

LAS Newsletter – November 2015

LAS Meeting Thursday November 19th 7 pm

“Imaging Equipment”

A review and demo of some astronomical equipment currently available to amateurs for photographing the night sky, planets, galaxies, and stars. We'll discuss some of the advantages and problems LAS members have had using various imaging cameras, mounts, focusers, filter wheels, and scopes.

Location

The meeting will be at the IHOP Restaurant, 2040 Ken Pratt Boulevard, Longmont. Please join us for coffee, dinner, or just desert around 6 pm; The general meeting and presentation will begin at 7 pm.

Upcoming events in November

- Nov. 7th 10 am, Louisville Library, 951 Spruce St., Louisville, CO solar viewing
- Nov. 17th 7 pm, Court Yard Marriot, 948 West Dillon Road, Louisville, CO
- Nov. 19th LAS Meeting at IHop, 2040 Ken Pratt Blvd, Longmont, CO

October 16th Meeting Notes

by Joe Hudson

Vern Raben opened the meeting and announced the agenda and upcoming events. Introduction of Officers: Vern Raben as president, Gary Garzone as vice president, Mike Fellows as treasurer, Brian Kimball as board member, Jim Elkins as board member (out of town), Tally O'Donnell board as board member, and Joe Hudson as secretary.

Presentation “Mr. Messiers Neighborhood” by Mike Roos

Charles Messier was a 17th century French astronomer comet hunter. He discovered 13 comets during his lifetime. He began a list of objects and positions to keep track of “pesky” objects which looked like comets but were not. His final list contained 103

objects that either he or his friend and assistant Pierre Mechain discovered. Later they were credited with discovering an additional 7 objects which now comprise the 110 objects in the Messier list recognized by astronomers today. Messier's list are great selection of bright objects for beginning amateurs to explore.

William Herschel expanded on the discoveries by Messier to his own list of about 2500 objects. His son, John Herschel, extended the list of discoveries to include objects visible from the southern hemisphere.

John L. E. Dryer expanded on the Herschel catalog to include observations of couple hundred observers in his New General Catalog (NGC). Dryer did not verify the observations so the catalog contains a number of positional errors and duplications.

The Wolfgang Steinicke website http://www.klima-luft.de/steinicke/index_e.htm includes downloadable spreadsheets from an ongoing NGC/IC project to correct the catalog.

Business Meeting

Treasurer's report was given by Mike Fellows. Club is in good shape financially; we have 74 members.

Gary Garzone gave an update on the LAS telescope project. He and Brian Kimball obtained some dob bases, tubes, focusers, and mirror mounts. He'll schedule a time for folks interested to help assemble the scopes.

Library Telescope update by Vern Raben. As of Sept. 28th there were 42 people on the wait list for the 4 scopes LAS provided the library. That is wait time of nearly 6 months. The LAS exec board approved two more and the kits have been ordered.

Celestial Highlights

Moon

Third quarter moon: Nov. 3 5:25 am
 New moon: Nov. 10 10:47 am
 First quarter: Nov. 18 11:29 pm
 Full moon: Nov. 25 3:45 pm

Mercury

Mercury is visible low in the eastern sky before sunrise the first week in November. It disappears in twilight glare Nov. 7th. It will become visible in the evening sky after Dec. 5th.

Venus

Venus rises around 2:38 am in the constellation Virgo. It moves to Libra on the 10th. It begins the month at magnitude -4.3 and is 23 arc sec across. By the end of the month that decreases to 18 arc sec across and magnitude -4.4.

Mars

Mars is visible before sunrise in the constellation Virgo. It is currently magnitude 1.7 in apparent brightness and 4.3 arc sec across. At the end of the month it will be magnitude 1.5 and 4.8 arc sec across. Mars opposition will be next year on May 22nd.

Jupiter

Jupiter is visible in the eastern sky before sunrise in constellation Leo. It is magnitude -1.9 in brightness and 34 arc sec across.

