



**GODAE-OceanView meeting
Baltimore, Nov. 2013**

**Howard Freeland
attending as Argo Director**

General comments (1)

I was extremely impressed with this meeting – it is stunning what has been accomplished by the GODAE people. There were daily real-time ocean briefings that were impressive.

It was disappointing to see plots of the recent decline in the TAO array, I knew that they were having difficulties, but the recent decline I found really rather alarming. It is a wake-up call about the perils of taking a project away from the people for whom it is a passion. There is a message here for Argo.

I was also disturbed by the possibility of a gap between the end of Jason-2 and the launch of Jason-3. Jason-3 is scheduled for launch in March 2015 by SpaceX. But this launch date is well beyond the expected life of Jason-2. So, we keep our fingers crossed that it keeps working long enough. “Fingers-crossed” does not seem to me to be a good strategy.

General comments (2)

On the opening morning one slide was shown that listed Argo as 100% complete, and other components of the observing system in various degrees of completeness. I think this was shown by the first two speakers, it is a slide I've seen frequently before and originates from Albert Fisher. I started counting, that same slide was shown at least 5 times. This prompted Neville Smith to propose a modification, he said that by any reasonable expectations that we had in 1999 we should list Argo as 180% complete.

Susan gave a fine talk on the future of Argo. My poster was presented and prompted quite a few interactions with people. I tried hard to get feedback and managed to get some useful comments.

General comments (3)

Susan Wijffels was there and has sent me some general comments:-

All assimilating systems use Argo and value it highly. There were requests for deeper data (to assimilate), faster DM throughput to inform climate reanalyses, and more global coverage (marginal and ice zones).

Several groups are starting to include BGC and optical parameters. The lack of subsurface data to validate or assimilate is a huge problem holding up progress.

Coupled ocean/atm prediction will need better and more frequent observations of the coupled planetary boundary layer - called for adaptive sampling -that is high frequency shallow profiles - for extreme events. Some teams want the data faster (few hours or less).

Most supporting of Argo's suggestions for evolution. I did not get any sense of clear priorities - they would like it all!

User comments about Argo (1)

Magdalena Balmaseda was very complimentary about Argo. She makes heavy use of the GTS data feeds and finds those to be very much quick enough. She feels we have got that right. For the data being deposited at the GDACs the 80% within 24 hours and 90% within 5 days she found to be adequate, but she had a surprising comment about DMQC.

Magdalena is doing reanalysis projects and she wishes we could expedite DMQC considerably, this is, for her, our biggest failing. I outlined the process of DMQC and how no datum is examined until it is at least 6 months old and that really upset her, she wants us to work on DMQC immediately. I don't think this is possible and expressed that opinion to her. I had wished that someone like Annie Wong had been there to explain.

Could we designate some knowledgeable person from DMQC to write a response to her?

User comments about Argo (2)

I talked to Fraser Davidson and Hal Ritchie from the Canadian ODA group. They are using the GTS feeds almost exclusively and find it is nowhere near timely enough. They questioned my figure about 90% being available within 24 hours and said that when they get data it is at least 3 days old. So, I pursued that and realised that the problem is that they are not at a GTS node. Data are passed through several hands inside Canada before they see the data.

This is an internal Canadian problem, but I highlight it here because the problem is likely not unique.

There is nothing here that warrants a response from Argo, just be aware that misunderstandings can occur.

User comments about Argo (3)

Gary Brassington had a comment on one slide of his talk concerning Argo, it read “*The latency and coverage of observations is limiting progress.*” So I sat down with him for a while to find out what he meant by that. He is concerned about how infrequently Argo floats sample the upper water column, the top 100 metres. This produced a mismatch between the observations (one per 10 days) and the information he wants which has a much faster time scale.

Gary described an enhancement to Argo that he felt would serve his purposes and it seemed evident to me that what he was describing was what NAVOCEANO do, the bounce profiles. I told him that I thought adding that to all floats might be expensive on power consumption. Also that I agree with Susan who, in her talk, warned that what Argo is good at is monitoring “the slow manifold in the ocean”. I thought that was a useful phrase to use.

User comments about Argo (4)

Gilles Larnicol said that Argo is the single critical data type for seasonal prediction and is the only data set to constrain salinity. I was surprised a little bit by that, what about the salinity satellites? Perhaps this is related to a comment from Pierre-Yves who reported that assimilation of satellite SSS has started but is “challenging”.

There were other reports (e.g. a very nice talk by Elisabeth Rémy) on the impact of Argo on assimilation and they agreed that Argo is essential. Elisabeth argued that adding more floats will help.

Conclusions

I am glad I was there.

- 1) It was a very interesting workshop.
- 2) There are misunderstandings about how Argo works and I was able to deal with some of these on the spot.
- 3) There are a lot of people making operational use of Argo and we do need to be aware of problems they are finding.
- 4) I know some researchers don't like our data flags, not so with this professional group, they seemed to be very happy.