University-National Oceanographic Laboratory System

UNOLS NEWS

Volume 19, No. 1 **Winter 2002**

Highlights

Message from the UNOLS Chair…

This issue of UNOLS news contains articles on a wide variety of topics of importance to our community. Two of them in particular will probably remain on our active list for years to come.

The first of these is fleet renewal. I have commented on its ongoingness previously. As this issue goes to press the FOFC Long Range Plan is complete, and the initial steps by agencies and UNOLS/FIC toward implementation of that plan - budget items, timelines, mission requirements, design processes - are being started. It will be years before the first ship constructed under this plan is placed in service, and many more years before the last ship appears. Through all this time the continued engagement of the scientific ship-user community will be essential if we are to obtain the best possible ships to meet our future research goals.

The second topic is security. Prior to the attempted attack on R/V EWING and prior to September 11, 2001, many of us (and I include myself) had a limited and unduly rosy notion of the extent or viciousness of piracy in the modern world, and none of us imagined the kind of suicidal terrorism directed at US entities that we have since witnessed. We have had our wake-up calls. We now face the additional constraint of including security concerns in program planning and ship scheduling at an appropriate level of priority. The UNOLS fleet is not about to retreat to US coastal waters entirely, just as we as individuals have not entirely ceased flying in commercial aircraft since September 11th. But, together with agencies, we will have to learn how to temper plans and schedules in the light of available information about terrorist and piracy threats, and how to adapt as the available information changes. There may well be certain places and times where UNOLS ships should not go, even though good scientific reasons would lead there. Again, the continued engagement of seagoing scientists will be needed to strike balances that preserve as much scope for research as possible, but stop short of being foolhardy in a world that unfortunately contains more malicious and dangerous elements than we thought only recently.

By Bob Knox, UNOLS Chair

UNOLS Adopts Mission Statement

In 2001, UNOLS drafted its first official mission statement (see box below). The statement is intended to provide a description of our organization and the role that we work to fulfill. The Council voted to adopt this mission statement in November. We hope that you will take time to review this statement and send us your feedback.

In addition to the Mission Statement, goals and priorities for 2002 were also identified and endorsed by the Council. The UNOLS goals are to provide:

- Broad, coordinated access to oceanographic research facilities.
- Continuous quality improvement.
- Plan for and foster support for the oceanographic facilities of the future.

The specific 2002 objectives include the following:

- Create ship schedules by September
- Improve the ship time and scheduling system
- Develop quality of service improvements
- Comply with the ISM Code
- Make recommendations for improvements to Arctic icebreaker equipment and science operations
- Initiate and participate in the Fleet renewal process
- Monitor and stay engaged with the development of "Ocean Observatories" and other new uses of research vessels.
- Coordination of new facilities

The UNOLS goals, priorities, and mission statement have been posted on our website at: **http://www.unols.org/issues.html**. The web page has been designed as a living document and community input is welcome.

UNOLS Mission Statement

The University-National Oceanographic Laboratory System (UNOLS) is an organization of academic oceanographic institutions working in cooperation with agencies of the U.S. Federal Government to ensure broad access to modern, well operated, state of the art research vessels, submersibles and facilities required to support a healthy and vigorous research and education program in the ocean sciences.

UNOLS is an advisory body that provides the mechanisms for coordinated scheduling and access to research vessels and facilities, co-operation and innovation by facility operators and broad community input to operators and federal agencies regarding current and future facility requirements for the ocean sciences.

UNOLS Council Election Results and Membership Votes

UNOLS membership votes and elections were held in the fall 2001 by mail ballot. Two Council seats were up for election, a Non-Operator representative (from among designated UNOLS Non-Operator Institutions) and an At-large representative (affiliated with any Member Institution). Charlie Flagg (Brookhaven National Laboratory) was re-elected for a second term in the Non-Operator category. Bruce Corliss (Duke University) was elected to fill the At-large position.

Three institutions applied for UNOLS Membership. All three were accepted, bringing the total UNOLS membership to 64. The new members are: Caribbean Marine Research Center, Romberg Tiburon Center for Environmental Studies – San Francisco State University, and Humboldt State University Marine Laboratory.

All of the proposed UNOLS Charter revisions were accepted by the membership. The revision to the Charter contains changes to accomplish the goal of creating a rotation from Vice Chair (Chair-Elect) to Chair to Immediate Past Chair (IPC). This is similar to systems used by other organizations such as AGU and it is hoped that it will enhance our ability to recruit good candidates for Vice Chair (Chair- Elect) and Chair in the future. The plan is based on two-year terms as Vice Chair (Chair-Elect), Chair and IPC. The second change to the Charter is to include a section that spells out the procedure to take care of run-off elections when no candidate receives a majority in a Council election.

2001 In Review

As we begin the new year, UNOLS would like to take an opportunity to look back over 2001 and share some of our highlights, activities and accomplishments. These activities have covered the areas of facility scheduling, quality improvement and fleet planning. Many of these accomplishments have been reported in detail in this newsletter, but are summarized below:

- The community was alerted to the need for fleet renewal and efforts are underway to meet long-range plans. KILO MOANA is near completion, SAVANNAH entered the fleet in fall 2001, and designs have been developed for an Alaskan vessel as well as a CAPE HENLOPEN replacement.
- UNOLS provided a community response to the draft FOFC Long-Range Fleet Plan.
- Implementation plans for ISM Compliance on large UNOLS vessels are well underway.
- HEALY's science systems testing was completed and the ship successfully carried out its first science operations in the Arctic.
- Work to improve the Post Cruise Assessment system is underway.
- ALVIN overhaul was completed. Upgrades to the National Deep Submergence Facility vehicles DSL120A and Jason II are underway.
- Scheduling of all UNOLS vessels was complete by early October ensuring that scientific objectives were used as the primary consideration in making decisions whenever possible.
- Standard specifications for shipboard vans have been developed and approved by the U.S. Coast Guard.
- Fleet Security issues are being addressed and an RVOC Security Subcommittee was established.

Next Generation Wire: Establishing Mission Requirements

By Jon Alberts (Woods Hole Oceanographic Institution)

In our continuing efforts to establish the next generation of UNOLS Wire and Cable specifications, a meeting was held on board R/V THOMPSON at the University of Washington on January 23, 2002. A second meeting of this type was held at Woods Hole Oceanographic Institution on January 29, 2002. In attendance at the meetings were various members from NSF, UNOLS office, scientists, marine operations personnel, technicians, and engineers.

Our primary objective for these open meetings is to bring scientists, ship operators, technicians, engineers, and other interested members of the oceanographic community together to collect as much information and feedback from the users of these wires and cables as possible. The success of our efforts to establish the next generation of UNOLS wires and cables hinges entirely on this community input and we will continue to seek ways to get that input.

The goals of the project are to: (1) Identify the scientific uses for current UNOLS wire and cables and to develop the science mission requirements for a new generation of wires and cables, (2) Create specifications for UNOLS standard wires and cables to meet these requirements, and (3) Develop recommendations for introducing new standard wires and cables into the UNOLS fleet.

Our next steps are to: 1) Survey the current suite of oceanographic instrumentation that requires the use of wires and cables, and to identify the data telemetry, electrical and mechanical characteristics required of each, 2) Examine the current inventory of winches and determine through discussions with winch manufacturers the range of wire types/sizes these winches can operate without extensive modifications, and 3) Collect the current "off the shelf" wire designs offered by wire suppliers to determine what is available now. In particular we will be looking at cables with fiber optics that might be accommodated by existing winches as one type of the new cable.

This data will be entered into a matrix, reviewed by the wire committee and sent out to the community for comment.

Information on this project is located at: <http:www.unols.org/wire/wirespec.html>. Your input can be submitted on-line at the UNOLS web page: <http:www.unols.org/wire/wireform.html>.

