

# Argo Information Centre

TC Report – ADMT9

2008 M. Belbeoch

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# 1. Background

The international Argo Information Centre (AIC) is participating in the activities of the Argo Project Office and of the JCOMM in situ Observing Platform Support centre (JCOMMOPS).

The AIC is funded on a yearly basis via voluntary contributions from Australia, Canada, China, France, Germany, India, the United Kingdom and the United States.

In 2008 **Rep. of Korea** also began providing funds for the AIC.

IOC of UNESCO is also actively seeking new funding sources for the AIC.

Regarding the future of JCOMMOPS (OPSC) a decision should be made by the end of 2008.

[See latest communication.](#)

In the context of the development of JCOMMOPS, it has been proposed to extend the Argo TC activities to the Ship Observation Team (VOS, SOOP).

This is being discussed by the different panels and a final decision will be made at the next AST meeting, Feb. 2009.

A new I.T. expert has started to work (half-time) for JCOMMOPS in September 2008.

He will assist us with developing new products for Argo, DBCP, OceanSITES and SOT and will help us to achieve further integration of our services and websites.

JCOMMOPS looks forward to serving these different ocean observing programmes better than ever, thanks to this new resource.

## 2. AIC

### Monthly Report

The monthly report continues to be enhanced and improved each month. Argonauts have regularly provided feedback to the AIC between the reports.

TC starts to work on the report by the end of each month, and release it as soon as possible, after a set checks and communications with float operators.

It permits in particular:

- To solve regular problems of WMO/Argos Id duplicates. That is why it is important to notify deployments in advance. Once data distribution started such problems are harder to fix.
- To detect floats that distribute data without having been properly notified at the AIC (rare)
- To check that data distribution was not stopped when a float is back on line –sometimes after 2 years ...
- To keep an eye on floats that were deployed and that can't be tracked by the AIC

In addition other checks (in Argos database) permit to identify profiling floats that were not deployed under an Argo programme and attract new groups in Argo.

It permits also to detect floats deployed under a national Argo programme that were simply forgotten (no notification and no data distribution).

Remarks:

- The feedback on beached floats is (too) rare
- The deployment plans could be updated more often (but it is improving)
- The GTS data distribution seems de-prioritized
- The metadata files anomaly list is far too long (not really progressing)

It is planned to generate most of the content of this report automatically in order to save time (formatting) and avoid human errors.  
Do not hesitate to send your inputs for this monthly report.

## Information System

No major developments were made in 2008 but many products were slightly improved. The website is rather stable while slowing problems remain twice a day (6, 18 UTC) when the whole system is refreshed and fed with heterogeneous data sources.

The monitoring system set up within CLS operational team was gradually tuned and operators are used to restart the JCOMMOPS web services less than 3 times a week (often at the time above).

In 2009-2010, the JCOMMOPS web services (and in particular the AIC) will be re-designed. Technical specifications are being written while our new I.T. resource is being trained on technologies used by our existing Information System. New web technologies are being explored as well.

Our goal is to clarify access to information and develop a web based toolbox that will be used in the next 5 years.

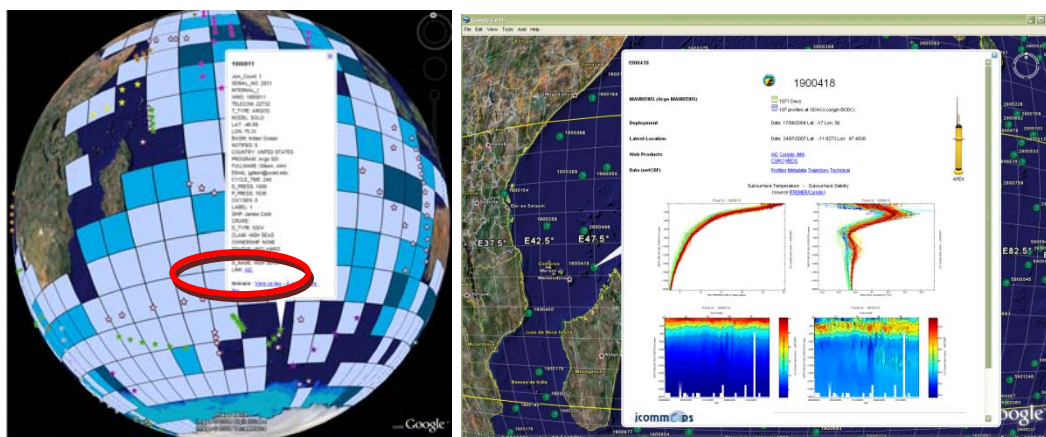
Feel free to make suggestions.

