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An Inventory of the Physical Oceanographic Data Collected During the 1978
Larval Herring Patch Study on Georges Bank

by

A. A. Allen
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Northeast Fisheries Center
Woods Hole, Massachusetts 02543 USA

An inventory of the physical data collected during the 1978 Georges Bank Larval Herring Patch Study was compiled in March 1980 and is summarized in Table A.

Hydrographic surveys were conducted in three areas. Seven large scale standard plankton-hydrographic surveys were conducted on the ICNAF Larval Herring grid in support of the Patch Study. Local more intense hydrographic sampling was conducted on northeastern Georges Bank (8 cruises) and on Nantucket Shoals (8 cruises). Data from Wieczno 77-06 is also included because a preliminary patch study survey in Nantucket Shoals was completed in addition to the standard ICNAF Larval Herring survey. The hydrographic data consisted of Nansen or Niskin bottle casts or STD/CTD casts; sea-surface temperature and salinity; and expendable bathythermographs (XBT's). Standard weather observations were made with each XBT drop. The weather observations included wind speed and direction, air temperature and pressure, wave height, type and amount of clouds, and current conditions.

Other physical oceanographic work was done by the Albatross IV and the Dawson. Cruise 78-11 and 78-14 (I) of Albatross IV deployed and recovered three U.S. current meter moorings. Eight of the eleven VACM's returned usable records. The three Canadian current meter moorings were deployed and recovered during Dawson cruise 78-31. Seven of the 13 Aanderaa current meters returned usable records. Positions of all moorings are shown in Figure 18; 1-3 are the Canadian and 4-6 are the U.S. moorings. During Dawson 78-31, 34 drogue deployments were made and a dye diffusion experiment was conducted. Four cycosonde profiles and 6 drogue deployments were carried out during Albatross IV.

78-13. Continuous sea-surface temperature and salinity values were recorded by Albatross IV during cruises 78-13, 78-14 (I), and 78-15. In addition, a monster buoy maintained by NOAA on southern Georges Bank at $68^{\circ}30'N$, $40^{\circ}49.6'W$ recorded wind speed and direction, air and sea surface temperature.

Table A. Summary of Larval Herring Patch Study hydrographic work. The presence of stations in an area is marked with an (X) and the absence is marked by a (-). The last column lists which logs contain the weather observations.

Ship	Cruise	Dates	Stand. ICNAF Grid	NE Georges	Nan- tucket Shoals	Sea Surf. T&S	HYDROGRAPHIC STATIONS				Weather Obs.
							XBT's	Bottles	STD/CTD		
Wieczno	77-06	4-24 Oct. 77	X	-	X	T	114	60	-	XBT	
Albatross IV	78-11	13-16 Sept. 78	-	X	-	T&S	41	-	6	XBT	
Belogorsk	78-03	5 Oct.-2 Nov. 78	X	-	-	T	49	131	-	Hydro.	
Dawson	78-31	10 Oct.-8 Nov. 78	-	X	-	-	90	-	643	Bridge	
Atlantis II	ACE-IV	11 -24 Oct. 78	-	X	-	T&S	60	77	-	Hydro.	
Wieczno	78-04	14 Oct.-1 Nov. 78	X	-	X	T&S	139	68	-	XBT	
Albatross IV	78-13	16 Oct.-10 Nov. 78	-	X	X	T&S	259	34 Rosette casts	34	XBT	
Lady Hammond	78-08	17 Oct.-9 Nov. 78	-	X	X	T	83	-	-	Bridge	
Canso Condor	78-03	23 Oct.-10 Nov. 78	-	X	X	-	-	-	-	Bridge	
Anton Dohrn	78-03	26 Oct.-17 Nov. 78	X	X	X	T	108	4	33	XBT	
Albatross IV	78-14(I)	13-16 Nov. 78	-	X	-	T&S	7	-	-	XBT	
Belogorsk	78-04	15-30 Nov. 78	X	-	-	T&S	35	78	-	XBT	
Albatross IV	78-14(II)	18-22 Nov. 78	-	-	X	T&S	18	-	-	XBT	
Albatross IV	78-15	29 Nov.-15 Dec. 78	X	-	X	T&S	106	-	-	XBT	

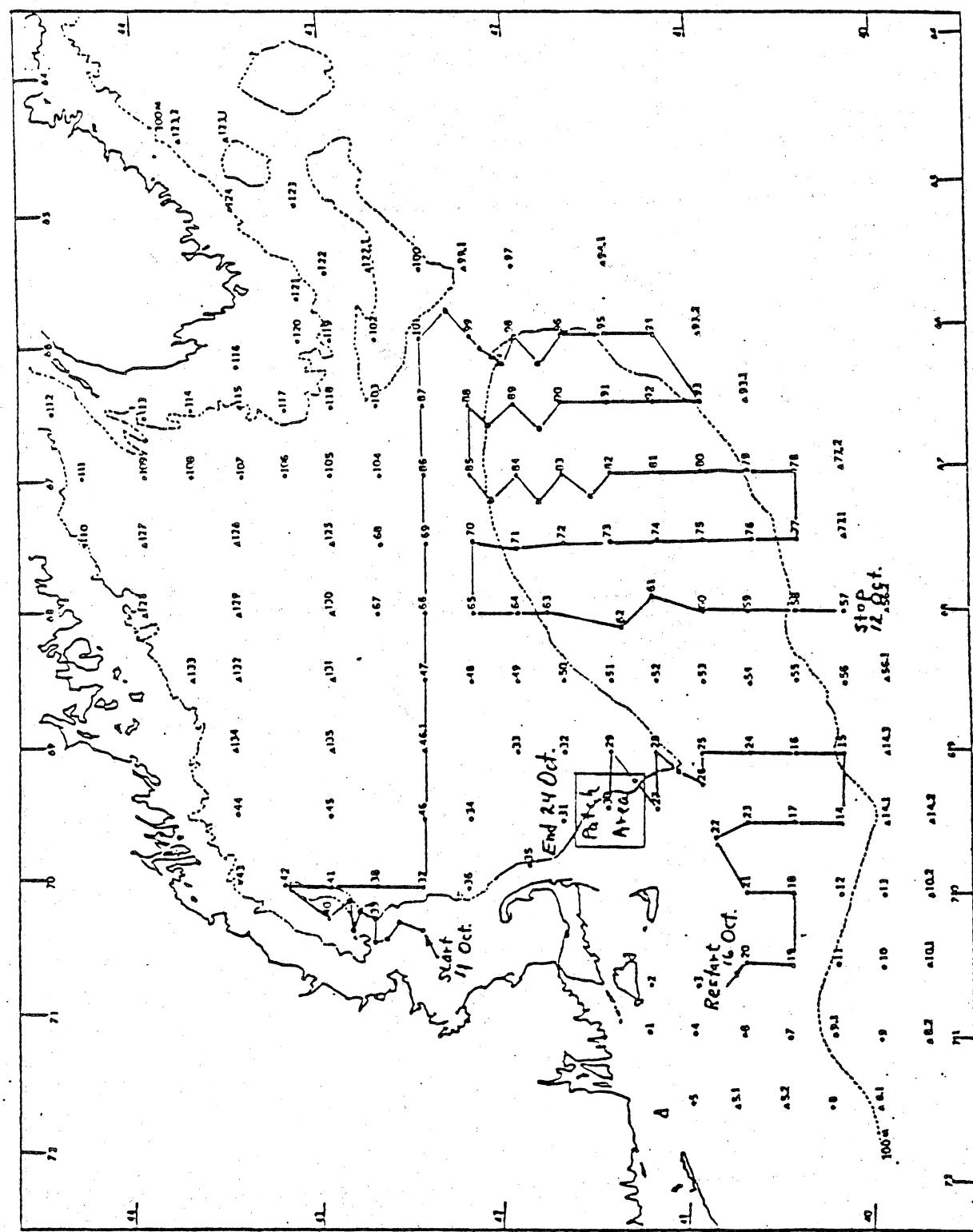


Figure 1. Cruise track and station locations for R/V WIECZNO Cruise
77-06 from 4-24 October 1977.

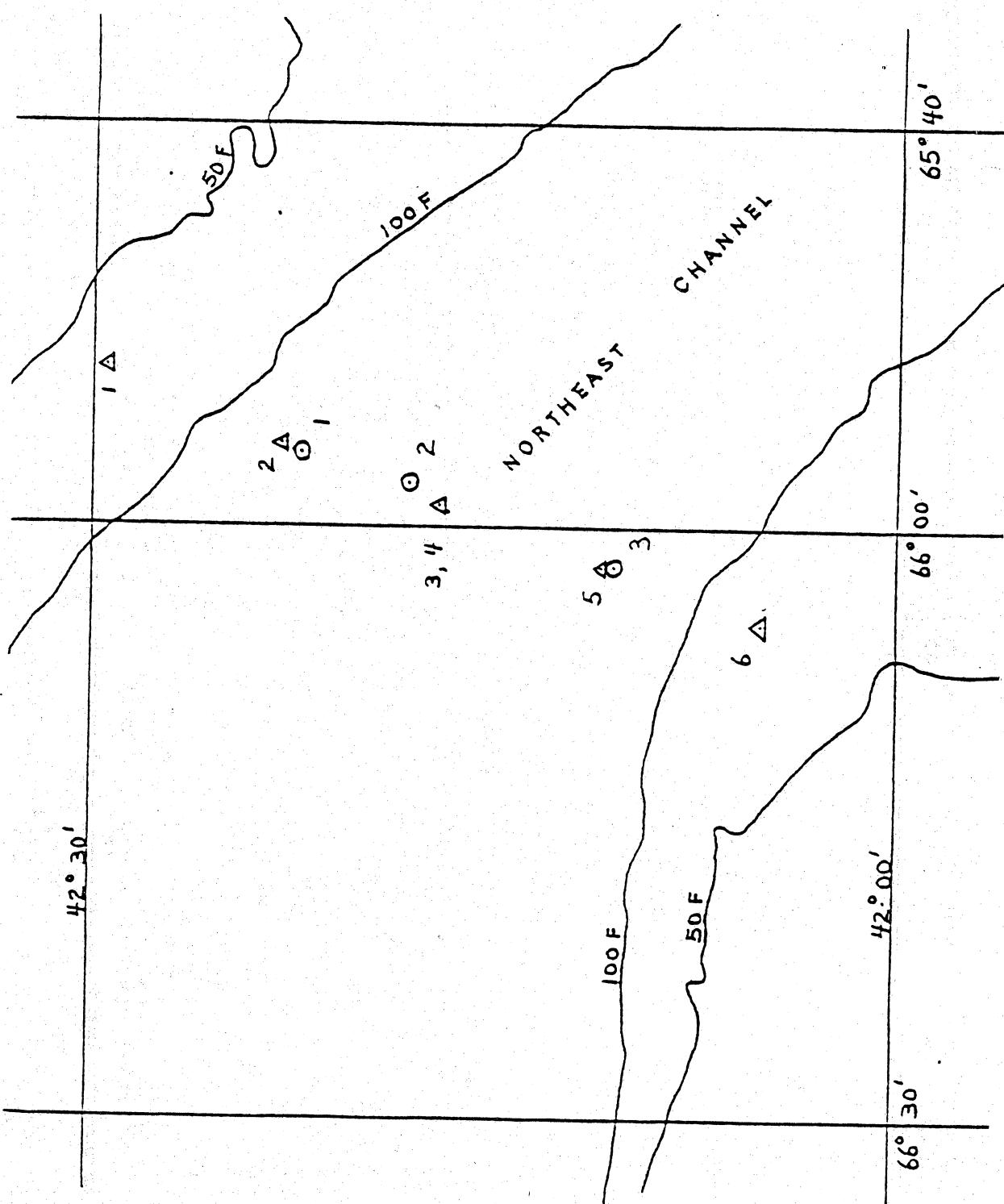


Figure 2. Location of STD and CTD stations (triangles) and current-meter moorings (circles) in the Northeast Channel region during ALBATROSS IV Cruise AL 78-11 from 13-16 September 1978.

