Bluewater Astronomical Society form: PPO 2011.3
Protocols for Public Outreach (in effect March 2011)

Members of the Bluewater Astronomical Society have been valuable assets in promoting interest in astronomy both within Grey and Bruce counties and elsewhere. BAS sincerely appreciates the assistance and expertise of these individuals who freely offer their time to promote our hobby.

In order to make the activity a safe and enjoyable one, the public outreach committee has put together a list of protocols so that members who volunteer for public outreach activities are aware of the best and safest way to provide the "service". We all realize that in any situation where members of an organization are dealing with the general public (especially children and especially at night) that sometimes issues arise that we should all consider.

Any individual(s) who volunteer(s) to take a part in BAS public outreach activities:

1. Does so on their own recognizance;
2. Agree(s) to abide by the laws of Canada/Ontario relating to public behaviour;
3. Has filled out and filed with the BAS outreach committee a **Volunteer Registration/Information Form;** (Note: BAS members have access at any time to their completed form. Contact the secretary.)
4. Agree(s) to waive BAS from any liability for personal equipment loss/damage and/or personal injury during public outreach events;
5. Agree(s) to follow the protocols below under **A: Night Time Activities** and **B: Day Time Activities;**
6. Agree(s) to follow the **GLP (Green Laser Pointer) Use Protocols of the BAS;**
7. Agree(s) to submit any documentation required by organizations with which BAS partners (e.g. BWDSB, Grey Roots Museum, BALL).

A: Night Time Activities

1. When setting up your equipment, we recommend that you transport your heavy items to the site yourself (via wheeled dollies, for ex.). Use only a trusted helper known personally to you. Do not allow a stranger to carry heavy items, -a trip or fall could damage equipment or injure someone.

2. Make sure you provide sufficient light to set up your equipment and for any members of the public who might be approaching to safely navigate to your site. Do not be overly anxious to get people to turn off flashlights (white especially) since these may be required for safe approach to your site. It is a good idea to have a supply of red filter material and tape and offer it to anyone who wishes to shield their white flashlights. And make sure you comment on how well one can see after a period of dark adaptation. Most people do not realize how bright it can be at night.

3. Make sure that any of your equipment cases are safely stowed out of public traffic areas so as to not cause a tripping hazard in the dark.

4. If children will be attending the event, set up your telescope accordingly -shorten the legs of tripods if possible so that the eyepiece is accessible to children. Avoid having to use a ladder at the eyepiece.

5. The feet of telescope mountings can be tripping hazards and if yours are particularly so, attach phosphorescent strips (night lights) or red LEDs to them so they can be seen at night. Once observing begins, inform people waiting in line about the approach path to your scope and an exit path that is free from obstructions.

6. Before you start showing objects in your telescope, mention all or some of the simple viewing "rules" if the opportunity presents itself. These may have been mentioned already in the indoor part of the event and may need only refreshing. These could include statements like:

1. Do not touch the eyepiece or grab the telescope.
2. I will direct you to the eyepiece. with my red light.
3. Be careful as you bring your eye down to the eyepiece. Move slowly and move a bit from side to side to centre the view.
4. Don't rush the view. Have a good long look if you want.
5. Move away after viewing to the left (or right) of the scope. (along the designated exit path).
6. Feel free to go to another scope or back to the end of the line for another look.

7. If a child requires assistance to see the eyepiece, inform parents that the parents should assist/lift their children themselves. BAS members should not do this under any circumstances. Sometimes the eyepiece can be reached if an equipment case or small step stool is provided but BAS members should not lift children to the eyepiece. Do, however, stand by ready to catch a child if they fall off the ladder or step stool.

8. Ensure that viewers can see the eyepiece as they bring their eye towards it (to avoid bumping eyepiece with their eye). You can use a red light to guide viewers to the eyepiece and then remove it once they have reached the correct viewing position.

