

# Marine Environmental Data Service Report for 2001

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### Abstract

MEDS, as the Regional Environmental Data Center for NAFO, is required to provide an annual inventory of environmental data collected in the NAFO area to the NAFO subcommittee for the environment (STACFEN). Inventories and maps of physical oceanographic observations such as ocean profiles, surface thermosalinographs, drifting buoys, currents, waves, tides and water level measurements for the calendar year 2001 are included. The report also describes other recent activities at MEDS of possible interest to NAFO.:

- The Argo data system
- The Pilot Project on Surface Salinity
- The Atlantic Zone Monitoring Program

It is important for STACFEN to encourage members to send data and information to the designated data center in order to get significant return for NAFO member countries.

### Introduction

MEDS has been recognized since 1975 as the Regional Environmental Data Center for ICNAF and subsequently for NAFO. In order for MEDS to carry out its responsibility of reporting to the Scientific Council, the Designated National Representatives selected by STACFEN are requested to provide MEDS with all marine environmental data collected in the Northwest Atlantic for the preceding years.

Provision of a meaningful report to the Council for its meeting in June 2002 required the submission to MEDS of a completed oceanographic inventory form for data collected in 2001, and oceanographic data pertinent to the NAFO area, for all stations occupied in the year prior to 2001. The data of highest priority are those from the standard sections and stations, as described in NAFO SCR DOC., No. 1, Serial N 1432, 9p.

Data that have been formatted and archived at MEDS are available to all members on request. Requests can be made by telephone (613) 990-0243; by internet e-mail to [services@meds-sdmm.dfo-mpo.gc.ca](mailto:services@meds-sdmm.dfo-mpo.gc.ca), by completing an on-line order form on the MEDS web site [www.meds-sdmm.dfo-mpo.gc.ca](http://www.meds-sdmm.dfo-mpo.gc.ca), or by writing to Services, Marine Environmental Data Service (MEDS), Dept. of Fisheries and Oceans, 12<sup>th</sup> Floor, 200 Kent St., Ottawa, Ont. Canada K1A 0E6.

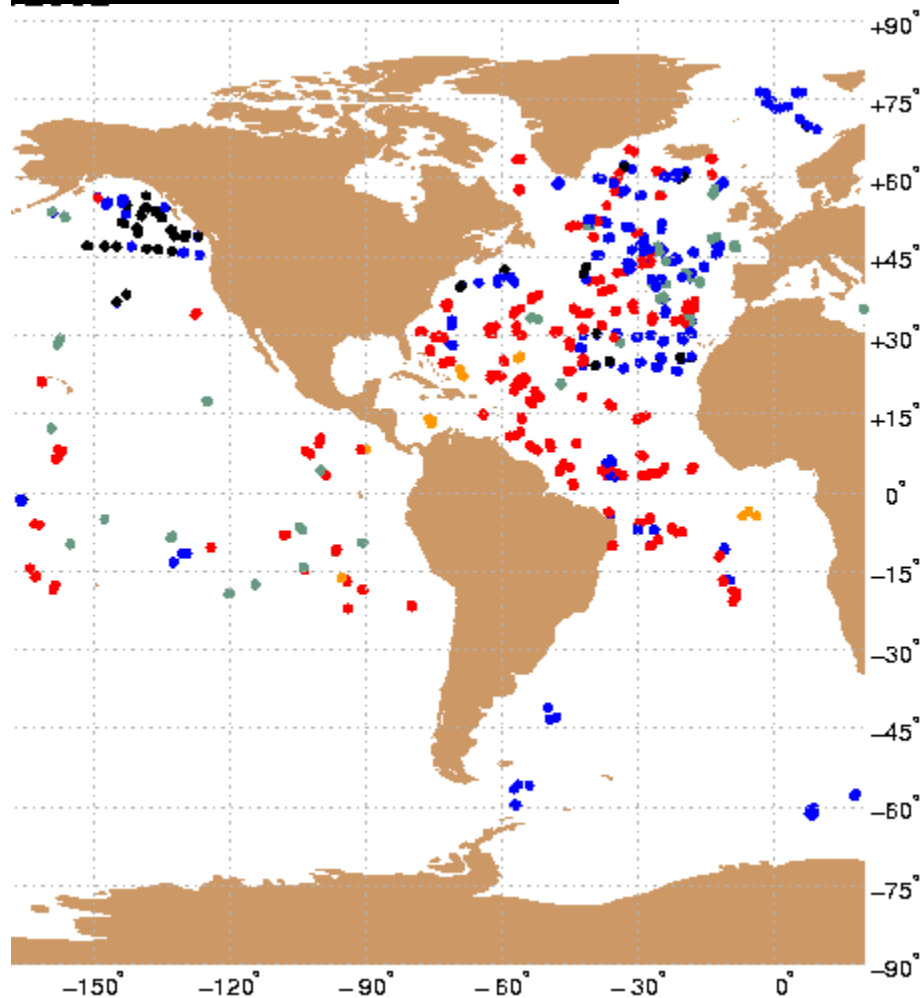
### Recent Activities

#### **The Argo data system**

Argo is an international program to deploy profiling floats on a 3 by 3 degree grid in the oceans of the world. Each profiling float samples and reports both temperature and salinity from 2000m to the surface every 10 days. Data is distributed both on the Global Telecommunications System (GTS) and from two Internet servers within 24 hours of the float reaching the surface. MEDS role is to carry out the processing of the data received from Canadian floats, to distribute the data on the GTS, to contribute the data to the Argo servers and to handle the delayed mode processing as well.

MEDS has developed a Canadian web site [http://www.meds-sdmm.dfo-mpo.gc.ca/meds/Prog\\_Int/argo/ArgoHome\\_e.html](http://www.meds-sdmm.dfo-mpo.gc.ca/meds/Prog_Int/argo/ArgoHome_e.html) that contains information about Canadian floats as well as some general information and statistics about the global array. General information is also available from the Argo Information Centre in Toulouse.

**Figure 1: Argo profiling floats in April 2002**



### **The Pilot Project on Surface Salinity**

The IODE Steering Group for Underway Sea Surface Salinity Data Archiving Pilot Project was established during IODE-XVI. The objective of the project is to organize surface salinity data that are currently collected and to work with data collectors to improve data collection to meet the benchmarks of spatial and temporal sampling and data accuracy set out by the Ocean Observations Panel for Climate (OOPC).

The first meeting of interested participants took place in Brest in November of 2001 (see <http://ioc.unesco.org/iode> and go to the meeting report under the document library). Catherine Maillard of IFREMER and Bob Keeley of MEDS co-chaired the meeting. Representatives from Canada, France, Greece, ICES, Japan, Russia, UK, USA attended the meeting. The goals of the project are to:

- Improve data acquisition systems and provide feedback to data collectors
- Build comprehensive archives for surface salinity data. This will include data collected by any instrumentation at any time.
- Refine and standardize quality control procedures
- Provide data and information to users in a timely way

The second meeting is to be held in Ottawa 16-17 September 2002. Contact Bob Keeley at MEDS for details.

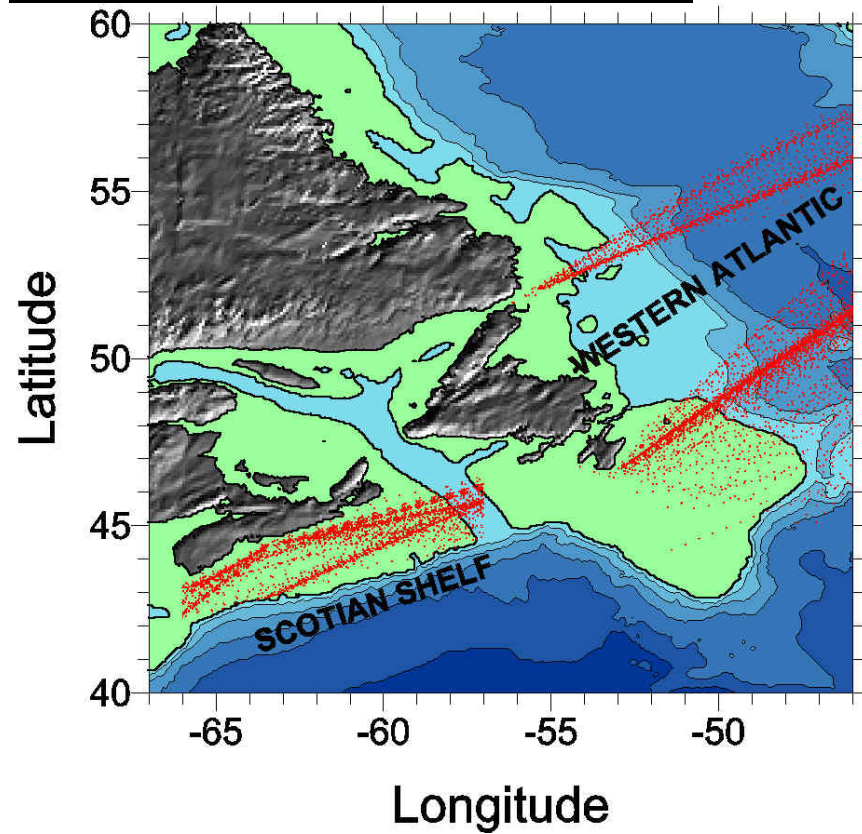
**Atlantic Zone Monitoring Programme (AZMP)**

The DFO Atlantic Zone Monitoring Programme activities include regular sampling for 6 fixed stations and 13 standard sections, and research cruises in the AZMP area to collect other physical, chemical and biological data. As part of MEDS' activities in the data management team, MEDS continues to build and maintain the AZMP web site :

[http://www.meds-sdmm.dfo-mpo.gc.ca/zmp/main\\_zmp\\_e.html](http://www.meds-sdmm.dfo-mpo.gc.ca/zmp/main_zmp_e.html)

Physical and chemical data from 1999 to the present are currently available on the web site. Climate indices have also been added to show long term trends of physical variables. Water level data for 9 gauges ranging from 1895 to present are also available. Biological data are stored in a nationally distributed database (BIOCHEM) that is presently being developed at BIO. Graphical representations of biological data (phytoplankton) however are currently being displayed on the web site. The Sir Alister Hardy Foundation for Ocean Science (SAHFOS) is an international charity that operates the Continuous Plankton Recorder (CPR) survey. The CPR data for the AZMP area is presently made available from the MEDS web site.

**Figure 2: CPR transects from the AZMP web site**



## **Data Summaries for 2001**

### **Subsurface profile data**

For the NAFO area, subsurface vertical profiles as well as surface observations sample a variety of parameters such as temperature, salinity, oxygen, nutrients and other chemicals and biological variables. MEDS receives these data either in real-time (within one month of observation) via the Global Telecommunications System (GTS) reporting system or in delayed-mode directly from responsible institutions, and indirectly from national Cruise Summary Reports and other reports of marine activities.

The following inventories and corresponding maps summarize the ocean subsurface and surface data processing activities in 2001 for the NAFO area:

- **Table 1 Real-time temperature-salinity profile data collected and processed in 2001  
4998 profiles**
- **Table 2 Surface Thermosalinograph data collected and processed in 2001  
28130 stations**
- **Table 3 Delayed-mode profile data collected and processed in 2001  
8202 profiles**
- **Table 4a Profile data collected in 2001 but not yet received at MEDS**
- **Table 4b Profile data collected in 2001, received at MEDS but not yet processed**
- **Table 4c Profile data collected prior to 2001 and processed during the past year  
18006 profiles**

The only datasets collected prior to 2001 received but not yet processed at MEDS are 69 time series stations from St. Andrews Biological Station – 1995 to 2000.

Ocean subsurface data is processed at MEDS in much the same way for each of the data sets described above. Electronic files are converted from a wide range of formats, into a common format. Quality control is carried out by a combination of specially designed software and trained personnel. The quality control has four main functions. The first is to check and ensure that each data message is properly formatted, units are standardized, and parameter range checks are performed. The second is to identify any duplication, and select the best version based on data type, source of the data, and general qualities in analysis and reporting of the observations. The third check identifies and corrects date/time and geographical positioning errors using computer tests and visual inspection of the track for each cruise. The final quality control procedure uses a series of algorithms to find and flag common instrument failures found in profiles of subsurface measurements. Each subsurface profile of temperature, salinity and other subsurface variable, is also visually inspected using software to plot the data and allow a technician to set quality flags to individual points on a profile.

### **Drifting Buoy Data**

The following inventory and map summarize MEDS drifting buoy data collected and processed in 2001 for the NAFO area:

- **Table 5 Drifting Buoys in the NAFO Area in 2001. TOTAL = 6272 messages**

Drifting buoy data are received at MEDS via the GTS. Quality control techniques are much the same as those for the ocean profile data. Drifting buoys report via satellite, at rates of up to every 15 minutes. These messages are checked for format errors, and reformatted for quality control procedures and subsequent archival. Range checks, flags and possible corrections to the data are carried out by trained personnel, using a system of MEDS software, which organize, analyze and display plots of the data. Quality checks use algorithms which check drifting speed and position, and ranges of sea surface temperatures and sea level pressure. The range checks include a comparison to NOAA's Ashville SST Climatology (2.5x2.5 degrees and monthly). Duplicates are checked, which is important for discriminating between data received directly from buoys and messages routed through other data centers. Lower quality data (which are this type of duplicate) are flagged as such.

MEDS, as the RNO DC for drifting buoy data, has holdings of over 13 million unique drifting buoys records for the world's oceans, from 1978 to present, and growing at a rate of more than one million messages per year. A drifting buoy message is comprised of the buoy position and one or more of the following parameters: surface and subsurface water temperature, air pressure and temperature, wind speed and direction.

### **Current Meter Data**

The following inventory summarize current meter data collections in 2001 for the NAFO area:

- **Table 6a Current meter data recovered in the NAFO Area in 2001**
- **Table 6b Current meters deployed in the NAFO Area in 2001**

Current meters have been deployed in the NAFO area for many years. These data are processed and archived at The Bedford Institute of Oceanography (BIO), Dartmouth, Nova Scotia and are available via the WWW: [www.maritimes.dfo.ca/science/ocean/welcome.html](http://www.maritimes.dfo.ca/science/ocean/welcome.html)

#### **Wave Data**

The following inventory and map summarize MEDS wave data collected and processed in 2001 for the NAFO area:

- **Table 7 Wave Buoys in the NAFO Area in 2001 TOTAL = 15 Stations**

MEDS continued to process and archive operational surface wave data on a daily basis around Canada. One-dimensional and directional wave spectra, calculated variables such as the significant wave height and peak period, concurrent wind observations if reported, and the raw digital time series of water surface elevations are stored. The data are quality controlled with a visual inspection and with MEDS software to set flags on data showing instrument failures.

All real-time and historical wave data are now made available on-line from MEDS web site:

[http://www.meds-sdmm.dfo-mpo.gc.ca/meds/Databases/WAVE/WAVE\\_e.htm](http://www.meds-sdmm.dfo-mpo.gc.ca/meds/Databases/WAVE/WAVE_e.htm)

#### **Tide and Water level Data**

The following inventory and map summarize MEDS tide and water level data collected and processed in 2001 for the NAFO area:

- **Table 8 Tide and water level data in the NAFO Area in 2001 TOTAL = 46 Stations**

MEDS continued to process and archive operational tides and water level data that are reported on a daily to monthly basis from the Canadian water level network. MEDS archives observed 15-minute heights, hourly heights and monthly instantaneous extremes collected around Canada. Approximately 70,000 new readings are updated every month from the network. The historical tides and water level data archives presently hold over 30 million records with the earliest dating back before the turn of the century. These data are quality controlled using MEDS software.

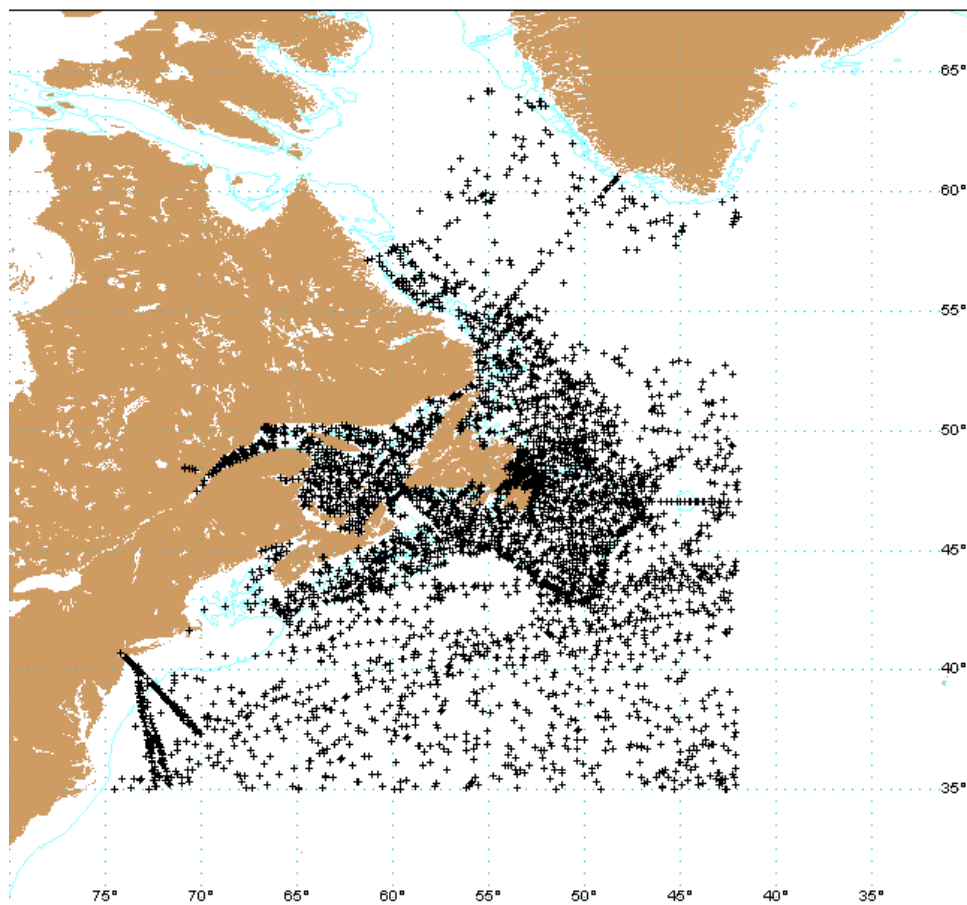
Tide and water level data are available from MEDS web site:

[http://www.meds-sdmm.dfo-mpo.gc.ca/meds/Databases/TWL/TWL\\_e.htm](http://www.meds-sdmm.dfo-mpo.gc.ca/meds/Databases/TWL/TWL_e.htm)

#### **References**

List of NAFO Standard Oceanographic Sections and Stations. The reprint of NAFO SCR DOC., NO. 1, Serial N1432, 9p. Printed and distributed by: NAFO, P.O. Box 638, Dartmouth, Nova Scotia, Canada B2Y 3Y9.

