Navigation Log 84005nav
UCoN 84-1

84005
UCON
84-1
103795

U.S.G.S.
INTEGRATED NAVIGATION SYSTEM
AND
NORTHSTAR LORAN-C NAVIGATION LOG

SHIP UCONN

CRUISE NO. UCONN 84-1

DATE May 16 - May 25 1984

CHIEF SCIENTIST Ralph Lewis

UCONN 84-1

uniboom 300J

$\frac{1}{2}$ sec trigger

$\frac{1}{4}$ sec sweep

SA Tape channels

ch 1 - uniboom key

ch 2 - streamer signal Filtered 400-4,000

ch 3 - clock

ch 4 - Real Servo

UCONN 84-1

Day 1 16 may 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	16	0	Test Line				26 XX X . X		43 X X X .			
			0825	leave dock				26590 . 7		44068 . 9			
			0852	Testline Begin				26606 . 9		44016 . 1			
			0855						10 . 1		17 . 4		
			0900						13 . 7		16 . 4		
			0906					26619 . 4		44015 . 7			
			0910					26621 . 7			014 . 9		
			0915						25 . 1		13 . 5		
			0920						29 . 2		12 . 7		
			0925						32 . 9		11 . 7		
			0930	Testline					37 . 3		10 . 9		
			0933	558	CIC				40 . 0		09 . 7		
			0935						39 . 4		09 . 0		
			0940			5.1			39 . 9		05 . 7		
			0945						40 . 4		02 . 1		
			0950						40 . 4		43980 . 1		
			0955			5.8			40 . 0		43994 . 0		
			1000						40 . 4		90 . 6		
			1005						40 . 1		85 . 9		
			1010			5.6			40 . 0		82 . 7		
			1015						40 . 3		78 . 9		
			1020			5.1			40 . 3		75 . 9		
			1025						40 . 1		72 . 6		
			1028	08/14	CIC				40 . 0		70 . 9		
			1030						39 . 5		68 . 9		
			1035			4.7			37 . 2		65 . 3		
			1040	14					35 . 5		61 . 7		
			1045						33 . 5		57 . 7		
			1050					26631 . 6		43954 . 5			
			1055	14				26629 . 8		43949 . 6			

Feet of tape
End of each tape mark here

line 13, 12, 11

TAPE #	START	END	COMMENTS AND OBSERVATIONS — PAGE 1
NV1 SA1	X		Leave marina 0725 Begin Navigation - NV1 sheet #1 16 MAY 84
SA1	X		Begin test line after equip Adjust Roll #1 minboom, Roll #1 sidescan sheet #1 Nav
Tape #1			
67			
672 ft			
			EOL test line: BOL #8
970			Things look good
			bottom "hole"
			Stratford Shoal
			begin sidescan record (EDO system)
			EOL 8; BOL 14
1299			side-scan not working well

SAI 112139

DAY 1 16 MAY 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	16	1100	14				26	628.2	439	47.6		
			1105						26.0		44.1		
			1110						24.3		40.7		
			1117						21.1		35.5		
			1120	14					20.3		33.5		
			1121	13	012	4.6			19.9		32.8		
			1125						20.0		34.5		
			1130						20.1		37.9		
			1135						20.0		40.9		
			1140						20.0		44.0		
			1145						20.0		47.1		
			1150						20.0		49.9		
			1155			4.5			20.1		52.9		
			1200						19.9		55.7		
			1205					26	620.2	439	58.7		
			1210			4.4			20.3		61.6		
			1216						20.0		65.1		
			1220			4.2			19.9		67.0		
			1225					21	620.1	439	69.8		
			1225	S1					20.3		70.3		
			1230						20.1		72.5		
			1235			4.1			19.9		75.1		
			1240						20.0		77.8		
			1245						20.2		81.3		
			1251			4.2			20.1		84.4		
			1256						19.9		86.1		
			1300						20.0		88.9		
			1307			4.3			19.8		93.1		
			1311						19.8		95.3		
			1315	13				26	619.8	439	97.6		

TAPE #	START	END	COMMENTS AND OBSERVATIONS
			sidescan off
~~1458~~			
SA1		X	1122
SA2	X		1126
			EOL 14 ; BOL 13
220			
			maneuver around boat
430			on line 13
520			
~~605~~			

~95

16 May 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	16	1320	13				26	19.9	44	00.6		
			1325			4.5			20.0		3.5		
			1330						20.1		6.4		
			1335						20.1		9.6		
			1340			4.7			19.9	44	12.7		
			1345						20.0		15.5		
			1350						20.1		18.4		
			1355						19.9		21.3		
			1400			4.6			20.0		24.3		
			1405						20.1		27.4		
			1410						20.2		30.3		
			1416			4.7			20.0		33.9		
			1421						19.8		36.8		
			1426	13					20.0		39.6		
			1426	—	C/C				20.1		40.0		
			1430	12					17.0		40.2		
			1435						12.4		40.0		
			1440			5.2			07.6		39.9		
			1445						02.8		39.8		
			1451					26	57.3		40.1		
			1455						54.2		40.0		
			1459	30	4/C	5.1			50.0		39.9		
			1500						49.7		40.0		
			1505			4.0			53.5		41.4		
			1511						58.6		43.7		
			1515			4.2		26	01.9		44.8		
			1520	12		4.1			06.0		46.4		
			1525	—	4/C	4.0			10.0		48.0		
			1530	11					09.8		45.3		
			1535					26	09.6	44	42.3		

TAPE #	START	END	COMMENTS AND OBSERVATIONS
542			on line 13 (north end) no sidescan
692			
790			
859			
			shallow hard bedrock
			c/c EOL 13; BOL 12 (loop)
992			
			big valley in br
1080			
			c/c continue line 12
			recross big valley
			c/c EOL 12; BOL 11
			on line 11

16 May 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	16	1540	11		4.6		26	10.0	44	039.6		
			1545						09.8		36.7		
			1550						10.0		33.8		
			1555						10.2		30.8		
			1600			4.8			9.8		27.7		
			1605						10.2		25.0		
			1610			4.1			9.9		22.0		
			1615						10.0		19.2		
			1620						10.1		15.8		
			1625						10.0		13.1		
			1630			4.5			10.1		10.5		
			1635			4.4			10.0		07.5		
			1641						10.1		04.2		
			1645						10.1		01.8		
			1650						10.0	43	998.9		
			1655			4.5			10.1		96.0		
			1700						10.2		93.3		
			1705			4.3			10.2		90.4		
			1710					26	10.1	43	987.4		
			1715						10.0		84.3		
			1720						9.9		81.5		
			1725			4.5			10.0		78.6		
			1730						10.2		75.7		
			1735						10.0		72.7		
			1740			4.6			9.6		69.7		
			1745						10.0		66.8		
			1750						10.0		64.0		
			1755			4.2			10.6		61.3		
			1800						9.7		58.3		
			1805					26	09.9	43	955.3		

TAPE #	START	END	COMMENTS AND OBSERVATIONS
SA2 1275			on line 11
			bedrock coming up
			gassy
1516			
1550			
			line 11 all is well
			seas increasing
			dodged lobster pot
1785			on line 11

