Astorias
76021 ASTR 76-6
76039 ASTR OCT 76
77024 ASTR 7-77

# CRUISE LOG BOOK

CRUISE

A-6-76

# UNIBOOM

# NANTUCKET SOUND

PROPERTY OF: Charles J. O'Hara
U. S. GEOLOGICAL SURVEY
OFFICE OF MARINE GEOLOGY
WOODS HOLE, MASS. 02543
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ASTR JUN/OCT 76
76021 103511
76039
77024 JUN 77

| GMT | | | | TIME ZONE | SHIPS | | NAVIGATION | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MO | YR | TIME | ± | COURSE | SPD | | C RACE | DANA |
| 04 | 10 | 76 | | | | | | | |
| | | | 0700D | | | | | | |
| | | | 0745 | | | | | | |
| | | | 1005 | | | | | | |
| | | | 1342 | | | | | 37782.4 | 69870.0 |
| | | | 1400D | | | | | 37782.3 | 69875.4 |
| | | | 1415 | | | | | 37782.1 | 69875.8 |
| | | | 1430 | | | | | 37782.1 | 69884.1 |
| | | | 1436 | | | | | 37782.1 | 69885.5 |
| | | | 1445 | | | | | 37782.2 | 69887.5 |
| | | | 1449 | | | | | 37782.4 | 69888.7 |
| | | | 1452.30 | | | | | 37782.2 | 69885.2 |
| | | | 1500 | | | | | 37782.2 | 69891.6 |
| | | | 1515 | | | | | 37781.9 | 69896.7 |
| | | | 1530 | | | | | 37782.3 | 69901.7 |
| | | | 1545 | | | | → | 37782.2 | 69906.9 |
| | | | 1600 | | | | → | 37782.0 | 69911.9 |
| | | | 1611 | | | | | 37782.0 | 69915.8 |
| | | | 1616 | | | | | 37781.8 | 69916.6 |
| | | | 1630 | | | | | 37781.9 | 69921.7 |
| | | | 1645 | | | | | 782.3 | 69927.0 |
| | | | 1700 | | | | | 782.1 | 932.4 |
| | | | 1715 | | | | | 37782.2 | 69937.9 |
| | | | 1730 | | | | | 37782.0 | 943.2 |

| OPS | | | | | | | COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|---|
| 12 KHz | 3.5 KHz | CSP | MAG | GRAV | SONO | STA | |
| | | | | | | | MONDAY 4 OCT 76 |
| | | | | | | | UNIBOOM SEISMIC - NANTUCKET SOUND - ASTERIAS |
| | | | | | | | O'HARA, FERREBEE, COMMEAU |
| | | | | | | | WAREHOUSE - LOAD GEAR ON TRUCK |
| | | | | | | | LOAD GEAR ABOARD ASTERIAS - WOODS HOLE |
| | | | | | | | SET UP + CHECK OUT SYSTEM |
| | | | | | | | DEPART WH ON ROUTE TO RESUME LINE NS-19 |
| | | | | | | | ~9 NM due EAST CAPE POAG - ABORTED - HEAVY SEAS |
| | | | | | | | TO ROUGH HEAD TO NS 19 OFF HYANNIS |
| | | | | | | | START NS 19 |
| | | | | | | | DOWN to CHANGE BELT 1432 RESUME 1436 |
| | | | | | | | 1445 DOWN to CHANGE BELT |
| | | | | | | | START STOP ANOTHER BELT |
| | | | | | | | START AGAIN |
| | | | | | | | DOWN CHANGE PAPER |
| | | | | | | | RESUME |
| | | | | | | | CON'T LINE NS-19 |

