F. V. Hunt - U. S. G. S.

Cruise I - Leg I

July 21 — Aug 2, 1972

Lab Log.

72083
HUNT
001
100478

every half

Plot once an hour

GMT DAY	GMT MO	GMT YR	(EDT) TIME	TIME ZONE ±	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES ± MINUTES	LONGITUDE ± DEGREES ± MINUTES	TYPE
22	7	72	1100				1100			
			1130				1130			
			1200				1200			
			1231				1231			
			1243							
			1245							
			1306				1306			
			1317							
			1326							
			1330				1330			
			1359							
			1359							
			1401							
			1430							
			1437							
			1500							
			1507							
			1520							
			1549							
			1552							
			1600							
			1630							
			1644							
			1700							
			1730				1730			

Layout next page

Uniboom OPS	CSP	MAG	GRAV.	SONO.	STA.	Loran "C" reading every 30 min. SS 7-X (gold)	SS 7-Y (green)	~~COMMENTS AND OBSERVATIONS~~ Comments & observations.
	✓	✓				37,382.9	49,007.1	Still working on systems.
	✓	✓				37,382.1	49,004.2	C.S.P. + magnetometer recording. other systems incomplete
	✓	✓				37,380.7	49,001.9	DITTO-1201 - Air gun shut down, compressor over heated
	✓	✓				37,378.6	49,000.2	DITTO-1209 Air gun back again due to overheating
								Maggie shut off to check ~~tape~~ cables
								Maggie back on
	✓	✓				37,376.9	48,999.4	
								Mag tape (seismic) off to remove removed & new tape on
								" " on, #2 on
						↑	↑	
	✓	✓				37,375.6	48,999.5	
								begin Uniboom system
	✓	✓				37,374.6	49,000.5	Good? possible error due to nearness of base & base line
						37,375.1	49,002.0	Good
								Air gun turned off to check possible interference with uniboom system
						37,376.1	49,004.1	Air Gun off for above reason
								1507L picture #2 taken
								of data, from 1258L to 1507
								Fire & Boatdrill Gear Sec.
								comp. restored, gun off
								" & " over
								compression was off
						37,374.2	49,009.1	
			✓			37,371.3	49,013.0	Air Gun off 1622
						~~37,368.2~~	~~49,017.0~~	Air Gun ON.
	✓	✓				37,368.2	49,017.0	cut speed 2Knots about 1700 picture at 1720
								back up to 5Knots 1719
	✓	✓				37,374.9	49,020.6	
								Filtering CSP 31-160 Uniboom 390-4800Hz

Plot once an Hour

GMT DAY	MO	YR	D EST TIME	TIME ZONE ±	SHIPS COURSE	SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	± MINUTES	LONGITUDE ± DEGREES	± MINUTES	L.C. TYPE	
22	7	72	1800										
			1830										
			1900										out temp.
			1930										
			2000										
			2030										
			2100										
			2130										
			2200										
			2228										
			2230										
			2300										
23	7	72	0000										
			0030										
			~~0037~~										
			0037										
			0120										
			0105										
			0128										
			~~0208~~										
			0200										
			0208										
			0230										
			0300										
			0331										
			0402										
			0430										
			0500										

Unibom

OPS: 3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	Loran C Readings every 30 min. SS-7-X (gold)	SS-7-Y (Green)	COMMENTS AND OBSERVATIONS: COMMENTS & OBSERVATIONS
		✓✓				37,371.1	49,024.9	
						37,364.9	49,029.5	1836 C/C 161T
		✓✓						L.C. out temp
		✓✓				37,366.7	49,040.8	@1930 F/C 166T
								change CSP tape @1943
		✓✓				37,363.1	49,047.8	
		✓✓				37,401.3	49,055.4	Took photo
		✓✓				37,380.4	49,062.5	
		✓✓				37,390.5	49,071.5	
		✓✓				37,401.2	49,083.9	
		✓✓						Took photo
		✓✓				37,412.7	49,097.5	
		✓✓				37,424.9	49,112.1	0125, new roll of film put in camera
		✓✓				37,451.3	49,141.5	
		✓✓				37,478.2	49,158.5	End leg #1
								start c/c to 55°T leg 2
								steady on new course - leg 2
								0128, photo # 8 taken
						37,457.1?	49,159.0	
		✓✓				37,480.2	49,158.2	
		✓✓				37,477.8?	49,186.7?	
								tape reel # 4 put on leg 2, cr. 1
		✓✓				37,439.3	49,156.5	leg 2, cruise 1
		✓✓				37,418.6	49,154.2	good
						37,393.3	70,125.2	switch to Dana slave
						37,368.7	70,122.6	Good
		✓✓				37,295.6	70,119.3	O.K.
		✓✓				37,287.2	70,114.8	C/C to 315 T LEG 3

GMT				TIME ZONE	SHIPS		NAVIGATION									
DAY	MO	YR	TIME	±	COURSE	SPD	FIX TIME	LATITUDE ± DEGREES	± MINUTES	LONGITUDE ± DEGREES	± MINUTES	L.C. TYPE	QUAL.
23	07	72	0530										
			0600										
			0630										
			0700										
			0730										
			0800										
			0830										
			0900					41°	22.9	68°	57.6	L.C.	
			0930										
			0945										
			0950										
			1000					41°	26.1	69°	02.8	L.C.	
			1030										
			1100					41°	29.0	69°	06.7	L.C.	
			1130										
			1200					41°	31.5	69°	10.8	L.C.	
			1230										
			1232										
			1236										
			1300										
			1320										
			1330										
			1350										
			1400										
			1430										
			1446										
			1500										
			1520										
			1540										
			1600					41°	42.4	69°	02.1		