For more information about this effort, please contact Jon Alberts, WHOI jalberts@whoi.edu or Mike Prince, UNOLS Office <office@unols.org>.

Security of Fleet Operations

In the wake of the September 11th terrorist attack on the United States and the attack on R/V EWING in the western Gulf of Aden on 31 August, the UNOLS Council, RVOC, and Federal Agency representatives have considered the immediate and long term implications of these events on research vessel operations. These incidents raise a number of questions about future UNOLS research vessel operations, not only in piracy- or terrorist-prone areas, but worldwide.

At the 2001 annual Research Vessel Operators' Committee (RVOC) meeting a report was made by Paul Ljunggren (LDEO) and Joe Coburn (WHOI) regarding the attack on R/V EWING, piracy, and vessel security. At the meeting, RVOC appointed a subcommittee to further examine the issue and to develop recommendations regarding training, security procedures, the further development of resources and other operational considerations. This committee is chaired by Daniel Schwartz, Marine Superintendent at the University of Washington, and includes Joe Coburn and Paul Ljunggren. A web page dedicated to this committee details their initial purpose and issues of concern: http://www.unols.org/rvoc/rvocsecurity.html.

The UNOLS Council held a special meeting on November 15th at the Brookings Institution in Washington D.C. during which the entire morning was devoted to presentations and discussion on ensuring security for research vessel operations in the current world environment. The minutes for this meeting are posted at <http://www.unols.org/council/cncmt111/cncmi111.html>. The meeting was attended by the UNOLS Council, several UNOLS institution representatives, science and facilities program managers from ONR, NSF and NOAA as well as representatives of the State Department, the Oceanographer of the Navy, the Office of Naval Intelligence, the U.S. Coast Guard, the Maritime Administration and the Naval Oceanographic Office. A series of short presentations were made during the meeting to help focus the discussion on issues such as threat assessment, training and operational procedures, and safety of crew and scientists. A summary of these presentations and subsequent discussion are contained in the minutes and appendices of the meeting. At this meeting some areas of concern were clarified for action or further development and some preliminary conclusions were identified.

UNOLS and the federal agencies have begun to take specific actions to help insure the security of fleet operations. A page on the UNOLS website has been established to consolidate sources of information regarding vessel safety and security, including links to the State Department travel warnings, archives of ONI reports, The International Chamber of Commerce's Weekly Piracy Report and guidance from IMO and the International Chamber of Shipping on dealing with Piracy and Terrorism. The UNOLS Office will continue to expand this list of resources as new information becomes available. This web page is located at: <http://www.unols.org/rvoc/security.html>.

The Office of Naval Intelligence (ONI) sends the weekly report on "World Wide Threats to Shipping" to the UNOLS Office. In turn, the Office forwards the report to all UNOLS marine superintendents.

The RVOC security subcommittee and the UNOLS Office will work with the State Department to incorporate a more thorough review of security concerns during the process of obtaining clearances for research in other countries' EEZ. The State Department will also work to identify resources in host countries and procedures for obtaining assistance if needed when operating in the waters of other countries.

The RVOC subcommittee and the UNOLS Office will work with the Oceanographer of the Navy, the Office of Naval Intelligence and the Coast Guard to develop better mechanisms for evaluating potential threats to research vessel operations.

As an outcome of the UNOLS meetings and subcommittee activities, some preliminary conclusions and security issues have been identified:

- "Situational Awareness" is one of the best forms of defense against both acts of piracy and terrorism. Current information about past and potential threats to shipping is useful in avoiding potential high-risk areas. Operational ship procedures need to include methods for detection and recognition of threats and a well-prepared plan for reacting to that threat. The RVOC Subcommittee, the UNOLS ship operators and the UNOLS Office will continue to establish contacts with the best sources of information and make that available to ship operators, scientists and program managers. They will also work to develop plans and procedures for reacting to threats.
- Historically, the vast majority of modern acts of piracy have taken place in port, at anchor or within sight of land and for the most part

during the night. Additionally, travel to and from research vessels, receiving equipment and personnel on board in foreign ports and activities ashore all pose potential threats to the research vessels and their personnel. Procedures for operation of research vessels in high-risk areas will require an emphasis on the protection of the crew, scientists, and the vessel while in port or at anchor. Developing these procedures and recommendations will be a focus of the RVOC subcommittee and the UNOLS ship operators using existing guidance from IMO and the International Chamber of Shipping.

- Training in how to prevent and react to threats or acts of violence against our vessels, crews and scientists should be a regular part of the ongoing training program for all UNOLS vessels. This regular training should be augmented with briefings and further training tailored to specific areas when made necessary by virtue of travel to areas that are high risk. Training and indoctrination for the Science party on research vessels with regards to security procedures and plans will also have to be implemented. The RVOC Subcommittee and UNOLS ship operators will work to identify the type of training required and the best sources of that training.
- In certain situations, security professionals or consultants, should be hired to participate in a cruise to further heighten awareness and preparedness. An action item for the RVOC subcommittee and the UNOLS ship operating institutions will be to identify the best resources for this type of service. They will also need to determine criteria that could be used for deciding when these services are necessary and what this service should consist of.
- Funding decisions, scheduling decisions, research vessel clearance procedures, pre-cruise planning procedures, final sailing orders and operational decisions by vessel Masters, institutional management, and Chief Scientists will all need to take into account security issues in much the same way that major weather conditions and other significant factors are routinely considered now.

The Fall/Winter 2001 Issue of the NSF OCE Newsletter provides an article on fleet operation security. It provides guidance to Principal Investigators who are considering operations in potentially high-risk areas.

In summary, although actions can be taken to improve crew, management and science party training, prepare security plans and procedures, ensure access to the best possible intelligence and work towards worldwide control of piracy and terrorism there will always be the potential for danger and threats for research vessel operations. Each cruise will have to be evaluated on the particular circumstances at the time and as those circumstances change. Each case will be unique and our primary job will be to ensure that the Master, crew, scientists and institutional management have the resources necessary to make good decisions and protect themselves when confronted with acts of violence. Cooperation and understanding by all parties involved with fleet operations is essential in addressing future potential security risks. The UNOLS Office and ship operators are available to provide advice regarding security measures for proposed operations.

UNOLS Establishes Standardized Van Specifications

By Matt Hawkins, University of Delaware

Four of the eight UNOLS scientific vans funded by the National Science Foundation have been constructed and delivered. They include aluminum Isotope vans for Oregon State University (WECOMA) and the University of Texas (LONGHORN), a chemical storage van for Woods Hole (ATLANTIS), and an electronics van for Scripps (SPROUL). The remaining vans are currently under construction and include two steel Isotope vans for the University of Washington (THOMPSON), an aluminum trace metal clean van for LUMCON (PELICAN), and an aluminum Isotope van for the University of Delaware (CAPE HENLOPEN). All should be delivered by spring of this year.

The main goals of this standardization effort were to make vans more interchangeable among UNOLS ships, enable transport by common carrier, facilitate group purchase, and standardize certain design elements for the benefit of the scientific user. The most important result, however, was a clarification of the basic standards to which portable

scientific vans should be built. The specifications and design details were sent to the U.S. Coast Guard in Washington, DC for approval. The review letter that came back from the Coast Guard addressed most van types to some degree, but the response dealt mostly with requirements for inspected vans. Many of the requirements had long been determined at the discretion of the local Coast Guard Office of Marine Inspection. The intent of the Coast Guard review was to get a single, centralized view of the basic standards to which vans should be built. The intent was not to rewrite the existing rules in 46 CFR, or create new rules, but rather to clarify the ones that already exist for sub-Chapter U vessels. Standards from other industries, other classes of vessels, and classification societies (ABS and DNV) were used for guidance. Many key elements needed to standardize design, namely side panel strength and structural fire protection, had been very difficult to ascertain before now.

