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First Preliminary Report of the GABEX-1 Cruises: Station Logs, Standard Sections and Maps and Time Series Transects

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-SKIO-

VOLUME 2

GABEX-1

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FIRST PRELIMINARY REPORT OF THE GABEX-1 CRUISES:
STATION LOGS, STANDARD SECTIONS AND MAPS AND
TIME SERIES TRANSECTS.

By

Larry P. Atkinson
James J. Singer
William S. Chandler

July 8, 1980

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This preliminary cruise report contains information that all GABEX participants may find useful, especially the organization of sections and maps.

We have tried to look at the organization of the cruises in a variety of ways all of which are presented in the following. Examples of standard plots are also included along with information on how to specify plots you may need.

Temperature and salinity printouts are not included to save paper. They are available to anyone but it would be easier if you requested specific stations, sections or maps. The nutrient, chlorophyll and dissolved oxygen data are not yet entered into the data set so if you need those data make specific requests. We expect all data to be fully merged by mid-August when the full station lists can be made.

Station log listings for the EASTWARD and ISELIN are included. (Appendices 1 and 2.)

The first two figures (Figures 1 and 2) show the cruise tracks for each ship. This is more for the humor than anything. It clearly show that the ISELIN was following events while the EASTWARD was running a set grid.

The data are broken up into maps and sections which consist of data from one ship usually but not always,

The ISELIN ran 24 sections (Figure 3 and Table 1). Most sections were trans-shelf although some were run along-shore at the 60 m isobath. When you refer to a section include the ship name, re. ISELIN Section 4. The table gives the station numbers that make up a section or map.

The 60 m isobath runs (Figure 4 and Table 2) consists of three ISELIN sections and one EASTWARD section. Initial temperature plots indicate that the individual sections cannot be combined. This is because shelfbreak events propogate north ca. .8 knot.

The EASTWARD was running a standard grid of stations so grid numbers were established. Thus most EASTWARD stations are identified by both consecutive number as well as grid number. Figure 5 shows the standard grid.

The EASTWARD ran 20 sections (Figure 6 and Table 3) one of which was partly alongshore on the 60 m isobath.

The St. Augustine section (30.0°N) was occupied 11 times (including one EASTWARD section that was 5 n.m. south). The standard section is stations 13-25 in Figure 5. Table 4 contains relevant data.

Maps were made at the shelfbreak in our effort to detect upwelling events. The resulting data from 9 maps applicable mostly to surface data. Maps 1-7 contain only ISELIN data while 8 and 9 also include EASTWARD data. Figures 7-15 and Table 5 show the maps.

The EASTWARD data were arranged into three maps, two of which contain ISELIN data (Figures 16-18, Table 6).

Another way to organize the data are by time-latitude plots. Figure 19 shows the EASTWARD stations plotted in this way with section numbers included. ISELIN cross shelf sections are indicated in Figure 20 and the 60 m isobath runs in Figure 21. The composite maps are shown in Figure 22.

NASA Flights

The U-2 and C-130 made flights on 15 April. Figure 23 shows the flight track and Figure 24 shows the latitude/time plot for the flight and coincident ISELIN stations. Tracks and turn points are given in Tables 7 and 8.

Coast Guard Flights

To follow.

Standardized Plotting

To assure uniform and comparable plots I suggest that you use, if possible, the standard products we can supply.

Cross-Shelf Transects

We are plotting these on a standard 200 m deep by 160 km section. The two reduced examples show a standard plot with sampling points marked. The latter may be particularly useful for much of the shipboard subsurface sampling. We can supply either type plotted by standard pen on bond (for contouring, etc.) or Leroy on tracing paper for photo quality. Specify the section you want plotted by section number and ship. Contact Bill Chandler for these plots (912-356-2459).

Horizontals

Horizontal plots will be done on at least two scales: 28-32⁰N, 79-82⁰W and 28.5-32⁰N, 79.5-80.5⁰W. Samples are enclosed.

TABLES

1. ISELIN Sections
2. 60 m Isobath Runs
3. EASTWARD Sections
4. St. Augustine Time Series Transect (30.0°N)
5. Composite ISELIN Maps
6. EASTWARD Maps
7. C-130 Flight Path
8. U-2 Flight Path

Table 1. ISELIN SECTIONS

<u>Section</u>	<u>Location</u>	<u>Stations (Grid)</u>	<u>Time Interval</u>
1	Brunswick	19-27	0900/11/4 - 0100/12/4
2	St. Augustine	29-33 (13-18)	0800/12/4 - 1746/12/4
3	"	34-40 (13-18)	1850/12/4 - 2100/12/4
4	"	41-47 (13-18)	0715/13/4 - 1642/13/4
5	Savannah	72-89	2040/14/4
6	C. Canaveral	139-144	1915/16/4 - 2134/16/4
7	St. Augustine	145-151 (13-19)	0837/17/4 - 1942/17/4
8	"	153-159 (13-19)	0708/18/4 - 1636/18/4
9	"	181-186	1042/19/4 - 1155/19/4
10	"	187-191	1344/19/4 - 1507/19/4
11	"	195-198	1910/19/4 - 2315/19/4
12	"	204-207	0546/20/4 - 0948/19/4
13	"	209-213	1310/20/4 - 0138/21/4
14	"	217-221	0614/21/4 - 1040/21/4
15	"	223-225	1324/21/4 - 1532/21/4
16	C. Canaveral	228-234	2010/21/4 - 0235/22/4
17	60 m Isobath	242-261	0912/22/4 - 1855/22/4
18	St. Augustine	262-267 (13-18)	2010/22/4 - 0400/23/4
19	60 m Isobath	280-294	2025/23/4 - 0345/24/4
20	"	295-299	0459/24/4 - 1221/24/4
21	"	301-306	1530/24/4 - 1731/24/4
22	"	325-329	1153/25/4 - 1757/25/4
23	"	336-340	0028/26/4 - 0756/26/4
24	"	344-351	1235/26/4 - 2151/26/4

Table 2. 60 M ISOBATH TRANSECTS

During the cruise we made several runs along the 60 m isobath. The main run was section 17. EZ section 20 was also a short 60 m run.

<u>Ship</u>	<u>Section</u>	<u>Time Interval</u>
CI	17	0912 - 1855/22
CI	19	2025/23 - 0345/24/4
CI	21	1530 - 1731/24/4
EZ	20	2119 - 2220/26

Table 3. EASTWARD SECTIONS

<u>Section</u>	<u>Location</u>	<u>Stations (Grid)</u>	<u>Time Interval</u>
1	New Smyrna	31-41 (1-11)	0357/12/4 - 1330/12/4
2	St. Augustine	48-56 (17-25)	1811/12/4 - 0205/13/4
3	Brunswick	63-80 (26-43)	0830/13/4 - 0100/14/4
4	Savannah	88-92 (44-48)	0449/14/4 - 1305/14/4
5	St. Augustine	111-124 (13-25)	0804/15/4 - 2318/15/4
6	New Smyrna	132-142 (1-11)	0912/16/4 - 1728/16/4
7	St. Augustine	149-161 (13-25)	2211/16/4 - 0907/17/4
8	Brunswick	169-185 (26-42)	1610/17/4 - 0557/18/4
9	Savannah	194-212 (44-62)	1126/18/4 - 0216/19/4
10	St. Augustine	225-237 (13-25)	1435/19/4 - 0231/20/4
11	New Smyrna	245-258 (1-11)	1034/20/4 - 2330/20/4
12	St. Augustine	269-281 (13-25)	0517/21/4 - 1702/21/4
13	Brunswick	288-304 (26-42)	0002/22/4 - 1237/22/4
14	Savannah	313-331 (44-62)	1746/22/4 - 0908/23/4
15	St. Augustine	344-356 (13-25)	2145/23/4 - 0907/24/4
16	"10" n.m. S. St. Augustine	364-374	1436/24/4 - 1810/24/4
17	New Smyrna	380-390 (1-11)	2334/24/4 - 1036/25/4
18	5 n.m. S. St. Augustine	397-407	1559/25/4 - 0335/26/4
19	5 n.m. S. Brunswick	417-424	1040/26/4 - 1923/26/4
20	10 n.m. N. Brunswick	429-432	2237/26/4 - 0126/27/4

Table 4. ST. AUGUSTINE TIME SERIES

Both CI and EZ occupied the St. Augustine section many times.

Following is a composite time series section list.

<u>Ship</u>	<u>Section</u>	<u>Grid Stations</u>	<u>Time Interval</u>
CI	2	13-18	0800/12/4 - 1746/12/4
EZ	2	17-25	1811/12/4 - 0205/13/4
CI	3	13-18	1850/12/4 - 2100/12/4
CI	4	13-18	0715/13/4 - 1642/13/4
EZ	5	13-25	0804/15/4 - 2318/15/4
EZ	7	13-25	2211/16/4 - 0907/17/4
EZ	10	13-25	1435/19/4 - 0231/20/4
EZ	12	13-25	0517/21/4 - 1702/21/4
CI	18	13-18	2010/22/4 - 0400/23/4
EZ	15	13-25	2145/23/4 - 0907/24/4
EZ	18*		1559/25/4 - 0335/26/4

*Section 5 miles south of St. Augustine.

Table 5. COMPOSITE MAPPING RUNS

<u>MAP</u>	<u>ISELIN</u>	<u>STATIONS</u>	<u>EASTWARD</u>
1	1-18		
2	49-59		
3	86-144		
4	160-198		
5	195-236		
6	228-269		
7	269-299		
8	295-323		344-356
			364-374
			380-390
9	324-351		401-423

Table 6. EASTWARD MAPS

The Eastward stations can be used in various ways to create maps. The combination we have chosen is as follows:

<u>Map</u>	<u>Sections</u>	<u>Stations</u>	<u>Time Interval</u>
1*	1-4	31-92	0357/12/4 - 1305/14/4
	CI 5	72-89	14 - 15/4
2†	6-9	132-212	0912/16/4 - 0216/19/4
	CI 6	139-144	16/4
3	1-4	245-331	1034/20/4 - 0908/23/4

*Because of weather the EZ could not complete sections. CI ran full section on 14-15 April (Stations 72-89) which could be added to complete section.

†Add ISELIN C. Canaveral section 6 (stations 139-144 on 16/4).

Table 7. C-130 April 15, 1980 Afternoon

Section 1	30°55'	79°55'
	31°08'	79°31'
" 2	30°52'	79°51'
	31°11'	79°18'
" 3	30°55'	79°38'
	31°11'	79°09'
" 4	30°52'	79°35'
	31°09'	79°38'
" 5	30°55'	79°26'
	31°12'	79°29'
" 6	30°25'	79°40'
	30°20'	80°55'
" 7	30°20'	80°55'
	30°20'	79°40'
" 8	30°20'	79°40'
	30°16'	80°43'

Table 8. U-2 OCS Ground Track - April 15, 1980 Afternoon

Turn Points	1	30°33'	80°53'
	2	31°27'	79°20'
	3	31°11'	79°10'
	4	30°24'	80°40'
	5	30°16'	80°30'
	6	30°46'	79°20'
	7	30°20'	79°20'
	8	30°06'	80°43'
	9	29°54'	80°40'
	10	30°10'	79°10'
	11	30°22'	79°20'
	12	30°22'	81°23'

FIGURE CAPTIONS

1. EASTWARD cruise track.
2. ISELIN cruise track.
3. ISELIN sections. Section number indicated. Refer to Table 1 for stations, etc.
4. ISELIN stations on 60 m isobath. Refer to Table 2 for stations, etc.
5. EASTWARD standard grid stations. Stations 13-25 make up the St. Augustine time series section. Station 12 is not part of the grid.
6. EASTWARD sections. Section numbers indicated. Refer to Table 3 for stations, etc.
7. ISELIN surface map #1. Refer to Table 6.
8. " " " #2. " " " "
9. " " #3. " " " "
10. " " #4. " " " "
11. " " #5. " " " "
12. " " #6. " " " "
13. " " #7. " " " "
14. " " #8. " " " " Eastward sections indicated.
15. " " #9. " " " " " " "
16. EASTWARD Map #1. Refer to Table 6.
17. " " #2. " " " "
18. " " #3. " " " "
19. Time-Latitude chart of EASTWARD stations.
20. " " " " ISELIN Cross Shelf Stations. Sections indicated.
21. " " " " ISELIN 60 m isobath run. Sections indicated.
22. " " " " maps. Map # indicated. Dashed line indicated U-2 and C-130 flight.
23. U-2 and C-130 flight track. Refers to Table 7 & 8.

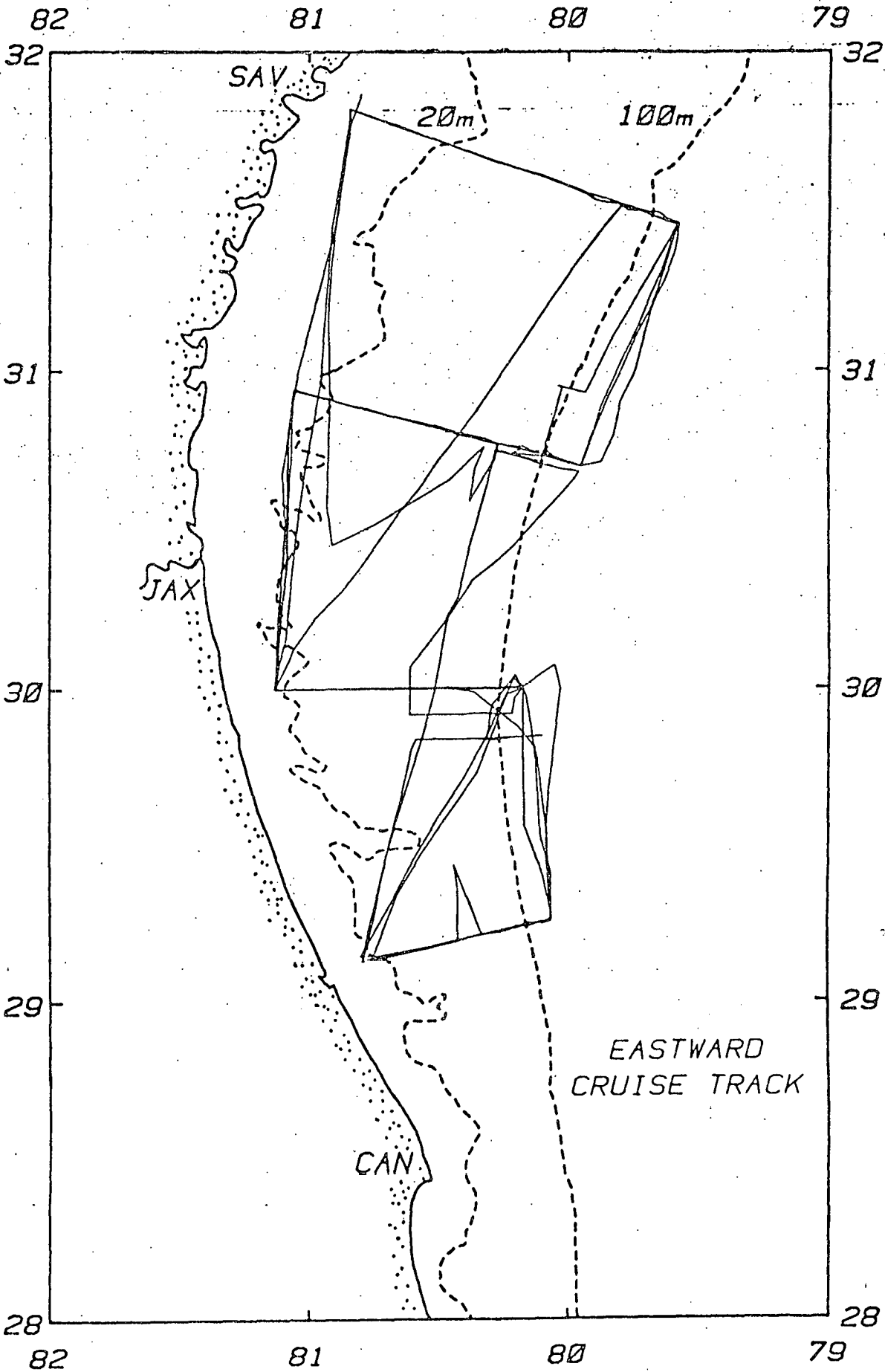


Figure 1. EASTWARD cruise track

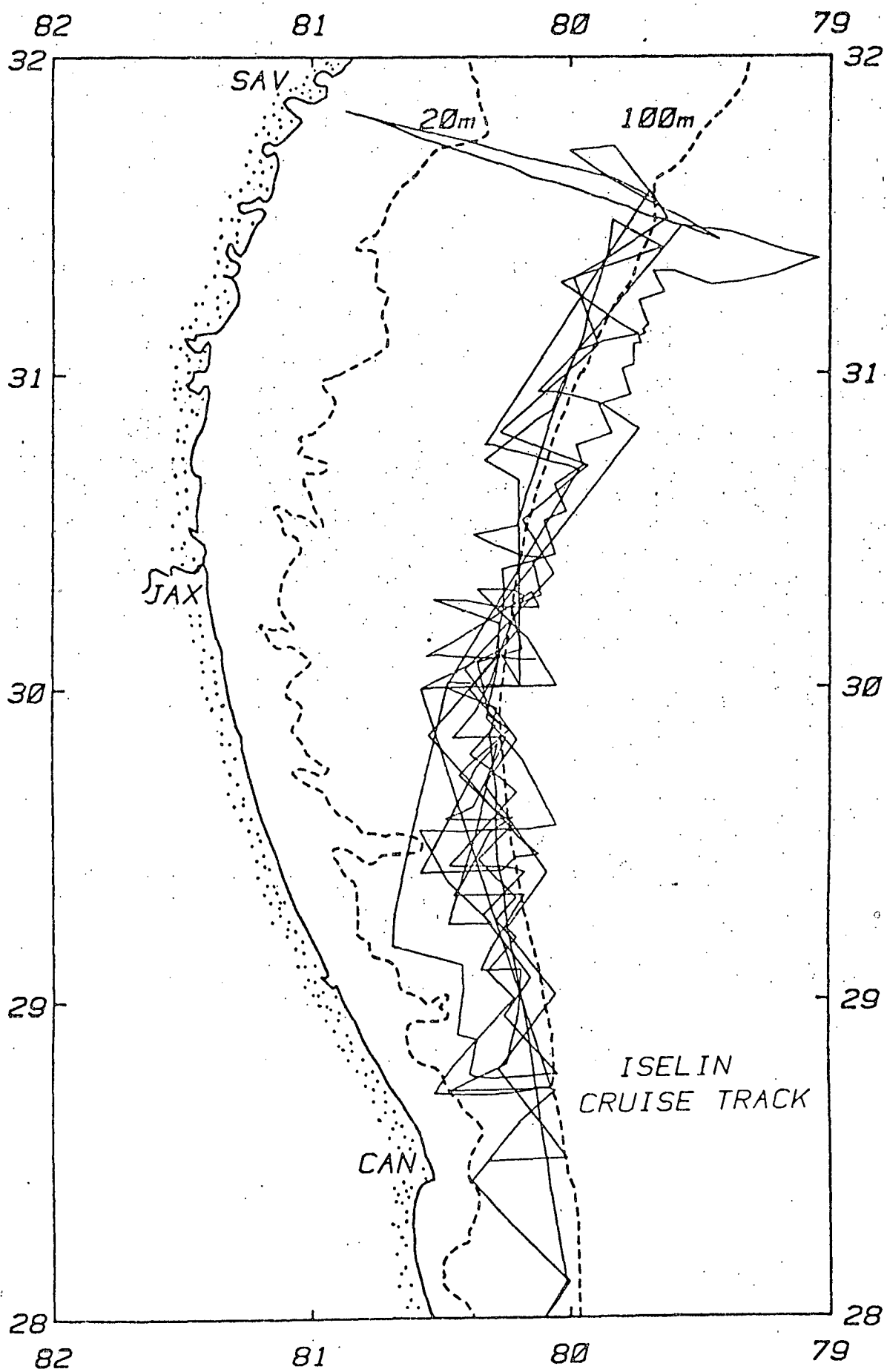


Figure 2. ISELIN cruise track

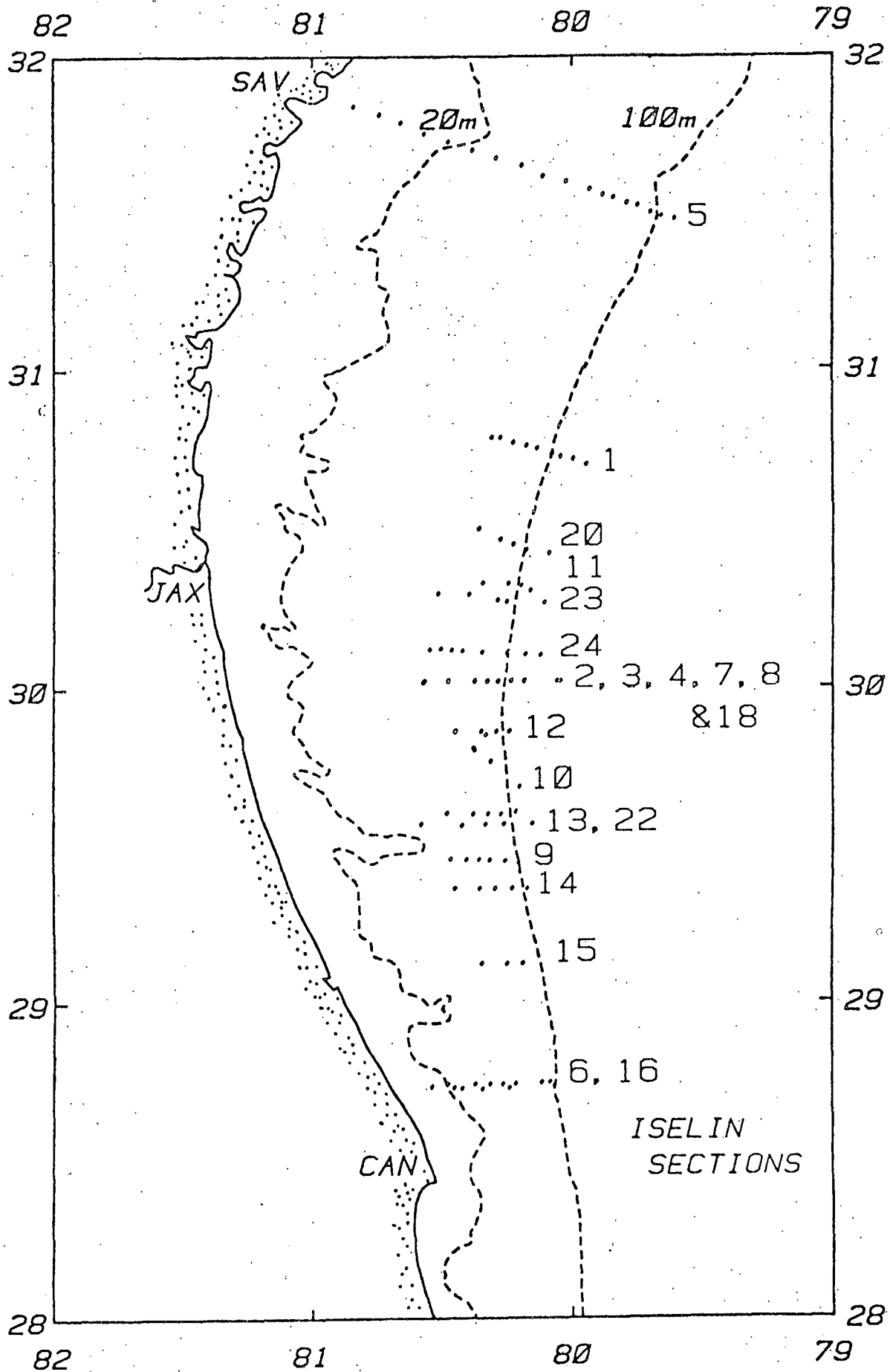


Figure 3. ISELIN sections. Section number indicated. Refer to Table 1 for stations, etc.

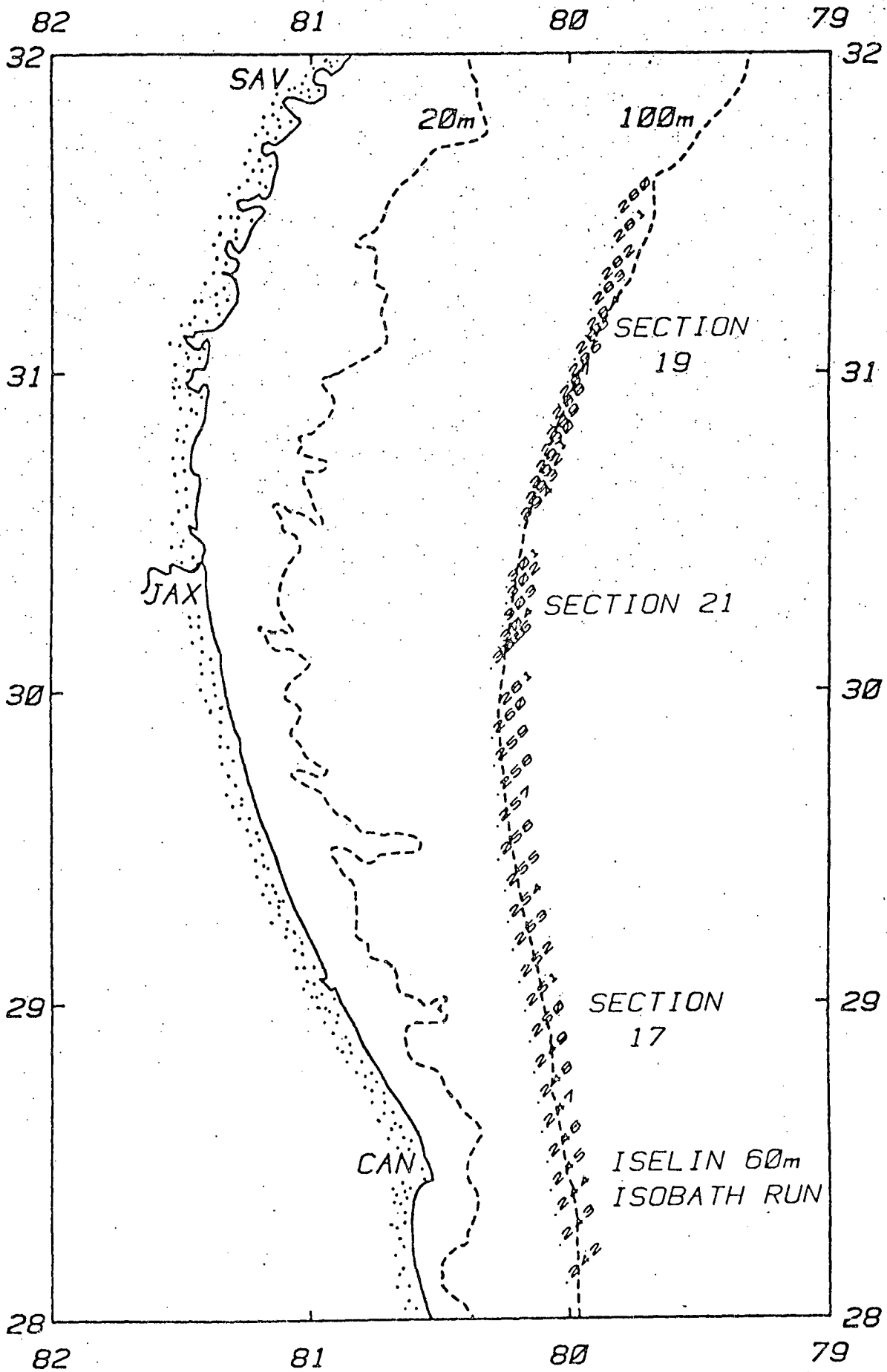


Figure 4. ISELIN stations on 60 m isobath. Refer to Table 2 for stations, etc.

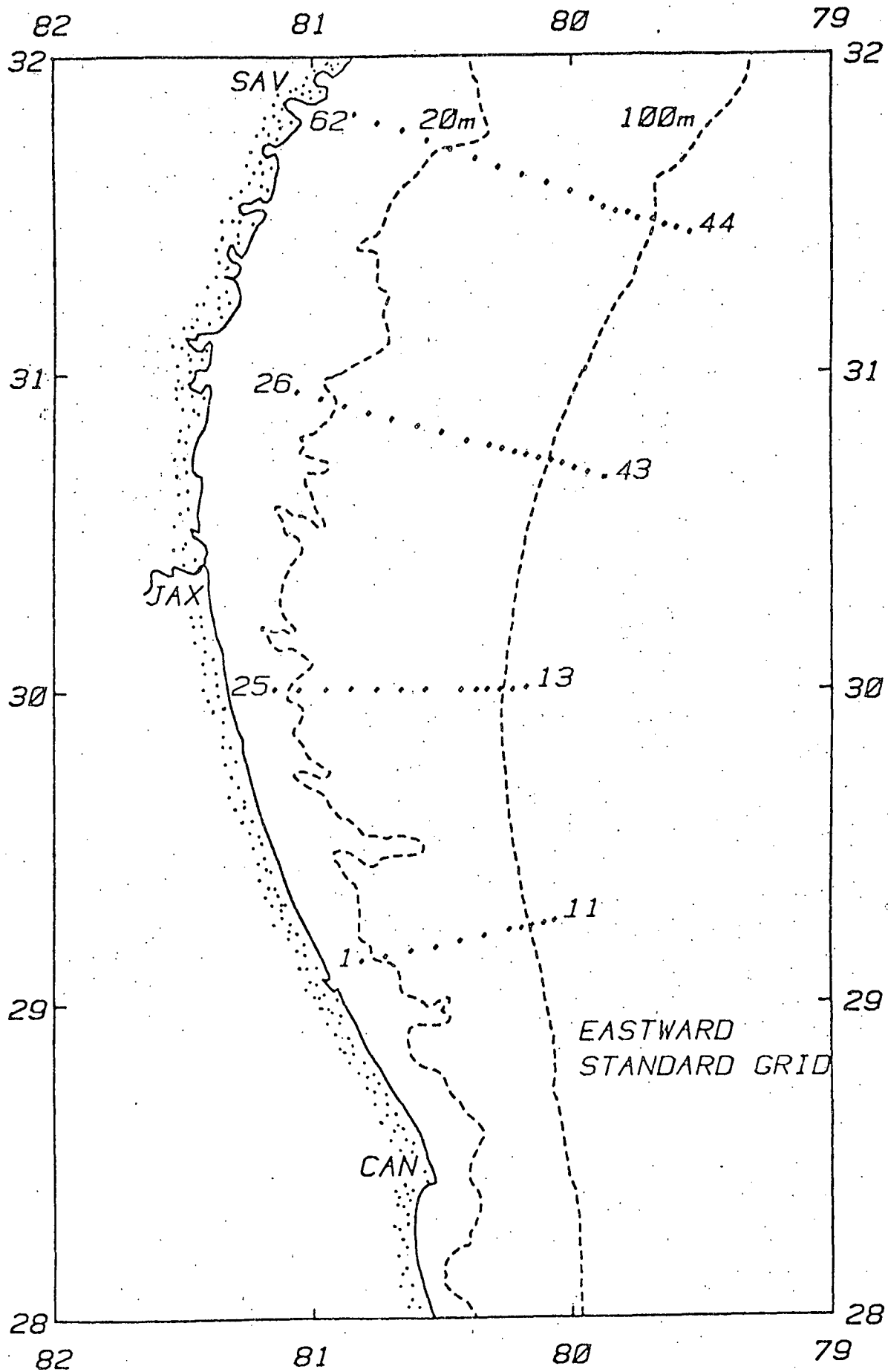


Figure 5. EASTWARD standard grid stations. Stations 13-25 make up the St. Augustine time series section. Station 12 is not part of the grid.

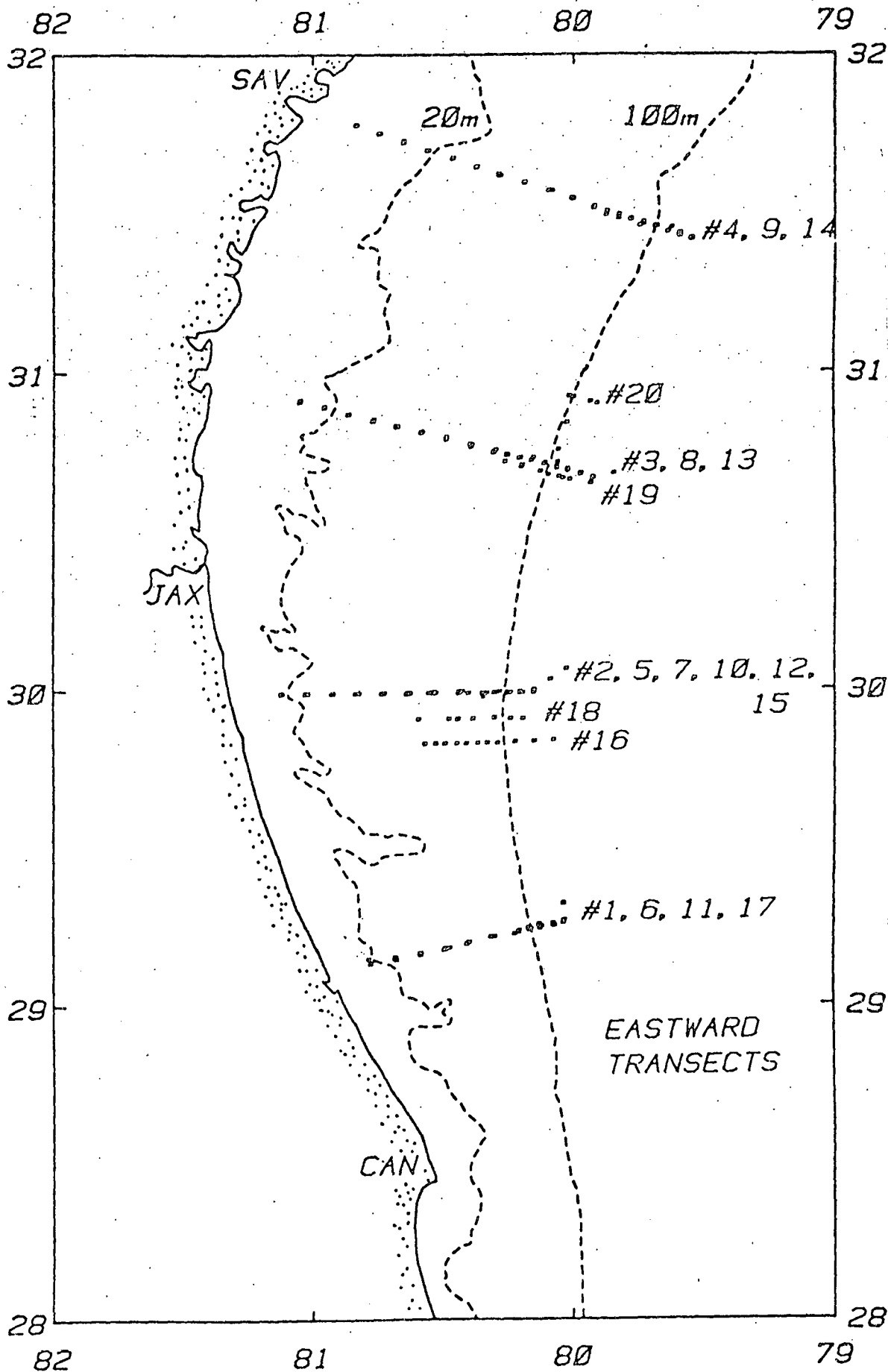


Figure 6. EASTWARD sections. Section numbers indicated. Refer to Table 3 for stations, etc.

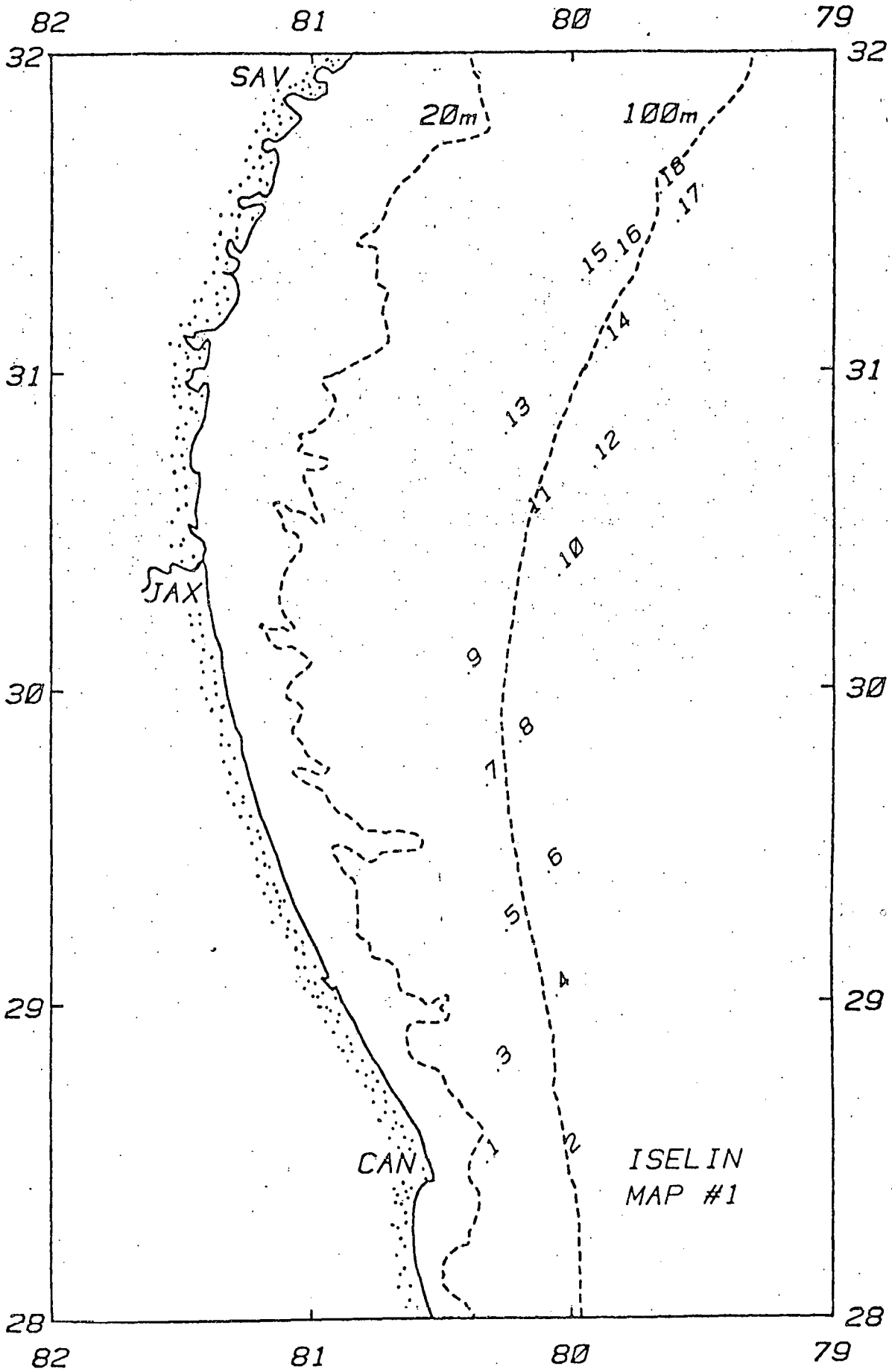


Figure 7. ISELIN surface map #1. Refer to Table 6.

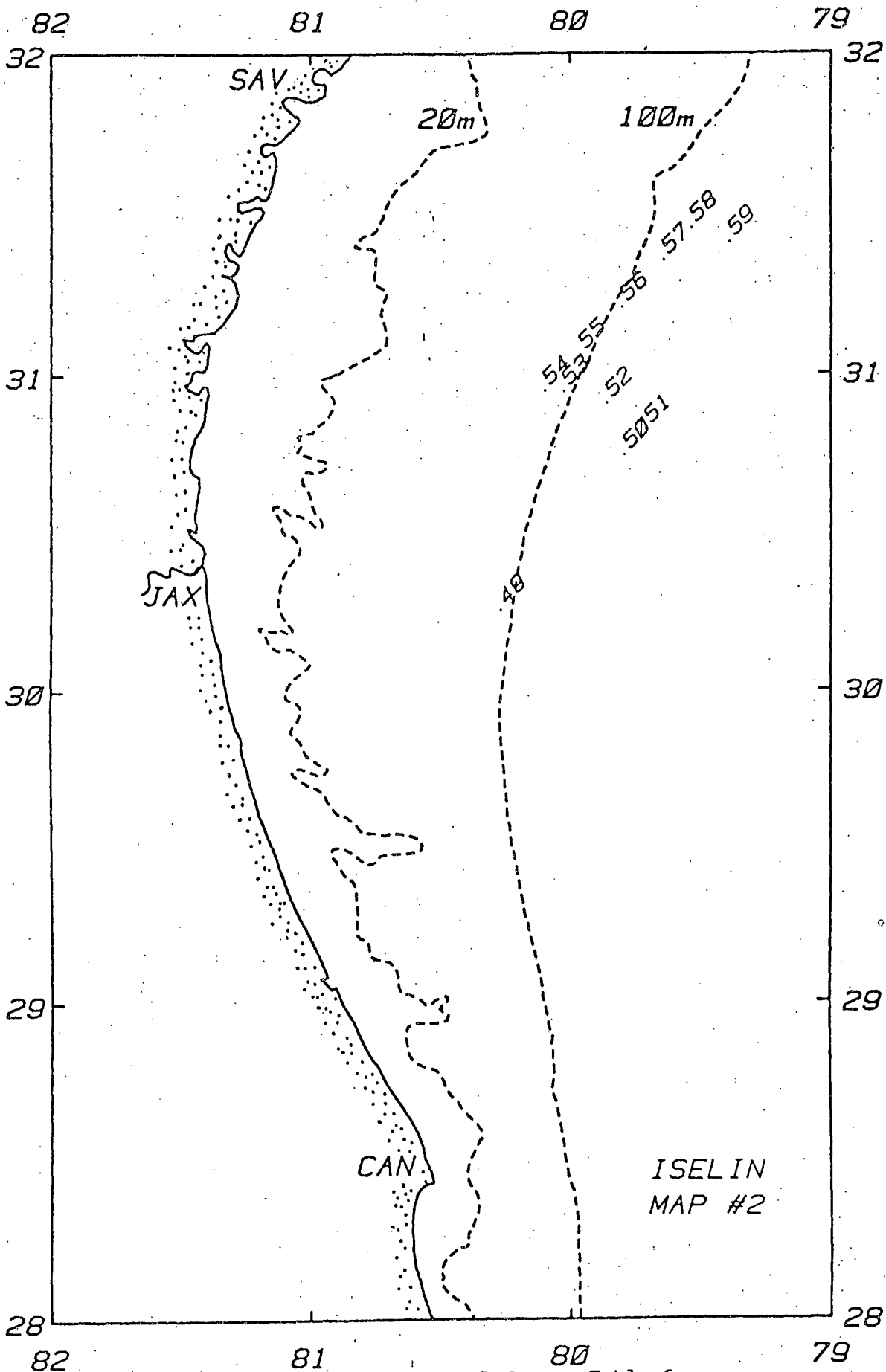


Figure 8. ISELIN surface map #2. Refer to Table 6.

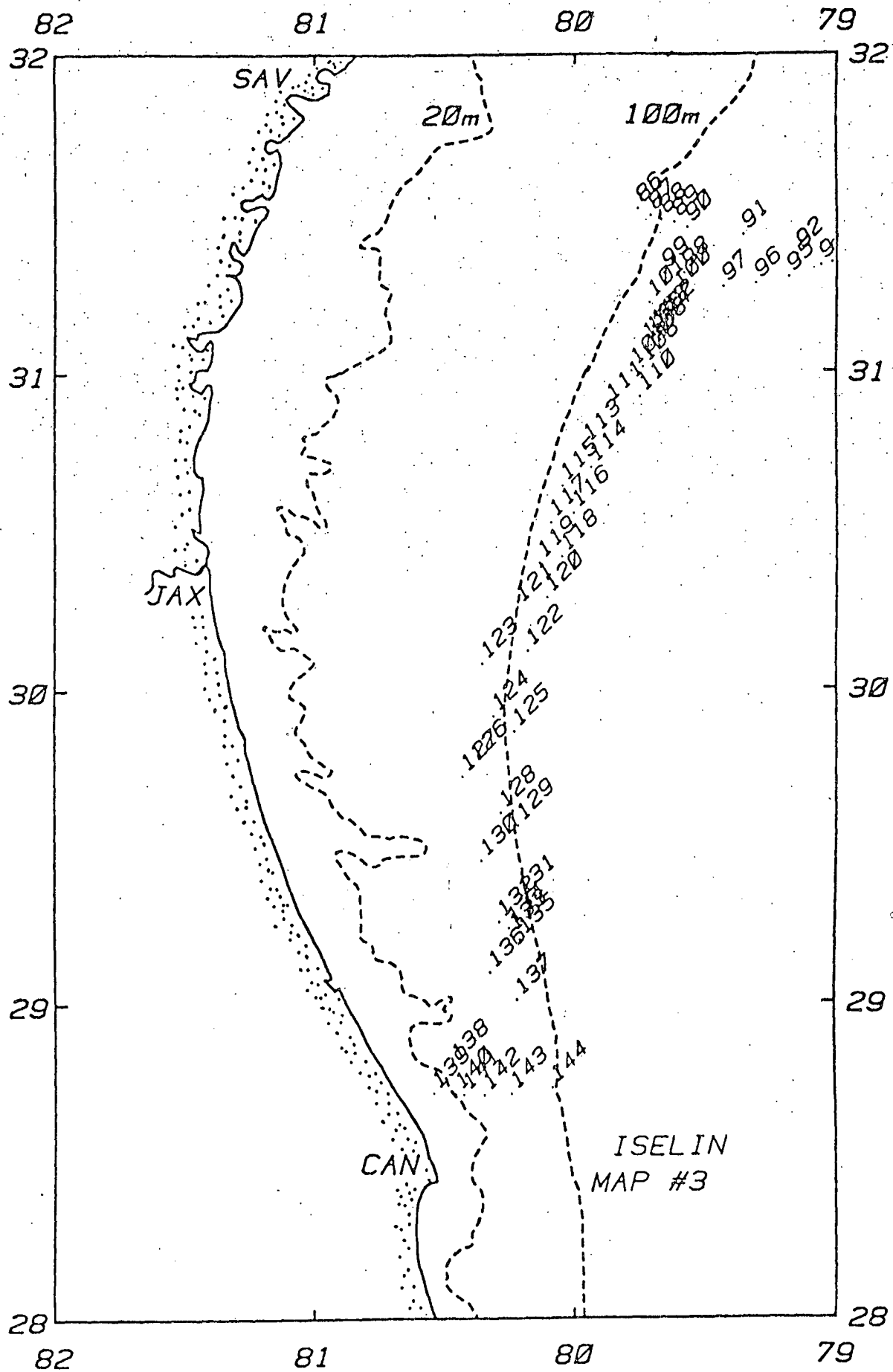


Figure 9. ISELIN surface map #3. Refer to Table 6.

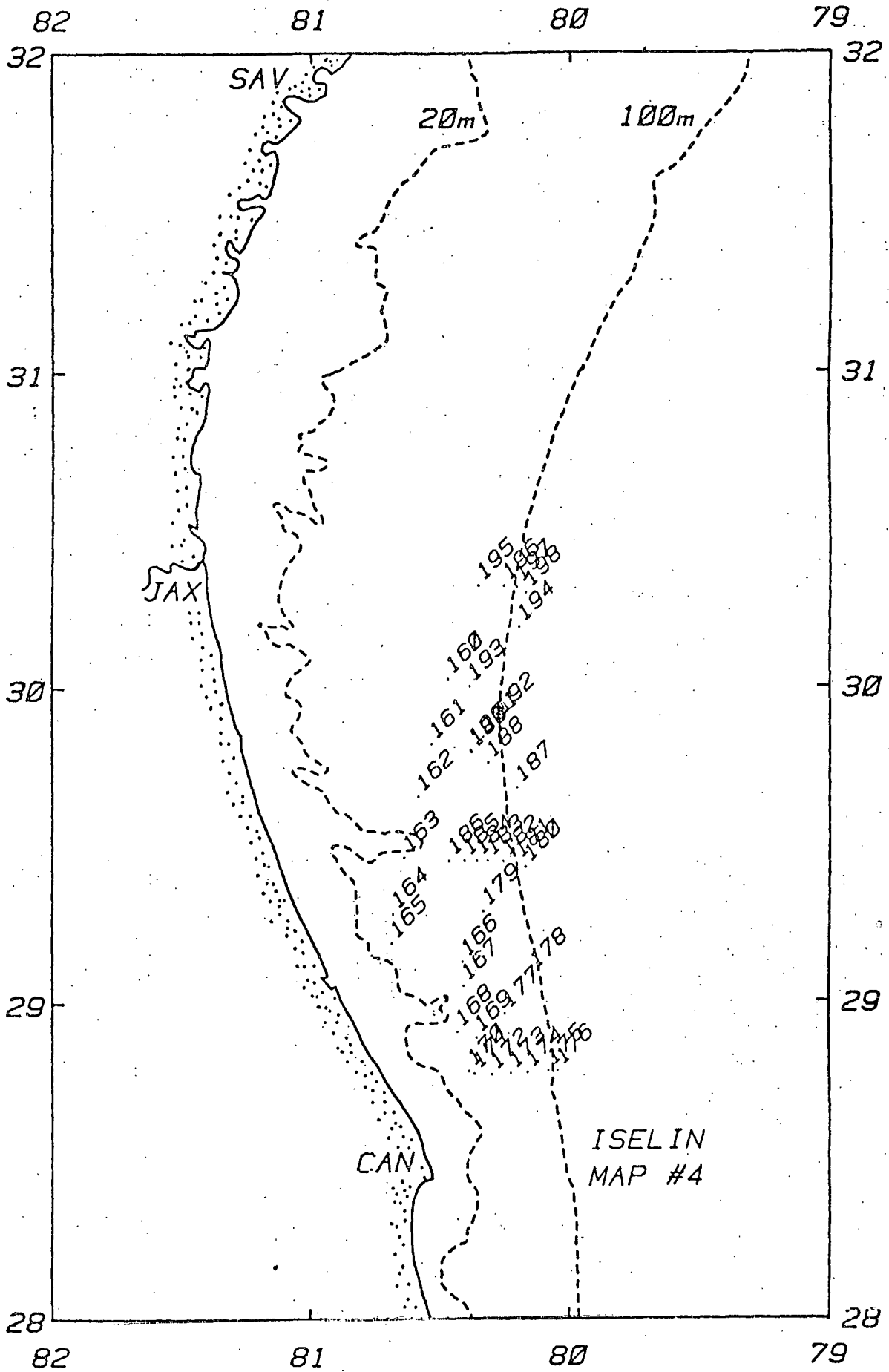


Figure 10. ISELIN surface map #4. Refer to Table 6.

