

MT TIME

FM 03-1 Straits of Florida -
IPOD Site Survey

4/23/80

1

GMT
~~RAVING~~ Z 2241Z

~~RAVING~~ DEPART DOCK UT MSI GALVESTON TEXAS

~~RAVING~~ 2325Z
1725Z - past jetties - c/c 123°
4/24/80
0105Z
1905Z - c/c 120°

0200Z
2200Z WATCH ON DECK, SHAUB & KIM

0305Z
c/c 123°

0505Z
c/c 125°

0600Z Annett & Buffler on watch - steaming as
before ENROUTE survey area - seas relatively
calm - making about 10.5 kts -
running 3.5 kHz for bathymetry - plus 2
sat - NAUS #1 & #2 ; #1 = EPC system
#2 = small portable system -
also running LORAN - Recording every 5 minutes -
logging every 30 min, plotting every 1 hr.

3.5 kHz records are excellent

0800Z McCowan & Buffler on watch EVERYTHING
AS BEFORE

1000Z GANEY & J. KIM ON WATCH
C - 125° S - 11.1 Recording as before

1205Z c/c 123°

1343 SATNAV #1 STOPPED - RESTARTED

1400Z H. KIM ON WATCH

FM03-1

4/24/80

1420 c/s dead slow to deploy magnetometer

1454 c/s to ~~normal speed~~ 10.5 KTS

Maggie cable out & secured

1600 Z - Doug. et al put spare dead section on end of cable + swivel

Maggie electronics working - Begun recording magnetometer data

SAT. #1 hasn't been working well - poss. Bad speed input - (computer sat. - SPC)
plot only sat. #2 fixes on chart

1640 Z LOSIT AUTOMATIC TIMING MARKS ON 3.5

RECEIVED AUTOMATIC TIMING MARKS ON MAGGIE RECORD

1720 Z NO TIMING MARKS ON MAGGIE RECORD

1800 Z ARNETT ON WATCH

1811 Z TURNED OFF MAGGIE TO REPAIR HARNESS

1817 Z TURNED ON MAGGIE - REPAIR COMPLETE

1900 Z TRACE 47 ON STREAMER REPAIRED AT. ROUGHNECK CONNECTOR - TRACE 4A^{BAD} IN LATTER HALF OF STREAMER

1935 Z → Bathymetry (3.5) WENT OFF SCALE ON STEEP ESCARPMENT - CAME BACK ON 1938 Z

2000 Z MCCOWAN ON WATCH

FM 03-01

4/24/80

2145 GANEY ON WATCH C-123° SPD 11.2 KTS
 SKIES CLEAR; SEAS 1-2 ft
 recording 3.5KH echosounder, LORAN C, 2 SATNAV
 systems, magnetometer CHART SLOW

2355Z J. KIM ON WATCH

2359Z TURNED OFF MAGGIE TO REPAIR HARNESS

04/25/80

0009Z TURNED ON MAGGIE - REPAIR COMPLETED

0110Z INCREASED GAIN FOR 3.5 KH ECHOSOUNDER

0129Z CLEAN BELT (3.5 KH ECHOSOUNDER)

0113Z LORAN C OFF FOR TEST

0146Z ECHOSOUNDER DOWN ~~FOR~~ CHANGE OF BELT

0147Z LORAN C ON

0200Z ECHOSOUNDER ON

0205Z H. Kim on watch

0214Z SATNAV #1 DOWN
 PROGRAM HALT - WON'T RESTART
 SHUT IT OFF TO LET IT COOL

0300Z Magnetometer chart starts to work again
 seas 2'-3' ^{from} SE - WIND SE, 10-15 kt estimated

0411Z C/L 124°

0500Z MCCOWAN ON WATCH

0800Z ARNETT ON WATCH

FM03.01

4/25/80

0810 - C/S to 125° - seas rough
speed 10.1 knots

SAT NAV #1 STILL DOWN

0900 - MAGGIE JUMPING AROUND A LOT

0945 GANLEY ON WATCH

1011 C/S 1000 rpm/2 8.0 Kts - slowed down
because the seas have steadily picked up
slowed to reduce pounding

1115 Loran C course reading constantly off about
5 degrees - reading gyro for correct heading

1150 C/S ~~1100~~ 1100/2 5-9 Kts

1155Z J. Kim on watch

1203Z C/C 128°

1210Z slow speed briefly to check oil

1216Z speed 6.7 Kts on display

1225Z speed 9.3 Kts on display

1305Z C/C 130° 1400Z C/C 135°

1401Z H. KIM ON WATCH

1506Z C/C 140° 1608Z C/C 144° 1709 C/C 150°

FM03-01

4/25/80

1800Z MCOWAN WATCHING

1830Z LEADING DIGIT OF MAGI RECORDER
READS 0 SHOULD BE 4

2000 ARNETT ON WATCH

2004 - C/C 125°

2030 - MAGGIE READS 0 - SHOULD BE 4

2142 - SLOWED SPEED - PUTTING BUNS IN THE WATER

2150 GANEY ON WATCH - still running slow
problem w ~~compression~~^{AIR} hose w gun shackles -2300 - Tested #2 gun w water - fines OK -
~450 psi - leak w hose got worse - shut
down - gun in -

2350Z J. KIM ON WATCH

4/26/80 RUNNING VERY SLOW - 2.0 Kts, C-125° ← 4/26/80

0030Z 1200 ON THE LEFT AND 1600 ON THE RIGHT OF
BATHYMETRY CHART SHOULD BE 1600 ON THE LEFT
AND 2000 ON THE RIGHT.

0053Z C/C 140°

0200Z H. KIM ON WATCH

0210Z C/C 142°

0307Z C/C 145°

MAGNETOMETER not recording properly
jumping radically - recording only good
values -

0310Z change fine tune of Maggie from 7 to 6

0400Z C/S 800/2

4/26/80

0600 - ARNETT ON WATCH - MAGGIE IS JUMPING AROUND

0700 - C/C to 143° , SPEEDING UP FROM ≈ 4.8

0800 MCCOWAN WATCHING

0806 C/C TO 140° C/S TO 6 kt

0820 C/S TO 8 kt ACTUALLY 7.5 kt

1000 GANEY ON WATCH

1018 C/C 138°

1028 C/S 1250 rpm/2 - 8.5 KTS

1102 C/S 600/2 20 ~~35~~ KTS - AT STREAMER
Deployment LOCATION

1109 Power off MAGNETOMETER - PULL IN MAGGIE

1123 SETS CHECK & CAMERA ALL 48 TRACES
EXCEPT #4 PRESENT.

1138 C/S DEAD SLOW ON BOTH ENGINES - to deploy
TAIL BUOY
C/C - into wind to 162°

1148 - TAIL BUOY TURNED OVER soon after
deployment - pulled back on deck - took off
putting out cable -

1245 1 sec error found in Bathymetry
data - may be off 1 sec for over 24
hr period - corrected at this time
before seismic recorded P.B.