16-17 May 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE MINUTES	LONGITUDE ± DEGREES	LONGITUDE MINUTES	TYPE	QUAL.
84	05	16	1810	11				26	10.1	43	52.1		
			1816			4.7			9.9		48.4		
			1820						10.4		46.1		
			1825			5.1			9.9		42.6		
			1830						9.8		39.4		
			1835						10.1		36.6		
			1840			4.4			10.1		33.6		
			1845						10.6		30.8		
			1846:30	11				26	10.6	43	30.0		
					End day								
			Start Day 2 17 May 84 Record 84-1										
84	05	17	0658	8				26	.	43	.		
			0736					26	36.6	43	37.0		
			0745						40.1		38.7		
			0750						40.1		39.2		
			0755						40.2		41.8		
			0800			4.0			40.1		44.5		
			0805						40.0		47.2		
			0810						39.8		49.8		
			0815			4.0			39.9		52.6		
			0818						40.1		54.2		
			0820						40.2		55.2		
			0825						40.1		57.6		
			0830			3.8			40.1		60.2		
			0835						40.1		62.7		
			0840						40.4		65.2		
			0845						40.2		67.4		
			0850	8				26	40.2	43	69.8		

TAPE #	START	END	COMMENTS AND OBSERVATIONS
SA2			on line 11 (south end)
1820			
			edge of Coastal Plain
1902			
SA2		X	(1919) EOL 11 end 16 May 84 pull gear
NV1		X	At dock End day 1 16 May 84
			17 May 84 Day 2 17 May 84 NV1 SA2 sheet 2 Roll #1
NV1	X	X	leave the dock Port Jeff nice day breezy
NV1	X		0658
SA2	X		0730 Hrs
(1920)			BOL 8 (south end)
1990			
			belt problem fixed fast
			up onto shoal bench (moraine?)
			belt loose, fixed fast
2140			
			on line 8

17 May 84

580 line 4
~~570~~

920-25
920

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES ± MINUTES	LONGITUDE ± DEGREES ± MINUTES	TYPE	QUAL.
84	05	16	0850:19	8				26 64 0.2	43 9 70.0		
			0855	7				37.4	69.8		
			0900	7		3.5		634.6	970.2		
			0906	7				630.3	970.0		
			0910					26.5	70.1		
			0915			5.4		21.9	70.0		
			0920					17.0	70.0		
			0925					12.3	70.1		
			0930			5.6		07.5	70.1		
			0935					26 60 1.9	69.8		
			0940					26 59 7.5	43 9 70.1		
			0945					92.4	70.2		
			0950			5.1		87.7	70.2		
			0955					82.4	70.6		
			1000	7		5.5		578.3	970.4		
			1008:20		C/C			570.0	970.1		
			1010	6				569.6	968.8		
			1015					69.9	64.0		
			1017					70.1	62.5		
			1020			7.2		70.0	58.9		
			1025					70.1	55.7		
			1030					70.0	52.3		
			1031					70.0	51.6		
			1035					70.1	49.1		
			1040			5.0		69.7	45.7		
			1045					570.3	942.5		
			1050			5.0		70.0	39.1		
			1055					70.0	35.8		
			1100					70.0	32.5		
			1105	6				26 57 0.2	43 9 29.4		

TAPE #	START	END	COMMENTS AND OBSERVATIONS	PAGE 6
			EOC 8; BOL 7 C/C	
SA2 2165			on line 7	
			things going well Hydrophone twig is setting up another recorder t	
			second streamer/recorder on line; Del Norte streamer on Ch. 6, SA2 365-1060 hz	
2310				
2363				
			C/C EOL 7; BOL 6	
			change belts on both recorders	
			recorders back on; EPC 4100 out of phase	
2436			EPC 4100 in phase	
			on line 6	

580

17 May 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	17	1110	6		4.7		26	569.8	43	926.1		
			1112:25		c/c				70.0		24.8		
			1115						72.2		24.4		
			1120			5.0			76.0		23.7		
			1125	6					79.7		22.9		
			1125:21	/	c/c			26	580.0	43	922.9		
			1130	4		4.5			80.1		24.8		
			1138						580.2		929.9		
			1140						580.2		931.0		
			1145						580.0		933.8		
			1150						79.8		36.7		
			1155			4.5			80.0		39.8		
			1200						80.1		42.5		
			1205						79.8		45.4		
			1210			4.6			80.2		48.5		
			1215						80.2		51.5		
			1220						80.1		54.4		
			1225			4.4			79.7		57.2		
			1230					26	580.1	43	960.4		
			1235			4.6			580.1		963.4		
			1246						579.9		966.2		
			1245						579.9		969.2		
			1251			4.9			580.0		972.8		
			1255						579.9		975.2		
			1300						579.9		978.2		
			1305						579.8		981.1		
			1310			4.8			579.8		984.2		
			1315						579.9		987.3		
			1320						579.9	43	990.4		
			1325	4		4.9			579.7		993.5		

TAPE #	START	END	COMMENTS AND OBSERVATIONS
SA2 2538			on line 6
			c/c continue line 6
			on line 6
2587			c/c EOL 6 ; BOL 4
			on line 4 EPC 4100 out of phase - changed belt
			EPC 4100 back on line
2653			
2706			
SA2 SA3	X	X	1257 change SA 2 to SA3 0000 ft 120L SA3 start
0000			

590 ft

Day 2 17May84

44040

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	17	1330	4				26	58 0.0	43	996.8		
			1335						80.2	44	000.0		
			1340					26	58 0.0	44	002.7		
			1345						79.8		004.9		
			1350						580.0		007.7		
			1355						580.4		010.7		
			1355						580.4		011.0		
			1400	4					580.0		012.1		
			1400 :57						579.9		012.2		
			1405						79.9		14.8		
			1410						79.9		17.5		
			1415	4		4.6			580.2		020.6		
			1420						80.1		23.2		
			1425						79.9		026.1		
			1430			4.4			579.7		028.8		
			1435	4					580.1		031.7		
			1440						79.7		034.5		
			1447 22	4					79.6		038.6		
			1450						79.8		040.2		
			1453						79.7		41.7		
			1455						78.7		46.6		
			1500					26	581.6	44	044.1		
			1505	4					85.6		46.3		
			1510	/	CLC				89.9		46.6		← wrong check Print-out
			1515	9		3.1			89.5		44.7		
			1520						86.4		40.6		
			1525						87.2		38.3		
			1530			3.6			90.2		38.3		
			1535						89.9		35.1		
			1540	9				26	589.7	44	031.8		

TAPE #	START	END	COMMENTS AND OBSERVATIONS
SA 3 220			EPC 4100 off – change belt
			1340:35 – 1342:35 data gap - sled caught on pot
316			
			slowed to let barge pass
			underway again
401			
455			
550			
			will start minute marks on course breakoff
			start 14:53
			inside breakwater
			c/c EOL 4; BOL 9
			off course to avoid breakwater
828			on course line 9 end 1 min marks
			on line 9

17 May 84

570

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	NAVIGATION LATITUDE ± DEGREES	NAVIGATION LATITUDE ± MINUTES	NAVIGATION LONGITUDE ± DEGREES	NAVIGATION LONGITUDE ± MINUTES	NAVIGATION TYPE	NAVIGATION QUAL.
84	05	17	1545	9		4.9		26	59 0.1	44	02 9.0		
			1550						90.0		25.8		
			1555						89.9		22.6		
			1600						90.0		19.6		
			1605			4.9			89.9		16.6		
			1609:29						90.0		13.9		
			1615	9					89.8		10.9		
			1617:27		C/C			26	58 9.8	44	01 0.1		
			1620	5		3.2			88.0		09.2		
			1625						87.7		10.0		
			1631						78.6		10.1		
			1635			5.2			74.8		10.0		
			1640	5					70.2		10.0		
			1640:20		C/C				69.9		10.0		
			1645	6				26	57 0.0	44	01 2.7		
			1650						70.1		15.6		
			1655			4.6			57 0.0	44	01 8.5		
			1700	6					57 0.0		02 1.4		
			1705					26	56 9.8	44	02 4.1		
			1710						70.0		02 6.9		
			1715			4.3			70.0		29.8		
			1720						70.0		32.6		
			1725						70.4		35.6		
			1730						70.2		38.3		
			1735						69.9		40.9		
			End day 1820. Line 6										