| GMT | | | | TIME ZONE | SHIPS | | NAVIGATION | |
|---|---|---|---|---|---|---|---|---|
| DAY | MO | YR | TIME | ± | COURSE | SPD | | |
| 04 | 10 | 76 | 1740 | | | | 37 782.1 | 69 944.9 |
| | | | 1743 | | | | 782.0 | 69 947.5 |
| | | | 1800 | | | | 781.8 | 953.4 |
| | | | 1815 | | | | 782.0 | 958.3 |
| | | | 1830 | | | | 782.3 | 963.6 |
| | | | 1835 | | | | 782.2 | 965.1 |
| | | | 1915 | | | | | |

| OPS | | | | | | | COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|---|
| 12 KHz | 3.5 KHz | CSP | MAG | GRAV. | SONO. | STA. | |
| | | | | | | | BROKEN STYLUS PN |
| | | | | | | | END LINE NS 19 |
| | | | | | | | DOCKSIDE - NANTUCKET HARBOR FOR THE NIGHT |

| GMT | | | | TIME ZONE | SHIPS | | NAVIGATION |
|---|---|---|---|---|---|---|---|
| DAY | MO | YR | TIME | ± | COURSE | SPD | |
| 05 | 10 | 76 | | | | | |

| OPS | | | | | | | COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|---|
| 12 KHz | 3.5 KHz | CSP | MAG | GRAV. | SONO | STA. | |
| | | | | | | | NO GO WEATHERED IN - NANTUCKET HBR |
| | | | | | | | STRONG NE WINDS TO 30 KNOTS |

| GMT DAY | MO | YR | TIME | TIME ZONE ± | SHIPS COURSE | SPD | NAVIGATION C RACE | | |
|---|---|---|---|---|---|---|---|---|---|
| 05 | 10 | 76 | 0555 | | | | | | |
| | | | 0645 | | | | 37769.8 | 69962.8 | |
| | | | 0700 | | | | 37769.9 | 69956.7 | |
| | | | 0707 | | | | 37770.0 | 954.2 | |
| | | | 0748 | | | | 37770.2 | 964.9 | |
| | | | 0800 | | | | 37769.9 | 960.5 | |
| | | | 0815 | | | | 769.6 | 954.9 | |
| | | | 0830 | | | | 769.5 | 949.4 | |
| | | | 0845 | | | | 770.0 | 947.2 | |
| | | | 0849:30 | | | | 770.0 | 942.9 | |
| | | | 0900 | | | | 769.8 | 939.1 | |
| | | | 0906:30 | | | | 769.9 | 937.1 | |
| | | | 0909 | | | | 770.0 | 936.2 | |
| | | | 0915 | | | | 770.3 | 934.3 | |
| | | | 0930 | | | | 770.3 | 929.7 | |
| | | | 0945 | | | | 770.0 | 924.3 | |
| | | | 1000 | | | | 769.9 | 919.3 | |
| | | | 1015 | | | | 770.5 | 913.6 | |
| | | | 1030 | | | | 769.4 | 908.2 | |
| | | | 1045:30 | | | | 769.8 | 902.5 | |
| | | | 1100 | | | | 770.0 | 897.4 | |
| | | | 1115 | | | | 770.1 | 891.7 | |
| | | | 1130 | | | | 769.9 | 885.6 | |
| | | | 1145 | | | | 770.1 | 880.0 | |
| | | | 1157:30 | | | | 770.2 | 875.0 | |
| | | | 1215 | | | | 758.6 | 875.0 | |
| | | | 1216 | | | | 758.1 | 875.1 | |
| | | | 1230 | | | | 758.0 | 879.0 | |
| | | | 1245 | | | | 758.0 | 883.2 | |

| OPS | | | | | | | COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|---|
| 12 KHz | 3.5 KHz | CSP | MAG | GRAV. | SONO. | STA. | |
| | | | | | | | DEPART NANTUCKET HBR - ON ROUTE TO COMMENCE LINE NS-20 - NANTUCKET SOUND OFF COSKATA REACH |
| | | | | | | | START LINE NS-20 |
| | | | | | | | TURN AROUND PROBLEM WITH RECORDED RERUN LINE |
| | | | | | | | START LINE NS 20 AGAIN |
| | | | | | | | DOWN BROKEN BELT |
| | | | | | | | Belt Repaired - UNIboom ON |
| | | | | | | | DOWN FOR BELT CHANGE |
| | | | | | | | BACK ON |
| | | | | | | | Cont Line NS-20 |
| | | | | | | | CC Cont NS 20 LOP 69875 |
| | | | | | | | END NS-20 START NS-21 LOP 37758 |
| | | | | | | | LINE NS-21 |

