Astorias
76021 ASTR 76-6
76039 ASTR OCT 76
77024 ASTR 7-77

CRUISE LOG BOOK

CRUISE
A-6-76

UNIBOOM
NANTUCKET SOUND

PROPERTY OF: *Charles J. O'Hara*
U. S. GEOLOGICAL SURVEY
OFFICE OF MARINE GEOLOGY
WOODS HOLE, MASS. 02543
PHONE (617) 548-8700

ASTR JUN+OCT 76
76021 103511
76039
77024 July 77

37,951.5
69,855.0

Charles J. O'Hara

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD		NAVIGATION Cape Race	Dana
21	06	76	1230					379254	69871.8
			1245					37926.1	69866.0
			1300					37926.1	69860.2
			1306.5					37926.0	69858.0
			1315					37933.3	69857.8
			1321				c/c	37938.4	69857.9
			1330					37938.0	69861.0
			1345					37937.9	69866.7
			1355				c/c	37938.2	69869.9
			1400					37933.4	69870.1
			1415					37919.0	69869.9
			1428					37[illegible].6	69869.8
			1434					37899.7	69870.3
			1438					37896.3	69870.4
			1440					37894.4	69870.1
			1445					37888.5	69870.2
			1450					37884.4	69869.9
			1455					37878.2	69870.2
			1500					37872.9	69870.2
			1505					37867.7	69870.3
			1510					37861.7	69870.1
			1511				c/c	37860.8	69870.2
			1515					37858.2	69871.2
			1520					37853.0	69872.3
			1525					37848.4	69872.9
			1530					847.0	873.4

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV	SONO	STA.	
							NS-3 Cape Race START UNIBOOM
							Dana SURVEY - NANTUCKET SOUND
							OCDALE, O'HARA, FERREDEE, FORRESTEL
							C/C CONTINUE NS LINE 3
							END LINE NS 3 START LINE NS 2
							END LINE NS 2 TEMP. START LINE NS 4
							NS-4
							Change Belt.
							Resume NS 4
							TO Avoid Shoal
							EPC malfunctioning - pulling gear on north Work Hole

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD		NAVIGATION CAPE RACE		DANA	
22	06	76	0735								
			0923					37	925.7	69	875.8
			0930					37	926.2	69	877.9
			0936					37	926.7	69	880.0
			1016					37	926.3	69	892.3
			1030				C/C	37	926.0	69	896.8
			1036					37	921.1	69	897.1
			1040					37	917.6	69	896.9
			1045				C/C	37	913.6	69	897.0
			1100					37	914.0	69	890.6
			1115					37	914.0	69	884.0
			1130					37	913.9	69	876.7
			1145					37	914.1	69	870.4
			1150					37	913.9	69	867.1
			11515								
			1200						914.3		863.5
			1205				O/A		915.0		861.9
			1210						910.9		861.7
			1215						907.4		861.8
			1220						903.8		861.8
			12225				C/C		902.0		862.1
			1230						902.1		864.5
			1245					37	902.2	69	869.4
			1300				→	37	902.1	69	873.8
			1315				→		901.9		878.3
			1330				→		902.4		883.5
			1345						902.1		887.9
			1352						902.0		890.1
			1400						902.6		891.3
			1426						902.0		899.6

OPS						COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO. STA.	

JUNE 22 1976

DEPART WH ON ROUTE NANTUCKET SOUND
TO RESUME NS-3, HEADING SE - Resume NS3

Shut Down to Change Bolt on Recorder
Recorder working again, continue NS3
End NS 3, Commence NS 5

C/C Continue Line NS 5

Shut Down to Change Bolt

C/A con't line NS-5

End Line NS 5, commence NS 6
LINE NS-6 Nantucket Sound

con't line NS-6 heading SE 155°T

Change Paper & Belt
Resume line NS-6 - Down working
Record Book on

GMT				TIME ZONE	SHIPS		NAVIGATION				
DAY	MO	YR	TIME	±	COURSE	SPD		CAPE	RACE	DANA	
22	06	76	1430					37	901.7	69	900.7
			1445						901.9		906.0
			1500						902.3		910.2
			1513				c/c	37	902.0	69	913.2
			1515						900.8		912.9
			1520						896.3		910.8
			1525						892.4		908.6
			1528				c/c		889.9		907.3
			1530						889.3		906.5
			1545						890.2		901.1
			1600					→ 37	890.0	69	895.7
			1615					→	889.8		890.4
			1620						[illegible]		[illegible]
			1630						890.5		886.1
			1645						889.8		881.4
			1700						889.8		877.4
			1715						890.2		873.1