**Table 1 Real-time temperature-salinity profile data collected and processed in 2001**



**TOTAL = 4998 profiles**

| Platform Name | Country | Start  | End      | Bathy | Tesac | NAFO Sub-area |
|---------------|---------|--------|----------|-------|-------|---------------|
| BUOY          | USA     | 3-Jul  | - 3-Jul  | 0     | 1     | 5ZW           |
|               |         | 3-Jul  | - 3-Jul  | 0     | 1     | 5ZW           |
| UNKNOWN       | PANAMA  | 5-Oct  | - 5-Oct  | 1     | 0     | 6H            |
|               |         | 11-Nov | - 11-Nov | 1     | 0     | 6H            |
| TMM MEXICO    | PANAMA  | 12-Dec | - 13-Dec | 3     | 0     | 6B,6C         |
| P-ALACE       | USA     | 9-Jan  | - 9-Jan  | 0     | 1     | 4VS           |
|               |         | 20-Jan | - 20-Jan | 0     | 1     | 6G            |
|               |         | 31-Jan | - 10-Feb | 0     | 2     | 6H            |
|               |         | 21-Feb | - 21-Feb | 0     | 1     | 3N            |
|               |         | 4-Mar  | - 6-May  | 0     | 7     | 6H            |
|               |         | 1-May  | - 22-May | 0     | 3     | 6F            |
|               |         | 2-Jun  | - 27-Sep | 0     | 12    | 4VS           |
|               |         | 7-Oct  | - 29-Oct | 0     | 2     | 3N            |
|               |         | 29-Oct | - 8-Nov  | 0     | 2     | 6H            |
|               |         | 19-Nov | - 31-Dec | 0     | 5     | 6G            |
|               |         | 1-Jan  | - 1-Jan  | 0     | 1     | 4X            |
|               |         | 12-Jan | - 12-Jan | 0     | 1     | 4W            |
|               |         | 22-Jan | - 22-Jan | 0     | 1     | 4X            |

|        |   |        |   |    |       |
|--------|---|--------|---|----|-------|
| 2-Feb  | - | 2-Feb  | 0 | 1  | 4VS   |
| 13-Feb | - | 23-Feb | 0 | 2  | 6F    |
| 6-Mar  | - | 6-Mar  | 0 | 1  | 4W    |
| 17-Mar | - | 27-Mar | 0 | 2  | 4VS   |
| 7-Apr  | - | 7-Apr  | 0 | 1  | 6F    |
| 17-Apr | - | 9-May  | 0 | 3  | 4VS   |
| 19-May | - | 19-May | 0 | 5  | 6G    |
| 26-Oct | - | 28-Dec | 0 | 7  | 6H    |
| 5-Mar  | - | 25-Nov | 0 | 4  | 6D    |
| 6-Dec  | - | 6-Dec  | 0 | 1  | 6E    |
| 27-Dec | - | 27-Dec | 0 | 1  | 6D    |
| 2-Jan  | - | 14-Feb | 0 | 5  | 4W    |
| 24-Feb | - | 17-Mar | 0 | 3  | 4VS   |
| 28-Mar | - | 8-Apr  | 0 | 2  | 6H    |
| 18-Apr | - | 18-Apr | 0 | 1  | 3M    |
| 29-Apr | - | 29-Apr | 0 | 1  | 3N    |
| 10-May | - | 10-May | 0 | 1  | 3M    |
| 8-Jan  | - | 19-Jan | 0 | 2  | 6F    |
| 14-Apr | - | 27-May | 0 | 3  | 6G    |
| 6-Jun  | - | 27-Jun | 0 | 2  | 6H    |
| 30-Aug | - | 1-Oct  | 0 | 4  | 6G    |
| 23-Nov | - | 23-Nov | 0 | 1  | 6F    |
| 14-Dec | - | 25-Dec | 0 | 2  | 6G    |
| 1-Jan  | - | 22-Jan | 0 | 3  | 6F    |
| 13-Feb | - | 13-Feb | 0 | 1  | 6E    |
| 22-Feb | - | 23-Feb | 0 | 2  | 6E,6F |
| 6-Mar  | - | 7-Apr  | 0 | 4  | 6E    |
| 17-Apr | - | 17-Apr | 0 | 1  | 4VS   |
| 28-Apr | - | 28-Apr | 0 | 1  | 6F    |
| 8-May  | - | 8-May  | 0 | 1  | 4VS   |
| 19-May | - | 19-May | 0 | 1  | 4VS   |
| 30-May | - | 1-Aug  | 0 | 7  | 3N    |
| 12-Aug | - | 12-Aug | 0 | 1  | 3M    |
| 2-Jan  | - | 24-Jan | 0 | 3  | 6F    |
| 4-Feb  | - | 4-Feb  | 0 | 1  | 6G    |
| 14-Feb | - | 14-Feb | 0 | 1  | 4VS   |
| 25-Feb | - | 25-Feb | 0 | 1  | 6G    |
| 8-Mar  | - | 8-Mar  | 0 | 1  | 6H    |
| 19-Mar | - | 19-Mar | 0 | 1  | 3N    |
| 29-Mar | - | 2-Jun  | 0 | 6  | 3O    |
| 13-Jun | - | 26-Jul | 0 | 5  | 4VS   |
| 5-Aug  | - | 30-Oct | 0 | 9  | 6G    |
| 6-Jan  | - | 1-Apr  | 0 | 9  | 6E    |
| 12-Apr | - | 14-May | 0 | 4  | 6F    |
| 24-May | - | 24-May | 0 | 1  | 4VS   |
| 4-Jun  | - | 4-Jun  | 0 | 1  | 6G    |
| 15-Jun | - | 15-Jun | 0 | 1  | 6G    |
| 25-Jun | - | 25-Jun | 0 | 1  | 4VS   |
| 6-Jul  | - | 6-Jul  | 0 | 1  | 4VS   |
| 17-Jul | - | 17-Jul | 0 | 1  | 3N    |
| 27-Jul | - | 8-Sep  | 0 | 4  | 6H    |
| 29-Sep | - | 12-Dec | 0 | 8  | 3M    |
| 23-Dec | - | 13-Nov | 0 | 22 | 6H    |
| 8-Jan  | - | 24-Apr | 0 | 6  | 3M    |
| 5-May  | - | 8-Jul  | 0 | 7  | 3N    |
| 18-Jul | - | 25-Dec | 0 | 16 | 3M    |

PROFILE FLOAT USA  
P-ALACE USA

|        |   |        |   |    |       |
|--------|---|--------|---|----|-------|
| 2-Jan  | - | 23-Jan | 0 | 2  | 4W    |
| 3-Feb  | - | 7-Mar  | 0 | 4  | 4VS   |
| 17-Mar | - | 17-Mar | 0 | 1  | 4W    |
| 28-Mar | - | 20-May | 0 | 6  | 4VS   |
| 31-May | - | 31-May | 0 | 1  | 6G    |
| 10-Jun | - | 21-Jun | 0 | 2  | 3N    |
| 1-Jul  | - | 1-Jul  | 0 | 1  | 3M    |
| 12-Jul | - | 23-Jul | 0 | 2  | 3N    |
| 2-Aug  | - | 2-Aug  | 0 | 1  | 3M    |
| 13-Aug | - | 13-Aug | 0 | 1  | 3N    |
| 24-Aug | - | 24-Aug | 0 | 1  | 3M    |
| 3-Sep  | - | 17-Nov | 0 | 8  | 3N    |
| 27-Nov | - | 27-Nov | 0 | 13 | 3M    |
| 8-Dec  | - | 24-Apr | 0 | 1  | 3M    |
| 4-Jan  | - | 5-Feb  | 0 | 4  | 2J    |
| 15-Feb | - | 23-Jun | 0 | 13 | 3K    |
| 3-Jul  | - | 7-Oct  | 0 | 10 | 2J    |
| 2-Jan  | - | 23-Jan | 0 | 3  | 3K    |
| 3-Feb  | - | 3-Feb  | 0 | 1  | 3M    |
| 14-Feb | - | 14-Feb | 0 | 1  | 3M    |
| 24-Feb | - | 24-Feb | 0 | 1  | 3M    |
| 7-Mar  | - | 20-May | 0 | 8  | 3K    |
| 31-May | - | 31-May | 0 | 1  | 2J    |
| 10-Jun | - | 10-Jun | 0 | 1  | 1F    |
| 21-Jun | - | 21-Jun | 0 | 1  | 2J    |
| 3-Aug  | - | 30-Dec | 0 | 9  | 6C    |
| 18-Aug | - | 24-Dec | 0 | 11 | 6H    |
| 9-Jan  | - | 9-Jan  | 0 | 16 | 3M    |
| 20-Jan | - | 12-Aug | 0 | 1  | 3M    |
| 3-Sep  | - | 26-Oct | 0 | 6  | 3K    |
| 5-Jan  | - | 27-Feb | 0 | 5  | 6E    |
| 6-Jan  | - | 24-Jan | 0 | 3  | 3O    |
| 3-Feb  | - | 20-Jun | 0 | 15 | 4VS   |
| 8-Jan  | - | 3-Apr  | 0 | 9  | 6D    |
| 13-Jun | - | 15-Jun | 0 | 3  | 3M,3N |
| 8-Aug  | - | 8-Aug  | 0 | 1  | 6C    |
| 18-Aug | - | 18-Aug | 0 | 1  | 6D    |
| 17-Sep | - | 17-Oct | 0 | 3  | 6F    |
| 27-Oct | - | 6-Nov  | 0 | 2  | 4VS   |
| 16-Nov | - | 16-Nov | 0 | 1  | 4VS   |
| 26-Nov | - | 16-Dec | 0 | 3  | 6G    |
| 27-Dec | - | 27-Dec | 0 | 1  | 3M    |
| 15-Jun | - | 15-Jun | 0 | 1  | 6C    |
| 25-Jun | - | 25-Jun | 0 | 1  | 6C    |
| 15-Mar | - | 13-Jan | 0 | 4  | 1F    |
| 23-Jan | - | 23-Jan | 0 | 1  | 2G    |
| 2-Feb  | - | 22-Feb | 0 | 3  | 1F    |
| 4-Mar  | - | 3-Apr  | 0 | 4  | 2G    |
| 13-Apr | - | 13-May | 0 | 3  | 2H    |
| 2-Jun  | - | 2-Jun  | 0 | 1  | 2J    |
| 22-Jun | - | 1-Aug  | 0 | 3  | 3K    |
| 21-Aug | - | 21-Aug | 0 | 1  | 3L    |
| 10-Sep | - | 9-Dec  | 0 | 1  | 3M    |
| 29-Dec | - | 29-Dec | 0 | 1  | 3K    |
| 14-Mar | - | 14-Apr | 0 | 4  | 1F    |
| 24-Apr | - | 1-Aug  | 0 | 6  | 1E    |



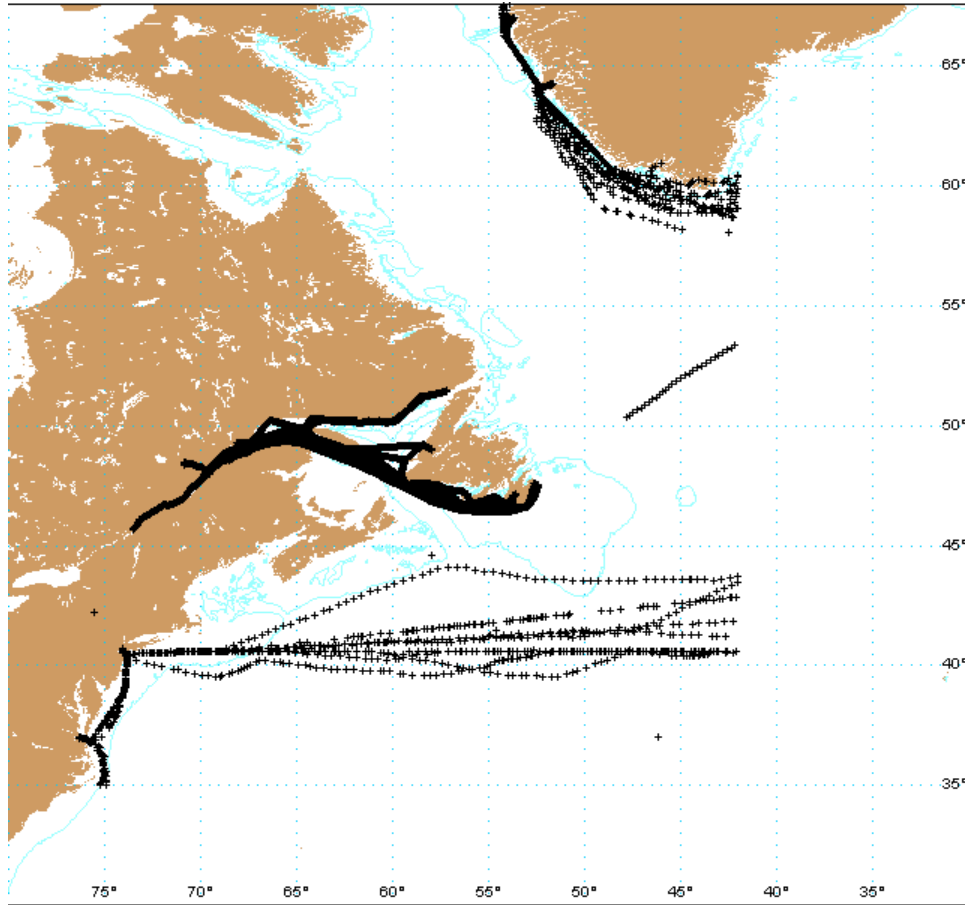
|                |        |        |   |        |     |     |                                      |
|----------------|--------|--------|---|--------|-----|-----|--------------------------------------|
|                |        | 21-Aug | - | 30-Sep | 0   | 3   | 2G                                   |
|                |        | 20-Oct | - | 20-Oct | 0   | 1   | 2H                                   |
|                |        | 9-Nov  | - | 10-Dec | 0   | 4   | 2J                                   |
|                |        | 20-Dec | - | 30-Dec | 0   | 2   | 3K                                   |
|                |        | 3-Jan  | - | 23-Apr | 0   | 12  | 1F                                   |
|                |        | 13-May | - | 2-Jun  | 0   | 2   | 1E                                   |
|                |        | 22-Jun | - | 29-Dec | 0   | 13  | 1D                                   |
|                |        | 25-May | - | 25-May | 0   | 1   | 1F                                   |
|                |        | 14-Jun | - | 24-Jul | 0   | 3   | 1E                                   |
|                |        | 4-Jul  | - | 24-Jul | 0   | 1   | 1E                                   |
|                |        | 13-Aug | - | 31-Dec | 0   | 8   | 1F                                   |
|                |        | 4-Jan  | - | 14-Jan | 0   | 2   | 3K                                   |
|                |        | 24-Jan | - | 3-Feb  | 0   | 2   | 3L                                   |
|                |        | 13-Feb | - | 5-Mar  | 0   | 3   | 3M                                   |
|                |        | 15-Mar | - | 25-Mar | 0   | 2   | 3L                                   |
|                |        | 4-Apr  | - | 4-Apr  | 0   | 4   | 3N                                   |
|                |        | 14-Apr | - | 24-May | 0   | 1   | 3N                                   |
| BUOY           | USA    | 18-Jul | - | 19-Jul | 0   | 5   | 4X                                   |
| P-ALACE        | USA    | 6-Jan  | - | 27-Jan | 0   | 3   | 6F                                   |
|                |        | 17-Feb | - | 10-Mar | 0   | 3   | 6E                                   |
|                |        | 9-Oct  | - | 20-Oct | 0   | 2   | 6D                                   |
|                |        | 30-Oct | - | 10-Nov | 0   | 2   | 6E                                   |
|                |        | 10-Jan | - | 21-Mar | 0   | 4   | 2H                                   |
|                |        | 31-Mar | - | 10-Apr | 0   | 2   | 2G                                   |
|                |        | 20-Apr | - | 7-Oct  | 0   | 22  | 1F                                   |
|                |        | 26-Oct | - | 5-Nov  | 0   | 2   | 1E                                   |
|                |        | 16-Nov | - | 16-Nov | 0   | 1   | 1F                                   |
|                |        | 26-Nov | - | 26-Nov | 0   | 1   | 1E                                   |
|                |        | 6-Dec  | - | 26-Dec | 0   | 3   | 1F                                   |
| UNKNOWN/INCONN | CANADA | 9-Jan  | - | 17-Sep | 0   | 10  | 3L                                   |
| U              |        |        |   |        |     |     |                                      |
| OPILIO         | CANADA | 3-May  | - | 16-Oct | 10  | 1   | 4T                                   |
| PANDALUS       | CANADA | 2-Jan  | - | 29-Nov | 19  | 1   | 4X                                   |
| SPRAY          | CANADA | 12-Dec | - | 12-Dec | 0   | 1   | 4T                                   |
| SHIPPAGAN      | CANADA | 26-Apr | - | 29-Nov | 0   | 5   | 4T                                   |
| SAMBRO         | CANADA | 5-Jan  | - | 23-Nov | 0   | 8   | 4W                                   |
| SHAMOOK        | CANADA | 16-Jan | - | 31-Jan | 0   | 19  | 3L                                   |
|                |        | 11-Apr | - | 7-May  | 28  | 3   | 3PS                                  |
|                |        | 15-May | - | 28-Jun | 7   | 62  | 3L                                   |
|                |        | 16-Jul | - | 19-Jul | 0   | 2   | 3K,3L                                |
|                |        | 27-Jul | - | 3-Dec  | 0   | 65  | 3L                                   |
| ALFRED NEEDLER | CANADA | 25-Jan | - | 27-Jan | 0   | 8   | 4VN                                  |
|                |        | 2-Feb  | - | 14-Mar | 0   | 96  | 4VS,4W                               |
|                |        | 3-Jul  | - | 30-Aug | 0   | 401 | 3K,3PN,4R,4S,4T,4VN,4VS,4W,4X,<br>5Y |
|                |        | 4-Sep  | - | 5-Sep  | 0   | 8   | 4T                                   |
|                |        | 13-Sep | - | 28-Sep | 0   | 140 | 4T,4VN                               |
|                |        | 24-Nov | - | 17-Dec | 8   | 117 | 2H,2J,3K,3L                          |
| EARL GREY      | CANADA | 30-Mar | - | 30-Mar | 0   | 1   | 4W                                   |
| L'ISTORLET     | CANADA | 16-May | - | 5-Sep  | 0   | 4   | 4T                                   |
| BELUGA         | CANADA | 24-May | - | 20-Sep | 0   | 15  | 4T                                   |
| NSC CALANUS II | CANADA | 1-May  | - | 11-May | 0   | 50  | 4S                                   |
| TELEOST        | CANADA | 8-Jan  | - | 16-Jan | 10  | 11  | 2J,3K,3L                             |
|                |        | 6-Apr  | - | 26-May | 116 | 194 | 3K,3L,3M,3N,3O,3PS,3PN               |
|                |        | 2-Jun  | - | 27-Jun | 22  | 28  | 2J,3K,3L,3PS                         |
|                |        | 13-Jul | - | 29-Jul | 75  | 108 | 2G,2H,2J,3K,3L                       |

|                   |           |        |   |        |    |     |                                |
|-------------------|-----------|--------|---|--------|----|-----|--------------------------------|
|                   |           | 21-Sep | - | 15-Oct | 4  | 88  | 3L,3M,3N,3O                    |
|                   |           | 19-Nov | - | 18-Dec | 7  | 168 | 2H,2J,3K,3L                    |
| MARTHA L. BLACK   | CANADA    | 21-Feb | - | 7-Apr  | 0  | 6   | 4S,4T                          |
|                   |           | 22-Apr | - | 3-May  | 0  | 34  | 4R,4S,4T                       |
|                   |           | 23-May | - | 23-May | 0  | 2   | 4S,4T                          |
|                   |           | 30-May | - | 17-Jun | 0  | 130 | 4R,4S,4T,4VN                   |
|                   |           | 26-Jun | - | 15-Nov | 0  | 50  | 4S,4T                          |
| GEORGE R. PEARKES | CANADA    | 24-Jul | - | 16-Oct | 0  | 10  | 4S,4T                          |
|                   |           | 30-Oct | - | 30-Oct | 0  | 1   | 4T                             |
| HUDSON            | CANADA    | 1-May  | - | 16-May | 0  | 66  | 3PS,3PN,4R,4S,4T,4VN,4VS,4W,4X |
|                   |           | 25-May | - | 25-May | 0  | 1   | 4W                             |
|                   |           | 30-May | - | 15-Jun | 0  | 62  | 1F,2H,2J,3K,4R,4W,4X           |
|                   |           | 14-Oct | - | 14-Oct | 0  | 1   | 4X                             |
|                   |           | 21-Oct | - | 7-Nov  | 0  | 63  | 3PS,4R,4S,4T,4VN,4VS,4W,4X     |
|                   |           | 14-Nov | - | 8-Dec  | 27 | 154 | 3K,3L,3M,3N,3O,4R,4S,4T,4VN,4W |
| W. TEMPLEMAN      | CANADA    | 6-Apr  | - | 24-Jun | 54 | 478 | 3L,3N,3O,3PS,3PN,4R            |
|                   |           | 3-Sep  | - | 7-Sep  | 3  | 17  | 3L                             |
|                   |           | 23-Sep | - | 13-Nov | 27 | 189 | 1F,2H,3L,3N,3O                 |
|                   |           | 22-Nov | - | 16-Dec | 9  | 157 | 3K,3L                          |
| HMCS SUMMERSIDE   | CANADA    | 30-Jan | - | 30-Jan | 2  | 0   | 4X                             |
|                   |           | 13-Feb | - | 14-Feb | 3  | 0   | 4X,5Y                          |
|                   |           | 25-Mar | - | 27-Mar | 4  | 0   | 4X,5ZE,6A                      |
|                   |           | 10-Apr | - | 10-Apr | 1  | 0   | 3PS                            |
| BONN EXPRESS      | GERMANY   | 28-Jan | - | 2-Feb  | 38 | 0   | 3M,3N,4VS,4W,4X,6C,6D          |
|                   |           | 5-Mar  | - | 7-Mar  | 26 | 0   | 3M,3N,3O,4VS,6D,6E,6F          |
|                   |           | 23-Apr | - | 26-Apr | 48 | 0   | 3M,3N,3O,4VS,4W,6C,6D,6E       |
|                   |           | 20-May | - | 23-May | 31 | 0   | 3M,3N,3O,4VS,4W,4X,5ZE         |
|                   |           | 4-Jun  | - | 5-Jun  | 8  | 0   | 3L,3M,3N                       |
|                   |           | 16-Jul | - | 18-Jul | 23 | 0   | 3M,3N,3O,3PS,4VS,4W            |
|                   |           | 30-Aug | - | 12-Oct | 28 | 0   | 3M,3N                          |
|                   |           | 5-Nov  | - | 7-Nov  | 31 | 0   | 3M,3N,3O,4VS,4W,4X             |
|                   |           | 20-Dec | - | 20-Dec | 1  | 0   | 3M                             |
| CONTSHIP LONDON   | LIBERIA   | 21-Jan | - | 21-Jan | 1  | 0   | 4X                             |
|                   |           | 14-Apr | - | 16-Apr | 2  | 0   | 3N,4X                          |
|                   |           | 12-Jul | - | 15-Jul | 5  | 0   | 3M,3N,3O,4W                    |
|                   |           | 7-Oct  | - | 9-Oct  | 7  | 0   | 3M,3O,4VS,4W,4X                |
| SEALAND HAWAII    | USA       | 3-Feb  | - | 1-Apr  | 5  | 0   | 6C                             |
|                   |           | 14-Apr | - | 18-Apr | 4  | 0   | 6B,6C                          |
|                   |           | 13-May | - | 13-May | 1  | 0   | 6C                             |
|                   |           | 26-May | - | 27-May | 30 | 0   | 6A,6B,6C                       |
|                   |           | 9-Jun  | - | 10-Jun | 3  | 0   | 6B,6C                          |
|                   |           | 7-Jul  | - | 7-Jul  | 4  | 0   | 6A,6B,6C                       |
|                   |           | 21-Jul | - | 21-Jul | 2  | 0   | 6B,6C                          |
|                   |           | 4-Aug  | - | 2-Sep  | 45 | 0   | 6A,6B,6C                       |
|                   |           | 13-Sep | - | 13-Sep | 2  | 0   | 6B,6C                          |
|                   |           | 24-Sep | - | 24-Sep | 2  | 0   | 6A,6B                          |
|                   |           | 4-Oct  | - | 3-Nov  | 5  | 0   | 6B,6C                          |
|                   |           | 29-Dec | - | 30-Dec | 4  | 0   | 6A,6B,6C                       |
| OLEANDER          | NETHERLAN | 6-Jan  | - | 10-Mar | 50 | 0   | 6A,6B                          |
|                   |           | 6-Apr  | - | 10-Apr | 17 | 0   | 6A,6B,6D                       |
|                   |           | 14-Sep | - | 14-Sep | 1  | 0   | 6A                             |
|                   |           | 11-Oct | - | 17-Oct | 17 | 0   | 6A,6B,6D                       |
|                   |           | 7-Dec  | - | 7-Dec  | 1  | 0   | 6A                             |
| PROFILE FLOAT     | CANADA    | 30-Oct | - | 29-Nov | 0  | 4   | 4W                             |
|                   |           | 9-Dec  | - | 19-Dec | 0  | 2   | 4X                             |
|                   |           | 29-Dec | - | 29-Dec | 0  | 1   | 4W                             |