GRS Transits above 20° altitude this month:

Nov. 5 4:35 am alt 31°
 Nov. 9 3:44 am alt 24°
 Nov. 11 5:22 am alt 43°
 Nov. 17 4:31 am alt 37°
 Nov. 19 6:10 am alt 52°

Jupiter GRS Transits cont'd

Nov. 22 03:40 am alt 31°
 Nov. 24 05:18 am alt. 48°
 Nov. 26 02:48 am alt 24°
 Nov. 29 04:27 am alt 43°

Saturn

Saturn is visible in the low SW after sunset in the constellation Scorpio until about Nov. 21st when it disappears into the bright evening twilight. It will reappear in the morning sky on Dec. 5th.

Uranus

View Uranus is visible in the evening in constellation Pisces. It is magnitude 5.7 in brightness and is 3.7 arc sec across.

Neptune

View Neptune in the evening in the constellation Aquarius. Its apparent magnitude is +7.9 and it is 2.3 arc sec across.

Darkness

On November 1st astronomical darkness begins at 7:36 pm and ends at 5:04 am (9h 28m of darkness).

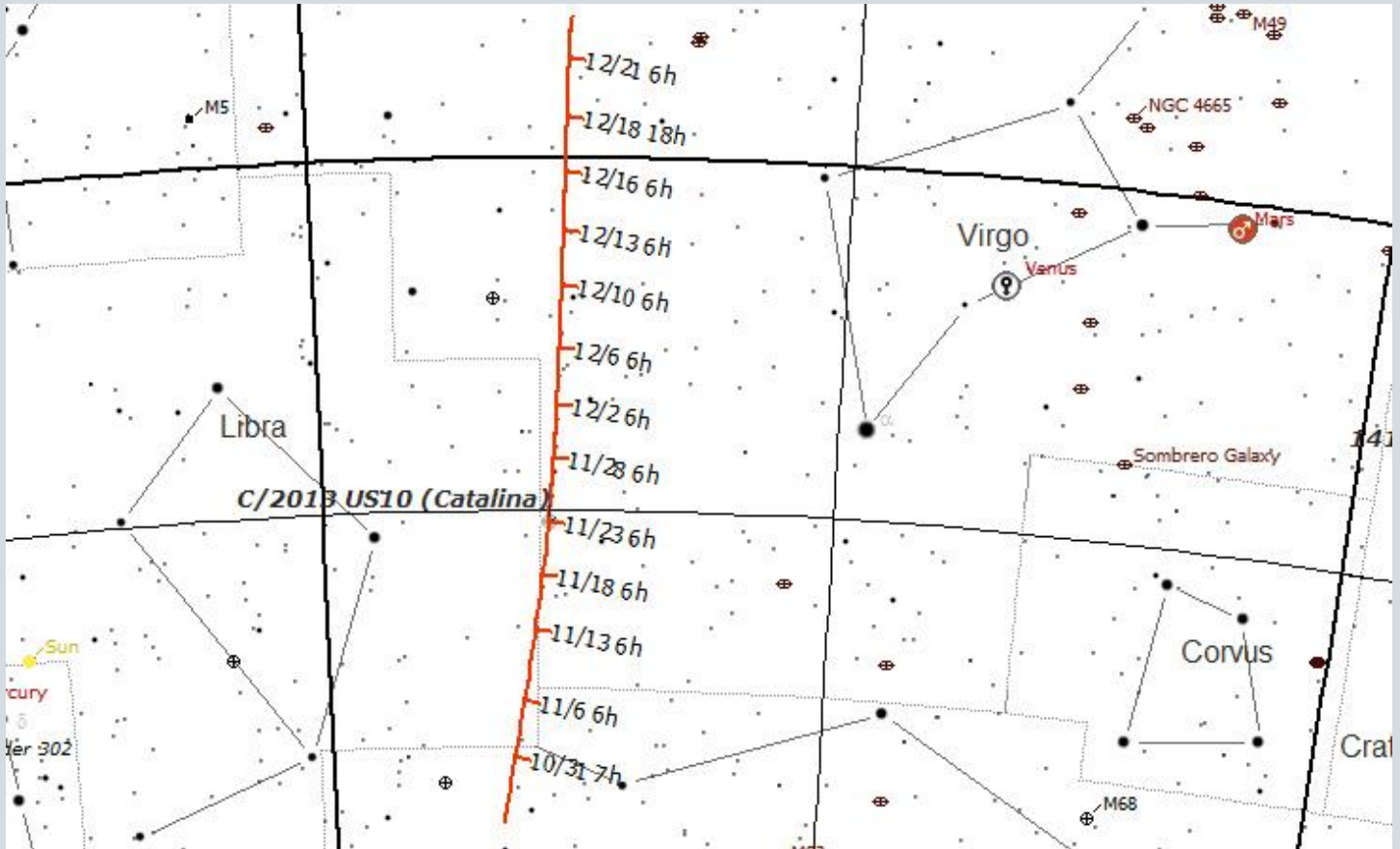
On November 30th astronomical darkness begins at 6:17 pm and ends at 5:32 am MDT. (11h 15m of astronomical darkness).