## Network Planning & Monitoring

A few details were fixed on the planning interface and WMO Id duplicates checks were strengthened.

The bi-daily generation of GIS files was reviewed (except for trajectories).

- ⇒ More metadata
- ⇒ Intersection between Maritime Zones (polygons) and plans (points)
- ⇒ New density layers (with non-grey-listed floats)
- ⇒ New monthly maps and daily GIS layers (telecom, grey-list, sensors)
- ⇒ Export in Text, GIS, GE formats: <http://argo.jcommops.org/FTPRoot/Argo/Status/>

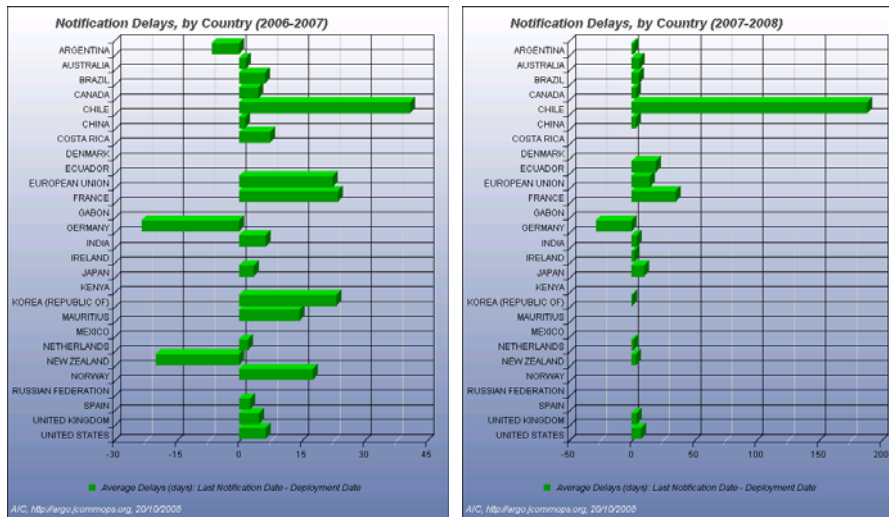


All GIS files are now exported in GE format:

[http://argo.jcommops.org/FTPRoot/Argo/Status/ARGO\\_FULL.kmz](http://argo.jcommops.org/FTPRoot/Argo/Status/ARGO_FULL.kmz)

Operators can jump from GE to plans edit page (if a WMO is recorded).

GE files generation will be reviewed to fusion the two file types and include links to useful products available on all Argo websites.



*Progress was made regarding notification delays.*

## Planned Developments

Coriolis GDAC has just made available a new index file for the AIC:

[ftp://ftp.ifremer.fr/ifremer/argo/etc/argo\\_profile\\_detailed\\_index.txt.gz](ftp://ftp.ifremer.fr/ifremer/argo/etc/argo_profile_detailed_index.txt.gz)

This index file (daily update) contains information on all profiles available at GDACs:

Time, space, quality for each PARAM (TEMP, PSAL, DOXY).

This will be used to build new products (stats, maps) to monitor Argo more closely: (e.g.) density maps of good quality profiles per variable and per year, month or 10 day time windows.

