1. ATLANTIC TWIN
June 1974
Loran-C Coordinates 6/19/74

2. ASTERIAS
Oct 22-24, 1974 74011 nav

ATTW-74 74005 ATTW
ASTR 74OCT 74011 ASTR
103508

Cape Cod Bay Uniboom Fall 1974 (2)
ASTERIAS

| OPS 12 KHz | 3.5 KHz | CSP | MAG | GRAV | SONO | STA | Tuesday Oct 22, 1974 COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|---|
| | | ✓ | | | | | 0645 LEAVE DOCK - SANDWICH BOAT BASIN |
| | | | | | | | 0655 BEGIN STREAMING GEAR |
| | | | | | | | 0715 RECORDER IS RUNNING : FILTER (300 - 4000 HZ) GAIN (100%) SWEEP (0.25 SEC.) KEY (1 of 2) SCALE LINES (100 m SEC.) |
| | | | | | | | 0739 BLACK BUOY #1 ABEAM - BEGIN SCORTON LEDGE LINE. HEADING 129° MAG. SPEED : 1100 T |
| | | | | | | | 0802 C/S TO 1000 T TO IMPROVE RECORDS |
| | | | | | | | 0820 C/C TO 114° MAG. |
| | | | | | | | 0830 RESYNC. TIME MARK. NO TAKE-UP SPOOL. WE JUST PUT ONE IN |
| | | | | | | | 0854 SHUT DOWN RECORDER - ALL POWER LOST DUE TO A BLOWN FUSE |
| | | | | | | | 0858 POWER BACK - STILL NOT PROFILING |
| | | | | | | | 0902 SHUT DOWN LORAN RECVR. LORAN WAS ON BATTERY POWER DURING SHIP'S POWER LOSS. STILL NOT RECORDING. KEY SIGNAL IS INTERFERING WITH LORAN REPETER |
| | | | | | | | 0928 C/C FOLLOWING LANE 830 EN ROUTE TO BEGINNING OF LINE #2 |
| | | | | | | | 0945 C/C START LINE 2. FOLLOWING CAPE RACE LANE 688 (LORAN). DOING ABOUT 1000 T |
| | | | | | | | 1022 C/S TO 1100 T, STILL ON ~~LANE~~ LINE 2, LANE 688 |
| | | | | | | | 1106 DECREASE GAIN FROM 7.0 TO 6.0 STILL ON ~~LANE~~ LINE 2, LANE 688, 1100 T. |
| | | | | | | | 1220 LUNCH OVER. STILL ON LINE 2. |

| OPS | | | | | | | COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|---|
| 12 KHz | 3.5 KHz | CSP | MAG | GRAV | SONO | STA | |
| | | | | | | | 1405 END LINE #2. SHUT OFF RECORDER TO CHANGE BLADE & PAPER ROLL. THE LAST 15 MIN. OF LINE 2, WE STRAYED FROM LANE 688 DUE TO A LOOSE CONNECTION ON THE LORAN ANTENNA, |
| | | | | | | | 1420 RECORDER IS ON AGAIN |
| | | | | | | | 1432 LORAN IS OK. ~~EOI~~ THE ANTENNA END OF THE CONNECTOR CABLE CAME LOOSE - WE LOST THE MASTER SIGNAL. |
| | | | | | | | — BEGIN LINE #1. 900 R.P.M. LORAN LANE ~~69. 770~~. 37. ~~or~~ 700. |
| | | | | | | | 1435 C/S TO 1100 T UNDERWAY ON LINE #1 |
| | | | | | | | 1620 EPC Not printing + broken stylus Belt. |
| | | | | | | | 1632 Replace belt. Good record |
| | | | | | | | 1806 SHUT DOWN E.P.C. TO REPLACE BELT |
| | | | | | | | 1815·30 EPC RECORDING AGAIN. C/S TO 1100 T |
| | | | | | | | 1836 END LINE #1 SECURE E.P.C. RECORDER. SHUT DOWN GENERATOR |
| | | | | | | | 1845 ALL GEAR IS ABOARD — HEADING IN |
| | | | | | | | 2000 TIED UP AT SANDWICH BOAT BASIN. |

# Cape Cod Bay Uniboom Fall 1974

2

| OPS | | | | | | | COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|---|
| 12 KHz | 3.5 KHz | CSP | MAG | GRAV. | SONO. | STA. | |

Oct 23, 1974

Line #26 Manomet Pt.