OPS: 3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	COMMENTS AND OBSERVATIONS: SS-7-X (Gold)	SS-7-Z (blue)	Comments
	✓	✓				37,279.8	70,103.9	10 μsec. fog!
	✓	✓				37,271.7	70,091.6	OK.
	✓	✓				37,271.2	70,080.9	S2 10 μsec. on
	✓	✓				37,270.6	70,081.6	Lights out
	✓	✓				37,270.8	70,071.3	± 10 μsec on
	✓	✓				37,271.8	70,061.4	± 10 μsec on S1
	✓	✓				37,273.0	70.051.3	O.K. ± 10 μsec. 2 MIN. BEFORE Reading
	✓	✓				37,275.1	70,041.0	O.K.
	✓	✓				37,288.3	70,031.6	± 10 μ.sec on S1
	✓							Working on mag. recalibration
	✓	✓						Mag. O.K.
	✓	✓				37,290.5	70,021.6	O.K.
	✓	✓				37,292.7	70,011.8	± 10 μsec. on S2
	✓	✓				37,296.4	70,003.0	O.K.
	✓	✓				37,302.1	69,985.0	O.K. Slowed Ship
	✓	✓				37,308.0	69,988.4	± 10 μ. S2
	✓	✓				37,304.8	69,970.7	± 10 msec on AUTO
						37,304.8	69,970.6	c/c .037° end leg 3
								steady on course, leg 4
	✓	✓				37,295.3	69,966.4	
								ship slowed
	✓	✓				37,275.0	69,963.0	
								resume normal 5 knots
	✓	✓				37,258.1	69,960.8	OK
	✓	✓				37,223.0	69,956.2	OK
								new tape reel started, #6
	✓	✓				37,206.5	69,951.2	
2-6 cor	✓	✓				37,181.0	69,956.3 + Chish	leg 4 ends, 5 begins c/c 129°
2-6 cor	✓	✓				37,173.9	69,950.7	steady on new heading
	✓	✓				37,158.9	69,954.4	

GMT DAY	GMT MO	GMT YR	GMT TIME	TIME ZONE ±	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	NAVIGATION LATITUDE ± DEGREES	NAVIGATION LATITUDE MINUTES	NAVIGATION LONGITUDE ± DEGREES	NAVIGATION LONGITUDE MINUTES	NAVIGATION TYPE (L'C')	NAVIGATION QUAL.
23	07	72	1630			[redacted]							
23	07	72	1700					41	39.3	68	57.6		
			1704										
			1730										
			1800					41	36.7	68	53.6		
			1830										
			1842										
			1846										
			1900					41	34.9	68	49.7		
			1930										
			~~2000~~										
			2000					41	32.8	68	44.6		
			2030										
			2100					~~68~~ 41	~~38~~ 28.2	68	38.8		
			2133										
			2134										
			~~2200~~										
			2152										
			2200					41	24.1	68	33.6		
			2230										
			2245										
			2230										
			2300					41	23.8	68	~~31~~ 30.2		
			2325					41	22.5	68	~~55~~ 30.0		
			2330										
			2337										
			2353										
			2400					41°	25.1'N	68°	29.8'W		
			~~24~~ 23										

OPS 12 KHz	CSP	MAG	GRAV.	SONO.	STA.	X	COMMENTS AND Z	OBSERVATIONS
✓	✓	✓				37,153.1	69,963.5	± 10 μsec
✓	✓	✓				37,145.0	69,971.7	±10 μsec.
✓	✓	✓				37,153.6	69,972.8	O.K.
✓	✓	✓				37,147.6	69,980.1	O.K.
						37,140.4	69,986.7	O.K.
✓	✓	✓				37,132.6	69,994.2	OK.
✓	✓	✓				37,129.2	69,996.8	C/C to 136°T ± 10μsec
						37,128.6	69,997.8	ok.
✓	✓	✓				37,125.6	70,001.4	ok.
								Change paper in E.P.C. Start Rod 2
								E.E+E Uniboom
✓	✓	✓				37,104.9	70,016.8	O.K.
✓	✓	✓				37,119.2	70,024.0	±10μ.sec. on S2
✓	✓	✓				37,092.9	70,070.1	~~ok~~. Used bridge fix!
						X	Y	Change to NANTUCKET SSY
						37,083.9	49,062.6	
								Ship slowed
✓	✓	✓				37,088.3	49,076.8	O.K.
✓	✓	✓				37,086.2	49,073.4	O.K.
								air gun leak, gun hauled in,
								compressor shut down
✓		✓				37,086.2	49,073.4	Still working on air gun
✓		✓				37,076.6	49,079.7	"
✓		✓				37,074.4	49,085.5	C/C to 0°T Begin Leg 6
✓		✓				37,070.7	49,084.5	Still working on air gun
✓	✓	✓						Air gun back in operation, solenoid broken
								Air gun stopped firing
						37,049.1	49,077.3	Air gun still out,
								" " operational

ENV-CYCLE NOT SET ON -1

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	MINUTES	LONGITUDE ± DEGREES	MINUTES	TYPE	QUAL.
24	07	72	0030	EDT									
			0050										
			0103										
			~~0130~~										
			0138					41°	31.2'N	68°	28.5'W		
			*0200					41°	33.6'N	68	28.6'W		
			0206										
			0230					41°	34.3'N	68°	31.3'W		
			0300										
			0330					41°	36.0'N	68°	37.9'W		
			0344										
			0400					41°	37.8'N	68°	40.7'W		
			0405										
			0415										
			0430					~~41°~~	~~37.8'N~~	~~68°~~	~~40.7'W~~		
								41°	38.1'N	68°	42.1'W		
			0530					41°	40.3'W	68°	47.9'W		
			0600										
			0604										
			0618										
			0630					41°	43.8'N	68°	52.0'W		
			0700										
			0706										
			0730					41	46.5	68	59.9		
			0900					41	46.4	69	08.6		
			0918					41	47.0	69	10.2		
			0800					41	~~46~~ 44 6	69	01 4		

OPS 12 KHz ~~3.5 KHz~~ CSP MAG GRAV. SONO. STA.	X	ENV-CYCLE SET ID -1 Y	COMMENTS AND OBSERVATIONS Comments
	37,036.0	49,073.4	
			curlig #2 down, fuse and belt
			curlig #2 up, fuse and belt
	36,996.6	49,059.8	end leg 6
	36,979.4	49,054.0	c/c to 294° T start leg 7 steady on new course
		*	0200 curlig #2, no read out, ~~trigger out~~ with no signal.
	36.993.2	49,049.5	
	37,017.4	49,044.1	photo taken #26
	37,030.5	49,039.2	
			curlic #2 operational
	37,042.0	49,034.5	±10 ans Uniboom out of water
	37,032.8	49,034.1	ok slowed at 400 to bring in uniboom
			uniboom out of water EPC #2 operating as ‖ to EPC #1
✓✓	37,042.6	49030.2	
✓✓	37,072.3	49 021.3	OK
✓✓	37,070.5	49 017.0	ok change maggie paper
			Magnetometer started again
		~~49[illegible]~~	c/c to 290 T @ 0618
	37,080.3	49,013.5	ok.
	Loran "C" system - Out		no sig. on loran C
	100 transmitting signal		c/c 273 T
	Master transformer - NC		from bridge
	hit by lighting		from bridge
			Ship (course change) 0° True

