



# **Field Trip Safety Worksheet**

## **Willard Eccles Observatory**

### **Department of Physics & Astronomy**

The purpose of this worksheet is to ensure that an adequate level of safety is provided and adhered to for all operations involving the Willard Eccles Observatory (WEO). Any person visiting the facility for any reason should be made aware of this safety worksheet. An updated copy of this worksheet should be kept on file by the department contact(s) listed in the Field Trip Information Table (page 2). An updated copy of the plan should be kept online, onsite at the facility, and in all vehicles that will be traveling to the facility. The plan should be revised and redistributed whenever a change to the location or scope of the facility occurs. Sections I, II, VII, and VIII of the worksheet have parts that should be filled out for each individual visit or for long term employees with access to the observatory, keep a yearly safety worksheet on file.

### **Table of Contents**

<b>Section</b>	<b>Pages</b>
I: Field Trip Information Table ( <i>to be filled out for each visit</i> ) .....	2-3
II: Field Trip Roster ( <i>to be filled out for each visit</i> ) .....	4
III: Site Maps for Observatory .....	5-6
IV: Medical and Emergency Information .....	7-12
V: Sanitation Information .....	13
VI: Travel Safety Information .....	13-14
VII: Working at the Observatory ( <i>to be filled out yearly</i> ) .....	15-16
VIII: Agreement ( <i>to be filled out yearly/each visit</i> ) .....	15

## **Section I: Field Trip Information**

Emergency contacts should be verified for availability and updated before each trip.

<b>Participating Group:</b>	
<b>Travel Dates:</b>	
<b>Purpose of visit:</b>	
<b>Primary Contact for Trip:</b>	
<b>24-Hour Phone # of Primary Contact:</b>	
<b>Email of Primary Contact:</b>	
<b>Secondary Contact for Trip:</b>	
<b>24-hour Phone # for Secondary Contact:</b>	
<b>Department Contact for Facility:</b>	
<b>Phone # for Department Contact:</b>	
<b>Email of Department Contact:</b>	

Include any travel itinerary details and purposes for this observatory visit below:

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Only individuals with authorization, and who have completed the State of Utah Risk Management Driver Training course, are allowed to drive vehicles for university business, personal vehicles included. Any person driving university rentals need to be added to the fleet services approved drivers list. Contact fleet services for this. Follow all University rules and guidelines pertaining to traveling for field trips. Information can be located here:

<https://fleet.utah.edu/rules-and-guidelines/>

List drivers for the observatory visit below:

Authorized Driver	University ID	Date of Driver Training Completion

List all vehicles used for travel, including personal vehicles, below:

Vehicle Description	Insurance Information

**If using a personal vehicle for a field trip to the observatory, the UofU DPA is not responsible for personal vehicle damage while traveling to the WEO.**

