Field Safety Guide

UNIVERSITY OF SOUTH FLORIDA
Environmental Health & Safety
4202 E. Fowler Ave. OPM 100
Tampa, FL 33620
(813) 974-4036
http://www.usf.edu/ehs/
January 2022

Contents

The University Laboratory and Field Safety Committee coordinates and monitors laboratory and field safety functions and guidelines associated with research and teaching laboratories. In fulfilling these responsibilities the Committee developed the Field Safety Guide. This guide provides safety guidelines for all individuals participating in field activities including but not limited to area managers, instructors, teaching assistants, course coordinators, staff, volunteers, and students.

Introduction

Field work is defined as research and educational activities taking place outside of the traditional classroom or lab setting. Conducting field work is an exciting and important component of USF's teaching and research programs, but precautions must be taken to ensure a safe and productive experience. Special risks related to travel, being outside, and interactions with strangers are inherent to field work. This manual provides useful information regarding health and safety issues that may arise in the field and how they should be dealt with while physically away from the USF campus support system.

Planning for work in the field should include local emergency contact information, appropriate communication equipment (radio, cell, or satellite phone), personal protective equipment, first aid supplies, and boat/vehicle emergency kits. Appropriate training, standard operating procedures, insurance, permitting, and vaccinations should be obtained. A Field Research Plan containing the names and emergency contact information of all participants must be supplied to a person outside of the field team who will communicate with the team and be responsible for acting on their behalf should an emergency arise. Please report all incidents to EH&S.

This document is meant to be a general guide to assist faculty, staff, students, and volunteers in the planning of field work. It is not intended to be all-inclusive, and individuals are encouraged to further investigate the specific hazards associated with their research. Please refer to the back of this manual for important resources, references and checklists to use in planning field work.

Before You Go

File a Plan

- Itinerary
- Emergency Contacts
- Hazard Assessment

Safety Provisions

- First aid kits and training
- Vehicle emergency kits
- Emergency communication

Permits/Training

- RIC
- EH&S
- FFWCC

- Prepare USF Field Research Plan

  The USF Field Research Plan (Appendix A) summarizes important information about the field work. This includes team leader designation, itinerary, emergency, and local contact information, a check-in schedule, and a description of the field work and anticipated hazards associated with it. This form must be completed and supplied to all team members and the Principal Investigator. In addition the plan must be submitted to the Department Chair or their designee. Someone outside the field team should be selected to be responsible for monitoring the check-ins and responding appropriately should communications fail. Scientific Divers should file a float plan with the Scientific Diving Office. Boaters should also file a Float Plan with the responsible departmental party. (Appendix B)

- Assemble Safety Provisions

  Depending on the type of work being done, these may include steel-toed or snake-proof boots, hard hats and gloves, vehicle emergency kits, sunscreen, sunglasses, water, insect repellant, flashlights, and batteries. All field work provisions should include a first aid kit containing appropriate medicines such as allergy or seasickness tablets. Consider any special medical needs of team members. All field work should be conducted with at least two people. Appropriate thought should be given to the type of communication equipment (cell phone, radio, satellite phone) that will be most reliable where the field work is to be conducted.

- Obtain training

  The team leader should have up to date CPR and First Aid certification or make sure that someone on the team does. For Scientific Diving, the USF Diving Safety Office requires Scientific Diving Certification. Individuals required to operate a small boat for research must also complete vessel training with the Boating Safety Office. EH&S has a safety training assessment tool for more information about USF

required training (http://www.usf.edu/administrative-services/environmental-health-safety/training/index.aspx).

- Obtain or write standard operating procedures for specific field activities

  These protocols describe the work being done, the equipment needed, and safety precautions.

- Verify insurance coverage is adequate

  The State of Florida provides basic insurance coverage for University-owned buildings and building contents for specific causes of loss, as well as liability coverage for USF faculty, staff, and official volunteers for their actions within the course and scope of their jobs. However, the University does not automatically extend coverage for scientific equipment, electronics, or other property brought into the field, including vehicles. Therefore, equipment that is damaged in the course of field work will likely not be covered by insurance. For more information regarding insurance coverage options for scientific or other equipment, or for other questions regarding insurance or liability, please contact the USF Division of Environmental Health and Safety at 813-974-4036.

