Field Activity Planning Checklist and Risk Assessment

Complete a separate assessment for each field site being visited. Mark NA in the left-hand column if the activity is not applicable to the field activities being conducted.

Risk Probability Breakdown

Risk is the combination of the severity of the harm that can be inflicted by a hazard and the likelihood of the harm happening.

Risk Level	Description / How to Determine Risk Level
A	Nuisance event, low hazard, incident can be managed by field participants, SCAN filed
B	Moderate event, work must stop to address incident, may required Field Trip Leader intervention, SCAN required
C	Potential emergency, immediate action required, medical attention may be required, Designated Contact notified, incident report filed
D	Emergency action required, medical attention sought, Designated Contact notified, incident report filed

Field Trip Leader(s): _____ Contact # _____

Field Trip Leader(s): _____ Contact # _____

Field Activity: _____

Field Site Name: _____

Estimated Dates at Site:_____

	Planning and Preparation Check List			Comments
NA	Pre-Trip Planning and Training	Yes	No	
	Has a specific field site been identified?			
	Is this a roving field experience?			
	Has the Field Safety Plan been completed?			
	Is the detailed Risk and Hazard Assessment complete?			
	Have you established Go/No criteria?			
	Do you have a Designated Contact?			Person:
	Has the Designated Contact been given a copy of the Field Safety Plan?			
	Do you have all insurance and permits necessary for field work?			
	Have you obtained emergency contact			

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	information for the facilities closest to the field site(s)?					
	Have you obtained Emergency Contact information for all field participants?					
	Have participants conducted pre-trip field safety briefing?					
	Have all participants read the Field Safety Plan?					
	Does the field safety plan include a list of equipment for field work?					
	Is all appropriate PPE available for all participants?					
	Are appropriate emergency communication devices available?					
	Has a list of required equipment been distributed to all participants?					
	Is appropriate first aid, field site kit, and emergency equipment checked for completeness and functionality?					
	Are at least two field participants trained in First Aid?					Persons:
	If vehicular travel is required to reach field site, can a TTU vehicle be used?					Driver must be TTU approved
	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**Vehicles**	**A**	**B**	**C**	**D**	
	Vehicular storage buildings/garages					
	Are high volume fuel-storage facilities present?					
	Is secure storage for valuable/critical equipment available at the field site?					
	Are appropriate vehicles for field environment available?					
	Do vehicles have current service records?					
	Are vehicle oil and fluids at correct levels and tires at pressure?					
	Is there a flashlight, spare tire, jack & tire-lever and signage in case of breakdown?					
	Is a person with good driving record and mental state for driving available?					
	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**Machinery & Equipment**	**A**	**B**	**C**	**D**	
	Will mechanical tools and instruments be used?					SOP needed
	Have tools and machinery been serviced and checked for operational readiness?					
	Is appropriate and safe (e.g., grounded, insulated) electrical power available?					
	Are tools and machines compliant with available power supplies?					
	Is appropriate PPE available for use with tools and machines?					
	Will tools and instruments need to be used in confined space?					
	Have participants been trained on equipment use?					

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	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**All-Terrain Vehicles (ATVs) and Related Vehicles**	**A**	**B**	**C**	**D**	
	Will ATVs or similar vehicle be used during fieldwork?					
	Are engine sizes greater than 90cc?					
	Is appropriate Snell ANSI approved riding gear available for use?					
	Is the terrain appropriate for ATV use?					
	Is the ATV road-approved and appropriately certified?					
	Will the ATV be used in proximity to normal highway traffic?					
	The ATV will not be required to carry loads or more than 1 person.					
	Have riders received training on vehicle in similar conditions as those anticipated in the field?					
	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**Roads and Railroads**	**A**	**B**	**C**	**D**	
	Is any of the fieldwork near roads and highways?					
	Is any of the fieldwork near railroad tracks?					
	Are appropriate high-visibility clothing and signage available?					
	Is any work to be conducted on or proximal to narrow, winding roads/highways with limited sight lines?					
	Will any work be on, under or close to bridges?					
	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**Water, Boats, and Watercraft**	**A**	**B**	**C**	**D**	
	Will the fieldwork include proximity to, or work upon a body of water?					
	Will the work require use of a watercraft?					
	Is there a team member with certificates and credentials for the watercraft?					Bring copy
	Does the fieldwork require the presence of a team member with technical water-safety certificates?					Certificate:
	Are appropriate safety devices available? (Buoyancy aids, life-vests, flares).					
	Are there appropriate mooring and anchoring facilities?					