**Section II: Field Trip Roster**

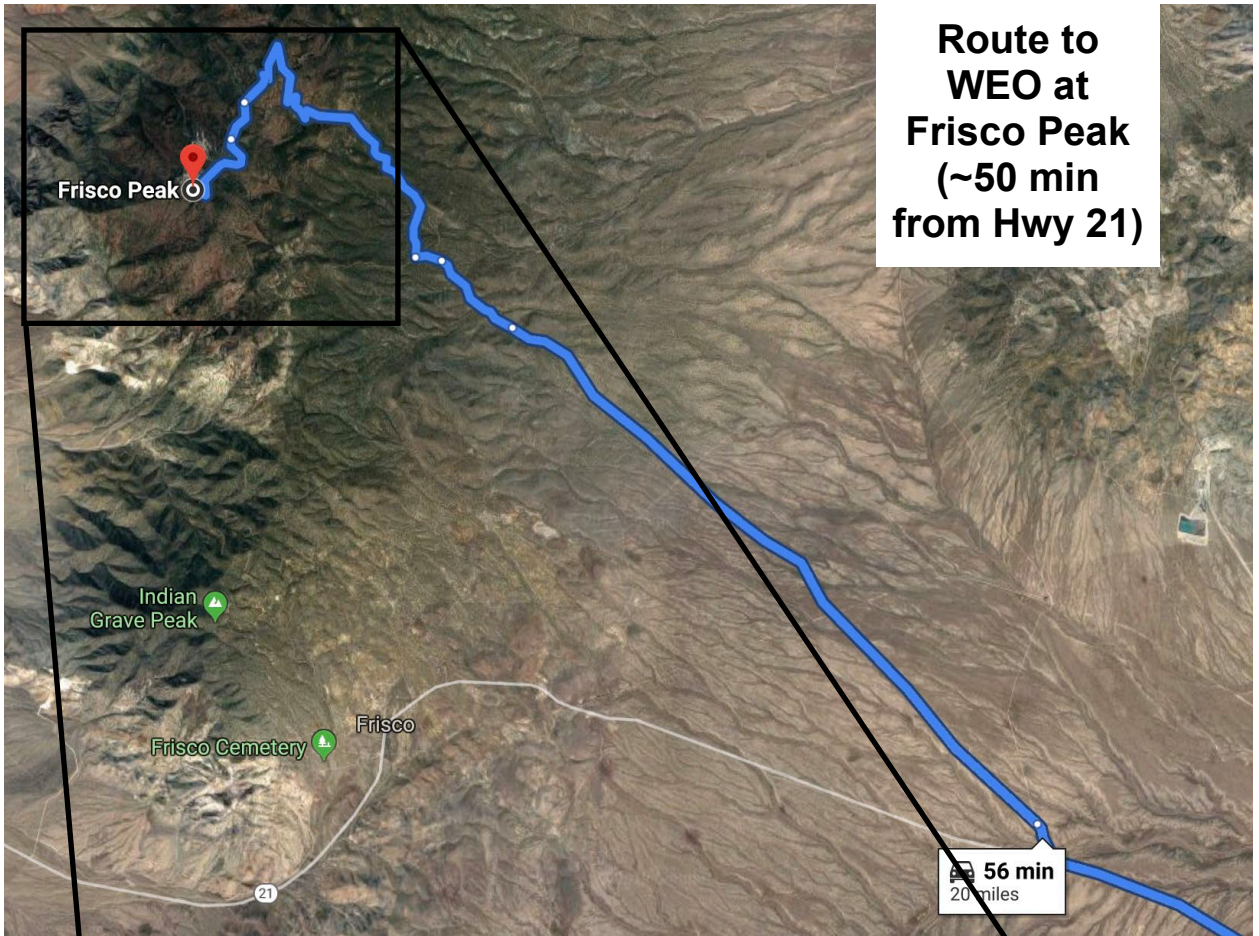
List all persons who will be participating in the current visit to the observatory:

Name	24-hr Phone Number	Emergency Contact/Phone	University Role (student, staff, etc.)

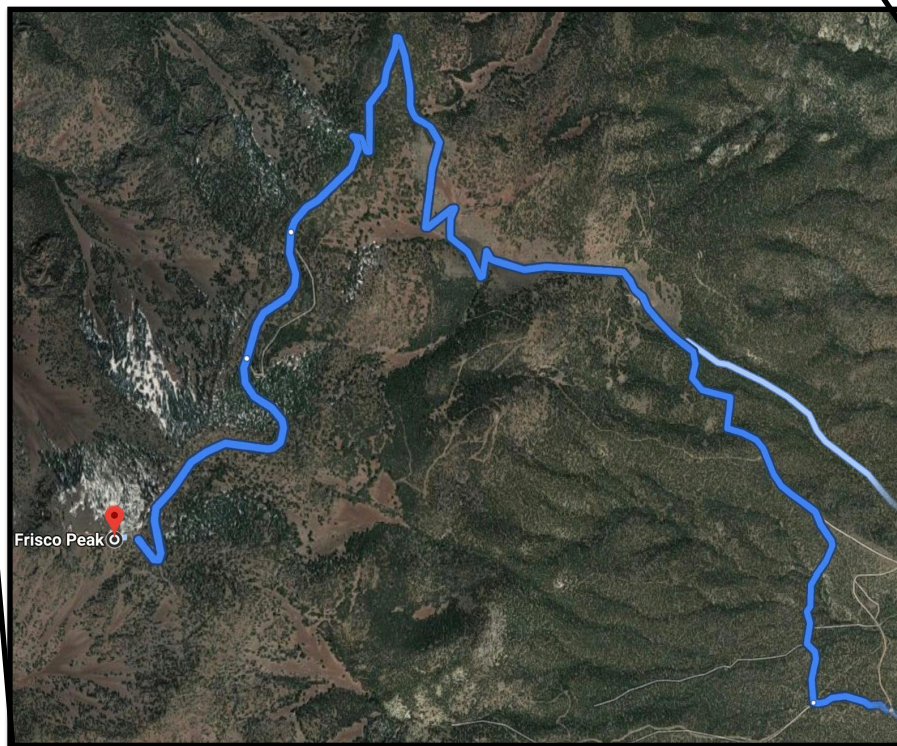
***Any person involved in a visit to the Willard Eccles Observatory must be provided a copy of this field trip safety plan. Each person is responsible for safe behavior and for reporting any unsafe acts or conditions. It will be documented that each person has received a copy of the plan and has signed a waiver indicating that they understand the provisions as outlined in the field trip safety plan and agree to abide by the procedures identified. A copy of the field trip safety plan should be maintained on site and in all vehicles for the duration of the visit.***

