

LASE EXPERIMENT FM08-02 0028

DATE TIME

JUNE 3 1981

1630Z MOORE PUT TO SEA FROM WOODS HOLE

JUNE 0000Z JUNE 4 1981 BEGIN BATHYMETRY

+ NAVIGATION IN TRANSIT TO POINT A

NORTON, ONSTOTT + STARK WATCHING

0400Z Phillips / Meyer / NICOL ON WATCH
BATHYMETRY / NAVIGATION

LOCATION - CONTINENTAL SLOPS - South Cape Cod
ON TRANSIT TO POINT A CAL RUN
OPS - NORMAL

0800Z FERGUSON / Mital / Buhl on watch

1008Z c/s for engine oil check 7.8 kts c/s

1013Z c/s resume normal speed ~ 9.6 kts c/s

1159Z Greg Onstott on watch

1415 Charged foray from WX to WAX
Y - Carolinas } Call from Oceanus
X - Nantucket }

1430 Confirmation: Using X 25-799 Nantucket
Y 42 N. Carolin
Calls from Oceanus + Dawson confirm that
we're all using the same

1430 On site at Point A
Oceanus Deploying Deep Phone

1530 Dawson 6 miles away. For now, bridges
will use channel 6 for communications, labs
will use 82

DATE Time

JUNE 1600

Phillips / Nicol / Meyer ON Watch

ADG/SPH
146/10.0

Ship Move to ON STATION AT POINT A 140/0

PREPARING AIRGUN ARRAY FOR CALIBRATION

GUNS. DAWSON 1/2 mile NE OF MOORE 140/0
OCEANUS 1/2 " SW " "

WIND SSW 20 KTS

1640

TURNING SHIP STB INTO WIND TO
LAUNCH AIR GUNS ARRAY

1646

BEGIN DEPLOYING AIR GUNS
CONTINUE TURNING SLOW TO STB

S/C DEAD SLOW CONTINUE

235/3.5

1655

DEPLOYING GUNS

1658

1st GUN IN WATER 1000 m^3

1710

2nd " " 466 "

Bridge Voice Comm VHF channel 6

Science Voice Comm VHF channel 82

Time Tone " " " 77 \rightarrow CH A
149.175

1722

4RD GUN (2000) IN WATER

1735

3TH GUN (466) IN WATER

1743

1st shot! with 114 GUNS
60 sec cycle time

1800

Time tones being transmitted and received
BY DAWSON/OCEANUS USING
LDGO "BLACK ~~BOX~~ BOX"

1810

BEGIN C/C to OSS

C/C OSS

1832

BEGIN deploying DEEP TOWED HYDROPHONE
FROM STB GUN DAVIT

056/4.0

1915

C/S to 5 Kt to test towing configuration
of 4 GUNS Range 2.9 mi 290° Relative to OCEANUS
056/5.0

FM 08-02

JUNE 4, 1981

0030

ATE TIME

HDG/SPD

JUN 1920

BLATT PHONE PROBLEM SOLVED!

056/5.0

AMPLIFIER CIRCUIT CHANGED TO PICK-UP WEAKER
SIGNALS

1930

C/S

AIRGUN ARRAY and Deep Towed

056/4.0

Hydrophone appear to tow well

2000

FERGUSON/Buhl/Mital on watch

2120

Commencing 180° turn into the seas
new heading ~250°

2300

245/3.5

5 JUN

0000

JUNE 5, 1981

ONSTOFF-STARK on watch

0400

Phillips/Meyer/Nicol ON WATCH

BEGIN 2nd Pass on Oceanus Firing

319/4.7

2000 in² gun only

OCEANUS

RANGE

REL BOMBS

314/4.7

0435

3800 yd,

000

0440

3200

000

312/4.5

0445

2200

000

0450

1600

005

301/4.3

0452

1500

005

0453

1200

005

305

0454

1000

005

305

0454.5

800

005

307

0457

CPA

500

090

BEGIN TURN

0500

800

100

TO PORT

0507

1500

175

255/4.1

FM08-02

0031

DATE TIME(Z)

Hdg/SPD

DATE	TIME(Z)	RANGE /	BEARING-(CONSTANT)	TO OCEANUS	Hdg/SPD
5/10	0510 Z	1800 yd	175		255/04.6
4 JUN	0512	2200	175		
	0513	2400	175		
	0516	3000	178		
	0518	3500	178		
	0523	4000	090		
	0530	4300	135		
	0533				
	0538	4000	000		082/5.3
	0540	3500	005		
	0544	3000	005		
	0547	2500	005		
	0550	2000	005		
	0553	1500	008		
	0557	1000	008		
	0559	800	350		
	0600	600	340		
	0602	380	270		
	0610	1700	180		
	0616	2500	180		
	0620				

TO MAKE PASS
ON OCEANUS STB SIDE
ON COURSE TURNED
OCEANUS

BEGIN
TURNING
STB

CRA OCEANUS 0124/4.2
C/K 235/4.1

END SHOOTING
SECURE AIR GUN & COMPRESSOR
LEAVING ALL 4 GUNS AND DEEP
HYDROPHONES IN WATER WITH NITRO
WILL RECOMMENCE OPS @ 0700 AM

0800 FERGUSON / Buhl / MITAL ON WATCH

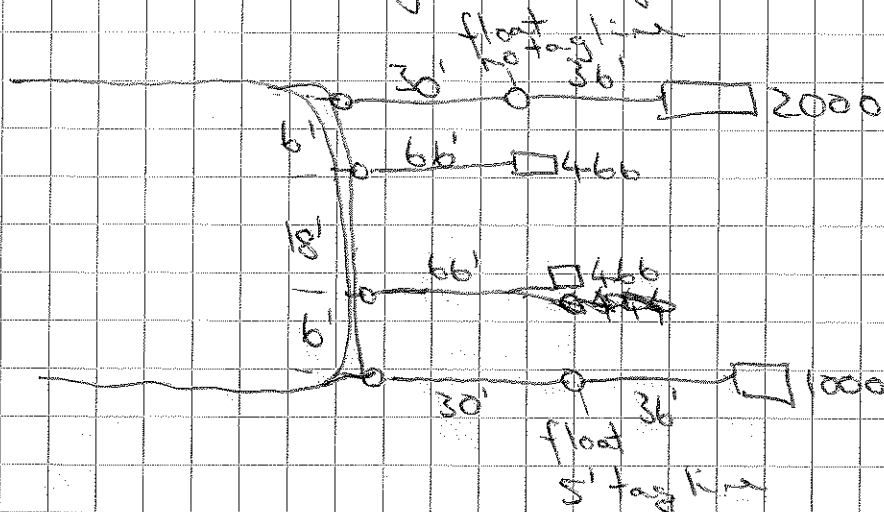
0933 Commence 180° turn to approx 250°. Hdg back to pt A

1026 changing the oil in engines.

1200 Onstott / Stark on watch

JUN 8/1323Z All guns onboard - no flooding

Present towing arrangement



1523Z Oceanus is ready to receive.

1540Z Dawson going to throw 2 floats over for us.

1600Z Phillips / Meyer / Nicol ON WATCH

~1700Z Dawson 2 Floats deployed

1705 ATTEMPTING TO RECOVER 2 FLOATS

1710 2 Floats have become untied

1715 Recovered 1 Float other is
ADRIET! WILL ATTEMPT

ONE PASS TO RECOVER ~~2~~ LOOSE FLOAT!