From Bridge AT 0913 Begin Leg 8

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	± MINUTES	LONGITUDE ± DEGREES	± MINUTES	L.C. TYPE	QUAL.
24	07	72	1000	EDT				~~41~~	41° 50.2		69° 09.9		
			1100	EDT					41° 53.9		69° 10.1		
			1128	EDT									
			1130						41° 55.8		69° 10.7		
			1200						41° 57.4		69° 10.5		
			1230						41° 59.3		69° 10.3		
			1310						42° 01.3		69° 09.8		
			1310										
			1319										
			1330						42° ~~02~~ 02.1		69° 08.7		
			1400						42° 00.5		69° 06.9		
			1430						41° 59.3		69° 04.8		
			1500						41° 57.8		69° 02.3		
			1530						41° 56.7		69° 00.0		
			1600						41° 55.8		68° 57.1		
			1630						41° 54.6		68° 54.7		
			1643						~~41° 52.~~ 3		~~68° 50.~~ 9		
			1700						41 52.3		68 50.9		
			1730						41 52.8		68 49.9		
			1800						41 50.7		68 45.1		
			1830						41 49.8		68 42.3		
			1842										
			~~1900~~										
			1900						41 47.8		68 38.8		
			1930										
			1948										
			2000						41 44.5		68 31.8		
			2001										
			2030						41 43.0		68 29.8		
			2100										

OPS: 12 KHz / 3.5 KHz UNIBOOM	CSP	MAG	GRAV.	SONO.	STA.	COMMENTS AND OBSERVATIONS	comments
	✓	✓				Reading from bridge	
	✓	✓				" " "	
✓	✓	✓				UNIBOOM OPERATING	
✓	✓	✓				Reading from bridge	
✓	✓	✓				" " "	
✓	✓	✓				Reading from bridge	
							c/c 125°T, begins leg 9 #
							steady on new course
✓	✓	✓				Reading from bridge	from bridge
✓	✓	✓				" " "	" "
✓	✓	✓				" " "	" "
✓	✓	✓				" " "	" "
✓	✓	✓				" " "	" "
✓	✓	✓				" " "	" "
✓	✓	✓				" " "	" "
✓	✓	✓				" " "	Begin Reel 10
✓	✓	✓				" " "	" "
						" " "	
						" " "	
						" " "	
							c/c to 132°T
							~~Steering to avoid fishing boat~~
						Bridge didn't take a Fix	
							Steering to avoid fishing
							Back on Course
						Couldn't get bridge fix because of Squal line.	

GMT DAY	GMT MO	GMT YR	GMT TIME	TIME ZONE ±	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	NAVIGATION LATITUDE ± DEGREES	NAVIGATION LATITUDE MINUTES	NAVIGATION LONGITUDE ± DEGREES	NAVIGATION LONGITUDE MINUTES	NAVIGATION TYPE	NAVIGATION QUAL.
24	07	72	2130	EDT				41°	40.7	68°	23.1	BR.	
			2152										
			2150					41°	40.0	68°	21.0	BR.	
			~2200										
			2230		Leg #10			41°	41.5	68°	15.7	BR.	
			2300					41°	43.6	68°	12.3	BR.	
			2330					41°	44.5	68°	07.8	Br.	
			2342										
25	07	72	2400					41°	46.5	68°	06.3		
			0030					41°	48.1	68°	07.4		
			0100					41°	50.4	68°	09.2		
			0130					41°	53.3	68°	12.5		
			0200					41°	55.2	68°	13.4		
			0230					41°	56.2	68°	14.6		
			0310					41°	57.8	68°	16.8		
			0400					41 / 42	59.7 / 02.2	68	19.5 / 22.5		
			0414										
			0427										
			0430					42	04.7	68	25.6		
			0500					42	06.4	68	28.5		
			0529										
			0530					42	08.2	68	31.5		
			0536					42	08.8	68	32.0		
			0610					42	10.0	68	30.0		
			0630					42	11.2	68	27.3		
			0710					42	12.9	68	24.4		
			0730										
			0800										
			0803										

OPS 12 KHz	3.5 kHz	CSP	MAG	GRAV.	SONO.	STA.	COMMENTS AND OBSERVATIONS
	✓	✓	✓				on bank
	✓	✓	✓				Course change
	✓	✓	✓				Last Fix before Course change. End leg "9"
	✓	✓	✓				out of ~~turn~~ Turn
							a little speed change (increase) to get around
	✓	✓	✓				fishing boats - now back at normal speed.
							Compass reading is 060T
							Last reading before new course change
							Beginning turn for next leg. Begin leg 11
							Steady on new course 320° T
	✓	✓	✓				
	✓	✓	✓				from bridge
	✓	✓	✓				" "
	✓	✓	✓				" " (to 315°T, traffic)
	✓	✓	✓				" "
	✓	✓	✓				" "
							c/c to 335° - traffic
							Back on 315°
							Begin Reel 12 - (Reel 11 off 0526)
							c/c to ~~058~~ 058 T (LEG 12)
							~~Com~~ c/c to 148° T

EDT ~~GMT~~

DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SHIPS SPD	FIX TIME	NAVIGATION LATITUDE NORTH ± DEGREES	± MINUTES	LONGITUDE WEST ± DEGREES	± MINUTES	SOURCE TYPE	QUAL.
25	07	72	0810	EDT				~~42°~~ 15.8		~~68°~~ 17.1		Br.	
			~~0820~~					42° 16.5		68° 18.6		Br.	
			0830					42° 14.7		68° 17.1		Br.	
			0900					42° 13.2		68° 14.4		Br.	
			0930					42° 11.7		68° 13.0		Br.	
			1000										
			1000					42° 09.3		68° 10.4		Br.	
			1030					42° 07.2		68° 09.2		Br.	
			1059										
			1100					42° 04.9		68° 07.4		Br.	
			1130					42° 03.0		68° 06.3		Br.	
			1200					42° 00.0		68° 03.5			
			1230					41° 58.5		68° 01.7		BRIDGE	
			1300	EDT				41° 56.1		68° 59.2		BRIDGE	
			1300					41° 56.6'	N	67° 59.6'		LORANC	
			1300					41° 58.6'	N	67° 59.9'		OMEGA	
			1330					41° 53.9'		67° 57.3'		BRIDGE	
			1400					41° 51.7'		67° 55.8'		BRIDGE	
			1400					41° 51.2'		67° 56.1'		LORANC	
			1400					41° 54.0'		67° 54.9'		OMEGA	
			1440					41° 46.9'		67° ~~54~~ 7.7'			
			1444										
			1500					41° 46.7'		67° 50.9'			
			~~1535~~										
			1600										
			1618					41 47.8		67 41.3			
			1631										
			1700					41 51.3		67 44.3			
			1730										
			1733										