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	Potential Hazard	Risk Probability				Comments & Mitigation
NA	**Loading and Unloading Vehicles and Moving Equipment**	A	B	C	D	
	Will large/heavy loads be transported to and from field site?					Mark “Too Heavy”
	Is additional equipment needed for the loading/unloading of equipment in the field?					
	Is there a safe loading/unloading site (e.g., flat, stable, traffic-free, boat-ramp) in the field locality?					
	Is appropriate safety equipment available for loading/unloading in the field?					
	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**Terrain**	**A**	**B**	**C**	**D**	
	Is the field site terrain typically associated with increased physical risk? Detail below.					
	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**Weather and Climate**	**A**	**B**	**C**	**D**	
	Is there a high probability of sustained high temperature conditions?					
	Is there a high probability of sustained low (sub-freezing) temperature conditions					
	Is there a high probability of severe weather events?					
	Is there a high probability of significant rain fall and associated flood-dangers?					
	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**Fauna**	**A**	**B**	**C**	**D**	
	May fieldwork participants encounter hazardous animals, including mammals,					

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	insects, arachnoids and/or reptiles?					
	Is field clothing appropriate for deterring potentially hazardous fauna?					
	Is the first aid kit equipped with treatments for stings, bites, and potential fauna toxins?					
	Can field equipment and supplies be safely secured and made fauna-proof?					
	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**Flora**	**A**	**B**	**C**	**D**	
	Clearing of the field area					
	Poisons, toxins					
	Plant risks – identify local flora that may cause irritation					
	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**Disease and Pathogens**	**A**	**B**	**C**	**D**	
	Risk of water borne diseases					
	Hepatitis					Vaccination
	Tetanus					Vaccination
	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**Chemical and Biological Risks**	**A**	**B**	**C**	**D**	
	Will chemicals or reagents be carried/used in the field?					
	Is appropriate PPE available?					
	Is secondary containment available?					
	What is the potential for waste production?					Submit a Waste Determination to EHS if you expect to generate waste in the field
	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**Agro Chemicals**	**A**	**B**	**C**	**D**	

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	Will reagents be intentionally introduced to the field locality?					
	Are appropriate licenses and permissions available/carried in the field?					
	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**Private Property**	**A**	**B**	**C**	**D**	
	Will fieldwork be conducted on private property?					
	Have all private land/property owners been contacted?					
	Potential Hazard	**Risk Probability**				**Comments & Mitigation**
NA	**People – Strangers**					
	Is the fieldwork to be conducted in an area where other individuals may be encountered (e.g., national parks)?					
	Are there cultural considerations about the field site area to be noted?					
	Is international travel taking place?					Consult with EHS for research material transport
NA	**Personal Safety and Responsibilities**					**Comments & Mitigation**
	Have all field participants notified someone of where they are going and how long they will be gone?					
	Are team members that are driving vehicles or ATVs been properly licensed and/or trained?					
	If team members have a medical condition such as diabetes or allergies, do they have the proper items to treat themselves?					
	Have all team members provided emergency contact information?					
	Have all field participants undergone appropriate medical evaluation, treatment or vaccination?					

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Potential Hazard Considerations