|                             |               |        |   |        |    |    |                |
|-----------------------------|---------------|--------|---|--------|----|----|----------------|
|                             |               | 9-Nov  | - | 29-Dec | 0  | 6  | 4X             |
|                             |               | 26-Nov | - | 26-Dec | 0  | 4  | 3N             |
|                             |               | 11-Nov | - | 31-Dec | 0  | 6  | 4VS            |
|                             |               | 4-Jun  | - | 4-Jun  | 0  | 1  | 6B             |
|                             |               | 14-Jun | - | 24-Jul | 0  | 5  | 6D             |
|                             |               | 3-Aug  | - | 24-Aug | 0  | 3  | 5ZE            |
|                             |               | 2-Sep  | - | 22-Sep | 0  | 3  | 6D             |
|                             |               | 3-Oct  | - | 3-Oct  | 0  | 1  | 5ZE            |
|                             |               | 13-Oct | - | 23-Oct | 0  | 2  | 6D             |
|                             |               | 2-Nov  | - | 2-Nov  | 0  | 1  | 5ZE            |
|                             |               | 12-Nov | - | 12-Nov | 0  | 1  | 6B             |
|                             |               | 22-Nov | - | 22-Dec | 0  | 4  | 5ZW            |
|                             |               | 3-Jul  | - | 2-Aug  | 0  | 4  | 3O             |
|                             |               | 12-Aug | - | 11-Sep | 0  | 4  | 3N             |
|                             |               | 21-Sep | - | 30-Dec | 0  | 11 | 3O             |
|                             |               | 23-Jun | - | 23-Jun | 0  | 1  | 3K             |
|                             |               | 3-Jul  | - | 23-Jul | 0  | 3  | 3M             |
|                             |               | 2-Aug  | - | 2-Aug  | 0  | 1  | 3K             |
|                             |               | 23-Jun | - | 23-Jun | 0  | 2  | 3M,3O          |
|                             |               | 3-Jul  | - | 2-Aug  | 0  | 4  | 3M             |
|                             |               | 12-Aug | - | 30-Nov | 0  | 13 | 3N             |
|                             |               | 10-Dec | - | 30-Dec | 0  | 3  | 3M             |
|                             |               | 19-Jun | - | 29-Jul | 0  | 5  | 3K             |
|                             |               | 8-Aug  | - | 28-Aug | 0  | 3  | 3L             |
|                             |               | 17-Sep | - | 27-Sep | 0  | 2  | 3M             |
|                             |               | 19-Jun | - | 19-Jul | 0  | 4  | 3K             |
|                             |               | 29-Jul | - | 8-Aug  | 0  | 2  | 3L             |
|                             |               | 18-Aug | - | 18-Aug | 0  | 1  | 3M             |
|                             |               | 7-Sep  | - | 7-Aug  | 0  | 7  | 3K             |
|                             |               | 17-Aug | - | 6-Sep  | 0  | 3  | 3L             |
|                             |               | 6-Sep  | - | 6-Sep  | 0  | 1  | 3L             |
|                             |               | 16-Sep | - | 5-Dec  | 0  | 9  | 3M             |
|                             |               | 25-Dec | - | 7-Aug  | 0  | 6  | 3K             |
|                             |               | 17-Aug | - | 6-Sep  | 0  | 3  | 3L             |
|                             |               | 16-Sep | - | 5-Nov  | 0  | 5  | 3M             |
|                             |               | 15-Nov | - | 25-Dec | 0  | 5  | 3K             |
| UNKNOWN/INCONN<br>U         | UNKNOWN/I     | 13-Jan | - | 13-Jan | 1  | 0  | 6H             |
|                             |               | 2-May  | - | 8-May  | 0  | 2  | 4T             |
|                             |               | 31-May | - | 31-May | 0  | 3  | 3PS            |
|                             |               | 25-Jun | - | 26-Jun | 0  | 16 | 3K             |
|                             |               | 12-Jul | - | 13-Jul | 0  | 7  | 3PS            |
|                             |               | 22-Aug | - | 8-Sep  | 0  | 63 | 3K,4T          |
|                             |               | 14-Sep | - | 14-Sep | 0  | 1  | 4T             |
|                             |               | 2-Oct  | - | 4-Oct  | 0  | 9  | 3PS            |
|                             |               | 20-Jul | - | 20-Jul | 1  | 0  | 6H             |
| UNKNOWN/INCONN<br>U         | MARSHALL      | 17-Mar | - | 17-Mar | 4  | 0  | 6D             |
| ATLANTIC CLAIRE<br>ENDEAVOR | CANADA<br>USA | 17-Jun | - | 26-Jun | 31 | 0  | 3L,3N,3O       |
|                             |               | 17-Jan | - | 19-Jan | 9  | 0  | 5ZE,6E,6F,6H   |
|                             |               | 2-Mar  | - | 4-Mar  | 5  | 0  | 3N,4VS,4W,5ZE  |
|                             |               | 19-Apr | - | 19-Apr | 1  | 0  | 6B             |
|                             |               | 2-May  | - | 2-May  | 3  | 0  | 6H             |
|                             |               | 2-Jun  | - | 4-Jun  | 12 | 0  | 6D,6E,6F,6G,6H |
|                             |               | 12-Jun | - | 15-Jun | 5  | 0  | 4VS,4W,6D,6H   |
|                             |               | 13-Jul | - | 13-Jul | 1  | 0  | 3N             |

|              |     |        |   |        |    |   |                          |
|--------------|-----|--------|---|--------|----|---|--------------------------|
|              |     | 22-Jul | - | 24-Jul | 3  | 0 | 3N,4W,6D                 |
|              |     | 25-Aug | - | 27-Aug | 3  | 0 | 3N,4VS,5ZE               |
|              |     | 3-Sep  | - | 5-Sep  | 6  | 0 | 3N,4VS,4W,6D             |
|              |     | 7-Oct  | - | 8-Oct  | 3  | 0 | 6G,6H                    |
|              |     | 22-Nov | - | 22-Nov | 1  | 0 | 6D                       |
| ENTERPRISE   | USA | 29-Nov | - | 2-Dec  | 6  | 0 | 3N,4VS,4W,6B,6D          |
|              |     | 5-Feb  | - | 8-Feb  | 7  | 0 | 6D,6E,6F,6G,6H           |
|              |     | 13-Feb | - | 13-Feb | 1  | 0 | 6D                       |
|              |     | 24-Mar | - | 4-Apr  | 21 | 0 | 3M,6C,6D,6E,6F,6G,6H     |
|              |     | 3-May  | - | 6-May  | 11 | 0 | 5ZE,5ZW,6D,6E,6F,6G,6H   |
|              |     | 12-May | - | 16-May | 12 | 0 | 3M,3N,3O,4VS,4W,6C,6D,6E |
|              |     | 14-Jun | - | 16-Jun | 3  | 0 | 3M,3N,3PS                |
|              |     | 25-Jun | - | 26-Jun | 2  | 0 | 3M,4VS                   |
|              |     | 19-Jul | - | 19-Jul | 1  | 0 | 3M                       |
|              |     | 28-Jul | - | 30-Jul | 4  | 0 | 3M,4VS,4W,4X             |
|              |     | 7-Aug  | - | 9-Aug  | 4  | 0 | 6F,6G,6H                 |
|              |     | 30-Aug | - | 30-Aug | 3  | 0 | 6H                       |
|              |     | 8-Sep  | - | 9-Sep  | 4  | 0 | 6D,6E                    |
|              |     | 20-Sep | - | 21-Sep | 3  | 0 | 6F,6H                    |
|              |     | 22-Oct | - | 25-Oct | 5  | 0 | 6D,6G,6H                 |
|              |     | 2-Nov  | - | 2-Nov  | 1  | 0 | 6F                       |
| DELAWARE BAY | USA | 30-Jan | - | 2-Feb  | 10 | 0 | 5ZE,6D,6E,6F,6G          |
|              |     | 29-Mar | - | 31-Mar | 8  | 0 | 6F,6G,6H                 |
|              |     | 5-May  | - | 9-May  | 15 | 0 | 6C,6D,6E,6F,6G,6H        |
|              |     | 7-Jun  | - | 10-Jun | 9  | 0 | 3M,3N,4VS,4W,4X          |
|              |     | 18-Jun | - | 19-Jun | 3  | 0 | 6F,6H                    |
|              |     | 20-Jul | - | 1-Aug  | 12 | 0 | 6C,6E,6F,6G,6H           |
|              |     | 30-Aug | - | 1-Sep  | 7  | 0 | 6F,6G,6H                 |
|              |     | 24-Nov | - | 26-Nov | 11 | 0 | 4W,4X,5ZE,6F,6G,6H       |

**Table 2 Surface Thermosalinograph data collected and processed in 2001**



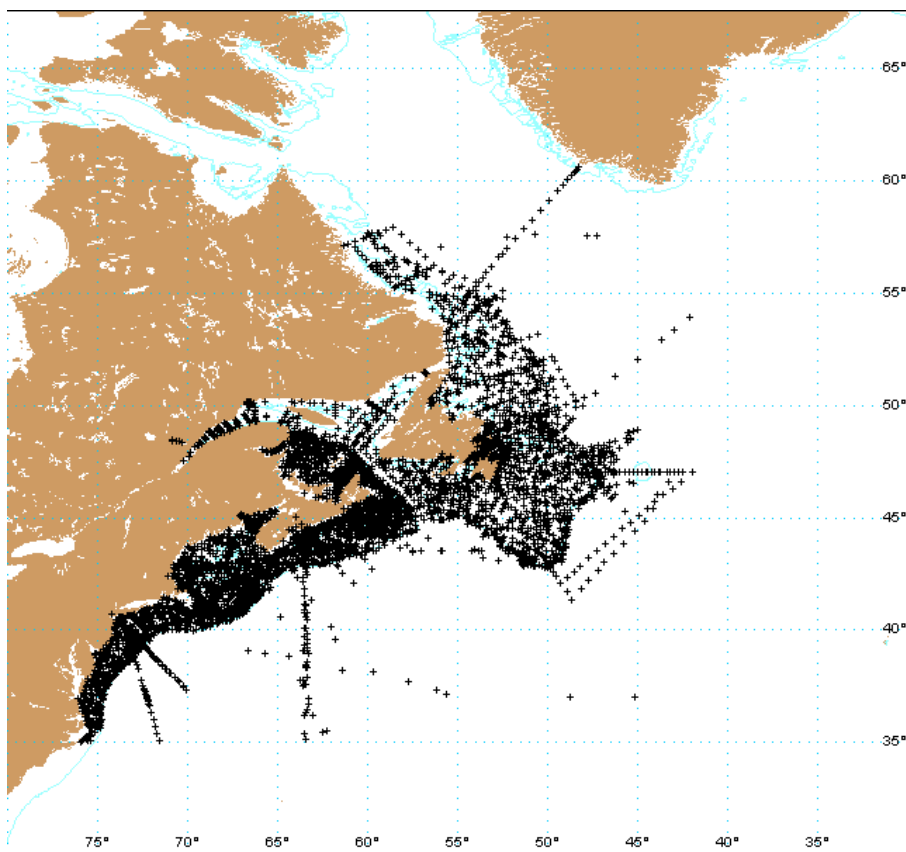
**Total = 28130 stations**

| <b>Unique ID</b> | <b>Start</b> | <b>End</b> | <b>SST/SSS</b> | <b>NAFO Sub-Area</b> |
|------------------|--------------|------------|----------------|----------------------|
| 18MF01200        | 2-Jan        | - 2-Jan    | 24             | 4T                   |
| 18MF01201        | 4-Jan        | - 4-Jan    | 83             | 4T                   |
| 18MF01202        | 5-Jan        | - 5-Jan    | 7              | 4T                   |
| 18MF01203        | 7-Jan        | - 8-Jan    | 227            | 4T                   |
| 18MF01204        | 10-Jan       | - 10-Jan   | 34             | 4T                   |
| 18MF01205        | 10-Jan       | - 11-Jan   | 38             | 4T                   |
| 18MF01206        | 11-Jan       | - 12-Jan   | 167            | 4T                   |
| 18MF01207        | 12-Jan       | - 12-Jan   | 94             | 4T                   |
| 18MF01208        | 14-Jan       | - 15-Jan   | 39             | 4T                   |
| 18MF01209        | 15-Jan       | - 15-Jan   | 12             | 4T                   |
| 18MF01210        | 17-Jan       | - 17-Jan   | 13             | 4T                   |
| 18MF01215        | 26-Jan       | - 26-Jan   | 13             | 4T                   |
| 18MF01217        | 28-Jan       | - 28-Jan   | 12             | 4T                   |
| 18MF01218        | 29-Jan       | - 29-Jan   | 11             | 4T                   |
| 18MF01219        | 29-Jan       | - 29-Jan   | 22             | 4T                   |
| 18MF01221        | 3-Feb        | - 3-Feb    | 28             | 4T                   |
| 18MF01222        | 3-Feb        | - 3-Feb    | 14             | 4T                   |
| 18MF01223        | 6-Feb        | - 6-Feb    | 10             | 4T                   |
| 18MF01224        | 8-Feb        | - 8-Feb    | 9              | 4T                   |

|           |        |   |        |     |                                     |
|-----------|--------|---|--------|-----|-------------------------------------|
| 18MF01225 | 11-Feb | - | 12-Feb | 141 | 4T                                  |
| 18MF01226 | 12-Feb | - | 12-Feb | 133 | 4T                                  |
| 18MF01227 | 13-Feb | - | 13-Feb | 7   | 4T                                  |
| 18MF01228 | 13-Feb | - | 13-Feb | 9   | 4T                                  |
| 18MF01230 | 15-Feb | - | 15-Feb | 20  | 4T                                  |
| 18MF01231 | 15-Feb | - | 16-Feb | 77  | 4T                                  |
| 18MF01232 | 16-Feb | - | 16-Feb | 15  | 4T                                  |
| 18MF01233 | 17-Feb | - | 17-Feb | 9   | 4T                                  |
| 18MF01234 | 17-Feb | - | 17-Feb | 21  | 4T                                  |
| 18MF01235 | 18-Feb | - | 18-Feb | 34  | 4T                                  |
| 18MF01236 | 18-Feb | - | 18-Feb | 5   | 4T                                  |
| 18MF01237 | 19-Feb | - | 19-Feb | 2   | 4T                                  |
| 18MF01238 | 3-Mar  | - | 4-Mar  | 74  | 4T                                  |
| 18MF01239 | 7-Mar  | - | 7-Mar  | 61  | 4T                                  |
| 18MF01240 | 8-Mar  | - | 8-Mar  | 57  | 4T                                  |
| 18MF01241 | 11-Mar | - | 11-Mar | 32  | 4T                                  |
| 18MF01242 | 12-Mar | - | 12-Mar | 97  | 4T                                  |
| 18MF01244 | 13-Mar | - | 13-Mar | 83  | 4T                                  |
| 18VA00242 | 1-Jan  | - | 1-Jan  | 70  | 4T                                  |
| 18VA01200 | 2-Jan  | - | 5-Jan  | 898 | 4S,4T                               |
| 18VA01201 | 5-Jan  | - | 7-Jan  | 245 | 3L,3PS,3PN,4T                       |
| 18VA01202 | 6-Jan  | - | 8-Jan  | 730 | 4S,4T                               |
| 18VA01203 | 7-Jan  | - | 9-Jan  | 617 | 3L,3PS,3PN,4R,4S,4T                 |
| 18VA01204 | 9-Jan  | - | 13-Jan | 933 | 4S,4T                               |
| 18VA01205 | 12-Jan | - | 14-Jan | 603 | 3L,3PS,3PN,4R,4T,4VN                |
| 18VA01206 | 13-Jan | - | 16-Jan | 847 | 4S,4T                               |
| 18VA01207 | 14-Jan | - | 16-Jan | 633 | 3L,3PS,3PN,4R,4S,4T,4VN             |
| 18VA01208 | 19-Jan | - | 21-Jan | 619 | 3L,3PS,3PN,4R,4S,4T,4VN             |
| 18VA01209 | 21-Jan | - | 24-Jan | 643 | 3L,3PS,3PN,4R,4S,4T                 |
| 18VA01210 | 26-Jan | - | 28-Jan | 703 | 3L,3PS,3PN,4R,4S,4T,4VN             |
| 18VA01211 | 29-Jan | - | 31-Jan | 601 | 3L,3PS,3PN,4R,4S,4T,4VN             |
| 18VA01212 | 6-Feb  | - | 6-Feb  | 82  | 4T                                  |
| 18VA01213 | 9-Feb  | - | 11-Feb | 695 | 3L,3PS,3PN,4R,4S,4T                 |
| 18VA01214 | 16-Feb | - | 19-Feb | 925 | 3L,3PS,3PN,4R,4T,4VN                |
| 18VA01215 | 20-Feb | - | 22-Feb | 598 | 3L,3PS,3PN,4R,4S,4T,4VN             |
| 18VA01216 | 25-Feb | - | 27-Feb | 615 | 3L,3PS,3PN,4R,4S,4T,4VN             |
| 18VA01217 | 27-Feb | - | 2-Mar  | 631 | 3L,3PS,3PN,4R,4S,4T,4VN             |
| 18VA01219 | 9-Mar  | - | 11-Mar | 598 | 3L,3PS,3PN,4R,4S,4T                 |
| 18VA01220 | 14-Mar | - | 16-Mar | 621 | 3L,3PS,3PN,4R,4S,4T,4VN             |
| 18VA01221 | 16-Mar | - | 18-Mar | 601 | 3L,3PS,3PN,4R,4S,4T,4VN             |
| 18VA01222 | 22-Mar | - | 24-Mar | 673 | 3L,3PS,3PN,4R,4S,4T,4VN             |
| 18VA01223 | 25-Mar | - | 27-Mar | 684 | 3L,3PS,3PN,4R,4S,4T,4VN             |
| 18VA01224 | 29-Mar | - | 1-Apr  | 603 | 3L,3PS,3PN,4R,4T,4VN                |
| 18VA01225 | 1-Apr  | - | 4-Apr  | 641 | 3L,3PS,3PN,4R,4S,4T                 |
| 18VA01226 | 8-Apr  | - | 10-Apr | 615 | 3L,3PS,3PN,4R,4T,4VN                |
| 18VA01227 | 10-Apr | - | 12-Apr | 588 | 3L,3PS,3PN,4R,4S,4T,4VN             |
| 18VA01228 | 17-Apr | - | 19-Apr | 585 | 3L,3PS,3PN,4R,4T,4VN                |
| 18VA01229 | 19-Apr | - | 22-Apr | 699 | 3L,3PS,3PN,4R,4S,4T                 |
| 18VA01230 | 29-May | - | 1-Jun  | 938 | 4S,4T                               |
| 18VA01231 | 2-Jun  | - | 4-Jun  | 751 | 4S,4T                               |
| 18VA01232 | 5-Jun  | - | 8-Jun  | 936 | 4S,4T                               |
| 18VA01233 | 9-Jun  | - | 11-Jun | 778 | 4S,4T                               |
| 18VA01234 | 12-Jun | - | 15-Jun | 939 | 4S,4T                               |
| 18VA01239 | 7-Mar  | - | 9-Mar  | 616 | 3L,3PS,3PN,4R,4S,4T,4VN             |
| DBBH 01   | 22-Jun | - | 23-Jun | 31  | 1F,2J,3K                            |
| ELVX4 01  | 18-Jan | - | 24-Jan | 49  | 3M,3N,3O,4VS,4W,4X,5ZE,5ZW,6A,6B,6C |