1330 change Belt on 3.5 Kt Echosounder

FM 03-1

4/26/80

7

1330 - putting out streamer - putting ² leads on each section - end ₁ = ^{product} 6 on Resel; ¹ 4 on Lives

1330 Z J. KIM ON WATCH

1335 Change EPC belt (Ken. G.)

1400 Z H. KIM ON WATCH

1800 Z ARNETT ON WATCH MCCOWAN ON WATCH

1848 Z RESUME SPEED AFTER CABLE DEPTH TEST
145° 1.5 kft.

2000 - ARNETT ON WATCH

2008 - RETURN TO 145° AFTER TESTING
AIR GUNS

2122 SEC. 80 LIVE TRACE 40 HAS ^{NARROW} LEAK IN IT
IS BEING PATCHED - DUE TO ¹ trying to tie
cable off -

2130 A.G. control box burned up cord - repaired

2150 - Testing guns -

Depth sensor #5 bad - taking a look -

2200 GARNEY ON WATCH

2215 Section 80 TESTING TRACE 4 ~~DEAD~~

Good to the inboard side of Section 80

Depth sensor good now after testing - changed sensor
all depth sensors running very shallow

2240 Sigs check - all good except 4

2242 Depth sensor check - dead slow

4/27/80

0010 J. KIM ON WATCH

STILL PUTTING OUT STREAMER

FM 03-01

4/27/80

8

0122 SEIS CK OK EXCEPT #4

0130¹⁵ - Completed putting out streamer -
 hydraulic hose broke on main hose to cable which -
 large hose - lucky cable was just in place -

Streamers towing very shallow - gently less
 than 5' - Data too noisy

0130 - c/s 800/2 - to see how streamers tow -

still shallow

0148 - c/s 900/2

0200Z H. KIM ON WATCH

OUT ← 1 2 3 4 5 6 → INBOARD
 0 5 2 2 4 2 900 TURNS

- 0 5 2 2 4 4 1000 TURNS

0242 c/s 1000/2 ✓

0307 c/s 800/2 ✓

~~0333 c/c 090°~~~~48~~

0333 BEGIN SLOW TURN TO 090°

0348 STEADY ON 090°

0444 c/c 125°

0514 c/c 135° -- BRIDGE STEERS TO KEEP
 US IN NEIGHBORHOOD OF
 SHOOTING AREA

0600 MCGOWAN WATCHING

FM 03-1

27 APR 80

9

0730 - ARNETT ON WATCH

0800 L 9000 GMT GANEY ON WATCH Recording
 records on ~~GMT~~ GMT time - Local
 time 1 hr forward due to daylight savings

1001 c/c 130°

1100 J. KIM ON WATCH

1125 ~ 1140 TEMPORARY LOST OF COORDINATES ON RORAN 'C
 GENERATORS SWITCHED (NOT LIKELY) - probably
 due to someone hitting keyboard accidentally

1300 - putting out 2 guns to find - to see how signal
 looks on shallow cable - if noisy - will pull &
 put more weight on

Streamer configuration -

#	Lead	Weight	Notes	
1	DEAD -	4	+ 2 BIRD'S (GEORGE) + (BOBBY) + trail Buoy	
2	LIVE -	5		
3	> Depth sensor		Basically Added 2 leads to each section until middle of cable - then added leads <u>only</u> to reel sections - As western had balanced lines before	
3	Dead -	(6)		
4	LIVE	4		
5	DEAD -	6		
6	LIVE	4		
7	DEAD	6		
8	LIVE	4		
9	DEAD	6		
10	LIVE	4		
11	DEAD	6		
12	LIVE	4		
13	DEAD	6		+ BIRD (Pauli' Boy)
14	LIVE	4		
15	DEAD	6		
16	LIVE	4		
17	DEAD	6		
18	LIVE	4		
19	DEAD	6		

FM 03-1

27 APRIL 1980

cable - runtd

#	section	leads	#	section	leads
20	live	4	58	Live	4
21	Dead	6	59	Dead	6
22	live	4	60	Live	4
23	Dead	6	61	Dead	6
24	live	4	62	Live	5
25	Dead	6	63	Dead	6
26	live	4	64	Live	5
27	Dead	6	65	Dead	6
28	live	4	66	Live	4
29	Dead	6	67	Dead	6
30	live	4	68	Live	5
31	Dead	6	69	Dead	6
32	live	4	70	Live	5
33	Dead	6	71	Dead	6
34	live	4	72	Live	5
35	Dead-	6	73	Dead	6
36	Live	4	74	Live	4
37	Dead	6	75	Dead	6
38	Live	4	76	Live	4
39	Dead	6	77	Dead	6
40	Live	4	78	Live	5
41	Dead	6	79	Dead	6
42	Live	4	80	Live	5
43	Dead	6	81	Dead	6
44	Live	4	82	Live	4
45	Dead	6	83	Dead	5
46	Live	4	84	Live	4
47	Dead	6	85	Dead	6
48	Live	4	86	Live	4
49	Dead	6	87	Dead	6
50	Live	5	88	Live	4
51	Dead	6	89	Dead	6
52	Live	4	90	Live	4
53	Dead	6	91	Dead	6
54	Live	4	92	Live	4
55	Dead	6	93	Dead	6
56	Live	4	94	Live	3
57	Dead	6	95	Dead	6

+ Bird (Patty's Pride)

< Depth Sensor

+ Bird
(then Silver fox)

+ Bird (Rotten Ron)

5 (slight leaking)
< Depth Sensor (replaced)+ Bird
(Tweety Bird)

< Depth Sensor

- 24X4 + 3
98 - 99

+ Bird (Rufus Mess)

FM 03-01 27 APRIL 1980

Cable - cont

#	Section	Leads
96	Live	2

BIRD - INBOARD 1st Stretch - Stormy
 BIRD - OUTBOARD - 2nd Stretch - mth's Dugs

1300 BIG JUMP IN BATHYMETRY (ABOUT 800 FMS)
 1322 ~ 1332 CHANGE GPC BELT

1330 Z H. KIM ON WATCH

1345 Z ~ = test airgun #1 and #4

1400 Z CHECK DEPTH ON GPC (4.0 sec)

1430 Z c/c 165°

1442 Z GUNS IN; STARTING TO BRINK
 CABLE IN

1446 Z check the depth on echosounder with 4 sec sweep
 & found 400 fathoms difference
 added 400 fathoms and corrected all the depth
 from high escarpment (1300 Z) starting point

1447 Z check the depth of depth sensor in streamer
 and found the low depth than expected.
 start to rework with streamer again.