Meteor Showers

Best meteor shower this month is the Leonids which peaks on the night of Nov 17/18. In most years about 15 per hour are visible from a dark location. Radiant is at RA 10h 08m and Decl +21.6°.

Comets

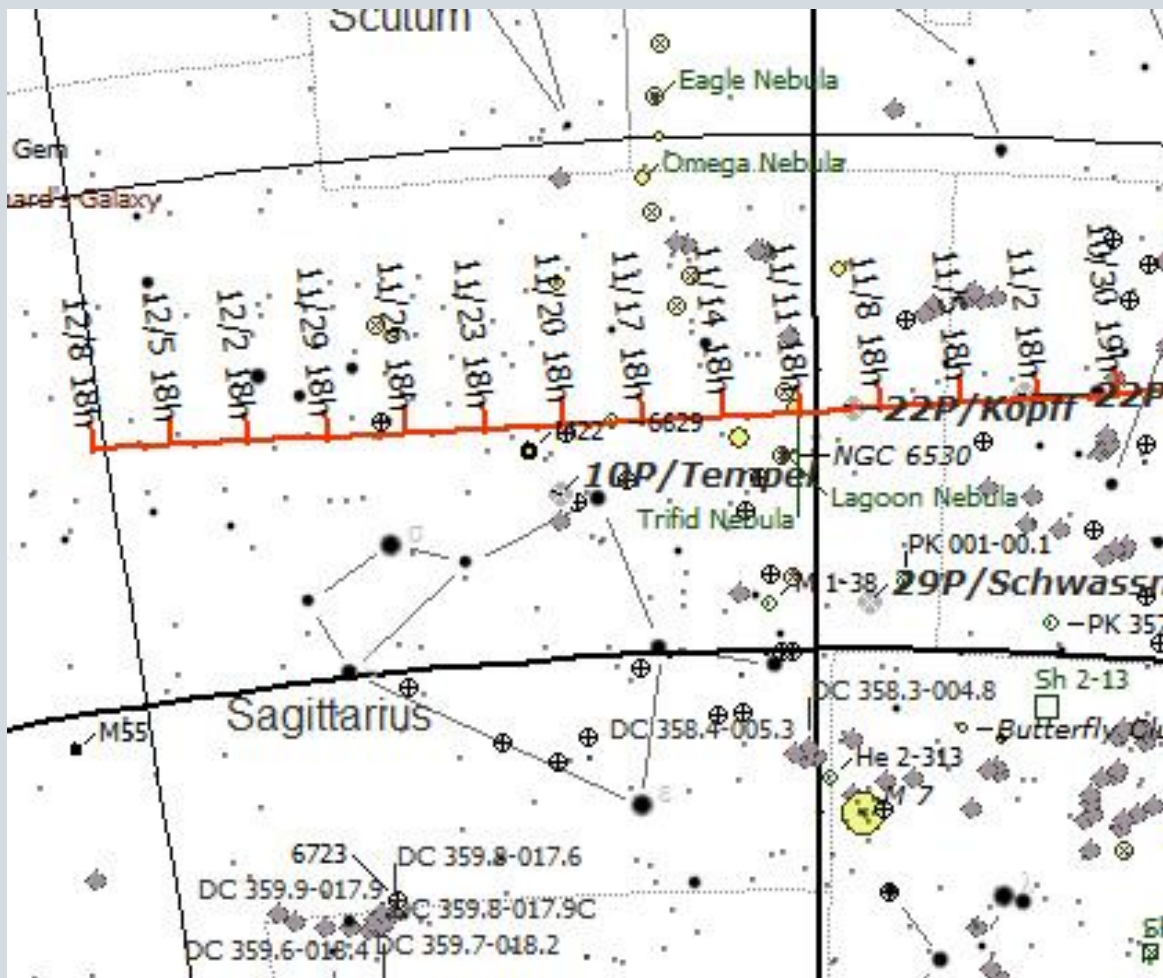
C/2013 US10 (Catalina) will become visible after Nov. 12th in the constellation Libra. It moves to Virgo on Nov. 15th. It will be low in the eastern morning sky in twilight so will be difficult to view initially. It will be magnitude 6.1 magnitude in brightness and the coma will be 7.6 arc min across. It will be up higher and easier to view later this month and next.