|        |        |        |        |        |                                         |                                     |
|--------|--------|--------|--------|--------|-----------------------------------------|-------------------------------------|
|        | 13-Apr | -      | 15-Apr | 26     | 3M,3N,3O,4VS                            |                                     |
|        | 13-Jul | -      | 18-Jul | 55     | 3M,3N,3O,4VS,4W,5ZE,5ZW,6A,6B,6C        |                                     |
|        | 7-Oct  | -      | 10-Oct | 41     | 3M,3N,3O,4VS,4W,4X,5ZE,5ZW              |                                     |
| ELVZ5  | 01     | 2-Mar  | -      | 9-Mar  | 119                                     | 3M,3N,3O,4VS,4W,4X,5ZE,5ZW,6A,6B,6C |
|        | 27-Aug | -      | 2-Sep  | 117    | 3M,3N,4VS,4W,4X,5ZE,5ZW,6A,6B,6C        |                                     |
|        | 24-Nov | -      | 30-Nov | 123    | 3M,3N,3O,4VS,4W,4X,5ZE,5ZW,6A,6B,6C,6H  |                                     |
| ELVZ6  | 01     | 24-Mar | -      | 29-Mar | 110                                     | 3M,3N,3O,4VS,4W,4X,5ZE,5ZW,6A,6B,6C |
|        | 19-Jun | -      | 25-Jun | 110    | 3M,3N,3O,4VS,4W,4X,5ZE,5ZW,6A,6B,6C     |                                     |
|        | 17-Sep | -      | 23-Sep | 111    | 3M,3N,3O,3PS,4VS,4W,4X,5ZE,5ZW,6A,6B,6C |                                     |
|        | 15-Dec | -      | 20-Dec | 126    | 3M,3N,3O,4VS,4W,4X,5ZE,5ZW,6A,6B,6C     |                                     |
| NOCALL | 01     | 15-Jul | -      | 17-Jul | 4                                       | 4W,5ZE,6A,6B                        |
|        | 9-Oct  | -      | 9-Oct  | 1      | 4X                                      |                                     |
| OXYH2  | 01     | 19-Apr | -      | 27-Apr | 151                                     | 1B,1C,1D,1E,1F                      |
|        | 9-May  | -      | 17-May | 172    | 1B,1C,1D,1E,1F                          |                                     |
|        | 30-May | -      | 8-Jun  | 203    | 1B,1C,1D,1E,1F                          |                                     |
|        | 20-Jun | -      | 28-Jun | 194    | 1B,1C,1D,1E,1F                          |                                     |
|        | 11-Jul | -      | 19-Jul | 179    | 1B,1C,1D,1E,1F                          |                                     |
|        | 6-Aug  | -      | 9-Aug  | 74     | 1C,1D,1E,1F                             |                                     |
|        | 22-Aug | -      | 31-Aug | 203    | 1B,1C,1D,1E,1F                          |                                     |
|        | 14-Sep | -      | 21-Sep | 172    | 1B,1C,1D,1E,1F                          |                                     |
|        | 3-Oct  | -      | 9-Oct  | 117    | 1B,1C,1D,1E,1F                          |                                     |
|        | 24-Oct | -      | 1-Nov  | 126    | 1B,1C,1D,1E,1F                          |                                     |
|        | 15-Nov | -      | 22-Nov | 95     | 1B,1C,1D,1E,1F                          |                                     |
|        | 6-Dec  | -      | 12-Dec | 98     | 1B,1C,1D,1E,1F                          |                                     |
|        | 28-Dec | -      | 31-Dec | 33     | 1B,1C,1D,1E,1F                          |                                     |
| SHIP   | 01     | 8-Oct  | -      | 8-Oct  | 1                                       | 4VS                                 |
|        | 26-Nov | -      | 26-Nov | 1      | 4W                                      |                                     |

**Table 3 Delayed-mode profile data collected and processed in 2001**



**Total = 8202 profiles**

| Unique ID | Start  | End      | BT | CTD | BOT | NAFO Subarea      |
|-----------|--------|----------|----|-----|-----|-------------------|
| 180301600 | 29-Nov | - 29-Nov | 0  | 1   | 0   | 4X                |
| 180301601 | 2-Jan  | - 29-Nov | 0  | 18  | 0   | 4X                |
| 180301602 | 2-Jan  | - 29-Nov | 0  | 19  | 0   | 4X                |
| 180301603 | 9-Jan  | - 13-Nov | 0  | 25  | 0   | 4X                |
| 180301615 | 9-Jan  | - 13-Nov | 0  | 25  | 0   | 4X                |
| 180301616 | 9-Jan  | - 13-Nov | 0  | 25  | 0   | 4X                |
| 180301617 | 9-Jan  | - 13-Nov | 0  | 24  | 0   | 4X                |
| 180301625 | 9-Jan  | - 13-Nov | 0  | 25  | 0   | 4X                |
| 180301651 | 13-Jun | - 14-Nov | 0  | 11  | 0   | 4X                |
| 181A01002 | 13-Feb | - 14-Feb | 3  | 0   | 0   | 4X,5Y             |
|           | 25-Mar | - 27-Mar | 4  | 0   | 0   | 4X,5ZE,6A         |
|           | 10-Apr | - 10-Apr | 1  | 0   | 0   | 3PS               |
| 181A01003 | 22-May | - 8-Jun  | 40 | 0   | 0   | 3L,3PS,4VN,4VS,4W |
| 181A01004 | 26-Jun | - 26-Jun | 1  | 0   | 0   | 4T                |
|           | 5-Jul  | - 11-Jul | 8  | 0   | 0   | 4X,5Y,5ZW         |
|           | 18-Jul | - 18-Jul | 1  | 0   | 0   | 4T                |
| 181A01005 | 10-Oct | - 20-Oct | 12 | 0   | 0   | 4S,4T,4W,4X       |



|           |        |   |        |     |    |    |               |
|-----------|--------|---|--------|-----|----|----|---------------|
|           | 30-Oct | - | 30-Oct | 2   | 0  | 0  | 4R,4W         |
|           | 8-Nov  | - | 8-Nov  | 1   | 0  | 0  | 4X            |
|           | 14-Nov | - | 20-Nov | 4   | 0  | 0  | 4X            |
|           | 27-Nov | - | 27-Nov | 1   | 0  | 0  | 4X            |
|           | 4-Dec  | - | 7-Dec  | 3   | 0  | 0  | 3L,4W         |
|           | 12-Dec | - | 12-Dec | 1   | 0  | 0  | 4W            |
| 181C01001 | 6-Apr  | - | 18-Apr | 12  | 93 | 0  | 3L,3PS,3PN,4R |
|           | 17-May | - | 17-May | 0   | 0  | 1  | 3L            |
| 181C01002 | 6-Oct  | - | 16-Oct | 10  | 55 | 1  | 3L,3N,3O      |
| 181C01003 | 22-Apr | - | 1-May  | 10  | 95 | 0  | 3O,3PS        |
| 181C01004 | 2-May  | - | 3-May  | 0   | 3  | 0  | 3L            |
| 181C01005 | 5-May  | - | 17-May | 6   | 80 | 0  | 3L,3N,3O,3PS  |
| 181C01006 | 18-May | - | 29-May | 6   | 73 | 0  | 3L,3N,3O      |
| 181C01007 | 1-Jun  | - | 12-Jun | 11  | 76 | 0  | 3L,3N         |
| 181C01008 | 15-Jun | - | 24-Jun | 8   | 55 | 0  | 3L,3O         |
| 181C01009 | 23-Sep | - | 2-Oct  | 7   | 0  | 1  | 1F,2H,3L      |
| 181C01010 | 3-Sep  | - | 7-Sep  | 3   | 17 | 1  | 3L            |
| 181C01011 | 20-Oct | - | 31-Oct | 8   | 67 | 2  | 3L,3N         |
| 181C01012 | 2-Nov  | - | 13-Nov | 2   | 67 | 1  | 3L,3PS        |
| 181C01013 | 22-Nov | - | 29-Nov | 3   | 54 | 1  | 3L            |
| 181C01014 | 1-Dec  | - | 10-Dec | 4   | 57 | 1  | 3K,3L         |
| 181C01015 | 11-Dec | - | 16-Dec | 2   | 46 | 0  | 3K            |
| 189001003 | 21-Feb | - | 3-Dec  | 0   | 31 | 38 | 4S,4T         |
| 189001006 | 2-May  | - | 20-Sep | 0   | 21 | 0  | 4T            |
| 189901001 | 26-Apr | - | 25-May | 170 | 0  | 0  | 4VN,4VS,4W    |
|           | 21-Jun | - | 27-Jun | 49  | 0  | 0  | 4VS,4W        |
|           | 3-Jul  | - | 5-Jul  | 28  | 0  | 0  | 4VS           |
|           | 12-Jul | - | 20-Jul | 100 | 0  | 0  | 4VS,4W,4X     |
|           | 27-Jul | - | 18-Aug | 21  | 0  | 0  | 4VN,4W        |
|           | 21-Sep | - | 25-Sep | 30  | 0  | 0  | 4VN           |
| 189901002 | 1-May  | - | 20-May | 11  | 0  | 0  | 4T            |
|           | 9-Aug  | - | 16-Aug | 100 | 0  | 0  | 4T            |
|           | 24-Aug | - | 26-Aug | 23  | 0  | 0  | 4T            |
|           | 3-Sep  | - | 12-Sep | 72  | 0  | 0  | 4T            |
|           | 18-Sep | - | 2-Oct  | 121 | 0  | 0  | 4T,4VN        |
| 189901003 | 17-May | - | 25-May | 3   | 0  | 0  | 4T            |
|           | 1-Jun  | - | 1-Jun  | 1   | 0  | 0  | 4T            |
|           | 8-Jun  | - | 8-Jun  | 1   | 0  | 0  | 4T            |
|           | 15-Aug | - | 26-Aug | 5   | 0  | 0  | 4W            |
|           | 31-Aug | - | 31-Aug | 1   | 0  | 0  | 4W            |
|           | 7-Sep  | - | 18-Sep | 6   | 0  | 0  | 4W            |
| 189901600 | 11-Dec | - | 11-Dec | 0   | 5  | 0  | 4X            |
| 18C801001 | 13-Jan | - | 13-Jan | 1   | 0  | 0  | 6E            |
| 18CN01014 | 1-May  | - | 11-May | 0   | 51 | 0  | 4S            |
| 18EG01001 | 30-Mar | - | 30-Mar | 0   | 1  | 1  | 4W            |
| 18HI01001 | 26-Apr | - | 26-Apr | 0   | 1  | 1  | 4T            |
| 18HI01002 | 1-Aug  | - | 1-Aug  | 0   | 1  | 1  | 4T            |
| 18HI01003 | 18-Sep | - | 18-Sep | 0   | 0  | 1  | 4T            |
| 18HI01004 | 3-Oct  | - | 3-Oct  | 0   | 0  | 1  | 4T            |
| 18HI01005 | 16-Oct | - | 16-Oct | 0   | 0  | 1  | 4T            |
| 18HI01006 | 1-Nov  | - | 1-Nov  | 0   | 1  | 0  | 4T            |
| 18HI01007 | 14-Nov | - | 14-Nov | 0   | 1  | 0  | 4T            |
| 18HI01008 | 29-Nov | - | 29-Nov | 0   | 1  | 0  | 4T            |
| 18HL01001 | 2-Mar  | - | 4-Mar  | 13  | 0  | 0  | 4X,6E         |
|           | 29-Mar | - | 29-Mar | 1   | 0  | 0  | 6E            |
| 18HT01036 | 12-Jul | - | 17-Jul | 0   | 28 | 0  | 4X            |

|           |        |   |        |    |     |     |                                |
|-----------|--------|---|--------|----|-----|-----|--------------------------------|
| 18HU01009 | 1-May  | - | 16-May | 0  | 3   | 65  | 3PS,3PN,4R,4S,4T,4VN,4VS,4W,4X |
|           | 25-May | - | 25-May | 0  | 1   | 1   | 4W                             |
| 18HU01022 | 30-May | - | 15-Jun | 0  | 2   | 50  | 1F,2H,2J,3K,4R,4W,4X           |
| 18HU01061 | 23-Oct | - | 7-Nov  | 0  | 3   | 62  | 3PS,4R,4S,4T,4VN,4VS,4W,4X     |
| 18HU01064 | 29-Nov | - | 8-Dec  | 0  | 78  | 0   | 4R,4S,4T,4VN,4W                |
| 18HU01068 | 14-Nov | - | 25-Nov | 27 | 77  | 76  | 3K,3L,3M,3N,3O                 |
| 18HU01072 | 8-Dec  | - | 8-Dec  | 0  | 1   | 0   | 4W                             |
| 18IS01001 | 12-Feb | - | 14-Feb | 6  | 0   | 0   | 4W,4X                          |
| 18IS01002 | 2-Mar  | - | 4-Mar  | 11 | 0   | 0   | 4X,6E                          |
|           | 30-Mar | - | 30-Mar | 10 | 0   | 0   | 4W,4X,6E                       |
| 18IS01003 | 14-May | - | 18-May | 15 | 0   | 0   | 4X                             |
| 18IS01004 | 22-May | - | 25-May | 8  | 0   | 0   | 4W,4X                          |
| 18IS01005 | 4-Jun  | - | 8-Jun  | 9  | 0   | 0   | 4W,4X                          |
| 18IS01006 | 27-Aug | - | 31-Aug | 14 | 0   | 0   | 4W,4X                          |
| 18IS01007 | 10-Sep | - | 13-Sep | 11 | 0   | 0   | 4X                             |
| 18IS01008 | 17-Sep | - | 21-Sep | 19 | 0   | 0   | 4W,4X                          |
| 18LL01001 | 21-Feb | - | 21-Feb | 0  | 1   | 1   | 3L                             |
| 18MF01013 | 21-Apr | - | 2-May  | 0  | 36  | 0   | 4R,4S,4T                       |
| 18MF01015 | 30-May | - | 10-Jun | 0  | 78  | 0   | 4R,4S,4T,4VN                   |
| 18MF01020 | 11-Jun | - | 17-Jun | 0  | 52  | 0   | 4S,4T                          |
| 18MF01061 | 18-Sep | - | 22-Sep | 0  | 43  | 0   | 4S,4T                          |
| 18MP01001 | 24-Jan | - | 17-Feb | 54 | 0   | 0   | 3L,3M,3N,3O,4VS,4W             |
| 18MP01002 | 5-Apr  | - | 11-Apr | 12 | 0   | 0   | 3O,4VS,4W                      |
| 18MP01003 | 7-May  | - | 24-May | 40 | 0   | 0   | 4W,4X,5Y                       |
| 18NE01001 | 25-Jan | - | 27-Jan | 0  | 0   | 8   | 4VN                            |
| 18NE01002 | 2-Feb  | - | 9-Feb  | 0  | 8   | 8   | 4VS,4W                         |
| 18NE01003 | 13-Feb | - | 23-Feb | 0  | 49  | 49  | 4W,5ZE                         |
| 18NE01004 | 27-Feb | - | 14-Mar | 0  | 90  | 90  | 4VS,4W                         |
| 18NE01005 | 24-Nov | - | 4-Dec  | 5  | 68  | 1   | 2J,3K,3L                       |
| 18NE01006 | 7-Dec  | - | 17-Dec | 3  | 49  | 1   | 2H,2J,3L                       |
| 18NE01026 | 19-Jun | - | 26-Jun | 0  | 0   | 12  | 4T                             |
| 18NE01032 | 3-Jul  | - | 15-Jul | 0  | 100 | 99  | 4W,4X,5Y                       |
| 18NE01037 | 16-Jul | - | 30-Jul | 0  | 110 | 110 | 4VN,4VS,4W                     |
| 18NE01042 | 4-Aug  | - | 4-Aug  | 0  | 4   | 0   | 3PN                            |
|           | 12-Aug | - | 17-Aug | 0  | 46  | 0   | 4R,4S,4T                       |
| 18NE01050 | 4-Sep  | - | 5-Sep  | 0  | 0   | 8   | 4T                             |
|           | 13-Sep | - | 28-Sep | 0  | 1   | 141 | 4T,4VN                         |
| 18NE01051 | 27-Sep | - | 27-Sep | 0  | 1   | 0   | 4T                             |
| 18OK01001 | 31-Aug | - | 31-Aug | 0  | 0   | 1   | 3L                             |
| 18OK01002 | 25-Apr | - | 7-May  | 18 | 3   | 0   | 3PS                            |
| 18OK01003 | 11-Apr | - | 19-Apr | 10 | 0   | 0   | 3PS                            |
| 18OK01004 | 29-May | - | 13-Jun | 0  | 21  | 0   | 3L                             |
| 18OK01005 | 16-Jan | - | 25-Jan | 0  | 21  | 0   | 3L                             |
|           | 31-Jan | - | 31-Jan | 0  | 1   | 0   | 3L                             |
| 18OK01006 | 15-May | - | 20-May | 0  | 8   | 0   | 3L                             |
| 18OK01007 | 22-May | - | 24-May | 0  | 23  | 0   | 3L                             |
| 18OK01008 | 16-Jun | - | 28-Jun | 7  | 10  | 0   | 3L                             |
| 18OK01009 | 30-Jul | - | 10-Aug | 0  | 19  | 0   | 3L                             |
| 18OK01010 | 16-Jul | - | 19-Jul | 0  | 2   | 0   | 3K,3L                          |
|           | 27-Jul | - | 27-Jul | 0  | 1   | 0   | 3L                             |
| 18OK01011 | 21-Aug | - | 22-Aug | 0  | 2   | 0   | 3L                             |
| 18OK01012 | 6-Oct  | - | 15-Oct | 0  | 13  | 0   | 3L                             |
| 18OK01013 | 26-Nov | - | 3-Dec  | 0  | 27  | 0   | 3L                             |
| 18OK01014 | 18-Nov | - | 20-Nov | 2  | 3   | 0   | 3L                             |
| 18OK01015 | 23-Nov | - | 24-Nov | 2  | 0   | 0   | 3L                             |