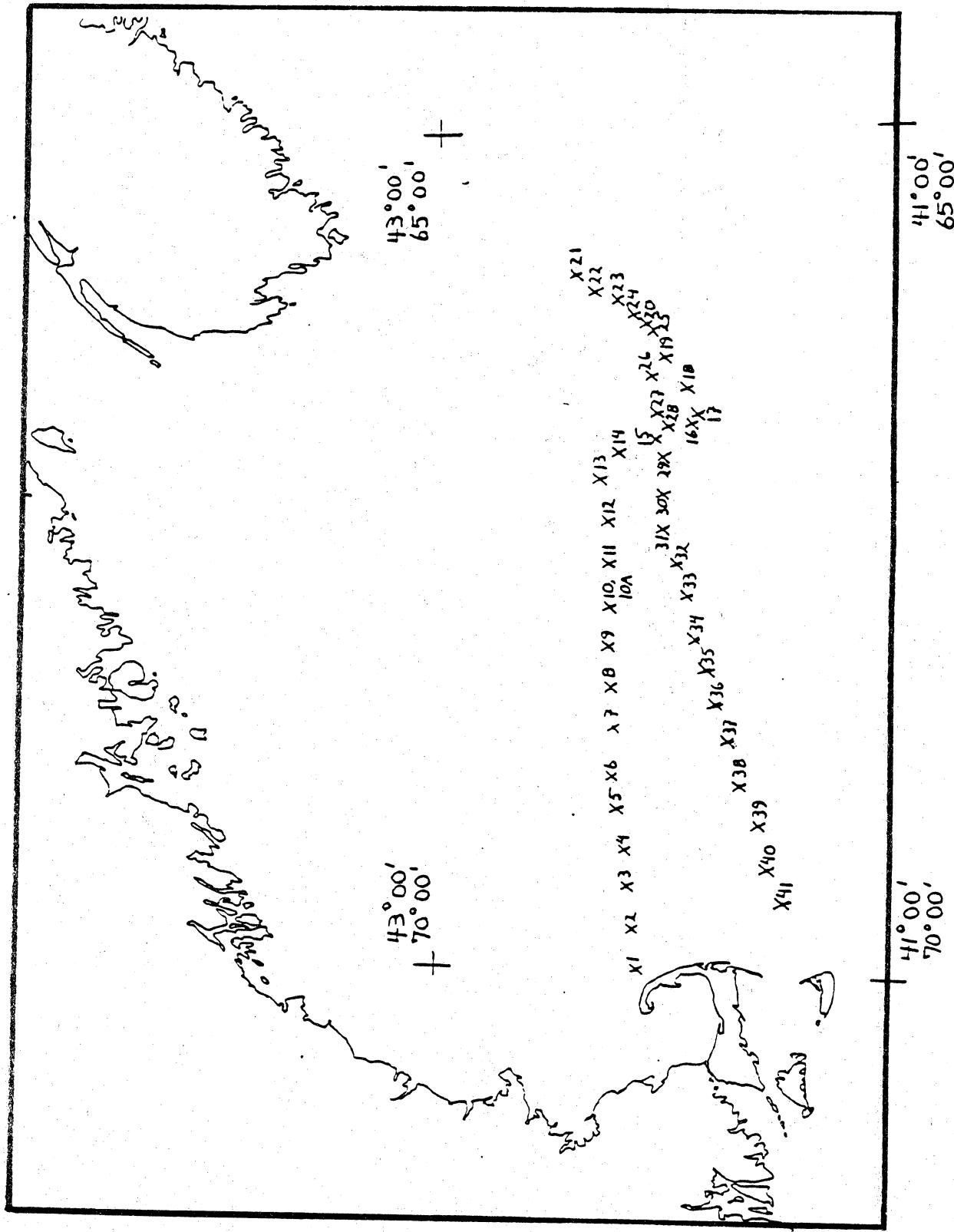


Figure 3. Location of XBT stations during ALBATROSS IV Cruise AL 78-11 from 13-16 September 1978.

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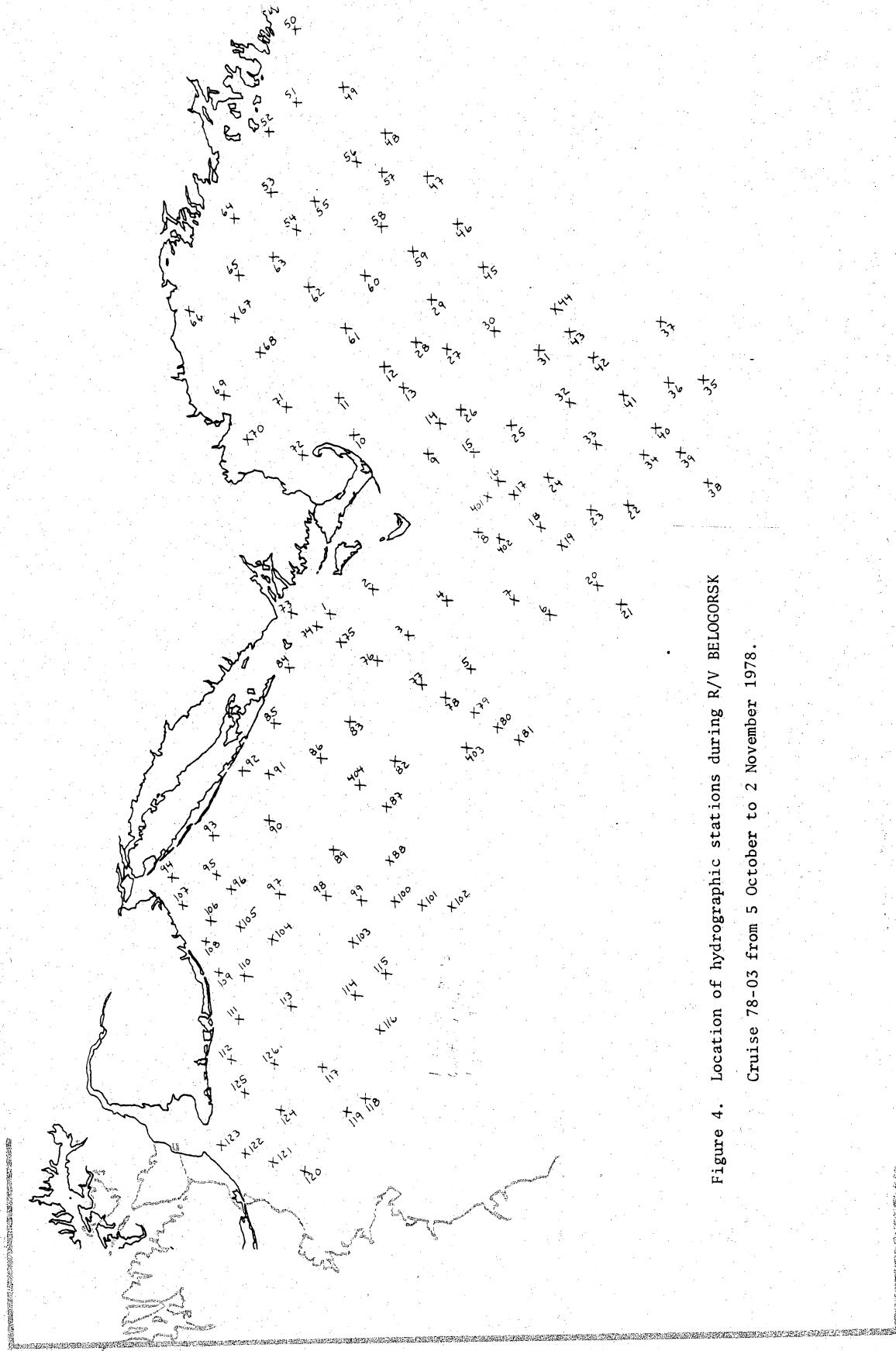