12 KHz	~~UNI~~ UNIBOOM	CSP	MAG	GRAV.	SONO.	STA.	COMMENTS AND OBSERVATIONS
✓	✓	✓					Turn completed. Starting leg 13
✓	✓	✓					
✓		✓					Diesel Engine on compresser stopped Broken
							injector tube bracket.
							Compresser still down
✓		✓					
✓	✓	✓					Air gun operating Welded injector tube bracket
✓	✓	✓					
✓	✓	✓					

SS 7X TD LORAN C	SS 7Y TD	Comments
		Loran "C" working.
~~36,595.7~~	~~49,033.7~~	~~OK~~
36,595.7	49,033.7	OK
		1440 begin C/C 070° T
36,611.4	49,046.1	OK
		1444 EDT, 25 July, steady ~~begin~~ on ~~leg~~ course 071° T
		1444 Steady on course
		C/C 061° T to correct to course
36,543.3 ok	49,064.2 ok	correct to course
36,522.6	49,064.8	C/C to ~~350~~ 335° ok Begin L-15
36,521.6	49,062.7	ok.
36,521.1	49,056.0	ok.
36,518.1	49,049.1	
		Uniboom retrieved to clean it of debris, ship slowed

GMT DAY	GMT MO	GMT YR	GMT TIME	TIME ZONE ±	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	NAVIGATION LATITUDE ± DEGREES	NAVIGATION LATITUDE MINUTES	NAVIGATION LONGITUDE ± DEGREES	NAVIGATION LONGITUDE MINUTES	L/L TYPE	QUAL.
25	07	72	1800	EDT				~~41~~	~~56.6~~				
			1805					41	56.7	67	47.0		
			1819										
			1830										
			1838										
			1900					42	00.4	67	50.9		
			1930										
			2000					42	05.1	67	52.8		
							L.C.	42	04.6	67	52.6		
			2030					42	07.4	67	54.9	From Bridge	
			2100	42°09.2'	67°56.3			42	09.3	67	56.5	From bridge	
			2130					42	11.2	67	58.0	From bridge	
			2200	42°12.7	68°00.0			42	13.0	67	59.2	From bridge	
			2230					42	15.2	68	00.7	From bridge	
			2300	42°19.4	68°04.2			42	17.2	68	02.6	From bridge	
			2302										
			2330									From bridge	
			2343										
			2350					42	20.3	68	05.4	From bridge	
			2400										
26	07	72	2400	42°21.9	68°03.8		L.C.	42	21.8	68	03.4	Bridge	
			0030					42	22.9	67	59.1	Bridge	
			0054										
			0059										
			0100					42	22.8	67	57.5	Bridge	
			0130					42	20.9	67	53.4	Bridge	
			0200					42	19.2	67	51.2	Bridge	

OPS 12 KHz ~~36 KHz~~ UNIBOOM	CSP	MAG	GRAV.	SONO.	STA.	x	y	COMMENTS AND OBSERVATIONS
✓	✓	✓				36,513.3	49,044.2	±10 μ.sec. S1 UNIBOOM NON-operative.
	✓	✓				36,502.3	49,043.2	ok " Ra[illegible]
✓	✓	✓						Uniboom back on Pulled
✓	✓	✓				36,506.7	49,038.8	to remove sea weed.
						~~36,503.1~~	~~49~~	Begin Reel 14
						36,503.1	49,034.5	ok.
						36,498.9	49,030.0	±10 c/c 330°T
-	-	-				36,485.3	49,026.2	ok.
								from Bridge
✓	✓	✓				36,513.2	49,022.9	o.k.
✓	✓	✓				36,480.1	49,019.3	o.k.
✓	✓	✓				36,477.6	49,016.5	±10 μsec. S1
✓	✓	✓				36,485.6	49,013.7	o.k.
✓	✓	✓				36,482.9	49,010.5	±10 μsec. S1
✓	✓	✓				36,480.4	49,007.7	±10 μ.sec. on S1
✓	✓	✓				36,470.2	49,007.4	o.k.
✓	✓	✓				36,466.0	49,005.3	o.k.
✓	✓	✓				36,463.0	49,004.6	c/c to 070°T
✓	✓	✓				3[illegible]	4[illegible]	IN Turn
✓	✓	✓				36,441.2	49,004.6	o.k.
✓	✓	✓						
✓	✓	✓						
						To close to		c/c to 148°T
								steady on
✓	✓	✓				Nantucket Baseline		
✓	✓	✓				extension for ~~accurate~~		
✓	✓	✓				accurate readings on		
						foran C"		

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD	FIX TIME	NAVIGATION LATITUDE NORTH ± DEGREES	± MINUTES	LONGITUDE WEST ± DEGREES	± MINUTES	TYPE	QUAL.
26	07	72	0230	EDT				42°	16.8'	67°	48.6'	Buoy	
			0300					42°	14.7'	67°	46.9'	Buoy	
			0330					42°	15.3'	67°	46.3'	Loran "C"	
			0337										
			0400					42°	11.1'	67°	42.3	Loran "C"	
			0415										
			0430										
			0500					42	06.3	67	38.8	L. "C"	
			0530										
			0548										
			0600					42	02.8	67	34.7	"	
			0609										
			0630										
			0636					42	01.4	67	33.4		
			0700					42	02.6	67	31.8	"	
			0715										
			0724					42	04.0	67	30.1		
			0725										
			0730										
			0733										
			0735										
			0809	[redacted]				42	06.4	67	31.2	[redacted]	
			0830										
			0900										
			0906					42	11.0	67	33.0		
			0926										
			0930										
			1000	42°14.5 67 34.7 Bridge				42	14.0	67	36.1		

OPS (Uniboom / CSP / MAG / GRAV. / SONO. / STA.)	from "C" X to	Y	COMMENTS AND OBSERVATIONS Comments
	36,365.0	49,018.4	OK (0337 changed paper on the maggie recorder)
	36,365.4	49,025.8	OK ship slowed
	36,363.4	49,029.3	ok.
	36,372.2	49,034.0	ok.
	36,375.8	49,038.4	ok. Trawlers in path c/c to 133°
	36,365.8	49,042.2	ok. Back on course 165°T
	36,366.3	49,045.1	ok.
	36,367.3	49,046.0	ok c/c to 057°T 0636 Begin Leg 18
	36,347.0	49,045.2	ok. UNIBOOM OFF to change paper c/c to 343°T 0724
	36,323.1	49,044.3	Uniboom off ~~[illegible]~~ .ok. Tape off Uniboom on (Roll #3) Tape #16 on
	36,312.4	49,039.2	O.K.
	36,305.5	49,035.8	O.K. Uniboom down
	36,298.9	49,032.6	±10 μsec. S1
	36,297.7	49,032.0	O.K. Compressor is out of wack
	36,293.2	49,029.6	±10 μ.sec. S1
	36,296.7	49,026.4	O.K. Uniboom on trigger firing unevenly.