The three primary decisions of the review were:

- An ABS side and aft deckhouse design pressure of 2.0 psi for plate, and 1.5 psi for stiffeners is suitable for accommodations vans in "sheltered locations." A definition of "sheltered location" was negotiated, which is based on the premise that the loads experienced by the van will primarily be wind loads. A standard ISO container does NOT meet this requirement and requires additional stiffening.
- Portable vans on sub-Chapter U vessels are allowed to take into account the "van/ship system" when considering the overall fire rating of the "boundary." This includes the van structure, adjoining ship's structure, and the air space in between. The actual suitability of this "boundary" is subject to formal flame testing. This ruling allows most van types (including labs) to be built of aluminum, though some types will still be required to be built of steel. Testing of this theory will also permit the vans to be placed anywhere on board.
- Accommodations vans must be built of "incombustible materials" all around. This means that either the wooden deck normally found in a standard ISO container must be replaced with a metal deck, or a metal "belly plate" must be added.

One additional benefit of the review process was to obtain a formal ruling that laboratory vans are not "accommodations," and thus not required to be inspected. However, it was stated in the review letter that for lab vans the "…design and material selection must [consider] forces and environmental conditions to which the vans …will be exposed." Normally lab vans are placed in very similar locations to accommodations vans on UNOLS vessels, and thus there is very little difference in the conditions and forces experienced. Also, scientific personnel occupy the van while the ship is underway. Because of this fact, the members of the Research Vessel Operators' Committee (RVOC) voted at the October meeting to accept the accommodations van standards as the minimum for all new vans that are occupied by personnel – including laboratory vans. Vans which currently meet the other basic safety requirements given in the new specifications and the CFR's (egresses, electrical, etc.) may be "grand fathered" with regard to the structural requirements. However, all new vans, whether ship or science owned, should be built to these new standards.

Formal flame tests are currently underway at a U.S. Coast Guard approved testing facility to prove the adequacy of both the standard steel panel design to meet "A-0" requirements, and the aluminum van/ship system to meet "A-30" requirements. Much of the information on the UNOLS van design and standards is still being finalized. A consolidated, web-based *UNOLS Van Manual* is being developed and will be publicly available on the RVOC site in the near future. A hard copy manual will also be made available.

Now that most of the regulatory issues have been resolved, the next phase in the UNOLS van project is to deal with the many logistical issues with portable vans. At the RVOC meeting there was a recognized need for a sub-committee to start dealing with these issues. Matt Hawkins was nominated to be the chair of this group. The members will be composed of both ship operators and technicians. Technicians at many institutions deal with scientific vans, so their representation on the committee was deemed essential. The committee will deal primary with: 1) assessing the condition of existing vans and determining overall fleet need for the various van types, 2) developing a centralized web-based van inventory, and 3) proposing a standardized van loan/rental agreement among operators and science.

UNOLS to Implement International Safety Management (ISM) Code for Vessels over 500GT
What does this mean to science ship users?

An International Safety Management (ISM) Code has been adopted by the International Maritime Organization (IMO) and is included as Annex IX of the International Convention for the Safety of Life at Sea (SOLAS). All vessels over 500 tons on international voyages will be required to comply with the ISM code effective July 2002. Those UNOLS vessels over 500 tons include MELVILLE, KNORR, THOMPSON, REVELLE, ATLANTIS, EWING, and KILO MOANA. The objectives of the ISM Code are to ensure safety at sea, prevention of human injury or loss of life, and avoidance of damage to the environment and property. Each ship operating institution subject to ISM is required to establish a Safety Management System that includes safety and environmental policy and procedures necessary to implement that policy.

What does ISM compliance mean to the science community of ship users? The operators of the above listed vessels, SIO, WHOI, LDEO, UW and UH, have worked together and with consultants to create and implement the required Safety Management Plans. These plans are in the final stages of implementation and approval. The intent of the operators has been to make the implementation of this code as transparent to scientists as possible, but it will mean that adherence to safety and pre-cruise planning requirements will be more closely enforced. It is also the intent of the operators that this will improve safety and ensure that the operators are better prepared to achieve your scientific goals.

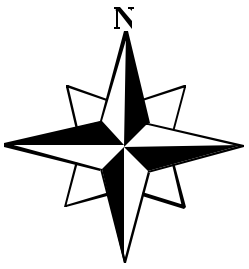
The immediate impact to scientific users under ISM will primarily be during the pre-cruise planning process. Documentation of requirements, procedures and equipment that will be utilized during a cruise will become even more important than it already is. Chief Scientists are encouraged to contact the research vessel operators early in the planning process and to participate fully by completing cruise plan forms and attending pre-cruise planning meetings. The primary thing to keep in mind is that the goal of the ship operators and of the ISM code is to achieve your scientific objectives while at the same time protecting the safety of the people involved and the environment. The pre-cruise planning process is an integral and vital part of achieving all of these goals. For more information on the background of the ISM code and how it will be implemented in the UNOLS fleet you can visit the website at: http://www.unols.org/rvoc/safety.html.

UNOLS Quality of Service Initiative (QSI)

The UNOLS Council has formed a subcommittee to review the current UNOLS on-line Post Cruise Assessment (PCA) form and recommend design improvements. The online form is located on the web at <http://www.gso.uri.edu/unols/pcarform.htm>. The committee includes Wilf Gardner (TAMU), Tom Shipley (UT), Steve Rabalais (LUMCON), Tim Cowles (OSU), Dale Chayes (LDEO), Mike Prince (UNOLS Office) and Laura Dippold (UNOLS Office).

The PCAs are tools intended to help improve fleet safety, reliability and quality. They are a useful reference during ship inspections. The forms can be useful in identifying problems with the ship, ship's systems, or shipboard scientific equipment. The forms can help assess the performance of shipboard technician support and ship operations. They can be used by the UNOLS Council for gauging overall fleet support of science.

The Subcommittee will explore methods for increasing user feedback. They will consider the effects of requiring that the form be submitted electronically. The captain and marine technicians PCAs will be examined. The subcommittee will consider whether or not all PIs should be able to submit the form, or just the chief scientists. The new form under design will allow evaluation of the scheduling process and cruise planning in addition to the cruise itself.



COMMITTEE NEWS

UNOLS Arctic Icebreaker Coordinating Committee News

By Lisa Clough, AICC Chair

The AICC has had a busy fall and winter, including a meeting in Washington, D.C. in September, and a Town Hall Meeting at AGU in December. The committee continues to gather feedback from HEALY's recently completed science cruises, AMORE and ALTEX. In addition, we're working with the U.S. Coast Guard (USCG) and NSF to facilitate the upcoming 2002 Arctic science cruises on both HEALY and POLAR STAR.

As one component of gathering feedback from completed science cruises, we are using a debrief system. We have a set of approximately 20 topics that we cover:

Pre-cruise communications; Permits/Clearances; Logistics/Cargo; Construction; Information Technology; Laboratory operations; Laboratory equipment; Diving support; Science technical services; Small boat ops; Helo ops; Food service; Housing/janitorial; Safety; Administrative services; Medical; Travel; Ship operators; Any other comments?; and Plans for the next trip if relevant.

We invite representatives from the funding agency, Coast Guard Headquarters and Pacific Area, the ship, the chief scientist for the science party, and of course the AICC to participate in the debrief. So far, it has been a very worthwhile interchange of information that has resulted in several valuable suggestions for continued improvement of science operations on USCG icebreakers. Both the AMORE and ALTEX debriefs were discussed in detail at our AICC meeting on 24-25 January.

