

82039se i

# GEOPHYSICS LOG

R/V R J RUSSELL

LACOSS II CRUISE

Dec 5, 1982 - Dec 17, 1982

Russ  
LACOSS II 104323  
#82039

PRI — 95 <sup>FIN.</sup> 46 <sup>TO DO</sup> 18 <sup>CIC.</sup>

TOTAL - 115 —

# U.S.G.S. GEOPHYSICS LOG

TAPES

1-7

~~1-8~~

~~1-8-1~~

SHIP RJ Russell

CRUISE NO. LACROSS II

DATE 12-5-82

CHIEF SCIENTIST WEST / OWEN

# LACOSS Project

SHIP/CRUISE NO./LEG RV - RJ Russell

CHIEF SCIENTIST ET - John West  
Geologist - Dave Owen

LINE	TIME	YYMMDD	CRS/HDG	SPD	NAVIGATION	SEISMIC SYSTEM
START END						
1 1904Z	339 JD 82-05-82	82 12 05			NORTHSTAR 6000 TZ TERM. MORROW PLOT.	ORE BOOMER / EGG 234
2 <del>2000</del>						
3 R-1	2000	82 12 05	263°-4	4.9		Boomer - 234
4 R-1	2100	82 12 05	259°-2	3.5	North Star 6000 TZ Term. Morrow Plot	ORE Boomer - 234
5 R-1	2116	82 12 05	280°	4.9	"	"
6 R-1	2137	82 12 05	276°	4.9	"	" "
7 R-1	2156	82 12 05	276	4.9	"	" "
8 R-1	2200	82-12-05			"	" "
9 R-1	2204	" "	274	4.4	"	" "
10 R-1	2211	82-12-05				
11 R-1	2224	82-12-05			"	" " "
12						
13 R-1	2300	82-12-05	280	4.4	"	ORE Boomer - 234-200J.
14 EOL	2332	82-12-05	<del>179</del>	<del>4.9</del>	NORTHSTAR 6000	
15						
16 R-2	2340	82-12-05	179	4.7	NORTHSTAR 6000 TZ TERM. MORROW PLOT	ORE Boomer - 234-200J
17	2354	82 12 05	174	5.0	" "	" "
18 EOL R-2	0007	82 12 05				
19	30340	82 12 06				
20 SOL R-3	0007	82-12-05	117	4.5	NORTHSTAR TZ TERM. LOWAN C MORROW PLOT	ORE Boomer EGG 234 200J.
21 R-3	0100	82-12-05	102	4.7	Northstar Lowan C TZ Term Morrow Plot.	ORE Boomer 234 EGG @ 200J
22 R-3	0116	82-12-05	90	4.8	"	"
23 R-3	0149	82-12-05	93	5.0	"	"
24 R-3	0200	82-12-05	88	4.9	Lowan C TZ Term Morrow Plot	ORE Boomer 234 @ 200J
25 R-3	0247	82-12-05	75	5.0	" "	"
26 R-3	0300	82-12-05	79	5.0	TZ Term Morrow Plot Northstar 6000	234 @ 200 J / ORE Boomer
27 R-3	0339	82-12-05	73	4.9	" "	" " " " "
28 R-3	0416	82 12 05	73	5.1	" "	" " "
29 EOL	0442	82 12 05	73	5.1	" "	234 @ 200J Boomer
30						
31						
32						
33						

