

## **Winter Travel Guidelines for Public and School Groups Visiting Steward Observatory Facilities in the Santa Catalina Mountains.**

Generally, between November and March, weather conditions in the Santa Catalina mountains can be extreme, including heavy snowfall, temperatures well below freezing, poor visibility, and high winds. Winter storms can create hazardous driving conditions in less time than it takes to drive the Catalina Highway from the bottom to the top of the mountain. In addition, during these events, the Pima County Sheriff's department closes public access to the highway while snow removal crews are at work. Often, once the road is reopened to general traffic, the requirement of 4WD and/or tire chains is enforced until the road surface is clear of almost all snow and ice, which could take a few days depending on the severity of the storm. The main purpose of the guidelines listed below and the goal of the University of Arizona and Steward Observatory is to not have public or school groups present at the observatories or traveling on the Catalina Highway during winter-type storms when access to or from the facility is hazardous or impossible.

1. Permission to travel the Catalina Highway rests with the Pima County Sheriff's department and the US Forest Service. Road closure information can be found by calling **(520) 351-3351**. If the road is closed to general traffic, there will be a Pima County Sheriff's roadblock at the base of the mountain. During winter there is often a requirement of 4WD and/or chains for all vehicles that are allowed to travel the road.
2. Permission to travel the roughly 2-mile stretch of the road from the Mt. Lemmon Ski Area to the summit, where the Mt. Lemmon observatories are located, rests with Mountain Operations of Steward Observatory. This is a difficult section of the road and is often only passable well after the Catalina Highway has been reopened. It is *highly* recommended that only 4WD vehicles be driven on the access road during the winter months *and* having tire chains available as a backup. Exceptions to this recommendation can be made in good weather and if the site manager, Steve Bland, determines that the type of vehicle being used has an excellent chance of being able to handle the access road. If there is any doubt about road conditions near the summit, contact (preferably email or text) Mountain Operations (Steve Bland 520-730-1788; Chipper Beiner 520-548-0394; Joe Hoscheidt 520-820-3117; Paul Smith 520-549-8692). Typically, email notices are sent out to interested observatory groups announcing the closure and reopening of the section of road that is the responsibility of the observatory.
3. The general policy is that if a storm is predicted to start during any part of a scheduled public/educational program visit, the program needs to be cancelled. The definition of a "storm" includes any of the following: the possibility of snow accumulation greater than an inch, ice, excessive winds (>50-60 mph), and temperatures dropping below 20 F.
4. The National Weather Service area forecast will be the guiding source of weather information and predictions.  
<https://forecast.weather.gov/MapClick.php?lon=-110.79115390777588&lat=32.443726028572186#.YAMYZi2cbjA>
5. The Mt. Lemmon site manager has the authority to cancel, or cut short (if possible, depending on availability of proper transportation) visits based on current weather conditions and updated weather forecasts.

6. There is no set deadline to decide if a visit to the observatory can be made or is cancelled. Weather forecasting starts to become relatively accurate about 3 days in advance. At that time, if a storm system is expected to arrive during the scheduled visit, the possibility of cancellation should be considered. The forecasts should be checked daily, or more frequently, for updates. Program leaders can cancel at any point after they lose hope that the forecast is wrong. Please inform (email or text is best) Mountain Operations if a visit has been cancelled.
7. Mountain Operations will intervene and cancel the visit during the morning of the group's scheduled arrival day if the current weather or the most recent forecast meet the "storm" criteria if a group has not been previously waived off from making the trip by program leaders. This announcement will be to the program leaders, who will relay the cancellation to the affected parties.
8. Consultation between program leaders and Mountain Operations is strongly encouraged before and during periods of unsettled weather. With luck, there will be a consensus of opinion concerning whether a visit needs to be cancelled.
9. Groups may be asked by Mountain Operations to leave immediately, or by a revised set time, depending on the development of hazardous weather conditions.

The guidelines and policies listed above are designed to keep visitors off of the mountain when conditions make it hard to get emergency help if needed. There is always the possibility of the need for an evacuation of some subset of public/educational participants or staff members due to illness or injury. For emergencies, a call to **911** is the immediate first response. For non-emergency situations, the following guidelines should be followed for the safe evacuation of individuals from Mt. Lemmon:

1. The preferred option is evacuation of the individual(s) from the mountain as opposed to the afflicted person staying on the mountain and receiving supportive care in the hopes of an improvement in their health. If the severity of the situation is in doubt, **911** is to be called. In many cases, participants/staff may be suffering from altitude sickness. In these cases, the only effective treatment is to transport the person to a lower altitude.
2. It is required that at least one appropriately trained program leader always stay with any portion of the visiting group or inexperienced staff members who were not evacuated.
3. Transportation of unaccompanied minors needs to be considered carefully. At least two people should accompany the child down the mountain. If it is a student, at least one of the school chaperones should stay with the evacuated minor.
4. Mountain Operations will assist and facilitate evacuations when possible. Please keep in mind that no Mountain Operations personnel are typically on site after regular business hours and on weekends.
5. When time permits after the incident, a Steward Observatory incident report needs to be filled out by the group leader
6. <https://www.as.arizona.edu/steward-observatory-safety-manual#Near-Miss> .
7. A separate UA Risk Management incident report needs to be filled out by the group leader <https://risk.arizona.edu/insurance/incident-reporting> .

**CALL LIST:**

Emergencies (medical, fire, crime) **911**

**Mountain Operations** (in the following order):

• Steve Bland, Mt. Lemmon Site Supervisor	520-730-1788
• Chipper Beiner, Research Technologist I	520-548-0394
• Joe Hoscheidt, Research Technologist II	520-820-3117
• Paul Smith, Manager Mountain Operations	520-549-8692
• Alyson Ford, Associate Director of Steward Observatory.	520-999-0866