

R/V CONRAD, Cruise 25, leg 10  
NEWFOUNDLAND BASIN

001

AUGUST 9 - SEPTEMBER 8, 1984

SCIENTIFIC PARTY

noon-midnight) B. TUCHOLKE, WHOI } co-chief  
midnight-noon) J. AUSTIN, UTIG } scientists

12-4 Watch

J. Crowe, UTIG  
C. Ebinger, WHOI

\* note XBT WATER  
VELOCITY TABLES  
BEGIN ON PAGE  
90

4-8 Watch

R. Gorski, WHOI  
K. Meador, UTIG

\*\* NOTE: UNLESS OTHER-  
WISE NOTED, SONOBUOYS  
HAVE BALLOON ANTENNAE  
† ARE SUBJECT TO  
WIND DRIFT.

8-12 Watch

J. McEuen, UTIG  
A. Martin, WHOI

\*\*\* NOTE: ALL METER  
DEPTH VALUES IN  
LOGS ARE UNCORRECTED  
METERS ( BUT CORRECTED  
FOR X-DUCER DRAFT  
TO S.L.)

Electronics

Midnight - Noon

H. Van Santford, LDGO

Noon - Midnight

B. Allen, LDGO

Sea Beam

Midnight - Noon

D. Chayes, URI

Noon - Midnight

S. Paulet, URI



CONRAD 25-10

002

AUGUST 9, 1984

course/  
speed

Air Guns

Midnight - 0600 / Noon - 1800

R. Maiwiriwiri, LDGO

0600 - Noon / 1800 - Midnight

D. Bolles, LDGO

24 - Hour Call

Guns

M. Iltzsche, LDGO

Everything Else

J. Smith, LDGO

S. Hudson, LDGO

==

Depart St. John's for open ocean.

(Nothing (?) can stop us now). Ebinger, Crowe, Tucholke on watch.

Deploying magnetometer. 3.5 kHz operational, SEA BEAM 121°  
c/c → 116° ON 10.7 kts.  
116°

SAT FIX 47° 29.892' 52° 26.488' EL 37° 173

Pit Log Cse Spd Depth(m)

18.9, 117.1, 10.6, 157 Wind WNW 15-20 kts.

Checked maggie tows - O.K. ~~Atlas camera~~ 1. 115° 115°



R/V CONRAD 25-10

003

Watch Log / Newfoundland Basin

Course  
Speed

9 August

700Z C/C → 115°

115°/10.1

743Z \* SAT FIX 47° 15.805' N EL 14  
51° 52.037' W IT 3

115°/10.1

752Z FIRE & BOAT DRILL.

808 END F&B DRILL.

826Z Alter course to 3rd. to 170°

828Z Alter course → 115

1800 KAREN MEADER LOGIN  
Ruth Gorski "

855 MISSED LOGGING DUE BAD ROLLS & CLEANUP.

948 ROLLING --- WIND 25 KTS FROM 060°, TUMBLING  
ON WATCH IN ABSENCE OF WATCHSTANDERS  
SUFFERING FROM MAL DE MER.

736 S. HUDSON ON - DINNER RELIEF. ISN'T THIS EXCITING?

1015 SAT FIX 47° 03.027' 51° 20.507' EL 68 IT 2

1105 MISSED LOGGING DUE TO BAD ROLLS - MAGNETOMETER  
DOWN - FELL OUT OF RACK.

111 MAGGIE BACK ON.

00 A. Martin on watch - Julie McEwen on watch  
105 No logging of depth of Maggie data -  
10 rolls - hanging on

007 Maggie OFF. Pulled in for ship to  
maneuver to pick up life raft  
007 Maggie aboard.

Life raft aboard. Definitely a group  
effort



R/V Conrad 25-10

004

Newfoundland Basin  
Watch Log  
9/10 August, 1984

course/  
speed

2348Z adjust course to 070° - redeploying  
magnetometer, speed adjust to 3.5+

2355Z Maggie out, we're underway  
c/s 180 rpm c/c to 075° to make  
080°

245Z A. Martin, J. McEuen relieved; J. Crome,  
H. Van Santford on watch. Winds N, 25-35 kt 075/8.1

0013Z \* SAT FIX 47°00.717 50°22.466 EI=19 IT=3

10 August 0017Z C/C Stbd turn to 095°

0232Z \* SAT FIX 47°01.137 50°16.753 EI=21 IT=3

0256Z C/C → 115° 8.6

0300Z C/C → 127° 9.0

0325Z Maggie tow checked, O.K.

0351Z \* SAT FIX 46°55.875' 50°02.756' EI=81 IT=4 8.9

0415Z All ships clocks set to +2 HRS GMT @ 0215 LOCAL

~~0215Z~~

0418Z \* SAT FIX 46°53.410' 49°57.922' EI=62 IT=3 8.8

0436Z \* SAT FIX 46°51.832' 49°54.908' EI=59 IT=7 8.9

0512Z Maggie tow checked: OK

0538Z C/S - Slow for traffic (110 rpm - 4.4 kt)

0546Z C/S - Resume Speed (180 rpm - 9.0 kt)

0536Z SAT FIX 46°46.480' 49°44.696' EI=15 IT=5 8.2

0600Z R. Gorski K. Meador on watch

0602Z 46°44.459'N 49°40.922'W Elev=9° IT=3 19=CT

\* SAT FIX

0625Z \* SAT FIX 46°42.562 49°36.874 EI=39° IT=2 CT=24

0745Z Maggie checked by Austin - OK. Meador  
and van Santford on watch. (Gorski a  
casualty).

0837 \* SAT FIX 46°33.547 49°18.404 EI=39 IT=3 CT=29



# R/V CONRAD 25-10

## NEWFOUNDLAND BASIN

Time(Z)

0945Z Martin + McEuen on watch <sup>(CHARRY IS STILL HERE)</sup>  
 Steaming toward streamer deployment point. Austin also on watch. 1290  
 Van Sanford available for electronics 9.2 kts.  
 support. Winds still out of the NE,  
 ~25 kts, seas ~10'

1000Z Maggie tow checked. OK.

1030Z SeaBeam Plotter temporarily off-line due to return scattering.

1110Z PLOTTER BACK WORKING

1300Z ~~#20~~ reduce speed to 120 rpm  
 SeaBeam data no good - locked on a  
 1315 multiple (too shallow of water)

1345Z SeaBeam back on track

1350Z 08-12 relieved. 12-16 on watch. Visibility 100 yds (fog),  
 Wind Steady 20 kts E.S.E., seas 6-8'  
 1408Z \*SAT FIX 46°03.451' 48°14.783' EI=23 IT=4

1423Z C/c to 130

1426Z \*SAT FIX 46°02.101'N 48°12.324'W EI=26 IT=2

1600Z \*SAT FIX 45°55.251'N 48°02.326'W EI=68(67) IT=3

1611Z \*SAT FIX 45°53.833'N 48°00.043'W EI=61 IT=3

1630Z SeaBeam gate locked on - was on multiple from about 1600Z.

1658Z Maggie tow checked: OK

1728Z SAT FIX 45°51.394'N 47°56.231'W EI=7 IT=3

1752Z C/c → 124°

1800Z SEABEAM STRIP CHART RECORDER ON LINE

3.5 KHz sweep changed to ~~FR~~ normal operation



10 Aug 84

CSE / SPD

1730Z Maggie tow checked: ok

1754Z Change CSE 120°

Karen, Ruth relieve J. Crowe

1742Z\* SAT FIX 45° 46.725'N 47° 48.981'W EI=11 IT=3 CT=23

1828Z \* SAT FIX 45° 43.627'N 47° 42.018'W EI=45 IT=2 CT=28

1910Z ~~C/S~~ → 6.6 C/S → 8.0 rpm.

1926Z C/S → 90 rpm

1932Z C/S → 100 RPM Seabeam

2000Z C/S WEEP speed on recorder 2 sec → 1 sec

2006 C/speed → 160 rpm

2031Z SAT FIX 45° 36.700'N 47° 28.382'W EL 33 IT=3 CT=32

2043Z XBTD at 50 m is &lt; 0° (below freezing)

~~2133Z C/S → 62 rpm~~

2130Z SAT FIX 45° 30.319'N 47° 13.785'W EL=13, IT=3, CT=25

2146 JULIE &amp; ANN RELIEVE KAREN &amp; RUTH YEA!

2159Z SeaBeam in mode 2; tracking

2207Z SeaBeam back to mode 3. (computer track)

2215Z Gravimetrics device checked out; ok.

2305Z Magnetometer checked - ok

August 11, 1984

EL 10 IT=4 CT=24

0124Z SAT #110 GMT 0614.24

45° 12.112' N LAT  
46° 31.618' W LONG0135Z 1135 C/S → 125°  
(Ship time)

0145Z 20-24 relieved. 00-04 HARRY ALSO on watch (Crowe, Ebingen)

0230Z Maggie checked, OK

0245Z Gravimeter checked, OK

0302Z SAT FIX 45° 02.519' 46° 12.268' EI=64 IT=3

0338Z C/C → 135°

0346Z C/S → 180 turns

0435Z Maggie checked; OK!

0507Z C/C - 134°



RV CONRAD 25-10 - NEWFOUNDLAND BASIN

AUG 84

0550Z MEADOR, GORSKI relieve CROWL, <sup>THE</sup> BITCHES TAKE OVER!  
 0535Z \* SAT FIX  $44^{\circ}44.578'N$   $45^{\circ}45.932'W$  EL=23 IT=3

0610Z \* SAT FIX  $44^{\circ}40.182'N$   $45^{\circ}40.096'W$  EL=34 IT=3

Calcomp Plotter has not been plotting from ~ 0500 → 0600

Dan working on it

0650Z Success! Plotter back on line. Dan gets big pat on back

0720Z \* SAT FIX  $44^{\circ}31.548'N$ ,  $45^{\circ}27.516'W$  EL=62, IT=3, CT=722

0750Z CHANGED ALBUMS. AL STEWART → ROLLING STONES (but is it digital?)  
 NEEDED TO WAKE UP!

0810Z \* SAT FIX  $44^{\circ}27.185'N$ ,  $45^{\circ}20.891'W$  EL=47, IT=2 CT=758

0815Z C/C → 137

0903Z C/S → 150 rpm

0917Z C/C → 145

C/S → 100 rpm

0955Z Ann + Juli au watch

0956Z Maggie shut off, + bottle + cable being pulled in.

1005Z C/S 105 rpm

1006Z Maggie aboard

1019Z C/C  $120^{\circ}$

1025Z C/C  $070^{\circ}$

1027Z C/C →  $030^{\circ}$

1030Z C/S 40 rpm

1039Z tail buoy over - oops, it's delayed

1043Z tail buoy over the side



R/V CONRAD 25-10 - NEWFOUNDLAND BASIN

224/AUG 11 '84

1047Z C/S  $\rightarrow$  80 rpm  
 1052Z C/S  $\rightarrow$  60 rpm  
 1141Z C/C  $\rightarrow$  035°  
 1158Z C/S  $\rightarrow$  1.5 Kts or 40 rpm

1228Z C/S  $\rightarrow$  1.0 Kts

1241Z C/S 50 rpm

1253Z C/S 58 rpm (3.0 Kts)

1248Z C/C 040°

1252Z C/C 042°

1259Z CHECKED GRAVITY

1400Z C. Ebinger relieves K. McEuen

maggie off - streamer repairs

1420 C/C <sup>035</sup>~~055~~° ; C/S 2.0

1530 C/S to 0.5 Kts

1610 C/S to 3.2 Kts (55 rpm)

1625 C/S to 45 rpm

1

1630 PUT NEW TAPE ON DATA LOG, ON 194 OFF 193

1640 checked gravity

1648 SAT FIX 44° 25.130' N 44° 39.249' W EI=25 IT=3

1701 C/S  $\rightarrow$  55 rpm

1718 C/C  $\rightarrow$  35 rpm

1720 C/C  $\rightarrow$  055° All stop

1720 C/C  $\rightarrow$  045° C/S  $\rightarrow$  35 rpm

1724 C/S  $\rightarrow$  60 rpm

1726 C/S  $\rightarrow$  5.5 Kts (1726)

1734 C/S  $\rightarrow$  90 rpm

1730Z SAT FIX 44 26.824 44 37.119 EI=21 IT=3



CONRAD 25-10 Newfoundland Basin

11 August 84  
JOAY=2241742Z C/S  $\rightarrow$  95 rpm

1748Z Gorski &amp; Meador relieve Crowe &amp; Ebinger

Streamer deployed, will begin towing soon.

1754Z: Will begin turning  $20^\circ$  every 2min to the left.1756Z: C/S  $\rightarrow$  105 rpm1758Z: C/C  $\rightarrow$   $345^\circ$  to left1750Z: left to  $325^\circ$ 1802Z: left to  $305^\circ$ 1804Z: left to  $85^\circ$ 1804 C/C  $\rightarrow$  30  $\rightarrow$  20 sec1806 C/A  $\rightarrow$  265 ; C/S  $\rightarrow$  110 rpm.1808 C/C  $\rightarrow$  256 (left)

1810 on 256 until starting point turn before starting point

1821 C/S  $\rightarrow$  1151838 C/S  $\rightarrow$  120 rpm

1853 Maggie deployed

1930 SEISMIC MONITOR ON ~ THIS TIME FOR TESTING.

1940 \* SAT FIX  $44^\circ 28', 232^\circ N, 44^\circ 45.062' W$   $e/\text{f}=58$   $IT=9$   $CT=12$ 1952 A/C  $\rightarrow$   $253^\circ$ NOTE: 1930-2130  
NUMEROUS GLITCHES ON SEISMIC  
MONITOR WHILE TESTING AND  
OPTIMIZING SIGNAL2030 C/C  $\rightarrow$   $236^\circ$ 2110 C/C  $\rightarrow$  292 to START POINT2114 C/S  $\rightarrow$  112 rpm2116 C/S  $\rightarrow$  104 rpmONLY 3 GUNS  
OPERATING2127 C/S  $\rightarrow$  100 rpm

2131 START MCS LINE 1 - GOOD MONITOR RECORD STARTS

\* 2132 C/S  $\rightarrow$  102 rpm, C/C  $\rightarrow$   $290^\circ$ 

How Do You SPELL RELIEF? ANN &amp; JULIE

2157 PIT LOG CLOGGED UP?

2157 Ann &amp; Julie on duty

2215 Start 5 sec record on Profiles "A" - 5 sec delay; 20 db gain  
di'itri - 10/50 10/hi  
Hz Hz2223 NB - Setting DFS IV to "defbat" for camera  
record causes noise on monitor records



## R/V CONRAD - NEWFOUNDLAND BASIN

224 / 11 AUG '84

~ 2230 - turned up power, turned down gain to clean up R/R record

2317 filter set 10/60 for recorder C (snobuoy)  
 2348 C/S → 100 RPM  
 \* 2350 data logger crashed  
 2352 on 30 sec. cycle for a few shots  
 2354 20-sec cycle

225 / 12 AUG 84

0015 C/S → 102 RPM

\* NOTE: TRIED TO INSERT A SAMPLE VALUE TOO HIGH FOR THE CYCLE IN USE, SYSTEM CRASHED.

0023 C/S → 105 RPM  
 0037 Snobuoy launched - stopped, did not deploy "1A"  
 0047 Snobuoy 1 deployed - success! "1"  
 0058 AUTO FIRE - wind records  
 0103 4 guns firing

0200 J. Crowe, C. Ebinger relieve J. McEwen, A. Martin

0201 SAT FIX 44 34.00 N IT=4 CT=23  
 45 28.88 W EL=18

0213.12 SAT FIX 44 34.439 N EL=32 CT=23  
 45 29.908 W IT=2

0320 End Snobuoy #1; Prepare to deploy #2

0320 C/S to 130 rpm's

0323 C/C to 291°

sea state 3.0

temp 65°

0330 deploy Snobuoy #2 on starboard side 458.3

0347 N 44 37.835, W 45 39.071 EL=67 IT=3 CT=3



R/V CONRAD 25-10 NEWFOUNDLAND BASIN

AUG 12 1984

COURSE  
SPEED

225 J.D.

0400Z - Checked all fows - O.K.

0 0400.06 SAT N 44 38.323 W 45 40.163 EL 46 IT 2 CT-210444Z Fix SAT FIX 44 39.836 N  $\phi$  45° 44.640 N  $\lambda$  E1=10 IT=9

0522Z IT NEVER GETS BETTER THAN THIS!

0530.48 SAT Fix 44° 41.396' N 45° 49.116' W EL 10 IT 3 CT 200548Z Z/C  $\rightarrow$  287°

0545Z End SB#2

0555 Gorski, Meador on watch (Austin, too) (van Sanford, also)

0600 Sonobuoy #3 in the water. Good signal!

\*SAT FIX

0547 44° 41.971 45° 50.851 E1=26 IT=3

0632 \*SAT FIX 44° 43.161' N 45° 55.296' W IT=3 E1=62

0710 Change profiler "A" (5 sec. record) delay to 30 sec.

0720- Tape <sup>did not</sup> ~~revised~~ ~~not~~ get switched in time - 4 shots missed -  
0724 \*

0755 All fows checked - O.K.

0818

\*SAT  
~~0818~~ FIX 44° 45.273' N 46° 05.022' W E1=24  
IT=30830  $\phi$   $\rightarrow$  291°  $\phi$   $\rightarrow$  1150 rpm0924Z SatFix 44° 47.097' N 46° 11.940' W E1 10 IT 2  
CT 27

0930Z

Start SB#4  
0949Z Ann, Juli on watch (Janie and Harry are still here, too!).

1037Z All fows checked - OK.

11 28Z Data logger + DFS IV auxiliary channels  
63 Hz  $\rightarrow$  125 Hz

Profiler A+B - make time line at right edge



# R/V CONRAD 25-10 NEWFOUNDLAND BASIN

AUGUST 12, 1984

LINE NB-1

- 1150 Z end of Sonobuoy 4  
1154 Z C/C  $\rightarrow$  292°  
1220 Z C/C  $\rightarrow$  ~~219°~~ 293°  
1230 Z Sonobuoy #5 over the side - A. Martin's  
1338 Z Prof A delay change 3  $\rightarrow$  4  
1402 Z SAT FIX 44° 56.86' N 46° 42.63' W EL=18 IT=3  
C. EBINGER, J. CROWE RELIEVE A. Martin, J. McEwen just in time

1411 Z ALL TOWS CHECKED - OK

1416 SAT FIX 44 57.85° N; 46 44.99° W; EL=32, IT=3

1445 Stop recording SB #5

1500 C/S to 103 rpm (25.1) C/C to 290°

1515 <sup>checked</sup> ~~changed~~ gravimeter tape

1546 Deployed sonobuoy #6 seastate 2; T<sub>0</sub> = 67

1539 SAT FIX 45 01.0; 46 53.509 EL=82; IT=3

1602 SAT FIX 45 01.777 46 56.08 EL=48; IT=3

1649 SAT FIX 45 03.141 NØ 47 00.782 Wλ EL=10 IT=5

1707 SAT FIX 45 03.712 N 47 02.743 W EL 13 IT 5

1718 Gravimeter checked; OK

1719 Gun's, Maggie tow checked; OK

1717 SAT FIX 45° 03.712' NØ 47° 02.743' Wλ EL=13 IT=5

1725 SAT FIX 45° 04.257' ØN 47° 04.570' Wλ EL=15 IT=3

MEABOR & GORSKI LOG'N

1750 \*SAT FIX 45° 05.070' 47° 07.021' el=7 it=4

1811 CHANGE SOND DELAY TO 9.0 SEC

1834 \*SAT FIX 45° 06.162' N, 47° 11.310' W el=59 IT=3

1857 \*SAT FIX 45° 06.801' N 47° 13.718 W el=70, IT=3

1912 C/S  $\rightarrow$  108 rpm

1917 C/S  $\rightarrow$  112 rpm

2003 C/S  $\rightarrow$  110 rpm

2031 \*SAT FIX 45 09.146 N 47 22.699 W el=26 IT=3

2055 \*SAT FIX 45 09.854 N 47° 25.347 el=24 IT=3

2056 C/C  $\rightarrow$  292 ON HOUR

2135 Z CHANGE DELAY TO 3½ SEC. ON PROFILER A



R/V Conrad 25-10

013

Newfoundland Basin

12/13 Aug. 1984

2145Z Martin + McEuen on watch

approx. 2210 - 2225Z the Loran C speed readout went off due to SPEED A (SATNAV) tracking by bridge.

2310 - change delay on "profiler A" to 3.0 seconds. Sweep remains @ 5.0 sec.

0016Z 13 Aug 1984

↓  
gravimeter checked out ok  
maggie " " "

0030 CHANGE DELAY ON PROF. A & B A → 2.5 B → 3.0  
PAPER ADJUST ON PROF. B (NO TIME LOST),

0051Z reduce speed to 106 rpm

0128Z 5 sec. "Profiler A" delay changed to 1.0 sec.

SAT FIX

0122:48Z 45° 19.688' N 47° 57.990' W

el 13° IT 6 CT 25

0203Z C/S → 5.0

Austin, Crowe, Ebinger on watch (the gang's all here) (i.e., the pros from Dover)

0207Z C/C → 288°

0228Z C/S → 106 rpm

0238Z SAT FIX 45° 22.678' N 48° 07.140' W EL = 31 IT = 3

0306Z PROFILER B (10 sec monitor) SET TO 1 sec DELAY

0311Z SAT FIX 45° 23.675' N 48° 11.714' W EL = 74 IT = 3

0434 c/c to 296°

0423 SAT FIX N45 25.399 W 48 20.321 EL = 40 IT = 3 CTS = 29



AUGUST 13

## NEWFOUNDLAND BASIN RC25-10

- 0510 changed charts A, B to O delay  
 0513 SAT FIX 45 26.414N 48 24.171W EL=21 IT=3 CT=27  
 0514 C/C to 297; C/S  $\rightarrow$  100 rpm  
 0530 lost 3.5 kHz  
 0525 SAT FIX 45 27.349N; 48 27.259W EL=17 IT=4 CT=25  
 0542Z 3.5 kHz back on line  
 0550Z MEADER: GORSKI ON WATCH  
 0555Z SAT FIX 45° 27' 8.42" N 48° 29' 28.5" W el=25 IT=2  
 0600Z C/C  $\rightarrow$  300°  
 0615Z C/S  $\rightarrow$  105 rpm  
 0616Z All fows checked - OK.  
 0622Z GATE DISPLAY ON SB NOT WORKING.  
 0625Z SEABEAM giving spurious results  $\rightarrow$   
 perhaps some interference with air gun returns  
 in shallow water. Trouble began 0530 hrs.  
 0630Z CALCOMP plotter/SEABEAM turned off.  
 0636Z Change profiler "A" from 10-50 Hz to 20-60 Hz.  
 0700Z - GATE DISPLAY LOOKS GOOD  
 0705Z - PDR STOPPED WORKING AGAIN  
 0710Z - PDR WORKING!  
 0737Z - C/C  $\rightarrow$  298  
 0740Z - all fows checked - OK  
 0740Z - C/C  $\rightarrow$  296  
 0729Z - SAT FIX 45° 31.988' N 48° 40.764' W EL=61 IT=3  
 AT 0820 TAIL BOY TO GO ~~THROUGH~~ THROUGH END PT  
 0747Z - SB DISPLAY DOESN'T LIKE SHALLOW WATER  
 0805Z #1 AIRGUN NOT FIRING according to oscilloscope  
 Investigation reveals the blastphone is not working, AIRGUN OK.  
 0808Z C/S 108 rpm  
 0823 C/C  $\rightarrow$  312° Commence turn for line 2  
 0825 C/C  $\rightarrow$  328°  
 0827 C/C  $\rightarrow$  348°  
 0829 1/2 C/C  $\rightarrow$  008°  
 0831 1/2 C/C  $\rightarrow$  027°  
 0834 C/C  $\rightarrow$  046°  
 0836 C/C  $\rightarrow$  065°

END NB-1



AUGUST 13, 1984

NEWFOUNDLAND BASIN MCS / RV CONRAD 25-10

0838Z c/s  $\rightarrow$  108 rpm

0840Z c/s  $\rightarrow$  104 rpm

0841Z c/s  $\rightarrow$  100 rpm

0852Z c/c  $\rightarrow$  084°

0859Z c/c  $\rightarrow$  103°

0901Z c/c  $\rightarrow$  122°

0903Z c/c  $\rightarrow$  141°

0905Z c/c  $\rightarrow$  161°

0907 c/c  $\rightarrow$  181°

0909 c/c  $\rightarrow$  201°

0916 c/c  $\rightarrow$  203°

Completed turn, getting streamer lined up to begin line 2

0920Z # Blast Phone is fixed

0931Z Streamer straight behind the ship.

