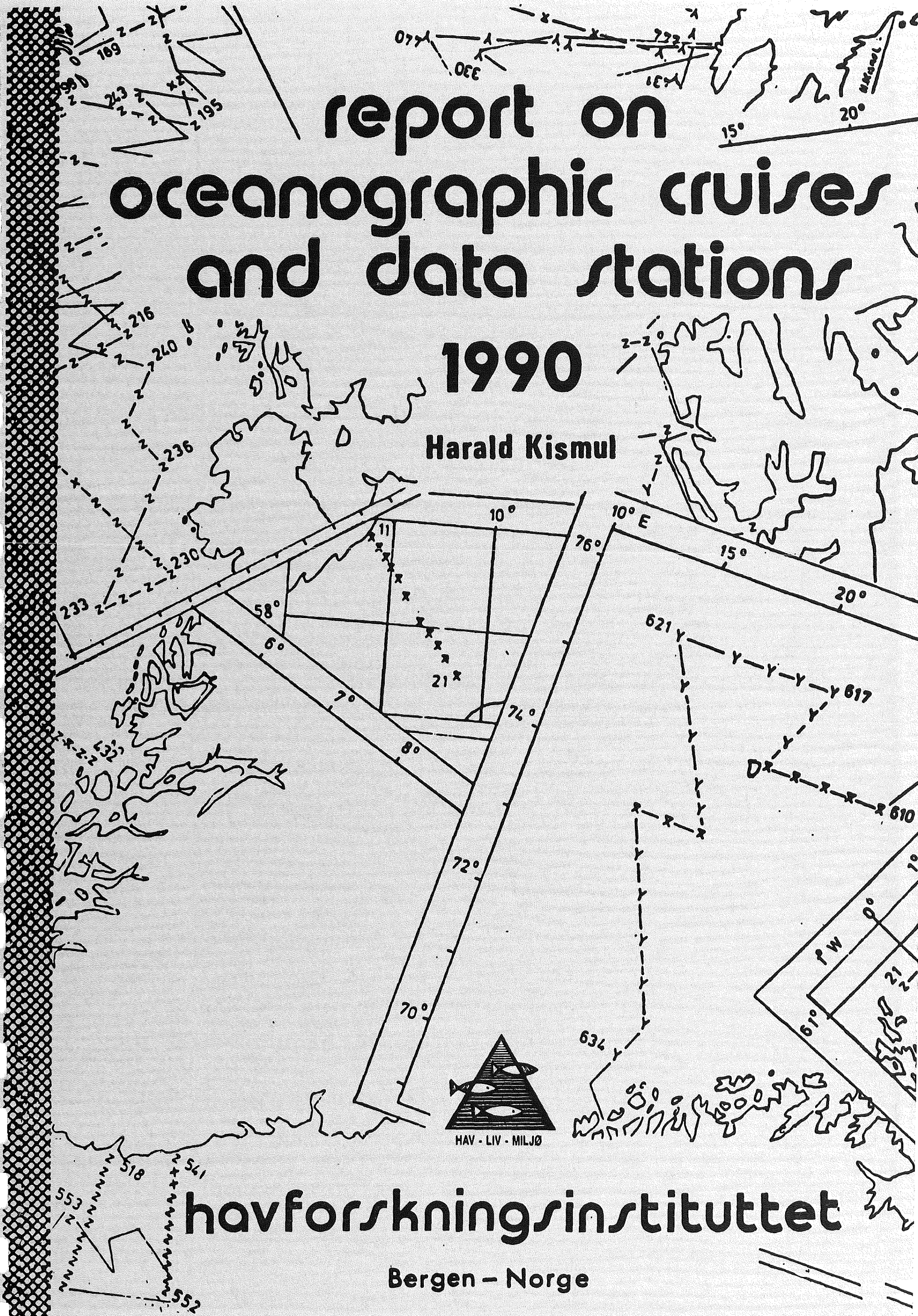


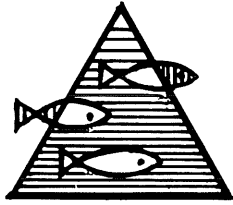
report on oceanographic cruises and data stations 1990

Harald Kismul



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Bergen - Norge



report on oceanographic cruises and data stations

Harald Kismul

Guidelines:

- Z Vertical profiles (STD/CTD)
- X Classical oceanogr. stations
- △ Moored buoy station
- △ Pelagic Trawl station
- Bottom Trawl station
- ◇ Plankton station
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- Taggings
- Λ Surface observations t°C S‰

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ICES Annual Report on Oceanographic Cruises and Data Stations.

Country: NORWAY.

Year: 1990

Ship: ELDJARN

Ship no: 14

Cruise and Ship number.	Period of Cruises.	Number of stations.														Cont. obs.			Page of track chart.							
		Classical Oceanogr. st. COS	Vertical Oceanogr. st. CTD	ARGOS Drifters	Rosette Samplers	ADCP	Aanderaa Current Meters	Bottle Cast (Niskin)	Oxygen	Nutrients	pH	Oil Hydrocarbons	Pelagic Trawl	Bottom Trawl	Mocness Trawl	Pelagic Eggs and Larvae	Zooplankton	Phytoplankton		Shrimp Trawl	Grab	Radioactivity measurement	Surface Temperature	Transparency	Echo Sounding	Echo Integration
1/14	0801-1102		131										50		31									X	X	57-58
2/14	1202-1403		56									19	2											X	X	59-60
3/14	1403-2103		73									1	2											X	X	61
4/14	2503-1004		179	6				179					3		181	181	181		5					X	X	62-63
5/14	1204-2904		134									8	26		79	79	79		32					X	X	64-65
6/14	3004-2205	13	179									167			40	40	40	2						X	X	66-67
7/14	2305-1506	3	123									28	21			60	60							X	X	68
8/14	1506-2806		123	1											96	96	96							X	X	69-70
9/14	0307-2007		126										4											X	X	71-72
10/14	2307-3007		32																					X	X	73
11/14	3107-1908		14																					X	X	74
12/14	2308-0509		81												92	2	118							X	X	75
13/14	0809-0710		73												10	98								X	X	76
14/14	0810-1110		25					20		20										25						77
Total:		16	1349	7				20	179	20		436	208		545	456	456	2	37	25						

ICES Annual Report on Oceanographic Cruises and Data Stations.

Country: NORWAY.

Year: 1990

Ship: "G.M. DANNEVIG"

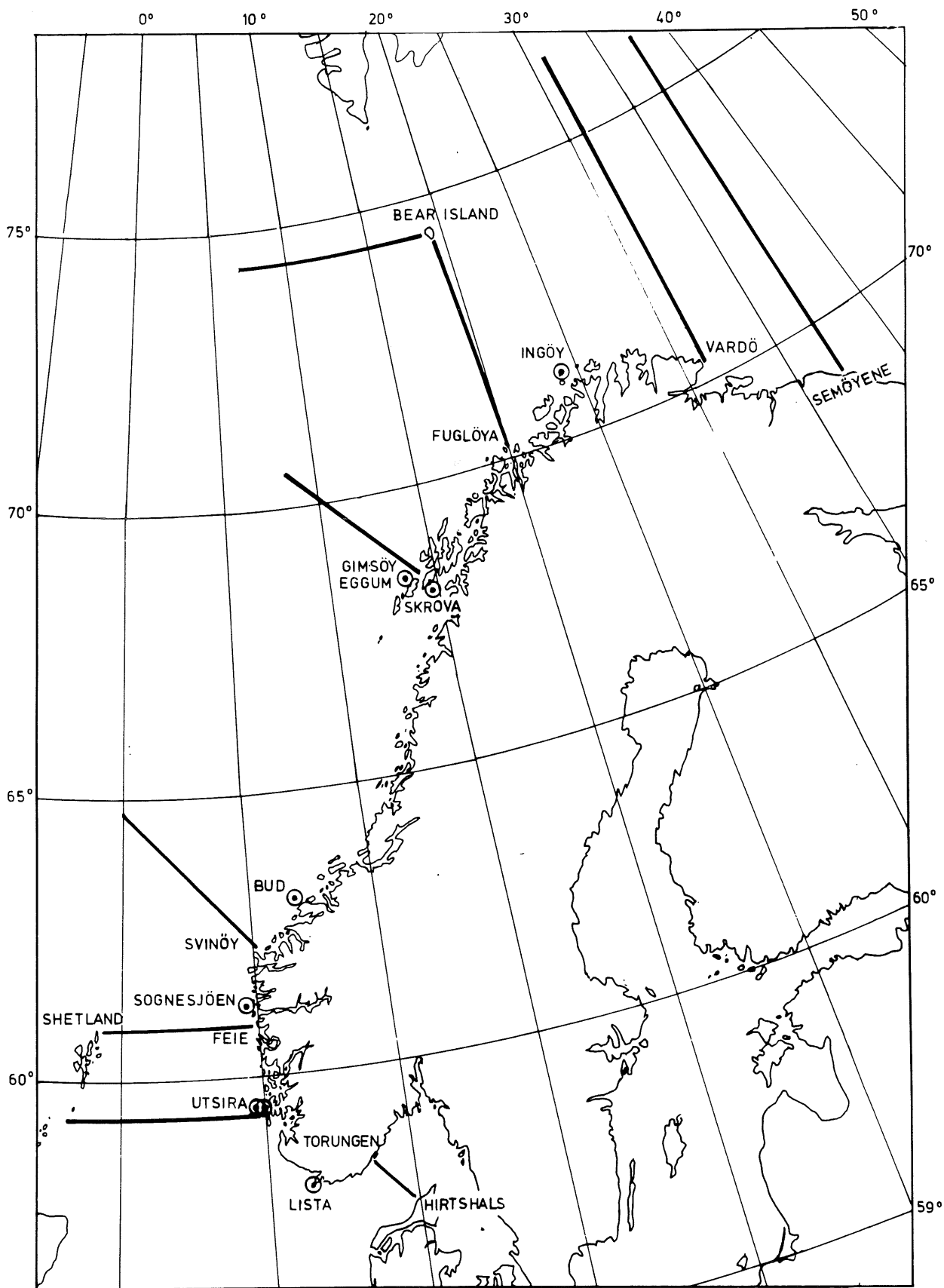
Ship no:16

Cruise and Ship number.	Period of Cruises.	Number of stations.														Cont. obs.			Page of track chart.							
		Classical Oceanogr. st. COS	Vertical Oceanogr. st. CTD	ARGOS Drifters	Rosette Samplers	ADCP	Aanderaa Current Meters	Bottle Cast (Niskin)	Oxygen	Nutrients	Chlorophyll	Oil Hydrocarbons	Pelagic Trawl	Bottom Trawl	Mocness Trawl	Pelagic Eggs and Larvae	Zooplankton	Phytoplankton		Shrimp Trawl	Beachsein	Hand Line	Surface Temperature	Transparency	Echo Sounding	Echo Integration
16/16	0806-2206		90					60	60	60						13										79
17/16	0807-1607																	16								81
18/16	1807-1907		12					9	12	12																79
19/16	0608		12					9	12	12																80
20/16	1408-1608		17															15								81
21/16	1009-1409		35													4										80
22/16	1909-0310		32																22							83
23/16	2210-2310		12					9	12	12																80
24/16	1211-1311		12					9	12	12																80
25/16	1411-1611		11													15										80
26/16	0612-0812		9													13										80
27/16	0912-1012		12					9	12	12																80
28/16	2012-2112		11													12										80
Total:			482					240	273	273						70	103	95	46	22						

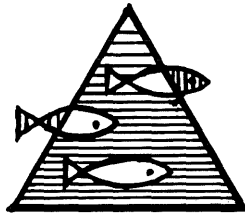
FIXED OCEANOGRAPHIC STATIONS	YEAR: 1990												
	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL
LISTA N58°01' E06°32'	8-27	13-23	3-13 27	6-17 27	7-16 25	1-13 27	9-16 25	3-13 22	3-13 25	6-17 25	3-15 26	6-17	33
UTSIRA Y N59°19' E04°48'	21	8-17	10-27	6-20 29	8-19 29	9-27	5-19 26	3-14 21	1-9 18-27	6-17 31	9-18 26	5-14 21	32
UTSIRA I N59°19' E04°59'	21	8-17	10-27	6-20 29	8-19 29	9-27	5-19 26	3-14 21	1-9 18-27	6-17 31	9-18 26	5-14 21	32
SOGNESJØEN N61°01,4' E04°50'	28	10	10-28	5-11 20	2-11 25	9-19	12-19 31	9-22	1-8 15-25	6-13 27	8	1-15	27
BUD N62°56' E06°47'	2-19	1-14 26	14	2-17	15-28	15-28	11-26	9-22	5-19	1-15 27	11-22	14-31	25
SKROVA N68°07,5' E14°39'	2-14 21-27	9-16 25	3-9 17-22 31	6-14 20-29	13-20 26	2-9 16-23 30	7-14 21-27	5-10 17-24	7-14 21-28	5-18 25	1-8 15-23 29	7-13 21-28	48
EGGUM N68°22,8' E13°39'	10-20 30	10-24	6-19	1-14 28	11	2-12 23	4-14 25	3-14 24	5-15 26	16-27	8-19	19-30	29
INGØY N71°08' E24°01'	11-21	1-13 21	1-12 25	10-21	2-11 21	1-14 22	5-16 29	10-24	3-15 26	7-18 29	10-22	2	30

FIXED OCEANOGRAPHIC SECTION	YEAR 1990												
	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	TOTAL
TORUNGEN-HIRTSHALS	8/16 10/16 22/16	4/16 7/16 21/16	1/16 5/16 20/16	3/16	14/16 28/16	8/16 11/16 14/16 17/16 20/16	18/16	6/16	10/16 12/16 14/16	22/16	12/16 14/16	6/16 9/16 20/16 12/15	29
UTSIRA - WEST				5/14		6/11					12/15		3
FEIE - SHETLAND							9/14				12/15		2
SVINØYA - NORTH/WEST			4/14	4/15									2
GIMSØYA - NORTH/WEST			3/15					8/15					2
FUGLØYA - BJÖRNØYA		2/15	3/15		5/11	8/14			9/15	14/14			6
VARDØ - NORTH	1/15		3/15			8/14			12/14				4
SEMØYA - NORTH								12/14					1
BJÖRNØYA - WEST													
SHIPS NAME	NO.	SHIPS NAME				NO.	CRUSE NO./SHIP NO.						
"G.O.SARS"	15	"G.M. DANNEVIG"				16	1/15						
"MICHAEL SARS"	11	"JOHAN RUUD"				8							
"ELDJARN"	14	"HAKON MOSBY"				1							

ARGOS DRIFTERS						
CATALOGUE NO.	I.D. No.	DEPLOYED DATE ⊙	RECOVERED DATE ▲	DROGUE DEPTH IN METRES	DROGUE LOST	PAGE OG TRACK CHART
77	1572	0112	0803	10		87
93	1558	1804	2904	30		90
94	1558	2207	2509	30		92
95	1572	1905	2105	10		87
96	1572	0106	0207	10		88
97	1573	0303	1504	30		89
98	1574	2305	1206	10		88
99	1575	3103	2205	30		89
100	1575	2207	1308	30		91
101	1576	0104	0404	30		89
102	1576	0404	2309	30		90
103	1577	1905	2605	10		87
104	1577	0406	0207	10		88
105	1577	1107	2807	10		89
106	1578	2305	2006	10		88
107	1578	2706	0108	10		89
108	1578	2008	3108	10		89
109	1508	1905	0506	10		87
110	1580	0806	1006	10		87
111	1580	1206	2506	10		88
112	1580	1708	1809	10		89
113	1581	1804	0507	30		91
114	1581	1608	1908	30		89
115	1581	2008	0109	30		89
116	1582	1704	1005	30		90
117	1582	1105	2405	30		91
118	1582	2106	2309	30		92
119	1583	0104	1404	30		90
120	1583	1804	2905	30		90
121	1583	2307	2509	30		92
122	1586	1704	1205	30		90
123	1586	1605	1909	30		91
124	1507	0104	0304	30		90
125	1587	1905	2105	10		87
126	1587	3105	2509	10		88
127	1756	1704	1805	30		90



○ FIXED OCEANOGRAPHIC STATION
— FIXED OCEANOGRAPHIC SECTION



report on oceanographic cruises and data stations

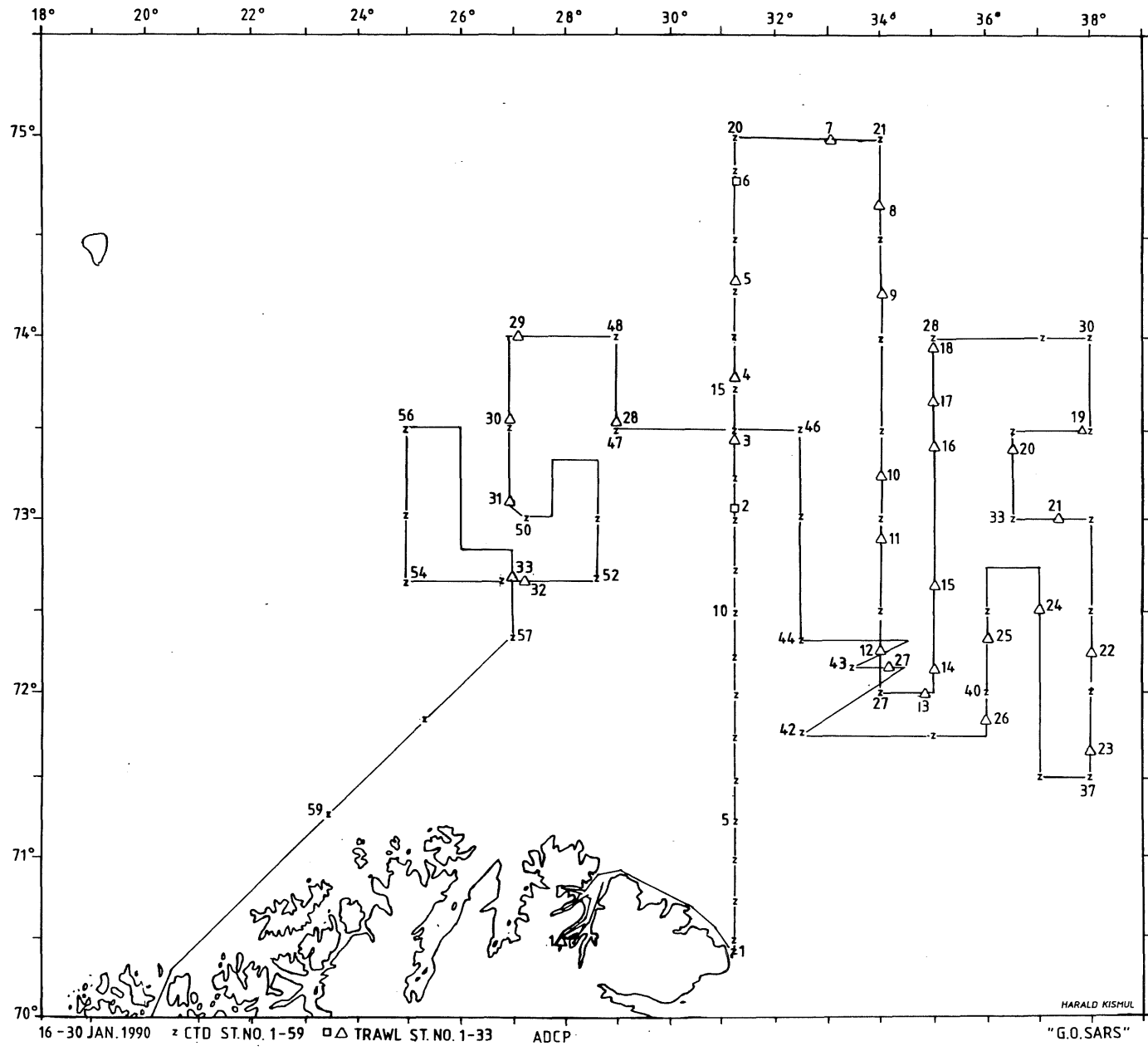
Harald Kismul

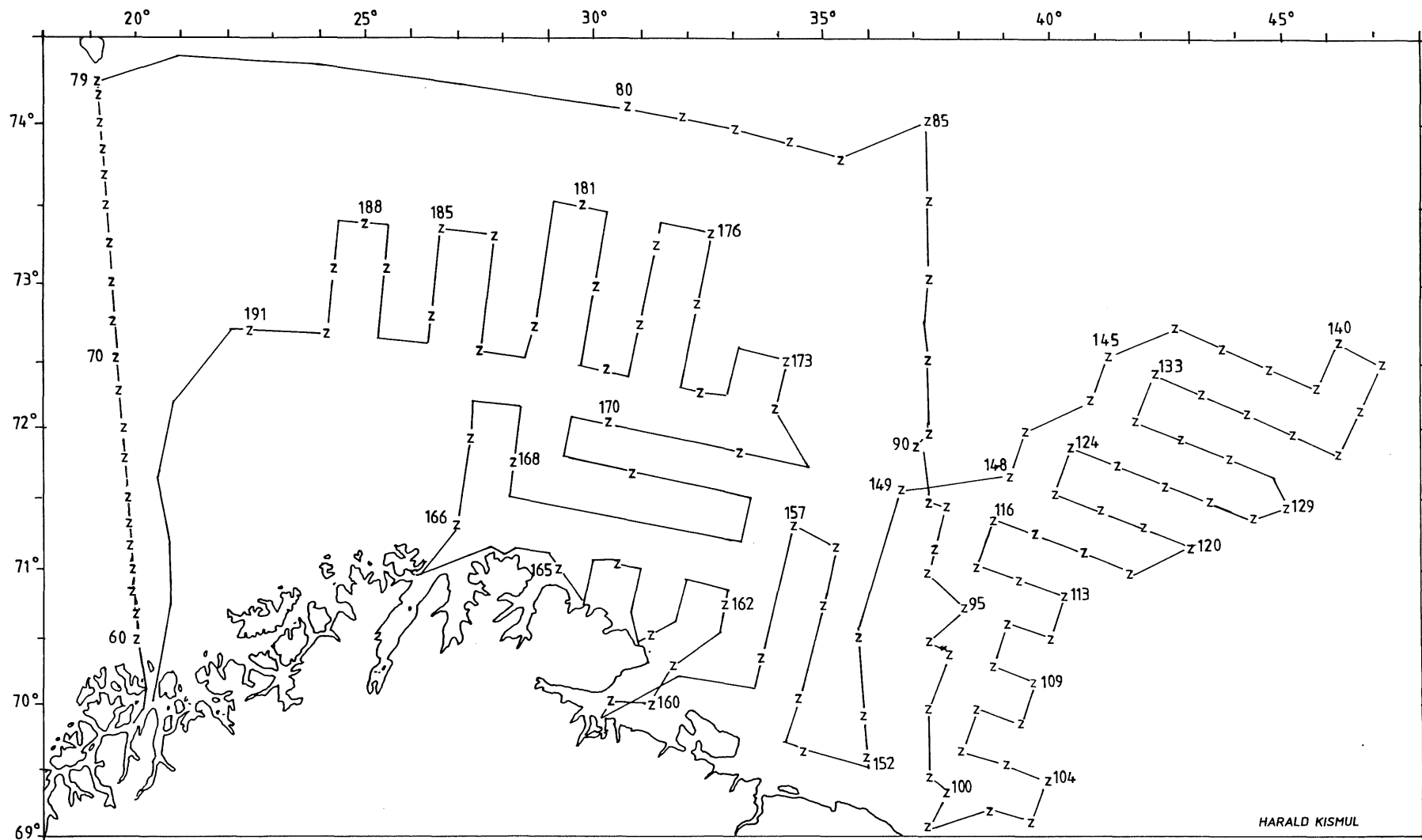
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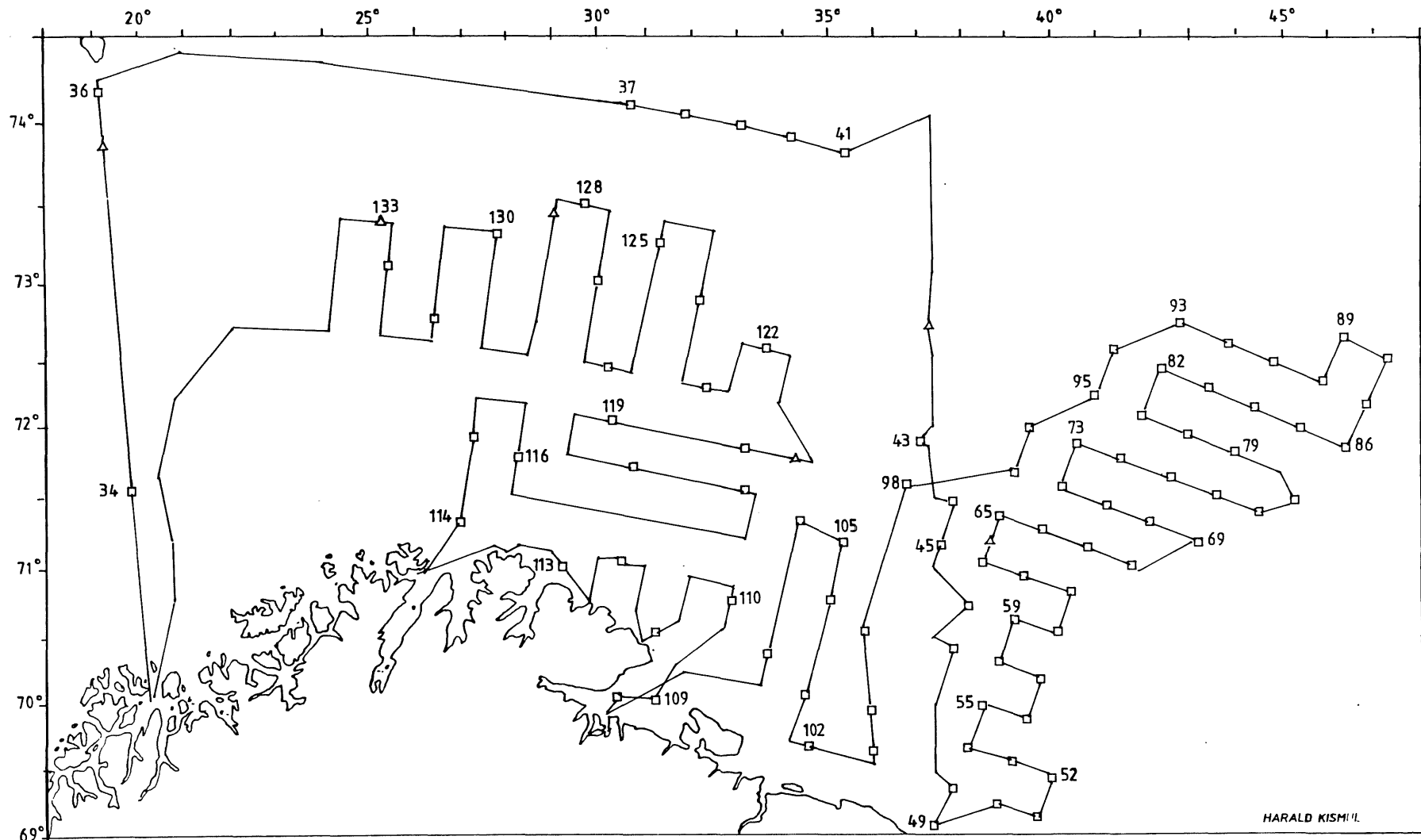




31 JAN. - 28 FEB. 1990 z CTD ST. NO. 60 - 191

HARALD KISMUL

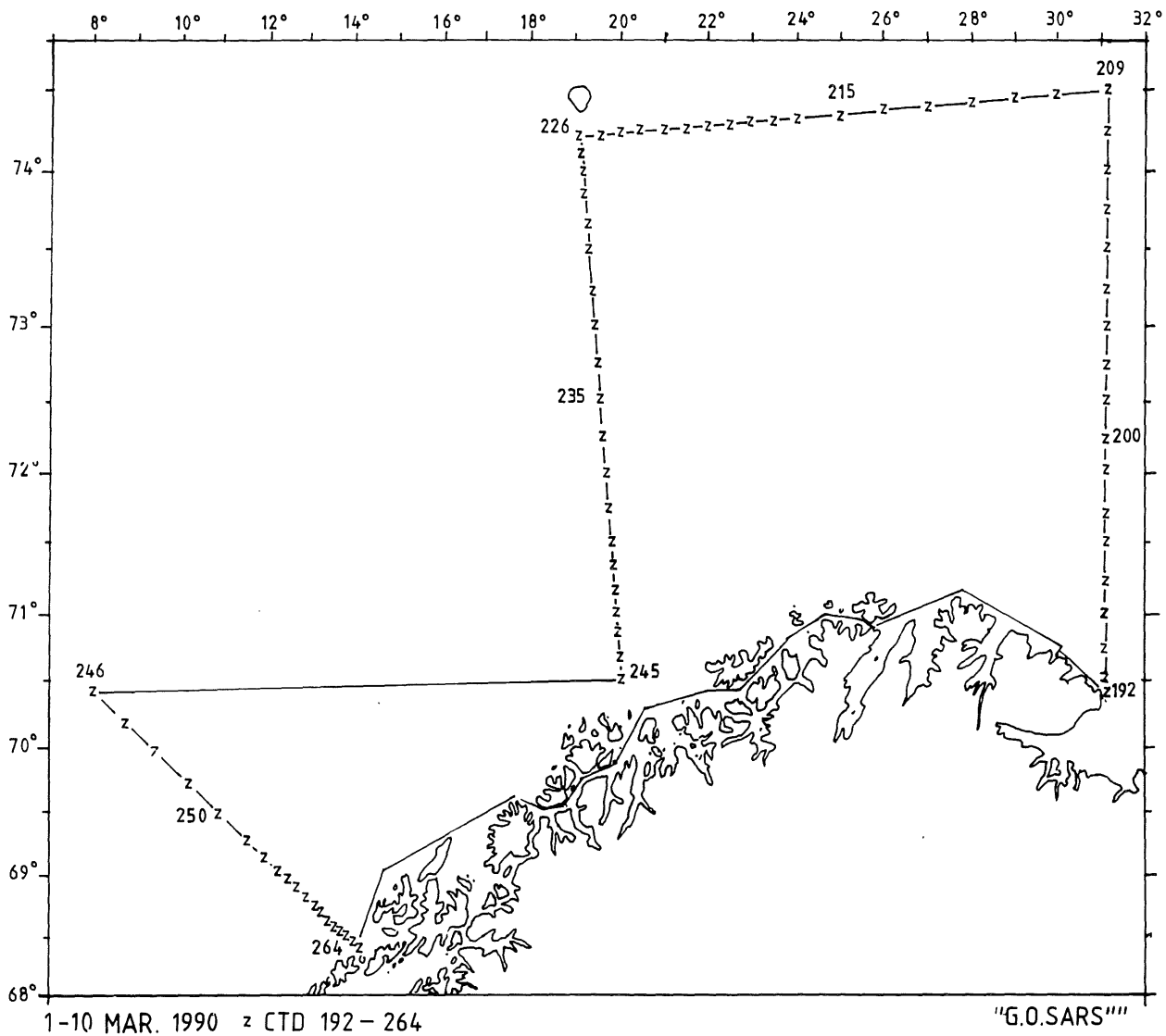
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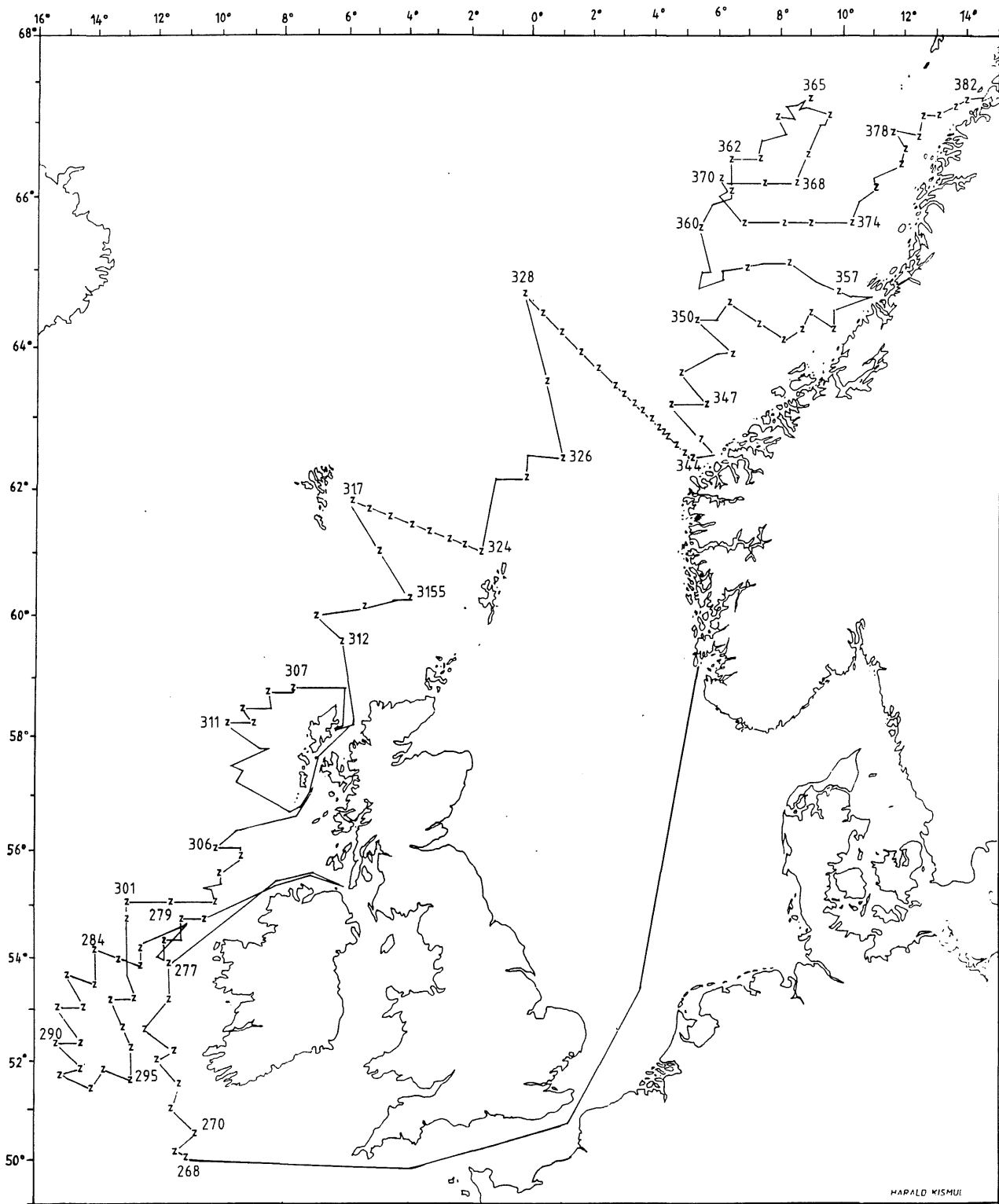


31 JAN. - 28 FEB. 1990 □△ TRAWL ST. NO. 34-133

HARALD KISMI'L

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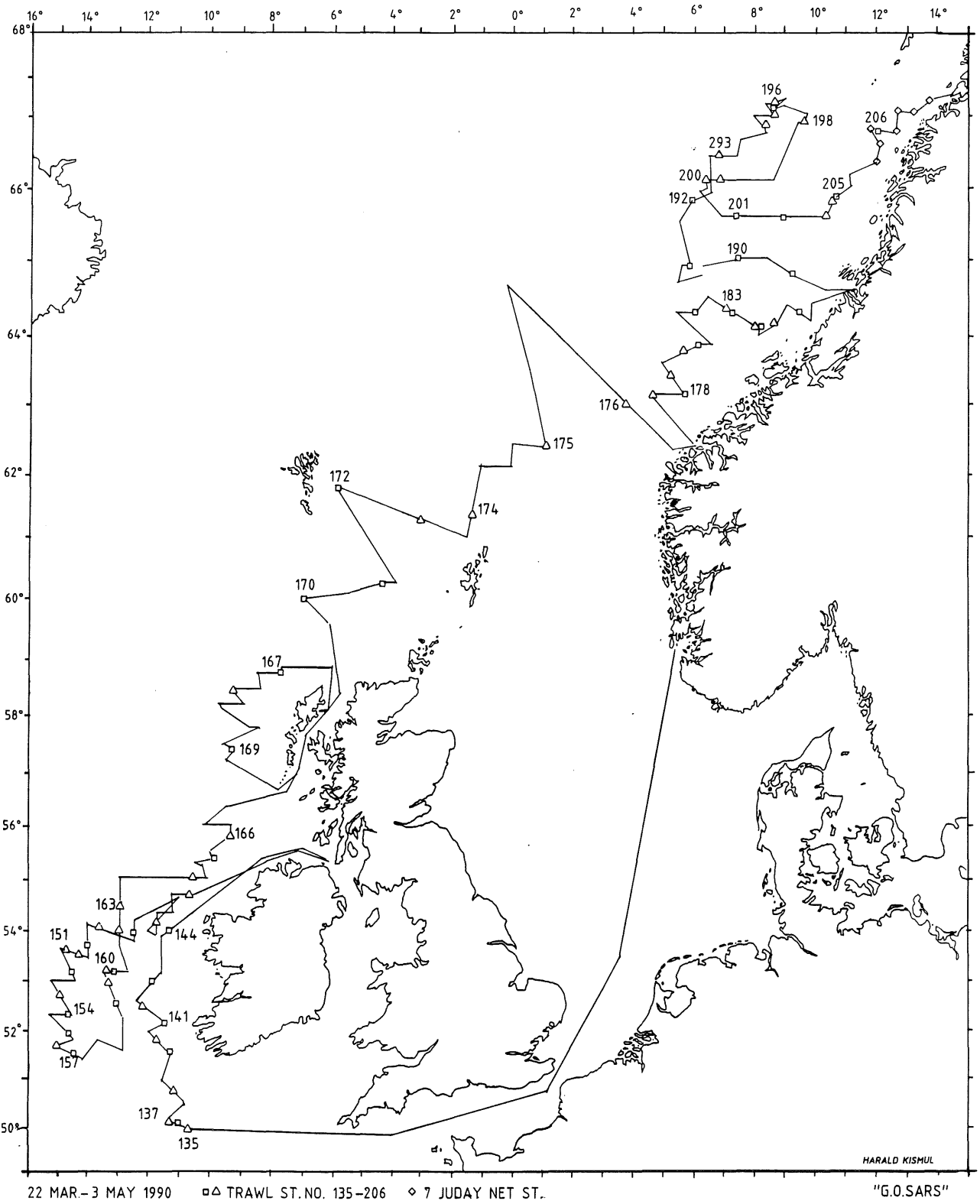


