The Federation of Astronomical Societies

Risk Assessment

A Practical Handbook for Astronomy Groups

Version 2

April 2026

Document History

Date	Author(s)	Version	Comments
April 2026	Clare Lauwerys	2	Complete rewrite to make it more user friendly
22-Jun-2020	Paul Daniels	1	Reviewed and Formatted
05-Mar-2020	Graham Bryant	0.1	Updated
26-Feb-2020	Graham Bryant	0.0	Document Created

Contents

1. Purpose

This document provides practical, proportionate guidance to help astronomical societies manage risks associated with meetings, observing sessions, and public outreach events. It is designed for volunteer-run organisations and focuses on real-world, achievable controls.

2. Scope and Limitations

This document does ***not*** cover matters such as safeguarding, data protection, specialist engineering risks.

3. Legal Disclaimer

This document is a general risk management template for information and guidance only. It is **not legal advice**.

The Federation of Astronomical Societies (FAS) is not a law firm, Health and Safety authority, regulated professional body, or statutory agency. Each adopting organisation is solely responsible for:

- Reviewing and adapting this template to its own circumstances
- Obtaining independent professional advice where appropriate
- Ensuring compliance with relevant law and regulation
- Implementing and maintaining effective safeguarding and safety procedures

Use of this template is entirely at the adopting organisation's own risk. To the fullest extent permitted by law, FAS disclaims all liability arising from reliance on this document. All information is provided in good faith. Organisations should seek additional sources of information and professional advice where needed. Further resources are listed in Appendix A.

4. Quick Start Guide

A Risk Assessment is a simple written record showing that you have:

- Identified what could cause harm
- Considered how likely and how serious that harm might be
- Put sensible, proportionate steps in place to reduce the risk
- Recorded your findings and agreed to review them periodically

You are not expected to eliminate all risk. You are expected to take **reasonably practicable** steps that a sensible person would take to protect people.

5. Why Risk Assessment Matters

Astronomical societies run meetings, observing sessions, and public outreach events. These often take place in the dark, in unfamiliar environments, and with specialist equipment. Typical risks include:

- Trips and falls on uneven ground
- Cold weather and exposure
- Heavy or unstable equipment

- Solar observing hazards
- Crowds and vehicle movement in low light

This is not an exhaustive list.

A written Risk Assessment:

- Helps prevent accidents
- Demonstrates responsible management
- Supports Public Liability Insurance (PLI) requirements
- Provides a clear plan for volunteers and event partners

Insurance does not remove the need for risk assessment. Documentation is important, but **practical action** is the priority.

6. Key Concepts

This section explains the core terms used throughout the document so volunteers and committee members share a common understanding.

Hazard

Something with the potential to cause harm. *Examples: uneven ground, trailing cables, solar observing equipment, steep steps.*

Risk

The likelihood that a hazard will cause harm, combined with the severity of that harm.

Static Risk

Hazards that do not change. *Examples: a steep staircase, a permanent drop, the inherent darkness of a rural observing site.*

Dynamic Risk

Hazards that change with conditions. *Examples: frost forming after 9pm, sudden wind gusts, vehicles moving in a dark car-park.*

Proportionality

Controls should be sensible and balanced. Focus on the most likely or most serious risks first.

Shared Responsibility

Venue owners usually assess the building; societies must assess **their own activities** within it. Report any hazards you find.

7. The Five Steps to Managing Risk

1. Identify Hazards

Walk the site. Look for environmental, equipment, and activity-related hazards. Ask members for input—they often spot practical issues.

2. Assess the Risks

Consider who might be harmed and how. Include visitors, children, people with mobility or communication difficulties, and volunteers.

3. Control the Risks

Remove the hazard where possible. If not, reduce the likelihood or severity. *Examples: red-lights on tripod legs, matting over cables, marshals at car-park entrances.*

4. Record Your Findings

Keep a simple written record of significant hazards, controls, and any further actions needed.

5. Review and Update

Review after changes to equipment or venue, after incidents or near-misses, or at least annually.

8. Common Hazards in Astronomy Activities

Environment

- Darkness and reduced visibility
- Uneven ground, holes, mud, ice, steep steps
- Cold, wind chill, and prolonged exposure

Equipment

- Tripods and mounts (trip hazards)
- Trailing cables and battery packs
- Heavy lifting (mounts, counterweights)
- Electrical equipment and power supplies

Activities

- Solar observing (eye damage)
- Laser pointer use
- Working at height (domes, observatory maintenance)

People

- Children and young people
- Visitors unfamiliar with dark-site conditions
- Individuals with mobility, sensory, or medical needs

This is not an exhaustive list.