CONRAD @ intersection of NB-1 and NB-2.

0935Z SB#7A launched. Starboard side

Good signal.

203°

4.9Ks.

0946 Signal lost; preparing to launch another SB

0950 Sonobuoy # <sup>B</sup>7A launched

0955 Ann on watch! Juli too!

1006 Sonobuoy #17 launched (17B died)

1038 See E of course line about a mile, according to the bridge. We will not A/c until after completion of SB#7.

1130 Sonobuoy #7 ended

c/c  $\rightarrow$  208° - Profiler B redlined

1143 Swath plotter turned off

1200 Sonobuoy #8 launched

1212 Seabeam monitor off line (on local mode)

1245 Checked all fows - OK.

1330 Sonobuoy #8 ended

1328 - SAT Fix

1340 c/c  $\rightarrow$  213°

1400 J. Crowe, C. Ebinger on watch

1430 SAT Fix 45 08.382N; 48 59.528W; EL=31; IT=2 CT=31



August 13 226

016

NEWFOUNDLAND BASIN RC25-10

NB2  
NB3

1456 Shot 357 [last shot on line NB-2] [Begin NB-3]  
1453 Shut down guns 1 and 4 for oil/compressor check.  
1454 c/c to 228°  
1456 c/c to 248°  
About 6 shots not recorded on Profiles A & B because trip was set on gun 1; reset to gun 2 @ 1455.

1458 c/c to 268°

1500 Data Logger Tape 197 off, 198 on  
c/c → 283°

1501 Increase speed to 116 RPM

1502 c/c → 298°

1510 Airguns 1 and 2 back on line

1516 c/c 320°

1518 c/c 340°

1520 c/c 001

1537 c/c 012°

1545 c/s 100 c/c 034

1547 c/c 054

1552 change paper Profiler off

1553 c/c 075

1556 Profiler B online

1558 c/c 097

1600 c/c 114

1602 c/s 096 c/c 134

1607 c/c 114

1616 SAT FIX 45° 08.647' N 48° 59.982' W λ EI=50 IT=3

1649 c/c 111°

1711 c/c 105°

1729 c/s → 98 rpm

1722 SEABEAM SWATH PLOTTER BACK ONLINE

1740 2-Axis DOPPLER SWITCHED TO WATER-LOCK - VELOCITY'S HIGHER THAN ACTUAL DUE TO CURRENT.

1800 c/c → 100°

Karen & Ruth relieve John & Cindy



August 13 226

NEWFOUNDLAND BASIN RC25-10

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1510 Airguns 1 and 2 back on line

1516 c/c 320°

1518 c/c 340°

1520 c/c 001

1537 c/c 012°

1545 c/s 100 c/c 034

1547 c/c 054

1552 change paper Profiler off

1553 c/c 075

1556 Profiler B online

1558 c/c 097

1600 c/c 114

1602 c/s 096 c/c 134

1606 c/c 114

1616 SAT FIX 45° 08.647' N 48° 59.982' W λ EI = 50 IT = 3

1649 c/c 111°

1711 c/c 105°

1729 c/s → 98 rpm

1722 SEABEAM SWATH PLOTTER BACK ONLINE

1740 ZAXIS DOPPLER SWITCHED TO WATER-LOCK - VELOCITY'S HIGHER THAN ACTUAL DUE TO CURRENT.

1800 c/c → 100°

Karen &amp; Ruth relieve John &amp; Cindy



13/AUGUST 1984

14

Newfoundland Basin

RC 25-10

1804Z C/F → on Profilers A: <sup>sup. del</sup> 5/00 10/hi 15/62 Hz  
B 10/00 8/62 Hz

1819Z C/C → 105°

1834Z \* SAT FIX 45° 03.060' N  
48° 46.008' W EL=48 IT=3 CT=36

1853 C/C → 108°

1904 C/S → 100 rpm

1942 C/C → 109°

1931 SAT FIX 45° 00.869' N, 48° 39.874' W EL 59°, IT 3

1953 S.B. 9A in - no signal

2003 S.B. 9 in + working DATA LOGGER TAPE 198.  
→ S.B. 9 = SB 9B - NO GOOD - CAUGHT ON STREAMER  
AFTER 24 SHOTS.

2025 CHANGED DELAY ON PROFILER A FROM 0 → 2 s.

2036 C/C → 110°

2051 C/C → 111°

2113 C/C → 113°

2105 Increase gain on 3.5 kHz profiler

2119 \* SAT FIX 44° 56.175' N 48° 28.136' W EL=9, IT=4

2132 MAGGIE OUT OF INK (NO MARK ON THE 1/2 HR)

2145 Ann + Julie on duty

2148 Sonobuoy # 9 launched - Brian T.

2152 Change ink in Maggie recorder

2221 Bridge Sups Interval is jumping

2254 Change delay on Profiler "A" to 3.0 sec.

2350 Change delay on Profiler "B" to 3.0 Sec. (10 sec. sweep)  
(3 sec delay)

LOOK →

→ 14 AUG.

0007 CHANGE DELAY ON PROFILER "A" TO 3.5 SEC. FROM 3.0 SEC.

0017 END SONOBUOY # 9 on Profiler C, on MCS tape 92  
(shot 53), and on data logger.10A  
SB # ~~10~~ on Profiler C,0054Z - water temp 64°  
sea state 3

0059Z in the water

- no Good - Aborted (too noisy) (low signal)

1574



R/V Conrad 25-10

14 Aug 1984

New Foundland Basin

0119Z ch delay on gun 4 015 → 014

0120Z SB #10 Launched

0141Z 5 sec. Profiler A delay changed to 4.0

0145Z Julie & Ann relieved, then i' Cindy, Harry on watch  
(Austin and van Santford are also here)0222Z SAT FIX 44° 44.087' N 47° 54.180' W EL=36 IT=3  
(1<sup>ST</sup> FIX in 6 HRS OF DR)

0300Z changed Profiler A delay to 4.5s

0314Z SAT FIX 44° 42.208' N 47° 48.577' W EL=67 IT=3

0342 CHANGED LOWER TAPE 198 → 199 - recording S.B.10

0408Z SAT FIX 44 40.4 N 47 43.147 W EL=40 CT5=33 IT=3

0410 Sonobuoy #10 record extends beyond 12s on logger

0412 CHECKED GRAVITY

0430 End Sonobuoy #10

0434 c/c to 126°

0500 A/c to 128°

0451 ~~0451~~ SAT FIX 44° 38.676' N 47° 38.315' W EL=11 CT 21 IT=4

0520 c/c to 131°

0550Z ALL TOWS CHECKED - O.K.

0553Z RUTH &amp; KAREN TAKE OVER WATCH

0550 changed delay A.G. #1 to 13s 13-14-14-14

0600 PROFILER B DELAY CHANGE 3  $\frac{1}{4}$  sec.

\* 0553 \* SAT FIX 44° 35.954' N 47° 32' 32.7" W EL=5 IT=7

0653 c/s → 96 rpm

0658 \* SAT FIX 44 32.986 N 47 26.736 W EL=67 IT=3

0724 c/c → 128°

0726 - CHECKED GRAVITY - O.K.

0730 - CHANGE DELAY TO 5 SEC. PRO. A

0744 - c/c → 124°

0805 a/s → 92°

0803- c/c → 120°

0843Z CHECKED ALL TOWS OK (Foggy w/RAIN,  
0.25 mi. visibility. Seas building astern).



R/V CONRAD 25-10

NEWFOUNDLAND BASIN MCS

TIMES (GMT)

14 August, 1984

Course/  
speed0852 Z C/C  $\rightarrow$  117°

0839 Z \* SAT FIX 44° 27.757' N 47° 16.145' W EL=24 IT=3

0915 Z C/C  $\rightarrow$  105°

END OF LINE 3 / BEGIN LINE 4

0932 Z C/C  $\rightarrow$  101°

0935 Z Sonobuoy #11 launched (a new olympic record in the SB ~~test~~ by J. Austin)  
 signal very good

chuck

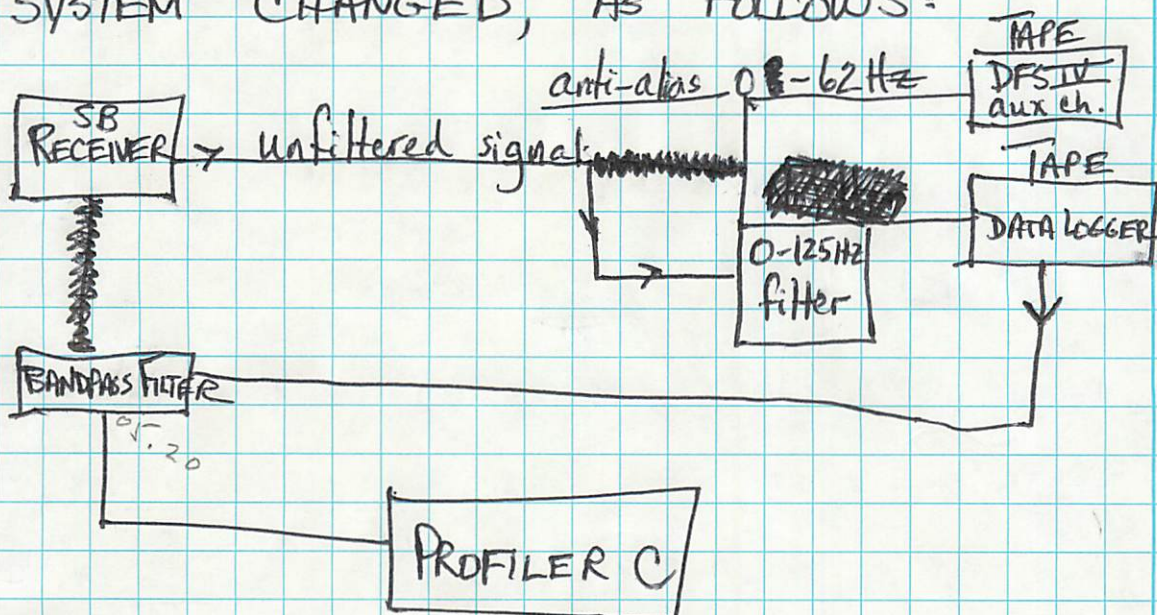
Bill Enterprises

... its a skill, eh?

0955 Z Ann on watch; Julie on watch

1034 Z ship went betw. 2 small buoys

(NB)

1108 Z  $\rightarrow$  ENTIRE SB FILTERING SYSTEM CHANGED, AS FOLLOWS:

Up until this point, all sonobuoys had been filtered through two bandpass filters — first, the bandpass filter we thought had been controlling only the profiler, and a second filter @ hicut of 125 Hz. Why, I don't know. Consequently, first 10+ sonobuoys on data logger tape have been filtered at same bandpass settings as profiler records. This has now been corrected.



227/  
14 AUG 84

R/V CONRAD 25-10  
NEWFOUNDLAND BASIN MCS

020

1205Z  
1212Z

Sonobuoy #11 ends  
InterNav has stopped

\* 1246Z \* NB: Data Logger has now been changed to sample @ 1ms  $\rightarrow$  17 sec. record length. Lowpass (anti-alias filter) now set @ 500 Hz. Before sonobuoy run, change "number of samples" from 0 to 17000, and back @ the end of the profile.

1253Z Gravimeter checked out ok

1310Z all tows checked out ok

1335Z camera record taken (S.P. 437, NB-4, (333Z, data tape 116).

1322Z SAT FIX  
44° 21.211' N 46° 41.882' W  
ele. 11° it 3

1345 fm, Cindy relieve Ann, Julie. (ALFF)  
SMALL FISHING BOAT TO PORT ~ 1 mile

1623 ele 100

1610 SAT Fix 44 18.06; 46° 21' .67. IT=3 EL=25 CT=32

1633 ~~1633~~ 72° seastate 3 deploy Sonobuoy 12

1645 sighted tail buoy dead astern

SAT FIX  
1652 44 17.449 46 16.611 EL-21 IT-3

~1721 c/f TO 5-40 Hz on Sono (Profiler C)  
Increased gain on paper record ("")

1734 change delay to 6 sec (6-16 sec sweep) on Sono. "Profiler C."



R/V Conrad 25-10  
Newfoundland Basin

14 August, 1984  
(227)

1752 Z ~~John~~ Gorski & Meador take over the watch...  
Air Gun not Firing for unspecified amt of time  
#1  
Change Data Logger Recording Tape { 199 off  
200 on

1812 Z \*SAT FIX 44° 15.923' N EL=42  
46° 07.201' W IT=3

1843 Z CHANGE FILTER TO 3-30 Hz on PROFILER C

1841 Z \*SAT FIX 44° 15.428' N EL=79  
46 03.436' W IT=7 CT=34

1855 Z Dolphins? are talking to our sonobuoy.

1917 Z L/S Sonobuoy 12

1920 A/C → 095°

2000 \*SAT FIX 44° 13.778' N 45° 53.573' W EL=38 IT=3

2033 C/C → 095°

2028 \*SAT FIX 44° 13.419' N 45° 50.378' W EL=18 IT=5

2138 C/C → 099°

2157 Ann & Julie here.

2257 C/S → 100 RPM

2314 SBuoy # 13 launched - sounds good

15 Aug (228) 2400 C/F on Sonobuoy 13 (Profiler C) to 5-40 Hz

0057 Z Gravimeter checked out ok

SAT FIX

0132:24 Z 44° 06.649' N el 20°  
45° 08.448' W it 4  
ct 22



## RV CONRAD 25-10

## NEWFOUNDLAND BASIN

15 AUGUST 1984

0142 - CHANGE DELAY ON SONOBUOY PROFILER(C) TO 7 SEC,

0149 - END SONOBUOY #13 SP. 643

0206 SAT FIX 44 06.09N; W. 45 03.54E EL=24 IT=3 CT=24

0240 C/S 92 rpms

0300 deploy sonobuoy #14 T=66° seastate 3

0320 N 44 05.049 W 44 54.202 EL=69 IT=3 CT=35

0343 data logger reel 200 done (missed 3 shots in SB.) OFF

0344 reel 200 ON

0357 end sonobuoy #14 bad transmitter

0351 44 04.671N; 44 49.422 EL=46 IT=3 CT=29

0403 C/C 105 C/S 86 rpms

0430 C/C 110°

0440 SAT FIX 44° 03.909' N 44° 43.162' W EL=10 IT=5

0510 C/C → 110°

0505 SAT FIX 44° 03.619' N 44° 39.827' W EL=11 IT=5

0542 C/C → 120°

0600 C/C → 125°

0616 C/C → 065°

\* 0549.36 \* SAT FIX

0610Z

C/C 105°

End NB-4 Begin NB-5

0612Z

C/C 085°

0620Z C/C 025°

0618Z

C/C 045°

0622Z C/C 005°

0624Z C/C 350°

44° 02.531' N

44° 34.138' W

EL=40 IT=2 CT=32

44° 02.748' N

44° 30.515' W EL=60 IT=3 CT=37

\* 0627Z SAT FIX

0630Z C/C 010°

0636Z C/S 92 RPM

0642Z NO BLAST PHONE VERY WEAK

0706Z CHECKED GRAVITY

0716Z CHANGED PROFILER A DELAY TO 5.5

0725Z BEGIN NB-6 C/C → 348°, C/S → 105 rpm.

0736Z C/C → 324°

0738Z C/C → 311°, C/S → 126 rpm.

0740Z C/C → 295°, C/S → 135 rpm.

0742Z C/C → 281° C/S → 140 rpm

\* 0736Z SAT FIX 44° 08.701 44° 26.747 EL=36 IT=3 CT=32

0748Z C/C → 276°

0753Z C/S → 142°

0800Z C/C → 272°

0805Z SB #15 LAUNCHED



# CONRAD 25-10

## NEWFOUNDLAND BASIN

TIME (GMT)

15 AUGUST, 1984

Course/speed

0807Z Water Temp 66° Sea State 3

0811Z C/S → 138 rpm

0816Z SAT FIX 44° 10.081' N 44° 31.249' W EL 27 IT 3 CT 32

0854Z C/S → 134 rpm

1000Z ~~██████~~ Martin/McEuen on watch. End SB#15  
C/C → 276°

1025Z C/C → 278°

1035Z All tows checked - O.K.

1042Z C/C → 282°

1058Z C/S → 125 RPM

1100Z C/C → 287°

1115Z steamer air straight - SB#16 start

1335Z 44° 16.078' N 45° 11.679' W EL: 22 IT: 3 CT: 27

1350Z C/C to 295°

1400Z CROWE, EBINGER, &amp; TUCKER ON GUARD Duty.

1414 C/C → 300° C/S → 116 rpm, seabeam Calcomp not printing - Charges working on it.

1422 C/S → 124 RPM

1420 gravimeter checked; OK

1534 C/S → 118 rpm

1655 changed delay AG #4 to 15s (

1709 SAT FIX 44 22.792 45 36.245 EL=11 IT=3

1730 Profilers 1 &amp; 2 out

1730 SAT FIX 44 23.389 N 45 38.577 W EL=9 IT=3 CT=23

1745 Profilers back on - no data loss on tape (someone shut switch off in MCS lab).

no signal on profilers A or B,

1755Z Karen &amp; Ruth ready for more fun &amp; action on watch

1800Z CHANGE DELAY ON PROFILER 'A'  
from 5.5 to 5.0 sec,



## Newfoundland Basin

15 AUGUST 84

time  
GMT1804Z c/c  $\rightarrow$  297°1825Z c/c  $\rightarrow$  300°1842 c/s  $\rightarrow$  122 rpm1856 c/c  $\rightarrow$  297°1924 c/c  $\rightarrow$  292°1927 c/s  $\rightarrow$  110 rpm1952Z c/c  $\rightarrow$  297°2002Z c/s  $\rightarrow$  114 rpm2014Z c/c  $\rightarrow$  300°2034Z c/c  $\rightarrow$  298°2102Z c/c  $\rightarrow$  295°2130Z c/c  $\rightarrow$  297°

2124Z \*SAT ELX 44°28.736' 46°03.533 EL=8 IT=8

2155Z Julie, Ann on watch —

2209Z c/s  $\rightarrow$  108 RPM

2210Z SB #17 over the side

(229) 16 AUG 84

0000Z Maggie paper off sprockets, being fixed

0030Z c/c 275°

SB # 17 ended

to avoid fishing <sup>lines.</sup> ~~nets~~  
 $\Rightarrow$  Long-liner has 30 miles of long-lines  
strung NE straight across our path.

0033Z c/c 262°

$\rightarrow$  0045Z - 2 guns only firing (guns 1 + 4 are off)  
 - using blast phone #2 (compressor maintenance).

0035Z end line NB-6 - begin Line NB-70000Z c/c 250° c/grav tape 058  $\rightarrow$  059

0101Z - All four augurs on line - back on blast phone 1

0112Z Gravimeter checked out OK

0130Z c/c 235°



RC 25-10

025

# New Foundland Basin (229) 16 August 1984

~~0145Z~~ Cindy, John, Jamie, Harry, Steve & Dan relieve Ann, Julie, Bryan  
(Cheer, cheer... the gang's all here...)

0248Z Steve departs...

0243Z SAT  
FIX 44° 28.900' N 46° 38.643' W EL: 46 IT: 3 CT: 16

~~0308~~  
~~0245Z~~ c/s 110° rpm.

0230Z SAT FIX 44° 29.564' N 46 36.955' W

0300Z All Tows CHECKED-OK.

0416 SAT FIX 44 24.739 N 46 48.476 W EL=29 IT=3 CT=18

0440 CHECKED GRAVITY

0456 End line 7 c/c 215 Last shot 525 tape 186

Begin LINE 8

0458 c/c 195

0500 c/c ~~185~~ 182

changed stylus recorder B; cleaned

0458 SAT FIX 44 22.608 N 46 52.20 W EL=16 IT=5 CT=25

0530 seabeam interface out

0545 seabeam back up

0600 KMEADOR & R. GORSKI ON WATCH

0604 c/c - 7182

0604 SAT FIX 44° 16.716' 46° 52.037' EL=39 IT=2

0657 c/c - 7192

0646\* SAT FIX 44° 12.749 46° 50.577 EL=84 IT=5

0702 c/c - 202°

0736 c/c - 207°

a/s - 100 rpm.

0751 CHECKED GRAVITY - OK

0750Z CHECKED ALL TOWS - OK.

0754 \* SAT FIX 44° 07.037' N EL=41  
46° 54.892' W IT 3  
CT=36

0844 SEABEAM RECORDER RUNNING LOW ON PAPER  
(BLUE line began @ 0430.)



Conrad 25-10

Newfoundland Basin

16 AUGUST 84

(229<sup>th</sup> J.D.)

GMT

0915Z SONOBUOY #18 LAUNCHED - Another great toss!

AND

The sun is shining

0917Z

0923Z Sea Beam UGR back on line

0953 Julie + Ann at watch

1012 new data logg tape #203

1146 bridge says we are "getting set to the west"

1200Z end of SB#18

1220Z c/c  $\rightarrow$  197°1240Z c/c  $\rightarrow$  192°1300Z c/c  $\rightarrow$  187°

1308Z TRIPPING ON #4 BLAST PHONE

1320Z c/c 182°

1355Z Cindy, John & <sup>oops Brian</sup> ~~Bryan~~ now on duty Age Age!