Similar products will be made in parallel with the GTS dataset (already routinely loaded in the DB).

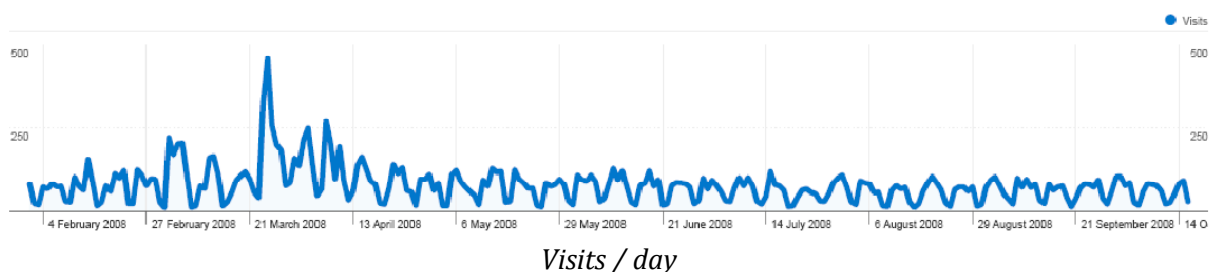
It is planned to add CYCLE information so the AIC can compare these metadata with the ones gathered at the notification step, synchronize the two metadata sets and make (finally) lifetime plots based on the distance profiled.

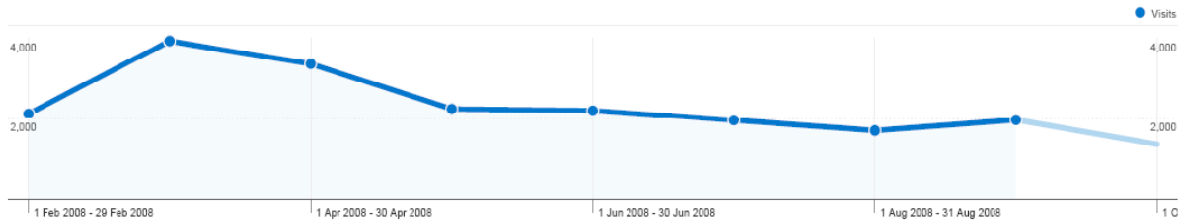
## Audience

Late January 2008 an audience tracking system (Google Analytics) was set up to monitor AIC website traffic.

The different trends will be extremely useful to build the next version of the AIC web services.

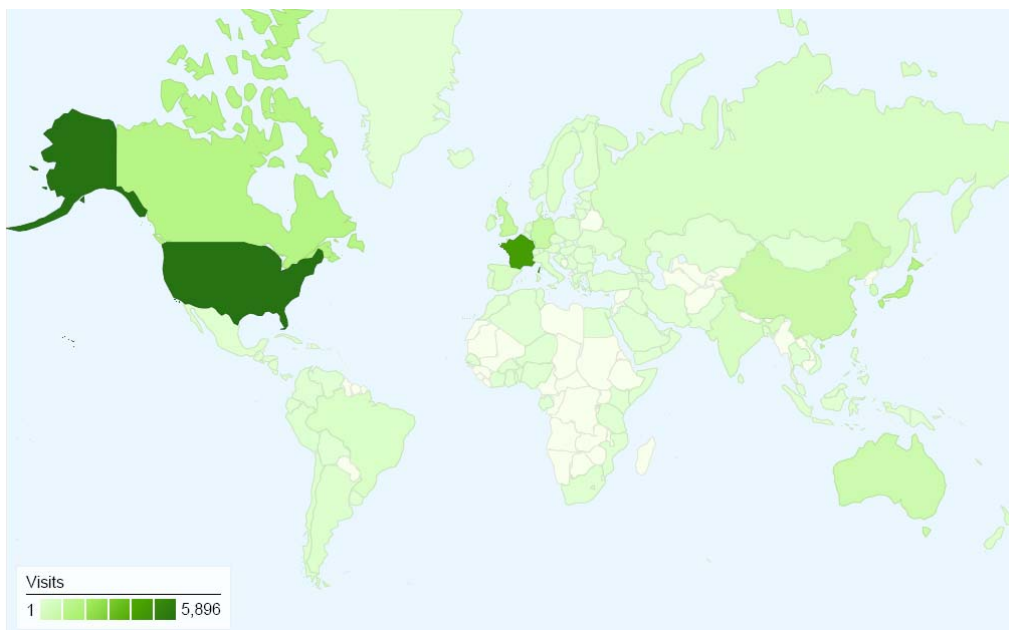
- AIC website is visited ~100 times/ day (~2000 / month).  
A substantial peak was noted in March 2008; probably because of the AST meeting or the effects of the 3000<sup>th</sup> float communication campaign.





