

Risk Assessment and Health and Safety Procedures for Members Use of the Observatory Site and Equipment.

When using the Observatory site, the safety of members and visitors is paramount. Astronomy is typically an activity that takes place during the dark, which adds an extra hazard when moving about, particularly around equipment. We ask that members take care in moving around the site and buildings, and when observing through the telescopes be attentive at all times to instructions given by the designated telescope operator. The following is a summary of risks, we ask that members read through this information, as it is to ensure your safety.

Car Parking

Members may use the Observatory car park. The car park/entrance to the observatory is a gravelled surface and therefore slightly uneven, but there are no exceptional surface hazards. Care should be taken when entering/leaving as there is a small dip (about 50 cm) on the left hand side as you enter the car park. There are two motion-sensor lights that illuminate the car parking area. These may occasionally be switched off, so it is advisable to bring a small torch.

On rare occasions, if the Observatory car park is full, it may be necessary to use La Houquette School. This will require walking along the main road; the use of a torch and high-visibility clothing is strongly recommended. There are no street-lights, and the single pavement, which is on the opposite side of the road, is uneven. It is necessary to cross the road twice. There is a 25 mph speed limit in the area because of the proximity of the school, but traffic is known to go considerably faster than that, especially at night. At the school there is a pedestrian crossing, however, there is no pedestrian crossing at the Observatory end of the road, so extra care should be taken.

Rue du Lorier is a narrow lane, and there is no pavement. However, there is only a short distance (about 20 metres) to walk along from the main road. There is little traffic on it, and the 25 mph speed limit applies.

Priority in using the Observatory car park will be given to those with mobility issues.

Rear Grassed Area

As you walk round to the rear, the outside area is grass. There is a chain separating the rear area from the car park. Typically, the first person to arrive will unhook the chain and stow it out of the way, however, members should approach the rear carefully in case the chain is still across the entrance.

The rear grassed area is fairly even, but not entirely flat and it may be damp from rain or dew, wearing suitable footwear is recommended. There are two red lights outside that illuminate some areas of the site, typically these will be on, but they give limited illumination so take care when moving around all external areas in the dark. Members are advised to obtain a personal, combined red/white light torch for extra safety when moving about in the dark. It takes approximately 20 minutes for your eyes to fully adapt to the dark, after which you will be able to see more, so avoid using a white light torch and be extra careful until your eyes fully adapt to the darkness. The edging to the grassed area has been left to grow to provide habitat to wildlife and contains brambles and nettles. There are four outdoor concrete pads to provide a flat surface for additional telescopes. For further information please see *Use of the Concrete Pads, Power Supplies and Members Own Equipment*.

Main Building

The main building is used for lectures and there is a double-door entry from the outside concrete pad with a very slight sill of about 2 cm height. Typically, there will be either white or red light illumination inside. There are no known hazards. If dark outside then take care in exiting the main building, allowing for your eyes to adjust to the darkness.

The main building has a wall mounted projector, when not in use it should be switched off at the wall. It uses a Class 1 laser diode array; members should not look directly at the lens when in use. Air vents to the projector must not be obstructed. Further instructions can be found on the wall adjacent to the socket that it is plugged into.

The computer and monitor should be switched off when not in use. The fibre and Wi-Fi should remain on. There is a telephone for emergency use by the computer, which has a battery back-up system so will operate in the event of a power failure.

On the right hand side immediately inside the door there are water and CO₂ fire extinguishers. Please see the section on *Fire Safety* below.

Kitchen Area

To the rear of the main building there is a small kitchen area. Members may make themselves a hot or cold drink. Care should be taken when using boiling water, particularly if under limited lighting conditions. There is a night light on the wall which may be used when the observatory is operating under dark conditions. Objects that might present a trip hazard should not be left between the sink and worktop area when the kitchen is in use. Never use electrical items with wet hands.

On the left hand side of the rear wall is an electrical consumer unit (fuse board) with trip switches for the main electrical circuits. If there is a power failure, then the person responsible for the activity in progress will check the switches. Members are not allowed access to the consumer unit. If any circuit continues to trip, it should be left off and a member of the Astronomy Committee informed. It may necessitate the current activity being brought to an end. Please also refer to the section on *Electrical Safety*.

Store

The store is kept locked, the Astronomy Section Committee and Officers have access to the key. To enter the store there is a small uneven grass slope down and further concrete cilled-step down, care must be taken when entering and exiting. There is a light switch on the right hand side wall, it must be turned off when exiting the store. Many items are stored on steel shelving, appropriate care must be taken when removing or replacing items.

WC

There is a wall mounted light switch on the left hand side when entering. Care should be taken if exiting in the dark, just after turning out the light as vision will be temporarily poor. Use of a personal torch is advised.

Timber Telescope Building

Access is via a secure key pad and the code to the telescope building is restricted to authorised personal only. Instructions and Safety Procedures for retracting the roof and use of the telescopes is provided for authorised personal only.

To enter the telescope building there are two steps up to a single door, which have non-slip safety treads. There is a single white-painted handrail and on the opposite side is the opened door. It is recommended that the handrail is used. There is a non-slip mat at the entrance and non-slip flooring throughout. Typically, there will be a red light on in the telescope building when observing, this is over the doorway and helps to illuminate the entrance/exit, care must be taken on and around the steps. However, occasionally to achieve maximum darkness for observing, the red light may be turned off and extra care moving about is needed.

The telescope is motor driven and will slew at speed to astronomical targets, the designated operator will advise when this is about to happen. Do not stand between the telescope and two long walls of the telescope building as the gap can be limited when the telescope moves. Do not stand to the south of the telescope (the far end of the telescope building as viewed from the door) as the operator's view in this direction is restricted. Instruction on this will be given by the telescope operator.

