

Research Vessel Technical Enhancement Committee (RVTEC)
Report by Bill Martin, RVTEC Chair

Planning for INMARTECH 2006 continues. The symposium will be hosted by Woods Hole Oceanographic Institution, October 17-19. A reminder to the UNOLS Chair – you are scheduled to give a Welcome address on Day One.

The annual RVTEC meeting will be held in conjunction with INMARTECH 2006 on October 16.

On March 28, 2006 the group assembled by RVTEC to provide feedback on the Regional Class Vessel SOR submitted their final comments to NSF. Although the group was not formally formed due to the short notice and fast response required it is safe to say the group was chaired by Stewart Lamerdin. I would like to thank him for his hard work and dedication to this process.

RVOC REPORT
Tim, Askew, RVOC Chair
June 21, 2006

A long awaited and very productive Annual Meeting took place at the University of Washington in Seattle, April 25, 26, 27, 2006. Kudos to Dan Schwartz and his Marine Operations staff, for all the hard work setting up the meeting, hotels, and activities for the membership.

The Safety Committee held a meeting on April 24, 2006 to address the revisions and chapter updates to the Research Vessel Safety Standards (RVSS). The new edition will use the same format for all the chapters.

The three day RVOC meeting had a full schedule of agency reports. Group Purchase updates and special reports from Foreign Operators as well as UNOLS vessel updates. The members were all ears for Ian Sage's (SACT/NATO) report on the R/V Alliance grounding in the Mediterranean as well as the presentation by Morgan Terrell of the National Transportation Safety Board (NTSB), Marine Accident Section. He gave an excellent perspective on "What to expect if your ship has an accident".

Workshops finished up the second day and provided very stimulating discussions on "Alcohol, Drugs and Sexual Harassment Policies", Liz Caporelli (WHOI) was the facilitator and "Wire, Wire Testing (Safe Working Loads)", Tom Althouse (SIO) was the facilitator.

Thanks to Randy Maxon, Marine Superintendent, the 2007 Annual Meeting will be hosted by the Florida Institute of Oceanography in St. Petersburg, Florida the week of April 23 through 27, 2007.

Report of the DEep Submergence Science Committee
June 15, 2006
By Deborah Kelley, DESSC Chair

DESSC met at Woods Hole Oceanographic Institution May 24-25 for their bi-yearly meeting. The meeting presentations and action item list are available online on the UNOLS web site. The meeting resulted in the formation of numerous action items. Three of the most significant items have been nearly completed and include: 1) completion of a draft document outlining criteria for incorporating new assets into the Deep Submergence National Facility (NDSF); 2) completion of a recommendation by DESSC to include the autonomous vehicle *ABE* into the NDSF, concurrent with the removal of the two towed vehicles *DSL-120A* and *Argos II*; and 3) identification of a DESSC watchdog for *Alvin*, *Jason 2* and *ABE* (if it becomes part of the NDSF) that would interface with the PI's, NDSF, and DESSC regarding vehicle performance, availability of data products, and navigation etc. A complete listing of the action items is provided below with updates on progress indicated in red.

Action Items:

1. **December 2005 DESSC Meeting Minutes** – Incorporate revisions provided by Hedy and repost at final. (DeSilva)

2. **Ocean Observatory ROV Workshop** – Organize an ROV workshop for technology exchange and defining future needs to support ocean observatories. Participation should include ROV operators and engineers from WHOI, MBARI, and ROPOS. Commercial entities might also be considered. The workshop would be supported through UNOLS. DESSC, in collaboration with the agencies and UNOLS, will formulate the workshop description, objectives, and invitation list. (Kelley/DeSilva) **anticipated submittal week of June 19th**