TAPE #	START	END	COMMENTS AND OBSERVATIONS
SA3 875			on line 9
			down, changing paper End roll #1
			restart Start roll #2
			e/c EOL 9; BOL 5
1115			e/c EOL 5; BOL 6
1260			
1316			EOL 6 pull gear End of the day heading day went well too much threshold on wideband Roll #1 At dock 1820 End good day

Start
Day 3 18 May 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	18		DH1				26	.	44	.		
			Start day 3 18 May 84						MCONN 84-1		.		
			0655			leave the dock			18 May 84		.		
			0739			gear in water			.		.		
			0755:29	DH1		4.4		26	593.6	44	022.8		
			0800						597.2		022.9		
			0805						601.4		023.7		
			0810						605.6		024.5		
			0815			4.4			609.8		025.1		
			0820						614.0		025.7		
			0825						618.3		026.2		
			0830			4.5			622.6		027.1		
			0835						627.0		027.7		
			0840						631.1		028.0		
			0845						635.7		029.1		
			0850						640.3		029.7		
			0855		clc	4.5		26	644.4	44	030.0		
			0901	DH-1	cont	3.1			642.3		031.0		
			0905			5.0			638.8		031.4		
			0910						635.5		032.5		
			0915	DH-1	clc				631.9		033.6		
			0917	2		4.8		26	630.5	44	033.9		
			0925			4.8			630.0		029.8		
			0930	2					630.0		026.3		
			0935						629.9		022.7		
			0940			5.5			629.2		019.2		
			0945						630.1		015.8		
			0950						629.9		012.2		
			0955			5.6			630.0		008.5		
			1000						629.8		004.9		

sheet 3
Roll 2
NU2
SA3
delnord 1

DH-1 2, 3, mid cis 14, mid cis 24, mid cis 14

PAGE 10

TAPE #	START	END	COMMENTS AND OBSERVATIONS
NU2			18May84 day 3
NU2	X		0655 Leave the Dock nice day 18May84 gear in water
SA3	X		start line DH-1
↓ 1317			
1460			line going well
x1550			c/c continue Line DH-1
1616			EOL DH-1 BOL 2
1669			gas on record
1765			

Day 3 18 May 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE MINUTES	LONGITUDE ± DEGREES	LONGITUDE MINUTES	TYPE	QUAL.
84	05	18	1005	2				26	630.3	44	001.4		
			1010			5.4			629.5	43	997.7		
			1012						629.6		996.6		
			1017						630.1		993.5		
			1020						630.0		990.8		
			1025			5.3			629.9		998.8		
			1030			5.4			630.1		984.5		
			1035						629.8		981.0		
			1040						630.1		977.5		
			1043	2		5.3			630.0		975.0		
			1045						630.4		974.2		
			1050						630.3		970.5		
			1055						629.5		966.8		
			1100			5.5			630.2		963.4		
			1105						630.3		959.9		
			1108	2					629.8		957.7		
			1111						629.7		957.1		
			1115						630.1		954.9		
			1120						630.0		951.6		
			1125			5.4			630.0		948.0		
			1130						629.7		944.4		
			1135					26	630.1	43	940.9		
			1140						629.9		937.1		
			1143			5.5			629.9		934.4		
			1145	2					629.9		933.3		
			1148	5	C/C				629.9		930.5		
			1150	3					629.0		929.6		
			1155						624.9		930.2		
			1200						620.6		930.1		
			1205			4.7			616.2		929.9		

NU-2
8A3

TAPE #	START	END	COMMENTS AND OBSERVATIONS
			PAGE 11
			Slowed to adjust sled.
			Sled adjustment complete.
1860			Thick clay sequence interp. in record
			Coastal plain deposits significant in record
			large Valley in record
			nice record
			snagged pot 1104 data gap
			underway again 1111
2032			nice record.
			Valley w/ lake days infilling it.
2074			
			nice record - marine.
			EOL 2 BOL 3 c/c nice day
			on line 2
2120			

Day 3 18 may 84 uconn 84-1

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	16	1210	3		4.7		26	611.8	43	930.0		
			1215						607.1		930.1		
			1220			5.5			601.3		930.6		
			1225						597.0		929.9		
			1230						592.6		930.3		
			1235			5.4			587.7		929.8		
			1240						582.9		930.1		
			1245						578.0		930.0		
			1250			5.5			572.5		930.3		
			1255						568.8		930.0		
			1300						564.4		930.0		
			1305						560.2		930.4		
			1310	3/14	C/C	5.1			554.8		930.3		
			1315			2.0			554.9		928.1		
			1320						555.1		924.5		
			1325	14/24	C/C	5.5			554.8		920.8		
			1326						555.2		920.0		
			1330						558.3		920.9		
			1335		C/C				560.3		923.8		
			1340			4.3			559.6		927.3		
			1345						560.1		930.5		
			1350						560.1		934.0		
			1355			5.3			560.1		937.6		
			1400						560.1		941.1		
			1405						560.3		944.5		
			1410			5.4			560.0		947.9		
			1415						560.0		951.6		
			1420						560.1		955.2		
			1425						560.1		958.9		
			1430			5.6			560.2		962.5		

SA 3
NU2

Day 3 18 May 84 uconn 84-1

TAPE #	START	END	COMMENTS AND OBSERVATIONS	PAGE 12
2179				
2270			Out of small valley.	
			Symmetrical ripples in sand.	
			EOL 3 BOL Mid Lis 14 c/c	
			c/c EO3 Mid Lis 14 — BOL Mid Lis 24	
2408			c/c Mid Lis 24 continued	
2518				

Day 3 18 May 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES ± MINUTES	LONGITUDE ± DEGREES ± MINUTES	TYPE	QUAL.
84	05	18	1437	24				26 560.0	43 967.4		
			1440			5.4		560.0	969.6		
			1445					560.1	973.3		
			1450					560.1	977.0		
			1455					560.3	980.6		
			1500			5.6		560.3	984.3		
			1505					560.0	987.7		
			1510					559.8	991.2		
			1515			5.8		560.3	995.0		
			1520					560.5	998.8		
			1525					559.8	44 002.2		
			1530			5.9		559.8	006.0		
			1535					560.3	009.8		
			1540					560.4	013.4		
			1545			5.7		560.1	017.0		
			1550					559.7	020.4		
			1555			5.4		560.2	024.0		
			1600					560.4	027.6		
			1605					560.1	030.9		
			1610	24				559.8	031.4		
			1614	—	clc			559.9	037.2		
			1615	14				559.8	037.4		
			1618					556.7	037.3		
			1620			5.7		554.7	037.1		
			1623					550.7	036.6		
			1624		clc			550.0	036.5		
			1625					549.1	036.2		
			1630					549.8	034.3		
			1635					549.7	031.4		
			1637					549.8	030.0		