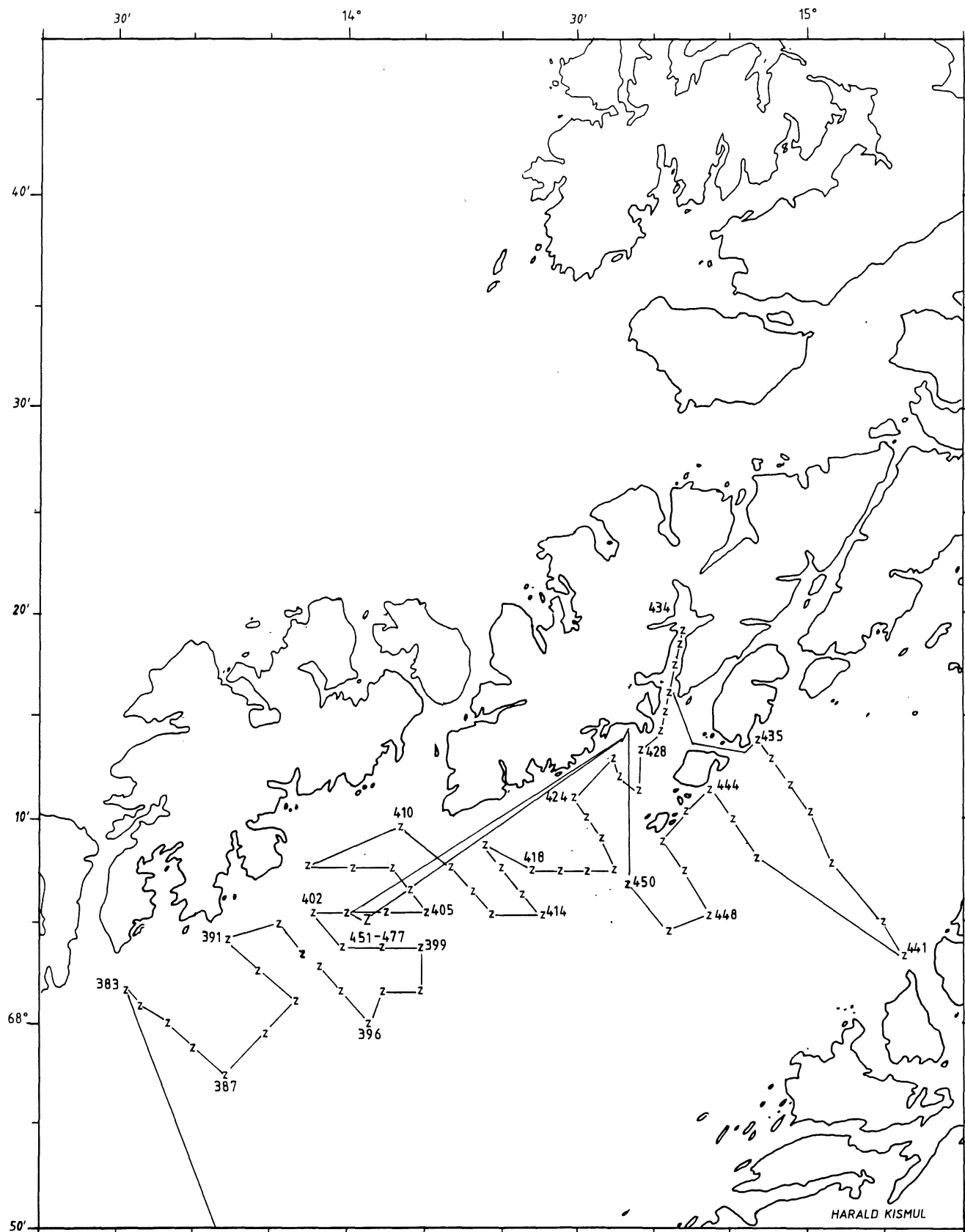


22 MAR-3 MAY 1990 z CTD ST. NO. 268 - 382

HARALD WISMUI

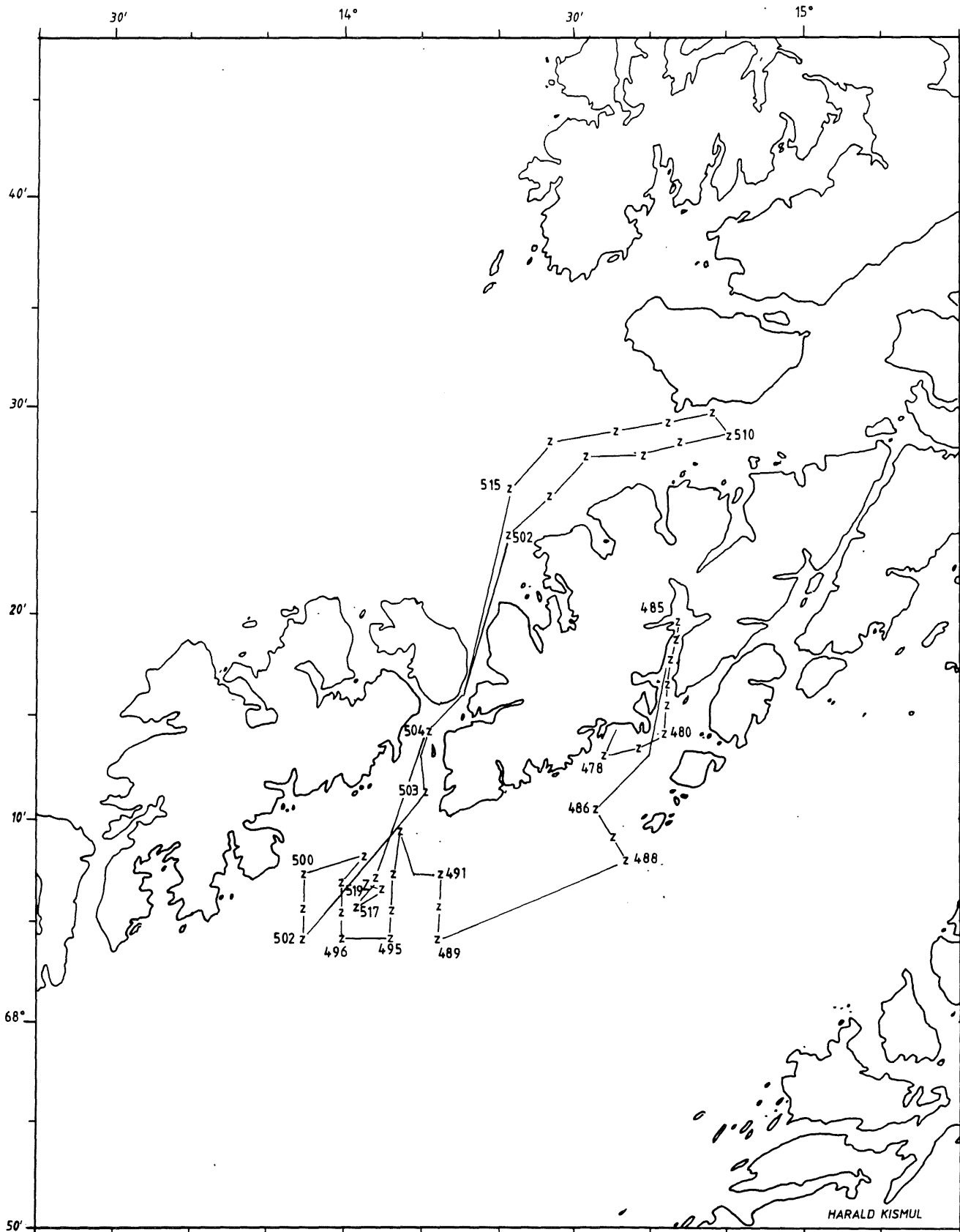
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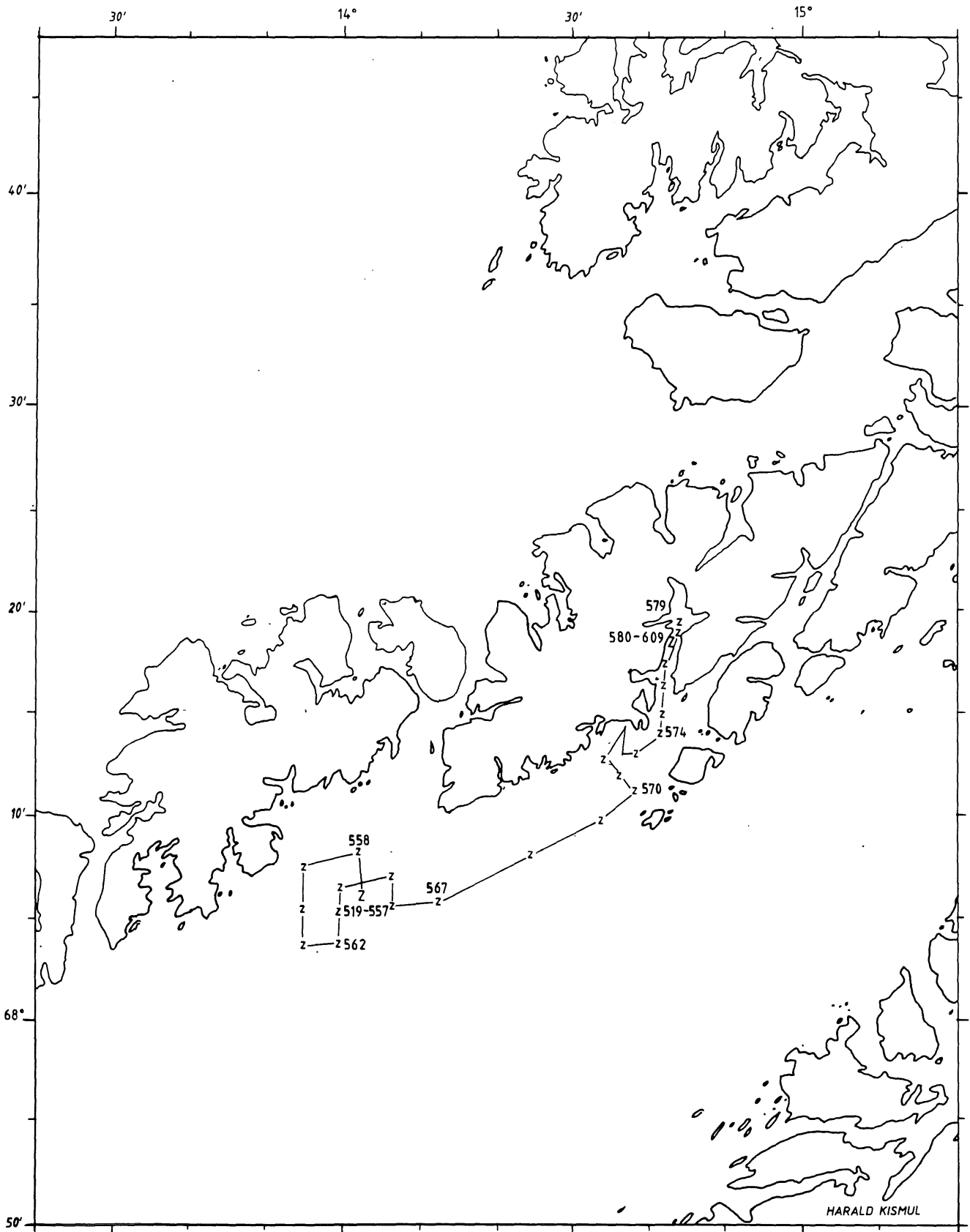


4 - 8 MAY 1990 z CTD ST. NO. 383-477 z PLANKTON ST.

"G.O.SARS"

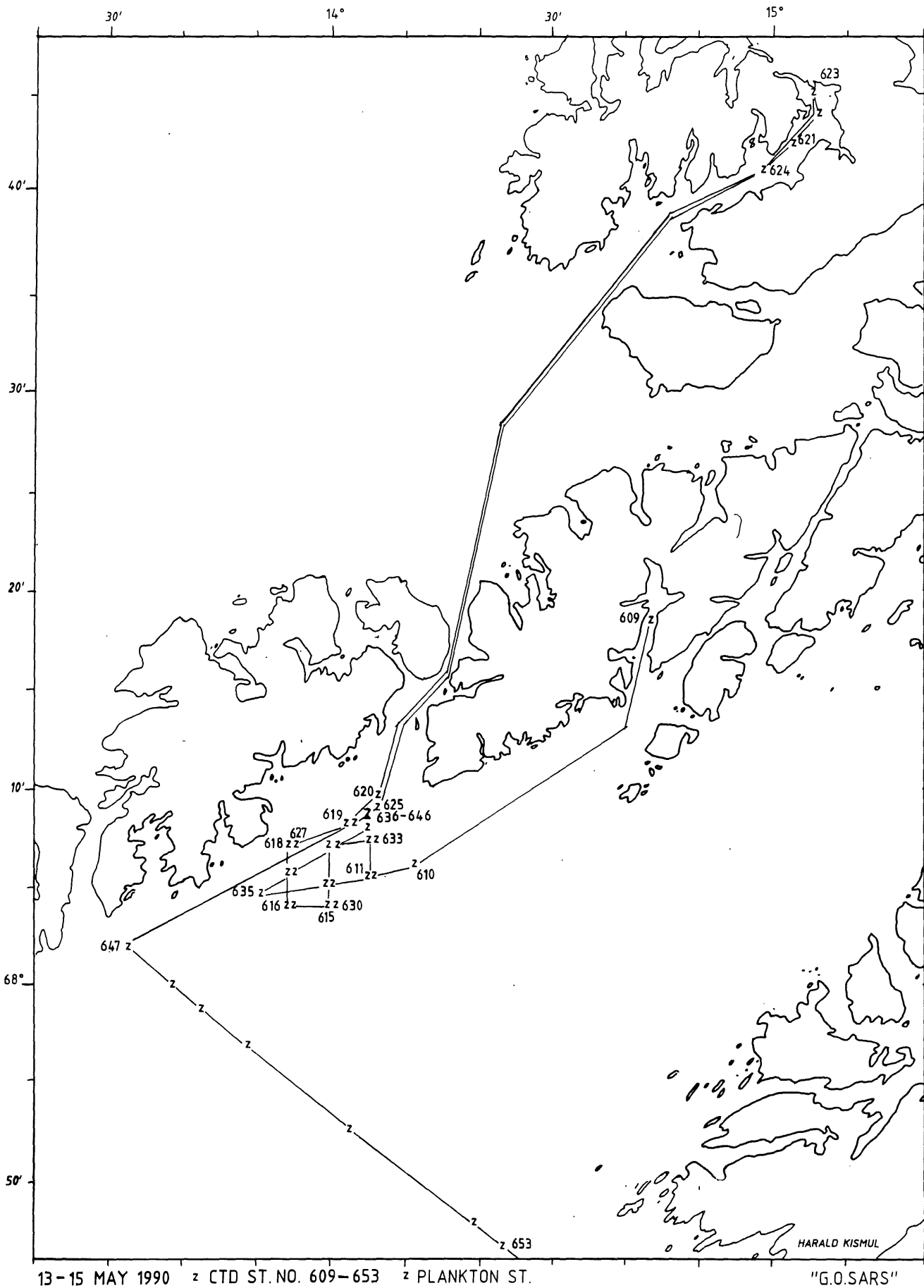


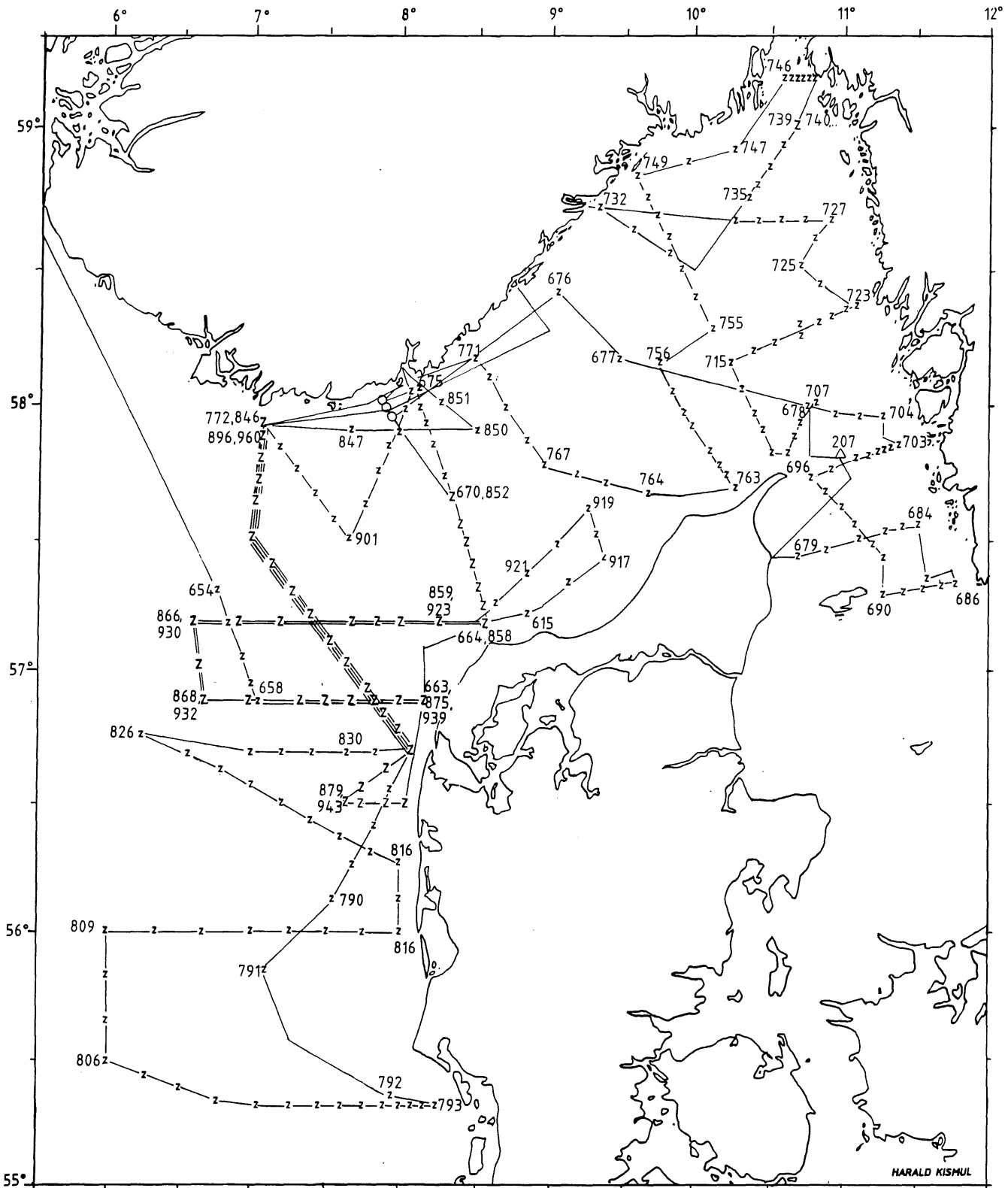
8-11 MAY 1990 CTD ST. NO. 478-519 z PLANKTON ST.



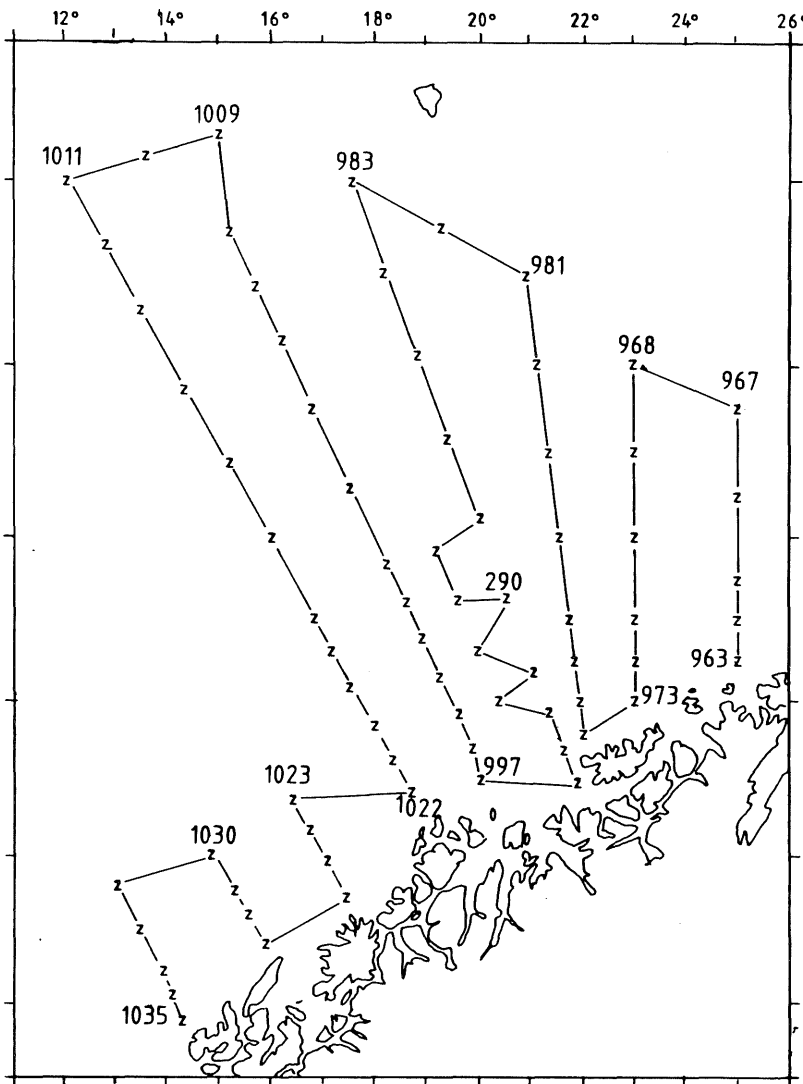
11-13 MAY 1990 z CTD ST. NO. 519-609 z PLANKTON ST.

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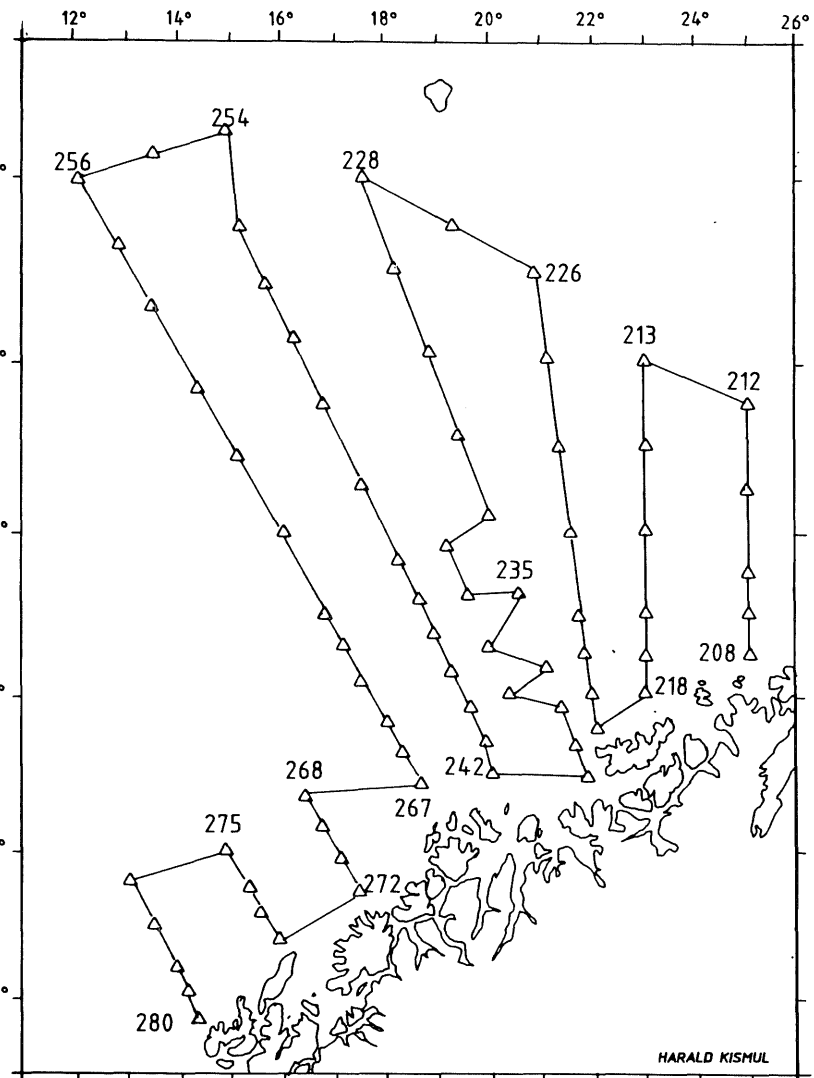




18 MAY-8 JUN. 1990 z CTD ST. NO. 654-960 Δ TRAWL ST. NO. 207 O MOORED CURRENT RIGG "G.O.SARS"



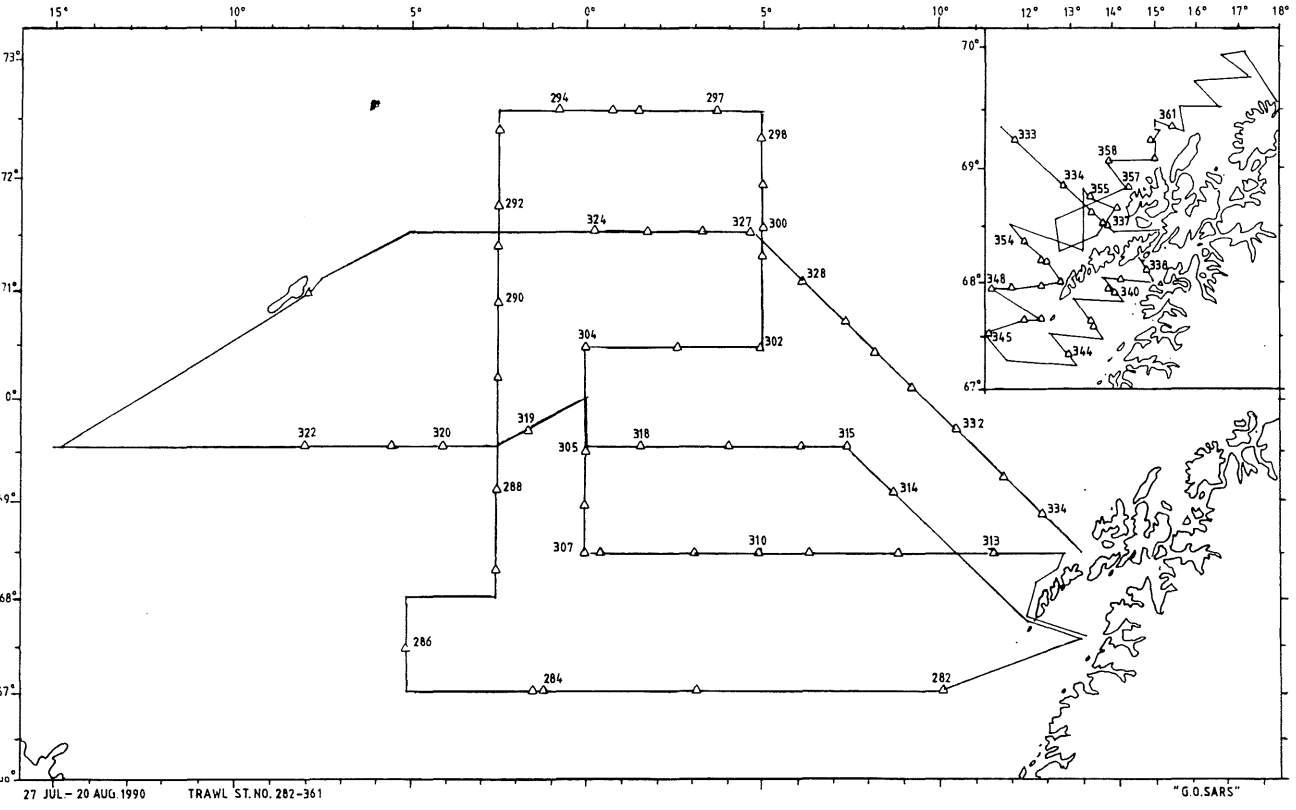
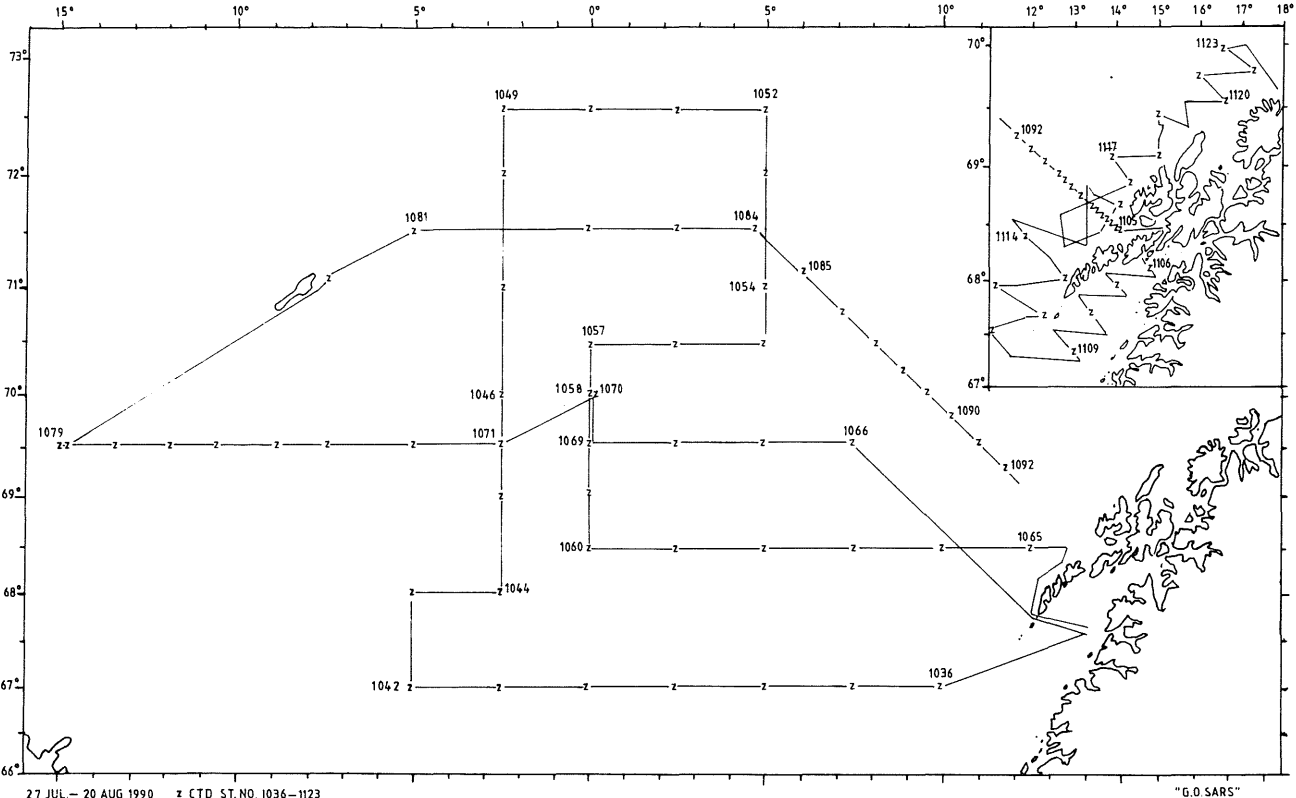
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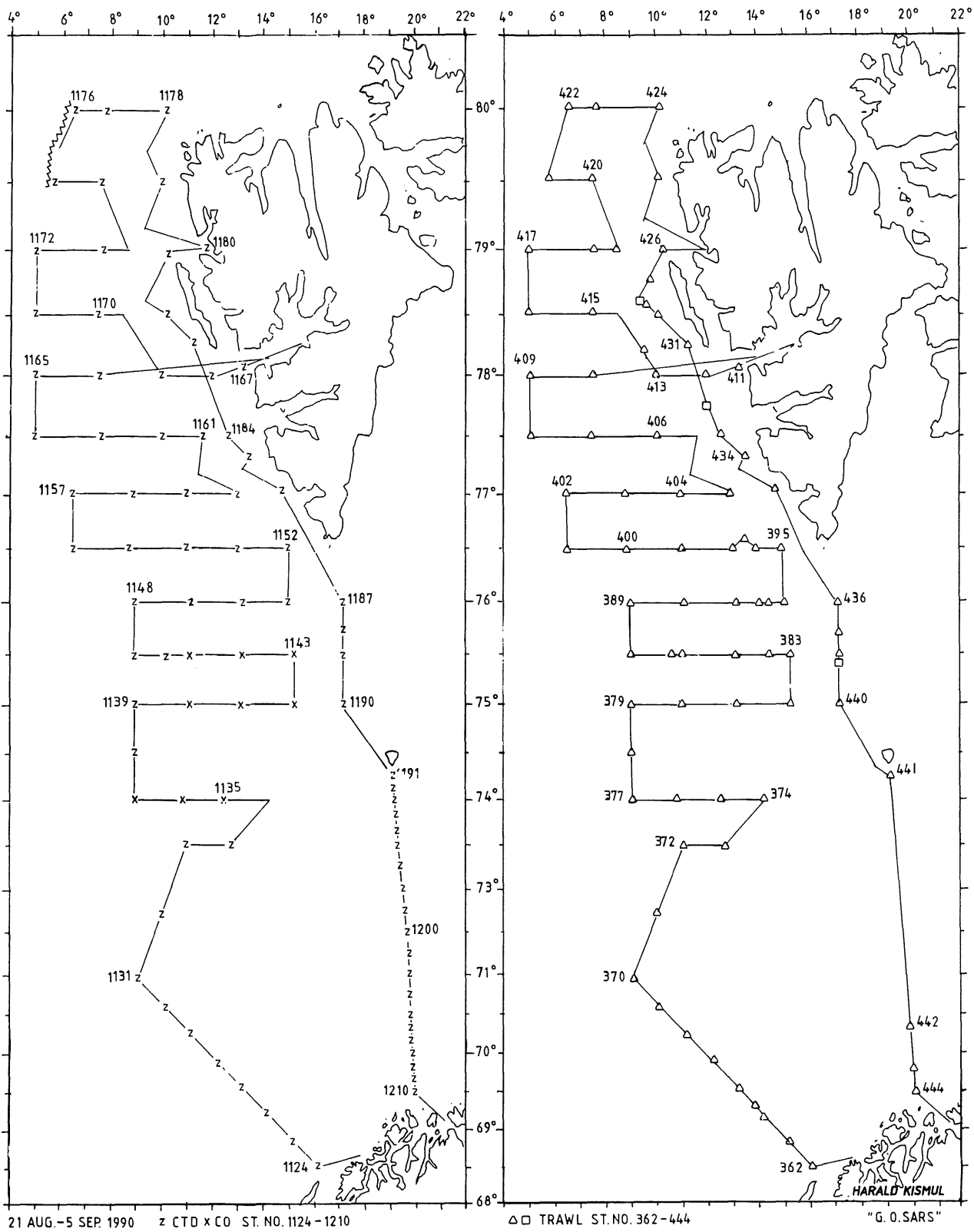


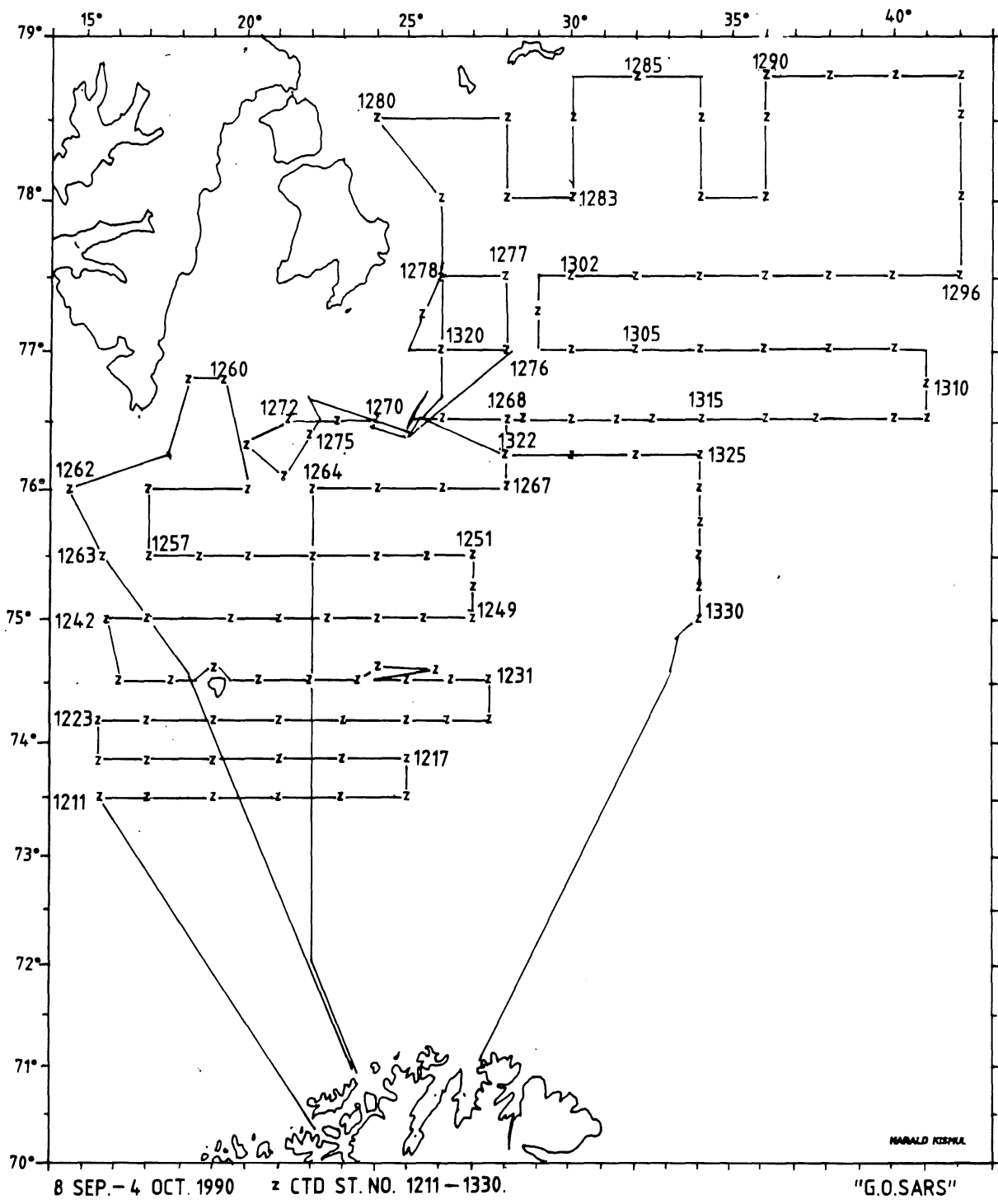
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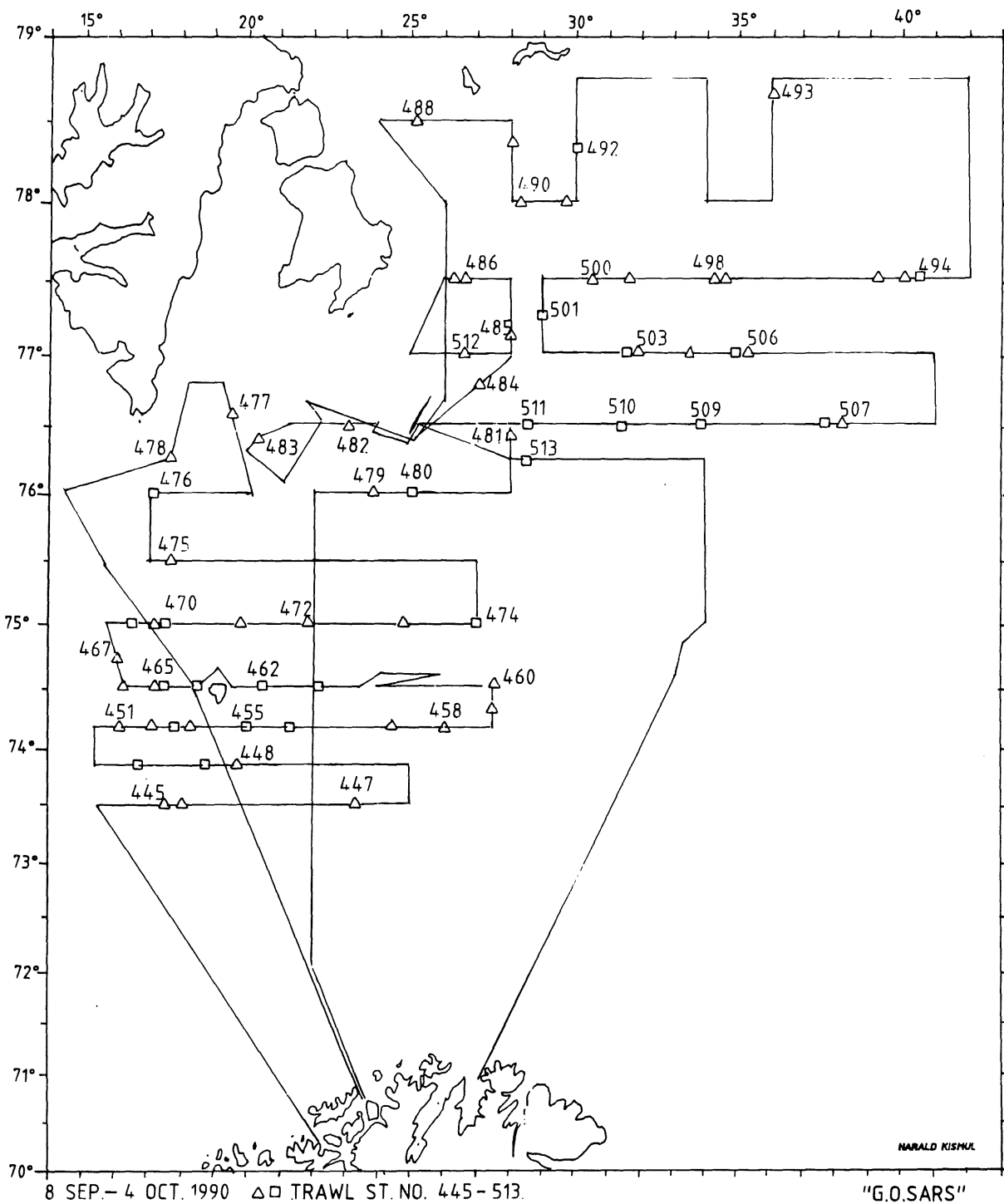
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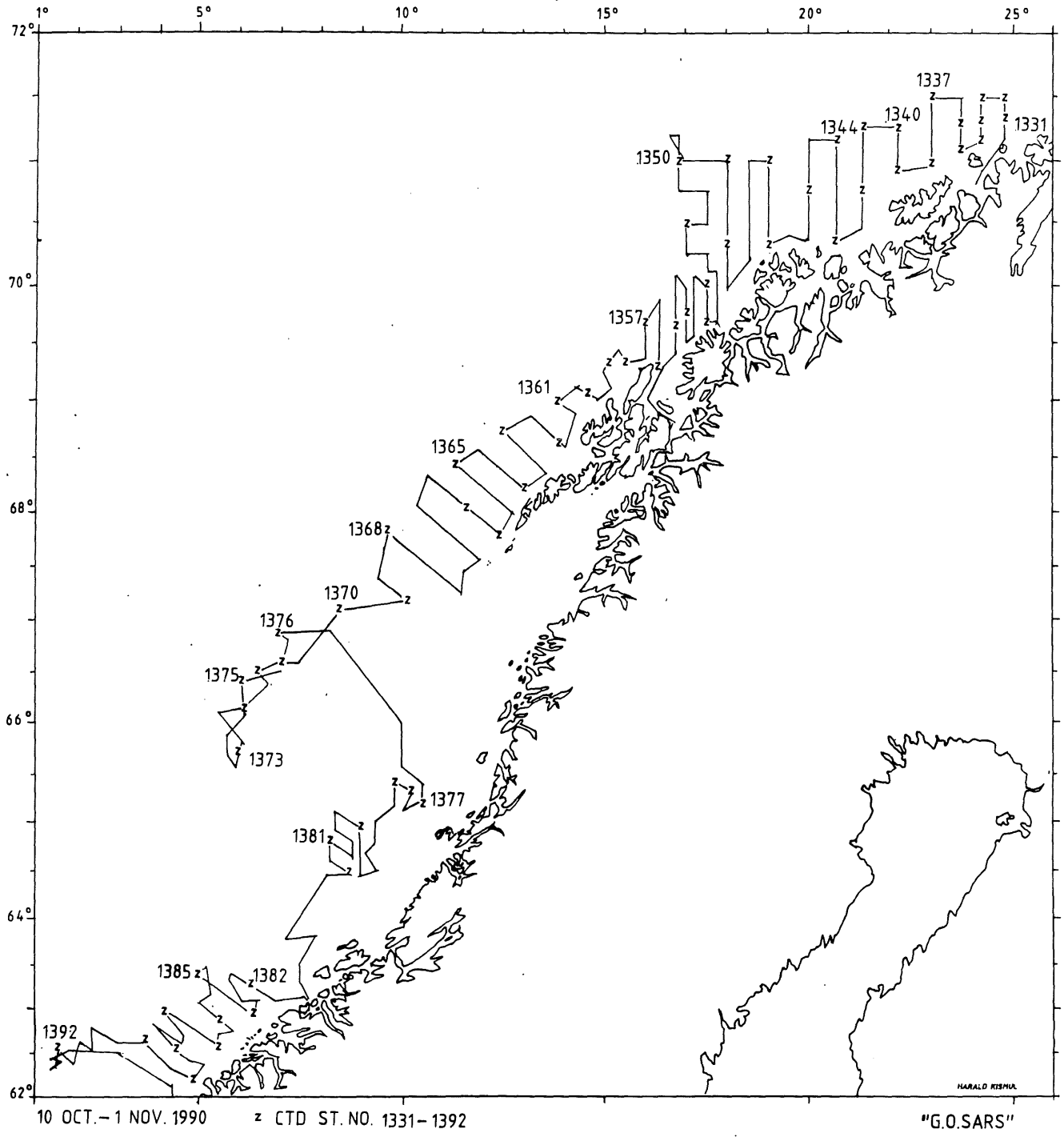
HARALD KISMUL

