| **Unit** | College of the Environment, CICOES*,* PMEL Genetics and Genomics Group | | |
| --- | --- | --- | --- |
| **Plan Created for** | Matt Galaska | **Date of revision:** | 10/25/2021 |
| **PI/Supervisor** | David Butterfield; [david.a.butterfield@noaa.gov](mailto:david.a.butterfield@noaa.gov); 206-778-2591 | | |
| **Field Team Leader/ Chief Scientist** | **Chief Scientist:**  Seth Danielson  [sldanielson@alaska.edu](mailto:sldanielson@alaska.edu)  907-388-7088 (cell)  **Co-Chief Scientist:**  Jackie Grebmeier  jgrebmei@umces.edu  443-975-8007 (cell)  COVID-19 Supplemental Information:  *Unless otherwise designated, this individual is considered to be the on-site COVID-19 supervisor who is responsible for oversight of project-specific health and safety plan implementation relative to COVID-19 prevention, mitigation, and response measures.* | | |
| **Activity Description** | CEO-DBO-EcoFOCI Alaskan Cruise | | |
| **Field Site Location(s)** | Chukchi Sea and Beaufort Sea (Arctic Ocean) - ice dependent | | |
| **Date(s) of Fieldwork** | **November 6:** Arrive in Nome, Alaska and board the R/V Sikuliaq  **November 7-23:** Conducting research  **November 24:** Return to Nome, Alaska, and fly directly back to Seattle  \*Dates are still tentative and might shift slightly | | |

**Fieldwork is an important part of teaching, research, and clinical practice at the University of Washington. It is also an extension of on-campus work, and adherence to University policy and a professional code of conduct by all members of a project field team while participating in University-sponsored fieldwork is required. This UW Fieldwork Health and Safety Plan (COVID Prevention) is required for lone workers as well as field teams and is intended to help you prepare for health and safety problems you might encounter when fieldwork takes you away from University facilities. This template is provided as a resource to field teams as a framework for field teams in their pre-departure planning and preparation.**

**In addition, this Fieldwork Health and Safety Plan (COVID Prevention) template has been modified to include information relevant to COVID-19 mitigation measures to be undertaken when either the UW or the Washington State county(ies) in which the fieldwork is to be done in compliance with the** [**Governor’s Roadmap to Healthy Washington**](https://www.governor.wa.gov/sites/default/files/HealthyWashington.pdf) **and** [**Campus Reopening Guide**](https://www.governor.wa.gov/sites/default/files/2020.06.23%20Campus%20Reopening%20Guide%20FINAL.pdf)**. The conditions for returning to fieldwork should be evaluated against the current Washington State Phases as best as possible to determine what is allowable, and what precautions are necessary.**

**Note that not all elements of this plan are appropriate for all fieldwork. Local fieldwork with no overnight stay will not require as many elements as fieldwork with extensive travel and/or multiple overnight stays. Please consult your local unit requirements if you are unsure which apply to your fieldwork.**

**Instructions for the PI:**

1. **Perform a** [**Field Work Risk Assessment**](https://www.ehs.washington.edu/system/files/resources/field-work-risk-assessment-tool-guidelines.pdf)**.**
2. **Complete this UW Fieldwork Health and Safety Plan (COVID Prevention) template (insert specifics for your project, delete irrelevant sections, add sections that may be unique to your work) and provide a copy to your unit administrator or other designated individual for use in an emergency. Note that additional templates are available on the** [**EH&S Website**](https://www.ehs.washington.edu/research-lab/field-operations-safety)**, but these do not mention precautions for COVID-19, which should be included in your plan.**
3. **Complete appropriate training for your site, operations, and personnel (e.g., first aid, task-specific training).**
4. **Obtain immunizations and prophylaxis for your destination, if applicable.**
5. **Hold a pre-trip meeting with your group and/or supervisor to review your field safety plan, travel logistics, packing lists, personnel safety and security concerns, conduct expectations, and any remaining training needs. This meeting should be held remotely if possible.**
6. **As applicable, register your fieldwork with:**
   1. [**UW International Travel Registry**](https://www.washington.edu/globalaffairs/global-travelers/travelregistry/) **for location-specific travel alerts and emergency/travel assistance contacts.**
   2. [**UW Youth Program Registration System**](https://apps.ideal-logic.com/uwypds) **for projects that involve individuals under the age of 18.**

In addition, the fieldwork must have an approved project-specific Health and Safety Plan that explicitly addresses the additional health and safety measures to be taken to mitigate the spread of COVID-19 and respond to potential or confirmed cases in the field. This UW Fieldwork Health and Safety Plan (COVID Prevention) Template can be used or an existing Health and Safety Plan. If applicable, the fieldworkmust also meet the criteria for continuation for research involving [human subjects](https://www.washington.edu/research/hsd/covid-19/) or [travel](https://www.washington.edu/coronavirus/faq/#travel).

This UW Fieldwork Health and Safety Plan (COVID Prevention) should be approved according to the processes established by each Dean-level unit. See the [University of Washington COVID-19 Prevention Plan](https://www.ehs.washington.edu/system/files/resources/COVID-19-Prevention-Plan-for-the-Workplace.docx) for the Workplace for further details on unit-level prevention plan requirements and approvals.

| **Approved by:** | *Dean or School/department/program chair or director* | *MM/DD/YY* |
| --- | --- | --- |

Additional Resources

[UW Field Operations Safety Webpage](https://www.ehs.washington.edu/research-lab/field-operations-safety)

[UW Field Operations Safety Manual](https://www.ehs.washington.edu/system/files/resources/uw-field-operations-safety-manual.pdf)

[COVID-19 Prevention Guidelines for Small Boat Operations](https://www.ehs.washington.edu/system/files/resources/COVID-19-prevention-small-boat-operations.pdf).

[COVID-19 Health and Safety Resources](https://www.ehs.washington.edu/covid-19-prevention-and-response/covid-19-health-and-safety-resources)

[UNOLS News Coronavirus Considerations Document](https://www.unols.org/sites/default/files/COVID19_ConsiderationsForConductingSeagoingScience_Vers.1.615Apr20.pdf)

