



WOODS HOLE
OCEANOGRAPHIC
INSTITUTION

Marine Facilities & Operations

Sea Words

December 2020



What a Year!

When 2020 kicked off, who would have thought that within a few short months we would be in the midst of a worldwide pandemic?! It has been very gratifying to see all of Marine Operations come together and navigate such a challenging time safely and with incredibly productive results. Many thanks to each of you for your commitment, creativity, flexibility.

I know the words “protocols” and “virtual” and phrase “you’re on mute” have worn thin, but there is reason to be optimistic. I look forward to 2021 with the hope of being able to celebrate all of our accomplishments together, in person, once again.

I hope you enjoy this inaugural issue of Sea Words, which we hope to issue periodically. Thanks to those of you who provided content and a special shout out to Taryn Carley and Isa Welch for putting it together.

Best wishes for a happy and healthy Holiday season. Although we remain apart, we are all in this boat together. We have a great crew. - Rob

R/V Atlantis



A dry docked R/V *Atlantis*, ready for its makeover

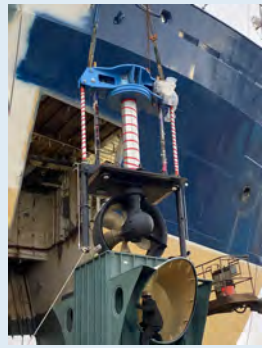
After spending 74 days at sea in early 2020, the R/V *Atlantis* made its way from Woods Hole to Anacortes, WA. This trek included twenty-five days of steaming with a single-day transiting the Panama canal.

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The vessel is undergoing a complete overhaul and has required significant coordination efforts. Gary and the dedicated *Atlantis* crew have remained in Anacortes for the majority of 2020, making certain everything continues to sail smoothly.

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R/V *Atlantis* and her crew are poised to return home in the Summer of 2021.



R/V *Atlantis* crew disassembling the vessel (above) and Bow Thruster Installation (right) Anacortes, WA



R/V *Atlantis* crew, following COVID-19 protocols, send best wishes for a Happy Holiday Season from Anacortes!



R/V *Neil Armstrong*

R/V *Neil Armstrong* has maintained a steady cruise schedule despite the challenges of COVID-19. As the year draws to a close, *Armstrong* will depart on its sixth voyage since the start of the pandemic.

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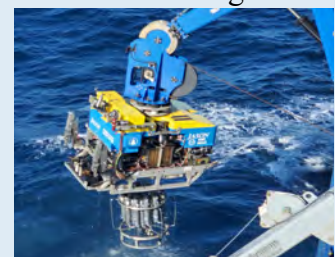
Successful excursions have been made possible by an immense collaboration between the various science parties, marine operations shore support, and the crew.



Ahead of every journey, 6-8 weeks of risk assessment meetings are conducted to ensure all aspects of the cruise are evaluated and COVID-19 risks are mitigated. Each participant and crew member adheres to a strict 14-day self-isolation period and undergoes testing ahead of boarding. Science equipment is decontaminated and isolated before being loaded aboard the vessel. While underway, masks continue to be worn, participant and crew temperatures are monitored daily, meals are eaten in a 3-group rotation system, and all aboard have single cabins whenever possible.

With safety remaining the highest priority while at sea, marine operations identifies potential harbors of refuge in the vicinity of every operation area. WHOI representatives interact with agents in these haven ports to notify of *Armstrong*'s proximal location in the event of an emergency. Additionally, marine operations and the ship are in frequent communication with the George Washington Maritime Medical Access (GW-MMA) where members of the medical staff advise WHOI on all at-sea medical situations.

All of these efforts came together to welcome Jason aboard the R/V *Armstrong*. The first Jason dive will be well-remembered due to the story of a stuck lander and CTD. It appears that one of the outer arms hit the ship on the way down but Jason was able to make a successful recovery! Crew is evaluating maintenance needs and the prognosis appears to be positive with all electrical items functioning normally.



Given these extraordinary collaborative efforts, we extend our thanks to WHOI Senior Management and federal stakeholders (NSF, ONR, UNOLS, etc) who have approved every cruise aboard the R/V *Neil Armstrong* during 2020.

Tioga

Although many of the “normal” events have been paused in the midst of the COVID-19 pandemic, Captain and Crew Pete Collins and Jim Missios continue to keep the Tioga busy with over 70 days of utilization. The protocols for scientific operations on board the Tioga have changed significantly with safety remaining the highest priority.