0640 LEAVE DOCK

0655 START STREMING GEAR

0703 RECORDER ON & WORKING

0705 FIRST NAV. FIX - ON LINE # 26

0726 COURSE ADJ. TO 011° - CONTINUE LINE #

0838 End ~~line~~ line 26 C/C enroute to original line #1 to rerun at .25 sec sweep. line 1 will be southerly on Cape Race Loran C lane 37710

1107 END LINE 1 - LANE 37.710. SHUT DOWN RECORDER TO CHANGE BELT. ENROUTE TO ~~[illegible]~~ NEW LINE.

1122 E.P.C. RECORDER GOING AGAIN. EN ROUTE.

1136 SHUT DOWN E.P.C. TO CHECK STYLII. ~1 MIN LOST.

1154 C/C TO BEGIN LINE #27. FOLLOW LORAN LANE 69 823.0.

1301 C/C to 170 to run off SE edge of Billingsgate Shoal

1305 C/C to run SE on 37599

1341 END LINE #28. HAUL IN GEAR. STEAMING TO STARTING POINT

1450 GEAR IS IN THE WATER. BEGIN LINE #28, LORAN LANE 37,568. 1100 TURNS, 0.25 SEC. SWEEP, 100 M.S. SCALE LINES.

1604 END LINE #28. C/C ENROUTE TO ANOTHER

# CAPE COD BAY UNIBOOM - FALL 1974

| OPS | | | | | | | COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|---|
| 12 KHz | 3.5 KHz | CSP | MAG | GRAV. | SONO. | STA. | |

23 OCTOBER 1974

LINE

1618 C/C TO LINE # 29. FOLLOW CAPE RACE LANE 37556 0.25 SEC. SWEEP. KEYING 1 OF 2 SWEEPS 100 M.S. SCALES. GAIN 100%.

1635 RED LINE STARTS - PAPER ROLL COMING TO AN END

1705 END LINE # 29. GEAR IS ABOARD. GENERATOR IS SHUT DOWN - HEADING FOR SANDWICH BASIN.

Sandwich Boat Basin . x - 37,766.3
z - 69,805.4

# Asterias
# Oct 74 NAVIGATION LOG

(1)

| TIME | CAPE RACE (X) | DANA (Z) |
|---|---|---|
| Tuesday Oct 22nd | | |
| 0630 Depart Sandwich Boat Basin | | |
| 0718 | 37,737.8 | 69,801.7 |
| | 754 | |

SCORTON LEDGE LINE

| | | |
|---|---|---|
| 0740 | 37,752.5 | 69,806.0 |
| Commence SCORTON LEDGE LINE | | |
| Bearing 129° MAG | | |
| 0745 | 750.8 | 807.6 |
| 0753 | 747.5 | 810.0 |
| 69.819 0800 | 744.3 | 812.4 |
| 0805 | 742.1 | 813.8 |
| 0810 | 740.2 | 815.1 |
| 0815 | 738.4 | 816.7 |
| 0820 | C/COURSE END LINE | C/TO 114° MAG |
| 0821 | 735.3 | 818.4 |
| 0825 | 733.4 | 819.2 |
| 0830 | 729.7 | 820.2 |
| 0835 | 727.4 | 821.5 |
| 0840 | 723.7 | 822.4 |
| 0846 | 719.9 | 824.2 |
| | 719 | 825 |

(2)

Main fuse blown aboard Asterias
All systems off - Loran C out of sync. Resync'd
~~[illegible]~~ begin line SL again

| | | |
|---|---|---|
| 0911 | 37,713.0 | 69,826.2 |

NOTE power supply interference on Loran-C receiver

| | | | |
|---|---|---|---|
| | 0916 | 709.7 | 827.6 |
| | 0920 | 707.2 | 828.4 |
| | 0925 | 704.8 | 829.6 |
| c/c | 0928 | 702.6 | 830.3 |

Following lane 830 on route to start pt of line 2 lane 37,688 usec heading NW on line 2

| | | | |
|---|---|---|---|
| 0935 | 696.0 | 830.3 | |
| 0940 | 691.4 | 830.2 | |
| 0945 | c/c 686.4 | 829.9 | start of line 2 |
| 0950 | 687.4 | 828.5 | ~[illegible]° MAG. |
| 1000 | 687.8 | 825.2 | ~335° MAG |
| 1010 | 688.0 | 821.8 | |
| 1020 | 688.0 | 818.2 | |
| 1030 | 687.8 | 814.6 | |
| 1040 | 688.0 | 811.3 | |
| 1050 | 688.1 | 807.6 | |
| 1100 | 688.1 | 804.0 | |
| 1110 | 687.9 | 800.5 | |
| 1120 | 687.7 | 796.8 | |
| 1130 | 688.1 | 793.1 | |
| 1140 | 688.3 | 789.9 | |
| 1151 | 688.1 | 785.6 | |
| 1200 | 688.2 | 782.2 | |
| 1210 | 687.9 | 778.7 | |
| 1215 | 687.6 | 776.6 | |
| 1230 | 687.9 | 771.4 | |
| 1240 | 687.6 | 767.5 | |
| 1250 | 687.8 | 764.1 | |