Figure 4. Location of hydrographic stations during R/V BELOGORSK

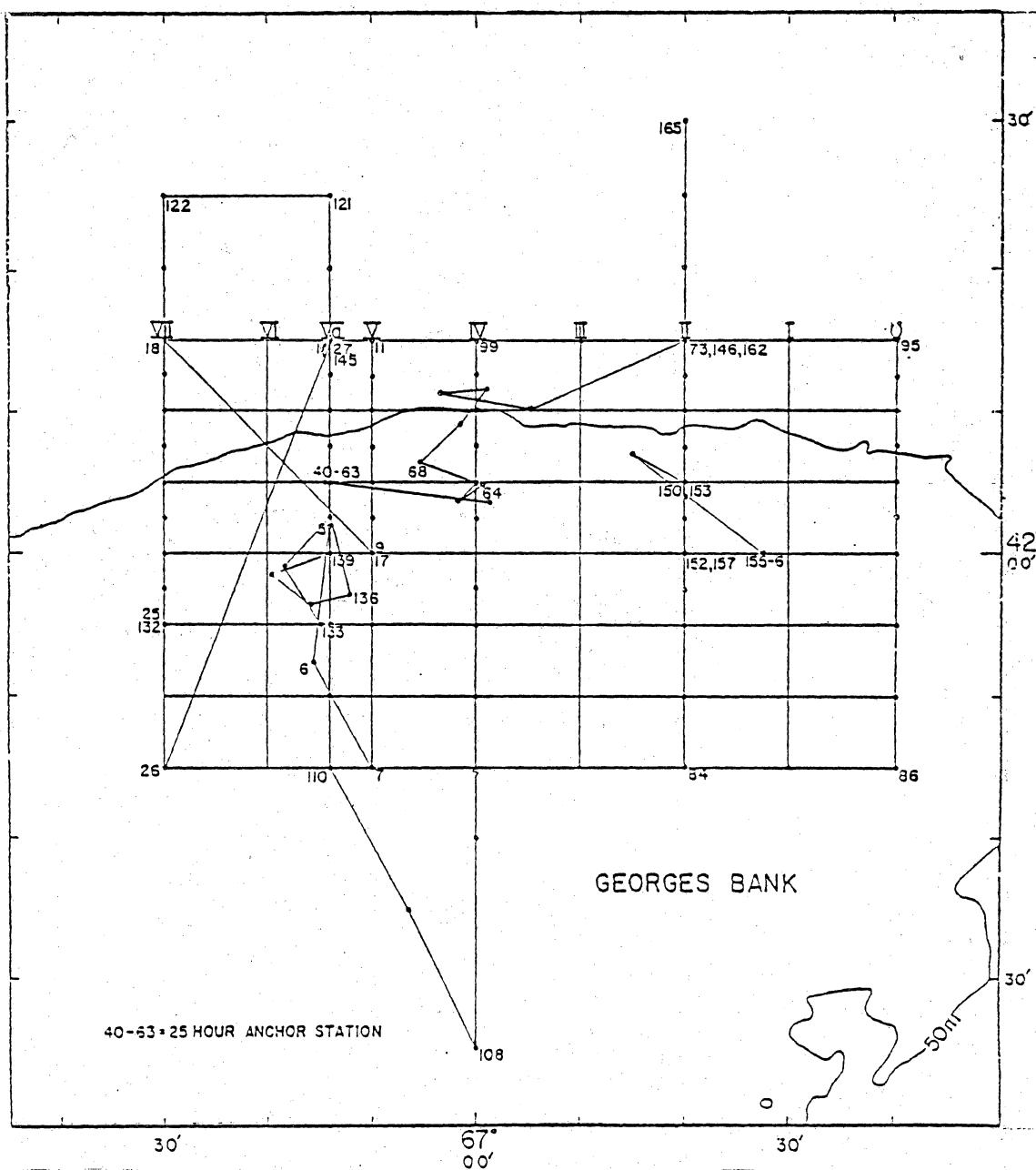


Figure 5. Cruise track for R/V DAWSON Cruise 78-31 from 11-19 October 1978 (165 stations).

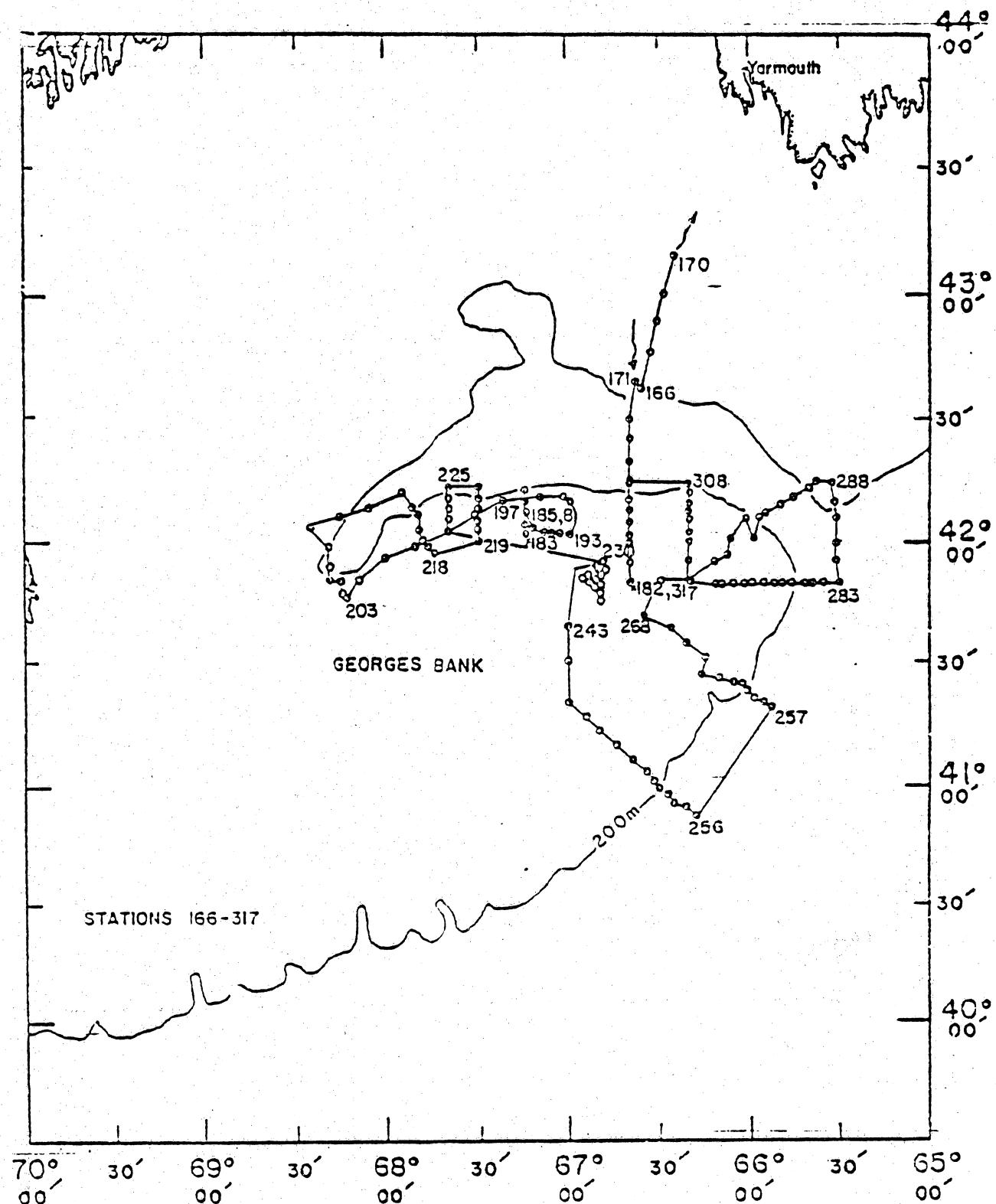


Figure 6. Cruise track for R/V DAWSON Cruise 78-31 from 19-26 October 1978 (152 stations).

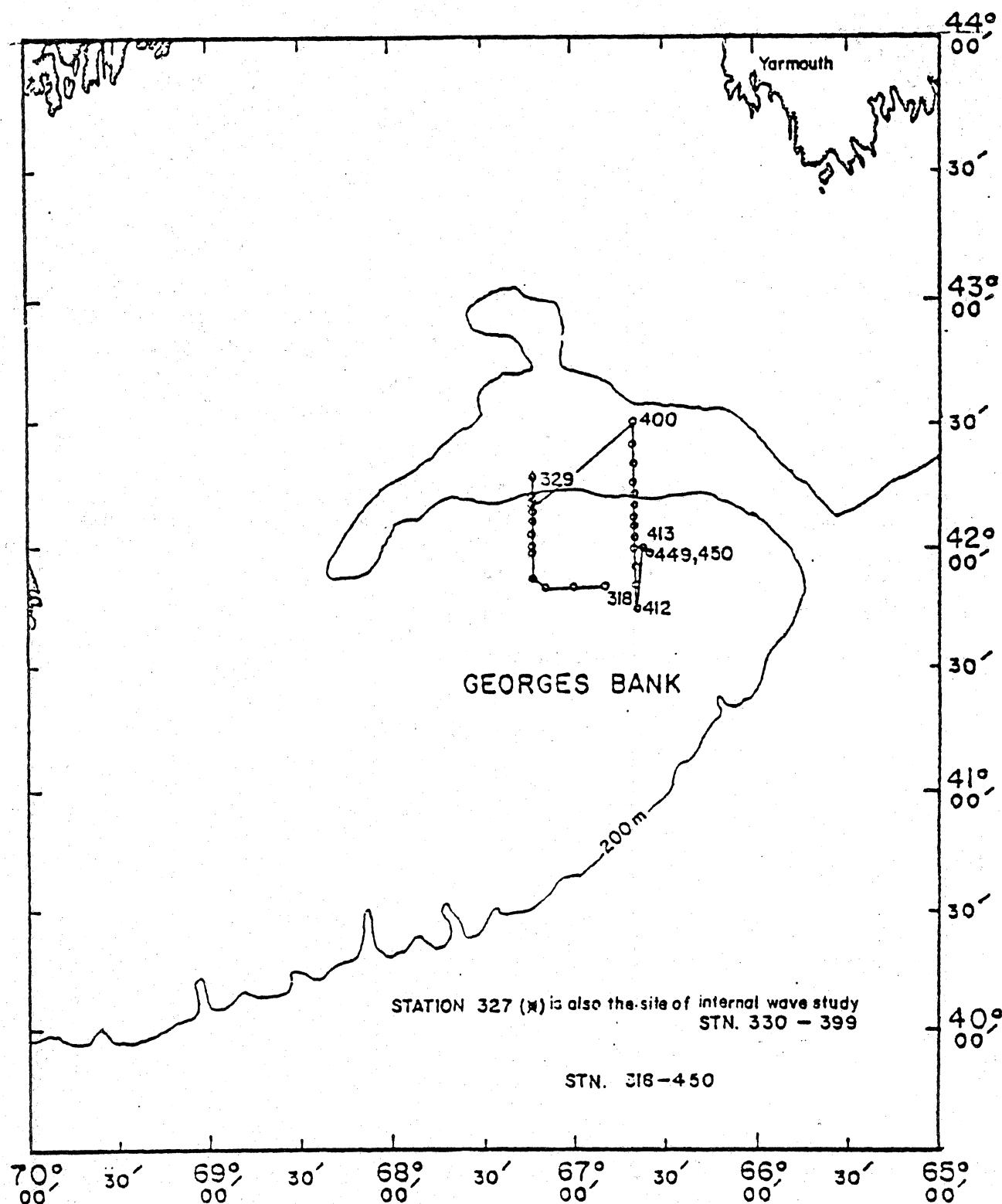


Figure 7. Cruise track for R/V DAWSON Cruise 78-31 from 26 October-
3 November 1978 (133 stations).