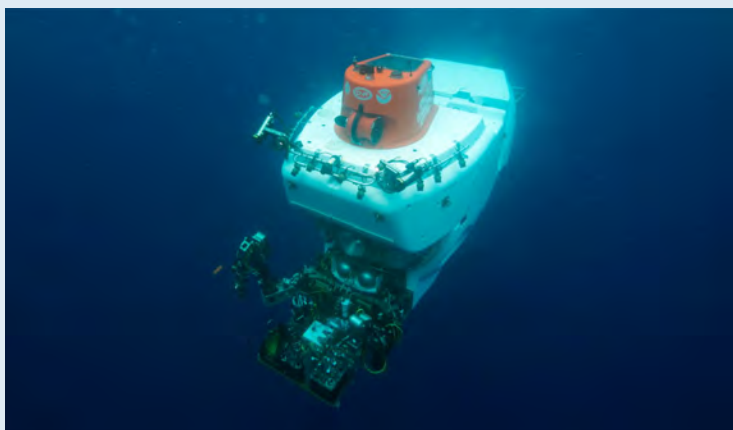
Changes include limiting the number of passengers and scientists on board with all persons required to wear masks at all times. Social distancing is consistently maintained with both the wheelhouse and staterooms off limits. Users are asked to remain on the Weather decks, and any equipment set up is completed in the scientific labs prior to arrival on the vessel. At the end of each voyage, the crew completes a thorough and complete cleaning of the craft and the common spaces with the Tioga continuing to sail on!



HOV *Alvin*

Alvin returned to WHOI in March and began an 18-month overhaul and upgrade after participating in two diving programs earlier this year. The submersible has been completely disassembled and maintenance efforts continue on its various systems.

During this upgrade period, the remainder of the *Alvin*'s hardware and systems will be converted to 6,500 meter depth capability. These include new ballast spheres, motor controller housings, thrusters, and syntactic foam buoyancy. Upgraded video cameras and recording systems will be 4K compatible and mounted on modern pan/tilt mechanisms. The frame is being modified for the new equipment and hydrodynamic shaping. Buoyancy spheres are being machined at the same titanium fabricator. Syntactic block cracks are being repaired prior to new coating/painting with new skin fairings also being constructed.



**The ALVIN Group
is hiring!**

Seeking a Mechanical
Technician
and Expedition Leader

Alvin is expected to return
to service in Summer 2021

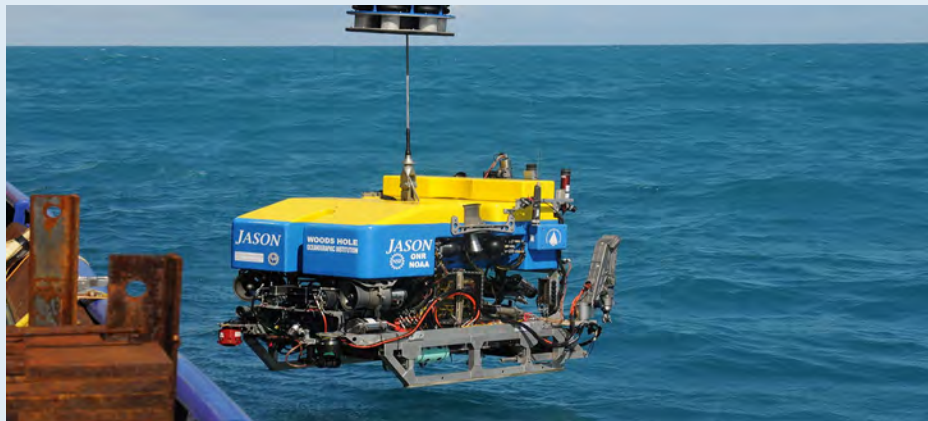


Danik Forsman, Anthony Tarantino, Nick O'Sadcia, and Rod Catanach remove the syntactic foam from atop the sphere. Syntactic foam is made up of small balloons of glass, mixed with epoxy into a matrix and formed into blocks, which are then shaped into a custom shape for Alvin. A deeper-diving Alvin requires new syntactic foam that is tested to withstand the additional pressure at 6,500 meters. (Photo by Drew Bewley © Woods Hole Oceanographic Institution)

ROV *Jason*

Jason completed 5 cruises during 2020 with the first mission prior to the COVID outbreak, and as with the rest of the WHOI community, the *Jason* team quickly instituted safety policies and procedures and forged along, completing 4, post-pandemic dives.

