

NOVA

The Newsletter Of The Sheep Hill Astronomical Assn.

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Committee Chairs

Observation	Open	Observatory	Ray Smith	Publicity	Open
		Program	Open	http://www.sheephillaastro.org	

To Schedule Observatory Qualifications: contact Ray Smith (regular) or Andy Monka (advanced)

GREETINGS

The next business meeting of SHAA will be held on January 8, 2012 at 7:30 P.M. The meeting will be held at the Boonton Senior Center. The program for the evening will be the **Astronomer's Guide to 2012** – a look at what's up in the night sky in the coming year.

Executive Board Meeting

The next executive board meeting will be held on January 8, 2012 at 6:30 P.M. All members are invited to attend.

Club Night

The next Club Night will be held on Saturday, January 21.

Public Nights

The next Public Night Open House will be held on Friday, January 20, weather permitting.

Upcoming Events

No Events scheduled for the current month.

Qualification Reminder

There aren't many rulez in SHAA, but an agreement was reached in 2001 about participation required for the maintenance of qualified observer status. The issue was discussed and it was agreed that a minimum of five events combined (Public Nights, Club Nights) and three business meetings per year are necessary to retain your qualified observer status. Please review your recent participation and make the appropriate adjustments, if necessary.

A Telescopic Tour for January:

R.A	Declination	Description	R.A	Declination	Description.
17h 41.9m	+72d 10s	ψ Draconis, double star	5h 35.4m	-5d 22s	M42, Orion Nebula.
0h 42.7m	+41d 16s	M31, Andromeda Galaxy	5h 38.7m	-2d 35s	σ Orionis, multiple star
1h 33.9m	+33d 39s	M33, Triangulum Galaxy	6h 08.9m	+24d 21s	M35 cluster
2h 03.9m	+42d 20s	γ Andromedae, double star	6h 32.4m	+4d 52s	Rosette Nebula
2h 21.5m	+57d 08s	Perseus double cluster	7h 34.6m	+31d 54s	Castor, double star
2h 29.0m	+67d 24s	ι Cassiopeiae, triple star	8h 40.4m	+19d 41s	Praesepe cluster
2h 50.6m	+55d 53s	η Persei, double star	9h 55.6m	+69d 04s	M81 Galaxy
3h 47.5m	+24d 06s	Pleiades	10h 19.9m	+19d 51s	γ Leonis, double star
4h 59.6m	-14d 47s	R Leporis, Crimson Star	13h 23.9m	+54d 55s	Mizar, double star

Sky Views

The first point of light you will see as darkness descends is Venus. It shines at -4.0. That's 4 times brighter than Jupiter. During January, Venus' angular separation from the sun grows from 34° to 40°, setting more than 3 hours after the sun by month's end. Moving eastward from Capricornus into Aquarius, Venus has a close encounter with Neptune on January 12th. Neptune glows at magnitude 8.0, so you will need binoculars to see it. On the 12th, center Venus in the field of view and then hunt for Neptune 1.2° to its north. Uranus lies one constellation to the northeast in Pisces. It stands about halfway from the southwestern horizon to the zenith as soon as the sky grows dark. Shining at magnitude 5.9, it is an easy target through binoculars or a telescope of any size. Jupiter is hard to miss throughout the month as it is well positioned for viewing throughout the evening. The giant planet appears some 60° above the southern horizon at nightfall and shines at magnitude -2.5. No other planet changes appearance during January as much as Mars. The red planet nearly doubles in brightness, going from magnitude 0.2 to -0.5, while its diameter when viewed through a telescope grows 30 percent, from 9.0" to 11.7". Mars moves slowly from southeastern Leo into Virgo on January 14th. It rises after 10P.M. January 1st and nearly 2 hours earlier by month's end. Saturn rises before 1A.M. in mid-January and appears almost halfway up the southern sky by the time dawn breaks. It lies in south-central Virgo, some 7° east-northeast of the bright star Spica. Mercury makes a fleeting appearance in the morning sky during the first week of the month. Shining at magnitude -0.4 on New Year's morning, it rises 90 minutes before the sun and appears 9° above the southeastern horizon a half-hour before sunrise.

Month at a Glance

January 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 First Qtr. Moon	2	3	4 Quadrantids peak	5	6	7
8 Business Meeting 7:30 P.M.	9 Full Moon	10	11	12	13	14
15	16 Last Qtr. Moon	17	18	19	20 Public Night	21 Club Night
22	23 New Moon	24	25	26	27	28
29	30 First Qtr. Moon	31				

Future Meeting Dates (Mark those Calendars)

February 5

March 4

April 7

May 6

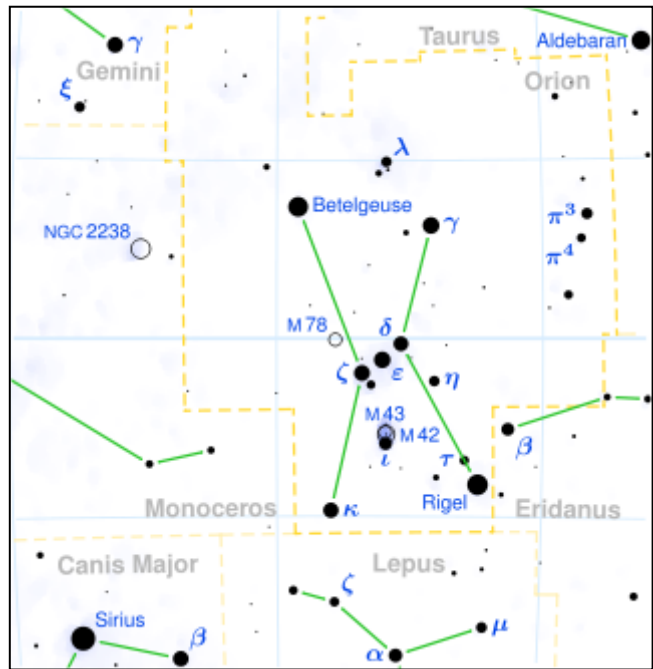
June 3

Constellation Clues

Betelgeuse red, Rigel blue. Taurus, the Bull, rushes down on Orion. Orion raises shield and club to defend himself. The Bull: triangular face (Hyades) and two long horns. Aldebaran, a red glaring eye. Pleiades in the hump of the Bull's shoulder. El Nath (Arabic "the butting"), point of the upper horn, formerly belonged to Auriga as well. Auriga is an irregular pentagon if El Nath is included. Capella and Rigel are on a north-south line. More loosely, so are the whole right and left sides of their two constellations. Below Orion's feet: the Hare (Lepus), then the Dove (Columba). Big Dipper now stands like a question mark. Western end of Leo like a reverse question mark with Regulus the dot. (Constellation Clues from the Astronomical Calendar 2012 by Guy Ottewell).

Focus On... Orion, the Hunter

Orion is probably the most recognizable constellation in the winter sky. The bright stars that make up his shoulders, knees, and belt are fascinating in their own right. But the other treasures found within the constellation are what really draw in the crowds. Most of the constellation is covered by the vast Orion Molecular Cloud Complex, an active star-forming region with several bright patches. The most notable of these is M42, the Great Orion Nebula. Visible to the naked eye, M42 is arguably the best diffuse nebulae to view with any size optical aid. Nearby M43 and M78 are also parts of the complex. One of the more elusive targets is the Horsehead nebula located just to the south of Alnitak (the easternmost star in the belt). The shape of the horse's head is actually a pocket of thick dust in the foreground obscuring the view of the glowing red hydrogen gas behind it. A hydrogen-beta filter can be used to enhance the contrast between the light and dark sections.



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