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Marine Environmental Data Service - Progress Report for 1976-77

by

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As the regional data center for physical oceanographic data for the ICNAF Environmental Subcommittee, the MEDS has been active in three areas: oceanographic data exchange, marine data products, and base period investigations. Our data exchange efforts for ICNAF are summarized in Tables 1, 2 and 3.

Table 1 summarizes the bottle data received and processed during 1976 for member countries other than the USA and Canada. No bathythermograph data was received from these same countries during 1976.

Table 2 summarizes data collected during 1976 within the ICNAF area by member countries for which MEDS has not received the data. ROSCOP summaries and 1976 ICNAF research documents were used as sources for this literature search. This table was included to remind the member countries that, in order to present a summary of environmental conditions during the year preceding each annual meeting, MEDS must receive these data within six months after their collection.

Finally, Table 3 is a short summary of the historical datasets still outstanding as not having been submitted to MEDS. Literature sources for this table were the ROSCOP summaries, 1976 ICNAF research documents, and ICNAF Special Publication No. 10. It would be very useful to MEDS if an inventory of all cruises in the ICNAF area on which oceanographic observations were made, regardless of method or whether or not the cruise was part of an ICNAF program, be prepared by each member and forwarded to the MEDS as soon as possible.

As a direct result of our initial correspondence with the designated national representatives, all historical bottle data prior to 1976 collected by the Federal Republic of Germany and the United Kingdom is now within the MEDS databank. Work is now underway to achieve one-to-one correspondence between our mutual bathythermograph databanks also.

With respect to data products, MEDS is now capable of producing machine contoured plots of vertical sections (Figures 1, 2 and 3), as well as depth-time machine contours of oceanographic parameters (Figures 4, 5 and 6) for fixed stations. It is important to note here the MEDS "System 2000" data management capabilities to access any subset of our databanks by:

1. AREA: Coted square(s), Marsden square(s), Latitude-Longitude spans, Circular areas, and irregularly-shaped areas (up to a 19-sided polygon).
2. TIME: Year(s), month(s), day(s), hour(s), and minute(s).
3. IDENTIFICATION: Cruise number(s), Station number(s), Country(ies), Institute(s), and Ship Code(s).
4. DEPTH: Range(s), level(s), and bottom distance(s).
5. PARAMETER: Observed or calculated oceanographic data.

Investigations into the possibility of establishing base periods for the ICNAF area were limited to searching the MEDS bottle data base for long time series along the ICNAF standard sections. The attached catalogue summarizes these findings and will be published in the ICNAF Research Document series. In brief,

¹ Originally presented at the Symposium on the Role of Abiotic and Biotic Factors in the Reproduction of Fish Stocks in the Flemish Cap Area, 16-19 May 1977, Murmansk, USSR, as Working Paper 77/V/28.

bottle data along these sections have been collected mainly by Canada and the USA; and without the inclusion of data from other member countries, this data base is too small to form meaningful base periods.

Table 1. Bottle data received during 1976 from ICNAF Member Countries not counting USA data received via bi-lateral agreement and not counting data from Canadian sources.

<u>Country</u>	<u>Dates</u>	<u>Ship</u>	<u>Bottle Stations</u>	<u>Area</u>
G.D.R. (07)	04/02/75 - 17/03/75	Unknown	83	ICNAF Area JK
Poland (67)	18/02/73 - 21/02/73	Wieczno	21	Georges Bank
U.K. (74)	06/04/72 - 07/05/72	Cirolana	34	Newfoundland
	21/11/72 - 18/12/72	Cirolana	20	West Greenland
	25/10/73 - 22/11/73	Cirolana	15	West Greenland
F.R.G. (06)	27/09/66 - 30/10/66	Anton Dohrn	26	ICNAF
	17/10/72 - 17/12/72	Anton Dohrn	48	ICNAF
	04/10/67 - 12/11/67	Walter Herwig	73	ICNAF
	11/01/69 - 20/02/69	Walter Herwig	76	ICNAF
	29/09/69 - 27/11/69	Walter Herwig	96	ICNAF
	16/02/70 - 30/03/70	Walter Herwig	26	ICNAF
	01/06/70 - 15/08/70	Walter Herwig	274	ICNAF
	18/10/71 - 18/12/71	Walter Herwig	99	ICNAF
	01/03/72 - 06/04/72	Walter Herwig	10	ICNAF
	15/10/73 - 15/12/73	Walter Herwig	51	ICNAF
	06/03/74 - 16/04/74	Walter Herwig	79	ICNAF
	01/08/65 - 30/08/65	Unknown	55	ICNAF
	29/07/75 - 15/08/75	Walter Herwig	75	Tape Not Legible
	23/11/75 - 08/12/75	Anton Dohrn	78	Newfoundland
			<u>1,241</u>	

Table 2. Data reported as collected during 1976 within the ICNAF Area for which MEDS has not received the data.