| **Site Information** | |
| --- | --- |
| **Location(s)** | The 2021 CEO-DBO-EcoFOCI Alaskan Cruise will sail on the R/V Sikuliaq, which is owned by the National Science Foundation and operated by the College of Fisheries and Ocean Sciences at the University of Alaska Fairbanks. The cruise will depart from Nome, Alaska, on November 7, 2021, to conduct research in the Chukchi Sea and the Beaufort Sea. The overall aim of the cruise is to recover and deploy moorings and conduct hydrographic and biological surveys. The Genetics and Genomics group is specifically interested in collecting and processing environmental (e)DNA samples, as well as assisting with the deployment of their phytoplankton sampler at M8/DBO. The cruise will last for 17 days maximum and will return to Nome, Alaska, on November 24, 2021. |
| **Site Information** | The cruise will be conducted onboard the R/V Sikuliaq. Most of the work will occur outdoors on the back deck, including Niskin water collections. All samples will be processed inside either in the Main Lab or Wet Lab, depending on space availability. |
| **Travel to Site** | Matt Galaska will travel to Nome, AK from Seattle, WA via a commercial airline. Participants will immediately head to the ship after landing, and taxis will be used for transit. During travel, Matt Galaska will wear a mask and sanitize his hands regularly.  Cruise participants will follow COVID-19 protocols established by the University-National Oceanographic Laboratory System (UNOLS) for the duration of the cruise and the weeks leading up to departure (Appendix 3). All scientists are required to be vaccinated. Quarantine is not required; however, participants must perform daily temperature checks 14 days prior to departure and are asked to be careful in regard to COVID exposure at least 7 days prior. A negative PCR test is required within 72 hours prior to flights to Nome, AK. On embarkation of the R/V Sikuliaq, the medical officer will administer the antigen test and science party members will remain outside the skin of the ship until the test results are known. |
| **Site Ownership** | R/V Sikuliaq is owned by the National Science Foundation and operated by the College of Fisheries and Ocean Sciences at the University of Alaska Fairbanks. For embarkment and disembarkment, the R/V Sikuliaq will be parked at |
| **Site Access** | No restrictions or challenges related to site access. COVID-19 Supplemental Information:  Not all public lands or other research sites may be open during the pandemic. Please make sure to obtain written confirmation from the property owner or responsible agency if the site(s) are otherwise closed to the public or to permitted research. In addition, once your fieldwork has been approved, you should receive an authorization letter on university letterhead. Make sure all members of the field team have a copy of this authorization letter and it can be made available upon request.  Is/are your site(s) open to the public, or do you have written confirmation of your ability to access the site?☐ Open to the public **X** Written confirmation of access ☐ N/A  Are there access restrictions related to COVID-19 mitigation measures that exceed those of the University of Washington? **X** Yes ☐ No  If yes, have you integrated these measures into this Health and Safety Plan? **X** Yes ☐ No |
| **Environmental**  **Hazards** | Going to sea is inherently dangerous as ocean conditions are unpredictable. All persons will undergo safety training and participate in weekly safety drills on board the ship before their departure and during the cruise. The safety training and drills will review the procedures to follow in the event of a person overboard, a fire, an emergency that requires abandoning a ship, and (occasionally) pirate encounters. |
| **International** | N/A |
| **Security** | There are no current travel alerts or restrictions aside from those dealt with separately as in response to COVID-19 supplementary prompts.  COVID-19 Supplemental Information:  All official travel outside the U.S. by UW employees and students is [restricted](https://www.washington.edu/globalaffairs/global-travelers/travel-restriction/). Faculty and staff researchers [may apply for an exceptional waiver](https://www.washington.edu/globalaffairs/global-travelers/warnings-waivers/) to the current official travel restrictions. This may require endorsement by their Dean/s and the UW Office of Research. |
| **No Go Criteria** | Weather conditions are evaluated by the Captain of the R/V Sikuliaq and the Chief Scientist, and science operations will be ceased in the event that weather or other conditions are thought to pose unusually high risk to personnel or equipment.  Matt Galaska reviewed the Returning to In-Person Research Involving Fieldwork Decision Tree before completing this H&S Plan, and all questions were answered Yes or N/A; therefore, the fieldwork was deemed permissible to proceed.  COVID-19 Supplemental Information:  **X** The UW Returning to Research Involving Fieldwork Decision Tree must be completed. If the questions in the Decision Tree cannot be answered Yes or N/A at any point during the project, the fieldwork may not proceed. |
| **Expected Weather** | If the ship encounters extreme weather, the ship will divert course to avoid it or if necessary return to the nearest port. |
| **Drinking Water Availability** | **X** Plumbed water available ☐ Water cooler with ice provided ☐ Bottled water provided  ☐ Natural source and treatment methods (e.g. filtration, boiling, chemical disinfection): |
| **Access to Shade/Shelter** | If forecast temperatures exceed 80°F, shade must be provided by natural or artificial means for rest breaks. What will be available to the field team members?  **X** Ship structures ☐ Trees ☐ Temporary Canopy/Tarp ☐ Vehicle with A/C ☐ Other:  *.* |
| **High Heat Procedures** | Required when temperatures are expected to exceed 95° F: If possible, limit strenuous tasks to morning or late afternoon hours. Rest breaks in shade must be provided at least 10 minutes every 2 hours (or more if needed). Effective means of communication, observation, and monitoring for signs of heat illness are required at all times. Pre-work safety discussion required.  ☐ Direct supervision **X** Buddy system ☐ Reliable cell or radio contact ☐ Other: *.* |
| **Cold Weather Procedures** | Required when temperatures drop below normal and wind speed increases, allowing heat to leave a body more rapidly: If possible, schedule heavy work during the warmer part of the day. Provide frequent breaks in warm areas. Acclimatize new workers and those returning after time away from work. Effective means of communication, observation, and monitoring for signs of cold stress are required at all times. Pre-work safety discussion required.  ☐ Direct supervision **X** Buddy system ☐ Reliable cell or radio contact ☐ Other: *.* |

| **Emergency Services and Contact Information** | | | |
| --- | --- | --- | --- |
| **Local Contact** | Seth Danielson  Chief Scientist  [sldanielson@alaska.edu](mailto:sldanielson@alaska.edu)  907-388-7088 (cell) | **University Contact**  Collen Marquist  marquist@uw.edu | **PI:** David Butterfield;  [david.a.butterfield@noaa.gov](mailto:david.a.butterfield@noaa.gov);  206-778-2591  Daily if needed by email |
| **Lodging Location** | N/A as all lodging will be on the ship prior to departure. There is a maximum of 14 participants,  and all participants will have a single room, except for 2 rooms with 2 people. The paired individuals already form their own safety bubble due to research requirements. Matt Galaska is among the scientists who will have his own room. | | |
| **Local Emergency Number** | 911 | | |
| **Emergency Medical Services** | While ashore, medical services can be accessed by dialing 911. The Norton Sound Regional Hospital is located in Nome, AK, and is readily accessible from the port. A medical officer is available on the R/V Sikuliaq to provide medical support while at sea. | | |
| **Nearest Emergency Department** | The Norton Sound Regional Hospital is located in Nome, AK, and is accessible from the port. | | |
| **Cell Phone Coverage** | **Primary Number:** Matt Galaska (734-904-0513)  **Coverage:** Questionable in AK; once aboard email will be the primary form of communication  **Nearest location with reliable coverage:** N/A | | |
| **Satellite phone/other device** | **Device carried?** **X** yes ☐no  **Type/number:** Iridium and Fleet BroadBand satellite phone available Inquired about the number, will fill in once I get an answer.  **Location/access:** Located on the bridge of the R/V Sikuliaq | | |
| **Nearby Facilities** | While in port and at sea, facilities are readily accessible (restrooms, water, internet, food, etc.). At sea, the nearest services in case of emergency will be available on board and at the nearest port, the ship diverts to.  COVID-19 Supplemental Information:  In order to minimize the risk of spreading COVID-19 to or from the field team, visits to nearby facilities should be minimized and done only to support field operations. Members of the field team who visit facilities away from the field site(s) or otherwise interact with individuals outside of the field team must:   * maintain social distancing of at least 6 feet at all times; * wear appropriate PPE (e.g., disposable gloves, masks); and * wash or sanitize their hands thoroughly prior to and after each visit. | | |
| **Side Trips** | N/A | | |

