



# Focal Point



October, 2012

## Every Thing You Always Wanted to Know About Telescopes But Were Afraid to Ask

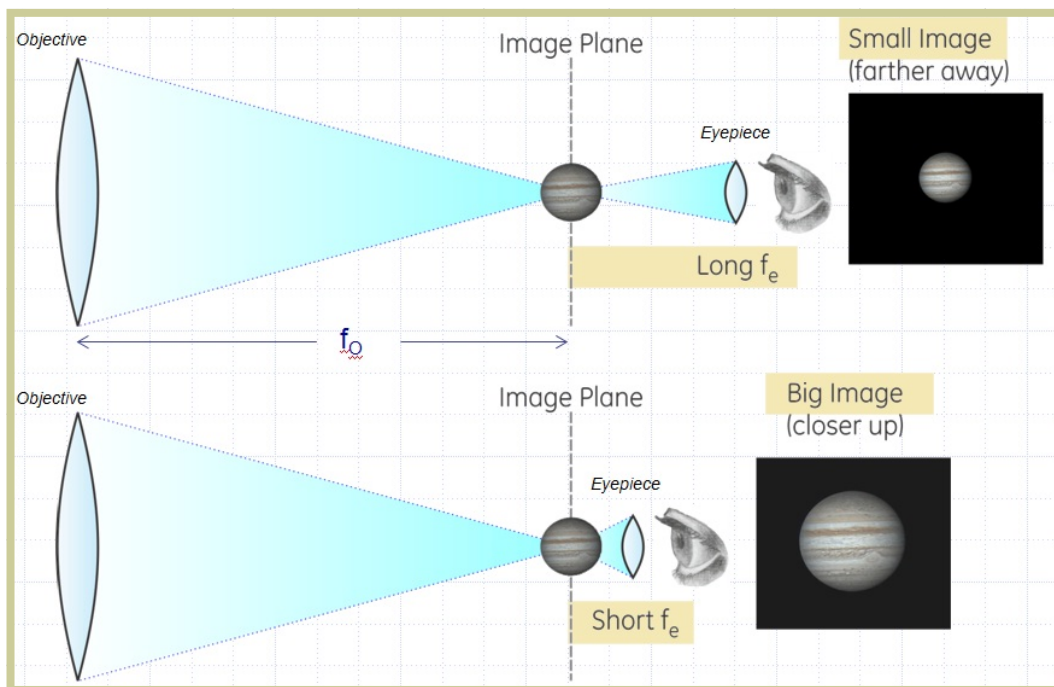
The next Membership Meeting will take place on October 19<sup>st</sup>, at 8:00 PM at the MAS Observatory.

The speaker of the night will be **Randy Culp**, who will show you a few simple, in some cases unbelievably simple formulas that allow you to compare telescopes and to determine how best to use those telescopes.

can, to make a bright image. The other two being: resolve more detail than your eye can without assistance and to magnify the image so you can see the additional detail. The equations permit you to find just exactly how well the telescope will perform these tasks. Along the way you will be shown how the tasks are accomplished, by explaining both

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The telescope is taking all the light passing through the objective lens and compressing it down to a column of light that will pass through the pupil of the eye. This is one of the three major tasks of the telescope to collect way more light than your eye

the theory and the practice with special emphasis on MAS's telescopes. This presentation will be just as useful for beginners as it might be for more experienced members.

## Treasurer's Report

The MAS has received \$419 from parking donations, and \$3833 from membership renewal.

Payments of utility bills, fire extinguisher service, Annual Picnic expenses and web domain fee totaled \$361.66.

A budget has been made for this year, with \$2708 set aside for the expected bills not including money for gas, salt and cleaning supplies. We have \$1.865 not earmarked at this time. We also expect some income from parking donations, which was \$1245 in last year.

Currently the checking account balance is at \$2,111.14. The Albrecht fund is \$8,070.92.

The total value of the individual financial instruments is \$89.557.32.

Respectfully Submitted,  
Neil Simmons, Treasurer

## Observatory Director's Report

A new computer has to be purchased for the 12" LX200 telescope.

The focuser of the B-scope is damaged and this model is no longer available. Therefore the old one will be sent for repair.

Russell made progress with electrical work in the A-dome. In the process the ventilation fan of the Quonset hut was accidentally repaired.

The clock drive of the Z-scope does not work.