*Visits / month*

- Most of the traffic is direct (31%) or comes from referring sites (63%). Only 5% of comes from search engines. No particular efforts are made to reference the AIC site in search engines.
- 20 500 visits, 93 000 page views, 13000 unique visitors since Feb 2008.  
~800 page views / day, ~10000 page views/month
- 4.5 avg. pages/visit, 3.39min avg. time on site
- The geographic distribution of users shows a clear international audience which is surprisingly proportional to Argo national contributions.  
Many non-Argo countries have been visiting the site as well.



Country/Territory	Visits	Visits	Visits
United States	5,956	28.57%	
France	4,474	21.46%	
Japan	1,419	6.81%	
Canada	1,374	6.59%	
United Kingdom	942	4.52%	
Germany	820	3.93%	
China	795	3.81%	
Australia	671	3.22%	
South Korea	466	2.24%	
India	314	1.51%	
Spain	275	1.32%	
Russia	264	1.27%	
Ireland	237	1.14%	

- Main features used are:
  - o the float search engine
  - o the deployment planning interface
  - o the News section (the float of the month has great success)
  - o the Map Room and Interactive Map
  - o the monitoring tools (country, program, data flow)
  
- From the FTP logs we can notice that the Argo status files (text, Google Earth files) are regularly used.

The AIC website seems to reach its international target and is regularly used by Argonauts. Site is sometimes used by a larger public. Efforts made to promote Argo in Africa start to show results but need to be continued.

### 3. Argo Data Management

#### General issues

It was suggested by WMO to link the Argo GDAC data distribution system with the WMO Integrated Global Observing System (WIGOS) and make available a document on Argo Best Practices and Standards in the JCOMM Catalogue.

The only impact of the GDAC would probably be to standardize the index files (with XML). The Argo TC could compile the appropriate documentation.

While the AST will think at its next session on the “future of Argo” it would be interesting that the ADMT starts to discuss on the future of the Argo data management/distribution system.

#### Metadata

Following the discussions we had at the last AST meeting (Action 29) it is suggested to add some information in the Argo metadata files that would permit to identify official Argo floats and equivalent contributions to Argo.

Why not adding also the program name as registered at the AIC?

It is also planned to work on metadata related to the Argos (or Iridium) data formats. A classification was made by CLS and Coriolis for the formats they handle and the AIC will manage this information soon. It would be good to include these metadata in the netCDF files.

CLS is acting as a DAC for GTS processing for a number of programmes that have no link to a GTS centre. It is recalled that this can be done as appropriate only if CLS receives the manufacturer's manual describing the Argos data format.

### WMO IDs

AIC is now supporting WMO in allocating WMO IDs for most of Argo components. Every 3 years large ranges of IDs are reserved by the AIC, based on national requirements, and allocations are made ad hoc. Requests and allocations are archived in the AIC database. This allows another set of controls over duplicates.

WMO Id blocks were already reserved for France, China, Korea, India, Netherlands, UK, USA and Spain.