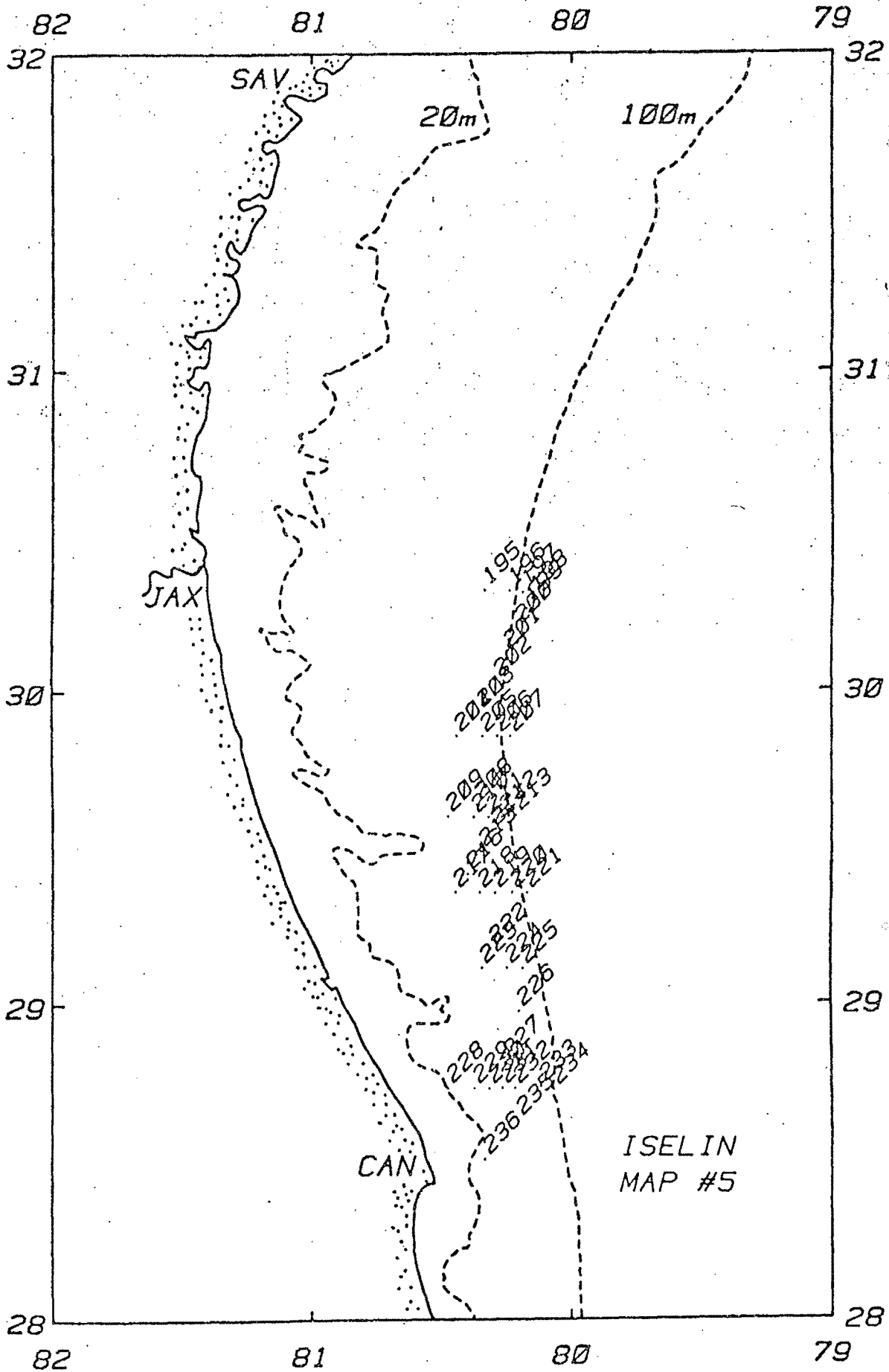


Figure 11. ISELIN surface map #5. Refer to Table 6.

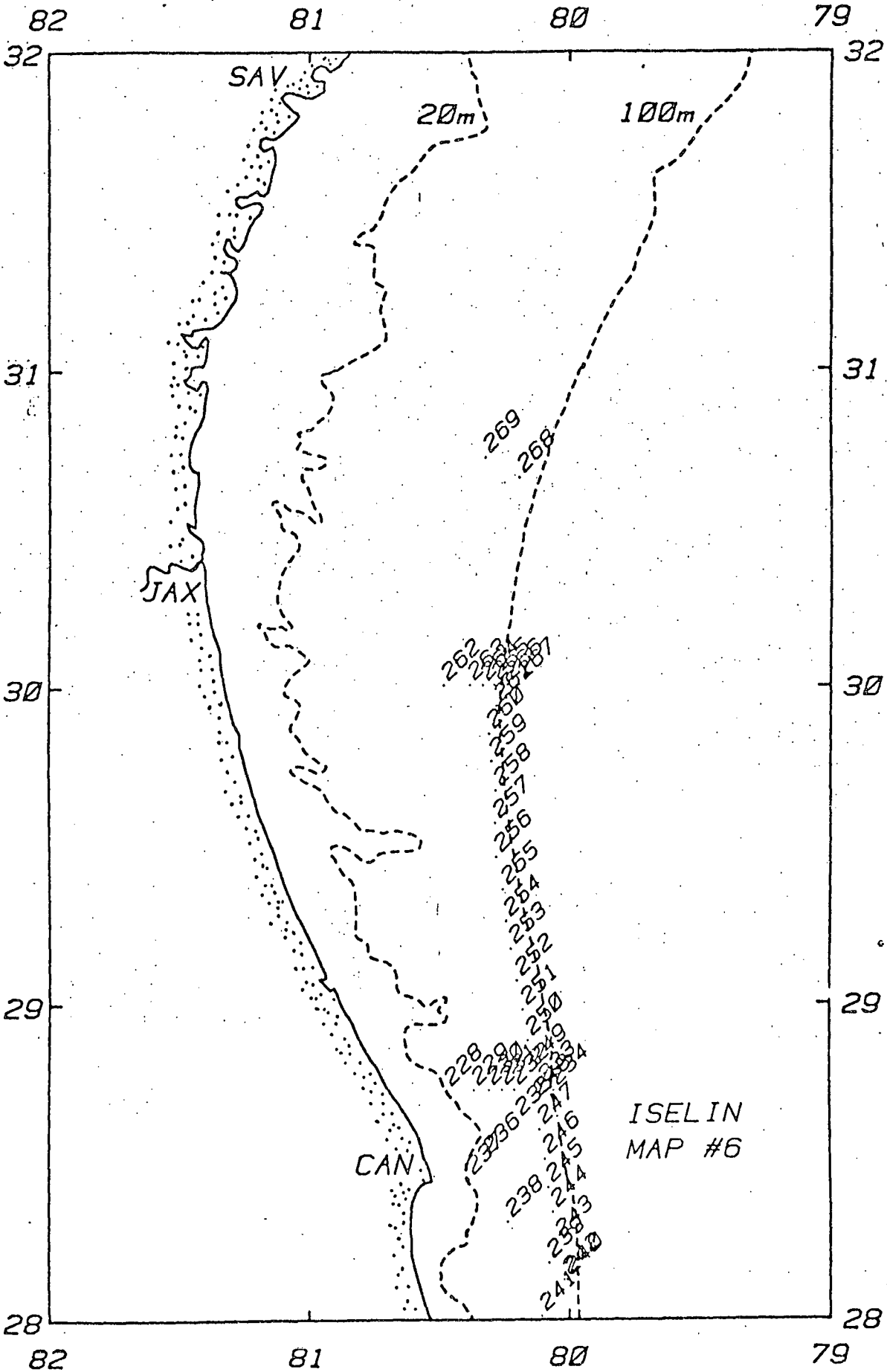


Figure 12. ISELIN surface map #6. Refer to Table 6.

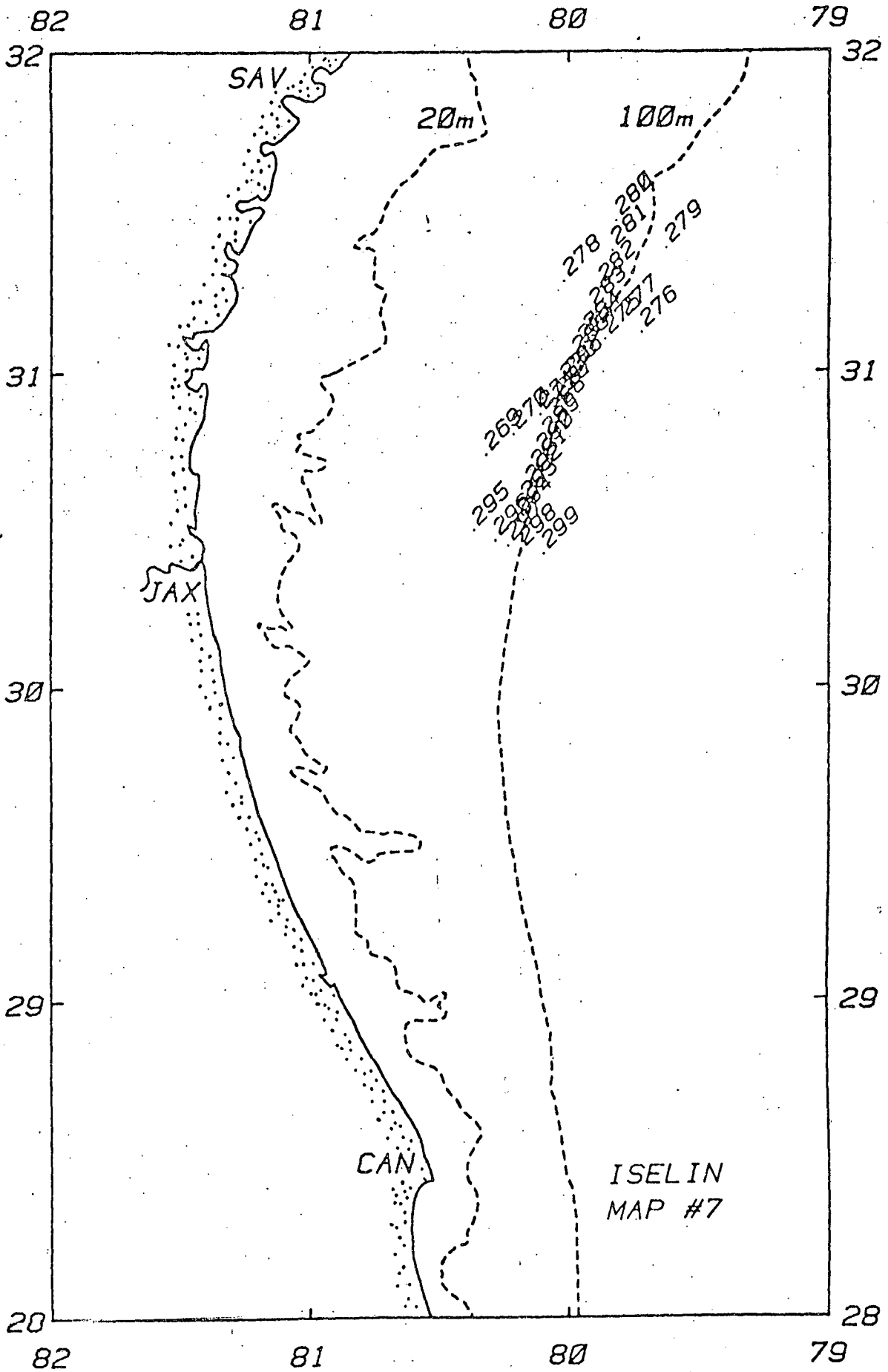


Figure 13. ISELIN surface map #7. Refer to Table 6.

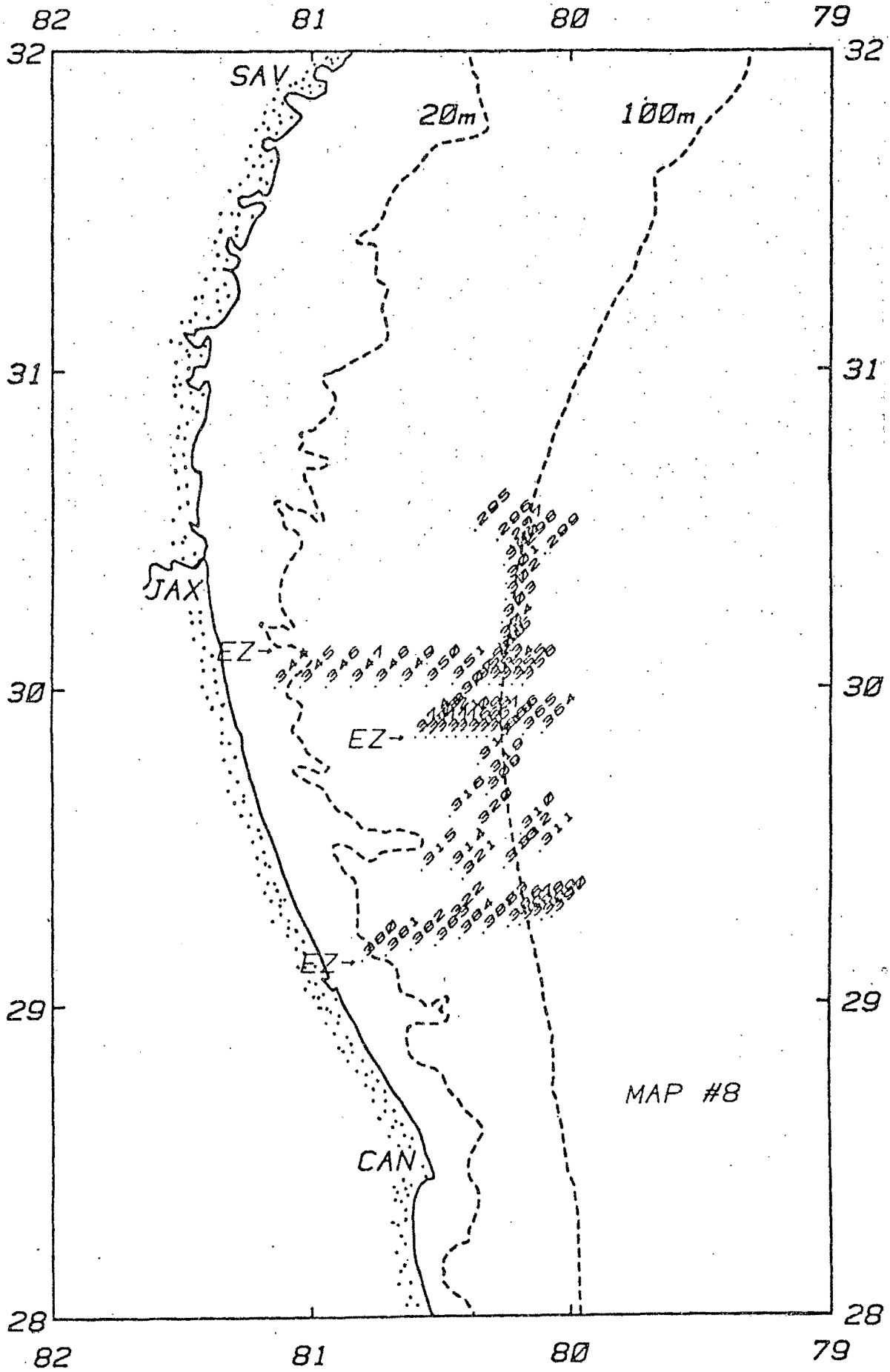


Figure 14. ISELIN surface map #8. Refer to Table 6. EASTWARD sections indicated.

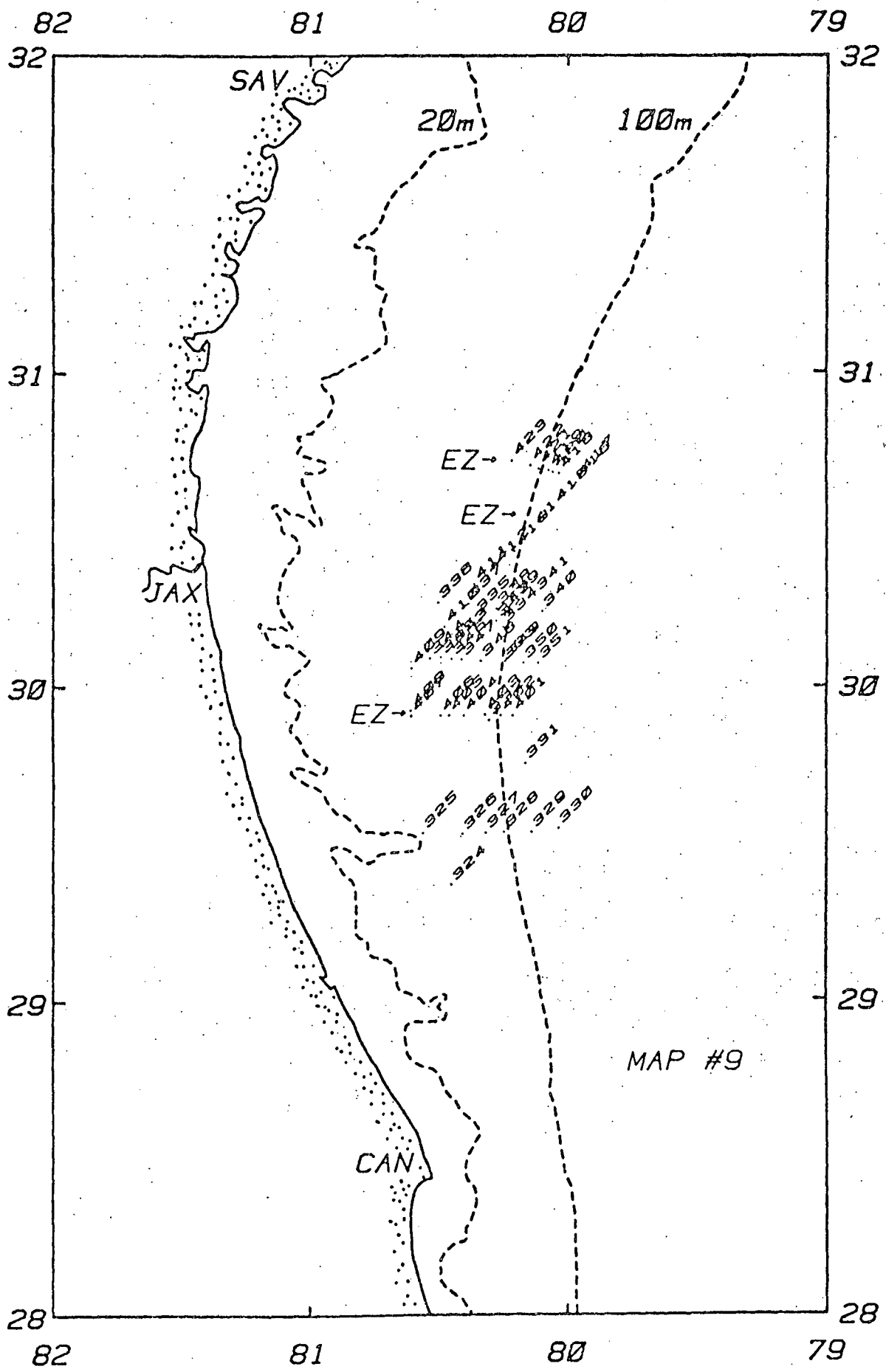


Figure 15. ISELIN surface map #9. Refer to Table 6. EASTWARD sections indicated.

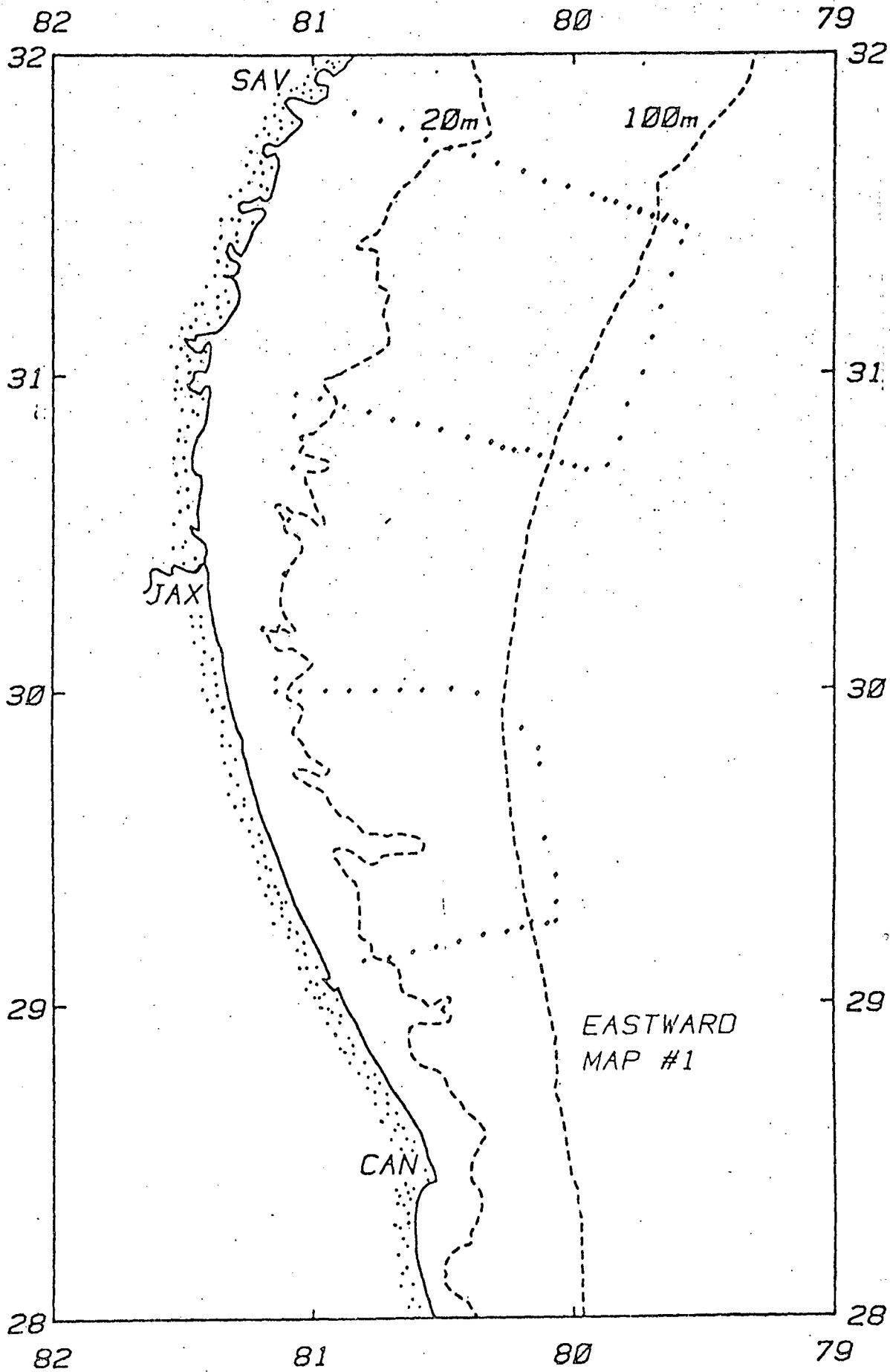


Figure 16, EASTWARD map #1. Refer to Table 6.

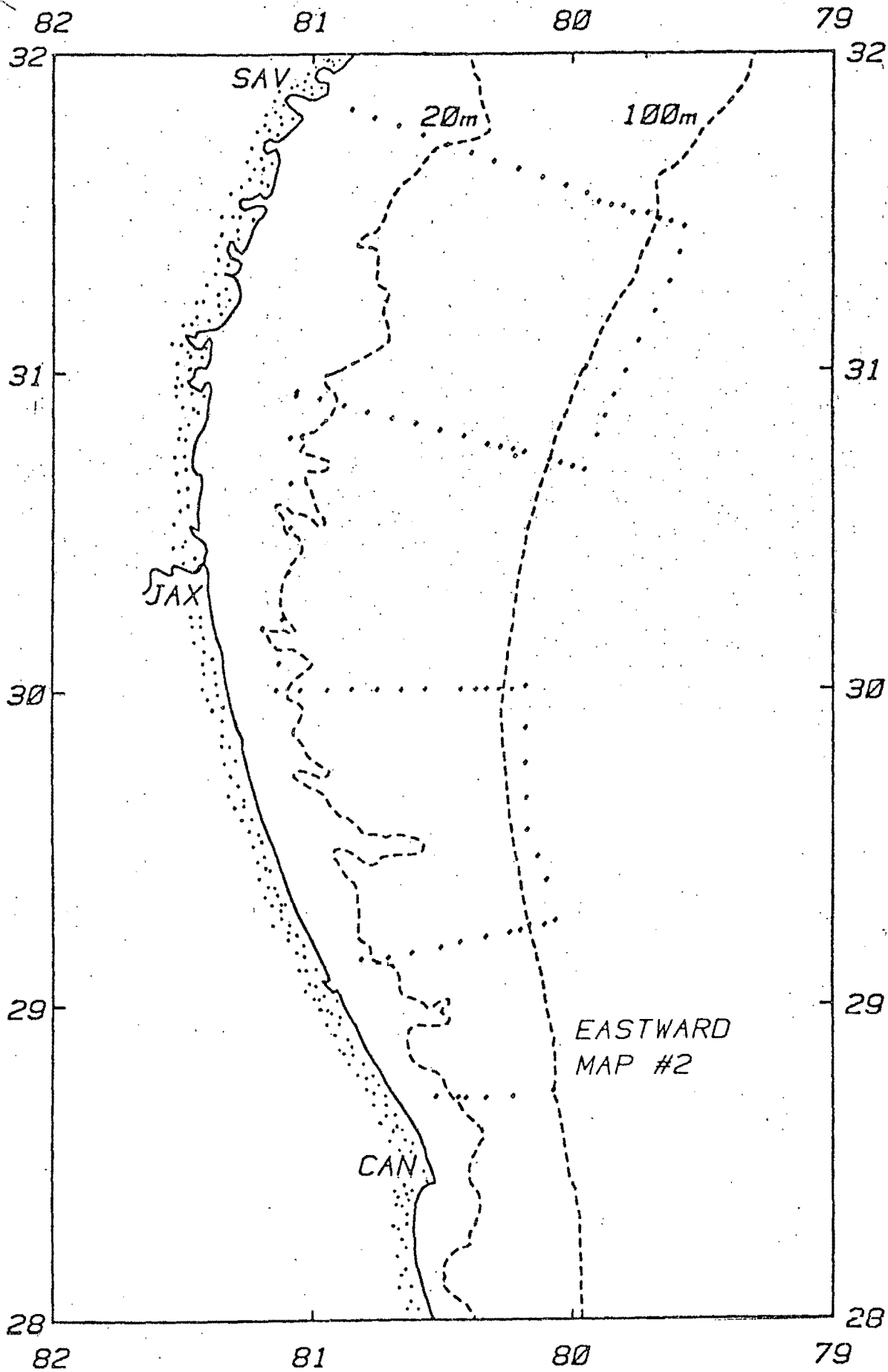


Figure 17. EASTWARD map #2. Refer to Table 6.

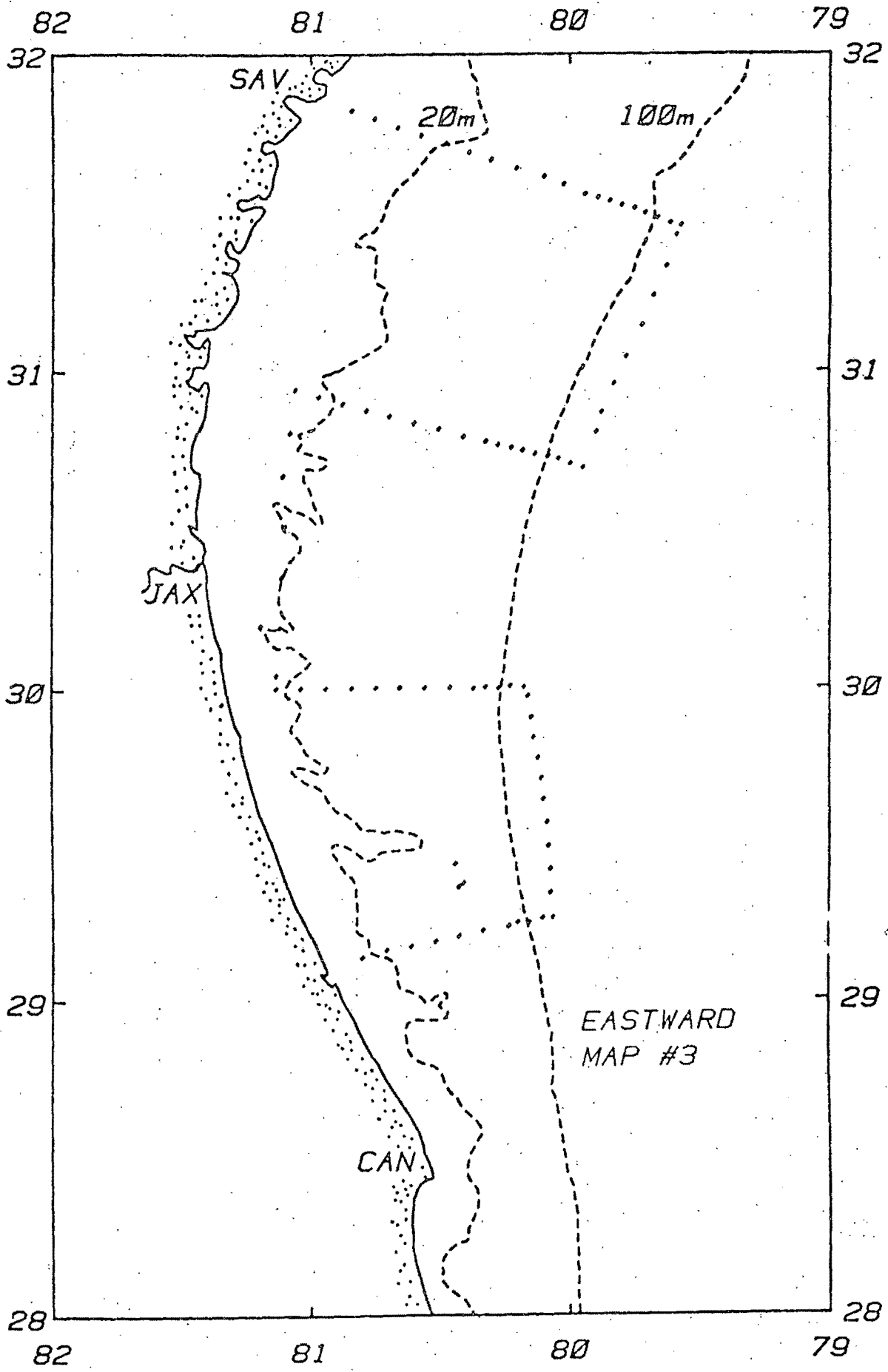


Figure 18. EASTWARD map #3. Refer to Table 6.

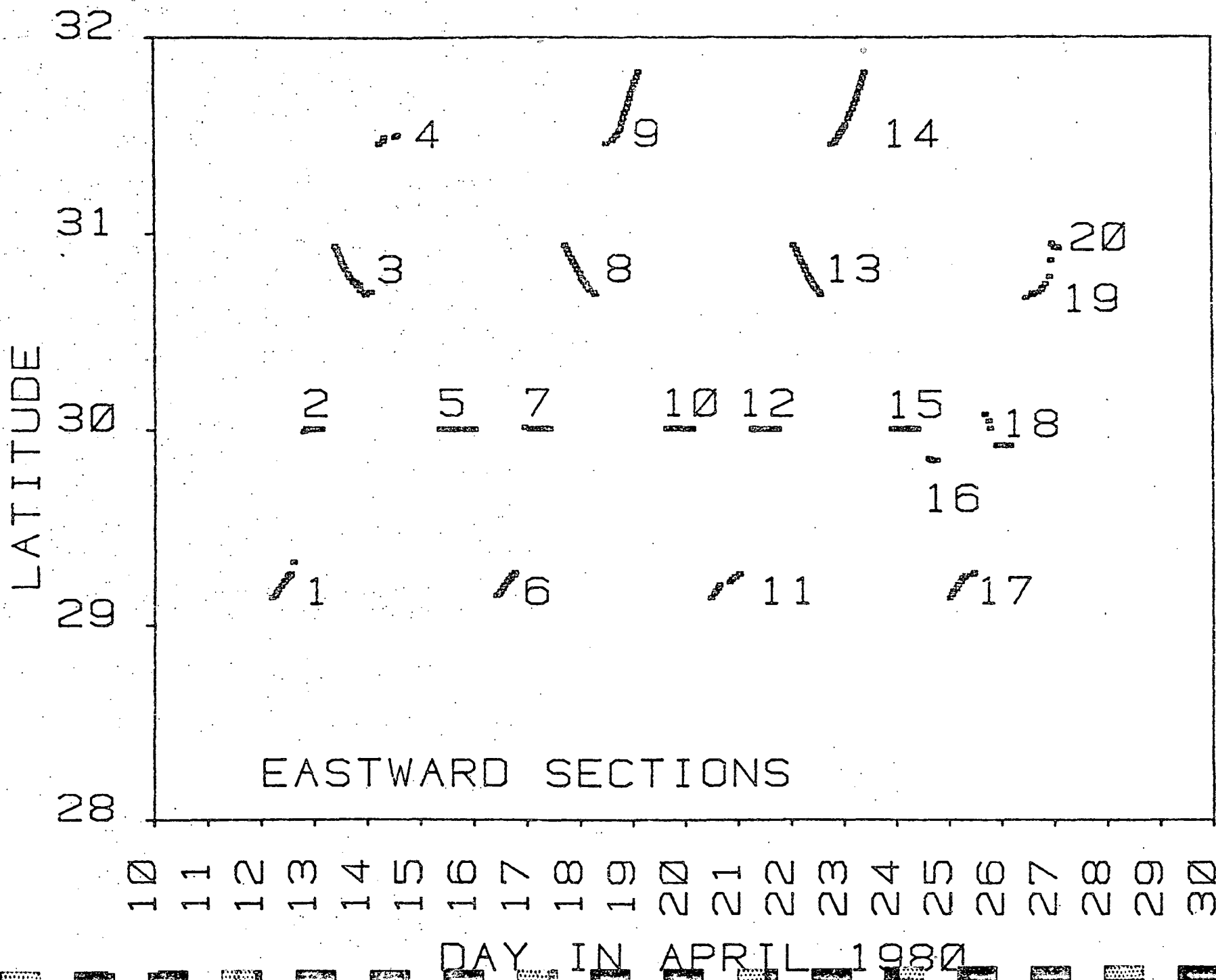


Figure 19. Time-latitude chart of EASTWARD stations.

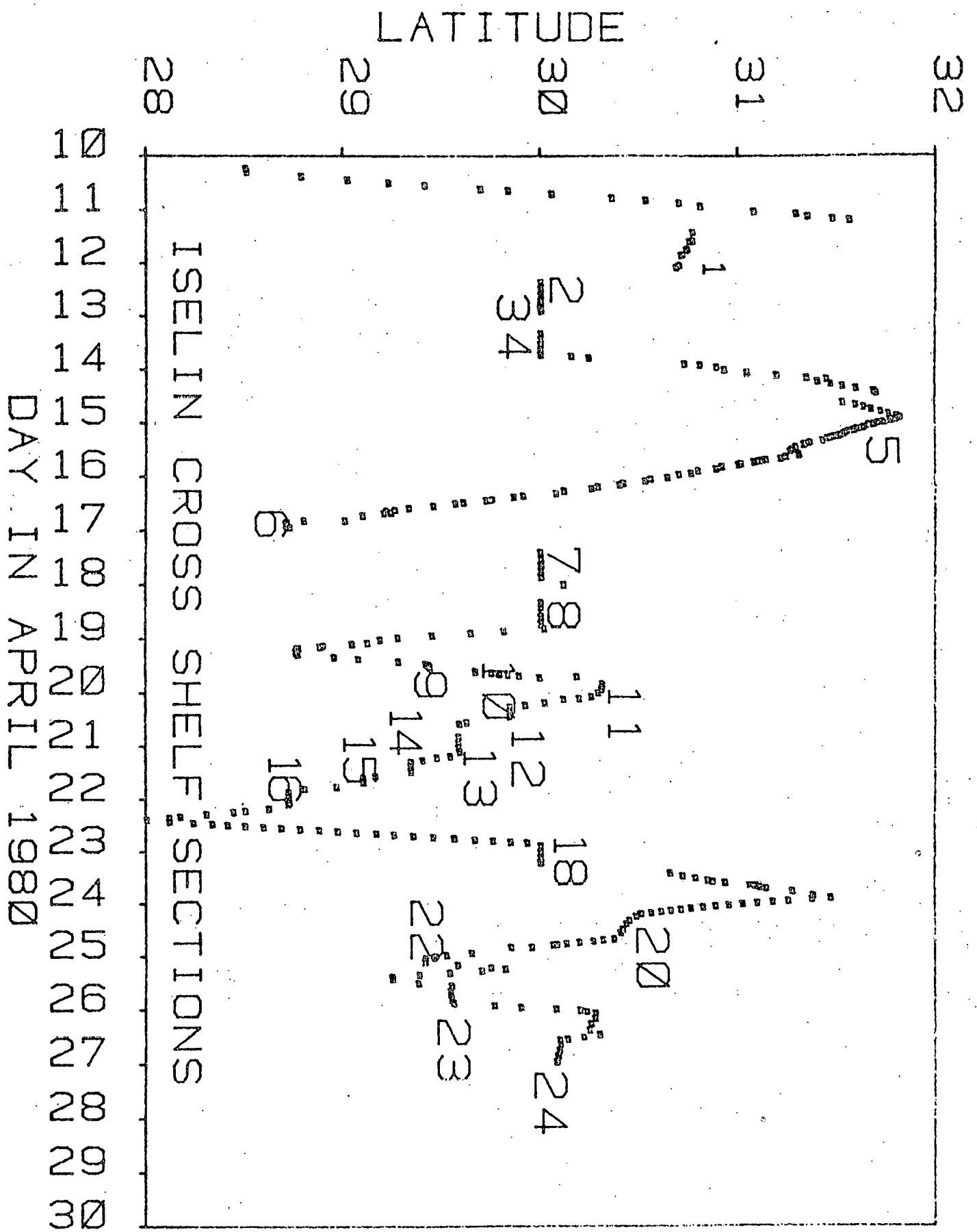


Figure 20. Time-latitude chart of ISELIN Cross Shelf Stations. Sections indicated.

DAY IN APRIL 1980

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30

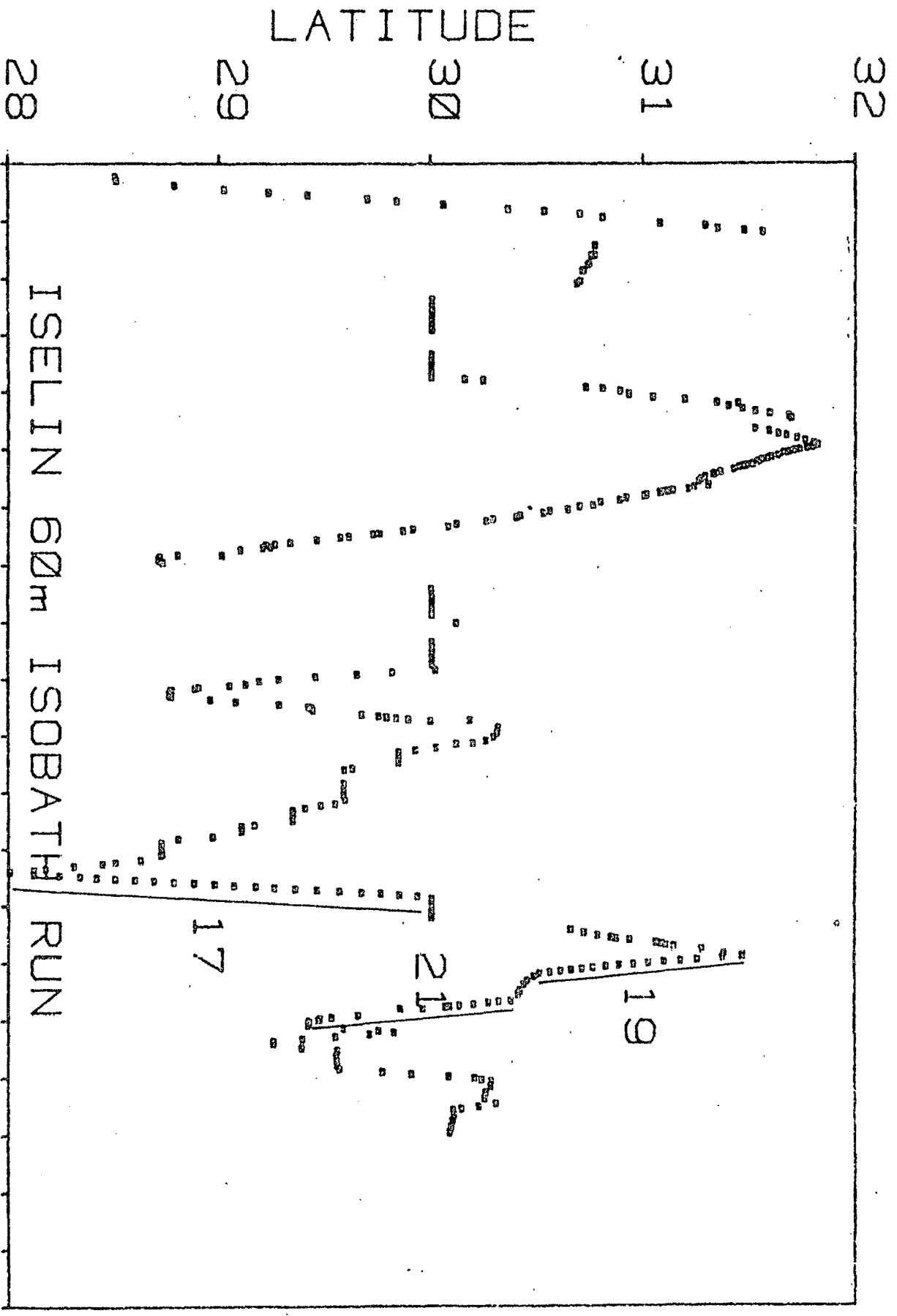


Figure 21. Time-latitude chart of ISELIN 60 m isobath run. Sections indicated.

LATITUDE

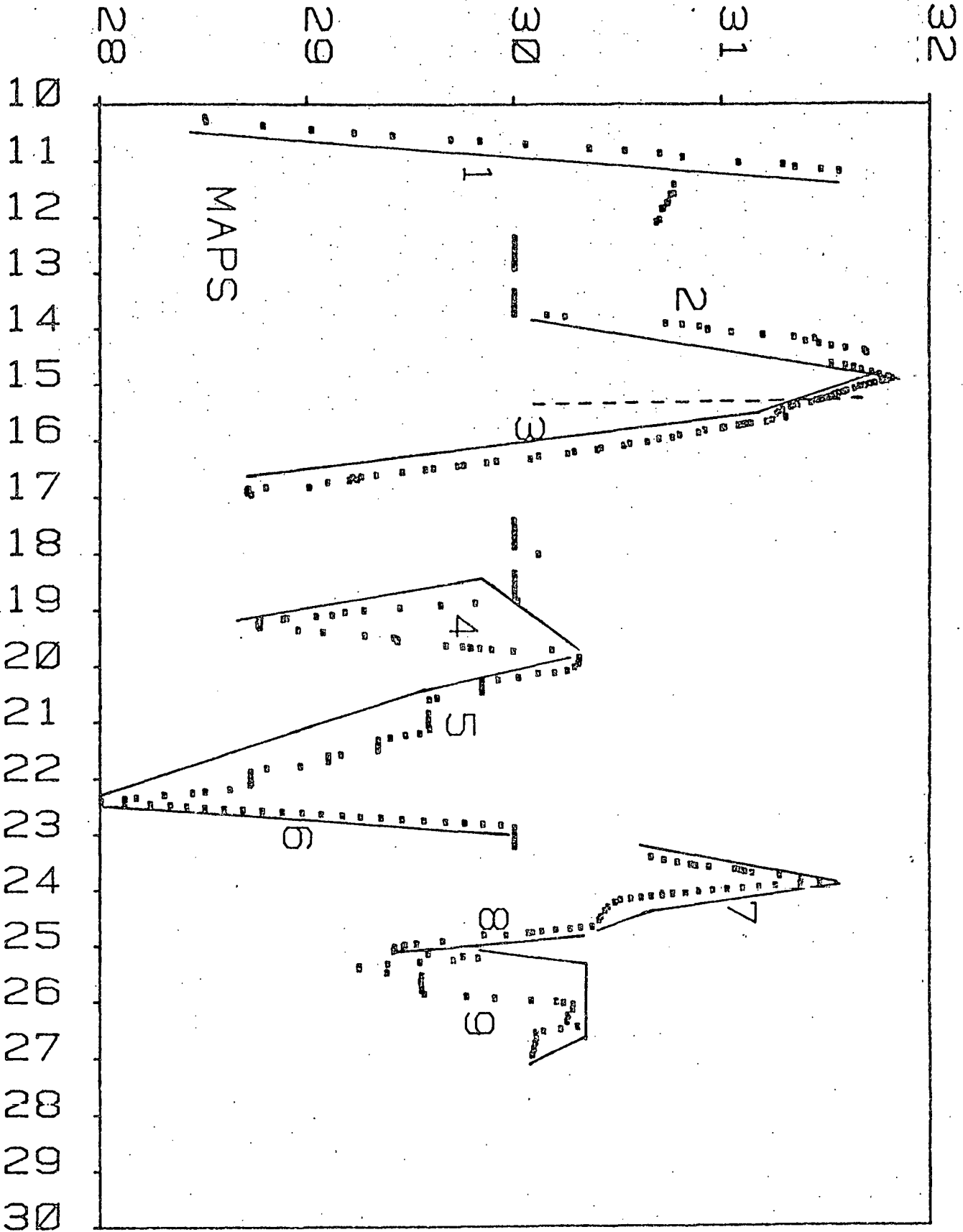


Figure 22. Time-latitude chart of maps. Map # indicated. Dashed line indicated U-2 and C-130 flight.

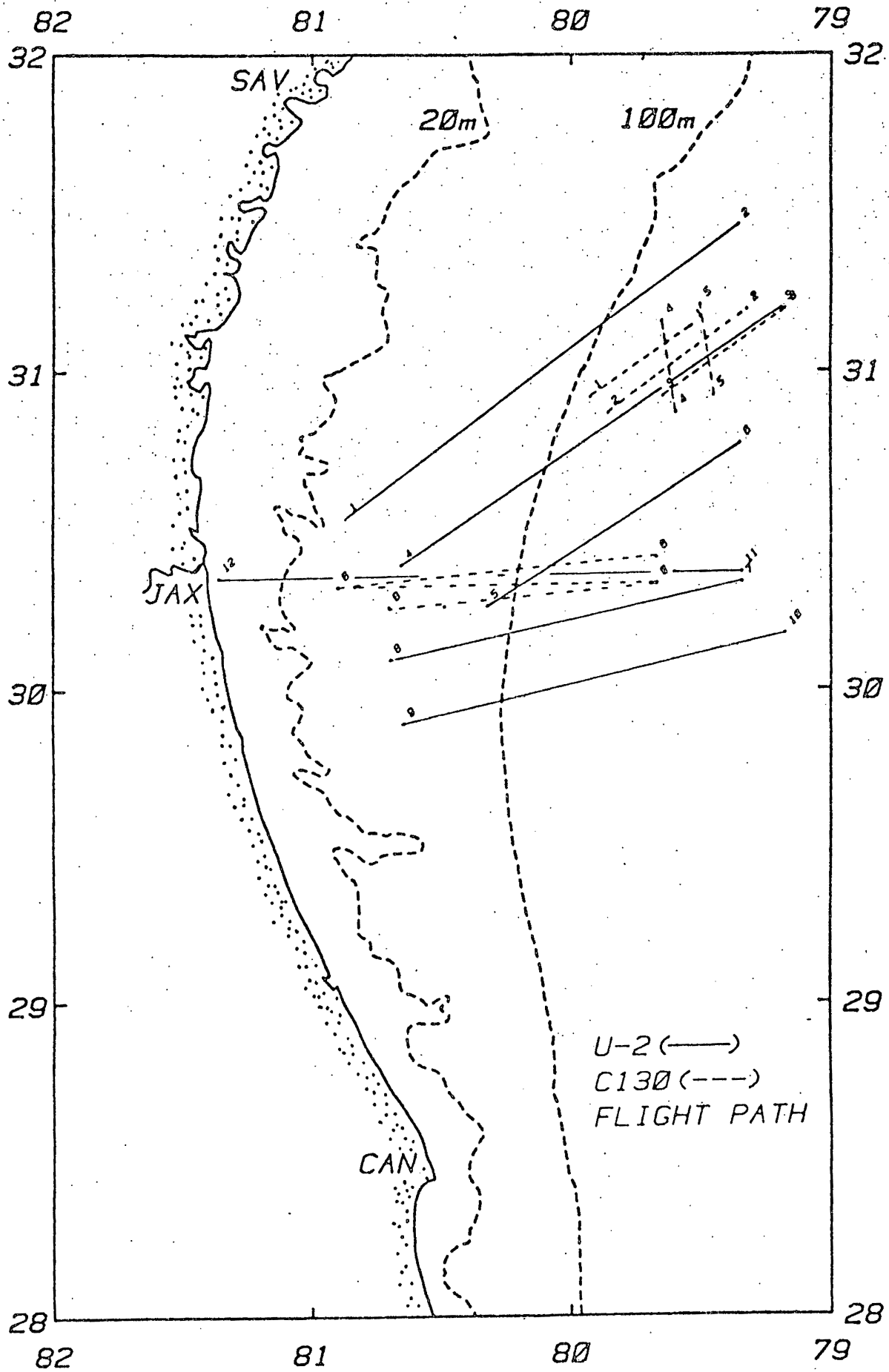


Figure 23. U-2 and C-130 flight track. Refers to Table 7 & 8.