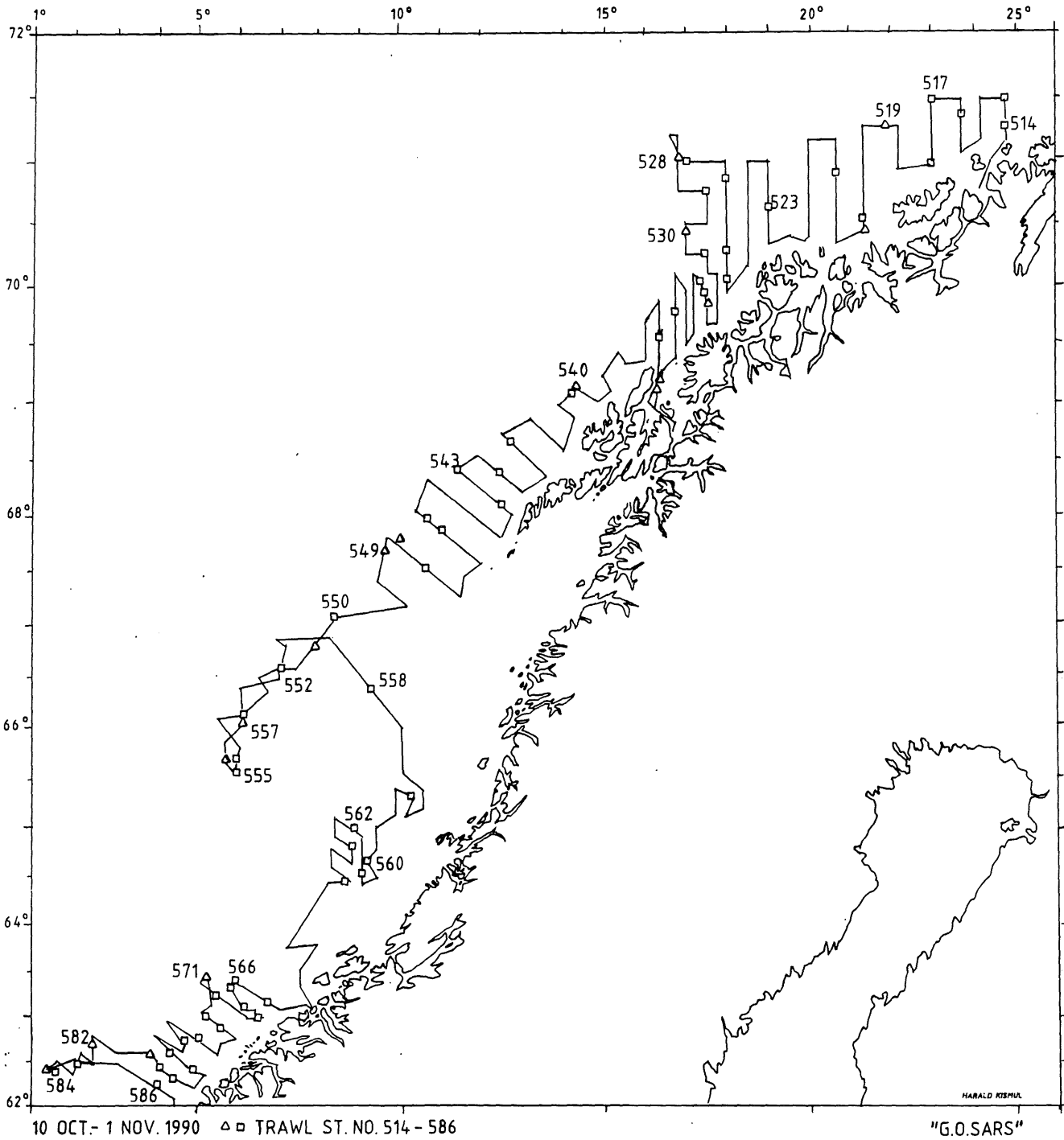


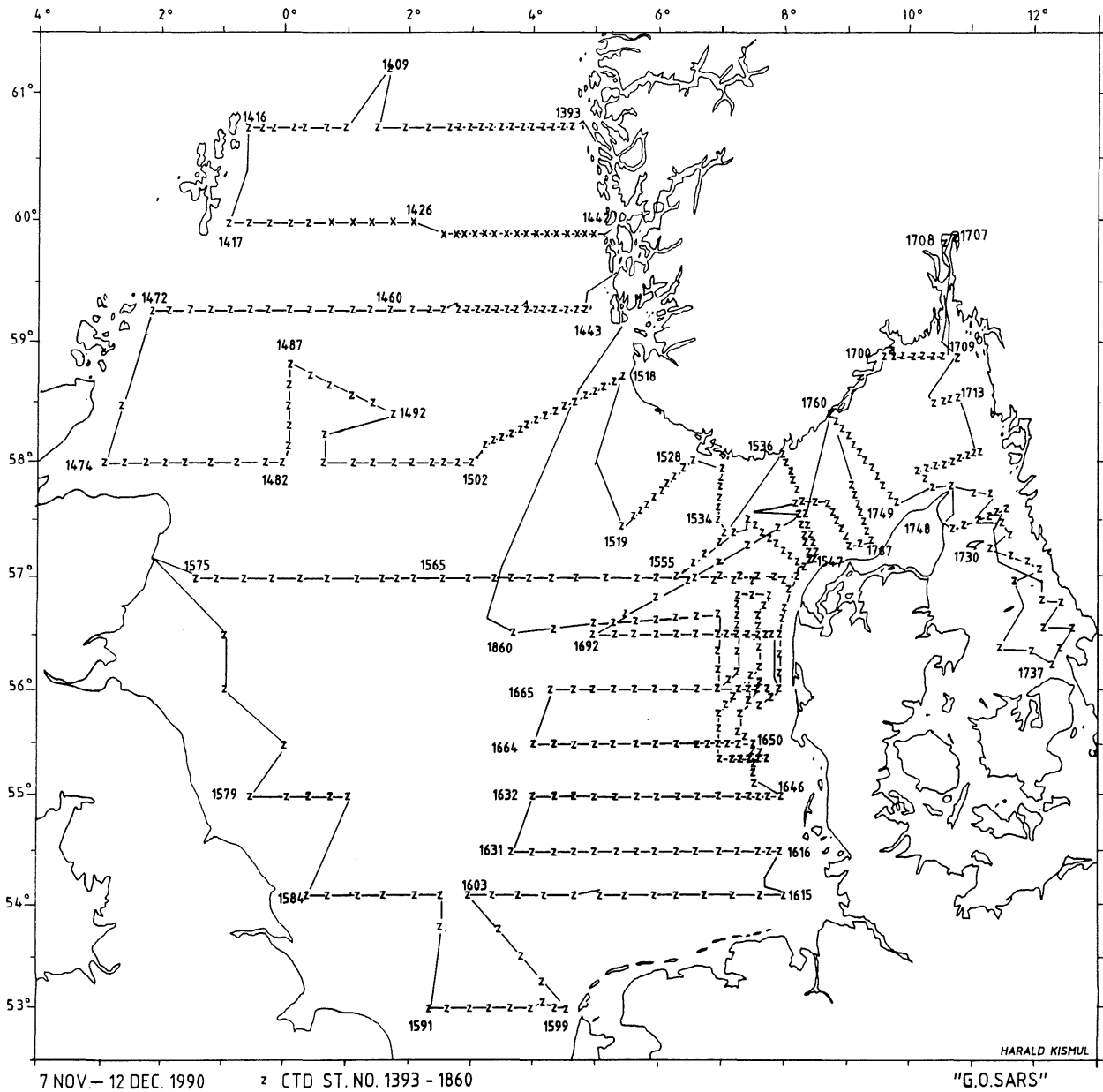


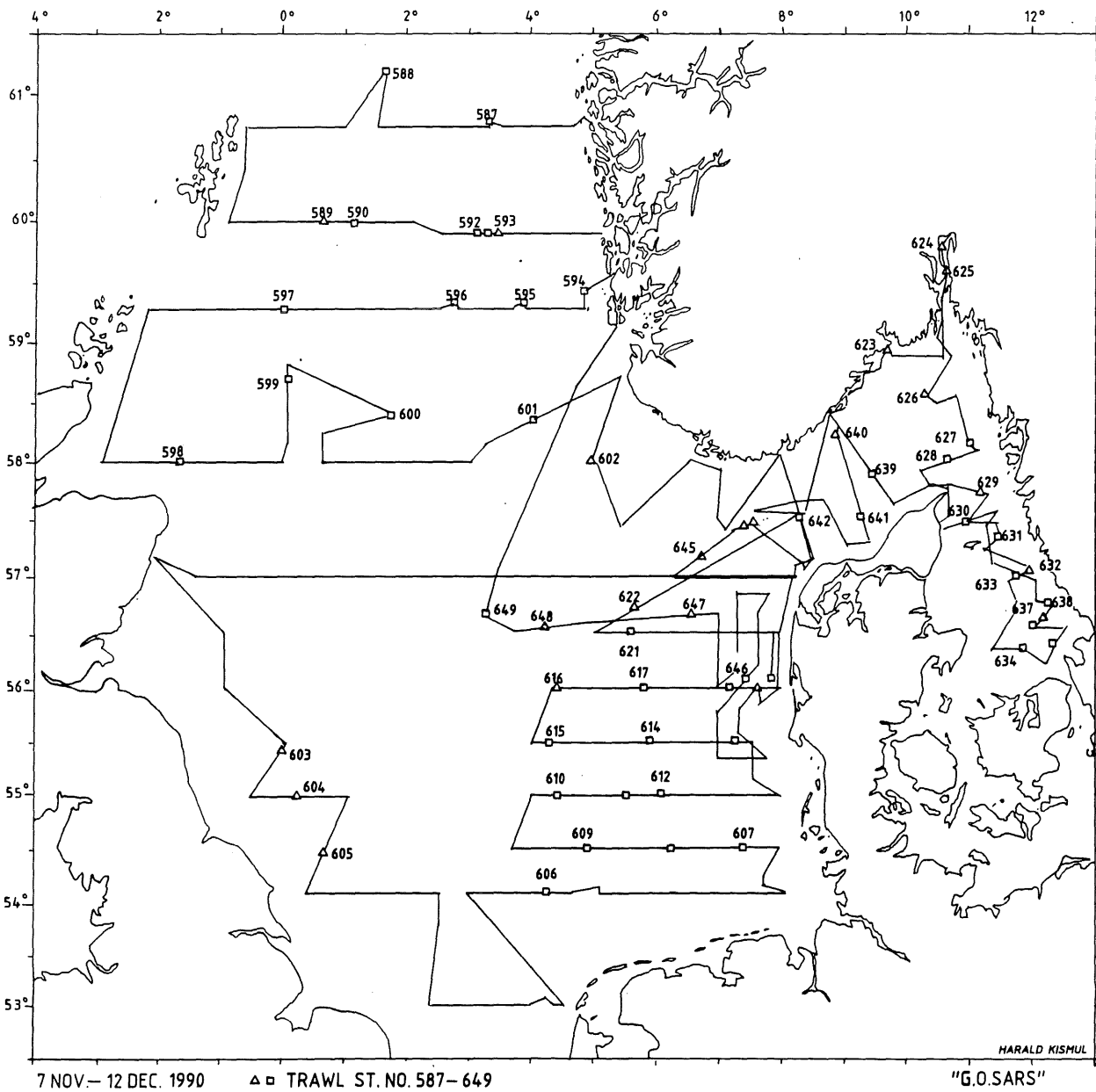


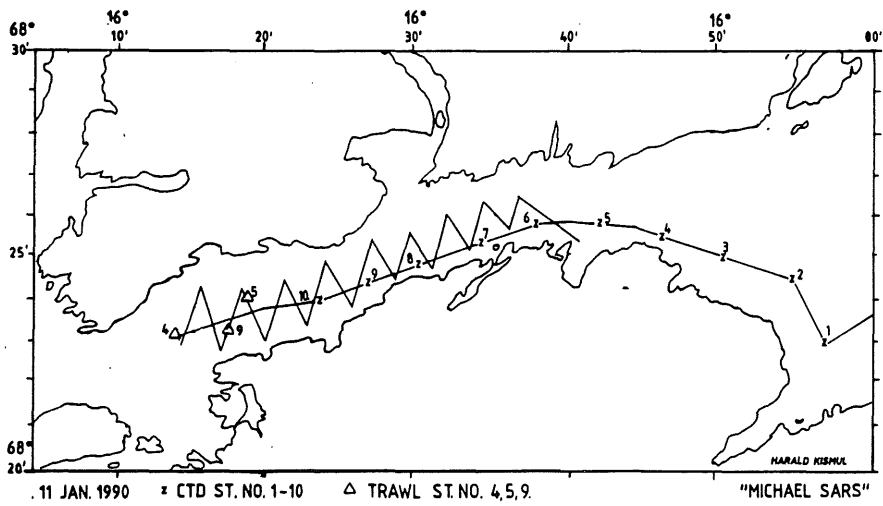
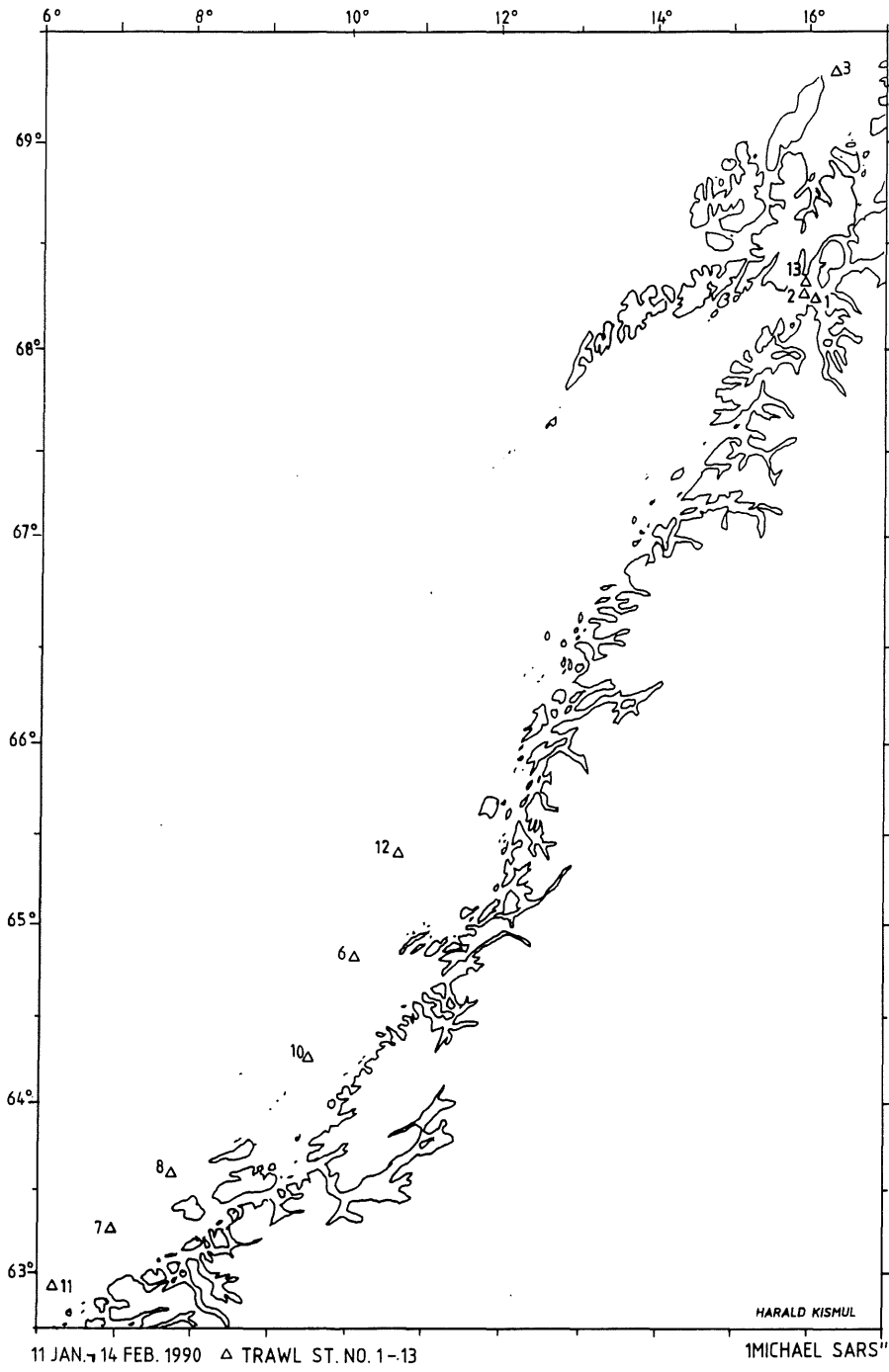


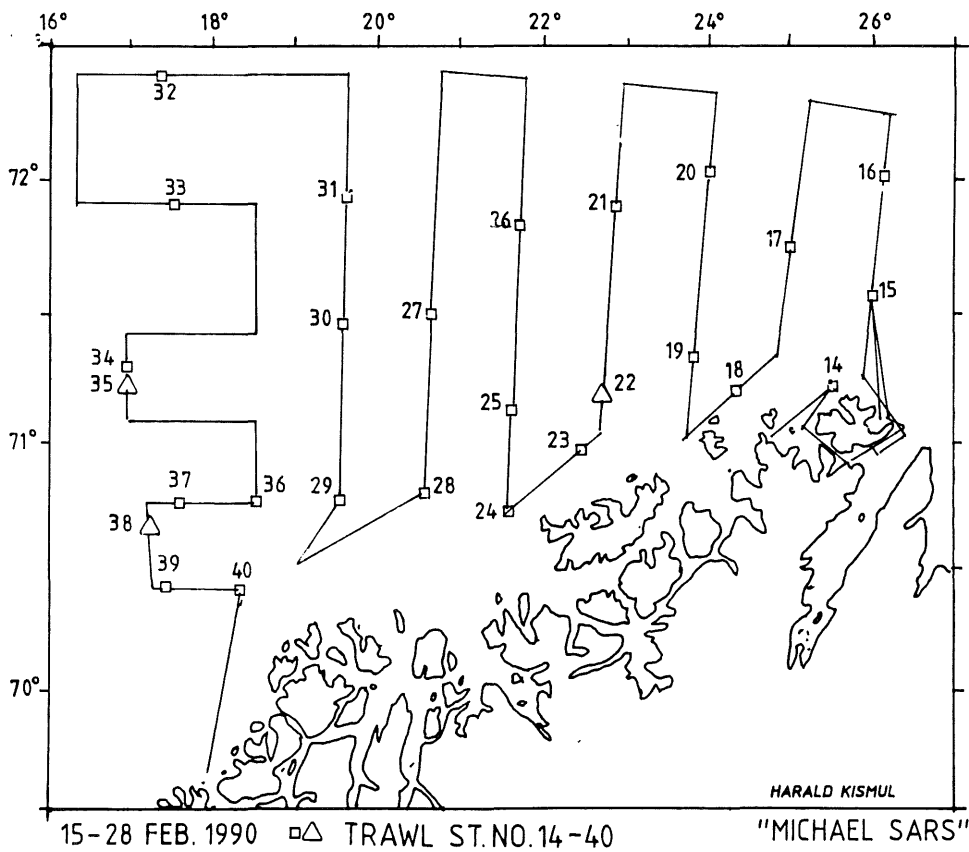
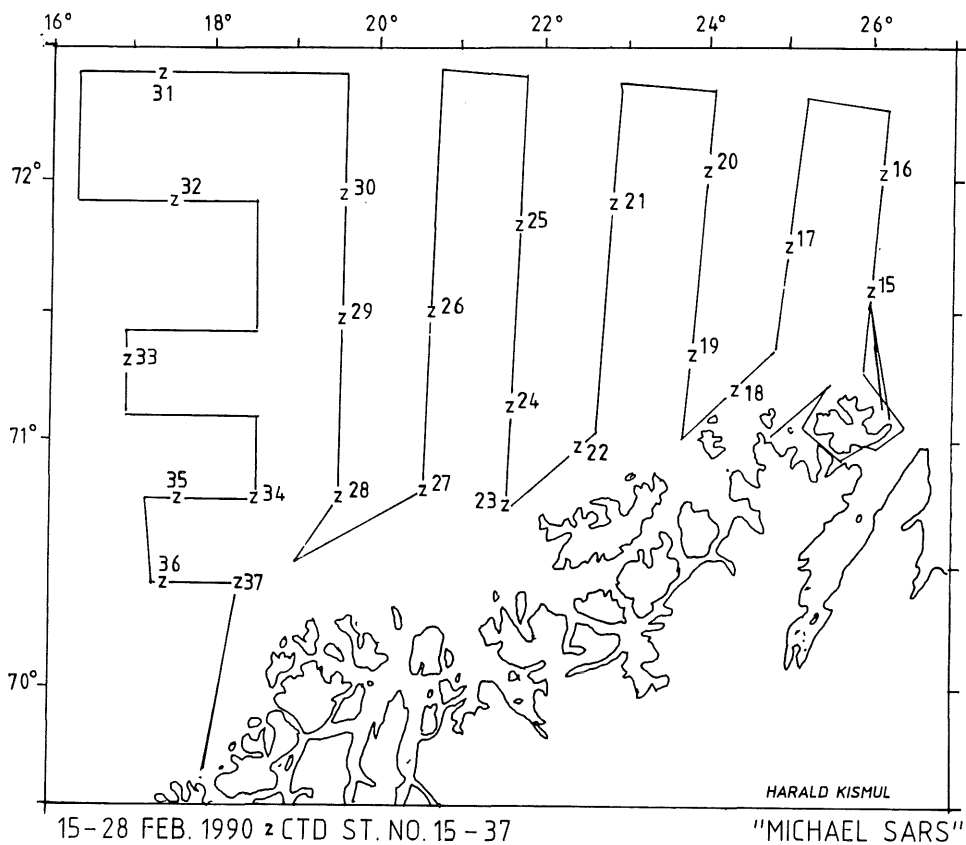


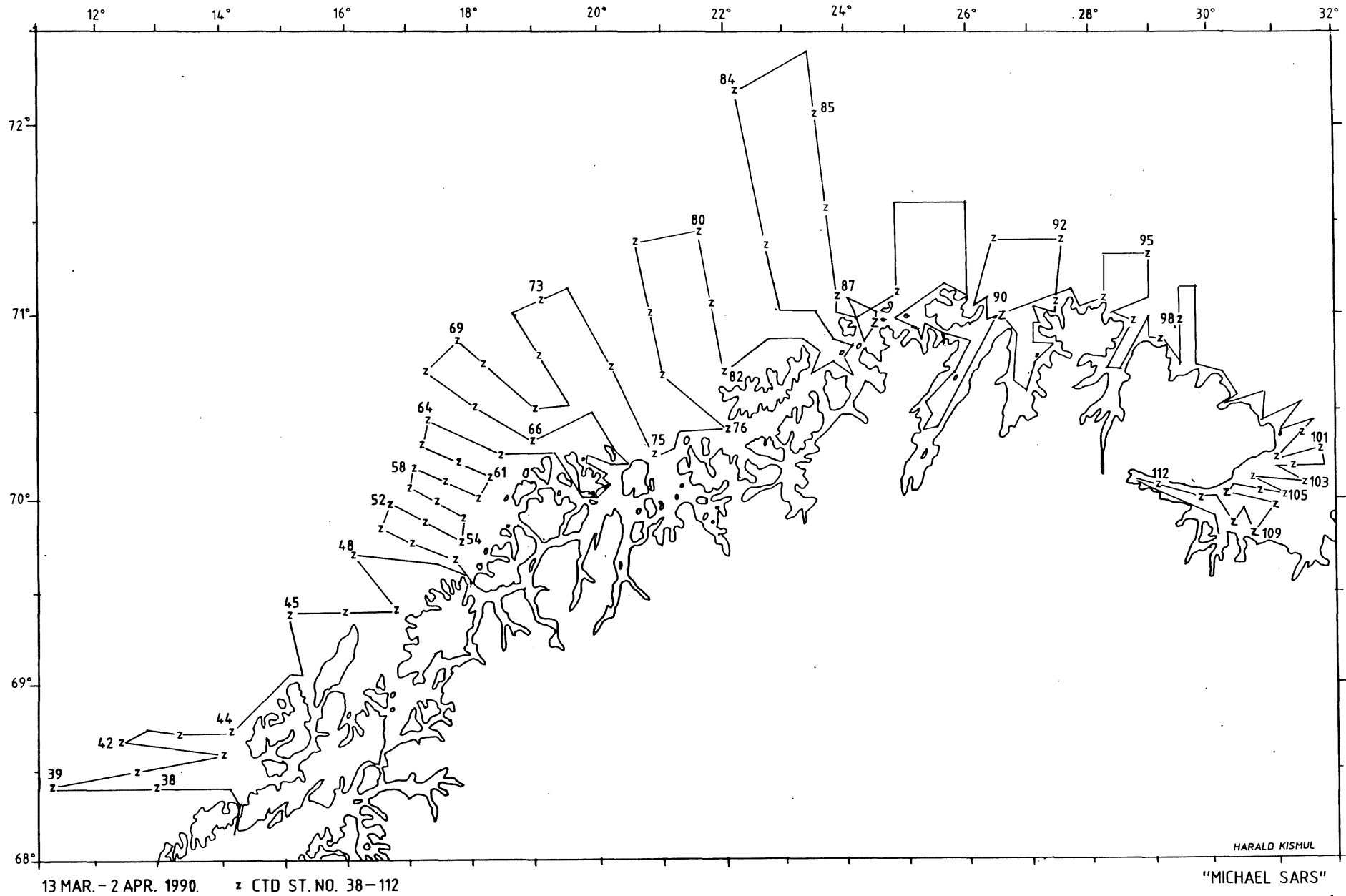


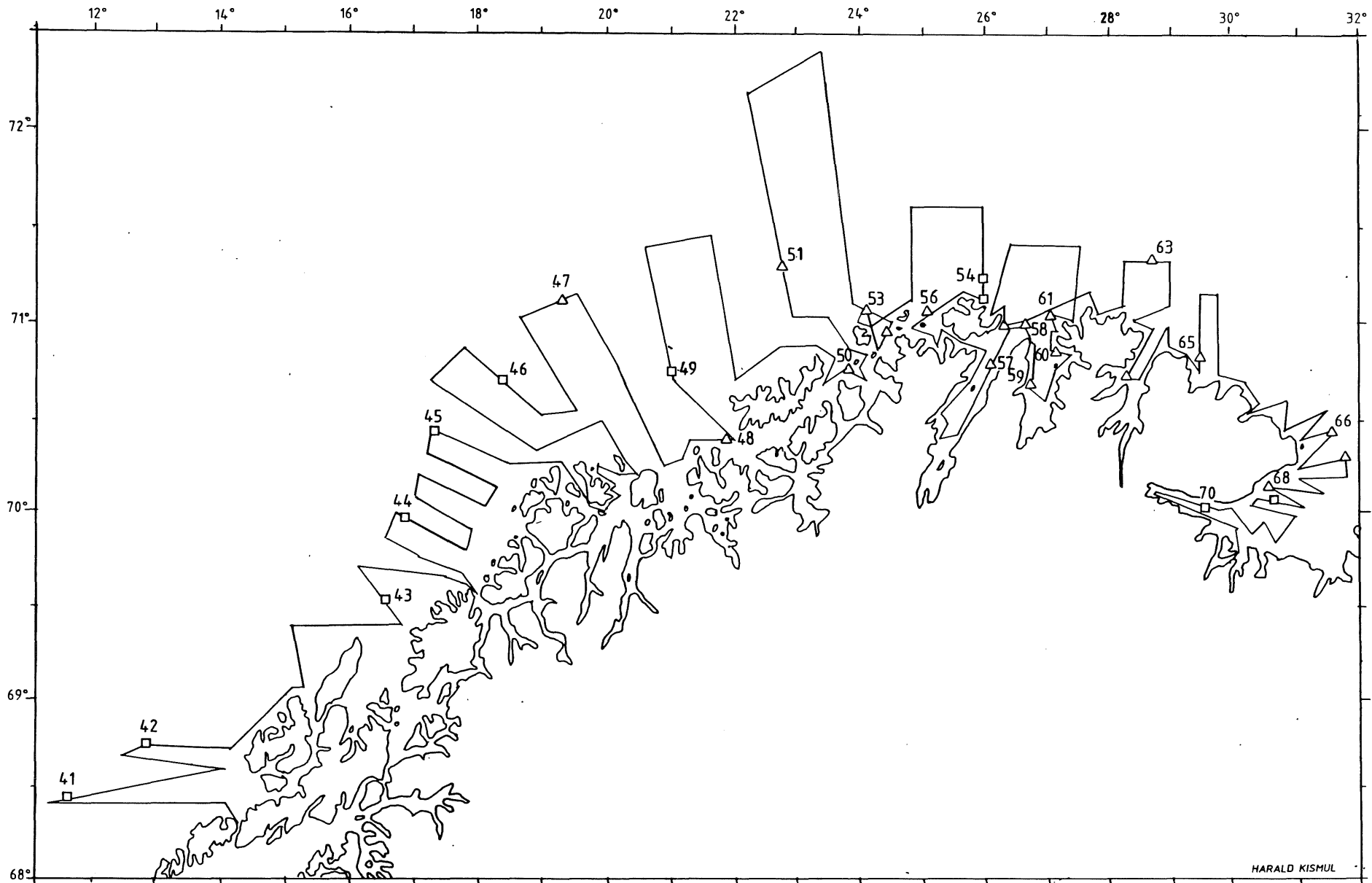






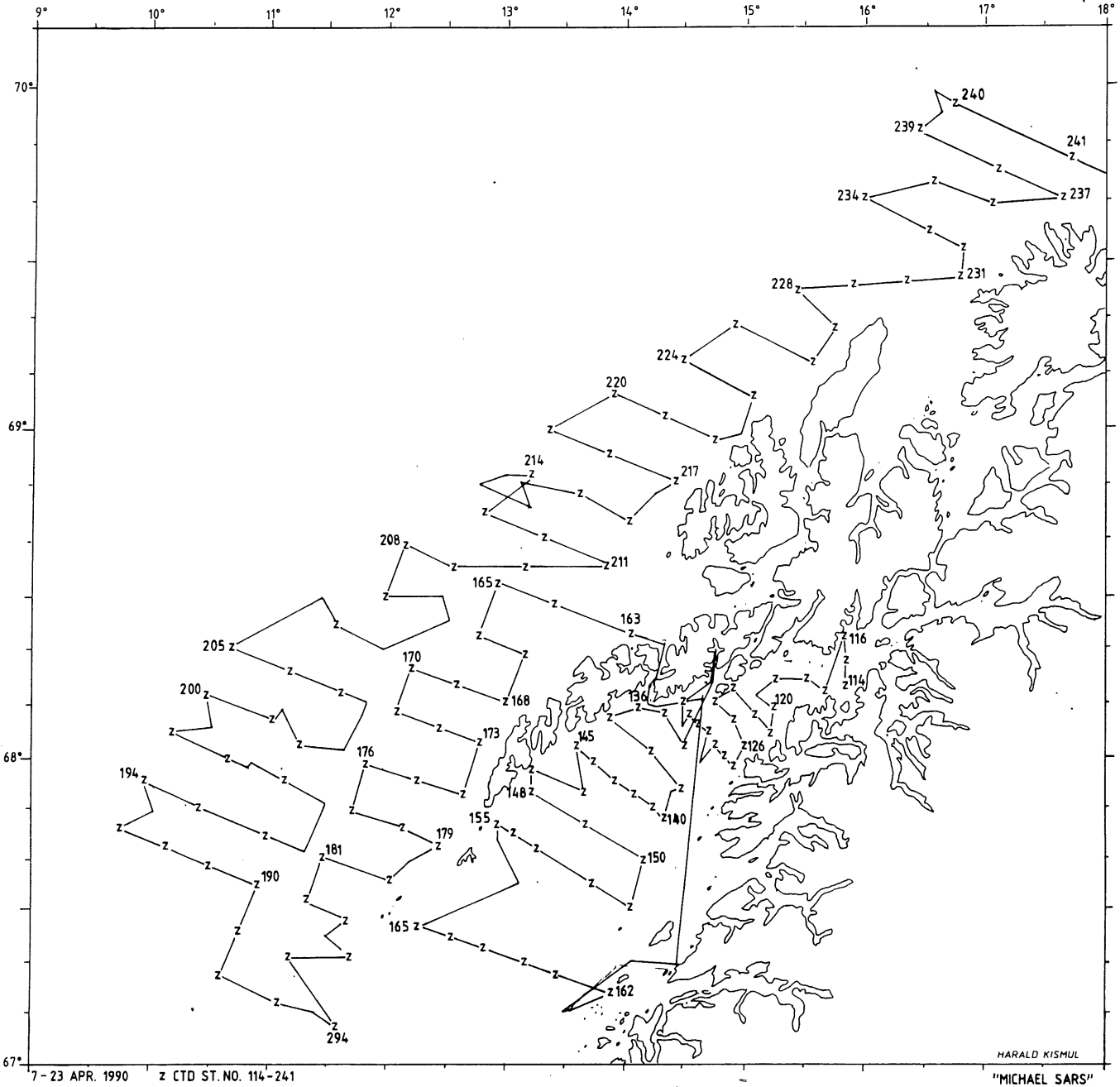






13 MAR.-2 APR. 1990 △ □ TRAWL ST. NO. 41-70

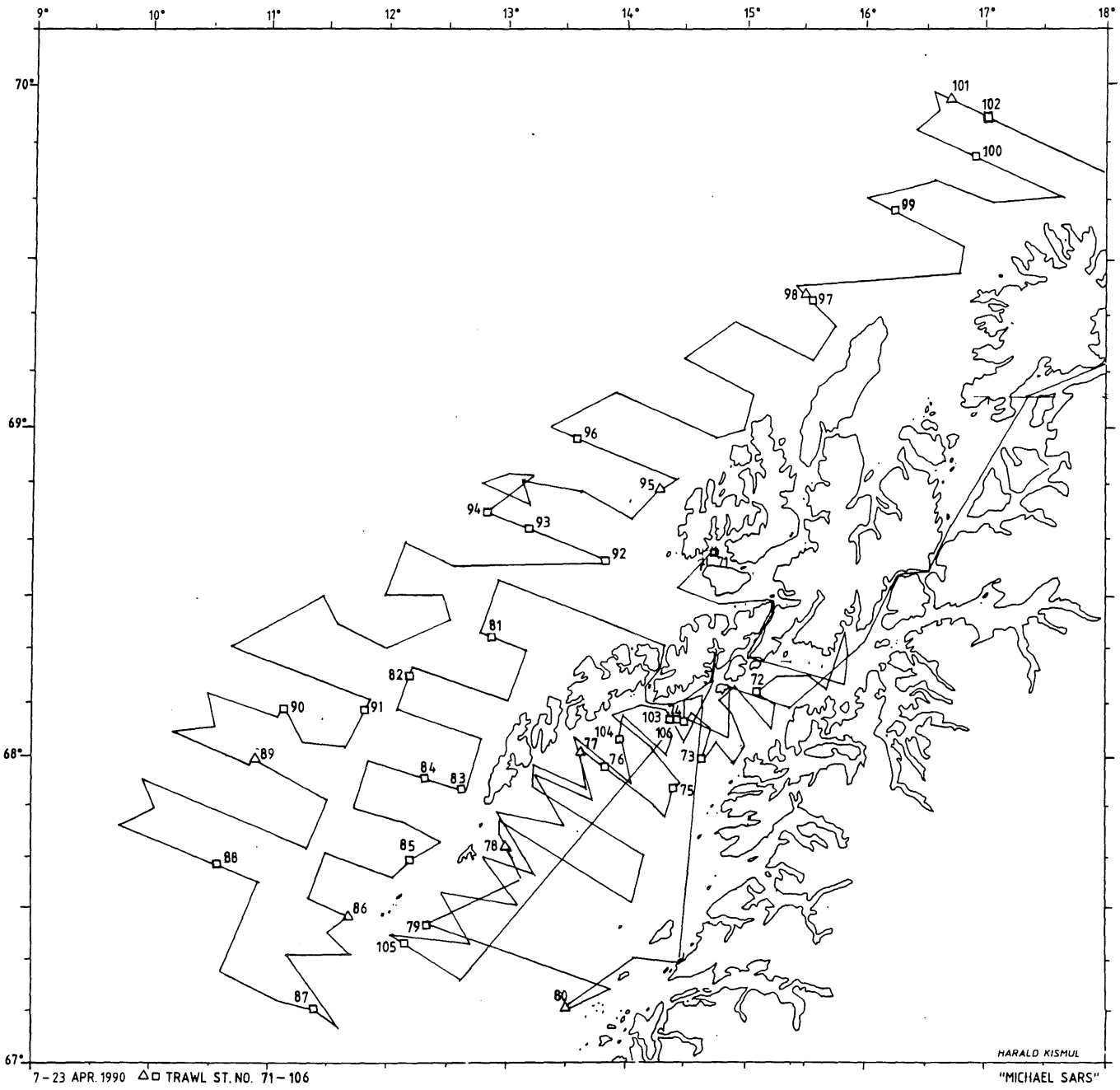
"MICHAEL SARS"