The December town hall meeting offered another venue to compile feedback from the just completed cruises, and to share "lessons learned" with potential future users of the USCG icebreakers. We had a turnout of approximately 30 people to hear from Peter Michael and Ned Cokelet (pretty good considering opposing town hall meetings were offering food and beverages).

Plans for cruises on board the USCG icebreakers in 2002 are in full swing. HEALY will be spending summer 2002 in the western Arctic Ocean. Two main science projects will be taking place in the Chukchi Sea area on HEALY: Shelf-Basin Interactions (SBI) a large interdisciplinary science project; and a geological investigation led by a group from Woods Hole Oceanographic Institution. POLAR STAR will also be used for a series of SBI cruises, and will support a physical oceanography cruise in the western Arctic.

Minutes from our September meeting are available on-line at: http://www.unols.org/aicc/aicmt109/aicmi109.html. Our most recent meeting was on January 24th and 25th in Seattle. The agenda for that meeting can be seen at: http://www.unols.org/aicc/aicmt201/aicag201.html. The AICC can be reached by writing to the Chair <CLOUGHL@MAIL.ECU.EDU> or to the UNOLS Office <office@unols.org>.

DEep Submergence Science Committee News

By Patricia Fryer, DESSC Chair

DESSC held its annual meeting on 9 December in San Francisco at the Marriott Hotel. Minutes of the meeting will be available on the DESSC page of the UNOLS Web site soon, <http://www.unols.org/dessc/>. Science reports by Principal Investigators for 2001 expeditions utilizing ALVIN, WHOI ROV/AUV vehicles, and several assets from other submergence facilities highlighted some of the major discoveries of the past year and reinforced the need to continue to foster support for the use of and access to submergence assets.

The National Deep Submergence Facility Operator's Report (WHOI), included an operations summary for the NDSF vehicle systems, and WHOI work plans for 2002-2003. Specifics of the work done on R/V ATLANTIS, a summary of work to be done, and a review of community input for improvements were discussed. The operator presented a report of the overhaul completed in 2001. A progress report on the ROV upgrades included timing for scheduling of field trials and scheduling of scientific expeditions for 2002/2003. The DSL-120A upgrades are complete and the first field programs using the new vehicle were in late 2001. Jason II will undergo dock tests in late May or early June, field trials will begin in July, and field programs are scheduled in August of 2002. Reports on the activities of other facilities were presented by S. Pomponi (HBOI), M. Chaffey (MBARI), and F. Spiess (MPL). HURL and ROPOS provided written reports that will be included in the minutes of the meeting.

WHOI announced that a New ALVIN Construction Advisory Committee (NACAC) will be set up to assist the NDSF with planning from a new 6+km capability occupied submersible. The committee will be established within the next few weeks and DESSC and the NDSF encourage members of the community to provide input. As the committee ramps up its activities you will be hearing more requests for input.

WHOI/NDSF Chief Scientist Dan Fornari will be stepping down from that position this year. There is a special article in this issue of the UNOLS News (page 16) as tribute to Dan's many contributions to submergence science in his capacity as Chief Scientist for the NDSF.

A brief report from UNOLS highlighted some of the recent difficulties encountered with security aboard research vessels in foreign waters and provided guidance for scientists contemplating work in regions where security is an issue (see article on page 4).

A report from the NOAA Ocean Exploration (OE) Initiative indicated that proposals for about 160 science projects were received for the November 1st deadline for NOAA funding. Reviews of these proposals are due at the end of January and the panel meeting for final deliberations regarding them is set for 5-6 March. Concerns regarding scheduling of the fieldwork on UNOLS ships were expressed, but the OE office is aware of the difficulties and is working with UNOLS to sort out facility scheduling.

In response to recommendations from the UNOLS DESCEND workshop and with endorsement from the UNOLS Council, DESSC plans to establish an ad hoc Shallow-water Submergence Science Committee (SSSC) with S. Pomponi (HBOI) as Chair. The membership of the committee, problems of support for the committee, and issues regarding its mandate (science goals, technology needs, access and funding issues) were discussed at a lunchtime meeting of the DESSC members. The eventual fate of the SSSC was also discussed. One possibility is that its mandate be folded into that of DESSC, thus broadening the scope of DESSC's responsibilities. Another possibility is that it be a stand-alone committee with liaison to DESSC.

As a follow-up to the UNOLS DESCEND workshop, DESSC has been working toward organizing a technology meeting. An upcoming meeting of technologists and scientists on 20-22 May 2002 will provide a venue for discussions of a future roadmap for technological developments in support of submergence science. Information about this meeting, NOAA/NASA Exploration 2002 - LINK Symposium, can be found on their website at http://oceanexplorer.noaa.gov/projects/link02/link02.html. The topics of discussion will include future developments for occupied, remotely operated, and autonomous vehicles, navigation and power systems, imaging systems, sonar mapping systems, chemical & biological sensing, intervention capabilities data management, and communications.

The marine biological community has been making great strides recently in studies of biological systems in various submarine environments. At the 2002 AGU/ASLO Ocean Sciences meeting in February DESSC will host two special sessions on "Recent advances in understanding submarine biosystems: Submergence Research." The first will be a poster session (Wednesday morning, 13 February) highlighting the accomplishments of various submergence facility operations and innovative scientific discoveries made with these assets. The second session (Thursday afternoon, 14 February) will provide the attendees with a DESSC AGU style set of oral presentations beginning with summaries of recent research results

using a variety of submergence assets. We will then hear a combined funding agency report from NSF and NOAA. The last talks will be operations reports from the NDSF. The last slot in the session is reserved for an interactive feedback forum for users and operators. This follows the general form of the DESSC public meetings that for years have been held immediately before the December AGU meeting in San Francisco. These special sessions were planned with the objective of providing the community of marine biologists with a higher level of interaction with the National Deep Submergence Facility, a level similar to that which the Marine Geology and Geophysics community has enjoyed through the regular public DESSC meetings in San Francisco. Other meetings targeting various disciplines are also coming up over the next months and DESSC plans to provide more information regarding the use of submergence assets at these. They include the Spring Benthic Ecology meeting in Florida and the MIT Archaeology meeting in April 2002.

DESSC encourages public outreach and education activities related to submergence research and representatives of several such activities highlighted the successes of recent efforts. The UNOLS Public Outreach and Education Links, <http://www.unols.org/outreach.html> has links to the following programs: Dive and Discover <http://science.whoi.edu /DiveDiscover/>, Extreme 2001 <http://www.ocean.udel.edu/extreme2001/>, NOAA Explorations: Deep East 2001 <http://oceanexplorer.noaa.gov /explorations/deepeast01/deepeast01.html>, Millennium Observatory (NeMO) <http://www.pmel.noaa.gov/vents/nemo/index.html>, and the MATE Internship Program <http://www.marinetech.org/careers/internships.html>. Additional outreach efforts are being proposed in collaboration with Ridge 2K to provide a number of Deep Submergence Lectureships highlighting the discoveries made recently with submergence assets.

The most visually spectacular activity presented in conjunction with the DESSC meeting was a 20-minute selection of some of the first extensively illuminated, super-high fidelity footage of the deep oceans. The movie was shown Monday morning (12/10) at the Sony IMAX Theater at Metreon. The footage included shots from hydrothermal vent sites in the Atlantic and Pacific (600m to 4000m) filmed from Alvin in the 15/70mm giant screen film format. The raw footage presented is part of a future release entitled "Voyage into the Abyss" (a working title). This IMAX movie is currently in production and scheduled for release September 2002.

The screening was a follow-up to the Principal Investigators reports at the DESSC meeting and included footage from the recent August Mid-Atlantic Ridge cruise. The presentation was also open to AGU attendees. The screening was so popular with the near capacity crowd that a second screening was offered on Thursday.