1720 ABANDON FLOAT RECOVERY

1730 BEGIN MAKING WAY FOR RUN
ON OCEANUS. PLAN TO PASS

ON OCEANUS STB SIDE PASSING FROM
STEER TO BOW FIRING ALL 4 GUNS
WHEN ABOARD SWITCH TO 2000/1000 YDS ONLY

Fm 08-02

0033

HDC/SPD

DATE	Time					
JUN	1815	BEGIN DEPLOYING	4 GUN ARRAY			332/3.5
	1820	#1 PORT GUN	IN WATER	1000 in ³		
	1834	#2 " "	" "	466		
	1835	RANGE TO OCEANUS	4.25 nmi			
	1840	#4 STB GUN	" "	2000 in ³		
	1845	#3 " "	" "	466		
	1847					C/S 48
	1855	C/C to PASS ON STB SIDE OF OCEANUS 200' ABEAM \approx 180° C/C				332/48
	1900	BEGIN FIRING GUNS				230/4.8
	1903	#4 GUN NOT FIRING!				
	1905	IS FIRING OUT OF SYNC				200/4.8
	1915	OCEANUS RANGE 4.5 mi @ 000 REL BEARING				140/5.8
	1920	C/S				140/4.8
	1925	OCEANUS RANGE 4.0	000			140/4.8
	1930	" " 3.5	000			140/4.8
	1935	" " 2.8	000			
	1942	" " 2.5	000			
	1945	ABORT RUN ON OCEANUS COMPRESSOR PIPE SPLIT!				
	1947	C/C 180° TO PORT				14.8
	2000	FERGUSON / MITHAL / BURL ON WATCH				
	2015	ALL AIRGUNS OFF				
		WORKING ON COMPRESSOR				
	2110	AIR GUNS ABOARD				
	2154	Making slow 180° turn to port				

FM 08-02

0035

ADG/SPP

DATE TIME

JUN 6 0000Z COMPRESSOR REPAIR COMPLETED
 0010Z START DEPLOYING GUNS
 0036 All Guns ~~in~~ deployed
 0052 ALL GUNS FIRING
 ALL BLAST PHONES REGISTERING
 0118 all guns in sync
 0125 Range 2.8 Bearing (rel) 325 230

~~WVW~~ ~~WVW~~
 MOD

0144 Rel fire times File 100
 0146 73 78 75 85 102
 72 78 74 82

0147 Range 3900 yds 355 rel bearing
 71 73 73 81

0150 Range 3500 yds 355

0151 Oceanus informed - we're on line

Full array

Rel. fire time

Time	Shd no	Rel. fire time	Range	Rel. Bear	Our Hdg
	no tape		yd's		
0152	none	70 71 69 73		1	
0153			3000	355	
54		70 69 71 74			
55		66 69 68 71			
0157		66 67 66 70	2500	355	
56		66 67 66 70			
0158		66 66 65 ... 69			
59		65 66 65 68	2000	358	
0200		63 64 63 67			
01		62 64 63 65			
02		missed	1500	359	
03		61 63 62 62			
04		61 62 61 65			
05	on tape File no. 1	61 61 61 65	1000	000	
06	Dud 2	60 60 60 63			
07	3	58 58 59 63			
08	4	60 59 58 62	500	000	
09	5	57 58 58 62	220	Almost abeam	
10	6	59 57 57 60	2150	Abeam	
11	7	58 57 56 60	160	Falling Aft	
2 460s out 12	8	54	59		2 460s out
13	9	53	57	500	210
14	10	52	57		
15	11	52	?	1000	1000
16	12	-	-	1000	200
17	13	50	56		
18	14	-	-		
19	15	52	57	1500	195
20	16	47	56		
21	17	50	55		
22	18	47	54	2000	190
23	19	77	82		
24	20	87	92	2500	188
25	21	86	92		
26	22	81	89		
27	23	81	89	3000	188

Aur #2
is dead
hydroon tape
File no. 1
Dud 2

Falling Aft 2 460s out

Time	File	Rel fine	Range	Rel bear
0228	24	-	-	
29	25	83	84	
30	26	79	85	
31	27	81	82	4000 196
32	28	79	81	
33	29	80	82	
34	30	79	81	
35	31	79	81	

0234

0235 EOL Turning to port to take another run.

0242 no gain on hydrophone x10 → x1
72 73 72 76 file 38

0243 no x10 gain
74 71 73 - 3500 yd 007°

0244 no x10
73 71 71 75 3500 005 Revs. rel.

0245 - no x10
69 70 71 74 no recording

0246 69 70 70 73 no x10 file #41

0247 68 69 69 76 → 20dB gain (x10)
3000 yd 005° FILE

0248 70 68 68 72 #43

	FILE		RANGE	BEARING
0249	44	67 67 67 70	2500	004°

0250 45 65 67 67 70

0251 46 65 66 65 -

0252 47 64 65 65 69 2000 yd 003°

0253 48 64 64 - -

GUN CALIBRATION

6 JUNE 181

0038

REL. BEARING
HDNG

TIME	FILE	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	RANGE YARDS	REL. BEARING HDNG
0254	49	63	64	64	68		
0255	50	66	63	63	65		
0256	51	62	62	63	66	1500	004°
0257	52	62	62	61	65		'excellent right on'
0258	53	59	61	61	65	1000 yd	000°
0259	54	60	60	60	64		
0300	55	60	59	59	63		
0301	56	59	59	59	-	500	018°
0302	57	58	58	58	61	400	030°
0303	58	57	57	57	61	300	035°
						200	046°
0304	59	53	57	56	59	200	083° abeam
0305	60	52	55	55	59	200 yd	126° last shot
						300	140° on 4 guns
0306	61	-	-	-	-	400	146° 2000 m3 gun only
0307	62					500	155°
0308	63						
0309	64					1000	167°
0310	65						
0311	66						
0312	67					1500	171°

GUN CALIBRATION

6 JUNE 81

0039

<u>TIME</u>	<u>FILE</u>	1	2	3	4	<u>RANGE</u>	<u>BEARING</u>
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0313	68	BLG GUN ONLY					
------	----	--------------	--	--	--	--	--

0314	69	}					
------	----	---	--	--	--	--	--

0315	70					2000	173°
------	----	--	--	--	--	------	------

0316	71						
------	----	--	--	--	--	--	--

0317	72						
------	----	--	--	--	--	--	--

						2500	173°
--	--	--	--	--	--	------	------

0318	73						
------	----	--	--	--	--	--	--

0319	74						
------	----	--	--	--	--	--	--

end of tape

0320	75	— last shot —					
------	----	---------------	--	--	--	--	--

						3000	175°
--	--	--	--	--	--	------	------

0323

dead ~~slow~~ slow on 1
shut down compressor and pull guns

0409

all guns on board

0450

BEGIN STREAMER DEPLOYMENT

1600

CAL DE #6

1750

END STREAMER DEPLOYMENT, HEADING
BACK TO POINT A

STREAMER LOG ATTACHED

June 7, 1981

0000Z C/C 218 to point 6 mi NW of K to K'

0058 c/c to port to stay clear of Oceanus

0136 Back on 220 to K'

0240 All guns deployed. Up to towing speed.
NOTE: For LOSE we will use only the 2000 & 1800 lb guns

NOTE Gun #1 on Aux channel #1
 4 #4
 Deep phone on channel #2
 Sonobuoy " " #3

0330 C/C Commenced 5°/min turn to port to new course 130°
Oceanus & Dawson informed.

0425 ON LINE, FIRST SHOT LSO

0400 Phillips / Meyer / Nicol ON WATCH

0455 TAIL BODY ON LINE BEHIND SHIP
125° REL. BEARING (RADAR) @
0455Z 130/5.0

0630 ENGINE TACHS NOW OPERATING PROPERLY!!

0700

RANGE
 6690 m
 11018 m

DAWSON-M 0000
 DAWSON-OCEANUS

37° 57.725'N } DAWSON POSIT
 70° 45.925'W } 0700Z

7 June 81

RANGE

DAWSON - MINIRANGE

0715

6658

MOORE - DAWSON

0730

6715

MOORE - DAWSON

0745

6693

MOORE DAWSON

0800

6700

h

1"

0800 FERGUSON / MITRAL / BUEL ON WATCH

08

1020 A few shots missed between tapes
082033 + 082034. Number of shots
missed not known.

1052 Because of complications the first shot on
tape 082035 is only approx at 764 and
the last on 082034 is approx at 763

1100 Bathymetry belt changed

1201 Fast shot with 1000 gun - pulling
to check towing ~~gun~~ rig
Note: no blast phone now.
NOW CMSBC LATE

1207 Slowed to pull gun

1215 Back up to 5 knots

1216 Both guns firing again. Blast phone back on

Reminders from Oceanus: We need to
measure distances from guns to stations,
& navigation antennas

