UNOLS News

Exciting updates from UNOLS & the Academic Research Fleet

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Featured Photo

On 2 July R/V ROGER REVELLE departed Astoria, Oregon for its return to Scripps Institution of Oceanography after successfully completing an extensive mid-life refit. *Photo Credit to Bruce Appelgate*

Upcoming Events

2020 SCOAR Meeting
September 2-3, 2020
Online Telconference

2020 RVTEC Meeting
October 27- 29, 2020
Online Teleconference

Please continue to check your email or the UNOLS website regarding the status of committee meetings.

Did you know...

UNOLS has compiled a list of Frequently Asked Questions in regards to COVID-19 mitigation strategies for the U.S. Academic Research Fleet. Please find them on our website here.

UNOLS
UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

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Community Updates

UNOLS Office Statement on Current Social Climate

The UNOLS Office opened the 2020 UNOLS Council Summer Teleconference with a reading of the following statement and encouraged the Council to provide feedback.

The UNOLS Office is taking time to listen, learn and reflect on current events. We recognize that racism is not an individual act, but a system that nurtures some at the expense of individuals who need that nurturing the most. We recognize that marginalized communities have historically been underserved by the ocean sciences community and that this disservice cannot be resolved by increasing recruiting efforts alone. We must also foster an environment that enables all individuals to thrive, examine our own internal biases in each decision we make, and re-evaluate our practices.

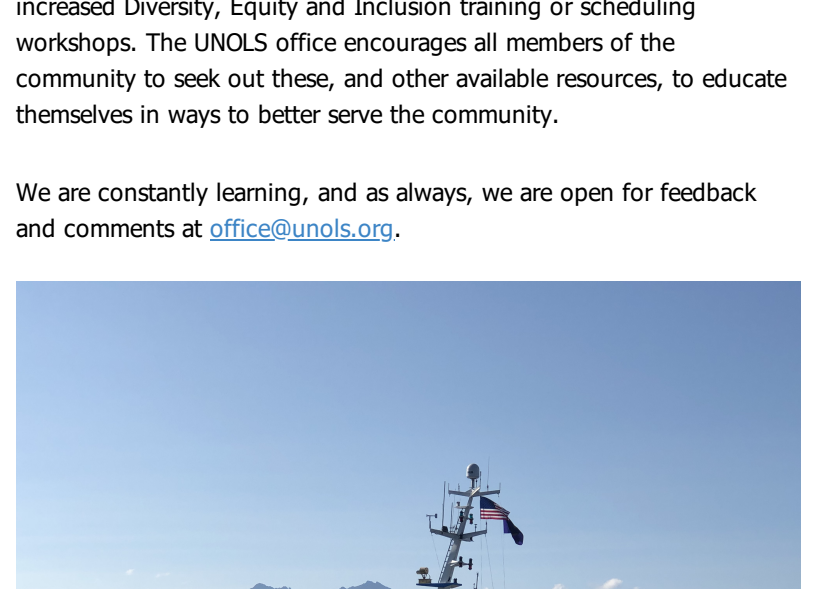
We recognize that we are not experts in this subject matter and want to make space to lift and hear the voices of those who are. As a resource for the ocean sciences community, we, as an office and as individuals, welcome input, feedback, and criticism on how to better serve and broaden our community.

Members of the UNOLS office have committed to educating themselves and are regularly meeting to discuss their learnings and how they could affect the community.

The above statement was then adopted by the MERAS Committee to evaluate and improve upon, to create a mission statement for the broader UNOLS community. The committee feels it is critical that actionable steps be identified and included as ways to meet the statement's intention.

Some institutions have begun hosting regular discussion groups, increased Diversity, Equity and Inclusion training or scheduling workshops. The UNOLS office encourages all members of the community to seek out these, and other available resources, to educate themselves in ways to better serve the community.

We are constantly learning, and as always, we are open for feedback and comments at office@unols.org.



