(200)
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no 75-121

OPEN-FILE REPORT 75-121

1975

SEISMIC REFLECTION PROFILES, USNS BARTLETT
NOV. 1972 CRUISE, OFFSHORE CENTRAL
AND SOUTHERN CALIFORNIA

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U. S. Geological Survey
OPEN FILE REPORT

This report is preliminary and has
not been edited or reviewed for
conformity with Geological Survey
standards and nomenclature.

DATE: NOVEMBER 1972

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
14	1920Z	B-1-72	239°T ~5 kts		0-3000m	4	Top	2	76/20	160	Start line. Fwc.
	1930			14 fm							Fix - Fwc.
	2000			20 fm							Fix - Fwc.
14	2035			26 fm							
	2100			31 fm	0-3000m	4	Top	2	76/20	160	Fix
	2130			45 fm							Fix
14	2200			112.5m	0-3000m	4	Top	2	76/20	160	Fix
	2230			440 m							Fix
	2255	1	239		750-3750	41	Top 3/4	3	76/20	160	
14	2300		C/L 234°	903.7m	750-3750	4	3/4	3	76/20	160	Fix
	2306								78/20		c/f.
	2312								60/20		c/f.
	2340								78/20		c/f - Fwc.
	2356								76/20		c/f
15	0000			1244.2							Fix
	0033			1430							Fix
	0050				1500-4000	4	1/2	4			c/s

TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
0630	2	075°T 6.5 KTS	965.3	1500-4500	4	1/2	4	76/20	160	Fix
0657	2	075°T 6.5 KTS		0750-3750	4	3/4	3	76/20	160	Change scale
0700	2	075°T 6.5 KTS	1427.8	0750-3750	"	"	"	"	"	Fix
0730			1101.0							Fix
0800	2		834.0	0-3000	4	TOP	2	76/20	160	Fix - change scale
0818										END TAPE 2
0820										START TAPE 3
0830	2		825.0	0-3000	4	TOP	2	76/20	160	Fix P9
0900			556.5							Fix
0930			357.0							Fix
0940		C/C 088°								C/C 088°
1000	2	088° 6.1 KTS	325m	0-3000	4	TOP	2	76/20	160	Fix P10
1030	2		121.5	0-3000	4	TOP	2	76/20	160	Fix
1100	2	088/6 KTS	93.7m	0-3000	4	TOP	2	76/20	160	Fix
1130	2		87.7	0-3000	4	TOP	2	76/20	160	Fix P11
1200	2		67.5	0-3000	4	TOP	2	76/20	160	Fix
1300	2		37.5	0-3000	"	TOP	2	76/20	160	Fix
1310	3	0845/6 KTS	0161.9	0-3000	4	TOP	2	76/20	160	Fix P12 @ 1315
1330	3	0845/6 KTS	69.0	0-3000	"	TOP	2	76/20	160	Fix

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(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
215	1400	3	245°/6KTS	65.2	0-3000	4	top	2	76/20	160	FIX
215	1430	3	245°/6KTS	87.0	0-3000	4	top	2	76/20		FIX
215	1440	3	C/C 245°/6KTS	90.8	0-3000	4	top	2	76/20		C/C fr/Bridge announcement
215	1500	3	6KTS	97.5	0-3000	4	top	2	76/20		FIX
215	1530	3	6KTS	116.2	0-3000	4	top	2	76/20		FIX
215	1536	3	0/C 245°/6KTS	129.8	0-3000	4	top	2	76/20	✓	O/C 1st C/C announcement
215	1600	3		216.0		4	TIP	2	76/20	160	Fix
215	1630	3	6KTS C/C 242°	351.0	0-3000	4	top	2	76/20	160	Fix C/C 242°
215	1700	3		517.0							FIX
	1730			641.3							FIX
	1800			766.5							
215	1807	3	242		750- 3750	4	3/4	3	76/20	160	C/scale
	1824	3	242		1500- 4500	4	1/2	4	76/20		C/scale
	1900	3		2576.3							Fix
	1930	3		2748.8							FIX
	1932	3	239°								Fix C/C
215	2000	3		2443.5	1500- 4500	4	1/2	4	76/20	160	FIX P16

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E (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
315	2030	3	239° 7 Kts	2613.7	1500-4500	4	1/2	4	76/20	160	Fix
	2035				2250-5250	4	1/4	5			C/S
315	2100	3		3350.2 2490.2	2250-5250	4	1/4	5	76/20		Fix
	2130			3525.0							End Line 3 short down to C/polarity
											Course at 092 1340
315	2140	4	092° 7 Kts		2250-5250	4	1/4	5	76/20	160	Start Line 4 Sparker still down
	2200			3534.0							Fix - Sparker back on
	2300			2640.0 2645.0							Fix
	2330			2637.7							Fix
316	0000	4	092° 7 Kts	2730.0	2250-5250	4	1/4	5	76/20	160	Fix
	0030			3009.0							Fix
	0100			2803.5 1495.5 2799.0 1492.5							Fix
	0130			2531.3 1350.0							Fix
	0200	4	092° 7 Kts			4	1	5	76/20	160	Fix
	0207				1500-4500		1/2	4			C/S
	0220		062° 0 C				1				O/C
	0230		7 Kts	1909.2 1048.0							Fix
	0300	4		9044.5 1095.0	1500-4500	4	1/2	4	76/20	160	Fix

TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
0300	4	062°/7kts		750-3750M	4	3/4	3	76/20	160	c/s
0330	4		1007.3 534	750-3750M						fix
0339	4			0-3000M	4	TOP	2.			c/s
0400	4	062°/7kts	525.0 280	000-3000M	4					Fix
0430	4		195.0 105							Fix
0431	4	113°/7kts								c/c
0435	4	113°/7kts	67.8 67							TAPE Change #6
0500	4	113°/7kts	123.8 67	000-3000M	4	TOP	2	76/20	160	Fix
0530	4	113°/7kts	120.0 65	000-3000M	4	TOP	2			Fix
0600	4	113°/7kts	118.5 65	000-3000M	4	TOP	2			Fix
0630	4	113°/7kts	112.5 65	000-3000M	4	TOP	2			Fix
0633	4	116°/7kts								c/c
0700	4	116°/7kts	93.8 65							Fix
0710	4	125°/7kts								c/c
0713	4									c/c
0730	4		88.5 88							Fix
0800	4		82.5M							Fix
0830	4		78.8M							

SEISMIC LOG			CENTRAL CALIFORNIA			USGS-NPS		SHIP: BARTLETT			PAGE 7 OF 7	
DATE: NOVEMBER 1972												
TIME (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS	
						SWEEP	KEY	SWITCH				
316	0838	4	094°/7Kts		000 - 3,000 m	4	Top	2	76/20	160	c/c	
	0900		094°/7Kts	63.4M							Fix	
316	0930	4	445°/7Kts	41.2M	0 - 3000 m	4	Top	2	76/20	160	Fix	
	1000		300°/7Kts	30.0M							Fix	
316	1030	4	094/7.0	22.5M	0-3000	4	Top	2	76/20	160	Fix	
	1035		c/c 266								c/c	
	1040		s/o 267								s/o	
316	1100	5	267°/7Kts	37.5M	0-3000	4	Top	2	76/20	160	Fix	
	1106										END TAPE #6	
	1108										START TAPE #7	
316	1130	5		65.2M	0-3000	4	Top	2	76/20	160	Fix	
316	1200	5	267°/7Kts	76.5M	0-3000	4	Top	2	76/20	160	Fix	
316	1230	5		93.8M							Fix	
316	1250	5	272°/5Kts								G/C+S/c	
316	1300	5		145.8m		4	Top	2	76/20	160	Fix	
	1330			560.3							Fix	
	1400			1185.0							Fix	
	1430			1566.0							Fix	
316	1500	5	272°/5Kts	1470.0m		4	Top	2	76/20	160	Fix	

TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
316 1500	5	272°/5kts	1470.0	0-3000	4	Top	2	76/20	160	Fix
1530			1511.2							Fix
1540										#2 sparker near 60
1600			1841.3							End Line 5
1605	5-6	0000								Start Line 5-6 Sparkec down
1630			1627.5m							Sparkec still down
1645	5-6	0000 4.5kts.		750-3750	4	3/4	3	76/20	160	Sparkec back on
1700			1143.8							End Line 5-6
1706	6	103°T 7kts.		0-3000m	4	Top	2	76/200	160	Start Line 6
1730			1387.5							Fix
1800	6		1236.0							Fix
1830			1027.5							Fix
1900			648.8							Fix
1930			322.5							Fix
2000	6	"	120.0							
2030	6		435.0	0-3000m	4	Top	2	76/20	160	Fix
2100	6		453.7m	0-300m	4	Top	2	76/20	160	Fix

SEISMIC LOG													DATE: NOVEMBER 1972													USGS-NJS													SHIP: BARTLETT													PAGE 7 OF 7												
TIME (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTRES HIGH/LOW	KJ	REMARKS																																																					
						SWEEP	KEY	SWITCH																																																								
316	2130	6	103°T 7 Kts	525.0m	0-3,000m	4	Top	2	76/20	160																																																						
316	2200	7	266°T 7 Kts		0-3,000m	4	Top	2	76/20	160	c/c																																																					
	2205	7	"								o/c 266°T																																																					
316	2230	7	"	82.5	0-3000	4	Top	2	76/20	160	Fix																																																					
316	2300	7	"	105.0	0-3000	4	Top	2	76/20	160	Fix																																																					
316	2330	7	"	1095.0	0-3000	4	Top	2	76/20	160	Fix																																																					
316	2358	7	"		750-3750	4	3/4	3	76/20	160																																																						
317	0000			1537.5							Fix																																																					
317	0030	7	"	825.0	0-3000	"	Top	2			c/sc																																																					
317	0037	7	"		750-3750	4	3/4	3	76/20	160	c/ac																																																					
	0051	"	162°Kts								speed chge																																																					
317	0100	"	266° 6.5 Kts	1117.5	1117.5m	4	3/4	3	76/20	160	Fix																																																					
317	0130	"	266° 6.5 Kts	1290.0	750-3750m	4	"	3	76/20	160	Fix																																																					
	0200	"		1711.5m	1711.5m						Fix																																																					
	0230	"		2109m	2109m						Fix																																																					
	0300	8	9/c 027°	2202.8m	2202.8m						End Line Fix																																																					
	0304		o/c 027°	2202.8m	2202.8m						Start Line Fix																																																					
	0330		9/c 027°	2139.8m	2139.8m																																																											

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TIME (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
317	1000	10	179°T 7 Kts	37.5m	0-3000m	4	TOP	2	76/20	160	FIX
317	1025										c/c END LINE 10
317	1028	11	289°T		0-3000m	4	TOP	2	76/20	160	0/c 289°T
317	1030	11	289°T 7 Kts	21m	0-3000m	4	TOP	2	76/20	160	FIX
317	1100	11	289°T 7 Kts	450m	0-3000m	4	TOP	2	76/20	160	FIX
317	1130	11	289°T 7 Kts	112.5m	0-3000m	4	TOP	2	76/20	160	FIX
317	1200	11	289°T 7 Kts	91.5m	0-3000m	4	TOP	2	76/20	160	FIX
317	1230	11		99.0m							Fix
	1300	11		129.8m							Fix
	1330	11		405.0							Fix
	1400	11		870.0m							Fix
	1430	11									Fix
	1445	11	↓								c/c to 085° 089°T
	1450	12	089°T								0/c 089°T
	1503	12	089°/7.5 Kts			↓	↓	↓	↓	↓	Fix
	1530	12	089°/7.5 Kts		0-3000m	4	TOP	2	76/20	160	Fix
	1600	12	089°/7.5 Kts		0-3000m	4	TOP	2	76/20	160	Fix

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(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
17	1630	12	094°/ 7.5 KTS	67.5m	0-3000m	4	TOP	2	76/20	160	c/c
17	1700	12	094°/ 7.5 KTS	45.0m	0-3000m	4	TOP	2	76/20	160	F/X
17	1730	12	094°/ 7.5 KTS	31.5m	0-3000m	4	TOP	2	76/20	160	F/X
17	1800	12	094°/ 7.5 KTS	27.0m	0-3000m	4	TOP	2	76/20	160	F/X
17	1820		246° END	0F	LINE	#12					End line 12
17	1830	12									Start line 12 Circling - Changing date
17	1840	13	246°		0-3000m	4	Top	2	76/20	160	Start line 13
17	1845										Sparker down
17	1852										Sparker on
17	1900			33.8m							FIX
17	1930			71.3m							
17	2000	13	246° T 7 KTS	97.5m	0-3000m	4	TOP	2	76/20	160	FIX
17	2030			32.8m							FIX
17	2100										Fix
17	2130	13	246° T 7 KTS	1110m	750- 3750m	4	3/4	3	76/20	160	c/sc
17	2200	13		1955m	1500- 4500	4	1/2	4	76/20	160	c/sc
17	2300	13		1983m	1500- 4500	4	1/2	4	76/20	160	

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(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
17	2330	13	246°T 7 Kts	2456m	1500 - 4500	4	1/2	4	76/20	160	FIX
18	0000	13	Making turn 80-7 Kts	2422.5							FIX
18	0040	13	Now = 10 Kts								C/C to 139°
18	0043	14	139°/10 Kts								O/C 139°
18	0033	14		2618							FIX
18	0100	14	"	2538	1500/ 4500	4	1/2	4	76/20	160	FIX EDGE OF FRONTIER SEA VALLEY
	0130			2959.5							FIX
	0200			2497.5							FIX
	0230			1803.8							FIX
	0300			1597.5	1500/ 4500	4	2	4			FIX
	0304				750/3750	4	3/4	3	76/20	160	C/SC 750/3750
18	0330	✓	10 Kts	1010							Reduced speed to
18	0400	14	139° 7 Kts	1001.2							
18	0430	14		903.0	750 - 3750	4	3/4	3	76/20	160	
	0500	14	139° 7 Kts	824.3							changed to 1480 @ 0530Z
	0530	14	148° 7 Kts	906.0							
18	0600	14	148°				tp	2			FIX