1432 SAT FIX 43 36.26N 47 11.654W EL=51 IT=3 CT=25 #110

1456 Time mark tripped by VAX repairmen no 1500 time mark

1512 deploy sonobuoy #19; c/s 106.0 rpms

Fshot SB #19 375 tape 368

1514 Seastate = 3 Temp = 74°

1552 Change sweep to 4-A sec on Son. Profiler C

1603 Change filter to 5-30 Hz " " "

1630 Change filter to 3-20 Hz " " "

1700 Change delay to 7 sec " " "

1620 SAT FIX 43° 26.941' N 47° 12.475' W EL=16 IT=3 #130

1720 SAT FIX 43° 21.319' N 47° 12.725' W EL=21 IT=3 #480

1750 GORSKI, MEADOR SEND CROWE, EBINGER TO STEEL BEACH.

Tucholke has to stay however,

1812 Sono. Receiver gain increased,

1815 c/c  $\rightarrow$  187°1818 c/s  $\rightarrow$  104 rpm



CONRAD 25-10  
Newfoundland Basin

GMT

16 AUGUST 1984

229

1833 c/c  $\rightarrow 192^\circ$ 1907 change delay Profiler "A"  $\rightarrow 4.5$  sec2026 Z c/c  $189^\circ$ 

2034 Z \* SAT FIX 4306.629 N 4716.397 E L=15 IT=5 SAL=130

2045 Z c/s  $\rightarrow 108$  rpm.GUN #1 FIRING ERRATICALLY ( $\pm 3$  ms) / GUN OUT.

2102 Z \* SAT FIX 4304.294 47017.074 E L=13 IT=3

2132 c/s  $\rightarrow 113^\circ$ 

2135 4 GUNS firing [GUN #1 back in service]

2139 GUNS 1 &amp; 4 TURNED OFF DUE TO COMPRESSOR PROBLEMS

2151 GUNS 1, 2, 3 WORKING

2153 Julie &amp; Ann here —

~~2105-2138~~ :

2138-2158; no radar on Profilers A or B - blast phase tip on wrong channel.

2210 - bridge says there's a "hull" - may have to lift streamer. Find Jim Smith...

2219 - Gun 1 delay increased from 14 to 15 ms. to line up pulses with guns 2 &amp; 3

2222 - GUN #4 ON LINE.

2215 CAPTAIN GIVEN OPTION TO SLOW TO CLEAR SHIPPING - REFUSED.

2223 GUN #4 DELAY CHANGED FROM 14  $\rightarrow$  15 ms.

2224 SHIPPING TO CROSS THE BOW.

2225 4 GUNS firing again

2227 GUN #4 DELAY  $\rightarrow$  14 ms.

2242 400' Freighter off port bow - supposed to cross 1.5 ahead of us.

2305 ship passed 3 miles off bow



CONRAD 25-10

## NEWFOUNDLAND BASIN

(229) 16 AUGUST 1984

GMT

2328

Ship now 4.5 nm away

2342

C/C → 1850

(230) 17 AUG 1984

0014

CHANGE CUN DEPTH → 12m

0040Z Sonobuoy #20 deployed

0108Z Gravimeter checked out - OK

0124Z Change delay on Sonobuoy Profiler C to 5sec. (5-15s)

0127Z " filter " " " to 5-40Hz (Sweep)

SAT FIX

#200

0133:36

42° 41.614' N 47° 23.805' W

el 12° it 3 CT 220142 - check on oscilloscope shows all 4  
airguns synchronized.

16 August 1984

0145Z flu, lindy, jamie, &amp; Harry Reine Ann, juhi and Brian.

0242 - CHECKED GRAVITY

0300 END SB #20 LSHOT = 501 DFS TAPE 226 LOWER TAPE 204

0328 SAT FIX 42° 31.815' N 47° 26.088' W, E1 = 62 IT = 2 #110

0415Z All Trws CHECKED - OK.

0408 SAT 1 N 42 28.732 47 26.824 EL = 4 IT = 14 CT = 15 #130

0430 DEPLOY SONOBUOY #21A Seestate = 2 75° = T

DFS REEL 228 SHOT 970 DLOGGER REEL 204 @ 0430 Z

0442 LOST SB #21A- SP 809 Tape 229 caught in streamer

0450 Deploy SB 21, SP 829 Tape 229

0504 N 42° 24.412' W 47° 27.176' EL = 12 IT = 3 CT = 21 #200 SAT FIX

(Sonobuoy 21 thrown on buried seamount)

0541 N 42 21.540 W 47 27.133 EL = 27 IT = 3 CT = 31 #480 SAT FIX0557 SAT FIX 42° 20.342' 47° 27.188' EL = 42 IT = 2 CT = 2806240Z DATA LOGGER TAPE #206 CRASHED. DATA LOGGER  
WILL HAVE TO BE REBOOTED.



CONRAD 25-10

NEWFOUNDLAND BASINTIME  
GMT

0629Z DATA LOGGER BACK ON LINE. NO —  
PREMATURE — PROBLEM WITH TAPE CONTROLLER.  
NO DATA BEING TAKEN.

0658Z Begin 180° turn in 20° increments  
to reciprocal course. End of NB-8.  
New course will be 011°. We are going back  
to reoccupy NB-8. New line will be NB-9.

0658 c/c → 205°

0700 c/c → 225°

0702 c/c → 245°

0704 c/c → 265°

0706 c/c → 285°

0708 c/c → 305°

0710 c/c → 325°

0712 c/c → 345°

0714 c/c → 005°

0716 c/c → 011°

0730 c/c → 006°

LINE NB8A → reciprocal course  
to reoccupy last s.p. of  
line 8.

0730 \* SAT FIX 42° 17.506 47° 27.761' EL=57, IT=3, LT=38, SAL#=480

0745 c/c → 001° c/s → 100 rpm.

0755 c/c → 356°

0743 SAT FIX 42° 18.804 47° 27.435 EL=33 IT=4 LT=17 SAL# 130

0810 c/c → 351°

0812 c/s → 80 rpm

0821 c/s → 84 rpm

0830Z Bridge will now begin recording LORAN  
C TD's and lat/long. every 10 minutes. No  
progress with data logger. Will try to get PFS IV  
to trigger off gun delay box, which controls  
synchronized gun firing.



RC 25-10

## NEWFOUNDLAND BASIN

TIME (GMT)

August 17, 1984

Still on reciprocal course to line NB-8, designated as NB-8A. Minimum maneuvering speed, approximately 1 nm. left of original line. Will turn to NB-9 as soon as DFS IV can be triggered successfully.

0900Z Running LORAN C input from INTERNAV direct to SEABEAM VAX. Still no digital seismic being collected.

0925Z BEGIN <sup>recording</sup> LINE NB-9. We are now triggering off the gun box. This means the following: the guns fire, and there is a 2.0+ sec\* delay before recording begins. No problem, unless we reach water depths of  $\approx 2.0$  sec.

\* exact amount forthcoming.

0930Z c/s 96 turns, c/c 011° Beginning turn back onto original course.

0932 c/c  $\rightarrow 031^\circ$

0934 c/c  $\rightarrow 051^\circ$

0936 c/c  $\rightarrow 071^\circ$

0938 c/c  $\rightarrow 091^\circ$

0940 c/c  $\rightarrow 111^\circ$

0942 c/c  $\rightarrow 131^\circ$

0944 c/c  $\rightarrow 151^\circ$

0946 c/c  $\rightarrow 171^\circ$

0948 c/c  $\rightarrow 191^\circ$  c/s  $\rightarrow 112$  rpm

0950 c/c  $\rightarrow 195^\circ$  end of turn.

BEGIN LINE 9

0954Z

shot 199

incremented line # from 8 to 9  
(hardily)



## NEWFOUNDLAND BASIN - AUGUST 1984

17 Aug 84  
 C 230  
GMT

0920.24Z 42° 26.560' N EL: 8 IT: 11 CT: 23  
 47° 27.178' W SAT #480

1120Z delay on Prof B 4sec → 0sec to test  
 delay in recording on DFS. That recording  
 is beginning at approximately 3.0 sec.  
 Tapes are running for ~15 sec → giving  
 us a 12 sec. record on tape.

1121Z Delay on "B" back to 4.0 sec.

1123Z C/c 193°

1130Z Change delay on "A" from <sup>4.5</sup>sec → 5 sec  
 All fows checked - OK.

1135Z GUN COMPRESSOR ALARM

#4 gun being brought in (running on 3 guns)

1139Z #4 gun at deck. Broken air hose.  
 Running on 3 guns.

1157Z Data Logger running

1201Z double firing - low gun pressure.

1204Z Guns off → not recording data -  
 trying to switch back over to data  
 logger.

1205Z Restart Data Logger

1213Z Starting to record data. Continuing NB-9.

1218Z Data Logger sampling at 17" record length,  
 20" rate. We don't know why it's working.

1222Z DDL to 0 samples, 20" rate

1230Z "A" delay → 5 sec

1300Z - PRO A - EVENT BUTTON & PHASE BUTTON PUSHED - 10 SATCOST

1303Z gun #4 is back in the water & firing  
 delayed by 14 ms

1311Z GRAVITY CHECKED



RC 25-10

032

## NEWFOUNDLAND BASIN

August 17, 1984

TIME (GMT)COURSE/SPEED

1318Z increase to 115 rpm

1326.24Z SAT FIX 20042° 10.361' N 47° 31.160' W  
el-13° it-3 ct-21

1350Z c/s 118 rpm Adjust Speed

1505 Deploy sonobuoy #22 Sp. 88 (1505 #) tape 242  
7.5° Seastate = 3

1510 42° 02.247' N 47° 33.214' W EL=80 IT=10 CT=32 #200

1529 42° 00.795' N 47° 32.880' W EL=60 IT=3 CT=35 #110

1548 CHANGE DELAY ON SONO PROFILER "C" TO 5.0 SEC.

1552 " FILTER " " TO 5-40 Hz

AND INCREASE GAIN

1600Z Seabeam down for check

1612Z SAT FIX (NO UPDATE) 41° 57.464' N 47° 33.834' W EL=4 IT=7 #130  
(Elevation, iteration too low)

1632 c/f on Sono Profiler C to 4-30 Hz

1646 Gun traces on oscilloscope checked ~5 times in  
past two hours - look good, well synchronized.

1652 c/f on Sono Prof C to 3-20 Hz, increase gain

1656 SAT FIX 41° 54.061' N 47° 34.829' W EL=16 IT=3 #200

1731 END SONOBUOY #22.

1734 This is a drill, this is a drill... all hands man your alarm stations.

1754 Secure from drill (wrong - life boat drill)

1757 SAT FIX 41 49.660' N 47 35.993' W EL=41 IT=3 #130

1814 Secure from drill

Karen &amp; Ruth assume their positions

1830 c/s → 122 rpm

1837 c/c → 196°



## Newfoundland Basin

GMT

17 August 1984

- 1840 Pen/stylus cleaned on profiler "B"
- 1851 Change delay on Gun #4 from 14 to 15 ms.  
(has been consistently leading guns 1-3 by ~1 ms).
- 1856 c/c → 199°
- 1853 \* SAT FIX 41° 45.242'N EL=84 CT=38  
47° 37.387'W IT=3
- REJECTED BY MAGNAVIX DRT ROUTINE
- 1944:00 SAT FIX 41° 41.027'N EL 33°  
#130 47° 38.238'W IT 3 CT=32
- 2006 SONOBUOY #23A LAUNCHED (SIGNAL GOOD) - DIED @ 2020  
STBD SIDE SEA STATE 3 CAUGHT IN  
SST° 77°F STREAMER
- 2033 c/c → 199° c/s → 120° rpm.
- 2044 SONOBUOY #23 LAUNCHED A-OK
- 2041 \*SAT FIX 41° 36.116' 47° 39.183' EL=17 IT=6 CT=25
- 2133 C/SWEEP TO 5-15 SEC. ON SONO. PROFILER "C"
- 2138 C/F " " " TO 5-40 Hz
- 2153 Julie & Ann here
- 2222 - C/F on Sono. Profiler C to 3-30 Hz
- 2228 - Martin notes air hose leak on Gun #4
- 2230 - Gun #4 pulled to fix air hose.
- 2233 - Change Sweep on Sono. Profiler C to 7-17 sec.
- 2240 - END SONOBUOY #23.
- 2310 - End of Line #9 Begin Line 10
- 2311 - C/C → 220°
- 2332 - Gun #1 ~~is~~ turned off for compressor check (Gun #4 is already off)
- 2356 - Gun #1 working - end compressor check.



COMRAD 25-10

034

NEWFOUNDLAND BASIN  
18 AUGUST 84

GNT

0005 Z C/S → 118 RPM

0035 Z C/C 225°

0044 Z gun #4 back on line

0045 Profiler A; changed delay 5.0 → 4.5 sec

0050 Decrease delay on Airgun #4 from 15 to 14 ms.

0118 Z C/C 230°

0141 Z water temp 83° - difficulty staying on line due to Gulf Stream Current.

0148 Z - AIRGUN BREAKS CR'D ON OSCILLOSCOPE - ALL AIR SYNCHRONIZED AND FIRING SMOOTHLY.

0150 Z C/C → 235°

0150 Z Jimmie, Cindy, Jim and Harry relieve Julie, Bryan, Ann, & Barry.

0211 Z 41° 09.491' N 47° 54.952' W EI=25 IT=3 #200 SAT FIX

0230 Z C/C → 240°

0231 Z C/S → 120 rpm

0240 Z SAT FIX 41° 07.939' N 47° 57.165' W EI=62 IT=2 #110

0257 Z SEA SURFACE TEMP=84 SEASTATE=3 (?)

MCS SP 236 tape #236

0350 Z SAT 41 04.121' N 48 04.389' W EI=41 IT=3 #200

0408 PULL GUN #4 - leaking Seal.

0425 3 guns #4 on deck

0426 SF=41° 02.688' N 48° 07.290' W EL=22 IT=3 CT=27 #110

0446 CHECK GRAVITY -OK

0457 change data logger tape #208 Fire cable on #4 gun bad. Changing it out.

0502 - CHANGING FIRING LINE ON #4

0506 N 41° 00.921 48° 11.309 W EL=18 IT=3 CT=4 #130

0530 End Souduey #24 SP 687 #268

0533 C/C 235 C/S 116 rpm



CONRAD 25-10

NEWFOUNDLAND BASIN

AUG 18 (JD231), 1984

GMT0540 SAT FIX  $40^{\circ}59.167'N$   $48^{\circ}15.242'W$  EL=3 IT=12 CT=12 #2000553 C/C  $\rightarrow 230^{\circ}$ 0616 C/C  $\rightarrow 225^{\circ}$ 

0635 4TH GUN BACK IN SERVICE

0640 C/C  $\rightarrow 220$  C/S  $\rightarrow 112$  rpm0704 C/C  $\rightarrow 215^{\circ}$ 0654 \* SAT FIX  $40^{\circ}55.912$   $48^{\circ}23.011'$  EL=75 IT=3 CT=35 #1140720 C/C  $\rightarrow 210$ 07322 C/C  $200^{\circ}$  Trying to maintain our position in axis of SENR reentrant. Current is sweeping us to the west.

0800 Z SONOBUOY #25 THROWN IN THE WATER.

0815Z 4-8 watch rates sunrise as stupendous.

0842Z GRAVITY CHECKED

0900Z All fows checked - O.K.

0856Z SAT FIX  $40^{\circ}47.668'N$   $48^{\circ}29.400'W$  EL=13 IT=3 CT=27 #480

0950 Ann Marie here - Julie

~~1000~~ 1030 End of SB #251035 C/C  $\rightarrow 205^{\circ}$ 1100 C/C  $\rightarrow 210^{\circ}$ Dan [redacted] Chayes working on Interval  $\rightarrow$  switching slaves to oneach  $\rightarrow 9960^*/7930^+$  chains. Using 32000 slave from 7930. 9960 - E. coast U.S.1210 - C/C  $\rightarrow 215^{\circ}$ 

7930 - E. Canada.

1243Z - Air conditioner working again

1244Z - Tows checked - OK.

1400Z John &amp; Cindy &amp; Brian relieve Jamie, Ann &amp; Julie

1402 Sat Fix  $40^{\circ}25.74'N$   $48^{\circ}48.907'W$  EL=24 CT=27 IT=3 #2001438 C/F PROF C (Sono)  $\rightarrow 4/30$  Hz1447 C/F " "  $3/20$  Hz1440 SAT FIX  $40^{\circ}23.05'N$   $48^{\circ}52.035'W$  EL=58 IT=3 CT=35

1520 CHG. DELAY ON AMGUN #1 to 12 ms,



R/V Conrad 25-10

Newfoundland Basin

August 18 (231)

GMT

1524 End sonobuoy #26 MCS File # 467, tape # 285

1526 c/s 218° c/s 108 rpm

1546 SAT FIX 40° 18.54'N 48° 57.74'W EL=55 IT=2

1555 c/s 106 rpm

1600 Seabeam down momentarily ... OK Woody

1626 SAT FIX 40° 16.171'N 49° 00.963'W EL=22 IT=3

1641 Decrease delay on Gun #4 from 15 to 14 ms.

1616 c/s → 110 rpm

1707 SAT FIX 40° 13.895'N 49° 03.891'W EL=16 IT=4 #130

1730 c/s → 112

1734 c/c → 214

1733 SAT FIX 40° 12.356'N 49° 05.684'W EL=6 IT=5 #200

1752 c/s → 105 rpm

~~1800~~

1752 Ruth &amp; Karen back on the streets after a tough day at the beach.

1831Z \*SAT FIX

SAT # 480

EL=57

40° 08.783'N

IT=2

49° 09.357'W

CT=37

2009Z c/s → 222 rpm.

2014Z END LINE NB-10, begin turn, c/c 241°, Begin LINE NB-11

2016Z c/c → 261

2018Z c/c → 285

2019Z AIRGUN #1 - TIMING OFF

2021Z c/c → 297°

2029Z c/c → 313°

2027Z c/c → AIRGUN #2 IS OFF.

2019Z SAT FIX 40.01.624 49 15.722 EL=25 IT=3 CT=30

2030Z c/c → 328

2031Z c/c → 119 rpm

2037Z c/c → 342° - NOTE - Blast phone not switched when gun #2 was shut down - no Profiler A or B record from 2027Z to 2037Z when blast phone trip switched to gun 3.



R/V CONRAD 25-10  
NEWFOUNDLAND BASIN

18 AUG 84

231

2041Z Reduce speed  $\rightarrow$  112 RPM  
 2042Z " "  $\rightarrow$  104 RPM  
 2043Z C/E  $018^\circ$  Change delay on gun #4 from 14 to 15 ms.  
 2044Z R/S  $\rightarrow$  96 RPM  
 2047Z C/S  $\rightarrow$  106 RPM  
 2048Z C/C  $\rightarrow$   $000^\circ$   
 2040Z \*SAT FIX  $40^\circ 02.378' N$   $49^\circ 17.581' W$  SAT 130/EL 11/RT 4/CT 4  
 2053Z AIRGUNS 2, 3, 4 on line

2057Z A/C  $\rightarrow$   $037^\circ$  AIRGUNS 1, 2, 3, 4 on line.

2059Z C/S  $\rightarrow$  C/S 160 RPM, C/C  $\rightarrow$   $056^\circ$

2101Z C/C  $\rightarrow$   $074^\circ$  FINAL COURSE FOR LINE NB-11.

2107Z R/S  $\rightarrow$  100 RPM

2110Z C/S  $\rightarrow$  110 RPM

2111Z C/S  $\rightarrow$  108 rpm

2116Z START POINT - TAIL OF STREAMER NEAR SURFACE -  $\left\{ \begin{array}{l} \text{DT SET} \\ \text{TO } 60' \end{array} \right.$

2121Z R/S  $\rightarrow$  80 RPM TO TRY TO DIVE BACK  $\frac{1}{2}$  OF  
STREAMER

2127Z C/S  $\rightarrow$  90 RPM - BEGINNING TO INCREASE SPEED  
TO 6 KTS - WORKING ON GETTING  
TAIL OF STREAMER DOWN,

2130Z C/S  $\rightarrow$  100 rpm.

\*2112Z LAST 4 DTS are near surface

2136Z C/S  $\rightarrow$  110 rpm

2139Z C/C  $\rightarrow$   $090^\circ$  (INTO WIND)

2143Z TAILFLOAT IS RIGHTSIDE UP, C/C  $\rightarrow$   $110^\circ$

2145Z C/C  $\rightarrow$   $120^\circ$  C/C INTO WIND

2147Z C/C  $\rightarrow$   $150^\circ$

2149Z C/C  $\rightarrow$   $170^\circ$

2149Z C/S  $\rightarrow$  122 rpm

2150 Ann on duty - also Julie

2200 TAIL OF STREAMER COMING DOWN



R/V CONRAD 25-10

NEWFOUNDLAND BASIN  
AUGUST 1984

GMT:

18 AUG 84 (231)

2214 c/c  $\rightarrow 190^\circ$ 2216 c/c  $\rightarrow 210^\circ$ 2219 c/c  $\rightarrow 225^\circ$ 2222 c/c  $\rightarrow 240^\circ$ 2225 c/c  $\rightarrow 255^\circ$ 2228 c/c  $\rightarrow 270^\circ$ 2231 c/c  $\rightarrow 285^\circ$ 2234 c/c  $\rightarrow 300^\circ$ 2304 c/c  $\rightarrow 309^\circ$ 2310 c/c  $\rightarrow 326^\circ$ 2316 c/c  $\rightarrow 344^\circ$ 2318 c/c  $\rightarrow 002^\circ$ 2322 c/c  $\rightarrow 020^\circ$ 2332 c/c  $\rightarrow 038^\circ$ 2334 c/c  $\rightarrow 057^\circ$ 2336 c/c  $\rightarrow 074^\circ$  c/s  $\rightarrow 125$  RPM ~~(small speed reduction)~~  
~~and~~ (Continue @ 6 kts until tail buoy dead astern).

2341 ETA for starting point is 2352Z

2346 change ETA to 2354

2355 Continue on Line NB-#11 (on line) (tail buoy dead astern)2358 c/s  $\rightarrow 120$  RPM depth as stream still set @ 60 ft,but towing at 20  $\rightarrow 45$  ft0005 c/s  $\rightarrow 115$  RPM (Continuing to reduce speed  
to 5 kts)0010 c/s  $\rightarrow 110$  RPM0035Z c/s  $\rightarrow 108$  RPM

0155Z John Cuddy Jimmie Nelson Ann Julee Brian Henry Steve Kereka

0150 SATFIX 40° 05.515' 48° 54.396' EI=26 IT=3 #110

0215Z C/Delay profiler A to 5.5 sec

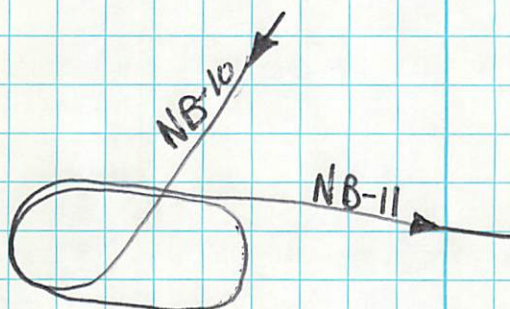
0224 c/c  $\rightarrow 075$ 0246 c/c  $\rightarrow 073$ 0240 Looking @ data logger to try to discern  
why sonobuoy signals are being clipped.

