

Oceanography Branch CTD Data Report
CTD_REPORT_2017004HB

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DATE: May 1, 2018

Oceanography Branch CTD Data Report

CTD_REPORT_2017004HB

NOAA Fisheries Service
Northeast Fisheries Science Center
Woods Hole, MA 02543

HB 17-04
AMAPPS
Data Coverage: July 7 - 18, 2017
Mid Atlantic Bight South, Georges Bank, off Shelf edge

This report presents a summary of surface and bottom temperature and salinity data collected during the Northeast Fisheries Science Center's HB1704 AMAPPS Survey aboard the NOAA FSV *Henry B Bigelow*.

Data was obtained with a Seabird Electronics SBE Model 19+ profiling CTD (s/n 4887) and a Seabird Electronics SBE Model 19+V2 profiling CTD (s/n 7142) during bongo double oblique tows, vertical casts, and tow-yos with a Neuston net.

Sea water samples were taken for the purpose of correcting conductivity.

Data presented here have been audited, however, corrections and/or updates may be applied at a later time.

The most recent and complete station data can be found in a comma delimited file at:

ftp://ftp.nefsc.noaa.gov/pub/hydro/csv_files/hb1704_for_ocdbs.csv

This report may be viewed on the Oceanography Branch website at:

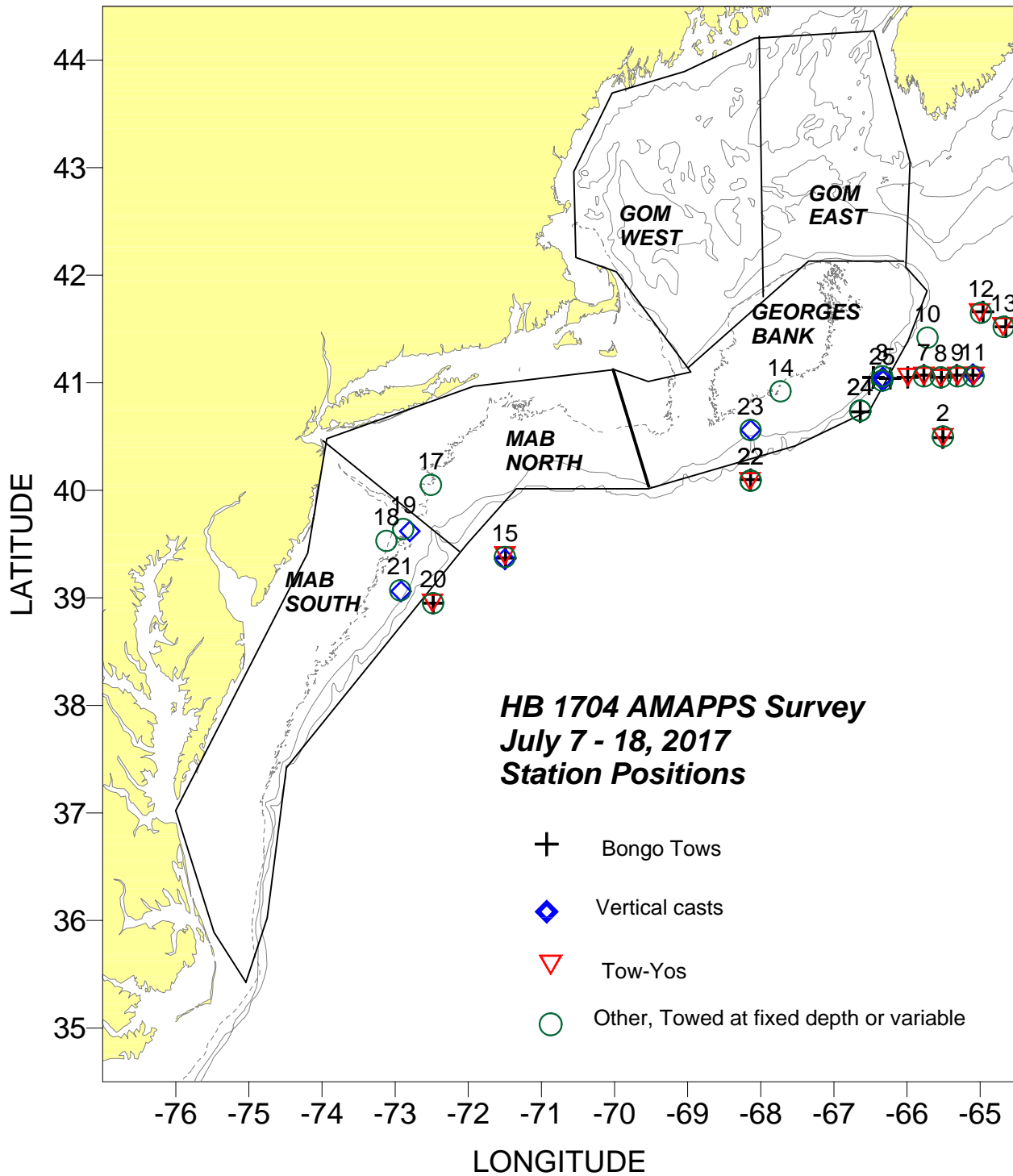
<http://www.nefsc.noaa.gov/HydroAtlas/>

choose: **2017 Cruises**

JUL_AMAPPS_HB1704

CTD_REPORT_2017004HB.pdf

Revised: May 1, 2018



HB1704 AMAPPS Survey
July 7 - 18, 2017

| Cast # | Sta # | Lat (deg N) | Long (deg W) | Day | Mo | Year | Time (GMT) | Btm Depth (m) | Sfc Temp (deg C) | Sfc Salt | Deepest Observed Temp (deg C) | Deepest Observed Salt | Meters from Bottom | Method of Deployment |