1247 Went to earlier version of Logger
program - it does not log internal time
breaks

FM 08 02

0042

Jun 7, 81

LINE 4501

HYDROPHONE TOWING 23 MSEC FROM
GUNS

1356 $\frac{1}{2}$ Dawson back with 2 guns. File #32

1409 Dawson on collision course with tanker

1414 Supertanker "Andros Mariner" causing
trouble to Dawson - is giving way

1426 Slowing by $\frac{1}{2}$ knot. - Oceanus is
registering 6 knots through the water.

1440 5.64 km range to Dawson

1600 Rel bearing to tailbuoy 180° in
spite of our 40° set.

Phillips / MEYER / NICOL ON WATCH

ON STEER COMPUTED LINE

~~1400~~ - ~~1300~~

NOMINAL HEADING 180°

TO MAKE GOOD 130 TRNG

1618 Dawson Lost Bouy on Big Gun so

they will have to stop shooting to fix

1641 Dawson has her ^{2000 in³} guns back up again

MOORE - DAWSON

RANGES

TIME + 33sec

DAWSON

~~RANGE~~ LAT LONG

6696	0800
6753	0830
6696	0845
6704	0900
6691	0945 = 0930
6725	1000
6701	1015
6701	1100
6698	1115
6664	1130
6717	1145
6730	1200
8878	1300
6114	1315
6195	1330
6332	1345
6218	1400
5761	1500
6659	1600
6690	1700

1730 ECHO - SOUNDING TERMINATED IN
 ORDER TO OBSERVE DAWSON SONOBUOYS
 ONLY ONE EPC RECORDER AVAILABLE!

Z

M

1800	6617
1831	6590
1900	6743

1915 DAWSON AIRGUNS DOWN - INTERMITTENTLY
 MISFIRING

1929	6695
1931	6667
2000	6635

FM 0802

0044

#D6/SPD

7 JUNE

0000 ~~BUTL~~ MITHAL / FERGUSON ON WATCH

2010 DAWSON STILL HAVING AIR-GUN PROBLEMS 180/2.2

2017 Dawson back to full gun power

2030 Dawson bringing in 2000 ~~ga~~³ gun

2040 REMEMBER NO RECORD 000 ON DFS

2100 Heading 168° 170/2.3

2130 Heading 169°

2200 Heading 179°

2230 Heading 174°

DAWSON FIRING AGAIN
 with old-type solenoid
 New SK unit damaged by tail piece
 as it fell away!!

2244 LAST SHOT W/ 4000 GUN
 COMPRESSION CHECK
 NO ~~BA~~ FIRST GUN $\Delta T = 890 \text{ msec}$

2302 FIRST SHOT W/ 3000 GUNS

2300 Heading 177°

CALIBRATING RAYDIST

2315 Z 6689 METERS TO DAWSON
 2318 Z 6450 " " "

2320 Z 4500 M TO OCEANUS Z

7 June

SHIPS APPROX ON LINE

158: 2318 Dawson 6450 m RAYDIST 4996.20 LANES

~ 158: 2320 OCEANUS ~ 4500 m RAYDIST ~ 5007.5 LANES

2330 HEADING - 174°

Sonobuoy #1 CH 14 172.000 MHz @ 2344z
TO DFS ON AUX CHAN #3

0000 HEADING 173° June 8, 1981

0001 Onstott - Stark on watch

~ 0020 Sova rec'd on long wire ANT

0053 Dawson stopping 2000 gun to
work on solenoid.

0200 Speeding up by ~ 1 knt

8 JUNE 81

0400 Phillips / MEYER / Nick ON WATCH 130/3.8

NOISE ON STREAMER MUCH REDUCED

NOW THAT WE BACK TO "NEAR" TOWING SPEED

DAWSON
MINIRANGER RANGES

MOORS

OCEANUS

0315

6773

10845

0330

6755

10779

0345

6651

10853

0400

6647

11018

0417 N.B. SATELLITE CLOCK NOW 9 second
BEHIND LAB CLOCK!! OVER 7

FM 0802

0046

3 JUNE

HDG/SD

130/5.3

CHECKED WITH DAWSON'S CLOCK AND
LAB CLOCK AGREES WITH THEIR
SAT CLOCK AS WELL AS WITH
LDGO SAT CLOCK ON MOORE

DAWSON MINI RANGER	Time	RANGE (METRES)	
		MOORE	OCEANO
	0415	6628	11107
	0430	6623	11225
	0445	6712	11288
	0500	6700	11247
	0515	6650	11240
	0530	6790	11200
	0545	6691	10966
	0600	6631	10918
	0615	6677	10964
	0630	6667	10905
	0645	6680	10750
	0700	6715	10787
	0715	6685	10745
	0830	6678	10814
	0745	6666	10950
	0800	6704	11089

0800 FERGUSON / MITHAL / BULL ON WATCH

Dawson Miniranger	Time	RANGE (METRES)	
		MOORE	OCEANO
	0836	338 ⁹ 6689	
	0815	6710	11190
	0830	6709	11180
	0845	6689	11117
	0900	6693	10885
	0915	6691	10671
	0930	6708	10758
	0945	6721	10909
	1001	6604	11108
	1015	6741	11407
	1030	6768	11367
	1045	6574	11090
	1100	6743	11094

LINE L501

LASE EXPERIMENT

0047

8 JUNE 81

159 11 32 33 LAST SHOT LINE L501

1130Z MINI RANGER = 6628

1500 Canadian invasion repulsed with
~~1545~~ a can of Scotchcote

1545 Lost gyro ^{REPEATERS} Pulling in 1000 cm
+ hydrophone.

600Z Phillips / MEYER ON WATCH - NICOL WORKING
ON LSI-11 ACQ COMPUTER SOFTWARE

~~1630~~

1630 STEAMING NNE OIS BEGIN
SLOW TURN TO LEFT TO
GET ON LINE AT E'
MAGNETIC COMPASS IS NOT
RELIABLE. LOGS SHOW CONSTANT
HDG OF 010 \rightarrow 0350 REGARDLESS
OF GYRO HDG SINCE LEAVING WOODSHOLE
(ie GYRO 180 vs MAG 350!)

CAPTAIN UNDERSTANDABLY DOES
NOT WANT TO LEAVE STEAMER
OUT W/O GYRO (ie. NO SHUTDOWN OF
GYRO FOR REPAIR WITH STEAMER OUT! AT NIGHT)

LASE EXPERIMENT 8 JUN 81

0048

- 1700 GYRO OFF FOR REPAIR OF STEPPING
MOTOR CIRCUITS
- 1730 Gyro BACK ON "SPINNING UP"
- 1800 LAB REPEATER GOOD, BRIDGE REPEATERS STILL OUT
035/5.0
- Phillips steering ship and cable by
RELAYING VOICE COMMANDS TO BRIDGE
FROM MASTER GYRO READOUT TO BRIDGE
- 1915 GYRO OFF
2000 BULL / FERGUSON / MITCHELL ON WATCH
- 2015 GYRO DN "SPINNING UP"
- 2115 ON LINE 8 mi ABOVE E' - STEERING
BEING DONE USING NORTHSTAR LORAN
- GYRO REPEATERS STILL DOWN

9 JUNE 1981

36/60
03/14

- 0035 Up to speed after
deploying guns
- 0108 Back on line and shooting, recording
- 0108½ First shot on L502
- 0200 we are apparently about .75 mile SE of
line according to LORAN-C and visual - steer
computed line says we're right on
CONFUSION REIGNS
- 0300 ~~gyro~~ gyro back - heading back to line
- 0312 lined up visually between other 2 ships

LASE EXPERIMENT 9 JUNE '81 0049

0330 everything is back to normal!