R/V RACHEL CARSON practiced strict isolation onboard while moored at Alderbrook during the recent Ocean Acidification cruise for Dr. Jan Newton. Photo credit to Doug Russell

Update: COVID-19 and the Academic Research Fleet Return to Operations

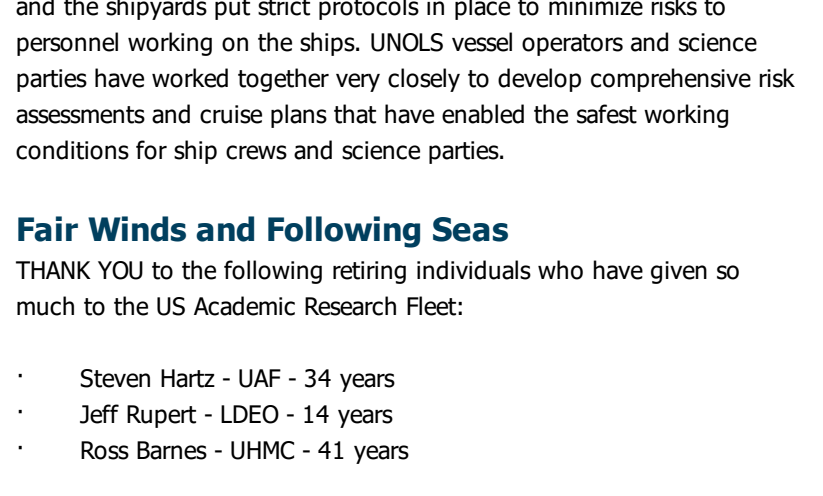
When ARF operations were paused in March due to the Coronavirus pandemic it was anticipated that UNOLS vessels could return to operations around 1 July 2020. Shortly after the pause was put in place, guidance for returning to operations were developed and promulgated as the Considerations for Making Decisions Regarding Conducting Science Onboard U.S. Academic Research Vessels document. In addition, a repository for COVID-19 documents related to shipboard outbreak management plans, risk assessments and risk mitigation plans was established for the UNOLS vessel operators to share best practices and important information to assist in developing return to science operations plans. In concert with funding agency guidance UNOLS Ship Schedulers were provided prioritization guidelines for developing revised 2020 ship schedules that focused on high priority low risk cruises that could be conducted. The guidance has matured as we've learned more about the virus and best practices regarding ship operations. The UNOLS Guidance focuses on a number of key tenets essential to minimizing the risk of cases developing onboard any of the ARF vessels, namely: RT-PCR testing, strict quarantine/self-isolation, reducing science party sizes, facial covering usage, social distancing, and increased cleaning/hygiene practices. Additionally, cruises have been limited to only beginning and ending at U.S. ports. UNOLS hosted teleconferences with vessel operators as well as scientists to review the guidance. Ship's started operating again in May when R/V SIKULIAQ successfully completed the Northern Gulf of Alaska Long Term Ecological Research (NGA LTER) cruise with UAF Chief Scientist/PI Russ Hopcroft. Since then low risk science cruises have been successfully completed by R/Vs ATLANTIC EXPLORER, NEIL ARMSTRONG, ROBERT GORDON SPROUL, KILO MOANA, OCEANUS, and RACHEL CARSON. R/V MARCUS G. LANGSETH also successfully conducted a major cruise as the virus outbreak developed. And despite the virus shipyard periods were or are in the process of successfully executed for R/V's ATLANTIC EXPLORER, F.G. WALTON SMITH, ROGER REVELLE, and ATLANTIS. Ship operators and the shipyards put strict protocols in place to minimize risks to personnel working on the ships. UNOLS vessel operators and science parties have worked together very closely to develop comprehensive risk assessments and cruise plans that have enabled the safest working conditions for ship crews and science parties.

Fair Winds and Following Seas

THANK YOU to the following retiring individuals who have given so much to the US Academic Research Fleet:

- Steven Hartz - UAF - 34 years
- Jeff Rupert - LDEO - 14 years
- Ross Barnes - UHMC - 41 years

GOOD LUCK Steven, Jeff and Ross on your new adventures in retirement!



Co-Chief Scientist Mo Walczak (left) and Graduate Student Deepa Dwyer (right) giving a tour of R/V OCEANUS during a Facebook Live event. Photo Credit to Brendan Reilly