<u>Country</u>	<u>Ship</u>	<u>Dates</u>	<u>Area</u>	<u>Reference</u>	<u>Data Type</u>
Poland (67)	Wieczno	04/04/76 - 07/04/76	Georges Bank	Res.Doc. 67/VI/86	Bottle Data
	Wieczno	06/05/76 - 29/05/76	Georges Bank	ROSCOP R320001	101 XBT
G.D.R. (07)	Ernst Haeckel	20/03/76	Georges Bank	Res.Doc. 76/VI/86	Bottle Data
Cuba (CU)	Isla De La Juventud	01/06/76 - 31/08/76	Nova Scotia Georges Bank	ICNAF 3831	Hydrological Data
France (35)	Cryos	08/01/76 - 10/03/76	MARSDEN 150, 186, 222	ROSCOP R130611	129 XBT
	Cryos	15/03/76 - 31/03/76	MARSDEN 150, 151	ROSCOP R130612	30 XBT
F.R.G. (06)	Anton Dohrn	01/03/76 - 09/03/76	ICNAF	ROSCOP R140072	57 Bottles
U.S.S.R. (90)	Unknown	24/12/75 - 18/03/76	ICNAF	ROSCOP R370015	205 Bottles, 360 MBT
	Belogorsk	16/04/76 - 19/04/76	Georges Bank	Res.Doc. 76/VI/86	Bottle Data
U.S.A.	Albatross IV	1976	Georges Bank	ICNAF 3758	300 Stations/Cruise
	Unknown	1976	ICNAF	ICNAF 3758	U.S.C.G. Ice Patrol

Table 3. Historical data for which MEDS has not received the data as reported in WDC-A ROSCOP forms, 1976 ICNAF Res. Docs., and ICNAF Special Publication 10.

