

Mount Stromlo Observatory - School Risk Assessment

12 October 2018

This document is a guide to the potential risks associated with visits to Mt Stromlo Observatory that have been identified by observatory staff. Mt Stromlo recommends that teachers/group leaders complete their own risk assessment during a preliminary visit to the site. The document is only applicable to visitors participating in the RSAA School Outreach Program.

Teachers/group leaders can minimise the risk to themselves and their group when visiting by supervising their group closely at all times and following instructions given by observatory staff. Schools should provide a sufficient number of adult supervisors. As a large part of the program takes place outside at night, the recommended teacher to student ratios are: Primary 1:10, Secondary 1:15.

1 Access/Egress

Potential Risks Identified

The following risk factors present for access/egress are identified:

- Restricted access/egress path
- Limited exit points
- Excessive egress distance
- Emergency warning plans not visible
- Visitors have limited awareness of emergency plans

Risk control measures

Mt Stromlo is inherently a rural site and has limited exit points. All visitors are escorted by observatory staff while on site and staff are made aware of emergency procedures. See section 21 on fires.

2 Asbestos

No identified risks

3 Biological Substances

No identified risks

4 Confined Spaces

Potential Risks Identified

Some locations exhibit an enclosed or partly enclosed space and have the following characteristics:

- Difficulty entering and/or exiting the space

Risk control measures

Telescope domes are enclosed spaces with small enter/exit points and have low lighting levels. Visitors are escorted by staff on site and are advised of hazards when entering/exiting domes. A limited number of torches are used by observatory staff, however, visitors are recommended to bring their own torches.

5 Dangerous Goods/Chemicals

Potential Risks Identified

The following dangerous goods/chemicals hazard/s are identified:

- Dangerous goods and chemicals including helium, hydrogen, and oxygen present on site

Risk control measures

Dangerous goods and chemicals are located in the AITC Integration Hall and are not easily accessible. Access to this area is through security access card only, and all visitors are escorted by staff on site. No access is available to this area when chemicals are in use.

6 Electrical

No identified risks

7 Environmental

Potential Risks Identified

The following environmental hazard/s are identified:

- Lighting level inadequate
- Thermal comfort range exceeded
- Extreme weather conditions

Risk control measures

Low lighting levels are an essential requirement for the activity and are actively sought by observatory staff. A limited number of torches are used by observatory staff, however, visitors are recommended to bring their own torches. Weather reports will be followed and observatory staff will make the decision about whether to go ahead with stargazing and/or site tours. See section 10 regarding thermal comfort.

8 Ergonomics

No identified risks

9 Hazardous Substances

No identified risks

10 Heat/Cold Stress

Potential Risks Identified

The following risk factors present for the heat/cold stress hazard/s identified:

- Outdoors work

- Risk of hypothermia, wind chill, snow, rain

Risk control measures

A significant part of school visits takes place outdoors at night. At any time during the year temperatures can be low, often below freezing in the winter, and often the site is very windy. Schools should inform parents that students are recommended to wear “snow gear” (e.g. gloves, beanies, jackets, scarves, etc). If clothes worn are inappropriate for the temperature, visitors will be asked to remain indoors and will not be able to participate in a significant part of the program. Visitors will have access to indoors and warm areas.

11 Lead

No identified risks

12 Manual Handling

No identified risks

13 Noise

No identified risks

14 Psychosocial

Potential Risks Identified

Visitors are likely to be affected by the following factors:

- Increased working day, evening/night work

Risk control measures

Visits to the observatory which include stargazing require the activity to be held in the evening. This extends the normal hours of a work day and cannot be avoided.

15 Radiation

Potential Risks Identified

Persons involved in the activity are in the vicinity of the following equipment:

- Lasers

Risk control measures

Low powered (~ 5mW, Class 3A) green lasers are used by trained observatory staff. Visitors will not be allowed to use the lasers and are asked not to bring any “star pointing” lasers if owned. Lasers will only ever be used to point at objects above the horizon and will be held above head height. Risk of exposure is considered low.

16 Security

Potential Risks Identified

The following security risks are identified:

- Unauthorised persons on site
- Disorderly conduct

Risk control measures

Boom gates are in operation on site to limit access to unauthorised persons. Observatory staff will alert ANU Security of unauthorised persons and/or disorderly conduct. Site is patrolled regularly by ANU Security. In the event of a serious incident visitors have access to secure areas that can be unlocked by observatory staff.

17 Slip/Trip

Potential Risks Identified

The following risk factors present for slip/trip hazard/s are identified:

- Poor lighting
- Uneven surfaces

Risk control measures

Visits to the observatory are held outdoors, in a rural setting, at night time. Observatory staff will escort visitors while on site and alert visitors to potential hazards, however, paths are uneven and the risk of tripping is considered likely. The consequences of tripping will range from insignificant (no injuries) to moderate (first aid or ongoing medical treatment required). To minimise the risk of such an event visitors are recommended to bring torches and wear closed in shoes with non-slip sole. A First Aid kit is located in the Visitor Centre.

18 Traffic

Potential Risks Identified

The following risk factors present for traffic hazard/s are identified:

- Kangaroos and other animals frequently encountered on roads

Risk control measures

Mt Stromlo has a large wildlife population which is frequently encountered by drivers on the roads. As such the legal speed limit at Mt Stromlo is 40km/hr. Schools should make drivers aware of this hazard.

19 Violence

No identified risks

20 Working at Height

Potential Risks Identified

The activity involves the use of step ladders and the following risk factors present for fall hazards are identified:

- Poor lighting
- Inexperienced visitors involved in tasks

Risk control measures

To view through telescopes, many people (particularly children) will need to stand on a step ladder. Climbing the step ladder will occur in poor lighting conditions. Observatory staff will assist visitors and advise on potential hazards. A hand rail on the ladder is installed. The maximum height climbed is two steps (approximately 40cm). Visitors can choose not to participate. A First Aid kit is located in the Visitor Centre.

21 Fire

Potential Risks Identified

The site is located in a Bushfire Prone Area and the following risk factors are identified:

- Restricted access/egress path
- Limited exit points
- Excessive egress distance
- Emergency warning plans not visible
- Visitors have limited awareness of emergency plans

Risk control measures

Mt Stromlo is inherently a rural site and has limited exit points. All visitors are escorted by observatory staff while on site. Observatory staff are aware of and will follow fire response procedures. Bushfire reports will be monitored. Site is closed to visitors during fire danger ratings of Extreme or Catastrophic.