| | ~~760.1~~ | LINE #2 CON'T. |
|---|---|---|
| 1300 | 688.2 | 760.1 |
| 1311 | 688.1 | 756.2 |
| 1320 | 688.1 | 753.0 |
| 1330 | 687.8 | 748.0 |
| 1340 | 688.4 | 746.4 |
| 1350 | 686.4 | 745.8 |
| 1400 | 685.0 | 745.5 |

} ? verify w/ post plot

~ 686 ~736 cause ↓

Lman C - loose connector @ antenna end - loss of signal
1430 L-C back on

c/c start Line #1 150° MAG HEAD

1432 37,700.9 69,737.2

| | | | |
|---|---|---|---|
| 1435 | 700.2 | 738.1 | |
| 1440 | 699.9 | 740.2 | |
| 1450 | 699.8 | 744.0 | > 3.6 |
| 1500 | 700.0 | 747.6 | > 5.1 |
| 1510 | 699.8 | 752.7 | > 4.1 |
| 1520 | 699.9 | 756.8 | > 4.4 |
| 1530 | 700.0 | 761.2 | |
| 1540 | 700.0 | 765.3 | > 4.0 |
| 1550 | 699.9 | 769.3 | |
| 1600 | 700.3 | 773.4 | > 3.6 |
| 1610 | 700.3 | 777.0 | > 4.2 |
| 1620 | 700.2 | 781.2 | down EPC lost signal |
| 1631 | 699.7 | 783.5 | resume line #1 |
| 1640 | 700.1 | 786.7 | |
| 1650 | 700.1 | 790.9 | |

CAPE COD BAY UNIBOOM SEISMIC
L-C NAVIGATION

(4)

| TIME | CAPE RACE | DAMA INDIANA |
|---|---|---|
| 1700 | 37,700.0 | 69,794.6 |
| 1710 | 700.3 | 798.5 |
| 1720 | 700.0 | 802.5 |
| 1731 | 700.3 | 806.6 |
| 1740 | 700.1 | 810.6 |
| 1750 | 700.2 | 814.4 |
| 1800 | 699.8 | 818.1 |
| 1806 | 699.3 | 820.4 |

shut down for bett change
dropped a stylus

| | | |
|---|---|---|
| 1815 | 699.6 | 822.4 |

Resume line # 1 - Bett replaced

| | | |
|---|---|---|
| 1830 | 700.1 | 827.5 |

1836 End line #1

37,700.0 69,830.0

on route to sandwich boat basin

arrive sandwich boat basin
@ 2000 hr.

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Wed Oct 23rd
Depart sandwich boat basin
0635
on route to start of line 26
Menomet Point

| TIME | X | Y |
|---|---|---|
| | 37,--- | 69,--- |
| 0704 | 753.2 | 804.7 |

Start line # 26 Manomet Point
short run to intercept of lane 755 @ which will follow for short time

| | | | |
|---|---|---|---|
| | 0712 | 755.2 | 802.1 |
| | 0720 | 755.0 | 799.0 |
| c/A | 0726 | 755.1 | 797.0 |

heading 011° MAG

| | | | |
|---|---|---|---|
| | 0730 | 751.9 | 795.1 |
| | 0736 | 748.7 | 793.4 |
| | 0741 | 745.7 | 791.9 |
| | 0746 | 742.6 | 790.0 |
| | 0750 | 740.0 | 788.6 |
| | 0756 | 736.2 | 786.2 |
| | 0800 | 734.0 | 784.7 |
| | 0805 | 730.6 | 782.6 |
| | 0810 | 728.0 | 780.9 |
| | 0816 | 724.5 | 778.5 |
| | 0820 | 721.9 | 776.6 |
| | 0825 | 718.5 | 774.2 |
| | 0830 | 715.9 | 772.7 |
| | 0835 | 712.1 | 770.4 |
| c/c | 0838 | 709.6 | 769.0 |