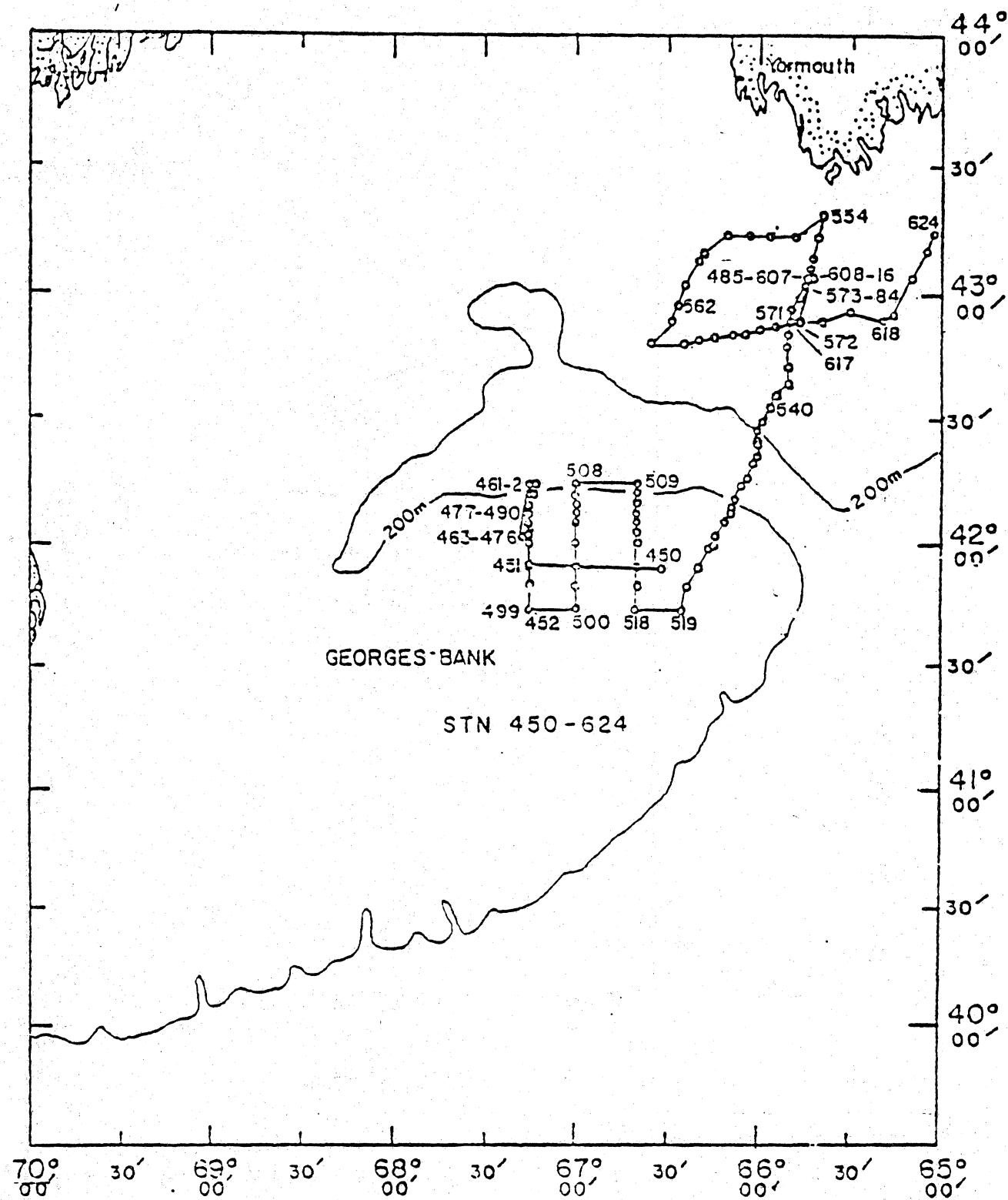


Figure 8. Cruise track for R/V DAWSON Cruise 78-31 from 3-8 November 1978 (175 stations).

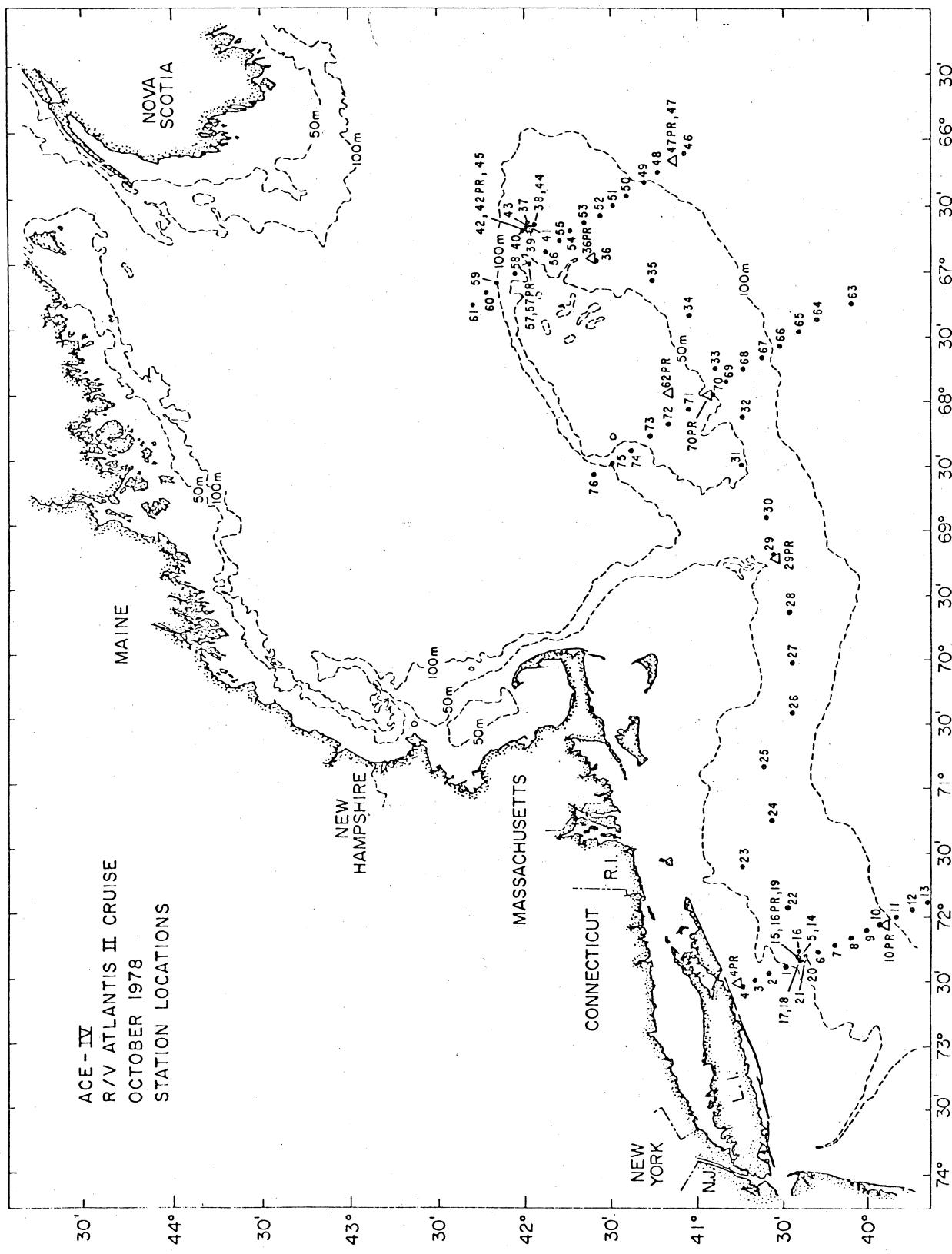


Figure 9. Location of hydrographic stations during R/V ATLANTIS II

Cruise ACE-IV from 11-14 October 1978.

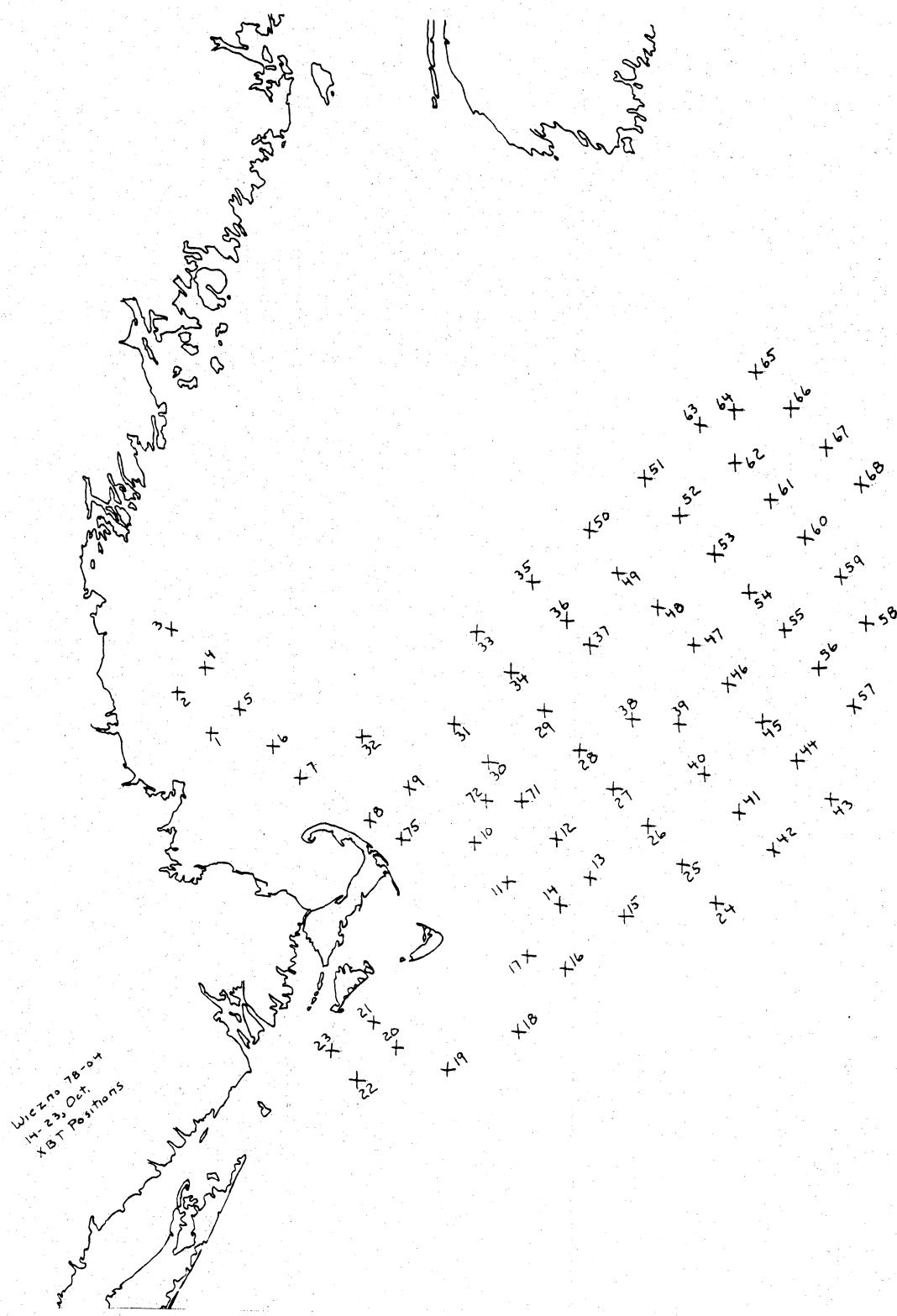


Figure 10. Location of XBT stations during R/V WIECZNO Cruise 78-04
from 14-23 October 1978.

