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Woods Hole Oceanographic Institution

SOFAR Float Mediterranean Outflow Experiment Data from the Second Year, 1985-1986

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Technical Report

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Approved for Distribution:

Robert C Beardsley

Robert C. Beardsley, Chairman
Physical Oceanography

SOFAR Float Mediterranean Outflow Experiment — Data from the Second Year, 1985–1986

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August 18, 1988

Abstract

In October, 1984, the Woods Hole Oceanographic Institution SOFAR float group began a three-year-long field program to observe the low frequency currents in the Canary Basin. The principal scientific goal was to learn how advection and diffusion by these currents determine the shape and amplitude of the Mediterranean salt tongue. Fourteen floats were launched at a depth of 1100 m in a cluster centered on 32°N, 24°W, and seven other floats were launched incoherently along a north/south line from 24°N to 37°N. At the same time investigators from Scripps Institution of Oceanography and the University of Rhode Island used four other SOFAR floats to tag a Meddy, a submesoscale lens of Mediterranean water.

In October, 1985, seven additional floats were launched, four in three different Meddies, one of which was tracked during year 1. This report describes the second year of the floats launched in 1984 and the first year of the ones launched in 1985. Approximately 41 years of float trajectories were produced during the first two years of the experiment. One of the striking accomplishments is the successful tracking of one Meddy over two full years plus the tracking of two other Meddies during the second year.

1 Introduction to the Experiment

In 1984 we began an experiment to measure features of the general circulation and eddy mixing in the vicinity of the Mediterranean water in the eastern North Atlantic. The purpose of the program is to answer the following specific questions:

A. What is the thermocline-depth mean flow in the vicinity of the Mediterranean salt tongue? How does this observed mean flow fit with contemporary circulation schemes?

B. What is the magnitude and isotropy of horizontal eddy diffusion in the eastern basin? What is the advective/diffusive balance of the salt tongue?

C. What are the horizontal and temporal scales of the mesoscale eddy field? Is there a regional (1000 km scale) variation of first order eddy properties?

The field program which intended to answer these questions was made up of two elements: (i) deployment of a coherent float cluster and additional floats over a wider geographical area (Figure 1), and (ii) deployment of a mooring with four current meters at nominal depths of 500, 1000, 1100 and 3000 meters (Figure 2).

1.1 Float Deployments

A cluster of 14 floats was launched in 1984 near 32°N, 24°W with nearest neighbors at about 20 km initial spacing. While this cluster remains partially intact, it will provide estimates of horizontal eddy scales and dynamic balances. The rate of breakup of this coherent cluster will provide two-particle diffusion estimates. During the second and third years, this cluster will be spread over a wider region and data will be used to estimate regional variations of the first order properties (mean velocity, eddy kinetic energy, spectra, etc.).

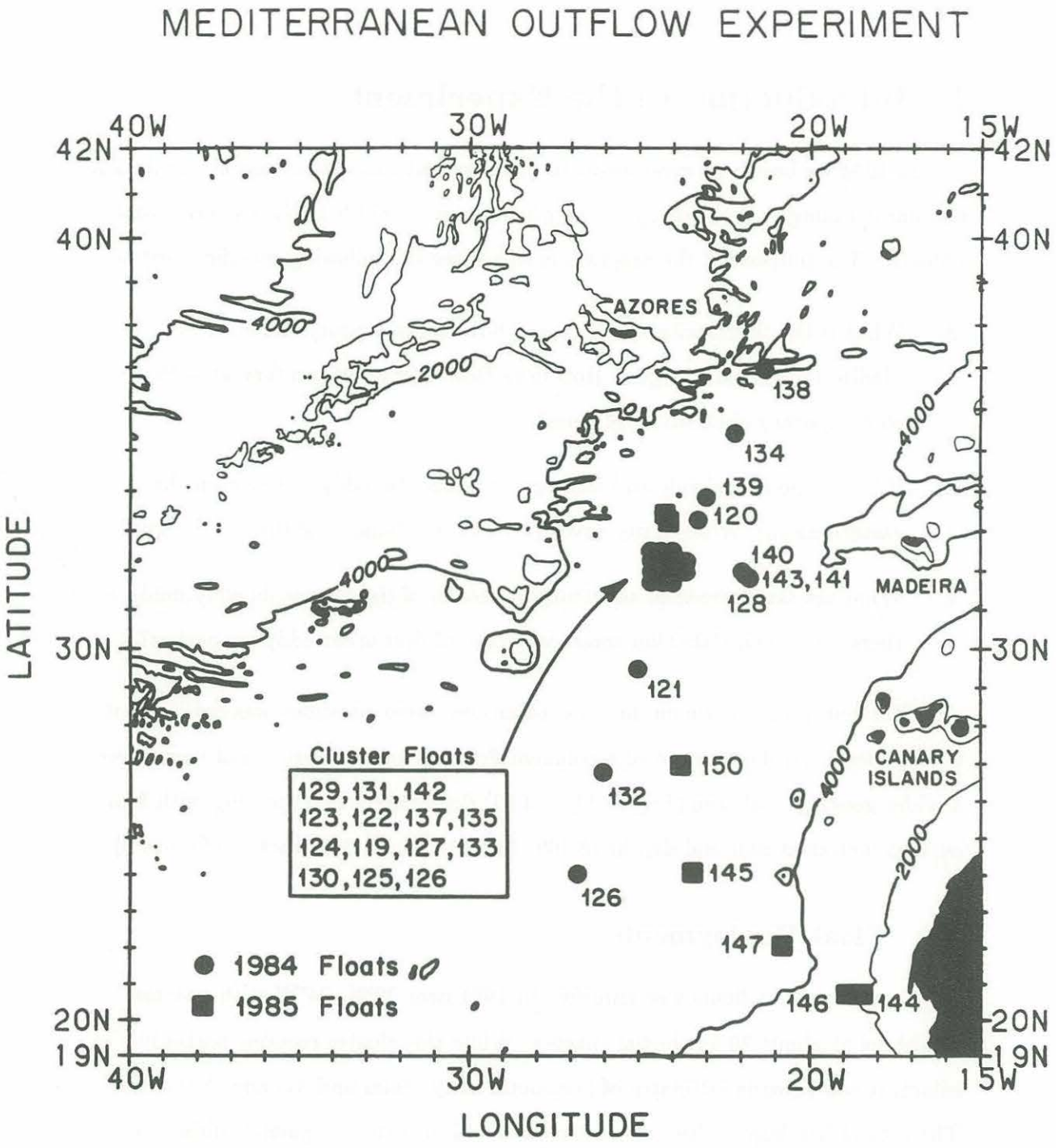

Figure 1: Float launch positions.

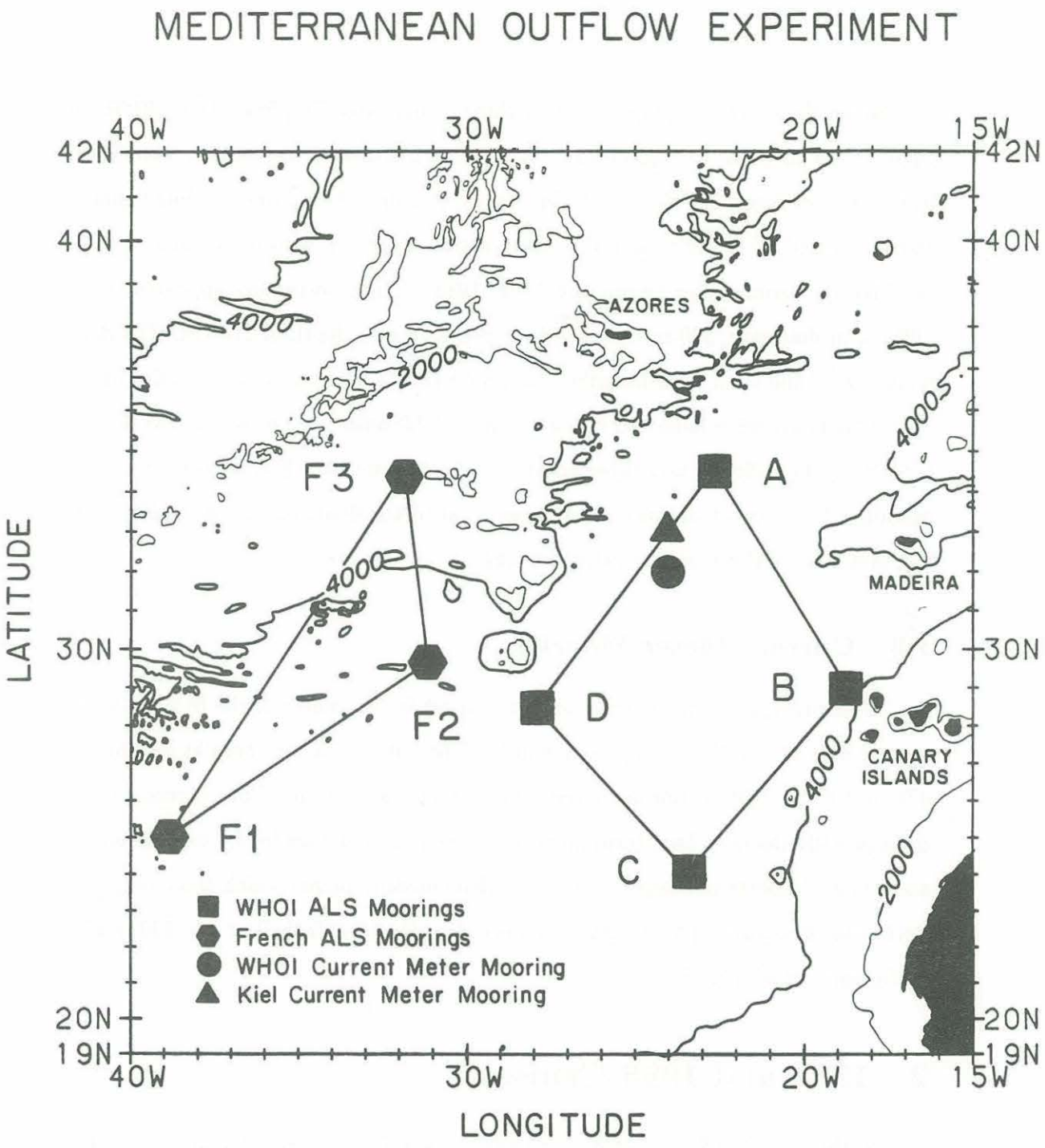

Figure 2: Location of autonomous listening station (ALS) moorings, current meter moorings, and bathymetry in the experimental area.

Seven floats were deployed in 1984 along a line extending from 37°N, 21°W to 24°N, 27°W in order to explore some circulation features in the eastern basin such as the Azores front and the North Equatorial Current. An additional four floats were launched by L. Armi and T. Rossby within a Meddy, a submesoscale eddy of the Mediterranean water (Armi and Zenk, 1984). These eddies are approximately 100 km in diameter, 800 m thick, and are centered at a depth of 1100 m. The data from 1984–1985 have been described in a data report by Price *et al.* (1986). In 1985 four floats were launched in three different Meddies, one of which was being tracked by 1984 floats, and three additional floats were launched outside of Meddies. This report discusses the second year of the floats launched in 1984 and the first year of the floats launched in 1985.

1.2 Current Meter Mooring

A mooring with four current meters was set in the center of the SOFAR float cluster near 32°N, 24°W (Figures 1 and 2). The current meters were at depths of 470 m, 970 m, 1070 m (for some redundancy), and at 2970 m. The current meter data provide the only long term measure of vertical structure in the experiment and are an important complement to the float measurements which show only the horizontal structure. These data have been described by Tarbell *et al.* (1987) and by Schmitz *et al.* (1988).

2 1985 and 1986 Cruises

In the Fall of 1985 we returned to the Canary Basin to retrieve and reset the ALS moorings and to launch additional floats (Tables I and II). We launched four floats (144, 145, 146 and 147) along a line between 21°N, 18°W and 24°N, 24°W, one by chance in a Meddy. On a subsequent cruise, three additional floats were

TABLE I

ALS MOORINGS

ALS SITE	ALS #	LAUNCH DATE yymmdd	RECOVERY DATE yymmdd	LATITUDE deg N	LONGITUDE deg W	ALS DEPTH (m)
			1984 - 1985			
A	140A	841021	850913	34.490	22.642	1800
B	137A	841013	850920	29.000	18.787	1200
C	138A	841014	850917	24.038	23.406	1000
D	139A	841017	850915	28.434	27.889	1400
F1	F11A	840615	850811	25.020	38.825	1500
F2	F07A	840617	850809	29.660	31.149	1500
F3	F10A	840612	850815	34.390	31.839	1500
			1985 - 1986			
A	141A	850913	861005	34.545	22.601	1800
B	144A	850920	861015	29.013	18.738	1200
C	143A	850917	861010	24.107	23.345	1000
D	142A	850915	861008	28.515	27.868	1400
F1	F06A	850811	861001	25.018	38.808	1500
F2	F09A	850809	861003	29.663	31.147	1500
F3	F18A	850815	861004	34.370	31.832	1500

Note:
A-D are WHOI moorings, F1-F3 are moorings maintained by COB, France (Colin de Verdière, personal communication).

TABLE II

FLOAT FILE STATISTICS FOR 1985 - 1986 TRACKING

FLOAT		NOMINAL DEPTH (m)	START DATE yymmdd	START POSITION LAT. deg N	START POSITION LONG. deg W	STOP DATE yymmdd	STOP POSITION LAT. deg N	STOP POSITION LONG. deg W	NO. DAYS	COMMENTS	yymmdd
120	*	1100	841025	33.073	23.148	851109	31.997	29.064	381	died	851109
121		1100	850918	29.581	24.340	861009	29.655	21.104	387		
123		1100	850922	32.209	26.032	860119	35.802	30.354	120	died	860119
124A		1100	850921	30.554	24.221	860428	31.877	26.504	220		
124B		1100	860722	30.629	29.301	860819	31.077	30.161	29	died	860819
126		1100	850922	24.623	25.514	861009	25.482	26.965	383		
127A	*	1100	841023	31.922	24.006	860628	33.823	28.644	614		
127B		1100	860812	34.015	28.334	860907	34.107	28.323	27		
129		1100	850918	29.230	26.427	860923	29.160	30.276	371		
130		1100	850921	31.991	26.188	861009	31.820	25.278	384		
131		1100	850918	29.935	23.654	861009	30.724	23.458	387		
132		1100	850918	26.330	24.040	861009	27.011	23.548	387		
133	*	1100	841021	31.889	23.687	861003	30.741	37.901	713		
135A		1100	850921	30.914	24.670	860320	30.370	26.098	181		
135B		1100	860619	30.148	25.070	861002	31.083	26.439	106		
136		1100	850918	30.678	24.382	861009	29.420	23.192	387		
137		1100	850919	31.119	31.327	861003	32.277	35.670	380		
138		1100	850918	37.556	21.143	860604	38.987	17.240	260	died	860604
139		1100	850922	31.654	20.870	860726	33.822	20.816	308	died	860726
144		1100	850921	20.647	18.509	860108	19.311	17.745	110	died	860108
146		1100	850921	20.681	18.838	851029	20.023	18.556	39	died	851029
147		1100	850921	22.249	20.942	860218	21.576	22.009	151	died	860218
MEDDY FLOATS											
128		1100	850920	27.219	23.939	861007	22.157	22.023	383		
141		1100	850916	28.675	22.954	851204	28.943	24.044	80	died	851204
143		1100	850916	26.983	24.039	851123	26.663	23.059	69	died	851123
145		1100	850917	24.221	23.416	861005	21.721	25.848	384		
148		1100	851112	33.707	24.344	861004	30.737	28.658	327		
149		1000	851112	33.767	24.163	861002	31.204	29.214	325		
150		1000	851030	27.023	23.657	860523	25.350	24.507	206	died	860523

* Retracked from 1984 with available French ALS's.

launched by L. Armi in two Meddies – one float (150) in the Meddy tracked by floats during the first year and two floats (148, 149) in a third, newly discovered Meddy.

In the Fall of 1986 we retrieved and reset the ALS moorings and searched for two of the Meddies using a shipboard hydrophone. We found and measured, with CTD profiles, the Meddy tracked since the Fall 1984. These data were combined with data from three earlier cruises to the Meddy; a detailed description of its movement and changes in physical structure is given by Armi *et al.* (1988a,b). We were unsuccessful in our search for the second Meddy expected to be in the vicinity of floats 148 and 149. We conclude that this Meddy collided with Hyères seamount in July 1986 and the normal Meddy circulation was severely disrupted or destroyed. Floats 148 and 149 which had been looping in the Meddy stopped looping, their depth suddenly increased and their temperature decreased. Our search near these two floats in October 1986 failed to find any salty water indicative of a Meddy. A possibility exists that the Meddy shed the floats during its collision with Hyères seamount but kept moving afterward away from the floats. A more complete discussion of the three tracked Meddies is given by Richardson *et al.* (submitted).

3 Float Data

All floats (except 149 and 150) were ballasted for 1100 m, which is near the salinity maximum and within the sound channel (see Table II). Most of the floats settled slightly deeper than this — typically about 1200 m (Table III) — which is well within the Mediterranean layer. In addition to float position, we obtained temperature and pressure at two-day intervals. From these data we can determine the statistics of isotherm fluctuation, and for the coherent cluster, the horizontal scales of the fluctuations.

TABLE III

1984 - 1986 FLOAT FILE STATISTICS

FLOAT	START DATE yymmdd [JULIAN]	START POSITION LAT. deg N	START POSITION LONG. deg W	STOP DATE yymmdd [JULIAN]	STOP POSITION LAT. deg N	STOP POSITION LONG. deg W	NO. DAYS	INIT. TEMP. °C	AVE. TEMP. °C	INIT. PRES. dbars	AVE. PRES. dbars
119	841022 [5996]*	31.981	24.281	850902 [6311]*	31.021	28.099	316	7.51	7.85	1207	1134
120	841025 [5999]	33.073	23.148	851109 [6379]	31.997	29.064	381	8.40	8.22	----	----
121	841020 [5994]	29.517	24.978	861009 [6713]	29.655	21.104	720	7.35	8.12	1239	1114
122	841022 [5996]	32.192	24.301	850221 [6118]	32.135	26.836	123	7.62	7.48	----	----
123	841022 [5996]	32.208	24.583	860119 [6450]	35.802	30.354	455	7.72	8.25	1251	1129
124A	841021 [5995]	31.971	24.536	860428 [6549]	31.877	26.504	555	8.39	7.74	----	----
124B	860720 [6632]	30.611	29.240	860821 [6664]	31.108	30.245	33	----	----	----	----
125	841021 [5995]	31.738	24.257	850513 [6199]	31.374	26.963	205	8.22	8.47	----	----
126	841018 [5992]	23.913	26.829	861009 [6713]	25.482	26.965	722	----	----	1284	1139
127A	841023 [5997]	31.922	24.006	860628 [6610]	33.823	28.644	614	8.51	8.03	1158	1101
127B	860812 [6655]	34.015	28.334	860907 [6681]	34.107	28.323	27	7.48	7.43	1102	1097
128	841016 [5990]	32.029	22.130	861006 [6710]	22.174	22.068	721	11.62	10.73	1195	1119
129	841022 [5996]	32.431	24.560	860923 [6697]	29.160	30.276	702	8.39	8.20	1171	1096
130	841021 [5995]	31.761	24.526	861009 [6713]	31.820	25.278	719	7.57	8.22	1263	1143
131	841022 [5996]	32.417	24.267	861009 [6713]	30.724	23.458	718	7.99	8.05	1200	1104
132	841019 [5993]	26.689	26.045	861009 [6713]	27.011	23.548	721	6.75	7.14	1242	1130
133	841021 [5995]	31.889	23.687	861003 [6707]	30.741	37.901	713	8.62	8.33	1114	1100
134	841024 [5998]	35.281	22.198	850323 [6148]	35.750	20.507	151	7.99	7.43	----	----
135A	841021 [5995]	32.173	23.718	860320 [6510]	30.370	26.098	516	7.90	7.63	1234	1220
135B	860617 [6599]	30.100	24.973	861004 [6708]	31.045	26.449	110	----	----	----	----
136	841021 [5995]	31.727	23.970	861009 [6713]	29.420	23.192	719	8.27	8.34	1168	1103
137	841022 [5996]	32.199	24.004	861003 [6707]	32.277	35.670	712	8.30	8.58	1226	1119
138	841024 [5998]	36.819	21.306	860604 [6586]	38.987	17.240	589	9.96	9.76	1225	1145
139	841023 [5997]	33.847	22.911	860726 [6638]	33.822	20.816	642	7.99	8.84	1244	1124
140	841018 [5992]	32.014	21.945	850211 [6108]	30.095	22.134	117	9.64	10.86	----	----
141	841018 [5992]	31.934	22.152	851203 [6403]	28.908	24.006	412	----	10.03	1168	1018
142	841022 [5996]	32.405	24.002	850410 [6166]	31.591	26.368	171	8.03	8.28	----	----
143	841018 [5992]	31.904	22.197	851122 [6392]	26.686	23.084	401	----	8.67	1182	1146
144	850921 [6330]	20.647	18.509	860108 [6439]	19.311	17.745	110	----	----	----	----
145	850919 [6328]	24.280	23.391	861004 [6708]	21.824	25.915	381	7.39	7.59	1297	1179
146	850921 [6330]	20.681	18.838	851029 [6368]	20.023	18.556	39	----	----	----	----
147	850921 [6330]	22.249	20.942	860218 [6480]	21.576	22.009	151	----	----	----	----
148	851114 [6384]	33.991	24.254	861003 [6707]	30.699	28.678	324	11.96	9.85	1206	1151
149	851114 [6384]	33.915	24.172	861001 [6705]	31.187	29.204	322	12.65	11.68	1062	1036
150	851101 [6371]	26.982	23.523	860522 [6573]	25.338	24.481	203	8.89	8.15	----	----

* Last four digits of Julian day counter.

TOTAL 40.6 yrs.

The floats were tracked acoustically by signals received at a net of four Autonomous Listening Stations (ALS's) supplemented by three French ALS's which were useful for floats that drifted west of the Meteor seamounts (Figure 2). The ALS's worked normally and the tracking of these floats proceeded smoothly.

4 Data Processing and Float Tracking

A report in preparation by W. B. Owens and T. K. McKee will describe the float tracking process in detail. Some elements of the final processing phase are described briefly here.

The ALS cassette tapes containing times of arrivals and telemetry for each float were processed at Woods Hole Oceanographic Institution in three phases. The first phase converts the raw data into a time series of possible times of arrival and amplitudes of their correlations for each ten minute interval that the ALS's were in the water. The second phase, float tracking, has three steps: (1) identify and extract the float signals for each ALS; (2) track the floats and estimate the drift of the SOFAR float clock; and (3) create a FLOATER format (McKee, 1986) file for each float containing raw positions and pressure and temperature telemetry. The tracking used a constant sound speed. The third phase consists of editing, interpolating, and smoothing the data to produce final float trajectories and velocity, temperature, and pressure time series.

Trajectory and time series plots were inspected for outliers, and the preliminary FLOATER format files were edited where necessary to eliminate obviously bad positions, temperature, and pressure values. Listings of direction and speed derived from consecutive positions were used to detect unusually high speeds indicative of erroneous positions. First differences between consecutive temperatures and pressures were calculated and inspected for unrealistic values. Radical changes in temperature that were not accompanied by a similar change in

pressure (or vice versa) were presumed to indicate an erroneous value. Temperature and pressure that drifted outside the range of the sensors was listed as being offscale. Temperature and pressure values that were not associated with a position were deleted.

Trajectories having gaps of greater than ten days were broken into subfiles and labeled A, B, C, etc. Gaps of less than ten days duration in position, temperature, and pressure were linearly interpolated, producing daily values of temperature and pressure from the bi-daily values recorded.

These interpolated series were then smoothed using a five point one-day half-width Gaussian filter. Finally, a cubic spline was fitted to the smoothed positions and east and north components of velocity were calculated to coincide with the positions at 24-hour intervals. Float data from 1984–1985 were merged with those from 1985–1986.

A float file name is up to six characters long and is made up of three parts:

1. A two letter code to indicate the experiment, in this case, EB (for "Eastern Basin").

2. A one to three digit identifier assigned to the float before its launch.

3. A single letter suffix (A, B, C, ...Z) that was added to the file name if the float record was broken into sections due to gaps in the data. An example is float name EB124B — Experiment Code EB, Float 124, Section B.

The accuracy of the tracking may be judged by comparing the known launch position with the first position calculated by tracking. The differences between these two positions as well as the time difference between launch and the first position have been given by Price *et al.* (1986). The position difference is 5.6 km with an average time delay of nine hours, which is more than adequate accuracy for most purposes. A measure of the precision of the tracks can be obtained from

(a) the variability in the ranges between a float and the ALS's for each position and (b) the point to point variations in the estimates of the float clock drift. Both of these suggest that the precision of the float positions is approximately 2 km.

The floats used in this experiment were very similar in design to the floats deployed in the Gulf Stream Recirculation Experiment (GUSREX) program where they functioned fairly reliably. A defective component in the telemetry circuit discovered after launch caused some failures in temperature and pressure and a shorter than normal life of some floats. At the end of year two there were 15 floats still being tracked (Figure 3, Table II). The final recovery of ALS's is scheduled for June 1988, which will give another 1.5 years of tracking for these floats.

5 Summary Plots

Displacement vectors of the floats from 1984 to 1986 and for the first and second year of the experiment are given in Figures 4a to 4c. Composites of trajectories are shown in Figures 5a to 5c. Similar plots for Meddy floats are given in Figures 6a to 6c and Figures 7a to 7c. The detailed movement of the three Meddies is shown by float 128 in Meddy 1, float 149 in Meddy 2, and float 145 in Meddy 3 (Figure 8). Telemetry from these three floats is given in Figure 9.

Summary plots of float trajectories and progressive vector plots from two current meters for each two-month period during the two years are shown in Appendix A. Individual trajectories and time series plots of T, P and velocity for 19 floats are given in Appendix B, and for seven Meddy floats in Appendix C (see Table II).

The floats and current meters launched in the vicinity of 32°N, 24°W show a relatively swift mean westward flow (see Price *et al.*, 1986). One float went 1320 km westward over the two years. We conclude the float cluster was launched in a rather narrow westward flowing jet ~100 km in width. Current meters show

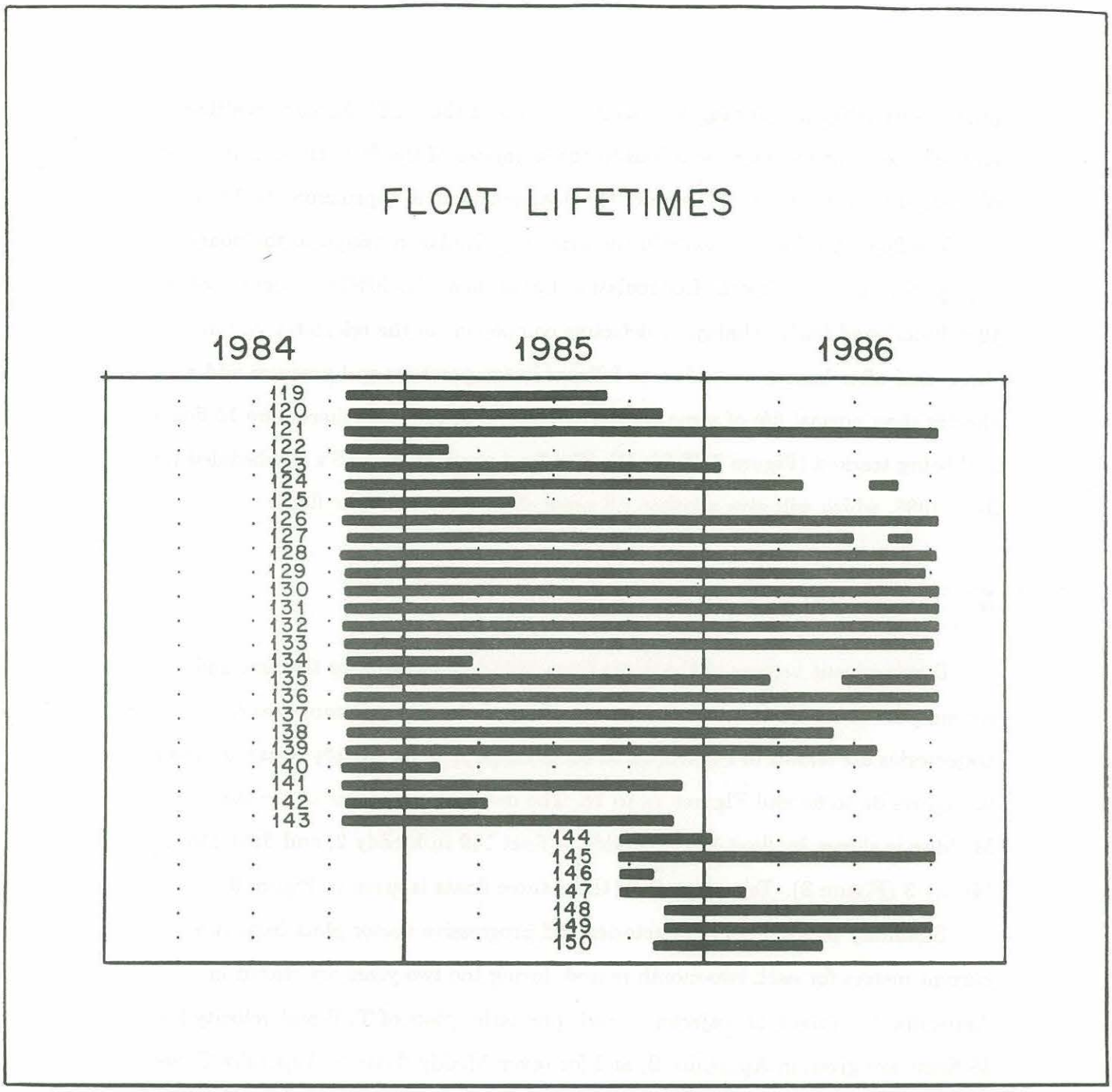

Figure 3: Bar graph showing the time that each float was tracked.

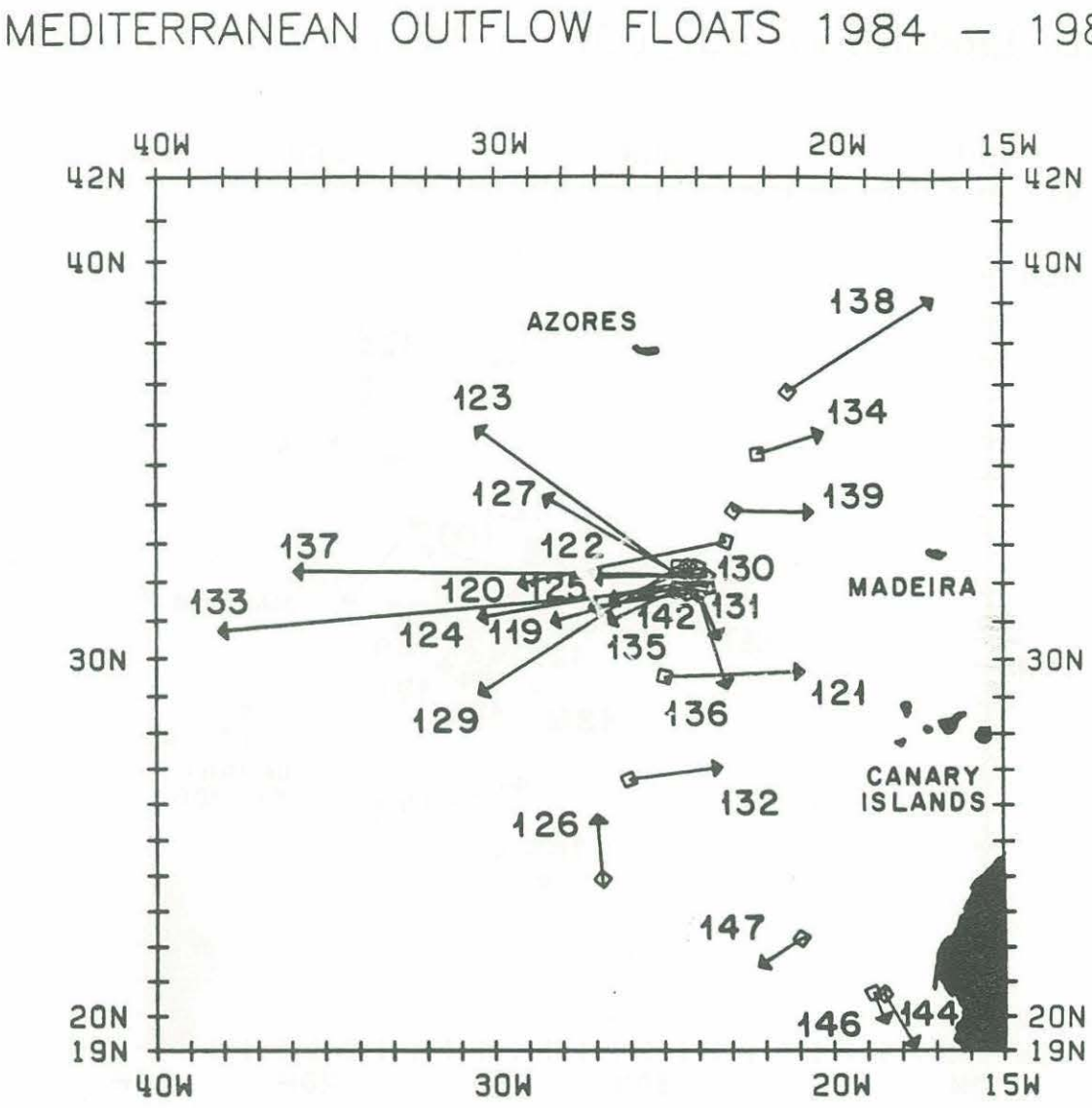

Figure 4a: Displacement vectors from the first to last position of each float (1984–1986).

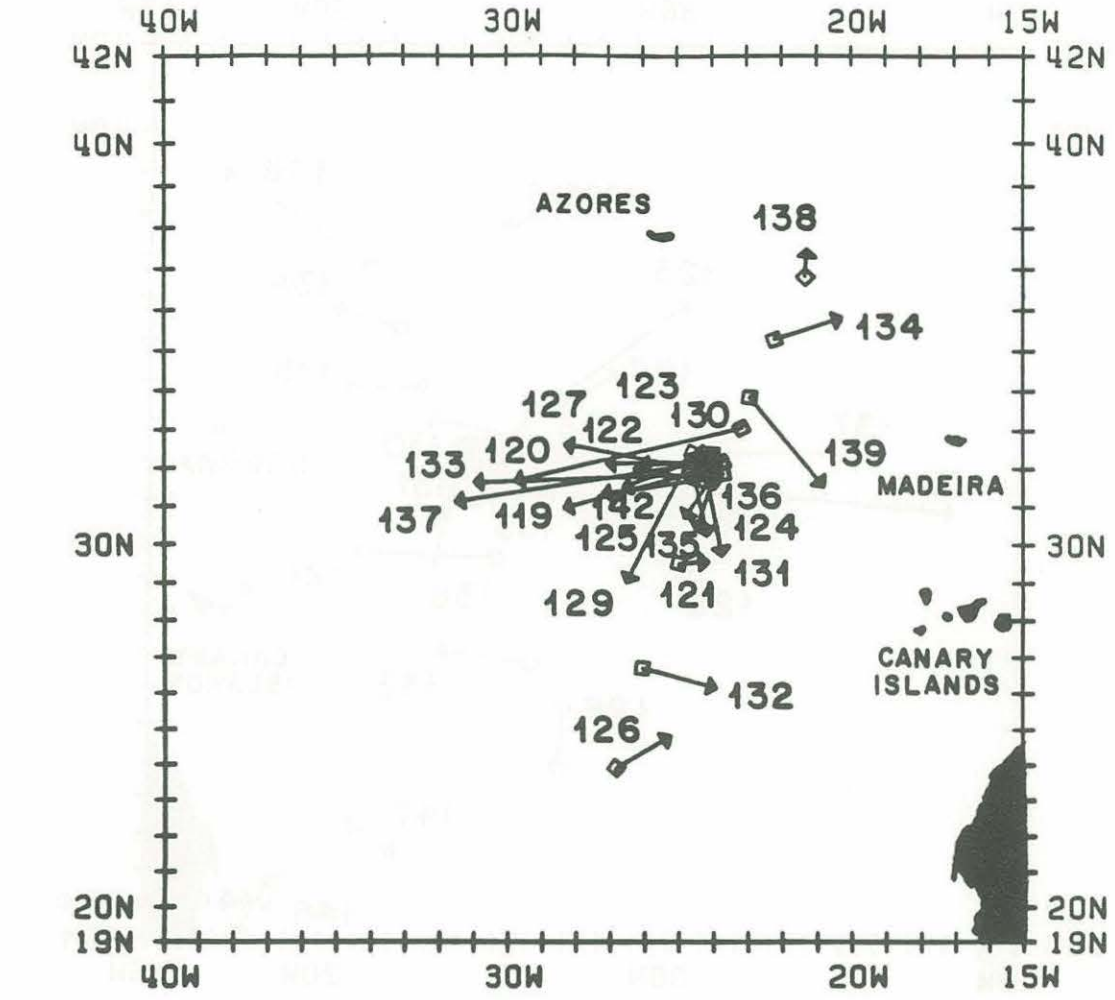

Figure 4b: Displacement vectors from the first to last position of each float (1984–1985).

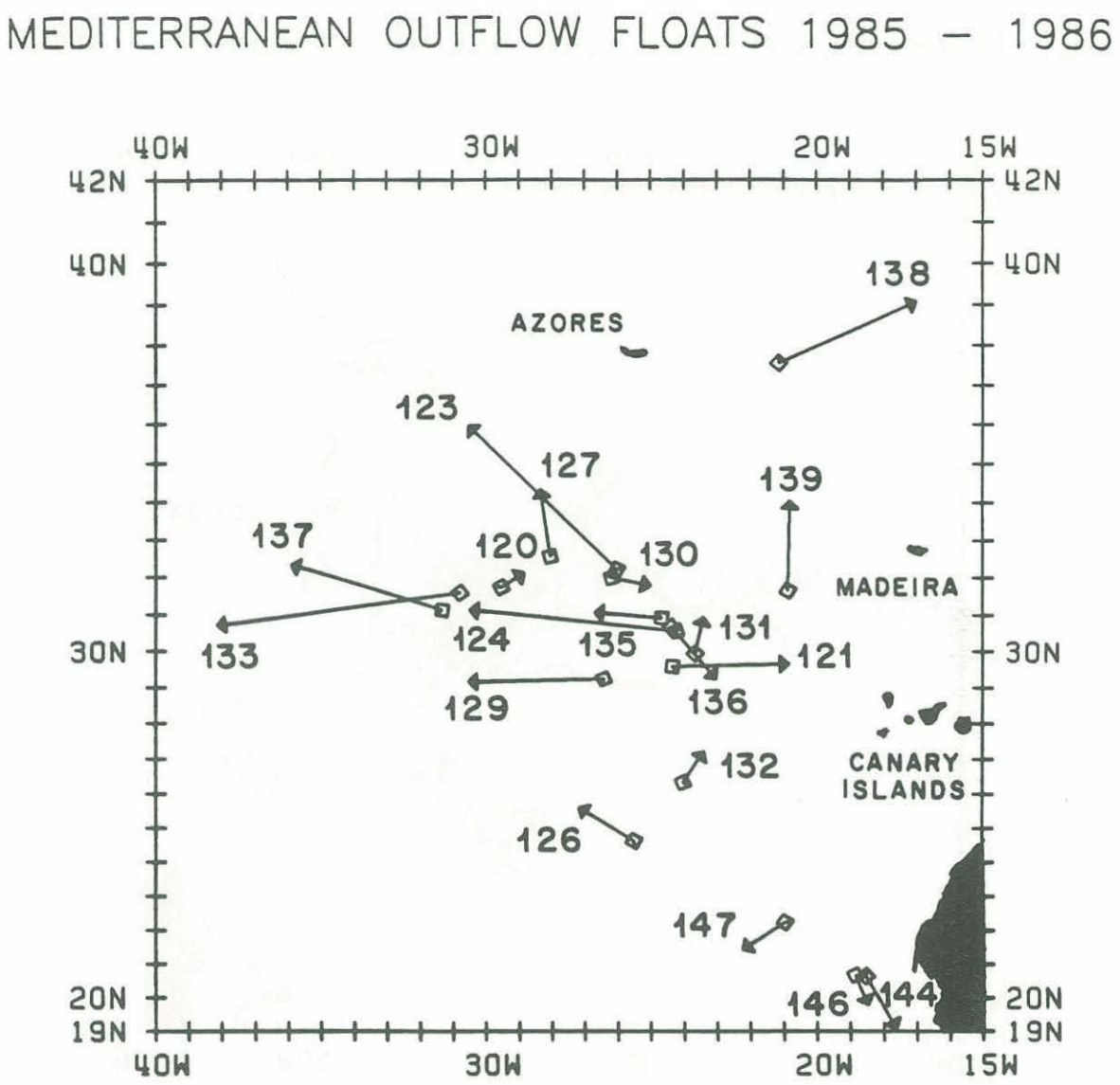

Figure 4c: Displacement vectors from the first to last position of each float (1985–1986).

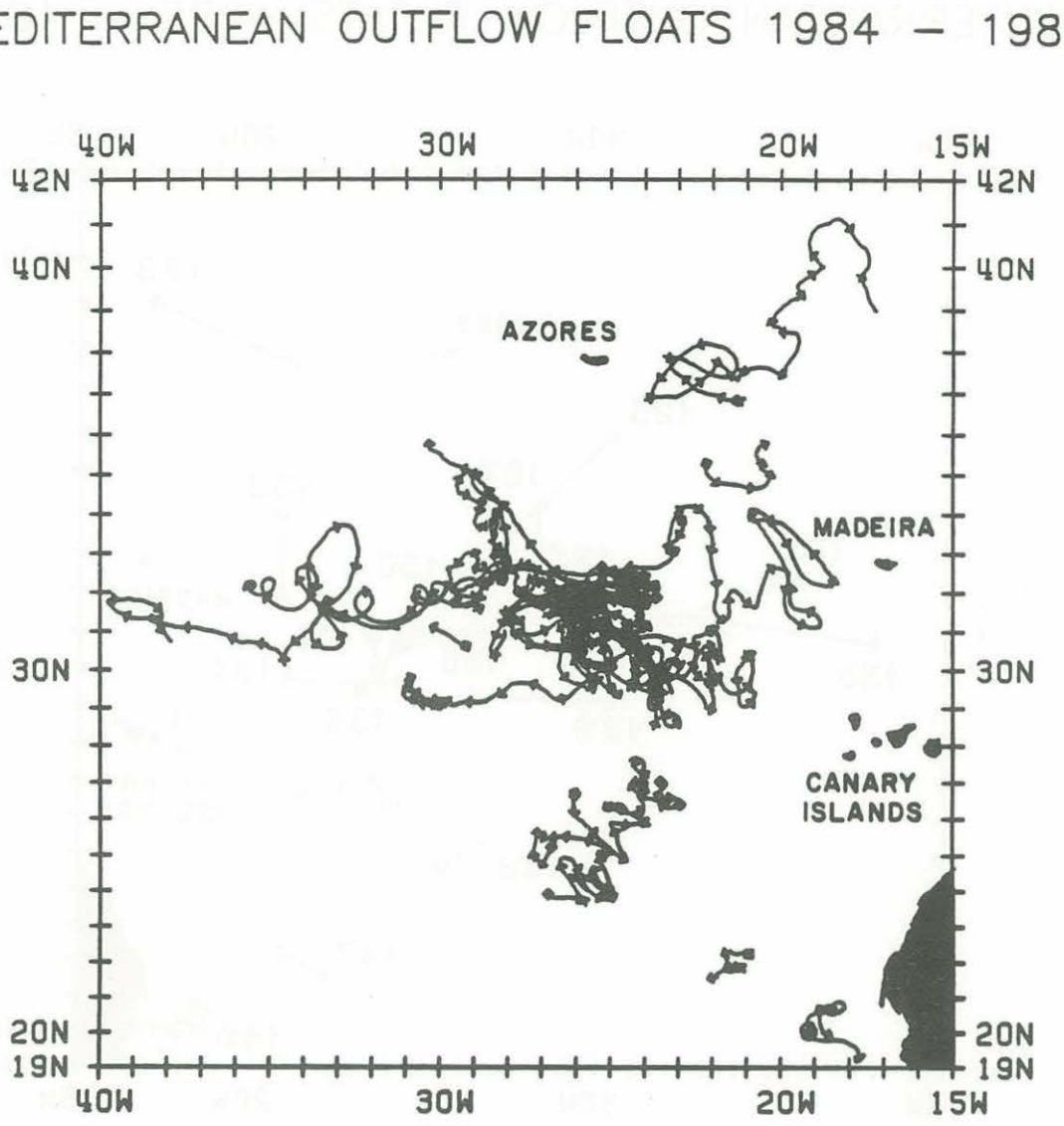

Figure 5a: A composite of 24 float trajectories between 1984–1986. Arrowheads are located at 30-day intervals along the trajectories.

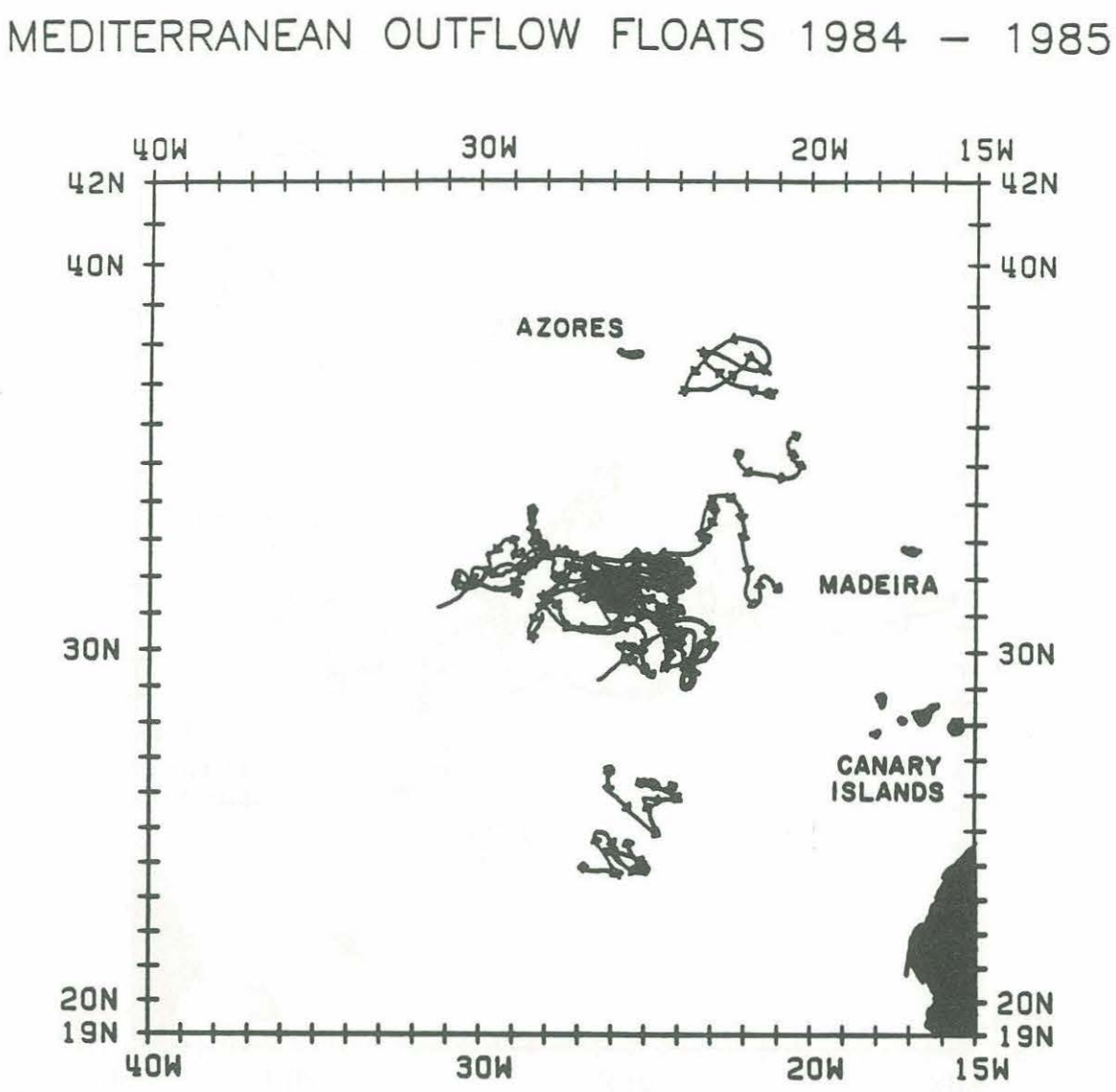

Figure 5b: A composite of 21 float trajectories between 1984–1985. Arrowheads are located at 30-day intervals along the trajectories.

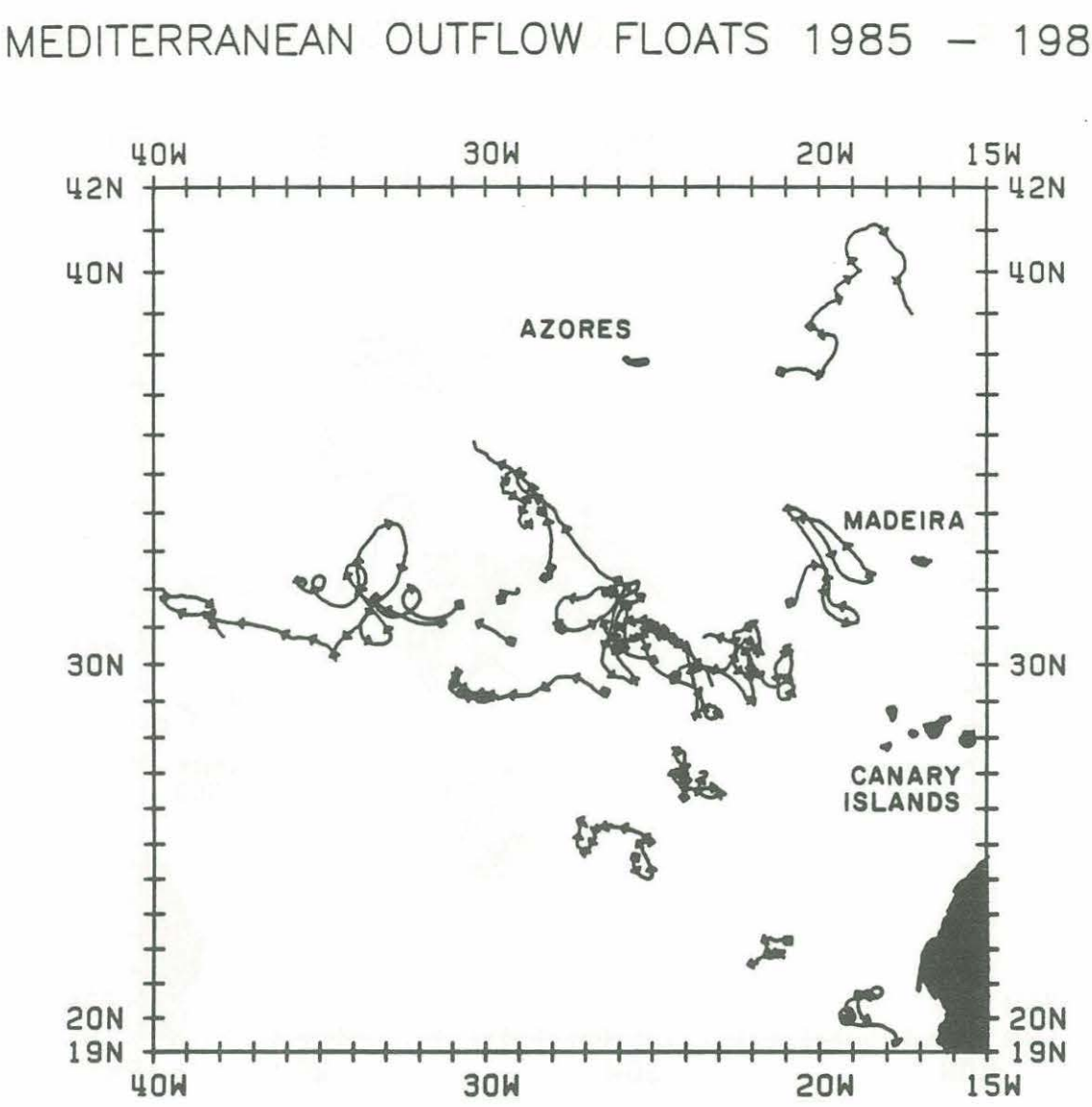

Figure 5c: A composite of 19 float trajectories between 1985–1986. Arrowheads are located at 30-day intervals along the trajectories.

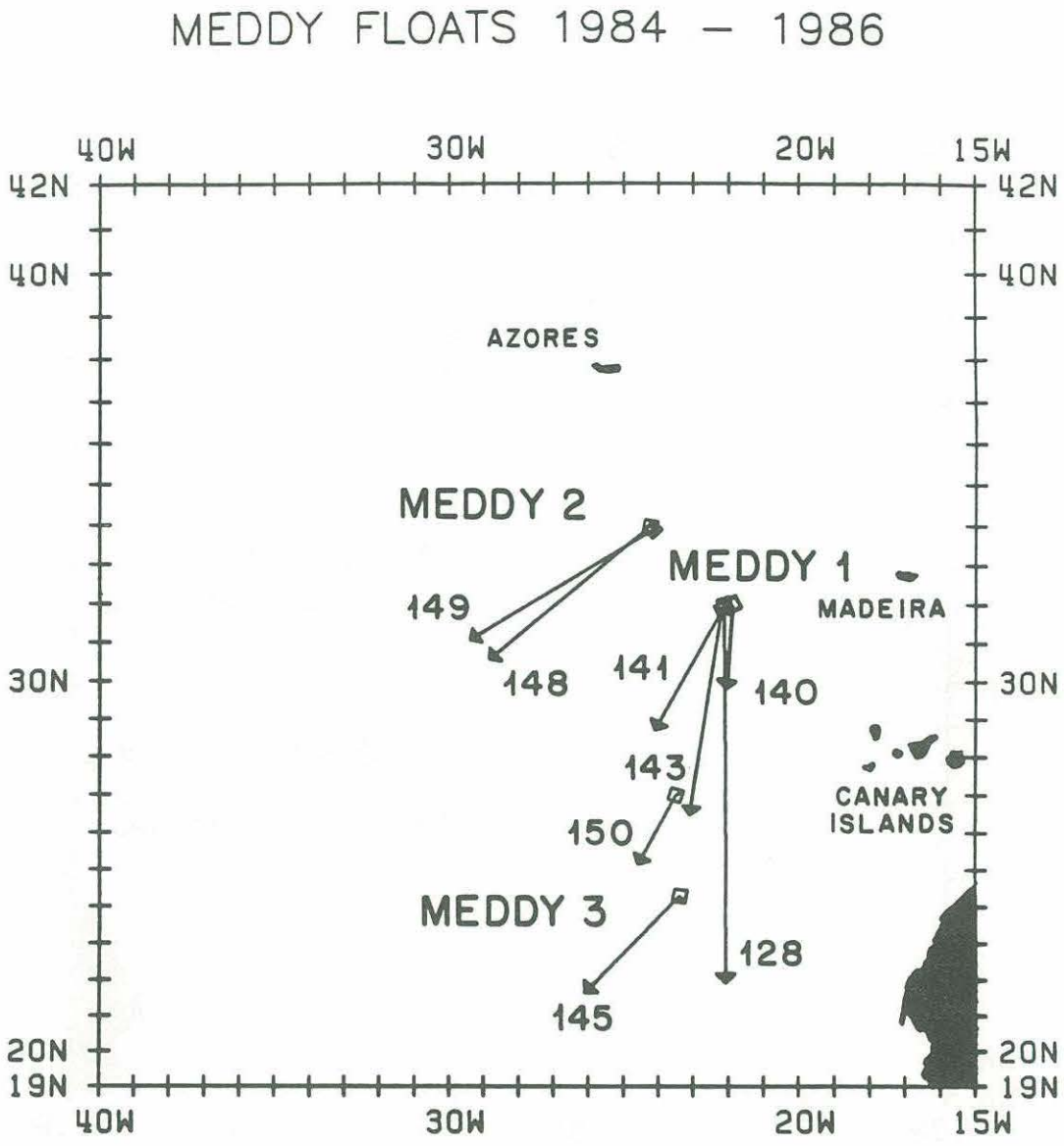

Figure 6a: Displacement vectors for floats launched in Meddies (1984–1986).

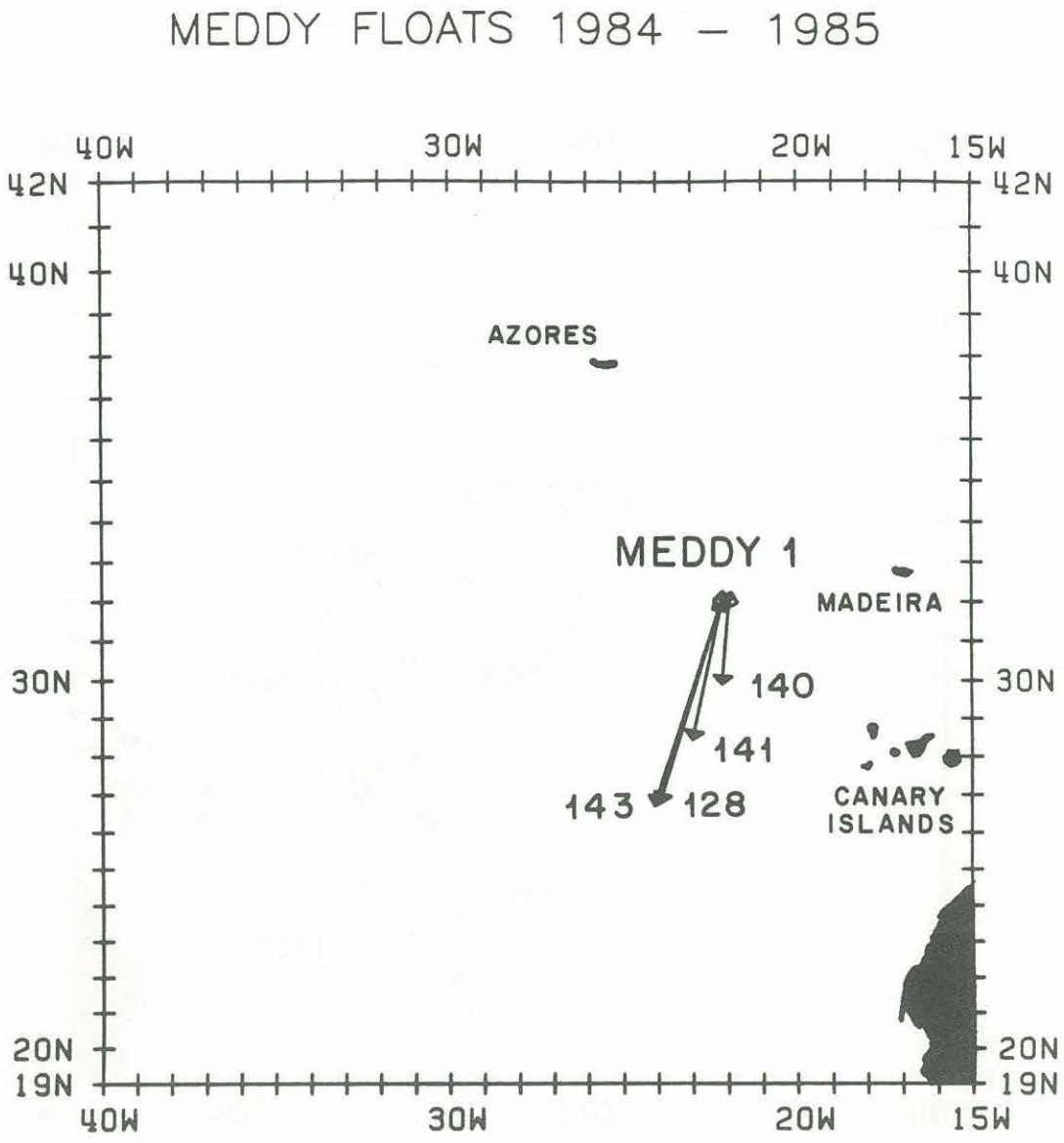

Figure 6b: Displacement vectors for floats launched in Meddies (1984–1985).

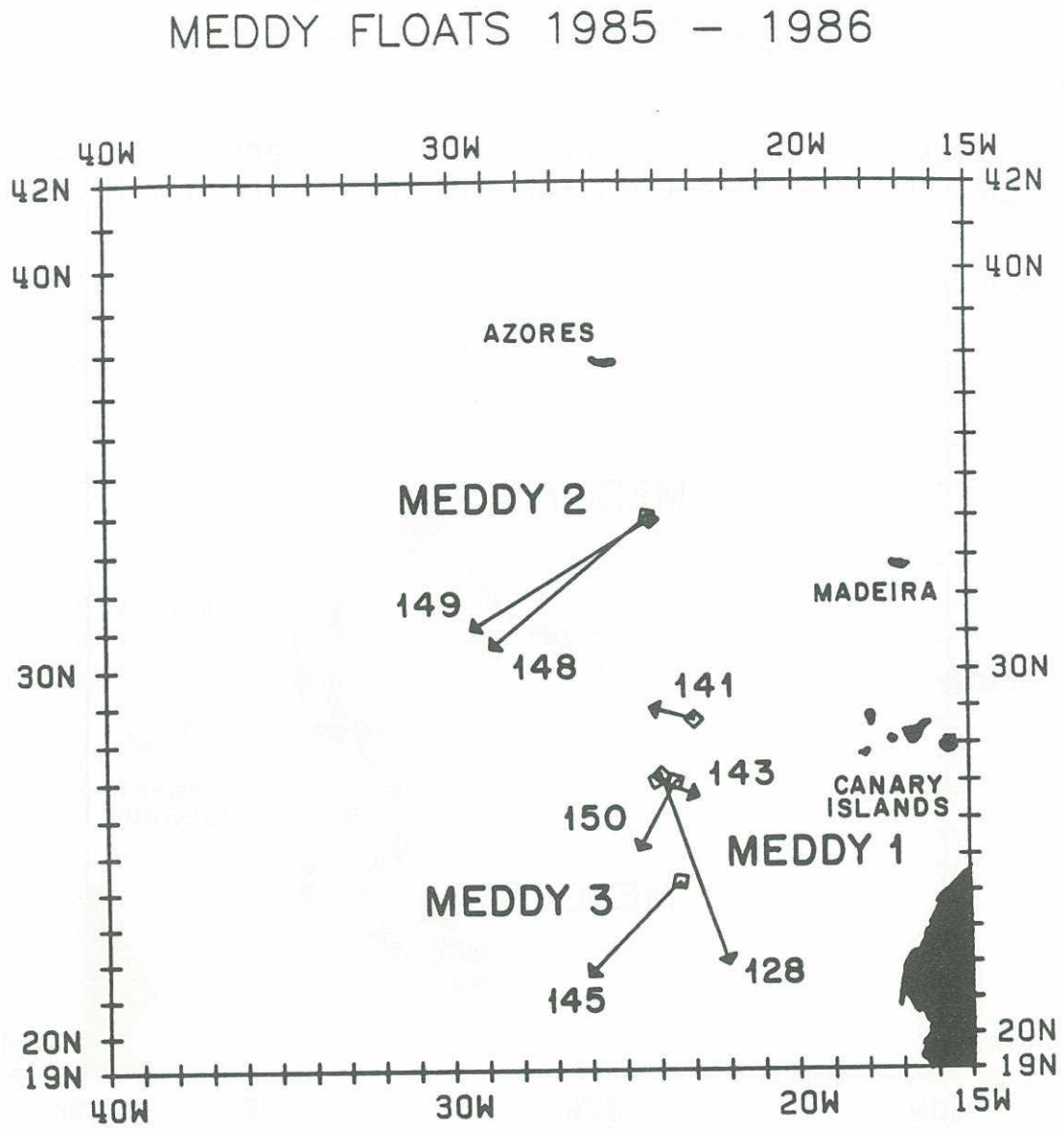

Figure 6c: Displacement vectors for floats launched in Meddies (1985–1986).

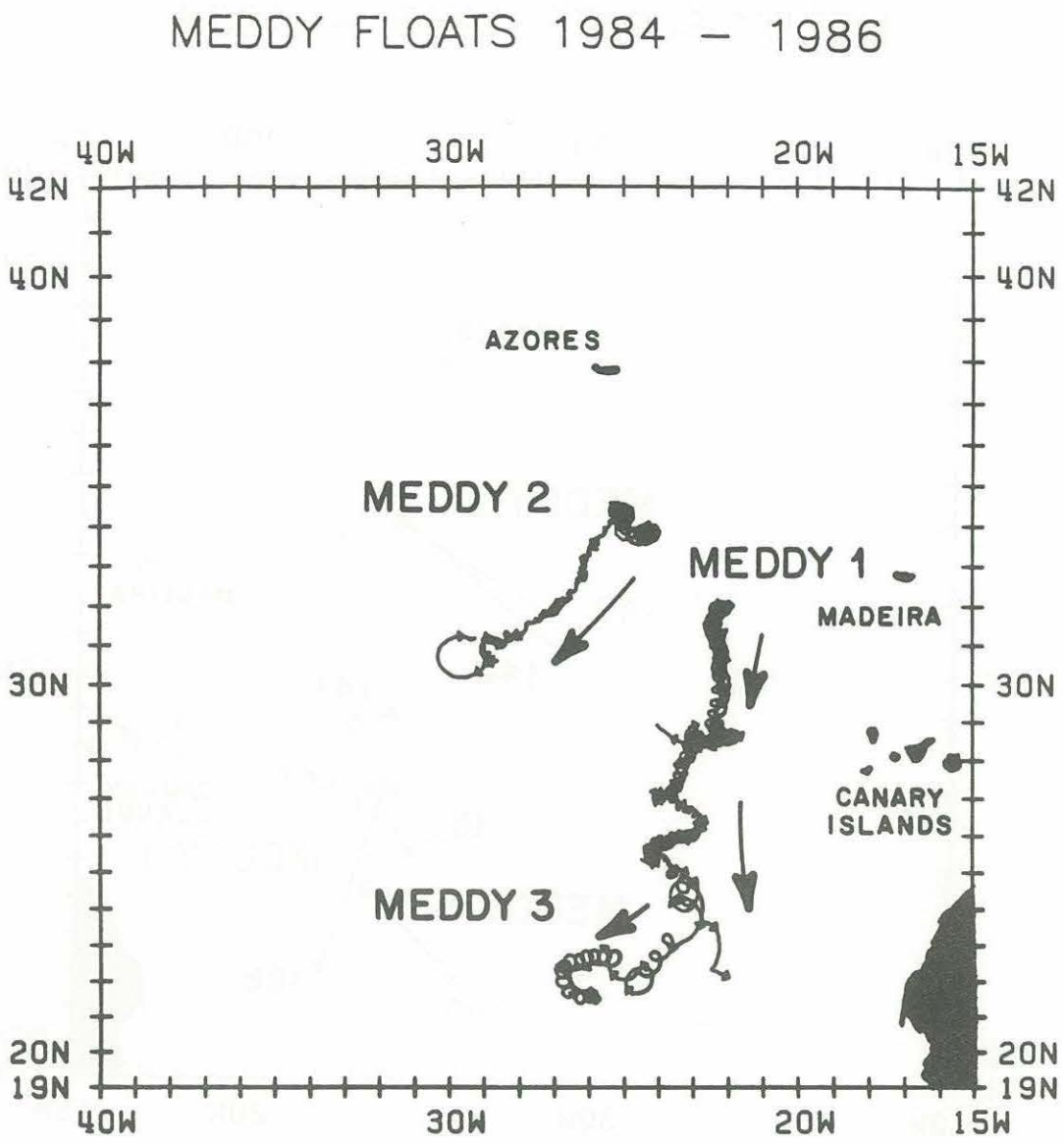

Figure 7a: A composite of eight float trajectories launched in Meddies (1984–1986).

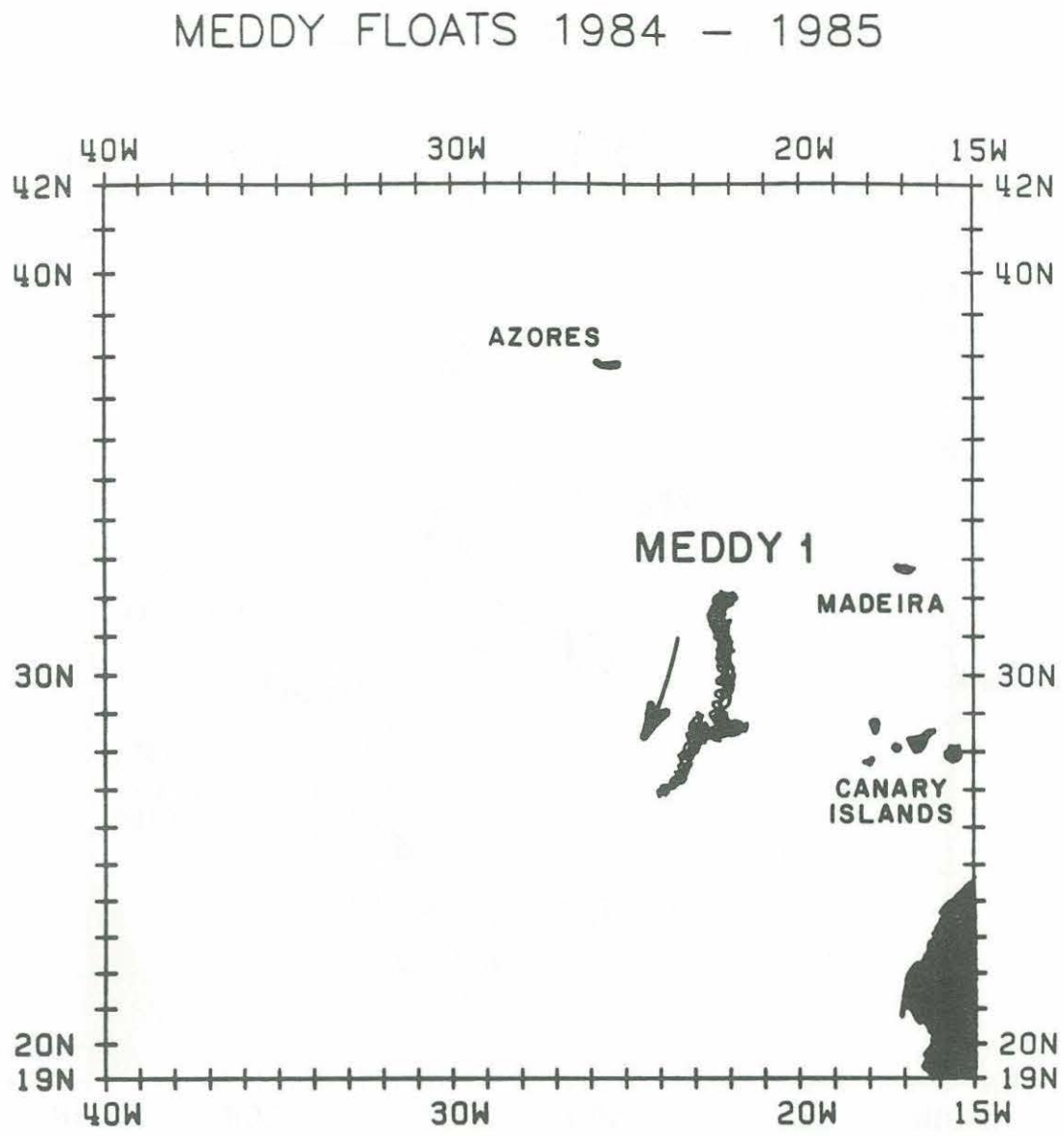

Figure 7b: A composite of four float trajectories launched in Meddies (1984–1985).

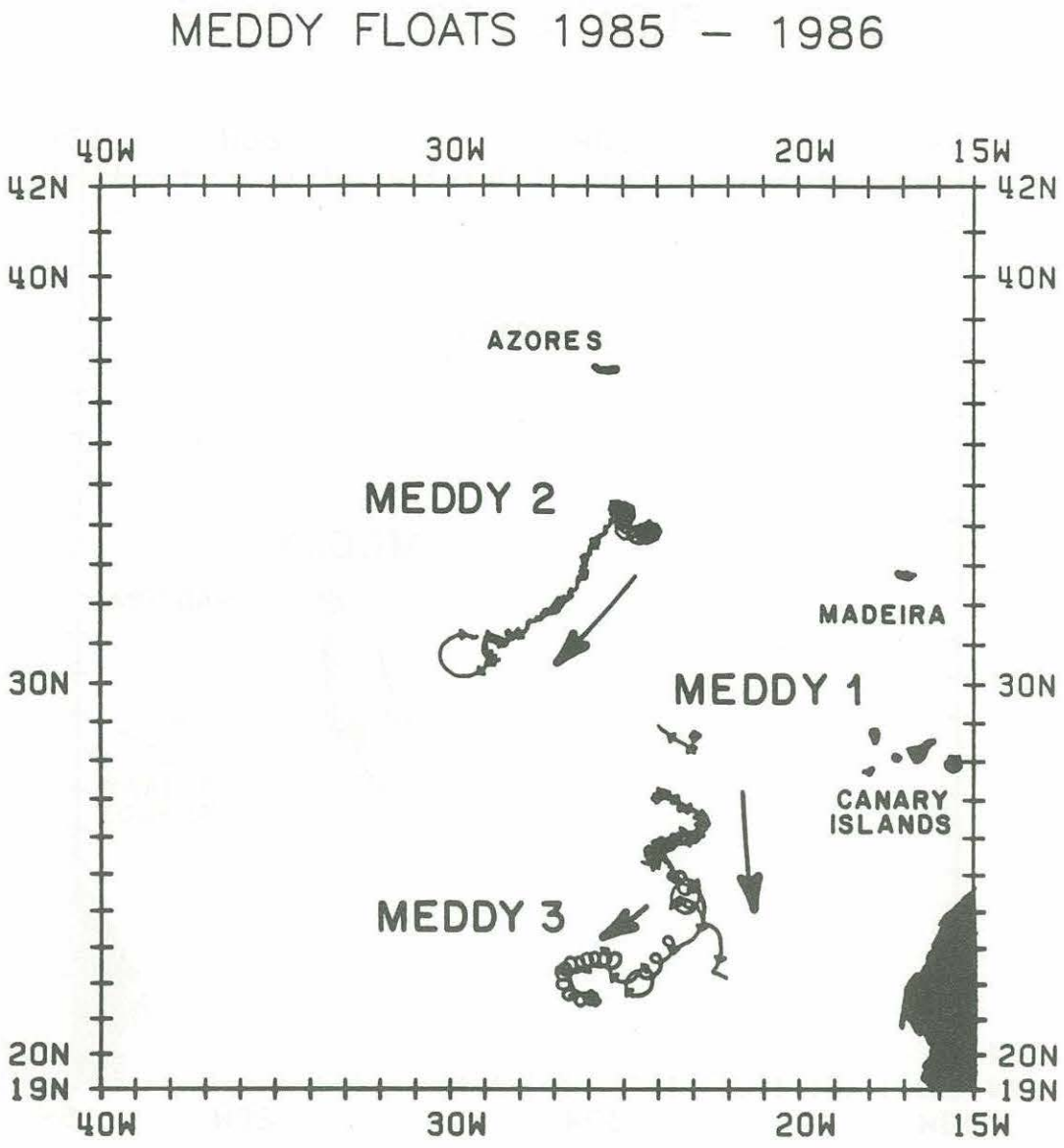

Figure 7c: A composite of seven float trajectories launched in Meddies (1985–1986).

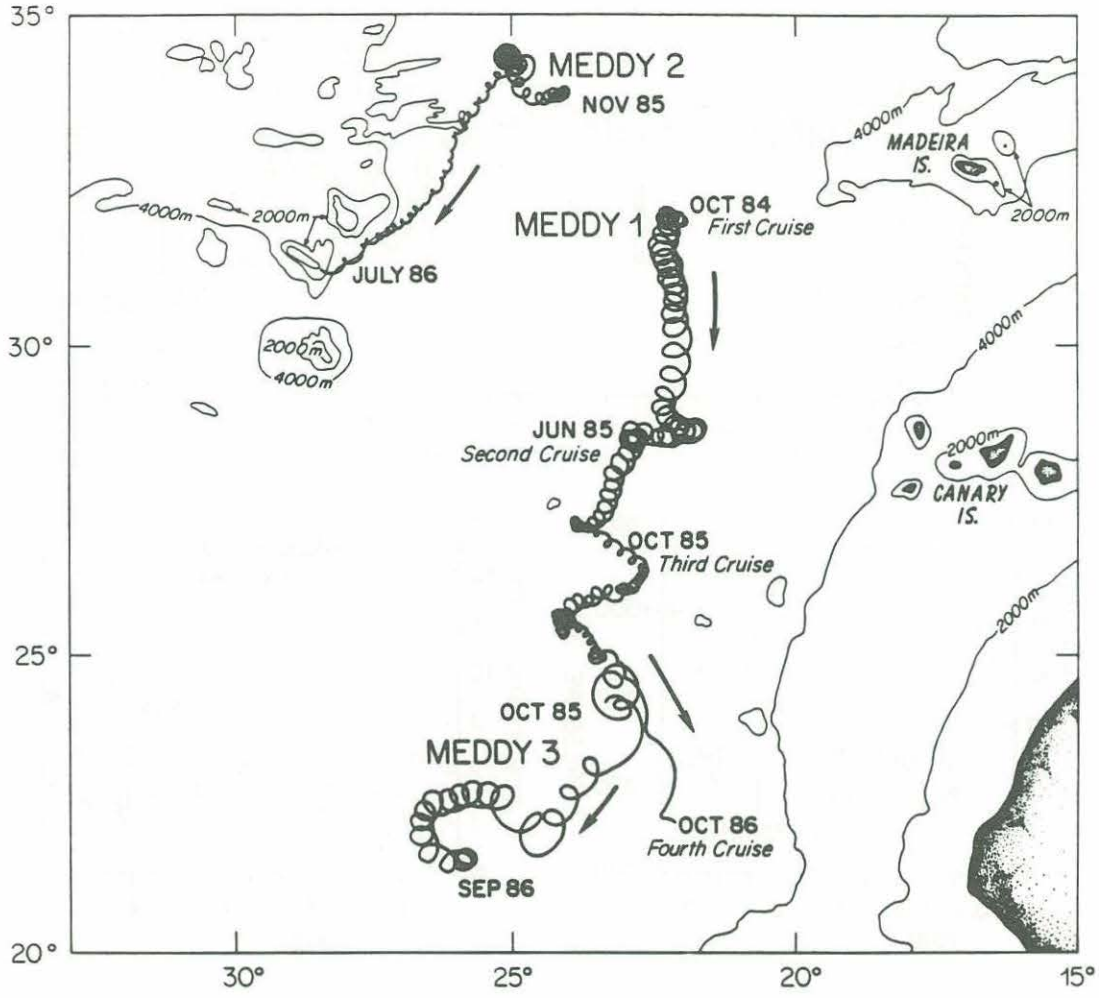

Figure 8: The translation of three Meddies as given by the trajectories of SOFAR floats — float 128 in Meddy 1, float 149 in Meddy 2, and float 145 in Meddy 3. The floats in Meddies 1 and 2 continued to loop up to the end of the tracking in October 1986. Meddy 2 collided with a seamount in July–August 1986 and the two floats (148, 149) stopped looping.

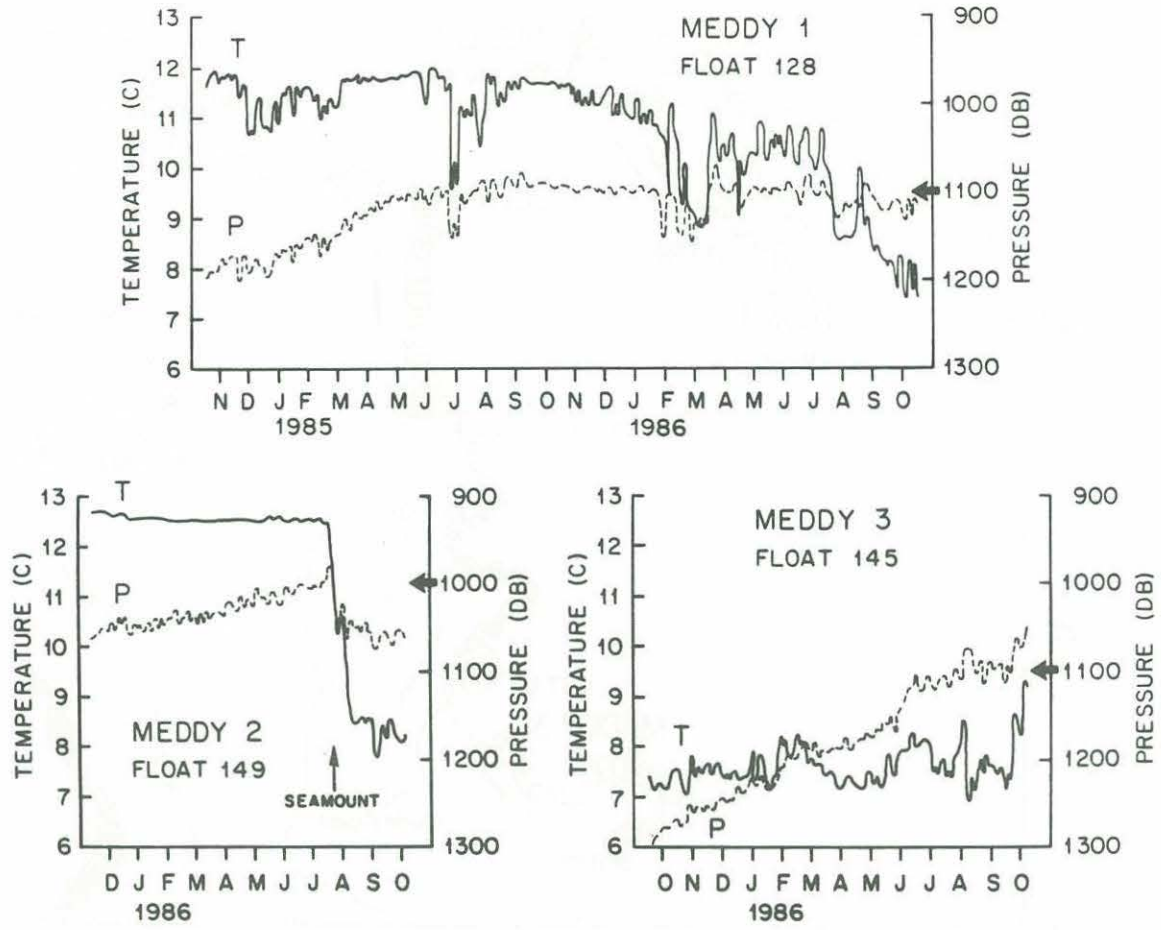

Figure 9: Temperature and pressure series from a float in each Meddy. All three floats initially settled deep and gradually rose toward the target pressure shown by dark arrows. The large drop in temperature measured by float 149 coincides with Meddy 2's collision with Hyères seamount and the float encountering cooler fresher water. The downward spikes in temperature and pressure of float 128 in July 1985 and spring 1986 are inferred to be a result of the float encountering patches or layers of fresher cooler water.

that it was not confined to just the Mediterranean water, and that it was surface intensified (Tarbell *et al.*, 1987). A few floats drifted westward in this region during the two years suggesting the jet was a relatively long-lived feature. Evidence from our current meters located near 32°N and others near 33°N (Zenk and Muller, 1988) suggests the jet may have migrated from 32°N to 33°N during the two years. Away from the jet the mean flow is weak and generally eastward.

The three Meddies moved on average southwestward with a mean velocity of 1.6 cm/sec toward 202° (Figure 8). Meddy 1, tracked for two years, moved 1090 km southward with a mean velocity of 1.8 cm/sec. By October 1986 this Meddy was found to be almost totally decayed as compared to its original structure (see Armi *et al.*, 1988a,b). Meddy 2 drifted 530 km southwestward for 8.5 months with a mean velocity of 2.2 cm/sec and collided with Hyères seamount near 31°N, 29°W. At this time the two floats trapped in this Meddy stopped looping implying a major disruption of this Meddy. Meddy 3 drifted 380 km southwestward for a year with a mean velocity of 1.2 cm/sec. Further tracking in 1986–1988 may give longer trajectories for Meddies 1 and 3.

6 Acknowledgements

This research was made possible with funds provided by the National Science Foundation (OCE82-14066 and OCE86-00055). Principal investigators were J. F. Price and P. L. Richardson.

Floats were purchased from Webb Research Corporation. They were ballasted, prepared for sea and launched by the WHOI float operations group consisting of J. R. Valdes, R. D. Tavares and B. J. Guest. The operations group also maintained, moored and retrieved the ALS's. The floats were tracked by M. E. Zemanovic at Woods Hole Oceanographic Institution using a system developed by W. B. Owens. M. A. Lucas typed the manuscript.

7 References

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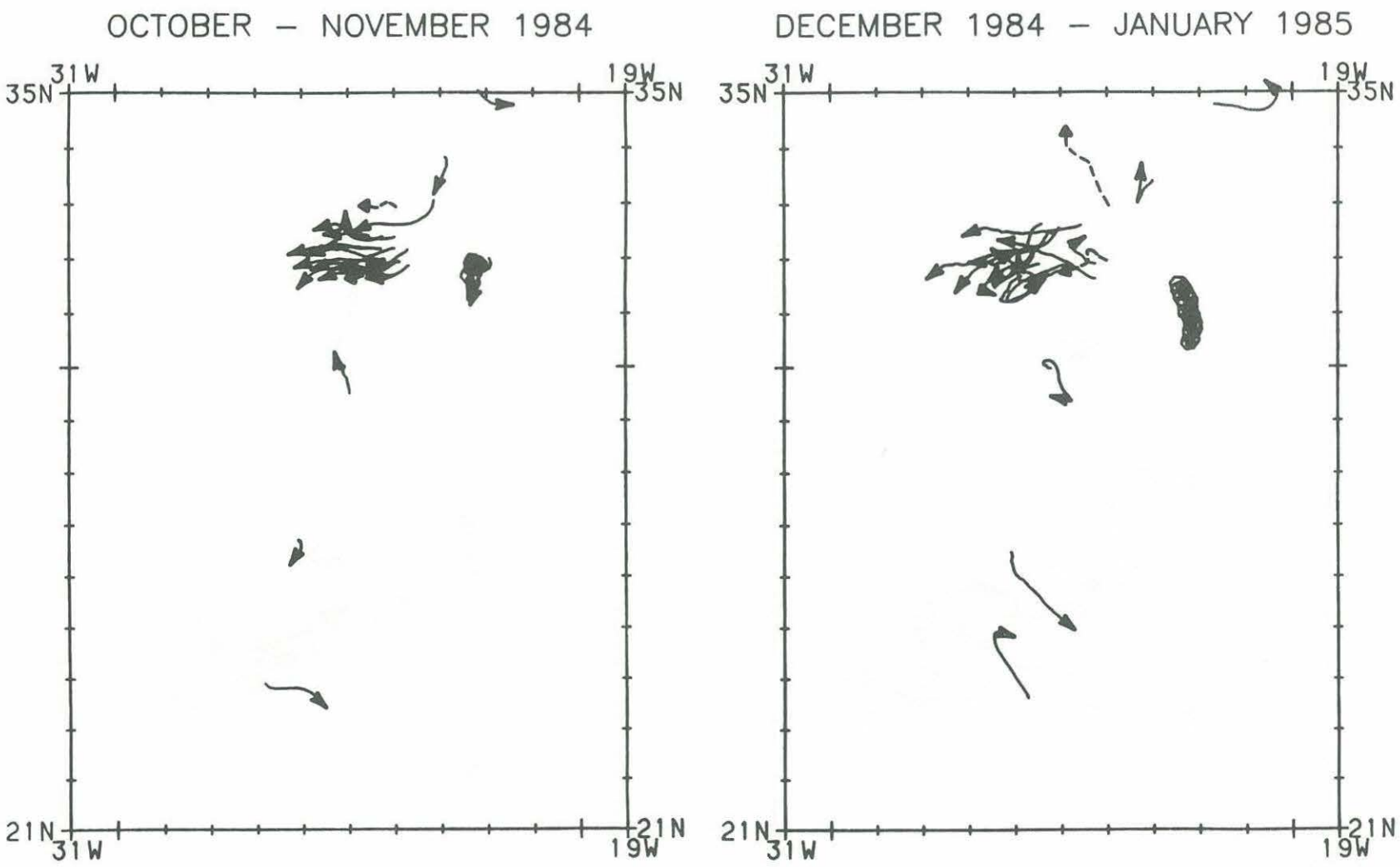
Tarbell, S. A., P. L. Richardson and J. F. Price, 1987. Moored current meter data from the Canary Basin near 32N 24W (1984–1986). *Woods Hole Oceanographic Institution Technical Report*, **WHOI-87-19**, 34 pages.

Zenk, W. and T. J. Muller, 1988. Seven-year current meter record in the eastern North Atlantic. *Deep-Sea Research*, in press.

8 Appendix A — Two Month Composites of Trajectories from October 1984 to September 1986

Twelve plots are presented showing a summary of all float trajectories for each two-month period from October 1984 to September 1986, and two progressive vector plots (dashed arrows) from current meters, one at 33°N, 24°W (Zenk and Muller, 1988), and the other at 32°N, 24°W (Tarbell *et al.*, 1987).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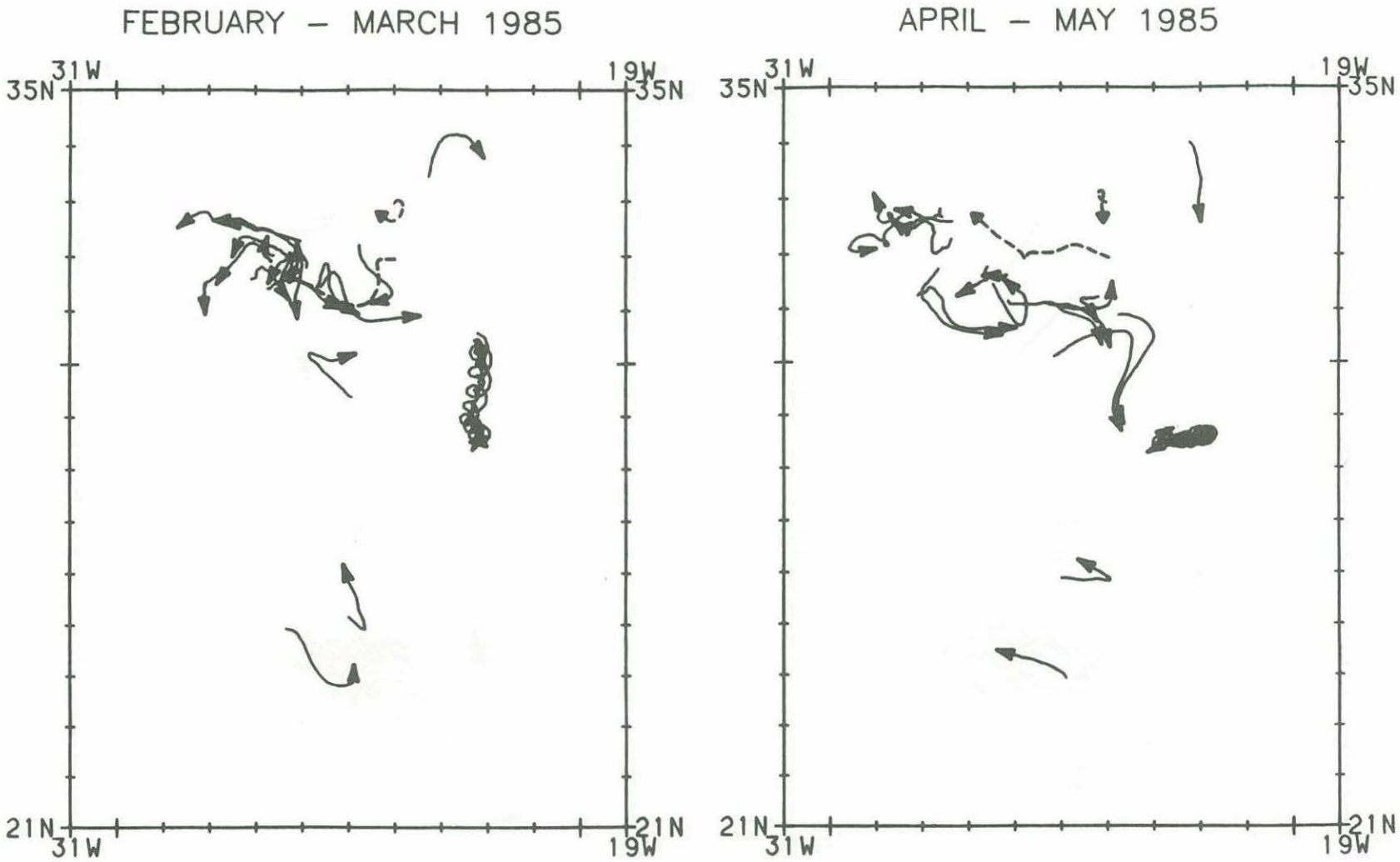
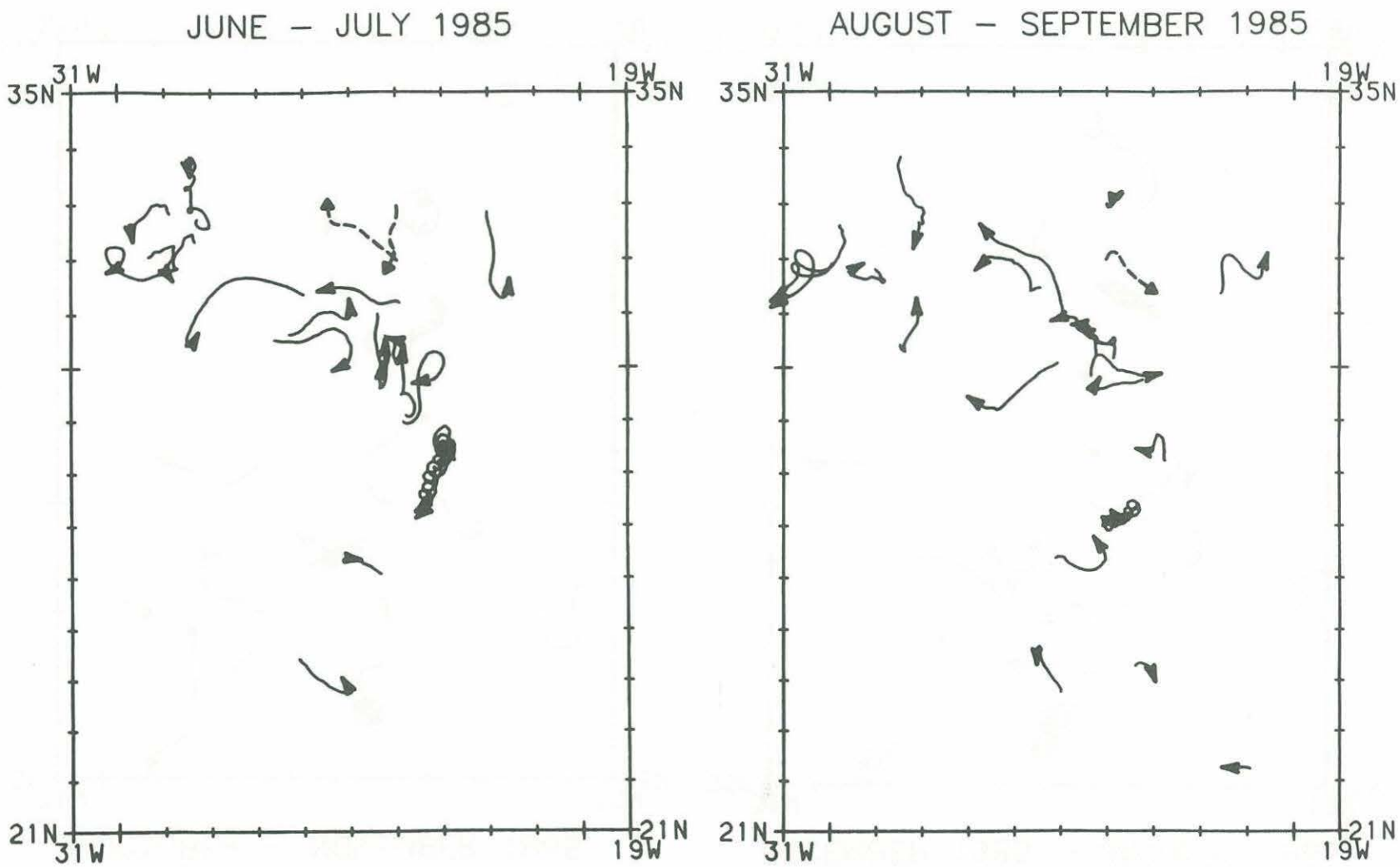
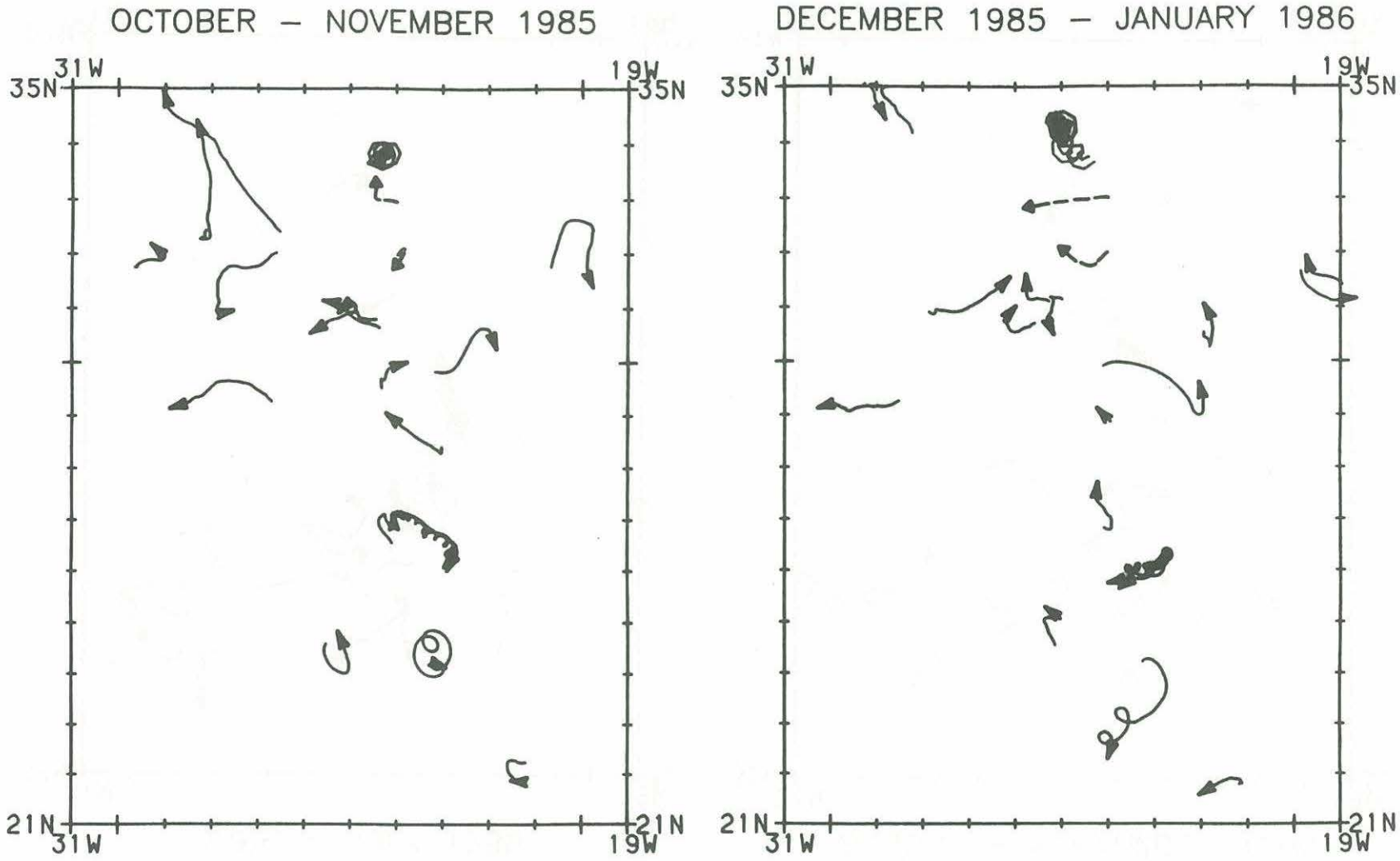
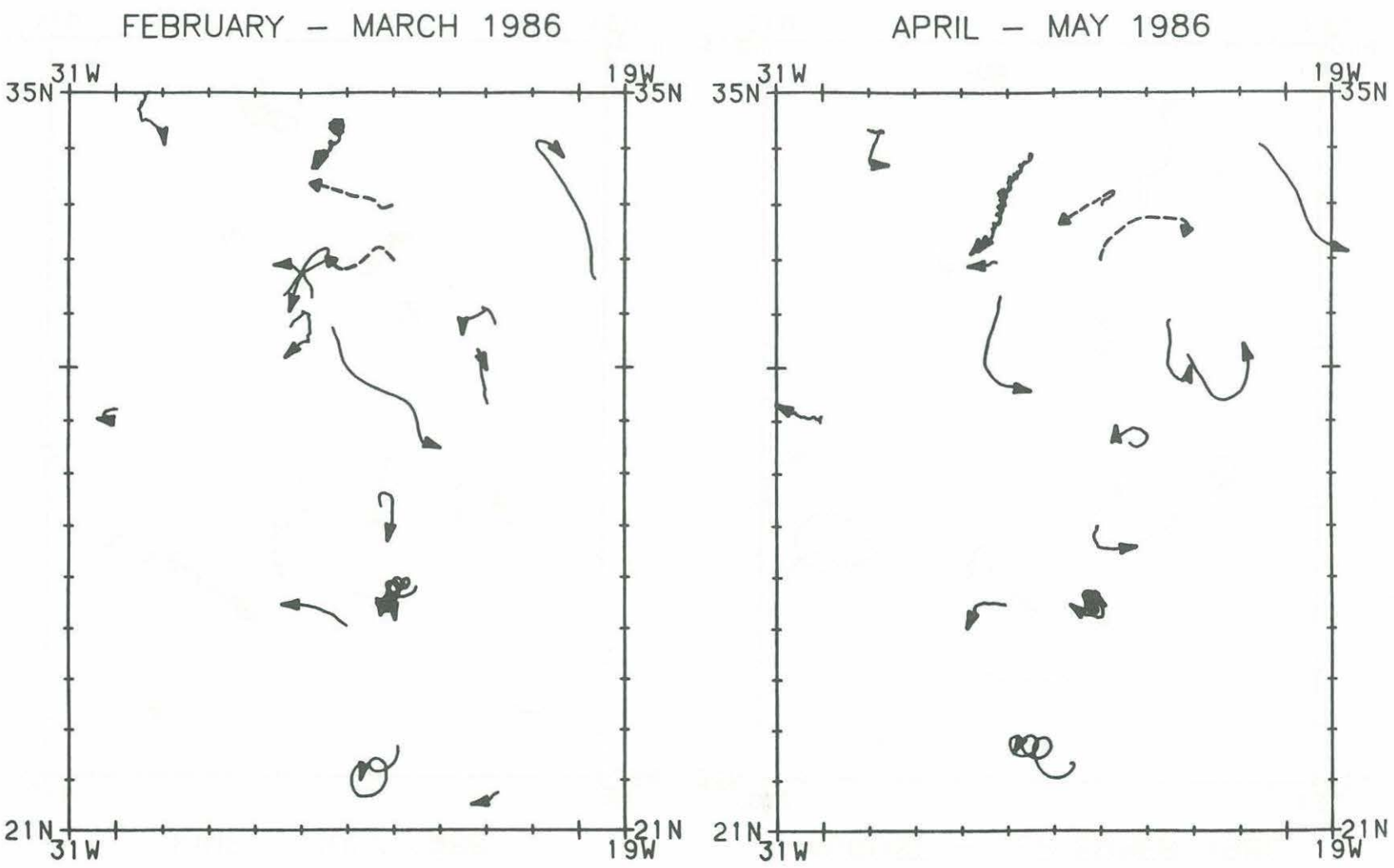
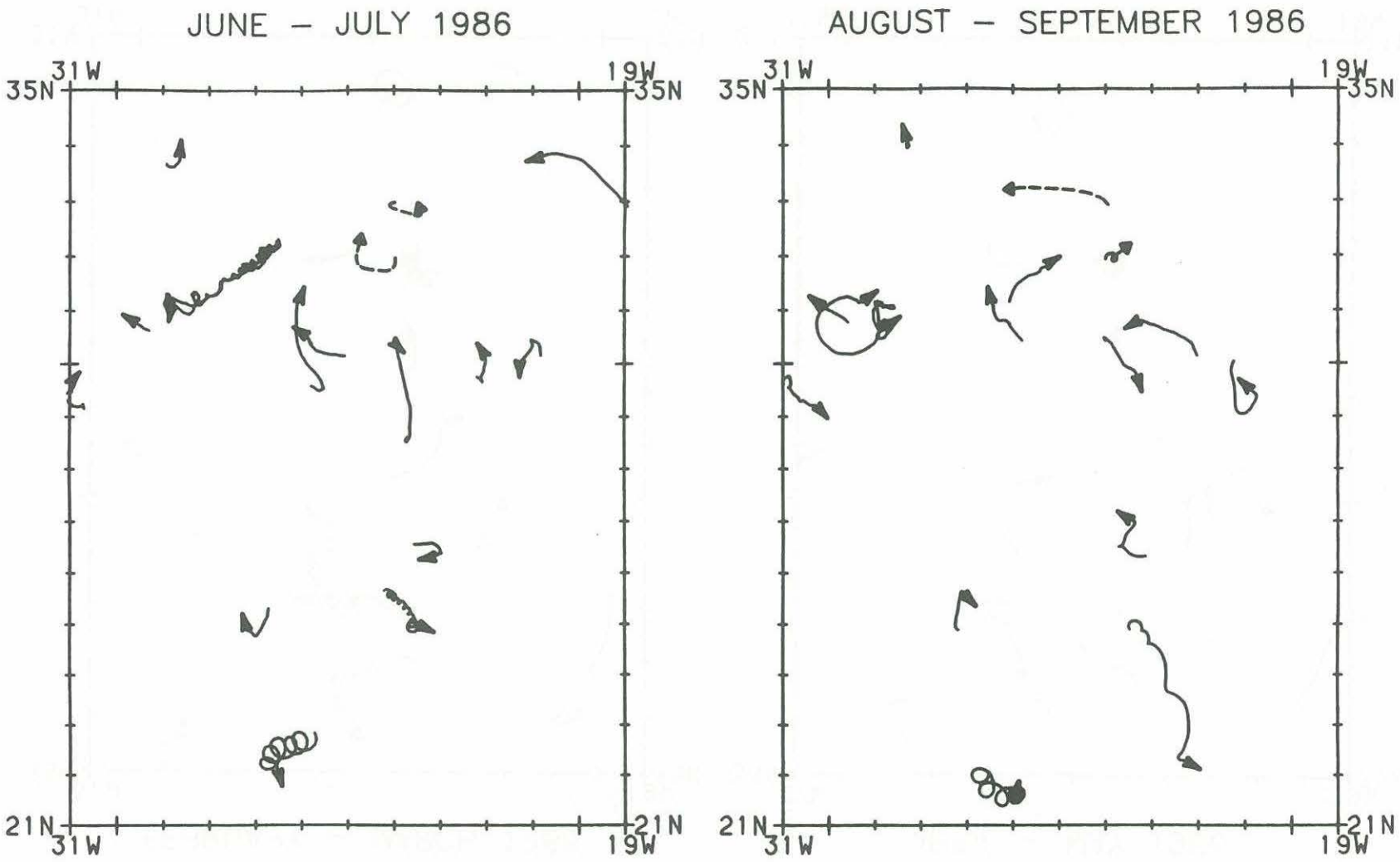
31W
19W
35N
21N
DECEMBER 1984 – JANUARY 1985
31W
19W
35N
21N


FEBRUARY – MARCH 1985
31W
19W
35N
35N
21N
21N
31W
19W
APRIL – MAY 1985
31W
19W
35N
35N
21N
21N
31W
19W


JUNE – JULY 1985
AUGUST – SEPTEMBER 1985
31W
19W
35N
21N


OCTOBER – NOVEMBER 1985
31W
19W
35N
35N
21N
21N
31W
19W
DECEMBER 1985 – JANUARY 1986
31W
19W
35N
35N
21N
21N
31W
19W


FEBRUARY – MARCH 1986
APRIL – MAY 1986
31W
19W
35N
21N


JUNE – JULY 1986
AUGUST – SEPTEMBER 1986
31W
19W
35N
21N

9 Appendix B — Plots of Individual Floats

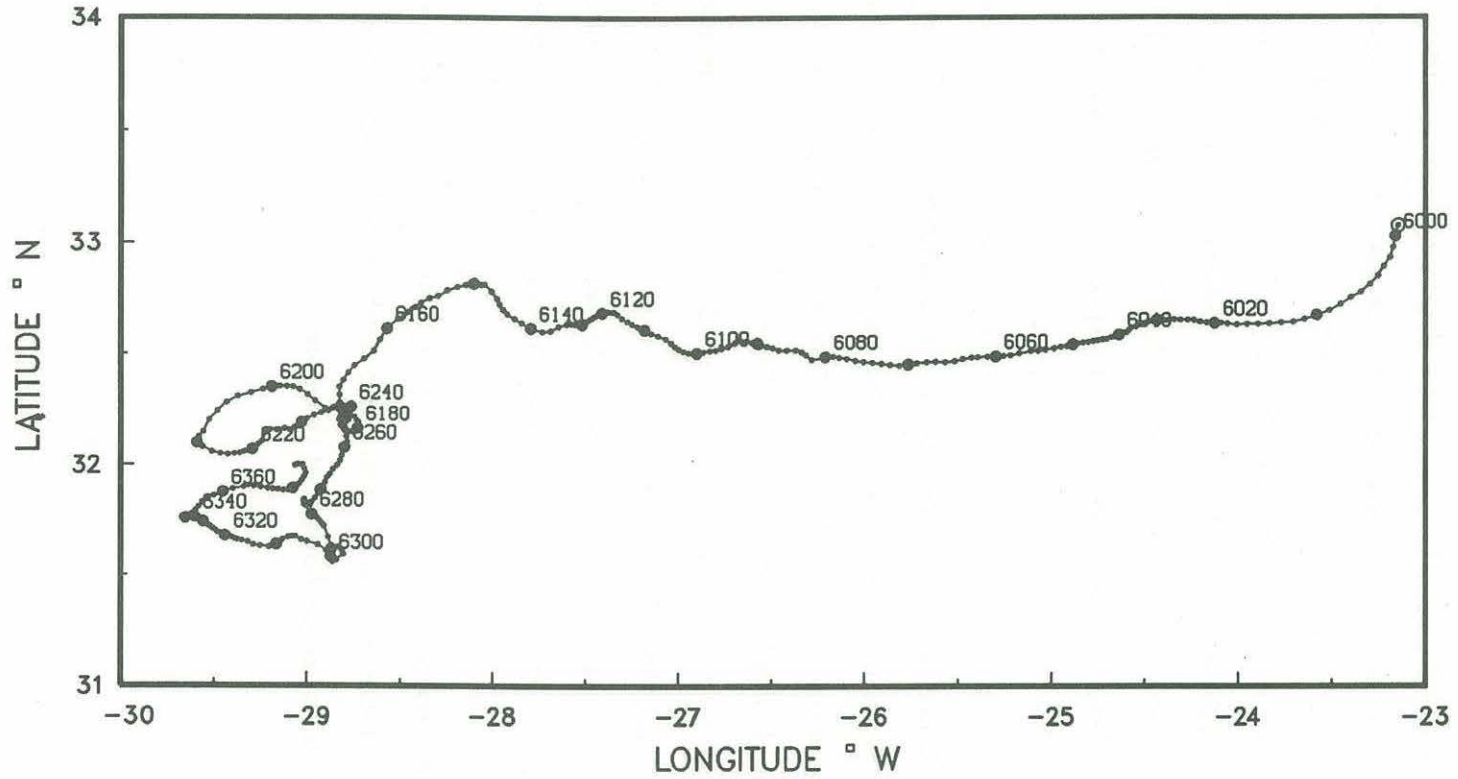
A trajectory plot and time series plots are presented for each float. The order of the time series plots is velocity stick diagram, u and v velocity component overplot, and temperature and pressure overplot. A common scale is used for the time axis, but the y axis varies for each float according to the minima and maxima of the variable plotted. Two hundred days of data are plotted on each page. Float files of lengths greater than 200 days are continued on subsequent pages. The time axis is annotated with the last four digits of the Julian day and with the calendar months. Refer to the conversion chart (Appendix D) to convert Julian day to calendar day. Data points are marked daily.

