UNOLS Update

Alice Doyle / UNOLS Office
2020 DeSSC Community Meeting
4Dec20
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.
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
## Example Risk Assessment Protocal

**Risk Assessment team includes:** Robert Pickard, Leah McRaven, Derek Bergeron, Eric Bennaway, Sarah Fulles, Pam Clarke  
**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."

### Risk Assessment

<table>
<thead>
<tr>
<th>Vessel:</th>
<th>NYNEAR ARMSTRONG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
<td>6/5/2020</td>
</tr>
<tr>
<td>Condition:</td>
<td>COVID-19</td>
</tr>
<tr>
<td>Cruise/Deployment:</td>
<td>OSNAP 07 (AR 45)</td>
</tr>
</tbody>
</table>

### Likelihood

<table>
<thead>
<tr>
<th>1: Negligible</th>
<th>Low Risk</th>
<th>Low Risk</th>
<th>Low Risk</th>
<th>Medium Risk</th>
<th>Medium Risk</th>
<th>Very High</th>
<th>Very High</th>
</tr>
</thead>
<tbody>
<tr>
<td>2: Slight</td>
<td>Low Risk</td>
<td>Low Risk</td>
<td>Medium Risk</td>
<td>Medium Risk</td>
<td>Medium Risk</td>
<td>Medium Risk</td>
<td>Medium Risk</td>
</tr>
<tr>
<td>3: Moderate</td>
<td>Medium Risk</td>
<td>Medium Risk</td>
<td>Medium Risk</td>
<td>Medium Risk</td>
<td>High Risk</td>
<td>High Risk</td>
<td>High Risk</td>
</tr>
<tr>
<td>4: High</td>
<td>Medium Risk</td>
<td>Medium Risk</td>
<td>High Risk</td>
<td>High Risk</td>
<td>High Risk</td>
<td>High Risk</td>
<td>High Risk</td>
</tr>
<tr>
<td>5: Very High</td>
<td>High Risk</td>
<td>High Risk</td>
<td>High Risk</td>
<td>High Risk</td>
<td>High Risk</td>
<td>High Risk</td>
<td>High Risk</td>
</tr>
</tbody>
</table>

### Risk Identification

<table>
<thead>
<tr>
<th>Count</th>
<th>Category</th>
<th>Risk ID</th>
<th>Risk Identification</th>
<th>Control Measures/Mitigation</th>
<th>Person in Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pre-cruise considerations</td>
<td>PC 1</td>
<td>What are institutional policies relating to the cruise?</td>
<td>Institution policies have been developed in conjunction with this Port Office, Ship, and Chief Sci. Work on campus is still limited. Policies are in place for ascendant personnel to work on campus for cruise prep (HEP 1).</td>
<td>Whoy/Port Office</td>
</tr>
<tr>
<td>2</td>
<td>Pre-cruise considerations</td>
<td>PC 2</td>
<td>Will all UNOLS and WHOI COVID-19-related protocols be made available to all science and crew prior to the cruise?</td>
<td>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.</td>
<td>Master/Chief Sci</td>
</tr>
<tr>
<td>3</td>
<td>Pre-cruise considerations</td>
<td>PC 3</td>
<td>Will participants be screened for pre-existing conditions (using a questionnaire) leading to increased health risk if infected?</td>
<td>Yes, WHOI policies include pre-screening for pre-existing conditions prior to travel.</td>
<td>Master/Chief Sci</td>
</tr>
<tr>
<td>4</td>
<td>Pre-cruise considerations</td>
<td>PC 4</td>
<td>Will there be a follow-up questionnaire for screening of participants immediately prior to departure?</td>
<td>No follow-up questionnaire is 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. Chased participants will proceed from isolation directly to the ship.</td>
<td>Whoy/Port Office</td>
</tr>
<tr>
<td>5</td>
<td>Pre-cruise considerations</td>
<td>PC 5</td>
<td>Can the cruise operate with fewer science personnel?</td>
<td>The science party is 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 morning and leave some of them unserved.</td>
<td>Chief Sci/Leg Mgr/NSF</td>
</tr>
<tr>
<td>6</td>
<td>Pre-cruise considerations</td>
<td>PC 6</td>
<td>Can the cruise operate with fewer crew members?</td>
<td>Yes, the vessel can sail with a reduced crew only if the position left vacant is not required by UNOLS Certificate of Inspections to sail. Vessel cannot operate without Master, O&amp;I and other officers. Ship will have 1 alternate to fill Master. One person to fill 21/20, 3/2, AB or OS. One Chief/Stew back up but no Engineer back up.</td>
<td>Port Office/Master</td>
</tr>
<tr>
<td>7</td>
<td>Pre-cruise considerations</td>
<td>PC 7</td>
<td>Will science equipment be ready for the cruise given supply chain problems, shipping delays, and restrictions to on-site work?</td>
<td>Allow additional prep time for inefficiencies due to social distancing and other safety precautions. Essential measuring instruments and equipment are all on-board 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.</td>
<td>Chief Sci/Leg Mgr</td>
</tr>
<tr>
<td>8</td>
<td>Pre-cruise considerations</td>
<td>PC 8</td>
<td>Will science team be available for equipment prior to restrictions to off-site work? Will they be able to conduct the necessary work?</td>
<td>Yes, with additional prep time due to social distancing and other safety precautions.</td>
<td>Chief Sci/Leg Mgr</td>
</tr>
<tr>
<td>9</td>
<td>Pre-cruise considerations</td>
<td>PC 9</td>
<td>Is participant air travel necessary?</td>
<td>Air travel planning is underway.</td>
<td>Chief Sci/Port Office</td>
</tr>
</tbody>
</table>
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

2020 SHIP DAYS BY AGENCY

Pre and Post Covid-19

- NSF
- NOAA
- NAVY/DOD
- Other

- NSF/-44%
- NOAA/-57%
- NAVY/DOD/-53%
- Other/-35%

1/21/20

2074

9/28/20

1168
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
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 fleet medical provider, GW-MMA, indicates the 14 day 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.
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.
UNOLS Office & Social Media

Questions?
alice@unols.org