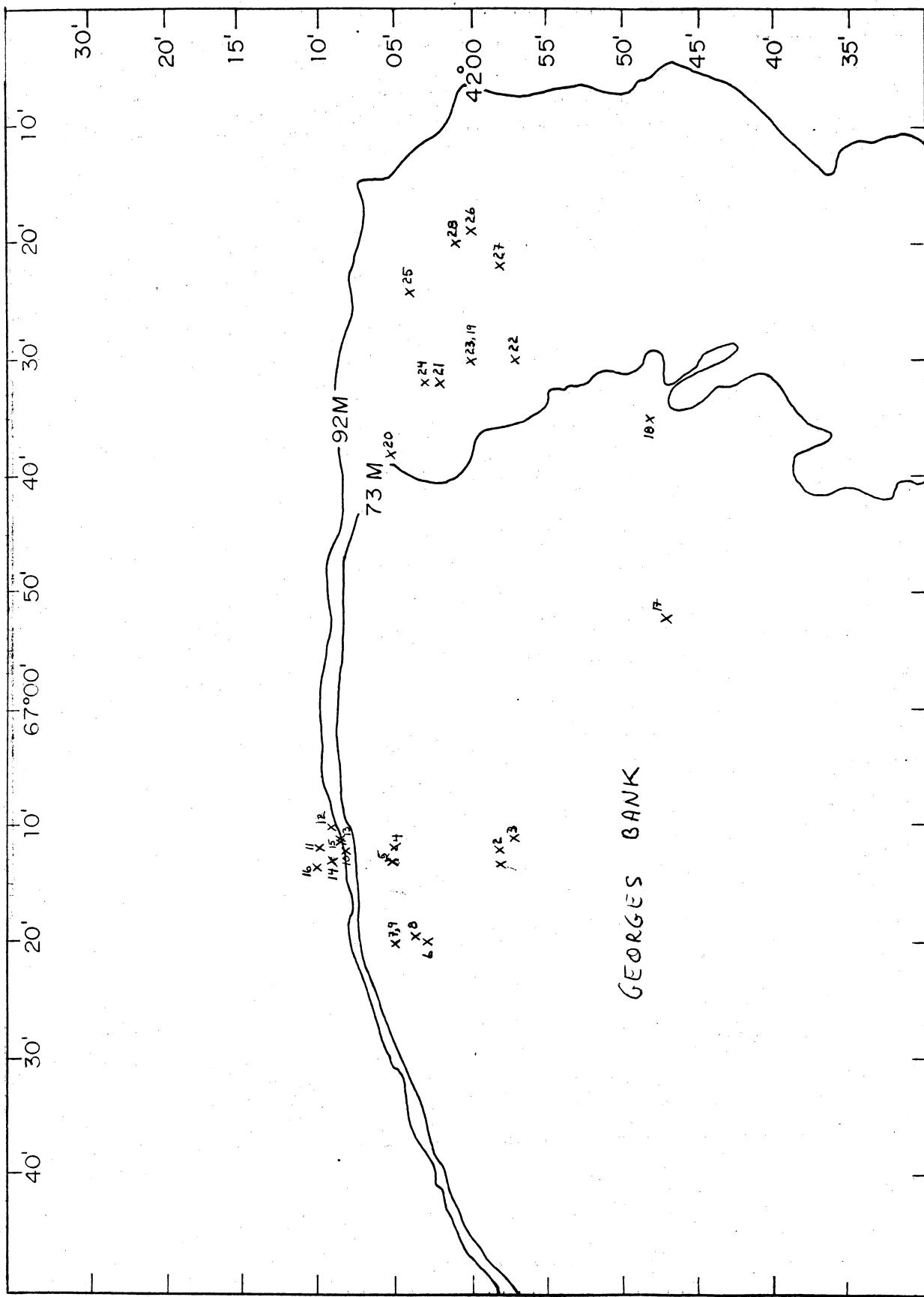


Figure 11. Location of STD stations (1-28) during R/V ALBATROSS IV

Cruise 78-13 during 16 October to 10 November 1978.

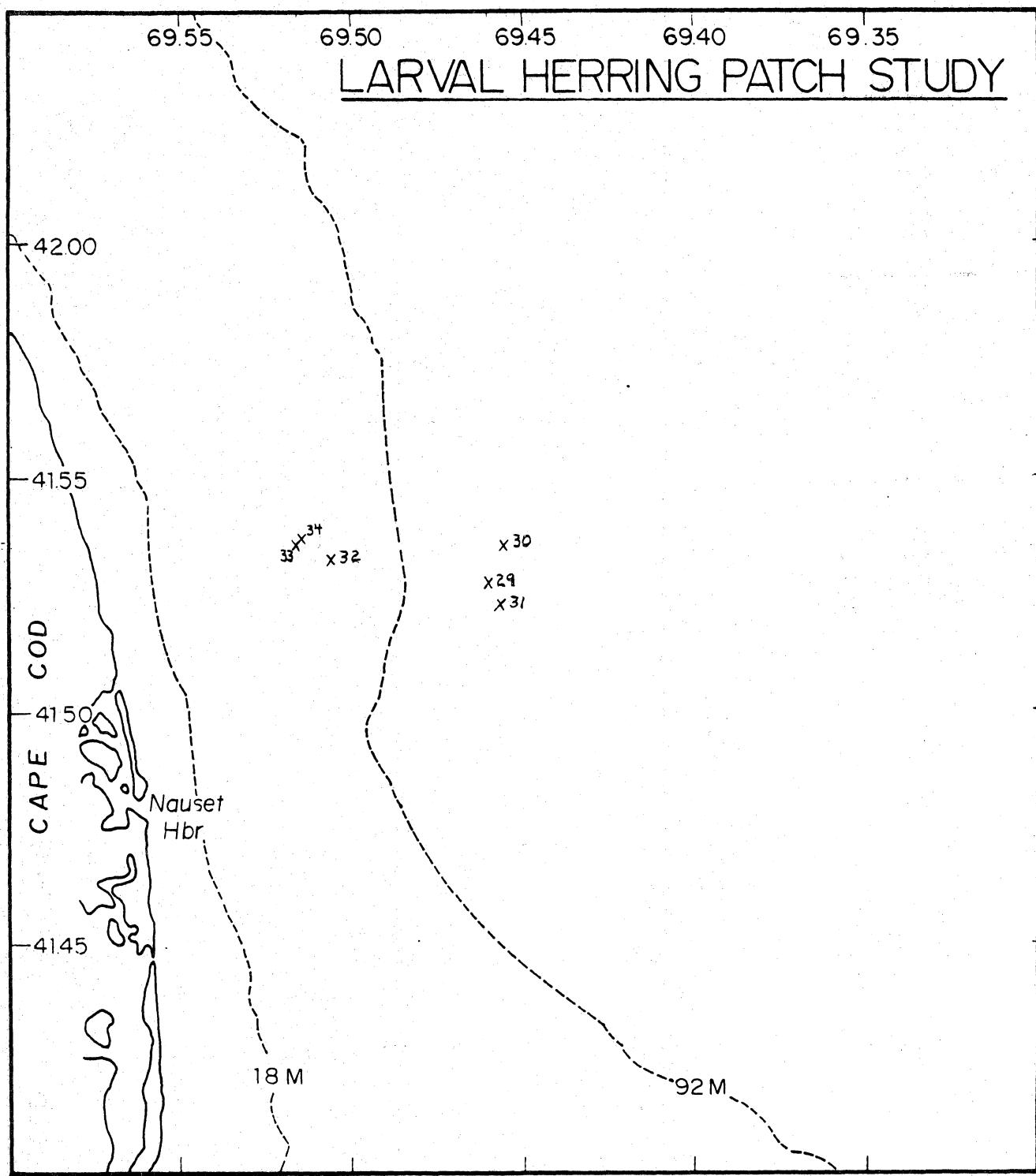


Figure 12. Location of STD stations (29-34) during R/V ALBATROSS IV
Cruise 78-13 from 16 October to 10 November 1978.

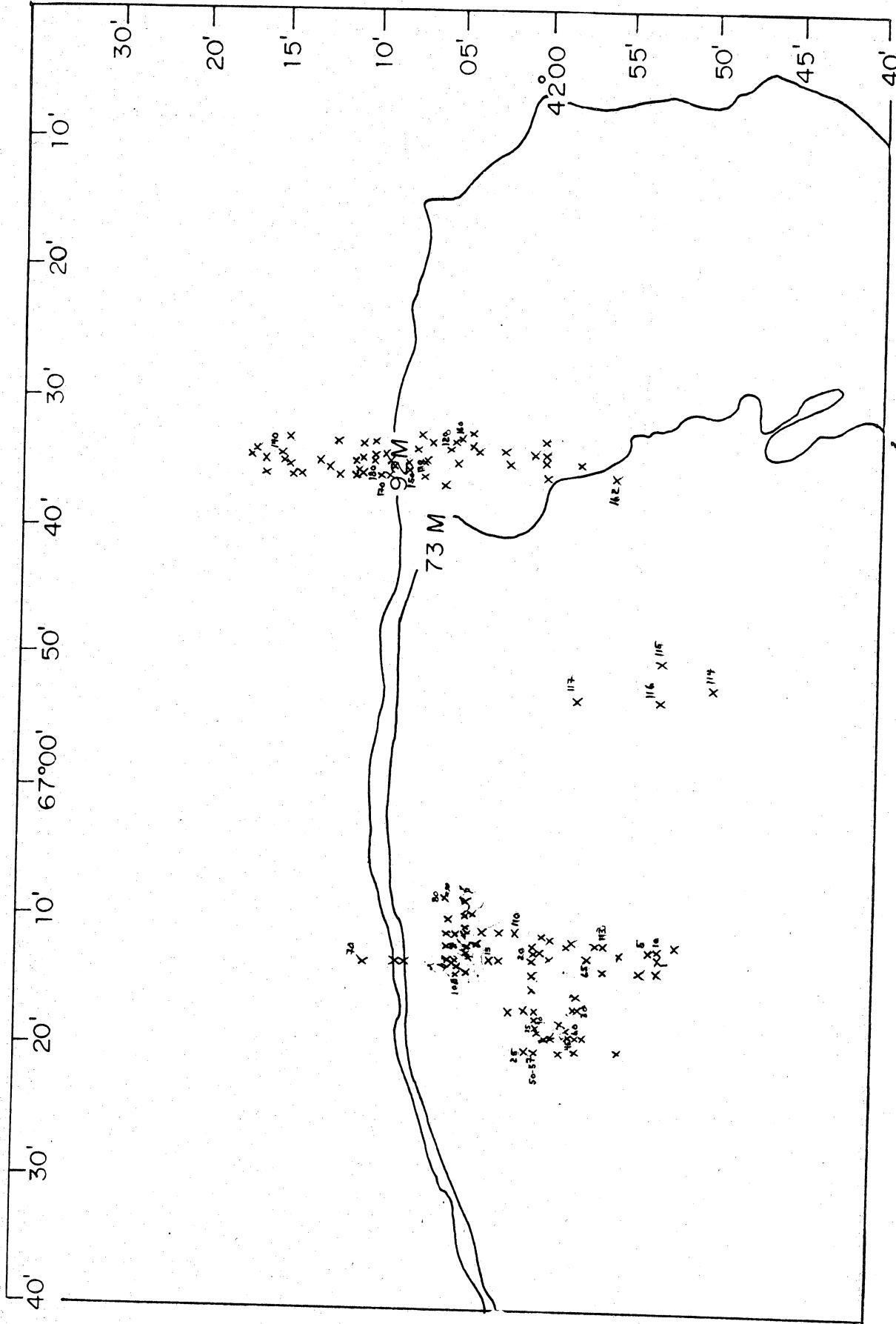


Figure 13. Location of XBT stations (1-180) during R/V ALBATROSS IV
Cruise 78-13 from 16 October to 10 November 1978.