| **Participant Information** | |
| --- | --- |
| **Field Team/ Participants** | Primary Field Team Leader (Chief Scientist): Seth Danielson, 907-388-7088  Secondary Field Team Leader (Co-Chief Scientist): Jackie Grebmeier, 443-975-8007  Omics Group Participant: Matt Galaska, 734-904-0513  COVID-19 Supplemental Information:  The field team should be reduced to the minimum number necessary to safely carry out work. |
| **Physical Demands** | Mooring and oceanographic operations will be handled by trained personnel. The deck will likely be wet from spray and the cleaning of instruments and floats. Appropriate footwear (e.g., steel-toed boots) and safety equipment (e.g., hard hats, PFDs) will be worn on the deck. |
| **Mental Demands** | While the cruise is only ~17 days long, operations will be 24/7, for the duration of the trip. Mooring and oceanographic operations in Alaska lead to long days in cold conditions. To alleviate the stress and fatigue, oversight is key. The bridge will serve as a safety officer whose job is to watch over the deck and keep an eye on safety issues that might arise. |
| **Lone Worker** | Is anyone working alone? ☐ Yes **X** No |
| **First Aid Training** | [UW policy (APS 10.5)](http://www.washington.edu/admin/rules/policies/APS/10.05.html) requires that all academic and/or research field teams must include at least one person with valid first aid certification. The level of first aid training required will depend on the type of activity the team is pursuing; the location; and the availability, response time, and means of communication by and with emergency response units. The EH&S Training office (206-543-7201, [ehstrain@uw.edu](mailto:ehstrain@uw.edu)) can advise on the first aid training and certification requirements on a case-by-case basis.  All R/V Sikuliaq crew members have up-to-date First Aid/CPR training.  COVID-19 Supplemental Information:  Compression-only CPR is an acceptable alternative for those who are unwilling, unable, untrained or are no longer able to perform full CPR. |
| **Packing List** | **X** Attach a copy of the packing list for your field team/participants, including information on who is responsible for providing specific supplies and/or PPE as applicable. |
| **Immunizations or Required Medical Evaluation** | All of the science crew is vaccinated against COVID-19 and have verified such with the Chief Scientist. All participants will be tested within 72 hours of the start of travel and upon boarding the vessel in Nome, AK. No additional immunizations are required. |
| **Participant Emergency Contact Information** | While the University cannot require field participants to provide current emergency contact information and proof of medical insurance, PIs are encouraged to request this information from all field trip participants so that they have the information on hand to give to medical providers if the field team participants are not able to do so themselves. This information should be 1) treated as confidential (i.e., locked, limited access and distribution); 2) accessed and shared only with health providers during an emergency; and 3) shredded immediately upon completion of the trip.  **X** Encourage field team members to ensure their emergency contact information in Workday is current for use in case of an emergency.  ☐ Check box if optional Emergency Contact Information/Medical Information Forms have been collected. (See Appendix XXX) *If yes, describe security measures to be taken to ensure information is kept confidential and available to be used by medical personnel in the event of an emergency.* |
| **Volunteers** | N/A |
| **Minors** | N/A |

**COVID-19 Supplemental Information**

| **Attestations of Health** | Fieldwork involving daily travel to field site from home   * Participants should follow the same protocols for daily attestations of health as UW researchers going into a UW facility (i.e., Daily attestations of well-being through Workday or other communications with a supervisor if Workday is not an option) * Personnel who feel ill may not participate in fieldwork and should notify their supervisor that they are unable to do so. In addition, if a member of their household develops symptoms of illness they must stay home and self-[quarantine](https://www.ehs.washington.edu/system/files/resources/COVID-19-field-work-quarantine-testing-guidelines.pdf) according to current CDC recommendations.   Fieldwork involving travel to a remote field site for longer than one day   * Members of the field team who exhibit any symptoms of illness within 72 hours prior to departure MUST stay home. * Field team participants must submit an attestation (See Appendix B) to the field team leader immediately prior to departure before being allowed to participate. * Field Team leaders should incorporate daily in-person health check-ins as part of routine operations. |
| --- | --- |
| **COVID-19 Virus Testing and Quarantine** | Cruise participants will follow COVID-19 protocols established by the University-National Oceanographic Laboratory System (UNOLS) for the duration of the cruise and the weeks leading up to departure (Appendix 3). All scientists are required to be vaccinated. Quarantine is not required; however, participants must perform daily temperature checks 14 days prior to departure and are asked to be careful in regard to COVID exposure at least 7 days prior. A negative PCR test is required within 72 hours prior to flights to Nome, AK. On embarkation of the R/V Sikuliaq, the medical officer will administer the antigen test and science party members will remain outside the skin of the ship until the test results are known.  Personnel will be reminded to practice handwashing/sanitizing frequently. The vessel will supply all cleaning supplies necessary for COVID prevention. The crew will clean the ship’s common areas daily, and cleaning supplies will be available to all science personnel to clean their berthing and science spaces. All science crew are required to bring one rapid COVID test kit to keep on the vessel, which will be used if they exhibit symptoms during the mission. Matt Galaska is being sent with a COVID test kit and extra COVID PPE (Appendix 2). All mission personnel will adhere strictly to current DOC and CDC masking and social distancing guidelines in the time leading up to and during the proposed mission dates. This includes masking when inside and outdoors when social distancing cannot be maintained. Masking will be required for a period of no less than 10 days. |
| **Activities, Equipment, and Supplies – Consult with EH&S for specific training and requirements** | |
| **Research Activities** | The overall goal of this research cruise is to evaluate the ecosystem status and changes at time-series stations and to deploy/recover about 35 NOAA moorings and single Chukchi Environmental observatory (CEO) moorings. Water will be captured using a CTD rosette at planned stations. Nutrients, oxygen, chlorophyll, carbon, and eDNA will be captured via the water samples. The Omics Group is specifically interested in the eDNA portion. Water column samples of zooplankton and larval fish will be captured with bongo nets to monitor abundance and biomass. The benthos will be sampled with Van Veen grabs to monitor macrobenthos abundance, biomass, and population structure. Sediment will also be monitored for organic carbon, nitrogen, chlorophyll, grain size, and harmful algal blooms. Additionally, epibenthic beam trawls will be conducted as well as underway seabird surveys. |
| **Field**  **Transportation** | R/V Sikuliaq is owned by the National Science Foundation and operated by the College of Fisheries and Ocean Sciences at the University of Alaska Fairbanks. Commercial airlines will be used to get from Seattle, WA to Nome, AK. Taxis will be used to commute to the vessel from the airport in Nome. |
| **Research Tools** | All science personnel will have their own PPE including a hard hat, face mask, steel-toed boots, float coat, gloves, and rain pants. Shipboard operations include the use of cranes and winches to launch and recover the CTD rosette and mooring gear. All gear will be operated by trained personnel.   * Matt Galaska will assist with the deployment of a phytoplankton sampler (PPS). The sampler will be set up and programmed on deck; then trained crew will deploy the device. Masks will be worn if social distancing can not be maintained, and hands will be sanitized frequently. A personal computer will be used to program the device, and since personal computers are not shared, further sanitization is not required. * All areas of contact on research equipment will be cleaned regularly. * Matt Galaska will collect water samples from Niskin bottles located on the deck of the R/V Sikuliaq. Water will be filtered using a peristaltic pump to collect environmental and microbial DNA. These samples will be preserved in ethanol. Gloves and masks will be worn throughout the process. In addition, to prevent cross-contamination, the sample bottles and all equipment will be routinely wiped down with bleach and ethanol. Water sample filtering will be performed in the Main Lab, and when six feet of distance can not be maintained, masks will be worn.   COVID-19 Supplemental Information:   * Field crew members should be assigned individual field equipment (e.g., GPS units, binoculars, spotting scope, clipboard, and other miscellaneous field gear) for the duration of the field season to the extent possible. * Prior to use, field equipment should be cleaned with a disinfecting cleaner. Equipment should be sanitized again before it is returned at the end of the field season. * If at any time there is a need to share equipment, crew members should wipe down the equipment first with disinfecting cleaner and thoroughly wash their hands afterward. |
| **Other Research Hazards** | Matt Galaska will be using ethanol to preserve samples. When not in use, ethanol will be stored in chemical lockers provided to the scientists. Electronic MSDS sheets are held by the CO and Chief Scientist, and at the end of the cruise, chemicals will be returned to Seattle via sea. |
| **Personal Protective Equipment** | Each scientist will be supplied with a hard hat, float coat, steel-toed boots, and gloves. They will be asked to supply their own rain pants and face masks. The chief scientist will have disposable face masks available. Face masks will be required for a period of no less than 10 days. Scientists are recommended to bring layers (base, intermediate, outer), hats, thick socks, and warm gloves.  The vessel will supply all cleaning supplies necessary for COVID prevention. The crew will clean the ship’s common areas daily. Cleaning supplies will be provided to the science personnel to clean their berthing and science spaces.  COVID-19 Supplemental Information:  Keeping a distance (at least 6 feet) from other people is the best protection against COVID-19; however, wearing a mask can add another layer of protection, especially if you must be inside with others. Masks can help protect others by containing respiratory droplets when the mask wearer coughs, sneezes, or speaks. Face coverings must not interfere with other PPE (e.g., eye shields), required for safety, and must be compatible with all safety requirements.  **Face coverings are required:**   * When you are indoors where other people are present. A face covering is not needed when working alone in a private office or work area. * When you are outdoors whenever keeping a 6-foot distance from other people may not be possible. A face covering is not needed when you are outdoors (e.g., walking, exercising) and you are able to stay 6 feet away from other people.   Cloth face coverings do not replace job-specific requirements for use of personal protective equipment (PPE). EH&S provides a [PPE selection matrix](https://www.ehs.washington.edu/system/files/resources/COVID-19-risk-ppe-selection.pdf) that can be used as a reference.  **X** Attach a copy of the list of PPE required to safely implement your fieldwork that will be provided by the PI/Supervisor. An adequate supply of masks and disposable gloves should be included on this list. (Surgical masks or N-95 respirators are critical supplies that must continue to be reserved for healthcare workers and other medical first responders. They should not be used for fieldwork.) PPE should be purchased in advance to confirm availability prior to departure and the location of supplies should be announced to all team members. |
| **Supplies** | **PPS Supplies:** Phytoplankton sampler, Toolkit (with necessary replacements), Computer,  Communications Cable, Extension Cord, and 15 mL falcon tubes for sample storage  **eDNA Supplies:** Peristaltic pump, 1 L brown Nalgenes bottles, 25’ 3/8” ID polyurethane tubing,  sterivex filters, pipette + tips, generic field supplies (lab tape, pens, scissors), gloves, cooler, and ethanol  **Personal Supplies:** Water bottle, warm clothing, sea-sickness medication, toiletries, required PPE (masks, hand sanitizer, Clorox wipes)  \*All PPS and eDNA supplies are already in Alaska and they were transferred from the previous Discovery cruise; therefore, the only required equipment for Matt Galaska to travel with is personal supplies.  COVID-19 Supplemental Information:   * Tissues, hand sanitizer and soap/potable water should be provided by the PI/Supervisor. * Review the [EH&S Cleaning and Disinfection Resources](https://www.ehs.washington.edu/system/files/resources/cleaning-disinfection-protocols-covid-19.pdf) to help select appropriate disinfection products, including the use of EPA-registered disinfectants, and the manufacturer’s instructions for safe and effective use of all cleaning and disinfection products. Contact EH&S at [ehsdept@uw.edu](mailto:ehsdept@uw.edu) or 206-543-7262 with questions about cleaning and disinfection procedures.   **X** Attach a copy of a list of COVID-19-related cleaning/disinfecting supplies required to safely implement your fieldwork. These products should be purchased in advance to confirm availability and the location of supplies should be announced to all team members. |
| **First Aid Supplies** | An emergency first aid kit should be available to the entire field team at all times. If a member field team requires urgent medical attention, emergency services should be called immediately.  Location and description of group medical/first aid kit(s):The R/V Sikuliaq has a range of first aid kits located throughout the ship, and their location will be highlighted during a vessel tour upon embarking.  COVID-19 Supplemental Information:  First aid kits must include single-use thermometers and/or thermometers that can be sanitized between uses.  If a member of the field team requires immediate first aid that cannot be self-administered, another crew member may assist. All members of the field team involved in the emergency response (including the injured party) will sanitize their hands prior to and aftercare and wear personal protective equipment (e.g., gloves, face masks). |
| **Cleaning and Sanitizing Procedures** | All members of the science party will be responsible for the daily cleaning of shared science and  living spaces. The ship will supply cleaning solutions to wipe high-touch surfaces regularly. All  communal areas (besides research areas) will be cleaned daily by the ship crew.  COVID-19 Supplemental Information:   * In alignment with public health recommendations, field teams should undertake [enhanced cleaning and disinfection procedures](https://www.ehs.washington.edu/system/files/resources/cleaning-disinfection-protocols-covid-19.pdf). Increase the frequency of cleaning and disinfecting, focusing on high-touch surfaces in common areas, restrooms, etc. Increased frequency of cleaning and disinfecting with attention to these areas helps remove bacteria and viruses, including the novel coronavirus. Identify all high touch surfaces in communal spaces and disinfect them before and after use, and daily at a minimum. * Schedule any communal use equipment such that appropriate cleaning can take place before and after use. * Participants should be able to wash their hands often with soap and water, for at least 20 seconds, or use hand sanitizer that contains at least 60% alcohol if soap and water are not available. |
| **Food and Meals** | The vessel has a full cafeteria-style buffet line with people serving them behind glass counters.  Everyone is required to wash their hands prior to entering the food line.  COVID-19 Supplemental Information:  Fieldwork involving daily travel to field site from home   * Individuals who travel daily to a field site should pack in their food/water each day. Provisions should not be shared with other crew members.   Fieldwork involving travel to a remote field site for longer than one day   * Where practicable, establish social distancing policies and procedures around meals. E.g., * Adjusting mealtimes to facilitate social distancing while eating * Shift food service operations away from self-service * Participants should wash or sanitize their hands before and after meals |