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV	SONO	STA	
							Cont. Line NS 6
							C/C End NS 6, Commence NS 7
							Continue NS 7
							Swup slowed when mark pushed
							End Line NS 7 temporarily call it a day on route to WH - will try to repair your Epsco L-C receiver - muffin fan out (?) overheating

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD		NAVIGATION CAPE REF	DANA
23	06	76	0844					37 889.8	69 870.8
			0900					37 890.2	69 865.4
			0902				c/c	37 889.9	69 865.1
			0905					37 887.0	69 865.3
			0910					37 882.5	69 865.6
			0915				c/c	37 878.0	69 865.3
			0930					878.3	871.2
			0945					878.2	876.5
			1000					878.7	882.5
			1015					876.0	887.8
			1030					878.4	893.2
			1045					876.2	898.4
			1100					878.9	903.7
			1115					877.8	908.3
			1119				c/c	37 878.3	69 910.0
			1125					874.1	910.1
			1130					870.4	910.1
			1136.5					866.0	910.1
			1145					866.2	907.0
			1200					865.8	901.0
			1215					864.3	895.5
			1230					865.9	889.9
			1245					866.0	883.4
			1300					866.1	878.1
			1315					866.0	872.5
			1316.5					865.8	871.7
			1330					855.8	872.0
			1333					853.4	872.0
			1345					854.4	876.3
			1400					854.3	880.9

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV	SONO	STA	
							start new day, resume Line NS-7
							c/c End NS-7, Commence Line NS-8
							c/c Continue Line NS-8
							c/c END LINE NS-8; commence line NS-9 to NE
							c/c CONTINUE LINE NS9
							c/c END NS-9 START NS-10
							c/c CONTINUE LINE NS-10

GMT DAY	GMT MO	GMT YR	GMT TIME	TIME ZONE ±	SHIPS COURSE	SHIPS SPD	NAVIGATION CAPE RACE	NAVIGATION DANA
23	06	76	1415				37853.9	69885.7
			1430				853.8	890.7
			1445				854.0	895.4
			1500				854.0	899.8
			1515				854.0	904.3
			1531				853.8	909.6
			1545				854.1	913.0
			1600				853.6	916.1
			1604				853.7 9194	919.4
			1610				847.3	920.0
			1615:15		C/A		842.0	919.8
			1630				842.3	915.5
			1645				841.8	911.3
			1700				842.1	906.5
			1716				842.0	901.9
			1730				842.1	898.0
			1747				842.0	894.1
			1800				842.0	890.3
			1800:30				842.2	890.4
			1815				849.5	889.7
			1830				857.8	890.1

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	
							Con't line NS-10 Nantucket Sound
							End line NS-10, commence line NS-11
							C/A con't line NS-11 to NW
							END LINE NS-11 temp, start line NS-12
							Con't line NS-12
							CALL IT A DAY

GMT				TIME ZONE	SHIPS		NAVIGATION	
DAY	MO	YR	TIME	±	COURSE	SPD	CAPE RACE	DANA
24	06	76	0840	.30			37 932.6	69 890.1
			0845				37 928.4	69 890.2
			0900				37 913.6	69 890.0
			0915				37 898.4	69 890.1
			0930				37 882.7	69 889.9
			0945				37 868.8	69 890.2
			1000				37 853.8	69 890.2
			1015				37 839.9	69 890.3
			1030				37 826.7	69 889.8
			1045				37 814.9	69 890.0
			1100				37 802.2	69 889.9
			1115.5				37 789.7	69 890.0
			1130				777.7	890.0
			1145				765.8	890.0
			1149				767.1	890.1
			1200				754.9	890.1
			1215				741.9	890.1
			1230				729.0	889.9
			1245				715.7	889.9
			1300				37 702.7	69 890.2
			1315				689.4	890.0
			1330				37 675.4	69 890.2
			1332		c/c		673.6	890.1
			1345				674.5	894.4
			1359				674.2	899.2
			1401				674.3	899.8
			1410				674.2	902.6
			1413				673.9	902.8
			1430				674.2	908.9
			1433		c/c		677.0	910.2