0253Z Decrease threshold on profiler B to zero.

0300 c/s  $\rightarrow 110$  c/c  $\rightarrow 079$ 

0315Z Launch SB#27.

MCS 573 - SP, tape # 307





Newfoundland Basin  
19 August 84 (232)

0323Z Line NB-11, SB# 27

0339Z #2 GUN NOT FIRING... EVERY SHOT... CHECKED OUT OK, FIRING OK.

0350Z GUNS LOOK GOOD.

0338 Sat Fix  $40^{\circ}07.341'N$   $48^{\circ}49.368'W$  EL=49, IT=3 CT=3 #110

0433 Sat Fix  $40^{\circ}08.494'N$   $48^{\circ}43.762'W$  EL=20 IT=23 CT=23 #200

0501 CHECK GRAVITY - OK

0505 ALL TOWS CHECKED - OK. ALL 4 GUNS FIRING.

0456 Sat fix  $40^{\circ}09.116'N$   $48^{\circ}41.579'W$  EL=12 IT=3 CT=24 #480

0512 Jamie's in for a shave - couldn't find any Wheaties!

0530 c/c  $084^{\circ}$  c/s 112 rpm

End sonobuoy #27 SP 978, tape #311

0547 c/s 114 rpm

0550 c/c  $089^{\circ}$

0605 #2 GUN BAD FIRING CABLE, Other 3 guns stabilized.

0612 c/c  $094^{\circ}$

0604Z SAT FIX  $40^{\circ}10.994'N$   $48^{\circ}34.020'W$  EL=50 IT=3 CT=34 ~~SAT#23~~

0645Z Gun #2 on deck.

0644 SAT FIX  $40^{\circ}11.486'N$   $48^{\circ}30.567'W$  EL=75 CT=38 SAT# ~~480~~

0750 SAT FIX  $40^{\circ}12.101'N$   $48^{\circ}22.936'W$  EL=26

IT=3

SAT#130

CT=28

0802 c/c  $\rightarrow 097^{\circ}$

0833 SAT FIX  $40^{\circ}12.128'N$

EL=18

$48^{\circ}18.257'W$

IT=3

SAT #480

CT=28

0908 #2 AIRGUN IS BACK IN THE H<sub>2</sub>O & firing

0930 c/s  $\rightarrow 120$  rpm

0935 Dan Chayes does great job changing Data Logger Tape #210

0955 Julie + Ann on watch

1035Z c/c  $\rightarrow 093^{\circ}$

1042Z c/s  $\rightarrow 122$  RPM

1050Z SB# 28 start



GMT:

19 AUG 84 (232)

Line NB-11

1137 #2 GUN STOPPED AND BEING PULLED - broken air hose

1140 Ann, Julie relieved. Andy, John, Brian on watch.

1208Z Bridge notified us that speed made good is 5.4 kts for the last 2 hours.

1250Z end SB #28 reel #325 shot #280  
c/c 118 rpm

1337Z gun #2 is in the water + firing

1346Z gun #4 is in the water + firing

1400Z Sat Fix 40° 13.414 N 47° 43.223 W EL=29 CT=29 IT=3 #110

1435 Sea surface 80° Seastate=4

Deploy sonobuoy #29 MCS SP #590; tape #328

1438 Sat Fix 40° 13.861 N 47° 38.304 W EL=52, IT=3, CT=3 #200

1531 CHANGE DELAY ON SONO. PROFILER C TO 6 SEC (6-16 sec)

1533 " FILTER " " TO 5-30 Hz

1537 40° 13.534 N 47° 31.722 W EL=45, IT=3 CT=3 #110

1643Z LAST SHOT SB #29 TAPE 331 / SHOT 978 LOGGER TAPE 210

1647Z C/C → 095° #3=4' #4=18'

1704Z C/S → increasing to sink streamer - mid section ↑ shallow (130 rpm)

1706Z C/S → 135 rpm 1710 DT's @ 38, 46, 17, 19, 46 (#1-5)

1714Z END LINE NB-11 begin turn, filbuoy across and point

\*

1714Z START LINE NB-12

1714Z C/C → 100°

1716Z C/C → 130°

1716Z C/S → 142 rpm

1717Z C/S → 150 rpm

1718Z C/C → 147°

1720Z C/C → 165°

1722Z C/C → 182°

1723Z C/S → 155 rpm

1725Z C/C → 200

C/S → 160 rpm



RC2510  
Newfoundland Basin  
NB-12

1728Z C/C → 219°  
1729Z C/C → 239°  
1732Z C/C → 303°  
1733Z C/S → 150 rpm  
1734Z C/S → 140 rpm  
1735Z C/C → 303  
1736Z C/S → 135 rpm

1741Z NOW THAT WAS A BEAUTIFUL TURN! STREAMER V. WELL BEHAVED.

1745 C/S → 116 rpm  
1747 C/S → 110 shift to 1 main engine  
1748 C/S → 110 rpm  
1750 C/S → 94 rpm  
1751 C/C → 296 C/S → 95 rpm  
1752 GREEN LIGHTS... CROSSING INTERSECTION  
1754Z Four guns on line  
1756 C/S 105 rpm  
streamer near surface @ DT #3  
1810Z All 4 airguns down, preparing to pull streamer.  
1811 Maggie off

1803 SAT FIX 40° 16.106' N EL = 53  
47° 24.080' W IT = 3 #130  
CT = 17  
1821 C/C → 280° Heading up into wind  
1824 C/C → 265°  
1827 C/C → 250°  
1830 C/C → 235°  
1833 C/C → 220°  
1836 C/C → 205°  
1837 C/S → 85 rpm  
1839 C/C → 190°  
1841 C/S → 104 rpm  
1842 C/S → 120 rpm  
1843 C/S → 60 rpm

you spoke too soon, John!



RC 25-10

NB-12

19 AUGUST 1984

GMT

- 1843 Maggie out of water  
 1845 commence hauling streamer  
 1846 c/s  $\rightarrow$  70 rpm  
 1848 c/c  $\rightarrow$  196°  
 1853 c/s  $\rightarrow$  55 rpm  
 1900 c/c  $\rightarrow$  191°  
 1902 c/c  $\rightarrow$  185°  
 1936Z muder is jammed  
 2019 c/s  $\rightarrow$  52 rpm  
 2050 c/s  $\rightarrow$  90 rpm  
 2150 Julie & Renee at watch  
 2156 c/s  $\rightarrow$  80 RPM  
 2208 c/s  $\rightarrow$  100 RPM  
 2210 All stop  
 2211 100 RPM - multichannel is streamed  
 2214 c/s  $\rightarrow$  4 knots  
 2215 c/s  $\rightarrow$  115 RPM  
 2220 c/s  $\rightarrow$  120 RPM  
 2226 c/s  $\rightarrow$  125 RPM  
 2227 c/c  $\rightarrow$  155°  
 2230 c/c  $\rightarrow$  140°  
 2232 c/s  $\rightarrow$  130 RPM  
 2233 c/c  $\rightarrow$  105°  
 2239 c/c  $\rightarrow$  090°  
 2242 c/c  $\rightarrow$  079°  
 2245Z meggie back in the water  
 2300 data logger alarm  
 2310 data logger on line  
~~2304 data logger was turned off~~  
 2304 data logger shut off to replace A/D board  
 2317 c/c  $\rightarrow$  095°  
 2319 c/c  $\rightarrow$  115°  
 2320 c/s  $\rightarrow$  135 RPM  
~~2337Z c/c  $\rightarrow$  095°~~  
 2328Z c/c  $\rightarrow$  095° 6 guns # 1, 3, 4 firing  
 2330Z c/c  $\rightarrow$  075°



R/V Conrad 25-10

19/20 August 1984Time Z

2332Z

C/C  $\rightarrow 055^\circ$ 

2334Z

C/C  $\rightarrow 035^\circ$ 

C/S 120 rpm

2336Z

C/C  $\rightarrow 015^\circ$ 

2338Z

C/C  $\rightarrow 000^\circ$ 

2340Z

C/C  $\rightarrow 345^\circ$ 

2342Z

C/C  $325^\circ$ 

2343Z

C/C  $\rightarrow 305^\circ$ 

2345Z

C/C  $\rightarrow 285^\circ$ 

2347Z

C/C  $265^\circ$ 

2349Z

C/C  $\rightarrow 245^\circ$ 

C/S 135 rpm

2350Z

C/C  $\rightarrow 225^\circ$ 

2352Z

C/C  $\rightarrow 205^\circ$ 

20 AUG 84 (233)

0002Z

C/C  $\rightarrow 303^\circ$  - finally! on course for Line 12

0008Z

C/S  $\rightarrow 120 \text{ RPM}$  - 1st shot of Line MB-12

0014Z

C/S  $\rightarrow 115 \text{ RPM}$ 

0015Z

C/C  $\rightarrow 298^\circ$ 

0016Z

C/S  $\rightarrow 110 \text{ RPM}$ 

0022

C/S  $\rightarrow 105 \text{ RPM}$ 

0026

Official start of Line MB-12; reel straight

0031

C/C  $\rightarrow 295^\circ$ 

0042

C/S  $\rightarrow 107 \text{ RPM } 97^\circ \text{ RPM}$ 

0050

C/C  $\rightarrow 298^\circ$ 

0113

#3 GUM OFF

0101

SAT FIX:  $40^\circ 16.633' \text{ N } 47^\circ 25.934' \text{ W}$  SAT #110

EL=12 IT=17 CT=24

0121

C/S  $\rightarrow 100 \text{ RPM}$ ; GUM #3 firing (total: 3)

0140

SAT FIX:  $40^\circ 16.633' \text{ N } 47^\circ 25.934' \text{ W}$ 

GMT 010048

EL=

SAT FIX:  $40^\circ 18.278' \text{ N } 47^\circ 29.061' \text{ W}$  EL=16 IT=3 CT=

0149

SAT #200



## Newfoundland Basin

RC2510

19 AUG 84

Jday = 233

Line N/B-12Time (GMT)

0145 Jim, Cindy relieve Ann, Julie. Harry on watch  
 0158 Jamie relieves Brian

SBT over side @ 0246Z First shot ~~246~~<sup>472</sup> / DFstape 329  
 Dlogger tape 211 Chan 27

0239 Gun #2 back online, 4 guns firing.

0245 Bridge reports stbd. set - Sonobuoy #30 deployed

0250 NOVA 4 / DATA GENERAL CRASH

0254 BACK UP. GUNS FIRING

0248 SAT FIX 40° 21.351' N 47° 34.724' E1=84 IT=3 #110

0324 SAT FIX 40° 22.943' N 47° 37.827' E1=64 IT=3 #200

0336 Bridge reports speed over ground = 4.4 kts.

0400Z Change delay on profiler "A" to 4.5 sec (5 sec. sweep).

0403 6.1 Meador meter

0435 3.5 kHz PDR turned off for cleaning. It had been ripping paper. On again @ 0436Z.

0440 3.5 kHz down for cleaning

0443 Back on,

0434 40 26.152 N 47° 43.467 E1=16 IT=3 CT=16 #110 SAT Fix

0440 All tows checked - OK.

0515 9.75 on Meador / meter

0513 Sat fix 40° 27.991 47° 46.382 E1=24, IT=3 CT=18 #130

0530 C/C 296° C/S 110 rpm

0530 End sonobuoy #30 S.P. 955 tape #344

0626 8.1 Meador / meter

0621 \* SAT FIX 40° 31.288 N 47° 52.032 W E1=59 IT=3 CT=38 SAT=180

0704Z BIG ROLL - SYSTEM CRASH - GUNS NOT FIRING

0710Z Smith gets logger back up → guns cycling again.

0701 \* SAT FIX 40° 33.315 N 47° 55.436 W<sub>long</sub> E1=56 IT=3 CT=33 SAT=130

0725Z ALL TOWS CHECKED - O.K.

0736Z C/S → 114 rpm.

0747Z - SYSTEM CRASH - BUT BACK ON IN ~ / sec.

0800Z - C/C → 296°



## Newfoundland Basin

RC 25-10, line B-12

20 August 1984

JDAY = 233

GMT

0810 SAT FIX 40° 36.821'N 48° 00.985'W EL=25 CT=31  
IT=3 #480

0846 SAT FIX 40° 38.264'N 48° 03.872'W EL=7 IT=3 CT=19 #130

0900 c/c → 293° c/s → 118 rpm

0913 It's a thundering and lightning out-and. the wind is blowing harder than an (Texan) armadillo's shell...

We are rockin' & rollin' all over the lab

0917 The system did not crash.

0950 Julie &amp; Ann here

1003 #4 gun malfunctioning - shut off

1038Z Straightening paper on profiler "B."

1039Z DATA LOGGER CRASH.

1047Z GUN ALARM

1048Z DATA LOGGER ON, CYCLING AGAIN.

1050Z RECORDING AGAIN ON DFSTV ⇒  
S.P. 851, tape #353.

1103 GUN #4 on deck

1103 Profile A stops printing } bad file

1114 Profile A printing } 1100-1115

actual reduced gun signal ~ 1156Z

1152 GUN #4 back in + firing

1159 Airgun pressure is down

1202 GUN #2 leaking air; guns #1 + 3 only mes working

1205Z c/c 298°

1302:48Z SAT FIX

40° 49.734'N

48° 46.545'

el-12 it-4

ct-20

# 110



## Newfoundland Basin

R/V Conrad 25-10 NB Line 12

20 August 1984 (233)

GMT

1329Z

1330Z

1335Z

Gun #4 in the water

3.5 DELAY ON PRO'A'

GUN NO 2 IN WATER + FIRING

SAT FIX

1330:24Z

40° 51.022' N 48° 29.199' W

el: 16 it: 3 ct: 23

# 200

1340Z

1355Z

gun #4 in the water + firing

gun #2 on deck

1358 c/c 303°

1440 c/c 300°

1504 c/c 305°

1448 Sat Fix 40° 54.818' N 48° 36.062' W EL=79 IT=3 CT=35 #110

1513 Data logger down

1521 Data logger up - changed terminals (DataGun)

1524 Back to 20S v.r.

1515 Sat Fix 40° 56.16' N 48° 38.912' W EL=83 IT=3 CT=35 #200

~~1524~~1616Z Gun #2 back in water, pull #1 gun to clear of Sargassum seaward  
Switch to blast phone #3 trigger.

1623Z 4 guns online

1636 SAT FIX 41° 00.937' N 48° 46.377' W EL=16 IT=3 CT=26 #110

1647 C/S → 110 rpm

1648 chg. delay on airgun #4 from 15 → 14 ms

1701 SAT FIX 41° 02.309' N 48° 48.714' W EL=12 IT=3 CT=24 #200

1714 SAT FIX 41° 02.958' N 48° 49.842' W EL=22 IT=3 CT=27 #130

1745 SAT FIX 41° 04.650' N 48° 52.620' W EL=32 IT=3 CT=33 #480

1755 Ruth &amp; Karen on

1823 c/c → 308°

1942 SYNC. CLOCKS.



## NEW FOUNDLAND BASIN

R/V CONRAD RC25-10 NB LINE 12

233 / 20 AUG., 84

1946 A/C-106 RPM

1933 SAT FIX #400  $41^{\circ}10.599'N$   $49^{\circ}03.690'W$  EL-47 IT-2 CT-3L

2005 SeaBeam speed readout not even in the Ballpark - notified  
 2021 " still not working → NO DEPTHS ON SEABEAM. Steve Pawlet  
 2030

2100 SAT FIX  $41^{\circ}15.327'N$   $49^{\circ}10.044'W$  EL=8 IT=5 CT=21 SAT=130  
 2101 C/C →  $309^{\circ}$

2102 SEABEAM BACK ON LINE! Reading depths @ 2102.  
 2115

2117 C/C →  $304^{\circ}$ 2135 C/C →  $298^{\circ}$  Ready to deploy sono.-waiting on bridge for course corr's.2120 SAT FIX  $41^{\circ}17.910'N$   $49^{\circ}13.374'W$  EL=6 IT=3 CT=20 SAT=4802146 C/C →  $293^{\circ}$ 

← Frosting fr/  
 Captain's Bday cake

2150 Juliet Ann at watch

2157 SB#31 launched by Brian and his elves.

2250 Change delay on profiler C (sono.) to 5 sec. (5-15S.)  
 2256 " filter " " " to 5-30 Hz. (sweep)

2312 Bridge says we are 1.5 m to right of course line

2328 Bridge says 2 knots of current setting ship in direction of  $21^{\circ}$ 2359 - SB#31 end

234 / 21 AUG 84

0000 - C/C →  $288^{\circ}$ 0025Z C/C →  $283^{\circ}$ 0048Z C/C →  $278^{\circ}$ 

0108Z gravimeter checked out OK

0112Z C/C  $273^{\circ}$  C/S 105 rpm



July 234

Conrad 2510  
Newfoundland Basin

20/21 Aug 84

048

NB-12

Time (GMT)

0145Z Julie, Ann, Barry, Brian relieved. Phil, Cindy, Harry, J. James on watch

~~0200Z~~ - DFS down briefly - circuit breakers tripped, shutting off power.

0200Z - Red line on profiler "A."

0156 - 0159 DFS IV Down - circuit breakers thrown

0159 SAT FIX 41° 31.560' N 49° 33.790' W EL=34 IT=3 #110

0215 SAT FIX 41° 31.979' N 49° 35.178' W EL=34 IT=3 #200

0245 SEABEAM CRASH, BURN... STEVE ON DIAGNOSTICS

0251 C/C → 278° IT ONLY SIZZLED A LITTLE

0252 SEABEAM WRITING TO TAPE OK... NO PLOT OR EPC RECORD, HOWEVER.

0300Z All fuses checked - OK - nice moonrise.

0311Z C/C → 283°

0321Z CHECKED GRAVITY

0330 C/S → 110 rpm

0337 C/C → 288°

0346 SAT FIX 41° 33.598' N 49° 42.800' W EL=40 IT=3 CT=32 #110

0347 C/C → 292° C/S → 120 rpm

0406 C/S → 124 rpm

0418 C/C 297°

0400 SAT FIX 41° 33.951' N 49° 44.343' W EL=35 CT=26 IT=3 #200

0422 SAT FIX 41° 34.965' N 49° 46.813' W EL=8 IT=5 CT=19 #130

0436 Airgun probs gun #2? - all guns firing - prob w/ lines to compressor

0437 C/C 302°

0445 Gun #2 off - broken airline

0503 Seabeam "Edo" profiler back on

0519 C/C 306 15'

0530 C/S 122 RPM

0600 C/C → 302°

0558 SAT FIX - 41° 39.279' N, 49° 54.556' W EL=39, IT=3, CT=34, SAT 480.

0610 SAT FIX 41° 39.705' N 49° 56.161' W EL=59 IT=2 CT=18 130 SAT=

0625 C/C = 307°

0648 GUN POWER LOSS ~ 0634Z GUN PRESSURE BACK UP NOW  
GUN #3 - NO BOOM! AIR LINE BUSTED - HAVE TO PULL



JULIAN 234

COLIAD 25-10  
NEWFOUNDLAND BASIN  
NB-12

21 Aug  
1984

049

TIME  
(GMT)

- 0655 PULLING GUN #3 NOW  
0700 GUN 3 ON DECK  
0709 STABILIZED ON 2 GUNS (1 & 4)  
0742 SAT FIX 41° 44.312N, 50° 04.633' E L39, IT3, CT36, SAT480 #  
0820 c/c → 315°  
0824 c/s → 120 rpm  
0841 Gun #4 seems to be leaking air into water column. Oh-oh  
0906 c/c → 319° c/s → 112 rpm  
0937 c/c → 315°  
0941 All 4 airguns now in water; but #4 will have to be pulled (after breakfast) to fix leak.  
0950 - Julie + Gun here  
1010 c/s → 110 RPM  
1015 SB #32 start  
1125 Change from logger tape #214 to #215.  
1112 Bridge reports 5-7 kts over the ground (but cannot reduce speed because of sonobuoy). Estimate 1220Z/1hr. to end of NB-12.  
1140Z Bridge now estimates 6.0 kts over the ground. E.O.L. 12 @ 1205Z.  
1225Z c/c → 212° and SB #32  
Compressors in for maintenance  
1244Z Sea Beam down  
1249Z c/c → 170°  
1253Z c/c → 095°  
1255Z gun #4, been down since 1225Z  
1256Z steady on course 095°  
1258Z c/s 100 rpm c/c → 101°  
1304Z c/c 108 rpm

END OF NB-12

BEGIN NB-13



21 Aug. '84 050

# Newfoundland Basin

NB-13

Conrad 25-10

## GMT

1308Z S/c 118 rpm. C/c 103°

1310Z c/s 113 rpm

1314Z c/s 108 rpm

1328Z c/c 105°

1323Z crossing over line #12  
Three guns in operation — #1, 2, and #3.

~ 1313Z SeaBeam back up

1338Z c/s 110 rpm

### SAT FIX

1400Z 41° 54.765 50 24.981 EL=33 IT=3 #110

1425Z Deploy sonobuoy #33A FSHOT= SP. 782/REEL 404  
76° Seastate=3

1430 Sonobuoy 33A died — cleaning seabeam "Edo" — Airgun #4 in water

1435 Deploy sonobuoy #33B MCS tape #404, file 814

1440 Sonobuoy caught in streamer NDG,  
Both sonobuoys launched to port —  
wind from stbd. @ 15 kts., but  
bridge says we may be getting set  
to port — will try a sonob. on  
stbd. side.

~~1454~~ 1457 Deploy sonobuoy #33 MCS file 878 / tape #405

1517 Seabeam Edo back online — not keying correctly

1546 SAT FIX 41° 59.868 N 53° 10.812 W EL=41 IT=3 CT=27 #110

1559 — C/F ON SONO. PROF. "C" to 5-30 Hz

1609Z Jim advise: Doppler speed log out of commission for approximately  
30 minutes (exact time unknown). Now back online

1634Z — CHG. FILTER ON SONO. PROF. "C" TO 5-20 Hz.

1704Z C/c → 104° c/s → 98 RPM

1700 — END SONO. #33



Conrad 2510

21 August 84

Newfoundland Basin

Jday = 234

NB-13

Cont1714 Increase delay on gun #4 from 15  $\rightarrow$  16 ms,

1728 speed change to 90 rpm c/s

1721 SAT FIX  $41^{\circ}59.681'N$   $49^{\circ}57.606'W$  EL=22 LT=3 CT=30 #4801732 c/s  $\rightarrow$  85 rpm (drift = 1.9 kt, Set = 46.6)

1752 Ruth &amp; Karen relieve John &amp; Cindy

1715 c/c  $\rightarrow$  107°

	SAT	$41^{\circ}59.914'N$	EL=59	CT=27
1810	FIX	$49^{\circ}50.974'W$	IT=2	SAT #130

1844 c/c  $\rightarrow$  105°

1853 SEADREAM UGR back on line

1858 oops! UGR back down again

1903Z c/c  $\rightarrow$  100°

1910 UGR on line &amp; recording - perhaps

1910:48 SAT FIX  $41^{\circ}59.234'N$ ,  $49^{\circ}42.326'E$ , EL 67° IT 3  
CT 38 #4801927 c/s  $\Rightarrow$  84 c/c  $\Rightarrow$  0981934 c/c  $\Rightarrow$  095, c/s  $\Rightarrow$  82 rpm  
doing 5.8 kts over gnd, 3.9 thru water1953 c/delay Profiler "A"  $\rightarrow$  4.0 sec2000 c/c  $\rightarrow$  090°1957:36 SAT FIX  $41^{\circ}58.769'N$ ,  $49^{\circ}37.293'E$ , EL 23°, IT 3, CT 27 #132022 c/c  $\rightarrow$  085°

2051: MEADER GETS THESE FOR A IE. MOTIVATION!

