1. PURPOSE. The purpose of this SOP is to outline steps to maximize personnel safety while working in remote field areas.

2. SCOPE. Includes procedures for field operations.

3. RESPONSIBILITIES.
   
   a. Natural Resource Management Supervisors: Review procedures with Natural Resource Management Staff to ensure understanding and compliance during safety briefings. Ensure staff has completed all training necessary for the fieldwork being conducted.
   
   b. Oahu Army Natural Resource Program (OANRP) staff: Execute fieldwork in accordance with SOP.
   
   b. Failure to comply with this SOP may result in disciplinary action.

4. PROCEDURES. OARNP staff perform most of their field work in remote areas. It is important to be well prepared for all operations. Proper preparation includes having the right gear, tools, and training for fieldwork. This section provides a checklist to use when planning and preparing project operations.
a. Natural Resource Management Supervisors are responsible for the safety of their crews. The following should be considered prior to departure:

(1) The objective or purpose.

(2) Personnel, skill/ability levels, and assigned tasks.

(3) Project location/area and facilities or lack of facilities in the area

(4) Date and time of departure.

(5) Trip duration.

(6) Camping equipment, inventory and inspection.

(7) Routes of travel, transportation of people and equipment.

(8) Anticipated hazards/emergencies; for example illness, injury, wild land fire, adverse weather, etc.

(9) Field operations will be terminated or cancelled if the National Weather Service posts high wind, flash flood, or other severe weather warnings for the planned work areas. **Field operations may proceed with caution when weather watches are posted.** Operations with overhead hazards (such as tall trees) should be rescheduled when high wind watches are predicted or posted. Helmets are also recommended as needed for areas with large numbers of snags.

(10) Health of personnel.

(11) Disposal of waste material.

(12) Layout of campsite.

(13) Special equipment needs and level of training of personnel involved.

(14) Re-inspection of equipment and tools as necessary

(15) If fences will be crossed, safety procedures include:

(a) If crossover is not available, cross at a fence post (preferably a fence corner). Do not cross between posts due to loose tension, possible fence breakage, and risk of falling.

(b) Make sure fence post and fence are secure.

(c) Have co-workers hold tools, firearms, heavy packs and cross over with no excess gear and both hands free; then have tools, firearms, gear passed over.
Hold on firmly to the fence post while crossing, placing feet as close to the post as possible and preferably above a fence clip.

(16) Date and time of return

(17) Contingency plans should the original plans require a last minute change

b. Planning/Briefing before and after setting out on a day trip or camping trip:

(1) Complete the daily risk assessment checklist prior to field operations with all crew members present. Have all crew initial indicating that they understand the operation and the associated hazards and the required training and PPE. Daily risk assessments are located conveniently in each work vehicle and should be brought to each camp site.

(2) Review maps of the area.

(3) Talk to co-workers who are familiar with the area.

(4) Require crew to have a radio and a schedule for checking in with base or the appropriate range control.

(5) Prepare travel itinerary and time schedule (return to trailhead and trip back).

(6) Keep a copy of the emergency maps on hand.

(7) Individual responsibility and task assignment.

(8) Debrief at the end of the day regarding hazards and other safety issues.

c. Communication procedures

(1) All personnel are required to have operational cell phones and have these on during work hours between 7:00 am and 5:30 pm when conducting field operations.

(2) All groups are required to have a radio while conducting field work, although not all personnel will have a radio. However, there will be a radio with each group that is beyond earshot of others. For example, if a team of six is divided into two teams of three working on different tasks on opposite sides of Kahanahaiki, each of the groups of three will have a radio.

(3) All groups will report in by radio or cell phone to Army base at lunchtime between 12:00 am and 1:00 pm. If a crew fails to report by 3:00 pm base will begin an investigation of the situation. All groups camping will also report in at the beginning of the work day (between 7:00 am and 7:30 am) and at the end of the day between 4:30 and 5:30 pm. If crews do not check in by 5:30 or do not return to base, an investigation will begin. See Emergency Response SOP for procedures followed.
(4) Crews working in areas with cell phone and radio dead zones must pre-plan their communications strategy. Base shall be notified when a crew will be unavailable most of the time and a pre-established check in time will be set. For example, the Orange team working in Kaluakauilà will inform base that they are descending into the gulch and will check in again at 3:30 when they expect to be back on the ridge.

(5) Crews involved in night operations must check in with a designated supervisor at the completion of operations.


(1) Planning. Never travel or work alone in isolated areas without a detailed emergency plan and radio.

e. Equipment. All crews are required to have the following equipment in the field.

(1) First-aid kit and manual. (List of required gear at end of document.)

(2) Compass and map.

(3) Pocketknife.