SEISMIC LOG			CENTRAL CALIFORNIA			USGS-NPS		SHIP: BARTLETT			PAGE 14 OF 14							
DATE: NOVEMBER 1972			WATER DEPTH (M)			COURSE & SPEED		SCALE		PROGRAM			FILTERS HIGH/LOW		KJ		REMARKS	
(JD)	TIME	LINE	COURSE & SPEED		WATER DEPTH (M)	SCALE		SWEEP	KEY	SWITCH	PROGRAM		FILTERS HIGH/LOW		KJ		REMARKS	
18	0630	14	148° / 7 kts		1233.8 1233.8	0-3000		4	Top	2					160		Fix.	
18	0700	14	"		118.8	"		"	"	"					"		Fix.	
18	0730	"	"		1295.3	"		1	"	"					"		Fix	
18	0800	14	148° / 7 kts		1218	0-3000		4	TOP	2			76/20		160		FIX	
18	0830	14	148° / 7 kts		1256	0-3000		4	TOP	2			76/20		160		FIX	
18	0845	15	357° / 7 kts			0-3000		3	3/4 TOP	3			76/20		160		c/c c/sweeper	
18	0849	15	357° / 8 kts			562.5-2812.5		3	3/4	3			76/20		<160 160		O/c	
	0900	5-	S- per chief		to be in out system												Heavy Swaves	
	0902	the	day		in time													
18	0905	15	0305 / 8 kts			0-3000		4	TOP	2			76/20		160		c/c avoid traffic	
18	0912		Maybe not			in time		1	1st	#2 LADDER??							#2 was also OAT. Shut down.	
318	0915	15	357° / 8 kts			0-3000		4	Top	2			76/20		120		Resume Cse 357	
318	0930	15	357° / 8 kts		1157	0-3000		4	TOP	2			76/20		120			
318	1000	15	357° / 7 kts		1095	0-3000		4	TOP	2			76/20		120		Change Speed to 357 kts	
					657													
18	1100	15																
	1103		c/c 357			0-3000		4	TOP	2			76/20		120			
318	1130	15	357 / 7		435	0-3000		4	TOP	2			76/20		120		Fix	

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(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
8	1144	15	348° 7 Kts		0-3000m	4	TOP	2	76/20	120	c/c to 348°
18	1200	15	348° 7 Kts	58.5m	0-3000m	4	TOP	2	76/20	120	Fix
18	1208	16	242° 7 Kts	56.2m							c/c to 242°
18	1210	16	0/c 242° 7 Kts	60.0m							0/c
	1220	16	7 Kts								Speed up to 7 Kts
	1230			46.5m							Fix
	1300			46.5m							Fix
	1330			832.5m							Fix
	1400			1057.5							Fix
	1430	↓	242°/7 Kts	1107.8							Fix
	1500	16	c/c to 089°	1530.0							c/c to 089°, Fix
	1504.5	17	0/c 089°	1537.5							Fix
	1530			1237.5							Fix
	1556		Circling	to untangling cables							Sparkers off
	1600			1229.4							Fix
	1620		0/c 125°								steady on 125°
	1630		to 093°	1177.5						160	c/c to 093

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
18	1636	17	093° / 7.0 KTS			4	TOP	2	76/30	160	o/c 093°
18	1700			1020.0 m							FIX
	1715		030°	End of line		#17					c/c
	1719	18	030°	Start line		#18					o/c @ 030°
18	1730	18	030°	772.5 m	0-3000m	4	TOP	2	76/20	160	FIX
	1802			352.5							
	1830			67.5m							
	1850		9° 28' 20" / 7 KTS	End of line		#18					c/c
18	1852	19	283° / 7 KTS	Start line		#19					o/c @ 282°
	1900	19	282° / 7 KTS	83.3m	0-3000m	4	TOP	2	76/20	160	FIX
	1930		282° / 7 KTS	221.3 m							CHANGE COURSE
18	1939	19	264°		0-3000	1	TOP	2	76/20	160	CHANGE COURSE
318	1942	19	263°		0-3000	5	TOP	2	76/20	160	o/c
	2000		465.0	465.0	IT AGAIN!						FIX
	2001		SYSTEM BACK ON								
318	2030	19	264° / 7 KTS	753.7	0-3000m	4	TOP	2	76/20	160	FIX
318	2100	19	264° / 7 KTS	968.0	0-3000	4	TOP	2	76/20	160	FIX

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E (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
318	2130	19	264/ 2 Kts	1180.0	0-3000	4	TOP	2	76/ 20	160	FIX
318	2200	19	264/ 2 Kts	1046.0	0-3000	4	TOP	2	76/ 20	160	FIX
318	2214	# 344	OFF - WORKING			ON	BOOM			80	
	2223	# 344	ON							160	
318	2230	END	LINE 191530.0								c/c
318	2237	20	074/ 7 Kts		0-3000	4	TOP	2	76/ 20	160	0/c START
318	2300	20	074/ 7 Kts	1507.5	0-3000	4	TOP	2	76/ 20	160	FIX
318	2332	20	074/ 7 Kts		0-3000	4	TOP	2	76/ 20	160	FIX
319	0000	20		1236.0							FIX
	0030			994.5							FIX
	0100			783.9							FIX
	0123	END BOOM	074/ 7 Kts		0-3000	4	TOP	2	76/ 20		c/c from 074°
	0127	BOOM	2100/ 7 Kts	1312.5	0-3000	4	TOP	2	76/ 20		0/c 270° FIX
	0200			1695.0							FIX
	2300			2422.5							FIX
	0300			2722.5	750- 3750	4	3/4	3			c/sc FIX
	0330			2478.8							FIX
	0400			2358.8							FIX

TIME (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
319	0400	21	270°/7kt		250-3750	4	3/4	3	76/20	160	
319	0430	21	270°/7kt	2921.3m	750-3750 1500-4500	4	3/4	3	76/20	160	FIX
319	0500	21	270°/7kt	3532.1m	1500-4500	4	1/2	4	"	"	
319	0530				2250-5250	4	1/4	5			Fix C/S End Line 21
319	0559	22	079°/7kt								Start new Line 22
319	0600		"	2850m							Fix
319	0635			2712.8m							Fix 2712.8m
319	0700	22		3063.8m							Fix
319	0730	22	079°/7kt	2876.3m	2250-5250	4	1/2	5	76/20	160	Fix
319	0800	22	079°/7kt	2568m	1500-4500	4	1/2	4	76/20	160	c/s MODE 4
	0830			2396							Fix
319	0900	22	079°/7kt	2707.5	1500-4500	4	1/2	4	76/20	160	Fix
319	0925	22	079°/7kt	1738.5	750-3750	4	3/4	3	76/20	160	c/s MODE 3
319	0930	22	079°/7kt	1738.5	750-3750	4	3/4	3	76/20	160	Fix
319	1000	22	079° 079°/7kt	1987.5	750-3750	4	3/4	3	76/20	160	Fix
319	1030	22		1147.5							Fix
319	1044	22	079°/7kt		0-3000	4	Top	2	76/20	160	c/s

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(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
319	1100	22	079° 7 Kts	146.2	0-3000	4	TOP	2	76/20	160	FIX
319	1130	22	079° 7 Kts	90.0m	0-3000	4	TOP	2	76/20	160	FIX
319	1142	23	289° 7 Kts		0-3000	4	TOP	2	76/20	160	END LINE 22 c/c Start Line 23
319	1146	23	289° 7 Kts		0-3000	4	TOP	2	76/20	160	0/c
319	1200	23	289° 7 Kts	93.7m	0-3000	4	TOP	2	76/20	160	FIX
319	1230	23	289° 7 Kts	870.0m	0-3000	4	TOP	2	76/20	160	FIX
319	1241	23	283° 7 Kts		0-3000	4	TOP	2	76/20	160	c/c to 283°
319	1300	23	283° 7 Kts	1065.0	0-3000	4	TOP	2	76/20	160	FIX
319	1330	23	283° 7 Kts	1298.2	0-3000	4	TOP	2	76/20	160	FIX
119	1400	23	283° 7 Kts	633.0	0-3000	4	TOP	2	76/20	160	c/c to 099°
319	1405	24	099° 7 Kts		0-3000	4	TOP	2	76/20	160	0/c 099°
319	1430	24	096° 096°	1262.2	0-3000	4	TOP	2	76/20	160	Bridge reports true course as 096°
319	1443	24	096° 7 Kts	577.5	0-3000	4	TOP	2	76/20	160	FIX
319	1500	24	096° 7 Kts	615.30 639.0	0-3000	4	TOP	2	76/20	160	FIX
319	1532	24	096° 7 Kts		c/sc to 750-1100	4	3/4	2	76/20	160	
319	1543	24	096° 7 Kts		750-1100	4	3/4	2	76/20	160	FIX
319	1600	24	096° 7 Kts		750-1100	4	3/4	2	76/20	160	c/sc back to 0-3000
319	1602	24	096° 7 Kts		0-3000	4	TOP	2	76/20	160	

E (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
19	1621	24	096° 1 kt	End of Line		4	Top	2	76/120	160	End of Line
19	1627	25	326°/4 kt	Start of Line							Start of Line
19	1630	25	326°	56.3m	0-3000						Fix
19	1700	25	326°	375m	0-3000						Fix
19	1730	25	326° 4.5 kt	78.0m	0-3000						Fix
19	1736	E		End of Line							
19	1745	26	175° 8 kt	Start of Line							Increase Speed to 8 kt. / 0.750
19	1800	26	"	274.2m	0-3000						Fix
19	1830	26	"	78.8	0-3000						Fix
19	1955	26	Reduce Speed	Secured Sparke							End Line 26
320	0000	27	342° T	75m	0-3000m	4	Top	2	76/20	160	Start Line 27
320	0017	27	342° T	SHOATED FUS. WIRE - NOT OFF							
320	0027	27	342° T	92m		4	Top	2	74/20	160	92m @ 0030 Resume Line 27
	0100			545m							Fix
	0120									80KT	Shut down Banks 1 and 4

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TIME (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
320	0730	29	243°		750-3750m	4	3/4	3	76/20	160	FIX
320	0800	29	243° 7 Kts		750- 3750m	4	3/4	3	76/20	160	FIX
320	0830	29	243° 7 Kts		750- 3750m	4	3/4	3	76/20	160	FIX
320	0927	29	243/7		1500- 4500m	4	1/2	4	76/20	160	C/Sc
320	0945	29	243/7 Kts		2250- 5250	4	1/4	5	76/20	160	C/Sc
320	1000	29	243/7		2250- 5250	4	1/4	5	76/20	160	Fix
320	1030	29	243/8 Kts		2250- 5250	4	1/4	5	76/20	160	FIX
320	1100	29	243/8		2250- 5250	4	1/4	5	76/20	160	Fix
320	1132	29	243/8		2250- 5250	4	1/2	5	76/20	160	Fix
320	1200	29	180° 180°	3205.4					76/20	160	C/C
320	1203	1	180°		2250- 5250	4	1/4	5	76/20	160	S/O 180
320	1230	1	180°	3120m	"	"	"	"	76/20	160	"
320	1234										C/C 090°
320	1237	2	090°		2250- 5250	4	1/4	5	76/20	160	S/O 090°
320	1300	2	090°	3315.8	"	"	"	"	"	"	C/C
320	1330	2	090°	3108.8	"	"	"	"	"	"	C/C

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Leg 2.

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
20	1400	2	090°T	2337.8m	1500-4500m	4	1/2	4	76/20 20/47	160	c/sec from 3-7 to 2-6 sec.
20	1430	2	090°T	1752.0m	1500-4500m	4	1/2	4	76/20 20/47	160	O/C
20	1450	2			750-3750m	4	3/4	3		120	c/sec from 2-6
20	1450										(SHUT OFF #4 cap 1500/320)
20	1455	2	(REL START 400 CAP)			4				160	
20	1500	2	090°T	1392.0m	750-3750m	4	3/4	3	76/20 20/47	160	
20	1504	2	094°		"	"	"	"	"	"	4/c TO 094°T
20	1530	2	094°	1195.5m	"	"	"	"	"	"	O/C
	1600	"		1027.5							Fix
	1630	"		927.0							Fix
	1700	"		681.0	0-3000m 0-1600fms	"	TOP	2			c/sec from 1-5 to 0-4
	1730	"	101°	522.8m	"	"	"	"			Fix c/c
20	1800	2	"	386.3m	"	4	"	"	76/20 20/47	160	Fix.
	1828		110°T								c/adjustment
	1830			159.8m							Fix
	1848	2									c/c 138°T End line 2
	1849	3	138		0-3000m	4	TOP	2	76/20	160	Start line 3

TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
20 1900	3	138	291m	0-3000m	4	TOP	2	70/47/20	160	Fix, Baseline 3
" 1930	"	"	352.5m							Fix
20 2000	4	265/8 Kts	503.3m	0-3000	4	TOP	2	76/47/20	160	END LINE 3 START LINE 4 c/c
20 2004	4	265/8 Kts	606m	0-3000	4	TOP	2	76/47/20	160	o/c
20 2100	4	265/8 Kts	937.5m	0-3000	4	TOP	2	70/47/20	160	Fix
20 2130	4	265/8 Kts	1033.5m	750-3750m	4	3/4	3	70/47/20	160	Fix
20 2200	4	265/8 Kts	1195m	750-3750m	4	3/4	3	70/47/20	160	Fix
20 2230	4	265/8 Kts	1686m	750-3750m	4	3/4	3	70/47/20	160	Fix
20 2300	4	265/8 Kts	1427.2m	750-3750	4	3/4	3	70/47/20	160	Fix
20 2330	4	265/8 Kts	1551	750-3750	4	3/4	3	70/47/20	160	Fix
20 2330	4	258/8 Kts		"	"	"	"	"	"	c/correction
21 0000	4	258/8 Kts	1849.5m	1500-4500m	4	1/2	4	70/47/20	160	c/sc
21 0030	4	258/8 Kts	2111m	1300-4500m	4	1/2	4	76/47/20	160	"
21 0100	4	268/8 Kts	2077m	1500-4500m	4	1/2	4	76/47/20	160	c/c
21 0130	4	268/8 Kts	2606m	1500-4500m	4	1/2	4	76/47/20	160	
21 0200	4	"	2925m	"	"	"	"	"	"	o/c
21 0210	4	268/8		2250-5250m	A	3/4	5	76/47/20	160	c/sc

