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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 (Appendix E).

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

1. 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)


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.

3. 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 developed a training matrix that summarizes USF required training (http://www.usf.edu/administrative-services/environmental-health-safety/documents/labsafety-trainingmatrix.pdf).
4. Obtain or write standard operating procedures for specific field activities
   These protocols describe the work being done, the equipment needed, and safety precautions.

5. 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

6. Obtain permits as needed, including USF approvals and local permits.
   - USF Research Integrity and Compliance (RIC)
     o The Institutional Animal Care and Use Committee (IACUC) must approve use of vertebrate animals in experiments.
     o The Institutional Biosafety Committee (IBC) must approve any work involving recombinant DNA (rDNA), infectious agents, select agents, and/or biological toxins.
     o The Institutional Review Board (IRB) must approve studies involving the participation of human beings.
     o The Diving Safety Office oversees scientific diving for all disciplines on all campuses as well as the FIO ships and FIO Keys Marine Lab.
     o 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.
     o 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)
  o 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.

7. 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 the Hillsborough County Health Department has an Immunization Clinic.

Hazard Information

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Telephone Number</th>
<th>Web Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hillsborough County Health Department</td>
<td>813-307-8077</td>
<td><a href="http://www.hillscountyhealth.org/new_website/travel.htm">http://www.hillscountyhealth.org/new_website/travel.htm</a></td>
</tr>
<tr>
<td>Florida Fish and Wildlife Conservation Commission</td>
<td>850-488-4676</td>
<td><a href="http://www.myfwc.com">http://www.myfwc.com</a></td>
</tr>
<tr>
<td>United States Coast Guard</td>
<td></td>
<td><a href="http://www.uscgboating.org">http://www.uscgboating.org</a></td>
</tr>
<tr>
<td>USF Research Integrity and Compliance (RIC)</td>
<td>813-974-5638</td>
<td><a href="http://www.research.usf.edu/dric/">http://www.research.usf.edu/dric/</a></td>
</tr>
<tr>
<td>USF Environmental Health and Safety (EH&amp;S)</td>
<td>813-974-4036</td>
<td><a href="http://www.usf.edu/eh&amp;s">http://www.usf.edu/eh&amp;s</a></td>
</tr>
<tr>
<td>USF Student Health Services</td>
<td>813-974-2331</td>
<td><a href="http://www.shs.usf.edu/">http://www.shs.usf.edu/</a></td>
</tr>
</tbody>
</table>
References

Field Safety Guidelines. College of Agriculture and Life Science Cornell University July 2012
http://oeh.cals.cornell.edu/pdf/FieldSafetyGuide.pdf

Field Work Safety Reminders July 2012
http://ib.berkeley.edu/courses/bio1b/field/pdf/FieldWorkSafetyReminders.pdf

United States Coast Guard Boater’s Guide to the Federal Requirements for Recreational Boats and Safety Tips
http://www.uscgboating.org/fedreqs/default.html

University of Texas at Austin Safety Guidelines for Field Researchers July 2012
http://www.utexas.edu/safety/ehs/fieldguide/field_guide.pdf

University of South Florida Chemical Hygiene Plan

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757080/
Appendix A: USF Field Research Plan

<table>
<thead>
<tr>
<th>Principal Investigator:</th>
<th>Field Team Leader:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department:</td>
<td>Department:</td>
</tr>
<tr>
<td>Phone Number:</td>
<td>Phone Number:</td>
</tr>
<tr>
<td>Email:</td>
<td>Email:</td>
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</tbody>
</table>

Travel Schedule (dates, times of departure and return)

<table>
<thead>
<tr>
<th>Location (address and telephone)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>University Contact (monitors check-ins)</th>
<th>Check-In Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>☐ Twice a day</td>
</tr>
<tr>
<td>☐ Daily</td>
<td></td>
</tr>
<tr>
<td>☐ Other:</td>
<td></td>
</tr>
<tr>
<td>Telephone:</td>
<td></td>
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</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone Number</th>
<th>Emergency Contact Number</th>
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<tbody>
<tr>
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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](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.

<table>
<thead>
<tr>
<th>Radio(s)</th>
<th>☐ YES</th>
<th>☐ NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency:</td>
<td></td>
<td>Call Sign:</td>
</tr>
</tbody>
</table>

### VESSEL AND VEHICLE REGISTRATION

<table>
<thead>
<tr>
<th>Vessel Registration Document</th>
<th>Name of Vessel</th>
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</thead>
<tbody>
<tr>
<td>Make</td>
<td>Model</td>
</tr>
<tr>
<td>Vehicle Make</td>
<td>Vehicle Model</td>
</tr>
</tbody>
</table>

### TRIP EXPECTATIONS

<table>
<thead>
<tr>
<th>Leaving From</th>
<th>Date &amp; Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat Ramp</td>
<td>Latitude &amp; Longitude</td>
</tr>
<tr>
<td>Destination</td>
<td>Date &amp; Time</td>
</tr>
</tbody>
</table>

### PERSONS ON BOARD

<table>
<thead>
<tr>
<th>Person Filing this Plan</th>
<th>Phone Number</th>
<th>Emergency Contact Number</th>
</tr>
</thead>
</table>

### FIELD TEAM MEMBERS CONTACT INFORMATION

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone Number</th>
<th>Emergency Contact Number</th>
</tr>
</thead>
</table>
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
- Battery
- 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
Appendix E: Laboratory/Studio and Field Incident Report

This report is to be completed by the Lab Manager/Teaching Assistant/Instructor for any incident that occurs in any University of South Florida affiliated teaching or research laboratory/studio or field research project. The form is available online at http://usfweb2.usf.edu/eh&s/labsafety/LabIncident.html. An incident means any unplanned event within the scope of a procedure that causes, or has the potential to cause, an injury or illness and/or damage to equipment, buildings, plants or the natural environment. All incidents need to be reported whether they are near misses, serious injuries, or emergencies such as fires and chemical spills. A near miss is an event or situation that could have resulted in an accident, injury or illness, but did not, either by chance or through timely intervention. The completed form must be submitted to Environmental Health & Safety within 24 hours of the incident. This report will be used by the University Laboratory & Field Safety Committee and Environmental Health and Safety (EH&S) for training purposes only. This report provides information to take corrective action with laboratory procedures to prevent reoccurrences of similar incidents. As part of this report, EH&S will complete an incident investigation. Due to medical privacy concerns, no personal identifying information of the person involved in the incident shall be entered or submitted with the form.
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