



PAS

PHOENIX ASTRONOMICAL SOCIETY – ESTABLISHED 1948

Value Added Activities for your Event!

PAS's Meteorite Men

Mike Marron

Mike brings real meteorites to touch and feel. Hear stories about where they come from, how they were formed, and Mike can answer any question about astronomy, astrophysics, and cosmology you might have. His newest editions are a rock from the Moon, a rock from Mars and a rock from Mercury. Mike usually steals the show at all of our events. Mike's enthusiasm is contagious! Please book your event early if you wish to have Mike attend because he is in high demand and there is only one Mike!

Sam Insana

Sam has been a member of the Phoenix Astronomical Society for over 30 years. He is also a past President of PAS. Sam graduated with a BS degree from Caltech and worked with NASA's Planetary Quarantine Unit. He has a large meteorite collection including samples from the Moon, Mars, Meteor Crater Arizona, and many other fascinating origins. Sam will answer questions about each meteorite on display, and let you hold a large iron nickel meteorite that fell in Russia over 70 years ago. He has samples of stony, stony iron, iron nickel, chondrites, achondrites, and some that were formed at the beginning of our solar system almost 5 billion years ago. A most fascinating item is glass container with a soil sample from the KT boundary 65.5 million years old, which contains a bottom layer of cretaceous soil, a middle layer of micrometeorites and iridium (from the asteroid that helped kill the dinosaurs), and a top layer from the tertiary period. Sam also has various charts and diagrams explaining how to tell meteorites from meteorite fragments, showing where large meteors have hit the earth, and other fascinating facts. He provides magnifying glasses and lights, visible and UV, to help bring out details in several samples. You will learn a lot about meteorites if you visit Sam's display.

Moon Viewing in Daytime

If the timing is right and your event allows for the viewing of the Moon during the daytime (3rd Quarter Moon phase is required for this to happen), the viewing of the Moon is an additional 1 scope fee but a very nice addition to your event. Check with the Event Manager to find out if the Moon is available for your event date. Best viewing times of the Moon and Sun together is from 10am to 2pm. Additional times may be available, but if you have a 2 hour event, starting it with an ending time no later than 4 or 5pm, would be a great way to show the Moon during the day through a telescope. There are **only 4 days a month** that this is possible. Book your event now!

Binocular Star Party

PAS can provide a class where by participants can bring their own binoculars and learn the night sky on a guided tour. Cost of this type of event is 1 telescope / binocular teacher. It is advised to have 2 teachers on hand for a 2 hour event. Hiring company / individual must provide seating for all class members and teachers. It is also suggested that red lights & Pencils are available for the class members to use to see their star charts and be able to track what objects they saw at this class.

Cost of Value Added Options / Presenters

Value Added Additions to your event will be the same as the Cost per Telescope for your event for indoor or outdoor options. Please see Scope Fee Chart and the Booking Doc. Displays such as Meteorites, etc... (non Multi Media) are considered a Scope, when figuring the Cost for your event.

If you are looking for a Multi Media presentation, please see Scope Fee listed in the Booking Doc on page 1. Multi Media presentations are on a screen, with a projector that **you provide**, as a sit-down lecture. These fees are different and additional, than the "Cost per telescope" fee. Multi Media Presentations can be any time of day or night and are not Weather restricted.

Solar Viewing with PAS

(This is based on availability of the scope owner)

PAS has many members who have Solar telescopes available. My suggestion is to get 2 different solar scopes to attend your event. This gives you a variety of stuff to look at on the Sun.

Setting up for Solar viewing: It is suggested that, if the Solar Viewing is to be done in addition to an evening Star Party, start the Solar Viewing a minimum of 1 hour prior to sun down. If it is convenient, 2 hours prior to sundown is preferred. Please note: additional time for an event = additional \$\$\$.

If the Solar Viewing is it's own event, there needs to be an hour of set up time, a minimum of 1 hour of Solar Viewing Time, and an hour of Clean up time. And Cold water (minimum of 2 bottles per PAS Telescope Team member per hour) must be provided for all Telescope Team members during this event no matter what time of year. See page 1 of the Booking Doc for the Solar Viewing fee = Telescope Fee for your event.

- **Telescope Full Aperture Solar Filter:** This solar filter allows about 1% of the Sun's light to come through it and is attached to the end of the telescope. It shows the Sun Spots on the Sun. These filters use flat polished glass coated with nickel and chromium to attenuate the sun to 1/1000 of 1% of full intensity. Glass filters give the sun's image a pleasing orange-yellow tint. And since you use this filter with your telescope or binoculars, you can crank up the magnification to see sunspots and granulation on the sun's surface.
 - **PST – Personal Solar Telescope:** This type of Solar Scope is its own scope, meaning it is **ONLY** for Solar Viewing. This 40mm diameter highly portable dedicated solar telescope features completely internal non-removable and safe solar filtering optics with a 1.0 angstrom hydrogen-alpha (Ha) bandpass for great surface detail. The PST will show you the dynamic, ever changing prominences at the edge of the Sun as well as filaments and other surface details in amazing detail, all in the brilliant and distinctive red color of hydrogen-alpha light.
 - **Lunt Solar Scope:** Lunt Solar Systems telescopes are equipped with Hydrogen-Alpha solar filters to show you flares, prominences, spicules, filaments, plages, coronal mass ejections, and more – you see the dynamic, living face of the Sun changing as you watch.
-

Value Added Presentations are designed to add MORE to your event. PAS can provide a variety of hands on activities, presentations through Multimedia, or one-on-one at a display table, or other options. PAS is known for having Mike, Meteorite Man, who really steals the show from the telescopes every time. Mike is in super high demand and that's why you need to book your event early to make sure he is available. There is only one Mike. But there are other members of our club who would love to do presentations for your organization.

Mike also has a variety of multimedia presentations about anything Astronomy, Cosmology, Planetary Astrophysics, Geophysics, & Quantum Physics. He can present it at any level you wish with enough notice to set up his presentation.

Types of Events:

PAS does so many types of events, it is a challenge to know which events should have a separate Booking Doc, so I provide that info here:

* A Booking Doc is needed for each of these events, individually:

- * Evening Star Party with Scopes & Presenters
- * Solar / Lunar Viewing as Daytime event.
- * A Presentation by any PAS Member for any organization - Multimedia
- * Binocular or Telescope Private Instruction
- * PAS Meteorite Men are asked to be at an event.
- * Binocular Star Party (evening event)

* 1 Booking Doc can be provided for a set of events all happening in the same location, with the same set up, such as a reoccurring star party, once a month, with the same fee (if applicable). In this case, just list the dates of all events to the 1st page of one Booking Doc.