DAWSON MINIRANGER

0330

0345

0400

MOORE

OCEANUS

6636

10440

6595

10525

6706

10936

0400 Phillips / Meyer / Nicol / Davin on watch

0415

6600

10846

0430

6605

10770

0445

6641

10811

0500

6665

10862

0515

6700

10820

0530

6656

10797

0545

6675

10890

0600

6648

10915

0615

6660

10915

0630

6696

10944

0645

6700

10962

0700

6690

10907

0800 MITHAL / FERGUSON / BUHL on watch.

0715

6693

10826

0730

6653

10805

0745

6699

10918

0800

6700

10880

0815

6710

10988

0830

6699

11167

0845

6662

11243

0900

6708

11272

0915

6699

11203

0930

6697

11161

0945

6678

11099

1000

6719

11078

DAWSON	MINIRANGER	TIME	MOORE	OCEANUS
		1015	6688	11012
		1030	6684	11189
		1045	6718	11327
		1100	6669	11228

1154 Dawson pulling in 2000 in³ gun because of air gun leak. Replacing gun w/ spare

DAWSON	MINIRANGER	1115	6694	11239
		1130	6681	11233
		1145	6720	11322
		1200	6692	11307

1200 Onset / Start on watch

DAWSON	MINIRANGER	TIME	MOORE	OCEANUS
		1215	6702	
		1230		
		1245		
		1300	6728	11001

1400 Noticed that trace #28 is dead - don't know for how long it has been so

1315	6703	10896
30	6655	10919
45	6746	11013
1400	6709	11020

1420 Trace 28 back but 29 & 32 now dead!

1424 All traces on again. Bad switches in the input module.

1415	6680	11045
30	6683	11064
45	6714	11084
1500	6703	11046

9 Jun 81 (160)

0051

1514 Dawson's 2000 in water, not yet firing

1515	6676	10936
30	6729	10929
45	6697	10975
1600	6714	10911
1615	6708	10794
1630	6694	10721
1645	6671	10848
1700	6708	11225

1700 DAWSON pulled 2000 out of water due to failure.

1718 Put SD & Sat Clock in Sync Mode

1730 TOOK SD out of Sync Mode

1715	6690	11067
1730	6691	11035
1745	6662	11006
1800	6675	11019

≈ 1830 DAWSON 2000 in? BACK ONLINE

1815	6671	10842
1830	6637	10846
1845	6722	10961
1900	6650	10834

2020 Two shots lost on PFS, #3 289 & 290, between reels 082119 & 082120

1915	6751	10855
1930	6673	10772
1945	6704	10822
2000	6635	10953

June 9, 1981

0052

2053 LAST SHOT ON LINE L502

22322 FIRST SHOT LINE L503

(Time) GMT	MOORE	OCEANUS
2015	6747	11170
2030	5366	9693
2100	6559	8777
2115	6687	9717
2130	missed	
2145	5758	12362
2200	5693	12142
2230	6819	11402
2245	6613	10906
2300	6662	10922
2315	6646	10778
2330	6762	10490

2400 (0000?) Onset / Stark on watch

JUNE 10 1981 - DAY 161 GMT
Dawson's engine back

0045
0100

6720
6711

10941
11042

missed
same ↑

0200 Dawson's gun was off for
a while

June 10, 81 Julian 161 (contd) 0053

0100	6711	11042
0115	6726	10962
0130	6713	10987
0145	6579	11057
0205	6747	11268
0215	6644	11123
0230	6578	10865
0245	6798	11044
0300	6658	10763
0315	6735	10796
0331	6775	10689
0345	6760	10871
0400	6720	11073

2400 Phillips / Meyer / Nicol on Watch

① DATA QUALITY IS DREADFUL!!

STREAMER IS ON SURFACE NEARLY
ITS FULL LENGTH! ONLY TRACES &
USABLE CHIEF SCIENTIST ADVISED
OCEANUS REPORTS SIMILAR SITUATION
APPARENTLY BIRDS UNABLE TO
DEPRESS STREAMER (WINGS BROKEN??)

② SHIP IS NOT STEERING ON COMPUTER
LORAN - C LINE AS WE CAME ON
WATCH. BRIDGE ADVISES THAT ATTEMPT
TO DO SO WOULD ^{FURTHER} MISALIGN THE
3-SHIP LINE THEY ARE MAINTAINING RADAR LINE
UNTIL NEW ALIGNMENT IS ACHIEVED?

FM0802

0054

10 JUN 81

0400Z C.S. SAYS Plan is to RUN ALL NIGHT

WITH CABLE ON SURFACE UNTIL WEATHER IMPROVES.

DAWSON MINIRANGER MOORE OCEANUS

0415	6717	11196
0430	6577	11126
0445	6592	11140
0500	6663	11220
0515	6627	11022
0530	6753	11028
0545	6676	10960
0600	6641	10858

0631 Dawson no longer has any guns firing.
Compressor LINE BROKEN!!

0649 Moore shutting down STR Compressor for REPAIRS
1000 in³ gun off
2000 in³ gun firing 0.8 sec. early

0702 Dawson 1000 in³ BACK ON

0615	6672	10765
0630	6650	10874
0645	6667	10986
0700	6595	10916

0703 No Trip signal to RAYMOND & EPC
SALA EAR ADVISED

0752 Moore 1000 in³ gun BACK ON

0715	6617	10887
0730	6693	10880
0745	6696	10950
0800	6640	10824

F M. 08-02

JUNE 10, 81

0055

CABLE on surface since 0200 hrs;
 (CAUSED BY bad weather) continuing to be
 on surface through 0900 hrs uptil ---?.

0815	6701	10907
0830	6707	11092
0845	6629	10984
0900	6600	10886

0928 DAWSON suspending firing.

0955 Oceanus has lost all engine power. We are C/S
 continuing at dead slow.

1027 OCEANUS coming back to Normal.

1028 DAWSON getting back 1000 cu.in. guns.

LAST SHOT at 1104, June 10, 81.

END LINE LS-03

Time	MOORE	OCEANUS.
0915	6713	10813
~		
1030	6717	13172
1045	6113	11828
1100	6116	11452

FM 08-02

June 10, 81.

0056

TIME

ADG/SPD

STREAMER PARTY START 1200Z
END 1500Z

1600 11 OF 16 BIRDS WITH ONE ^{had} broken bladder & broken wing
Phillips / Meyer ON WATCH
WING BROKEN, RAMIKAZES O/K

1620 ON LINE C'-D' WITH DAWSON @ 71°13.6'N 307/10.0

1644 Oceanus has started underway at 16:15
at 12 knts.

1845 ON LINE C'-D' WITH DAWSON

1945 100 m stretch ADDED BETWEEN
TAIL BUOY AND LAST DEAD SECTION #8

0100 STREAMER PARTY ABOUT 5 miles
South West of Point L
0115 TAIL Buoy launched

~ 0300 Ship traffic - temp. stopped
deploying streamer

0400 Phillips / Meyer / Nicol ON WATCH
0500 STREAMER DEPLOYED GETTING UNDERWAY
TO POINT L 200/5.0

0700 SLOW TO DEPLOY AIRGUNS 204/2.5
C/S TO 2.5

0730 Hydrophone DEPLOYED

0745 Small guns have been deployed
0755 Large gun DEPLOYED

Fm 08-02

0057

11 JUNE 81

0800 BOTH GUNS DEPLOYED UNDERWAY
AT TOWING SPEED

0850 START LINE LS-Φ4.

Mini Ranger

0830	7016	11766
0845	6743	12495
0900	6663	12771

10:00 LAST SHOT W/ 4000 CU IN RUN

OCEANUS crossed point L at 0958 hrs.

10 07 4000 CU IN BACK ON

0915	6678	13084
0930	6708	13102
0945	6727	13109
1000	6751	12627
1015	6704	11982
1030	6718	11428
1045	6708	10982
1100	6716	11050
1115	6685	11101
1130	6697	11069
1145	6698	10944
1200	6692	10838

FM 08 02

0058

1150N81

1215	6623	10760
1230	6681	10876
1245	6709	11007
1300	6721	11114
1315	6726	11192
1330	6728	11145
1345	6742	10844
1400	6686	10648
1415	6641	10755
1430	6626	10937
1445	6651	11061
1500	6662	11055

1600

Phillips / Meyer / Nicol

ON WATCH

1515	6730	10984
1530	6750	10949
1545	6693	11110
1600	6714	11233

1628

DAWSON

2000 in³ gun off

1615	6659	11054
1630	—	—
1645	6711	10938
1700	6709	11057
1715	6681	11149
1730	6688	11153
1745	6681	11049
1800	6701	11088
1815	6748	11018
1830	6705	11088
1845	6696	11116
1900	6675	11187

Fm0802

0059

APG/SPD

Time 11 JUN 81

1945 2000 in³ gun firing time slightly erratic ± 3 ms. 308/4.2
 Keeping close watch on it with scope

1915	6679	11161
1930	6686	10956
1945	6729	10838
2000	6698	10917
2015	6667	11130
2030	6626	11196
2045	6745	11161
2100	6717	10924

2120 Dawson has complete power failure. Moore
 is reducing speed and rendering assistance
 to Dawson if necessary

2130 Veering right of line to go around Dawson

2330 Oceanus requests slight reduction in speed S/C

37. 36.69 N
 72 02.07 W
 "?