C/2013 US10 (Catalina)

Date	Time	RA (Ap)	Dec (Ap)	Date	Time	RA (Ap)	Dec (Ap)
Nov 12	06:15a	14h23m27.3s	-20°07'46"	Nov 22	05:44a	14h21m06.9s	-15°29'56"
Nov 13	06:09a	14h23m11.6s	-19°41'30"	Nov 23	05:43a	14h20m55.3s	-14°59'56"
Nov 14	06:04a	14h22m56.2s	-19°14'56"	Nov 24	05:45a	14h20m44.1s	-14°29'23"
Nov 15	06:00a	14h22m41.1s	-18°48'04"	Nov 25	05:44a	14h20m33.5s	-13°58'22"
Nov 16	05:56a	14h22m26.4s	-18°20'54"	Nov 26	05:44a	14h20m23.3s	-13°26'47"
Nov 17	05:51a	14h22m12.1s	-17°53'24"	Nov 27	05:44a	14h20m13.7s	-12°54'37"
Nov 18	05:49a	14h21m58.2s	-17°25'31"	Nov 28	05:43a	14h20m04.6s	-12°21'50"
Nov 19	05:48a	14h21m44.7s	-16°57'14"	Nov 29	05:43a	14h19m55.9s	-11°48'24"
Nov 20	05:46a	14h21m31.7s	-16°28'34"	Nov 30	05:43a	14h19m47.7s	-11°14'15"
Nov 21	05:45a	14h21m19.1s	-15°59'28"	Dec 1	05:43a	14h19m40.0s	-10°39'21"

