

FIO Reactivation of Research and Educational Activities Post-COVID19 Crisis

FIO Operations: Keys Marine Laboratory and Research Vessels Re-opening Guidelines

Last edited June 10, 2020

Dr. James Garey, Interim FIO Director

These guidelines are meant to outline the phased operation of all FIO research vessels and Keys Marine Laboratory research activities during the Florida Governor's phased plan to ease COVID-19 restrictions and are supplementary to the FIO Operational Guidelines published in March 2020. Many factors must be taken into consideration as the FIO Director, KML Director, and/or the FIO Marine Superintendent and Chief Scientists work together to determine whether oceanographic science or other activities can safely resume following the below guidance. Any deviation from this guidance requires the explicit permission of the KML Director for KML operations or the Marine Superintendent for Bayboro operations. All decisions will be based on public health recommendations as established by Federal, State, County, host institution University of South Florida (USF), USF Task Force and guidance from the Florida State University System for COVID-19. In addition, the Infection Control Advisory Committee (ICAC) comprised of designated members of FIO, TGH Infection Control Practitioner, Human Resources, Senior Manager, and Security program stakeholders (Enclosure 2). This committee will advise FIO on matters relating to maintaining a safe working environment through each phase of operations.

Summary of our actions and expectations:

FIO is committed to providing our staff and members of the science party with a safe and healthy environment. While no measures can be 100% effective, FIO and USF have worked with medical experts within USF and external partners to integrate and adapt guidance from the CDC, UNOLSSs, the American Bureau of Shipping, and numerous other organizations and research vessel operators into a plan to mitigate COVID-19 risk at all FIO facilities. The guidelines provided herein will, with your cooperation and participation greatly enhance our ability to complete critical research and student instructional activities safely.

General responsibilities of all FIO staff, visiting scientists and students:

- Anyone with a newly diagnosed COVID infection MUST report this to FIO management and the ICAC within 24 hours to facilitate timely case tracing within FIO.
- All persons boarding an FIO vessel or arriving at the KML facility will routinely have their temperature taken and health check conducted throughout their stay 1). Before they initially board the vessel or arrive at the KML facility and 2). Performing multiple daily health checks- at least twice per day. All temperature checks will be recorded (Enclosure 5).

- Wear a cloth face covering or medical style mask while onboard and on campus to help prevent viral transmission.
- Adhere to social distancing to the greatest extent possible – 6 foot minimum enforced by FIO personnel (e.g. captain, mate, or site manager).
- Adhere to CDC recommended hygiene practices – wash hands hourly or use hand sanitizer hourly, avoid touching face, practice respiratory etiquette, thoroughly clean toilet area after use.
- Stay home when sick, or if exposed to COVID-19 (COVID + household member), or if diagnosed with COVID-19 by Doctor or PCR test. Under no circumstances should a research activity (e.g. voyage, field ops) be undertaken with the possibility of a SARS-CoV-2 patient. If symptoms of COVID -19 develop the activity will be terminated.
- FIO personnel (staff, master, mates, and crew) "At risk" for COVID-19 complications by CDC guidelines (age >65+ or with an underlying condition) and based on each phases risk assessment and in consultation with the ICAC. The employee should discuss their underlying risk factors in advance with the ICAC to properly assess risk of participating in field research activity.
- Each member of the research activity shall assist and play an active role with the cleaning/safety team to support increased environmental disinfection and monitor for soiled areas that require cleaning.
- Each member of the research activity shall enforce the use of facial coverings and social distancing guidelines.

Responsibilities of FIO's Research Vessels at Bayboro:

- Created the ICAC to advise FIO on all matters regarding best practices to conduct safe operations in a COVID-19 or pandemic environment.
- Crew and shore side support staff have been and will be routinely tested for COVID-19.
- Each member of the travelling science party will be tested for COVID-19 prior to travel to St. Petersburg or port of embarkation.
- Health monitoring will take place at embarkation and throughout the cruise.
- The number of hand cleaning stations have been increased throughout each ship.
- U/V sanitizing lights have been added to air conditioner handlers.
- Flow of air throughout each ship has been optimized to inhibit ability of virus to linger.
- Focused sanitizing - hourly cleaning of hand holds and high-volume touch surfaces. As well as frequent cleaning of all common spaces.
- Social distancing areas identified in labs enabled through individual stations and reduced lab capacity.
- Strategic use of traffic patterns (one-way traffic w/ designated exits and entrances) and limiting access to areas of the ship to reduce interactions and cross contamination.
- Provide high quality food service with served vice self-serve meals with staggered mealtimes.
- Cloth mask worn while in the interior of the ship and while on deck if unable to socially distance by 6ft while on deck.

- Berthing capacity has been reduced where possible.
- Cruise length and distance away from a U.S. port is limited.
- Science party and crew risk-based liberty interactions during overnight port calls. Avoid congregating in areas with 10+ people in close proximity (clubs, bars, etc.)
- Developed COVID-19 response plan to mitigate risk if a person develops the virus.

Responsibilities of FIO at Keys Marine Laboratory (KML) field station:

Note: Below pending Dr. Sinnott's visit and review.

- Created the ICAC to advise FIO on all matters regarding best practices to conduct safe operations in a COVID-19 or pandemic environment.
- All KML support staff have been and will be routinely be tested for COVID-19.
- Each member of the travelling science party will be tested for COVID-19 XX days prior to travel or arrival at KML
- Health monitoring will take place upon arrival at KML and daily throughout the duration of their stay.
- The number of hand cleaning stations have been increased throughout the KML facility.
- UV sanitizing lights have been added to air conditioner handlers.
- Flow of air throughout each KML building has been optimized to inhibit ability of virus to linger.
- Focused sanitizing - hourly cleaning of hand holds and high-volume touch surfaces. As well as frequent cleaning of all common spaces.
- Social distancing areas identified in all labs and common use areas enabled through individual stations and reduced lab capacity.
- Strategic use of traffic patterns as needed (one-way traffic w/ designated exits and entrances) to reduce interactions, cross contamination, and maintain social distancing.
- Visiting groups will have access to their own kitchen within their dorm and provide their own food for meal preparations.
- Cloth mask worn while indoors (offices, dorms, labs, classroom) and while on KML small vessels if unable to socially distance by 6ft while on deck.
- Dormitory capacity has been reduced where possible.
- Developed COVID-19 response plan to mitigate risk if a person develops the virus.

As the USF prepares for resuming on-campus operations, the following document presents guidelines for research laboratory activities. These guidelines are established to align with USF's four-phase recovery plan and guiding principles.

FIO at Keys Marine Laboratory:

The Keys Marine Laboratory (KML) has been closed under 'safer at home' directives, since 13 March 2020, to all visiting research and education groups. KML staff implemented rotating schedules to maintain this FIO asset while minimizing staff contact, with the remainder of staff working from home.

Monroe County is currently closed to all visitors and does not anticipate opening during the month

of May, but we will stay informed of changes in local directives through Monroe County Emergency Management. Below is a phased recovery plan and guiding principles. KML is currently communicating with six small research groups (< 5 people) from FIO member institutions and others to reschedule activities at KML as early as July 10th.

Phase I – Resumption of Limited Field Operations	
Florida Institute of Oceanography (FIO): Keys Marine Laboratory (KML)	
Specific FIO at KML Vessels and Diving Considerations	
<p>Resumption of core services with extensive protective measures still in place. Preparing for resumption of normal operations while continuing to limit exposure of returning employees and reduce community transmission.</p>	
<ol style="list-style-type: none"> 1. KML Research Vessel and Scientific Diving Use: <ol style="list-style-type: none"> a. <u>Vessels 30' or greater in length</u> can be used while adhering to guiding principles below. b. Divers who have previously tested positive for COVID-19 must submit an updated approved diving medical evaluation. c. Divers must submit the standard COVID-19 health screening questionnaire for approval prior to diving activity. d. Divers will not be permitted to dive if they have a fever or have had any of the following symptoms in the last 14 days (cough, shortness of breath or difficulty breathing, fever, chills, muscle pain, new loss of smell or taste) e. As COVID-19 testing becomes more readily available, testing may be required. f. Divers/science party members who are high risk/vulnerable may not be approved for operations. g. Vessel capacities should be adjusted to accommodate social distancing guidelines. Consideration shall be given to the nature of the vessel operations for any given day (see Vessels Capacity Chart). h. Science party members/divers must remain six (6) feet apart while onboard. i. Shore diving will be considered on a case by case basis. j. PPE shall be worn during the filling process. Fill whips and valves shall be disinfected before use. k. See EPA “List N” for approved disinfectants. EPA List N 2. Cleaning <ol style="list-style-type: none"> a. Greater cleaning is conducted in all common areas, shared spaces, and touch points b. Faculty, staff, and students are provided with increased access to cleaning supplies and encouraged to clean personal areas before individual use c. Disinfecting scuba equipment (regulator and mask) is required before use. 3. Personal Protective Equipment: <ol style="list-style-type: none"> a. Masks (or face coverings) are required to be worn in public areas or when social distancing cannot be maintained. 4. Social Distancing Measures: <ol style="list-style-type: none"> a. Six (6) feet of separation <u>must</u> be maintained between all individuals. 	