End line 26
start line # 1 rerun @ .25 SEC SWEEP
155° MAG

will follow Cape Race Lane 37,710.0

| TIME | X | Y |
|---|---|---|
| 0850 | 709.8 | 773.6 |
| 0900 | 710.3 | 777.7 |
| 0910 | 710.3 | 781.7 |
| 0921 | 710.1 | 786.1 |
| 0931 | 709.9 | 790.3 |
| 0942 | 710.0 | 794.8 |
| 0950 | 710.2 | 797.4 |
| 1000 | 709.8 | 801.9 |
| 1015 | 709.8 | 808.0 |
| 1020 | 709.9 | 810.0 |
| 1030 | 710.4 | 814.0 |
| 1040 | 710.4 | 818.2 |
| 1050 | 709.9 | 822.0 |
| 1103 | 709.8 | 827.4 |
| c/c ⇒ 1107 | 709.9 | 829.0 |

c/c end line 1

on route to line # 27 Dana Lane 69, 822

shutdown 1111 705.8 828.6

change belt on EPC

1122 694.6 827.2

⇓ system back on - still on ~~route to~~ route to start of line # 27

1130 687.3 826.3

1136 shut down - align 1 stylus
1137 system back on
1140 37,677.6 69,824.8
1150 668.4 823.6
c/c 1154 664.8 823.0
begin line # 27

Following Dana lane 69,823.0

1200 ~~82~~ 658.9 823.2

1210 649.2 823.0
1220 639.2 822.9
1225 634.7 822.9
1230 630.2 823.1 ~~823.1~~
1240 620.1 823.0
1250 610.3 823.0
1300 600.4 823.1
1302 598.4 823.2

c/c TO 170° - PERPENDICULAR TO
(LANE ~~37,599~~ 37.599) ORIG. LINE # 27 - CALL IT LINE # 28

1305 599.1 824.5
1310 599.1 826.7
1320 599.4 831.0
1330 598.7 835.4

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1450 567.9 807.3
start line # 28 cape Race lane 568

1500 568.4 803.7

1510 568.1 799.8

| | | | |
|---|---|---|---|
| | 1520 | 568.4 | 796.0 |
| | 1530 | 568.0 | 792.3 |
| | 1540 | 568.6 | 788.8 |
| | 1550 | 567.9 | 784.9 |
| | 1600 | 568.6 | 781.2 |
| c/c | 1604 | 568.7 | 779.9 |

End line # 28

On route to line 29

| | | | |
|---|---|---|---|
| | 1610 | 562.9 | 779.9 |
| c/c | 1618 | 555.7 | 780.1 |

Commence line # 29

Cape Race Lane 37, 556

| | | |
|---|---|---|
| 1625 | 556.4 | 783.1 |
| 1630 | 556.4 | 785.2 |
| ~~1641~~ | | |
| 1646 | 556.6 | 792.2 |
| 1701 | 556.2 | 798.4 |
| 1710 | 556.1 | 802.0 |

↘ End line # 29

pull in gear.

| | Y | Y |
|---|---|---|
| ~~1727~~ | ~~656.1~~ | ~~757.6~~ |

~~start line #~~ 30

| | | |
|---|---|---|
| 1730 | 652.2 | 756.7 |

↓ start line # 30

| | | |
|---|---|---|
| 1740 | 643.7 | 754.4 |
| 1750 | 635.1 | 752.0 |
| 1800 | 626.6 | 749.3 |
| 1810 | 617.8 | 746.6 |
| o/c 1817.5 | 611.8 | 745.1 |

↓ End line 30
start line 31

| | | |
|---|---|---|
| 1825 | 604.6 | 747.7 |
| 1830 | 599.3 | 748.6 |
| 1840 | 591.4 | 745.0 |
| 1850 | 582.2 | 745.4 |
| 1900 | 572.1 | 745.2 |
| 1912 | 560.5 | 745.1 |
| 1921 | 559.1 | 745.2 |
| 1930 | 543.1 | 745.4 |
| 1937 | 539.1 | 745.0 |

SHUT DOWN - CHANGE DIFF

| | | |
|---|---|---|
| 1941 | 536.7 | 747.8 |
| | ~~pesume line~~ | |
| | 536.0 | ~~747.8~~ |
| c/c 1946 | 537.0 | 746.4 |

start line #32 leaving back to Canal 223° + bearing

| | | |
|---|---|---|
| 1950 | 541.0 | 747.1 |
| 1955 | 545.6 | 748.3 |
| 2000 | 549.9 | 749.3 |
| 2005 | 554.9 | 750.5 |
| 2010 | 559.5 | 751.7 |
| 2015 | 563.9 | 752.9 |
| 2020 | 573.4 | 755.9 |
| 2030 | 577.2 | 756.6 |
| 2035 | 581.5 | 757.9 |
| 2040 | 585.8 | 758.9 |
| 2045 | 591.2 | 759.9 |

End of survey