| **Additional Considerations** | |
| --- | --- |
| **Insurance** | **Equipment Insurance**  University property and equipment are not automatically insured. [UW Equipment Insurance](https://risk.uw.edu/insure/EIS) is a campus-wide online program administered by Risk Services which provides optional, low cost coverage to University departments for owned, leased or borrowed equipment used for UW work.  **Travel Insurance**  University employees, including student employees, are covered by Washington State L&I for work-related injuries. However, for personal health care issues, employees may want to look into getting supplemental insurance when away from home on travel. Students, including student employees, **must** purchase CISI travel insurance prior to international travel and can contact CISI at 1.855.327.1419 (toll-free) or 1.630.694.9794 (accepts Collect calls).  COVID-19 Supplemental Information:  All official travel outside the U.S. by UW employees and students is [restricted](https://www.washington.edu/globalaffairs/global-travelers/travel-restriction/). Faculty and staff researchers [may apply for an exceptional waiver](https://www.washington.edu/globalaffairs/global-travelers/warnings-waivers/) to the current official travel restrictions. This may require endorsement by their Dean/s and the UW Office of Research.Note that even with a waiver, personal evacuation insurance may be required, as UW insurance does not cover international travel at this time. |
| **Animal Research** | ☐ Does your fieldwork require a Collection, Import, Transfer or other permit? If yes, attach a copy of all permits to this Plan.  ☐ If research will be done with animals at a foreign site, identify whether institutional reviews will be required and whether there will be additional costs for those reviews. |
| **Human Subjects Research** | If research will be done with human subjects at the foreign site, determine which of the following reviews will be required. Also, identify whether translation services will be required and if there will be additional costs for foreign reviews.   * [UW human subjects review](http://www.washington.edu/research/hsd/contact) * Sponsor’s requirement for human subjects review * Foreign collaborator’s requirement for human subjects review   Compensation for research subjects in economically disadvantaged settings should be consistent with local norms. See guidance from the U.S. Department of Health and Human Services on [international human subjects](http://www.hhs.gov/ohrp/international/).  COVID-19 Supplemental Information:  Please see the [Human Subjects Division website](https://www.washington.edu/research/hsd/covid-19/resuming-some-human-subjects-research/) for the latest information on permissible human subjects research. |