3. **DESSC Recommendation on WHOI's ABE/Sentry proposal** – DESSC recommends that ABE/ Sentry be incorporated into the National Deep Submergence Facility with the following conditions: 1) ABE/Sentry replaces DSL-120, 2) WHOI provides clarification on the final bullet of their proposal letter regarding Data support, and 3) clarification on how the AUV missions will be programmed (if Yoerger/Bradley are not cruise participants). Deb will request the additional clarification from Bob Detrick. Additionally, she will request an information package that provides details on ABE/Sentry vehicle specifications, capabilities and how to use. This document is needed no later than June 13, 2006 so that it can be provided to the UNOLS Council prior to their June meeting. Deb will present the DESSC recommendation to the UNOLS Council on June 21st. If the Council endorses DESSC's recommendation, the Council will forward the recommendation to the supporting agencies and request that it be available for the August proposal deadline. ABE/Sentry will be added to the UNOLS Ship Time Request on-line form. An announcement will be distributed to the community at the appropriate time that provided information about ABE/Sentry and it's inclusion in the NDSF. The announcement will also inform that the DSL120 is no longer included in the NDSF (we

should let them know who to contact for future use). (Kelley/Detrick/UNOLS). **All materials submitted to the UNOLS Council**

4. **NDSF Vehicle Debrief Interviews** – In order to better track the status of vehicle and system performance, DESSC will conduct debrief interviews of PIs who use Jason2, Alvin, and ABE/Sentry. Agendas for future meetings will include summary reports of these debrief. Participation in the debriefs will include DESSC, the science user, and the NDSF operator (Chris German). DESSC will compile a list of items that have been identified as problems or areas where improvement is needed, then track them. A standard set of debrief questions will be drafted (the AICC debrief questions can be used as a template). The following individuals volunteered to conduct debriefs:
 - a. Jason2 – Bill Chadwick
 - b. Alvin – Michael Tryon
 - c. ABE/Sentry – Hedy Edmonds(Action – DESSC draft debrief questions, Watchdogs conduct interviews). **Hedy has provided previously used protocols , and examples of questions. These will be refined.**
5. **R2K Database and Visualization Tools** – Invite Suzanne Carbotte or Vicki to a future DESSC meeting to provide a presentation on the R2K database and visualization tools. (Kelley) **Inquiry sent to Suzanne.**
6. **Shore-side Data Management** – DESSC recommends that shipboard personnel conduct the daily quality checks of cruise navigation data (as opposed to shore-side checks). Deb will send a recommendation to Barry Walden and Bob Detrick (Kelley)
7. **Science Training Opportunities for Pilots** - DESSC will formulate a recommendation to offer a workshop/training science session for pilots. The session should demonstrate how the data from the vehicles are used for different research disciplines. Offer the training in an interesting setting such as Hawaii or Iceland. (Kelley)
8. **R2K Lectureship program** – DESSC recommends that the R2K Lectureship program include an Alvin or ROV pilot as a distinguished lecturer. (Kelley) **e-mail sent to RIDGE office, R2K Lectures already chosen for 2006-2007; will bring up at next RIDGE steering committee meeting**
9. **Career Advancement /Learning Opportunities for Pilots** – DESSC recommends that WHOI Management promote learning opportunities and career advancement opportunities for pilots. (Kelley)
10. **Criteria for Adding Assets to the NDSF** – DESSC accepted the draft Criteria. Deb will present it to the UNOLS Council on June 21st for endorsement. (Kelley) **completed**
11. **Science Sensors for Replacement HOV** – A community on-line survey on science sensors for the RHOV has been drafted. Annette will add science outfitting such as tools and sensors based on input from Bob Brown. Buttons that will link to “additional

information” will be added. A deadline of when the information is needed will be added. Annette will circulate to the DESSC for review when available. (DeSilva/Brown/DESSC)

12. **Winter Meeting Strategies** – Contact Phil Taylor regarding the next DESSC meeting venue. The two upcoming biology meetings are the 2007 Benthic Ecology Meeting - Atlanta or Savannah -- dates TBA and the Western Society of Naturalists - November 9-12, 2006. Redmond, WA. NDSF users will be contacted for slides in advance of the meeting. (DeSilva) **Craig Young has explored both options and Phil Taylor has responded to Craig’s e-mail outlining these options. Decision should be made very soon.**

13. **DESSC Membership** – Annette and will Deb contact DESSC members with terms ending in 2007 about staggering term lengths. Deb and Annette will present a recommendation at the next meeting. (Kelley/DeSilva)

SCOAR Report

June 19, 2006

John M. Bane, SCOAR Chair

SCOAR and ICCAGRA Meetings.