COVID Preparation Workshops for 2020 PIs

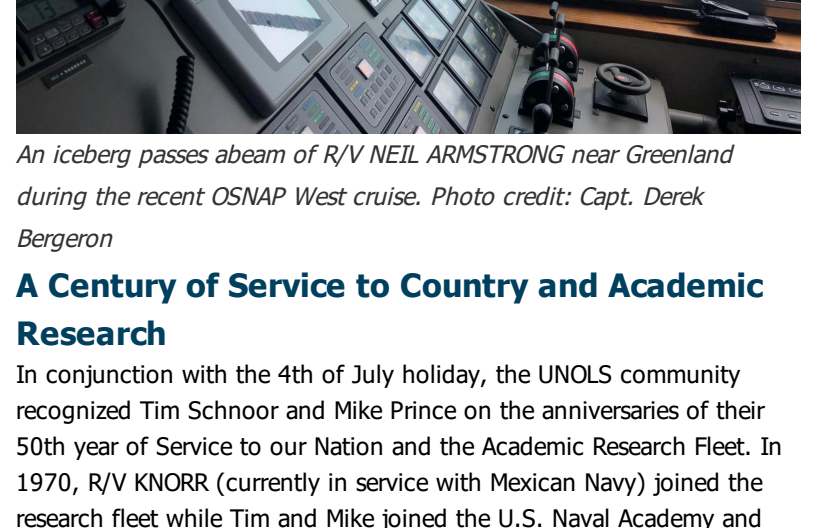
In early July, the UNOLS office, UNOLS Council and funding agencies hosted a 2-part webinar series geared specifically towards the 2020 sea-going science parties: *Navigating the Seas of COVID-19 - Returning to sea-going operations onboard the vessels of the US Academic Research Fleet.* Part 1, *COVID-19 Risk Assessment and Mitigation Considerations and Guidelines for Scientists,* focused on opening a dialogue with the PIs about the US Academic Research Fleet's COVID-19 Risk Mitigation and Response and the plans to get the vessels back to sea. Part 2, *Using telepresence to enable remote participation*, outlined telepresence options for PIs who are minimizing their science parties in order to mitigate COVID-19 risks.

For those unable to attend, webinar recordings are available online:

COVID-19 Risk Assessment and Mitigation Considerations and Guidelines for Scientists

Using telepresence to enable remote participation

The SatNAG committee compiled a document to assist with evaluating the levels of telepresence a cruise may require, it can be found at satnag.unols.org.



An iceberg passes abeam of R/V NEIL ARMSTRONG near Greenland during the recent OSNAP West cruise. Photo credit: Capt. Derek Bergeron

A Century of Service to Country and Academic Research

In conjunction with the 4th of July holiday, the UNOLS community recognized Tim Schnoor and Mike Prince on the anniversaries of their 50th year of Service to our Nation and the Academic Research Fleet. In 1970, R/V KNORR (currently in service with Mexican Navy) joined the research fleet while Tim and Mike joined the U.S. Naval Academy and U.S. Coast Guard Academy, respectively. Today, all three continue to support seagoing oceanographic research.

Tim served as a U.S. Navy P-3 Pilot with over 3000 flight hours and as a Meteorology/Oceanography Officer with tours on aircraft carriers, Assistant Secretary of Navy Staff, Office of Naval Research, and Command of the Naval Oceanographic Facility in Jacksonville. After retiring at the rank of Captain, Tim continued to serve at ONR supporting the Mine Warfare Program and then the Academic Research Fleet for more than a decade. Tim was instrumental in the Ocean Class Research Vessel acquisition program bringing R/V SALLY RIDE and R/V NEIL ARMSTRONG (replacing R/V KNORR) to the fleet. Tim continues to support DSV ALVIN, NPS Twin Otter Research Aircraft, and satcoms with remote oceanographic instrumentation.

Mike served in the U.S. Coast Guard at sea and ashore in Alaska including command of LORAN A station. Mike joined Moss Landing Marine Laboratory (MLML) in 1980 as a crewmember on the R/V CAYUSE, and eventually captained that vessel and others that followed, including the R/V POINT SUR. He went on to become the Marine Superintendent overseeing the expanding MLML fleet. He served as the Executive Secretary for the UNOLS Office hosted at MLML for nine years and then transitioned to providing expert advice to the MLML Director. Mike continues to support ONR with the $150M mid-life refit of three Navy Global class Research Vessels.

We are proud to recognize and express our gratitude for the dedicated service these gentlemen have provided to our nation and the seagoing academic research community for 5 decades. Thank you Tim & Mike!!

Assessing Improvements to the Quality of Life at Sea on UNOLS Vessels

In early 2020, the UNOLS Office and Council members (Waller, Shearman, and Steinberg) sent out a three-question survey to the UNOLS membership to assess current perspectives on the quality of life on our research vessels and to gather suggestions for improvements. The questions were:

- In your experience, what efforts are currently being made to improve the habitability of ships, increase morale of crew and science party, and enhance the overall quality of life at sea?
- What additional changes or additions would you like to see to improve the quality of life at sea?
- What resources do you believe are needed to make additional improvements?