The telescopes are situated at height to look over the walls and it may be necessary on occasion to use steps. The telescope operator will provide instruction. Please also see *Observing Protocols* below.

There is a computer in the first steel cabinet, this should only be used by those authorised to do so. Typically, the computer is left on to run the All Sky Camera, but the monitor is turned off. On top of the cabinet there is a Wi-Fi extender which should be left on.

There is a 40 watt heater attached to the telescope column at floor level, it can get warm, but it is out of reach for members who are observing through the telescope.

On the right hand side immediately inside the door there is a CO2 fire extinguisher. Please see the section on *Fire Safety* below.

On the outside of the telescope building there are two waterproof double external sockets. For use please see the section on *Use of the Concrete Pads, Power Supplies and Members Own Equipment (ii) Three Small Concrete Pads*.

On the left hand side of the side wall at high level, is a secondary electrical consumer unit (fuse board) with trip switches for the electrical circuits in the telescope building. The consumer unit is linked to the primary consumer unit in the main building. If there is a power failure, then the person responsible for the activity in progress will check the switches. In resetting the switch, it may be necessary to also check the consumer unit in the main building. Members are not allowed access to either consumer unit. If any circuit continues to trip, it should be left off and a member of the Astronomy Committee informed. It may be necessary to bring the current activity to end. Please also refer to the section on *Electrical Safety*.

Use of the Concrete Pads, Power Supplies and Members Own Equipment

(i) *Large Concrete Pad* - On the large concrete pad in front of the main building there is a raised double power socket (about 10 cm height). When small telescopes are in use outside, this socket should be protected/covered by the telescope, otherwise, it must be covered with the yellow bin. Power to the external electrical socket is switched on by a switch inside the meeting room, at low level on the right hand side wall when entering. When using the external electrical socket, the cover must be closed once the power lead has been plugged in. When no longer in use, the cover must be firmly snapped closed and the yellow bin replaced. The switch

in the main building should also be turned off. The external socket contains an RCD trip switch. If this trips, it may be reset by pressing the reset button. If it also trips the main consumer unit located in the kitchen, then advise the person responsible for the overall activity in progress, who will check the switches. Members are not allowed access to the consumer unit. If any circuit continues to trip, it should be left off and a member of the Astronomy Committee informed. It may be necessary to bring the current activity to an end.

(ii) *Three Small Concrete Pads* – These may be used for additional telescopes. If the telescope is mains power operated, it may be plugged into one of the wall mounted electrical sockets on the side of the timber telescope building. When in use, after a power lead has been plugged in, the cover should be closed. When not in use the electrical socket cover should be firmly snapped closed. Extreme care should be taken when power leads are run to the small concrete pads. White chairs must be placed over the trailing lead and members on site should be notified of the potential hazard by the person using the power lead. Members must not move the chairs when protecting a trailing power lead. Please also refer to the section on *Electrical Safety*.

When moving around any of the telescopes outside please be careful of any associated cables/leads and follow the instructions of the person operating the telescope.

Telescopes are typically motor driven and slew at speed to observing targets, the designated operator or owner if it is a personal telescope, must advise when this is about to happen and make sure everyone is standing at a safe distance.

(iii) *Members Own Equipment* - when members are using their own equipment, the member must take all reasonable care to ensure their personal safety and the safety of other members.

Fire Safety

Fire extinguishers are located in the Main Building and Telescope Building. Fire safety procedures are on the Astronomy Section notice board and in the Information for Members Booklet. There are also instructions by the fire extinguishers. Members should familiarise themselves with the location of the fire extinguishers and how to safely use them and vacate the premises in the event of a fire.

Electrical Safety

No member shall interfere with any of the electrical circuits or electrical equipment, nor access the consumer units located in the kitchen and telescope building. If in any doubt about the safety of any electrically operated item do not use it and report it immediately to a member of the Astronomy Committee or person designated to run the current activity. Extra care should be taken when using mains electricity outside. Items using mains electricity should never be placed directly onto the grass, as the grass can get damp. Electrical appliances should never be used with wet hands.

Use of Laser Pointers

Members may not use laser pointers, unless approved by the Astronomy Committee, typically permission is not given to the general membership. Those given permission will be given additional health and safety procedures.

*David Le Conte Astronomical Observatory Risk Assessment and
Health and Safety Procedures for Members*

Observing Protocols

It is helpful if those waiting their turn to look through a telescope can queue, and then, once they have had a look, move away from the telescope so that the next person can observe. There are no eye hazards from observing objects visible in the night sky. If required, the telescope operator may guide the member observing to the eyepiece of the telescope. Be careful you do not hit your head on the telescopes when moving forward to view and when moving away afterwards. A small stepladder is available for use when the telescope eyepiece is in a high position, The ladder should not be too close or too far, allowing the observer to stand upright, without unduly leaning forward or backward. It should not be necessary to mount higher than the second step, holding onto the rail provided on the ladder.

Please do not touch the telescopes, as this can cause them to go out of alignment, which takes time to re-establish. Please be attentive at all times to guidance from the telescope operator.

Solar Observing

Generally, the same rules above will apply. All our telescopes are fitted with appropriate filters to allow safe solar observation. These filters must not be removed or tampered with, and all instructions given by the person designated to run the activity must be followed.

It is dangerous to look directly or through optical instruments at the Sun without the correct glasses or filters. Personal solar glasses should not be used with optical instruments.

Please note: Risk Assessments/Health and Safety procedures may be found on our
website: astronomy.org.gg

It is recommended that members familiarise themselves with all relevant Health and
Safety/Operating procedures which must be strictly adhered to.