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
21	0230	4	268/ 8 KT	3364	2250- 5250	4	3/4	5	76/47/ 120/16	160	CHANGE SEISMIC TAPE TO REEL # 23
21	0258	4	268°		3000- 6000 m	4	TOP	2	76/47/ 120/16	160	CISC FROM 3-7 TO 4-85055-
21	0300	"	"	3405 m	"	"	"	"	"	"	O/C
21	0330	"	"	3459 m	"	"	"	"	"	"	O/C
21	0400	5	180/6 KT								SPARKER OFF for repairs
	0402										90N 180°
22	0440	6	090°T 8.0 Kts		3000- 6000 m	4	TOP	2	76/47/ 120/16	160	Start line 6
21	0500Z	6	"	3353 3534.0 m	"	"	"	"	"	"	
"	0530Z	"	"	3476.3 m	"	"	"	"	"	"	Fix
"	0600Z	"	"	3366.0 m	"	"	"	"	"	"	Fix O/C
21	0630Z	"	"	3355.0 3186.0 m	"	"	"	"	"	"	Fix, O/C
21	0700Z	"	090°T 8.0 Kts	3075.0 m	"	"	"	"	"	"	
"	0709Z	6	090°T 8.0 Kts	—	1500- 4500 m	4	1/2	4	"	"	CISC
21	0730Z	"	"	2871.0 m	"	"	"	"	76/47/ 120/16	"	Fix, O/C
21	0800	6	090° 8 Kts	1939.5	1500- 4500	4	1/2	4	76/47/ 120/16	160	Fix
21	0810	6	090° 8 Kts		750- 3750	4	3/4	3	76/47/ 120/16	160	CISC

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
21	0830	6	090° 8 Kts	1587.5 m	750- 3750 m	4	3/4	3	76/47/ 20/16	160	FIX
21	0900	6	090° 8 Kts	1532.0 m	750- 3750 m	4	3/4	3	76/47/ 20/16	160	FIX
21	0930	6	090° 8 Kts	1413.7 m	750- 3750 m	4	3/4	3	76/47/ 20/16	160	FIX
21	1000	6	090° 8 Kts	1443.0 m	750- 3750 m	4	3/4	3	76/47/ 20/16	160	FIX
21	1030	6	090° 8 Kts	1367.0 m	750- 3750 m	4	3/4	3	76/47/ 20/16	160	FIX
21	1100	6	090° 8 Kts	1170.0 m	750- 3750 m	4	3/4	3	76/47/ 20/16	160	FIX
21	1130	6	090° 8 Kts	939.7 m	750-3750	4	3/4	3	76/47/ 20/16	160	FIX
21	1137	6	090° 8 Kts		0-3000	4	TOP	2	76/47/ 20/16	160	C/SC
21	1200	6	090° 8 Kts	757.5 m	0-3000 m	4	TOP	2	76/47/ 20/16	160	0/c
21	1230	6	090° 8 Kts	330 m	0-3000 m	4	TOP	2	76/47/ 20/16	160	0/c
21	1236	6	(END LINE 6)			"	"	"	"	"	940 GO 152-T START LINE 7
21	1300	7	152°/8	387 m	0-3000 m	4	TOP	2	76/47/ 20/16	160	0/c
21	1330	7	152°/8	165 m	"	"	"	"	"	"	240-T END LINE 7
21	1335	8	0/c 270° T		0-3000 m	4	TOP	2	76/47/ 20/16	160	BEBW LINE 8
21	1340	8	0/c 270° T		"	"	"	"	"	"	ON CORRESP 270° T
21	1400	8	"	481.5 m	"	"	"	"	"	"	0/c
21	1430	8	270° T	748 m	"	"	"	"	"	"	0/c

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E (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
21	1442 1542	8	270° T		1-5 sec; 250-3750	4	3/4	3	76/120 47/16	160	c/s c
21	1500	8	270° T	917m	"	"	"	"	"	"	c/c
21	1530	8	270° T	1045	"	"	"	"	"	"	c/c
21	1600			1201.5m							Fix
21	1630			1398.7							Fix
21	1700			1613.2							Fix
21	1730			1777.5							Fix
21	1800			2071.5							Fix
21	1830			2167.5		+	1/4	5		"	Fix
21	1844				2250- 5250m						changed scatter modes
21	1900	8	270°/8	2700m	2250- 5250	4	1/4	5	96/47 40/16	160	Fix
21	1930	8		3180.0							
21	2000	8		3187.0							Fix
21	2030	8	270°/8		2250- 5250	4	1/4	5	-	-	End line 8
21											Shut down Vane
21	2233	9	135								Sparker on
21	2242	9	242°/8			4	1/4	5	96/47 20/16	160	5% 242

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E (JD)	TIME	LINE <i>Leg 2-</i>	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
21	2300	9	242/8K	3401M		4	1/4	5	76/47 20/16	160	
321	2323				1500 - 4500	4	1/2	4	76/47 20/16	160	C/SC
321	2331	9	242/8Kts	2400M	1500 - 4500	4	1/2	4	76/47 20/16	160	FIX
322	0000	9	242/8Kts	2165M	1500 - 4500	4	1/2	4	76/47 20/16	160	FIX
322	0030	92	270/8KT	2962M	1500 - 4500	4	1/2	4	76/47 20/16	160	C/C TO 270
322	0035	92	270/8KT		2250 - 5250	4	1/4	5	76/47 20/16	160	
322	0100	"	"	3573M	"	4	1/4	5	76/47 20/16	160	FIX
322	0115	<i>START</i> 10	089/8KT		2250 - 5250M	4	1/4	5	76/47 20/16	160	C/C TO 089
322	0121	10									O/C 089°T
322	0130	10	089/8KT	3611M	2250 - 5250M	4	1/4	5	76/47 20/16	160	
322	0200	10	089/8KT	2300M	2250 - 5250M	4	1/4	5	76/47 20/16	160	
322	0215	10	089/8KT		1500 - 4500M	4	1/2	4	76/47 20/16	160	C/SC
322	0230	10	089/8KT	1845 4500M	1500 - 4500M	4	1/2	4	76/47 20/16	160	
322	0255 0244	10	089/8KT		2250 - 5250M	4	1/4	5	76/47 20/16	160	C/SC
322	0300	10	089/8KT	3243M	2250 - 5250M	4	1/4	5	76/47 20/16	160	
	0322										PROBLEMS SHUT DOWN GENERATOR SPARKER ON LINE AGAIN.
322	0328	10	089/8KT		2250 - 5250M	4	1/4	5	76/47 20/16	160	

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(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
22	1400	12	270°T / 7.5kt	770 M	0-3000m	4	Top	2	76/20 76/20	160	o/c
22	1411	12	"		750 - 3750m	4	3/4	3	76/20 76/20	160	C/sc
22	1422	12	270°T / 7.5kt	770 M	750 - 3750m	4	3/4	3	76/20 76/20	160	
222	1419	12	262°/8.0		750 - 3750m	4	3/4	3	76/20 76/20	160	C/C & C/SP
222	1430	12	262°/8.0	866M	750 - 3750m	4	3/4	3	76/20 76/20	160	TIME CHECK WITH COMPUTER SHOWED THAT VAN CLOCK WAS 1 MINUTE SLOW. CORRECTED @ 1437.
222	1500	12	262°/8.0	960M	750 - 3750m	1	3/4	3	76/20 76/20	160	
22	1530	12	262°/8.0	1030M	750 - 3750m	4	3/4	3	76/20 76/20	160	
22	1600	12	262°/8.0	1101.0m	750 - 3750m	4	3/4	3	76/20 76/20	160	
222	1630	12	"	1197.0m	"	"	"	"	"	"	No water depth data being tinkered w/
22	1700	12	262°/8.0		750 - 3750m	4	3/4	3	76/20 76/20	160	
22	1730	12	"	at 1731Z 1770.0m	"	"	"	"	"	"	
22	1800	12	275°/8.0	2735.3m	"	"	"	"	"	"	C/c to 275° at 10:00
22	1810	12	275°/8.0		2250 - 5250m	"	1/4	5	"	"	C/sc from 3/4 to 1/4.
222	1815	12	275°/8.0		3000 - 6000m	"	Top	2	76/20 47/20	160	C/sc from 1/4 to Top
222	1830	12	275°/8.0	3558.	3000 - 6000m	"	Top	2	76/20 47/20	160	
222	1900	12	275°/8.0	3609.8	3000 - 6000m	4	Top	2	76/20 47/20	160	Fix
	1930			3616.5							

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(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
23	0100	14	090°T 8 kts.	3180	2250 - 5250m	4	1/4	5	76/20	160	Fix
23	0130	14	090°T 8 kts	3521	3000 - 6000M	4	TOP	2	76/20	160	C/SC
23	0140	14	"	"	"	"	"	"	"	"	SPARKER DOWN GENERATOR QUIT
23	0148	14	"	"	"	"	"	"	"	"	BACK ON LINE WITH SPARKER
23	0200	14	090°T 8 kts	3619M 4225M	3000 - 6000M	4	TOP	2	76/20	160	
23	0230	14	090°T 8 kts	3675	3000 - 6000M	4	TOP	2	76/20	160	
23	0300	"	"	3713M	"	"	"	"	"	"	C/f
	0316								76/20	100/20	
	0317								76/20	47/20	C/E
23	0330	14	090°T 8 kts	3713M	3000 - 6000M	4	TOP	2	76/20	160	
23	0352	"	"		2250 - 5250m	4	TOP 1/4	5	76/20	160	C/SC
23	0400	"	"	2497.5	2250 - 5250m	"	"	"	"	"	FIX
23	0410	"	084° 9%		2250 - 5250m	"	"	"	"	"	C/c to 084°
23	0423	"	084° 8 kts		1500 - 4500m	4	1/2	4	"	"	C/SC
23	0430	"	"	2062.5	"	"	"	"	"	"	GENERATOR DOWN FIX
	0500	"	"	1710.0							
	0515	"	"		7500 - 8750	4	3/4	3	"	"	C/SC

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
23	0530	14	084°/8 Kts	1316.2	750 - 3750m	4	3/4	3	76/47/20 20	160	FIX
23	0600	14	084°/8 Kts	1086.0m	750 - 3750m	"	"	"	"	"	Fix
23	0630Z	14	"	1029.0m	750 - 3750m	"	"	"	"	"	Time Fix
23	0700Z	14	084°/8 Kts	997.5m	750 - 3750m	4	3/4	3	76/47/20 20	160	Fix
23	0730Z	14	084°/8 Kts	862.5m	750 - 3750m	4	3/4	3	76/47/20 20	160	Fix
23	0800	14	084°/8 Kts	864.0m	750 - 3750m	4	3/4	3	76/47/20 20	160	FIX
23	0840	14	084°/8 Kts	—	0 - 4 SEC 0-3000m	4	TOP	2	76/47/20 20	160	FIX c/sc
23	0830	14	084°/8 Kts	771.0m	0 - 3000m	4	TOP	2	76/47/20 20	160	FIX
23	0900	14	084°/8 Kts	624.0m	0 - 3000m	4	TOP	2	76/47/20 20	160	FIX
23	0908	14	084°/8 Kts	—	0 - 3000m	4	TOP	2	76/47/20 20	160	Generator acting up - Van shut down
23	0913	14	084°/8 Kts	—	0 - 3000m	4	TOP	2	76/47/20 20	160	Van restarted
23	0930	14	084°/8 Kts	442.5m	0 - 3000m	4	TOP	2	76/47/20 20	160	Time Fix
23	1000	14	084°/8 Kts	186.0m	0 - 3000m	4	TOP	2	76/47/20 20	160	Fix
23	1003	14	103°/8 Kts	—	0 - 3000m	4	TOP	2	76/47/20 20	160	c/correction
23	1030	14	103°/8 Kts	90.0m	0 - 3000m	4	TOP	2	76/47/20 20	160	Fix
23	1048	15	140°/8 Kts	—	0 - 3000m	4	TOP	2	76/47/20 20		c/c
23	1050	15	140°/8 Kts	—	0 - 3000m	4	TOP	2	76/47/20 20	160	c/c

E (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
23	1100	15	140°/8 Kts	71.2 m	0-4 SEC 0-3000 m	4	TOP	2	76/47/ 20/20	160	FIX
23	1130	15	140°/8 Kts	78.7 m	0-3000 m	4	TOP	2	76/47/ 20/20	160	FIX
23	1200	16	270°T/8 Kts	90 m	0-3000 m	4	TOP	2	76/47/ 20/20	160	END LINE-15 Kts
23	1204	16	270°T/8 Kts		"	"	"	"	"	"	5/02700T
23	1230	16	270°T/8 Kts	249 m	0-3000 m	"	"	"	"	"	0/c
23	1300	16	270°T/8 Kts	357 m	0-3000 m	"	"	"	"	"	0/c
23	1305	16	C/L 263°		"	"	"	"	"	"	C/L TO MAKE 6000 TRACK LINE
323	1319	16	263°		"	"	"	"	"	"	C/SPO TO 6.5 KNOTS TRAFFIC
323	1330	16	263°/6.5	459 m	"	"	"	"	"	"	
323	1345	16	263°/8 Kts		"	"	"	"	"	"	C/SPO back TO 8 KNOTS
323	1400	16	263°/8 Kts	595	0-3000 m	4	TOP	2	76/47/ 20/20	160	
323	1430	16	263°/6.5 Kts	783	0-3000 m	"	"	"	"	"	C/SPO TO 6.5 KTS TRAFFIC
323	1433	16	"		"	"	"	"	"	"	#2 CAPACITOR HANGS UP - CONSTANTLY
323	1445	16	263°/8 Kts		750-3750	4	3/4	3	"	160	C/S C + C/SPO SKTS
323	1500	16	263°/8	911 m	750-3750	4	3/4	3	76/47/ 20/20	160	#2 cap still hanging up
323	1530	16	263°/8 Kts	1077	750-3750 m	4	3/4	3	76/47/ 20/20	160	#24 #5 cap hanging up
323	1600	16	263°/8 Kts	1142.3 m	750-3750 m	4	3/4	3	"	160	

TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
23 1612	16	263°/8kts	-	750-3750	4	3/4	3	76° 47' 20" 20	160	Shut down sparkers. Broken fan belt & Gen. low on H ₂ O. + cracked generator.
23 1630										Generator Repair
23 1700	16									Fix - gen. repair -
23 1832	10-	125° 0°/10kts								No data.
23 1834	10-	125° 10kts			4	3/4	3	76° 47' 20" 20	160	1250 course - returning to position at time of shut down.
23 1900	16	125° 10kts		750-3750	4	3/4	3	11	11	SP Extension of line 16 - returning to position at time of shut down.
23 1910	16	270° 8kts		750-3750	4	3/4	3	76° 47' 20" 20	160	Proceeding to line 16. position at time of shut down.
23 1930	16	270° 8kts	1228.5m	750-3750	4	3/4	3	76° 47' 20" 20	160	Resuming line 16. 26. 26 to 270°
23 2000	16	270° 8kts	1525.5m	750-3750	4	3/4	3	76° 47' 20" 20	160	FIX
23 2020	16	270° 8kts		1500-4500m	4	1/2	4	76° 47' 20" 20	160	c/sc
23 2030	16	270° 8kts	1835.0m	1500-4500m	4	1/2	4	76° 47' 20" 20	160	FIX
23 2100	16	270° 8kts	2254.0m	1500-4500m	4	1/2	4	76° 47' 20" 20	160	FIX
23 2110	16	270° 8kts		2250-5250m	4	1/4	5	76° 47' 20" 20	160	c/sc
23 2130	16	270° 8kts	3047.0m	2250-5250m	4	1/4	5	76° 47' 20" 20	160	FIX
23 2145	16	270° 8kts		3000-6000m	4	TOP	2	76° 47' 20" 20	160	c/sc
23 2150	16	275° 8kts		3000-6000m	4	TOP	2	76° 47' 20" 20	160	c/correction
23 2200	16	275° 8kts	3668.0m	3000-6000m	4	TOP	2	76° 47' 20" 20	160	FIX

TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
2230	16	275°/8 KTS	3742.0m	3000- 6000m	4	TOP	2	76/47/ 20/20	160	FIX
2300	16	275°/8	3791.0m	3000-6000 4-68°C	4	TOP	2	76/47/ 20/20	160	Fix
2330	16	275°/8	3720.0m	3000- 6000m	4	TOP	2	76/47/ 20/20	160	FIX
0000	16	275°/8	3548M @ 0030	3000- 6000M	4	TOP	2	76/47/ 20/20	160	
0031	16	275°/8	3531M	6000M	4	TOP	2	76/47/ 20/20	160	
0100	16	275°/8KT	3459M	3000- 6000M	4	TOP	2	76/47/ 20/20	160	
0111	END 16	*		3000- 6000M	4	TOP	2	76/47/ 20/20	160	C/C TO 180°T
0114	START 17	180°/8KT		3000- 6000M	4	TOP	2	76/47/ 20/20	160	O/C 180°T
0130	17	180°/8KT	3547M	3000- 6000M	4	TOP	2	76/47/ 20/20	160	
0200	17	180°/8KT	3630M	3000- 6000M	4	TOP	2	76/47/ 20/20	160	
0210	END 17									C/C TO 090°T
0213	START 18	090°/8KT		3000- 6000M	4	TOP	2	76/47/ 20/20	160	O/C 090°T
0230	18	090°/8KT	3620M	3000- 6000M	4	TOP	2	76/47/ 20/20	160	
0300	18	090°/8KT	3532M	3000- 6000M	4	TOP	2	76/47/ 20/20	160	
0330	18	090°/8KT	3572M	3000- 6000M	4	TOP	2	76/47/ 20/20	160	
0400	18	090°/8KT	3611.5	3000- 6000M	4	TOP	2	76/47/ 20/20	160	
0430	18	090°/8KT	37450	3000- 6000M	4	TOP	2	76/47/ 20/20	160	
0436	18	090°/8KT	—	3000- 6000M	4	TOP	2	76/47/ 20/20	160	

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(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
24	0500	18	090°/8 Kts	3832.5	3000 - 6000m	4	TOP	2	76/47 20/20	160	shut down to replace fuse wire @ 2087° @ 0600
24	0553	18									
24	0530	18	090°/8 Kts	3791.7							
24	0600	18	087°/8 Kts	3657.8							
24	0625	18	087°/8 Kts	—	750 - 3750	4	3/4	3	76/47 20/20	160	c/c's to 3/4 750 - 3750 m.
24	0630	18	087°/8 Kts	2895.5m							Fix
24	0700	18	087°/8 Kts	2235.0m							Fix
24	0730	18	089°/8 Kts	1760.3m							Fix
24	0739	18	"	"	"	"	"	"	"	120	Shut down #2 spark (Lost ladder 23)
24	0800	18	089°/8 Kts	1333.5m	750 - 3750m	4	3/4	3	76/47 20/20	120	
24	0809	18	V/C 8 Kts								MANUEVERING AROUND TRAFFIC
24	0830	18	089°/8 Kts	988.5m	0-4 sec. 0-3000	4	TOP	2	76/47 20/20	120	c/sc Fix
24	0900	18	089°/8 Kts	891.0m	0-3000m	4	TOP	2	76/47 20/20	120	Fix
24	0930	18	089°/8 Kts	808.5m	0-3000m	4	TOP	2	76/47 20/20	120	Fix
24	1000	18	089°/8 Kts	789.7m	0-3000m	4	TOP	2	76/47 20/20	120	Fix
24	1024	18	060°								MANUEVERING AROUND TRAFFIC
24	1030	18		633.8m							
24	1040	18	070°								c/c still screwing around

TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
1043	18	090° / 8 Kts		0-4 SEC. 0-3000m	4	TOP	2	76% 47% 20% 20%	120	RESUMED BASE LINE
1101	18	090° / 8 Kts	502.5m	0-3000m	4	TOP	2	76% 47% 20% 20%	120	FIX
1130	18	090° / 8 Kts	386.0m	0-3000m	4	TOP	2	76% 47% 20% 20%	120	FIX
1200	18	090° / 8 Kts	243m	0-3000m	4	TOP	2	76% 47% 20% 20%	120	q/c
1230	18	090° / 8 Kts	103.	0-3000m	4	TOP	2	76% 47% 20% 20%	120	q/c
1244	19	176° / 8 Kts	—	"	"	"	"	"	120	q/c 176 END LINE 18
1248	19	176° / 8 Kts								5/0
1300	19	176° / 8 Kts	73m	0-3000m	4	TOP	2	76% 47% 20% 20%	120	q/c
1330	19	176° / 8 Kts	92	"	"	"	"	"	"	"
1343	20	270° / 8 Kts	(666m LINE)			20				q/c 270T (END LINE)
1348	20	270° / 8 Kts								5/0 270T
1400	20	270° / 8 Kts	223m	0-3000m	4	TOP	2	76% 47% 20% 20%	120	q/c 3 Capacitor hanging up.
1430	20	270° / 8 Kts	426m	0-3000m	4	TOP	2	76% 47% 20% 20%	120	"
1435	20	"		"	"	"	"	"	"	q/sp 708.5 KTS
1455	20									q/sp 709.0 KTS TRAFFIC
1500	20	270° / 9 Kts	538m	0-3000m	4	TOP	2	76% 47% 20% 20%	120	q/c
1530	20	270° / 8 Kts	594	0-3000m	4	TOP	2	76% 47% 20% 20%	120	q/sp back to 8 KTS 3 Capacitor hanging up.

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(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
24	1600	20	270°/9 kts	668.3m	0-3000	4	Top	2	76/47 20/20	120	Fix
24	1630	20	270°/8 kts	716.3	0-3000m	4	Top	2	76/47 20/20	120	Fix
24	1700	20	270°/8 kts	609.1m	0-3000m	4	Top	2	76/47 20/20	120	Fix
24	1730	20	270°/8 kts	714.8m	0-3000m	4	Top	2	76/47 20/20	120	Fix
24	1800	20	270°/8 kts	1007.3	0-3000m	4	Top	2	76/47 20/20	120	Fix
24	1830	20	270°/8 kts	1305.0	0-3000	4	Top	2	76/47 20/20	120	Fix
24	1900	20	270°/8 kts	1620.0	0-3000	4	1/2	4	76/47 20/20	120	Fix
24	1930	20	270°/8 kts	1987.5	1500 - 4500m	4	1/2	4	76/47 20/20	120	Fix
24	2000	20	270°/8 kts	2479.0m	2250 - 5250m	4	1/4	5	76/47 20/20	120	C/SC
24	2030	20	270°/8 kts	3616.0m	3000 - 6000m	4	Top	2	76/47 20/20	120	C/SC
24	2100	20	280°/8 kts	3855.0m	3000 - 6000m	4	Top	2	76/47 20/20	120	Fix
24	2130	20	280°/8 kts	3898.5m	3000 - 6000m	4	Top	2	76/47 20/20	120	C/CORRECTION
24	2200	20	280°/8 kts	3900.0m	3000 - 6000m	4	Top	2	76/47 20/20	120	Fix
24	2230	20	280°/8 kts	3848.0m	3000 - 6000m	4	Top	2	76/47 20/20	120	Fix
24	2300	20	280°/8 kts	3719.0m	3000 - 6000m	4	Top	2	76/47 20/20	120	Fix
24	2325	20	280°/8 kts		2250 - 5250	4	1/4	5	76/47 20/20	120	C/SC
24	2330	20	280°/8 kts	3171.0m	2250 - 5250m	4	1/4	5	76/47 20/20	120	Fix

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(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
25	0645	22	090°/ 8 Kts		3000 - 6000 m	4	Top	2	76/47 20/20	160	Reducing speed to 8 Kts
25	0700	22	090°/ 8 Kts	3966 m	3000 - 6000 m	4	Top	2	76/47 20/20	160	Fix
25	0730	22	090°/ 8 Kts	3787.5 m	3000 - 6000 m	4	Top	2	76/47 20/20	160	Fix
25	0800	22	090°/ 8 Kts	3277.5 m	2250 - 5250 m	4	1/4 Top	5	76/47 20/20	160	C/SC Fix
25	0825	22			1500 - 4500 m	4	1/2	4			C/SC
25	0830	22	090°/ 8 Kts	2527.0 m	1500 - 4500 m	4	1/2	4	76/47 20/20	160	Fix
25	0900	22	090°/ 8 Kts	1986.0 m	1500 - 4500 m	4	1/2	4	76/47 20/20	160	Fix
25	0930	22	090°/ 8 Kts	1626 m	1500 - 4500 m	4	1/2	4	76/47 20/20	160	Fix
25	0940	22	090°/ 8 Kts		750 - 3750 m	4	3/4	3	76/47 20/20	160	C/SC
325	1000	22	090°/ 8 Kts	1235.0 m	750 - 3750 m	4	3/4	3	76/47 20/20	160	Fix
325	1022		C/C 075°								Avoiding traffic C/C
325	1032	22	075°/ 8 Kts	1030 Z 948.7 m	0-3000 m 0-4 SEC.	4	Top	2	76/47 20/20	160	C/SC
325	1045	22	090°/ 8 Kts		0-4 SEC. 0-3000 m	4	Top	2	76/47 20/20	160	C/C BACK ON BASE LINE Z.
325	1100	22	090°/ 8 Kts	484.5 m	0-3000 m	4	Top	2	76/47 20/20	160	Fix
325	1130	22	090°/ 8 Kts	526.5 m	0-3000 m	4	Top	2	76/47 20/20	160	Fix
25	1200	22	090°/ 8 Kts	624 m	0-3000 m	4	Top	2	76/47 20/20	160	C/C
25	1230	22	090°/ 8 Kts	582 m	0-3000 m	4	Top	2	76/47 20/20	160	C/C

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TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
1300	22	090°/8kts	541m	0-3000m	4	TOP	2	76/47 20/16	160	c/c
1330	22	090°/8kts	450m	0-3000m	4	TOP	2	76/47 20/16	160	c/c
1400	22	090°/8kts	277m	0-3000m	4	TOP	2	76/47 20/16	160	c/c
1430	22	090°/8kts	130m	0-3000m	4	TOP	2	76/47 20/16	160	c/c
1500	22	090°/8kts	66m	0-3000m	4	TOP	2	76/47 20/16	160	c/c
1505	22	"	"	"	"	"	"	76/37 20/16	160	changed filter on #2 recorder
1527	22	187°/8kts	29m	0-3000m	4	TOP	2	76/47 20/16	160	c/c 70
1530	23	187°/8kts	39m	0-3000m	4	TOP	2	76/47 20/16	160	Begin line 23
1600	23	270°/8kts	"	"	"	"	"	"	"	90 to 270°
1611	24	270°/8kts	"	0-3000	4	TOP	2	76/47 20/16	160	Begin line 24
1630	24	270°/8kts	75m	0-3000	4	TOP	2	76/47 20/16	160	Fix
1700	24	270°/8kts	146.3m	0-3000m	4	TOP	2	76/47 20/16	160	Fix
1730	24	270°/8kts	278.3m	0-3000m	4	TOP	2	76/47 20/16	160	Fix
1800	24	270°/8kts	431.3m	0-3000m	4	TOP	2	76/47 20/16	160	Fix
1830	24	270°/8kts	525.0m	0-3000m	4	TOP	2	76/47 20/16	160	Fix
1900	24	270°/8kts	567.0m	0-3000m	4	TOP	2	76/47 20/16	160	Fix