(4) Flashlight.

(5) Adequate supply of food/water.

(6) Rain gear.

(7) Signal mirror.

(8) Radio and cellular phone with emergency phone numbers. Always keep radios and cellular phones within ear shot in the event of an emergency. When traveling in vehicles keep radios and cellular phones in the cab.

(9) Approximately 30 feet of webbing.

f. Conditions.

(1) Get reliable and updated checks on expected weather and road conditions for the area. Get briefings about activity, equipment, limitations, and known or potential hazards.

(2) Exercise judgment: choose safe travel routes and stream crossings by scouting the area. Avoid traveling or camping in snag or rock slide areas in windy or inclement weather.
g. Campsite Selection.

(1) Consider prevailing winds.

(2) The ideal site has trees, grass-covered ground, gentle slope, and protection from severe weather.

(3) Avoid natural hazards like overhanging cliffs, gulches, dry washes, land slides, old trees with dead tops and branches, and low marshy areas.

h. Campsite Area.

(1) Provided with adequate drainage under all circumstances.

(2) Not subjected to flooding or flash floods

Seed collection bags being installed on an endangered Akoko.

(3) Large enough to prevent overcrowding.

(4) Maintained in a safe, clean and sanitary condition - free from walking hazards, rubbish, debris, wastepaper, garbage, and other refuse.

(5) Ensure that campsite is approved by supervisors and landowners prior to use.

i. Setting Up Camp

(1) If possible set up camp before beginning work. Always set up camp before dark and before fatigue sets in.

(2) If the weather appears threatening, pitch tents with the back against the wind.
(3) Select tent areas on clear, gently sloping or flat ground. Take advantage of natural barriers for warming or cooling.

(4) Latrines should be at least 150 feet from kitchen and 100 feet downstream.

(5) Take care to minimize your impact on the native forest in the area. Avoid locating high traffic parts of camp in native vegetation if possible.

j. Closing Down Camp
   (1) When any site is closed, collect and dispose of all garbage and refuse in a sanitary manner. Secure cabins by securing windows, stowing gear, setting rat traps, stashing emergency food/water supplies as needed.

k. Night Operations. Occasionally some OANRP staff must work at night usually for snail searches, bat detection, or arthropod collection.
   (1) Planning. Night operations are inherently hazardous. Staff must be extra vigilant about safety. Staff should be well briefed on operations and have a clear understanding of the plan.
   (2) Never travel or work alone. Crews will always work in pairs and communication will be maintained at all times. Staff should stay within visual range of each other (i.e. able to see co-worker’s flashlights).
   (3) Additional trail marking may be needed with flagging or reflective tape for orientation. Trails may also need better clearing for safe travel.
   (4) Backup batteries and/or backup flashlights must be carried by staff.
   (5) Practice drills involving a night rescue scenario should be practiced by staff before conducting night work operations.
   (6) Equipment. All staff are required to have the equipment listed above in the Back Country Travel Equipment section.
   (7) Duty Day; Staff must be aware of duty day and fatigue considerations. Operations should be planned such that there is adequate rest before night operations so that staff do not become exhausted. Following day operations should also be curtailed as needed if fatigued (i.e. no chainsawing if sleep deprived).
   (8) Emergency Response: See emergency Response SOP for details. Both HFD and Military Medivac services fly at night. However, both organizations consider night operations high risk, in particular, hoist and long line operations. HFD indicates that strobe lights are ideal signaling devices. Military Medivac services may be using night vision goggles and spinning a light stick or...
flashlight may be a more appropriate signaling device to avoid blinding the pilot.

1. Rules to follow if you're lost.

   (1) If lost, keep calm, don't panic. Attempt communication with co-workers before they are out of earshot or radio reception.

   (2) Check the surrounding country and attempt to orient yourself. Do not walk aimlessly. Carry and trust the map and compass.

   (3) If you can reach a trail, follow it until you can determine whether you are moving in the right direction. As a last resort, travel downhill parallel to a stream or drainage.

   (4) If unsuccessful in attempts to find your way, stay in one place and conserve your strength. If signal mirror or portable radio is available, have ready for immediate use.

