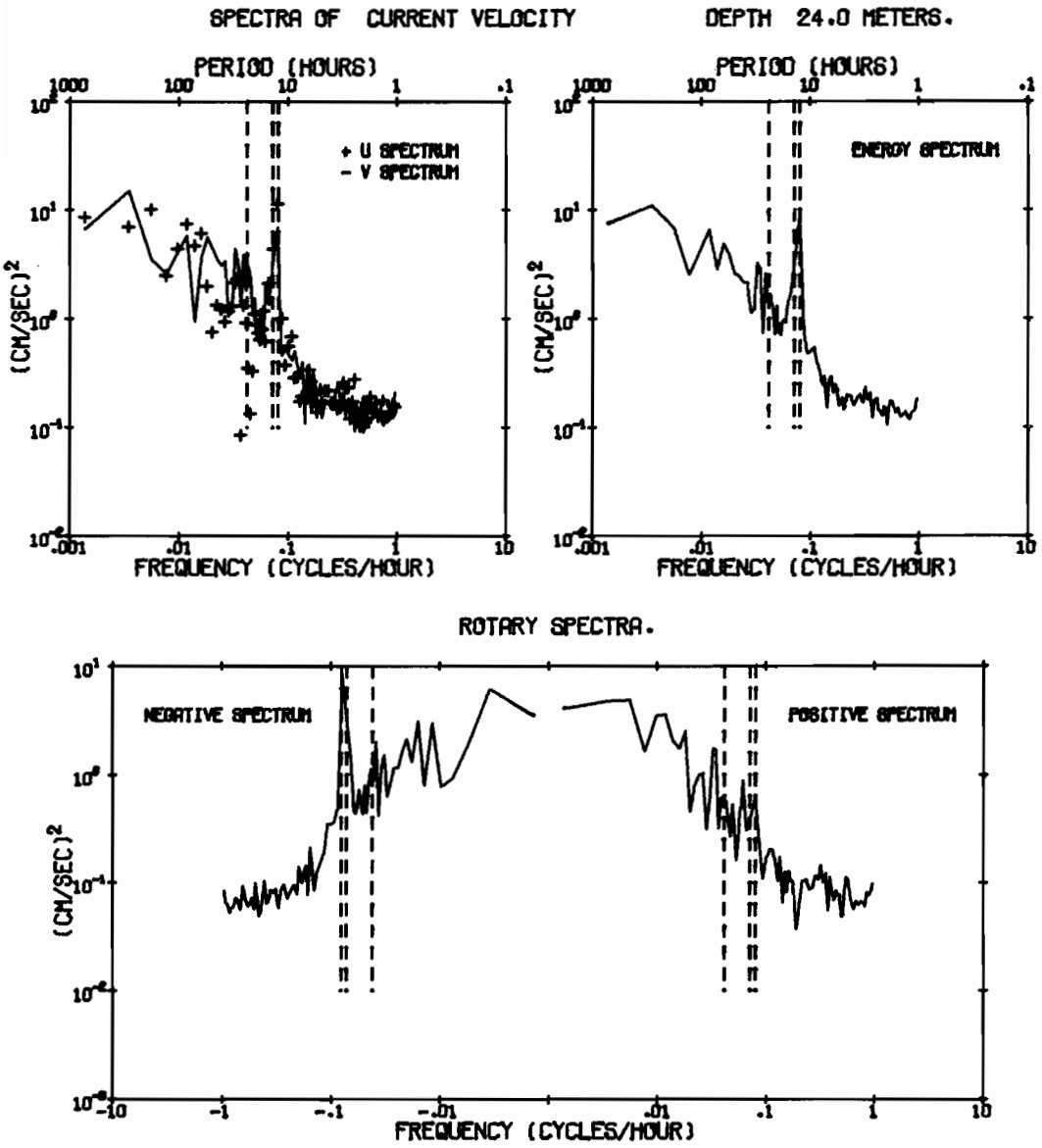


C.1. TIME SERIES ANALYSIS Current Meter 598
Part 2 of 3 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF CURRENTS
OBSERVATION PERIOD 60.0 DAYS FROM 0000 GMT 17 OCT 74.
DEPTH 24.0 METERS.



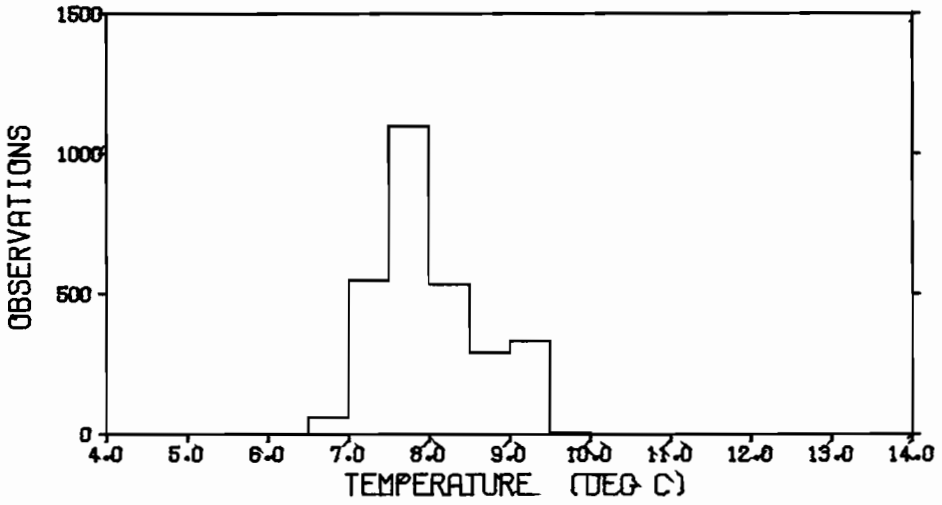
C.1. TIME SERIES ANALYSIS Current Meter 598
Part 2 of 3 (Continued)

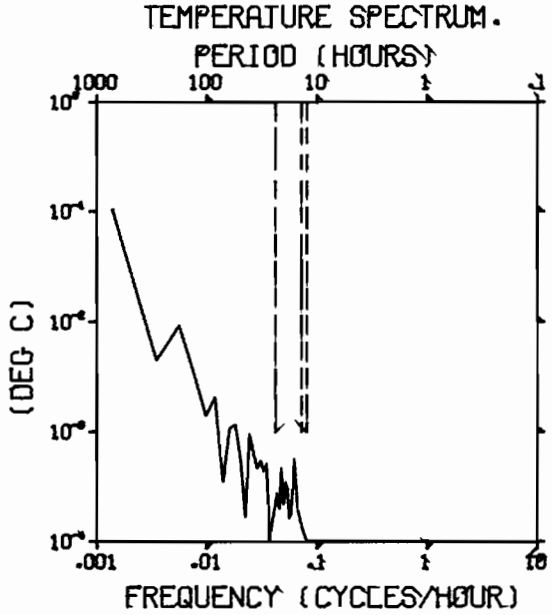


C.1. TIME SERIES ANALYSIS Current Meter 598
Part 2 of 3 (Continued)

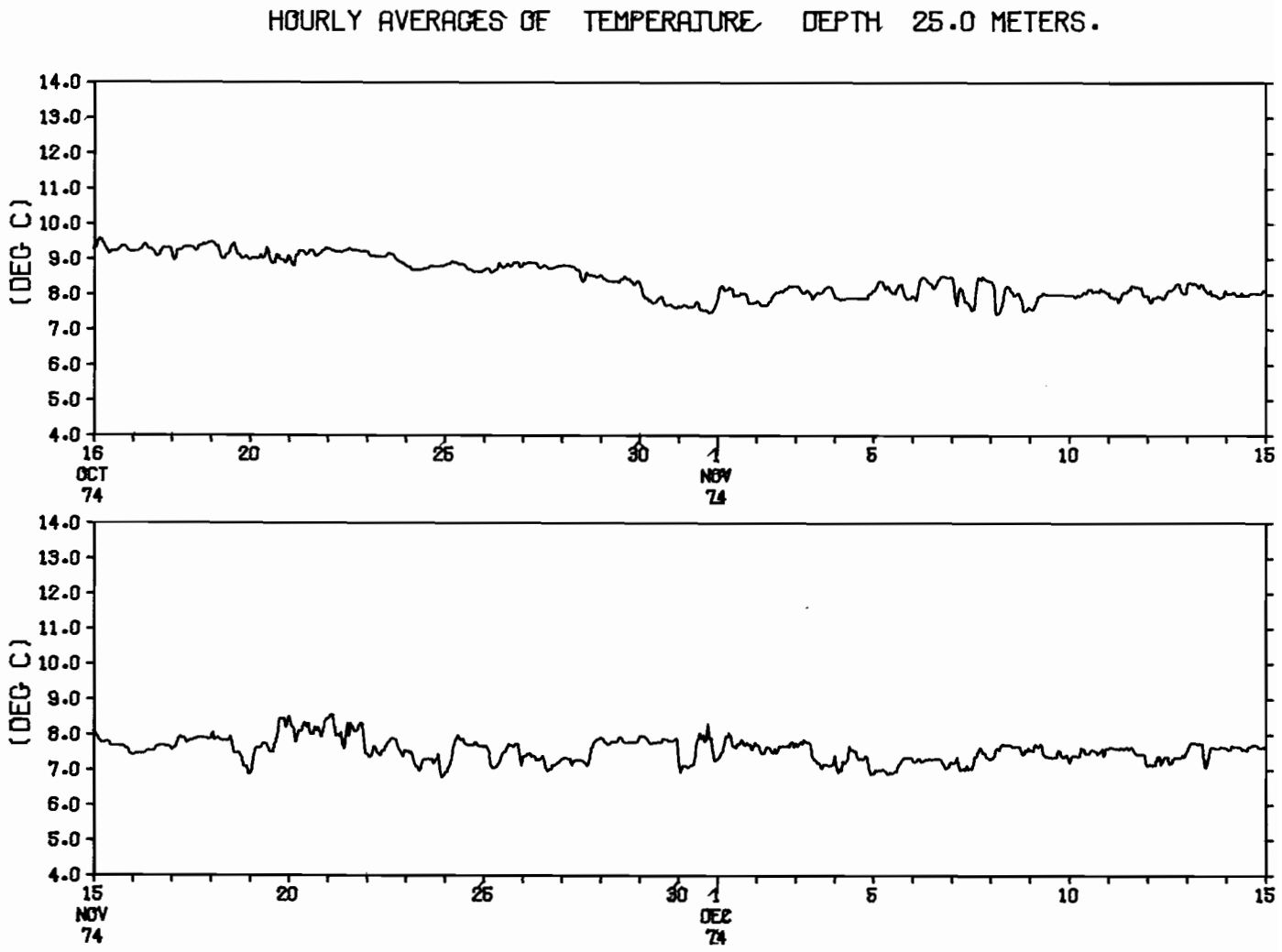
TEMPERATURE STATISTICS LAT = 59 34.4N LONG = 142 10.5W
DEPTH 25.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0000 GMT 16 OCT 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
8.01	.41	.64	.60	2.50	9.58	6.77





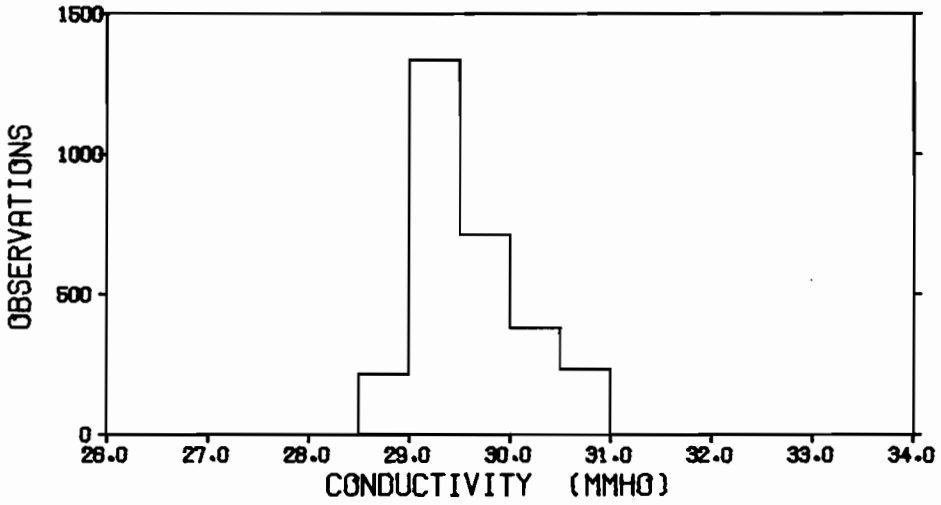
C.1. TIME SERIES ANALYSIS Current Meter 598 Part 2 of 3 (Continued)

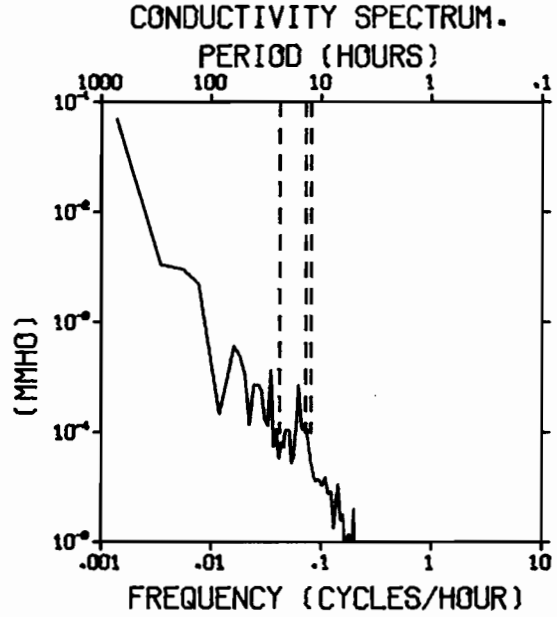


C.1. TIME SERIES ANALYSIS Current Meter 598
Part 2 of 3 (Continued)

CONDUCTIVITY STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 25.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0000 GMT 16 OCT 74

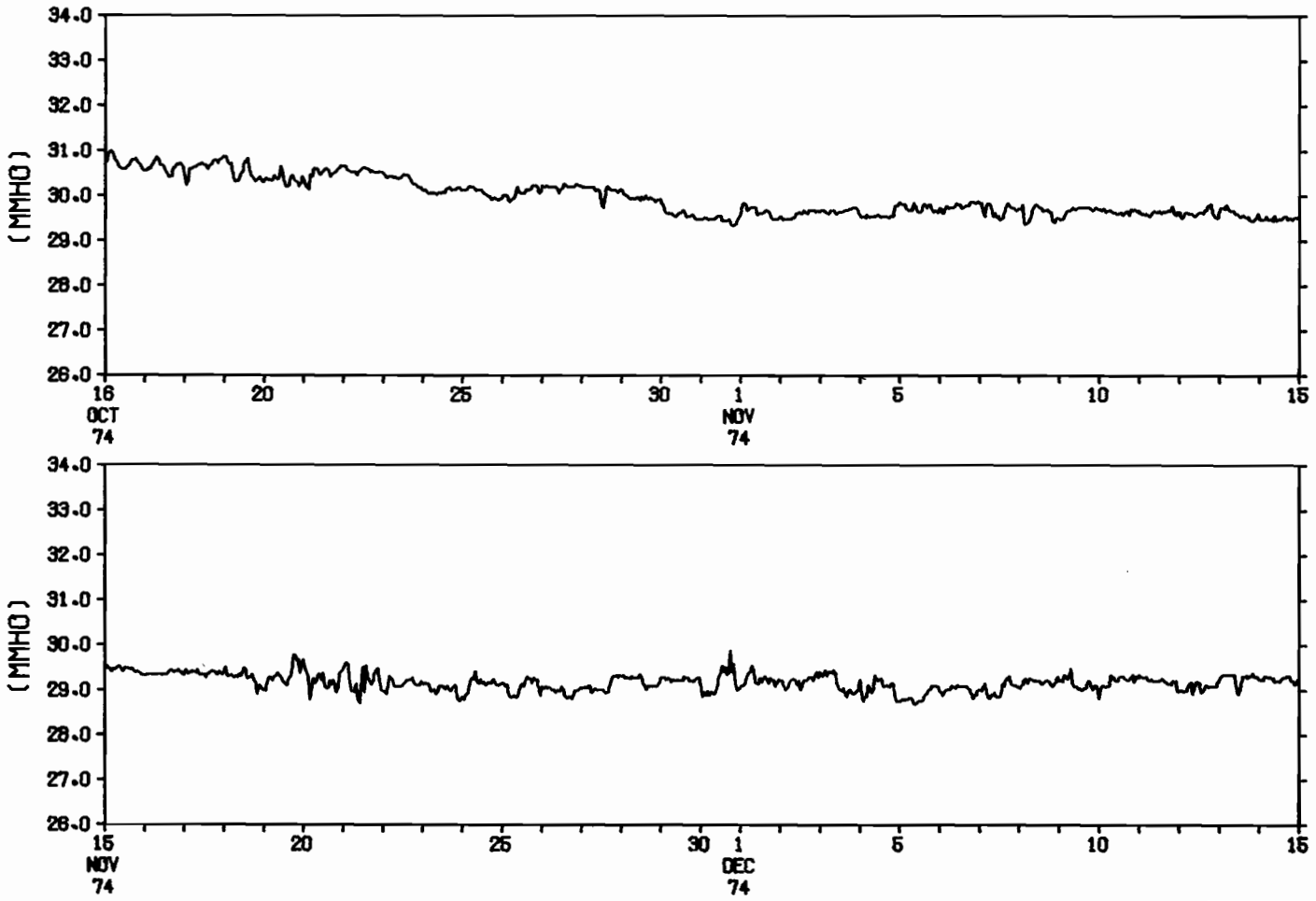
MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
29.57	.26	.51	.76	2.75	30.98	28.56





C.1. TIME SERIES ANALYSIS Current Meter 598 Part 2 of 3 (Continued)

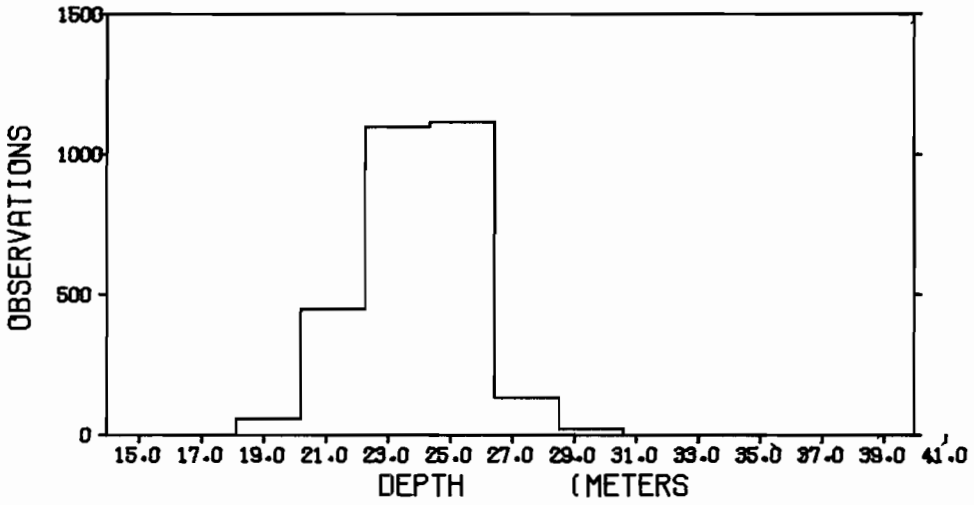
HOURLY AVERAGES OF CONDUCTIVITY DEPTH 25.0 METERS.

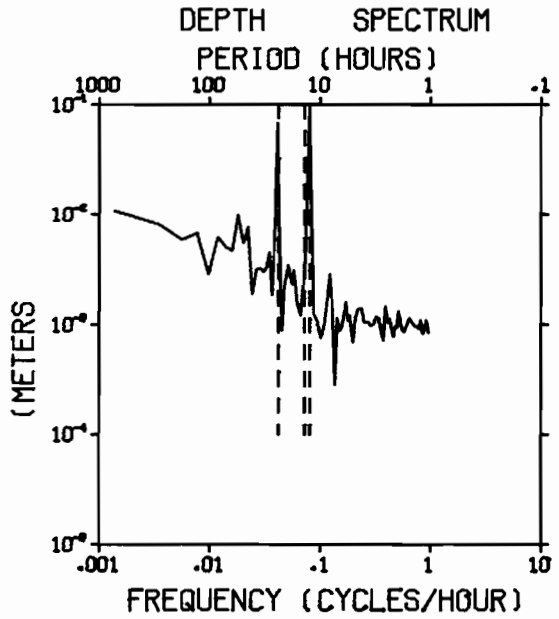


C.1. TIME SERIES ANALYSIS Current Meter 598
Part 2 of 3 (Continued)

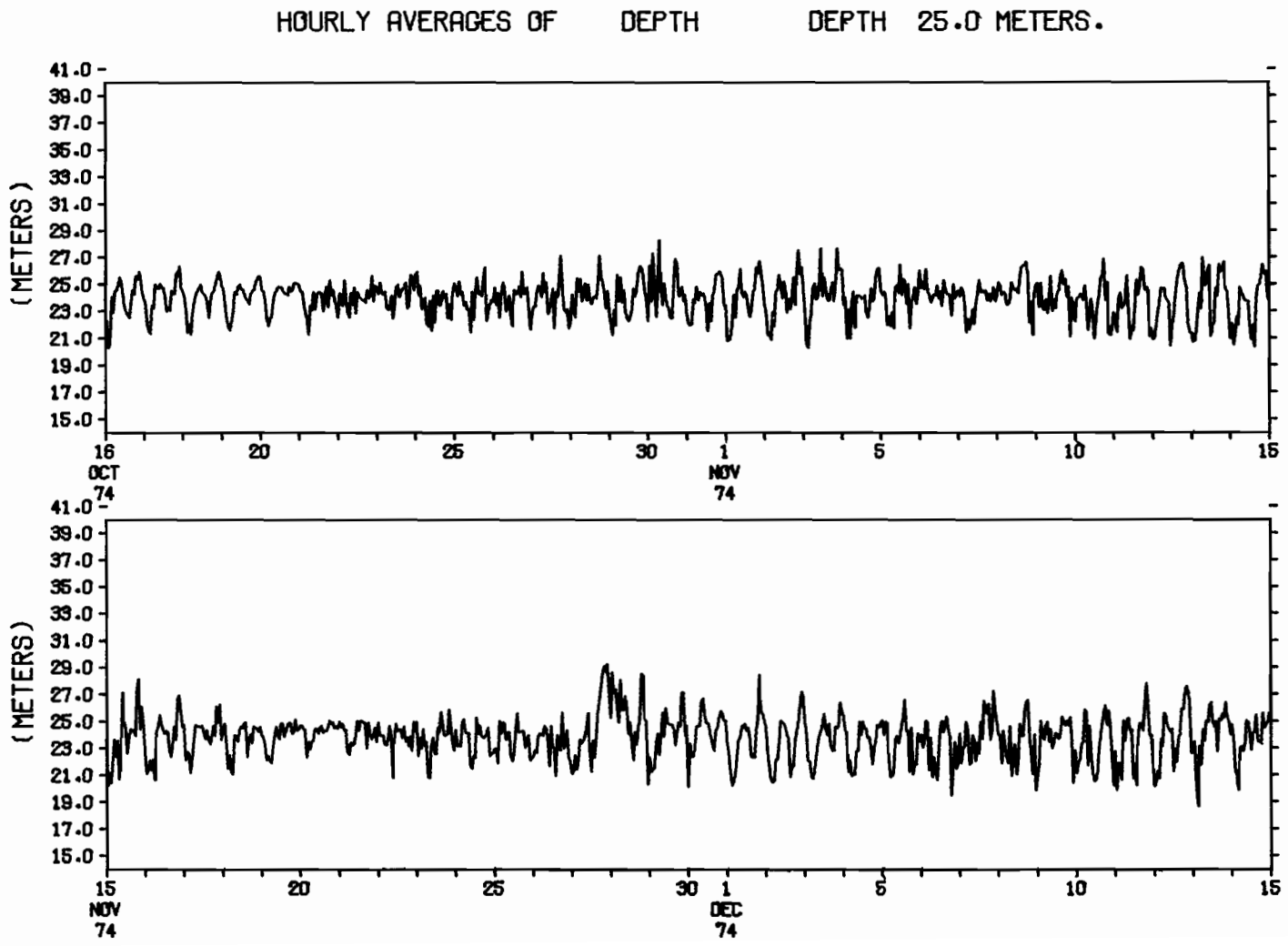
DEPTH STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 25.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0000 GMT 16 OCT 74

MEAN (METER)	VARIANCE (METERS)	ST-DEV (METER)	SKEW	KURT	MAX (METER)	MIN (METER)
24.55	2.85	1.69	-.09	3.43	30.61	19.43





C.1. TIME SERIES ANALYSIS Current Meter 598 Part 2 of 3 (Continued)

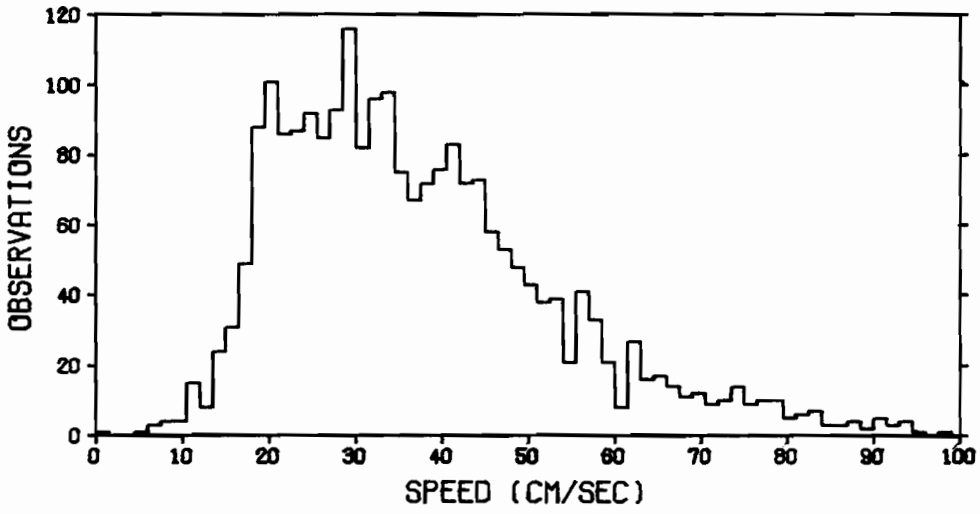


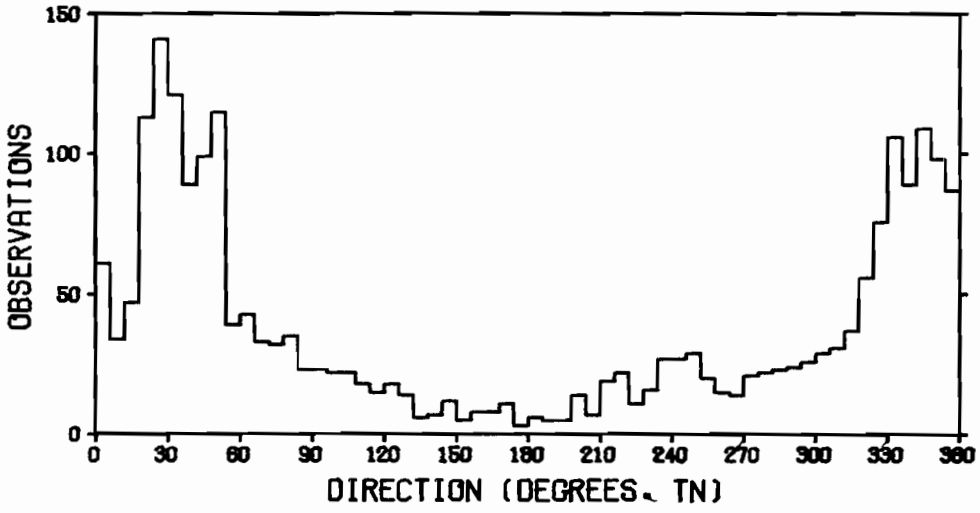
C.1. TIME SERIES ANALYSIS Current Meter 598 Nominal Depth: 20m
Part 3 of 3; 16 December - 2 February 1975

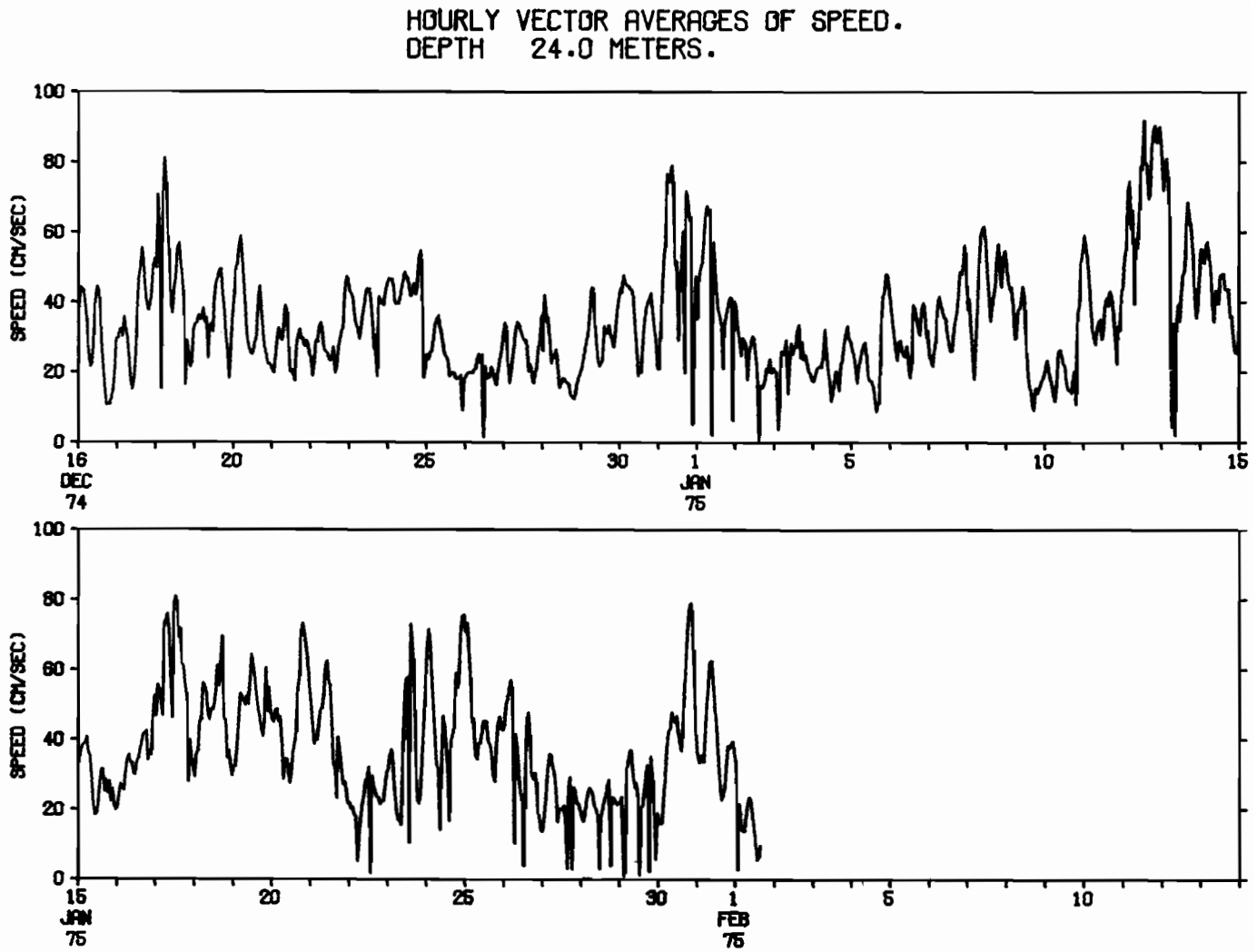
Mooring Designation NEGOA 62A
Location: 59° 34.4'N 142° 10.5'W
Sensors: Speed, Direction, Temperature, Conductivity, Pressure

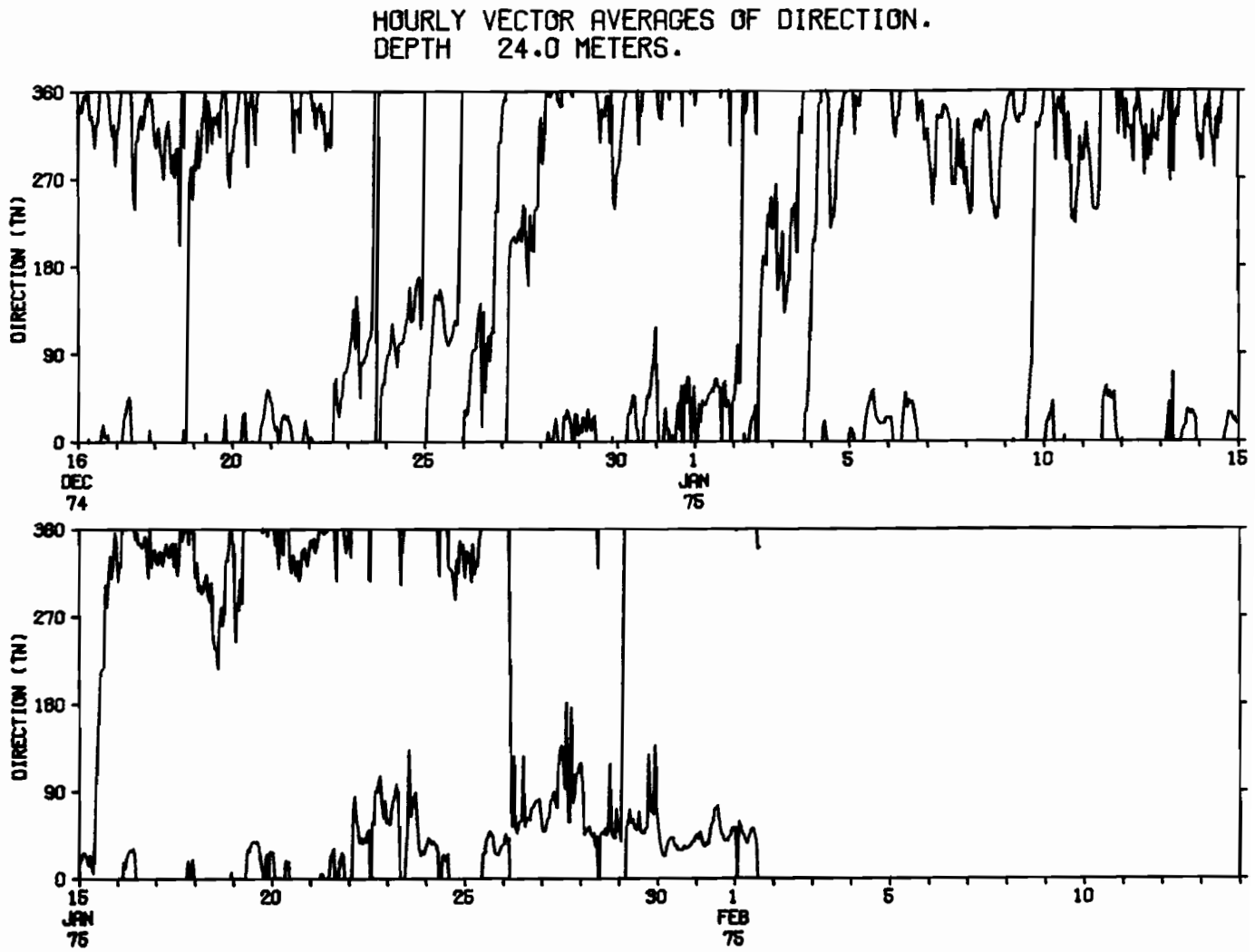
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	37.24	258.12	16.07	.927	3.74	98.93	1.50
U	.77	658.49	25.66	-.401	2.95	66.33	-95.76
V	20.80	553.35	23.52	-.325	3.20	90.62	-61.48