TOP OF THE MORNING O'HARA

OPS								COMMENTS AND OBSERVATIONS
	12 KHz	3.5 KHz	CSP	MAG	GRAV	SONO	STA	
								START NEW DAY, RESUME LINE NS-12
								Shut Down Recorder to Change Belt
								Belt on resume line NS-12
								c/c End line NS-12 temporarily; commence line NS-13 heading SE
								Shut Down Recorder to Change Belt
								Back on
								Shut Down system to Clear Catamaran
								End line 13 temporarily, start line NS 14

GMT				TIME ZONE	SHIPS		NAVIGATION		
DAY	MO	YR	TIME	±	COURSE	SPD			
			1445				37683.3	69910.1	
			1500				37694.8	69909.9	
			1515				37706.8	69910.1	
			1530				37718.2	69909.5	
			1545				37730.0	69909.9	
			1600				37741.3	69909.9	
			1615				37752.8	909.7	
			1630				764.8	910.3	
			1643				774.8	910.0	
			1645				776.9	909.9	
			1700				787.6	909.9	
			1715				799.7	910.2	
			1730				811.4	910.1	
			1745				814.9	910.1	

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV	SONO	STA	
							NANTUCKET SOUND
							Con't line NS-14
							Changed Belt on Recorder
							EPC back on con't line NS-14
							con't line NS-14
							Temp. End line NS-14 Call it a day on route Woods Hole

GMT				TIME ZONE	SHIPS		NAVIGATION
DAY	MO	YR	TIME	±	COURSE	SPD	
25	06	76					

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	
							NO GO, INCLEMENT WEATHER

GMT DAY	GMT MO	GMT YR	GMT TIME	TIME ZONE ±	SHIPS COURSE	SHIPS SPD	NAVIGATION CAPE RACE	NAVIGATION JANA
26	06	76	0725					
			0730					
			*1104				38200.1	69877.8
			*1115				38200.0	69874.4
			*1130				200.3	869.7
			*1145				198.8	864.7
			*1148				200.2	864.1
			115530				206.4	864.7
			*1200				209.5	864.8
			1205				213.8	865.4
			*1210				217.6	866.0
			1215				221.4	866.2
			*1220				225.2	866.1
			1225				229.1	866.8
			122930				231.1	867.4
			1235				235.7	867.9
			1240				239.9	868.4
			*1241				240.2	868.7
			1246				239.8	871.0
			1250				240.3	872.5
			1255				240.0	874.5
			*1300				240.0	876.5
			*1308				239.9	880.0
			*1315				234.9	881.7
			*1320				231.1	882.8
			*1322				229.7	883.2
			*1324				229.8	882.6

OPS						COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO. STA.	
						ON BOARD
						DEPART WOODS HOLE, OY ROUTE TO BROWNS LEDGE
						DREDGE SPOIL DUMP SITE; EASTERN RHODE ISLAND
						SOUND - SW (10 M) OF CUTTYHUNK - START OF
						LINE BL-1 SITE SURVEY
						START LINE BL-1
						CC CONTINUE BL LINE 1
						Cont BL-1
						DOWN FOR BELT CHANGE
						RESUME SPEED
						C/C END BL-1 START BL 2
						CC CONTINUE BL 2
						C/C End line BL-2, commence line BL-3
						EPC off Pegan Change

GMT DAY	GMT MO	GMT YR	GMT TIME	TIME ZONE ±	SHIPS COURSE	SHIPS SPD	NAVIGATION CAFE RACE	NAVIGATION DANA
26	06	76	1329	X			382230.5	698820
			X1395				230.0	876.6
			X1400				230.1	871.5
			X1420				229.8	869.5
			1430				229.7	861.0
			X1440				230.0	857.9
			1450				220.3	857.4
			X1450:45				219.8	857.3
			X1500				220.1	861.0
			X1515				220.1	866.7
			X1530				220.1	872.6
			X1545				219.8	878.7
			X1600:30				219.8	884.8
			1635				215.5	884.9
			X1641:30				209.8	885.0
			X1645				210.3	883.8
			X1700				210.1	878.8
			X1715				209.9	873.5
			X1730				210.1	868.3
			X1745				210.1	862.8
			X1753				210.2	860.2
			X1800				215.8	860.0
			X1815				227.5	859.6
			X1820				231.4	860.2
			X1825				234.0	861.6
			X1830				236.7	863.3
			X1835				239.8	864.9
			X1836:30				239.1	865.2
			X1838:30				237.1	865.1
			X1845				230.0	865.4