|--------|-------|-------------|--------------|-----|----|------|------------|---------------|------------------|----------|-------------------------------|-----------------------|--------------------|----------------------|
| 2 | 2 | 4029.8 | 6530.3 | 8 | 7 | 2017 | 2:58 | 3835 | 22.17 | 35.07 | 20.72 | 36.65 | 3768 | O |
| 3.001 | 2 | 4029.5 | 6530.5 | 8 | 7 | 2017 | 3:39 | 3841 | 22.22 | 35.09 | 22.90 | 36.27 | 3817 | T |
| 3.002 | 2 | 4029.6 | 6530.5 | 8 | 7 | 2017 | 3:43 | 3841 | 22.21 | 35.08 | 22.68 | 36.25 | 3816 | T |
| 4 | 2 | 4029.6 | 6530.4 | 8 | 7 | 2017 | 4:04 | 3839 | 22.42 | 35.13 | 15.46 | 36.11 | 3635 | B |
| 5 | 3 | 4103.6 | 6620.1 | 8 | 7 | 2017 | 9:55 | 1097 | 19.32 | 34.40 | 15.49 | 35.64 | 1038 | O |
| 6 | 3 | 4103.1 | 6619.9 | 8 | 7 | 2017 | 10:22 | 1221 | 19.32 | 34.39 | 17.72 | 35.11 | 1189 | W |
| 7 | 4 | 4103.0 | 6627.4 | 8 | 7 | 2017 | 18:24 | 139 | 20.28 | 34.72 | 12.51 | 35.44 | 1 | B |
| 8 | 4 | 4103.0 | 6627.6 | 8 | 7 | 2017 | 19:15 | 145 | 20.27 | 34.77 | 12.60 | 35.44 | 17 | B |
| 9 | 5 | 4102.7 | 6613.8 | 8 | 7 | 2017 | 20:36 | 1821 | 20.41 | 34.20 | 12.84 | 35.64 | 1615 | B |
| 10 | 6 | 4103.0 | 6559.7 | 8 | 7 | 2017 | 22:09 | 2604 | 22.85 | 35.21 | 22.01 | 35.42 | 2579 | T |
| 11 | 6 | 4103.1 | 6559.5 | 8 | 7 | 2017 | 22:25 | 2603 | 22.89 | 35.24 | 12.67 | 35.60 | 2399 | B |
| 12.001 | 7 | 4103.4 | 6545.9 | 8 | 7 | 2017 | 23:56 | 2765 | 23.18 | 35.81 | 23.02 | 36.56 | 2740 | T |
| 12.002 | 7 | 4103.5 | 6545.9 | 9 | 7 | 2017 | 0:01 | 2765 | 23.16 | 35.81 | 23.13 | 36.47 | 2740 | T |
