INFORMAL REPORT AND INDEX OF

NAVIGATION, DEPTH AND MAGNETIC DATA

(ISSUED JANUARY 16, 1978)

INDOMED EXPEDITION

LEG 2

Balboa, Canal Zone (7 November 1977)
to
Cadiz, Spain (1 December 1977)

R/V Melville

Chief Scientist - W. Berger (SIO)

Resident Marine Tech - W. Keith

Post-Cruise Processing and Report Preparation
by S.I.O. Geological Data Center

Data Collection Funded by NSF
Grant Number OCE76-84029
Data Processing Funded by SIA, NSF and ONR

NOTE: This is an index of underway geophysical data edited and processed shortly after the completion of the cruise leg and is intended primarily for informal use within the institution. This document is not to be reproduced or distributed outside Scripps without prior approval of the Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.

GDC Cruise I.D.# 169

Informal Report and Index of Navigation, Depth, Magnetic and Subbottom Profiler Data

Contents:

Index Chart - gives track of cruise leg and boundaries of depth compilation plots (see below).

Track Charts - annotated with dates (day/month) and hour ticks. The scale is .3"/deg. long.

Profiles - Depth and magnetic anomaly vs. distance. Dates (day/month) and positions of major course changes (greater than 30 degrees) are annotated. Sections of track having subbottom profiler (airgun) records have a solid black line along the bottom of the profile.

For information on the availability and reproduction costs of data in the following forms, contact S. M. Smith, Curator, Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093. Phone: (714) 452-2752.

1. Navigation listing of times and positions of course and speed changes, fixes and drift velocity.

2. Depth compilation plots - in fathoms (assumed sound velocity of 800 fm./sec.) at approximately 1 mile spacing, plotted at 4"/degree with standard U. S. Navy Oceanographic Office BC series boundaries (see index chart).

3. Plots of magnetic anomaly profiles along track - map scale = 1.2"/degree; anomaly scale between 15°N and 15°S latitude = 500 gamm/inch; anomaly scale north of 15°N and south of 15°S = 1000 gamm/inch; from values retrieved at approximately 1 mile spacing and regional field removed using the 1975 IGRF.

4. Card decks of navigation, depth and magnetics (for specific formats, contact S. M. Smith, Geological Data Center).

5. S. I. O. Sample Index - list of beginning and end times and positions of all underway records as well as all other samples (geology, biology, physical oceanography, etc.) collected on the cruise leg.

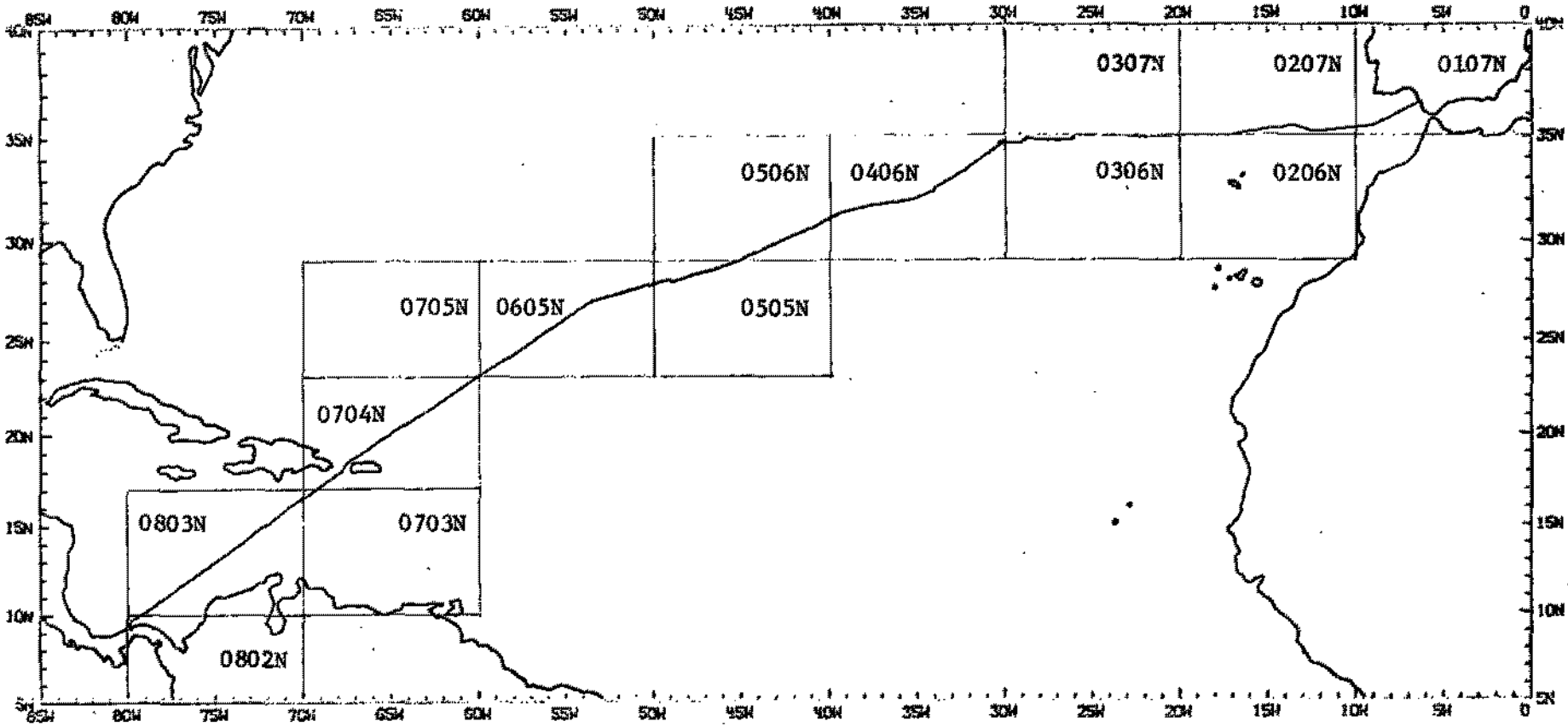
6. Microfilm or Xerox copies of:

   a. Echosounder records - 12 and 3.5 kHz frequency

   b. Subbottom profiler records (airgun)

   c. Magnetometer records

   d. Underway Data Log

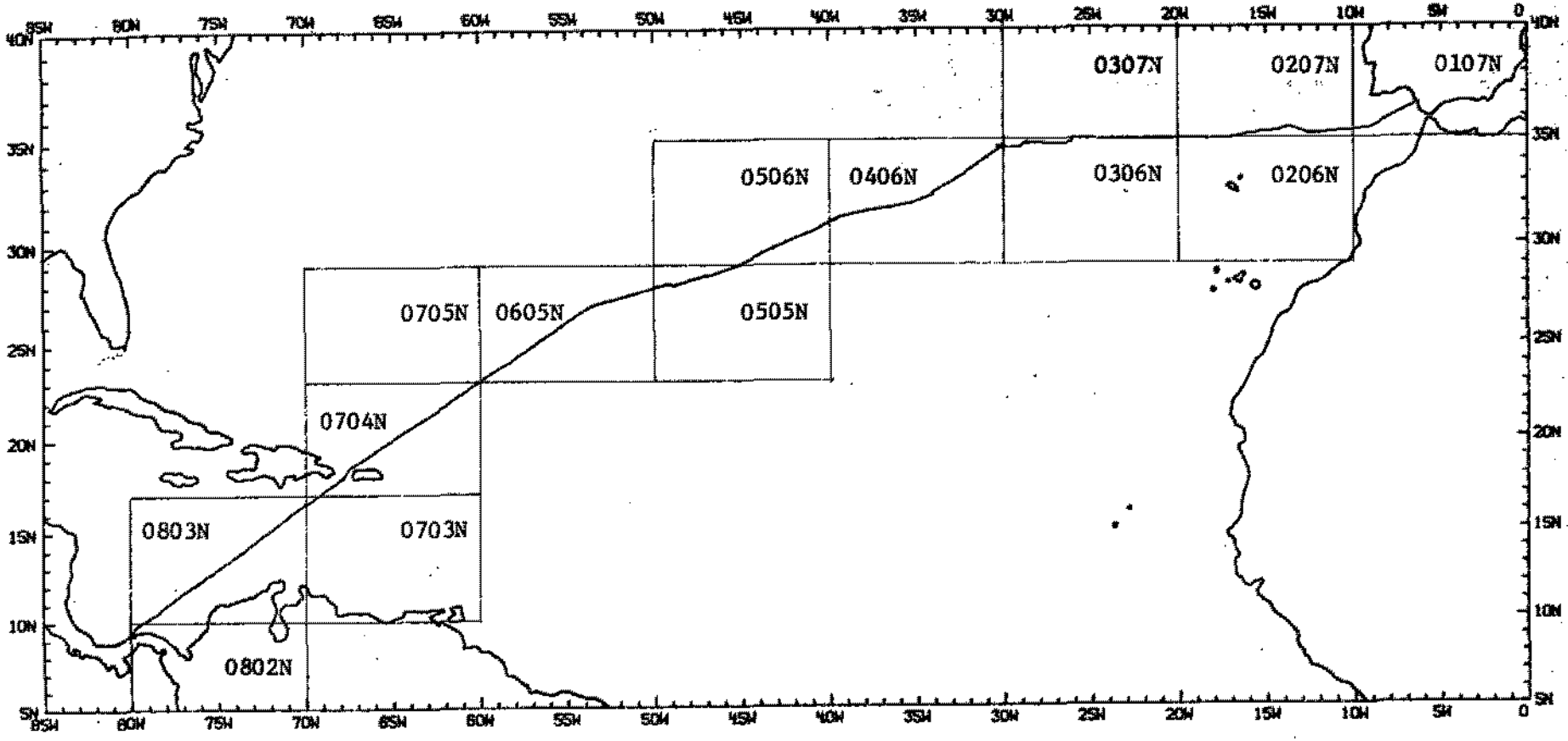


INDOMED EXPEDITION
LEG 2

Chief Scientist - W. Berger (SIO)
Ports: Balboa, Canal Zone to Cadiz, Spain
Dates: 7 November to 1 December 1977

TOTAL MILEAGE

1) Cruise - 4597 miles
2) Bathymetry - 3687 miles
3) Magnetics - 3162 miles
4) Seismic Reflection - none collected