AREA Coastal Louisiana  
TIME ZONE Central Standard Time

SWP	PROGRAM / SCALE	FILTER HI/LO	TAPE NO.		DATA ROLL #		MAGNETICS	COMMENTS
			START	END	START	END		
1	.25 .50 Key	3K/300HZ	1		1		—	200 J. ON 234
2								
3	.25 .50 Key	2K/300						ON LINE R1
4	.25 .50 Key	2K/300	1		1		—	ON Line R-1
5	" "	2K/300					—	C/C to 280°
6	" " "	2K/300	1		1		N/A	20' H2O - DEPTH
7	" "	2K/300	"		"			234 Kicked BREAKER
8	.25 .50 Key	2K/300	"		"		N/A	ON LINE R1
9	" "	"	"		"		"	234 Kicked BREAKER
10								
11								<del>234</del> 234 Down
12	.25 .50 Key	2K/300	"		"		"	IN EGG-234 Replaced CIRCUIT BREAKER
13	.25 .50 Key	2K/300	1		1			EGG 234 200 J. OFF BOOMER
14	.25 .50 Key	2K-300						EOL R1
15								
16	.25 .50 Key	2K-300	2		1		—	SOL # R2
17	.25 .50 Key	2K-300	2		1			ON LINE -
18								EOL R2 0007 - 340 JD
19								
20	.25 .50 Key	2K-300	2		1			SOL R3 0007 340 JD
21	.25 .50 Key	2K/300	2		1		—	ON Line R3
22	.25 .50 Key	2K/300	2		1			C/C 90°
23	.25 .50 Key	2K/300	2		1		—	Recorder printing on odd min.
24	.25 .50 Key	2K/300	2		1		—	ON Line R3
25	.25 .50 Key	2K/300	2		1		—	C/C 75°
26	.25 .50 Key	2K/300	2		1		—	ON Line R3
27	.25 .50 Key	2K/300	2		1		—	ON Line R3
28	.25 .50 Key	2K/300	2		1		—	ON Line R3
29	.25 .50 Key	2K/300	2		1			EOL R3
30								
31								
32								
33								

③

6

6





Lacoss<sup>II</sup> Project

JD-341

SHIP/CRUISE NO./LEG RV / RJ Russell  
CHIEF SCIENTIST

LINE	TIME	YYMMDD	CRS/HDG	SPD	NAVIGATION	SEISMIC SYSTEM
START END						
<del>SOL 5</del>	1555	82-12-7			Morrow Plot 12 Km Northstar 6000	ORE Boomer / EG 234 @ 200 Joules
	1555	"			"	"
SOL 6	1600	82-12-7	151	3.7	" "	" "
	1609				"	" "
	1625	" "			"	" "
EOL 6	1635					
SOL 7	1637		255	4.9		" "
EOL 7						
SOL 8	1650		360°	5.0	" "	" "
D-8	1700	82-12-7	360	5.2	Morrow Plot 12 Km Northstar 6000	ORE Boomer / EG 234 @ 200J
EOL-8	1730	"	<del>360</del>	5.	"	"
SOL-9	1734	"	256	5.0	"	"
D-9	1745	"	"	"	"	"
EOL-9	1749	"	"		"	"
SOL-10	1750	"	180	4.6	"	"
D-10	1800	82-12-7	180	5.1	Morrow Plot 12 Km Northstar 6000	"
EOL-10	1830	"			"	"
SOL-11	1830	"	283	5.4	"	"
EOL-11	1844	"			"	"
SOL-12	1846	"	358	5.	"	"
D-12	1900	82-12-7	357	4.3	Morrow Plot 12 Km Northstar 6000	ORE Boomer / EG 244 @ 200J
EOL-12	1922	"			"	"
SOL 13	1924	"	268	4.3	"	"
EOL 13	1932	"			"	"
SOL 14	1934	"	193	4.6	"	"
EOL 14	2012	"			"	"
SOL 15	2013	"	60	4.5	"	"
EOL 15	2024	"			"	"
SOL 16	2026	"			"	"
EOL 16	2048	"			"	"
SOL 17	2050	"	70	4.5	"	"
EOL 17	2203	"			"	"

AREA Coastal Louisiana  
TIME ZONE Central Standard Time

SWP	PROGRAM / SCALE	FILTER HI/LO	TAPE NO.		DATA ROLL #	MAGNETICS	COMMENTS
			START	END			
.25	.50 Key	300/4K	3	2	—	—	808 ft on tape start of day GEAR IN & ON ONLINE D6 ADJ TOW CHANGED FILTER S-7714 EOL D6 SOL 7 EOL 7 SOL 8
.25	.50 Key	300/4K	3	2	—	—	on Line 8
.25	.50 Key	500/2000	3	2	—	—	Change belt EOL D-8
.25	.50 Key	500/2000	3	2	—	—	SOL D-9
.25	.50 Key	500/2000	3	2	—	—	Resync / Time Code Gen.
.25	.50 Key	500/2000	3	2	—	—	EOL D-9
.25	.50 Key	500/2000	3	2	—	—	SOL D-10
.25	.50 Key	500/2000	3	2	—	—	on Line D-10
.25	.50 Key	500/2000	3	2	—	—	EOL D-10
.25	.50 Key	500/2000	3	2	—	—	SOL D-11
.25	.50 Key	500/2000	3	2	—	—	EOL D-11
.25	.50 Key	500/2000	3	2	—	—	SOL D-12
.25	.50 Key	500/2000	3	2	—	—	on Line D-12
.25	.50 Key	500/2000	3	2	—	—	EOL D-12
.25	.50 Key	500/2000	3	2	—	—	SOL D-13
.25	.50 Key	500/2000	3	2	—	—	EOL D-13
.25	.50 Key	500/2000	3	2	—	—	SOL D-14
.25	.50 Key	500/2K	3	2	—	—	EOL D-14
.25	.50 Key						SOL D-15
.25	.50 Key						EOL D-15
.25	.50 Key						SOL D-16
.25	.50 Key	500/2K	4	2			EOL D-16
.25	.50 Key	500/2K	4	2			SOL D-17
.25	.50 Key						EOL D-17