1505 Z found #2 bird have bad wings or bad bladder

1529 Z section #90 (live) bad-shark bite -
 salt water inside

LEAK AT DEPTH #5 - NEEDS TO BE REPAIRED
 ON WAY OUT

1632 Z #41 Dead section - shark bite - repaired (?)
 NO SALT WATER INSIDE

FM 03-01

27 APRIL 1980

12

PIN HOLE LEAK IN 40 LIVE - RIGHT ON
HYDROPHONE - PATCHED

1700 - ARNETT ON DUTY

1735 - TAKING OUT ^{Small} STREAMER ON TOP DECK
TO USE ITS LEAD WEIGHTS

1845 - Secured upper cable - took all lead off -
Available - 72 Big leads } to Distribute back
36 - Small } on cable -

Replaced tail buoy with float -

2030 - C/C 145° - speeding up now
putting out cable -

2100 J. KIM ON WATCH

2115 CHANGE PAPER ON EPC

2135 C/C - 149°
cable - Big
putting 1 lead on each section
putting 1 small lead on each dead -
putting extra line between original ones
put 3' chain on end of last dead -
took tail buoy off - Replace w/ float

2220 - out to section 40 - look at pin-hole leak
patch - looks ok - leave it -

2225 Leak on #41, REPAIRED

FM 03-01

28 APRIL 1980

13

0100Z H. KIM ON WATCH

0320Z CHANGED LIVE # 90 SECTION
TESTED OUT OK0445- Cable out & secured - ready to test -
c/s 800/2

2'	2'	5'	3'	5'	33'	60'	ft.
1	2	3	4	5	6		Depth Indicator

At Beginning before speed change

0500Z - Begin slow turn STBD to 300°

stopped at 160°							
23'	33'	31'	18'	30'	16'	—	Depth—

at 800 turns - looks good -
putting guns out -

0506Z - MCCOWAN WATCHING

1	2	3	4	5	6
12	41	20	17	32	40'

0535- Begin slow turn to 300° - 10° every 5 min.

0552	4 GUNS FIRING	Pressure	450-475 psi
	REL FIRE TIME	(1)	(2) (3) (4)
		21	21 21 19

0554	Pressure on all guns	500 psi !
0559	GUN #3 NOT FIRING	0

FM03-1 28 APRIL 80

0600 STREAMER OUT; Calibrating guns getting
ready to start recording
STILL IN PROGRESS IN SLOW TURN

0611 C/S 700/2

pulling gun #3 — putting in gun #5 — spare
3 guns firing well

0630 — C/S 600 — putting out gun 5 — too short cable — back out

0647 — C/S 800/2

0704 CHANGE REP RATE TO 22.9 SEC.

0707 COMPRESSOR BOILING OVER ALL GUNS OFF

0723 — GUNS FIRING

0737 — C/C 335°

MAGGIE out — NOT working properly

0843 — DECIDED ON DFS IV FILTER PARAMETERS
LOW CUT 8 HZ SLOPE 18 DB/OCTAVE
HIGH CUT 62 HZ SLOPE 12 DB/OCTAVE
IFP GAIN NO NOTCH FILTER

0856 — C/C 070 — Begin —

0902 — Begin SF-1 — still in turn —

0909 — STEADY ON 070°

0926 C/C 055°

0857 Local 'C' Printout Clock Reset.

~~0947 C/C 050°~~

1008

050°

1009 MAGGIE OFF

Fmo3-1

28 APR 80

15

1022 C/S 850/2 from 825/2

1137z Turned zpc off for cleaning and changing belt.

1407 C/C 045°

1419 C/C 040°

1510 C/S 900/2, TO MAINTAIN 6 KTS

1700 AIRNETT & MCOWAN WATCHING

1730 - CHANGING COURSE TO 060°/Ck

1735 - MAGGIE - ^{UP}~~CHANGED TO SHORT CAGE~~ - ~~NOW~~
~~WORKING OK~~ - MAGGIE DOWN - NOT WORKING
right - BT working on it

1836 - C/C 053°

2050 GANEY & J Kim ON WATCH
LINE SF-1 - STILL RIDING IN TROUGH
START PLOTTING MAG DATA

2119 PARITY ERRORS ON TAPES (2) TAPES
NOT WOUND TIGHTLY 031034, 35

2242 C/S from 875/2 ^{to} 925/2 To make up 6.0 kts

2244 MISSED SHOTS (2161 ~ 2167) TAPE REWOUND ON "A"

2311z C/E 045°

2320 C/S 5.7 kts → 6.0 kts

2340 Random Parity errors - dirty tapes

0030 TUSE record on echosounder

FM03-1

29 APR 80

0058 END LINE SF-1 PUT DFS IN TEST MODE
WHILE WORKING ON COMPRESSOR

0100 C/SDS/2 C/C 183° - SLOW turn
5°/min

0130 WORKING ON COMPRESSOR LINES.
ALL GUNS NOW OFF
CONTINUING SLD TURN TO 183°
COMPRESSOR PROBLEM IS BLISTERED HOSE TO
MANIFOLD; NO "AIR HOSE" ON BOARD TO RE-
PLACE IT & WE WILL HAVE TO USE
HYDRAULIC HOSE TO REPLACE IT;
DANGEROUS SITUATION.

0154 Z ~~LAST~~ replaced hose - last one - need to make up some
extras - shooting 4 guns - #3 working, but
problem in fire box - #1 & 3 firing time delays
are same - some cross wires - ? to use #3
if can't get true delay -
switching ~~fire~~ cables -
seems to work - #4 guns working
#3 firing at low pressure - this is gun
that wasn't sent to Dallas -

0200 Z ~ Maggie plotter stopped

0213 Z ^{turn} continue to 200°

0220 steady 200°

0222 C/C 210°

0200Z - 0229Z : check magnetometer - no record

0235 Z c/c 220° - to get on line ~ allow for
current -
gun #3 still not firing OK - trying to
adjust - hard to adjust at low pressure

FM 03-01

29 APR 80

0244 C/S 550/2

0254 REPAIRED MAGGIE PLOTTER (SPEED SELECT
NOT PROPERLY ENGAGED)

0305- BEGIN SF-2 ON DFS

0338 C/S 540/2

0445 C/C ~~240~~° 245°

0500 ARNETT & MCCOWAN WATCHING

0640 C/C 250°

0715 - HAVING TROUBLE WITH TAPE DRIVE B -
RECORDS # 2 OR 3 SHOTS, THEN REWINDS -
CALLED KEN TO FIX IT.0730 - PROBLEM CORRECTED, NOW RECORDING ON
DRIVE B.