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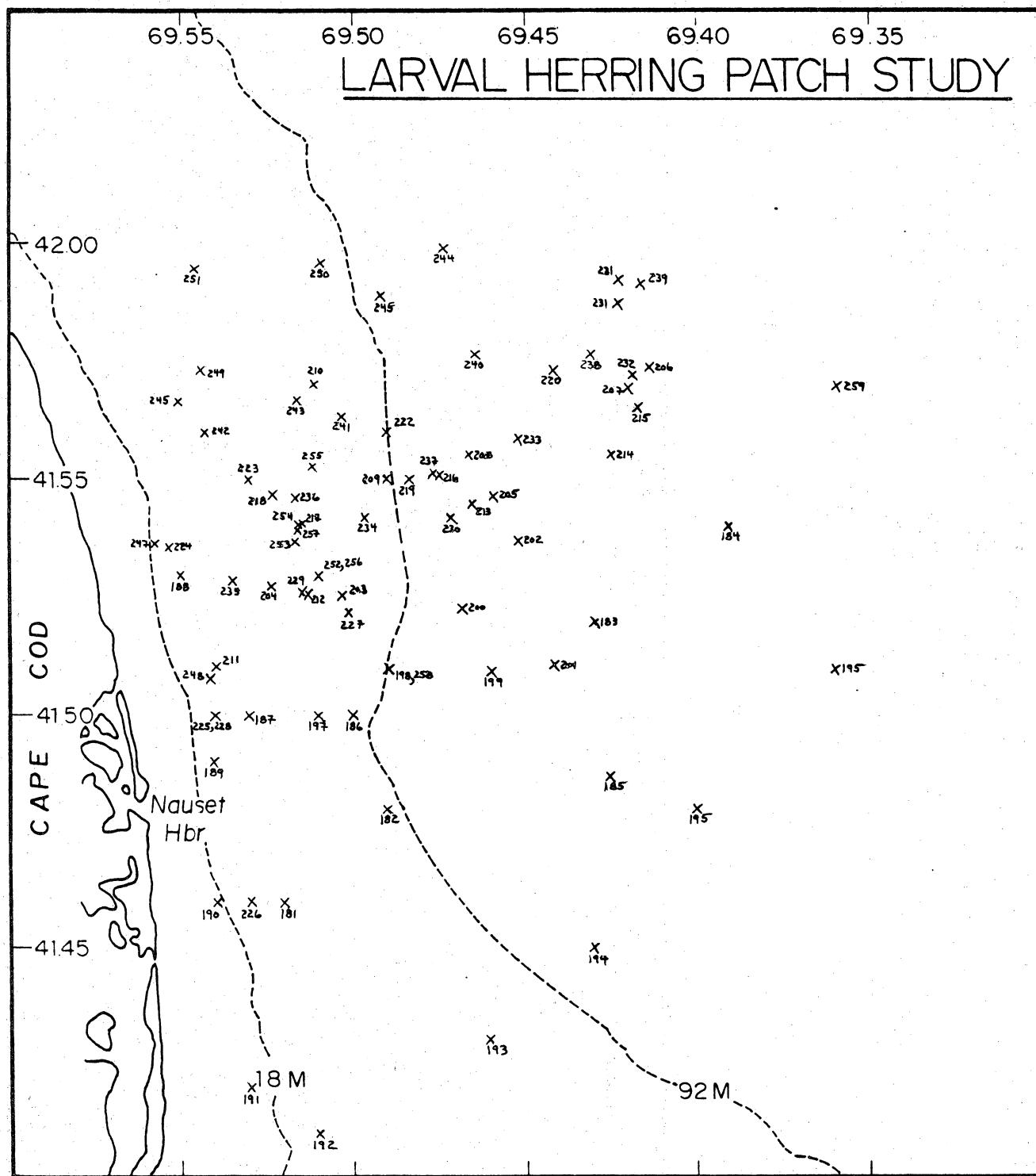


Figure 14. Location of XBT stations (181-259) during R/V ALBATROSS IV

Cruise 78-13 from 16 October to 10 November 1978.