Country	Ship	Dates	Area	Reference	Data Type			
					Bottles	MFT	MFT	STD
Poland (67)	Wieczno	10/07/70 - 19/09/70	MARSDEN 150, 151	ROSCOP 32024	83	50		63
	Wieczno	19/09/71 - 01/11/71	MARSDEN 150, 151	ROSCOP 32010	124		127	121
	Wieczno	18/08/73 - 24/11/73	MARSDEN 115, 116, 151, 152	ROSCOP 32058	226		226	
Norway (58)	Johan Hjort	10/07/71 - 05/08/71	MARSDEN 149, 150, 185, 186	ROSCOP 28030	88	62		
	Bavdron	10/06/75 - 18/07/75	Labrador & Newfoundland	Res.Doc. 76/VI/23	Temperature Measurements			
Iceland (46)	Arni Fridriksson	01/08/72 - 21/08/72	West Greenland	ROSCOP 18018	4			72
	Sjarni Samundason	07/04/72 - 20/04/72	West Greenland	ROSCOP 18022			25	
Denmark (26)	Adolf Jensen	1973	West Greenland	ICNAF Ser. 74/74	Temperature Data			
France (35)	Cryos	01/08/74 - 21/08/74	St. Pierre Bank	ROSCOP R130068				341
	Cryos	04/09/74 - 14/10/74	Georges Bank	ROSCOP R130229		65		108
	Cryos	06/11/74 - 18/11/74	Gulf of St. Lawrence	ROSCOP R130230				63
	Cryos	17/01/75 - 24/02/75	MARSDEN 150, 186	ROSCOP R130395		84		11
	Cryos	15/03/75 - 15/04/75	MARSDEN 150, 151	ROSCOP R130414		2		68
	Cryos	19/04/75 - 30/04/75	MARSDEN 150	ROSCOP R130481				28
	Cryos	03/05/75 - 19/05/75	MARSDEN 150, 151, 152	ROSCOP R130482				32
	Cryos	01/10/75 - 31/10/75	MARSDEN 149, 150	ROSCOP R130574				10
	Cryos	27/10/75 - 10/11/75	St. Pierre Bank	ROSCOP R130575				3
	Cryos	22/11/75 - 15/12/75	MARSDEN 115, 116, 151, 152	ROSCOP R130594				47
	U.K. (74)	Newfoundland	1971	MARSDEN 149, 150	ROSCOP 38101			
Newfoundland		1972	ICNAF	ROSCOP 38263				23
Cirolana		29/02/72 - 27/03/72	MARSDEN 185, 186, 221, 222	ROSCOP 38328				24
Cirolana		06/04/72 - 07/05/72	MARSDEN 149, 150	ROSCOP 38329				
Cirolana		21/11/72 - 18/12/72	MARSDEN 185, 186, 221, 222	ROSCOP 38331				25
Cirolana		25/10/73 - 22/11/73	MARSDEN 185, 221, 222	ICES 73-74-016				37
Necla		03/04/72 - 11/04/72	MARSDEN 113	ICES 72-74-165	4			3
F.R.G. (06)	Anton Dohrn	27/02/58 - 22/04/58	MARSDEN 185, 221	ROSCOP 14009				97
	Anton Dohrn	04/08/58 - 27/09/58	MARSDEN 185, 221	ROSCOP 14011				163
	Anton Dohrn	13/02/62 - 25/3/62	MARSDEN 185, 186, 221, 222	ROSCOP 14021				23
	Anton Dohrn	03/07/65 - 04/08/65	MARSDEN 186, 187, 222, 223	ROSCOP 14036				62
	Anton Dohrn	27/09/66 - 30/10/66	MARSDEN 222	ROSCOP 14201				35
	Anton Dohrn	17/10/72 - 17/12/72	MARSDEN 149, 152, 221, 224	ROSCOP 14276				226
	Anton Dohrn	22/11/75 - 18/12/75	ICNAF	ROSCOP R140080				77
	Anton Dohrn	31/10/75 - 16/11/75	MARSDEN 151, 152	Res.Doc. 76/VI/78				137
	Walter Herwig	25/11/63 - 21/12/63	MARSDEN 222	ROSCOP 14142				33
	Walter Herwig	10/06/64 - 09/07/64	MARSDEN 222	ROSCOP 14145				50
	Walter Herwig	29/10/64 - 31/11/64	MARSDEN 222	ROSCOP 14148				77
	Walter Herwig	11/01/65 - 27/02/65	MARSDEN 150	ROSCOP 14149				155
	Walter Herwig	17/05/65 - 30/06/65	MARSDEN 186	ROSCOP 14152				113
	Walter Herwig	13/11/65 - 18/12/65	MARSDEN 222	ROSCOP 14154				51
	Walter Herwig	06/01/66 - 14/02/66	MARSDEN 150	ROSCOP 14155				89
	Walter Herwig	16/02/70 - 27/03/70	MARSDEN 185, 186, 221, 222	ROSCOP 14163				24
	Walter Herwig	08/06/70 - 14/08/70	MARSDEN 150, 151, 152	ICES 7006043				243
	Walter Herwig	20/08/70 - 30/09/70	Georges Bank	ROSCOP 14166				36
	Walter Herwig	18/10/71 - 18/12/71	MARSDEN 151, 185, 186, 222	ROSCOP 14282				158
Walter Herwig	22/11/75 - 18/12/75	ICNAF	ROSCOP R140080				77	
Walter Herwig	31/10/75 - 16/11/75	MARSDEN 151, 152	Res.Doc. 76/VI/78				137	
Poseidon	31/08/71 - 22/10/71	MARSDEN 151, 152	ROSCOP 14283				45	
U.S.S.R. (90)	Professor Vise	08/06/71 - 13/08/71	MARSDEN 149, 185, 186	ROSCOP 37031				174
	Perseus III	24/10/72 - 20/1/73	Labrador Sea	WDC-B 137.11 L-1				81
	Perseus III	01/06/73 - 21/09/73	Labrador Sea	WDC-B 137.11 L-2				457
	Froshion	10/04/73 - 25/06/73	Labrador Sea	WDC-B 137.11 M-1				330
	Belogorsk	25/09/75 - 09/10/75	Georges Bank	Res.Doc. 76/VI/78				90
	Belogorsk	16/10/75 - 30/10/75	Georges Bank	Res.Doc. 76/VI/78				94
	Earnitsa	Oct. - Nov., 1974	West Greenland	Res.Doc. 76/VI/113	Temperature Data			
	Gemma	Nov./74 - Jan./75	Labrador & Newfoundland	Res.Doc. 76/VI/72	} 678 Data Span 1956 to 1975			
	Perseus III	Dec./74 - Mar./75	Labrador & Newfoundland	Res.Doc. 76/VI/72				
	Perseus III	June/75 - Sept./75	Labrador & Newfoundland	Res.Doc. 76/VI/72				
	Ayaks	September 1975	Labrador & Newfoundland	Res.Doc. 76/VI/72				
Odissey	October 1975	Labrador & Newfoundland	Res.Doc. 76/VI/72					

Table 3. (Cont'd.)

<u>Country</u>	<u>Ship</u>	<u>Dates</u>	<u>Area</u>	<u>Reference</u>	<u>Data Type</u>
U.S.S.R. (90)	N. Kononov	03, 07, 12/75	West Greenland	Res.Doc. 76/VI/71	<u>Bottles</u> <u>MBT</u> <u>KWT</u> <u>STD</u> Data Span 1950 to 1970
	Gema	05, 11, 12/74	ICNAF	Res.Doc. 76/VI/70	Data Span 1955 to 1973
	Protsion	01, 06, 07, 09, 10/75	ICNAF	Res.Doc. 76/VI/70	
	Perseus III		ICNAF	Res.Doc. 76/VI/70	
	-----	-----	Georges Bank	Res.Doc. 76/VI/2	70,000 Measurements
	-----	1960 to 1968	Nova Scotia - Georges Bank	Spec. Publ. X, p. 107	10,287 Bottles
	Protsion	12/72 - 02/73	Labrador & Newfoundland	Spec. Publ. X, p. 33	Bottle Data Along
	Protsion	04/72 - 06/72	Labrador & Newfoundland	Spec. Publ. X, p. 33	ICNAF Sections
	Neptun	08/73	Labrador & Newfoundland	Spec. Publ. X, p. 33	Bottle Data Along
	Artemida	11/73	Labrador & Newfoundland	Spec. Publ. X, p. 33	ICNAF Sections
	Perseus III	04/72 - 07/72	Labrador & Newfoundland	Spec. Publ. X, p. 33	Bottle Data
	Bakhchisarai	01/72 - 03/72	Nova Scotia - Georges Bank	Spec. Publ. X, p. 115	
	Argus	06/72 - 10/72	Nova Scotia - Georges Bank	Spec. Publ. X, p. 115	