0820 - C/C to 245°

0850 GANEY & J Kim ON WATCH

0950 ~~REALLY~~ MAG DATA PLOTTED WRONG - replotted1007 C/C 263° ~~STC 263° (Record 6679)~~

1105 C/C 265°

1140 C/C 270°

1145 850 RPM HIGH WAVES

1152 C/C 267°

1242 C/C 265°

1350 TRACE 34 SHOWS NO SIGNAL
IN ~~DA~~ MONITOR RECORD X1400 BEGIN TURN TO 200° C/C
1412 STEADY ON 200°

FMD 3-01

29 APR 80

1413Z

C/S 800/Z

1450Z

C/C 205°

1452Z

DIRTY TAPE, REWOUND AFTER RECORDING; REPLACED

1502

C/S 750/Z

1513

C/S 700/Z

1516

C/S 675/Z

1548

SHUT DOWN DIES IN MIDST DIE
LINE SF-2 TO WORK ON COMPRES-
SOR (UPPER COMPRESSOR). HEATING UP

1551Z

C/S DEAD SLOW/Z

1615Z

C/S ~~6.0~~ 6.0 KTS

CONTINUE SHOOTING LINE SF #2
?? WHAT WRONG ON COMPRESSOR - IMPELLOR
OK -

1624Z

C/S 675/Z

1700Z

ARNETT & MCGOWAN WATCHING

1715Z

END OF SF2

C/C 140° - 4.5K

SHOT DOWN FOR REPAIRS TO HOSE.
MAKING A TURN TO CATCH NEXT LINE
LAT 23 32.78N
85 22.86W

1730Z

BEGIN SF-3

1755Z

C/C 1350°

FM03-01

29 APR 1980

19

1920 C/C 0580 END ~~SWAR~~ BEGIN ~~SWAR~~
SF3 SF4

1925 - Cahill reports air hoses running very hot -
not sure how long will last - am from
upper compressor must be hot?
replaced hose at manifold again - using hydraulic hose

1952 - 0550 C/C

2027 0500 C/C

2045 GRABY & J.J Kim ON WATCH

2030 Adjust RELATIVE Firing Times on guns
#4 firing at 32 brought down to 25

2010 Changed Paper in echosounder
2250 C/C 0450

Cahill repairs gun - found only shims little
off - will try after dinner

2340 OBSERVED TAIL BUOY FLOATING PAST
PORT Side OWS?

0000 30 APR 80

0043 DS/a TO PUT GUN # 4 in H₂O

0057 - C/S 6.0 kts - All 4 guns in water ✓
WORKING great - firing ~ 500 psi +

0100Z H. KIM & J. Shaub on WATCH

0114 C/S 850/2

0405Z C/S 035°

0413Z C/S 875/2

0417Z C/S 900/2

0425Z C/S 910/2

0428Z C/S 925/2

FM 03-01

30 APRIL 1980

20

~~0427Z~~ missed shots (DFS)

0500 ARNETT & MCCOWAN WATCHING
0518 GOT CANILL TO ADJUST GUNS

0640 C/C to 030° TO STAY ON COURSE

0819 C/C 035°

0830 C/C 040°

0850 C/C 045°

0900 GANEY & J Kim ON WATCH
BATHYMETRY OFF By 1 sweep for 1 hr - corrected

1010Z C/C 191° SLOW TURN 5°/min
END OF SF-4
BEGIN SF-5

1040Z STEADY ON 191° ~~10Z~~

1155 - WATCHED SHOT POINT COUNTER CHANGE ~~X~~
over from 7999 - 8001 - skipped
8000 - must skip 0 & the 100's

1205 C/C 194°

1300Z H. KIM & J. SHAUZ ON WATCH

1414Z C/S 800/2

1421 TRACE 18 OUT NOW; TRACE 34 STILL BAD

1429 BRIDGE REPORTED THAT BRIDGE TACHOMETER
WAS SLIGHTLY OFF, ENGINES OUT OF SYNC;
NOW ADJUSTED; 700/2 NOW.

1504 C/C 199°

FM 03-01

30 APRIL 80

1530 c/c 2070 c/s 675/2
 1533 c/s 650/2
 1538 c/s 6.0 KTS (still 650/2 and slowly increase to 6.0 KTS)
 1546 COMPRESSOR WORK, LOWER
 to check oil - DFS off temporarily -
 1549 c/c 2150
 1603⁵⁶ GUNS BACK ON - DFS BACK ON -
 GUN #3 didn't come back - pulling it -
 only firing 3 GUNS
 1609 c/c 2250
 1629 c/s 675/2
 1638 c/s 700/2
 1652 Shut down compressor - ^{Unbsec} pump on upper
 DFS off - ¹ leaking
 c/s rend slow - 40kts Replacing insides -
 including BEARINGS
 1700 ARNETT & McCOWAN WATCHING
 repaired 3rd AIRGUN - AIR HOSE HAD
 broken
 1804 c/c 2300
 1821 Pump fixed, BANGING UP GUN
 replaced insides
 1834 DFS UP - MISSED 277 SHOTS
 1838 - Dead traces 18 & 34 ARE
 ALRIGHT NOW

FM03-01

30 APRIL 1980

1903 C/C 220°

1920 C/C 215°

1945 C/C 210°

2005 C/C 205°

2050 GAWLEY & J.J. KIM ON WATCH
 CALM SEAS, SUNNY SKIES - GOOD DATA
 4 guns up

checked GUNS pressure - 1 2 3 4
 500 510 450 520

- Speculation - Cuban Gunboat approaching astern

2339 - Pull Guns 11N; Secure DFS

DS/2
 Breakin ~~END~~ LINE SF-5 - Fishing Vessel crossed
 1 mile astern -

NOTE: FROM 1834Z → 2339Z

DFS (1/2 MONITOR) TIME BREAK WAS FIRE
 COMMAND NOT COIL CURRENT MONITOR

2356 - DFS Back on line - Continue SF-5
 same tape drive B
 missed 47 shots

2359 - Maggie Back on line
 H. KIM & J. SHAUB ON WATCH

0100 C/C 325° Start line SF-6
 TAPE # 031163

0130 C 325° Steady on

0140 Air Gun #1 shut off for a while

0147 800/2 C/S

Status & configuration of cable put out 4/28/80 -

a) float as tail buoy - reel - on ^{long} Nylon line -

b) piece of chain - 3-4' long at end of first dead to help weight it DOWN

~~#1~~ lead (1)

c) added 1 more big to all sections except 1) few in barrel - when run out

d) added 1 more small ⁽²⁾ lead to each dead section -

e) added extra birds between others - [Total 15]

f) Birds w/ wings tied down on stretch sections

g) 4 5' chains on leader + 1 big piece lead -

h) big-small leads separate at 1st & then together in same wrap to save time

all seemed to work - got streamer down to 20-30'

