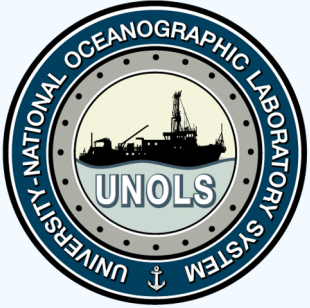




UNOLS Update

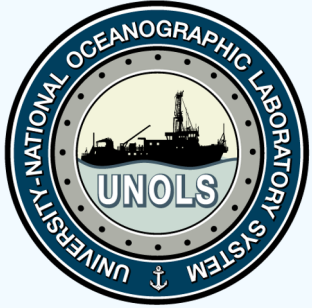
Alice Doyle / UNOLS Office
2020 DeSSC Community Meeting
4Dec20





US Academic Research Fleet (ARF) 2020 COVID-19 Response

- Fleet operations paused 17 March 2020
 - Started as 30 day pause, soon extended.
- Targeted *Resume Operation date* ~1 July
 - A few cruises started sooner, some ships started later
- Between March & July restart
 - UNOLS Council, Agencies, Operators & Office drafted [Guidance and Recommendations to returning to Operations](#)
 - Operators took this guidance and created extensive policies and procedures that met their facility, institution and state requirements.



U.S. ARF COVID-19 Operator Basic Approach

Each Operator developed a:

- Shipboard Risk Mitigation Procedures
 - Quarantine
 - Up to 14 days
 - Testing –
 - 2 to 3 RT-PCR tests
- Risk Assessment Protocol
- Cruise Risk Review
 - Science party, Captain, Operator, Funding Agencies and UNOLS office

ALL MUST AGREE TO PROCEED

Scripps Institution of Oceanography

COVID-19 Preparedness Plan

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1 Introduction

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The Centers for Disease Control and Prevention (CDC) and public health entities are monitoring this pandemic. The most up-to-date CDC information can be found at the following link:

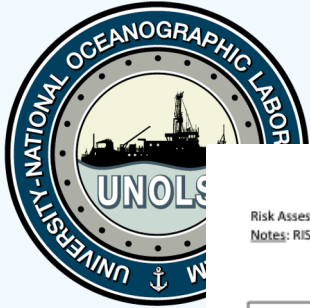
<https://www.cdc.gov/coronavirus/2019-ncov/index.html>

This guide was developed for underway and in port operation by research vessels operated by Scripps Institution of Oceanography. It is intended to

- Define practices to minimize the possibility of COVID-19 being spread aboard a ship
- Describe how to immediately respond to a suspected case of COVID-19 on board.

Our approach is based on CDC guidance. These recommendations are intended to supplement, but not replace, any existing Safety Management System directives.

Masters are ultimately responsible for the preparedness of their crews, and for enforcing and implementing the guidance that follows.



Example Risk Assessment Protocol

Woods Hole Oceanographic Institution
Risk Assessment

Dept: Ship Ops
Date: 6/12/2020

Risk Assessment team includes: Robert Pickart, Leah McRaven, Derek Bergeron, Eric Benway, Sarah Fuller, Pam Clark
Notes: RISK should be defined as: "The risk of person-to-person transmission of COVID-19 and the risk of general vessel COVID-19 contamination".

Vessel:	RV NEIL ARMSTRONG
Date:	6/5/2020
Condition:	COVID-19
Cruise/ Deployment:	OSNAP CF (AR 45)

	Likelihood				
	1: Unlikely	2: Possible	3: Quite Possible	4: Likely	5: Very Likely
1: Negligible	Low Risk	Low Risk	Low Risk	Medium Risk	Medium Risk
2: Slight	Low Risk	Low Risk	Medium Risk	Medium Risk	Medium Risk
3: Moderate	Low Risk	Medium Risk	Medium Risk	Medium Risk	High Risk
4: High	Medium Risk	Medium Risk	Medium Risk	High Risk	High Risk
5: Very High	Medium Risk	Medium Risk	High Risk	High Risk	High Risk