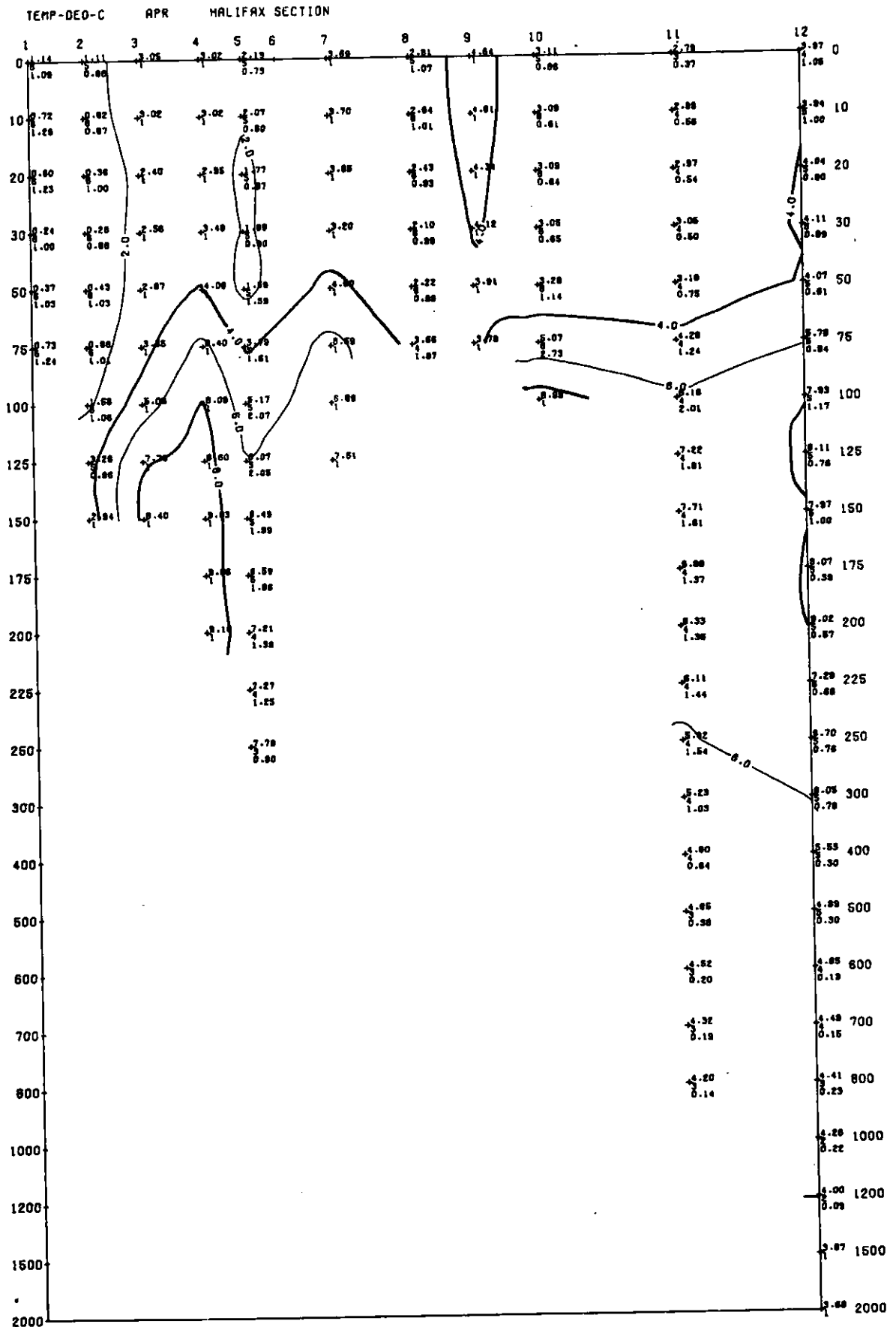


Fig. 1. Machine-contoured vertical section for temperature.