   (5) If you must spend the night;
       (a) Select a sheltered spot to stay warm
       (b) Prepare your shelter well before dark
       (c) Shelter, warmth, and liquids are more important than food

GEARING UP!!
Stuff you should always be prepared with: *(Bold items required. The others are up to the discretion of the carrier)*

- **first aid kit** (with tourniquet, compression bandage, blood clotting kit for UXO areas)
- **webbing (approx. 30 ft.)** – Per site
- **rain jacket/rain pants**
- **binoculars**
- **field notebook**
- **pencil/sharpie pen**
- **flashlight (and extra batteries)**
- **small and large ziplocks/whirl packs**
- **Small amounts of pink, blue, orange flagging**
- **small knife (leatherman or swiss army or equivalent)/handsaw/Field Knife**
- **clippers/hatchet**
- **gloves**
- **compass**
- **safety glasses**
- **ear protection**
- **t.p.**
- **Water**
- **Communication – cell and/or radio**
Home Base Kits (Car/Camp)
Emergency procedures/patient information form/contact info sheet
Whistle
Water purification tablets
Lighter
Rubber gloves
Nylon cord
Hand saw
Scissors
Flares/Strobe/Lightsticks
CPR microshield
Sam Splint
Space blanket
Thermometer
Cold pack
Eye drops
Ophthalmic ointment
Eye dressing
Steri-Strips
4-Wing band aid
Patch band aid
Knuckle (H) band aid
Small strip band aid
Gauze pads
Self-adherent cotton tape
Athletic/duct Tape
2nd Skin dressing
Foam adhesive pads
Elastic wrap
Antiseptic towelettes
Antibiotic ointment
Hydrocortisone cream
Ibuprofen tablets
APAP (aspirin equivalent) tablets
Antacid tablets
Diphen (sudafed equivalent) tablets

Personal Kits
(Bold items required. The others are up to the discretion of the carrier)
Emergency procedures/patient information form/contact info sheet
Whistle
Lighter
Rubber gloves
Nylon cord
Hand saw
Flares/Strobe
CPR microshield
Sam Splint
Eye drops
Steri-Strips
Band aids
4-Wing band aid
Patch band aid
Knuckle (H) band aid
Small strip band aid
Gauze pads
Self-adherent cotton tape
Athletic Tape
2nd Skin dressing
Foam adhesive pads
Antiseptic towelettes
Antibiotic ointment
Hydrocortisone cream
Ibuprofen/Acetaminophen tablets
APAP (aspirin equivalent) tablets
Diotame/Antacid tablets
Diphen/antihistamine tablets
Medi-Phenyl/Sudafed equivalent tablets
Personal anaphalaxis kit (if allergic)
Irrigation syringe
# CAMPING CHECKLIST

<table>
<thead>
<tr>
<th>FENCING</th>
<th>AMT</th>
<th>POWERTOOLS</th>
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<td>camera/batteries</td>
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<td>shut-off valves</td>
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SOP No. 5 Working in Remote Field Locations
Created 12/2006, Revised 03/2017
### Weather Report check/changes anticipated

<table>
<thead>
<tr>
<th>Activity</th>
<th>Tasks</th>
</tr>
</thead>
</table>
| Backpacking, hiking and fieldwork (First Aid/CPR, Medivac Training) | Emergency paperwork  
Field ops Stand Down Conditions: Severe weather warnings  
ie: flash flood and high wind warnings | First Aid Kit  
Safety briefing  
Bright-colored clothing  
Footwear  
Raingear  
Water  
Webbing |
| Using hand/power tools (Chainsaw Training) | Helmet  
Saw/Weed whacker chaps  
Leather gloves  
Eye protection  
Ear protection  
Footwear |
| Pesticide usage (State of Hawaii Pesticide Training) | Rubber gloves  
Eye protection  
Dry bags, tubs, water  
Coveralls (as needed)  
Respirator |
| 4WD vehicle usage (Accident Avoidance Training/4wd eval. Completed, First aid kit) | Winch  
4WD tires  
Tow straps  
Shovel |
| Use of helicopters (Training, Flight plan/safety briefing, heli-manager, heli-risk assessment) | Flight suit  
Flight helmet  
Gloves/cotton clothes  
Leather boots |
| Sling loading by helicopter (External Load Training, heli-crash kit for heli-bases) | Swivel/Carabiner  
Sling nets/Bag/straps  
Eye protection  
Ear protection  
Hard hat  
Leather gloves  
Bright clothing |
| UXO Area Work (UXO Training) | Flak jacket  
Helmet  
EOD Tech |
| Rappelling/Rope work (Rappel/Rope worker Training, Site manager present, gear inspection) | Rappel helmet  
Leather gloves  
Haul apparatus, fall protection devices |
| Firearms (NRA training and Hunter’s Ed. Certification) | Ear/eye protection  
Bright clothing |
| Night work | Extra flashlight  
Comm./safety plan  
Adequate rest |

**Date/Field Leader Initials**

Comm: (Pacmer/Heli-Radio/Batteries/Cellular Phone) and lunch, water, maps
<table>
<thead>
<tr>
<th>Date/ Field leader</th>
<th>Debrief/Operational Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive outcomes:</td>
<td>Things to improve:</td>
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