

Draft**The UNOLS Scientific Committee for Oceanographic Aircraft Research (SCOAR)****Telephone/Internet meeting on November 13, 2006****Appendices****I Agenda****II NSF-ATM Facilities Assessment charge****Participants**

John Bane, Carl Friehe, Charlie Flagg, Dan Riemer, Vernon Asper, Bob Houtman and Steve Hartz. Dick Zimmerman and Bruce Albrecht joined later.

Preliminary remarks

Introductions of Bob Houtman and Vernon Asper to the committee.

John started by thanking Charlie Flagg for his service as an inaugural member of SCOAR.

New SCOAR member status

We have no new inquiries based on the last announcement in the UNOLS News, etc. One idea that John had was to take the announcement and email it to the AOSC email list. The committee could follow up with personal contacts. Also, we could follow up with the people that expressed interest during the previous request, although all of these people are on the AOSC list. John will take the UNOLS news announcement and send it to the AOSC list.

Storm Penetration Aircraft Meeting

Carl gave an update on the meeting at the South Dakota School of Mines regarding replacing the T-28 with an A-10 jet, that could be released to the NPS for scientific work. This is a subsonic twin-engine jet plane that would fly with one pilot and has a tremendous load carrying capacity (15,000 lbs load under the wing).

NSF has said that it needs to be capable of more than just storm penetration to be viable. The purpose of the meeting was to look at other possible uses.

The A-10 has about a five-hour endurance and is a high-G aircraft. It might be used in high wind situations, perhaps in the periphery of hurricanes. It probably could be used for dropping drifters due to its high load carrying capacity.

They drafted portions of a report (white paper) on how this aircraft could be used for atmospheric and ocean science research. This would be turned into a proposal and would compete with other mid-size infrastructure proposals in NSF Geo-Sciences, including NCAR projects to improve the C-130. Carl was appointed as chair of a subcommittee on one section of the white paper.

The cost of the conversion of the jet to research capability over four years would be around \$10-15M. The white paper will go to NSF in early January and then in February, NSF would give a decision on whether or not to go ahead with a proposal.

The funding climate for new infrastructure is becoming a little more difficult. Carl mentioned that it seems as though there needs to be more evaluation of what the A-10's operational capabilities would be.

Discussion about the appropriateness of the A-10 for various types of atmospheric research.

John asked if there was something that SCOAR could do. Carl would find out if the white paper can be circulated to SCOAR for comment.

NSF-ATM Facilities Assessment charge (see [appendix II](#))

Bruce Albrecht (U. Miami/RSMAS) is a co-chair with Jeff Stith (NCAR/RAF) on the Facilities Assessment sub-committee on airborne platforms. He will join us at 1 pm to talk about the assessment. The other Facilities Assessment subcommittee we would be interested in is the Airborne Measurements subcommittee.

John talked about having an integrated source (webpage) for finding information about atmospheric/oceanic airborne facilities. Since the ATM Facilities Assessment is looking at establishing such a web page, perhaps that could be integrated with ocean sciences facilities, or used as a resource for oceanographic facilities.

Similarly the Facilities Assessment will produce an overview paper for the AMS, and this could include oceanographic facilities. Alternatively SCOAR could proceed with a separate paper on oceanographic airborne facilities.

Carl suggests that we go with the ATM web pages and assessment of facilities. We would link to that information. We could fill in the gaps with any platforms or measurements/capabilities that are not included in the ATM catalog. John would like to see the end result be integrated so that it is clearly a set of airborne facilities and measurements for ocean sciences.

It was suggested that SCOAR become involved in an appropriate way in the Facilities Assessment and insert ocean sciences requirements to the extent possible.

We should also be involved in the web-based resource that provides information on atmospheric facilities and instrumentation so that it is a coordinated resource for ocean sciences as well as atmospheric sciences. This might even be extended to include earth sciences and make this effort a geo-sciences assessment.

Community Airborne Remote-sensing Interdisciplinary Suite (CAPRIS) - Upgrades to NCAR C-130 and G-V aircraft

John gave an overview of the CAPRIS effort. John and Carl would like to ensure that ocean science measurements are considered as part of developing a suite of interdisciplinary measurements. John will follow up with Jim Moore to see what progress was made during their recent phone conference.

