

***R/V Paragon* COVID-19 Prevention Management Plan**

Version B (9/18/2020)

The guidelines presented here are intended to minimize the chances of COVID-19 transmission onboard the vessel *R/V Paragon*. The vessel is well suited for use during the pandemic because of its well-ventilated configuration, minimal crew requirements and typical usage for trips of short duration. Regardless, the transmission of COVID-19 among passengers and crew is possible and all precautions must be taken to prevent it. The requirements outlined below are based on recommendations from the USCG, CDC, EPA and MBARI management team.

Personnel requirements

1. Personnel feeling sick or exhibiting symptoms consistent with those of COVID-19 shall not board the vessel.
 - a. Symptoms indicative of a COVID-19 infection are:
 - i. Fever or chills
 - ii. Cough
 - iii. Shortness of breath or difficulty breathing
 - iv. Fatigue
 - v. Muscle or body aches
 - vi. Headache
 - vii. New loss of taste or smell
 - viii. Sore throat
 - ix. Congestion or runny nose
 - x. Nausea or vomiting
 - xi. Diarrhea
2. Anyone onboard shall terminate the operation if they are not comfortable with the exposure risk.
3. The total number of people aboard the vessel **shall not exceed four** (reduced from eight).
4. Personnel are limited to those essential to completing the operation safely.
5. At this time, only MBARI staff are allowed on the *R/V Paragon*.
6. All crew and passengers must submit a "Pre-cruise Covid-19 Questionnaire" to DMO administration two weeks prior to departure, and re-validate your responses by email 24 hours before departure. You must receive clearance from DMO administration before embarking.
7. The "Pre-cruise Covid-19 Questionnaire" need only be filled out once, and then 24 hours prior to each operation personnel must revalidate their responses by email to DMO administration. You must receive clearance from the DMO administration before embarking.
8. Only two people are allowed in the house at the same time. When there are two people in the house, both are required to wear masks that cover nose and mouth. As per

MBARI's Return to Work Policy, neck gaiters and bandanas are not acceptable. When feasible it is recommended to open windows to increase ventilation.

9. All crew and passengers are required to have passed a COVID-19 antigen test from MBARI's designated lab before going to sea.
 - a. Testing will be conducted on intervals not to exceed 2 weeks
 - b. Notify admindmo@mbari.org to be included in testing, at least 2 weeks before your trip.
 - c. If an employee will not be onsite at MBARI on the designated testing day, they may request through DMO to test at the lab's office in Monterey.
 - d. The lab or employee shall send the results to Human Resources (Norm Steinberg) for final approval.
10. The Captain is responsible for ensuring that all onboard have valid COVID-19 test and Appendix A by consulting the "Approved Crew Participants".

Preventative Hygiene

Transmission of COVID-19 can be prevented or greatly reduced by enhanced hygiene. The recommendations listed below are effective against contracting and against spreading the virus. The primary means of transmission of COVID-19 is through coughing, sneezing, and aerosolizing during breathing and talking. The virus can also be transmitted through contaminated surfaces if the victim then touches eyes, mouth, nose or face. Disrupting these modes of transmission is our primary line of defense.

1. All participants are required to wash hands (a) prior to getting on the boat, (b) after departing the boat and (c) immediately following a sneeze or cough or whenever hands contact a bodily fluid such as saliva or mucus.
2. Two handwashing stations are available on the MBARI dock and additionally the *R/V Paragon* is outfitted with a wash station to facilitate frequent hand washing and is stocked with hand sanitizer. The CDC recommends washing hands with soap and water thoroughly for at least 20 seconds. Hand sanitizer can be substituted when hand washing is not practical.
3. All passengers should avoid touching their face, mouth, nose or eyes to reduce the chances of transmission.

Safety Equipment and Personal Protective Equipment (PPE)

With the onset of the COVID-19 pandemic, PPE will be required onboard the *R/V Paragon* and sanitation protocols will be employed to ensure the cleanliness of shared safety equipment (e.g. PFDs and hardhats).

1. Crew and passengers are required to have a mask or cloth facial covering on their person and available for use at all times. As per MBARI's Return to Work Policy, neck gaiters and bandanas are not acceptable.
2. Social distancing, staying 6 feet apart, is required whenever possible. If less than 6 feet apart, both personnel are required to wear a mask.
3. Masks must be worn whenever two people occupy the house.

4. Gloves are not required but will be made available should participants choose to use them. Please be aware that contaminated gloves are a vector for the virus so they should be treated the same as one's own hands.
5. Small squares of paper towels are effective for single use protection for opening doors and hatches and can reduce the frequency of required hand washing.
6. All operators and some frequent users will be issued their own PFDs and hardhats to reduce the sharing of common safety gear. The items should be labeled with the owner's name.
7. Additional PFDs and hardhats will be available for a cleaning rotation so that safety equipment is only shared after being sanitized.
8. Following each trip, the shared equipment will be sanitized according to the procedures outlined in the *Sanitation* section of this document.