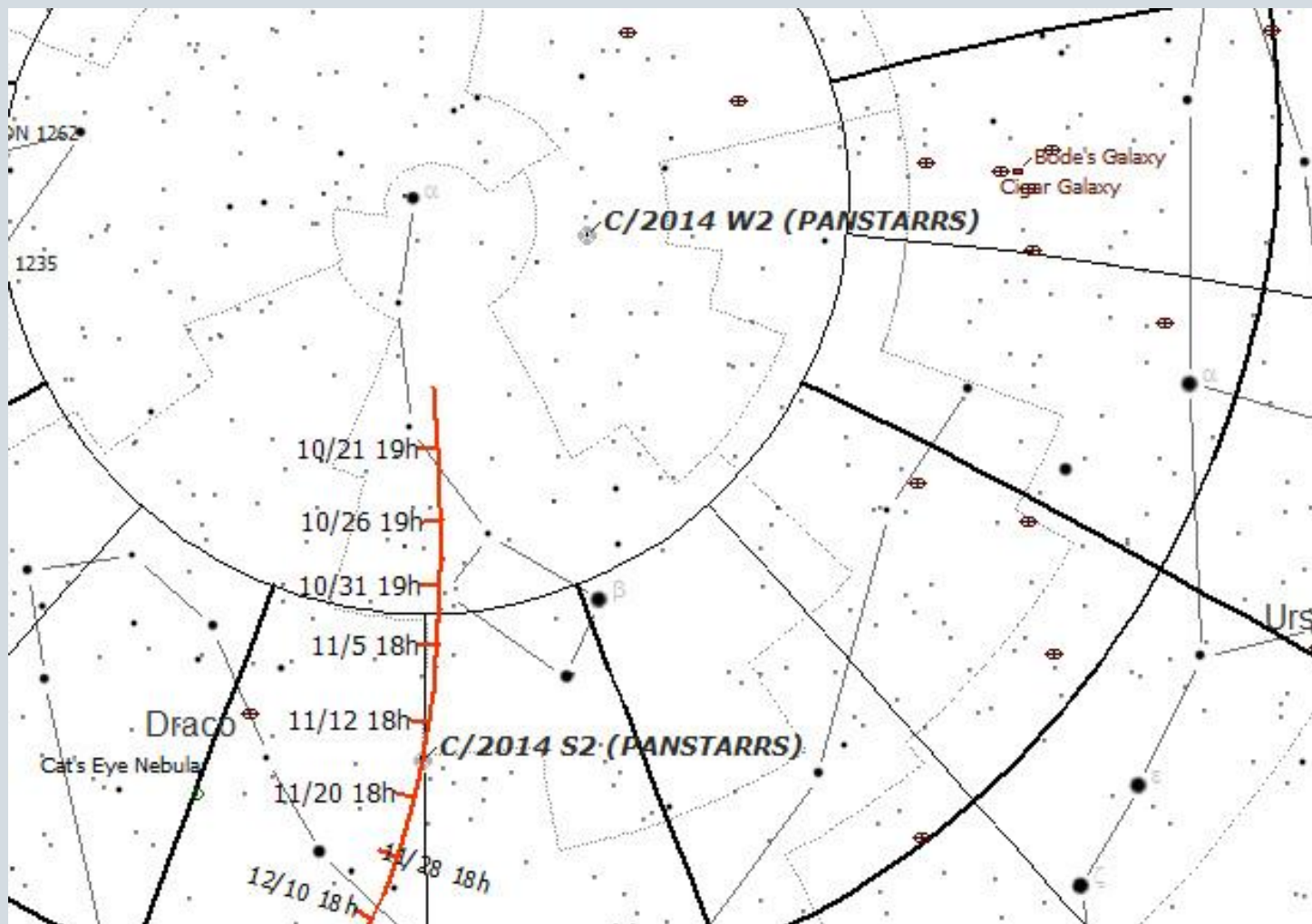
Periodic comet 10P (Tempel) begins the month at magnitude 9.1 in constellation Ophiuchus and will dim to magnitude 9.5 at the end of this month. It moves to constellation Sagittarius on Nov. 6th.



10P (Tempel)