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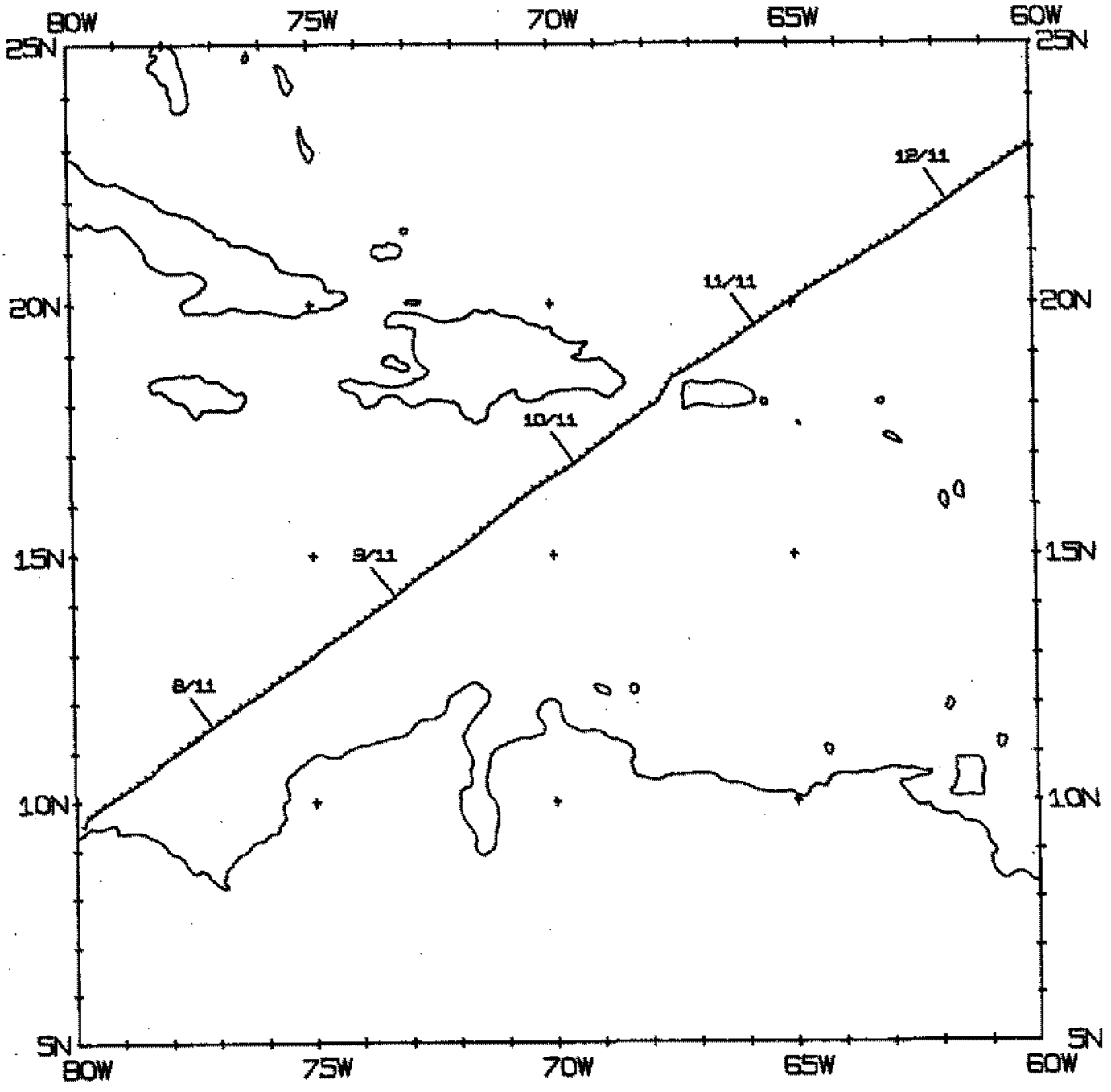
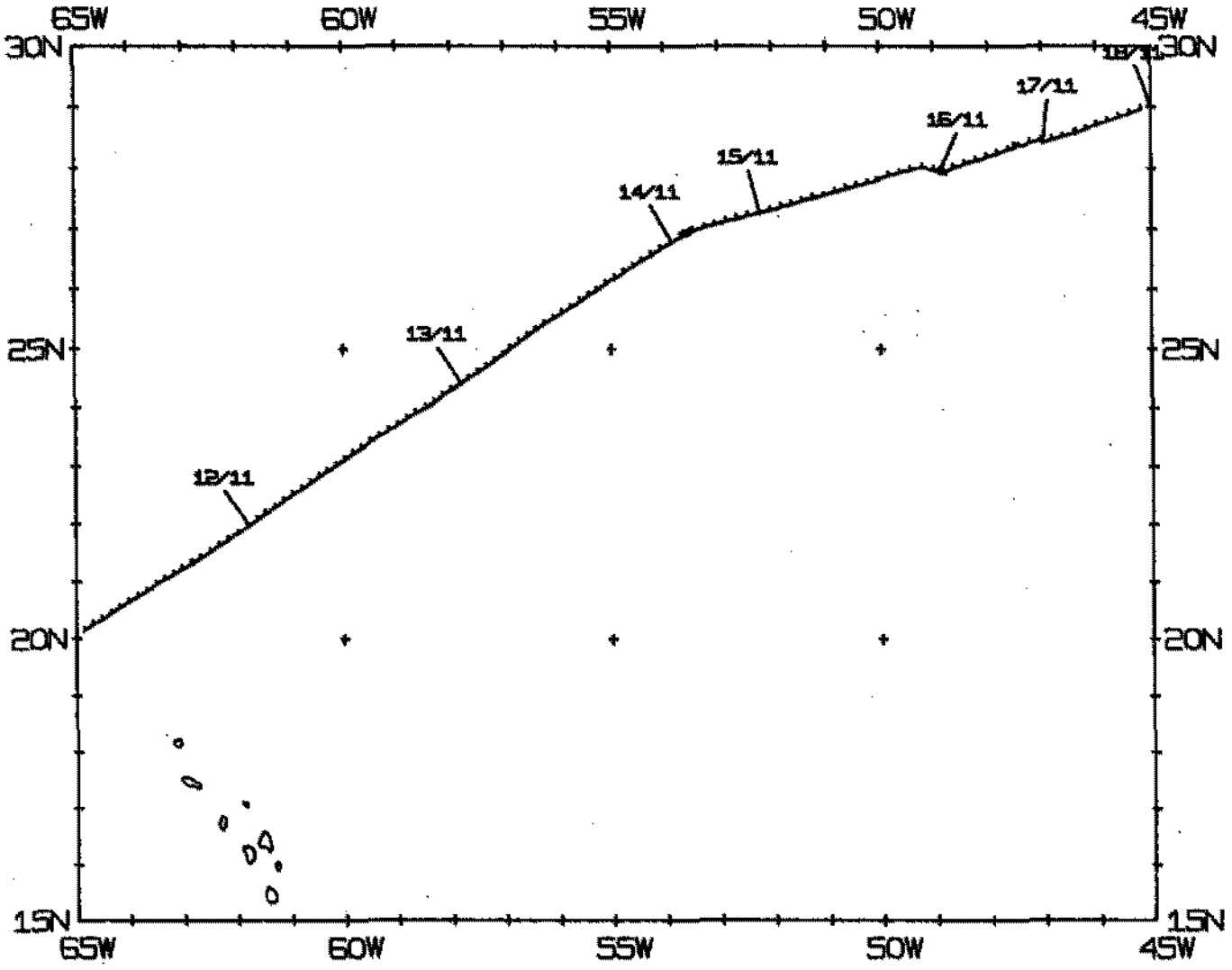
INMOO2MV TRACK PLOT (1 OF 5)

MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



INMD02MV TRACK PLOT (2 OF 5)

MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



TNMD02MV TRACK PLOT (3 OF 5)

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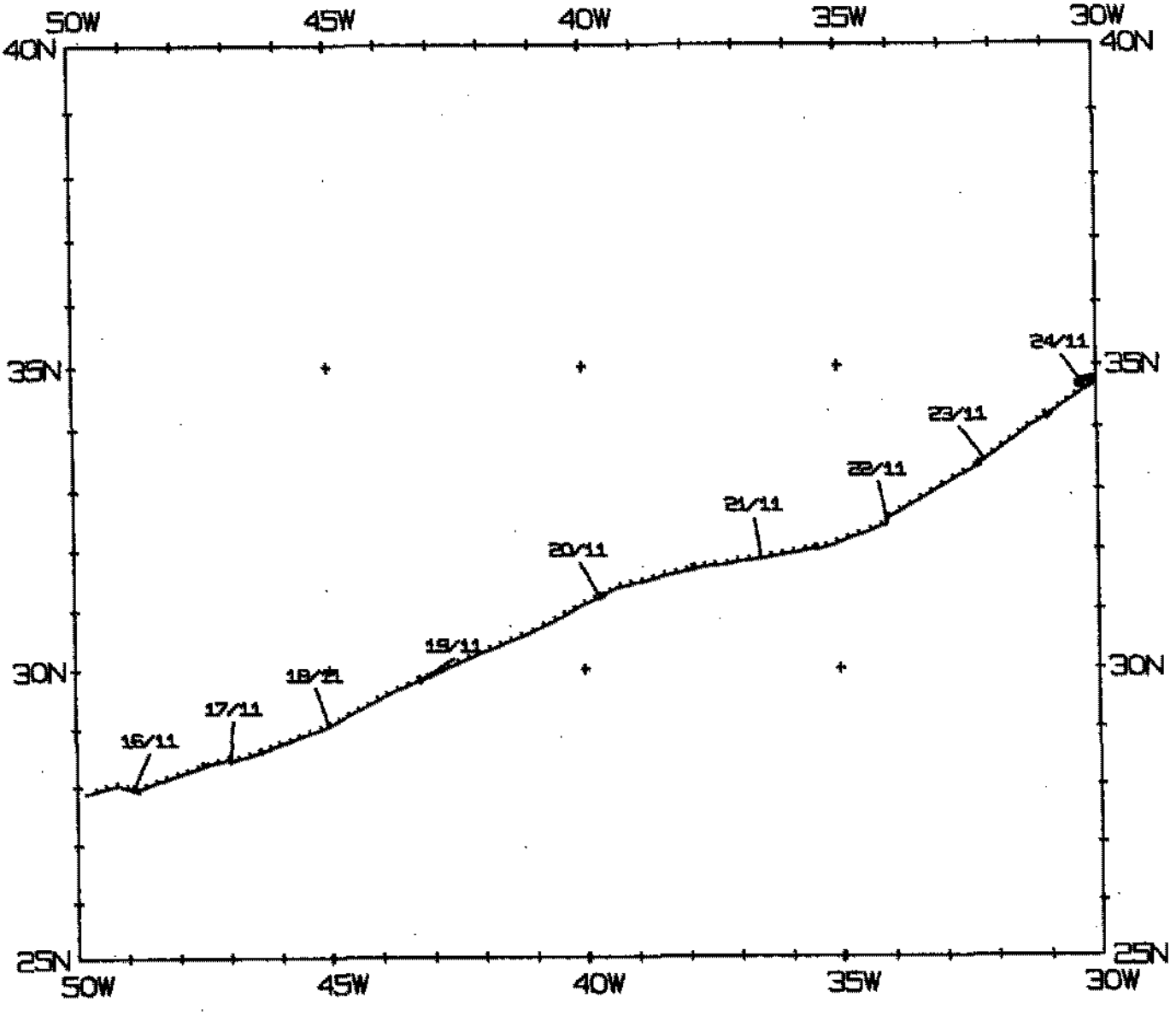