| GMT | | | | TIME ZONE | SHIPS | | NAVIGATION | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MO | YR | TIME | ± | COURSE | SPD | CAPE RACE | DA or A | |
| 08 | 10 | 76 | 1300 | | | | 37758.7 | 69887.1 | |
| | | | 1315 | | | | 37758.2 | 69891.0 | |
| | | | 1330 | | | | 37758.2 | 69894.9 | |
| | | | 1345 | | | | 37758.2 | 69899.2 | |
| | | | 1353 | | | | 37758.0 | 69901.5 | |
| | | | 1355 | | | | 37758.1 | 902.1 | |
| | | | 1400 | | | | 758.0 | 903.2 | |
| | | | 1415 | | | | 758.0 | 907.5 | |
| | | | 1430 | | | | 758.3 | 911.3 | |
| | | | 1445 | | | | 758.0 | 915.0 | |
| | | | 1448 | | | | 758.0 | 915.6 | |
| | | | 1450 | 0:15 | | | 758.2 | 916.3 | |
| | | | 1500 | | | | 757.7 | 918.5 | |
| | | | 1515 | | | | 758.5 | 922.6 | |
| | | | 1530 | | | | 758.0 | 926.5 | |
| | | | 1545 | | | | 758.1 | 930.7 | |
| | | | 1600 | | | | 758.1 | 934.9 | |
| | | | 1615 | | | | 758.3 | 939.6 | |
| | | | 1630 | | | | 758.3 | 944.0 | |
| | | | 1645 | | | | 758.0 | 948.6 | |
| | | | 1700 | | | | 758.1 | 952.8 | |
| | | | 1715 | | | | 758.3 | 956.5 | |
| | | | 1730 | | | | 758.0 | 961.4 | |
| | | | 1734 | :30 | | | 756.2 | 960.7 | |
| | | | 1740 | | | | 752.9 | 959.1 | |
| | | | 1744 | | | | 750.2 | 958.0 | |
| | | | 1750 | | | | 750.1 | 956.2 | |
| | | | 1800 | | | | 750.2 | 952.7 | |
| | | | 1807 | :30 | | | 749.7 | 950.1 | |
| | | | 1845 | | | | 754.9 | 949.6 | |

| OPS | | | | | | | COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|---|
| 12 KHz | 3.5 KHz | CSP | MAG | GRAV. | SONO | STA. | |
| | | | | | | | con't Line NS-21 |
| | | | | | | | Down for Belt Change |
| | | | | | | | up |
| | | | | | | | Down for Belt Change |
| | | | | | | | Uniboom ON |
| | | | | | | | con't Line NS-21 |
| | | | | | | | End |
| | | | | | | | CC ~~End~~ Line NS-21 ← Paper Change ~~Start Line NS-22~~ |
| | | | | | | | Start Line NS-22 |
| | | | | | | | CC Cont Line NS-22 |
| | | | | | | | CC Start Line NS-23 = End Line NS-22 Temporarily |

| GMT | | | | TIME ZONE | SHIPS | | NAVIGATION | |
|---|---|---|---|---|---|---|---|---|
| DAY | MO | YR | TIME | ± | COURSE | SPD | Cape Race | DANA |
| 06 | 10 | 76 | 1830 | | | | 37765.3 | 69949.9 |
| | | | 1845 | | | | 37776.4 | 69949.9 |
| | | | 1900 | | | | 37786.6 | 69950.0 |
| | | | 1915 | | | | 37796.6 | 69950.1 |
| | | | 1930 | | | | 37807.1 | 69950.1 |
| | | | 1940 | | | | | |
| | | | 1945 | | | | 8172 | 9502 |
| | | | ~~2045~~ | | | | | |
| | | | 2045 | | | | | |