A trajectory for each float is plotted on a mercator projection. For the longitude axis, negative numbers indicate longitudes west of the Greenwich Meridian. Along the trajectories, open circles denote the first float position, small dots mark the daily positions, large dots the tenth day, and every twentieth day is annotated with the last four digits of the Julian date.

Stick plots show velocity every day. The stick length indicates the speed in cm s^{-1}, and the angle the stick makes with the horizontal axis represents the direction. North is toward the top of the page. The east and north components of velocity can be seen separately in overplots plotted to the same scale as the stick plots.

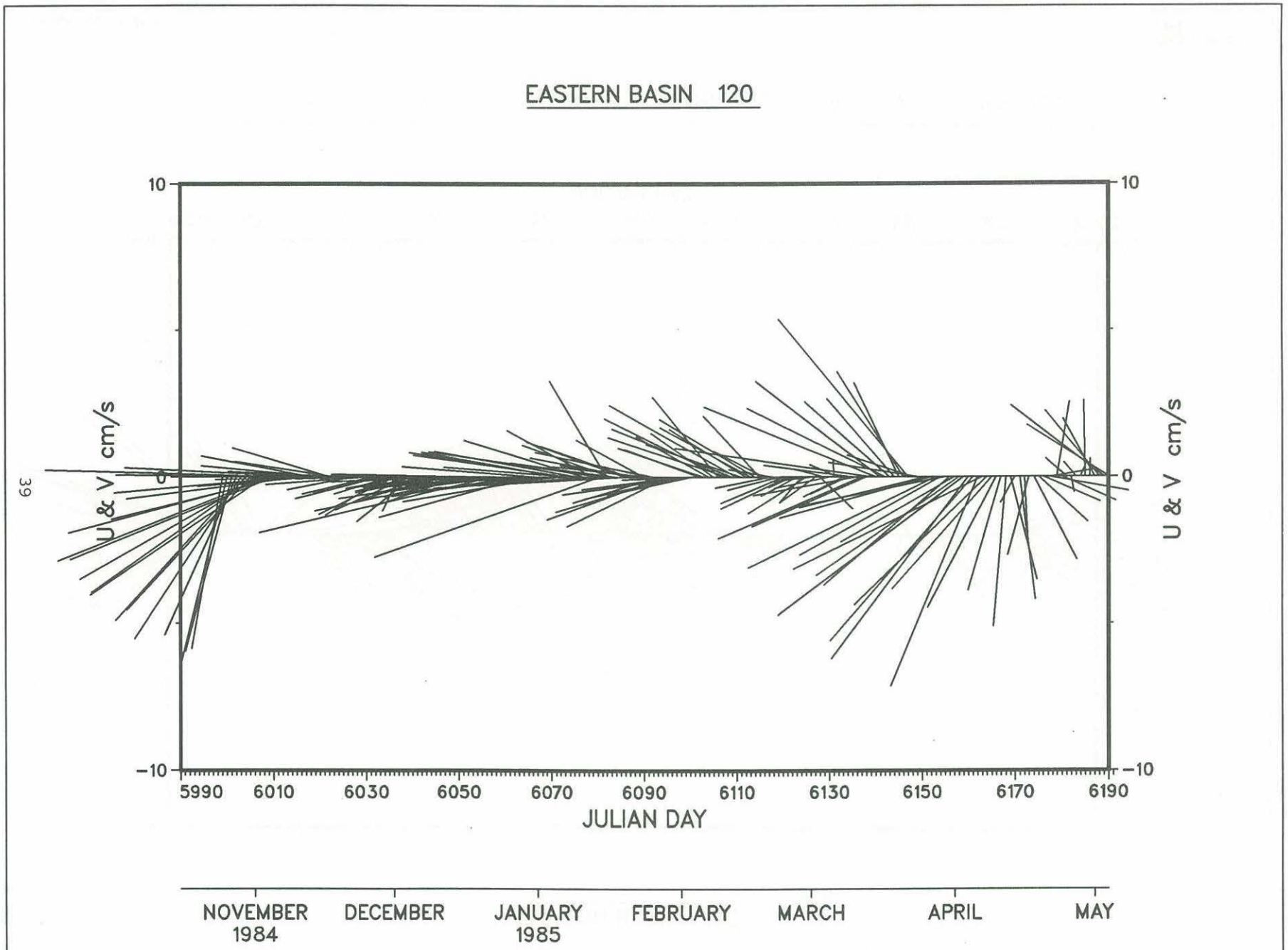
Temperature and pressure are overplotted, temperature on a centigrade scale marked on the left y axis, pressure in decibars marked on the right y axis with deeper values at the bottom of the scale.

EASTERN BASIN 120



1-JAN-88 14:30:06

PLOT 1 OF 1
.SPL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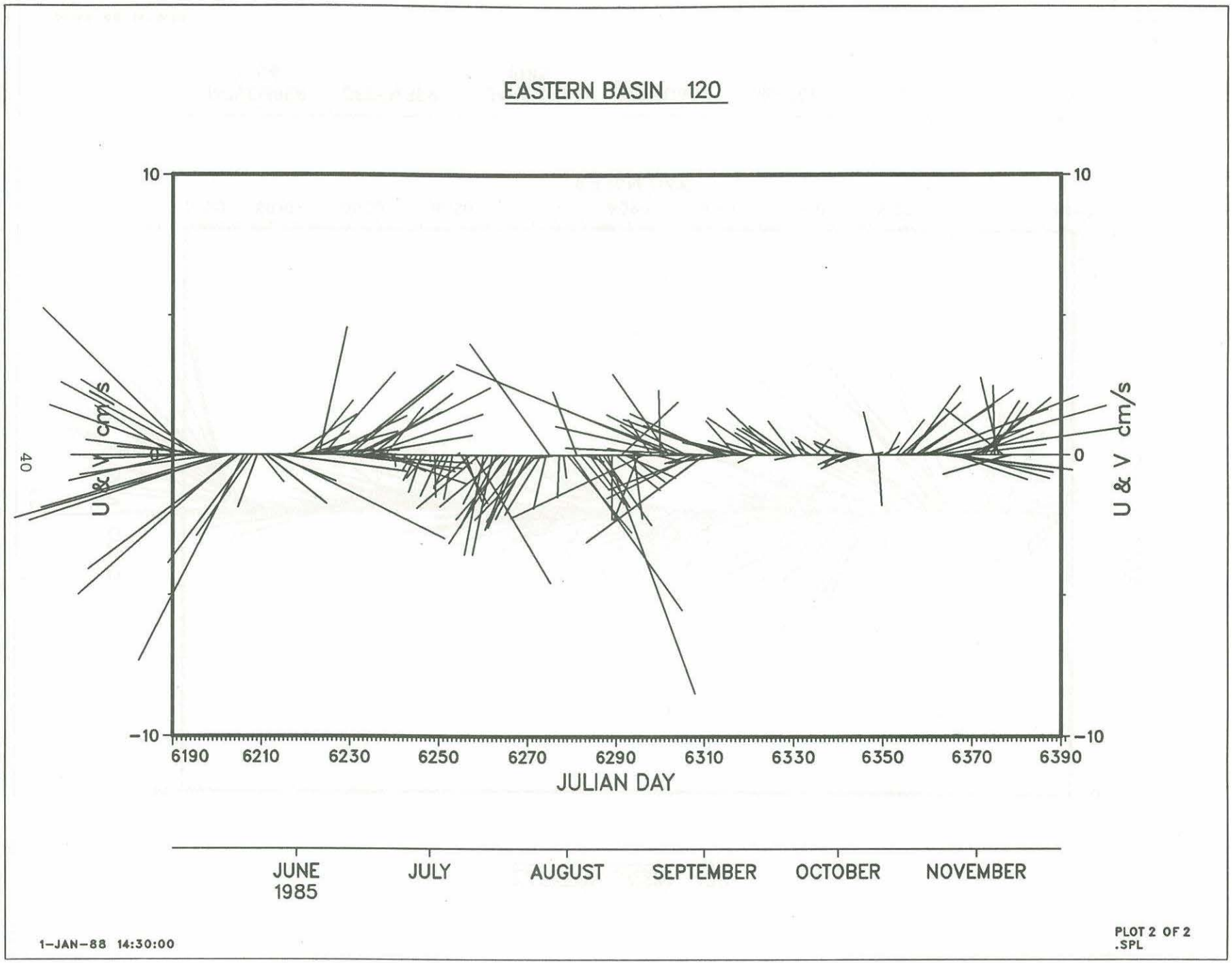
10
0
−10
U & V cm/s
5990
6010
6030
6050
6070
6090
6110
6130
6150
6170
6190
JULIAN DAY
NOVEMBER
1984
DECEMBER
JANUARY
1985
FEBRUARY
MARCH
APRIL
MAY
1-JAN-88 14:29:58
PLOT 1 OF 2
.SPL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U & V cm/s
40
6190
6210
6230
6250
6270
6290
6310
6330
6350
6370
6390
JULIAN DAY
JUNE
1985
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
1-JAN-88 14:30:00
PLOT 2 OF 2
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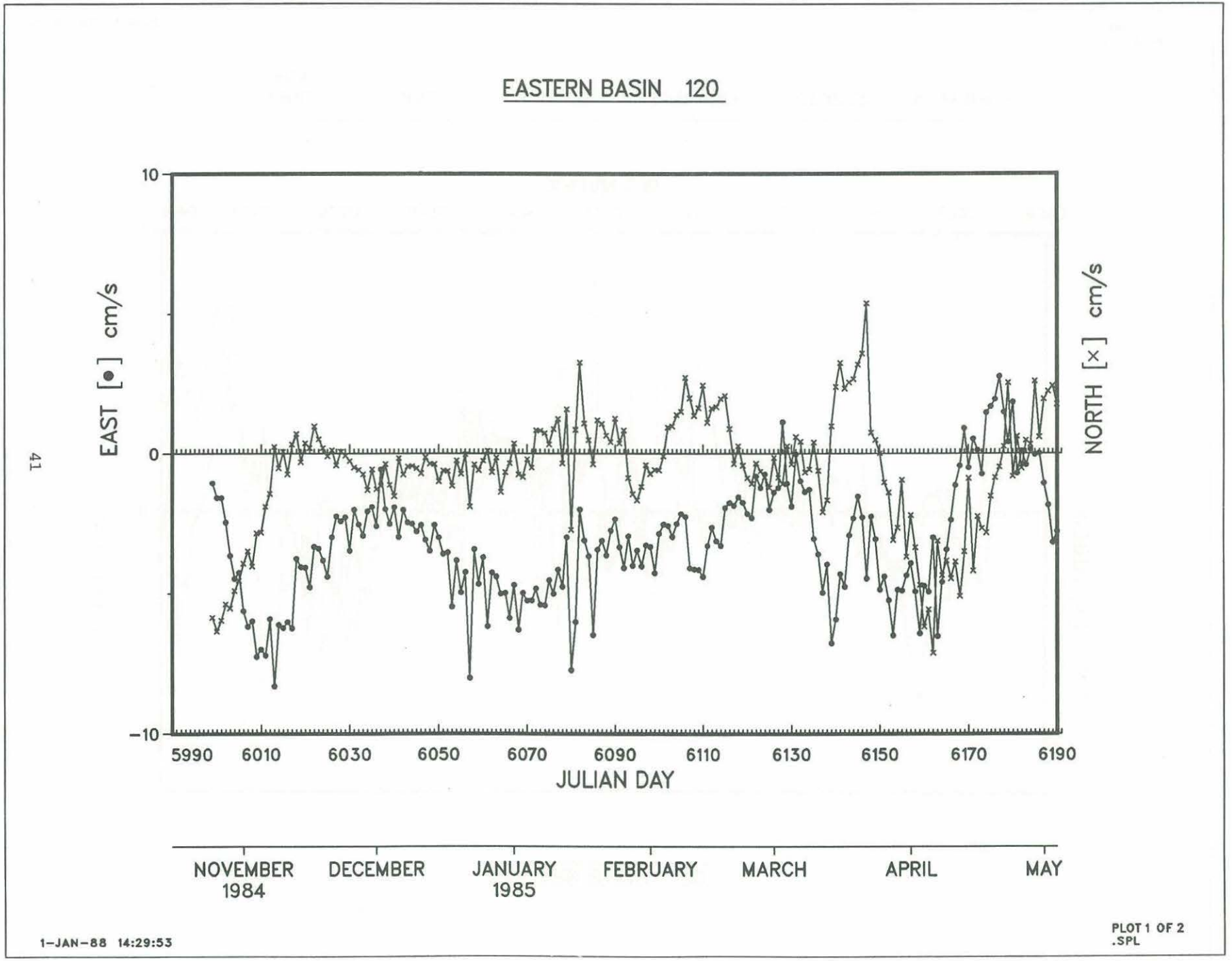
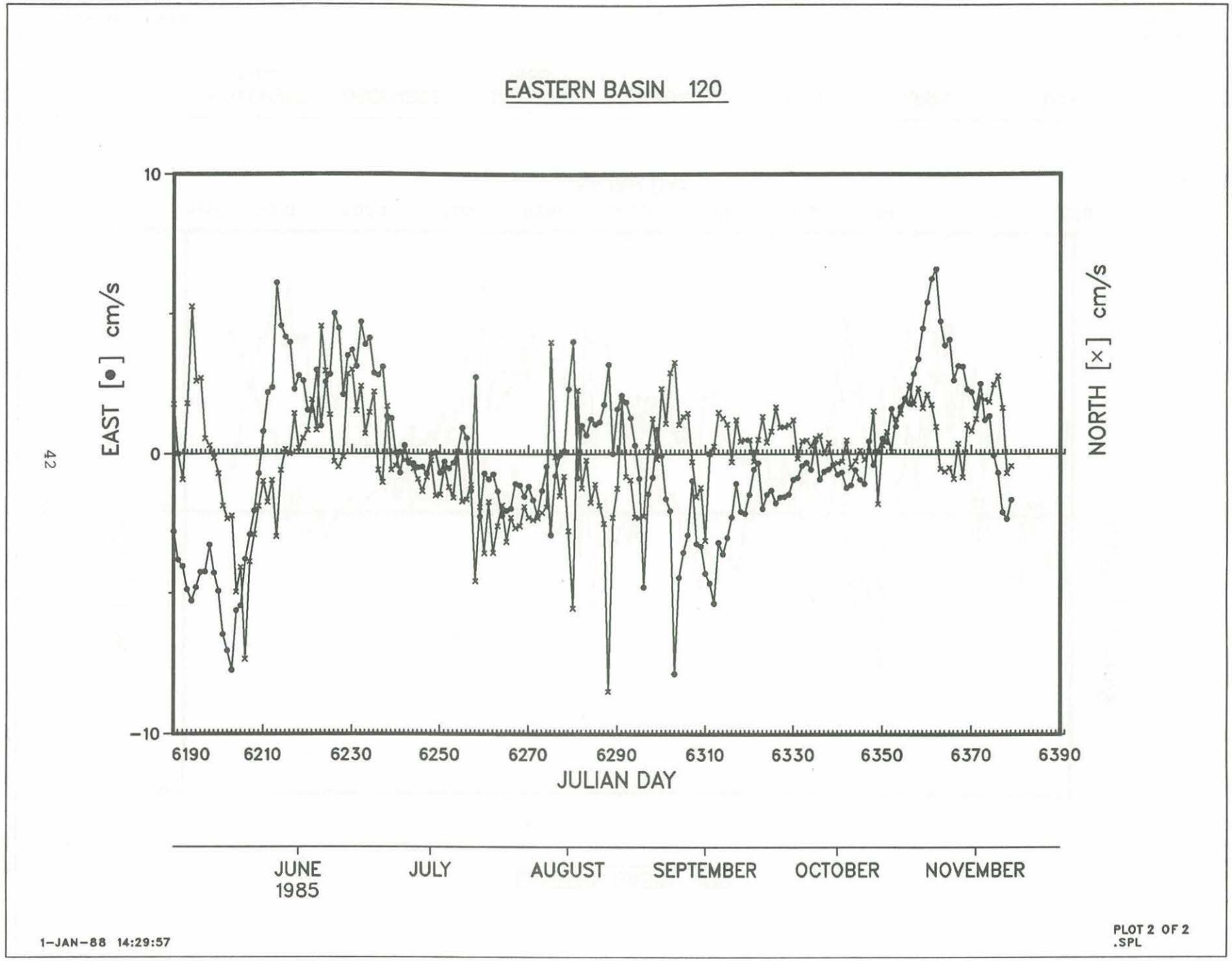
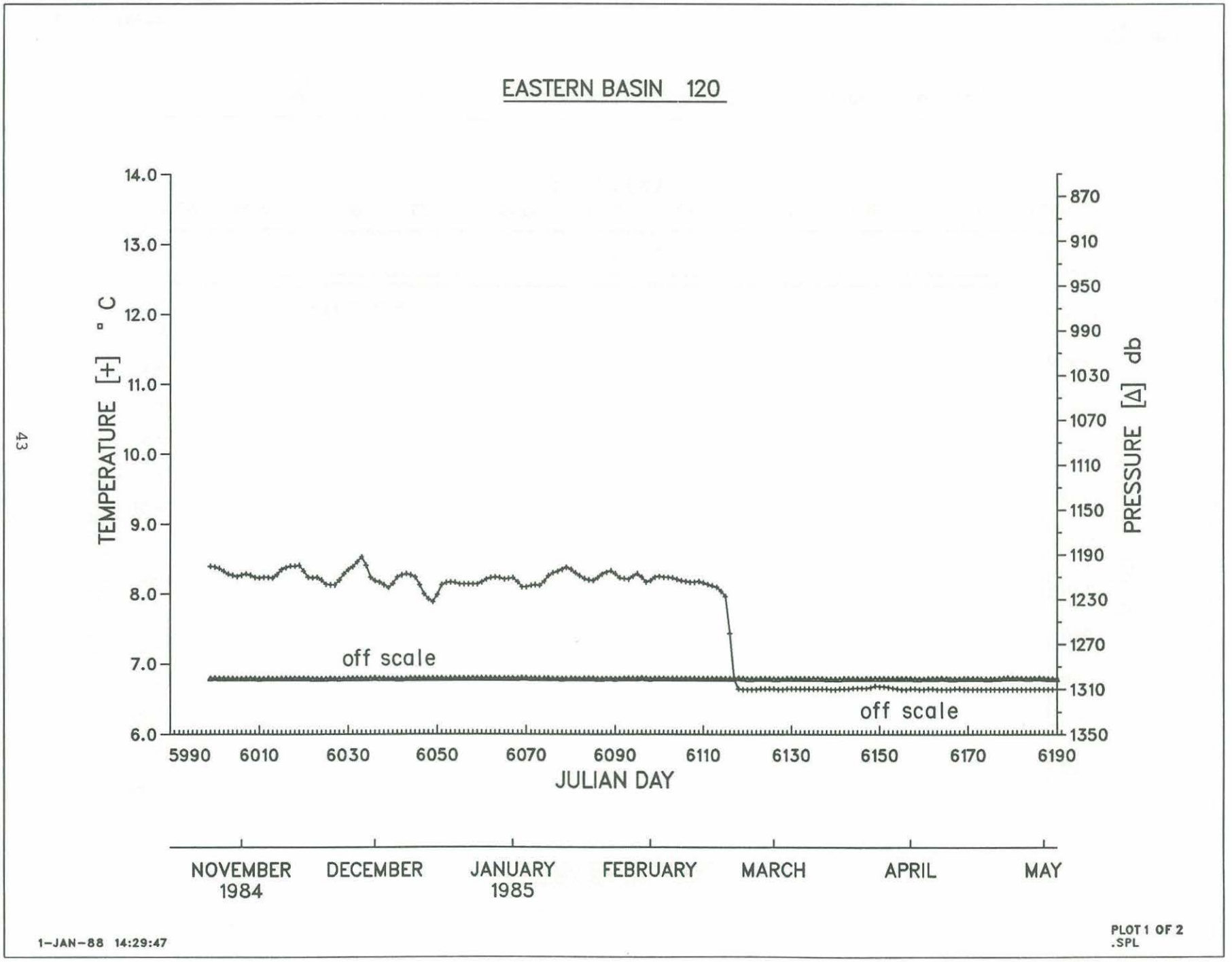

EASTERN BASIN 120
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
5990
6010
6030
6050
6070
6090
6110
6130
6150
6170
6190
JULIAN DAY
NOVEMBER
1984
DECEMBER
JANUARY
1985
FEBRUARY
MARCH
APRIL
MAY
1-JAN-88 14:29:53
PLOT 1 OF 2
.SPL


EASTERN BASIN 120
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6190
6210
6230
6250
6270
6290
6310
6330
6350
6370
6390
JULIAN DAY
JUNE
1985
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
1-JAN-88 14:29:57
PLOT 2 OF 2
.SPL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PRESSURE [Δ] db
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12.0
11.0
10.0
9.0
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7.0
6.0
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
off scale
off scale
5990
6010
6030
6050
6070
6090
6110
6130
6150
6170
6190
JULIAN DAY
NOVEMBER 1984
DECEMBER
JANUARY 1985
FEBRUARY
MARCH
APRIL
MAY
1-JAN-88 14:29:47
PLOT 1 OF 2
.SPL

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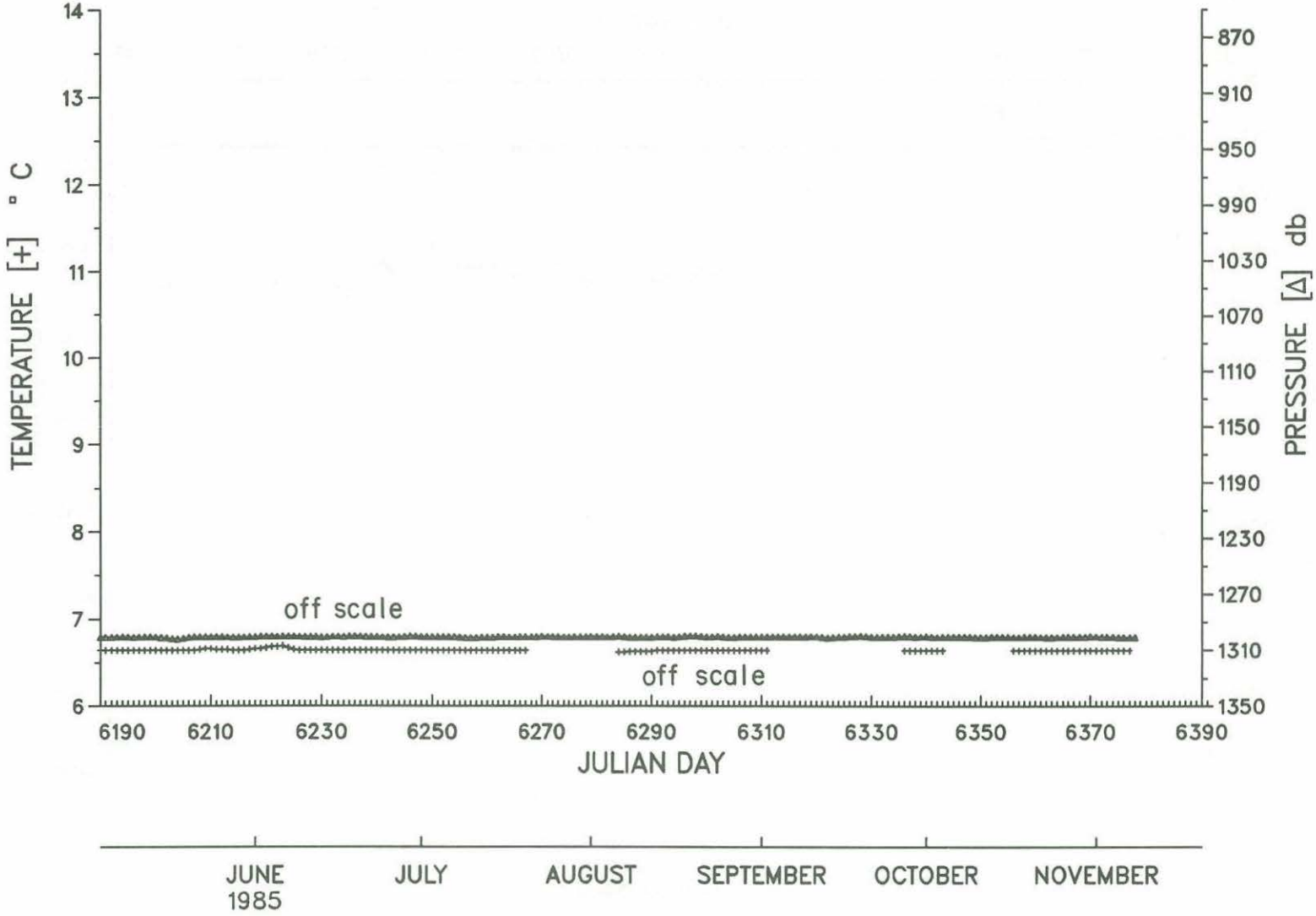

1-JAN-88 14:29:49

PLOT 2 OF 2
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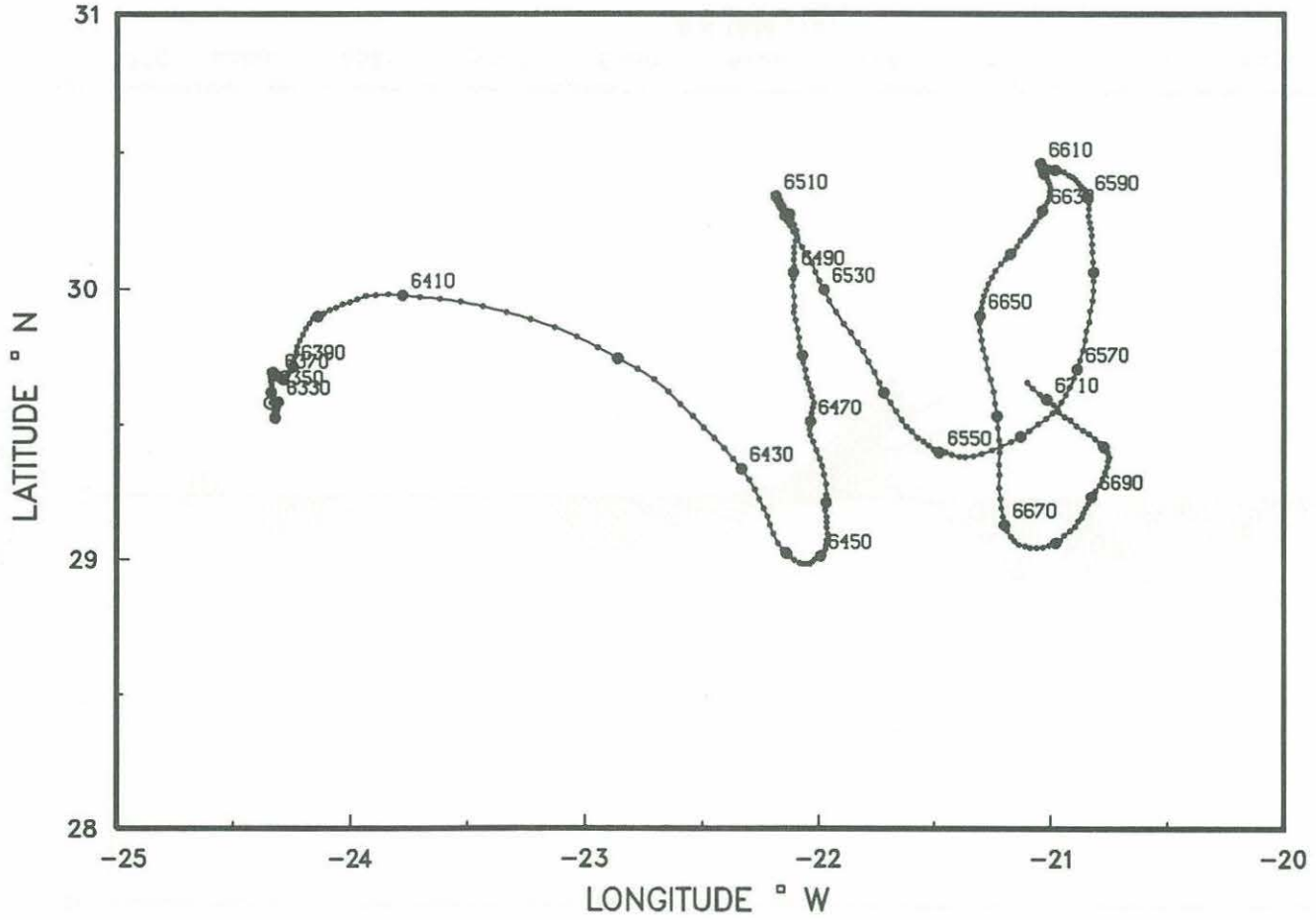

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PLOT 1 OF 1
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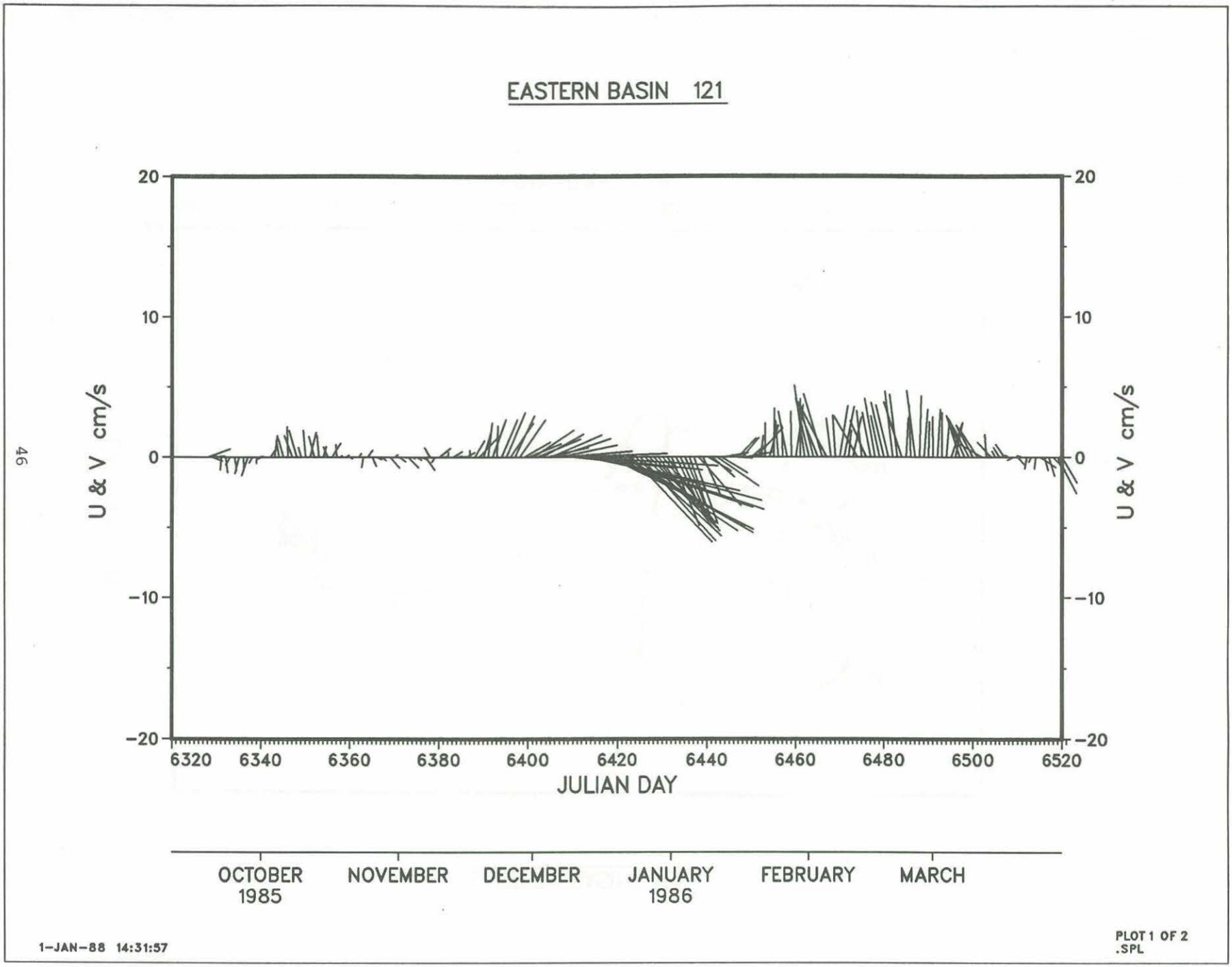
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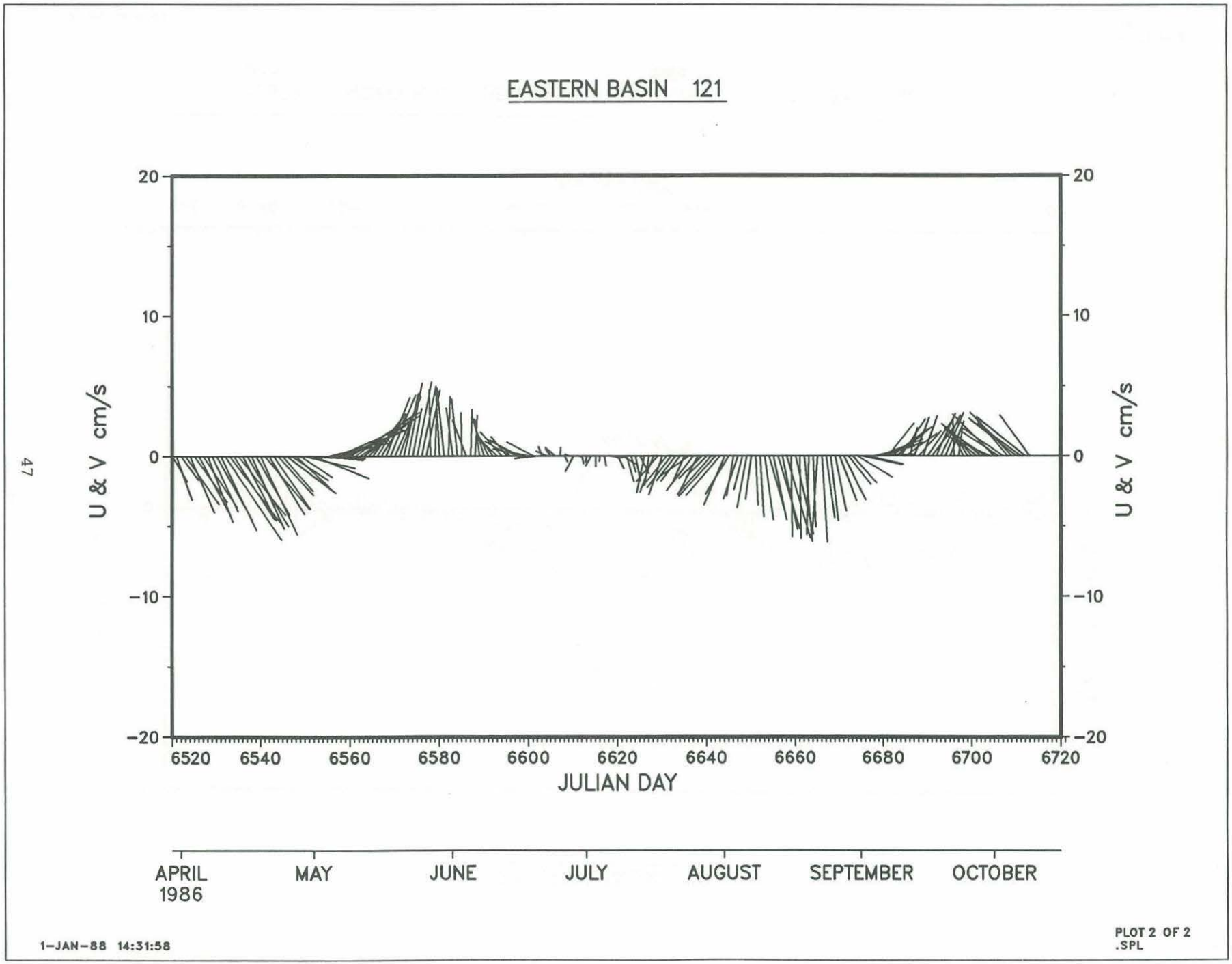
20
10
0
−10
−20
U & V cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
1-JAN-88 14:31:57
PLOT 1 OF 2
.SPL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20
10
0
−10
−20
U & V cm/s
6520
6540
6560
6580
6600
6620
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6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:31:58
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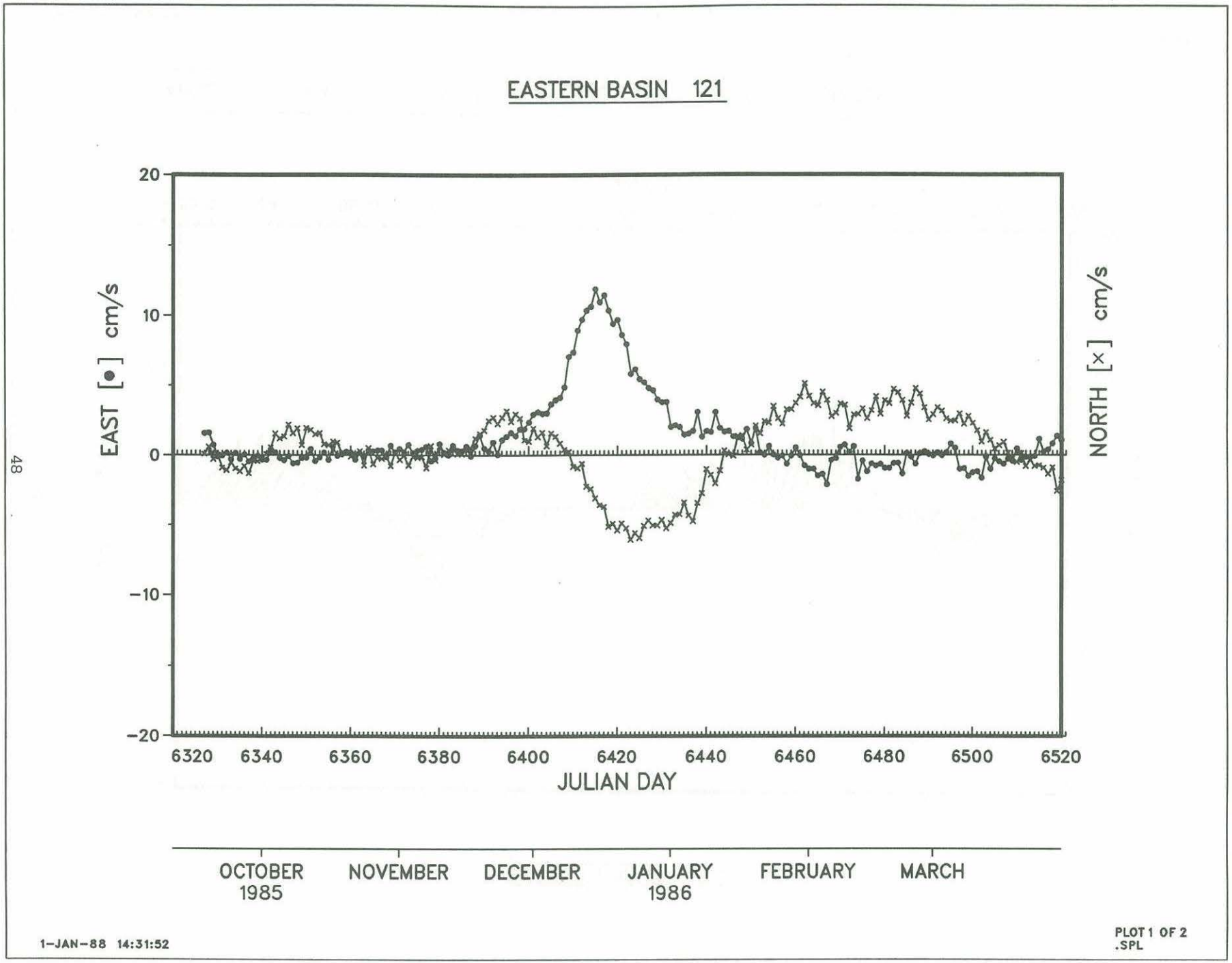
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NORTH [×] cm/s
20
10
0
−10
−20
6320
6340
6360
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6440
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OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
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MARCH
1-JAN-88 14:31:52
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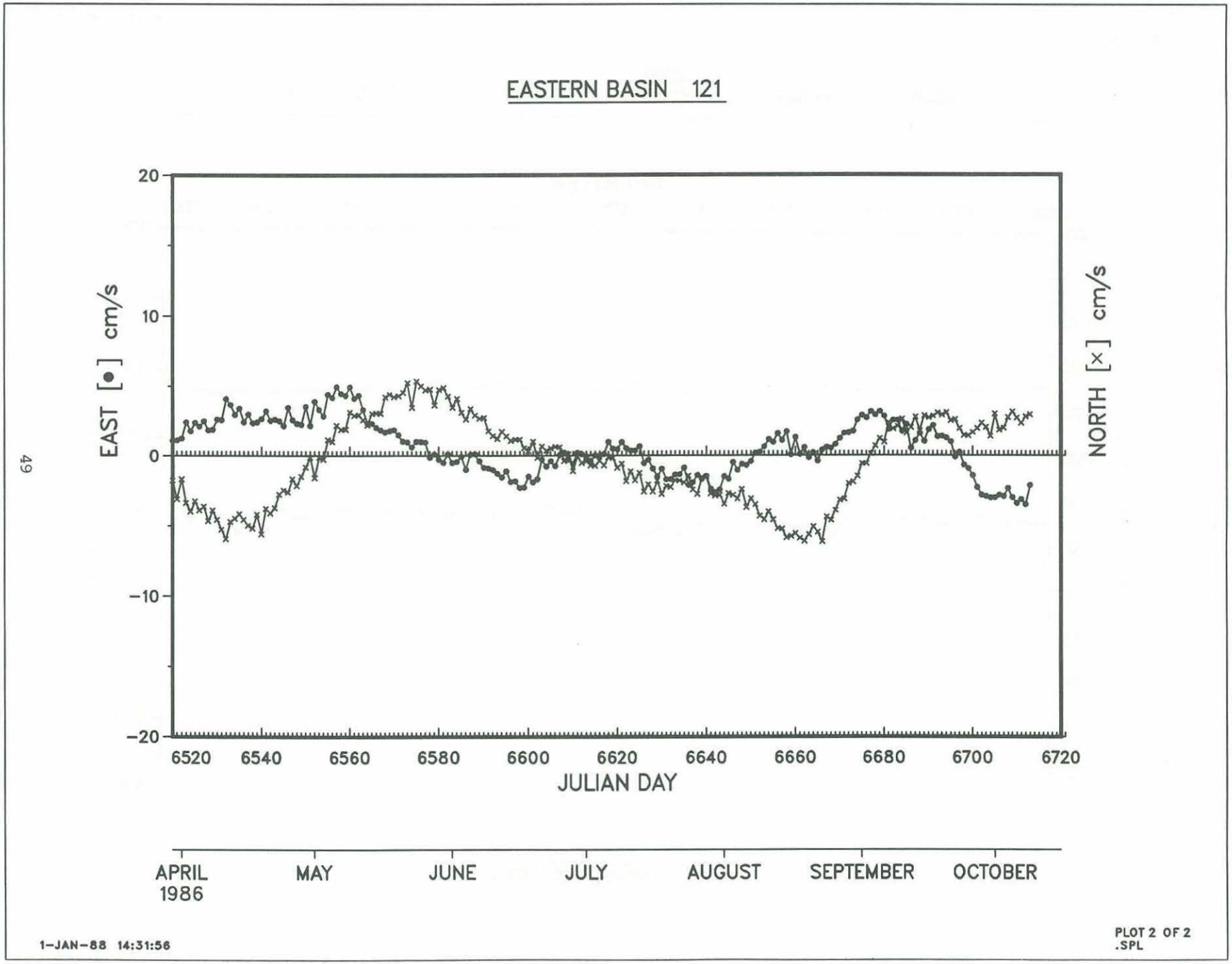
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NORTH [×] cm/s
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10
0
-10
-20
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:31:56
PLOT 2 OF 2
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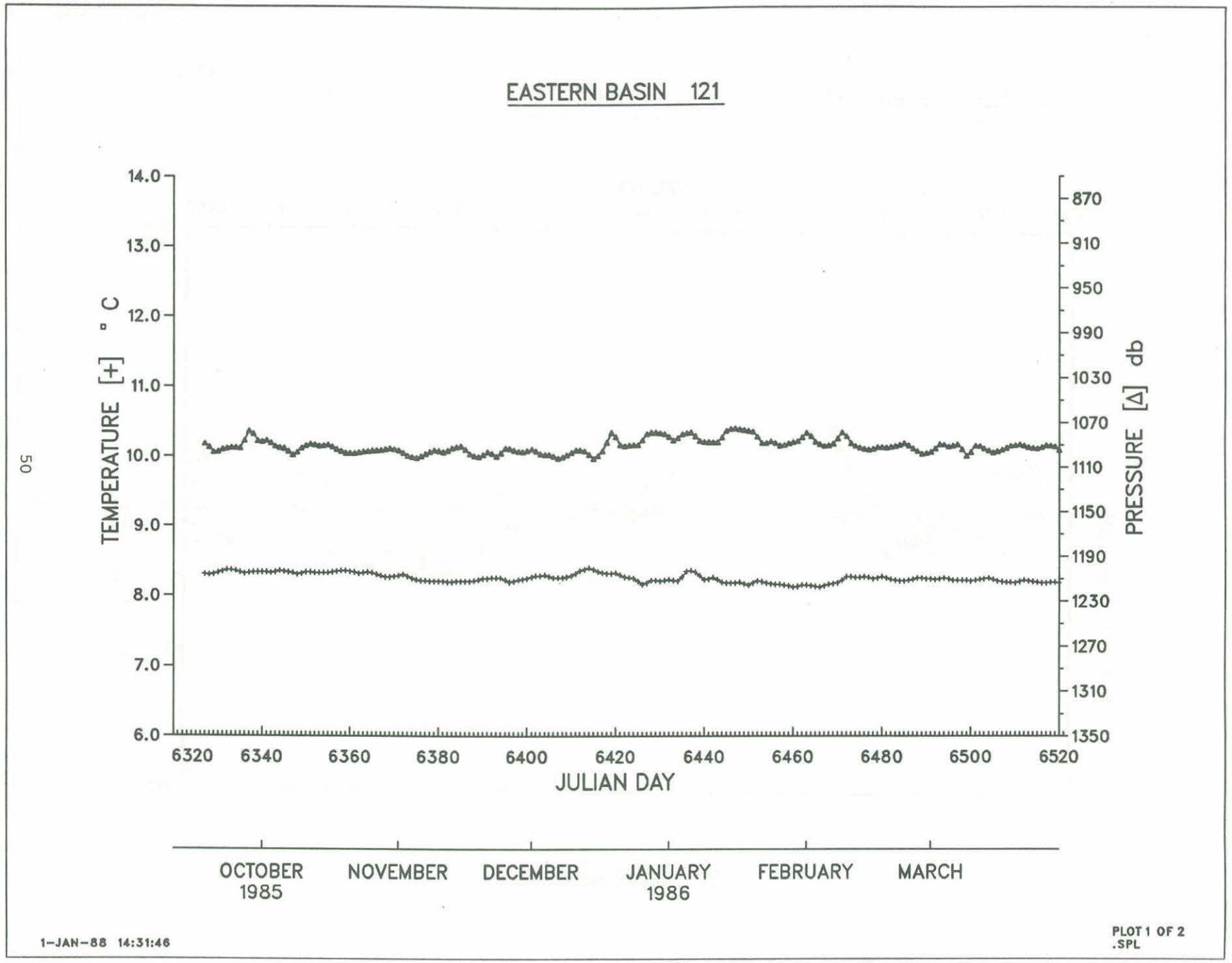
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TEMPERATURE [+] ° C
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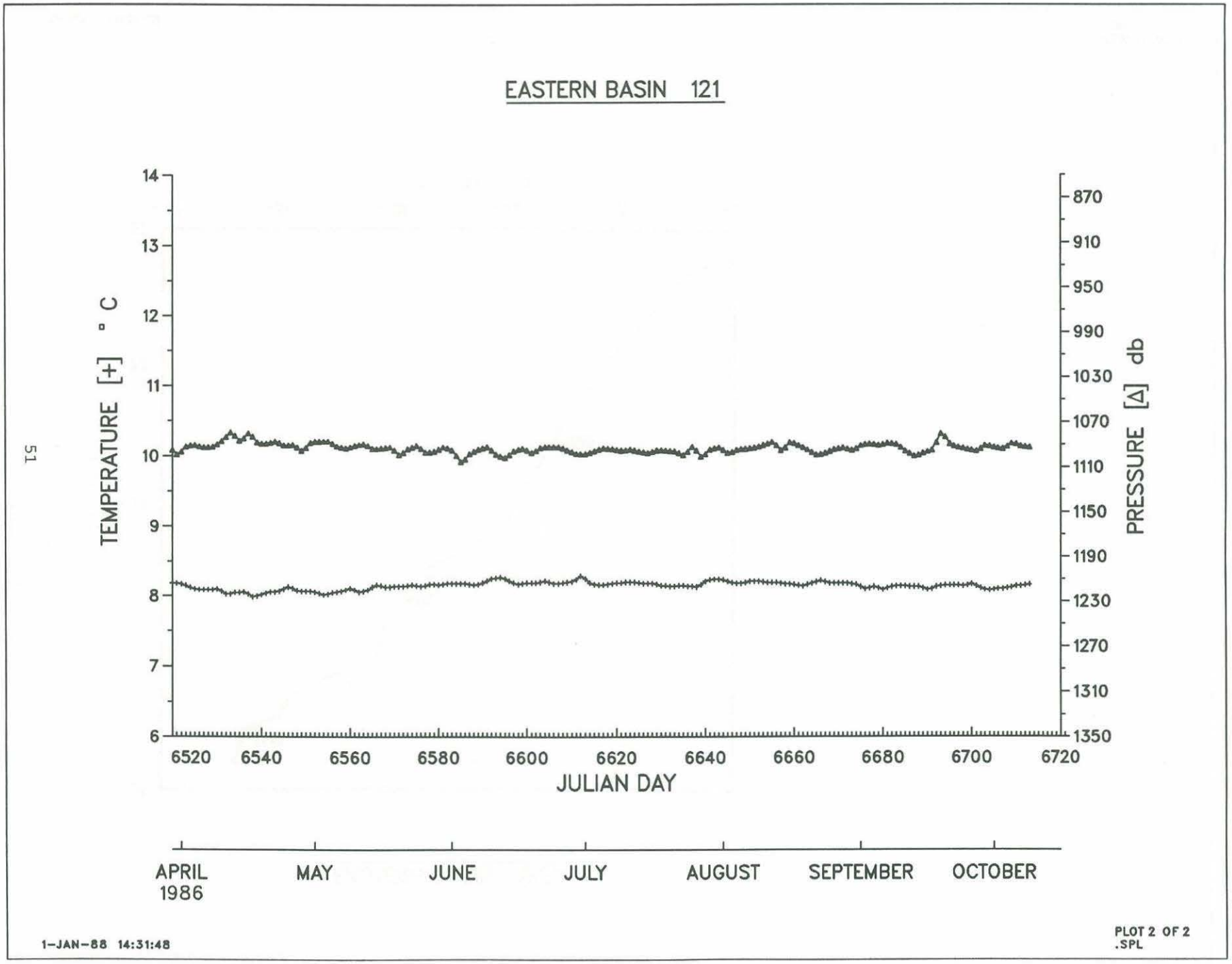
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
1-JAN-88 14:31:46
PLOT 1 OF 2
.SPL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TEMPERATURE [+] ° C
PRESSURE [Δ] db
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13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:31:48
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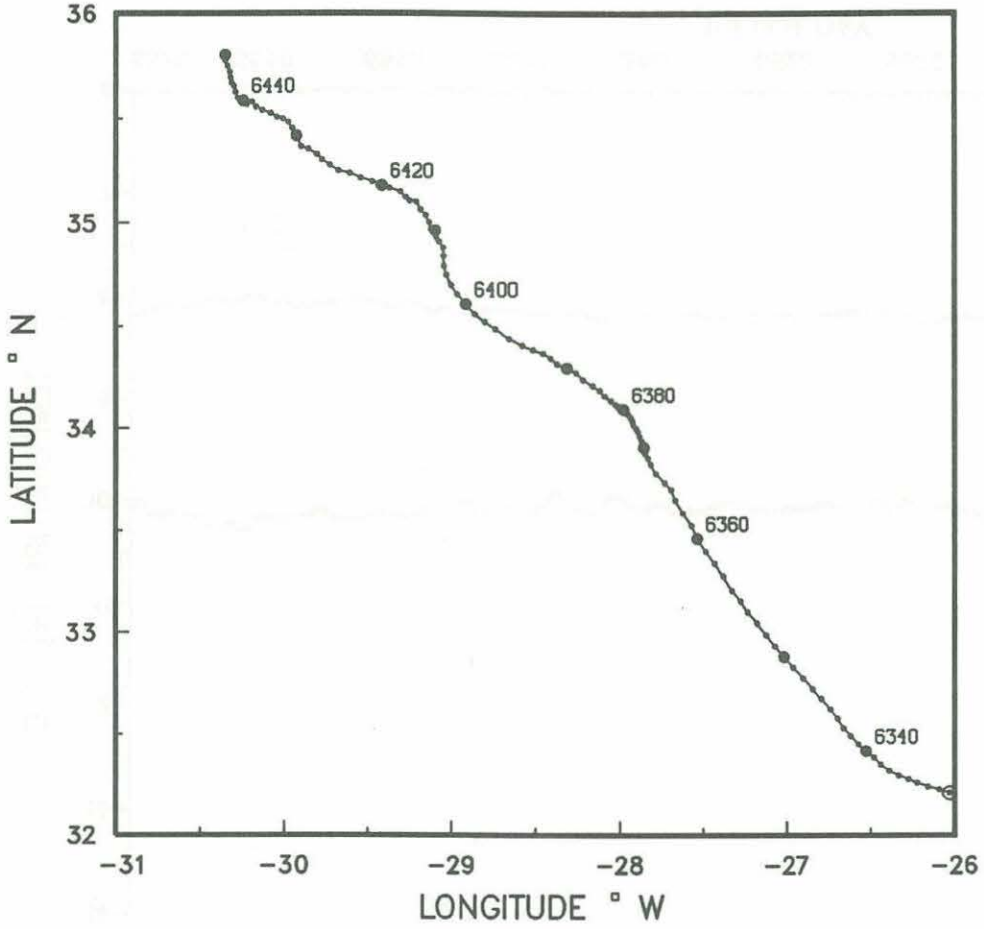

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PLOT 1 OF 1
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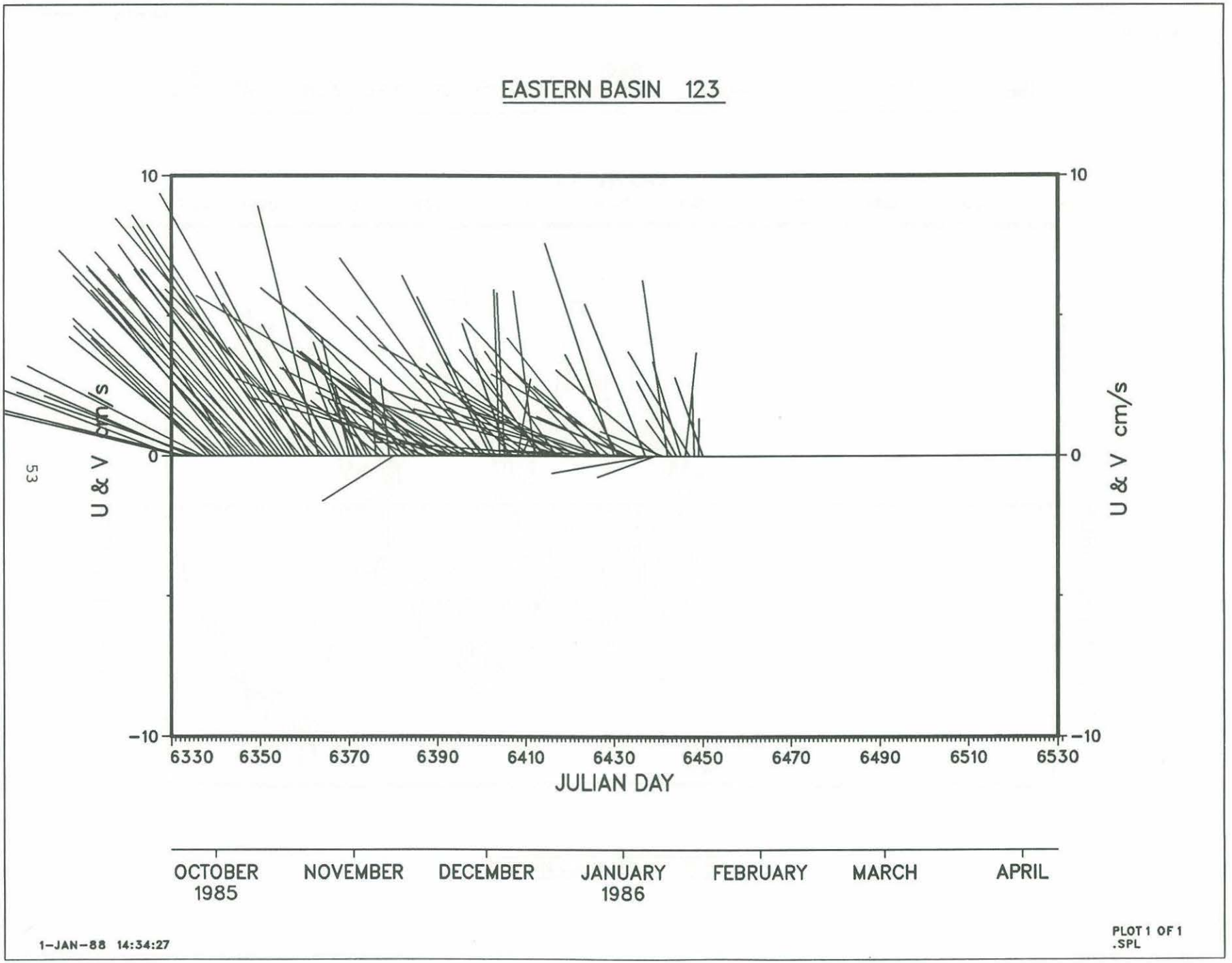
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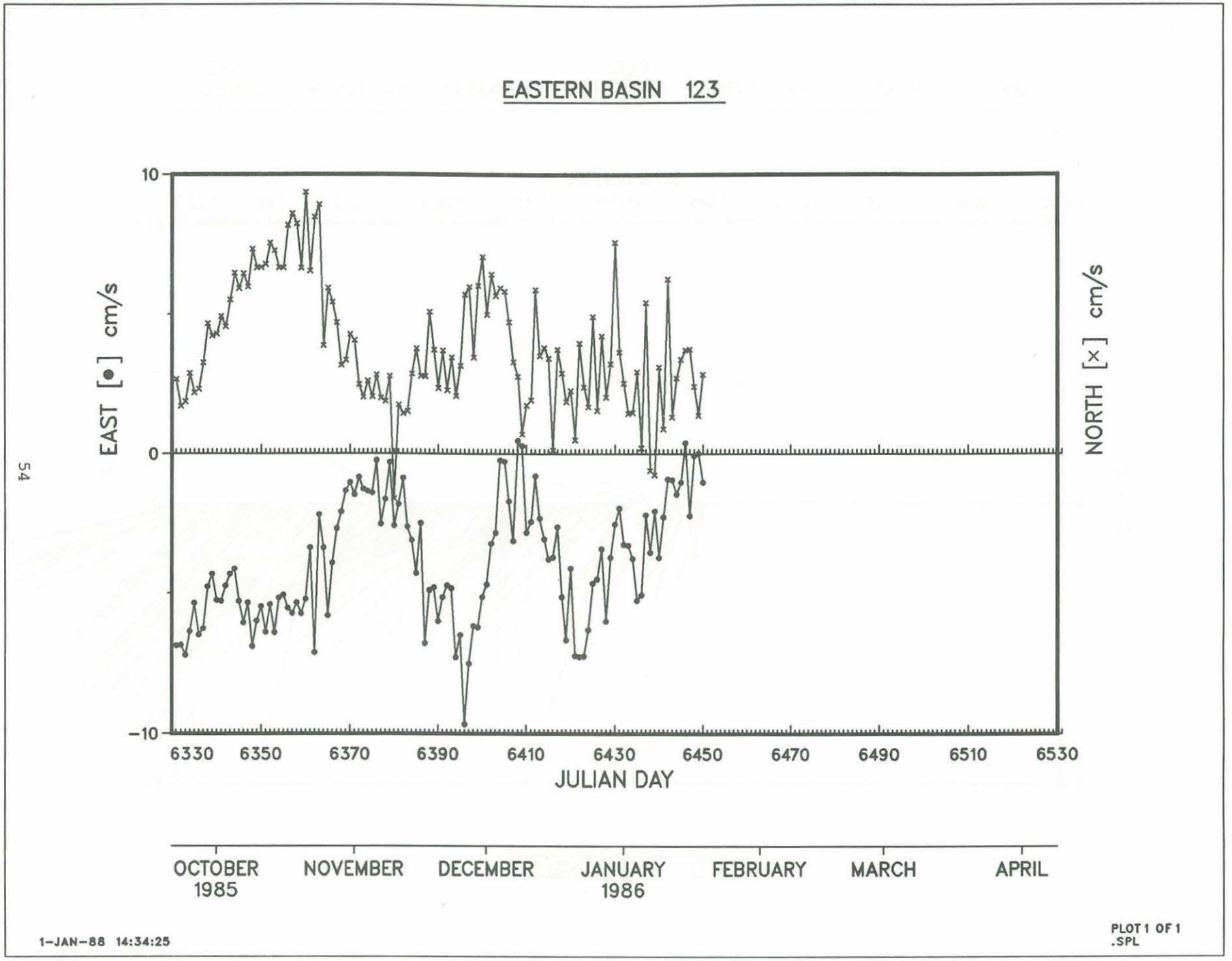
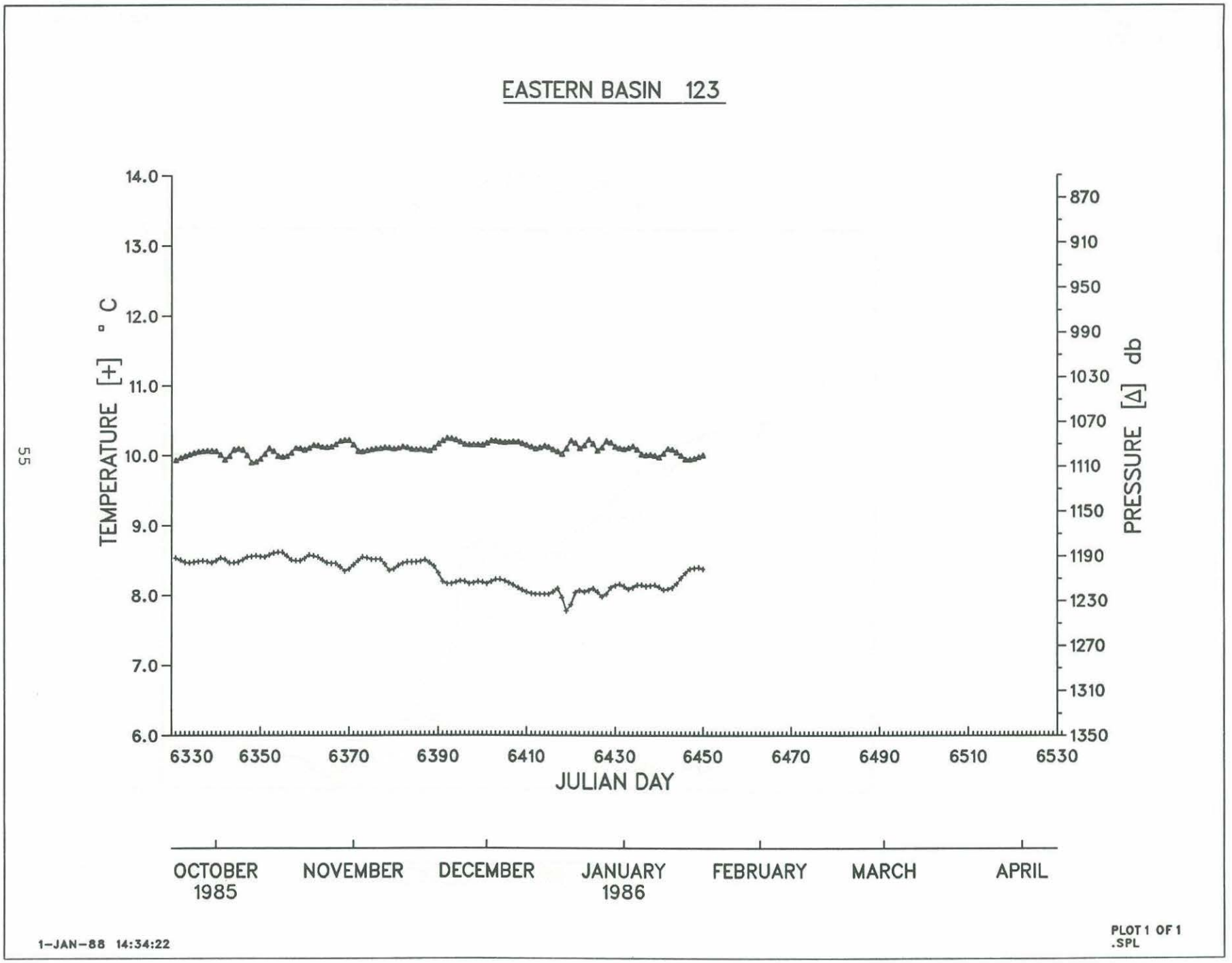
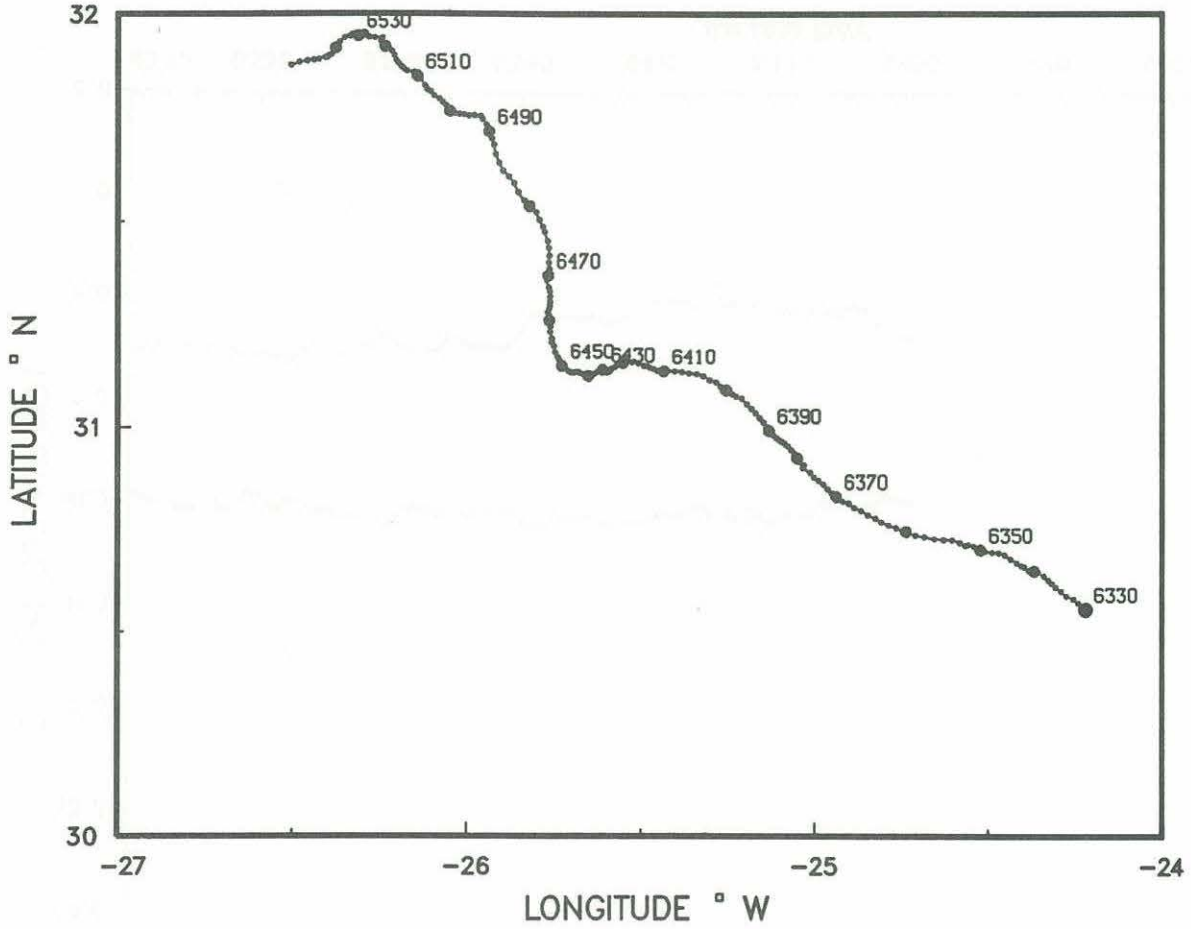
10
0
−10
U & V cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
1-JAN-88 14:34:27
PLOT 1 OF 1
.SPL


EASTERN BASIN 123
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
1-JAN-88 14:34:25
PLOT 1 OF 1
.SPL


EASTERN BASIN 123
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
APRIL
1-JAN-88 14:34:22
PLOT 1 OF 1
.SPL

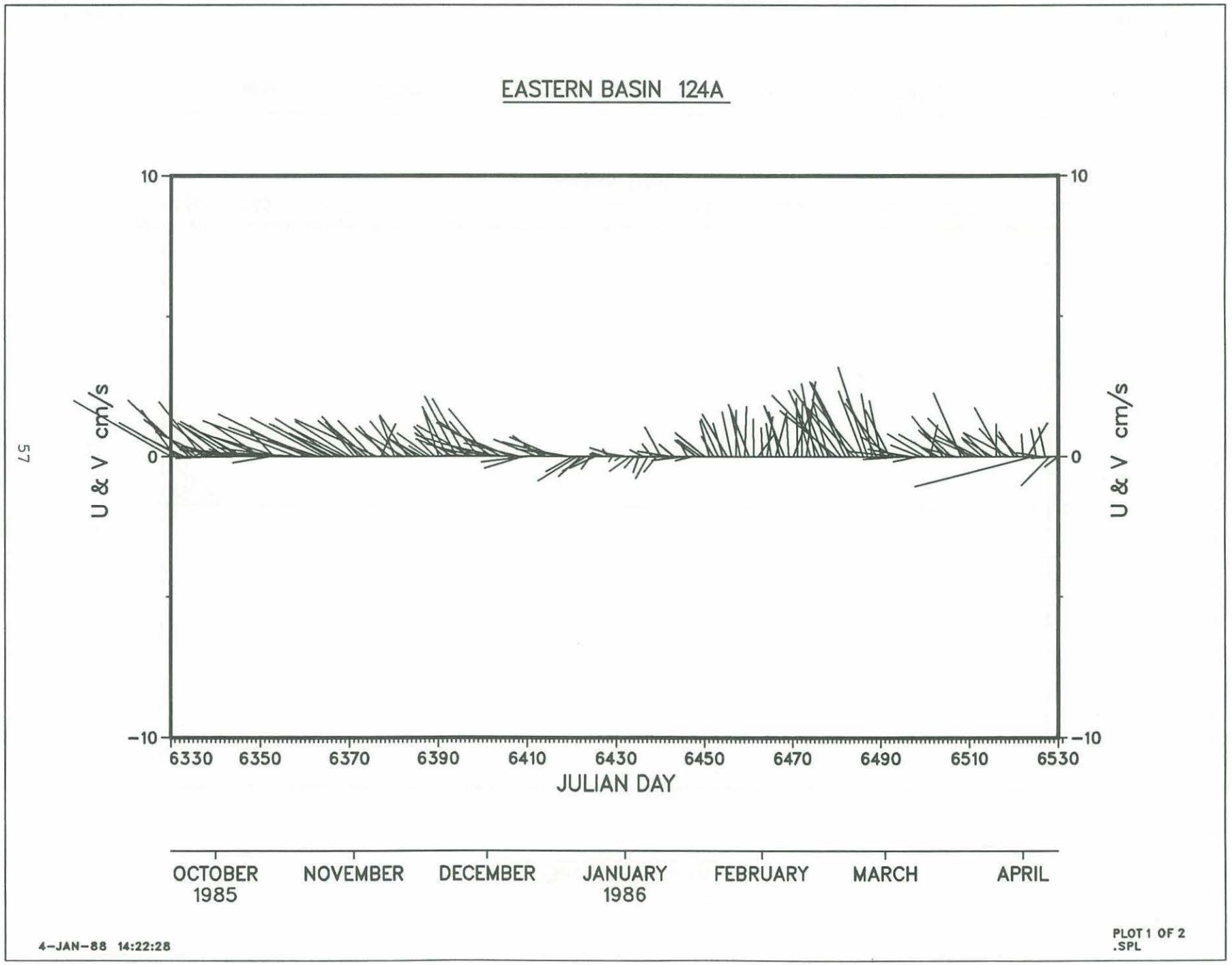
EASTERN BASIN 124A

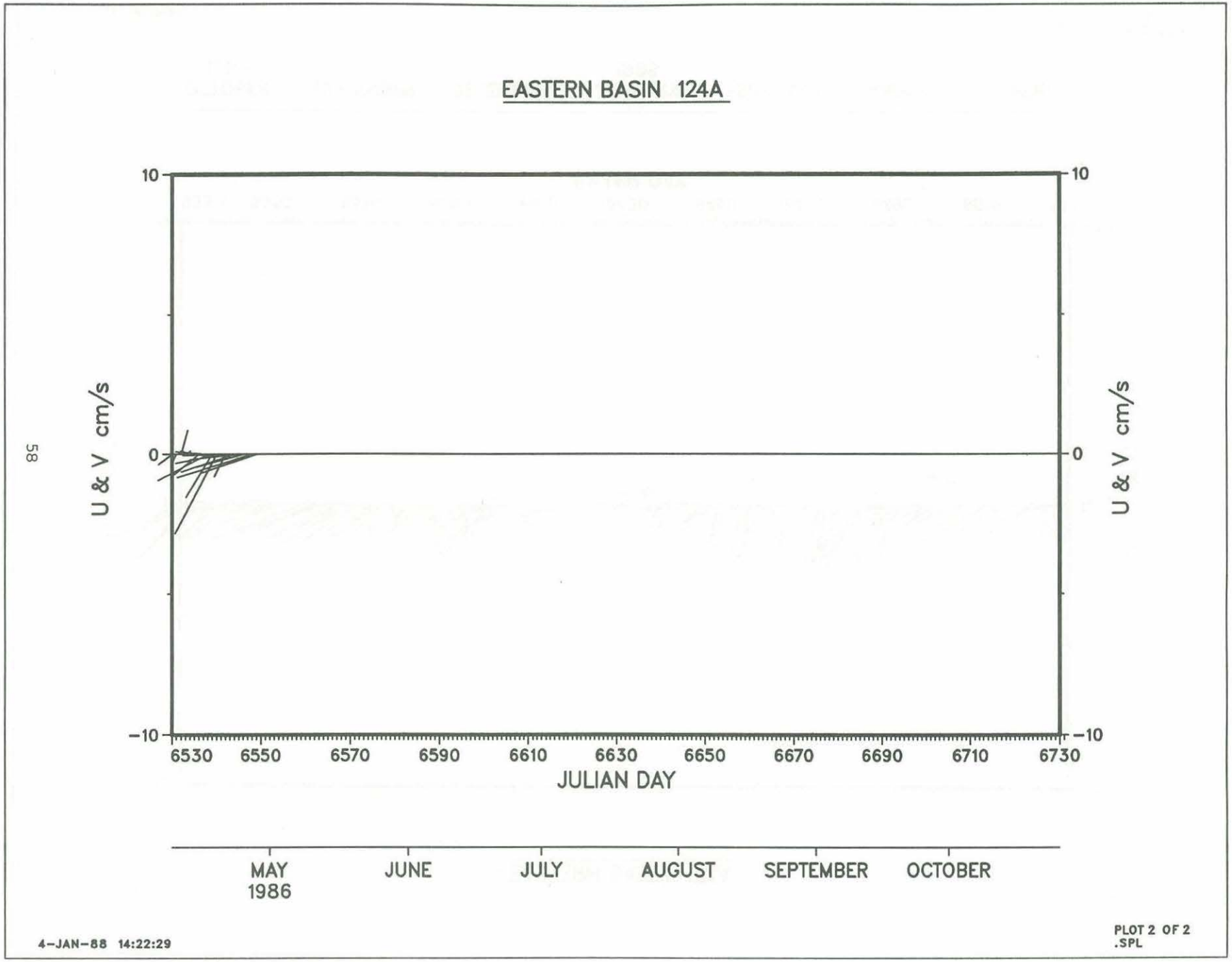


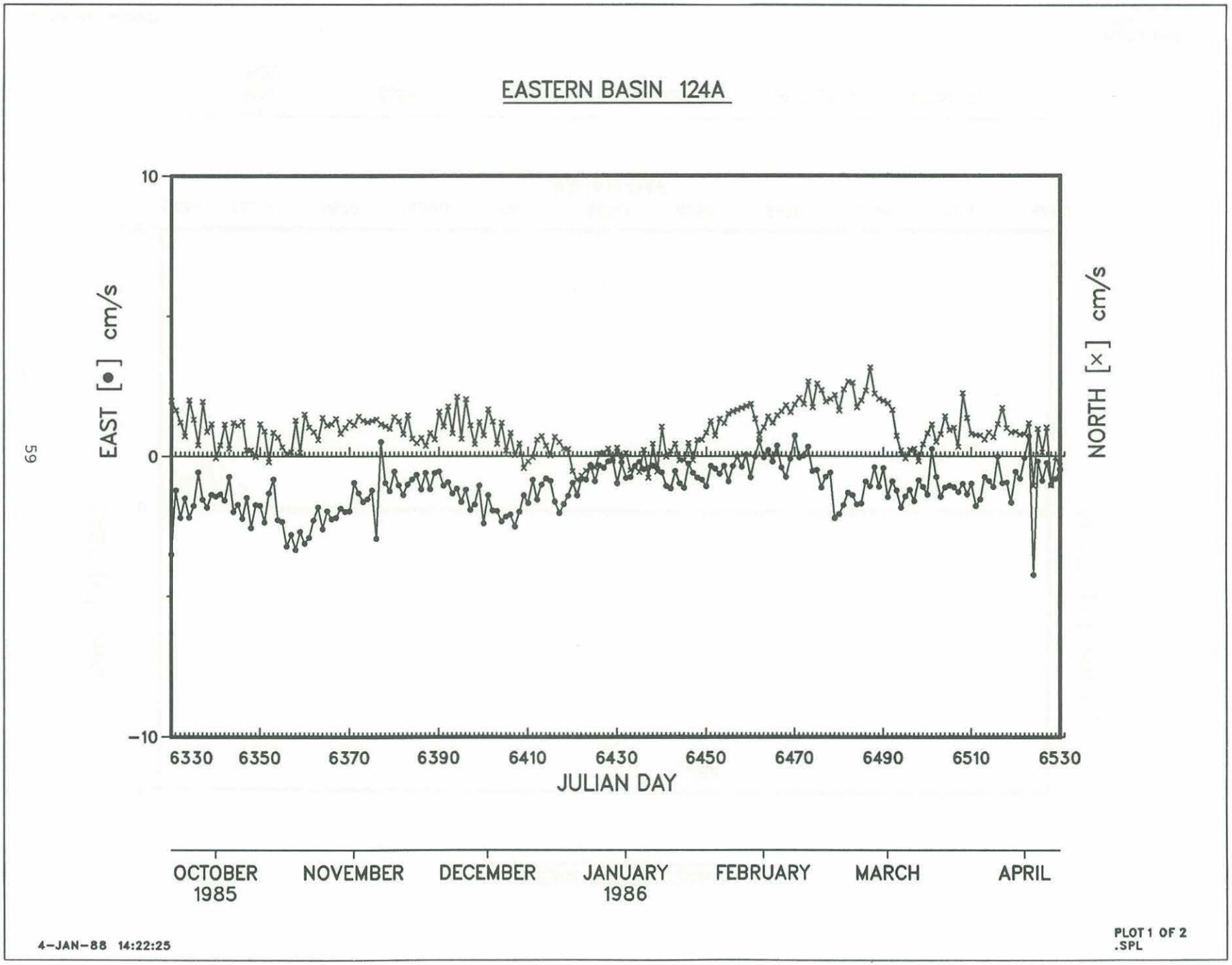
56

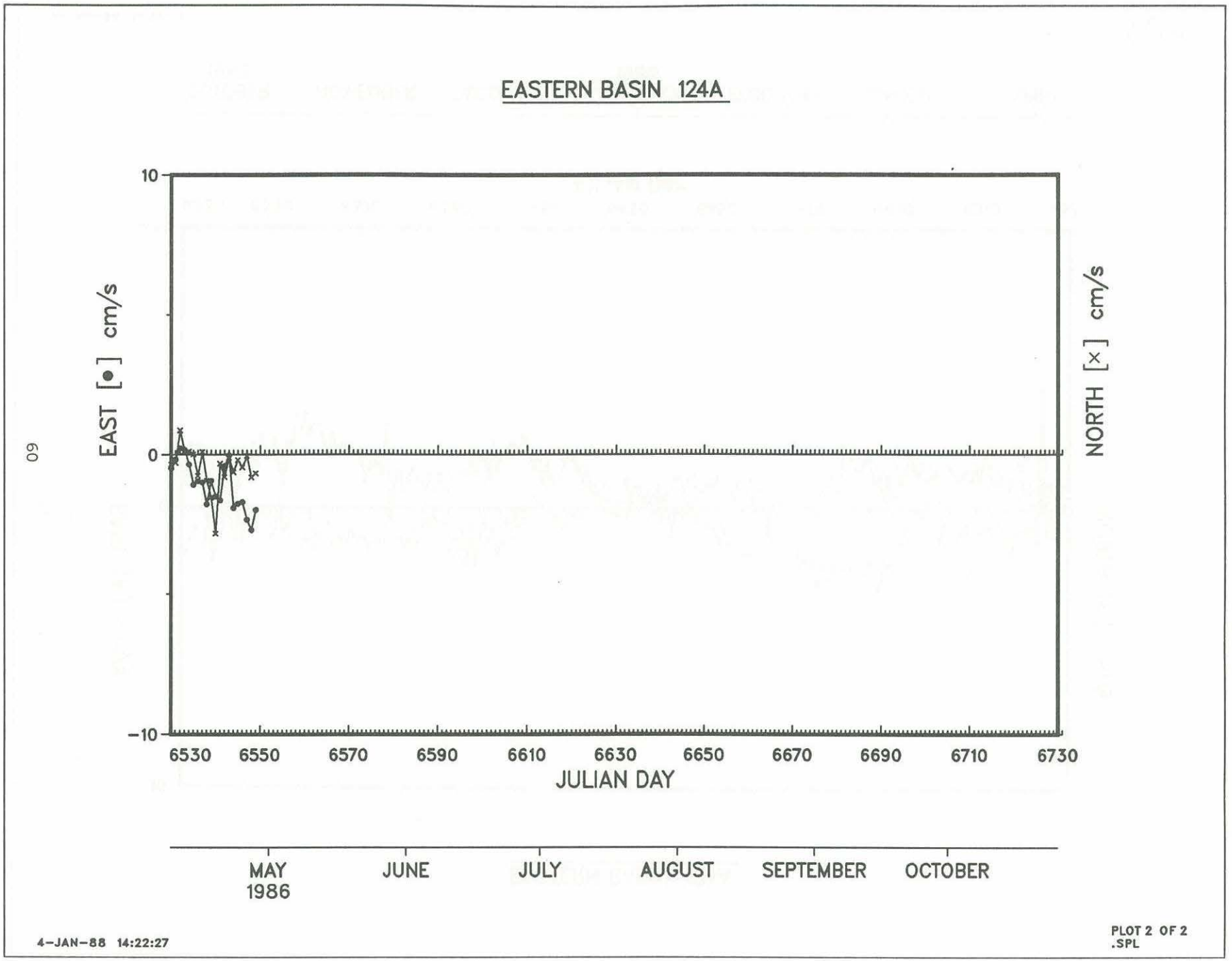
4-JAN-88 14:22:33

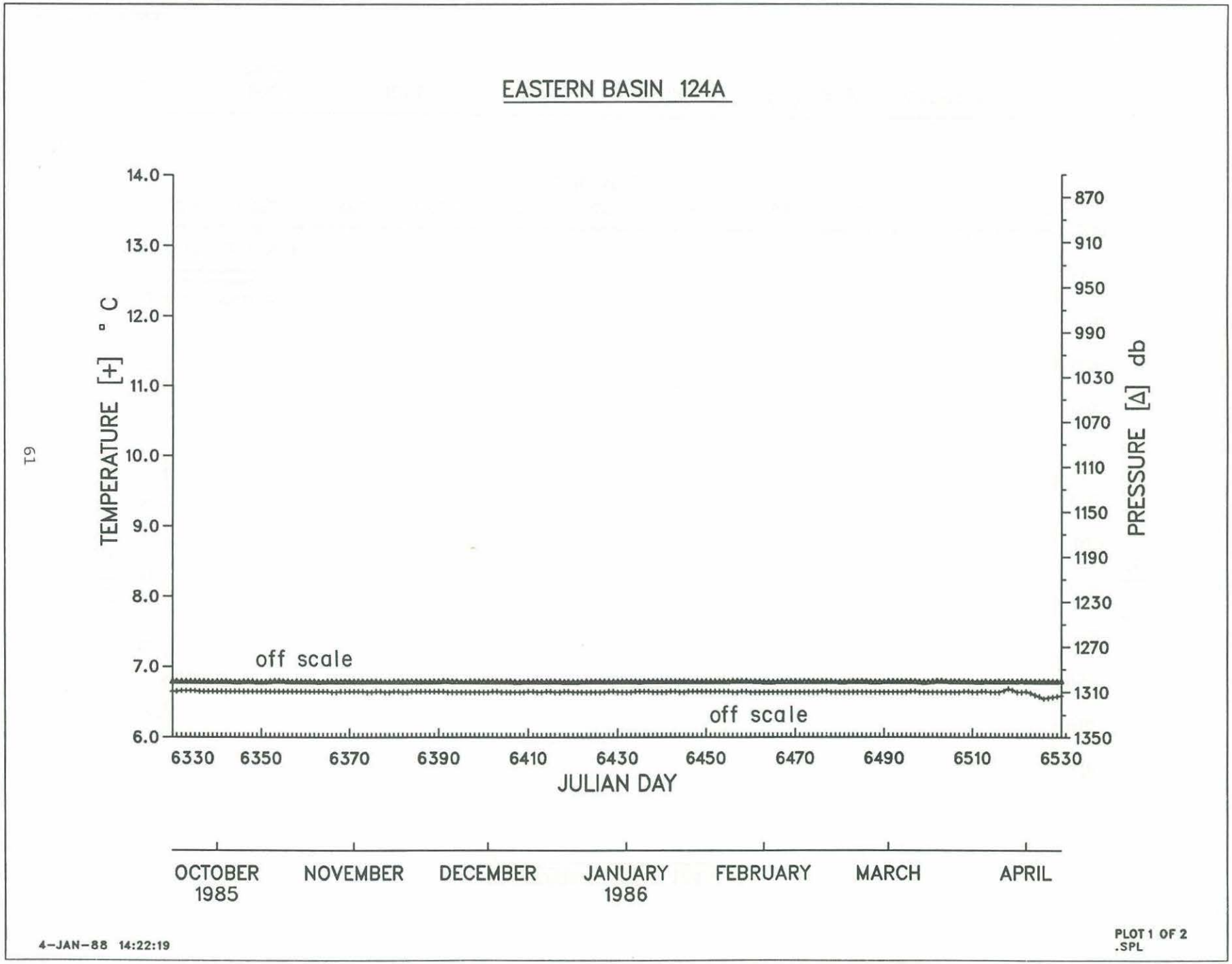
PLOT 1 OF 1
.SPL

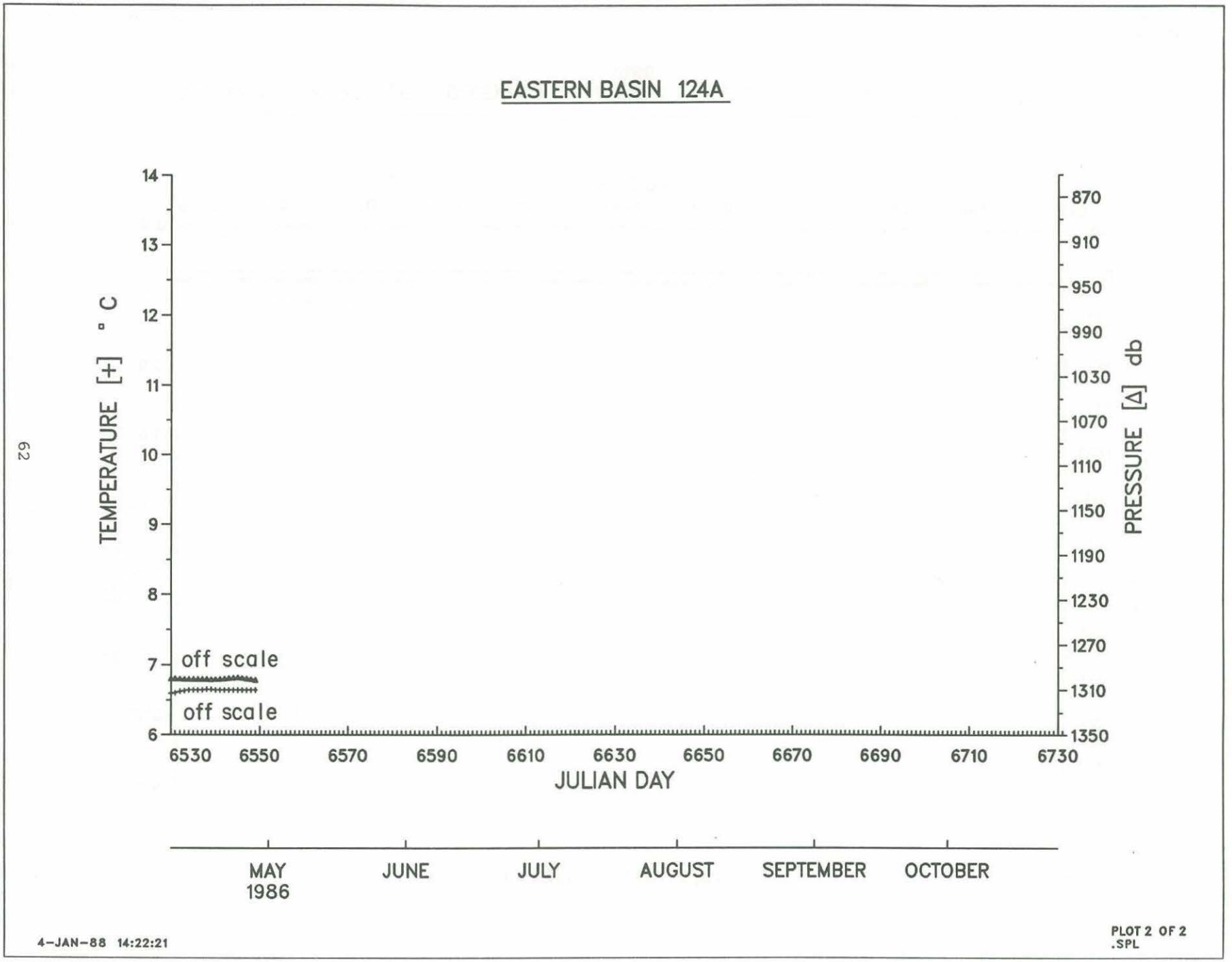

EASTERN BASIN 124A
10
0
−10
U & V cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
4-JAN-88 14:22:28
PLOT 1 OF 2
.SPL


EASTERN BASIN 124A
10
0
-10
U & V cm/s
6530
6550
6570
6590
6610
6630
6650
6670
6690
6710
6730
JULIAN DAY
MAY
1986
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
4-JAN-88 14:22:29
PLOT 2 OF 2
.SPL