TNMD02MV TRACK PLOT (4 OF 5)

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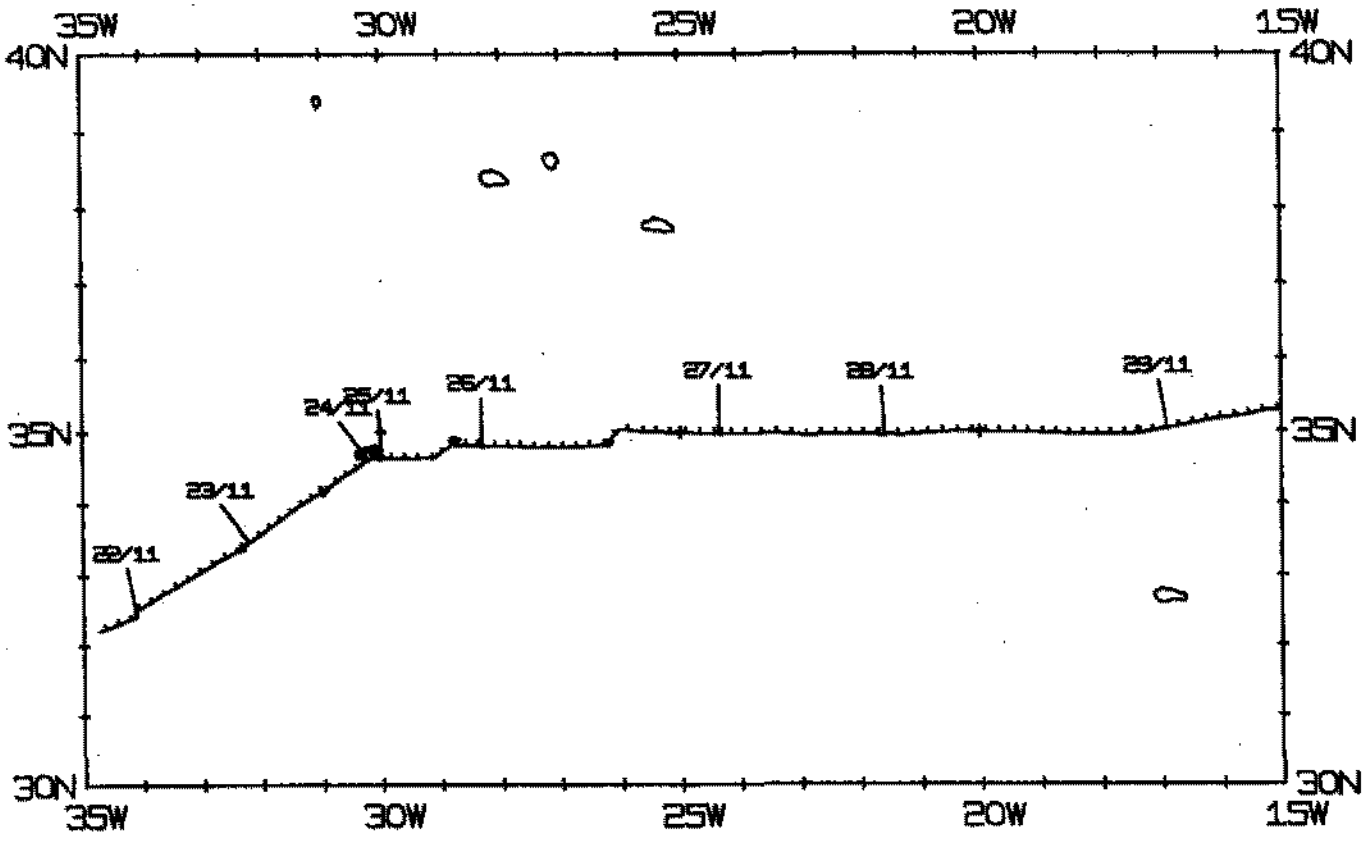

INM002MV TRACK PLOT (5 OF 5)

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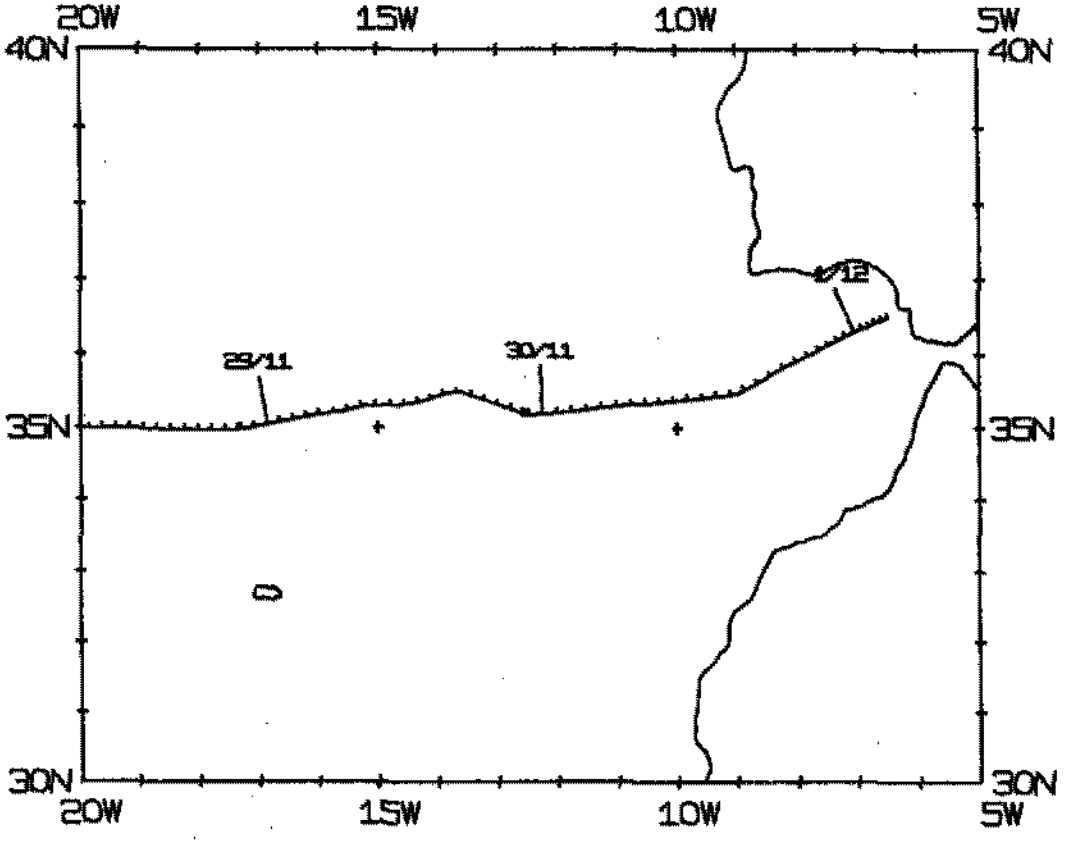
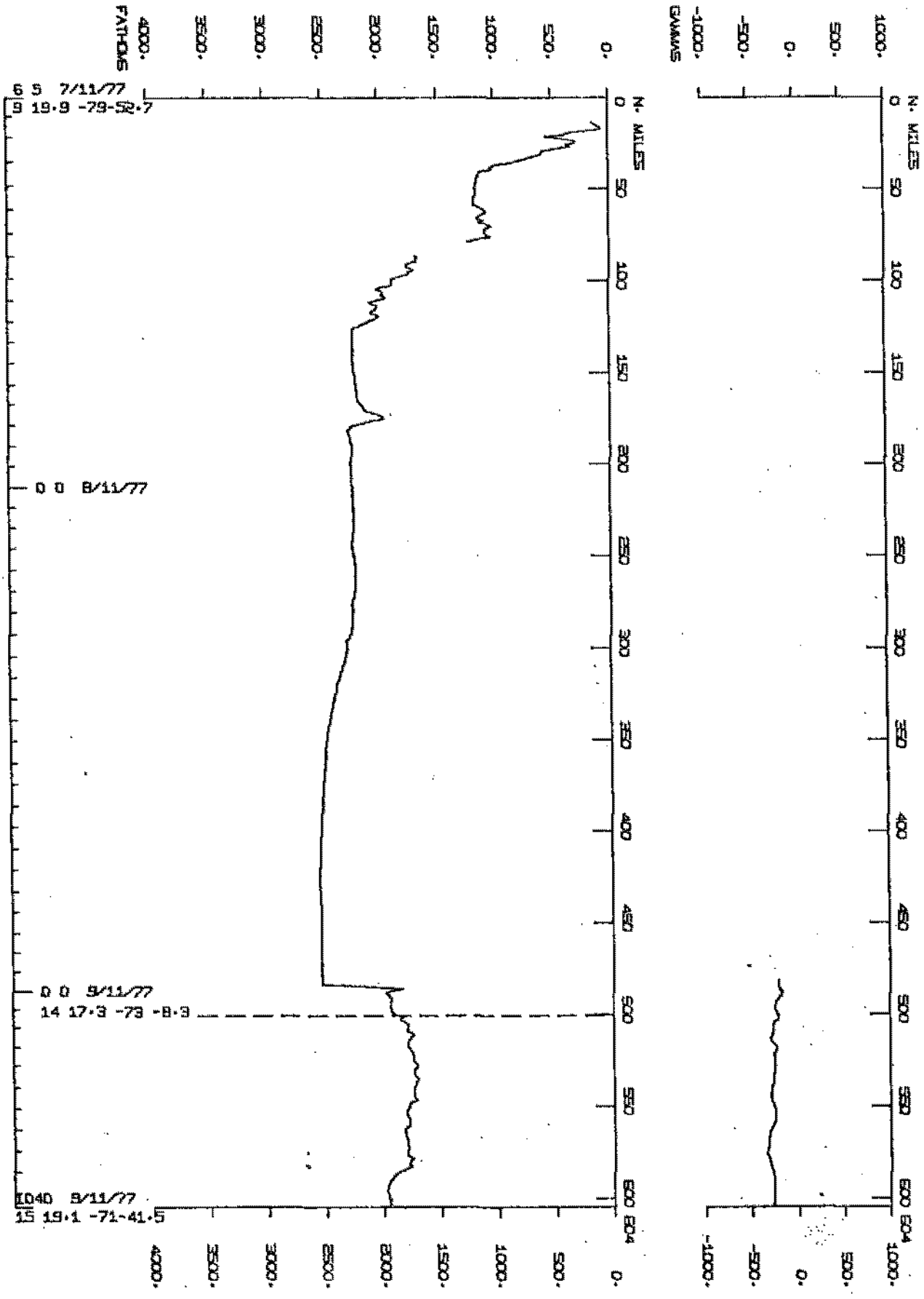