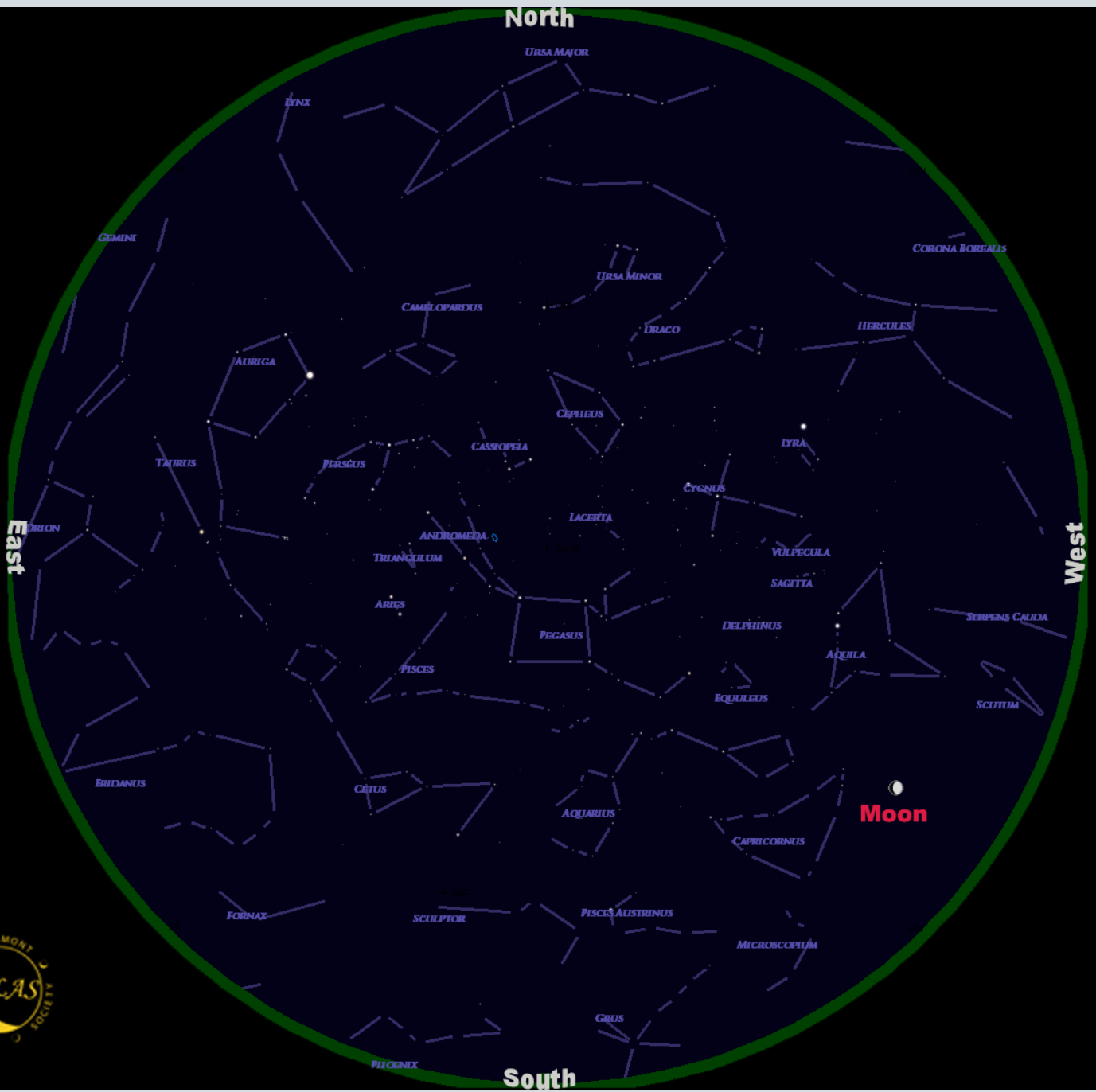
Date	Time	RA (Ap)	Dec (Ap)	Date	Time	RA (Ap)	Dec (Ap)
Nov 1	06:15p	18h05m36.8s	-24°32'13"	Nov 16	06:03p	18h59m20.2s	-25°30'30"
Nov 2	06:14p	18h09m06.2s	-24°38'29"	Nov 17	06:02p	19h02m59.7s	-25°31'34"
Nov 3	06:13p	18h12m36.5s	-24°44'25"	Nov 18	06:01p	19h06m39.6s	-25°32'16"
Nov 4	06:12p	18h16m07.8s	-24°50'02"	Nov 19	06:00p	19h10m19.9s	-25°32'37"
Nov 5	06:11p	18h19m40.0s	-24°55'18"	Nov 20	06:00p	19h14m00.4s	-25°32'35"
Nov 6	06:10p	18h23m12.9s	-25°00'15"	Nov 21	05:59p	19h17m41.1s	-25°32'12"
Nov 7	06:09p	18h26m46.7s	-25°04'51"	Nov 22	05:58p	19h21m21.9s	-25°31'26"
Nov 8	06:08p	18h30m21.2s	-25°09'06"	Nov 23	05:58p	19h25m02.9s	-25°30'19"
Nov 9	06:08p	18h33m56.5s	-25°13'01"	Nov 24	05:57p	19h28m44.0s	-25°28'50"
Nov 10	06:07p	18h37m32.4s	-25°16'34"	Nov 25	05:56p	19h32m25.1s	-25°27'00"
Nov 11	06:06p	18h41m09.0s	-25°19'47"	Nov 26	05:56p	19h36m06.4s	-25°24'47"
Nov 12	06:05p	18h44m46.1s	-25°22'39"	Nov 27	05:58p	19h39m48.0s	-25°22'13"
Nov 13	06:04p	18h48m23.9s	-25°25'09"	Nov 28	05:58p	19h43m29.2s	-25°19'17"
Nov 14	06:04p	18h52m02.3s	-25°27'18"	Nov 29	05:58p	19h47m10.3s	-25°16'00"
Nov 15	06:03p	18h55m41.0s	-25°29'05"	Nov 30	05:58p	19h50m51.1s	-25°12'21"