LAT

LONG

LOCATION OF

DAWSON AT

00:40

12 June (163)

0230 Dawson underway to catch us

0400 Dawson posn
 37 44.7
 72 20.6

0400 Phillips / Nicol / Meyer on watch

0530 LSI Logger printout is down. John Salazar has been informed.

0545 S¹⁷⁰⁰ Working again, WD40 triumphs again!
 but really folks the transmit cable was bad0600 DAWSON PASSING US ON PORT BEAM
 WILL STOP 6 nmi ahead along
 Line L m and put air gun in water.0648 DAWSON 11 Km AWAY SLOWING
 TO DEAD SLOW TO DEPLOY AIRGUNS0758 1st DAWSON Shot RECEIVED
 2000 & 1000 firing

0800 FERGUSON / MITHAL / BUEHL ON WATCH

0825 Oceanus reports that lights on tail
 buoy are dim

0815	9798	14214
0830	9734	13633
0845	8378	13043
0900	7731	12275

0061
FM-08

12 JUNE (163)

TIME	MOORE	OCEANUS
0915	7070	11491
0930	6671	10970
0945	6736	11016
1000	6713	10925
1015	6709	10884
1030	6600	10926
1045	6746	11122
1100	6695	11051

1200 ~~Onstott~~ - ~~stark~~

1115	6654	10991
1130	6737	10961
1145	6716	10865
1200	6724	10855

1215 Another seismic boat in neighborhood

1235 Dawson changing course to avoid freighter

1215	6661	10896
1230	6636	11046
1245	6419	10825
1300	6389	10904

Offline - trying to get back on

DAWSON Throwing a Sonobay - it will be on channel 3
IN WATER 1329Z 1103.75

N - Lopez Uu - Delmar

12 June (163)

Sonobuoy #3 CH 9 168.25 MHz

LAUNCHER 1446Z

1315	6358	10974
30	no reading	
46	6681	11173
1400	6762	11196
15	6886	11233
30	6666	11013
45	6743	11104
1500	6730	11158

1523 REMOVED ~~40~~ X 10 GAIN
FROM SONO BUOY AUX 3

1515	6832	11257
30	6671	11025
45	6726	11056
1600	6741	11053

1630 Oceanus reports our tailbuoy
snagging on something. Submerged
twice, then came up with a new
Norwegian float.
Noise level ^{much} INCREASED ON LAST
1612 TRACES OF STREAMER

1700 38 42 } New waypoint to
73 50 } avoid charted
obstacle

1701 Channel 12 Sonobuoy from Dawson

1615	6683	11003
1630	6637	11151
1645	6720	11490
1700	6683	11373

pm 0802

0063

12 JUNE

HDG/SPD

1708 OCEANUS ZODIAC 4T

MOORE'S STREAMER TAIL BUOY

1710 - Slowing to let Zodiac cut one of our birds free
Dead slow on one

1720 BACK up to SKTs 320/50

1715	6805	11152
1730	6688	11862
1745	6727	12353
1800	6668	12122

1824 DEEP TOWED HYDROPHONE RECOVERED
DUE TO SHALLOW WATER ON SHELF

1852 SONO Buoy ch 5 over from Dawson

1815	6759	11919
1830	6645	11378
1845	6729	11118
1900	6697	11156
1915	6690	11250
1930	6692	11058
1945	6697	11034
2000	6695	11316

2000 MITHAL/FERGUSON/BUHL on WATCH

2026 TAPE 082214 may be defective. Reel changed.

JUNE 12, 81

<u>Time</u>	<u>MOORE</u>	<u>OCEANUS</u>
2015	6734	11424
2030	6700	11347
2045	6699	11259
2100	6670	11083

Sono Buoy ch. 10 from Dawson
at 21:48 hrs.

Signals not heard on Moore

Another Sono Buoy on ch. 15
at 22:02 hrs.

2115	5430	11085
2130	6759	11099
2145	6692	11264
2200	6733	11474

2235 Slow speed for traffic

TD's	M'	26876.3	M'	38° 55'; 74° 15'
		42738.8		
	B'	26795.9	B'	39° 16'; 73° 56'
		42967.1		

2215	6656	11553
2230	6718	11530
2245	6691	11275
2300	6732	11284

June 12, 1981

WING LSØ4

FMDS-02

2330 New M' $38^{\circ}56.3'$ $74^{\circ}13.8'$

TD's 42753.3 26871.5

~~42753.3~~

2340 RECALIBRATED THE DIVIDERS

- 2343
- Dawson sending out another sonobouy
 - Channel ~~45~~
 - Deployed on starboard side
- Not Received
-

June 13, 1981 (164)

2315	6664	11343
30	6642	11494
45	6701	11496
0000	6732	11372

0018 - Channel 6 sonobouy launched from Dawson

Think we're receiving ~~#~~ the previous one ~~at~~ (2343) which seems to have come to life abeam of us

0020	6842	11093
0030	6730	11085
0045	6736	11140
0100	6732	11171

0150 Begin turn onto new line

June 13, 81 (164)

0159:30 Last shot of LS04

0200Z Start line LS05

0115	67 38	11200
0130	66 97	11325
0145	67 10	11433
0200	66 66	11381

0245 On line, switched in Lorin SCL

0255 Made sharp left turn to avoid deaf tanker

0215	4910	8777
0230	3479	6841
0245	2037	5694
0300	885	5477

0344² Ch 1~~5~~ sonobuoy #8 ON MSI RCR
0358 Started receiving above sonobuoy

0400 Phillips / Meyer / Nico ON WATCH 034/4.5

0501 Sonobuoy #9 Ch 8 ON MSI & LDGO RCRS
HF interference @ ~0615Z on Aux DFS 243 Moore Oceanus

MINIRANGER

0415	4254	8874
0430	4701	9354
0445	5100	9751
0500	5403	10048
0515	5865	10458
0530	6205	10702
0545	6540	11030
0600	6744	11193
0615	6693	11120
0630	6693	11113
0645	6643	11295
0700	6744	11311

0700 END LINE LSPS c/c @ 30/min to 117T

FM0802

0067

13 JUNE 81

ADG/SPD

0745 S/C 118 BEGIN LINE LS #6

118/4.8

0800 FERGUSON/BUTL/MITTAL ON WATCH

0715	5637	10053
0730	4495	8400
0745	4071	7840
0800	2893	7430.

SB CH 7 STB 0904 PAST D'S GUNS
 0915 NOT RECEIVING SB
 0920 START RECORDING

SB CH 14 0920 OVER THE SIDE

0925 START RECORDING

094103 LAST SHOT W/ 1000 GUN
 (COMPRESSION CHECK)

095603 FIRST SHOT W/ 1000 GUN

0815	3257	7741
0830	3130	8137
0845	3537	8311
0900	4089	8443
0915	4718	9051
0930	5381	9802
0945	6041	10266
1000	6657	10936

FM08 -02

0068

13 June 1981

Mc

1015	6719	10993
1030	6714	11127
1045	6740	11331
1100	6742	11508.
1115	6716	11466
1130	6696	11412
1145	6601	11369
1200	6687	11378

1200

START

ON STAFF

NORTON

on Watch

1215	6685	11177
1230	6713	11096
1245	6688	11211
1300	6731	11331 11331

1322 Dawson checking guns (1000)

42,170.9	37 58	} New end for this line	42170.9 TD
22 25563.8	70 45		25563.8 TD

1340 Dawson's 1000 working again

1406 $\frac{1}{2}$ Sonabuooy launched from Dawson
Ch 6. Not received (antenna down)

1315	6783	11742
1330	6844	11494
1345	6666	11388
1400	6654	11401

0069

June 13 (164)

1500 Chopper arrived

118/45

1551 $\frac{1}{2}$ CH 10 sonobuoySB# 13 ON MSI RCR
DFS CH 3

1600 Phillips | Nicol | Meyer ON WATCH

Dawson Miniranger	Time	Moore	Oceanus
	1515	6700	10984
	1530	6756	11016
	1545	6702	11024
	1600	6702	11029
	1615	6697	11220
	1630	6722	11278
	1645	6653	11329
	1700	6679	11372

MIS PUT TOWED HYDROPHONE IN WATER

1720 SONOBUEY # 14 CH 29 ON DFS AUX CH 2
ON LOGO RCR

1715	6726	11355
1730	6720	11144
1745	6676	11249
1800	6667	11326

1900 DFS AUX CHANNEL ASSIGNMENTS

CH 1	DEEP TOWED HYDROPHONE
2	LID GO SB RCR
3	MSI SB RCR
4	2000 in ³ BLAST PHONES

FM 08 02

0070

13 JUNE 81

WDG/SPD

1909 ~~SB #15~~ ~~CH 7~~ ON ~~MSE~~ RCA 118/4.5
 DUD!