* End line mid LIS 14

Day 3 18 may 84

TAPE #	START	END	COMMENTS AND OBSERVATIONS
			nice records
2647			
2736			
			c/c EOL Mid Lis 24 BOL Mid Lis 14
SA3		X	End SA3 near end of day 16 18
SA4	X		start SA4 very short part of mid Lis 14 on idt
000			Cont Mid Lis 14 c/c
			End of Day 3 all went well 18 May 84

At the dock New Haven city Point 1737 hrs

Day 4 19may 84 Start day 4

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	19		10				26	.	44	.		
			Start day 4 19may 84 WLOWW 84-1										
			0705		leave city pier			26	590.8	44	068.0		
			0756	10	begin line			26	600.2	44	049.9		
			0800						599.9		047.4		
			0805						99.7		43.7		
			0810			5.3			600.1		40.8		
			0815						00.3		37.6		
			0820						99.9		34.0		
			0825						600.0		30.8		
			0831						00.1		26.6		
			0834						599.9		24.5		
			0835						99.6		23.7		
			0840						99.9		21.3		
			0845			4.6			99.9		18.3		
			0850						600.4		15.4		
			0856						00.7		11.6		
									00.8		11.0		
			0859						00.8		10.8		
			0900						00.6		10.3		
			0905						599.8		07.2		
			0910						00.4		04.3		
			0915			5.8		26	599.9	44	000.8		
			0920						99.9	43	997.1		
			0925					26	600.0		994.6		
			0930						600.0		991.4		
			0935	10		4.8			600.0		88.1		
			0940			4.8			600.1		85.0		
			0945						0.2		81.8		
			0950						599.9		78.4		

NU2
SA4
Roll 2
Sheet 4

10, 9, 5, 8, 15

TAPE #	START	END	COMMENTS AND OBSERVATIONS
			19 May 84
NU2	X		leave the dock 0705:28 gear in water 0740
SA4	X		startline 10 19 May 84 (0756) nice day
128	X		
128			
			slowed to clear gear (0834)
			started record again (0840)
SA4 463			
			slowed for sailboat 0856.56
			started again (0859)
SA4 691			(0935)

19 May 84 Inc 10

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	19	0955	10				26	600.0	439	25.1		
			1000			5.1			00.3		71.9		
			1005						600.0		68.3		
			1010						99.8		64.9		
			1015			5.0			599.9		61.6		
			1020						600.1		58.2		
			1025						599.6		54.8		
			1030			5.0			600.3		51.8		
			1035						600.3		48.3		
			1041			5.1			99.8		44.2		
			1045						600.0		41.6		
			1046						00.1		41.0		
			1050						599.9		38.3		
			1055						00.2		34.9		
			1100			5.1			99.7		31.4		
			1105						600.5		28.2		
			1110	10	C/C				99.6		24.4		
			1112	09					99.6		23.0		
			1125			4.8		26	590.6		.		
			1125		C/C			26	589.6	439	24.6		
			1130						89.8		27.0		
			1135						590.1		930.8		
			1140			5.3			590.7		934.5		
			1145						590.1		937.7		
			1150						588.9		940.9		
			1155						589.9		944.9		
			1200			5.6			590.2		948.7		
			1205						590.1		952.3		
			1210						589.9		955.8		
			1215			5.6			590.0		959.3		

NU-2
SA4
Roll 2
sheets

10, 9, 5, 8, 15

19 May 84

PAGE 15

TAPE #	START	END	COMMENTS AND OBSERVATIONS
SA4			
938			
1020			
1048			
1114			
SA4 1148-9			(1112.33) C/C F04(10) BOL line(09)
			(1125.47) turn C/C continue line(09)
1250			
1285			
			all going well good records
1380			

19 May 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE MINUTES	LONGITUDE ± DEGREES	LONGITUDE MINUTES	TYPE	QUAL.
84	05	19	1220	9		X		26	589.9	439	62.9		
			1225						89.9		66.3		
			1230			5.3			89.9		69.5		
			1235						89.9		72.9		
			1240						90.2		76.3		
			1245	9		5.2			90.2		79.6		
			1250						89.9		82.9		
			1255			5.0			90.2		86.3		
			1300						90.2		89.8		
			1305						90.0		93.2		
			1316	9		5.7		26	589.8	439	96.5		
			1315						590.0	440	00.2		
			1320						590.4		03.8		
			1325	9	C/C				90.0	44	07.1		
			1329	16 5		5.2		26	590.0	440	10.0		
			1330	5					590.3		10.6		
			1335	5					594.5		09.7		
			1340						99.7		10.2		
			1345			5.6		26	604.6	44	10.0		
			1350						609.6		10.0		
			1355	5					14.8		10.2		
			1358			5.8			618.3		00.1		
			1401						621.8		10.0		
			1405						624.8		10.0		
			1410	5					630.0		09.7		
			1415			5.9			35.4		10.1		
			1420	5	C/C				39.8		09.8		
			1425	8				26	640.5	440	12.1		
			1430						640.1		15.3		
			1435			5.3			40.2		18.8		

NV-2
SAC
Roll 2
sheet 4

10, 9, 5, 8, 15

19 may 84

PAGE 16

TAPE #	START	END	COMMENTS AND OBSERVATIONS
SAC 4 1452			(at 1235)
1522			Flat day nice records
1575			
			C/C EOL 9 BOL 5 132916
1647			on line 5
1725			
			Data Gap - change belt 1358
			resume record [line 5] (1401.53)
1776			
			C/C EOL 5 BOL 8 142014
			gas

19 May 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	NAVIGATION LATITUDE ± DEGREES	NAVIGATION LATITUDE MINUTES	NAVIGATION LONGITUDE ± DEGREES	NAVIGATION LONGITUDE MINUTES	NAVIGATION TYPE	NAVIGATION QUAL.
84	05	19	1440	8				26	640.1	44	025.8		
			1445						40.0		26.6		
			1451	8/15	C/C				639.9		030.0		
			1455						637.9		031.0		
			1500			5.0			634.5		032.1		
			1505						631.2		033.1		
			1510			4.7			627.4		033.5		
			1515	15					624.2		034.5		
			1520						620.8		035.4		
			1521		C/C				620.0		035.5		
			1525	15					618.4		37.1		
			1530			4.9			16.1		38.8		
			1535						614.3		041.2		
			1540						12.2		043.3		
			1545		C/C	5.2			609.9		45.5		
			1550						608.7		46.7		
			1555						603.5		48.1		
			1600						600.3		049.6		
			1600	51	End line 15			26	599.7	44	049.7		

End Day
19 May 84

NU-2
SA 4
Roll 2
Sheet 4

10, 9, 5, 6, 15

19 May 84

TAPE #	START	END	COMMENTS AND OBSERVATIONS
			PAGE 17
SA4			gas
1886			(1445)
			c/c EOL 8 BOL 15 1451
1943			
1995			c/c continue line 15
			(1535)
2057			c/c continue line 15
			Bedrock valleys on records
			have onshore equivalents
			woodmont etc. (1550)
SA4	X	X	End line 15 1600:51
			End of the day 19 May day 4
			End Roll #2 Unibdom Seismics
			At the Dock 1653
			20 May 84 no work at sea
			next day will be 21 May 84