Discussed how SCOAR (and who) should become involved in the CAPRIS project.

Dick Zimmerman raised the issue as to what extent SCOAR (and UNOLS) should advocate for primarily atmospheric facilities that will compete for facilities dollars. It would be necessary to set boundaries about how much we advocate. However, it will be useful to provide input from SCOAR to help ensure that these new instruments are useful to ocean sciences.

Carl stated that we are bumping up against the boundary between ATM and OCE with the potential of SCOAR's involvement in these ATM sciences facility development processes. One of the purposes of SCOAR is to bridge these communities to facilitate development and utilization of airborne facilities.

We may or may not influence the final capabilities mix, but we should provide input so that it can be considered. Being involved in the discussion will allow us to know what has been considered and whether or not ocean measurements (e.g. remote measurement of oceanic surface wave properties) can be accommodated.

Bruce Albrecht joined the discussion to give an overview of the NSF/ATM Facilities Assessment. Among others, Cheryl Yuhas is a member of the airborne platforms subcommittee.

They met at the end of August to determine how to proceed. They have several objectives that are driving their process. They intend to start with an initial survey. They would have two surveys, one for operators and one for users. They looked at some other models such as the European Fleet for Airborne Research (<http://www.eufar.net/>) who also have a survey similar to what is being considered.

They are trying to collect information on how many hours are flown each year and how many are available as well as information on procedures to request use of the aircraft. These are aircraft operator questions.

For users, they want to know what researchers are interested in doing and then identifying holes in the fleet capabilities for researchers. They are at the point of deciding how to put the survey together. They want to keep it in a form where the data can be updated periodically. Jeff has contacted EUFAR to see if their software can be used for keeping their database up to date.

John gave an overview of SCOAR to Bruce. He described the intentions of SCOAR to get an assessment of the ocean sciences communities' requirements for airborne platforms and instruments and also the desire to put together a web-based catalog of platforms and instruments for ocean scientists. Everything Bruce has described is very similar to efforts we have been contemplating for ocean science users.

Bruce thought that their information could be organized in different ways to meet different user groups' requirements and also, ocean sciences could be included in the assessments.

Bruce said that Cheryl Yuhas had mentioned the possibility of having ICCAGRA and SCOAR meet jointly with the Facilities Assessment subcommittee on airborne platforms. Bruce will talk with Jeff Stith about getting SCOAR involved in their subcommittee. We need to coordinate dates for this potential joint meeting next Feb or March.

John mentioned that our earlier discussion was about what role SCOAR should play and that it did not make sense to carry out two parallel and separate efforts.

Carl asked if the Facilities Assessment was more than just a passive assessment, or would it become an active advocate for new instruments/platforms. Bruce thought that once gaps in capabilities were identified, the effort could become more proactive in its advocacy for new facilities.

John and/or Carl will keep in touch with Bruce about being involved with the Facilities Assessment and about a joint meeting.

Conclusions are that SCOAR will stay involved with the CAPRIS and Facilities Assessment efforts. John

and Carl will coordinate this effort.

We can leverage the questionnaire activities and webpage of the ATM Facilities Assessment and modify the white paper to lead into this facilities assessment.

John and Carl will look at how to proceed with the white paper, and Dan will help with re-writing as necessary. It may only need to have the introduction and conclusion modified to lead to the ATM Facilities Assessment survey.

Mike Prince suggested that SCOAR consider another phone conference dedicated to interactions with CIRPAS. This would be a two-hour conference with CIRPAS involved and focused on the oversight role for the NOAF.

Bob Houtman also mentioned that FOFC is being reconstituted with a broader facilities focus as the Interagency Working Group - Facilities (IWG-F), and that airborne platforms and instrumentation will be of greater interest.

Steve Hartz mentioned that there is interest within RVTEC about UAV's and thought that SCOAR might be a source of information on this subject. This could potentially fall under the Facilities Assessment effort. Discussion of UAV's has been part of the SCOAR agenda all along and will most likely become of greater interest in the future. CIRPAS is an operator of UAV's and is a valuable source of information on advances in this technology.

The meeting was adjourned with John and Carl responsible for follow-up on the various action items: New members, white paper revision, coordination with A-10 assessment, the CAPRIS effort and the ATM Facilities Assessment effort.