Specific FIO at Keys Marine Laboratory Considerations

Access to Keys Marine Laboratory, located within Monroe County, will be dependent on re-opening the county and US 1 to visitors, including visiting science teams. Monroe County has determined (08 May 2020), that Research Facilities may engage in essential time-sensitive research while strictly adhering to all state and local restrictions. Scheduling these limited activities during phased re-opening will also depend on each visiting group meeting the following criteria:

1. Mission Selection - Deemed essential: time sensitive & cannot be easily rescheduled
 - a. Science Team has been reduced to the minimum necessary to carry out the work.
 - b. Each group limited to 5 people maximum. May include a graduate student as part of the research team. No education-oriented courses.
2. Limited KML Field Station Activity:
 - a. All persons who can work remotely continue to do so.
 - b. Persons in functional areas deemed essential or necessary to enable subsequent phases of activity resumption return to KML as long as social distancing can be maintained
 - c. Limit KML activities for individuals not in a vulnerable [CDC medical situation](#) and for research purposes only.
 - d. Visiting science team and personnel are within a one-day drive from their home institution and have not stopped while transiting an 'area of sustained community transmission'.
 - e. Groups requiring air transportation thru MIA or FLL will not be considered until these counties are no longer considered an 'area of sustained community transmission'.
 - f. May include a graduate student as part of the research team. No education-oriented cruises.
 - g. Dormitory housing at reduced capacity (see Dormitory Capacity Chart).
 - h. One Science Team per common kitchen unit.
 - i. Limit bed occupancy (see Dormitory Capacity Chart).
 - j. One Science Team per vessel.
 - i. Limited capacity, including captain (see Vessel Capacity chart).
 - ii. Maintain social distancing if possible.
 - iii. Each person will only handle their own dive gear.
 - iv. Disinfect masks, snorkels, and regulators between use and at end of day.
 - k. Common areas/gathering spaces limited capacity (see KML Field Lab Capacity Chart).
 - l. Workspaces are assessed for exposed risk and physical barriers or customer service workflows are created to minimize the risk.
3. Health Screening:
 - a. All non-student visitors must be COVID19 viral (PCR) tested negative within seven (7) days prior to arrival at an FIO facility (KML or research

- vessels).
 - b. All personnel and members of the science party shall complete a pre-arrival/pre-departure Health Status questionnaire within 24 hours of the planned activity (Enclosure 1)
 - c. Random testing (viral PCR tests) of all faculty, staff, students and visitors who will be at an FIO facility (KML or research vessels) will be conducted based on USF's Health survey (Enclosure 2)
 - d. Routine Well Checks - Temperature and health checks of all personnel embarked will be conducted and logged prior to embarking the vessels and twice per day while underway or for the duration of their visit (Enclosure 5).
 - e. Visitors will be directed to a local facility for any medical attention and testing needs (Enclosure 3)
4. Personal Protective Equipment:
- a. Masks (or face covering) are required to be worn in public areas (including hallways) or when social distancing cannot be maintained.
 - b. Six (6) feet of separation must be maintained between all individuals.
5. Social Distancing Measures:
- a. All meetings, events, classes, or other gatherings continue to be conducted virtually.
 - b. Six (6) feet of separation must be maintained between all individuals.
 - c. Social distancing observed (as per CDC guidelines).
 - d. Suitable face masks required when indoors or in close proximity to others.
6. Cleaning
- a. Greater cleaning is conducted in all common areas, shared spaces, and touch points
 - b. Disinfectant and hand sanitizer stations will be located in each Common Use Area.
 - c. Faculty, staff, and students are provided with increased access to cleaning supplies and encouraged to clean personal areas before individual use
 - d. Disinfecting scuba equipment (regulator and mask) is required before use.
 - e. All housing units will be cleaned and disinfected prior to arrival and following departure of each Science Team.
 - f. Each group will be responsible for maintaining disinfection of their housing unit while on site.
 - g. Use of EPA approved products for cleaning. See EPA "List N" for approved disinfectants. EPA List N
7. Science Party Travel:
- a. Local/state or federal COVID-19 regulations or guidelines do not prohibit personnel working on the ship nor the cruise departing the dock and crew has adhered to local governmental self-isolation guidelines/regulations.
 - b. Non-local personnel (crew and science party who have traveled by air to the port of call) have adhered to [local quarantine guidance, as in U.S. National Phase II of re-opening](#), have self-isolated or tested positive for COVID-19 antibodies.
 - a. All visiting institutions should adhere to their campus travel office guidance for travel guidelines and/or COVID travel procedures.
8. Sickness while at KML

- a. Follow CDC and the FIO COVID-19 Operational Guidelines of 20 March 2020.
 - b. If symptoms of COVID -19 develop at any time while at KML, all activities will be terminated.
 - c. Follow direction provided by USF Covid-19 Task Force. Isolate sick individual(s).
 - d. If someone is suspected of having COVID-19 they will be directed to proper supportive medical care.
 - e. Report COVID-19 cases to the local authorities
9. Isolation measures may be required. Rearrange dormitory assignments to isolate suspected Covid-19 patient or until they can be moved off site
- a. Private bedroom and bathroom provided unless hospitalization is required. No access to common areas.
 - b. Prepackaged meals, personal hygiene and other essentials will be strategically placed for the individual(s).
 - c. Clean and disinfect clothes hampers, bedding, linens and other items required to go in the laundry after individual(s) departure.
 - d. If the signs and symptoms are consistent with CDC's standard required reporting requirements, please have the following information available before notifying authorities of the sick person's signs and symptoms, including onset dates.
 - i. The person's highest recorded temperature (Enclosure 5).
 - ii. The person's arrival date and from what location.
 - iii. List of locations (air or sea) where the party member disembarked during the 14 days before the person got sick.
10. Close KML facility and cancel all activities until further notice
- a. Quarantine/self-isolate all personnel for 14-days.
 - b. Send visiting groups home to self-quarantine where possible, otherwise follow the local health official guidelines.

Phase II – Return to Near-Normal Operations with Ongoing Restrictions

Florida Institute of Oceanography (FIO): Keys Marine Laboratory (KML)

Specific FIO at KML Vessels and Diving Considerations

Full resumption of core operations to prepare for resumption of full operations. Each group is limited to ten (10) people. Focus of the groups can be educational or research. Protective measures remain in place to limit exposure of returning employees and students and reduce community transmission. Phase II will focus on activities that meet the criteria of Phase I with the below changes:

1. USF/FIO and KML Research Vessel and Scientific Diving Use:
 - a. Vessels 25' or greater in length can be used while adhering to guiding principles below.
 - b. Divers who have previously tested positive for COVID-19 must submit an

- updated approved diving medical evaluation.
 - c. Divers must submit the standard COVID-19 health screening questionnaire for approval prior to diving activity.
 - d. Divers will not be permitted to dive if they have a fever or have had any of the following symptoms in the last 14 days (cough, shortness of breath or difficulty breathing, fever, chills, muscle pain, new loss of smell or taste)
 - e. As COVID-19 testing becomes more readily available, testing may be required.
 - f. Vessel capacities should be adjusted to accommodate social distancing guidelines. Consideration shall be given to the nature of the vessel operations for any given day.
 - g. Divers/science party members who are high risk/vulnerable will be considered on a case by case basis.
 - h. Science party members/Divers should remain 6' apart while onboard and where possible.
 - i. Shore diving will be permitted following all other social distancing measures.
 - j. PPE shall be worn during the filling process. Fill whips and valves shall be disinfected before use. See EPA "List N" for approved disinfectants. [EPA List N](#)
2. Cleaning
 - a. Greater cleaning is conducted in all common areas, shared spaces, and touch points
 - b. Faculty, staff, and students are provided with increased access to cleaning supplies and encouraged to clean personal areas before individual use
 - c. Disinfecting scuba equipment (regulator and mask) is required before use.
 3. Personal Protective Equipment:
 - a. Masks (or face covering) are encouraged to be worn in public areas or when social distancing cannot be maintained.
 4. Social Distancing Measures:
 - a. Six (6) feet of separation is encouraged between all individuals, where possible.