SCOAR met jointly with ICCAGRA (the Interagency Coordinating Committee for Airborne Geosciences Research and Activities) at the Naval Postgraduate School's Center for Interdisciplinary Remotely Piloted Aircraft Studies (CIRPAS) in Marina, CA on May 23 and 24, 2006. Discussion items included:

- 1) Scheduling among the various research aircraft operating agencies continues to be of interest. Aircraft operators are primarily federal agencies and for the most part are dedicated to agency missions or particular research programs. There is no uniform method for requesting, scheduling or for cost reimbursement of aircraft operations. There is still a need to better utilize some of the aircraft facilities and to improve access for users that need aircraft support. Making information about schedules, requesting procedures and costs centrally available will help facilitate access. Moving towards a "UNOLS-like" process might start with a aircraft schedule coordinating group made up of aircraft schedulers and funding agency representatives.
- 2) Some good news was presented by several of the agencies, including the establishment of a "catalog of available aircraft" by NASA, the acquisition of one more Twin Otter and one more P-3 by NOAA, the HIAPER Gulfstream jet being brought into service by NSF-NCAR, and the addition of one more King Air by the Naval Research Lab. Tempering this news is the fact that budgets to operate the fleet of federal research aircraft continues to be tight.
- 3) A presentation was made to SCAOR by Jim Hain of Associated Scientists at Woods Hole about their interest in using a twin-engine ultralight aircraft called a TwinCam. They have filed a petition with the FAA asking for an exemption to a regulatory limitation within the Experimental category of aircraft certification, and Jim asked if SCOAR would write a letter of support for this, stating that SCOAR recognizes the value of such aircraft in marine scientific research. Following the meeting, John Bane wrote such a letter and circulated it to the SCOAR members. They all approved of the letter's wording, with several saying that it is the type of thing that SCOAR should be assisting with. Peter Wiebe subsequently gave his UNOLS Chair's OK, and the letter was submitted to the FAA as part of the exemption-request package submitted by Associated Scientists of Woods Hole. As of this date, a final ruling on their request has not been made by the FAA.
- 4) There will be one SCOAR membership rotation this year, and we hope to have candidates identified prior to the next SCOAR meeting, which will be during Fall 2006, probably late October or early November.

5) A major part of the discussion at the SCOAR meeting was on details regarding the First UNOLS Airborne Ocean Science Conference, which was held the evening of May 24 and all day on May 25.

UNOLS Airborne Ocean Science Conference.

About 40 research aircraft scientists, technicians and agency operators attended this conference at the Moss Landing Marine Laboratories. Twenty-five oral and poster presentations were made. The meeting agenda, list of attendees and slides from the oral presentations can be seen at:

<http://www.unols.org/meetings/2006/200605aosc/200605aoscmi.html>

The general sense from attendees following the meeting was that it was a great success and that SCOAR and UNOLS should consider having a similar meeting periodically, perhaps every two years. An additional idea was to have a session for aircraft science results at an AGU or Ocean Sciences meeting and then an evening "Town Hall" meeting on the future of aircraft in ocean sciences. SCOAR will follow up on this.

Ship Scheduling Committee Report **By Liz Brenner and Rose Dufour**

Since the last Council meeting in March the Ship Scheduling Committee has held three different meetings. All of the meetings were held by teleconference and PictureTalk as a visual tool.

On May 11, 2006 the Large Ship Scheduling Meeting was held. All large ship schedulers as well as agency representatives from NSF, ONR and NOAA were in attendance.