1917 SB #15 CH 3

DAWSON MINIRANGE	MOORE	OCEANUS
1815	6669	11303
1830	6658	11135
1845	6711	11143
1900	6734	11176

DAWSON ADVISES US THAT THEY
 HAVE ONLY 8 SONOBUOYS LEFT!!!

1915	6713	11208
1930	6668	11300
1945	6666	11283
2000	6705	11187

SB #16, Ch. 7, 20:19 hrs.

2015	6689	10950
2030	6725	10927
2045	6687	10981
2100	6784	11184
2115	6708	10919
2130	6714	10865
2145	6782	10964
2200	6779	10965

SB #17, Ch. 15 22:57 hrs.

June 13, 1981

2215	6726	11034
2230	6668	11059
2245	6725	11160
2300	6684	11037

0000 instalt - start an watch

2315	6750	10860
30	6729	10766
45	6725	10910
0000	6572	10927

0030 speed up slightly for Oceanus to avoid a ship
June 14 (165) crossing its streamer

0055 slowing down for 1½ minutes

to ~~at~~ keep distance with Dawson

TIME	Moore	Oceanus
0100	6761	11366
0030	6720	11956
0045	6711	11837
0100	6925	11656

0115	6640	10968
0136	6732	10911
0145	6821	11011
0200	6713	11286

0240 Ch 9 Sonobuoy launched
 Receiving some dolphins on it
 #118

DM0802

0072

Time

June 14 (165)

Hdg/SPD

0215	6672	11247
0230	6733	11443
0245	6726	11380
0300	6682	10921
0315	6774	10834
0330	6713	10850
0345	6741	10896
0400	6694	10990

115/4.9

0400 Phillips / Meyer / Urcoc on Watch

0415	6693	11173
0430	6685	11217
0445	6654	11063
0500	6695	11230

0600Z

Sonobuoy #18

Ch 1

MSI & LDG-0
RCRS

DISTORTION IN LDG-0 trace??

0515	6699	11291
0530	6674	11207
0545	6670	11116
0600	6669	11119
0615	6610	11075
0630	6664	11051
0645	6627	10986
0700	6696	11159

0755

OCEANUS

REQUESTS

SPEED REDUCTION

TO	4.6 Kts	over ground
0715	6714	11224
0730	6724	11204
0745	6705	11415
0800	6694	11361

0800

FERGUSON / MITTAL / BULL on watch

FM08-02

0073

14 June 1981

0900

~~Songbuoy~~ ~~#19~~ Channel 24

DUD

0815

6667

11173

0830

6693

11224

0845

6612

11213

0900

6727

11150

0915

~~Songbuoy~~ ~~#19~~ Channel 13 (previous buoy bad)

0915

6797

11045

0930

6771

11123

0945

6660

11029

1000

6685

11091

1015

6715

11327

1030

6684

11263

1045

6683

11226

1100

6692

11346

0138

SB ~~#20~~ CH 9

1115

6683

11357

30

6693

11337

45

6681

11299

1200

6672

11201

interpolated
by Dawson

1200

NORTON

ONSTOTT

STARK on watch

CASE JUN 14, 1981
LSOG

0074

12:39

Dawson's Big Gun
out of the WATER

1215
1230
1245
1300

6726
6714
6756
6650

11205
11128
11122
11162

13:32

Dawson BACK on two Guns

1315
1330
1345
1400

6732
6764
6717
6686

11342
11147
10971
10845

14:08

DAWSON Throwing a Sonobuooy #22
Channel 29, MSI Receiver 21

1415
1430
1445
1500
1515
1530
1545
1600

6457
6741
6815
6682
6672
6731
6757
6710

10737
10996
11146
11000
10951
10876
10880
10984

BAU FIX

1600 Phillips/Nicol/Meyer ON WATCH

1820 From DAWSON 37° 58' N 70° 45' NEW POSITION
FOR END OF LINE B-A

LASE JUN 14
LS06

0075

1658 SONOBUOY #2 CH 15 IN WATER
HYDROPHONE ON DFS AUX 1
LDGO ~~RCVR~~ RCVR ON DFS AUX 2 SONO
UT RCVR ON DFS AUX 3 SONO
2000 IN³ BLAST PHONE ON DFS AUX 4

1825 OCEANUS & DAWSON ADVISED THAT
POINT IS OVER A DEEP CANYON (HUDSON?)

1855 OCEANUS (EWING) ADVISES THAT CANYON
WILL PRESENT NO PROBLEM TO CALIBRATION
RUN

1915 LAST SHOT LINE LS 06

1940 Put SD in Sync Mode

2000 DAWSON REPORTS SEEING ON RADAR
MOORE TAIL BUOY

2051 Took SD out of Sync mode

2030 Recording Dawson's shots Line LS07 (calibration)

TIME	R STEAMER	DEPTHS (FT)
2145	-	40 36 35 35 46
2150	-	40 37 35 34 45
2155	-	40 35 34 35 48
2200	-	40 36 35 35 47
2205	-	40 36 35 34 47
2210	-	36 38 35 34 47
2215	-	35 35 34 34 48

June 14, '81

LS- ϕ 7 calibration

Time	Streamer depths					
2220	-	35	35	35	34	48
2225	-	37	36	35	35	48
2230	-	40	37	33	34	47
2235	-	37	37	35	35	47
2240	-	35	35	35	35	47
2245	-	31	35	35	34	47
2250	-	30	35	34	35	47
2255	-	25	35	34	34	46
2300	-	30	35	32	35	46
2305	-	30	35	35	33	47
2310	-	27	34	35	35	47
2315	-	26	36	33	34	48
2320	-	23	34	34	34	46
2325	-	28	34	34	35	48
2330	-	18	35	35	35	48
2335	-	26	35	33	34	47
2340	-	33	36	34	35	46
2345	-	35	35	34	35	46
2350	-	30	36	33	34	46
2355	-	36	36	33	32	45

Tail buoy
1.05 miles
from Dawson.

(slow down due to
traffic)

Streamer 48 traces, 6 sections

Section #	1	2	3	4	5	6
	outboard	↓	↓	↓	↓	↓
tr. 1		tr. 10	tr. 20	tr. 35	tr. 43	Inboard

June 15, 81

LS-07 calibration

<u>Time</u>	streamer depths (feet)				
0000	37	36	35	35	47
0005	38	36	34	34	48
0010					
0015	33	35	33	34	48
0015	37	35	35	33	49
0020	37	35	35	36	50
0025	30	36	34	35	49
0030	33	32	34	34	49
0035	33	32	35	35	51
0040	32	30	34	35	50
0045	25	28	34	35	48
0050	20	33	35	35	46
0055	25	32	34	34	47
0100	25	34	34	35	47
0105	20	35	34	34	46
0110	28	32	35	35	45
0115	22	31	35	34	46
0120	20	35	35	34	45
0125	28	34	35	34	45
0130	26	32	34	34	46
0135	25	34	35	34	46
0140	27	31	33	34	47
0145	29	31	32	33	46
0150	20	28	32	34	46
0155	15	20	31	34	53
0200					
0205					
0210					
0215					
0220					
0225					
0230					
0235					
0240					

0202 MOORE Guns Going Again

Point F: $\left\{ \begin{array}{l} 39^{\circ} 58'N \quad 73^{\circ} 52'W \\ 43401.1 \quad 26853.1 \end{array} \right.$

0244 LINE L508 started

Note: Paul wants to transfer the Raydist slave & our captured birds at the end of line L508, weather permitting.