  Please note that students are not covered by USF general or automobile liability insurance. Students must make sure that they have adequate coverage, especially if they will be travelling out of the country and/or operating a vehicle, whether owned by USF or non-owned, and whether here or abroad.

  Diving accident insurance is offered by Divers Alert Network (DAN). See www.diversalertnetwork.org

- Obtain permits as needed, including USF approvals and local permits.
  - USF Student Travel Release Form
  - USF Research Integrity and Compliance (RIC)
    - The Institutional Animal Care and Use Committee (IACUC) must approve use of vertebrate animals in experiments.
    - The Institutional Biosafety Committee (IBC) must approve any work involving recombinant DNA (rDNA), infectious agents, select agents, and/or biological toxins.
    - The Institutional Review Board (IRB) must approve studies involving the participation of human beings.
    - The Diving Safety Office oversees scientific diving for all disciplines on all campuses as well as the FIO ships and FIO Keys Marine Lab.
    - The Boating Safety Program oversees the operation of small vessels used for research, regardless of ownership. Operators must take a required USF Boating Safety Course.
    - The Radiation Safety Office must approve of research activities using radioactive materials, X-rays, or lasers.

- The Florida Fish and Wildlife Conservation Commission requires permits to do research involving wildlife.
- Department of Transportation (DOT)
    - The transportation of hazardous materials by road in the United States is regulated under this federal agency. DOT regulations do not apply to transportation of hazardous materials in personal vehicles, but this practice is not recommended. Insurance companies may not cover claims involving the transportation of hazardous materials.

- Obtain or verify vaccinations as required

  Tetanus immunizations should be current. The USF Student Health Services offers travel counseling. The Centers for Disease Control and Prevention website provides detailed information regarding travel vaccinations and County Health Departments have Immunization Clinics.

Vehicle and Boat
- Inspection
- Operation
- Safety Gear

Hazard Information

Biological Hazards
- Plants
- Animals
- Communicable Diseases

Physical Hazards
- Heat and Cold Stress
- Sun Exposure
- Lightening and Tornadoes

Personal Safety
- Risky Behavior
- Travel
- Crime

1. *Vehicle and Boat Safety*

   Inspect vehicle to see if it is in safe operating condition and pack appropriate emergency supplies (Appendix C). Become familiar with the vehicle/vessel's operation and local laws. Be alert to hazards such as fatigue, animals, logs, rocks, and barbed wire. Do not drive a vehicle into water of unknown depth. Anyone operating a boat under the auspices of USF is required to complete a Boating Safety Course. Contact Research Integrity and Compliance/Boating Safety for more information.

2. *Biological Hazards*

   Common biological hazards include insects, snakes, bears, alligators, poison ivy, oak, or sumac, red tide, jellies, and sharks. Become familiar with the types of wildlife that may be encountered and learn how to avoid attacks and treat stings and bites. Wear protective clothing. Shake clothing and bedding before

use and don't set up near nests or burrows. Wildlife may transmit diseases like rabies, Lyme disease, tetanus, West Nile virus, and St. Louis encephalitis. Microorganisms in water cause giardiasis and other ailments. Carry drinking water, use purification tablets, or bring water to a rolling boiling for at least one minute before consuming.

3. *Physical Hazards*

   Check the weather forecast. Be mindful of the danger of sun exposure by using sunscreen and protective clothing and working in the morning and evening. Excessive heat can bring about heat exhaustion and heat stroke. Drink plenty of cool liquids and avoid strenuous activity during hot weather. Take shelter inside a building or vehicle during a thunderstorm. If caught away from shelter, get away from tall objects and crouch on the ground to make yourself as small as possible. Lightning may start wildfires. Find out if the field work area is prone to flooding. It is not safe to be on the water in a thunderstorm. Return to shore if possible. If not, shelter in the cabin or keep low in an open boat.