9. Laser pointers are to be used by BAS members/tour guides ONLY. No members of the public is to be allowed to handle these.

10. Green laser pointers are to be used with regard to the official "**GLP Use Protocols of the BAS**" . Please read these and be familiar with the legal requirements of safe GLP use.

B: Day Time Activities

1. Displays boards and/or telescopes or other equipment should be safely mounted to prevent any inadvertent contact by viewers that could cause them to trip or injure themselves in some way.

2. Display boards and other materials should be secured such that they do not topple in the wind.

3. BAS members/volunteers should not bring hazardous materials to display/observing sites. Laser pointers, red or green, should not be left on display. BAS recommends that GLPs have their batteries removed on such occasions. BAS recommends that only red lasers be used as screen pointers for indoor presentations.

4. If telescopes are set up, they should only be pointed at terrestrial targets or the moon if it is in the sky.

5. No devices like projection viewers, welder's filter glass or handheld solar glasses should be provided to the public since the device could potentially be misused and cause eye damage.

6. Direct solar observing with telescopes with solar filters i.e., through an eyepiece, is discouraged. BAS policy is to use a video camera or webcam on a single designated telescope and a TV monitor to display the sun. This will eliminate any potential damage to eyes in the event of accidents. Also, be careful of reflections from the sun as you install solar filters on the telescope. Please make sure that solar filters are secure and will not detach during use. Solar filter material should be of the approved type for safe solar viewing.

7. Daytime viewing using an H-alpha or other such filtered telescope is at the discretion of the owner of such a telescope.

GLP (Green Laser Pointers) Use Protocols of the BAS form: GLP 2011.1
(adapted from RASC Guidelines) (in effect Mar, 2011)

Aiming a directed bright light (DBL) source into the cockpit of an aircraft is a federal offense because it jeopardizes aviation safety. These light sources (GLPs specifically) are also hazardous to the vision of pilots and threaten passenger safety.

If convicted of pointing a laser into an aircraft cockpit, the offender could face the $100 000 maximum fine under the Aeronautics Act, imprisonment of up to five years, or both penalties.

With respect to using GLPs in the vicinity of aircraft, the BAS expects its members at all times to operate GLPs in a safe and responsible manner and to remain within the law. Note that the area around the IOEES site and the Grey-Bruce region in general is an active airway for many commercial airlines. GLPs should NOT be pointed at any aircraft and used only sparingly and in as limited a way as possible to point out objects in the sky.

In keeping with the BAS's commitment to informative, inspiring, and safe public outreach, it encourages its members to follow these guidelines for the use of GLPs:

1. Ensure that GLPs are operated only by designated, responsible adults, preferably BAS members who are familiar with the potential hazards of laser light. During public events, ALL BAS members should assist in looking out for air traffic in the area;

2. Take special care not to shine GLPs in the direction of any person, vehicle, aircraft, or wildlife;

3. Avoid using GLPs near an airport or airport runway approach. GLPs should NOT be used within 10 km of any airport; (note: OEC is 10.4 km from the Wiarton/Keppel Airport, Grey Roots Museum is 11.2 km from Owen Sound Billy Bishop Airport)

4. Use the minimum power to do the job: a 5 mW laser is bright enough to be effective at night;

5. Be aware that distraction and distress can be experienced by anyone illuminated by green laser light, even if the level is well below that which would cause physiological damage;

6. Use good sense in storing GLPs. Don't leave lasers accessible to children. Consider removing the batteries when you are done using a GLP.

By following these guidelines (which are simply common sense) BAS members will reduce the chance of an unfortunate incident involving GLPs, and will demonstrate due diligence while leading public astronomical activities.

Remember, GLPs are useful if you're **SMART** about using them.

Safe = place safety foremost
Mature = keep GLPs in responsible hands
Astute = use GLPs skillfully and economically
Rational = match your GLP use to your scientific approach
Tactical = think ahead - plan your GLP use