|           |        |   |        |    |     |     |                |
|-----------|--------|---|--------|----|-----|-----|----------------|
| 18OP01001 | 3-May  | - | 3-May  | 0  | 1   | 1   | 4T             |
| 18OP01002 | 17-May | - | 17-May | 0  | 1   | 1   | 4T             |
| 18OP01003 | 30-May | - | 30-May | 0  | 1   | 1   | 4T             |
| 18OP01004 | 16-Jun | - | 16-Jun | 0  | 1   | 1   | 4T             |
| 18OP01005 | 1-Jul  | - | 1-Jul  | 0  | 1   | 1   | 4T             |
| 18OP01006 | 10-Jul | - | 10-Jul | 0  | 1   | 1   | 4T             |
| 18OP01007 | 14-Aug | - | 14-Aug | 0  | 1   | 1   | 4T             |
| 18OP01008 | 18-Sep | - | 18-Sep | 0  | 1   | 0   | 4T             |
| 18OP01009 | 3-Oct  | - | 3-Oct  | 0  | 1   | 0   | 4T             |
| 18OP01010 | 16-Oct | - | 16-Oct | 0  | 1   | 0   | 4T             |
| 18OR01902 | 5-Apr  | - | 5-Apr  | 0  | 1   | 0   | 4T             |
| 18PA01001 | 2-Jan  | - | 2-Jan  | 0  | 1   | 1   | 4X             |
| 18PA01002 | 15-Jan | - | 15-Jan | 0  | 1   | 1   | 4X             |
| 18PA01003 | 29-Jan | - | 29-Jan | 0  | 1   | 1   | 4X             |
| 18PA01004 | 13-Feb | - | 13-Feb | 0  | 1   | 1   | 4X             |
| 18PA01005 | 1-Mar  | - | 1-Mar  | 0  | 1   | 1   | 4X             |
| 18PA01006 | 20-Mar | - | 20-Mar | 0  | 1   | 1   | 4X             |
| 18PA01007 | 29-Mar | - | 29-Mar | 0  | 1   | 1   | 4X             |
| 18PA01008 | 2-May  | - | 2-May  | 0  | 0   | 1   | 4X             |
| 18PA01009 | 18-May | - | 22-May | 0  | 1   | 1   | 4X             |
| 18PA01010 | 30-May | - | 30-May | 0  | 1   | 1   | 4X             |
| 18PA01011 | 12-Jun | - | 12-Jun | 0  | 1   | 1   | 4X             |
| 18PA01012 | 26-Jun | - | 26-Jun | 0  | 1   | 1   | 4X             |
| 18PA01013 | 13-Jul | - | 13-Jul | 0  | 1   | 1   | 4X             |
| 18PA01014 | 31-Jul | - | 31-Jul | 0  | 1   | 1   | 4X             |
| 18PA01015 | 14-Aug | - | 14-Aug | 0  | 1   | 1   | 4X             |
| 18PA01016 | 28-Aug | - | 28-Aug | 0  | 1   | 1   | 4X             |
| 18PA01017 | 13-Sep | - | 13-Sep | 0  | 1   | 1   | 4X             |
| 18PA01018 | 14-Nov | - | 14-Nov | 0  | 1   | 0   | 4X             |
| 18PA01019 | 29-Nov | - | 29-Nov | 0  | 1   | 0   | 4X             |
| 18PV01001 | 14-Jan | - | 14-Jan | 3  | 0   | 0   | 4W,6E          |
| 18PY01001 | 12-Dec | - | 12-Dec | 0  | 1   | 0   | 4T             |
| 18QU01001 | 8-May  | - | 23-May | 56 | 0   | 0   | 4W,4X,6A       |
| 18QU01261 | 22-Aug | - | 30-Aug | 22 | 0   | 0   | 4W,4X          |
| 18S601001 | 19-Oct | - | 26-Oct | 19 | 0   | 0   | 4X             |
| 18S601002 | 29-Oct | - | 31-Oct | 9  | 0   | 0   | 4X,6E          |
| 18S901001 | 5-Jan  | - | 5-Jan  | 0  | 1   | 1   | 4W             |
|           | 20-Jan | - | 20-Jan | 0  | 1   | 1   | 4W             |
| 18S901002 | 10-Apr | - | 10-Apr | 0  | 1   | 1   | 4W             |
| 18S901003 | 15-Aug | - | 15-Aug | 0  | 1   | 1   | 4W             |
| 18S901004 | 30-Aug | - | 30-Aug | 0  | 1   | 1   | 4W             |
| 18S901005 | 18-Sep | - | 18-Sep | 0  | 1   | 1   | 4W             |
| 18S901006 | 12-Oct | - | 12-Oct | 0  | 1   | 1   | 4W             |
| 18S901007 | 23-Nov | - | 23-Nov | 0  | 1   | 1   | 4W             |
| 18TL01001 | 8-Jan  | - | 16-Jan | 10 | 11  | 1   | 2J,3K,3L       |
| 18TL01002 | 11-Apr | - | 19-Apr | 2  | 39  | 2   | 3L,3PS,3PN     |
| 18TL01003 | 21-Apr | - | 4-May  | 38 | 80  | 79  | 3K,3L,3M,3N,3O |
| 18TL01004 | 6-May  | - | 24-May | 76 | 62  | 2   | 3K,3L          |
| 18TL01005 | 21-Jun | - | 21-Jun | 0  | 0   | 1   | 3L             |
| 18TL01006 | 13-Jul | - | 29-Jul | 75 | 108 | 108 | 2G,2H,2J,3K,3L |
| 18TL01007 | 21-Sep | - | 5-Oct  | 3  | 37  | 2   | 3L,3N,3O       |
| 18TL01008 | 6-Apr  | - | 10-Apr | 0  | 12  | 0   | 3PS            |
| 18TL01009 | 26-May | - | 26-May | 0  | 1   | 0   | 3L             |
|           | 2-Jun  | - | 4-Jun  | 0  | 2   | 0   | 3L,3PS         |
| 18TL01010 | 6-Jun  | - | 21-Jun | 22 | 14  | 0   | 2J,3K,3L,3PS   |
| 18TL01011 | 24-Jun | - | 27-Jun | 0  | 12  | 0   | 3L             |

|           |        |   |        |    |    |   |          |
|-----------|--------|---|--------|----|----|---|----------|
| 18TL01012 | 6-Oct  | - | 15-Oct | 1  | 51 | 2 | 3L,3M,3N |
| 18TL01013 | 1-Dec  | - | 12-Dec | 3  | 98 | 0 | 2J,3K    |
| 18TL01014 | 19-Nov | - | 28-Nov | 2  | 55 | 1 | 2J,3L    |
| 18TL01015 | 13-Dec | - | 18-Dec | 2  | 15 | 0 | 2H,3K    |
| 18TR01001 | 26-Sep | - | 27-Sep | 5  | 0  | 0 | 4X       |
| 18TR01002 | 2-Oct  | - | 4-Oct  | 4  | 0  | 0 | 4X       |
| 18TR01003 | 19-Oct | - | 25-Oct | 17 | 0  | 0 | 4X       |
| 18TR01004 | 29-Oct | - | 31-Oct | 7  | 0  | 0 | 4X,6E    |
| 18VA01001 | 9-Jan  | - | 9-Jan  | 0  | 1  | 1 | 3L       |
| 18VA01002 | 2-Feb  | - | 2-Feb  | 0  | 1  | 1 | 3L       |
| 18VA01003 | 30-Mar | - | 30-Mar | 0  | 1  | 1 | 3L       |
| 18VA01004 | 27-Apr | - | 27-Apr | 0  | 1  | 1 | 3L       |
| 18VA01005 | 4-Jun  | - | 4-Jun  | 0  | 1  | 1 | 3L       |
| 18VA01006 | 20-Jun | - | 20-Jun | 0  | 1  | 1 | 3L       |
| 18VA01007 | 4-Jul  | - | 4-Jul  | 0  | 0  | 1 | 3L       |
| 18VA01008 | 9-Aug  | - | 9-Aug  | 0  | 2  | 1 | 3L       |
| 18VA01009 | 2-Oct  | - | 2-Oct  | 0  | 2  | 0 | 4X       |
| 18VA01010 | 15-Oct | - | 16-Oct | 0  | 3  | 0 | 4X       |
| 18VA01011 | 29-Oct | - | 30-Oct | 0  | 3  | 0 | 4X       |
| 18VA01012 | 2-Mar  | - | 2-Mar  | 0  | 11 | 0 | 4X       |
|           | 30-Apr | - | 6-May  | 0  | 30 | 0 | 4X       |
| 18VA01013 | 17-Sep | - | 17-Sep | 0  | 1  | 1 | 3L       |
| 18VA01014 | 17-Jun | - | 26-Jun | 32 | 0  | 0 | 3L,3N,3O |
|           | 4-Sep  | - | 7-Sep  | 13 | 2  | 0 | 4W       |
| 18VA01015 | 31-Aug | - | 31-Aug | 0  | 1  | 0 | 3L       |
|           | 11-Sep | - | 22-Sep | 0  | 8  | 0 | 4VS      |
| 18VA01016 | 29-Sep | - | 29-Sep | 0  | 2  | 0 | 4W       |
|           | 12-Oct | - | 12-Oct | 0  | 2  | 0 | 4W       |
| 18VA01017 | 3-Oct  | - | 5-Oct  | 9  | 6  | 0 | 4W       |
| 18VA01018 | 22-Oct | - | 22-Oct | 0  | 2  | 0 | 4VS,4W   |
|           | 19-Nov | - | 19-Nov | 0  | 2  | 0 | 4W       |
| 18VA01019 | 23-Oct | - | 23-Oct | 6  | 1  | 0 | 4W       |
| 18VA01020 | 3-Jul  | - | 12-Jul | 63 | 0  | 0 | 4X       |
|           | 2-Oct  | - | 4-Oct  | 0  | 9  | 0 | 3PS      |
| 18VA01021 | 3-Jul  | - | 10-Jul | 61 | 0  | 0 | 4X       |
|           | 13-Nov | - | 22-Nov | 0  | 40 | 0 | 3K       |
| 18VA01022 | 31-May | - | 31-May | 0  | 4  | 0 | 3PS      |
|           | 8-Jul  | - | 11-Jul | 30 | 0  | 0 | 4X       |
| 18VA01023 | 21-Jan | - | 24-Jan | 12 | 0  | 0 | 4W       |
|           | 25-Jun | - | 26-Jun | 0  | 16 | 0 | 3K       |
| 18VA01024 | 12-Jul | - | 13-Jul | 0  | 7  | 0 | 3PS      |
|           | 1-Aug  | - | 3-Aug  | 13 | 0  | 0 | 5ZE      |
| 18VA01025 | 6-Aug  | - | 9-Aug  | 17 | 0  | 0 | 5ZE      |
|           | 22-Aug | - | 30-Aug | 0  | 62 | 0 | 3K       |
| 18VA01026 | 14-Aug | - | 16-Aug | 11 | 0  | 0 | 5ZE      |
| 18VA01027 | 15-Sep | - | 16-Sep | 10 | 0  | 0 | 4W       |
| 18VA01028 | 20-Sep | - | 20-Sep | 5  | 0  | 0 | 4W       |
| 18VA01029 | 24-Sep | - | 24-Sep | 5  | 0  | 0 | 4W       |
| 18VA01032 | 17-Sep | - | 18-Sep | 13 | 0  | 0 | 4W       |
| 18VA01033 | 28-Sep | - | 30-Sep | 13 | 0  | 0 | 4W       |
| 18VA01034 | 11-Oct | - | 12-Oct | 12 | 0  | 0 | 4W       |
| 18VA01036 | 21-Sep | - | 23-Sep | 15 | 0  | 0 | 4W       |
| 18VA01037 | 4-Oct  | - | 5-Oct  | 11 | 0  | 0 | 4VS,4W   |
| 18VA01038 | 11-Oct | - | 12-Oct | 10 | 0  | 0 | 4VS      |
| 18VA01039 | 20-Oct | - | 22-Oct | 14 | 0  | 0 | 4VS,4W   |
| 18VA01040 | 19-Nov | - | 19-Nov | 4  | 0  | 0 | 4W       |

|           |        |   |        |    |     |   |                        |
|-----------|--------|---|--------|----|-----|---|------------------------|
| 18VA01041 | 10-Sep | - | 13-Sep | 13 | 0   | 0 | 4VS,4W                 |
| 18VA01042 | 16-Sep | - | 18-Sep | 11 | 0   | 0 | 4VS,4W                 |
| 18VA01043 | 21-Sep | - | 23-Sep | 14 | 0   | 0 | 4VS                    |
| 18VA01044 | 29-Sep | - | 29-Sep | 3  | 0   | 0 | 4W                     |
| 18VA01045 | 10-Oct | - | 10-Oct | 2  | 0   | 0 | 4W                     |
| 18VA01046 | 23-Oct | - | 23-Oct | 2  | 0   | 0 | 4W                     |
| 18VA01047 | 29-Oct | - | 29-Oct | 2  | 0   | 0 | 4W                     |
| 18VA01048 | 31-Aug | - | 31-Aug | 1  | 0   | 0 | 4W                     |
| 18VA01049 | 3-Sep  | - | 3-Sep  | 2  | 0   | 0 | 4W                     |
| 18VA01050 | 5-Sep  | - | 5-Sep  | 3  | 0   | 0 | 4W                     |
| 18VA01051 | 10-Sep | - | 10-Sep | 3  | 0   | 0 | 4W                     |
| 18VA01052 | 11-Sep | - | 11-Sep | 2  | 0   | 0 | 4W                     |
| 18VA01099 | 29-Jun | - | 14-Sep | 0  | 53  | 0 | 4T                     |
| 18VQ01001 | 19-Mar | - | 27-Mar | 12 | 0   | 0 | 3N,3O,4VS,4W           |
| 18VQ01002 | 4-Jul  | - | 10-Jul | 10 | 0   | 0 | 3M,3N,3O,4VS           |
|           | 17-Jul | - | 19-Jul | 4  | 0   | 0 | 3N,3O                  |
| 18VQ01003 | 17-Sep | - | 21-Sep | 12 | 0   | 0 | 4X                     |
| 316G01001 | 7-Feb  | - | 21-Feb | 0  | 47  | 0 | 5ZW,6A,6B              |
| 316G01002 | 16-May | - | 24-May | 0  | 24  | 0 | 6B,6C                  |
| 316G01003 | 29-May | - | 6-Jun  | 0  | 79  | 0 | 4X,5Y,5ZE,5ZW          |
| 316G01004 | 13-Jun | - | 21-Jun | 0  | 20  | 0 | 5ZE                    |
| 316G01005 | 24-Jul | - | 27-Jul | 0  | 6   | 0 | 5Y                     |
| 316G01006 | 8-Aug  | - | 29-Aug | 0  | 154 | 0 | 4X,5Y                  |
| 316G01007 | 6-Sep  | - | 26-Sep | 0  | 123 | 0 | 4X,5Y,5ZE,5ZW          |
|           | 3-Oct  | - | 10-Oct | 0  | 28  | 0 | 4X,5Y,5ZE              |
| 31A401001 | 30-Jan | - | 22-Feb | 0  | 176 | 0 | 5ZE,5ZW,6A,6B,6C       |
| 31A401002 | 28-Feb | - | 3-Mar  | 0  | 33  | 0 | 6A,6B                  |
|           | 13-Mar | - | 21-Mar | 0  | 94  | 0 | 6A,6B,6C               |
|           | 27-Mar | - | 17-Apr | 0  | 147 | 0 | 4X,5Y,5ZE,5ZW,6A       |
|           | 24-Apr | - | 30-Apr | 0  | 61  | 0 | 4X,5Y,5ZE,5ZW          |
| 31A401003 | 20-May | - | 25-May | 0  | 62  | 0 | 5ZE,5ZW,6A,6B,6C       |
| 31A401004 | 27-Jun | - | 3-Jul  | 0  | 29  | 0 | 6A,6B                  |
|           | 10-Jul | - | 19-Jul | 0  | 66  | 0 | 5ZE,6A,6B,6C           |
|           | 7-Aug  | - | 16-Aug | 0  | 65  | 0 | 5ZE                    |
| 31A401005 | 24-Jul | - | 2-Aug  | 0  | 51  | 0 | 4X,5Y                  |
| 31A401006 | 21-Aug | - | 28-Aug | 0  | 80  | 0 | 4X,5Y,5ZE,5ZW          |
| 31A401007 | 5-Sep  | - | 22-Oct | 0  | 336 | 0 | 4X,5Y,5ZE,5ZW,6A,6B,6C |
| 31A401008 | 30-Oct | - | 16-Nov | 0  | 130 | 0 | 4X,5Y,5ZE,5ZW,6A,6B,6C |
| 32OD01001 | 6-Jan  | - | 6-Jan  | 27 | 0   | 0 | 6A,6B                  |
| 32OD01002 | 9-Mar  | - | 10-Mar | 22 | 0   | 0 | 6A,6B                  |
| 33EN01001 | 17-Jan | - | 19-Jan | 10 | 0   | 0 | 5ZE,6D,6E,6F,6H        |
| 33SE01001 | 3-Mar  | - | 4-Mar  | 35 | 0   | 0 | 6A,6B,6C               |
| 74NO01001 | 21-Jan | - | 21-Jan | 1  | 0   | 0 | 6E                     |
| AGGD01001 | 6-Jan  | - | 8-Jan  | 9  | 0   | 0 | 4X,5Y,5ZW              |
| AGGD01002 | 29-Jan | - | 30-Jan | 13 | 0   | 0 | 1F,2J,3K,3L            |
| AGGD01003 | 3-Feb  | - | 4-Feb  | 7  | 0   | 0 | 4X,5Y,5ZW              |
| AGGD01004 | 4-Mar  | - | 4-Mar  | 10 | 0   | 0 | 4X,5Y,5ZW              |

**Table 4a Profile data collected in 2001 but not yet received at MEDS**

Country:

Denmark

| Ship Name | Sub-Area | Date Span                 | Name             | Stations | Type | Parameters |
|-----------|----------|---------------------------|------------------|----------|------|------------|
| Tulugaq   | 1        | 2001/06/06-<br>2001/06/06 | C. Farewell      | 5        | STD  | T,S        |
| Tulugaq   | 1        | 2001/06/07-<br>2001/06/07 | C.<br>Desolation | 5        | STD  | T,S        |
| Tulugaq   | 1        | 2001/06/08-<br>2001/06/08 | Fredrikshaab     | 5        | STD  | T,S        |
| Tulugaq   | 1        | 2001/06/09-<br>2001/06/09 | Fylla            | 5        | STD  | T,S        |
| Tulugaq   | 1        | 2001/06/10-<br>2001/06/10 | Sukkertoppe<br>n | 5        | STD  | T,S        |
| Tulugaq   | 1        | 2001/06/11-<br>2001/06/11 | Holsteinborg     | 5        | STD  | T,S        |

OTHER  
STATIONS

Paamiut Jul/Aug/Sep 40 STD T,S

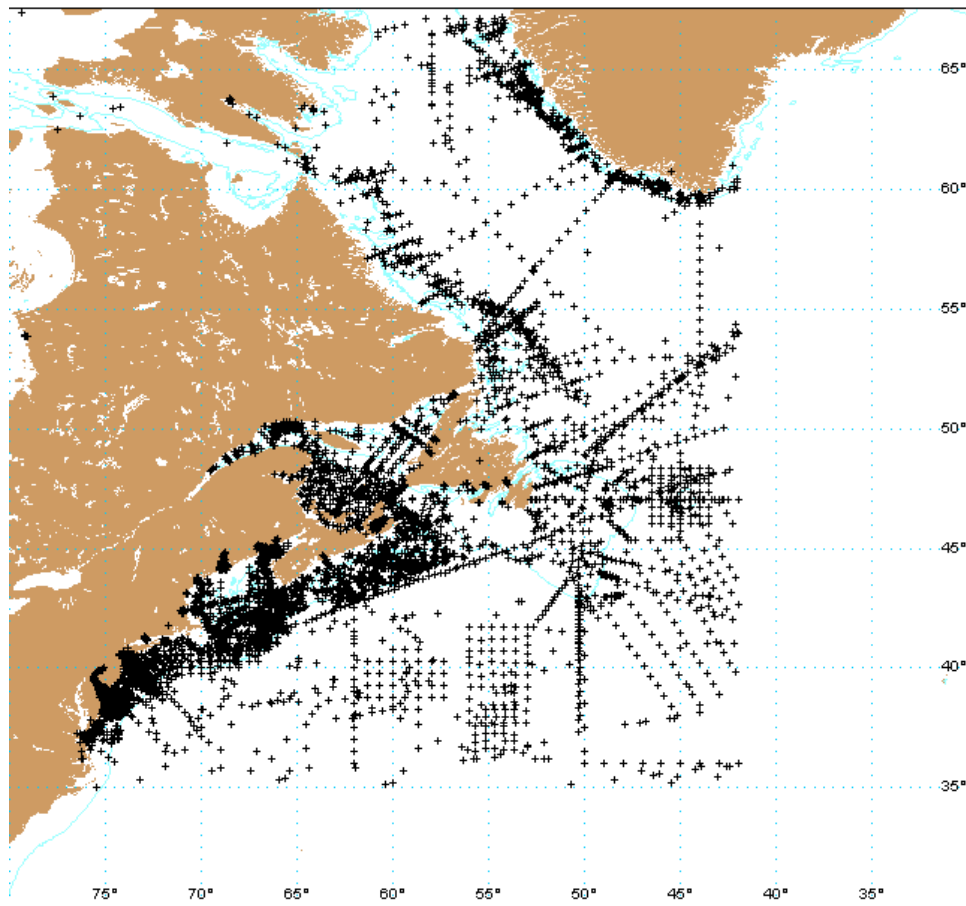
Country:

Germany

Walther Herwig III 1 2001/06/17-  
2001/07/12 E. Bethke 28 CTD T,S**Table 4b Profile data collected in 2001, received at MEDS but not yet processed**

| MEDS CRUISE | STATIONS |
|-------------|----------|
| 18S601002   | 47       |
| 18TR01004   | 49       |
| 18HL01002   | 350      |
| 18FN01001   | 9        |
| 18VQ01004   | 19       |

**Table 4c Profile data collected prior to 2001 and processed during the past year**



**TOTAL = 18006 profiles**

| <b>Unique ID</b> | <b>Year</b> | <b>BT</b> | <b>CTD</b> | <b>BOT</b> | <b>NAFO Sub-area</b> |
|------------------|-------------|-----------|------------|------------|----------------------|
| 18ZS36005        | 1916        | 0         | 15         | 0          | 4X,4W                |
| 180300625        | 1924        | 0         | 0          | 29         | 4X                   |
| 180324012        | 1926        | 0         | 12         | 0          | 4X                   |
| 180326018        | 1927        | 0         | 12         | 0          | 4X                   |
| 180327019        | 1928        | 0         | 12         | 0          | 4X                   |
| 180328020        | 1929        | 0         | 12         | 0          | 4X                   |
| 180329021        | 1930        | 0         | 12         | 0          | 4X                   |
| 180330026        | 1930        | 0         | 1          | 0          | 4X                   |
| 180331001        | 1931        | 0         | 23         | 0          | 4T                   |
| 180331531        | 1932        | 0         | 9          | 0          | 4W                   |
| 180332001        | 1932        | 0         | 40         | 0          | 4X                   |
| 180332002        | 1932        | 0         | 27         | 0          | 4T                   |
| 180332531        | 1933        | 0         | 28         | 0          | 4W                   |
| 180333001        | 1933        | 0         | 51         | 0          | 4X                   |
| 180333531        | 1934        | 0         | 24         | 0          | 4W                   |
| 180334001        | 1934        | 0         | 49         | 0          | 4X                   |
| 180334531        | 1935        | 0         | 18         | 0          | 4W                   |
| 180335001        | 1935        | 0         | 49         | 0          | 4X                   |
| 180335531        | 1936        | 0         | 2          | 0          | 4W                   |
| 180336001        | 1936        | 0         | 43         | 0          | 4X                   |

|           |      |   |     |    |          |
|-----------|------|---|-----|----|----------|
| 180336057 | 1936 | 0 | 11  | 0  | 4X       |
| 180336058 | 1936 | 0 | 64  | 0  | 4X,4W,1F |
| 18PA99024 | 1936 | 0 | 0   | 1  | 4X       |
| 18PN36002 | 1936 | 0 | 1   | 0  | 4W       |
| 18WA75700 | 1936 | 0 | 0   | 1  | XX       |
| 18ZS36001 | 1936 | 0 | 6   | 0  | 4X       |
| 18ZS36002 | 1936 | 0 | 9   | 0  | 4V       |
| 18ZS36003 | 1936 | 0 | 6   | 0  | 4W       |
| 18ZS36004 | 1936 | 0 | 1   | 0  | 3O       |
| 180336059 | 1937 | 0 | 1   | 0  | XX       |
| 180337001 | 1937 | 0 | 47  | 0  | 4X       |
| 180337060 | 1938 | 0 | 11  | 0  | 4X       |
| 180338001 | 1939 | 0 | 43  | 0  | 4X       |
| 180339001 | 1939 | 0 | 38  | 0  | 4X       |
| 318N59002 | 1951 | 0 | 2   | 0  | 6B       |
| 319C51001 | 1951 | 0 | 1   | 0  | 6B       |
| 319C51002 | 1951 | 0 | 2   | 0  | 6B       |
| 319C51003 | 1951 | 0 | 16  | 0  | 6B       |
| 319C51004 | 1951 | 0 | 73  | 0  | 6B       |
| 319C51005 | 1951 | 0 | 175 | 0  | 6B       |
| 319C51006 | 1951 | 0 | 61  | 0  | 6B       |
| 319C51007 | 1951 | 0 | 204 | 0  | 6B       |
| 319C51008 | 1951 | 0 | 211 | 0  | 6B       |
| 319C51009 | 1951 | 0 | 195 | 0  | 6B       |
| 319C51010 | 1951 | 0 | 38  | 0  | 6B       |
| 319C51011 | 1951 | 0 | 56  | 0  | 6B       |
| 319C51012 | 1951 | 0 | 43  | 0  | 6B       |
| 319C51013 | 1951 | 0 | 16  | 0  | 6B       |
| 319C51014 | 1951 | 0 | 168 | 0  | 6B       |
| 32JO78002 | 1951 | 0 | 37  | 0  | 6A       |
| 319C51015 | 1952 | 0 | 102 | 0  | 6B       |
| 319C52001 | 1952 | 0 | 24  | 0  | 6B       |
| 319C52002 | 1952 | 0 | 163 | 0  | 6B       |
| 31RU00007 | 1952 | 0 | 0   | 17 | 6C,6B    |
| 32NE51001 | 1952 | 0 | 351 | 0  | 6B       |
| 32NE52001 | 1952 | 0 | 107 | 0  | 6B       |
| 32NE52002 | 1952 | 0 | 226 | 0  | 6B       |
| 32NE52003 | 1952 | 0 | 19  | 0  | 6B       |
| 32NE52004 | 1952 | 0 | 6   | 0  | 6B       |
| 32NE52005 | 1952 | 0 | 144 | 0  | 6B       |
| 32NE52006 | 1952 | 0 | 199 | 0  | 6B       |
| 32NE52007 | 1952 | 1 | 71  | 0  | 6B       |
| 32NE52008 | 1952 | 0 | 30  | 0  | 6B       |
| 32NE52009 | 1952 | 0 | 18  | 0  | 6B       |
| 318255001 | 1954 | 0 | 5   | 0  | 6B       |
| 318I54001 | 1954 | 0 | 44  | 0  | 6B       |
| 318L74007 | 1954 | 0 | 27  | 0  | 6A       |
| 317J74004 | 1955 | 0 | 112 | 0  | 6A       |
| 318I54002 | 1955 | 0 | 7   | 0  | 6B       |
| 318I55001 | 1955 | 0 | 44  | 0  | 6B       |
| 318I55002 | 1955 | 0 | 16  | 0  | 6B       |
| 318N54001 | 1955 | 0 | 35  | 0  | 6B       |
| 318N55001 | 1955 | 0 | 37  | 0  | 6B       |
| 318I55003 | 1956 | 0 | 13  | 0  | 6B       |
| 318I56001 | 1956 | 0 | 11  | 0  | 6B       |
| 318I56002 | 1956 | 0 | 45  | 0  | 6B       |



|           |      |     |    |     |                                              |
|-----------|------|-----|----|-----|----------------------------------------------|
| 318N55002 | 1956 | 0   | 31 | 0   | 6B                                           |
| 318N56001 | 1956 | 0   | 31 | 0   | 6B                                           |
| 318N56002 | 1957 | 0   | 31 | 0   | 6B                                           |
| 318N57001 | 1957 | 0   | 35 | 0   | 6B                                           |
| 318I56003 | 1958 | 0   | 11 | 0   | 6B                                           |
| 318I58001 | 1958 | 0   | 15 | 0   | 6B                                           |
| 318N57002 | 1958 | 0   | 31 | 0   | 6B                                           |
| 318N58001 | 1958 | 0   | 23 | 0   | 6B                                           |
| 318N58002 | 1958 | 0   | 19 | 0   | 6B                                           |
| 318N58003 | 1958 | 0   | 7  | 0   | 6B                                           |
| 06FI78055 | 1959 | 18  | 0  | 0   | 2J,3M,3K,1F,3L                               |
| 06GA00720 | 1959 | 0   | 93 | 0   | 1A                                           |
| 318N58004 | 1959 | 0   | 23 | 0   | 6B                                           |
| 318N59001 | 1959 | 0   | 21 | 0   | 6B                                           |
| 31M782003 | 1961 | 0   | 0  | 146 | 6A,5Z,6C,6B                                  |
| 31KE81002 | 1962 | 0   | 0  | 48  | 6C,6A,6B                                     |
| 31PF61001 | 1962 | 0   | 4  | 0   | 6B                                           |
| 31PF62001 | 1963 | 0   | 25 | 0   | 6B,6C                                        |
| 31PF63001 | 1963 | 0   | 51 | 0   | 6B                                           |
| 69983001  | 1965 | 1   | 0  | 0   | 6H                                           |
| 06AD01870 | 1965 | 0   | 29 | 0   | 1B,3P,5Y,5Z,4X,2J,3K,1C,XX,2G,4V,2H          |
| 06AD65088 | 1966 | 53  | 0  | 0   | 2J,2H,1D,2G,3K,1E,1C                         |
| 06WH01650 | 1966 | 0   | 47 | 0   | 1F,XX,1C,1E,1D                               |
| 180486001 | 1967 | 0   | 13 | 0   | XX                                           |
| 06WH66013 | 1967 | 88  | 0  | 0   | 4V,2H,4W,3M,2J,3L,3P,3O                      |
| 06WH67021 | 1968 | 116 | 0  | 0   | 2H,1C,XX,2G,1B,2J,1E,1D,1F                   |
| 31W200002 | 1968 | 0   | 0  | 2   | 5Z                                           |
| 06WH68024 | 1969 | 132 | 0  | 0   | 1B,1C,1D,1E,XX,1F                            |
| 06WH69027 | 1969 | 108 | 0  | 0   | 5Z,3M,4V,4W,3O,3K,4X,3L,3P                   |
| 06WH69028 | 1969 | 64  | 0  | 0   | 2J,1D,1C,1E,1B,2H,2G                         |
| 18VA00022 | 1969 | 0   | 0  | 7   | 4X                                           |
| 06WH69031 | 1970 | 148 | 0  | 0   | 2J,1C,4V,1D,5Z,1F,2G,4X,4W,2H,1B,1E,XX,3P,3L |
| 06WH70032 | 1970 | 54  | 0  | 0   | 1D,2J,2H,1C,XX,2G,3K,1F                      |
| 18VA69001 | 1970 | 0   | 0  | 239 | 2J                                           |
| 318I58002 | 1970 | 0   | 29 | 0   | 6B                                           |
| 318L70001 | 1970 | 0   | 0  | 46  | 5Y                                           |
| 318L70002 | 1970 | 0   | 0  | 26  | 5Y                                           |
| 318L70003 | 1970 | 0   | 0  | 33  | 5Y                                           |
| 318L70004 | 1970 | 0   | 0  | 147 | 5Y                                           |
| 318L70005 | 1970 | 0   | 0  | 79  | 5Y                                           |
| 318L70006 | 1970 | 0   | 0  | 146 | 5Y                                           |
| 318L70007 | 1970 | 0   | 0  | 74  | 5Y                                           |
| 06WH70034 | 1971 | 232 | 0  | 0   | 5Z,5Y,4X,4W,6A                               |
| 18VA70001 | 1971 | 0   | 0  | 239 | 2J                                           |
| 06AD00580 | 1972 | 0   | 28 | 0   | 1D,2G,2J,3K,2H                               |
| 06AD66100 | 1972 | 35  | 0  | 0   | 1F,1D,1C                                     |
| 06WH71039 | 1972 | 157 | 0  | 0   | 5Z,5Y,1F,1E,2J,1D,4X,3K,XX                   |
| 18MF99014 | 1972 | 0   | 28 | 0   | 4T,4S,4R,4V                                  |
| 317576001 | 1973 | 0   | 17 | 17  | 6A                                           |
| 18NA72001 | 1973 | 0   | 0  | 93  | 4V,XX,4W                                     |
| 318L70008 | 1973 | 0   | 0  | 11  | 5Y                                           |
| 318L73001 | 1973 | 0   | 25 | 0   | 6A                                           |
| 318L73002 | 1973 | 0   | 25 | 0   | 6A                                           |
| 318L73003 | 1973 | 0   | 25 | 0   | 6A                                           |
| 318L73004 | 1973 | 0   | 25 | 0   | 6A                                           |
| 269916001 | 1974 | 0   | 25 | 0   | 1A                                           |

|           |      |     |     |     |                                              |
|-----------|------|-----|-----|-----|----------------------------------------------|
| 317574001 | 1974 | 0   | 28  | 51  | 6A,5Z,6B                                     |
| 06AD72165 | 1974 | 219 | 0   | 0   | 2J,5Z,1C,4X,3P,5Y,2G,1F,2H,3K,1B,1E,1D,4V,XX |
| 18CN96043 | 1974 | 0   | 0   | 14  | 4T                                           |
| 18NA73001 | 1974 | 0   | 0   | 117 | 4V,XX,4W                                     |
| 18NE00966 | 1974 | 0   | 0   | 120 | 4W,4V                                        |
| 317J73001 | 1974 | 0   | 58  | 0   | 6A                                           |
| 317J74001 | 1974 | 0   | 60  | 0   | 6A                                           |
| 317J74002 | 1974 | 0   | 62  | 0   | 6A                                           |
| 317J74003 | 1974 | 0   | 89  | 0   | 6A                                           |
| 318L73005 | 1974 | 0   | 25  | 0   | 6A                                           |
| 318L74001 | 1974 | 0   | 26  | 0   | 6A                                           |
| 318L74002 | 1974 | 0   | 22  | 0   | 6A                                           |
| 318L74003 | 1974 | 0   | 27  | 0   | 6A                                           |
| 318L74004 | 1974 | 0   | 26  | 0   | 6A                                           |
| 318L74005 | 1974 | 0   | 26  | 0   | 6A                                           |
| 318L74006 | 1974 | 0   | 27  | 0   | 6A                                           |
| 180567008 | 1975 | 3   | 0   | 0   | 2J                                           |
| 181183009 | 1975 | 0   | 4   | 0   | XX                                           |
| 189900008 | 1975 | 0   | 0   | 14  | 3P                                           |
| 317574002 | 1975 | 0   | 31  | 31  | 6A,6B,5Z                                     |
| 317575001 | 1975 | 0   | 76  | 76  | 6A                                           |
| 06AD74178 | 1975 | 42  | 0   | 0   | 2J,1F                                        |
| 06AD85262 | 1975 | 21  | 0   | 0   | 3M,2J,3L                                     |
| 06GA59001 | 1975 | 287 | 0   | 0   | 1A                                           |
| 06WH72042 | 1975 | 39  | 0   | 0   | 3P,4V,3O                                     |
| 18AH75001 | 1975 | 0   | 7   | 0   | 4R,3K,2H,2J                                  |
| 18AO75001 | 1975 | 0   | 12  | 0   | 3L,4V,3O                                     |
| 18AQ75001 | 1975 | 0   | 4   | 0   | 3M,3L,3O                                     |
| 18DA74038 | 1975 | 0   | 56  | 0   | 4S,4R,4T,3K,3P,4V                            |
| 18DA75027 | 1975 | 0   | 4   | 0   | 4W                                           |
| 18DA75033 | 1975 | 0   | 3   | 0   | 4X,4W,6E                                     |
| 18FL92016 | 1975 | 0   | 0   | 82  | 4S                                           |
| 18HU00062 | 1975 | 0   | 76  | 0   | 4S,4T,4V,4R                                  |
| 18HU75006 | 1975 | 0   | 3   | 0   | 4X,6E                                        |
| 18HU75008 | 1975 | 0   | 17  | 0   | 3L,3M                                        |
| 18HU99053 | 1975 | 0   | 65  | 65  | 4S,4R,4T,4V                                  |
| 18PZ96013 | 1975 | 0   | 0   | 25  | 4V,4R                                        |
| 18QU75044 | 1975 | 2   | 0   | 0   | XX                                           |
| 18S275001 | 1975 | 0   | 4   | 0   | 3K,4V,2J                                     |
| 18VA99026 | 1975 | 0   | 0   | 24  | 4T                                           |
| 31A481004 | 1975 | 0   | 0   | 49  | 5Z,6A,6B                                     |
| 31KE75001 | 1975 | 0   | 48  | 48  | 6A                                           |
| 31KE75002 | 1975 | 0   | 54  | 54  | 6A                                           |
| 31KE75003 | 1975 | 0   | 55  | 55  | 6A                                           |
| 31WH00004 | 1975 | 0   | 0   | 2   | 6B                                           |
| 317575002 | 1976 | 0   | 28  | 28  | 6A                                           |
| 31KE75004 | 1976 | 0   | 51  | 51  | 6A                                           |
| 31KE76001 | 1976 | 0   | 47  | 47  | 6A                                           |
| 31KE76002 | 1976 | 0   | 80  | 80  | 6A                                           |
| 74NO98006 | 1976 | 3   | 0   | 0   | 6D                                           |
| 06AD75187 | 1977 | 118 | 0   | 0   | 4X,5Z,5Y                                     |
| 31KE76003 | 1977 | 0   | 38  | 38  | 6A                                           |
| 31KE77001 | 1977 | 0   | 79  | 0   | 6A,6B                                        |
| 31KE77002 | 1977 | 0   | 100 | 0   | 6A,6B                                        |
| 31KE77003 | 1977 | 0   | 51  | 0   | 6A,6B                                        |
| 31KE77004 | 1977 | 0   | 88  | 0   | 6A,6B                                        |

|           |      |     |     |     |                               |
|-----------|------|-----|-----|-----|-------------------------------|
| 32OD99011 | 1977 | 23  | 0   | 0   | 6A,6B,6D                      |
| 32OP77001 | 1977 | 9   | 0   | 0   | 6A,6B                         |
| 32P977001 | 1977 | 11  | 0   | 0   | 6A,6B                         |
| 32RU77001 | 1977 | 0   | 0   | 10  | 6A,6B                         |
| 32RU77002 | 1977 | 0   | 0   | 11  | 6A,6B                         |
| 32RU77003 | 1977 | 11  | 0   | 0   | 6B,6A                         |
| 90BE76003 | 1977 | 0   | 50  | 0   | 5Z                            |
| 180399602 | 1978 | 0   | 0   | 13  | 4X                            |
| 180478001 | 1978 | 0   | 29  | 0   | XX                            |
| 06AD77202 | 1978 | 35  | 0   | 0   | 5Z,4X,5Y                      |
| 06DA02320 | 1978 | 0   | 51  | 0   | 5Z,4X,5Y                      |
| 06DA78208 | 1978 | 0   | 7   | 0   | 5Z                            |
| 31KE77005 | 1978 | 0   | 53  | 0   | 6A                            |
| 31KE78001 | 1978 | 0   | 92  | 0   | 6B,6A                         |
| 31KE78002 | 1978 | 0   | 103 | 0   | 6A,6B                         |
| 31KE78003 | 1978 | 0   | 112 | 0   | 6A,6B                         |
| 32AD75001 | 1978 | 0   | 35  | 0   | 6A                            |
| 32JO78001 | 1978 | 0   | 11  | 0   | 6A                            |
| 90P377017 | 1978 | 0   | 35  | 0   | 2H,2J,3M,3K                   |
| 90PH77016 | 1978 | 0   | 292 | 0   | 3M,3N,3O,3L,3K,XX,6G          |
| 90PH78015 | 1978 | 0   | 40  | 0   | 3K,3L,3O,3N,2J                |
| 180478002 | 1979 | 0   | 17  | 0   | 0B,XX                         |
| 180479001 | 1979 | 0   | 29  | 0   | XX                            |
| 06WH75064 | 1979 | 55  | 0   | 0   | 1E,1D,1F,1C,XX                |
| 18BA75011 | 1979 | 0   | 25  | 0   | 4W,XX,4S,2H,4V,2J,2G,4T,4R,3K |
| 31KE78004 | 1979 | 0   | 112 | 0   | 6A,6B                         |
| 31KE79001 | 1979 | 0   | 0   | 101 | 6A,6B                         |
| 31KE79002 | 1979 | 0   | 0   | 100 | 6A,6B                         |
| 31KE79003 | 1979 | 0   | 0   | 126 | 6A,6B                         |
| 69965001  | 1980 | 61  | 0   | 0   | 3M,3K,2H,2G,3L,2J,1C,0B,1A,1B |
| 06WH79078 | 1980 | 13  | 0   | 0   | 1E,1C,1F,1D                   |
| 18VA71001 | 1980 | 0   | 0   | 261 | 2J                            |
| 31KE79004 | 1980 | 0   | 0   | 133 | 6A,6B                         |
| 31KE80001 | 1980 | 0   | 0   | 45  | 6A,6B                         |
| 31KE80002 | 1980 | 0   | 0   | 46  | 6A,6B                         |
| 31KE80003 | 1980 | 0   | 0   | 46  | 6A,6B                         |
| 180479002 | 1981 | 0   | 12  | 0   | XX,0B                         |
| 319C52003 | 1981 | 0   | 128 | 0   | 6B                            |
| 31KE80004 | 1981 | 0   | 0   | 44  | 6A,6B                         |
| 31LN62001 | 1981 | 0   | 6   | 0   | 6B                            |
| 06WH80085 | 1982 | 12  | 0   | 0   | 1B,1E,1F,1C,1D                |
| 18VA80001 | 1982 | 0   | 27  | 0   | XX                            |
| 31M781001 | 1982 | 0   | 0   | 57  | 6A,6B,6C                      |
| 31M782001 | 1982 | 0   | 0   | 65  | 6B,6A,5Z,6C                   |
| 31M782002 | 1982 | 0   | 0   | 31  | 6A,6C,6B                      |
| 35LL89001 | 1982 | 0   | 0   | 52  | 4V,6F,6G,3O                   |
| 69980001  | 1983 | 5   | 0   | 0   | 1F                            |
| 180339066 | 1983 | 0   | 2   | 0   | 4X                            |
| 181075038 | 1983 | 0   | 2   | 0   | 4V,4W                         |
| 189001001 | 1983 | 0   | 32  | 0   | 4T,4S                         |
| 06AD78208 | 1983 | 222 | 0   | 0   | 5Z,4V,3L,3M,4W,4X,3P,3O,3N,5Y |
| 18HU75009 | 1983 | 0   | 31  | 0   | 1E,2G,4R,3K,1F,0B,1D          |
| 18HU83009 | 1983 | 0   | 0   | 39  | 4V,6F,6E,4W                   |
| 18LA75001 | 1983 | 0   | 10  | 0   | 0B,2H,2J,1A,2G,4R,0A          |
| 18VA82001 | 1983 | 0   | 23  | 0   | XX                            |
| 31PF63002 | 1983 | 0   | 32  | 0   | 6B                            |