4. *Personal Safety*

   Research can place workers in vulnerable situations. They may face the risk of violence from strangers or psychological stress from the working environment. Complete a risk assessment identifying risks associated with travel, location, and study subjects, and consider controls, such as training and emergency communication, for each risk. Work with a partner, do not give out personal information, and consider scheduling interviews in a neutral location. When travelling abroad, dress and act in alignment with local laws and customs. Visit www.travel.state.gov for more information and to sign up for STEP, a free traveler alert program. USF Education Abroad provides risk and safety resources for international work.

Resources

Name	Telephone Number	Web Site
Bureau of Consular Affairs (for international travelers)	Emergency: Within U.S. 888-407-4747 Outside U.S. 202-501-4444	http://studentsabroad.state.gov/ http://www.travel.state.gov
Centers for Disease Control and Prevention	800-CDC-INFO (232-4636)	http://wwwnc.cdc.gov/travel/destinations/list.htm
Environmental Health and Safety (EH&S) • **Fire Safety** • **Hazardous Waste** • **Lab and Chemical Safety** • **Risk Management**	813-974-4036	http://www.usf.edu/eh&s
Florida Fish and Wildlife Conservation Commission	850-488-4676	http://www.myfwc.com
Hillsborough County Health Department	813-307-8077	http://www.hillscountyhealth.org/new_website/travel.htm
Incident Reporting		http://www.usf.edu/administrative-services/environmental-health-safety/reporting/index.aspx
Research Integrity and Compliance (RIC) • **Human, animal, microbe research** • **Radiation Safety** • **Boating Safety** • **Scientific Diving**	813-974-5638	http://www.research.usf.edu/dric/
Student Health Services	813-974-2331	http://www.shs.usf.edu/
Student Travel Release Form		http://generalcounsel.usf.edu/client-resources/pdfs/student-travel-release-form.pdf
United States Coast Guard		http://www.uscgboating.org
USF Education Abroad	813- 974-4314	http://educationabroad.global.usf.edu/
Workers' Compensation (AmeriSys)	800-455-2079	http://www.usf.edu/administrative-services/environmental-health-safety/programs-services/risk-management/workers-comp.aspx

References

Field Work Safety Reminders July 2012

http://ib.berkeley.edu/courses/bio1b/field/pdf/FieldWorkSafetyReminders.pdf

Report of the Workshop to Promote Safety in Field Sciences

https://zenodo.org/record/5604956#.YZgStE7MKUl

United States Coast Guard Boater's Guide to the Federal Requirements for Recreational Boats and Safety Tips

https://www.uscgboating.org/images/420.PDF

University of South Florida Chemical Hygiene Plan

http://www.usf.edu/administrative-services/environmental-health-safety/documents/chemical-hygiene-plan.pdf

Williams Terry, Dunlap Eloise, Johnson Bruce D, Hamid Ansley. Personal safety in dangerous places. *Journal of Contemporary Ethnography*. 1992;21(3):343–374.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757080/

Appendix A: USF Field Research Plan

Principal Investigator:	Field Team Leader:
Department:	Department:
Phone Number:	Phone Number:
Email:	Email:
Travel Schedule (dates, times of departure and return)	
Location (address and telephone)	
University Contact (monitors check-ins)	Check-In Schedule
Name:	☐Twice a day ☐Daily
Telephone:	☐Other:
Field Work Summary (list equipment, vehicles, chemicals and potential hazards)	
First Aid Trained Team Members:	
Field Team Member Contact Information (attach another sheet if necessary)	

Name	Phone Number	Emergency Contact Number

Appendix B: Float Plan

All boat operators must complete a USF Boating Safety Course (813-974-5638). Complete the form below and leave it with the University Contact. Dial 1-888-404-3922 or #FWC in case of emergency. Download the US Coast Guard PDF Fillable Form at http://www.floatplancentral.org/download/USCGFloatPlan.pdf

Below is not the actual Float Plan from the link above. The link above is a more thorough float plan.