Dawson's start point $\left\{ \begin{array}{l} 38 \quad 17.23 \quad 71 \quad 16.31 \end{array} \right.$

0330 All ships now in line, dropping speed to let Dawson pull away. Present radar range to D 1.6 mi

0300	2474	4003
0315	2650	6121
0330	2758	7097
0345	3067	7403
0400	3634	8011

0400

Phillips / Meyer / Nicol ON WATCH

0415	4241	8534
0430	4735	9066
0445	5107	9510
0500	5720	9960
0515	6167	10455
0530	6490	10812
0545	6659	10947
0600	6681	10936

FM0802

0079

15 JUN 81

HDG/SPD

0615	6690	11118
0630	6720	11132
0645	6730	11073
0700	6690	10995

0715	6675	11093
0730	6716	11091
0745	6716	11133
0800	6660	11108

0800 FERGUSON/MITHAL/BUHL ON WATCH

0815	6671	11066
0830	6667	10967
0845	6716	10879
0900	6709	10784

0915	6712	10910
0930	6708	11041
0945	6689	11145
1000	6785	11152

1015	4436	11185
1030	4349	11075
1045	4257	10989
1100	4350	11049

} Del Norte
readings from
Oceanus

1015 Miniranger problems at Dawson

1200 STARK, NORTON, ONSTOTT ON WATCH

FM 08 02

0080

15 JUN 81

1415	6656	10950
1430	6701	10948
1445	6698	10985
1500	6727	11051

1315	6693	11025
1330	6760	11076
1345	6668	11114
1400	6695	11101

NOTE TIME

1212	6689	11361
1230	6780	11281
1245	6769	11046
1300	6716	10991

1455	big Gun off	} Dawson
1519	Big Gun on	

1516	6638	10923
1530	6668	10884
1545	6658	10945
1600	6705	11002

1600 Phillips / Nicol / Mayer ON WATCH

1750 DAWSON AND MOORE WILL TURN TOGETHER WHEN DAWSON TURNS AT "P"

OCEANUS WILL FOLLOW MOORE AROUND TURN TO COURSE OF 040 TO "Q"

ESP1 \approx 75 km length
OTUS2 ESP \approx 100 km

FM 08 02

0081

15 JUN 81

4426/511

1805

SPD

REDUCED to 675 RPM / 700 RPM
AT OCEANUS REQUEST

309/5.3

1615

6689

10866

1630

6655

11001

1645

6691

11137

1700

6752

11262

1715

6715

11112

1730

6697

11236

1745

6696

11401

1800

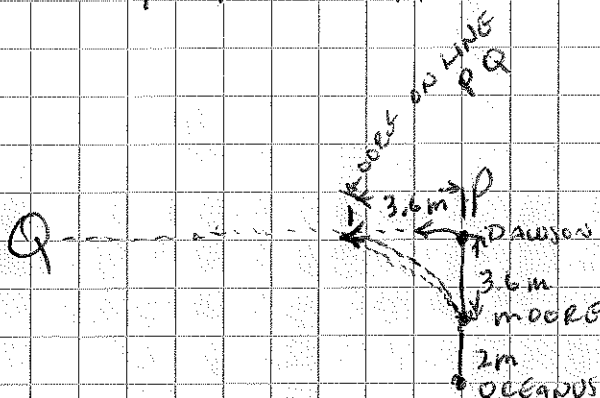
6678

111323

1830

309/4.9

TURNING PROCEDURE AT POINT "P"



NOTES
 ① DAWSON AND MOORE BEGIN
 TURN AT SAME TIME

② MOORE TO GET ON
 LINE PQ 3.6 miles
 DOWN LINE FROM P

③ OCEANUS TO FOLLOW
 MOORE. WILL BEGIN
 TURN AT SAME POINT
 THAT MOORE TURNS
 TO PORT.

1815

6721

11141

1830

6708

11044

1845

6725

10998

1900

6686

10901

1915

6680

10945 (196)

1930

6681

11011

1945

6667

10986

2000

6698

10921

Fm0802

0082

DATE

HDC/SPD

15 JUN 81

SB

CH 14

166:20:45:30

2015

6678

10779

2030

6725

10891

2045

6720

10726

2100

6715

11011

2115

6714

11396

2130

6670

11618

2145

6755

11638

2200

6729

11558

2245 HYDROPHONE ON BOARD DUE
TO SHALLOW WATER

2215

6832

11580

2230

6736

11402

2245

6683

11090

2300

6744

11128

15

6712

11042

30

6703

11013

45

6696

10982

0000

6736

10954

June 16 (167)

0015	6712	10909
30	6682	10990
45	6729	11180
0100	6704	11164
15	6480	10855
30	6671	10892
45	6758	10933
0200	6619	11128

02:18 STARTING TURN
Shot # 418

2:32 slowing down to avoid
Dawson

0215	6708	12840
0230	5161	13137
0245	4565	12793
0300	5569	11182

0315	6734	10348
0330	6281	9690
0345	6682	9470
0400	6689	9633
0415	6626	10216
0430	6703	10818
0445	6667	10819
0500	6667	10947
0515	6741	11148
0530	6670	11081
0545	6725	11026
0600	6668	10992

06:24 Dawson pulling in 2000 gun - it
has a leak - est 20 min

FMO802

0084

16 JUN 81

HMG/SPD

0625 DAWSON NOT PULLING 2000 in gun BUT
REDUCING PRESSURE TO 1500 PSI ON 2000 gun

0700	0615	6669	11057	032
	0630	6661	11092	218/5.2
	0645	6664	11052	
	0700	6694	11028	

0800 FERGUSON/MITCHELL/BUTLER ON WATCH

0715	6649	10923
0730	6710	10925
0745	6682	10711
0800	6595	10906
0815	6642	11247
0830	6624	11495
0845	6651	11715
0900	6754	11494

0915 Dead Slow for traffic Resume sp 0925 C/S
0931 OCEANUS Turns OUT OF LINE to pull
0932 LAST SHOT LS09 STREAMER ARRAY

0956 DAWSON Changing 2000 in gun
turning SW

Q N	39°	24.5 N	73°	22.25 W
Q S	38°	53.4 N	73°	55.8 W

1500 BEGIN ESP 1 LINE LS10 (2 SHIP PART)

1600 Phillips/Nicol/McNee ON WATCH
1624 21785

1630.33	23716
1631.33	24053

1752 INTERSHIP COMM SWITCH TO SSB CHANNEL 2

1915 END ESP 1 BEGIN WILLIAMSON TYPE TURN
TO RIGHT TO NEW RECIPROCAL COURSE 040T

F M 0802

0085

16 JUN 81

HDDG/SPO

1920

TURNING

ONTO RECIPROCAL COURSE OF 245/512

245/512

1955

LAST SHOT LS10

2035

3 GUNS NOW IN WATER

2-1000 IN³

1-2000 IN³

2043

FIRST SHOT LINE LS1/A

1 SHIP PART OF LSP1

NO EXPLOSIVES FROM DAWSON

2058

SHUT DOWN ONE 1000 CU IN GUN

2100

ALL THREE GUNS UP AGAIN

2150

R 26547.12

~~26~~ 42821.29

39° 01.1 N 73° 20.3 W

R_W 26426.17

~~42~~ 073.50

39° 21.8 N 72° 58.4 W

R_S 26659.64

~~42~~ 603.75

38° 40.5 N 73° 42.3 W

R_N 26422.35

43025.61

2200

#1 Tape drive down; up again 2230

0400

Phillips / MEYER / Nicol ON WATCH

0500

Last shot on LS 1/B

OUT OF
ORDER
SEE NEXT
PAGE



June 17, 1981

(168)

0086

0000 STARK, ONSTOTT, NORTON ON WATCH

0115 Start CLK to 115

Dawson will shoot explosives on ESP 2.
Outbound - airguns
Inbound - explosives
Confirm total line length 100 km.