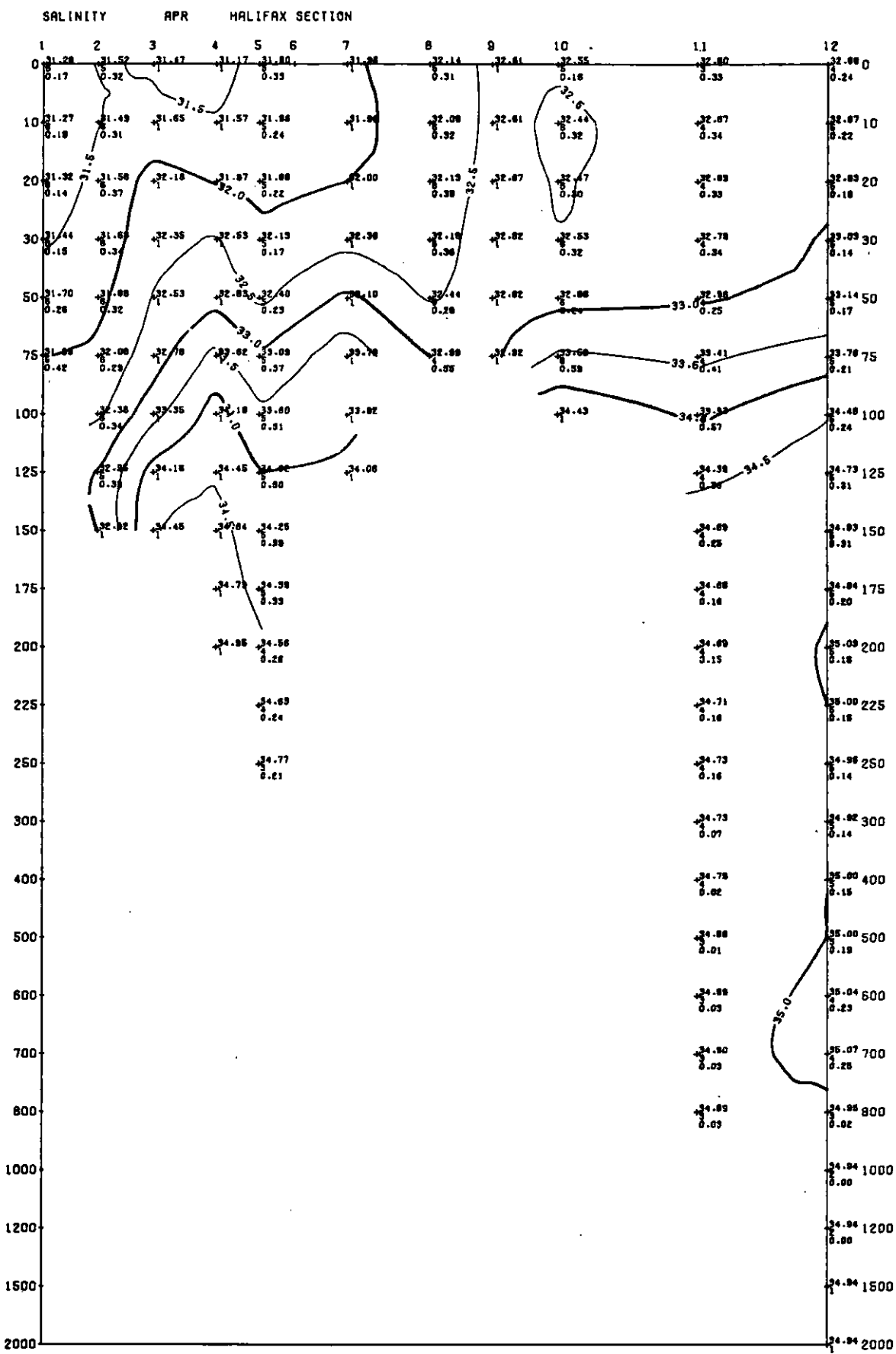


Fig. 2. Machine-contoured vertical section for salinity.