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(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
25	1919	24	270°/8 KTS		0-3000m					—	GEN. DOWN.
25	1923	24	270°/8 KTS		0-3000m	4	TOP	2	76 37 20 16	160	GEN. ON
25	1930	24	270°/8 KTS	598.5m	0-3000m	4	TOP	2	76 37 20 16	160	FIX
25	2000	24	270°/8 KTS	455.0m	0-3000m	4	TOP	2	76 37 20 16	160	FIX
25	2030	24	270°/8 KTS	451.5m	0-3000m	4	TOP	2	76 37 20 16	160	FIX
25	2100	24	270°/8 KTS	607.5m	0-3000m	4	TOP	2	76 37 20 16	160	FIX
25	2120	24	270°/8 KTS		750 - 3750m	4	3/4	3	76 37 20 16	160	C/SC
25	2130	24	270°/8 KTS	1239.7m	750 - 3750m	4	3/4	3	76 37 20 16	160	FIX MARK 2135
25	2200	24	270°/8 KTS	1541.0m	750 - 3750m	4	3/4	3	76 37 20 16	160	FIX
325	2211	24	270°/8		1500-4500 2-6 sec	4	1/2	4			C/SC.
325	2230	24	270°/8	1920	2-6	4	1/2	4	76 37 20 20	160	FIX
325	2300	24	270°/8 KTS.	2070	1500 - 4500m 2-6 sec	4	1/2	4	76 37 20 20	160	FIX
325	2327				2250-5250m 3-7 sec	4	1/4	5			C/AC
325	2330	24	270°/8 KTS	2523	2250 - 5250m 3-7 sec	4	1/4	5	76 37 20 20	160	FIX
325	2400	24	270°/8 KTS	2888m	2250 - 5250m	4	1/4	5	76 37 20 20	160	
326	0024	24			3000 - 6000m	4	TOP	2	76 37 20 20	160	C/SC
326	0032	24	270°/8 KTS	30030 3968m	3000 - 6000m	4	TOP	2	76 37 20 20	160	

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E (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
26	0100	24	270°/8KT	3982 M	3000 - 6000 M	4	TOP	2	76/37 20/20	160	
26	0130	24	270°/8KT	4009 M	3000 - 6000 M	4	TOP	2	76/20 *	160	ON PER * SONOBUOY RUN
26	0200	24	270°/8KT	4050 M	3000 - 6000 M	4	TOP	2	76/20 *	160	"
26	0215	END 24	180°/8KT		3000 - 6000 M	4	TOP	2	76/20 *	160	" c/c to 180°
26	0217	START 25	180°/8KT		3000 - 6000 M	4	TOP	2	76/20 *	160	" o/c 180°
26	0230	25	180°/8KT	4053 M	3000 - 6000 M	4	TOP	2	76/16 20/47	160	
26	0300	END 25	090°/8KT	4058 M	3000 - 6000 M	4	TOP	2	76/20	160	c/c to 090°
26	0305	START 26	090°/8KT		3000 - 6000 M	4	TOP	2	76/20	160	o/c 090°
26	0306	26	090°/8KT		3750 - 6750 M	4	3/4	3	76/20	160	c/sc
26	0330	26	090°/8KT	4050 M	3750 - 6750 M	4	3/4	3	76/20 47/16	160	FIX
26	0400	26	090°/8KT	4031.3 M	3750 - 6750 M	4	3/4	3	76/20 47/16	160	FIX
26	0430	26	090°/8KT	4035.0 M	3750 - 6750 M	4	3/4	3	76/20 47/16	160	FIX
26	0500	26	090°/8KT	4042.5 M	3750 - 6750 M	4	3/4	3	76/20 47/16	160	FIX
26	0530	26	090°/8KT	3796.5 M	3750 - 6750 M	4	3/4	3	76/20 47/16	160	FIX
26	0537	26	090°/8KT		3000 - 6000 M	4	TOP	2	76/20 47/16	160	c/sc
26	0551	26	090°/8KT		2250 - 5250 M	4	1/4	5	76/20 47/16	160	c/sc
26	0600	26	090°/8KT	2602.5	2250 - 5250 M	4	1/4	5	76/20 47/16	160	FIX
26	0609	26	090°/8KT		1500 - 4500	4	1/2	4	76/20 47/16	160	c/sc

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TIME (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
26	0630	26	090°/8kts	1565.3	1500-4500m	4	1/2	4	76/20 47/16	160	FIX
26	0638	26	090°/8kts		0-3000m	4	Top	2	76/20 47/16	160	0-1600 fms 0-3000 m 0-4 sec
26	0700	26	090°/8kts	1268.3	0-3000m	4	Top	2	76/20 47/20	160	0-47 to 47/20
26	0730	26	090°/8kts	1237.5	0-3000m	4	Top	2	76/20 47/20	160	FIX
26	0800	26	090°/8kts	1062.5m	0-3000m	4	Top	2	76/20 47/20	160	FIX
326	0830	26	090°/8	705	0-3000 0-4 sec	4	Top	2	76/20 47/20	160	FIX
26	0900	26	090°/8	487.5m	0-3000m 0-4 sec	4	Top	2	76/20 47/20	160	FIX
26	0930	26	090°/8	441.0m	0-3000m 0-4 sec	4	Top	2	76/20 47/20	160	FIX
326	1000	26	090°/8	546.0m	0-3000m 0-4 sec	4	Top	2	76/20 47/20	160	FIX
26	1022	26	085°/8								C/C
26	1030	26	085°/8	558.7	0-4 sec	4	Top	2	76/20 47/20	160	FIX
26	1100	26	085°/8	457.5	0-4 sec	4	Top	2	76/20 47/20	160	FIX
26	1116		065°/8								C/C Traffic
326	1130	26	065°/8	341.2	0-3000m 0-4 sec	4	Top	2	76/20 47/20	160	FIX
26	1140										C/C GRADUALLY BACK TO BASE LINE
26	1200	26	085°/8kts	240m	0-3000m	4	Top	2	76/20 47/20	160	
26	1215	26	090°/8kts								0-47 to 0-50 10 070°

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TIME (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
26	1230	26	090°T / 8KTS	116m.	0-3000m 0-4500m	4	TOP	2	76/47/20/20	160	O/C
326	1257	26	END LINE		0-3000m 0-4500m	4	TOP	2	76/47/20/20	160	C/C 70 178° 135°-178°-27
326	1259	27	178°T / 8KTS	54m.	"	"	"	"	"	"	5/0 178°T
326	1332	27	178°T / 8KTS	66m.	0-4500m 0-3000m	4	TOP	2	76/47/20/20	160	O/C
326	1344	27	END LINE		0-4500m 0-3000m	4	TOP	2	76/47/20/20	160	C/C 70 270°T 135°-178°-27
326	1350	28	270°T / 8KTS	83m	0-4500m 0-3000m	4	TOP	2	76/47/20/20	160	70 270°T
326	1402	28	270°T / 8KTS	83m	0-4500m 0-3000m	4	TOP	2	76/47/20/20	160	O/C
326	1430	28	270°T / 8KTS	161	0-4500m 0-3000m	4	TOP	2	76/47/20/20	160	O/C
326	1500	28	270°T / 8KTS	22.47 sec.	0-4500m 0-3000m	4	TOP	2	76/47/20/20	160	O/C
326	1530	28	270°T / 8KTS	465m.	0-4500m 0-3000m	4	TOP	2	76/47/20/20	160	O/C
326	1553	28	"	—	"	"	"	"	1.	170	#3 Bank ↓ 120KJ
326	1600	28	"	55-8.8 ⁷⁴	"	"	"	"	"	"	FIX
326	1630	28	"	450.	"	"	"	"	"	"	"
326	1700	28	265° / 8KTS	521.3m	"	"	"	"	"	"	C/C 265°
326	1730	28	"	543.7m	"	Sonobuoy: depth = 60' at 550 yd Channel			102.	Run #2	Sono m water @ 1730 - Good
326	1800	28	265° / 8KTS	776.3m	"	4	TOP	2	76/47/20/20	120	FIX
326	1830	28	265° / 8KTS	919.5	0-3000m 0-4500m	4	Top	2	76/47/20/20	120	Fix

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TIME (JD)	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
326	28	265°/9.4k	852.8m	0-3000m	1/	TOP	2	76 47% 20 1/16	120	Fix
326	28	"		750-1550 3750m	4	3/4	3	76 47% 20 1/16	120	c/sc 750-3750m 400-2000fms 1-5 sec
326	28	265°/8.6k	2003.3	1500- 4500m	4	1/2	4	76 47% 20 1/16	120	c/sc @ 1927Z 2-6s 800-2400fms
326	28	265°/8		2250- 5250m	4	1/4	5			c/sc @ 3-7 sec
326	28			3000- 6000m	4	TOP	2			c/sc 4-8 sec
326	28	265°/8 Kts	3878.0m	3000- 6000m 4-8 sec	4	TOP	2	76 47% 20 1/16	120	FIX
326	28	265°/8	4005.0m	"	"	"	"	"	"	FIX
326	28		4028	3-6 Km						5000 BUOY DEPLOYED
326	28	265°/8	4028m	4-8 sec	4	TOP	2	76 47% 20 1/16	120	S.B. RUN
326	28	265°/8	3937.5	3-6 Km 4-8 sec	4	TOP	2	76 47% 20 1/16	120	S.B. RUN
326	28	265°/8	4012.5m 3978.7m	3-6 Km 4-8 sec	4	TOP	2	76 47% 20 1/16	120	END S.B. RUN
326	28									END LINE 28
327	0									
327	0		402.6	3375-6625m	3	1/2	4	76 47% 20 1/16	160	NO T F START OF LEG III, LINE 0 LEG II, SHOULD BE 3375-5625m OR 4.5-7.5 sec
327	0		3688.5m	75-75 sec	3	1/2	4	76 47% 20 1/16	160	
327	1	075°/8 Kts.		4028 1550-3750m 1550-3750m	3	1/2	4	76 47% 20 1/16	160	c/c TO 075075 574RT LINE 1
327	1	075°/8 Kts.		1125-3200m 1550-3750m 1550-3750m	3	1/2	4	76 47% 20 1/16	160	c/c 075075 0750
327	1	075°/8 Kts.	3727.5m	1550-3750m 1550-3750m	3	1/2	4	76 47% 20 1/16	160	
327				3375-5625m	} FOR ALL THE ABOVE VALUES					

TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
27 0109	1	075/8KT	20100	3375-5225M	3	1/2	4	76/20 60/20	160	C/F ON PER
27 0130	1	075/8KT	3832M	3375-5625M	3	1/2	4	76/20 60/20	160	
27 0147	1	075/8KT		4.5-1.5 SEC 2812.5-3812.5M	3	3/4	3	76/20 60/20	160	C/SC
27 0200	1	075/8KT	3600M	3.75-6.75 SEC 2250-4500M	3	TOP	2	76/20 60/20	160	C/SC
27 0214	1	075/8KT		3-6 SEC 1687.5-3375M	3	1/4	5	76/20 60/20	160	C/SC
27 0219	1	075/8KT		2.25-5.25 SEC 1125-3375M	3	1/2	4	76/20 60/20	160	C/SC
27 0229	1	075/8KT		1.5-4.5 SEC 562.5-2812.5M	3	3/4	3	76/20 60/20	160	C/SC
27 0230	1	075/8KT	??	0.75-3.75 SEC 562.5-2812.5M	3	3/4	3	76/20 60/20	160	
27 0300	1	075/8KT	1918.5M	0.75-3.75 SEC 562.5-2812.5M	3	3/4	3	76/20 60/20	160	
27 0330	1	075/8KT	937M	0.75-3.75 SEC 0-2250M	3	3/4	3	76/20 60/20	160	PER NOW ON AQUATRONICS HYDROPHONE STREAMER
27 0353	1	075/8KT		0-3 SEC 0-2250M	3	TOP	2	76/20 60/20	160	C/SC
27 0400	1	075/8KT	609M	0-3 SEC 0-2250M	3	TOP	2	76/20 60/20	160	C/F
27 0430	1	075/8KT	596.2M	0-2250M 0-3 SEC	3	TOP	2	76/20 60/20	160	F/X
27 0500	1	075/8KT	465.0M	0-2250M 0-3 SEC	3	TOP	2	76/20 60/20	160	F/X
27 0530	1	075/8KT	547.0M	0-2250M 0-3 SEC	3	TOP	2	76/20 60/20	160	F/X
27 0552	END LINE 1	C/C 246°T			3	TOP	2	76/20 60/20	160	C/C to 246°T
27 0556	2	075/8KT			3	TOP	2	76/20 60/20	160	0/C @ 246°T/8KT

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[illegible]

TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
27 1132	2A	0850/8KTS		3375-5625m 4.5-7.5 sec	3	1/2	4	76/20	160	O/C
27 1200	2A	0850/8KTS	3799	4.5-7.5 sec 3375-5625m	3	1/2	4	76/20	160	pulled paper in recorder #2
27 1217	END 2A BEGIN 3				3	1/2	4	76/20	160	4c TO 1560
27 1220	3	1560/8		4.5-7.5 sec 3375-5625m	3	1/2	4	76/20	160	BEGIN since 3
27 1221	3	(recorder #2)		void fill	refraction					throw over sonobouy #3
27 1230	3	1560/8KTS		4.5-7.5 sec 3375-5625m	3	1/2	4	76/20	160	O/C
27 1300	3	1560/8KTS	3768m	4.5-7.5 sec 3375-5625m	3	1/2	4	76/20	160	O/C
27 1317	3	(END)	REFRACTION DATA FROM SONOBOUY							
27 1329	END 3 BEGIN 4	O/C		4.5-7.5 sec	3					C/C 0660T
27 1330	4	0660T/8KTS	3675m	4.5-7.5 sec 3375-5625m	3	1/2	4	76/20	160	
27 1331	4	0660T/8KTS		4.5-7.5 sec 3375-5625m	3	1/2	4	76/20	160	5/0
27 1401	4	0660T/8KTS	3660	4.5-7.5 sec 3375-5625m	3	1/2	4	76/20	160	Time corrected
27 1430	4	0660T/8KTS	3637	4.5-7.5 sec 3375-5625m	3	1/2	4	76/20	160	0/4 by 1.0 minute
27 1500	4	0660T/8KTS	3645m	4.5-7.5 sec 3375-5625m	3	1/2	4	76/20	160	O/C
27 1508	4			375- 6.75	3	3/4	3			O/C
27 1525	4			3.0-6.0 2250-4500	3	TOP	2			O/C
27 1530	4	0660/8KTS	2760m	3.0-6.0 sec 2250-4700m	3	TOP	2	76/20	160	O/C

TIME (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
327	1600	4	066°/9KT	2355.0	2.25 to 5.25 sec 16.87% - 39.37%	3	1/4	5	76/20 20	160	c/sc 1/4 Fix
327	1630	4	066°/9KT	1986.0	2.25 to 5.25 sec 16.87% - 39.37%	3	1/4	5	76/20 20	160	Fix
327	1700	4	066°/8KT	1785.8	2.25 - 5.25 sec 16.87% - 39.37%	3	1/4	5	76/20 20	160	Fix
327	1705	4	#		1.50 - 4.50 sec 11.25% - 33.75%	3	1/2	4	76/20 20	160	c/sc 1/2
327	1710	4	057°/8KT		1.50 - 4.50 sec 11.25% - 33.75%	3	1/2	4	76/20 20	160	c/c to 057°
327	1730	4	057°/8KT	1156.5	0.75 - 3.75 sec 5.62% - 28.12%	3	3/4	3	76/20 20		Fix
327	1735	4	057°/8KT		0.75 - 3.75 sec 5.62% - 28.12%	3	3/4	3	76/20 20		c/sc 3/4
327	1800	4	057°/8KT	969.8	0.75 - 3.75 sec 5.62% - 28.12%	3	3/4	3	76/20 20	160	Fix
327	1830	4	057°/8KT	727.5	0.75 - 3.75 sec 5.62% - 28.12%	3	3/4	3	76/20 20	160	Fix
327	1852	4	057°/8KT		0 - 3 sec 0 - 22.50m	3	TOP	2			c/sc to TOP
327	1900	4	057°/8KT	477.7	0 - 3 sec 0 - 22.50m	3	TOP	2	76/20 20	160	Fix
327	1917	4	148° c/c								c/c to 148°
327	1919	5	148°/8KT		0 - 3 sec 0 - 22.50m	3	TOP	2	76/20 20	160	Endline 4
327	1932	5	148°/8KT	499.7	0 - 3 sec 0 - 22.50m	3	TOP	2	76/20 20	160	Fix
327	1937	5	148°/8KT		SONAR						45560 summary (see below for launch time)
327	2000	5	148°/8KT	322.5	0 - 3 sec 0 - 22.50m	3	TOP	2	76/20 20	160	
				4027.5							

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E (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
327	2100	5	148°/8kt	563.5m	0-3 SEC. 0-2250m	3	TOP	2	76/20	160	FIX
	2120										SONO BUOY #5A LAUNCHED
327	2130	5	148°/8	584.3m	0-3 SEC 0-2250m	3	TOP	2	76/20	160	C/CORR
327	2200	5	148°/8	591.3m	0-3 SEC. 0-2250m	3	TOP	2	76/20	160	C/CORR
327	2230	5	141°/8	577.5m	0-3 SEC 0-2250m	3	TOP	2	76/20	160	FIX
327	2300	5	141°/8	562.5m	0-3 SEC 0-2250m	3	TOP	2	76/20	160	FIX
327	2330	End 5	141°/8	112.5m	0-3 SEC 0-2250m	3	TOP	2	76/20	160	FIX ON SLAVE REC.
327	2345	6	058/8		0-3 SEC						C/C change roll on Slave record
327	2247	6									S/O QSD
328	0000	6	058/8	90M	0-3 SEC 0-2250m	3	TOP	2	76/20	160	
328	0009	67	329/8		0-3 SEC 0-2250m	3	TOP	2	76/20	160	C/C TO 329°T
	0011	7									O/C 329°T
328	0030	67	329/8	131M	0-3 SEC 0-2250m	3	TOP	2	76/20	160	
328	0100	67	329°/8	787.514	"	"	"	"	"	"	SONOLUOG 6-0115
328	0130	67	329/8	491M	0-3 SEC 0-2250m	3	TOP	2	76/20	160	
328	0159	End 7	101/8		0-3 SEC 0-2250m	3	TOP	2	76/20	160	C/C TO 101°T
328	0201	START 7A		386M							O/C 101°T

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TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
0230	7A	101/8	338M	0-3 SEC 0-2250M	3	TOP	2	76/120 60/20	160	c/c TO 236°T
0240	END									c/s/p TO 5 KT
0244	7A	236/5		0-3 SEC 0-2250M	3	TOP	2	76/120 60/20	160	c/c 236°T
0300	8	236/5	375M	0-3 SEC 0-2250M	3	TOP	2	76/120 60/20	160	
0330	8	236/5	442M	0-3 SEC 0-2250M	3	TOP	2	76/120 60/20	160	
0400Z	8	236°/5K	514.5M	0-3 SEC 0-2250M	3	TOP	2	76/120 60/20	160	Fix
0430Z	8	236°/5K	614.3M	0-3 SEC 0-2250M	3	TOP	2	76/120 60/20	160	Fix
0500Z	8	236°/5K	690.0M	0-3 SEC 0-2250M	3	TOP	2	76/120 60/20	160	Fix
0530Z	8	236°/5K	750.0M	0-3 SEC 0-2250M	3	TOP	2	76/120 60/20	160	Fix
0600Z	8	236°/5K	817.5M	0-3 SEC 0-2250M	3	TOP	2	76/120 60/20	160	Fix
0630Z	8	236°/5K	864.8M	0-3 SEC 0-2250M	3	TOP	2	76/120 60/20	160	Fix
0700Z	8	236°/5K	924.8M	0-3 SEC 0-2250M	3	TOP	2	76/120 60/20	160	Fix
0730	END LINE 8	c/c 341°/8KT	1162.5M	0-3 SEC 0-2250M	3	3/4	3	76/120 60/20	160	c/c to 341° c/s to 3/4 mile
0734	BEGIN LINE 9	0/c 341°/8KT		0-3 SEC 0-2250M	3	3/4	3	76/120 60/20	160	0/c 341°/8KT
0800	9	341°/8Kts	1008.7M	0-3 SEC 0-2250M	3	3/4	3	76/120 60/20	160	TELEPHONE STRAIGHTENER ON 54WAVE REC. FIX
0830	9	341°/8Kts	1017.7M	0-3 SEC 0-2250M	3	3/4	3	76/120 60/20	160	Fix
0845	5	57E1M	1162.5M	0-3 SEC 0-2250M	3	3/4	3	76/120 60/20	160	Fix
0930	9	241/8	1595	0-3 SEC 0-2250M	3	3/4	3	76/120 60/20	160	Fix SYSTEM ON

DATE (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
328	1500	13	246°T / 8KTS	651m	0.75-3.75 562-2812	3	3/4	3	76 76 / 20 20	120	OK, 4/5c
328	1530	13	246°T / 8KTS	730m	0.75-3.75 562-2812	3	3/4	3	76 76 / 20 20	120	#4 capacitor firing early -
328	1600	13	246°T / 8KTS	873.8	0.75-3.75 562-2812	3	3/4	3	76 76 / 20 20	120	Fix
328	1630	13	246°T / 8KTS	1057.5	0.75-3.75 562-2812	3	3/4	3	76 76 / 20 20	120	Fix
328	1653	13								80	#4 shutdown hang
328	1703	13	246°T / 8KTS	1745.3	0.75-3.75 562-2812	3	3/4	3	76 76 / 20 20	80	Fix
328	1717	13	246°T / 8KTS		2.25-5.25 1687-3937	3	1/4	5	76 76 / 20 20	80	c/sc
328	1730	13	237°T / 8KTS	1877.3	2.25-5.25 1687-3937	3	1/4	5	76 76 / 20 20	80	Fix c/c to 237°
328	1800	13	237°T / 8KTS	2315.3	2.25-5.25 1687-3937	3	1/4	5	76 76 / 20 20	120	#4 spanner bracket
328	1817	13	237°T / 8KTS		3.00-6.00 2250-4500m	3	TOP	2	76 76 / 20 20	120	c/sc to Mode 2
328	1830	13	CIRCLING	3637.5		3	TOP	2			SHUT DOWN FOR REPAIR - CIRCLING.
328	1900	13	237°T / 8KTS	3656.2m	3.00-6.00 2250-4500m	3	TOP	2	76 76 / 20 20	160	O/C 237°T 8KTS @ 1900
328	1910	13	237°T / 8KTS		3.75-6.75 sec 2812-5622m	3	3/4	3	76 76 / 20 20	160	c/sc to Mode 3
328	1930	13	237°T / 8KTS	3719.3m	3.75-6.75 sec 2812-5622m	3	3/4	3	76 76 / 20 20	160	Fix
	1945				1225-3375 1225-3375	3	1/2	4			c/sc
328	2000	13	237°T / 8KTS	3765.0m	1225-3375 1225-3375	3	1/2	4	76 76 / 20 20	160	Fix
	2005	13/14			3375-5625						c/c END LINE 13
328	2008	14	158°T / 8KTS		1225-3375 1225-3375	3	1/2	4	76 76 / 20 20	160	c/c

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(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
228	2030	14	158° 8 Kts	3750.0m	1125-3375m 1.5-4.5 SEC 3375-5625	3	1/2	4	76/20 20/20	160	FIX SONO BUOY LAUNCHED
228	2033										
228	2100	14	158° 8 Kts	3622.5	1125-3375m 1.5-4.5 SEC 3375-5625	3	1/2	4	76/20 20/20	160	FIX SONO BUOY LAUNCHED
228	2106	14	158° 8 Kts	3522.5	3375-5625 4.5-7.5 SEC	3	1/2	4	76/20 20/20	160	END SONO BUOY RUN
"	2130	"	"	3570.0m	3375-5625 4.5-7.5 SEC	"	"	"	"	160	
228	2139	15	060°								C/C
228	2140										Shut down to adjust DH electrode
228	2141		060°								S/O
228	2145										Spair Rept. DH - 16m electrode in retracted
228	2200	15	060° 8 Kts	3561.0m	3375-5625 4.5-7.5 SEC	3	1/2	4	76/20 20/20	160	FIX LAUNCHED SONO BUOY
228	2220										
228	2231	15	060° 8 Kts	3570.0m	3375-5625 4.5-7.5 SEC	3	1/2	4	76/20 20/20	160	FIX C/C
228	2234		050°								
228	2300	15	050° 8 Kts	3527.0m	3375-5625m 4.5-7.5 SEC	3	1/2	4	76/20 20/20	160	FIX S.B. RUN
228	2315	15	050°/8	Sandy clay mud	3.75-6.75m	3	3/4	3	76/20 20/20	160	C/SC
228	2327	15	050°/8		2.25-5.25m	3	1/4	5	76/20 20/20	160	C/2C SONO BUOY OFF
228	2330	15	060°/8	2252 2212 M	1688-3938m						C/C FIX

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E (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
329	0000	15	060/8	2295M	2.25-5.25 SEC	3	1/4	5	76/20 76/20	160	
329	0030	15	060/8	2062M	2.25-5.25 SEC	3	1/4	5	76/20 76/20	160	
329	0100	"	"		"	"	"	"	"	"	end type 50
329	0111	15	060/8		1.5-4.5 SEC	3	1/2	4	"	"	c/sc
329	0130	15	060/8	1245M	1.5-4.5 SEC	3	1/2	4	76/20 76/20	160	PER DOWN FOR PAPER FEED ALIGNMENT
329	0200	15	060/8	1191M	1.5-4.5 SEC	3	1/2	4	76/20 76/20	160	
329	0210	15	060/8		3/4-3 3/4 SEC	3	3/4	3	76/20 76/20	160	c/sc
329	0230	15	060/8	908M	563-2813M	3	3/4	3	76/20 76/20	160	
329	0302	15	060/8	638M	3/4-3 3/4 SEC	3	3/4	3	76/20 76/20	160	
329	0306	15	060/8		0-3 SEC	3	TOP	2	76/20 76/20	160	c/sc
329	0330	15	060/8	371M	0-2250M	3	TOP	2	76/20 76/20	160	c/c to 131°
329	0356	END LINE # 15	131°/8KT								0/c @ 131°
329	0358	BEGIN LINE # 16	131°/8KT								
329	0400	16	131°/8KT	93.8M	0-3 SEC	3	TOP	2	76/20 76/20	160	FIX
329	0430 1/2	16	131°/8KT	88.5M	0-3 SEC	3	TOP	2	76/20 76/20	160	FIX
329	0447	END LINE 16	236/		"	3	TOP	"	"	"	c/c to 236°
329	0450	BEGIN LINE 17	236°/8KT		"	3	TOP	"	"	"	0/c 236°