Voyage into the Abyss is a collaborative science education outreach effort produced by Volcanic Ocean Films Inc., an affiliate of The Stephen Low Company, together with Rutgers University. Major financial support for the project comes from the National Science Foundation. Project contributors include: the New England Aquarium (Boston), the Museum of Science and Technology (Syracuse) and the University of South Florida. Filming for the project was completed principally with the submersible ALVIN and the deep submergence resources of Woods Hole Oceanographic Institution and brings together the latest advances in submarine imaging and lighting technology including a new lighting array configured especially for the submersible and the unique demands of this project.

The final film will be the culmination of over six years of development and the first concerted effort to light and capture a diversity of the ocean's extreme environments in a high-definition presentation. Via the giant screen, the Voyage into the Abyss project will give audiences around the world a 'being there' experience of dimensions of the planet that most have never truly seen before: including submarine volcanoes, hydrothermal vents and communities of deep-sea organisms.

The attendees at the DESSC meeting provided Mr. Steven Low with a variety of suggestions for scientific content material to augment the video images and with suggestions for mechanisms by which to integrate the release of the movie with outreach activities at marine science institutions/departments throughout the nation.

Gripping experiences such as this IMAX movie provide one of the most important ways in which we as members of the marine science community can call the general public's attention to our science. We complain that we must grapple with the frustrations of access problems, funding difficulties, scheduling challenges, and the continuing need for new technological developments within our research enterprise. We know that the solution is a higher level of funding, but we must recognize that it is our responsibility, not that of the funding agencies, to explain to our supporters, the public, why it is important to devote more funding to the marine sciences. DESSC congratulates those who have and urges all to continue to highlight the accomplishments of submergence research in public forums.

The Fleet Improvement Committee focuses on Fleet Renewal

By Larry Atkinson, FIC Chair

The academic research fleet in the U.S. is now entering a new, exciting phase. The National Ocean Research Leadership Council has now approved the document, *Charting the Future for the National Academic Research Fleet: A Long Range Plan for Renewal*, developed by the Federal Oceanographic Facilities Committee (FOFC). The report can be viewed at http://www.geo-prose.com/projects/projects_narf.html. To put it directly the plan calls for replacement of the fleet. The plan provides a recommendation on the numbers and composition of vessels that are needed for replacement. The need for fleet renewal requires that Science Mission Requirements and Conceptual Designs be developed. There is an urgency to keep the renewal process rolling as it takes many years to fund and construct ships. This will be a focus of the Fleet Improvement Committee (FIC).

The most urgent need is to develop a process for implementing fleet renewal. A draft process is being developed and can be viewed on the UNOLS/FIC web site http://www.unols.org/fic/renewal/roadmap.html. It cannot be overemphasized that we will be seeking community input and participation in the process. The renewal will take twenty years.

The FOFC Plan defines four basic vessel classes for the current and future fleet: Global Class, Ocean Class, Regional Class and Local Class. FIC, UNOLS and various institutions are initiating or are currently involved in fleet renewal projects. These are briefly summarized below:

Ocean Class: The Ocean Class called for in the FOFC plan is a new class of larger, more capable intermediate vessels. As stated in the report, "Ocean Class ships will fulfill a critical need in fleet modernization by replacing the aging "Intermediate" ships with vessels of increased endurance, technological capability, and number of science berths. These will be ocean-going vessels, though not globally ranging." The Ocean Class would have the following characteristics:

- Endurance - 40 days
- Range - 20,000 km
- Length - 55-70 m
- Science Berths - 20-25

In the coming months the process to create science mission requirements and concept designs for the Ocean Class will be developed. The process will attempt to include the broad user community through web comment areas and town hall meetings.

Gulf Regional Vessel - The need for a new research vessel in the Gulf of Mexico has been recognized for many years. This was noted in the FOFC report that also recommended that such a vessel be the first Regional vessel. The Regional Class ships are those that will work in and near the continental margins and coastal zone, but with improved technology and more science berths than in current, comparably sized vessels. FIC recently asked representatives from the Gulf of Mexico to form a representative group to discuss ship requirements in the Gulf. The purpose of this meeting is not to discuss or propose ship operators, but to start formulating Science Mission Requirements for the ship. Similar meetings will be needed for ships
proposed in other areas. The Gulf group hopes to meet in late spring.

Alaska Region Research Vessel (ARRV) – Design development for a research vessel that will operate in the Alaska region is well underway. This vessel is being designed as an Ocean Class ship. The Concept design has been completed and progress towards a preliminary design of the ARRV continues with FIC represented on the Design Steering Committee. At a recent meeting in Seattle, Washington, The Glosten Associates presented an updated design plan. Model testing results and the final preliminary design should be ready by this summer. A meeting to report on model test results and get community input on the preliminary design will be scheduled for sometime this spring in the Washington D.C. area. Information about the Science Mission Requirements and concept design plans can be found on the UNOLS website at http://www.unols.org/fic/#arrv.

Science Testing of the AGOR 26 – Construction of the University of Hawaii's vessel, KILO MOANA, is nearing completion. KILO MOANA will be the first large SWATH in the academic fleet. As such it is imperative that it be thoroughly tested so both the scientific community and the operator community are fully and fairly aware of its capabilities and limitations. UNOLS/FIC is working with the operator (U. Hawaii) to plan such testing. See http://www.soest.hawaii.edu/agor26/ for more information on the KILO MOANA.

FIC Web Site - If you haven't visited the UNOLS/FIC website **<www.unols.org/fic>** we urge you to. There you can find information on the following:

- FOFC Draft Academic Fleet Renewal Plan - UNOLS Response
- Ship Construction Efforts:
  - Alaska Region R/V (ARRV)
  - KILO MOANA (AGOR 26)
- FIC Fleet Renewal Plans
- Past Trends and Future Projections for the Academic Research Fleet
- The UNOLS Biennial Review of Sea Going Oceanographic Facilities
- Fleet Improvement Committee Reports
- Science Mission Requirements

Highlights of the 2001 Research Vessel Operators' Committee Meeting

The 2001 RVOC annual meeting was held on 23-25 October. The first day of the meeting was held in conjunction with the RVTEC at the University of Rhode Island (URI). Day two and three were convened without RVTEC in attendance in Newport, R.I. and again at URI, respectively.

On the first day of the meeting Federal Agencies provided updates on their activities and the UNOLS Office gave a report. The remainder of the day was devoted to discussions on the Quality of Service Initiative, winch and wire issues, and presentations by various groups involved with ISM compliance on research vessels. Mike Prince (UNOLS Office) introduced the Quality of Service Initiative and provided an overview of progress to date with the UNOLS committee assigned to this issue. Topics covered in the winch and wire section included presentations by Jon Alberts (WHOI) on the establishment of SMRs for the next generation of UNOLS wire ropes and cables, Tom Althouse (SIO) on safe working loads of existing UNOLS cables, James Stasny (Dynacon) on new over-the-side handling equipment, and Peter Wiebe (WHOI) on future science needs for wire ropes, cables, and over-the-side handling systems. The ISM discussion included presentations by Morgan Terrell (University of Washington) on compliance efforts by Class I and II operators, Paul Stone (Southampton Oceanography Centre) on ISM issues addressed by foreign operators, and Doug Friskes (NOAA) with an up date on their ISM program. All of the topics discussed on the first day were relevant to both RVOC and RVTEC and, in general, both groups felt it was beneficial to conduct these discussions in joint session. Efforts are underway to formalize procedures for future joint meetings between RVOC and RVTEC.