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V



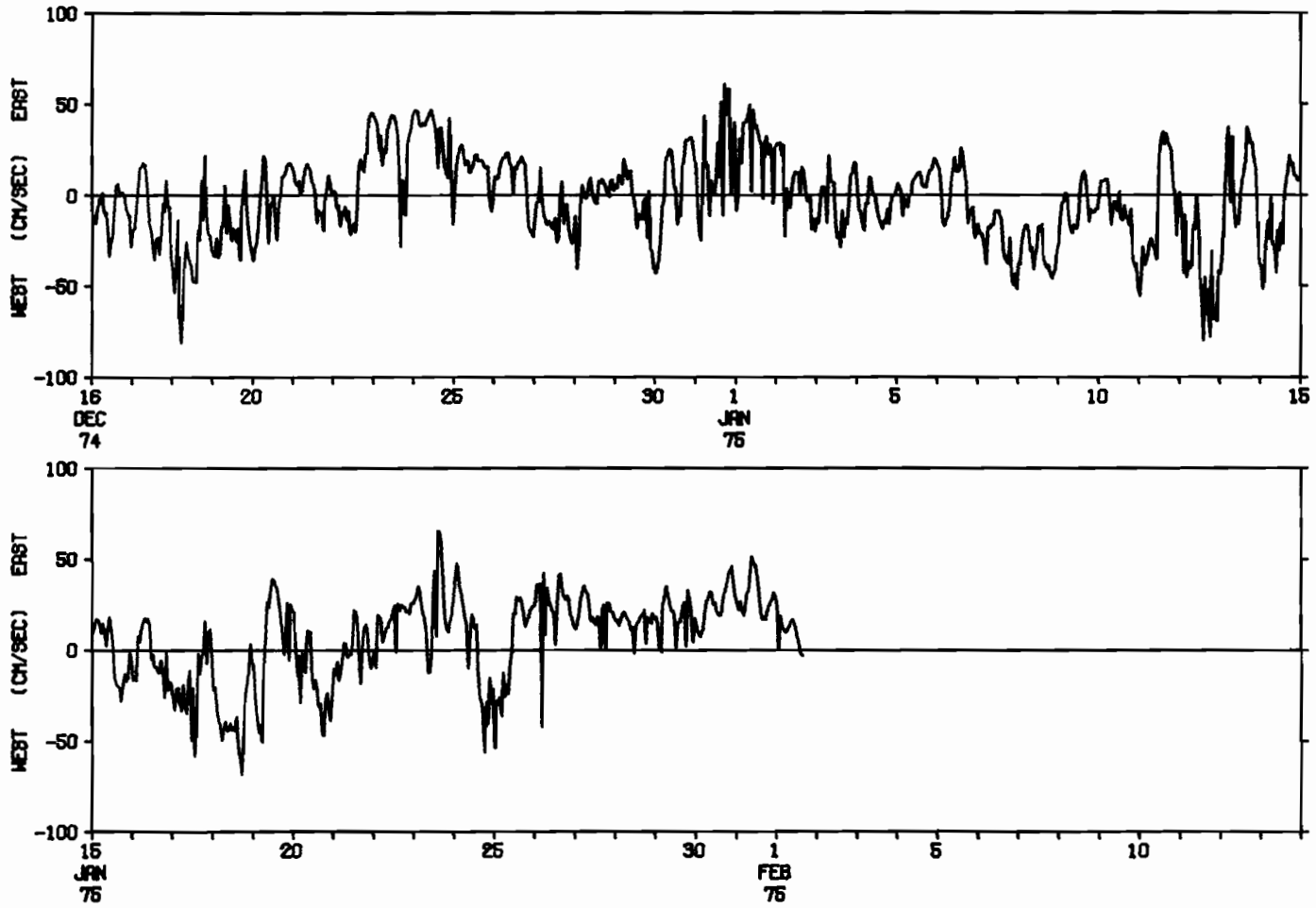



HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 24.0 METERS.
SPEED (CM/SEC)
100
80
60
40
20
0
16
DEC
74
20
25
30
1
JAN
75
5
10
15
SPEED (CM/SEC)
100
80
60
40
20
0
15
JAN
75
20
25
30
1
FEB
75
5
10


HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 24.0 METERS.
DIRECTION (TN)
360
270
180
90
0
16
DEC
74
20
25
30
1
JAN
75
5
10
15
DIRECTION (TN)
360
270
180
90
0
15
JAN
75
20
25
30
1
FEB
75
5
10

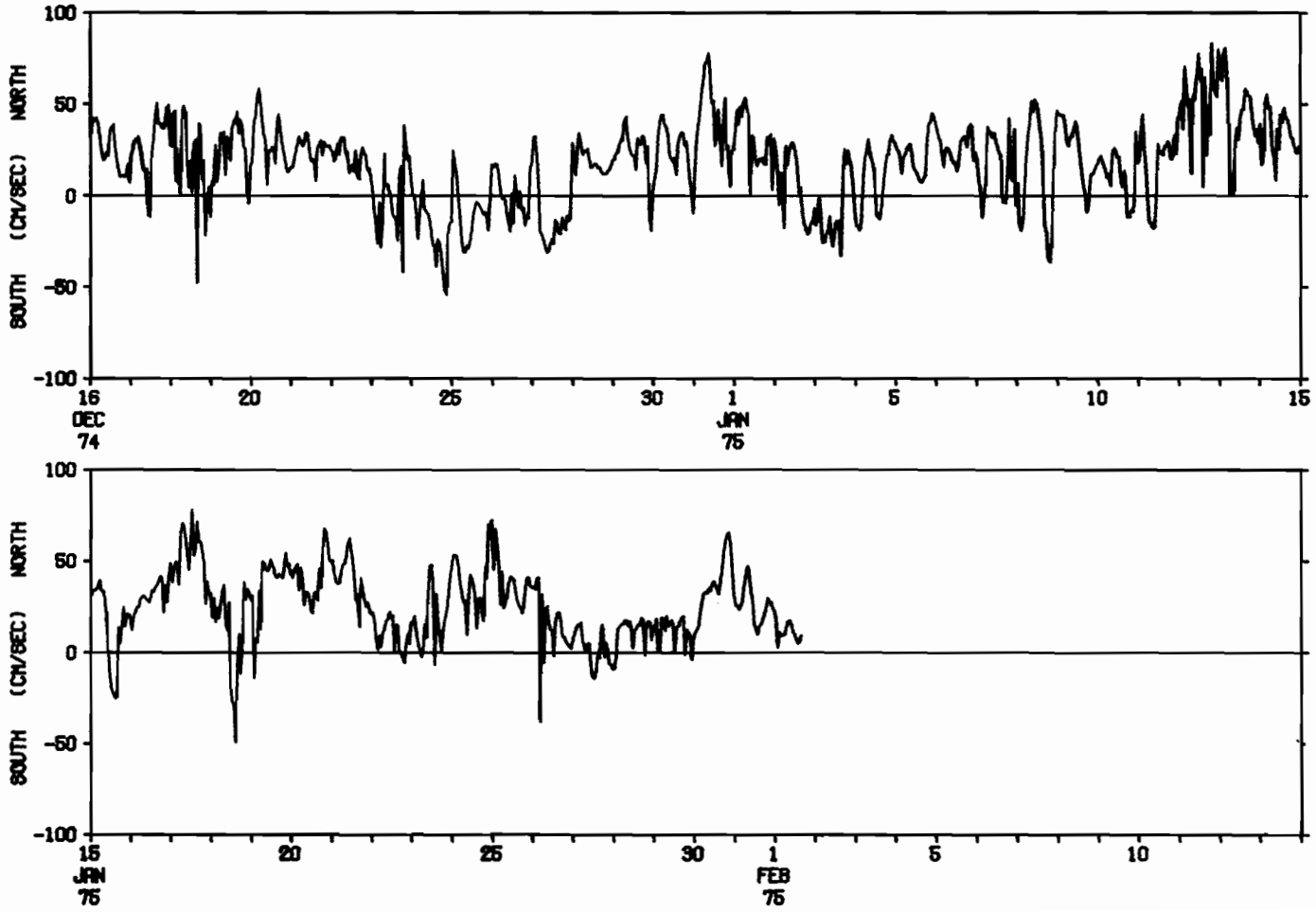
C.1. TIME SERIES ANALYSIS Current Meter 598 Part 3 of 3 (Continued)

HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 24.0 METERS.



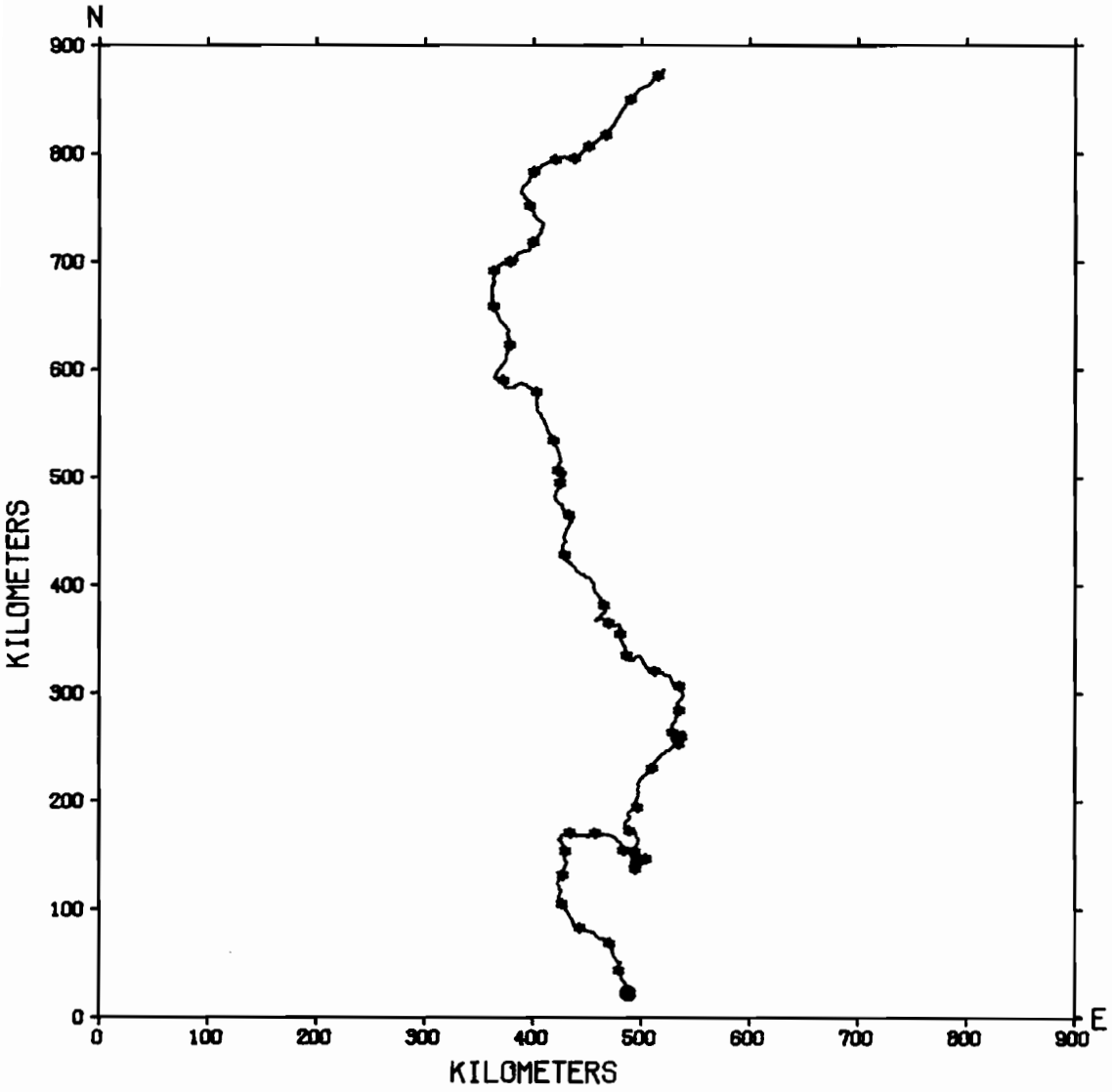
C.1. TIME SERIES ANALYSIS Current Meter 598 (Part 3 of 3 (Continued)

HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 24.0 METERS.

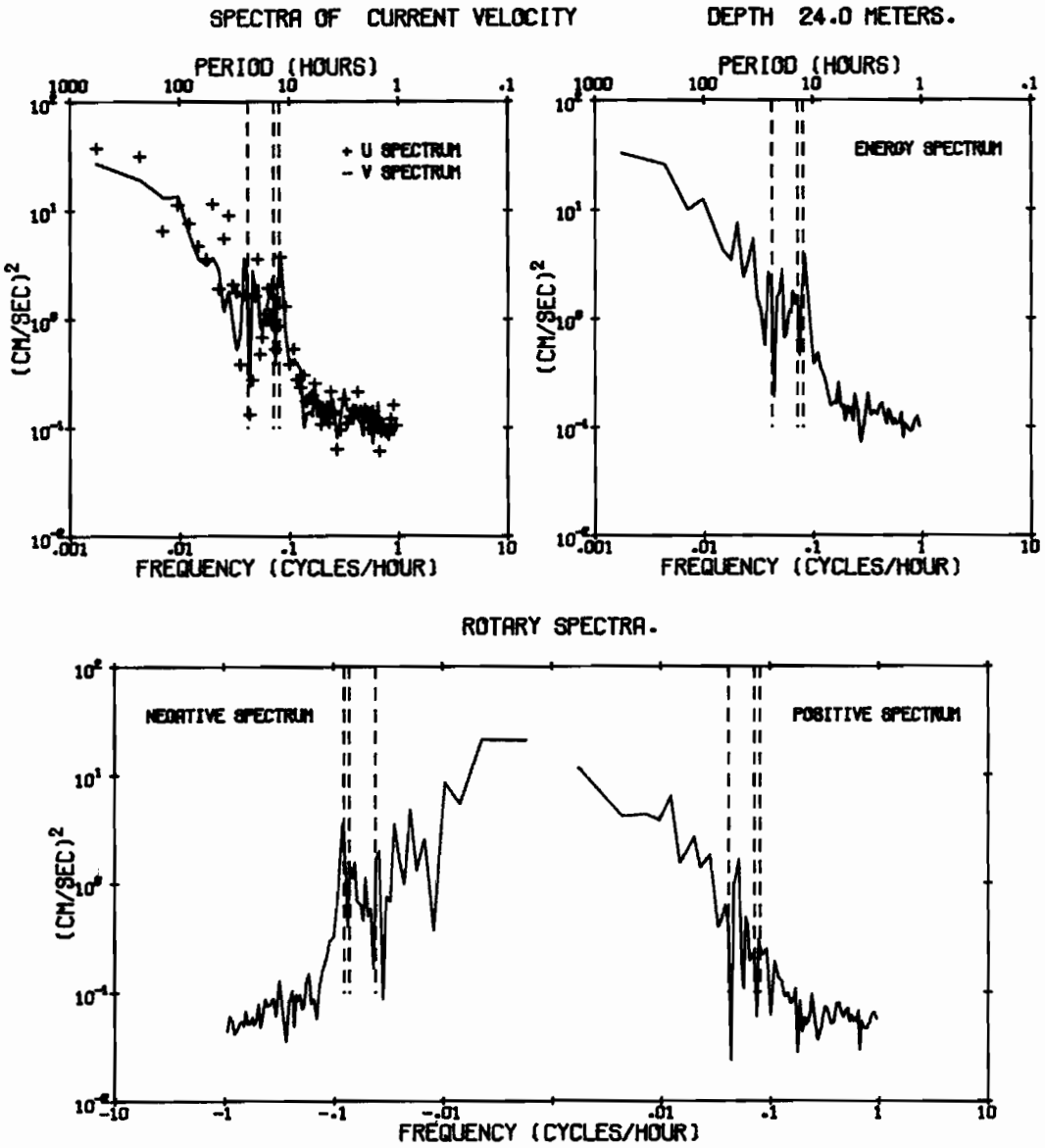


C.1. TIME SERIES ANALYSIS Current Meter 598
Part 3 of 3 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 62A
OBSERVATION PERIOD 47.7 DAYS FROM 0000 GMT 16 DEC 74.
DEPTH 24.0 METERS.



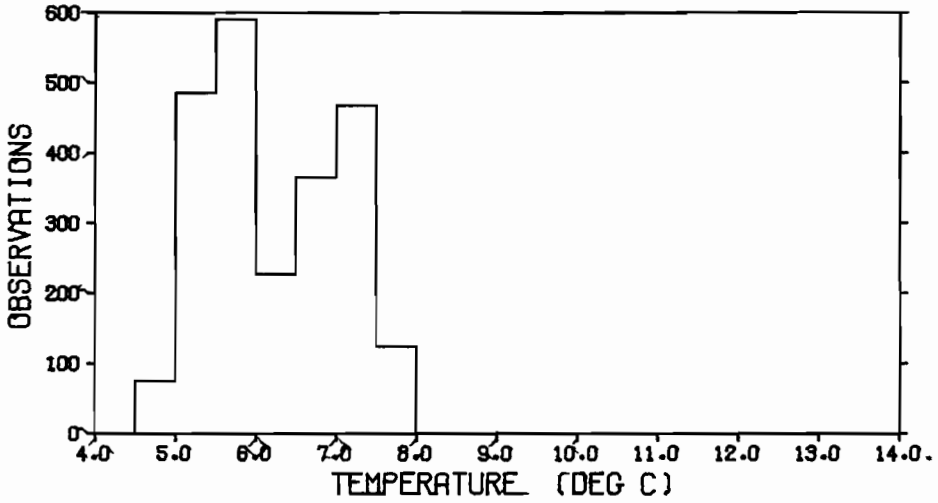
C.1. TIME SERIES ANALYSIS Current Meter 598
Part 3 of 3 (Continued)

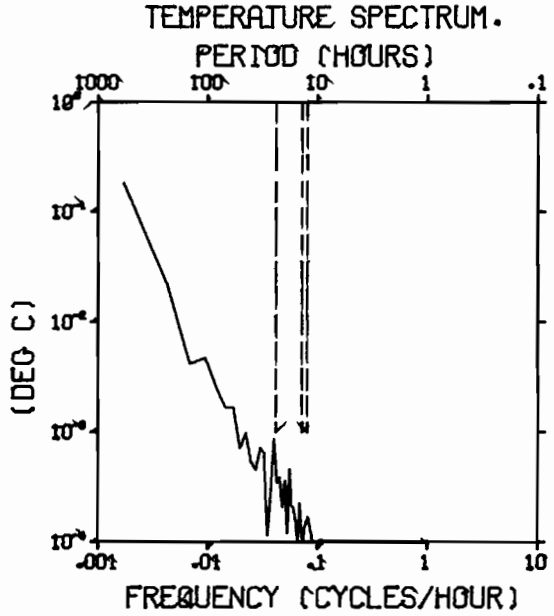


C.1. TIME SERIES ANALYSIS Current Meter 598
Part 3 of 3 (Continued)

TEMPERATURE STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 25.0 METERS NUMBER OF OBSERVATIONS = 2337
OBSERVATION PERIOD 48.7 DAYS FROM 0000 GMT 15 DEC 74

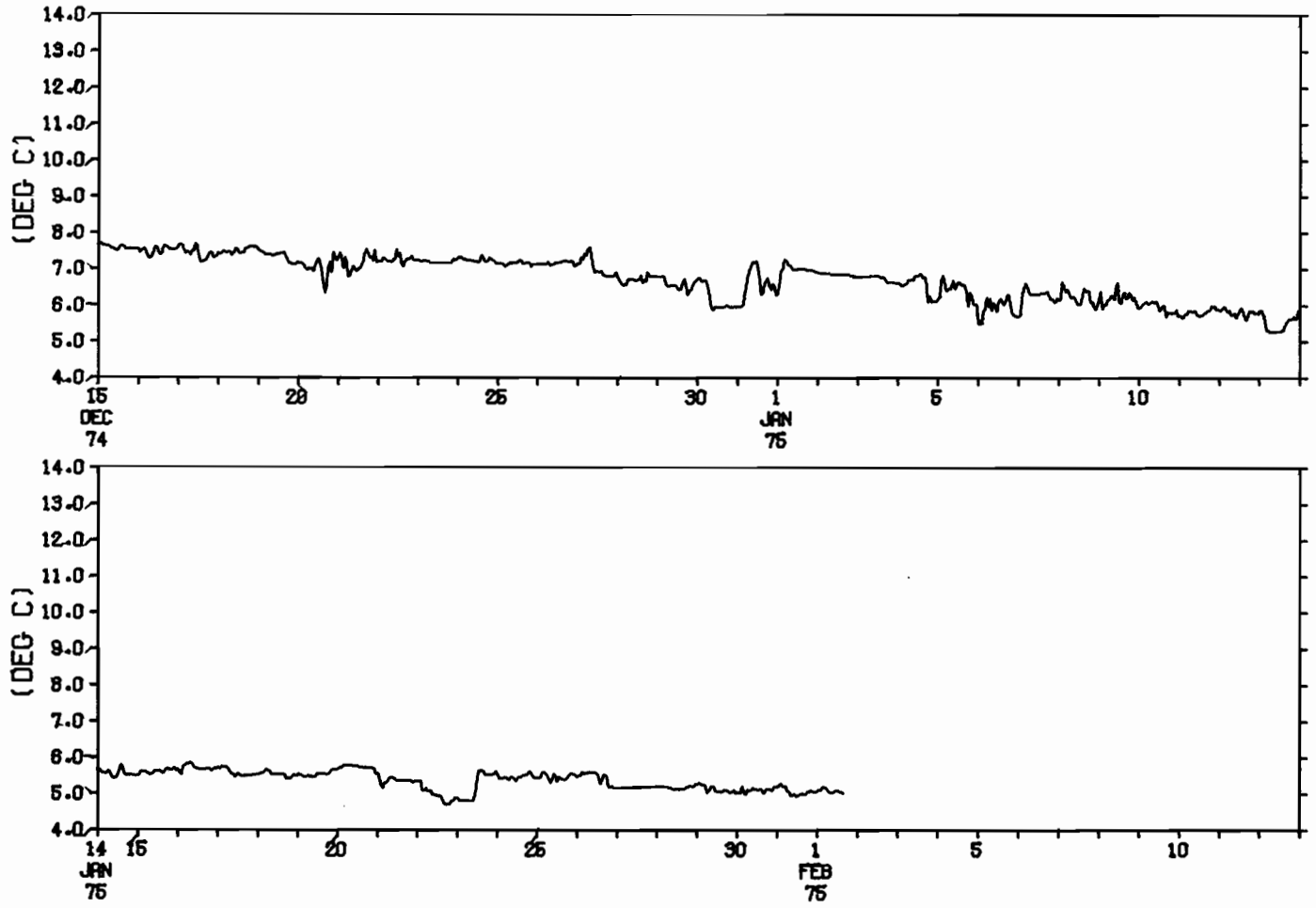
MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
6.21	.69	.83	.16	1.64	7.77	4.70





C.1. TIME SERIES ANALYSIS Current Meter 598 Part 3 of 3 (Continued)

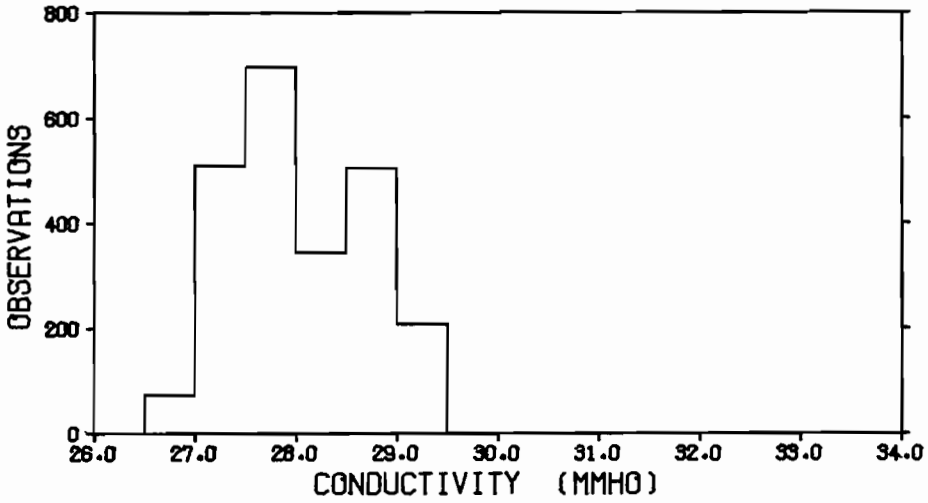
HOURLY AVERAGES OF TEMPERATURE DEPTH 25.0 METERS.

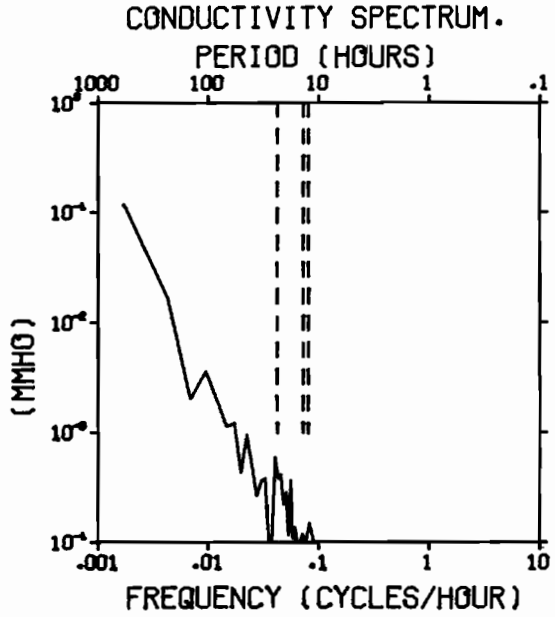


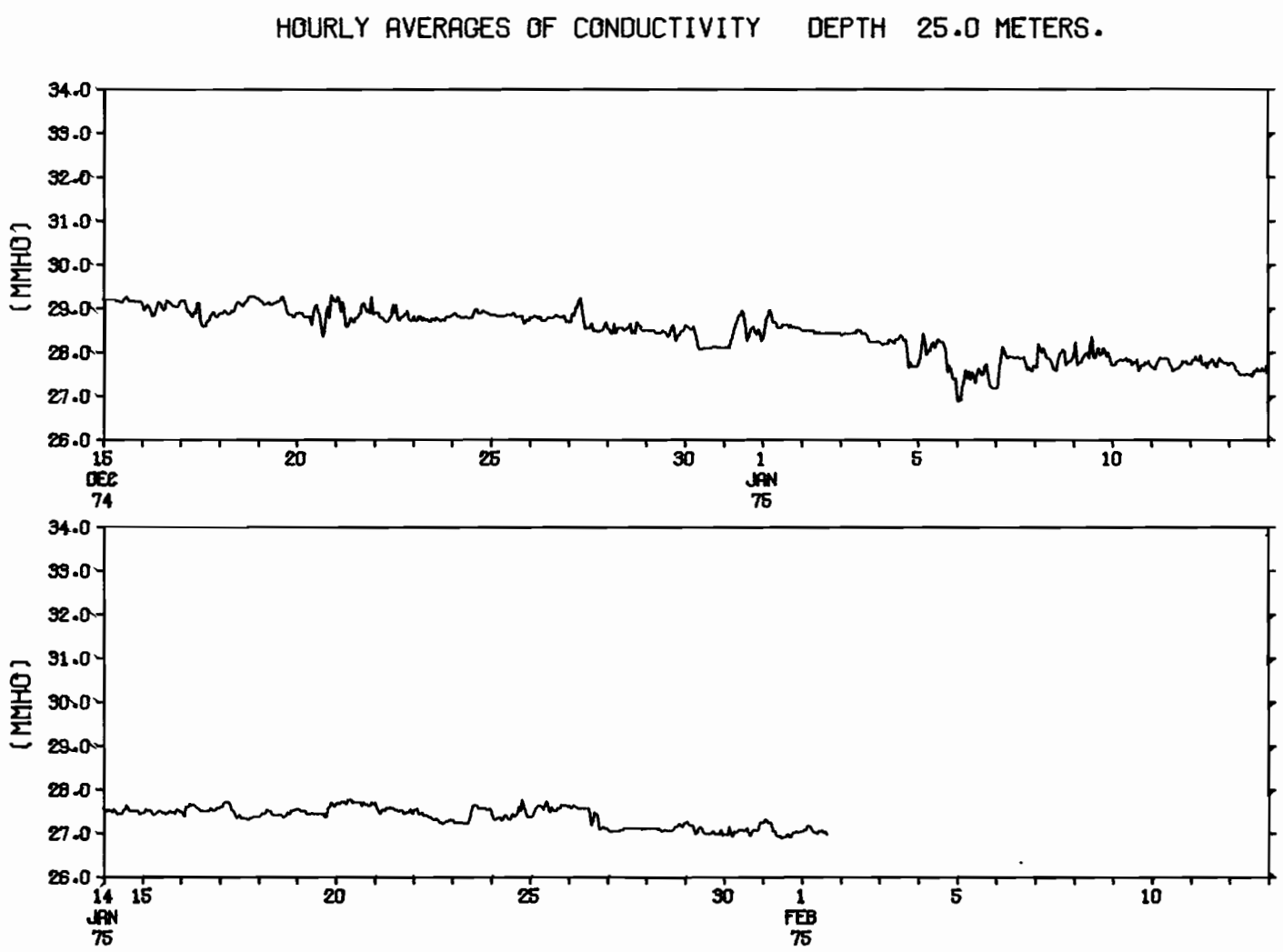
C.1. TIME SERIES ANALYSIS Current Meter 598
Part 3 of 3 (Continued)

CONDUCTIVITY STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 25.0 METERS NUMBER OF OBSERVATIONS = 2337
OBSERVATION PERIOD 48.7 DAYS FROM 0000 GMT 15 DEC 74

MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
28.02	.46	.68	.22	1.71	29.48	26.86



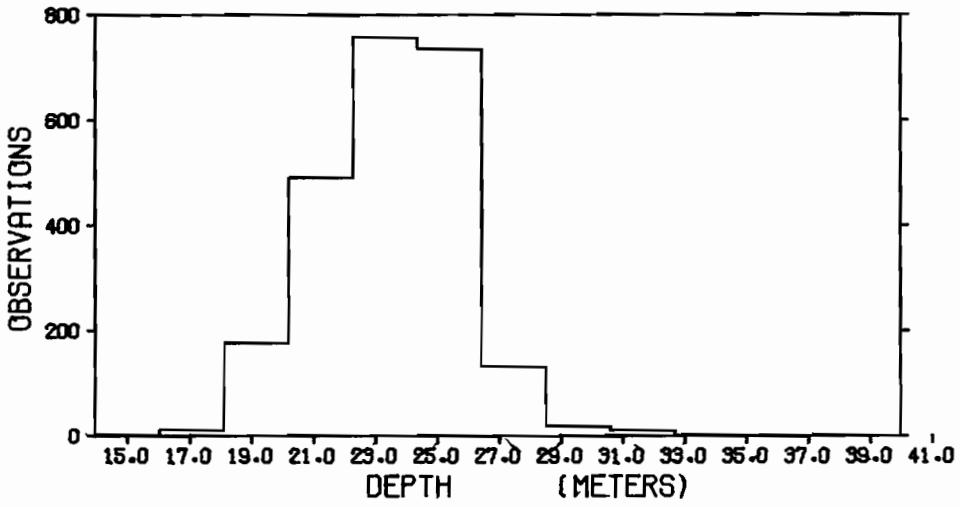


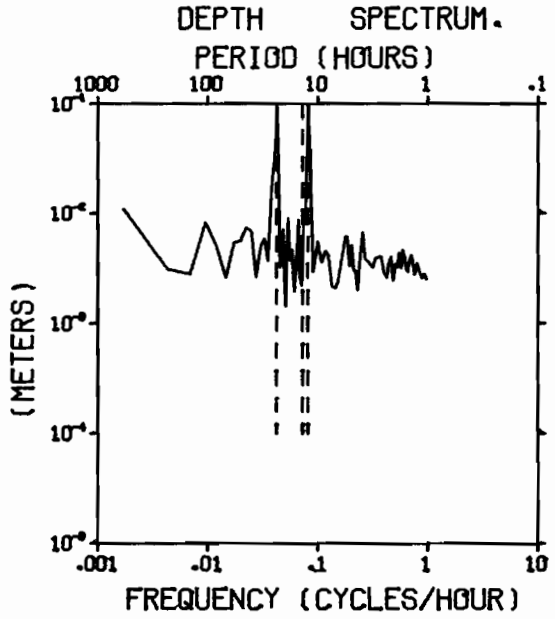

HOURLY AVERAGES OF CONDUCTIVITY DEPTH 25.0 METERS.
(MMHO)
34.0
33.0
32.0
31.0
30.0
29.0
28.0
27.0
26.0
15
DEC
74
20
25
30
1
JAN
75
5
10
(MMHO)
34.0
33.0
32.0
31.0
30.0
29.0
28.0
27.0
26.0
14
JAN
75
15
20
25
30
1
FEB
75
5
10

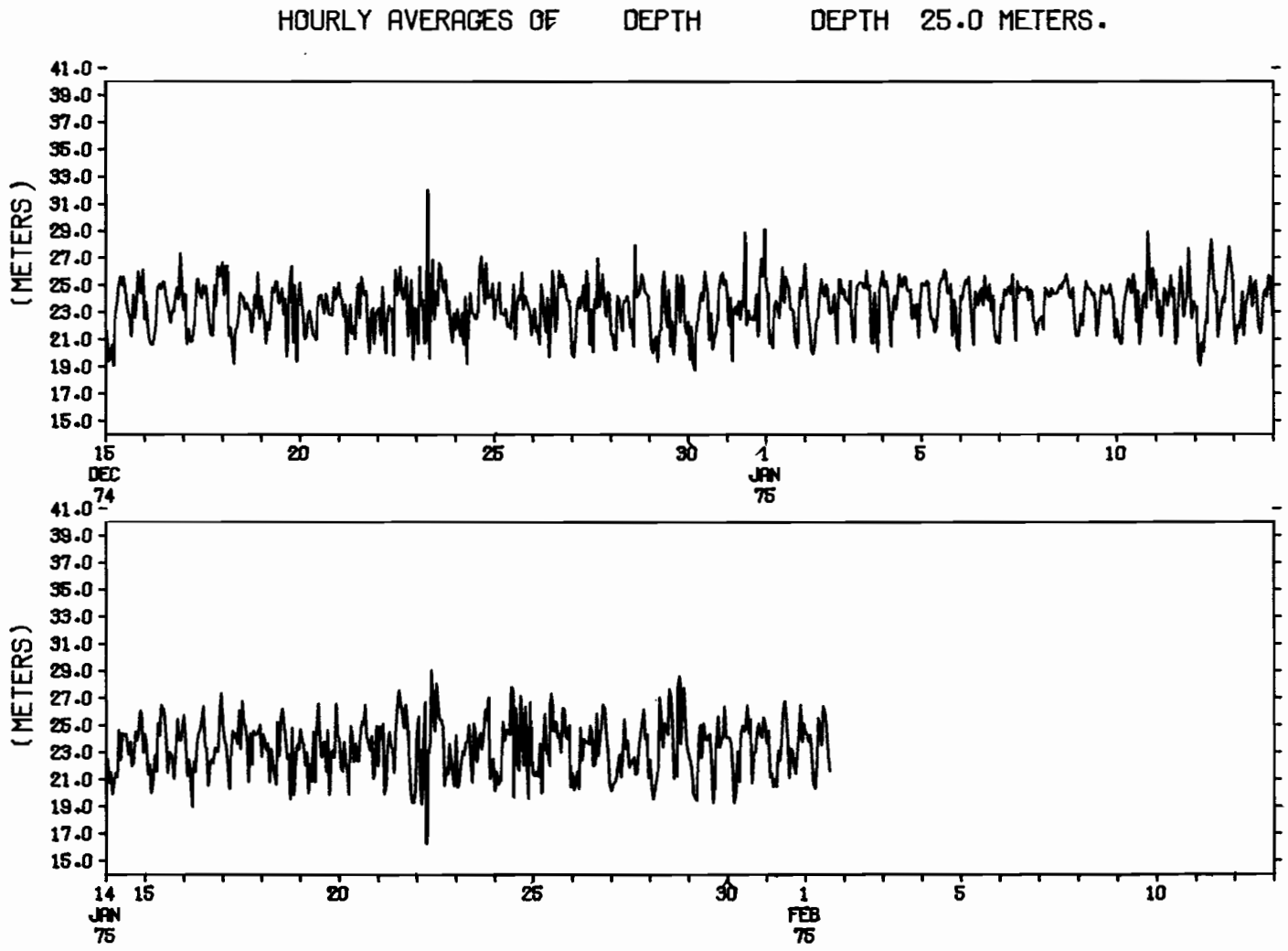
C.1. TIME SERIES ANALYSIS Current Meter 598
Part 3 of 3 (Continued)

DEPTH STATISTICS LAT. 59.34.4N LONG. 142 10.5W
DEPTH 25.0 METERS NUMBER OF OBSERVATIONS = 2337
OBSERVATION PERIOD 48.7 DAYS FROM 0000 GMT 15 DEC 74

MEAN (METER)	VARIANCE (METERS)	ST-DEV (METER)	SKEW	KURT	MAX (METER)	MIN (METER)
24.15	5.50	2.35	1.36	17.39	50.56	15.50





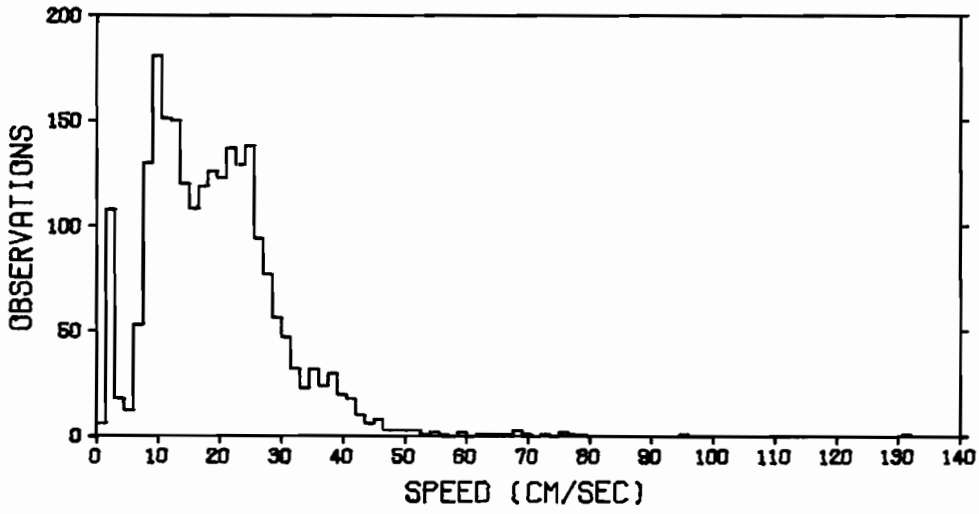

HOURLY AVERAGES OF DEPTH DEPTH 25.0 METERS.
(METERS)
41.0
39.0
37.0
35.0
33.0
31.0
29.0
27.0
25.0
23.0
21.0
19.0
17.0
15.0
15
DEC
74
20
25
30
1
JAN
75
5
10
(METERS)
14
JAN
75
15
20
25
30
1
FEB
75
5
10