C2014/S2 (PANSTARRS) is currently in the constellation Ursa Minor. It is magnitude 9.7 in brightness and coma 4.2 arc min across.



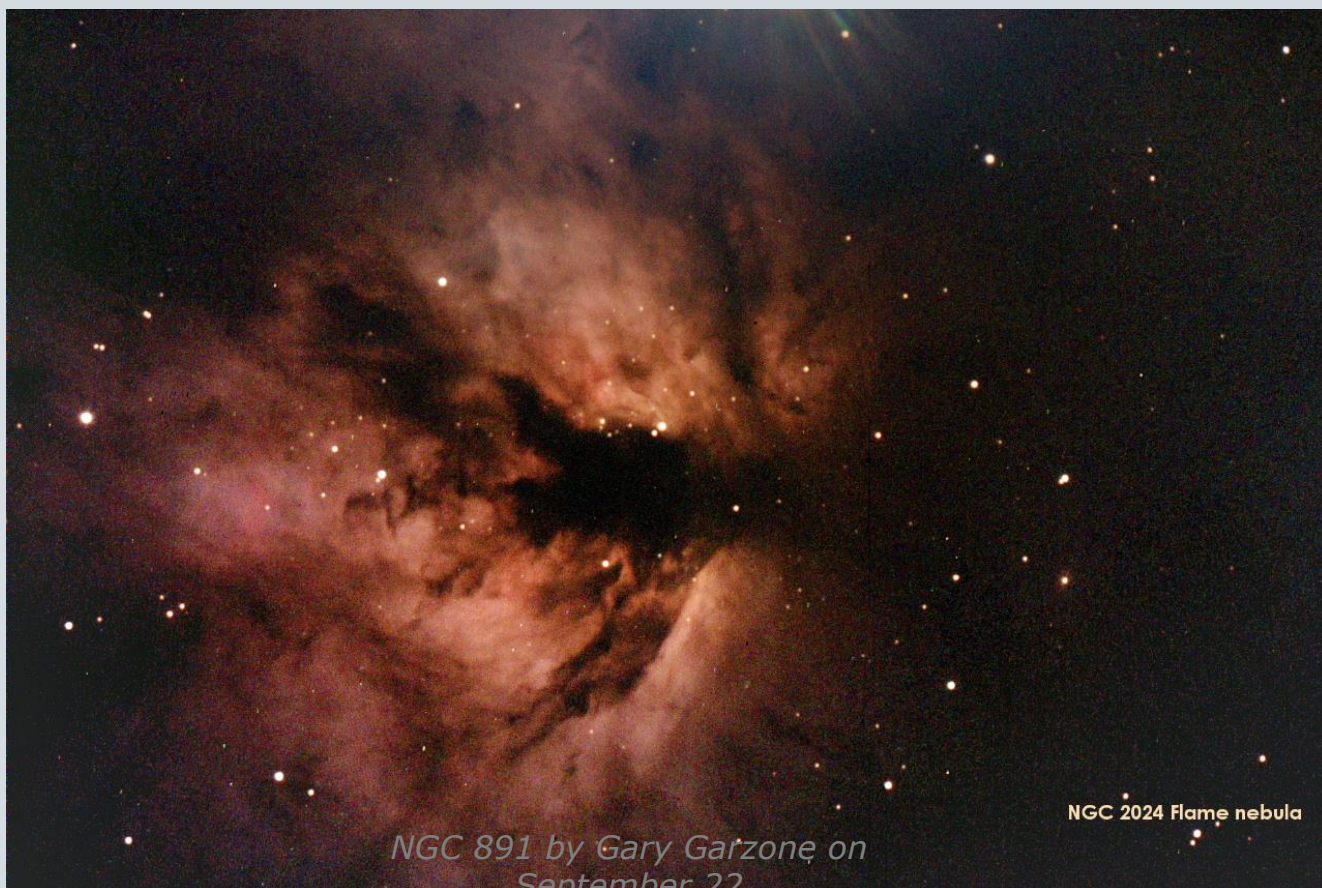
C/2014 S2 (PANSTARRS)