RVOC reconvened on days two and three for their routine agenda and business items. Tom Althouse (Safety Committee) and Lee Black (Personnel Committee) gave subcommittee updates. Other topics discussed on day two included an overview of accident statistics, pay compensation studies on small UNOLS vessels, reports on the buyers and personnel conferences attended by RVOC members, and an introduction to the Ship Operators Cooperative Program (SOCP). After presentations by foreign operators, the meeting continued with presentations on fuel cells and their potential applications on UNOLS vessels, new USCG drug testing policies, the new UNOLS medical services contract, and an insurance and admiralty law review. Research vessel updates were provided.

The meeting continued on day three with a brief report on plans for the INMARTECH 2002 meeting and a presentation on security in the UNOLS fleet. A review of security related issues and an update on the incident on R/V EWING in the Gulf of Aden, was followed with discussion by the operators, and general comments about ways to improve security onboard UNOLS vessels. The RVOC Business Meeting followed.

Action items adopted at the Business meeting included a vote to adopt ABS Safenet as the standard CMMS system product on UNOLS vessels. RVOC members voted to accept the accommodations van panel design pressures described in paragraph (1) of the Coast Guard review letter (Serial H1-0101248, dated May 24, 2001) as the minimum structural standard for all new vans "normally occupied by personnel," including lab vans (see article on page 5 for more details). An RVOC subcommittee was formed to address other van issues including inventory, science liaisons, and further actions related to new vans constructed for the UNOLS community. Another subcommittee was formed to address Fleet Security.

Further action included the assignment of individuals to groups whose task it is to conduct salary surveys on Class I-III UNOLS vessels, an agreement to formulate an NSF Inspection Program evaluation form, a vote of confidence for the continuation for the compilation of accident statistics by the UNOLS office, a recommendation that RVOC become a member of SOCP, and a decision to encourage future joint interactions between RVOC and RVTEC.

Monterey Bay Aquarium Research Institute and Moss Landing Marine Labs will host the 2002 RVOC meeting.

Research Vessel Technical Enhancement Committee News

The Graduate School of Oceanography in Narragansett, Rhode Island hosted the 2001 RVTEC Annual meeting on October 23-25, 2001. The first day of this meeting was a joint meeting with the Research Vessel Operators' Committee (RVOC). There was a brief overlap during the final day as well. Details of the joint session are included in the RVOC News article (page 12). On the second day of the meeting, RVTEC held breakout sessions on debubblers, wireless communications and data acquisition systems. There were discussions on the issue of technical levels of service and a working committee has been formed to continue pursuing this issue.

During the business meeting, Steve Poulos of the University of Hawaii was elected Vice Chair to replace Tony Amos who has served two terms (four years). The University of Hawaii is being considered as the venue for the 2002 annual meeting. Barrie Walden was nominated to be the interface with the organizing committee for INMARTECH 2002 that is being hosted by JAMSTEC. The dates for the INMARTECH 2002 meeting are 7-11 October. As currently scheduled, INMARTECH 2004 will be hosted by the British Antarctic Survey (BAS) and the Southampton Oceanography Centre.

Thank You!

UNOLS extends it appreciation to those members of the Council and Committees who stepped down or completed their term over the past year. These individuals are Tony Amos (RVTEC), Glen Cota (AICC), Kelly Falkner (AICC), Tom Lee (Council), Dan Lubin (AICC), and Cindy Van Dover (DESSC). Glen, Kelly and Dan were all charter members of the AICC.

The current membership of the UNOLS Council and Committees can be found on the UNOLS website at, <http://www.unols.org/currcommittees.html>.

2002 UNOLS Fleet Utilization

In 2002, the total number of operating days scheduled on UNOLS vessels is 5031. This represents a reduction of 202 days from 2001. Although utilization of the large ships is up by 140 days and the intermediate ship utilization is level, the regional class ships have experienced a decline. The comparison by ship class follows:

Class	2001 Days	2002 Days
Large/Global	1670	1810
Intermediate/Ocean	1451	1449
Regional	1505	1117
Local/Near-shore	607	655
TOTAL	5233	5031

With the retirement of R/V EDWIN LINK (ex. SEA DIVER) from the UNOLS fleet, there are now fewer vessels operating in the regional class. CAPE HATTERAS will undergo a half-year lay-up in 2002. KILO MOANA enters the fleet this year and is included in the Ocean Class category. Although there are no plans to operate LAURENTIAN as a UNOLS vessel in 2002, the local/near-shore vessel utilization is up 48 days.

CALL FOR NOMINATIONS

Fleet Improvement Committee Members

The Fleet Improvement Committee (FIC) is requesting nominations for two new committee members. Members of the FIC should be experienced in shipboard science activities or in ship operations, and from institutions that are either operators or users of UNOLS research vessels.

The Fleet Improvement Committee works to assure the continuing excellence of the UNOLS fleet, to improve the capability and effectiveness of individual ships and to assure that the number, mix and overall capability of ships in the UNOLS fleet match the science requirements of academic oceanography in the U.S. The FIC serves as a liaison and planning activity as well as an information source for federal agency representatives concerning long range planning, and funding for design, construction or improvement of vessels for the UNOLS fleet.

The UNOLS Charter requires that at least three FIC members be from UNOLS operator institutions, at least three members be from institutions or organizations other than operators, and two members be from any UNOLS institution. Terms for all members are three years, for no more than two consecutive terms.

The current FIC membership includes:

Larry Atkinson, FIC Chair (ODU)
Mark Brzezinski (UCSB)
Dave Hebert (URI)
Chris Measures (U.Hawaii)
Bill Smethie (LDEO)
Terry Whitledge (U.Alaska)
Joe Coburn, ex-officio member (WHOI)

The two vacancies on the FIC are for:

- One Non-operator Institution representative, and
- One Representative from any UNOLS institution

The committee membership should represent diverse disciplines and broad geographic interests. To maintain a disciplinary balance on the committee, an individual with a geology background is desired for one of the FIC positions. Additionally, an individual with research interests in the Gulf of Mexico area is desired.

All nominations for the FIC should be accompanied by:

1. The nominee's current C.V.
2. A statement of interest from the nominee to serve on FIC
3. The nominee's summary of experience using research vessels and other oceanographic facilities.

It is requested that copies of these materials be sent to the UNOLS Office <office@unols.org> by February 20, 2002 so they can be distributed to the FIC for discussion at their February 26th meeting. Nominations received past the deadline will be kept on file for consideration of future committee openings. For more information please contact Larry Atkinson (FIC Chair) at <atkinson@ccpo.odu.edu> or the UNOLS Office at <office@unols.org>. The UNOLS Chair, Bob Knox, will appoint the new FIC members from recommendations made by the FIC.

Ships in the News

R/V SAVANNAH enters the UNOLS Fleet

Over the summer, construction of Skidaway Institute of Oceanography's new research vessel, SAVANNAH, was completed by the Washburn & Doughty Shipyard of East Booth Bay, Maine. After completion, the ship sailed to Skidaway in Georgia and arrived the second week of September. Once at Skidaway, work began in outfitting the labs and computer system and preparing for their NSF inspection. The inspection was conducted on 4-5 October and as soon as approval was received science operations began. On November 15th, the UNOLS Council voted to grant R/V SAVANNAH UNOLS Vessel status. There have been some growing pains (as can be expected with new ships) and most of January and February will be devoted to repairing systems. The ship is structurally well built, it has a sea kindly motion and the anti-roll flume tank works very well. They have deployed and retrieved instruments in 8 to 10 foot seas, which would have never been attempted in R/V BLUE FIN. It is spacious and the workspaces are well laid out.

R/V KILO MOANA is Launched

R/V KILO MOANA (AGOR 26) was launched in Jacksonville, FL on November 17, 2001. Construction is in the final stages. Plans for science testing of the ship's systems are being considered. The ship specifications are contained on the web at http://www.soest.hawaii.edu/agor26/.