Specific FIO at Keys Marine Laboratory Considerations

1. Mission Selection – Routine research and educational operations permitted with caution. May also include small education-oriented student classes.
 - a. Science Team has been reduced to the minimum necessary to carry out the work.
 - b. Each group limited to 10 people maximum
2. KML Field Station Activity Limitations:
 - a. Science party members in a "high risk" category shall be considered on a case by case basis.
 - b. Visiting science team and personnel are within driving distance from their home institution and have not stopped while transiting an 'area of sustained community transmission'.
 - i. Groups requiring air transportation thru MIA or FLL will not be considered until these counties are no longer considered an 'area of sustained community transmission'.

- ii. Foreign travel will require additional risk assessment by FIO Director.
 - iii. All visiting institutions should adhere to their campus travel office guidance for travel guidelines and/or COVID travel procedures.
- c. Dormitory housing at reduced capacity (see Dormitory Capacity Chart).
 - i. Maximum ten (10) people or as housing unit restrictions allow.
 - ii. One visiting team per common kitchen unit.
 - iii. Limit bed occupancy (see Dormitory Capacity Chart, or as state and local restrictions).
- d. One visiting team per vessel. (see Phase II. Vessel & Science Diving section)
- e. Common areas/gathering spaces with limited capacity (see KML Field Lab Capacity Chart).
 - Maximum of ten (10) people allowed to congregate at any one time, or as state and local restrictions allow.
- f. Workspaces are assessed for exposed risk and physical barriers or customer service workflows are created to minimize the risk.
- 3. Health Screening:
 - a. All personnel and members of the science party shall complete a pre-arrival/pre-departure Health status questionnaire within 24 hours of the planned activity (Enclosure 1)
 - b. Routine Well Checks - Temperature and health checks of all personnel embarked will be conducted and logged prior to embarking the vessels and twice per day while underway or for the duration of their visit (Enclosure 5).
- 4. Personal Protective Equipment:
 - a. Masks (or face covering) are encouraged to be worn in public areas or when social distancing cannot be maintained.
- 5. Social Distancing Measures:
 - b. Six (6) feet of separation is encouraged between all individuals, where possible.
- 6. Cleaning:
 - c. Greater cleaning is conducted in all common areas, shared spaces, and touch points
 - d. Disinfectant and hand sanitizer stations will be located in each Common Use Area.
 - e. Faculty, staff, and students are provided with increased access to cleaning supplies and encouraged to clean personal areas before individual use
 - f. Disinfecting scuba equipment (regulator and mask) is required before use.
 - g. All housing units will be cleaned and disinfected prior to arrival and following departure of each Science Team.
 - i. Each group will be responsible for maintaining disinfection of their housing unit while on site.
- 7. Sickness while at KML
 - a. Follow CDC and the FIO COVID-19 Operational Guidelines of 20 March 2020.
 - b. If symptoms of COVID -19 develop at any time while at KML, all activities will be terminated.
 - c. Follow direction provided by USF Covid-19 Task Force. Isolate sick individual(s).

- d. If someone is suspected of having COVID-19 they will be directed to proper supportive medical care.
 - e. Report COVID-19 cases to the local authorities
- 8. Isolation measures may be required. Rearrange dormitory assignments to isolate suspected Covid-19 patient or until they can be moved off site.
 - a. Private bedroom and bathroom provided unless hospitalization is required. No access to common areas.
 - b. Prepackaged meals, personal hygiene, and other essentials will be strategically placed for the individual(s).
 - c. Clean and disinfect clothes hampers, bedding, linens and other items required to go in the laundry after individual(s) departure.
 - d. If the signs and symptoms are consistent with CDC's standard required reporting requirements, please have the following information available before notifying authorities of the sick person's signs and symptoms, including onset dates.
 - i. The person's highest recorded temperature (Enclosure 5).
 - ii. The person's arrival date and from what location.
 - iii. List of locations (air or sea) where the party member disembarked during the 14 days before the person got sick.
- 9. Close KML facility and cancel all activities until further notice
 - a. Quarantine/self-isolate all personnel for 14-days.
 - b. Send visiting groups home to self-quarantine where possible, otherwise follow the local health official guidelines.

Phase III – Resumption of all Operations with Ongoing Monitoring and Prudent Adjustments

Florida Institute of Oceanography (FIO): Keys Marine Laboratory (KML)

Specific FIO at Keys Marine Laboratory Considerations

Recommend caution at the discretion and comfort level of the individuals considered with vulnerable [CDC medical situation](#), however, not all conditions may warrant exclusion, consult with medical staff for latest risk assessment. Phase III will focus on activities that meet the criteria of phase II with the below changes or based upon FIO risk assessment:

1. Mission Selection - Routine research and educational operations permitted with caution.
2. Operations – Unlimited but with caution:
 - a. Foreign travel requires additional risk assessment by FIO Director
3. Health Screening:
 - a. Recommend caution at the discretion and comfort level of the individuals considered with vulnerable [CDC medical situation](#), however, not all conditions may warrant exclusion, consult with medical staff for latest risk assessment.
 - b. All members of visiting research and education groups must complete Health Status Questionnaire -within 24 hours of planned arrival at KML (Enclosure 1).
4. Onsite at KML field station:

- a. Normal contact with routine cleaning procedures in place.
- b. Continued attention to hand-washing and sanitizing practices.
- c. Social distancing & use of facemask strongly suggested (or as per CDC guidelines) in Common Use Areas.
- 5. Local/state or federal COVID-19 regulations – posture based on current CDC, UNOLS and USF guidance, which may include components from Phases II and III.
- 6. Science Party Travel - posture based on current CDC, UNOLS and USF guidance, which may include components from Phases I and II.
- 7. Sickness while at KML
 - a. Follow CDC and the FIO COVID-19 Operational Guidelines of 20 March 2020.
 - b. If symptoms of COVID -19 develop at any time while at KML, all activities will be terminated.
 - c. Follow direction provided by USF Covid-19 Task Force. Isolate sick individual(s).
 - d. If someone is suspected of having COVID-19 they will be directed to proper supportive medical care.
 - e. Report COVID-19 cases to the local authorities
- 8. Isolation may be required. Rearrange dormitory assignments to isolate suspected Covid-19 patient or until they can be moved off site
 - a. Private bedroom and bathroom provided unless hospitalization is required. No access to common areas.
 - c. Prepackaged meals, personal hygiene, and other essentials will be strategically placed for the individual(s).
 - d. Clean and disinfect clothes hampers, bedding, linens and other items required to go in the laundry after individual(s) departure.
 - b. If the signs and symptoms are consistent with CDC’s standard required reporting requirements, please have the following information available before notifying authorities of the sick person’s signs and symptoms, including onset dates.
 - i. The person’s highest recorded temperature (Enclosure 5).
 - ii. The person’s arrival date and from what location.
 - iii. List of locations (air or sea) where the party member disembarked during the 14 days before the person got sick.
- 9. Close KML facility and cancel all activities until further notice
 - a. Quarantine/self-isolate all personnel for 14-days.
 - b. Send visiting groups home to self-quarantine where possible, otherwise follow the local health official guidelines.

KML Capacity Considerations

Phase I	Vessels 30' or larger Mandatory 6' social distancing Face masks required
Phase II	Vessels 25' or larger Recommend 6' social distancing Face masks suggested

Phase III	All vessels Normal operations with caution
------------------	---

KML Dormitory capacity:

KML Dormitories (1 group/kitchen)	kitchens	bathrooms	Total capacity	Phase III bed capacity			Phase I	Phase II
				room 1	room 2	room 3	25% capacity	50% capacity
Admin Dorm	1	2	16	8	4	2	4	8
Marina Dorm	1	1.5	8	8	na	na	2	4
Bay House	1	2	6	4	2	na	2	3

KML Field Lab capacity based on lab bench space:

KML Labs common space	bench space: 3'/person			Phase III total capacity	Phase I	Phase II
	bench-1	bench-2	bench-3		capacity	capacity
Dry Lab main	8	4	3	15	5	8
Lab 1 walk-thru	6	2	na	8	2	3
Lab 2 wet-dry	3	2	na	5	2	2
Classroom	na	na	na	30	5	9

KML Vessel capacity based on length of vessels:

KML vessels (no enclosed cabins)		operating capacity Phase III		Phase I	Phase II
		snorkeling	diving	capacity	Capacity
30' Island Hopper	Diodon 2 captains	22	10	4	6
25' Parker	Opah 1 captain	8	5	0	3
25' Parker	Mola 1 captain	8	5	0	3
18' Parker	Nari 1 captain	4	2	0	0