Float operators are strongly encouraged to use the AIC for WMO Id requests.

Hence Argo will have full control on this information, essential to data distribution.

It is planned to develop on-line tools to request and obtain automatically new WMO Id allocations.

### Support/Feedback Centre



*The AIC website HELP section was reviewed to clarify access to the support/feedback centre.*

Only Coriolis (and AST website) have promoted the address <http://support.argo.net> and its email [support@argo.net](mailto:support@argo.net).

The requests received so far concern the following subjects:

- Access to regional dataset
- Technical issues with AIC, GDACs website access
- Technical issues with data access (ASCII data, large datasets, empty metadata files, netCDF format, etc)
- General question on Argo (grounding, sampling, planning, etc)

A particular request permitted to identify a problem on incorrect values for PROFILE\_PARAM\_QC.

All requests were generally processed within 24h.

Other feedbacks received concern:

- Grey-listed floats with incorrect flag values
- Duplicates profile at GDACs (same data / different cycle number)
- Same dates for different profiles

Altimetry QC is made every 3 to 4 months by Coriolis/CLS, loaded in the AIC database, archived as a global QC feedback and linked to each platform.

Float search engine was upgraded to take into account this information on data quality:

- [Query Page](#) has more search criteria (Altimetry QC “flagged”, “Fixed”, “Comment”)
- Results Page has more metadata (“Altimetry QC”)
- Float Detail Page summarize all QC feedback archives

	Status	WMO ID	Telecom ID	Model	Program	Date	GDAC	GTS	Altimetry QC	Age
1		5901290	64187	SOLO	Argo SIO	13/10/2008			spike	769
2		5900975	54447	SOLO	Argo SIO	15/10/2008			spike	1242
3		5901875	75085	SOLO	Argo SIO	17/10/2008			spike	200
4		5901263	64159	SOLO	Argo SIO	18/10/2008			FIXED	716
5		5901250	64174	SOLO	Argo SIO	15/10/2008			FIXED	744
6		5901110	58903	SOLO	Argo SIO	18/10/2008			FIXED	1001
7		3900303	49918	SOLO	Argo SIO	20/10/2008			FIXED	1430
8		3900220	45764	SOLO	Argo SIO	19/10/2008			FIXED	1688
9		3900273	45808	SOLO	Argo SIO	20/10/2008			FIXED	1511
10		3900225	45769	SOLO	Argo SIO	20/10/2008			FIXED	1671

*Altimetry QC status for SIO floats.*

*Whenever a float is no more flagged by QC it is tagged “FIXED”.*

*Here an example with float 2900783.*

All QC feedbacks are summarized (global as “Altimetry QC” or individual).

The only missing element is the automatic forwarding of feedback records to the appropriate Argo contact points. For now, and to have more perspective on the type of feedback received, the TC forwards manually the information to the contact points.

It is proposed to automatically forward this information to DAC generic email addresses and delayed-mode operators.

Should PIs or ARCs be notified as well?

Other sources of QC feedback could be interesting (e.g. GTSPP).

The Support Centre will be improved gradually according to the nature of requests/feedback received.

## ADMT#8 Meeting Action List:

- 1) Provide access to the support@argo.net question/answer database to AST/ADMT chairs. Completed.  
All information is publicly available.  
Most interesting question/answers are tagged "FAQ".  
⇒ **Address TO BE PROMOTED.**
- 2) Establish an Argo user mailing list. Completed: [argo-du@jcommops.org](mailto:argo-du@jcommops.org)  
⇒ **Need to subscribe appropriate users. To be promoted.**
- 3) Provide to AST chairs the list of operators that notify with delay their floats. Completed.  
Dedicated product developed (see above). Table 3 of monthly report can be regularly checked.
- 4) Include J. Gilson report on suspicious floats/profile detected. **No input for now.**
- 5) Modify the text to the Support Centre to encourage users to report on data quality. Completed.
- 6) Argo forum to be set up. Completed. <http://groups.google.fr/group/argo-forum>

## Real Time / Delayed-mode data Processing

Refer to the latest [AIC monthly report](#) for more details and to the Annex.