9. Risk Scoring Guidance

Risk Score = **Probability × Severity**

Probability Scale (1–5)

1 = Highly unlikely 5 = Certain or near certain

Severity Scale (1–5)

1 = Minor injury 5 = Fatality or long-term disability

Risk Rating Table

Score	Priority	Action Required
1–9	Low/Medium	Monitor and manage with current controls
10–25	High	Extra controls **must** be implemented before the activity proceeds

Worked Example

Trip hazard from tripod legs:

Probability 3 × Severity 2 = **6** (Low/Medium)

Controls: red lights on legs, safety briefing.

10. Communicating and Reviewing

Briefing Members

Share the risk plan via newsletters, emails, or pre-event briefings.

Informing Visitors

Give a short safety introduction at the start of events.

Periodic Review

Review annually even if nothing has changed. Update after any incident or near-miss.

Record Keeping

Insurers and councils often ask:

- How long do you keep Risk Assessments?
- Where are they stored?
- Who is responsible?

Risk Assessments, incident logs, and near-miss reports should be stored in a consistent and accessible way so the society can demonstrate responsible management and learn from past events.

What to keep

- Completed Risk Assessments for all events and activities
- Annual review notes and updated versions
- Incident and near-miss reports
- Records of volunteer briefings (date, event, Safety Lead)
- Communications with partner organisations relating to safety

How long to keep records

- Risk Assessments: **minimum 3 years** (5 years preferred)
- Incident and near-miss reports: **minimum 5 years**
- Annual reviews: **retain the most recent version plus previous 2 years**

Where to store records

- A shared committee drive or cloud folder
- A secure society email account
- A physical folder for printed assessments used at events

Who is responsible

- The Safety Lead or designated committee member should maintain the records
- The committee should review storage arrangements annually

11. Risk Assessment Templates

Basic Risk Assessment Template (Example)

Location:

Activity:

Assessment Date:

Review Date:

What could go wrong?	Who could be harmed?	Current controls	Further action needed?
Tripping on tripod legs	Members / Public	Red lights on legs	Provide safety briefing

Use this table to record the main hazards, who may be harmed, and the controls you will apply.

Full Scored Template (Example)

Task: Public Outreach Solar Observing

People at risk: Members of the public and volunteers

Hazard	Initial Score (P×S)	Current Controls	Score After Controls	Further Action
Eye damage from solar viewing	16 (4×4)	Trained volunteers; scope never left unattended	4 (1×4)	Only use proprietary solar filters

Use this table to record the main hazards, who may be harmed, and the controls you will apply.

Extended Colour-Coded Template

(This template is suitable for societies working with schools, councils, or partner organisations that prefer a structured matrix.)

Risk Assessment

Use this table to record the main hazards, who may be harmed, and the controls you will apply

Subject of Assessment	Type of event by Society Name at Venue-		
Assessors	Society Committee Member(s)	**Location of Assessment**	Where's it happening

Risk Rating Matrix (RR)	**Likelihood (L)**		
Severity (S)	Certain or near certain to occur (High)	Reasonably likely to occur (Medium)	Unlikely to occur (Low)
Fatality; major injury or illness causing long term disability (High)	**HIGH (H)**	**HIGH (H)**	**MEDIUM (M)**
Injury or illness causing short term disability (Medium)	**HIGH (H)**	**MEDIUM (M)**	**LOW (L)**
Other injury or illness (Low)	**MEDIUM (M)**	**LOW (L)**	**LOW (L)**

Ref	Hazards	Who is at risk?	Controls in place	L	S	RR	Additional Controls?
General Safety							
1							
2							

Other Relevant Factors
(Weather, access routes, partner organisation requirements, safeguarding considerations.)

Date of Assessment		**Signature**	
Review date			

12. Volunteer Safety Briefing & Checklist

A guide to be printed or read aloud before each event.

Purpose

To ensure volunteers understand the key risks and controls for tonight's event and can help visitors stay safe.

Before the Event (Setup)

- Walk the site (preferably in daylight) to identify static hazards
- Ensure red-light torches are available for navigation
- Mark or light high-traffic areas
- Cover or secure any trailing cables
- Ensure tripods are stable; use spreader plates on soft ground

During the Event (Dynamic Risks)

- Monitor weather for dew, frost, or wind
- Manage queues at telescopes to prevent crowding
- Restrict laser pointer use to authorised volunteers
- Watch for vehicles entering or leaving the site

Supporting Visitors

- Offer assistance to those with mobility or sensory needs
- Give a 30 - second safety introduction:
  - "Please stick to marked paths."
  - "Mind the tripod legs—they're lit for visibility."
  - "If you need help moving around, just ask."