using bridge fix at 1000

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	± MINUTES	LONGITUDE ± DEGREES	± MINUTES	TYPE	QUAL.
26	07	72	1030	EDT									
			1100				Bridge Fix	42	18.0	67	36.3		
			1107										
			1120										
			~~1130~~										
			1130				Bridge Reading	42	21.5	67	37.8		
			~~1~~										
			1136										
			~~[illegible]~~										
			1137					42	21.7	67	39.1	Loran "C"	
			1142				Reading From Bridge	42	22.4	67	37.8		
			1148										
			1200		42° 22.7		Bridge 67 35.7	42°	22.3	67	36.8	Loran "C"	
			1230					42°	22.9	67	32.9	Bridge	
			1300					42°	23.9	67	28.3	Bridge	
			1302					42°	23.3	67	29.4	Loran "C"	
			1319										
			1332										
			1338					42°	23.2	67°	23.8	Bridge	
			1400					42°	21.7	67°	23.5	"	
			1402					42°	22.0	67°	23.7		
			1400										
			1421										
			1500										

Uniboom	SOPS						COMMENTS AND OBSERVATIONS		
		CSP	MAG	GRAV.	SONO.	STA.	X	Y	Comments
	✓	✓	✓				36,280.4	49,023.0	O.K.
							36,282.1	49,020.1	O.K.
									Air gun on
									Uniboom down to
									work on trigger
							36,268.8	49,016.8	O.K.
									Turning to
									beginning of leg 20
							36.264.2	49,016.0	± 10 μ sec. on S1
									out of turn to 08.5° T
									UNIBOOM ON
							36,243.9	49,016.7	O.K.
							36,183.5	49,019.7	OK
									↓ LEG 21
									airgun shut off - compressor off
							36,151.7	49,021.5	c/c to 172° T OK on turn
									steady on new heading course
							36,147.9	49,024.4	
									airgun back on
									airgun off · compressor off
									1500 Brophy down, busted
									cylinder. Aborted leg 1.
									Return to Woods Hole for
									repairs.
									Pnp 1

GMT				TIME ZONE	SHIPS		NAVIGATION								
DAY	MO	YR	TIME	±	COURSE	SPD	FIX TIME	LATITUDE ± DEGREES	LATITUDE ± MINUTES	LONGITUDE ± DEGREES	LONGITUDE ± MINUTES	TYPE	QUAL.
28	7	72	1200										
29	7	72	0700										
			0736										

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

Replaced broken injector on Brophy. Ken Pruda looked at Brophy. Recommended replace hose between low pressure tank and high pressure stage. Jim Robb will pick up larger hose for next leg. Pruda also noted much belt slippage. Total result is that Brophy is not putting out air at normal rate. When fixed should have no trouble with 120 or 80 in³ guns. Pres.

Back on station - CRUISE I Ext. LEG 21 all systems over the side. Mag. on 0655, Uniboom on 0700, CSP air gun on ≈ 1140 course 178°T course 195°T CSP 2 sec sweep 6 sec. rep rate on 40 # in³ gun. 100 ms. scale lines. Uniboom 1 sec sweep, 1 sec. rep rate. 100 ms scale lines. Csp filter Low cut 31 High cut 160 Hz. Uniboom 390 - 4800 Hz. Same filter settings on first part of Leg. 1 Hydrophone out 300'

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	MINUTES	LONGITUDE ± DEGREES	MINUTES	TYPE	QUAL.
29	07	72	0800	EDT				42°	17.7'	67°	19.8'	Loran	"C"
								42°	15.1'	67	19.3'		
			0830					↓			↓	Loran	"C"
			0900					42°	12.2	67°	18.9'		
			0930									Loran	"C"
			1000					42°	07.8'	67°	19.5'		
			1020										
			1034										
			1050										
			1100					42°	04.3'	67	20.0'	Loran	"C"
			1108										
			~~1110~~										
			1110										
			1114					42°	03.8'	67	19.5'	Loran	"C"
			1130										
			1200					42	05.5'	67	13.6	Loran	C
			1200					42°	05.6	67	13.6	Bridge	
O/C			(1239)				C/C	42	05.6	67	08.4	~~Bridge~~	
			1230									Loran	"C"
			1300					42	08.2	67	08.2	Bridge	
			1300					42	08.3	67	08.2	Loran	"C"
			1330					42	11.2	67	08.6	Bridge	
			1400					67	08.6 ←	42	13.6	Bridge	
			1400					42	13.7 →	67	08.5	Loran	"C"
			1430					42				Loran	C
			1430					42°	17.0'	67°	09.0	Bridge	
			1500					42	19.6	67°	10.0	Loran	"C"
			1500					42	19.6'	67°	10.3	Bridge	
			1519										

OPS: 12 KHz	~~3.5 kHz~~ Uniboom	CSP	MAG	GRAV.	SONO.	STA.	X	Y (or Z)	COMMENTS AND OBSERVATIONS: COMMENTS
✓	✓	✓					36, 144.0	49, 031.9	Leg 21 resumed, all systems working well. Loran systems #1 and #2 about 1 n.m. apart
✓	✓	✓					36, 162.9	49, 035.1	All satisfactory
✓	✓	✓					36, 180.1	69, 959.5 Z	Loran #1 is off, using Loran #2
✓	✓	✓					36, 198.8	49, 042.3	Back on Loran #1
✓	✓	✓					36, 217.6	49, 045.5	
									Fire and boat drills
✓	✓	✓					36, 233.1	49, 048.5	Late because of drill
	✓	✓							Uniboom down for cleaning EPC
✓	✓	✓					36, 245.8	49, 051.3	Uniboom back on
									c/c to 090°T
									begin Leg 22
									c/c completed 090°T
✓	✓	✓					36, 246.3	49, 052.6	OK
✓	✓	✓					36, 226.9	49, 053.0	OK
							36, 192.9	49, 054.6	OK
		c/c					36, 198.9	49, 057.7	OK 1239 Start leg 23
		↓					36, 158.0	49, 056.8	OK
							36, 129.3	49, 053.8	OK
							36, 096.9	49, 049.9	OK
							36, 079.9	49, 040.5	OK
							36, 063.5	49, 035.7	OK
									Raytheon FAC recorder shut down for cleaning