The survey is a first step towards a goal set by UNOLS Council to improve the habitability of ships, increase morale of crew and science party, and enhance the overall quality of life at sea. Improvements will help continue to attract and retain people in our field, particularly for those who spend long periods at sea.

The response to the survey was large, with 277 responses collected across the breadth of UNOLS fleet users (e.g., officers, crew, technicians, scientists). Though many noted that there has already been some positive change, in particular to food quality and to living conditions on newer vessels, the majority of responders thought that nothing was being done to improve the habitability of ships or that they were unaware of any efforts to improve the quality of life at sea. For additional changes that survey responders would like to see, the top 5 suggestions which comprised >50% of the responses (Fig. 1) were more bandwidth, team building activities (e.g., science meetings for all-hands at the beginning and end of a cruise), improvements in exercise equipment and food, and swim calls. Suggestions ranged from those that could be more easily implemented at low or no cost, such as team building, cook outs, and increased cleaning, to those that require more resources such as exercise equipment, and new bedding and mattresses, to progressively more costly changes including bandwidth improvement, private cabins, and noise abatement. Suggested changes to policy included reassessing the bans on swim calls and alcohol. Also mentioned were efforts to increase diversity of mariners to make the onboard environment more welcoming to women and minorities. Though a full analysis of the wealth of data this survey generated is ongoing, the survey indicates that UNOLS fleet users are keen to see changes, to bring the quality of life on our vessels more in line for example with European research programs.

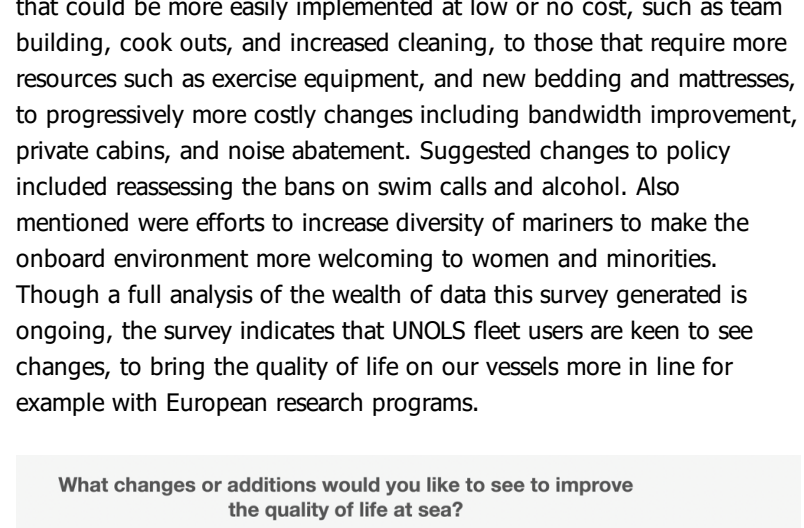


Figure 1. Preliminary results of UNOLS quality of life on ships survey. MT, Marine Technician; MERAS, Maintaining an Environment of Respect Aboard Ships (see https://www.unols.org/committee/special-committee-maintaining-environment-respect-aboard-ships-meras)

Committee News

New Committee Members

All of our committees are staffed by volunteers and we are grateful for their contributions of time and experience. We would like to extend a warm welcome to our newest committee member.

- FIC - Dr. Angelicque White / UH

THANK YOU to Outgoing Committee Members

MANY THANKS to the following individuals' contributions to the UNOLS community.

- FIC - Dr. Nancy Rabalais / LUMCON
- Council - Dr. Tammy Richardson / U of SoCarolina
- SCOAR - David Fisichella / WHOI

Alvin in the Abyss Workshop Series

With the HOV ALVIN in its final phase of overhaul, the NSF recently sponsored a workshop *Alvin in the Abyss.* The series consisted of four virtual mini-labs – 1) Abyssal Plains & Seamounts, 2) Trenches & Transforms, 3) Abyssal Technology and Societal Relevance, 4) Diversity, Equity and Inclusion in Deep Sea Science.

The goal of the workshops was to identify and describe the critical scientific objectives for abyssal research and the technological requirements to achieve them. The results of the workshops discussions will be used to develop a manuscript describing abyssal science objectives and a white paper outlining key tasks for a 6500 meter HOV ALVIN Science Verification Cruise.