Respectfully Submitted,  
Gerry Samolyk, Observatory Director

## Meeting Minutes

**Held** on September 21<sup>st</sup> at the MAS Observatory, New Berlin.

The meeting was called to order at 8:00 PM by President, Henry Gerner

**Minutes** of the May General Meeting, was read and approved.

The **Treasurer's Report** was read by Treasurer, Neil Simmons. Copy attached.

The **Observatory Director's Report** was read by Observatory Director, Gerry Samolyk. Copy attached.

There was no **Correspondence**

There was no **Old Business**

There was no **New Business** .

**Announcement** - Henry Gerner announced that from January through March 2013 we are going to have meetings at the UWM. Sue Timlin reminded the members about the last Public Night of the year on October 12<sup>th</sup>.

**The Program** Brian Ganiere announced the guest speaker: Brian Schwartz, an Assistant Professor of Astronomy and Physics, at Carthage College, Kenosha, who gave a presentation entitled "The history of Griffin Observatory".



The meeting was adjourned at 8:52 PM

Respectfully Submitted,  
Agnes Keszler, Secretary

## Member's Astrophoto - The North America Nebula

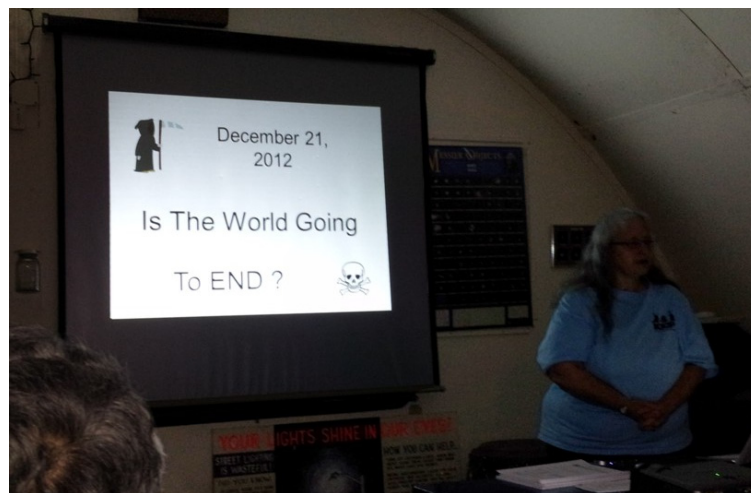


The North America Nebula (NGC 7000) is an emission nebula in the constellation Cygnus, close to Deneb.

The image is a combination of two 500 seconds exposures taken with an 8" Schmidt-Cassegrain Celestron telescope with a HyperStar-F2. The camera is a single color QHY PRO8 CCD with Orion 80mm short tube Starshoot autoguider. It is preprocessed with Nebulosity2 and Photoshop software.

Astrophoto taken by Raymond D. Horvath  
on September 25<sup>th</sup> 2012

## Public Night on the Possibility of End of the World on December 21<sup>st</sup>



The final Public Night of 2012 was held on October 12. Once again we were lucky with the weather. The clear sky and the topic: "Is the world going to end?" attracted a big crowd. Sue Timlin gave a presentation in

which she confuted "popular" doomsday theories using scientific/astronomical data. The guests had a chance to view several objects through the B-scope, and the two Obsession telescopes.

## In the Astronomical News

### A "Dream Comet" Heading Our Way?

Faint, distant comets get discovered all the time, usually by robotic telescopes that sweep up huge swaths of sky every clear night. Most come and go quietly. But a new find made on September 24th by a pair of amateur sky sleuths has the astronomy world atwitter (in this word's traditional *and* modern connotations) with the prospect that it could become very bright late next year.

It was first spotted as a faint, 18.8-magnitude object in images taken by Vitali Nevski (in Belarus) and Artyom Novichonok (in Russia) using a 16-inch (0.4-m) reflector that's part of the worldwide International Scientific Optical Network (ISON). "We could not be certain that it was a comet," Novichonok explains, "because the scale of our images is quite small [2 arcseconds per pixel], and the object was very compact."