2105 SAT FIX  $41^{\circ}58.139'$   $49^{\circ}28.454'$  EL=11 IT=3 CT=24 SAL=4802146: c/c  $\rightarrow$  071°

2150 Julie &amp; Ann on watch



234  
21 AUG 84

R/V CONRAD 25-10  
NEWFOUNDLAND BASIN

GHT: NB-13

2249 - Paper torn on Profile B - advanced past kar, no data lost

2300 - C/C  $\rightarrow 070^\circ$

22 AUG 84  
(235) 2400 - Decrease delay on Airgun #4 from 16 to 15 ms.

0030Z C/C  $\rightarrow 075^\circ$

0035Z Interner acting up

0100Z C/C  $\rightarrow 080^\circ$

0130Z C/C  $\rightarrow 085^\circ$

0137 C/C  $\rightarrow 88$  rpm approaching end of line

0154 At end of line 13

0145 Relieve the watch. Jim, Cindy, Harry, Janice on ground.

0154 END LINE NB-13

0156 C/C  $\rightarrow 094^\circ$

START LINE NB-14

0158 C/C  $\rightarrow 095^\circ$

0200 C/C  $\rightarrow 100^\circ$

0202 C/C  $\rightarrow 105^\circ$

0204 C/C  $\rightarrow 110^\circ$

0206 C/C  $\rightarrow 115^\circ$

0208 C/C  $\rightarrow 120^\circ$

0210 C/C  $\rightarrow 125^\circ$

0212 C/C  $\rightarrow 130^\circ$

0214 C/C  $\rightarrow 135^\circ$

0216 C/C  $\rightarrow 140^\circ$

0218 C/C  $\rightarrow 145^\circ$  final course for NB-14, turn very quiet  
data v. quiet

0252  $41^\circ 57.621' N$   $48^\circ 50.431' W$  EL=72 IT=3 CT=13 #200

0318  $\Delta$  DATA LOCATED TAPE 215 to 216 (alright herry!)

0425 GRAVITY CHECKED

0455 All tows checked - OK.

0436 Sat Fix  $41^\circ 51.499' N$   $48^\circ 42.425' W$  EL=15 IT=5 CT=21 #200

0520 Sat Fix  $41^\circ 48.831' N$   $48^\circ 38.795' W$  EL=29 IT=4 CT=23 #130

0536 Sat Fix  $41^\circ 48.036' N$



R/V CONRAD 25-10

Time (GMT)

NEWFOUNDLAND BASIN

LINE NB-14

AUG 22 Day 234

0550 KAREN &amp; RUTH ON WATCH

0600 END SB # 34

0707 \*SAT FIX 41° 42.702'N 48° 29.945'W <sup>EL=46</sup> IT=3 CT=33 SAT=130

0728 c/c → 154, c/s → 100 rpm

0724 \*SAT FIX 41° 41.615'N 48° 28.492'W EL=48 IT=2 CT=35 SAT=130

0747 All tows checked - OK.

0852 SAT FIX 41° 36.301'N 48° 22.001'W EL=5 IT=3 CT=18 #130

0915 ALL TOES CHECKED <sup>hand</sup> MOST OF US HAVE 10. The rest are OK.

0934

c/c 152°

0949 Julie + Pinn here

1010 c/c → 147°

1050 c/c → 150°

\* 1100Z Trace 26 on streamer ~~XXXXXXXXXX~~ BAD.  
Galvo camera checked. Source of trouble not there.

1115Z c/s → 100 RPM

(1119Z Pld A 4.5 sec delay

1116Z Gun #1 out of water

1122Z Gun #1 back in water + firing; Gun #4 off line to be pulled

1130Z 4 guns firing

1134Z SB # 35 start (@ 1136)

SAT FIX # 110

1311:12Z 41° 20.074' N 48° 02.110' W

el: 17 it: 3 ct: 25

1322Z Logger drive change

1400Z End SB #35

Cindy, John, Brian, Barry at changing of the guard



GMT

Z/V Conrad 25-10

Newfoundland Basin

NB-14

22 Aug 1984

1415 3 Guns firing - Gun #2 problem w/ firing cable

1445 Bad synch errors on drive TPX-2

1443 Sat Fix  $41^{\circ} 13.774' N$   $47^{\circ} 56.126'$ 1457 Sat Fix  $41^{\circ} 12.724' N$   $47^{\circ} 55.440' W$  EI=75 IT=4 CT=28 #1101515 DSTape Drive #1 runs backwards (operator error)  
possibly bad head TPX-2

1535 C/S 135 C/S 96 rpm

1555 Gun #2 back on

1604 Gun #2 down again

1628 SAT FIX  $41^{\circ} 07.279' N$   $47^{\circ} 47.474' W$  EI=18 IT=3 CT=25 #2001640 C/S  $\rightarrow$  92 rpm1644 SAT FIX  $41^{\circ} 06.372' N$   $47^{\circ} 45.924' W$  EI=11 IT=7 CT=23 #100

1555 Because of bad synch and parity errors on tape drive TPX-2, the drive is shut down - changing tape rollers (which were flanging the edge of the tape) did not solve the problem. Head will have to be replaced. Until head replaced, we're operating only on tape drive TPX-1, with 3-4 shots missed at each tape change.

1658 SAT FIX  $41^{\circ} 05.659' N$   $47^{\circ} 44.567' W$  EI=18 IT=3 CT=25 #480

1722 4 guns online

1726 3 guns online

1720 SAT FIX  $41^{\circ} 04.612' N$   $47^{\circ} 42.461' W$  EI=31 IT=3 CT=30 #1301735 C/S  $\rightarrow$  84 rpm

1747 TPX-2 back online (EISEN!) with new tape head.

1751 C/S  $\rightarrow$  86 rpm

1750 Karen &amp; Ruth take over from John &amp; Cindy (who have certainly had their hands full this watch)

1800 C/S  $\rightarrow$  140°1825 C/S  $\rightarrow$  144°

1832 SB #36 launched

1837 First Shot 4 AIRGUNS

1907 SAT FIX  $40^{\circ} 58.905' N$   $47^{\circ} 33.866' W$  EI=43 IT=2 CT=33 #130



RC 25-10

22/August 1984  
/23

GMT

1920 Speed over ground is only  $\sim 4.5$  kt. Will have to maintain until SB #36 is finished

1945 C/F on Sono Profiler C to 5-30 Hz

1955 C/Delay " " " to 5 sec (5-15 sec.)

2001 C/F " " to 5-20 Hz

2036 \*SAT FIX  $40^{\circ}58.589'N$   $47^{\circ}27.307'W$  EL=13 IT=3 CT=25 SAL=48

2055 - Gain on Sonobuoy receiver increased. Constant gain before this time.

2110 - SONOBUOY #36 ; C/C  $\rightarrow 140^{\circ}$   
COMPLETED

2150 - Ann + Julie on watch

2235 - C/S  $\rightarrow 105$  RPM

2241 - SB #37 start

2251 - data logger tape changed

2253 - SB #37 start

2336 - ANIMAL BEATING ON SB37 - AN ALLEY CAT IN A GARBAGE BUCKET?

2340 - C/F on SONO. PROFILER C TO 5-30 Hz

2358 - Change delay on sono. profiler C to 6.0 sec.

0131Z SB # 37 ended reel # 472 shot # 062

SAT FIX

# 200

0152:34Z  $40^{\circ}36.519'N$

$47^{\circ}02.375'W$

el: 23 it: 3 ct: 24

0150Z - Ann, Jamie, Andy, & Harry on guard. Ann, Julie, Barry relieved

0157 C/C  $\rightarrow 140^{\circ}$

0208 SAT FIX  $40^{\circ}35.657'N$   $47^{\circ}01.462'W$  EL=53 IT=2 CT=34 #110

0222 GRAVITY CHECKED



# RC 25-10 Newfoundland Basin

Time (GMT)

0233Z c/s 6.1 kts. Both engines.

0236Z END NB-14 / BEGIN NB-15

Compressor oil being changed. On guns #2 and #3 only. Guns #1 and #4 shut down.

0238 c/c → 178° 6.0 kts

0240 c/c → 196° 5.9 kts

0242 c/c → 215° 5.2 kts

0244 c/c → 234° 5.5 kts

0255 c/c → 253° 6.0 kts

0258 All fows checked - OK

0300Z Compressor maintenance completed.

Back on four guns.

0313 c/c → 292 6.0 kts.

0315 c/c → 312 6.1 kts

0318 c/c → 332 6.6 kts

0319 c/c → 353 6.6 kts

0321 c/c → 013 6.8 kts

0322 c/c → 035 6.1 kts

0327 c/c → 051 5.2 kts

0329 c/c 028° s/c NB-15.

0336 c/s 105 rpm.

SAT FIX 0329Z 40° 33.582'N 47° 03.193'W EL: 44 IT: 03 CT: 29 #200

0342 c/s → 110 rpm

0348 c/s → 107 RPM

0354 SAT FIX 40° 35.327'N 47° 01.681'W EL: 25 IT: 3 CT: 29 #110

0409Z Trace 26 on streamer is OK (probably intermittent)

0426Z c/s 90 rpm - mid-section streamer riding high - noisy

0436Z streamer still high

0430 Sat Fix 40° 37.617'N 46° 59.794'W EL: 14 IT: 4 CT: 23

0439 c/c 026°



RC 25-10

NEWFOUNDLAND BASIN

NB-15

AUG 23

DAY 236

0444 Slow turn into seas to bring streamer ~~up~~ down  
 20° / 2 min (new course will be 330°)

0449 <sup>S</sup>/c 330° ; 105 rpm

0458 c/s 118 rpm.

0502 Magnetometer out of calibration / recalibrated.

0510 ~~c/c 100°/min~~ c/s 5 kts Streamer coming down.

0513 c/c 10°/min

0515 c/c 240° Turning to reoccupy line NB-15. Streamer down.

0513 SAT FIX 40° 40.383'N 47° 00.073'W EL=25 IT=3 CT=26 #480

0527 c/c 150° Streamer ~~dropping~~ @ depth (~ 40').

0538 c/s 108 rpm

0545 - c/c 20°/min → 060°

0608 c/c → 027° c/s → 5 kts

Back "on line", NB-15.  
 Streamer presently towing @ depth.

0618 - All tows checked - OK.

0618 - \* SAT: 40° 40.612'N 47° 01.014'W EL=68 IT=3 CT=30 SAT=130

0653 - <sup>FIX</sup> c/c → 030°

0701 SAT FIX 40° 43.707'N 46° 55.900'W EL=59 IT=3 CT=31 SAT=480

0736 c/c → 020 c/s → 114 rpm.

0745Z Change delay on both profilers A+B to 5.0 sec.

0803 SAT FIX

40° 48.558'N

EL=14

CT=15

46° 52.795'W

IT=4

#130

0816 Checked all tows - OK. Turned fantail lights out.

0817 Gorgeous sunrise...

Sat Fix

0852Z 40° 52.530'N 46° 50.342'W EL=8 IT=5 CT=23 #480

0935Z c/s → 100 rpm

0950Z Ann + Julie here



R/V CONRAD 25-10

058

NEWFOUNDLAND BASIN

NB-15

23 AUG 48  
236

GMT:

1022

c/c  $\rightarrow 031^\circ$

1030

SB#38 start

1040

#1 GUN BEING HAULED (USING 3 GUNS)

1046

GUN 1 IN AND FIRING, GUN 4 OUT

1054

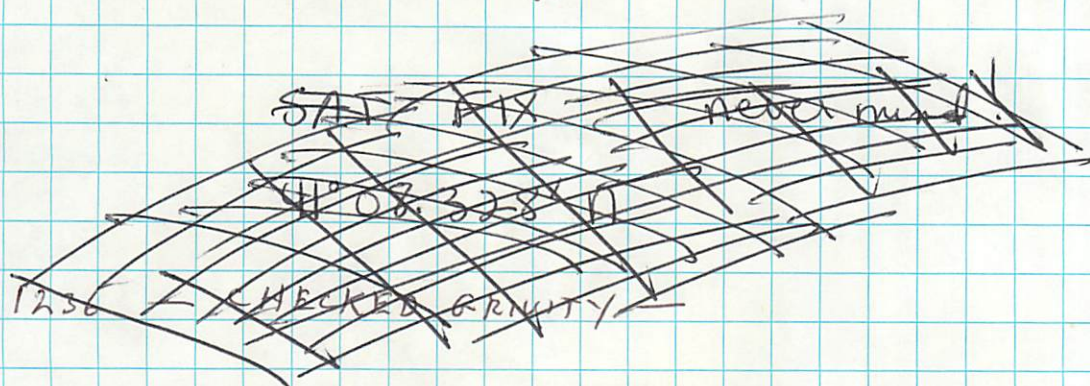
ALL GUNS FIRING

1135

Prof A - change delay to 6 sec

1146

change data logger tape - #218 to #219



1236- Checked gravity.

1258- Checked all tows - OK.

Booz End SB#38.

1329Z SeaBeam acting up (as in down)

1340Z c/c  $\rightarrow 016^\circ$

SAT FIX #200

1335Z  $41^\circ 13.341''$  N  
 $46^\circ 29.738''$  W

el: 24 it: 3 ct: 26

1346Z

SeaBeam back up Digital readout + PDR <sup>right!</sup> ~~wrong!~~  
Dan to lunch  
out-to

1408 Sat Fix  $41^\circ 15.782'N$   $46^\circ 28.334'$  EL=56 IT=3 CT=34 #110

1420 SeaBeam up



## EVENT LOG

R/V CONRAD 25-10

NEWFOUNDLAND BASIN

23 AUG

236 (Hump Day!)

1430 Contours on Seabeam changed from 50 to 20m (flat bottom)

1454 Deploy Sonobuoy #39A - ends @ 1459

1458 No record - hung up

1502 Deploy Sonobuoy #39 81° Seastate = 4  
S.P. 498 tape #496 - MCS

1534 c/gun delay 15 → 16 msec

1519 Sat Fix 41° 21.137' N 46° 26.333' W EL=53 IT=3 CT=30 #200

1557 - CHG. DELAY ON SONO. PROFILER "C" TO 5.0 SEC.

1555 - Sat Fix 41° 23.936' N 46° 25.248' W EL=24 IT=3 CT=25 #110

1623 - c/ on Sono. profiler "C" to 5-30 Hz

1630 - " " " 5-20 Hz (much noise  
from passing shipping 10 mi. to stern)

1631Z SAT FIX 41° 26.911' N 46° 23.949' W EL=5 IT=3 CT=12 #130

1706Z SAT FIX 41° 29.758' N 46° 22.475' W EL=6 IT=5 CT=19 #200

1736Z CHG DELAY ON SONO PROF. "C" TO 7.0 SEC.

1749Z END SONOBUOY #39.

1751Z The 48 watch here

c/c → 016°

1817 c/c → 021°

1830 c/s → 96 rpm

1841 c/c → 026°

1903 c/c → 031° c/s → 92 rpm

1942 c/c → 036°

2000 change paper on 3.5 kHz recorder

2012 Streamer coming up a little; preparing for sonobuoy - notified bridge

2013 c/s → 96 rpm

2064 SATFIX 41° 44.344' N EL=13 CT=19  
46° 13.328' W IT=4 #130

2020 Streamer back down to 30ft on DTS 3,4,

2028 Launch Sonobuoy #40

2106 Chg. delay on sono. profiler C to 3.0 sec.

2109 dec. delay on gun 116 → 15ms.

~~WORK~~



R/V CONRAD 25-10  
 NEW FOUNDLAND BASIN  
 23/ Aug. 1984 236/237  
 124 HUMP DAY  
 CONT'D

- 2140 JIM SMITH TAKES HUMP DAY SHOWER!!  
 2150 Ann & Julie on watch  
 2200 - c/f on Sono. profiler to 5-30 Hz  
 2208 c/delay 4 " to 7 sec.  
 2230 Streamer down @ 40' all along length  
 Between about 2100 and 2200 BT 3 & 4 read  
 17-25' due to shifts in current pattern  
 bringer streamer up.  
 2241 power surge - tape transport ran away forward on data logger.

0019Z SB #40 ended

0030Z end line 15, Begin NB-16  
 begin turn @ 5 1/2 min. to 000° c/c 025°

0032 c/c → 020°  
 0034 c/c → 015°  
 0036 " → 010°  
 0038 " → 005°  
 0040 " → 000°

on line NB-16  
 c/s 105 rpm

0045Z c/s → 110 rpm  
 0055Z c/c → 115 rpm

0111Z <sup>CRASH due to</sup> loss of time base.  
 data logger down; internal time clock off.  
 reel: 515 shot: 312 Jim Smith to

0120:00 Z airgun shot The rescue - time base  
 0121:00 Z 2nd airgun shot back up.

0121:30 Z 3rd " "

0121:50 20 second rep rates <sup>to be</sup> reestablished @  
 0123:00 First shot on 20 sec. cycle - Airgun alarm!  
 0123: #1 gun off to build up air pressure →

vents on fantail closed

0127: #1 gun back on - 4 guns firing  
 0145: John / Cindy

low air  
 pressure -  
 vents on  
 fantail  
 opened  
 by Martin



## Newfoundland Basin

Line NB-16 Conrad 25-10 24 Aug. 1984

GMT

SAT FIX

#110

0118:00 42° 06.620' N 45° 56.212' W  
el: 27 it: 3 ct: 300200Z Crowe, Ebinger, Van Santford, Austin, Paulet  
on watch. - but no more cookies0231 \* SAT FIX 42° 12.915' N 45° 55.774' W EL=56 IT=2 CT=29 200

0254 C/C → 014°

0258 C/S → 102 rpm

0305 SAT FIX 42° 15.740' N 45° 55.022' W EL=52 IT=3 CT=34 #110

0330 SB #41 launch starboard side, forward.

0338 SAT FIX 42° 18.614' N 45° 54.186' W EL=5 IT=3 CT=18 #1300405 SAT FIX 42° 20.566' N 45° 53.432' W EL=20 IT=3 CT=23 #120

0505Z All tows checked - OK.

0510Z GRAVITY CHECKED - OK

0527Z Sat Fix 42° 27.371' N 45° 51.443' W EL=46 IT=3 CT=34 #130

0550 KAREN = RUTH ON WATCH

0630 LAST SHOT SB #41

0638 C/C → 009°

0639 \* SAT FIX 42° 33.615' N 45° 49.543' W EL=73 IT=3 CT=38 SAT=4800713 \* SAT FIX 42° 36.720' N 45° 49.072' W EL=30 IT=3 CT=30 SAT=130

0730 C/C → 013° C/S → 98 rpm

0829 \* SAT FIX 42° 43.048' N EL=12 CT=26  
45° 46.105' W IT=7 #480

0846 C/C → 008°

0905 C/C → 004° Preparing to launch sonobuoy

0910 SONOBUOY #42 launched - starboard side (a great throw by Ruth).

0950 Ann + Julie

1035 - Change Data Logger tape - #221 to #222



LINE NA-16

24 AUG 84

237

GNT!

~~1200Z END SA#42~~

1204 - CHECKED GRAVITY - OK.

1206 - Checked fws - OK.

1230Z end SB# 42 reel: 535 shot: 306

1240Z c/c  $\rightarrow$  355°

1305Z c/c  $\rightarrow$  354°

1314Z gun #3 delay changed 11ms  $\rightarrow$  12ms

SAT FIX # 110

1319:36Z 43° 06.575' 45° 31.892'

el: 21.3 ct: 26

1358 c/c  $\rightarrow$  345° Ebinger, Crowe, Tucholke & Allen on watch

1400 Maggie plotter down for maintenance

1421 c/c 340° c/s 118 rpm

1411 Sat Fix 43° 09.982N 45° 30.740W EL=54 IT=3 CT=32 #200

1431 Changed delay AG #4 14  $\rightarrow$  13 13-13-12-13

1448 c/s 115 rpm

1514 c/s 112 rpm

1526 Maggie plotter on

1506 Sat Fix 43° 13.990N 45° 32.132W EL=49 IT=3 CT=34 #110

1520 c/c 345°

1543 c/c 350°

1557 Sat Fix 43° 17.303N 45° 32.757W EL=24 IT=2 CT=22 #200

1556 Passing through way point as revised  
(43° 18.0'N, 45° 32.7'W)

1630 Commence turn to to NB-17



CONRAD 2510

NB-16/17

Newfoundland Basin

8/24/84 jday = 237

- 1630 Commence turn to NB-17 C/C  $\rightarrow$  009°  
 1631 #1,4 guns offline for turn.  
 1633 C/C  $\rightarrow$  030° 5.4 kts  
 1636 C/S  $\rightarrow$  reduce dead slow to adjust streamer  
 1639 C/C  $\rightarrow$  051° 4.0 kts  
 1638 C/S  $\rightarrow$  resume speed 5.0 kts  
 1642 C/C  $\rightarrow$  074° 5.0 kts  
 1645 C/C  $\rightarrow$  099° 5.4 kts  
 1647 C/S  $\rightarrow$  112 rpm  
 1708 C/S  $\rightarrow$  90 RPM  
 1654 SAT FIX 43 19.449' N 43 30.923 E EL=6 IT=8 CT=19 #110  
 1724 #1 gun cleaned of seaweed, leaking air hose to be repaired  
 1720 All hands to fire & boat drill.  
 1734 Secure from drill - belay last... the drill continues.  
 1744. Karen arrives...  
 1752 Ruth arrives... John & Cindy depart  
 1807 Maggie paper recorder back on  
 1812 C/S  $\rightarrow$  100 rpm  
 1814 C/S  $\rightarrow$  110 rpm  
 1802 SAT FIX 43° 18.133' N EL=68 CT=38  
 45° 23.259' W IT=3 #480  
 1818 C/C  $\rightarrow$  115°  
 1815 Maggie recorder pen sticks at top end -  
 adjusted to read -2 to 98  
 add 2 units to Maggie chart volg  
 1820 C/C  $\rightarrow$  139°  
 1822 C/C  $\rightarrow$  163° T  
 1824 C/C  $\rightarrow$  185° T  
 1829 C/C  $\rightarrow$  207° T  
 1832 C/C  $\rightarrow$  229° T  
 1833 C/S  $\rightarrow$  120 RPM  
 1837 C/C  $\rightarrow$  249°  
 1839 C/C  $\rightarrow$  269°  
 1841 C/C  $\rightarrow$  289° C/S  $\rightarrow$  130 rpm  
 1842 All 4 airguns in water & firing



RC25-10

GMT24/ August 1984  
/251844 c/s  $\rightarrow$  126 rpm1849 c/ delay on AIRGUN #1 13  $\rightarrow$  15 msec.1914 SAT FIX 43° 17.471' N EL=29 CT=30  
45° 26.645' W IT=3 #130

2000 - c/c 281° c/s 110 RPM - CROSS LINE NB 16

1950 FIX 43° 18.468 N 45° 31.514 EL-23 IT-3 CT-30 #480

2030 c/c 276° c/s 108 rpm.