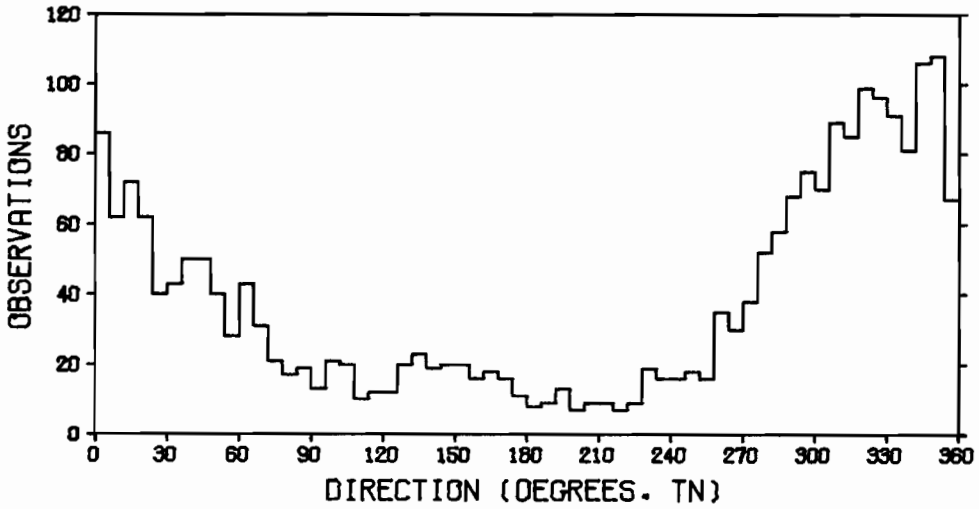
C.2. TIME SERIES ANALYSIS Current Meter 617 Nominal Depth: 50m
Part 1 of 1; 17 August - 5 October 1974

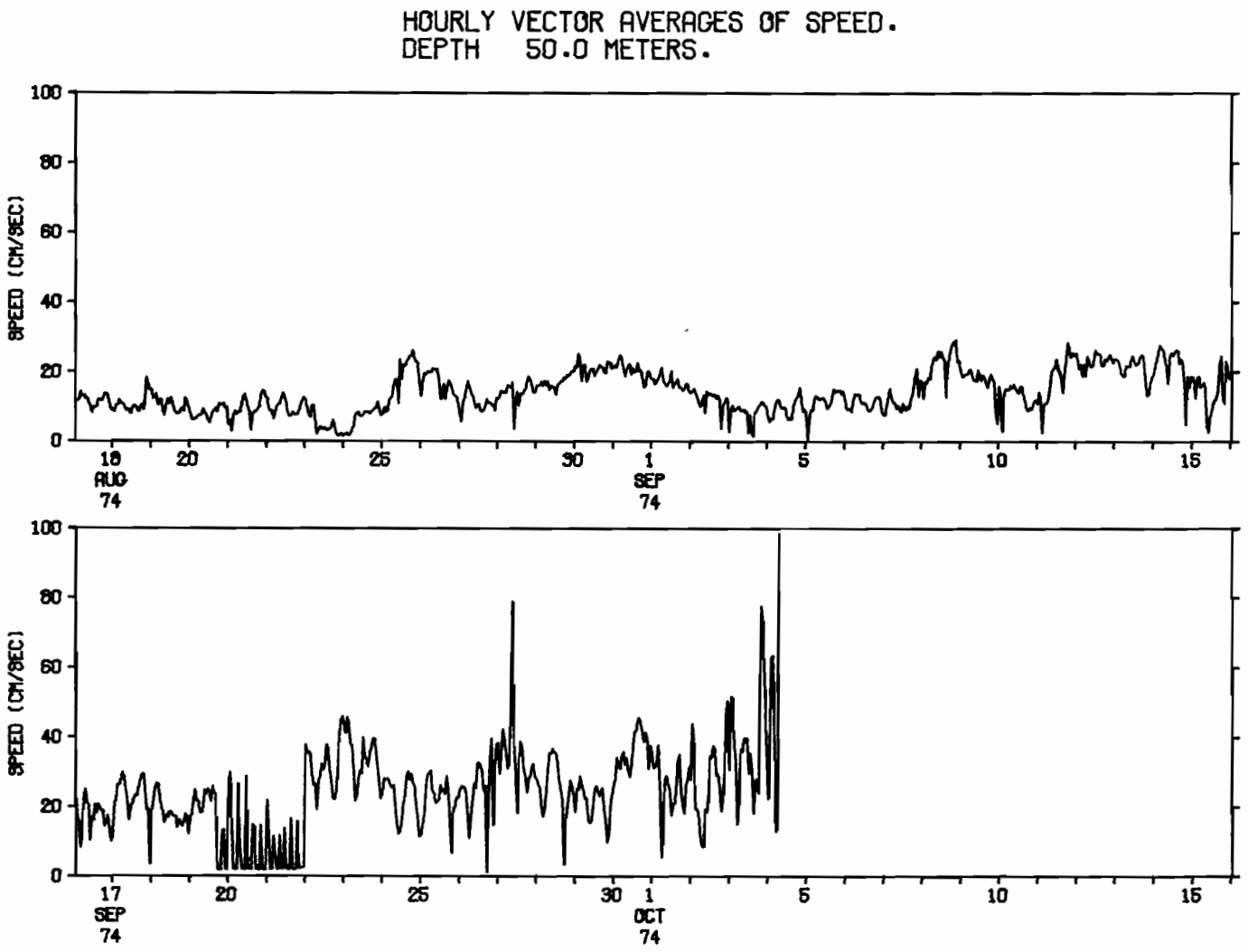
Mooring Designation NEGOA 62A
Location: 59° 34.4'N 142° 10.5'W
Sensors: Speed, Direction, Temperature

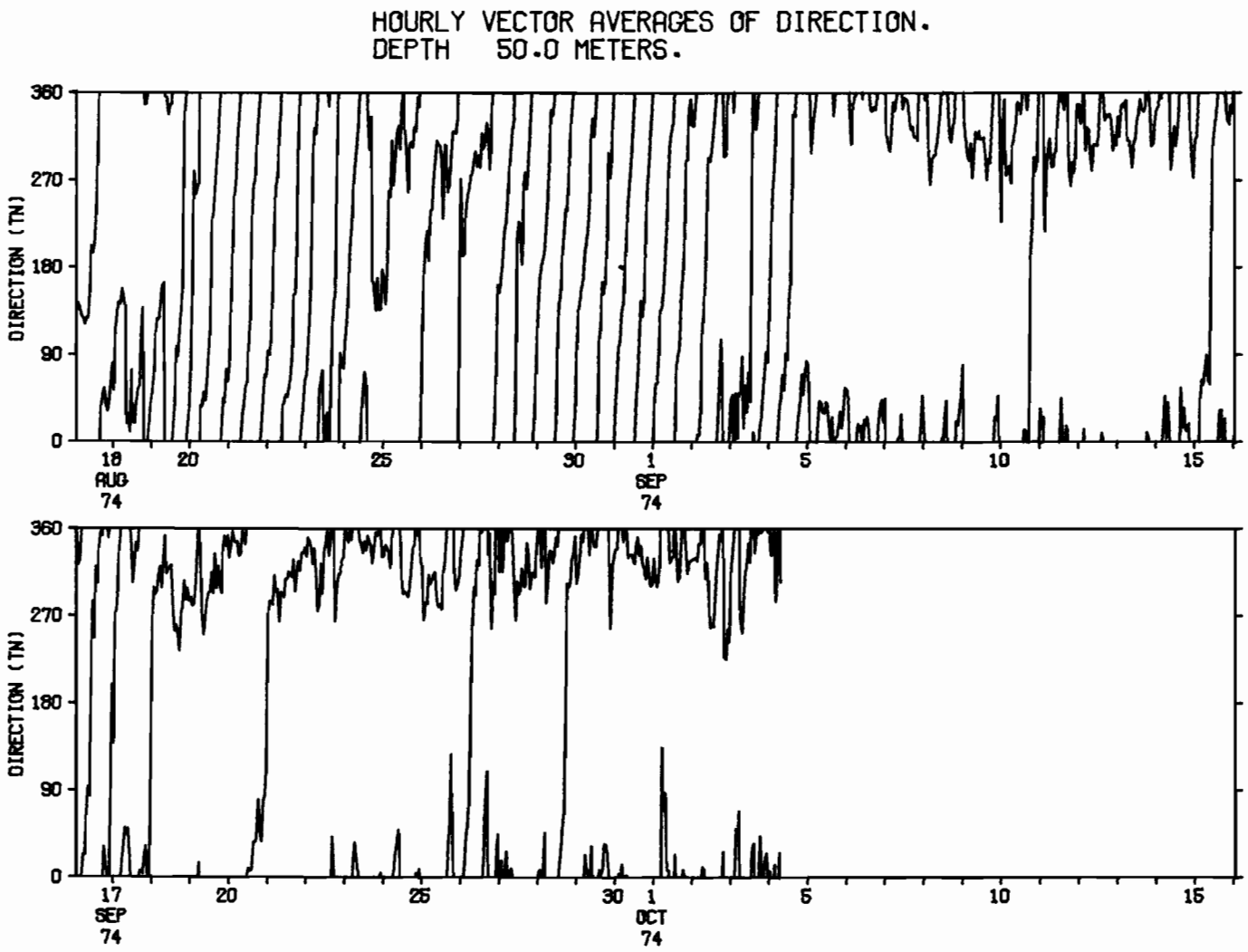
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	19.03	117.22	10.83	1.608	11.08	130.65	1.50
U	-4.16	168.92	13.00	-.386	4.71	44.93	-90.91
V	10.14	190.39	13.80	.421	4.64	98.21	-28.38

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY. EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY. NORTH = POSITIVE V

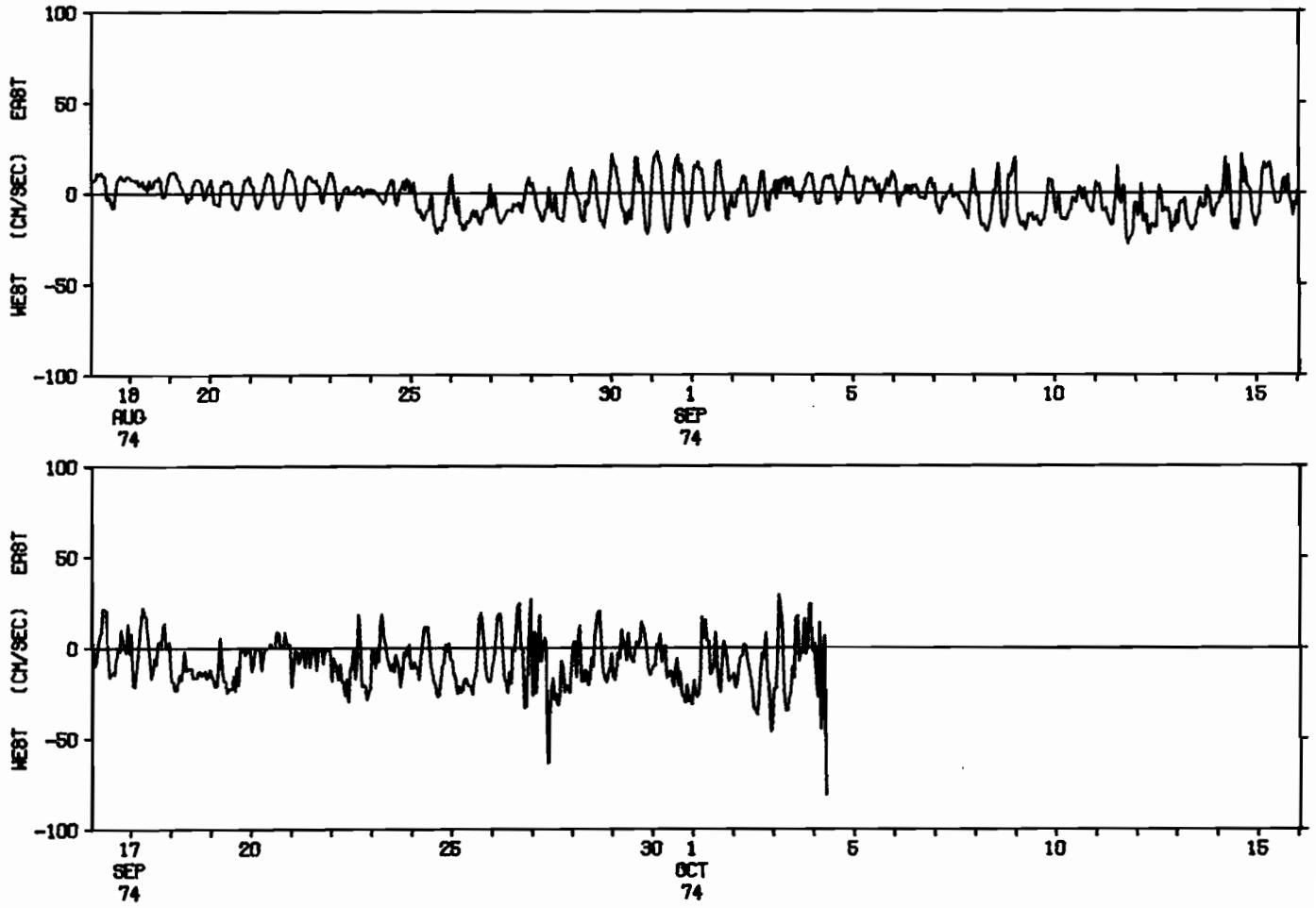




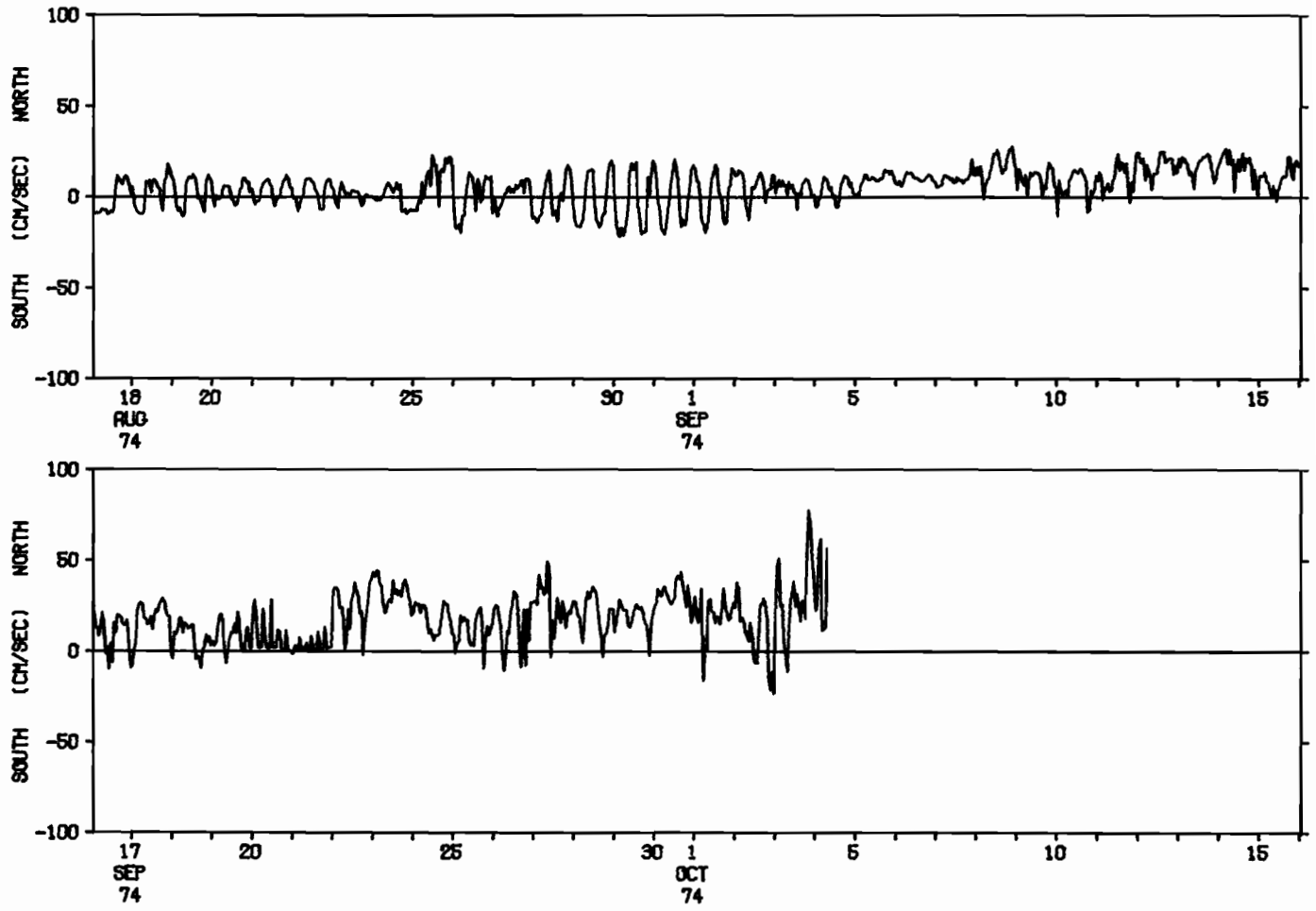

HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 50.0 METERS.
SPEED (CM/SEC)
100
80
60
40
20
0
15
AUG
74
20
25
30
1
SEP
74
5
10
15
SPEED (CM/SEC)
100
80
60
40
20
0
17
SEP
74
20
25
30
1
OCT
74
5
10
15


HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 50.0 METERS.
DIRECTION (TN)
360
270
180
90
0
18
AUG
74
20
25
30
1
SEP
74
5
10
15
DIRECTION (TN)
360
270
180
90
0
17
SEP
74
20
25
30
1
OCT
74
5
10
15

HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 50.0 METERS.

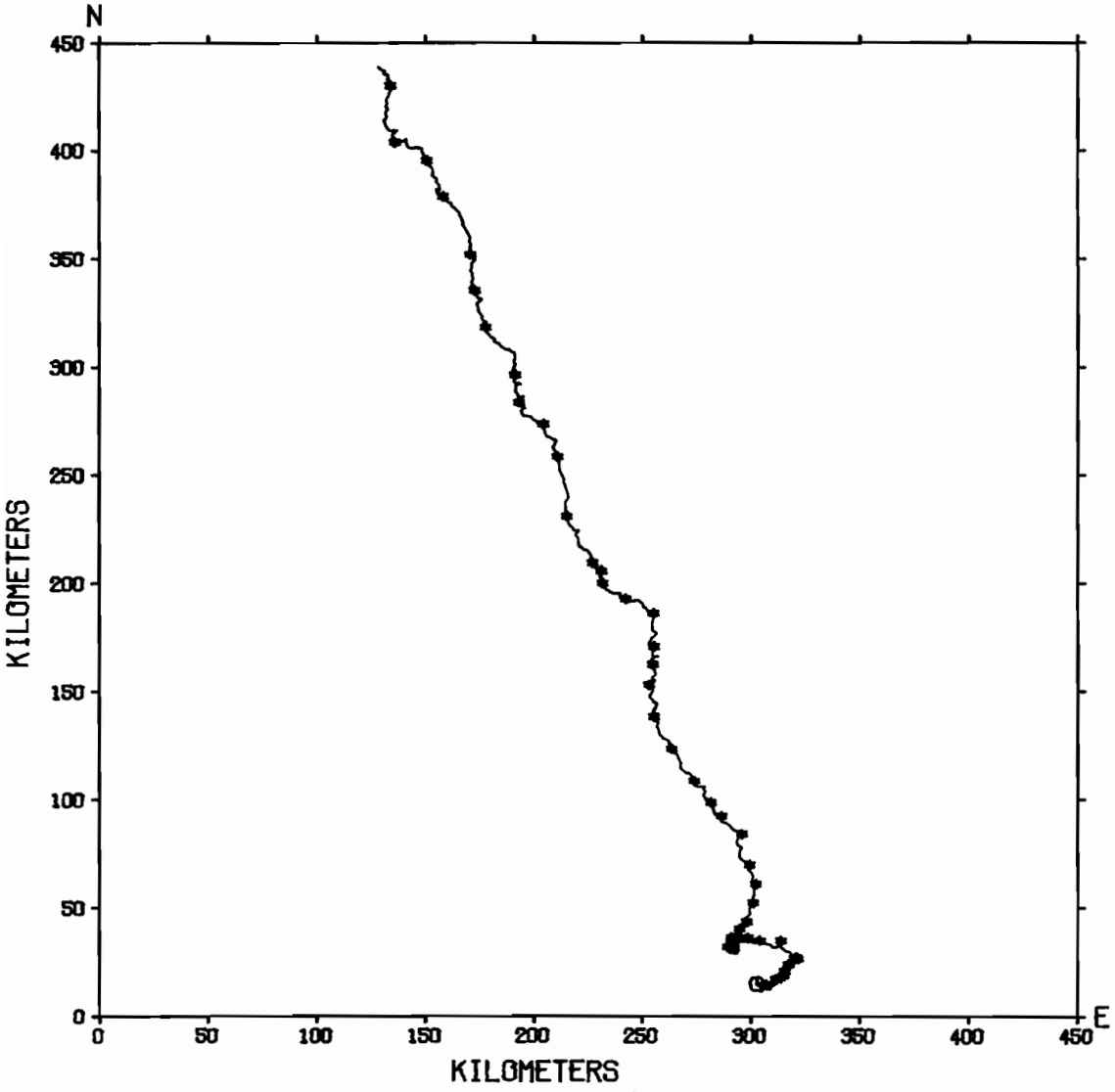


HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 50.0 METERS.

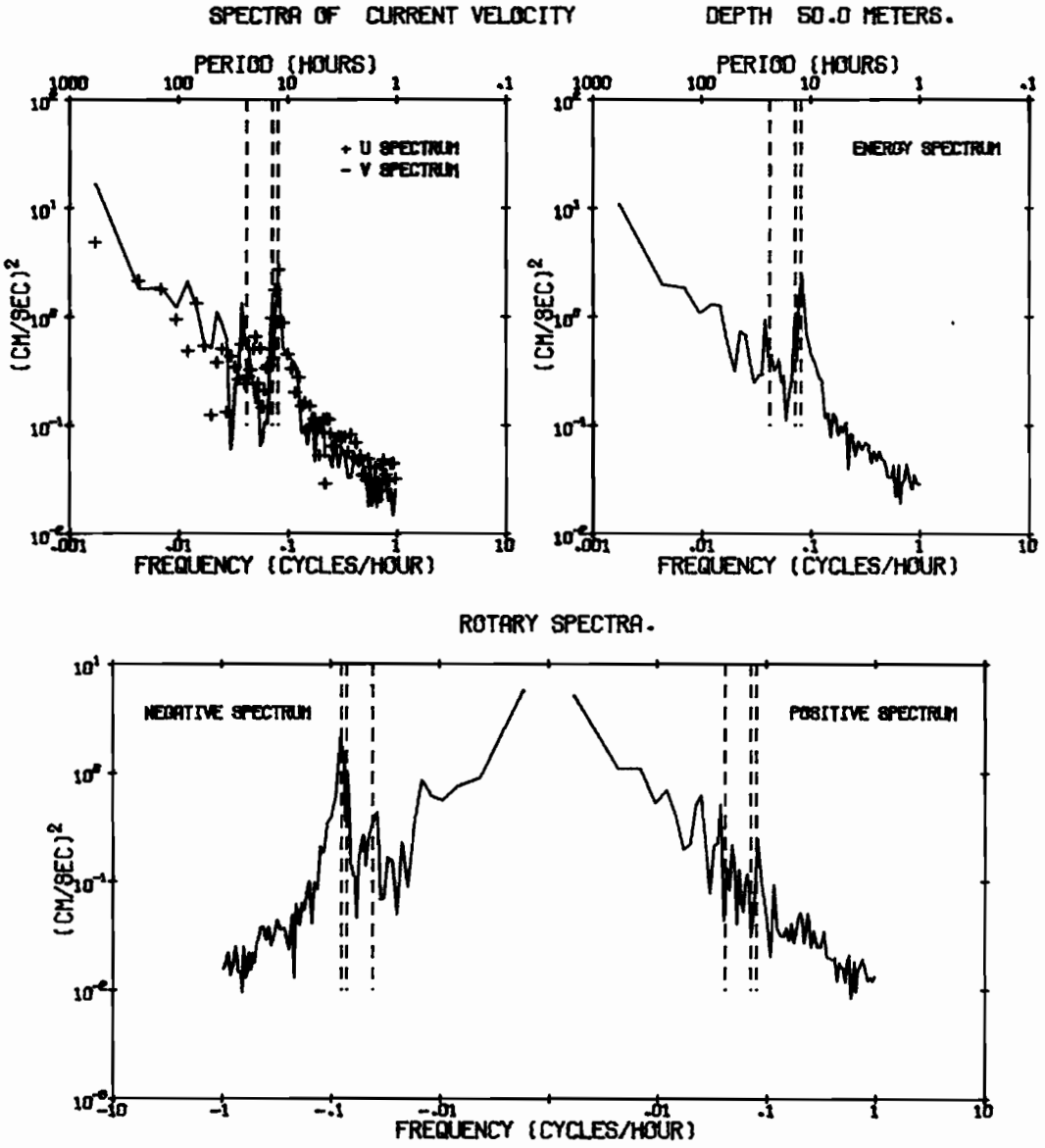


C.2. TIME SERIES ANALYSIS Current Meter 617
Part 1 of 1 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 62A
OBSERVATION PERIOD 48.3 DAYS FROM 0102 GMT 17 AUG 74.
DEPTH 50.0 METERS.



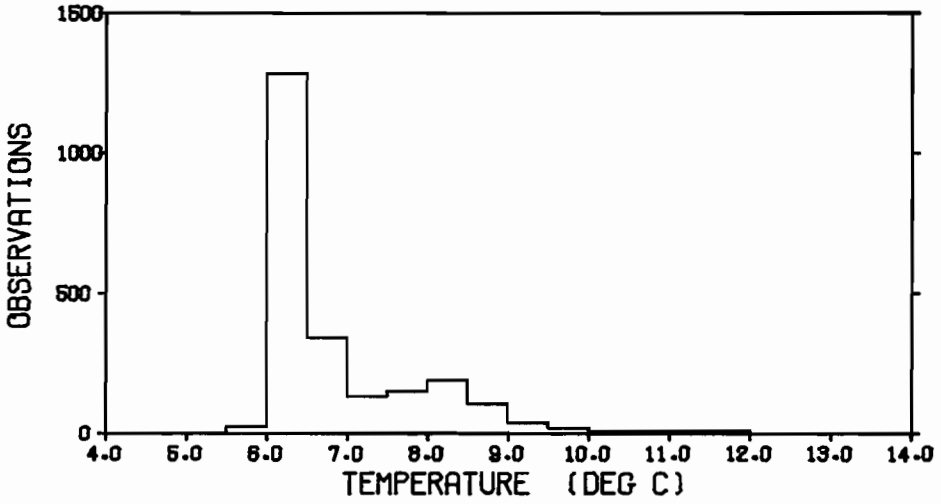
C.2. TIME SERIES ANALYSIS Current Meter 617
Part 1 of 1 (Continued)

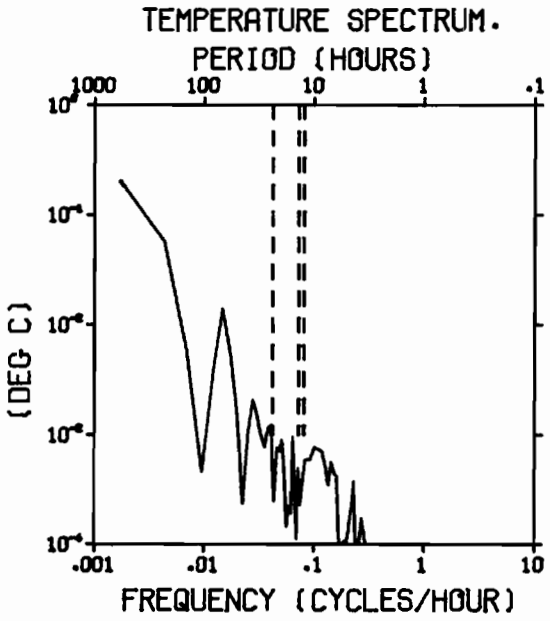


C.2. TIME SERIES ANALYSIS Current Meter 617
Part 1 of 1 (Continued)

TEMPERATURE STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 50.0 METERS NUMBER OF OBSERVATIONS = 2319
OBSERVATION PERIOD 48.3 DAYS FROM 0102 GMT 17 AUG 74

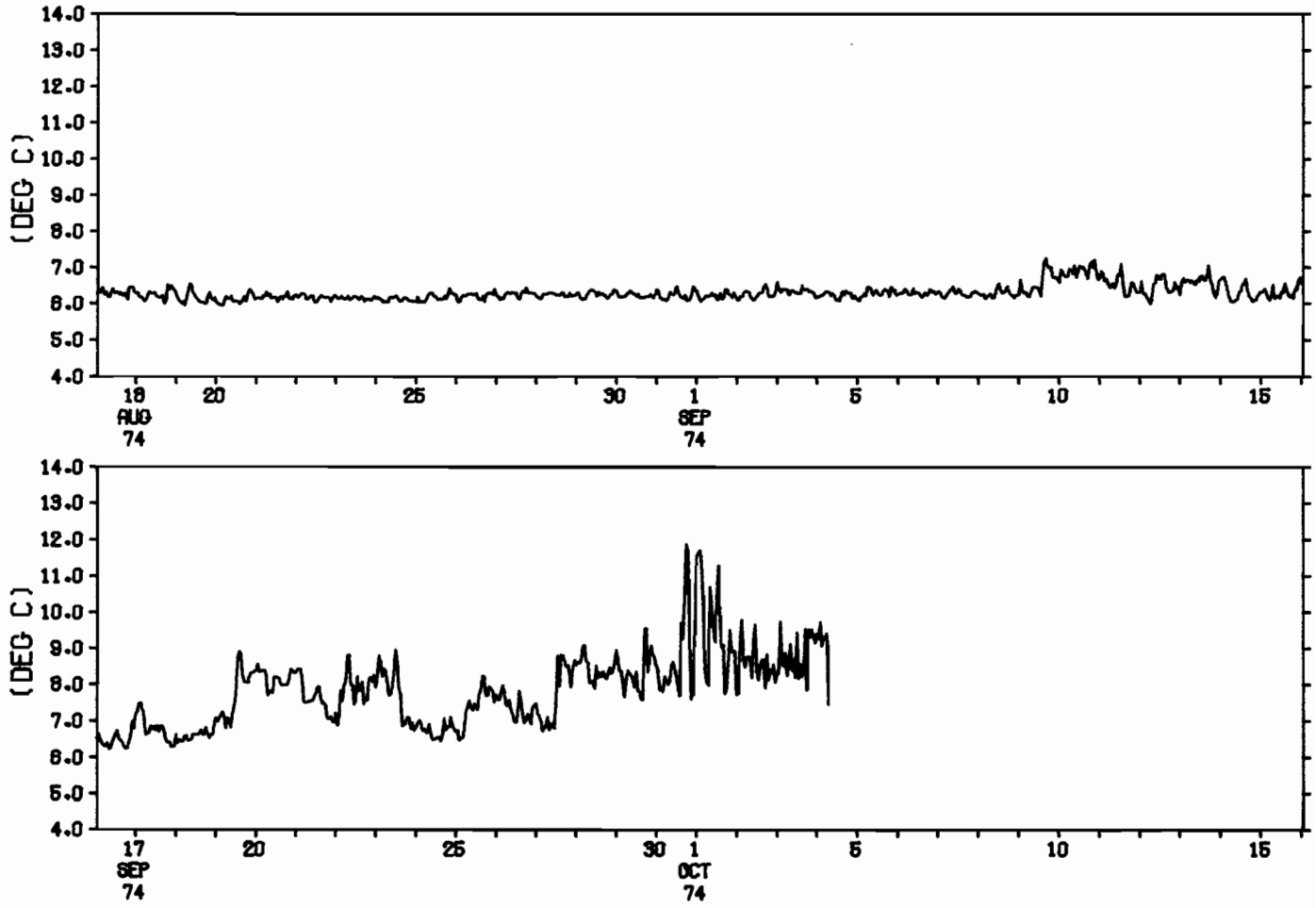
MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
6.89	1.01	1.01	1.78	6.45	11.89	5.90





C.2. TIME SERIES ANALYSIS Current Meter 617 Part 1 of 1 (Continued)

HOURLY AVERAGES OF TEMPERATURE DEPTH 50.0 METERS.