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	± MINUTES	LONGITUDE ± DEGREES	± MINUTES	TYPE	QUAL.
[illegible]			1522										
29	07	72	1530									Bridge	
			1600									Bridge	
			1600		42		29.2'	~~42°~~		67°	11.5	Loran "C"	
29	07	72	1609		42		25.0'			67°	11.7		
			~~1700~~										
			1630										
			1700		42		24.9'			67	06.8		
			1730										
			1738										
			1739										
			1743										
			1747										
			1800		42°		25.5'			66°	59.0		
			1806		42°		25.4'			66°	58.0'		
			1830										
			1906		42		20.7			66	55.7		
			1900										
			2000		42		16.4			66	53.8		
			2030										
			2100		42		10.2			66	54.4		
			2130										
			~~2148~~										
			2153		42		06.1			66	54.7		
			2200										
			2230										
			2300		42		06.8			66	48.5		
			2330										
29	07	72	2344		42		07.3			66	44.2		
30	07	72	0000										

Inc "C"

OPS: 12 KHz	Uniboom	CSP	MAG	GRAV.	SONO.	STA.	X	Y	COMMENTS AND OBSERVATIONS
✓	✓	✓					air gun system on again.		Comment
									Dropped Hydrophone back to 300'
✓	✓	✓					36,092.2	49,028.7	
✓	✓	✓					36 037.2	49 027.7	c/c to 090T LEG 24
✓	✓	✓					36 007.9	49 029.3	
✓	✓	✓					35 993.3	49 030.4	all O.K.
✓	✓	✓					35, 966.0	49, 032.6	
	✓	✓							Uniboom shut down for repair
✓	✓	✓							Uniboom back on
	✓	✓							Uniboom back off
									Uniboom back on
✓	✓	✓					35 937.0	49 034.9	
							35 932.4	49 035.4	c/c to 174T (LEG 25)
✓	✓	✓					35 937.0	49 038.4	
							35 944.8	49 043.1	c/c to 160 1906
							35 943.8	49,042.2	1907
✓	✓	✓					35, 964.6	49, 050.8	all O.K.
✓	✓	✓					35, 984.9	49, 055.9	"
✓	✓	✓					36, 010.0	49, 060.9	"
✓	✓	✓					36, 030.7	49, 065.3	"
✓	✓	✓							Begin c/c to 090° T (LEG 26)
✓	✓	✓					36, 044.7	49, 068.2	↓
✓	✓	✓					36, 042.0	49, 068.8	Turn completed - Leg 26
✓	✓	✓					36, 016.9	49, 070.2	all O.K.
✓	✓	✓					35, 990.4	49, 071.2	
✓	✓	✓					35, 965.5	49, 072.8	
✓	✓	✓					35, 953.7	49, 073.3	c/c to 0°T < Leg 27
✓	✓	✓					35, 945.1	49, 070.6	

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	MINUTES	LONGITUDE ± DEGREES	MINUTES	TYPE	QUAL.
2007	7	20	0000	EDT								Dredge "Foran C"	
			0030										
			0100									Dredge "Foran C"	
			0107					42° 12.8' N		66° 44.9'			
			0125										
			0130									Foran C.	
			0200					42° 15.8' N		66° 46.3'		Foran C	
			0229										
			0300					42 19.0' N		66 45.5'		Foran C	
			0330										
			0400					42 24.9		66 45.0			
			0404										
			0430										
			0500					42 25.8		66 37.3			
			0531										
			0542					42 25.9		66 32.0			
			0600					42 23.4		66 30.3			
			0630										
			0636					42 21.5		66 29.8			
			0700					42 ~~18.5~~ 19.21		66 31.0 ~~29.0~~			
			0730										
			0800					42 13.8		66 27.9			
			0830										
			0843										
			0853										
			0900					42 08.2		66 29.4			
			0930										
			1000					42 03.8		66 31.3			
			1030										
			1040					42 01.0		66 33.2			

OPS 12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	Form X	Y	COMMENTS AND OBSERVATIONS Comments
							35,993.1	49,065.7	OK
							35,920.0	49,063.1	OK
									ship moving slowly
							35,912.9	49,060.0	OK / avoiding other vessels in path
							35,905.7	49,057.1	OK
							35,896.5	49,055.2	OK
							35,879.9	49,052.1	OK
							35,861.0	49,047.8	"
							35836.7	49,049.5	ok c/c to 085°T Leg 28 start steady on 085°T
							35807.1	49,046.3	ok
							35774.9	49,048.1	ok.
							35742.9	49,050.4	ok
							35 729.9	49,051.2	ok c/c to 178°T Begin 29
							35 737.0	49,054.0	
							35745.5	49058.7	Magnetic Anomaly (700γ)
							35147.0	49059.6	c/c to 185°T
	✓	✓	✓				35755.0	49063.5	
							35768.3	49,068.7	ok.
							35, 784.0	49, 074.1	Tape recorder off for cleaning ok
							35, 808.9	49, 874.1	ok
									Tape back on
							35, 834.9	49, 083.9	OK
	✓	✓	✓				35, 858.9	49, 088.1	OK
							35, 881.5	49, 091.2	OK
	✓	✓	✓				35, 906.1	49, 094.4	OK
	✓	✓	✓				35, 912.8	49, 095.4	c/c To leg 30 090° T

GMT				TIME ZONE	SHIPS		NAVIGATION									
DAY	MO	YR	TIME	±	COURSE	SPD	FIX TIME	LATITUDE ± DEGREES	LATITUDE MINUTES	LONGITUDE ± DEGREES	LONGITUDE MINUTES	TYPE	QUAL.
30	07	72	1100	EDT	090°								
			1130										
			1200										
			1228					42	02.4	66	22.9		
			~~1230~~										
			1230										
			1235					42	03.8	66	23.0		
			1250										
			1300					42	06.6	66	23.0		
			1330										
			1400					42	12.0	66	21.2		
			1430										
			1500					42	15.7	66	21.0		
			~~1530~~										
			1530										
			1600										
			1554					42	19.4	66	21.8		
			1555										
			1630										
			1700					42	18.3	66	15.2		
			1730										
			1747										
			1750					42	19.0	66	09.8		
			1800										
			1802										
			1830										