| **Campus Contacts** | |
| --- | --- |
| **Primary Department Contacts** | **John Horne, CICOES Executive Director,** [**jhorne@uw.edu**](mailto:jhorne@uw.edu)**, 206-616-6890**  **Fred Averick, CICOES Assistant Director,** [**faverick@uw.edu**](mailto:faverick@uw.edu)**, 206-616-6763**  **Collen Marquist, CICOES Safety & Health Manager,** [**marquist@uw.edu**](mailto:marquist@uw.edu)**, 206-330-6740**  These individuals should have access to a copy of your final project Health and Safety Plan. |
| **Mental Health** | Employees: [CareLink](https://hr.uw.edu/benefits/uw-carelink/) (24 hours a day, 7 days a week, 866-598-3978)  Students   * Bothell: [Counseling Center](https://www.uwb.edu/studentaffairs/counseling) (425-352-3183) * Seattle: [Counseling Center](https://wellbeing.uw.edu/topic/mental-health/) (206-543-1240) and [Hall Health Mental Health](https://wellbeing.uw.edu/topic/mental-health/) (206-543-5030) * Tacoma: [Counseling & Psychological Services](https://www.tacoma.uw.edu/studentcounseling) ([uwtcaps@uw.edu](mailto:uwtcaps@uw.edu)) * While Abroad – The UW Student Abroad Insurance has mental health coverage. Students can arrange to see a mental health provider in-person locally or remotely.   National Suicide Prevention Lifeline (24 hours a day, 7 days a week, 800-273-8255) |
| **Environmental Health and Safety (EH&S)** | 206-543-7262, [ehsdept@uw.edu](mailto:ehsdept@uw.edu) |
| **International Assistance** | Emergency assistance   1. Take whatever actions are necessary to assure your immediate safety. 2. Call the local emergency number. 3. Call CISI at 1-855-327-1419 (toll-free) or 1-630-694-9794 (accepts Collect calls). 4. Contact the UW Global Emergency line at 001-206-632-0153 for further assistance.   Non-emergency assistance  If the incident is no longer an immediate or potential risk to health, safety or security, report it to the UW Global Travel Security Manager during the next business day at 001-206-616-7927 and/or [travelemergency@uw.edu](mailto:travelemergency@uw.edu). For time-sensitive matters, please call versus emailing. |
| **Report Injuries and Accidents** | Report any work-related injury or illness to your supervisor as soon as possible. After reporting the incident to your supervisor, submit a report of the incident within 24 hours to EH&S via the UW’s [Online Accident Reporting System (OARS)](https://oars.ehs.washington.edu/).  **Call EH&S immediately at 206-543-7262 if the incident involves any of the following:**   * In-patient hospitalization * Recombinant/synthetic DNA exposure or spill * Fatality   EH&S must immediately report any employee in-patient hospitalization or fatality to Washington State Department of Labor & Industries (L&I). Do not move any equipment involved in the incident until EH&S receives clearance from L&I.  **Outside of EH&S business hours (8:00 a.m. to 5:00 p.m., Monday to Friday), call the UW Police Department (UWPD) at 206-685-UWPD (8973).** UWPD will notify an EH&S on-call staff member. |
| **Report Harassment** | All members of the UW community have the right to a non-harassing (both sexual and non-sexual in nature) and non-discriminatory environment both on campus and in fieldwork situations. Individuals are encouraged to bring up safety and well-being concerns for themselves or others with the following individuals:  **Field Team**   * Field Team Leader/Chief Scientist: Seth Danielson * Another senior person (e.g., Co-PI, ship captain, bosun): Jackie Grebmeier * Other members of the science team: Phyllis Stabeno   **UW Resources and Reporting**  *(NOTE: UW Advocates and Offices may be contacted regardless of the institutional affiliation(s) of the individuals involved).*  Confidential Advocates for support, information and assistance   * Faculty/Postdocs/Staff - Victim Advocate: UWPDAdvocate@uw.edu, 206-543-9337 * Students * Bothell: Violence Prevention and Advocacy Program Manager, uwbvae@uw.edu, 425-352-3851 * Seattle: Livewell Student Advocate: hwadvoc@uw.edu, 206-685-4357 * Tacoma: Assistant Director for Student Advocacy and Support, uwtsva@uw.edu, 253-692-5934   Other University Resources   * [SafeCampus](https://www.washington.edu/safecampus/): 24 hours a day, 7 days a week, 206-685-7233 * UW Global Emergency Line for international assistance: 206-632-0153 (Emergency) or 206-616-7927 (Non-Emergency) * Office of Ombud (office hours): ombuds@uw.edu, 206-543-6028   **Other**   * Campus/Home Buddy: TBD |

**COVID-19 Supplemental Information**

| **Reporting Cases of COVID-19** | If a member of the field team shows any symptoms of COVID-19 infection, they should do the following:   1. Isolate themselves from all other members of the field team 2. Contact their health care provider in advance or a [UW Medicine facility](https://www.uwmedicine.org/search/locations?s=neighborhood%20clinic) to discuss whether they should be evacuated and/or tested. Do not go directly to a clinic. 3. Contact UW EH&S Employee Health Center at [covidehc@uw.edu](mailto:covidehc@uw.edu) or 206-616-3344. They will help facilitate testing and provide next steps for field group tracking and contract tracing.   Field team leads are required to direct personnel to follow the steps in the FAQ “[What do I do if I feel sick?,](https://www.washington.edu/coronavirus/faq/#health)” which includes the above information. |
| --- | --- |

| **First Aid Reference – Signs & Symptoms Relevant to Conditions of Proposed Fieldwork** | | |
| --- | --- | --- |
| **Signs & Symptoms** | **Treatment** | **Response Action:** |
| **HEAT EXHAUSTION**   * Dizziness * Headache * Sweaty skin * Weakness * Cramps * Nausea and/or vomiting * Rapid heart rate | 1. Stop all exertion. 2. Move to a cool shaded place. Hydrate with cool water. | Heat exhaustion is the most common type of heat illness. Initiate treatment. If no improvement, call 911 and seek medical help. Do not return to work in the sun. Heat exhaustion can progress to heatstroke. |
| **HEAT STROKE**   * Confused, disoriented, irritable, combative * Convulsions/seizures * Fainting * Poor balance/coordination * Hot, dry and red skin * Fever, body temperature above 104 °F | 1. Move (gently) to a cooler spot in shade. 2. Loosen clothing and spray clothes and exposed skin with water and fan. 3. Cool by placing ice or cold packs along neck, chest, armpits and groin (Do not place ice directly on skin) | **Call 911 or seek medical help immediately.**  **Heatstroke is a life-threatening medical emergency. A victim can die within minutes if not properly treated. Efforts to reduce body temperature must begin immediately!** |
| **COLD STRESS (moderate to severe)**   * Shivering stops * Confused, disoriented * Poor coordination * Dilated pupils * Pulse/breathing slow * Loss of consciousness | 1. Move to a warm, dry area. 2. Remove wet clothes and replace with dry clothes, cover the body (including the head and neck – NOT face) with layers of blankets; and with a vapor barrier. Warm bottles or hot packs can be placed in armpits, sides of chest, and groin. 3. If conscious, give warm, sweetened, non-alcoholic drinks. | **Call 911 or seek medical help immediately.**  **Hypothermia can be a life-threatening medical emergency. A victim can die if not properly treated. Efforts to rewarm the individuals must begin immediately!** |
| **COVID-19**  People with COVID-19 have had a wide range of symptoms reported – ranging from mild symptoms to severe illness.  Symptoms may appear **2-14 days after exposure** **to the virus** and may include:   * Cough * Shortness of breath or difficulty breathing * Fever * Chills * Muscle pain * Sore throat * New loss of taste or smell * Runny nose * Headache * Nausea or vomiting * Diarrhea   The [UW Coronavirus website](https://www.washington.edu/coronavirus/) and CDC are resources for [current lists of COVID-19 symptoms](https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html). | *If members of the field team begin experiencing symptoms while in the field, they should avoid all contact with other members of the field team. Describe specific isolation plans for individuals who exhibit mild symptoms of COVID-19 and evacuation plans for individuals when isolation is not possible, and/or who exhibit symptoms of concern, and/or who are directed to leave the field site by medical professionals.*  Additional UW guidance on health, wellness, and prevention FAQs can be found on the UW COVID-19 webpage: <https://www.washington.edu/coronavirus/> | **When to Seek Emergency Medical Attention**  Look for emergency warning signs\* for COVID-19. **If someone is showing any of these signs, seek emergency medical care immediately:**   * Trouble breathing * Persistent pain or pressure in the chest * New confusion * Inability to wake or stay awake * Bluish lips or face   \*This list is not all possible symptoms. Please call a medical provider for any other symptoms that are severe or concerning to you.  Members of the field team who develop a suspected or confirmed case of COVID-19 should report it to UW EH&S Employee Health (206-616-3344 or covidehc@uw.edu) for public health follow up. |