Date	Time	RA (Ap)	Dec (Ap)	Date	Time	RA (Ap)	Dec (Ap)
Nov 1	06:29p	16h20m38.8s	+75°33'00"	Nov 16	06:14p	16h31m35.4s	+69°23'33"
Nov 2	06:28p	16h21m18.7s	+75°05'03"	Nov 17	06:13p	16h32m20.5s	+69°02'50"
Nov 3	06:26p	16h21m59.7s	+74°37'33"	Nov 18	06:12p	16h33m05.5s	+68°42'37"
Nov 4	06:25p	16h22m41.5s	+74°10'31"	Nov 19	06:11p	16h33m50.3s	+68°22'53"
Nov 5	06:24p	16h23m24.0s	+73°43'57"	Nov 20	06:10p	16h34m34.9s	+68°03'40"
Nov 6	06:23p	16h24m07.2s	+73°17'52"	Nov 21	06:09p	16h35m19.2s	+67°44'56"
Nov 7	06:22p	16h24m50.9s	+72°52'15"	Nov 22	05:26a	16h36m25.1s	+67°18'16"
Nov 8	06:21p	16h25m35.0s	+72°27'06"	Nov 23	05:27a	16h37m08.8s	+67°00'45"
Nov 9	06:20p	16h26m19.5s	+72°02'27"	Nov 24	06:07p	16h37m30.5s	+66°51'43"
Nov 10	06:19p	16h27m04.3s	+71°38'16"	Nov 25	06:08p	16h38m13.7s	+66°34'57"
Nov 11	06:18p	16h27m49.2s	+71°14'36"	Nov 26	06:09p	16h38m56.5s	+66°18'40"
Nov 12	06:17p	16h28m34.4s	+70°51'24"	Nov 27	06:08p	16h39m38.9s	+66°02'55"
Nov 13	06:16p	16h29m19.6s	+70°28'42"	Nov 28	06:07p	16h40m20.9s	+65°47'39"
Nov 14	06:15p	16h30m04.9s	+70°06'29"	Nov 29	06:07p	16h41m02.5s	+65°32'52"
Nov 15	06:14p	16h30m50.2s	+69°44'47"	Nov 30	06:07p	16h41m43.6s	+65°18'34"



Our Night Sky November 16 at 8 pm MST





*NGC 891 by Gary Garzone on
September 22*

NGC 2024 Flame nebula

NGC 891, Flame Nebula
by Gary Garzone on Oct. 18th

Club Telescope parts and pieces

Mirror Mounts



Secondary spiders, Teflon bearings, mirror mount hardware



Azimuth base, dec bearings and scope tubes