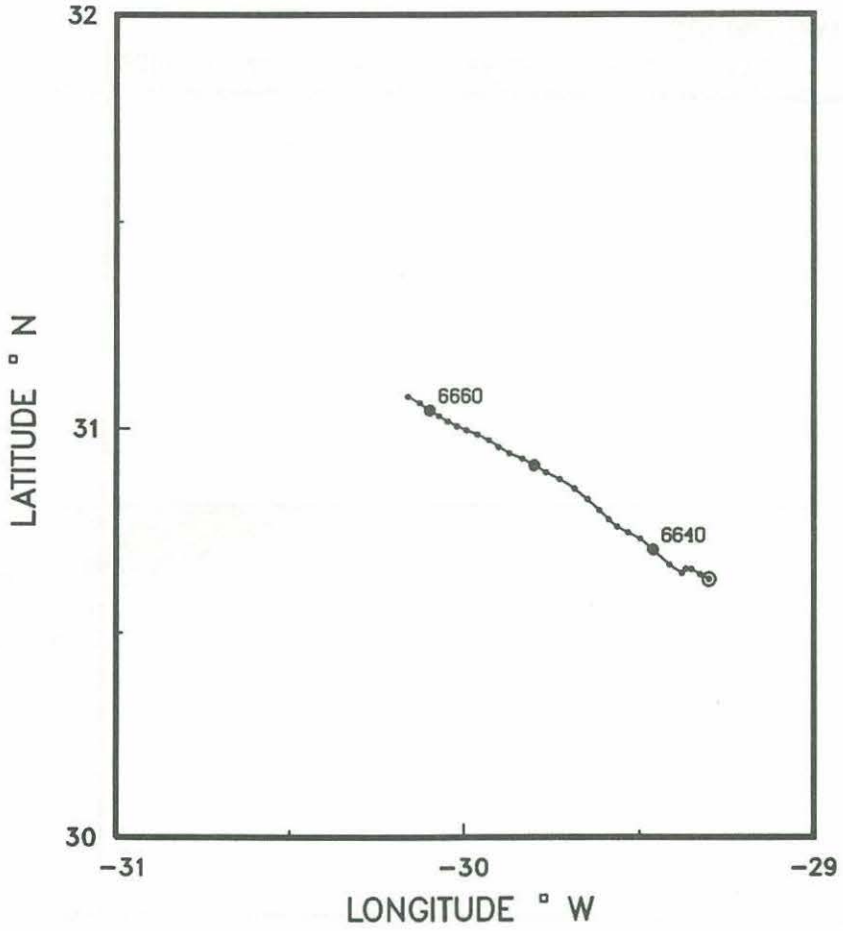

EASTERN BASIN 124A
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
4-JAN-88 14:22:25
PLOT 1 OF 2
.SPL


EASTERN BASIN 124A
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6530
6550
6570
6590
6610
6630
6650
6670
6690
6710
6730
JULIAN DAY
MAY
1986
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
4-JAN-88 14:22:27
PLOT 2 OF 2
.SPL


EASTERN BASIN 124A
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
off scale
off scale
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
APRIL
4-JAN-88 14:22:19
PLOT 1 OF 2
.SPL

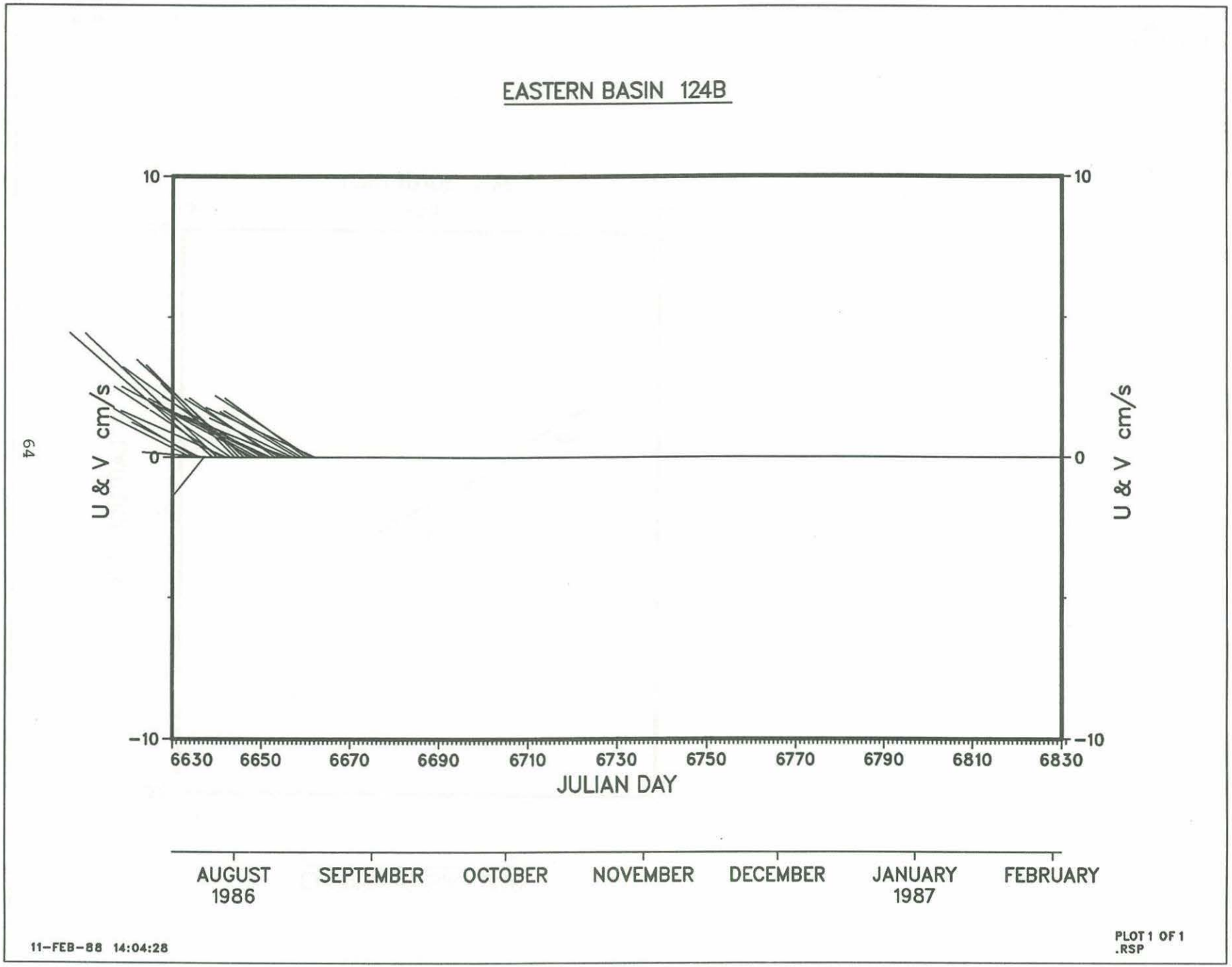

EASTERN BASIN 124A
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
off scale
off scale
6530
6550
6570
6590
6610
6630
6650
6670
6690
6710
6730
JULIAN DAY
MAY
1986
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
4-JAN-88 14:22:21
PLOT 2 OF 2
.SPL

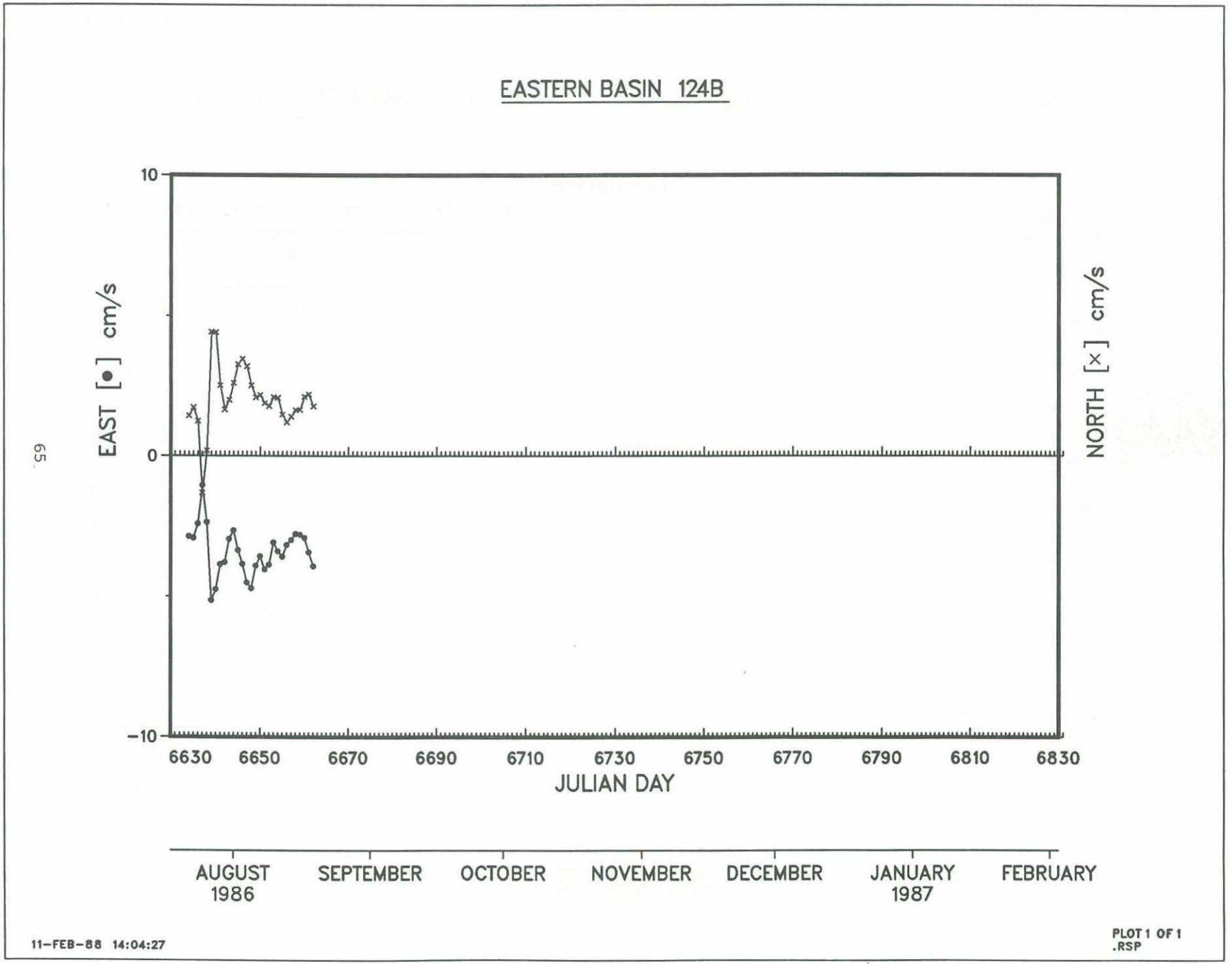
EASTERN BASIN 124B

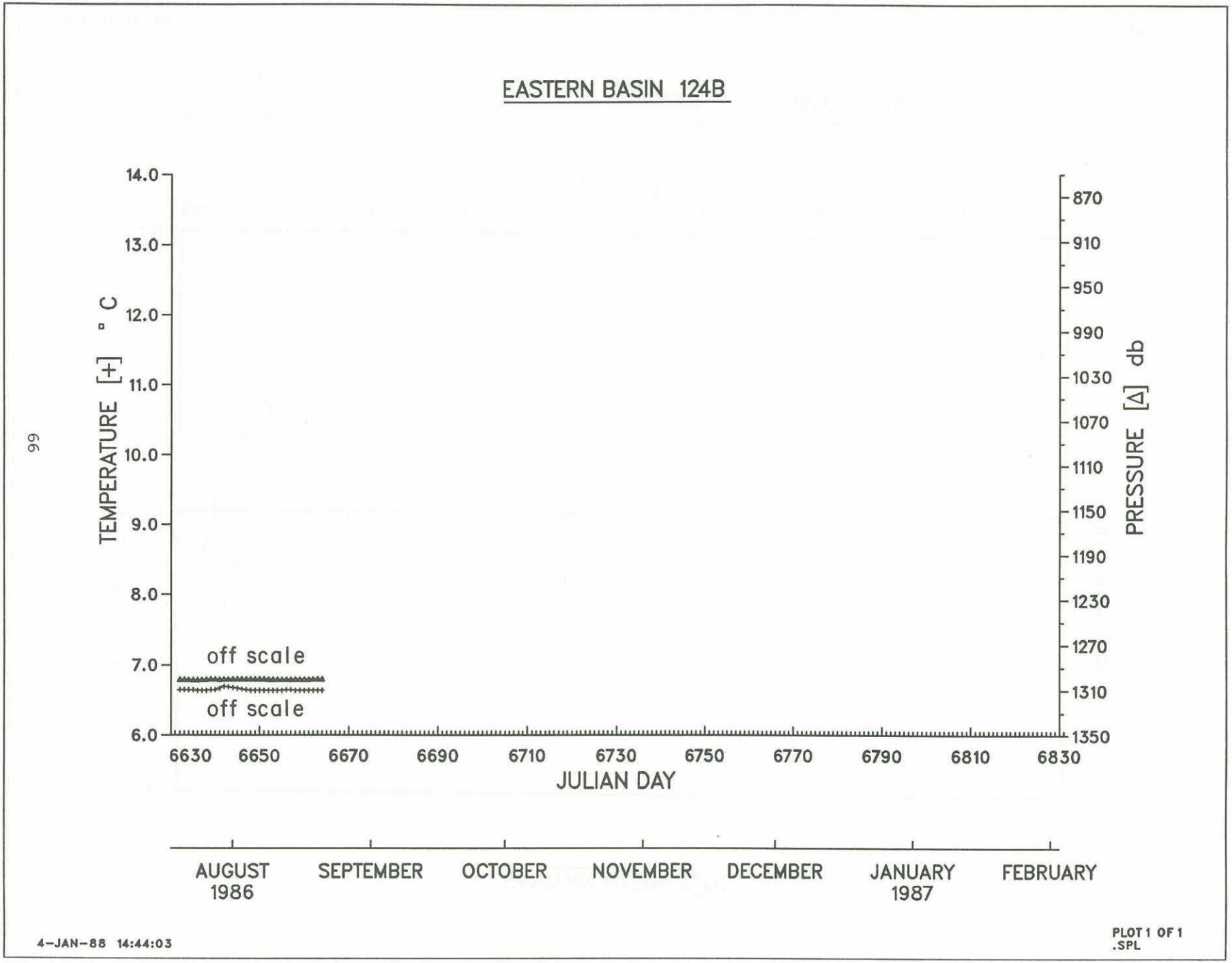


11-FEB-88 14:04:30

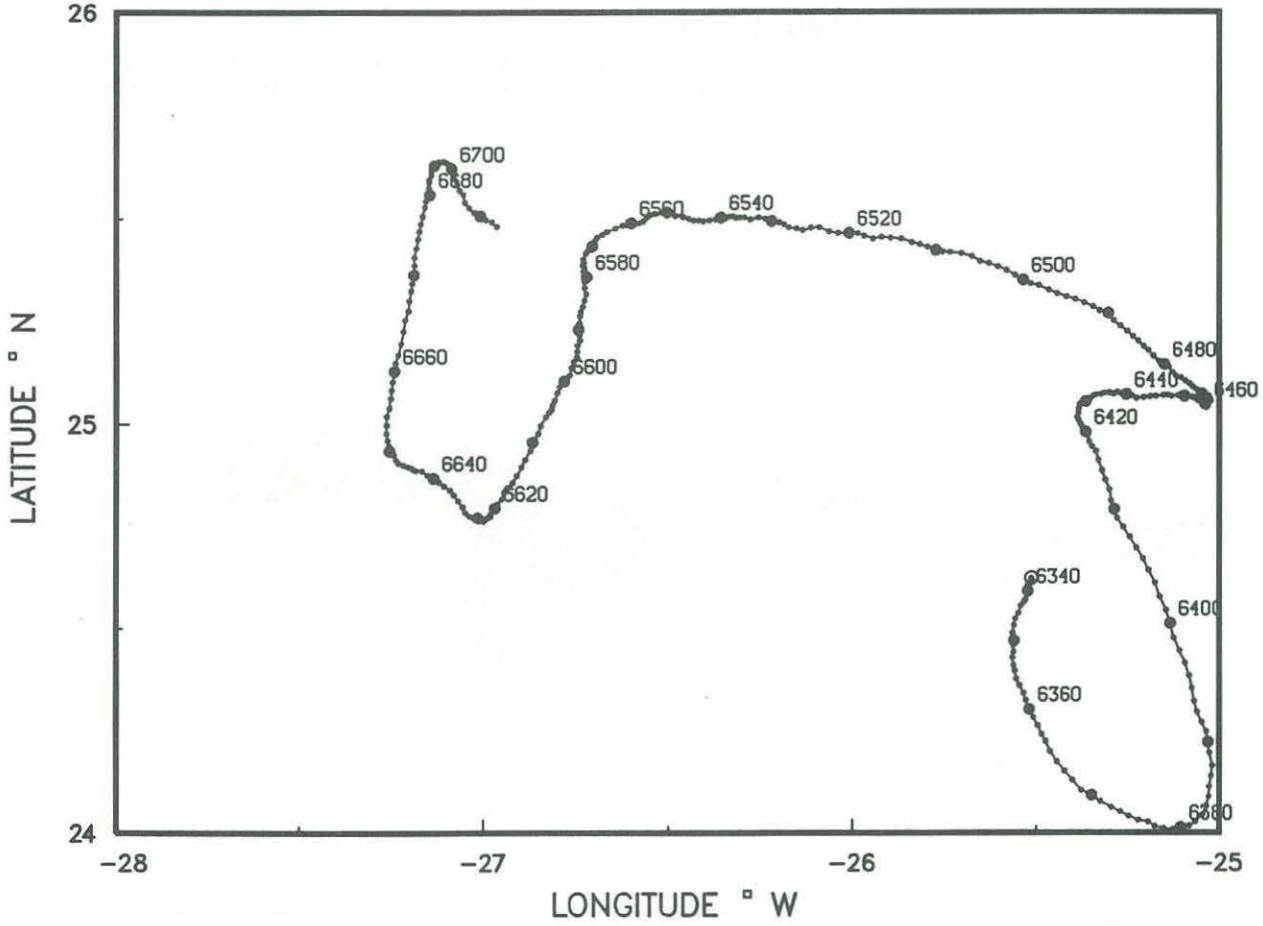
PLOT 1 OF 1
.RSP


EASTERN BASIN 124B
10
0
-10
U & V cm/s
6630
6650
6670
6690
6710
6730
6750
6770
6790
6810
6830
JULIAN DAY
AUGUST
1986
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
JANUARY
1987
FEBRUARY
11-FEB-88 14:04:28
PLOT 1 OF 1
.RSP


EASTERN BASIN 124B
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6630
6650
6670
6690
6710
6730
6750
6770
6790
6810
6830
JULIAN DAY
AUGUST
1986
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
JANUARY
1987
FEBRUARY
11-FEB-88 14:04:27
PLOT 1 OF 1
.RSP

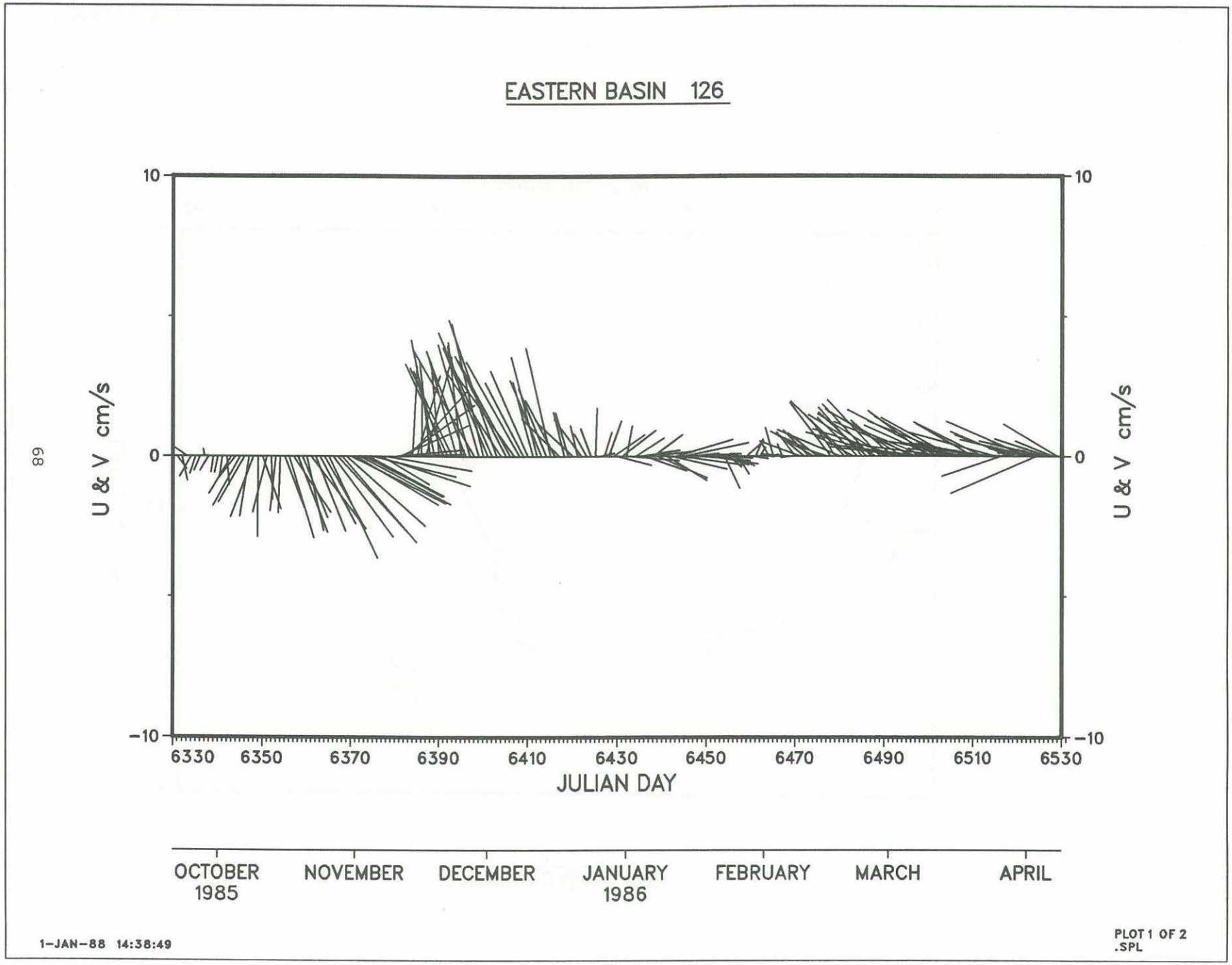

EASTERN BASIN 124B
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
off scale
off scale
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6630
6650
6670
6690
6710
6730
6750
6770
6790
6810
6830
JULIAN DAY
AUGUST 1986
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
JANUARY 1987
FEBRUARY
99
4-JAN-88 14:44:03
PLOT 1 OF 1
.SPL

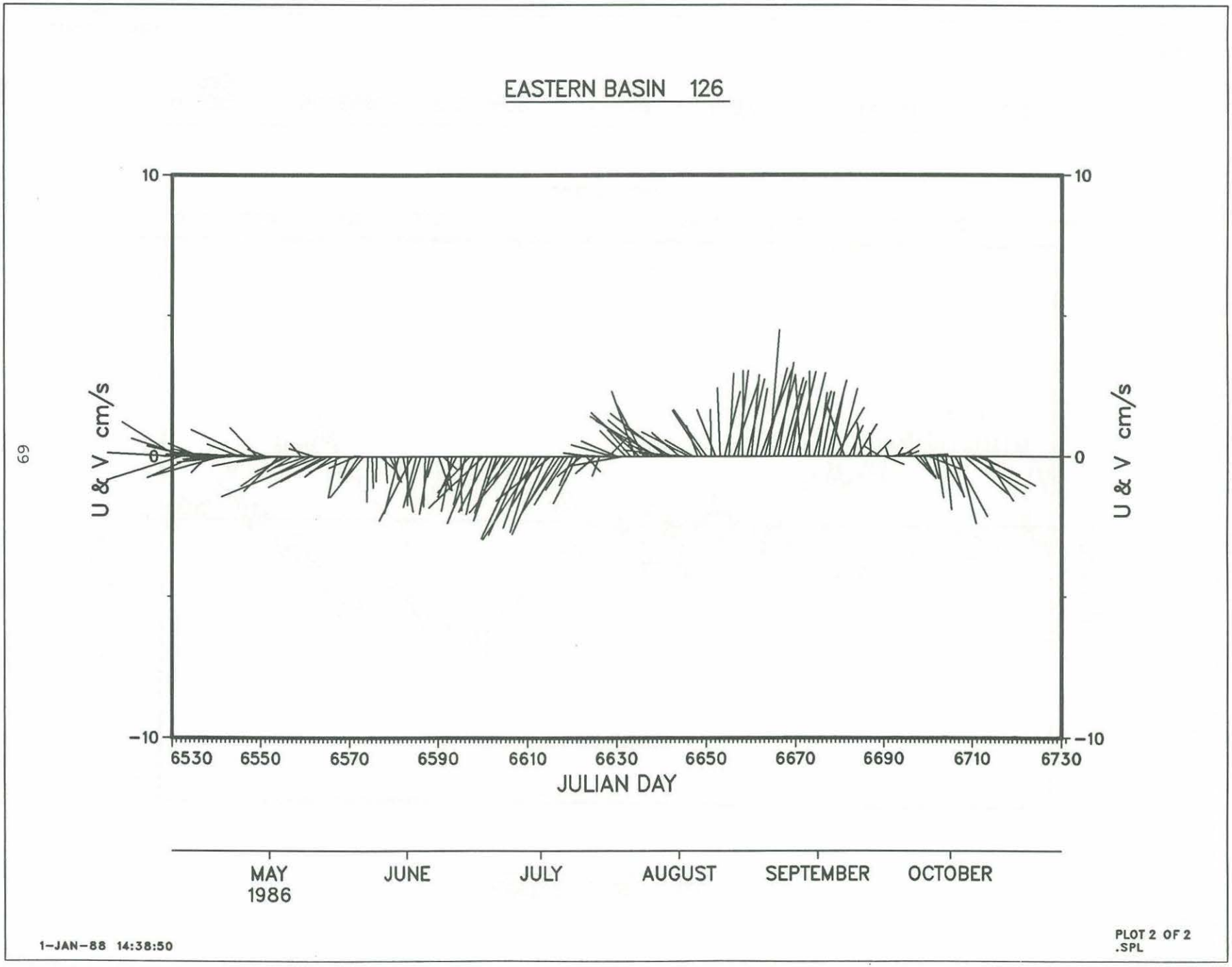
EASTERN BASIN 126

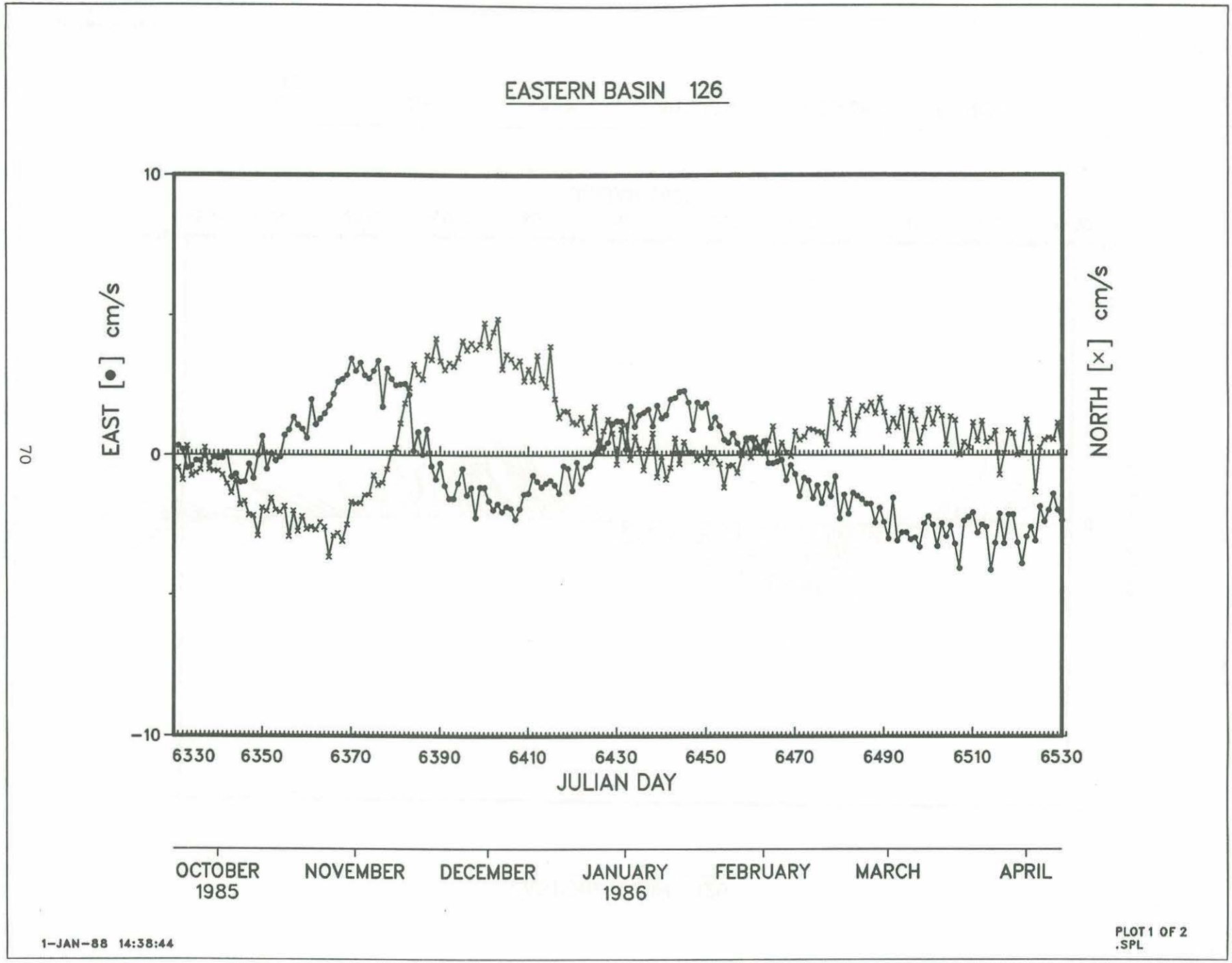


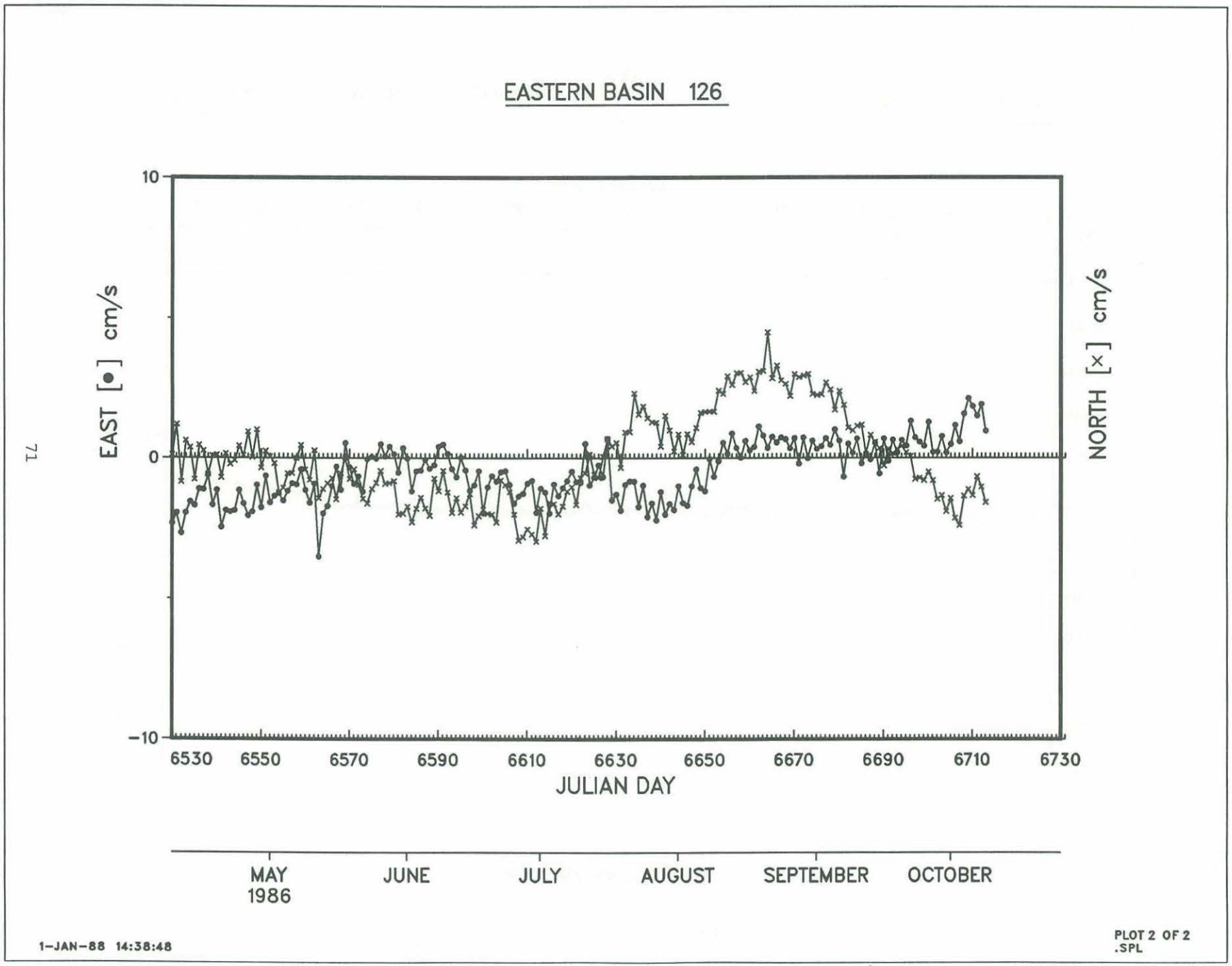
1-JAN-88 14:38:56

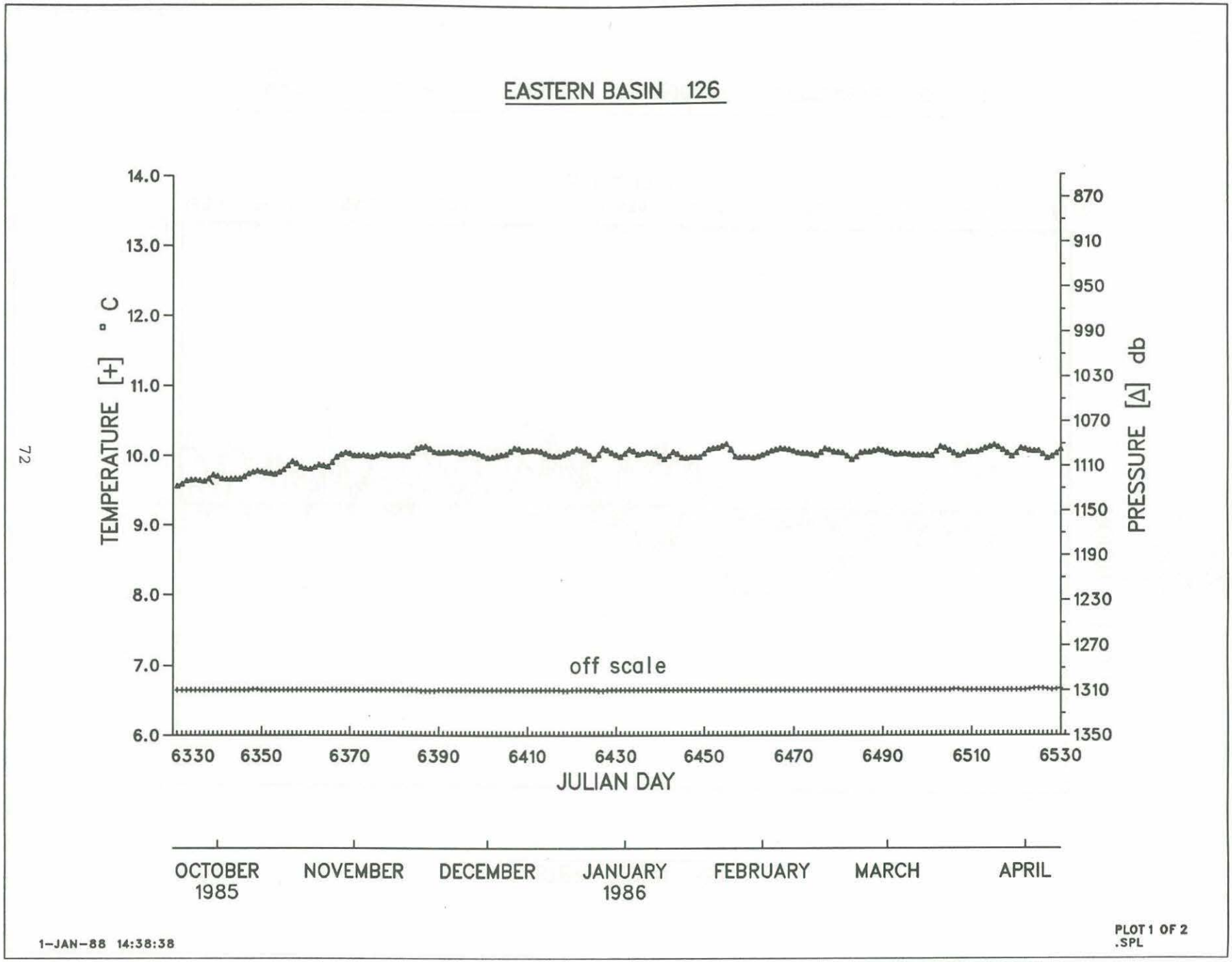
PLOT 1 OF 1
.SPL

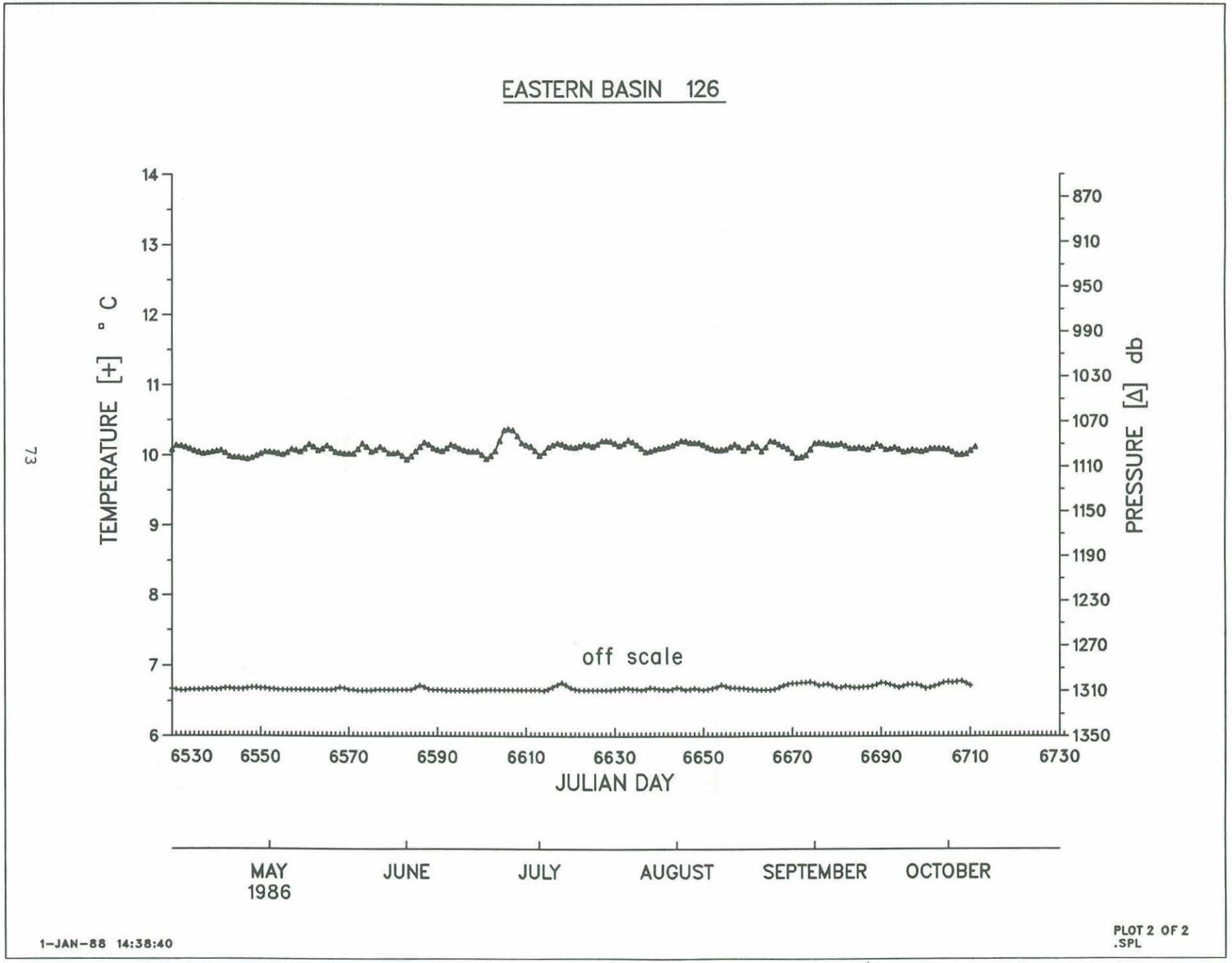

EASTERN BASIN 126
10
0
−10
U & V cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
1-JAN-88 14:38:49
PLOT 1 OF 2
.SPL


EASTERN BASIN 126
10
0
-10
U & V cm/s
6530
6550
6570
6590
6610
6630
6650
6670
6690
6710
6730
JULIAN DAY
MAY
1986
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:38:50
PLOT 2 OF 2
.SPL

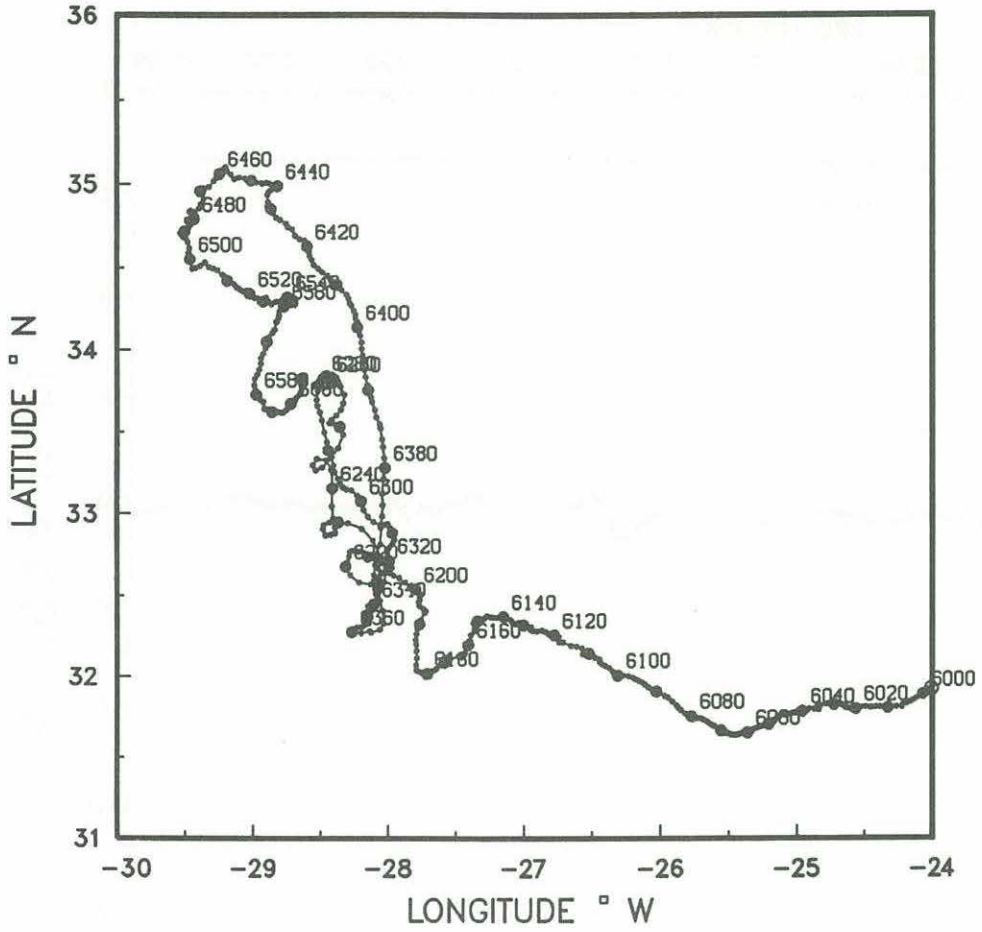

EASTERN BASIN 126
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
1-JAN-88 14:38:44
PLOT 1 OF 2
.SPL


EASTERN BASIN 126
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6530
6550
6570
6590
6610
6630
6650
6670
6690
6710
6730
JULIAN DAY
MAY
1986
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:38:48
PLOT 2 OF 2
.SPL


EASTERN BASIN 126
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
off scale
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
APRIL
1-JAN-88 14:38:38
PLOT 1 OF 2
.SPL

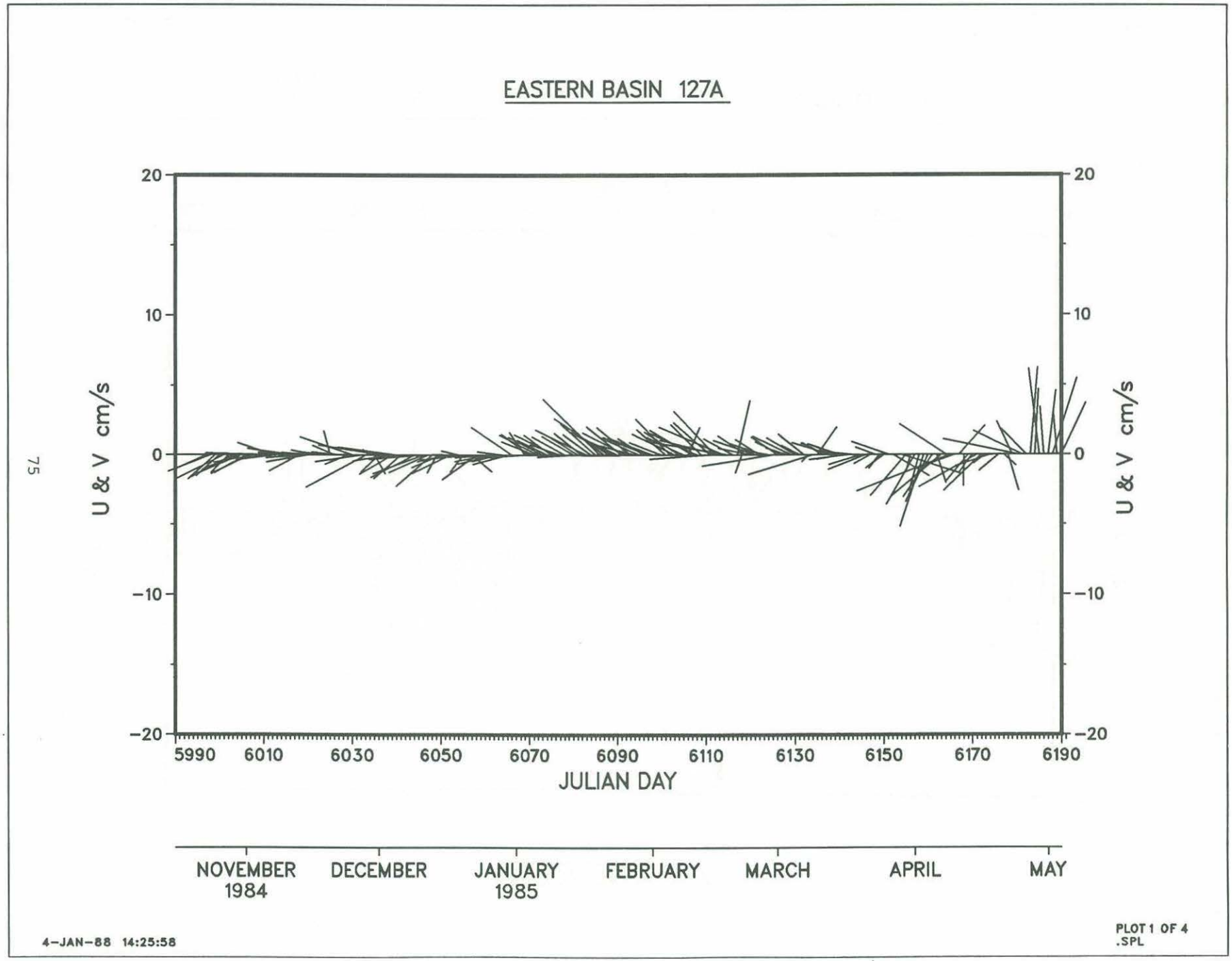

EASTERN BASIN 126
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
off scale
6530
6550
6570
6590
6610
6630
6650
6670
6690
6710
6730
JULIAN DAY
MAY
1986
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:38:40
PLOT 2 OF 2
.SPL

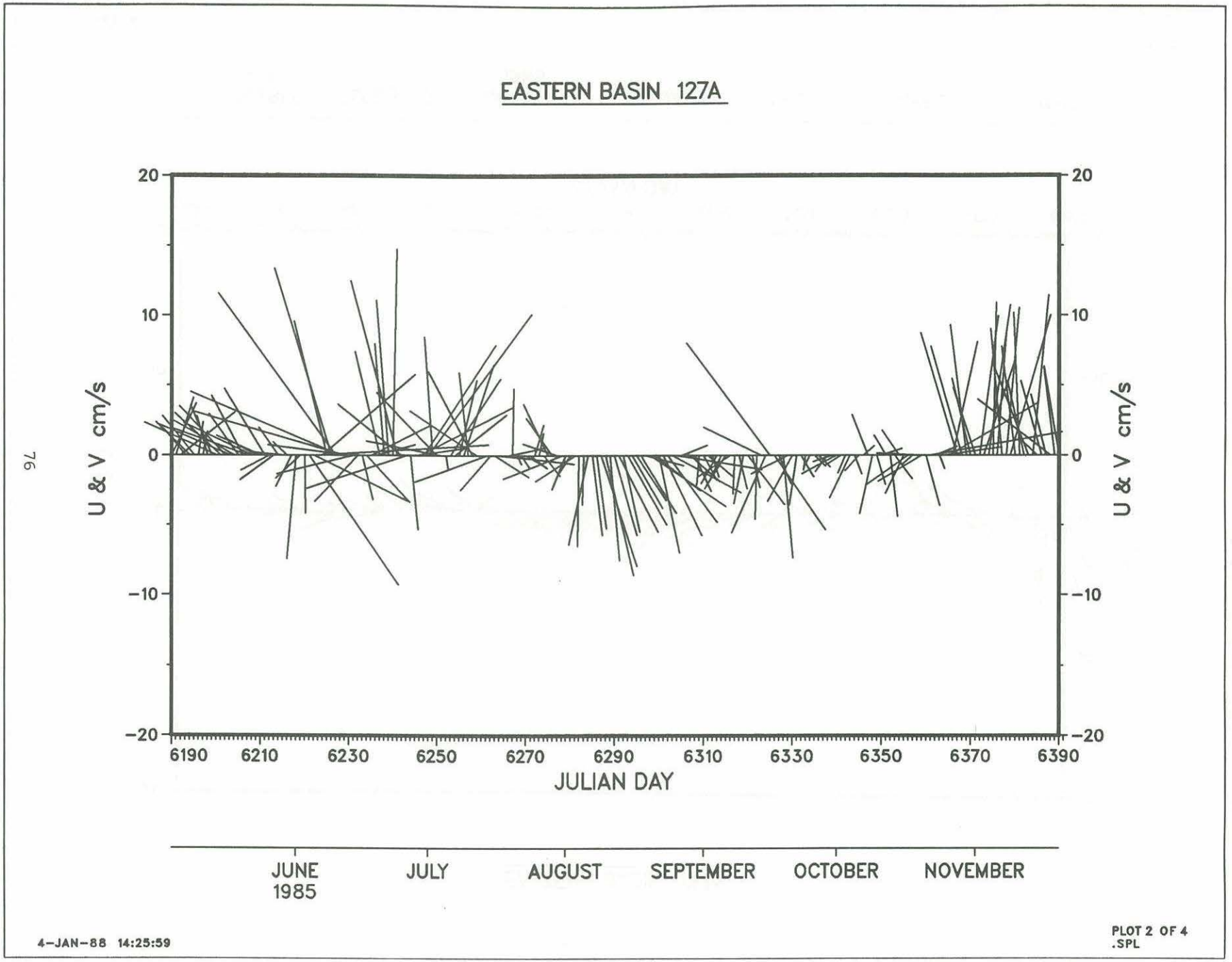
EASTERN BASIN 127A

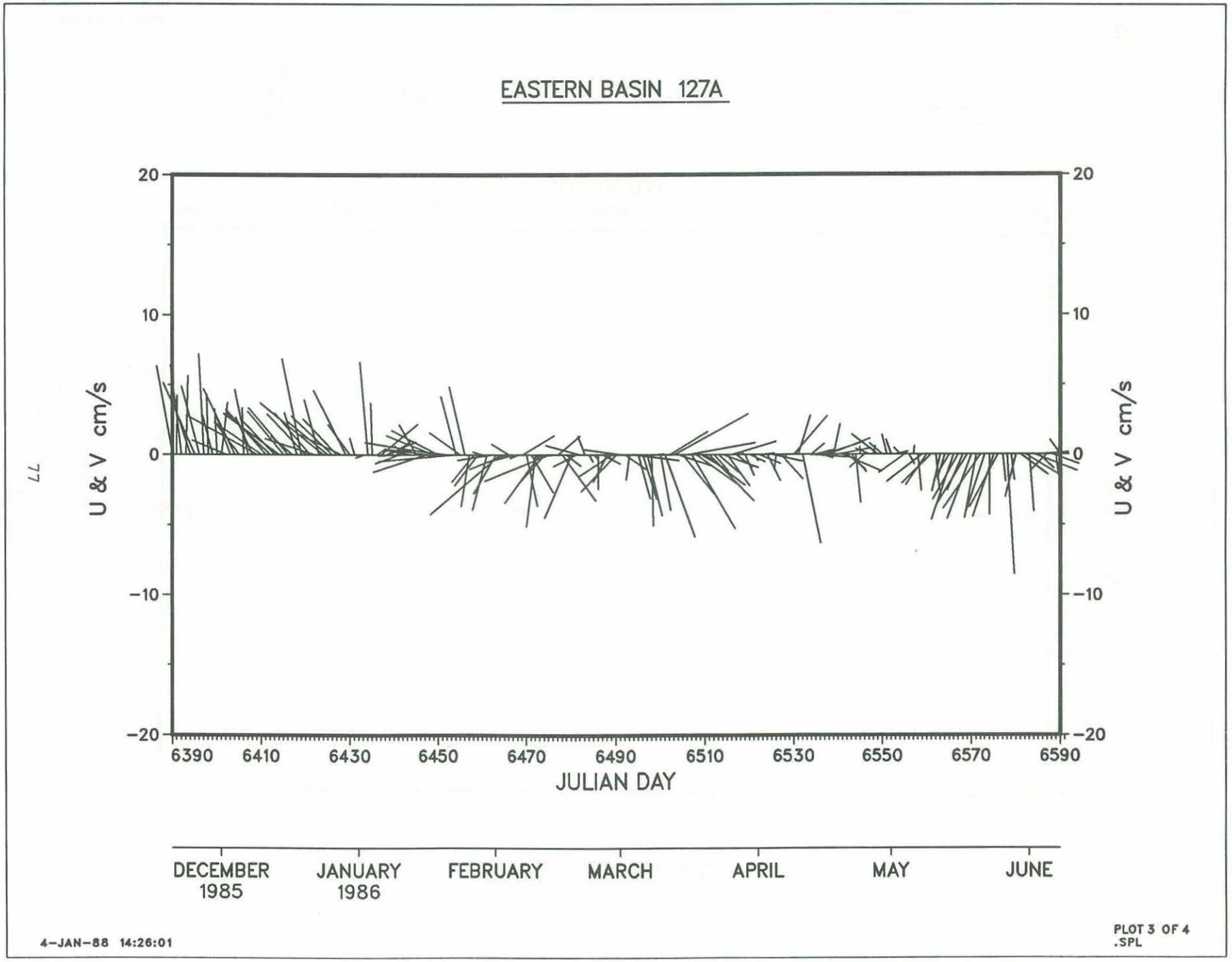


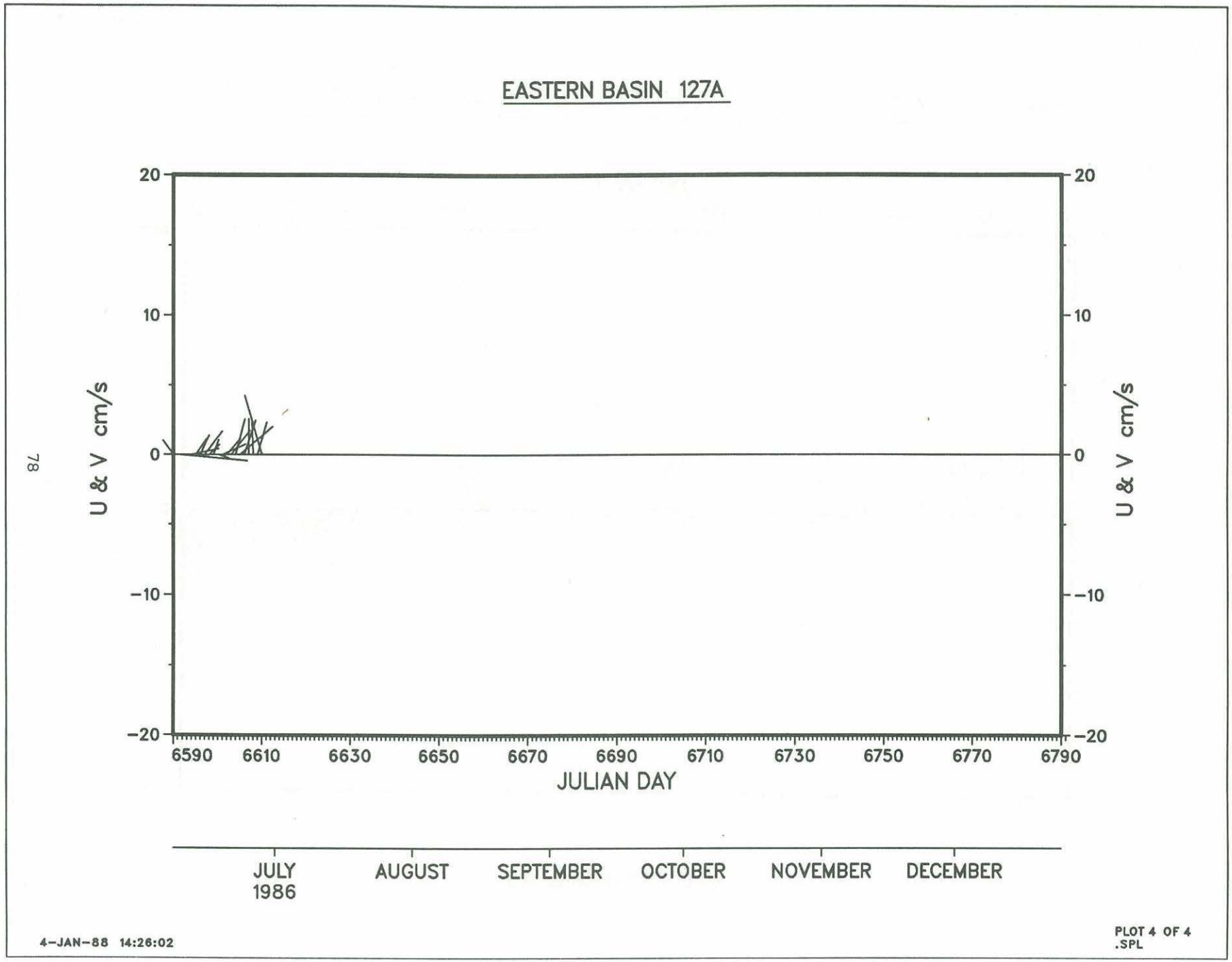
4-JAN-88 14:26:12

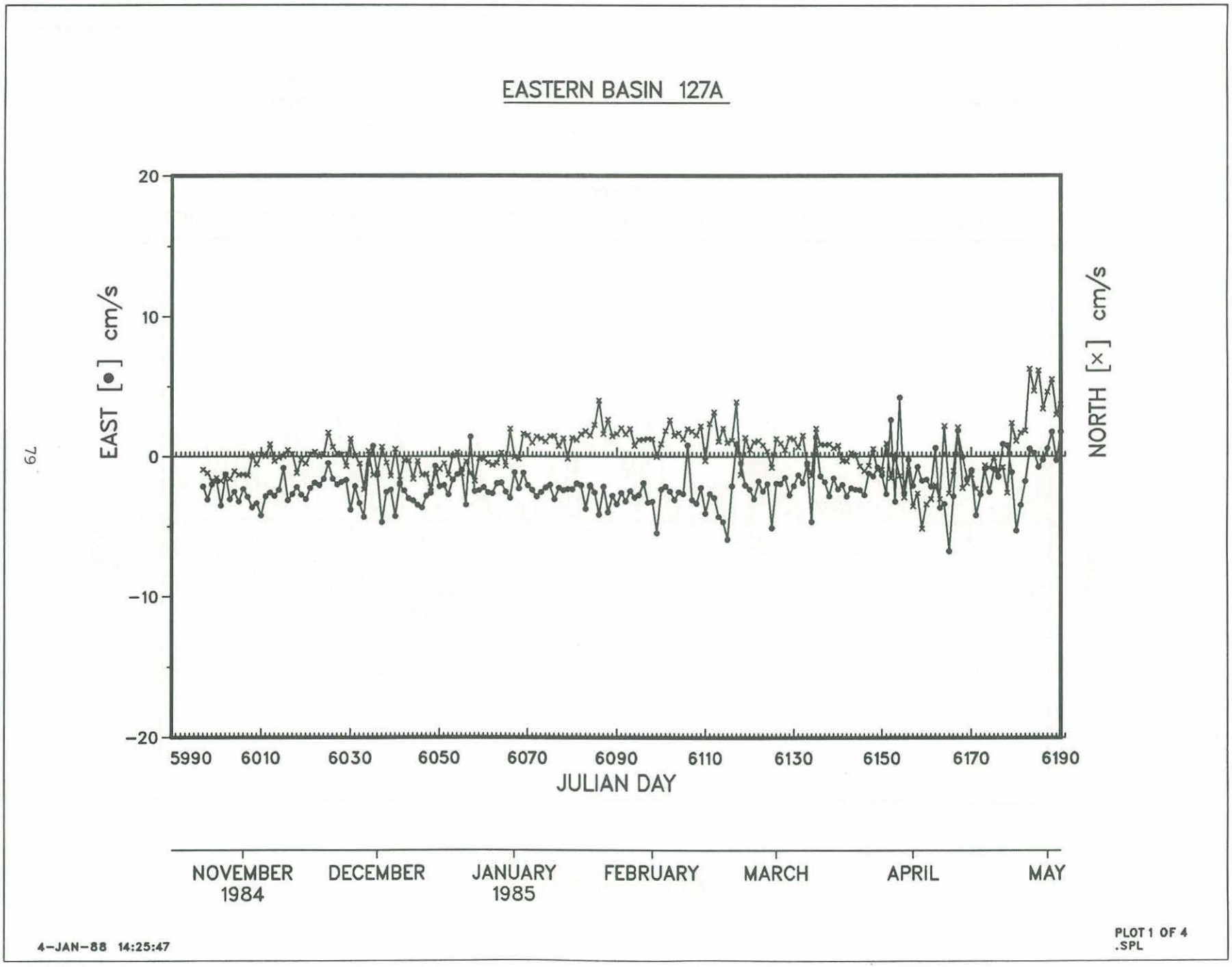
PLOT 1 OF 1
.SPL

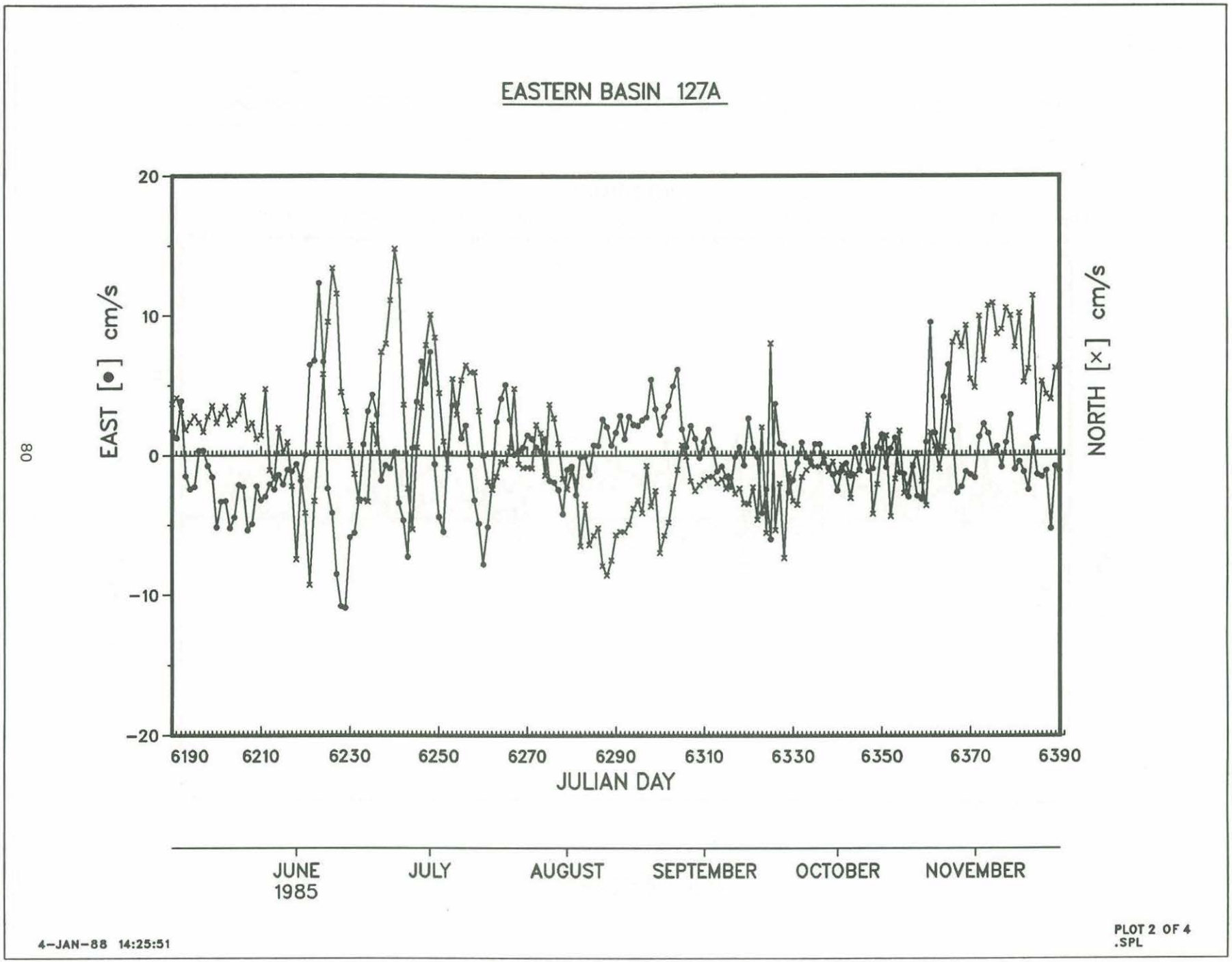

EASTERN BASIN 127A
20
10
0
−10
−20
U & V cm/s
5990
6010
6030
6050
6070
6090
6110
6130
6150
6170
6190
JULIAN DAY
NOVEMBER
1984
DECEMBER
JANUARY
1985
FEBRUARY
MARCH
APRIL
MAY
4-JAN-88 14:25:58
PLOT 1 OF 4
.SPL

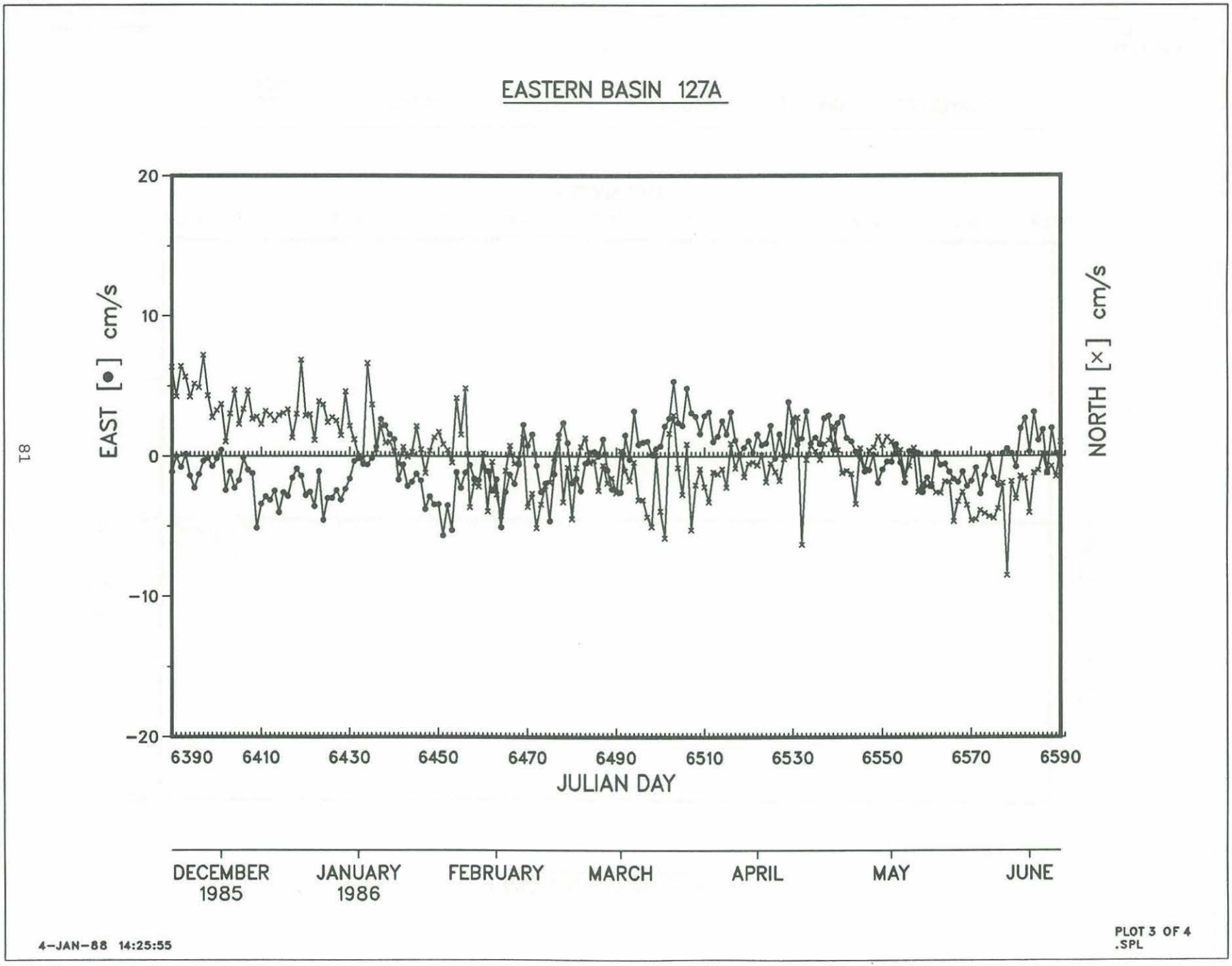

EASTERN BASIN 127A
20
10
0
−10
−20
U & V cm/s
6190
6210
6230
6250
6270
6290
6310
6330
6350
6370
6390
JULIAN DAY
JUNE
1985
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
4-JAN-88 14:25:59
PLOT 2 OF 4
.SPL

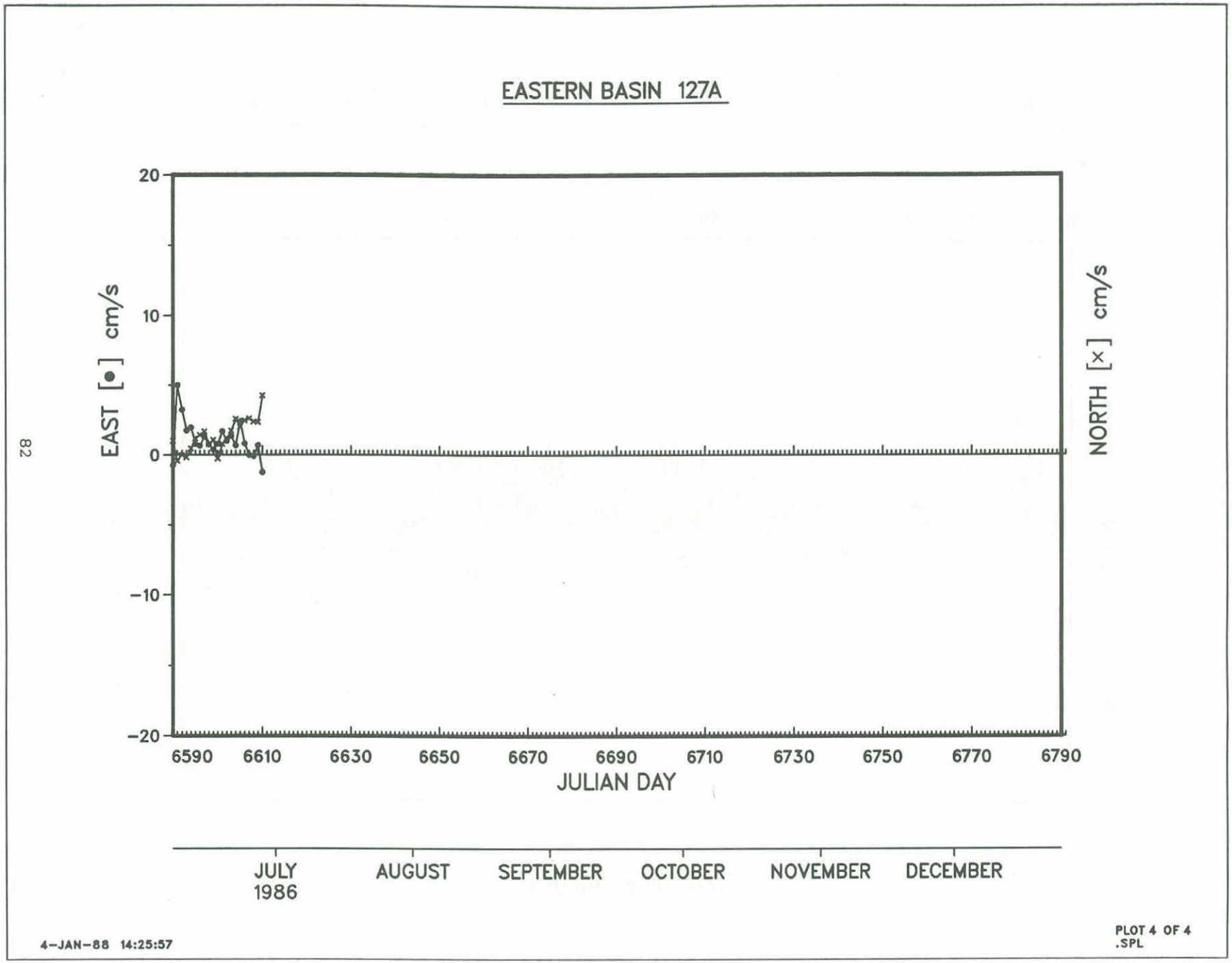

EASTERN BASIN 127A
20
10
0
−10
−20
U & V cm/s
6390
6410
6430
6450
6470
6490
6510
6530
6550
6570
6590
JULIAN DAY
DECEMBER 1985
JANUARY 1986
FEBRUARY
MARCH
APRIL
MAY
JUNE
4-JAN-88 14:26:01
PLOT 3 OF 4
.SPL

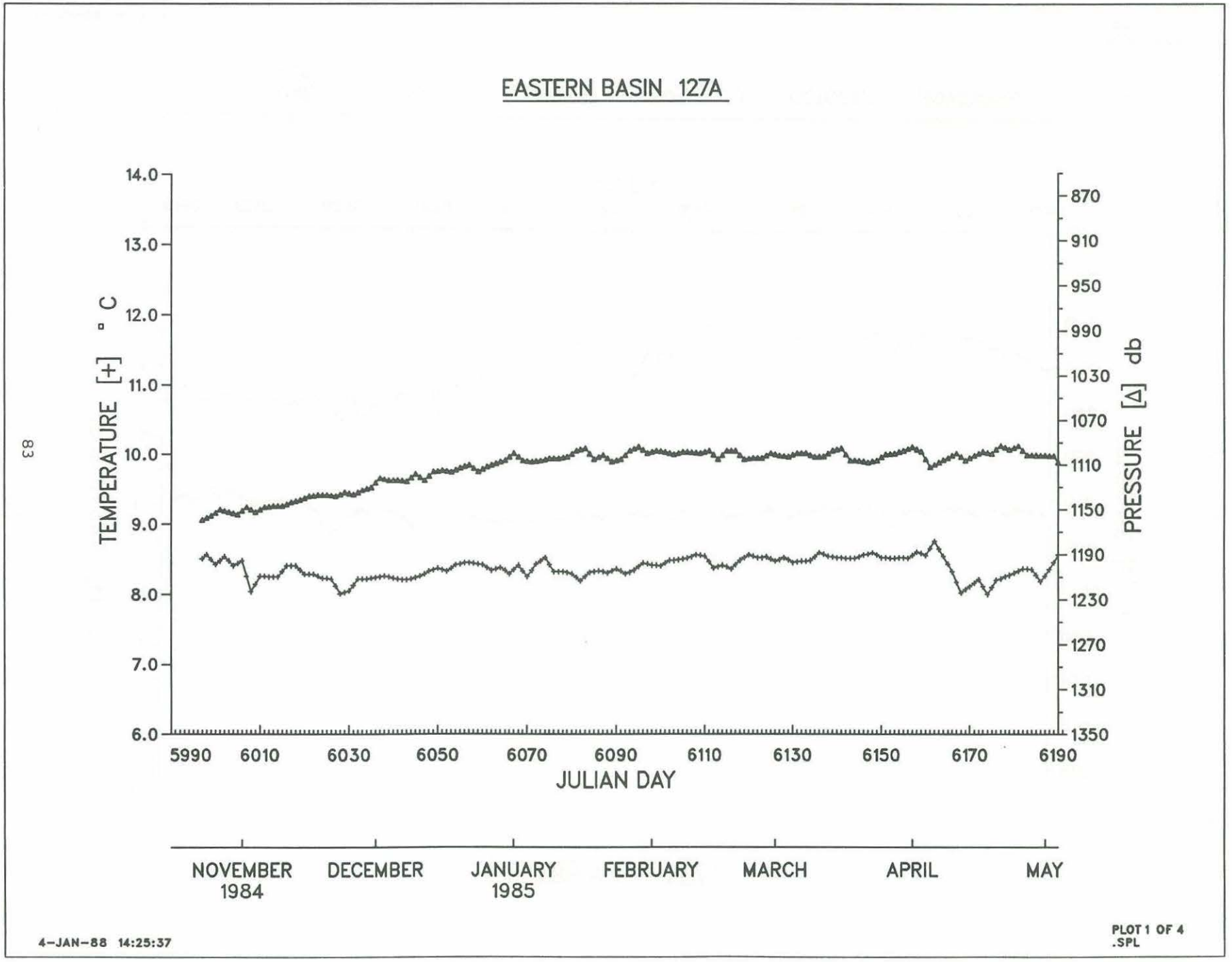

EASTERN BASIN 127A
20
10
0
−10
−20
U & V cm/s
6590
6610
6630
6650
6670
6690
6710
6730
6750
6770
6790
JULIAN DAY
JULY
1986
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
4-JAN-88 14:26:02
PLOT 4 OF 4
.SPL

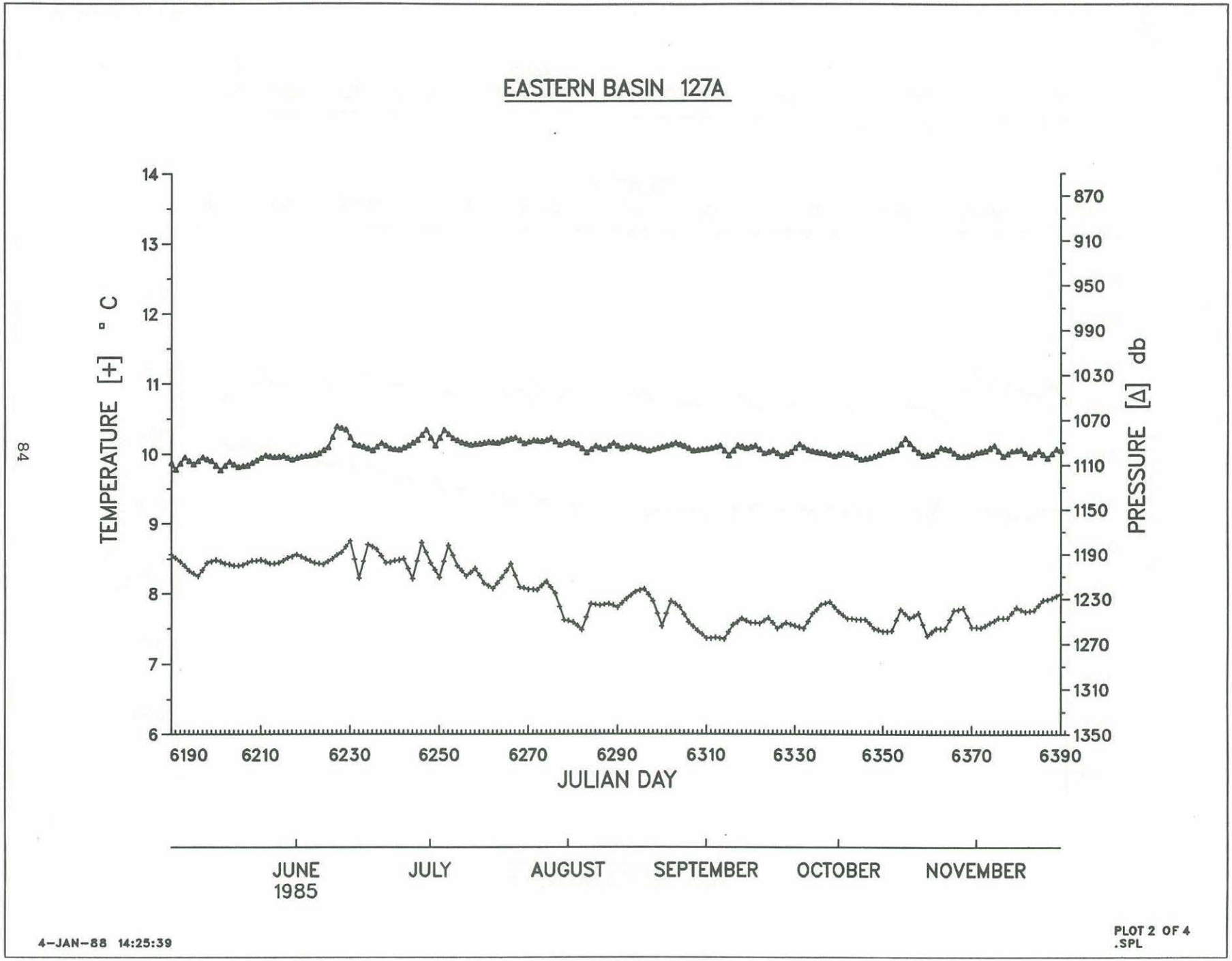

EASTERN BASIN 127A
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
−10
−20
5990
6010
6030
6050
6070
6090
6110
6130
6150
6170
6190
JULIAN DAY
NOVEMBER
1984
DECEMBER
JANUARY
1985
FEBRUARY
MARCH
APRIL
MAY
4-JAN-88 14:25:47
PLOT 1 OF 4
.SPL

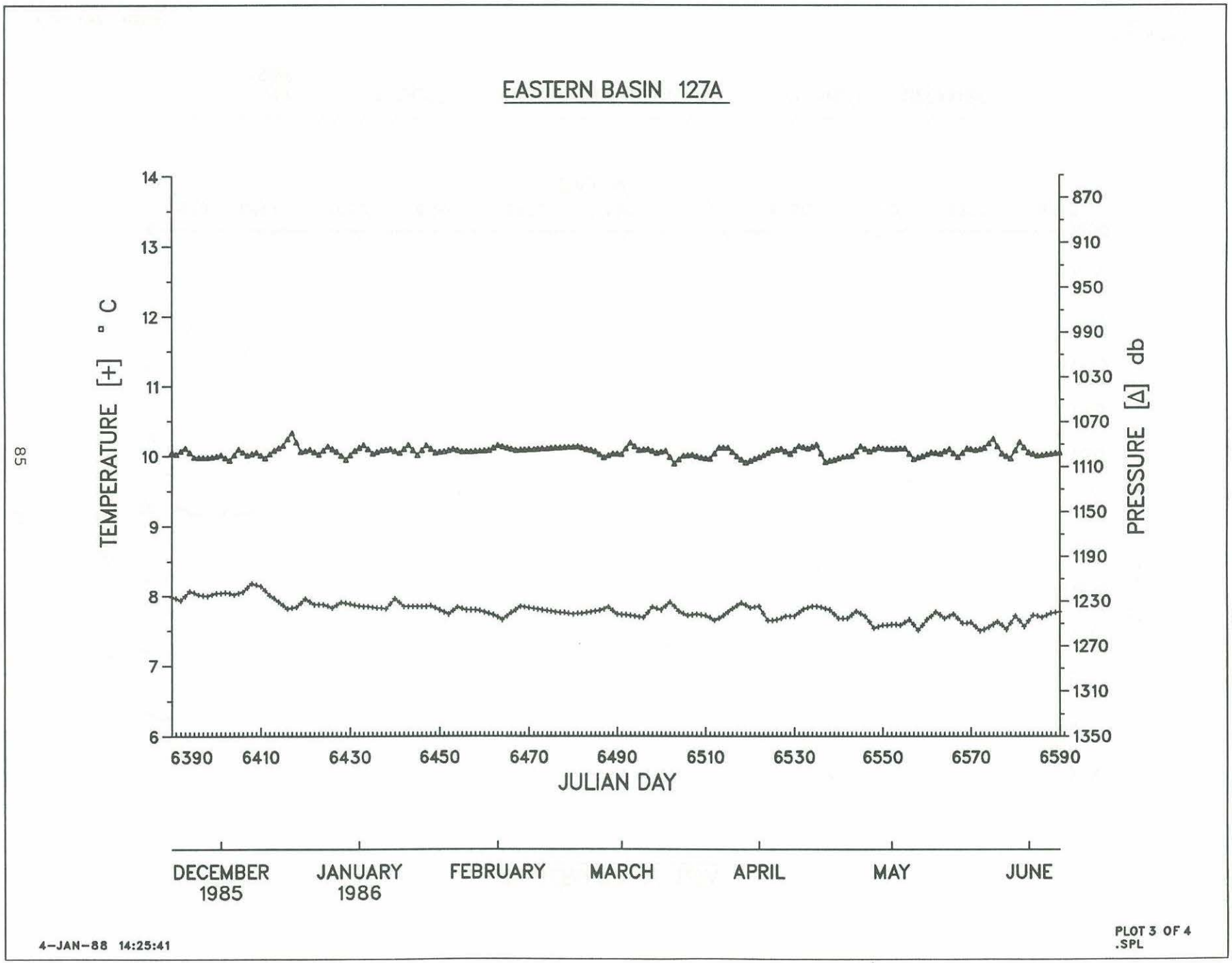

EASTERN BASIN 127A
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
−10
−20
6190
6210
6230
6250
6270
6290
6310
6330
6350
6370
6390
JULIAN DAY
JUNE
1985
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
4-JAN-88 14:25:51
PLOT 2 OF 4
.SPL

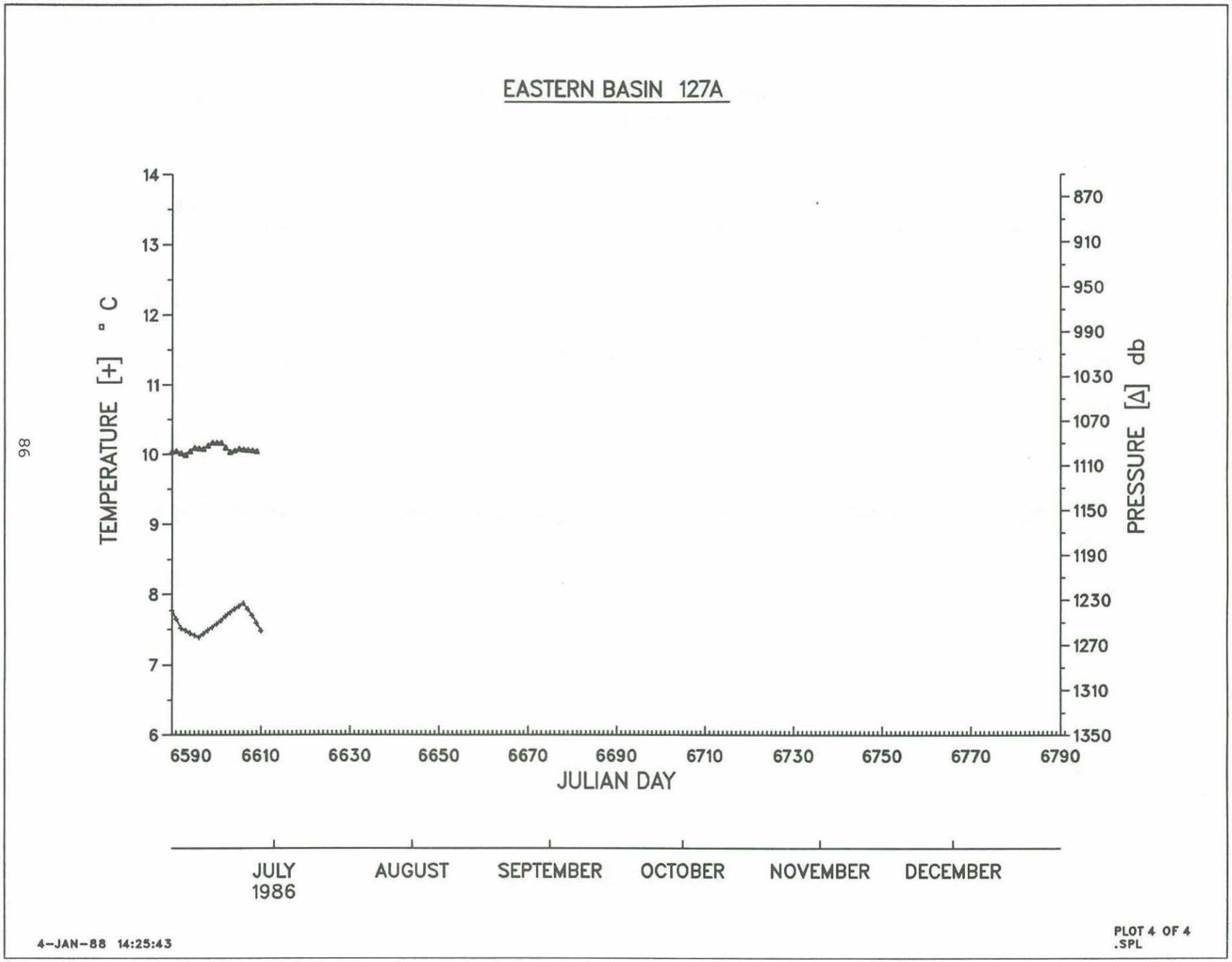

EASTERN BASIN 127A
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
−10
−20
6390
6410
6430
6450
6470
6490
6510
6530
6550
6570
6590
JULIAN DAY
DECEMBER 1985
JANUARY 1986
FEBRUARY
MARCH
APRIL
MAY
JUNE
4-JAN-88 14:25:55
PLOT 3 OF 4
.SPL


EASTERN BASIN 127A
20
10
0
−10
−20
EAST [•] cm/s
NORTH [×] cm/s
6590
6610
6630
6650
6670
6690
6710
6730
6750
6770
6790
JULIAN DAY
JULY
1986
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
4-JAN-88 14:25:57
PLOT 4 OF 4
.SPL

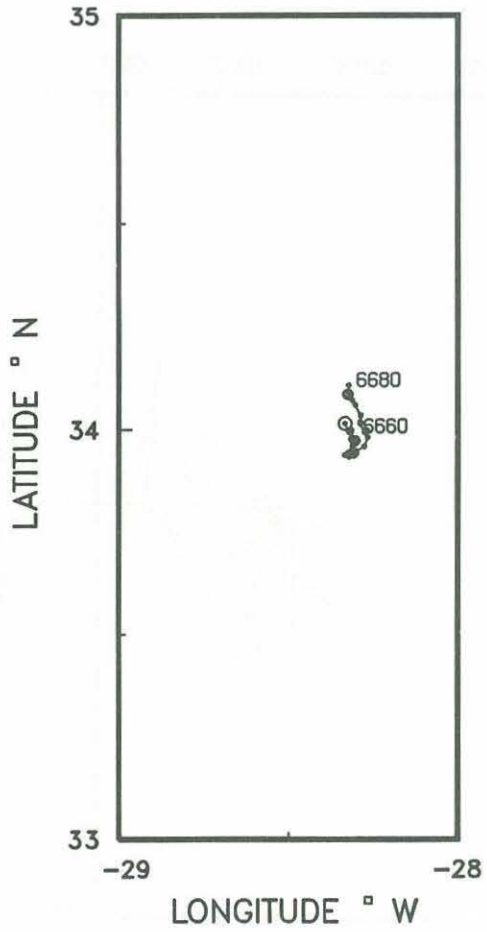

EASTERN BASIN 127A
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
5990
6010
6030
6050
6070
6090
6110
6130
6150
6170
6190
JULIAN DAY
NOVEMBER 1984
DECEMBER
JANUARY 1985
FEBRUARY
MARCH
APRIL
MAY
4-JAN-88 14:25:37
PLOT 1 OF 4
.SPL


EASTERN BASIN 127A
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6190
6210
6230
6250
6270
6290
6310
6330
6350
6370
6390
JULIAN DAY
JUNE
1985
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
4-JAN-88 14:25:39
PLOT 2 OF 4
.SPL


EASTERN BASIN 127A
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6390
6410
6430
6450
6470
6490
6510
6530
6550
6570
6590
JULIAN DAY
DECEMBER 1985
JANUARY 1986
FEBRUARY
MARCH
APRIL
MAY
JUNE
4-JAN-88 14:25:41
PLOT 3 OF 4
.SPL


EASTERN BASIN 127A
TEMPERATURE [+] ° C
14
13
12
11
10
9
8
7
6
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6590
6610
6630
6650
6670
6690
6710
6730
6750
6770
6790
JULIAN DAY
JULY
1986
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
4-JAN-88 14:25:43
PLOT 4 OF 4
.SPL

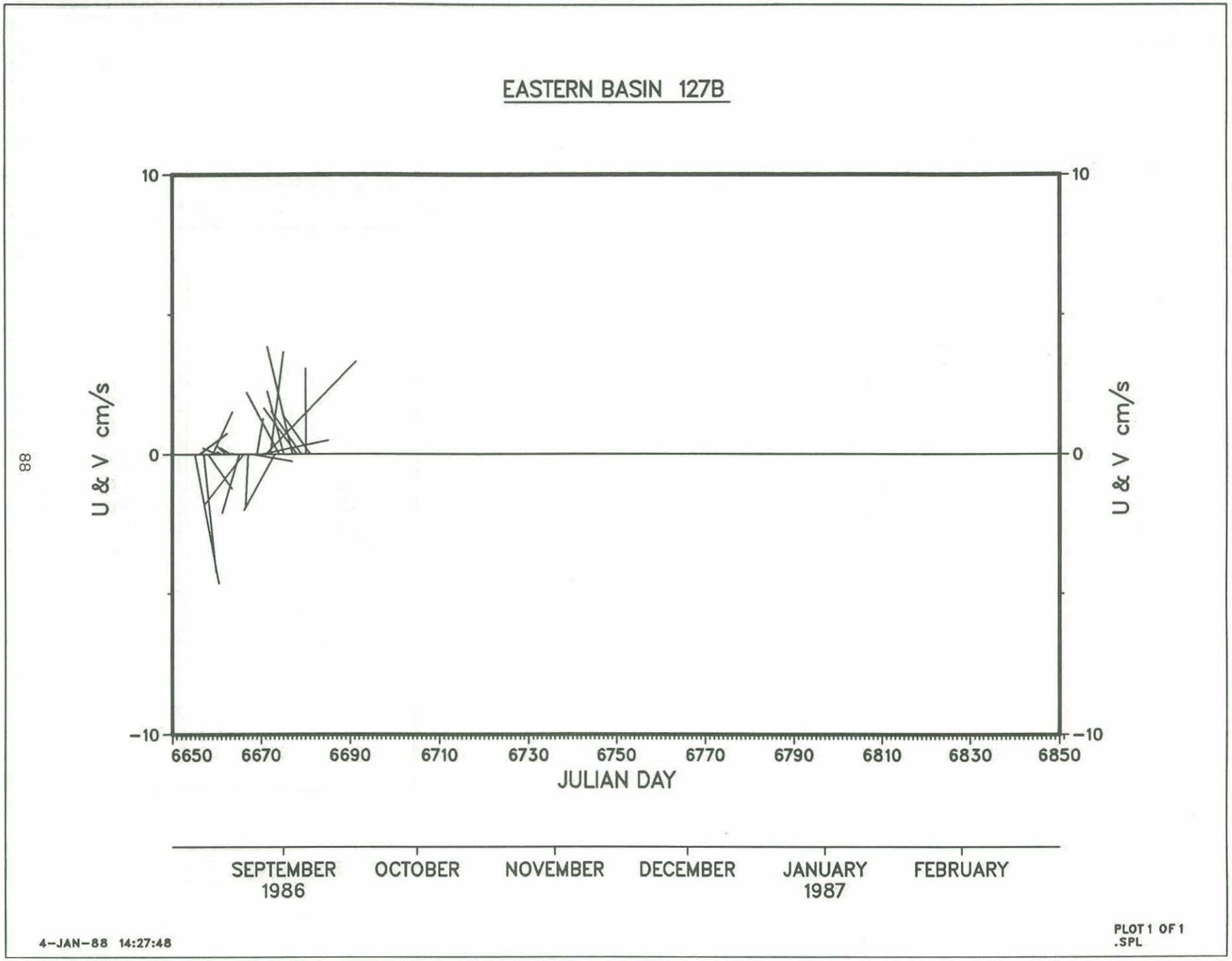
EASTERN BASIN 127B

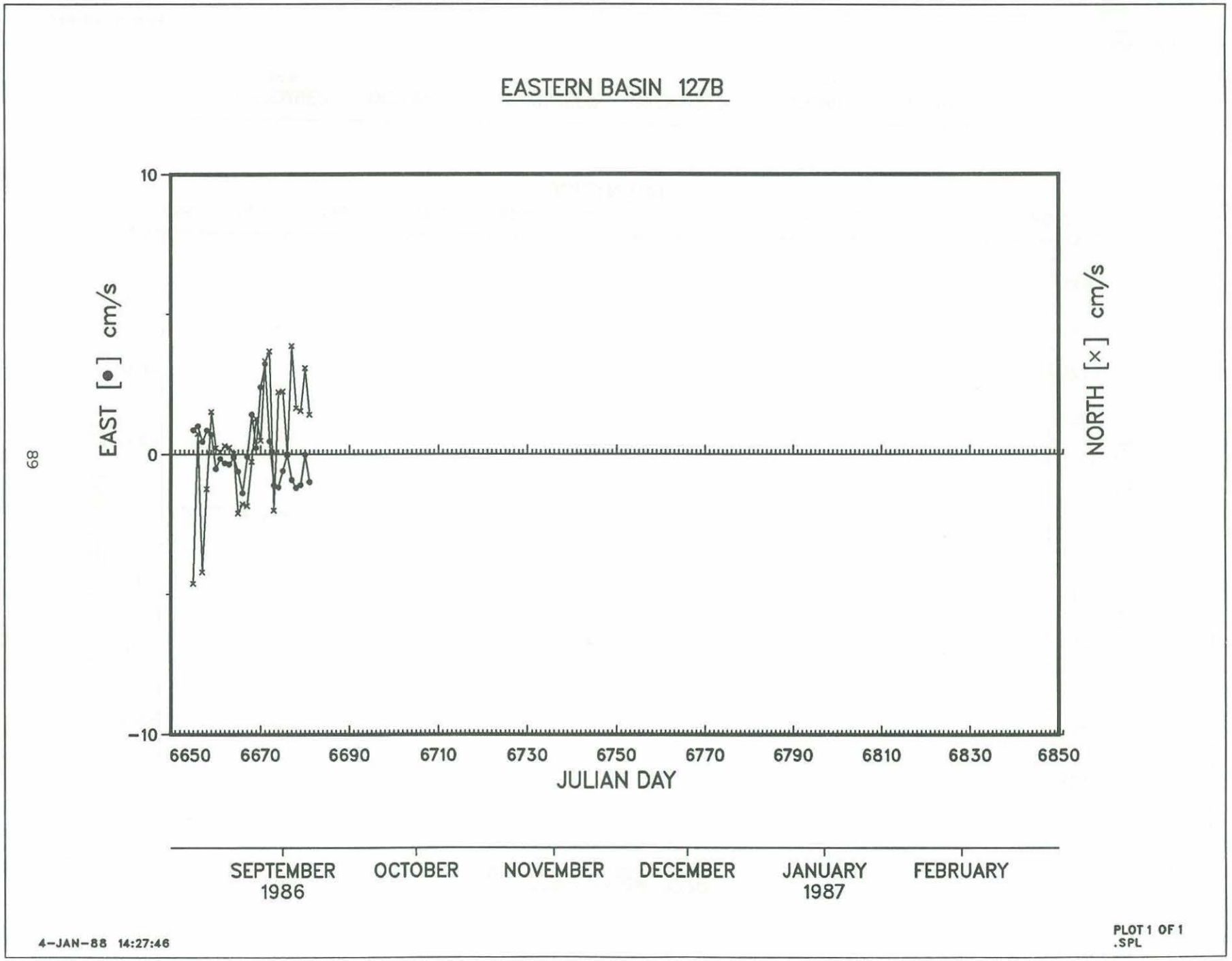


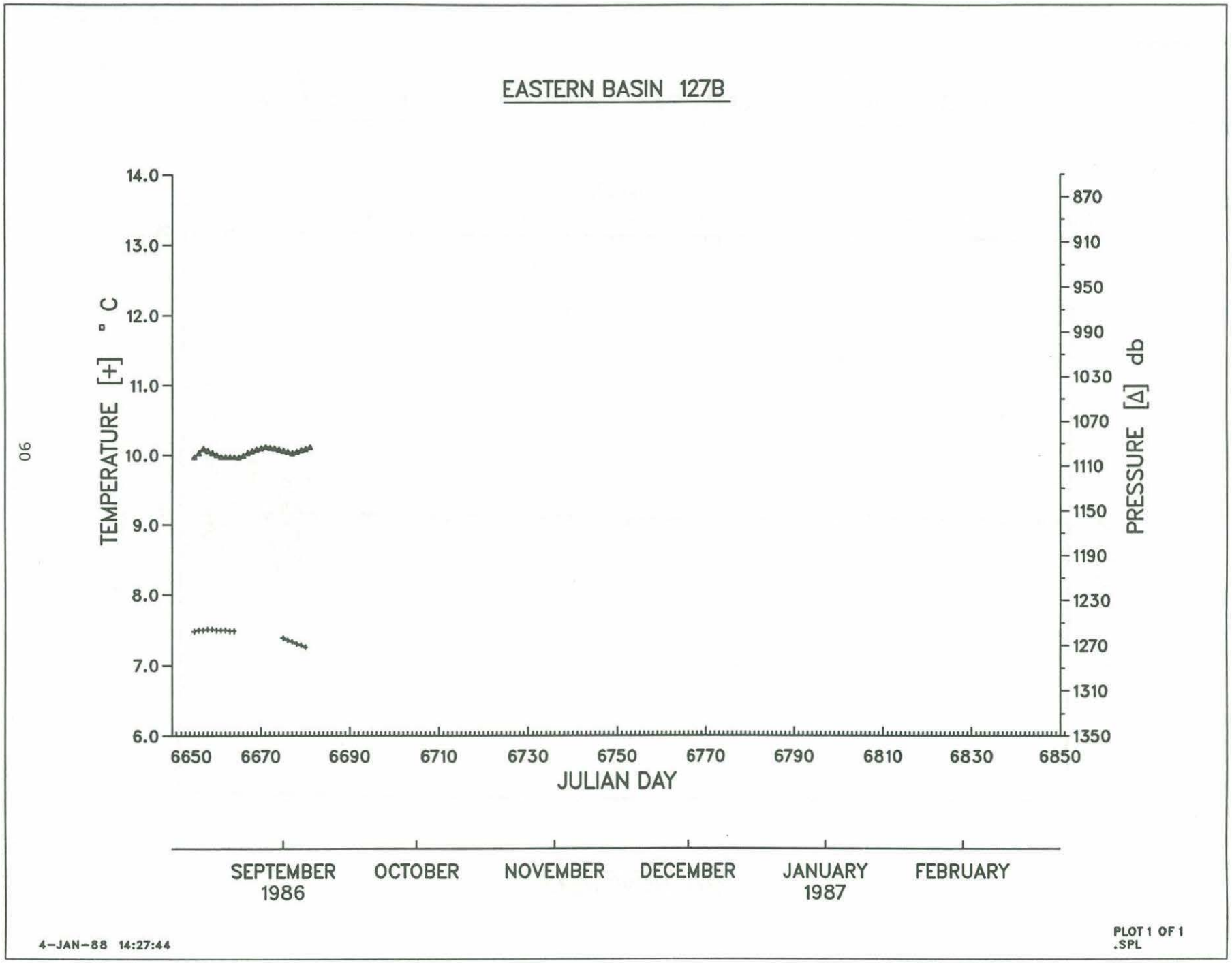
87

4-JAN-88 14:27:49

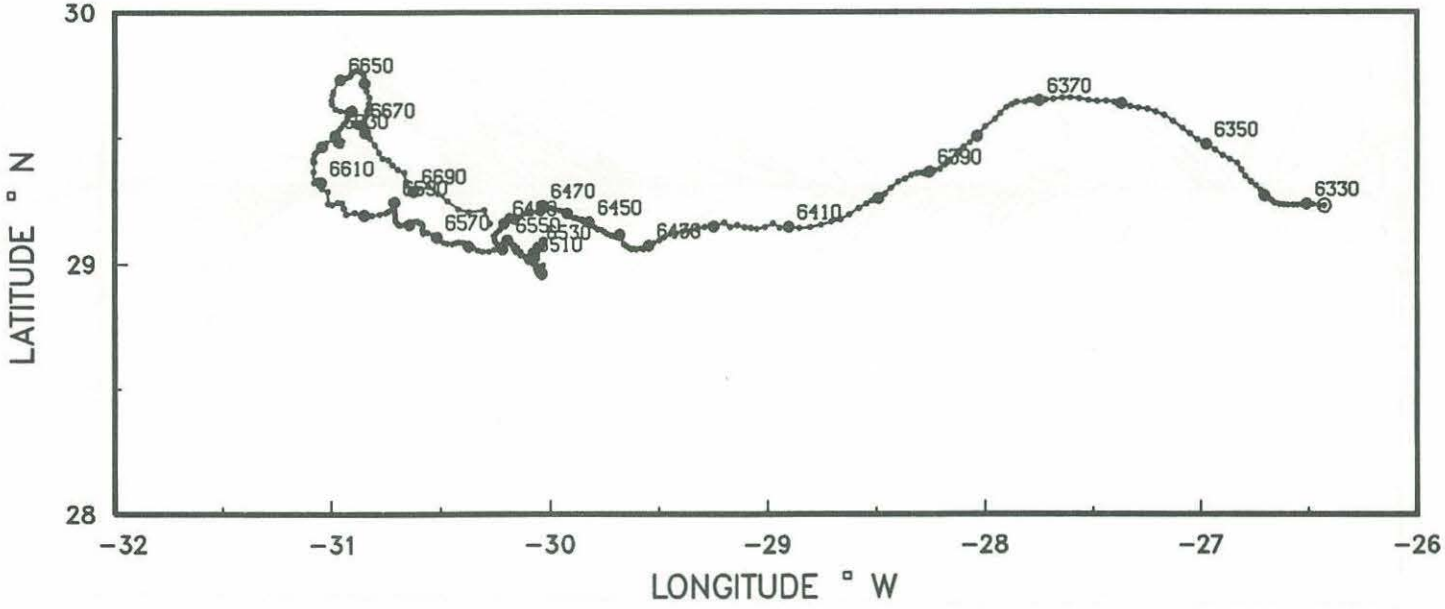
PLOT 1 OF 1
.SPL


EASTERN BASIN 127B
10
0
−10
U & V cm/s
6650
6670
6690
6710
6730
6750
6770
6790
6810
6830
6850
JULIAN DAY
SEPTEMBER
1986
OCTOBER
NOVEMBER
DECEMBER
JANUARY
1987
FEBRUARY
4-JAN-88 14:27:48
PLOT 1 OF 1
.SPL