Linda Goad explained that NSF would hope to receive an extra million for 2006 and 2007 additionally may receive up to 3 or 4 million extra for 2007 ship operations. NOAA-OE was unable to commit to any ship time in 2007. NOAA is requesting the use of JASON II for a cruise on R/V *Ron Brown* in 2007.

Each schedule was reviewed and problematic cruises such as the coordination of *Langseth* and other OBS cruises were discussed. Problems were outlined to be followed up with negotiations between schedulers and funded scientists and program managers as well as negotiations between schedulers. Double bookings remained.

John Freitag and Linda Goad made a request to combine *Melville* and *Thompson* 2007 Letters of Intent to make one schedule thereby leaving one ship open and available to pick up an undisclosed mission or set of cruises. No other information was offered at that time. This schedule was to be called *Melson*. Each version would look a bit different as *Thompson* and *Melville* end the year 2006 in different parts of the world. *Melville* is scheduled to end the year with six DART mooring deployments in the east and south Pacific then south for a shipyard period in Brisbane, Australia. *Thompson* will end the 2006-year in homeport for a maintenance period.

On June 14, 2006 the West Coast Intermediate and Regional scheduling meeting was held. Before the meeting a message of was sent to the schedulers from Linda Goad at NSF. Below is an excerpt.

1. Right now, using 2006 rate estimates for the ship days in 2007, I'm over my projected budget. This budget also does not allow for lay up funds. So the picture is dim...

2. Anything listed on any ship schedule as pending for NSF should be removed from the LOIs. I'll have a hard enough time funding the ship time for research programs already funded.

3. *You're going to have to be creative and tough with your budgets. If someone retires, and you can make do without that person (even if it's only a partial year), then do without.*

4. *Rate increases are only going to decrease ship days and increase lay-ups further.*

5. *There will be no partial lay-ups this year. If NSF ships are laid up, the funds for these ships will be minimal. If privately owned ships choose to continue working, that is their choice. However, your choice to operate at half an optimal schedule does not mean that I will pay twice the day rate. Many decisions will be made based on appropriate ship for the work, and if two vessels are equivalent, the least expensive option will get the work.*

Each schedule was reviewed. One specific cruise was triple booked. Discussions took place regarding the challenge of laying up the smaller more local ships due to their flexibility in the scheduling of test and local class cruises.

The recommendation was for each west coast ship scheduler to create a version of their schedule without the one triple booked cruise. In addition each ship scheduler was asked to create a consolidated schedule, *New Horizon* and *Wecoma, Pt. Sur* and *R.G. Sproul* and to work up an estimate of the level of support needed for lay-up, perhaps with an option that included operating for the local work. However, Linda Goad stated that NSF would be under no obligation to provide lay up support for non-federal ships.

The East Coast Intermediate/Regional scheduling meeting was held, June 15th 2006. In attendance were east coast schedulers as well as federal agency representatives and SSC chairs.

Schedules were reviewed; several cruises remain double or triple booked. Three different east coast ship operators are essentially posting the same ship schedule; the only difference is the individual state funds.

A small conference call was previously held with Linda Goad and east coast intermediate operators. At that meeting it was decided by Linda Goad that a funded NSF cruise to be carried out in Venezuelan waters be scheduled on *Seward Johnson*, this cruise had been previously triple booked with other east coast ships.

The recommendation from NSF was to keep budgets as low as possible, be creative and try to find other sources of funding. Lay up funds will probably not be more than \$500K per ship. And again the message to non-federal ships to not expect to receive lay up funds. Total costs will be a factor in decision-making and partial schedules will not be supported at a very high day rate.

Schedulers for *Seward Johnson, Endeavor, Oceanus, Sharp* and *Cape Hatteras* should create a second LOI (_2) which would be the consolidated schedule that is a reasonably full as possible with legitimate work.

The first LOI should show the work that is specific to the ship, requesting the ship or otherwise should only be scheduled on that ship.