INDOMED LEG 2



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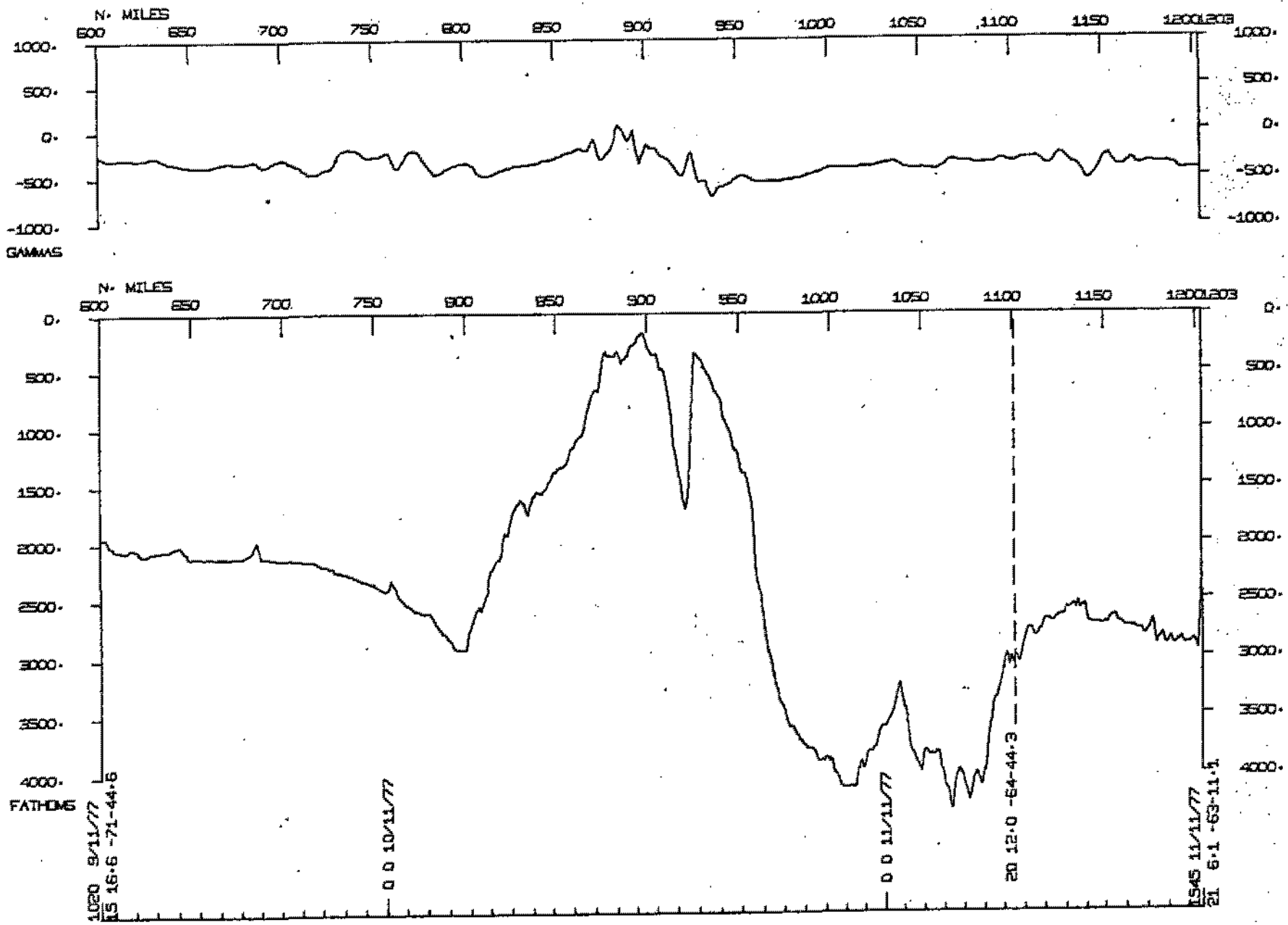