KML Vessel capacity proposed for appropriate distancing:

KML vessels (no enclosed cabins)		operating capacity Phase III		Phase I	Phase II
		Snorkeling	diving	capacity	Capacity
30' Island Hopper	Diodon 2 captain	22	10	4	6
25' Parker	Opah 1 captain	8	5	2	3
25' Parker	Mola 1 captain	8	5	2	3
18' Parker	Nari 1 captain	4	2	0	0

KML Resources:

- [Monroe County Emergency Order 20-08, The Keys Marine Lab, reopening authorization](#)
- [Florida Executive Order 20-112](#) "Phase I Recovery" effective May 4, 2020 pdf
- [Monroe County Emergency Directive 20-08](#): "EO 20-112 Phase I with additional local restrictions" effective May 4, 2020 pdf

- [University of South Florida Guidance:](#)
- [Center for Disease Control \(CDC\):](#) pdf
- [Center for Disease Control \(CDC\) Face Mask:](#) pdf
- [State of Florida Department of Health:](#)
- [Monroe County Emergency Management:](#)
- [UNOLS Conducting Science Onboard US Academic Research Fleet Vessels](#) pdf
- “FIO Underway Activity During COVID-19 Alert” *ver. 04242020* pdf
- University of Florida Research and Education Centers: “Resumption of Activities at IFAS RECs” draft *ver. 04282020* pdf
- University of Washington: Friday Harbor Labs “Creating a Safe FHL Enclave for Researchers and Small Classes Under COVID-19 Threat” *draft ver. 05012020* pdf
- [University of Hawaii Institute of Marine Biology](#) “Scientific Boating and Diving Guide” *ver. 03262020* pdf
- [University of Wisconsin – Madison: Trout Lake Station](#) TLS Summer 2020 Ops, Housing, & Guidelines pdf

**USF Vessel Research and Lab Operations
University Re-opening Guidelines
FIO Operations at Bayboro**

Research operations on the R/V Weatherbird II and R/V Hogarth have been suspended due to ‘safer at home’ directives, since 13 March 2020, to all visiting research and education groups. FIO Bayboro staff have reduced operations and underway training to the absolute minimum required to maintain vessel machinery and conduct some crew training, with the remainder of staff working from home. FIO at Bayboro is currently communicating with several research groups from FIO member institutions and the private sector that wish to conduct limited and non-education research operations as early as June 2020.

The Hogarth has seven (7) internal spaces (rooms/cabins) totaling 1014 square feet plus 880 additional square feet of open deck space. The Weatherbird has nine (9) internal spaces (rooms/cabins) totaling 1014 square feet plus 1280 additional square feet of open deck space.

The below Covid-19 guidelines have been formalized within our emergency processes, our training and accountability protocols and our onboard daily checklists as well as in consultation with shoreside FIO support, USF and state, local and federal authorities.

Phase I - Initial Resumption of Operations
Florida Institute of Oceanography (FIO): Research Vessels
<p>Initial core services resume on campus while continuing to enforce strict protective measures to limit exposure of returning employees and reduce potential for community transmission. The resumption of operations is necessary to prepare and train the crew for upcoming assignments, exercise vessel machinery, and the equipment required to meet normal operational requirements expected in Phase IV conditions. Initial operations during phase I will focus on activities that meet the following criteria:</p> <ol style="list-style-type: none">1. Mission Selection - Deemed essential: time sensitive & cannot be easily rescheduled. May include a graduate student as part of the research team. No education-oriented cruises.2. Cruise Party Medical Limitations - Limit cruises for individuals not in a vulnerable CDC medical situation and for research purposes only.3. Limited Operations:<ol style="list-style-type: none">a. Cruises will be within 12 hours or approximately 120 nautical miles from U.S. port w/appropriate support & medical services.b. Cruises during this phase will last 1 to 5 days which may include overnight operations.4. Health Screening - All crew and members of the science party shall complete a pre-arrival/pre-departure Health status questionnaire within 24 hours of the planned activity (Enclosure 1):<ol style="list-style-type: none">a. All non-student visitors must be PCR tested (7) seven days prior to arrival

- at an FIO facility.
- b. All personnel and members of the science party shall complete a pre-arrival/pre-departure Health status questionnaire within 24 hours of the planned activity (Enclosure 1):
- c. Random testing (PCR tests) of all faculty, staff, students and visitors who will be at an FIO facility will be conducted based on USF's Health survey (Enclosure 2).
- d. Routine Well Checks - Temperature and health checks of all personnel embarked will be conducted and logged prior to embarking the vessels and twice per day while underway (Enclosure 5).
- e. Visitors will be directed to a local facility for any medical attention and testing needs (Enclosure 4).
- 5. Cruise Turn Around Interval - Time between planned cruises will be at least 72 hours to mitigate cross contamination and to allow vessels to be properly cleaned:
- 6. In port workspace capacity (not total vessel capacity) at 25%:
 - a. Notional – e.g. 1 Deck hand & 1 Engineer onboard under normal circumstances.
 - b. Amount of crew present may be increased with permission of Marine Superintendent to accomplish mission critical maintenance or conduct underway preparations.
- 7. Workspace capacity (not total vessel capacity) at 25% underway or as supported by FIO risk assessment:
 - a. Social distancing achieved through watch schedules and duties of crew and science party; e.g. night/day watches, engine room, labs, bridge & main deck/interior and exterior activities.
 - b. Stagger any activities in labs - if there is more than one person present in a room, strictly adhere to social distancing (floor markings), use a face mask, wash your hands with soap and warm water for 20 seconds upon arrival, prior to and after any departure. Use hand sanitizer frequently while in the lab as well as before and after donning gloves.
 - c. Adjust meal service to reduce personal interaction – all meals are served vice “serve yourself” and galley dine in should be staggered in phases or patrons can eat on deck or another common area.
 - a. Scale stateroom capacity or stagger personnel to minimize interaction when possible.
 - b. Under routine operations, limit access to the bridge of the ship to the Chief Scientist, Master and mate.
 - c. Employ and adhere to traffic schemes for each space, passageway, and only use designated doors and hatches for entry and exit.
 - d. For day cruises where berthing is not required, capacity is based on the members of the science party and crew's ability to socially distance in all spaces and based on FIO risk assessment.

Normal Berthing Options - Full Capacity										
	Captain Berth	Crew 1	Crew 2	Crew 3	Passenger	Passenger	Passenger	Passenger	Passenger	Total
Hogarth	2	3	NA	NA	2	4	4	NA	NA	15
Weatherbird	1	2	2	2	2	4	4	1	2	20
Phase I Berthing Options Reduced Capacity										
	Captain Berth	Crew 1	Crew 2	Crew 3	Passenger	Passenger	Passenger	Passenger	Passenger	Total
Hogarth	2	3	NA	NA	1	2	2	NA	NA	10
Weatherbird	1	1	2	2	1	2	2	1	1	13
	2 Person Room									
	3 Person Room									
	4 Person Room									

8. Social distancing (approximately 6 feet of separation) or to the greatest extent possible.
9. Research Vessel Diving:
 - a. Diving operations may be conducted while adhering to guiding principles set forth by FIO.
 - b. Divers who have previously tested positive for COVID-19 must submit an updated approved diving medical evaluation.
 - c. Divers must submit the standard COVID-19 health screening questionnaire for approval prior to diving activity.
 - d. Divers will not be permitted to dive if they have a fever or have had any of the following symptoms in the last 14 days (cough, shortness of breath or difficulty breathing, fever, chills, muscle pain, new loss of smell or taste)
 - e. As COVID-19 testing becomes more readily available, testing may be required.
 - f. Divers/science party members who are high risk/vulnerable will not be approved for operations.
 - g. Science party members/divers must remain six (6) feet apart while onboard.
 - h. PPE shall be worn during the filling process. Fill whips and valves shall be disinfected before and after use.
 - i. See EPA "List N" for approved disinfectants. [EPA List N](#)
2. Cleaning:
 - a. Mobilization day - Clean items coming onboard including supplies and provisions.
 - b. In the hour prior to getting underway, crew/staff members should wipe down commonly used surfaces (desks, lab benches, tables, handrails, etc.) and any embarked equipment with CDC recommended disinfectant.
 - c. All scientist and crew upon embarking shall remove soiled clothing, place it in a bag and change into new clothing. Old clothing should be bagged and not disturbed for at least 3 days.
 - d. Routine cleaning schedule;
 - Twice daily - crew/staff/science party members shall wipe down commonly used surfaces (desks, lab benches, tables, handrails, etc.) with disinfectant.
 - For watch-standers, it is especially important that all high-touch areas, such as equipment, radios, computers, etc. are disinfected