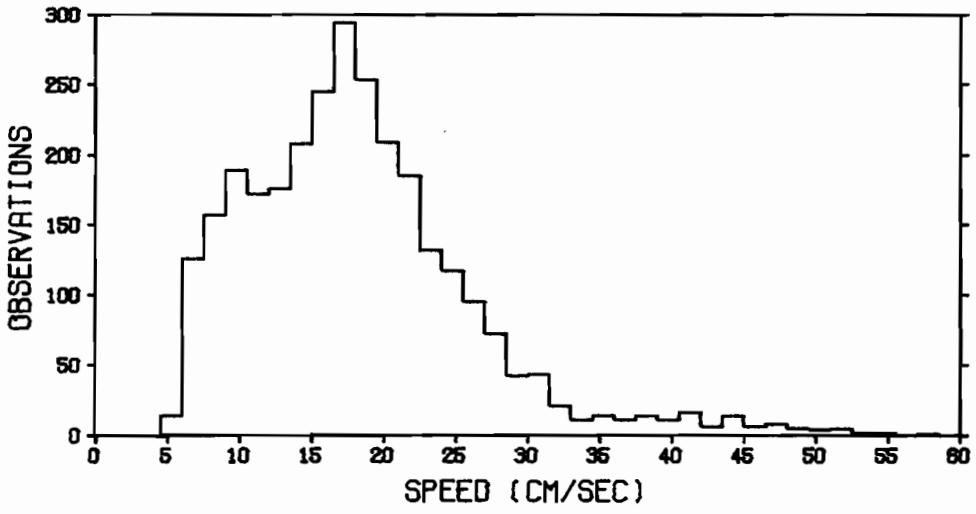


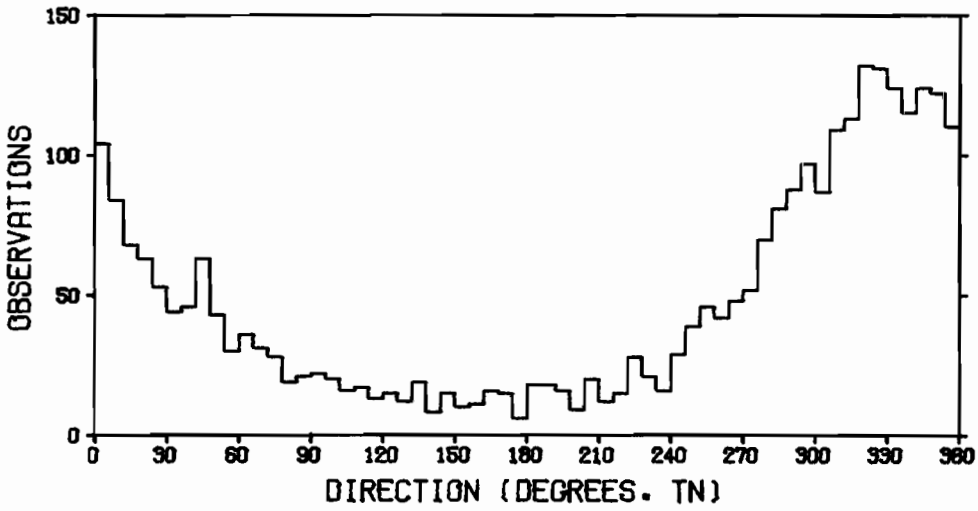
C.3. TIME SERIES ANALYSIS Current Meter 616 Nominal Depth: 100m
Part 1 of 2; 17 August - 16 November 1974

Mooring Designation NEGOA 62A
Location: 59° 34.4'N 142° 10.5'W
Sensors: Speed, Direction, Temperature

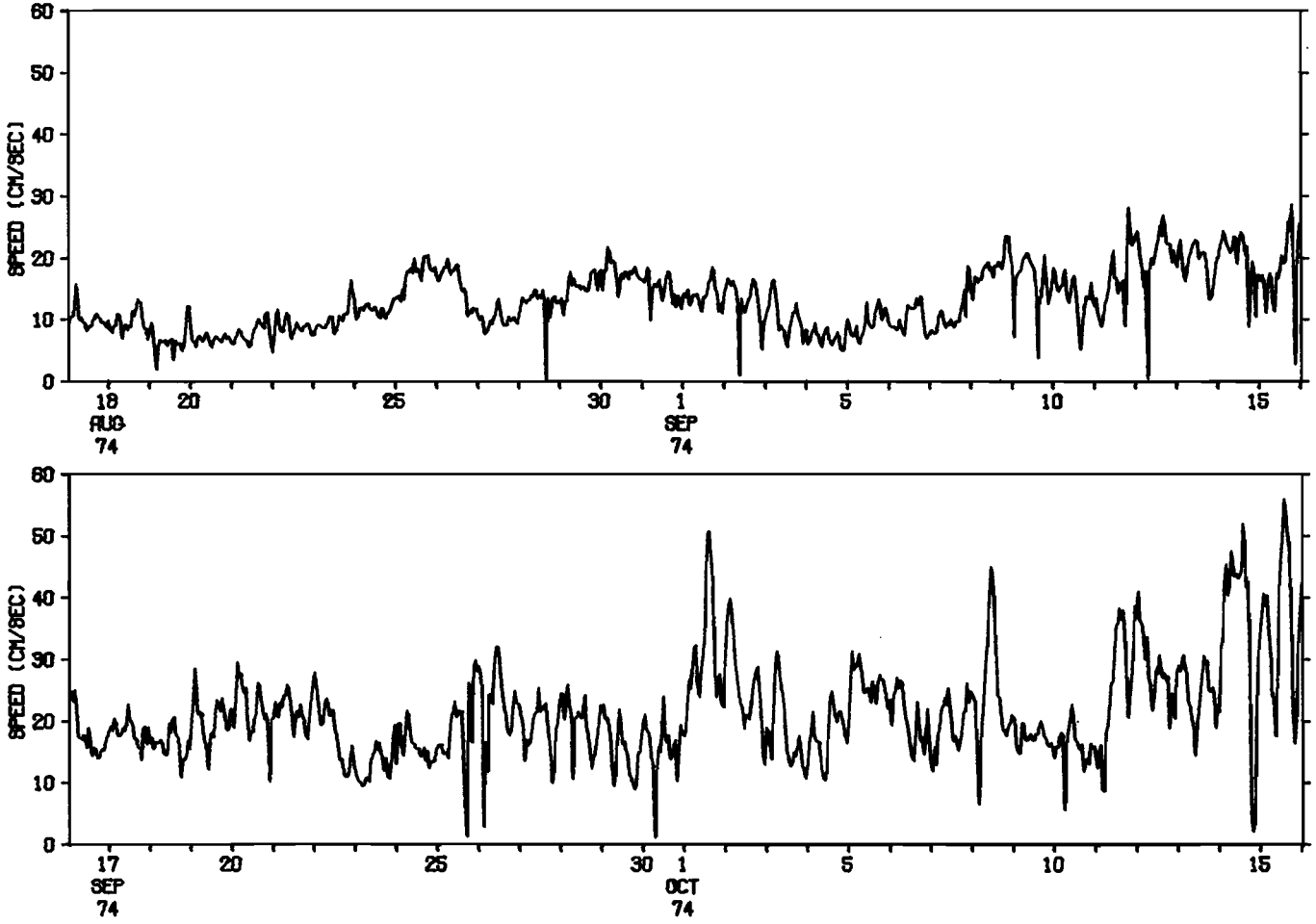
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	18.10	63.30	7.96	1.233	5.54	57.26	4.92
U	-4.92	135.84	11.65	.192	2.91	40.27	-46.04
V	9.39	142.61	11.94	.027	3.39	54.73	-26.52

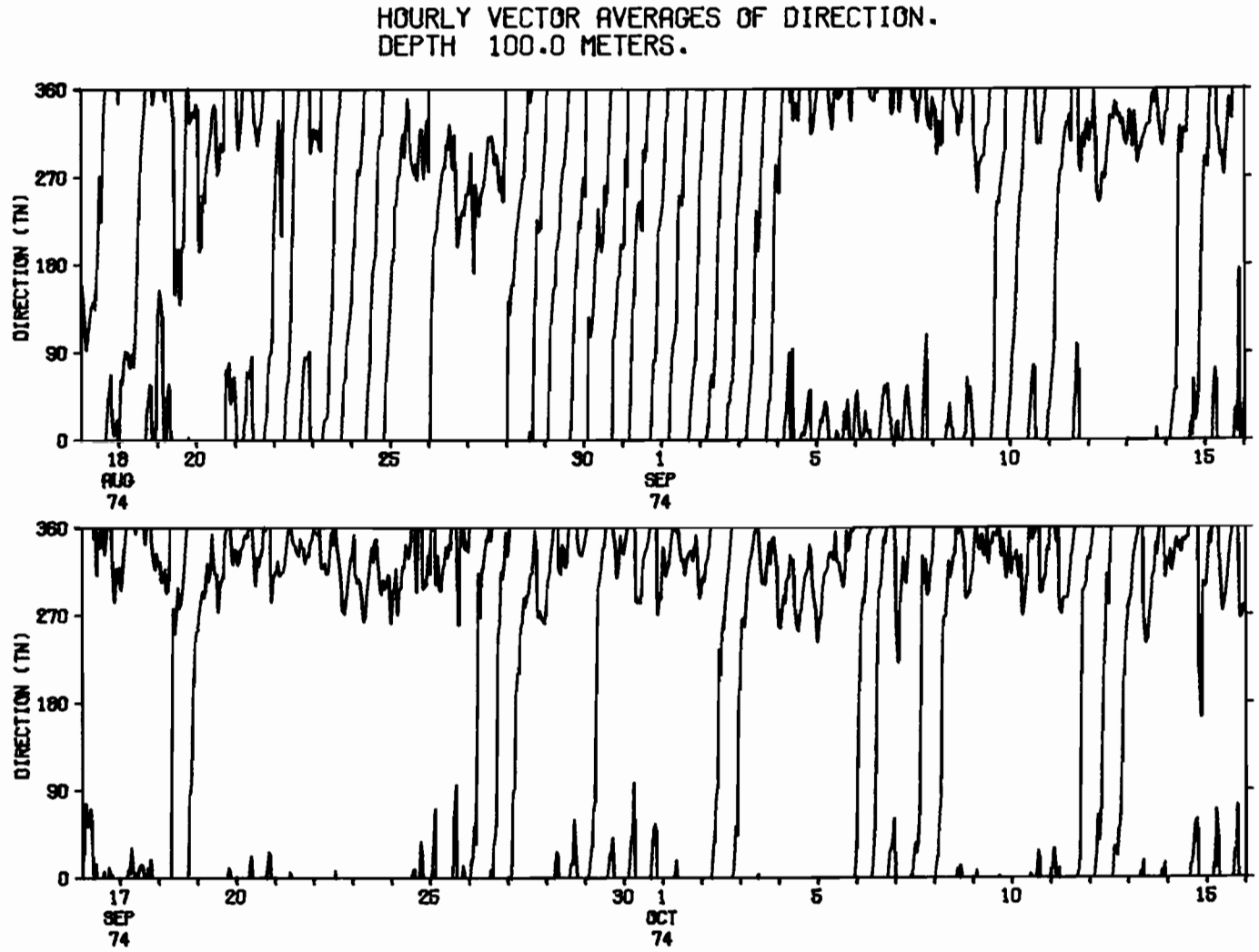
S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY. EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY. NORTH = POSITIVE V

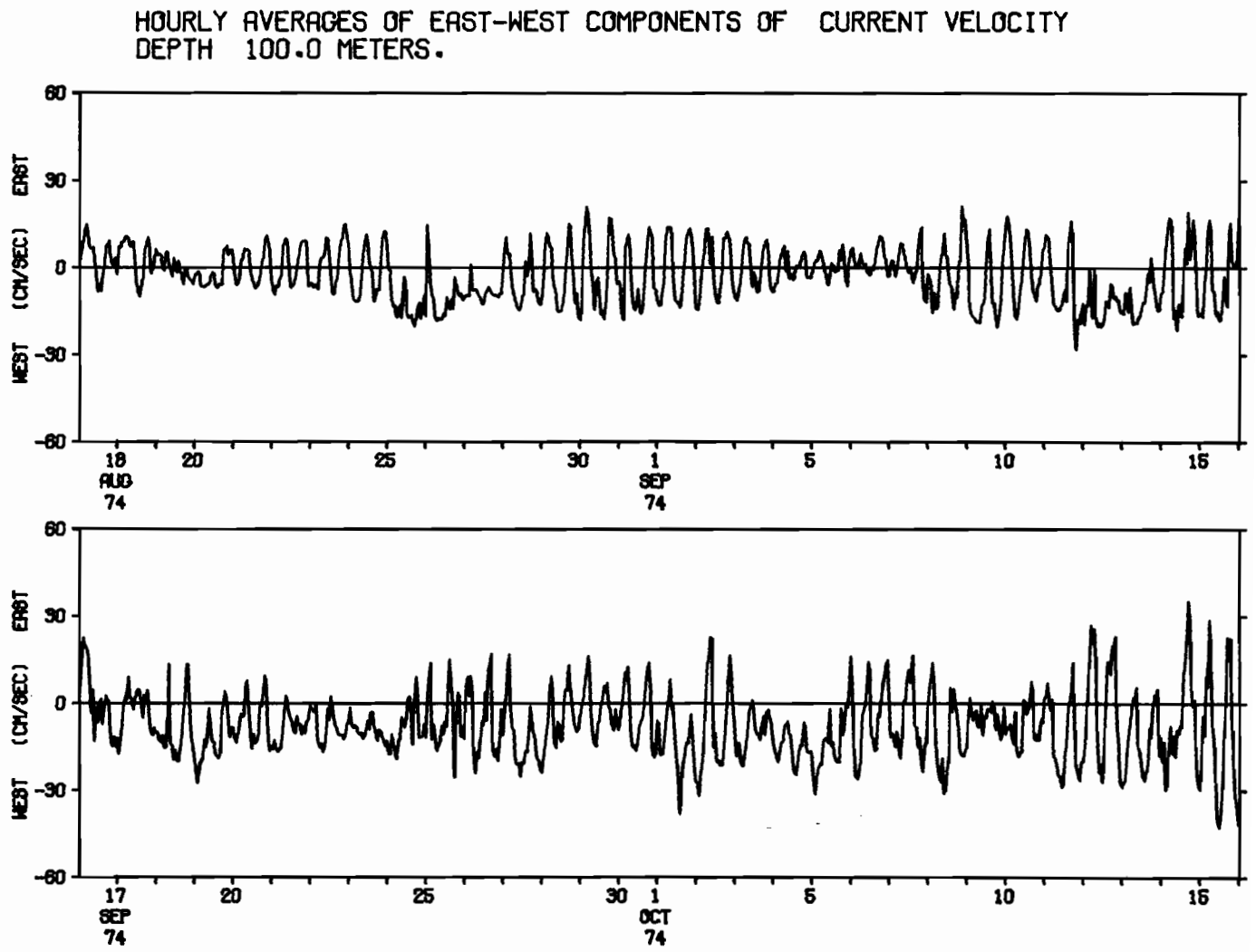




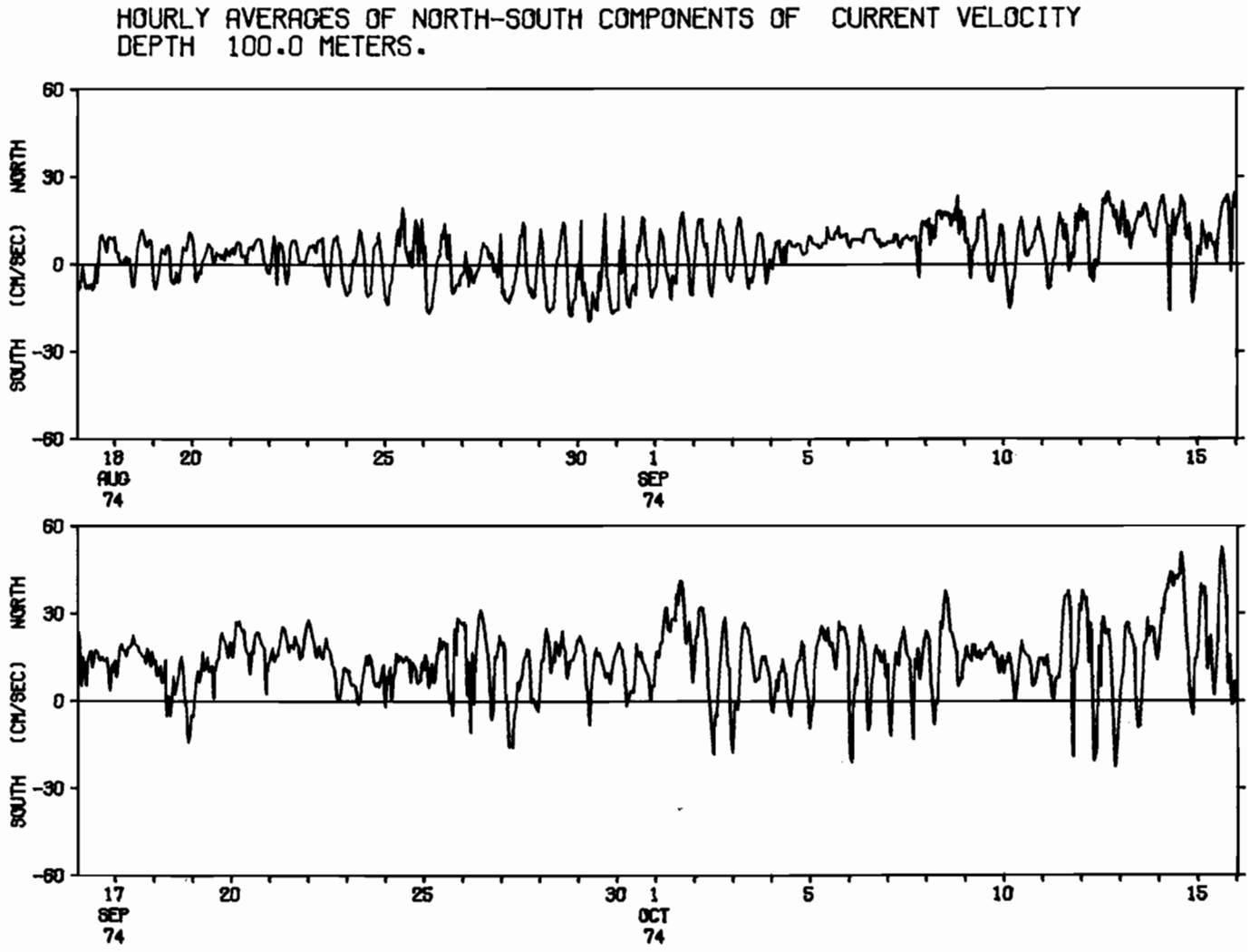
HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 100.0 METERS.




HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 100.0 METERS.
DIRECTION (TN)
360
270
180
90
0
18
AUG
74
20
25
30
1
SEP
74
5
10
15
DIRECTION (TN)
360
270
180
90
0
17
SEP
74
20
25
30
1
OCT
74
5
10
15

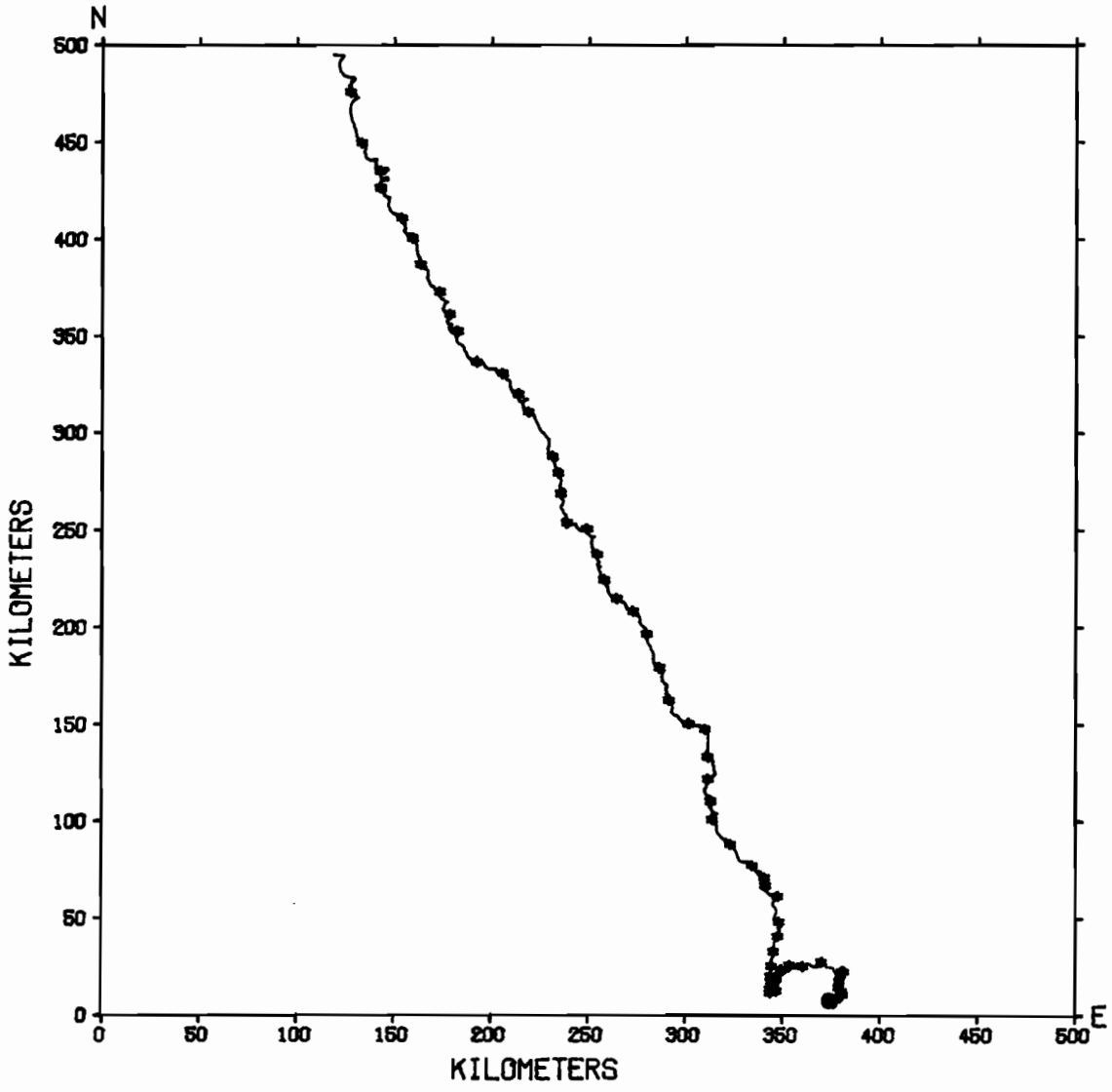

HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 100.0 METERS.
EAST (CM/SEC) WEST
60
30
0
-30
-60
18
AUG
74
20
25
30
1
SEP
74
5
10
15
EAST (CM/SEC) WEST
60
30
0
-30
-60
17
SEP
74
20
25
30
1
OCT
74
5
10
15

C.3. TIME SERIES ANALYSIS Current Meter 616 Part 1 of 2 (Continued)

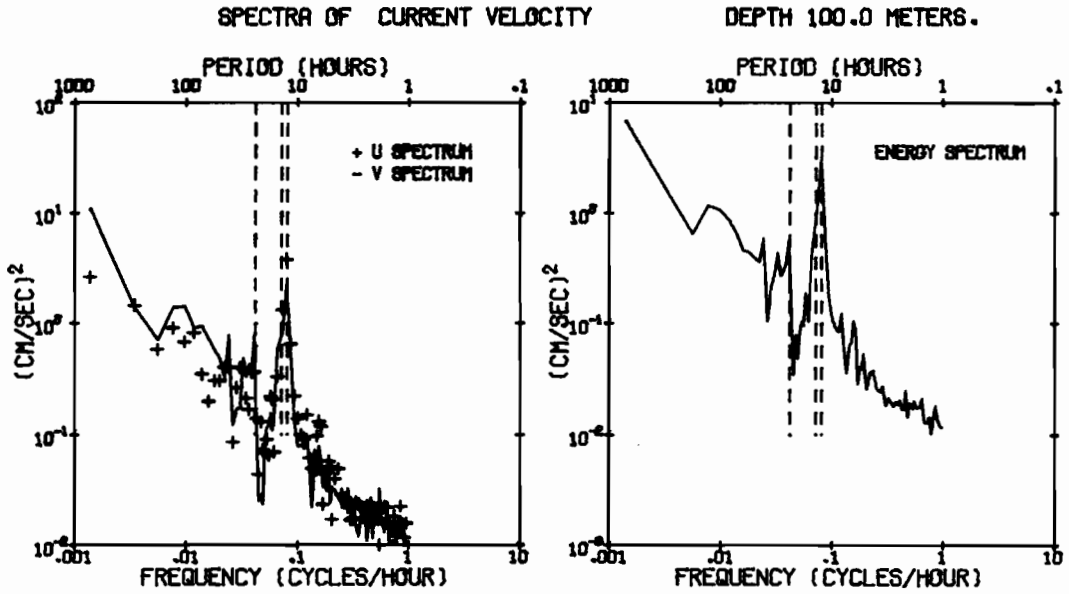


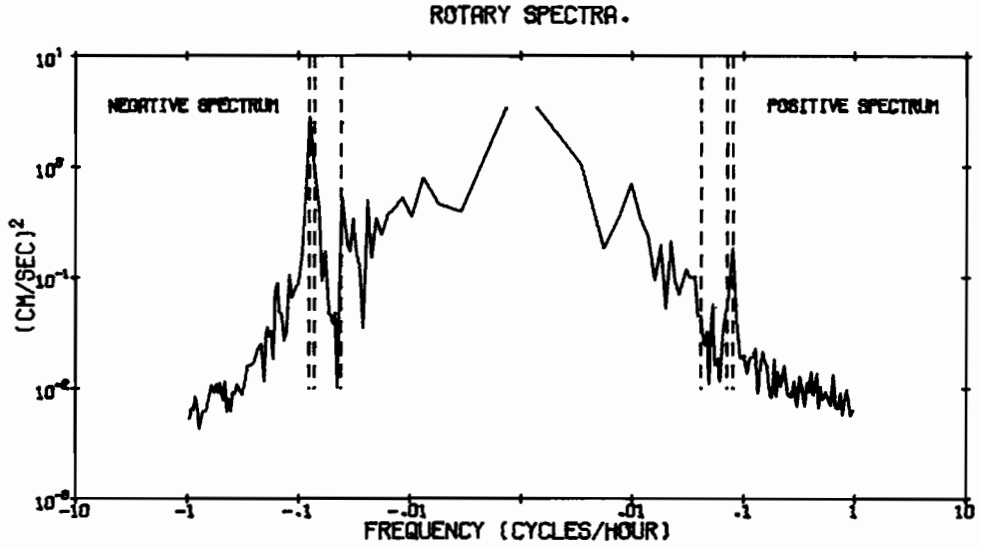
C.3. TIME SERIES ANALYSIS Current Meter 616
Part 1 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 62A
OBSERVATION PERIOD 60.0 DAYS FROM 0034 GMT 17 AUG 74.
DEPTH 100.0 METERS.



C.3. TIME SERIES ANALYSIS Current Meter 616
Part 1 of 2 (Continued)

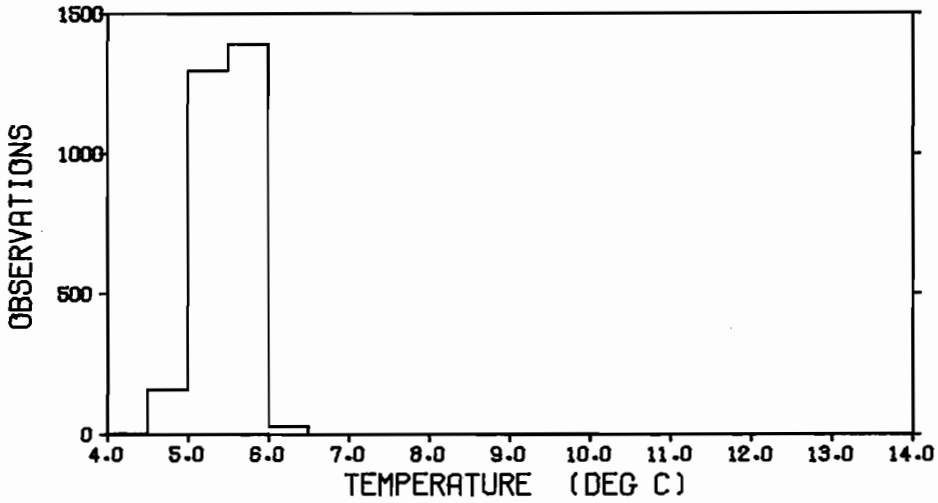


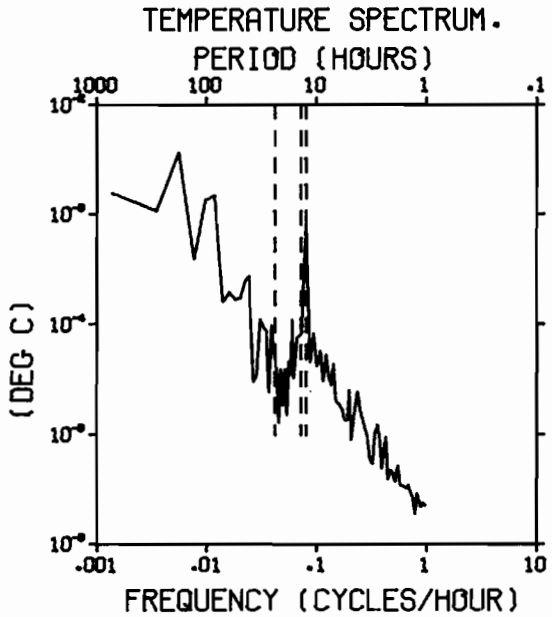


C.3. TIME SERIES ANALYSIS Current Meter 616
Part 1 of 2 (Continued)

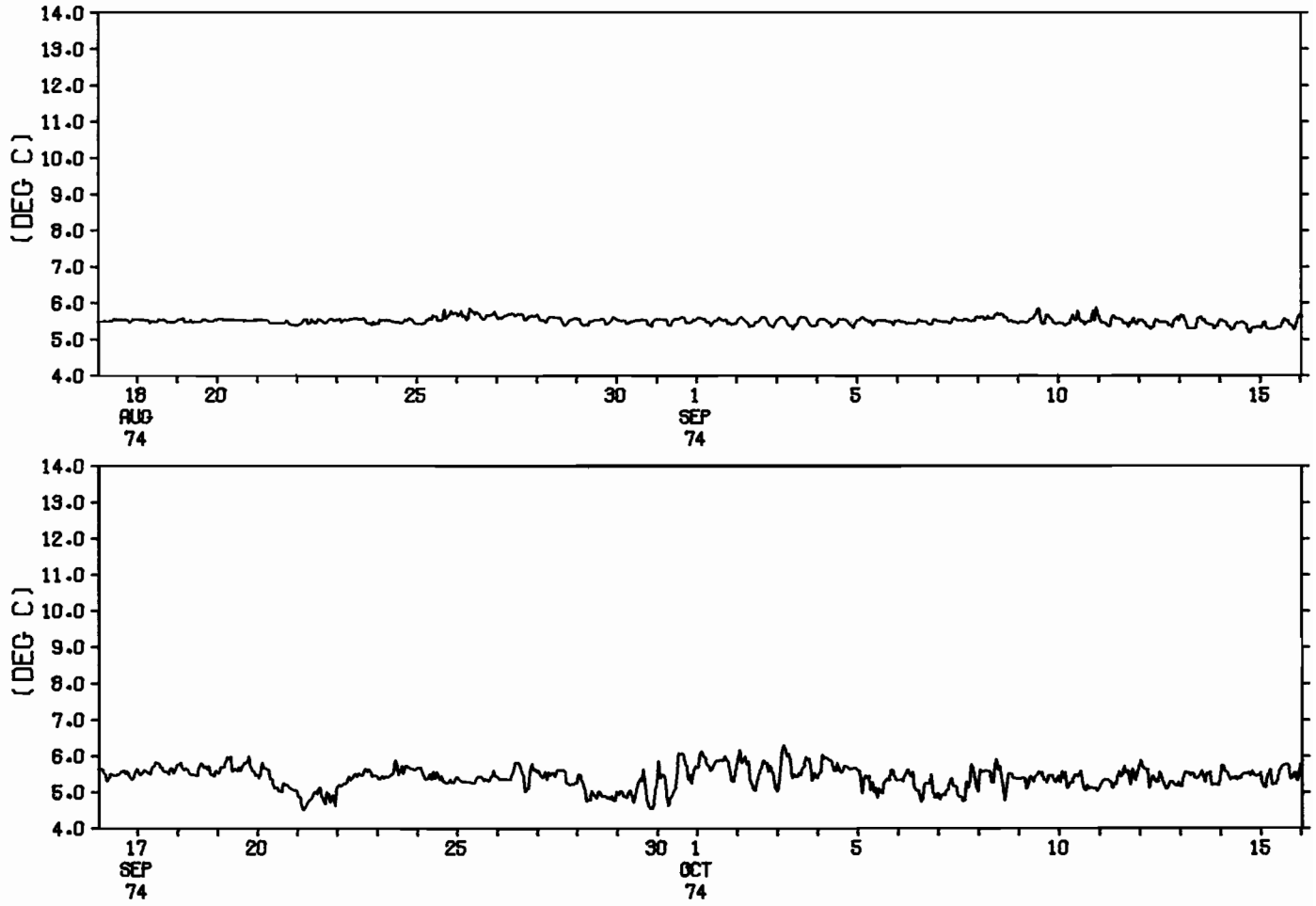
TEMPERATURE STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 100.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0034 GMT 17 AUG 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
5.47	.06	.24	-.83	5.40	6.49	4.47





HOURLY AVERAGES OF TEMPERATURE DEPTH 100.0 METERS.

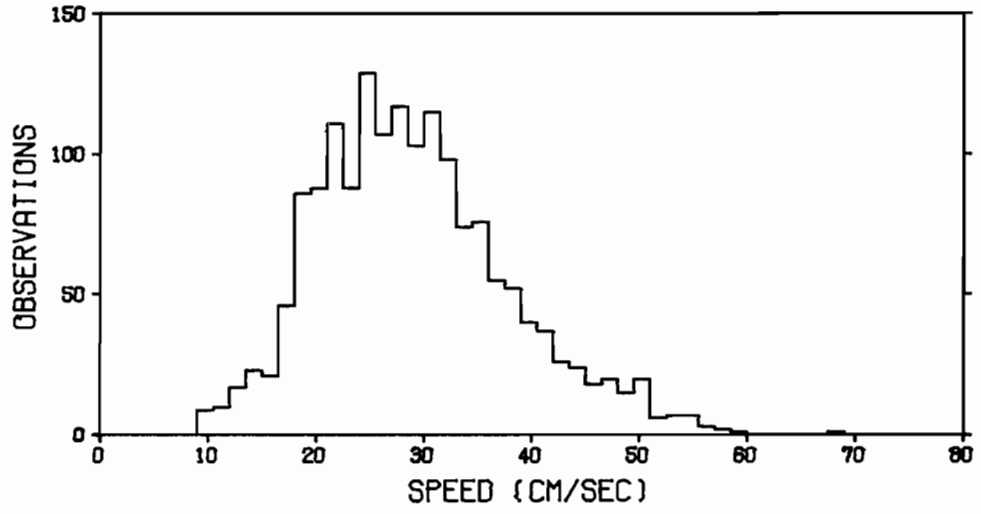


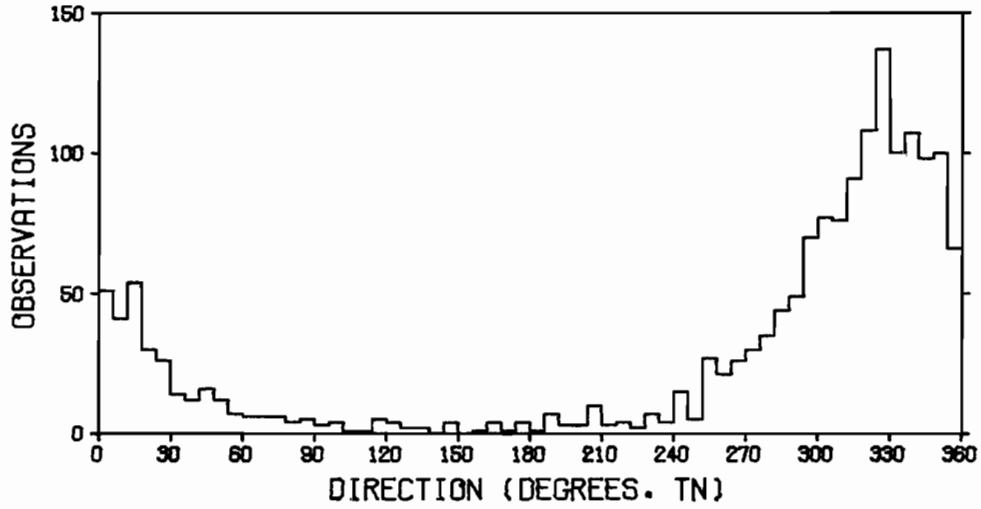
C.3. TIME SERIES ANALYSIS Current Meter 616 Nominal Depth: 100m
Part 2 of 2; 16 October - 20 November 1974

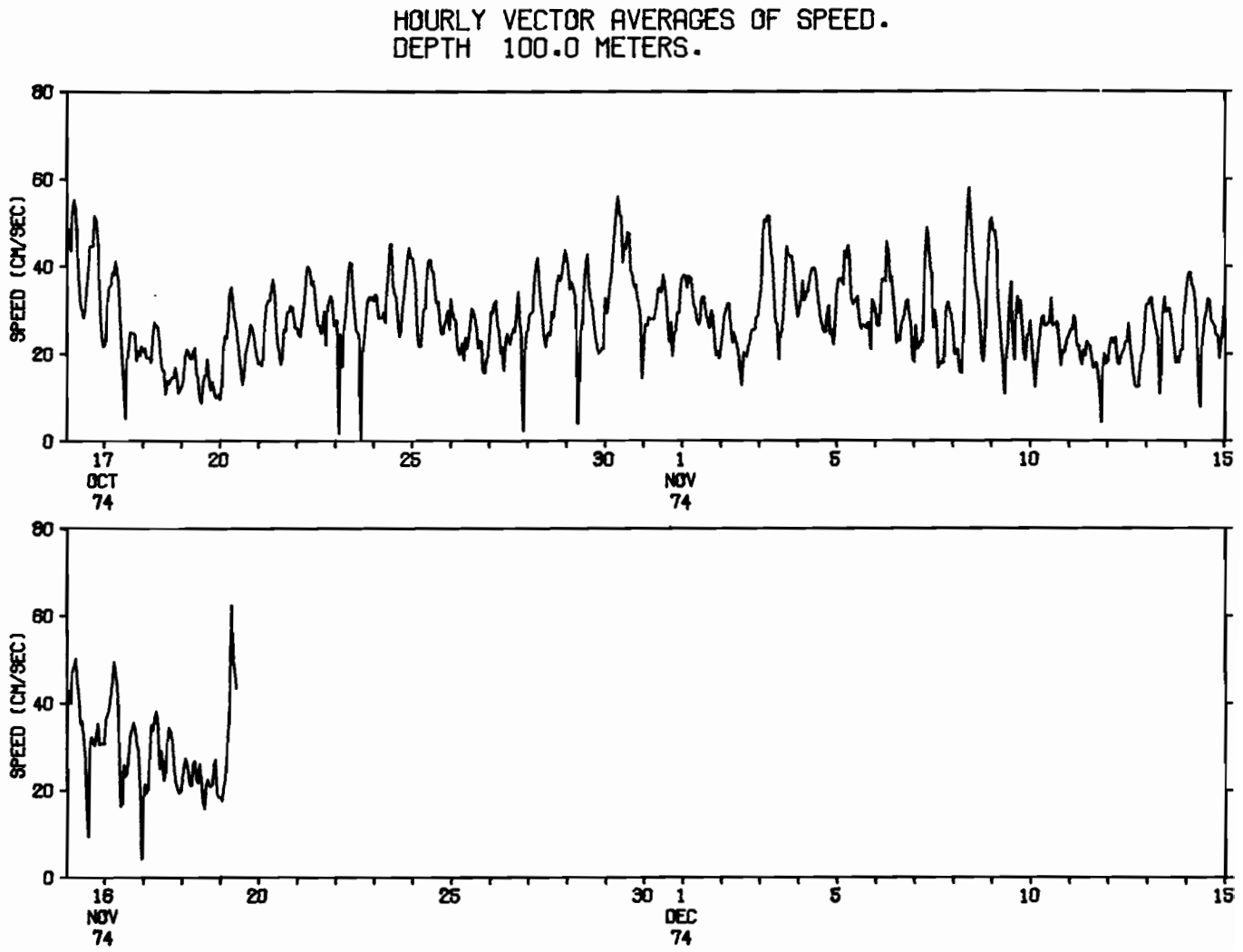
Mooring Designation NEGOA 62A
Location: 59° 34.4'N 142° 10.5'W
Sensors: Speed, Direction, Temperature