Start the Day 21 — 20 may 84 no work at sea maintain boat

May day 5

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	21		16				26	.	44	.		
						Start day 5 21 may 84				uconn 84-1			
			0747			leave city point		26	590.5	44	068.0		
			8	1		Start line 8		16	.		.		
			0838	16				26	546.5	44	029.9		
			0840						49.4		29.8		
			0845						553.0		29.7		
			0850						58.7		29.8		
			0853						559.2		29.8		
			0855			4.2			60.8		30.0		
			0900						64.9		30.		
			0905						68.7		29.9		
			0910			4.1		26	572.7	44	029.8		
			0915						76.0		29.8		
			0920						79.8		30.0		
			0925			4.5			83.7		29.8		
			0930						87.7		30.1		
			0935						91.6		29.9		
			0940			4.5			95.6		29.8		
			0945						99.6		30.0		
			0950					26	603.6		30.0		
			0955						07.7		29.9		
			1000			4.5			11.7		29.9		
			1005						15.6		30.0		
			1010						19.5		30.1		
			1015			4.5			23.5		30.1		
			1020						27.5		29.8		
			1025			4.4			31.5		29.8		
			1030						36.1		30.1		
			1033						38.4		30.0		

NU 3 Roll 3
SA4 sheet 5 16, 17, 18, 5

21 May Day 5

TAPE #	START	END	COMMENTS AND OBSERVATIONS
			21 may 84
NU-3	x		0747 start the day nice day at city point line 16
			line 16 will be first gearin
SA4	x		0834 start SA4 start line 16 (0838) Begin Roll #3 unicoom
2114			
2178			Laran weak · possible m75 function
			Laran OK Now
2295			
2364			
2455			Change belt - data gap

PAGE 18

21 May Day 5

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	21		16					.		.		
			1035					26	639.9	44	029.9		
			1040						44.2		30.0		
			1045			4.8			48.4		29.9		
10			1047	16/17	C/C				50.0		29.9		
			1050						50.1		28.1		
			1055						50.0		24.9		
			1056	17					50.1		24.3		
			0057						50.0		23.5		
			1100			4.6		26	649.5	44	021.7		
			1105						49.8		18.8		
			1110						49.8		14.9		
			1115			5.1			49.8		11.5		
			1120						50.1		07.7		
			1125						49.9		03.8		
			1130			5.3			49.8	44	000.2		
			1135					26	649.8	39	996.7		
			1140					26	649.8	43	993.9		
			1145			5.2			50.0		990.2		
			1150						50.6		987.1		
			1155						50.0		83.7		
			1200			4.9			49.9		80.6		
			1205						50.0		77.5		
			1210						50.0		74.2		
			1215						50.2		70.9		
			1220			5.2			49.9		67.5		
			1225						49.9		64.1		
			1230						49.9		60.7		
			1235			5.0			49.9		57.4		
			1240						50.0		54.1		

NU3
sheet 5
Roll 3
SAL

21 May Day 5

16, 17, 18, 5

TAPE #	START	END	COMMENTS AND OBSERVATIONS	PAGE 19
NU3 SAL				
2458			Restart tape - end data gap	
2490			C/C EOL 16 / BOL 17 (1047) very nice day good records	
			changebelt data gap 1056	
			back on line OK 1057	
2521				
			Boat rate decreased due to noise (was doing ≈ 6.2)	
2601				
2638				
2726				

21 May Day 5

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	21	1241	17				26	65 0.0	43	95 3.2		
			1247						50.1		49.4		
			1245					26	65 0.1	43	95 0.9		
			1250			4.9			50.1		47.6		
			1255						50.1		44.3		
			1300						50.2		41.0		
			1305	17		5.0			50.1		37.5		
			1310						49.9		33.8		
			1311		4C			26	65 0.0	43	93 2.7		
			1315						52.6		32.8		
			1321			5.3			58.6		34.1		
			1325	17/18 5C					60.0		34.3		
			1326						60.6		36.1		
			1330						59.9		38.5		
			1335			5.1			59.6		41.9		
			1340						60.0		45.6		
			1345						60.9		49.1		
			1350			4.7			59.8		52.1		
			1355						59.2		54.9		
			1400					26	60.2	43	95 8.3		
			1405			5.0			60.0		61.6		
			1410						60.1		64.7		
			1415						60.0		67.9		
			1420			4.8			60.2		71.1		
			1425						60.5		74.4		
			1430						60.0		77.5		
			1435	18					60.3		80.7		
			1440			4.5			60.0		83.6		
			1445						60.1		86.5		
			1450						60.1		89.4		

21 May Day 5

TAPE #	START	END	COMMENTS AND OBSERVATIONS	PAGE 20
SA4		X	EO Tape SA-4	
SA5	X		BO Tape SA-5 *Note - 1245 Reading taken before SA-5 started → (1247)	
0000				
125				
170			C/C continue line 17 (1311)	
238			C/C EOL 17 / BOL 18 (1322)	
380				
562				
718				

21 May 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	21	1455	18		4.7		26	60.1	43	92.4		
			1500						60.1	43	95.4		
			1505						60.0		98.3		
			1510			4.5			60.0	44	01.3		
			1515						59.9		04.1		
			1520						60.0		07.1		
			1525			4.6			59.9		10.1		
			1530						60.0		13.2		
			1531						60.1		14.4		
			1535						59.7		16.1		
			1540			4.5			58.3		18.4		
			1545						56.8		20.8		
			1550						55.0		22.9		
			1555			4.9		26	53.4	44	25.1		
			1600						51.8		27.6		
			1604	18/18	C/C			26	50.1	44	29.8		
			1610						47.9		27.2		
			1615			4.6			46.4		23.7		
			1620						44.7		20.5		
			1625						43.5		17.4		
			1630			4.6			42.4		14.3		
			1635						40.4		11.0		
			1636	18/5	C/C				40.1		10.1		
			1640			4.5			42.4	44	09.9		
			1645						46.7		9.9		
			1650	5					50.9		9.9		
			1655						55.2		9.9		
			1700						59.6		10.0		
			1700:34			4.9		26	60.0	44	10.0		
							End Line 5 22 May 84						

End day 5

NO 3
SAS
Roll 3
Sheet 5

1617185

21 May 84

PAGE 21

TAPE #	START	END	COMMENTS AND OBSERVATIONS
SAS NO 3			
783			
852			
905			C/C Continue line 18 (1531)
1007			
			C/C continue line 18 (1604:43)
			C/C EOL 18 BOL 5 (1636) good day
1191			
1243			
1270 SAS		X	End line 5 / End of day 21 May 84 Pull gear 1759144 At the dock Milford Ct Aquaculture Lab

End day 5

17 59 44 End day

Start day 6 22 may 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	22	0	19				26	.	44	.		
						Start day 5		22 may 84		uconn 84-1			
			0717	leave milford Aquaculture dock					644.1		047.1		
			[illegible]	[illegible]		[illegible]		26	.	44	.		
			0828	19		Starting 19		26	670.0	44	012.4		
			0830						69.4		11.7		
			0835						70.0		09.0		
			0840						70.1		6.0		
			0845			4.6			69.6		2.8		
			0850						70.0		000.2		
			0856						70.0	43	999.6		
			0900			4.3			70.0		94.1		
			0905						69.9		91.0		
			0910						69.9		88.6		
			0915			4.6			69.8		84.9		
			0920						69.8		81.9		
			0925	19					69.9		78.9		
			0930			4.7		26	670.0	43	975.7		
			0935						69.9		72.5		
			0940						70.0		69.3		
			0945			4.9			70.1		66.1		
			0950						69.9		62.8		
			0955						69.9		59.6		
			1000						70.2		56.5		
			1005			4.8			70.1		53.2		
			1010						70.1		50.0		
			1015			4.8			70.0		46.7		
			1020						70.2		43.5		
			1025						70.2		40.3		
			1031			4.6			70.2		36.5		