Appendix 1

ISELIN STATION LOG LIST

The letter in the station name (column 2) refers to:

c = CTD Cost

x = XBT Cost

h = horizontal mapping run station

t = " " " "

ISELIN station numbers (column 1) and station name (column 2) are identical except for the added letter in the station name.

EASTWARD station names refer to standard grid locations when they are c or x stations. When station names are t they refer to consecutive station numbers that coincide with the station number (column 1).

STATION LIST
R/V ISELIN
10-27 April 1980

#	STA.	LAT	LONG	DATE	EST	Z(M)	WVD	SS	WND	WS	B.P.	AT	W
1	1h	28 30.0	80 19.5	10/4/80	0428	999	305	3	305	12	14.0	68	0
2	2h	28 30.4	80 1.0	10/4/80	0600	999	300	4	300	12	14.8	69	0
3	3h	28 47.0	80 16.7	10/4/80	0800	999	305	4	300	15	15.2	67	0
4	4h	29 1.1	80 2.9	10/4/80	0930	999	305	4	315	16	15.3	70	0
5	5h	29 13.6	80 14.5	10/4/80	1050	999	310	4	320	13	16.0	70	0
6	6h	29 24.7	80 4.6	10/4/80	1200	999	310	4	320	13	16.0	70	0
7	7h	29 41.6	80 19.0	10/4/80	1335	999	315	4	215	14	16.0	67	7
8	8h	29 50.0	80 11.4	10/4/80	1420	999	315	4	315	14	16.0	68	0
9	9h	30 3.2	80 23.3	10/4/80	1543	999	320	3	330	7	15.2	66	0
10	10h	30 21.5	80 2.2	10/4/80	1737	999	320	3	165	4	15.0	72	0
11	11h	30 31.8	80 9.3	10/4/80	1836	999	125	2	130	7	14.8	68	0
12	12h	30 41.8	79 53.8	10/4/80	1944	999	200	2	215	5	15.0	68	0
13	13h	30 48.3	80 14.4	10/4/80	2113	999	200	2	195	13	15.0	66	0
14	14h	31 4.5	79 51.0	10/4/80	2331	999	210	2	235	10	15.6	67	0
15	15h	31 17.3	79 56.5	11/4/80	0030	999	210	2	230	10	15.5	68	0
16	16h	31 20.8	79 48.7	11/4/80	0140	999	220	2	235	10	16.0	66	0
17	17h	31 28.3	79 34.5	11/4/80	0240	999	215	3	212	18	16.0	67	0
18	18h	31 33.5	79 38.5	11/4/80	0315	999	215	3	212	18	16.0	67	0
19	19c	30 46.0	80 18.0	11/4/80	0900	40	250	2	330	6	18.8	68	0
20	20x	30 46.0	80 16.0	11/4/80	1255	40	256	2	33	5	21.0	72	1
21	21c	30 45.0	80 13.0	11/4/80	1315	44	250	2	10	4	20.0	77	1
22	22x	30 44.5	80 10.0	11/4/80	1637	45	300	1	37	7	18.9	77	1
23	23c	30 44.0	80 7.5	11/4/80	1700	47	300	1	40	7	19.0	76	1
24	24x	30 43.0	80 4.0	11/4/80	1917	125	0	1	0	6	19.8	70	1
25	25c	30 42.5	80 2.0	11/4/80	1930	187	110	1	110	6	20.0	71	1
26	26x	30 42.0	79 59.0	12/4/80	0001	245	110	1	110	8	20.0	71	1
27	27c	30 41.0	79 56.0	12/4/80	0100	275	145	2	145	12	19.4	72	1
28	28c	30 0.0	80 28.0	12/4/80	0800	42	145	3	145	12	18.3	74	1
29	29c	30 0.0	80 22.0	12/4/80	1055	48	140	3	150	15	18.3	74	1
30	30x	30 0.0	80 19.0	12/4/80	1330	50	145	3	150	15	17.8	72	1
31	31c	30 0.0	80 16.5	12/4/80	1353	68	145	3	150	15	17.6	72	1
32	32x	30 0.0	80 13.5	12/4/80	1630	162	150	4	165	15	15.0	74	1
33	33c	30 0.0	80 10.5	12/4/80	1746	260	150	4	160	15	15.0	74	2
34	34x	30 0.0	80 2.9	12/4/80	1849	400	160	4	145	20	15.6	74	2
35	35x	30 0.0	80 10.5	12/4/80	1929	260	160	4	145	20	15.6	73	2
36	36x	30 0.0	80 13.7	12/4/80	1947	160	160	4	145	20	15.4	72	2
37	37x	30 0.0	80 16.5	12/4/80	2001	68	160	4	140	23	15.7	74	1
38	38x	30 0.0	80 19.0	12/4/80	2013	50	160	4	140	23	15.7	74	1
39	39x	30 0.0	80 22.0	12/4/80	2029	50	150	4	145	22	15.5	73	1
40	40x	30 0.0	80 28.0	12/4/80	2059	42	150	4	155	12	15.6	72	1
41	41c	30 0.0	80 28.0	13/4/80	0715	41	160	4	165	15	14.8	72	1
42	42c	30 0.0	80 22.0	13/4/80	0950	46	160	4	160	14	14.7	74	1
43	43x	30 0.0	80 19.0	13/4/80	1150	48	160	4	160	15	14.0	72	1
44	44c	30 0.0	80 16.5	13/4/80	1210	61	160	4	160	15	14.0	72	1
45	45x	30 0.0	80 13.5	13/4/80	1435	160	150	4	150	15	13.8	72	1
46	46c	30 0.0	80 10.5	13/4/80	1452	280	150	4	150	15	11.5	72	1
47	47x	30 0.0	80 2.0	13/4/80	1642	500	150	4	150	15	10.0	70	1
48	48h	30 9.3	80 8.7	13/4/80	1729	999	150	4	150	15	9.6	77	1
49	49h	30 14.6	80 15.5	13/4/80	1808	999	140	4	160	15	9.2	75	2
50	50h	30 43.7	79 46.6	13/4/80	2100	999	150	5	155	22	10.1	77	2
51	51h	30 48.5	79 41.7	13/4/80	2128	999	150	5	155	22	10.1	77	2
52	52h	30 53.5	79 50.7	13/4/80	2231	999	150	5	155	24	10.3	77	2
53	53h	30 55.8	80 0.7	13/4/80	2330	999	150	5	155	24	10.4	77	2
54	54h	30 55.9	80 5.2	13/4/80	2355	999	150	5	155	24	10.5	77	2
55	55h	31 2.7	79 56.8	14/4/80	0054	999	160	4	173	18	10.4	76	2
56	56h	31 11.7	79 47.1	14/4/80	0202	999	165	4	175	18	10.0	76	2
57	57h	31 20.8	79 37.5	14/4/80	0303	999	165	5	165	20	9.5	77	2
58	58h	31 26.8	79 31.1	14/4/80	0340	999	165	5	165	20	9.0	77	2
59	59h	31 24.1	79 22.3	14/4/80	0448	999	160	5	160	25	7.6	75	2
60	60h	31 28.0	79 30.2	14/4/80	0545	999	160	5	155	17	7.2	75	2
61	61h	31 31.6	79 39.2	14/4/80	0645	999	160	5	160	18	7.0	73	2
62	62h	31 35.7	79 47.9	14/4/80	0741	999	160	5	160	17	6.8	73	6
63	63h	31 41.0	79 57.3	14/4/80	0850	999	165	5	205	19	6.7	71	5
64	64h	31 41.7	79 46.8	14/4/80	0945	999	175	6	205	30	6.0	69	6
65	65h	31 31.6	79 37.3	14/4/80	1405	999	175	6	250	18	7.4	68	2

66	66h	31	35.6	79	46.6	14/4/80	1500	999	225	6	225	18	7.4	68	1
67	67h	31	38.0	79	58.0	14/4/80	1600	999	190	5	210	21	7.2	68	1
68	68h	31	40.2	80	10.0	14/4/80	1700	999	190	5	192	17	7.2	67	1
69	69h	31	43.2	80	22.3	14/4/80	1800	999	190	4	191	16	7.5	67	2
70	70h	31	45.5	80	34.5	14/4/80	1900	999	210	4	190	20	7.8	66	1
71	71h	31	48.0	80	45.7	14/4/80	2000	999	210	4	220	18	7.7	66	1
72	72c	31	49.0	80	50.0	14/4/80	2040	14	220	4	260	16	8.4	66	1
73	73x	31	47.5	80	44.0	14/4/80	2133	999	240	4	265	18	9.3	64	1
74	74c	31	46.0	80	39.0	14/4/80	2155	17	260	4	265	20	9.4	64	1
75	75x	31	44.0	80	33.5	14/4/80	2240	20	260	4	270	20	10.7	62	1
76	76c	31	42.5	80	28.0	14/4/80	2303	23	260	4	270	20	10.7	62	1
77	77x	31	41.0	80	22.5	14/4/80	2344	30	270	4	285	24	11.0	61	1
78	78c	31	39.5	80	17.0	15/4/80	0005	27	270	4	285	25	11.8	60	1
79	79x	31	38.0	80	11.0	15/4/80	0105	38	270	4	285	25	11.8	60	1
80	80c	31	36.0	80	6.0	15/4/80	0146	35	270	4	295	21	12.5	56	1
81	81x	31	35.0	80	0.5	15/4/80	0224	40	270	4	295	20	12.5	57	1
82	82c	31	33.5	79	55.0	15/4/80	0250	43	270	4	295	20	12.5	54	1
83	83x	31	32.5	79	52.0	15/4/80	0330	999	270	5	280	26	12.5	53	1
84	84x	31	32.0	79	49.5	15/4/80	0400	48	265	5	277	26	13.0	58	1
85	85x	31	31.0	79	46.5	15/4/80	0445	52	265	5	275	26	13.0	58	1
86	86x	31	30.5	79	44.0	15/4/80	0500	65	265	5	275	25	13.2	58	1
87	87x	31	29.2	79	41.0	15/4/80	0516	95	265	5	278	24	13.2	58	1
88	88x	31	28.5	79	38.5	15/4/80	0532	148	275	5	290	24	14.0	58	1
89	89x	31	28.0	79	35.5	15/4/80	0546	215	275	5	287	25	14.0	58	1
90	90x	31	27.0	79	32.5	15/4/80	0600	300	270	5	270	25	14.2	59	1
91	91h	31	25.5	79	19.5	15/4/80	0700	999	290	5	292	18	15.2	59	1
92	92h	31	21.8	79	7.0	15/4/80	0800	999	290	5	295	21	15.3	61	1
93	93h	31	20.2	78	59.1	15/4/80	0835	999	290	5	270	20	15.3	63	1
94	94h	31	19.7	79	1.7	15/4/80	0900	999	270	5	270	22	15.8	64	1
95	95h	31	17.5	79	9.1	15/4/80	1000	999	270	5	260	23	15.9	65	1
96	96h	31	16.3	79	16.6	15/4/80	1100	999	260	5	260	18	15.8	66	1
97	97h	31	15.7	79	24.2	15/4/80	1200	999	260	5	260	18	15.0	66	1
98	98h	31	18.4	79	33.3	15/4/80	1300	999	260	5	260	18	15.0	62	1
99	99h	31	18.4	79	38.0	15/4/80	1330	999	260	5	260	18	15.0	62	1
100	100h	31	14.4	79	35.4	15/4/80	1414	999	260	5	265	20	14.4	63	1
101	101h	31	12.8	79	41.4	15/4/80	1500	999	235	5	235	20	14.4	64	1
102	102h	31	8.3	79	39.3	15/4/80	1540	999	240	5	246	21	12.6	66	1
103	103h	31	7.3	79	40.6	15/4/80	1556	999	240	5	245	21	12.8	66	1
104	104h	31	6.6	79	40.0	15/4/80	1603	999	245	5	245	21	12.8	66	1
105	105h	31	6.0	79	41.6	15/4/80	1619	999	240	5	238	20	12.5	67	1
106	106h	31	4.7	79	41.0	15/4/80	1633	999	240	5	240	20	12.6	67	1
107	107h	31	4.7	79	42.7	15/4/80	1645	999	240	5	240	20	12.6	67	1
108	108h	31	0.7	79	42.9	15/4/80	1730	999	240	5	240	22	12.8	67	1
109	109h	31	0.0	79	45.5	15/4/80	1751	999	250	5	260	20	12.8	68	1
110	110h	30	55.0	79	43.6	15/4/80	1840	999	260	5	262	21	13.6	69	1
111	111h	30	53.2	79	51.1	15/4/80	1941	999	260	4	265	18	14.5	69	1
112	112h	30	47.7	79	48.2	15/4/80	2030	999	260	4	265	17	14.8	69	1
113	113h	30	45.6	79	56.5	15/4/80	2142	999	260	4	265	15	15.8	68	1
114	114h	30	41.8	79	55.0	15/4/80	2215	999	270	4	280	16	16.1	68	1
115	115h	30	38.4	80	1.7	15/4/80	2330	999	260	5	250	20	17.4	68	1
116	116h	30	33.3	79	59.1	16/4/80	0015	999	260	5	250	20	17.4	68	1
117	117h	30	31.6	80	4.3	16/4/80	0105	999	260	5	264	18	17.4	67	1
118	118h	30	25.1	80	1.8	16/4/80	0200	999	260	5	275	22	17.5	64	1
119	119h	30	23.9	80	7.1	16/4/80	0240	999	265	5	275	22	18.0	64	1
120	120h	30	17.3	80	5.3	16/4/80	0332	999	290	5	275	22	18.2	64	1
121	121h	30	15.4	80	12.2	16/4/80	0422	999	290	5	307	18	19.0	64	1
122	122h	30	7.0	80	9.9	16/4/80	0527	999	300	5	305	18	19.5	65	1
123	123h	30	4.6	80	20.4	16/4/80	0629	999	300	5	321	18	20.4	65	1
124	124h	29	54.6	80	17.9	16/4/80	0738	999	315	5	326	17	20.0	70	1
125	125h	29	51.8	80	13.2	16/4/80	0814	999	315	5	315	16	21.0	68	1
126	126h	29	45.2	80	23.0	16/4/80	0922	999	315	4	310	14	21.0	66	1
127	127h	29	43.4	80	25.1	16/4/80	0938	999	315	4	310	15	21.4	66	0
128	128h	29	36.5	80	16.4	16/4/80	1036	999	320	4	335	18	21.8	67	0
129	129h	29	34.1	80	12.4	16/4/80	1104	999	320	4	320	14	22.2	67	0
130	130h	29	27.4	80	20.8	16/4/80	1207	999	320	3	14	14	22.1	65	0

131	131h	29	19.9	80	12.0	16/4/80	1312	999	320	3	320	12	22.0	65	0
132	132h	29	15.6	80	16.8	16/4/80	1352	999	320	3	320	12	22.0	65	0
133	133h	29	13.0	80	14.1	16/4/80	1415	999	320	3	320	12	22.0	65	0
134	134h	29	14.4	80	14.5	16/4/80	1505	999	320	3	320	12	21.8	65	0
135	135h	29	12.2	80	12.0	16/4/80	1527	999	300	3	301	9	21.2	69	0
136	136h	29	5.8	80	18.9	16/4/80	1621	999	350	3	350	12	21.0	68	0
137	137h	29	0.4	80	12.7	16/4/80	1833	999	0	3	30	10	21.0	66	0
138	138h	28	47.8	80	27.6	16/4/80	1833	999	0	3	20	10	21.0	66	0
139	139x	28	42.7	80	32.0	16/4/80	1915	35	15	3	22	14	21.0	66	0
140	140x	28	42.5	80	26.8	16/4/80	1940	20	20	3	20	14	21.0	66	0
141	141x	28	42.4	80	25.0	16/4/80	1951	24	20	3	10	18	21.2	69	0
142	142x	28	42.3	80	20.3	16/4/80	2016	23	20	3	10	18	21.2	69	0
143	143x	28	42.5	80	14.0	16/4/80	2047	40	15	3	15	15	21.3	69	0
144	144x	28	43.6	80	4.5	16/4/80	2134	78	10	3	0	14	22.0	70	0
145	145c	29	59.8	80	33.8	17/4/80	0840	41	270	3	300	9	23.0	67	1
146	146c	30	0.0	80	28.0	17/4/80	1130	42	270	3	300	10	23.0	69	1
147	147c	30	0.0	80	22.0	17/4/80	1412	46	270	3	330	12	23.0	74	1
148	148x	30	0.0	80	19.0	17/4/80	1444	50	270	3	350	8	22.0	71	1
149	149c	30	0.0	80	16.5	17/4/80	1655	67	270	3	350	8	22.0	70	1
150	150x	30	0.0	80	13.5	17/4/80	1916	146	60	3	65	10	21.8	70	1
151	151c	30	0.0	80	10.5	17/4/80	1937	288	75	3	80	10	21.6	69	1
152	152c	30	6.8	80	15.2	17/4/80	2300	70	3	3	80	10	21.6	69	1
153	153c	30	0.0	80	33.5	18/4/80	0705	40	110	3	285	9	20.6	67	1
154	154c	30	0.0	80	28.0	18/4/80	0920	41	30	3	280	8	20.7	70	1
155	155c	30	0.0	80	22.0	18/4/80	1130	48	300	3	325	10	20.8	72	1
156	156x	30	0.0	80	19.0	18/4/80	1328	47	300	3	315	10	20.8	72	1
157	157c	30	0.0	80	16.5	18/4/80	1340	67	300	3	315	10	20.5	72	2
158	158x	30	0.0	80	13.5	18/4/80	1618	999	315	3	10	10	19.4	74	2
159	159c	30	0.0	80	10.5	18/4/80	1635	280	315	3	20	10	19.4	74	2
160	160h	30	1.0	80	27.5	18/4/80	1844	999	60	3	60	13	19.2	69	2
161	161h	29	48.6	80	31.5	18/4/80	1950	999	55	3	55	14	19.1	70	1
162	162h	29	38.6	80	34.7	18/4/80	2046	999	120	3	120	10	19.1	70	1
163	163h	29	26.9	80	38.1	18/4/80	2150	999	120	3	120	10	19.1	70	1
164	164h	29	16.4	80	40.9	18/4/80	2249	999	110	3	110	10	19.2	70	1
165	165h	29	10.9	80	41.3	18/4/80	2340	999	105	3	105	10	19.2	70	1
166	166h	29	7.1	80	24.8	19/4/80	0100	999	105	3	115	9	18.0	66	1
167	167h	29	2.5	80	24.7	19/4/80	0128	999	105	3	115	9	18.0	66	1
168	168h	28	53.8	80	26.3	19/4/80	0217	999	105	3	115	10	17.5	68	1
169	169h	28	52.7	80	21.8	19/4/80	0240	999	105	3	115	10	17.4	68	1
170	170h	28	46.2	80	23.6	19/4/80	0318	999	105	3	115	10	17.4	68	1
171	171h	28	45.7	80	22.3	19/4/80	0330	999	105	3	115	10	17.4	68	1
172	172x	28	45.4	80	18.2	19/4/80	0450	25	110	3	117	8	17.0	69	0
173	173x	28	45.5	80	13.9	19/4/80	0510	36	110	3	115	10	17.0	69	1
174	174x	28	45.7	80	9.9	19/4/80	0530	45	110	3	115	10	16.8	69	1
175	175x	28	46.0	80	5.0	19/4/80	0554	63	110	3	115	12	16.8	70	1
176	176h	28	46.0	80	2.9	19/4/80	0605	999	95	3	115	12	16.8	70	1
177	177h	28	57.1	80	15.1	19/4/80	0720	999	95	3	140	8	17.4	73	1
178	178h	29	4.4	80	8.7	19/4/80	0808	999	90	3	160	14	17.6	72	1
179	179h	29	16.6	80	19.7	19/4/80	0925	999	90	3	165	8	17.7	72	1
180	180h	29	24.9	80	9.8	19/4/80	1029	999	70	3	165	14	17.6	74	1
181	181x	29	25.5	80	12.0	19/4/80	1039	88	70	3	165	14	17.6	74	1
182	182x	29	25.9	80	15.0	19/4/80	1053	68	70	3	180	11	17.6	74	1
183	183x	29	26.0	80	18.6	19/4/80	1111	42	70	3	180	11	17.7	74	1
184	184x	29	26.1	80	21.1	19/4/80	1124	43	70	3	180	11	17.7	74	1
185	185x	29	26.1	80	24.0	19/4/80	1138	30	70	3	220	6	17.7	74	1
186	186x	29	26.2	80	27.6	19/4/80	1155	30	70	3	220	6	17.7	74	1
187	187x	29	40.1	80	11.6	19/4/80	1344	124	350	3	323	8	17.5	74	1
188	188x	29	44.9	80	18.3	19/4/80	1420	54	350	3	35	10	16.5	70	1
189	189x	29	47.0	80	22.1	19/4/80	1440	46	45	3	35	10	16.2	70	2
190	190h	29	47.4	80	22.4	19/4/80	1445	999	45	3	0	15	16.2	70	2
191	191x	29	49.9	80	19.4	19/4/80	1506	48	45	3	0	15	16.2	70	2
192	192h	29	53.3	80	15.7	19/4/80	1532	999	0	3	25	11	16.0	70	2
193	193h	29	59.6	80	22.4	19/4/80	1619	999	0	4	19	18	15.8	69	5
194	194h	30	10.8	80	10.7	19/4/80	1555	999	20	5	41	18	16.2	68	1
195	195c	30	18.7	80	20.1	19/4/80	1910	43	40	4	40	18	16.0	68	1

196	196c	30	18.6	80	14.2	19/4/80	2045	55	80	4	80	18	16.1	68	5
197	197c	30	18.3	80	11.2	19/4/80	2143	139	95	4	95	21	16.1	68	5
198	198c	30	17.3	80	9.1	19/4/80	2315	220	115	4	115	12	16.2	68	5
199	199h	30	15.2	80	10.2	20/4/80	0050	999	115	4	115	12	16.2	68	5
200	200h	30	11.5	80	12.6	20/4/80	0145	999	115	5	115	27	15.0	64	5
201	201h	30	6.8	80	15.1	20/4/80	0200	999	115	4	115	18	15.0	64	2
202	202h	30	1.1	80	17.4	20/4/80	0345	999	115	4	115	18	15.0	64	2
203	203h	29	55.2	80	21.3	20/4/80	0445	999	100	4	45	13	15.0	64	2
204	204c	29	50.5	80	26.5	20/4/80	0530	38	100	4	4	10	15.0	64	1
205	205c	29	50.5	80	20.5	20/4/80	0715	47	110	4	350	12	15.0	66	1
206	206c	29	50.5	80	17.0	20/4/80	0832	52	100	4	330	18	15.1	66	1
207	207c	29	50.5	80	14.0	20/4/80	0949	138	335	4	335	20	15.1	67	1
208	208h	29	37.4	80	21.9	20/4/80	1225	999	335	4	335	20	15.0	68	1
209	209c	29	35.2	80	28.5	20/4/80	1305	32	335	4	330	20	14.4	67	1
210	210c	29	35.0	80	22.5	20/4/80	1850	45	340	5	340	18	13.8	66	1
211	211c	29	35.0	80	19.0	20/4/80	2130	48	340	5	340	20	12.8	68	1
212	212c	29	35.0	80	16.0	20/4/80	2345	67	340	5	340	20	12.8	68	1
213	213c	29	35.4	80	12.6	21/4/80	0138	113	340	5	340	20	11.8	68	1
214	214h	29	32.5	80	18.1	21/4/80	0335	999	315	5	20	20	11.8	68	1
215	215h	29	28.4	80	20.8	21/4/80	0415	999	315	5	310	19	11.8	69	1
216	216h	29	24.0	80	23.8	21/4/80	0530	999	320	5	310	19	11.8	69	1
217	217c	29	20.5	80	26.7	21/4/80	0614	28	320	5	320	20	12.0	69	1
218	218c	29	20.5	80	21.0	21/4/80	0735	40	340	5	330	20	12.0	70	1
219	219c	29	20.5	80	17.4	21/4/80	0825	46	320	5	320	22	12.3	68	1
220	220c	29	20.5	80	13.5	21/4/80	0945	71	315	5	315	23	12.4	68	1
221	221c	29	20.5	80	10.0	21/4/80	1040	118	315	5	315	22	12.4	71	1
222	222h	29	9.6	80	18.4	21/4/80	1245	999	315	5	315	18	12.4	71	1
223	223c	29	6.0	80	20.5	21/4/80	1315	33	315	5	300	14	12.4	70	1
224	224c	29	6.0	80	14.6	21/4/80	1425	48	315	5	300	14	11.4	68	1
225	225c	29	6.0	80	11.0	21/4/80	1528	67	335	5	310	15	11.2	72	1
226	226h	28	57.8	80	11.8	21/4/80	1736	999	15	4	10	12	11.2	78	0
227	227h	28	48.0	80	14.9	21/4/80	1835	999	0	4	0	6	11.4	73	1
228	228c	28	43.2	80	28.2	21/4/80	2010	15	20	3	0	1	11.8	70	1
229	229c	28	43.2	80	22.0	21/4/80	2110	24	60	3	280	4	11.6	70	1
230	230c	28	43.2	80	18.5	21/4/80	2200	28	80	3	270	5	11.8	70	1
231	231c	28	43.2	80	15.5	21/4/80	2300	38	60	3	245	10	11.9	71	1
232	232c	28	43.2	80	12.6	21/4/80	2340	45	60	3	250	11	11.9	71	1
233	233c	28	43.5	80	6.5	22/4/80	0100	70	60	3	253	14	12.0	71	1
234	234x	28	43.0	80	3.5	22/4/80	0131	84	60	3	253	12	11.8	67	1
235	235h	28	37.2	80	11.9	22/4/80	0337	999	250	3	250	12	11.5	67	1
236	236h	28	30.0	80	19.6	22/4/80	0431	999	300	3	305	10	12.0	69	1
237	237h	28	26.4	80	23.4	22/4/80	0500	999	310	3	315	10	12.2	69	0
238	238h	28	18.2	80	14.5	22/4/80	0600	999	345	3	350	13	13.0	71	1
239	239h	28	10.2	80	5.0	22/4/80	0700	999	345	3	350	13	13.8	73	1
240	240h	28	6.9	80	0.8	22/4/80	0729	999	340	3	340	12	13.8	73	1
241	241h	28	0.0	80	6.9	22/4/80	0819	999	330	3	315	12	13.9	74	1
242	242x	28	6.9	80	1.5	22/4/80	0912	63	330	3	320	12	14.3	72	1
243	243x	28	14.2	80	3.0	22/4/80	0950	65	325	3	325	8	14.6	73	1
244	244x	28	20.0	80	4.0	22/4/80	1025	63	325	3	325	5	14.6	73	1
245	245x	28	24.7	80	5.0	22/4/80	1055	70	335	3	335	8	14.7	74	1
246	246x	28	30.0	80	5.7	22/4/80	1125	58	335	3	335	9	14.7	74	1
247	247x	28	35.6	80	6.8	22/4/80	1155	61	335	3	335	9	14.7	74	1
248	248x	28	41.0	80	7.6	22/4/80	1225	61	335	3	335	10	14.7	74	1
249	249x	28	46.7	80	8.5	22/4/80	1255	59	335	3	335	10	14.7	74	1
250	250x	28	52.5	80	9.3	22/4/80	1325	63	315	3	315	10	14.7	76	1
251	251x	28	58.3	80	10.4	22/4/80	1355	62	315	3	315	10	15.0	78	1
252	252x	29	3.9	80	11.7	22/4/80	1425	60	335	3	335	10	15.0	78	1
253	253x	29	10.0	80	13.1	22/4/80	1455	60	335	3	335	12	15.0	78	1
254	254x	29	15.3	80	14.2	22/4/80	1525	60	300	3	305	9	14.9	79	1
255	255x	29	21.3	80	14.8	22/4/80	1555	60	280	3	283	8	14.5	79	1
256	256x	29	27.4	80	16.3	22/4/80	1625	62	270	3	268	8	14.8	79	1
257	257x	29	33.8	80	16.5	22/4/80	1655	60	270	3	265	8	14.8	79	1
258	258x	29	40.0	80	16.3	22/4/80	1725	64	60	3	303	7	14.6	79	1
259	259x	29	45.5	80	17.2	22/4/80	1755	60	45	2	150	5	14.5	79	1
260	260x	29	50.8	80	17.7	22/4/80	1825	60	45	2	160	4	14.8	77	1

261	261x	29	56.0	80	16.0	22/4/80	1855	72	0	2	205	7	14.5	75	1
262	262c	30	0.0	80	28.0	22/4/80	2010	41	80	2	170	8	14.6	71	1
263	263c	30	0.0	80	22.0	22/4/80	2315	48	190	3	190	12	14.6	70	1
264	264x	30	0.0	80	19.0	23/4/80	0138	51	190	3	205	12	14.6	70	1
265	265c	30	0.0	80	16.5	23/4/80	0200	67	190	3	225	18	14.8	70	1
266	266x	30	0.0	80	13.5	23/4/80	0327	184	190	3	225	20	13.8	70	1
267	267c	30	0.0	80	10.5	23/4/80	0400	285	225	4	225	15	14.0	73	1
268	268h	30	39.3	80	10.1	23/4/80	0910	999	240	4	240	17	13.8	70	1
269	269h	30	43.1	80	18.0	23/4/80	1029	999	255	4	255	18	13.8	70	1
270	270h	30	47.0	80	11.5	23/4/80	1130	999	250	4	250	14	13.7	71	0
271	271h	30	50.8	80	5.2	23/4/80	1230	999	250	4	250	14	12.0	75	0
272	272h	30	52.3	80	2.0	23/4/80	1258	999	250	4	250	14	12.0	75	0
273	273h	30	56.1	80	0.2	23/4/80	1330	999	250	4	235	15	11.8	75	0
274	274h	31	3.5	79	56.0	23/4/80	1425	999	250	4	235	15	10.0	75	0
275	275h	31	5.2	79	50.0	23/4/80	1450	999	250	4	242	15	9.8	76	1
276	276h	31	6.5	79	41.5	23/4/80	1528	999	245	4	210	17	9.0	76	1
277	277h	31	8.6	79	46.0	23/4/80	1600	999	250	4	215	16	9.0	76	1
278	278h	31	16.5	79	59.5	23/4/80	1722	999	205	4	205	17	8.2	73	1
279	279h	31	22.8	79	35.8	23/4/80	1915	999	200	4	197	22	8.4	73	1
280	280x	31	28.0	79	47.4	23/4/80	2025	58	195	4	195	18	8.4	74	1
281	281x	31	22.4	79	48.4	23/4/80	2100	60	195	4	195	18	8.4	74	1
282	282x	31	15.3	79	51.3	23/4/80	2145	74	205	4	205	18	8.4	74	1
283	283x	31	10.6	79	53.4	23/4/80	2215	58	220	4	220	19	8.4	74	1
284	284x	31	5.8	79	54.7	23/4/80	2245	63	220	4	220	20	8.5	74	1
285	285x	31	1.4	79	57.3	23/4/80	2315	68	225	4	225	20	8.5	74	1
286	286x	30	57.2	79	59.0	23/4/80	2345	65	225	4	225	20	8.5	74	1
287	287x	30	53.2	80	1.2	24/4/80	0015	55	225	4	225	20	8.5	74	1
288	288x	30	49.4	80	3.0	24/4/80	0045	67	225	4	225	20	8.5	73	1
289	289x	30	45.7	80	4.4	24/4/80	0115	63	225	4	225	20	8.4	73	1
290	290x	30	42.6	80	5.8	24/4/80	0145	63	225	4	225	20	8.4	73	1
291	291x	30	39.5	80	7.1	24/4/80	0215	59	225	4	220	24	8.5	72	1
292	292x	30	36.6	80	8.5	24/4/80	0245	63	220	5	220	23	8.5	72	1
293	293x	30	33.6	80	9.6	24/4/80	0315	61	225	5	225	22	8.5	72	1
294	294x	30	30.6	80	10.8	24/4/80	0345	60	225	5	225	22	8.5	72	1
295	295c	30	29.0	80	21.0	24/4/80	0450	40	215	5	227	18	9.2	69	1
296	296c	30	27.0	80	16.0	24/4/80	0640	44	210	5	223	16	9.4	69	1
297	297c	30	26.0	80	13.0	24/4/80	0820	53	220	5	220	19	10.4	72	1
298	298c	30	25.0	80	10.0	24/4/80	1050	143	225	4	225	14	10.5	74	1
299	299c	30	24.4	80	4.7	24/4/80	1217	285	225	4	225	14	10.5	74	0
300	300h	30	22.4	80	14.4	24/4/80	1508	999	230	4	230	10	9.0	75	0
301	301x	30	19.0	80	14.0	24/4/80	1530	68	200	4	200	14	8.8	77	0
302	302x	30	16.0	80	14.1	24/4/80	1600	72	200	4	198	14	8.8	77	0
303	303x	30	11.8	80	15.0	24/4/80	1630	63	200	4	195	12	9.0	77	0
304	304x	30	7.8	80	15.9	24/4/80	1700	60	200	4	195	14	8.8	77	0
305	305h	30	5.0	80	16.3	24/4/80	1721	999	200	4	200	15	9.0	77	0
306	306x	30	3.8	80	17.7	24/4/80	1731	80	200	4	198	16	8.8	77	0
307	307h	29	57.3	80	25.1	24/4/80	1830	999	145	4	150	15	9.0	75	0
308	308h	29	51.0	80	32.2	24/4/80	1826	999	180	4	200	16	9.8	74	1
309	309h	29	39.0	80	19.1	24/4/80	2105	999	235	4	235	15	9.8	74	1
310	310h	29	31.5	80	11.2	24/4/80	2206	999	265	4	265	18	10.3	74	1
311	311h	29	28.2	80	6.6	24/4/80	2242	999	265	4	265	15	10.4	74	1
312	312h	29	27.7	80	12.0	24/4/80	2313	999	265	4	265	16	10.4	74	1
313	313h	29	25.2	80	15.1	24/4/80	2338	999	265	4	265	15	10.4	74	1
314	314h	29	25.0	80	27.5	25/4/80	0045	999	265	4	265	14	10.4	74	0
315	315h	29	24.9	80	34.4	25/4/80	0120	999	265	4	265	10	11.0	72	0
316	316h	29	34.9	80	27.7	25/4/80	0230	999	250	4	250	12	11.2	72	0
317	317h	29	44.9	80	20.9	25/4/80	0335	999	250	4	250	12	11.2	71	0
318	318h	29	49.3	80	16.0	25/4/80	0415	999	250	4	249	12	12.0	70	0
319	319h	29	42.2	80	18.4	25/4/80	0500	999	250	4	250	12	12.0	70	0
320	320h	29	32.5	80	21.3	25/4/80	0600	999	250	3	256	11	12.8	71	0
321	321h	29	23.2	80	24.9	25/4/80	0700	999	260	3	262	9	13.2	76	0
322	322h	29	15.0	80	28.0	25/4/80	0755	999	215	3	215	7	13.8	76	0
323	323h	29	14.9	80	17.7	25/4/80	0850	999	215	3	215	8	14.1	73	1
324	324h	29	23.0	80	27.9	25/4/80	1041	999	200	3	200	8	14.4	72	1
325	325c	29	33.1	80	34.5	25/4/80	1150	27	200	3	165	8	14.2	72	1

326	326c	29	32.8	80	25.1	25/4/80	1420	36	165	3	120	6	13.4	74	1
327	327c	29	33.0	80	19.6	25/4/80	1553	47	140	3	140	10	12.8	77	1
328	328x	29	33.1	80	15.3	25/4/80	1718	73	130	3	133	10	12.8	77	1
329	329c	29	33.1	80	8.8	25/4/80	1753	69	150	3	151	15	12.8	76	1
330	330x	29	33.8	80	2.4	25/4/80	1933	109	160	3	160	13	13.0	76	1
331	331h	29	46.0	80	10.0	25/4/80	2040	999	170	3	170	18	13.0	76	1
332	332h	29	54.2	80	18.5	25/4/80	2135	999	165	3	165	16	13.0	75	1
333	333h	30	4.8	80	15.4	25/4/80	2233	999	180	3	180	15	13.0	74	1
334	334h	30	12.1	80	15.1	25/4/80	2312	999	180	3	180	15	13.0	74	1
335	335h	30	14.1	80	21.6	25/4/80	2345	999	180	3	180	15	13.0	74	1
336	336c	30	16.8	80	30.4	26/4/80	0030	37	180	3	195	12	12.8	74	1
337	337c	30	16.6	80	23.3	26/4/80	0250	42	180	3	185	16	12.5	73	1
338	338x	30	15.5	80	16.6	26/4/80	0511	54	165	3	173	16	12.6	73	1
339	339c	30	15.2	80	14.6	26/4/80	0522	55	185	3	190	16	13.0	73	1
340	340c	30	15.0	80	5.8	26/4/80	0800	310	195	3	195	14	13.8	76	1
341	341h	30	18.1	80	7.4	26/4/80	1000	999	190	3	190	18	13.8	76	1
342	342h	30	13.2	80	16.6	26/4/80	1100	999	175	3	175	17	13.9	76	1
343	343h	30	8.2	80	27.0	26/4/80	1200	999	175	3	175	17	13.9	76	1
344	344c	30	6.0	80	32.4	26/4/80	1230	40	175	3	175	12	14.0	76	1
345	345c	30	6.2	80	29.8	26/4/80	1438	40	175	3	165	16	14.2	77	1
346	346x	30	5.9	80	27.3	26/4/80	1645	42	160	3	145	14	13.0	78	1
347	347c	30	5.8	80	24.9	26/4/80	1700	43	160	3	145	14	13.0	78	1
348	348x	30	5.5	80	20.3	26/4/80	1914	42	270	3	290	14	14.0	77	1
349	349c	30	5.4	80	14.6	26/4/80	1940	95	270	3	300	16	14.8	76	2
350	350x	30	5.1	80	10.3	26/4/80	2133	200	270	3	105	10	13.4	75	2
351	351c	30	5.0	80	6.8	26/4/80	2151	350	120	3	115	13	12.7	75	1

= disc record

Station = assigned station number

Latitude and longitude

Date and time in eastern standard time

Z = water depth in meters

WVD = wave direction

SS = SEA STATE

WND = wind direction

WS = Wind Speed(knots)

B.P. = barometric pressure in millibars(tens, units and tenths only)

AT = air temp in F(not very good #)

W = WMO weather code

999's indicate no data

Appendix 2

EASTWARD STATION LOG LIST

STATION LIST
R/V EASTWARD
10-27 April 1980

#	STA.	LAT	LONG	DATE	EST	Z(M)	WVD	SS	WND	WS	B.P.	AT	W		
1	1t	31	51.6	80	47.5	10/4/80	2200	11	225	2	225	10	14.2	66	0
2	2t	31	44.0	80	51.0	10/4/80	2300	13	213	2	213	12	14.8	64	0
3	3t	31	35.5	80	52.2	11/4/80	0000	15	213	2	213	12	14.6	65	0
4	4t	31	27.2	80	53.6	11/4/80	0100	15	213	2	213	12	14.9	65	0
5	5t	31	19.2	80	54.7	11/4/80	0200	15	213	2	213	12	14.9	64	0
6	6t	31	10.5	80	55.5	11/4/80	0300	15	213	2	213	12	14.9	64	0
7	7t	31	2.0	80	55.3	11/4/80	0400	19	225	2	225	12	14.9	64	0
8	8t	30	52.6	80	55.4	11/4/80	0500	25	225	2	225	12	15.6	64	0
9	9t	30	43.7	80	55.8	11/4/80	0600	22	213	2	213	4	16.3	63	0
10	10t	30	34.3	80	56.2	11/4/80	0700	26	270	2	270	6	17.2	66	0
11	11t	30	26.8	80	55.0	11/4/80	0800	26	283	2	283	6	18.2	68	0
12	12t	30	30.5	80	45.1	11/4/80	0900	31	283	2	283	5	18.8	66	0
13	13t	30	34.8	80	36.0	11/4/80	1000	29	283	2	283	5	19.2	68	0
14	14t	30	39.0	80	27.0	11/4/80	1100	33	315	2	315	6	19.5	68	0
15	15t	30	45.0	80	19.0	11/4/80	1200	42	315	2	315	6	19.4	68	0
16	16t	30	41.0	80	21.2	11/4/80	1300	40	315	2	315	6	19.2	73	0
17	17t	30	35.0	80	22.5	11/4/80	1400	38	315	2	315	5	18.2	74	1
18	18t	30	42.7	80	16.5	11/4/80	1500	40	315	2	315	5	18.0	76	1
19	19t	30	45.5	80	15.8	11/4/80	1600	39	45	1	45	3	17.7	77	1
20	20t	30	44.1	80	16.4	11/4/80	1700	40	45	1	45	5	17.7	75	1
21	21t	30	35.0	80	19.5	11/4/80	1800	38	45	1	45	5	17.8	74	1
22	22t	30	26.3	80	22.7	11/4/80	1900	38	45	2	45	5	17.9	73	1
23	23t	30	17.1	80	25.5	11/4/80	2000	37	45	2	45	6	18.2	72	1
24	24t	30	13.7	80	28.0	11/4/80	2100	35	45	1	45	4	18.5	72	1
25	25t	29	59.5	80	31.2	11/4/80	2200	37	45	1	45	4	18.8	70	1
26	26t	29	50.8	80	34.1	11/4/80	2300	33	135	2	135	8	18.4	70	1
27	27t	29	42.0	80	37.5	12/4/80	0000	29	135	2	135	8	18.2	69	1
28	28t	29	33.0	80	41.0	12/4/80	0100	26	135	2	135	8	17.6	69	1
29	29t	29	24.0	80	44.0	12/4/80	0200	27	135	2	135	10	17.3	69	1
30	30t	29	15.4	80	46.0	12/4/80	0300	22	135	2	135	10	16.6	69	1
31	1c	29	8.2	80	48.5	12/4/80	0357	21	135	2	135	11	16.6	69	1
32	2x	29	8.8	80	42.6	12/4/80	0518	22	135	2	135	12	16.5	70	1
33	3c	29	9.8	80	37.1	12/4/80	0555	28	135	3	135	13	16.7	70	1
34	4x	29	10.7	80	31.7	12/4/80	0648	29	135	3	135	14	16.7	71	1
35	5c	29	11.7	80	26.4	12/4/80	0800	33	135	3	135	18	17.6	72	1
36	6x	29	13.0	80	20.8	12/4/80	0905	33	135	3	135	18	17.5	73	1
37	7x	29	13.5	80	15.3	12/4/80	0940	37	135	3	135	20	17.8	74	1
38	8x	29	14.3	80	11.9	12/4/80	1048	78	135	3	135	20	17.6	74	1
39	9x	29	15.3	80	9.7	12/4/80	1058	93	225	3	225	16	16.8	74	1
40	10x	29	15.0	80	6.0	12/4/80	1200	173	135	3	135	16	17.1	75	1
41	11x	29	15.5	80	4.0	12/4/80	1216	357	135	3	135	16	17.0	75	1
42	42t	29	19.2	80	3.9	12/4/80	1330	400	135	3	135	12	16.6	76	1
43	43t	29	24.4	80	3.9	12/4/80	1400	999	135	3	135	12	16.0	84	1
44	44t	29	31.5	80	6.5	12/4/80	1500	999	135	3	135	12	14.9	79	1
45	45t	29	45.7	80	7.5	12/4/80	1535	999	135	3	135	12	14.4	80	1
46	46t	29	48.7	80	7.8	12/4/80	1630	362	160	3	160	15	14.2	77	1
47	47t	29	52.6	80	11.7	12/4/80	1700	119	160	3	160	15	14.2	75	1
48	17c	29	59.3	80	21.9	12/4/80	1811	45	160	4	160	17	13.9	73	1
49	18x	30	0.2	80	27.8	12/4/80	1924	44	160	4	160	17	13.9	72	1
50	19c	30	0.0	80	34.6	12/4/80	2006	41	160	3	160	15	13.9	71	1
51	20x	30	0.0	80	39.8	12/4/80	2136	34	160	3	160	15	14.4	70	1
52	21c	30	0.0	80	45.5	12/4/80	2216	33	180	3	180	12	15.0	70	1
53	22x	30	0.0	80	51.5	12/4/80	2330	25	180	2	180	10	14.8	70	9
54	23c	30	0.0	80	57.0	13/4/80	0010	24	180	2	180	5	14.5	69	5
55	24t	30	0.0	81	2.9	13/4/80	0131	24	180	1	180	5	13.9	69	5
56	25c	30	0.0	81	8.5	13/4/80	0205	17	180	1	180	8	13.4	69	5
57	57t	30	2.5	81	8.4	13/4/80	0300	999	180	1	180	8	12.5	69	1
58	58t	30	12.3	81	7.9	13/4/80	0400	24	180	2	180	8	12.5	68	1
59	59t	30	22.2	81	6.6	13/4/80	0500	23	180	2	180	8	12.5	68	1
60	60t	30	32.2	81	5.5	13/4/80	0600	24	180	2	180	6	12.3	68	1
61	61t	30	42.0	81	4.4	13/4/80	0700	16	170	3	170	10	12.3	68	1
62	62t	30	51.9	81	4.0	13/4/80	0800	15	180	2	180	8	12.6	68	1
63	26c	30	55.9	81	3.6	13/4/80	0830	18	160	2	160	10	12.6	70	1
64	27x	30	55.0	80	58.0	13/4/80	0925	21	160	3	160	12	12.7	71	1
65	28c	30	53.5	80	52.5	13/4/80	1005	24	160	3	160	12	12.2	72	1

66	29x	30	52.5	80	46.7	13/4/80	1059	28	160	3	160	13	11.8	72	0
67	30c	30	51.0	80	41.3	13/4/80	1130	31	160	3	160	16	11.8	72	0
68	31x	30	50.0	80	35.5	13/4/80	1229	29	160	3	160	16	11.5	71	0
69	32c	30	49.0	80	30.0	13/4/80	1318	35	160	3	160	16	11.1	76	0
70	33x	30	47.5	80	24.0	13/4/80	1441	42	160	3	160	16	9.5	76	0
71	34c	30	46.5	80	18.5	13/4/80	1526	41	160	3	160	16	8.5	76	0
72	35x	30	45.5	80	15.8	13/4/80	1649	43	150	4	150	16	7.8	76	1
73	36c	30	45.0	80	13.2	13/4/80	1707	45	150	4	150	16	7.8	75	2
74	37x	30	45.0	80	10.0	13/4/80	1814	46	150	4	150	16	8.0	75	2
75	38c	30	44.0	80	7.2	13/4/80	1839	49	150	4	150	16	8.1	75	2
76	39x	30	44.2	80	4.3	13/4/80	1943	82	160	4	160	18	8.8	76	2
77	40c	30	42.6	80	2.0	13/4/80	2011	198	160	4	160	24	9.2	75	2
78	41x	30	41.9	79	5.0	13/4/80	2202	240	160	4	160	24	9.3	76	2
79	42c	30	41.2	79	56.4	13/4/80	2236	296	160	4	160	26	9.5	76	2
80	43x	30	42.0	79	51.5	14/4/80	0100	390	160	4	160	26	9.0	76	2
81	81t	30	47.0	79	48.5	14/4/80	0130	999	160	4	160	26	9.0	76	2
82	82t	30	53.5	79	46.8	14/4/80	0200	999	160	4	160	26	8.6	76	2
83	83t	30	59.5	79	43.1	14/4/80	0230	999	160	4	160	26	7.9	76	2
84	84t	31	6.2	79	41.0	14/4/80	0300	999	160	4	160	26	7.2	76	2
85	85t	31	12.0	79	39.0	14/4/80	0330	999	160	4	160	26	7.0	76	2
86	86t	31	18.3	79	36.5	14/4/80	0400	417	160	4	160	24	6.8	78	2
87	87t	31	24.3	79	34.3	14/4/80	0430	311	160	4	160	24	6.7	78	2
88	44c	31	27.3	79	33.0	14/4/80	0449	296	165	4	165	26	6.0	76	2
89	45x	31	28.2	79	35.7	14/4/80	0646	191	170	4	170	26	5.1	76	2
90	46x	31	29.3	79	37.7	14/4/80	0704	152	160	4	160	30	5.1	75	6
91	47x	31	29.5	79	41.0	14/4/80	1209	100	180	5	180	28	6.2	72	6
92	48x	31	30.0	79	44.0	14/4/80	1305	68	180	5	270	25	6.5	72	2
93	93t	31	30.5	79	46.5	14/4/80	1400	999	180	5	270	25	6.0	72	2
94	94t	31	25.2	79	52.0	14/4/80	1500	999	180	4	270	22	6.0	69	2
95	95t	31	18.7	79	58.1	14/4/80	1600	42	210	4	210	20	5.8	71	1
96	96t	31	12.3	80	3.7	14/4/80	1700	48	210	3	210	15	6.1	70	1
97	97t	31	5.5	80	9.4	14/4/80	1800	42	210	3	210	15	6.7	69	2
98	98t	30	58.7	80	15.1	14/4/80	1900	38	230	3	230	20	7.3	68	1
99	99t	30	52.0	80	20.6	14/4/80	2000	37	230	3	230	18	8.2	64	1
100	100t	30	47.0	80	25.4	14/4/80	2100	41	230	3	230	16	9.4	62	1
101	101t	30	42.4	80	30.0	14/4/80	2200	37	235	4	235	20	10.2	60	1
102	102t	30	37.3	80	34.5	14/4/80	2300	33	240	4	240	22	10.9	56	1
103	103t	30	32.5	80	39.5	15/4/80	0000	999	240	4	240	22	12.0	56	1
104	104t	30	27.5	80	44.0	15/4/80	0100	999	240	4	240	22	12.0	56	1
105	105t	30	23.0	80	48.0	15/4/80	0200	999	250	4	250	22	12.1	56	1
106	106t	30	18.2	80	53.0	15/4/80	0300	999	250	4	250	22	12.5	56	1
107	107t	30	13.4	80	59.2	15/4/80	0400	24	280	4	280	22	13.5	57	1
108	108t	30	7.7	81	4.2	15/4/80	0500	18	315	4	315	18	14.4	57	1
109	109t	30	4.7	81	5.9	15/4/80	0600	16	270	3	270	12	15.1	57	1
110	110t	30	2.4	81	7.3	15/4/80	0700	21	270	3	270	12	15.8	59	1
111	25c	30	0.0	81	8.8	15/4/80	0804	19	270	2	270	12	16.2	60	1
112	24x	30	0.0	81	3.1	15/4/80	1000	23	270	2	270	10	16.5	62	1
113	23c	30	0.0	80	56.8	15/4/80	1032	25	260	2	260	10	16.3	62	1
114	22x	30	0.0	80	51.0	15/4/80	1225	26	260	2	260	10	15.1	65	1
115	21c	30	0.0	80	45.0	15/4/80	1308	29	260	2	260	10	14.9	68	1
116	20x	30	0.0	80	39.5	15/4/80	1445	35	260	2	260	10	13.6	67	1
117	117t	30	0.0	80	35.5	15/4/80	1507	40	260	2	260	10	13.0	70	1
118	19c	30	0.0	80	33.5	15/4/80	1535	38	260	2	260	10	12.6	70	1
119	18x	30	0.0	80	27.7	15/4/80	1924	41	260	3	260	18	13.3	68	1
120	17c	30	0.0	80	22.0	15/4/80	2001	48	265	3	265	20	14.4	68	1
121	16x	30	0.0	80	19.5	15/4/80	2123	48	265	3	265	24	16.1	67	0
122	15c	30	0.0	80	16.5	15/4/80	2150	68	255	4	255	26	16.3	66	0
123	14x	30	0.0	80	13.5	15/4/80	2258	160	255	4	255	25	16.8	66	0
124	13x	30	0.0	80	10.5	15/4/80	2318	200	260	4	260	26	17.1	66	0
125	125t	30	1.9	80	12.5	16/4/80	0100	999	260	4	260	26	16.6	66	0
126	126t	29	57.0	80	15.5	16/4/80	0200	999	260	4	260	25	16.9	61	0
127	127t	29	50.0	80	19.5	16/4/80	0300	999	260	4	260	25	17.5	64	0
128	128t	29	42.7	80	24.5	16/4/80	0400	38	315	5	315	20	17.7	64	0
129	129t	29	35.1	80	30.6	16/4/80	0500	29	315	5	315	20	17.9	63	0
130	130t	29	27.2	80	36.4	16/4/80	0600	23	300	3	300	20	18.8	63	0