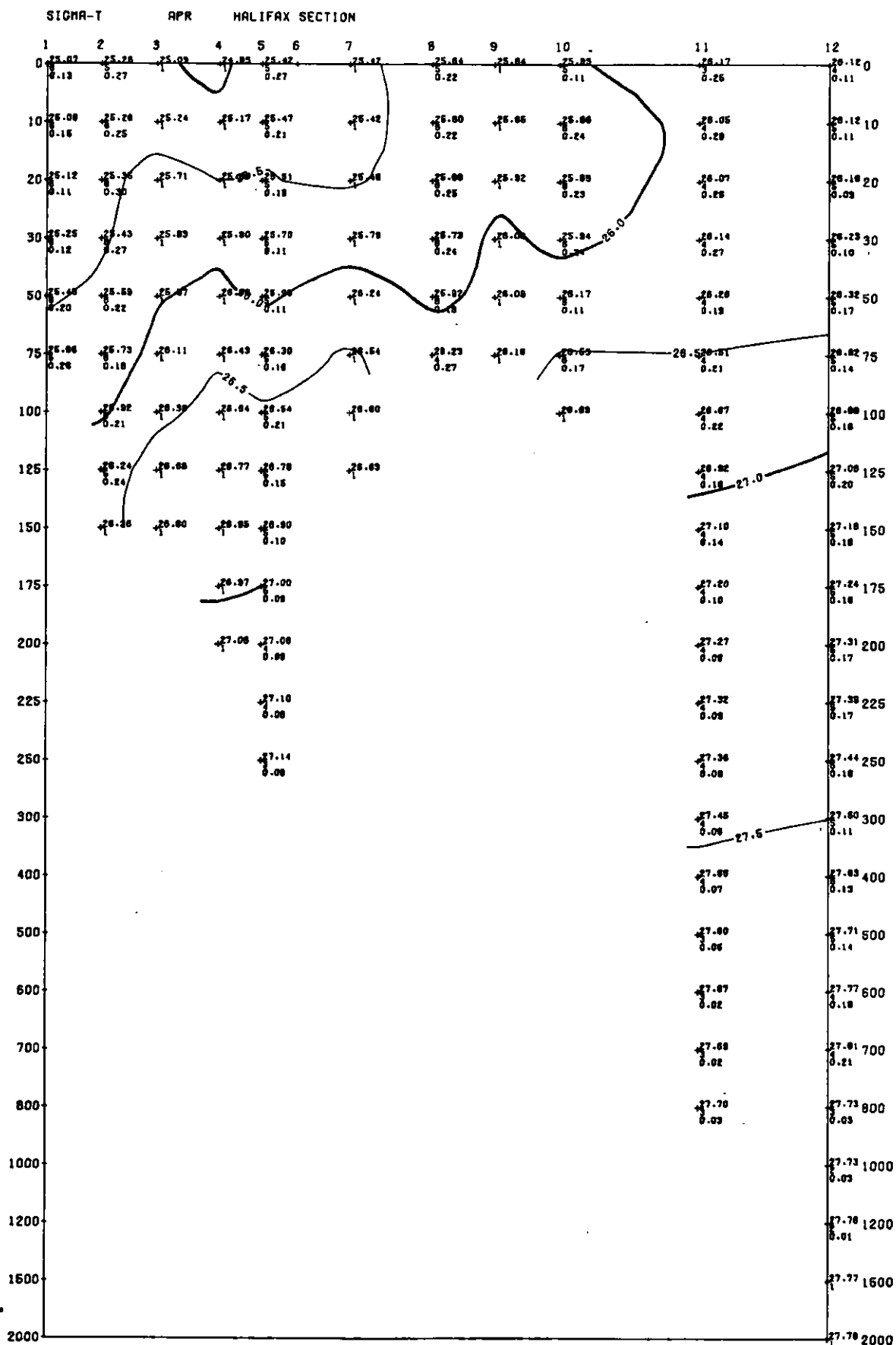


Fig. 3. Machine-contoured vertical section for sigma-t.