|           |      |    |     |     |                                     |
|-----------|------|----|-----|-----|-------------------------------------|
| 180383600 | 1984 | 0  | 9   | 0   | 4X                                  |
| 180481001 | 1984 | 0  | 24  | 0   | XX                                  |
| 18LH83005 | 1984 | 0  | 32  | 0   | 4X                                  |
| 180384600 | 1985 | 0  | 9   | 0   | 4X                                  |
| 180385600 | 1985 | 0  | 12  | 0   | 4X                                  |
| 180484001 | 1985 | 0  | 13  | 0   | XX                                  |
| 06AD83247 | 1985 | 15 | 0   | 0   | 3L,3K,3M                            |
| 18LH84006 | 1985 | 0  | 0   | 79  | 4X,5Z                               |
| 18LH85005 | 1985 | 0  | 0   | 53  | 4X,5Z                               |
| 180385601 | 1986 | 0  | 12  | 0   | 4X                                  |
| 180386600 | 1986 | 0  | 12  | 0   | 4X                                  |
| 180485001 | 1986 | 0  | 15  | 0   | XX                                  |
| 180386601 | 1987 | 0  | 11  | 0   | 4X                                  |
| 180387600 | 1987 | 0  | 12  | 0   | 4X                                  |
| 180387601 | 1988 | 0  | 12  | 0   | 4X                                  |
| 180388600 | 1988 | 0  | 12  | 0   | 4X                                  |
| 33SE00005 | 1988 | 2  | 0   | 0   | 6B                                  |
| 180388601 | 1989 | 0  | 12  | 0   | 4X                                  |
| 180389600 | 1989 | 0  | 11  | 0   | 4X                                  |
| 35LL88001 | 1989 | 0  | 0   | 36  | 6G,6F,4V                            |
| 180389601 | 1990 | 0  | 11  | 0   | 4X                                  |
| 180390600 | 1990 | 0  | 10  | 2   | 4X                                  |
| 180391600 | 1990 | 0  | 0   | 12  | 4X                                  |
| 18FR75008 | 1990 | 0  | 10  | 0   | 3L,2J,4W,3P,3K                      |
| 18HU83023 | 1990 | 0  | 0   | 23  | 1E,1A,2G,0A,1B,2H,1D                |
| 180390601 | 1991 | 0  | 10  | 2   | 4X                                  |
| 180391601 | 1992 | 0  | 0   | 12  | 4X                                  |
| 180392600 | 1992 | 0  | 0   | 12  | 4X                                  |
| 18DE97008 | 1992 | 0  | 0   | 0   | 4T                                  |
| 180392601 | 1993 | 0  | 0   | 12  | 4X                                  |
| 180393600 | 1993 | 0  | 0   | 12  | 4X                                  |
| 180393601 | 1994 | 0  | 0   | 12  | 4X                                  |
| 180394600 | 1994 | 0  | 0   | 11  | 4X                                  |
| 180394601 | 1995 | 0  | 0   | 11  | 4X                                  |
| 180395600 | 1995 | 0  | 0   | 12  | 4X                                  |
| 18CN79001 | 1995 | 0  | 8   | 0   | 0B                                  |
| 18CN95035 | 1995 | 0  | 0   | 17  | 4T                                  |
| 180395601 | 1996 | 0  | 0   | 12  | 4X                                  |
| 180396600 | 1996 | 0  | 0   | 11  | 4X                                  |
| 18CN95036 | 1996 | 0  | 0   | 9   | 4T                                  |
| 18CN96016 | 1996 | 0  | 0   | 18  | 4V                                  |
| 18CN96036 | 1996 | 0  | 0   | 1   | 4S                                  |
| 18CN96037 | 1996 | 0  | 0   | 33  | 4T                                  |
| 18PN36003 | 1996 | 0  | 43  | 0   | 4X                                  |
| 180396601 | 1997 | 0  | 0   | 11  | 4X                                  |
| 180397600 | 1997 | 0  | 0   | 14  | 4X                                  |
| 18DA75036 | 1997 | 0  | 7   | 0   | 4X,4W                               |
| 18HU90037 | 1997 | 0  | 0   | 38  | 3N,6G,3M,XX                         |
| 180397601 | 1998 | 0  | 0   | 14  | 4X                                  |
| 180398600 | 1998 | 0  | 0   | 21  | 4X                                  |
| 18GE90006 | 1998 | 0  | 0   | 3   | 4S                                  |
| 18HU97009 | 1998 | 0  | 0   | 136 | 1E,1F,2J,3K,2H,4W,1D,4X,4V,2G,3L,XX |
| 18MF00024 | 1998 | 0  | 107 | 0   | 4R,4T,4V,4S                         |
| 18VA83001 | 1998 | 0  | 8   | 0   | XX                                  |
| 18VA98018 | 1998 | 0  | 0   | 10  | 4T                                  |
| 18VA98019 | 1998 | 0  | 0   | 20  | 4T                                  |

|           |      |    |     |    |                            |
|-----------|------|----|-----|----|----------------------------|
| 18VA98020 | 1998 | 0  | 0   | 17 | 4T                         |
| 18VA98021 | 1998 | 0  | 0   | 17 | 4T                         |
| 33EN00010 | 1998 | 10 | 0   | 0  | 6E,6G,6F,5Z,6H             |
| 33EN98003 | 1998 | 8  | 0   | 0  | 6C,3M,6G,6D,6E             |
| 33EN98004 | 1998 | 30 | 0   | 0  | 4W,3N,4X,4V,3O,3M,6A,5Z    |
| 33EN98005 | 1998 | 14 | 0   | 0  | 6H,6F,6G,6E                |
| 49K682001 | 1998 | 86 | 55  | 0  | 6D,5Z,6E,4W,4V,6C,6B,4X    |
| 74NO98004 | 1998 | 4  | 0   | 0  | 6D,5Z                      |
| 74NO98005 | 1998 | 4  | 0   | 0  | 6D                         |
| 90PH78017 | 1998 | 0  | 383 | 0  | 3N,3M,3K,3L,6G,XX,2J,3O,2H |
| AGHA98014 | 1998 | 8  | 0   | 0  | 3K,3L,XX                   |
| AGHA98015 | 1998 | 7  | 0   | 0  | 3L,3K,1F,XX                |
| AGHA98016 | 1998 | 7  | 0   | 0  | XX,3K,2J                   |
| AGHA98017 | 1998 | 5  | 0   | 0  | XX,3K,3M                   |
| AGHA98018 | 1998 | 5  | 0   | 0  | 3K,3L,XX,1F                |
| 180398601 | 1999 | 0  | 0   | 21 | 4X                         |
| 180399601 | 1999 | 0  | 0   | 20 | 4X                         |
| 18HT98051 | 1999 | 0  | 0   | 31 | 4X                         |
| 18HU98023 | 1999 | 0  | 0   | 43 | 1F,2H,4W,4R,2J,4X          |
| 18MF98014 | 1999 | 0  | 22  | 0  | 4S,4R,4T,4V                |
| 18PA00023 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99001 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99002 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99003 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99004 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99005 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99006 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99007 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99008 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99009 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99011 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99012 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99013 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99014 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99015 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99017 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99018 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99019 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99021 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99022 | 1999 | 0  | 0   | 1  | 4X                         |
| 18PA99023 | 1999 | 0  | 0   | 1  | 4X                         |
| 18VA98022 | 1999 | 0  | 0   | 20 | 4T                         |
| 18VA99021 | 1999 | 0  | 0   | 11 | 4X                         |
| 18VA99022 | 1999 | 0  | 0   | 56 | 4T                         |
| 18VA99023 | 1999 | 0  | 0   | 19 | 4X                         |
| 18VA99024 | 1999 | 0  | 0   | 8  | 4T                         |
| 18VA99025 | 1999 | 0  | 0   | 34 | 4X,5Y                      |
| 32NE52010 | 1999 | 0  | 6   | 0  | 6B                         |
| 180300601 | 2000 | 0  | 0   | 21 | 4X                         |
| 180300602 | 2000 | 0  | 0   | 23 | 4X                         |
| 180300603 | 2000 | 0  | 0   | 28 | 4X                         |
| 180300615 | 2000 | 0  | 0   | 29 | 4X                         |
| 180300616 | 2000 | 0  | 0   | 30 | 4X                         |
| 180300617 | 2000 | 0  | 0   | 29 | 4X                         |
| 181875008 | 2000 | 1  | 0   | 0  | 2J                         |
| 189000001 | 2000 | 0  | 30  | 0  | 4T,4S                      |

|           |      |   |     |     |                   |
|-----------|------|---|-----|-----|-------------------|
| 189183070 | 2000 | 0 | 0   | 4   | XX                |
| 189900002 | 2000 | 0 | 0   | 11  | 3P                |
| 189900003 | 2000 | 0 | 0   | 9   | 3P                |
| 189900004 | 2000 | 0 | 0   | 23  | 3P                |
| 189900005 | 2000 | 0 | 0   | 5   | 3P                |
| 189900006 | 2000 | 0 | 0   | 10  | 3P                |
| 189900007 | 2000 | 0 | 0   | 13  | 3P                |
| 06WH82099 | 2000 | 2 | 0   | 0   | XX                |
| 181C00014 | 2000 | 0 | 1   | 0   | 3L                |
| 18HT99027 | 2000 | 0 | 0   | 1   | 4X                |
| 18HU00001 | 2000 | 0 | 88  | 0   | 3L,3K,3M,3N,3O    |
| 18HU00020 | 2000 | 0 | 0   | 84  | 4V,4W,3L          |
| 18LH85006 | 2000 | 0 | 0   | 65  | 4X,5Z             |
| 18NA74001 | 2000 | 0 | 0   | 141 | XX,4V,4W          |
| 18NE00026 | 2000 | 0 | 101 | 0   | 4X,4W,5Y,5Z       |
| 18NE00031 | 2000 | 0 | 121 | 0   | 4V,4W             |
| 18NE00045 | 2000 | 0 | 200 | 0   | 4T,4V             |
| 18NE00426 | 2000 | 0 | 0   | 97  | 4X,4W,5Z,5Y       |
| 18NE00431 | 2000 | 0 | 0   | 119 | 4V,4W             |
| 18NE00965 | 2000 | 0 | 0   | 46  | 5Z                |
| 18NR74001 | 2000 | 0 | 13  | 0   | XX                |
| 18PA00001 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00002 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00003 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00004 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00005 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00006 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00007 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00008 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00009 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00010 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00011 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00012 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00013 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00014 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00015 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00016 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00017 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00018 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00019 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00020 | 2000 | 0 | 0   | 1   | 4X                |
| 18PA00021 | 2000 | 0 | 0   | 1   | 4X                |
| 18S275025 | 2000 | 0 | 5   | 0   | 3O,3N,4V,3P       |
| 18TL00002 | 2000 | 0 | 69  | 0   | 3O,3L,3M,3K,3N    |
| 18TL00007 | 2000 | 0 | 110 | 0   | 3L,3K,2J,3M,2H,2G |
| 18TL00015 | 2000 | 0 | 1   | 0   | 3L                |
| 18VA00002 | 2000 | 0 | 0   | 1   | 4X                |
| 18VA00003 | 2000 | 0 | 1   | 0   | 3L                |
| 18VA00004 | 2000 | 0 | 1   | 0   | 3L                |
| 18VA00005 | 2000 | 0 | 1   | 0   | 3L                |
| 18VA00006 | 2000 | 0 | 1   | 0   | 3L                |
| 18VA00007 | 2000 | 0 | 1   | 0   | 3L                |
| 18VA00008 | 2000 | 0 | 1   | 0   | 3L                |
| 18VA00009 | 2000 | 0 | 1   | 0   | 3L                |
| 18VA00010 | 2000 | 0 | 1   | 0   | 3L                |
| 18VA00011 | 2000 | 0 | 1   | 0   | 3L                |

|           |      |    |     |    |                   |
|-----------|------|----|-----|----|-------------------|
| 18VA00014 | 2000 | 0  | 1   | 0  | 3L                |
| 18VA00016 | 2000 | 0  | 1   | 0  | 3L                |
| 18VA00017 | 2000 | 0  | 1   | 0  | 3L                |
| 18VA00018 | 2000 | 0  | 1   | 0  | 3L                |
| 18VA00020 | 2000 | 0  | 0   | 22 | 4X                |
| 18VA00021 | 2000 | 0  | 0   | 8  | 4X                |
| 31PP83001 | 2000 | 0  | 0   | 8  | 6C,6B             |
| 31RU00001 | 2000 | 0  | 0   | 50 | 5Z,6C,6B          |
| 31RU00002 | 2000 | 0  | 0   | 61 | 5Z,XX             |
| 31RU00003 | 2000 | 0  | 0   | 17 | 6A,XX             |
| 31RU00004 | 2000 | 0  | 0   | 40 | 6A                |
| 31RU00005 | 2000 | 0  | 0   | 99 | 6A,5Z             |
| 31RU00006 | 2000 | 0  | 0   | 74 | 6A                |
| 31SN52001 | 2000 | 0  | 198 | 0  | 6B                |
| 31W100001 | 2000 | 0  | 0   | 12 | 6B                |
| 31W100002 | 2000 | 0  | 0   | 5  | 6B                |
| 31W100003 | 2000 | 0  | 0   | 2  | 6B                |
| 31W100004 | 2000 | 0  | 0   | 4  | 5Z                |
| 31W100005 | 2000 | 0  | 0   | 13 | 5Z                |
| 31W100006 | 2000 | 0  | 0   | 49 | 5Z                |
| 31W100007 | 2000 | 0  | 0   | 4  | 5Z                |
| 31W200001 | 2000 | 0  | 0   | 1  | 5Z                |
| 31WE13140 | 2000 | 0  | 1   | 0  | 1B                |
| 31WH00001 | 2000 | 0  | 0   | 1  | XX                |
| 31WH00002 | 2000 | 0  | 0   | 2  | 6B                |
| 31WH00003 | 2000 | 0  | 0   | 2  | 6B                |
| 32RU77004 | 2000 | 10 | 0   | 0  | 6A,6B             |
| 32UU00001 | 2000 | 9  | 0   | 0  | 4W,6B,4V          |
| 32UU00002 | 2000 | 9  | 0   | 0  | 4V,6F,3N,3O       |
| 33DB00001 | 2000 | 6  | 0   | 0  | 6H,XX,6G          |
| 33EN00008 | 2000 | 4  | 0   | 0  | 6H,XX             |
| 33EN00009 | 2000 | 12 | 0   | 0  | 6E,4V,3M,6F,3N,6D |
| 33EN98006 | 2000 | 8  | 0   | 0  | 6F,6E,6H,5Z       |
| 33N200001 | 2000 | 0  | 0   | 15 | 6A                |
| 33SE00004 | 2000 | 5  | 0   | 0  | 6B,6A,6C          |

**Table 5 Drifting Buoys in the NAFO Area in 2001**



**TOTAL = 6272 messages**

| BUOY  | DATE RANGE      | DAYS | SST | AP | AT | WS | WD | TC | NAFO Subarea |
|-------|-----------------|------|-----|----|----|----|----|----|--------------|
| 14601 | Jul-11 - Jul-13 | 2    | -   | X  | -  | -  | -  | -  | 4X           |
| 14603 | Jul-10 - Jul-10 | 1    | X   | -  | -  | -  | -  | -  | 4X           |
| 16051 | Aug-01 - Aug-05 | 4    | X   | X  | -  | -  | -  | -  | 6B           |
| 17532 | Aug-01 - Aug-07 | 6    | X   | X  | -  | -  | -  | -  | 6B           |
| 17537 | Jul-12 - Jul-13 | 2    | -   | X  | -  | -  | -  | -  | 4X           |
| 17541 | Jul-11 - Jul-12 | 2    | -   | X  | -  | -  | -  | -  | 4X           |
| 17543 | Jul-24 - Jul-25 | 1    | X   | X  | -  | -  | -  | -  | 5ZW          |





|       |                 |     |   |   |   |   |   |   |                           |
|-------|-----------------|-----|---|---|---|---|---|---|---------------------------|
| 44685 | Mar-16 - Apr-26 | 41  | - | - | - | - | - | - | 4T                        |
| 44686 | Mar-08 - Apr-08 | 31  | - | - | - | - | - | - | 4T                        |
| 44687 | Mar-17 - Apr-22 | 36  | - | - | - | - | - | - | 4T                        |
| 44688 | Mar-20 - Mar-20 | 1   | - | - | - | - | - | - | 4T                        |
| 44689 | Mar-20 - Apr-05 | 16  | - | - | - | - | - | - | 2J                        |
| 44691 | Mar-21 - Apr-08 | 19  | - | - | - | - | - | - | 2J                        |
| 44692 | Mar-21 - Apr-08 | 19  | - | - | - | - | - | - | 2J                        |
| 44693 | Mar-21 - Apr-08 | 19  | - | - | - | - | - | - | 2J                        |
| 44699 | Mar-21 - Apr-05 | 16  | - | - | - | - | - | - | 2J                        |
| 44702 | Apr-27 - Apr-27 | 1   | - | - | - | - | - | - | 4X                        |
| 44721 | Apr-09 - May-14 | 36  | X | X | X | - | - | - | 6H                        |
| 44723 | Sep-11 - Dec 31 | 112 | X | X | X | - | - | - | 3K,3L,3M                  |
| 44725 | Jan-01 - Jul-07 | 188 | X | X | X | - | - | - | 3M,3K,2J                  |
| 44728 | Oct-23 - Dec 31 | 70  | - | X | X | - | - | - | 3K,1F,2J                  |
| 44730 | Oct-23 - Nov-27 | 36  | - | X | X | - | - | - | 1F                        |
| 44741 | Apr-12 - May-09 | 27  | X | X | X | - | - | - | 1F                        |
| 44751 | Apr-28 - Oct-17 | 173 | - | - | - | - | - | - | 4X,4W,4VS,3PS,3O,3N,3M    |
| 44752 | Apr-28 - Oct-28 | 184 | - | - | - | - | - | - | 4X,4W,6E,4VS,3PS,3O       |
| 44753 | Apr-28 - Sep-13 | 139 | - | - | - | - | - | - | 4X,4W,4VS,3O,3N           |
| 44754 | Apr-27 - Oct-27 | 184 | - | - | - | - | - | - | 4X,4W,5ZE,6E,4VS,3O,3N,3M |
| 44755 | Apr-28 - Sep-25 | 151 | - | - | - | - | - | - | 4X,4W,4VS,3PS,3O,3N       |
| 44756 | May-07 - Sep-03 | 120 | - | - | - | - | - | - | 4W,4X,4VS,3PS,3O          |
| 44765 | Jan-01 - Feb-23 | 54  | - | X | X | - | - | - | 6G,6H                     |
| 44775 | Jan-01 - Aug-02 | 214 | X | X | X | - | - | - | 4W,4VS,3O,3N,3M,6H        |
| 44776 | Jan-01 - Mar-22 | 81  | X | X | X | - | - | - | 3N,3M,3K                  |
| 44778 | Jan-01 - Mar-08 | 67  | X | X | X | - | - | - | 4VS,6G,6H,3N,3M           |
| 44916 | Jun-01 - Jun-02 | 2   | X | X | - | - | - | - | 6H                        |
| 47555 | Jan-01 - Jan-10 | 10  | - | X | - | - | - | - | 0A,1B,1C                  |
| 47556 | Sep-17 - Dec 31 | 106 | - | X | - | - | - | - | 4X,0A                     |
| 48525 | Feb-24 - Feb-26 | 3   | - | X | X | - | - | - | 4X                        |
| 48581 | Jan-01 - Jun-07 | 158 | - | X | X | - | - | - | 0A,1A,1B,1C,0B,2G         |
| 48584 | Aug-11 - Sep-11 | 31  | - | X | - | - | - | - | 6B                        |
| 52526 | Mar-09 - Mar-12 | 3   | - | X | - | - | - | - | 4X                        |
| 52527 | Mar-09 - Mar-12 | 3   | - | X | - | - | - | - | 4X                        |
| 52528 | Mar-12 - Mar-14 | 2   | X | X | - | - | - | - | 4X                        |
| 52529 | Mar-10 - Mar-12 | 3   | X | X | - | - | - | - | 4X                        |
| 52532 | Mar-13 - Mar-14 | 1   | - | X | - | - | - | - | 4X                        |
| 52539 | Aug-28 - Sep-06 | 9   | - | X | - | - | - | - | 6B                        |
| 52640 | Aug-16 - Aug-23 | 8   | - | X | - | - | - | - | 6C                        |
| 52643 | Feb-07 - Feb-13 | 6   | - | X | - | X | X | - | 4X                        |
| 61542 | Jan-19 - Apr-02 | 74  | X | X | - | - | - | - | 5ZW                       |
| 61543 | Jan-19 - Apr-02 | 74  | X | X | - | - | - | - | 5ZW                       |
| 61544 | Jan-16 - Jan-24 | 9   | X | X | - | - | - | - | 5ZW                       |
| 61545 | Jan-16 - Jan-24 | 9   | X | X | - | - | - | - | 5ZW                       |
| 62761 | Jul-19 - Jul-19 | 1   | - | - | - | - | - | - | 4X                        |
| 62762 | Jul-18 - Jul-19 | 1   | X | X | - | - | - | X | 4X                        |
| 64548 | Apr-03 - Apr-03 | 1   | X | X | X | - | - | - | 1E                        |
| 64549 | Nov-02 - Nov-02 | 1   | X | X | X | - | - | - | 1F                        |
| 64699 | Jan-01 - Mar-02 | 61  | X | X | X | - | - | - | 2H,2J,1F                  |
| 65581 | Nov-09 - Nov-09 | 1   | X | X | X | - | - | - | 2G                        |
| 65595 | Mar-19 - Apr-25 | 38  | X | X | X | - | - | - | 1F                        |
| 65601 | Aug-20 - Aug-21 | 1   | - | X | - | - | - | - | 1F                        |
| 65662 | Jan-02 - Dec 09 | 342 | - | X | X | - | - | - | 1F,1E,0B,1D               |
| 65663 | Jan-01 - Apr-29 | 119 | X | X | X | - | - | - | 1F,4S                     |
| 74536 | Jul-31 - Aug-16 | 17  | - | X | - | - | - | - | 5ZW                       |