| OPS | | | | | | | COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|---|
| 12 KHz | 3.5 KHz | CSP | MAG | GRAV. | SONO. | STA | |
| | | | | | | | Cont Line N5-23 |
| | | | | | | | Belt Change |
| | | | | | | | System malfunction - recorder not printing upper 20-30 msec of recorder - lower portion fine |
| | | | | | | | On route Nantucket Hbr |
| | | | | | | | Dockside - Nantucket Hbr - Tried to call Dick Sylvester Not at home |

| GMT | | | | TIME ZONE | SHIPS | | NAVIGATION | |
|---|---|---|---|---|---|---|---|---|
| DAY | MO | YR | TIME | ± | COURSE | SPD | C RACE | DANA |
| 07 | 10 | 76 | 0600 | | | | | |
| | | | 0700 | | | | | |
| | | | 0910 | | | | | |
| | | | 1014 | | | | 37 752.1 | 69 950.8 |
| | | | 102730 | | | | 745.2 | 946.7 |
| | | | 1045 | | | | 746.0 | 942.2 |
| | | | 1100 | | | | 746.3 | 937.8 |
| | | | 1119 | | | | 746.5 | 933.8 |
| | | | 1330 | | | | | |
| | | | 1600 | | | | | |

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

Awake
Called Dick skylevator - tested system dockside - no go.
Problem not rectified - other hydrophone seems to work.
Depart Nantucket Harbor to resume seismic survey - will try other hydrophone
Will resume survey off great point
RESUME NS 22
C/A CONT NS 22 LOP 37 746.0

shut down
ARR HYANNIS HTR
CALLED JENNINGS
FRANK CHECKED OUT SYSTEM
FIELD TESTED IN LEWIS BAY
37,727.7
69,860.6

| GMT | | | | TIME ZONE | SHIPS | | NAVIGATION | | |
|---|---|---|---|---|---|---|---|---|---|
| DAY | MO | YR | TIME | ± | COURSE | SPD | | | |
| 08 | 10 | 76 | 0545 | | | | [redacted] | | |
| 08 | 10 | 76 | 0643 | | | | 37746.0 | 69875.1 | |
| | | | 0700 | | | | 745.9 | 880.8 | |
| | | | 0705 | 30 | | | 742.3 | 882.2 | |
| | | | 0711 | 30 | | | 746.0 | 883.4 | |
| | | | 0715 | | | | 746.6 | 884.7 | |
| | | | 0731 | | | | 746.1 | 890.1 | |
| | | | 0745 | | | | 746.0 | 895.5 | |
| | | | 0801 | | | | 745.9 | 900.9 | |
| | | | 0815 | | | | 746.0 | 905.9 | |
| | | | 0830 | | | | 746.0 | 910.9 | |
| | | | 0845 | | | | 746.1 | 916.8 | |
| | | | 0900 | | | | 746.1 | 922.6 | |
| | | | 0915 | | | | 746.0 | 928.4 | |
| | | | 0930 | | | | 745.9 | 933.9 | |
| | | | 0945 | | | | 746.2 | 939.0 | |
| | | | 1000 | | | | 745.6 | 944.1 | |
| | | | 1003 | | | | 746.0 | 944.9 | |
| | | | 1014 | 30 | | | 733.3 | 945.0 | |
| | | | 1030 | | | | 733.8 | 940.9 | |
| | | | 1045 | | | | 734.2 | 936.6 | |
| | | | 1100 | | | | 734.1 | 932.4 | |
| | | | 1115 | | | | 734.1 | 928.1 | |
| | | | 1130 | | | | 733.9 | 923.6 | |
| | | | 1145 | | | | 734.1 | 919.0 | |
| | | | 1200 | | | | 734.0 | 913.9 | |
| | | | 1215 | | | | 734.0 | 908.9 | |
| | | | 1230 | | | | 733.9 | 903.6 | |