Since the large ship conference call SSC chairs and Mike Prince were informally given word that the option of taking a global class vessel offline to carry out an undisclosed mission has been aborted. Apparently the groups ONR was speaking to did not have enough money to support a global class vessel for one entire year.

Conversations have taken place with NBDC-DART regarding potential work in 2007. The UNOLS fleet will be competing against other ship operations including the NOAA fleet for the DART deployments and maintenance operations around the world. Individual UNOLS ship operators will deal directly with DART to propose schedules and cost estimates. Currently the DART budget is around \$4 million

Schedulers are working up and posting combined schedules. Projecting accurate proposed day rates may be problematic especially for multi-ship institutions. More information will be needed to take into account all factors before projecting a rate especially if one of the multi ship institutions' ship is targeted for lay-up.

The Ships Scheduling committee awaits recommendation from the sub-committee for guidance on lay up procedures. After recommendations we will continue to hold teleconference meetings throughout the summer culminating with the Ship Scheduling meeting to be held in Arlington, VA in September. Date TDB.

Arctic Icebreaker Coordinating Committee Report June 2006

USCGC HEALY successfully completed the first program of her summer 2006 field season, HLY0601. The unscheduled emergency dry dock to fix a bow thruster that was expected to take place in April was cancelled when Todd shipyard lost its certification to lift HEALY. The ship did have the bow thruster functioning before its HLY0601 deployment, and the condition of this unit did not seem to affect this program, which took place south of St. Lawrence island in the Bering Sea in light ice conditions. A significant change for HEALY between last summer and this summer is that helicopter operations for 2006 are being run by a commercial contractor as the USCG POP-DIV has been disbanded and, at the present time, seems unlikely to be reformed. CAPT Dan Oliver reported that operations with the commercial company on HLY0601 were very successful. The Change of Command ceremony for CAPT Daniel Oliver, who sailed as the HEALY's CO since 2003, took place in Dutch Harbor, AK in June, and CAPT Douglas Russell is now in charge. HEALY is presently completing training exercises and is expected to load a seismic system next month to begin a survey of the Canada Basin. That will be followed by EEZ mapping for the United States and autonomous underwater vehicle testing. The ship will return to Seattle in the fall, when it is expected to have a thirteen-week long maintenance period that will include 9 weeks in drydock and several significant modifications of existing ship's systems.

Short-term repairs on the POLAR SEA continue, and that ship remains expected to support Deep Freeze in 2007. POLAR STAR is still at dock. USCG Headquarters reports that the Commandant is looking for guidance on the POLAR-class icebreakers from the final National Academy of Science report "Assessment of US Coast Guard Polar Icebreaker Roles and Future Needs" that should be released before the end of this year. In the meantime, NSF continues to pursue options that involve foreign icebreakers for resupplying McMurdo Station in Antarctica.

AICC completed its spring meeting at the National Science Foundation on April 18th and 19th. The second day of this meeting was scheduled to allow AICC to meet with the Antarctic Research Vessel Oversight Committee (ARVOC) to discuss mutual interests with respect to the POLAR-class icebreakers and ongoing support of science in ice-covered waters at both poles, but an emergency caused ARVOC to cancel their participation. It is hoped that the joint meeting will take place early next year when AICC meets in Seattle to view the HEALY while she is in drydock.

An announcement soliciting potential new members for AICC was circulated by the UNOLS office and generated several applications. The present committee membership will review the applicants this summer and make selections to replace the three outgoing committee members who rotate off in January. At the April AICC meeting there was a discussion about who would replace Margo Edwards as Chair of AICC and Carin Ashjian of the Woods Hole Oceanographic Institution was the sole volunteer for this role. She will assume the leadership of the group at the next meeting in early 2007.

The AICC can be reached by writing to the Chair (margo@soest.hawaii.edu) or to the UNOLS Office (office@unols.org).

Report submitted by M. Edwards