OPS						COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO. STA.	
						C/C on con't line BL-3
						con't line BL-3
						con't line BL-3
						c/c con't line BL-3
						[redacted]
						CC END LINE BL-3 START BL 4
						c/c CONTINUE LINE BL4
						RESUME BL4 AFTER STOP FOR LORAN C REPAIR
						[redacted] C/C END BL-4 START BL-5
						con't line BL-5 Eastern Rt Sound
						C/C CONT BL 5
						c/c END BL5 START BL6
						CC CONTINUE BL6
						BELT CHANGE EPC OFF
						RESUME POWER

GMT				TIME ZONE	SHIPS		NAVIGATION	
DAY	MO	YR	TIME	±	COURSE	SPD	CAPE RACE	DANA
26	06	76	1900				3821 6.5	69 865.2
		X	1915				201.8	864.7
		X	1928				189.6	865.0

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	
							CONTINUE BL 6
							CALL IT A DAY END LINE BL6

GMT				TIME ZONE	SHIPS		NAVIGATION	
DAY	MO	YR	TIME	±	COURSE	SPD		
27	06	76	0530					
			0648	30			38189.8	69864.3
			0700				189.8	868.0
			0705				190.2	869.7
			0715				199.1	869.7
			0730				212.1	870.1
			0745				225.7	869.8
			0800				239.1	869.9
			0815		C/C		252.9	869.8
			0831				252.2	875.0
			0845				239.6	875.2
			0900				225.3	874.9
			0915				211.7	875.2
			0928				199.7	875.3
			0930				201.0	876.0
			0935				204.7	877.5
			0940				208.4	879.1
			0942				210.0	880.0
			1000				226.7	879.9
			1015				240.8	880.1
			1025				249.9	880.1
			1030				250.3	878.1
			1038				250.0	874.9

CAPE RACE - 38, 105.3
DANA - 69, 857.9 } Cuttyhunk Hbr

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	
							DEPART CUTTYHUNK HBR, IN ROUTE TO BROWNS LEDGE DREDGE SPOIL PUMP SITE ACOUSTIC SURVEY TO START LINE # BL-7
							START BL-7
							c/c CONTINUE LINE BL7
							c/c End line BL-7, commence line BL-8
							c/c con't line BL-8
							c/c end LINE BL 8 START BL 9
							c/c CONTINUE BL-9
							END LINE BL-9 FINISH B L SURVEY
							ON ROUTE TO NORTHERN PART OF VINEYARD SOUND TO RERUN LINES 1-5

GREEN ORANGE

GMT DAY	GMT MO	GMT YR	GMT TIME	TIME ZONE ±	SHIPS COURSE	SHIPS SPD	NAVIGATION CAPE RACE	NAVIGATION DANA
			1329				38010.1	6 877.3
			1345				009.8	872.3
			1400				009.7	866.7
			1415				009.7	861.8
			1415	30			009.8	861.7
			1420				007.4	861.4
			1425				003.6	861.9
			1430				38000.2	860.8
			1433		a/c		37997.9	860.5
			1445				997.9	864.3
			1500				998.1	869.0
			1515				998.0	874.4
			1519		a/c		997.3	875.4
			1525				992.8	875.5
			1530				988.3	875.7
			1532	30			985.5	875.3
			1545				985.7	871.2
			1600				986.4	866.6
			1615				985.7	861.0
			1620				982.5	860.9
			1625				978.8	860.5
			1630				975.1	860.2
			1631	30			973.7	860.0
			1645				974.0	864.5
			1700				974.2	869.2
			1713				973.7	873.7
			1720				967.4	873.6
			1725				963.0	873.7
			1726	30			961.6	873.8
			1730				961.6	872.5