Emergency Procedures

- First Aid kit location: _____
- Safety Lead for tonight: _____
- Event Organiser: _____
- Report all incidents and near-misses immediately.

Volunteer Checklist

- [ ] Ground clear of trailing cables
- [ ] Tripod legs marked and visible
- [ ] Weather plan agreed
- [ ] All volunteers know First Aid kit location
- [ ] Dynamic hazards checked (e.g., vehicles, frost)

Near-Miss Reporting

A "near-miss" is an event where harm almost occurred. Examples include:

- A visitor stumbling over a cable

- A tripod nearly tipping in wind
- A car entering an unexpected area of the site

Recording near-misses helps societies improve controls before an accident happens. A simple log (date, description, action taken) is sufficient.

Review Checklist

Use this checklist during annual reviews or when circumstances change.

- Has the venue changed (layout, lighting, access routes)?
- Has any equipment changed (new mounts, power supplies, solar kit)?
- Have there been any incidents or near-misses since the last review?
- Are new volunteers involved who need briefing or training?
- Are new activities planned (solar observing, school visits, large public events)?
- Have any partner organisations changed their requirements?
- Are weather-related risks different at this time of year?
- Are controls still effective and being followed?
- Does the Risk Assessment need updating before the next event?

13. Working With External Partners

When collaborating with schools, councils, museums, youth groups etc:

- Exchange Risk Assessments in advance
- Agree responsibilities (e.g., crowd management, lighting, safeguarding)
- Confirm First Aid arrangements
- Ensure both parties understand the site layout and emergency procedures

14. Insurance Considerations

Most Public Liability Insurance policies expect societies to:

- Conduct “suitable and sufficient” Risk Assessments
- Follow their own documented controls
- Keep records of incidents and near-misses

Good documentation supports responsible management and may assist in the event of a claim.

Appendix A – Further Information and External Resources

This appendix lists reputable sources of guidance on Risk Assessment, health and safety, and related topics. Each link includes a short description to help societies identify which resources are most relevant to their activities. These resources are provided for further reading and do not replace professional advice.

Core Risk Assessment Guidance

HSE – Simple Risk Assessment Guidance A clear introduction to the principles of risk assessment, suitable for volunteer-run organisations. https://www.hse.gov.uk/simple-health-safety/risk/index.htm

Worksmart – Five Steps to Risk Assessment A plain-English explanation of the five-step method used across UK workplaces. https://worksmart.org.uk/health-advice/health-and-safety/hazards-and-risks/what-are-five-steps-risk-assessment

HSE Risk Assessment Toolkit (HSG268) A comprehensive 103 page guide for more complex or higher-risk environments. https://www.hse.gov.uk/pubns/priced/hsg268.pdf

HSE INDG163 – Risk Assessment: A Brief Guide A short, accessible leaflet summarising the essentials of risk assessment. https://www.hse.gov.uk/pubns/indg163.pdf

Environment and Land-Use Guidance

DEFRA – Land Management and Environmental Guidance Useful for societies using rural or agricultural sites for observing.
https://adlib.everysite.co.uk/adlib/defra/content.aspx?id=000IL3890W.19ENXXL41J23L4

Hazard-Specific Guidance

COSHH Regulations (Control of Substances Hazardous to Health) Relevant if societies use cleaning chemicals, fuels, or other hazardous substances.
https://www.legislation.gov.uk/uksi/2004/3386/contents/made

HSE – Fire and Explosion Safety Guidance on flammable materials, generators, and fuel storage. https://www.hse.gov.uk/fireandexplosion

HSE INDG231 – Electrical Safety and You A brief guide to safe use of electrical equipment, including portable power supplies. https://www.hse.gov.uk/pubns/indg231.htm

HSE INDG143 – Manual Handling at Work Advice on lifting and moving heavy equipment such as telescope mounts and batteries. https://www.hse.gov.uk/pubns/indg143.htm

HSE INDG174 – Personal Protective Equipment (PPE) When PPE is appropriate and how to select it. https://www.hse.gov.uk/pubns/indg174.htm

HSE INDG225 – Preventing Slips and Trips Particularly relevant for dark-site observing and winter events. https://www.hse.gov.uk/pubns/indg225.htm

HSE – Working at Height Essential for societies with domes, observatories, or elevated equipment. https://www.hse.gov.uk/work-at-height