| 13 | 7 | 4103.7 | 6545.9 | 9 | 7 | 2017 | 0:15 | 2747 | 23.10 | 35.86 | 21.11 | 36.65 | 2681 | O |
| 14 | 7 | 4104.1 | 6545.9 | 9 | 7 | 2017 | 0:41 | 2716 | 23.15 | 35.90 | 15.77 | NaN | 2508 | B |
| 15.001 | 8 | 4102.6 | 6532.1 | 9 | 7 | 2017 | 2:21 | 2983 | 22.90 | 36.59 | 22.70 | 36.59 | 2958 | T |
| 15.002 | 8 | 4102.7 | 6532.1 | 9 | 7 | 2017 | 2:27 | 2983 | 22.90 | 36.59 | 22.68 | 36.59 | 2957 | T |
| 16 | 8 | 4102.9 | 6532.1 | 9 | 7 | 2017 | 2:43 | 2982 | 22.88 | 36.59 | 22.15 | 36.62 | 2940 | O |
| 17 | 8 | 4103.1 | 6532.0 | 9 | 7 | 2017 | 3:08 | 2980 | 22.80 | 36.58 | 18.26 | 36.68 | 2776 | B |
| 18.001 | 9 | 4103.3 | 6518.5 | 9 | 7 | 2017 | 4:43 | 3287 | 22.98 | 36.56 | 22.72 | 36.58 | 3261 | T |
| 18.002 | 9 | 4103.4 | 6518.7 | 9 | 7 | 2017 | 4:49 | 3287 | 22.99 | 36.56 | 22.68 | 36.59 | 3259 | T |
| 19 | 9 | 4103.7 | 6518.8 | 9 | 7 | 2017 | 5:01 | 3234 | 22.98 | 36.56 | 20.53 | 36.69 | 3140 | O |
| 20 | 9 | 4104.1 | 6519.0 | 9 | 7 | 2017 | 5:30 | 3235 | 22.94 | 36.56 | 18.66 | NaN | 3030 | B |
| 21 | 10 | 4125.5 | 6543.3 | 9 | 7 | 2017 | 8:41 | 2108 | 22.60 | 35.18 | 14.98 | 35.44 | 2017 | O |
| 22.001 | 11 | 4103.4 | 6505.3 | 10 | 7 | 2017 | 5:19 | 3559 | 23.80 | 36.49 | 23.75 | 36.48 | 3533 | T |
| 22.002 | 11 | 4103.5 | 6505.4 | 10 | 7 | 2017 | 5:22 | 3559 | 23.79 | 36.49 | 23.72 | 36.50 | 3532 | T |
| 22.003 | 11 | 4103.6 | 6505.4 | 10 | 7 | 2017 | 5:26 | 3559 | 23.79 | 36.49 | 23.80 | 36.49 | 3533 | T |
| 23 | 11 | 4103.8 | 6505.7 | 10 | 7 | 2017 | 5:38 | 3545 | 23.78 | 36.47 | 22.25 | 36.64 | 3496 | O |
| 24 | 11 | 4104.4 | 6505.8 | 10 | 7 | 2017 | 6:05 | 3499 | 23.78 | 36.48 | 19.20 | 36.65 | 3294 | B |