- often, especially prior to a watch change. Both the outgoing watch and then the incoming watch must disinfect their work area.
 - After each use – user shall wipe down the toilets, showers and sink areas with provided disinfectant.
 - Every 24 hours apply CDC recommended disinfectant and complete wipe down of all spaces to include staterooms.
 - e. Employ UV lights;
 - Activate manual lights in staterooms, bathrooms and other private areas daily when spaces are not in use.
 - Place portable UV system in large common spaces daily (e.g. galley, labs, hallways, etc).
 - f. The crew and science party shall assist cleaning/ safety team with increased environmental disinfection and alert them to possible soiled areas.
 - g. In the event a confirmed COVID-19 case is discovered, the vessel will be cleaned per CDC guidelines and the vessel will be off limits to all but essential personnel until deemed safe by medical authorities.
 - h. Clean and disinfect clothes hampers, bedding, linens and other items required to go in the laundry after individual(s) departure.
3. Science Party Travel –
- a. Local/state or federal COVID-19 regulations or guidelines do not prohibit personnel working on the ship nor the cruise departing the dock and crew has adhered to local governmental self- isolation guidelines/regulations.
 - b. Non-local personnel (crew and science party who have traveled by air to the port of call) have adhered to [local quarantine guidance, are in U.S. National Phase I of re-opening](#), have self-isolated or tested positive for COVID-19 antibodies.
 - c. All visiting institutions should adhere to their campus travel office guidance for travel guidelines and/or COVID travel procedures.
4. Sickness While Underway:
- a. Follow CDC guidance and the FIO Outbreak Management Plan in Appendix A and consult with the ICAC.
 - If symptoms of COVID -19 develop at any time the cruise will be terminated.
 - Follow direction provided by ICAC. Isolate sick crew member in a space until able to moor at homeport.
 - Isolation measures may require adjustment of berthing assignments in paragraph 7 above.
 - If someone is suspected of having COVID-19 - go directly to home port to avail affected personnel to proper supportive medical care.
 - b. Prior to entry report COVID-19 cases to the local USCG Captain of the Port in accordance with current USCG directives.
 - If the signs and symptoms are consistent with CDC's standard required reporting requirements, please have the following information available before notifying the Coast Guard of the sick person's signs and symptoms, including onset dates.
 - The person's highest recorded temperature (Enclosure 5).
 - The person's embarkation date and port.
 - List of ports of call (air or sea) where the party member

disembarked during the 14 days before the person got sick.

Phase II – Expanded Resumption of Operations

Florida Institute of Oceanography (FIO): Research Vessels

Expanded resumption of core services with extensive protective measures still in place. Preparing for resumption of normal operations while continuing to limit exposure of returning employees and reduce community transition.

1. Mission Selection - No change (Research groups only). May include a graduate student as part of the research team. No education-oriented cruises.
2. Cruise Party Medical Limitations - Limit cruises for individuals not in a vulnerable [CDC medical situation](#) and for research purposes only.
3. Operations - Limited:
 - a. Cruises will be within 18 hours or approximately 160 nautical miles from a U.S. port w/appropriate support & medical services.
 - b. Cruises during this phase will last 1 to 7 days which may include overnight operations.
4. Health Screening - All crew and members of the science party shall complete a pre-arrival/pre-departure Health status questionnaire within 24 hours of the planned activity (Enclosure 1):
 - a. All non-student visitors must be PCR tested (7) seven days prior to arrival at an FIO facility.
 - b. All personnel and members of the science party shall complete a pre-arrival/pre-departure Health status questionnaire within 24 hours of the planned activity (Enclosure 1):
 - c. Random testing (PCR tests) of all faculty, staff, students and visitors who will be at an FIO facility will be conducted based USF's Health survey (Enclosure 2).
 - d. Routine Well Checks - Temperature and health checks of all personnel embarked will be conducted and logged prior to embarking the vessels and twice per day while underway (Enclosure 5).
 - e. Visitors will be directed to a local facility for any medical attention and testing needs (Enclosure 4).
5. Cruise Turn Around Interval - Time between planned cruises will be at least 72 hours to mitigate cross contamination and to allow vessels to be properly cleaned:
6. In port crew capacity (not total vessel capacity) at level required to maintain vessels and prepare for operations.
7. Workspace capacity (not total vessel capacity) at or below 50 % of capacity underway or as supported by FIO risk assessment:
 - a. Limited student contact – only those students deemed essential to science mission.
 - b. Each vessel space is segregated in the following manner: engine room, bridge & main deck/interior and exterior.
 - c. Under routine operations, limit access to the bridge of the ship to the Chief Scientist, Master and mate.
 - d. Adjust meal service to reduce personal interaction – all meals are served vice “serve yourself” and galley dine in should be staggered in phases or patrons can

eat on deck or another common area.

- e. Employ and adhere to traffic schemes for each space, passageway, and only use designated doors and hatches for entry and exit.
- e. For day cruises where berthing is not required, capacity is based on the members of the science party and crew's ability to socially distance in all spaces.

Normal Berthing Options - Full Capacity										
	Captain Berth	Crew 1	Crew 2	Crew 3	Passenger	Passenger	Passenger	Passenger	Passenger	Total
Hogarth	2	3	NA	NA	2	4	4	NA	NA	15
Weatherbird	1	2	2	2	2	4	4	1	2	20
Phase I Berthing Options Reduced Capacity										
	Captain Berth	Crew 1	Crew 2	Crew 3	Passenger	Passenger	Passenger	Passenger	Passenger	Total
Hogarth	2	3	NA	NA	1	2	2	NA	NA	10
Weatherbird	1	1	2	2	1	2	2	1	1	13
	2 Person Room									
	3 Person Room									
	4 Person Room									

- f. Stagger activities in labs - if there is more than one person present in a room, strictly adhere to social distancing using the below guidelines for capacity considerations:

Vessel Research Lab Guidelines	Total capacity	Phase II
		25% capacity
Hogarth Dry Lab 150 sqft	8	2X
Hogarth Wet Lab 120 sqft	4	1X
Hogarth Electronics Lab	2	1
Weatherbird Wet Lab 200 sqft	8	2
Weatherbird Electronics Lab	3	1

- 8. Scale stateroom capacity or stagger personnel to minimize interaction when possible:

Normal Berthing Options - Full Capacity										
	Captain Berth	Crew 1	Crew 2	Crew 3	Passenger 1	Passenger 2	Passenger 3	Passenger 4	Passenger 5	Total
Hogarth	2	3	NA	NA	2	4	4	NA	NA	15
Weatherbird	1	2	2	2	2	4	4	1	2	20
Phase II Berthing Options Reduced Capacity										
	Captain Berth	Crew 1	Crew 2	Crew 3	Passenger 1	Passenger 2	Passenger 3	Passenger 4	Passenger 5	Total
Hogarth	2	3	NA	NA	1	2	2	NA	NA	10
Weatherbird	1	1	2	2	1	2	2	1	1	13
	2 Person Room									
	3 Person Room									
	4 Person Room									

- 9. Research Vessel Diving:
 - a. Diving operations may be conducted while adhering to guiding principles set

forth by FIO.

- b. Divers who have previously tested positive for COVID-19 must submit an updated approved diving medical evaluation.
- c. Divers must submit the standard COVID-19 health screening questionnaire for approval prior to diving activity.
- d. Divers will not be permitted to dive if they have a fever or have had any of the following symptoms in the last 14 days (cough, shortness of breath or difficulty breathing, fever, chills, muscle pain, new loss of smell or taste)
- e. As COVID-19 testing becomes more readily available, testing may be required.
- f. Divers/science party members who are high risk/vulnerable will not be approved for operations.
- g. Science party members/divers must remain six (6) feet apart while onboard.
- h. PPE shall be worn during the filling process. Fill whips and valves shall be disinfected before and after use.
- i. See EPA "List N" for approved disinfectants. [EPA List N](#)

10. Cleaning:

- a. Mobilization day - Clean items coming onboard including supplies and provisions.
- b. In the hour prior to getting underway, crew/staff members should wipe down commonly used surfaces (desks, lab benches, tables, handrails, etc.) and any embarked equipment with CDC recommended disinfectant.
- c. All scientist and crew upon embarking shall remove soiled clothing, place it in a bag and change into new clothing. Old clothing should be bagged and not disturbed for at least 3 days.
- d. Routine cleaning schedule;
 - Twice daily - crew/staff members should wipe down commonly used surfaces (desks, lab benches, tables, handrails, etc.) with disinfectant.
 - For watch-standers, it is especially important that all high-touch areas, such as equipment, radios, computers, etc. are disinfected often, especially prior to a watch change. Both the outgoing watch and then the incoming watch must disinfect their work area.
 - After each use – All hands shall wipe down the toilets, showers and sink areas with provided disinfectant.
 - Every 24 hours apply CDC recommended disinfectant and complete wipe down of all Spaces to include staterooms.
- e. The crew and science party shall assist cleaning/safety team with increased environmental disinfection and alert them to possible soiled areas.
- f. In the event a confirmed COVID-19 case is discovered, the vessel will be cleaned per CDC guidelines and the vessel will be off limits to all but essential personnel until deemed safe by medical authorities.
- g. Clean and disinfect clothes hampers, bedding, linens and other items required to go in the laundry after individual(s) departure.