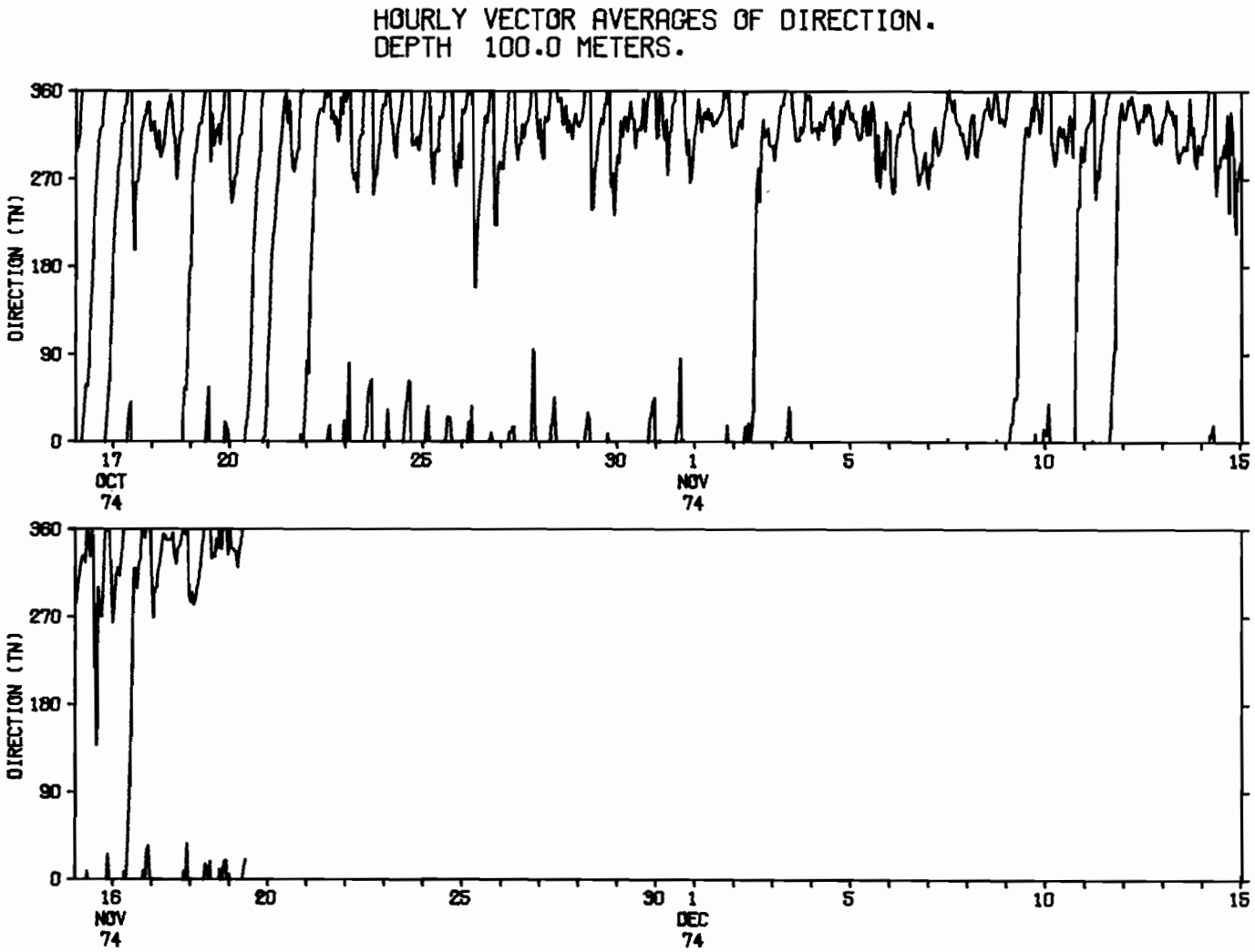
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	29.13	80.61	8.98	.592	3.30	68.19	9.43
U	-11.60	203.61	14.27	.628	3.10	43.66	-45.44
V	19.36	215.81	14.69	-.569	3.57	67.32	-28.75

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V

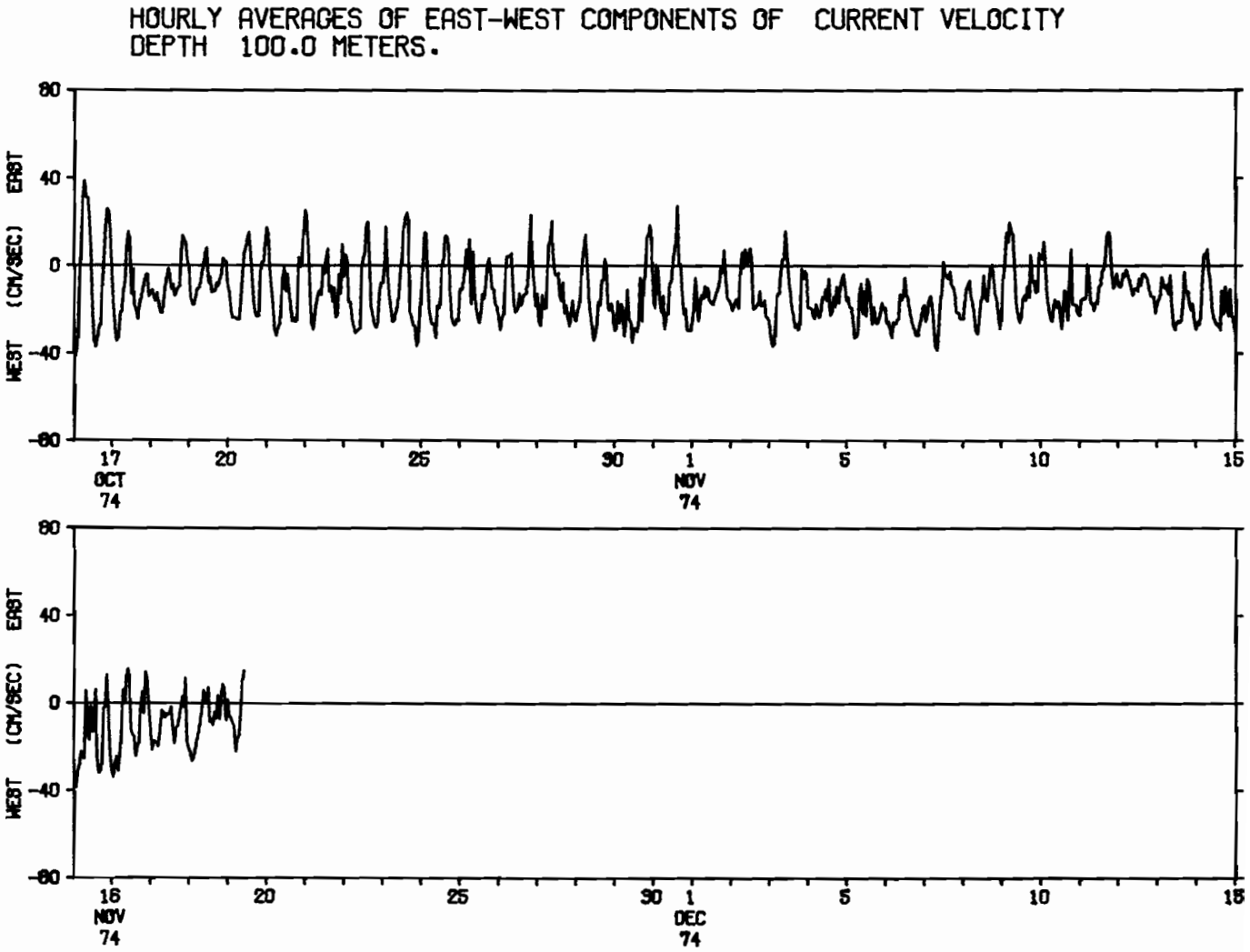





HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 100.0 METERS.
SPEED (CM/SEC)
80
60
40
20
0
17
OCT
74
20
25
30
1
NOV
74
5
10
15
SPEED (CM/SEC)
80
60
40
20
0
16
NOV
74
20
25
30
1
DEC
74
5
10
15

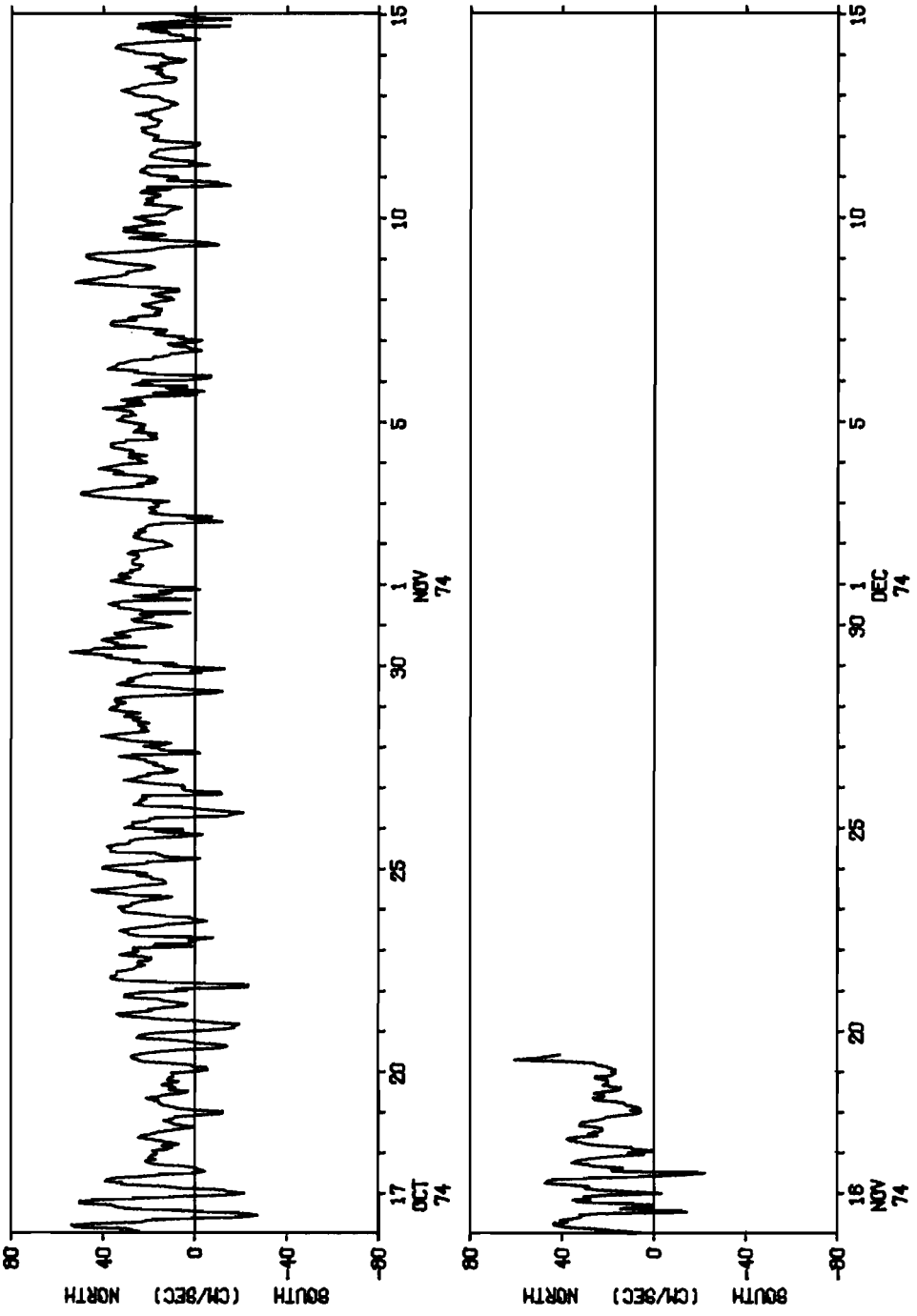

HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 100.0 METERS.
DIRECTION (TN)
360
270
180
90
0
17
OCT
74
20
25
30
1
NOV
74
5
10
15
DIRECTION (TN)
360
270
180
90
0
16
NOV
74
20
25
30
1
DEC
74
5
10
15

C.3. TIME SERIES ANALYSIS Current Meter 616 Part 2 of 2 (Continued)



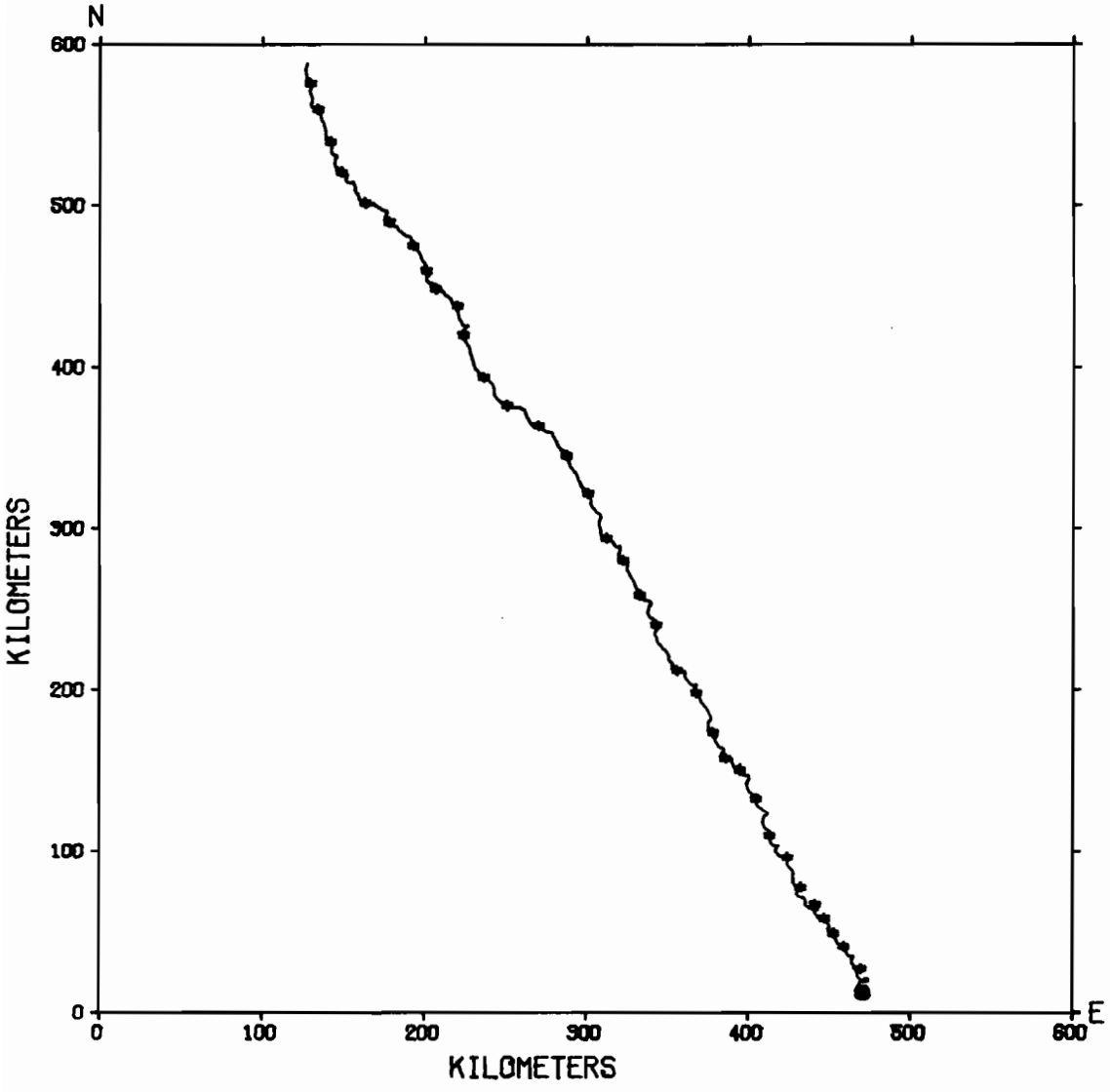
C.3. TIME SERIES ANALYSIS Current Meter 616 Part 2 of 2 (Continued)

HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 100.0 METERS.

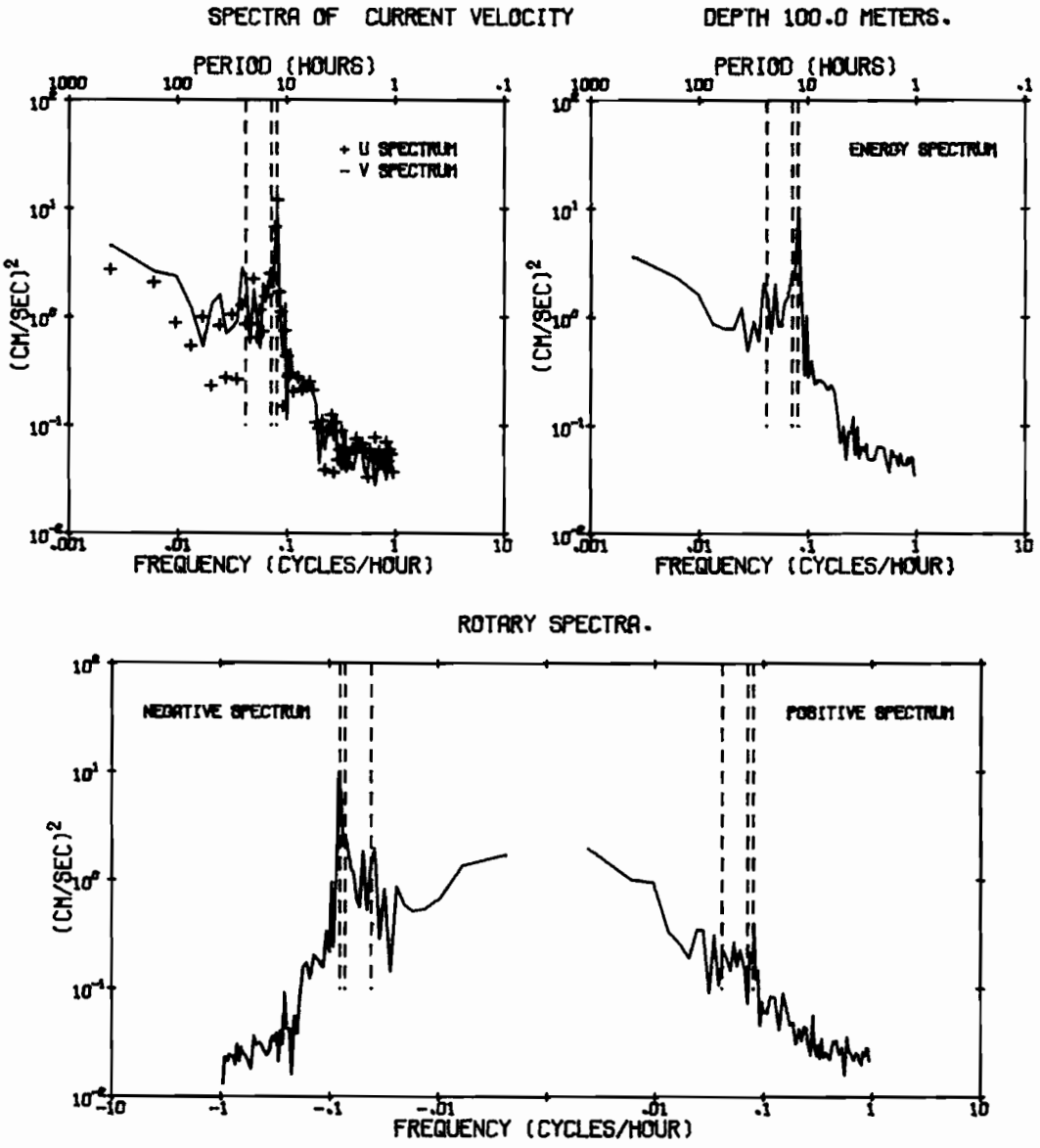


C.3. TIME SERIES ANALYSIS Current Meter 616
Part 2 of 2 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 62A
OBSERVATION PERIOD 34.4 DAYS FROM 0034 GMT 16 OCT 74.
DEPTH 100.0 METERS.



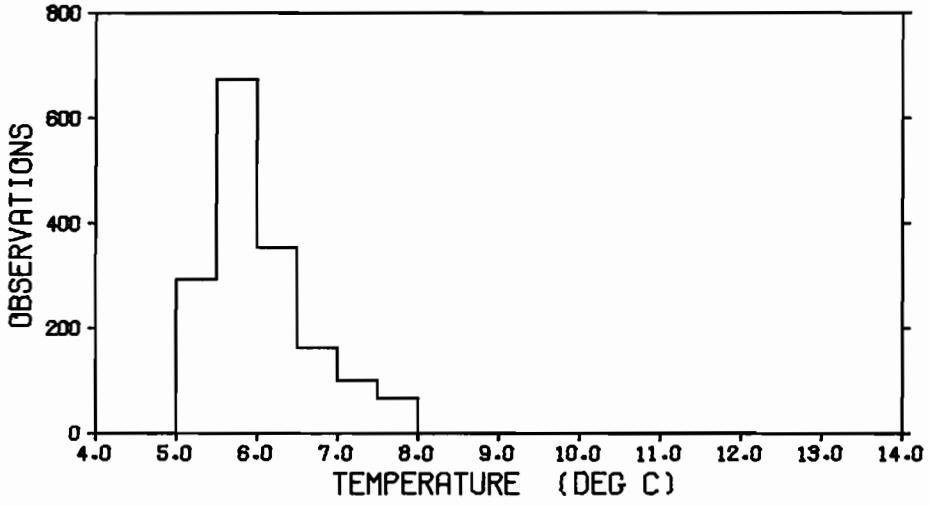
C.3. TIME SERIES ANALYSIS Current Meter 616
Part 2 of 2 (Continued)

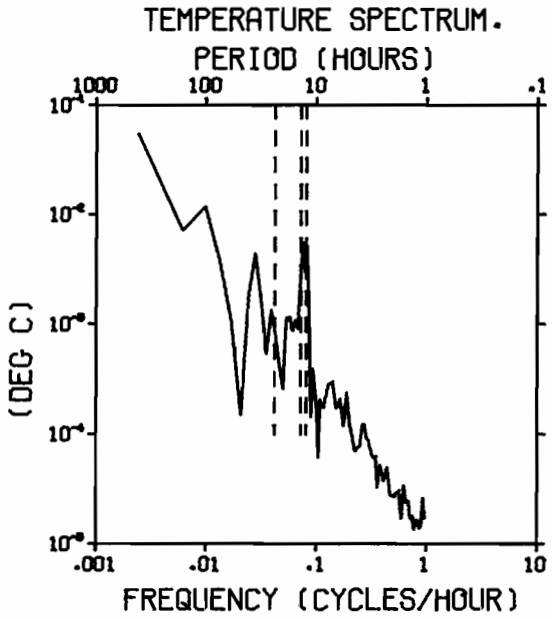


C.3. TIME SERIES ANALYSIS Current Meter 616
Part 2 of 2 (Continued)

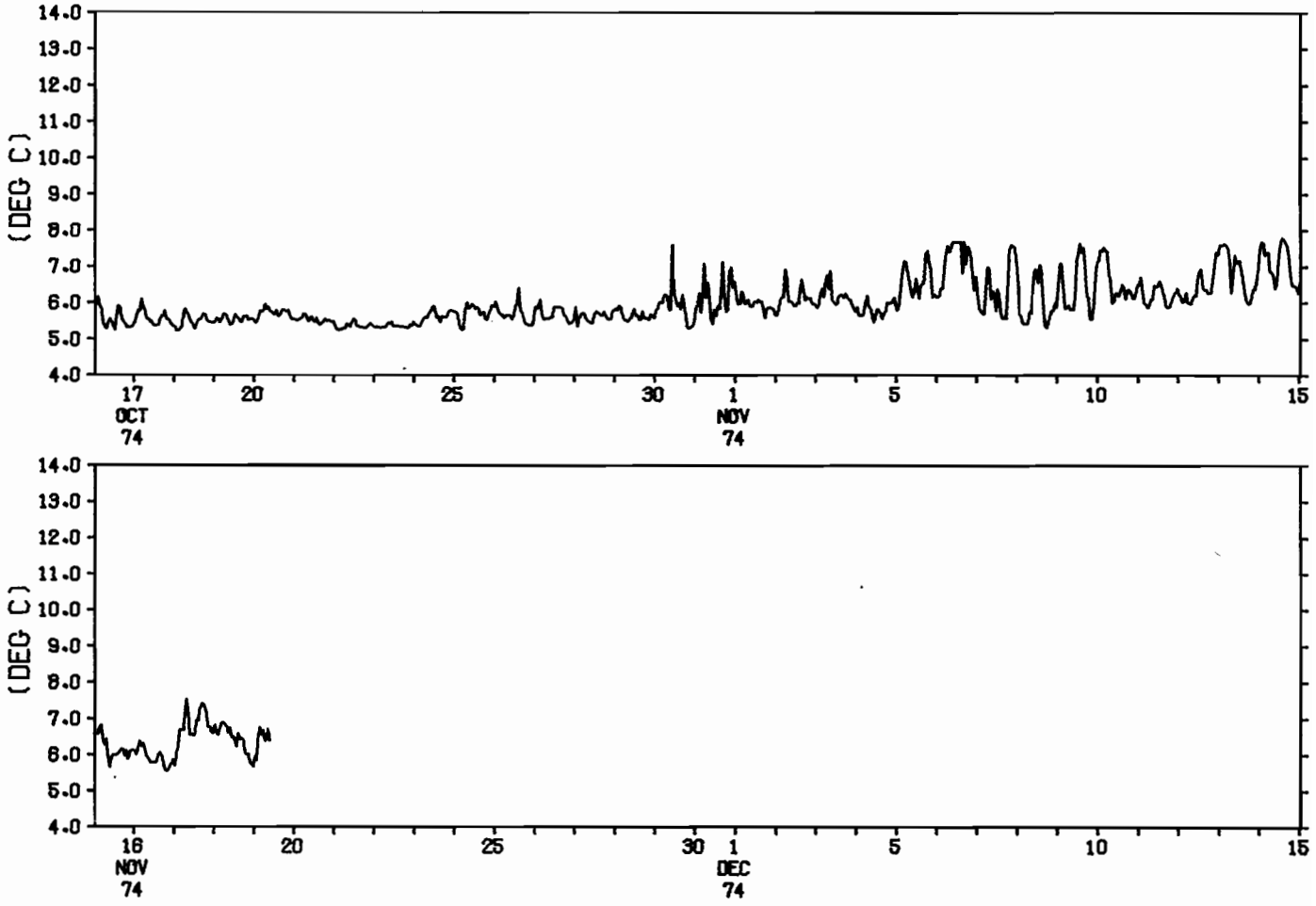
TEMPERATURE STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 100.0 METERS NUMBER OF OBSERVATIONS = 1652
OBSERVATION PERIOD 34.4 DAYS FROM 0034 GMT 16 OCT 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
6.04	.38	.61	1.06	3.39	7.90	5.15





HOURLY AVERAGES OF TEMPERATURE DEPTH 100.0 METERS.

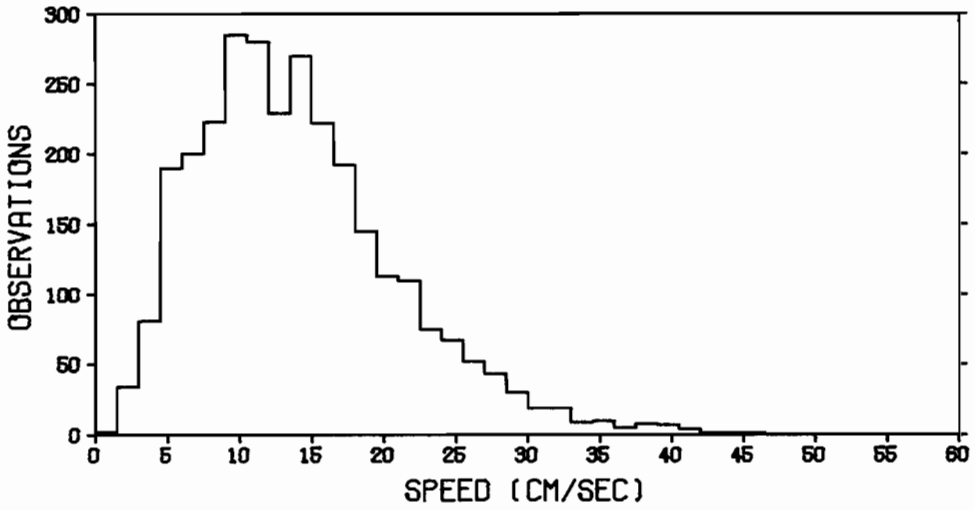


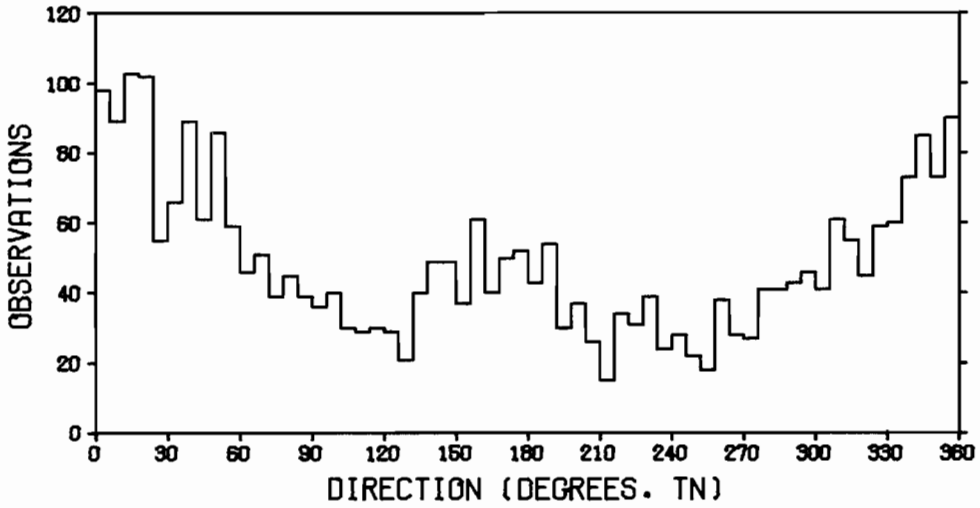
C.4. TIME SERIES ANALYSIS Current Meter 600 Nominal Depth: 178m
Part 1 of 3; 17 August - 16 October 1974

Mooring Designation NEGOA 62A
Location: 59° 34.4'N 142° 10.5'W
Sensors: Speed, Direction, Temperature, Conductivity

	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	14.08	49.42	7.03	.909	4.00	45.11	1.50
U	1.21	82.15	9.06	.014	2.59	26.01	-25.46
V	3.57	151.22	12.30	-.099	2.96	40.65	-31.40

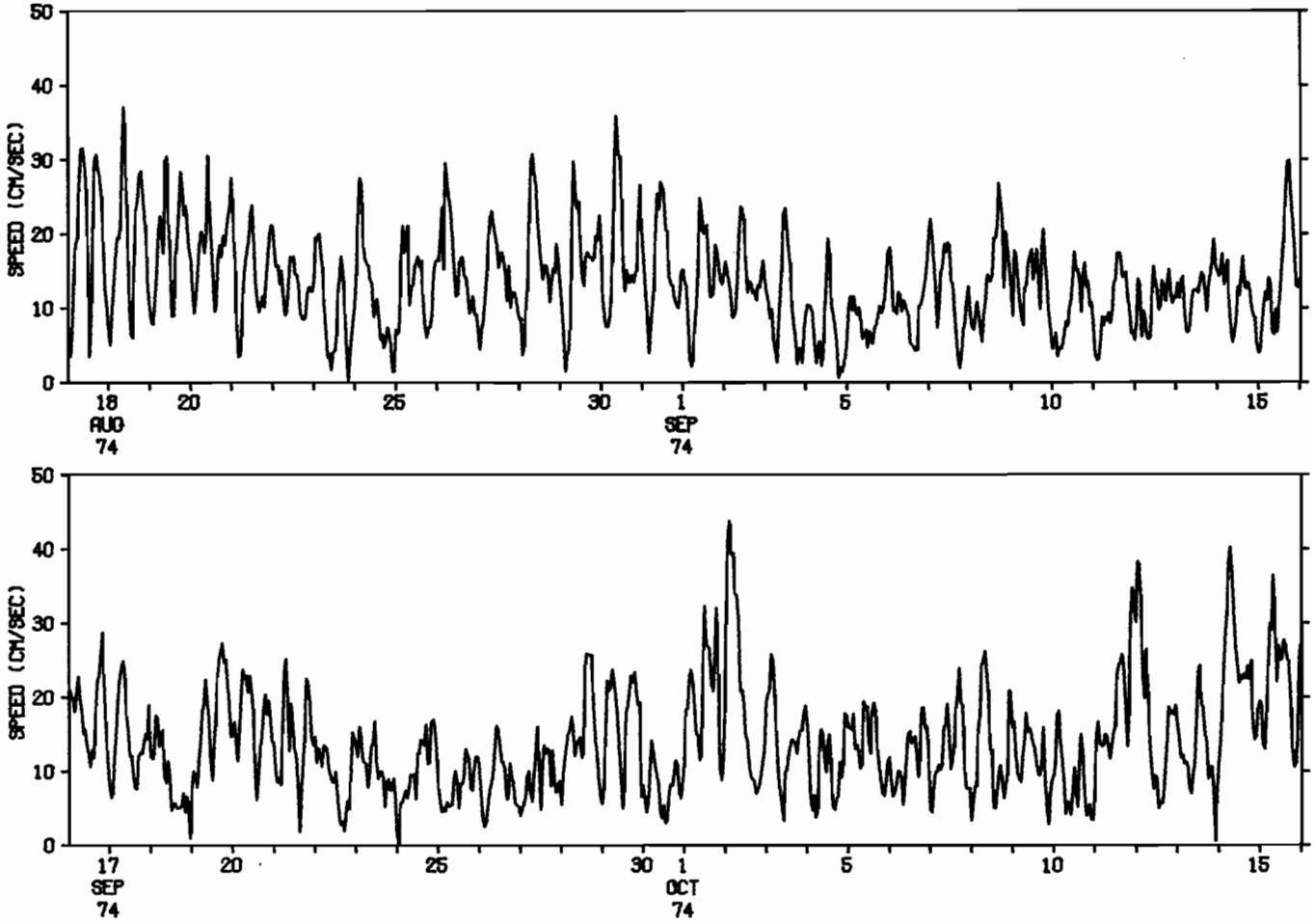
S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V

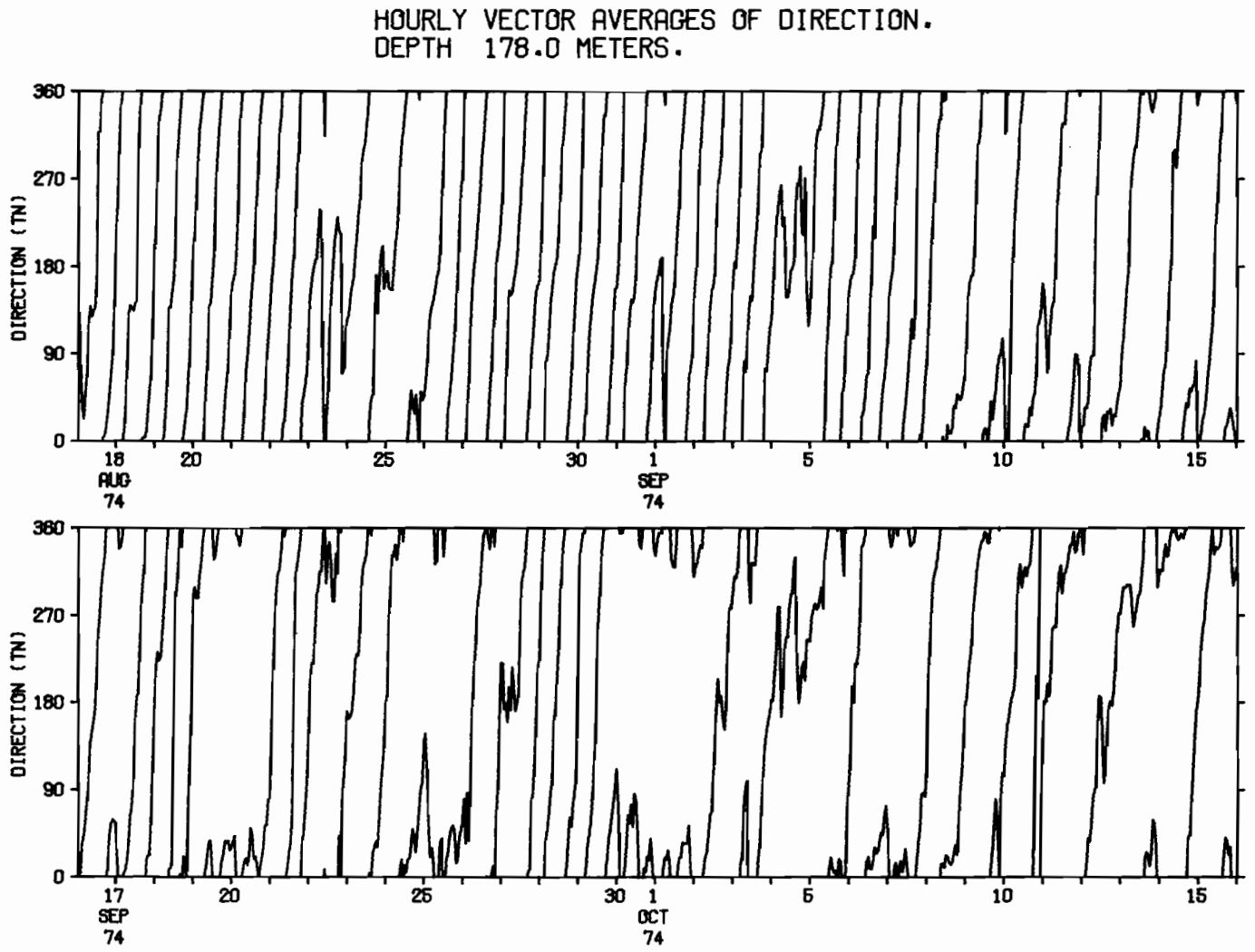




C.4. TIME SERIES ANALYSIS Current Meter 600 Part 1 of 3 (Continued)

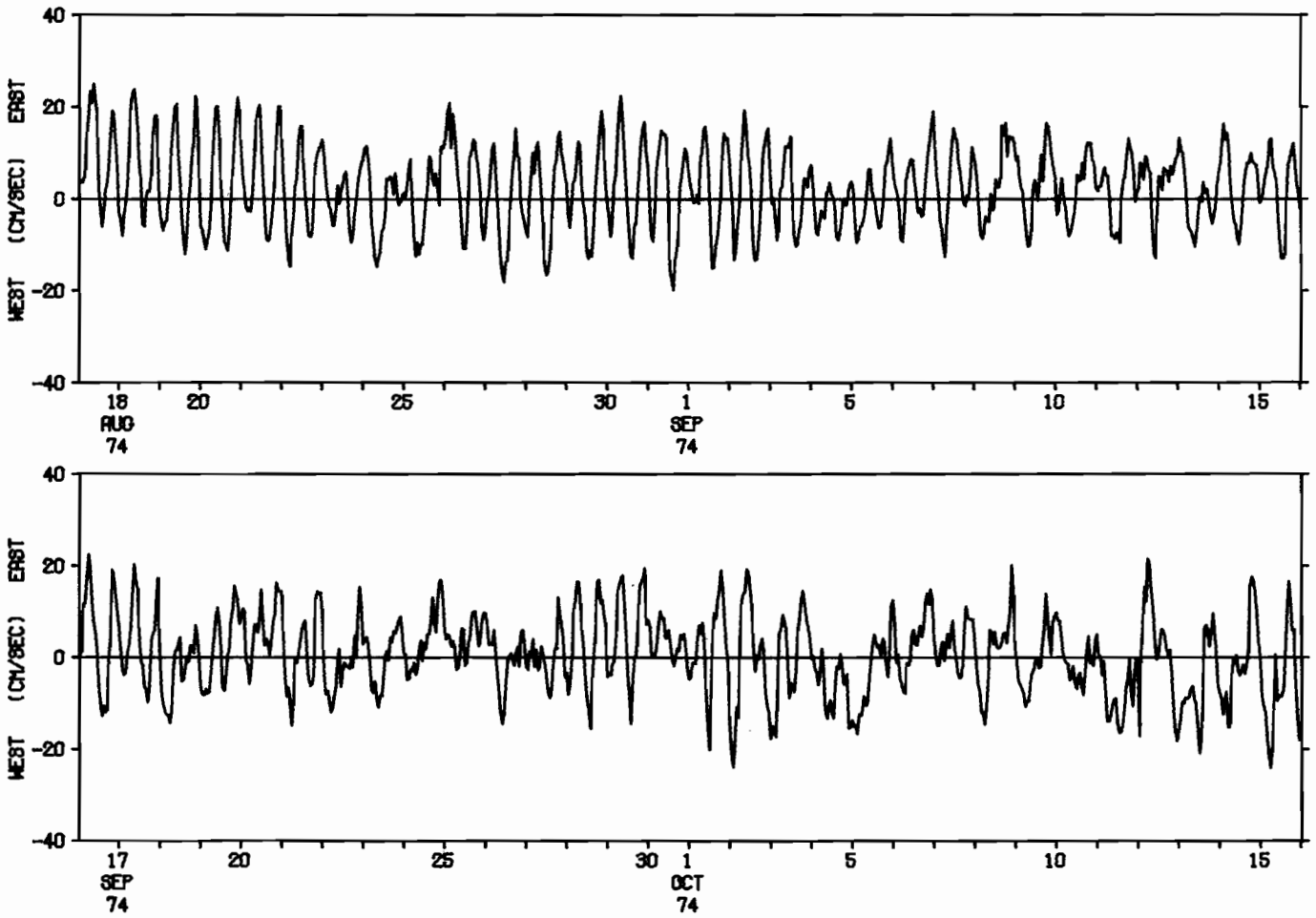
HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 178.0 METERS.




HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 178.0 METERS.
DIRECTION (TN)
360
270
180
90
0
18
AUG
74
20
25
30
1
SEP
74
5
10
15
DIRECTION (TN)
360
270
180
90
0
17
SEP
74
20
25
30
1
OCT
74
5
10
15

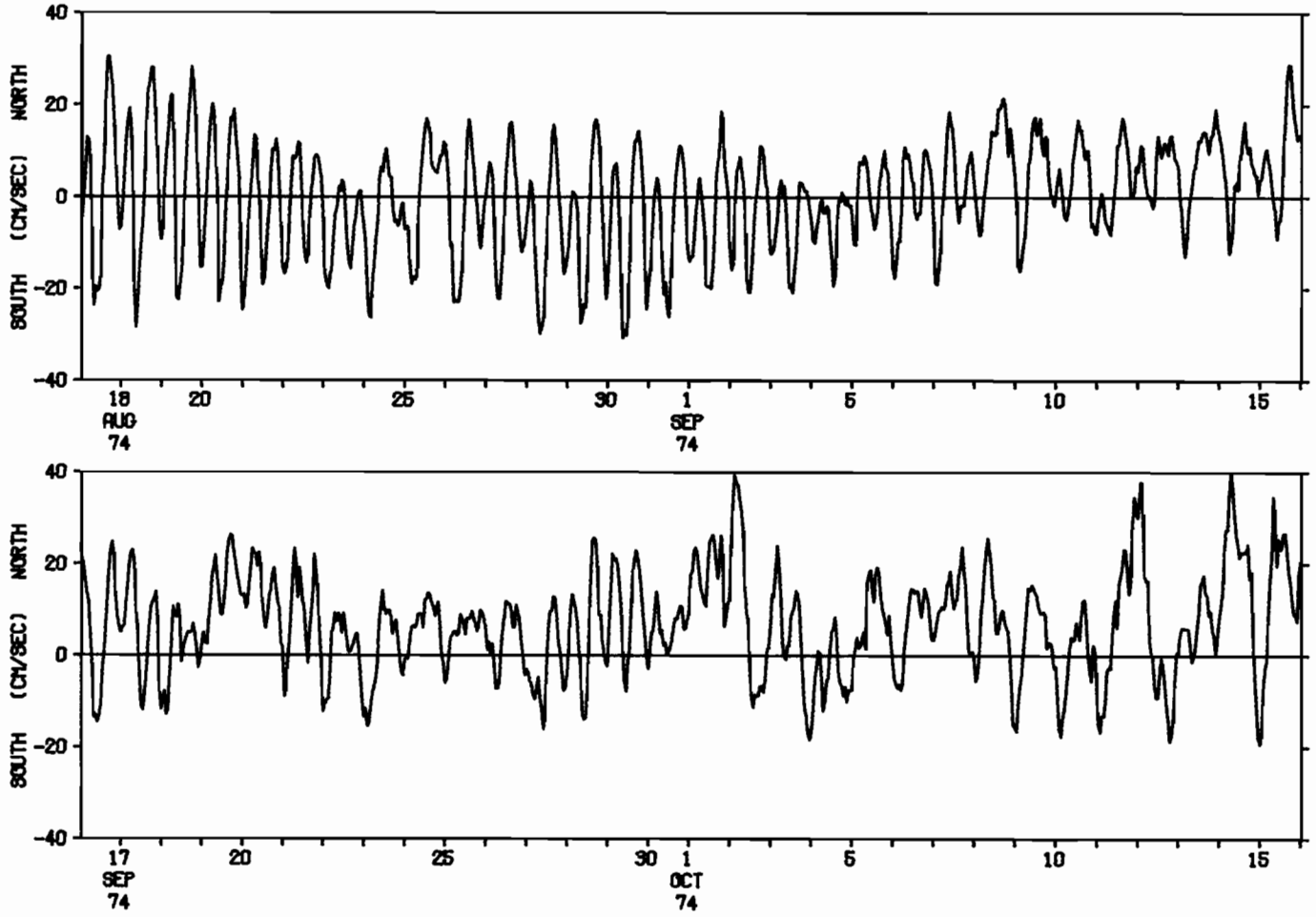
C.4. TIME SERIES ANALYSIS Current Meter 600 Part 1 of 3 (Continued)

HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 178.0 METERS.



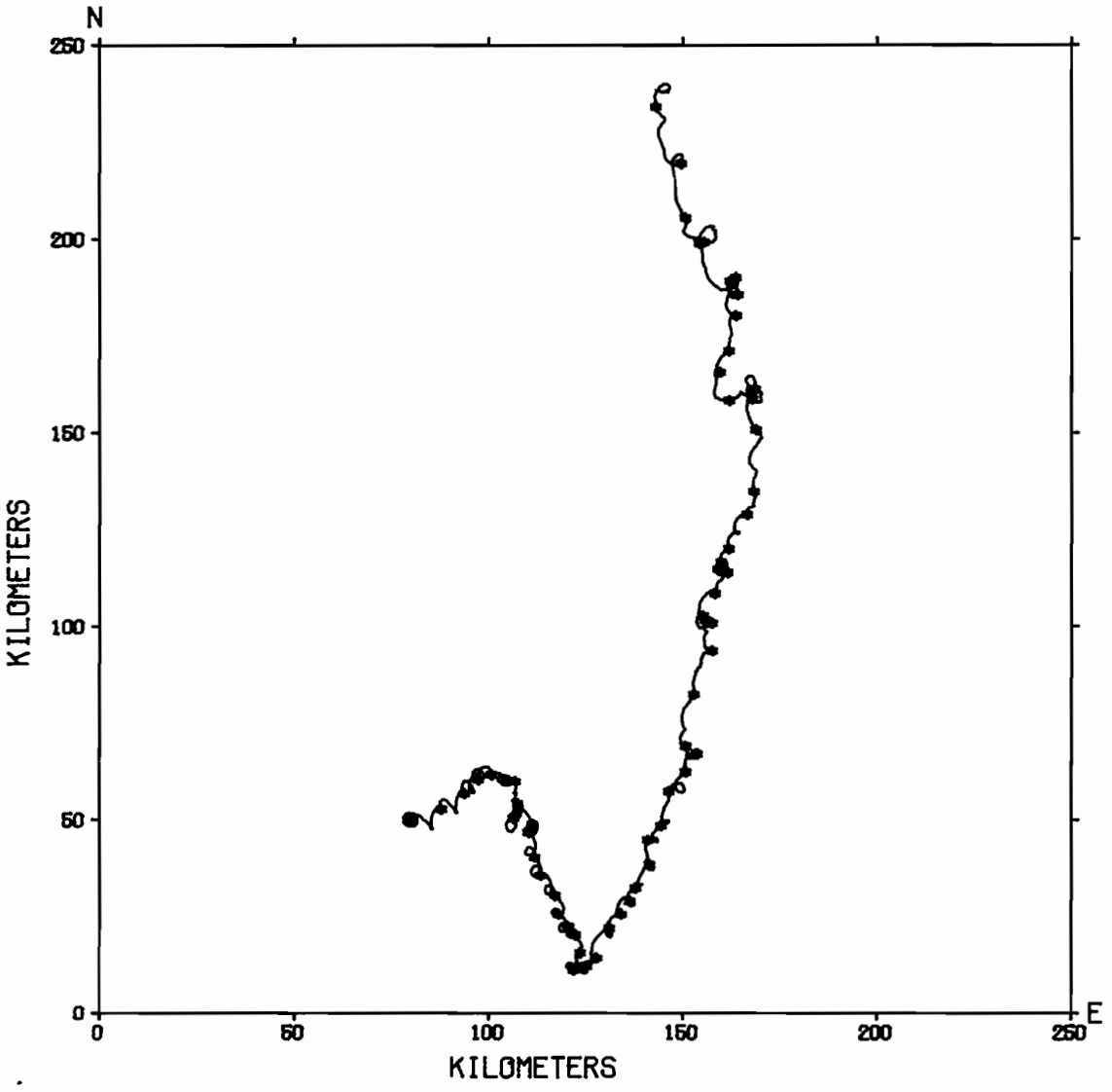
C.4. TIME SERIES ANALYSIS Current Meter 600 Part 1 of 3 (Continued)

HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 178.0 METERS.

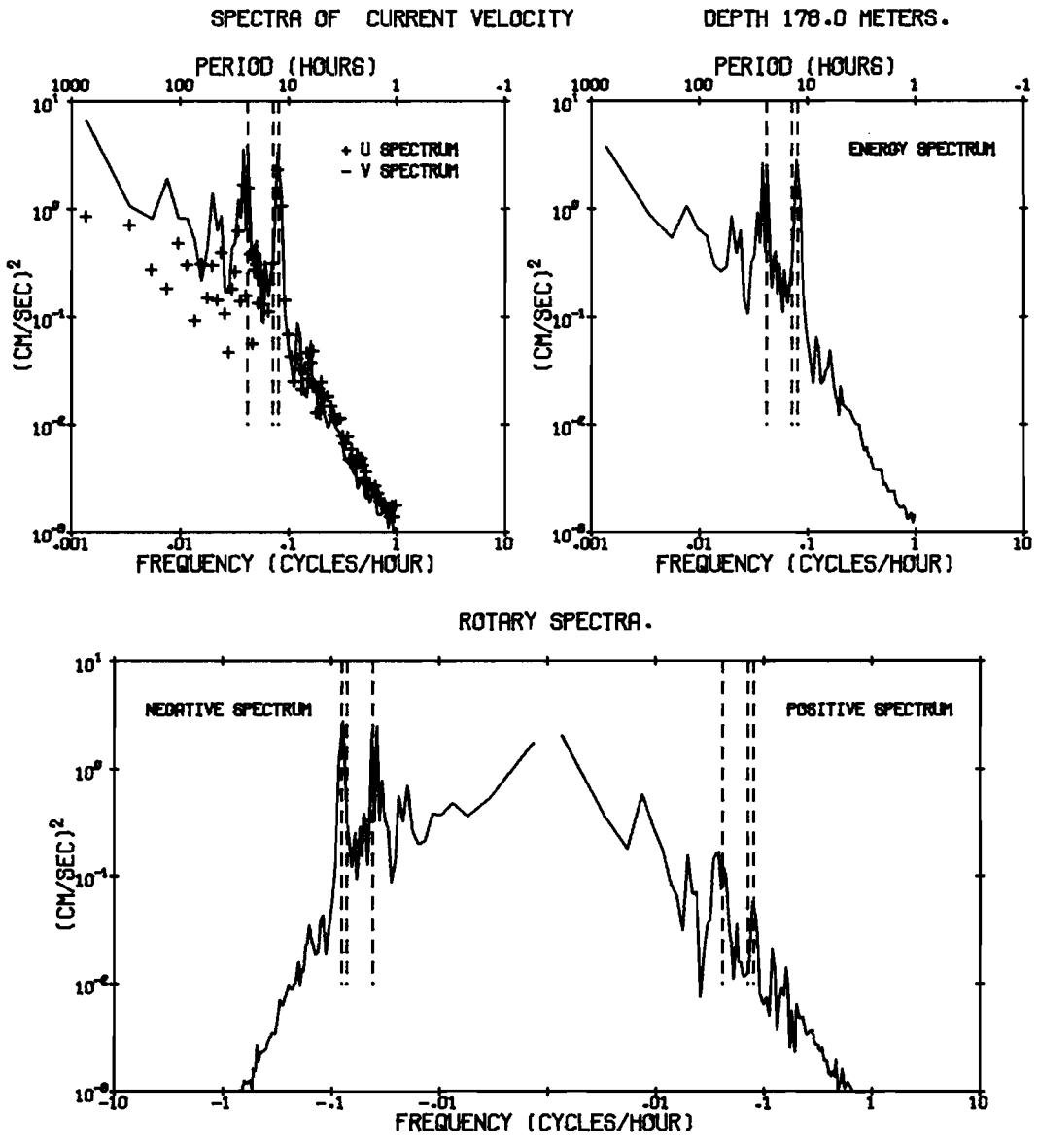


C.4. TIME SERIES ANALYSIS Current Meter 600
Part 1 of 3 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF CURRENTS
OBSERVATION PERIOD 61.0 DAYS FROM 0036 GMT 17 AUG 74.
DEPTH 178.0 METERS.



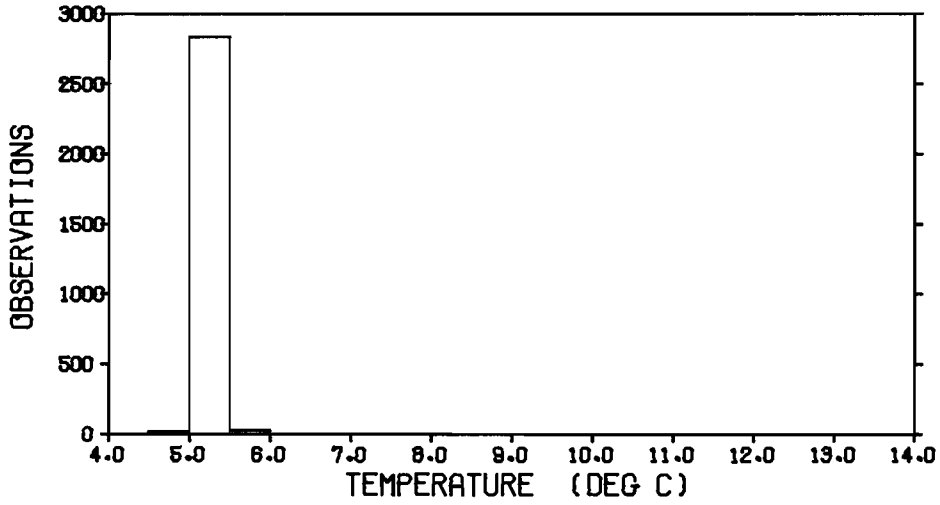
C.4. TIME SERIES ANALYSIS Current Meter 600
Part 1 of 3 (Continued)

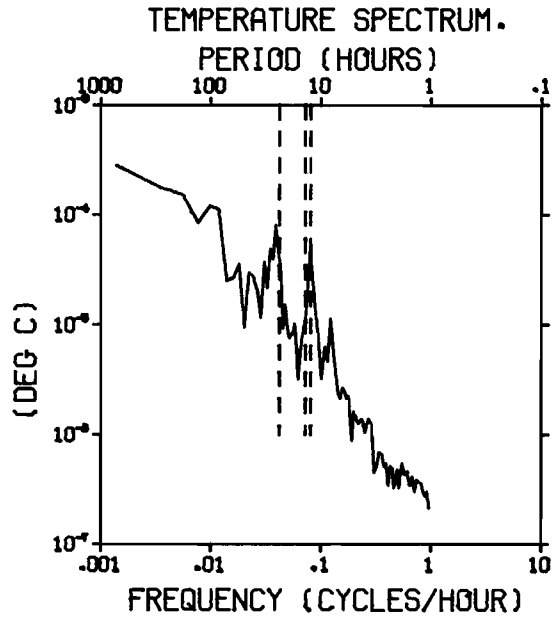


C.4. TIME SERIES ANALYSIS Current Meter 600
Part 1 of 3 (Continued)

TEMPERATURE STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 178.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0036 GMT 17 AUG 74

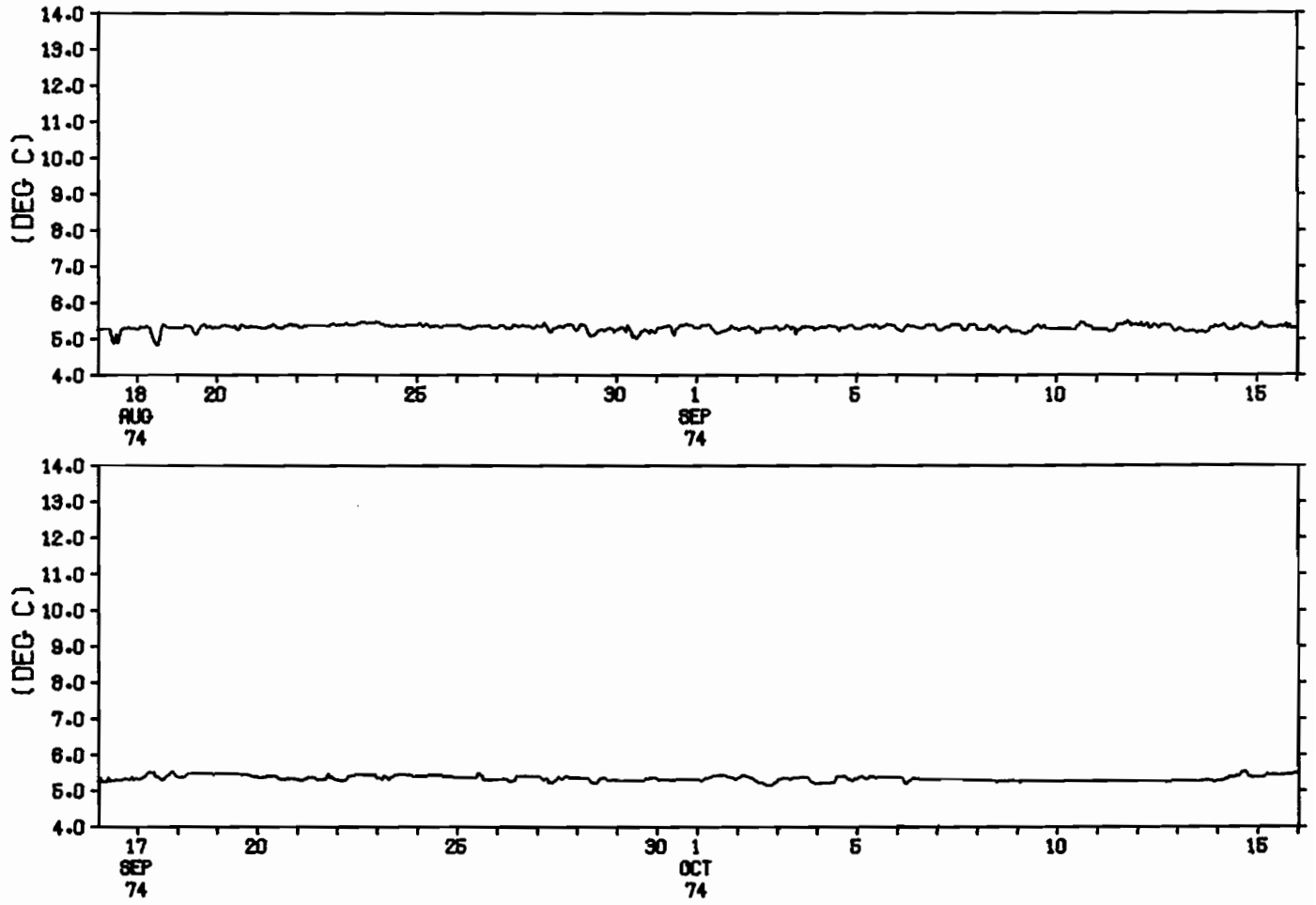
MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
5.33	.01	.08	-1.05	8.01	5.55	4.73





C.4. TIME SERIES ANALYSIS Current Meter 600 Part 1 of 3 (Continued)

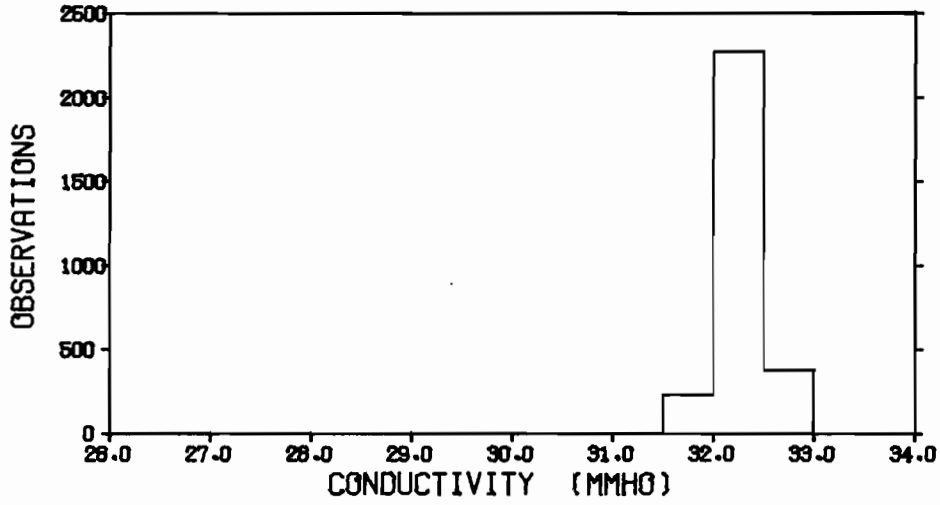
HOURLY AVERAGES OF TEMPERATURE DEPTH 178.0 METERS.

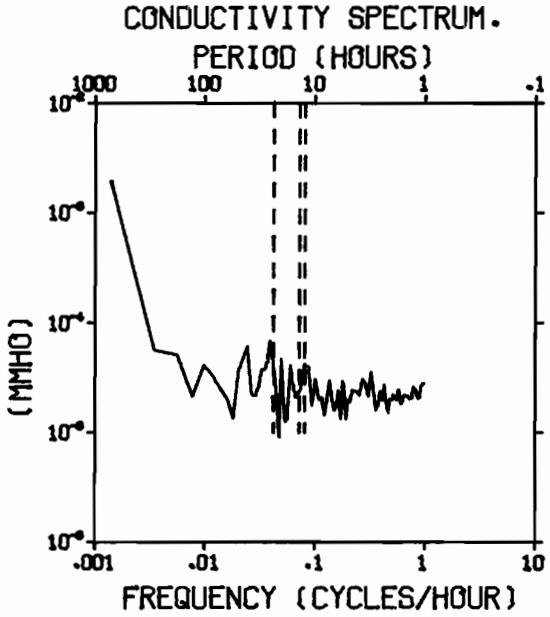


C.4. TIME SERIES ANALYSIS Current Meter 600
Part 1 of 3 (Continued)

CONDUCTIVITY STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 178.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0036 GMT 17 AUG 74

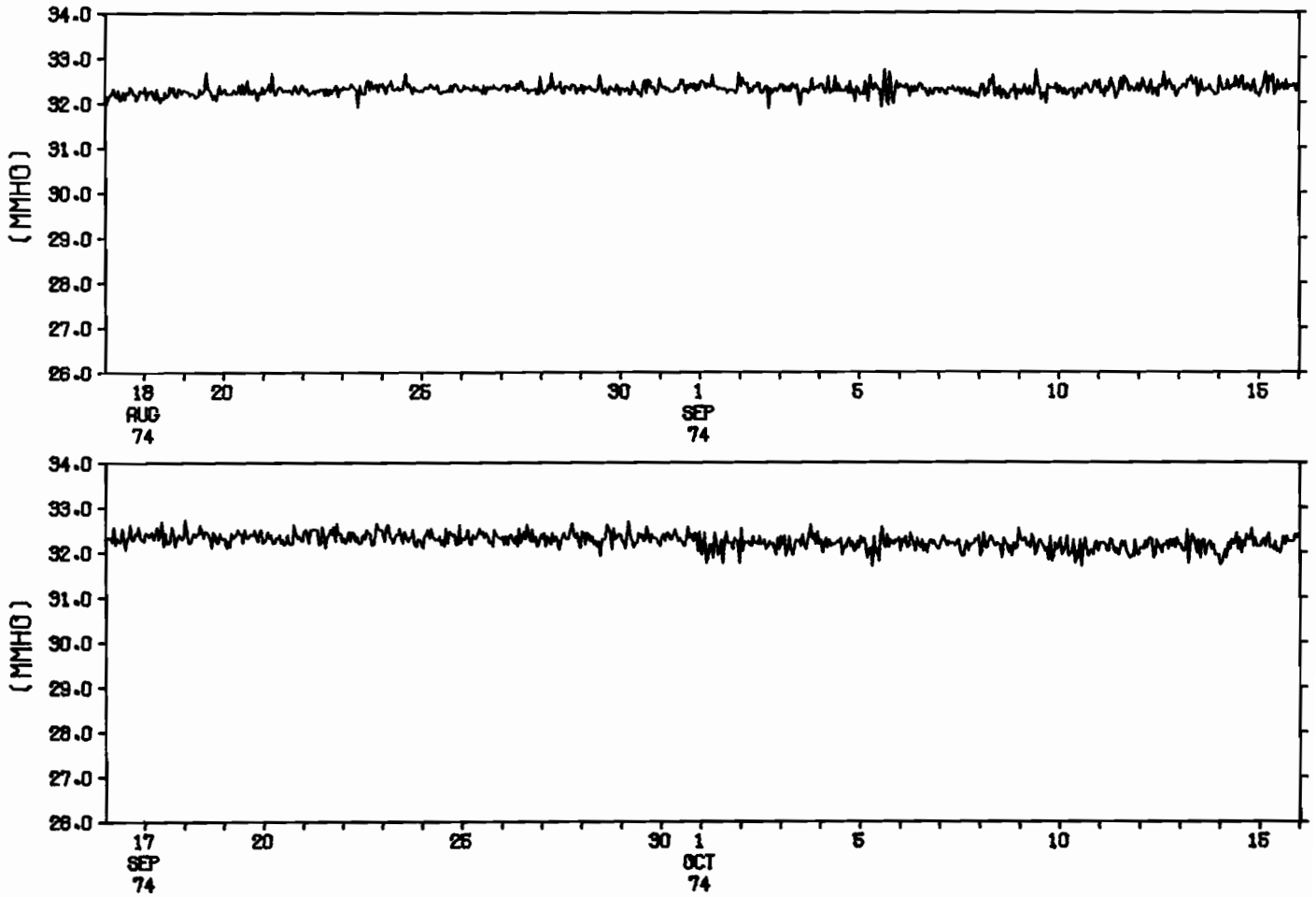
MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
32.27	.04	.20	-.12	4.47	32.87	31.60





C.4. TIME SERIES ANALYSIS Current Meter 600 Part 1 of 3 (Continued)

HOURLY AVERAGES OF CONDUCTIVITY DEPTH 178.0 METERS.

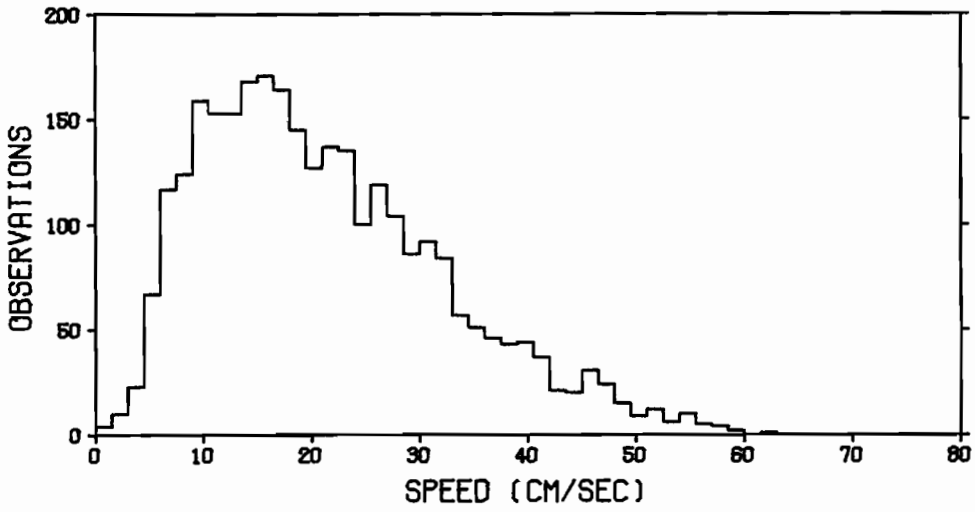


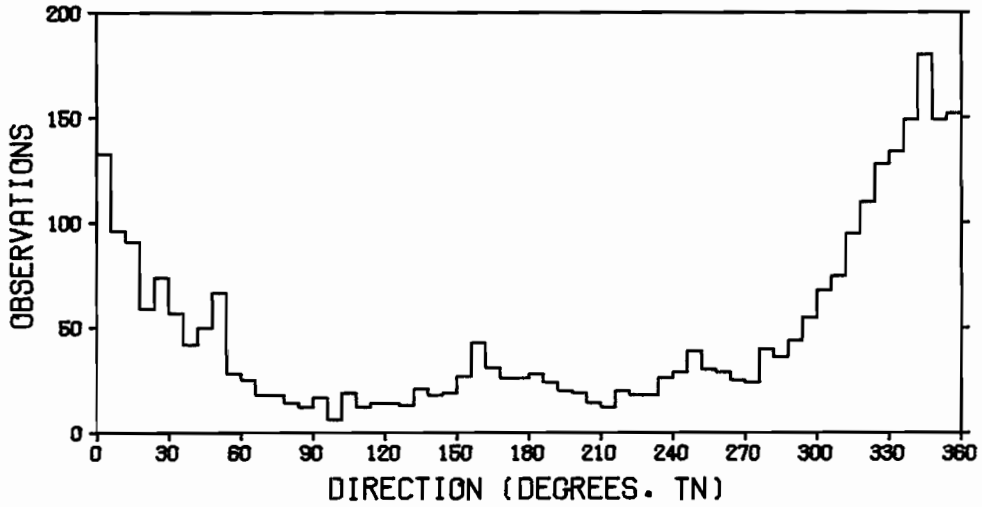
C.4. TIME SERIES ANALYSIS Current Meter 600 Nominal Depth: 178m
Part 2 of 3; 17 October - 16 December 1974

Mooring Designation NEGOA 62A
Location: 59° 34.4'N 142° 10.5'W
Sensors: Speed, Direction, Temperature, Conductivity

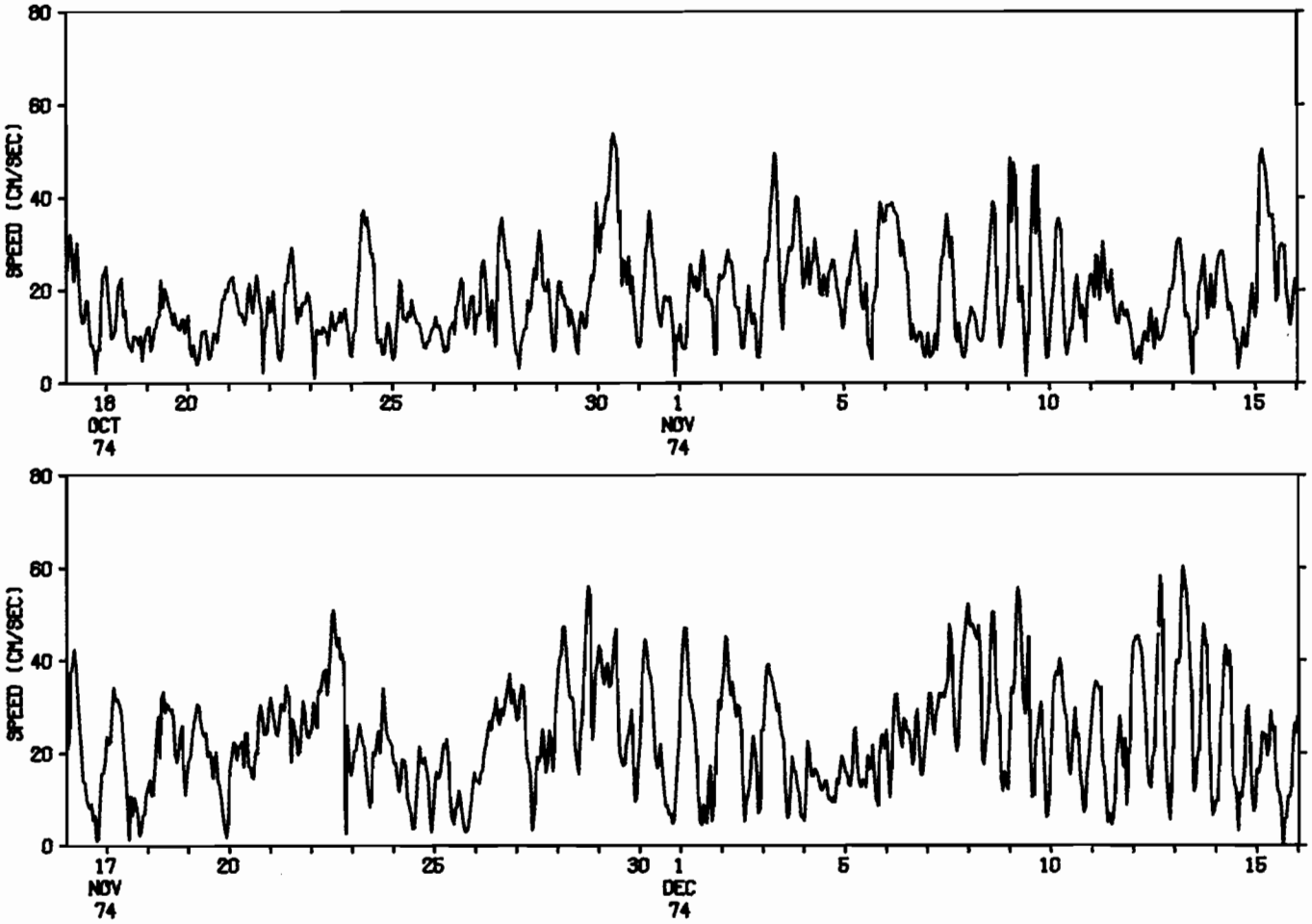
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	21.32	125.90	11.22	.749	3.12	62.22	1.50
U	-4.67	154.71	12.44	-.525	3.50	30.04	-53.40
V	11.63	268.58	16.39	-.324	3.14	55.72	-42.20