EASTERN BASIN 127B
10
0
-10
EAST [•] cm/s
NORTH [×] cm/s
6650
6670
6690
6710
6730
6750
6770
6790
6810
6830
6850
JULIAN DAY
SEPTEMBER
1986
OCTOBER
NOVEMBER
DECEMBER
JANUARY
1987
FEBRUARY
4-JAN-88 14:27:46
PLOT 1 OF 1
.SPL

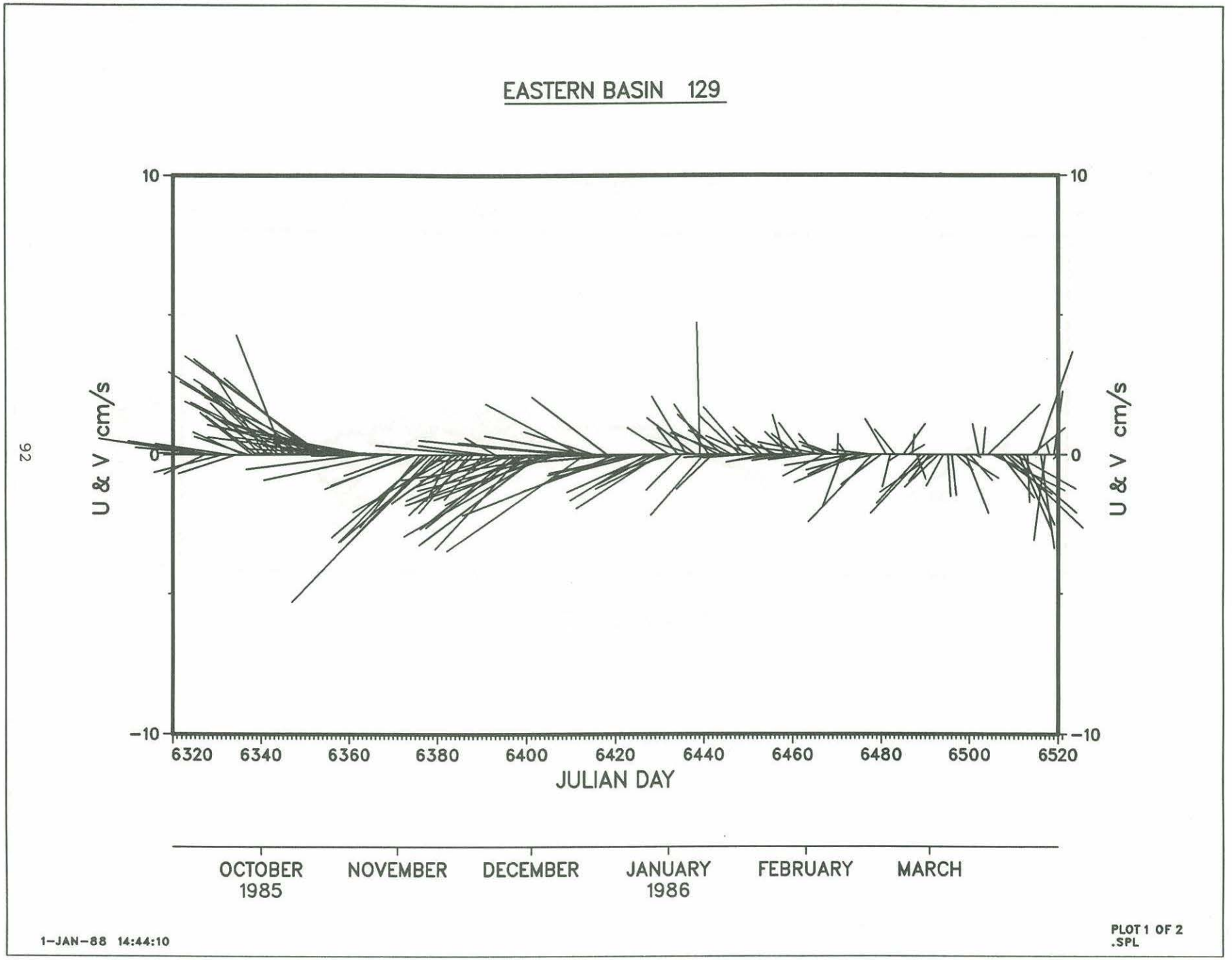

EASTERN BASIN 127B
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6650
6670
6690
6710
6730
6750
6770
6790
6810
6830
6850
JULIAN DAY
SEPTEMBER 1986
OCTOBER
NOVEMBER
DECEMBER
JANUARY 1987
FEBRUARY
4-JAN-88 14:27:44
PLOT 1 OF 1
.SPL

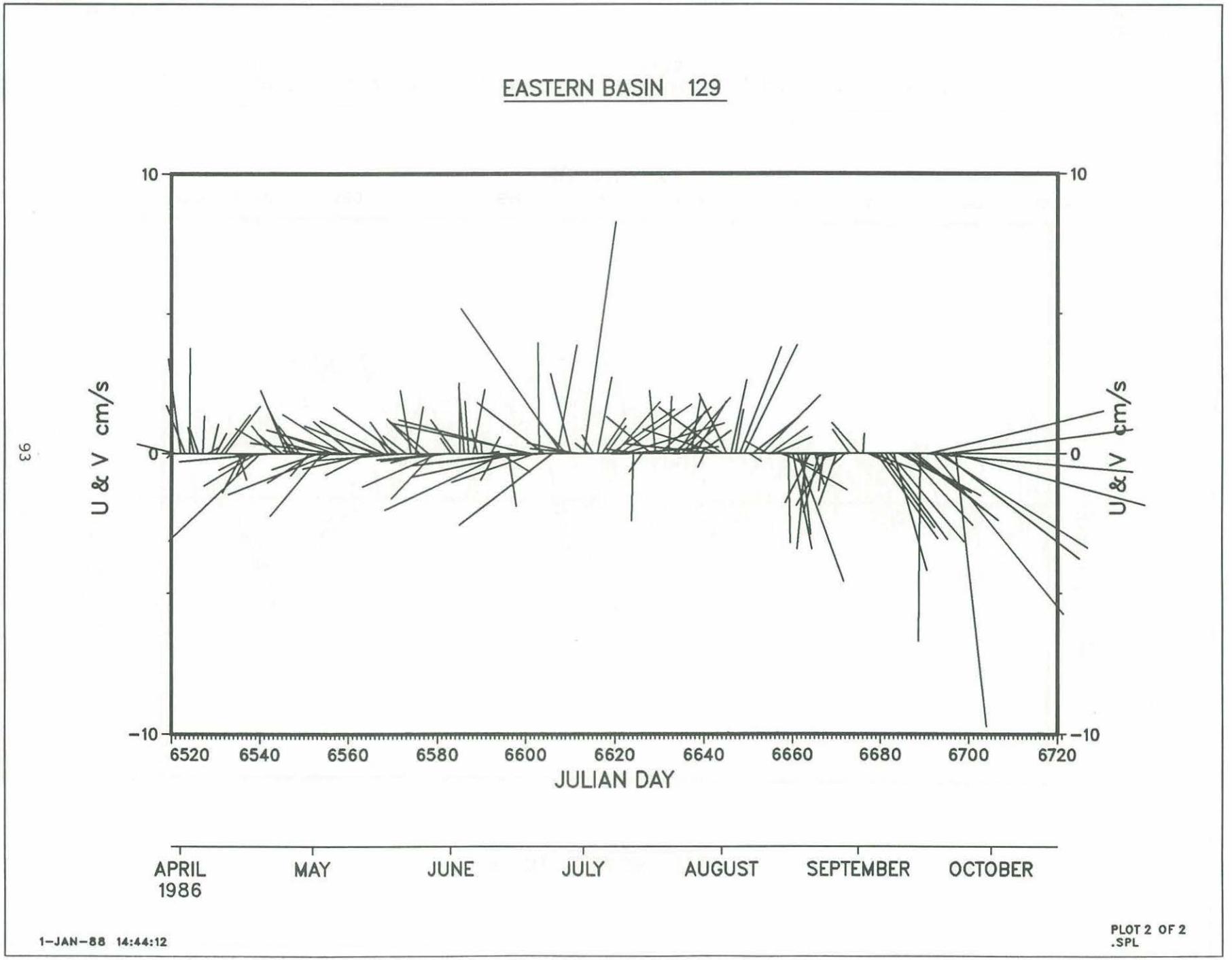
EASTERN BASIN 129

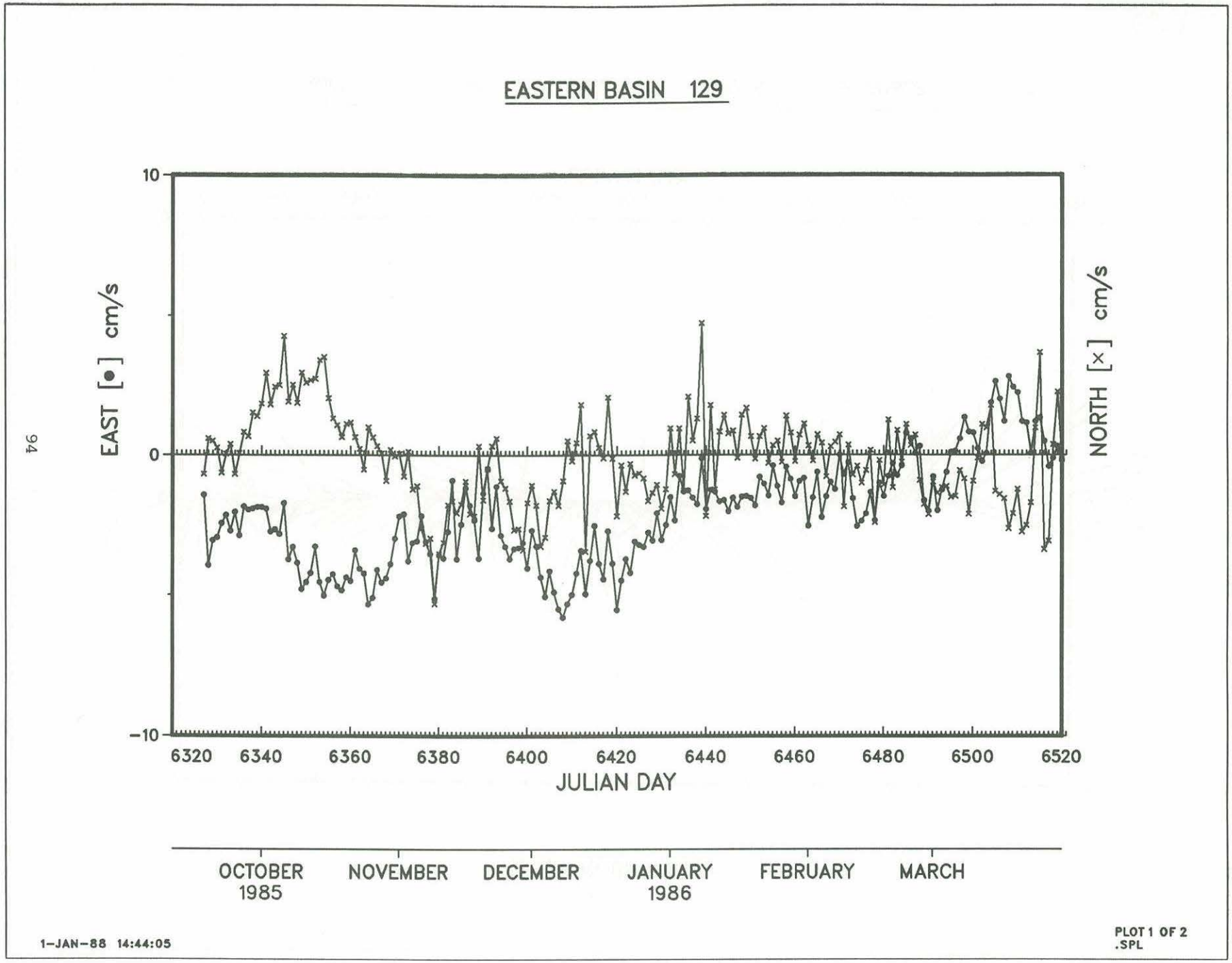


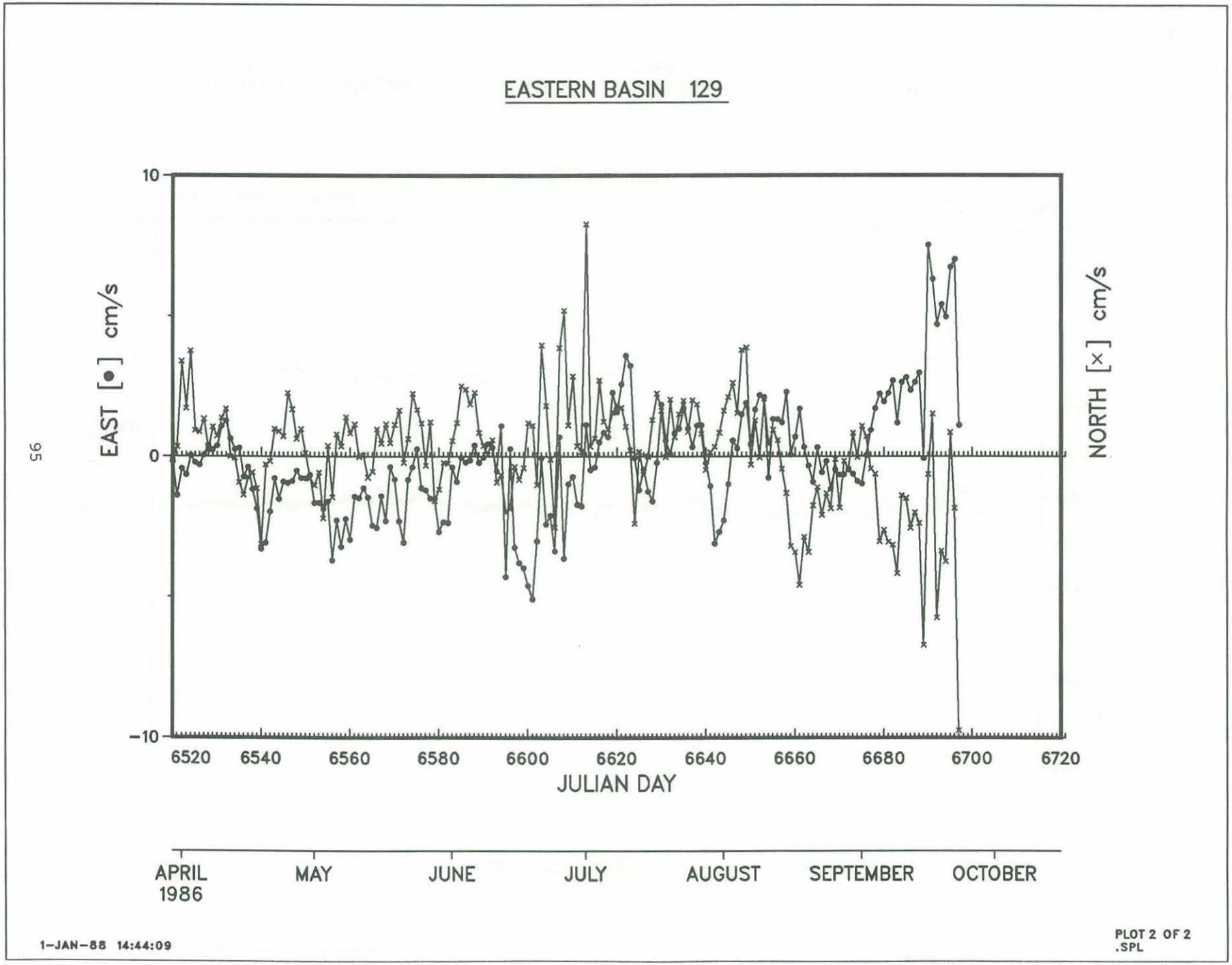
1-JAN-88 14:44:17

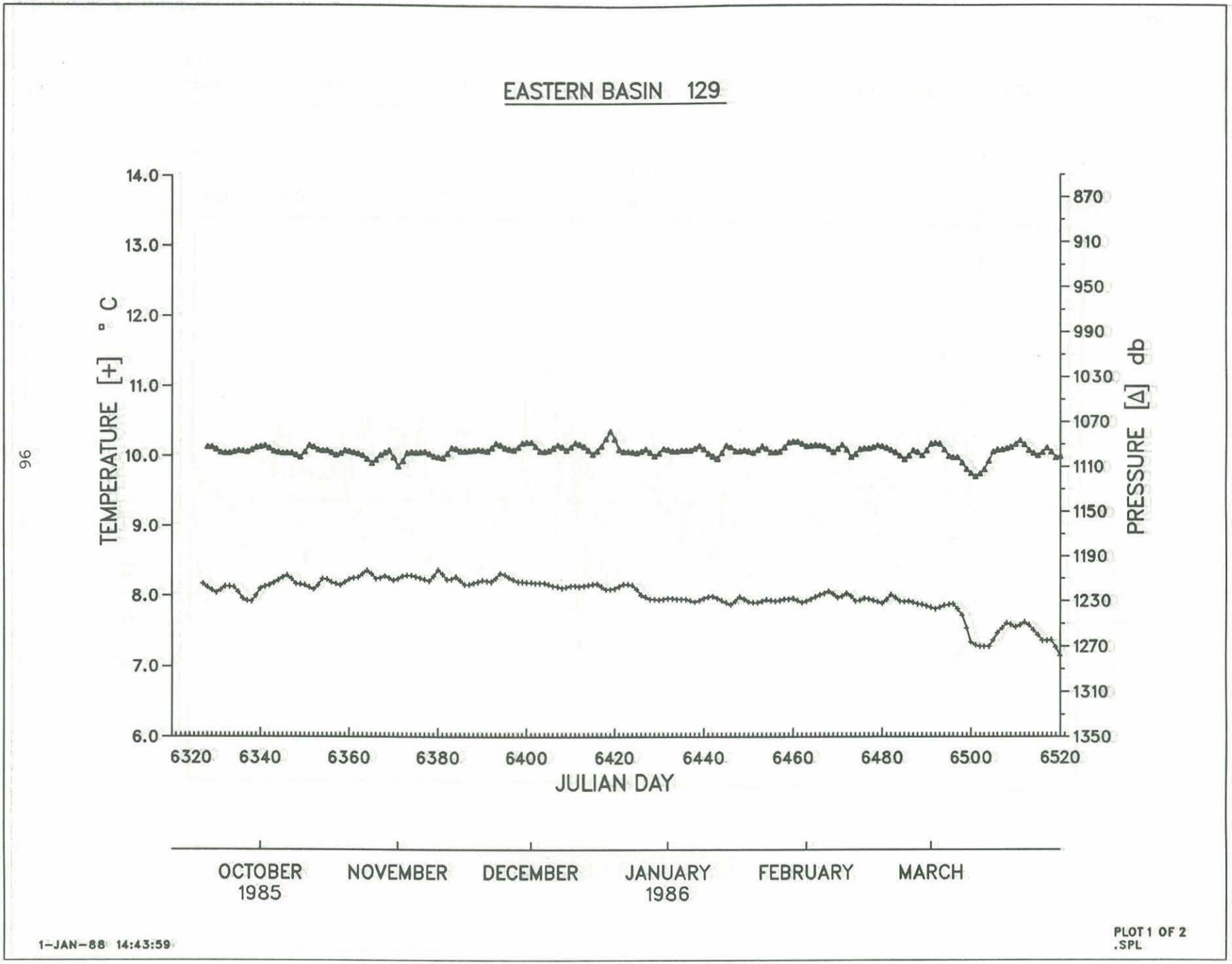
PLOT 1 OF 1
.SPL

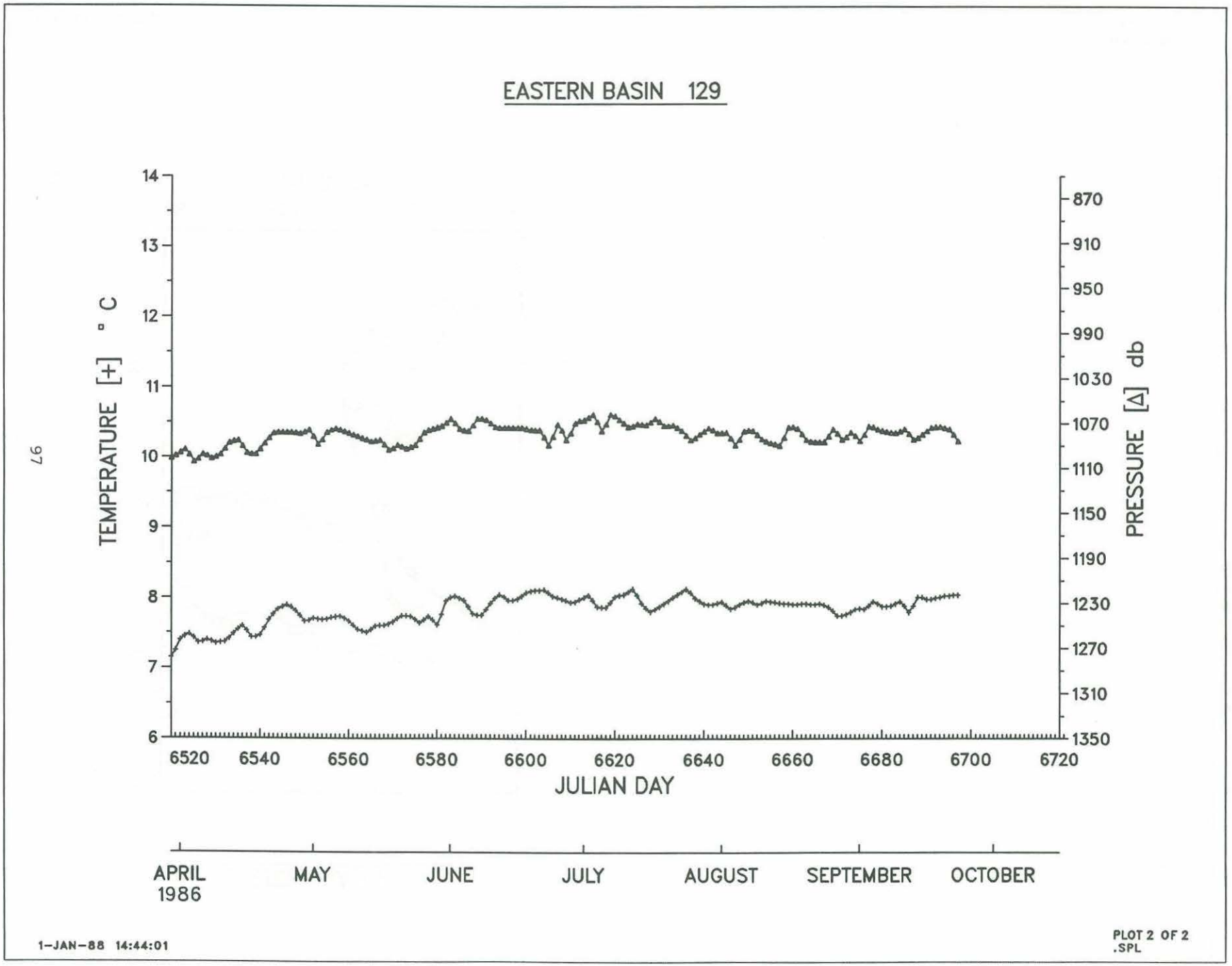

EASTERN BASIN 129
10
0
−10
U & V cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
1-JAN-88 14:44:10
PLOT 1 OF 2
.SPL


EASTERN BASIN 129
10
0
-10
U & V cm/s
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:44:12
PLOT 2 OF 2
.SPL

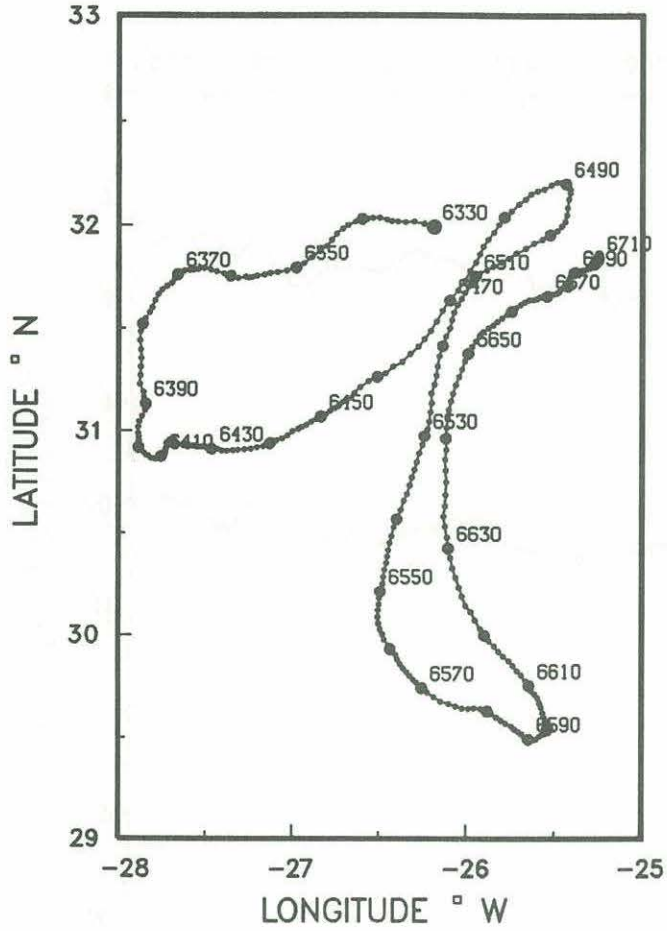

EASTERN BASIN 129
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
1-JAN-88 14:44:05
PLOT 1 OF 2
.SPL


EASTERN BASIN 129
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:44:09
PLOT 2 OF 2
.SPL


EASTERN BASIN 129
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
1-JAN-88 14:43:59
PLOT 1 OF 2
.SPL

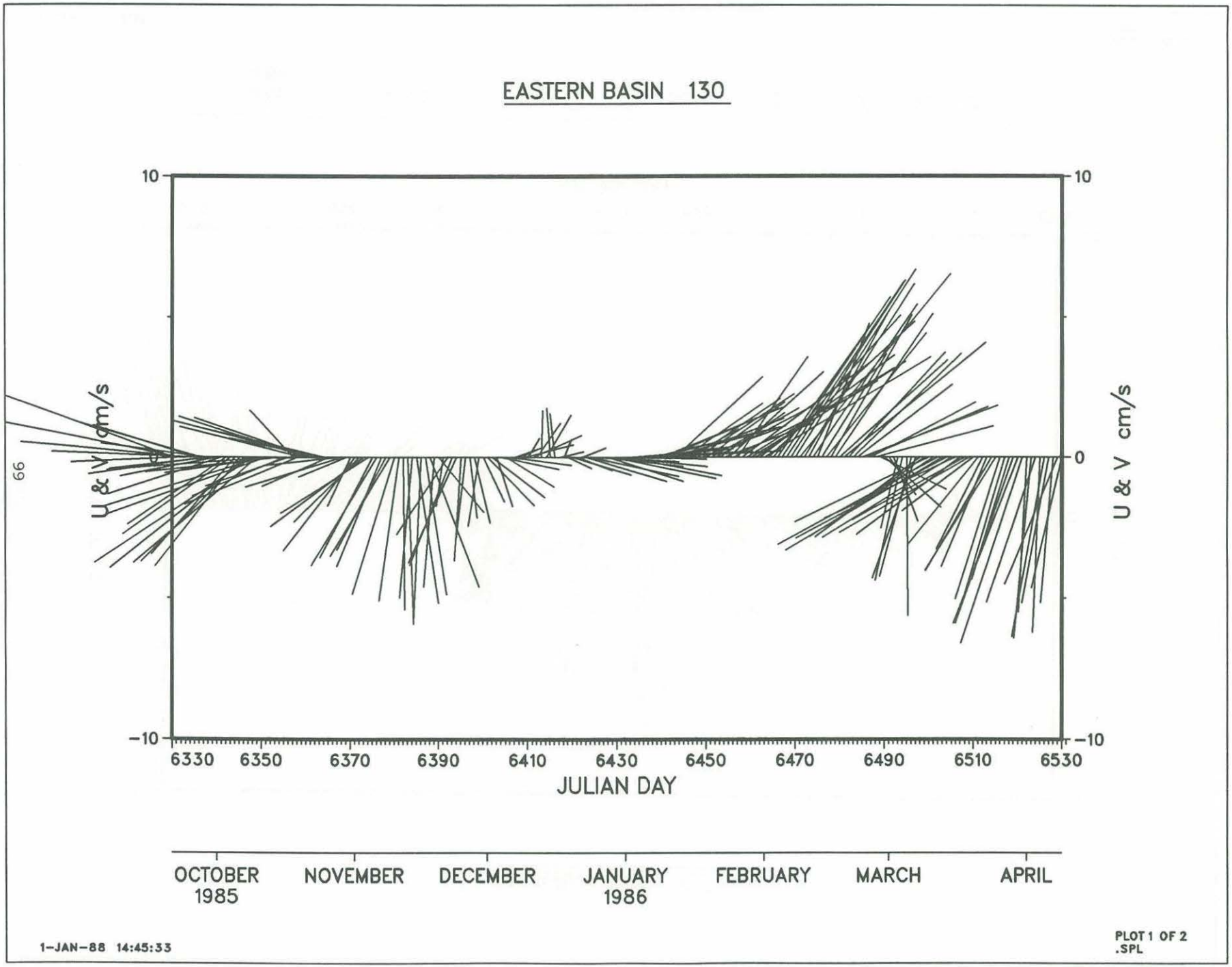

EASTERN BASIN 129
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:44:01
PLOT 2 OF 2
.SPL

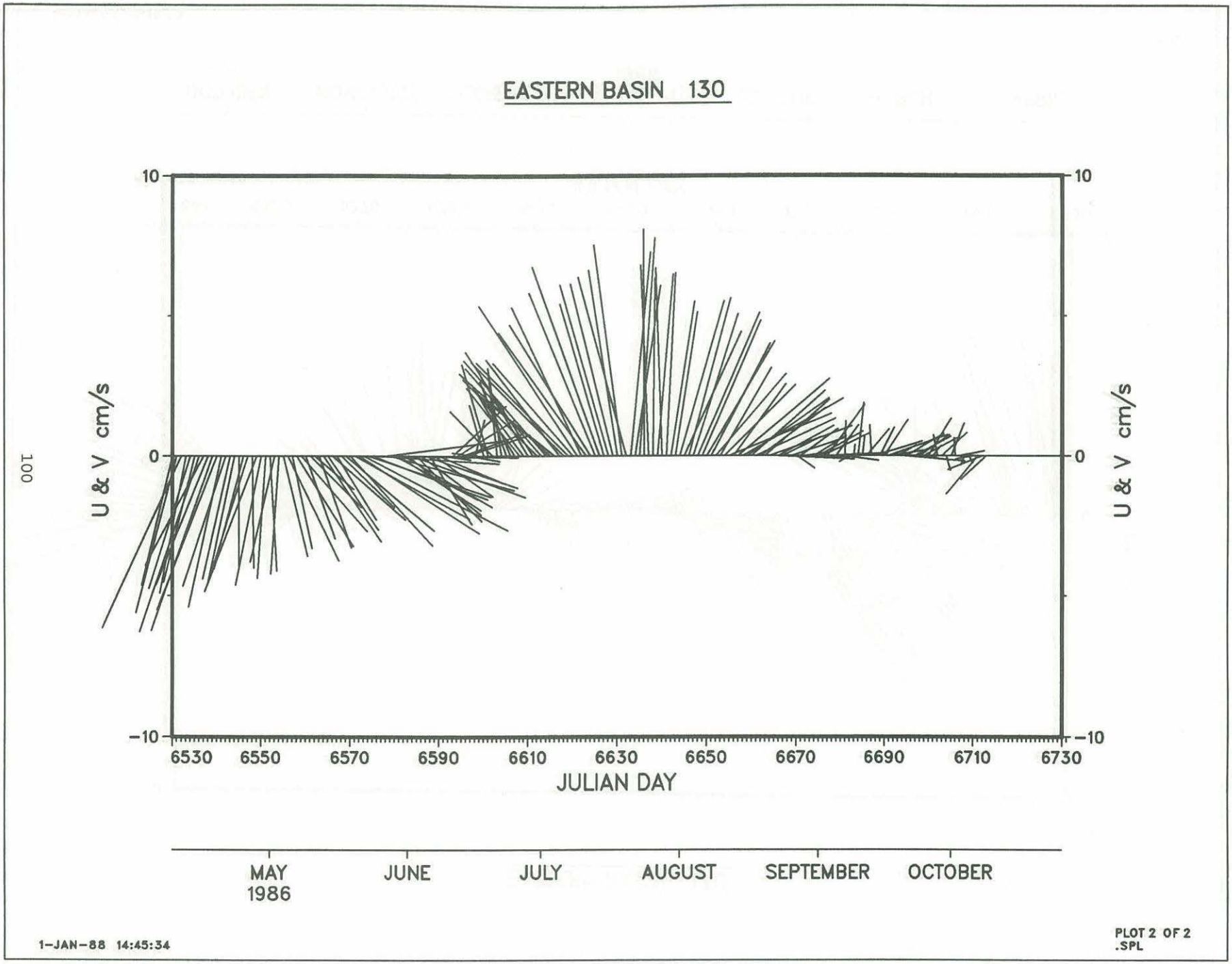
EASTERN BASIN 130

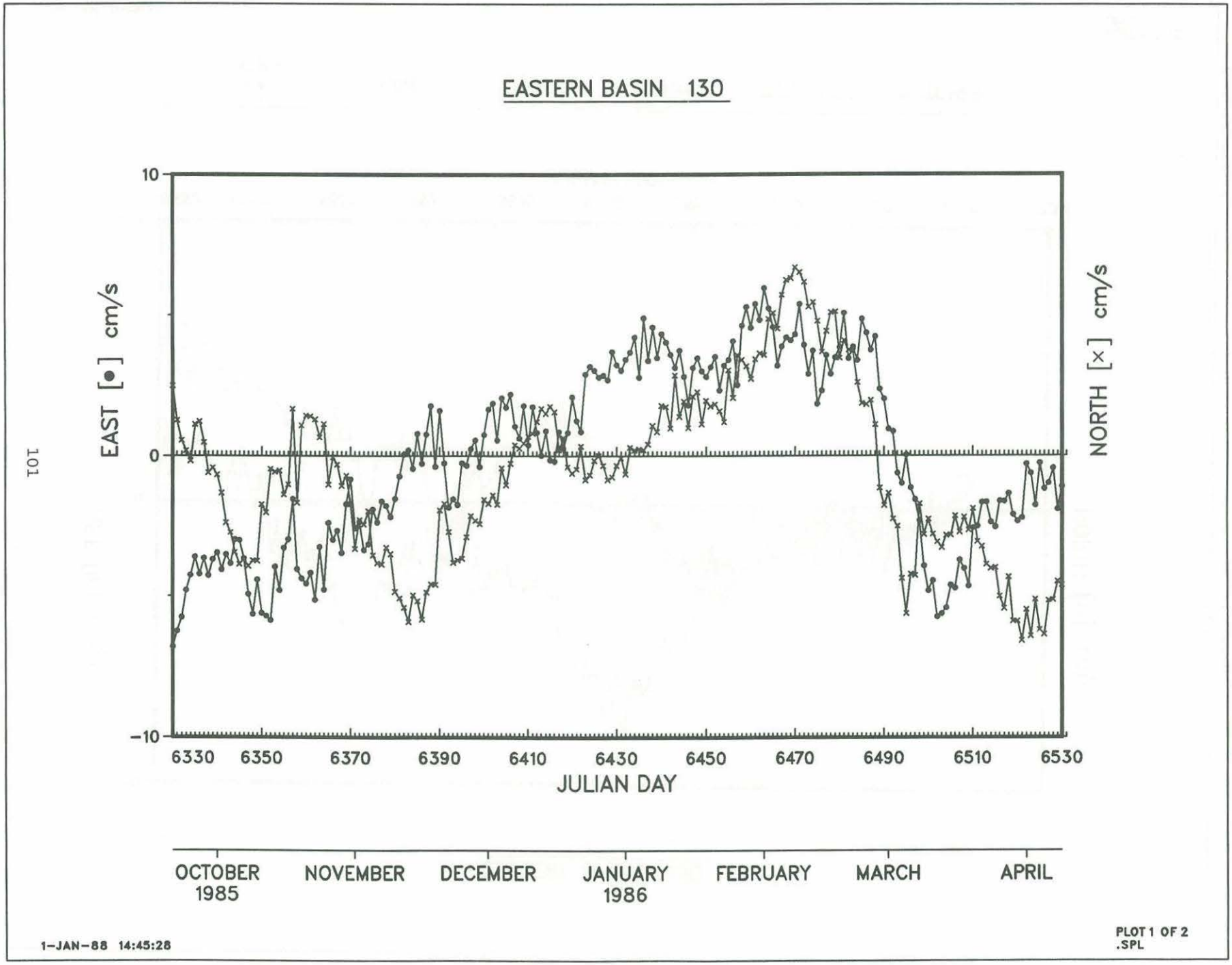


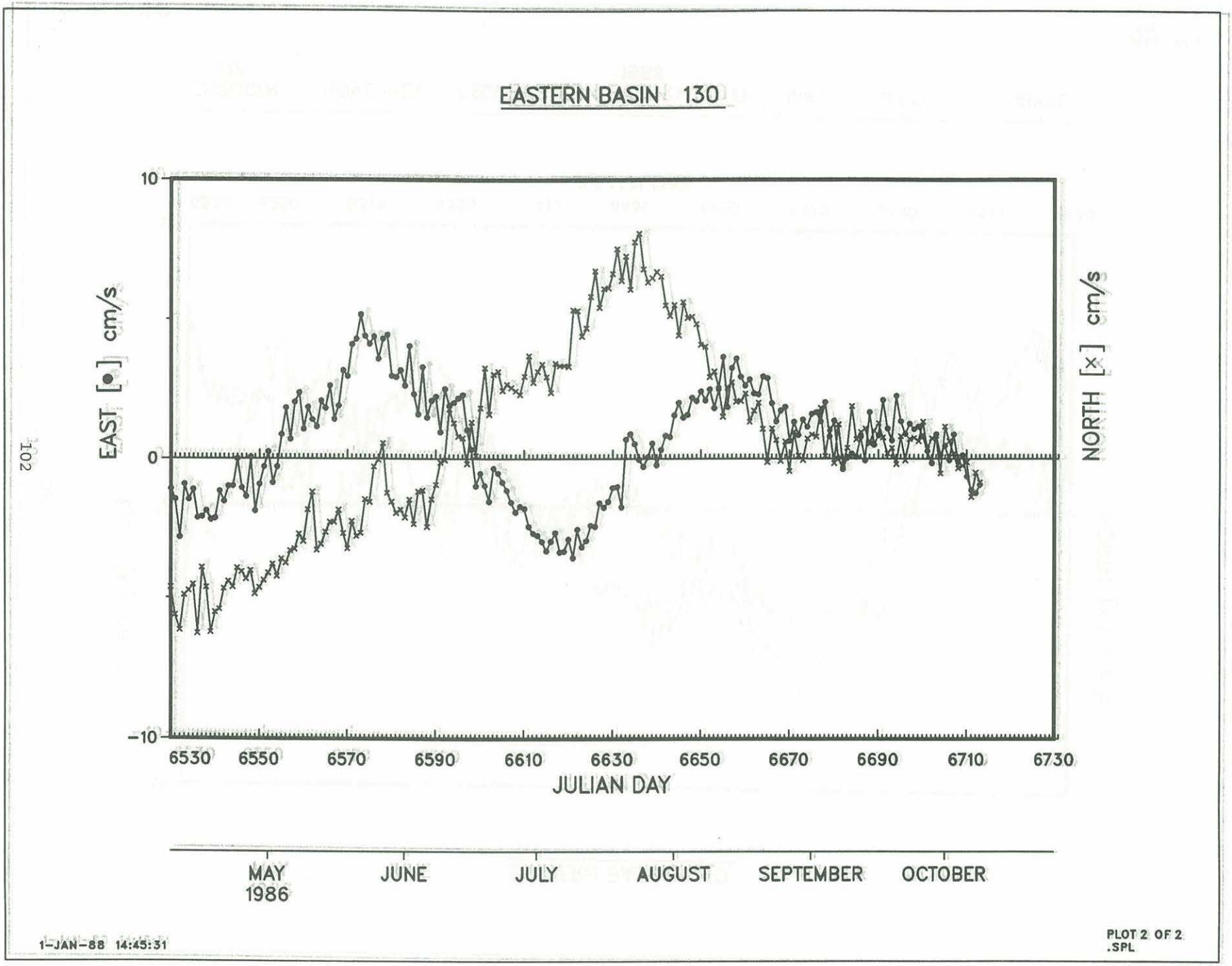
1-JAN-88 14:45:41

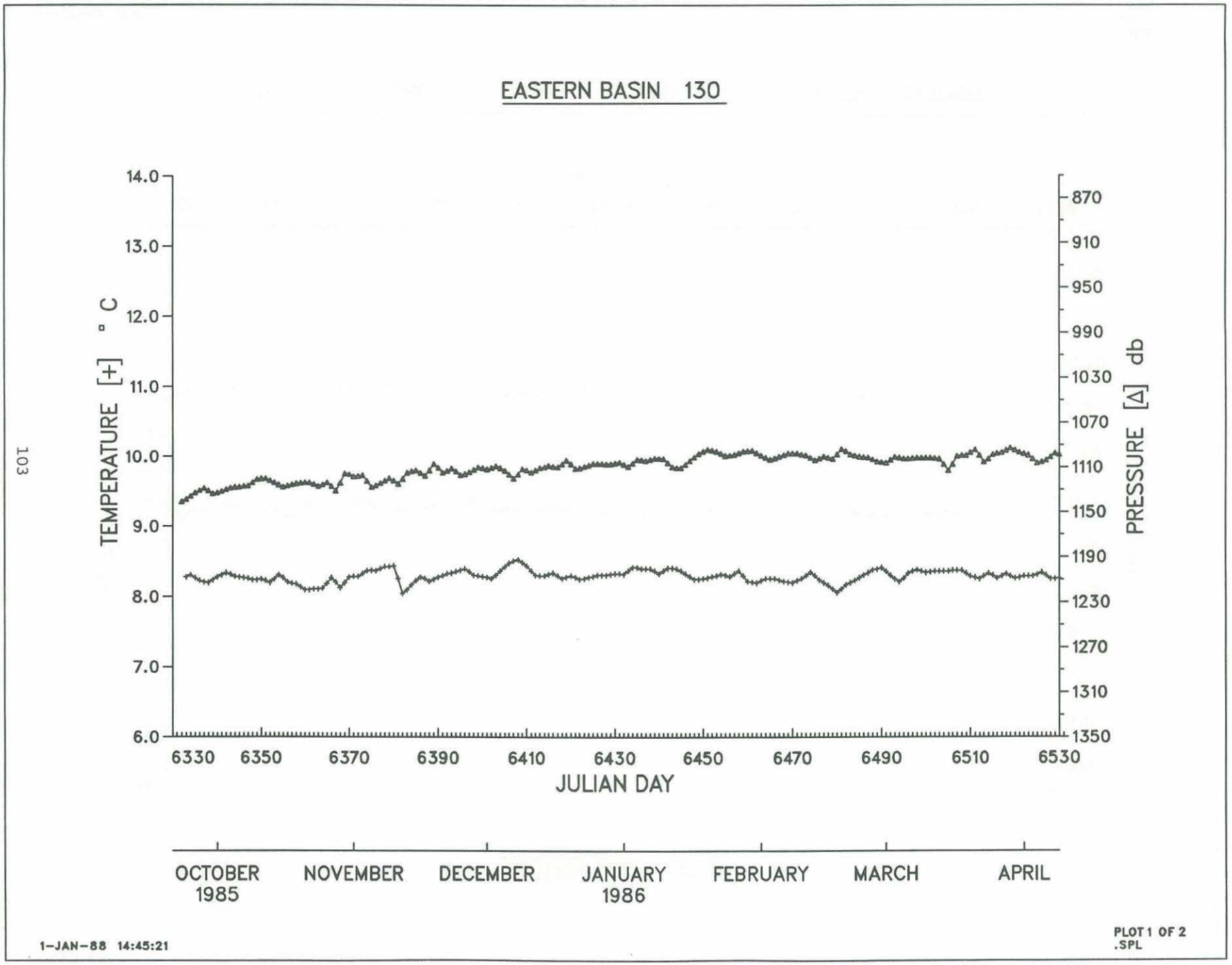
PLOT 1 OF 1
.SPL

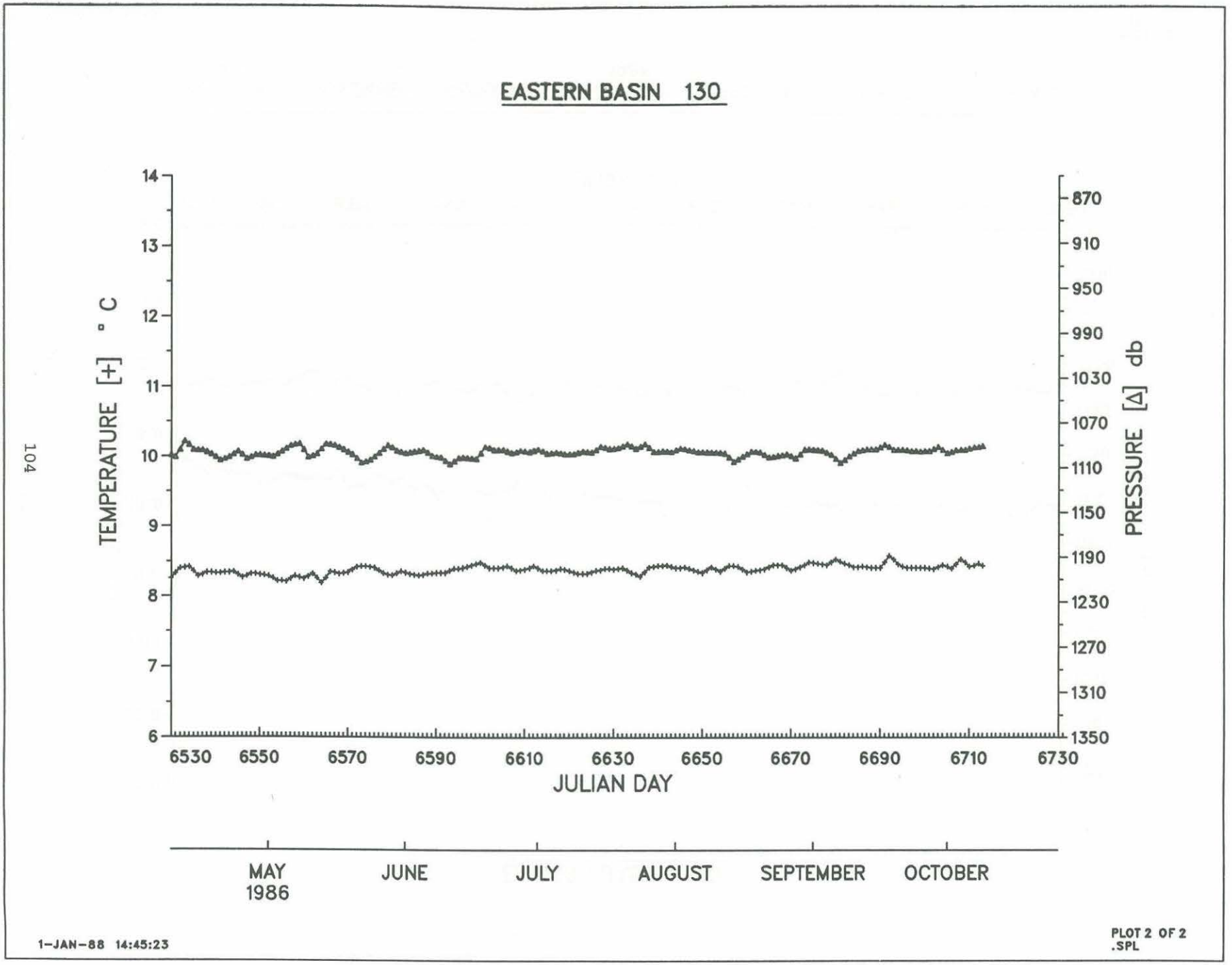

EASTERN BASIN 130
10
0
-10
U & V cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
66
1-JAN-88 14:45:33
PLOT 1 OF 2
.SPL


EASTERN BASIN 130
10
0
-10
U & V cm/s
6530
6550
6570
6590
6610
6630
6650
6670
6690
6710
6730
JULIAN DAY
MAY
1986
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
100
1-JAN-88 14:45:34
PLOT 2 OF 2
.SPL

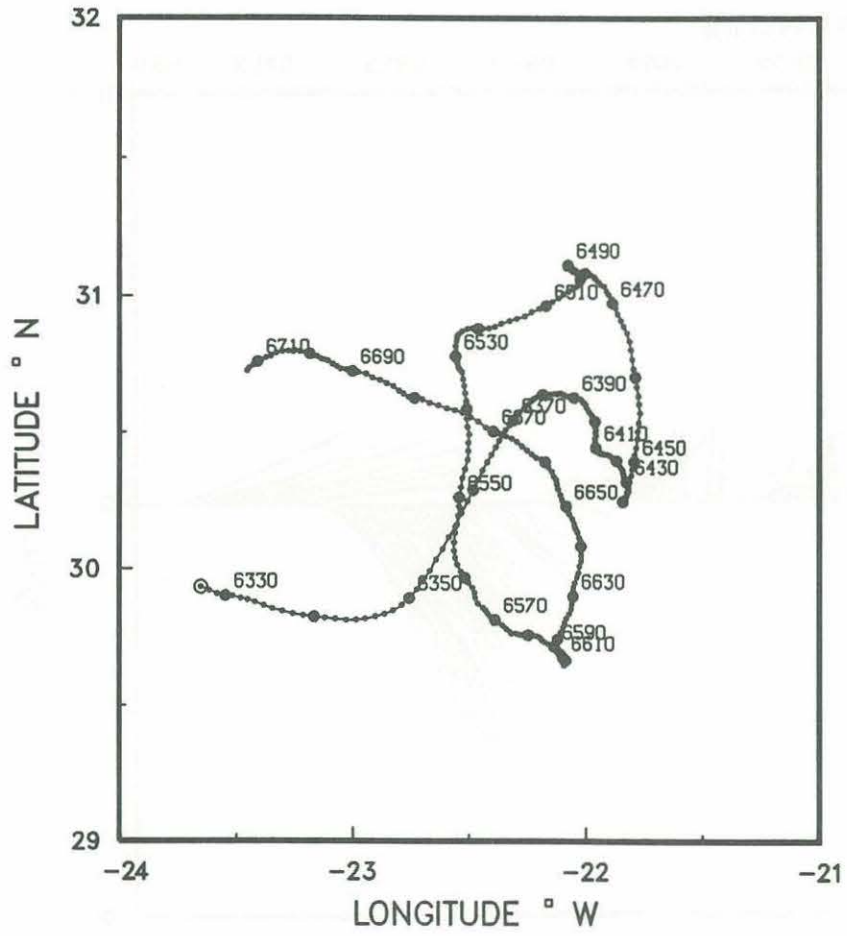

EASTERN BASIN 130
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
1-JAN-88 14:45:28
PLOT 1 OF 2
.SPL


EASTERN BASIN 130
10
0
-10
EAST [•] cm/s
NORTH [x] cm/s
6530
6550
6570
6590
6610
6630
6650
6670
6690
6710
6730
JULIAN DAY
MAY
1986
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
102
1-JAN-88 14:45:31
PLOT 2 OF 2
.SPL


EASTERN BASIN 130
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
APRIL
1-JAN-88 14:45:21
PLOT 1 OF 2
.SPL


EASTERN BASIN 130
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6530
6550
6570
6590
6610
6630
6650
6670
6690
6710
6730
JULIAN DAY
MAY
1986
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
104
1-JAN-88 14:45:23
PLOT 2 OF 2
.SPL

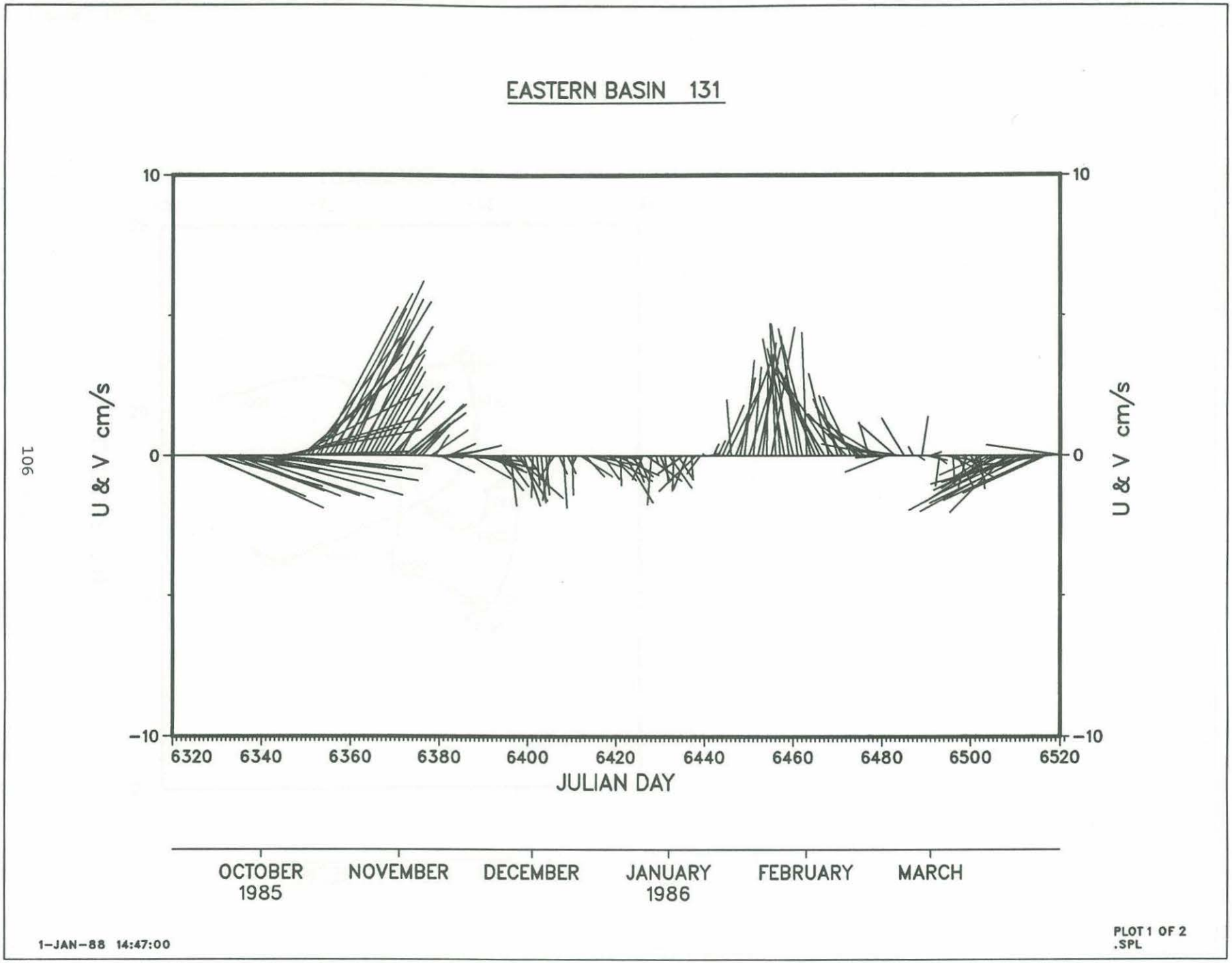
EASTERN BASIN 131

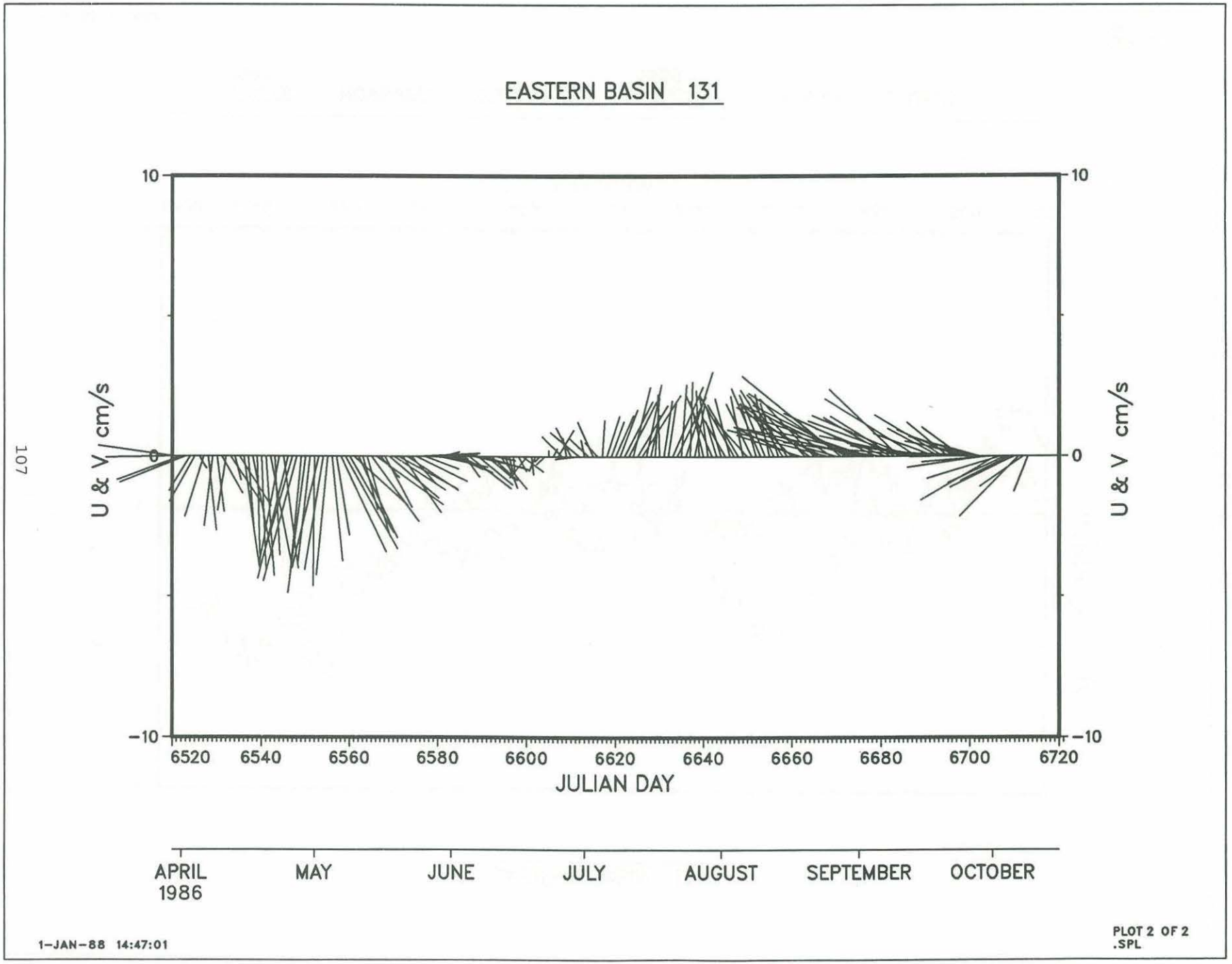


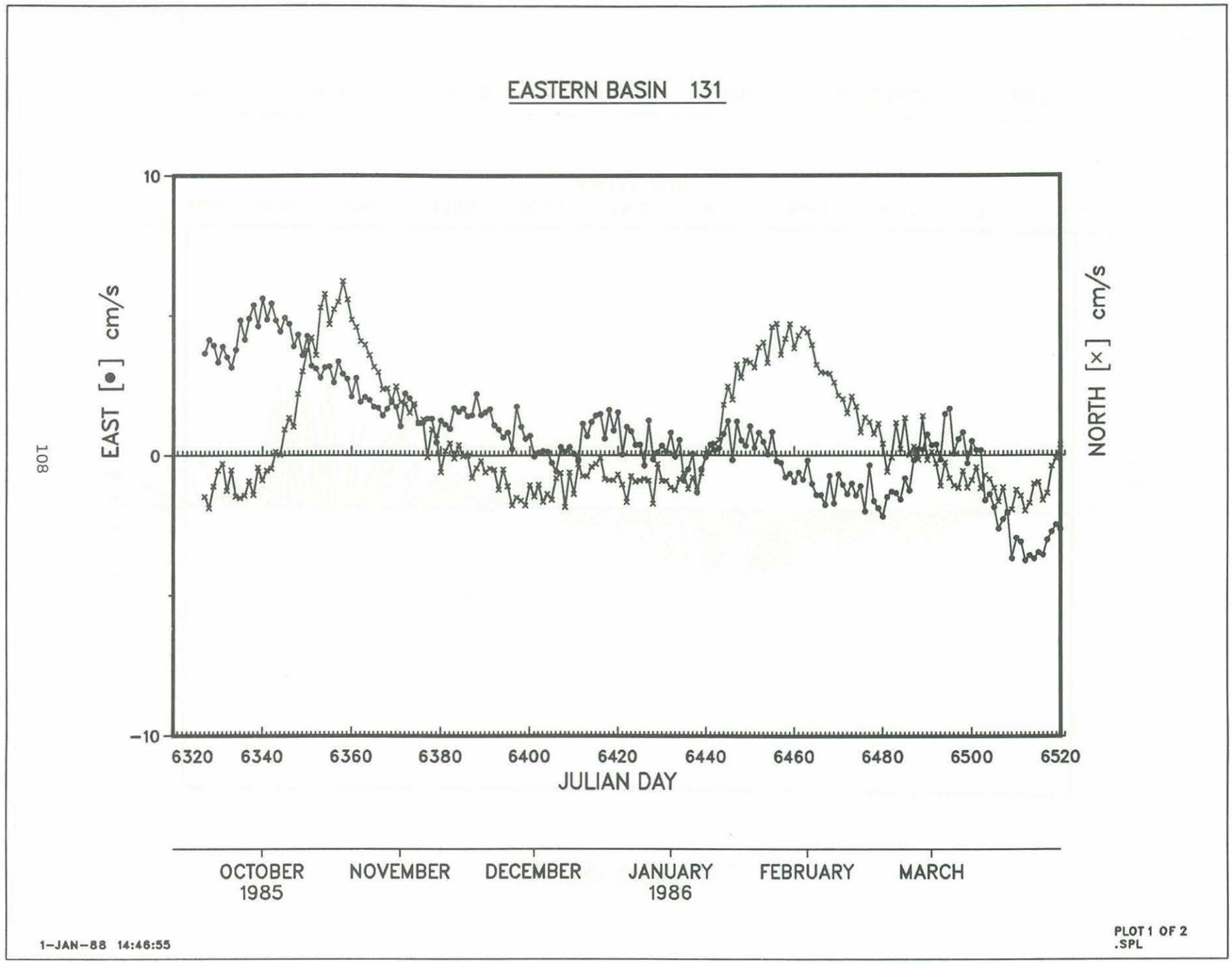
105

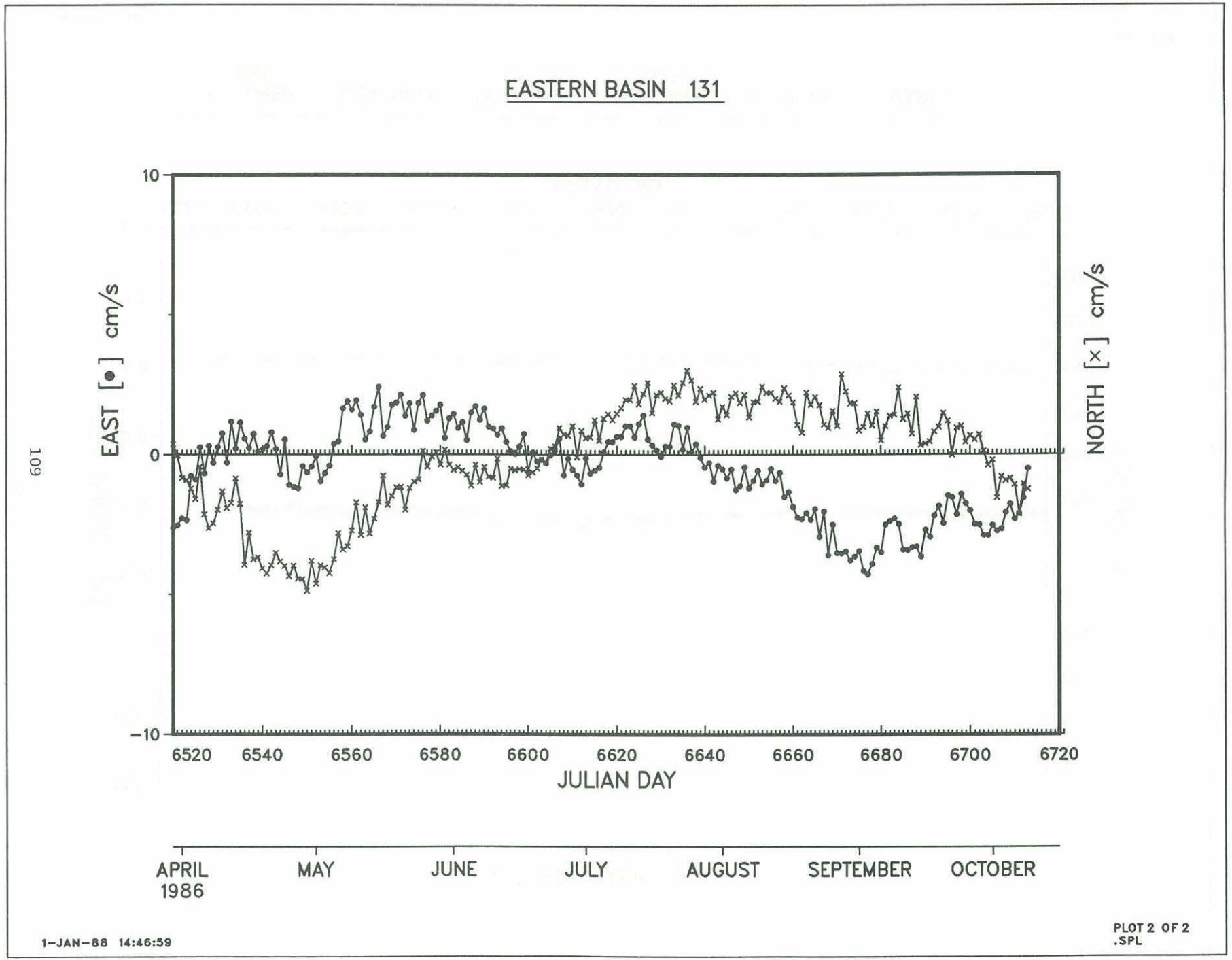
1-JAN-88 14:47:07

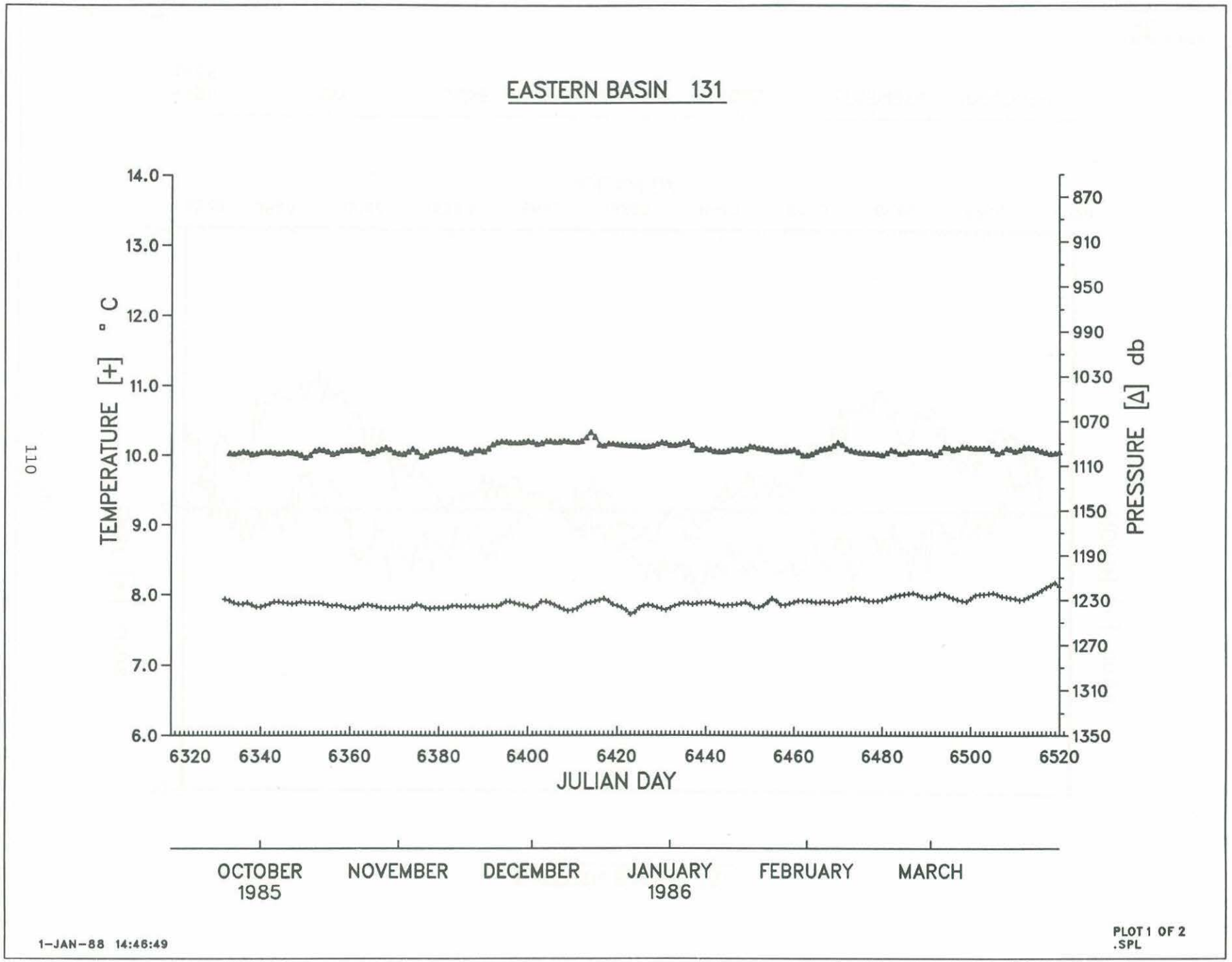
PLOT 1 OF 1
.SPL

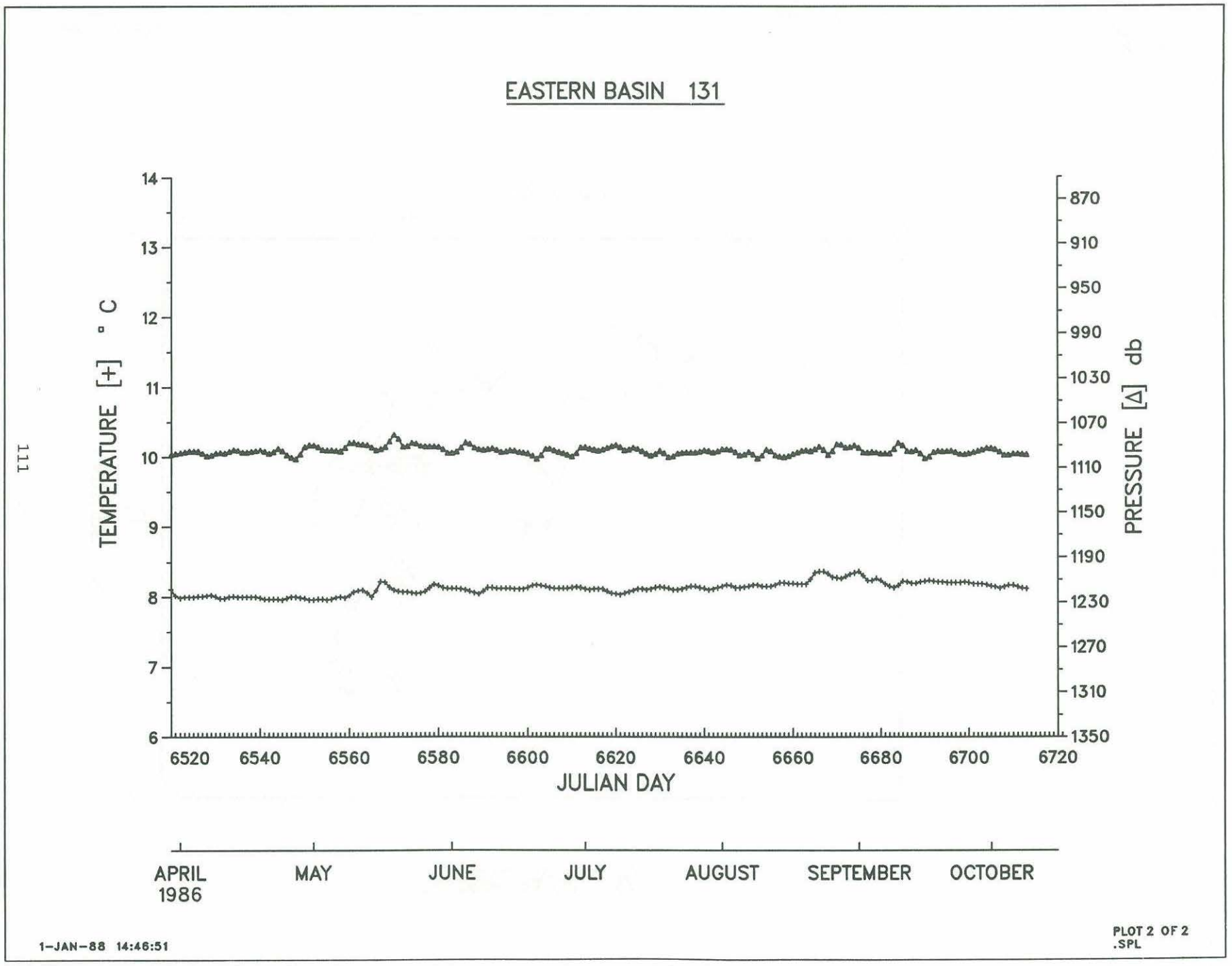

EASTERN BASIN 131
10
0
−10
U & V cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
1-JAN-88 14:47:00
PLOT 1 OF 2
.SPL


EASTERN BASIN 131
10
0
-10
U & V cm/s
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:47:01
PLOT 2 OF 2
.SPL

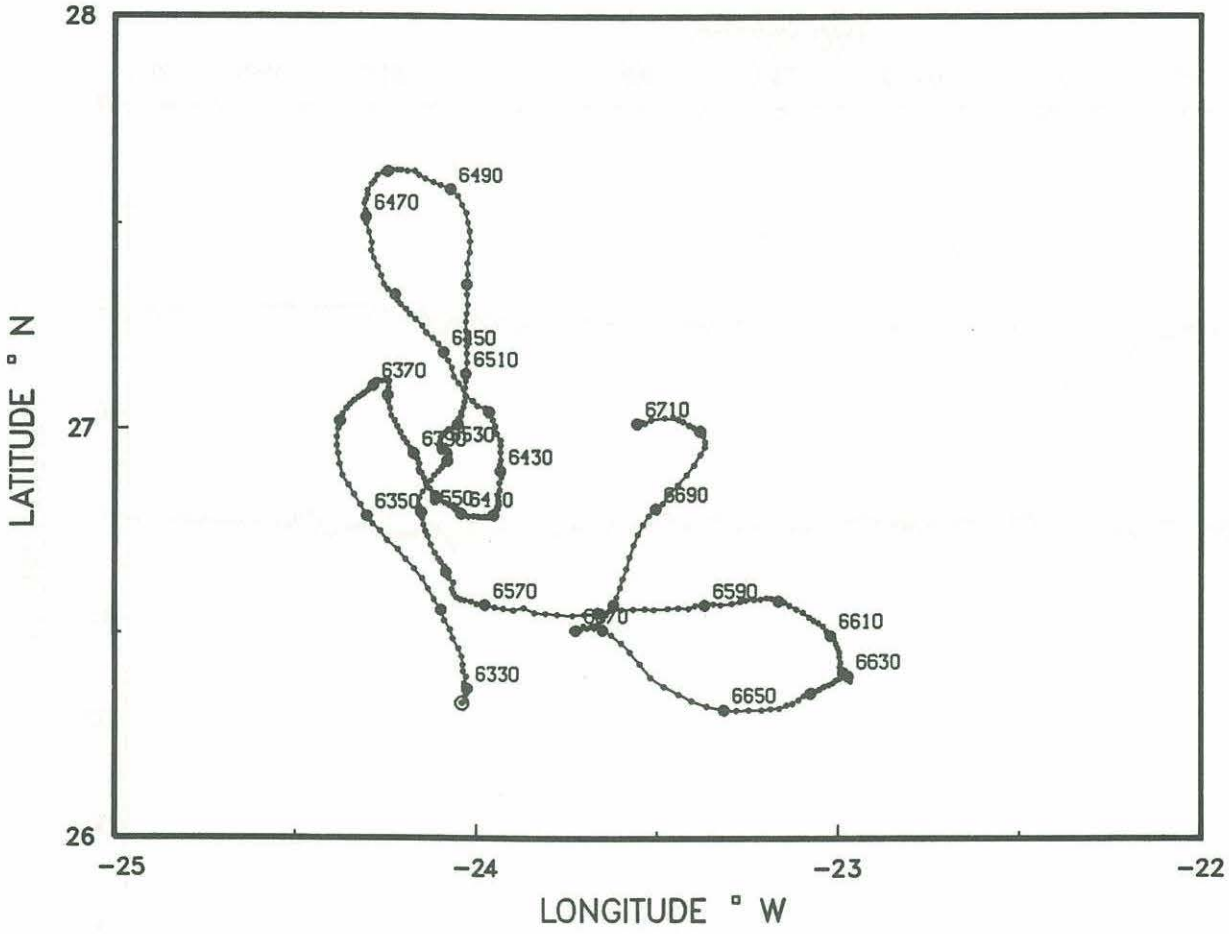

EASTERN BASIN 131
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
108
1-JAN-88 14:46:55
PLOT 1 OF 2
.SPL


EASTERN BASIN 131
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:46:59
PLOT 2 OF 2
.SPL


EASTERN BASIN 131
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
110
1-JAN-88 14:46:49
PLOT 1 OF 2
.SPL

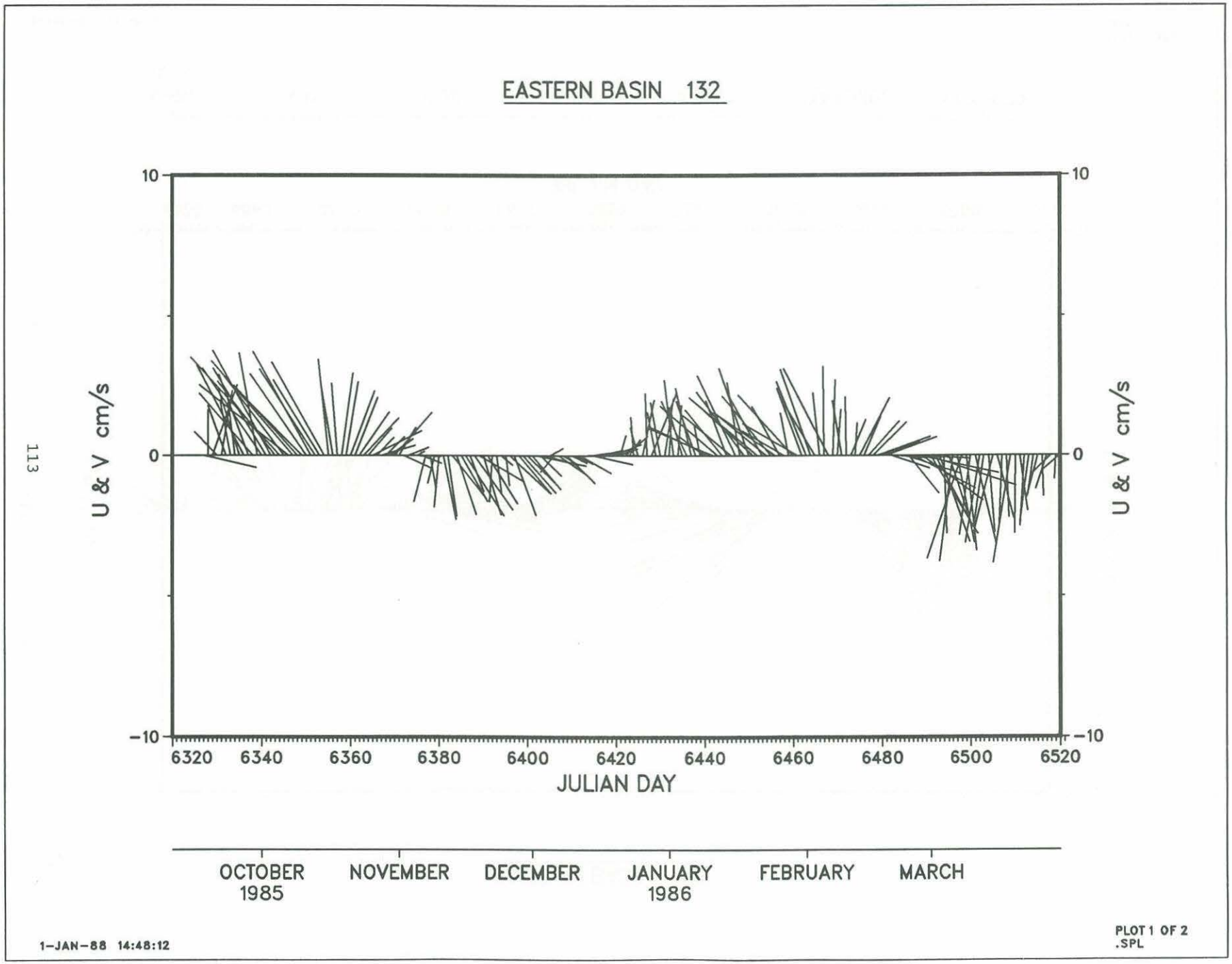

EASTERN BASIN 131
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:46:51
PLOT 2 OF 2
.SPL

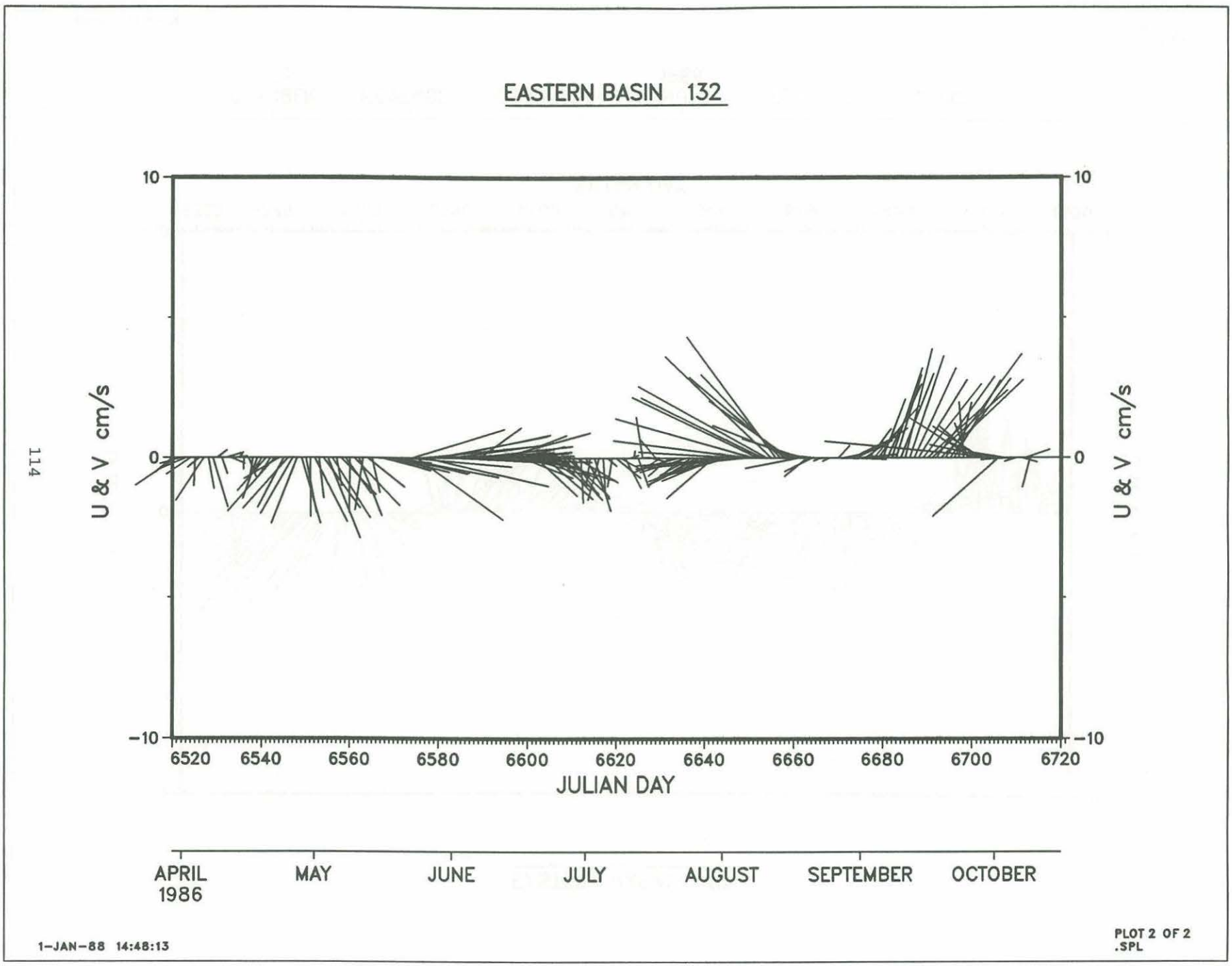
EASTERN BASIN 132

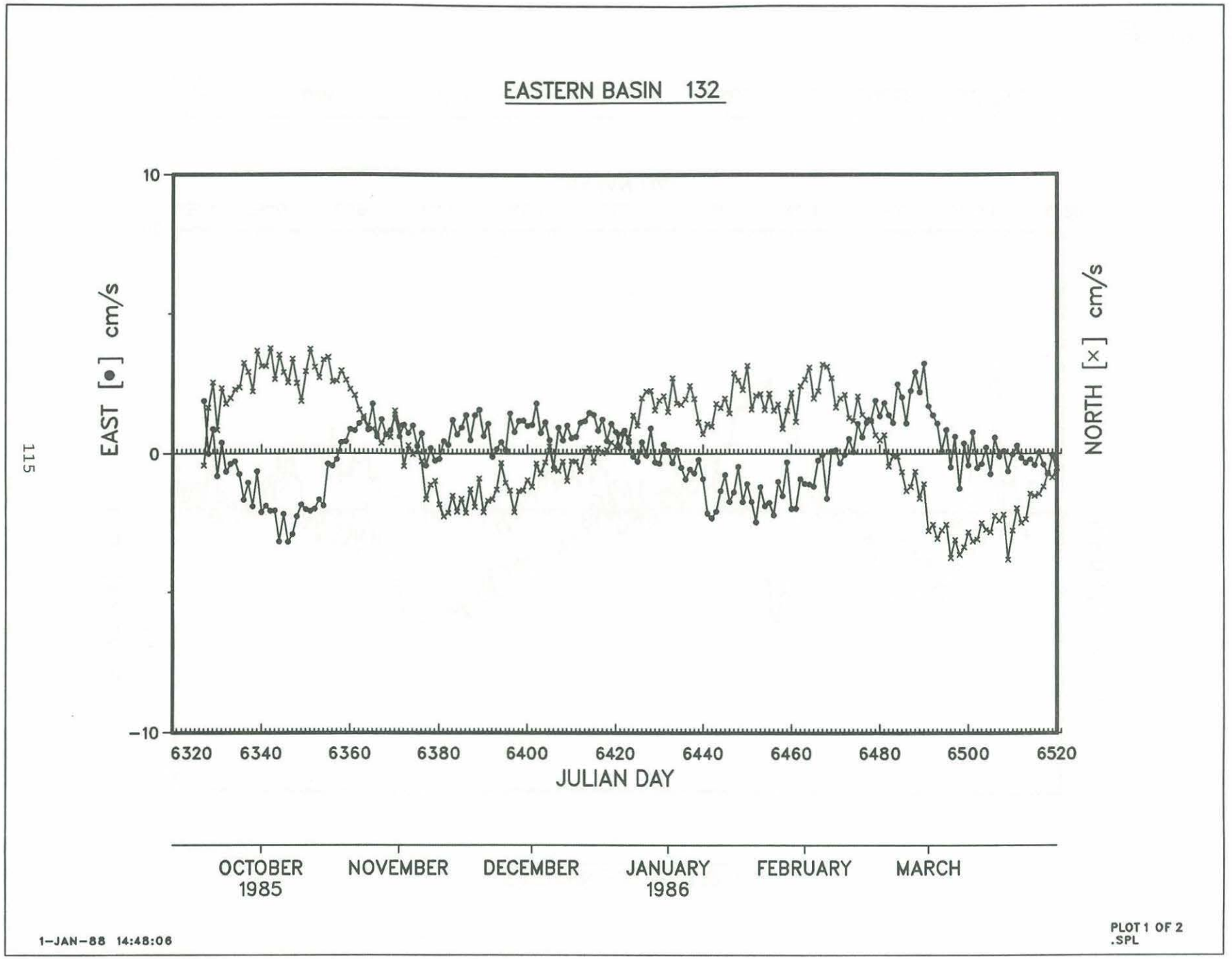


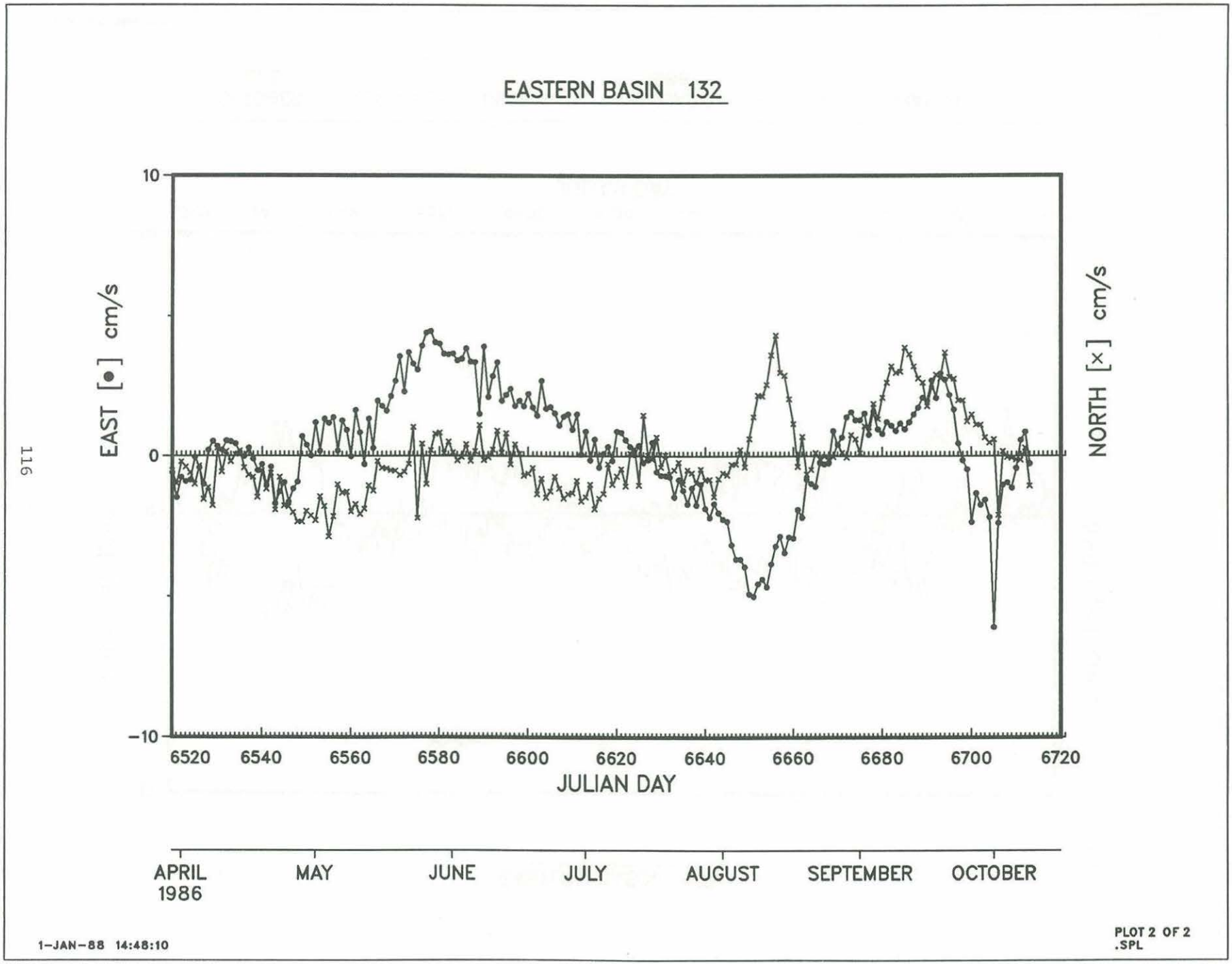
1-JAN-88 14:48:19

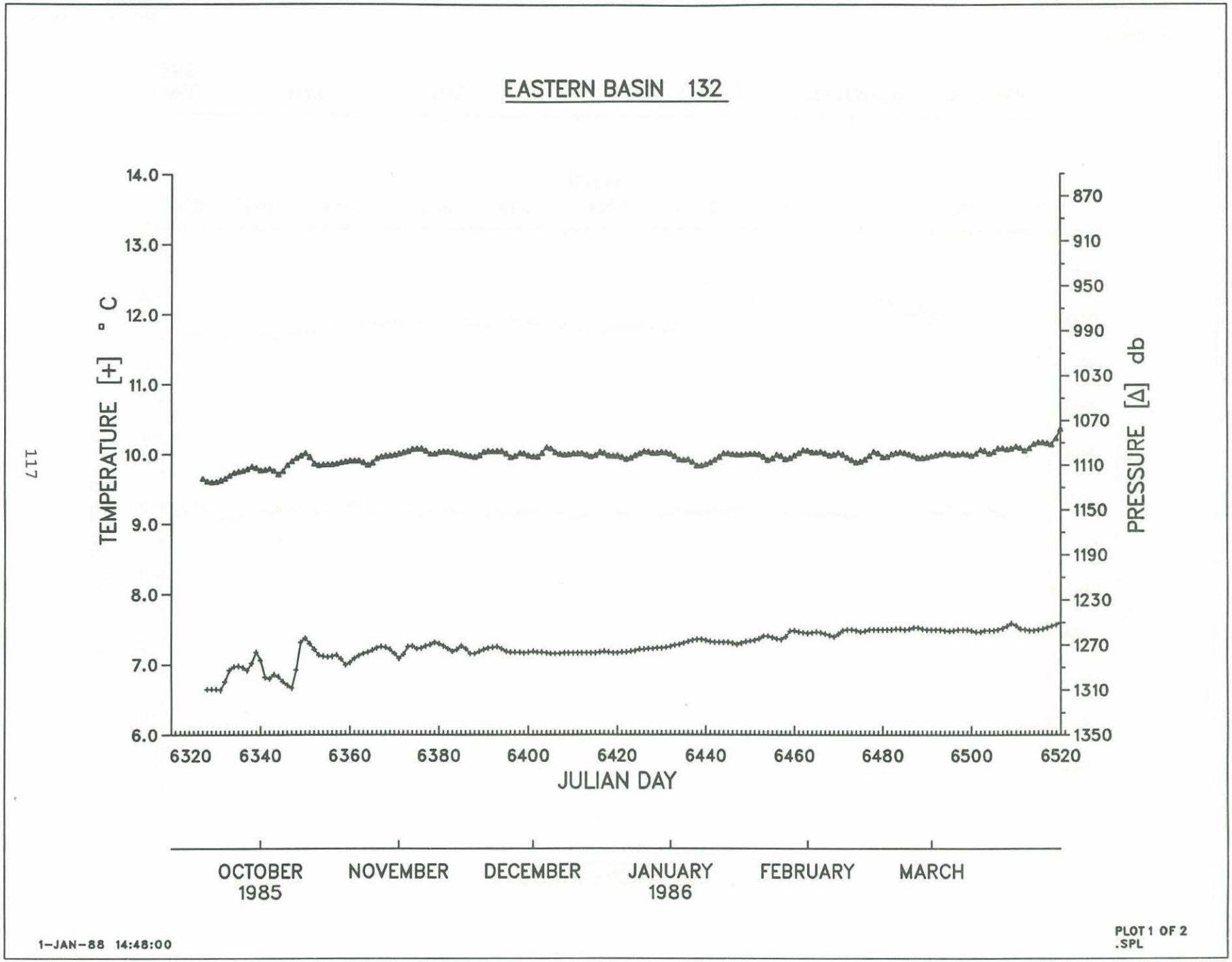
PLOT 1 OF 1
.SPL

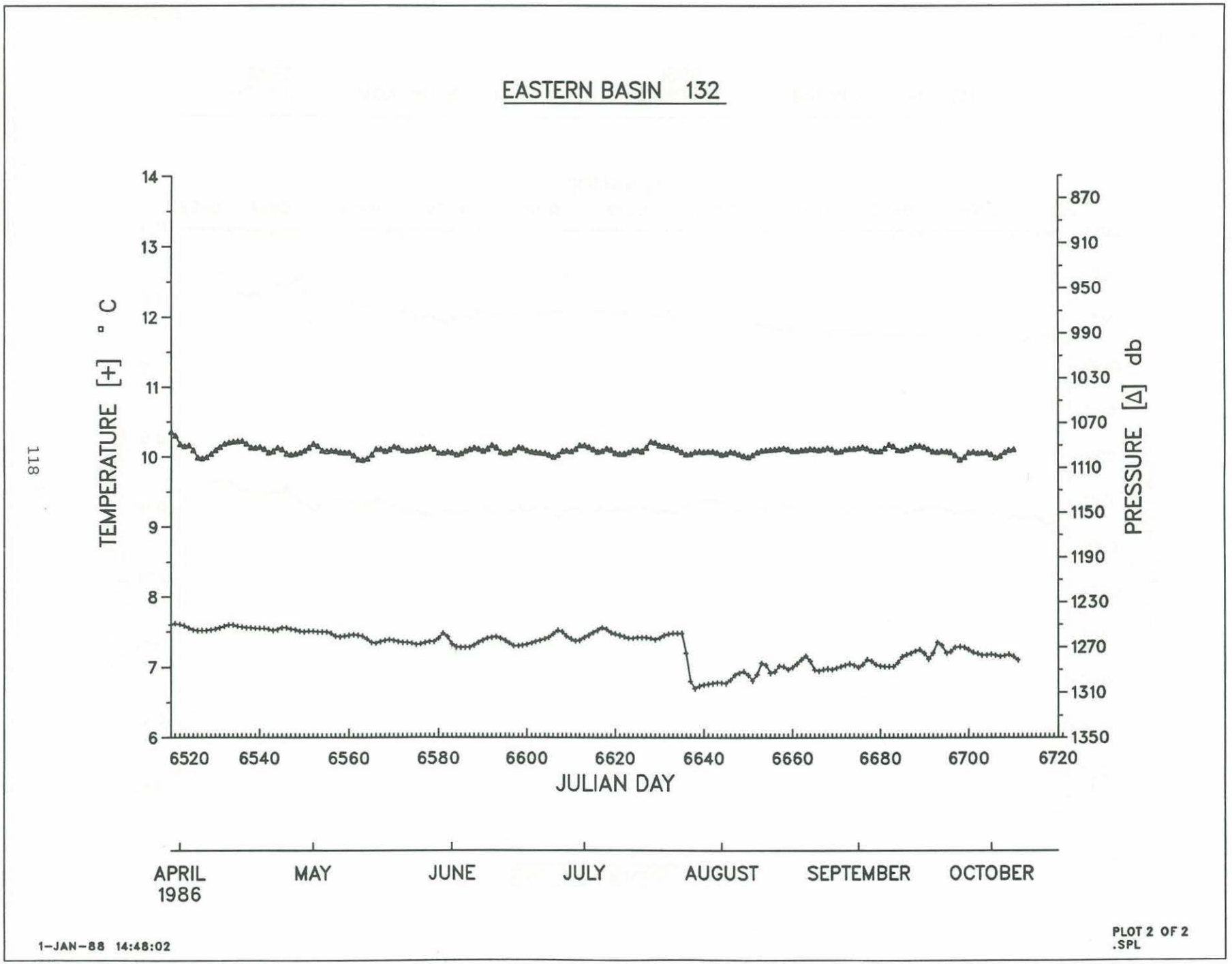

EASTERN BASIN 132
10
0
−10
U & V cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
1-JAN-88 14:48:12
PLOT 1 OF 2
.SPL