131	131t	29	19.0	80	41.8	16/4/80	0700	24	300	3	300	20	19.3	67	0
132	1c	29	8.9	80	49.1	16/4/80	0912	21	325	3	325	12	20.2	72	0
133	2x	29	9.3	80	42.8	16/4/80	1020	20	325	3	325	15	21.2	66	0
134	3c	29	10.1	80	37.3	16/4/80	1059	26	330	3	330	12	21.4	74	0
135	4x	29	11.1	80	30.5	16/4/80	1201	25	330	3	330	12	21.0	65	0
136	5c	29	12.0	80	26.0	16/4/80	1239	31	330	3	330	12	20.9	65	0
137	6x	29	13.0	80	20.0	16/4/80	1354	34	330	3	330	12	20.5	66	0
138	7c	29	13.8	80	14.5	16/4/80	1435	54	330	3	330	10	19.9	69	0
139	8x	29	14.2	80	12.0	16/4/80	1531	71	330	3	330	10	19.5	68	0
140	9c	29	15.2	80	9.8	16/4/80	1553	88	330	3	330	10	19.3	68	0
141	10t	29	15.2	80	6.3	16/4/80	1704	153	330	3	330	15	19.7	68	0
142	11c	29	16.0	80	3.8	16/4/80	1728	21	330	3	330	15	19.6	69	0
143	143t	29	23.7	80	5.8	16/4/80	1900	382	350	3	350	12	19.6	67	0
144	144t	29	28.3	80	7.8	16/4/80	1930	358	350	3	350	8	19.8	66	0
145	145t	29	33.3	80	10.2	16/4/80	2000	262	350	3	350	9	20.2	66	0
146	146t	29	39.4	80	10.3	16/4/80	2030	268	350	3	350	9	20.4	65	0
147	147t	29	46.0	80	10.5	16/4/80	2100	272	355	3	355	8	21.0	65	0
148	148t	29	52.6	80	10.4	16/4/80	2130	315	355	3	355	8	21.2	65	0
149	13c	30	0.5	80	10.4	16/4/80	2211	290	290	3	290	6	21.2	68	0
150	14x	30	0.0	80	13.6	17/4/80	0024	159	290	3	290	7	21.2	67	0
151	15c	30	0.0	80	16.5	17/4/80	0046	68	290	2	290	5	21.0	67	0
152	16x	30	0.0	80	19.5	17/4/80	0154	45	290	2	290	5	20.5	67	0
153	17c	30	0.0	80	22.0	17/4/80	0223	46	290	2	290	4	20.4	65	0
154	18x	30	0.0	80	25.5	17/4/80	0351	40	290	2	290	4	20.5	65	0
155	19c	30	0.1	80	33.8	17/4/80	0428	39	315	2	315	4	20.6	65	0
156	20x	30	0.0	80	39.4	17/4/80	0537	35	265	2	265	12	20.9	65	0
157	21c	30	0.1	80	45.0	17/4/80	0611	34	310	2	310	8	21.4	65	0
158	22x	30	0.2	80	51.0	17/4/80	0700	31	270	2	270	8	21.5	67	0
159	23c	30	0.1	80	56.8	17/4/80	0736	25	270	2	270	8	21.9	68	0
160	24x	30	0.0	81	3.0	17/4/80	0828	24	270	2	270	7	22.2	70	1
161	25c	30	0.1	81	8.6	17/4/80	0907	19	320	2	320	8	22.4	72	1
162	162t	30	5.2	81	7.9	17/4/80	1000	22	320	2	320	8	23.1	69	2
163	163t	30	13.7	81	6.9	17/4/80	1100	26	335	2	335	7	23.2	69	1
164	164t	30	22.6	81	5.5	17/4/80	1200	24	0	2	0	7	23.4	72	1
165	165t	30	30.9	81	5.1	17/4/80	1300	18	20	2	20	7	23.1	73	1
166	166t	30	39.1	81	5.0	17/4/80	1400	18	20	2	20	10	22.5	74	1
167	167t	30	47.5	81	5.0	17/4/80	1500	22	20	2	20	10	21.9	75	1
168	168t	30	55.4	81	3.6	17/4/80	1600	16	20	2	20	12	21.0	73	1
169	26c	30	56.1	81	3.5	17/4/80	1610	16	20	3	20	12	21.0	73	1
170	27x	30	54.8	80	58.1	17/4/80	1714	21	20	3	20	12	20.8	71	1
171	28c	30	53.5	80	52.4	17/4/80	1755	24	40	3	40	13	20.7	68	1
172	29x	30	52.2	80	46.9	17/4/80	1915	26	50	3	50	17	20.7	67	1
173	30c	30	51.0	80	41.2	17/4/80	1958	34	70	3	70	12	21.2	68	1
174	31x	30	50.0	80	35.7	17/4/80	2105	35	70	3	70	12	21.0	68	1
175	32c	30	48.7	80	30.0	17/4/80	2148	38	110	2	110	8	20.6	66	1
176	33x	30	47.6	80	24.4	17/4/80	2308	43	110	2	110	7	20.2	68	2
177	34c	30	46.0	80	19.0	17/4/80	2346	43	110	2	110	7	20.6	68	2
178	35x	30	45.5	80	16.0	18/4/80	0033	42	110	2	110	7	20.6	68	2
179	36c	30	45.0	80	13.0	18/4/80	0058	43	110	3	110	8	20.5	68	5
180	37x	30	44.5	80	10.4	18/4/80	0150	43	110	3	110	8	19.5	68	8
181	38c	30	43.7	80	12.5	18/4/80	0213	47	110	3	110	8	19.5	68	8
182	39x	30	43.0	80	4.5	18/4/80	0305	90	110	3	110	8	19.0	68	8
183	40c	30	42.5	80	1.9	18/4/80	0334	200	90	3	90	10	19.0	65	2
184	41x	30	41.8	79	59.1	18/4/80	0533	239	90	3	90	15	18.4	71	5
185	42c	30	41.2	79	56.3	18/4/80	0557	295	100	4	100	17	18.8	69	5
186	186t	30	47.6	79	53.3	18/4/80	0730	285	100	4	100	15	19.3	70	2
187	187t	30	51.1	79	51.4	18/4/80	0800	291	35	4	35	16	19.8	66	6
188	188t	30	55.0	79	49.3	18/4/80	0830	300	80	3	80	12	20.2	67	6
189	189t	30	59.5	79	46.5	18/4/80	0900	298	70	3	70	10	20.5	68	6
190	190t	31	5.2	79	43.4	18/4/80	0930	311	80	3	80	12	20.5	66	2
191	191t	31	11.0	79	39.6	18/4/80	1000	344	100	3	100	15	20.6	68	2
192	192t	31	16.7	79	36.2	18/4/80	1030	430	100	3	100	12	20.6	68	2
193	193t	31	22.2	79	33.8	18/4/80	1100	438	110	3	110	12	20.2	68	5
194	44c	31	27.1	79	32.8	18/4/80	1126	320	230	3	230	14	20.4	68	5
195	45x	31	28.0	79	35.9	18/4/80	1402	227	230	3	230	14	20.9	61	6

196	46c	31	28.5	79	38.5	18/4/80	1438	144	30	3	30	10	20.0	61	6
197	47x	31	29.6	79	41.3	18/4/80	1552	88	60	3	60	8	19.8	61	2
198	48c	31	29.7	79	44.8	18/4/80	1619	70	60	3	60	8	19.7	61	2
199	49x	31	30.9	79	47.0	18/4/80	1718	50	60	3	60	8	19.4	63	2
200	50c	31	31.1	79	49.8	18/4/80	1740	47	80	3	80	12	19.4	63	5
201	51x	31	31.8	79	52.7	18/4/80	1813	47	80	3	80	11	19.1	64	5
202	52c	31	33.4	79	55.4	18/4/80	1828	42	60	3	60	15	18.8	64	1
203	53x	31	34.9	80	0.3	18/4/80	1918	40	70	3	70	12	18.8	64	1
204	54c	31	36.5	80	5.8	18/4/80	1949	39	70	3	70	17	18.8	65	1
205	55x	31	38.0	80	11.4	18/4/80	2045	37	90	2	90	12	19.4	65	1
206	56c	31	39.4	80	17.0	18/4/80	2122	29	100	3	100	12	19.1	66	1
207	57x	31	41.0	80	22.3	18/4/80	2218	28	105	3	105	13	19.0	64	1
208	58c	31	42.6	80	28.0	18/4/80	2250	25	115	3	115	18	18.6	64	1
209	59x	31	44.2	80	33.5	18/4/80	2351	20	115	3	115	15	18.2	64	1
210	60c	31	46.0	80	39.2	19/4/80	0033	18	90	3	90	10	18.2	63	1
211	61x	31	47.4	80	44.9	19/4/80	0134	13	90	3	90	10	18.0	63	1
212	62c	31	49.0	80	50.2	19/4/80	0216	13	90	3	90	10	18.0	63	1
213	213t	31	46.5	80	49.9	19/4/80	0300	15	90	3	90	10	17.0	63	1
214	214t	31	36.9	80	51.8	19/4/80	0400	14	90	3	90	10	16.8	64	1
215	215t	31	27.2	80	53.6	19/4/80	0500	15	90	3	90	10	16.7	64	1
216	216t	31	17.9	80	56.7	19/4/80	0600	15	0	3	0	14	17.0	63	2
217	217t	31	8.3	80	59.8	19/4/80	0700	15	0	3	0	14	17.2	62	2
218	218t	30	59.2	81	2.7	19/4/80	0800	18	0	3	0	15	17.3	64	2
219	219t	30	50.0	81	4.8	19/4/80	0900	20	15	3	15	22	17.6	60	5
220	220t	30	40.7	81	5.5	19/4/80	1000	21	45	4	45	26	18.4	61	5
221	221t	30	30.8	81	5.5	19/4/80	1100	24	45	4	45	22	18.0	62	2
222	222t	30	21.4	81	6.1	19/4/80	1200	26	45	4	45	22	17.6	60	2
223	223t	30	11.5	81	7.5	19/4/80	1300	26	45	4	45	22	17.0	60	2
224	224t	30	1.5	81	8.2	19/4/80	1400	16	45	4	45	28	15.0	60	7
225	225x	30	0.0	81	8.4	19/4/80	1435	16	45	4	45	28	14.2	60	7
226	24x	30	0.0	81	2.5	19/4/80	1517	23	30	4	30	25	13.9	60	2
227	23x	30	0.0	80	56.7	19/4/80	1608	25	40	4	40	30	14.5	66	2
228	22x	30	0.1	80	50.8	19/4/80	1716	32	40	4	45	25	14.1	66	1
229	21x	30	0.2	80	44.8	19/4/80	1756	33	45	4	45	25	14.5	67	1
230	20x	30	0.1	80	39.3	19/4/80	1905	37	45	4	45	20	14.3	67	2
231	19x	30	0.2	80	33.5	19/4/80	1947	41	50	3	50	15	14.2	68	2
232	18x	30	0.0	80	27.5	19/4/80	2213	43	100	3	100	12	15.1	68	2
233	17x	30	0.0	80	22.3	19/4/80	2255	45	95	3	95	13	14.6	67	2
234	16x	30	0.0	80	19.5	20/4/80	0005	50	95	2	100	10	14.2	67	2
235	15x	30	0.0	80	16.5	20/4/80	0026	68	110	3	110	10	13.5	70	2
236	14x	30	0.0	80	13.5	20/4/80	0142	176	110	3	110	15	13.1	70	9
237	13x	30	0.0	80	10.5	20/4/80	0208	287	90	3	90	20	14.0	70	9
238	238t	29	58.7	80	14.3	20/4/80	0400	132	90	3	90	17	13.1	67	2
239	239t	29	52.0	80	17.4	20/4/80	0500	49	90	3	90	17	13.4	68	2
240	240t	29	43.5	80	21.5	20/4/80	0600	44	50	3	50	14	13.2	67	2
241	241t	29	36.2	80	27.8	20/4/80	0700	29	50	3	50	14	13.0	68	1
242	242t	29	28.4	80	34.5	20/4/80	0800	26	60	3	60	12	13.3	70	1
243	243t	29	20.3	80	40.5	20/4/80	0900	26	60	3	60	13	13.8	76	1
244	244t	29	8.4	80	46.3	20/4/80	1000	22	30	3	0	12	14.4	74	1
245	1c	29	8.0	80	48.7	20/4/80	1034	21	25	4	15	20	14.6	72	1
246	2x	29	9.4	80	43.0	20/4/80	1200	24	25	4	15	20	13.1	72	1
247	3c	29	10.1	80	37.2	20/4/80	1236	26	340	4	340	20	13.0	67	1
248	4x	29	11.0	80	31.5	20/4/80	1345	26	340	4	340	18	12.2	70	1
249	5c	29	12.0	80	26.0	20/4/80	1420	33	340	4	340	14	12.0	68	1
250	250t	29	21.5	80	25.9	20/4/80	1600	27	340	3	340	16	11.2	71	1
251	251t	29	26.1	80	26.8	20/4/80	1700	27	340	3	340	23	11.4	68	1
252	252t	29	22.2	80	24.8	20/4/80	1800	29	340	3	340	18	11.5	68	1
253	6x	29	13.0	80	20.3	20/4/80	1857	34	340	3	340	20	11.4	67	1
254	7x	29	13.8	80	14.3	20/4/80	1958	54	340	4	340	25	11.2	67	1
255	8x	29	14.6	80	12.2	20/4/80	2112	75	350	4	350	20	11.2	68	1
256	9x	29	14.5	80	9.5	20/4/80	2130	92	340	4	340	24	11.2	68	1
257	10x	29	15.4	80	6.4	20/4/80	2307	163	355	4	355	23	11.0	70	1
258	11x	29	15.5	80	4.0	20/4/80	2330	360	355	4	355	25	10.4	70	1
259	259t	29	20.4	80	4.5	21/4/80	0030	999	0	4	0	25	9.6	70	1
260	260t	29	25.0	80	4.5	21/4/80	0100	999	0	4	0	25	9.6	68	1

261	261t	29	29.5	80	4.9	21/4/80	0130	999	0	4	0	255	9.5	68	1
262	262t	29	34.1	80	5.2	21/4/80	0200	999	0	4	0	255	9.3	68	1
263	263t	29	38.5	80	6.0	21/4/80	0230	999	0	4	0	255	9.1	68	1
264	264t	29	42.5	80	6.5	21/4/80	0300	999	0	4	0	255	8.9	68	1
265	265t	29	46.4	80	7.2	21/4/80	0330	999	0	4	0	255	8.9	68	1
266	266t	29	50.3	80	8.2	21/4/80	0400	357	330	4	330	35	8.9	66	1
267	267t	29	54.2	80	8.8	21/4/80	0430	347	330	4	330	35	9.2	66	1
268	268t	29	58.3	80	9.6	21/4/80	0500	311	330	5	330	35	9.7	66	1
269	13x	30	0.0	80	10.4	21/4/80	0517	289	330	5	330	35	10.0	66	1
270	14x	30	0.2	80	13.6	21/4/80	0551	168	330	5	330	33	9.9	66	1
271	15x	29	59.8	80	16.3	21/4/80	0609	68	330	5	330	33	10.3	66	1
272	16x	30	0.0	80	19.3	21/4/80	0656	44	330	5	330	30	11.1	67	1
273	17x	29	59.8	80	22.2	21/4/80	0712	45	320	4	320	25	11.2	69	1
274	18x	30	0.0	80	27.7	21/4/80	0908	42	300	3	330	18	11.8	70	1
275	19x	30	0.0	80	33.6	21/4/80	0940	43	325	3	325	14	11.2	70	1
276	20x	30	0.0	80	39.5	21/4/80	1146	37	320	3	320	12	11.0	72	0
277	21x	30	0.0	80	45.0	21/4/80	1222	34	320	3	320	10	11.2	72	0
278	22x	30	0.0	80	50.7	21/4/80	1429	30	320	3	320	7	10.6	74	0
279	23c	30	0.0	80	56.7	21/4/80	1508	25	320	3	0	8	10.0	74	0
280	24x	30	0.0	81	2.6	21/4/80	1623	22	80	2	80	5	9.8	74	1
281	25c	30	0.0	81	8.3	21/4/80	1702	17	80	2	80	5	9.8	73	1
282	282t	30	2.5	81	8.3	21/4/80	1800	16	190	2	190	4	9.8	72	1
283	283t	30	11.7	81	7.4	21/4/80	1900	20	190	2	190	4	10.1	71	1
284	284t	30	21.1	81	6.9	21/4/80	2000	20	315	2	315	6	10.4	70	1
285	285t	30	30.6	81	6.0	21/4/80	2100	20	315	2	315	6	10.6	69	2
286	286t	30	40.0	81	6.5	21/4/80	2200	19	310	2	310	7	11.1	68	2
287	287t	30	48.0	81	4.8	21/4/80	2300	19	320	1	320	4	11.0	68	2
288	288t	30	56.2	81	3.5	22/4/80	0002	17	320	1	320	4	11.0	66	2
289	289t	30	54.9	80	5.8	22/4/80	0125	21	320	1	320	4	11.0	66	2
290	28c	30	53.5	80	5.2	22/4/80	0205	26	330	1	999	0	11.0	66	1
291	29x	30	52.2	80	4.9	22/4/80	0314	28	330	1	999	0	11.0	66	1
292	30c	30	51.1	80	4.5	22/4/80	0353	32	330	1	310	1	11.2	66	1
293	31x	30	49.8	80	3.5	22/4/80	0506	35	330	1	310	1	11.6	66	1
294	32c	30	48.6	80	3.0	22/4/80	0540	36	270	1	270	6	12.1	67	1
295	33x	30	47.1	80	2.2	22/4/80	0650	41	300	3	300	10	12.6	67	0
296	34c	30	46.2	80	18.9	22/4/80	0723	42	280	3	280	10	13.0	68	0
297	35x	30	45.6	80	16.0	22/4/80	0807	40	280	2	280	8	13.8	70	0
298	36c	30	45.0	80	13.0	22/4/80	0827	44	330	2	330	12	13.6	71	0
299	37x	30	44.5	80	10.4	22/4/80	0905	44	330	2	330	10	14.2	72	0
300	38c	30	43.8	80	7.5	22/4/80	0927	47	315	2	315	10	14.2	72	0
301	39x	30	43.4	80	4.5	22/4/80	1022	81	315	2	315	8	14.6	73	0
302	40c	30	42.9	80	2.0	22/4/80	1045	196	315	2	315	8	14.7	72	0
303	41x	30	42.0	79	5.2	22/4/80	1206	241	315	2	315	8	14.2	76	0
304	42c	30	41.2	79	5.2	22/4/80	1237	292	315	2	315	8	13.7	76	0
305	305t	30	47.9	79	5.1	22/4/80	1400	999	20	3	345	8	13.4	79	0
306	306t	30	51.7	79	5.8	22/4/80	1430	999	0	3	0	8	13.4	79	0
307	307t	30	57.0	79	48.9	22/4/80	1500	999	0	3	0	8	13.1	80	0
308	308t	31	2.0	79	46.0	22/4/80	1530	999	0	3	0	8	12.9	80	0
309	309t	31	8.0	79	42.3	22/4/80	1600	300	10	3	10	8	12.7	81	0
310	310t	31	13.7	79	39.5	22/4/80	1630	316	10	3	10	8	12.4	81	0
311	311t	31	19.3	79	36.5	22/4/80	1700	349	10	3	10	8	12.1	81	0
312	312t	31	25.2	79	34.2	22/4/80	1730	304	240	3	240	10	11.9	79	0
313	44c	31	27.1	79	33.1	22/4/80	1746	296	220	3	220	13	11.8	77	0
314	45x	31	27.6	79	35.6	22/4/80	1926	220	220	3	220	13	11.6	72	0
315	46c	31	28.5	79	38.5	22/4/80	1952	150	200	3	200	17	12.0	72	0
316	47x	31	29.5	79	41.5	22/4/80	2105	95	200	2	200	12	12.0	74	0
317	48c	31	30.4	79	44.0	22/4/80	2130	70	215	3	215	14	12.0	74	0
318	49x	31	31.0	79	47.0	22/4/80	2227	55	215	3	215	14	11.8	73	0
319	50c	31	31.8	79	49.7	22/4/80	2253	49	215	3	215	15	11.8	73	0
320	51x	31	32.5	79	52.5	22/4/80	2350	47	215	3	215	18	11.5	72	0
321	52c	31	33.1	79	55.5	23/4/80	0012	43	220	3	220	16	11.5	72	0
322	53x	31	35.0	80	0.5	23/4/80	0133	39	225	3	225	16	11.0	69	0
323	54c	31	36.5	80	5.0	23/4/80	0219	37	225	3	225	16	11.0	69	0
324	55x	31	38.0	80	11.5	23/4/80	0335	35	225	3	225	16	10.1	69	0
325	56c	31	39.6	80	17.4	23/4/80	0424	29	235	3	235	16	10.4	68	0

326	57x	31	41.0	80	22.5	23/4/80	0527	30	235	3	235	16	10.6	67	0
327	58c	31	42.7	80	28.0	23/4/80	0606	24	235	3	235	16	10.7	67	0
328	59x	31	44.2	80	33.8	23/4/80	0700	18	245	3	245	16	11.2	66	0
329	60c	31	45.7	80	39.2	23/4/80	0737	16	245	3	245	16	11.3	67	0
330	61x	31	47.4	80	44.6	23/4/80	0826	13	245	2	245	14	11.0	68	0
331	62c	31	49.0	80	50.0	23/4/80	0908	12	260	2	260	10	11.1	72	0
332	332t	31	44.9	80	50.5	23/4/80	1000	13	260	2	260	10	11.2	73	0
333	333t	31	36.2	80	52.5	23/4/80	1100	16	315	2	315	11	11.6	74	0
334	334t	31	26.8	80	54.5	23/4/80	1200	16	200	2	200	11	10.1	74	0
335	335t	31	17.2	80	55.5	23/4/80	1300	20	200	2	200	10	9.7	74	0
336	336t	31	7.5	80	56.5	23/4/80	1400	20	200	2	200	10	8.7	73	1
337	337t	30	58.7	80	57.2	23/4/80	1500	26	180	2	180	12	8.5	73	1
338	338t	30	49.9	80	59.1	23/4/80	1600	20	190	2	190	12	8.2	73	1
339	339t	30	41.2	81	1.2	23/4/80	1700	22	180	2	180	12	8.2	72	1
340	340t	30	32.4	81	2.9	23/4/80	1800	26	180	2	180	12	8.2	73	2
341	341t	30	23.6	81	4.3	23/4/80	1900	26	180	2	180	13	8.2	74	2
342	342t	30	9.8	81	6.0	23/4/80	2000	25	180	2	180	12	8.3	73	2
343	343t	30	5.9	81	7.3	23/4/80	2100	18	200	2	200	18	9.6	72	2
344	25c	30	0.0	81	8.7	23/4/80	2145	15	210	2	210	14	10.1	72	2
345	24x	30	0.0	81	2.7	23/4/80	2305	21	230	2	230	10	10.0	70	1
346	23c	30	0.0	80	56.7	23/4/80	2347	25	230	2	230	10	10.0	70	1
347	22x	30	0.0	80	50.7	24/4/80	0108	27	230	2	230	10	10.0	68	1
348	21c	30	0.0	80	45.0	24/4/80	0144	34	230	2	230	10	8.7	68	1
349	20x	30	0.0	80	39.0	24/4/80	0304	36	230	2	230	10	8.5	68	1
350	19c	30	0.0	80	33.0	24/4/80	0344	40	230	2	230	12	8.5	68	1
351	18x	30	0.3	80	26.9	24/4/80	0516	42	230	3	230	18	8.9	68	1
352	17c	30	0.0	80	21.2	24/4/80	0549	45	230	3	230	20	9.0	68	1
353	16x	30	0.2	80	18.3	24/4/80	0704	49	240	3	240	20	9.6	71	1
354	15c	30	0.0	80	15.8	24/4/80	0720	76	240	3	240	20	9.7	73	4
355	14x	30	0.0	80	13.0	24/4/80	0847	202	240	3	240	21	10.2	74	2
356	13c	30	0.0	80	10.5	24/4/80	0907	290	250	3	250	20	10.2	74	1
357	357t	30	2.5	80	12.2	24/4/80	1100	216	240	3	240	20	9.9	78	1
358	358t	29	57.0	80	17.5	24/4/80	1200	999	240	3	240	20	9.5	76	1
359	359t	29	56.5	80	17.8	24/4/80	1210	999	240	3	240	20	9.5	76	1
360	360t	29	50.0	80	19.1	24/4/80	1300	49	215	3	215	10	9.1	76	1
361	361t	29	50.1	80	19.0	24/4/80	1315	50	215	3	215	10	9.1	76	1
362	362t	29	50.0	80	17.6	24/4/80	1330	50	215	3	215	10	8.9	78	1
363	363t	29	50.5	80	12.5	24/4/80	1400	999	215	3	215	10	8.6	79	1
364	364x	29	50.7	80	6.0	24/4/80	1436	422	215	3	215	10	8.3	79	1
365	365x	29	50.5	80	10.5	24/4/80	1512	330	215	3	215	10	8.0	79	1
366	366x	29	50.4	80	14.9	24/4/80	1538	102	215	3	215	10	8.0	79	1
367	367x	29	50.2	80	18.9	24/4/80	1554	54	210	3	210	20	7.9	76	4
368	368x	29	50.2	80	21.3	24/4/80	1614	47	210	3	210	18	7.9	76	4
369	369x	29	50.2	80	23.5	24/4/80	1624	47	210	3	210	18	8.0	76	4
370	370x	29	50.2	80	26.2	24/4/80	1638	44	210	3	210	18	7.9	76	4
371	371x	29	50.2	80	28.3	24/4/80	1725	39	210	3	210	18	7.6	77	4
372	372x	29	50.2	80	31.1	24/4/80	1741	38	210	3	210	18	7.6	75	4
373	373x	29	50.2	80	33.2	24/4/80	1753	36	210	3	210	15	7.6	74	4
374	374x	29	50.2	80	35.7	24/4/80	1810	34	210	3	210	15	7.6	73	4
375	375t	29	48.1	80	36.8	24/4/80	1900	31	190	3	190	15	7.9	72	4
376	376t	29	39.1	80	39.2	24/4/80	2000	27	210	3	210	14	9.5	72	1
377	377t	29	30.5	80	42.0	24/4/80	2100	20	210	3	210	12	9.8	72	1
378	378t	29	22.0	80	44.5	24/4/80	2200	24	220	2	220	10	10.1	70	1
379	379t	29	12.9	80	47.4	24/4/80	2300	23	220	2	220	11	10.5	70	1
380	1c	29	8.0	80	48.6	24/4/80	2334	20	270	2	270	11	10.6	70	1
381	2x	29	9.0	80	43.0	25/4/80	0034	20	270	2	270	10	10.6	70	1
382	3c	29	10.0	80	37.1	25/4/80	0110	25	270	1	270	5	10.5	68	1
383	4x	29	10.8	80	31.4	25/4/80	0237	27	270	1	270	4	10.5	68	1
384	5c	29	12.0	80	25.7	25/4/80	0313	32	270	1	270	8	10.5	69	1
385	6x	29	13.0	80	20.1	25/4/80	0433	37	270	2	270	10	10.6	70	1
386	7c	29	14.1	80	14.3	25/4/80	0511	56	270	2	270	13	10.8	70	1
387	8x	29	14.4	80	11.5	25/4/80	0621	76	270	2	270	13	11.6	71	0
388	9c	29	14.9	80	9.1	25/4/80	0638	102	270	2	270	13	12.0	72	0
389	10x	29	15.3	80	6.3	25/4/80	1013	166	270	1	270	5	13.2	76	1
390	11c	29	15.8	80	3.9	25/4/80	1036	335	270	2	270	8	13.6	77	0

391	391t	29	25.8	80	5.0	25/4/80	1300	999	270	1	270	5	13.1	78	0
392	392t	29	32.6	80	5.0	25/4/80	1330	999	270	1	270	5	12.9	82	0
393	393t	29	39.7	80	4.5	25/4/80	1400	999	270	1	270	5	12.6	82	0
394	394t	29	46.2	80	3.5	25/4/80	1430	999	270	1	270	5	12.1	84	0
395	395t	29	53.0	80	2.5	25/4/80	1500	999	270	1	270	5	11.9	84	0
396	396t	30	0.0	80	1.5	25/4/80	1530	999	270	1	270	5	11.9	84	0
397	397c	30	4.4	80	2.8	25/4/80	1559	430	170	2	170	5	11.6	82	0
398	398x	30	2.4	80	6.5	25/4/80	1744	368	170	3	170	13	11.2	76	0
399	13c	30	0.2	80	10.4	25/4/80	1824	290	170	3	170	10	11.3	76	1
400	400t	29	58.0	80	12.5	25/4/80	2100	219	175	2	175	7	11.6	74	1
401	401x	29	55.0	80	13.0	25/4/80	2125	212	195	3	195	12	11.7	74	1
402	402c	29	55.0	80	15.8	25/4/80	2201	79	175	3	175	15	11.8	74	1
403	403c	29	55.2	80	19.5	25/4/80	2346	47	175	3	175	12	11.6	73	1
404	404c	29	55.0	80	24.5	26/4/80	0109	43	180	3	180	20	11.1	74	1
405	405x	29	55.0	80	28.0	26/4/80	0230	40	180	3	180	20	10.5	74	1
406	406x	29	55.0	80	30.0	26/4/80	0245	38	180	3	180	18	10.5	74	1
407	407c	29	55.0	80	37.0	26/4/80	0335	37	180	3	180	15	10.9	73	1
408	408t	29	56.0	80	37.0	26/4/80	0500	26	195	3	195	18	11.3	70	1
409	409t	30	4.2	80	36.8	26/4/80	0600	35	195	3	195	18	11.7	70	1
410	410t	30	12.2	80	28.9	26/4/80	0700	36	195	3	195	20	12.2	72	1
411	411t	30	20.3	80	21.8	26/4/80	0800	40	185	3	185	16	12.3	72	1
412	412t	30	23.3	80	17.0	26/4/80	0830	42	185	3	185	18	12.6	73	1
413	413t	30	26.5	80	12.2	26/4/80	0900	66	185	3	185	18	12.7	74	0
414	414t	30	30.5	80	7.7	26/4/80	0930	192	185	3	185	15	12.6	74	0
415	415t	30	34.5	80	2.8	26/4/80	1000	225	185	3	185	14	13.2	75	0
416	416t	30	39.1	79	57.5	26/4/80	1030	287	210	3	210	14	13.6	75	0
417	417c	30	40.2	79	56.7	26/4/80	1040	305	210	3	210	13	13.7	76	0
418	418x	30	40.9	80	1.5	26/4/80	1317	199	210	3	210	12	12.6	76	1
419	419x	30	41.5	80	4.0	26/4/80	1334	108	210	3	210	10	12.5	76	1
420	420c	30	41.2	80	3.0	26/4/80	1416	190	210	3	210	10	12.5	78	1
421	421c	30	41.8	80	6.4	26/4/80	1615	61	150	3	150	18	12.3	76	1
422	422x	30	42.5	80	8.2	26/4/80	1735	49	175	3	175	14	11.6	77	1
423	423c	30	43.4	80	12.6	26/4/80	1802	45	165	3	165	14	11.3	74	1
424	424c	30	44.3	80	16.4	26/4/80	1923	42	290	3	290	15	13.0	73	2
425	425t	30	42.1	80	5.6	26/4/80	2050	67	290	3	290	12	11.9	70	2
426	426x	30	46.5	80	4.0	26/4/80	2119	60	285	3	285	10	11.8	70	2
427	427x	30	51.5	80	2.0	26/4/80	2152	59	285	3	285	10	11.2	72	2
428	428x	30	56.4	80	0.4	26/4/80	2220	57	225	3	225	12	11.8	71	2
429	429c	30	56.6	80	1.4	26/4/80	2237	48	180	3	180	12	11.0	72	2
430	430c	30	55.5	79	56.5	26/4/80	2344	158	180	2	180	10	11.4	72	2
431	430x	30	55.5	79	56.5	27/4/80	0104	154	180	2	180	15	10.5	74	2
432	432c	30	55.2	79	55.0	27/4/80	0126	206	180	3	180	15	10.5	74	2
433	433t	31	5.0	79	49.0	27/4/80	0245	999	180	3	180	15	10.1	76	2
434	434t	31	10.0	79	45.3	27/4/80	0315	232	210	3	210	10	10.0	74	0
435	435t	31	15.6	79	41.3	27/4/80	0345	251	210	3	210	10	10.1	74	1
436	436t	31	20.9	79	37.5	27/4/80	0415	269	210	3	210	10	9.9	74	1
437	437t	31	26.5	79	33.6	27/4/80	0445	272	210	3	210	10	9.8	74	1

= disc record

Station = assigned station number

Latitude and Longitude

Date and time in eastern standard time

Z = water depth in meters

WVD = wave direction

SS = SEA STATE

WND = wind direction

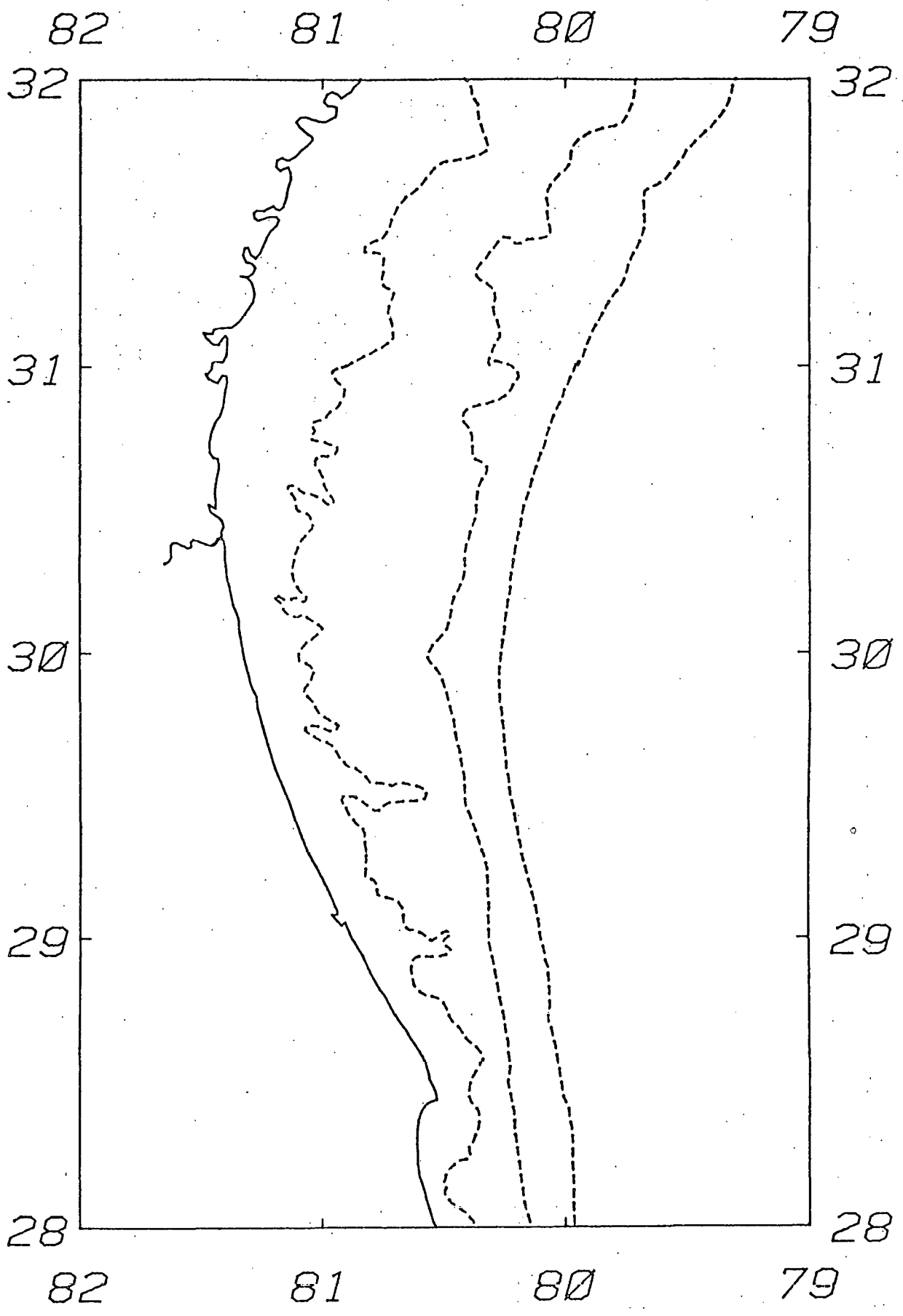
WS = Wind Speed(knots)

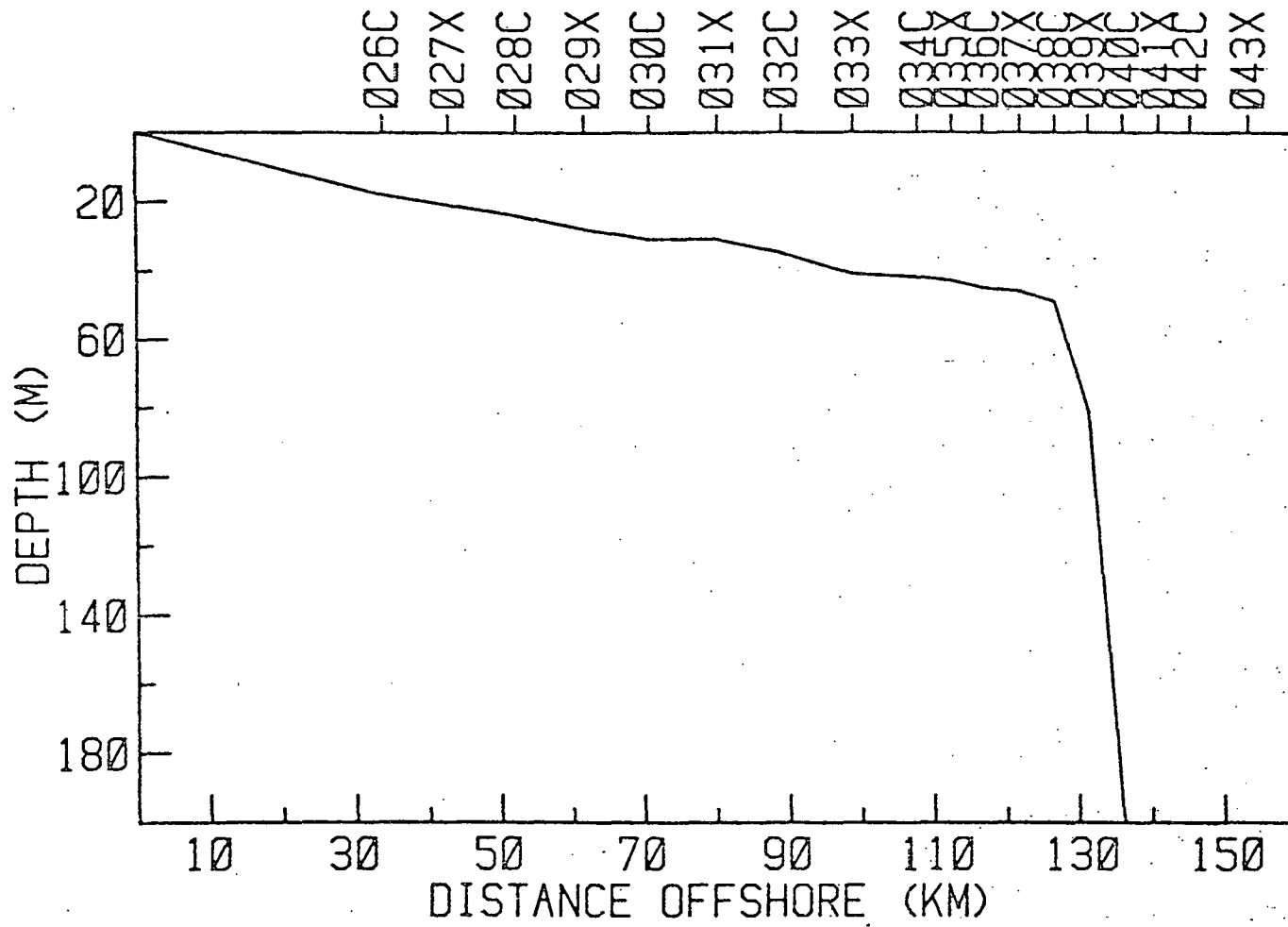
B.P. = barometric pressure in millibars(tens, units and tenths only)

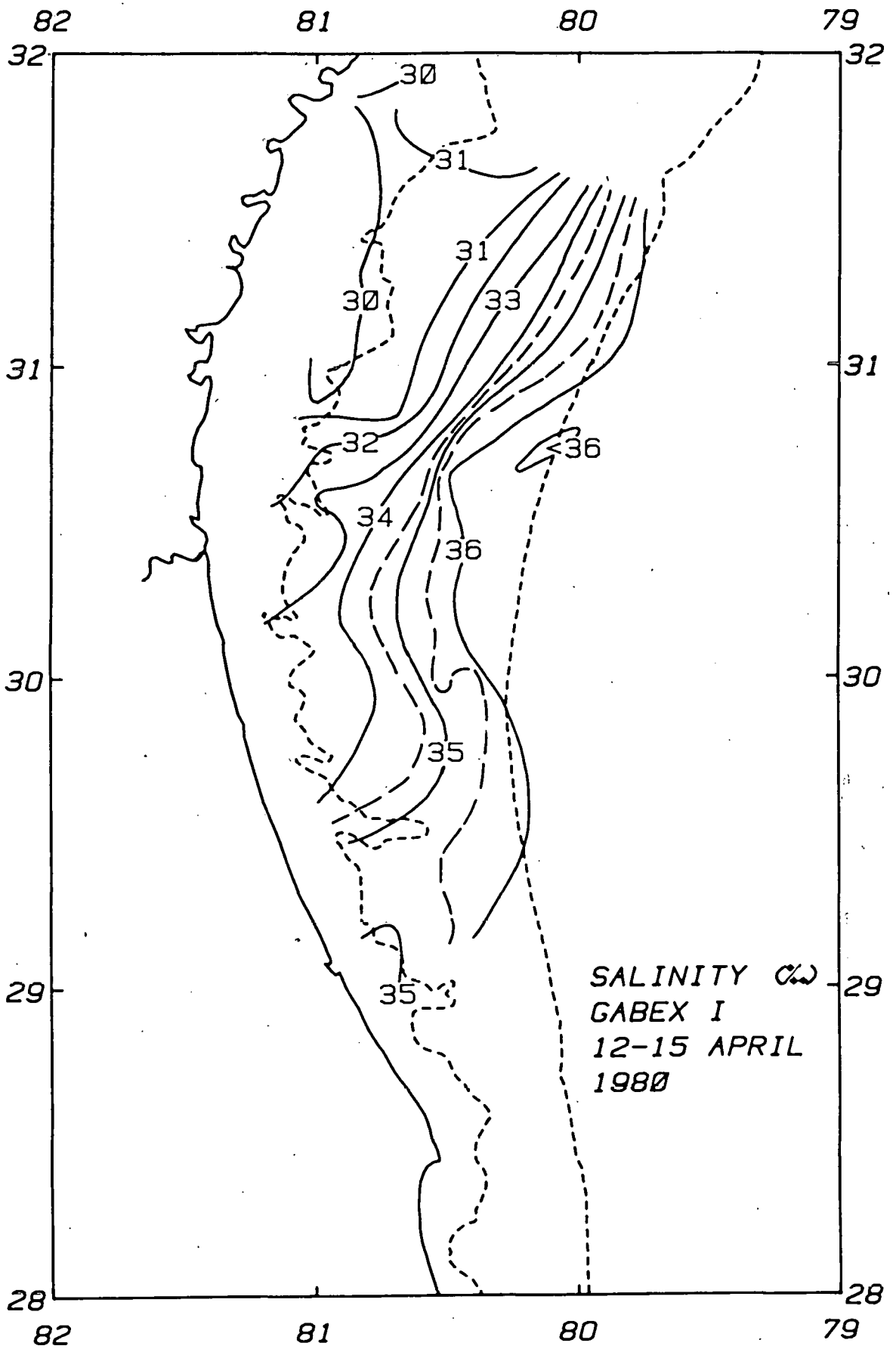
AT = air temp in F(not very good #)