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
29	0500	17	236°/8KT	202.5M	0-3 SEC 0-2250M	3	TOP	2	76 76 20 20	160	FIX
29	0530	17	236°/8KT	552.0M	0-3 SEC 0-2250M	3	TOP	2	76 76 20 20	160	FIX
29	0600	17	236°/8KT	712.5M	0-3 SEC 0-2250M	3	TOP	2	76 76 20 20	160	FIX
29	0630	17	236°/8KT	903.8M	0-3 SEC 0-2250M	3	TOP	2	76 76 20 20	160	Fix
29	0700	17	236°/8KT	1111.5M	0-3 SEC 0-2250M	3	TOP	0	76 76 20 20	160	Fix
29	0703	17	231°/8		"	"	"	"	"	"	c/c adjust to 231°
29	0705	17	231°/8								steady on 231°
29	0730	17	231°/8	1193.3M	0-3 SEC 0-2250M	3	TOP	2	76 76 20 20	160	Fix
	0750				563-2813M	3	3/4	3			c/sc
	0755				75-3.75 SEC 1125-3375M	3	1/2	4			c/sc
29	0800	17	231°/8 Kts	1935M	1.5-9.5 SEC 1688-3938M	3	1/4	5	76 76 20 20	160	c/s FIX
29	0818	17/18			2.25-5.25 SEC						END LINE 17 c/c
29	0820	18	292°T/ 8 Kts								START LINE 18 O/C
29	0830	18	292°T/ 8 Kts	2467.5	1688-3938M 2.25-5.25 SEC	3	1/4	5	76 76 20 20	160	FIX
29	0900	18	292°T/ 8 Kts	2343.7M	1688-3938M 2.25-5.25 SEC	3	1/4	5	76 76 20 20	160	FIX
29	0930	18	292°T/ 8 Kts	2184.0M	1688-3938M 2.25-5.25 SEC	3	1/4	5	76 76 20 20	160	FIX
29	1000	18	292°T/ 8 Kts	2280.0M	2.25-5.25 SEC	3	1/4	5	76 76 20 20	160	FIX

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TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
2120	23	192°/8 Kts		0-3	3	bp	2	76/20 76/20	160	Fix (Underway)
2130	23	192°/8 Kts	562.5m	0-3 SEC	3	TOP	2	76/20 76/20	160	Fix
2200	23	192°/8 Kts	834.0m	75-3.75 SEC	3	3/4	3	76/20 76/20	160	c/sc
2230	23	192°/8 Kts	1095.0m	75-3.75 SEC	3	3/4	3	76/20 76/20	160	Fix
2245				75-4.5 SEC	3	1/2	4			c/sc
2300	23	192°/8 Kts	1702.5m	125-3.75 SEC	3	1/2	4	76/20 76/20	160	Fix
2315				1125-3.75 SEC	3	1/4	5			c/sc
2330	23/24	125°/8 Kts	1996.9m	1125-3.75 SEC	3	1/4	5	76/20 76/20	160	c/c END LINE 23
2332		125°		1688-3.75 SEC						Begin 24
0000	24	125°	1920.0m	2.25-5.25 SEC	3	1/4	5	76/20 76/20	160	S/O 125°
0030	24	125°/8 Kts	1868m	2.25-5.25 SEC	3	1/4	5	76/20 76/20	160	Fix
0037	24	"		1688-3.75 SEC	3	1/2	4			c/sc
0100	24	125°/8 Kts	1350m	1.5-4.5 SEC	3	1/2	4	76/20 76/20	160	c/sc
0110				1125-3.75 SEC	3	3/4	3			c/sc
0130	24	125°/8 Kts	1001m	75-3.75 SEC	3	3/4	3	76/20 76/20	160	c/sc
0147	24	125°/8 Kts		562.5-2812.5					120	short down # 4
0200	24	125°/8 Kts	928m	75-3.75 SEC	3	3/4	3	76/20 76/20	120	

E (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
32	0230	24	125°/32TS	924m	0-3-375	3	3/4	3	76 76/120 1/6	120	O/C
32	0300	24	125°/32TS	806	0-3-375	3	3/4	3	76 76/120 1/6	120	O/C
32	0318	24	"							160	Restarted #9
32	0330	END 24	C/C		0-3-375	3	3/4	3	76 76/120 1/6	160	C/C TO 0990
32	0400	25	099°/8K	768.0m	0-3-375	3	3/4	3	76 76/120 1/6	160	Fix
32	0430	25	099°/8K	817.5	0-3-375	3	3/4	3	76 76/120 1/6	160	Fix
32	0437	25	099°/8	—	0-3-375	3	1/2	4	76 76/120 1/6	160	C/sc
32	0440	25	099°/8	—	0-3-375	3	Top	2	76 76/120 1/6	160	C/sc
32	0501	25	099°/8	137.3	0-3-375	3	1/2	4	76 76/120 1/6	160	C/sc
32	0510	26	221°/8		0-3-375	3	Top	2	76 76/120 1/6	160	C/C 2310 / Begin C/sc 0330 / line 26
32	0530	26	221°/8	591.0m	0-3-375	3	Top	2	76 76/120 1/6	160	Fix
32	0600	26	221°/8K	967.5	0-3-375	3	Top	2	"	160	Fix
32	0616	26	221°/8		0-3-375	3	3/4	3			C/sc
32	0625	26	221°/8		0-3-375	3	1/2	4	76 76/120 1/6	160	C/sc
"	0632	11	"	1803.8	"	"	"	"	"	"	Fix
"	0700	"	"	2071.5m	"	"	"	1	"	"	Fix
32	0730	26	221°/8K	2181.0m	0-3-375	"	1/2	4	76 76/120 1/6	160	Fix

TIME (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
332	0745	26	221°/8 Kts		1686-3438m 2.25-5.25 SEC	3	1/4	5	76/20 76/46	160	C/SC
	0755				1125-3375m 1.5-4.5 SEC	3	1/2	4			C/SC
332	0800	26	221°/8 Kts	1556.3m	1125-3575m 1.5-4.5 SEC	3	1/2	4	76/20 76/46	160	FIX
332	0830	26	221°/8 Kts	2377.0m	1686-3938m 2.25-5.25 SEC	3	1/4	5	76/20 76/46	160	FIX - C/SC
	0836				2250-4500 3-6 SEC	3	TOP	2			C/SC
	0842				2813-5063m 3.75-6.75 SEC	3	3/4	3			C/SC
332	0900	26	221°/8 Kts	3491.							C/C
	0910	27	086°/8								S/O
332	0914		086°/8								
332	0930	27	086°/8	3525 m	2813-5063 3.75-6.75 SEC	3	3/4	3	76/20 76/46	160	FIX
	0956				3-6 SEC 2250-4500m	3	TOP	2			C/SC
332	1000	27	086°/8	2670m	5-6 SEC 2250-4500	3	TOP	2	76/20 76/46	<160	FIX
	1007				2.25-5.25 1686-3938		1/4	5			C/SC
	1018				1.5-4.5 1125-3575		1/2	4			C/SC
332	1030	27	086°/8	1570 m	6.5-4.5 1125-3375m	3	1/2	4	76/20 76/46	160	FIX
332	1100	27	086°/8	1388 m	1.5-4.5 SEC 1125-3375m	3	1/2	4	76/20 76/46	160	FIX
	1107				1.25-3.75 SEC 563-2813m	3	3/4	3	76/20 76/46		C/SC

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
32	1130	27	086° 8 Kts	990.0 m	1.75-3.75 sec 563-2813 m	3	3/4	3	76/20 76/16	160	FIX
32	1200	27	086° 8 Kts	1143 920 m	0.75-3.75 563-2813 m	3	3/4	3	76/20 76/16	160	0/c
32	1226	END 27	C/C		1						4c 2-28-1
32	1230	28	278°T/ 8 Kts	1136 m	0.75-3.75 563-2813 m	3	3/4	3	76/20 76/16	160	0/c
32	1300	28	278°T/ 8 Kts	1153 m	0.75-3.75 563-2813 m	3	3/4	3	76/20 76/16	160	0/c
32	1330	28	278°T/ 8 Kts	1010 m	0.75-3.75 563-2813 m	3	3/4	3	76/20 76/16	160	0/c
32	1400	28	278°T/ 8 Kts	1344	0.75-3.75 563-2813 m	3	3/4	3	76/20 76/16	160	0/c
32	1411	28			1.5-4.5 1125-3375	3	1/2	4			C/5c
32	1430	28	278°T/ 8 Kts	1466 m	1.5-4.5 1125-3375	3	1/2	4	76/20 76/16	160	0/c
32	1450	28								80	Shut down at 24.3
32	1500	28	278°T/ 8 Kts		1.5-4.5 1125-3375	3	1/2	4	76/20 76/16	80	0/c
32	1507	28			2.25-5.25 1688-3438	3	1/4	5		160	C/5c
32	1519	28			3-6	3	76/20	2			C/5c
32	1530	28	278°T/ 8 Kts	3487	3-6 sec	3	76/20	2	76/20 76/16	160	0/c
32	1537	28			3.75-6.25	3	76/20	3			C/5c
33	2230	29	285° 6		0-3 sec 0-2250 m	3	TOP	2	76/20 76/16	160	FIX

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TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
2246	29	235°/8 Kts		3.15-3.25 563-2613 m	3	3/4	3	76/20 76/25	160	c/sc
2258	29			1.5-4.5 1125-3375 m	3	1/2	4	76/20 76/25	160	c/sc
2300	29		1534		3	1/2	4	76/20 76/25	about 160	Fix
2321	29			2.25-5.25 1688-3938	3	1/4	5			c/sc
2330	29	235°/8	2385		3	1/4	5	76/20 76/25	160	
2337	29	235°/8 Kt		3-6 SEC. 2250-4500	3	TOP	2	76/20 76/25	160	c/sc
2350	29	235°/8 Kt		3.75-6.75 2485-5063	3	3/4	3	76/20 76/25	160	c/sc
0000	29	235°/8 Kt		3.75-6.75 3413-5063	3	3/4	3	76/20 76/25	160	c/c
0021	30	c/c			3	3/4	3	76/20 76/25	160	c/c to 0850T
0026	30	0850T/8 Kt		3.75-6.75 2413-5063	3	3/4	3	76/20 76/25	160	c/c
0030	"	"	3579 m	"	"	"	"	"	"	c/c @ 0020Z
0100	30	0850T/8 Kt	2911 m	3.75-6.75 2413-5063	3	3/4	5	76/20 76/25	160	c/c
0104	30	0850T/8 Kt		3.6-6.0 2250-4500	3	TOP	2	76/20 76/25	160	c/sc
0118	30	0850T/8 Kt		2.25-5.25 1125-3375 m	3	1/4	5	76/20 76/25	160	c/sc
0130	30	0850T/8 Kt	1818 m	2.25-5.25 1688-3938	3	1/4	5	76/20 76/25	160	c/c
0133	30	0850T/8 Kt		1.5-4.5 1125-3375	3	1/2	4	76/20 76/25	110	c/sc
0154	30	0850T/8 Kt		0.75-5.75 563-2813	3	3/4	3	76/20 76/25	110	c/sc

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
34	0200	30	085°T 8KT	1119 m	0.75-3.75 563-2813	3	3/4	3	76/20 76/20	160	O/C
34	0230	30	095°T 8KT	1175 m	0.75-3.75 563-2813	3	3/4	3	76/20 76/20	160	O/C
34	0300	30	085°T 8KT		0.75-3.75 563-2813	3	3/4	3	76/20 76/20	160	# 3 capacitor O/C misbehaving
34	0330	30	085°T 8KT	1237 m	0.75-3.75 563-2813	3	3/4	3	76/20 76/20	160	O/C
34	0400	30	085°T 8KT	804 m	0.75-3.75 563-2813	3	3/4	3	76/20 76/20	160	Fix - Reduce speed to 6 knots
	0407	30									Shut down Sparker. Gen. problem
	0409	30									Recorder firing again
34	0430	30	085° 6KT	1205.3	0.75-3.75 563-2813	3	3/4	3	76/20 76/20	160	Fix
34	0500	30	085° 6KT	1221.0 m	0.75-3.75 563-2813	3	3/4	3	76/20 76/20	160	Fix
34	0530	30	085° 6KT	1138.8 m	0.75-3.75 563-2813	3	3/4	3	76/20 76/20	160	Fix
34	0600	30	059° 6KT	949.5 m	0.75-3.75 563-2813	3	3/4	3	76/20 76/20	160	O/C 059°
34	0630	30	059° 6KT	780.0 m	0.75-3.75 563-2813	3	3/4	3	76/20 76/20	160	Fix
	0658				0-2850 0-3 sec	2	Top	2			O/S
34	0702	30	059° 6KT	427.5	0-2250 m 0-3 sec	3	Top	2	76/20 76/20	160	Fix
34	0730	30	059° 6KT	117.0	0-2250 m 0-3 sec	3	Top	2	76/20 76/20	160	Fix
	0737				0-3000 m 0-4 sec	4	Top	2			O/S. fire rate, and Sweep.
34	0800	30	059° 6KT		0-3000 m 0-4 sec	4	Top	2	76/20 76/20	160	