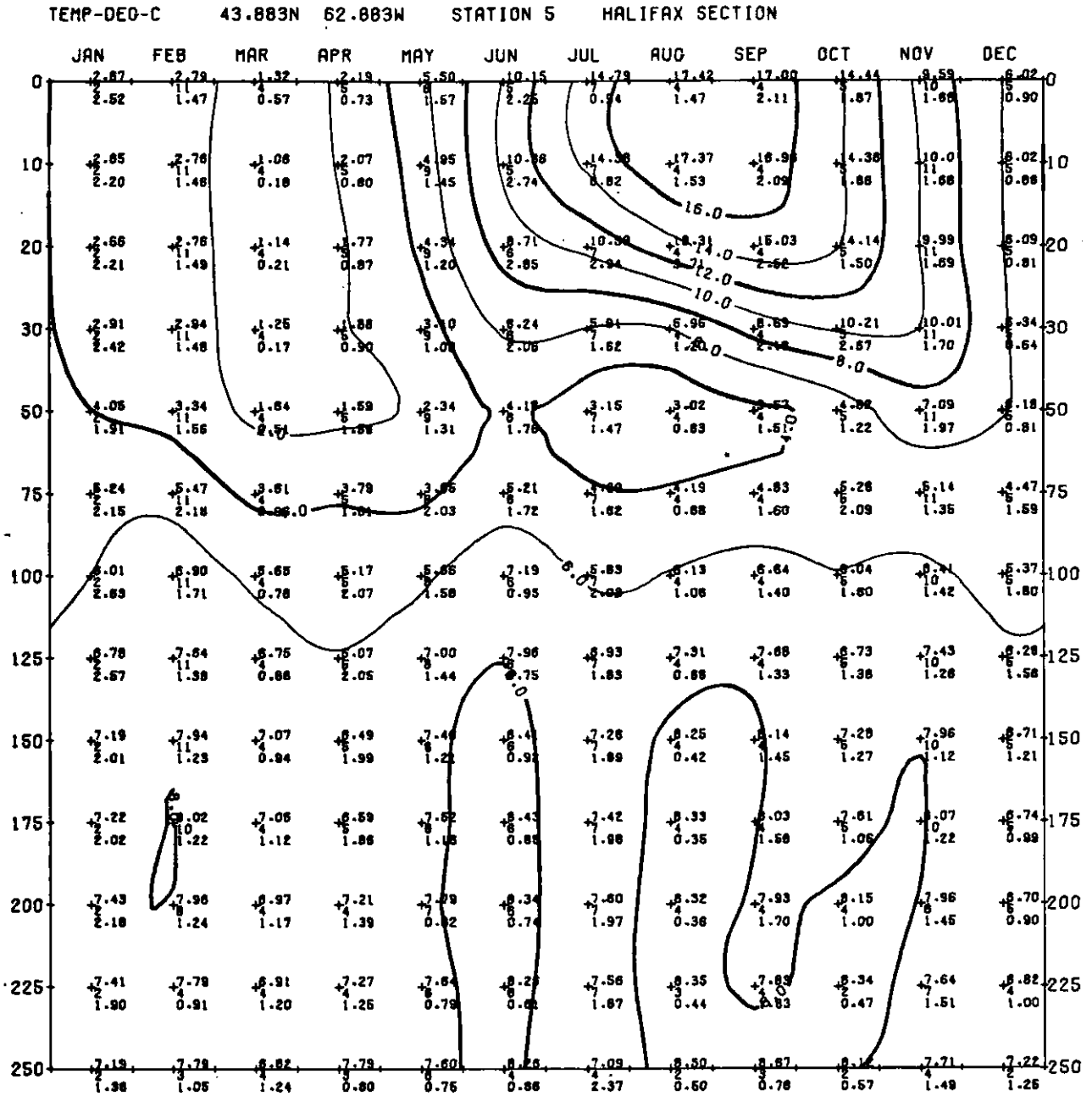


Fig. 4. Depth-time machine contour for temperature.