Count	Category	Risk ID	Risk Identification			Risk Mitigation			EXECUTION		
			Risk Identification	Likelihood	Consequence	Control Measures/Mitigation	Likelihood	Consequence	Risk Rank	Person In Charge	
1	Pre-cruise considerations	PC 1	What are institutional policies relating to the cruise?	4	4	H	Institution policies have been developed in conjunction with the Port Office, Ship, and Chief Sci. Work on campus is still limited. Policies are in place for essential personnel to work on campus for cruise prep (REF 1).	2	4	M	WHOI/Port Office
2	Pre-cruise considerations	PC 2	Will all UNOLS and WHOI COVID19-related protocols be made available to all science and crew prior to the cruise?	2	3	M	A shared drive with policy and guideline documents has been created to aid in transparency of all agreed upon protocols as they are formed and modified throughout the cruise planning process	1	2	L	Master/Chief Sci
3	Pre-cruise considerations	PC 3	Will participants be screened for pre-existing conditions (using a questionnaire) leading to increased health risk if infected?	4	5	H	Yes, WHOI policies include pre-screening for pre-existing conditions (REF 6).	1	2	L	WHOI/Port Office
4	Pre-cruise considerations	PC 4	Will there be a follow-up questionnaire for screening of participants (immediately prior to departure)?	2	2	L	No follow up questionnaire needed. Participants will submit daily monitoring assessments (WHOI Daily self-assessment) online until end of 14 day isolation period, which will be three days before departure. Cleared participants will proceed from isolation directly to the ship.	2	2	L	Master/Chief Sci
5	Pre-cruise considerations	PC 5	Can the cruise operate with fewer science personnel?	4	3	M	Science party has been reduced to 10 members and each person will have a private stateroom. The scope of the work has been reduced in light of the smaller science party. This includes significantly less CTD work. We are also prepared to prioritize the moorings and leave some of them unserved.	1	3	L	Chief Sci/Log Mgr/NSF
6	Pre-cruise considerations	PC 6	Can the cruise operate with fewer crew members?	4	3	M	Yes, the vessel can sail with a reduced crew only if the position left vacant is not required by USCG Certificate of Inspection to sail. Vessel cannot operate without Master, C/E and other officers. Ship will have 1 alternate to fill Master, One person to fill 2/M, 3/M, AB or OS. One Ch/Stew back up but no Engineer back ups.	1	3	L	Port Office/Master
7	Pre-cruise considerations	PC 7	Will science equipment be ready for the cruise given supply chain problems, shipping delays, and restrictions to on-site work?	2	3	M	Allow additional prep time for inefficiencies due to social distancing and other safety precautions. Essential mooring materials and instruments are all on-site at WHOI. Some non-essential scientific equipment to be shipped and may arrive close to cruise departure. These items will be sanitized by the prep team prior to loading.	1	1	L	Chief Sci/Log Mgr
8	Pre-cruise considerations	PC 8	Will science team be available for equipment prep given restrictions to on-site work? Will they be able to conduct the necessary work?	2	3	M	Working on site is voluntary. All necessary personnel are able and willing to access WHOI and perform needed work with WHOI-required PPE and daily self assessments.	1	2	L	Chief Sci/Log Mgr
9	Pre-cruise considerations	PC 9	Is participant air travel necessary?	2	3	M	All sailing participants and alternates are local, or within driving distance. Crew members planning to board the vessel prior to the cruise will undergo the same screening, testing, and self-isolation plan as science members.	1	2	L	Chief Sci/Port Office