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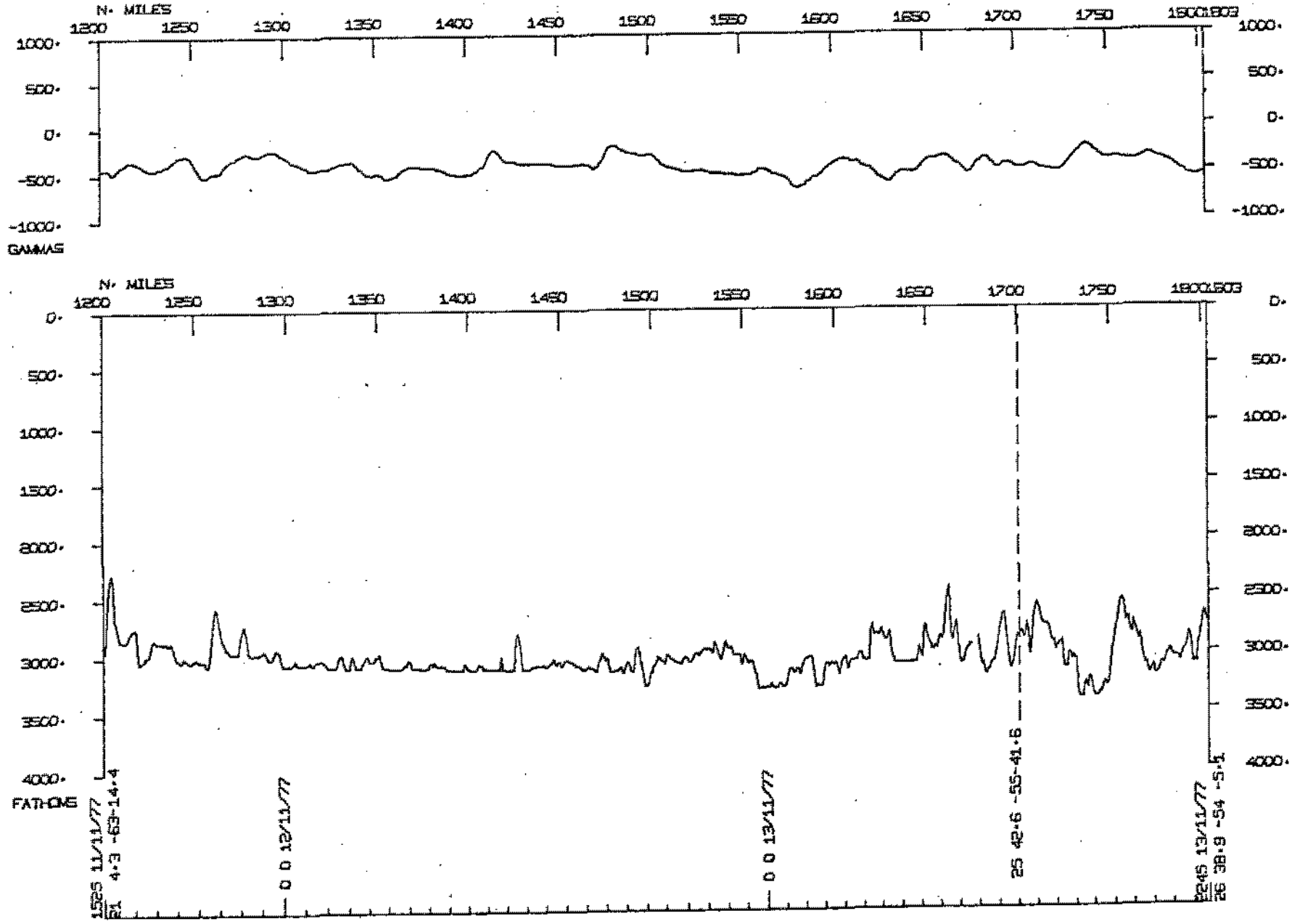
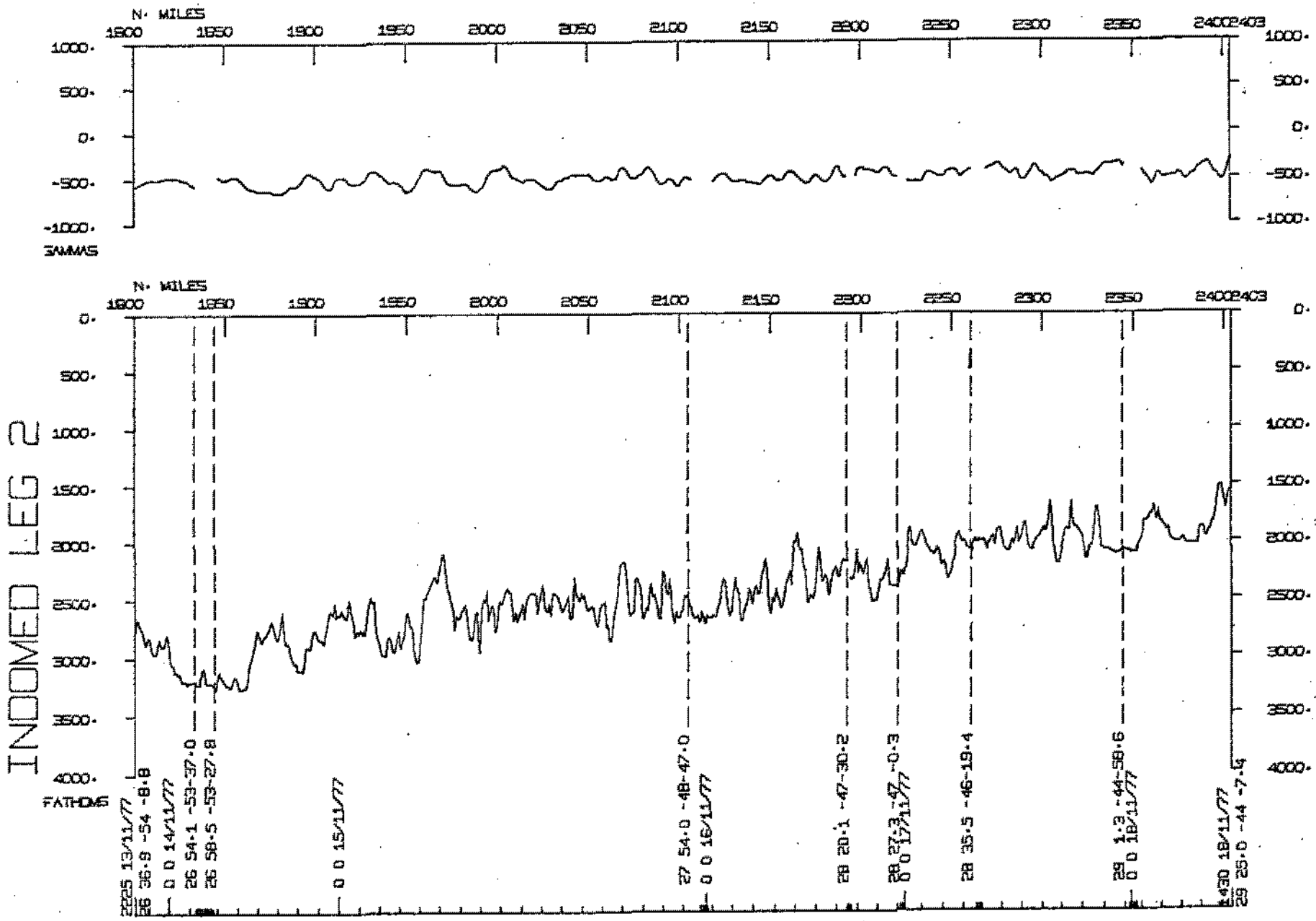
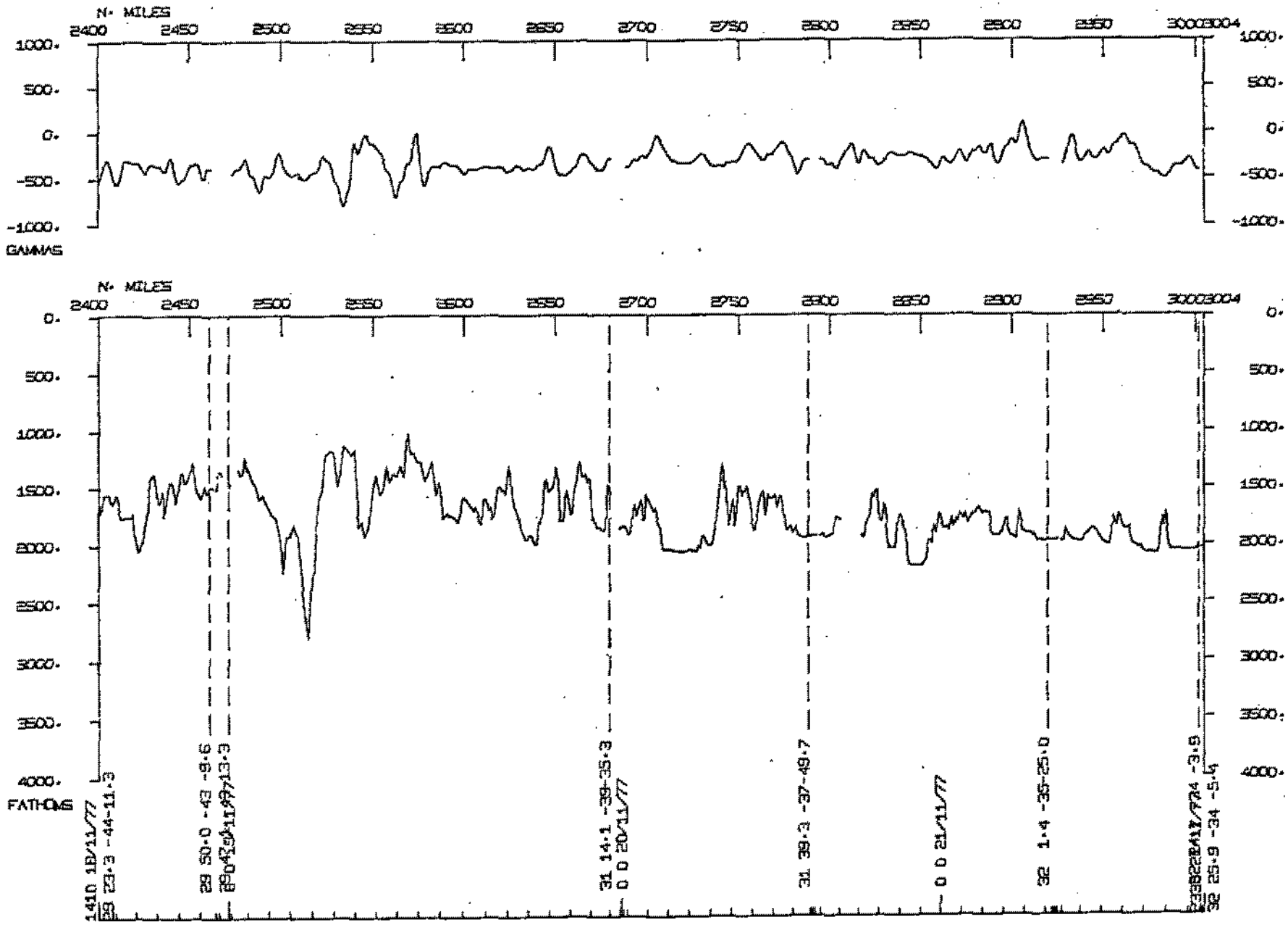



INDOMED LEG 2
N. MILES
1800 1850 1900 1950 2000 2050 2100 2150 2200 2250 2300 2350 2400 2403
1000. 500. 0. -500. -1000.
GAMMAS
0. 500. 1000. 1500. 2000. 2500. 3000. 3500. 4000.
FATHOMS
2225 13/11/77
26 36.9 -54 -8.8
0 0 14/11/77
26 54.1 -53-37.0
26 58.5 -53-27.8
0 0 15/11/77
27 54.0 -48-47.0
0 0 16/11/77
28 20.1 -47-30.2
28 27.3 -47 -0.3
0 0 17/11/77
28 35.5 -46-19.4
29 1.3 -44-58.6
0 0 18/11/77
1430 18/11/77
29 25.0 -44 -7.4

INDOMED LEG 2



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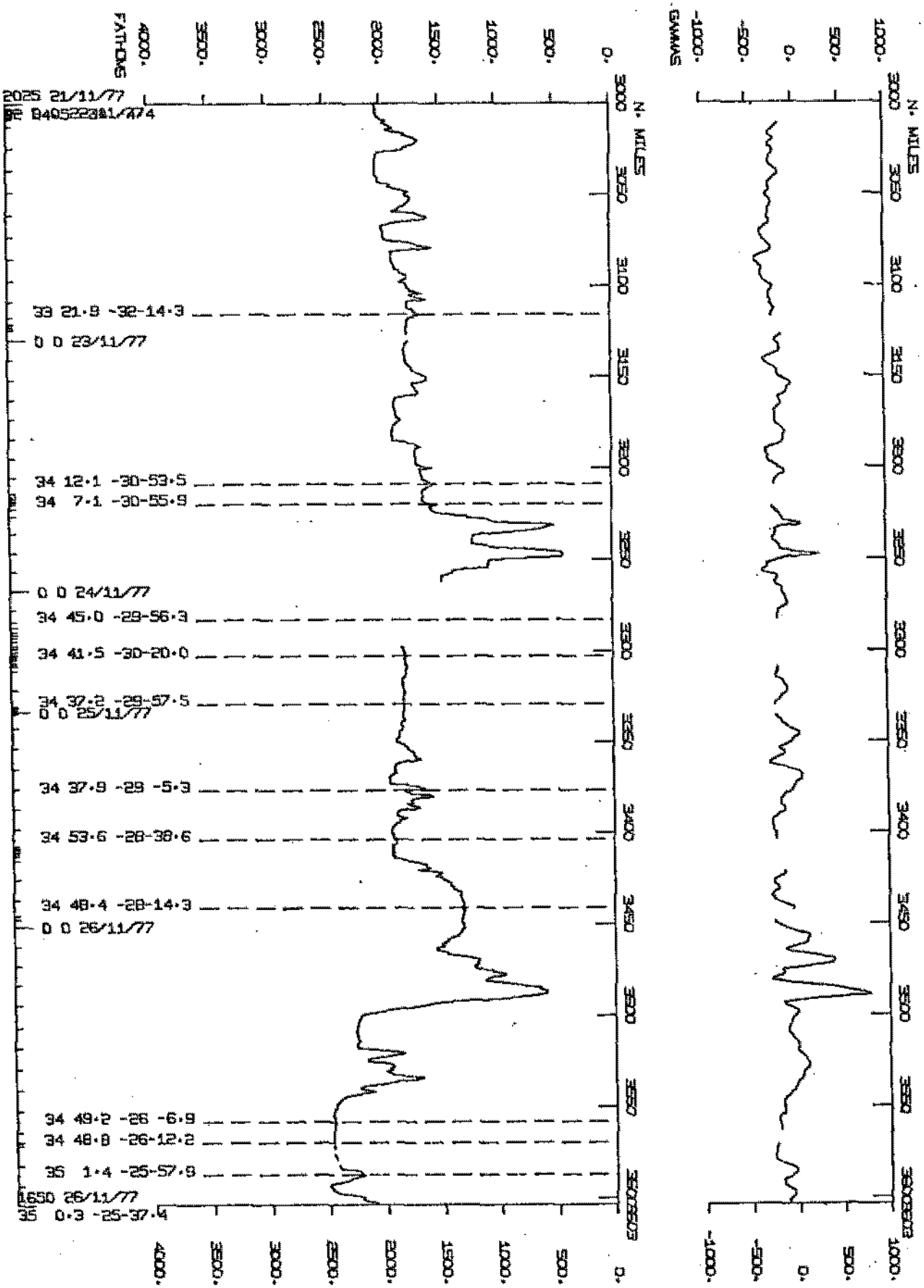