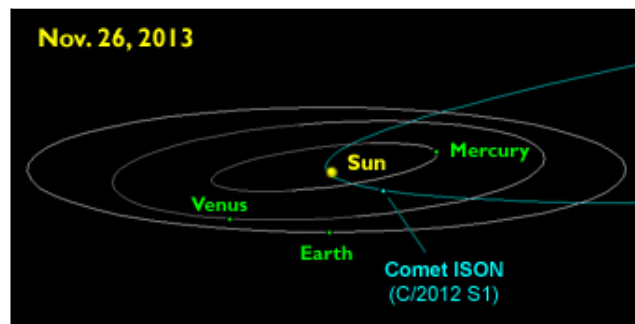
The next night they confirmed its cometary nature using the larger reflector at Majdanak Observatory in Uzbekistan, but by then other astronomers had done likewise. According to naming conventions established by the International Astronomical Union, that one day of uncertainty led to the comet being generically named "ISON" instead of "Nevski-Novichonok". Its formal designation is C/2012 S1.

Naming uncertainties aside, we already know a lot about this object, thanks to two sets of prediscovery images dating to last December and January. The comet is inbound from the Oort Cloud and will pass *very* close to the Sun — just 725,000 miles (1.2 million km) from its white-hot photosphere — on November 28, 2013. Before then and thereafter (if it survives perihelion), Comet ISON could put on a spectacular show.

In fact, the geometry could make C/2012 S1 a "dream comet," as one eager skywatcher has commented, because it will swing just 40 million miles (0.4 astronomical unit) from Earth a few weeks after perihelion, when it will be high in

moonless, northern skies after sunset. Initial predictions by the IAU's Minor Planet Center suggest that Comet ISON could peak at magnitude  $-10$  or brighter at perihelion (when it will be just  $1^\circ$  from the Sun), and that it could remain visible to the unaided eye from early November to the first weeks of 2014.

An added bonus is that the comet passes very close to Mars in early October 2013 and could potentially be observed by the sensitive Mast Cameras on the rover Curiosity.



As plotted by the Jet Propulsion Laboratory's "Horizons" system, Comet ISON (C/2012 S1) will pass very closely to the Sun - but not crash into it - in late November 2013. At that time it might be at least magnitude 10, bright enough to be spotted despite very strong solar glare. NASA / JPL

Of course, a lot can happen in the coming year. I'm old enough to recall how the much-heralded Comet Kohoutek (C/1973 E1), whose apparition was over-hyped, ultimately proved very disappointing (read: "complete dud"). And yet, Comet ISON has "turned on" very early — it's still  $6\frac{1}{4}$  a.u. from the Sun, well beyond Jupiter's orbit. Moreover, its orbit

bears striking similarity to that of the Great Comet of 1680, a dazzler with a very long tail so bright that that reportedly could be seen in daylight. Dynamicists are wondering whether that object and Comet ISON are fragments of the same parent body.

Regardless, it's been a long dry spell since Comet Hale-Bopp (C/1995 O1) put on its long-running show in 1997 — though Comet 17P/Holmes briefly caught our eye in 2007). Now prospects are good for beautiful appearance from not one but *two* celestial visitors next year. Comet Pan-STARRS could provide the warm-up act in March, followed by headliner Comet ISON eight months later.

by Kelly Beatty

## Adopt a Telescope Program - Signup Sheet

	<b>Adoptee</b>	<b>Scope</b>	<b>Location</b>
<b>1</b>	Sue Timlin	18" F/4.5 Obsession	Wiesen Observatory
<b>2</b>	Neil Simmons	12.5" F/7.4 Buckstaff	B Dome
<b>3</b>	Russell Chabot	12.5" F/9 Hallbach	A Dome (Armfield)
<b>4</b>	Dan Yanko	18" F/4.5 Obsession (Kyle Baron)	Albrecht Observatory
<b>5</b>	Tamas Kriska	25" F/15 Zemlock	Z Dome
<b>6</b>	Henry Gerner	12" LX 200	Tangney Observatory
<b>7</b>	Jeffrey Fillian	14" Z-Two scope	Ray Zit Observatory
<b>8</b>	Kevin & John McCarthy	10" LX 200	Jim Toeller Observatory

### At Your Service

#### Officers / Staff

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Michael Smiley	262-825-3981
Sue Timlin	414-460-4886
Dan Yanko	262-255-3482

#### October/November Key Holders

10/20	Brian Ganiere	414-961-8745
10/27	Henry Gerner	414-774-9194
11/3	Chris Hesseltine	414-482-4515
11/10	Tim Hoff	262-662-2212
11/17	Scott Jamieson	262-592-3049
11/24	Lee Keith	414-425-2331



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