**Signature of PI/Supervisor:**

I approve this safety plan and acknowledge that it has been prepared for fieldwork under my supervision.

| **Name** | **Signature** | **Date** | **Phone Number/EMAIL** |
| --- | --- | --- | --- |
| David Butterfield |  |  |  |

**Field Team/Participant Roster - Training Documentation**

**I understand that this Project Health and Safety Plan is intended to document hazard assessments, communication plans, emergency procedures, and training requirements for the proposed fieldwork. This plan also identifies hazards, as well as precautions and actions to be taken to address and mitigate those hazards, to significantly mitigate the risk of COVID-19 exposure and transmission, but is not a substitute for self-isolation for individuals who may have concerns about their health or that of others. I verify that I have read this Fieldwork Health and Safety Plan, understand its contents, am voluntarily participating in the fieldwork, and agree to comply with its requirements. (A PI may choose to collect this documentation by email to help avoid the need to mee in-person prior to departure.)**

| **Name/Contact Information** | **Signature** | **Date** | **Training Completed[[1]](#footnote-0)** |
| --- | --- | --- | --- |
| Matt Galaska  734-904-0513  UW PMEL Scientist |  |  | N/A |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

| **Appendices** |
| --- |

1. Emergency Contact Information/Medical Information Form
2. COVID-19 Symptom Attestation Prior to Departure for Fieldwork Involving Overnight Travel
3. Map of Vessel Plan
4. List of PPE provided by PI/Supervisor
5. Update to UNOLS Considerations for Conducting Seagoing Science

**Appendix A. Emergency Contact Information/Medical Information Form (OPTIONAL)**

*(This information remains confidential and used only in case of emergency)*

| Your Name: DO NOT FILL IN THIS FORM. LEAVE IT BLANK IN THE PLAN. |
| --- |
| **Emergency Contact 1:**  Name: IT IS ASSUMED YOUR CONTACT INFORMATION IN WORKDAY IS CURRENT. |
| Relationship to you: |
| Address: |
| Phone number(s): |
| Email: |
| **Emergency Contact 2:**  Name: |
| Relationship to you: |
| Address: |
|  |
| Phone number(s): |
| Email: |

**Please include any other relevant information here:**

|  |
| --- |
|  |

**Permission for Medical Treatment**

I hereby give permission to the medical personnel selected by the University of Washington to secure medical evaluation and any treatment necessary to preserve life and bodily function unless exceptions are noted below:

| Exceptions (if none, write none): |  |
| --- | --- |
| I am allergic to the following  medications (response optional): |  |
|  |  |
|  |  |
| Other medical conditions about  which those providing medical  treatment should be aware  (response optional): |  |
|  |
|  |
| Insurance Provider/Policy # |  |
| Contact Information: |  |
| Signature: |  |
| Date: |  |

**Appendix B. COVID-19 Symptom Attestation Prior to Departure for Fieldwork Involving Overnight Travel**

The following text should be sent by email to a field team leader by all members of the field team immediately prior to departure for fieldwork involving overnight travel. Daily attestations in Workday should be made for fieldwork that is conducted by daily travel to the site from the participants’ homes. Members of the field team who do not submit attestations are not allowed to participate in fieldwork.

**In the last 72 hours, have you experienced any of the following symptoms:**

* A new fever (100.4 F or higher) or a sense of having a fever?
* A new cough that you cannot attribute to another health condition?
* New shortness of breath that you cannot attribute to another health condition?
* A new sore throat that you cannot attribute to another health condition?
* New muscle pain that you cannot attribute to another health condition or that may have been caused by a specific activity, such as physical exercise?
* New gastrointestinal symptoms, such as nausea, vomiting or diarrhea that you cannot attribute to another health condition?
* New respiratory symptoms, such as a runny nose, that you cannot attribute to another health condition?
* New chills that you cannot attribute to another health condition?
* New loss of taste or smell that you cannot attribute to another health condition?
* A new headache that you cannot attribute to another health condition or emotional reason?
* New fatigue that you cannot attribute to another health condition?

**If you are sick or have one or more of the above symptoms:**

* You must stay home and cannot participate in the fieldwork until at least 10 days since symptoms first appeared and at least 24 hours with no fever without fever-reducing medication and symptoms have improved.
* Follow your department’s procedure for calling out sick or requesting to work from home.
* Contact your health care provider for medical guidance.
* Follow the guidance on the FAQ [What do I do if I feel sick?](https://www.washington.edu/coronavirus/#health) at the UWs [Novel coronavirus & COVID-19 facts & resources](https://www.washington.edu/coronavirus/) webpage.

By sending this email, I attest that

I have read the above statement   YES  
 *and*I attest that I do not have any of the above symptoms.   YES

*and*

I have not knowingly been in contact with COVID-19 cases or high-risk regions for at least 14 days. YES

Signed,

Matt Galaska

**Appendix 1. Map of Vessel Plan**

**Appendix 2. List of PPE provided by PI/Supervisor**

* Rapid COVID test
* Face Masks – Cloth or disposable (1/day for cloth or 5/day for disposable)
* Gloves (5 pairs/ day)
* Goggles/Eye Protection (1 pair/ person)
* Antibacterial hand soap
* Disinfecting wipes
* Hand sanitizer (1 small bottle/ person + extra)
* First Aid Kit

**Appendix 3. Update to UNOLS Considerations for Conducting Seagoing Science**

The following information and guidance are provided as an update and adjustment to previous UNOLS Guidance related to conducting science onboard U.S. Academic Research Fleet vessels (see: 1 June 2020 UNOLS COVID-19 Considerations For Conducting Seagoing Science, 11 May 2021 Update to UNOLS COVID-19 Guidance, and 4 June 2021 Update to UNOLS Considerations for Conducting Seagoing Science). Those elements of the previous UNOLS Guidance not addressed in the following paragraphs remain in effect.

This update has been developed with advice and guidance provided by George Washington Medical Faculty Associates.

Based on the below stated (see “Background”) observations, recommendations, guidelines and published data, the following changes are made to previously issued UNOLS guidelines for consideration in conducting oceanographic research on U.S. Academic Research Fleet vessels. In all cases, the Vessel Operators and Chief Scientists can choose to use stricter protocols if deemed appropriate for any reason.

**UPDATED GUIDANCE**

**Our goal is that all persons aboard Academic Research Fleet vessels are fully vaccinated against COVID-19. Due to the close quarters of vessel operations, we recommend that operating institutions mandate vaccinations for all cruise participants.** UNOLS expects that all involved parties will maximize efforts to ensure that all persons (crew and science party) are fully vaccinated by a ship’s sail date. In addition to ensuring that all persons are fully vaccinated, the pre-travel safety, symptom-checking and testing protocols addressed in Table 1 should be implemented.