END OF  
TAPE 3



LACOSS II Project Dec. 1982

SHIP/CRUISE NO./LEG RV-RT Russell  
CHIEF SCIENTIST

[illegible]

JP 343 (Dec 9, 1982)

## AREA Louisiana Coastal Area

TIME ZONE Central Standard Time

[illegible]

# LACOSS II Project - December 1982

SHIP/CRUISE NO./LEG RV-RJ Russell  
CHIEF SCIENTIST

LINE	TIME	YYMMDD	CRS/HDG	SPD	NAVIGATION	SEISMIC SYSTEM
START END						
50L 21	1308Z	82-12-10	120	4.9	Morrow Plot Ti Tern Northstar Loran C	ORE Boomer/EG 234 @ 200J
21	1330Z	" "			"	" "
21	1345Z	" "	60	5.1	" "	" "
21	14	"				
21	1428				" "	" "
21	1438		70	5.1		
D-21	1500	8-12-11	70	4.8	Morrow Plot Ti Tern Northstar Loran	ORE Boomer/EG 234 @ 100Jules
"	1523	"	64	5.3	"	" "
9 EOL 21	1555					
10						
sol 22	1600	8-12-11	305	5.0	" "	" "
12 D-22	1618Z					
13 D-22	1625-1630	"	"	"	"	"
14 D-22	1643	"	C/C	"	"	"
15 D-22	1650	"	270		"	"
16 D-22	1700	82-12-11	270	4.8	Morrow Plot Ti Tern Northstar Loran	ORE Boomer/EG 234 @ 100Jules
17 D-22	1825	"	C/C		"	"
18 D-22	1862	"	C/C		"	"
19 D-22	2000	82-12-11	327	4.9	Northstar 6000 Morrow Plot Ti Tern	ORE Boomer/EG 234 @ 100Jules
20 D-22	2025	82-12-11	C/C	4.7	" "	" " "
21 EOL		82-12-11	—	—	Northstar 6000 Morrow Plot Ti Tern	ORE Boomer/EG 234 @ 100Jules
22						
23						
24						
25						
26						
27						

JD - 345 (Dec 11, 1982)

## AREACoastal Louisiana

TIME ZONE Central Standard Time

SWP	PROGRAM / SCALE	FILTER HI/LO	TAPE NO.		DATA ROLL #		MAGNETICS	COMMENTS
			START	END	START	END		
.25	.50 Key	500/2000	5		4		—	OREGONCA 234 100 J.
.25	.50 Key	500/2000						Re Sync. AUTO EVENT
.25	.50 Key	500/2000	5		4			ALL Switched ON then off.
.25	.50 Key							C/C
.25	.50 Key	"	5		4		C/C	Running RORWON
.25	.50 Key	"	5		4		C/C	C/C to B 70°
.25	.50 Key	500/2000	5		4		—	ON Line D-21
.25	.50 Key	"	"		"		—	<del>ON</del>
.25	.50 Key							Belt change EOL 21
.25	.50 Key	500/1000	5		4			SOLD-22
.25	.50 Key							PASSING BARGE
.25	.50	"	5		4		—	Nice CH
"	"	"	"		"		—	C/C 270
"	"	"	5		4		—	CH's ✓ 1600 record
.25	.50 Key	500/2000	5		4		—	ON Line D-22
"	"	"	"		"		—	C/C 235
.25	.50 Key	"	"		"			C/C 215° 190°
.25	.50 Key	500/2000	5		4		—	ON Line D-22
.25	.50 Key	"	5		4		—	C/C 280
.25	.50 Key	500/2000	5		4		—	EOL D-22