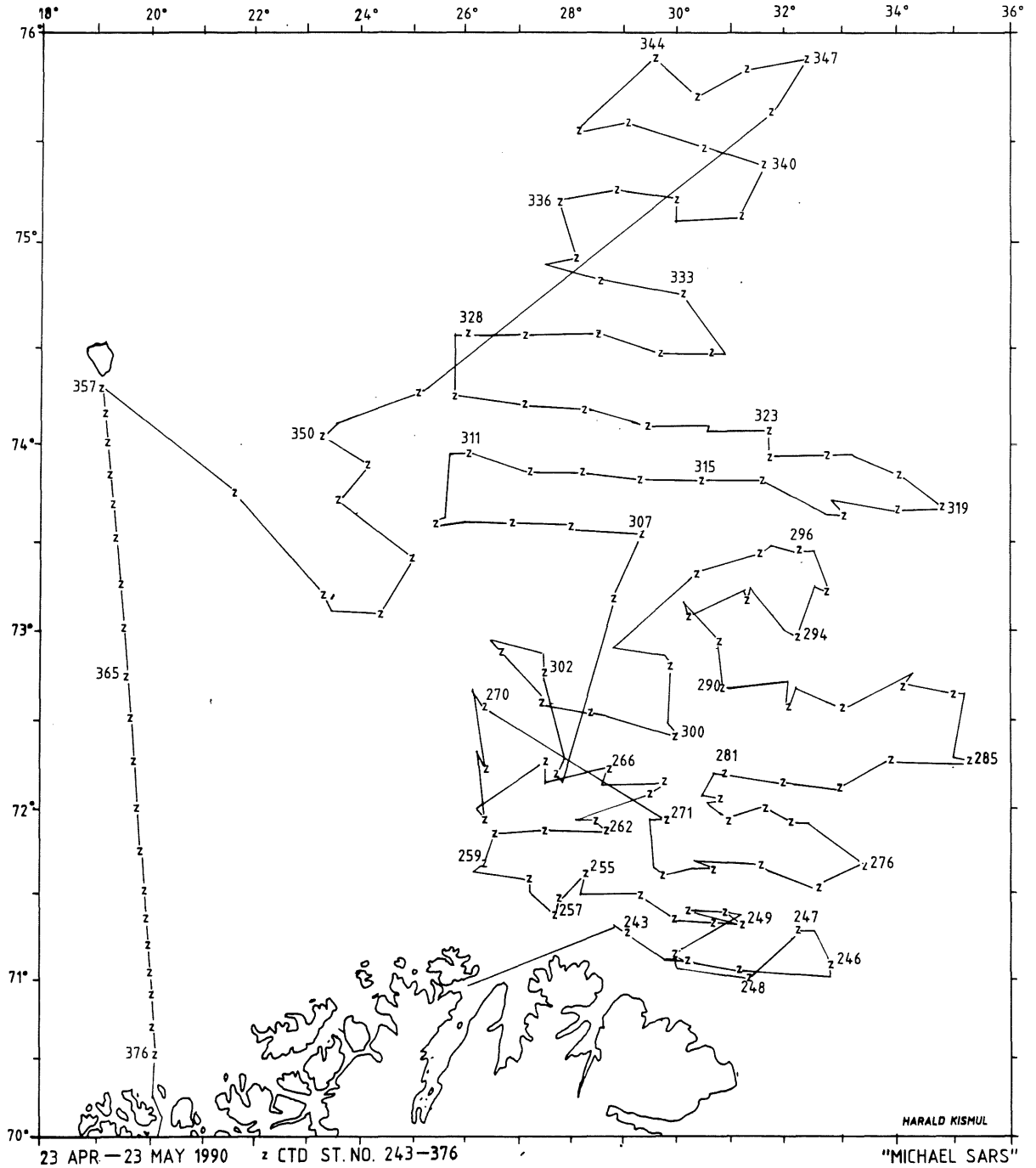


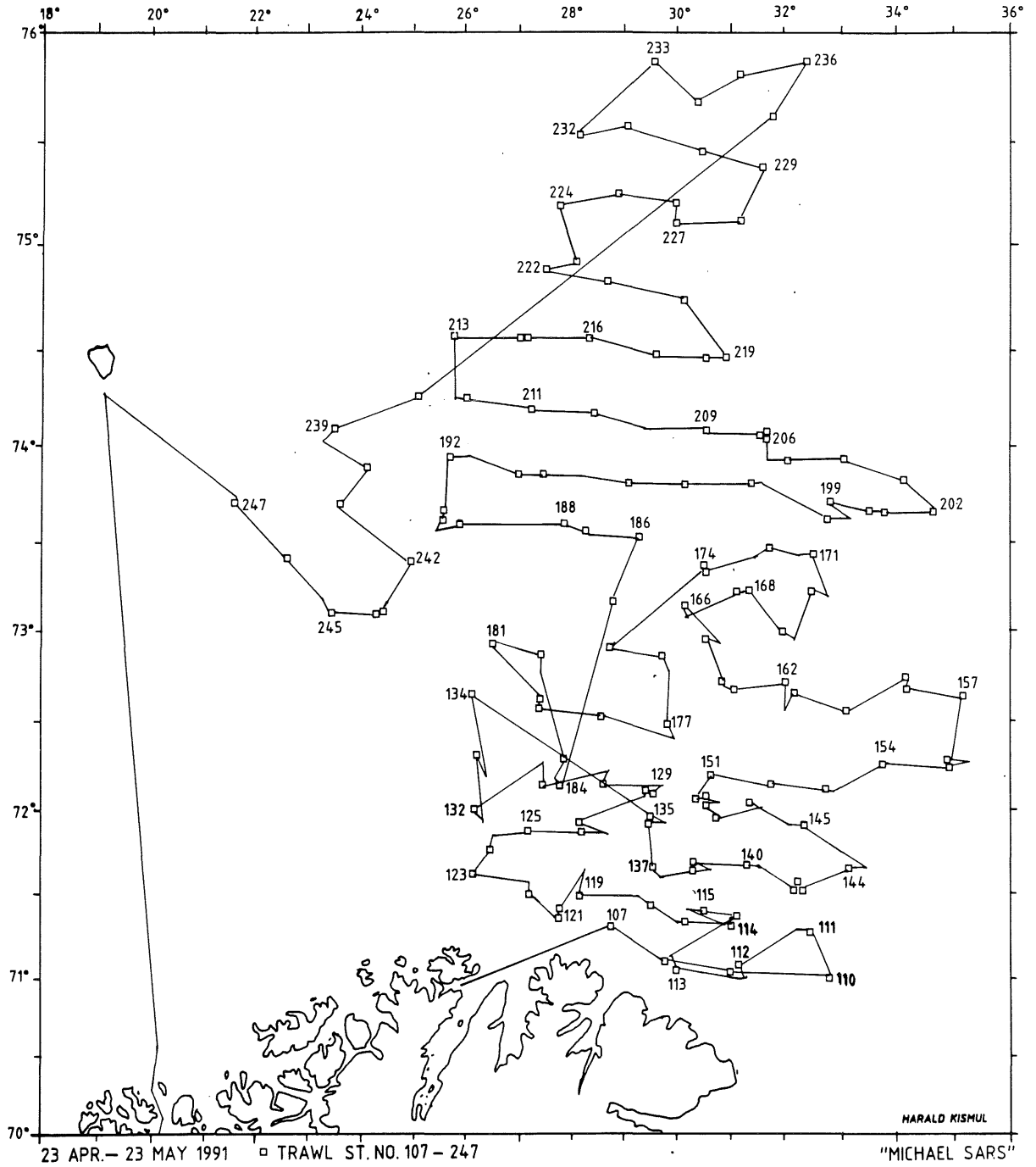
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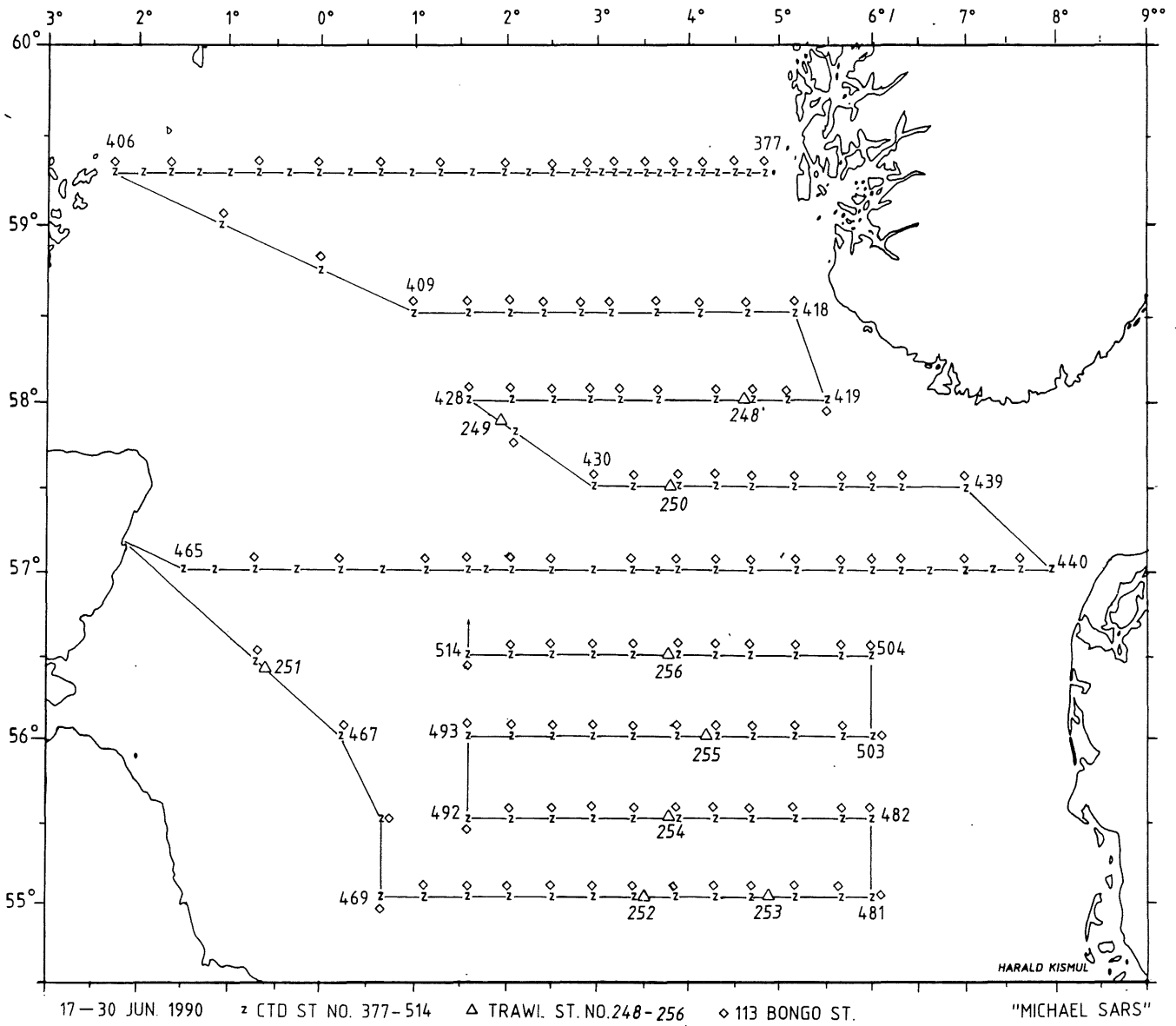
HARALD KISMUL

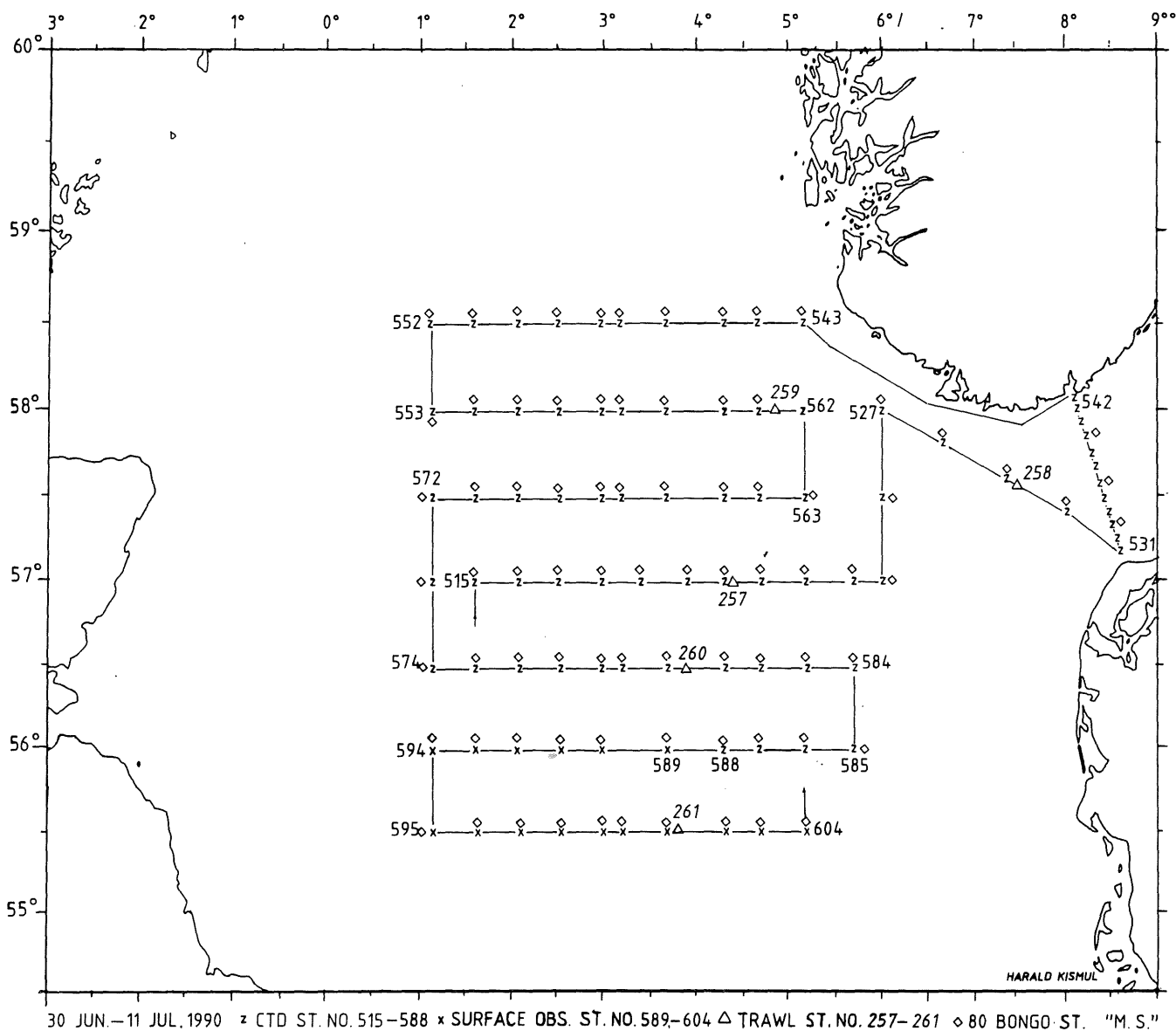
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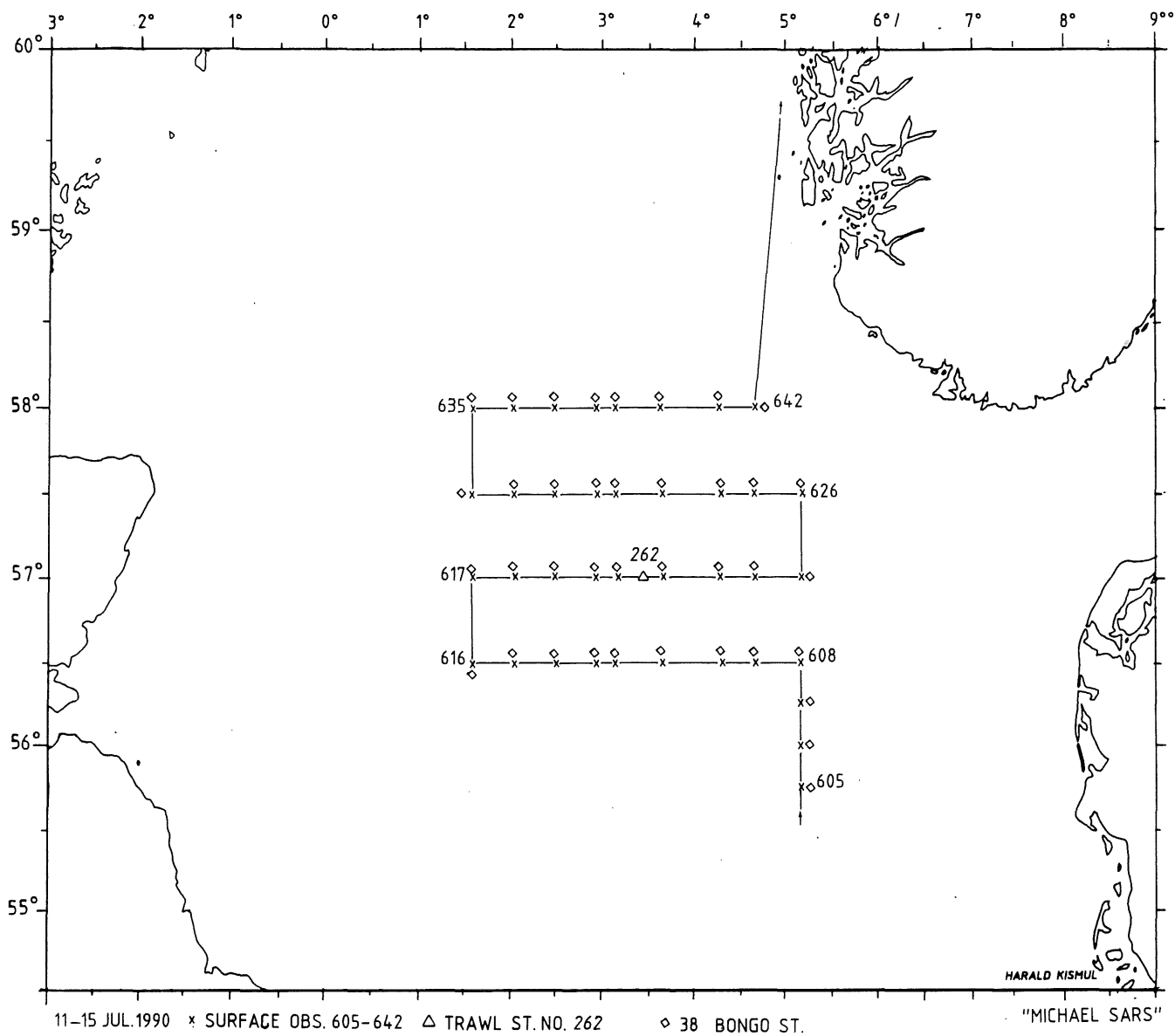


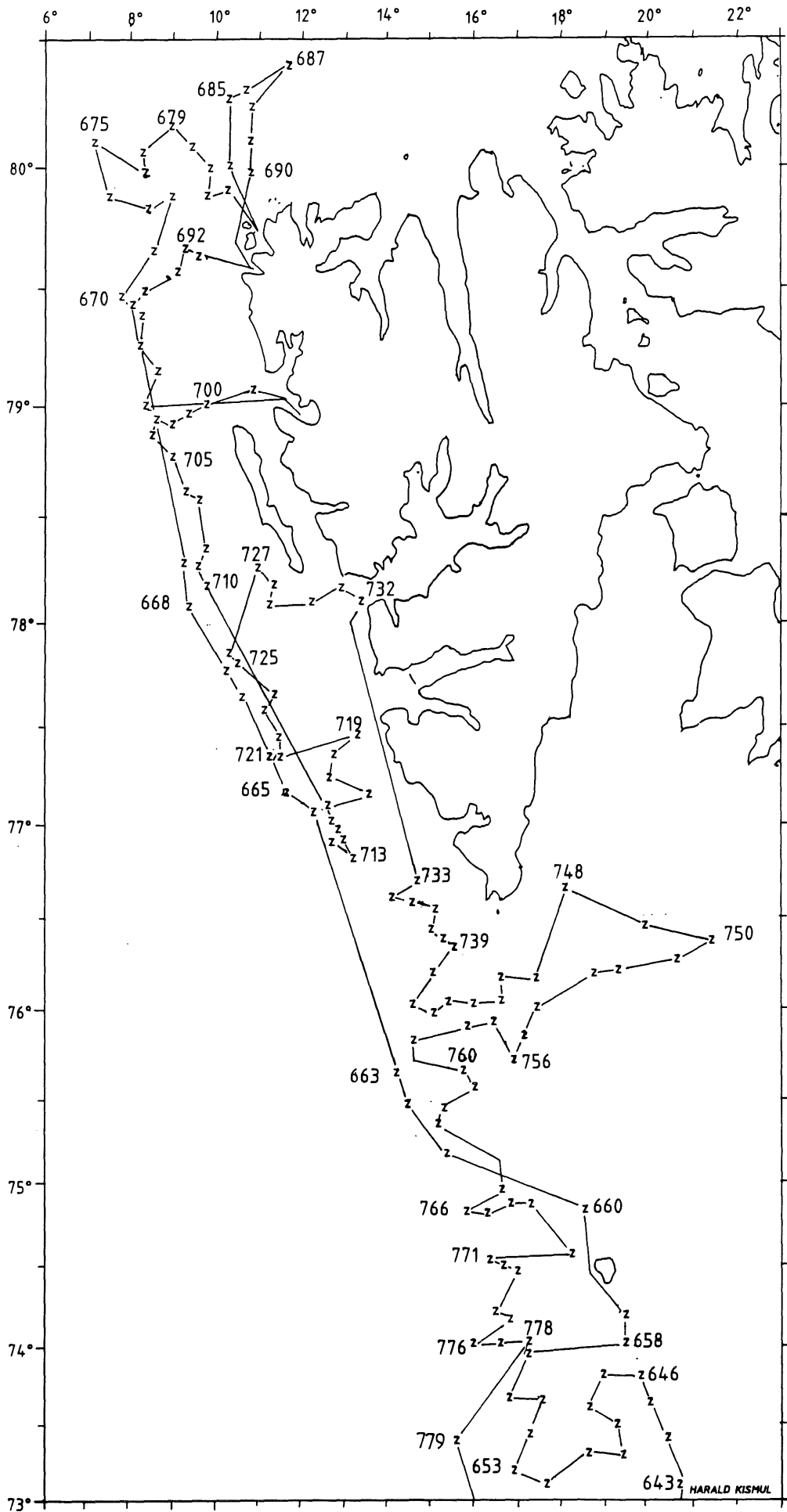






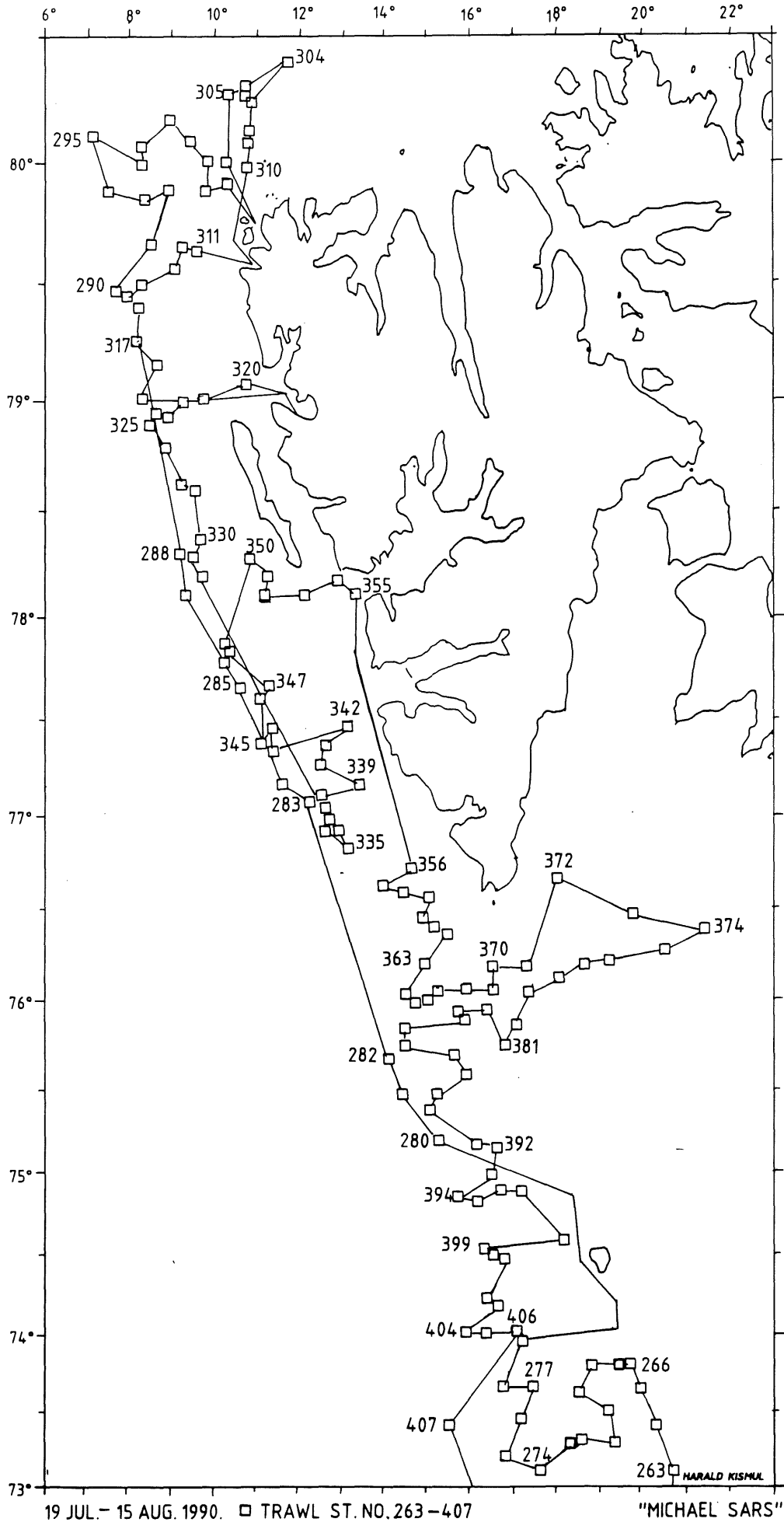


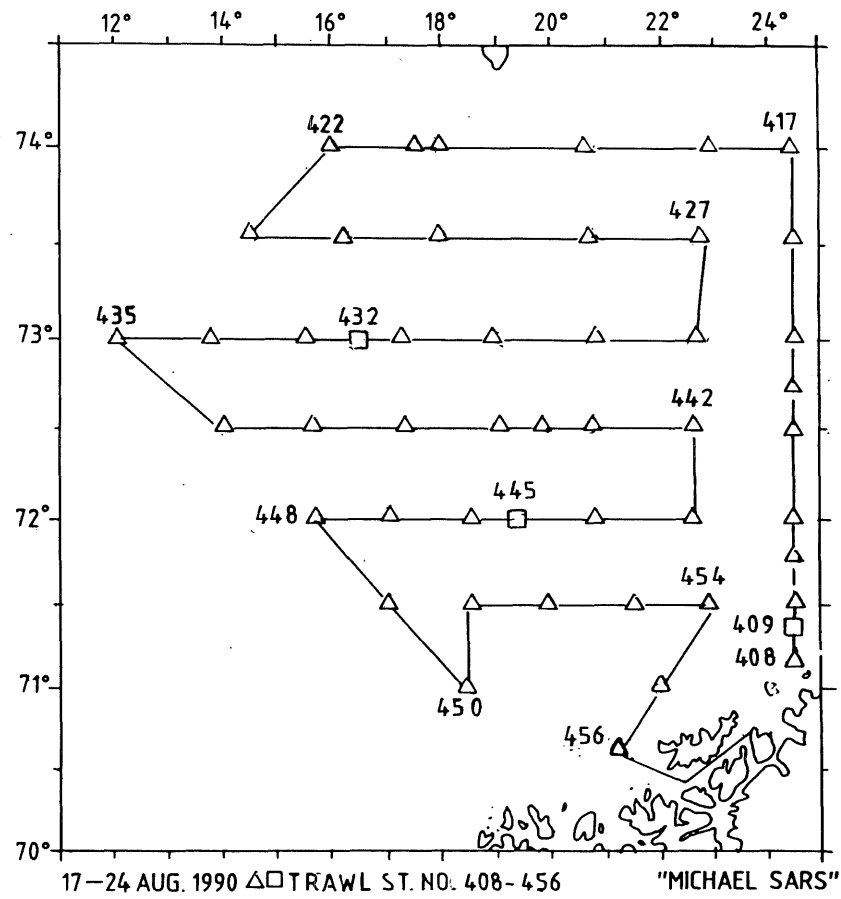
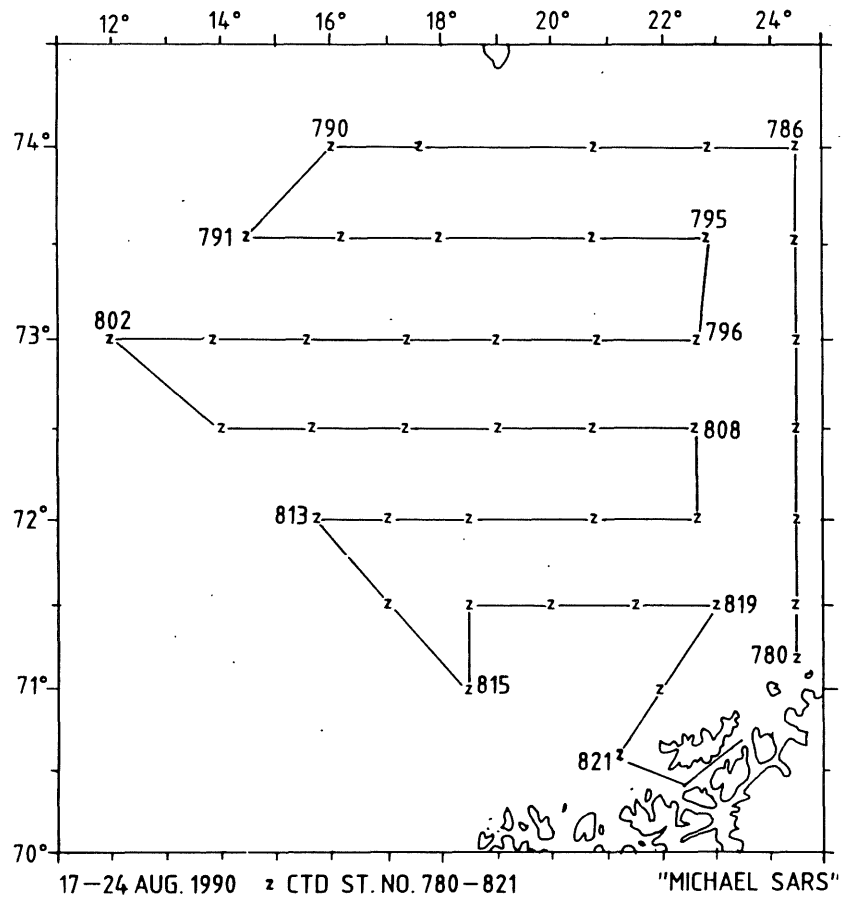


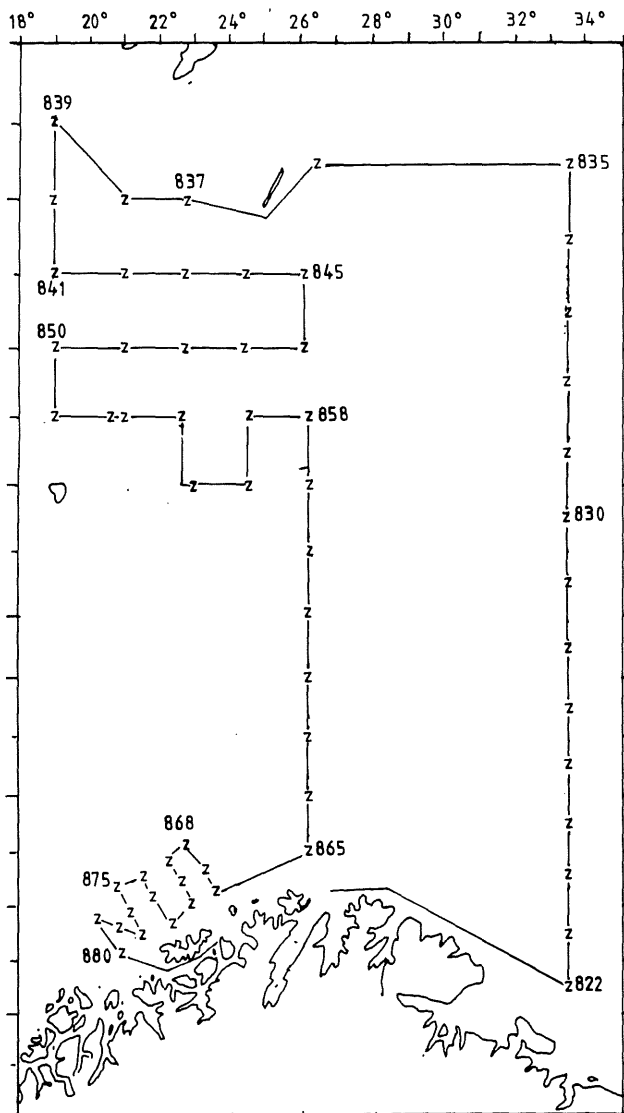


19 JUL - 15 AUG. 1990 z CTD ST. NO. 643 - 779

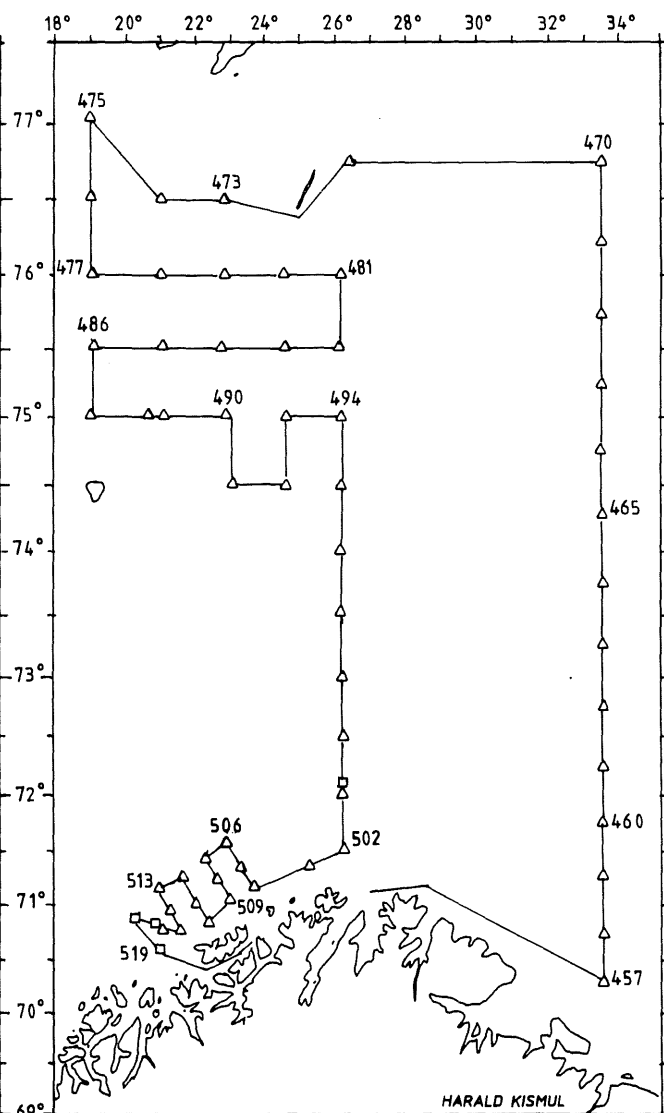
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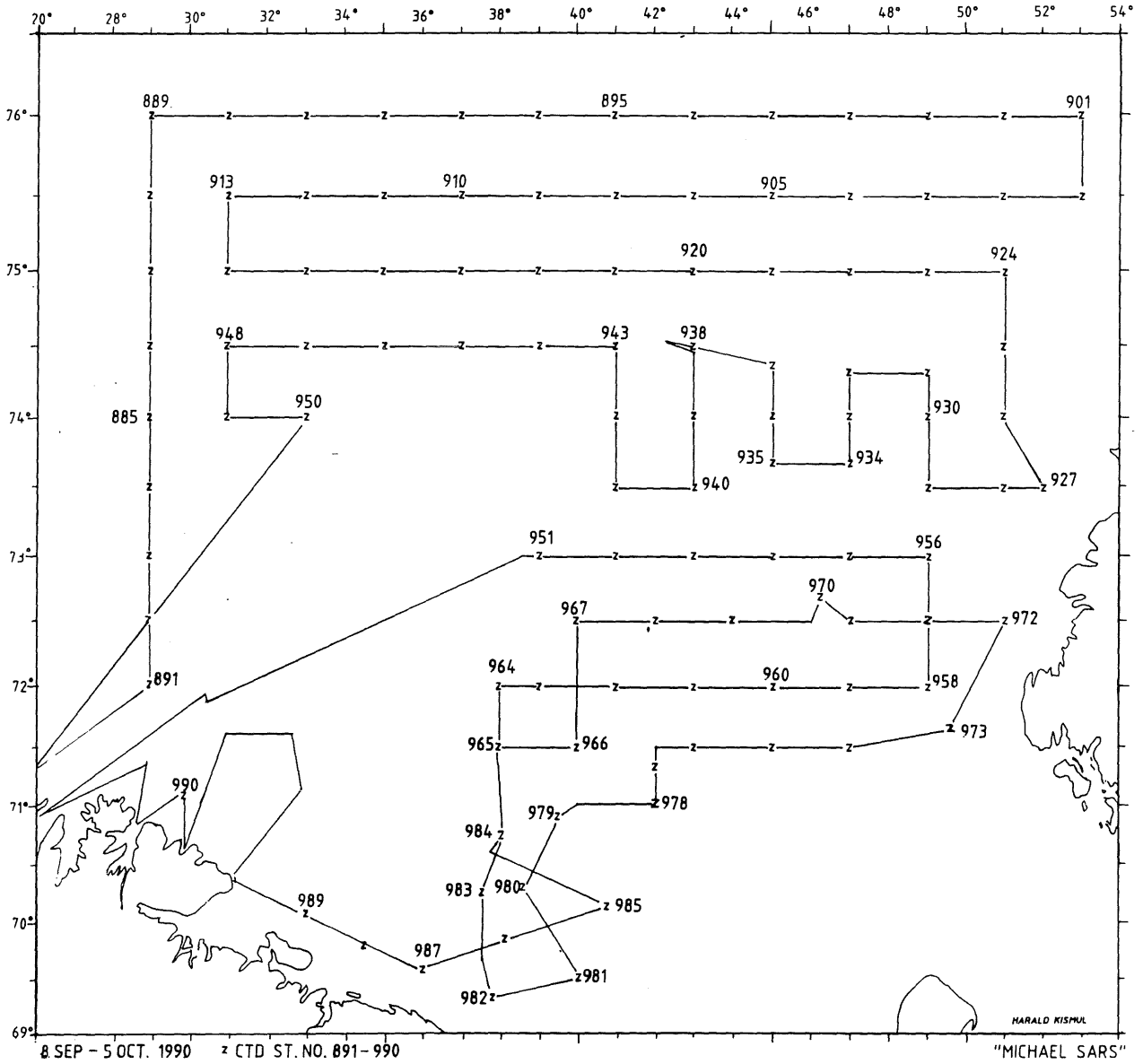