E (JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
34	0830	30	059°/6 Kts	661.5m	0-3000m 0-4 SEC	4	TOP	2	76/20 76/16	160	FIX
34	0900	30	059°/6 Kts	1095.0m	750-3750m 1-5 SEC	4	3/4	3	76/20 76/16	160	c/sc FIX
34	0930	30	059°/6 Kts	1650.0m	750-3750m 1-5 SEC	4	3/4	3	76/20 76/16	160	FIX
	0940				1500-4500m 2-6 SEC		1/2	4			c/sc
34	1000	30	059°/6	1884m	1500-4500m 2-6 SEC	4	1/2	4	76/20 76/16	160	FIX
34	1030	30	059°/6	1908m	1500-4500m 2-6 SEC	4	1/2	4	76/20 76/16	160	FIX
34	1035	30	067°/6								C/C
34	1100	30	067°/6	1920m	1500-4500m 2-6 SEC	4	1/2	4	76/20 76/16	160	FIX
34	1130	30	067°/6	1755	1500-4500m 2-6 SEC	4	1/2	4	76/20 76/16	160	FIX
34	1150	30	067°/6 Kt		750-3750m 1-5 SEC	4	3/4	3			c/sc
34	1200	30	067°/6 Kt	1317m	1-5 SEC 750-3750m	4	3/4	3	76/20 76/16	160	c/c
34	1217	30	067°/6 Kt		"	"	"	"	"	120	short down 1 cup cannot adjust
34	1230	30	067°/6 Kt	742m	0-4 SEC 0-3000m	4	TOP	2	76/20 76/16	120	c/sc
34	1300	30	067°/6 Kt		0-4 SEC 0-3000m	4	TOP	2	76/20 76/16	120	c/c
34	1325	30	067°/6 Kt		0-4 SEC 0-3000m	4	TOP	2	76/20 76/16	120	c/c TO 007°
34	1330	30	067°/6 Kt	804m	0-4 SEC 0-3000m	4	TOP	2	76/20 76/16	120	c/c
34	1400	30	067°/6 Kt	750m	0-4 SEC 0-3000m	4	TOP	2	76/20 76/16	120	c/c

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEET	KEY	SWITCH			
34	1416	30	C/SR 705.5 KT	250	0-4 sec 0-3000 m	4	TOP	2	76/76 20/16	120	
34	1425	30	C/SR 706.5								
34	1430	30	007.0T 6.5 KT	659 m	0-4 sec 0-3000 m	4	TOP	2	76/76 20/16	120	O/C
34	1500	END 30									START POWER FOR PARATHION-205
			End Leg 3								
35	2245	I	286.0T 8 KT	Log 15.0 m	0-4 sec 0-3000 m	4	TOP	2	76/76 20/16	160	Skirt Line I Leg 4
	2300		752.0T 752.0T	75.5 m 75.5 m							Fix
35	2330	I	286.0T 8 KT	38.25 m	0-4 sec 0-3000 m	4	TOP	2	76/76 20/16	160	Fix
36	0000	I	286.0T 8 KT	79 m	0-4 sec 0-3000 m	4	TOP	2	76/76 20/16	160	O/C (pictures begin) with #1.
36	0009	I	273.0T 8 KT		0-4 sec 0-3000 m	4	TOP	2	76/76 20/16	160	O/C 273.0T
36	0030	I	273.0T 8 KT	103 m	0-4 sec 0-3000 m	4	TOP	2	76/76 20/16	160	O/C
36	0100	I	273.0T 8 KT	173 m	0-4 sec 0-3000 m	4	TOP	2	76/76 20/16	160	O/C
36	0130	I	273.0T 8 KT	182 m	0-4 sec 0-3000 m	4	TOP	2	76/76 20/16	160	O/C
36	0200	I	273.0T 8 KT	368 m	0-4 sec 0-3000 m	4	TOP	2	76/76 20/16	160	O/C
36	0230	I	273.0T 8 KT	521 m	0-4 sec 0-3000 m	4	TOP	2	76/76 20/16	160	O/C

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEET	KEY	SWITCH			
36	0242	END LINE	C/C		0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	C/C TO 180° T.
6	0245	2	180° T/ 8KT		"	"	"	"	"	"	5/0 180° T
6	0300	2	180° T/ 8KT	55.8	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	O/C
6	0330	2	180° T/ 8KT	37.5	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	O/C
36	0400	2	180° T/ 8KT	63.7	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	FIX
36	0414	2	172° T/ 8KT								C/C - on 172 within 1 min.
36	0430	2	172° T/ 8KT	38.2m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	FIX
36	0500	2	172° T/ 8KT	60.0	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	FIX
36	0500 ¹⁰	2	181° T/ 8KT		0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	C/C to 181° T within 1 minute
36	0530	"	"	78.7m	"	"	"	"	"	"	no fix
36	0536	2	181° T/ 8KT		"	"	"	"	"	"	Fix
36	0600	2	181° T/ 8KT	105.0m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	FIX
36	0630	2	181° T/ 8KT	150.0m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	FIX
36	0633	2	170°/ 8KT		0-4 sec 0-3000m						C/C to 170° (W) 0633Z
36	0700	2	170°/ 8KT	131.3 131.3m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	Fix
36	0730	2	170°/ 8KT	382.5m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	Fix
36	0800	2	170°/ 8KT	592.5m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	FIX

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
36	0830	2/3	236°T 8 Kts	855m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	END LINE 2 c/c
36	0832	3	236°T 8 Kts								o/c
36	0850	3	236°T 8 Kts		1-5 sec 750-3750m	4	3/4	3			c/sc
36	0900	3	236°T 8 Kts	922.5m	1-5 sec 750-3750m	4	3/4	3	76/20 76/16	160	FIX
36	0930	3	236/8 Kts	1065 m	1-5 sec 750-3750m	4	3/4	3	76/20 76/16	160	FIX
36	1000	3	236/8 Kts	1175.2m	1-5 sec 750-3750m	4	3/4	3	76/20 76/16	160	FIX
36	1030	3	236/8 Kts	1051.5m	1-5 sec 750-3750m	4	3/4	3	76/20 76/16	160	FIX
	1038				0-4 sec 0-3000m	4	TOP	2			c/sc
36	1100	3	236/8 Kts	738.7m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	FIX
36	1130	3	236/8 Kts	1018.8m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	FIX
36	1200	3	236/8 Kts	945m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	FIX
36	1230	3	236/8 Kts	1255m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	o/c
36	1240	3	236/8 Kts		1-5 sec 750-3750m	4	3/4	3	"	"	c/sc
36	1300	3	236/8 Kts		2-6 sec 1900-4500m	4	1/2	4	76/20 76/16	160	c/sc
36	1310	3	236/8 Kts	2346m	3-7 sec 2250-5250m	4	1/4	5			c/sc
36	1330	3	236/8 Kts	3870m	4-8 sec 3000-6000m	4	TOP	2	76/20 76/16	160	c/sc
36	1345	END LINE 3	c/c		4-8 sec 3000-6000m	4	TOP	2	76/20 76/16	160	4c to 095°

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
336	1400	4	095°T/8KT	3916m	4-8 sec 0-4 sec	4	TOP	2	76/20 76/16	160	OK
336	1430	4	045°T/8KT	3000m	3-7 sec 1-5 sec	4	1/4	5	76/20 76/16	160	OK / C/5C
336	1440	4	095°T/8KT		2-6 sec 1-5 sec	4	42	4	76/20 76/16	160	C/5C
336	1500	4	095°T/8KT	1440m	1-5 sec 0-4 sec	4	3/4	3	76/20 76/16	160	C/5C
336	1530	4	095°T/8KT	907m	1-5 sec 0-4 sec	4	3/4	3	76/20 76/16	160	OK
336	1538	4	095°T/8KT		1-5 sec 0-4 sec	4	3/4	3	76/20 76/16	160	OK 50 120°
336	1541	4	120°T/8KT		0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	C/5C
336	1600	4	095°T/8KT	580.5m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	OK to 095°
336	1630	4	095°T/8KT	499.5m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	Fix
336	1700	4	095°T/8KT	545.3m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	Fix
336	1730	4	095°T/8KT	1152.0m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	Fix
336	1800	4	095°T/8KT	834.8m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	Fix
336	1830	4	095°T/8KT	1169.3m	0-4 sec 0-3000m	4	TOP	2	76/20 76/16	160	Fix Backup Record
336	1855	4	"		1-5 sec 0-3000m	4	3/4	3	76/20 76/16	160	C/5C to 3/4
336	1900	4	095°T/8KT	14370m	1-5 sec 0-3000m	4	3/4	3	76/20 76/16	160	Fix
336	1907	4	062°T/8KT		1-5 sec 0-3000m	4	11	11	76/20 76/16	160	OK to 0620
336	1930	4	062°T/8KT	1456.0m	1-5 sec 0-3000m	4	3/4	3	76/20 76/16	160	Fix

(JD)	TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
						SWEEP	KEY	SWITCH			
36	1950	4			0-4 SEC 0-3000m	4	TOP	2	76/20 76/16	160	C/SC
36	2000	4	062°/7 Kts	682.5m	0-4 SEC 0-3000m	4	TOP	2	76/20 76/16	160	C/SP
36	2025	4	062°/7 Kts								SHUT DOWN FOR GEN MAINT.
36	2034	4	062°/7 Kts		0-4 SEC 0-3000m	4	TOP	2	76/20 76/16	160	SYSTEM BACK ON
36	2100	4	092°/7 Kts	697.5m	0-4 SEC 0-3000m	4	TOP	2	76/20 76/16	160	C/C FIX
	2101		092°/7 Kts								O/C
36	2130	4	092°/7 Kts	1012.5m	0-4 SEC 0-3000m	4	TOP	2	76/20 76/16	160	FIX
	2141				1-5 SEC 1500-3750m	4	3/4	3			C/SC
36	2200	4	092°/7 Kts	1173.7m	1-5 SEC 1500-3750m	4	3/4	3	76/20 76/16	160	FIX
36	2230	4	092°/7 Kts	1522.5	1-5 SEC 1500-3750m	4	3/4	3	76/20 76/16	160	FIX
	2253				2-6 SEC 1500-4500m	4	1/2	4			C/SC
36	2300	4	092°/7 Kts	1631.2m	2-6 SEC 1500-4500m	4	1/2	4	76/20 76/16	160	FIX
36	2330	4	092°/7 Kts	713.7m	2-6 SEC 1500-4500m	4	1/2	4	76/20 76/16	160	FIX
37	0000	4/5	131°/7 Kts		2-6 SEC 1500-4500m	4	1/2	4	76/20 76/16	160	END LINE R4 C/C
37	0015	5									Seabag Overboard
37	0113	5									End Seabag #1
37	0100	5	131°/7 Kts	1767	2-6 SEC 1500-4500m	4	1/2	4	76/20 76/16	160	FIX

TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
37 0130	5	131°T / 7KT	1718m	2-6 sec 1500-4500	1	1/2	4	76/160	160	5040007 out size #2
37 0200	5	131°T / 7KT	1712m	2-6 sec 1500-4500	4	1/2	4	76/160	160	
37 0230	5	131°T / 7KT	1562m	2-6 sec 1500-4500	4	1/2	4	76/160	160	
37 0253	5	131°T / 7KT								END 50008004 #2
337 0300	5	131°T / 7KT	1552m	2-6 sec 1500-4500	4	1/2	4	76/160	160	O/C
337 0319				1-5 sec 750-3750	4	3/4	3	76/160		O/C
337 0330	5	131°T / 7KT	1425	1-5 sec 750-3750	4	3/4	3	76/160	160	O/C
337 0400	5	131°T / 7KT	1065.0	1-5 sec 750-3750	4	3/4	3	76/160	160	FIX
337 0430	5	131°T / 7KT	1155.0M	1-5 sec 750-3750	4	3/4	3	76/160	160	FIX
337 0500	5	131°T / 7KT	960.0	1-5 sec 750-3750	4	3/4	3	76/160	160	FIX
337 0530	5	131°T / 7KT	982.5	1-5 sec 750-3750	4	3/4	3	76/160	160	FIX
337 0600	5	131°T / 7KT	1031.3m	1-5 sec 750-3750	4	3/4	3	76/160	160	FIX
337 0630	5	131°T / 7KT	1145.3m	1-5 sec 750-3750	4	3/4	3	76/160	160	FIX
337 0700	5	131°T / 7KT	1220.3m	1-5 sec 750-3750	1	3/4	3	76/160	160	FIX
337 0730	5	131°T / 7KT	1457.3	1-5 sec 750-3750	4	3/4	3	76/160	160	FIX
337 0800	5	131°T / 7KT	1382.5	1-5 sec 750-3750	4	3/4	3	76/160	160	FIX
337 0830	5	131°T / 7KT	1382.5	1-5 sec 750-3750	4	3/4	3	76/160	160	FIX

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TIME	LINE	COURSE & SPEED	WATER DEPTH (M)	SCALE	PROGRAM			FILTERS HIGH/LOW	KJ	REMARKS
					SWEEP	KEY	SWITCH			
0900	5/6	072°/7 Kts	1638.7m	2-6 SEC 1500-4500	4	1/2	4	76/20 76/16	160	END LINE S- C/C C/SC
0901	6	072°/7 Kts								O/C
0930	6	072°/7 Kts	1871.2m	2-6 SEC 1500-4500	4	1/2	4	76/20 76/16	160	FIX
1000	6	072°/7 Kts	1781.2m	2-6 SEC 1500-4500	4	1/2	4	76/20 76/16	160	FIX
1030	6	072°/7 Kts	1783.5m	2-6 SEC 1500-4500	4	1/2	4	76/20 76/16	160	FIX
1100	6	072°/7 Kts	1552.5m	1-5 SEC 750-3750	4	3/4	3	76/20 76/16	160	C/SC FIX
1130	6	072°/7 Kts	1425.0m	1-5 SEC 750-3750	4	3/4	3	76/20 76/16	160	FIX
1200	6	072°/7 Kts	1372m	1-5 SEC 750-3750	4	3/4	3	76/20 76/16	160	O/C
1230	6	072°/7 Kts	1069m	1-5 SEC 750-3750	4	3/4	3	76/20 76/16	160	O/C
1300	6	072°/7 Kts	1119m	1-5 SEC 750-3750	4	3/4	3	76/20 76/16	160	O/C
1330	6	072°/7 Kts	1214m	1-5 SEC 750-3750	4	3/4	3	76/20 76/16	160	O/C
1400	6	072°/7 Kts	1203m	1-5 SEC 750-3750	4	3/4	3	76/20 76/16	160	O/C
1407	6	095°/7 Kts								C/C 50 095-01
1430	6	095°/7 Kts	878	0-4 SEC 0-3000	4	YOP	2	76/20 76/16	160	C/SC
1500	END	END	END	END		LINE	5			
			SAN	DI (C-60)						