11. Science Party Travel –

- a. Local/state or federal COVID-19 regulations or guidelines do not prohibit personnel working on the ship nor the cruise departing the dock and crew has adhered to local governmental self- isolation guidelines/regulations.
- b. Non-local personnel (crew and science party who have traveled by air to the port of call) have adhered to [local quarantine guidance, are in U.S. National Phase II](#)

[of re-opening](#), have self-isolated or tested positive for COVID-19 antibodies.

- c. All visiting institutions should adhere to their campus travel office guidance for travel guidelines and/or COVID travel procedures.

12. Sickness While Underway:

- a. Follow CDC guidance and the FIO Outbreak Management Plan in Appendix A and consult with the ICAC.
 - If symptoms of COVID -19 develop at any time the cruise will be terminated.
 - Follow direction provided by ICAC. Isolate sick crew member in a space until able to moor at homeport.
 - Isolation measures may require adjustment of berthing assignments in paragraph 7 above.
 - If someone is suspected of having COVID-19 - go directly to home port to avail affected personnel to proper supportive medical care.
- b. Prior to entry report COVID-19 cases to the local USCG Captain of the Port in accordance with current USCG directives.
 - If the signs and symptoms are consistent with CDC's standard required reporting requirements, please have the following information available before notifying the Coast Guard of the sick person's signs and symptoms, including onset dates.
 - The person's highest recorded temperature (Enclosure 5).
 - The person's embarkation date and port.
 - List of ports of call (air or sea) where the party member disembarked during the 14 days before the person got sick.

Phase III – Return to Normal Operations with Ongoing Restrictions
Florida Institute of Oceanography (FIO): Research Vessels

Full resumption of core operations to prepare for resumption of operations. Educational groups focused on students are allowed. Protective measures remain in place to limit exposure of returning employees and students and reduce community transition. Phase III will focus on activities that meet the criteria of phase II with the below changes:

1. Mission Selection – Routine research and educational operations permitted with caution.
2. Cruise Party Medical Limitations - Limit cruises for individuals not in a vulnerable [CDC medical situation](#) and for research purposes only.
3. Operations – Unlimited or as supported by FIO risk assessment:
4. No limitation to cruise range or hours from homeport with exception of no foreign ports of call without permission from FIO Director.
5. Cruises during this phase will be of normal duration (est. 10 days maximum) and will include overnight operations.
6. Health Screening - All crew and members of the science party shall complete a pre-arrival/pre-departure Health status questionnaire within 24 hours of the planned activity (Enclosure 1):
 - a. Routine Well Checks - Temperature and health checks of all personnel embarked will be conducted and logged prior to embarking the vessels and twice per day while underway (Enclosure 5).
7. Cruise Turn Around Interval - Time between planned cruises will be at least 24 hours to mitigate cross contamination and to allow vessels to be properly cleaned:
8. In port crew capacity (not total vessel capacity) at level required to maintain vessels and prepare for operations.
9. Workspace capacity (not total vessel capacity) at or below 50 % underway or as supported by FIO risk assessment:
 - a. Each vessel space is segregated in the following manner: engine room, bridge & main deck/interior and exterior.
 - b. The nature of the crews watches and responsibilities further separate the crew when in the interior of the ship.
 - c. Under routine operations, limit access to the bridge of the ship to the Chief Scientist, Master and mate.
 - d. Employ and adhere to traffic schemes for each space, passageway, and only use designated doors and hatches for entry and exit.
 - e. For day cruises where berthing is not required, capacity is based on the members of the science party and crew's ability to socially distance in all spaces.

Normal Berthing Options - Full Capacity										
	Captain Berth	Crew 1	Crew 2	Crew 3	Passenger	Passenger	Passenger	Passenger	Passenger	Total
Hogarth	2	3	NA	NA	2	4	4	NA	NA	15
Weatherbird	1	2	2	2	2	4	4	1	2	20
Phase I Berthing Options Reduced Capacity										
	Captain Berth	Crew 1	Crew 2	Crew 3	Passenger	Passenger	Passenger	Passenger	Passenger	Total
Hogarth	2	3	NA	NA	1	2	2	NA	NA	10
Weatherbird	1	1	2	2	1	2	2	1	1	13
	2 Person Room									
	3 Person Room									
	4 Person Room									

- f. Stagger activities in labs - if there is more than one person present in a room, strictly adhere to social distancing (floor markings) using the below guidelines for capacity.

Vessel Research Lab Guidelines	Total capacity	Phase III
		50% capacity
Hogarth Dry Lab 150sqft	8	4
Hogarth Wet Lab 120sqft	4	2
Hogarth Electronics Lab	2	1
Weatherbird Wet Lab 200sqft	8	4
Weatherbird Electronics Lab	3	1

10. Scale stateroom capacity or stagger personnel to minimize interaction when possible.

Normal Berthing Options - Full Capacity										
	Captain Berth	Crew 1	Crew 2	Crew 3	Passenger 1	Passenger 2	Passenger 3	Passenger 4	Passenger 5	Total
Hogarth	2	3	NA	NA	2	4	4	NA	NA	15
Weatherbird	1	2	2	2	2	4	4	1	2	20
Phase III Berthing Options										
	Captain Berth	Crew 1	Crew 2	Crew 3	Passenger 1	Passenger 2	Passenger 3	Passenger 4	Passenger 5	Total
Hogarth	2	3	NA	NA	2	4	4	NA	NA	15
Weatherbird	1	2	2	2	2	4	4	1	2	20
	2 Person Room									
	3 Person Room									
	4 Person Room									

11. Social distancing & use of facemask per CDC guidelines at time of cruise.

12. Research Vessel Diving:

- Diving operations may be conducted while adhering to guiding principles set forth by FIO.
- Divers who have previously tested positive for COVID-19 must submit an updated approved diving medical evaluation.
- Divers must submit the standard COVID-19 health screening questionnaire for

approval prior to diving activity.

- d. Divers will not be permitted to dive if they have a fever or have had any of the following symptoms in the last 14 days (cough, shortness of breath or difficulty breathing, fever, chills, muscle pain, new loss of smell or taste)
- e. As COVID-19 testing becomes more readily available, testing may be required.
- f. Divers/science party members who are high risk/vulnerable will not be approved for operations.
- g. Science party members/divers must remain six (6) feet apart while onboard.
- h. PPE shall be worn during the filling process. Fill whips and valves shall be disinfected before and after use.
- i. See EPA "List N" for approved disinfectants. EPA List N

13. Cleaning:

- a. Mobilization day - Clean items coming onboard including supplies and provisions.
- b. In the hour prior to getting underway, crew/staff members should wipe down commonly used surfaces (desks, lab benches, tables, handrails, etc.) and any embarked equipment with CDC recommended disinfectant.
- c. All scientist and crew upon embarking shall remove soiled clothing, place it in a bag and change into new clothing. Old clothing should be bagged and not disturbed for at least 3 days.
- d. Routine cleaning schedule;
 - Every 4 hours (during normal work/ hi-use periods) crew, staff, science party members shall wipe down commonly used surfaces (desks, lab benches, tables, handrails, etc.) with disinfectant.
 - For watch-standers, it is especially important that all high-touch areas, such as equipment, radios, computers, etc. are disinfected often, especially prior to a watch change. Both the outgoing watch and then the incoming watch must disinfect their work area.
 - After each use – user shall wipe down the toilets, showers and sink areas with provided disinfectant.
 - Every 24 hours apply CDC recommended disinfectant and complete wipe down of all spaces to include staterooms.
- e. Employ UV lights;
 - Activate manual lights in staterooms, bathrooms and other private areas daily when spaces are not in use.
 - Place portable UV system in large common spaces daily (e.g. galley, labs, hallways, etc).
- f. The crew and science party shall assist cleaning/ safety team with increased environmental disinfection and alert them to possible soiled areas
- g. In the event a confirmed COVID-19 case is discovered, the vessel will be cleaned per CDC guidelines and the vessel will be off limits to all but essential personnel until deemed safe by medical authorities.
- h. Clean and disinfect clothes hampers, bedding, linens and other items required to go in the laundry after individual(s) departure.