As part of these workshops, deep sea scientists recorded short (20 min) presentations on the various topics. To learn more about the workshop and to listen to the talks, visit the Alvin in the Abyss workshop webpage.

2020 UNOLS Meetings To Be Held Virtually

With the COVID-19 pandemic not slowing, the UNOLS office in conjunction with the UNOLS Council and the funding agencies have decided to host the rest of the scheduled 2020 UNOLS meetings will be held virtually. Watch the UNOLS website for upcoming meetings and write to bridget@unols.org for details.

Fleet Highlights

R/V MARCUS G. LANGSETH in San Francisco Harbor. Photo Credit to Sean Higgins, LDEO

Columbia University Lamont-Doherty Earth Observatory to Take Ownership of R/V MARCUS G. LANGSETH

On 17 July 2020 NSF and Columbia University Lamont-Doherty Earth Observatory (LDEO) announced that NSF had accepted an offer from LDEO to purchase R/V MARCUS G. LANGSETH.

This change in ownership means that R/V MARCUS G. LANGSETH will continue to operate as a critical asset in the U.S. Academic Research Fleet (ARF) through 2024. It also provides the vessel operator greater flexibility to attract additional work through an expanded user base thereby potentially increasing overall vessel utilization. For over 65 years, LDEO has been exemplary in its stewardship of geophysical research vessels starting with R/V VEMA, and including R/Vs CONRAD, EWING. LDEO has leveraged their unique combination of multi-channel seismic instrumentation, multibeam mapping capability, and technical experience to address the critical research questions in earth science and have done so while continually evolving the instrumentation and acquisition strategy to enhance understanding of our planet's geologic structure.

R/V MARCUS G. LANGSETH is more than just a platform for data collection. The ship is a learning tool, a university educational facility that allows Earth Scientists to experience the hands-on aspects of their trade. It helps nurture the development of the next generation of scientists through real-time at-sea data collection activities and fosters a devotion to science. The new ownership model also ensures these essential educational aspects remain available to the community.

Science Proposals Utilizing R/Vs *OCEANUS, ENDEAVOR*, and *PELICAN*

With the recent change to the Regional Class Research Vessel (RCRV) project schedules resulting in R/Vs OCEANUS, ENDEAVOR, and PELICAN being available longer than originally envisioned. Scientists preparing sea-going proposals should plan on the following availability based on the current RCRV project schedule:

- R/V OCEANUS – operating through all of 2021
- R/V ENDEAVOR – operating until mid-2022
- R/V PELICAN – operating through all of 2022

R/V PELICAN may operate beyond 2022. Scientists should coordinate with LUMCON regarding future plans for the vessel beyond 2022.

Photo Credit to Bruce Appelgate

R/V ROGER REVELLE Returns to Scripps Institution of Oceanography

On 2 July R/V ROGER REVELLE departed Astoria, Oregon for its return to Scripps Institution of Oceanography after successfully completing an extensive mid-life refit at Vigor Shipyard in Portland. During the overhaul the ship was repowered, the ship's data network was upgraded, a new quieter bow thruster was installed, and a new gondola was installed to better support the ship's extensive array of science system transducers. Many other upgrades were completed throughout the ship. For a more complete list, see SIO's recent presentation to Council. With the mid-life refit complete, R/V ROGER REVELLE's service life is expected to be extended for at least another 20 years. The ship is now back at the Nimitz Marine Facility being re-outfitted in preparation for science system trials and a return to science operations in November 2020.

Updates to UNOLS.org

Ship Time Request and Scheduling System to be Replaced by Marine Facilities Planning

Marine Facilities Planning (MFP) is a cruise scheduling, planning and inventory management system developed by Maas Engineering for the UK Research Vessels (NERC) and the Netherlands Research Vessels (NIOZ). It has since been implemented by the Germans, Australians, Japanese and Saudi Arabian sea-going science programs. With funding from the Federal agencies, the UNOLS office is working with Maas Engineering to develop a system specific for the U.S. Academic Research Fleet (ARF) to replace the current UNOLS Ship Time Request and Scheduling (STRS) system. The first phases are focused on the gathering of Ship-time and Marine Equipment (SME) requests and scheduling. Subsequent phases will focus on cruise planning and inventory management. The goal is to have the scheduling portion fully implemented by the end of 2020. MFP has many modern features which will greatly improve the scheduling and cruise planning processes in the ARF.