0400 Phillips / Nicol / Meyer ON WATCH
0500 LAST SHOT END LS-11B ESP 1
0410 BEGIN TURNING ON ESP 2 POINT R
0517 ON LINE R-R₅ LS-12-ESP2 220/S.O.
DAWSON SHOOTING 1000 + 2000 in³ guns
MOORE RECEIVING ONLY

0730 DAWSON 2000 in³ off Solenoid problems!
0800 FERGUSON / MITHAL / BLANK ON WATCH
0807 Dead slow on one C/S
0818 Resume speed ~4.5 C/S
0909 Very poor S/N ratio;
using only DAWSON AIRGUNS.

1200 STARK, ONSTOTT, NORTON ON WATCH

1215 1st AIR GUN Shot

DAWSON is throwing charges

BURN TIME

#1	73
#2	73
#3	71
#4	70.6

FM 0802

0087

17 Jun 81

HDC/SPD

1531

11807

mini RANGER

040/4.9

Going to pass Dawson starboard to
starboard. We were pushed around
a bit by a current shortly before
reaching R + passed R to the west

Shot over 20 seconds later

1600

1600 Phillips / Meyer / Nicol on watch

1610

Last Dawson Explosive Shot on ESP2
ABeam MOORE @ Point R

1945

SLOW TO AVOID SHIP TRAFFIC

040/3.7

1958

" " " " "

047/2.6

END LS-13 @ 21:05

23:20

START LINE LS-14

23:27½

First recorded shot #1 tape drive down

0000

STARK, ONSTOTT, NORTON ON WATCH

S 26473.8 42779.8

SN 26342.6 42981.8

SS 26590.4 42563.2

0230 End line LS14. DFS off for repairs

0326

CALIBRATED DIVIDERS

June 18, 81 (169)

0400 Phillips / Nico - / Meyer ON WATCH 140/5.1
 0425 BEGINS TURN ONTO LS-15 COURSE ²²⁰ ~~070~~
 0455 ON LINE LS-15 220/5.0
 0533 DAWSON ABEAM HEAD OF ARRAY
 TRAIL 1 @ 1050 m

0700:00 27770 meters! DAWSON MINIRANGE
 RANGE

0726 LARGE TARGET 5 mi ABEAM 220/5.0
 CAUSING HIGH NOISE level on
 streamer @ ≈ 50 hz

0800 FERGUSON / MITHAL / BUHL ON WATCH

0825 DAWSON position $39^{\circ} 6.7' N$
 $72^{\circ} 57.5' W$

1031 END LINE LS15. Commencing turn at S_5

1200 Onstott - Stark - Norton on watch

1236 first shot 1ST Dawson @ 12:40 LS16
 1st Dawson shot, Burn time 74 SECONDS every 10 min
 2nd 74 thereafter
 3rd 70
 4th 74
 5th 76 13:20
 6 74 s 10 sec early
 7 1400 " "
 8

1540 shot was dropped at 1539 by
 mistake

June 18, 81 (169)

1550-1554 No recording as
Noya was inadvertently turned off

1600 Phillips / Nicol / Meyer ON WATCH

1654 Slowing to let ship pass in front

035/3.5

1710 INCREASE SPD to 6kt in let
ship pass astern035
~~040~~/6.0

1720 REDUCE SPD TO NORMAL SURVEY SPD 5.0

035/5.0

T	{	26336.4	42699.7
		38 47.5 N	72 47.5 W

Ts	{	38 26.76 N	73 09.61 W
		26458.0	42487.5

TN	{	39 08.17 N	72 25.18 W
		26200.7	42897.8

2000

FERGUSON / MITHAL / BUHL ON WATCH

19 JUN 0000

STARK / ONSTOTT / NORTON ON WATCH

0600

Phillips / Meyer / Nicol ON WATCH

0410

BEGIN TURN ONTO LS-

0425

ABORT TURN ON LINE DAWSON @ 180/4.9
REPORT ENGINE PROBLEMS - SHIMPCLOGGING OF SALT WATER COOLING
SYSTEM!! MOORE TO CONTINUE
IN 360° CIRCLE TO RIGHT @ 4°/min
PLAN TO BE BACK ON LINE AT0555Z 2mm north of T
Commence 360° Turn @ 0425Z

0610

S/C 040 C/S 3.5 AWAITING
INSTRUCTION FROM DAWSON AS TO ENGINE
REPAIR COMPLETION TIME

040/3.5

FM0802

0090

19 JUN 81 (170)

HDG/SPD

0730 STILL WAITING FOR DAWSON TO CLEAR
ENGINE PROBLEMS (SHARP IN COOLING
WATER SYSTEM!)

040/3.5

0731 SECURED 3.5 KHz Echo-sounder

1110 1/2 First shot LS 17

1212 Dawson reports that about
last 10 shots missed big
gun (solenoid). Gun pulled for
repair

1200 ONSTOTT / NORTON / STARK on watch

1237 Dawson firing 2000 in 3 gun again

1600 Phillips / Meyer / Nicol on watch

1642 Last shot on LS 17

1645 BEGIN Williamson turn to RIGHT
TO RETURN ON ESP4 @ 040T

HYDROPHONE IN WATER

1827 1st shot LS-18

2000 FERGUSON / MITHAL / BUHL on watch

Getting good signal from DAWSON EXPLOSIVES.

AUX CHAN 3 = HYDROPHONE

AUX CHAN 2 = BLAST PHONE #2 GUN

AUX CHAN 1 = BLAST PHONE #1 GUN

AUX CHAN 4 = BLAST PHONE #4

19 JUN 81

2240 BLAST PHONE INDICATE 3 GUNS IN SYNC

HYDROPHONE GIVES 1 VOLT P TO P

@ 25 MSEC DELAY

⇒ G BAR METER INITIAL PULSE P TO P

2355 ~~Onstall~~ / Morton / Stark on watch JUNE 20
 20 JUN 81
 0009 Dawson alarm

0037 Change to 20 sec records on recorder

SOME NEW TD'S FROM the Dawson

UN	26086.7	42829.0
	39 00.3	72 06.4

U	26224.8	42664.2
	38 39.6	72 28.7

Us	26349.4	42426.1
	38 18.9	72 50.7

0400	Phillips / Nicol / Meyer	ON watch	038/S.2
0405	3.5 KHz E/S	NOT OPERATING SINCE 0200 SALAZAR ADVISED	
0445	C/C @ 5°/min to 180°		040/S.2
0525	S/C HEADING FOR A POINT 3 mi NS of Point U		180/S.2
0600	3.5 KHz still not working, SALAZAR CAN'T FIX?		

FM 0802

0092

2050N

HDG/SPD

0630Z

INCREASE SPD TO AVOID SHIP TRAFFIC 900 RPM 180/6.0
to 6.0 KTS.

0646

REDUCE SPD TO NORMAL 5.2 KTS 180/5.2

0800

FERGUSON / MITCHELL / BUEHL ON WATCH

1200

STARK / ONSTOTT / NORTON ON WATCH

1430 Loran down - looks like maintenance
- 32 on one of the shore stations

1532 1/2

SHOT 331 type 082498
END LS 19

38 19.56N

72 49.69W

BEGIN TURN 180° TO 040

1600

Phillips / Meyer / Nicol ON WATCH

1630

SLOW TO 4.0 AND HOLD TURN @ 200T 200/4.0
TO AVOID SHIP TRAFFIC

1650

INCREASE SPD BACK TO NORMAL SURVEY SPD 200/5.0

1655

CONTINUE TURN TO LEFT @ 6°/min

1640

ON LINE LS-20

040/5.2

17:52

START LINE LS-20 1ST SHOT

1800:00

AT POINT U_S

1850

JUMP FROM SPARE SATELLITE TO WEST SATELLITE TIME ~~18~~

1929

Ship nearby is interfering w/ shots

2000

FERGUSON / MITCHELL / BUEHL ON WATCH

2054

Changing to 050 to get back on line

C/C

2150

040

stay on line

C/C

FM08-02

20 June

2323

LAST LASE SHOT

LINE L920

23²⁵
~~30~~BEGINNING TEST SHOTS FOR
2000 in³ gun

2335

FINISHED TEST SHOTS
BEGINNING STREAMER RECOVERY

0200

21 JUNE 1981

ALL GEAR ON BOARD

LASE FIELD EXPERIMENT OVER

FINISH