EASTERN BASIN 132
10
0
-10
U & V cm/s
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:48:13
PLOT 2 OF 2
.SPL

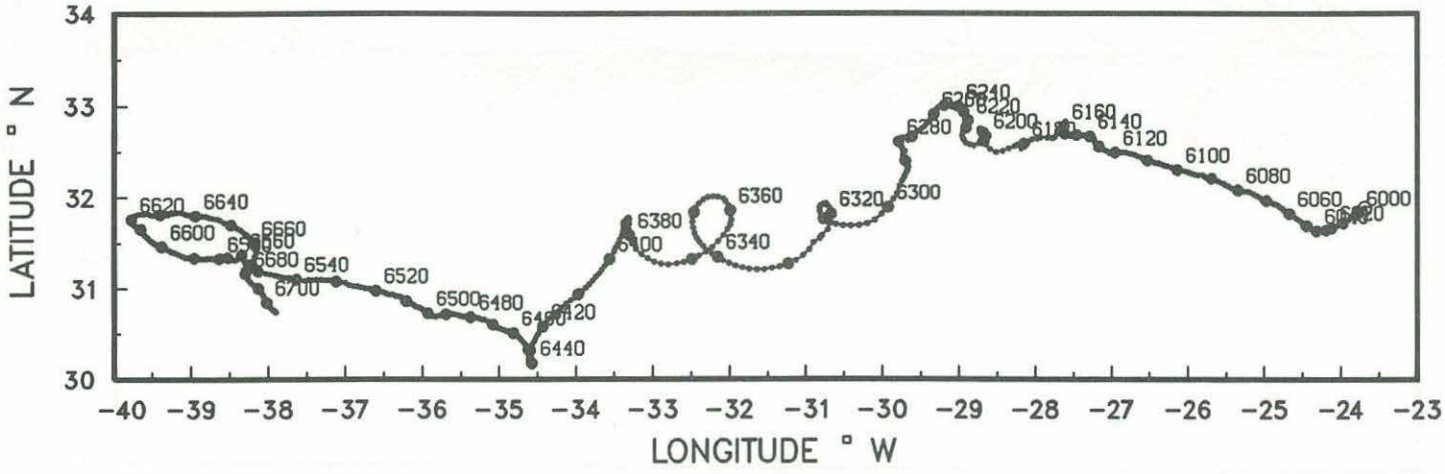

EASTERN BASIN 132
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
1-JAN-88 14:48:06
PLOT 1 OF 2
.SPL


EASTERN BASIN 132
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:48:10
PLOT 2 OF 2
.SPL


EASTERN BASIN 132
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
1-JAN-88 14:48:00
PLOT 1 OF 2
.SPL

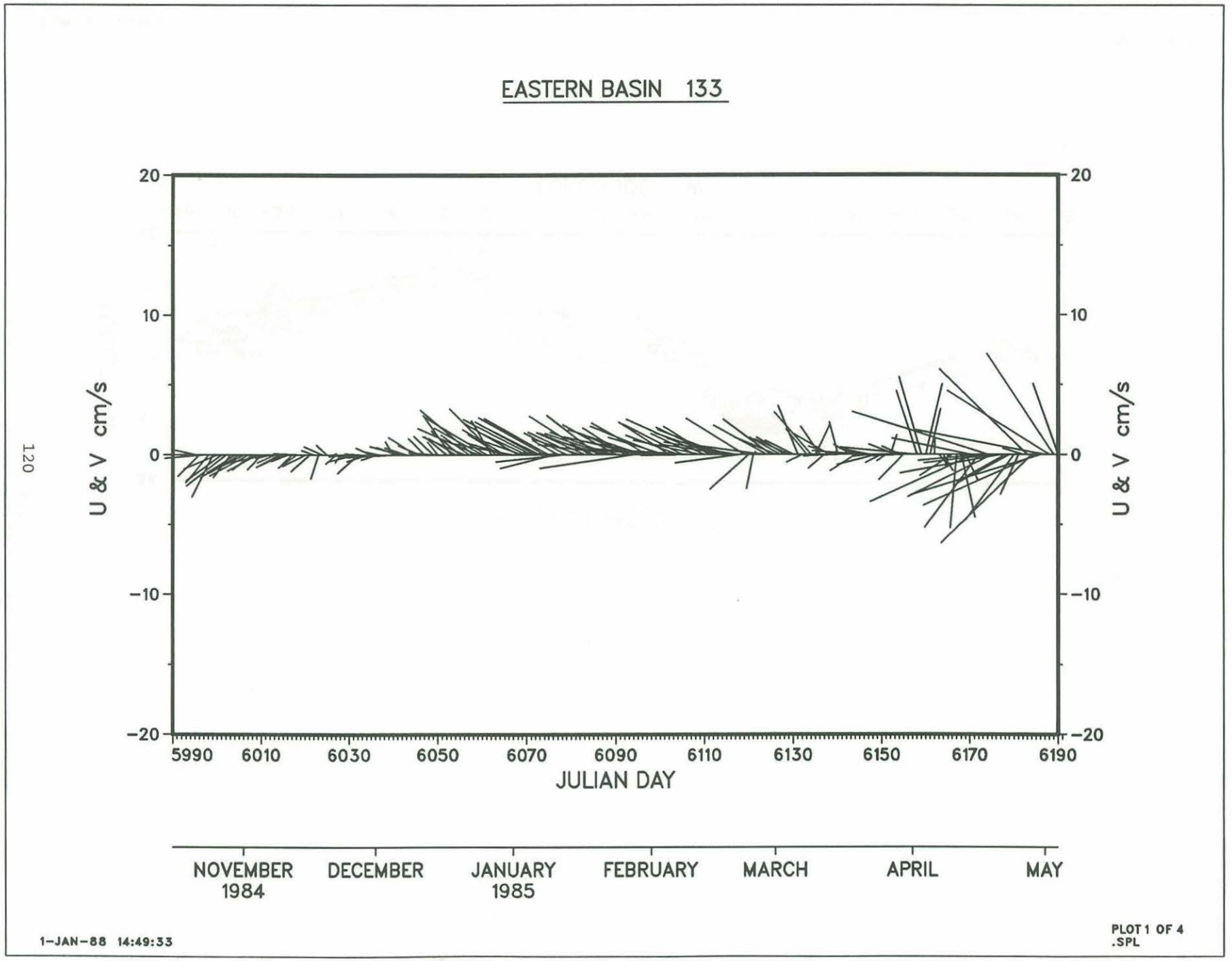

EASTERN BASIN 132
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:48:02
PLOT 2 OF 2
.SPL

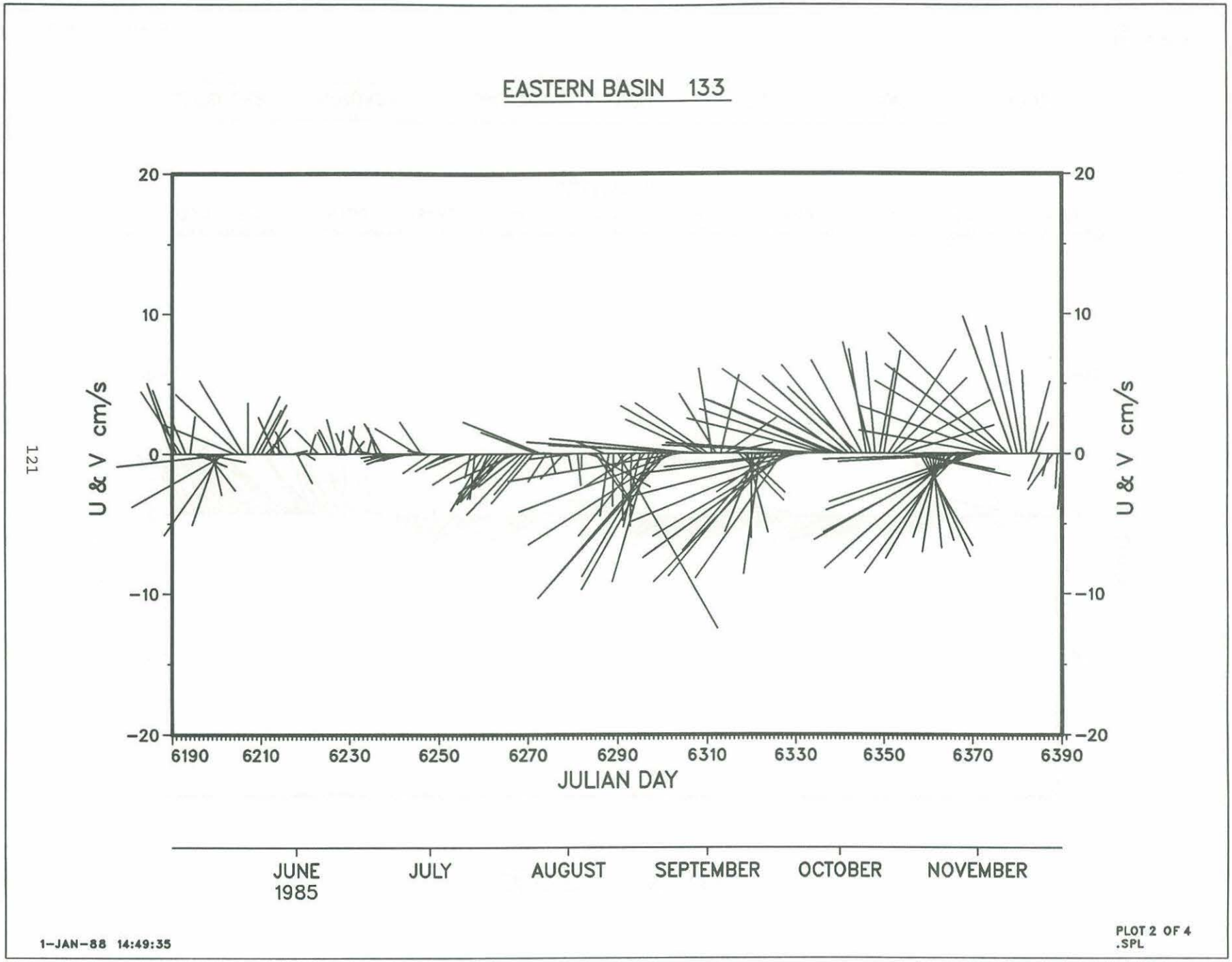
EASTERN BASIN 133

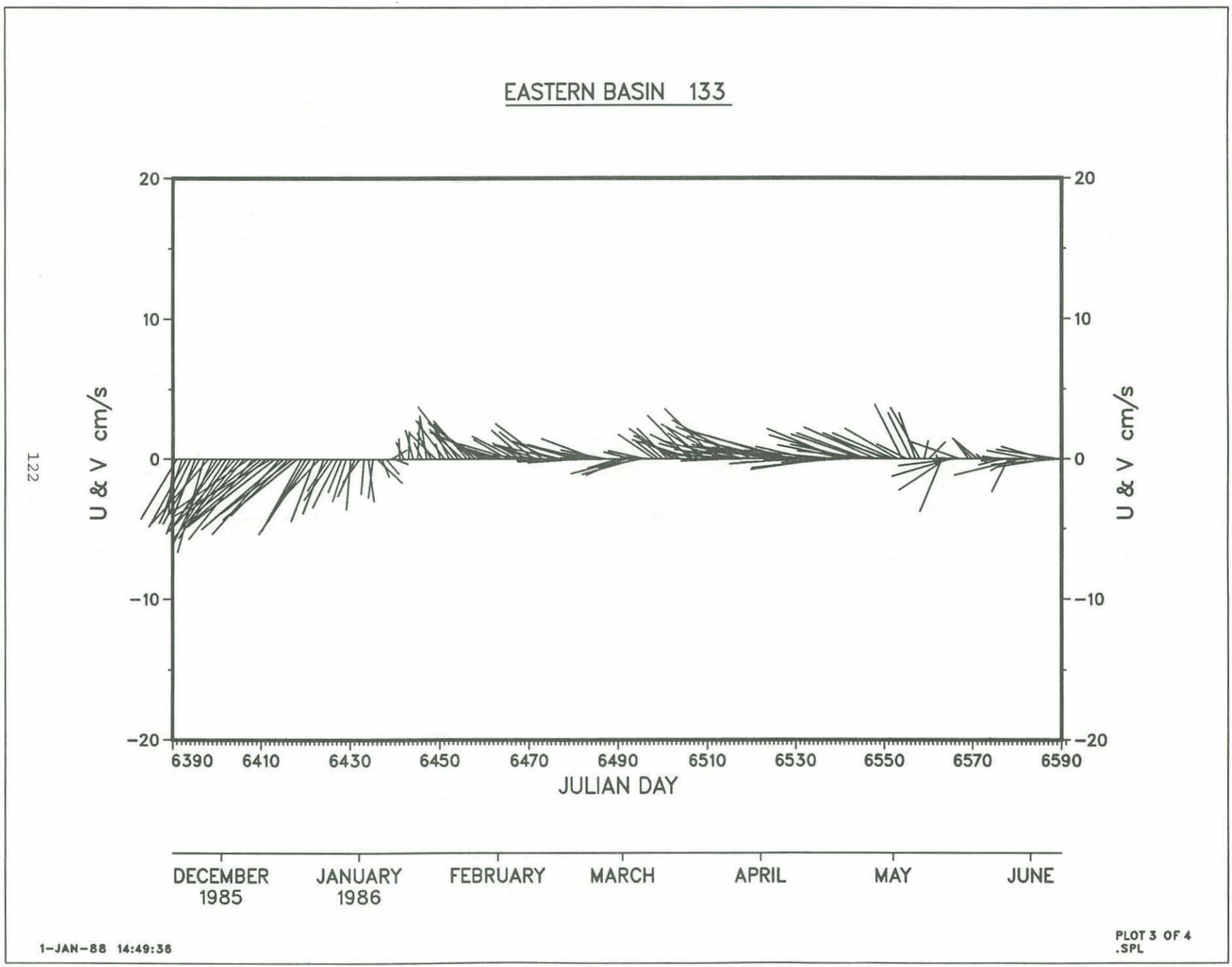


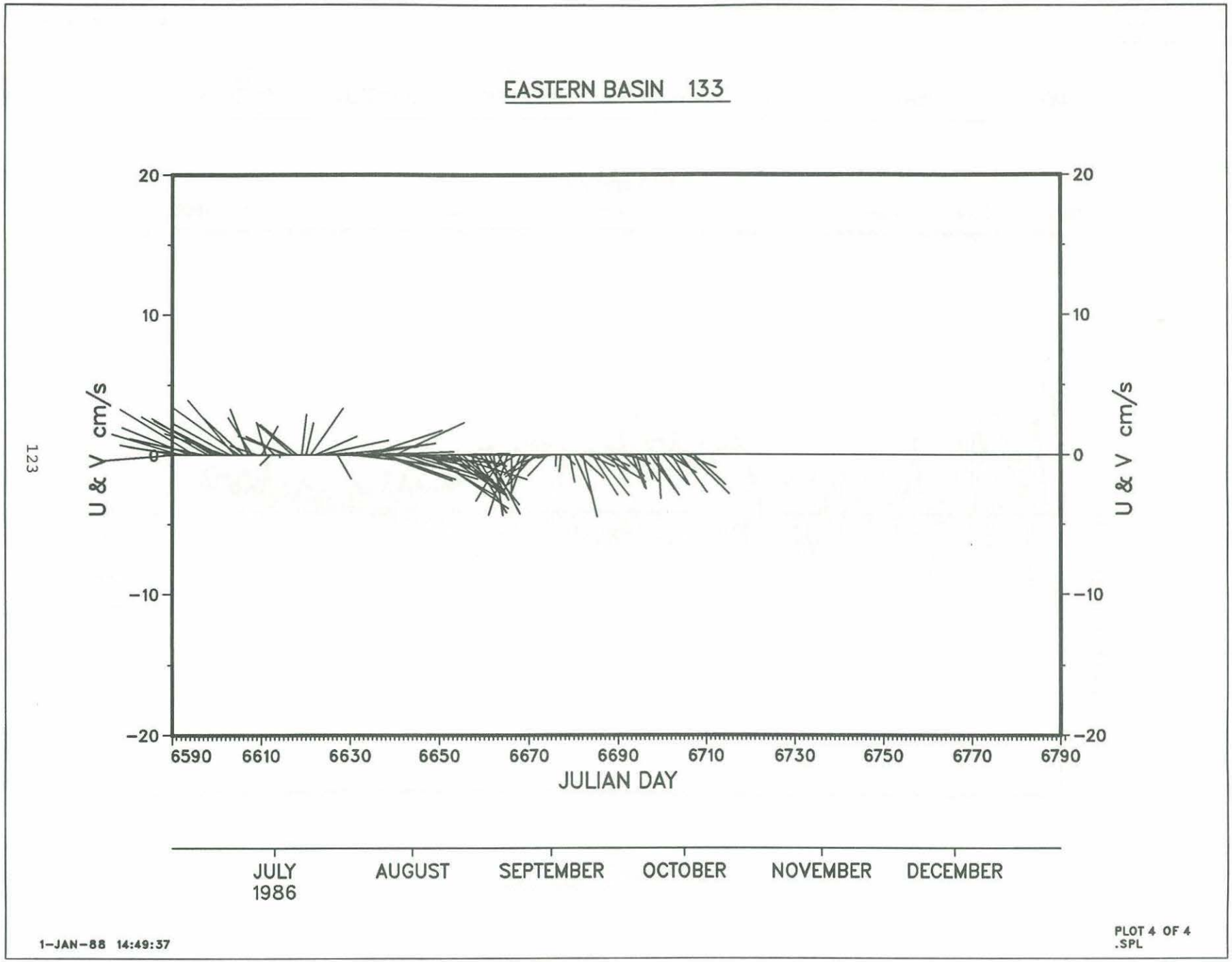
1-JAN-88 14:49:48

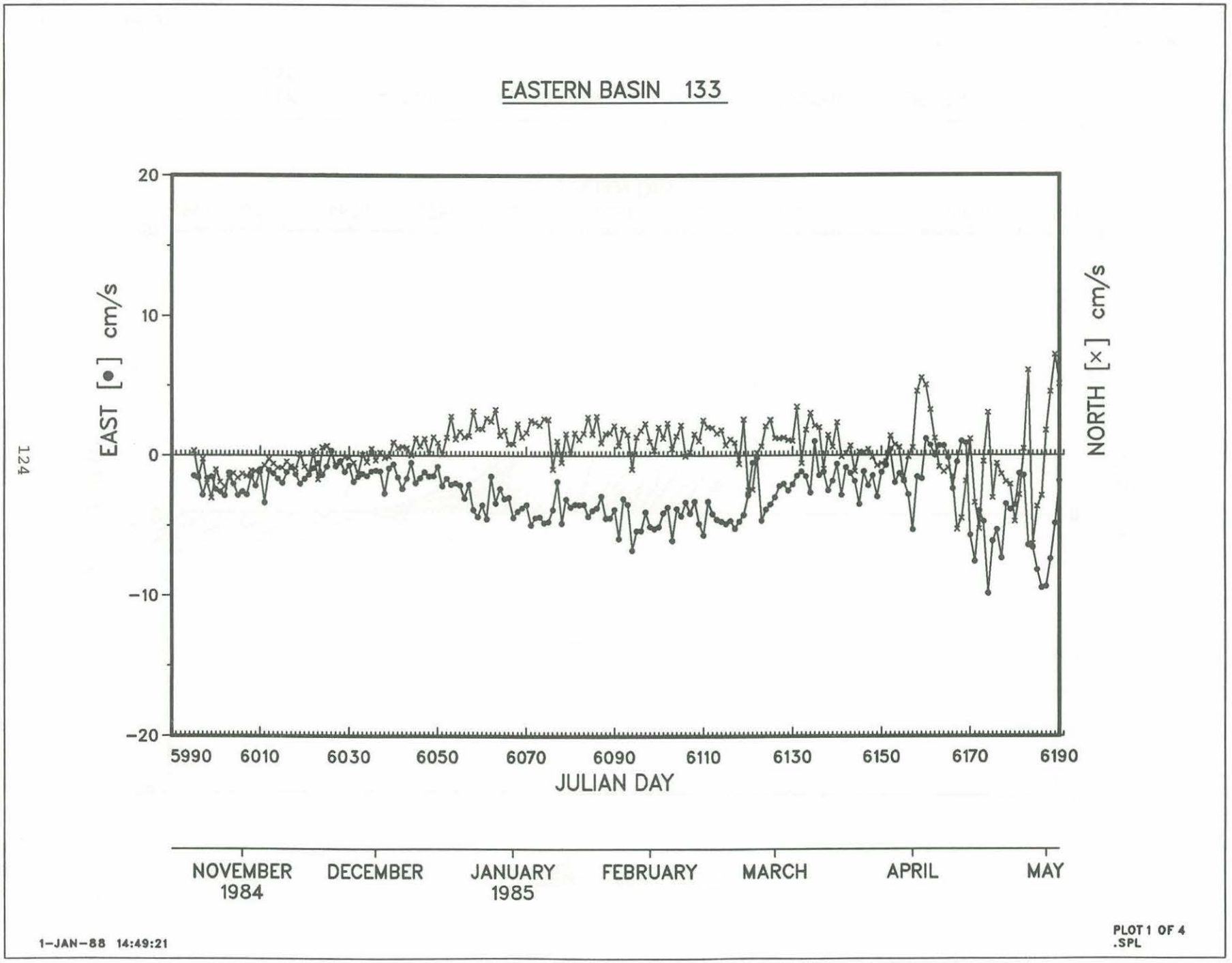
PLOT 1 OF 1
.SPL

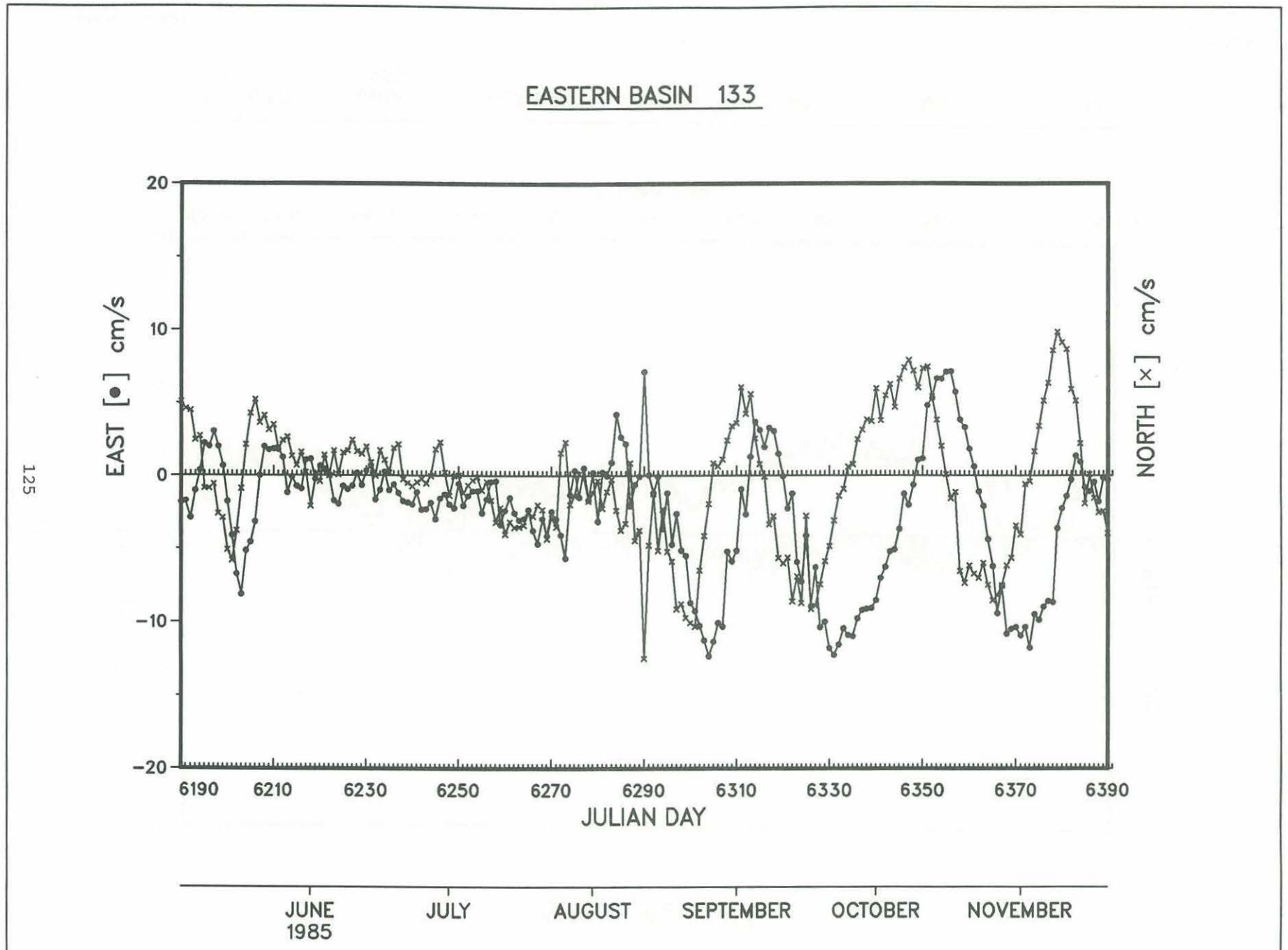

EASTERN BASIN 133
20
10
0
−10
−20
U & V cm/s
5990
6010
6030
6050
6070
6090
6110
6130
6150
6170
6190
JULIAN DAY
NOVEMBER
1984
DECEMBER
JANUARY
1985
FEBRUARY
MARCH
APRIL
MAY
120
1-JAN-88 14:49:33
PLOT 1 OF 4
.SPL

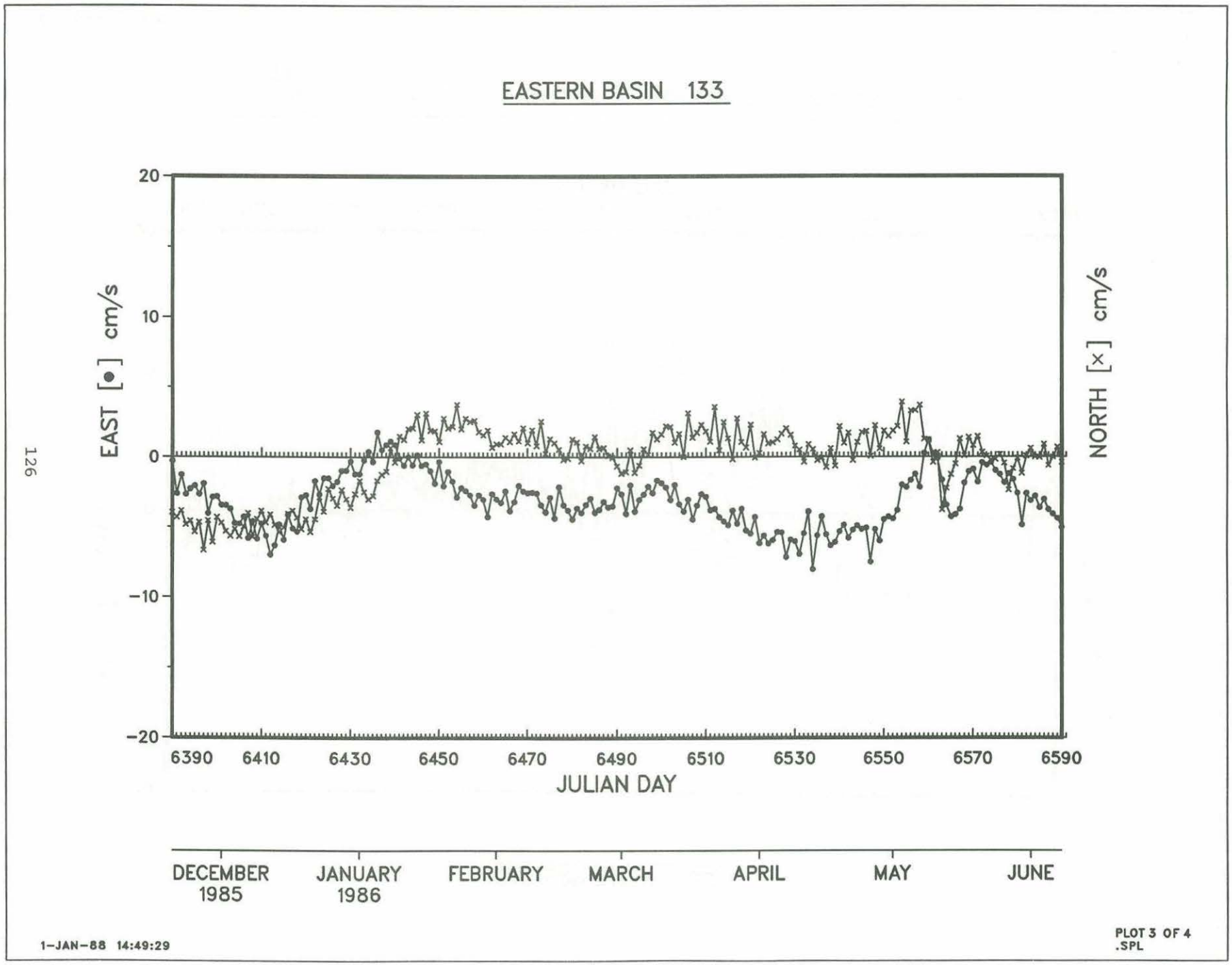

EASTERN BASIN 133
20
10
0
-10
-20
U & V cm/s
6190
6210
6230
6250
6270
6290
6310
6330
6350
6370
6390
JULIAN DAY
JUNE
1985
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
1-JAN-88 14:49:35
PLOT 2 OF 4
.SPL

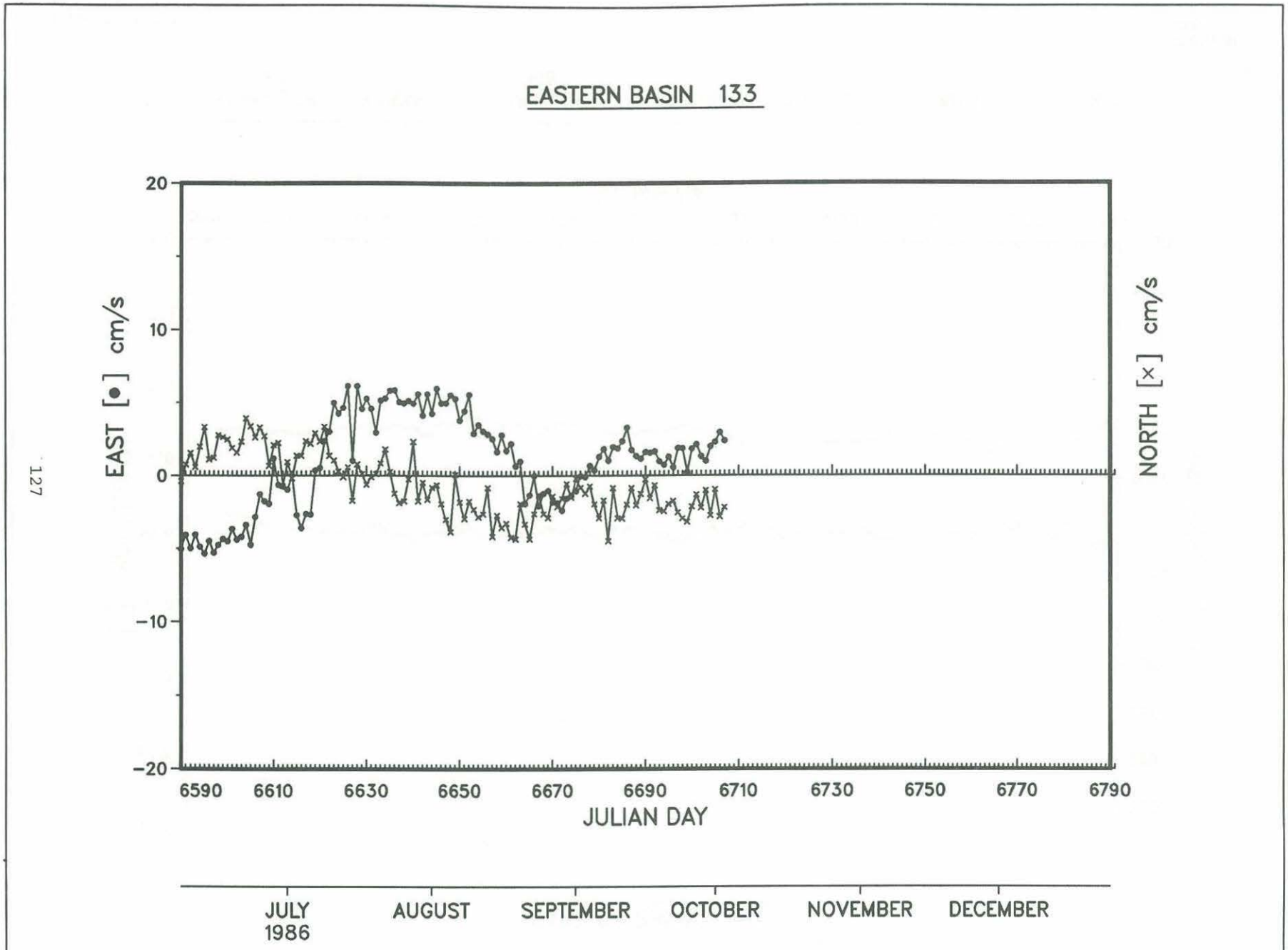

EASTERN BASIN 133
20
10
0
−10
−20
U & V cm/s
6390
6410
6430
6450
6470
6490
6510
6530
6550
6570
6590
JULIAN DAY
DECEMBER 1985
JANUARY 1986
FEBRUARY
MARCH
APRIL
MAY
JUNE
1-JAN-88 14:49:36
PLOT 3 OF 4
.SPL

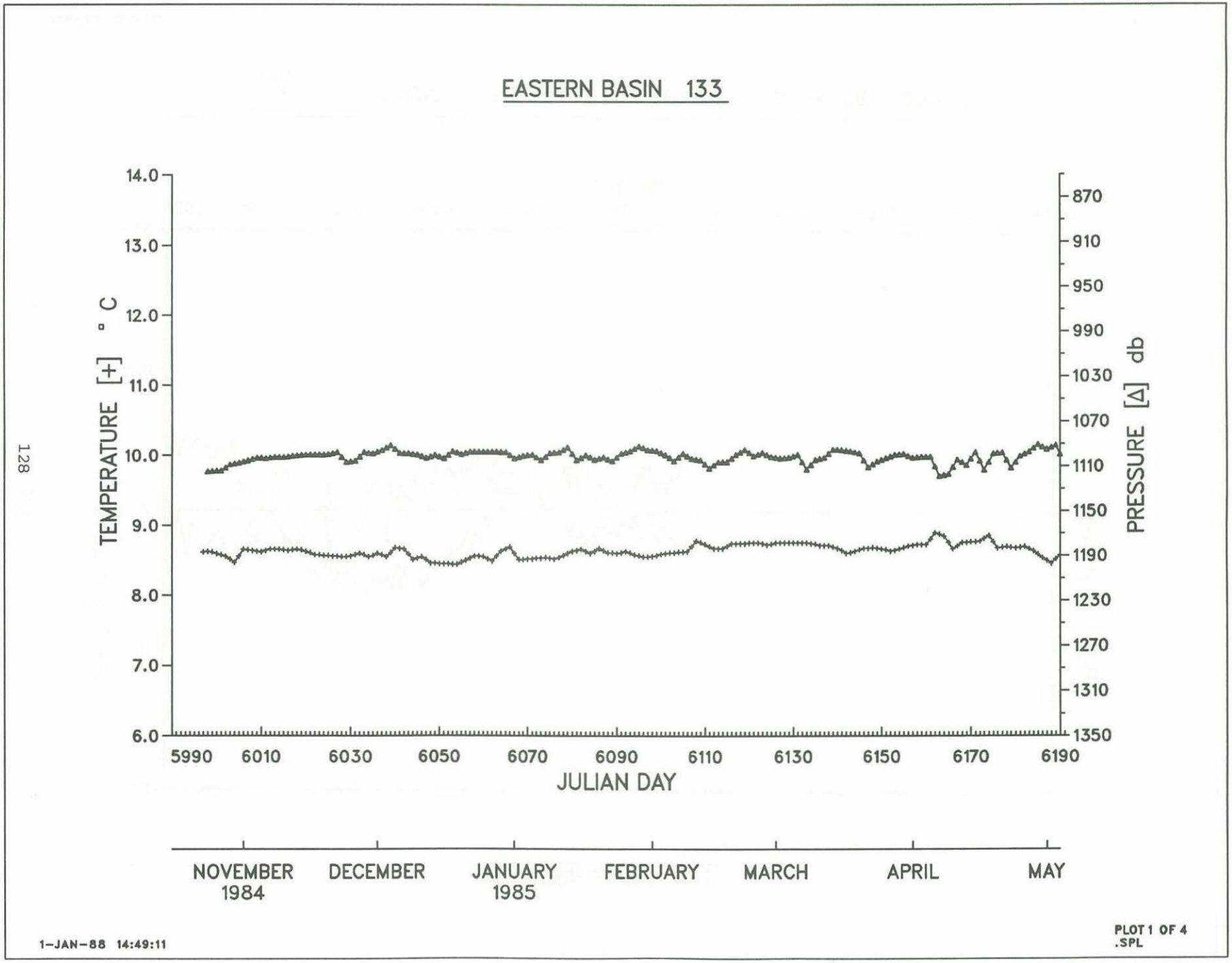

EASTERN BASIN 133
20
10
0
−10
−20
U & V cm/s
6590
6610
6630
6650
6670
6690
6710
6730
6750
6770
6790
JULIAN DAY
JULY
1986
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
1-JAN-88 14:49:37
PLOT 4 OF 4
.SPL

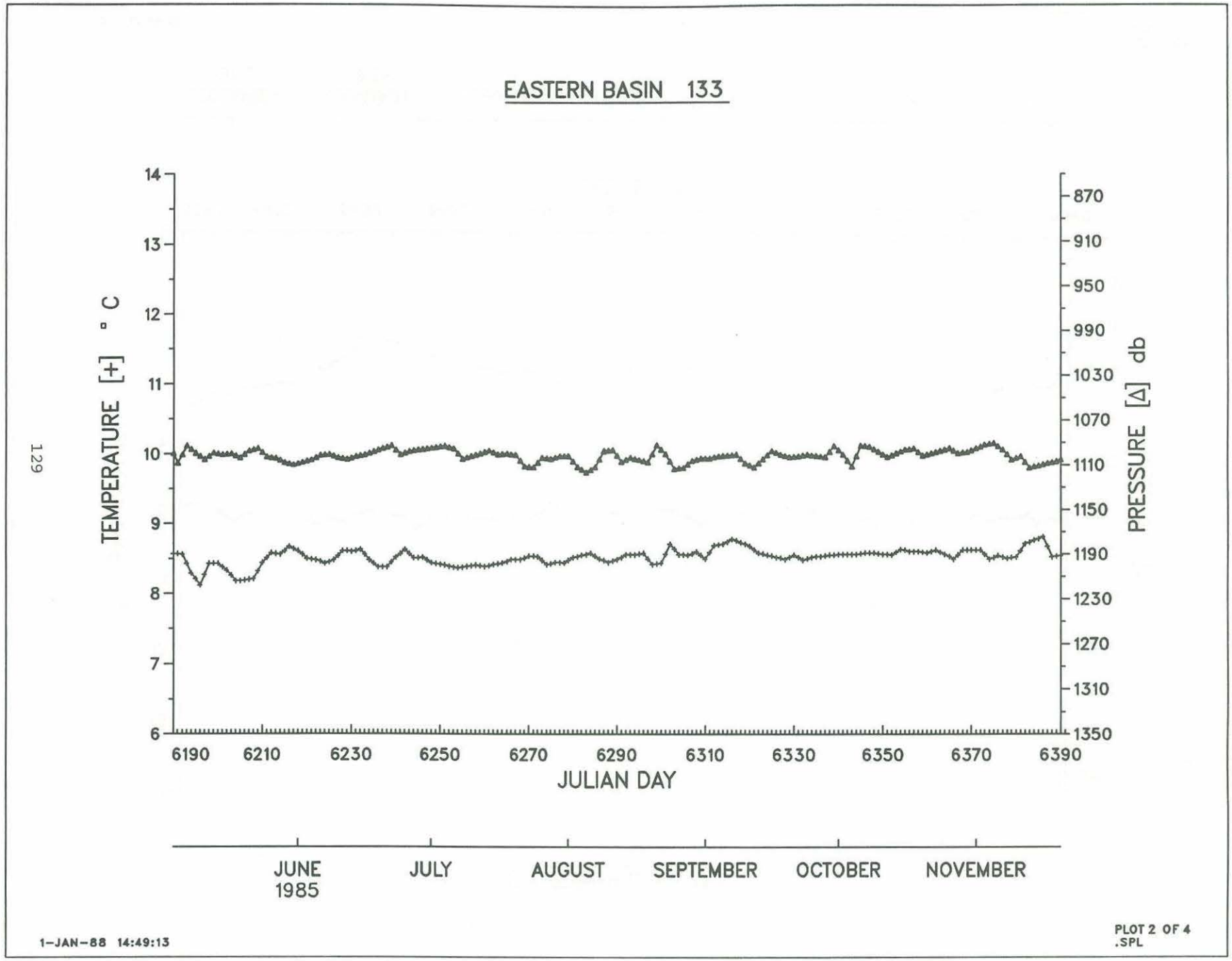

EASTERN BASIN 133
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
−10
−20
5990
6010
6030
6050
6070
6090
6110
6130
6150
6170
6190
JULIAN DAY
NOVEMBER
1984
DECEMBER
JANUARY
1985
FEBRUARY
MARCH
APRIL
MAY
1-JAN-88 14:49:21
PLOT 1 OF 4
.SPL


EASTERN BASIN 133
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
−10
−20
6190
6210
6230
6250
6270
6290
6310
6330
6350
6370
6390
JULIAN DAY
JUNE
1985
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
1-JAN-88 14:49:25
PLOT 2 OF 4
.SPL

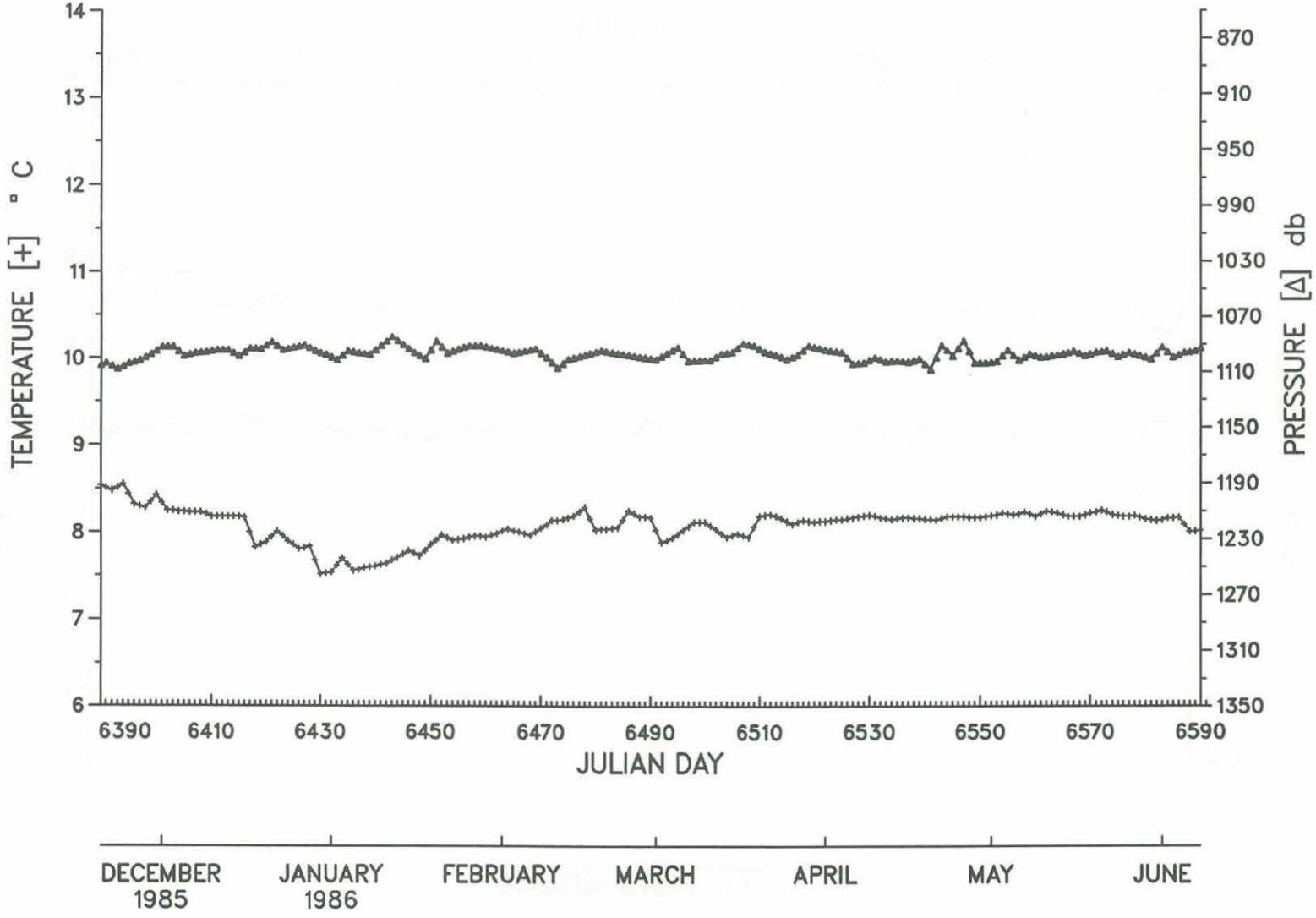

EASTERN BASIN 133
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
−10
−20
6390
6410
6430
6450
6470
6490
6510
6530
6550
6570
6590
JULIAN DAY
DECEMBER 1985
JANUARY 1986
FEBRUARY
MARCH
APRIL
MAY
JUNE
1-JAN-88 14:49:29
PLOT 3 OF 4
.SPL


EASTERN BASIN 133
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
-10
-20
6590
6610
6630
6650
6670
6690
6710
6730
6750
6770
6790
JULIAN DAY
JULY
1986
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
1-JAN-88 14:49:32
PLOT 4 OF 4
.SPL


EASTERN BASIN 133
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
5990
6010
6030
6050
6070
6090
6110
6130
6150
6170
6190
JULIAN DAY
NOVEMBER 1984
DECEMBER
JANUARY 1985
FEBRUARY
MARCH
APRIL
MAY
1-JAN-88 14:49:11
PLOT 1 OF 4
.SPL

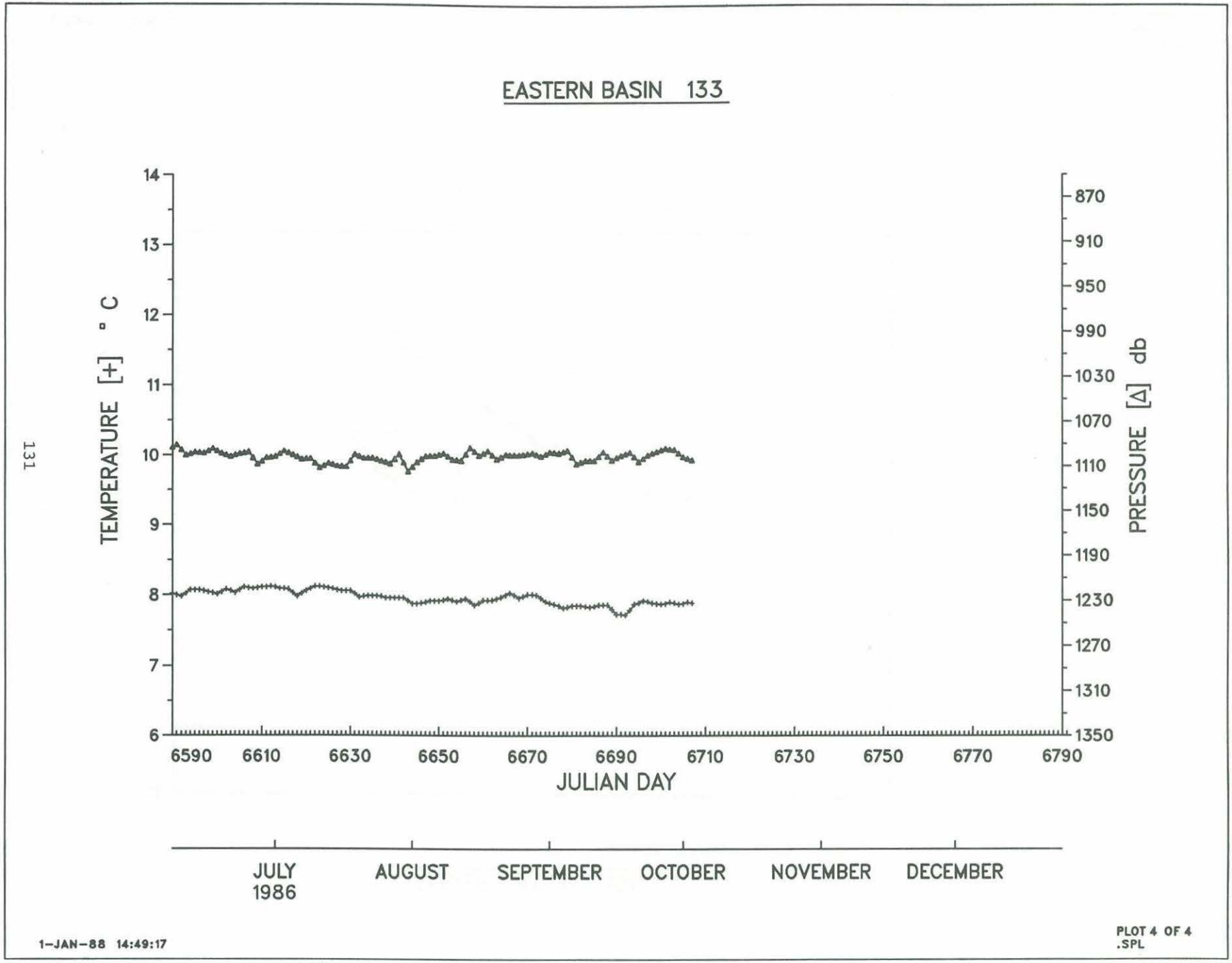

EASTERN BASIN 133
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6190
6210
6230
6250
6270
6290
6310
6330
6350
6370
6390
JULIAN DAY
JUNE
1985
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
1-JAN-88 14:49:13
PLOT 2 OF 4
.SPL

EASTERN BASIN 133

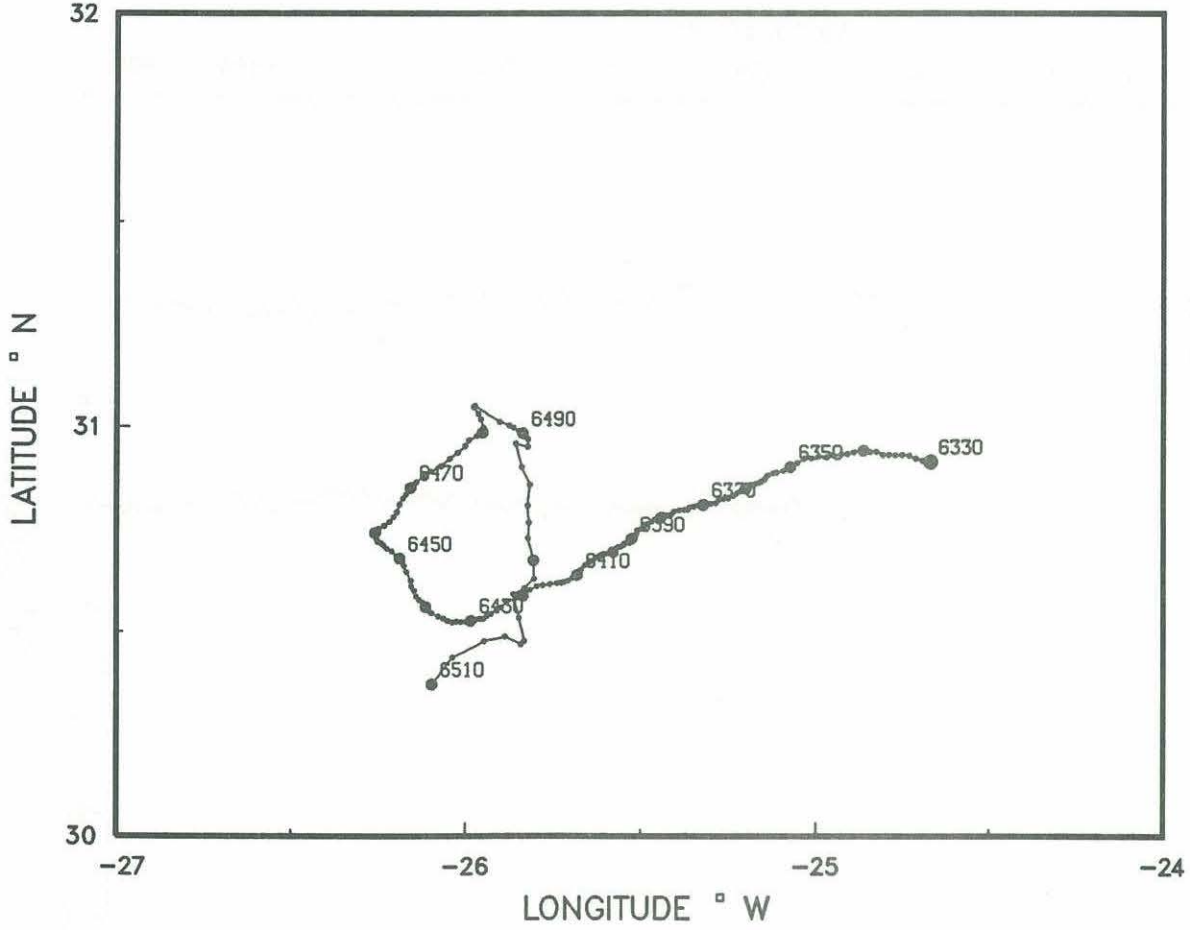


1-JAN-88 14:49:15

PLOT 3 OF 4
.SPL

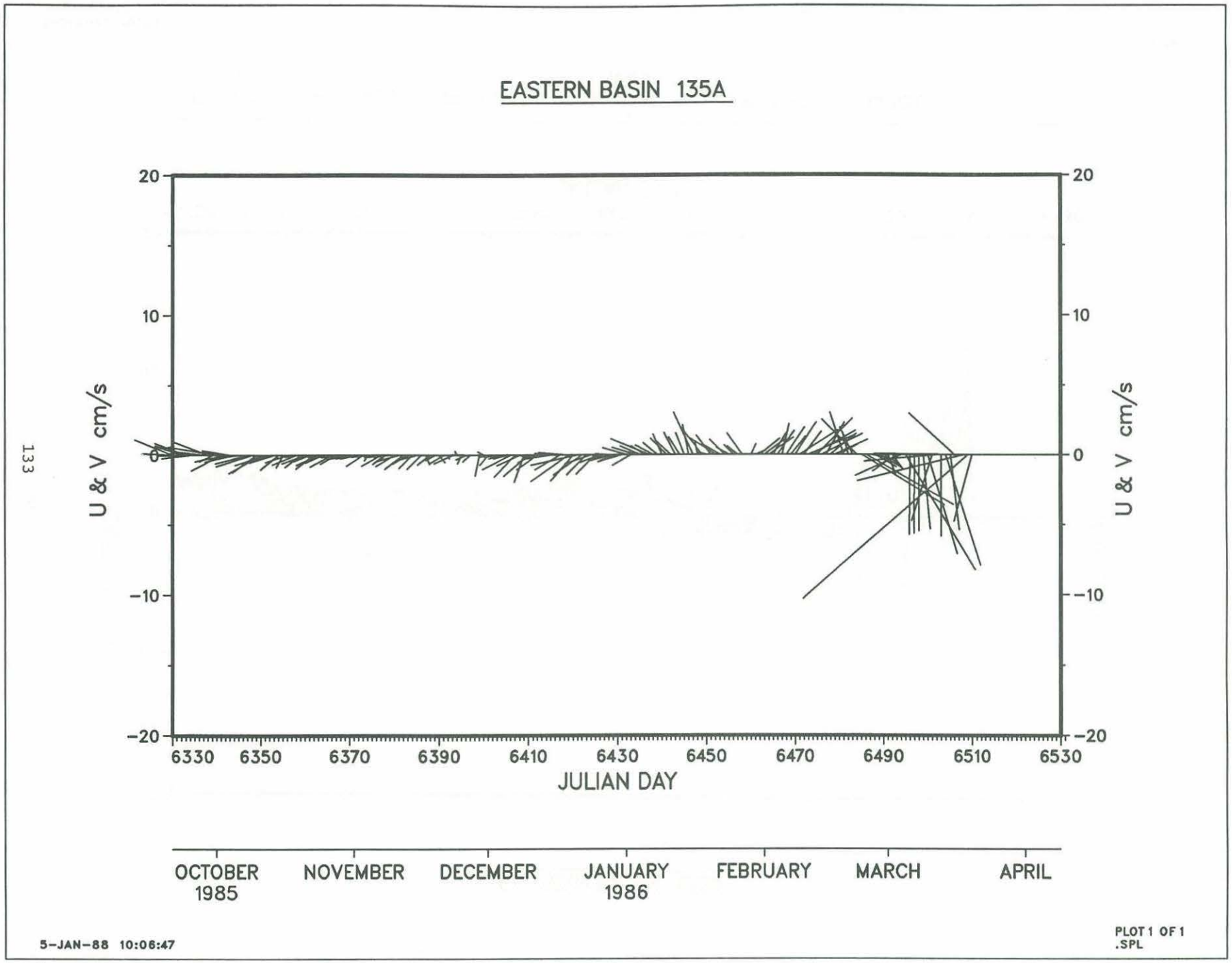

EASTERN BASIN 133
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6590
6610
6630
6650
6670
6690
6710
6730
6750
6770
6790
JULIAN DAY
JULY
1986
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
1-JAN-88 14:49:17
PLOT 4 OF 4
.SPL

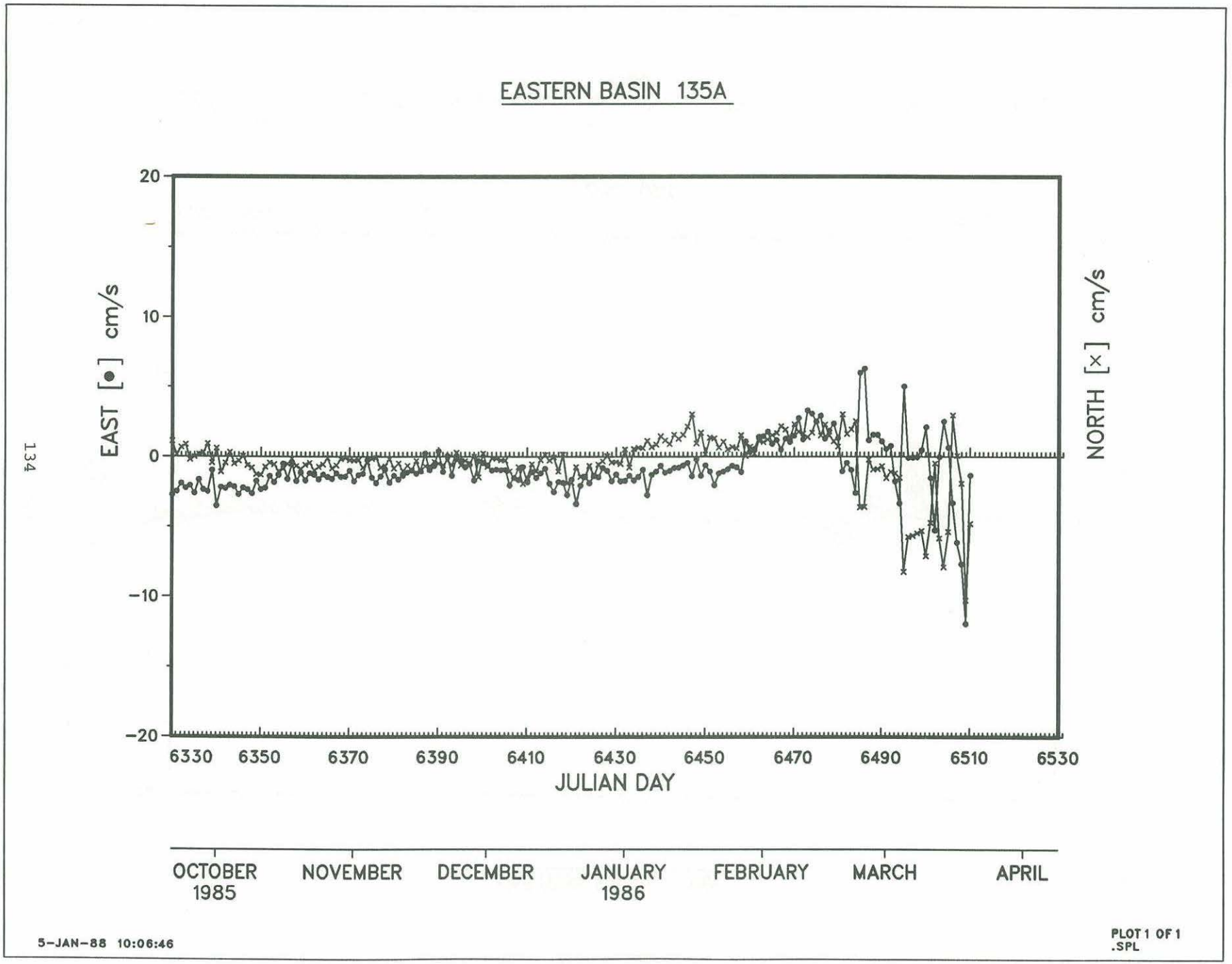
EASTERN BASIN 135A

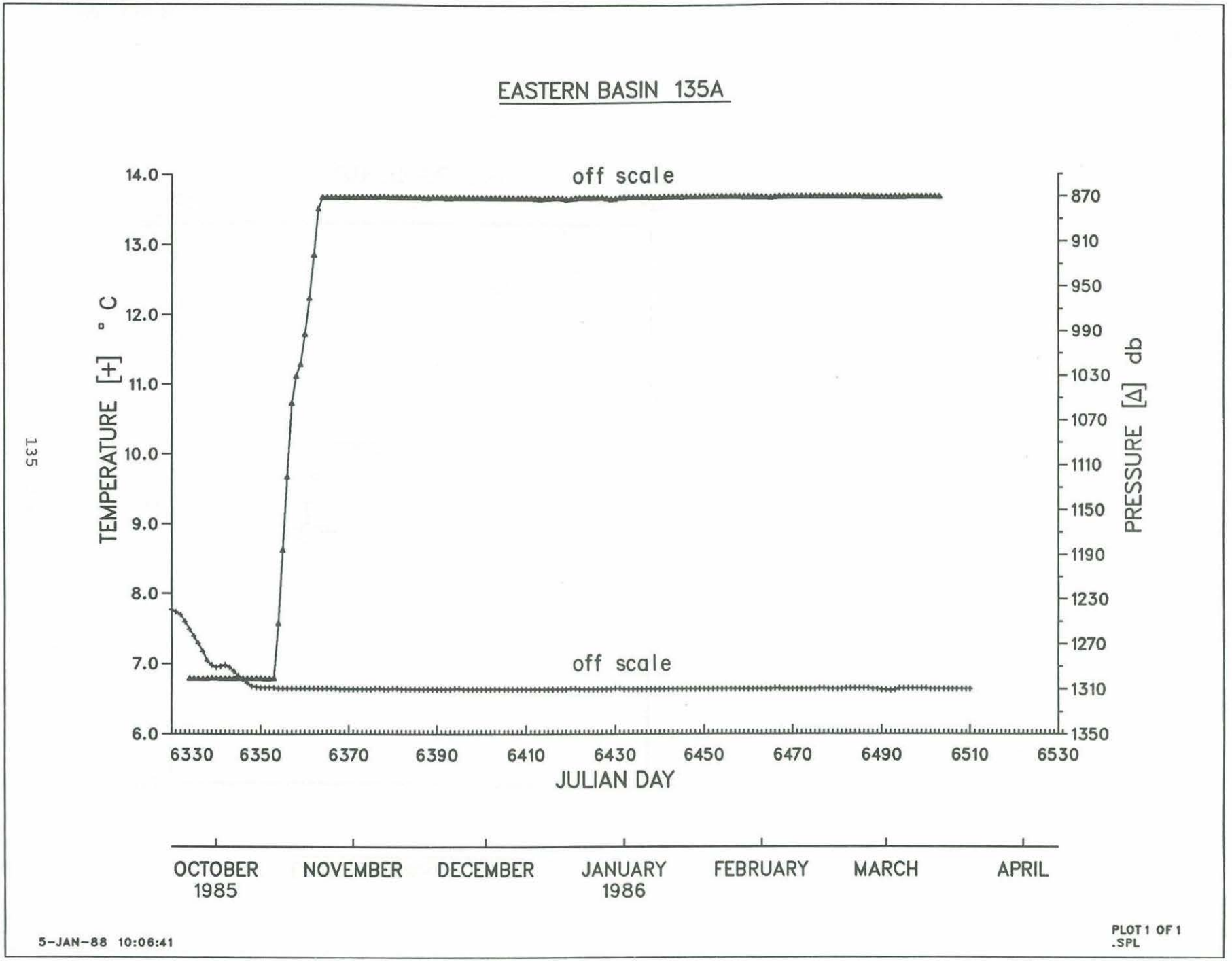


5-JAN-88 10:06:51

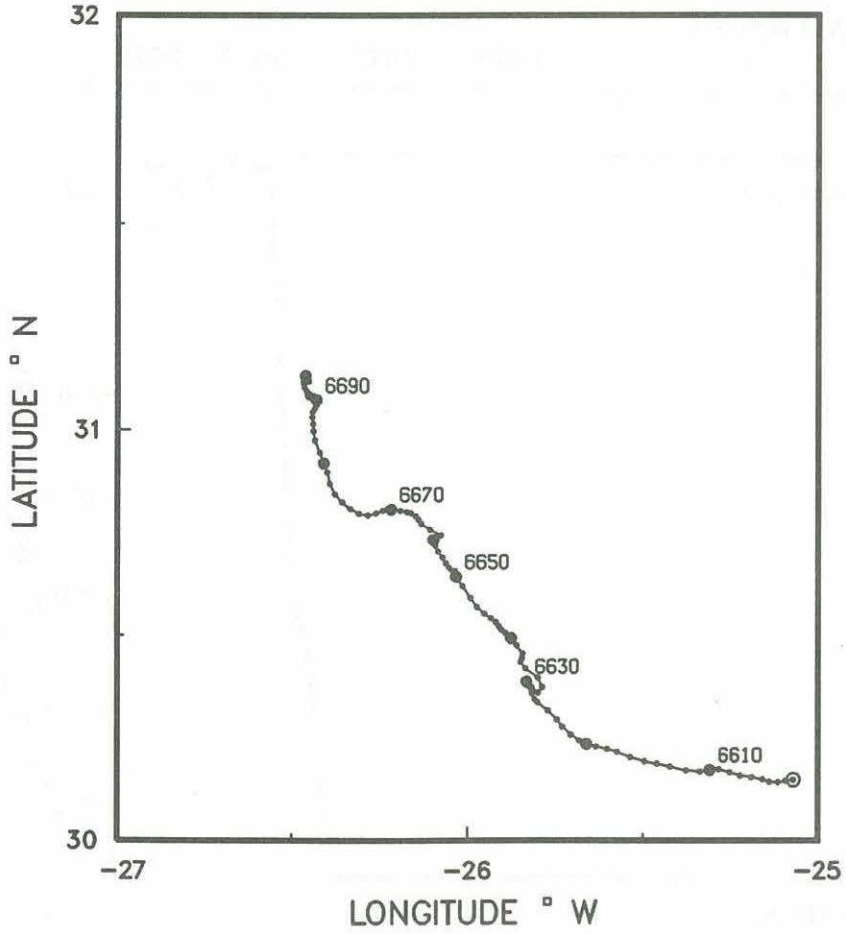
PLOT 1 OF 1
.SPL


EASTERN BASIN 135A
20
10
0
-10
-20
U & V cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
5-JAN-88 10:06:47
PLOT 1 OF 1
.SPL


EASTERN BASIN 135A
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
−10
−20
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
5-JAN-88 10:06:46
PLOT 1 OF 1
.SPL

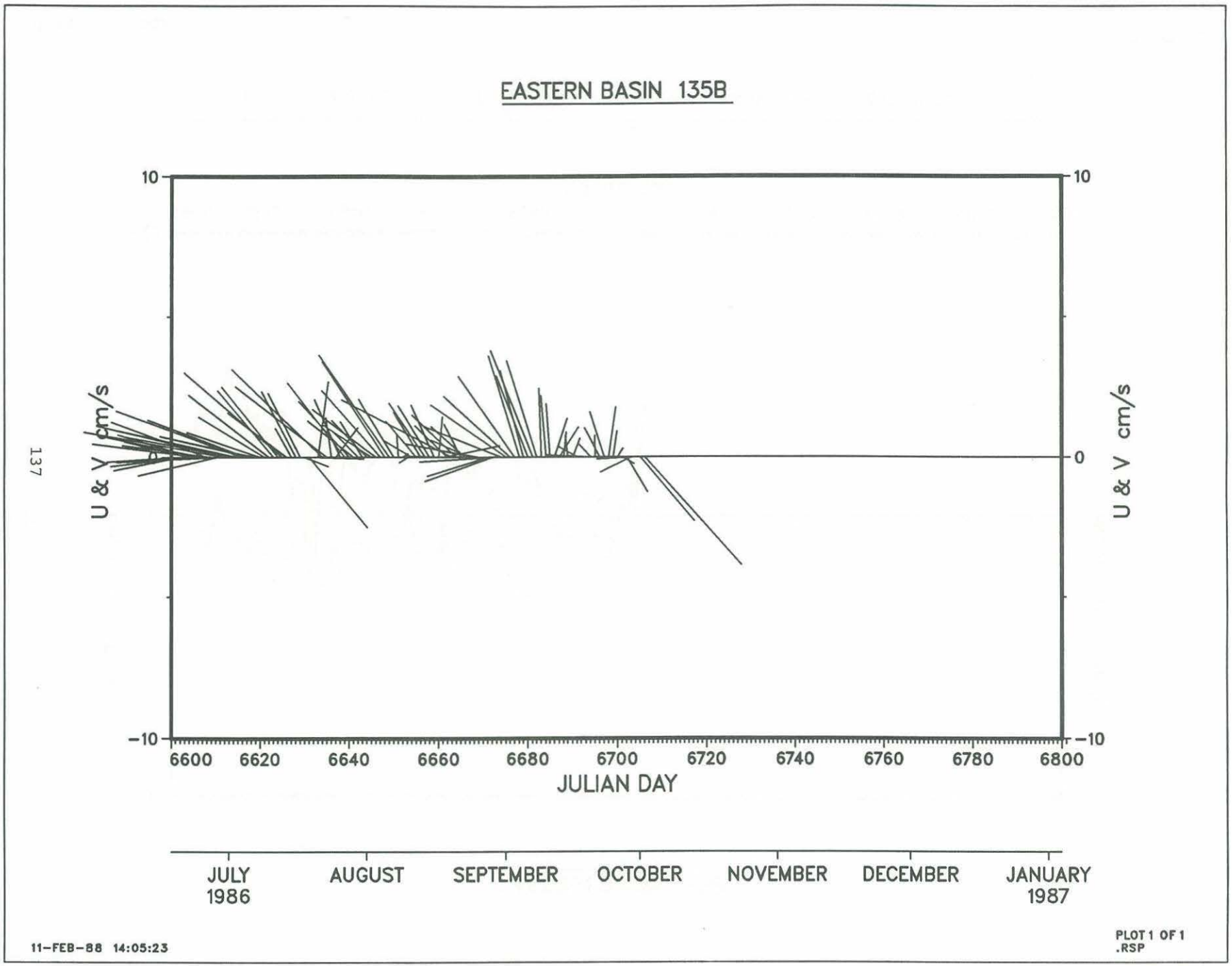

EASTERN BASIN 135A
off scale
off scale
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
APRIL
135
5-JAN-88 10:06:41
PLOT 1 OF 1
.SPL

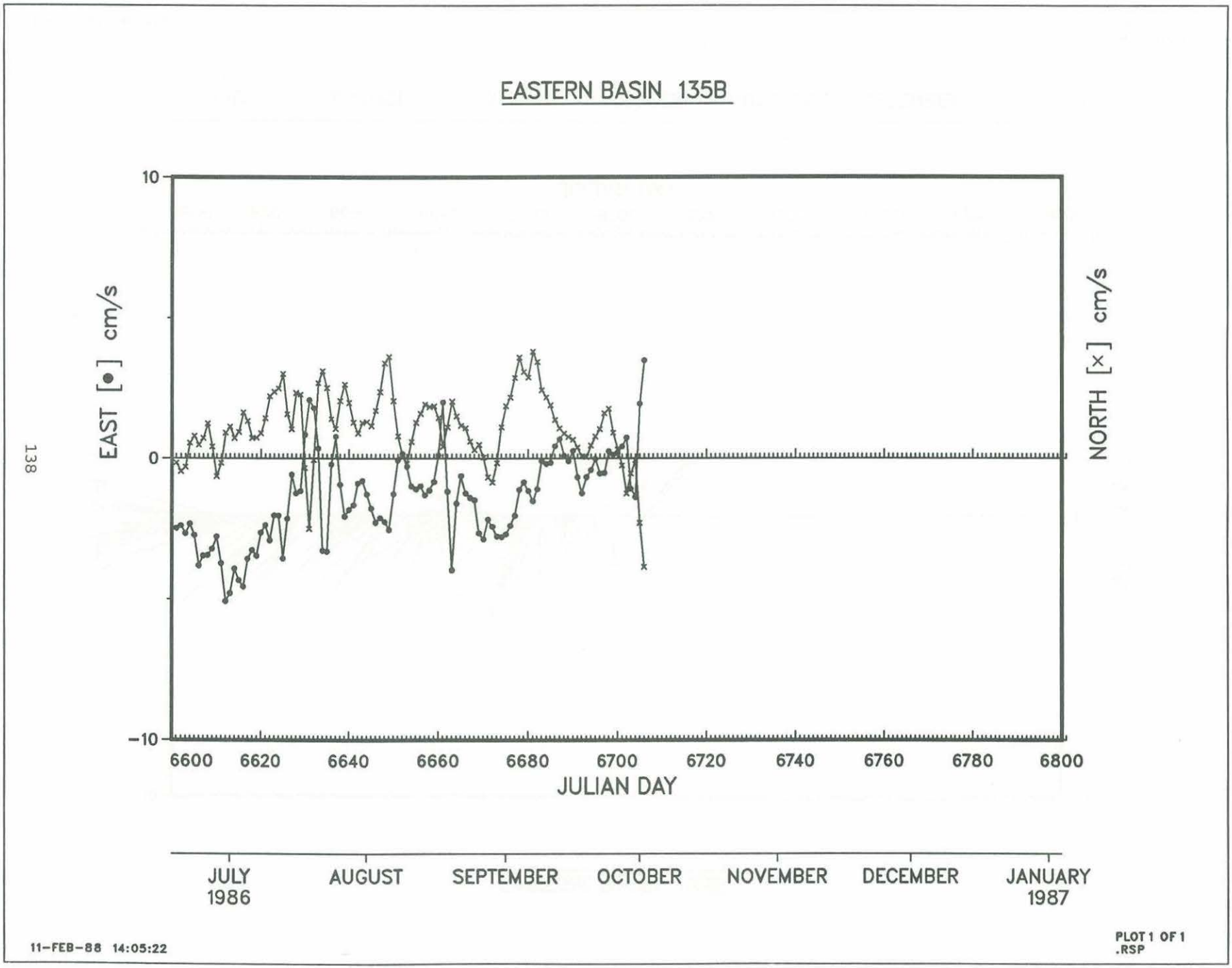
EASTERN BASIN 135B

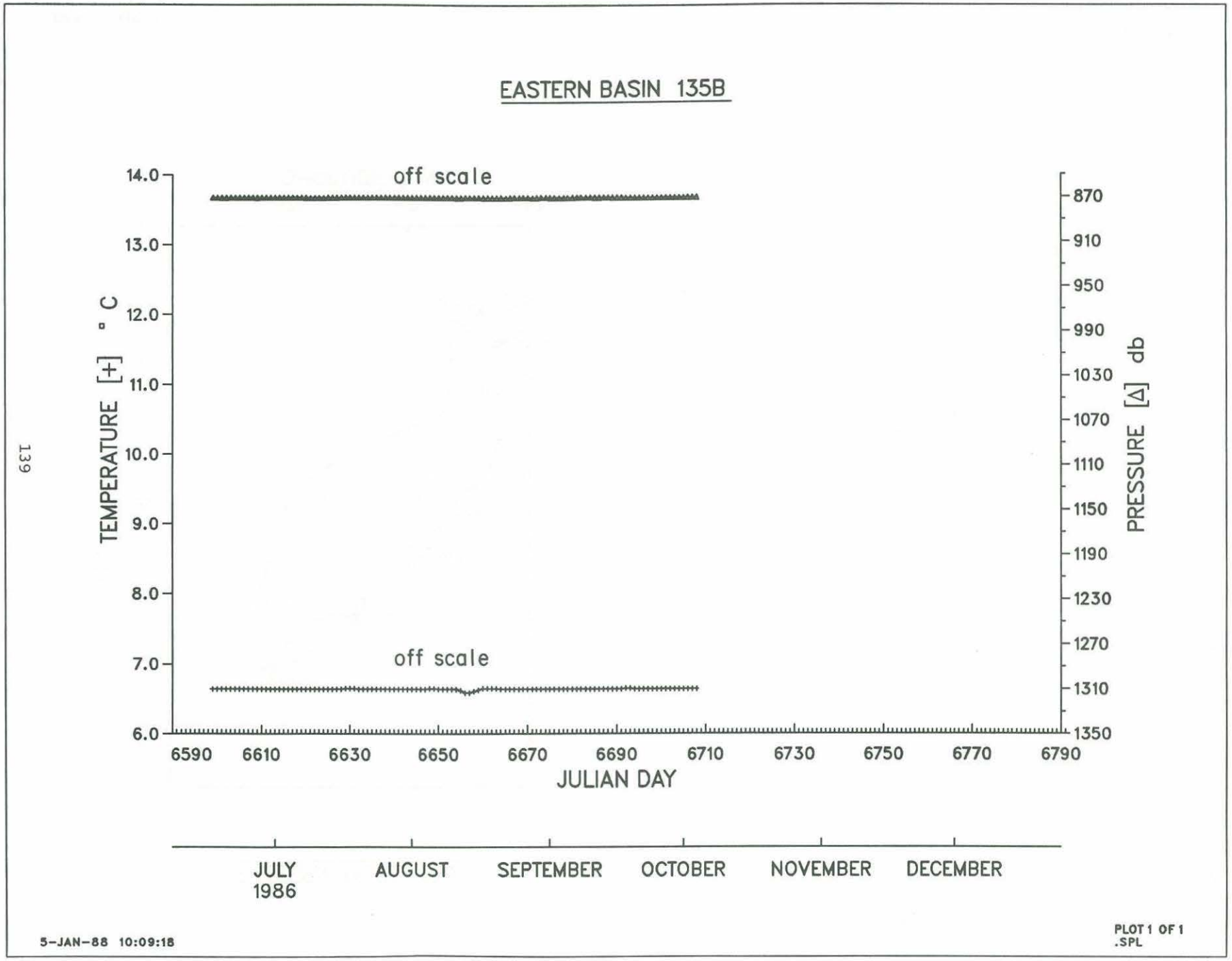


11-FEB-88 14:05:26

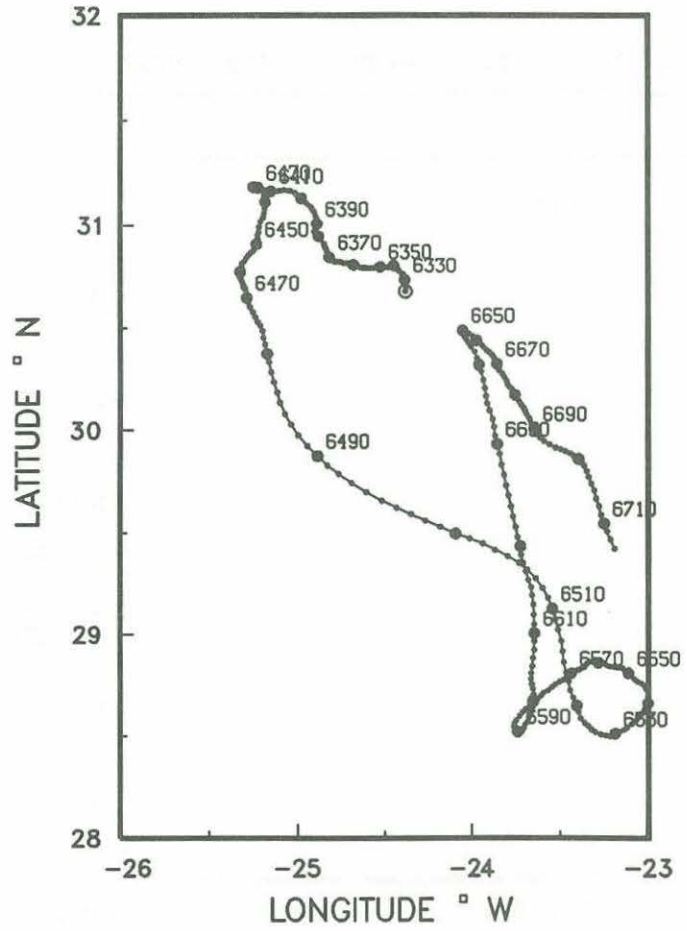
PLOT 1 OF 1
.RSP


EASTERN BASIN 135B
10
0
-10
U & V cm/s
6600
6620
6640
6660
6680
6700
6720
6740
6760
6780
6800
JULIAN DAY
JULY
1986
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
JANUARY
1987
11-FEB-88 14:05:23
PLOT 1 OF 1
.RSP


EASTERN BASIN 135B
10
0
-10
EAST [•] cm/s
NORTH [×] cm/s
6600
6620
6640
6660
6680
6700
6720
6740
6760
6780
6800
JULIAN DAY
JULY
1986
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
JANUARY
1987
11-FEB-88 14:05:22
PLOT 1 OF 1
.RSP


EASTERN BASIN 135B
off scale
off scale
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6590
6610
6630
6650
6670
6690
6710
6730
6750
6770
6790
JULIAN DAY
JULY
1986
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
5-JAN-88 10:09:18
PLOT 1 OF 1
.SPL

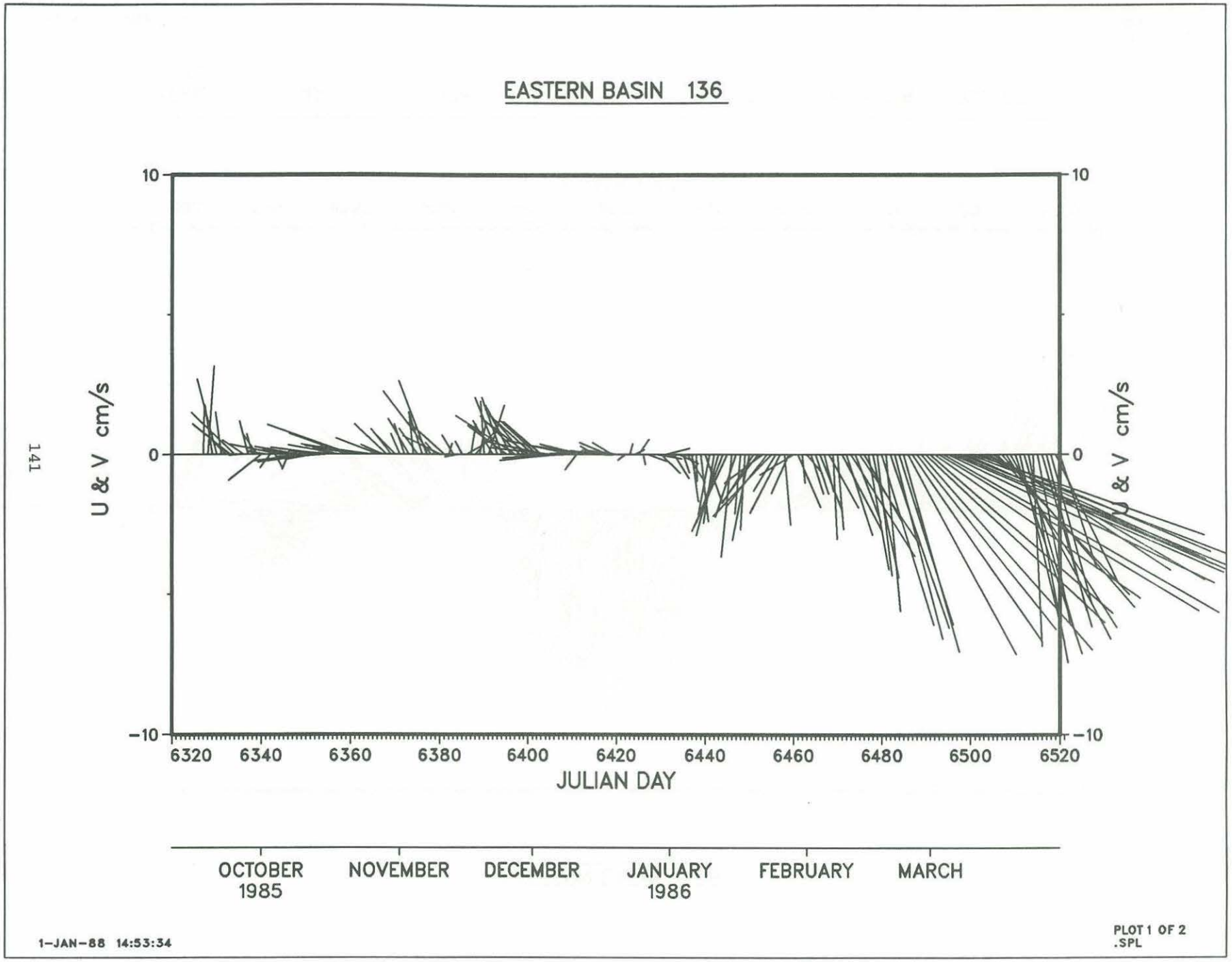
EASTERN BASIN 136

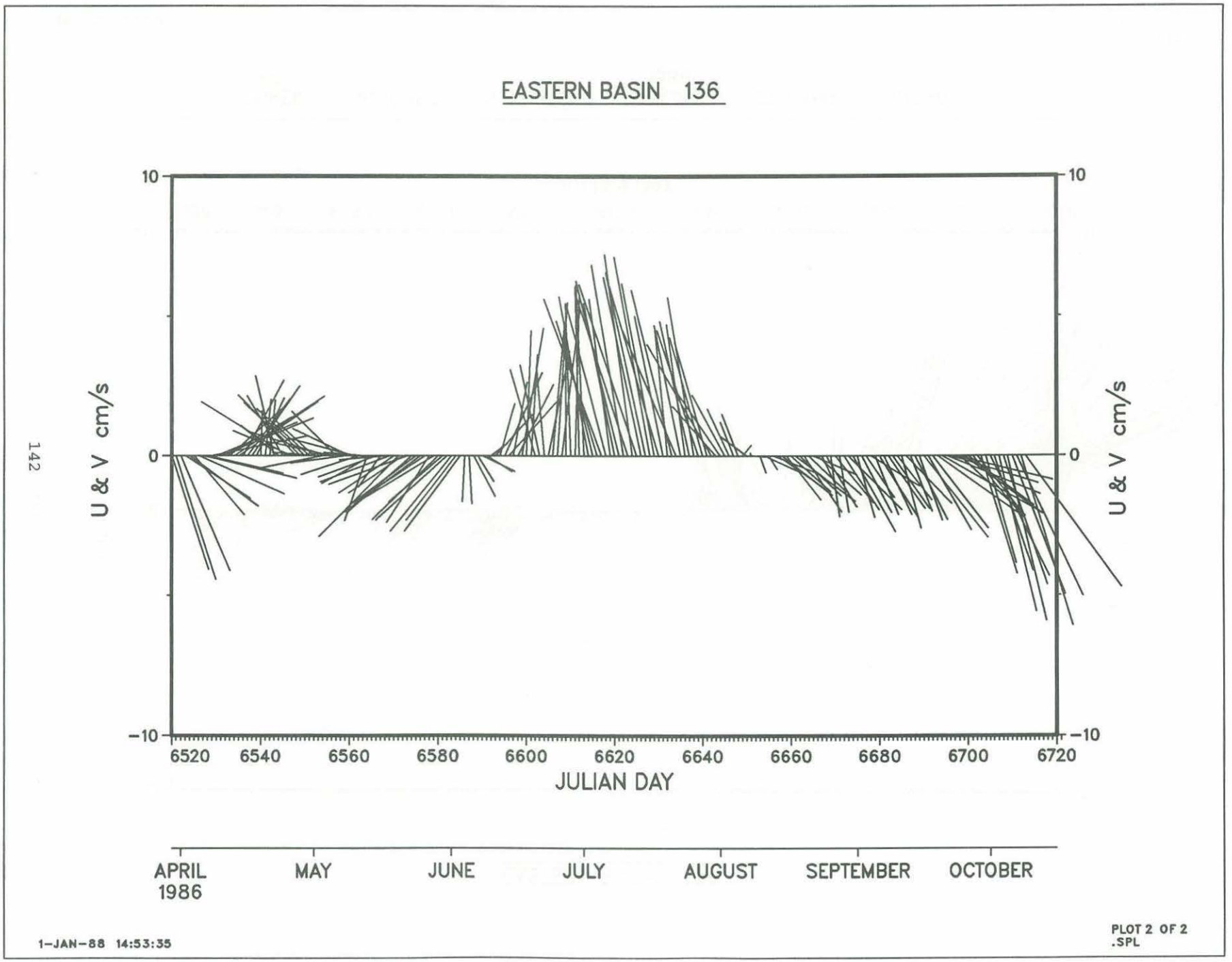


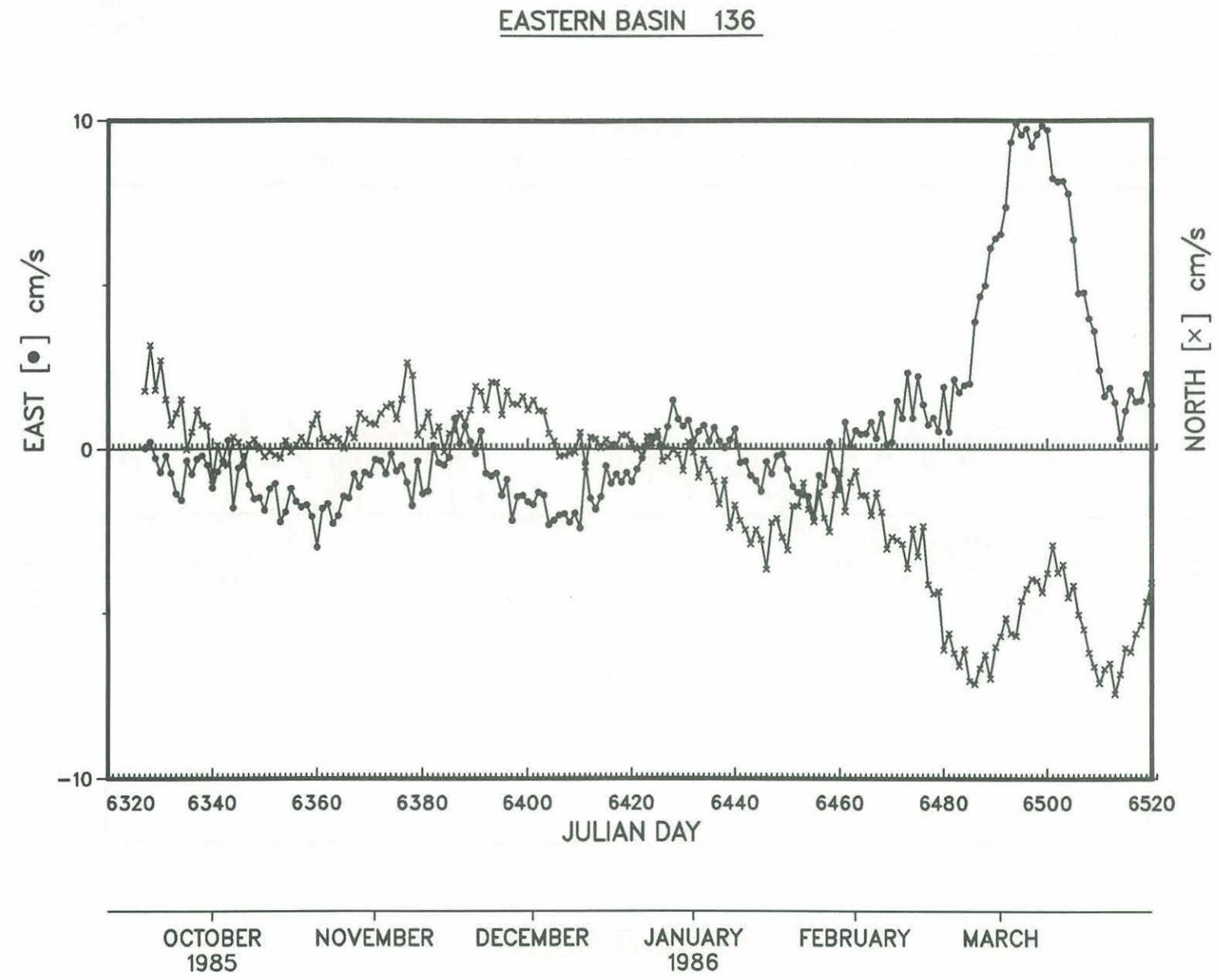
140

1-JAN-88 14:53:41

PLOT 1 OF 1
.SPL

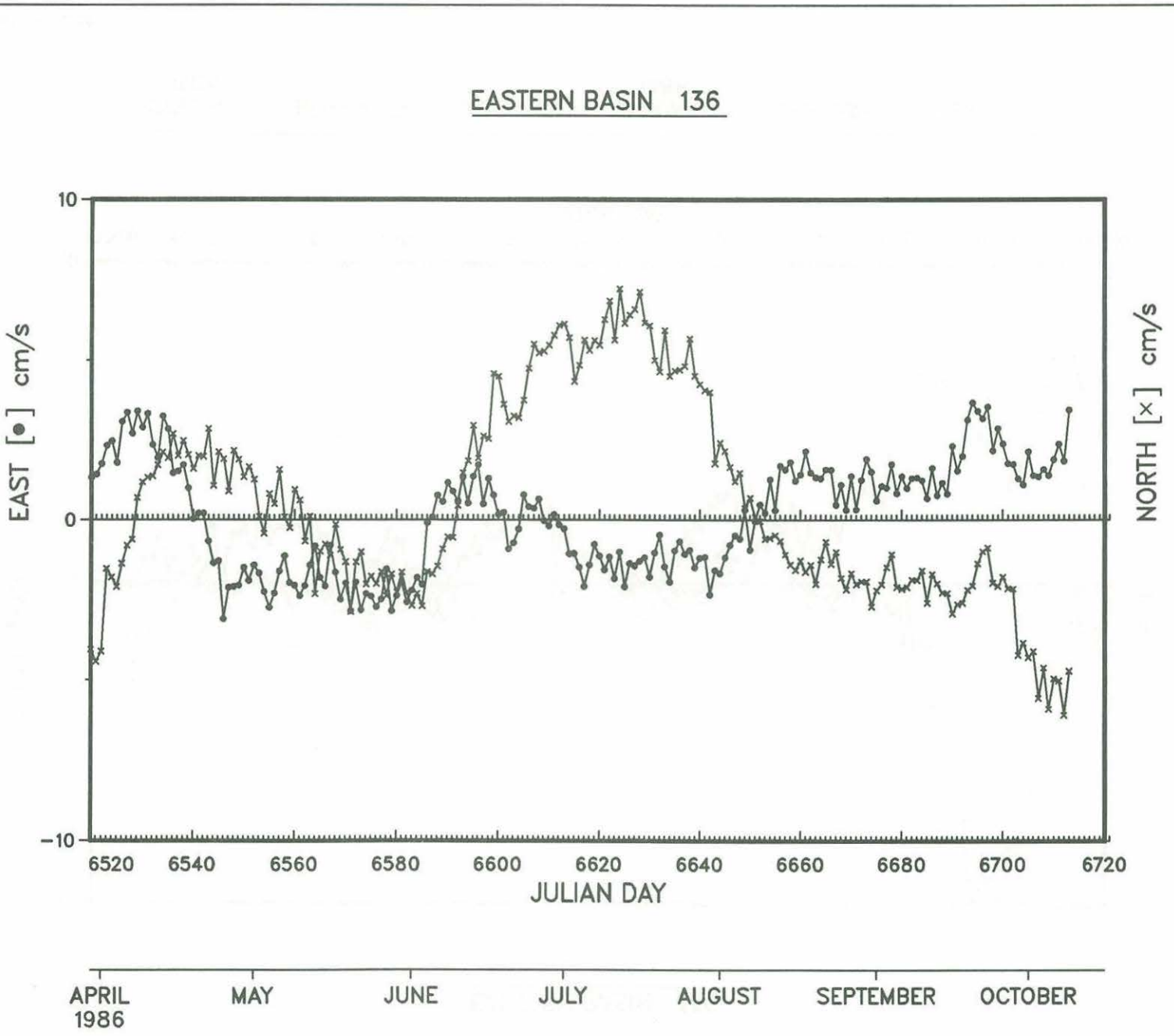

EASTERN BASIN 136
10
0
−10
U & V cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
1-JAN-88 14:53:34
PLOT 1 OF 2
.SPL