2056 c/c  $\rightarrow$  273° c/s  $\rightarrow$  110 rpm.

2118 SB#43 THROWN 5-70 Hz @ Start, 0-10 sec.

2207 Z 5 Sec. delay on Sono. Profiler "C".

(2145 - Ann &amp; Julie on watch)

2228 - C/F on Sono. PROFILER C  $\rightarrow$  5-30 Hz2312 - C/F " "  $\rightarrow$  5-40 Hz2316 - C/ Delay " "  $\rightarrow$  7 sec2340 - C/F " "  $\rightarrow$  5-20 Hz

25 Aug 84 (238)

0000 - End of SB#43 reel: 556 shot: 376

0029 - Martin reports we may have to shut down  
#1 compressor — "problem" to be checked.

0031 - Guns #1 and 4 off — for compressor check.

SAT FIX

 # 1100027:36<sup>Z</sup> 43° 24.596' N 46° 00.368' Wel: 12 it: 4 ct: 240044 Z gun #1 back on; 3 guns firing  
(on DC drive)

0100 Z c/c 263°



## Newfoundland Basin

RC 25-10  
25 Aug. 1984 NB-17~~GMT~~

SAT FIX

# 200

0110:24

43° 25.195' N

46° 05.050' W

el: 16

ct: 21

it: 3

0145Z Believe the watch.

0150Z - MARTIN NOTES THAT COMPRESSOR HAD BROKEN  
VALVE SPRING, - IS REPAIRED, BUT HE IS CHECKING  
FURTHER BEFORE STARTING UP AGAIN.

0222Z - CHECKED GRAVITY - OK

0216 SAT FIX 43° 25.623 N 46° 11.761 W EL=75 IT=3 CT=36 #110

0230Z Checked all tows - OK. Still operating on  
three guns - #1, #2, and #3.

0232Z c/c 268°

0245Z SB#44 over stbd. side Seastate=2 sea surf. T=78°F

0309Z 4 guns online.

0251Z SAT FIX 43 25.911, 46 15.677, EL 69, IT 3, CT 29, SAT. 200

0351 C/F Profiler C, 5/30 (from 5/70 Hz)

0402 # SAT FIX 43° 26.068 46 22.257 EL 20, IT 3, CT 26 SAT 110

0428 No records ... } DFS tape drive probs continue

0429 Back on

0429 SAT Fix 43° 26.201 N 46° 25.162 EL=15 IT=3 CT=26 #400

0445 Changed delay on profiler A to 5.5 sec.

0507 c/c 273° - End SB #44

0508 c/s 124 rpm.

0525 c/s 126 rpm

0527 c/c 278°

0604Z c/s 114 rpm.

0626 c/c → 287 c/s → 108 rpm

0617 SAT FIX 43° 26.811' N 46° 35.744' W el=82 it=11 ct=38 SAT=480

0635Z Begin SB#45.

0650Z - UNBELIEVABLE SUNRISE / MOONSET.  
The 4-8 AND COMPANY ARE IN AWE.



Newfoundland Basin MCS  
RC 25-10, NB-17

066

Time (GMT)

0810Z Change data logger tape - #223 to #224.

0806 SAT FIX 43° 29.211' N EL=19 CT=28  
46° 50.992' W IT=3 #480

0905Z All fows checked - OK.

0915Z END SONOBUOY #45 c/c → 292°  
c/s → 114 rpm

0930 change delay Profiler "A" → 5.0 sec

0935 c/c → 295° c/s → 104 rpm

0950 Ann + Julie here

1005 c/c → 300°

1035 c/s → 100 RPM

1045Z All fows checked - o.k. A beautiful day!

1135Z c/s → 98 RPM

1205Z c/c 295°

1225Z c/c 290°

1232Z

SAT FIX #110

43° 36.688' N 47° 22.613' W

el: 12 it: 4 ct: 23

1246Z c/c 285°

1305 c/c 280°

1310Z SB# 46 deployed

SAT FIX #200

1304Z 43° 37.896' N 47° 25.971' W  
el: 15 it: 3 ct: 23



# Newfoundland Basin

067

RC 25-10, NB-17

25 Aug. 1984

GMI

J.D. 238

1348 And it's chips away with John, Cindy, Brian, & Barry & Steve

1403 - 5 sec. delay on Sono Profiler C.

1417 Sat Fix 43° 40.435' N 47° 33.941' W EL=71 IT=3 CT=35 #110

1418 Sono Profiler C → 5-30 Hz

1505 2 Airguns - Compressor problems 1 & 4 down

High pressure air leak.

1532 - 4 Airguns back again.

1544 - 7 sec. delay on Sono Profiler C

1547 - C/F → 5-20 Hz on " " "

1615 C/C → 275° C/S → 120 rpm END SB #46

1604 43° 44.879' N 47° 42.651' W EL=20 IT=3 CT=26 #110

1634 SAT FIX 43° 45.052' N 47° 45.720' (45.720) EL=14 IT=3 CT=22 #200

1635 C/C → 270°

1655 C/C → 265° → 1710 #3 GUN FIRING INTERMITTENTLY - PULLED TO REPAIR (FIRING LINE).

1715 C/C → 260°

1716 C/S → 124 rpm

1735 C/C → 255°

1745z The (great) ladies arrive... (not great?)

1745 The bitches are here! (Back on the streets)

1739 SAT FIX 43° 45.591' N 47° 53.320' W EL=44 CT=36  
IT=3 #480

1755 C/C → 250°

1757 LOST ≈ 7 MIN OF FLATBED DATA DUE TO SHOOTING OFF OF TRIP BT QUASS WHO? WRONG JIM SMITH.

1818 - NOTE: Difference between field time break and gun pulse is about 17 ms = delay from flatbed recorder trip to gun fire on all flatbeds (A, B, C).

C/C → 255°

1824z SAT FIX 43° 44.687' N EL=75 CT=33  
47° 58.876' W IT=3 #130

1856 4 AIRGUNS ON LINE



# Newfoundland Basin

068

RC 25-10

25 August 1984

GMT

NB-17

1916 A/C 265°

1935 A/C 270°

1949 R/S → 118 RPM Bridge says speed dk was 5.5 kts over the ground.

1927 43° 43.634' N EL = 37 CT = 34  
48° 05.258' W IT = 3 #480

1955Z C/C → 275

2015Z C/C → 280, C/S → 114 rpm.

2012Z SAT FIX 43° 43.945' N 48° 11.099' W ct=12 IT=3 CT=25 SAT=130

2117Z C/C → 283 C/S → 116 rpm

2145Z Air gun alarm - turned off control box \* ANNIE JULIE ON WATCH

2150 3 guns working - Gun #3 off, air leak in hose

2204- Launch Sonobuoy #47 - "Plateau" province below hinge line.

2227- Change delay on airgun #1 from 12 → 11 ms.  
" " " " #2 " 12 → 13 ms.

2100-2120- Light record on profiler β - Karen bumped the threshold knob when event-marking the record @ 2100-

2306 - Change delay on Sono. Profiler C to 7.0 sec.

2311 - " filter " " " to 5-30 Hz.

2305 Ch grav tape 060 → 061

2335 "Haef haer even" display stopped

2338 4 guns firing

2340 Time now comes from chronolog plot

2354 C/F Profiler C → 5-20 Hz

\* Pull-up in bubble pulse on profilers A and B due to low-pressure firing for about 2 1/2 minutes.



26 AUGUST 1984 (239)

GMT:

LINE MB-17

0029Z - END SONOBUOY #47

0054Z 30 min beeper tone went off  
(as in on) for no apparent reason -  
power transient - spurious.

0057Z Increase delay on auger #3 from 11 to 12 ms.

0100-0109 Sea Beam flatbed down for Pr. Maint.

0111Z - Change delay profiler A 3.0 sec  $\rightarrow$  2.5 sec, profiler B 3.0  $\rightarrow$  2.0 s.

0035Z c/s  $\rightarrow$  116 rpm

SAT FIX #110

0126:00Z

43° 50.149' N 48° 49.108' W

el: 30 it: 3 ct: 30

0143Z CHANGE DELAY ON PROFILER A FROM 2.5  $\rightarrow$  2.0 SEC.

0145 Believe the watch. The gang's all here.

0147 SAT FIX 43 50.390, 48 51.247, EL29, IT3, CT24, SAT200

0216 C/D  $\rightarrow$  1 sec, A & B

0221 Checked all tows - OK

0224 C/S  $\rightarrow$  120 rpm

0313 SAT FIX 43° 52.015 49 02.155' W EL=19 IT=3 CT=33 #110

0326 C/S  $\rightarrow$  130 rpm

0328 C/C  $\rightarrow$  304

0331 C/C  $\rightarrow$  322

0330 C/S  $\rightarrow$  100 rpm

0331 C/C  $\rightarrow$  342

0334 C/C  $\rightarrow$  110

0335 C/C  $\rightarrow$  082 C/S  $\rightarrow$  124 rpm

0339 C/C  $\rightarrow$  042

- C/S  $\rightarrow$  114 rpm

0341 C/S  $\rightarrow$  060°

0342 C/S  $\rightarrow$  108 RPM

0345 C/S  $\rightarrow$  116 rpm



CONRAD 2510

070

jday = 239

Newfoundland Basin

8/26/84

Time (GMT)TURNING FROM NB-17 to NB-18

0349Z C/S  $\rightarrow$  112 rpm  
 0350 C/C  $\rightarrow$  080°  
 0350 C/F profiler A; now 20-70 Hz to cut low freq. noise from turn  
 0351 C/S  $\rightarrow$  126 rpm  
 0401 C/C  $\rightarrow$  099°  
 0403 C/C  $\rightarrow$  118°  
 0407 C/C  $\rightarrow$  138°  
 0409 C/C  $\rightarrow$  157°  
 0412 C/F profiler "A"  $\rightarrow$  10-70 Hz  
 0414 C/C  $\rightarrow$  162°  
 0415 C/S  $\rightarrow$  128°  
 0407 SAT FIX 43 53.938 N 49.01.788 W EL=9 IT=4 CT=22 #480 (update)  
 0431 CHECKED GRAVITY - O.K.  
 0439 C/S  $\rightarrow$  134  
 0445 C/C  $\rightarrow$  157° C/S  $\rightarrow$  136 rpm  
 0458 Sat Fix 43° 49.730 N 48° 59.555 W EL=7 IT=7 CT=20 #110 (forced update)  
 0521 C/S  $\rightarrow$  132 rpm  
 0539 Changed delay Profiler "A" to 1.0 sec.  
 0540 " " " " "B" to 1.0 sec.  
 0533 Sat Fix 43 46.853 N 48.57.868 W EL=48 IT=2 CT=33 #130  
 0553 Meador-Gorski comedy team on watch.  
 0554 43.45.157 N 48 56.730 W EL=54 IT=3 CT=37 SAT=480  
 0623 C/C  $\rightarrow$  162°  
 0630 SEABEAM DEPTH CHART BEING REPAIRED = OFF  
 0700 "A"/"B" PROFILER DELAYS CHANGED TO 2.0 SEC.  
 0704 C/S  $\rightarrow$  130 rpm.  
 0718 LCR SEABEAM BACK = BETTER THAN EVER  
 0730 SAT FIX 43° 38.190 N 48° 52.575 W EL=30 IT=3 CT=30 SAT=130  
 0743 SAT FIX 43° 36.266 N 48° 51.261 W EL=29 IT=3 CT=33 SAT=480  
 0805Z Checked all tows - OK.  
 0815 C/C  $\rightarrow$  162°  
 0858 Change delays on "A"/"B" to 2 sec.



CONRAD 25-10  
Newfoundland Basin

071

26 August 1984

239 = J day

NB-18

GMT

0908Z Checked all fows - OK. Turned out deck light. Grey and raining —

End NB-18 Begin NB-19

0911Z c/c → 142°

Advance Paper on Profilers "A" & "B"

0913Z c/c → 129°

S/c → NB-19.

0917Z c/s 116

0920Z S/c 129° — 110

0940Z Change delay "A"/"B" — to 3.0 sec.

0940 Annul Julie

0948 c/s → 102 RPM

1020Z c/c → 126°

1030Z SB#48 START

1130Z Change delays "A" → 3.5 sec "B" → 3.0 sec

1200Z Gun #4 being shut down; electric compressor on; compressor 2 oil change

Now running on guns #1, #2, and #3.  
Tows also checked — OK.

12<sup>40</sup>00Z gun #4 back on line.

1330Z End SB#48.

1328Z

SAT FIX #110

43°17.504'N 48°19.808'W

el: 32 it: 2 ct: 31

1340 Sat Fix 43°16.967N 48°18.618 EL=29 IT=3 CT=18 #200

1400 — John & Cindy on watch —

1441 c/c → 126°

1506 c/c → 121°

1515 c/s → 98 rpm

1548 Sat Fix 43°12.035N 48°09.421W EL=44 IT=3 CT=30 #110



## Newfoundland Basin

RC25-10

Aug. 26

Julian Day ~~239~~ 239NB-19

GMT

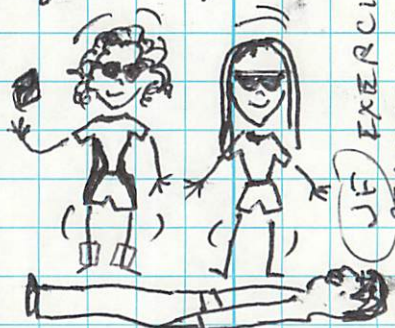
1543 c/c  $\rightarrow 116^\circ$ 1549 Sat Fix (No update)  $43^\circ 10.373'N$   $48^\circ 05.823'W$  EL=7 IT=10 CT=20 #1301620 C/C  $\rightarrow 119^\circ$ 1627 C/C  $\rightarrow 124^\circ$ 1649 (NI) SAT FIX  $43^\circ 10.373'N$   $48^\circ 05.823'W$  EL=7 IT=20 CT=20 #130~~1755~~ 1710 T=74°F Sea state=3

1711 SB#49 over, FSHOT=770 tape 631, 10 Sec Sweep

1719 Change delay on profiler A from 3.5 to 4.0 sec.

1734 SAT FIX  $43^\circ 06.480'N$  EL=52 CT=33  
 $47^\circ 55.966'W$  IT=2 #130

1745 Ruth & Karen here - ready for the Barbeque despite  
 less than ~~than~~ tropical weather



1753 - CHANGE DELAY ON

PROFILER "A" TO 4.5 SEC. FROM 4.0 SEC.

1813 - CHANGE DELAY ON SOND. PROFILER C FROM 0  $\rightarrow$  6 SEC.

1819 " FILTER " " " TO 5-30 Hz

1853 - BRIDGE SAYS SHIP ~3MI OFF PORT Y4 - HAVE SEEN  
 NOISE ON SOND 49 SINCE 1840 AND ON PROFILER  
 A & B SINCE 1820 Z.

1905:12 SAT FIX  $43^\circ 02.573'N$ ,  $47^\circ 47.228'W$ , EL 48, IT 3, CT 36  
 $\pm 480$



NEWFOUNDLAND BASIN

RC 25/10

26 AUG 1984

1917- C/F Sono Prof "C" to 5-20 Hz

1921:12 SAT FIX  $43^{\circ}01.842'N$ ,  $47^{\circ}45.863'W$  EL 27°, IT 5 CT 24  
#130~~1938Z~~ - LAST SHOT ON SONO BOUY. #491940Z = C/C  $\rightarrow 121^{\circ}$ 2000Z C/C  $\rightarrow 117^{\circ}$ 2026Z C/C  $\rightarrow 114^{\circ}$ 2050Z \*SAT FIX  $42^{\circ}57.690'N$   $47^{\circ}36.802'W$  EL=6 IT=3 CT=21 SAT=4802133Z seawater temp =  $75^{\circ}$ 

2150 Annul Julie on watch

2311 Change delay on profile A from 4.5 to 5.0 Sec.

2330 Sticky dirty gummy stylus #2 cleaning accomplished  
on Prof. B (was dragging on record).  
#110

SAT FIX

0036:24  $42^{\circ}47.770'N$   $47^{\circ}17.581'W$ el: 15 it: 4 ct: 130050Z C/C  $\rightarrow 112^{\circ}$ 0105Z C/S  $\rightarrow 100$  rpm0110Z C/C  $\rightarrow 107^{\circ}$  C/S  $\rightarrow 105$  rpm0122Z SB # 50 deployed (cast into the waters)  
reel - 646 shot - 243h<sub>2</sub>O -  $77^{\circ}F$  seastate - 4



CONRAD 2510

074

8/26/84

Newfoundland Basin

day = 240

NB-19

0145 Believe the watch. John & Cindy "Crash" assume the position.  
0205 Gravimeter checked, OK  
0242 All tows checked - OK.

0318 possible submarine contact - noise on both SB#50 and monitors - no surface ships in the vicinity. (possible submarine interference with incoming sat fixer... hostile sub?) (Search & destroy.)

0350 Ian delivers 4.2 pounds of unbattered/unsalted popcorn. Harry complained... but ate alot anyway. We like Ian.

End Scene III

0409 Sat Fix 42°42.587N 46°59.188W EL=16 IT=4 CT=16 #200

0432 c/c → 120 rpms

0454 c/c → 117°

0443 Sat Fix 42°41.830N 46°55.486W EL=25 IT=2 CT=3 #130

0500 c/c → 114 rpms

SAT FIX → 0531 42°40.102N, 46°50.669W, EL=45, IT=3, CT=35 #480

0600 5 SEC DELAY ON PRO.B.

0636 SAT FIX 42°37.784N 46°44.629'W EL=54, IT=3, CT=34 SAT=480

0700z SB#51 in the water.

0720z 42°35.947N 46°39.580W c/c=34, IT=3, CT=34 SAT=480

0815 Change Data Logger Tape 227 → 228

0830 Change "A" delay from 5.0 to 5.5 sec.

0835 All tows checked - OK Turned out deck lights.

"Quest"

0850 END SB#51 Research Vessel on Port Bow w/ gear streamed. we are altering our course to avoid them  
c/c → 135°

0940 c/c → 113° R/V Quest on Port Quarter

0945 Ann & Julie on watch



R/V CONRAD 25-10NEWFOUNDLAND BASINLINE NB-19

24 AUG 84

240

GMT:

1000

c/c - 117°

1020

c/c → 122° c/s → 110 ROM

1040

c/c → 127°

1045

LAUNCH SB # 52

1127

GUN #1 OFF

1134

GUN #1 ON, GUN #4 OFF

1139

ALL 4 GUNS ON

SAT	FIX
-----	-----

# 110

1239Z

42° 25.043' N

46° 11.591' W

el 17it 3ct 241350 Enter John - Bay & Cindy ~~here~~...

Scene IV Act I

1412 c/c → 118°

1415 Sat Fix 42° 21.486' N 46° 03.706' W EL=60 IT=3 # 200

1441 Gun #4 OFF - firing line problem

1504 Much noise on flatbed profiler records - front end of streamer is moderately shallow (DT-1 = 30 ft DT 2 = 35 ft) with ~~crossing~~ seas from port - swells about 6-7 ft. - speed thru water up to ~5.7 kts with drift of ~1.1 kts @ 322° nearly opposite our heading of 122°

1550 c/c → 122°

Scene IV Act II

1601 SAT FIX 42 17.885' N 45 54.015' W EL=18 IT=4 CT=24 #26

1614 #4 Gun online

1612 SAT FIX 42° 17.493' N 45 52.838' W EL=12 IT=8 CT=16 #110

1615 #3 gun airline leaking... will check ~ every 15-20 mins, watch pressure continuously...



CONRAD 2510

## Newfoundland Basin

NB - 19/20

27 August 1984

jday = 240

## Scene IV Act iii

1644

SAT FIX  $42^{\circ}16.274'N$   $45^{\circ}49.836'W$  El 27 IT 2 CT 24 #130

1720

C/C  $\rightarrow 123^{\circ}$ 

1720

1750

4-8 watch here

1825

C/C  $\rightarrow 121^{\circ}$ 1846 C/C  $\rightarrow 205^{\circ}$ 

END OF LINE 19

1831

SAT FIX  $42^{\circ}11.774'N$   $45^{\circ}39.276'W$   
El 50 IT 2 CT 27 SAT #130~~4212.25~~1900 C/S  $\rightarrow 110$  rpm1938 C/C  $\rightarrow 214^{\circ}$ 2006 C/C  $\rightarrow 209^{\circ}$ 2106 CHG. DELAY ON AIRGUN #4 from 12  $\rightarrow$  11 ms,2130 C/C  $\rightarrow 207^{\circ}$ 

2150 Ann. Julie here

2201 air gun alarm pressure below 1200

2206 FIRING 3 GUNS (#3 GUN OUT) NOTE: BUBBLE-PULSE

CHANGED DURING INTERVAL 2201-2205 DUE TO

LOW AIR PRESSURE AND FORMS A "PULLUP

ARTIFACT" IN BUBBLE (NOT PRIMARY) REFLECTIONS  
ON FLATBEDS A & B.28 AUGUST

0045- BRIDGE SAYS ETA ON TURN IS 0137Z.

0030Z C/C  $210^{\circ}$ 

0100- Change logger tapes - #228 to #229.

0109- 4 AIRGUNS ON LINE.

0115Z change delay on  
gun #3 11  $\rightarrow$  12 ms

0115:34Z [SAT FIX] # 200

 $41^{\circ}44.883'N$   $45^{\circ}57.789'W$ 

el 22 it 3 ct 24



# Newfoundland Basin

077

Conrad 25-10GMT

28 August 1984 J.D.=241

0040Z begin turn to 295°

Begin NB-21

0041Z guns # 1 + # 4 off

0045Z c/s → 120rpm (steady on 295°)

SAT FIX # 110

0135:36Z

41° 43.737' N

el: 47

45° 58.796' W

it: 3

ct: 35

0155 Release the watch. Scene IV Act iv. Enter Dr. Crash...

0205 # 1, 4 guns online

0241 c/s → 115rpm

0248 Enter Steve Stud with the nightly popcorn ration, with butter, salt, popcorn

0301 SAT FIX 41° 47.273' N 46° 08.022' W EL 49 IT 3 CT 29 # 200

0317 c/c 293° c/s → 112RPM

0324 CHECKED GRAVITY - OK.

0322 SAT FIX 41° 48.282' N 46° 10.252' W EL 30 IT 2 CT 19 # 110

0335 c/c → 292 c/s → 108rpm

0345 Launch the "van Santford probe" Beethoven's Pastoral 6th recovered intact. Re-docking complete; 0347

0400 SB# 53 over at 0405 Z0 DFS SHOT 042 TAPE 696

0353 SAT FIX 41° 49.807, 46.13.154 EL 11, IT 6, CT 24, # 130.0

0445Z Sat Fix 41° 52.314 N 46° 18.184 W EL=5 IT=4 CT=15 # 200

No update

0450 All fws checked - OK.

0508 Sat Fix 41° 53.587 N 46° 20.404 W EL=34 IT=3 CT=34 # 480

0541 Sat Fix 41° 55.356 N 46° 23.134 W EL=43 IT=2 CT=34 # 130

0700Z End SB# 53.