| OPS | | | | | | | COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|---|
| 12 KHz | 3.5 KHz | CSP | MAG | GRAV. | SONO. | STA. | |
| | | | | | | | UNDER WAY TO RESUME LINE N.S. -22 |
| | | | | | | | DEPART HYANNIS |
| | | | | | | | C/A TO AUDIO WRECK |
| | | | | | | | C/A TO RETURN TO LINE |
| | | | | | | | C/A RETURN TO LOP 37,746.0 |
| | | | | | | | Con't Line N.S. -22 |
| | | | | | | | C/C Con't Line NS-22 LOP 69945 |
| | | | | | | | C/C End Line NS-22 - Start Line NS-24 - LOP 37734 |

| GMT | | | | TIME ZONE | SHIPS | | NAVIGATION | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MO | YR | TIME | ± | COURSE | SPD | Cape Race | | DANA | |
| 08 | 10 | 76 | 1242 | 30 | | | 37 | 734.0 | 69 | 899.1 |
| | | | 1247 | 30 | | | | 734.1 | | 89 . |
| | | | 1700 | | | | 37 | 734.3 | | 892.9 |
| | | | 1315 | | | | | 734.1 | | 887.7 |
| | | | 1330 | | | | | 734.2 | | 882.4 |
| | | | 1343 | | | | | 734.1 | | 878.0 |
| | | | 1345 | | | | | 734.3 | | 877.3 |
| | | | 1352 | | C/C | | | 733.8 | | 875.0 |
| | | | 1400 | | | | | 729.4 | | 875.0 |
| | | | 1412 | 30 | C/C | | | 721.9 | | 875.4 > 4.5 |
| | | | 1430 | | | | | 721.7 | | 879.9 > 4.2 |
| | | | 1445 | | | | | 722.5 | | 884.1 > 4.2 |
| | | | 1500 | | | | | 722.0 | | 887.6 > 3.5 |
| | | | 1515 | | | | | 722.0 | | 892.1 > 4.5 |
| | | | 1530 | | | | | 722.3 | | 896.2 > 4.1 |
| | | | 1545 | | | | | 721.9 | | 900.7 > 4.5 |
| | | | 1600 | | | | | 722.5 | | 905.1 > 4.4 |
| | | | ~~1600~~ 1615 | | | | | 722.2 | | 909.5 > 4.4 |
| | | | 1630 | | | | | 722.1 | | 914.3 > 3.8 |
| | | | 1645 | | | | | 721.6 | | 918.9 > 4.6 |
| | | | 1649:30 | | | | | 722.1 | | 920.0 |
| | | | 1700 | | | | | 722.0 | | 923.2 |
| | | | 1715 | | | | | 722.1 | | 927.9 |
| | | | 1730 | | | | | 722.1 | | 932.6 |
| | | | 1745 | | | | | 722.2 | | 937.0 |
| | | | 1800 | | | | | 722.3 | | 941.6 |
| | | | 1811 | 30 | | | | 721.9 | | 945.0 |
| | | | 1844 | 30 | | | | 751.5 | | 950.1 |
| | | | 1900 | | | | | 762.9 | | 950.0 |
| | | | 1915 | | | | | 773.8 | | 949.6 |

| OPS | | | | | | | COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|---|
| 12 KHz | 3.5 KHz | CSP | MAG | GRAV. | SONO. | STA. | |
| | | | | | | | Con't Line NS-24 Down for Belt CHANGE |
| | | | | | | | UP FROM BELT CHANGE |
| | | | | | | | Down for BELT CHANGE |
| | | | | | | | BACK ON |
| | | | | | | | Go Coarse change con't line NS-24 |
| | | | | | | | END NS 24 START NS 25 |
| | | | | | | | Con't line NS-25 |
| | | | | | | | Paper Change |
| | | | | | | | BARK ON |
| | | | | | | | END NS -25 |
| | | | | | | | RESTART NS-23 |