**Section III: Site Maps for Observatory**

**Pic. A**



**Pic. B**

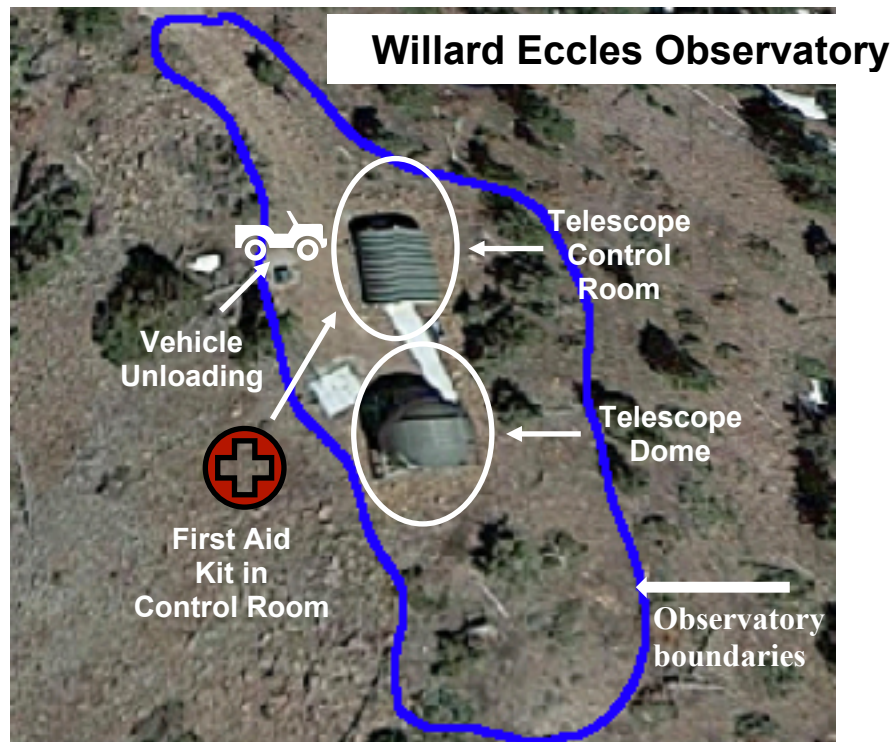


Pic. C



Pic. D

The blue line represents the observatory boundaries.



## **Section IV: Medical and Emergency Information**

### Emergency Medical Supplies

- First-Aid supplies are located in the telescope control room.
- If a person with unique medical needs will be making arrangements to bring specialized medical equipment or medication, this information should be disclosed to the primary contact for the trip (see first page), or the person should carry a medical alert card with detailed emergency instructions.
- Contact the designated employee for updating and replacing items in the first-aid kit. These kits should be reviewed at least once a year.

### Emergency Procedures

- Emergency medical services may be contacted by dialing 911 on a cell phone. At least one field trip contact should have a cell phone that receives adequate signal at the facility. *Cell phone service can be spotty or non-existent at the observatory, depending on the cell provider.*
- The Milford Valley Memorial Hospital is the closest medical facility to the observatory. It is at 850 N Main St. in Milford. It is a general medicine and surgical hospital, with 24/7 emergency facilities. To reach the hospital, follow the site map back to Highway 21, travel east on Highway 21 for about 8 miles, then go north on Highway 257. The hospital is less than a mile north, on the east side of the highway. The hospital's phone number is 1-435-387-2411.