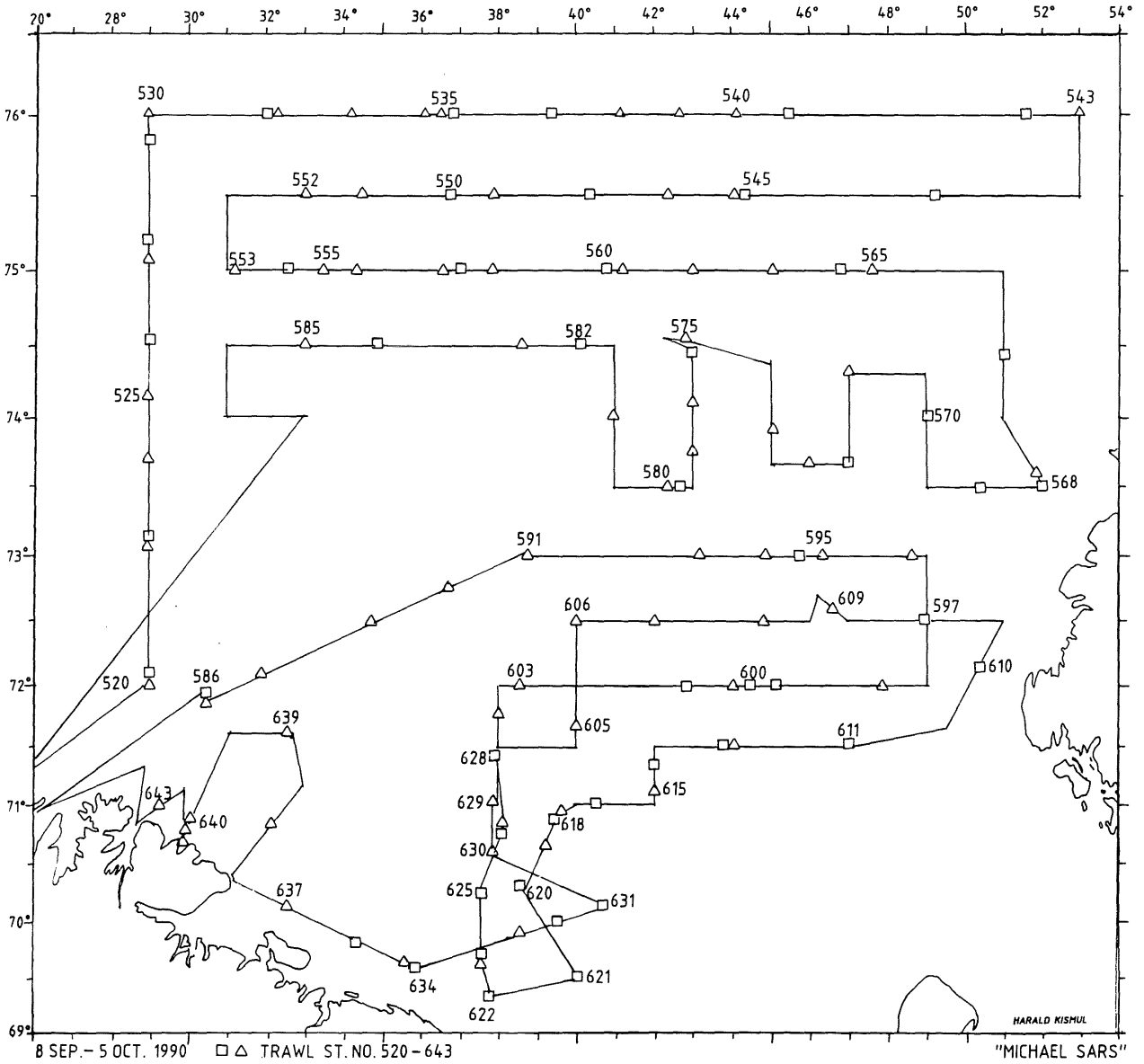
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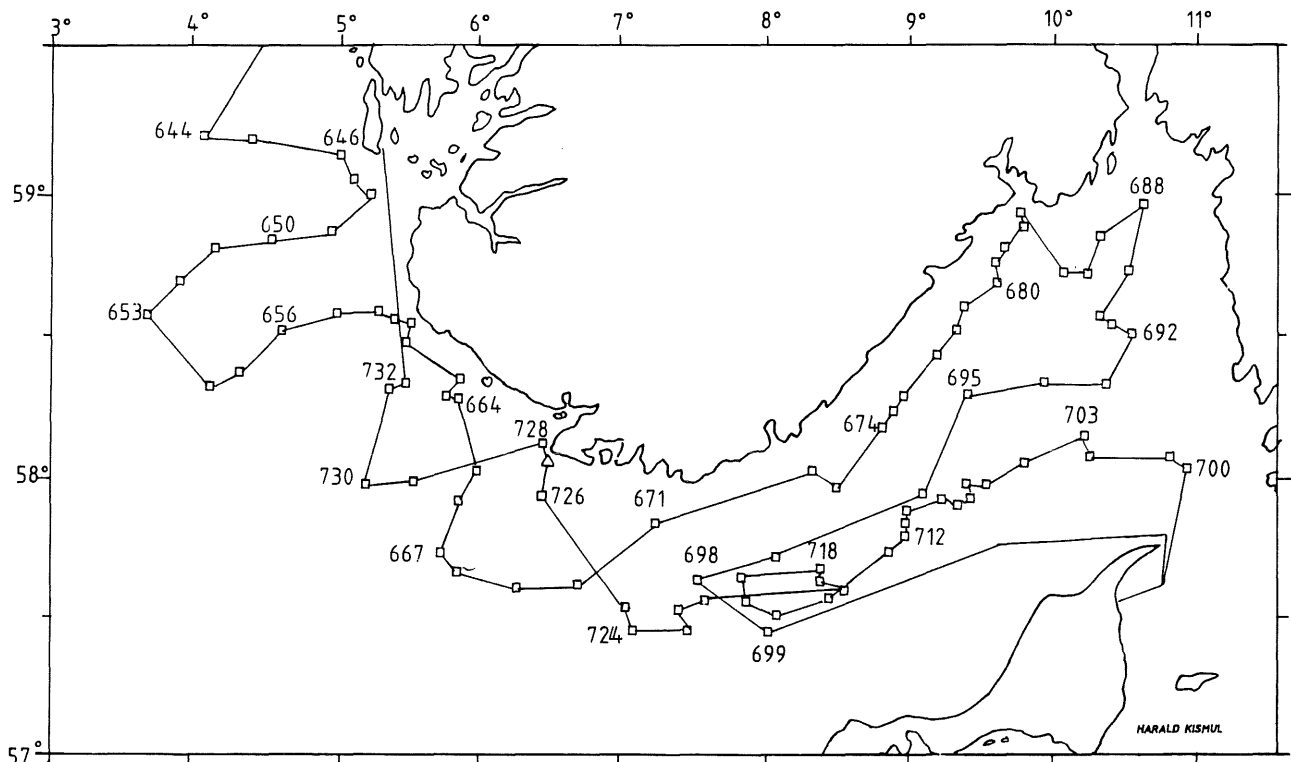


△ □ TRAWL ST. NO. 457-519

"MICHAEL SARS"

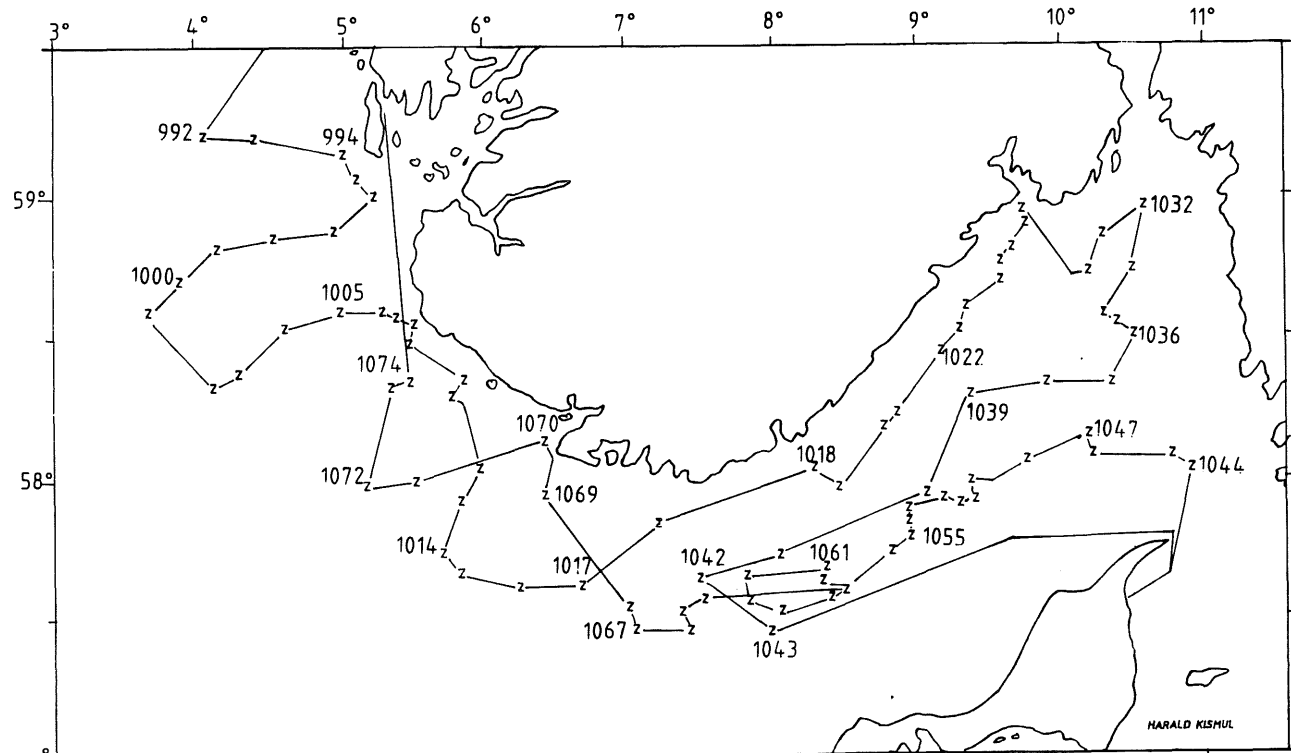






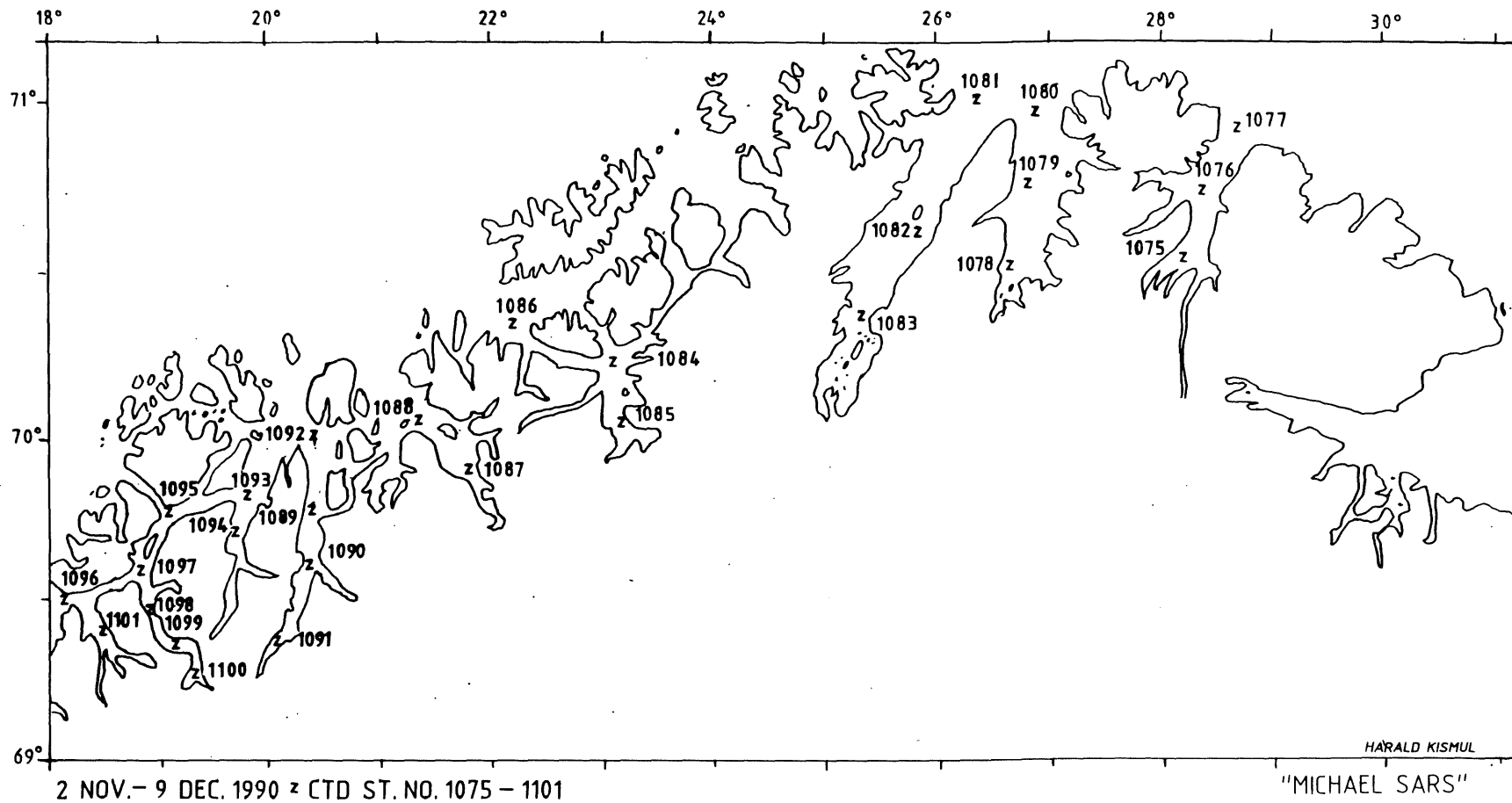
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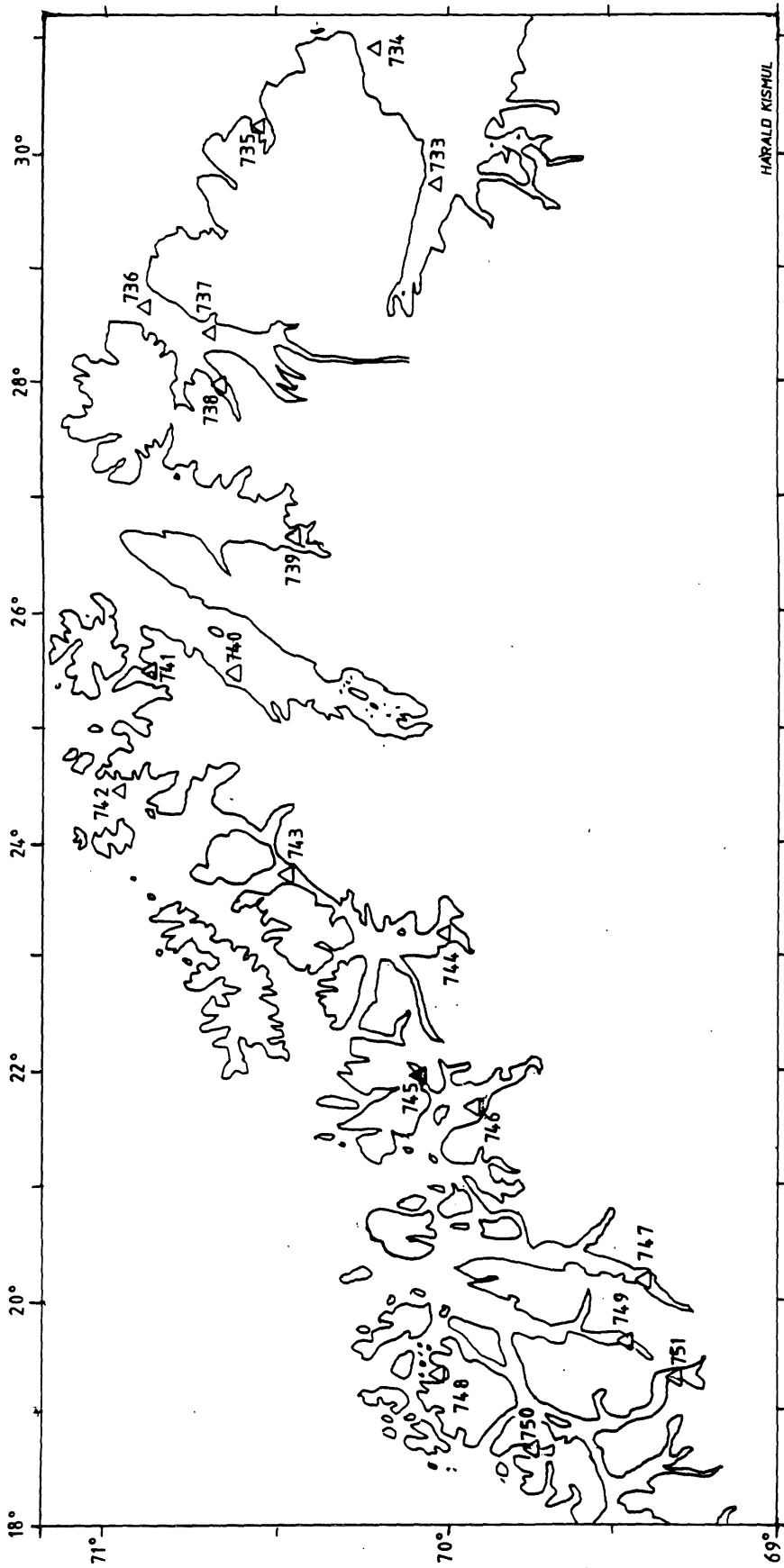
"MICHAEL SARS"



11-24 OCT 1990 z CTD 992-1074

"MICHAEL SARS"

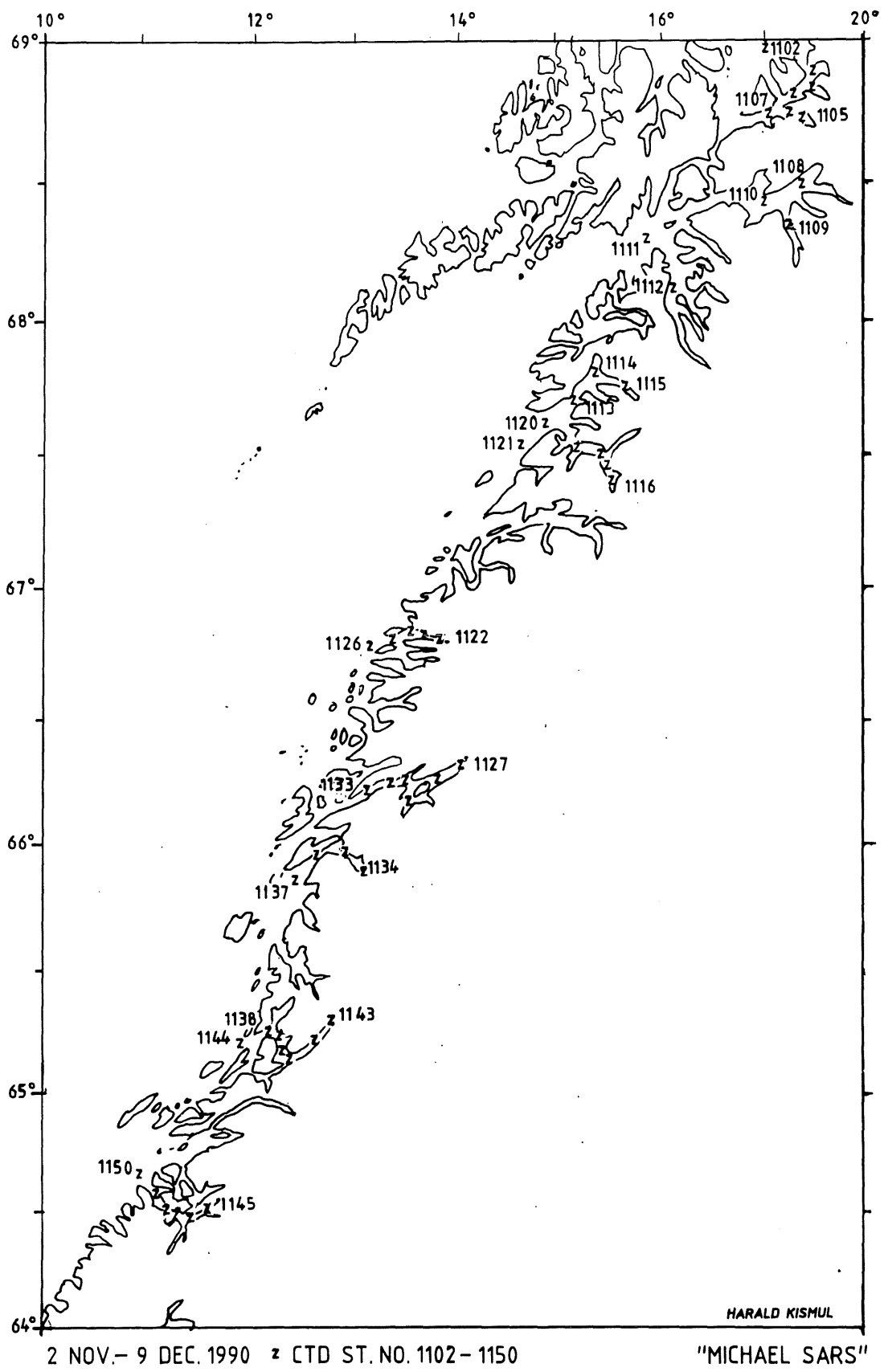


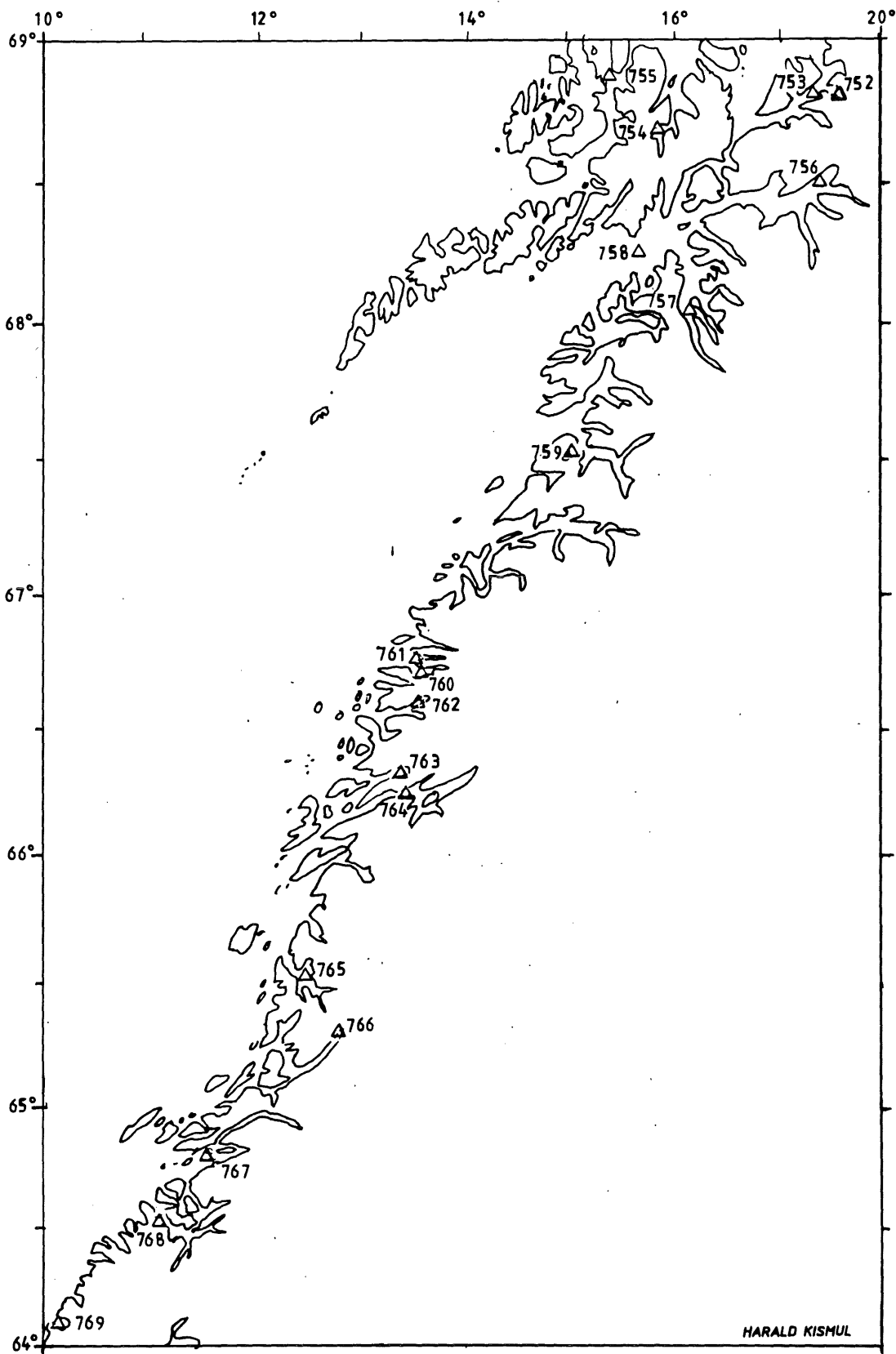


HARALD KISMUL

"MICHAEL SARS"

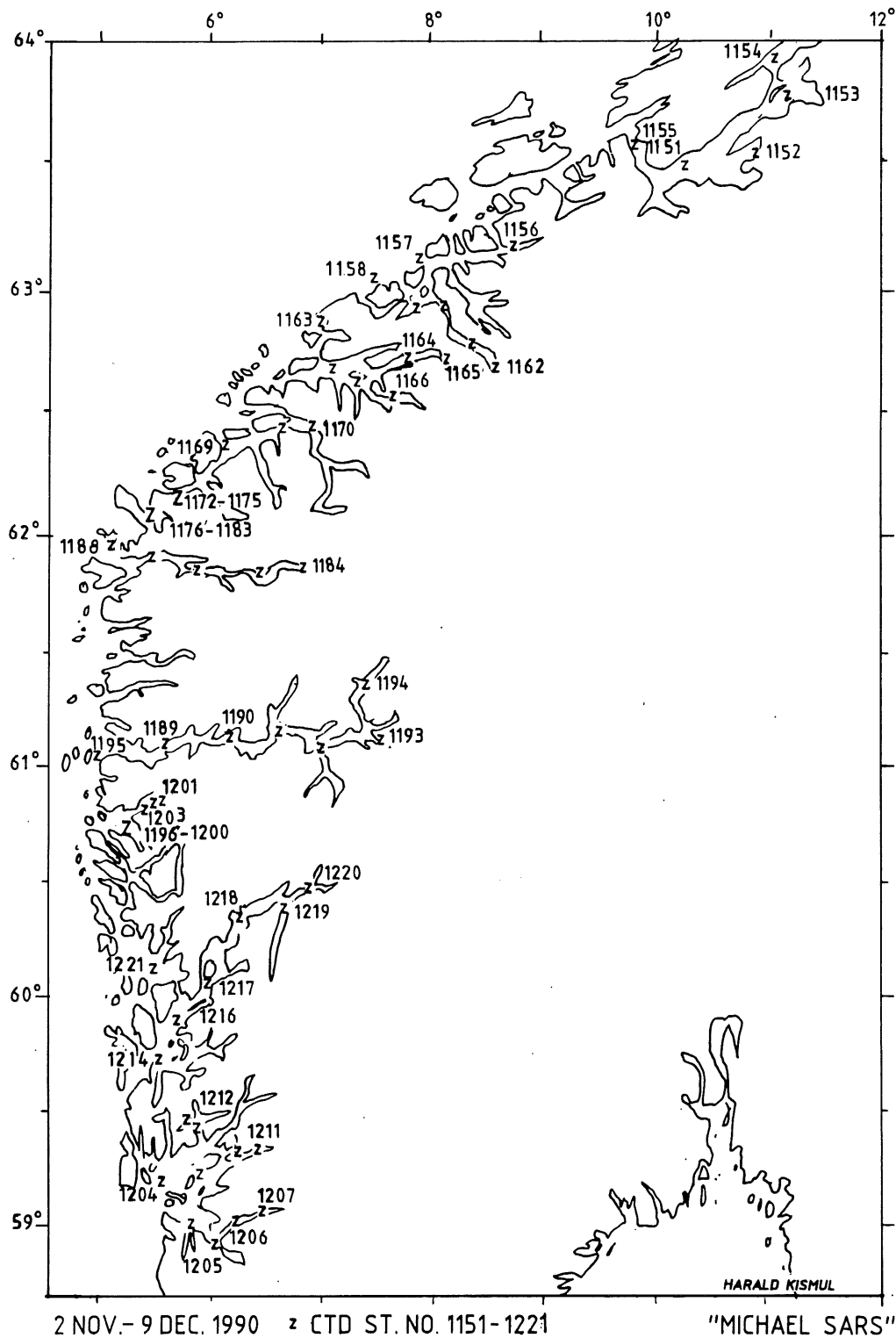
2 NOV.-9 DEC. 1990 Δ TRAWL ST. NO. 733-751

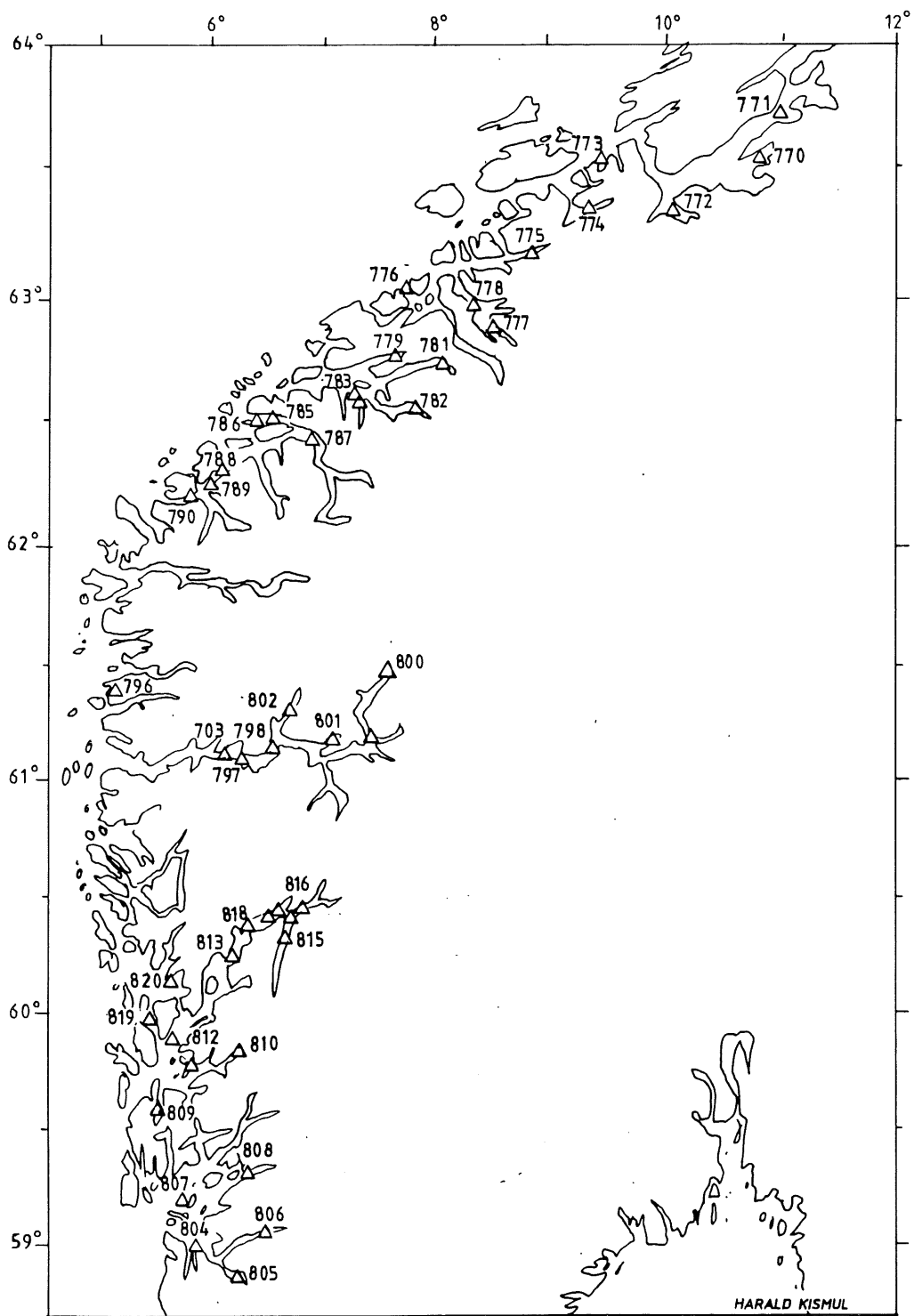




2 NOV. - 9 DEC. 1990 Δ TRAWL ST. NO. 752 - 769

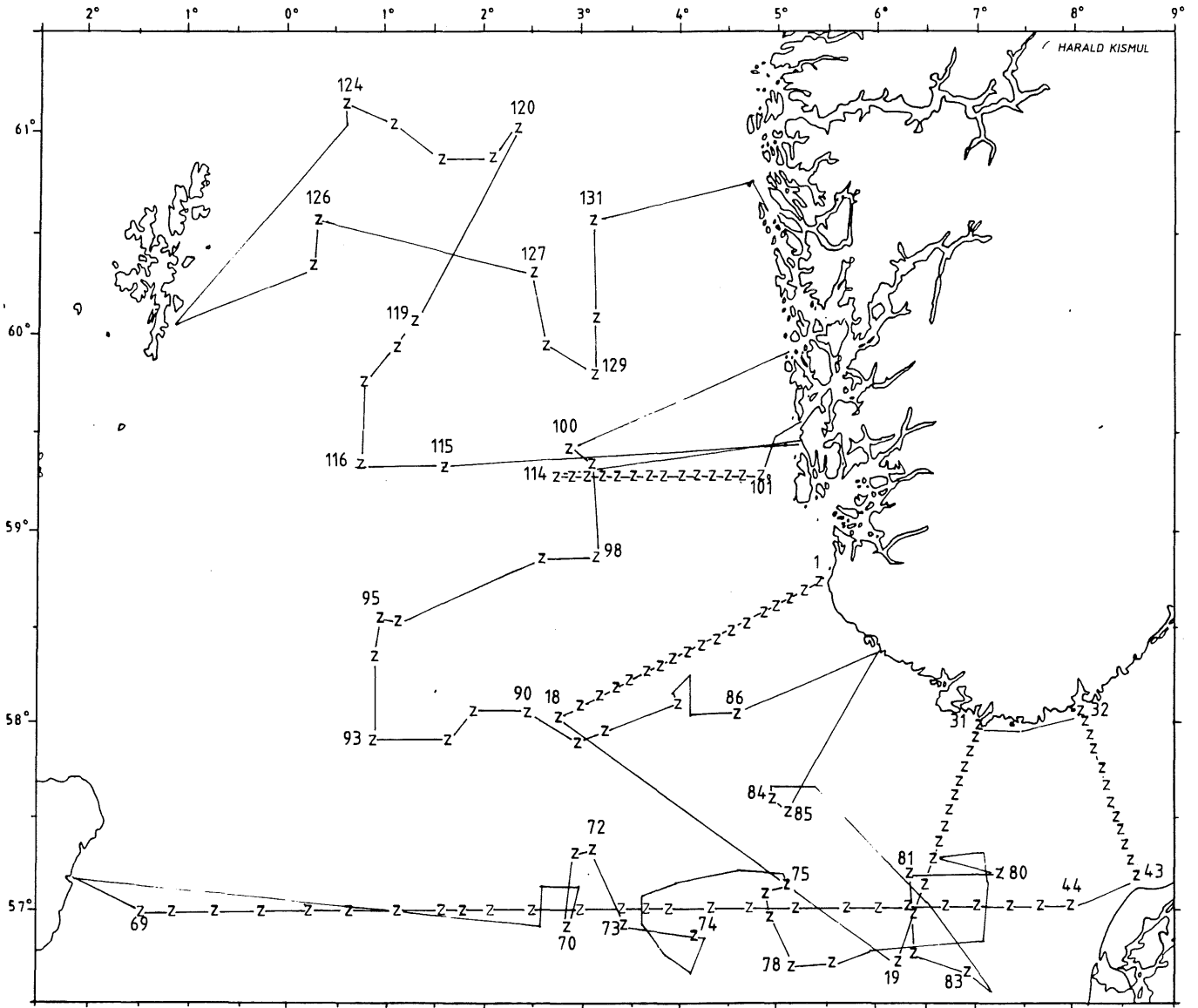
"MICHAEL SARS"





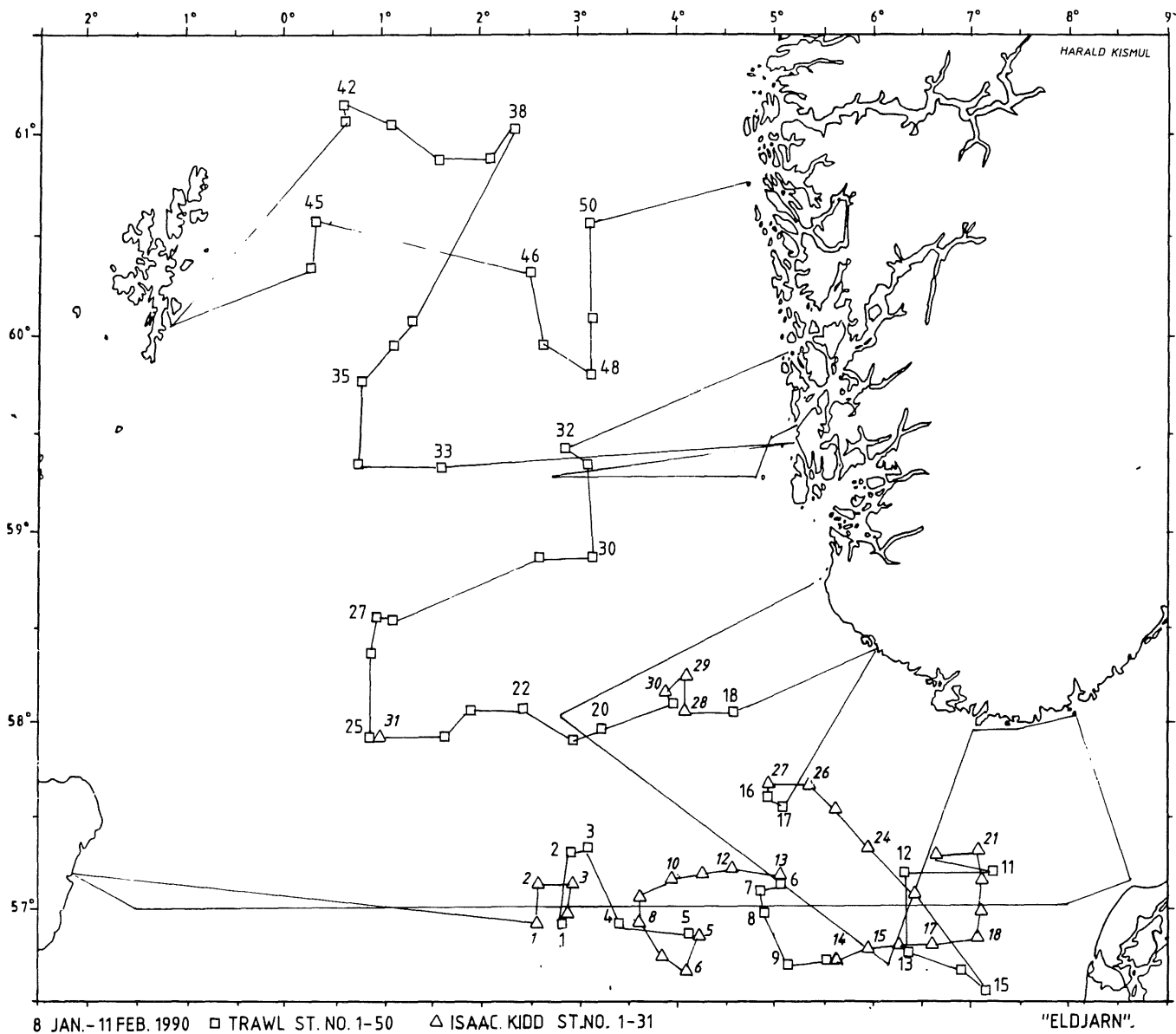
2 NOV.- 9 DEC. 1990 Δ TRAWL ST. NO. 770- 820