14. Science Party Travel –

- a. Local/state or federal COVID-19 regulations or guidelines do not prohibit personnel working on the ship nor the cruise departing the dock and crew has adhered to local governmental self- isolation guidelines/regulations.

- b. Non-local personnel (crew and science party who have traveled by air to the port of call) have adhered to local quarantine guidance, are in U.S. National Phase II of re-opening, have self-isolated or tested positive for COVID-19 antibodies.
- c. All visiting institutions should adhere to their campus travel office guidance for travel guidelines and/or COVID travel procedures.

15. Sickness While Underway:

- a. Follow CDC guidance and the FIO Outbreak Management Plan in Appendix A and consult with the ICAC.
 - If symptoms of COVID -19 develop at any time the cruise will be terminated.
 - Follow direction provided by ICAC. Isolate sick crew member in a space until able to moor at homeport.
 - Isolation measures may require adjustment of berthing assignments in paragraph 7 above.
 - If someone is suspected of having COVID-19 - go directly to home port to avail affected personnel to proper supportive medical care.
- b. Prior to entry report COVID-19 cases to the local USCG Captain of the Port in accordance with current USCG directives.

16. Prior to entry report COVID-19 cases to the local USCG Captain of the Port in accordance with current USCG directives.

- If the signs and symptoms are consistent with CDC's standard required reporting requirements, please have the following information available before notifying the Coast Guard of the sick person's signs and symptoms, including onset dates.
- The person's highest recorded temperature (Enclosure 5).
- The person's embarkation date and port.
- List of ports of call (air or sea) where the party member disembarked during the 14 days before the person got sick.

Phase IV – Resumption of all Operations with Ongoing Monitoring and Prudent Adjustments

Florida Institute of Oceanography (FIO): Research Vessels

Recommend caution at the discretion and comfort level of the individuals considered with vulnerable [CDC medical situation](#), however, not all conditions may warrant exclusion, consult with medical staff for latest risk assessment. Phase IV will focus on activities that meet the criteria of phase III with the below changes or based upon FIO risk assessment:

1. Mission Selection - Routine research and educational operations permitted with caution.
2. Operations – Unlimited or as supported by FIO risk assessment:
 - a. No limitation to cruise range or hours from homeport.
 - b. Foreign ports of call allowed with permission of FIO Director.
 - c. Cruises during this phase will be of normal duration.
3. Health Screening – Recommend caution at the discretion and comfort level of the individuals considered with vulnerable [CDC medical situation](#), however, not all conditions may warrant exclusion, consult with medical staff for latest risk assessment.
4. Cruise Turn Around Interval - Time between planned cruises will be at least 24 hours to mitigate cross contamination and to allow vessels to be properly cleaned.
5. Workspace capacity in port – no limitations.
6. Workspace capacity (not total vessel capacity) while underway supported by FIO risk assessment.
7. Scale stateroom capacity or stagger personnel to minimize interaction if necessary.
8. Research Vessel Diving:
 - a. Diving operations may be conducted while adhering to guiding principles set forth by FIO.
 - b. Divers who have previously tested positive for COVID-19 must submit an updated approved diving medical evaluation.
 - c. Divers must submit the standard COVID-19 health screening questionnaire for approval prior to diving activity.
 - d. Divers will not be permitted to dive if they have a fever or have had any of the following symptoms in the last 14 days (cough, shortness of breath or difficulty breathing, fever, chills, muscle pain, new loss of smell or taste)
 - e. As COVID-19 testing becomes more readily available, testing may be required.
 - f. Divers/science party members who are high risk/vulnerable will not be approved for operations.
 - g. Science party members/divers must remain six (6) feet apart while onboard.
 - h. PPE shall be worn during the filling process. Fill whips and valves shall be disinfected before and after use.
 - a. See EPA “List N” for approved disinfectants. [EPA List N](#)
9. Local/state or federal COVID-19 regulations – posture based on current CDC, UNOLS and USF guidance, which may include components from Phases II and III.
10. Cleaning:
 - a. Mobilization day - Clean items coming onboard including supplies and

- provisions.
- b. In the hour prior to getting underway, crew/staff members should wipe down commonly used surfaces (desks, lab benches, tables, handrails, etc.) and any embarked equipment with CDC recommended disinfectant.
 - c. All scientist and crew upon embarking shall remove soiled clothing, place it in a bag and change into new clothing. Old clothing should be bagged and not disturbed for at least 3 days.
 - d. Routine cleaning schedule;
 - Every 4 hours - crew/staff/science party members shall wipe down commonly used surfaces (desks, lab benches, tables, handrails, etc.) with disinfectant.
 - For watch-standers, it is especially important that all high-touch areas, such as equipment, radios, computers, etc. are disinfected often, especially prior to a watch change. Both the outgoing watch and then the incoming watch must disinfect their work area.
 - After each use – user shall wipe down the toilets, showers and sink areas with provided disinfectant.
 - Every 24 hours apply CDC recommended disinfectant and complete wipe down of all spaces to include staterooms.
 - e. Employ UV lights;
 - Activate manual lights in staterooms, bathrooms and other private areas daily when spaces are not in use.
 - Place portable UV system in large common spaces daily (e.g. galley, labs, hallways, etc).
 - f. The crew and science party shall assist cleaning/ safety team with increased environmental disinfection and alert them to possible soiled areas.
 - g. In the event a confirmed COVID-19 case is discovered, the vessel will be cleaned per CDC guidelines and the vessel will be off limits to all but essential personnel until deemed safe by medical authorities.
 - h. Clean and disinfect clothes hampers, bedding, linens and other items required to go in the laundry after individual(s) departure.
11. Science Party Travel - posture based on current CDC, UNOLS and USF guidance, which may include components from Phases II and III.
13. Sickness While Underway:
- a. Follow CDC guidance and the FIO Outbreak Management Plan in Appendix A and consult with the ICAC.
 - If symptoms of COVID -19 develop at any time the cruise will be terminated.
 - Follow direction provided by ICAC. Isolate sick crew member in a space until able to moor at homeport.
 - Isolation measures may require adjustment of berthing assignments in paragraph 7 above.
 - If someone is suspected of having COVID-19 - go directly to home port to avail affected personnel to proper supportive medical care.
 - b. Prior to entry report COVID-19 cases to the local USCG Captain of the Port in accordance with current USCG directives.
 - c. Prior to entry report COVID-19 cases to the local USCG Captain of the Port in accordance with current USCG directives.

- If the signs and symptoms are consistent with CDC's standard required reporting requirements, please have the following information available before notifying the Coast Guard of the sick person's signs and symptoms, including onset dates.
- The person's highest recorded temperature (Enclosure 5).
- The person's embarkation date and port.
- List of ports of call (air or sea) where the party member disembarked during the 14 days before the person got sick.

Marine Operations Resources:

- [Florida Institute of Oceanography Operational Guidelines during the COVID-19 Alert](#)
- [USF Guidance](#)
- [Center for Disease Control \(CDC\) COVID-19 Guidance](#)
- [Center for Disease Control \(CDC\) Face Mask](#)
- [UNOLS Conducting Science Onboard US Academic Research Fleet Vessels](#)
https://www.unols.org/sites/default/files/COVID19_ConsiderationsForConductingSeagoingScience_Vers.1.615Apr20.pdf
- Center for Disease Control (CDC): [Guidance for cleaning and disinfecting](#)
- U.S. Coast Guard MSIB Number: [USCG Marine Safety Information Bulletin - COVID-19 - Vessel Reporting Requirements for Illness or Death- MSIB Number: 06-20](#)
- New York Times [Summary](#) of States Re-opening
- [R/V SIKULIAQ COVID-19 Mitigation and Response Guidelines](#) (and attached)
- [American Bureau of Shipping - Guidance notes on response measures to COVID-19 for the marine and offshore industries May 2020](#)

