

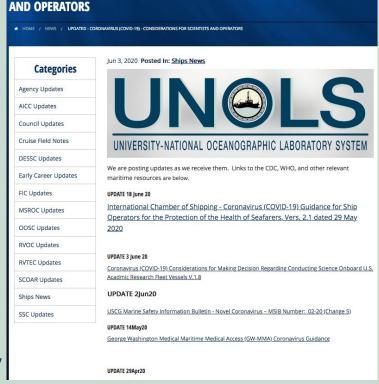
UNOLS Update – COVID-19 & return to ops

- Pause in Operations 17 March, targeted return to ops ~1 July
- Developed guidance for restarting science operations

Operators conduct risk assessments, implement risk mitigation, develop outbreak

management plans

- Joint decision with Chief Scientist on Go / No-Go
- Review with funding agencies & UNOLS Office
- On-line Meetings with Marine Superintendents & Principal Investigators to review updated guidance
- Starting with low risk cruises
 - Sikuliaq NGA LTER
 - Neil Armstrong OOI Pioneer
 - Neil Armstrong OOI OSNAP
 - Sally Ride CCE-LTER
 - Thomas G Thompson OOI-EA
 - Plus: Pelican, Atlantic Explorer, Hugh Sharp,
 Rachel Carson, & Robert G Sproul
- Resources see UNOLS Coronavirus Webpage
- 2020 Re-scheduling & 2021 Scheduling underway



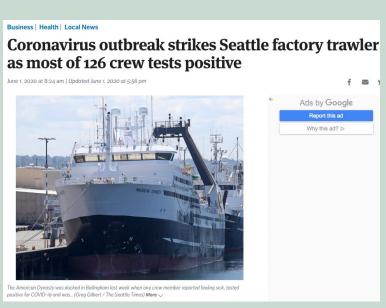
UPDATED - CORONAVIRUS (COVID-19) - CONSIDERATIONS FOR SCIENTISTS



Background for UNOLS COVID-19 Considerations and Guidance Cont'd

- Real world events
 - USS Theodore Roosevelt
 - USS Kidd
 - F/V American Dynasty& sister ships
- CDC, WHO, ICS, USCG
- GW Medical
- UW Medical
- Discovery Health







UNOLS COVID-19 Considerations and Guidance

- University of Hawai'i
- R/V KILO MOANA
 HAWAII OCEAN TIME SERIES (HOT)
 2020 RISK ASSESSMENT REVIEW
 - UZU RISK ASSESSMENT REVIEW

- Pre-cruise planning
- Preparing for Operations
- Risk Assessment & Mitigation
 - Marine Superintendent & Chief Scientist
- Self Isolation and Testing
 - Availability of Testing Starting to BecomeA Challenge Again
- Final Risk Determination Go / No-Go
 - Joint decision
- Agency concurrence

Exceptional collaborative effort by Ship Operators and Scientists to make science happen!

R/V SHAPP COVID-19 Nick Assessment Form

William

The house of description of this control of the recognization of

R/V SIKULIAQ COVID-19

Mitigation and Response



Version 1.4

20 April 2020

Risk Assessment for RV SALLY RIDE Sommer Cruise (SR2003) during the underway period 1 to 3 July 2020 departing and returning to the Nimitz Marine Facility, San Diego California

The Chief Scientist and the Marine Superintendent have taken the following into consideration in determining whether risk is at an acceptable level for conducting a scheduled science cruise on a Script Institution of Greannerandy wassel.

Des Coules Blancies Coules Birk Assessment CRUISE LOGISTICAL CONSIDERATIO

It offertive COVID 18 testing available and in place?

Scripps institution of Oceanography uses a FDA approved molecular test. This test detects genetic material of the virus using a lab technique called polymerase chain reaction (PCR). Also called a PCR test, a health care worker collects full of from a nasal or throat swab or from salva. Molecular tests are considered very accurate when properly performed by a health care professional. All tests used to the professional. All tests used to the properly performed by a health care professional. All tests used to the properly performed by a health care professional. All tests used to the properly performed by a health care professional and the properly performed by a health care professional.

What are the virus infection rates for the port of mebarkation and any anticipated port(s) of call Control or tack ports of refuse storm overlop and repairs as well.

San Diego County has a 14-day rolling average percentage of positive tests at 3.4%. This cruise

Where on the "epidemic curve" are load and unload port(s) and the home of crew / science party?
 bit now safe to work in that port? Have Shelter in Place orders been lifted? Can necessary crew and science party personnel safely travel to the port?

In the control of the

What are current rules (federal, state, local) for sheltering in place, and/or essential services that
may not permit oceanographic science operations? Have those rules been lifted for the port of
origin for the cruise and the ned-port?



Life onboard

- 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
- Relax protocols after 14 days underway if no issues

UGA/ Skidaway Institute of Oceanography

R/V Savannah

COVID-19 Response Plan

Revised: 19 May 2020

- Introduction
 Risk assessmen
- II. In Port Vessel Protocols
- IV. Operational Procedures to Prepare for Cruise
- Outbreak Management Plan

I Introduction

On March 11th 2020, the World Health Organization (WHO) de worldwide pandemic. The disease outbreak started in China ir all human life around the world, including the maritime indust Institute of Oceanography. The RV Savannah's last cruise prior March. On 16 March, the ship entered an out of service status

This document serves to describe the processes and necessary sea operations and manage potential outbreaks at sea. The precommendations by the UNOLS office, Center for Disease Cor Shipping (ICS), State of Georgia, and the University of Georgia

II. Risk Assessment

The UNOLS organization has provided vessel operators and chi under the control of the control of

To reduce risk and help minimize the probability the infection developed and implemented by each vessel's operational institutation. In addition, an outbreak management plan mu infectious disease that arises while underway.

To help determine if a cruise can feasibly be conducted, a Chie Assessment Questionnaire was developed by SKIO Marine Opt Chief Scientist for completion (Appendix 1).

Travel requirements of science personnel

Risk Assessment, Mitigation and Response for Operations on the RV Blue Heron

This document outlines how the UMD marine superintendent, master of the RV Blue Heron, and Chief Scientists of research expeditions on board the RV Blue Heron will assess and mitigate the risks associated with expeditions on board the research vessel during the COVID19 pandemic. The assessment incorporates advice from other vessels in UNOLS, the George Washington University Maritime Medical Access group (medical advisors to UNOLS) and information from UNOLS are superintenated.

Please address questions to:

- Dr. Doug Ricketts, Marine Superintendent 218-491-5583_ricketts@d.unn.edu
- Captain Rual Lee, Captain R/V Blue Heron 218-722-8228, rlee@d.umn.edu

Introduction

The safety of the crew and science party is paramount.

The marine superintendent, master of the vessel, and chief scientist must consider many issues when determining whether a scientific expedition may take place during a pandemic and may have different opinions as to whether an expedition can be carried out safely. Each of the three has the authority to veto a cruise after careful consideration of all appropriate factors including assessing the risk of unsuccessfully completing a science mission and the risk of adverse health impacts on the crew and science party.

If the chief scientist or marine superintendent (with consultation with the master of the vessel) determines that risks are unacceptable and the cruise should be postponed, they will document the basis of their determination in writing and inform each other. Additionally, the UNOLS Office, NSF Ship Operations, NSF Science Program Manager (for NSF funded science) and program managers for other agencies that funded the impacted science will be informed of the decision.