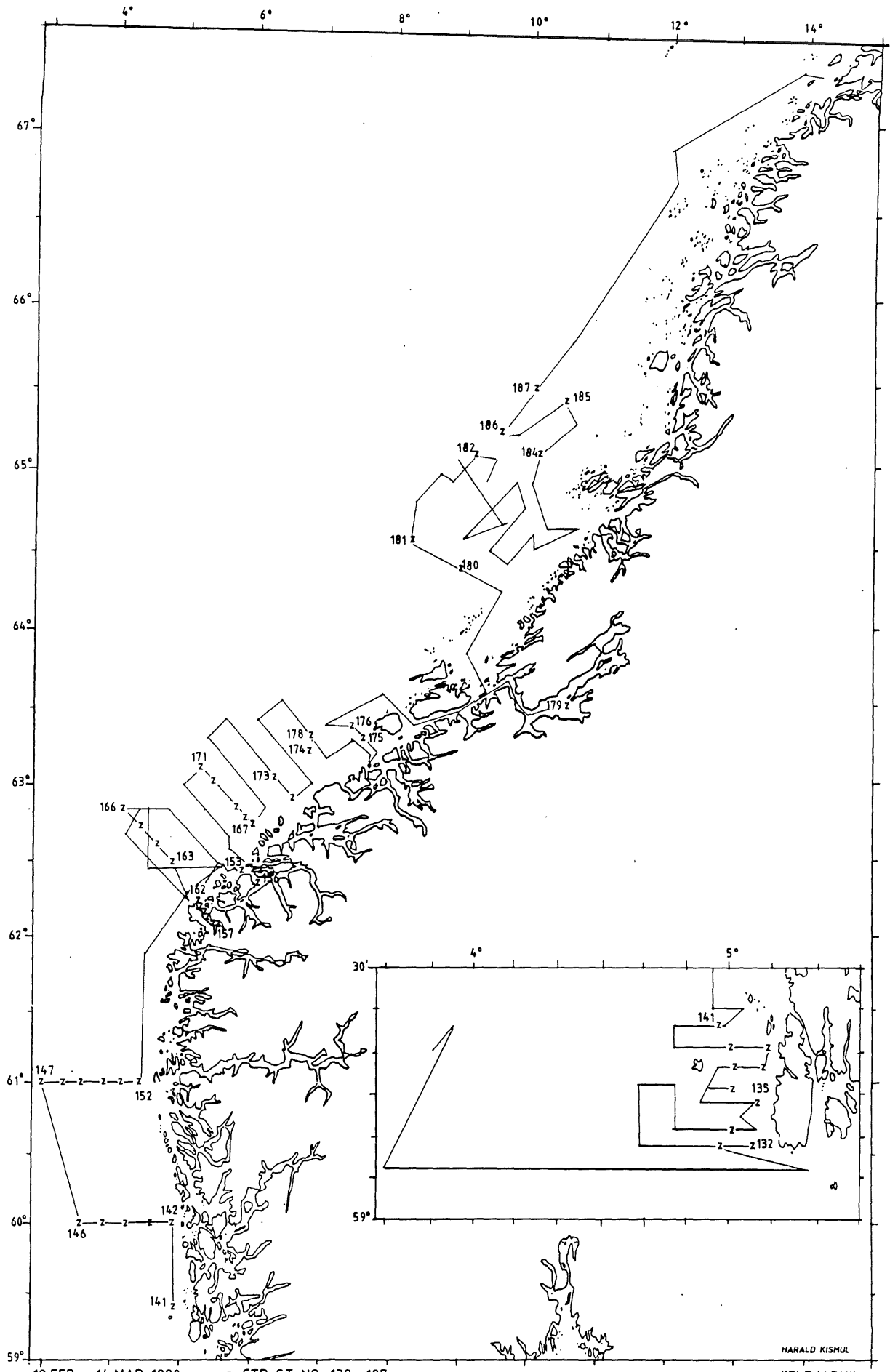
"MICHAEL SARS"



8 JAN. - 11 FEB. 1990 Z CTD ST. NO. 1-131

"ELD JARN"



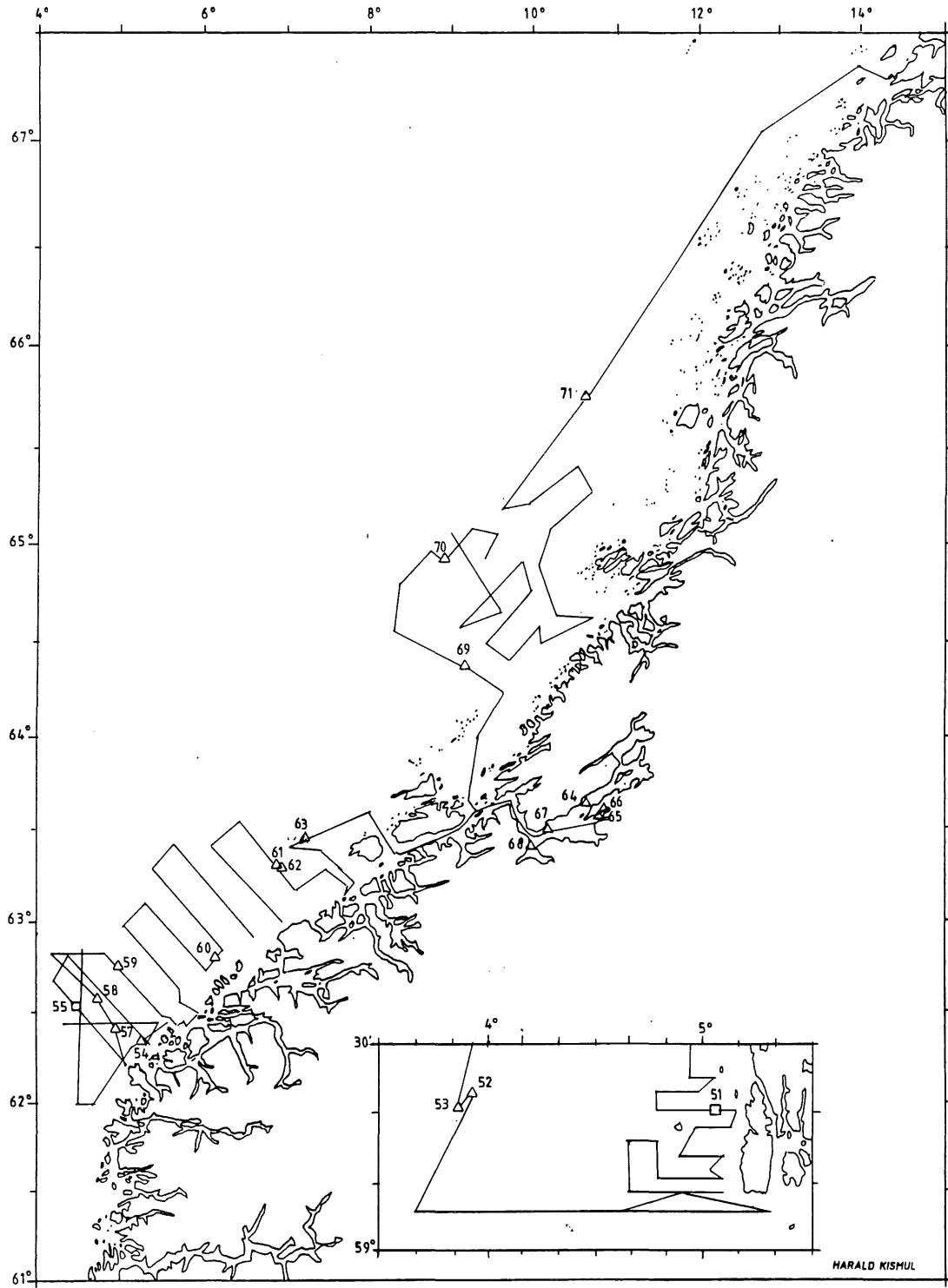


12 FEB. - 14 MAR. 1990

z CTD ST. NO. 132-187

HARALD KISHUL

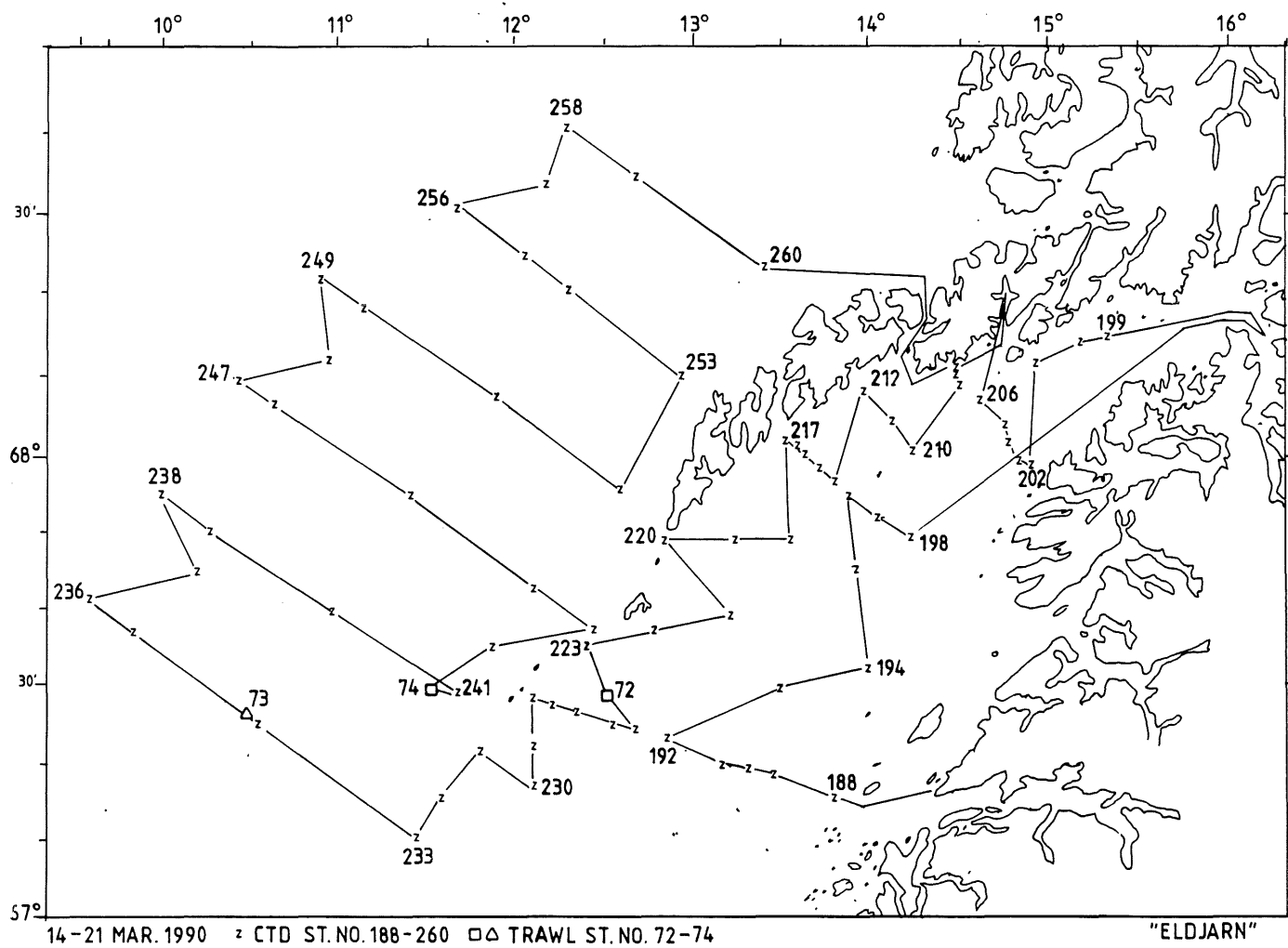
"ELDJARIN"

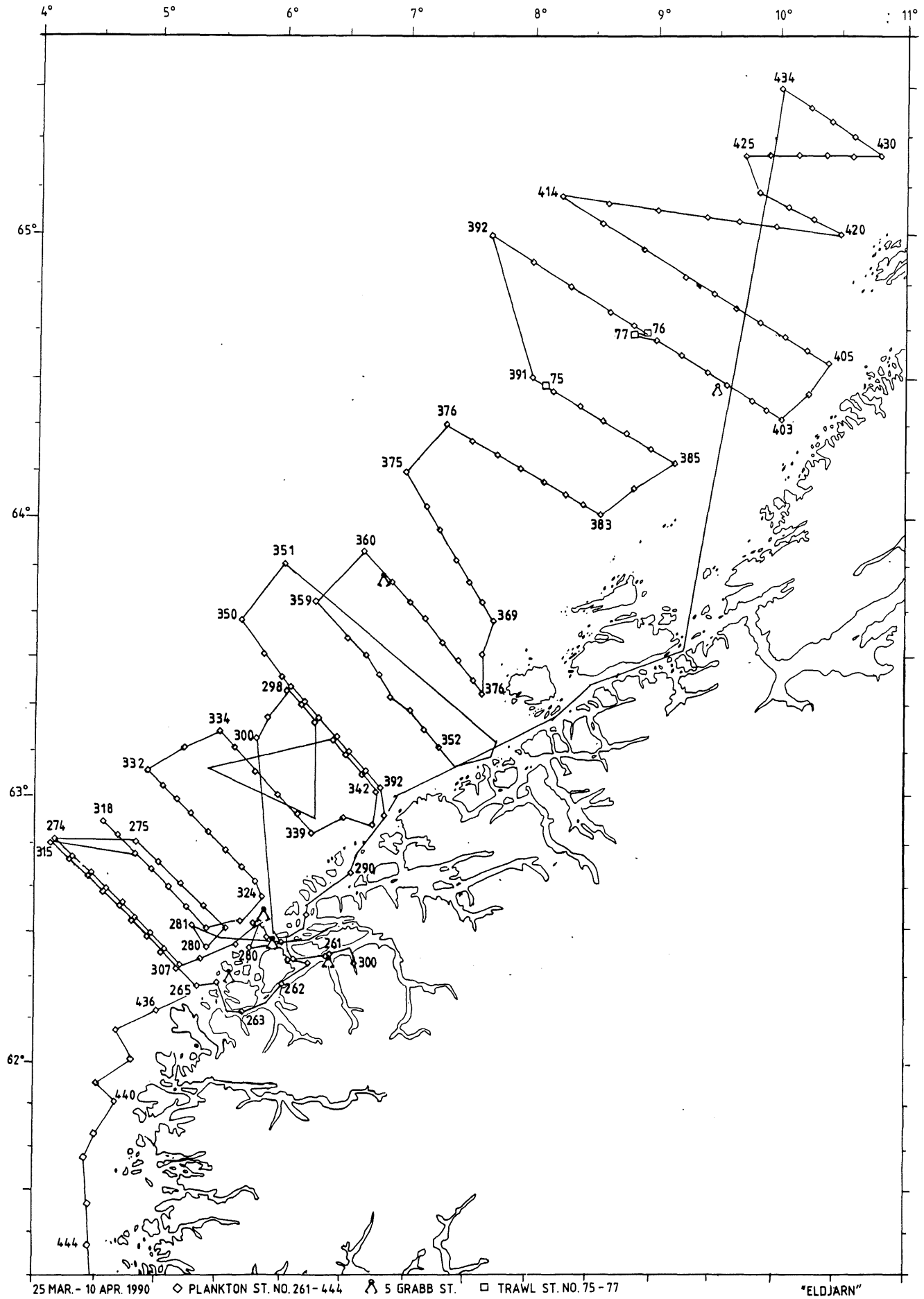


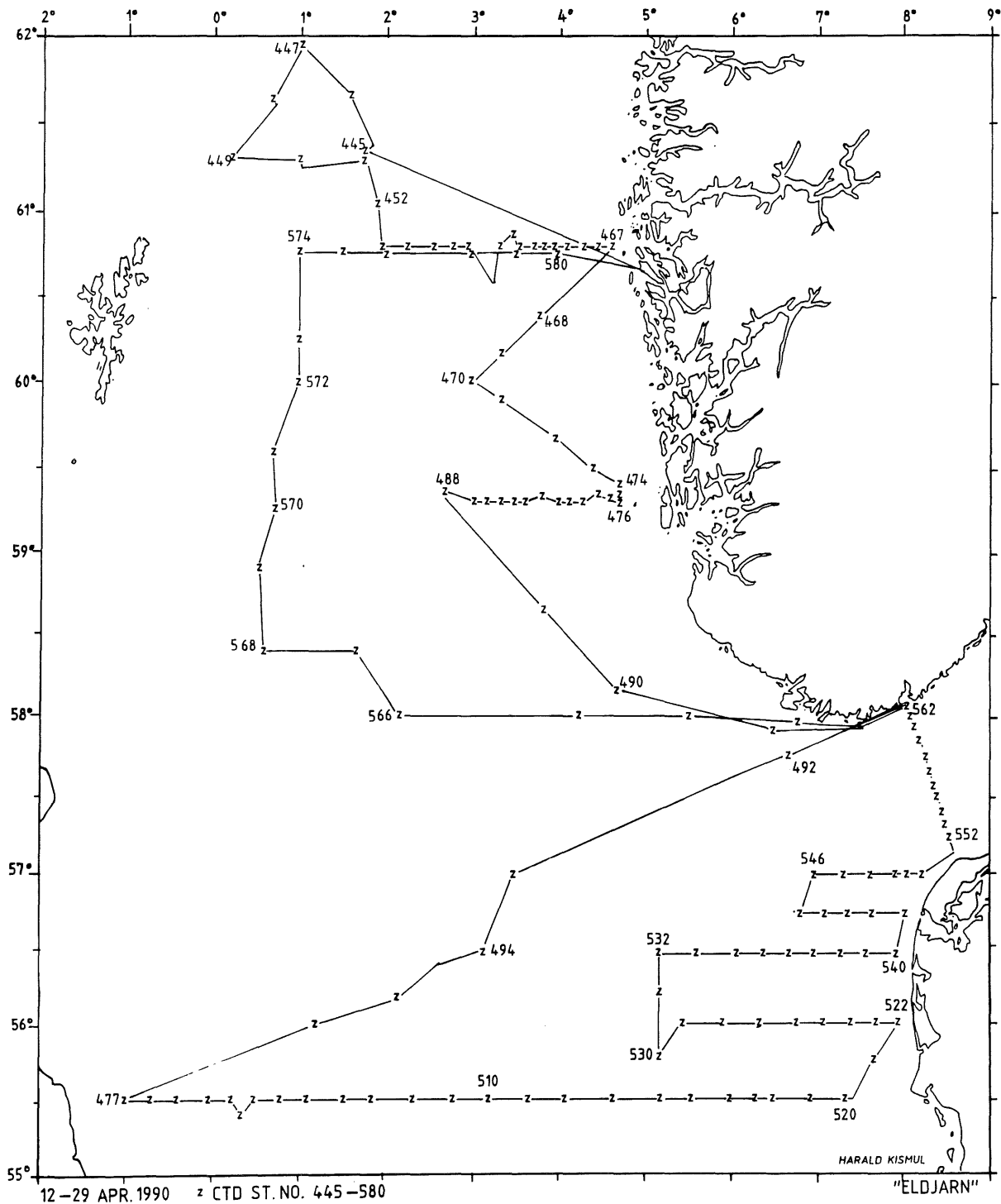
12 FEB. - 14 MAR. 1990 □△TRAWL ST. NO. 51-71

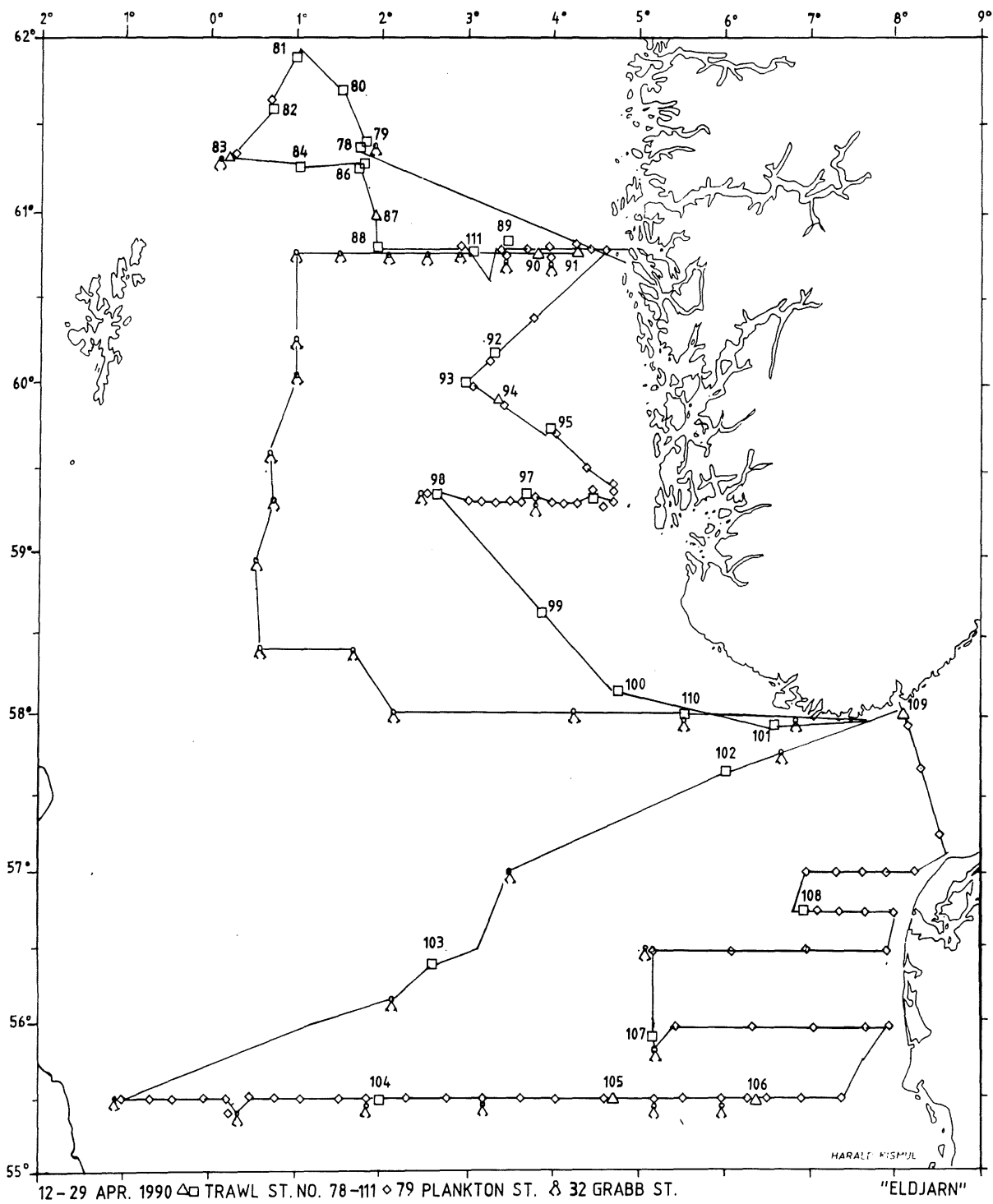
HARALD KISHUL

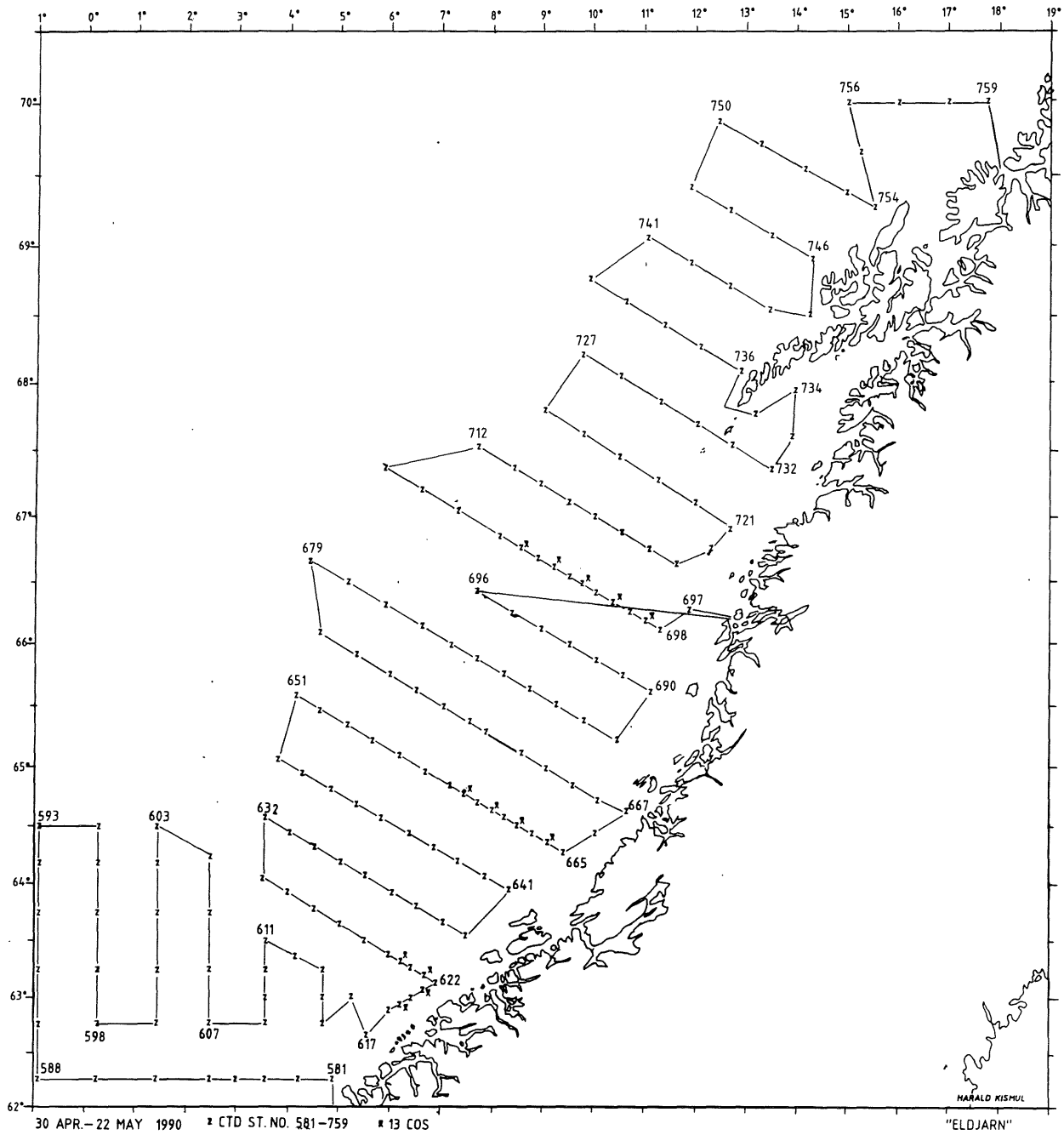
"ELDJARN"

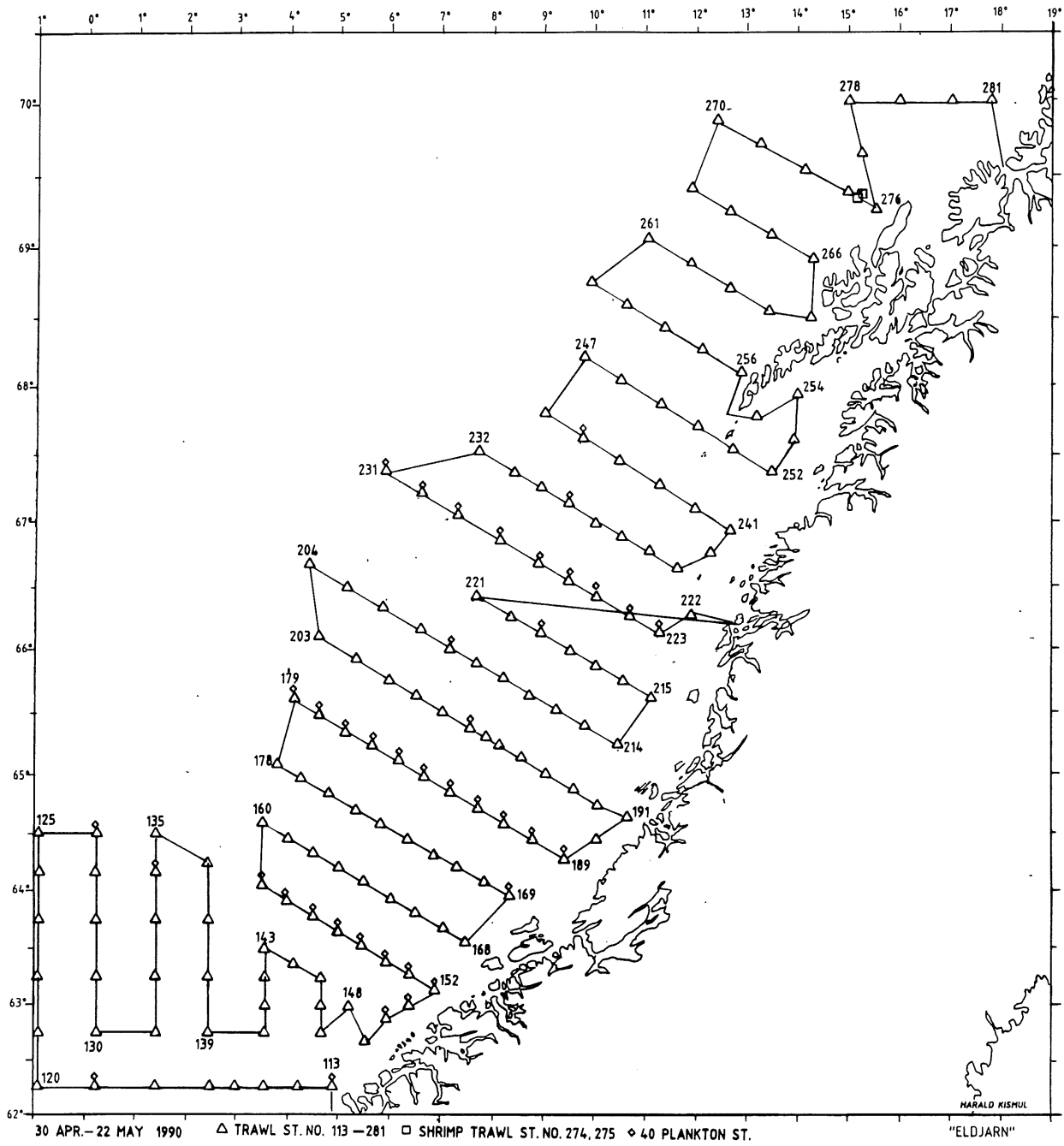


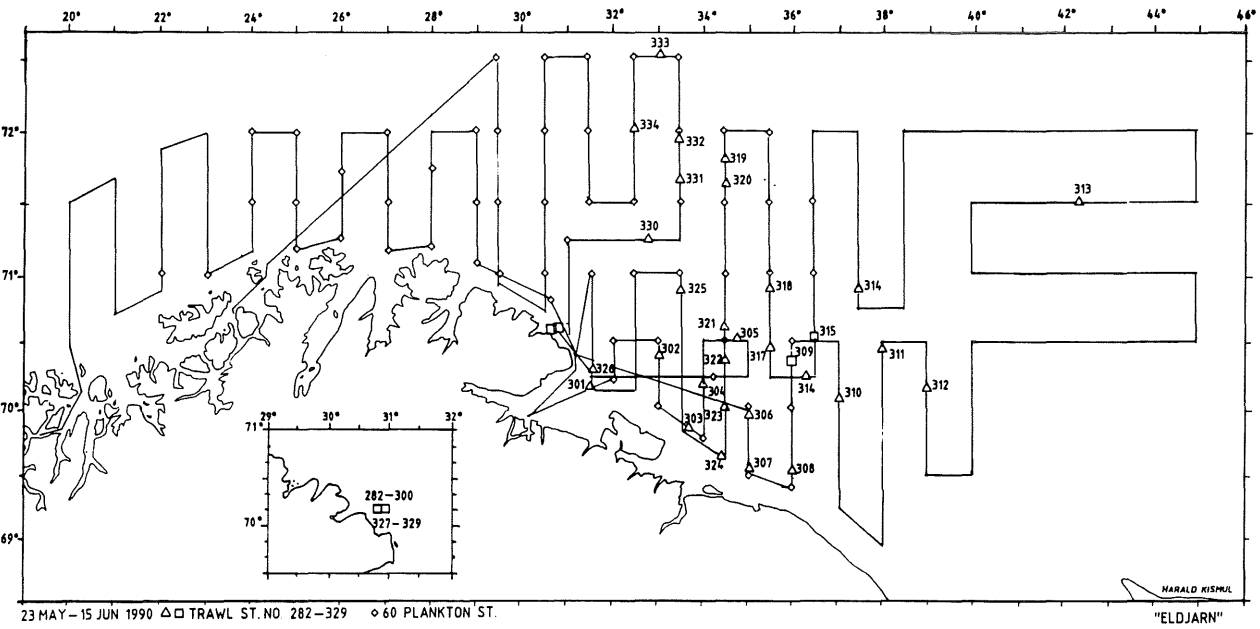
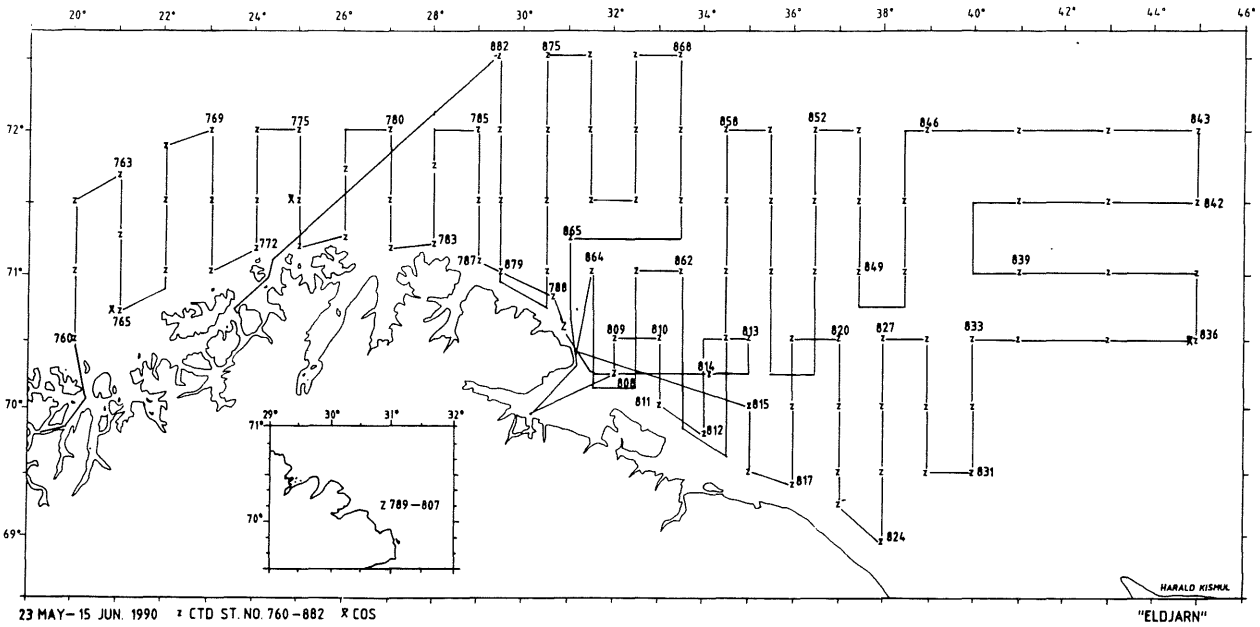


