

Safe and Inclusive Working Environment Plan

1. Site Setting and geographical challenges

The Northern Gulf of Alaska Long Term Ecological Research (NGA-LTER) site is a remote subarctic marine biome with a deep (200-300 m) continental shelf bounded by coastal mountain ranges inshore and a trench offshore (> 4000 m deep), cross-cut by deep canyons that are interspersed with shallower banks, and bordered by sounds, fjords, and island archipelagos. The physical regime is highly energetic with large (2-8 m) tidal ranges, large oceanic transports by along-shelf currents, and frequent strong winds that are often intensified by topographic steering, creating intense storms. The NGA-LTER field research program includes participants from the University of Alaska Fairbanks (UAF) and Western Washington University (WWU) primarily, with collaborators coming from other institutions across Alaska and the lower 48.

The NGA-LTER site has an area approximately the size of Wisconsin, and is sampled every year from a global class UNOLS vessel (typically the *R/V Sikuliaq*) during spring and summer, and from a smaller National Park Service vessel (the *M/V Tiglax*) during fall. The site is accessed from the UAF's Seward Marine Center (SMC) facility in Seward, AK, located 485 mi from UAF, 2,300 miles from WWU. This requires the field science team one day of travel before and after research expeditions. Set-up and take-down of the necessary equipment on ships requires 1-2 days before and 1 day after each expedition. Field equipment and supplies are stored at the SMC in between field deployments, and SMC facilities (e.g., labs, hazardous material storage) are available to the science team.

The large domain of the NGA-LTER site, its remoteness and inherently harsh environment, as well as multi-seasonal yearly occupations, create unique challenges in terms of access and safety.

2. Steps towards an inclusive, equitable and safe off-campus working environment

2.1 Site access: To ensure participant's safety and equal access to/from the field site, transportation is done as a group effort. Travel between UAF and Seward is accomplished using a combination of UAF vehicles, private vehicles and a rented U-Haul to transport field equipment. Participants from WWU fly in and out of Anchorage as a group and they either use a rental car, or are picked-up and dropped-off by other participants. Participants that live in Anchorage (and any other collaborators traveling through Anchorage) are transported to/from Seward by UAF participants. Travel arrangements are done well in advance through a google sheet where vehicles, drivers and riders are identified. When needed, hotel accommodations in Seward are pre-arranged and pre-paid. Room sharing is agreed in advance. While in Seward, all participants, regardless of institution have equal access to SMC facilities. The SMC organizes shipments of field equipment and supplies for easy access during ship set up, and provides easy access to stored goods for all participants.

2.2 Training: Given the interdisciplinary nature of the NGA-LTER research, personnel training prior to the field effort is individually accomplished by specific research labs. However, general guidelines and resources exist. Libraries of written standard operating procedures (SOPs) are maintained by each of the participating labs. The production of short instructional videos demonstrating SOPs for field activities is under development. These videos will include equipment deployment and recovery, equipment calibration, sampling and sample processing, and how to secure equipment on a ship (on deck and in labs). These videos will be made available to cruise participants via access to the Work Space. Training that can only happen while in the field (e.g., individual experimental set up) is done with sufficient time between experienced personnel and the trainee to ensure success.

Field leadership training for early career participants, including postdocs and graduate students, will be accomplished through co-chief scientist roles during summer process cruises

Title IX-related training is provided to all field participants prior to the field effort via required institutional training and additional UNOLS-developed videos.

Field safety training is accomplished through a combination of individual laboratory instruction, and institutional and ship training videos.

Training related to hazardous material storage and handling is provided to field participants as needed by specific trained lab personnel and via institutional training.

2.3 Mentoring: Roles and expectations of mentors and mentees are outlined in mentor/mentee contracts developed for specific pairings. These informal contracts are discussed at the onset of the working relationship and can be amended as agreed by both parties.

2.4 Communication: Planning for the field effort during a given year starts during the NGA-LTER's annual All-Hands Meeting. Everyone involved in the field effort has the opportunity to participate in this initial planning, which is done in a workshop format. Expedition planning meetings for specific research cruises are then conducted virtually a month prior to the field effort and are led by the Chief Scientist for the expedition. All the participants are encouraged to contribute to the planning. Participants are provided the needed information for the specific cruise including ship requirements, specifics of travel arrangements, where to find field safety documents and videos, etc. at this meeting and via follow up emails. Information gathered during this meeting by the Chief Scientist is used to communicate the research team needs to the ship's operator at a separate meeting. Any changes to the plan after the meeting with the ship's operator is communicated to the field-going team via email.

Prior to sailing, the ship holds a meeting to brief the field-going team about safety onboard the ship, conduct expectations and incident reporting. At this time, the Chief Scientist reminds the team about NGA specific Code of Conduct (CoC) and the various institutional reporting pathways available to participants, and identifies the area of the ship where relevant documents will be located (see below).

Communication during the field effort is accomplished through daily operation sequence plans (updated as needed) that are written on a white board in a common area of the ship, individual group planning, and general science meetings (held as needed). The ship and Chief Scientist communicate on a daily basis to update plans, and when appropriate specific participants are included in meetings (e.g., safety briefings for mooring operations). Ship participants have access to email (limited onboard *M/V Tiglax*) and the ship's sat phone. Plans to include an NGA sat phone available to participants with consideration to privacy of use is currently under development.

Communication after the field effort is facilitated through an anonymous form. All participants are encouraged to fill out and submit the form. The electronic form includes sections about various aspects of the field effort allowing participants to voice their opinions and suggestions about field operation protocols, safety, inclusion, equity, and communication. The form gives participants an additional venue for report an incident anonymously. The information gather from the form is used by the NGA executive committee and DEI committees to improve the various aspects of field activities capture by the form.

2.5 Reporting Resources and repercussions for offenders. The NGA-LTER strives to create a diverse, equitable, and inclusive community that is welcoming to all participants. Developed as a result of our DEI Vision plan, the NGA CoC (available through our website) describes expectations of all participants and includes appendices that outline reporting pathways at participating institutions. The CoC document is made available (in printed form and electronically) to field participants onboard the ship. This "NGA Safe and Inclusive Working Environment Plan" is provided alongside the CoC document. Copies of an infographic outlining reporting pathways are printed and displayed throughout common areas the ship. Repercussions for offenders depend on the severity of the offense, and specifics are being worked out with the Department of Equity and Compliance at UAF, and equivalents at other institutions.