		Lead	Birds	channel-trace			Trace
#1 - Dead	5 1/2	Force by choice Pattys Pride		#28	L	5	14
				29	D	7 1/2	
#2 - Live	6			30	L	5	15
	Depth sensor #1			31	D	7 1/2	
#3 Dead	7 1/2			32	L	5	16
#4 Live	5			33	D	7 1/2 - Bird - Rufus	
#5 Dead	7 1/2			34	L	5	17
#6 Live	5			35	D	7 1/2	
7 Dead	7 1/2 - Bird	George		36	L	5	18
8 Live	5			37	D	7 1/2	
9 Dead	7 1/2			38	L	5	19
10 Live	5			39	D	7 1/2	
11 Dead	7 1/2			40	L	5	
12 Live	5			41	D	7 1/2 - Bird - Zeelwick	
13 D	7 1/2 - Bird	Rutter Ron		42	L	5	21
14 L	5 1/2			43	D	7 1/2	
15 D	7 1/2			44	L	5	22
16 L	5			45	D	7 1/2	
17 D	7 1/2			46	L	5	23
18 L	5			47	D	7 1/2 - Bird - Silver Fox	
19 D	7 1/2 - Bird	Patties J.		48	L	5	
20 L	5			49	D	7 1/2	
21 D	7 1/2			50	L	5	25
22 L	5			51	D	7 1/2	
23 D	7 1/2			52	L	4	26
24 L	5			53	D	7 1/2	
25 D	7 1/2	Depth IND #2		54	L	4	27
26 L	5			55	D	7 1/2 - Bird - Tweety Bird	
27 D	7 1/2 - Bird	Bobby		56	L	4	28

Small pin hole lead 20' ~~20'~~
Bite - tentacles repaired
BIRD - Zeelwick

Depth Indicator #3

FM 03-01

1 MAY 80

0207 c/c 330°
 0212 c/s 775/2
 0214 c/s 750/2
 0217 c/s 775/2
 0225 c/s 800/2
 0232 c/s 825/2
 0237 c/s 850/2
 0240 AIR GUN #2 miss firing
 0250 AIR GUN TEST - DFS shut off for a while
 0253 AIR GUN start shooting again - testing fire control
 Box - swapping cards? - OK -
 0320 875/2 c/s
 0400 - testing - getting 80° -
 GUNS BACK ON - GUN #1 circuit bad -
 somewhere in Box on wire to LAB -
 gun #1 firing fine - but securing since
 don't know rel. fire times on #1 -
 Begin DFS continue shooting 3 guns
 0337 TRACE 3~~2~~ BAD AGAIN
 & DFS DOWN FOR CHECKS
 & GUNS BEING WORKED IN AGAIN
 0354 CONTINUE SHOOTING & RECORDING
 Switched out fire control Boxes - all guns working
 But gun #4 circuit on 2nd Box not getting
 coil current - ?? - CONTINUE shooting 3 guns
 take gun^{#4}₁ out of water - fix in morning -
 0413 875/2 c/s

FM 03-01

1 MAY 1980

26

0500Z ARNETT & MCGOWAN ON WATCH

0707Z - TRACE 4 & 32 ARE DEAD

0900Z GANEY & J. KIM ON WATCH

NOTE CONSISTENT PARITY ERRORS on Drive A

1220 GUN PRESSURE
1/535 2/570 ~~505~~ 3/460

1300Z J. SHAUB & H. KIM ON WATCH

1311Z all the traces are noisy, esp. traces 25-27 more noisy
Trace 4 & 32 are still dead

1330 c/c 335°

1430 Change Monitor record from DEFLOAT
to AGC

1504 BEGIN SLO TURN TO 047° c/c 047°
END LINE SF-6
~~BEGIN LINE S~~ control Box
WORK IN GUNS, DFS ON TEST
COME TO DEAD SLOW c/s DEAD
SLOW/2

checked out wiring etc. on Gun
control Box - could find nothing wrong -
tested ^{#1 gun} again - same problem - gun ^{#1} firing BUT
still get 80's on Rel. fire time Box in CAB -
Don't know what trouble is - firing Box tests OK -
wire to CAB & GUNS OK -

1515 ~~8~~ SF-17 start

1515 continue shooting on 3 GUNS - 3, 3 & 4 -
will try to trouble shoot

1520 STEADY ON 047

FM 03-01

1 MAY 80

27

-1541

SF-7

Change of record length from 11 sec to 10 sec

switched to 2nd ^{gun} control box - seems to be working now - putting 4th gun in water -

1539

c/s 6.0 KTS, 750/2, 4 GUNS ON
Begin SF-7 here

1544 -

Fire control box reads all ϕ S- ???
c/s 875/2will continue shooting until figure out - ?
guns ok -

1549

SWITCHED CARDS IN LAB GUN
CONTROL PANEL, HAVE FIRE TIMES BACK -
DON'T THINK MISSED ANY SHOTS - GUNS KEPT FIRING

1550

c/s 850/2

1553

c/s 875/2

Beautiful day - wind fm SE - 5-10 kts
seas 1-2' -

1608

c/c 044°

1643

c/c 040°

1700

MCGOWAN & LEE ARNETT ON WATCH

1740

EPC - 3.5 KHZ temp DOWN - Belt Jammer -

1745

replaced by Ken -

2041

e ~~DES~~ CHECKED JES MONITOR -
LINES 4 & 32 ARE STILL DEAD

2055

GANEY & J. KIM ON WATCH

2130

c/c 148°

END LINE SF-7 Begin Line SF-8

2155Z

STEADY ON 148°

2235Z

c/c 143°

FM 03-1

1-2 MAY 80

1 MAY 80

LINE SF-8

2240 GUN #2 NOT FIRING

2254 GUN #2 BACK UP

2312 C/C 136°

2314 STEADY ON 136°

2330Z CHANGE PAPER ON EPC

02 MAY '80

0005Z C/C 130°

0050Z C/C 125°

0100Z J. SHAVB & H. KIM ON WATCH

020²~~0~~ C/C 120°

0215 seas 1'-2' from SE - wind SE, 10-20 kts.