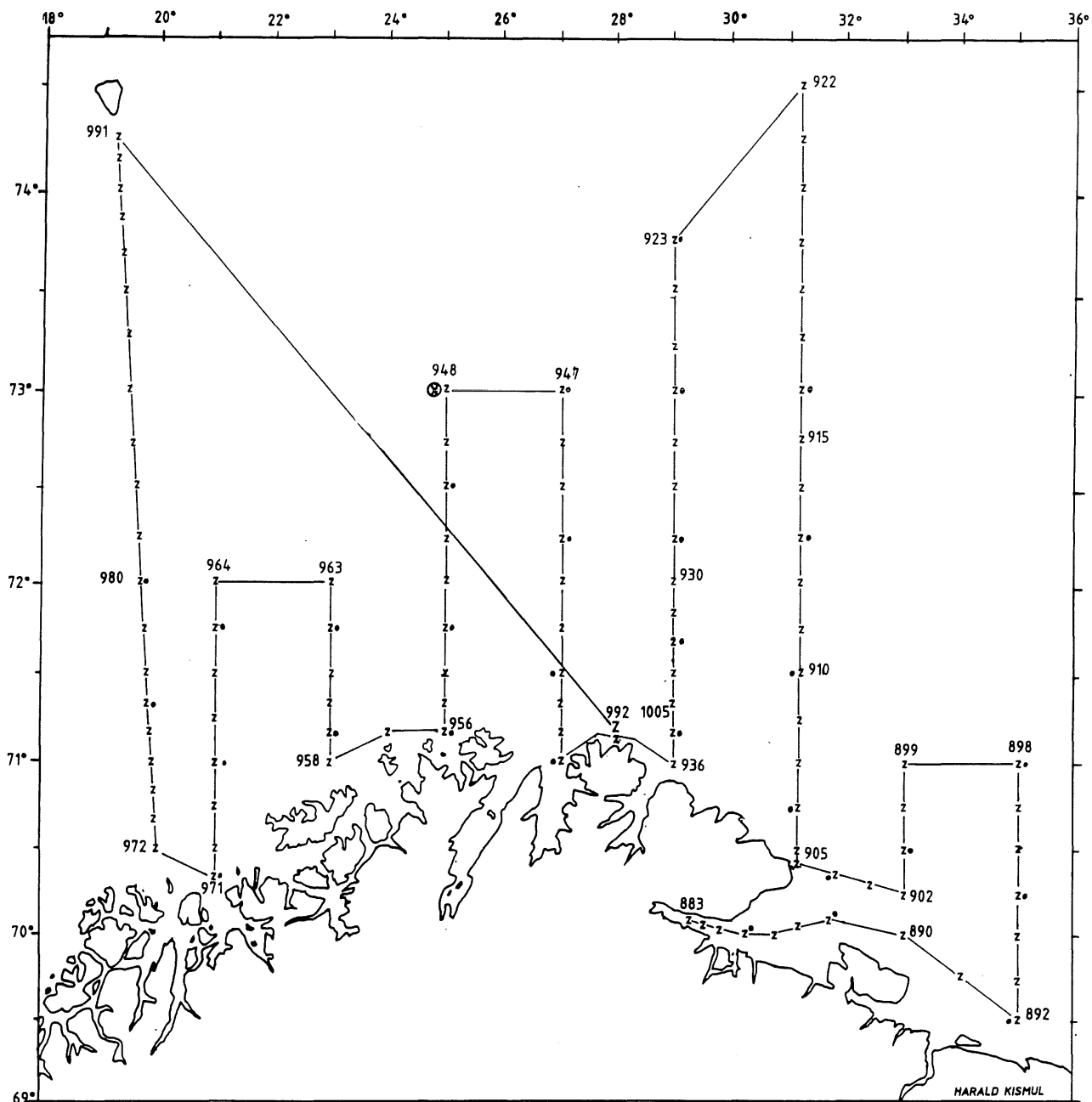








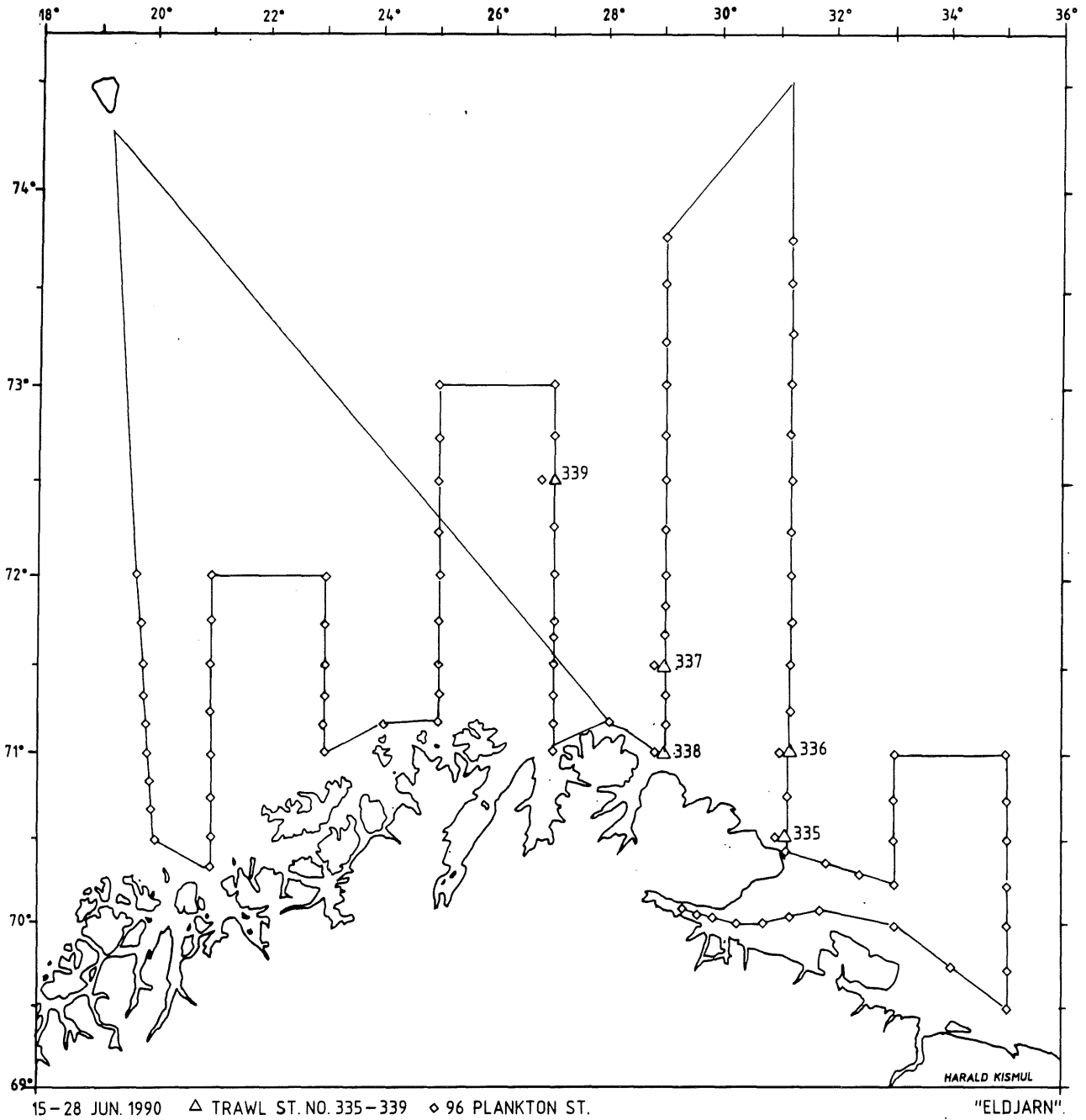


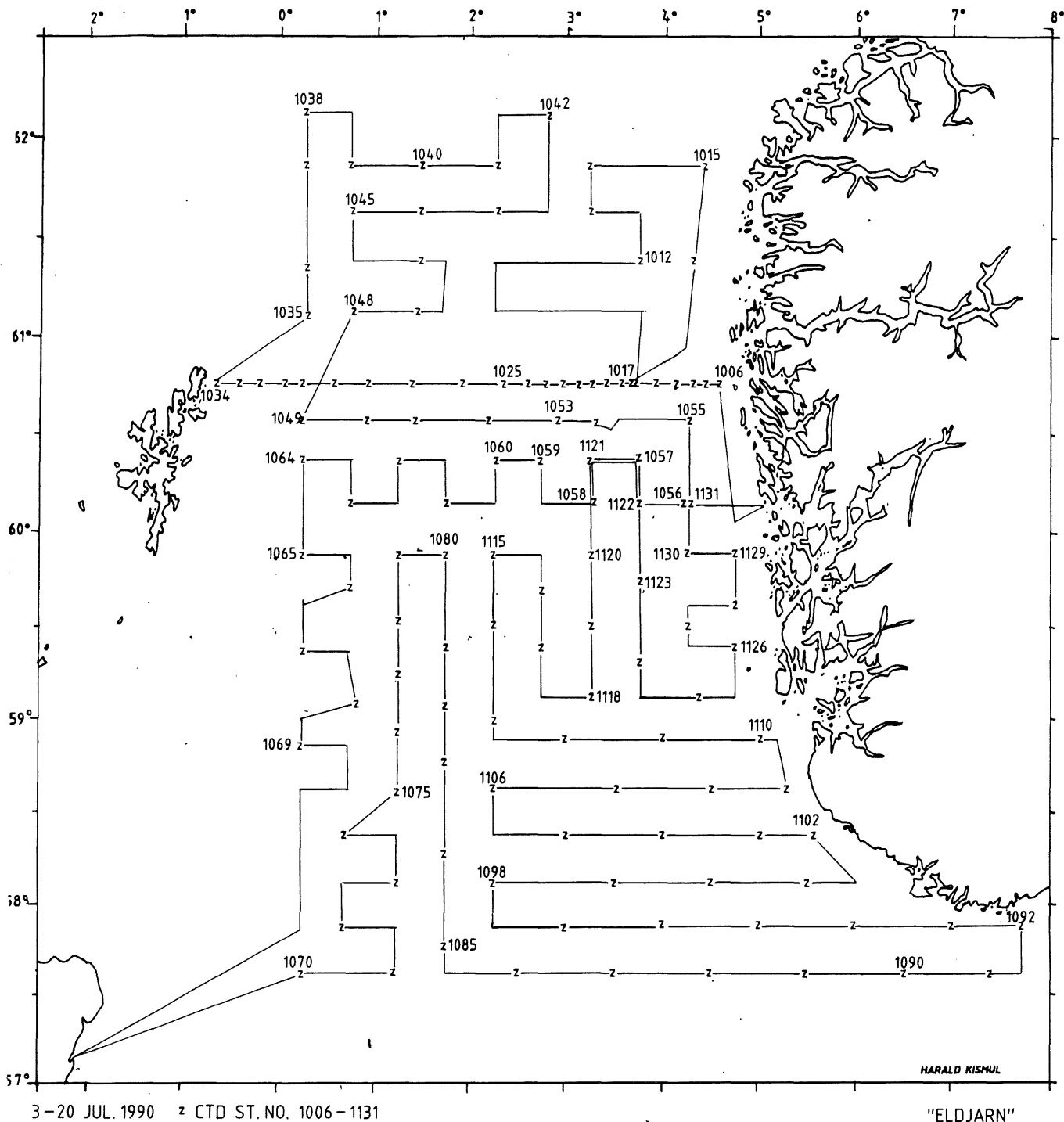


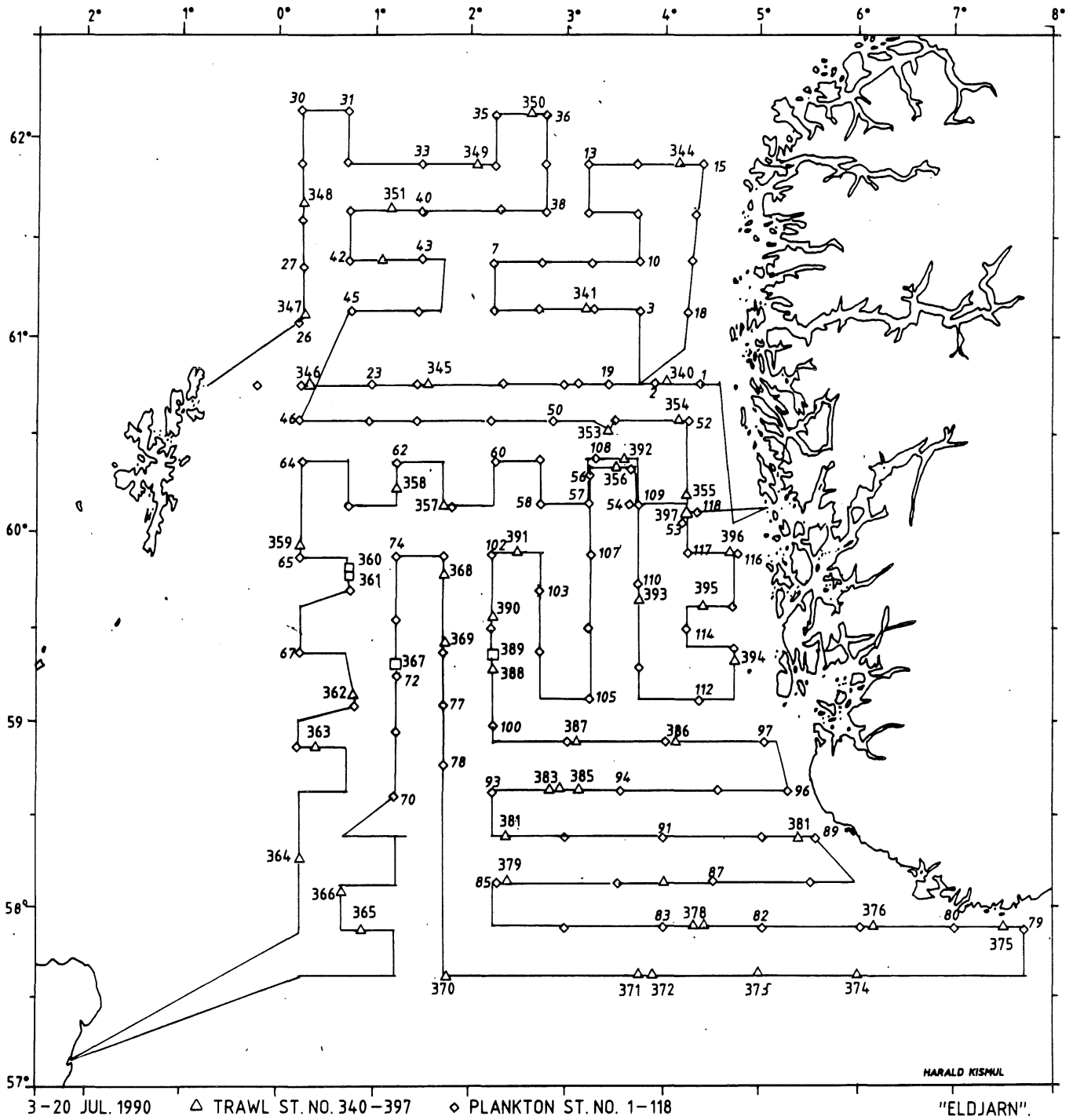
15-28 JUN. 1990 z CTD ST. NO. 883-1005 ⊗ 1 ARGOS DRIFTER • 30 NUTRIENTS, CHLOROPHYLL ST.

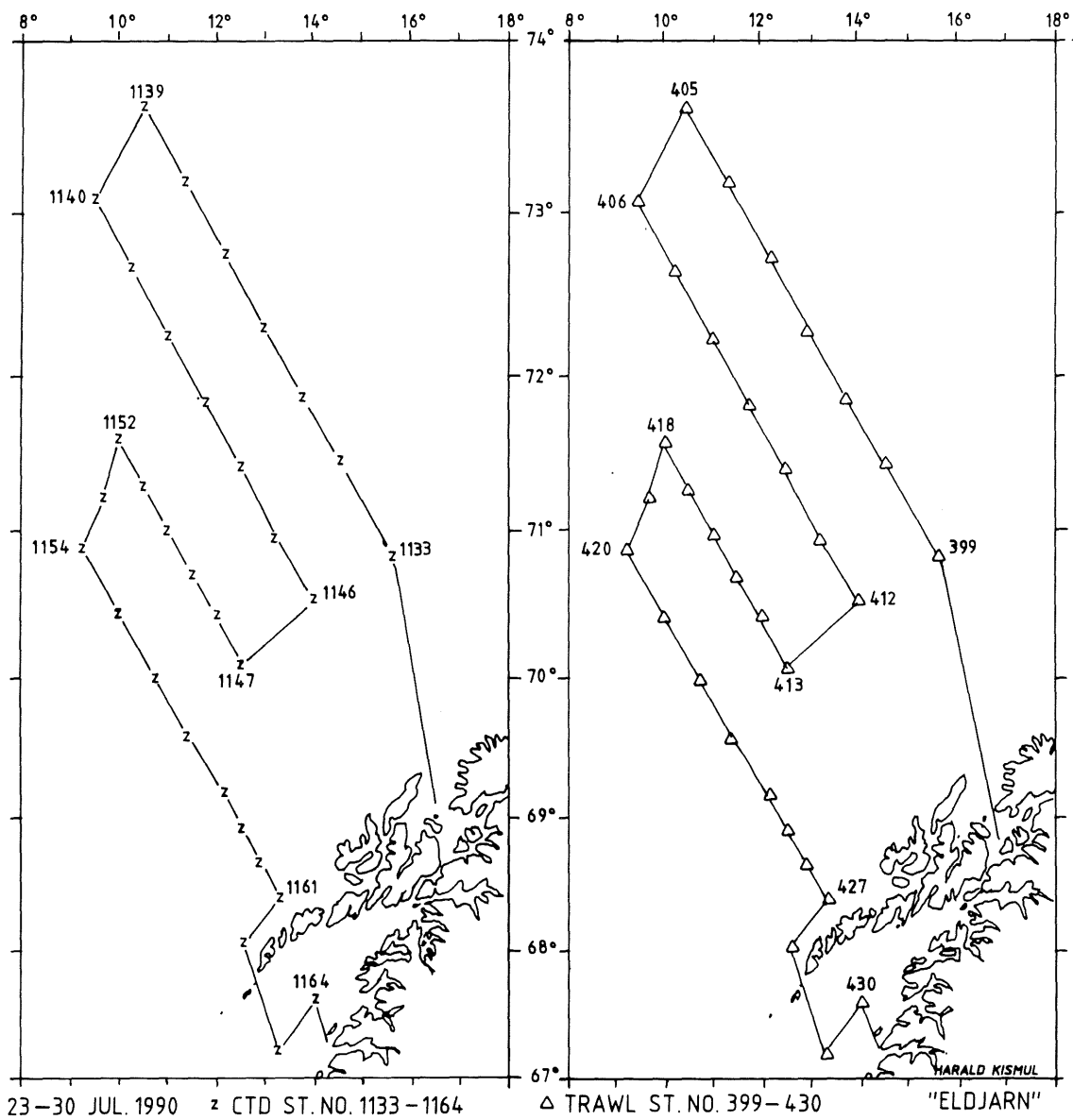
"ELDJARN"

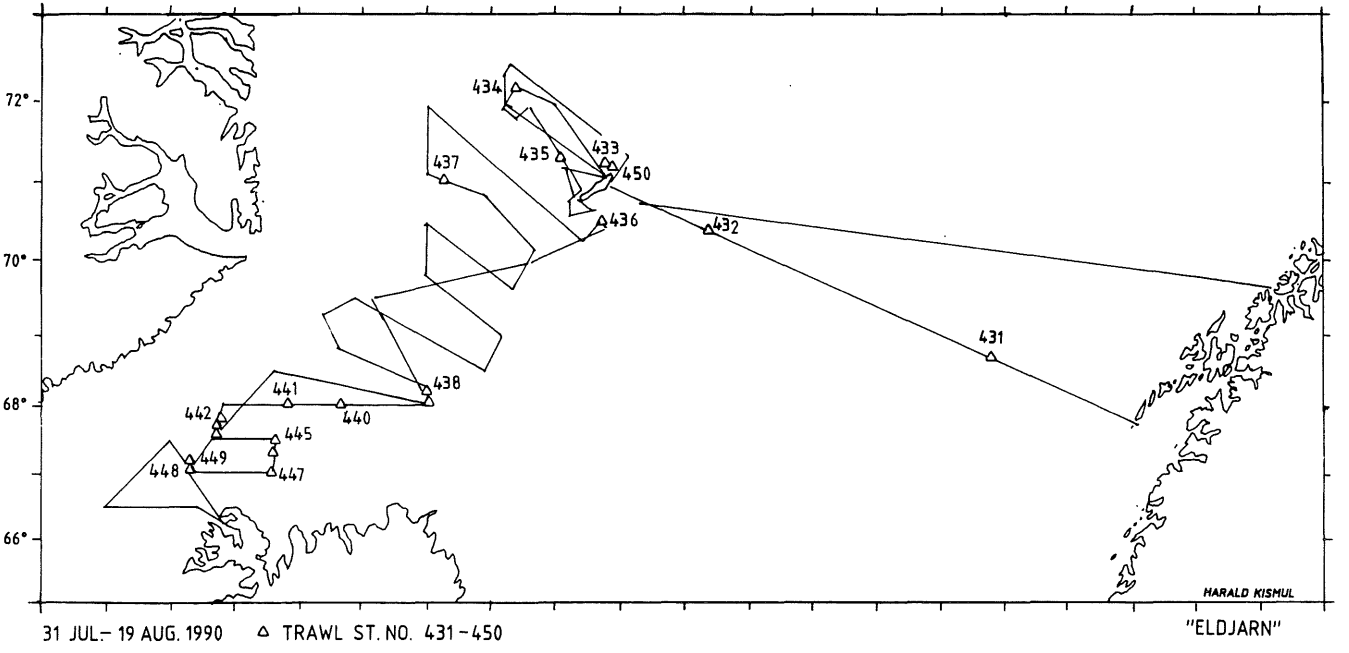
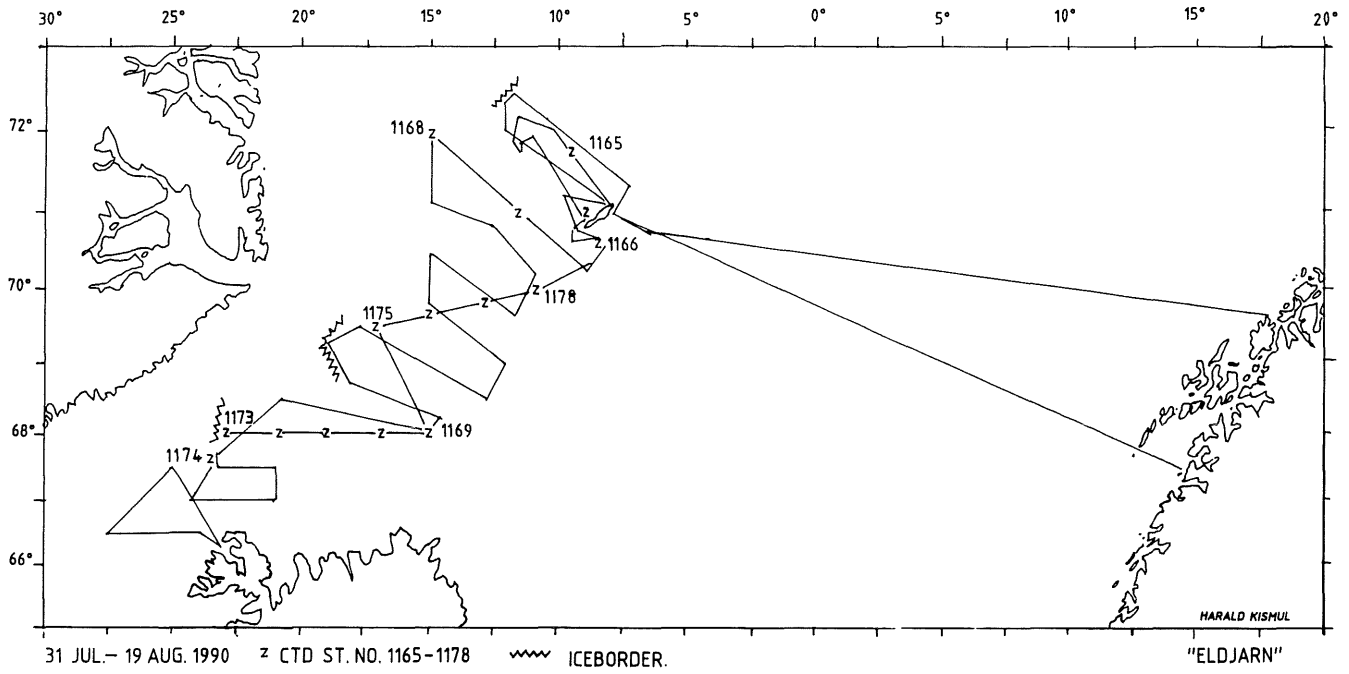
HARALD KISMUL

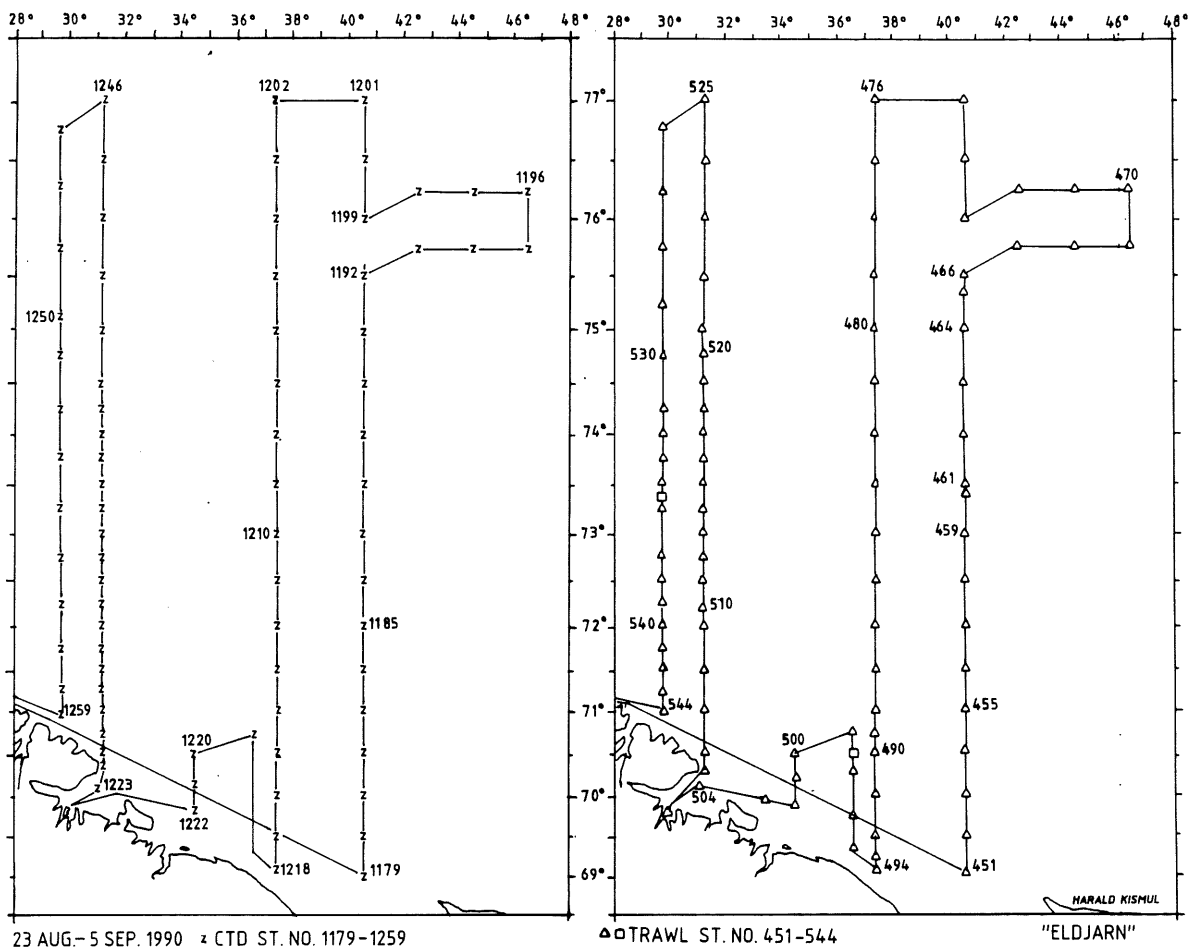


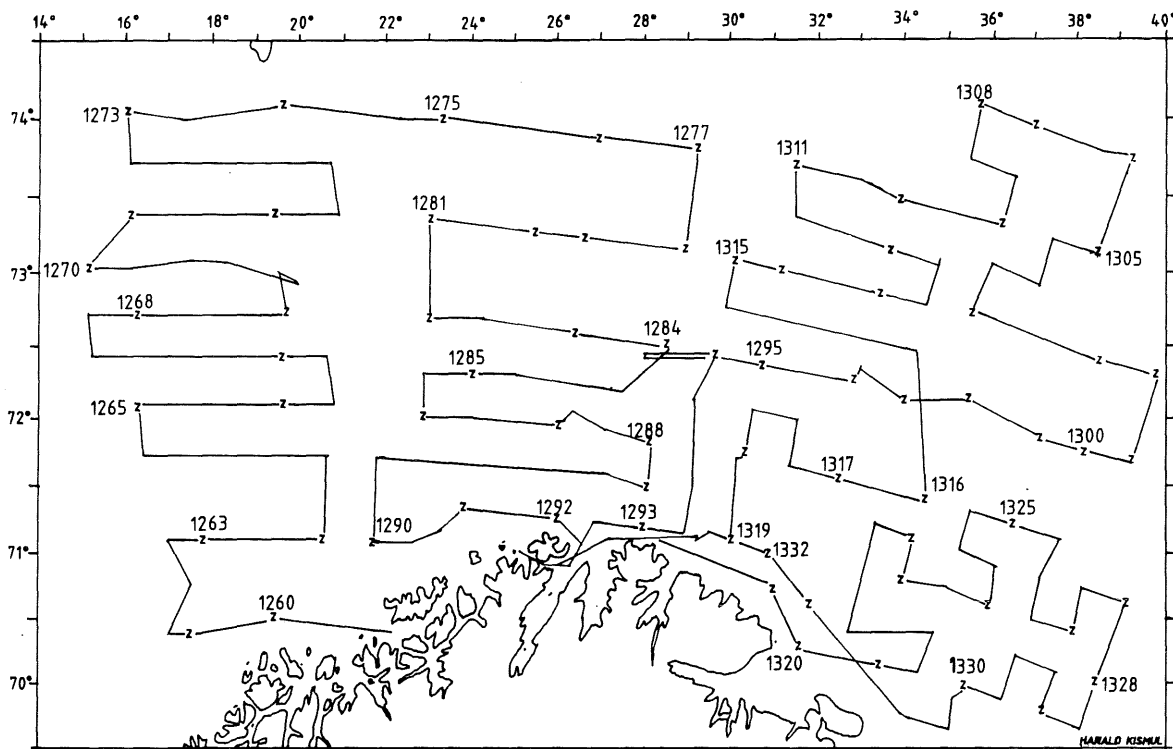




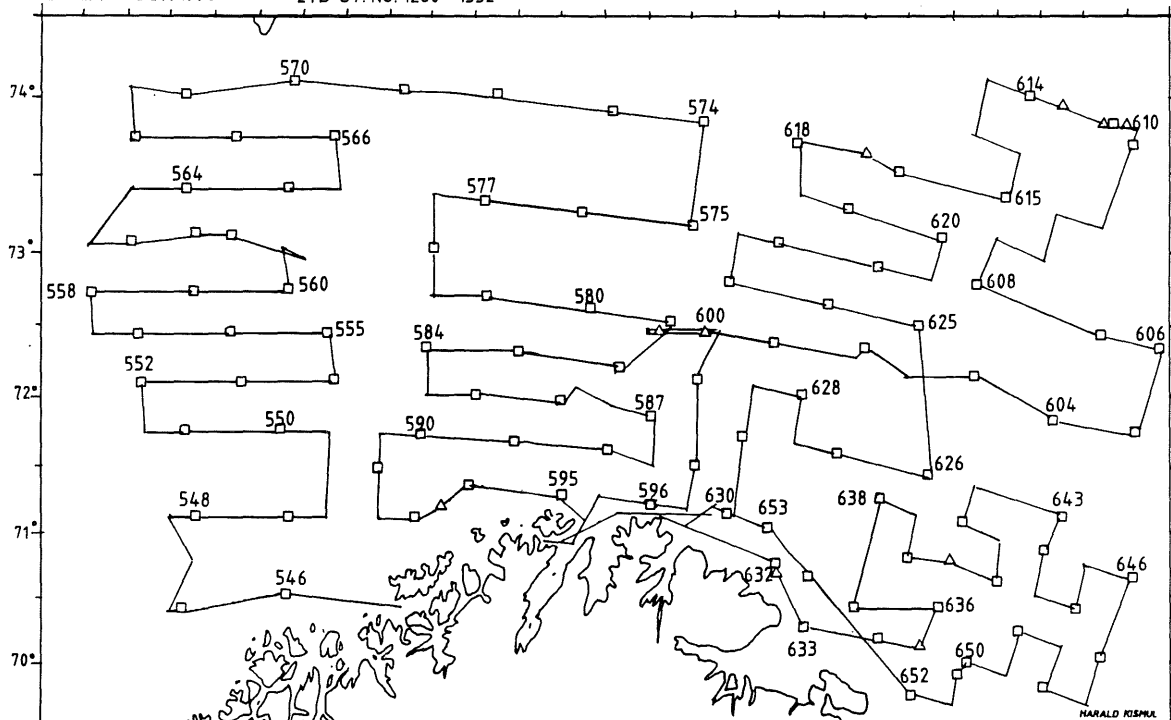




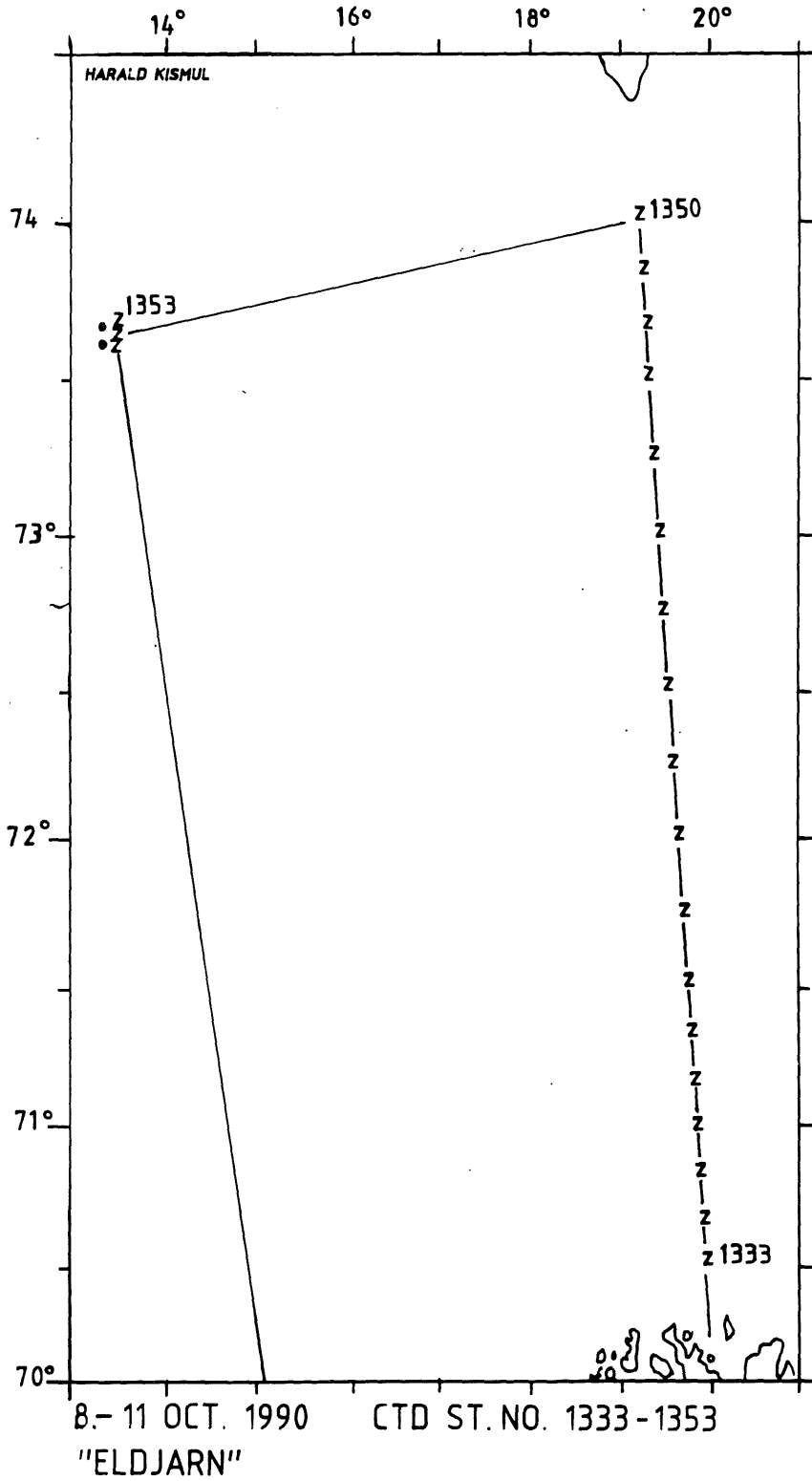


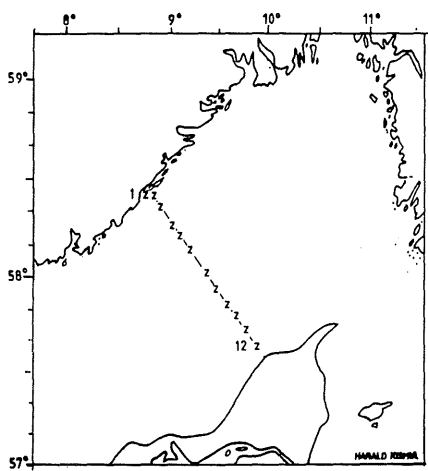


8 SEP.- 7 OCT. 1990 z CTD ST. NO. 1260-1332

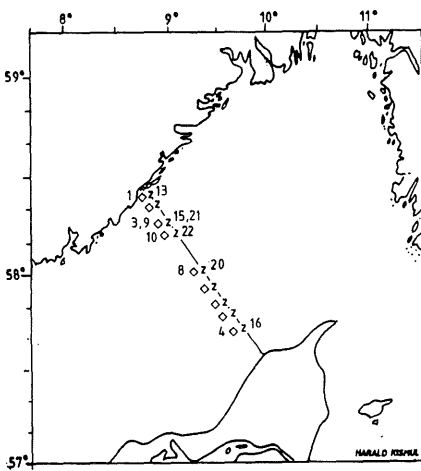


8 SEP.- 7 OCT. 1990 □ TRAWL ST. NO. 546-653

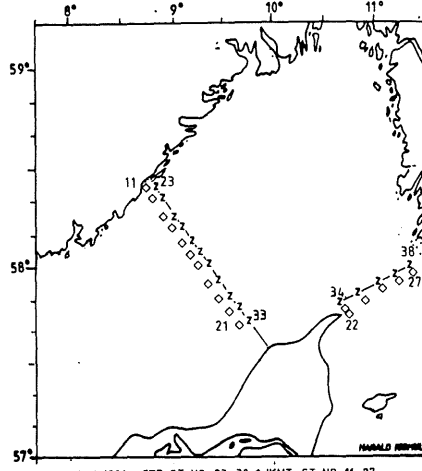




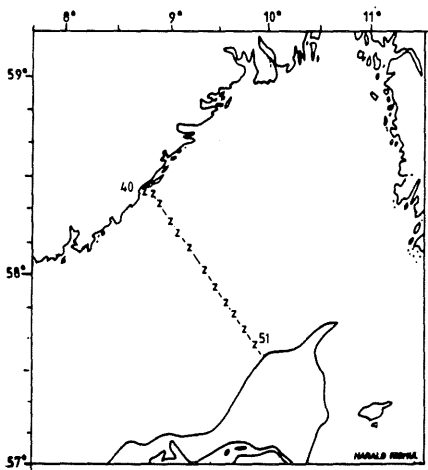
8 JAN. 1990 z CTD ST. NO. 1-12. "G.M. DANNEVIG"



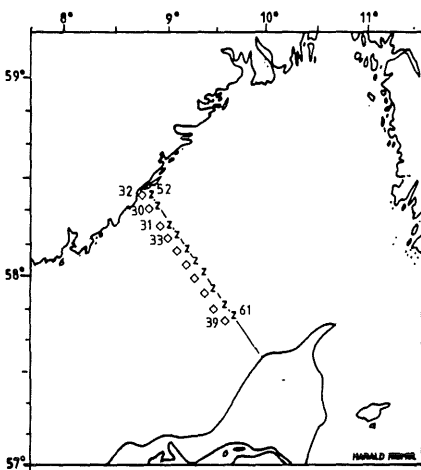
10-12 JAN. 1990 z CTD ST. NO. 13-22 ◊ IKMT ST. NO. 1-10. "G.M. DANNEVIG"



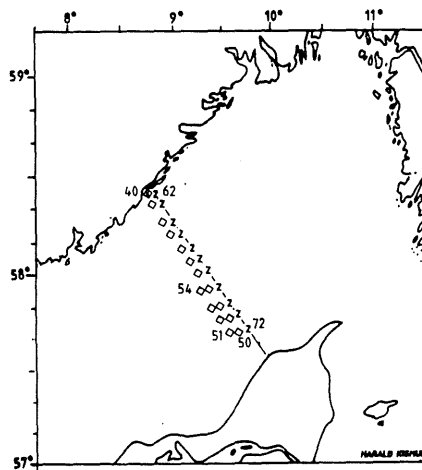
22-26 JAN. 1990 z CTD ST. NO. 23-38 ◊ IKMT ST. NO. 11-27. "G.M. DANNEVIG"



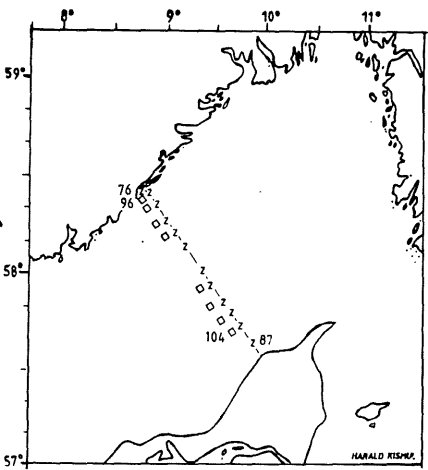
4-5 FEB. 1990 z CTD ST. NO. 40-51. "G.M. DANNEVIG"



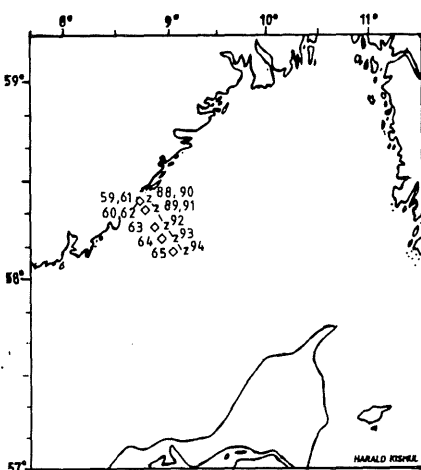
7-9 FEB. 1990 z CTD ST. NO. 52-61 ◊ IKMT ST. NO. 30-39. "G.M. DANNEVIG"