LACOSS Project Dec. 1982

SHIP/CRUISE NO./LEG RV- RJ Russell  
CHIEF SCIENTIST

LINE	TIME	YYMMDD	CRS/HDG	SPD	NAVIGATION	SEISMIC SYSTEM
START END						
SOL 023	1359	82-12-13			Northstar 6000 Hz Marrow Plot Tern	ORE Boomer / EG 234 @ 100 Joules
D-23	1400	82-12-13	360	4.3	"	" "
EOL 23	1438	"	C/C		"	" "
SOL 24	1444	"	258	4.6	"	" "
EOL 24	1452	"	C/C		"	" "
SOL 25	1454	"	180	4.5	"	" "
D-25	1500	82-12-13	180	4.5	Northstar Loran C Marrow Plot Tern	ORE Boomer @ 100 Joules
EOL 25	1530	"	C/C		"	" "
SOL 26	1533	"	258	5	"	" "
EOL 26	1540	"	C/C		"	" "
SOL 27	1543	"	360	4.7	"	" "
D-27	1600	82-12-13	360	4.5	Loran C Marrow Plot Tern	ORE Boomer @ 100
EOL 27	1622	"				
SOL 28	1623	82-12-13	265		"	" "
EOL 28	1634	"	265		"	" "
SOL 29	1635	"	180		"	" "
D-29	1700	82-12-13	180	4.9	"	" "
EOL 29	1707	"	"	"	"	" "
SOL 30	1709	"	254		"	" "
EOL 30	1718	"			"	" "
SOL 31	1720	360	360			
EOL 31	1759					
SOL 32	1800	82-12-13	256	4.9	"	"
EOL 32	1819					
SOL 33	1820		182	4.9	"	"
EOL 33	1844		182		"	"
SOL 34	1845	82-12-13	270			
EOL 34	1856	82-12-13	270			
SOL 35	1859	82-12-13	" 0 "	4.8	"	"
EOL 35	1940	"				
SOL 36	1941	"	270	3.1	"	"
EOL 36	1952	"	C/C	-	"	"
SOL 37	1954	"	180		"	"

JD = 347 (Dec 13, 1972)

AREA Coastal Louisiana  
TIME ZONE Central Standard Time

SWP	PROGRAM / SCALE	FILTER HI/LO	TAPE NO.		DATA ROLL #	MAGNETICS	COMMENTS
			START	END	START	END	
.25	.50 Key	500/2000	6	5	—	—	SOL D-23
"	"	"	"	"	—	—	Re Sync - Auto Eject
"	"	"	"	"	—	—	EOL D-23
"	"	"	"	"	—	—	SOL D-24
"	"	"	"	"	—	—	EOL D-24
"	"	"	"	"	—	—	SOL D-25
.25	.50 Key	500/2000	6	5	—	—	ON Line D-25
"	"	"	"	"	—	—	EOL D-25
"	"	"	"	"	—	—	SOL D-26
"	"	"	"	"	—	—	EOL D-26
"	"	"	"	"	—	—	SOL D-27
.25	.50 Key	500/2000	6	5	—	—	ON Line D-27
.25	.50 Key	500/200	6	5	—	—	EOL-27
.25	.50 Key		6	5			SOL 28
.25	"	"					EOL 28
.25	"	"					SOL 29
.25	.50 Key	500/2000	6	5			D-29
.25	.50 Key	"	"	"			EOL-29
.25	"	"	"	"			SOL-30
.25	.50 Key	"	"	"			EOL-30
							SOL-31
.25							EOL-31
.25	.50 Key	"	"				SOL-32
							EOL-32
							SOL-33
.25	.50 Key	"	"	"	"	"	EOL 33
.25	.50 Key						SOL 34
.25							EOL 34
.25	.50 Key	"	"	"	—	—	SOL 35
"	"	"	"	"	—	—	EOL D-35
"	"	"	"	"	—	—	SOL D-36
"	"	"	"	"	—	—	EOL D-36
"	"	"	"	"	—	—	SOL D-37



LACOSS Project Dec. 1982

SHIP/CRUISE NO./LEG RV - RJ Russell  
CHIEF SCIENTIST

[illegible]

JD-347 (Dec 13, 1982)

AREA Coastal Louisiana  
TIME ZONE Central Standard Time

[illegible]