Recently, the ROV underwent an 8-week maintenance period. Team members adhered to a fourteen day quarantine, and then packed *Jason* on the R/V *Armstrong* for mobilization of its 6th and final cruise in 2020.



The R/V *Neil Armstrong* - *Jason* cruise is a joint science and *Jason* engineering operation. The team will recover landers and test a new WHOI-designed, prototype thruster that has only been deployed in the WHOI test well. In addition to these exciting events, the team will also test a new sensor, and other equipment while continuing ongoing maintenance efforts.

This final cruise is scheduled to return to WHOI in time for crew members to enjoy the holiday season.

AUV *Sentry*

Sentry enjoyed its summer right here on beautiful Cape Cod and also engaged in quite a bit of maintenance in spite of the pandemic. Following the summer maintenance, *Sentry* and team geared up for 2 cruises. One cruise was deployed from Oregon and the other from neighboring Rhode Island. Both cruises required two-week isolation periods for everyone participating in the cruise, and once underway, the voyages went well and were successfully completed.



Sentry has returned to WHOI with an intense maintenance schedule planned for the next several months. This maintenance includes an upgrade to the *Sentry* side-scan sonar. This update bound to leave *Sentry* positively beaming!



WHOI geochemist Chris German is pairing AUV *Sentry* with an autonomous surface vehicle (ASV) called a Wave Glider to expand research here and on other Ocean Worlds.



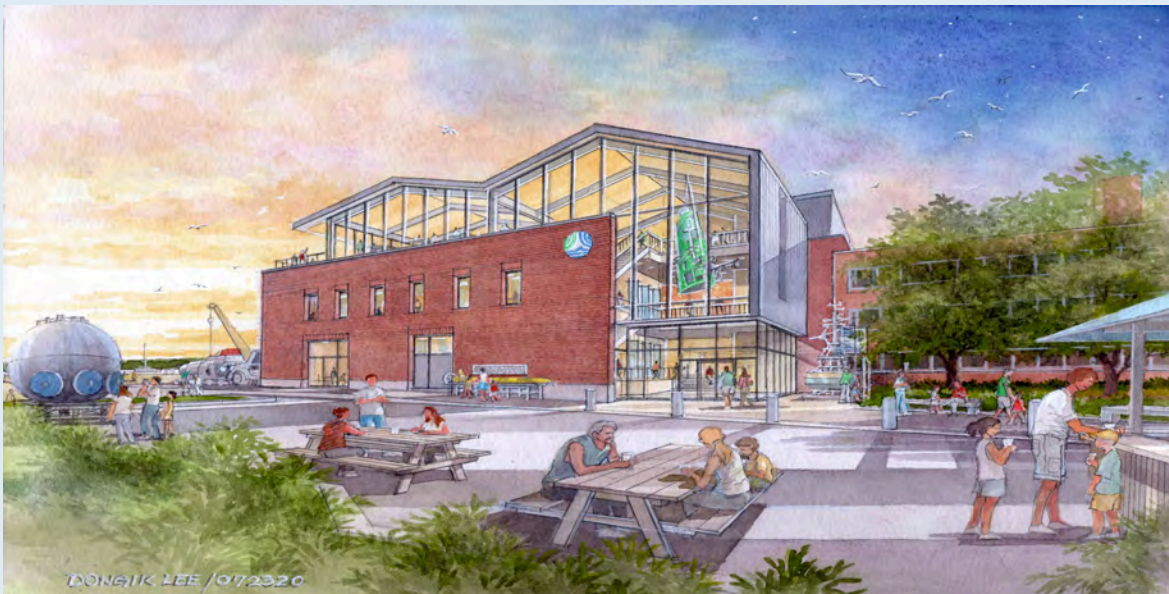
The Complex for Waterfront Access To Exploration and Research (CWATER) Project is powering forward with a successful Phase 2 effort ending and Phase 3 ramping up now. CWATER is imagined as a next-generation, world-class, sustainable marine research facility that will enable fundamental advances in ocean science, engineering and education through the 21st Century for the entire oceanographic community.

Phase 2 centered on establishing a design approach for the primary elements of the CWATER project and included: site investigations, further sea level rise analysis and engagement, an assessment of sustainability and adaptability, preliminary dock design, conceptual building design, permitting consultation, and preliminary permit applications. The results of Phase 2 have advanced CWATER design elements and critical decisions prior to launching a detailed design phase in Phase 3.

