Global Argo Data Repository Status Report of US NODC for 2007

November 2007

1. Summary

The US National Oceanographic Data Center (NODC) intended to use this report as input for the eighth Argo Data Management Team annual meeting at the Marine and Atmospheric Research of the Commonwealth Scientific and Industrial Research Organisation of Australia in Hobart, Australia from 14 to 16 November 2007. The report summarized the Argo user statistics and the highlights of the Global Argo Data Repository (GADR) activities since the seventh Argo Data Management Meeting in Tianjin, China in November 2006.

2. GADR Functions and Operations

The NODC operates the Global Argo Data Repository (GADR), known as the Argo long-term archive, for managing and archiving the Argo data and information. The GADR performs six functions as defined at the 4th ADMT meeting in Monterey, CA:

- Archive profiles, metadata, trajectory and technical information received from the GDAC on a monthly basis.
- Provide tools to allow transformation of Argo netCDF data into other forms.
- Provide usage statistics, data system monitoring information and problem reporting facility.
- Provide data integration tools to allow client to get Argo float data combined with data collected with other instruments.
- Provide hardcopy data sets for distribution to users.
- Provide offsite storage of data.

3. Usage Statistics

This analysis was produced by analog 5.24 (http://www.analog.cx). We use the following basic definitions:

- The number of distinct hosts is the number of different computers requests has come from. The host is the computer (often called the "client"), which has asked for a file.
- The file might be a page (i.e., an HTML document) or it might be something else, such as an image. By default filenames ending in (case insensitive) .html, .htm, or / count as pages.
- The number of requests is the total number of files downloaded, including graphics.The total requests counts all the files which have been requested, including pages, graphics, etc. (Some people call this the number of hits). The requests for pages only count pages. One user can generate many requests by requesting lots of different files, or the same file many times.

Figure 1 illustrates the number of monthly distinct hosts served by the GADR from 1 October 2006 to 30 September 2007. The monthly average of distinct hosts served by the GADR increased dramatically from 1,959 to 2,373 or 21% increased during the period of Year 2006.

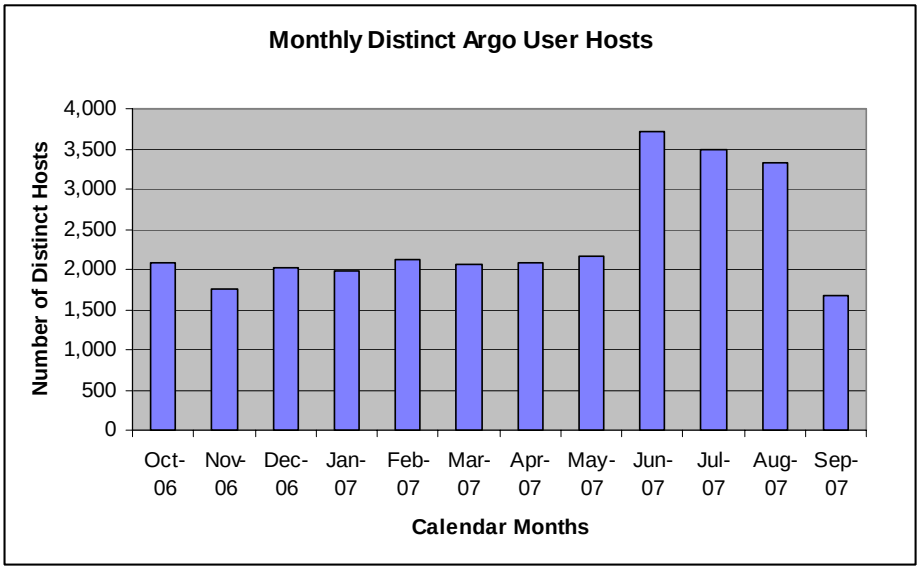

Figure 1. Monthly distinct hosts of the Argo data users

Figure 2 illustrates the monthly Argo data files downloaded from the GADR Web site over the past 12 months ending September 2007. The GADR receives an average of 455,909 requests per month, increased from 375,267 requests per month last year and the monthly-averaged Argo data downloaded increased to 17.85GB from 12.52GB in 2006.