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV	SONO	STA	
							START #5 LINE RERUN VINEYARD SOUND
							CC CONTINUE LINE 5
							CC end LINE 5 START LINE 4
							con't line 4 rerun
							cc cont line 4 RERUN
							END LINE 4 RERUN START LINE 3 RERUN
							CC CONTINUE LINE 3 RERUN
							CC END LINE 3 START 2
							CC CONT' LINE 2
							CC end LINE 2 St LINE 1

GMT				TIME ZONE	SHIPS		NAVIGATION	
DAY	MO	YR	TIME	±	COURSE	SPD		
			1745	30			37961.8	69867.2
			1800				961.7	69862.1
			1805		c/c		962.0	860.1
			1815				963.0	860.0

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	
							c/c + shut down paper + belt change.
							GOD DAMN RECORDER OUT - NO SIGMA C INPUT?

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD	NAVIGATION	
28	06	76	0752				37962.0	69860.0
			0900				952.7	69860.9
			0802	30			949.9	861.2
			0805				. . .	. . .
			1234				962.1	859.9
			1240				956.3	860.3
			1245				952.3	860.8
			124730	X			950.0	861.0
			1300	X			950.6	865.5
			1314				950.3	870.8
			1330				938.3	870.6
			1331				938.0	870.6
			1505				841.8	889.3
			1515				841.7	885.2
			1520				842.2	880.2
			1535				839.1	879.9
			153645				838.0	880.1
			1540				838.1	879.0
			154445				838.0	872.2
			1549				842.0	877.1
			1600				840.2	873.2
			1615				842.1	868.3
			161815				841.7	867.0
			1630				833.4	867.9
			1635				829.8	867.3
			1645				829.9	870.6
			1700				830.1	875.8
			1715				830.2	881.0
			1716				830.3	882.7
			1725				834.1	883.9

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	
							START RECORDER Cont LINE 1
							C/C END line 1 RERUN START NS 1
							POOR DATA NO RECORD BEING Kept
							START RECORDER Resume LINE 1 RERUN
							CC END LINE 1 RERUN START NS-1
							CC END LINE NS-1 Resume NS 4
							END LINE NS4
							Resume NS-11
							c/a avoid shoaling TO NE
							c/a TO NW
							C/a TO SW
							C/a BACK TO NW LINE LOP 37842.0
							CC END NS-11 START NS 15
							CC CONTINUE NS 15
							CA TO AVOID SHOALING SW

GMT				TIME ZONE	SHIPS		NAVIGATION	
DAY	MO	YR	TIME	±	COURSE	SPD		
28	06	76	1726				37 834.6	69 884.4
			1730				834.0	855.6
			1735				834.2	887.0
			1740				834.2	888.9
			1743				833.6	890.0
			1745				832.2	890.1
			174730				830.0	890.2
			1800				830.4	894.3
			1815				830.1	899.0
			1830				829.8	904.0
			1845				829.8	908.8
			1850				830.1	909.9

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	

CA to get ON LORAN LANE 37834.0 SE

C/A TO RETURN TO LORAN LANE 37830.0 NE

C/A ON LANE 37830.0 SE

END LINE NS 15 TEMPORARILY

NANTUCKET HARBOR FUEL DOCK

LORAN 37,814.4

C 69,973.6

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD	NAVIGATION		
29	06	76	0500						
			0600				57	829.7	69 962.6
			0615					829.6	957.0
			0630					830.2	951.5
			0645					830.0	946.0
			0700					829.8	940.2
			0716					830.4	935.3
			0730					829.8	930.8
			0745					829.6	926.1
			0800					830.1	921.9
			0815					830.2	918.0
			0830					829.9	914.2
			0845					829.7	910.0
			0901					810.9	900.0
			0906	15				805.8	910.3
			0915					806.0	907.8
			0930					806.1	903.4
			0945					806.0	898.3
			1000					806.2	894.0
			1015					806.4	889.8
			1030					806.0	885.6
			1045					806.1	880.7
			1100					805.9	875.8
			1104					806.3	874.3
			1108:30					805.7	873.6
			1115					806.4	871.1
			1130					805.8	865.5
			1131					806.1	865.2
			1145					817.2	864.8
			1146					817.8	864.9