HB1704 AMAPPS Survey
July 7 - 18, 2017

| Cast | Sta | Lat | Long | Day | Mo | Year | Time | Btm | Sfc | Sfc | Deepest Observed | Deepest Observed | Meters from | Method of |
|--------|-----|---------|---------|-----|----|------|-------|-----------|--------------|-------|------------------|------------------|-------------|------------|
| # | # | (deg N) | (deg W) | | | | (GMT) | Depth (m) | Temp (deg C) | Salt | Temp (deg C) | Salt | Bottom | Deployment |
| 25 | 11 | 4104.5 | 6506.0 | 10 | 7 | 2017 | 6:32 | 3467 | 23.77 | 36.48 | 23.77 | 36.48 | 3445 | W |
| 26.001 | 12 | 4138.6 | 6501.0 | 11 | 7 | 2017 | 1:30 | 2673 | 23.61 | 36.50 | 23.59 | 36.49 | 2648 | T |
| 26.002 | 12 | 4138.7 | 6500.7 | 11 | 7 | 2017 | 1:34 | 2673 | 23.61 | 36.50 | 23.57 | 36.50 | 2647 | T |
| 26.003 | 12 | 4138.8 | 6500.5 | 11 | 7 | 2017 | 1:38 | 2673 | 23.61 | 36.50 | 23.60 | 36.50 | 2650 | T |
| 27 | 12 | 4139.0 | 6459.6 | 11 | 7 | 2017 | 1:53 | 2703 | 23.63 | 36.50 | 23.06 | 36.54 | 2665 | O |
| 28 | 12 | 4139.4 | 6457.9 | 11 | 7 | 2017 | 2:17 | 2711 | 23.67 | 36.49 | 19.22 | 36.63 | 2504 | B |
| 29.001 | 13 | 4130.9 | 6441.7 | 11 | 7 | 2017 | 4:19 | 3063 | 23.77 | 36.52 | 23.67 | 36.52 | 3036 | T |
| 29.002 | 13 | 4130.9 | 6441.5 | 11 | 7 | 2017 | 4:23 | 3063 | 23.77 | 36.52 | 23.72 | 36.52 | 3037 | T |
| 30 | 13 | 4131.0 | 6440.9 | 11 | 7 | 2017 | 4:35 | 3077 | 23.76 | 36.52 | 21.17 | 36.72 | 3010 | O |
| 31 | 13 | 4131.1 | 6438.9 | 11 | 7 | 2017 | 5:07 | 3098 | 23.76 | 36.52 | 19.37 | 36.65 | 2895 | B |
| 32 | 14 | 4055.5 | 6743.6 | 12 | 7 | 2017 | 6:32 | 66 | 15.61 | 32.30 | 10.44 | 33.20 | 45 | O |
| 33.001 | 15 | 3923.4 | 7129.8 | 13 | 7 | 2017 | 2:19 | 2403 | 22.90 | 32.41 | 17.42 | 34.87 | 2378 | T |
| 33.002 | 15 | 3923.2 | 7129.8 | 13 | 7 | 2017 | 2:25 | 2403 | 22.90 | 32.41 | 17.19 | 34.88 | 2379 | T |
| 34 | 15 | 3922.9 | 7129.8 | 13 | 7 | 2017 | 2:39 | 2396 | 22.86 | 32.41 | 15.23 | 35.04 | 2367 | O |
| 35 | 15 | 3922.4 | 7129.7 | 13 | 7 | 2017 | 3:04 | 2393 | 22.93 | 32.48 | 12.23 | 35.51 | 2190 | B |
| 36 | 15 | 3921.7 | 7129.8 | 13 | 7 | 2017 | 3:31 | 2398 | 22.98 | 32.50 | 22.97 | 32.50 | 2389 | W |
| 37 | 16 | 3937.0 | 7247.8 | 13 | 7 | 2017 | 11:36 | 67 | 23.95 | NaN | 6.92 | 30.42 | 2 | V |
| 38 | 17 | 4003.2 | 7230.7 | 14 | 7 | 2017 | 1:44 | 62 | 23.42 | 28.82 | 12.49 | 30.50 | 47 | O |
| 39 | 18 | 3931.9 | 7307.0 | 14 | 7 | 2017 | 6:18 | 47 | 24.29 | 29.31 | 11.41 | 31.84 | 26 | O |
| 40 | 19 | 3938.7 | 7253.4 | 14 | 7 | 2017 | 8:07 | 67 | 24.47 | 29.11 | 7.92 | 31.06 | 45 | O |
| 41.001 | 20 | 3857.2 | 7229.1 | 15 | 7 | 2017 | 3:58 | 1951 | 23.04 | 29.29 | 14.30 | 31.59 | 1927 | T |
| 41.002 | 20 | 3857.2 | 7229.1 | 15 | 7 | 2017 | 4:02 | 1951 | 23.39 | 29.21 | 14.53 | 31.66 | 1927 | T |
| 41.003 | 20 | 3857.2 | 7229.0 | 15 | 7 | 2017 | 4:06 | 1951 | 23.56 | 29.33 | 13.98 | 31.60 | 1927 | T |
| 42 | 20 | 3857.2 | 7228.9 | 15 | 7 | 2017 | 4:17 | 2004 | 23.41 | 29.60 | 15.38 | 30.89 | 1976 | O |
| 43 | 20 | 3857.1 | 7228.7 | 15 | 7 | 2017 | 4:35 | 2048 | 23.75 | 29.79 | 11.32 | 32.97 | 1846 | B |
| 44 | 21 | 3904.0 | 7255.8 | 15 | 7 | 2017 | 7:12 | 90 | 24.10 | 28.62 | 13.10 | 33.00 | 65 | O |
| 45 | 21 | 3903.8 | 7255.5 | 15 | 7 | 2017 | 7:28 | 87 | 24.56 | 28.87 | 9.89 | 31.66 | 9 | V |
| 46.001 | 22 | 4004.9 | 6808.8 | 17 | 7 | 2017 | 2:52 | 1860 | 24.64 | 35.18 | 23.85 | 35.91 | 1834 | T |
| 46.002 | 22 | 4005.0 | 6808.7 | 17 | 7 | 2017 | 2:56 | 1860 | 24.61 | NaN | 23.83 | 35.94 | 1834 | T |