Uniboom

OPS

12 KHz / 3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	x LORAN "C"	y	COMMENTS AND OBSERVATIONS Comments
✓	✓	✓				35,894.8	49,095.8	Leg 30 - All satisfactory
✓	✓	✓				35,869.8	49,097.1	O.K.
✓	✓	✓				35,847.5	49,099.0	O.K.
						35,825.7	49,100.4	O.K. START Turn 004°T
								~~Begin Leg 31~~
						35,824.3	49,160.4	O.K.
						35,818.6	49,098.8	STEADY on Begin leg 31.
						35,806.3	49,094.8	o.k.
						35,798.4	49,092.5	o.k.
						35,773.4	49,087.1	o.k.
						35,749.2	49,082.6	o.k.
						35,731.2	49,079.7	o.k.
						35,717.5	49,076.1	o.k.
						35,706.8	49,072.0	o.k.
						35,695.1	49,069.3	o.k.
						35,698.5	49,069.0	10 Course change to 103° START leg 32.
								Begin Reel 23
						35678.5	49072.7	ok
						35460.8	49 075.3	OK
						35636.4	49,077.4	OK
								all systems down
								service Compressor
								clean Uniboom
								Change Mag. paper ON
						35,613.9	49,077.8	of Uniboom operating
								Air Gun operating
						35595.5	49,084.5	ok

GMT DAY	GMT MO	GMT YR	GMT TIME	TIME ZONE ±	SHIPS COURSE	SHIPS SPD	NAVIGATION FIX TIME	NAVIGATION LATITUDE ± DEGREES	NAVIGATION LATITUDE MINUTES	NAVIGATION LONGITUDE ± DEGREES	NAVIGATION LONGITUDE MINUTES	NAVIGATION TYPE	NAVIGATION QUAL.
30	07	72	1848					42	16.4	66	04.0		
			1900										
			1930							66°	04.0		
			2000					42	10.8	66	05.0		
			2030										
			2100					42	07.6	66	07.9		
			2130										
			2200					42	04.0	66	11.3		
			2229										
			2240										
			2250					42	00.7	66	14.1		
			2300										
			2330										
31	07	72	0000					41°	57.1'	66°	11.0'		
			0030										
			0051					42°	55.6'	66°	06.8'	Loran	C
			0102										
			0130										
			0200					42°	01.9'	66°	02.1'	Loran	C
			0230										
			0300					42°	06.2'	65°	57.3'	Loran	C
			0330										
			0400					42°	09.6'	65°	52.9'	Loran	C
			0426										
			0430										
			0433										
			0448										
			0451					42	11.4	65	18.4		

12 KHz	CSP	MAG	GRAV.	SONO.	STA.	X	↓	COMMENTS AND OBSERVATIONS Comments
						35584.1	49086.8	¥c to 205°T (Leg 33)
						35589.7	49088.4	a/c
						35607.7	49092.0	ok
✓	✓	✓				35627.3	49095.5	ok
✓	✓	✓				35, 650.3	49, 098.5	OK
✓	✓	✓				35, 676.1	49, 101.5	OK
✓	✓	✓				35, 700.4	49, 104.0	OK
✓	✓	✓				35, 725.3	49, 106.6	OK
✓		✓						Air gun stopped trigerring, shut down
								Air gun back on, the tape was off by mistake!
✓	✓	✓				35, 771.3	49, 111.0	c/c to 140°T Leg 34
✓	✓	✓				35 775.0	49, 112.3	OK
✓	✓	✓				35, 774.6	49, 116.7	OK
						35, 772.5	49, 121.5	OK
						35 1761.5	49, 125.4	OK
						35, 799.2	49, 128.3	OK c/c to 033°T start leg 35
						35 738.4	49, 127.6	OK
						35 709.1	49, 123.0	OK
						35 1673.8	49, 118.0	OK
						35 1639.8	49, 119.8	OK
						35 1607.0	49, 112.4	OK
						35 1577.8	49, 109.7	OK
						35 1548.5	49, 108.4	OK
								Air gun mis firing
						35519.5	49, 108.2	ok " "
								Air guns + compressor off
								¥c to 133°T Begin Leg 36
						35499.4	49108.1	ok Air gun off

Loran "P"

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	± MINUTES	LONGITUDE ± DEGREES	± MINUTES	TYPE	QUAL.
31	07	72	0500										
			0523										
			0554					42	08.0	65	42.4		
			0600										
			0612										
			0630										
			0702					42	03.4	65	43.0		
			0730										
			0800					41	58.6	65	44.5		
			0830										
			0900					41	59.0	65	49.3		
			0930										
			1000					42	01.3	65	55.1		
			1030										
			1100					42	04.0	66	02.5		
			1130										
			1235										
			1239										
			1233										
			1300										
			1302					42°	10.7	66°	16.2'	Loran "C"	
			1310										
			1323										
			1330										
			1400					42°	11.3'	66°	19.0'	Loran "C"	
			1415										

OPS: 12 KHz	UNIBOOM	CSP	MAG	GRAV.	SONO.	STA.	COMMENTS AND OBSERVATIONS: X	Y	Comments
							35494.8	49109.7	ok
									stop tape #25 (ON 519)
							35478.4	49119.6	c/c to 200°T
							35,481.6	49 121.0	ok
									Air Tapcon also Gun repaired + ON.
							35 498.8	49 124.5	OK
							35 515.9	49 129.3	ok.
							35534.0	49133.8	ok.
							35557.3	49,139.3	c/c to 307°T Begin Leg 38
							35,574.7	49,138.0	OK
							35,590.2	49,134.3	OK
							35,6~~22.3~~ 05.5	49,12~~4.9~~ 9.8	OK
✓	✓	✓					35,622.3	49,124.9	OK
							35,641.1	49,118.8	OK
✓	✓	✓					35,659.0	49,113.0	OK
							35,670.0	49,106.3	OK 1218 start Leg 39
									START REEL #26
									UNIBOOM shut DOWN
							35,695.9	49,093.8 OK	Prepare Curly 2 for sono
									bouy.
							35,717.2	~~49,101.6 OK~~ Bad reading	
							35,717.0	49,087.0	
									Aquatronics Sonobouy overside
							Ship slowed to 2 knots for sonobuoy run		Slowing
									not immediate. Aquatronics
									bouys have 20 min.
									hydrophone deploy delay!!
							35,730.8	49,087.5	OK
							35,734.7	49,085.7	OK
									speed increase Uniboom On