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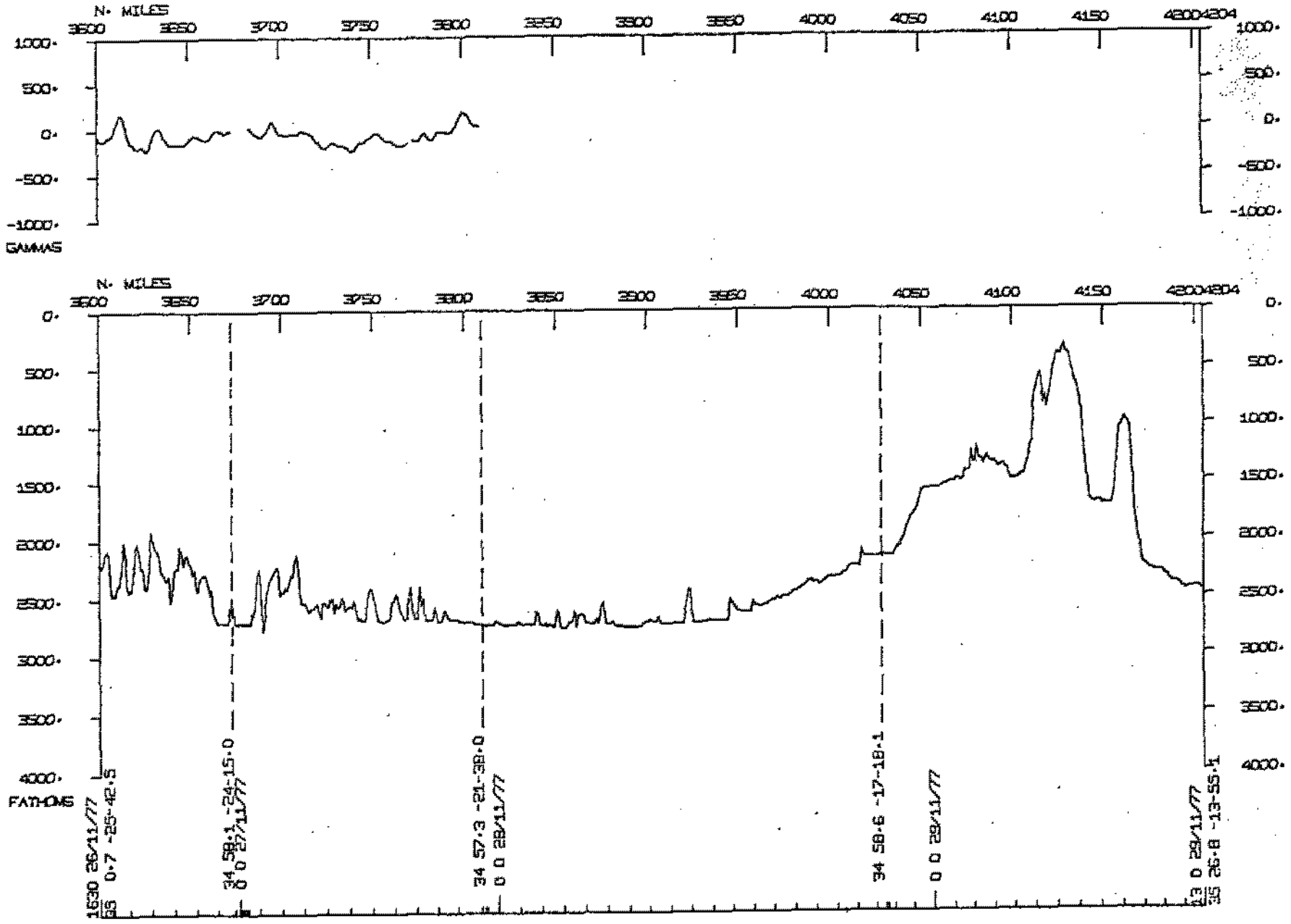

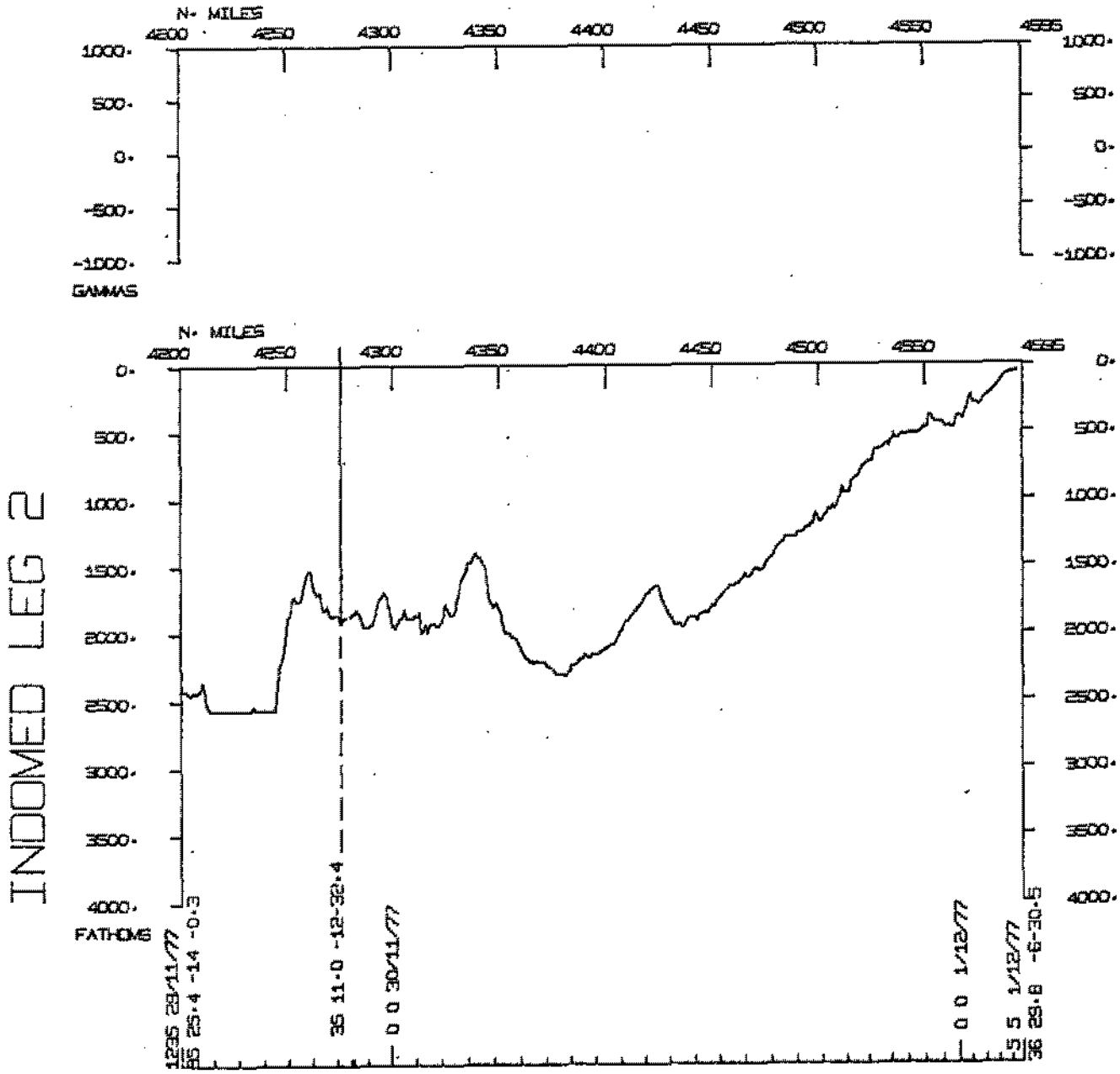
INDOMED LEG 2
N. MILES
4200
4250
4300
4350
4400
4450
4500
4550
4595
1000.
500.
0.
-500.
-1000.
GAMMAS
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
FATHOMS
1235 23/11/77
35 25.4 -14 -0.3
35 11.0 -12-32.4
0 0 30/11/77
0 0 1/12/77
5 5 1/12/77
36 25.8 -6-30.5

S.I.O. SAMPLE INDEX

(Issued January 16, 1978)

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Post-Cruise Processing and Report Preparation
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Index Encoding Funded by NSF
Grant Number OCE76-80618
Index Processing and Report Preparation
Funded in Part by SIA

The Sample Index is a first level interdisciplinary listing of time, position, sample identification and disposition of all samples, records and measurements collected on this cruise leg. The index data are encoded at sea by the Resident Technician and processed on shore by the S.I.O. Geological Data Center shortly after the completion of the cruise leg.