Any requests to proceed without a fully vaccinated vessel will require concurrence from the funding agency, institution and UNOLS prior to proceeding. Risk level shall be determined through the established Risk Mitigation Process. Any unvaccinated participant is expected to complete a strict 10-day quarantine that will end on the day of embarkation and must have a negative PCR test that is obtained no more than 48 hours prior to the day of embarkation. For ships that have voyages that are longer than 7 days and/or anticipate being more than 24-hour sail from medical facilities, consideration should be given to having on-board NAAT or Ag testing.

If a vessel must proceed with one or more unvaccinated persons, additional testing and safety measures will need to be implemented for those persons as addressed in Table 2. In addition, the Operator and Chief Scientist should consider the following precautions:

1. Operating the ship within 2 days of adequate medical facilities.

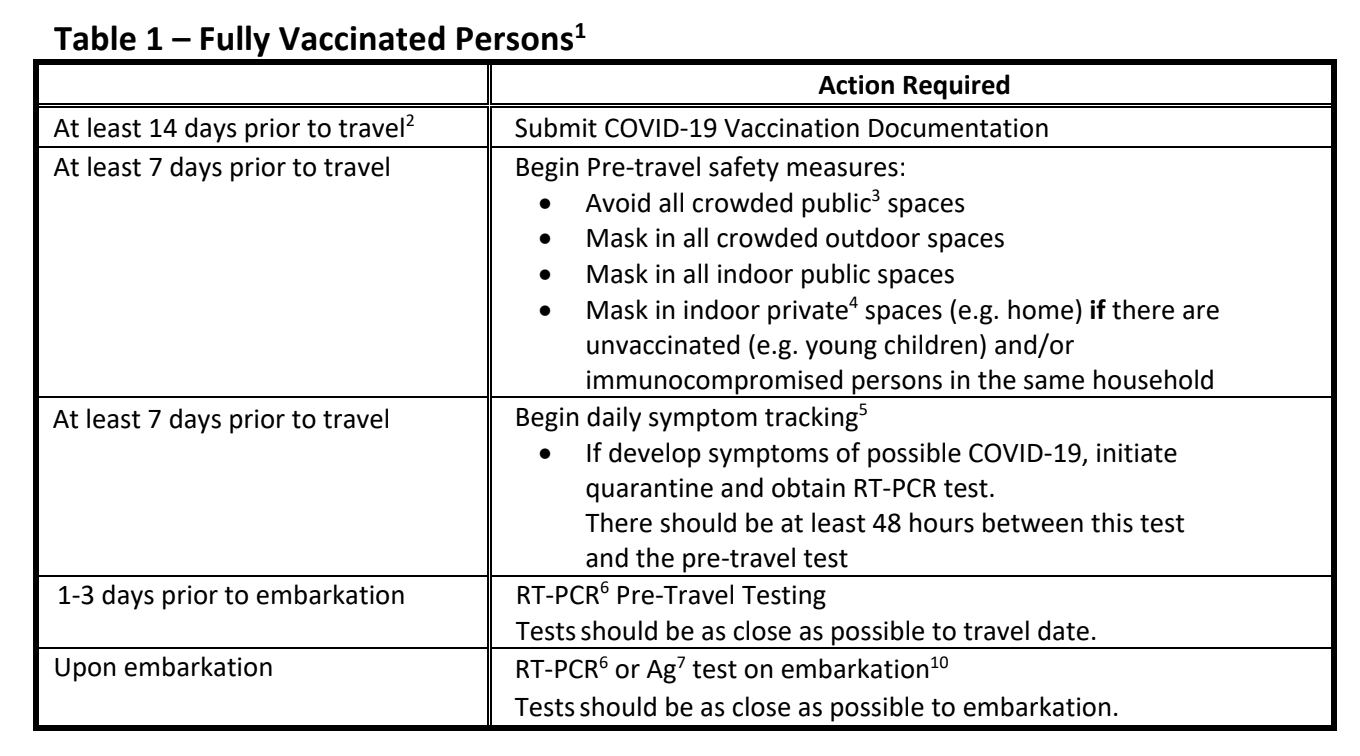
2. Obtaining the informed consent of other crew/science party.

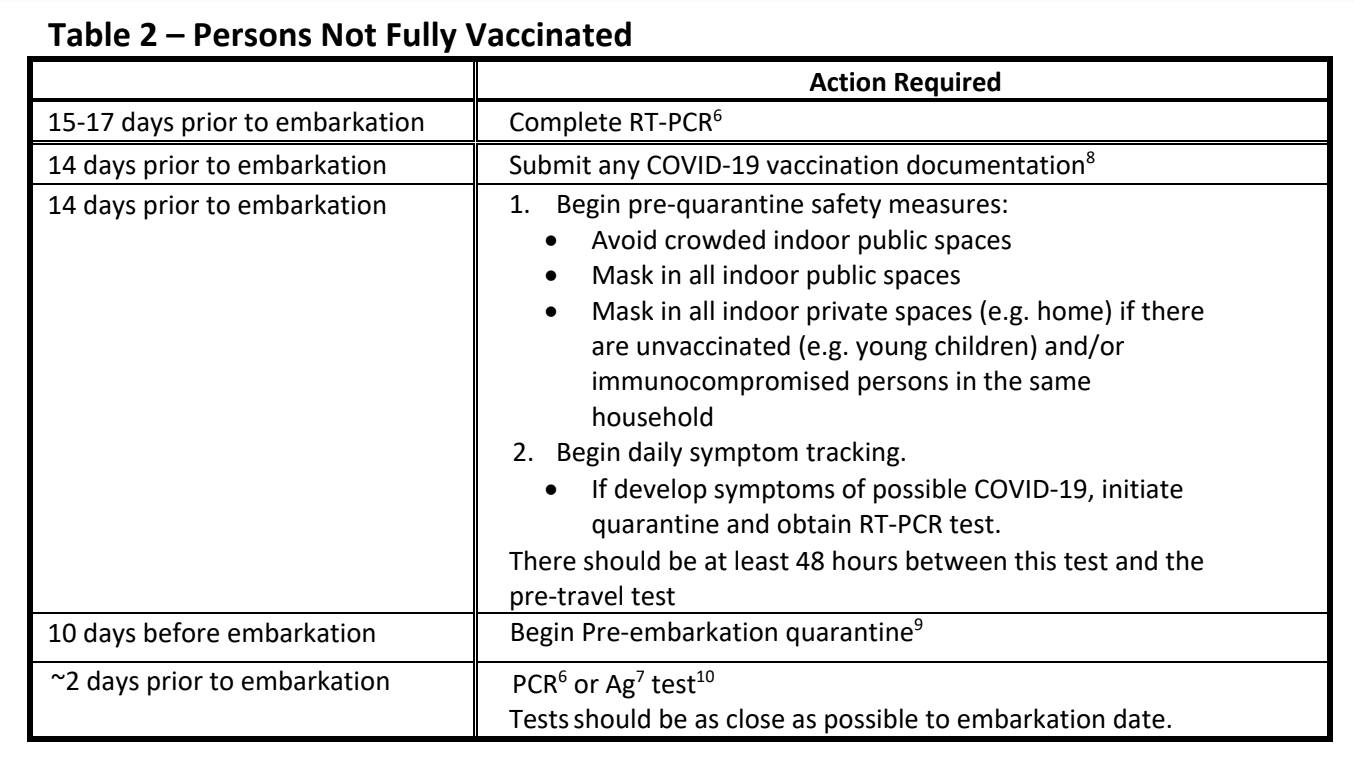
3. Outfitting the vessel with the ability to conduct on-board NAAT or Ag testing.

4. The cost associated with quarantining requirements for those who voluntarily do not get

vaccinated, aside from medical or religious accommodations, must be supported by the

individual or the institution.