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|--------|-------|-------------|--------------|-----|----|------|------------|---------------|------------------|----------|-------------------------------|-----------------------|--------------------|----------------------|
| 47 | 22 | 4005.3 | 6808.7 | 17 | 7 | 2017 | 3:09 | 1861 | 24.67 | NaN | 19.71 | 36.03 | 1809 | O |
| 48 | 22 | 4005.7 | 6808.5 | 17 | 7 | 2017 | 3:33 | 1707 | 24.52 | 34.15 | 23.70 | 35.92 | 1681 | O |
| 49 | 22 | 4006.2 | 6808.3 | 17 | 7 | 2017 | 3:50 | 1709 | 24.47 | 35.08 | 12.83 | 35.64 | 1504 | B |
| 50 | 23 | 4033.5 | 6808.7 | 17 | 7 | 2017 | 6:35 | 102 | 16.83 | 31.98 | 8.89 | 32.93 | 39 | O |
| 51 | 23 | 4033.8 | 6808.6 | 17 | 7 | 2017 | 6:57 | 100 | 16.04 | 32.52 | 10.70 | 34.42 | 5 | W |
| 52 | 24 | 4044.5 | 6638.5 | 18 | 7 | 2017 | 3:39 | 1207 | 23.80 | 32.20 | 19.72 | NaN | 1180 | O |
| 53 | 24 | 4044.4 | 6638.5 | 18 | 7 | 2017 | 3:58 | 1254 | 23.71 | NaN | 16.18 | 35.27 | 1201 | O |
| 54 | 24 | 4044.1 | 6638.7 | 18 | 7 | 2017 | 4:18 | 1326 | 20.10 | 33.38 | 12.38 | 35.57 | 1120 | B |
| 55 | 25 | 4101.4 | 6620.3 | 18 | 7 | 2017 | 7:42 | 1344 | 21.03 | NaN | 12.99 | 34.47 | 1320 | O |
| 56 | 25 | 4101.5 | 6620.0 | 18 | 7 | 2017 | 7:59 | 1400 | 18.53 | 33.14 | 14.04 | 35.40 | 1339 | W |

Deployment codes: B=bongo cast; W=water cast; V=vertical cast; T=Tow-Yo; O=Other