NU-3
Roll 3
Sheet 6
SA 5

Day 6 22 may 84 19, 18, 3, 23

TAPE #	START	END	COMMENTS AND OBSERVATIONS
			22 may 84
NU-3	x		start the day 0717 nice day milford Aquaculture dock
			gear in 0821
SAS	x		start line 19 continue Roll #3 unbom
1271			
1364			data looks good
1461			
1515			
1613			
1669			

PAGE 22

Day 6 22may84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	NAVIGATION LATITUDE ± DEGREES ± MINUTES	NAVIGATION LONGITUDE ± DEGREES ± MINUTES	NAVIGATION TYPE	NAVIGATION QUAL.
84	05	22	1035	19				26 6 89.9	439 33.9		
			1040					70.0	31.0		
			1045					70.0	27.6		
			1050			4.0		70.0	24.5		
			1055					70.0	21.4		
			1100					69.9	18.3		
			1105					69.9	15.2		
			1105:32	19	C/C			69.9	14.9		
			1110	19				66.9	14.5		
			1115			5.0		62.6	14.6		
			1118	19/18	C/C			60.0	14.6		
			1120					26 6 59.5	439 15.5		
			1125	18				60.1	19.2		
			1130			5.3		60.0	22.8		
			1135					60.1	26.5		
			1137	18/3	C/C			26 6 60.1	439 28.0		
			1141					63.1	30.1		
			1146	3		4.5		67.2	30.1		
			1150					70.6	30.0		
			1155					74.7	30.1		
			1200					78.8	30.0		
			1205			4.7		83.1	30.2		
			1210					87.2	30.1		
			1215					91.2	30.1		
			1220			4.6		95.1	29.9		
			1225	3				699.8	30.0		
			1230					26 70 3.1	30.1		
			1235			4.7		707.1	30.0		
			1240					711.2	30.0		
			1245	3				715.3	30.1		

NU3
Roll 3
Sheet 6
SAS

Day 6 22 May 84 19, 18, 3, 23

TAPE #	START	END	COMMENTS AND OBSERVATIONS	PAGE 23
NU-3 SAS			moraine onshore to east Crane Neck Pt.	
1750				
1832			c/c continue line 19	
1872			c/c EOL 19 / BOL 18 (1118:04)	
1893				
1940			c/c EoL 18 / BoL 3 (1137:11)	
2016				
2106				

Day 6 22 May 84

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE MINUTES	LONGITUDE ± DEGREES	LONGITUDE MINUTES	TYPE	QUAL.
84	05	22	1250	3		4.7		26	719.4	43	930.2		
			1250	3/23	S/C				720.1		930.3		
			1255						20.5		27.9		
			1257	23/23	S/C				19.6		26.4		
			1300			4.2			17.7		25.1		
			1305						14.0		22.6		
			1310	23/23	S/C				710.1		920.2		
			1315						10.1		23.2		
			1320			4.9			9.9		26.7		
			1325						10.2		30.4		
			1330						10.2		34.0		
			1335	23					10.0		37.5		
			1340			4.6			10.0		41.0		
			1345						10.1		44.3		
			1350						10.1		47.7		
			1355			5.1			09.9		51.1		
			1400						10.3		54.7		
			1405			5.0			10.0		58.0		
			1410						10.1		61.1		
			1415						9.9		64.9		
			1420			4.9			10.3		68.4		
			1425						9.9		71.5		
			1430	23					10.3		75.0		
			1435						10.1		78.2		
			1440			4.8			10.1		81.6		
			1445						10.2		84.9		
			1450						10.1		88.2		
			1455			5.1			10.1		91.6		
			1500						10.5		94.8		
			1505						10.1		97.9		

NU3
Roll 3
sheet 6
SAS

Day 6/22 May 84

19, 18, 3, 23

TAPE #	START	END	COMMENTS AND OBSERVATIONS	PAGE 24
NU3 BAS				
2157			C/C EOL 3/BOL 23 (1750:59)	
			C/C Continue line 23 (1257:29)	
2191				
			C/C continue line 23 (1310:03)	
2234				
2277				
2332				
2400				
2441				
2480				
2528				

22 May 84 / Day 6
23 may 84

19, 18, 3, 23

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE MINUTES	LONGITUDE ± DEGREES	LONGITUDE MINUTES	TYPE	QUAL.
84	05	22	1510	23				26	710.3	44	001.0		
			1515						10.0		04.0		
			1520						9.9		7.1		
			1525			4.7			10.0		10.2		
			1530						10.2		13.3		
			1535						10.0		16.2		
			1540			4.6			10.0		19.2		
			1545						10.0		22.2		
			1550						10.0		25.2		
			1551	23					10.0		25.9		
					END LINE 23						22 MAY 84 .		
			1730		End day 6 at Hedock						1730 .		
					Start Day 7				23 May 84				
84	05	23	0631	20	leave Hedock			26	644.1	44	047.1		
					milford								
					clear in 0730			26	671.7	44	014.1		
			07	20	start line 20			26	.	44	.		
			0739						680.		15.6		
			0740						80.2		15.4		
			0745						80.1		12.5		
			0750						79.9		9.5		
			0755			4.3			79.4		6.6		
			0800						79.6		3.8		
			0805						79.6		0.9		
			0810			4.2		26	680.0	43	998.2		
			0815						80.0		95.4		
			0820						80.0		92.5		
			0825			4.4			80.1		89.7		
			0830						80.1		86.8		
			0835						80.1		83.9		

NU3
Roll3
Sheet6
SA5

22 May 84 Day 6 / 19, 18, 3, 23
/ 23 May 84

PAGE 25

TAPE #	START	END	COMMENTS AND OBSERVATIONS
NU3 SA5			
2559			
2623			
SA5			
2639	X		EOL 23 / End of Day 22 May 84 Pull Gear (1551:18) End SA5 End Roll #3
1730			Dock time: Milford Aquaculture Lab. 22 May 84
			Start Day 7 23 May 84 NU3 SA6 Roll4 sheet7 20, 21, 5
NU-3	X		leave the dock milford Aquaculture lab 0631 Gear in water 0730
SA6	X		start line 20 (Tape at 10000) (0739:26)
0050			1st Reading - Start Mark
154			
367			

Begin Page 25

23 May 84 Day 7 20, 21, 5

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	NAVIGATION LATITUDE ± DEGREES	NAVIGATION LATITUDE ± MINUTES	NAVIGATION LONGITUDE ± DEGREES	NAVIGATION LONGITUDE ± MINUTES	NAVIGATION TYPE	NAVIGATION QUAL.
84	05	23	0840	20		4.5		26	68 0.1	43	98 0.1		
			0845						68 0.1		97 8.0		
			0850						68 0.1		97 4.9		
			0855						80.0		71.9		
			0900			4.8			80.		68.7		
			0905						79.9		65.6		
			0910						80.1		62.7		
			0915			4.5			80.0		59.8		
			0920						79.9		56.8		
			0925						80.0		53.9		
			0930			4.4			79.9		50.8		
			0935						79.9		47.8		
			0940						80.0		44.8		
			0945			4.3			80.2		42.0		
			0950						80.1		39.1		
			0955						79.7		36.1		
			1000			4.1			79.7		33.4		
			1005						80.3		30.9		
			1010			3.9			80.0		28.0		
			1015						80.1		25.2		
			1020						80.1		22.4		
			1026			3.8			80.2		19.3		
			1030						79.8		17.2		
			1035	20					80.2		14.7		
			1036	c/c continue line 20				26	68 0.2	43	91 4.1		
			1040	20					82.4		13.8		
			1045						85.7		13.3		
			1050						88.9		15.0		
			1051	20/21 c/c					90.1		14.2		
			1055			3.4			89.9		16.2		