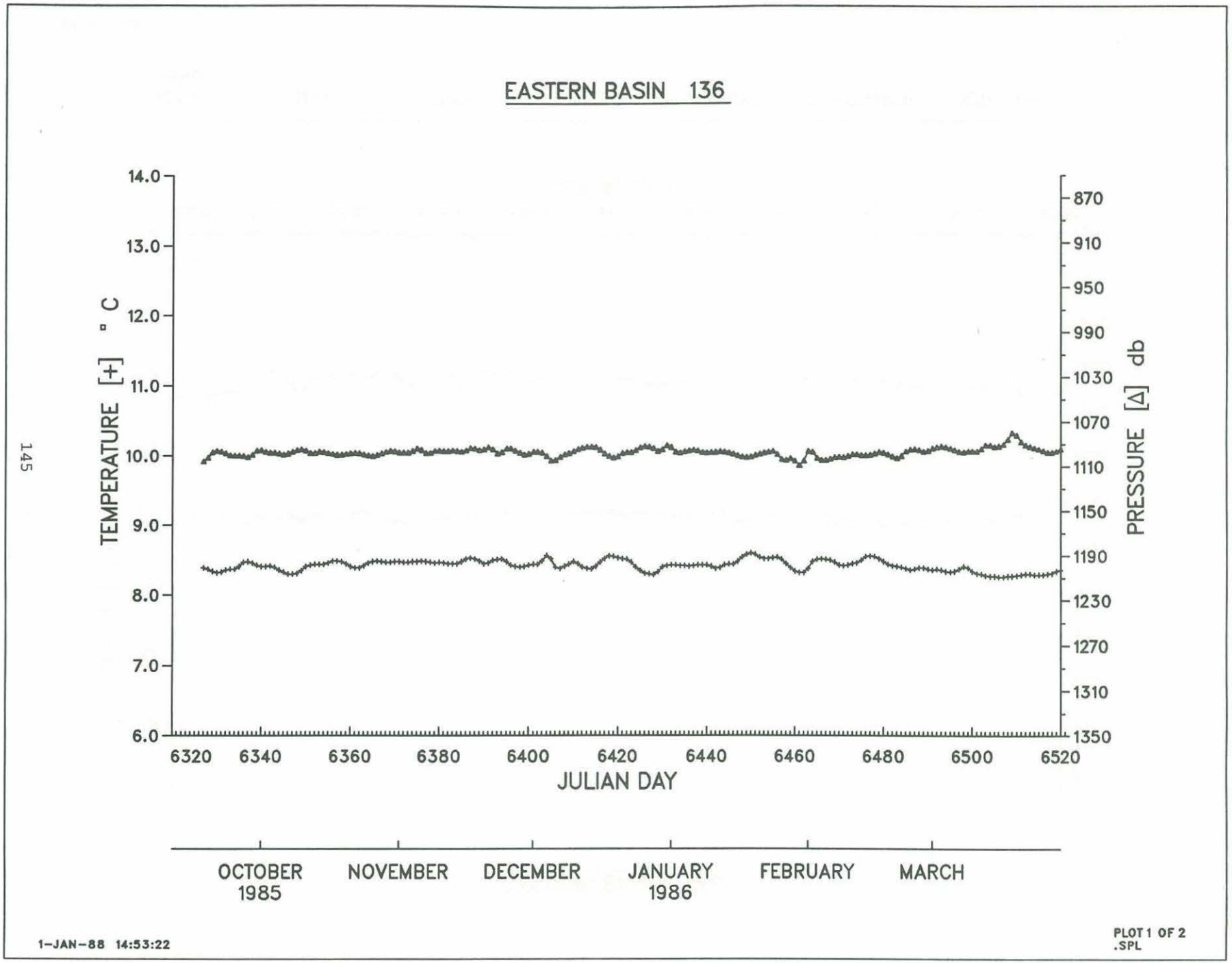

EASTERN BASIN 136
10
0
−10
U & V cm/s
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:53:35
PLOT 2 OF 2
.SPL

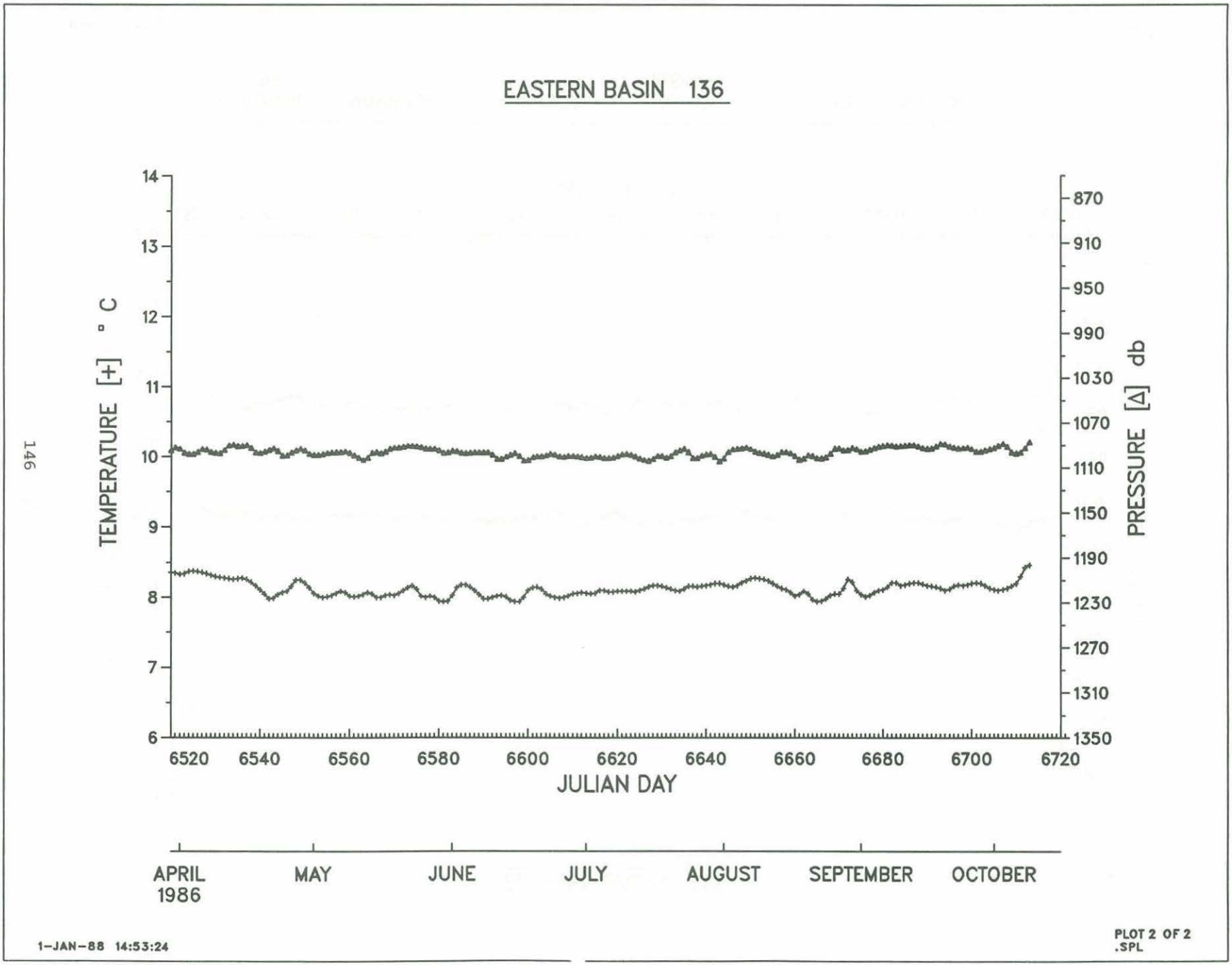


1-JAN-88 14:53:29

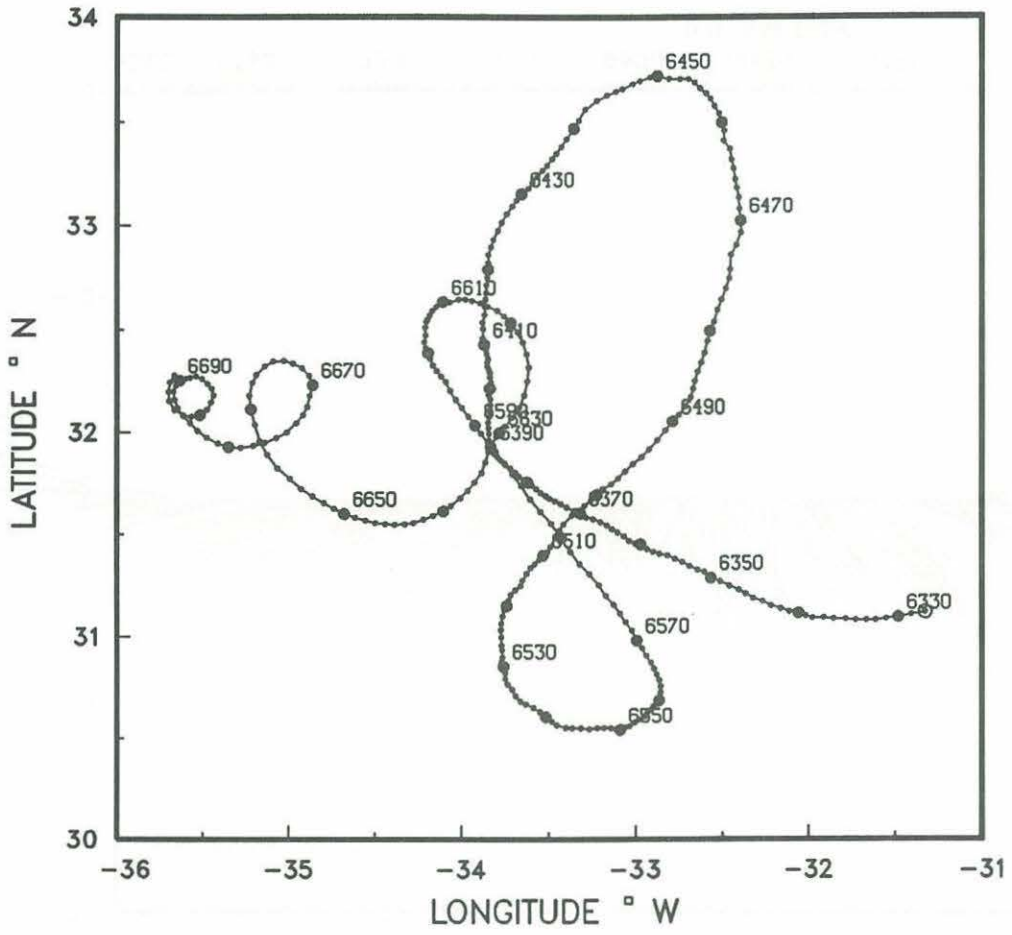
PLOT 1 OF 2
.SPL


EASTERN BASIN 136
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:53:33
PLOT 2 OF 2
.SPL


EASTERN BASIN 136
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
1-JAN-88 14:53:22
PLOT 1 OF 2
.SPL

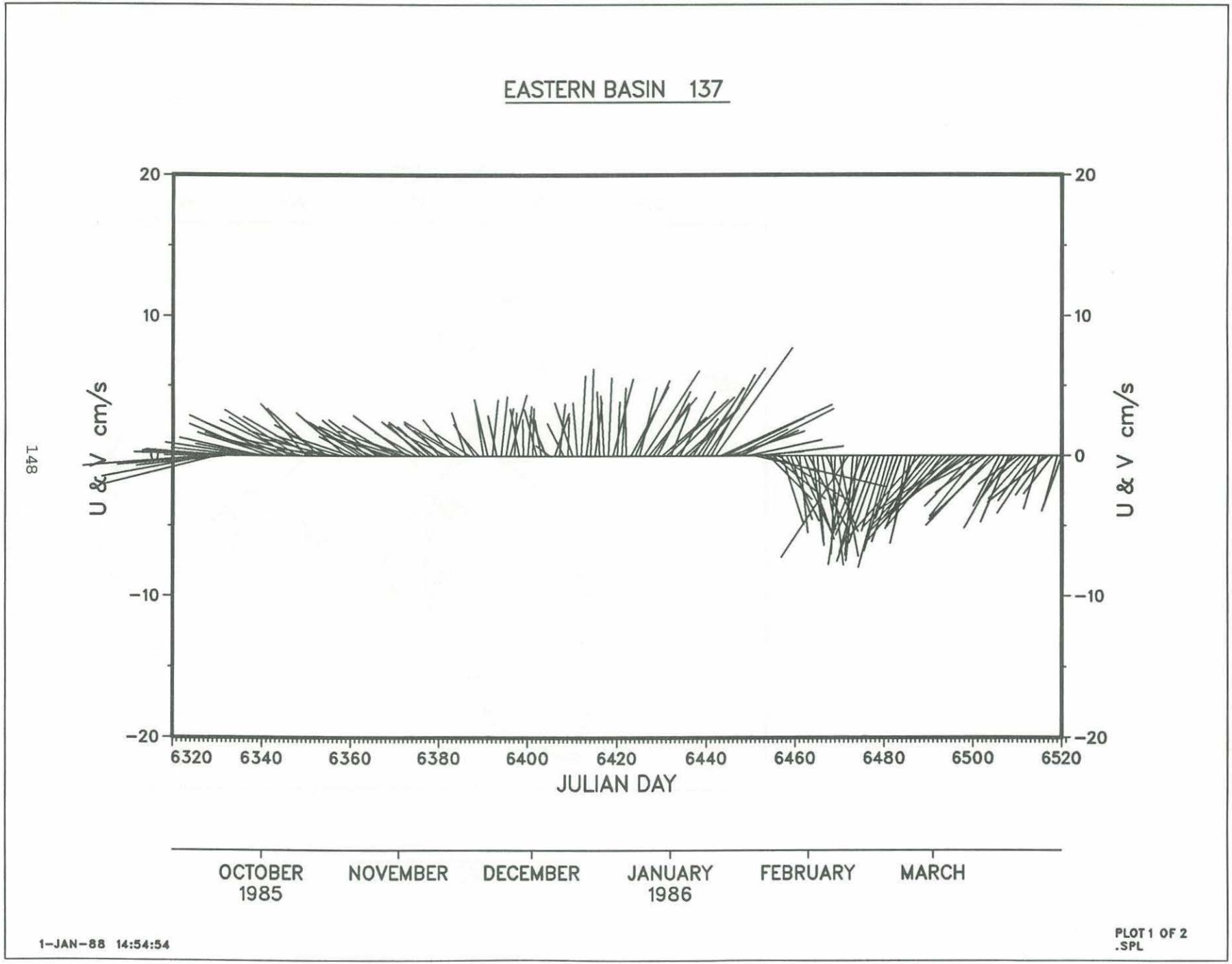

EASTERN BASIN 136
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:53:24
PLOT 2 OF 2
.SPL

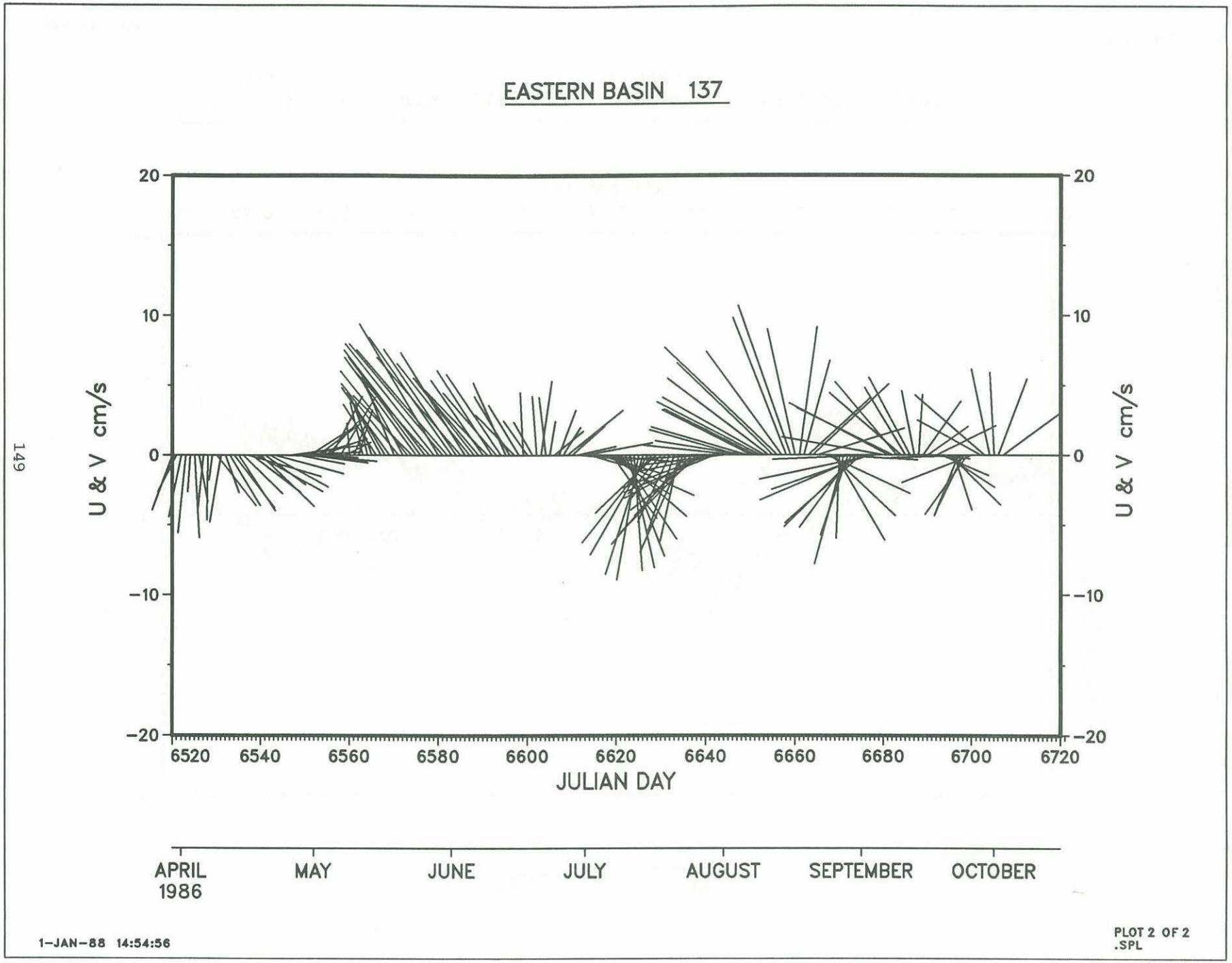
EASTERN BASIN 137

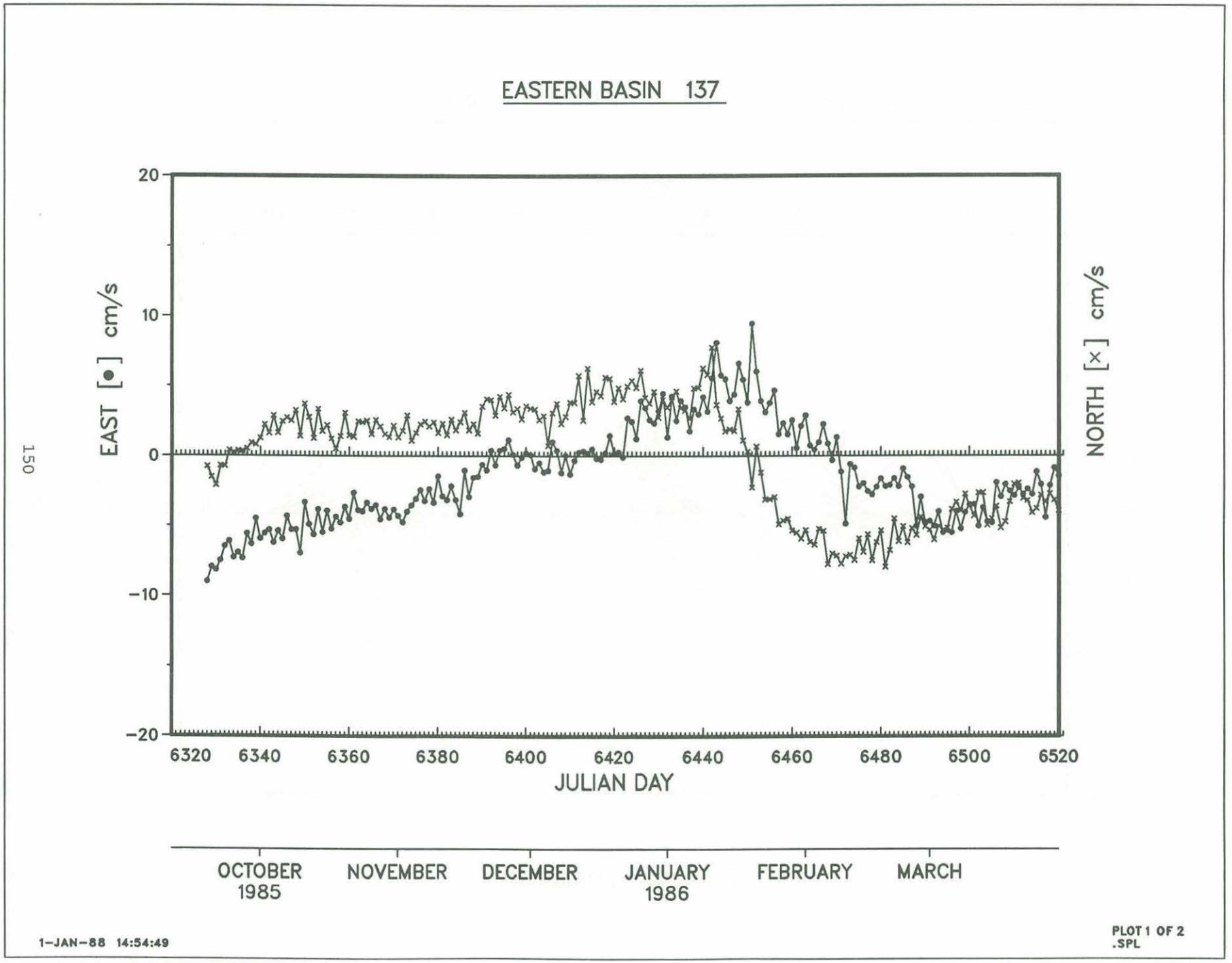


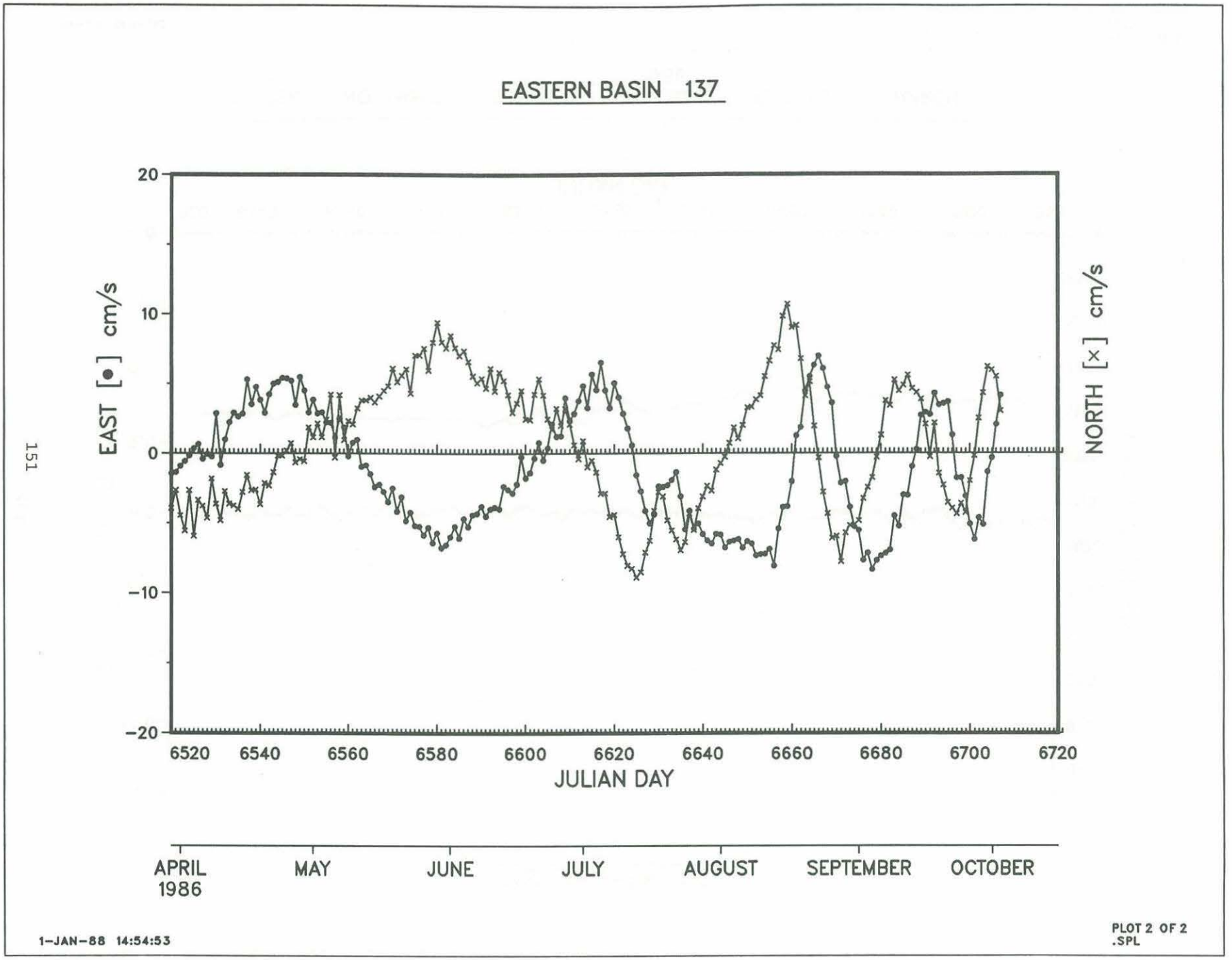
1-JAN-88 14:55:02

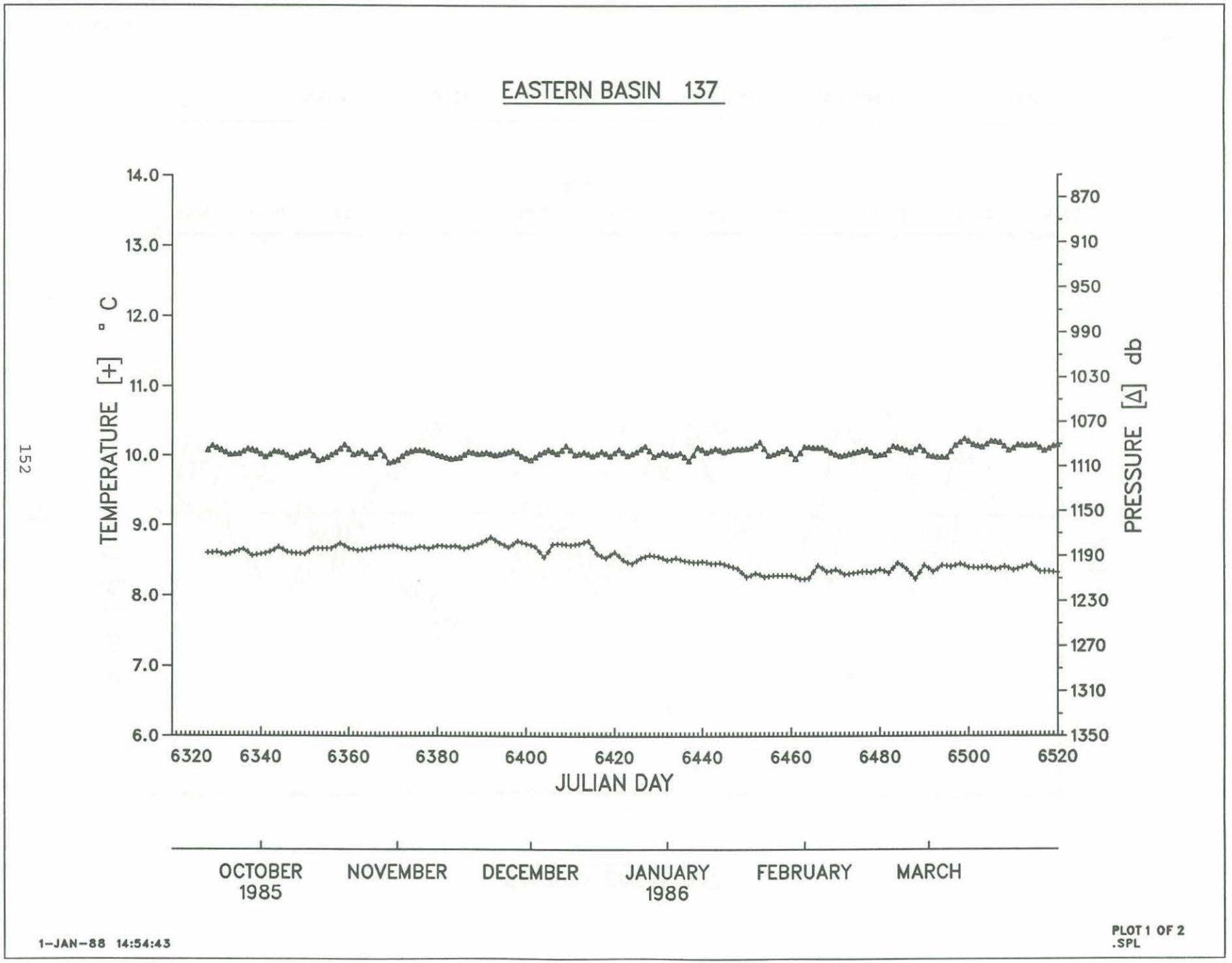
PLOT 1 OF 1
.SPL


EASTERN BASIN 137
20
10
0
−10
−20
U & V cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
1-JAN-88 14:54:54
PLOT 1 OF 2
.SPL

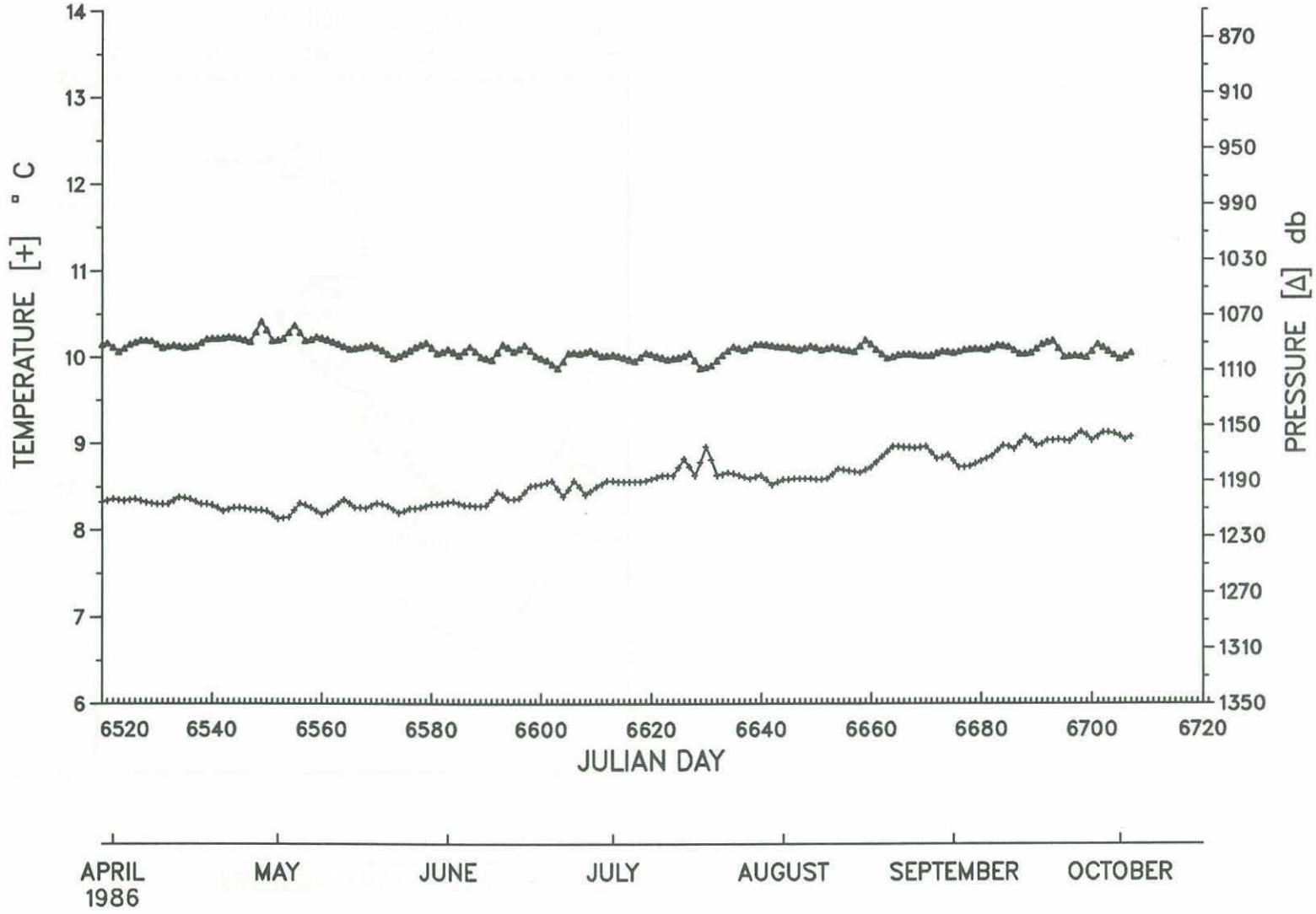

EASTERN BASIN 137
20
10
0
−10
−20
U & V cm/s
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:54:56
PLOT 2 OF 2
.SPL


EASTERN BASIN 137
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
−10
−20
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
150
1-JAN-88 14:54:49
PLOT 1 OF 2
.SPL


EASTERN BASIN 137
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
−10
−20
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:54:53
PLOT 2 OF 2
.SPL


EASTERN BASIN 137
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
1-JAN-88 14:54:43
PLOT 1 OF 2
.SPL

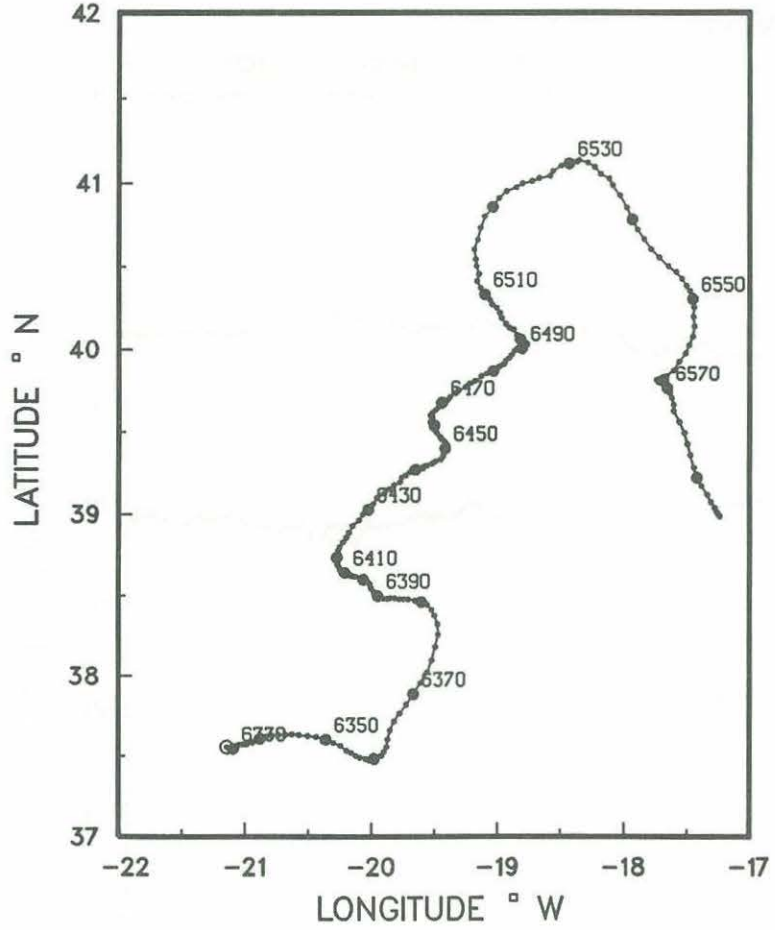
EASTERN BASIN 137



1-JAN-88 14:54:45

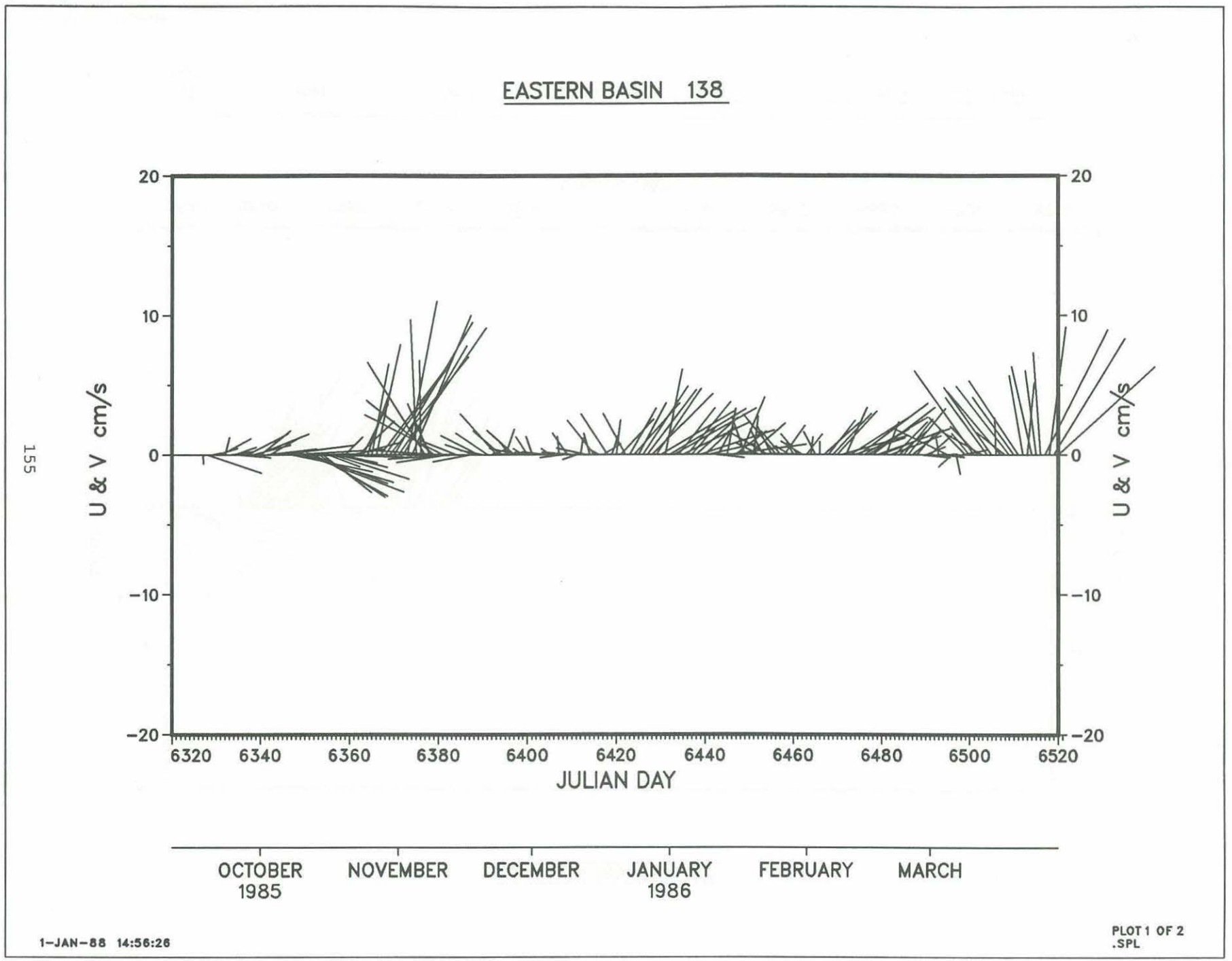
PLOT 2 OF 2
.SPL

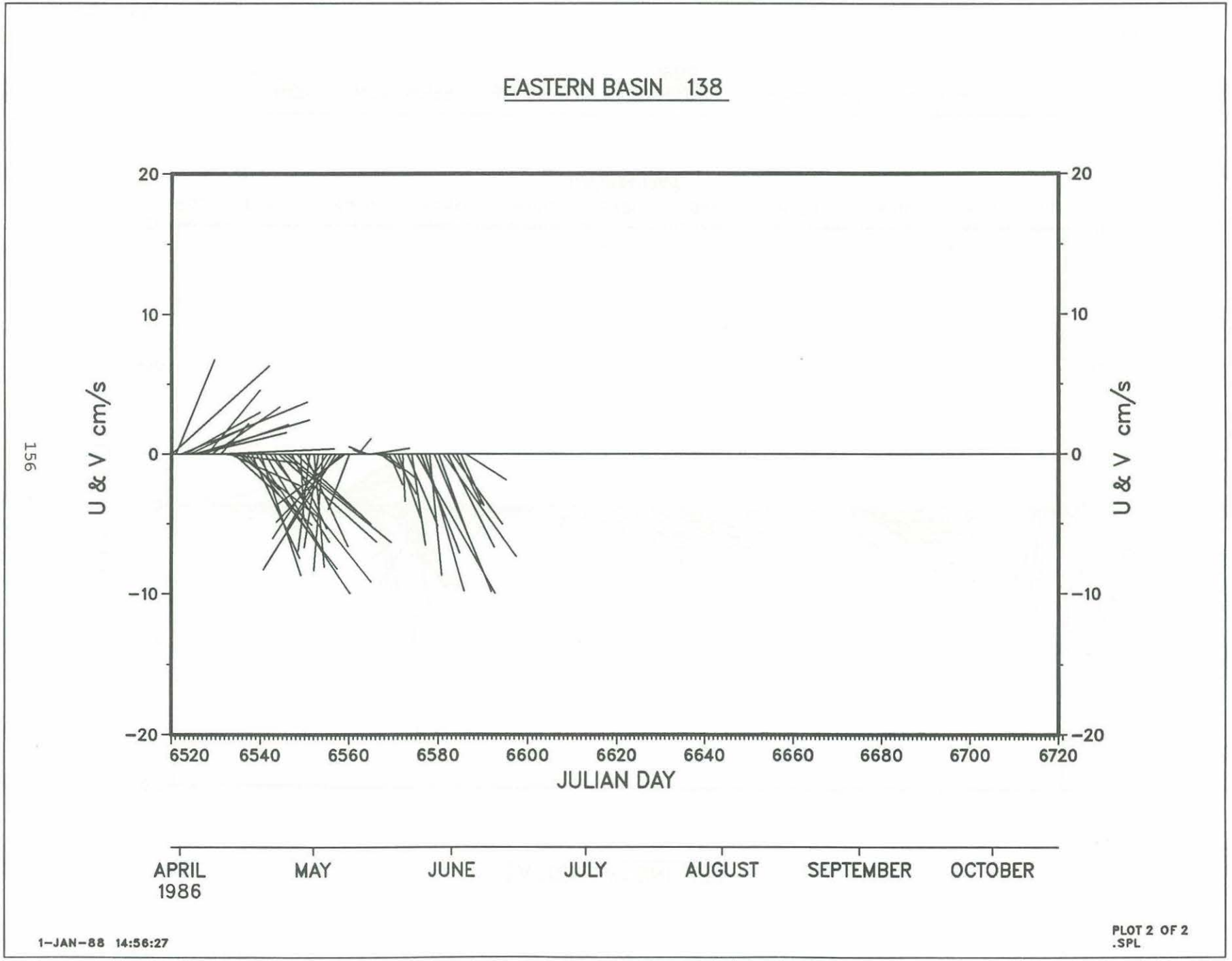
EASTERN BASIN 138

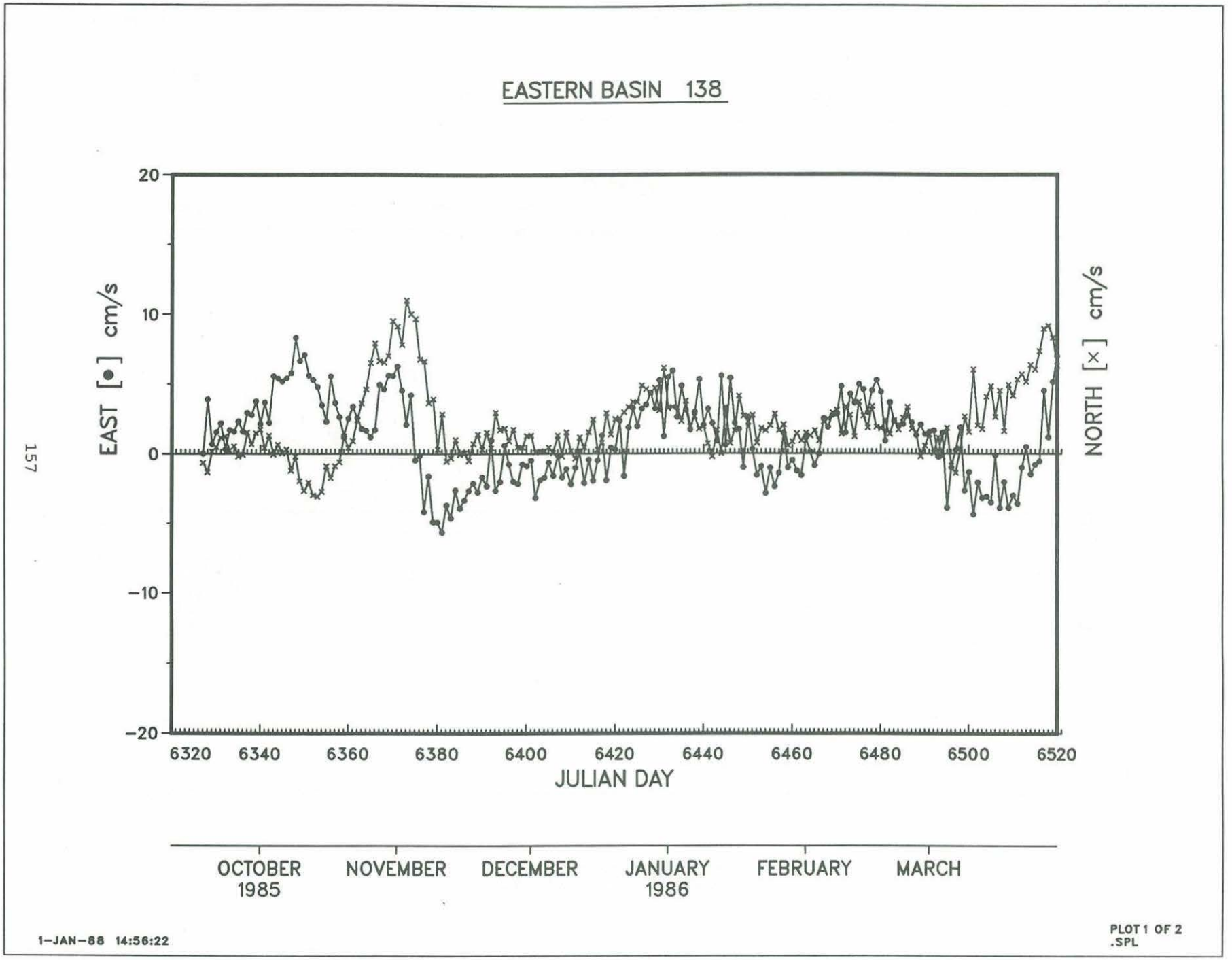


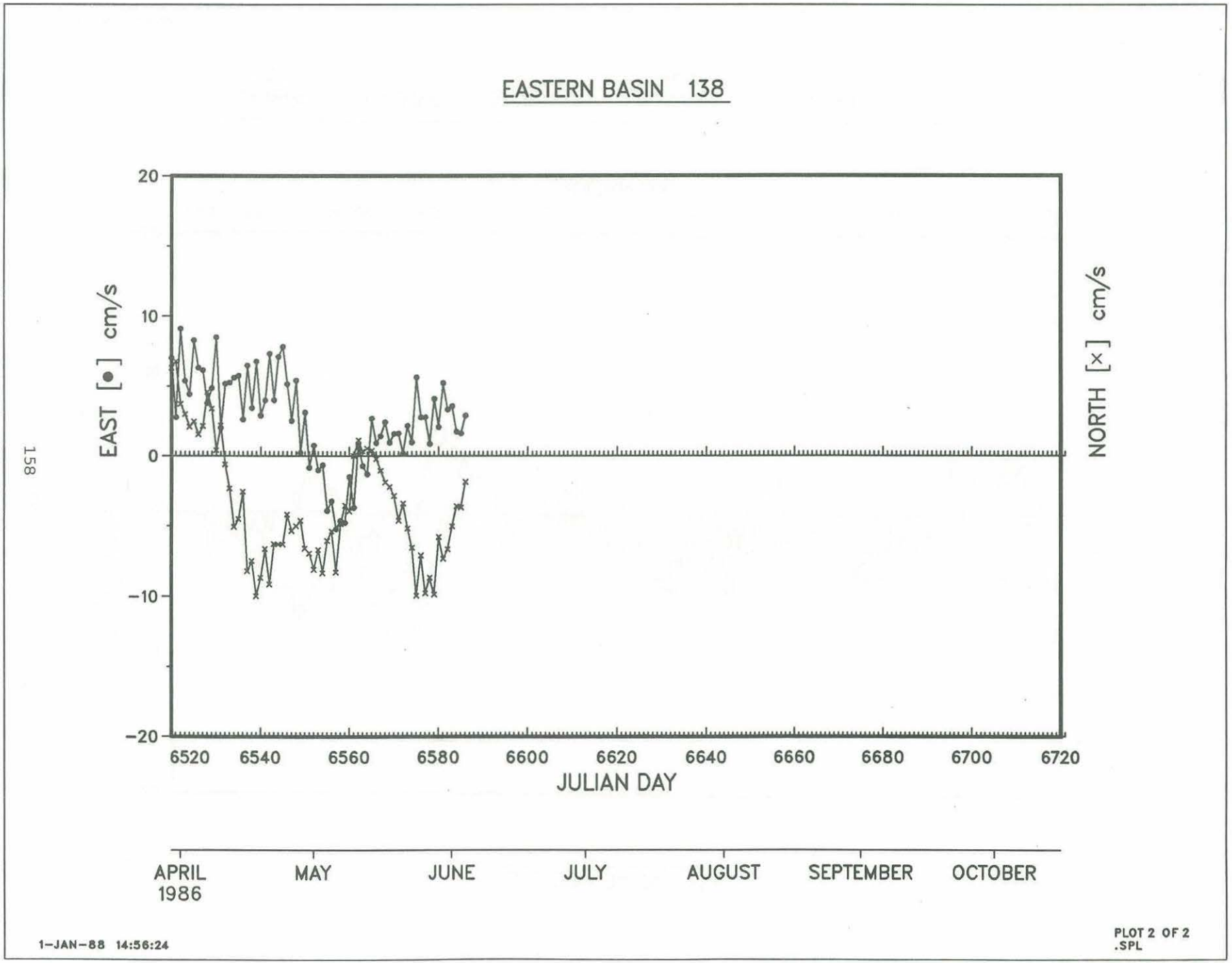
1-JAN-88 14:56:32

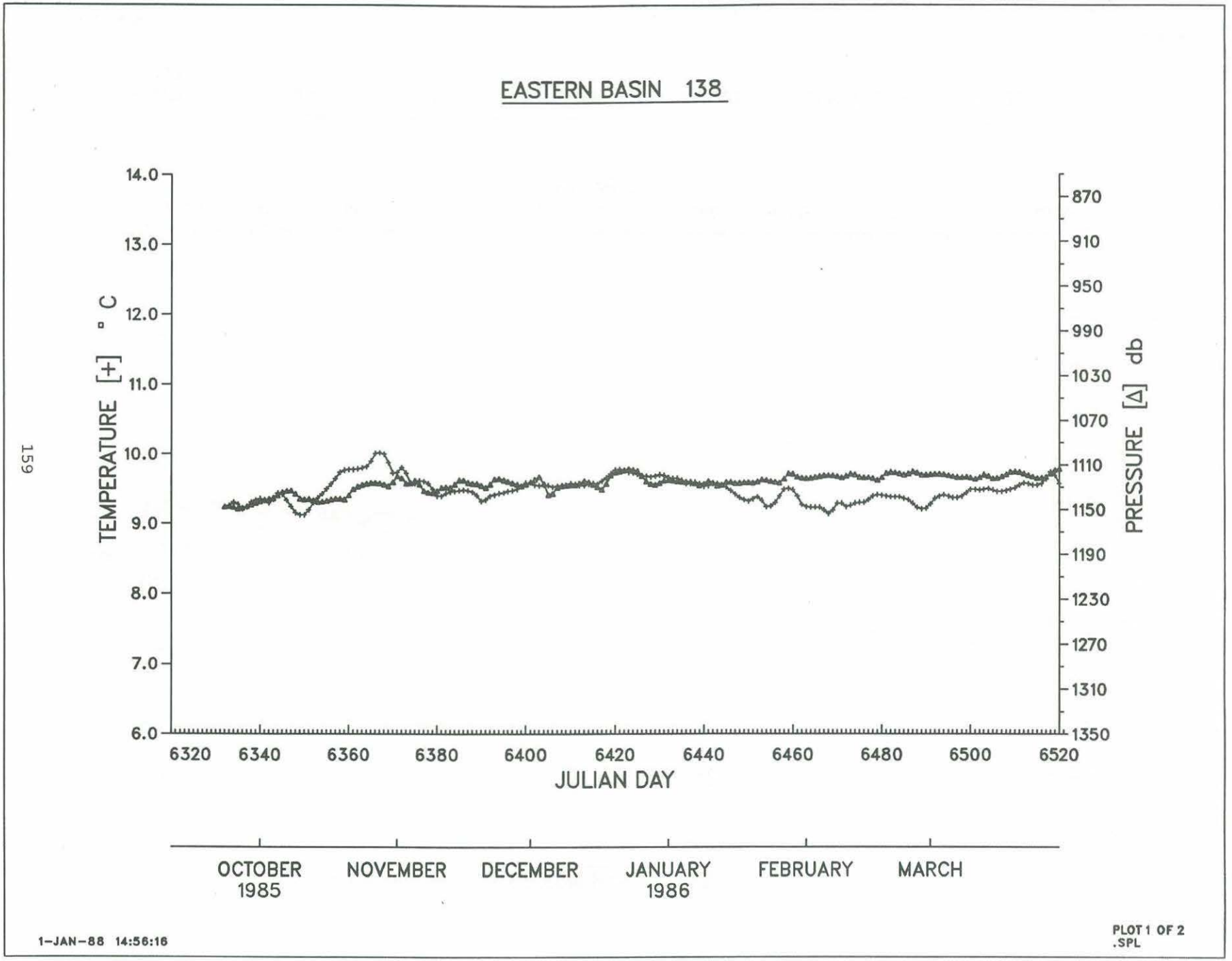
PLOT 1 OF 1
.SPL

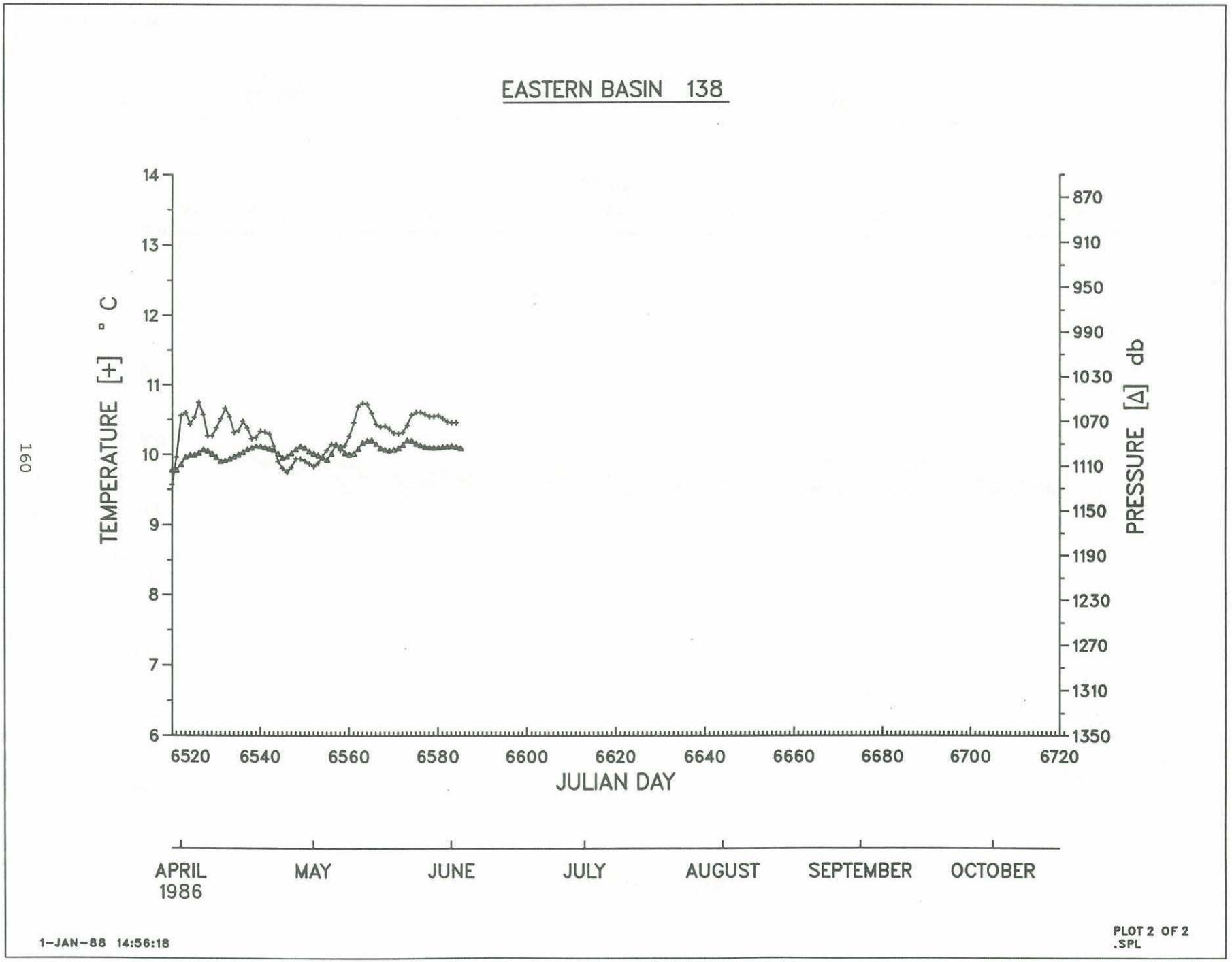

EASTERN BASIN 138
20
10
0
−10
−20
U & V cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
1-JAN-88 14:56:26
PLOT 1 OF 2
.SPL


EASTERN BASIN 138
20
10
0
−10
−20
U & V cm/s
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:56:27
PLOT 2 OF 2
.SPL

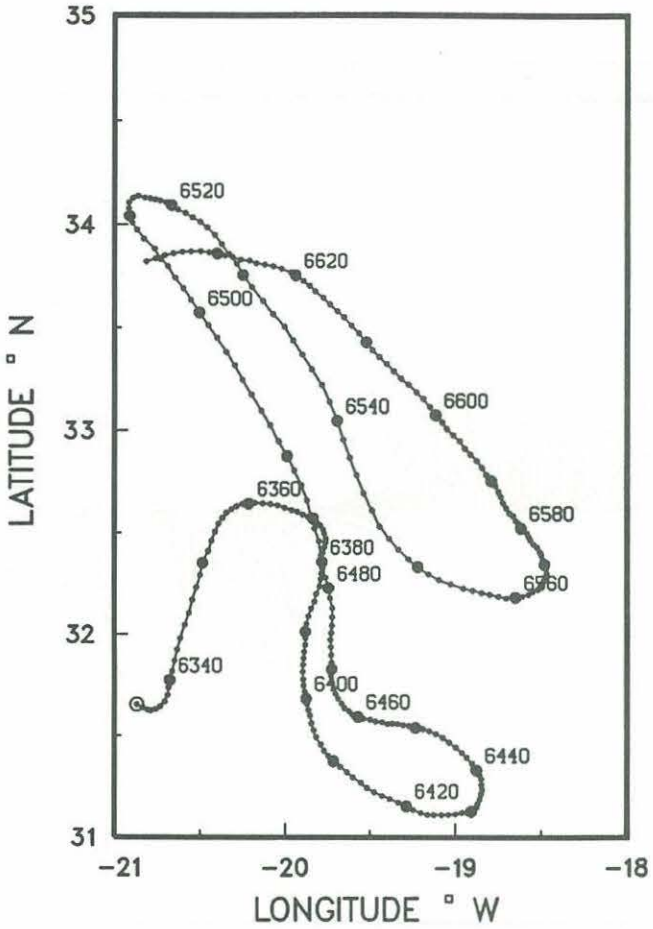

EASTERN BASIN 138
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
−10
−20
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
1-JAN-88 14:56:22
PLOT 1 OF 2
.SPL


EASTERN BASIN 138
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
-10
-20
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:56:24
PLOT 2 OF 2
.SPL


EASTERN BASIN 138
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
159
1-JAN-88 14:56:16
PLOT 1 OF 2
.SPL

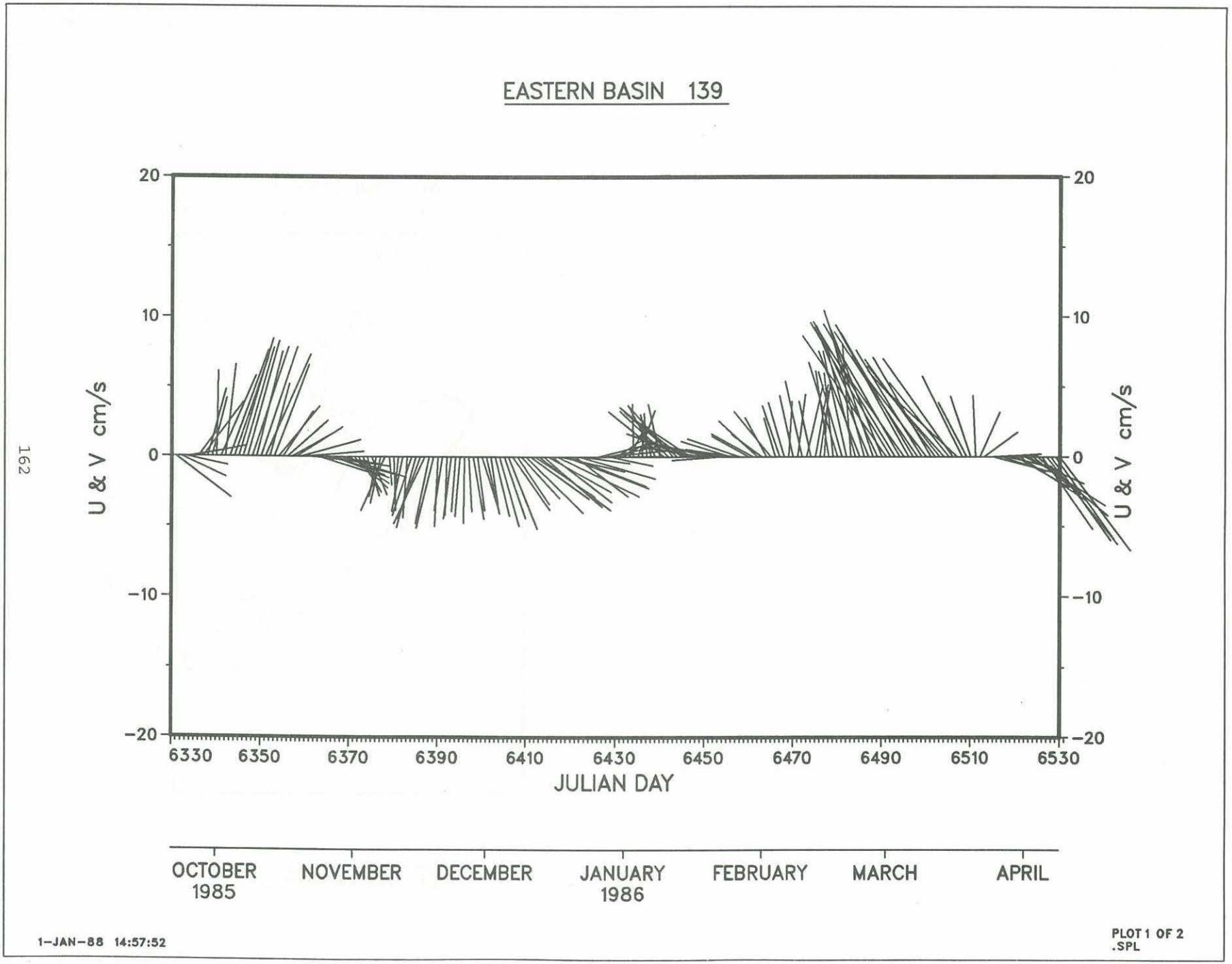

EASTERN BASIN 138
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
160
1-JAN-88 14:56:18
PLOT 2 OF 2
.SPL

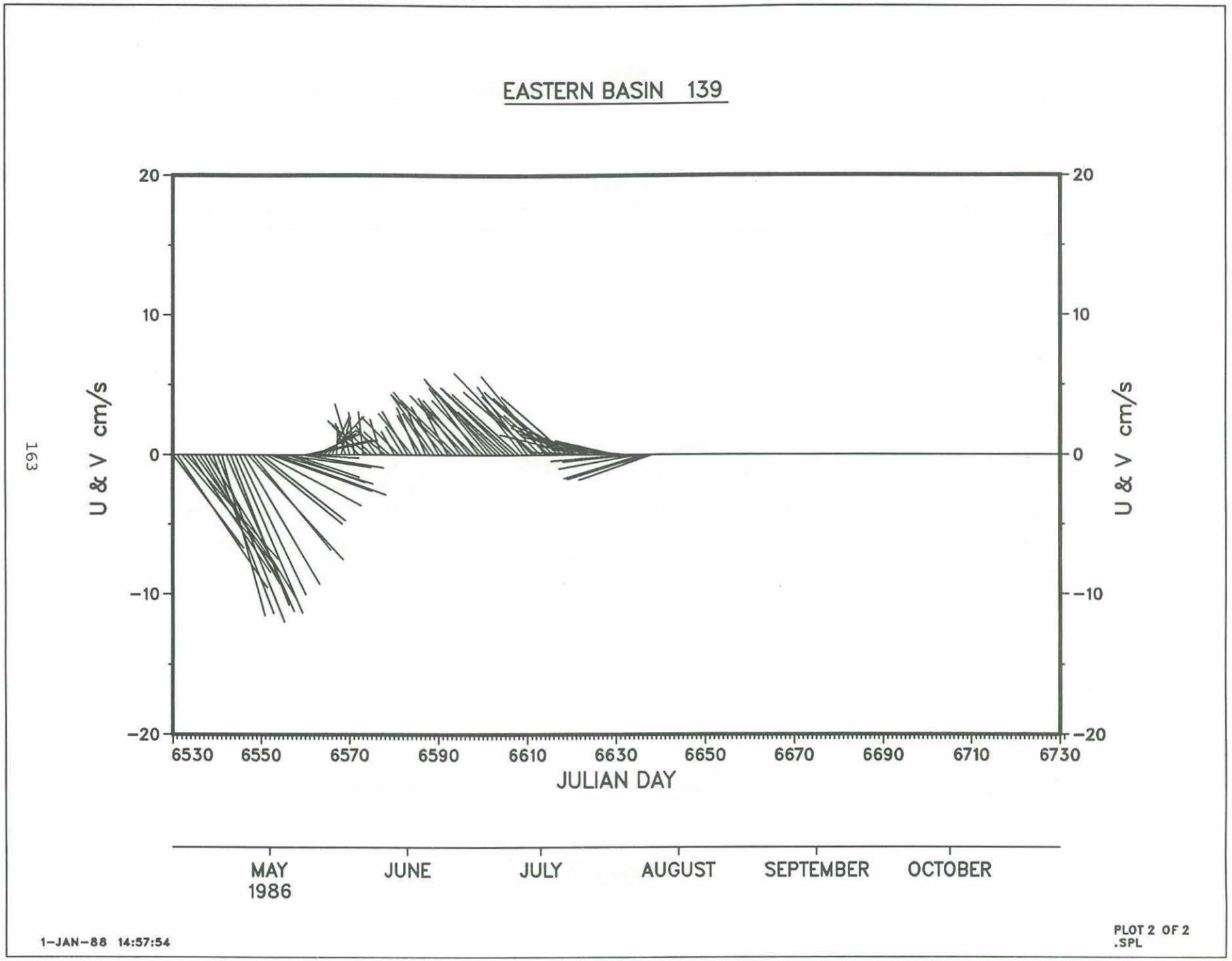
EASTERN BASIN 139

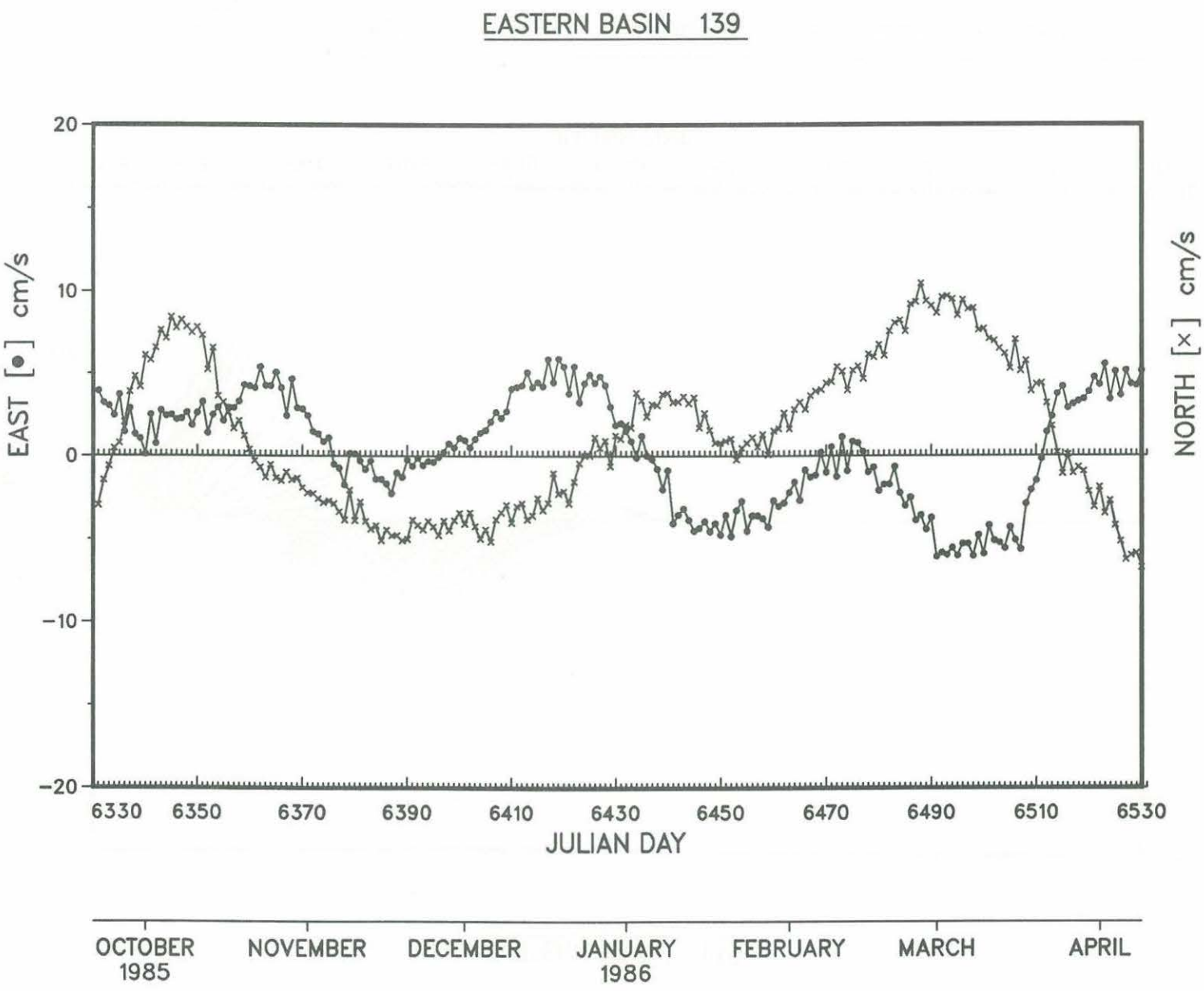


1-JAN-88 14:57:59

PLOT 1 OF 1
.SPL

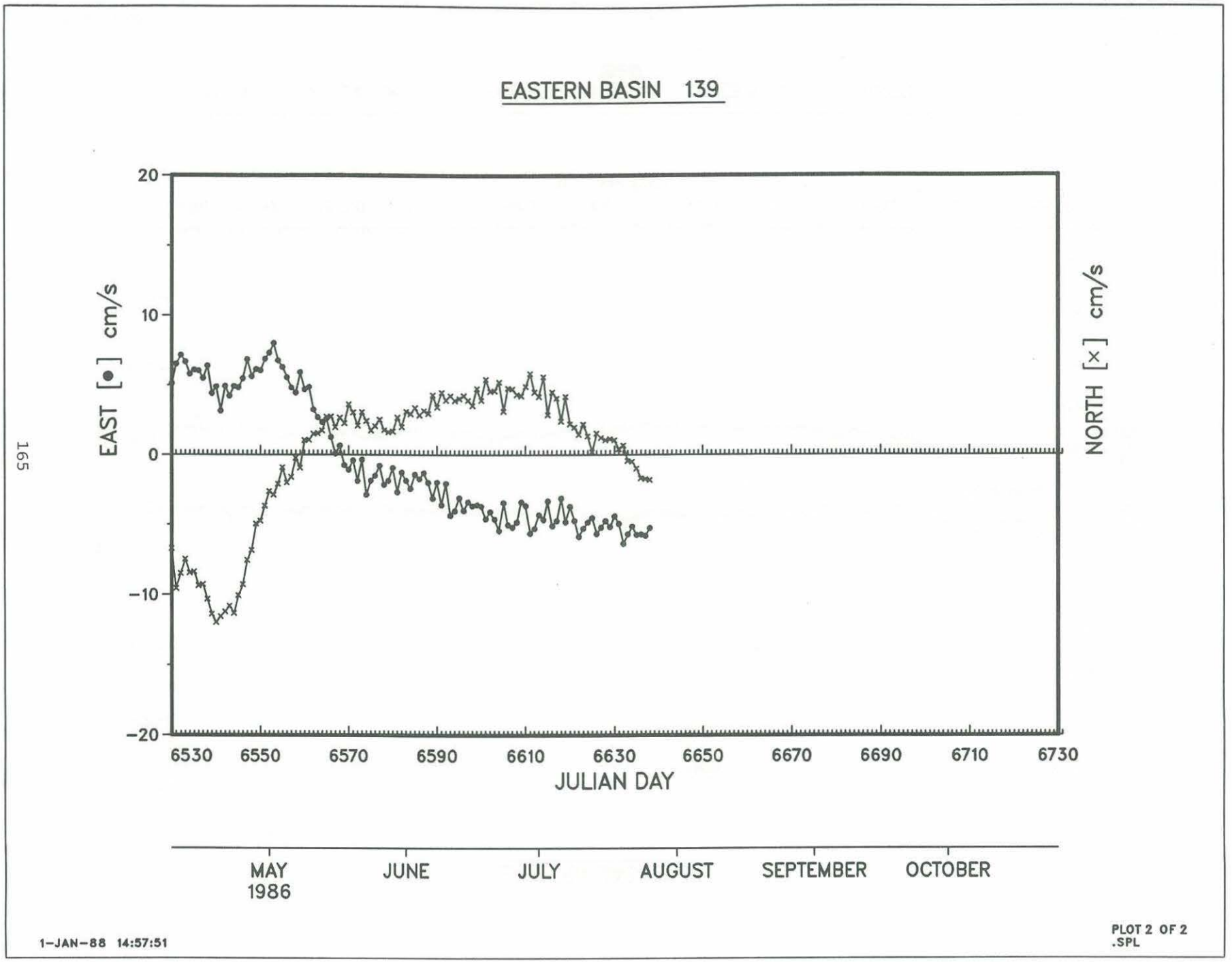

EASTERN BASIN 139
20
10
0
−10
−20
U & V cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
1-JAN-88 14:57:52
PLOT 1 OF 2
.SPL

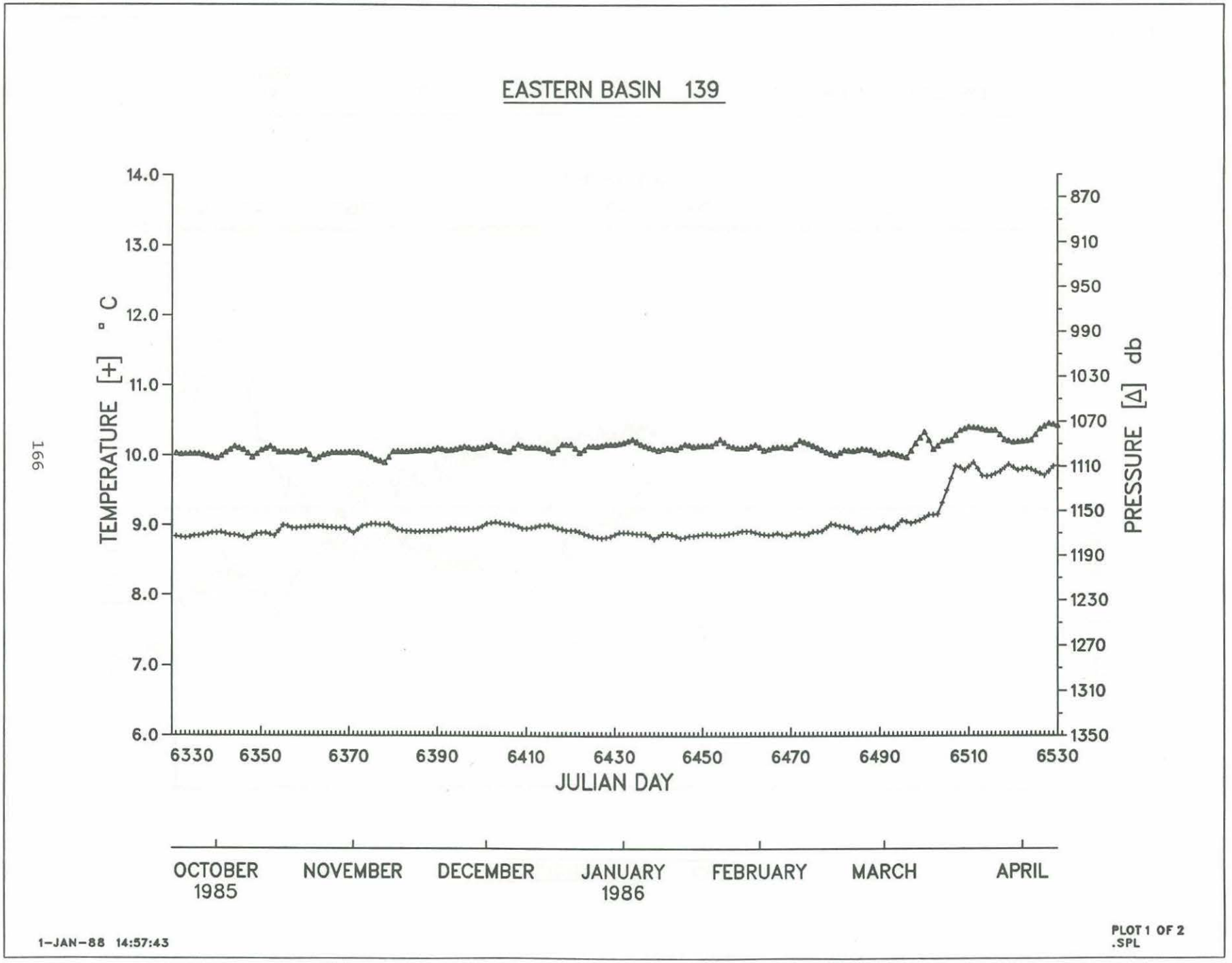

EASTERN BASIN 139
20
10
0
-10
-20
U & V cm/s
6530
6550
6570
6590
6610
6630
6650
6670
6690
6710
6730
JULIAN DAY
MAY
1986
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:57:54
PLOT 2 OF 2
.SPL



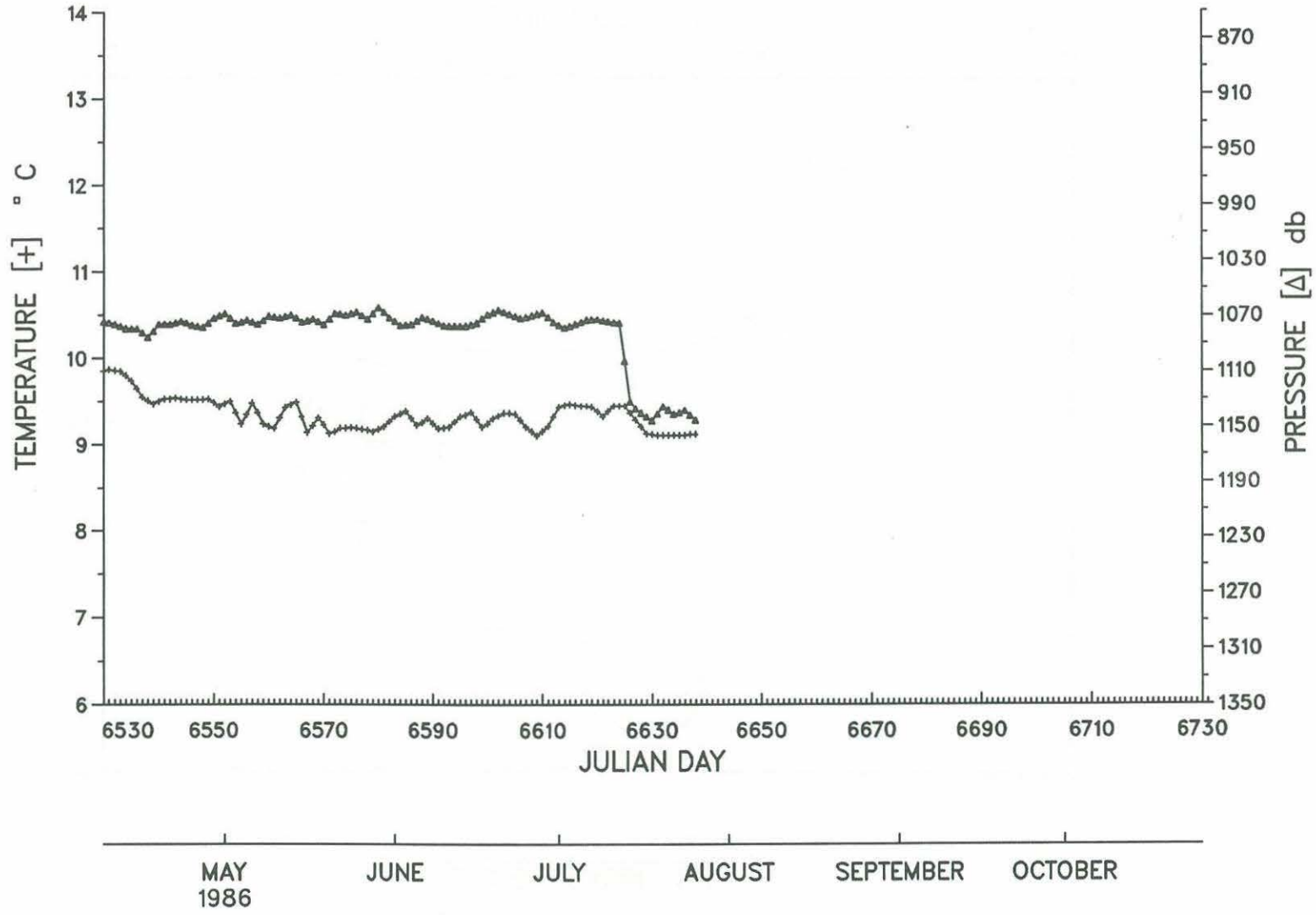
1-JAN-88 14:57:48

PLOT 1 OF 2
.SPL


EASTERN BASIN 139
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
-10
-20
6530
6550
6570
6590
6610
6630
6650
6670
6690
6710
6730
JULIAN DAY
MAY
1986
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
1-JAN-88 14:57:51
PLOT 2 OF 2
.SPL


EASTERN BASIN 139
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
APRIL
1-JAN-88 14:57:43
PLOT 1 OF 2
.SPL

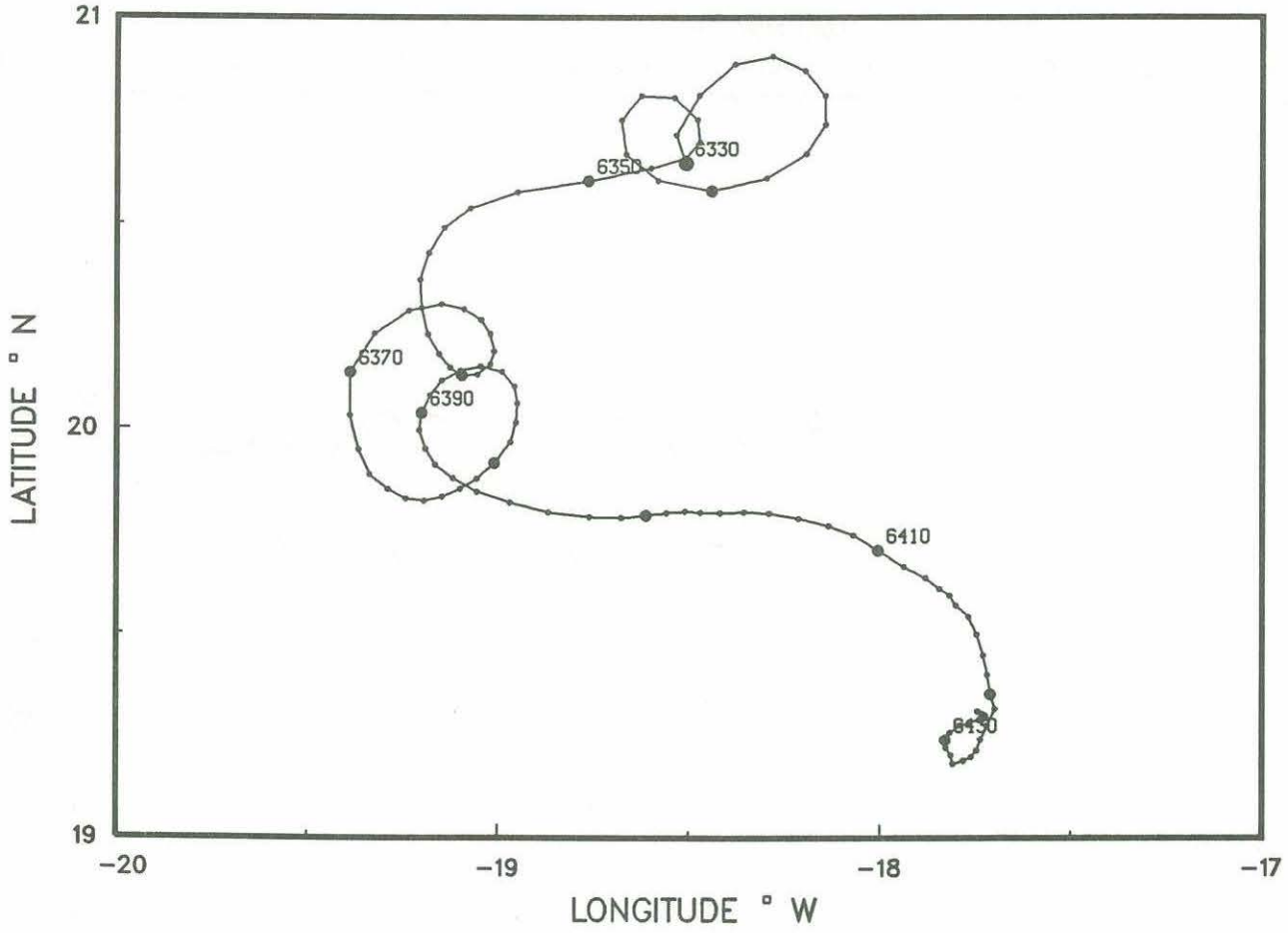
EASTERN BASIN 139



1-JAN-88 14:57:45

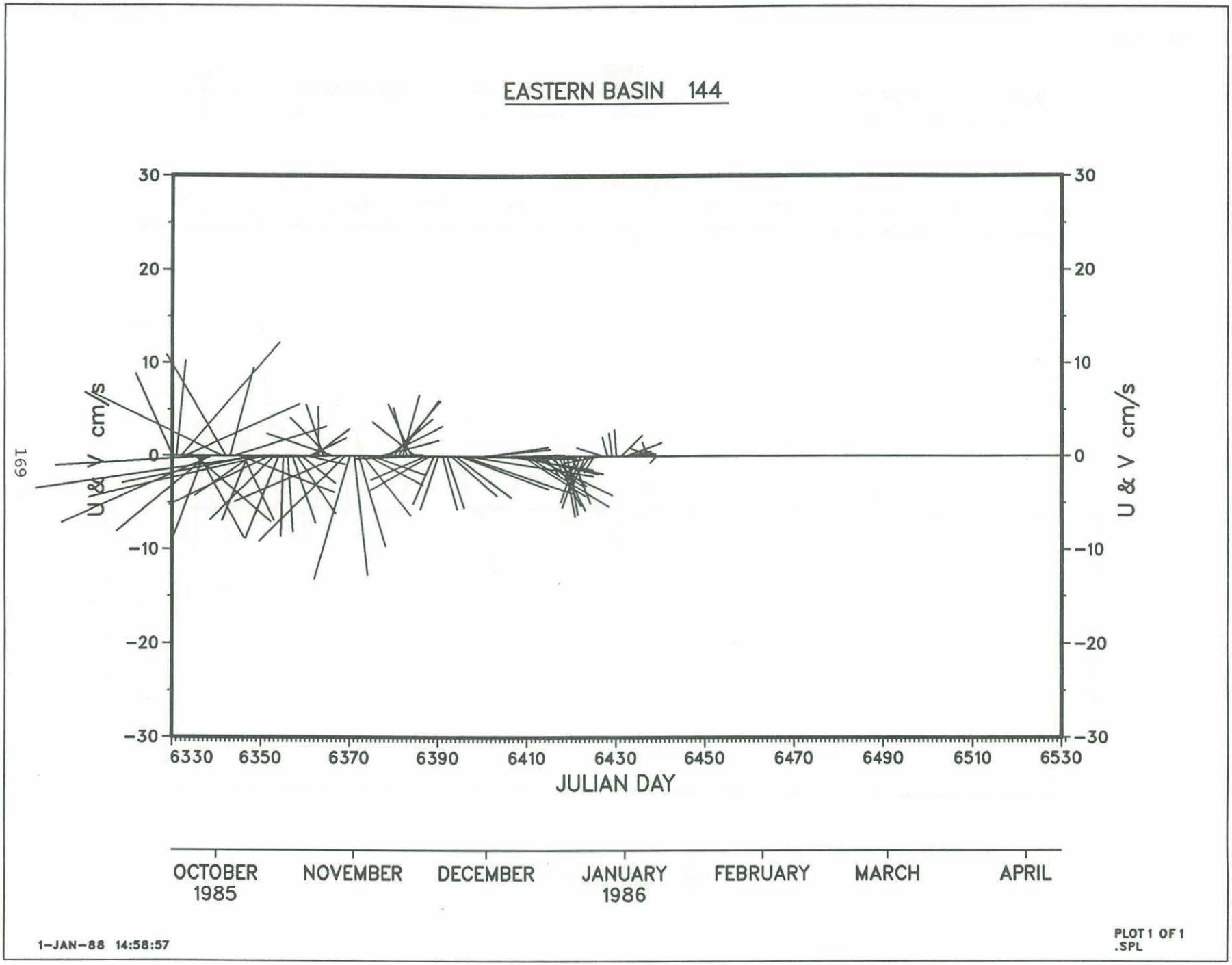
PLOT 2 OF 2
.SPL

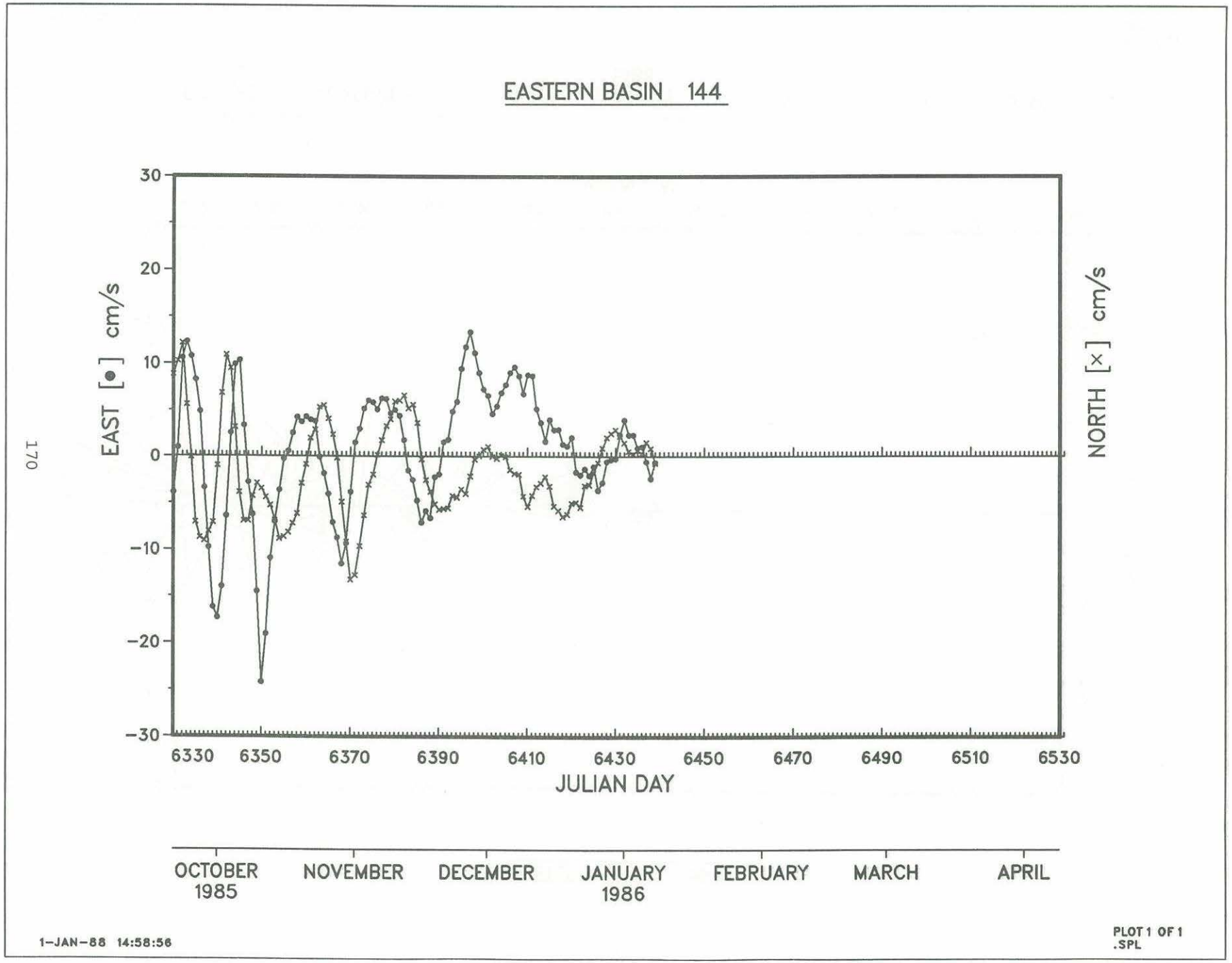
EASTERN BASIN 144

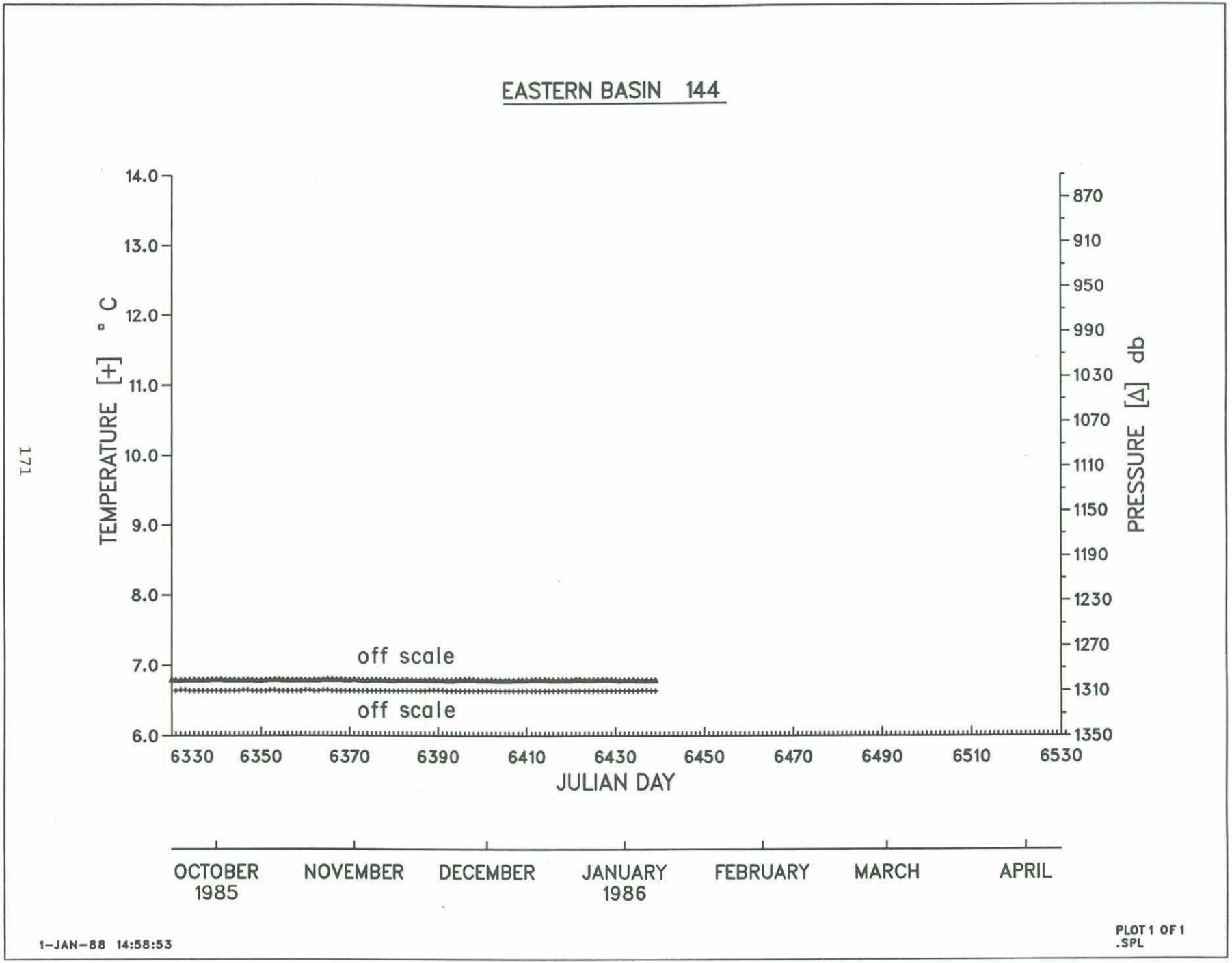


1-JAN-88 14:59:00

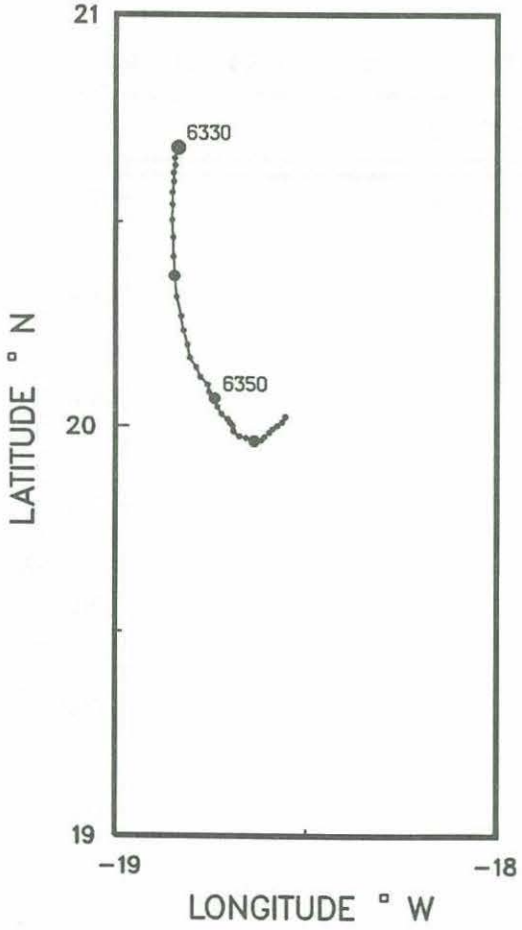
PLOT 1 OF 1
.SPL


EASTERN BASIN 144
30
20
10
0
-10
-20
-30
U & V cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
1-JAN-88 14:58:57
PLOT 1 OF 1
.SPL


EASTERN BASIN 144
EAST [•] cm/s
NORTH [×] cm/s
30
20
10
0
-10
-20
-30
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
APRIL
1-JAN-88 14:58:56
PLOT 1 OF 1
.SPL

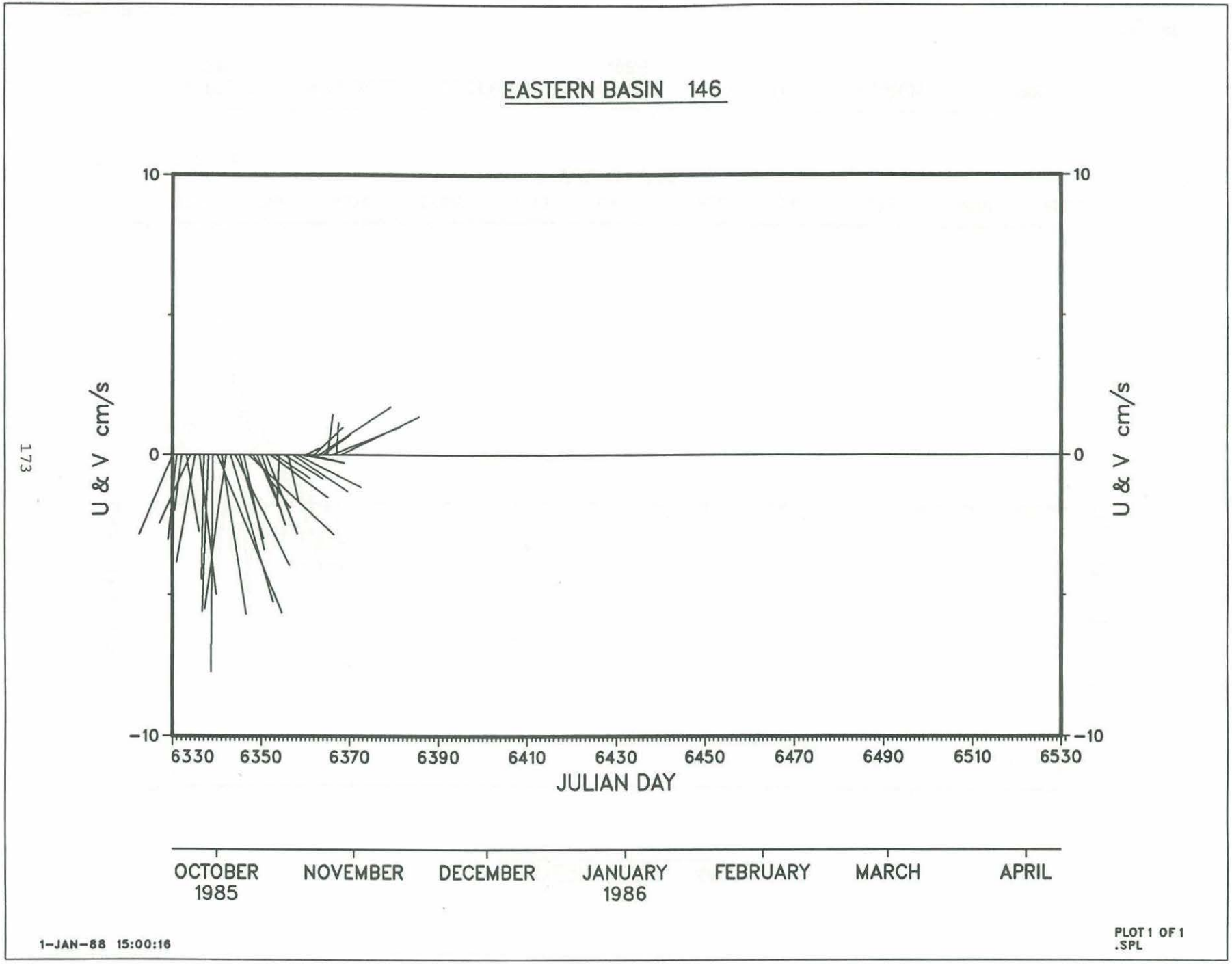

EASTERN BASIN 144
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
off scale
off scale
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
APRIL
1-JAN-88 14:58:53
PLOT 1 OF 1
.SPL