	Potential Hazard – *Criteria, Limits, Critical Factors to consider*	**Comments** **Issues, Mitigators, Scenarios**
	Natural Environment	
1	Foul Weather Considerations- wind, rain, snow, lighting, flash flood: *local, upstream*	*Before & During activity*
2	Temperature Extremes (Hot/Cold): *Temperatures (>30°C, <5°C), Wind, Humidity*	*Length of Exposure, Season/Day*
3	Strong Sunlight (Inc. sunburn): S*erious sunburn, "snow" blindness, contributing factor to fatigue*	*Exposure length, surface albedo*
4	Darkness/Low Light: *Contributing factor to other hazards that result in injury*	Visibility, Fatigue, Weather
5	Uneven/Slippery Walking Surfaces: *Slip, trip, or fall that results in injury*	*Cumulate Fatigue, Weather*
6	Sharp Objects- rocks, coral, vegetation: *Contact or fall results in penetration wound/scratched*	*Visibility, Fatigue, Weather*
7	Heights/Drop-offs (Inc. high elevation): Fall that result in in free-fall drop of more than 2 m	*Slope/softness of "landing" zone*
8	Falling Objects/Obstructions: *Spontaneous/Participate-caused, capable of causing serious injury*	*Time of year, freshness of outcrop*
9	Tight Spaces/Narrow Openings/Overhang: *Results in impact or crushing injury, or panic/distress*	*Visibility, crowding*
10	Toxic/Allergic Sources (Vegetation, pollen): *Causes acute reaction, contributing factor to other hazards*	*Time of year, EMS access*
11	Animals- insects, reptiles, mammals, other: *Causes trauma, envenomation, allergic reaction*	*Time of year, local experience*
12	Fire Hazard: *Hot vehicle exhaust system/discarded cigarette causes fire, traps group, endangers ecosystem*	Access to site during burn bans
13	Water/Current: *Fall results in submersion, Strenuous exertion in water triggers pre-existing medical condition*	*Time of day/year, Hypothermia*
14	Smoke/Dust/Fog: *Causes eye/throat/nose/ injury, contributing factor to other hazards*	*Time of year/date*
	Man-Made Environment (for Pedestrians)	
15	Vehicular Traffic: -roads, railroads: *Vehicle impacts participate, group activity causes traffic hazards*	*Time of Day/Year*
16	Road Shoulders- *space restrictions, visibility: vehicle impacts participation, group activity causes traffic hazard*	
17	Bridges: *Vehicle impacts participate, group activity causes traffic hazards*	*Sidewalk/ width of shoulder*
18	Fences & Gates: *if gate not available, crossing results in fall, impact, lacerations, penetrating wound*	*Property owner interactions*
19	Utility Lines: *Approach route or proportions of outcrop allow contact with power lines, resulting in injury*	*Alternate Routes*
20	Local Inhabitants (Inc. hunters): *Group provokes hazardous reaction from locals; distraction factor*	Time of year/day
	Transportation (Auto, Boat, Air)	
21	Vehicle Condition: *Primary or contributing factor to accident/collision*	*Rental company, local experience*
22	Driver Qualifications/Experience for Location: *Primary or contributing factor to accident/collision*	*Availability of local drivers*
23	Route Conditions- roughness (Inc. flat tires): Rough enough to be contributing factor to accident/collision	*Type of vehicle used, local drivers*
24	Route Condition- congestions: *Enough to be contributing factors to accident, esp. around airport and major cities*	*Time of day, Route selection*
25	Route Conditions- *winding, limited sight: Enough to be contributing factor to accident/collision*	*Time of day, Route selection*
26	Pedestrians: *Sufficiently numerous or common to be contributing factor to accident*	Time of day, Route selection

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27	Intersections/Railroad Crossing: *Hazardous/Unguarded/Confusing location contributes to accident*	Time of day, Route selection
	Human Factors/Participant Activities	
28	Pre-Existing Physical/Medical Needs: *Contributing factor to accident, acute episode of illness*	*Pre-trip participant information*
29	Extended Immobility: *Enough to be contributing factor to accident, trigger pre-existing medical condition*	*Agenda/Travel planning*
30	Lack of Rest Stops/Facilities: *Contributing factor to fatigue, accident*	Pre-trip planning
31	Fatigue/Dehydration: *Enough to be contributing factor to accident, trigger pre-existing medical conditions*	*Agenda, Time of year/day*
32	Hiking/Walking: Intensity, length, duration, cumulative exertion sufficient to trigger illness, contribute to injury	*Time of day/year, weather*
33	Separation of Individuals from Group: *Contributing factor to accident*	*Safety briefing, Read backs*
34	Individual Behavior/Risk Acceptance: *Contributing factor to accident*	*Management letter, briefings*
35	Lifting/Carrying: *Improper technique/overloaded backpacks results in injury*	*Gear selection, individual fitness*
36	Climbing: *Requires use of both hands to ascend/descend more than 2 m vertical, exposure to fall & injury*	*Weather, outcrop condition*
37	Use of tools (e.g., chipping): *Improper technique/equipment causes injury to self or other participate*	*Required PPE*
38	Digging/Trenching: *Digging causes injury to self or other participant, trench collapse causes injury*	*OSHA rules for deep trenches*
39	Swimming/Snorkeling/SCUBA/Boating: *Improper technique/conditioning/equipment causes injury*	*Pre-trip Screening, PDF Policy*
40	Equipment Failure: *Sufficient critical and serious to be contributing factor to accident*	*Pre-trip planning, inspections*
41	Food Handling: *Improper technique/equipment contributes to food-borne illness*	*Training, Sanitation facilities*
42	Language/Culture Differences: *Contributing factor to accident*	*Pre-trip participate information*
	Other Factors	
43	Limited/Remote Medical Services: *Consequences of injury/illness escalates due to remoteness*	*Pre-trip, communication*
44	Limited Communications: *Consequences of injury/illness escalates due to delayed access to EMS assistance*	*Pre-trip planning, field checks*