0657 SAT FIX 41° 59.328 N, 46° 30.503, EL 45, IT 3 CT 37, SAT 480

0726 SAT FIX 42° 00.071 N, 46° 33.344, EL 19, IT 4, CT 25 SAT 130



## NEWFOUNDLAND BASIN (NB)

CONRAD 25-10

28 AUG 84

GMT  
TimeLine NB-21

0800Z All tows checked-OK

0845 SONOBuoy #54 launched - port side

SST° ~~71~~° 74°

Sea State 2

Sunrise: Magnificent

Signal: Good

0845 SAT FIX 42° 03.990' N EL=4 CT=20  
46° 41.489' W IT=6 #480

Magnarox did not update position: low EL, high IT

0920 SeaBeam Depth <sup>Auto Gates</sup> Indicator not working: GET STEVE

0925 SeaBeam back with us again

0945 Ann &amp; Julie

1007 Switch logger tapes - # 229 to # 230

1040 GUN #1 pulled out

1047 GUN #1 ON → 1130Z End SB#54

1135 CLC → 290°

1155 CLC → 295° CLS → 105 RPM

SAT FIX

 # 200

1307Z 42° 13.788' N 47° 09.712' W

el 20 it 3 ct 24

SAT FIX

 # 110

1336Z 42° 15.357' N 47° 12.511' W

el 44 it 3 ct 33



AUGUST 28, 1984

NB-21

Scene IV Act i

GMT

1355 c/s  $\rightarrow$  96 rpm1400 c/s  $\rightarrow$  92 rpm

1453 CHG. DELAY PROFILER "A" FROM 5.5 SEC. TO 4.5 SEC.

soon to discover previously uncharted seamount (&gt; 600' total field anomaly)

1452 Sat Fix  $42^{\circ} 19.047'N$   $47^{\circ} 21.016'W$  EL=65 IT=3 CT=33 #2001507 c/s  $\rightarrow$  88 rpm1512 - Change delay on arguns 3 & 4 from 12  $\rightarrow$  11 ms.1523 Sat Fix  $42^{\circ} 20.469'N$   $47^{\circ} 23.987'W$  EL=310 IT=3 CT=31 #1101555 Sat Fix  $42^{\circ} 21.960'N$   $47^{\circ} 27.034'W$  EL=10 IT=4 CT=22 #130

1618 - Cleaned styluses on profiler B - sticking/no printing - B.T.

1630 SAT FIX  $42^{\circ} 23.700'N$   $47^{\circ} 30.447'W$  EL=10 IT=3 CT=27 #480

1703 CHG. DELAY ON PROFILER A FROM 4.5 TO 5.0 SEC.

1745 Scene IV Act i... Enter the not ready for prime time Meador/Krasky unattractive

~~1800~~

1749 Ready for action...

~~1800~~

\* SAT FIX:

1740  $42^{\circ} 27.279'N$  EL=68 CT=31  
 $47^{\circ} 36.706'W$  IT=3 #130

1822 c/s  $\rightarrow$  305° c/s  $\rightarrow$  84 rpm

1839 SB #55 launched SST° 78°F  
 Sea State: 1

1836 Bridge informs us of ship about to cross our bow: distance ~ 2 mi

1957 Change delay on Sono. Profiler to 6.0 Sec.

2002 " " filter " " to 5-30 Hz

\* 2007E SAT FIX  $42^{\circ} 34.432'N$   $47^{\circ} 49.253'W$  EL=15 IT=3 CT=26  
 SAT-480

\* 1820Z SAT FIX  $42^{\circ} 29.358'N$   $47^{\circ} 40.420'W$  EL=83 IT=7 CT=38 #48\* 1928Z SAT FIX  $42^{\circ} 32.514'N$   $47^{\circ} 45.710'W$  EL=20 IT=3 CT=26 #130

2054 CHG DELAY ON ARGON #4 FROM 11 TO 10 msec,

2101 - C/F PROF "C"  $\rightarrow$  5-20 Hz

2144 - DATA LOGGER DOWN FOR A FEW MINUTES?

NOT ORDER



R/V COMRAD 25-10  
NEWFOUNDLAND BASIN

28 AUG 84  
241

GMT:

2150 Z Ann Julie on watch  
2157 END SB#55  
2200 Z C/C  $\rightarrow$  300°  
2208 Z GUN #4 OFF TO CLEAR SARGASSO WEED  
2218 4 GUNS FIRING  
2230 C/C  $\rightarrow$  295°  
2240 C/S  $\rightarrow$  90 RPM  
2255 C/C  $\rightarrow$  290°  
2300 C/S  $\rightarrow$  95 RPM  
2321 NOTED THAT TIME BASE CONTROLLING  
PRINTING OF J.D./TIME ON PROFILER A & B  
WAS IN ERROR - CORRECTED TO PROPER  
TIME BASE.

2330 C/C  $\rightarrow$  285°

0020 Z C/C  $\rightarrow$  280°

SAT FIX #110

0045:12 Z

42° 46.680' N

C/S 105 rpm

48° 15.157' W

el: 19

it: 3

ct: 26

0100 Z C/C  $\rightarrow$  285°

0120 Z C/C  $\rightarrow$  290°

0128 Z

SB# 56

launched

2500.5 nm

3207 m



CONRAD 2510 Newfoundland Basin

8/29/84 081

day = 242 NB-21

Act V June ii

GMT

0145 Relieve the watch. "EXLAX", "Doan's Pills", "preparation H"

0224 GRAVITY CHECKED - OK

0225 Checked all tows - OK.

0233 FIX -  $42^{\circ}50.199'N$ ,  $48^{\circ}27.621'W$  EL 75, IT 3, CT 35, #110 - NO UPDATE

0418 Fix -  $42^{\circ}54.707'N$ ,  $48^{\circ}39.684'W$  EL = 12, IT = 3, CT = 24 #110

0430 End SB# 56

0430 d/c  $\Rightarrow$  295 d/s 98 r.p.m.s

0454 d/c  $\Rightarrow$  300°

0446 Fix  $42^{\circ}55.84'N$ ,  $48^{\circ}42.265'W$ , EL 22, IT 3, CT 28 #480.

0508 delay Profiler A to 3.0s delay

0600 Ruth/Karen are "ready to serve".

0605z Checked all tows - OK.

0626 <sup>A</sup> DELAY ON PROFILER A & B: A = 2.5 s. B = 2 s.

0636 GRAVITY OK - TAPE LOW ABOUT 3+ HRS LEFT -

0634 SAT FIX  $43^{\circ}00.273'N$   $48^{\circ}52.320'W$  EL = 71 IT = 2 CT = 37 SAT =

0645 NO TIME UPDATE,  $\therefore$  NOT A GOOD FIX 480

JOHN'S  
COFFEE MUG



CONRAD 25-10

NEWFOUNDLAND BASIN

8/29/84 082

J-DAY = 242 NB-21

GMT (time)0651Z c/s  $\rightarrow$  102 rpm.0729Z 4 DELAY PROFILER A  $\rightarrow$  2s.

0815Z Checked all fows - turned out deck lights.

0824 SATFIX 43° 05.385'N 49° 02.141'W EL12, IT5, CT26, SAT480

0842 change delays Profiler "A" 2.0  $\rightarrow$  1.0 sec  
"B" 2.0  $\rightarrow$  1.0 sec0909 c/c  $\rightarrow$  307°0934 c/c  $\rightarrow$  311°

Ann + Julie are here! (barely)

1020Z Changed gravity magnetic tape.

1025Z Checked all fows - OK.

1030Z Maggie chart recorder calibrated.

1100 c/c  $\rightarrow$  306°1109 Change delays on Prof "A" + "B"  $\rightarrow$  @ delay. Missed 3 shots on each profiler because of not having thrown "delay - no delay" switch to "no delay." However, digital data was collected throughout.1110 c/s  $\rightarrow$  105 RPM

1235Z c/c 325°

1236Z Logger tape change

1237Z c/c 344°

maintenance.

1239:30Z c/c 003°

1243Z c/c 022°

1245Z c/c 040°

1247Z Stop the ship momentarily to change position of tow point.

1249Z "streamer looks fine" - ship coming back up to speed - tow adjusted

1253Z All 4 GUNS FIRING.

END NB-21  $\rightarrow$  BEGIN NB-22



RC25-10 Newfoundland Basin MCS  
Time (GMT) 29 August 1984

NB-22

083

1257Z c/c 076°

1259Z Commence steady turn to final  
Course of 165° NB-22

1305Z s/c 165° Water speed 5.1 kts.

1322Z Bridge informs us that CONRAD will  
intersect NB-21 @ 1333Z.

1248Z SAT FIX: 43°17.487'N, 49°24.680'W EL=18 IT=3 CT=25 #110

1351Z Change Delay Profiler A to 15.

1344Z Sat Fix 43°14.242'N 49°22.022'W EL=35 IT=3 CT=29 #200

1417 c/c → 173°

1434 Sat Fix 43°09.895'N 49°21.526'W EL=77 IT=3 CT=35 #110

1529 Sat Fix 43°05.148'N 49°20.359'W EL=36 IT=3 CT=3 #200

1606 Sat Fix 43°02.037'N 49°19.511'W EL=11 IT=7 CT=24 #480

1608 CLS → 100 rpm

1620 Act I Scene iii

1625 CLC → 176°

1640 Maggie chart recorder removed for repairs

1654 CLS → 90 rpm slow to avoid close quarter target  
(close encounters of the nautical kind)  
CPA: 3/4-1 n.m. ahead

1702 c/c → 100 rpm ships crossing bow (1.1 mi.!)

1712 c/c → 171°

1729 CLS → 104 rpm

1730 Maggie chart recorder operating again

1743 - TPX 1 crash - 4 shots lost

1757 SAT FIX 42°53.537'N EL 67 CT 37  
49°17.986' IT 3 #480

1821 c/c → 175°

1837 SAT FIX 42°50.264'N EL 50 CT 34  
49°17.146'W IT 3 #130

1851 - TPX 1 crash - 11 shots lost

1921 c/c 173°



## Newfoundland Basin

29 August 84

GMT

1945 SAT FIX 42°45.094'N 49°16.605'W EL-23°17-3 CT30#480

2008 CHG. DELAY ON PROFILER A TO 2.0 SEC.

2034 SB#57 IN WATER

2027 C/C → 174 C/S → 110 rpm.

2140 Z CHG. DELAY ON PROFILER "C" (Sond) TO 6.0 SEC.

2146 Chg delay Prof "A" from 2-3 sec

2148 C/F PROF "C" → 5-30 Hz

— ANN + JULIE —

2215 - C/DELAY PROFILER B FROM 0 → 2 SEC.

2257 C/S → 115 RPM END SONOBUOY #57.

30 Aug 84

243 DAY

0000 C/C → 128°

END LINE NB 22 SHOT 935 REEL 773

BEGIN LINE NB 23 SHOT 936 REEL 774

0015 - ADJUST PAPER ON PROFILER B - No Time lost.

0035 Z C/S → 105 rpm

0040 Z C/C → 123°

SAT	FIX
-----	-----

 # 200

0042Z 42°24.126'N 49°08.808'W

el-10 it-3 ct-21

0150Z change delay on Profiler A 3.0 → 4.0 ms

0200Z John, Cindy, Jamie, and Harry take the con,  
and I do mean "con."

0215Z Launch SB#58.

0229 NI SAT FIX 42°19.053 48 59.648 EL 83 IT 3 CT 31 #200



CONRAD 2510 Newfoundland Basin

8/30/84

NB-23

085

day = 243

Scene II Atir

GMU

0338 Change logger tapes → #~~232~~<sup>3</sup> → 233.  
0330 2D SAT FIX

42° 15.860' N 48° 53.72' W EL=28 IT=3 CT=30 #110

0359 Sat Fix 42° 14.416' N 48° 58.174' W EL=12 IT=3 CT=25 #130

0423 SAT Fix 42° 13.433' N 48° 48.89' W EL=16 IT=4 CT=26 #480

At the tantalizing aroma of popcorn assaults my olfactory senses

0515 End Sono-booy #58 ; C/C → 119°

Tape 783 SP 881

0545 Meador/Gorski on watch.

0618 Maggie chart recorder out of operation.  
Harry is working on the problem.

0624z Checked all fows - OK.

0620 MAGGIE RECORDER ON

0745 A DELAY ON PROFILER 4.5

0733 \* SAT FIX 42° 05.259' N 48° 27.53' W EL=17 IT=3 CT=25 SAT 130

0801 SAT FIX 42° 03.737' N EL=16 CT=27

48° 24.694' W IT=3 #480

0815z SB#59 launch

0907 CHECKED GRAVITY - O.K.

1000z MARTIN / ~~MURPHY~~ MCELEN ON WATCH. HARRY +

JAMIE ARE STILL HERE.

1100z Checked all fows - OK!

1115 END SB#59 ; C/C → 128°

1120 C/S → 90 RPM

1140 C/C → 123°

SAT FIX #200

1235z 41° 47.091' N 47° 57.752' W  
el - 11 it - 3 ct - 21



## RC25-10 / Newfoundland Basin

086

Time (GMT)Line NB-2330 August, 1984

1325Z All Tows checked - OK.

1344Z Sat Fix 41° 43.931' N 47° 50.289' W EL=55 IT=3 CT=33 Sat #110

1410-1430 Seabeam locked on bottom 3982 - power off...

1450 Seabeam back up

1514 C/C → 113°

1420 \*SAT FIX 41° 42.714' N, 47° 46.238' W EL 79 / IT 3 / CT 32 / # 200

1540 C/C → 113°

1545 C/S → 96 rpm

1531 Sat Fix 41° 40.013' N 47° 37.360' W EL=24 IT=3 CT=29 #110

1555 C/S → 92 rpm

1600Z C/C → 123°

~1600Z XBT #47 Launched

1602 SAT FIX 41° 38.872' N 47° 34.277' W EL 14 IT 6 CT 20 #130

1620 C/C → 128

1629 SB #60 run side FSHOT 825 Tape 803 Logger tape 234

1701 INCREASE DELAY ON AIRGUNS 1/4 From 12 → 13 ms.

1727 C/DELAY PROF. "C" to 5 sec

1744 C/F PROF C → 5-30 Hz

1734 2D SAT FIX 41° 34.417' N 47° 27.611' W EL 56 IT 3 CT 37 #480

1740 STYLI STICKING ON PROF. B - CLEANED.

1750 GORSKI/MEADOR on watch

1910 CHG. DELAY ON SONO. PROFILER C TO 7.0 SEC.

1920 BRIDGE REPORTS 2 HUMPBAC WRANES BLOWING ON PORT QUARTER.

1922 SAT FIX 41° 29.859' N, 47° 11.987' W, EL 26, IT 3, CT 30, #480

1954 END SONO BUOY #6

2002 END LINE NB-23, BEGIN LINE NB24

C/C → 020°

2007 Steady on course 020°

Airgun #1 pulled for seaweed

2008 C/S → 102 rpm to <sup>maintain</sup> ~~keep~~ streamer depth

2015 gun #1 back on / gun #2 off for seaweed removal

2030 - FOUND BROKEN O-RING SEAL IN GUN #2

2035 - SEABEAM OFF b/c ENTERING NEW SOUND VELOCITY

2045 - SEABEAM ON - AIRGUN 2 UNDER REPAIR



TIME CMTLINE NB-24/2530 AUG 1984  
31

2103 c/c 015° c/s 98rpm  
 2134 c/c 020°  
 2148 Ann + Julie on watch  
 2230 4 Guns ON  
 2312 Change delay Prof "A" → 5.0

~~END~~

31 Aug 1984

0025Z Begin turn to 290°  
~~NB-25~~ c/s → 120rpm J-244

0030Z \* Begin NB-25 (END NB-24)  
 reel - 818 shot - 332

0031Z guns #1 + #4 are off  
 (compressor work) (maintenance)

0053Z 4 guns firing

0054 SAT  
FIX 41° 49.585' N 46° 51.579' W EL 27 IT 3 CT 30 #110

0120 SAT  
FIX 41° 50.621' N 46° 53.524' W EL 28 IT 3 CT 27 200

0145Z Release the watch. The gangs are here...

0219 c/s → 118 rpm

0224 FSHOT SB#61 SHOT 676 Tape ~~821~~ 821

0229 SB61A FAILED

~~0230~~

0245 FSHOT SB61 Tape 821 3p 738

(Damn, can that woman hear...)  
 CINDY'S FIRST BODY!

0241 SAT  
FIX 41° 54.173 N 47° 00.236 E EL 52 IT 3 CT 33 #110

0349 CHECKED GRAVITY - OK



CONRAD 2510

3 Aug 84

Newfoundland Basin

Jday 244

GMT

0305 2D SAT FIX  $41^{\circ} 55.263' N$   $47^{\circ} 02.361' W$  EL 39 IT 3 CT 28 #200  
 0336 C/Delay SOND. PROF. "C"  $\rightarrow 10/6$   
 0348 C/F, Iden SOND. PROF. " " 0/40 Hz

0400 2D SAT FIX  $41^{\circ} 57.363' N$   $47^{\circ} 08.055' W$  EL 12 IT 4 CT 25 #480  
 0426 2D (NI)  $41^{\circ} 58.088' N$   $47^{\circ} 10.468' W$  EL 7 IT 6 CT 19 #110  
 0445 Change filter ~~B~~ 5-30 Hz Profiler C  
 0451 PRO "A", "B", "C" BEING TRIPPED ON #4 BLAST PHONE  
 0453 We have Moku, SB61!

0457 2D SAT FIX  $41^{\circ} 59.213' N$   $47^{\circ} 14.366' W$  EL 41 IT 3 CT 28 #130

0530 LSHOT SB61 Tape 826 Shot 233

0534 DATA LOGGER CRASH

0541 SYSTEM BACK UP

0552 CLC  $\rightarrow 300^{\circ}$ .

0548  $42^{\circ} 00.855' N$  EL 73 CT 38  
 SAT FIX  $47^{\circ} 19.645' W$  IT 3 # 480

did not update

0612 CLC  $\rightarrow 305^{\circ}$  coming back to course on track in preparation for next sonobuoy.

0634 CLC  $\rightarrow 310^{\circ}$   $45 \rightarrow 112$  rpm Ship will pass  $\approx 4$  mi astern.

0648 CLS  $\rightarrow 109$  rpm

0643 SAT FIX  $42^{\circ} 03.547' N$   $47^{\circ} 25.475' W$  EL 34 CT 25  
 IT 3 #130

ship will pass astern @  $\sim 4$  mi  
 in next 20 mins

0700 Bridge informs us that ship/course conditions should be right for a sonobuoy by  $\sim 0720$ .

0713 CLC  $\rightarrow 313^{\circ}$  this course will put us back on track  
 SB time in  $\sim 15$  mins



RC 25-10

## Newfoundland Basin

31 Aug 84

GMT 2

line NB-205

0730Z SB#62A launched stbd. All fows checked - OK.

0735 SB#62A bites the dust;

0740 SB#62 launched (Being recorded on MCS tape on aux. channels #1 and #4 → @ 10db gain to pick up long distance events)

0839 A DELAY on PROF. C to 6.55.

0824 Recording SB data on DFS aux channel 4 (with AUX 1.  
+10db gain - signal inverted, clips signal at near offsets

0950 AHH + JULIE ON WATCH

1010 END SB#62

1046 Prof "A" change delay to 4.5 sec.

1105 C/S → 105 RPM

1105 ~~1105~~ 55 cause at 1155 ~~will be~~ 023°; ~~with~~ C/S → 110 RPM

END NB-25      START NB-26

1200 steady on course

1256 FIX 42° 26.03'N 47° 54.93'W, EL26, IT3, CT29, SAT110

1315Z SB#63 deployed

reel - 840

shot -

596

water temp - 76°F

seastate - 2

SAT      FIX

 # 200

1312Z

42° 27.473'N

47° 54.465'W

el - 25      it - 3ct - 25

1435 Changed filter config on Aux channels

1 - anti alias filter 0-63 Hz

4 - " " " "

[+ (+10) db gain change (same)]

1500 Change filter Profiler C to 5-40 Hz

1442 \* SAT FIX 42° 35.462'N 47° 51.649'W EL53 IT3 CT34

1457 \* SAT FIX 42° 36.732'N 47° 51.262'W #110

EL49 IT3 CT22

#200



VELOCITY.DAT#16

17-AUG-1984 01:39

POSITION OF XBT Lat= 45.5

Long= -47.5

Time of Observation: 16:45Z

Julian Day: 223

DEPTH =	0.	TEMP =	15.9	SOUND VELOCITY =	1509.5
DEPTH =	20.	TEMP =	9.6	SOUND VELOCITY =	1488.7
DEPTH =	52.	TEMP =	0.0	SOUND VELOCITY =	1449.7
DEPTH =	97.	TEMP =	1.2	SOUND VELOCITY =	1456.1
DEPTH =	199.	TEMP =	4.1	SOUND VELOCITY =	1470.0
DEPTH =	300.	TEMP =	4.6	SOUND VELOCITY =	1474.1
DEPTH =	500.	TEMP =	4.3	SOUND VELOCITY =	1476.4
DEPTH =	800.	TEMP =	3.8	SOUND VELOCITY =	1479.4
DEPTH =	900.	TEMP =	3.5	SOUND VELOCITY =	1479.8
DEPTH =	1500.	TEMP =	3.5	SOUND VELOCITY =	1490.5
DEPTH =	1400.	TEMP =	3.5	SOUND VELOCITY =	1488.9

VELOCITY.DAT#18

17-AUG-1984 01:38

POSITION OF XBT Lat= 43.3

Long= 47.2

Time of Observation: 17:29Z

Julian Day: 229

DEPTH =	0.	TEMP =	21.8	SOUND VELOCITY =	1526.4
DEPTH =	25.	TEMP =	18.1	SOUND VELOCITY =	1516.8
DEPTH =	50.	TEMP =	9.0	SOUND VELOCITY =	1487.2
DEPTH =	75.	TEMP =	11.7	SOUND VELOCITY =	1497.4
DEPTH =	130.	TEMP =	8.0	SOUND VELOCITY =	1484.8
DEPTH =	200.	TEMP =	8.5	SOUND VELOCITY =	1487.9
DEPTH =	400.	TEMP =	6.7	SOUND VELOCITY =	1484.2
DEPTH =	700.	TEMP =	5.2	SOUND VELOCITY =	1483.4
DEPTH =	900.	TEMP =	4.6	SOUND VELOCITY =	1484.3
DEPTH =	3000.	TEMP =	4.6	SOUND VELOCITY =	1520.7



VELOCITY.DAT#20

21-AUG-1984 11:35

POSITION OF XBT Lat= 41.5

Long= 50.7

Time of Observation: 12: 4Z

Julian Day: 234

DEPTH = 7.	TEMP = 21.3	SOUND VELOCITY = 1524.2
DEPTH = 33.	TEMP = 7.4	SOUND VELOCITY = 1479.3
DEPTH = 100.	TEMP = 13.0	SOUND VELOCITY = 1500.9
DEPTH = 161.	TEMP = 12.4	SOUND VELOCITY = 1500.7
DEPTH = 199.	TEMP = 11.0	SOUND VELOCITY = 1496.9
DEPTH = 300.	TEMP = 9.1	SOUND VELOCITY = 1491.9
DEPTH = 498.	TEMP = 5.8	SOUND VELOCITY = 1482.4
DEPTH = 692.	TEMP = 5.0	SOUND VELOCITY = 1482.4
DEPTH = 806.	TEMP = 5.7	SOUND VELOCITY = 1487.1
DEPTH = 2040.	TEMP = 3.3	SOUND VELOCITY = 1498.1
DEPTH = 2815.	TEMP = 2.8	SOUND VELOCITY = 1508.9

VELOCITY.DAT#22

26-AUG-1984 11:43

POSITION OF XBT Lat= 43.4

Long= 37.5

Time of Observation: 17:53Z

Julian Day: 238

DEPTH = 0.	TEMP = 18.2	SOUND VELOCITY = 1515.5
DEPTH = 39.	TEMP = 3.1	SOUND VELOCITY = 1462.0
DEPTH = 65.	TEMP = 1.0	SOUND VELOCITY = 1452.9
DEPTH = 131.	TEMP = 6.6	SOUND VELOCITY = 1478.2
DEPTH = 161.	TEMP = 8.2	SOUND VELOCITY = 1485.4
DEPTH = 300.	TEMP = 6.6	SOUND VELOCITY = 1482.3
DEPTH = 505.	TEMP = 4.6	SOUND VELOCITY = 1477.8
DEPTH = 650.	TEMP = 4.4	SOUND VELOCITY = 1479.3
DEPTH = 2040.	TEMP = 3.3	SOUND VELOCITY = 1497.9
DEPTH = 2815.	TEMP = 2.8	SOUND VELOCITY = 1509.1



RC25-10

## NEWFOUNDLAND BASIN

AUG 31 '84 JD=244

NB-2

1513 change DDL Tapes

236 off / 237 on

1530 C/LF Profiler &amp; 5-20 Hz

1630 c/c → 018 d/s 106 rpm's

SB #63 off

1630 Sat Fix (NI) 42° 45.011'N 47° 47.597'W EL=7 IT=3 CT=21 #110

1648 c/c → 020°

1702 PREPARE TO LAUNCH SONOBUOY — ANTI-ALIAS  
 FILTER ON SONOBUOY RECORD GOING ONTO  
 DATA LOGGER IS NOW 250 Hz\*. 0-63 Hz  
 STILL GOING ONTO AUX 1/4 MCS.