**Key:**

1. A person is considered fully vaccinated 14 days after completing a full vaccine series. (1 shot of J&J, 2 shots for all other series). A person who qualifies for a “booster” vaccine dose should consult with their physician regarding the necessity of such additional doses

2. Travel begins when a person leaves their last place of residence to join the vessel.

3. Public is defined as an event or space with more than one household

4. Private is defined as occurring in and including only persons from one’s own household

5. CDC COVID-19 symptoms

6. PCR: any CDC recognized Nucleic Acid Amplification Test (NAAT1) test. - CDC recognized NAAT - Nucleic Acid Amplification Test – see: <https://www.cdc.gov/coronavirus/2019-ncov/lab/naats.html>

7. Ag: any CDC recognized Antigen test.

8. This includes incomplete series (e.g. one vaccine of a 2-shot series) or vaccination with a vaccine that has not had FDA or WHO approval (EUA/EUL)

9. Quarantine: For purposes of this document, only persons not fully vaccinated against COVID-19 are expected to complete pre-embarkation quarantine (unless quarantine is instituted by another health authority- for e.g. as a result of contact tracing efforts). During the quarantine period, persons are expected to establish a single-occupancy residence and to take their meals in their residence.

10. If a person has a positive PCR (or any NAAT) or Ag test they will not be allowed to sail (or board a vessel). Before being allowed to board, they must be cleared by a physician. Unless they are recently recovered from COVID-19, they will need to complete a period of ISOLATION before they are allowed to sail. The necessity of repeating the testing (for e.g. documenting a negative Ag test) will be left to physician discretion. Currently, documenting a negative PCR test is not considered an alternative to isolation and is not needed to provide clearance once isolation is completed.

Risk levels shall be determined through the established Risk Mitigation Process. Any requests to proceed without quarantine for high-risk cruises require concurrence from the funding agency, institution, and UNOLS prior to proceeding. **In all cases, current or more strict protocols can be utilized in cases where risk levels are determined to be significant.**

**When determining risk:** Considerations in determining risk should include distance from shore, cruise duration, investment, science party size, whether public transport travel is required, the number of high-risk participants, the ratio of vaccinated to unvaccinated persons.

**Travel Recommendations** – for crew and science party who travel to meet the ship

* Travel to port should be conducted in a private vehicle when possible.
* Travelers should always wear a mask and minimize interaction during travel.

**Background**

**Vaccinations**

Persons who have been fully vaccinated against COVID-19 can be infected with the virus. Despite becoming infected, they are much more likely to have a subclinical (asymptomatic) illness. Such persons, despite being vaccinated and asymptomatic can transmit COVID-19 to others.

A small percentage of vaccinated persons who become infected will manifest clinical illness

(breakthrough cases) and have the following repercussions to becoming infected:

* Manifest any signs of infection
* Become seriously ill and/or need hospitalization
* Die from COVID-19 complications.
* Transmit COVID-19 to others

The potential for true vaccine failure (being vaccinated but not mounting an adequate immune response) is low in the general population. In the populations with increased rates of vaccine failure (e.g., persons with cancer, recipients of organ transplants, etc.), the CDC currently recommends a 3rd vaccine dose. Recommendations for an additional dose of J&J have not been released.

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/immuno.html

**Vaccines**

Currently, one vaccine is fully approved by the U.S. Food & Drug Administration.

* Pfizer-BioNTech vaccination: 2 doses

Two vaccines are authorized under an Emergency Use Authorization (EUA) by the

U.S. Food & Drug Administration (FDA):

* Moderna COVID-19 vaccination: 2 doses
* Johnson & Johnson – Janssen COVID-19 vaccination: 1 dose

On August 18, 2021, HHS issued a press release outlining plans to offer booster doses to immunocompetent persons who have been fully vaccinated. Details on the rollout of these vaccines are pending and for now, persons who are 14 days out from completing the above regimen will be considered fully vaccinated. Booster doses are not anticipated to be offered before the week of September 20, 2021.

See: <https://www.cdc.gov/media/releases/2021/s0818-covid-19-booster-shots.html>

In addition to the above 2 vaccines, the WHO has given EUL approval to:

* Astra Zeneca: 2 doses
* Sinopharm
* Sinovac

Published data indicates that all FDA/WHO EUA/EUL vaccines are safe and effective, but surveillance for effectiveness and adverse events continues. Moderna petitioned the FDA for full approval in early June 2021.

**U.S. Vaccination Status**

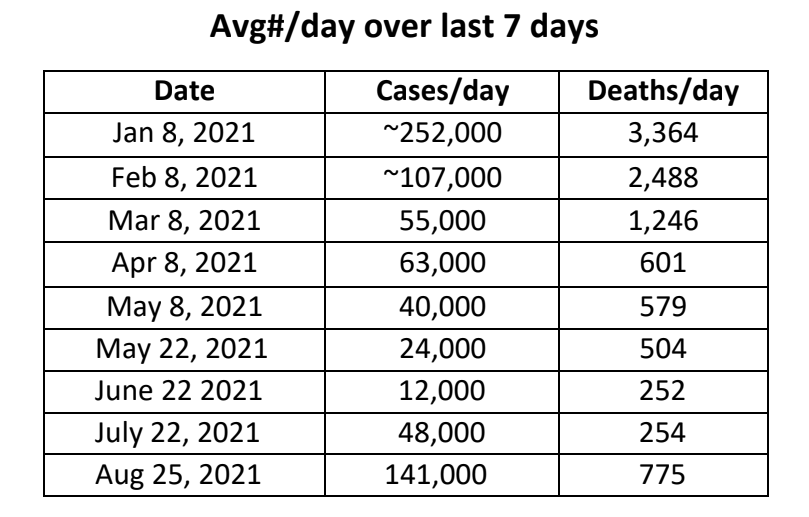
As of August 25, vaccinated data:

* Total Population
  + ~52% are fully vaccinated
  + ~61% are partially vaccinated

Globally over four billion vaccine doses have been administered but overall vaccine availability

and vaccination rates remain low in most countries.

**US Infection and Death Rates in the U.S. by 7-Day Moving Average**



Based on these numbers and other trends, on July 28, 2021, the CDC issued the Interim Public Health Recommendations for Fully Vaccinated People (https://www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated-guidance.html)

UNOLS calls attention to the following:

1. The fact that the CDC’s current recommendations for all persons (vaccinated and

unvaccinated) are INTERIM, and amendments are therefore expected.

2. The CDC makes explicit that these recommendations are subject to local governmental

laws/regulations; business/workplace guidance.

3. The continued increase in vaccinations in the U.S is expected but no clear number has

been set to define “herd immunity” or adequate to “return to normal”.

4. The continued variability in vaccination rates and disease transmission rates at a state,

county, and community level within in the U.S.

5. A ship can be considered a congregate setting with colocation of living accommodations,

eating facilities and work areas.

6. A ship represents a potential remote location without ready access to adequate

healthcare facilities.

7. Operating a ship during COVID-19 without instituting strict pre-cruise quarantine and

testing protocols even when community vaccination rates are high and disease

transmission rates are low introduces a finite chance of active, symptomatic COVID-19

disease with potential onboard transmission.

8. The chance of on-board disease and transmission increases with a greater proportion of

persons who are vaccine non-responders and if not fully vaccinated persons have

boarded.

A person is fully vaccinated only if:

1. More than 14 days have lapsed after the vaccination series has been completed.

2. Vaccination was with an FDA or WHO EUA/EUL approved vaccine.

3. Appropriate documentation (CDC card, government or healthcare program sponsored

documentation) including electronic documentation is presented.

4. Documentation of full vaccination has been verified.

1. All academic and/or research field teams must include at least one individual with valid first aid certification. [↑](#footnote-ref-0)