### Reporting Policy

For any incident in which there is physical injury to any person or damage to University-owned property, there is an obligation for prompt reporting as appropriate. Report must be made as follows:

*For injury to University personnel (including volunteer staff):*

- Report the injury to the project supervisor or department contact
- Complete the worker's compensation "First Report of Injury" form available from HR
- Report the incident to University OEHS

*For injury to a student or damage to University property:*

- Complete the Risk and Insurance Service incident report form located here: <https://riskmanagement.utah.edu/intranet/insurance/incident-accident-info.php>
- Report Student injuries to University OEHS

Tables of Potential but Preventable Hazards at the observatory

*These forms of wildlife are known to be in similar regions of North America:*

Hazard	What to do if Encountered	First Aid	Prevention
<b>Rodents</b>	<ul style="list-style-type: none"> <li>- do not disturb, if possible</li> </ul>	<ul style="list-style-type: none"> <li>- Clean wounds thoroughly if bitten or scratched</li> </ul>	<ul style="list-style-type: none"> <li>- Keep areas clean to avoid attracting rodents</li> <li>- Store food in containers</li> <li>- Use proper equipment and procedures for any clean up attempted.</li> <li>- <a href="https://www.cdc.gov/rodents/cleaning/index.html">https://www.cdc.gov/rodents/cleaning/index.html</a></li> </ul>
<b>Mountain lions</b>	<ul style="list-style-type: none"> <li>- do not run—back away slowly</li> <li>- do not play dead or look it in the eyes</li> <li>- do not corner it</li> <li>- make yourself look larger (arms overhead), do not bend down</li> <li>- use a loud voice</li> <li>- throw sticks or rocks</li> <li>- fight back, poke it in the eye with your thumb</li> <li>- protect your neck and head</li> </ul>	<ul style="list-style-type: none"> <li>- seek medical attention immediately for serious injuries or wounds</li> </ul>	<ul style="list-style-type: none"> <li>- Do not leave children or pets unattended</li> <li>- Avoid hiking alone when mountain lions are most active: dawn, dusk, and at night</li> </ul>



Hazard	What to do if Encountered	First Aid	Prevention
<b>Spiders</b>	- do not pick up or disturb	<ul style="list-style-type: none"> <li>- clean wound</li> <li>- Apply a cold pack</li> <li>- Keep area immobilized at heart level</li> <li>- Seek medical attention immediately (alert ahead if possible)</li> <li>- Watch for any decline in health of area bitten.</li> </ul>	<ul style="list-style-type: none"> <li>- avoid locations where spiders may be, such as dark places</li> <li>- Use care around rock piles, logs, bark, old buildings</li> <li>- Wear gloves when working outside</li> <li>- Shake out clothing and bedding before use</li> </ul>

*Other potential site-specific hazards:*

Hazard	Cause	Symptoms	First Aid	Prevention
<b>Slips, trips, falls, head injuries, impacts</b>	<ul style="list-style-type: none"> <li>- Loose or irregular surface</li> <li>- poor lighting</li> <li>- Obstruction</li> <li>- Improper (or lack of) use of ladders</li> <li>- Inattention or distraction</li> <li>- Being closer than 5 feet to the edge of the mountain cliff</li> <li>- Telescope, heavy item, or vehicle impact</li> </ul>	<ul style="list-style-type: none"> <li>- Strains</li> <li>- Fractures</li> <li>- Bruises</li> <li>- Contusions (head, wrist, elbow, shoulder, back, hip, knee, ankle)</li> <li>- Falling off of the mountain edge can result in death</li> </ul>	<ul style="list-style-type: none"> <li>- seek medical assistance for injuries that inhibit regular movement: sprains, broken bones, etc.</li> <li>- Stop any bleeding, seek medical attention if needed</li> <li>- Do not attempt to drive down the mountain if you're feeling tired, drowsy, dizzy, or incoherent.</li> </ul>	<ul style="list-style-type: none"> <li>- removing obstructions</li> <li>- Adequate lighting is <b>required</b></li> <li>- Not carrying oversized objects</li> <li>- Use ladders properly</li> <li>- <b>Walk slowly, carrying adequate lighting—no running.</b></li> <li>- <b>Do not climb on the nearby radio towers or on the observatory itself.</b></li> <li>- <b>Always stay at least 5 feet from the edge of the mountain cliff/edges</b></li> <li>- <b>DO NOT step onto the hang-</b></li> </ul>