**Table 6a Current meter data recovered in the NAFO Area in 2001**

The following instruments have been recovered

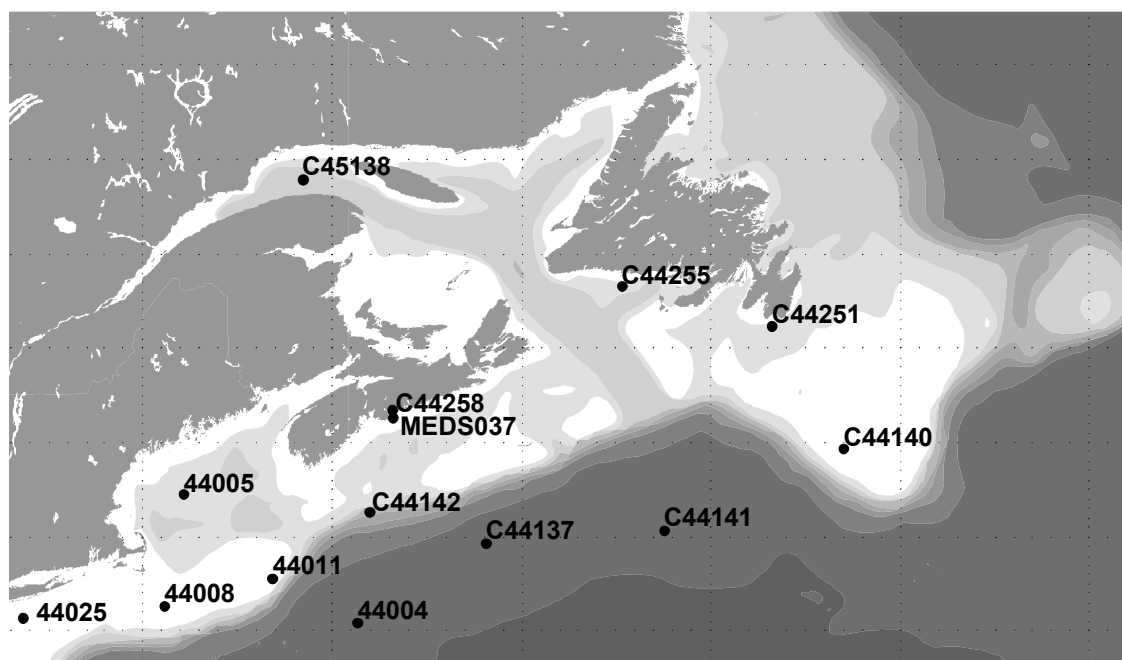
| Latitude (N) | Longitude (W) | Sounding Depth (meters) | Instrument Depth (meters) | Start Date     | End Date      | Mooring Number |
|--------------|---------------|-------------------------|---------------------------|----------------|---------------|----------------|
| 42.8497      | 61.6147       | 1113                    | 138                       | Nov 21, 2000   | May 31, 2001  | 1377           |
| "            | "             | "                       | 288                       | "              | "             | "              |
| "            | "             | "                       | 563                       | "              | "             | "              |
| "            | "             | "                       | 813                       | "              | "             | "              |
| "            | "             | "                       | 1089                      | "              | "             | "              |
| 42.8316      | 61.6516       | 1170                    | 335                       | May 31, 2001   | Oct. 20, 2001 | 1387           |
| "            | "             | "                       | 610                       | "              | "             | "              |
| "            | "             | "                       | 860                       | "              | "             | "              |
| "            | "             | "                       | 1145                      | "              | "             | "              |
| 42.6885      | 61.5506       | 1978                    | 528                       | June 1, 2001   | Oct. 20, 2001 | 1388           |
| "            | "             | "                       | 778                       | "              | "             | "              |
| "            | "             | "                       | 1036                      | "              | "             | "              |
| "            | "             | "                       | 1578                      | "              | "             | "              |
| "            | "             | "                       | 1954                      | "              | "             | "              |
| 45.1867      | 66.0023       | 38                      | 37                        | Sept. 20, 2001 | Nov. 6, 2001  | 1408           |
| 45.2117      | 66.0108       | 14.8                    | 13.8                      | Sept. 20, 2001 | Nov. 6, 2001  | 1409           |
| 46.1580      | 60.4721       | 255                     | 14                        | May 10, 2001   | Oct. 25, 2001 | 1392           |
| "            | "             | "                       | 55                        | "              | "             | "              |
| "            | "             | "                       | 105                       | "              | "             | "              |
| "            | "             | "                       | 255                       | "              | "             | "              |
| 45.9145      | 60.8436       | 64                      | 14                        | May 9, 2001    | Oct. 25, 2001 | 1393           |
| "            | "             | "                       | 30                        | "              | "             | "              |
| "            | "             | "                       | 55                        | "              | "             | "              |
| "            | "             | "                       | 64                        | "              | "             | "              |
| 46.2095      | 63.7568       | 21.4                    | 20.4                      | Dec. 15, 2000  | May 2, 2001   | 1382           |
| 46.2065      | 63.7593       | 21.4                    | 20                        | Dec. 15, 2000  | May 2, 2001   | 1383           |
| 44.2912      | 63.239        | 156                     | 89                        | Mar 30, 2001   | May 1, 2001   | 1389           |
| 46.1502      | 60.2151       | 13                      | 12                        | Oct. 3, 2000   | May 7, 2001   | 1369           |
| 74.112       | 90.9991       | 185                     | 171                       | Aug. 13, 2000  | Sept 24, 2001 | 1354           |
| 74.1180      | 90.9641       | 191                     | 80                        | Aug. 13, 2000  | Sept 24, 2001 | 1355           |
| 74.5449      | 90.3975       | 181                     | 161                       | Aug. 13, 2000  | Aug 27, 2001  | 1358           |
| 74.5351      | 90.4478       | 205                     | 84                        | Aug. 13, 2000  | Aug 27, 2001  | 1359           |
| 42.8316      | 61.6516       | 1176                    | 235                       | May 29, 2001   | May 31, 2001  | 1387           |
| 42.6885      | 61.5506       | 1978                    | 378                       | June 1, 2001   | Oct. 20, 2001 | 1388           |

**Table 6b Current meter data deployed in the NAFO Area in 2001**

The following instruments are still deployed

| Latitude (N) | Longitude (W) | Instrument Depth | Start Date    | Mooring Number |
|--------------|---------------|------------------|---------------|----------------|
| 55.1205      | 54.1238       | 1007 meters      | June 10, 2001 |                |
| 42.6885      | 61.5509       | 536 meters       | Oct. 21, 2001 | 1412           |
| “            | “             | 786 meters       | “             | “              |
| “            | “             | 1071 meters      | “             | “              |
| “            | “             | 1587 meters      | “             | “              |
| “            | “             | 1962 meters      | “             | “              |
| 42.9822      | 61.7498       | 313 meters       | Oct. 19, 2001 | 1413           |
| 42.9848      | 61.7480       | 131 meters       | Oct. 19, 2001 | 1414           |
| “            | “             | 206 meters       | “             | “              |
| “            | “             | 281 meters       | “             | “              |
| “            | “             | 296 meters       | “             | “              |
| 42.8479      | 61.6278       | 315 meters       | Oct. 21, 2001 | 1419           |
| “            | “             | 590 meters       | “             | “              |
| “            | “             | 840 meters       | “             | “              |
| “            | “             | 1125 meters      | “             | “              |
| 46.1572      | 60.4711       | 19 meters        | Oct. 26, 2001 | 1416           |
| “            | “             | 60 meters        | “             | “              |
| “            | “             | 110 meters       | “             | “              |
| 45.9131      | 60.8460       | 13 meters        | Oct. 25, 2001 | 1417           |
| “            | “             | 29 meters        | “             | “              |
| “            | “             | 52 meters        | “             | “              |
| 46.0922      | 60.6813       | 66 meters        | Oct. 24, 2001 | 1418           |

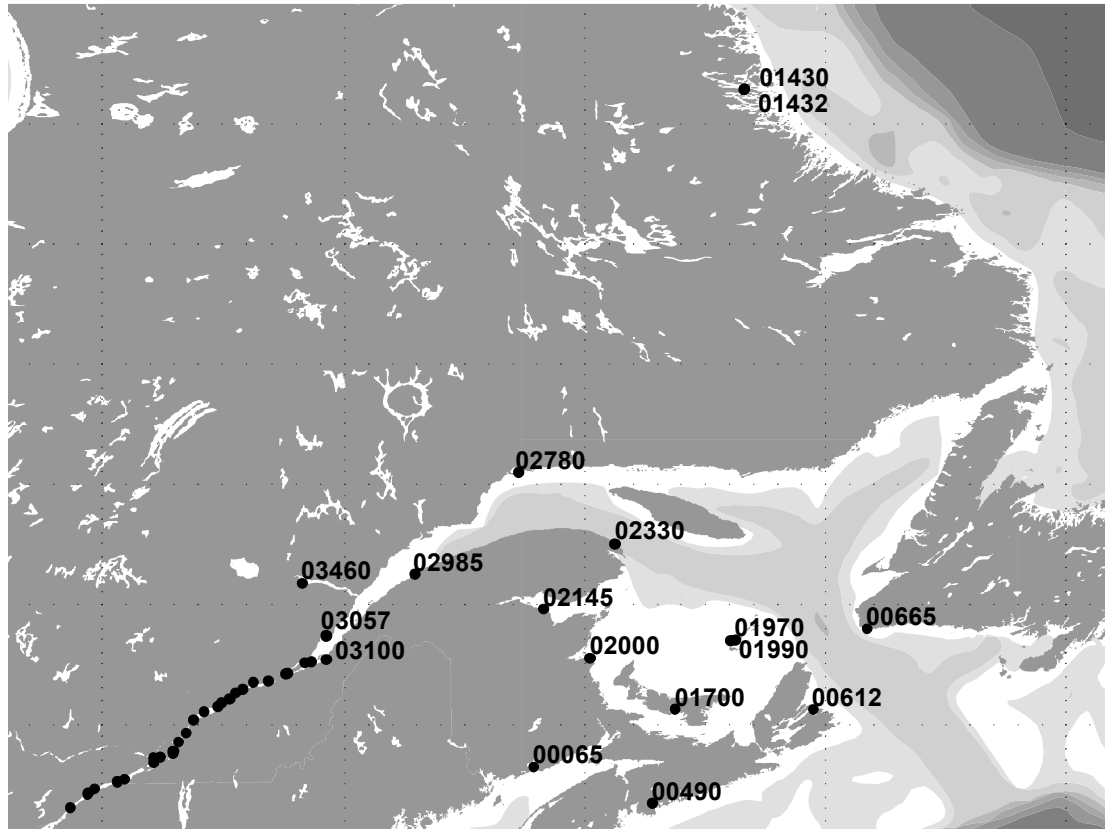
**Table 7 Wave Buoys in the NAFO Area in 2001**



**TOTAL SPECTRA = 92747**

| STATION | STATION NAME       | LATITUDE | LONGITUDE | WATER DEPTH (m) | #OF GOOD SPECTRA | NAFO SUBAREA |
|---------|--------------------|----------|-----------|-----------------|------------------|--------------|
| 44004   | Hotel              | 40.150   | 64.333    | 3164.0          | 8107             | 4X           |
| 44005   | Gulf of Maine      | 42.883   | 68.933    | 27.0            | 7138             | 5Y           |
| 44008   | Nantucket          | 40.500   | 69.433    | 63.0            | 6265             | 5Ze          |
| 44009   | Delaware Bay       | 38.450   | 74.700    | 28.0            | 8402             | 6B           |
| 44011   | Georges Bank       | 41.083   | 66.583    | 86.0            | 7941             | 5Ze          |
| 44025   | Long Island        | 40.250   | 73.167    | 40.0            | 7977             | 6A           |
| C44137  | East Scotian Slope | 41.832   | 60.940    | 4500.0          | 6539             | 4W           |
| C44140  | Tail of the Bank   | 43.837   | 51.493    | 70.0            | 4209             | 3O           |
| C44141  | Laurentian Fan     | 42.102   | 56.223    | 4500.0          | 7494             | 4Vs          |
| C44142  | La Have Bank       | 42.497   | 64.017    | 1300.0          | 4383             | 4X           |
| C44251  | Nickerson Bank     | 46.440   | 53.390    | 69.0            | 7318             | 3L           |
| C44255  | NE Burgeo Bank     | 47.282   | 57.352    | 185.0           | 3479             | 3Ps          |
| C44258  | Halifax Harbour    | 44.500   | 63.400    | 58.0            | 1887             | 4W           |
| C45138  | Mont Louis         | 49.543   | 65.773    | 335.0           | 4201             | 4S           |
| MEDS037 | Osbourne Head      | 44.656   | 63.416    | 57.0            | 7407             | 4W           |

**Table 8 Tide and water level data in the NAFO Area in 2001**



**TOTAL = 46 Stations**

| STATION NUMBER | STATION NAME            | LATITUDE | LONGITUDE | 15-MINUTE HEIGHTS # OF DAYS | HOURLY HEIGHTS # OF DAYS |
|----------------|-------------------------|----------|-----------|-----------------------------|--------------------------|
| 00065          | SAINT JOHN              | 45.27    | 66.06     | 365                         | 365                      |
| 00365          | YARMOUTH                | 43.84    | 66.12     | 365                         | 365                      |
| 00490          | HALIFAX                 | 44.66    | 63.59     | 365                         | 365                      |
| 00612          | NORTH SYDNEY            | 46.22    | 60.25     | 362                         | 362                      |
| 00665          | PORT AUX BASQUES        | 47.57    | 59.14     | 365                         | 365                      |
| 00835          | ARGENTIA                | 47.30    | 53.98     | 365                         | 354                      |
| 00905          | ST. JOHN'S              | 47.56    | 52.71     | 365                         | 365                      |
| 01430          | NAIN                    | 56.54    | 61.69     | 31                          | 31                       |
| 01432          | NAIN # 2                | 56.55    | 61.68     | 31                          | 31                       |
| 01700          | CHARLOTTETOWN           | 46.23    | 63.12     | 365                         | 365                      |
| 01970          | CAP-AUX-MEULES          | 47.38    | 61.87     | 44                          | 44                       |
| 01990          | ETANG-DU-NORD           | 47.37    | 61.97     | 23                          | 23                       |
| 02000          | LOWER ESCUMINAC         | 47.08    | 64.89     | 345                         | 344                      |
| 02145          | BELLEDUNE               | 47.90    | 65.85     | 365                         | 365                      |
| 02330          | RIVIERE-AU-RENARD       | 48.98    | 64.37     | 32                          | 32                       |
| 02780          | SEPT-ILES               | 50.18    | 66.37     | 365                         | 365                      |
| 02985          | RIMOUSKI                | 48.48    | 68.52     | 365                         | 365                      |
| 03057          | SAINT-JOSEPH-DE-LA-RIVE | 47.45    | 70.37     | 365                         | 365                      |

|       |                             |       |       |     |     |
|-------|-----------------------------|-------|-------|-----|-----|
| 03100 | SAINT-FRANCOIS              | 47.00 | 70.81 | 365 | 365 |
| 03180 | ILE-AUX-GRUES               | 47.05 | 70.37 | 138 | 138 |
| 03190 | GROSSE ISLE                 | 47.02 | 70.67 | 157 | 157 |
| 03246 | ST. CHARLES RIVER<br>BASIN  | 46.82 | 71.20 | 365 | 365 |
| 03250 | QUEBEC (LAUZON)             | 46.83 | 71.17 | 365 | 365 |
| 03280 | NEUVILLE                    | 46.70 | 71.57 | 365 | 365 |
| 03300 | PORTNEUF                    | 46.68 | 71.88 | 365 | 365 |
| 03335 | CAP A LA ROCHE              | 46.56 | 72.11 | 365 | 365 |
| 03345 | BATISCAN                    | 46.50 | 72.25 | 365 | 365 |
| 03353 | BECANOUR                    | 46.40 | 72.38 | 365 | 365 |
| 03360 | TROIS-RIVIERES              | 46.34 | 72.54 | 365 | 365 |
| 03365 | PORT-SAINT-<br>FRANCOIS     | 46.27 | 72.62 | 129 | 129 |
| 03460 | PORT-ALFRED                 | 48.33 | 70.87 | 68  | 68  |
| 14400 | BROCKVILLE                  | 44.59 | 75.68 | 365 | 365 |
| 14600 | IROQUOIS ABOVE              | 44.82 | 75.32 | 365 | 365 |
| 14602 | IROQUOIS BELOW              | 44.84 | 75.31 | 365 | 365 |
| 14660 | MORRISBURG                  | 44.90 | 75.18 | 365 | 365 |
| 14870 | CORNWALL                    | 45.02 | 74.71 | 365 | 365 |
| 14940 | SUMMERSTOWN                 | 45.06 | 74.55 | 365 | 365 |
| 15220 | POINTE-DES-<br>CASCADES     | 45.34 | 73.95 |     | 365 |
| 15330 | POINTE-CLAIRE               | 45.43 | 73.82 |     | 365 |
| 15520 | MONTREAL JETTY              | 45.50 | 73.55 | 365 | 365 |
| 15540 | MONTREAL STREET             | 45.53 | 73.54 | 365 | 365 |
| 15660 | VARENNES                    | 45.68 | 73.44 | 361 | 360 |
| 15780 | CONTRECOEUR IRON<br>ORE     | 45.83 | 73.28 | 365 | 365 |
| 15930 | SOREL                       | 46.05 | 73.12 | 365 | 365 |
| 15975 | LAC SAINT-PIERRE            | 46.19 | 72.90 | 360 | 360 |
| 16005 | SAINTE-ANNE-DE-<br>BELLEVUE | 45.41 | 73.96 |     | 365 |