## 4. Communication

The AIC maintains a number of mailing lists for the Argo Data Management team.  
All these lists can be consulted at: <http://list.jcommops.org>

Argo Data Management - General: [argo-dm@jcommops.org](mailto:argo-dm@jcommops.org) (190 users)

Argo Data Management - DM: [argo-dm-dm@jcommops.org](mailto:argo-dm-dm@jcommops.org) (60 users)

Argo Data Management - RT: [argo-dm-rt@jcommops.org](mailto:argo-dm-rt@jcommops.org) (41 users)

Argo Data Management – Data formats: [argo-dm-format@jcommops.org](mailto:argo-dm-format@jcommops.org) (47 users)

Argo Data Management – Trajectory: [argo-dm-traj@jcommops.org](mailto:argo-dm-traj@jcommops.org) (47 users)

Argo Regional Centres – Indian Ocean: [argo-iarc@jcommops.org](mailto:argo-iarc@jcommops.org) (0 user)

Argo Regional Centres – North Atlantic Ocean: [argo-iarc@jcommops.org](mailto:argo-iarc@jcommops.org) (32 users)

Argo Regional Centres – South Atlantic Ocean: [argo-saarc@jcommops.org](mailto:argo-saarc@jcommops.org) (87 user)

Argo Regional Centres – Pacific Ocean: [argo-saarc@jcommops.org](mailto:argo-saarc@jcommops.org) (87 user)

Argo Data Users: [argo-du@jcommops.org](mailto:argo-du@jcommops.org)

Argo Forum: <http://groups.google.fr/group/argo-forum>

Remarks:

- ADMT mailing lists are regularly used
- ARC mailing lists are not!
- Do we need a Southern Ocean ARC mailing list?
- Argo Forum is not used

⇒ Communicate on ARC news, progress, developments, products on mailing lists.

⇒ **Promote these mailing lists, forum on your Argo websites.**

## 5. International Issues

The [Resolution XLI-4](#) of the IOC Executive Council recognized Argo as a “programme” to be sustained, “acknowledged” the work of the AIC (within JCOMMOPS) and adopted the “Guidelines for the Implementation of [Resolution XX-6](#) of the IOC Assembly regarding the deployment of profiling floats in the high seas”.

While the implementation of the guidelines will be followed up by the IOC secretariat, it is strongly recommended to continue the efforts in notifying in advance the deployments plans through the AIC procedure.

Hence it is recalled to each Argo programme to:

- Designate a person (representing the Institution/Country) to enter the deployment plans in the AIC website
- Regularly update the information
- Notify the plans when they are finalized
- Make sure that the information entered is correct
- Not deploy Argo floats directly into EEZs without any kind of agreement

### **Argo Donor Programmes**

No more floats will be transferred without a clear and reliable deployment opportunity.

**Kenya:** following the last outcomes of the DBCP XXIV Meeting, Kenya delegation confirmed that dedicated funding was identified to launch the 5 floats in 2009 (by June). If this can't be done, a US Navy ship could deploy the floats.

**Gabon:** floats being transferred. Deployment plans ready.

**Morocco:** Programme initiated. Waiting official reply. (Launch of 3000<sup>th</sup> float at JCOMM III ?)

**Togo:** Preparing a deployment opportunity (with French SHOM).

**Peru:** Preparing a deployment opportunity.

**Philippines:** Invited (by China) to attend next ASW.

### **ADMT #10**

JCOMMOPS is pleased to offer to host the next session of the ADMT in Toulouse/France.

CLS has kindly agreed to support the meeting organization.

To be noted the potential overlap with the JCOMM III meeting to be held (in Morocco) the two first weeks of November 2009.