Hazard	Cause	Symptoms	First Aid	Prevention
<b>Dehydration</b>	- Insufficient water intake	<ul style="list-style-type: none"> <li>- increased thirst</li> <li>- Dry mouth</li> <li>- Flushed face</li> <li>- Dizziness</li> <li>- Headache</li> <li>- Weakness</li> <li>- Muscle cramps</li> <li>- Dark urine</li> </ul>	<ul style="list-style-type: none"> <li>- drink plenty of fluids</li> <li>- Take request rest breaks</li> <li>- Minimize caffeinated beverage intake</li> </ul>	<p><b>gliding ramp that is near the observatory</b></p> <ul style="list-style-type: none"> <li>- <b>Do not climb on the telescope or structures</b></li> <li>- <b>Make sure everyone is clear before moving truck, telescope, or equipment</b></li> <li>- <b>Do not stand under someone working higher than you.</b></li> </ul> <ul style="list-style-type: none"> <li>- drink plenty of water (at least 2 quarts per day), more if working strenuously or in a warm climate</li> <li>- <b>There is no running water at the observatory—bring plenty of water up with you for the duration of the visit</b></li> </ul>
<b>Frostbite</b>	- exposure to cold temperatures	<ul style="list-style-type: none"> <li>- waxy, whitish numb skin</li> <li>- Swelling, itching, burning, and deep pain as the skin warms</li> </ul>	- slowly warm the affected areas (do NOT rub area), and seek medical attention immediately	<ul style="list-style-type: none"> <li>- dress in layers</li> <li>- Cover your extremities with warm clothing, e.g., hats, face mask, gloves, socks, and shoes</li> </ul>

<b>Hazard</b>	<b>Cause</b>	<b>Symptoms</b>	<b>First Aid</b>	<b>Prevention</b>
<b>Hypothermia</b>	- prolonged exposure to cold temperatures	- Shivering - Numbness - Slurred speech - Excessive fatigue	- remove cold wet clothes, put on dry clothes or use a blanket or skin-to-skin contact - Drink warm liquids - Seek medical attention immediately	- dress in layers - Wear appropriate clothing - Avoid getting damp from perspiration
<b>Extreme weather</b>	- snow squalls - Blizzards - Heavy rains - Lightning - Winds up to 60 mph	- severe weather can result in physical injury and/or death - Flying debris, sand, etc. can cause injury in high winds.	- seek shelter immediately	- be aware of special weather concerns - check weather reports - Bring appropriate equipment/clothing to deal with severe weather - Be aware of hazards specific to your area
<b>High altitude illness</b>	- decreased oxygen intake and increased breathing rate	- Headache - Nausea - Weakness	- use supplemental oxygen and decrease altitude - Drink plenty of water	- allow your body to acclimatize by gaining elevation slowly - drink plenty of water
<b>Hunting Season</b>	- Local hunting seasons and regulations vary	- a hunting accident may result in serious injury or death	- seek medical attention for serious injuries or wounds	- wear appropriately colored safety clothing (orange) during hunting season - Avoid animal-like behavior (e.g. hiding in thickets)

<b>Fire</b>	<ul style="list-style-type: none"> <li>- Range/forest fire</li> <li>- Lightning</li> <li>- Improper use of flammable materials</li> <li>- Smoking</li> </ul>	<ul style="list-style-type: none"> <li>- Smoke inhalation</li> <li>- Burns</li> </ul>	<ul style="list-style-type: none"> <li>- Evacuate if needed</li> <li>- Use fire extinguisher if available (located inside the control room)</li> <li>- Burn kit</li> <li>- Seek medical attention for serious burns</li> <li>- Move to an area without smoke, seek medical attention if needed.</li> </ul>	<ul style="list-style-type: none"> <li>- Absolutely no smoking on the mountain</li> <li>- Know how to use flammable materials properly</li> <li>- No campfires</li> <li>- Be prepared to evacuate at any time.</li> <li>- Do not ascend the mountain if there are range/forest fires nearby</li> </ul>
<b>Electrocution</b>	<ul style="list-style-type: none"> <li>- Improperly handling electrical circuitry</li> <li>- Improperly handling batteries</li> <li>- Improperly handling electronics</li> </ul>	<ul style="list-style-type: none"> <li>- Burns</li> <li>- Death</li> <li>- Unconsciousness</li> </ul>	<ul style="list-style-type: none"> <li>- Immediate medical attention</li> <li>- Burn kit</li> <li>- CPR</li> </ul>	<ul style="list-style-type: none"> <li>- Do not touch or damage electrical wiring, railing, fuse boxes, electrical panels.</li> <li>- Do not drill into a wall unless you know where wiring is located</li> <li>- Unplug all computer or other electronics before service.</li> <li>- Don't touch or attempt to fix anything without knowledge of doing so properly.</li> </ul>

## **Section V: Sanitation Information**

These sanitation procedures should be followed at the observatory:

- Pack out garbage generated at the facility.
- Human waste must be disposed of properly. Correct disposal prevents pollution of water, spread of illnesses such as Giardia, and preserves the natural aesthetics of the location for others. It is not possible to dig holes at the observatory site to dispose of human waste, and it is not appropriate to deposit human waste under rocks. Instead, there are waste bags designated for this purpose stored in the telescope control room. These bags should be disposed of in a designated garbage bag that will be packed out of the facility.
- Urine has little direct effect on vegetation or soils. Research indicates that urine poses little threat to human health. However, the odor of urine can create an aesthetic impact. Try to urinate on rocky or sandy areas away from facilities.
- Use un-dyed and unscented toilet paper sparingly. A proper method for packing out toilet paper is to use doubled plastic bags. Burying toilet paper or used feminine hygiene products is unacceptable because of slow decomposition.

## **Section VI: Travel Safety Information**

### ***Vehicle Safety***

For those driving to the observatory, you must obey traffic laws, wear your seatbelt, do not drive impaired, do not drive tired, do not use a cell phone while driving, and do not speed or drive recklessly. Before moving any vehicle complete a cursory walk around the vehicle to make sure nothing is in the way that would cause damage to the vehicle or that the vehicle could damage. Always make sure belongings and heavy loads are secured in the bed of the truck. Always check tire pressure on all tires including both spares. Before leaving to the observatory, conduct an assessment of the vehicle checking for leaks or other damage. When driving off road, be aware of what you are driving over. High-centering a vehicle or driving over something too tall can damage the underside of the vehicle and cause leaks. In case of leaks, place a pan under the vehicle to contain the oil or antifreeze. When leaving the observatory, check where vehicles were parked and check for spills; scoop out any contaminated soil and transport it back for proper disposal.

Only approved high-clearance, 4WD vehicles with heavy-duty tires should be driven up the mountain road to the observatory. General safety practices should be followed

when driving these vehicles. The road up the mountain is primitive, and there is potential for roll over, rock slides, flat tires, and flooding. Be prepared for these incidents. *Persons with back or neck problems should assess their ability to travel on a road where they will be subject to, at times, extreme bumpiness.* During times when snow is possible weather forecasts should be monitored, as there is a possibility of significant snow accumulation and the preservation of snow on the north aspects of the mountain road. Vehicles going up the mountain road should have snow chains along during these times. These chains should be put on the tires as soon as a couple of inches of snow are encountered in the road. In the event of an accident with a vehicle, call 911, secure the scene, do not move a victim, check airways, breathing and circulation, and treat specific injuries.

### ***Site/Safety Boundaries***

Only areas within the blue line in the Pic. D and the roadways to/at WEO are deemed in the boundary of the “acceptably safe” areas. Traveling beyond these areas are considered not approved for department field trips or work and are not considered under the responsibility of DPA.

### **Section VII: Working at the Observatory**

***Repairs/maintenance/operation:*** No person should attempt repairs or work on the observatory without proper training. This includes: Mirror cleaning, mirror alignment, electrical work, computer repairs, building repairs, camera (telescope or security) repair/replacement, monitoring equipment, UPS battery replacement, telescope operation, tower setup/takedown, or dome repairs. Anyone not authorized to perform these actions are forbidden to do so.

### ***Required Safety Training Checklist:***

All persons should be trained in the following areas before being allowed to perform the actions described.

- State Drivers Training/Off-road Driving:* Required before using a university or personal vehicle for travel to the observatory. (Requires retraining every two years)

*Authorized by:* -----

*EHS Ladder Safety Training*: Required before doing any work requiring a ladder.

*Authorized by:* -----

*EHS Electrical Safety Training*: Required before doing any work requiring electrical repairs.

*Authorized by:* -----

*Telescope Repair Training*: Required before doing any repairs or maintenance on the telescope.

*Authorized by:* -----

*Telescope Operation Training*: Required before operating the telescope for any purpose.

*Authorized by:* -----

### **Section VIII: Agreement**

*Read and sign:*

Any person visiting or working at the observatory hereby acknowledges the safety worksheet. By signing, you acknowledge you have read and understood the information and dangers in the safety worksheet for the Willard Eccles Observatory.

The University of Utah (UofU) and the Department of Physics and Astronomy (DPA) are only liable for work directly related to the site visit and its purpose. Any injuries obtained while either not following a safety worksheet or not involved directly with the purpose of being on site are not covered by the UofU or DPA. This includes wandering off for photography, "exploring" the mountain site, "exploring" any nearby ruins or natural features, hiking, climbing, or traversing areas not contained within the site's location and approved areas.

X

Visitor/Student/Employee Signature & Date