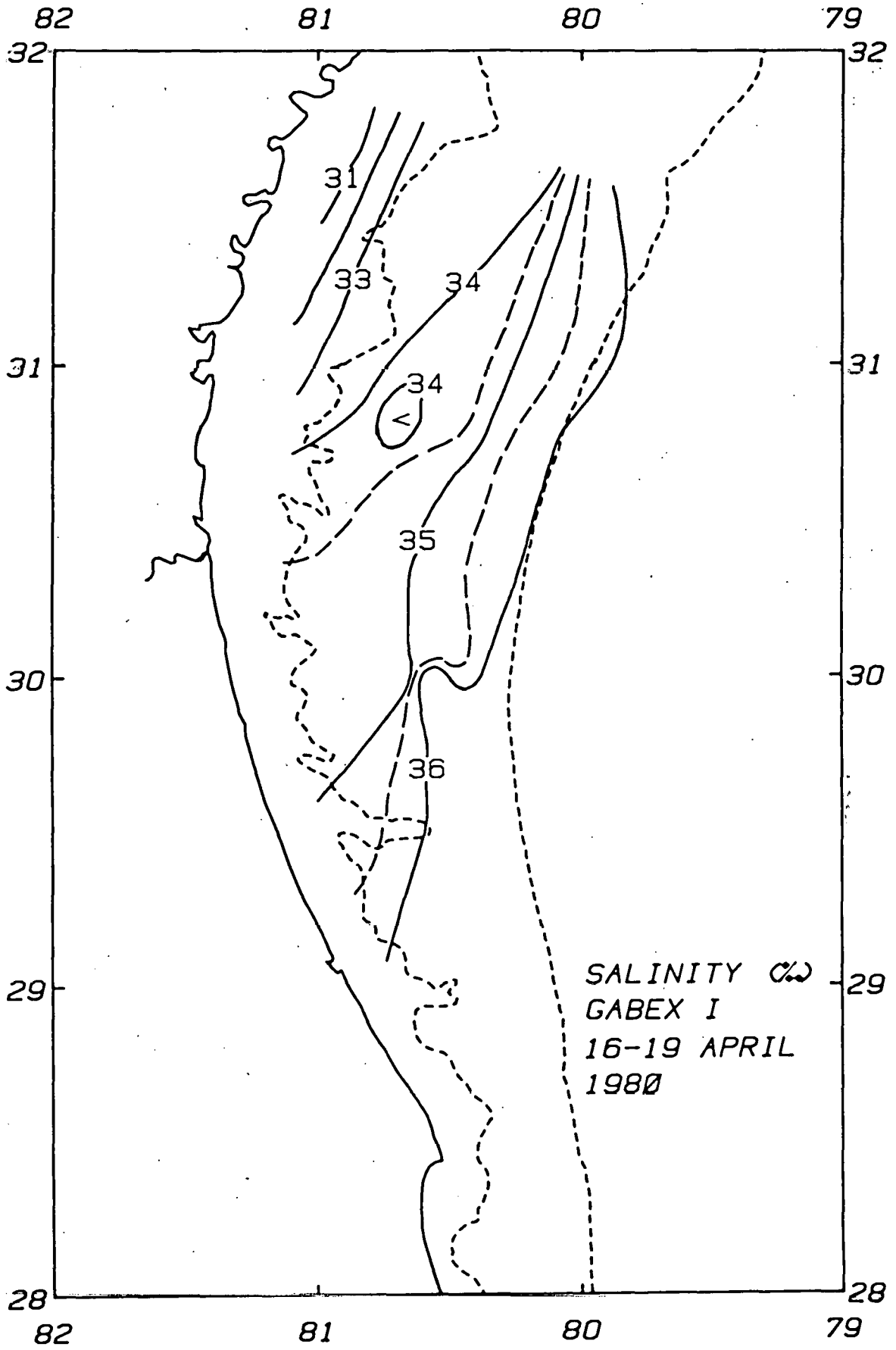
W = WMO weather code

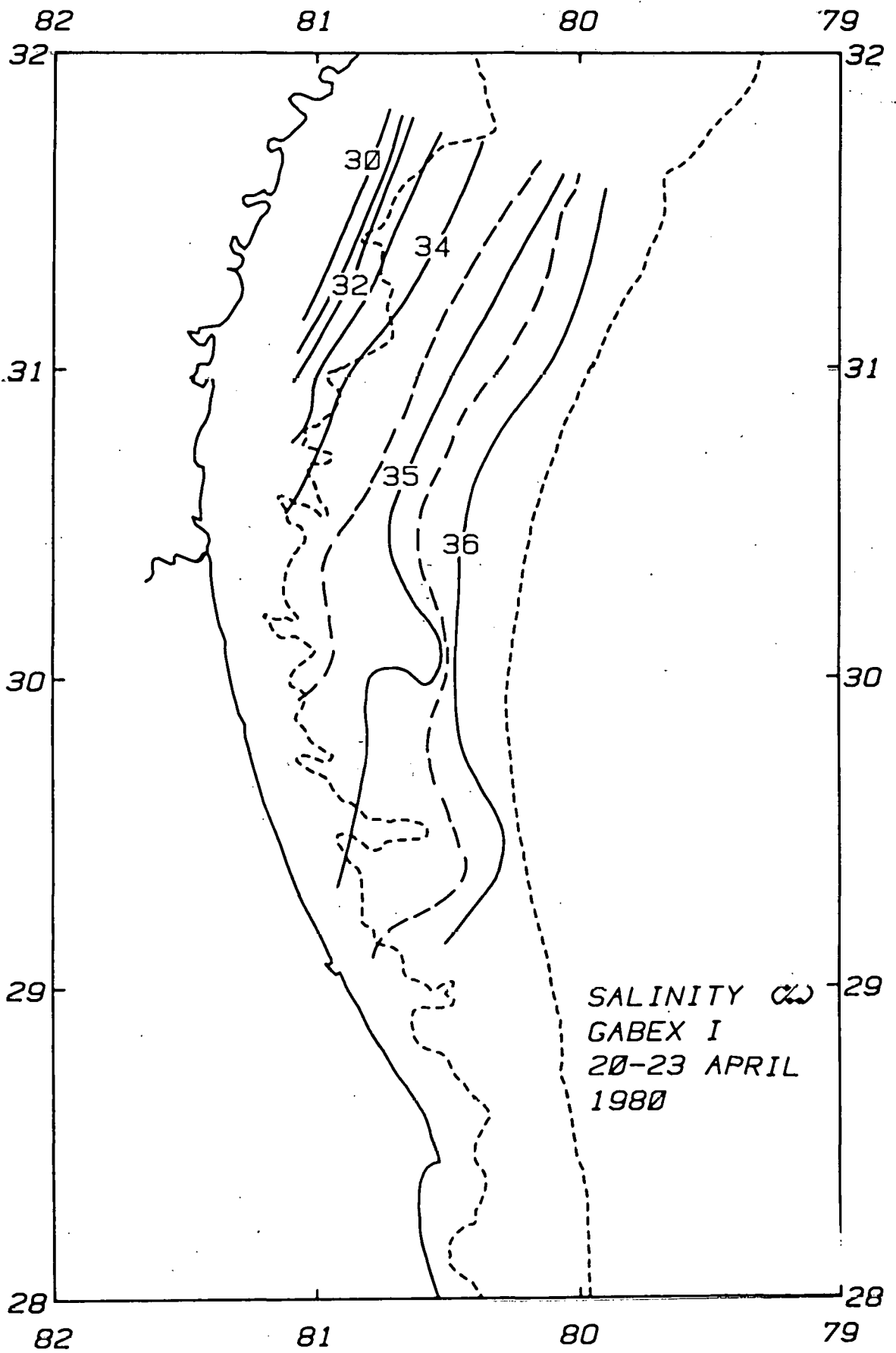
999's indicate no data

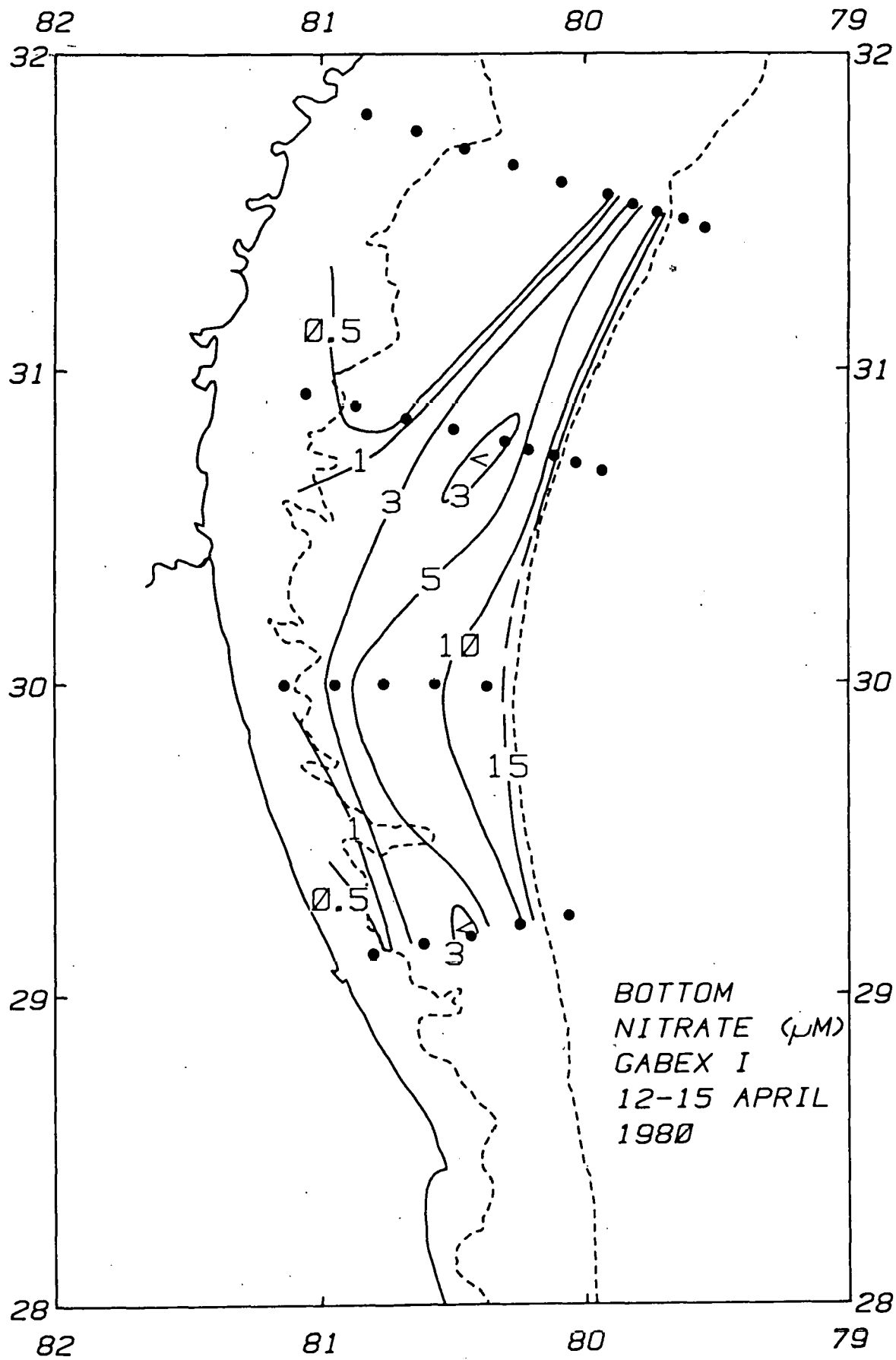


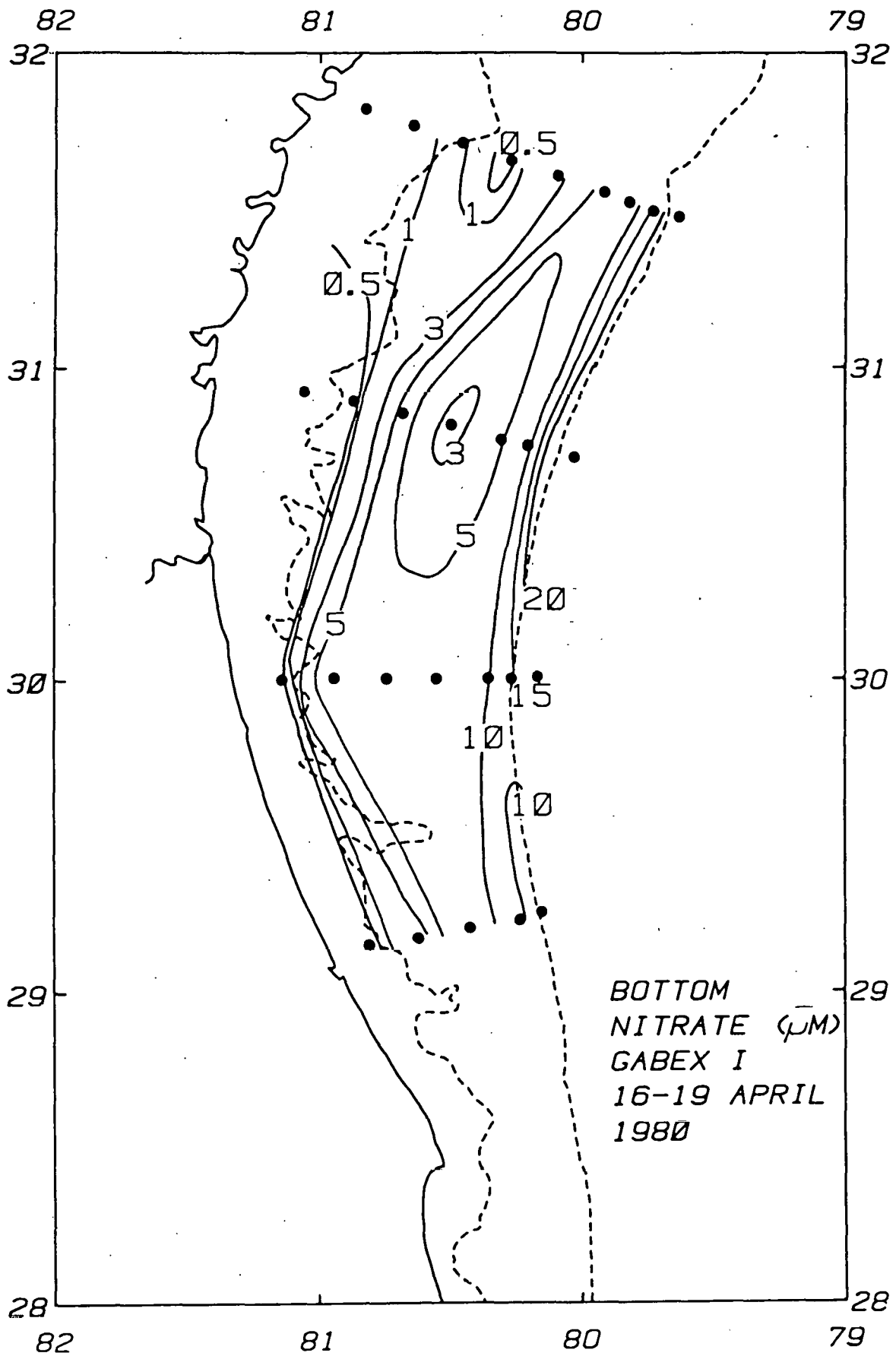


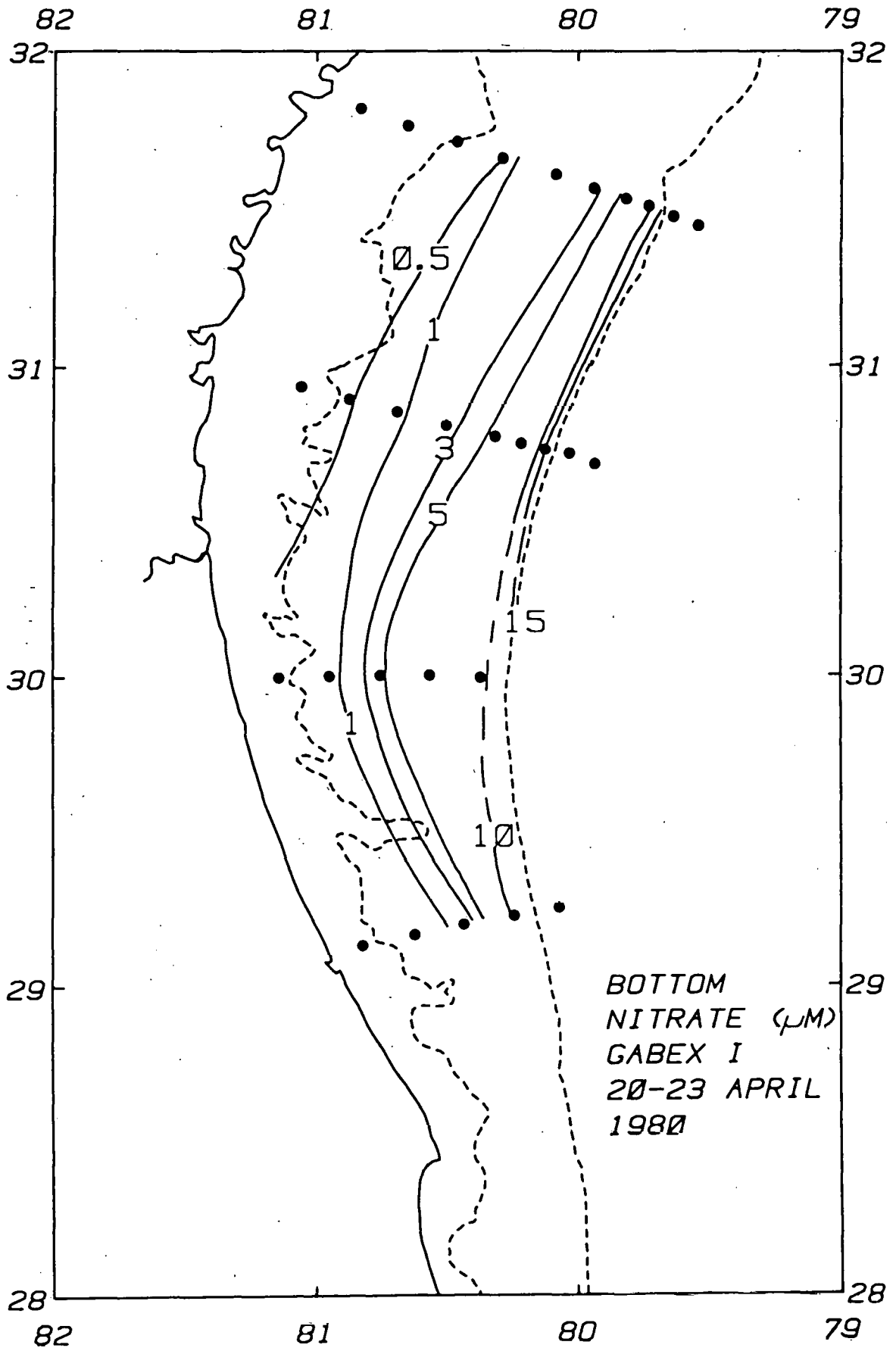


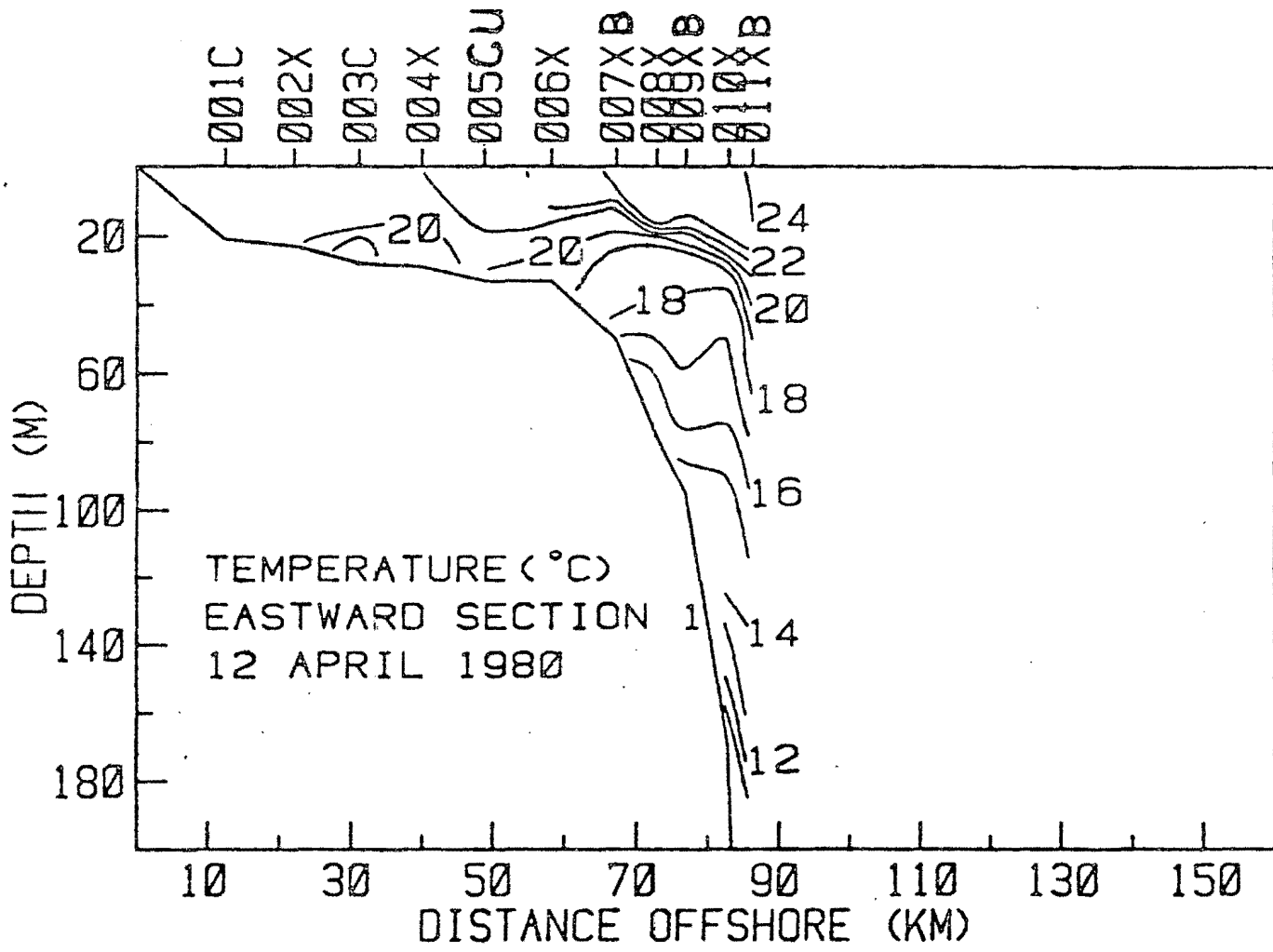


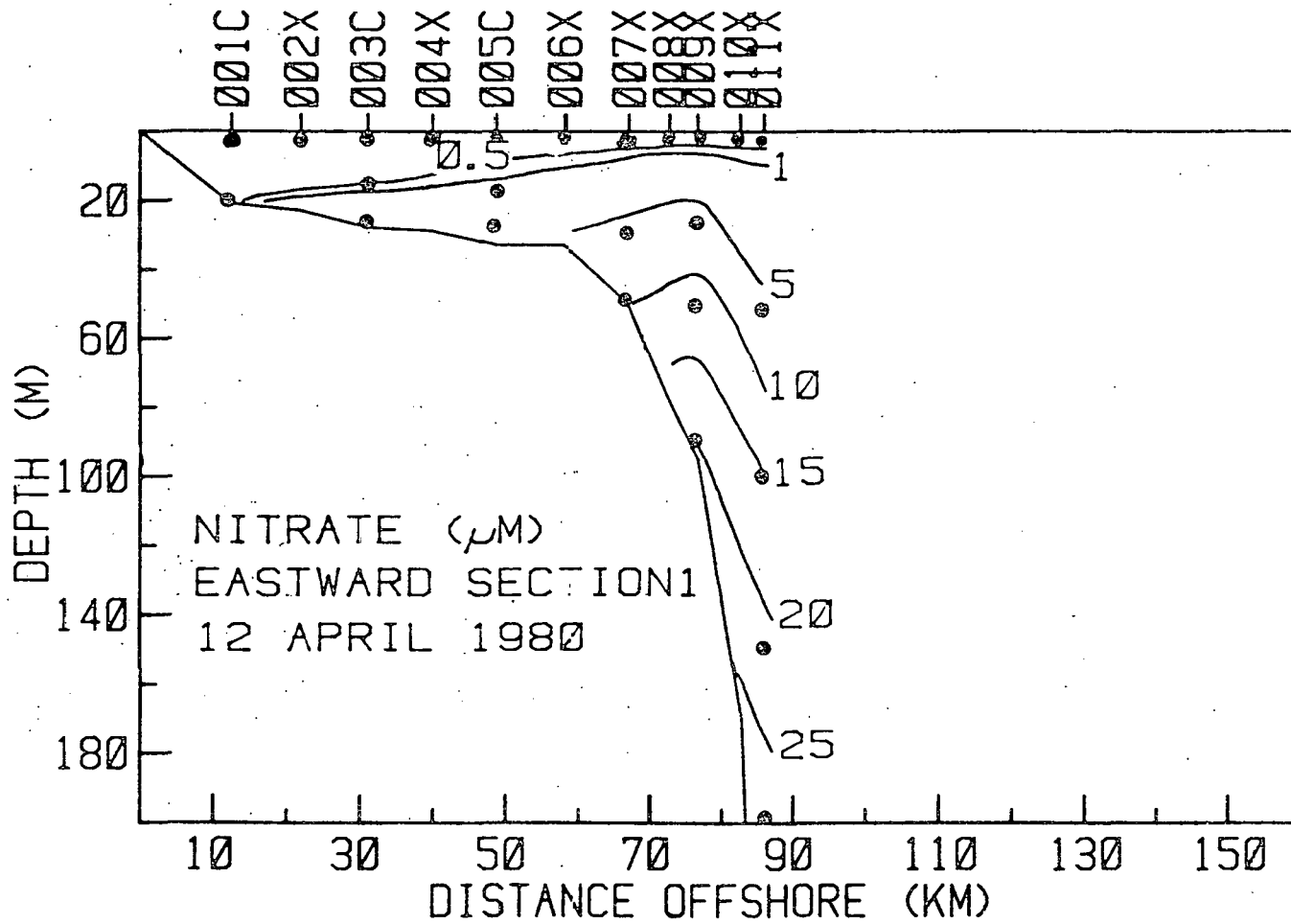


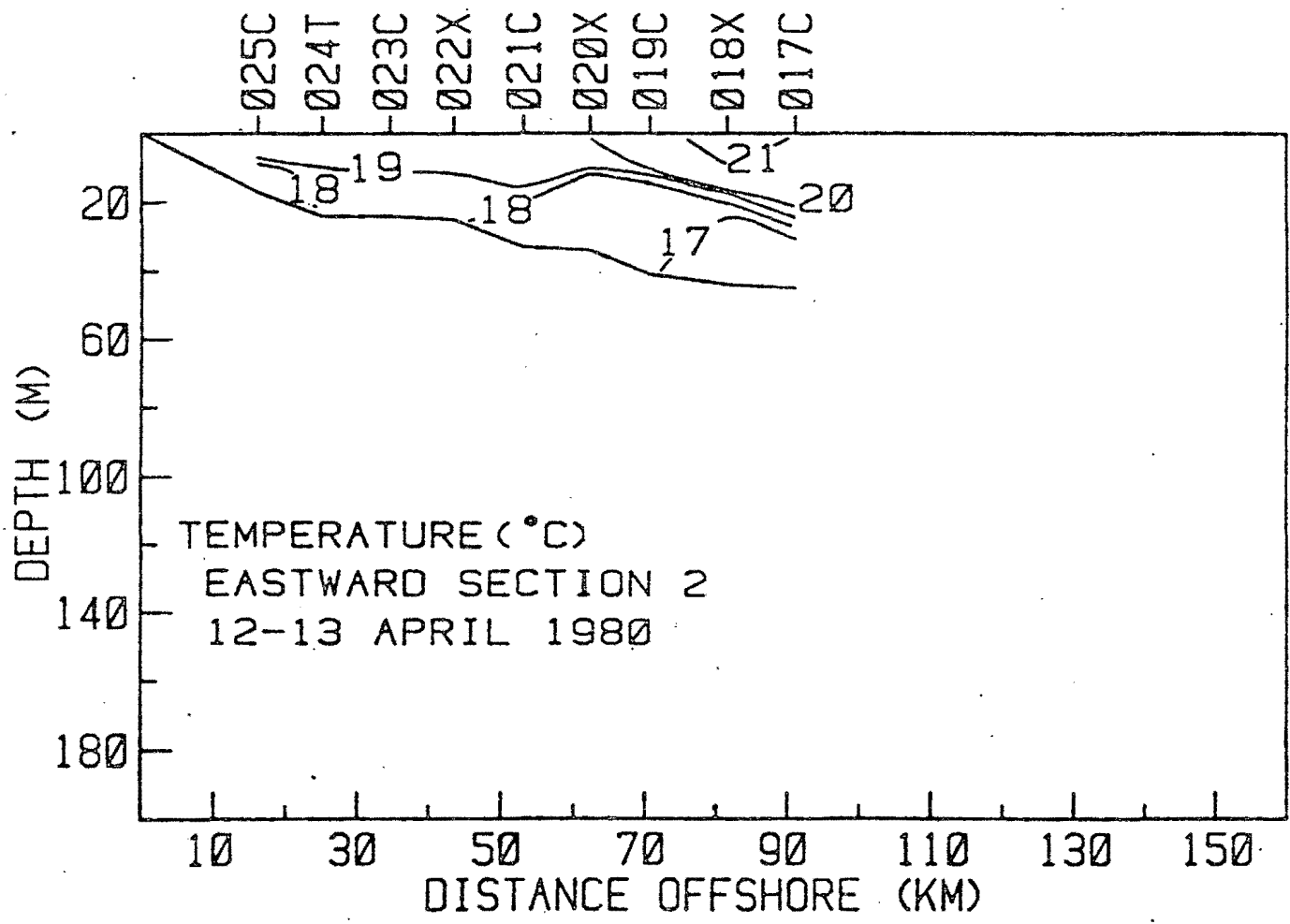


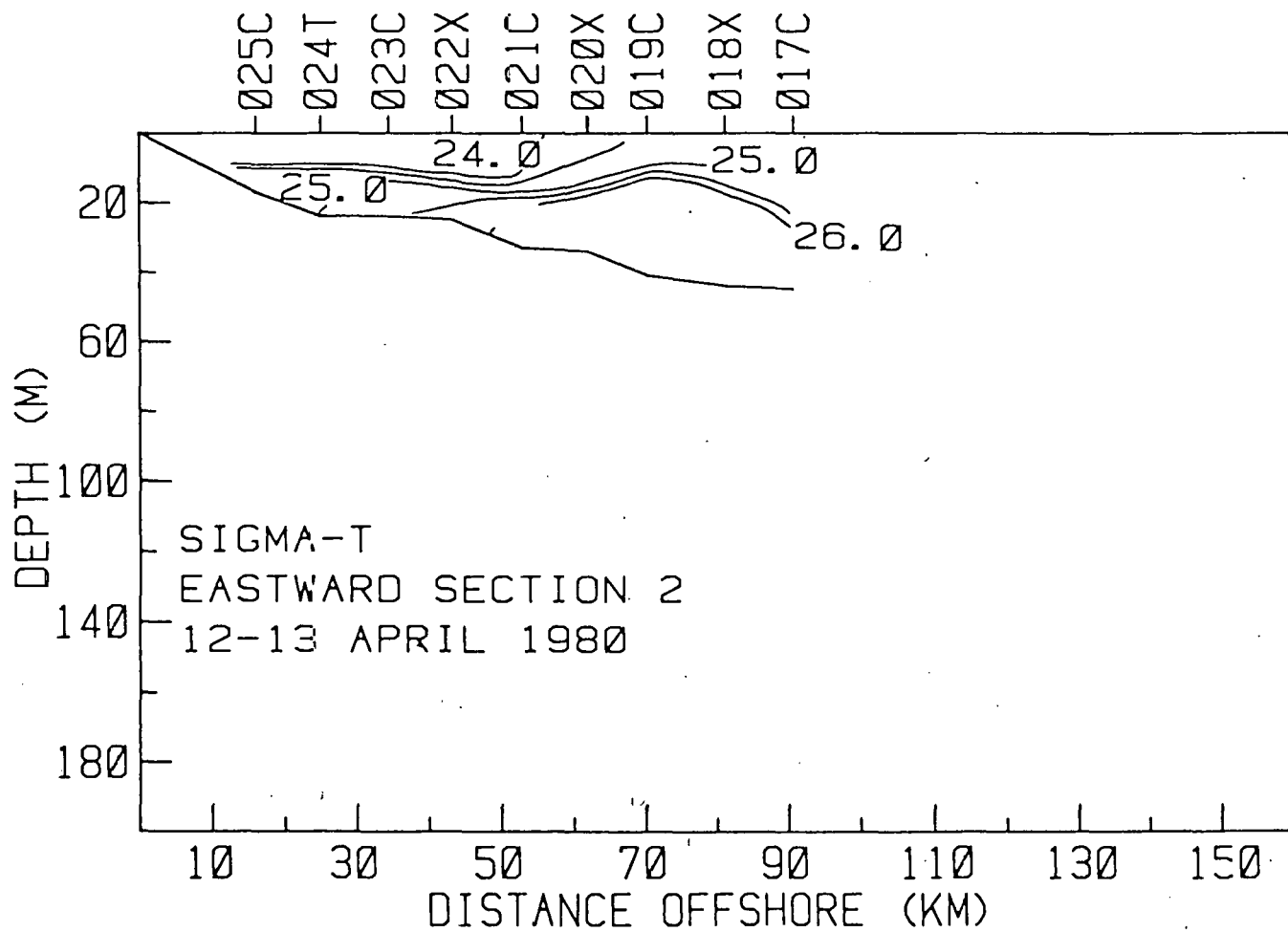


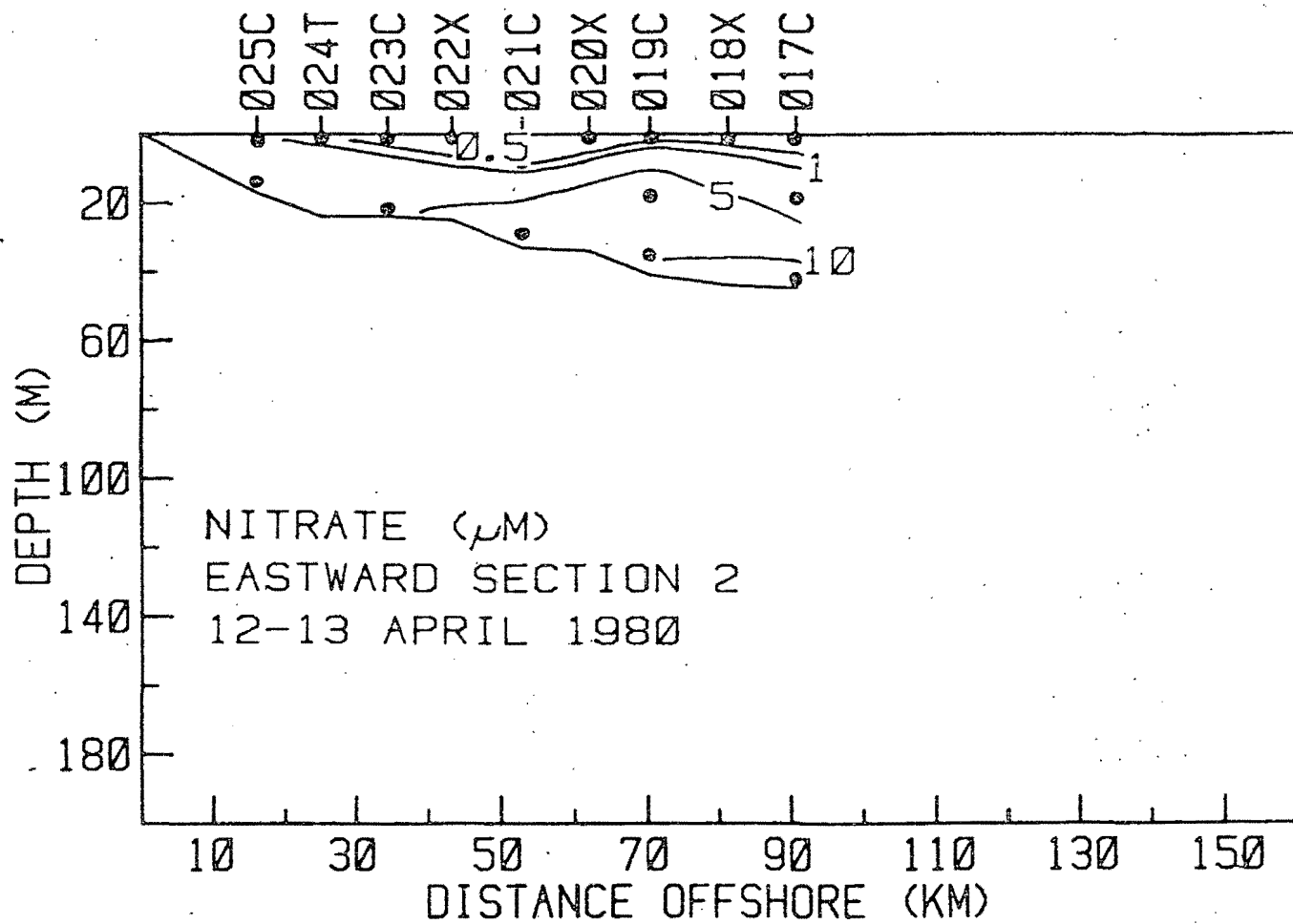


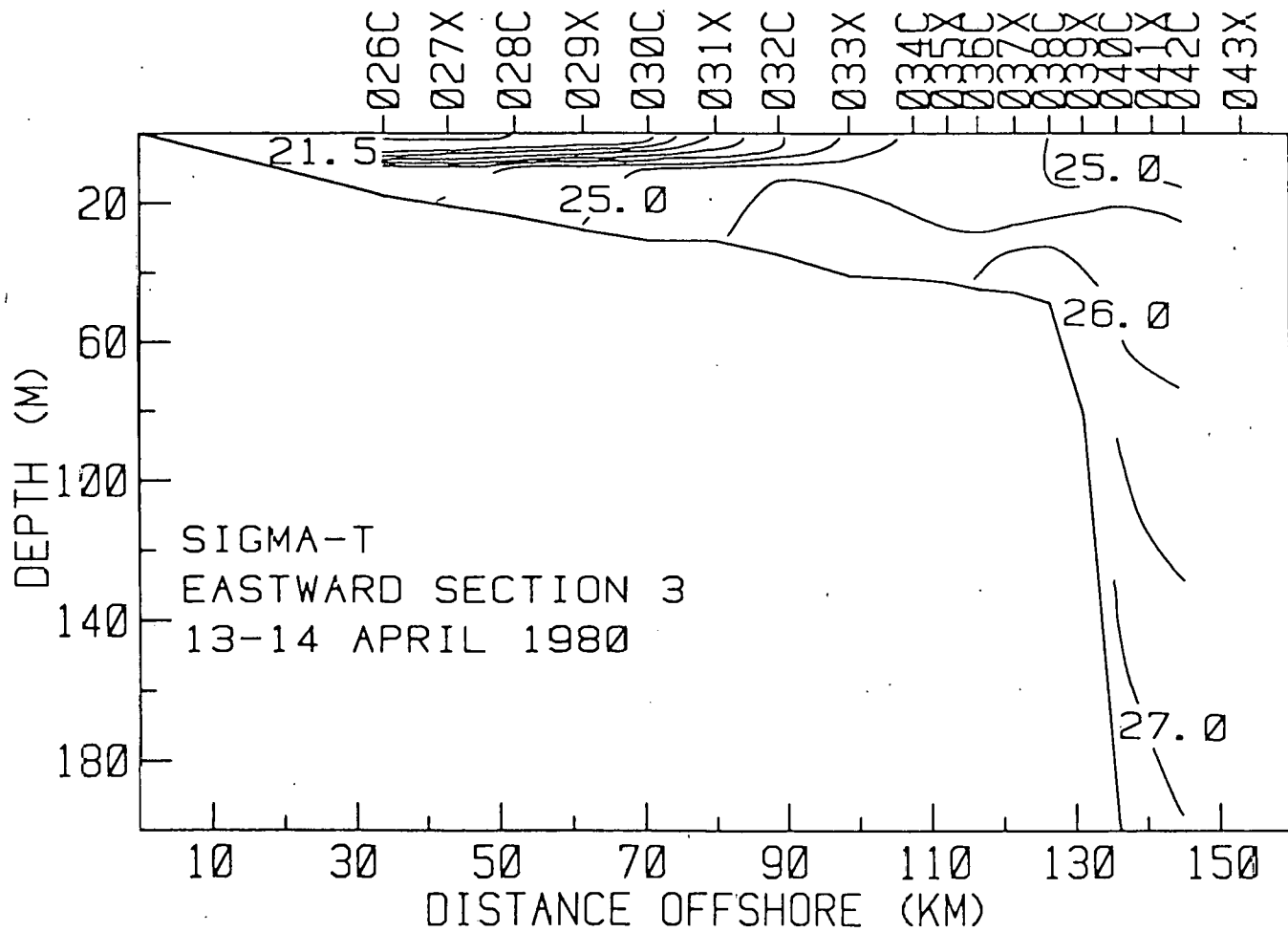


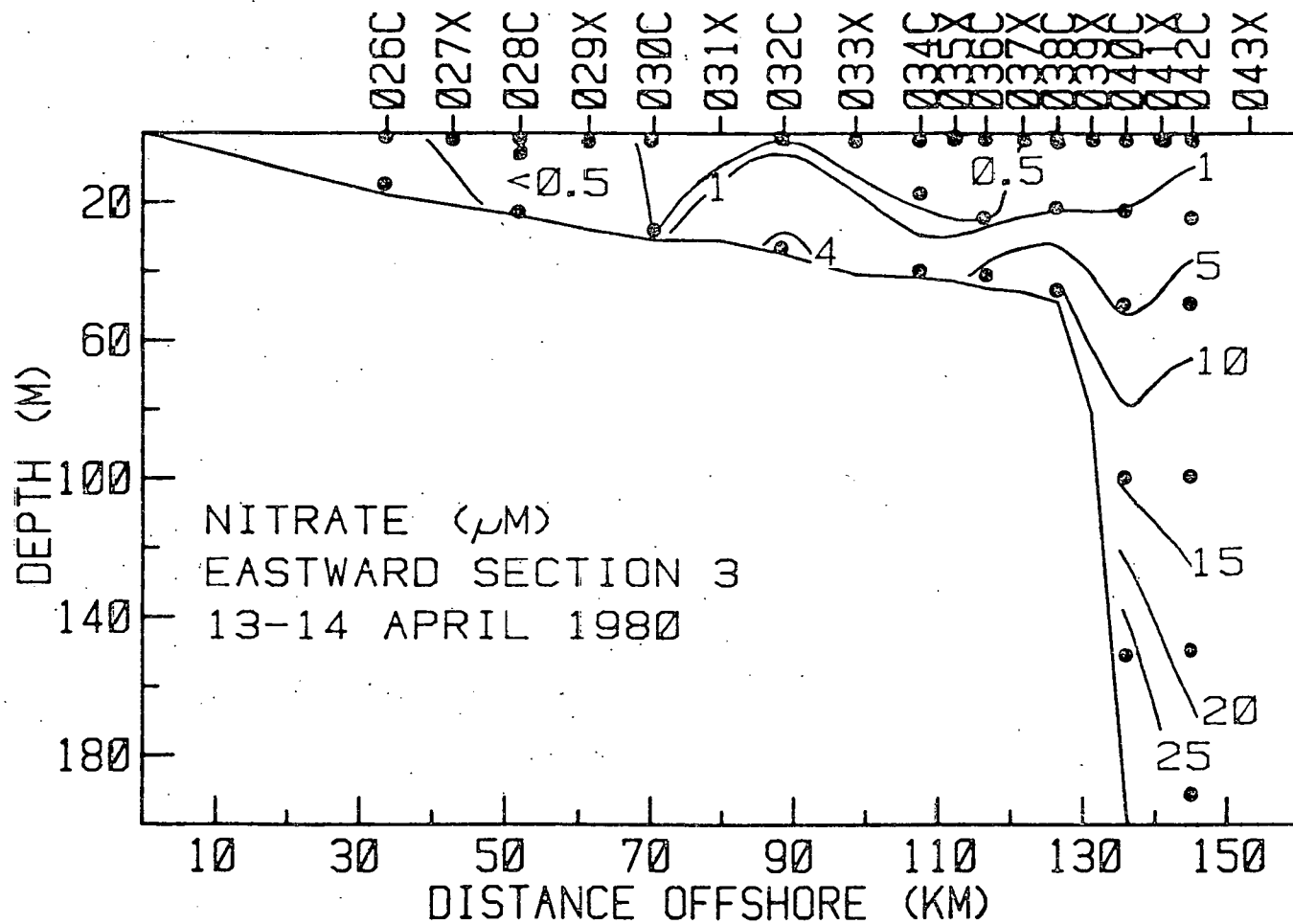


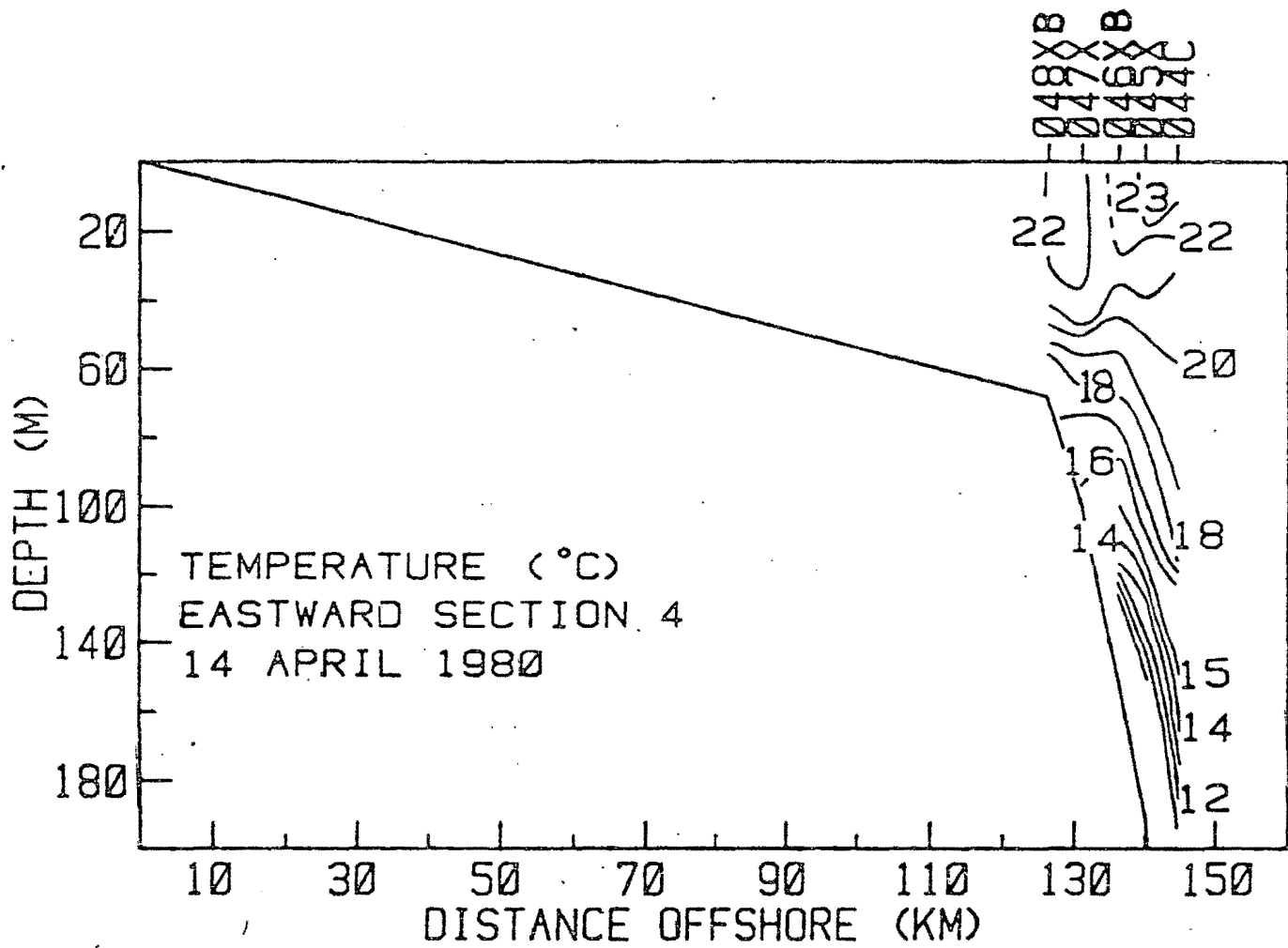