Jean C

GMT DAY	MO	YR	TIME	TIME ZONE ±	SHIPS COURSE	SPD	NAVIGATION FIX TIME	LATITUDE ± DEGREES	± MINUTES	LONGITUDE ± DEGREES	± MINUTES	TYPE	QUAL.
31	07	74	1430										
			1500					42°	11.9'W	66°	23.5'W		
			1530										
			1600					42°	12.0'	66°	29.4'W		
			1630										
			1700					42	11.5	66	35.5		
			1730										
			1800					42	09.9	66	41.0		
			1830										
			1836					42°	08.6'	66°	41.1'		
			1900					42	08.7	66	46.1		
			1906										
			1930										
			2001					42	09.3	66	52.1		
			2030					42	10.3	66	55.4		
			2100					42	11.2	66	59.0		
			2130					42	11.7	67	02.6		
			2200					42	12.3	67	07.0		
			2230										
			2239					42	12.5	67	11.3		
			2240										
			2253										
			2300					42	11.6	67	13.7		
			2330										
			2400					42	08.8	67	20.6		
			2430										
			0100					42	07.8	67	27.5		
			0130										
			0135										
			0200					42	05.2	67	34.2		

Loran "C"

OPS 12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	X	Y	COMMENTS AND OBSERVATIONS Comments
							35,743.4	49,083.5	OK
							35,763.9	49,081.1	OK
							35,787.8	49,079.0	OK
							35,808.2	49,076.9	OK
							35 833.5	49 074.7	OK
							35 856.9	49 073.3	OK
							35 881.6	49,072.1	ok
							35908.1	49 071.6	ok.
							35936.2	49,071.6	ok
							35942.8	49,071.5	c/c to 286°T
							35957.2	49,069.9	ok.
									start Reel 27 (Reel 26 off 1904)
							35 978.2	49 067.6	
							36,000.6	49,064.1	ok.
							36019.2	49060.2	~~O.K.~~ "No Signal"
							36039.7	49055.9	~~ok.~~ "No Signal"
							36063.0	49052.2	Ok
							36087.2	49048.5	ok
							36113.0	49043.2	ok
							36120.9	49 044.2	c/c to 244°T Start kg 40
									Mag. down - red pen clogged
									Mag. On again
							36146.4	49044.2	ok
							36183.9	49044.1	ok
							36217.6	49043.6	ok
							36,245.8	49,042.0	o.k.
							36,276.8	49,041.3	o.k.
							36,311.5	49,040.6	o.k.
							36,347.7		Start reel #28
							36,347.7	49,039.1	

GMT				TIME ZONE	SHIPS		NAVIGATION							
DAY	MO	YR	TIME	±	COURSE	SPD	FIX TIME	LATITUDE ± DEGREES	LATITUDE MINUTES	LONGITUDE ± DEGREES	LONGITUDE MINUTES	TYPE	QUAL.
01	08	72	0230										
			0300					42	03.7	67	41.2		
			0330										
			0400					42	01.6	67	48.4		
			0430										
			0500					41	58.2	67	56.6		
			0530					41	57.4	67	59.5		
			0600					41	56.7	68	03.2		
			0630										
			0700					41	54.5	68	10 [illegible].6		
			0730										
			0800					41	52.8	68	18.0		
			0825										
			0838										
			0837					41	51.1	68	23.0		
			0900										
			0930										
			1000					41	43.2	68	28.0		
			1030					41	40.5	68	29.6		
			1038										
			1046										
			1050										
			1100										
			1130										
			1200					41	34.1	68	36.3		
			1230										
			1255										
			1300					41	31.0	68	41.4		
			[illegible]										
			1317										

Uniboom

OPS

12 KHz | CSP | MAG | GRAV. | SONO. | STA.

X	Y	comments
36,379.1	49,038.5	o.k.
36,407.0	49,037.5	o.k.
36,441.7	49,036.4	o.k.
36,476.5	49,035.3	o.k.
36514.4	49034.1	ok.
36562.7	49,033.2	ok
36591.4	49032.3	start Leg 41
36624.1	49030.3	c/c to 254° T
36658.6	49029.2	
36693.6	49028.0	ok
36728.0	49,026.6	ok.
36763.6	49.025.3	Rec'd 28 off (29 on 8:04)
		CSP down. Pix E.P.C.
		CSP on.
36809.7	49034.0	c/c to 205° T
36,835.7	49,026.3	OK
36,871.4	49,029.6	OK
36,904.5	49,033.0	OK
36,938.9	49,036.9	c/c TO 214° T Leg 42
		Uniboom recorder printing bad
		Uniboom down for repair
		Uniboom back on
36,970.9	49,039.4	OK
37,001.7	49,041.6	OK
37,033.5	49,044.1	OK
37,064.4	49,046.6	o.k. military sonobuoy test run
37,089.1	99,048.5	Uniboom off
37,093.6	49,048.9	o.k.
		sono buoy in water
		using Curly #2.

GMT				TIME ZONE	SHIPS		NAVIGATION									
DAY	MO	YR	TIME	±	COURSE	SPD	FIX TIME	LATITUDE ± DEGREES	MINUTES	LONGITUDE ± DEGREES	MINUTES	TYPE	QUAL.
01	08	72	1330										
			1351										
			1353										
			1401					41	26.8	68	45.0		
			1407										
			1430										
			1435										
			1435										
			1443										
			1500					41	22.1	68	49.05		
			1530										
			1600					41	16.7	68	53.	4	
			1630										
			1645										
			1700					41	10.6	68	57.6		
			1730										
			1800					41	05.8	69	00.6		
			1810										
			1844										
			1900										
			1924					41	01.6	69	06.2		
			2000					41	03.2	69	07.3		
			2100					41	05.8	69	11.3		

OPS: 12 KHz	3.5 KHz	CSP	MAG	GRAV.	SONO.	STA.	X	Y	COMMENTS AND OBSERVATIONS: comments
							37,122.3	49,051.7	o.k.
									End sono buoy turn.
									Uni boom back on.
							37,152.2	49,056.1	o.k.
									GUN IS INOPERATIVE
									HIGH PRESSURE HOSE IS
									Broke.
							37,182.6	49,060.2	o.k.
									Air gun back on
									Tape off being
									changed
									START REEL #30
							37,215.3	49,065.6	o.k.
							37,251.1	49,072.0	o.k.
							37,288.7	49,080.0	o.k.
						-	37316.0	49094.8	ok.
							37,362.4		change waggle paper (ON 1650)
							[redacted]	49,100.0	
							37,391.3	49 109.9	
							37422.6	49122.7	
									ship list steering
									Pilled gear. 1844
							37459.3	49136.5	All systems go.
							37493.0	49141.2	4c to 320°T Leg 43
							37491.8	49,131.7	ok
							37501.4	49111.6	~~Haul off~~ Haul
									All gear end
									of leg 1
									Rmd