The Core CWATER Team is Rob Munier, Leslie-Ann McGee (PM), Jim Newton, Rick Galat, Court Clayton and Peter Hill but is advised by a large and multi-disciplinary Dock Advisory Group that recently held the 21st meeting. During Phase 2, part of the kick-off included an inter-institution project with NOAA / NEFSC and MBL to evaluate and plan for Woods Hole's coastal climate vulnerability. This partnership was capped off with a public symposium on September 24. The companion report can be found at this link <https://www.whoi.edu/rising-tides-preparing-for-the-future/>.

Phase 3 will kick off in January for a 15-month development cycle to bring the project to “shovel ready” status. We are supported by a host of excellent consultants including Payette (Architect), Moffatt & Nichol (Engineer), Epsilon (Permitting), Woods Hole Group (climate resiliency planning), DSK (strategic facilities planning) and a number of other excellent partners.

A CWATER website launch to better inform the community on the project is a priority and will be available soon. In the meantime, please direct any CWATER questions to Leslie-Ann McGee at lmcgee@whoi.edu.



Above is a rendering from the artist, Dongik Lee, with an interpretation and vision for the future CWATER complex

People and Promotions

Please welcome our new additions to the Marine Operations Team, we are glad to have you aboard.



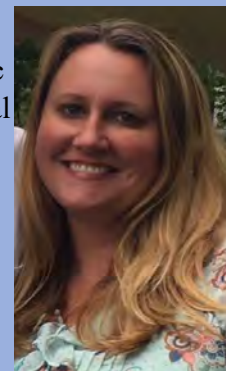
Taryn Carley

Taryn joined the Marine Operations team in March 2020 as Rob's Senior Administrative Assistant. She previously held the position of Business Support Specialist at the WHOI Consortium for Marine Robotics. Taryn earned her BS in Marketing from UMass Dartmouth and we're happy to have her aboard!

Welcome!

Jenn Carter

Jenn's role as Center Administrator now spans both Shipboard Scientific Service Group and Ship Operations with a focus primarily on the financial aspects of both organizations. Jenn's administrative functions are being redistributed and she Jenn reports to Pam Clark. Her considerable knowledge of WHOI and overall skill add a level of expertise to this redefined position ensuring our financial reporting obligations, both internally and to our sponsors, are met timely and accurately.



Thank you for all you do, Jenn!

Pam Clark



Pam was promoted to Senior Project & Ship Administration Manager earlier this year. Reporting directly to Rob Munier, this role includes taking on administrative and financial aspects of Ship Operations, while also leading proposal efforts for Ship and Marine Operations. Pam continues as the technical lead for NAVSEA certification of the Atlantis launch and recovery system.

Kudos Pam!

Sarah Fuller

Sarah was promoted earlier this year to Operations Manager for Shipboard Scientific Service Group. In her role, Sarah adds direct supervision of the SSSG techs and management of all related activities to marine coordination responsibilities. Sarah is well positioned to take on the complex task of coordinating, training and deploying our all-important techs and continues to report to Dave Fisichella.



Congratulations Sarah!



Christopher Lewis

Chris joined WHOI as a Sr. Administrative Assistant for the Shipboard Scientific Service Group, taking over many of the duties previously completed by Jenn Carter. Chris received his BS in Poli-Sci from UMass Amherst, an MBA in Maritime Management from MMA and we are pleased that he has joined the team.

Cheers Chris!

Jim Missios

Jim came aboard in July and made an immediate impact on the program bringing his tremendous skill set and experience having previously worked Harbor Patrol for Yarmouth Harbor master. Please join me in welcoming Jim to the WHOI team. Jim held previous roles in commercial towing, as an EMT, and was a Fire Fighter for the Town of Barnstable.



Welcome Aboard!

Isaura Welch



“Isa” joined Marine Operations in January as a Financial Analyst. Having previously worked with the AOPE and OOI departments. In this role, she serves as the liaison between the Controller’s office and Marine Operations reporting directly to Rob Munier. Isa received her BS in Accounting from Florida State University and is working toward an MBA from Fitchburg State University with an expected May 2021 graduation.

Happy to have you aboard!

Thank you, again, for making this a successful year!

None of our success would have been possible without your hard work and resilience. Best wishes for a Happy and Healthy New Year!

Please direct your questions and comments about this newsletter to
Rob Munier, Vice President, Marine Facilities & Operations
munier@whoi.edu or 508-289-3335

The End



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Who We Are

Know Your Ocean

What We Do