Positions are interpolated on the basis of sample time by comparison to a single, edited navigation file. Samples beginning at one time and position and ending at another are entered on two consecutive cards. Disposition and sample type are represented by three and four character codes to permit future computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

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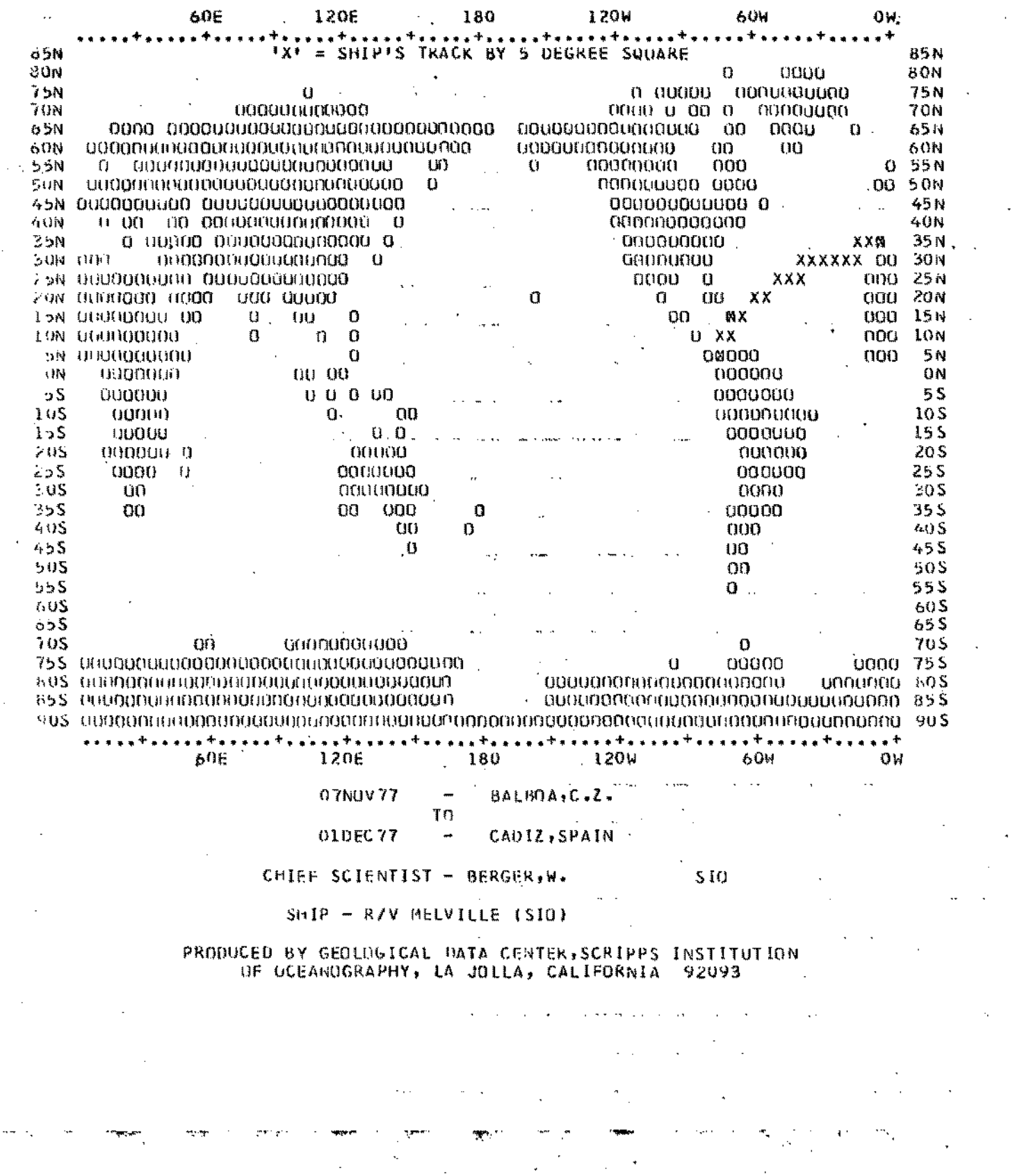
S.I.O. SAMPLE INDEX GENERATED 17JAN78

*** INDOMFD02MV SAMPLE INDEX (INM002MV) ***



07NOV77 - BALBOA,C.Z.
TO
01DEC77 - CADIZ,SPAIN

CHIEF SCIENTIST - BERGER,W. SIO

SHIP - R/V MELVILLE (SIO)

PRODUCED BY GEOLOGICAL DATA CENTER,SCRIPPS INSTITUTION
OF OCEANOGRAPHY, LA JOLLA, CALIFORNIA 92093

NUMBER OF SAMPLES OF CLASS 'TYPE' GOING TO DESTINATION 'DISP'

DISP	TYPE AS	BT	CO	DP	LB	MG	PE	PP	TOTAL
CO2	20								20
GCR			48						48
GDC				9	1	2			12
SIO							10		10
SIX							6		6
USN		22							22
WHS								1	1
TOTAL	20	22	48	9	1	2	16	1	119

SAMPLE 'TYPE' CODES USED ABOVE

AS = AIR SAMPLE
BT = BATHYTHERMOGRAM
CO = CORE (SEE ALSO TYPE DH**)
DP = DEPTH
LB = LOG BOOKS
MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)
PE = PERSONNEL IN SCIENTIFIC PARTY
PP = PLANKTON PUMP

SAMPLE 'DISP' CODES USED ABOVE

CO2 = CARBON DIOXIDE RESEARCH GROUP-- C.D. KEELING (EXT. 4230)
GCR = GEOLOGICAL CURATING FACILITY -- W. RIEDEL, (EXT. 4386)
GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)
SIO = SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CAL. 92093
SIX = SCRIPPS INSTITUTION NON-EMPLOYEE -(CONTACT DORCAS UTTER EXT. 2356)
USN = UNITED STATES NAVY
WHS = P. H. BERGER, GRD (EXT. 2750)

*** PORTS ***

100	71177	LGPT	8	BALBOA,C.Z.	8	57	N	79	33	W F INMD02MV
600	11277	LGPT	E	CADIZ,SPAIN	36	32	N	6	18	W F INMD02MV

PERSONNEL

PECS	BERGER,W.	SIO	INMD02MV
PERT	KEITH,W.	SIO	INMD02MV
PECT	OTT,J.	SIO	INMD02MV
PEXN	BONNEAU,M.	SIX	INMD02MV
PES	BYRANT,N.	SIX	INMD02MV
PES	BYRANT,P.	SIX	INMD02MV
PES	DUNBAR,R.	SIO	INMD02MV
PE	KILLINGLY,J.	SIO	INMD02MV
PES	MAYER,L.	SIO	INMD02MV
PES	NOVAK,M.	SIX	INMD02MV
PE	PRICE,W.	SIO	INMD02MV
PE	RIPLEY,D.	SIO	INMD02MV
PEXN	SCHILLING,J.	SIX	INMD02MV
PEXN	VAN WEERING,T.	SIX	INMD02MV
PE	VAN WOY,R.	SIO	INMD02MV
PE	WALSH,T.	SIO	INMD02MV

*** NOTE *** TIME ZONES AND MINUTES OF LATITUDE AND LONGITUDE ARE LISTED IN TENTHS (E.G. 10.6 IS LISTED AS 106)

*** NOTE *** AN 'X' IN THE (B)EGIN/(E)ND COLUMN FOLLOWING THE SAMPLE CODE INDICATES NO SAMPLE OR DATA RECOVERED

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP

UNDERWAY DATA CURATOR - STUART SMITH (EXT.2752)

*** LOG BOOKS ***

730	71177	LBUW	B	UNDERWAY LOG	GDC	9 347N	79 493W	S	INMD02MV
430	11277	LBUW	E	UNDERWAY LOG	GDC	36 290N	6 331W	S	INMD02MV

*** FATHOGRAMS ***

730	71177	DPR3	B	EDO 3.5KHZ R-01	GDC	9 347N	79 493W	S	INMD02MV
2	101177	DPR3	E	EDO 3.5KHZ R-01	GDC	16 495N	69 328W	S	INMD02MV
10	101177	DPR3	B	EDO 3.5KHZ R-02	GDC	16 504N	69 316W	S	INMD02MV
1921	111177	DPR3	E	EDO 3.5KHZ R-02	GDC	21 268N	62 339W	S	INMD02MV
1933	111177	DPR3	B	EDO 3.5KHZ R-03	GDC	21 281N	62 319W	S	INMD02MV
1712	141177	DPR3	E	EDO 3.5KHZ R-03	GDC	26 576N	53 281W	S	INMD02MV
1719	141177	DPR3	B	EDO 3.5KHZ R-04	GDC	26 578N	53 281W	S	INMD02MV
2212	161177	DPR3	E	EDO 3.5KHZ R-04	GDC	28 254N	46 595W	S	INMD02MV
2231	161177	DPR3	B	EDO 3.5KHZ R-05	GDC	28 253N	46 593W	S	INMD02MV
1635	201177	DPR3	E	EDO 3.5KHZ R-05	GDC	31 401N	37 526W	S	INMD02MV
1645	201177	DPR3	B	EDO 3.5KHZ R-06	GDC	31 402N	37 527W	S	INMD02MV
1002	231177	DPR3	E	EDO 3.5KHZ R-06	GDC	34 101N	30 591W	S	INMD02MV
1010	231177	DPR3	B	EDO 3.5KHZ R-07	GDC	34 101N	30 590W	S	INMD02MV
2212	271177	DPR3	E	EDO 3.5KHZ R-07	GDC	34 566N	21 404W	S	INMD02MV
2218	271177	DPR3	B	EDO 3.5KHZ R-08	GDC	34 566N	21 405W	S	INMD02MV
2126	291177	DPR3	E	EDO 3.5KHZ R-08	GDC	35 104N	12 368W	S	INMD02MV
2131	291177	DPR3	B	EDO 3.5KHZ R-09	GDC	35 103N	12 368W	S	INMD02MV
438	11277	DPR3	E	EDO 3.5KHZ R-09	GDC	36 292N	6 324W	S	INMD02MV

*** MAGNETOMETER ***

2340	81177	MGR	B	MAGNETICS R-01	GDC	14 66N	73 219W	S	INMD02MV
1832	251177	MGR	E	MAGNETICS R-01	GDC	34 487N	28 389W	S	INMD02MV
1839	251177	MGR	B	MAGNETICS R-02	GDC	34 487N	28 373W	S	INMD02MV
1905	271177	MGR	E	MAGNETICS R-02	GDC	34 573N	21 380W	S	INMD02MV