LACOSS Project Dec. 1982

SHIP/CRUISE NO./LEG RV - R5 Russell  
CHIEF SCIENTIST

LINE START END	TIME	YYMMDD	CRS/HDG	SPD	NAVIGATION	SEISMIC SYSTEM
		82-12-14	0		Loran C / Morrow Plot T <sub>2</sub> 35% Term.	ORE Boomer / EG <sub>2</sub> G 234 @ 100 Joles
<del>SOL 1</del>	1050	82-12-16			"	"
SOL 1	1057	82-12-16	67°	4.4	Loran C / Morrow Plot T <sub>2</sub> Term	ORE Boomer / EG <sub>2</sub> G 234 @ 100 Joles
G-1	1144	"	"	"	"	" 200 Joles
G-1	1148	"	101	4.1	"	"
G-1	1200	82-12-16	"	"	Loran C / Morrow Plot T <sub>2</sub> Term	ORE Boomer / EG <sub>2</sub> G 234 @ 200 J
G-1	1204	"	"	"	"	" 100 J
EOL 1	1242	"	C/C	—	"	ORE Boomer / EG <sub>2</sub> G 234 @ 100 Joles
SOL 2	1249	"	006	4.1	"	"
G-2	1300	82-12-16	"	"	Loran C / Morrow Plot	ORE Boomer / EG <sub>2</sub> G 234 @ 100 J
G-2	1309					
G-2	1311					
G-2	1322	1322				
G-2	1324					
G-3	1325	82-12-16	280	3.9	" "	" " "
1 G-3	1329	"	"		"	" "
2 G-3	1402	"	"		"	" "
3 <del>SOL 3</del>	1442	82-12-16	C/C		LORAN C / Morrow Plot	ORE Boomer / EG <sub>2</sub> G 234 @ 100 J
4 G-3	1503	"	C/C 240		"	"
5 G-3	1512	"	C/C		"	"
6 G-3	1537	"	"		"	"
7 EOL	1539	82-12-16			"	
8 SOL G-4	1540	"	"	4.4	"	"
9 G-4	1600	82-12-16	141	5.2	Loran C / Morrow Plot	ORE Boomer / EG <sub>2</sub> G 234 @ 100 Joles
10 FOLG4	1609	"	"		"	"
SOL 5	1612	"	339	4.2	"	"
EOL 5	1658					
SOL 6	1700	"	065	4.4	"	"
EOL 6	1716	"	C/C	—	"	"
SOL 7	1719	"	142°	4.3		
FOL 7	1754					
SOL 8	1756	"	340	5.1	"	
EOL 8	1839	"	C/C	—	"	"

JD 348 349 350  
Dec 14 Dec 15 Dec 16

AREA Coastal Louisiana  
TIME ZONE Central Standard Time

SWP	PROGRAM / SCALE	FILTER HI/LO	TAPE NO.		DATA ROLL #		MAGNETICS	COMMENTS
			START	END	START	END		
.25	.50 Key	500/2000	7		6		—	ABORT
"	"	"	"		"		—	<del>SOL G-1</del>
.25	.50 Key	500/2000	7		6		—	SOL G-1
"	"	"	"		"		—	C to 200 Joules
"	"	"	"		"		—	C/C to 101°
.25	.50 Key	500/2000	7		6		—	ON line G-1
"	"	"	"		"		—	C to 100 Joules
"	"	"	7		6		—	EOL G-1
"	"	"	7		6		—	SOL G-2
"	"	"	7		6		—	ON line G-2
"	"	"	"		"		—	Belt change
"	"	"	"		"		—	Back on line
"	"	"	"		"		—	Resync clock - Auto EVENT
"	"	"	"		"		—	1322° EOL G-2
"	"	"	"		"		—	SOL G-3
"	"	"	"		"		—	Resync. Auto EVENT.
1	"	"	"		"		—	Recorder Mis Keying
2	"	"	"		"		—	RPM INCREASE - TRAFFIC
3	.25 .50 Key	500/2000	7		6		—	C/C
4	"	"	7		6		—	C/C 240
5	"	"	7		6		—	C/C
6	"	"	"		"		—	belt change
7	"	"	"		"		—	EOL G-3
8	"	"	8		6		—	SOL G-4
9	.25 .50 Key	500/2000	8		6		—	ON line G-4
10	.25	"	"		"		—	EOL G-4 SOL G-5
"	"	"	"		"		—	<del>SOL</del> EOL G-5
"	"	"	"		"		—	<del>SOL G-5</del> SOL G-6
"	"	"	"		"		"	<del>SOL G-6</del> EOL G-6
								SOL G-7
								EOL G-7
.25	.50 Key	"	"		"		—	SOL G-8
"	"	"	"		"		—	EOL G-8