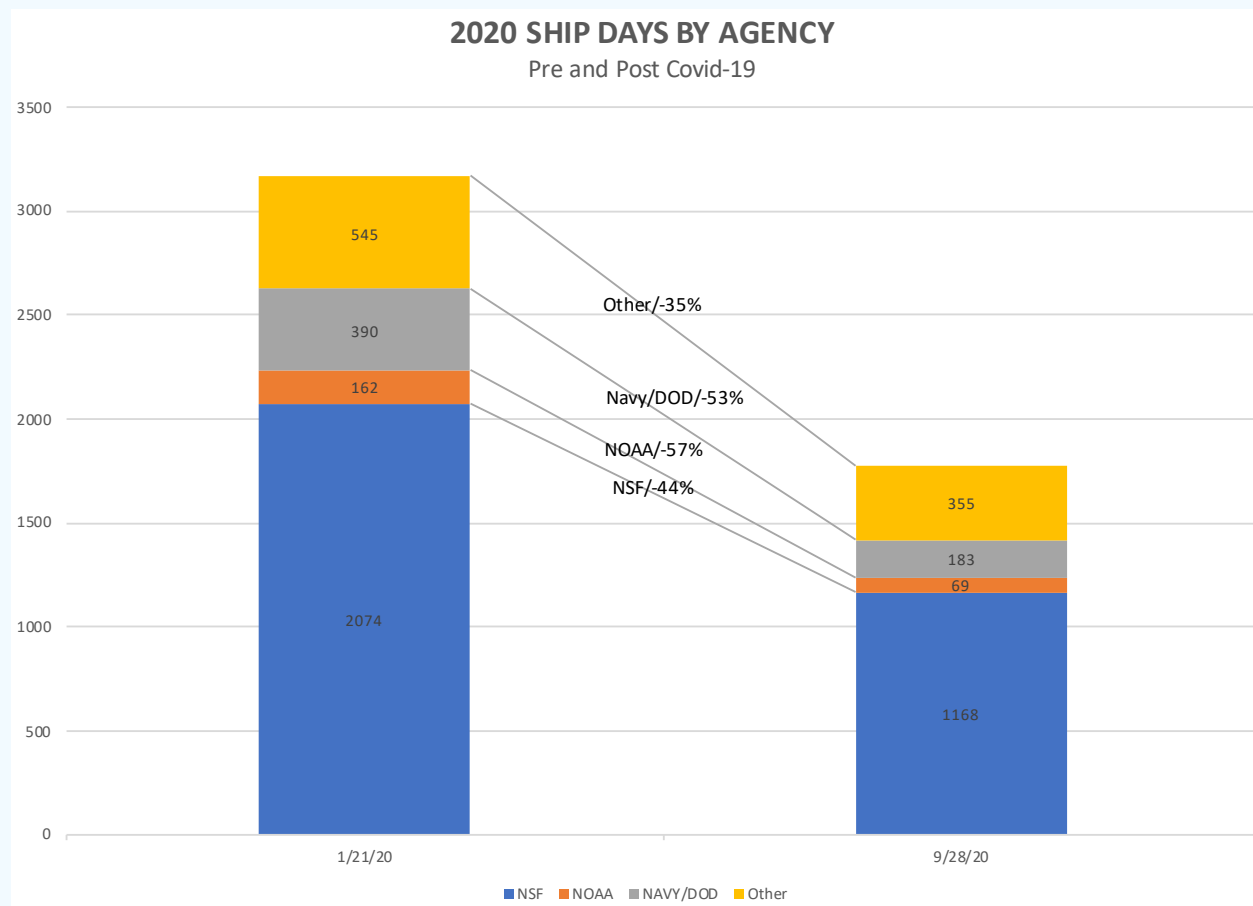
Life onboard in COVID-19 Times

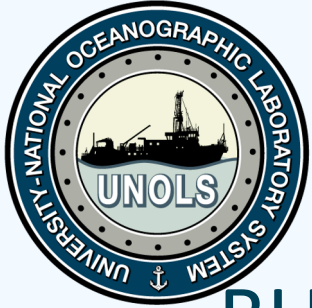
- Masks required
- Social Distancing
- Increased cleaning regimes
- Lots of hand-washing
- Single state rooms when possible
- No/limited self-service of food & drinks
- Meals in shifts – reduced mess deck seating
- Limits to personnel in the gym & lounges



U.S. ARF COVID-19 Operations Summary

~40% reduction in 2020 operational days from what had been scheduled





U.S. ARF COVID-19

Operations Summary (cont)

BUT even with an ~40% reduction in days...

- **Over 122 cruises/transits successfully completed since restart!**
 - 1 cruise cancelled due to a positive case in quarantine (prior to the cruise departure)
 - Work focused on High Priority Science, Low Risk cruises
 - Operating from U.S. ports only until worldwide pandemic outlook improves



U.S. ARF COVID-19

Next Steps & Challenges

- Reviewing the 2021 schedules with the knowledge that the fleet will have to deal with COVID-19 well into 2021.
- Reviewing the Guidelines and quarantine protocols.
 - Current communication with the the fleet medical provider, GW-MMA, indicates the 14day quarantine and multiple RT-PCR tests should continue well into 2021
- COVID-19 fatigue!
- Recent spike in COVID-19 cases



U.S. ARF COVID-19 Lessons Learned

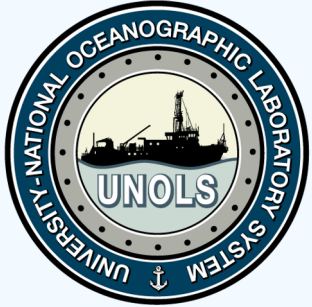
- Exceptional collaboration between federal agencies, vessel operators and scientists to creatively solve challenges enabled the safe & successful return to science ops. Everyone owned the problem & the solutions!!
- Continued Federal Agency financial support of operating institutions allowed vessels to retain ship crews and marine technicians
 - Important maintenance completed while ships were tied up
 - Able to restart science quickly
 - Maintain morale throughout fleet

CRITICALLY IMPORTANT!



US ARF Fleet Updates

- RV ROGER REVELLE completed a very successful mid-life refit despite the COVID-19 pandemic.
 - A detailed REVELLE mid-life presentation can be found [here](#).
- RV ATLANTIS continues in their mid-life refit (see report later in meeting)
- RCRVs have had a schedule update.
 - A detailed RCRV update can be found [here](#).
 - URI is holding a naming competition for RCRV #2. More information is [here](#).
- RV MARCUS LANGSETH transferred ownership from NSF to LDEO.



UNOLS Fall Meetings – A Webinar Series

The UNOLS Fall meetings were held as a webinar series.

- LOTS of great information and updates about the fleet and its facilities.
- All sessions were ~60-90min
- Recordings can be found [here](#).

HIGHLY RECOMMEND the Keynote speaker presentation by *Dr. Brandon Jones* on equity and inclusion. The recording can be found [here](#).



Other updates

- RVTEC had a very successful [2020 virtual meeting](#).
- SCOAR committee has moved to monthly meetings
- UNOLS Newsletters from the year can be found [here](#).
 - If you would like to receive these in your Inbox, let us know!
 - If you have any interesting articles to share, please pass them along.



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Questions?

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