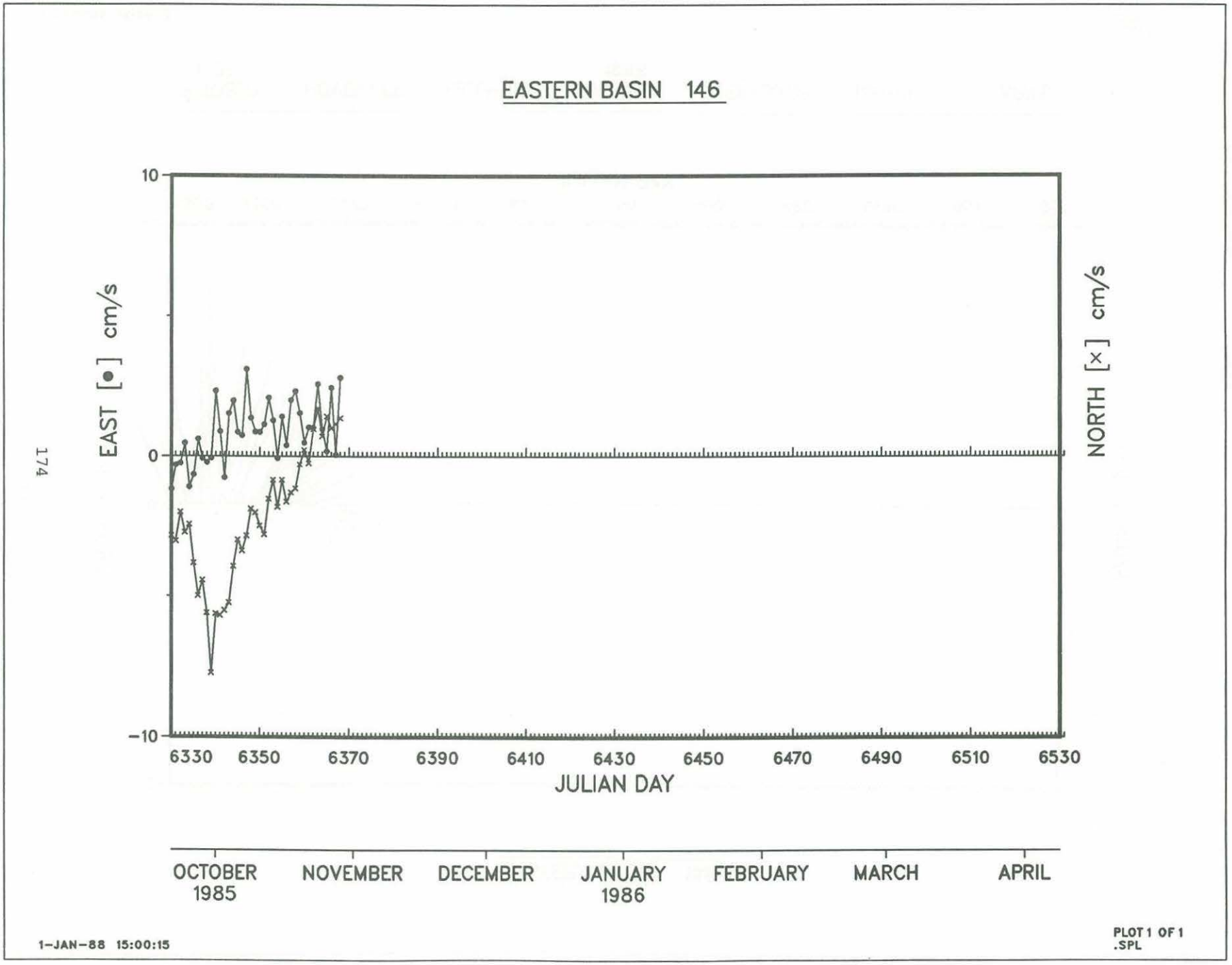
EASTERN BASIN 146

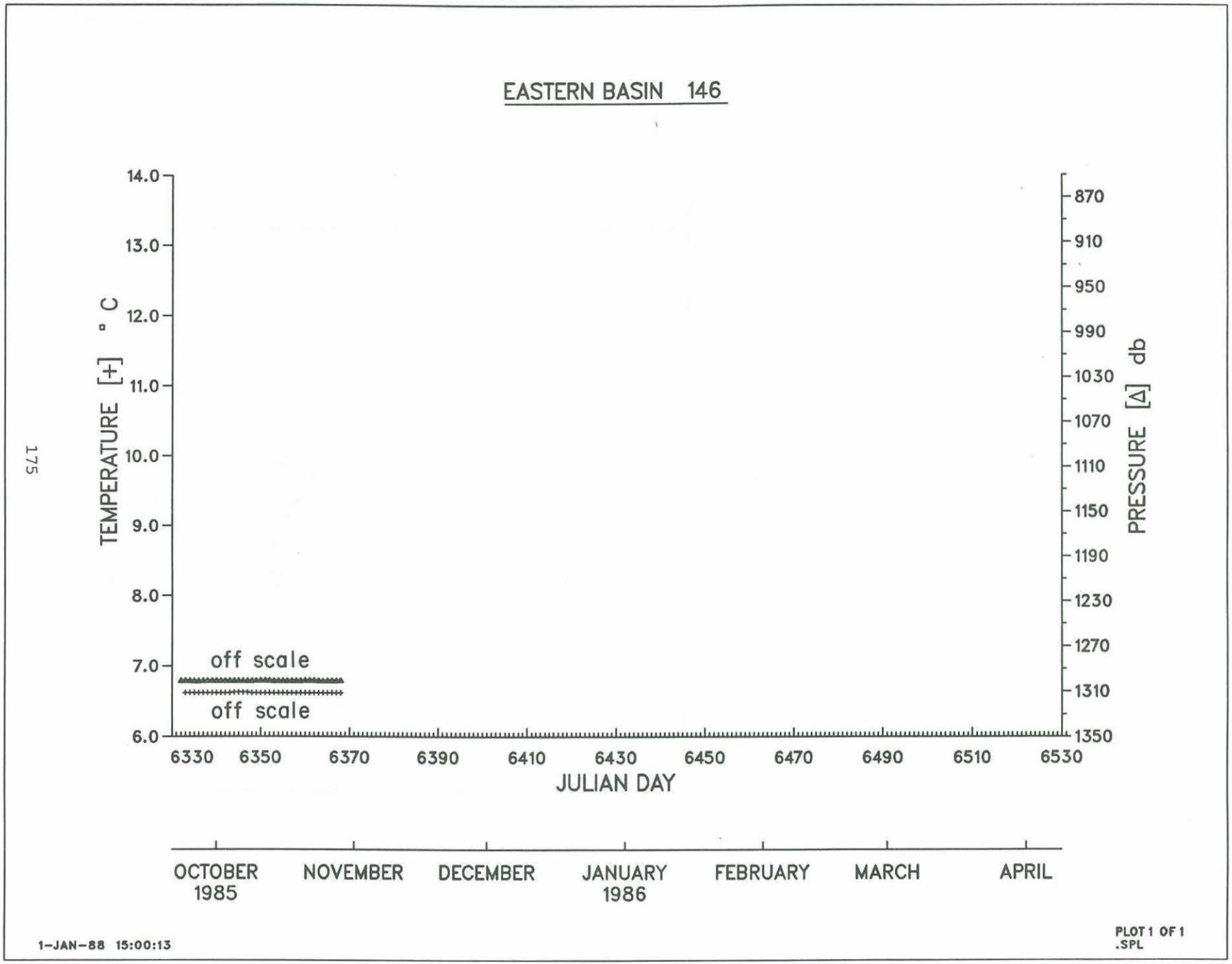


1-JAN-88 15:00:18

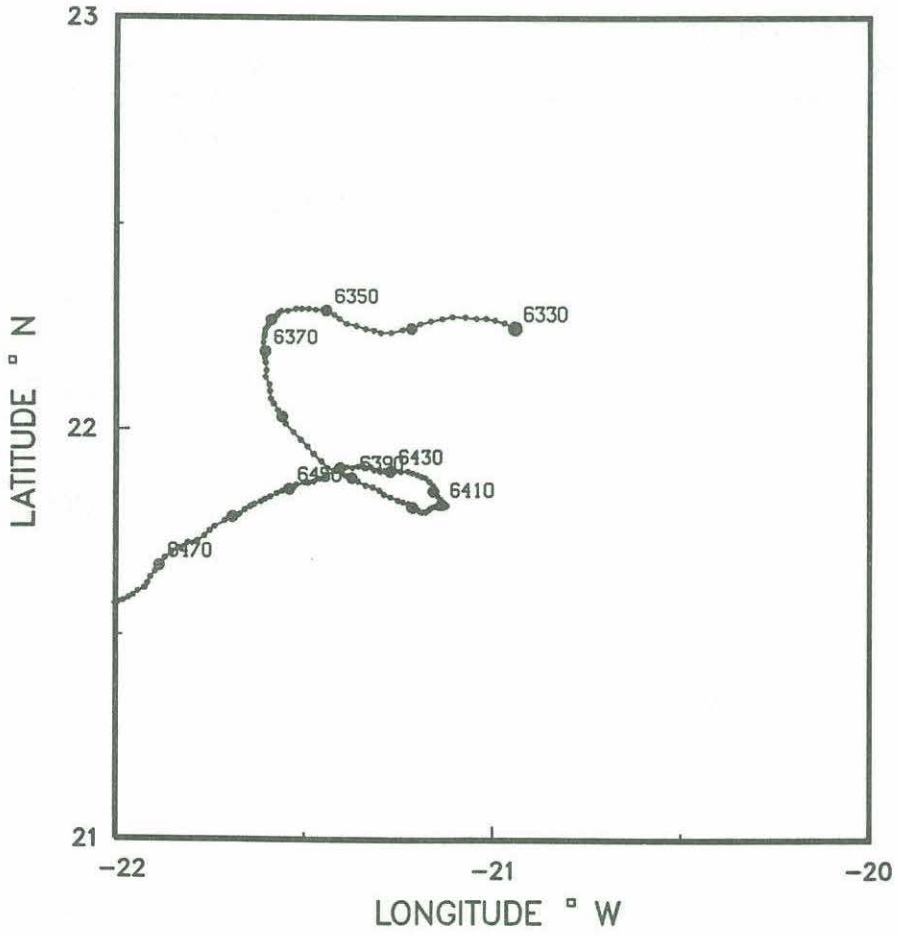
PLOT 1 OF 1
.SPL


EASTERN BASIN 146
10
0
−10
U & V cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
1-JAN-88 15:00:16
PLOT 1 OF 1
.SPL


EASTERN BASIN 146
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
1-JAN-88 15:00:15
PLOT 1 OF 1
.SPL

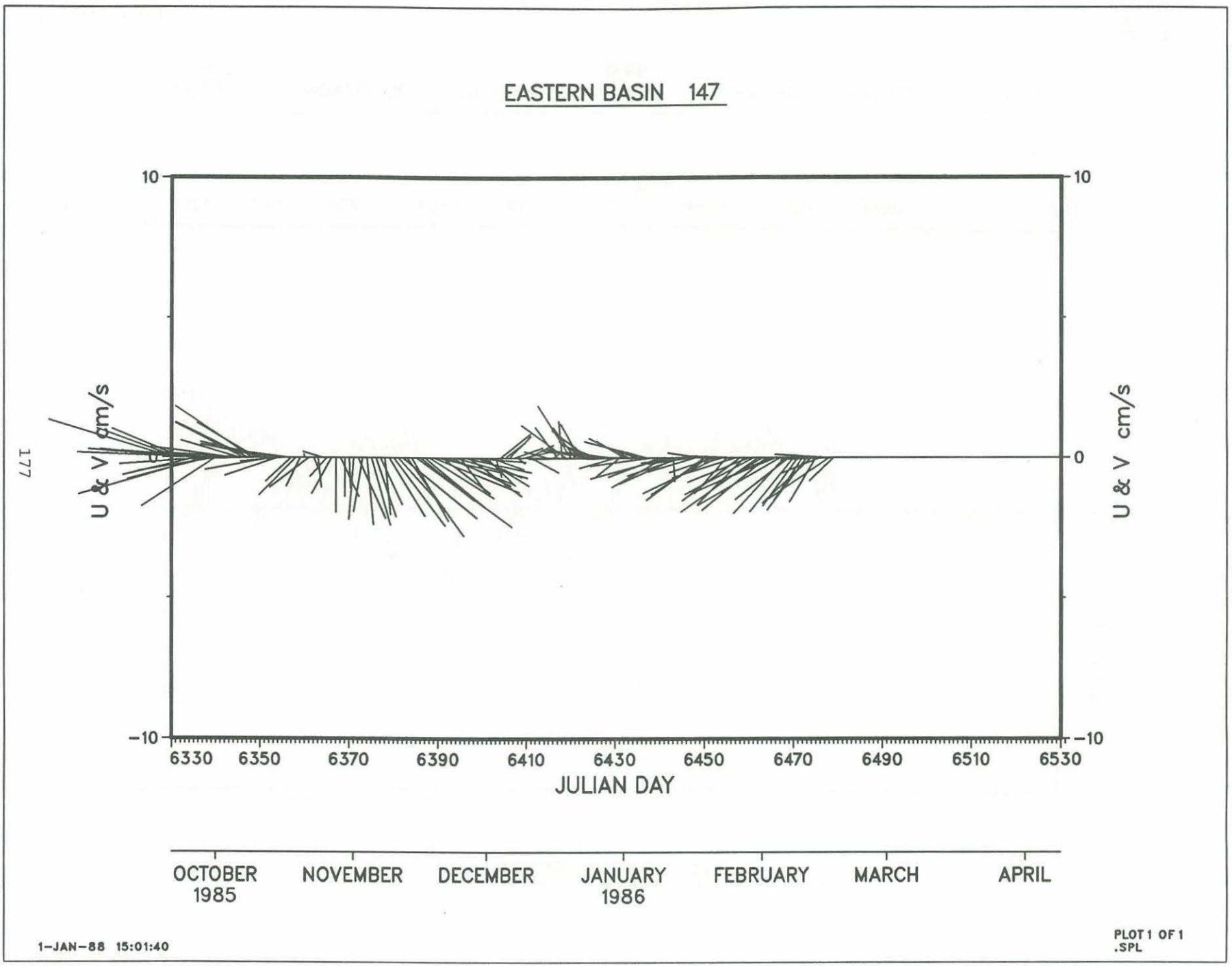

EASTERN BASIN 146
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
off scale
off scale
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
APRIL
1-JAN-88 15:00:13
PLOT 1 OF 1
.SPL

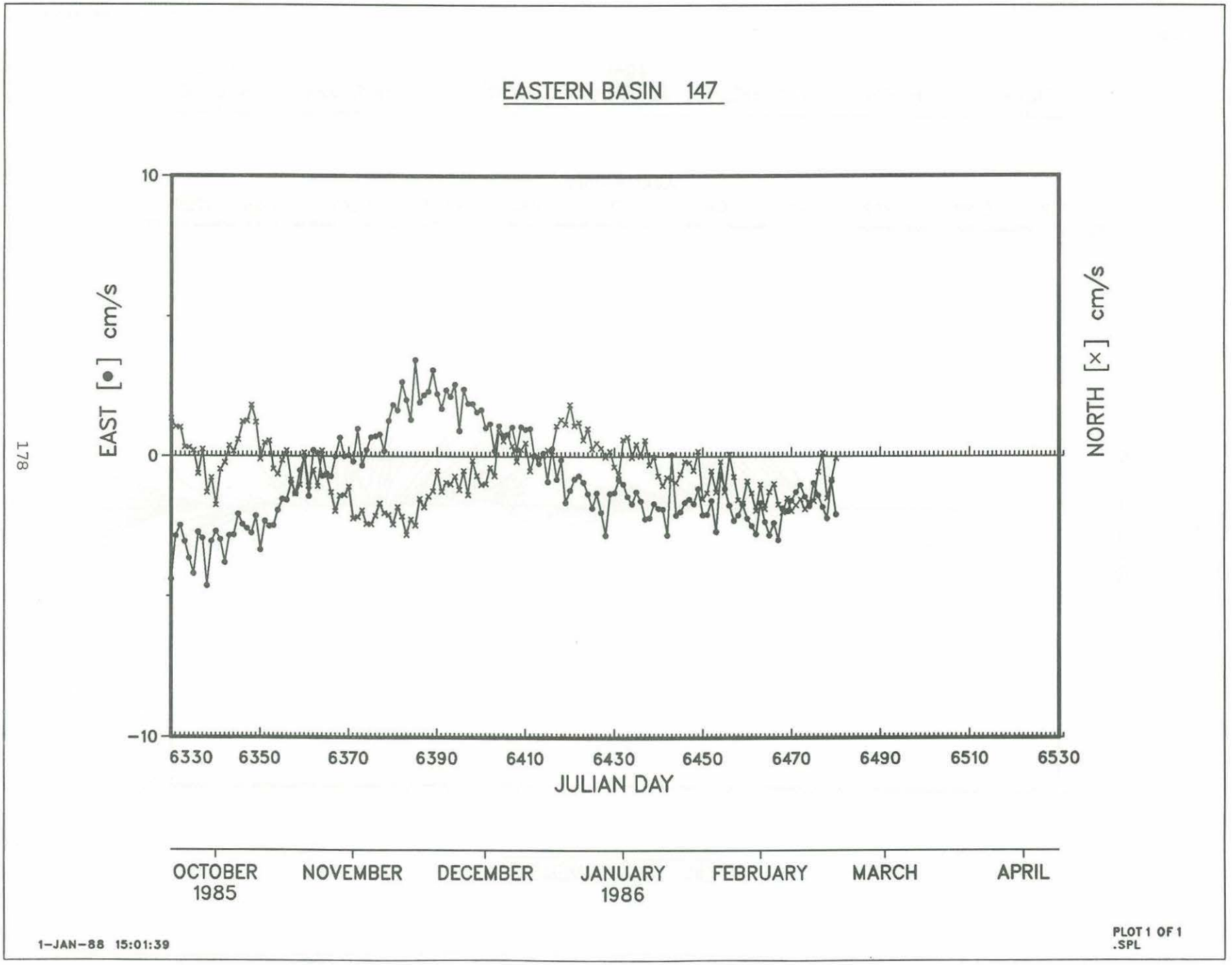
EASTERN BASIN 147

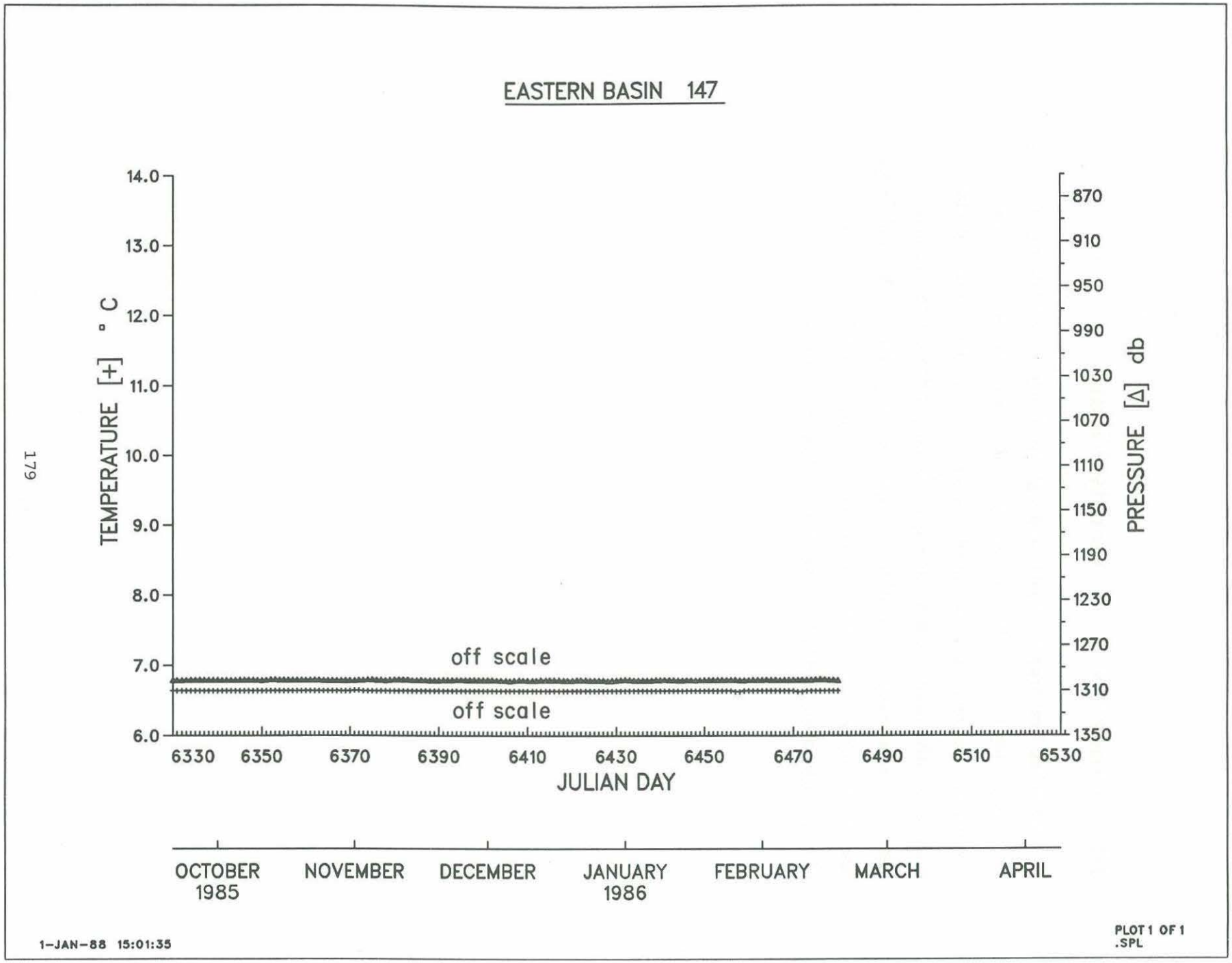


1-JAN-88 15:01:43

PLOT 1 OF 1
.SPL


EASTERN BASIN 147
10
0
-10
U & V cm/s
177
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
1-JAN-88 15:01:40
PLOT 1 OF 1
.SPL

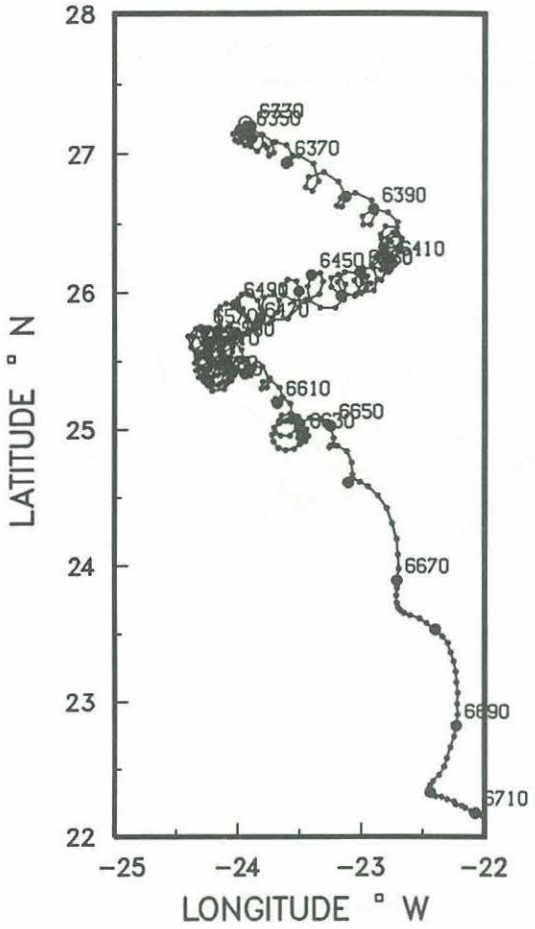

EASTERN BASIN 147
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
1-JAN-88 15:01:39
PLOT 1 OF 1
.SPL


EASTERN BASIN 147
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
off scale
off scale
6330
6350
6370
6390
6410
6430
6450
6470
6490
6510
6530
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
APRIL
1-JAN-88 15:01:35
PLOT 1 OF 1
.SPL

10 Appendix C — Meddy Floats

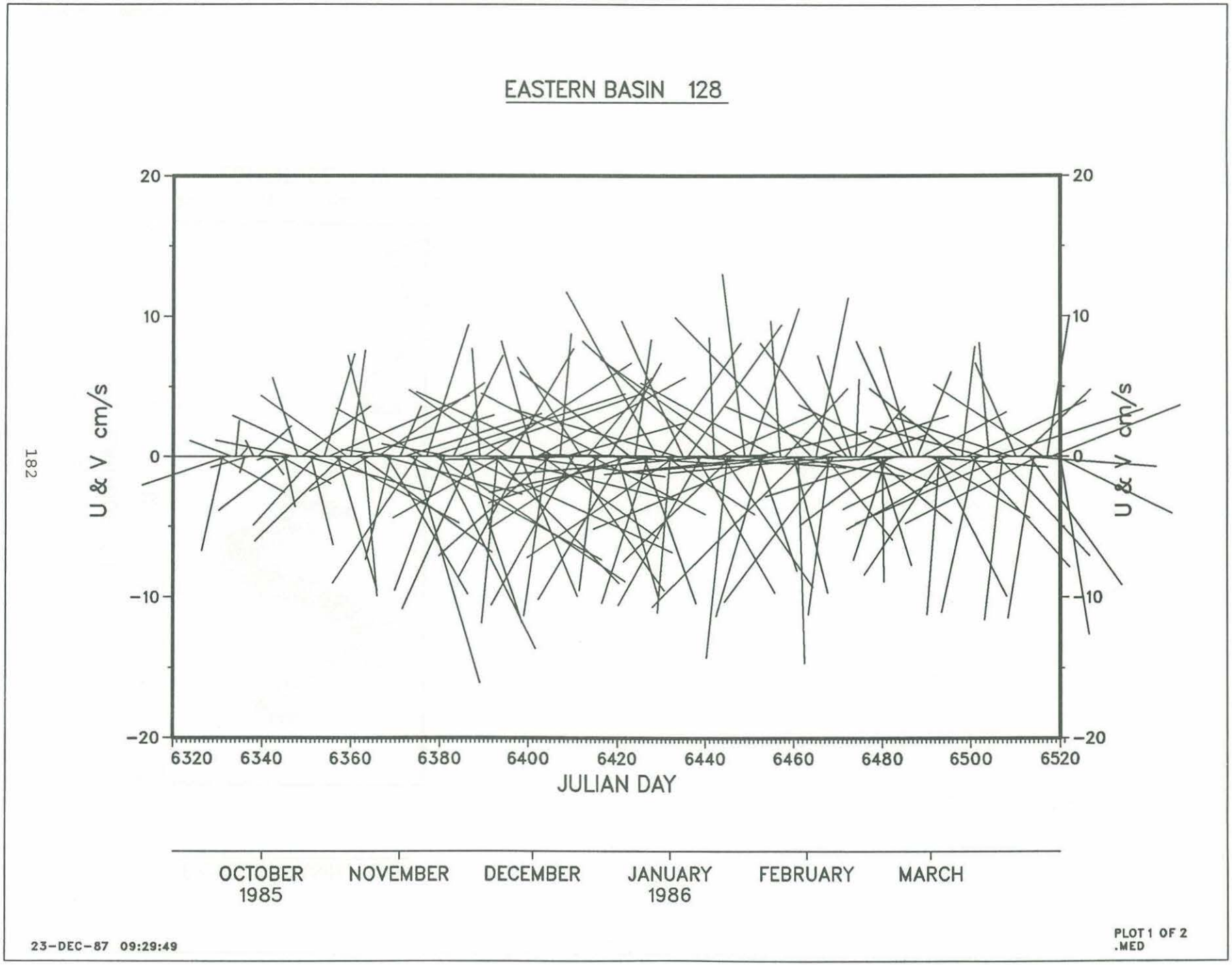
Individual float trajectory plots and a group of time series plots are presented for seven Meddy floats tracked in 1985 and 1986. These data were processed in parallel with our own data, but smoothing was omitted. Speeds were calculated from consecutive positions and subsampled to one per day before plotting. In addition, displacement vectors of the Meddy floats from 1984 to 1986 and for the first and second years of the experiment are given in Figures 6a to 6c. Composites of trajectories from Meddy floats are given in Figures 7a to 7c.

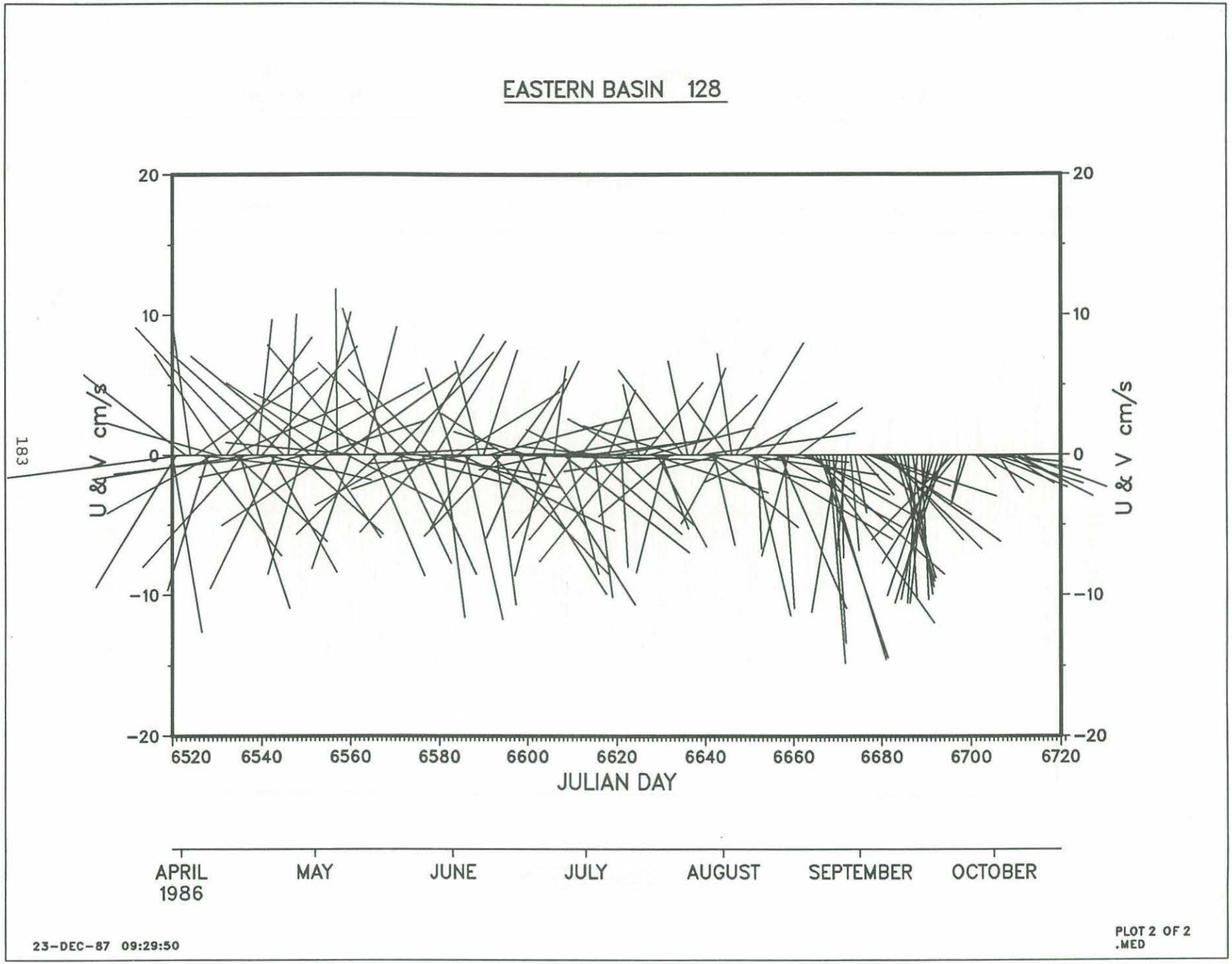
EASTERN BASIN 128

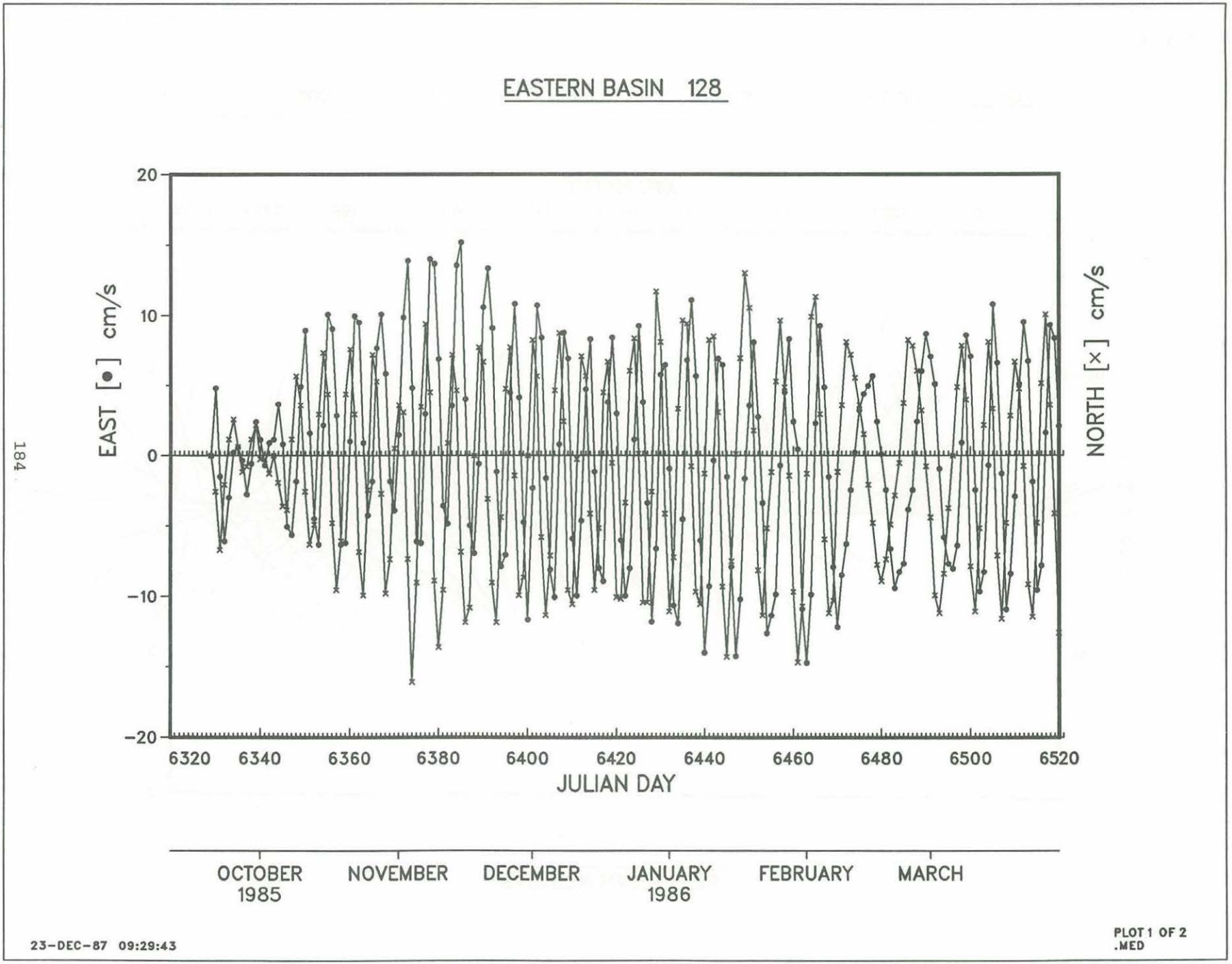


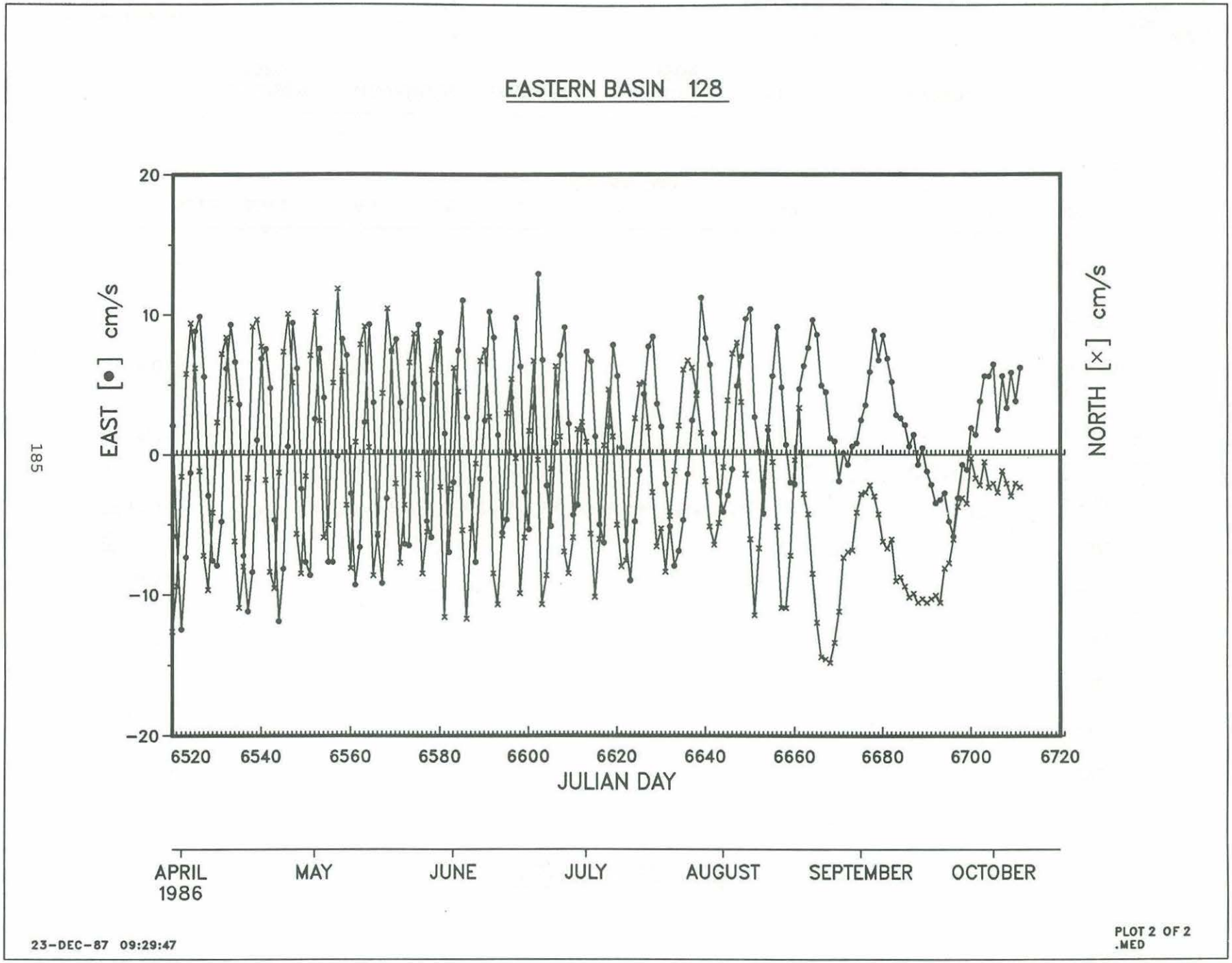
23-DEC-87 09:29:56

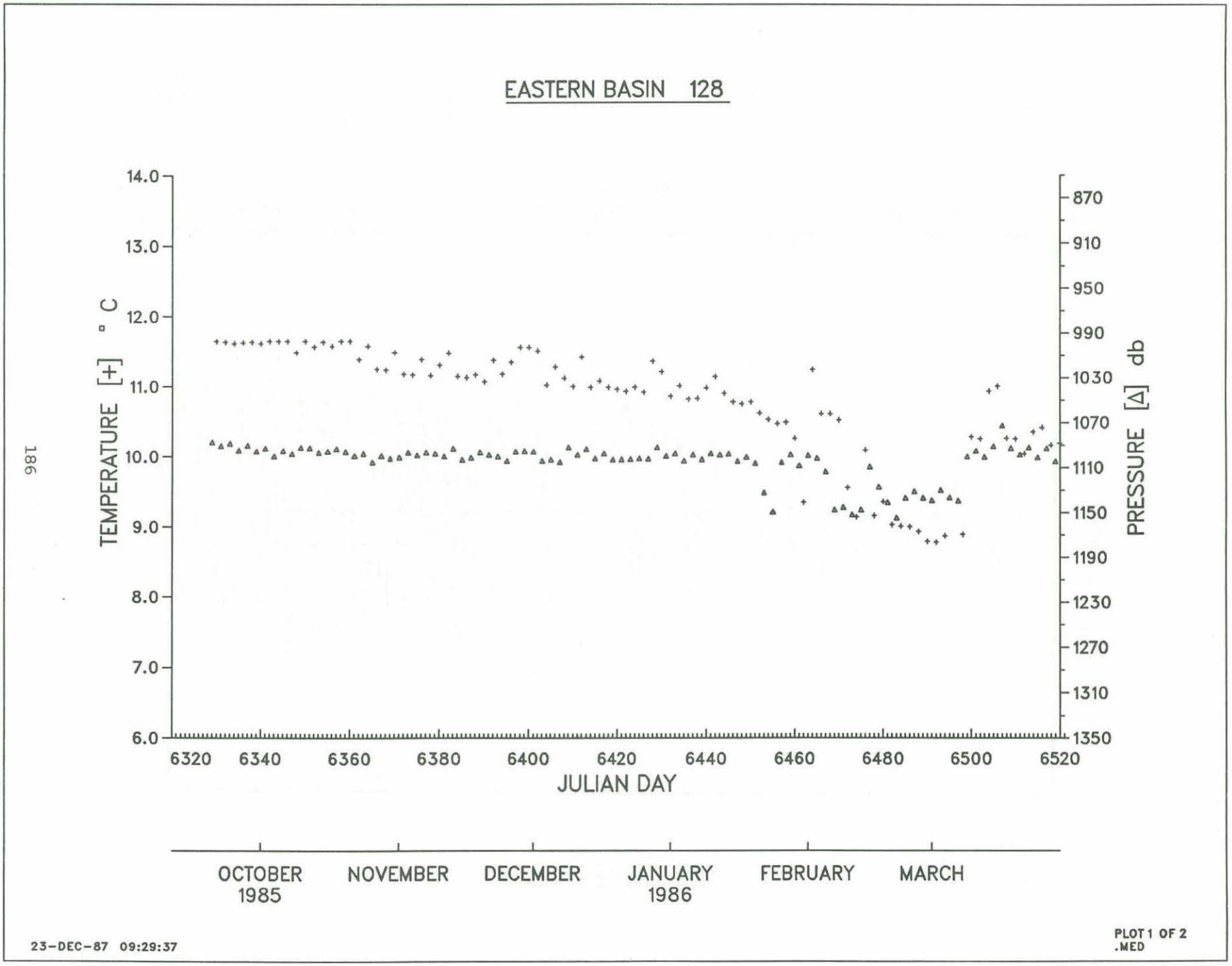
PLOT 1 OF 1
.MED

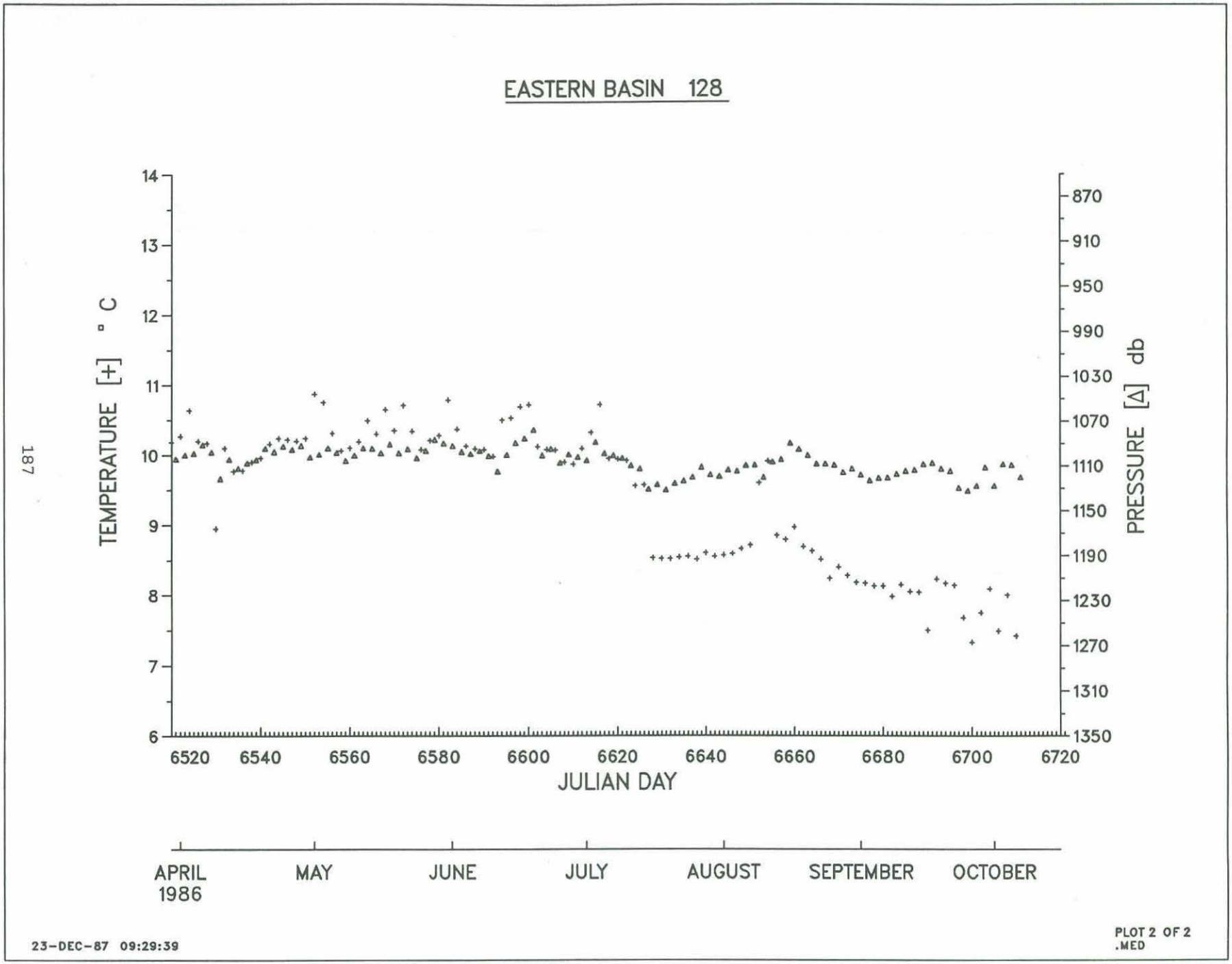

EASTERN BASIN 128
20
10
0
-10
-20
U & V cm/s
U & V cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
23-DEC-87 09:29:49
PLOT 1 OF 2
.MED


EASTERN BASIN 128
20
10
0
-10
-20
U & V cm/s
183
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
23-DEC-87 09:29:50
PLOT 2 OF 2
.MED

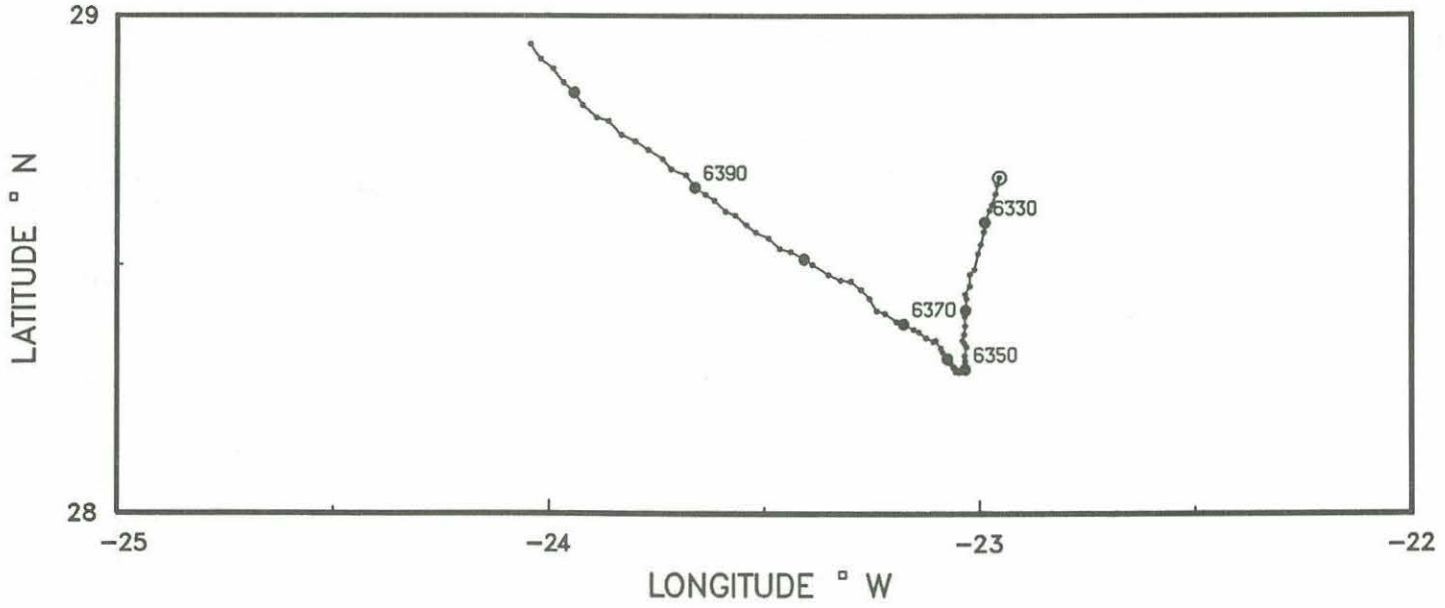

EASTERN BASIN 128
20
10
0
-10
-20
EAST [•] cm/s
NORTH [×] cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
23-DEC-87 09:29:43
PLOT 1 OF 2
.MED


EASTERN BASIN 128
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
−10
−20
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
23-DEC-87 09:29:47
PLOT 2 OF 2
.MED


EASTERN BASIN 128
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
186
23-DEC-87 09:29:37
PLOT 1 OF 2
.MED

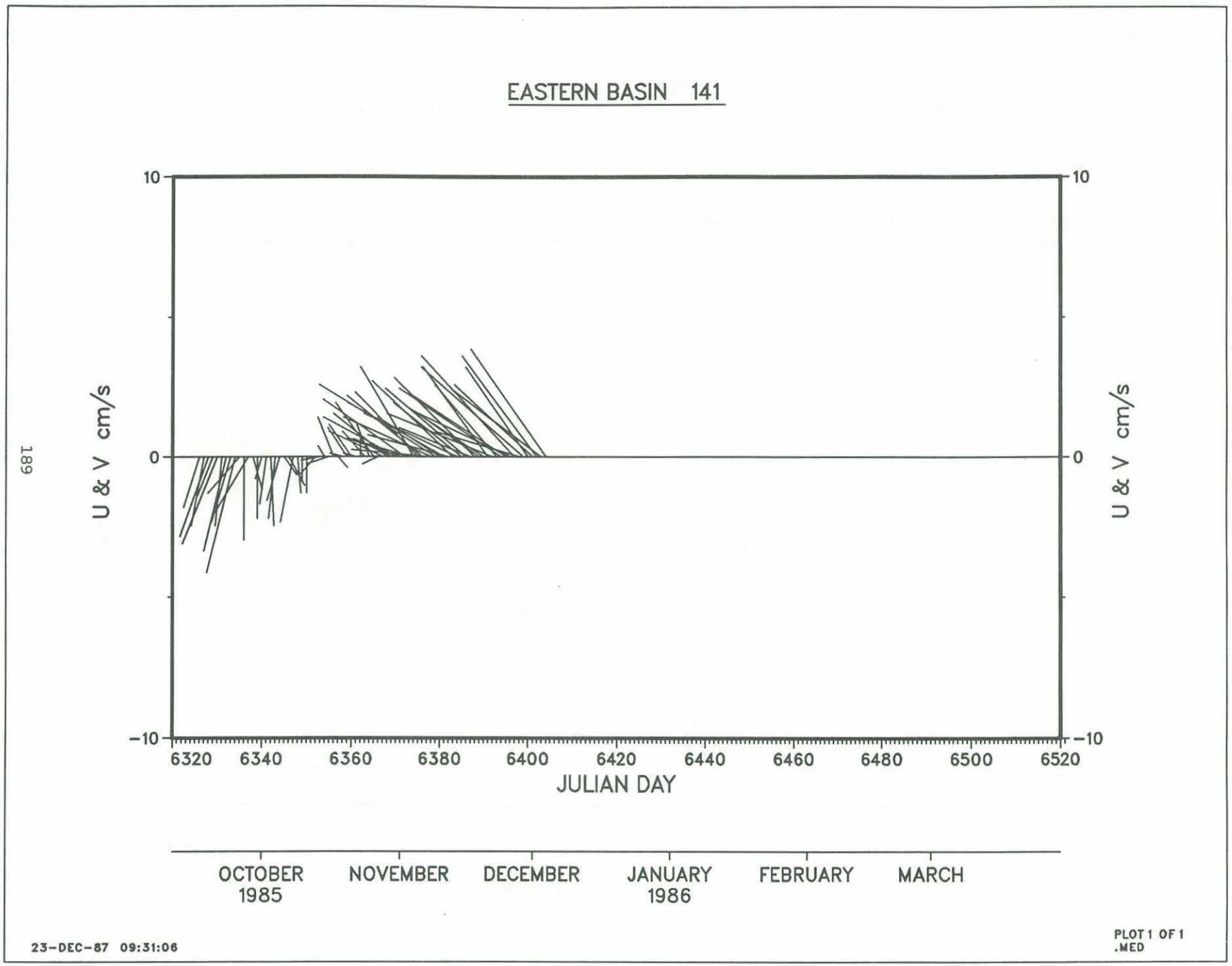

EASTERN BASIN 128
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
187
23-DEC-87 09:29:39
PLOT 2 OF 2
.MED

EASTERN BASIN 141



23-DEC-87 09:31:08

PLOT 1 OF 1
.MED


EASTERN BASIN 141
10
0
−10
U & V cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
23-DEC-87 09:31:06
PLOT 1 OF 1
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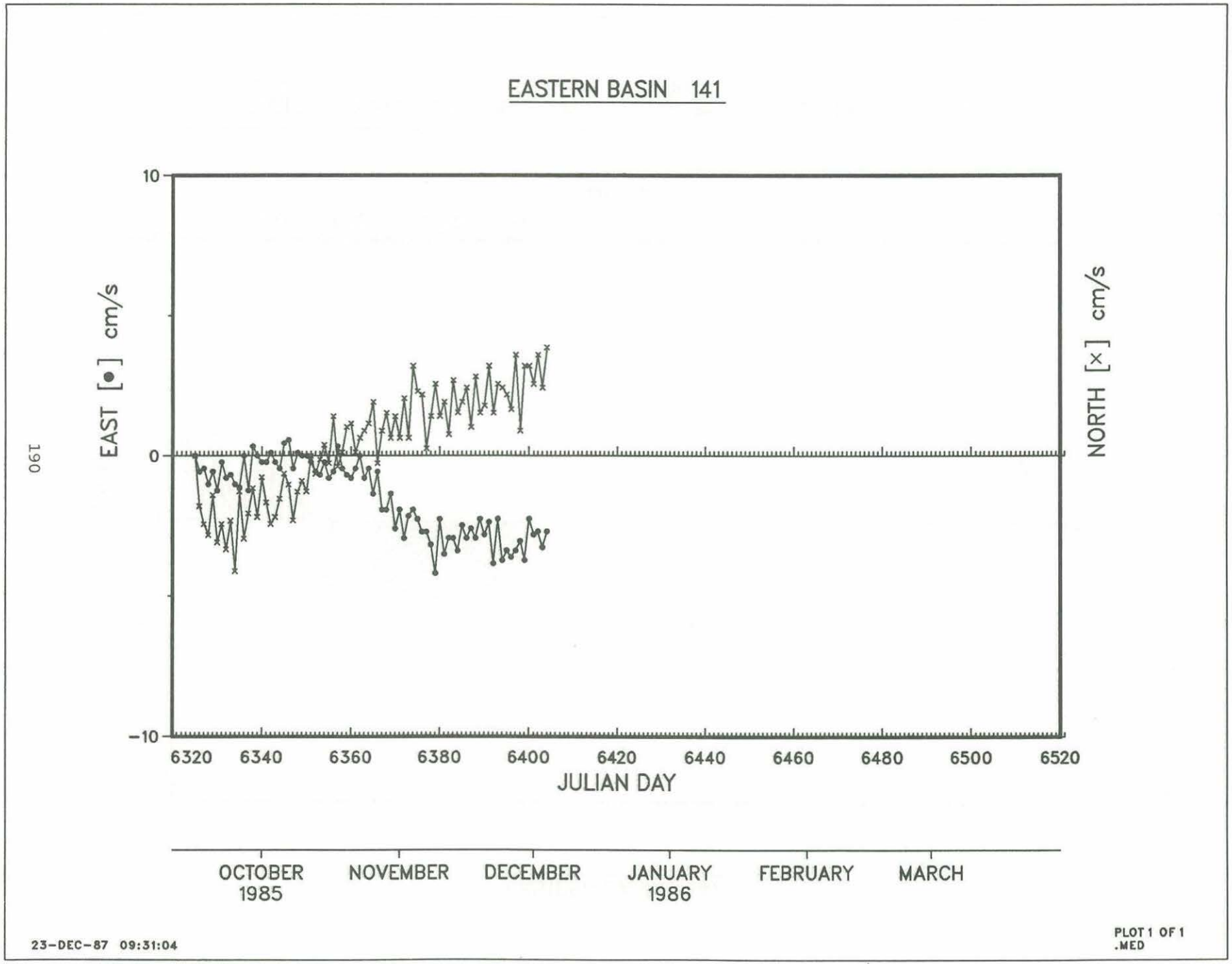
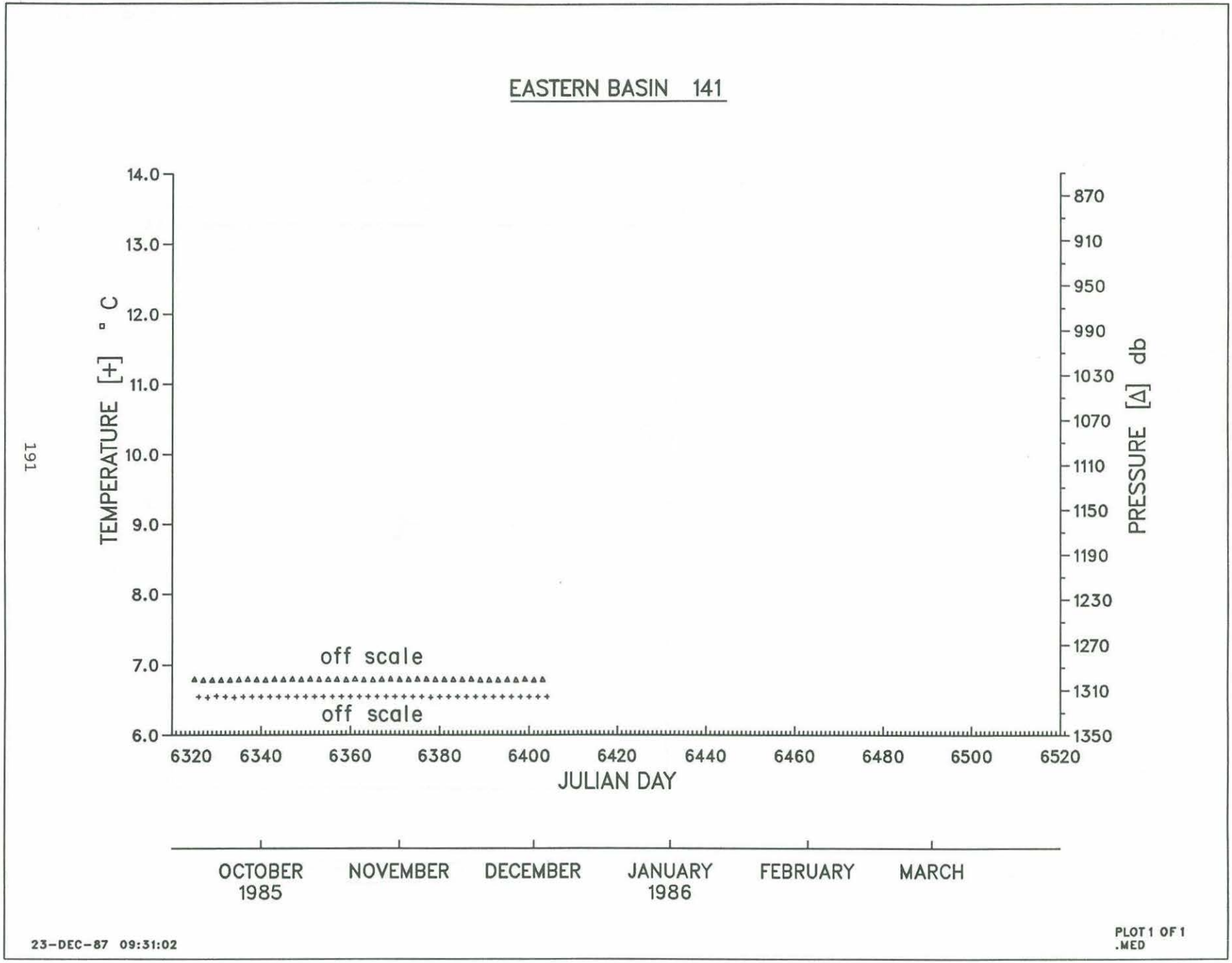

EASTERN BASIN 141
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
23-DEC-87 09:31:04
PLOT 1 OF 1
.MED


EASTERN BASIN 141
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
off scale
off scale
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
191
23-DEC-87 09:31:02
PLOT 1 OF 1
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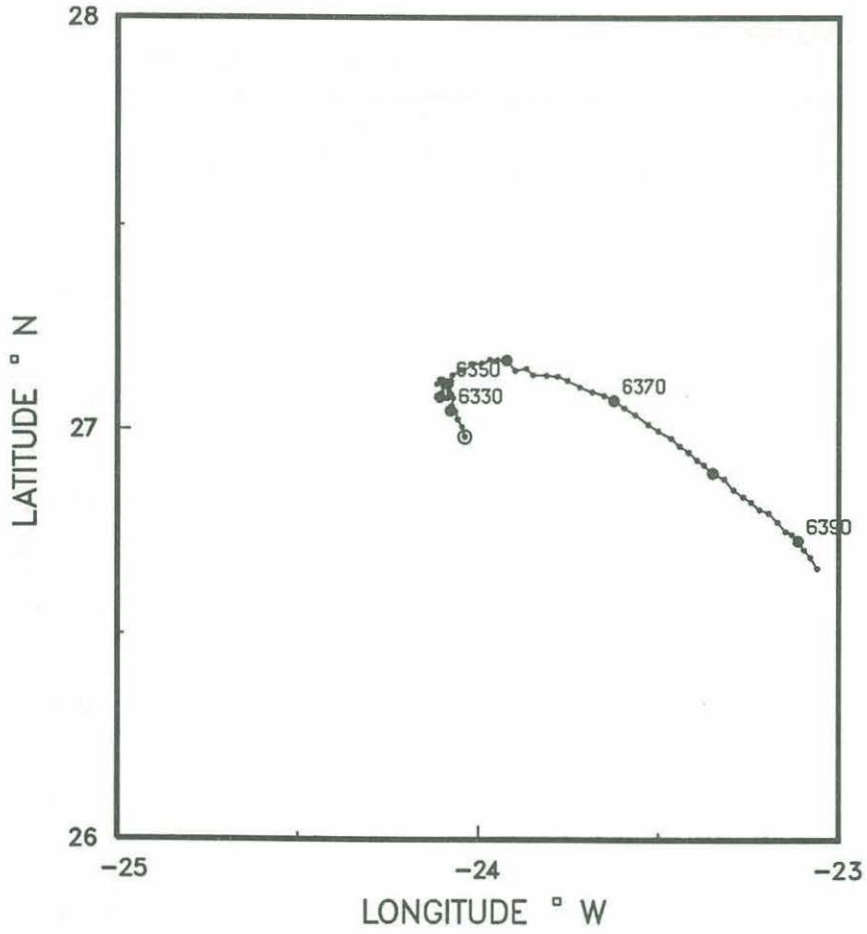
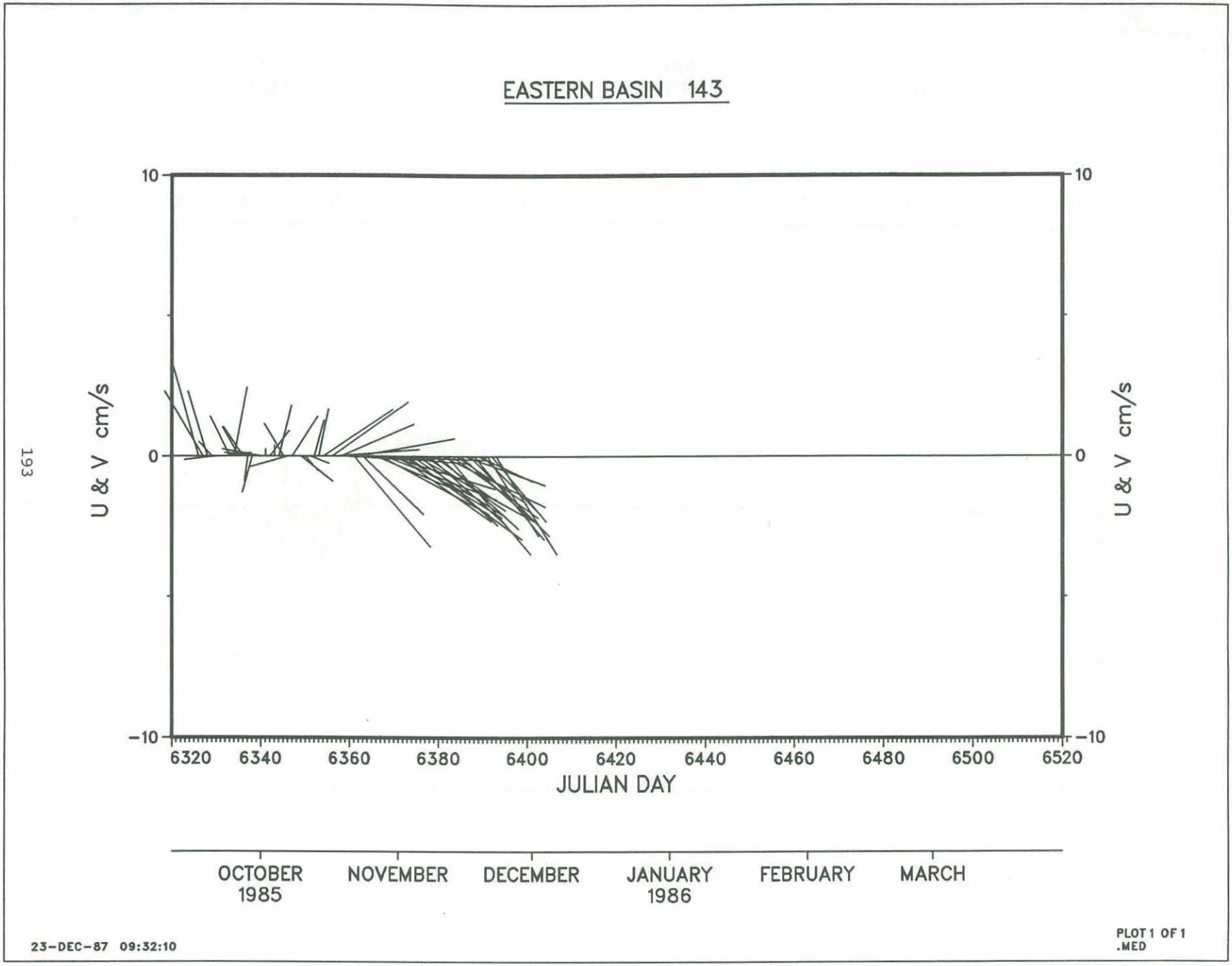
EASTERN BASIN 143



23-DEC-87 09:32:12

PLOT 1 OF 1
.MED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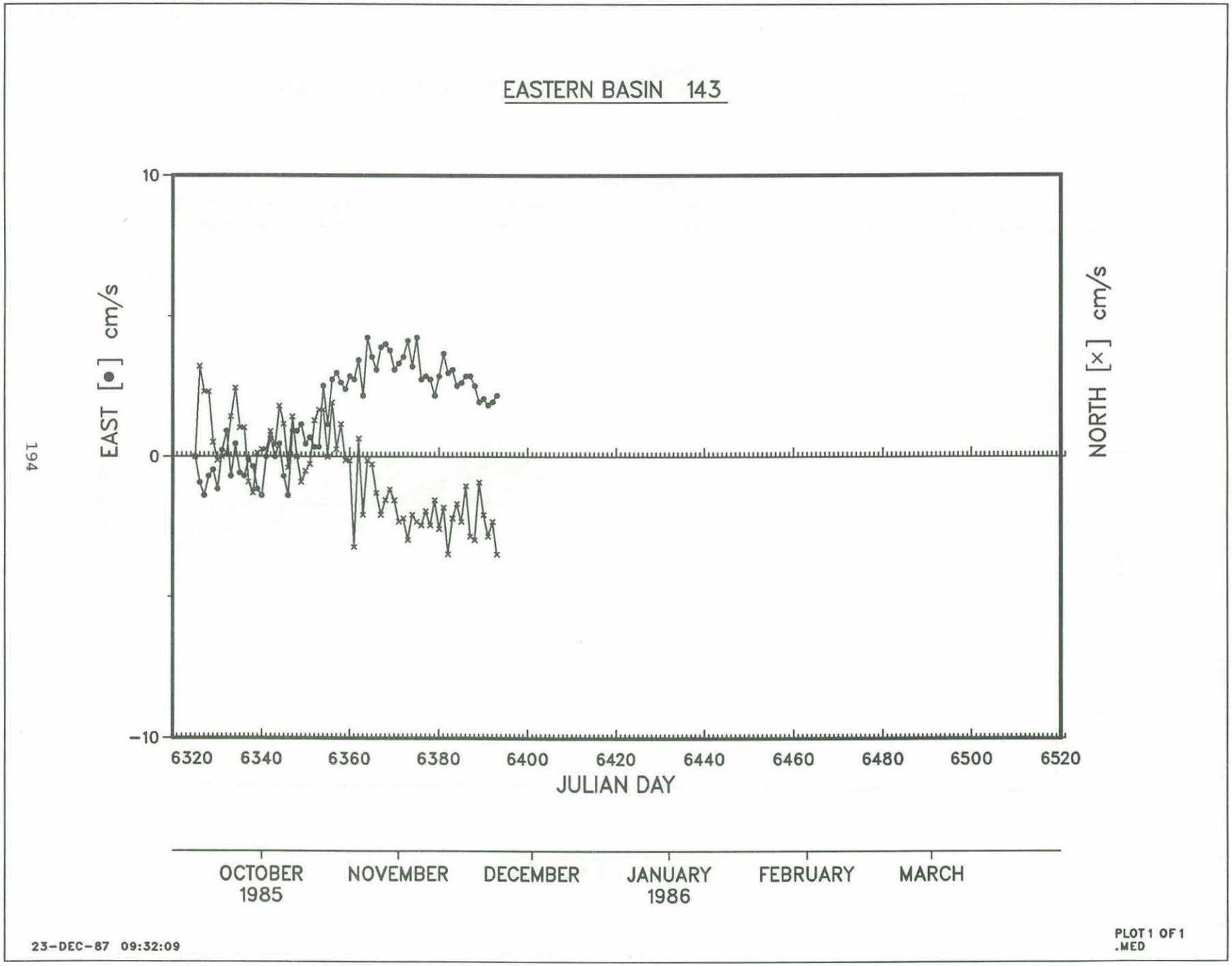
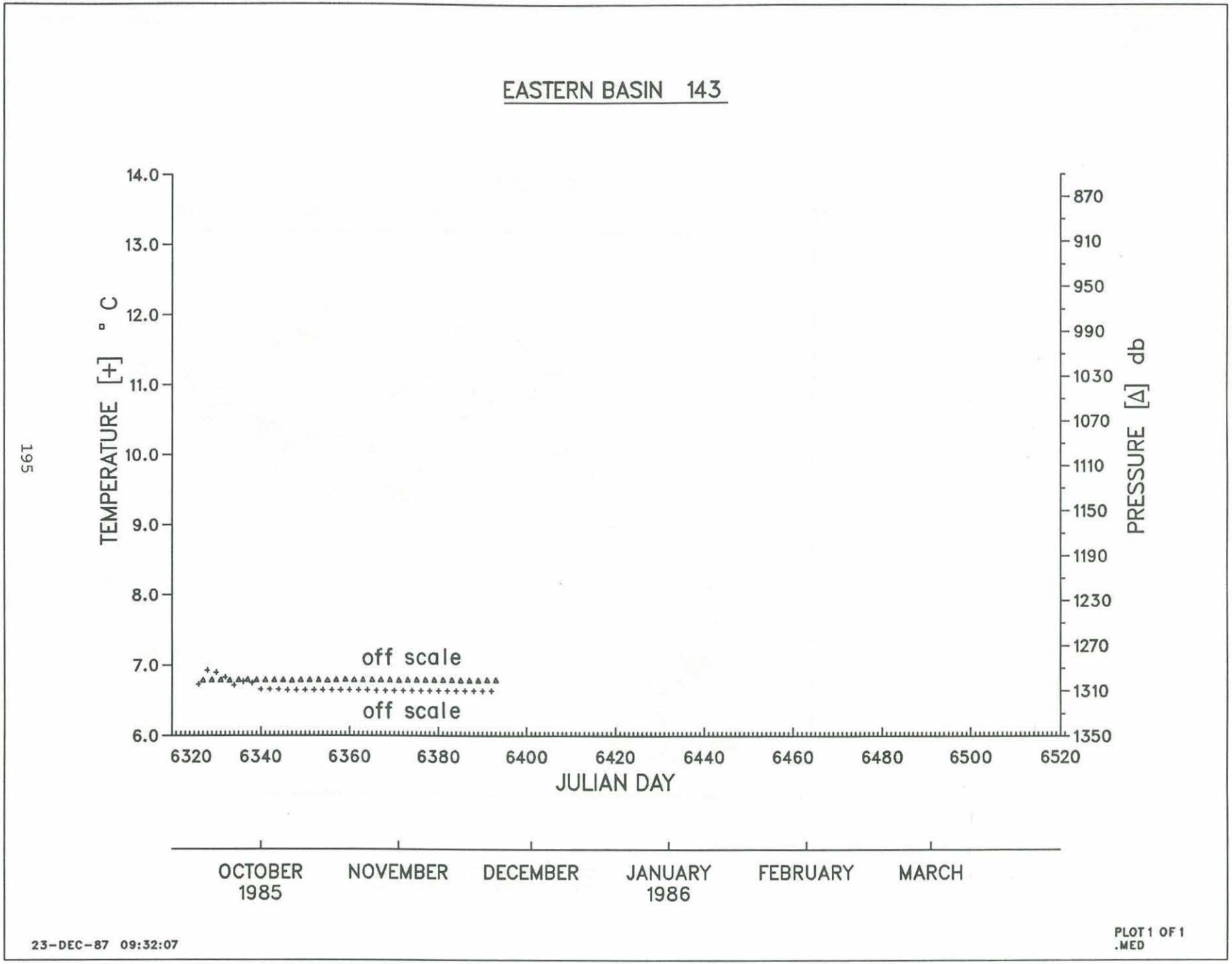
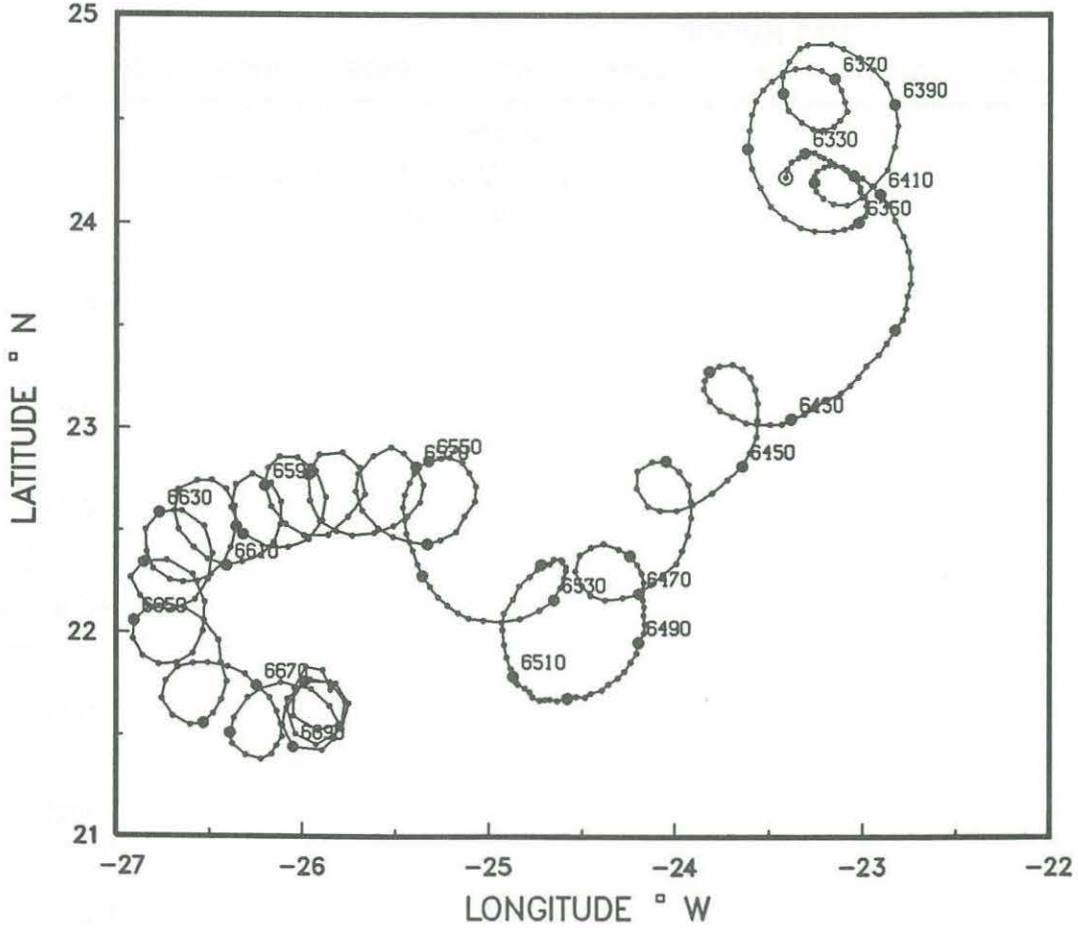
10
0
−10
U & V cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
23-DEC-87 09:32:10
PLOT 1 OF 1
.MED


EASTERN BASIN 143
10
0
−10
EAST [•] cm/s
NORTH [×] cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
23-DEC-87 09:32:09
PLOT 1 OF 1
.MED

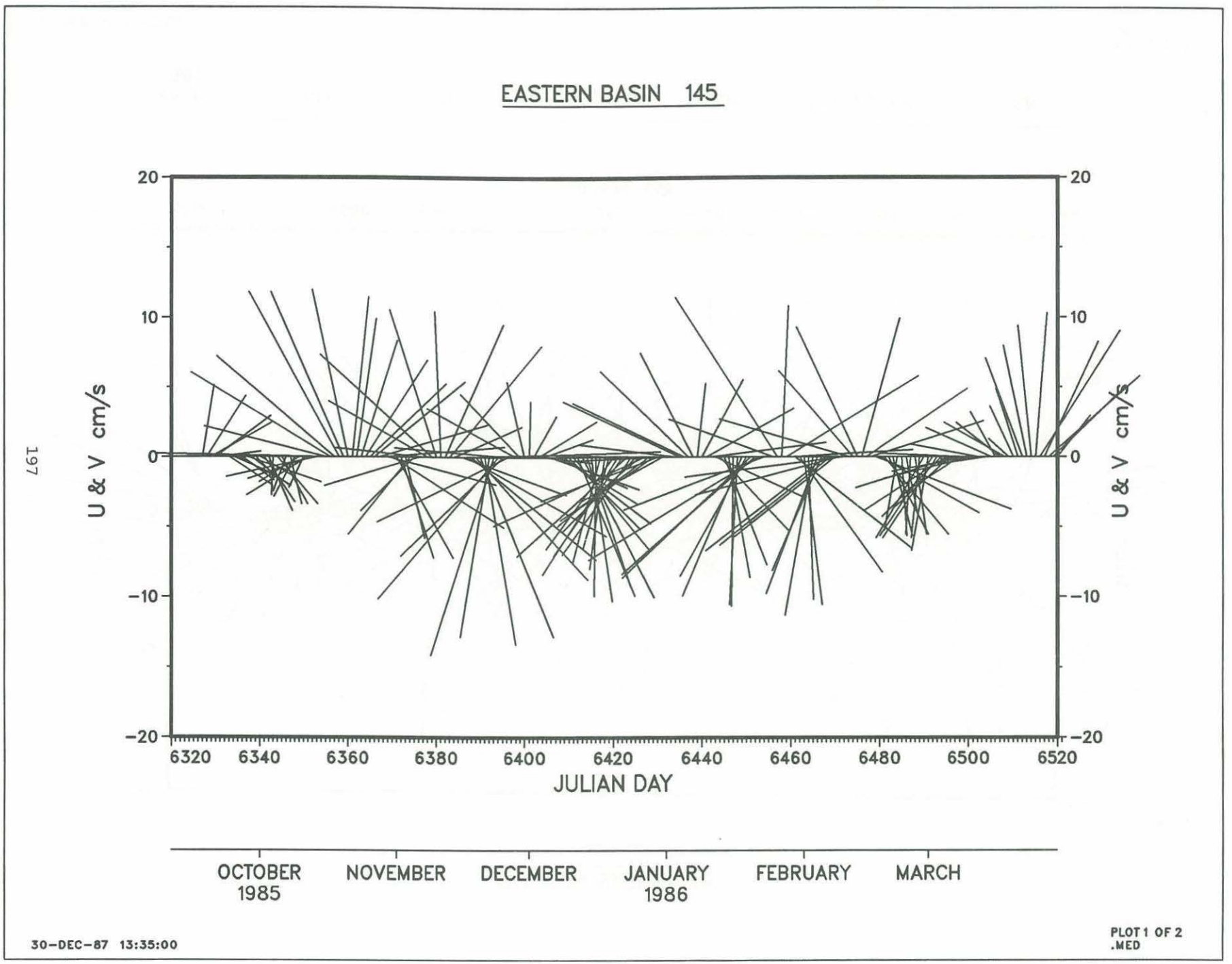

EASTERN BASIN 143
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
off scale
off scale
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
23-DEC-87 09:32:07
PLOT 1 OF 1
.MED

EASTERN BASIN 145

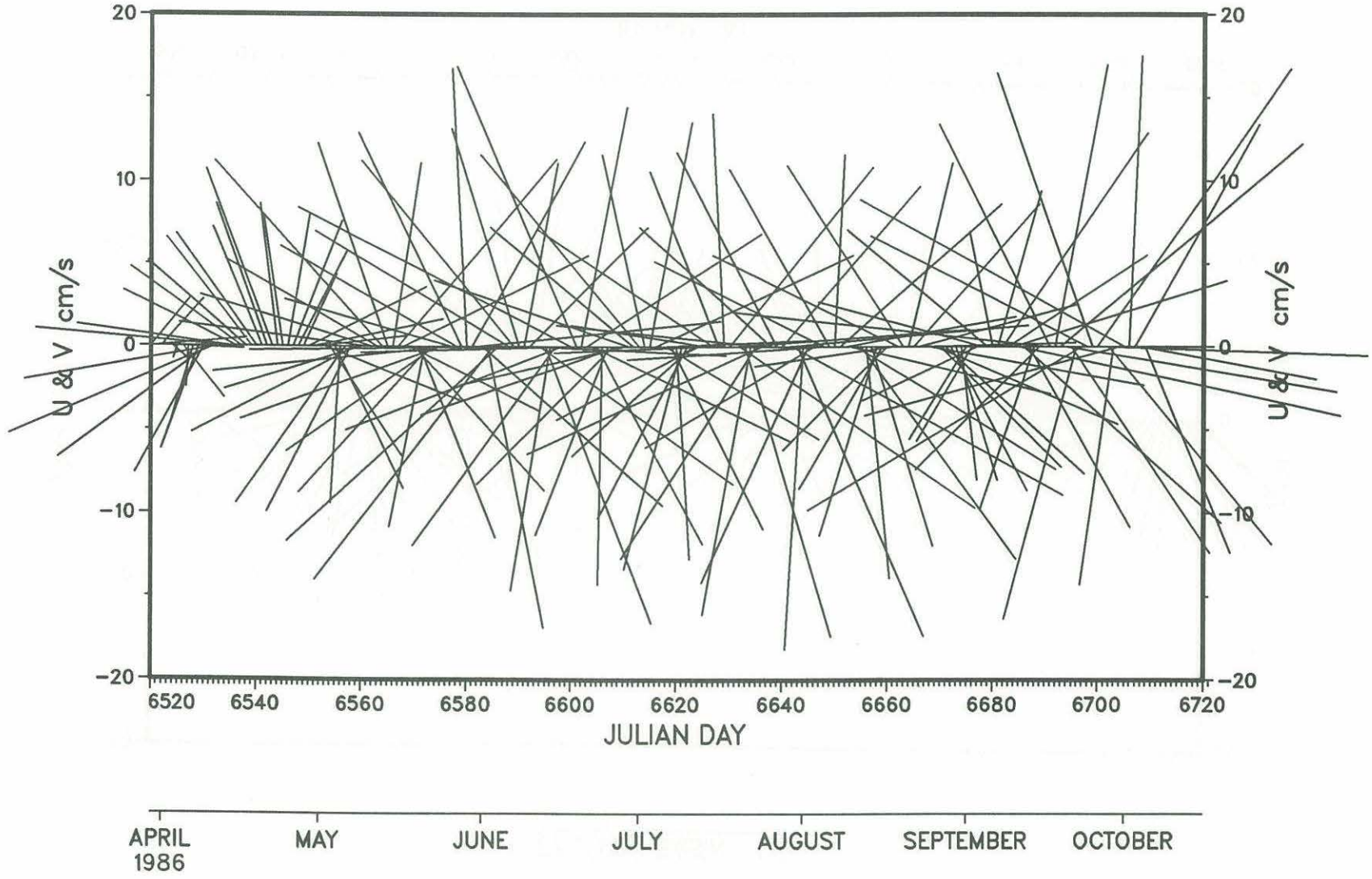


30-DEC-87 13:35:08

PLOT 1 OF 1
.MED

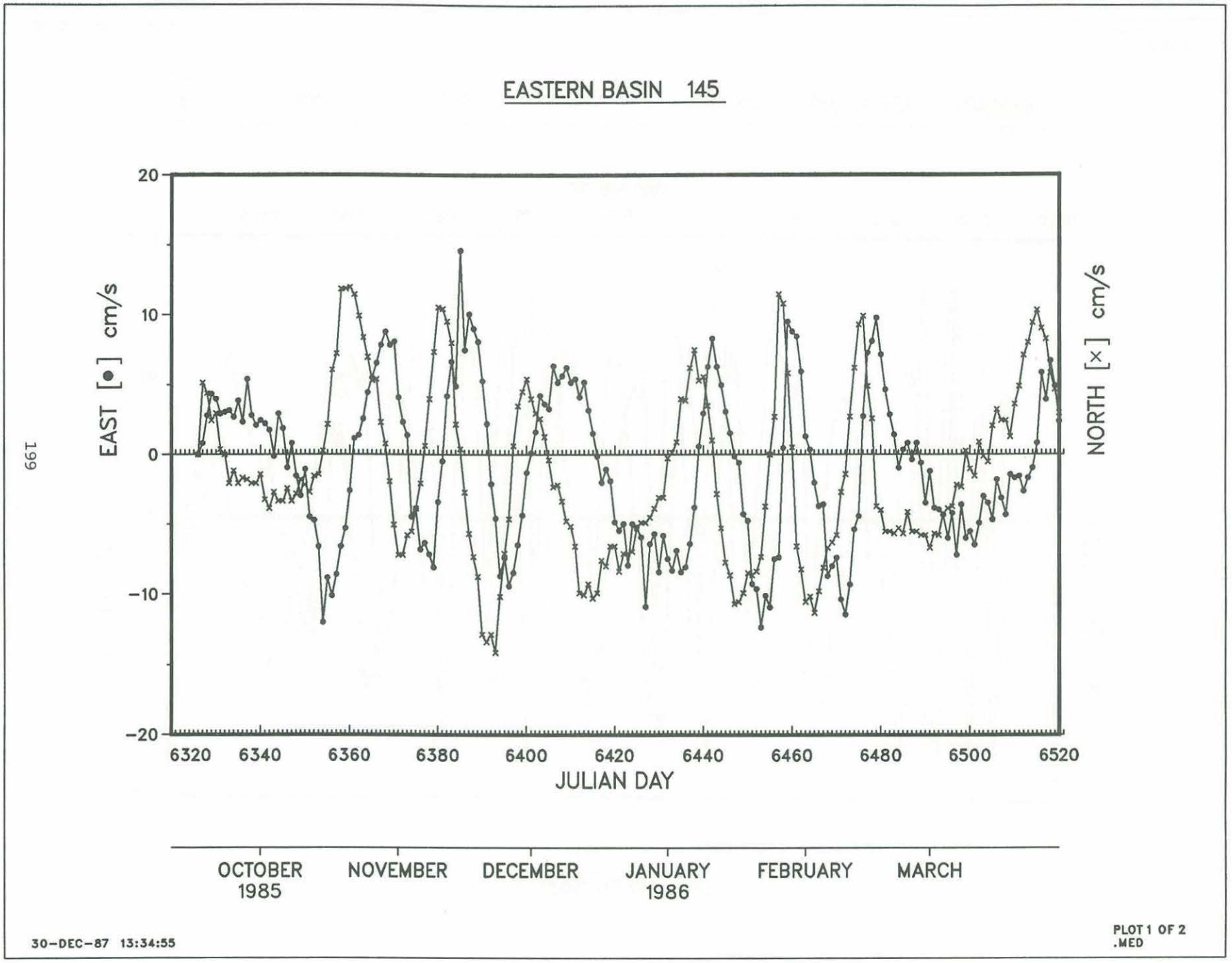

EASTERN BASIN 145
20
10
0
−10
−20
U & V cm/s
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
30-DEC-87 13:35:00
PLOT 1 OF 2
.MED

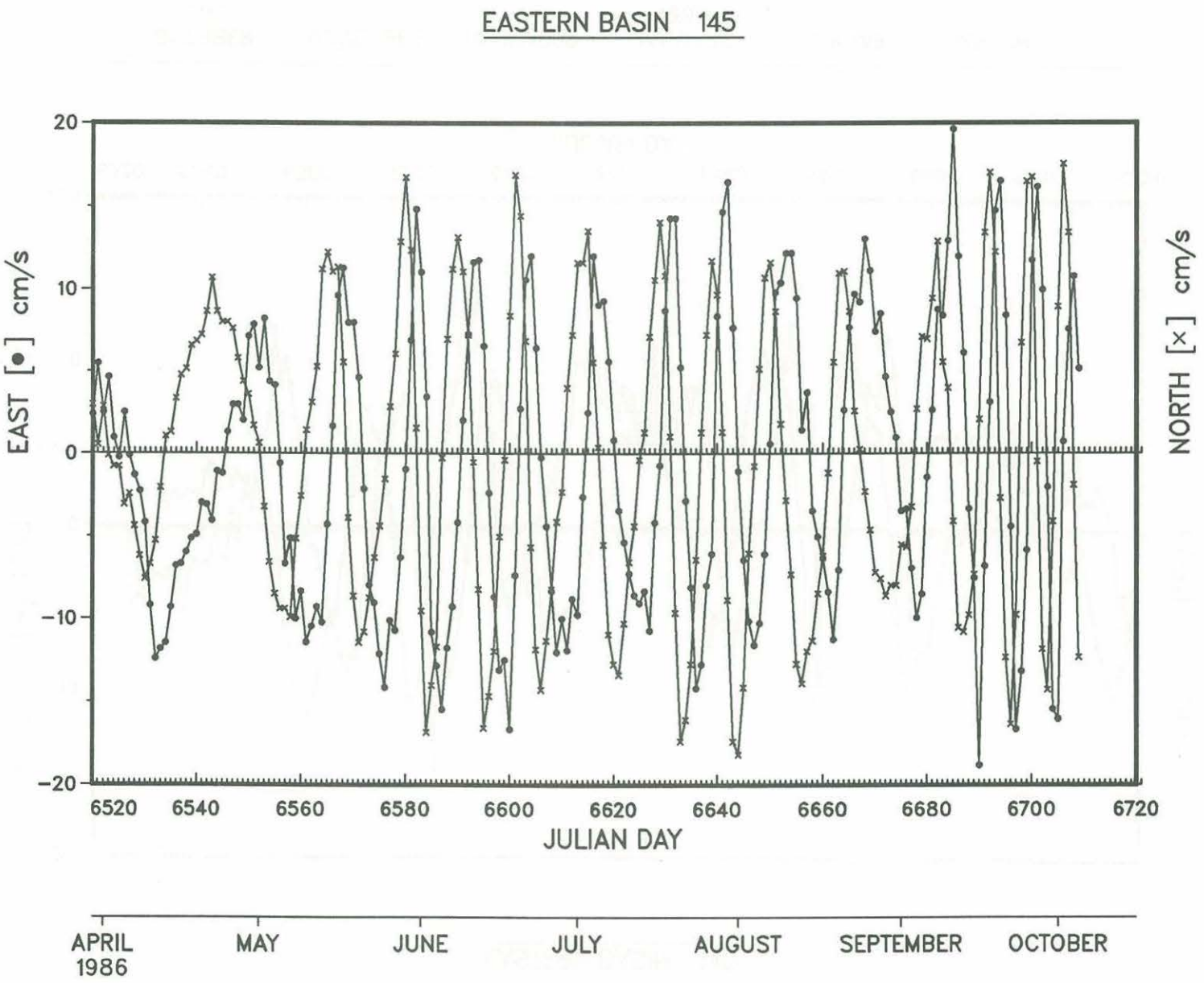
EASTERN BASIN 145

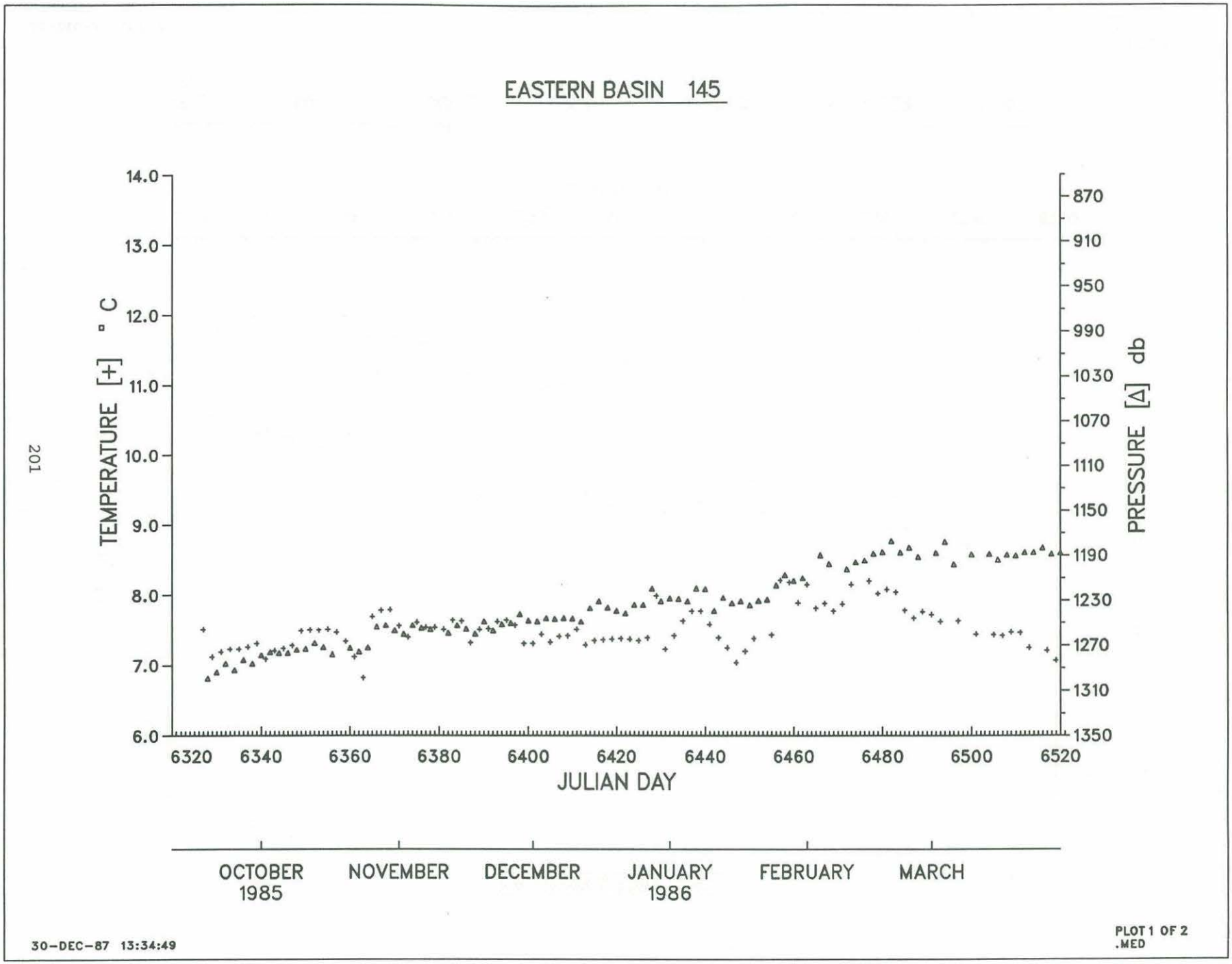


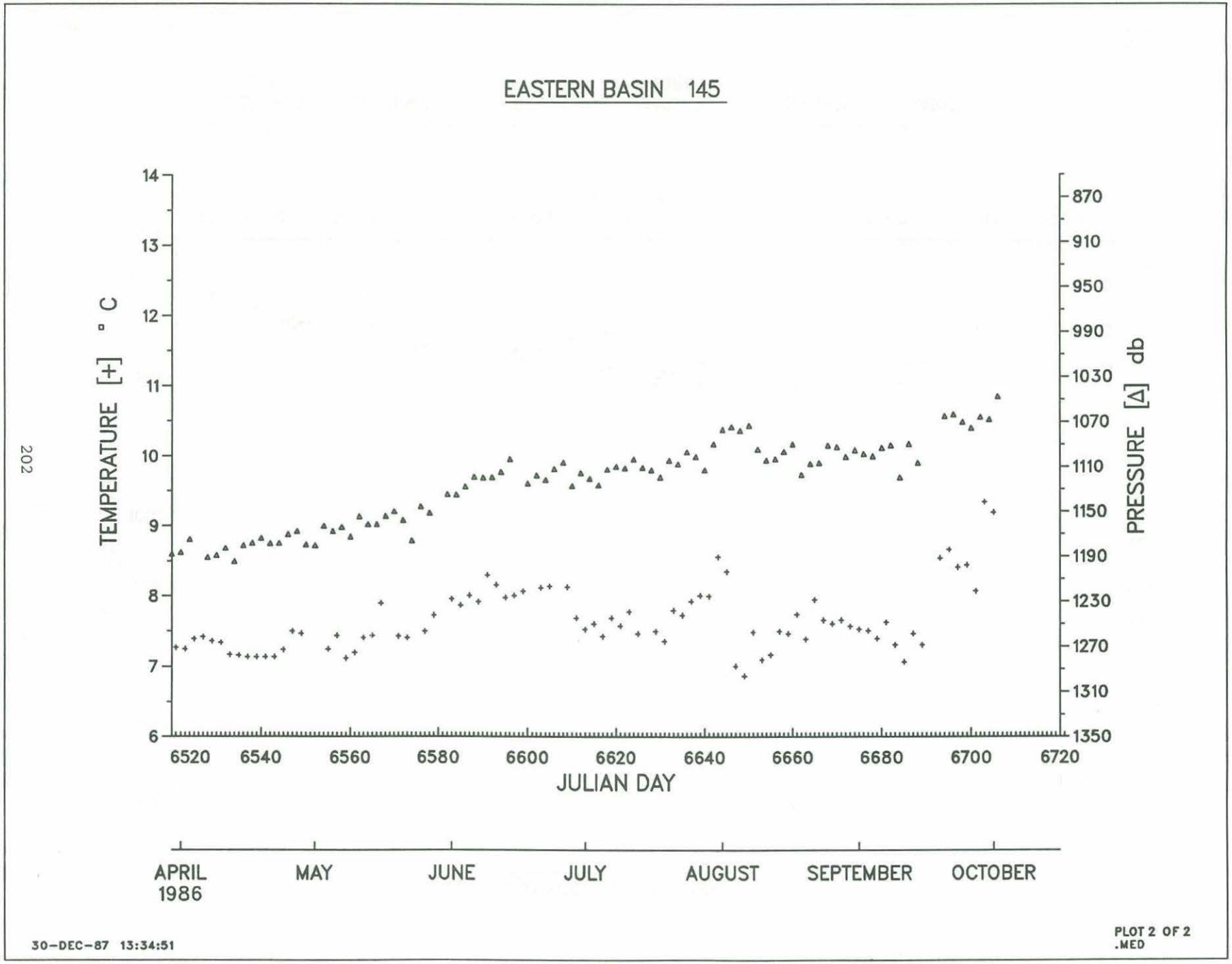
30-DEC-87 13:35:01

PLOT 2 OF 2
.MED

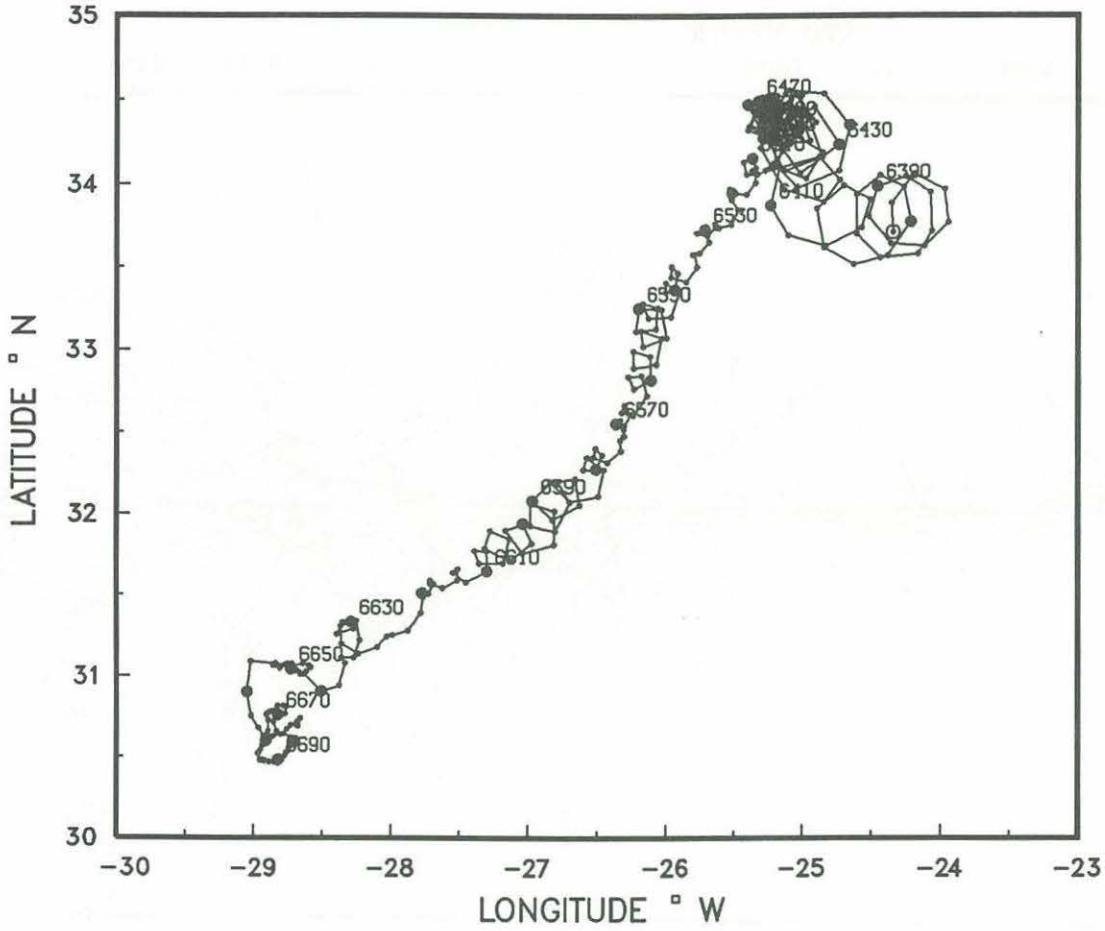

EASTERN BASIN 145
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
-10
-20
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER
1985
NOVEMBER
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
30-DEC-87 13:34:55
PLOT 1 OF 2
.MED