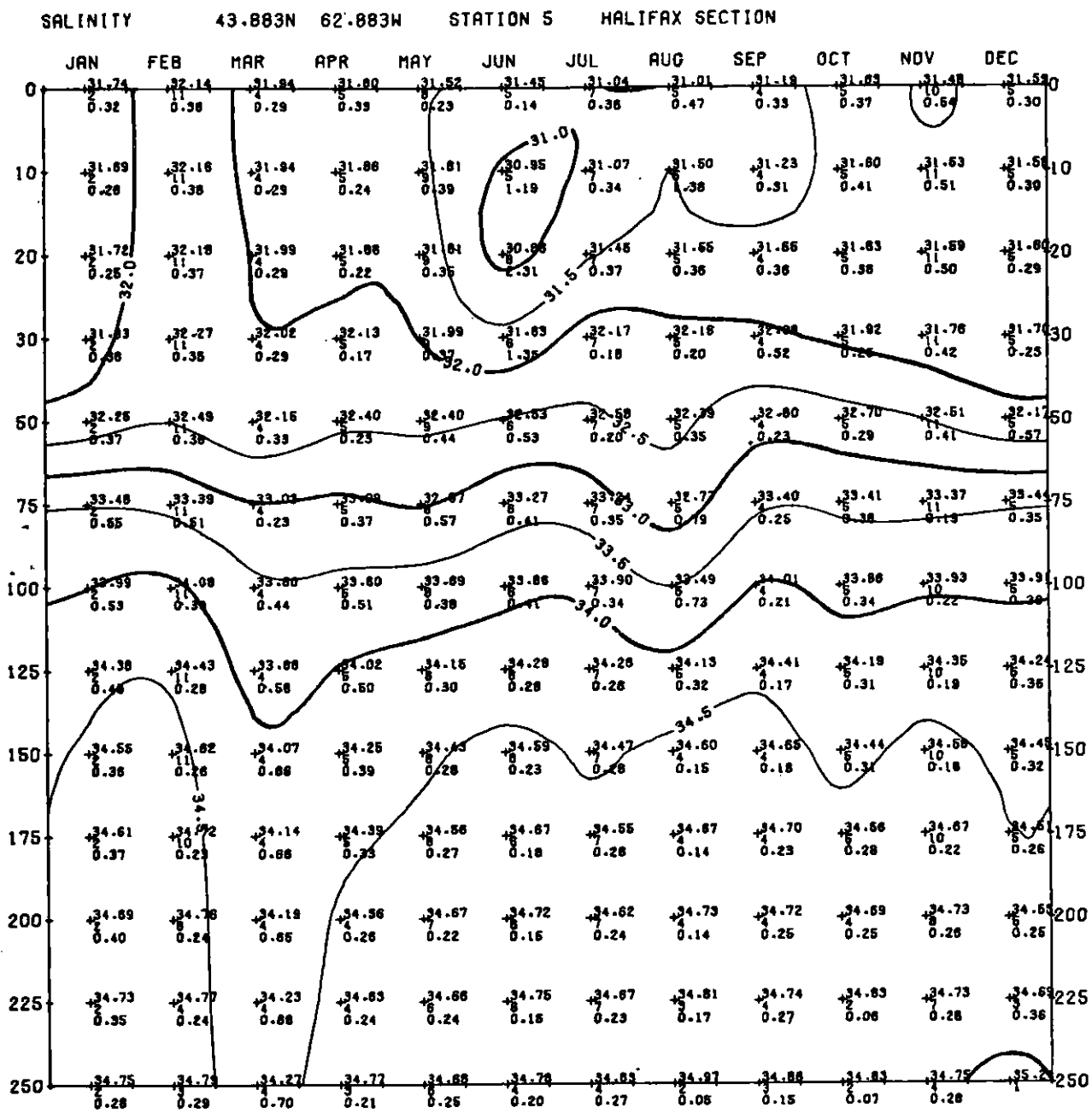


Fig. 5. Depth-time machine contour for salinity.

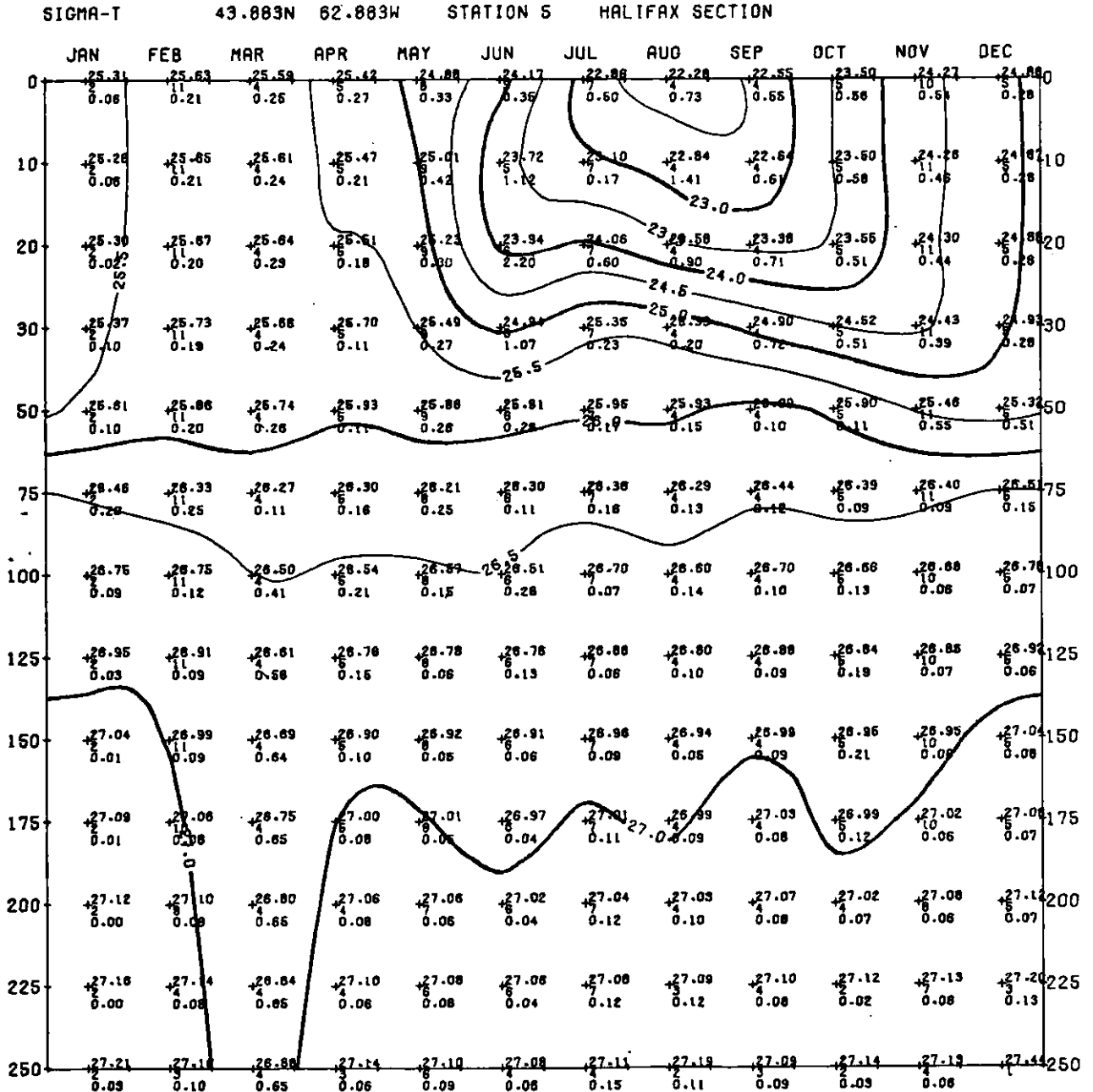


Fig. 6. Depth-time machine contour for sigma-t.