R/V EDWIN LINK (ex SEA DIVER) leaves the UNOLS Fleet

In late 2001, RV EDWIN LINK (ex SEA DIVER) ended its service in the UNOLS Fleet. Harbor Branch Oceanographic Institution (HBOI) will no longer operate the vessel in support of marine science. HBOI plans to sell the vessel.

SeaNet Update

SeaNet just revised its web site at <http://www.seanet.int>. The site includes a feature called "Your Cruise," which is designed to assist first time users of SeaNet. If you have an upcoming cruise on one of the ships with SeaNet and are interested in possibly using SeaNet for high-speed data transfers, please contact the science liaison at the ship's home operator's office or send an email to seanet-ops@seanet.int to find out who the contact is.

Currently, six UNOLS ships are installed with SeaNet units. They are: R/V ATLANTIS, R/V MELVILLE, R/V EWING, R/V KNORR, R/V PELICAN and R/V SEWARD JOHNSON. There is also a portable SeaNet unit temporarily installed on R/V REVELLE. Plans are being made to install SeaNet on R/V ENDEAVOR.

PEOPLE IN THE NEWS

Dan Fornari to Step Down as Chief Scientist for the NDSF

By Michael Perfit, Past DESSC Chair (University of Florida) and Patricia Fryer, DESSC Chair (University of Hawaii)

At the December Deep Submergence Science Committee (DESSC) meeting in San Francisco, it was announced that Dan Fornari would be stepping down from his position as the Chief Scientist for the National Deep Submergence Facility at the Woods Hole Oceanographic Institution. Since 1993, Dan has unselfishly and doggedly committed himself to the development and well being of deep submergence science. There are few in our community that do not know Dan. One cannot attend a scientific or organizational meeting where Dan is present without recognizing the positive influence and creative ideas he contributes to both the engineering and scientific aspects of deep submergence science.

Dan studies maps aboard R/V MELVILLE (2000) - photo by Mike Perfit

Beginning nearly 25 years ago, as a student of the late Bruce Heezen, Dan was already making his influence known at Lamont-Doherty Earth Observatory. As a grad student Dan was one of the first geoscientists to effectively integrate geologic observations from submersibles with deep-sea photography, side-scan sonar and petrologic data in addressing marine volcanological and tectonic problems. His scientific interests and breadth of knowledge continued to expand to include hydrothermal circulation, vent biology, and oceanic crustal development. Dan's forte has been his ability to integrate and interpret data from a number of different specialties and to devise strategies by which to obtain these data. He has been instrumental in instigating and nurturing the types of interdisciplinary science that many of us now routinely do at sea. However, what really distinguishes Dan from many of us in the deep-sea science community is the combination of his mechanical and engineering talents with his scientific expertise. This unique combination makes him an invaluable asset to the community. He has tirelessly pushed, prodded, and cajoled the Deep Submergence Operations Group (DSOG) to keep the National Deep Submergence Facility at the forefront of deep-sea exploration using the most technically innovative tools and techniques available. Frequently, he has come up with ideas for new tools or methods and either attempted to build them himself (late nights in his basement) or pressed the DSOG to develop them. He has been a major proponent of technical upgrades to all of the vehicles in the NDSF arsenal and has been the PI on numerous successful projects funded by federal research agencies and other organizations. More recently, Dan has lent his remarkable talents to bringing the excitement and success of deep submergence science to the classroom and the larger public through energetic outreach activities. He is a driving force in creating, developing, and producing the Dive and Discover web site (http://science.whoi.edu/DiveDiscover/) that was nominated for a Webby Award in science education last fall.

An Italian dinner compliments of Dan aboard R/V MELVILLE, photo by Mike Perfit

Serving as the two recent Chairs of DESSC, we have worked very closely with Dan in his role as Chief Scientist for the National Deep Submergence Facility. We can honestly say that much of the progress that DESSC, and the deep submergence community in general, has made over the past decade would not have been possible without Dan's determination, attention to detail, and familiarity with the facilities. He literally served as the mediator and initiator (sometimes the squeaky wheel) that allowed the science community to interface with the

WHOI operators. His job as Chief Scientist has been a demanding, difficult, and time-consuming one that takes hours each day from his scientific endeavors. Dan has had to balance what he recognizes as the needs of the scientific community with the frustrating realities of financial and operational constraints on the NDSF. His efforts have helped to raise the National Deep Submergence Facility to the best equipped and most operationally sound status it has ever enjoyed. It was largely because of Dan's personal use of the facilities and promoting their use that all of the tethered vehicles have gained popularity and are now frequently used in a nested approach in concert with ALVIN on ATLANTIS. It is his talent for integrating research, education, and engineering, and for communicating with scientists, students, and engineers that makes his contributions so valuable to the oceanographic community.

Dan has an infectious, sincere enthusiasm and an incredible ability to motivate people. He pushes the tools we have at our disposal to their fullest potential and in so doing gets the best possible science accomplished. As many will attest, his drive to succeed and passion for excellence are not just for his personal gratification, but rather for the good of his students, collaborators, and the deep submergence community in general. Dan's indefatigable enthusiasm for research has provided the submergence community with a bottomless well of support. One we will sorely miss.

We all owe Dan our deepest gratitude for his unselfish commitment to furthering deep submergence science and his contributions to helping us explore and understand the deep sea. As he settles (can that verb be used with Dan?) back in to his role as Senior Scientist at WHOI, we all wish him the best of luck. Thanks Dan.

In a rare moment, Dan is seen "relaxing" while in Tagus Cove, Galapagos Is.(R/V MELVILLE, 2000) - photo by Mike Perfit

Vice Admiral Lautenbacher is appointed new Under Secretary for Oceans and Atmosphere and NOAA Administrator

On December 10, 2001 Vice Admiral Conrad C. Lautenbacher, Jr. began his new role as Undersecretary for Oceans and Atmosphere and NOAA Administrator. He comes to NOAA from the Consortium for Oceanographic Research and Education (CORE) where he served as President and CEO.

A graduate of the U.S. Naval Academy (Class of '64), Vice Admiral Lautenbacher served in a broad range of operational, command and staff billets with the Navy. Vice Admiral Lautenbacher attended Harvard University receiving MS and Ph.D. degrees in Applied Mathematics. He was selected as a Federal Executive Fellow and served at the Brookings Institution. After leaving the Navy, Admiral Lautenbacher formed and worked principally for his own management consultant business, Technology, Strategies & Alliances, Inc.

National Science Foundation Appoints James Yoder as OCE Division Director

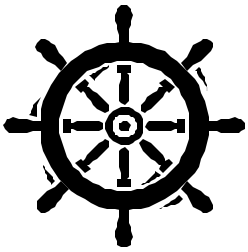
Dr. James A. Yoder was been appointed as Division Director for Ocean Sciences effective October 1, 2001. Dr. Yoder comes to the Foundation from the University of Rhode Island where he served as Interim Dean and Associate Dean of the Graduate School of Oceanography. He has participated extensively on national and international committees and panels, including membership on the CORE Board of Governors, the U.S. Carbon and Climate Committee, and as Chair of the International JGOFS Task Team on Remote Sensing. Since 2000, Dr. Yoder has served as President of The Oceanography Society.

Personnel Changes at the Office of Naval Research

ONR has seen a number of recent personnel changes. Dr. Fred Saalfeld, retired in late 2001 as Executive Director and Technical Director of ONR. Steve Ramberg is now acting in Dr. Saalfeld's former position. Frank Herr has moved into Steve's position as Department Head for Ocean, Atmosphere, and Space.