Radio(s) ☐YES ☐NO		
Frequency:	Call Sign:	
VESSEL AND VEHICLE REGISTRATION		
Vessel Registration Document	Name of Vessel	
Make	Model	Length
Vehicle Make	Vehicle Model	Tag Number
TRIP EXPECTATIONS		
Leaving From	Date & Time	
Boat Ramp	Latitude & Longitude	
Destination		
Returning to	Date & Time	
PERSONS ON BOARD		
Person Filing this Plan	Phone Number	Emergency Contact Number
FIELD TEAM MEMBERS CONTACT INFORMATION		
Name	Phone Number	Emergency Contact Number

Appendix C: Vehicle Checklist

VISIBILITY

- [ ] Lights (headlights, tail lights, brake lights, turn signal lights, hazard lights)
- [ ] Windshield (Cracks, wipers)
- [ ] Mirrors (Side and rearview)
- [ ] Window defroster
- [ ] Horn

MECHANICAL

- [ ] Fluid levels (brake, steering, oil, water, windshield)
- [ ] Fuel
- [ ] Brakes (also parking brake)
- [ ] Seatbelts
- [ ] Running boards, steps
- [ ] Tire air pressure
- [ ] Review maintenance records

EMERGENCY

- [ ] Spare tire, jack and lug wrench
- [ ] Air compressor
- [ ] Foam tire sealant, tire repair kit
- [ ] Cell phone
- [ ] First aid kit
- [ ] Fire extinguisher (charged and inspected)
- [ ] Warning light, hazard triangle, flares
- [ ] Jumper cables or jumper battery pack
- [ ] Flashlight
- [ ] Roadside-assistance number
- [ ] Pen and paper
- [ ] Water and nonperishable food
- [ ] Sleeping bags/blanket
- [ ] Basic tools (socket set, pliers, screwdrivers)
- [ ] Shovel and axe

MISCELLANEOUS

- [ ] Money for tolls

Appendix D: Boat Checklist

All boat operators must complete a USF Boating Safety Course (813-974-5638). **ITEMS IN BOLD ARE REQUIRED BY THE USCG**. The United States Coast Guard website lists size-specific required safety equipment for recreational vessels up to 65 ft. (http://forms.cgaux.org/archive/a7012.pdf)

COMMUNICATION

- ☐ **Vessel lighting (in limited visibility or between sunset and sunrise)**
- ☐ Trailer lights
- ☐ VHF marine radio (batteries) and cell phone
- ☐ Float plan filed
- ☐ Marine forecast checked

MECHANICAL

- ☐ Batterv
- ☐ Fuel
- ☐ Fluid levels
- ☐ Water, bilge pumps
- ☐ Power trim
- ☐ Trailer tire pressure
- ☐ Anchor, line, and rigging
- ☐ Review maintenance record

EMERGENCY

- ☐ **Personal Flotation Devices (PFDs) one per person, Type I, II, or III, USCG approved**
- ☐ **Fire extinguisher (inspected and charged)**
- ☐ **Visual AND Sound-producing distress signal (emergency flares/horns)**
- ☐ First aid kit (sunscreen)
- ☐ Charts
- ☐ Compass
- ☐ Binoculars
- ☐ Water, nonperishable food
- ☐ Bucket, bailer or bilge pump
- ☐ Boat hook, paddle, oar, push pole (extras)
- ☐ Foul weather gear, dry clothes
- ☐ Tools (knife, pliers, screwdrivers)
- ☐ Flashlight/searchlight
- ☐ Signal mirror
- ☐ Spare parts (fuses, hoses, spark plugs, tire for trailer)
- ☐ Spare fuel

NOTES

NOTES

NOTES

- Laboratory Safety Training
- Hazardous Waste Refresher
- Biomedical Waste Refresher
- Hazardous Communication
- Personal Protective Equipment
- Slips, Trips, and Falls
- Hearing Conservation
- Golf Cart Training
- Asbestos Awareness Training
- Fire Prevention Safety Training

UNIVERSITY OF SOUTH FLORIDA
Environmental Health & Safety
4202 E. Fowler Ave. OPM 100
Tampa, FL 33620
(813) 974-4036
http://www.usf.edu/ehs/
June 2020