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV	SONO	STA	
							DEPART ~~[illegible]~~ NANTUCKET HARBOR, ON ROUTE RESUME
							LINE NS-15 JUST OFF ISLAND Resume [redacted] NS-15
							C/C END LINE NS-15 Resume NS-14 temporarily
							C/C END Line NS-14 temp Start NS-17
							Con't line NS-17
							Shut down pager + belt change
							EPC on resume NS-17
							END NS-17 temp Start NS-16
							CC CONTINUE NS-16

GMT				TIME ZONE	SHIPS		NAVIGATION		
DAY	MO	YR	TIME	±	COURSE	SPD			
			1200				37 817.9	65 869.6	
			1215				818.0	875.0	
			1216				817.9	875.4	
			1217 15				818.2	875.8	
			1230				818.3	880.2	
			1245				817.7	884.9	
			1300				818.0	889.9	
			1315				818.5	894.6	
			1330				817.8	899.0	
			1345				818.3	903.3	
			1400				817.3	907.6	
			1415				818.1	912.4	
			1430				817.8	916.5	
			1445				818.0	920.6	
			1500				817.8	924.4	
			1515				818.4	928.4	
			1530				817.7	932.0	
			1545				818.1	935.7	
			1600				818.5	939.8	
			1615				818.0	943.6	
			1630				817.9	948.0	
			1645				818.2	952.8	
			1700				818.0	957.7	
			1714	c/c			817.9	962.0	
			1728				830.4	962.4	

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV	SONO	STA	
							SLOW FOR SHIP TRAFFIC
							RESUME SPEED + HEADING
							con't line NS-16
							End line NS-16, resume NS-15
							End line NS-15, call it a day, haulgear - head for
							Nantucket for the night

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD	NAVIGATION		
30	06	76	0530						
								.	.
								.	.
								.	.
			0553				37805.9	69964.3	
			0600				806.2	961.4	
			0615				806.4	956.5	
			0630				805.4	950.5	
			0645				806.1	945.3	
			0700				806.0	939.7	
			0715				805.7	934.0	
			0730				806.1	928.6	
			745				806.0	923.8	
			0800				806.0	917.6	
			0815				805.6	912.4	
			0823				806.0	909.9	
			0830				799.2	910.0	
			0835	c/c			793.9	910.3	
			0845				794.0	907.0	
			0900				794.2	902.0	
			0915				794.	897.1	
			0930				793.8	892.0	
			0945				794.0	887.1	
			1000				794.1	882.9	
			1015				793.1	878.7	
			1030				793.6	874.6	
			1045				794.1	869.5	
			1058				793.4	864.9	
			1115				776.0	865.0	
			1120				771.0	865.0	
			1125				768.0	866.6	

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	
							DEPART NANTUCKET HARBOR ON ROUTE TO RESUME
							LINE NS-17 JUST OFF BREAKWATER CHANNEL ENTRANCE
							TO HARBOR - HEADING NORTHWEST
							RESUME NS-17
							con't line NS-17
							REEL TO REEL TAPE UNIT ON
							KEY PULSE - R CHANNEL 3 3/4 IPS tape speed
							INPUT SIG - L CHANNEL FILTER 450 - 9000 Hz
							C/C END NS-17 Resume NS 14
							End line NS-14 temporarily, START LINE NS-18
							heading northwest
							con't line NS-18
							CC Cont. NS 18
							CC Cont NS 18 BEARING 125°

GMT				TIME ZONE	SHIPS		NAVIGATION	
DAY	MO	YR	TIME	±	COURSE	SPD		
			1130				37765.5	69868.0
			1135				762.8	869.7
			1136				762.3	870.0
			1145				768.2	870.0
			1200				778.5	869.8
			1205				781.5	869.1
			1215	30			784.3	869.9
			1230	x			x795.5	870.0
			1245	x			x807.8	870.1
			1300				819.6	820.0
			1315				832.1	869.9
			1330				845.5	870.5
			1336	45			850.4	870.2

OPS							COMMENTS AND OBSERVATIONS
12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	
							CC END NS-18 temp. Resume NS 4
							SLOW FOR PAPER CHANGE + NEW EPC Belt
							RESUME COURSE AND SPEED
							END LINE See YA NEXT FALL!