022⁴~~0~~ C/C 115°

0248 C/C 110°

0300 C/C 105°

0307 seas 3'-5' WIND 15 kts rough sea

0400 ENGINE SPEED V LOW (5757Z)
 BECAUSE OF FAST CURRENT + WIND AGAINST US
 DEPTH INDICATORS 1 & 3 ARE SHALLOW

¹⁰
 04~~07~~ C/C 100°

BNA traces maybe at far end - 1 & 2
 + middle - 22-24 traces -
 check this line when processing

*

*

FM 03-01

2 MAY 80

29

0425Z C/C 095°

0439Z C/C 090°

anomalous contacts? crabbing 90° —
stream running shallow —

also - tachometer found different - engines running
at different speeds - 50-75 turns different.

connected - this made difference - course came back *
some - stream ~~the~~ went deeper

0449Z C/C 095°

last 10 traces very noisy —

0458Z C/C 100°

0500Z MCGOWAN & ARNETT ON WATCH

traces getting better — this line will *
need editing —

0505Z C/C 105°

0508Z FAR DEPTH INDICATOR NOW AT 15',
MONITOR RECORD CLEANED UP WELL,
ALL TRACES.

0533Z C/C 110°

0542Z C/C 115°

0547Z C/C 125°

0620Z C/C 120°

0705Z C/C 125°

0725Z C/C 130°

FM 03-01

2 MAY 1980

0734 - c/c 135°

0740 - c/c 140°

0750 - c/c 145° (145°)

0820 c/c 155°

0855 GANEY & J. KIM ON WATCH

0940 ^{gun lock} GUN PRESSURE 1/520 2/470 3/460 4/5000950 OUTBOARD ~~DI.~~ D.I. . VERY SHALLOW

1007 c/c 160°

1010 - Adjusted Gun Pressure - because relative
fire times way off
gun lock Gun pressure 1/550 2/515 3/500 4/535

1035 c/c 165°

1220 c/c 160°

1318 END SF-8 BEGIN SF-9
c/c BEGIN SLD TURN TO 030° 027°

1358 STEADY ON 027°

TRACE #48 appears to have gone bad - X
 very noisy - first part of monitor noisy
 switched to trace #47 on monitor
 H. KIM & J. SHAB ON WATCH } cleaned up later?
 c/c 017 } maybe in turn

1400

1408

1411

gun #3 miss firing

1419

gun #1 died & gun #3 is all right.

rel. fire times still not synched - coming up to pressure

FM 03-01

2 MAY 80

1427Z - Gun #1 has short - pulling

1433Z - Gun #3 is ^snot getting relative fire time
1434 c/c 010

guns down to ✓ gun box -

1437 PAS on standby -

1438 0050 c/c

1445 short circuit somewhere? - Blowing fuses
switched boxes - came up - gun # still
shows 80 - ?? - guns firing OK

Diagnosed as short circuits in both guns
1 & 3 - pulling both guns - firing on
2 guns only

1504 c/c 009⁰
1513 c/c 005⁰

1544 Maggie chart PAPER NOT MOVING, FIXED BY
REENGAGING DRIVE SPEED GEAR.

1545 c/c 002

1604 - Fixed wire on gun #1 - Back in water -
tested - OK - but still getting 80^s on gun
control box #1 - firing 3 guns - 1, 2, & 4
showing gun #1 on position #3 on rel. fire
times w LAB -

1600 BRIDGE ASKED FOR WRITINGS, LORAN
SCREEN VALUES FLUCTUATING & "LIGHTS
FLASHING." TESTING NOW GOING ON;

FM 03-01

2 MAY 80

1600
~~1600~~, CONT.

GRIFITHS SAYS PRINTED FIXES
(ON PAPER) GOOD EXCEPT WHERE
"E S" INDICATE LOW SIGNAL STRENGTH.
THOSE POSITIONS MAY OR MAY NOT
BE VALID.

1600 11700 ARNETT & MCCOWAN WAXHING
GUN #1 DOWN

~~1700~~ 1707 - C/C to 009°
~~1700~~ 1736 - C/C TO 00°

1746 - C/C 355°

Gun #3 fixed - Bad splice - electrical
wire - can't put in water since gun control box
still shows 805 - ?? don't know problem yet -

1808 MAG1 CHART RECORDER DEAD

1815 MAG2 CHART RECORDER OK - WAS OUT OF GEAR

france #48 noisy, on camera record - AGC X
being triggered by D-wave - not noisy, on tape -

1900 C/C 300° - begin slow turn 5°/minute

1909 steady 300°

LOW C out for last 20 minutes -

weak signals - ? storms in area -

1930 - SF-10

1945 - 315°

1948 - COMPRESSORS DOWN DFS OFF

FM 03-01

2 MAY 80

2003 - FIRE COMMAND ^{USED} FOR AIR GUNS, NOT
 COIL TIME BREAK. PREVIOUS TO THIS TIME

2008 - Repairing pump on upper compressor - seal
 leaking again - replaced - shaft bad on pump - Otis
 doesn't know how long will last - few days -
 in emergency could use shaft from one of
 compressors below -

Connec back on - changed to new chain -
 seems to be tracking OK - confirm w/ Sat-nav. #2

Seas coming up - wind from East - 20-30 kts - storm -
 rain - 3.5 kHz record getting hard to read -
 Ronnie fixed fire control box - ready to test - will
 wait till end of next tide - shoot 3 guns rest of
 tonight - save for grid work -

2025

~~2030~~ COMPRESSORS UP DFS ON -

2029 - continue live SF-9 →

2045Z GANEY & J. KIM ON WATCH

2046Z CHANGE EPC BELT

2251Z GUN PRESSURE CHECK

1/540 2/500 3/- 4/540

2340Z C/C 218 BEGIN SF-10

0000 3 MAY 80 steady on 218 - strong S-Wind

FM03-1

3 May 80

SF-10

0015 c/c 213°
 0020 Maggie plotter off
 0100 J. SHAUB & H. KIM ON WATCH

0110 Maggie plotter on ~~again~~
 0130 Maggie plotter off again

0139 c/c 218°
 0150 Maggie plotter on again

0156 c/c 223°

0216 c/c 218°

0256 c/c 213°

0328 c/c 218

0328 MISSED SHOT POINT 8000 once again!
 OBSERVERS PATTY, KEN, DICK, JEAN & OTHERS -
 DICK OWES 'PATTY' 1 BEEK MB

0330 TAPES 031288, 031289 SHOWING MANY
 PARITY ERRORS, POSSIBLY DIRTY REC.
 HEADS. CLEANING AS WE GO TO TRY
 TO ELIMINATE ERRORS. 031290, NO ERRORS.