| GMT DAY | MO | YR | TIME | TIME ZONE ± | SHIPS COURSE | SPD | NAVIGATION | C. RACE | DANA |
|---|---|---|---|---|---|---|---|---|---|
| 08 | 10 | 76 | 1930 | | | | | 37784.1 | 69949.9 |
| | | | 1945 | | | | | 795.2 | 949.9 |
| | | | 1950 | | | | | 798.6 | 950.3 |
| | | | 1953 | | | | | 798.3 | 949.3 |
| | | | 2000 | | | | | 803.3 | 950.2 |
| | | | 2015 | | | | | 813.7 | 949.8 |
| | | | 2030 | | | | | 824.2 | 949.9 |
| | | | 2041 | | | | | 831.4 | 950.1 |
| | | | 2145 | | | | | | |
| 09 | 10 | 76 | 0605 | | | | Lv Nantucket Harbor | | |
| | | | 0630 | | | | | 803.8 | 963.6 |
| | | | 0645 | | | | | 795.7 | 965.3 |
| | | | 0647 | | | | | 793.8 | 965.2 |
| | | | 0700 | | | | | 794.7 | 961.4 |
| | | | 0715 | | | | | 794.2 | 956.4 |
| | | | 0730 | | | | | 793.7 | 951.7 |
| | | | 0745 | | | | | 793.7 | 947.0 |
| | | | 0800 | | | | | 794.0 | 942.6 |
| | | | 0815 | | | | | 793.8 | 938.2 |
| | | | 0830 | | | | | 794.2 | 934.2 |
| | | | 0846 | | | | | 793.8 | 930.0 |
| | | | 0900 | | | | | 794.0 | 926.5 |
| | | | 0915 | | | | | 794.1 | 922.8 |
| | | | 0930 | | | | | 793.8 | 918.7 |
| | | | 0945 | | | | | 793.9 | 914.9 |
| | | | 1000 | | | | | 794.0 | 910.6 |
| | | | 1002 | | | | | 794.1 | 910.0 |

| OPS | | | | | | COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|
| 12 KHz | 3.5 KHz | CSP | MAG | GRAV. | SONO. | STA | |
| | | | | | | | CONT LINE NS 23 |
| | | | | | | | STOP FOR SHIP TRAFFIC |
| | | | | | | | Resume Speed |
| | | | | | | | End Line NS-23 - CALL IT A DAY |
| | | | | | | | DOCKSIDE - NANTUCKET HARBOR |
| | | | | | | | Resume Line NS-18 LOP 69965 |
| | | | | | | | Start |
| | | | | | | | C/A Cost Line NS-18 LOP 37794 |
| | | | | | | | End Line NS-18 |

| GMT | | | | TIME ZONE | SHIPS | | NAVIGATION |
|---|---|---|---|---|---|---|---|
| DAY | MO | YR | TIME | ± | COURSE | SPD | |
| 09 | 10 | 76 | 1015 | | | | |
| | 13 | 30 | | | | | |
| | 14 | 30 | | | | | |

| OPS | | | | | | | COMMENTS AND OBSERVATIONS |
|---|---|---|---|---|---|---|---|
| 12 KHz | 3.5 KHz | CSP | MAG | GRAV. | SONO. | STA. | |
| | | | | | | | GALE WARNINGS BROADCAST |
| | | | | | | | 35-40 KNOT WINDS SE |
| | | | | | | | DECISION MADE TO END UNIBOOM SURVEY - SEAS BUILDING |
| | | | | | | | GEAR HAULED - ON ROUTE WOODS HOLE FULL SPEED |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | ARR WOODS HOLE, MASS |
| | | | | | | | UNLOAD SOME GEAR |
| | | | | | | | CLEAR IN OFFICE |