NO3
SA6
ROW4
Sleet7

23 May 84 Day 7 20, 21.5

PAGE 26

TAPE #	START	END	COMMENTS AND OBSERVATIONS
NO3 SA6			
610			
710			nice day good records
825			
958			
990			C/C continue line 20
			Made turn to North to avoid shallows water
1055			EOL 20/BOL 21 S/C (1051:47)

23 May 84 Day 7 20, 21.5

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	23	1100	21				26	90.0	43	920.0		
			1105						90.0		23.5		
			1110			5.4			90.0		27.3		
			1115						90.0		31.1		
			1120						90.0		34.8		
			1125						90.1		38.4		
			1130			5.3			90.1		42.2		
			1135						90.1		45.7		
			1140						90.2		49.3		
			1145			4.8			90.2		52.9		
			1150						90.1		56.6		
			1155			5.6			90.1		60.3		
			1200						90.0		64.0		
			1205						90.1		67.8		
			1210						89.9		71.4		
			1215			5.4			90.0		74.9		
			1220						90.1		78.4		
			1225						89.5		81.8		
			1230			5.4			90.1		85.4		
			1235						90.1		88.9		
			1240						90.1		92.4		
			1245			5.2			90.0		96.8		
			1250						90.2	43	999.6		
			1255						90.0	44	002.8		
			1300			5.2			90.0		6.2		
			1305						90.3		9.8		
			1310						90.3		12.9		
			1315			4.7			90.6		16.0		
			1320						90.1		19.4		
			1325						90.0		22.8		

23 May 84 Day 7 20, 21, 5

TAPE #	START / END	COMMENTS AND OBSERVATIONS	PAGE 27
		following sea records poorer after turn	
1224			
1301			
1412			
1500			
1536			
1621			

23 May 84 Day 7 20, 21.5

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	23	1326	21/21	C/C			26	690.0	440	24.0		
			1330						687.8		23.0		
			1335						84.7		20.2		
			1340			4.0			81.5		17.3		
			1342	21/21	C/C			26	680.1	440	16.0		
			1345						77.6		15.1		
			1350						73.2		13.6		
			1353	21/21	C/C	4.5		26	670.1		12.5		
			1355						69.0		12.4		
			1400						64.7		17.3		
			1402						63.2		11.5		
			1404						63.1		12.5		
			1405						62.7		12.9		
			1407			4.0			61.8		13.5		
			1410						59.8		13.5		
			1411						59.3		13.0		
			1413						59.2		12.1		
			1415						59.6		11.1		
			1417						59.5		10.4		
			1418	31/5	C/C				60.4		10.3		
			1420						61.9		10.7		
			1425						66.2	440	09.9		
			1429	5				26	670.0	440	10.2		
				EOL 5			End of Day. 23 May 84						

23 May 84 Day 7 20, 21, 5

TAPE #	START	END	COMMENTS AND OBSERVATIONS	PAGE 28
1628			C/C continue line 21	(1326:47)
			C/C continue line 21	(13:42:15)
1689				
1718			C/C continue line 21 fairly rough	(13:53:38)
1798			C/C EOL 21/BOL 5	(1418:18)
1832			EOL 5 / End of day 23 May 84 Day short due to severe squall/thunderstorm warnings. End line 5 short of goal head in owing to weather.	(1429:38)
NV3	X		(1535) At the dock milford aquaculture lab in in time to miss seas	

X X X X X

24 May 84 Day 8 5, 22, 24, 25

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE MINUTES	LONGITUDE ± DEGREES	LONGITUDE MINUTES	TYPE	QUAL.
			START DAY 8					24 MAY		84			
84	05	24	0638		LEAVE DOCK			26	44.1	44	04 7.1		
			0740						.		.		
					← start time 5				.		.		
			0741	5				26	69.8	44	09.9		
			0745						73.4		9.5		
			0750						77.4		9.8		
			0755			4.4			81.4		10.0		
			0800						85.2		9.9		
			0805						89.1		10.0		
			0810						93.0		9.9		
			0815			4.5		26	96.9		9.9		
			0820						701.		9.9		
			0825						05.2		10.1		
			0830			4.7			9.2		9.9		
			0831	5/5	4/4				10.2		10.		
			0835						9.9		11.4		
			0836						9.3		12.3		
			0840			5.3			708.4		14.2		
			0845						6.5		16.5		
			0850						4.8		19.0		
			0855						3.3		21.6		
			0900			5.1			1.9		24.2		
			0903			5.0			1.1		25.8		
			0905	5/22	4/4				700.1		26.6		
			0910			4.2			697.1		23.9		
			0915	22					97.0		21.1		
			0920						98.7		19.1		
			0925						699.9		17.0		
			0930	22		4.7			99.9		13.8		

Roll 4
SA 6
sheet 8
NU4

24 May 84 Day 8 5; 22, 24, 25

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TAPE #	START	END	COMMENTS AND OBSERVATIONS
			START DAY 8 24 MAY 84
NU-4	X		LEAVE DOCK MILFORD, CONN Aquaculture Lab 0638:51
			gearing will pick up line 5 where left off last night
SA6	X		1832 Startline 5 24 may 84 (0741) clock not in sync mark ok time in magic marker on NU-4
1860			→ Approximately
2010			C/C Continue line 5 (08:31:27)
2112			C/C EOL 5 / BOL 22 (0905:4→13)
IR			
2185			

24 May 84 Day 8 5, 22, 24, 25

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	24	0935	22				26	700.0	44	010.6		
			0940						0.1		7.4		
			0945			4.8			0.2		4.3		
			0950						700.0		1.0		
			0955						99.9	44	997.7		
			1000			5.0			99.8		94.4		
			1005						700.0		91.1		
			1010						700.0		87.9		
			1015			4.9			700.0		84.6		
			1020						700.0		81.5		
			1025			4.9			700.0		78.3		
			1030						700.0		75.1		
			1035						700.0		71.9		
			1040			4.6			700.1		968.9		
			1045						700.1		65.6		
			1050						0.2		62.7		
			1055						700.0		59.4		
			1100			4.7			700.0		56.2		
			1105						700.0		52.9		
			1110						700.0		49.7		
			1115			4.7			700.0		46.3		
			1120						700.1		43.1		
			1125						699.9		39.6		
			1130			4.7			700.1		36.4		
			1135						700.2		33.2		
			1140			4.9			700.2		29.8		
			1145						700.0		26.3		
			1150					26	700.0	43	922.9		
			1155	22					700.2		19.5		
			1157	25/24		5.3		26	699.9	43	917.9		

Roll 4
SA 6
Sheet 8
NV-4

24 May 84 | Day 8

5, 22, 24, 25

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TAPE #	START	END	COMMENTS AND OBSERVATIONS
NU4 SA6			
2358			
2512			
2564			
			EOL 22 / BOL 24 11 57 10