0335 c/c 225

0344 c/c 230

0354 c/c 235

0358 c/c 240

0404 c/c 248

0446 c/s DEAD SLOW/2, LET SHIP PASS
 AHEAD OF US

0454 c/s DEAD SLOW/1

0500 ARNETT & MCOWAN WATCHING

3 MAY 1980

FM 03-01

35

0510 - ARC ALTERING COURSE TO STARBOARD TO
AVOID SHIP

0528 - AVOIDED ~~THE~~ SHIP STEADY ON 259°

CONTINUE GOING SLOW ACROSS JONAN KNOLL
to get entire knoll at high full - will
process as separate sections -

0543 MAGGIE CHART RECORDER DIED AGAIN -

0559 C/S 6KT

0608 - C/C ~~280°~~ 275°

0652 - C/S 5.4K

0750 - C/C 270°

0805 - C/C 265°

0833 C/C 270°

0850 GANEY & J.J. /LIM ON WATCH + ALAN MORRIS
MAGGIE CHART DRIVE NOT WORKING

0950 - SAW SHOT POINT (9000)

1035 C/C 265°

1050 - Adjust gun pressure & relative firing time
pressures in gun shack 1/500 2/475 4/525

1105 DFS DOWN DATA LIGHT DRIVE B - BAD TAPE

1300Z H. KIM & J. SHAUB ON WATCH

1305Z C/C 054°

1310Z GUN TEST

1327 DEAD SLO/R

FM 03-01

3 MAY 80

1350 Z STEADY ON 054°

1351 Z - tried repaired gun box in shack -
blew up - no good - part that was replaced
~~was bad~~ burned up

tried switching wires in connector box -
blew 2 fuses -

Back to shooting 3 guns - still puzzled over
why #1 continues to read 80°??

1354	C/C	044°			
1357	C/C	0340;	1401Z,	C/C 0300;	1404Z, C/C 034°
1418	C/S	6.0 KTS;	1410Z,	038°;	1417Z, to SF-11 BEGINS

1420 Start DFS - guns still little erratic
Adjusting - 3 guns in water 2, 3 & 4

Dirty tape - parity errors - switched tape
Drives -

1425 - guns steadier down -

1430 C/C 050°

found gun #1 bad - possibly electrical -
may have been causing fuses to blow?

1430 pulled gun #1

1440 C/C 043°

1446 SONOBUOY #1 CHAN 30, 3 HRS, 60 FT.

[1500 Traces #28 & #29 NOISY
1547 NOISE disappeared]

FM 03-01

3 MAY 1980

1556 c/c 050°

1632 c/c 045°

1700

ARNETT ~~is~~ MCOWAN is WATCHING

1733 - c/c 040°

1848 - GUN 3 DOWN

1850 GUN 3 UP

GUN #3 Triggering fire command
when down caused many
internal time breaks
87 shots on target 031324

1916 - END LINE SF11 23° 38.11'N 84° 08.52'W

BEGIN SLOW TURN TO 312°

BEGIN LINE SF12

1942 - ~~c/c 312°~~
325°

2003 - 330°

2045 P. GANAY & J. KIM ON WATCH 1-2 ft seas, clear
skies, WIND - 5-10

2220 - EPC OFF LINE TO CHANGE PAPER & BELT

2230 - EPC BACK ON LINE

2345 c/c 233° slow turn

END SF-12 Begin SF-13

0005 - steady on 233°

0059 c/c 248°

0100 J. SHAVER & H. KIM ON WATCH

0120 c/c 253°

0151 c/c 248°

0214 c/c 253°

0237 c/c 250°

0250Z c/c 066° - Begin slow turn - left -
END SF-13 - Begin SF-14

FM 03-01

04 MAY 80

0345 MAGNETOMETER STRIP CHART
RECORDER OFF, IT DOES NOT ADVANCE,
BAD LEADS. PAPER TAPE ONLY.

0349 steady on 066°

034951 c/c 050°

0357 c/c 045°

0400 c/c 040°

0413 c/c 048°

0500 - ARNETT & MCCOWAN WATCHING

0456 - c/c 040°

0536 - c/c 045°

0547 c/c 050°

0617 - c/c 045°

0632 - c/c 040°

0715 - Begin SF-15 BEGIN SLOW TURN TO 210°

0746 - STEADY ON 210°

0752 - c/c 230°

0757 - c/c 240°

0805Z - c/c 245°

0845 - Alan Morris, Patty Gancey, J.J. on Watch.

1038 - c/c 240

1100 c/c slow turn 070°

1135 steady on 070°

1207 c/c 53°

1211 STEADY ON 55°

1241 c/c 053°

SF-16

FM 03-01

4 MAY 60

1308

c/c

050°

1320

c/c

047°

1340

Traces # 25-27 a little bit noisy

1406

c/c

042°

1429

c/c

045°

1440

WINDS FROM NNE, 5-10 KTS

1519

END SF-16, START SF-17
BEGIN TURN TO 255°

1556

STEADY ON 255°

1603

c/c

265°

1700

ARNETT & McCOWAN WATCHING

1704

c/c

260°

1728

C/S UP TO AVOID SHIP 1150/2
= 9 kt TRUE @ 17:36:16

1745

C/S RESUME 6 kt

1804 -

c/c 250°

1932 - Start slow turn to 050°

1935 - END SF17 DFS OFF

1942 - COMPRESSORS OFF

2000 - Guns out of H₂O

2028 - Deploying MAXI PULSER

2033 - Steady ON 050°

2035 - c/c 040°

2047 - Dead Slow to put out Maxipulse

2135 c/c 0250 c/s 800/2

2140 - START TESTING MAXIPULSE - 20 sec rep rate

2203 c/c 0150

2218 c/c 0050

2223 c/s ~~690/2~~ 6.0 kts

2250 c/c 320°

2255 steady

2305 c/c 323°

2312 c/c 325°

2329 Change belt w 3.5 KHz Echosounder

2330 Reset Shotcounter and record counter

SPEED 3.5 KTS - REP RATE - 20ms for

2339 Z - Begin Maxipulse - 1st print - lots of
1st SF-18 ECRS -

0000

c/c 329°

5 MAY 80

0020

c/c 332°

0048

c/c 325°

0050

c/c 320°

0105-

c/c 323°

0133

c/c 324°

0149

c/c 325°

2022 c/c 350°

FM 03-01

5 MAY 80

0250 C/C 326°

0305 C/C 330°

0500 ARNETT + MCCOWAN ON WATCH

0528 - END MAXIPULSE - LINE SF-18

C/S 6 KTS

0640 BEGIN SLOW TURN TO 130°

0730 STEADY ON 130°

0734 - BEGIN MAXIPULSE AGAIN (LINE SF-19)

0743 - START SF19

0758 - MAXIPULSE DOWN - Relay chattering caused slot counter to go wild & see next page 1st note