EASTERN BASIN 145
EAST [•] cm/s
NORTH [×] cm/s
20
10
0
-10
-20
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
30-DEC-87 13:34:59
PLOT 2 OF 2
.MED


EASTERN BASIN 145
TEMPERATURE [+] ° C
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
PRESSURE [Δ] db
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6320
6340
6360
6380
6400
6420
6440
6460
6480
6500
6520
JULIAN DAY
OCTOBER 1985
NOVEMBER
DECEMBER
JANUARY 1986
FEBRUARY
MARCH
30-DEC-87 13:34:49
PLOT 1 OF 2
.MED


EASTERN BASIN 145
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6520
6540
6560
6580
6600
6620
6640
6660
6680
6700
6720
JULIAN DAY
APRIL
1986
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
30-DEC-87 13:34:51
PLOT 2 OF 2
.MED

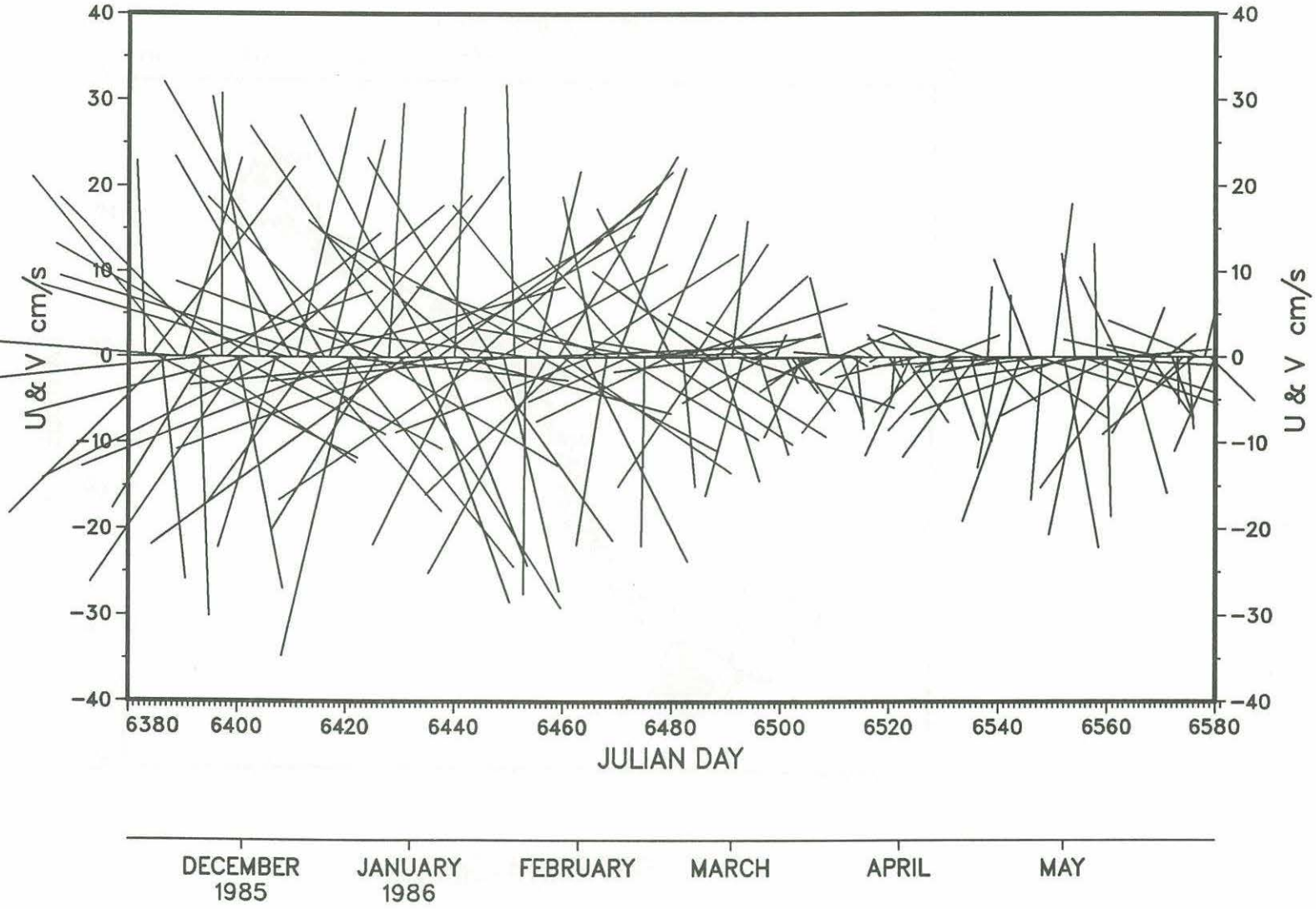
EASTERN BASIN 148



23-DEC-87 09:35:22

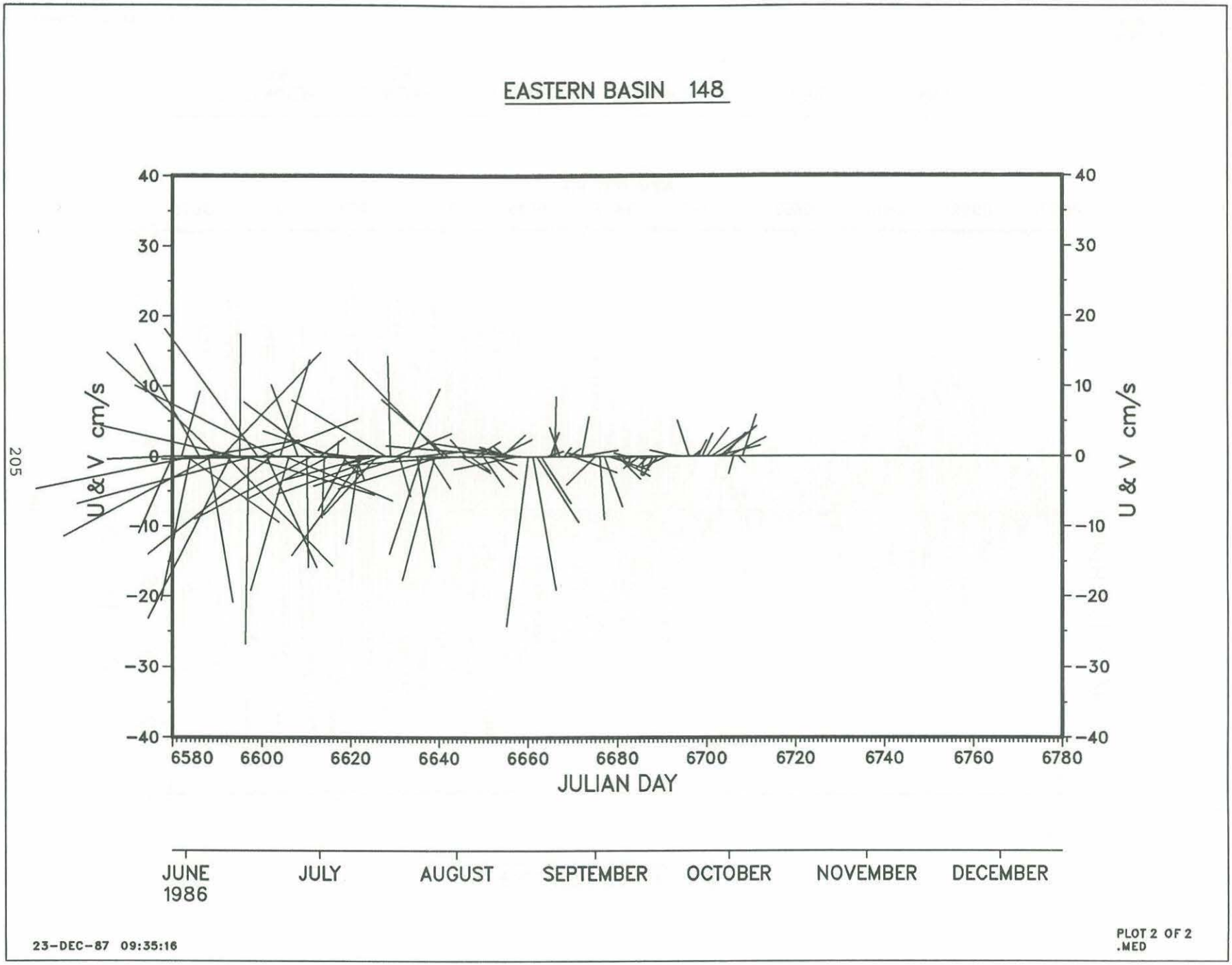
PLOT 1 OF 1
.MED

EASTERN BASIN 148

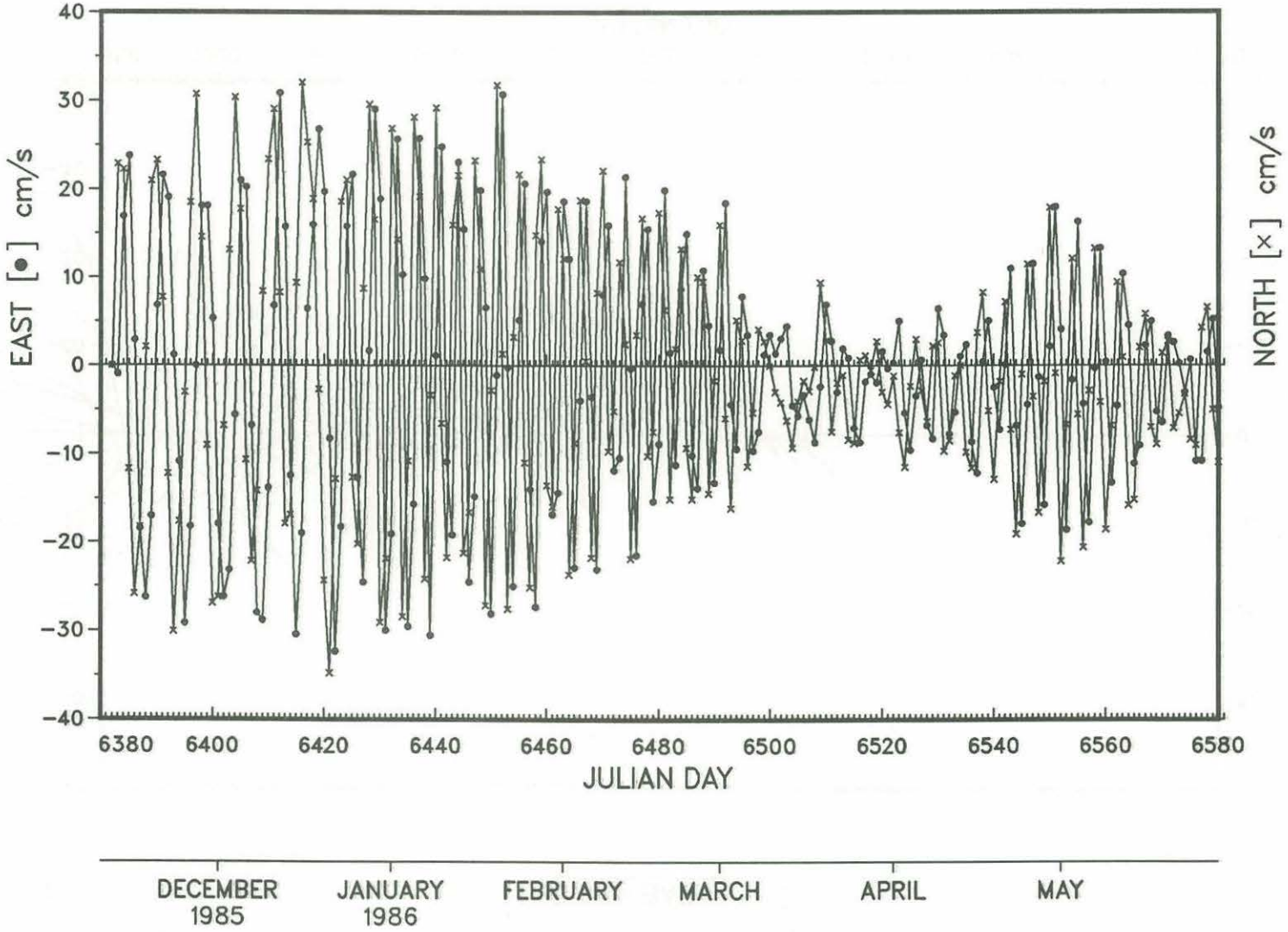


23-DEC-87 09:35:15

PLOT 1 OF 2
.MED


EASTERN BASIN 148
40
30
20
10
0
-10
-20
-30
-40
U & V cm/s
6580
6600
6620
6640
6660
6680
6700
6720
6740
6760
6780
JULIAN DAY
JUNE
1986
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
23-DEC-87 09:35:16
PLOT 2 OF 2
.MED

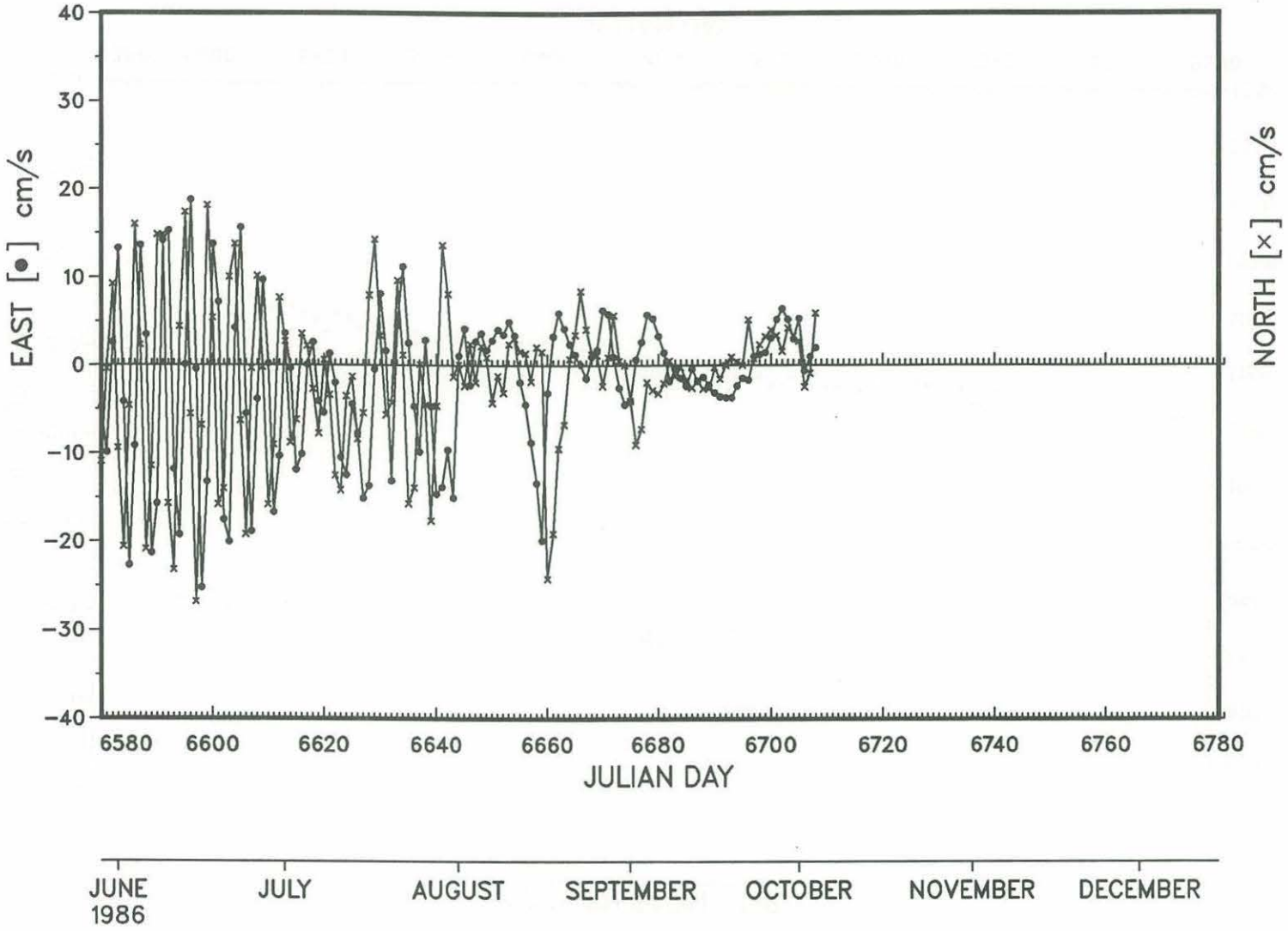
EASTERN BASIN 148



23-DEC-87 09:35:10

PLOT 1 OF 2
.MED

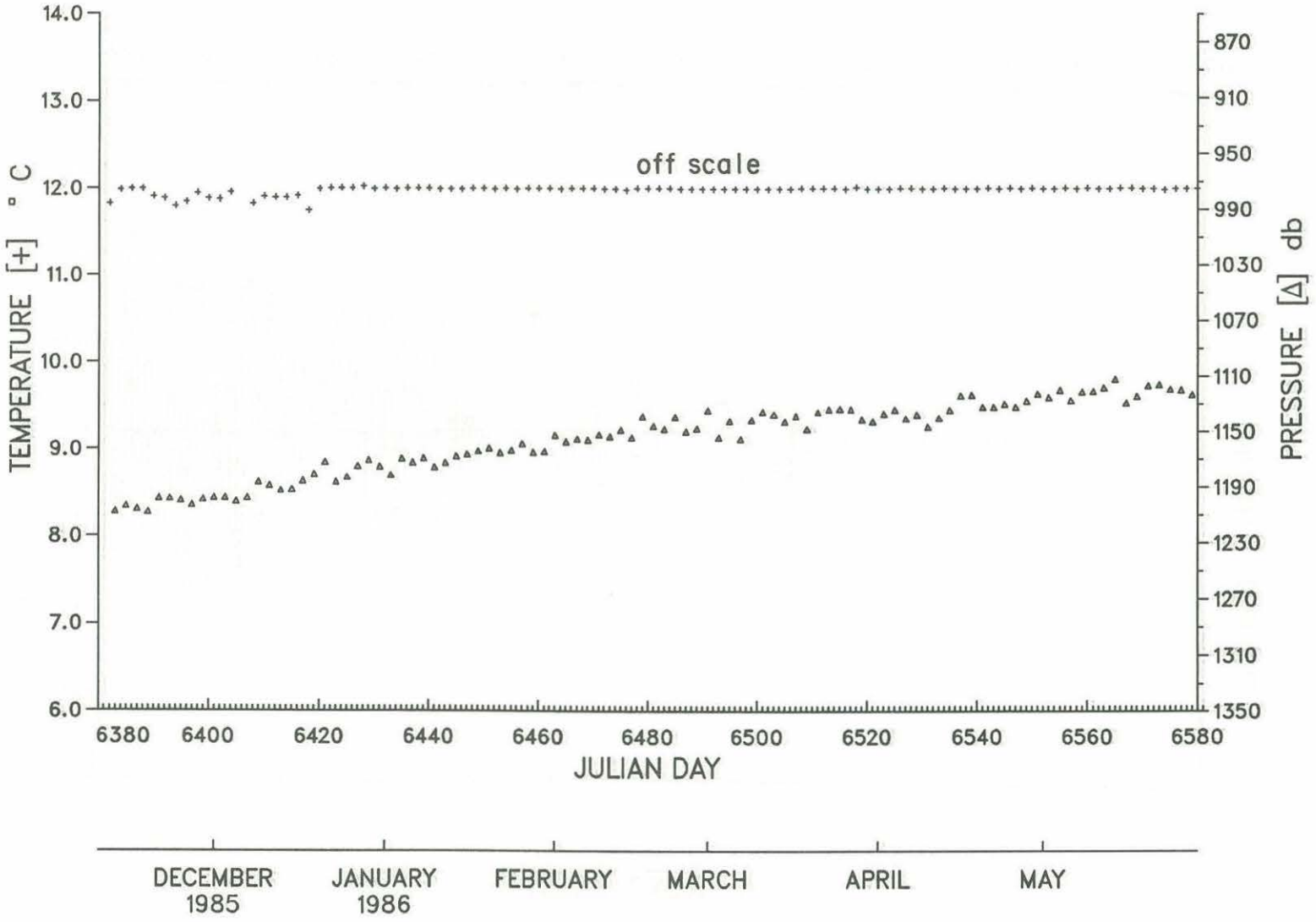
EASTERN BASIN 148



23-DEC-87 09:35:13

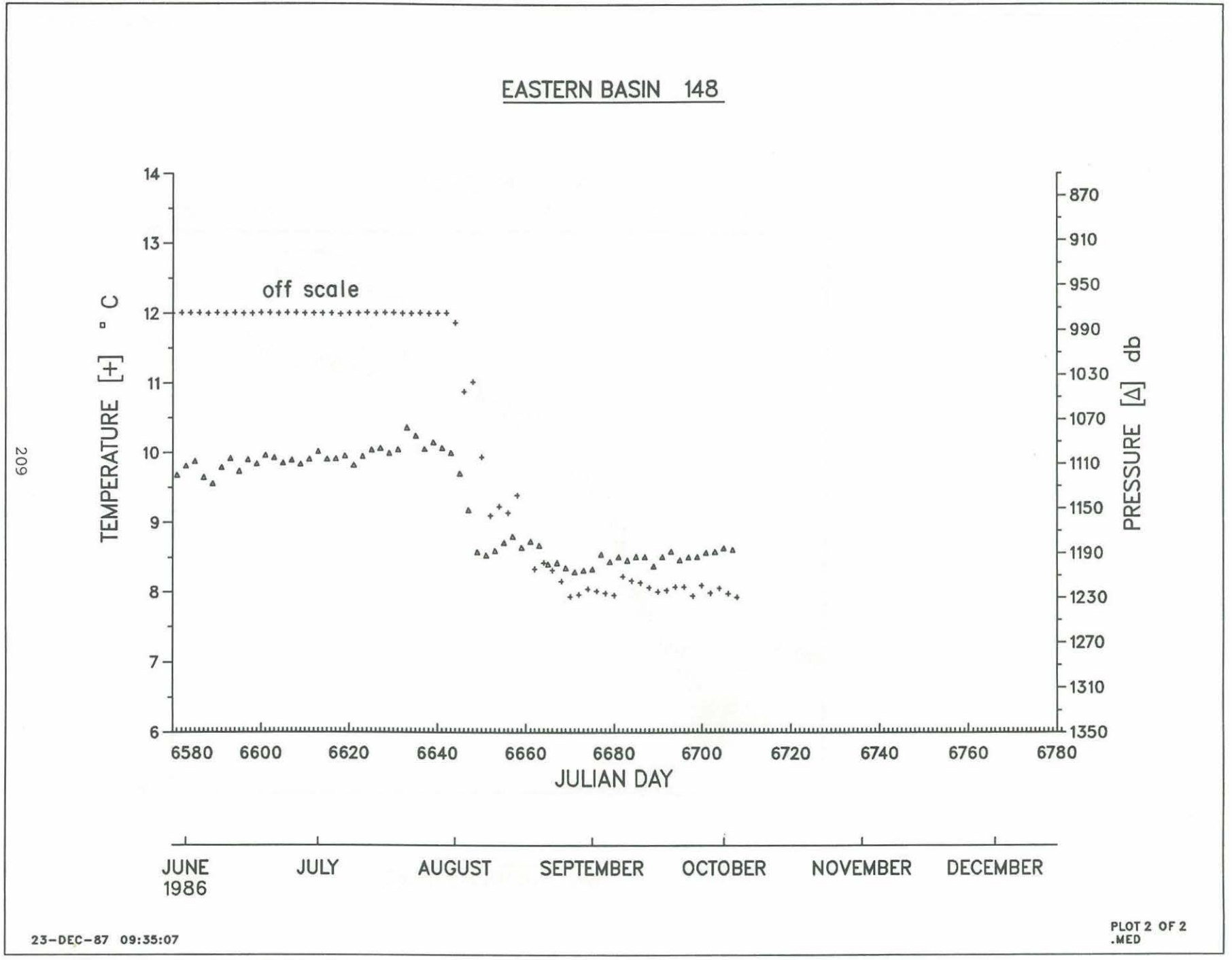
PLOT 2 OF 2
.MED

EASTERN BASIN 148

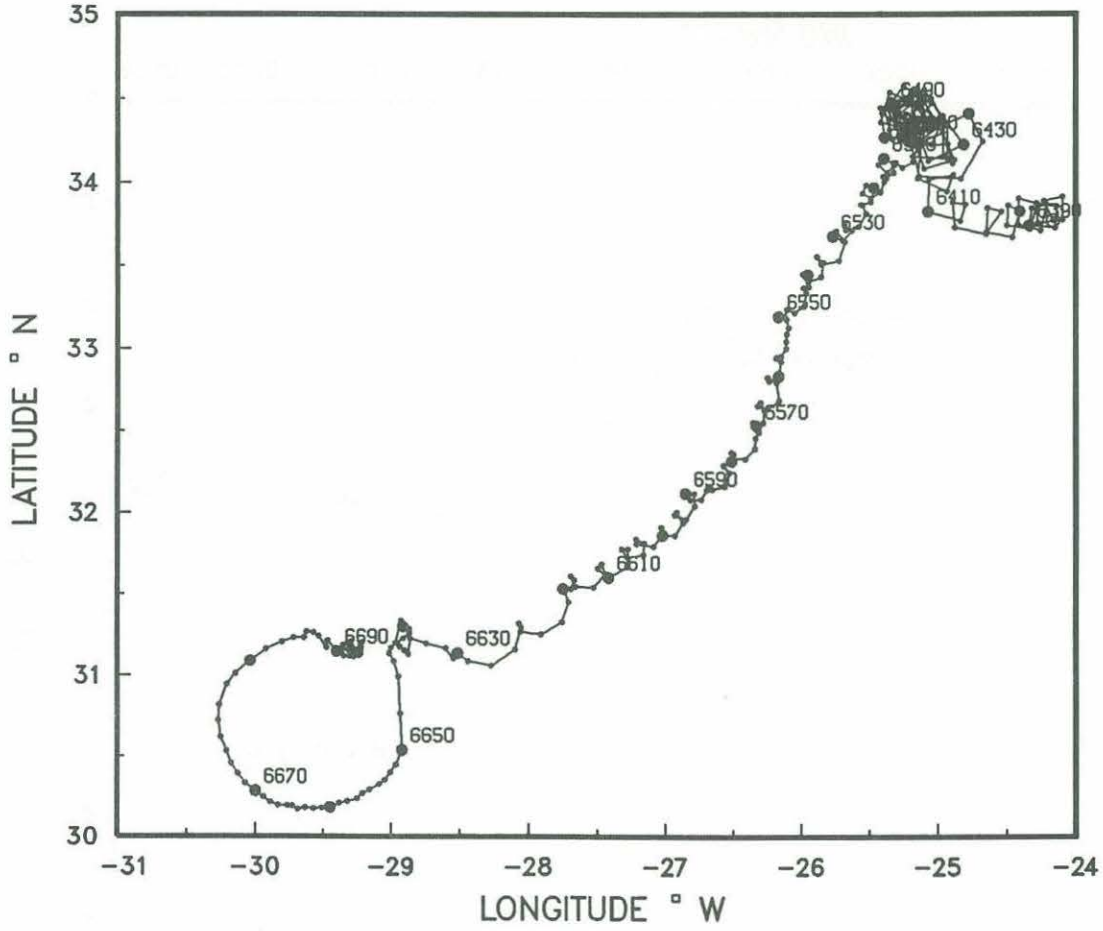


23-DEC-87 09:35:05

PLOT 1 OF 2
.MED

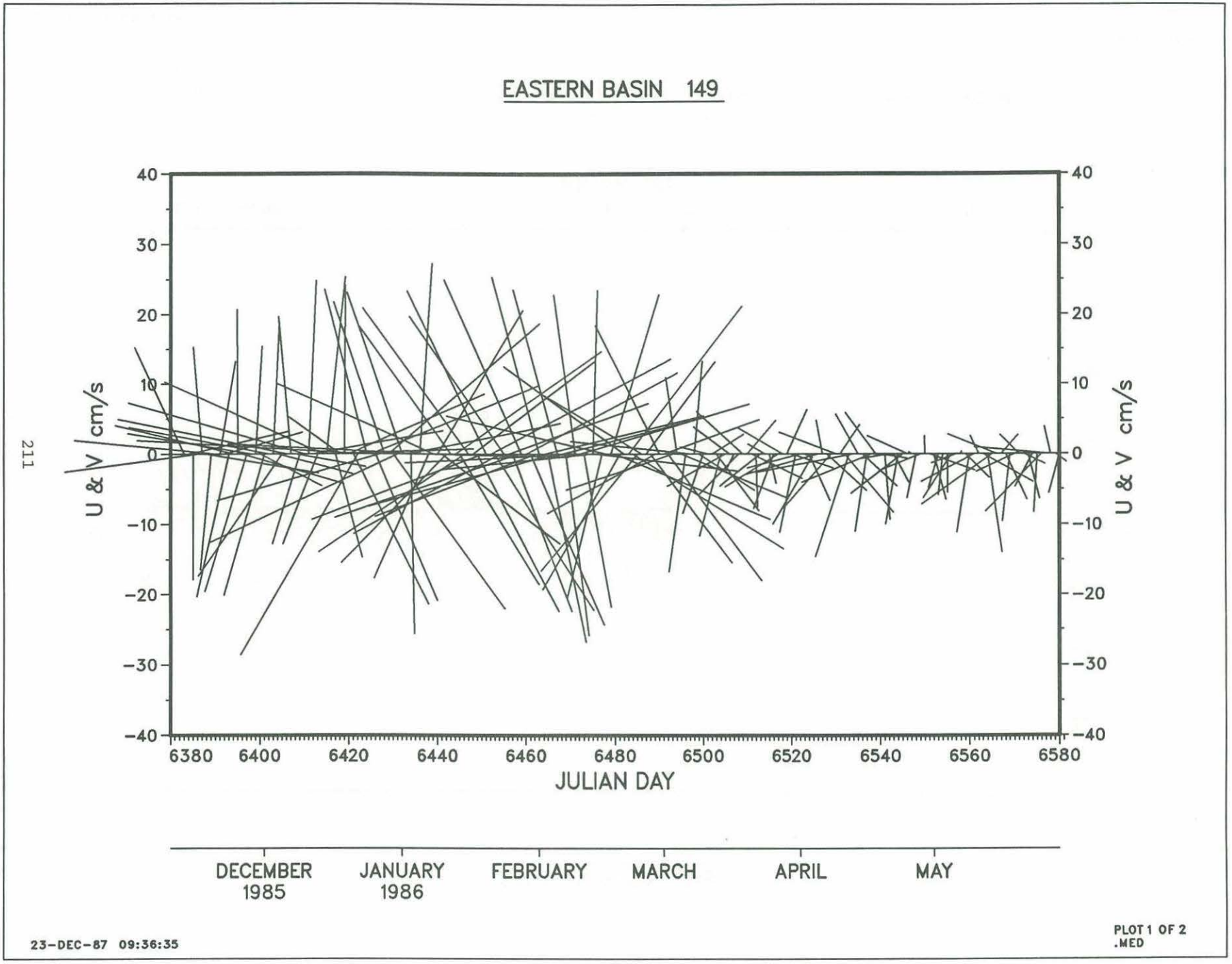

EASTERN BASIN 148
off scale
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6580
6600
6620
6640
6660
6680
6700
6720
6740
6760
6780
JULIAN DAY
JUNE
1986
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
23-DEC-87 09:35:07
PLOT 2 OF 2
.MED

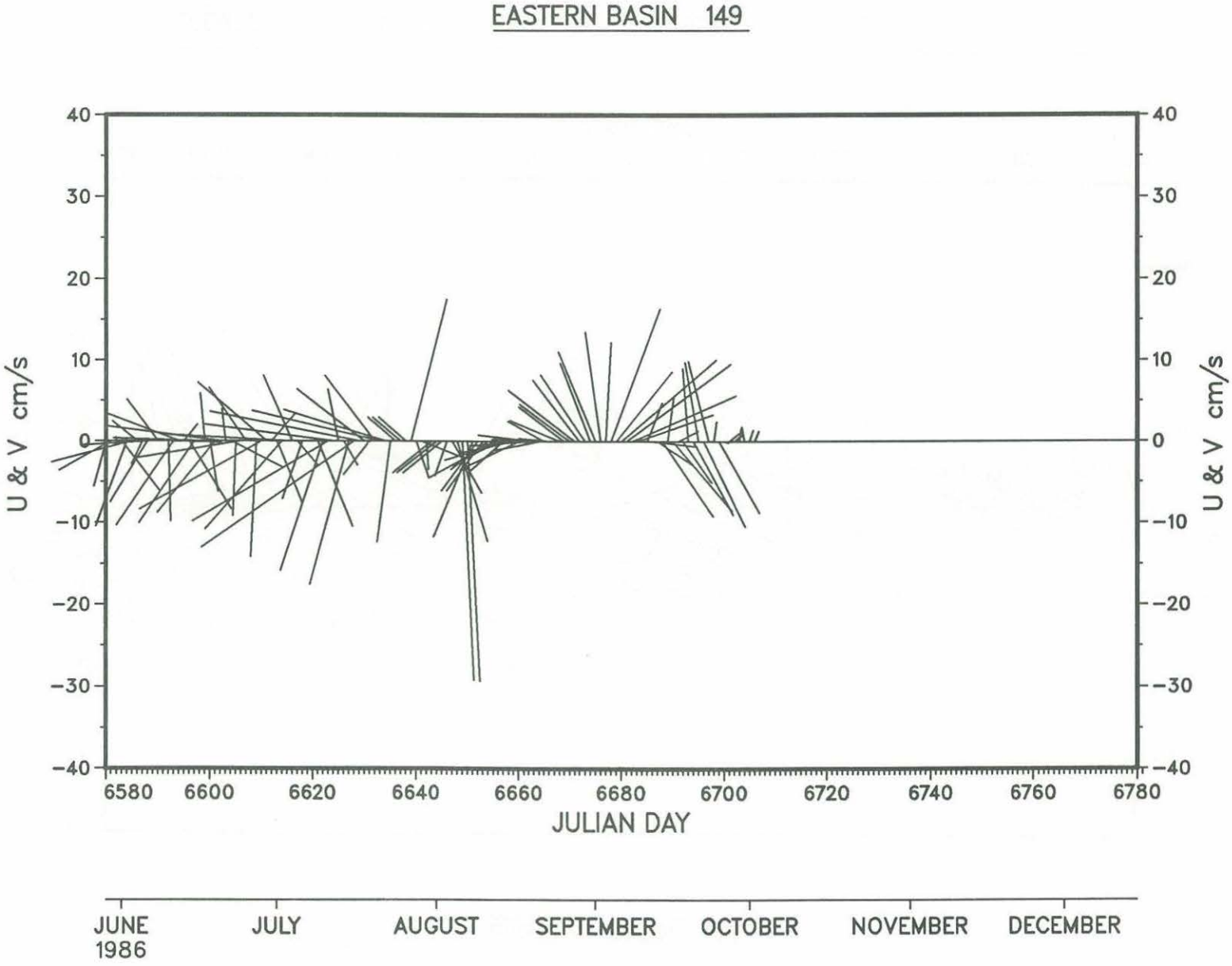
EASTERN BASIN 149



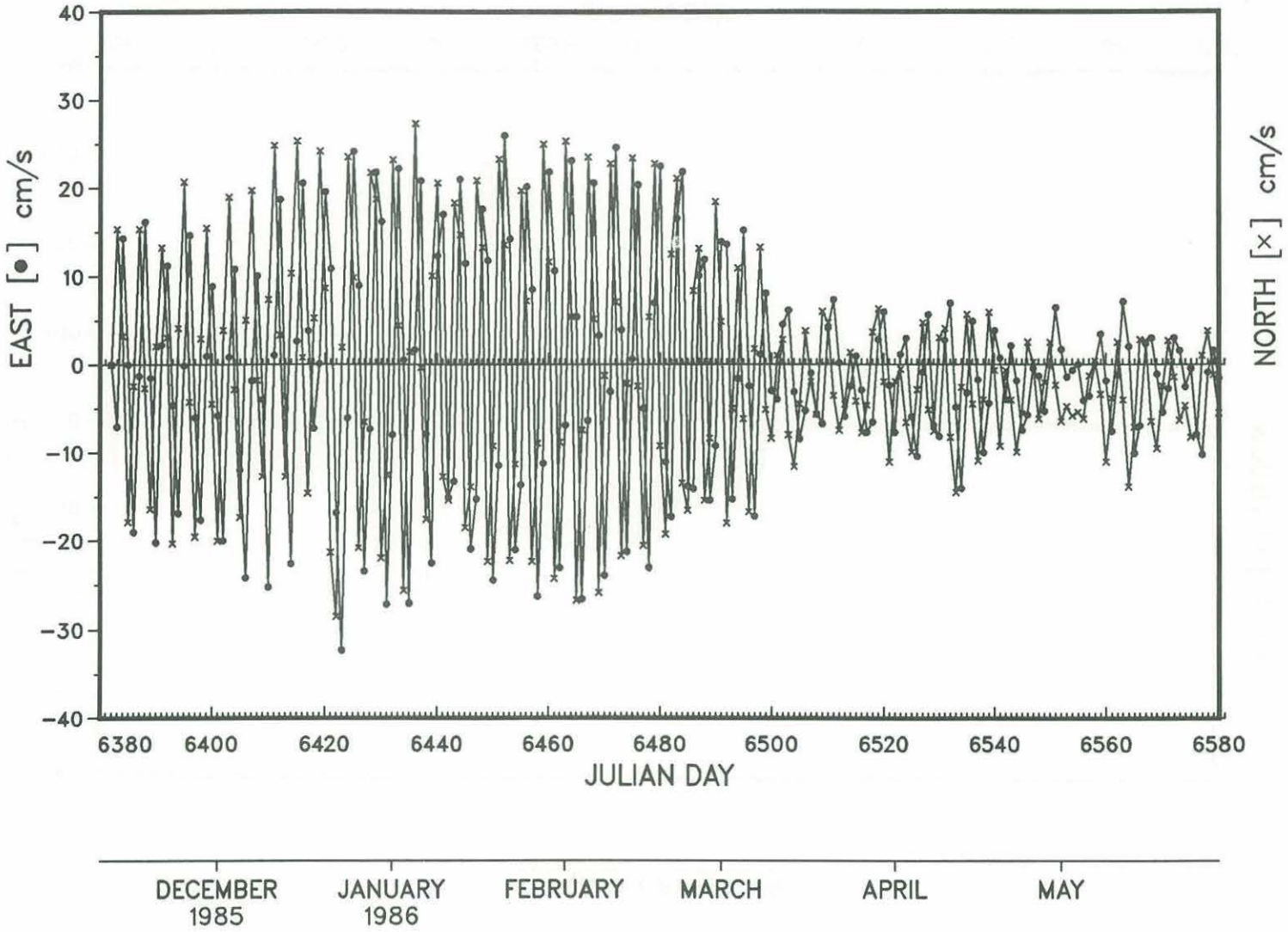
23-DEC-87 09:36:41

PLOT 1 OF 1
.MED


EASTERN BASIN 149
U & V cm/s
U & V cm/s
40
30
20
10
0
-10
-20
-30
-40
6380
6400
6420
6440
6460
6480
6500
6520
6540
6560
6580
JULIAN DAY
DECEMBER 1985
JANUARY 1986
FEBRUARY
MARCH
APRIL
MAY
23-DEC-87 09:36:35
PLOT 1 OF 2
.MED

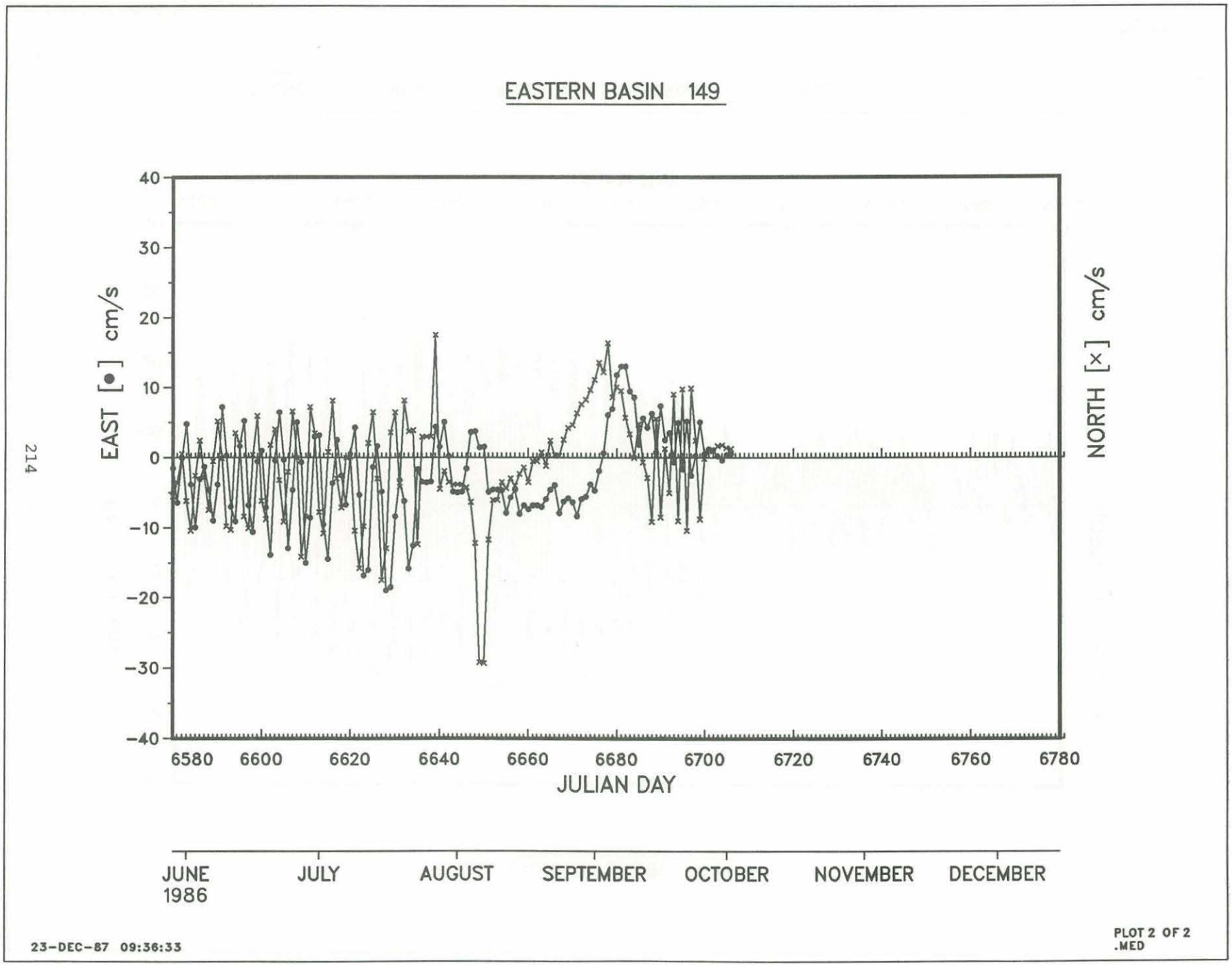

EASTERN BASIN 149
U & V cm/s
40
30
20
10
0
-10
-20
-30
-40
6580
6600
6620
6640
6660
6680
6700
6720
6740
6760
6780
JULIAN DAY
JUNE
1986
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
23-DEC-87 09:36:36
PLOT 2 OF 2
.MED

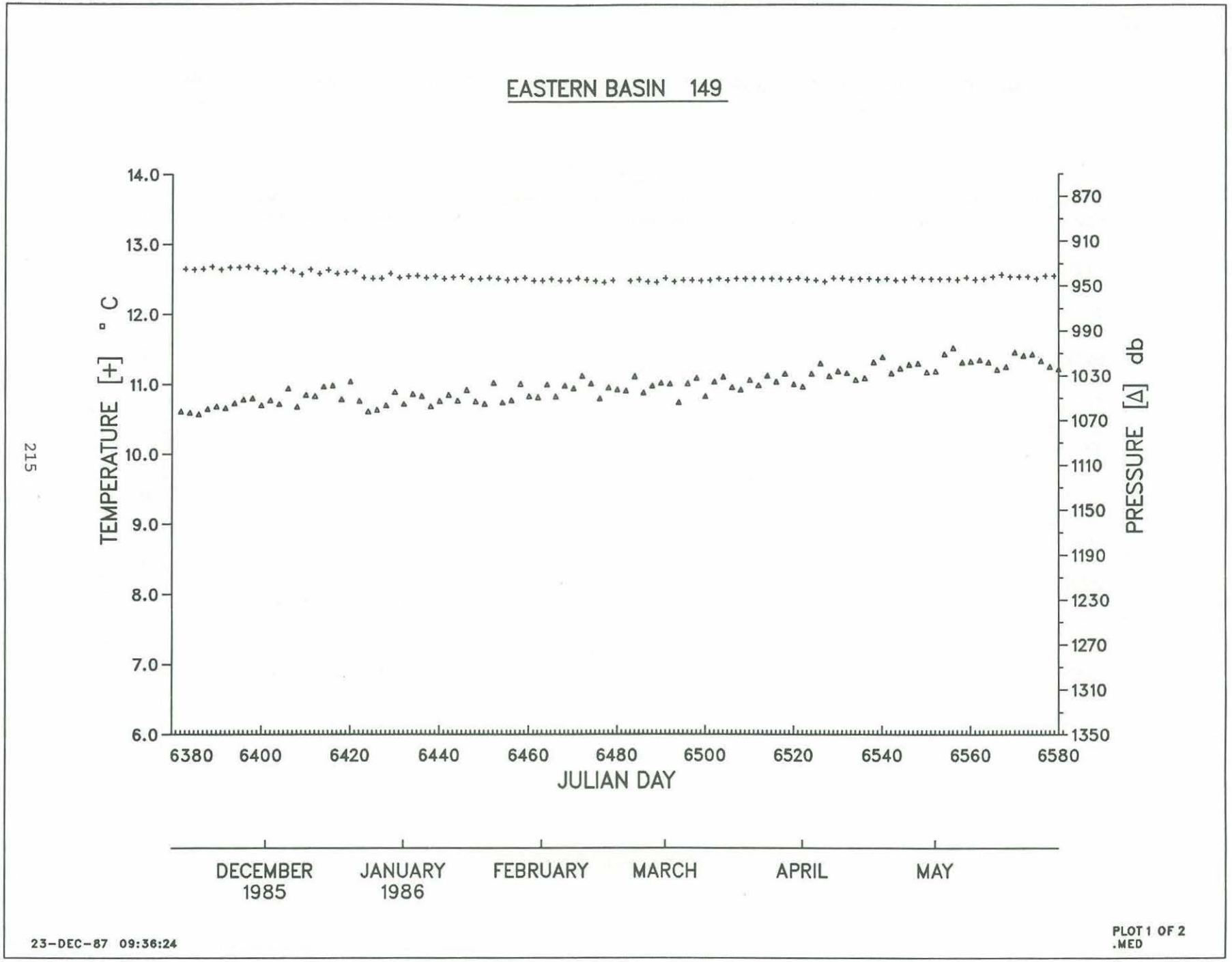
EASTERN BASIN 149

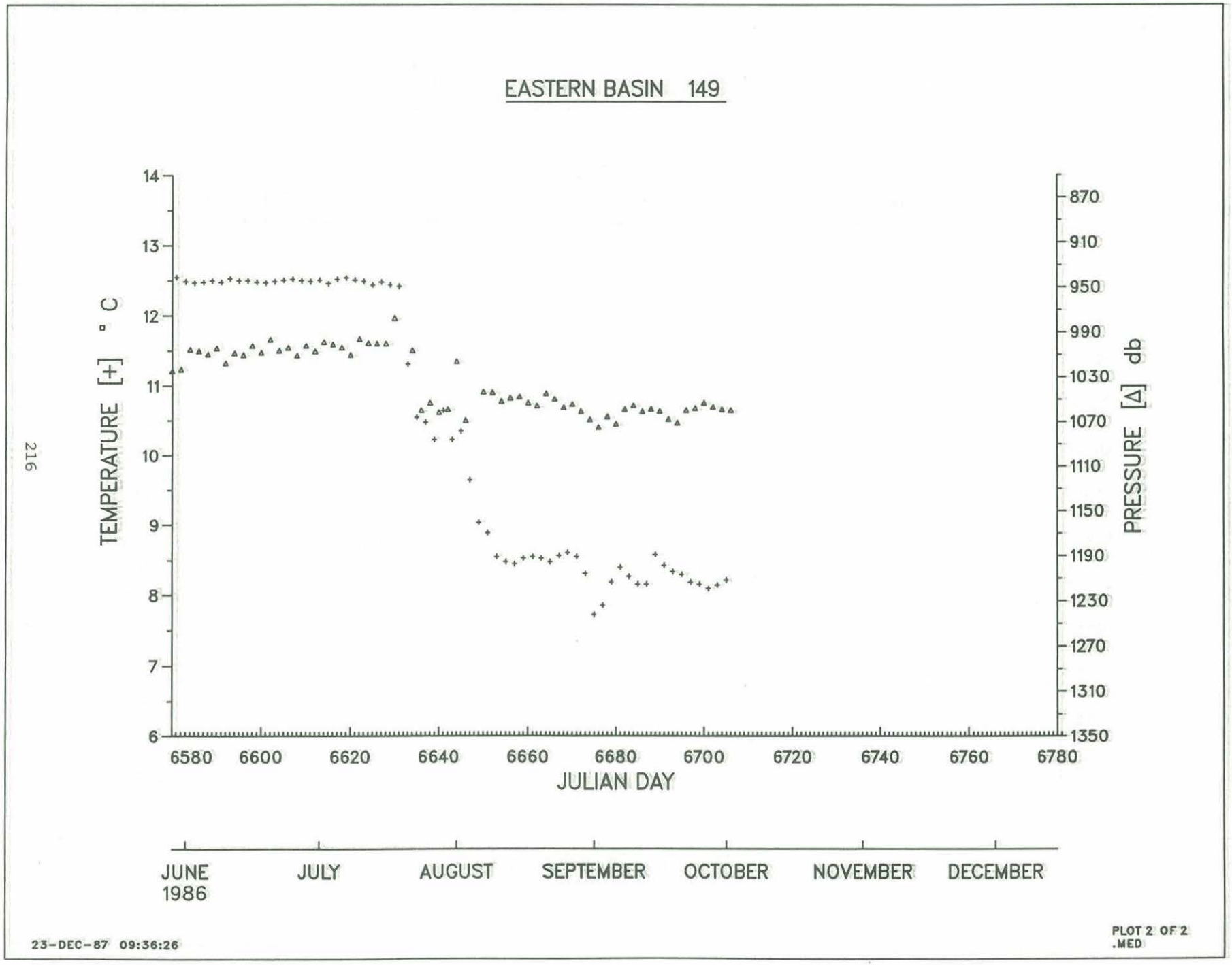


23-DEC-87 09:36:30

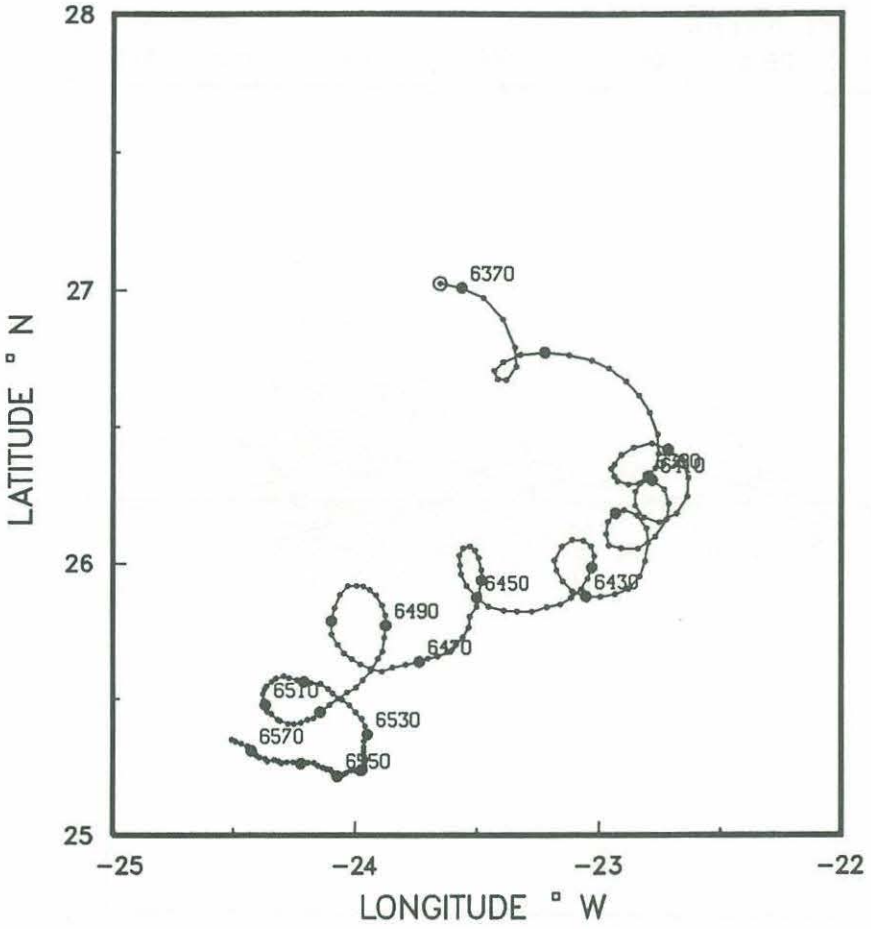
PLOT 1 OF 2
.MED


EASTERN BASIN 149
EAST [•] cm/s
NORTH [×] cm/s
40
30
20
10
0
-10
-20
-30
-40
6580
6600
6620
6640
6660
6680
6700
6720
6740
6760
6780
JULIAN DAY
JUNE
1986
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
23-DEC-87 09:36:33
PLOT 2 OF 2
.MED


EASTERN BASIN 149
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
6380
6400
6420
6440
6460
6480
6500
6520
6540
6560
6580
JULIAN DAY
DECEMBER 1985
JANUARY 1986
FEBRUARY
MARCH
APRIL
MAY
23-DEC-87 09:36:24
PLOT 1 OF 2
.MED

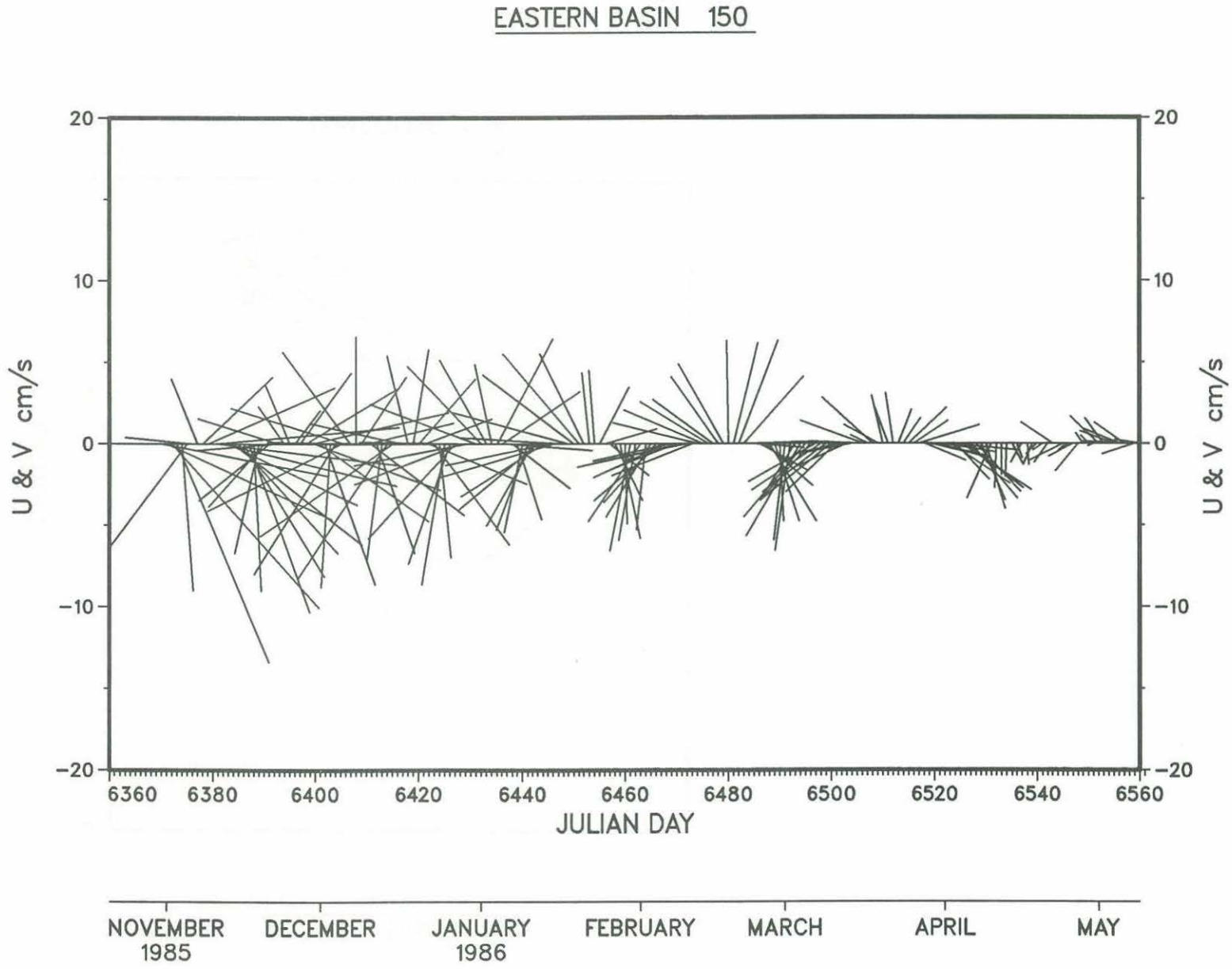

EASTERN BASIN 149
TEMPERATURE [+] ° C
PRESSURE [Δ] db
JULIAN DAY
6580
6600
6620
6640
6660
6680
6700
6720
6740
6760
6780
JUNE
1986
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
23-DEC-87 09:36:26
PLOT 2 OF 2
.MED

EASTERN BASIN 150



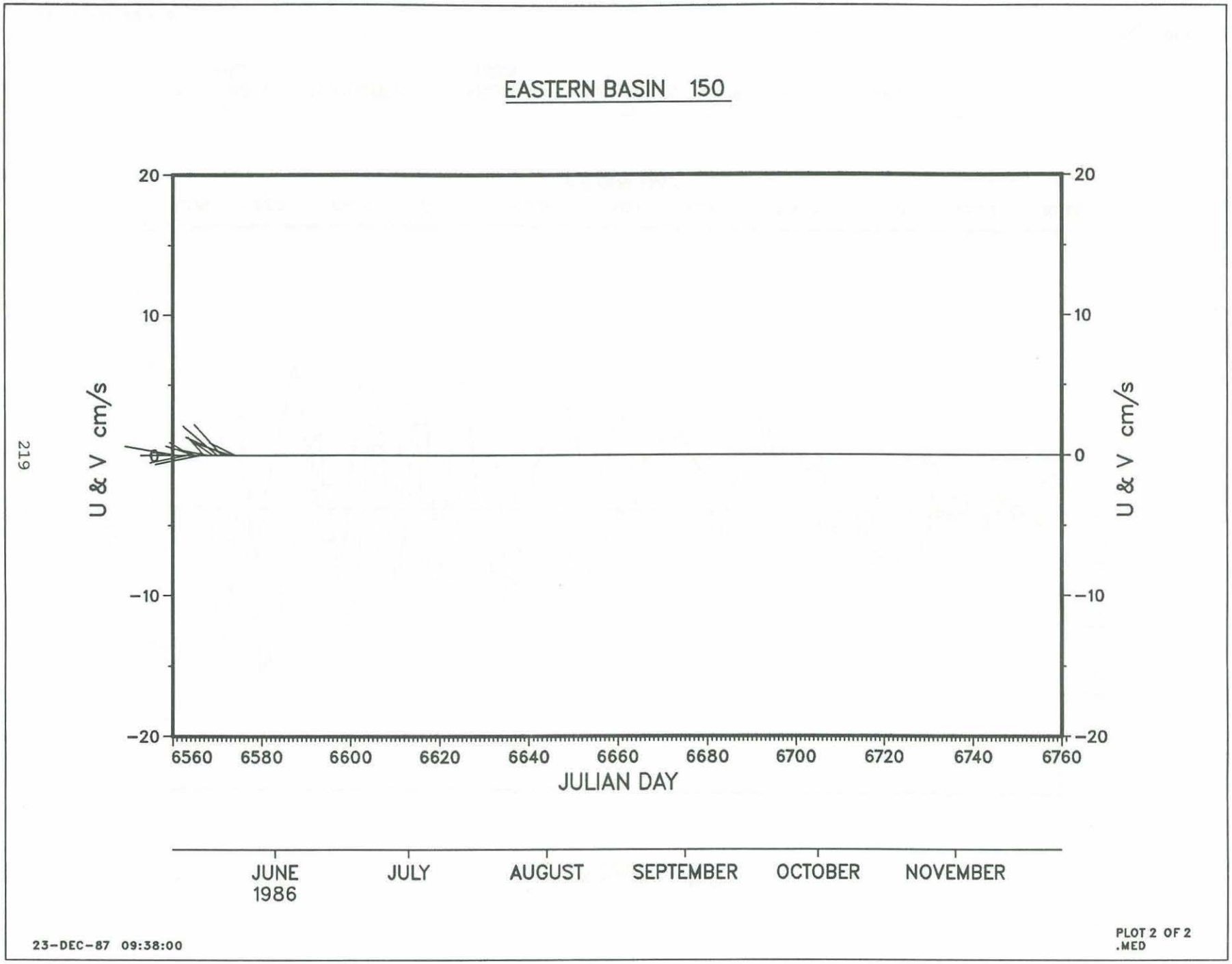
23-DEC-87 09:38:04

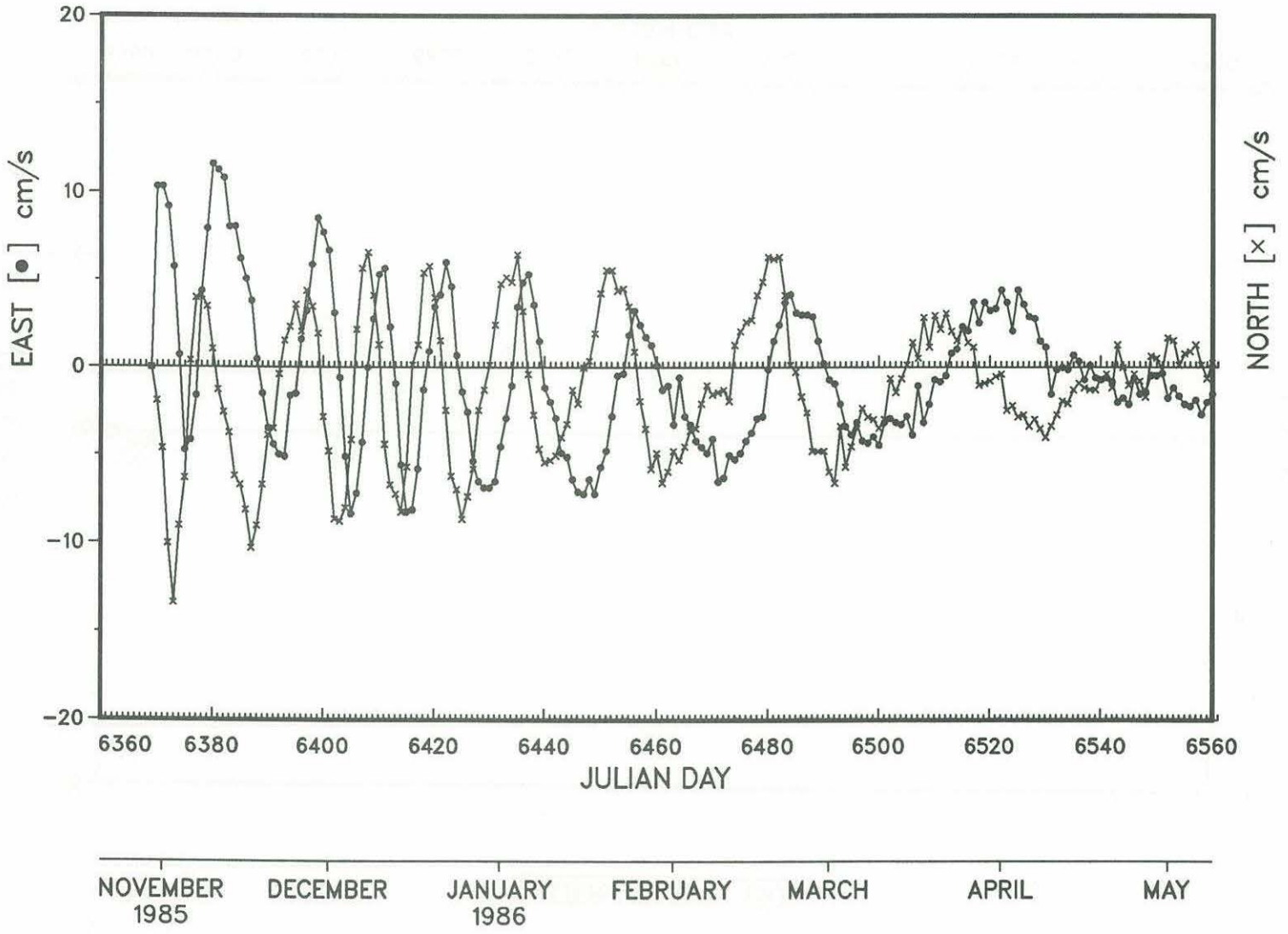
PLOT 1 OF 1
.MED



23-DEC-87 09:37:59

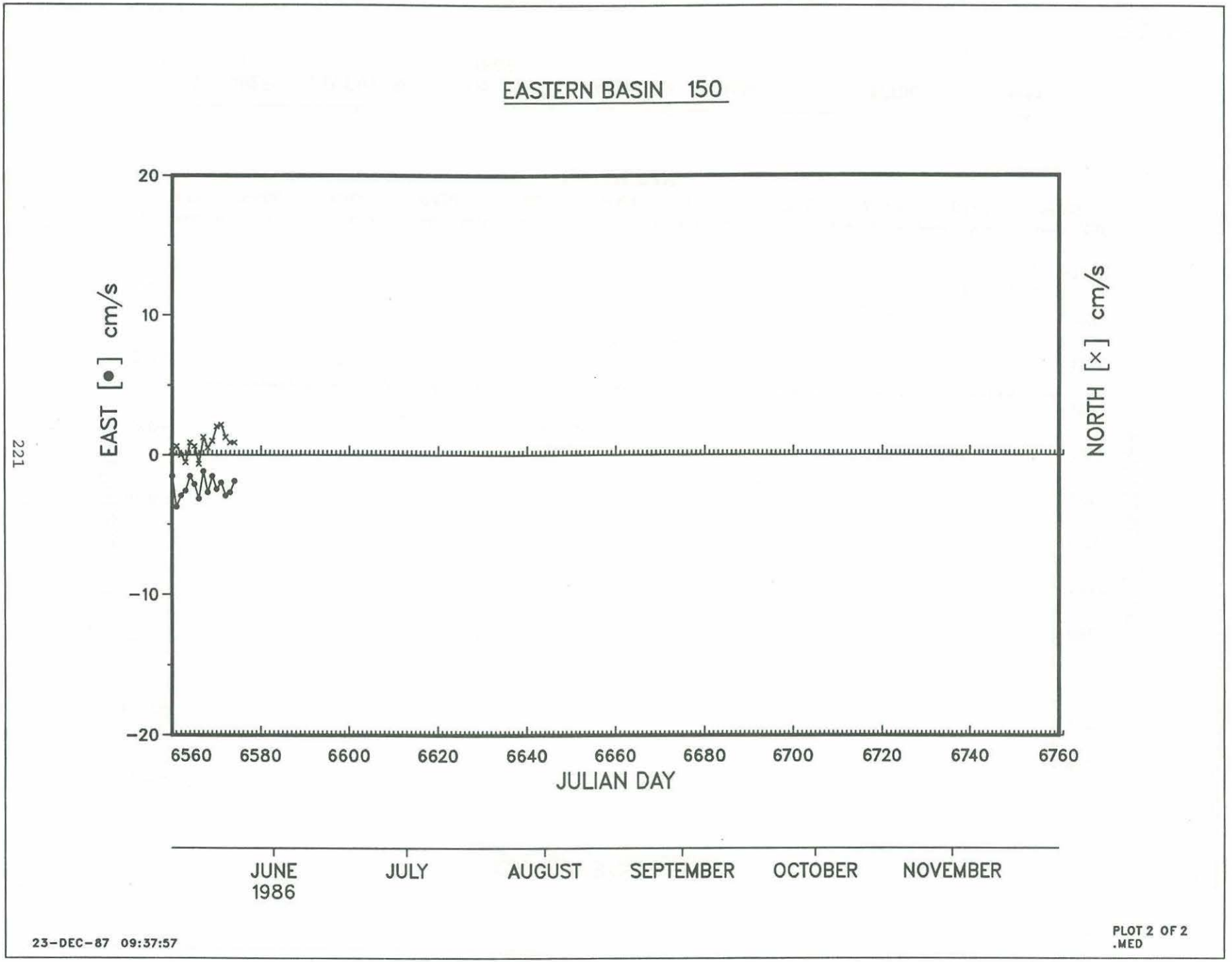
PLOT 1 OF 2
.MED

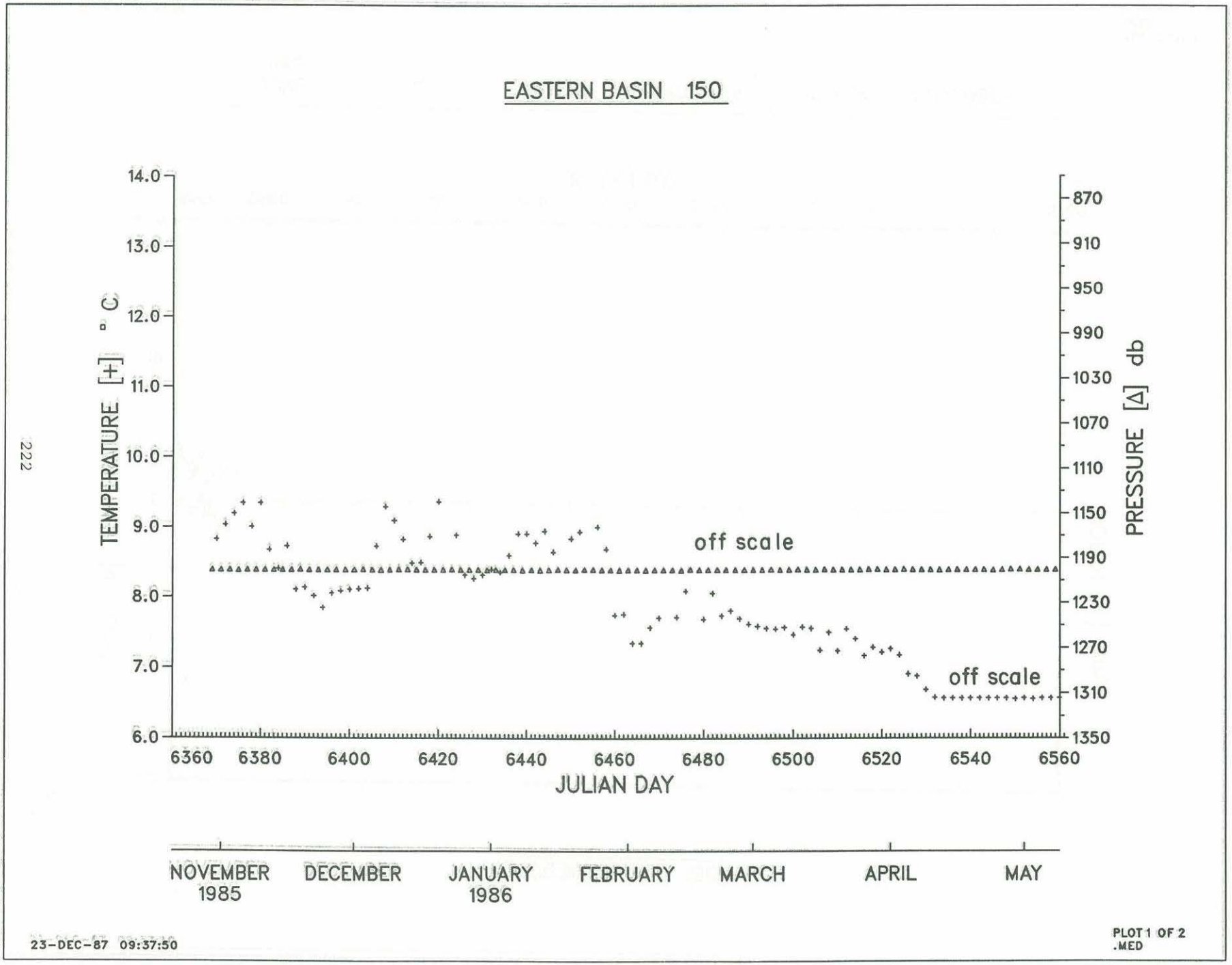

EASTERN BASIN 150
20
10
0
-10
-20
U & V cm/s
6560
6580
6600
6620
6640
6660
6680
6700
6720
6740
6760
JULIAN DAY
JUNE
1986
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
23-DEC-87 09:38:00
PLOT 2 OF 2
.MED

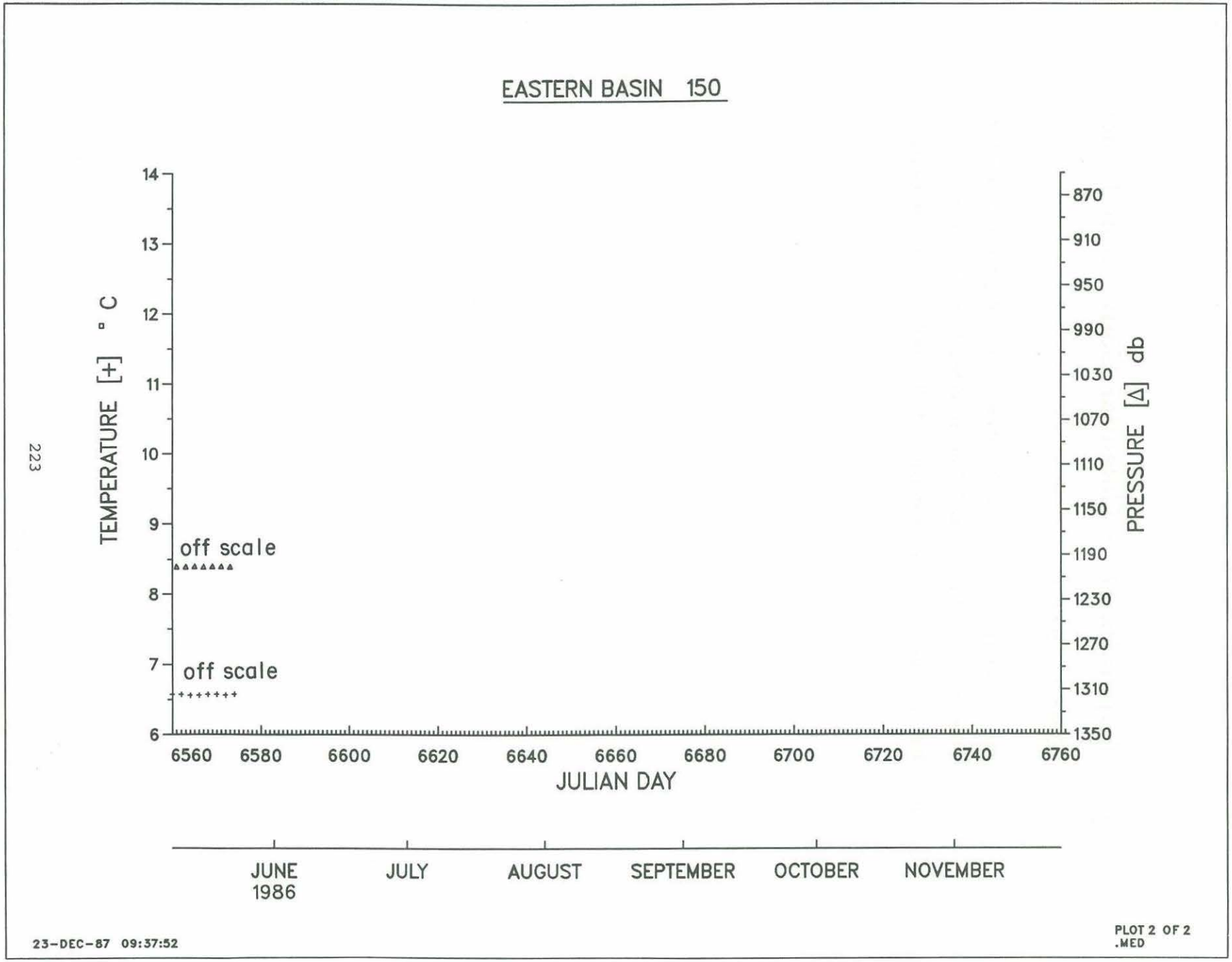


23-DEC-87 09:37:56

PLOT 1 OF 2
.MED


EASTERN BASIN 150
20
10
0
−10
−20
EAST [•] cm/s
NORTH [×] cm/s
6560
6580
6600
6620
6640
6660
6680
6700
6720
6740
6760
JULIAN DAY
JUNE
1986
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
23-DEC-87 09:37:57
PLOT 2 OF 2
.MED


EASTERN BASIN 150
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
off scale
off scale
6360
6380
6400
6420
6440
6460
6480
6500
6520
6540
6560
JULIAN DAY
NOVEMBER
1985
DECEMBER
JANUARY
1986
FEBRUARY
MARCH
APRIL
MAY
23-DEC-87 09:37:50
PLOT 1 OF 2
.MED


EASTERN BASIN 150
TEMPERATURE [+] ° C
PRESSURE [Δ] db
14
13
12
11
10
9
8
7
6
870
910
950
990
1030
1070
1110
1150
1190
1230
1270
1310
1350
off scale
off scale
6560
6580
6600
6620
6640
6660
6680
6700
6720
6740
6760
JULIAN DAY
JUNE
1986
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
23-DEC-87 09:37:52
PLOT 2 OF 2
.MED

11 Appendix D — Calendar Conversion Tables (1984–1986)

These tables give the year day and truncated Julian day for each calendar date for the years 1984 through 1986. The truncated Julian days range from 5701–6796. To convert to true Julian date, add 2440000.5 to these numbers.

1984

JAN

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
1	2	3	4	5	6	7
5701	5702	5703	5704	5705	5706	5707
8	9	10	11	12	13	14
8	9	10	11	12	13	14
5708	5709	5710	5711	5712	5713	5714
15	16	17	18	19	20	21
15	16	17	18	19	20	21
5715	5716	5717	5718	5719	5720	5721
22	23	24	25	26	27	28
22	23	24	25	26	27	28
5722	5723	5724	5725	5726	5727	5728
29	30	31				
29	30	31				
5729	5730	5731				

FEB

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4
			32	33	34	35
			5732	5733	5734	5735
5	6	7	8	9	10	11
36	37	38	39	40	41	42
5736	5737	5738	5739	5740	5741	5742
12	13	14	15	16	17	18
43	44	45	46	47	48	49
5743	5744	5745	5746	5747	5748	5749
19	20	21	22	23	24	25
50	51	52	53	54	55	56
5750	5751	5752	5753	5754	5755	5756
26	27	28	29			
57	58	59	60			
5757	5758	5759	5760			

MAR

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
				61	62	63
				5761	5762	5763
4	5	6	7	8	9	10
64	65	66	67	68	69	70
5764	5765	5766	5767	5768	5769	5770
11	12	13	14	15	16	17
71	72	73	74	75	76	77
5771	5772	5773	5774	5775	5776	5777
18	19	20	21	22	23	24
78	79	80	81	82	83	84
5778	5779	5780	5781	5782	5783	5784
25	26	27	28	29	30	31
85	86	87	88	89	90	91
5785	5786	5787	5788	5789	5790	5791

APR

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
92	93	94	95	96	97	98
5792	5793	5794	5795	5796	5797	5798
8	9	10	11	12	13	14
99	100	101	102	103	104	105
5799	5800	5801	5802	5803	5804	5805
15	16	17	18	19	20	21
106	107	108	109	110	111	112
5806	5807	5808	5809	5810	5811	5812
22	23	24	25	26	27	28
113	114	115	116	117	118	119
5813	5814	5815	5816	5817	5818	5819
29	30					
120	121					
5820	5821					

MAY

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
		122	123	124	125	126
		5822	5823	5824	5825	5826
6	7	8	9	10	11	12
127	128	129	130	131	132	133
5827	5828	5829	5830	5831	5832	5833
13	14	15	16	17	18	19
134	135	136	137	138	139	140
5834	5835	5836	5837	5838	5839	5840
20	21	22	23	24	25	26
141	142	143	144	145	146	147
5841	5842	5843	5844	5845	5846	5847
27	28	29	30	31		
148	149	150	151	152		
5848	5849	5850	5851	5852		

JUN

SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
					153	154
					5853	5854
3	4	5	6	7	8	9
155	156	157	158	159	160	161
5855	5856	5857	5858	5859	5860	5861
10	11	12	13	14	15	16
162	163	164	165	166	167	168
5862	5863	5864	5865	5866	5867	5868
17	18	19	20	21	22	23
169	170	171	172	173	174	175
5869	5870	5871	5872	5873	5874	5875
24	25	26	27	28	29	30
176	177	178	179	180	181	182
5876	5877	5878	5879	5880	5881	5882

1984

JUL

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
183	184	185	186	187	188	189
5883	5884	5885	5886	5887	5888	5889
8	9	10	11	12	13	14
190	191	192	193	194	195	196
5890	5891	5892	5893	5894	5895	5896
15	16	17	18	19	20	21
197	198	199	200	201	202	203
5897	5898	5899	5900	5901	5902	5903
22	23	24	25	26	27	28
204	205	206	207	208	209	210
5904	5905	5906	5907	5908	5909	5910
29	30	31				
211	212	213				
5911	5912	5913				

AUG

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4
			214	215	216	217
			5914	5915	5916	5917
5	6	7	8	9	10	11
218	219	220	221	222	223	224
5918	5919	5920	5921	5922	5923	5924
12	13	14	15	16	17	18
225	226	227	228	229	230	231
5925	5926	5927	5928	5929	5930	5931
19	20	21	22	23	24	25
232	233	234	235	236	237	238
5932	5933	5934	5935	5936	5937	5938
26	27	28	29	30	31	
239	240	241	242	243	244	
5939	5940	5941	5942	5943	5944	

SEP

SUN	MON	TUE	WED	THU	FRI	SAT
						1
						245
						5945
2	3	4	5	6	7	8
246	247	248	249	250	251	252
5946	5947	5948	5949	5950	5951	5952
9	10	11	12	13	14	15
253	254	255	256	257	258	259
5953	5954	5955	5956	5957	5958	5959
16	17	18	19	20	21	22
260	261	262	263	264	265	266
5960	5961	5962	5963	5964	5965	5966
23	24	25	26	27	28	29
267	268	269	270	271	272	273
5967	5968	5969	5970	5971	5972	5973
30						
274						
5974						

OCT

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6
	275	276	277	278	279	280
	5975	5976	5977	5978	5979	5980
7	8	9	10	11	12	13
281	282	283	284	285	286	287
5981	5982	5983	5984	5985	5986	5987
14	15	16	17	18	19	20
288	289	290	291	292	293	294
5988	5989	5990	5991	5992	5993	5994
21	22	23	24	25	26	27
295	296	297	298	299	300	301
5995	5996	5997	5998	5999	6000	6001
28	29	30	31			
302	303	304	305			
6002	6003	6004	6005			

NOV

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
				306	307	308
				6006	6007	6008
4	5	6	7	8	9	10
309	310	311	312	313	314	315
6009	6010	6011	6012	6013	6014	6015
11	12	13	14	15	16	17
316	317	318	319	320	321	322
6016	6017	6018	6019	6020	6021	6022
18	19	20	21	22	23	24
323	324	325	326	327	328	329
6023	6024	6025	6026	6027	6028	6029
25	26	27	28	29	30	
330	331	332	333	334	335	
6030	6031	6032	6033	6034	6035	

DEC

SUN	MON	TUE	WED	THU	FRI	SAT
						1
						336
						6036
2	3	4	5	6	7	8
337	338	339	340	341	342	343
6037	6038	6039	6040	6041	6042	6043
9	10	11	12	13	14	15
344	345	346	347	348	349	350
6044	6045	6046	6047	6048	6049	6050
16	17	18	19	20	21	22
351	352	353	354	355	356	357
6051	6052	6053	6054	6055	6056	6057
23	24	25	26	27	28	29
358	359	360	361	362	363	364
6058	6059	6060	6061	6062	6063	6064
30	31					
365	366					
6065	6066					

1985

JAN

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
		1	2	3	4	5
		6067	6068	6069	6070	6071
6	7	8	9	10	11	12
6	7	8	9	10	11	12
6072	6073	6074	6075	6076	6077	6078
13	14	15	16	17	18	19
13	14	15	16	17	18	19
6079	6080	6081	6082	6083	6084	6085
20	21	22	23	24	25	26
20	21	22	23	24	25	26
6086	6087	6088	6089	6090	6091	6092
27	28	29	30	31		
27	28	29	30	31		
6093	6094	6095	6096	6097		

FEB

SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
					32	33
					6098	6099
3	4	5	6	7	8	9
34	35	36	37	38	39	40
6100	6101	6102	6103	6104	6105	6106
10	11	12	13	14	15	16
41	42	43	44	45	46	47
6107	6108	6109	6110	6111	6112	6113
17	18	19	20	21	22	23
48	49	50	51	52	53	54
6114	6115	6116	6117	6118	6119	6120
24	25	26	27	28	29	
55	56	57	58	59	60	
6121	6122	6123	6124	6125	6126	

MAR

SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
					60	61
					6126	6127
3	4	5	6	7	8	9
62	63	64	65	66	67	68
6128	6129	6130	6131	6132	6133	6134
10	11	12	13	14	15	16
69	70	71	72	73	74	75
6135	6136	6137	6138	6139	6140	6141
17	18	19	20	21	22	23
76	77	78	79	80	81	82
6142	6143	6144	6145	6146	6147	6148
24	25	26	27	28	29	30
83	84	85	86	87	88	89
6149	6150	6151	6152	6153	6154	6155
31						
90						
6156						

APR

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6
	91	92	93	94	95	96
	6157	6158	6159	6160	6161	6162
7	8	9	10	11	12	13
97	98	99	100	101	102	103
6163	6164	6165	6166	6167	6168	6169
14	15	16	17	18	19	20
104	105	106	107	108	109	110
6170	6171	6172	6173	6174	6175	6176
21	22	23	24	25	26	27
111	112	113	114	115	116	117
6177	6178	6179	6180	6181	6182	6183
28	29	30				
118	119	120				
6184	6185	6186				

MAY

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4
			121	122	123	124
			6187	6188	6189	6190
5	6	7	8	9	10	11
125	126	127	128	129	130	131
6191	6192	6193	6194	6195	6196	6197
12	13	14	15	16	17	18
132	133	134	135	136	137	138
6198	6199	6200	6201	6202	6203	6204
19	20	21	22	23	24	25
139	140	141	142	143	144	145
6205	6206	6207	6208	6209	6210	6211
26	27	28	29	30	31	
146	147	148	149	150	151	
6212	6213	6214	6215	6216	6217	

JUN

SUN	MON	TUE	WED	THU	FRI	SAT
						1
						152
						6218
2	3	4	5	6	7	8
153	154	155	156	157	158	159
6219	6220	6221	6222	6223	6224	6225
9	10	11	12	13	14	15
160	161	162	163	164	165	166
6226	6227	6228	6229	6230	6231	6232
16	17	18	19	20	21	22
167	168	169	170	171	172	173
6233	6234	6235	6236	6237	6238	6239
23	24	25	26	27	28	29
174	175	176	177	178	179	180
6240	6241	6242	6243	6244	6245	6246
30						
181						
6247						

1985

JUL

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6
	182	183	184	185	186	187
	6248	6249	6250	6251	6252	6253
7	8	9	10	11	12	13
188	189	190	191	192	193	194
6254	6255	6256	6257	6258	6259	6260
14	15	16	17	18	19	20
195	196	197	198	199	200	201
6261	6262	6263	6264	6265	6266	6267
21	22	23	24	25	26	27
202	203	204	205	206	207	208
6268	6269	6270	6271	6272	6273	6274
28	29	30	31			
209	210	211	212			
6275	6276	6277	6278			

AUG

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
				213	214	215
				6279	6280	6281
4	5	6	7	8	9	10
216	217	218	219	220	221	222
6282	6283	6284	6285	6286	6287	6288
11	12	13	14	15	16	17
223	224	225	226	227	228	229
6289	6290	6291	6292	6293	6294	6295
18	19	20	21	22	23	24
230	231	232	233	234	235	236
6296	6297	6298	6299	6300	6301	6302
25	26	27	28	29	30	31
237	238	239	240	241	242	243
6303	6304	6305	6306	6307	6308	6309

SEP

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
244	245	246	247	248	249	250
6310	6311	6312	6313	6314	6315	6316
8	9	10	11	12	13	14
251	252	253	254	255	256	257
6317	6318	6319	6320	6321	6322	6323
15	16	17	18	19	20	21
258	259	260	261	262	263	264
6324	6325	6326	6327	6328	6329	6330
22	23	24	25	26	27	28
265	266	267	268	269	270	271
6331	6332	6333	6334	6335	6336	6337
29	30					
272	273					
6338	6339					

OCT

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
		274	275	276	277	278
		6340	6341	6342	6343	6344
6	7	8	9	10	11	12
279	280	281	282	283	284	285
6345	6346	6347	6348	6349	6350	6351
13	14	15	16	17	18	19
286	287	288	289	290	291	292
6352	6353	6354	6355	6356	6357	6358
20	21	22	23	24	25	26
293	294	295	296	297	298	299
6359	6360	6361	6362	6363	6364	6365
27	28	29	30	31		
300	301	302	303	304		
6366	6367	6368	6369	6370		

NOV

SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
					305	306
					6371	6372
3	4	5	6	7	8	9
307	308	309	310	311	312	313
6373	6374	6375	6376	6377	6378	6379
10	11	12	13	14	15	16
314	315	316	317	318	319	320
6380	6381	6382	6383	6384	6385	6386
17	18	19	20	21	22	23
321	322	323	324	325	326	327
6387	6388	6389	6390	6391	6392	6393
24	25	26	27	28	29	30
328	329	330	331	332	333	334
6394	6395	6396	6397	6398	6399	6400

DEC

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
335	336	337	338	339	340	341
6401	6402	6403	6404	6405	6406	6407
8	9	10	11	12	13	14
342	343	344	345	346	347	348
6408	6409	6410	6411	6412	6413	6414
15	16	17	18	19	20	21
349	350	351	352	353	354	355
6415	6416	6417	6418	6419	6420	6421
22	23	24	25	26	27	28
356	357	358	359	360	361	362
6422	6423	6424	6425	6426	6427	6428
29	30	31				
363	364	365				
6429	6430	6431				

1986

JAN

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4
			1	2	3	4
			6432	6433	6434	6435
5	6	7	8	9	10	11
5	6	7	8	9	10	11
6436	6437	6438	6439	6440	6441	6442
12	13	14	15	16	17	18
12	13	14	15	16	17	18
6443	6444	6445	6446	6447	6448	6449
19	20	21	22	23	24	25
19	20	21	22	23	24	25
6450	6451	6452	6453	6454	6455	6456
26	27	28	29	30	31	
26	27	28	29	30	31	
6457	6458	6459	6460	6461	6462	

FEB

SUN	MON	TUE	WED	THU	FRI	SAT
						1
						32
						6463
2	3	4	5	6	7	8
33	34	35	36	37	38	39
6464	6465	6466	6467	6468	6469	6470
9	10	11	12	13	14	15
40	41	42	43	44	45	46
6471	6472	6473	6474	6475	6476	6477
16	17	18	19	20	21	22
47	48	49	50	51	52	53
6478	6479	6480	6481	6482	6483	6484
23	24	25	26	27	28	29
54	55	56	57	58	59	60
6485	6486	6487	6488	6489	6490	6491

MAR

SUN	MON	TUE	WED	THU	FRI	SAT
						1
						60
						6491
2	3	4	5	6	7	8
61	62	63	64	65	66	67
6492	6493	6494	6495	6496	6497	6498
9	10	11	12	13	14	15
68	69	70	71	72	73	74
6499	6500	6501	6502	6503	6504	6505
16	17	18	19	20	21	22
75	76	77	78	79	80	81
6506	6507	6508	6509	6510	6511	6512
23	24	25	26	27	28	29
82	83	84	85	86	87	88
6513	6514	6515	6516	6517	6518	6519
30	31					
89	90					
6520	6521					

APR

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
		91	92	93	94	95
		6522	6523	6524	6525	6526
6	7	8	9	10	11	12
96	97	98	99	100	101	102
6527	6528	6529	6530	6531	6532	6533
13	14	15	16	17	18	19
103	104	105	106	107	108	109
6534	6535	6536	6537	6538	6539	6540
20	21	22	23	24	25	26
110	111	112	113	114	115	116
6541	6542	6543	6544	6545	6546	6547
27	28	29	30			
117	118	119	120			
6548	6549	6550	6551			

MAY

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
				121	122	123
				6552	6553	6554
4	5	6	7	8	9	10
124	125	126	127	128	129	130
6555	6556	6557	6558	6559	6560	6561
11	12	13	14	15	16	17
131	132	133	134	135	136	137
6562	6563	6564	6565	6566	6567	6568
18	19	20	21	22	23	24
138	139	140	141	142	143	144
6569	6570	6571	6572	6573	6574	6575
25	26	27	28	29	30	31
145	146	147	148	149	150	151
6576	6577	6578	6579	6580	6581	6582

JUN

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
152	153	154	155	156	157	158
6583	6584	6585	6586	6587	6588	6589
8	9	10	11	12	13	14
159	160	161	162	163	164	165
6590	6591	6592	6593	6594	6595	6596
15	16	17	18	19	20	21
166	167	168	169	170	171	172
6597	6598	6599	6600	6601	6602	6603
22	23	24	25	26	27	28
173	174	175	176	177	178	179
6604	6605	6606	6607	6608	6609	6610
29	30					
180	181					
6611	6612					

1986

JUL

SUN	MON	TUE	WED	THU	FRI	SAT
		1 182 6613	2 183 6614	3 184 6615	4 185 6616	5 186 6617
6 187 6618	7 188 6619	8 189 6620	9 190 6621	10 191 6622	11 192 6623	12 193 6624
13 194 6625	14 195 6626	15 196 6627	16 197 6628	17 198 6629	18 199 6630	19 200 6631
20 201 6632	21 202 6633	22 203 6634	23 204 6635	24 205 6636	25 206 6637	26 207 6638
27 208 6639	28 209 6640	29 210 6641	30 211 6642	31 212 6643		

AUG

SUN	MON	TUE	WED	THU	FRI	SAT
					1 213 6644	2 214 6645
3 215 6646	4 216 6647	5 217 6648	6 218 6649	7 219 6650	8 220 6651	9 221 6652
10 222 6653	11 223 6654	12 224 6655	13 225 6656	14 226 6657	15 227 6658	16 228 6659
17 229 6660	18 230 6661	19 231 6662	20 232 6663	21 233 6664	22 234 6665	23 235 6666
24 236 6667	25 237 6668	26 238 6669	27 239 6670	28 240 6671	29 241 6672	30 242 6673
31 243 6674						

SEP

SUN	MON	TUE	WED	THU	FRI	SAT
	1 244 6675	2 245 6676	3 246 6677	4 247 6678	5 248 6679	6 249 6680
7 250 6681	8 251 6682	9 252 6683	10 253 6684	11 254 6685	12 255 6686	13 256 6687
14 257 6688	15 258 6689	16 259 6690	17 260 6691	18 261 6692	19 262 6693	20 263 6694
21 264 6695	22 265 6696	23 266 6697	24 267 6698	25 268 6699	26 269 6700	27 270 6701
28 271 6702	29 272 6703	30 273 6704				

OCT

SUN	MON	TUE	WED	THU	FRI	SAT
			1 274 6705	2 275 6706	3 276 6707	4 277 6708
5 278 6709	6 279 6710	7 280 6711	8 281 6712	9 282 6713	10 283 6714	11 284 6715
12 285 6716	13 286 6717	14 287 6718	15 288 6719	16 289 6720	17 290 6721	18 291 6722
19 292 6723	20 293 6724	21 294 6725	22 295 6726	23 296 6727	24 297 6728	25 298 6729
26 299 6730	27 300 6731	28 301 6732	29 302 6733	30 303 6734	31 304 6735	

NOV

SUN	MON	TUE	WED	THU	FRI	SAT
						1 305 6736
2 306 6737	3 307 6738	4 308 6739	5 309 6740	6 310 6741	7 311 6742	8 312 6743
9 313 6744	10 314 6745	11 315 6746	12 316 6747	13 317 6748	14 318 6749	15 319 6750
16 320 6751	17 321 6752	18 322 6753	19 323 6754	20 324 6755	21 325 6756	22 326 6757
23 327 6758	24 328 6759	25 329 6760	26 330 6761	27 331 6762	28 332 6763	29 333 6764
30 334 6765						

DEC

SUN	MON	TUE	WED	THU	FRI	SAT
	1 335 6766	2 336 6767	3 337 6768	4 338 6769	5 339 6770	6 340 6771
7 341 6772	8 342 6773	9 343 6774	10 344 6775	11 345 6776	12 346 6777	13 347 6778
14 348 6779	15 349 6780	16 350 6781	17 351 6782	18 352 6783	19 353 6784	20 354 6785
21 355 6786	22 356 6787	23 357 6788	24 358 6789	25 359 6790	26 360 6791	27 361 6792
28 362 6793	29 363 6794	30 364 6795	31 365 6796			

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16. Abstract (Limit: 200 words)

In October, 1984, the Woods Hole Oceanographic Institution SOFAR float group began a three-year-long field program to observe the low frequency currents in the Canary Basin. The principal scientific goal was to learn how advection and diffusion by these currents determine the shape and amplitude of the Mediterranean salt tongue. Fourteen floats were launched at a depth of 1100 m in a cluster centered on 32°N, 24°W, and seven other floats were launched incoherently along a north/south line from 24°N to 37°N. At the same time investigators from Scripps Institution of Oceanography and the University of Rhode Island used four other SOFAR floats to tag a Meddy, a submesoscale lens of Mediterranean water.

In October, 1985, seven additional floats were launched, four in three different Meddies, one of which was tracked during year one. This report describes the second year of the floats launched in 1984 and the first year of the ones launched in 1985. Approximately 41 years of float trajectories were produced during the first two years of the experiment. One of the striking accomplishments is the successful tracking of one Meddy over two full years plus the tracking of two other Meddies during the second year.

17. Document Analysis a. Descriptors

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2. Canary Basin
3. Mediterranean Outflow

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

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