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE		SAMPLE IDENT.			DISP CODE	LAT.	LONG.		CRUISE LEG-SHIP
*** CORES ***													
2016	151177			COP		INMD38P		4970M	GCR	27 565N	48 542W	S	INMD02MV
2016	151177			COPG		INMD38PG		4970M	GCR	27 565N	48 542W	S	INMD02MV
1806	151177			COBX	X	INMD39BX	N.G.	5103M	GCR	27 556N	48 529W	F	INMD02MV
1427	161177			COBX		INMD40BX		4385M	GCR	28 208N	47 286W	S	INMD02MV
2134	161177			COP	X	INMD41P	N.G.	4254M	GCR	28 254N	46 598W	S	INMD02MV
2134	161177			COPG		INMD41PG		4254M	GCR	28 254N	46 598W	S	INMD02MV
600	171177			COBX		INMD42BX		3775M	GCR	28 344N	46 215W	S	INMD02MV
1016	171177			COP		INMD43P		3775M	GCR	28 341N	46 220W	S	INMD02MV
1016	171177			COPG		INMD43PG		3775M	GCR	28 341N	46 220W	S	INMD02MV
2110	171177			COBX		INMD44BX		3955M	GCR	29 15N	45 000W	S	INMD02MV
35	181177			COBX		INMD45BX	N.G.	3963M	GCR	29 14N	45 8W	S	INMD02MV
418	181177			COP		INMD46P		3955M	GCR	29 17N	45 12W	S	INMD02MV
418	181177			COPG		INMD46PG		3955M	GCR	29 17N	45 12W	S	INMD02MV
755	181177			COBX		INMD47BX	N.G.	3974M	GCR	29 13N	45 14W	S	INMD02MV
2125	181177			COBX		INMD48BX		2838M	GCR	29 487N	43 134W	S	INMD02MV
108	191177			COP		INMD49P		2774M	GCR	29 471N	43 136W	S	INMD02MV
108	191177			COPG		INMD49PG		2774M	GCR	29 471N	43 136W	S	INMD02MV
2320	191177			COBX		INMD50BX		3490M	GCR	31 109N	39 409W	S	INMD02MV
1253	201177			COBX		INMD51BX		3635M	GCR	31 393N	37 512W	S	INMD02MV
1628	201177			COP		INMD52P		3618M	GCR	31 401N	37 525W	S	INMD02MV
1628	201177			COPG		INMD52PG		3618M	GCR	31 401N	37 525W	S	INMD02MV
718	211177			COBX		INMD53BX		3712M	GCR	32 4N	35 263W	S	INMD02MV
1208	211177			COP		INMD54P		3698M	GCR	31 596N	35 290W	S	INMD02MV
1208	211177			COPG		INMD54PG	N.G.	3698M	GCR	31 596N	35 290W	S	INMD02MV
2215	211177			COBX		INMD55BX		3841M	GCR	32 251N	34 56W	S	INMD02MV
208	221177			COBX		INMD56BX		3841M	GCR	32 273N	34 45W	S	INMD02MV
553	221177			COP		INMD57P	N.G.	3799M	GCR	32 290N	34 51W	S	INMD02MV
553	221177			COPG		INMD57PG		3799M	GCR	32 290N	34 51W	S	INMD02MV
1838	221177			COP		INMD58P		3339M	GCR	33 210N	32 181W	S	INMD02MV
1838	221177			COPG		INMD58PG	N.G.	3339M	GCR	33 210N	32 181W	S	INMD02MV
2145	221177			COBX		INMD59BX		3358M	GCR	33 229N	32 176W	S	INMD02MV
924	231177			COP		INMD60P		3107M	GCR	34 105N	30 592W	S	INMD02MV
924	231177			COPG		INMD60PG	N.G.	3107M	GCR	34 105N	30 592W	S	INMD02MV
1330	231177			COBX		INMD61BX	N.G.	3120M	GCR	34 90N	30 582W	S	INMD02MV
1638	231177			COBX		INMD62BX		3086M	GCR	34 82N	30 565W	S	INMD02MV
1247	241177			COP		INMD63P		3420M	GCR	34 415N	30 201W	S	INMD02MV
1247	241177			COPG		INMD63PG		3420M	GCR	34 415N	30 201W	S	INMD02MV
1648	241177			COBX		INMD64BX		3420M	GCR	34 391N	30 226W	S	INMD02MV
2255	241177			COBX		INMD65BX		3443M	GCR	34 369N	29 590W	S	INMD02MV
1230	251177			COP		INMD66P		3655M	GCR	34 509N	28 457W	S	INMD02MV
1230	251177			COPG		INMD66PG		3655M	GCR	34 509N	28 457W	S	INMD02MV
1548	251177			COBX		INMD67BX		3660M	GCR	34 497N	28 469W	S	INMD02MV
2215	251177			COBX		INMD68BX		2520M	GCR	34 483N	28 216W	S	INMD02MV
1158	261177			COBX		INMD69BX		4670M	GCR	34 488N	26 117W	S	INMD02MV
40	271177			COBX		INMD70BX		5119M	GCR	34 579N	24 185W	S	INMD02MV
607	271177			COP		INMD71P		5129M	GCR	34 583N	24 159W	S	INMD02MV
607	271177			COPG		INMD71PG		5129M	GCR	34 583N	24 159W	S	INMD02MV
2103	271177			COBX		INMD72BX		5182M	GCR	34 569N	21 401W	S	INMD02MV
2013	281177			COBX		INMD73BX		4041M	GCR	34 581N	17 216W	S	INMD02MV
2056	291177			COBX		INMD74BX		3505M	GCR	35 107N	12 370W	S	INMD02MV

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
**** AIR SAMPLE ****									
0	71177			ASCS	B AIR SAMPLE CONT.	CO2	9 195N	79 527W	S INMD02MV
800	11277			ASCS	E PANAMA TO CADIZ	CO2	36 299N	6 302W	S INMD02MV
1300	81177			ASFL	AIR SAMPLE FLASK =01	CO2	12 564N	75 29W	S INMD02MV
500	91177			ASFL	AIR SAMPLE FLASK =02	CO2	14 413N	72 365W	S INMD02MV
2110	91177			ASFL	AIR SAMPLE FLASK =03	CO2	16 317N	70 19W	S INMD02MV
1200	111177			ASFL	AIR SAMPLE FLASK =04	CO2	20 440N	63 488W	S INMD02MV
800	121177			ASFL	AIR SAMPLE FLASK =05	CO2	22 489N	60 256W	S INMD02MV
400	131177			ASFL	AIR SAMPLE FLASK =06	CO2	24 479N	57 83W	S INMD02MV
100	141177			ASFL	AIR SAMPLE FLASK =07	CO2	26 524N	53 401W	S INMD02MV
1815	151177			ASFL	AIR SAMPLE FLASK =08	CO2	27 564N	48 540W	S INMD02MV
2240	171177			ASFL	AIR SAMPLE FLASK =09	CO2	29 15N	45 4W	S INMD02MV
1750	191177			ASFL	AIR SAMPLE FLASK =10	CO2	30 591N	40 115W	S INMD02MV
220	211177			ASFL	AIR SAMPLE FLASK =11	CO2	31 549N	36 17W	S INMD02MV
1745	221177			ASFL	AIR SAMPLE FLASK =12	CO2	33 210N	32 189W	S INMD02MV
30	251177			ASFL	AIR SAMPLE FLASK =13	CO2	34 378N	29 572W	S INMD02MV
840	261177			ASFL	AIR SAMPLE FLASK =14	CO2	34 483N	26 187W	S INMD02MV
1335	271177			ASFL	AIR SAMPLE FLASK =15	CO2	34 573N	22 573W	S INMD02MV
930	281177			ASFL	AIR SAMPLE FLASK =16	CO2	34 589N	19 176W	S INMD02MV
443	291177			ASFL	AIR SAMPLE FLASK =17	CO2	35 113N	15 494W	S INMD02MV
305	301177			ASFL	AIR SAMPLE FLASK =18	CO2	35 146N	11 301W	S INMD02MV
1550	301177			ASFL	AIR SAMPLE FLASK =19	CO2	35 411N	8 294W	S INMD02MV
PLANKTON PUMP									
850	71177			PP	B CONTINOUS PLANKTON	WHB	9 470N	79 375W	S INMD02MV
800	11277			PP	E PUMP PANAMA TO CADIZ	WHB	36 299N	6 302W	S INMD02MV
*** BATHYTHERMOGRAPH ***									
0	81177			BTX	NO.SAMPLE=3	USN	11 309N	77 91W	S INMD02MV
0	101177			BTX	NO.SAMPLE=1	USN	16 493N	69 331W	S INMD02MV
0	111177			BTX	NO.SAMPLE=5	USN	19 323N	65 472W	S INMD02MV
0	121177			BTX	NO.SAMPLE=1	USN	21 572N	61 460W	S INMD02MV
0	131177			BTX	NO.SAMPLE=3	USN	24 241N	57 469W	S INMD02MV
0	141177			BTX	NO.SAMPLE=4	USN	26 465N	53 512W	S INMD02MV
0	151177			BTX	NO.SAMPLE=1	USN	27 155N	52 135W	S INMD02MV
0	161177			BTX	NO.SAMPLE=3	USN	27 559N	48 532W	S INMD02MV
0	171177			BTX	NO.SAMPLE=4	USN	28 251N	46 585W	S INMD02MV
0	181177			BTX	NO.SAMPLE=2	USN	29 14N	45 7W	S INMD02MV
0	191177			BTX	NO.SAMPLE=6	USN	29 471N	43 134W	S INMD02MV
0	201177			BTX	NO.SAMPLE=4	USN	31 111N	39 414W	S INMD02MV
0	211177			BTX	NO.SAMPLE=5	USN	31 504N	36 326W	S INMD02MV
0	221177			BTX	NO.SAMPLE=3	USN	32 262N	34 51W	S INMD02MV
0	231177			BTX	NO.SAMPLE=2	USN	33 272N	32 114W	S INMD02MV
0	241177			BTX	NO.SAMPLE=2	USN	34 357N	30 117W	S INMD02MV
0	251177			BTX	NO.SAMPLE=4	USN	34 375N	29 577W	S INMD02MV

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
0	261177			BTX	NO.SAMPLE=6	USN	34 481N	28 170W S	INMD02MV
0	271177			BTX	NO.SAMPLE=1	USN	34 579N	24 186W S	INMD02MV
0	281177			BTX	NO.SAMPLE=3	USN	34 569N	21 336W S	INMD02MV
0	291177			BTX	NO.SAMPLE=5	USN	35 20N	16 529W S	INMD02MV
0	301177			BTX	NO.SAMPLE=5	USN	35 109N	12 153W S	INMD02MV
9900					END SAMPLE INDEX				INMD02MV