SHIP/CRUISE NO./LEG RV - RJ Russell  
CHIEF SCIENTIST

LINE START END	TIME	YYMMDD	CRS/HDG	SPD	NAVIGATION	SEISMIC SYSTEM
SOL 9	1840	82-12-16	76	4.6	Loran "C" / Morrow Plot	ORE Boomer @ 100 Jaws
EOL 9	1852	"	C/C	-	"	"
SOL 10	1853	"	160	-	"	"
EOL 10	1926	"	C/C	-	"	"
SOL 11	1938	"	14	4.5	"	"
G-11	1945	"	14	4.5	"	"
G-11	1950	82-12-16	90	4.5	Loran C / Morrow Plot	ORE Boomer / EOL 11 234 @ 100 Jaws
EOL-11	2014	"	C/C	-	"	"
SOL-12	2017	"	92	4.5	"	"
EOL-12	2025	"	C/C	-	"	"
SOL-13	2027	"	180	4.5	"	"
EOL 13	2059	"	C/C	-	"	"
<del>SOL 14</del>	<del>2100</del>	<del>"</del>	<del>C/C</del>	<del>4.5</del>	<del>"</del>	<del>"</del>
SOL-14	2103	82-12-16	90°	4.8	Loran C / Morrow Plot To Insl. Term	Ore Boomer @ 100 Jaws
EOL 14	2111	"	C/C	-	"	"
SOL 15	2113	"	7	3.6	"	"
G-15	2115	"	"	"	"	"
EOL 15	2155	"	C/C	-	"	"
SOL 16	2155	"	100°	5.4	"	"
EOL-16	2205	"	C/C	-	"	"
SOL-17	2206	"	180	-	"	"
EOL 17	2237	"	C/C	-	"	"
SOL-18	2240	"	318	-	"	"
EOL-18	2312	"	C/C 276	-	"	"
SOL 19	2312	"	276	-	"	"
G 19	2337	"	"	"	"	"
G 19	2343	"	"	"	"	"
EOL 19	2356	"	"	"	"	"
SOL 20	2356	"	245	"	"	"
G-20	2340	"	"	"	"	"
G-20	0000	JD 351	"	"	"	"
EOL-20	0041	"	-	"	"	"

JD - 350 + 351  
Dec 16 Dec 17

AREA Coasta Louisiana  
TIME ZONE Central Standard Time

SWP	PROGRAM / SCALE	FILTER HI/LO	TAPE NO.		DATA ROLL #	MAGNETICS	COMMENTS
			START	END			
.25	.50 Key	500/2000	8	6	—	—	SOL G-9
"	"	"	"	"	—	—	EOL G-9
"	"	"	"	"	—	—	SOL G-10
"	"	"	8	6	—	—	EOL G-10
"	"	"	"	"	—	—	SOL G-11
"	"	"	8	7	—	—	(other 4100 on line) Resync
.25	.50 Ke	500/2000	8	7	—	—	On line G-11
"	"	"	"	"	—	—	EOL G-11
"	"	"	"	"	—	—	SOL G-12
"	"	"	"	"	—	—	EOL G-12
"	"	"	"	"	—	—	SOL G-13
"	"	"	"	"	—	—	EOL G-13
<del>11</del>	<del>"</del>	<del>"</del>	<del>"</del>	<del>"</del>	<del>—</del>	<del>—</del>	<del>SOL G-14</del>
.25	.50 Key						Sled flipped over
.25	.50 Key	500/2000	8	7	—	—	SOL G-14
"	"	"	"	"	—	—	EOL G-14
"	"	"	"	"	—	—	SOL G-15 <del>change</del>
"	"	"	"	"	—	—	Change TI Term Paper
"	"	"	"	"	—	—	EOL G-15
"	"	"	"	"	—	—	SOL G-16
"	"	"	"	"	—	—	EOL G-16
"	"	"	"	"	—	—	SOL G-17
"	"	"	"	"	—	—	EOL -17
"	"	"	"	"	—	—	SOL G-18
"	"	"	"	"	—	—	EOL G-18
"	"	"	"	"	—	—	SOL G-19
"	"	400/2000	"	"	—	—	filter change NR
"	"	300/2000	"	"	—	—	filter change
"	"	"	"	"	—	—	EOL G-19
"	"	"	9	"	—	—	c/c SOL G-20
"	"	"	"	"	—	—	New Tape
"	"	"	"	"	—	—	EOL G-20

EOCruise