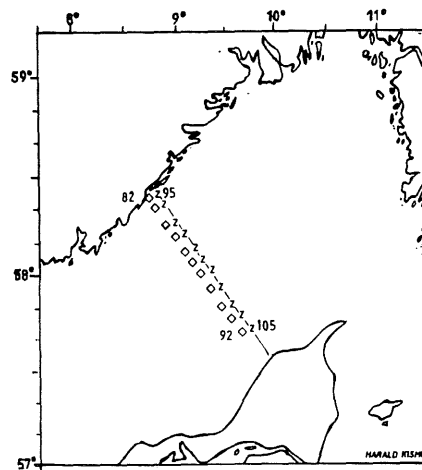
16-21 FEB. 1990 z CTD ST. NO. 62-72 ◊ IKMT ST. NO. 40-54. "G.M. DANNEVIG"



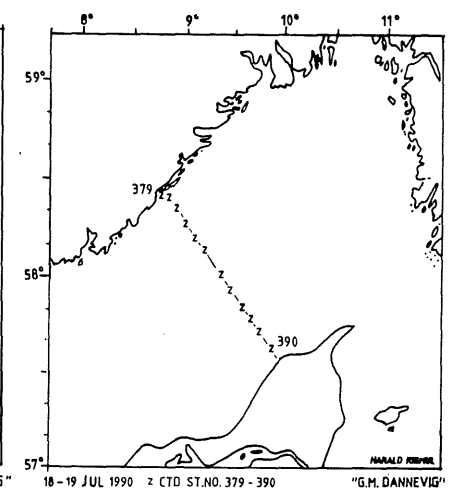
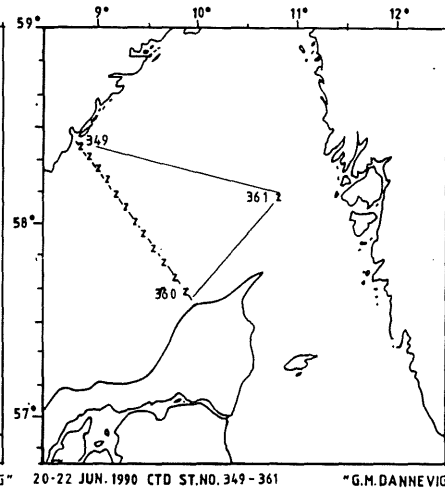
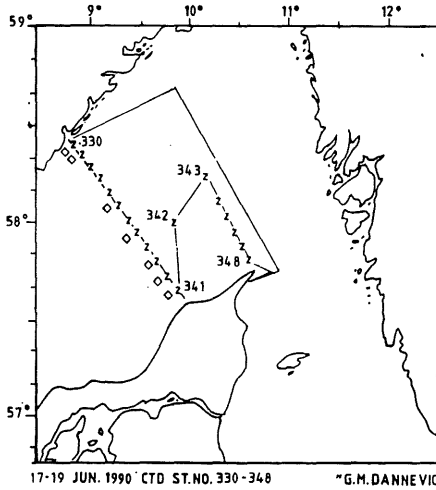
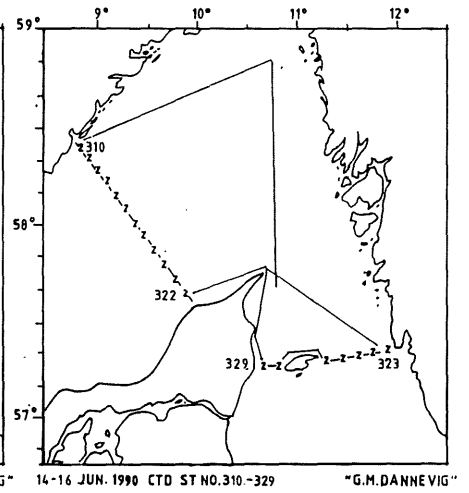
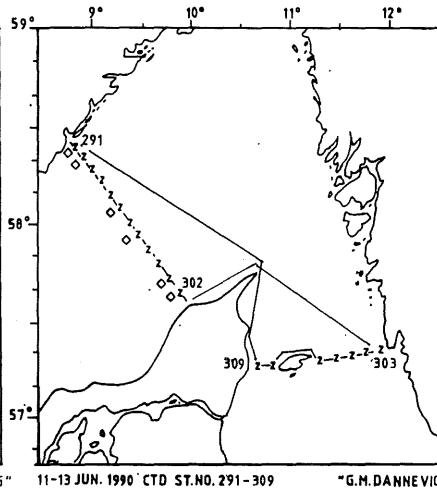
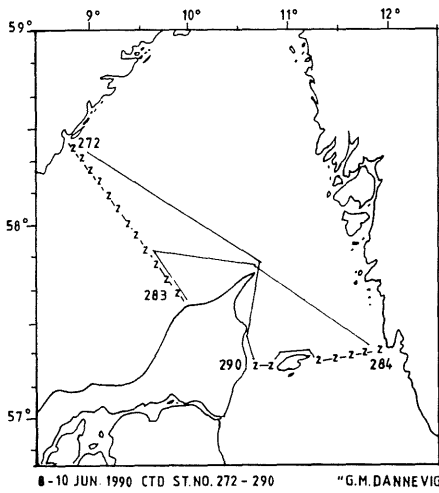
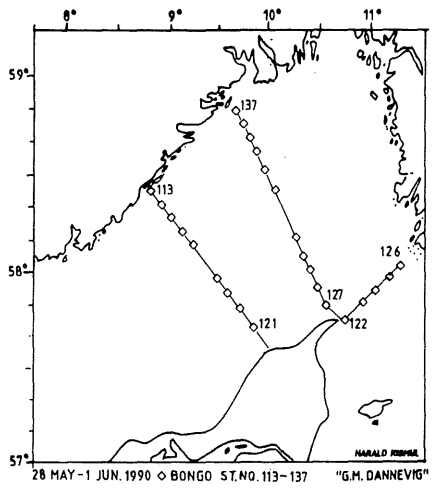
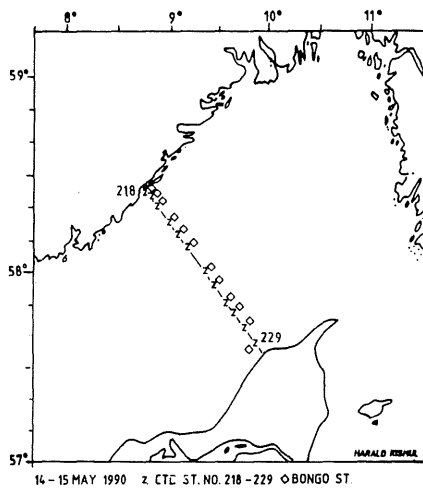
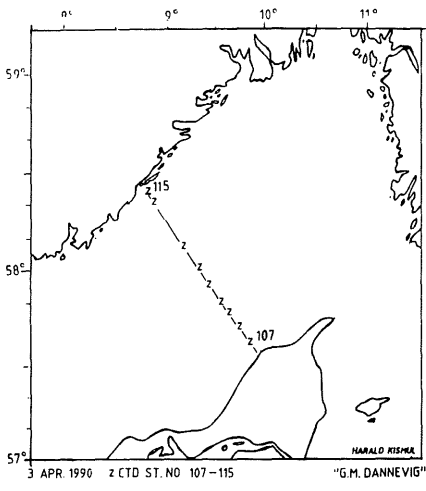
1-3 MAR. 1990 z CTD ST. NO. 76-87 ◊ BONGO ST. NO. 96-104. "G.M. DANNEVIG"

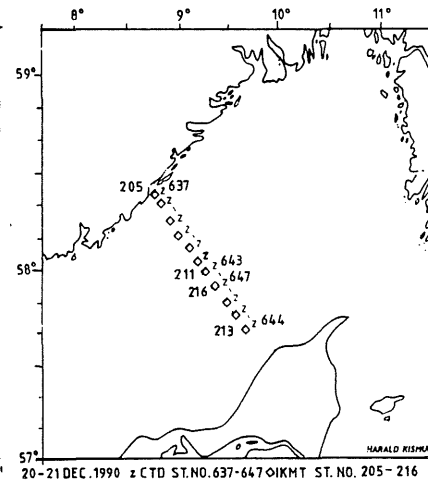
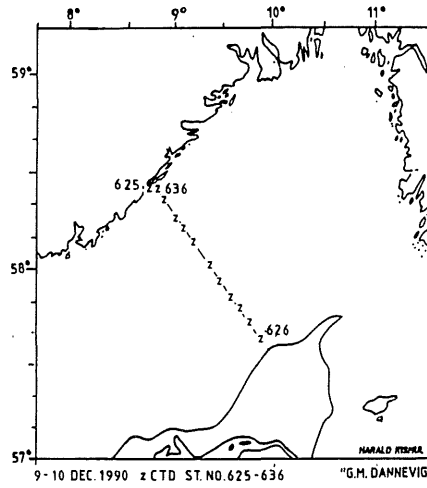
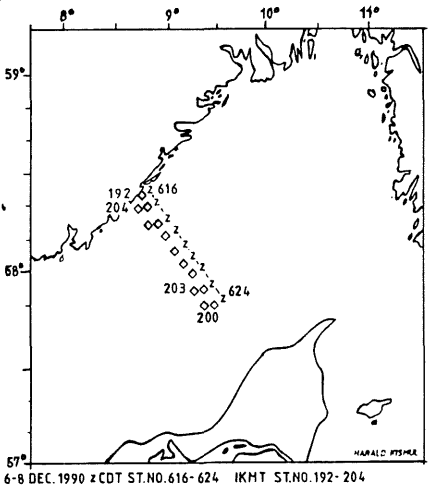
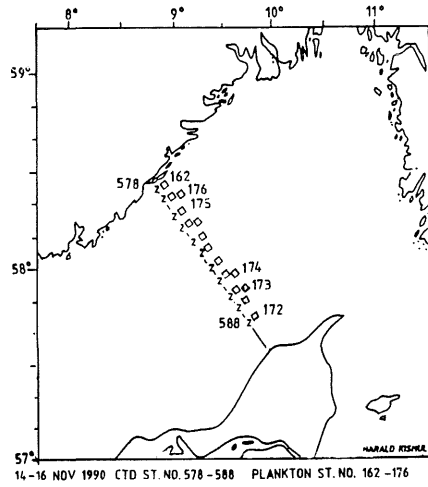
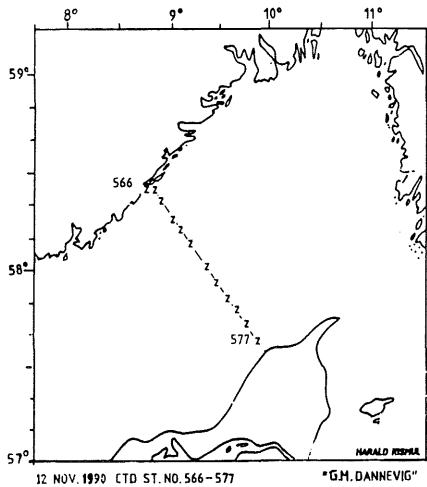
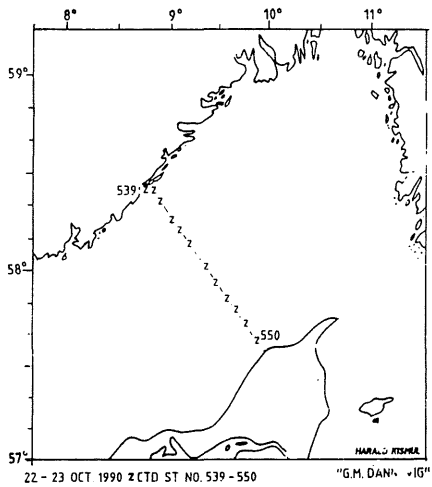
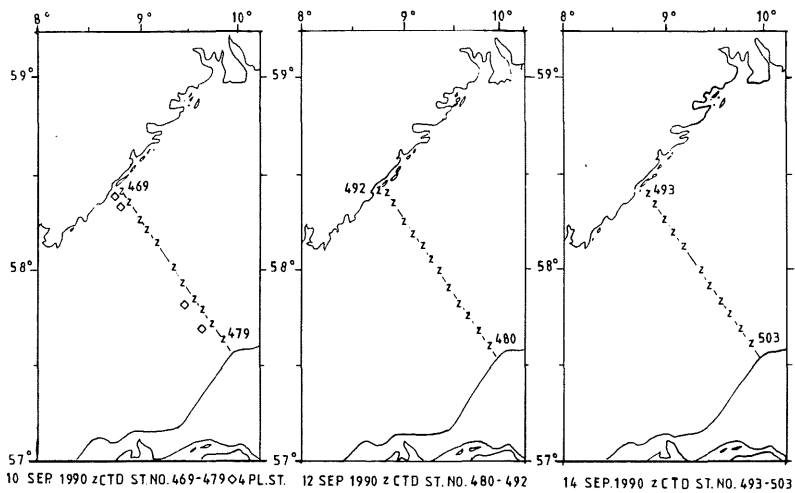
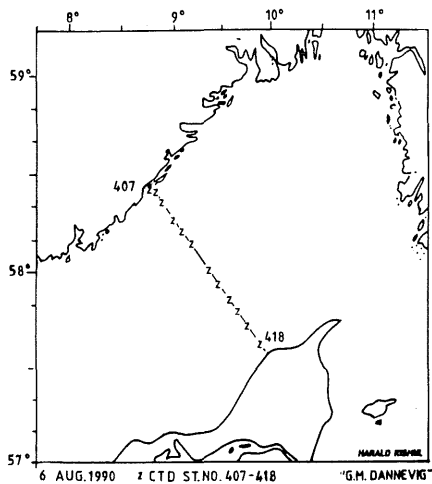


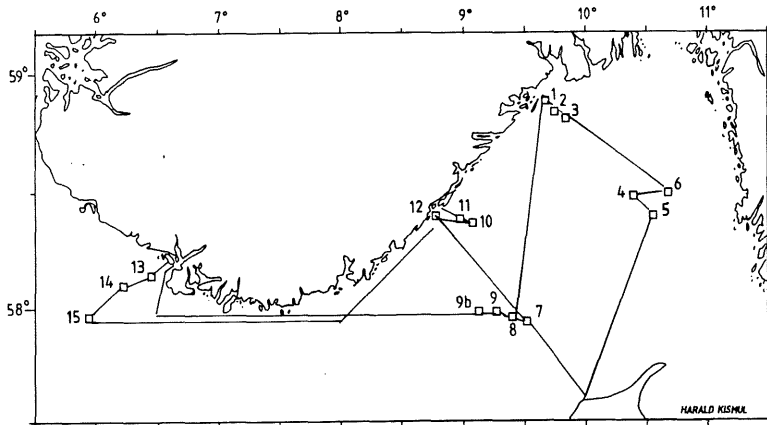
5-7 MAR. 1990 z CTD ST. NO. 88-94 ◊ IKMT ST. NO. 59-65. "G.M. DANNEVIG"



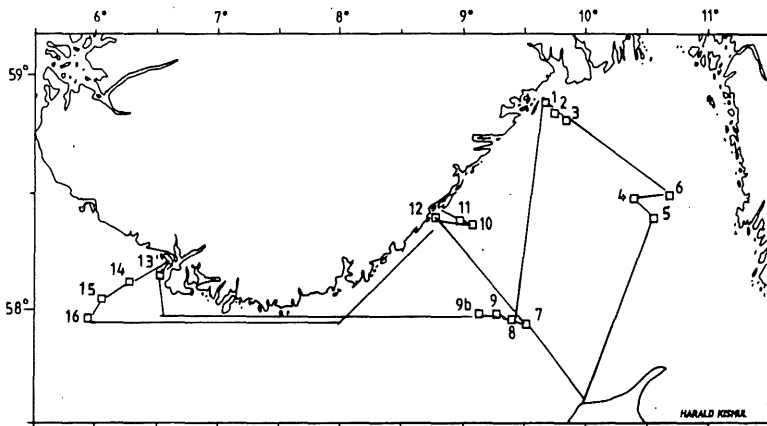
20-23 MAR. 1990 z CTD ST. NO. 95-105 ◊ IKMT ST. NO. 82-92. "G.M. DANNEVIG"



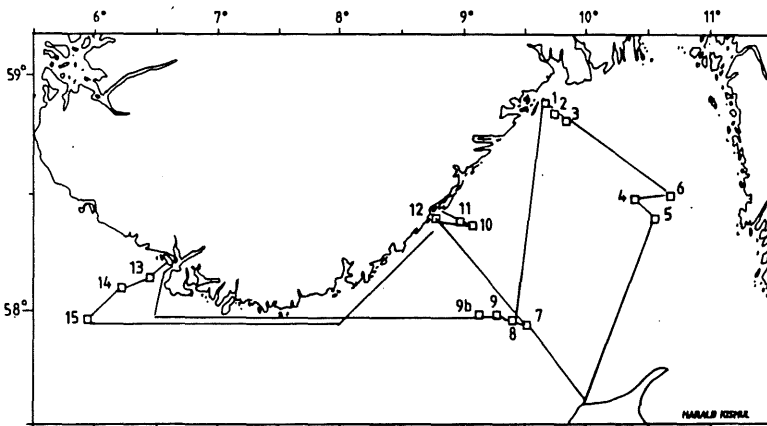




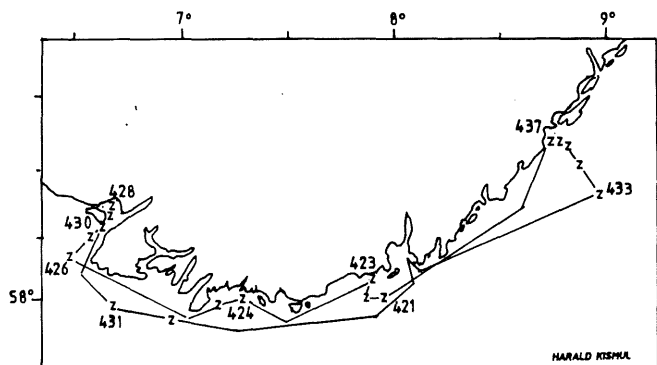
8-17 MAR. 1990 □ SHRIMP TRAWL ST. NO. 1-15 "G M DANNEVIG"



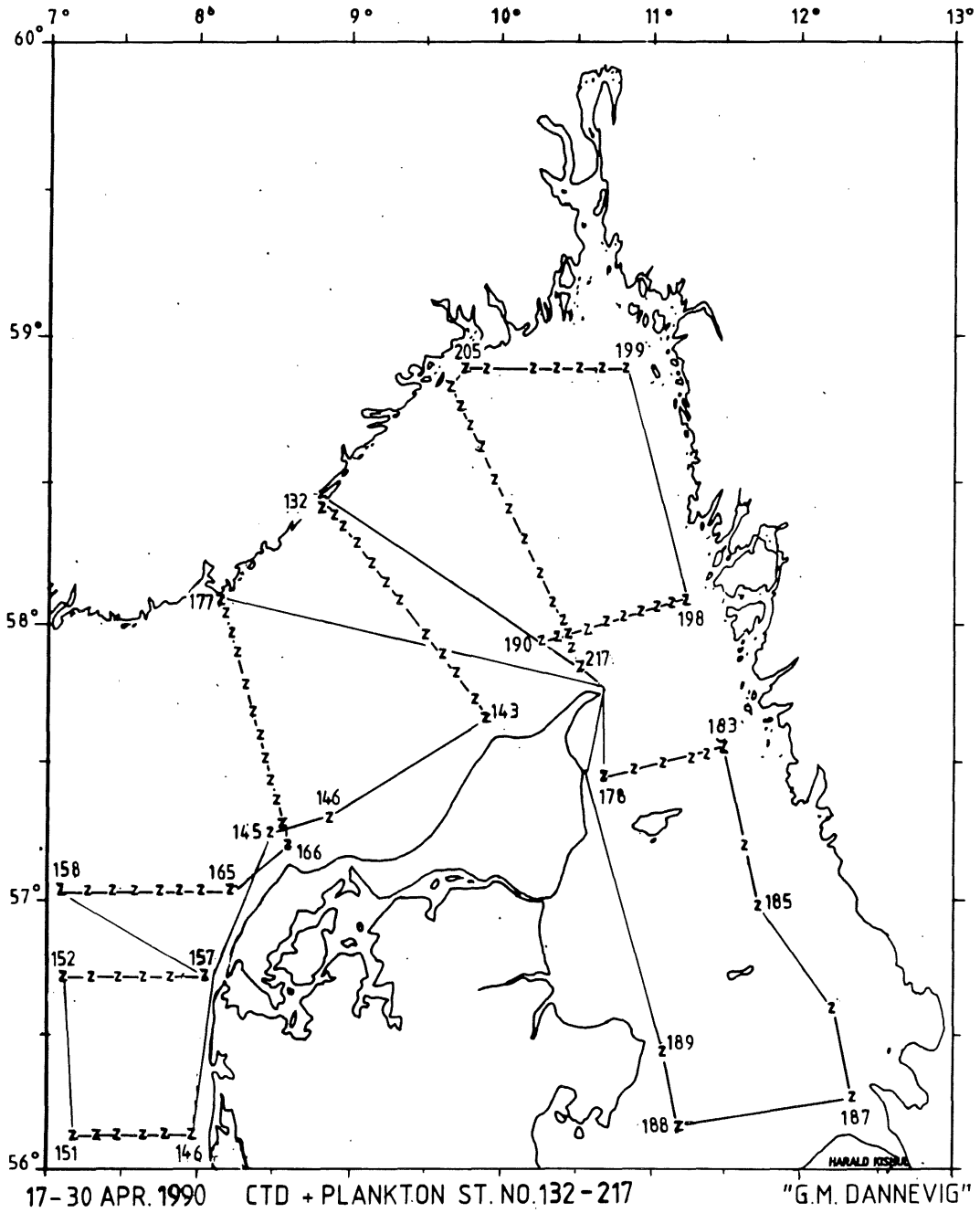
8-16 JUL. 1990 □ SHRIMP TRAWL ST. NO. 1-16 "G M DANNEVIG"

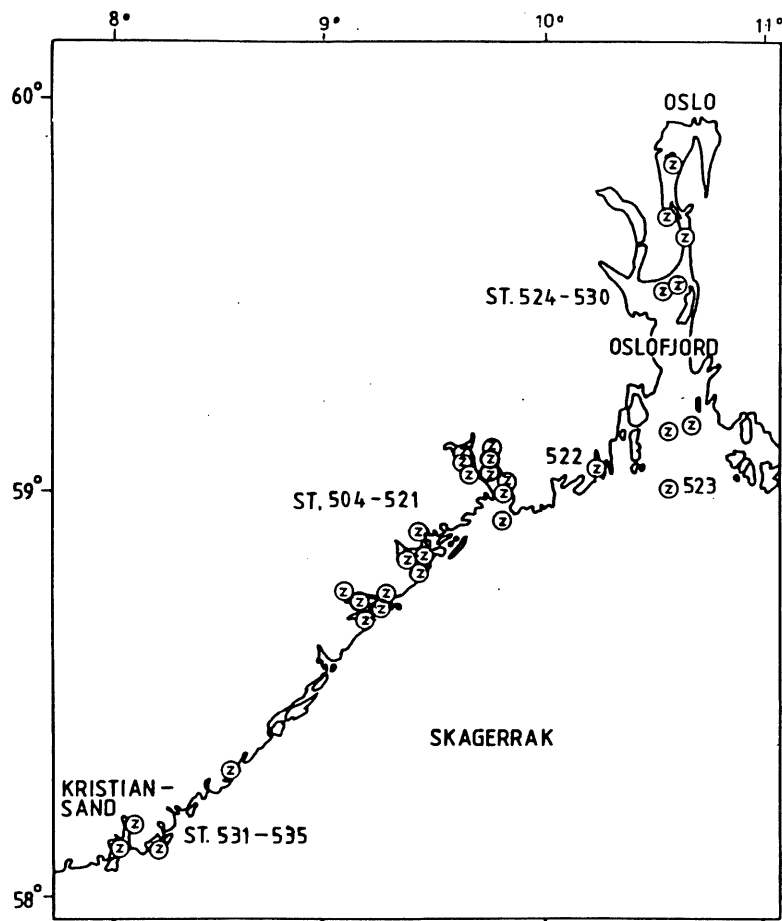


14-16 AUG. 1990 □ SHRIMP TRAWL ST. NO. 1-15 "G M DANNEVIG"

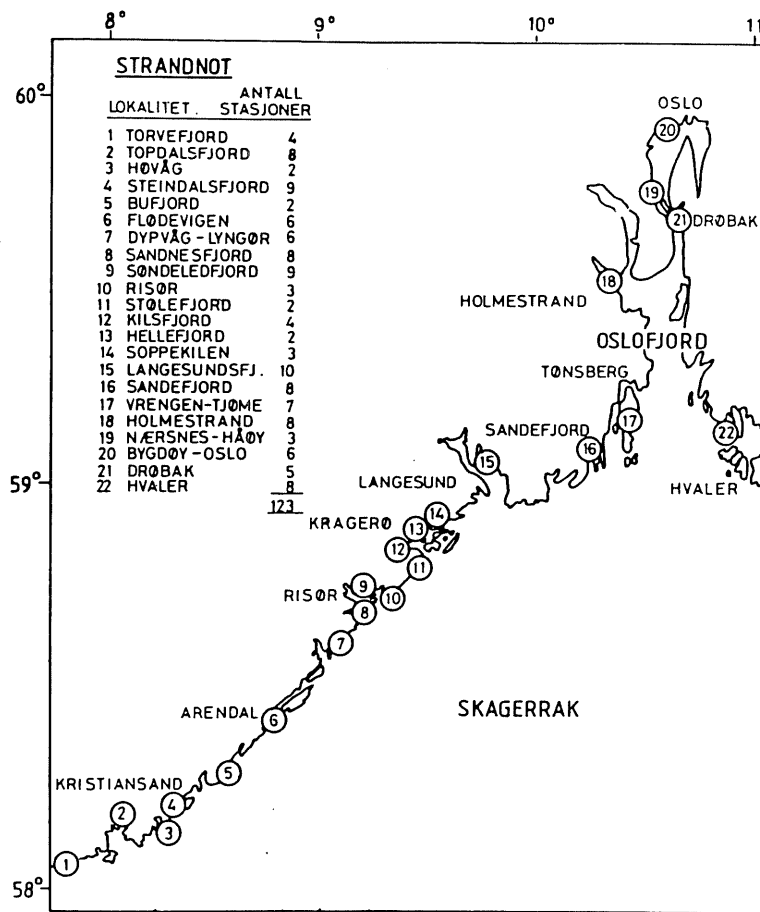


14-16 AUG. 1990 z CTD ST. NO 421-437 "G.M. DANNEVIG"

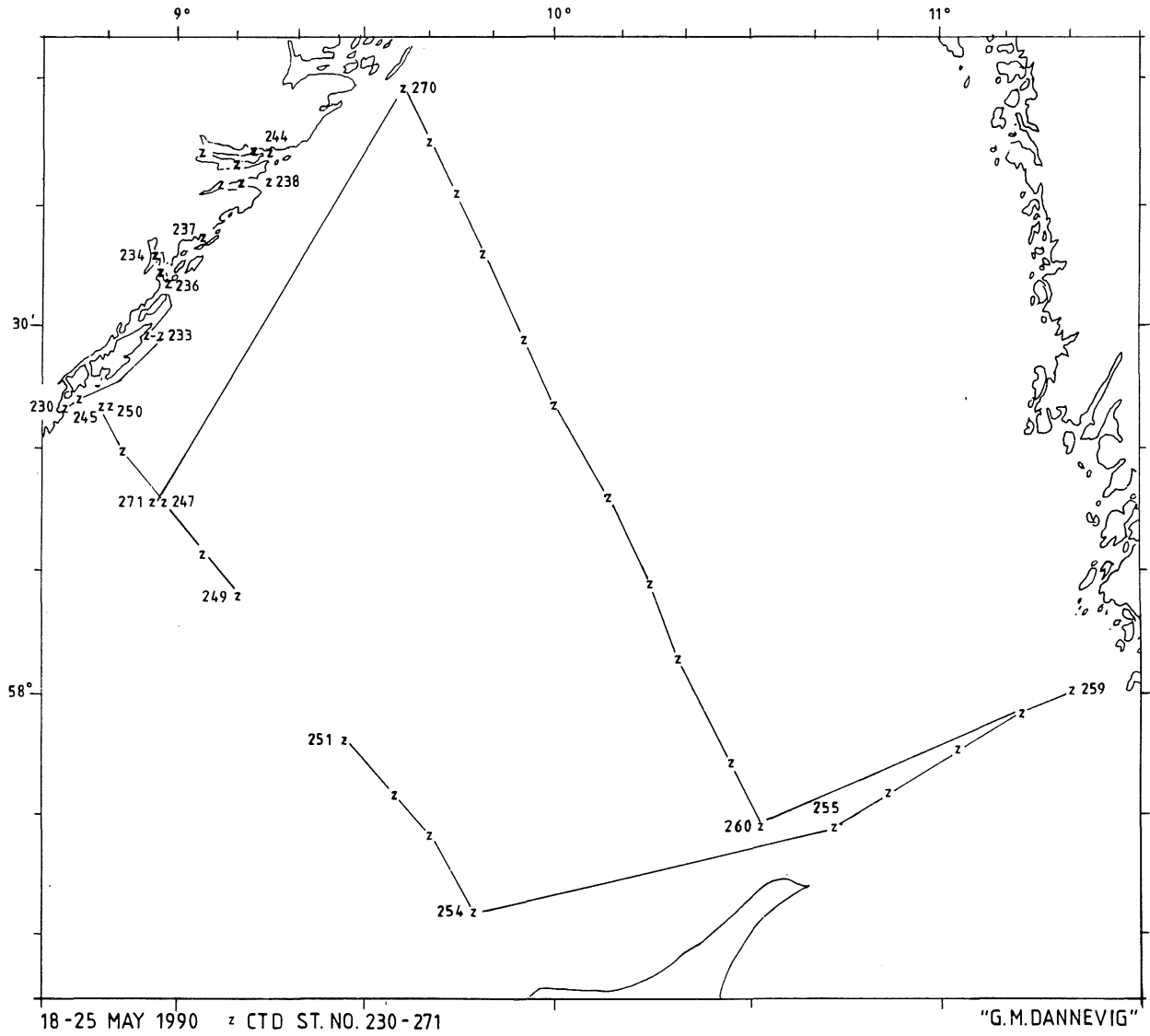


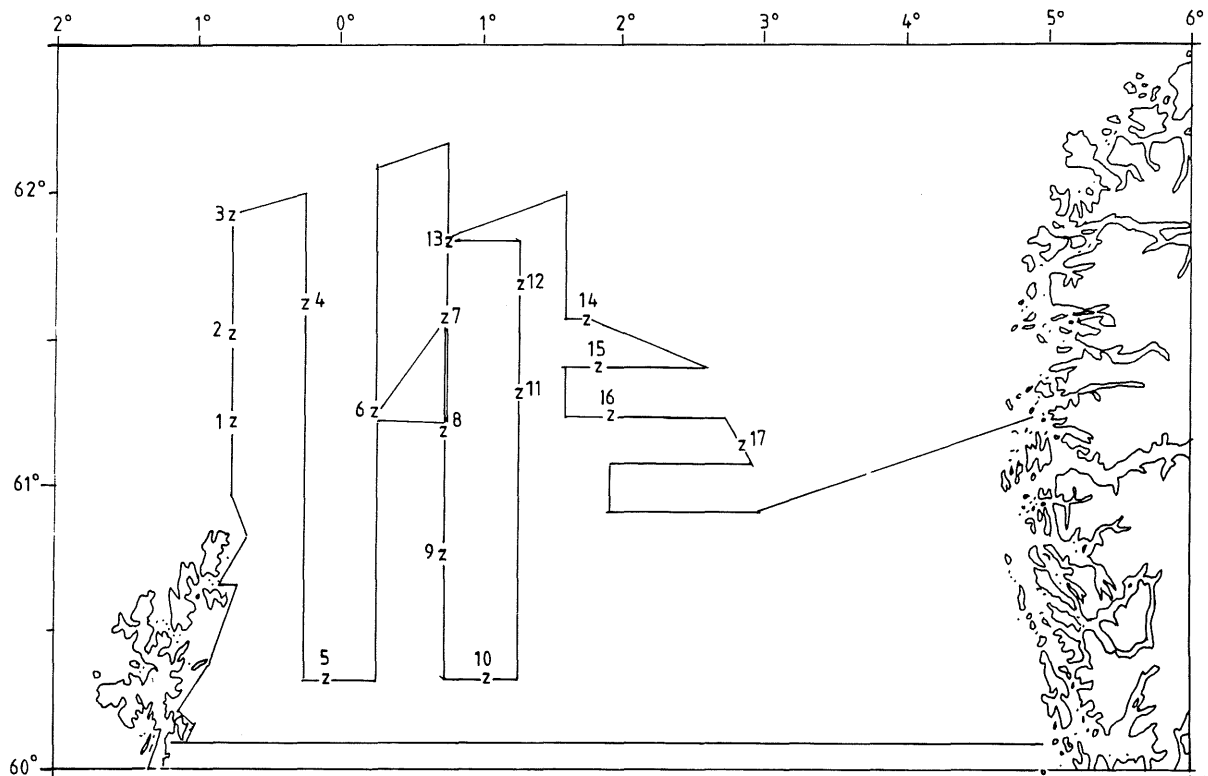


19 SEP. - 3 OCT. 1990 z CTD ST. NO. 504 - 535 ○ BEACHSEIN 1-22



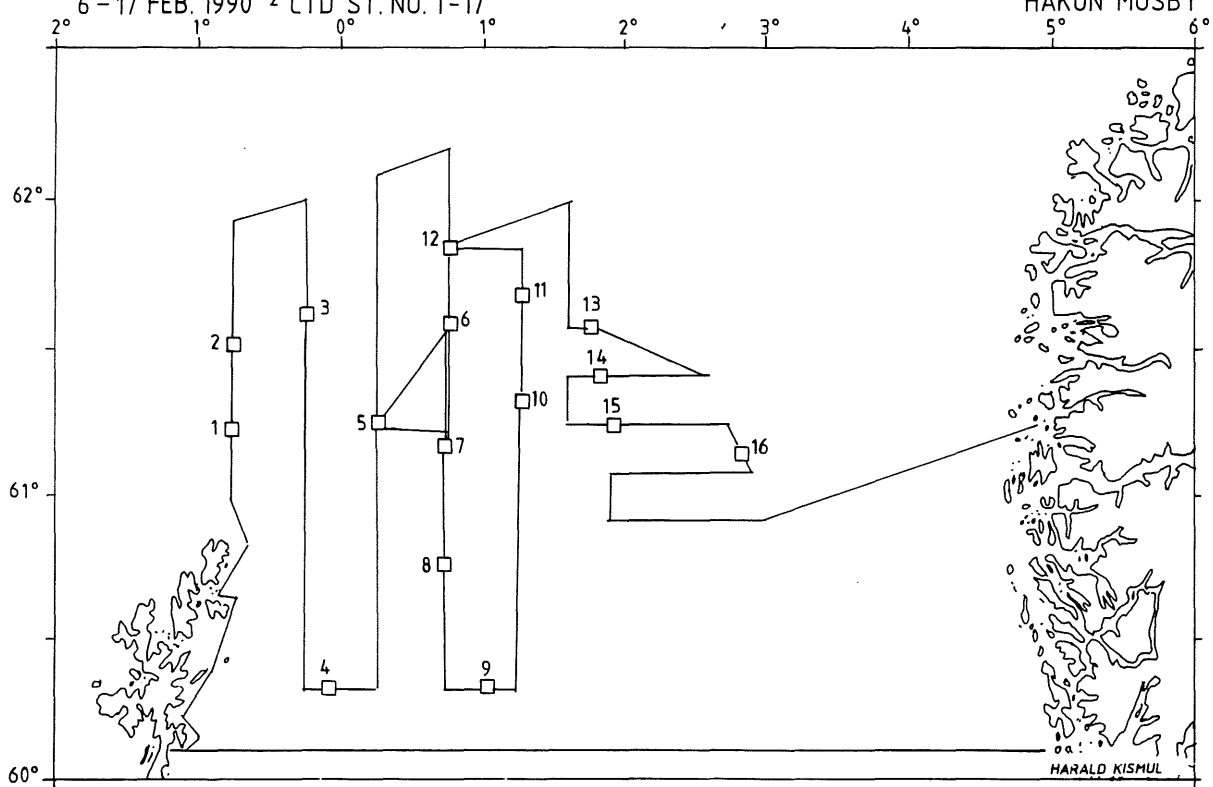
"G.M. DANNEVIG"





6-17 FEB. 1990 z CTD ST. NO. 1-17

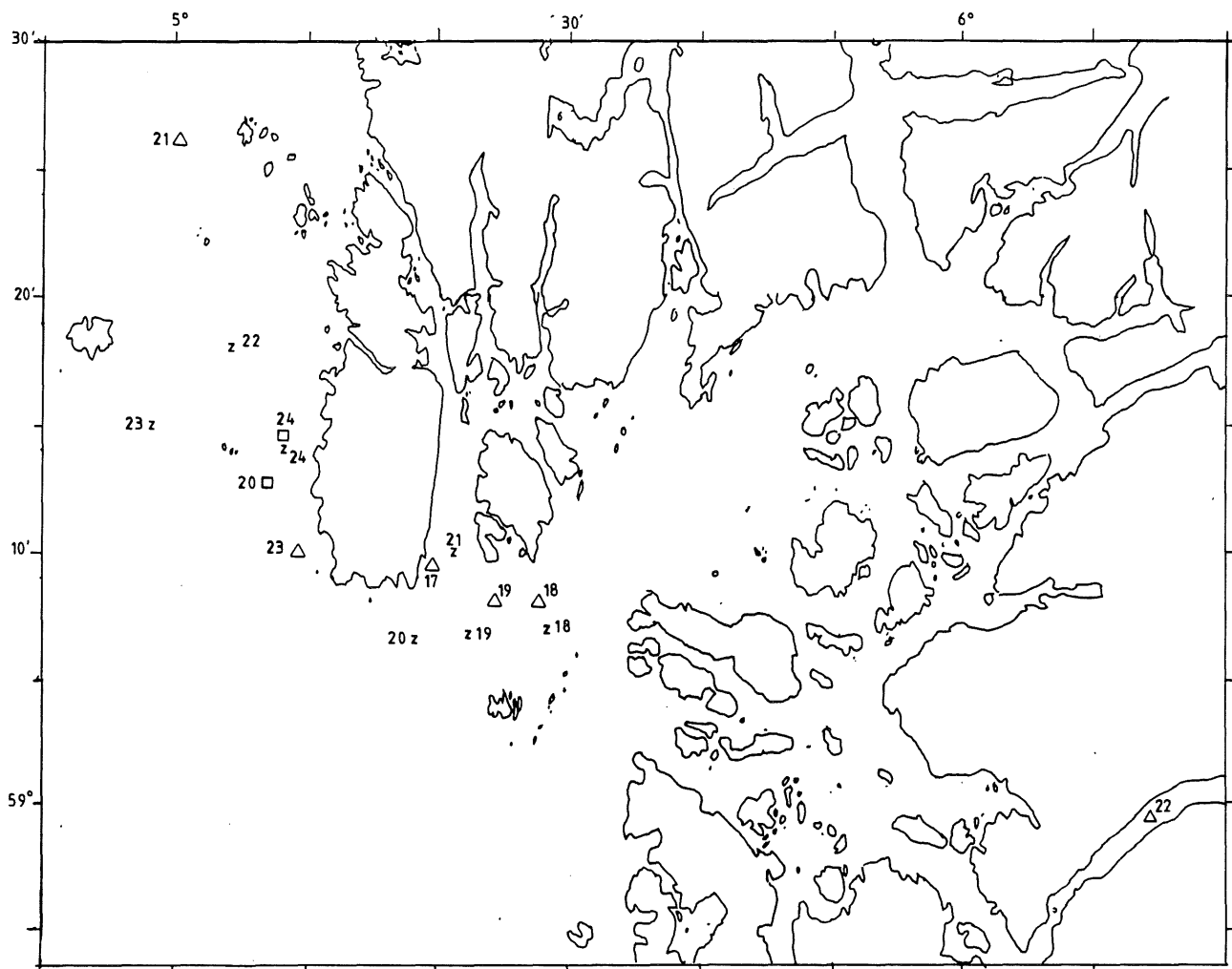
"HÅKON MOSBY"



6-17 FEB. 1990 □ TRAWL ST. NO. 1-16

HARALD KISMUL

"HÅKON MOSBY"



26 FEB. - 4 MAR. 1990 z CTD ST. NO. 18-24 Δ □ TRAWL ST. NO. 17-24

"HÅKON MOSBY"