(\*AN EARLIER RECORDS = 500 Hz)

1703 — SONOBUOY #64 LAUNCH

▼ FIRST 9 SHOTS = 6.5 Sec. delay  
 on profiler C — 10<sup>TH</sup> SHOT = 0 delay.

1720 Fire i Boat Drill - Cindy i John stay home alone i missed  
 the opportunity to put on their funny float  
 suits. Jamie slept thru it.

1810 changed filter 5-50 Hz

1819 changed filter → 5-30 Hz

1844 SAT FIX 42° 56.163'N  
 47° 42.797'W

EL=35 CT: 32  
 IT: 3 #130

2016 SEABEAM SHUT OFF TO FIX SCREEN — DISPLAY IRREGULAR  
 2032 c/c → 0109 AND BROKEN BY GAPS

SEABEAM COMPUTER SYSTEM SHUT DOWN BUT WILL NOT BOOT  
 UP AGAIN — CHECKING ---

2053 — AIRGUN #1 OFF

2059 — AIRGUN #1 ON, AIRGUN #3 OFF

2100 — c/c 008° SB READOUT BACK ON

2109 — AIRGUNS 1, 2, 3 ON, 4 IS OFF.

2130 — All AIRGUNS WORKING!

2147 — Ann &amp; Julie on watch



AUG 31 - 244

GHT:

2210: c/c  $\rightarrow$  002°

2221: SB#65 START

2323: change delay on Prof "C"  $\rightarrow$  6.0 sec

2337: c/f Prof "C"  $\rightarrow$  5-30 Hz

SEPT. 1 - 245

SAT FIX # 110

0004Z 43° 22.953' N 47° 35.778' W  
el-12 it-2 ct-21

(NO ONE CARES EITHER)

0025 SEABEAM WORKING AGAIN - NO ONE KNOWS WHY.

$\rightarrow$  ONLY CENTER-BEAM DATA FROM 2016-0025Z.

\* 0115Z end SB#65  
reel - 861 shot - 759

0119Z guns #1 + #4 off temp. (Maintenance)

\* 0105Z Sea Beam down again

0115Z Sea Beam up again ??

0123Z all 4 guns firing again

0135Z CHG. Delay on gun #1 from 12  $\rightarrow$  11 ms.

0140Z c/s  $\rightarrow$  100 rpm

0156Z - FIX 43° 32.930 N 47° 33.725 E LSP, IT3, CT30, SAT200

0145 Release the watch. (TIMEX)!

0315 Checked all tows - OK

0838 NI Fix 43° 40.637 N 47° 32.395 E L=20 IT=3 CT=12 #110

0359 c/s 110 rpm

0413 c/c 009°

0406Z Sat Fix 43° 42.828 N 47° 32.157 W EL=19 IT=3 CT=34

0418 c/s  $\rightarrow$  108 rpm



RC 25+10

"NEWFY" BASIN - SEPTEMBER 1, 1984

JD=245

LINE NB-26TIME (GMT)

0526 Sat Fix 43° 49.377N 47° 30.233W EL=55 IT=3 CT=37 #480

0543 C/C 010°

~~0553~~  
0600 SAT FIX 43° 51.667N 47° 29.569W EL=75 IT=3 CT=35 SAT=130

0700 HARRY WORKING ON UQR,

0716 SAT FIX 43° 58.489N 47° 27.773W EL=29 IT=3 CT=32 SAT=98

0735 Checked all fows - OK.

0733 C/C → 0130

0739 SAT FIX 44° 00.364N 47° 27.352W EL=13 IT=2 CT=24 SAT=130

0749 C/C → 015°

0815Z Begin SB#66

0945 AMM &amp; JULIE HERE

0948 Change data logger tape from # 238 → #239

1050 Bridge says we are 2 miles west of the line

1115 C/C → 020° ; EHD SB#66

1135 C/C → 025°

1145 SB#67 START

SAT FIX

 #110

1208Z 44° 22.182'N 47° 21.457'W

1242 SeaBeam Problems - Gains too high, threshold too low  
el - 13 it - 6 ct - 21

1243Z All fows checked - OK. Enter, Cindy &amp; John stage left...

1349 Sat Fix 44° 29.546N 47° 18.130W EL=55 IT=3 CT=31

1328 Change delays argins 11, 11, 10, 12

1430 End Sonobucy #67

1430 SeaBeam profiler not writing - working on

1447 C/C → 0230

1513 C/C → 018°

1535 SEABEAM SHUT DOWN FOR REPAIRS

1539 AG #1 off - compressor down for repairs

1542 Steady on 266°

1544 C/s → 100 r.p.m.s

1534 Sat Fix 44° 37.443N 47° 12.94W EL=23 IT=3 CT=26

1551 C/C 271°



RC25-10

## NEWFY BASIN

SEPT 1, 1984

NB-27

JD 245

- Seabeam currently down

- 1557 Streamer 25° off port stern stern
- 1617 Streamer 3° off port stern (should remain ~ 8° off & on this course)
- 1624 Marvin Comatose for ~ 1 hr.
- 1630 AIRGUN #1 ON, #4 OFF
- 1609 2D SAT FIX 44° 38.064' N 47° 15.739' W EL<sub>20</sub> IT<sub>3</sub> CT<sub>25</sub> #130
- 1648 44° 37.763' N 47° 19.930' W EL<sub>32</sub> IT<sub>3</sub> CT<sub>34</sub> #480
- 1700 #1 gun off, #4 on; decrease delay Gun #4 (12 → 11 ms)
- 1719 PROFILE A trip of 1/2 cycle for ~ 12 min (no DFS data lost)
- 1737 AIRGUN #1 ON, #4 OFF
- 1747 Karen & Ruth on watch
- 1805 4 AIRGUNS ON LINE.
- 1817Z C/C → 262°
- 1755 SAT FIX: 44° 37.647' N EL=74 IT=3 CT=35  
47° 26.509' W #130
- 1836 SAT FIX: 44° 37.487' N EL: 51 CT: 36  
47° 31.755' W IT: 3 #480
- 1924 A/C 259°
- 1940 SEABEAM DOWN
- 1943 SEABEAM UP
- 1946 C/C → 257° C/S → 110 rpm
- 1950 SEABEAM DOWN
- 1942 SAT FIX: 44° 37.313' N EL: 12 IT: 3 CT: 24  
47° 37.929' W #130
- 2012 C/C 254°
- ~~2004~~
- 2024 SAT FIX 44° 37.137' N EL: 9 IT: 5 CT: 23 N1  
47° 40.948' W #480
- 2050 Change delay on airgun #3 from 10 to 11 ms.
- 2107 C/S 115 rpm.
- 2146 C/Delay on Airgun #4 from 11 → 13 ms.
- 2150 AMM & JUNE ON WATCH



NB-27 DAY  
1 SEPT 84-245

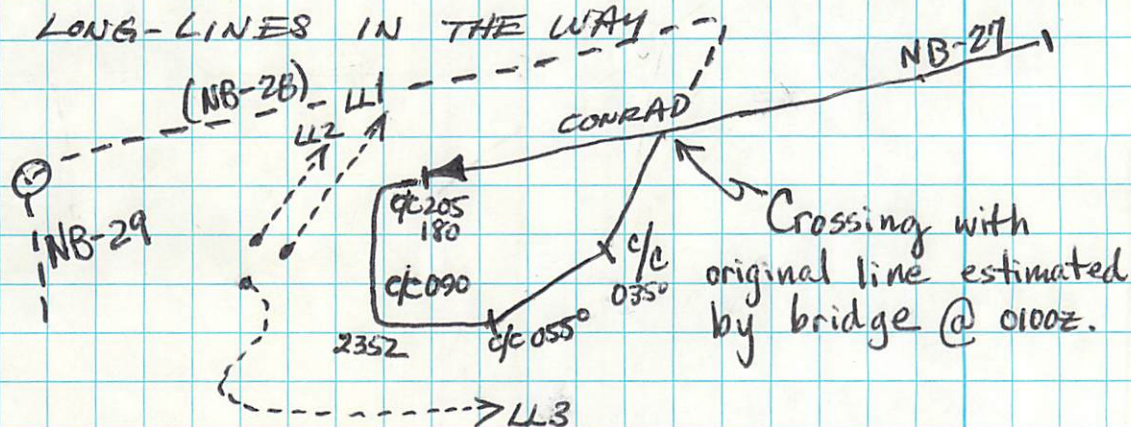
GMT;

2300 SEABEAM 12 KHZ BACK ON LINE  
2322 C/C → 205° FISHING BOAT TO STARBOARD  
TURNING TO AVOID LONG LINES AHEAD  
2330 C/C 180°  
2350 1 fishing vessel south; 2 vessels west  
2352 → turn due East C/C → 090°

2 SEPT. 1984

0002 Z

LONG-LINES IN THE WAY



0015 Z

C/C → 055°

0035 Z

C/C → 035°

SAT FIX # 200

0046 Z

44° 34. 517' N

el - 17

47° 59. 467' W

it - 3

ct - 23

0145 Z Release the watch.

0155 Z Change grav tape 063 of 6 064 on

0200 Z PRO "B" DOWN FOR STYLUS CHANGE

0220 Z PRO "B" UP

0102 Z 20 SAT FIX 44° 35.826' N 47° 58.586' W EL 34 IT 3 CT 32 #110

0249 Z SAT FIX 44° 44.660' N 47° 52.062' W EL 34 IT 3 CT 33 #110

0330 WAYPOINT 44 37. N 48 31.5 W 64.9 <sup>N.M.</sup> TO NB-28 turn



GMT

NB-27

0353

c/c → 050°

0410

c/c → 055°

0500

Bridge informs us that we are abreast of the end of the longline gear. We will turn to NB-28 (and original E.O.L. for NB-27) in approx. 30 minutes.

0315 Sat. Fix = 44° 46.403'N, 47° 49.962'W, EL=5, IT=3, CT=21 #480.

(N1) 0416 Sat Fix = 44° 50.943'N, 47° 44.913'W EL=9, IT=3, CT=20 #200.

0433 Sat. Fix = 44° 51.997'N, 47° 43.446'W EL=6, IT=11, CT=17 #110.

0503Z Sat Fix 44° 53.493'N 47° 42.357'W EL/52 IT/3 CT/17 #130 N1 forced update

0530Z End NB-27 ; Begin NB-28 c/s → 116 rpm

0535Z c/s → 108 rpm

0537Z Steady on course 325°

0649Z c/s 85 RPM

0712Z Checked all fows - OK. Raining steadily, w/c. 20 mph wind out of the SE. Tropical storm "Caesar" is no big deal.

0720 BEGIN SLOW TURN TO 230°

0720 I/S → 100 rpm

~0735 S/c 230°

0834Z c/s → 110 rpm, Checked all fows - OK. Turned out deck lights.

0833Z SAT FIX 45° 01.843'N  
47° 46.693'W EL-2 IT-4 CT-10 #130 (FORCED UPDATE)

0857Z c/s → 118 rpm

0923Z c/c → 227° c/s → 122 rpm

0950Z JULIE a AMN ON WATCH

1010Z TRIGGER DELAYS CHANGED TO 11, 11, 11, 13. Checked fows - OK.

1026 - Prof "B" - adjusting styli

1114 - c/s → 125 RPM

1130 - c/c → 232°

1120 SAT FIX 44° 53.482'N 47° 59.138'W EL 4 IT 4 CT 15 #110 - NO UPDATE

1150 c/c → 237°

1200 SB # 68A-START



246  
2 SEPT 84

R/V CONRAD 25-10  
NEWFOUNDLAND BASIN

GMT:

Line NB-28

1205Z SB#68A Caught in streamer

1210Z Launch SB#68.

SAT FIX # 200

1241Z 44° 49.925'N 48° 05.521'W  
el - 17 it - 3 ct - 23

SAT FIX # 110

1305Z 44° 48.975'N 48° 07.402'W  
el - 35 it - 3 ct - 32

1330Z All faws checked - OK.

1350Z CHECKED GRAVITY - OK

Cindy & John, entrent ensemble

1409 c/s 130 rpm

1400 - Profiler B clutch repaired - A & C on next turn

1425 Sat Fix 44° 45.356N 48° 14.7W EL/78 IT/3 CT/32 #200

1500Z End SB #68 MCS tape 928; File 553

1451Z Sat Fix 44° 44.18N 48° 16.572W EL/42 IT/3 CT/32 #110

1541Z change delay Profiler A → 30 ms

1545 Time bss Profiler A - paper advance hung up

1600 c/s 140 rpm

1613 Adjust paper on Profiler B - no time loss

1611 NO SAT FIX 44° 40.693 N 48° 14.470 EL/12 IT/4 CT/22 #200

1705 29 SAT FIX 44° 38.188 N 48° 30.504 EL/50 IT/3 CT/22 #136

⇒ 1722 END NB-28, TURN TO NB-29

1723 Guns #1 & 4 offline for turn

1724 c/s → 110 rpm

1726 c/f

1727 c/s

1728 c/f

1729 c/s → 120 rpm

1737 Profiler B up @ 1737

1742 4 guns online

1745 Supply to engine

Profiler B turned off for clutch adjustment.



Newfoundland Basin

RC 25-10

0073  
108GMT

6 Sept. 1984

Transit

J.D. 250SAT FIX #

- 1320 37° 04.736N, 56° 50.824W, EL 29, IT 4, CT 14, SAT 110  
over 12 hrs since prior fix (put us ~15 mi to west)
- 1345 ANN ON WATCH
- 1405 C/C → 231°
- 15312 \* SAT FIX #130  
36° 45.809' EL=2 IT=8 CT=9  
57° 14.318'
- 1644 \* SAT FIX 36° 37.527N 57° 26.713W EL=18 IT=3 CT=27 #480
- 1716 \* SAT FIX 36° 34.231N 57° 33.060W EL=39 IT=3 CT=24 #130
- 1833 A/C → 231
- 1834 SAT FIX 36° 25.719'N 57° 46.518'W EL 71 ~~IT 3~~ IT 3 CT 37  
SAT #480
- 1954 TUCKER RELIEVES THE SMITH
- 2200 ALLEN ON WATCH
- 2350 AUSTIN RELIEVES ALLEN.

J.D. 2517 September, 1984

- 0005 C/C 238°
- 0032 Sat. Fix: 35° 43.813'N, 58° 55.001'W EL=10 IT=2 CT=21 #110
- 03182 C/C → 236°
- 0330Z Change Sealbeam paper - off chart plot...  
from here. Say Goodnight from...
- 0405 Gravimeter offline since ~ 0700 this morning... online.  
@ 0400.
- 0415 C/C → 234 SAT FIX 35 22.014 59° 35.309 EL 23 IT 3 CT 25 #200
- 0406 SAT FIX 35° 20.588'N 59 37.840 EL 15 IT 6 CT 22 #110
- 0428 SAT FIX 35° 18.213'N 59 41.771 EL 14 IT 4 CT 25 #130
- 0456 SAT FIX 35° 15.421'N 59 41.342 EL 19 IT 3 CT 27 #480
- 0545 Ruth relieves John
- 0616 SAT FIX 35° 07.882'N 60° 02.955'W EL: 78 CT: 30  
IT: 4 #130
- 0630 C/C → 230°
- 0650 CHECKED GRAVITY OK
- 0644 SAT FIX 35° 05.005'N 60° 06.115'W EL=68 IT=3 CT=38 #480



RC 25-10

0074  
109

## Newfoundland Basin

Transit to Bermuda - yeah!

GMT 7 September, 1984

- 0745 KARA on watch
- 0802 SAT FIX  $34^{\circ}57.133'N$   $66^{\circ}21.039'W$  EL 10 IT 3 CT 22 SAT 130
- 0917 GRAVITY CHECKED - OK -
- 0921 SAT NAV BACK ON, HAD CRASHED AT 0845  
THANKS TO STEVE & HIS DREAM MACHINE
- 0932 Karen successfully passes the "Green light test", (with  
flashing colors no less!)
- 1200Z J. McEwen on watch
- 1210Z c/c  $\rightarrow 230^{\circ}$
- 1343 AMH ON WATCH
- 1354Z \*SAT #200 FIX:  $34^{\circ}19.568'$ ,  $61^{\circ}20.040'$ , EL=29, IT=4, CT=27
- 1416 \*SAT FIX:  $34^{\circ}17.378'$ ,  $61^{\circ}25.447'$ , EL=63, IT=3, CT=35  
#110
- 1527 c/c  $\rightarrow 231^{\circ}$
- 1540Z \*SAT FIX  $34^{\circ}08.362'$ ,  $61^{\circ}36.772'$ , EL=32, IT=3, CT=29 SAT #200
- 1600 JIM ON WATCH
- 1603 \*SAT FIX\*  $34^{\circ}06.884'N$   $61^{\circ}40.149'W$  EL-17, IT-3, CT-26 #110
- 1618 c/c  $\rightarrow 233^{\circ}$
- 1646 c/c  $\rightarrow 260^{\circ}$
- 1651 DAA CHAIRES GETS A TRIM.
- 1800 I DIDN'T GET A TRIM.
- 1922 SO!!!
- 1950 TUCHOKE RELIEVES THE SMITH - NEW CALCOMP  
SEABEAM PLOT BEING SET UP BY THE SMITH.  
I GOT A TRIM.
- 2003 c/c  $\rightarrow 237^{\circ}$
- 2000Z SAT FIX (NI)  $33^{\circ}44.030'N$   $62^{\circ}16.170'W$  (EL 19) (IT 4) (CT 18) SAT #480
- 2100 WERE BACK, TUCHOKE'S OFF TO PARTY.  
HOW DO YOU SPEAK RELIEF?
- 2150 Relieved watch DA ON / SH OFF
- 2202 C/C 241
- 2000 SAT NAV  $33^{\circ}44.030'N$ ,  $62^{\circ}16.190'W$ , EL 19, IT 4  
SAT #480



8 SEPT 84 BURNT LOG AC 25/10

TRANSIT NELD TO BERMUDA

0131:12 SAT FIX 38° 11.516' N 63° 10.501' W  
EL 25°, IT 3, CT 30, SAT # 110

0145 C/C 238

0131.12 SAT FIX 33° 11.516' N 63° 10.501' W  
EL 25° IT 3 CT 30 # 110

0149 Cindy E on watch ~~SBP~~ ✓ - check of approval  
GUNS 1, 2, 3, 4 NOT WORKING

0303 CHECKED GRAVITY - OK

0245 Sat Fix 33003.479 N 63° 24.457 W EL 73 IT 3 CT 32 # 200

0342 C/C → 234°

0429 Sat Fix 32° 52.077 N 63° 44.095 W EL 12 IT 5 CT 12 # 200

0445 Yohan here... say goodnight Cynthia... kiss, kiss

0520 Today is the first day of the rest of your life...  
AND Look where you're at.

0522 Standin tall, lookin good, oughta be in Hollywood... Deep diving, down  
range, double crimping, non-ferrous, anti-magnetic, half-animal man killer  
last of the bare knuckled bar room fighters and ball room dancing U.S.  
Navy (~~fish~~) Deep Sea Divers... continuing conversations of Godst...

0526 20 SAT FIX 32 46.110 N 63 54.730 W EL 34 IT 3 CT 32 # 130

0632 C/C → 225°

0621 20 SAT FIX 32 46.443 N 64 05.890 W EL 67 IT 3 CT 38 # 480

0709 Yohan & Paul witness a true meteorological phenomenon... first a dash right on  
the Atlantic swell when a nighttime rainbow has been riding out of the  
squaline falling away behind us... you had to be there... TRULY AWESOME...

0737 C/C → 230°

07132 SAT FIX 32° 34.117' N EL 33 IT 3 CT 32 # 130  
64° 14.707' W

0802 - LOG BOOK FLYING - ACROSS LAB  
BERMUDA IN SIGHT

0825 MAGNETOMETER SHUT OFF

0835 MAGGIE ON DECK

0830 C/S → 150 rpm

0835 Y/S → 130 rpm

0840 C/S → 110 rpm



Newfoundland Basin

RC 25-10

8 Sept 19

0076  
111

0845 SHUT EVERYTHING OFF (Seabeam, ~~80~~ 3.5 kHz)

END RC 25-10