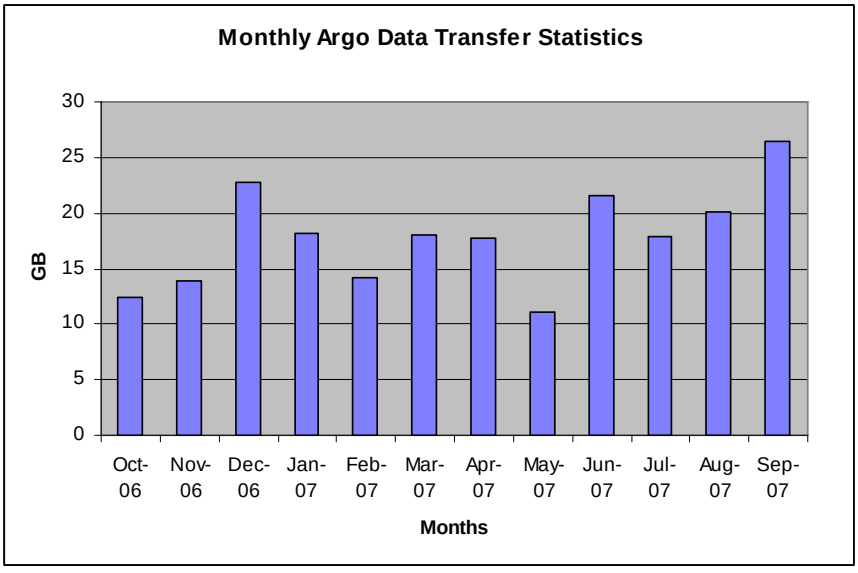

Figure 2 Monthly data transfer statistics of the Argo data.

4. Highlights of Activities

4.1. Continue to transfer the Argo data from the Argo US GDAC – The NODC continues to use the improved "mirror" facility of the UNIX "lftp" command. The GDAC's files are copied from "http://www.usgodae.org/ftp/outgoing/argo/", the "geo" subdirectory is skipped, and files which are no longer present on that site are removed from the local mirror. This command runs automatically twice daily, at 12am and 5am UTC. The last mirroring process completes by about 8:30 am UTC.

4.2. Monitor Argo floats report pressure as depth on the GTS once a month.

4.3. Updated Argo DVD, which contains the Argo data archived at the NODC as of 1 November 2007. Placed the DVD (Draft Version 2007) at http://argo.nodc.noaa.gov and a compressed archive of the DVD with ".tgz" format at http://data.nodc.noaa.gov/argo/dvd and ftp://data.nodc.noaa.gov/pub/data.nodc/argo/dvd

4.4. Created a DVD ISO9660 image of Argo Global Data Resource DVD, which is a hybrid ISO9660/JOLIET/HFS file system with Rock Ridge attributes. Populated the Argo DVD image at http://data.nodc.noaa.gov/argo/dvd and ftp://data.nodc.noaa.gov/pub/data.nodc/argo/dvd

4.5. Tested the Linux "*K3b*" software for burning the Argo Global Data Resource DVD ISO9660 image. "*K3b*" is optimized for desktop environment applications of the Linux/UNIX workstations. Being licensed under the GNU General Public License (GPL), it is more cost effective ("free") and efficient than using commercial off-the-shelf (COTS) computer software.

4.6. Hosted a CCHDO-NODC cooperation meeting on 11 September 2007 in Silver Spring, Maryland. The aim of the meeting was to discuss the ways in which the NODC could assist the Argo data management team to meet requirement in the preparation of Argo reference data sets and coordinate the submissions of CCHDO CTD to NODC for long-term archive and to Coriolis for updating the Argo reference database.

4.7. Provided AOML with 15 hard copies of the Argo draft DVD Version 3.0 for use as training material at the Argo Capacity Building for the Atlantic Countries Workshop, University of Ghana, Department of Oceanography & Fisheries, Accra, Ghana, December 5-7, 2006. (http://www.aoml.noaa.gov/phod/sardac/meetings/2006Dec05/index.php).