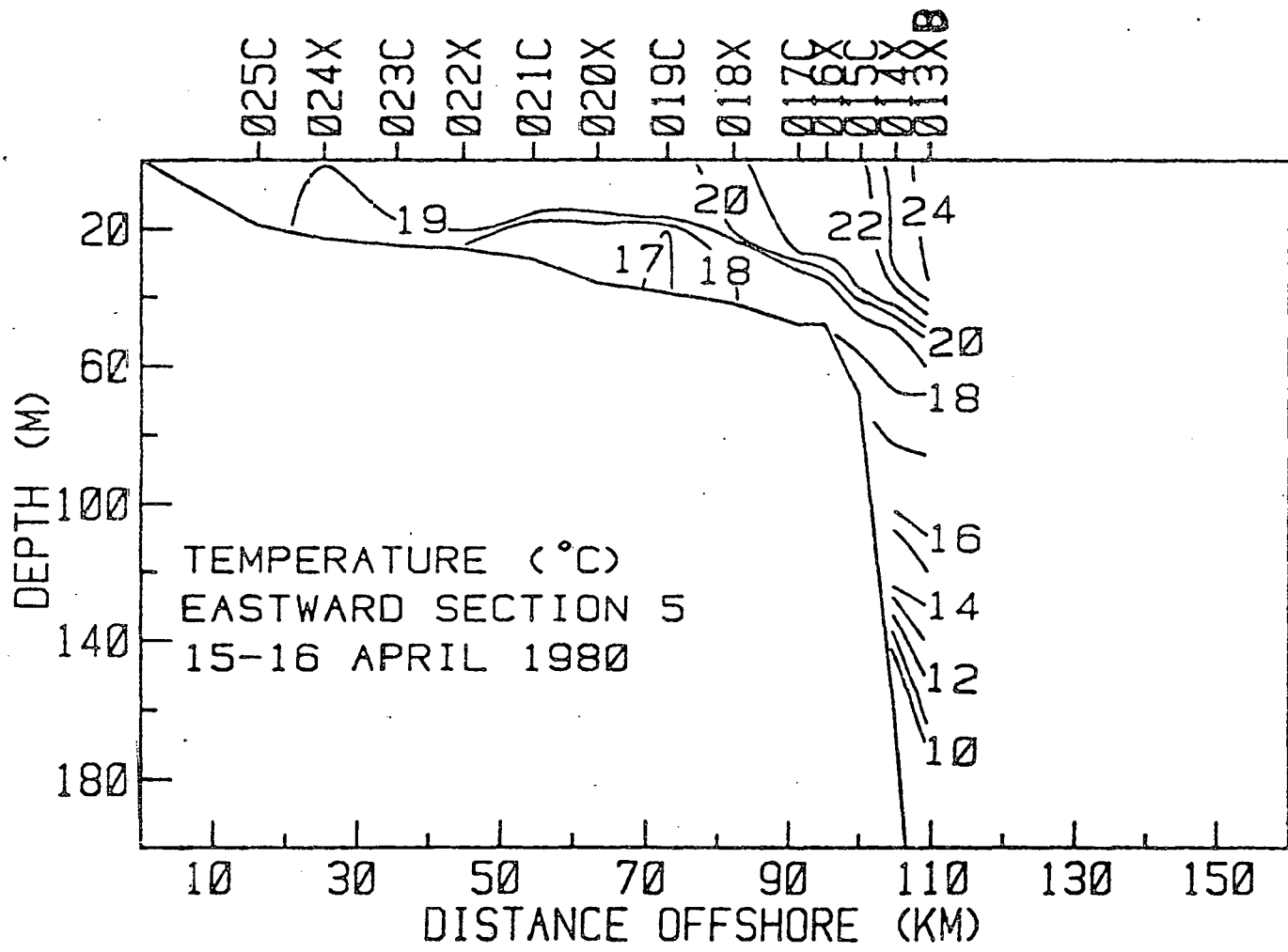


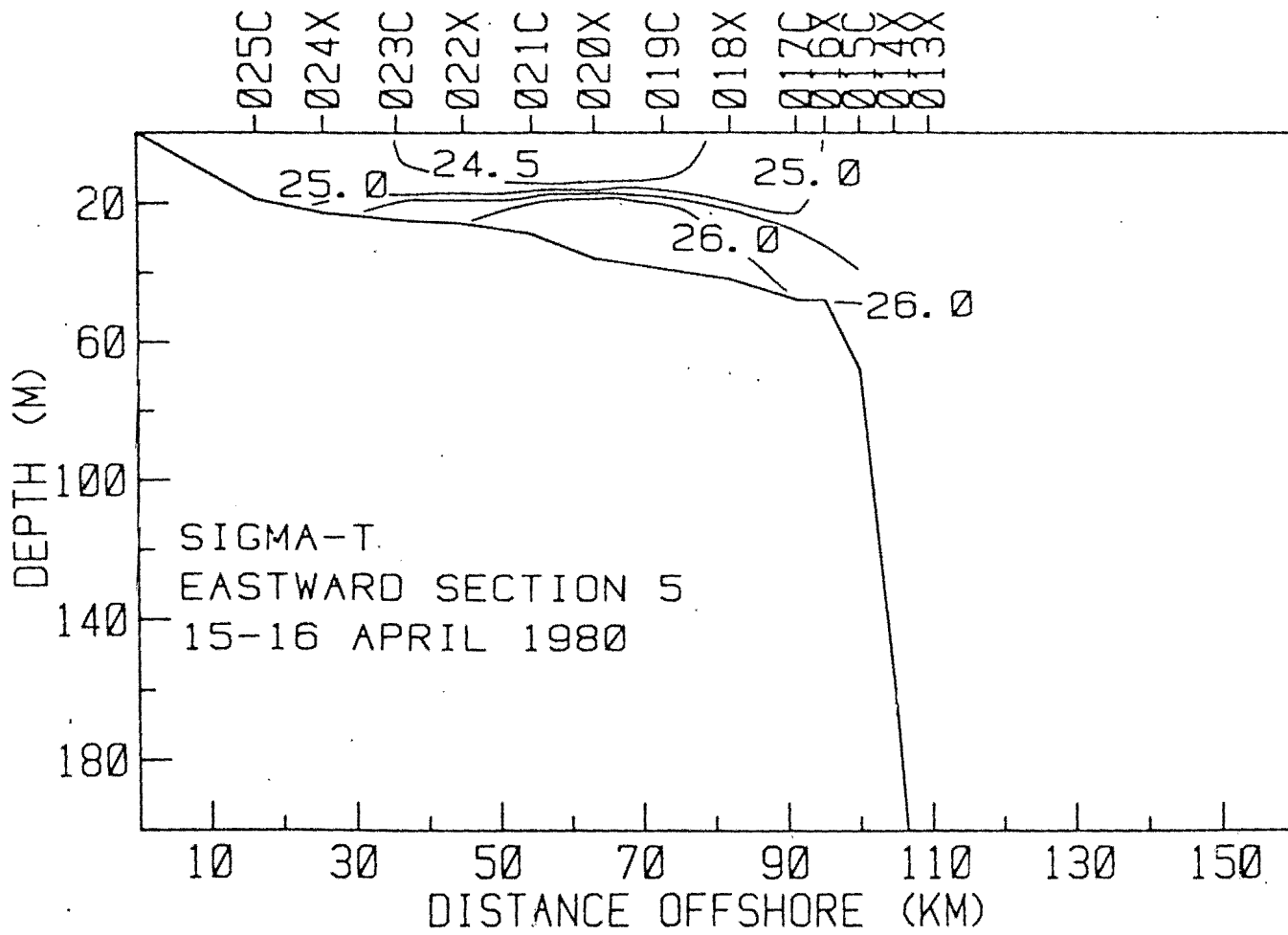


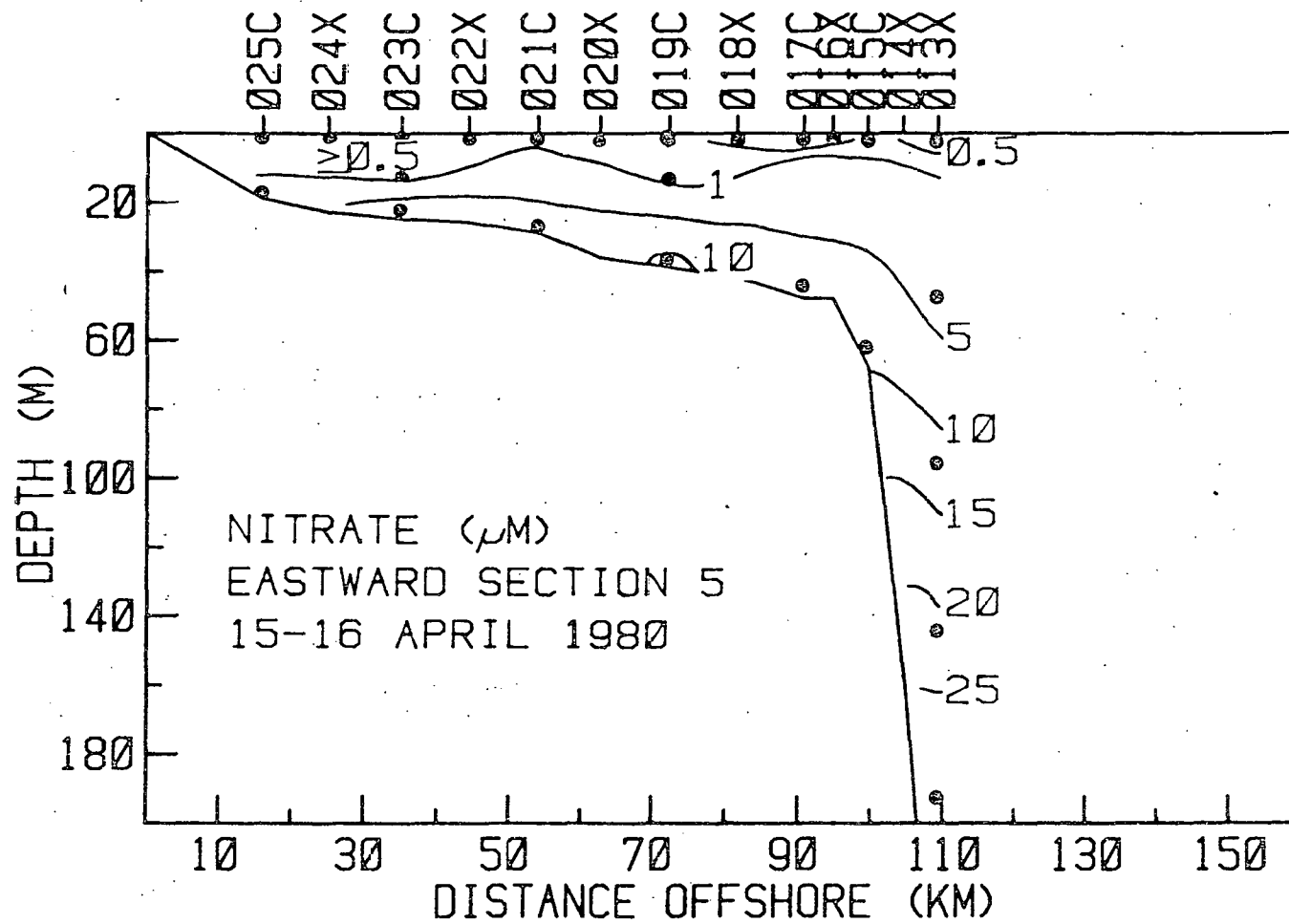


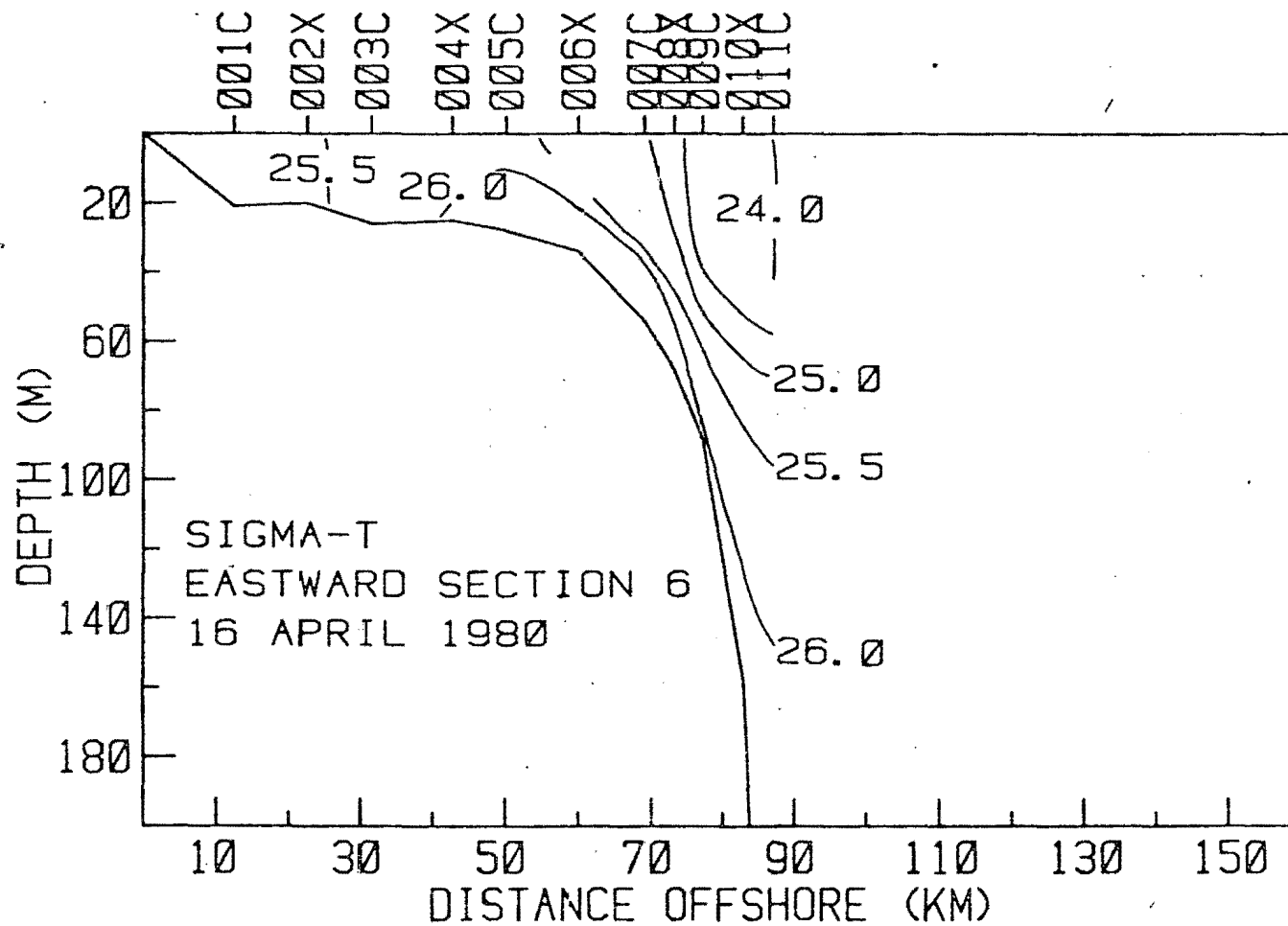


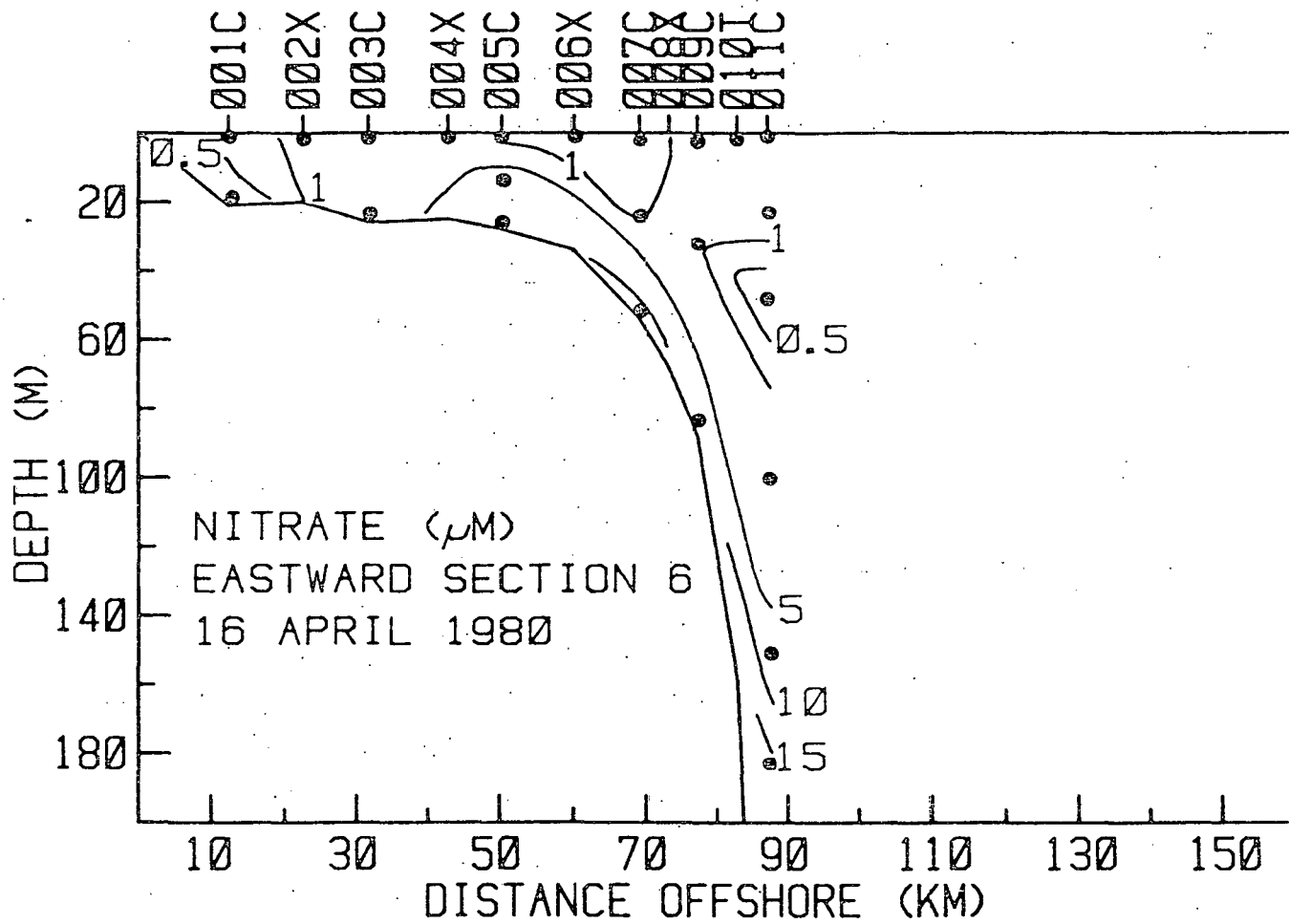


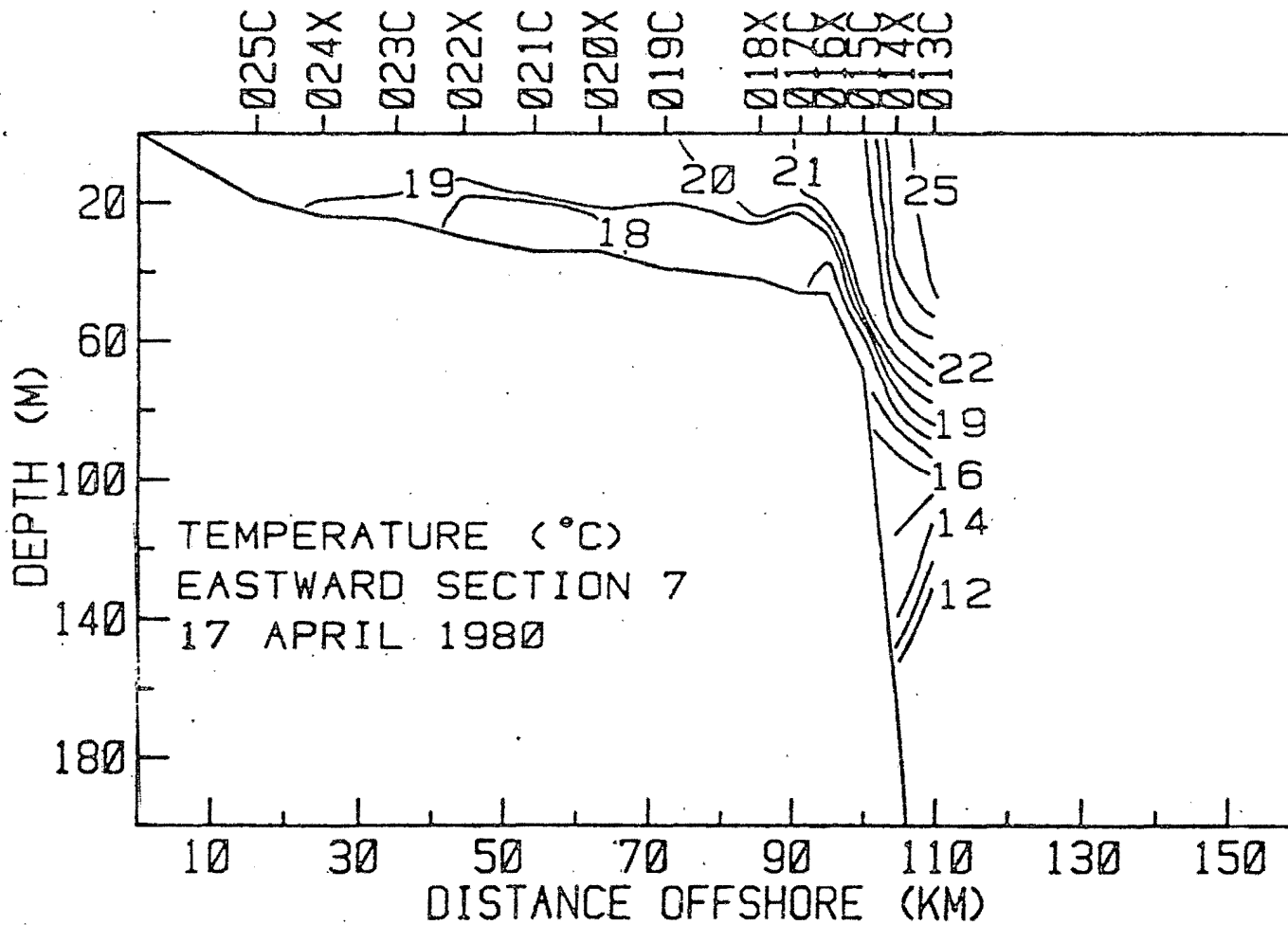


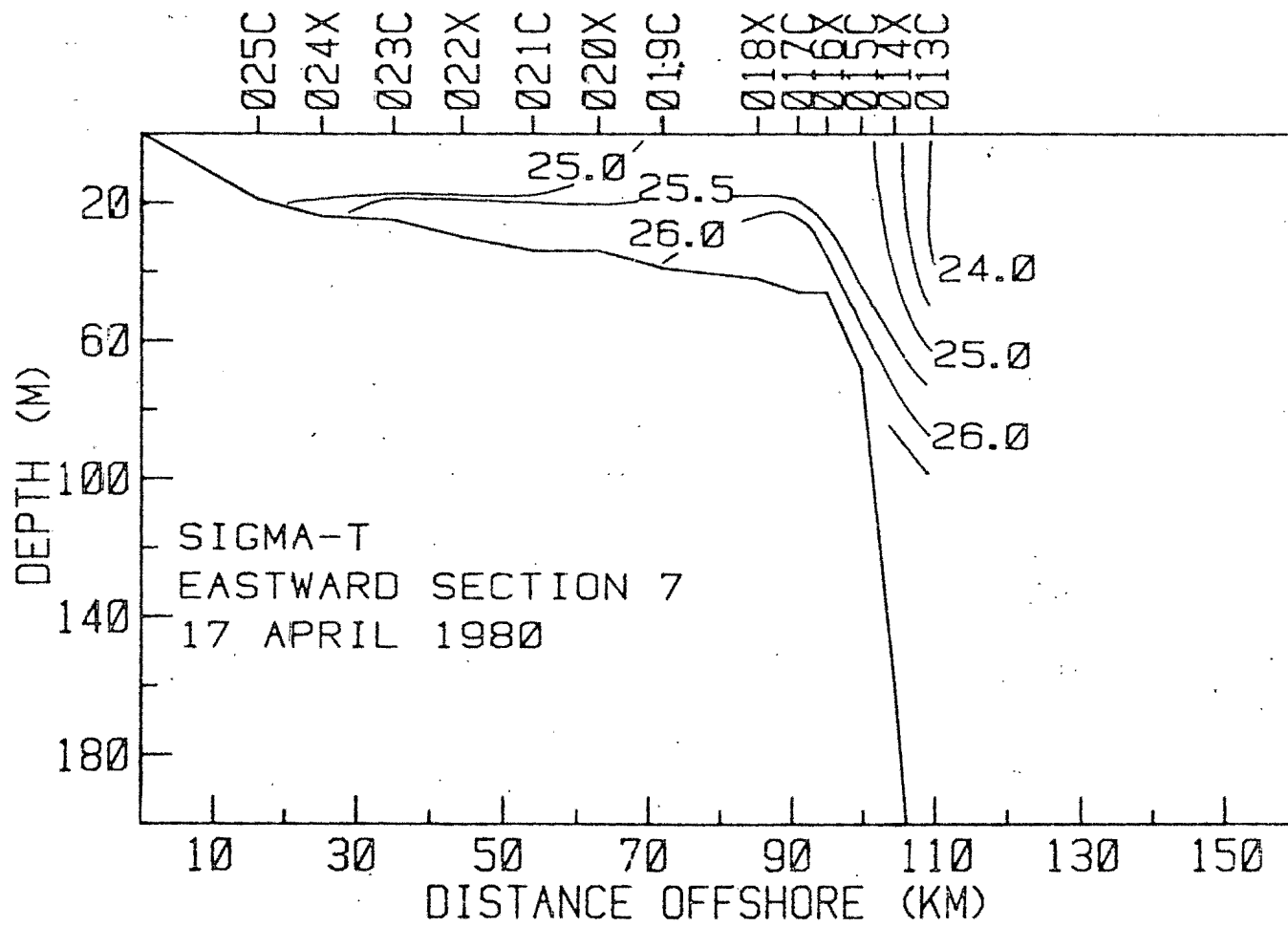


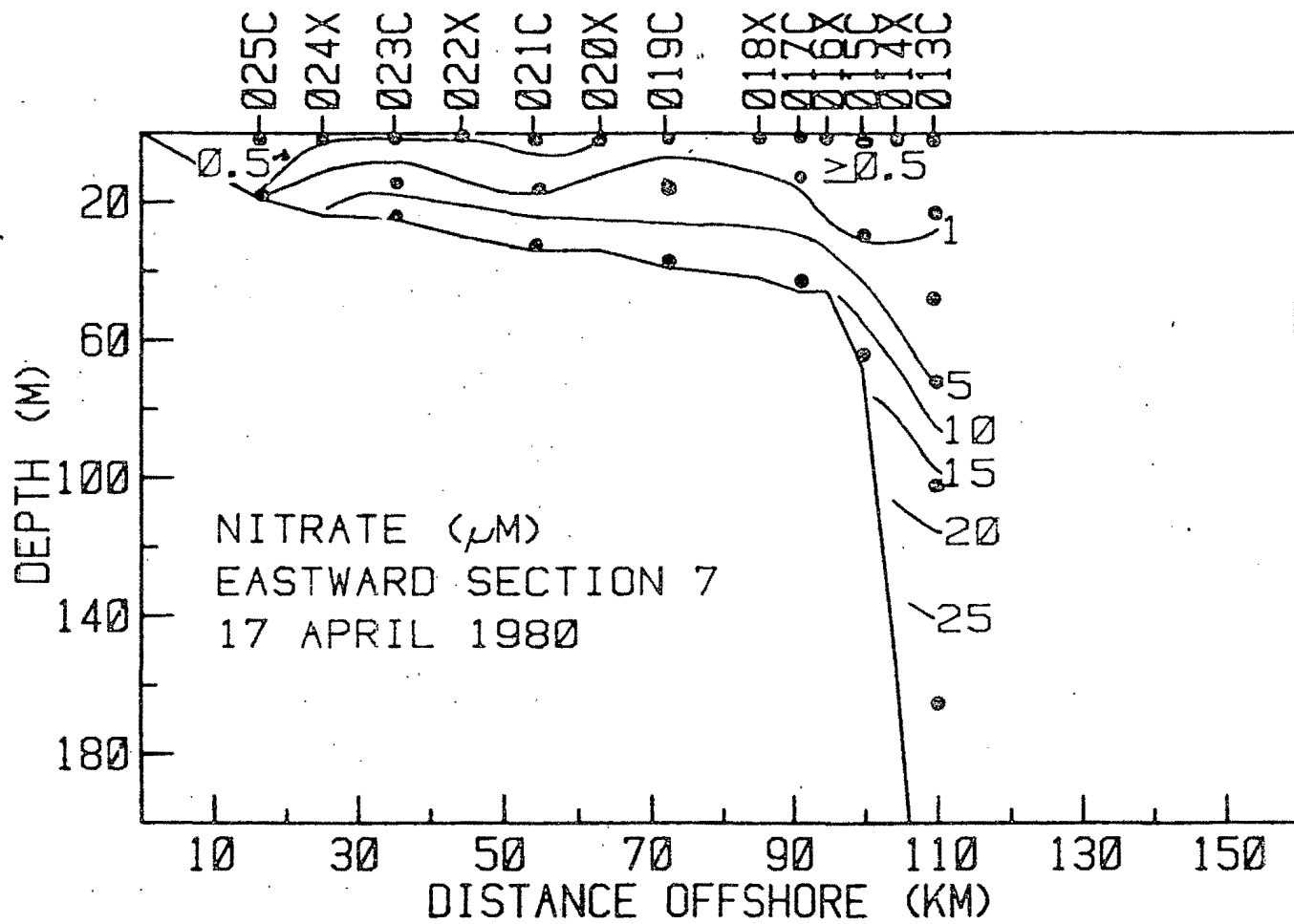


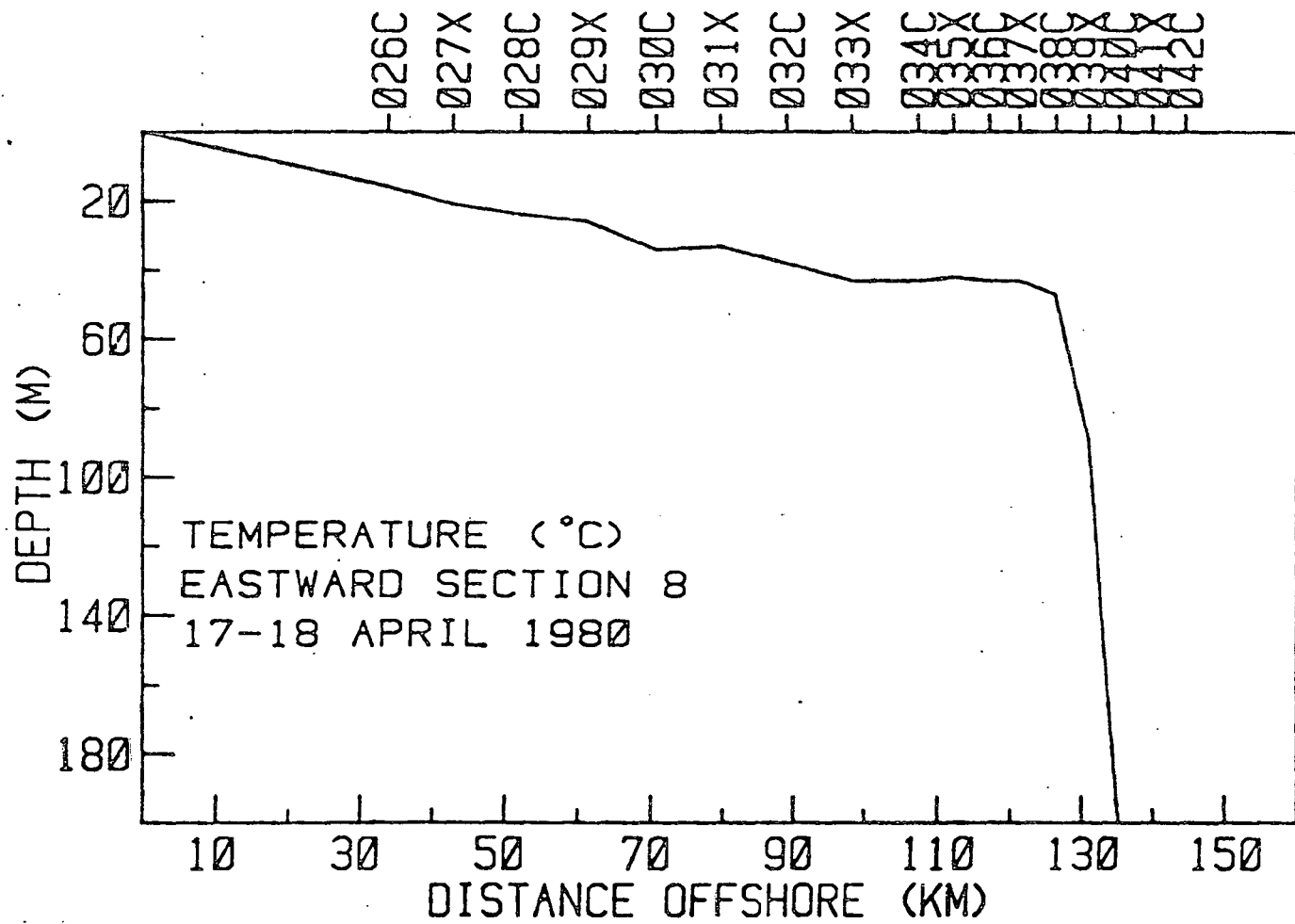


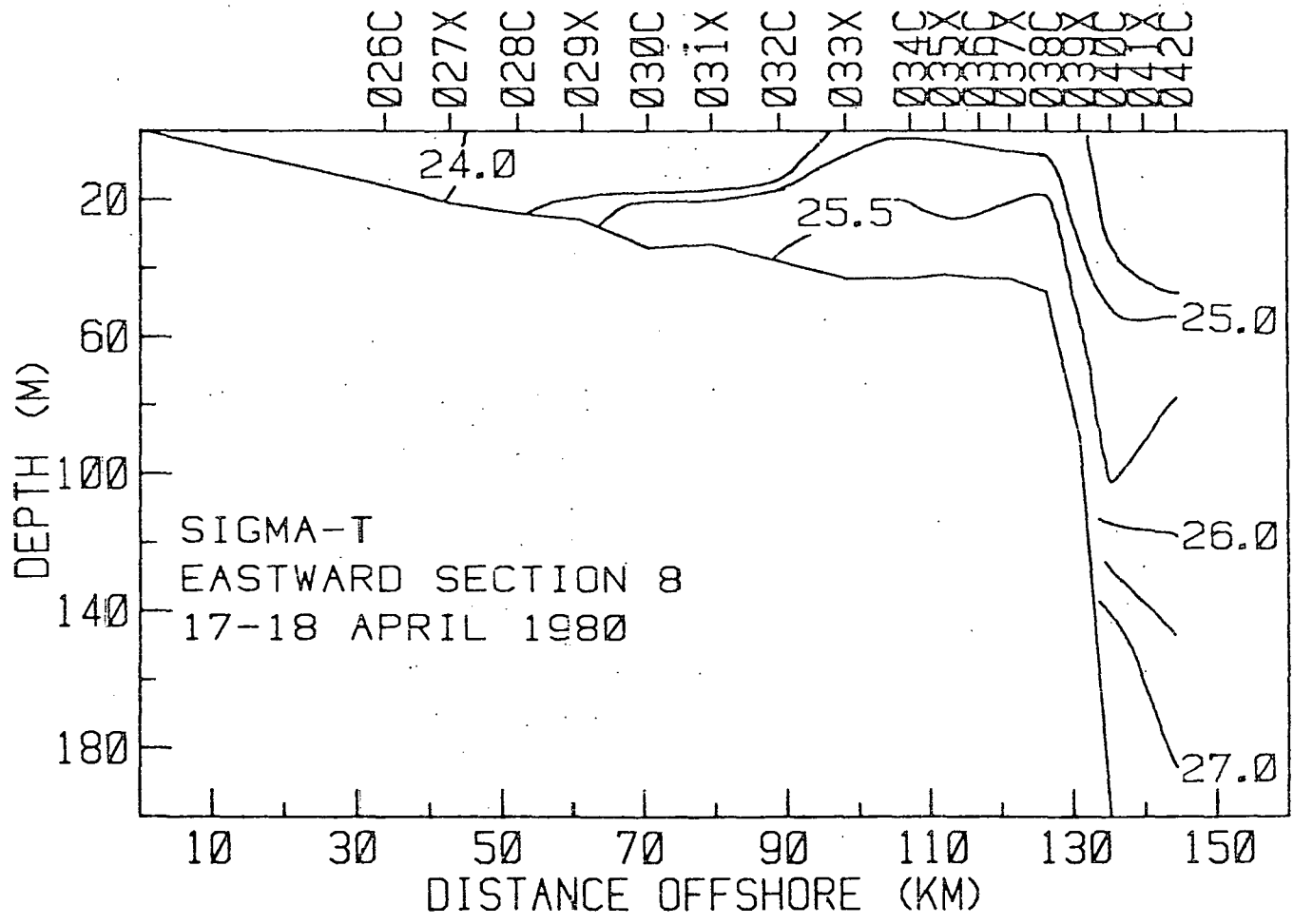


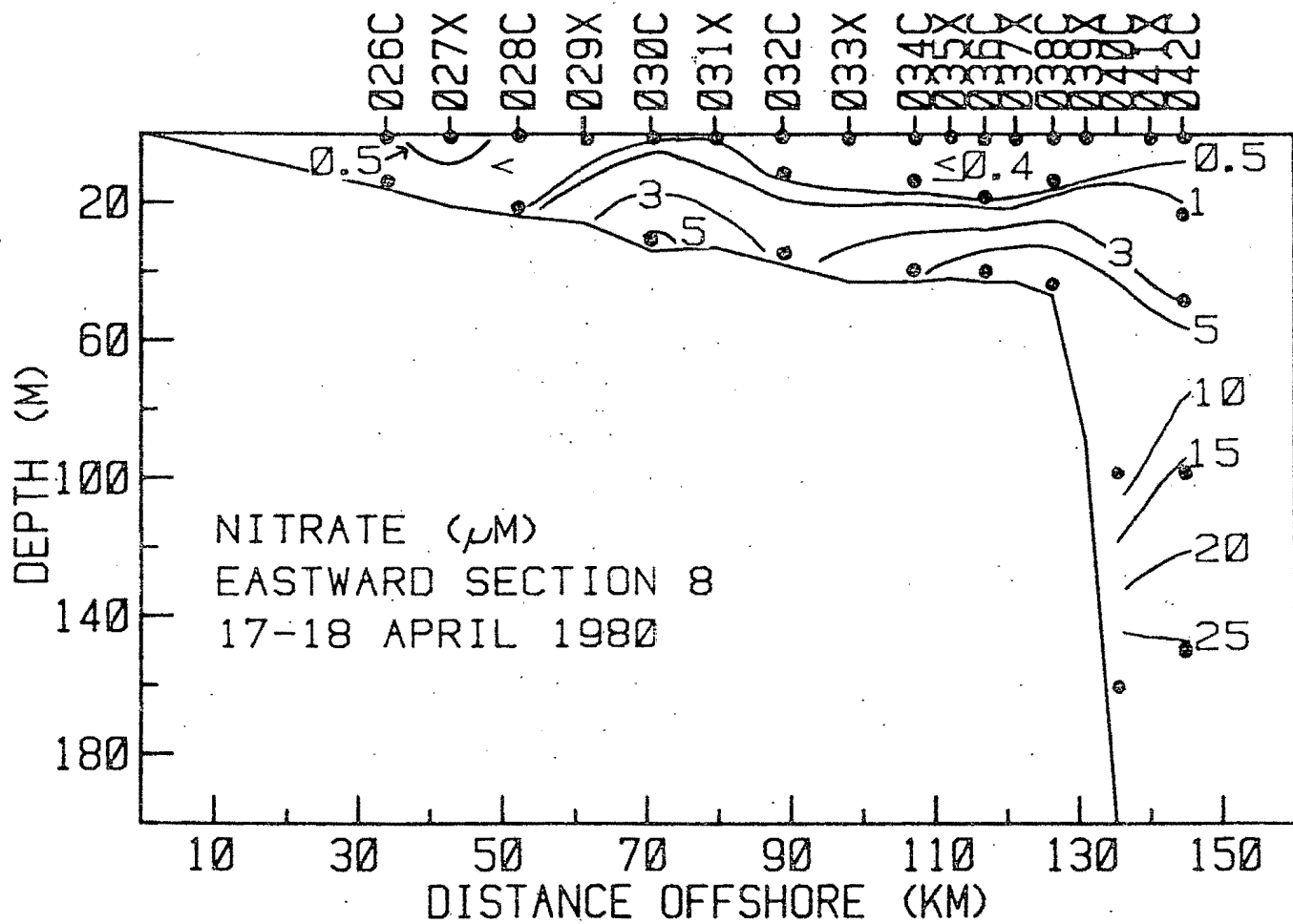


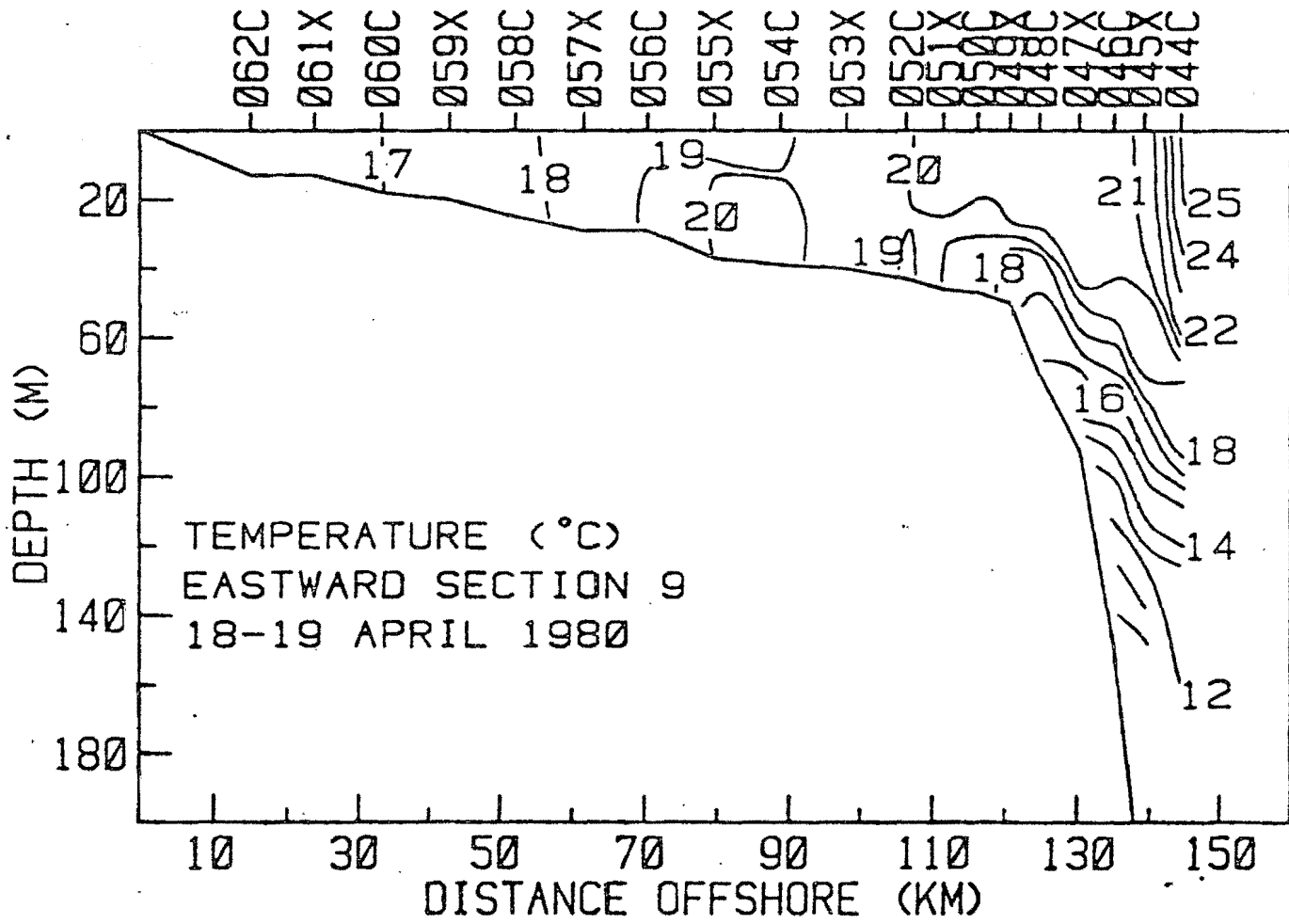


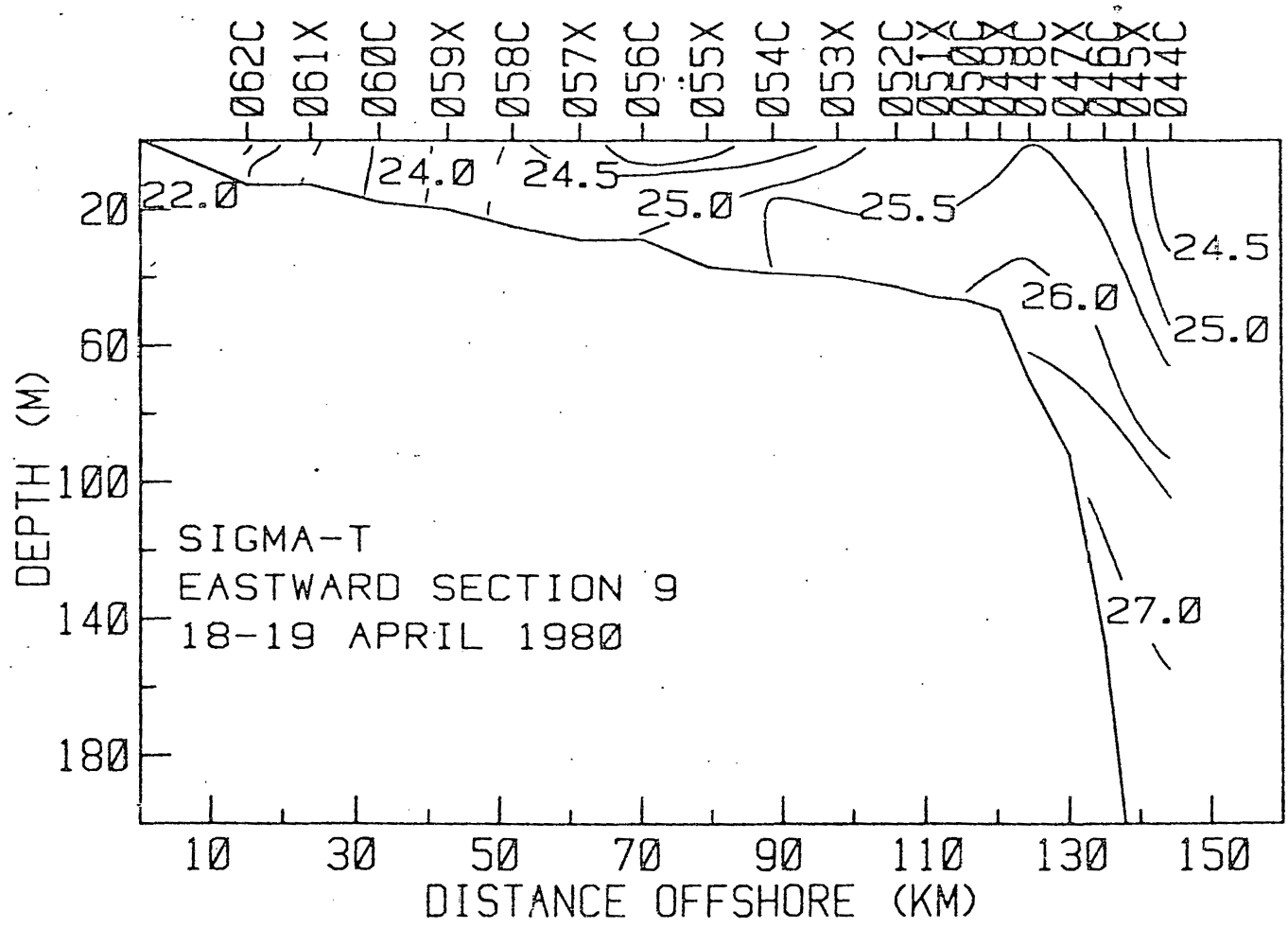


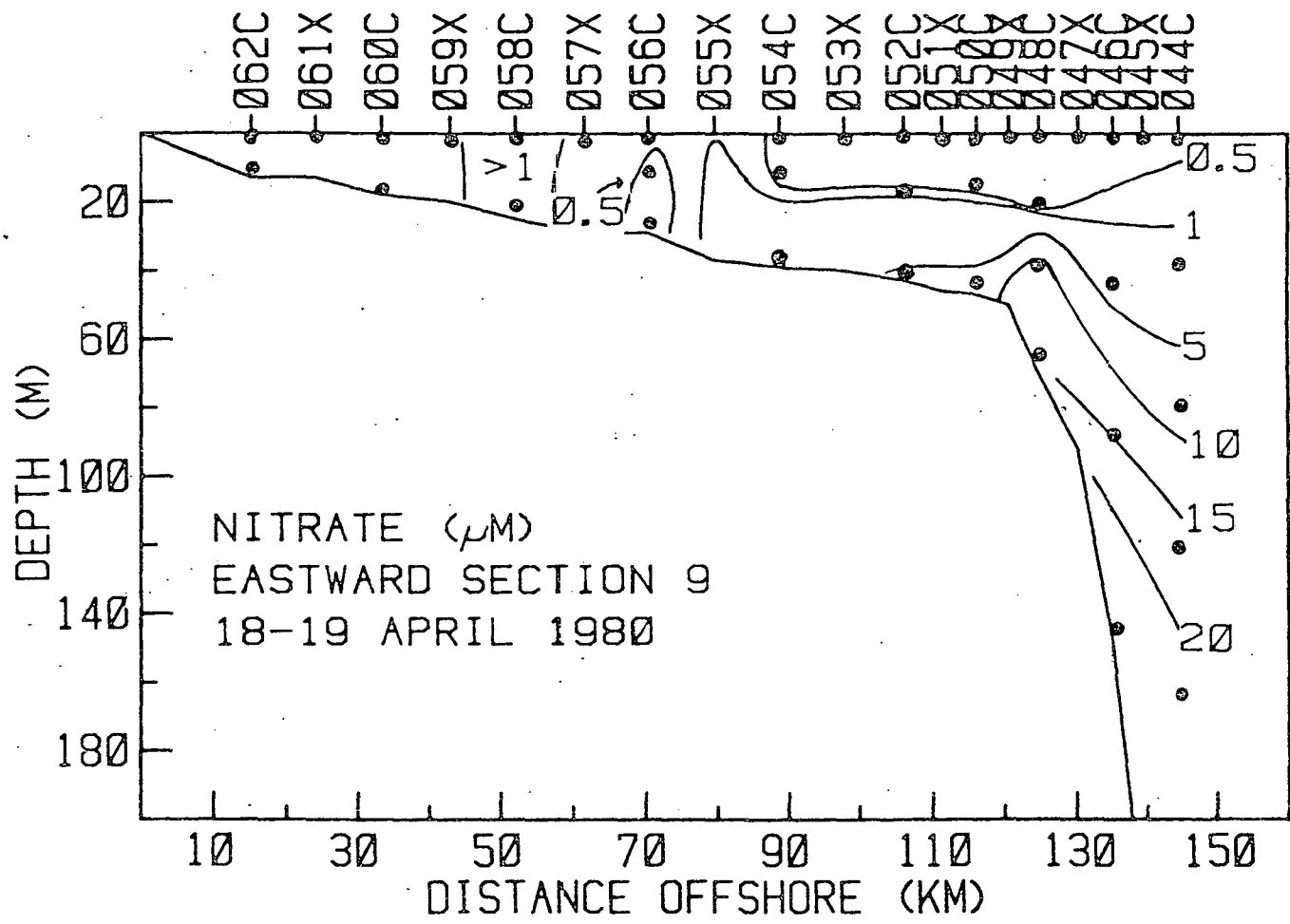


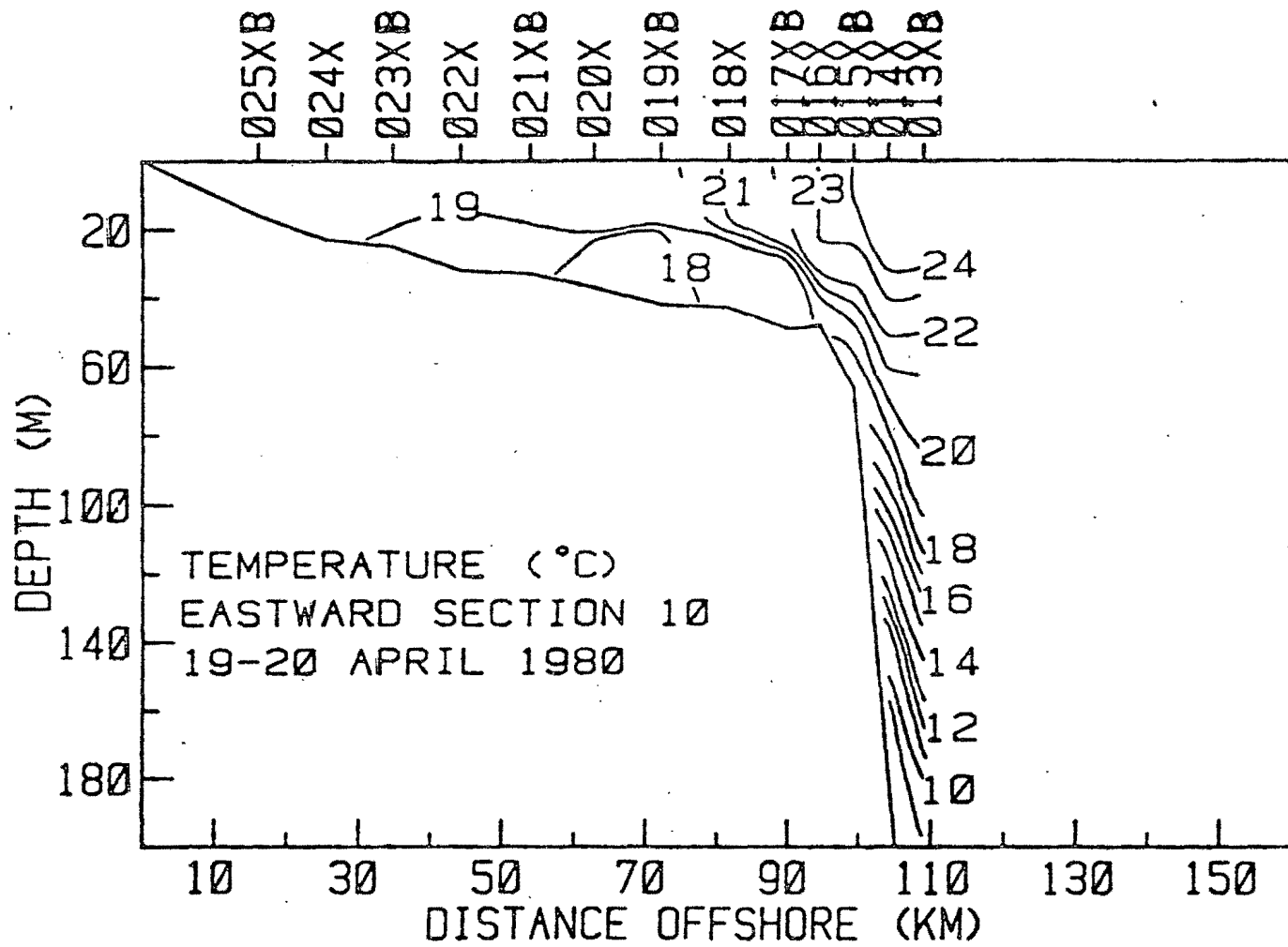