24 May 84 Day 8

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE MINUTES	LONGITUDE ± DEGREES	LONGITUDE MINUTES	TYPE	QUAL.
84	05	24	1200	24				26	701.6	439	18.4		
			1205						705.9		920.4		
			1210						10.1		22.3		
			1215			4.4			14.2		24.5		
			1220						18.3		26.3		
			1225			4.3			22.3		28.4		
			1226		End SAG		Begin SAT		23.4		28.8		
			1230						26.4		30.5		
			1231	24	START		SAT		27.2		30.6		
			1234	24/34	C/C				30.0		31.9		
			1235						30.4		32.3		
			1240			4.0			30.1		35.3		
			1242						30.1		36.5		
			1245						30.2		38.5		
			1250			4.7			30.1		41.8		
			1255						30.2		45.1		
			1300						29.8		48.2		
			1302	24/25	C/C		EOL 24/1302 25		30.0		50.0		
			1305						28.2		50.2		
			1310	25					23.6		49.9		
			1315			5.2			19.2		50.1		
			1320						14.7		58.0		
			1325						710.4		950.0		
			1330			3.0			6.0		50.0		
			1335					26	701.7		50.1		
			1340			4.9		26	697.3	439	50.1		
			1345						93.1		50.1		
			1350						88.7		49.9		
			1355			4.9			84.4		50.1		
			1400						80.1		50.0		

SA6/SA7
Sheet 8
NV-4

24 May 84 Day 8

5, 22, 24, 25

PAGE 31

TAPE #	START	END	COMMENTS AND OBSERVATIONS
NV-4 SA6/SA7			Nice day good records
≈2800			(12:26:18) End SA6 / START SA7
0000			START SA7
22			C/C Continue Line 24
94			
193			
210			C/C EOL 24 / BOL 25 (13:02:40)
344			
482			
536			

24 May 84 Day 8

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	24	1405	25				26	67S.4	439	50.0		
			1410			5.1			71.2		49.9		
			1415						66.8		50.1		
			1420						62.9		50.1		
			1425						57.8		50.0		
			1430			5.3			53.1		50.2		
			1435						48.3		50.0		
			1440						43.8		50.0		
			1445			5.3			39.3		50.0		
			1450						35.1		50.1		
			1455						30.9		50.0		
			1500			4.7			27.0		50.2		
			1505						22.8		50.0		
			1510	25		4.6			18.7		50.1		
			1515						14.7		50.0		
			1520						10.5		50.1		
			1525						06.4		50.0		
			1530			4.6		26	02.4	439	50.1		
			1535					26	98.3		50.0		
			1540			4.6			94.3		50.1		
			1545						90.2		50.0		
			1550						86.2		50.0		
			1555			4.4			82.3		50.0		
			1600						78.4		50.0		
			1605						74.5		50.0		
			1610						70.6		50.0		
			1615			4.3			66.9		50.0		
			1620						63.1		50.0		
			1624	25	EOL 25			26	56 0.0	439	50.0		
			END OF Day 8		24 MAY 84								

Roll 4
SA7 sheet 6
NV-4

24 May 84 Day 8 5, 22, 24, 25

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TAPE #	START	END	COMMENTS AND OBSERVATIONS
SA7 NV-4			
↓ 588			
662			
760			
857			
903			
958			
1006			
1090			
1182	X		EOL 25 END OF DAY 8 24 May 84
			Pull Gear Head for Port Jefferson

at the dock 1751:31

25 May 84 Day 9 7,26

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
84	05	25	0635	7	start of Day 9 25 may 84 uconn 84-1								
									.		.		
			0751	7	start line 7			26	640.5	43	970.0		
			0755						43.2		69.8		
			0800			3.6			47.7		70.0		
			0805						51.8		69.8		
			0810			4.8			56.2		70.0		
			0815						60.6		69.6		
			0820						65.1		70.1		
			0825			5.1			69.5		69.9		
			0830						73.7		69.9		
			0835						78.1		70.0		
			0840			4.9			82.3		70.0		
			0845						86.7		70.0		
			0850						91.0		70.0		
			0855			5.1			95.4		69.9		
			0900					266	99.8		70.0		
			0905					267	04.3		70.0		
			0910			5.3			709.0		70.2		
			0915						713.2		69.8		
			0920						17.7		70.1		
			0922	7/7	9/c				720.		970.		
			0925						20.8		70.1		
			0930						20.1		74.		
			0935						20.1		72.4		
			0940			4.9		267	20.1	43	980.7		
			0945						20.2		84.2		
			0950						20.0		87.4		
			0954	7/26	9/c	4.8		267	19.1	43	990.1		
			0955	26					19.8		90.5		

Roll 4
SA 7
sheet 9
NU 4

25 May 84 Day 9 7,26

TAPE #	START	END	COMMENTS AND OBSERVATIONS PAGE 33
NU-4	X		leave the dock port Jeff 0635:33 municipal dock
			generator problem 0715 switch to AC power and try it
SA-7 1182	X		100ks OK Start line 7 25 may 84 (07:51:56)
	X		
1429			
1535			
1597			C/C Continue line 7 (09:22:58)
1653			
1700			C/C EOL 7 / BOL 26 (09:54:

25 may 84 day 9 326

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	NAVIGATION LATITUDE ± DEGREES	NAVIGATION LATITUDE ± MINUTES	NAVIGATION LONGITUDE ± DEGREES	NAVIGATION LONGITUDE ± MINUTES	NAVIGATION TYPE	NAVIGATION QUAL.
84	05	25	1000	26				26	715.8	43	990.1		
			1005						11.4		90.1		
			1010					26	706.8	43	990.0		
			1015			5.2			702.3		90.1		
			1020					26	697.8		90.1		
			1025			5.2			693.5		90.1		
			1030						688.9		90.0		
			1035						684.4		90.1		
			1040						679.7		90.1		
			1045						675.0		90.1		
			1050			5.4			669.9		90.0		
			1055			5.7			665.3		90.1		
			1100						660.3		90.0		
			1105						655.3		90.0		
			1110						650.1		90.0		
			1115			5.8			645.1		.		
			1120						640.3		.		
			1125						635.6		90.0		
			1130			5.2			631.0		90.0		
			1135						626.3		89.9		
			1140						622.0		90.1		
			1145			5.1			617.6		90.1		
			1150						613.0		90.0		
			1155			5.1			608.5		90.1		
			1200					26	604.0		90.2		
			1205					26	599.4	43	989.9		
			1210						595.2		90.1		
			1215			5.1			590.6		90.0		
			1220						585.9		90.0		
			1225						581.4		90.1		

Roll 4
SM7
sheet 9
NU-4

7,26

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TAPE #	START	END	COMMENTS AND OBSERVATIONS
NU04 SM7			(Tape-1720)
			very nice day all well on AC power last line
1753			
1801			
1861			
2002			
2134			

25 May 84 Day 9 5,26

YR	MO	DAY	TIME	LINE #	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	NAVIGATION LATITUDE ± DEGREES ± MINUTES	NAVIGATION LONGITUDE ± DEGREES ± MINUTES	NAVIGATION TYPE	NAVIGATION QUAL.
84	05	25	1230	26		5.2		26 57 6.7	43 99 0.0		
			1235					70.2	90.1		
			1240			5.1		67.5	90.0		
			1245			5.0		63.2	90.2		
			1248	EOL 26				26 56 0.0	43 89.9		
				End of Day			End of Cruise		UCONN	84-1	

25 May 84 Day 9 7:26

TAPE #	START	END	COMMENTS AND OBSERVATIONS	PAGE 35
2179				
2177				
2228		x	EOL 26 End of Day 9 (12:48:24)	
			END OF Cruise UCONN 84-1	
			End N-4 at 1314 At the dock	
			at 1408:30 New Haven unload	
			uconn at city point 25may84	