S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V

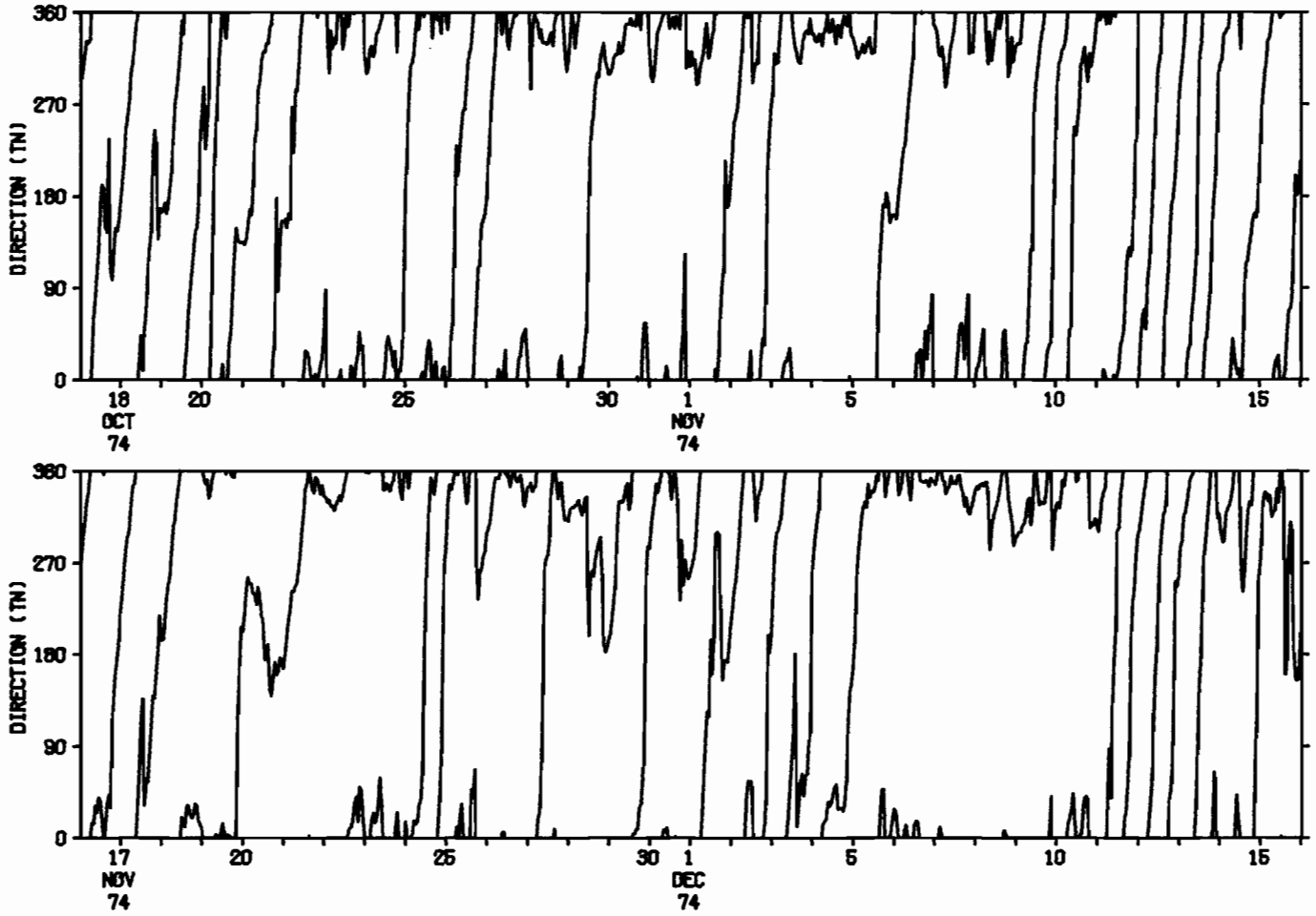


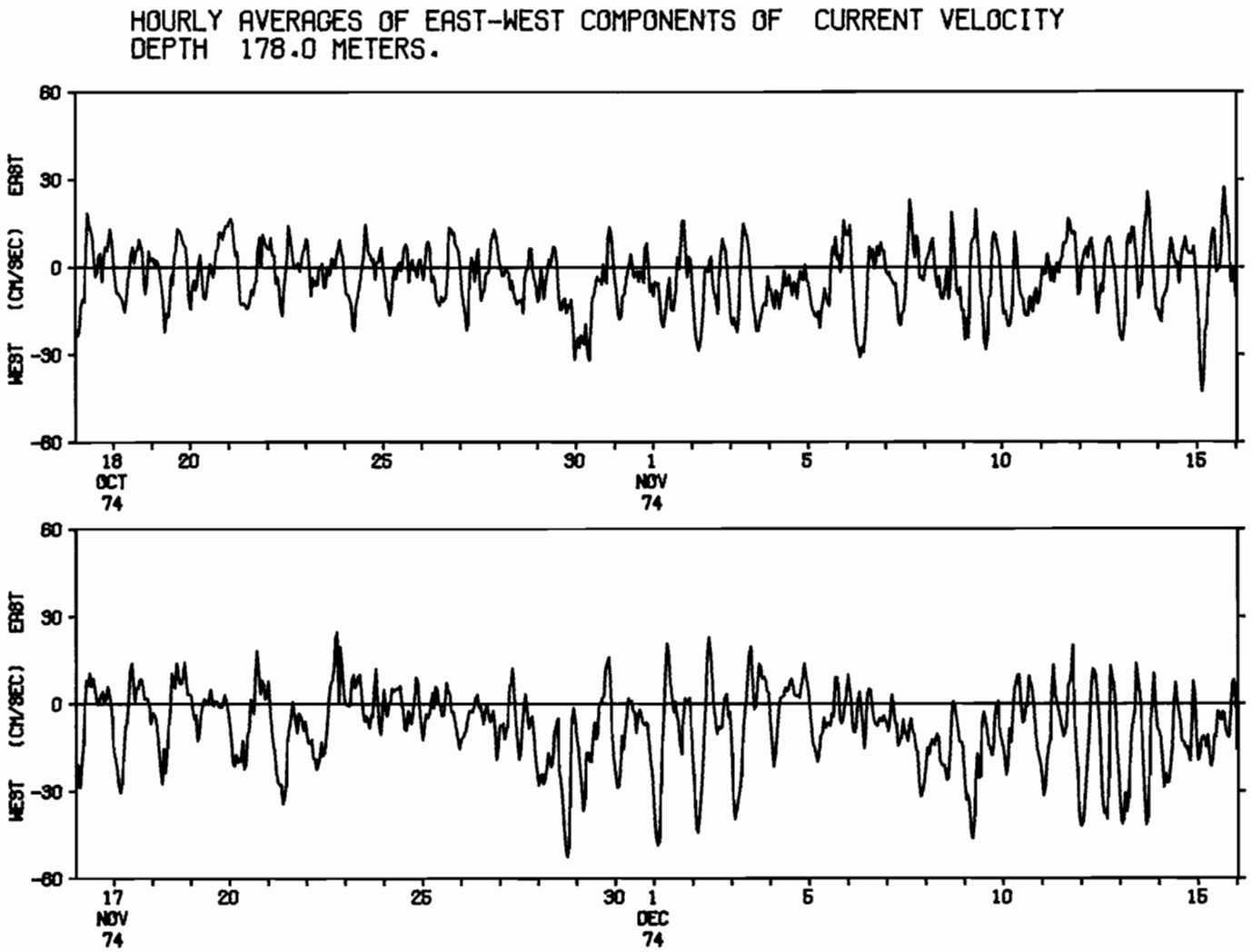


HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 178.0 METERS.



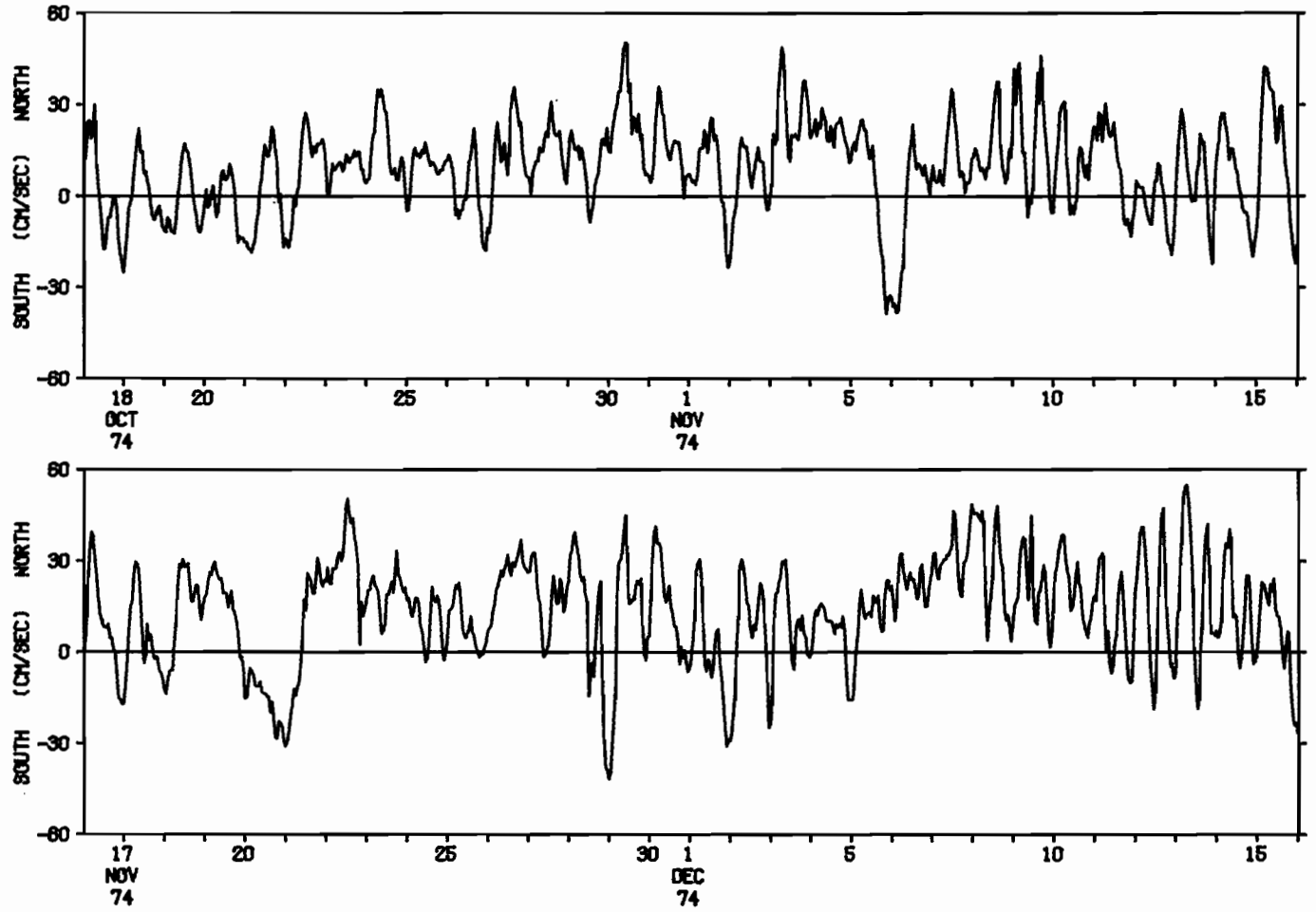
HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 178.0 METERS.




HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 178.0 METERS.
WEST (CM/SEC) EAST
60
30
0
-30
-60
18
OCT
74
20
25
30
1
NOV
74
5
10
15
WEST (CM/SEC) EAST
60
30
0
-30
-60
17
NOV
74
20
25
30
1
DEC
74
5
10
15

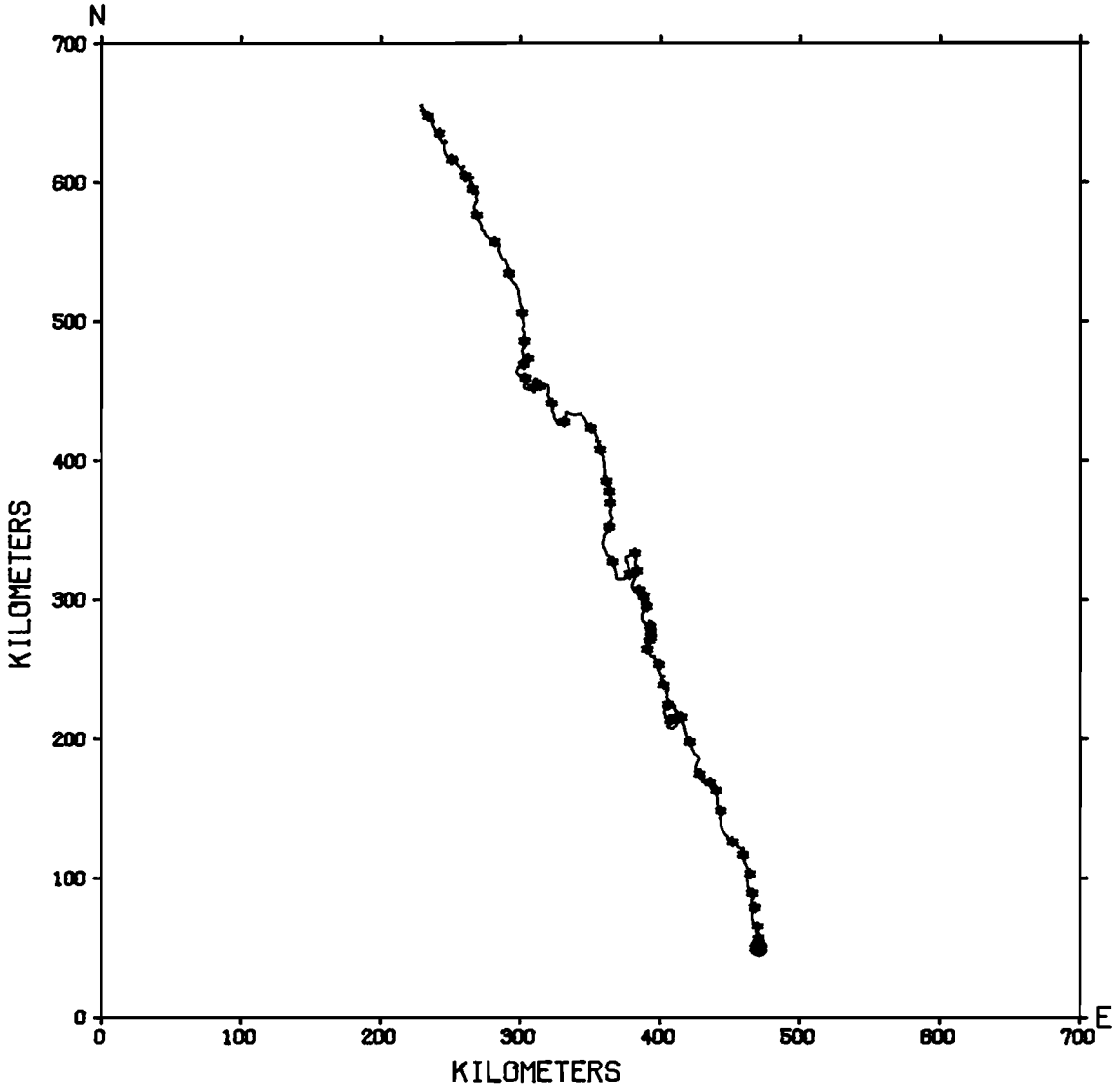
C.4. TIME SERIES ANALYSIS Current Meter 600 Part 2 of 3 (Continued)

HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 178.0 METERS.

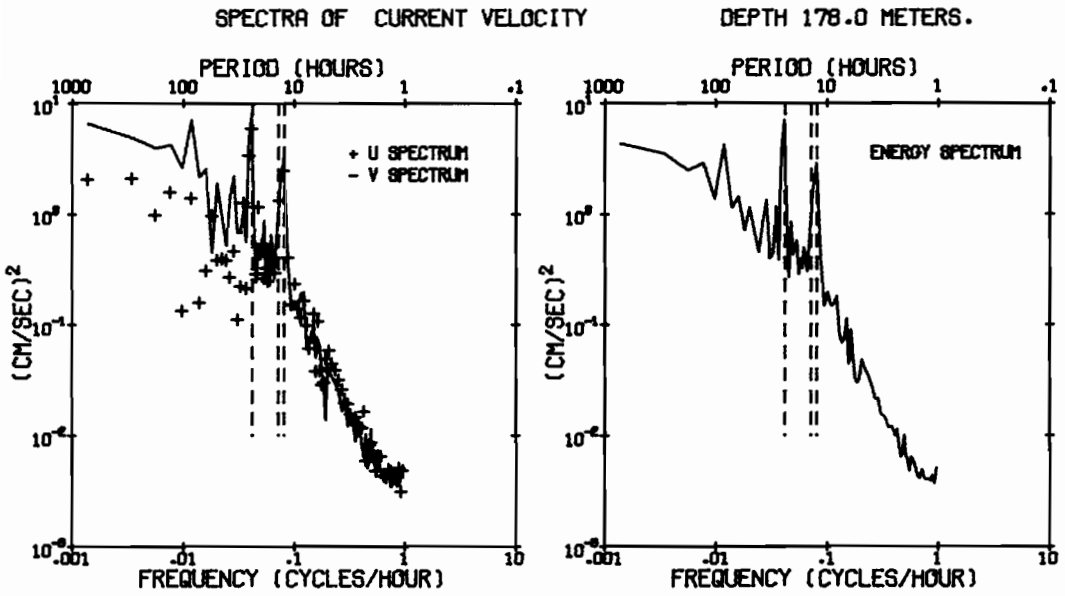


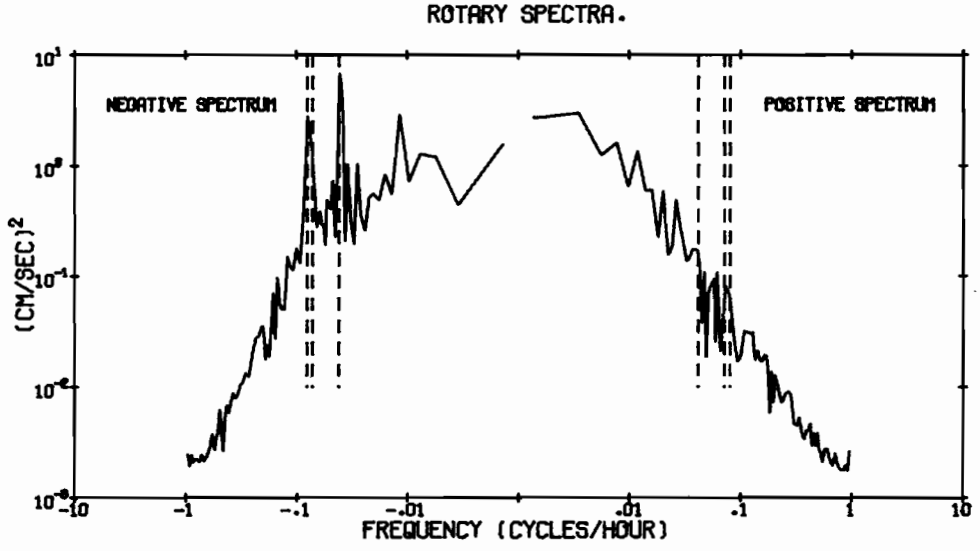
C.4. TIME SERIES ANALYSIS Current Meter 600
Part 2 of 3 (Continued)

PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF CURRENTS
OBSERVATION PERIOD 60.0 DAYS FROM 0036 GMT 17 OCT 74.
DEPTH 178.0 METERS.



C.4. TIME SERIES ANALYSIS Current Meter 600
Part 2 of 3 (Continued)

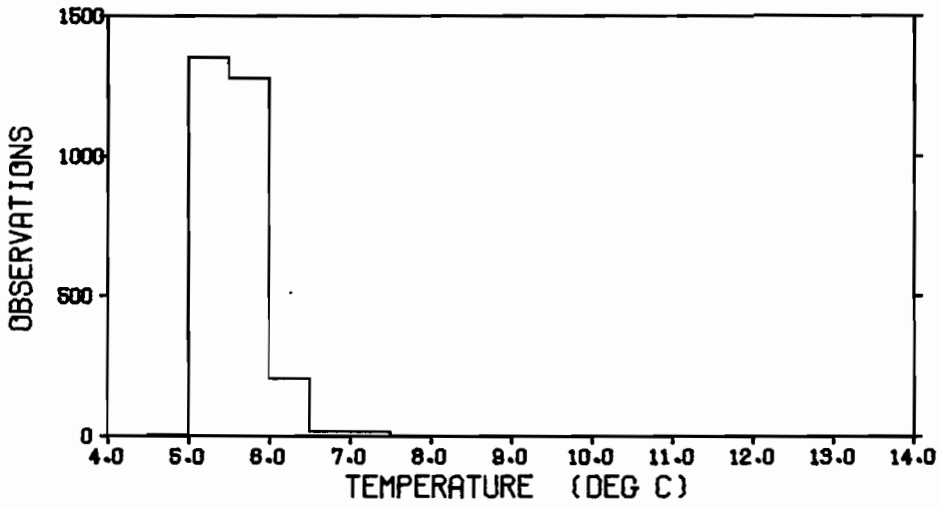


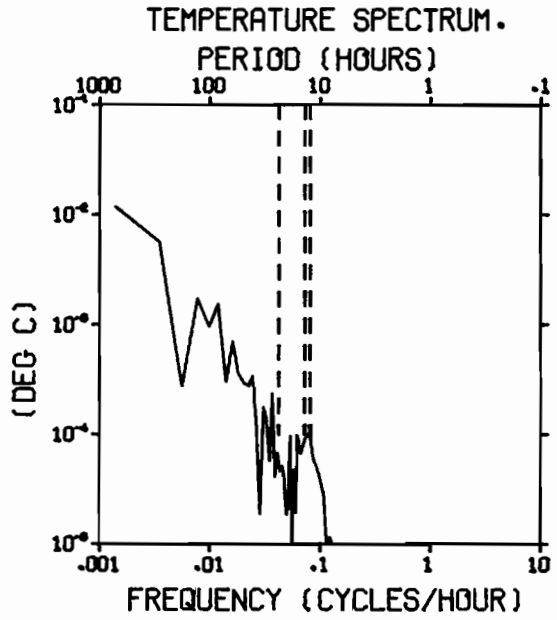


C.4. TIME SERIES ANALYSIS Current Meter 600
Part 2 of 3 (Continued)

TEMPERATURE STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 178.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0036 GMT 16 OCT 74

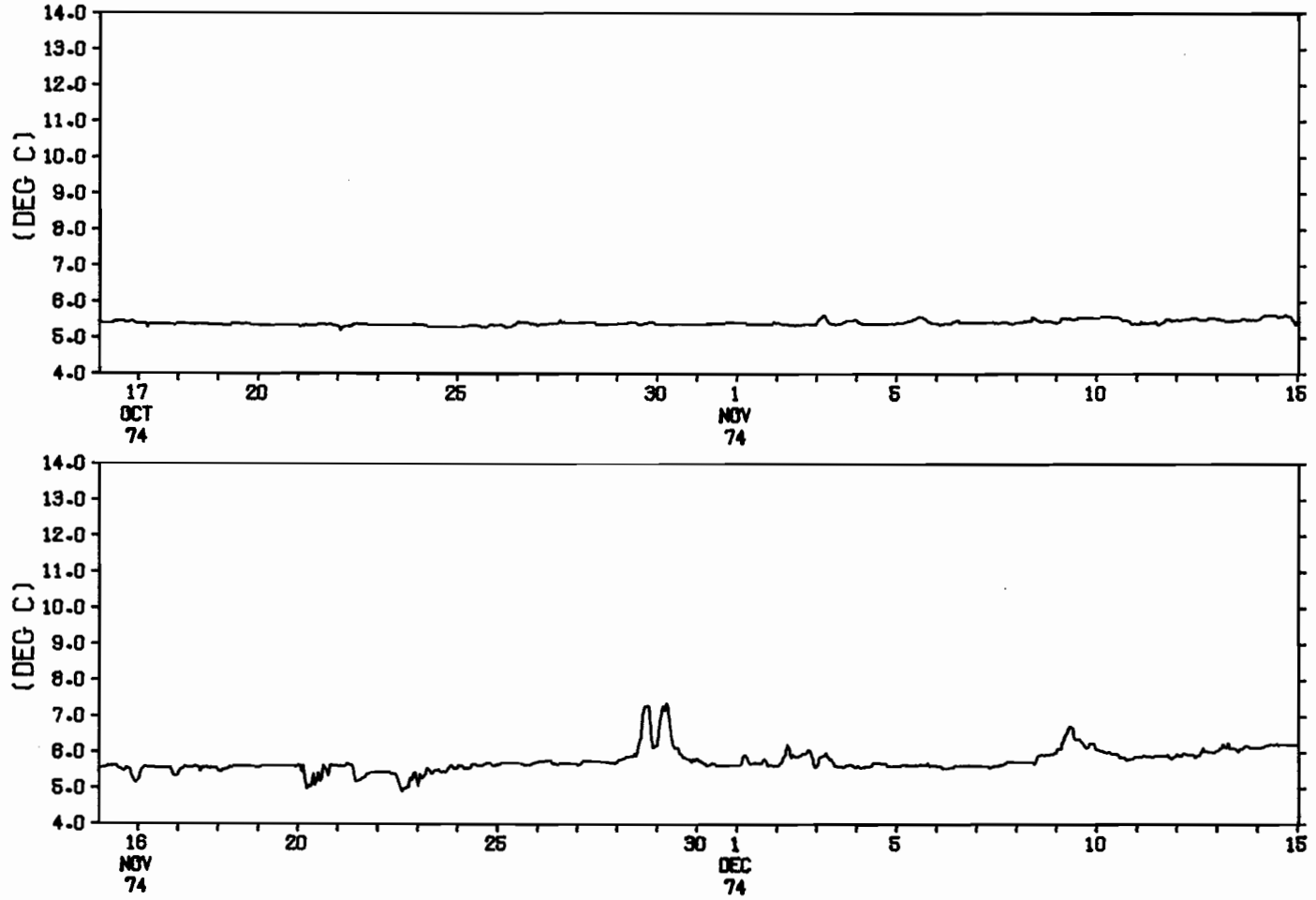
MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
5.58	.08	.29	2.17	11.09	7.51	4.89





C.4. TIME SERIES ANALYSIS Current Meter 600 Part 2 of 3 (Continued)

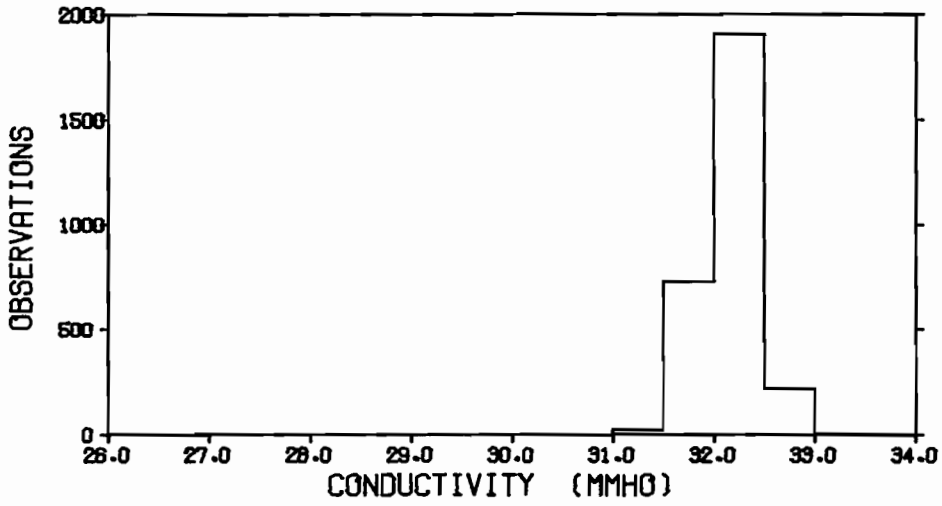
HOURLY AVERAGES OF TEMPERATURE DEPTH 178.0 METERS.

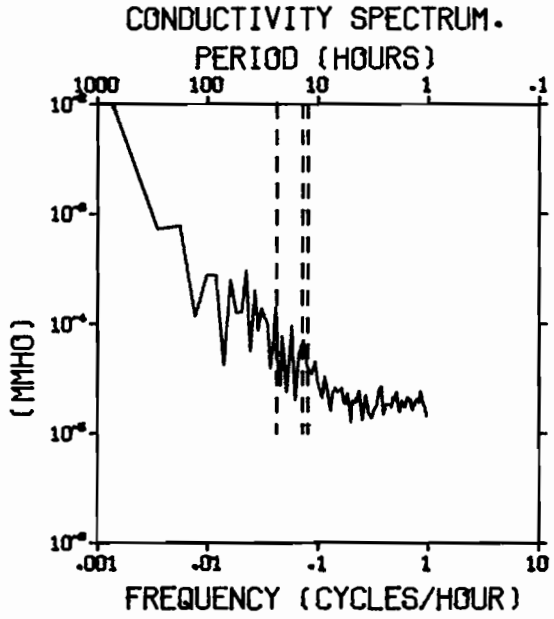


C.4. TIME SERIES ANALYSIS Current Meter 600
Part 2 of 3 (Continued)

CONDUCTIVITY STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 178.0 METERS NUMBER OF OBSERVATIONS = 2880
OBSERVATION PERIOD 60.0 DAYS FROM 0036 GMT 16 OCT 74

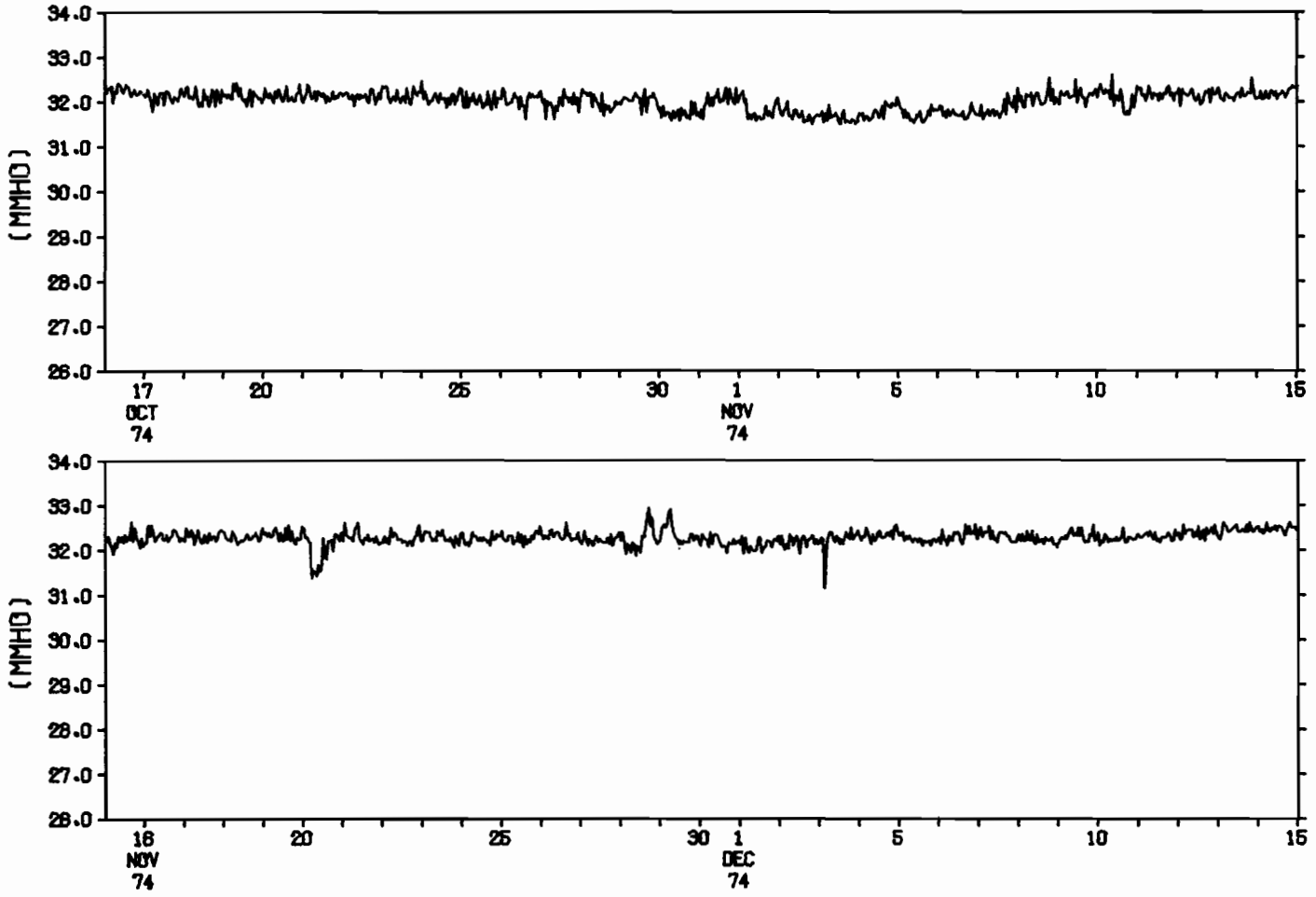
MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
32.14	.07	.26	-.62	4.40	33.02	30.11





C.4. TIME SERIES ANALYSIS Current Meter 600 Part 2 of 3 (Continued)

HOURLY AVERAGES OF CONDUCTIVITY DEPTH 178.0 METERS.