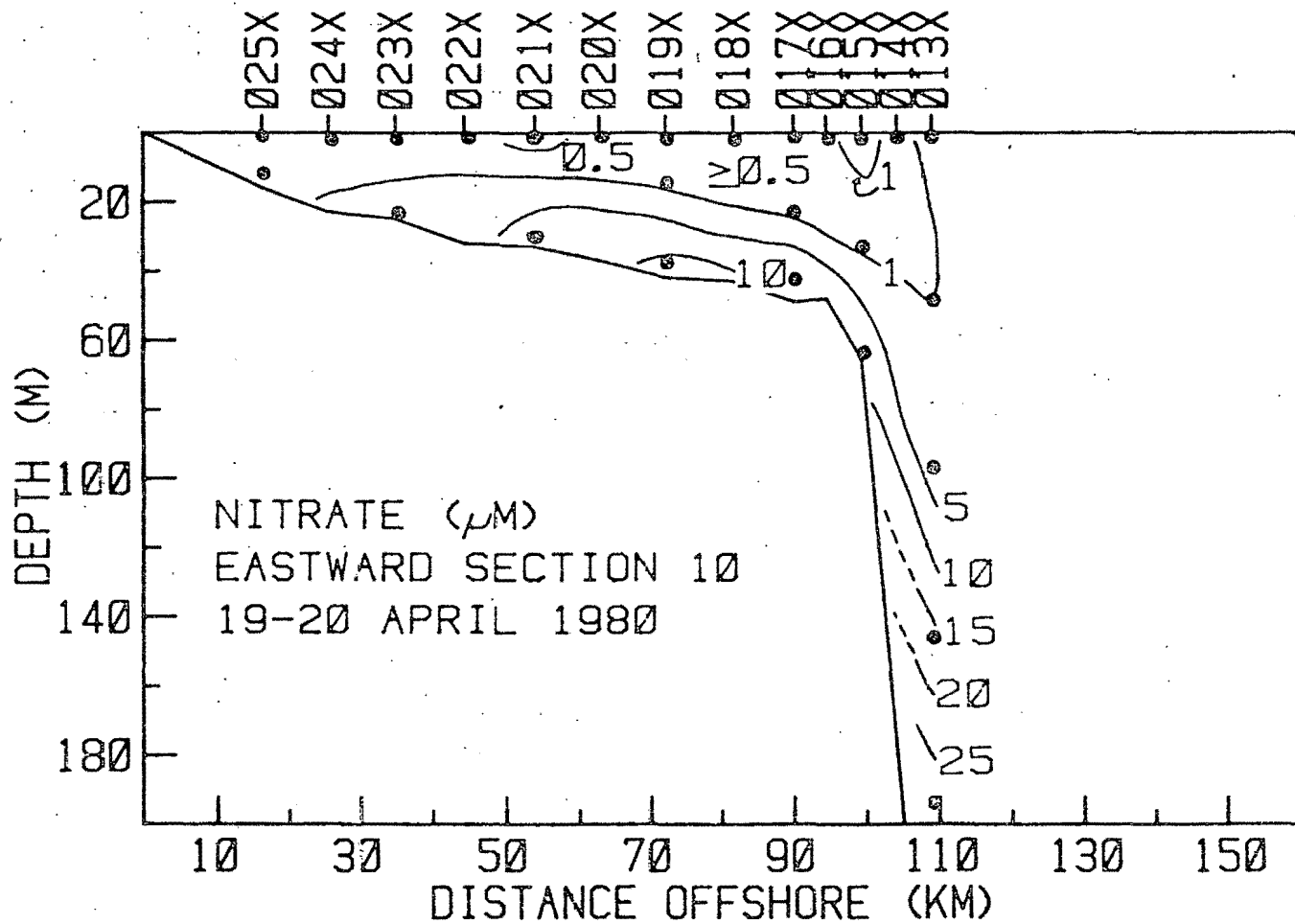


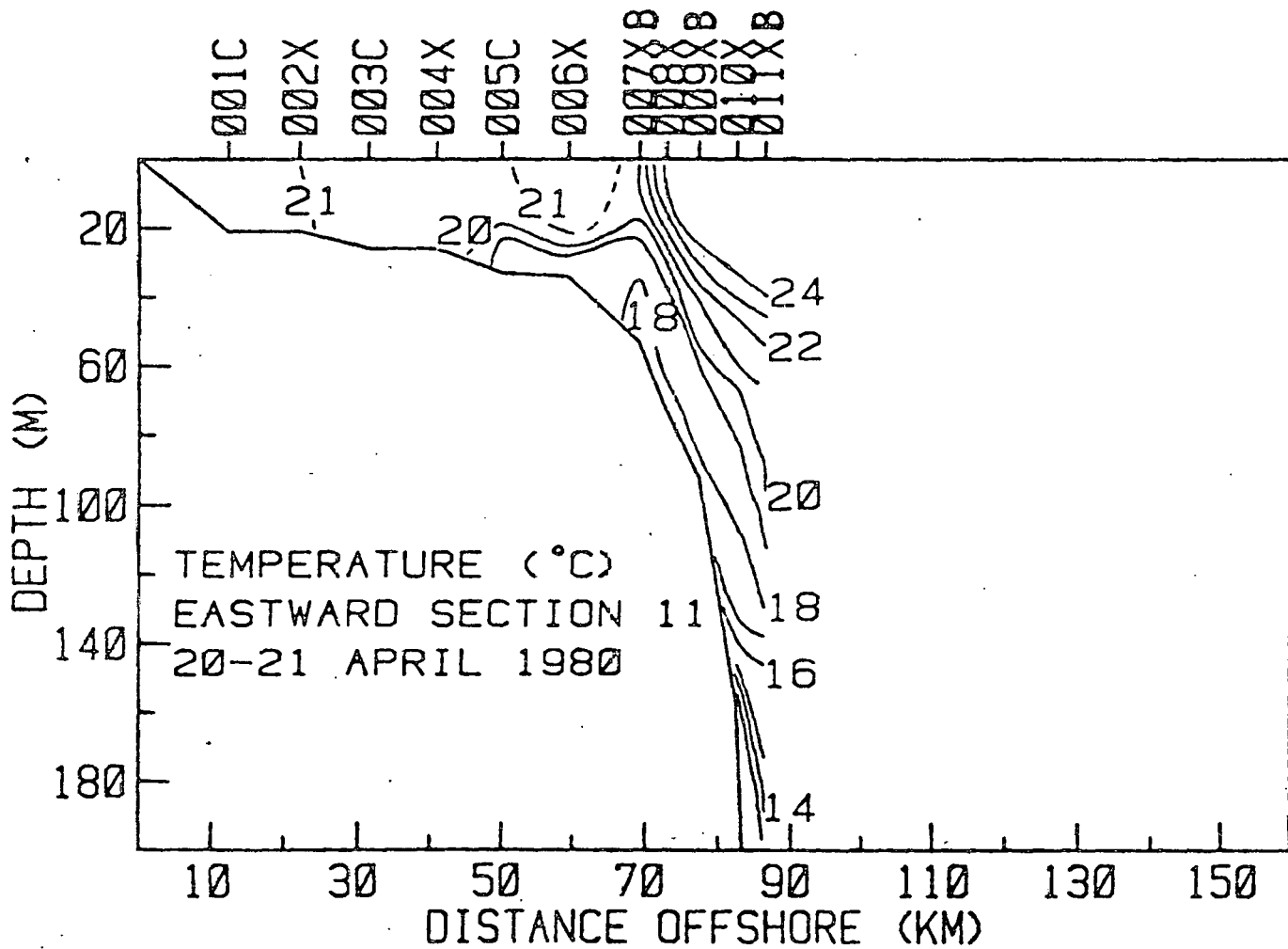


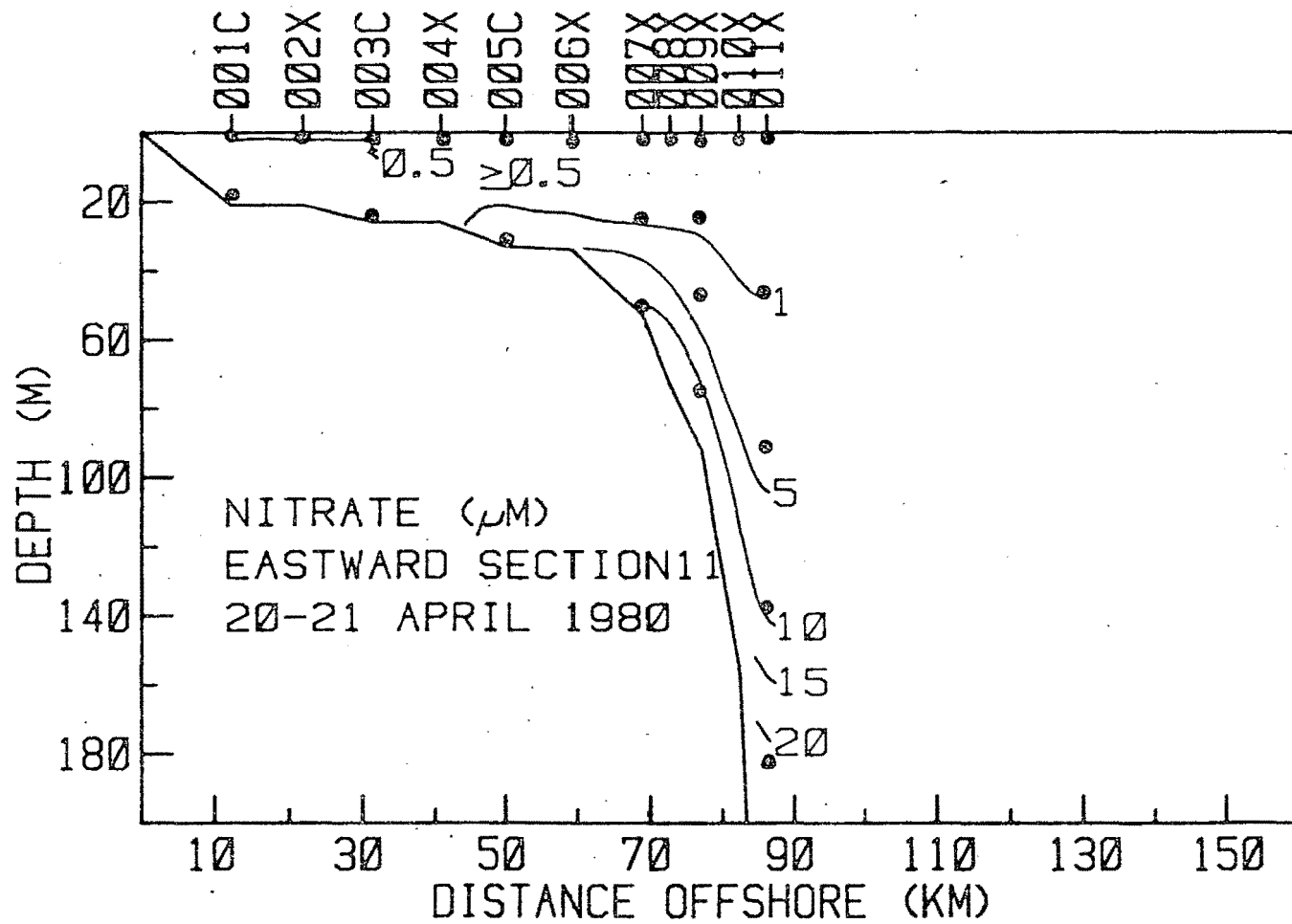


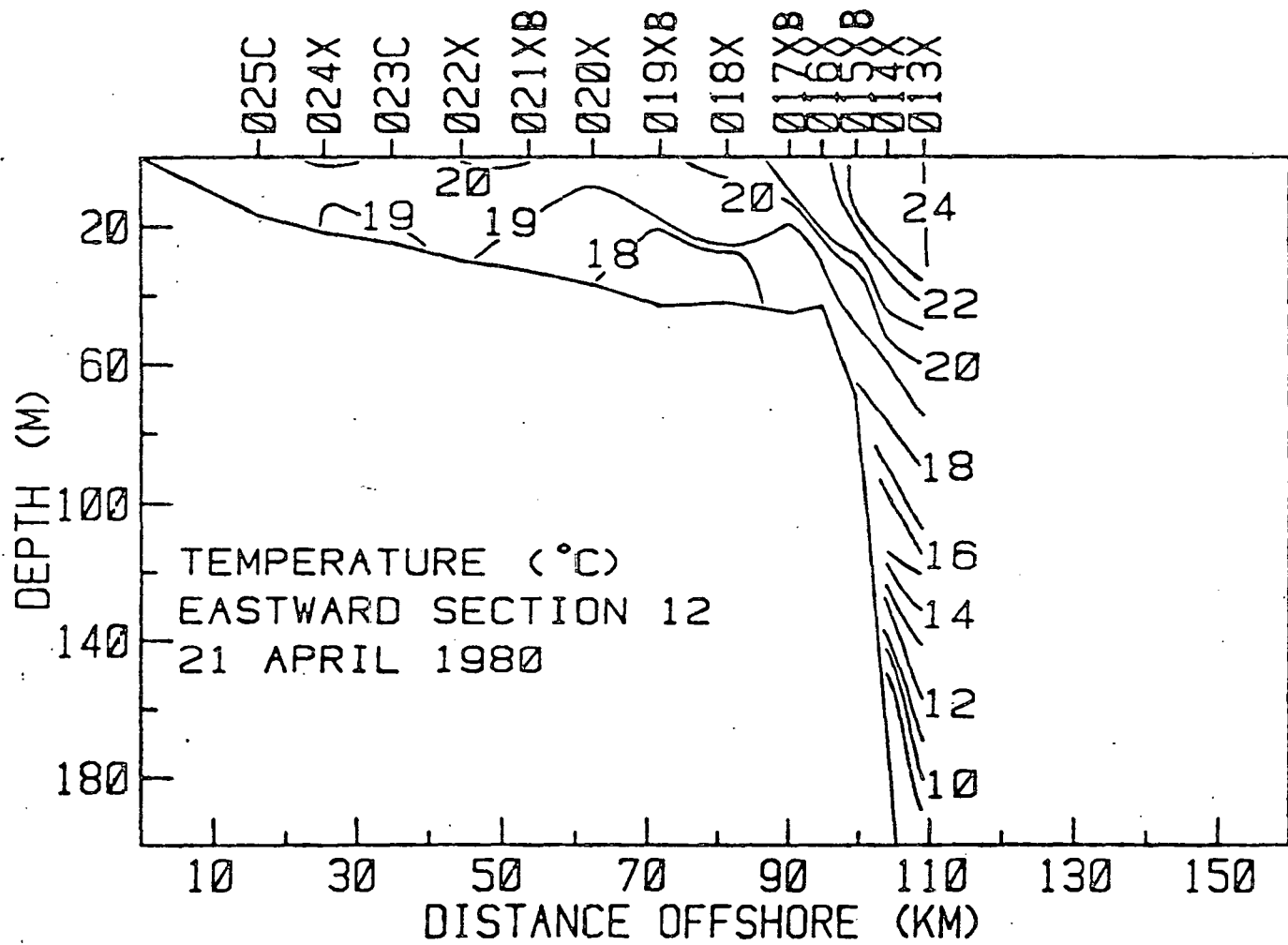


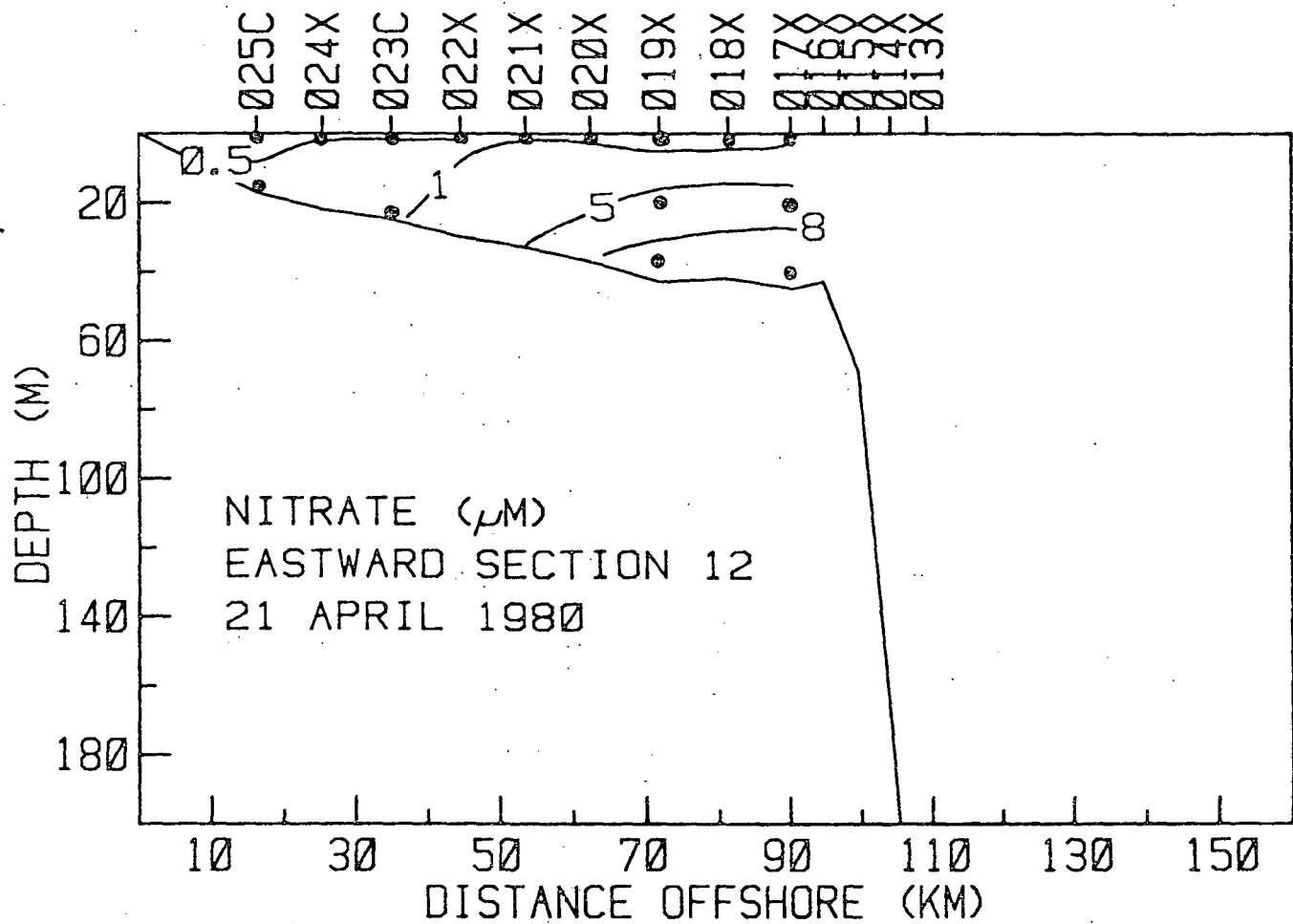


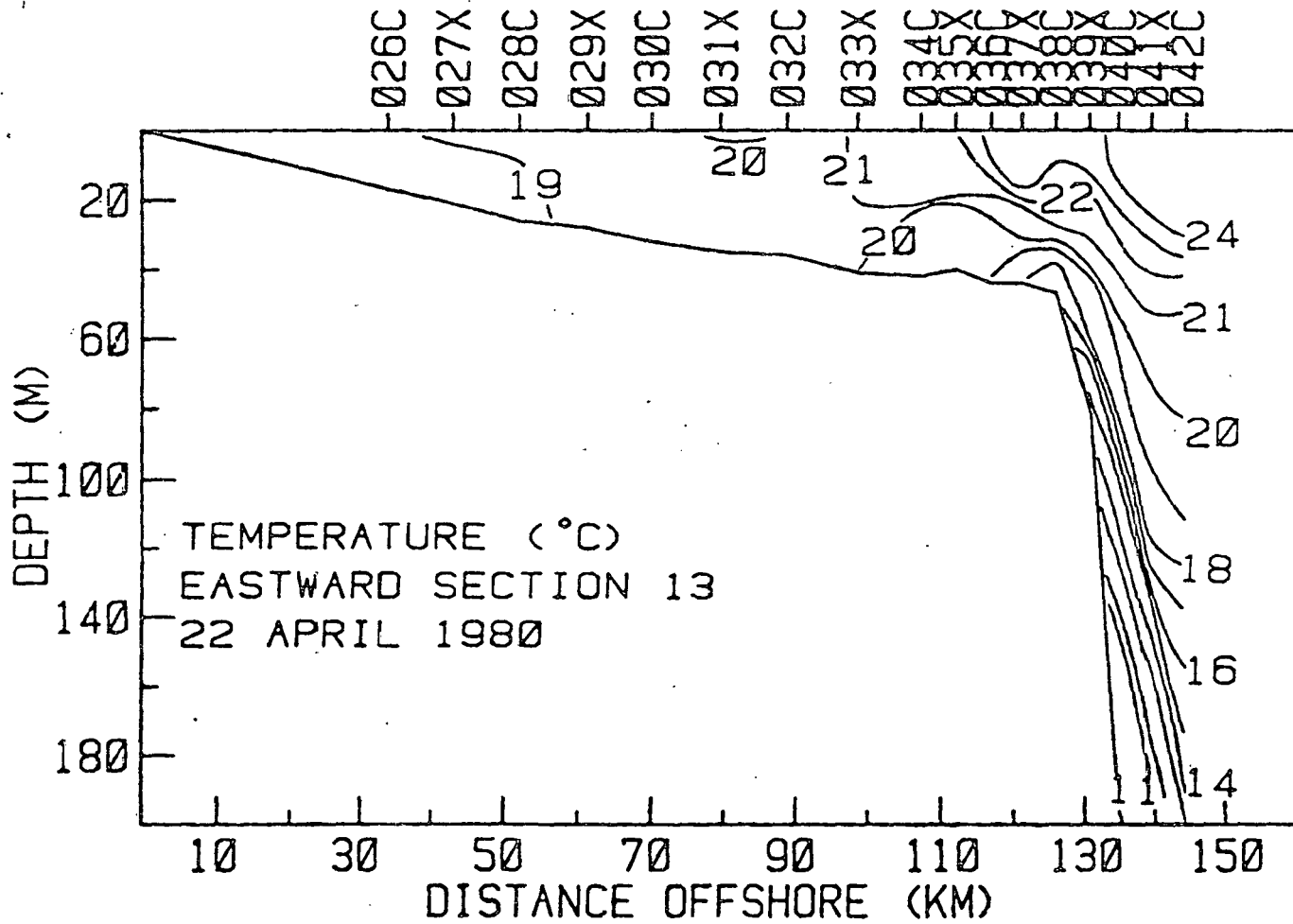


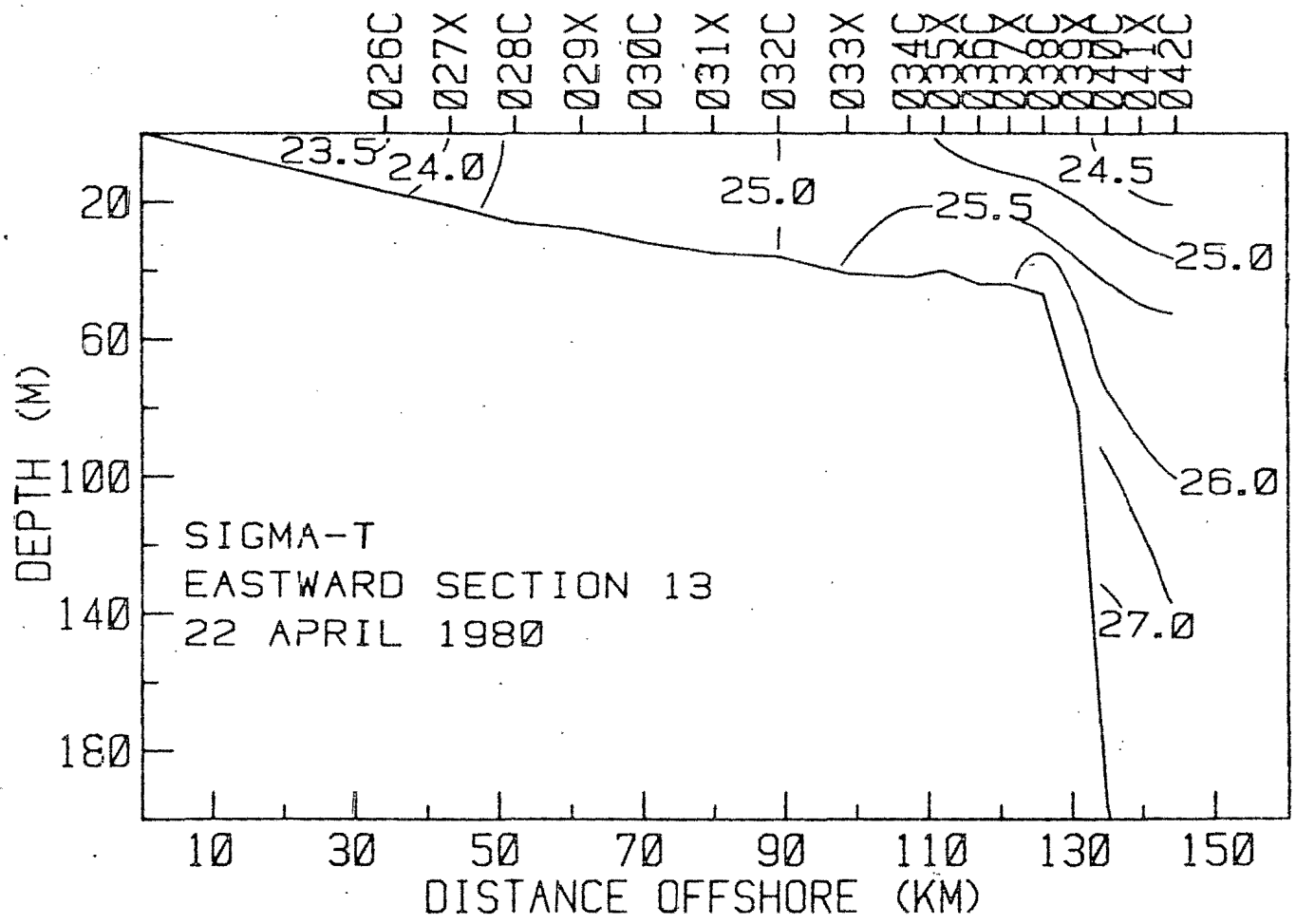


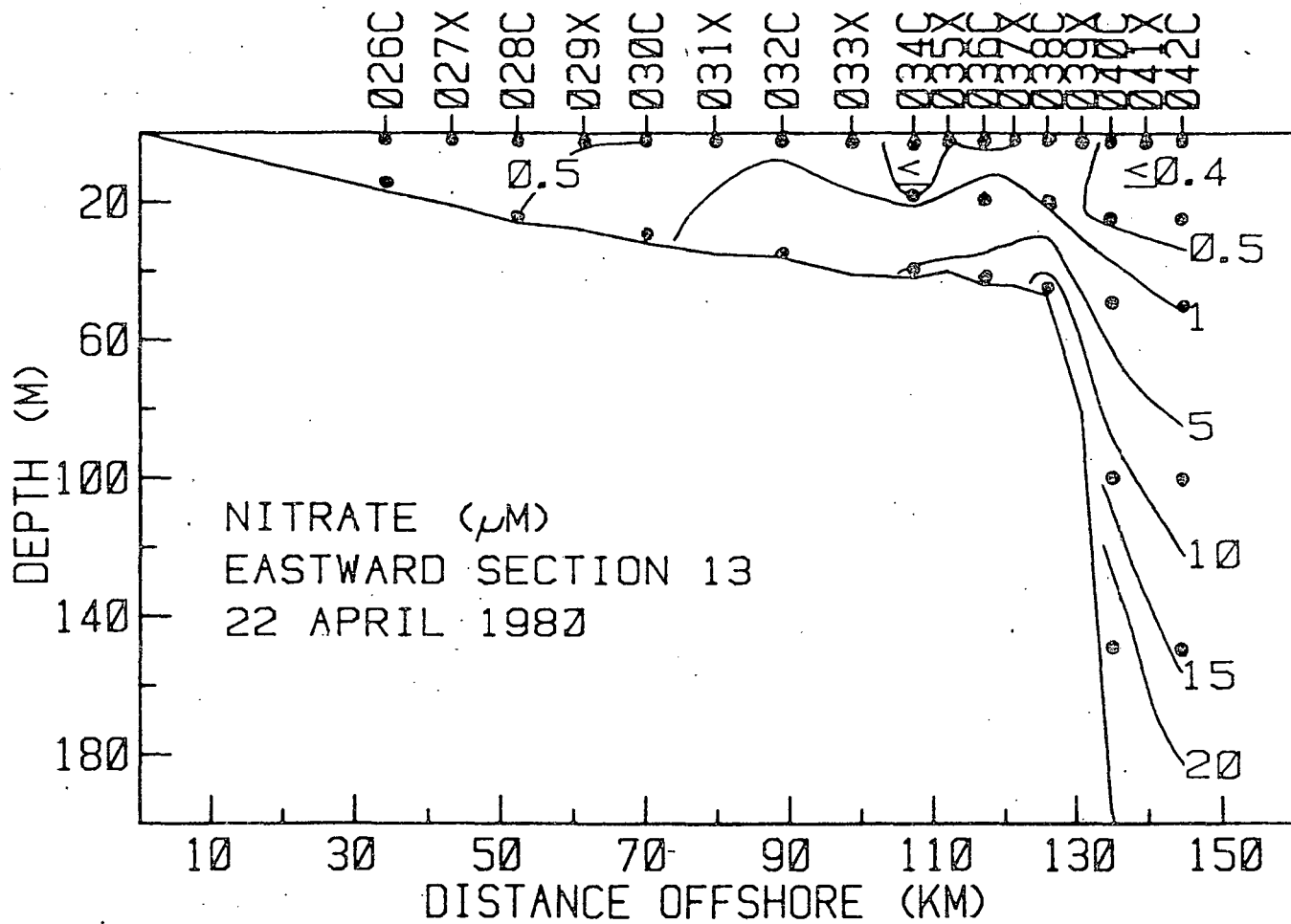


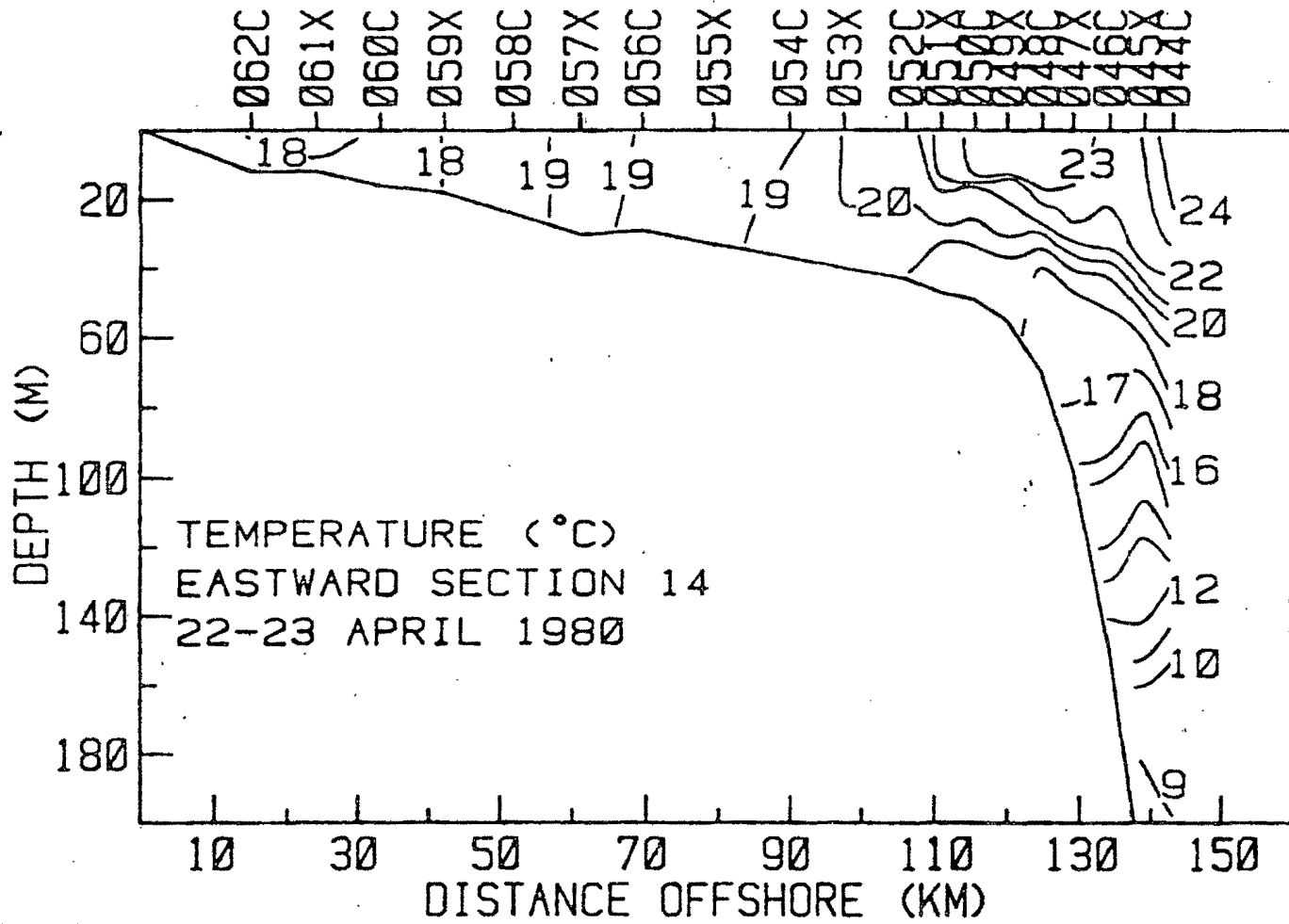


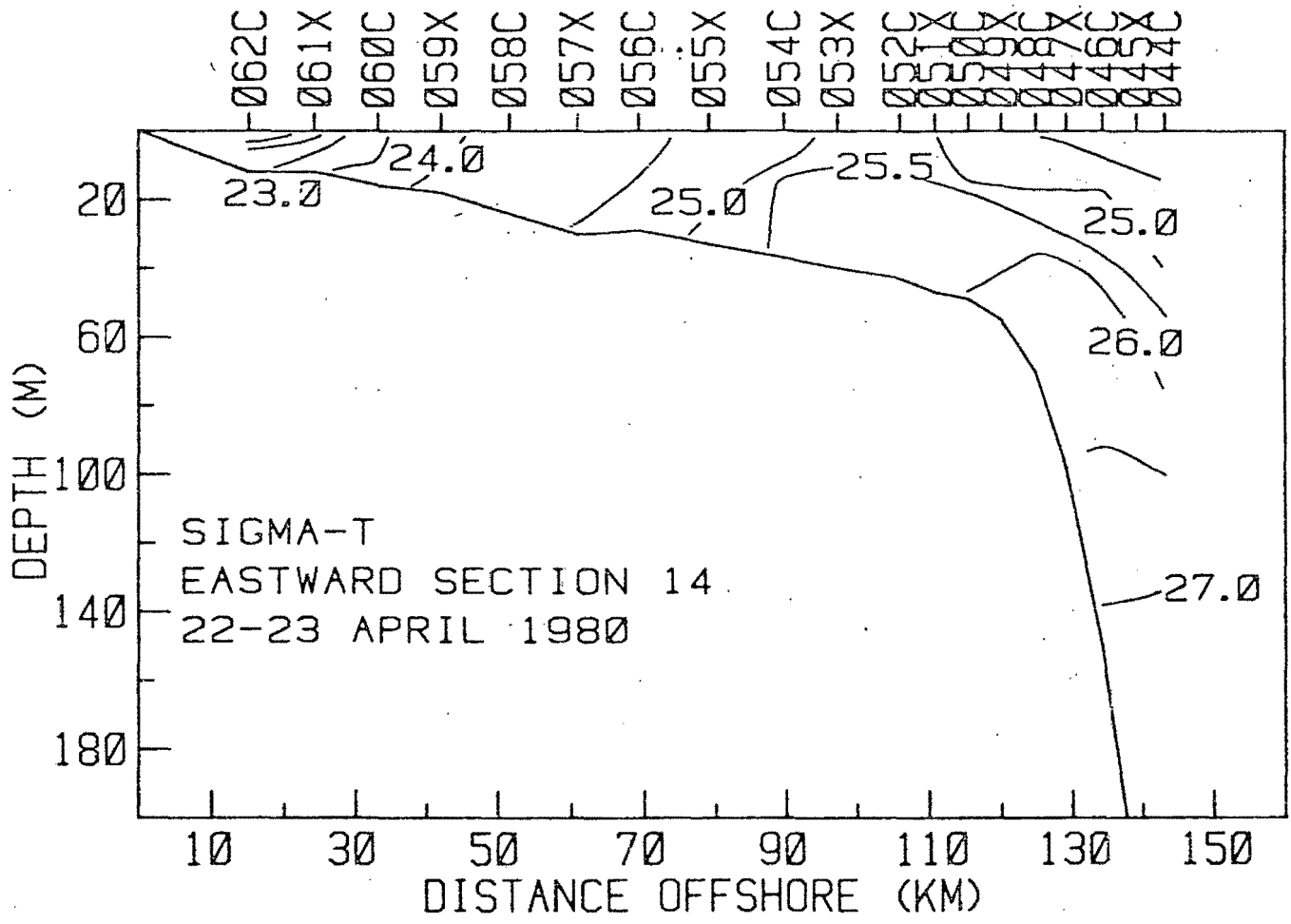


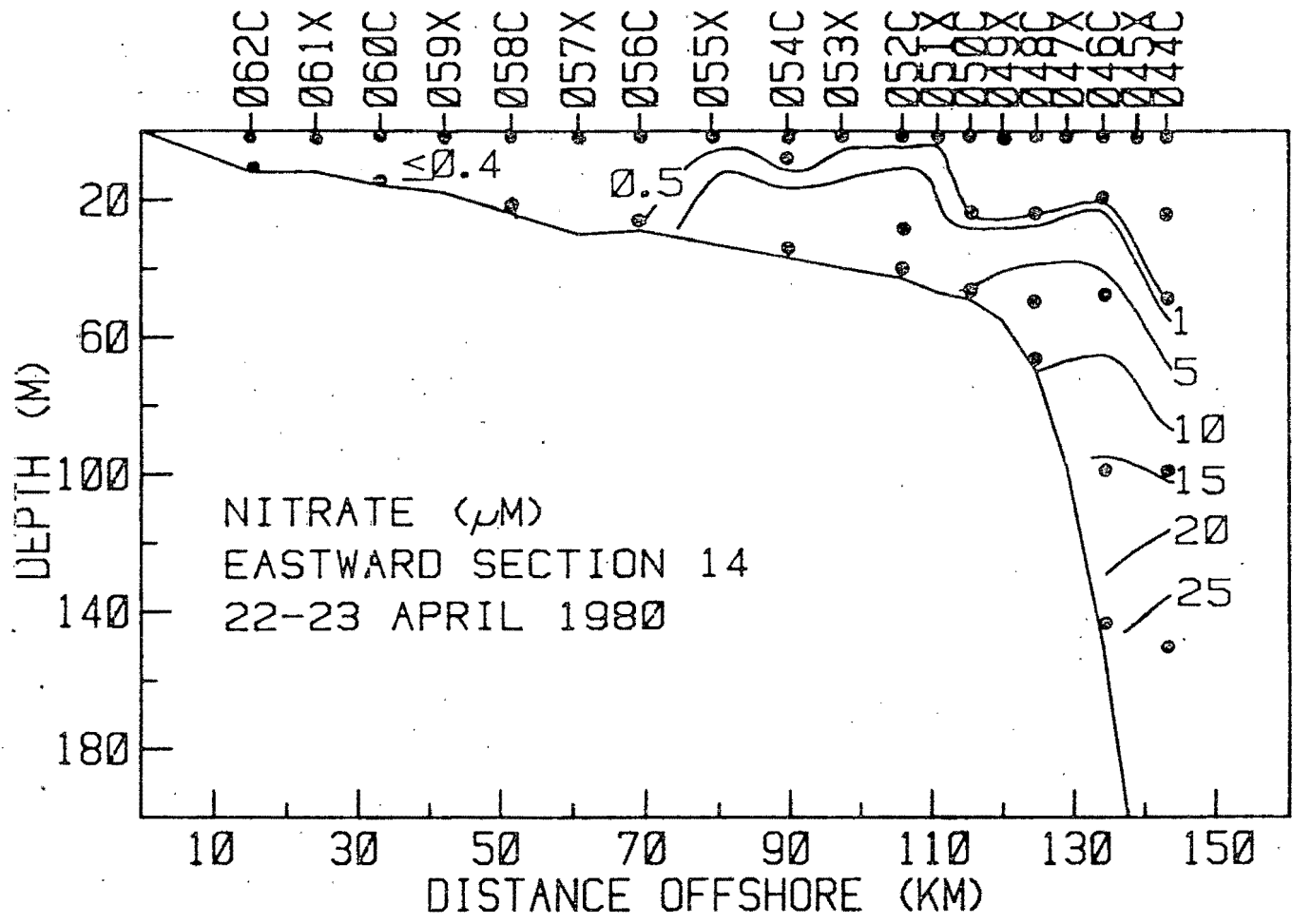


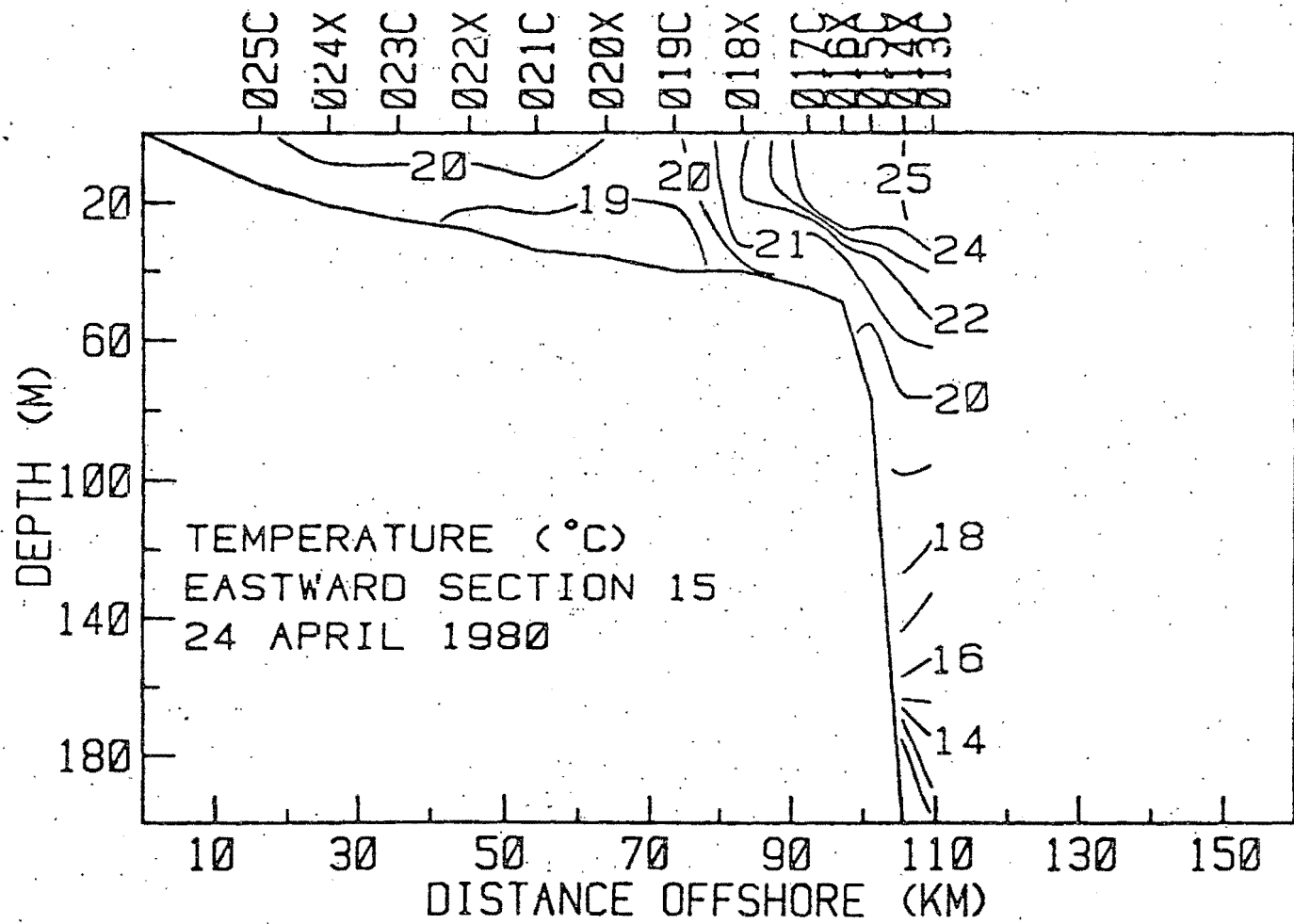


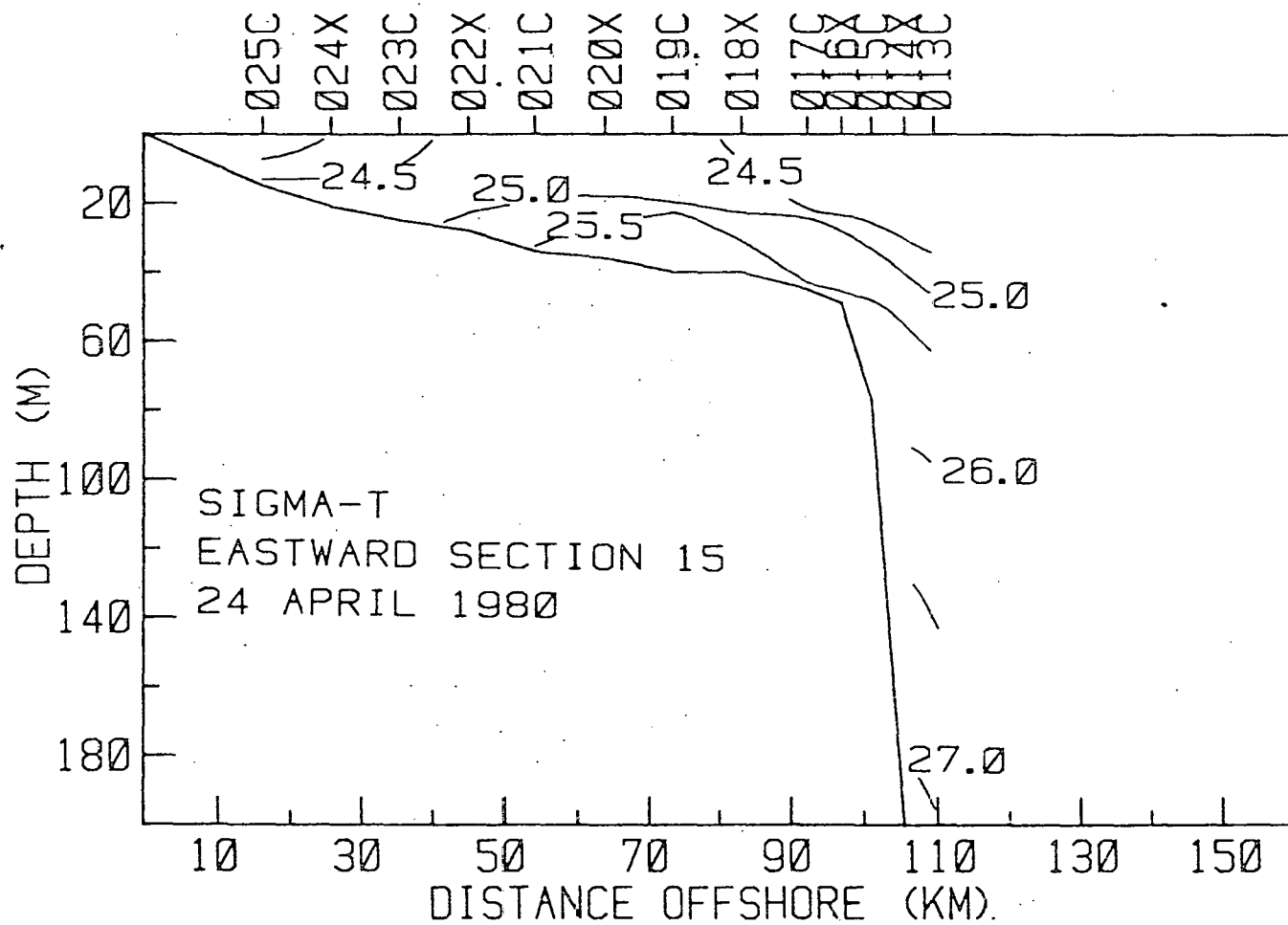


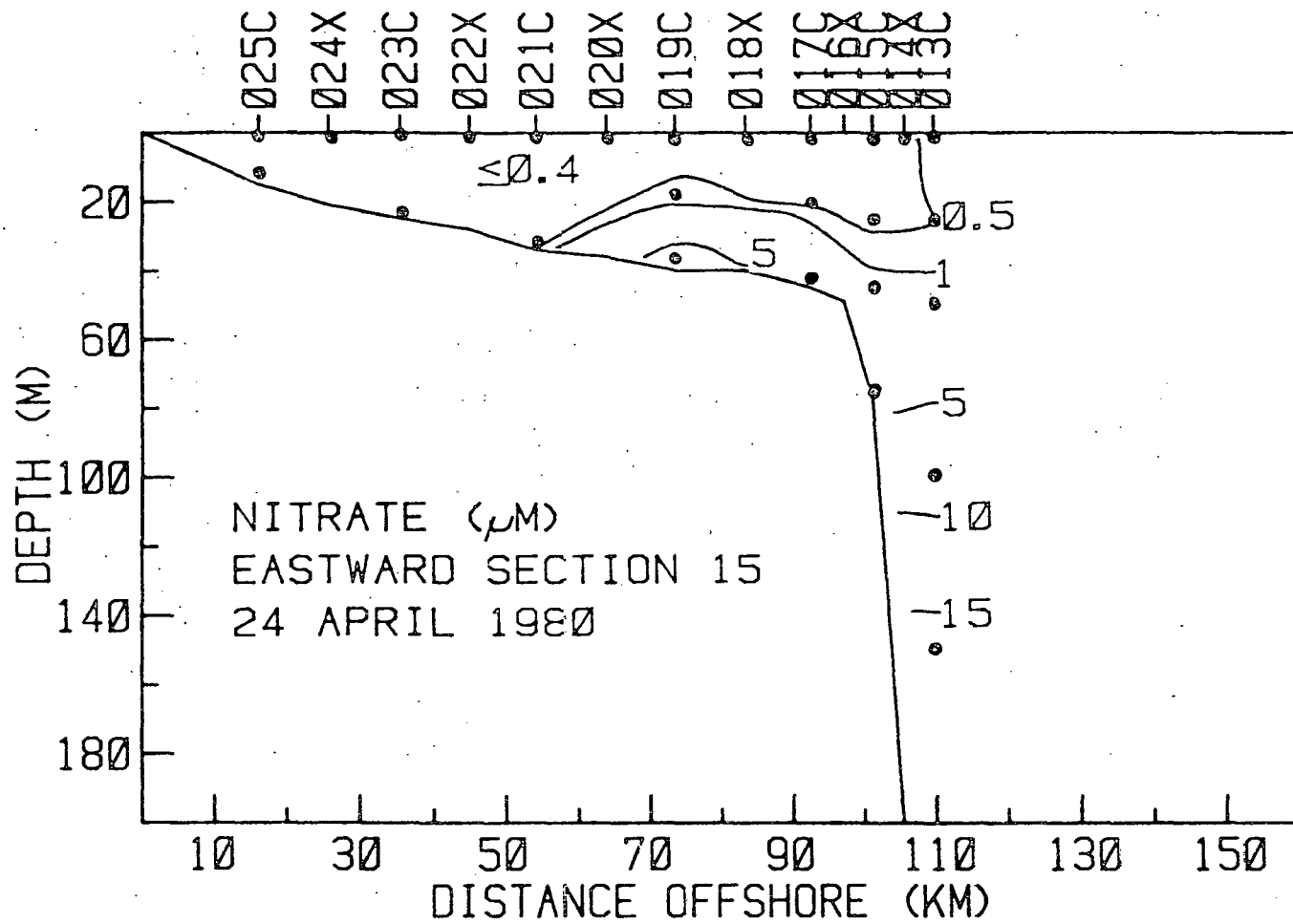