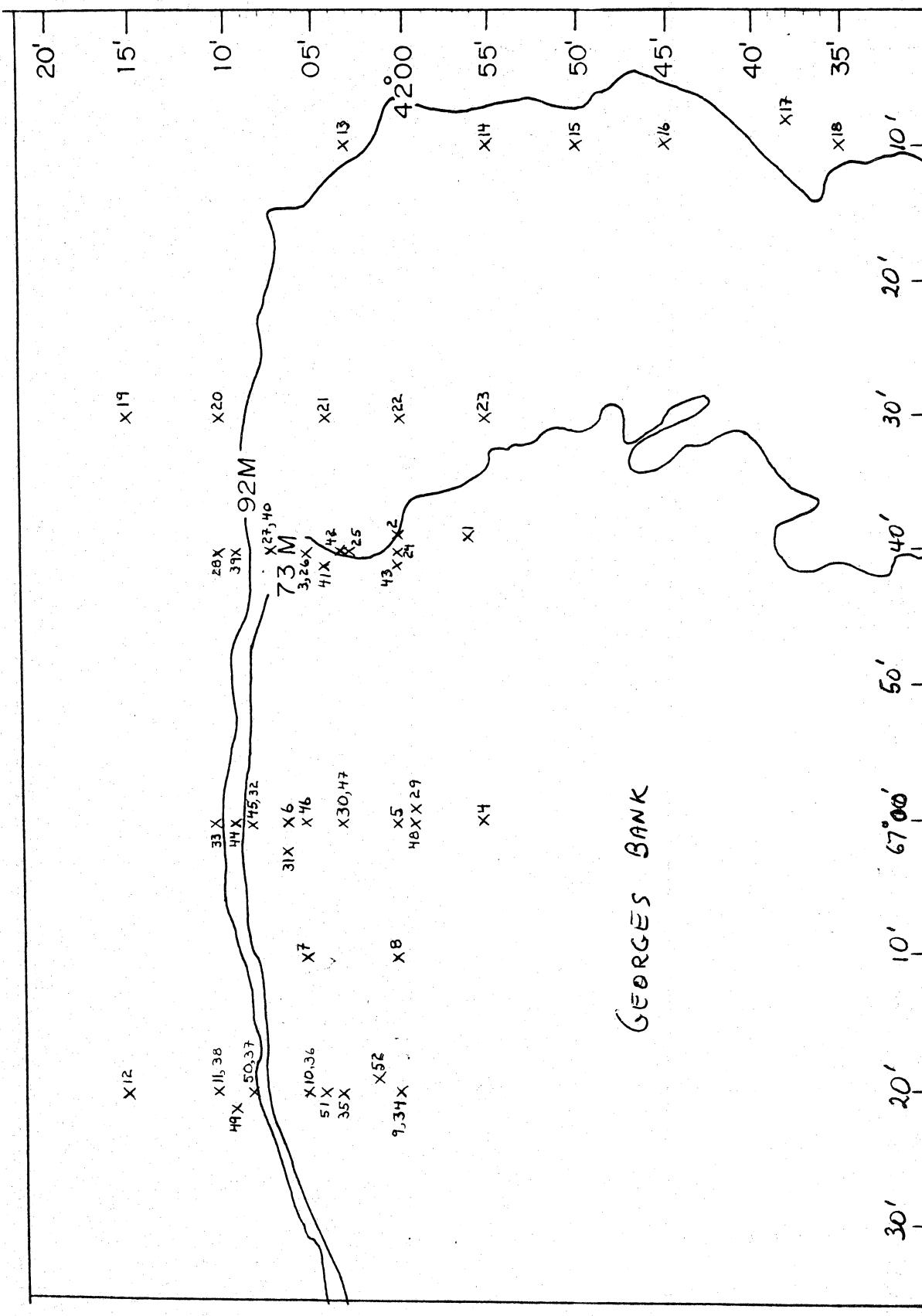


Figure 15. Location of XBT stations (1-52) during R/V LADY HAMMOND cruise

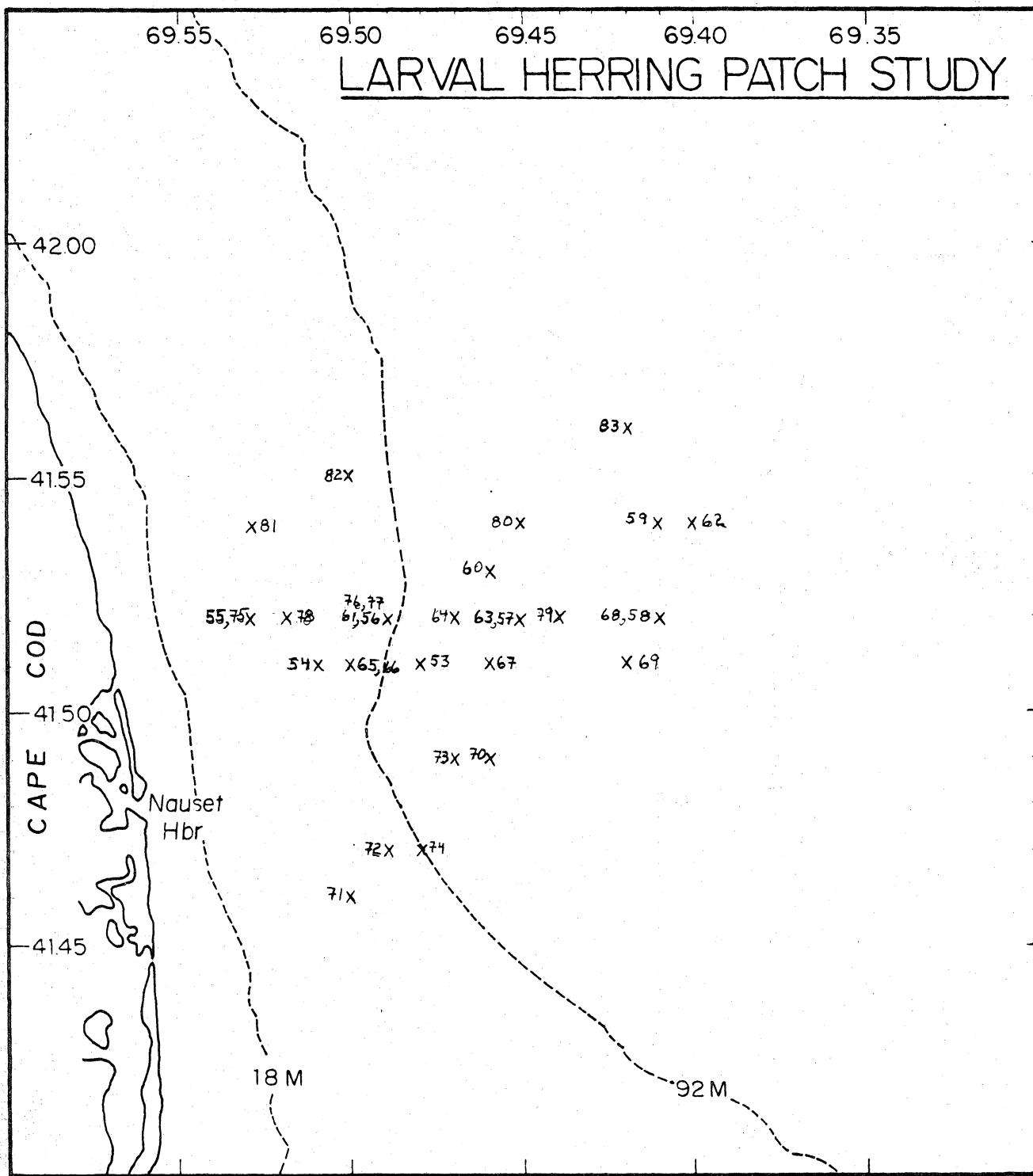


Figure 16. Location of XBT stations (53-83) during R/V LADY HAMMOND
Cruise 78-08 from 17 October to 9 November 1978.

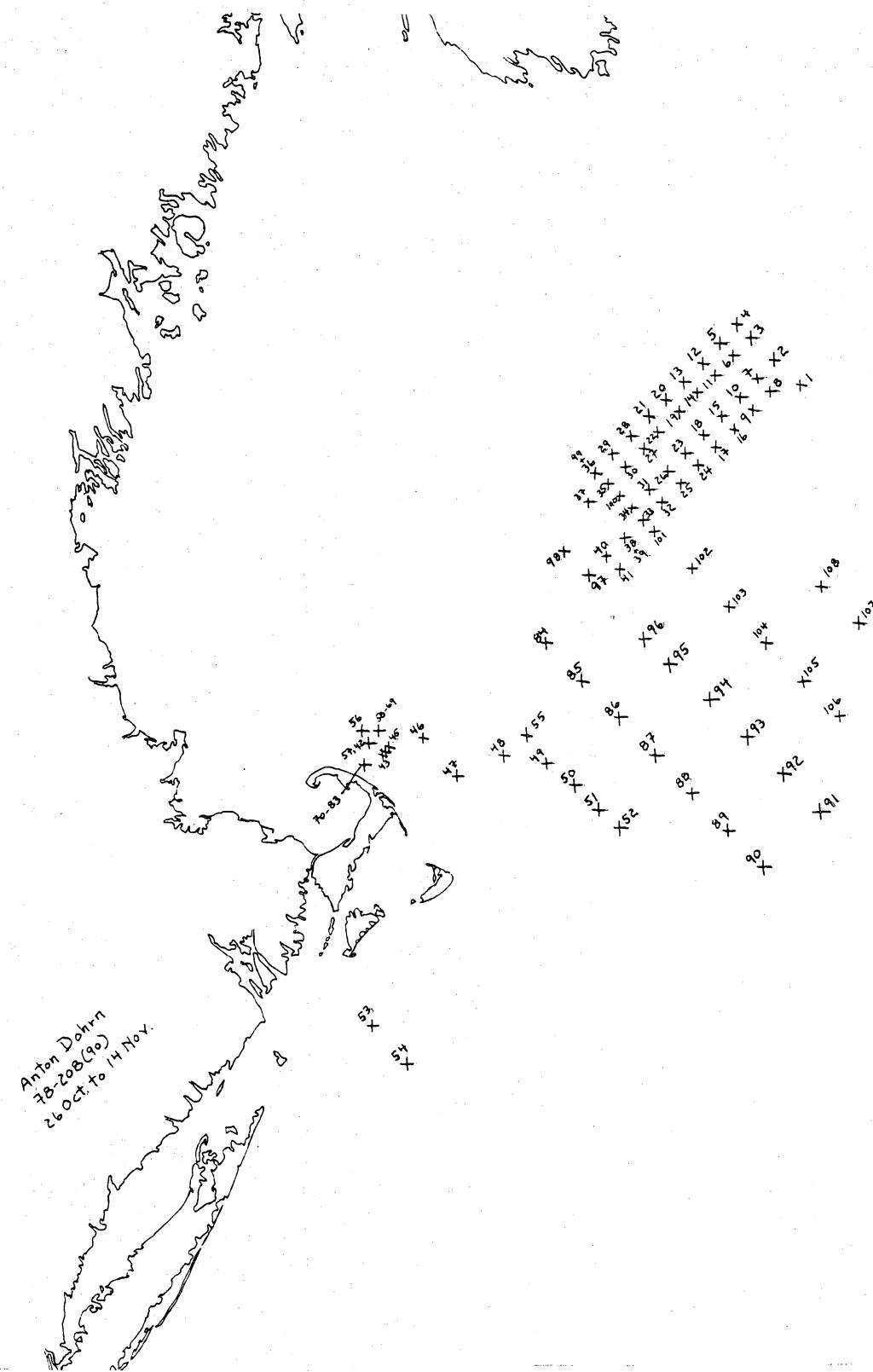


Figure 17. Location of XBT stations during R/V ANTON DOHRN Cruise 78-03
from 23 October to 10 November 1978.

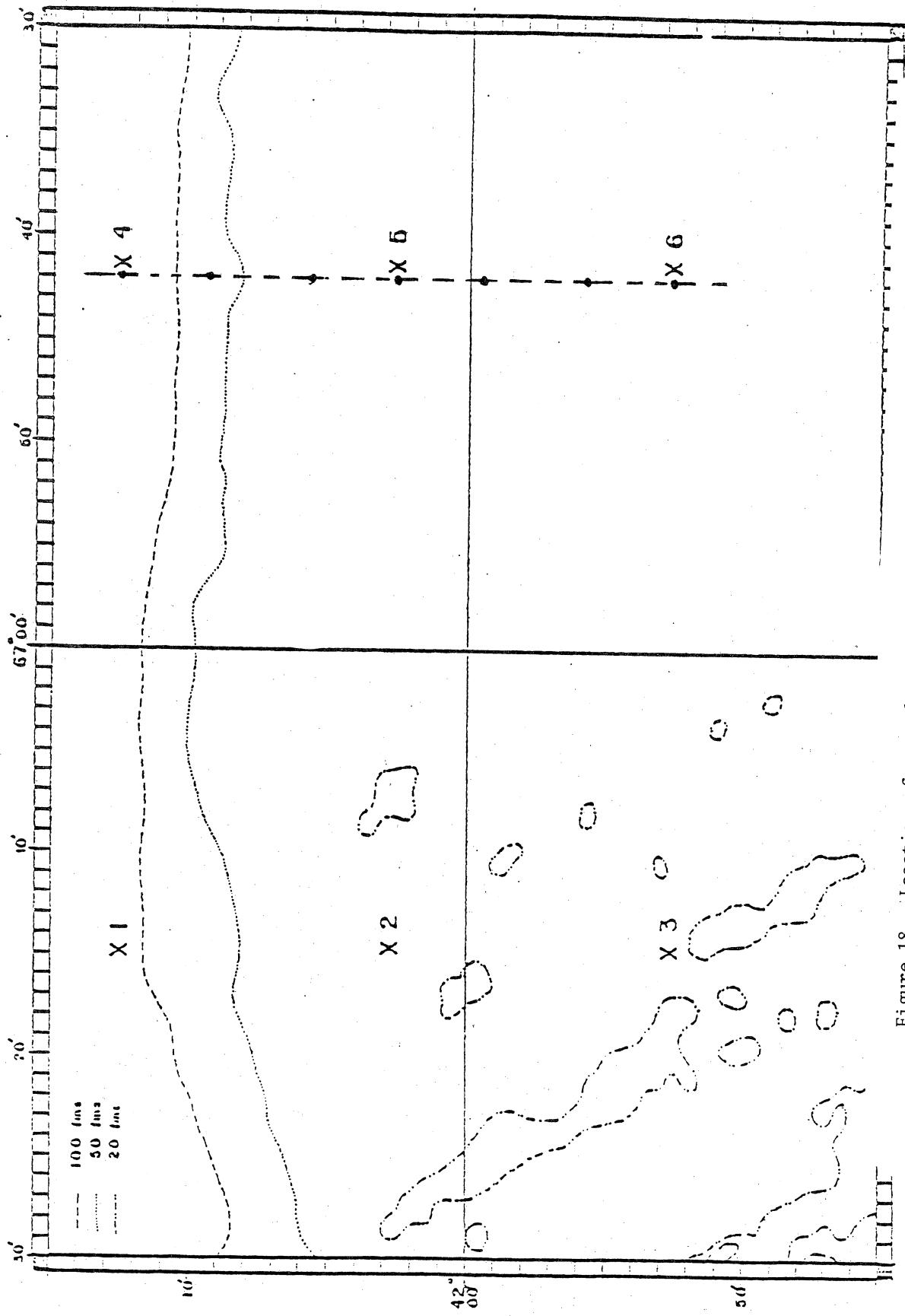


Figure 18. Location of moored current meters for the Larval Herring Patch Experiment. The dotted line shows the ships track for a temperature section during R/V ALBATROSS IV Cruise 78-14 from 13-16 November 1978. XBT locations are indicated with a dot.