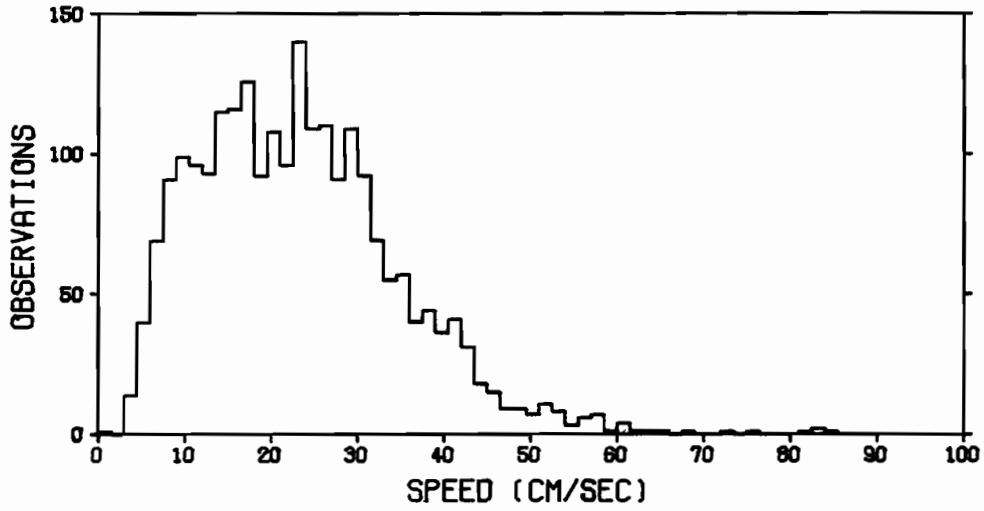


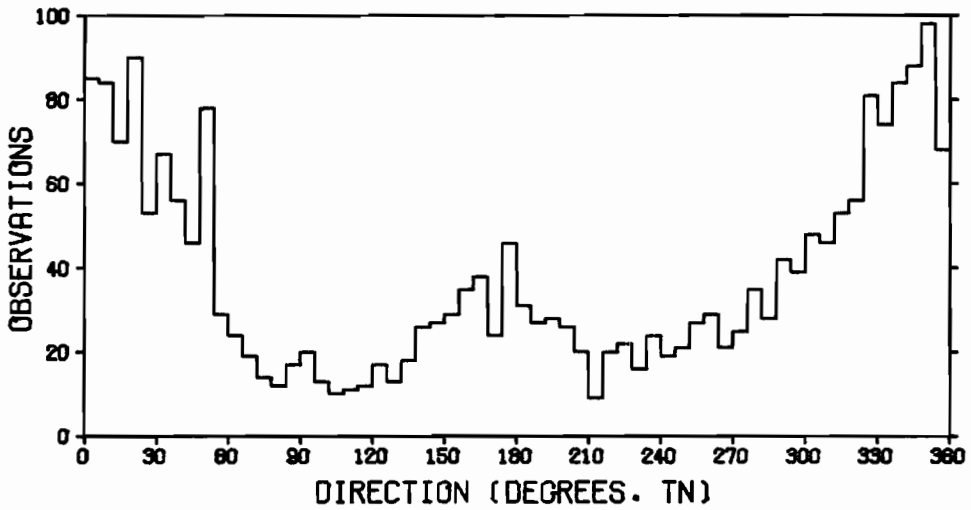
C.4. TIME SERIES ANALYSIS Current Meter 600 Nominal Depth: 178m
Part 3 of 3; 16 December 1974 - 2 February 1975

Mooring Designation NEGOA 62A
Location: 59° 34.4'N 142° 10.5'W
Sensors: Speed, Direction, Temperature, Conductivity

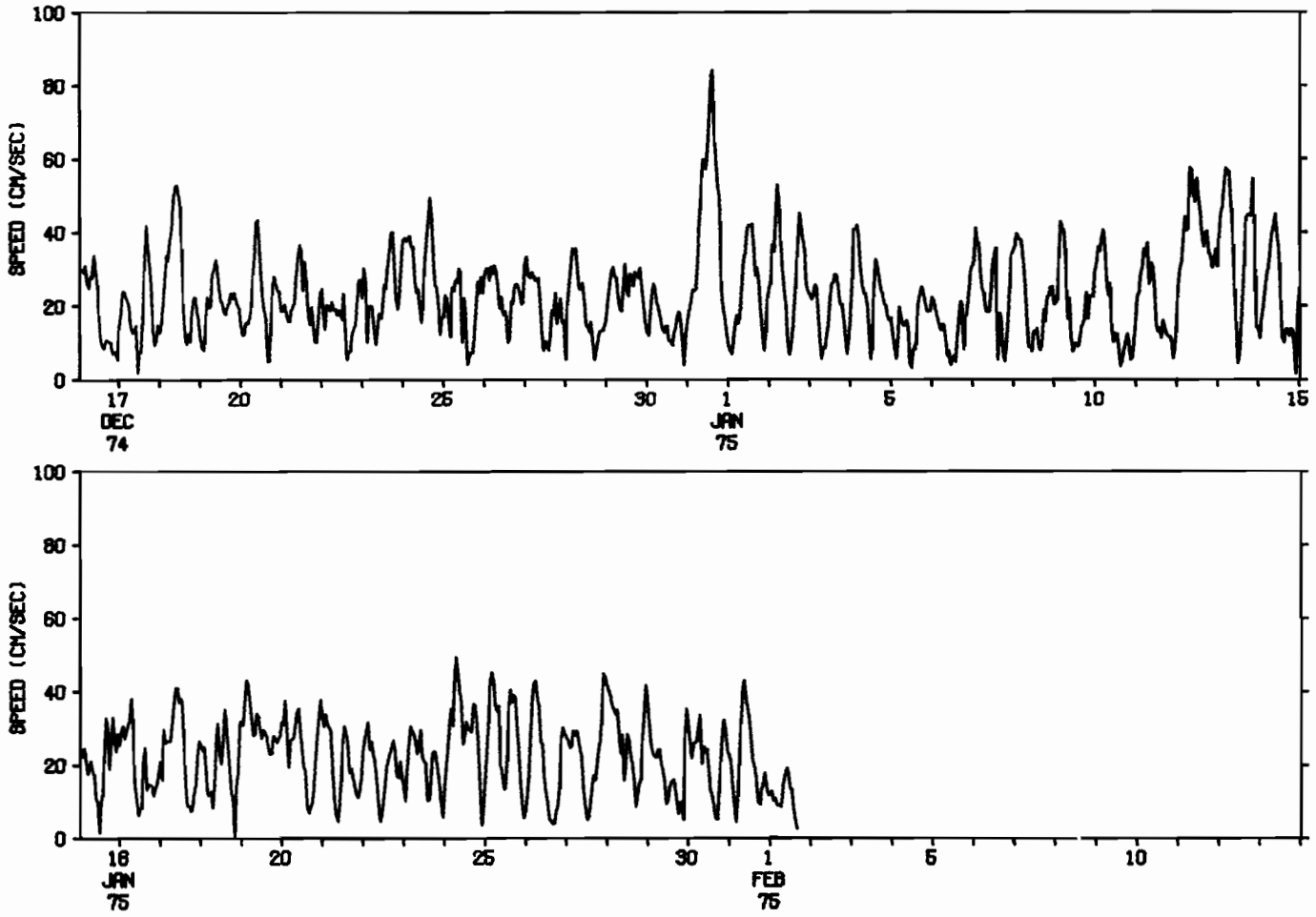
	MEAN (CM/SEC)	VARIANCE (CM/SEC)2	ST-DEV (CM/SEC)	SKEW	KURT	MAX (CM/SEC)	MIN (CM/SEC)
S	23.22	134.20	11.58	.862	4.42	84.71	1.09
U	-1.94	191.92	13.85	-.148	2.49	31.84	-42.16
V	9.39	389.47	19.74	-.102	3.01	83.99	-46.69

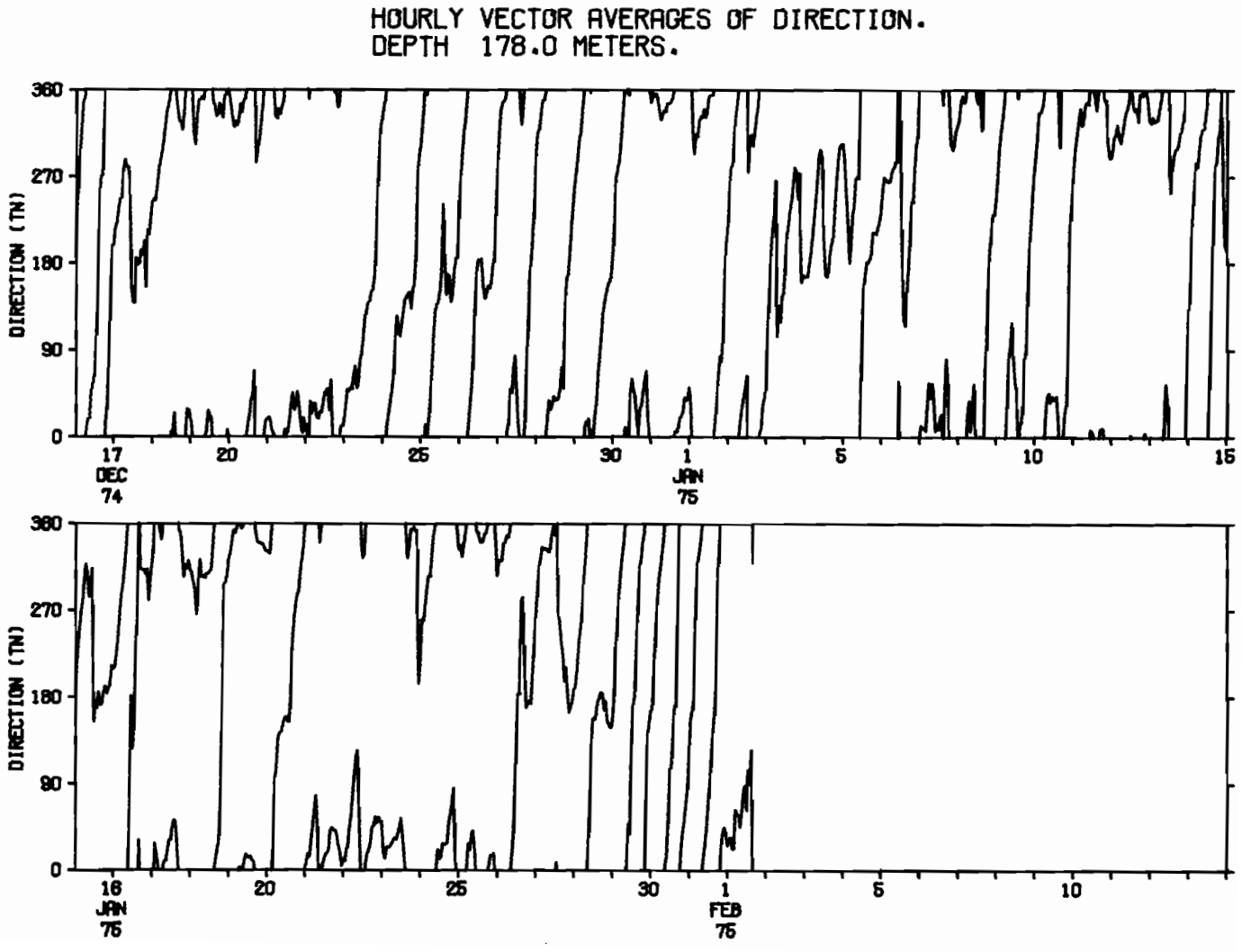
S = SPEED
U = EAST-WEST COMPONENT OF VELOCITY, EAST = POSITIVE U
V = NORTH-SOUTH COMPONENT OF VELOCITY, NORTH = POSITIVE V



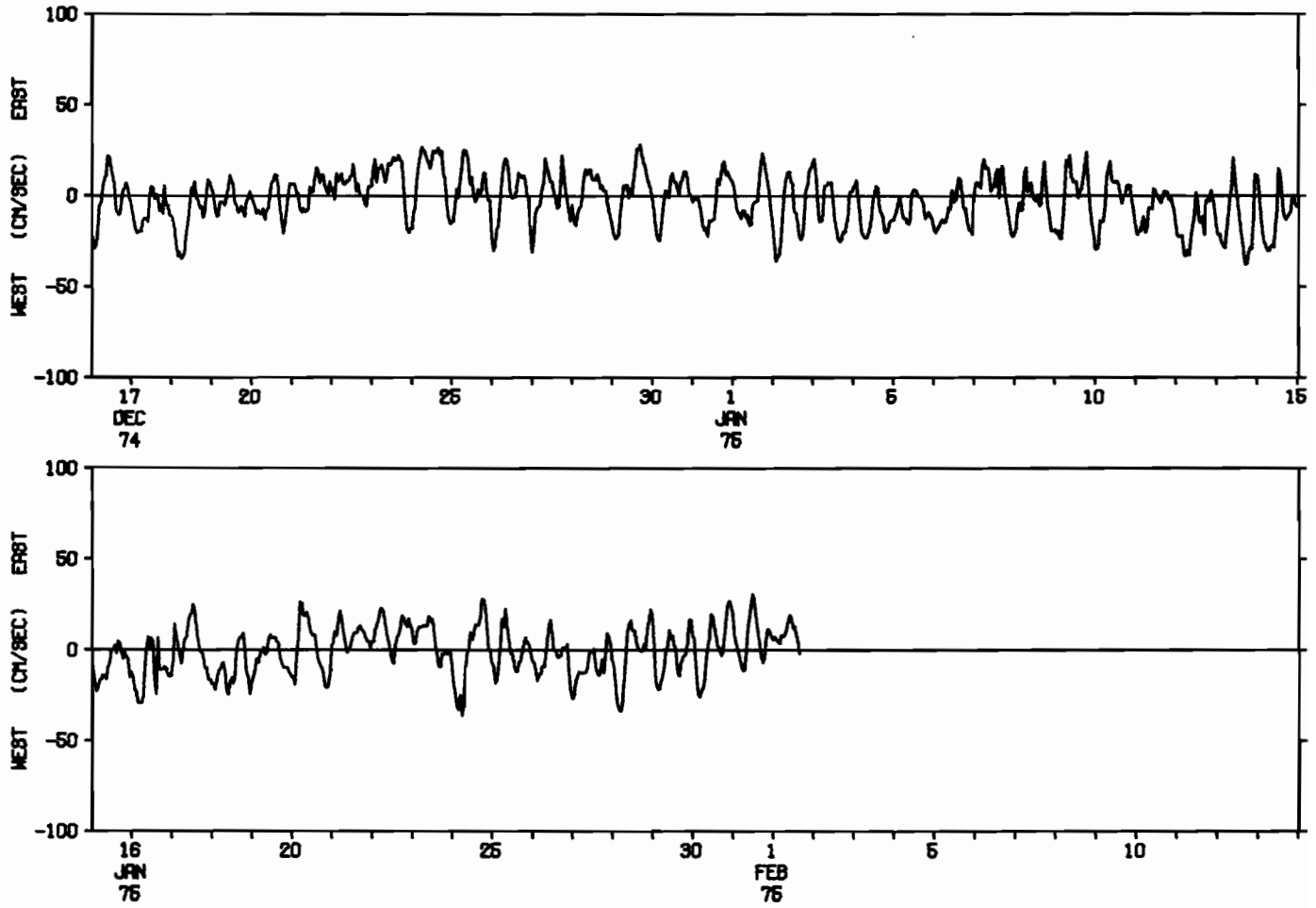


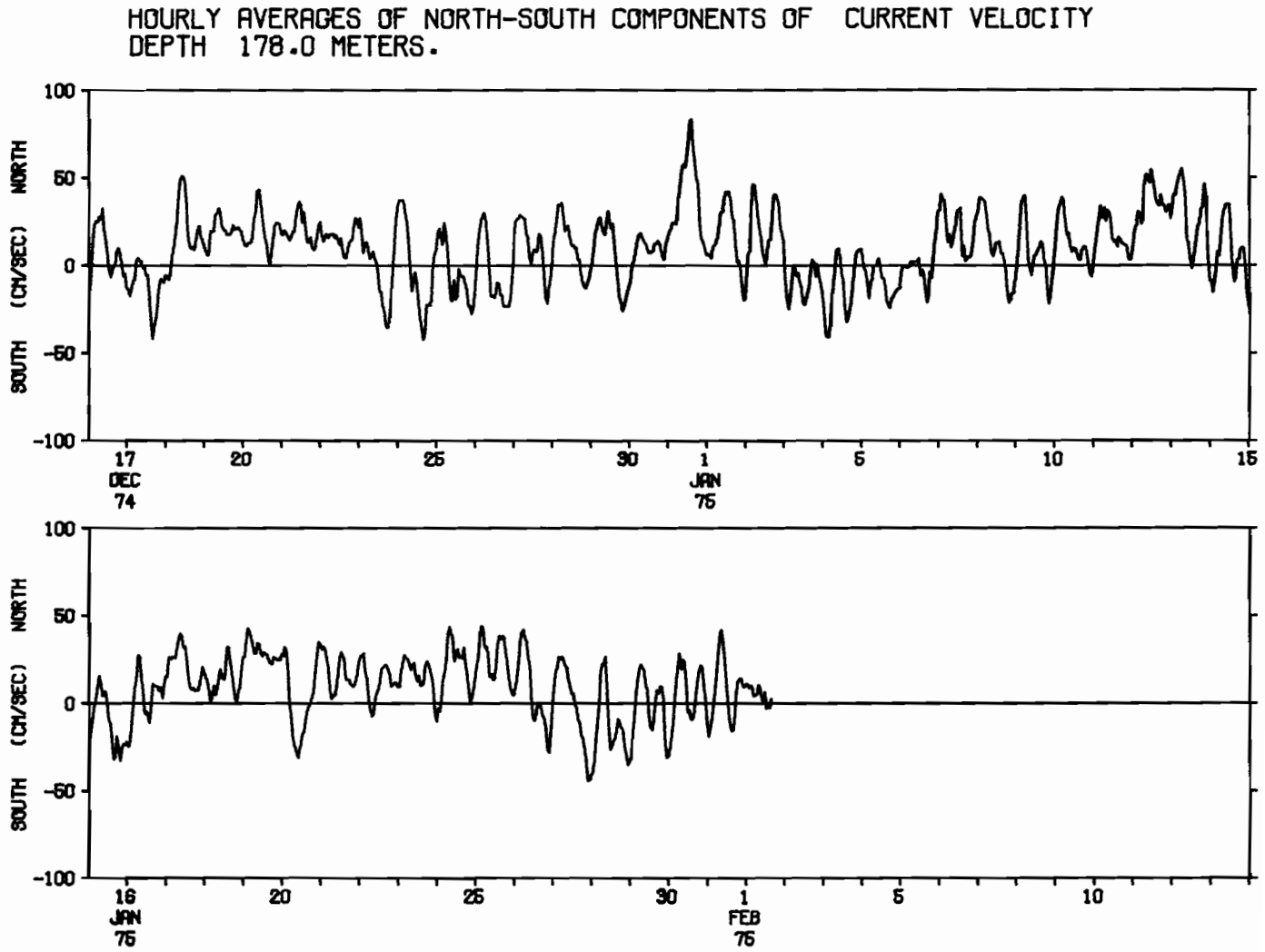
HOURLY VECTOR AVERAGES OF SPEED.
DEPTH 178.0 METERS.



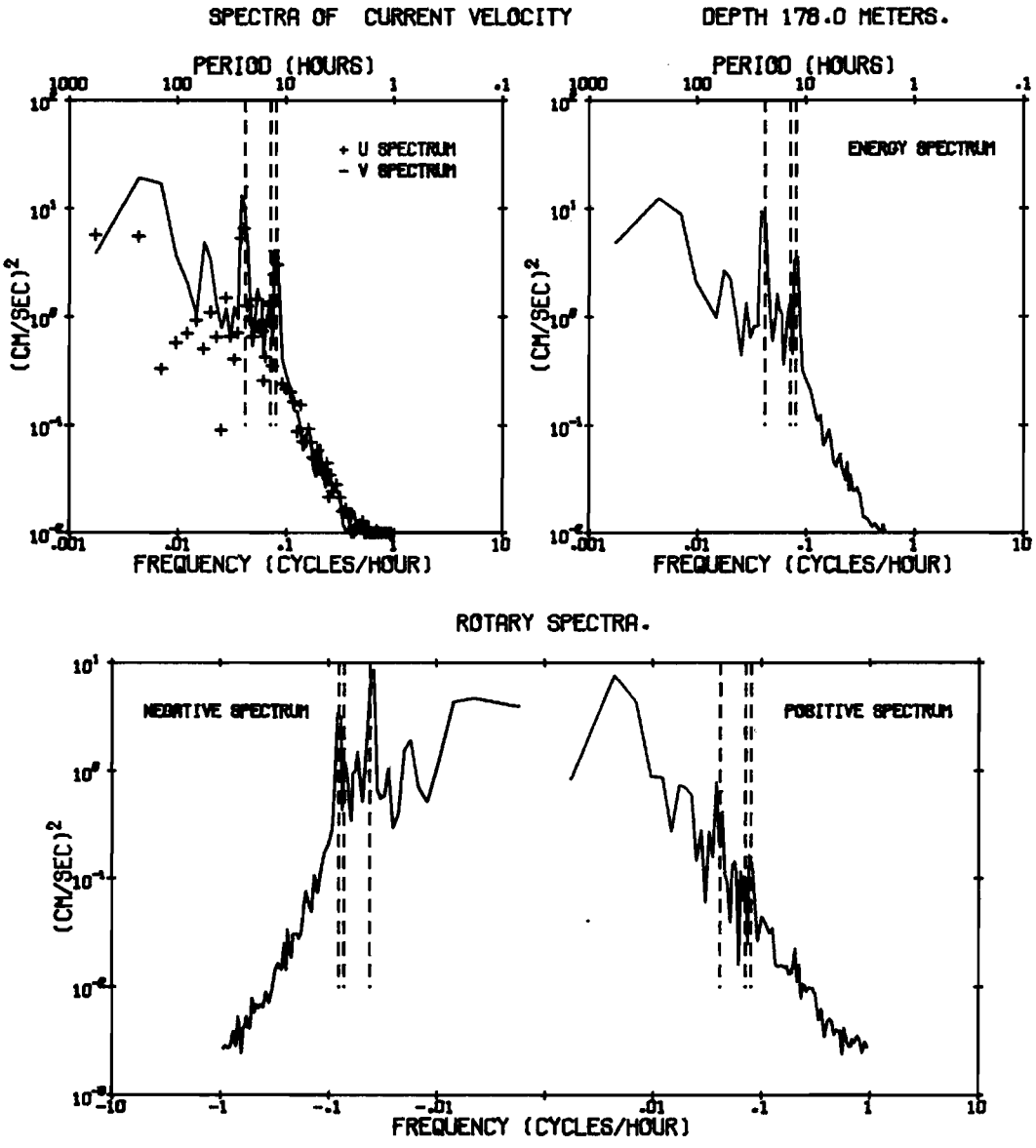

HOURLY VECTOR AVERAGES OF DIRECTION.
DEPTH 178.0 METERS.
DIRECTION (TN)
360
270
180
90
0
17
DEC
74
20
25
30
1
JAN
75
5
10
15
DIRECTION (TN)
360
270
180
90
0
16
JAN
75
20
25
30
1
FEB
75
5
10

HOURLY AVERAGES OF EAST-WEST COMPONENTS OF CURRENT VELOCITY
DEPTH 178.0 METERS.



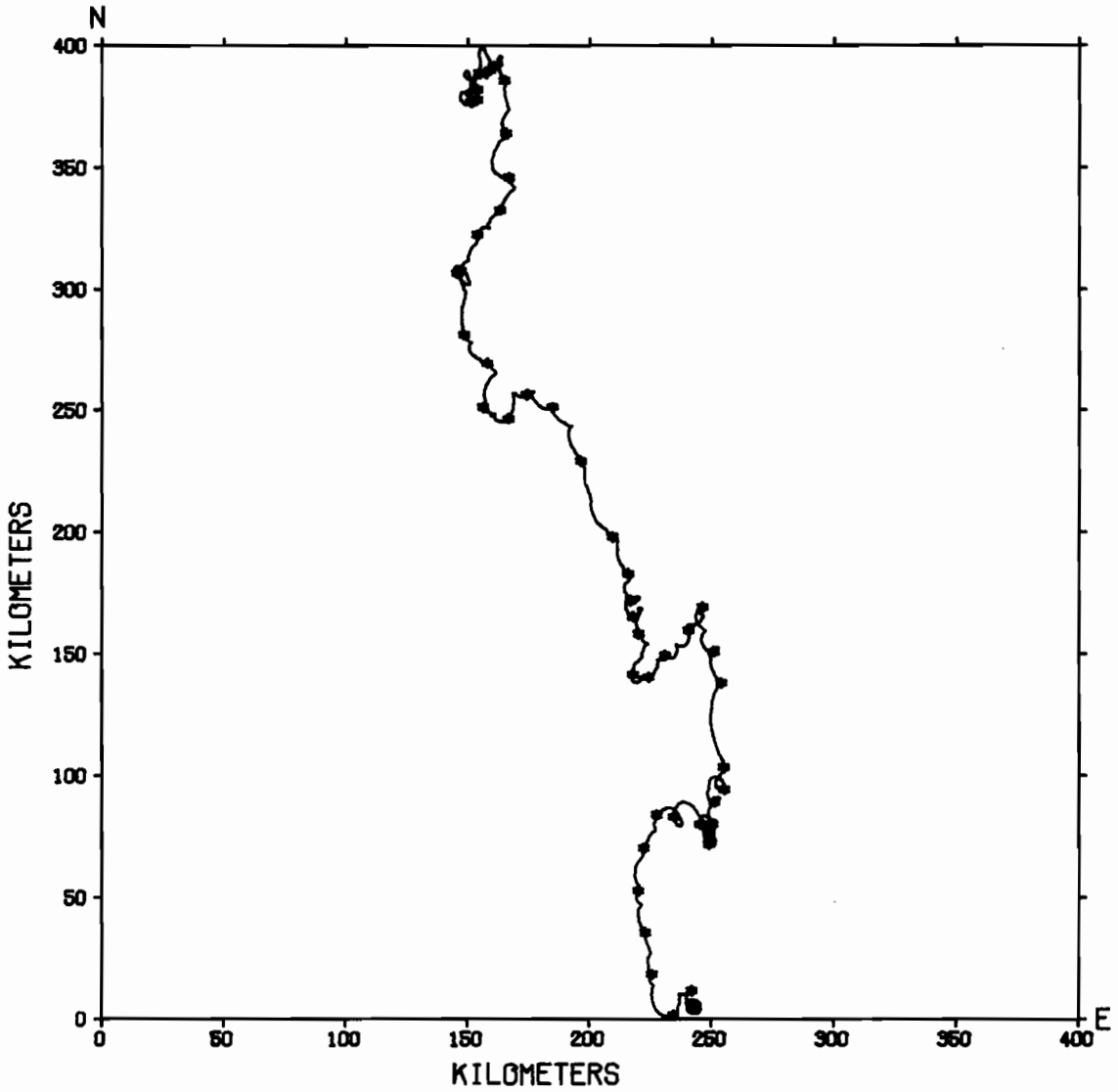

HOURLY AVERAGES OF NORTH-SOUTH COMPONENTS OF CURRENT VELOCITY
DEPTH 178.0 METERS.
SOUTH (CM/SEC) NORTH
100
50
0
-50
-100
17
DEC
74
20
25
30
1
JAN
75
5
10
15
SOUTH (CM/SEC) NORTH
100
50
0
-50
-100
16
JAN
75
20
25
30
1
FEB
75
5
10

C.4. TIME SERIES ANALYSIS Current Meter 600
Part 3 of 3 (Continued)



C.4. TIME SERIES ANALYSIS Current Meter 600
Part 3 of 3 (Continued)

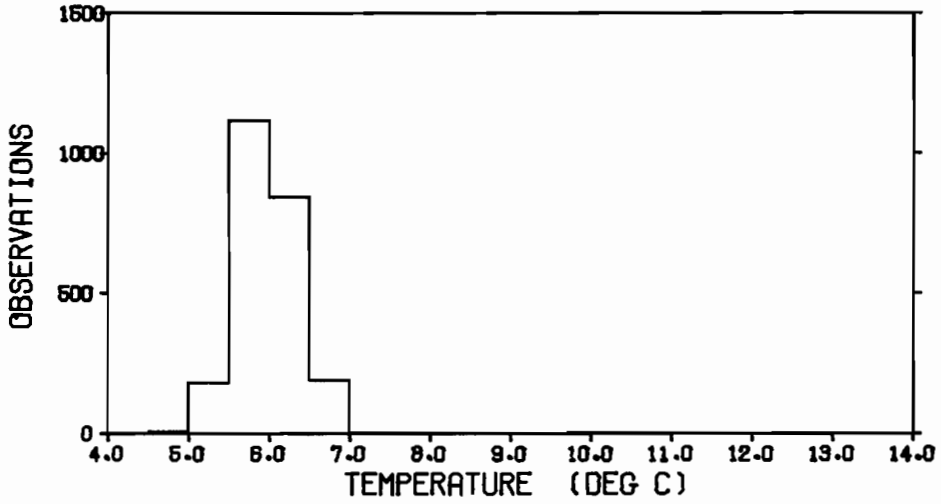
PROGRESSIVE VECTOR DIAGRAM OF HOURLY AVERAGES OF NEGOA - 62A
OBSERVATION PERIOD 47.7 DAYS FROM 0036 GMT 16 DEC 74.
DEPTH 178.0 METERS.

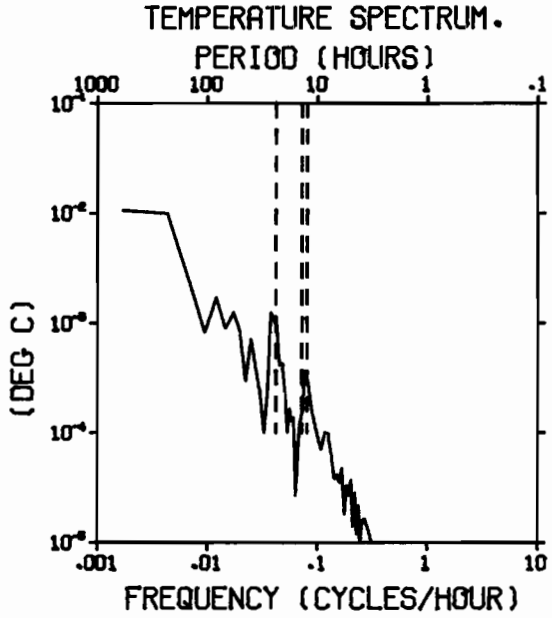


C.4. TIME SERIES ANALYSIS Current Meter 600
Part 3 of 3 (Continued)

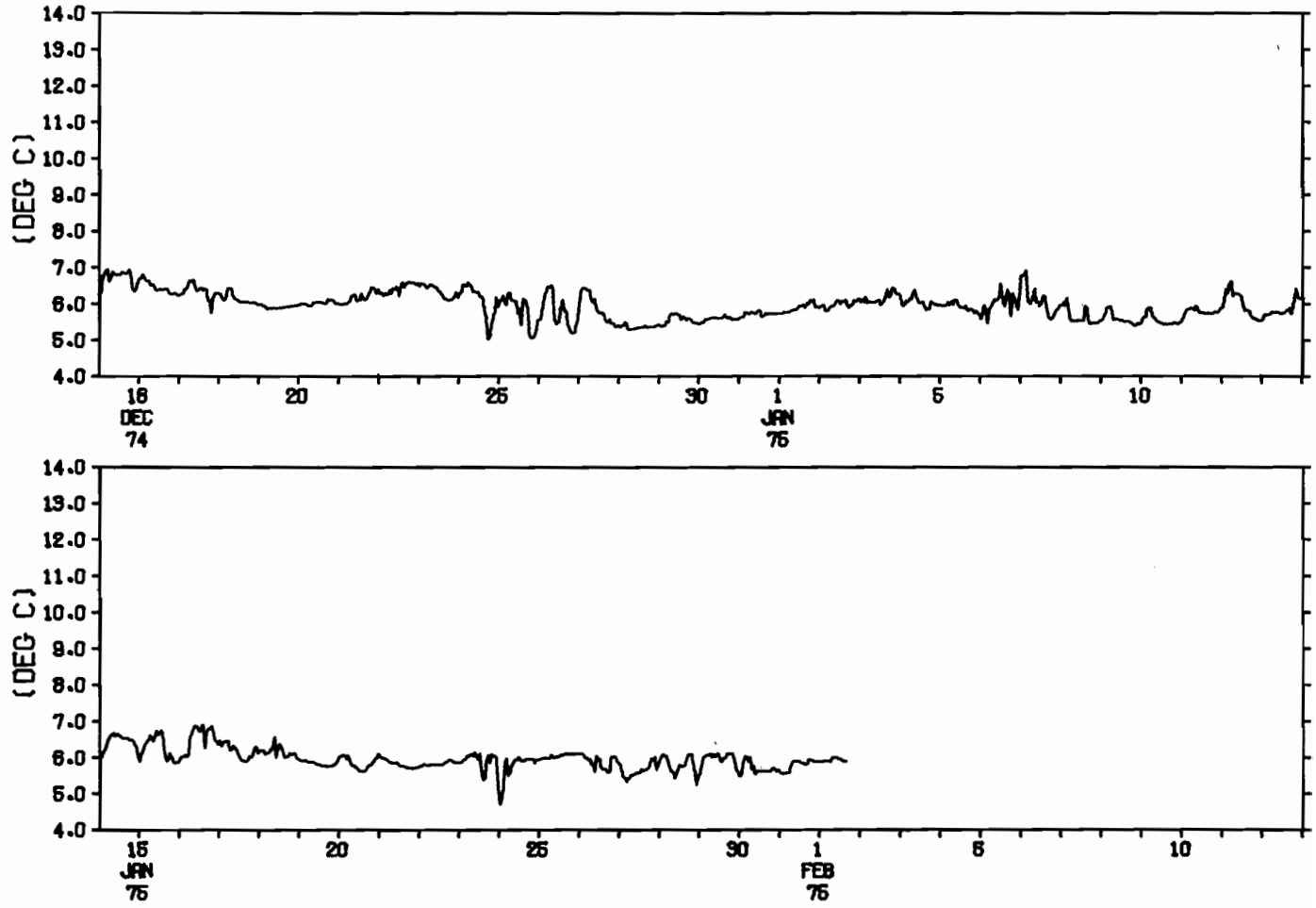
TEMPERATURE STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 178.0 METERS NUMBER OF OBSERVATIONS = 2337
OBSERVATION PERIOD 48.7 DAYS FROM 0036 GMT 15 DEC 74

MEAN (DEG C)	VARIANCE (DEG C)	ST-DEV (DEG C)	SKEW	KURT	MAX (DEG C)	MIN (DEG C)
5.96	.13	.35	.26	3.16	7.03	4.64



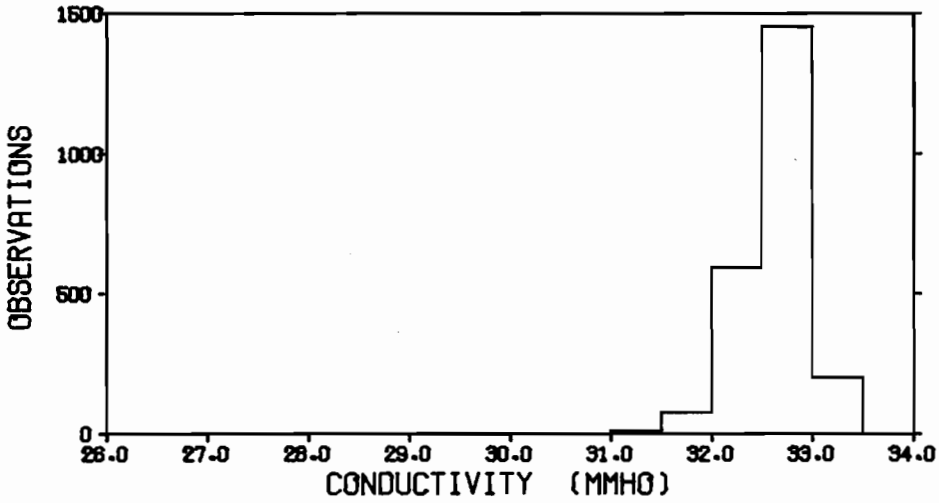


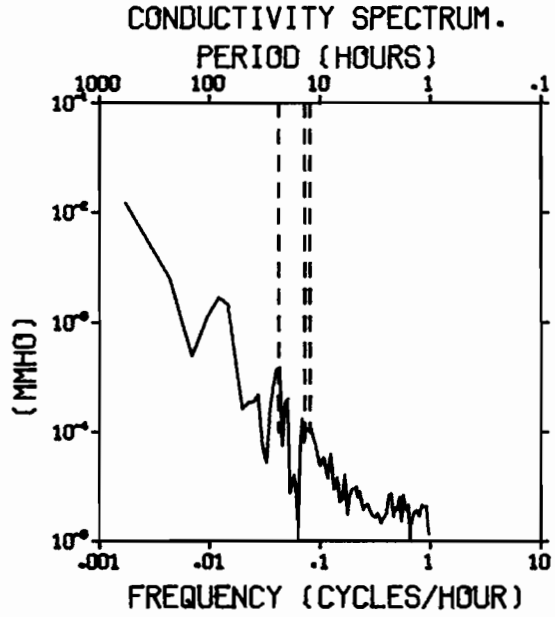
HOURLY AVERAGES OF TEMPERATURE DEPTH 178.0 METERS.



CONDUCTIVITY STATISTICS LAT. 59 34.4N LONG. 142 10.5W
DEPTH 178.0 METERS NUMBER OF OBSERVATIONS = 2337
OBSERVATION PERIOD 48.7 DAYS FROM 0036 GMT 15 DEC 74

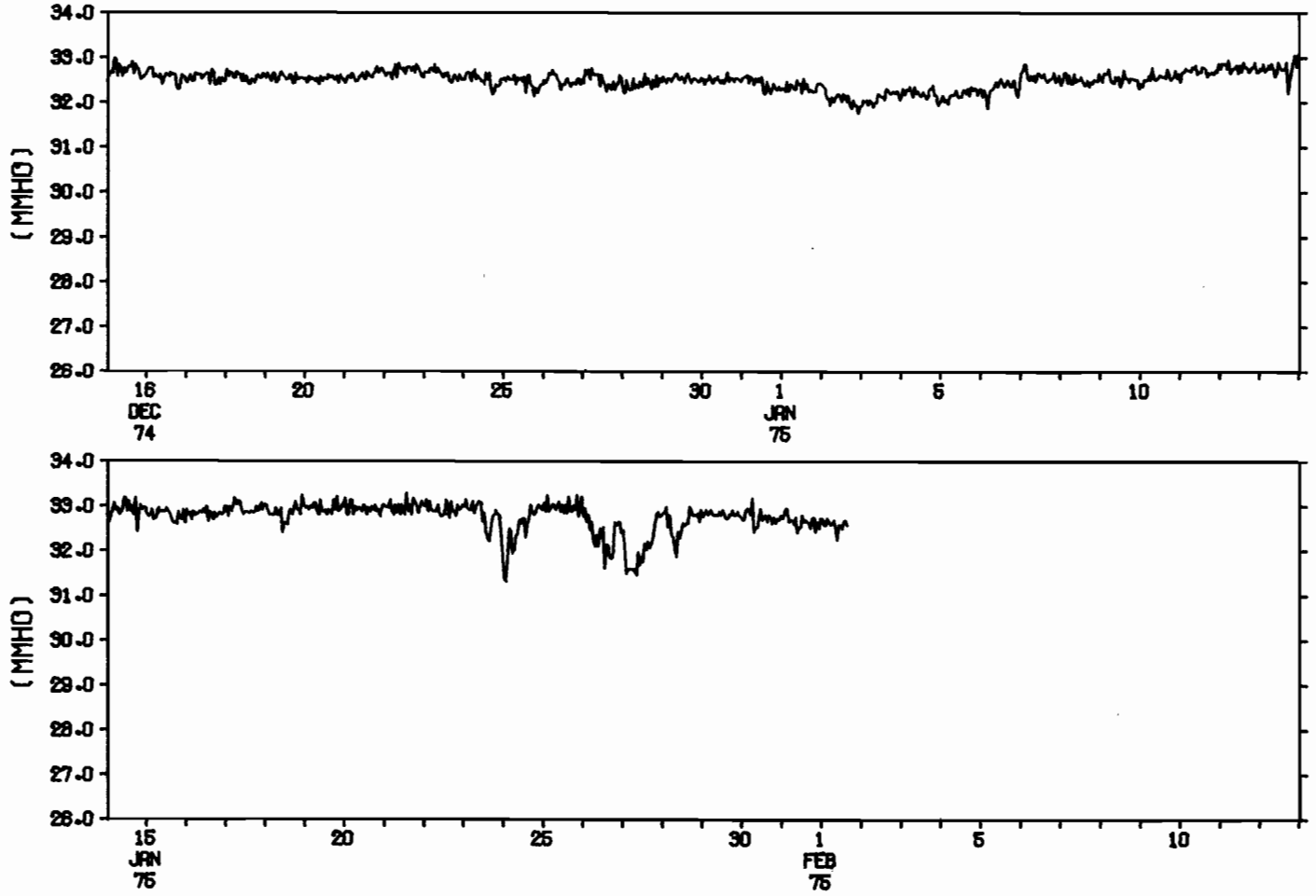
MEAN (MMHO)	VARIANCE (MMHO)	ST-DEV (MMHO)	SKEW	KURT	MAX (MMHO)	MIN (MMHO)
32.59	.09	.31	-.53	4.36	33.47	31.01





C.4. TIME SERIES ANALYSIS Current Meter 600 Part 3 of 3 (Continued)

HOURLY AVERAGES OF CONDUCTIVITY DEPTH 178.0 METERS.



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