COVID-19 Screening Questionnaire	
1. ARE YOU IN A CDC HIGH RISK CATEGORY (Chief Scientist compile & provide with cruise plan)? <i>Note: 1</i>	
a. Over 65 YOA b. Moderate to Severe Asthma c. HIV positive d. Chronic Lung Disease e. Serious Heart Cond f. Immunocompromised g. Severe obesity h. Chronic kidney i. Liver Disease	
2. IN THE PAST 24 HOURS, have you had any of the following symptoms? YES NO	
a. Fever b. Cough (not due to allergies) c. Sore Throat d. Shortness of Breath e. Loss of smell or taste f. Chills g. Shaking h. Muscle pain	
If "YES", inform Chief Scientist & vessel captain. Follow CDC guidance & seek medical advice. FIO to conduct further risk assessment.	
3. Have you TRAVELED DOMESTICALLY (U.S.) to an area designated by the CDC as a LEVEL II area in the past 14 days? <i>Note: 2 & 4</i>	
If "YES", inform Chief Scientist & vessel captain. Follow CDC guidance & seek medical advice. FIO to conduct further risk assessment.	
4. Have you had CLOSE PERSONAL CONTACT, with anyone who has been diagnosed with COVID-19 in the past 14 days? (per criteria below) YES NO	
a. Within 6 feet for prolonged period. b. In direct contact with infectious secretions (been coughed/sneezed upon, etc.)	
If "YES", inform Chief Scientist & vessel captain. Follow CDC guidance & seek medical advice. FIO to conduct further risk assessment.	
5. TEMPERATURE CHECK (due to close proximity, screeners should wear cloth face covering or other mask as available): a. If temperature is <u>less</u> than 100°F (37.8°C), allow access. Screening is complete. b. If temperature is equal to or <u>higher</u> than 100°F (37.8°C), inform Chief Scientist & Marine superintendent, put a clean mask on, and contact/report to designated medical provider. <i>Note:3</i>	
6. Have you been tested for COVID? If so, when ?	
Note 1: https://www.cdc.gov/COVID-19/2019-ncov/need-extra-precautions/groups-at-higher-risk.html Note 2: https://www.cdc.gov/COVID-19/2019-ncov/travelers/after-travel-precautions.html Note 3: https://www.cdc.gov/COVID-19/2019-ncov/if-you-are-sick/steps-when-sick.html Note 4: https://www.cdc.gov/COVID-19/2019-ncov/travelers/map-and-travel-notice.html	

Enclosure 2 - Infection Control Advisory Committee (ICAC)

Purpose: This committee will advise FIO on matters relating to maintaining a safe working environment through each phase of operations.

Area	Name of Representative	Contact Information
Infectious Disease MD	Dr. John Sinnott	JohnTSinnott@gmail.com 813-731-2332 (texting is best)
TGH Infection Control Practitioner (RN)	Pends assignment	Pends assignment
Florida Institute of Oceanography Bayboro Marine Operations Keys Marine Lab	Cam Ngo, Bill Walsh, Cindy Lewis	camngo@usf.edu walsh1@usf.edu cynthialewis@usf.edu
USF Human Resources	Denelta Adderley Henry	denelta@usf.edu
USF Senior Leadership	James Garey, FIO Director	garey@usf.edu
USF Student Health Services	Dr. Anita Sahgal-Patel	anitas@usf.edu
Security (local PD)	USFSP Chief David Hendry	davidhendry@usf.edu
General Counsel	Tim Mays	timothy45@usf.edu

Enclosure 3: [Medical Facilities in Monroe County](#)

Updated state wide test site locations <https://floridadisaster.org/covid19/testing-sites/>

*Closest locations to Keys Marine Laboratory (mm 68.5) 68486 Overseas Highway Long Key, FL

1. **Advanced Urgent Care** can conduct both viral and antibody tests and can test those with minimal to no symptoms. Patients can pre-register for testing and download the Antibody Screening form at www.urgentcarefloridakeys.com, or call (305) 294-0011.
 - **Advance Urgent Care of the Keys** (305) 294-0011
****Key Largo** (mm 100)
100460 Overseas Highway
Key Largo, FL
9 AM - 5 PM M-F
 - ****MARATHON** (mm 54.0)
13365 Overseas Highway #102
Marathon, FL, 33050
9 AM - 3 PM M-F
 - **KEY WEST**
1980 N. Roosevelt Blvd.
Key West, FL 33040
9 AM - 5 PM Daily
2. ****Upper Keys: Mariner's Hospital** (mm 91.5)
Phone: (305) 434-3000
91500 Overseas Highway, Tavernier, FL
3. ****Middle Keys: Fishermen's Hospital** (mm 48.7)
Phone: (305) 743-5533
3301 Overseas Highway, Marathon, FL
4. **Lower Keys Medical Center**
Phone: (305) 294-5531
5900 College Road, Key West, FL
5. **Baptist Health Care on Demand:** If you are experiencing mild flu-like symptoms and could be exposed to Covid-19, use [Baptist Health Care On-Demand app](#) to see the doctor. "Baptist Health Care on Demand" is available for download on the app store and Google play. Use the code CARE19 and wait for the doctor to talk to the doctor.
6. **Baptist Health South Florida – Fishermen's Community Hospital and Mariners Hospital** Emergency rooms offer COVID-19 testing to patients [exhibiting severe symptoms or require hospitalization](#). Community members can also use the Baptist Health

Care On Demand telehealth app for a virtual consultation to assess symptoms and determine next steps.

7. **Quest Diagnostics** – can conduct viral and antibody (rapid) tests.

- Marathon (305) 743-4000
 - 2855 Overseas Hwy, Marathon FL 33050-2239
- Homestead (866) 697-8378
 - 925 NE 30th Ter Ste 108, Homestead, FL 33033

8. **CHI (Community Health of South FL) Marathon Health Center** is conducting free viral and antibody testing. Viral testing is offered every Saturday from 11am to 1:30pm by appointment. Call (305) 216-2107 or email KeysCovid19@chisouthfl.org

Enclosure 4: Bayboro Testing Facilities

Updated state wide test site locations <https://floridadisaster.org/covid19/testing-sites/>

Pinellas County - <https://covid19.pinellascounty.org/testing/>

Note: visit the above website before arriving at the test site.

Location	Appointment Required	Drive-Through Testing	Walk-Up Testing
DOH-Pinellas (location provided once appointment is scheduled) Call: 727-824-6900 Hours: Monday – Friday, 8:30 a.m. – 4 p.m.	✓	✓	✓
BayCare 900 Carillon Pkwy, St. Petersburg, FL 33716 Call 1-855 233-1555 or visit BayCareAnywhere.org Hours: Monday – Friday, 8 a.m. – 11 a.m.	✓	✓	
CVS Register and make an appointment at CVS.com .	✓	✓	
Locations available: 1000 East Tarpon Avenue, Tarpon Springs 8905 Bryan Dairy Road, Largo 1 S. Missouri Ave., Clearwater 30387 U.S. 19 N., Clearwater 4000 E. Bay Drive, Clearwater 3771 Tampa Road, Oldsmar 8001 Ninth St. N., St. Petersburg			
Community Health Centers of Pinellas (CHC) Call 727-824-8181 and select option 0, or visit www.chcpinellas.org		✓	✓
Locations open Monday – Friday 8:30 a.m. – 1:30 p.m. 707 East Druid Road, Clearwater, FL 33756 7550 43rd Street North, Pinellas Park, FL 33781 1344 22nd Street South, St. Petersburg, FL 33712 (Johnnie Ruth Clarke Center)			

Updated state wide test site locations <https://floridadisaster.org/covid19/testing-sites/>

Hillsborough County - <https://www.hillsboroughcounty.org/en/residents/public-safety/emergency-management/stay-safe/getting-tested>

Note: visit the above website before arriving at the test site.

Location APPOINTMENTS REQUIRED FOR ALL LOCATIONS	Drive-Thru Testing	Walk-Up Testing	Evening / Weekend Hours
Lee Davis Community Resource Center 3402 N. 22nd St., Tampa	✓	✓	
Plant City Community Resource Center 307 N. Michigan Ave., Plant City	✓	✓	
Raymond James Stadium 4201 N Dale Mabry Hwy, Tampa	✓		
Redeemer Lutheran Church 701 Valley Forge Blvd., Sun City Center		✓	
SouthShore Community Resource Center 201 14th Ave. SE, Ruskin	✓	✓	
Suncoast Community Health Center 313 S. Lakewood Drive, Brandon	✓	✓	✓
Wimauma Community Development Corp. 5128 Florida State Road 674, Wimauma		✓	

Enclosure 5: Temperature Log

Name _____

Date initiated _____ Date watch ends _____

Instructions:

Each person must have a log form.

Temperature must be taken twice a day, preferably around the same time in morning and evening.

Temperature must be taken with a DIGITAL thermometer.

If you are taking aspirin, Tylenol® (acetaminophen), ibuprofen, or any medicine that can reduce a fever, take your temperature before taking your next dose.

Date	Time	Temperature	Comments
06/20	0600	98.6	Temp taken by First Mate Barney.
	1800	98.6	Temp taken by First Mate Barney.