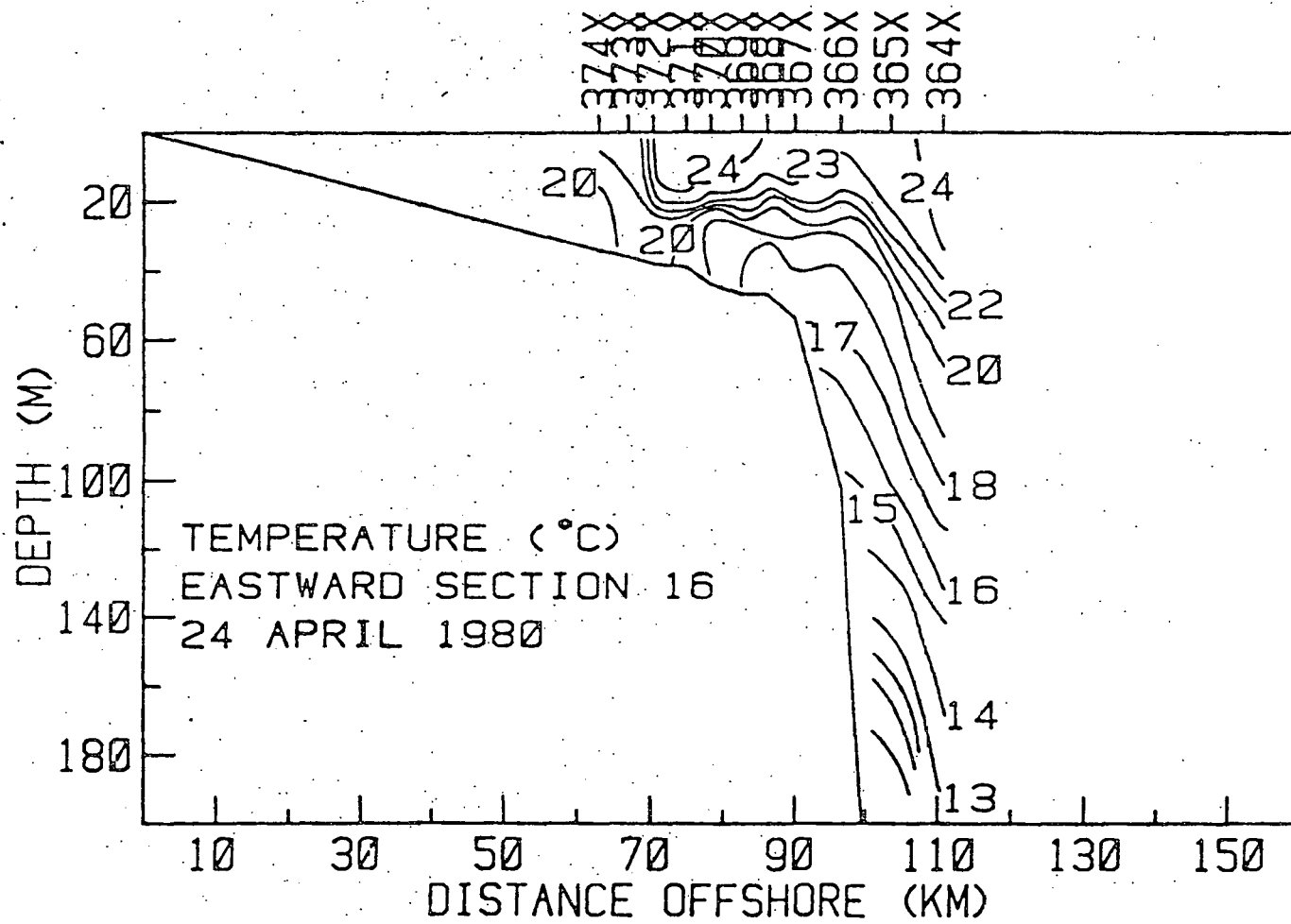


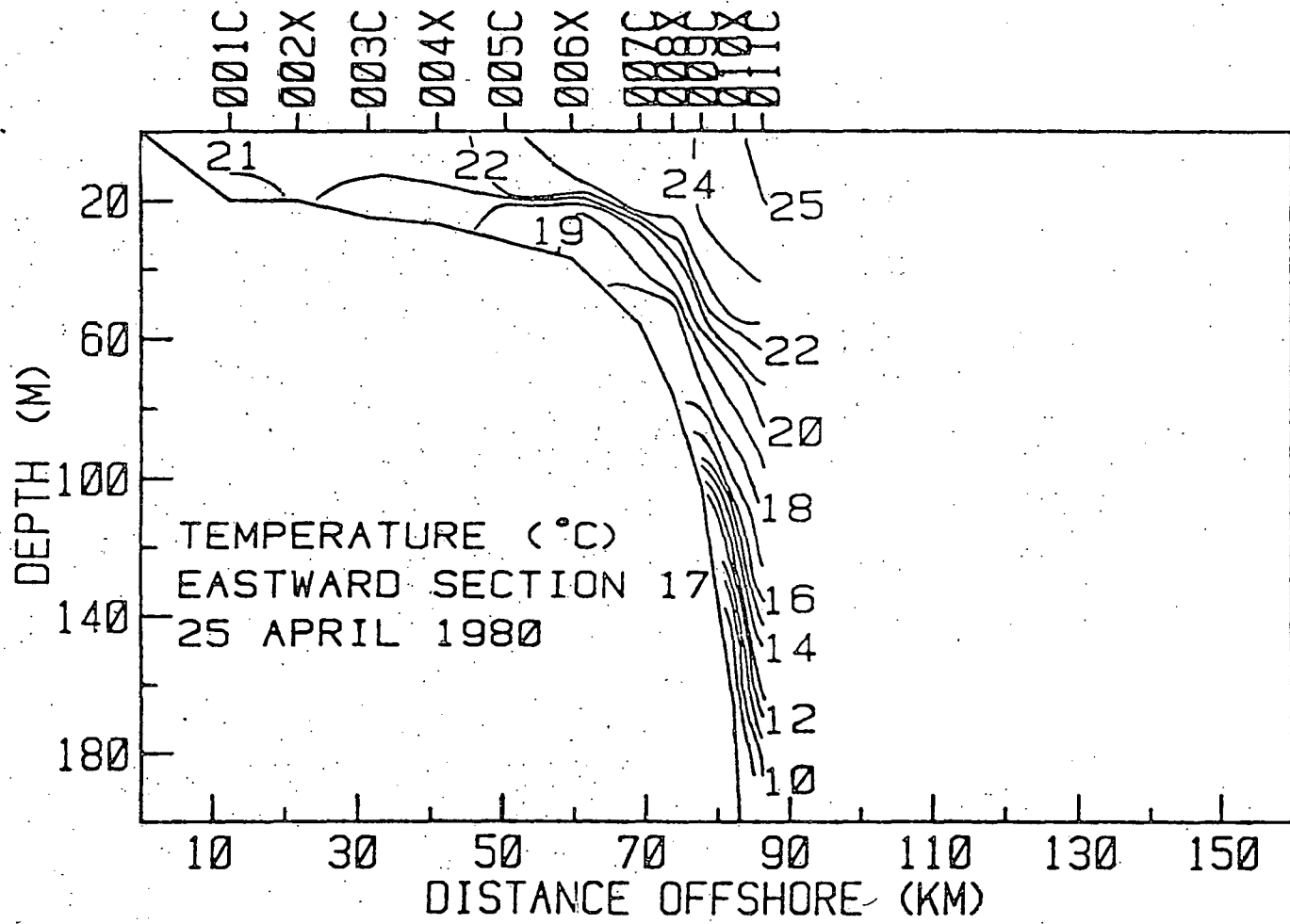


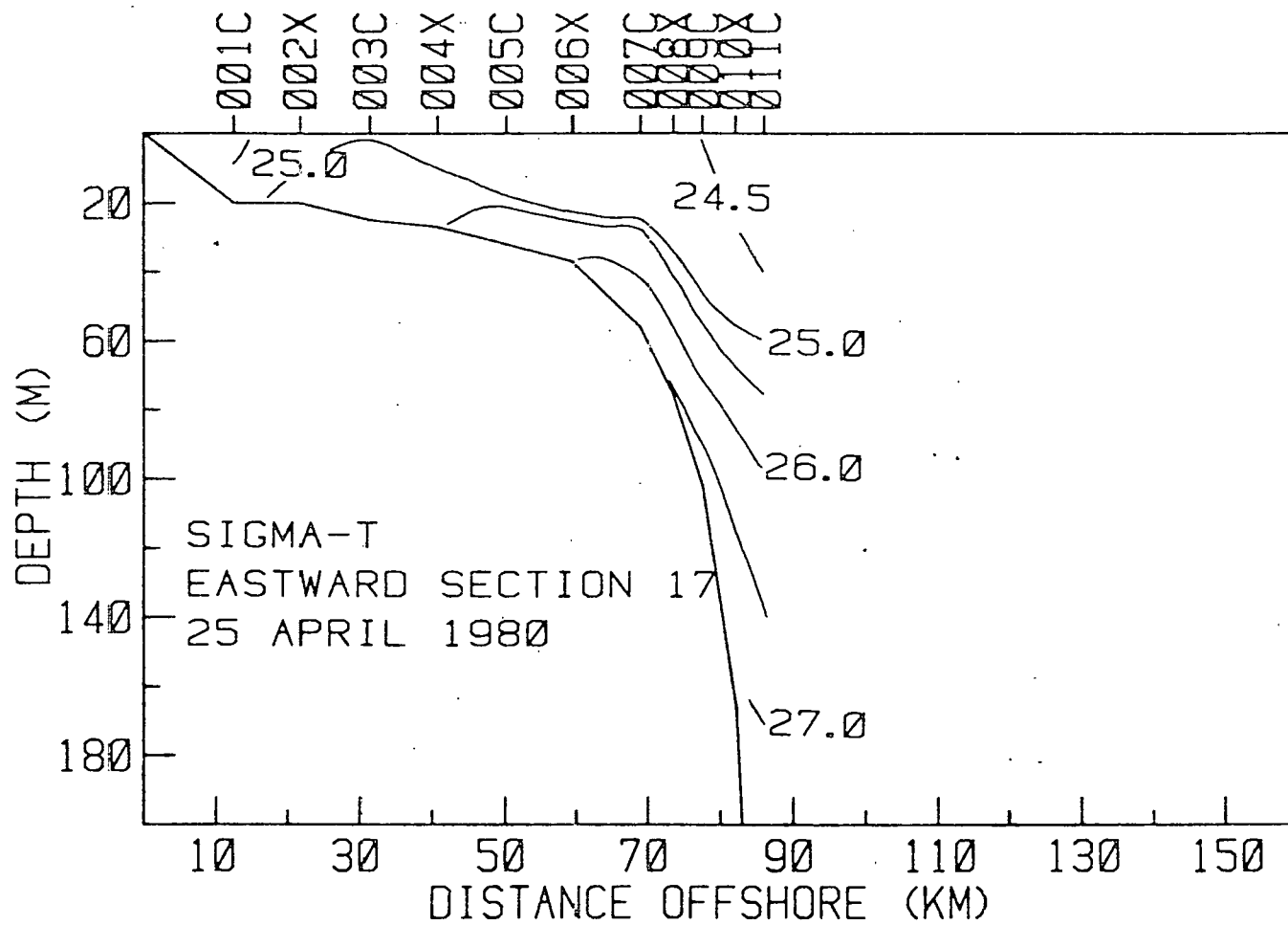


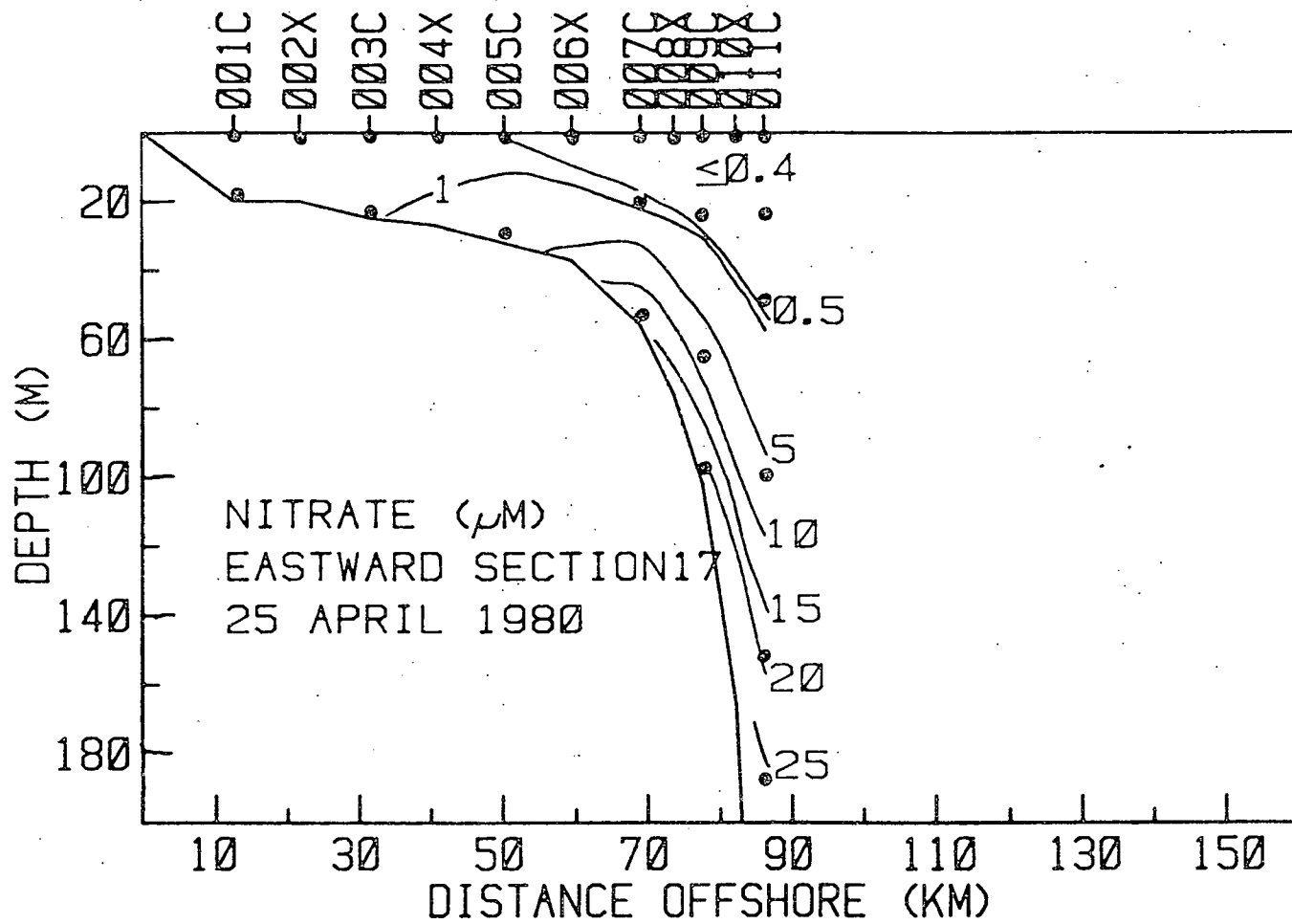


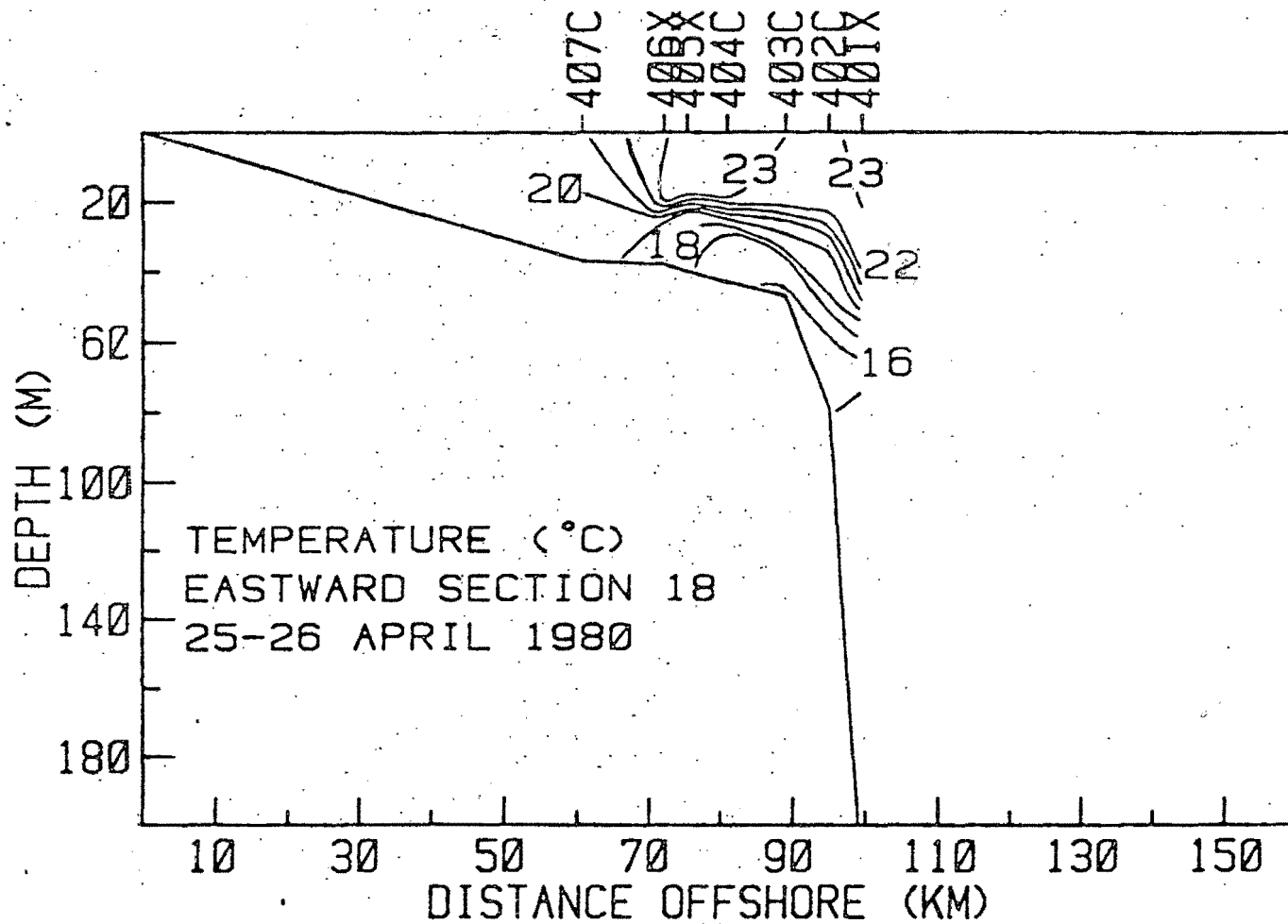


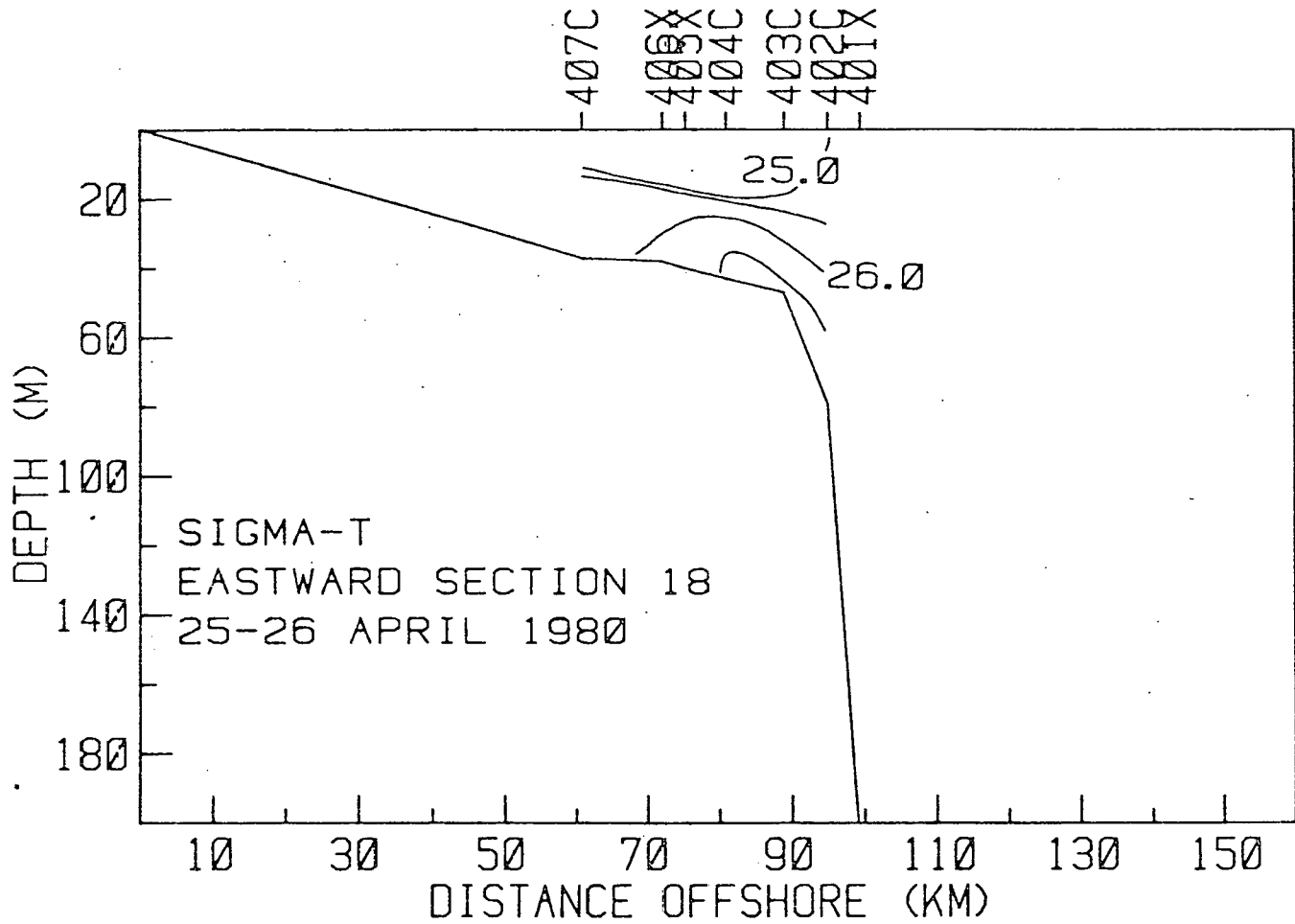


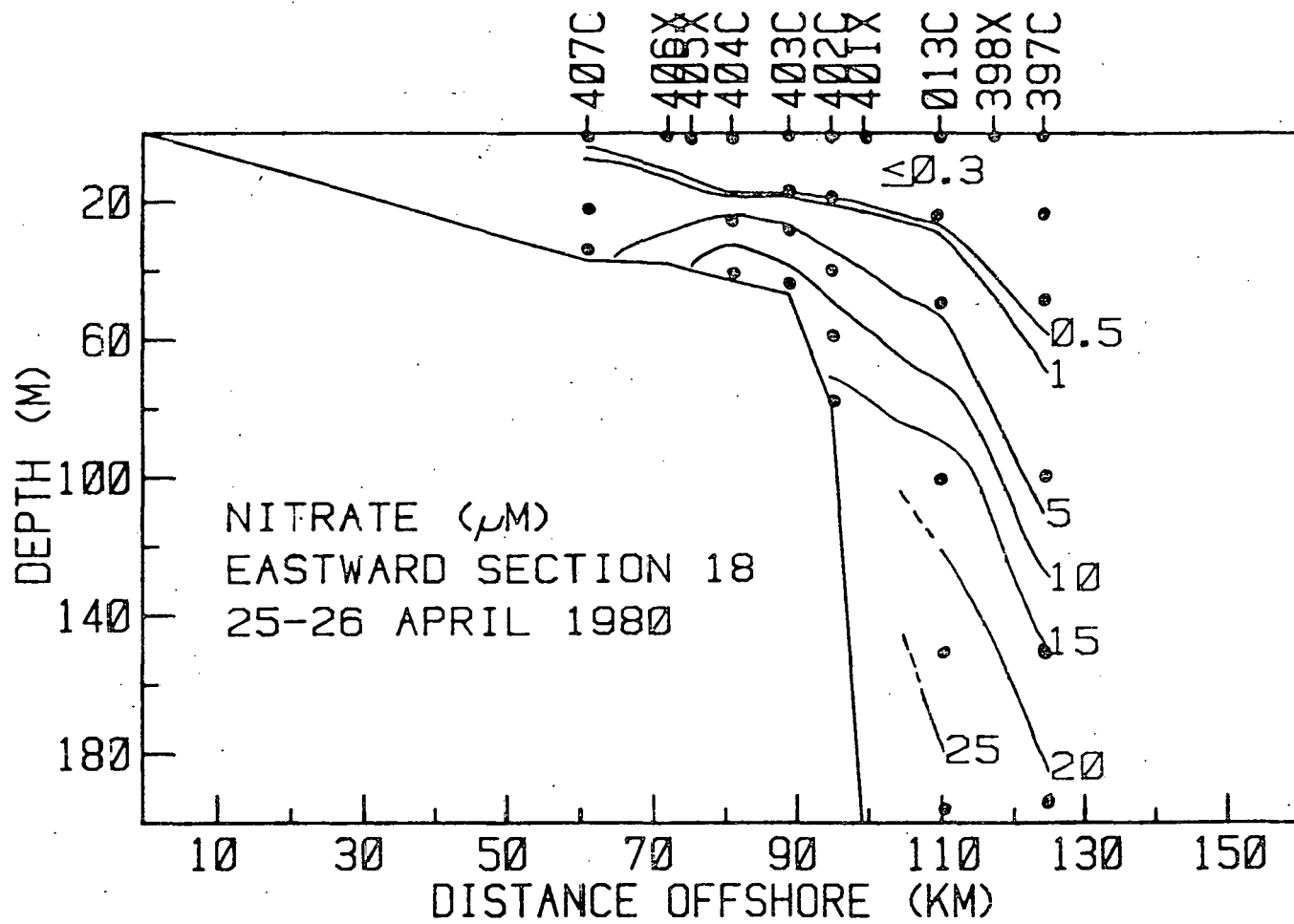


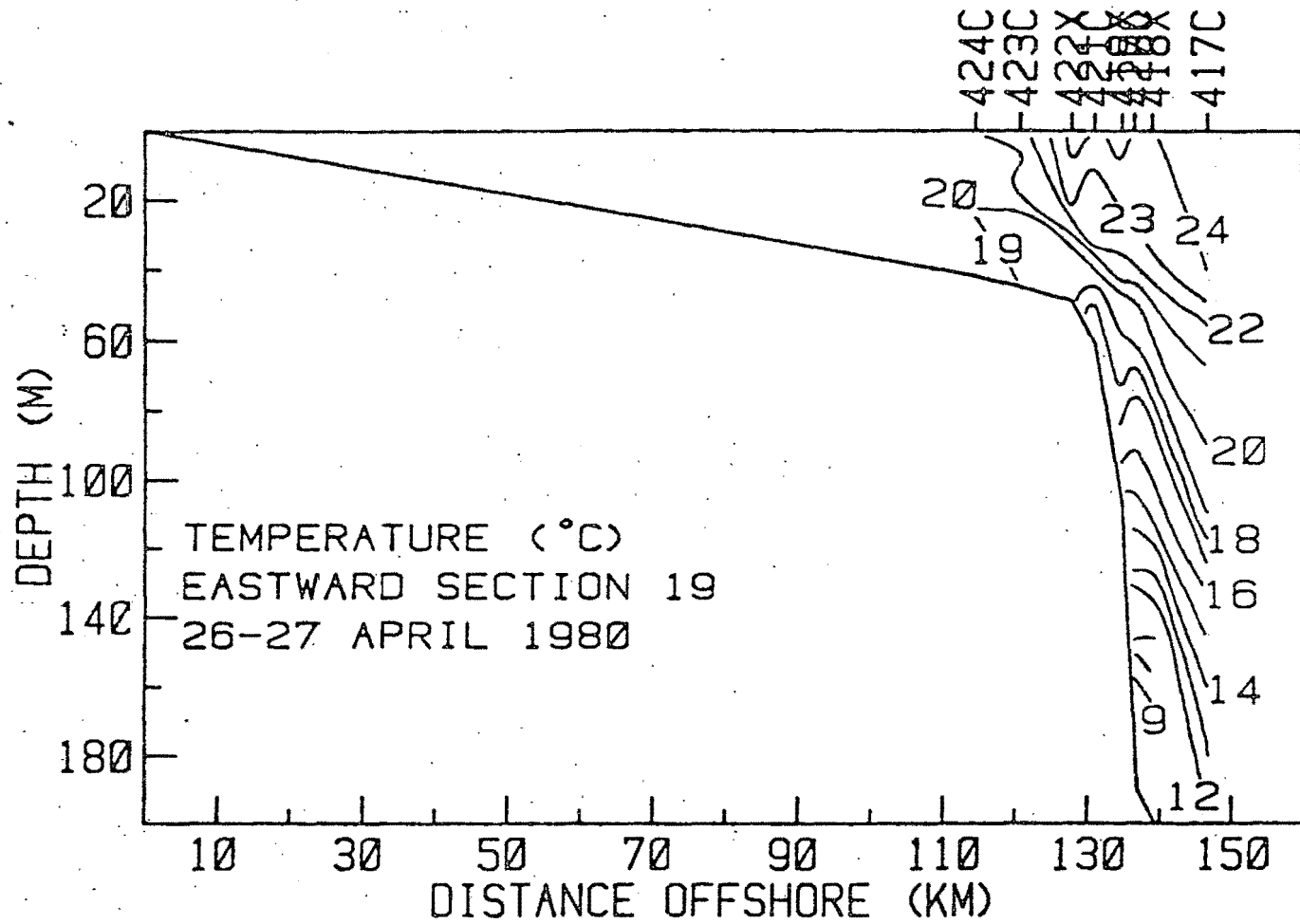


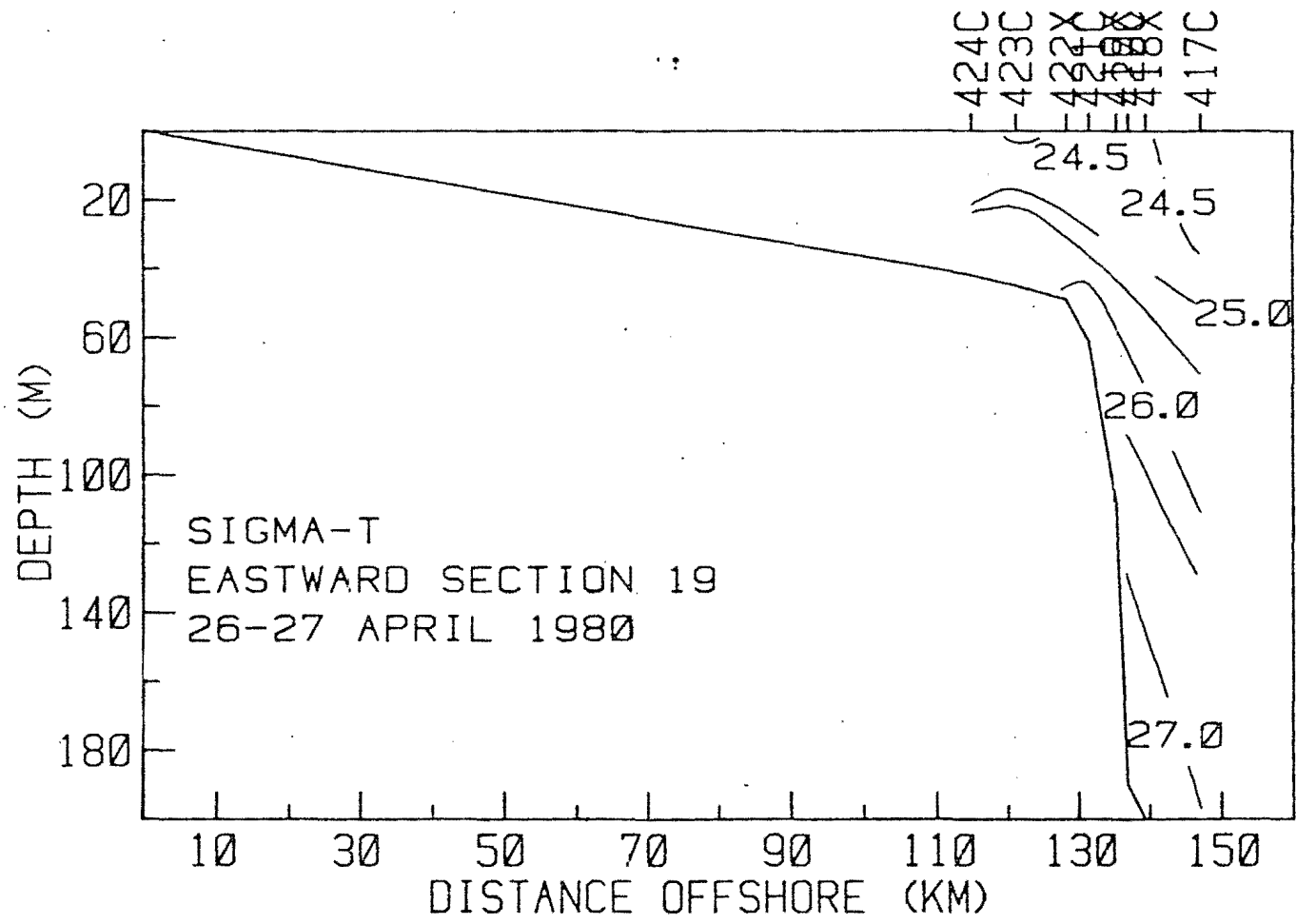


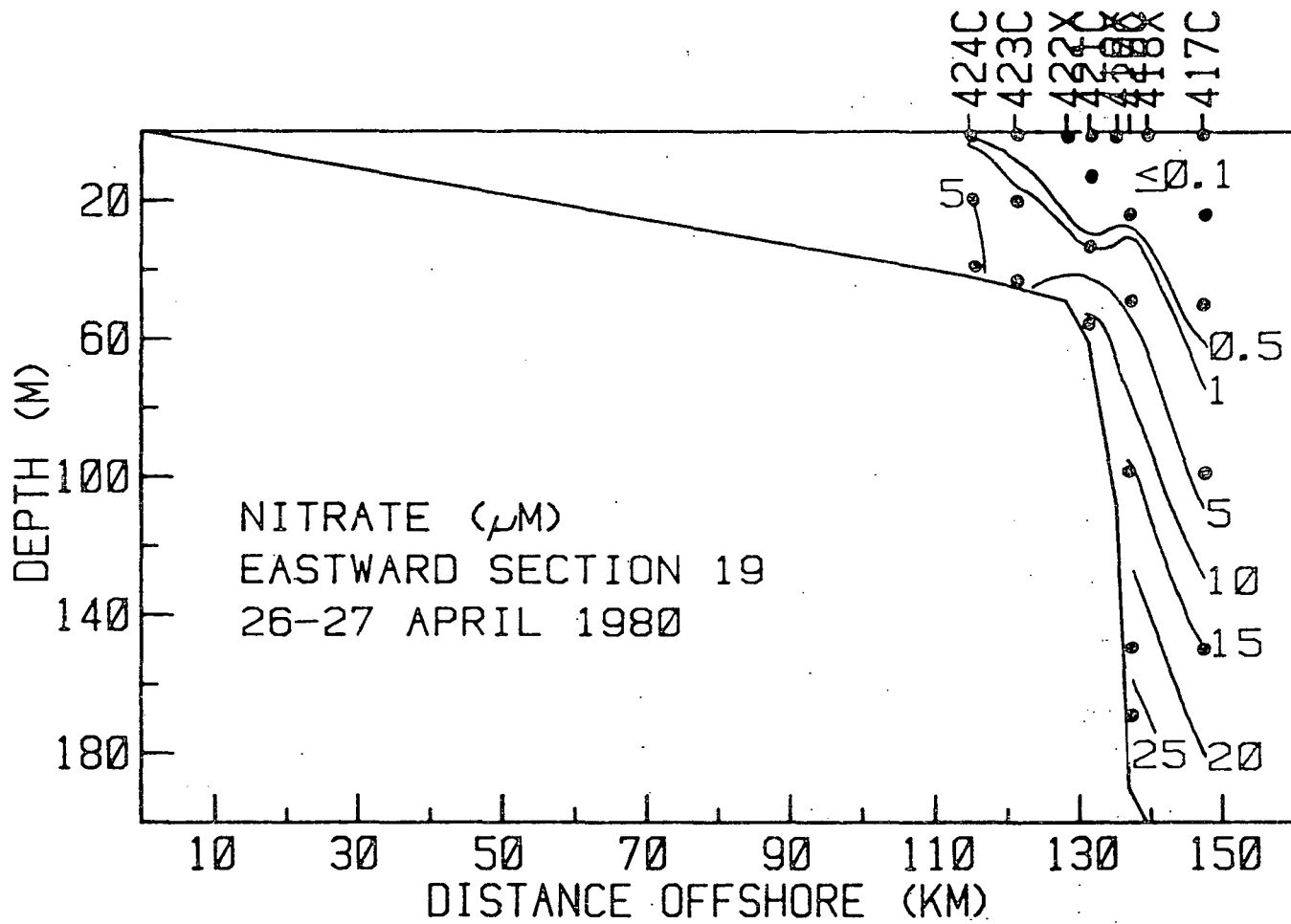




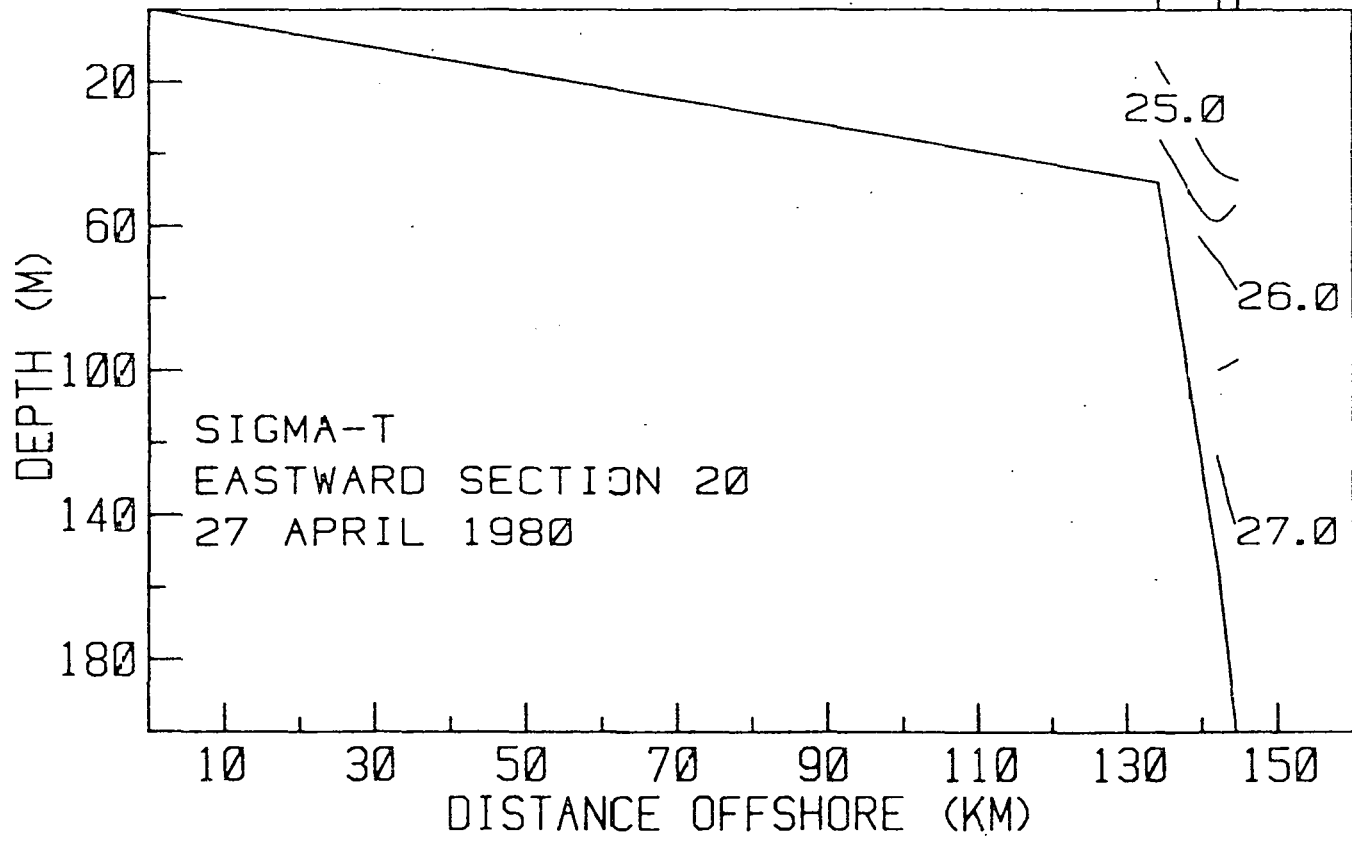


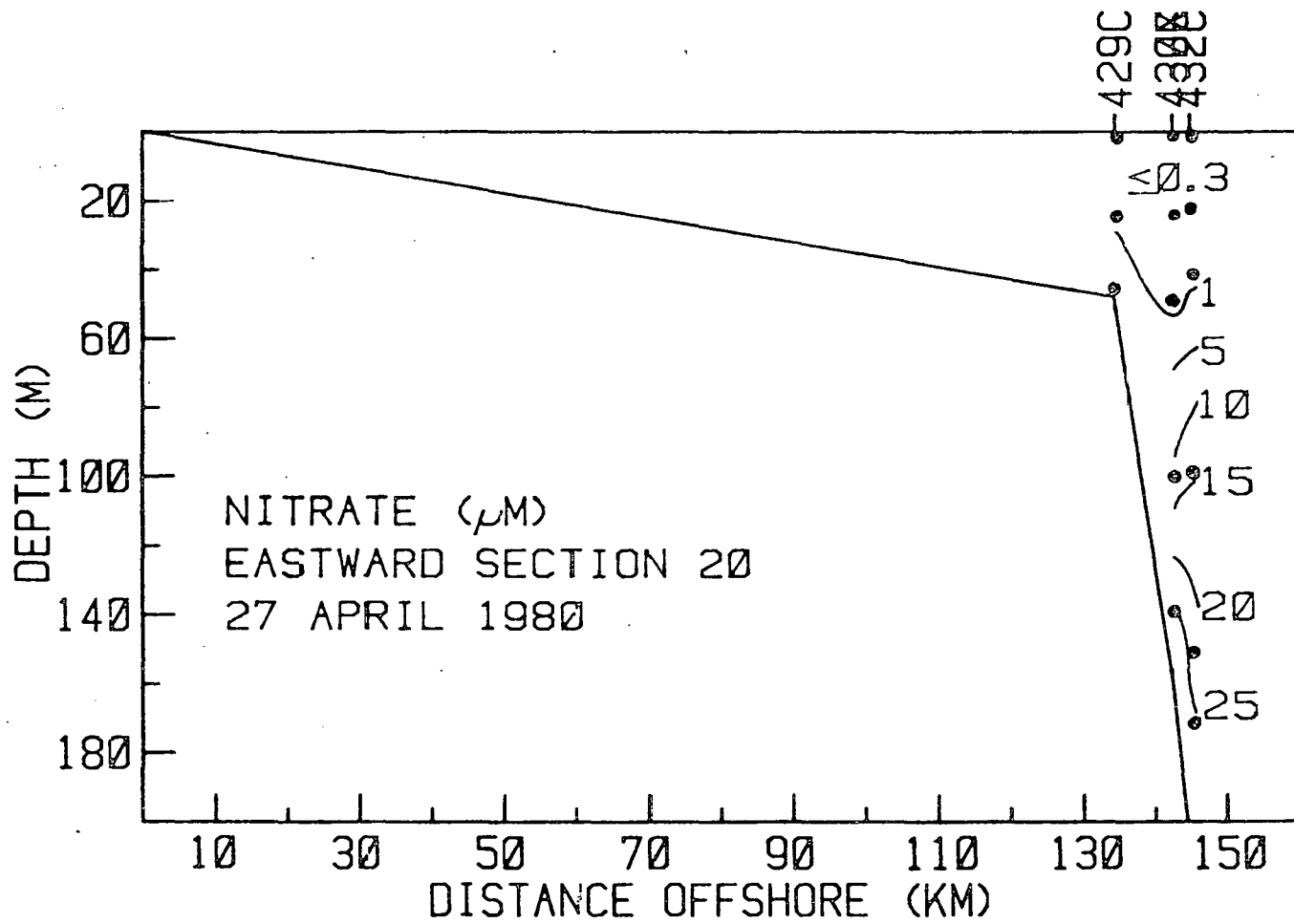




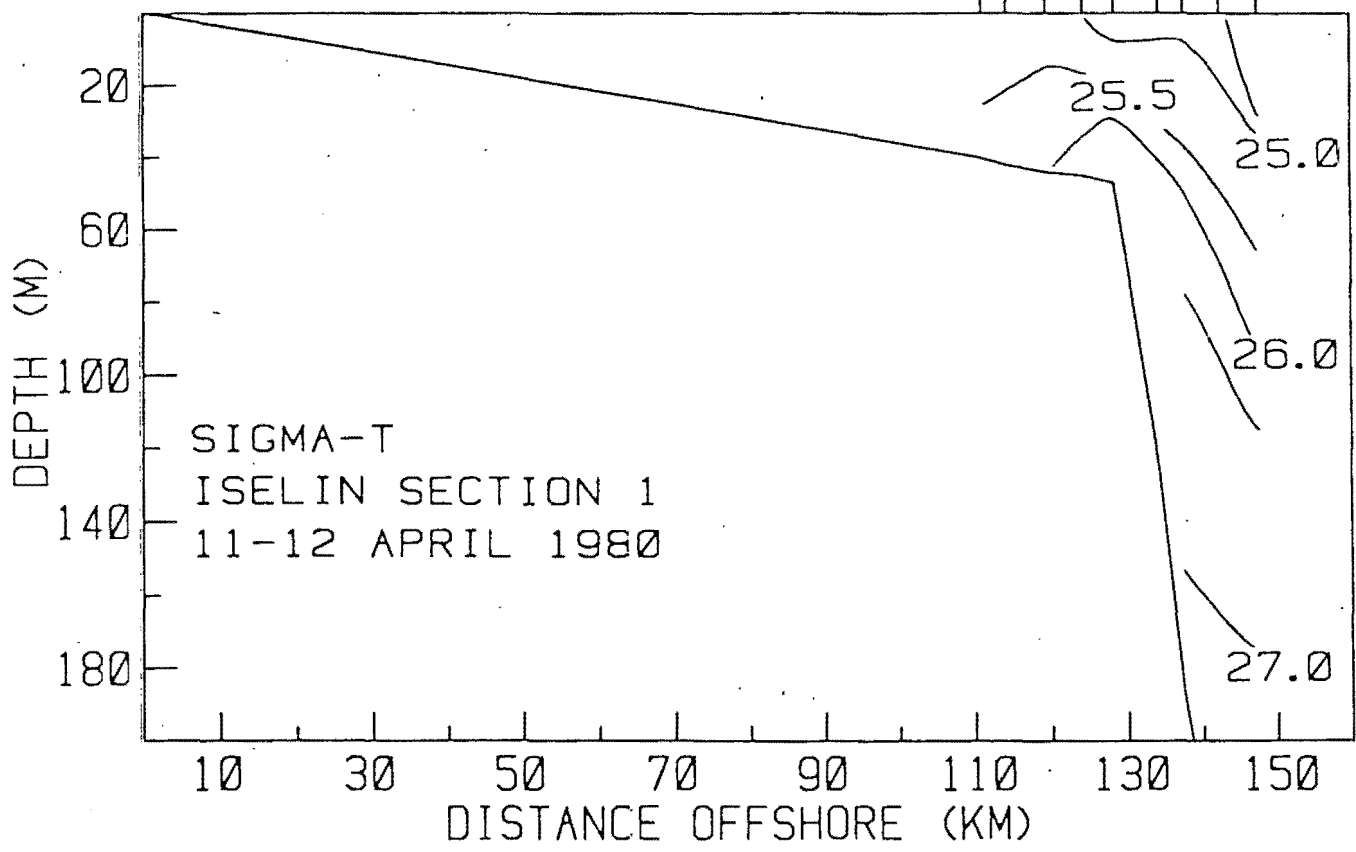


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