In December Sujata Millick left ONR's Research Facilities Program for a position at the Department of Commerce. Sujata was the program officer during the construction of REVELLE and ATLANTIS. She had been involved with the design and construction of AGOR 26, KILO MOANA, since its start. UNOLS sends its best wishes to Sujata in her new ventures with the Department of Commerce.

We are pleased to report that Tim Pfeiffer continues to work in the ONR Research Facilities Program. He is now wearing many hats including that of Research Facilities Program Officer and acting Team Leader.



In Memory

Karl William (Bill) Jeffers, former UW Marine Superintendent

Bill Jeffers, born Nov. 19, 1933, in Manila, Philippines to Harriet and Karl Border Jeffers, died on 29 November in Seattle, Washington of cardiac arrest. He was 68.

Bill graduated from the Colorado School of Mines in 1956 with degrees in geophysical and geological engineering. He entered the U.S. Coast and Geodetic Survey (subsequently NOAA) as a commissioned officer in 1956. Bill's career with USC&GS/NOAA Corps spanned 27 years. He served as the first commanding office of the NOAA vessel DAVIDSON in 1967. Other career highlights include commanding officer of NOAA ships RAINIER and SURVEYOR, as Chief of Operations Division (NOS) for Pacific Marine Center and for the Office of Fleet Operations, as Liaison Officer with Environmental Research Laboratories in Boulder, CO (1977-1980), and finally as Deputy Director of Pacific Marine Center in Seattle, where he retired as a Captain in 1984. He was a Shellback, Blue Nose, and Plank Owner of the NOAA Ship DAVIDSON.

After retirement from the NOAA Corps, Bill went on to work as Marine Superintendent for the Department of Oceanography at the University of Washington for another ten years. His responsibilities included the contracting oversight of the construction of R/V THOMAS G. THOMPSON. Bill was an active member of the Research Vessel Operators' Committee.

Married for 43 years, Bill is survived by his wife Jane Jeffers of Woodinville; their five children, 10 grandchildren; his sister Peggy McCaulley; brother Stan Jeffers; and his black lab, Molly.

Where Can The UNOLS Web Site Take You Today?

By: Laura Dippold, UNOLS Webmaster

Over the past year and a half the UNOLS Office has seen many changes. One of our biggest changes has been the departure of our chief Webmaster Sara Anderson. Sara did a lot of wonderful things for the web site, and now it is my turn to keep up the good work. So, now that the web site has been up and running for a while, my question to the UNOLS community is; where can the UNOLS web site take you today?

There are so many places to go out there, in the cyber world, and new ones are added almost daily! It can get pretty tough to figure out where you are going, especially with web sites that are constantly maturing, like ours. If you are lost in the tangle of the web, you can go to the "Site Map" link, located on the bottom bar of our home page. The site map is an index of important pages divided into the same categories that the web site is divided into. This page was created so that you will have easy access to the contents of our web site without getting lost.

Learning to navigate the site can be a challenge, so here are some

pointers: People who are new to the web site, or UNOLS in general, should take a look at the "What is UNOLS?" link to learn about our History, Member Institutions, Vessels, and our Charter. For those of you who know what we are, you can dig a little deeper with links to the Committees, Travel Information, Public Outreach, Calendar of Meetings and the previous year's Meeting Minutes. For those of you who are old pros at navigating the web site, keep checking the "What's New" link for any changes or additions to the web site.

Once you know the system, our web site is a great tool for people who use our vessels to fill in Ship Time Requests, check on Schedules for ships that scientists are using, or fill in a Post-Cruise Assessment after their cruise. You can even change your mailing address online when you move! But, if you are still lost, want to give us information on new web pages to add, or just wish to comment on how we are doing, feel free to use the Office Feedback Form. We are looking forward to working with you in the future, and hope for fair winds and following seas.

So now that I have shown you what it can do, where can the UNOLS web site take you today?

UNOLS Ship Time Request Form Offers Long-Range Planning Feature

The UNOLS Ship Time Request (STR) form <http://www.gso.uri.edu/unols/ship/shiptime.html> now includes a new feature to allow the form to be used as a long-range planning document. This feature is designed to allow operational planning of the National Deep Submergence Facility vehicles as well as the USCG icebreakers for future years. The feature can certainly be used for other facility planning purposes as well.

To indicate that the form is to be considered as a “letter of interest” or long-range planning document, simply click the box labeled, “Long Range Planning Document” in the upper right corner of the document. If applicable, also click the appropriate box(es) in the "Equipment Required" section of the form to specify ALVIN or the ROVs. The UNOLS STR form replaces WHOI’s National Deep Submergence Facility request form.

The long range planning documents will be entered into the database of ship time requests. It will allow the UNOLS Office and facility operators to determine where ship or vehicle use is desired in the out years. Potential users of the ships and vehicles can view all requests and planning documents by navigating to the Current List of Final Ship Time Request Forms <http://www.gso.uri.edu/unols/ship/listmenu.html> and selecting the desired fields for viewing. This information can then be provided as a table, or graphically displayed on a map. Potential users can determine the geographic areas of high interest and perhaps form collaborations for future research.

Another benefit of the Long Range Planning Document is that it can easily be converted to an actual Ship Time Request if and when that may be desired. To convert the document, simply access the request, select edit, unclick the long-range planning document box, and select the appropriate category under “Research vessel required for:” (upper right corner). You will need to remember your password to edit the document. If you forget your password, simply contact the UNOLS Office and we will reassign one to you.

This Long-Range planning feature of the STR form has already been useful to the UNOLS Office and facility operators. We hope that it is also of benefit to the science community.

The UNOLS Office welcomes comments for the improvement of the Ship Time Request System. Please feel free to contact us with your suggestions.

Check out *UNOLS News* on-line at:
<http://www.unols.org/newsletters/news202.pdf
Color Graphics!

2002 UNOLS CALENDAR OF MEETINGS			
Meeting	**Start Date**	**End Date**	**Location/notes**
AICC	Jan 24	Jan 25	UW, Seattle, WA
Wire Meeting	Jan 29		Quissett Campus, WHOI
DESSC - Ocean Sciences Special Session (Posters and Papers)	Feb 13-AM	Feb 14-PM	Hawaii Conference Center 2/13 – HC Hall III, 2/14 pm – HC323 C
FIC - Open Meeting on Fleet Planning	Feb 13		Hawaii Conference Center, 7:30PM - Rm 317A
FIC	Feb 26	Feb 27	Jacksonville, Fla. (w/Council)
Council	Feb 27	Feb 28	Jacksonville, FL (w/FIC)
DESSC	May 2	May 3	WHOI, Woods Hole, MA
NOAA/NASA Link Symposium	May 20	May 22	Kennedy Space Center, Florida
Council	Jun	Jun	UNOLS Institution
Scheduling	Jul 17		NSF, Arlington, VA
AICC	Sep 23	Sep 24	NSF, Arlington, VA
Scheduling	Sep 25		NSF, Arlington, VA
FIC	Sep 25		NSF, Arlington, VA
Council	Sep 26		NSF, Arlington, VA
UNOLS	Sep 27		NSF, Arlington, VA
RVTEC	Oct	Nov	University of Hawaii
INMARTECH 2002	Oct 07	Oct 11	JAMSTEC, Japan
RVOC	Oct 15	Oct 17	Moss Landing (MLML & MBARI)
MTS Oceans 02	Oct 29	Oct 31	Biloxi, MI, MTS Oceans 2002 Mtg.
DESSC	Dec 05		AGU Fall Meeting, San Francisco
AICC – Town Hall	Dec 06		AGU Fall Meeting, San Francisco

I would like to thank all who contributed information and articles for this issue of the Newsletter. Articles are always welcome and encouraged. Copy can be submitted via mail, FAX or e-mail. The next newsletter is planned for late spring/summer 2002.

Thank you, Annette DeSilva - Editor, UNOLS News

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