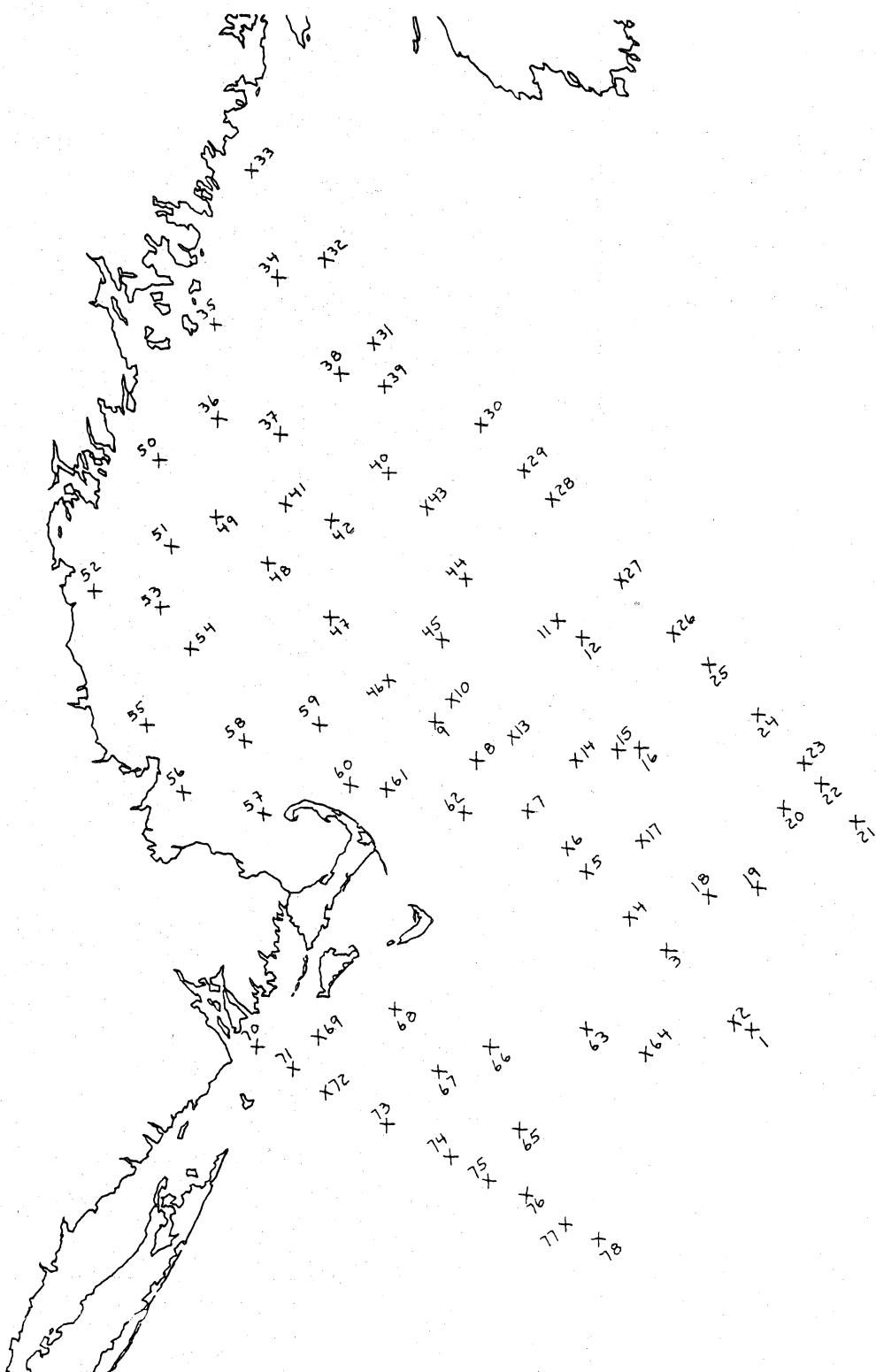


Figure 19. Location of hydrographic stations during R/V BELOGORSK
Cruise 78-04 from 15-30 November 1978.

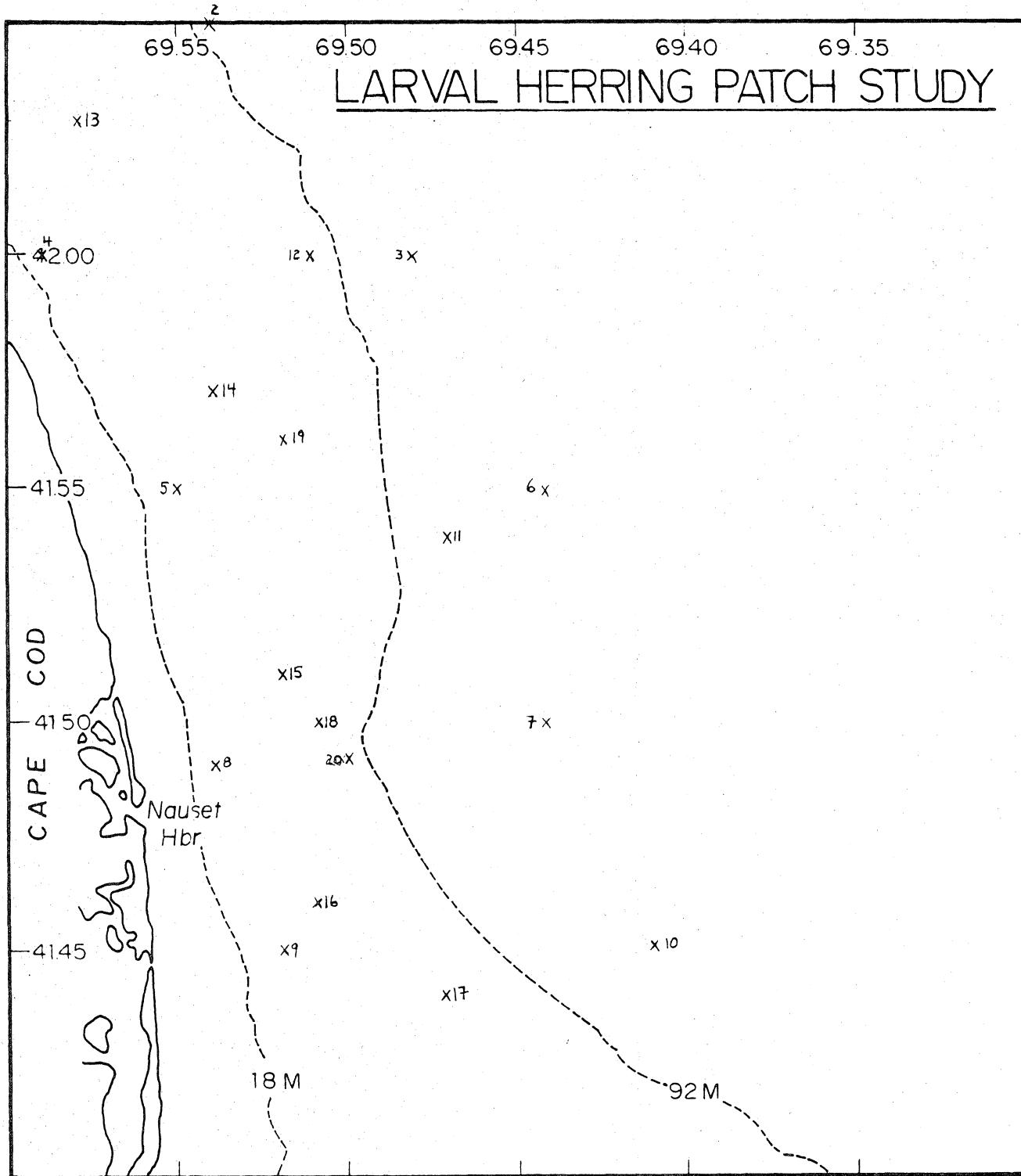


Figure 20. Location of XBT stations during R/V ALBATROSS IV Cruise 78-14(II)
from 18-22 November 1978.

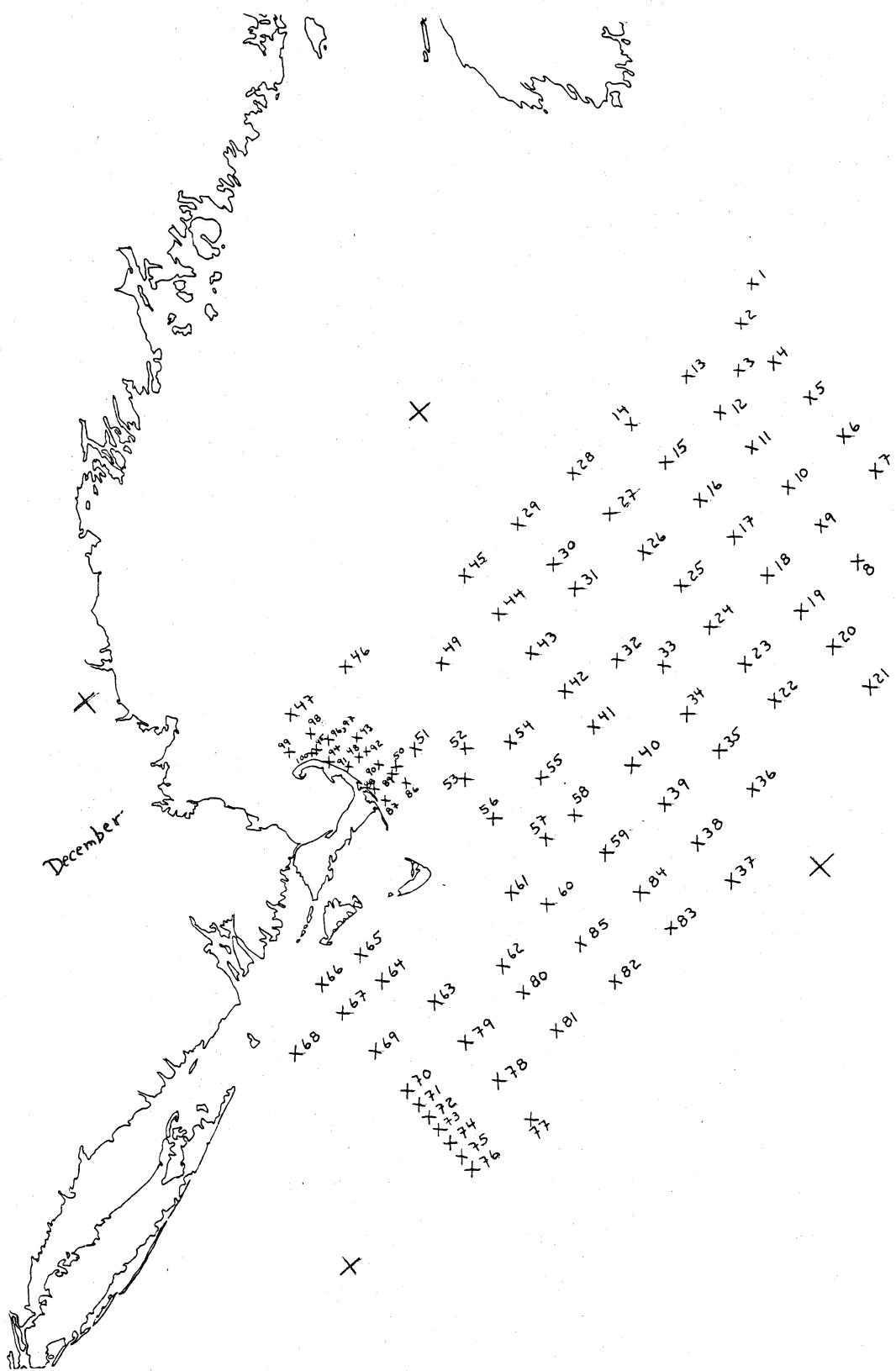


Figure 21. Location of XBT stations during R/V ALBATROSS IV Cruise 78-15
from 29 November to 15 December 1978.