0801 - DFS DOWN - ~~LOST EVERYTHING~~ ~~RAT~~
~~TARE DRIVE B -~~ ~~ALL START OVER~~

0812 - C/C 120°

0815Z C/S REM SLOWLY while system down

0842Z C/S UP TO 6 KTS

0845Z RESUME SF19 * SEE NOTE PG 42

0845 C/C 105°

0856 BUBBLE #2 LOOKS BAD -

0901 - ~~ALL~~ DFS DOWN

0905 - BUBBLE #2 CAME BACK ON

TM 03-01

5 MAY 80

NOTE FROM 0845Z PG 41 - ^{→ kept triggering fire command} MAXIPULSE CONTROL WAS DOWN
 HEARD RELAY K2 CHATTERING - FOUND SHORT ON PINS 6+2
 OF J5 (READY LITE + SONALERT PLUG) - TRACED TO ABRASION IN
 CABLE CAUSED BY A WINCH MOVING AGAINST IT. REPAIRED (W/BKTape)
 ABRASION. 2 OTHER CABLES ABRADED (CAN DETECT AND/OR BUBBLE
 DETECT LINES) DOWN TO SHIELD ONLY. ALL REPAIRS WILL
 NEED MORE PERMENTANT FIX. ~~BE~~ POSSIBLY NEED TO WATCH
 BUBBLE DETECTORS.

0900 GANDY & J KIM ON WATCH

0933 - Drive B failed on 1st record - DFS
 Hung up - won't write on Drive A
 changed Blown fuse
 missed 10000(0) on shot counter

1040 - DRIVE B Running slow
 TAPE # 031442 - DATA WRITTEN AT SLOW
 speed - may NOT be good

1050 - using only Drive A - while working
 on Drive B - TAPES NOT being rewound
 Missing shots between tapes

1133 c/c 110°

1204 c/c 115°

1201 - NOW WRITING ON DRIVE B successfully!

1300 H. KIM & J. SHAUB ON WATCH

1317 END SF-19
 BEGIN TURN TO 029°

1338 STEADY ON 029°

1351 c/c 020°

FM 03-01

5 MAY 80

1405Z	C/C 014
1419Z	C/C 009
1434Z	C/C 005-
1451Z	C/C 014
1458Z	C/C 016

1510 TRIED TO START SF-20;
 DRIVE A, UPPER REEL LOCKS;
 DRIVE B, LOWER REEL LOCKS;
 KEN IS WORKING ON THEM

BEGIN SF-20 @ 15

1520 TAPE DRIVE B BLOWS AGAIN
 1522 C/C 007°

1539 BOTH DRIVES APPARENTLY WORKING
 NOW.

1547 C/C 013°

1700 - ARNETT & McGowan on watch END SF20

1702 - BEGIN SLOW TURN TO ~~2270~~ 2270

1732 - STEADY ON 2270

1732 - BACK OFF TO 240°

1738 - BACK OFF TO 250°

1744 - BEGIN SF21

1750 - CC 260°

1812 - SOND #2 OVER & AWAY
 SOND #2 - DUD

1819 - SOND #3 OVER & AWAY

FM03-01

5 MAY 80

45

1822Z NO PAGES 44 & 44 DUPLICATE
IN THIS LOG - NO DATA MISSING

1823Z C/C 270°

1854Z C/C 260°

1940Z C/C 309°

1949Z END SF21 BEGIN SF22

1955Z C/C 320°

2003Z C/C 325°

2010 SONO #4 AWAY

2016 C/C 320°

2027 CURRENT FIRING MAXIPULSE
SHOTS TO VENT INTO ATMOSPHERE

2044 SONO #5 AWAY -
SBURY AGAIN STOPPED AFTER 16-20 MINUTES

2055Z GANEY & J. KIM ON WATCH

2123 DRIVE B STARTED BACKING UP IN
MIDDLE OF DATA - DATA 19HT

Suspect SBURY getting caught in streamer? ↖

2254 Secure DFS - END SF-22 - STOP SHOOTING

2255 - C/C 090° -

transit to next line SF-23

Fmo 3-1

6 MAY 80

0020 Z C/O ⁵245° C/S 6.5 Kts - slow turn

0029 increase speed 7.5 Kts

0100 Z H. KIM & J. SHAVB ON WATCH

0102 Z STEADY ON 255°

0110 Z C/C 275° BEGIN SF-23

0144 Z C/C 255°

0239 C/C 260

0251 C/C 255°

0331 C/C END SF-23, BEGIN TURN TO
PORT TO 038°

0433 C/C 028°

0504 Z C/C ~~054°~~ 038°

0500 ARNETT & M'CUWAN WATCHING

0525 - 040° COURSE CHANGE

0611 - ~~045°~~ 035° COURSE CHANGE0630 - FREED UP SAT NAV #2 PAPER JAM
PROBABLY LOST SOME SAT FIXES
SINCE 0248Z

0650 END SF24 DFS OFF

C/C BEGIN SLOW TURN STB TO ~~250°~~ 260°

0736 C/C 250°

0739 - BEGIN SF-25

FM03-01 6 MAY 80

0800 Z GANEY & J. KIM ON WATCH

0940 TAPE ON DRIVE B BACKED UP

1002 Z END SF-25, SHUT OFF DFS & MAXIPULSE

1005 C/C 300° HEADING FOR GALVESTON

~~1239 Maggie off~~

1240 Dead slow, Bring Maggi in

1250 Bring Maxipulse in

1300 H. KIM ON WATCH

1312 C/C 170° To Pick up STREAMER

1348 C/C 185° seas astern

1634 STREAMER ON DRUM

1638 C/S 10 K; MAGGIE DUT, RECORDER ON.

1700 MCCOWAN WATCHING

1723 POWERED OFF DFS

1900 - ARNETT ON WATCH

2100 GANEY ON WATCH

2300 J. KIM ON WATCH

0500 7 MAY 80 MCCOWAN WATCHING (withom?)

0700 7 MAY ARNETT ON WATCH

0900 7 MAY 80 GANEY ON WATCH

1100 7 MAY 80 J. KIM ON WATCH

1207 C/C 308°

1005 c/c 295° (Otis)

1100 J. KIM ON WATCH

1225 SECURE MAGNETOMETER —

1300 H. KIM ON WATCH

1315 PULLED IN MAGGY

1612 change pulse width (0.1 ~~ms~~ to 0.3 ms) for BATHYMETRY

1700 MCDOWAN WATCHING

1725 TURNED BATHYMETRY OFF
Full ahead for Galveston

2345 at No. 1 Channel buoy
entrance to Galveston Channel

0045 Z - 9 MAY 80 - Arrive Docksider
Galveston — END FM03-1