Sanitation

COVID-19 can be transmitted through contact with shared surfaces. In some cases, viable viruses can persist for days on materials and pose a transmission risk. Surfaces can be contaminated through touch and through the settling of aerosolized droplets from people breathing, talking, coughing and sneezing. Sanitation is the most effective means of mitigating the transmission risk. It is the process of cleaning and disinfecting, the former removing grease and dirt and the latter deactivating COVID-19.

1. All common surfaces shall be sanitized prior to and following the use of the *R/V Paragon* in a manner consistent with the guidelines listed below.
2. High use surfaces such as door handles, steering wheel, throttle, etc. will be marked with color-coded tape and shall be sanitized with the appropriate disinfectant during each cleaning cycle. Please also sanitize additional surfaces that the crew or passengers have or will touch during the operation.
3. Disinfectants vary in their effectiveness on different surfaces and some can even be damaging to surfaces or equipment.
4. Isopropyl alcohol and ethyl alcohol are effective on the many surfaces and less irritating than bleach so most surfaces inside the house will be disinfected by spraying a 70% or higher solution of alcohol. Painted surfaces can be cleaned and disinfected with Clorox Bleach Wipes. Touch screen electronics will be sanitized with an electronics alcohol solution. All surfaces outdoors should be cleaned with soap and water. A list of common surfaces and the appropriate disinfectant is provided below.

Disinfectant Use on Common Surfaces

Surfaces	Bleach	Alcohol	QAC	Hydrogen Peroxide
Floors, other hard surfaces	Y	Y	Y	Y

Painted Surfaces	Y	N	Y	Y
Structure and bare metal	N	Y	N	N
Machinery and Sensitive Equip	N	Y	N	SOMETIME S
Cables	N	N	N	Y
Electronics	N	Y	N	N
Fabrics	N	SOMETIMES	Y	Y

5. Disinfectants vary in the contact time required to render viruses ineffective. A detailed list of contact times can be found on the EPA website (List N: Disinfectants for Use Against SARS-CoV-2). When spraying a disinfectant onto a surface, let it sit for the recommended contact time before touching it or wiping it off. For example, contact time for ethyl alcohol is as little as 30 seconds whereas isopropyl alcohol can take from 3-10 minutes depending on the product.
6. Common surfaces that should be sanitized before and after the use of the vessel are listed below grouped by a recommended disinfectant:
 - a. Alcohol spray
 - i. Non-touchscreen electronics knobs
 - ii. Sanitizer pump dispenser
 - iii. Window latches
 - iv. Door Handle
 - v. Winch Pendant
 - vi. Inside areas that are touched (corners above door, computer trays, etc.)
 - vii. Hose
 - viii. Master breaker panel
 - ix. Computer brackets and iphone cradles
 - x. Pencil/ Pens
 - xi. Perko switches
 - xii. Door Lock
 - b. Alcohol spray and Clorox bleach wipes
 - i. Helm (throttle, wheel)
 - c. Alcohol spray and store outdoors
 - i. Hardhats
 - ii. PFDs
 - d. Designated electronics cleaning solution
 - i. Three Garmin chart plotters
 - ii. Engine control display

- e. Soap and water
 - i. Engine wash down connectors
 - ii. Aft hatch handles
 - iii. Lines
 - iv. Dock Winch Pendant
 - v. Gas Caps
 - vi. Valve Handles
 - vii. Fenders
 - viii. Side-lines for Boom

- f. Wash hands after touching
 - i. Engine covers
 - ii. Electric fence plug
 - iii. Fuel station pump handle

Logs and Float Plans

1. The vessel log and float plan will now be completed online to reduce the use of shared items. The float plan must still be filled out before the vessel leaves the dock and the vessel log must still be completed before the captain leaves the *R/V Paragon* after an operation.

General Policy

1. If anyone that was on the *R/V Paragon* comes down with symptoms consistent with COVID-19, they must notify Norm Steinberg and Mike Kelly as soon as possible so that the *R/V Paragon* can be appropriately sanitized and/or removed from service temporarily.
2. The procedures outlined in this document are subject to change based on the evolving guidelines provided by the USCG, CDC, EPA and MBARI management team. Questions about these policies can be directed to Mike Kelly and Jared Figurski.

References

[MBARI Considerations for Returning to Sea](#)

- [Appendix A MBARI COVID-19 Pre-Cruise Questionnaire](#)
- [MBARI Shipboard Outbreak Management Plan](#)