

Cache Valley Clear Skies

The Journal of the Cache Valley Astronomical Society



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Meeting Announcement

Our monthly meeting will be held on Wednesday, December 17, 2014 at 7:30pm at the Physics Conference Room (room 244) in the Science Engineering Research (SER) building directly east of the library. Our topic will be a video presentation of “The Star of Bethlehem” starring Rick Larson. From the back cover: Scholars debate whether the Star of Bethlehem is a legend created by the early church or a miracle that marked the advent of Christ. Is it possible that the star was a real, astronomical event?

President’s Corner

By Tom Westre December 2014



Merry Christmas, Happy New Year, and Clear Dark Skies!

Can you believe it, but 2014 is almost over. I hope this year has been as productive for you as it has been for me, I had a heart by-pass surgery in July.

But it didn't keep me from doing what I enjoy and that's getting out under the stars with a great telescope.

Now is the time we should be making plans for 2015. I suppose it partly depends what Santa will bring and put under that tree, but I am sure it will be related to astronomy. So let's assume Santa will bring what we ask and start our plan with that in mind.

To start, I plan to eat better and get more exercise, got to keep that heart in mind. But, I also have a sky plan. I got a good start on astro-imaging and see what the capabilities I have with my 6 inch refractor and my 11 inch reflector with my Canon T3i. I now know I have to use my auto-guider, which I didn't use much this year. Coming up in June, some of us will be involved in teaching an Astronomy class at USU to the Summer Citizens that come from out of state to spend the summer here. We are looking forward to that, as well as sharing our enthusiasm to the public in next year's star parties. What's your observing plan?

As a club we are still working on getting a 501 (c) (3) that allows tax exemption for organization's like ours. It's going to cost \$400 to get this done. Several club members have come forward to assist in this. If you feel you can help please let us know. We hate to use club dues for this. By the way, our

club dues are way down. We have 40 who are getting our emails and we hope you will support us this year. You can contact me or our treasurer, Ned Miller.

Thanks to those club members that brought some of their equipment to our November General Meeting where we had a great discussion about buying that first telescope. Also, thanks to Lyle Johnson for getting the word out to the public, as it was geared toward beginners. There are a few club members we haven't seen in a while. We miss you at our meetings and star parties. We need a strong membership to make the club successful and to grow.

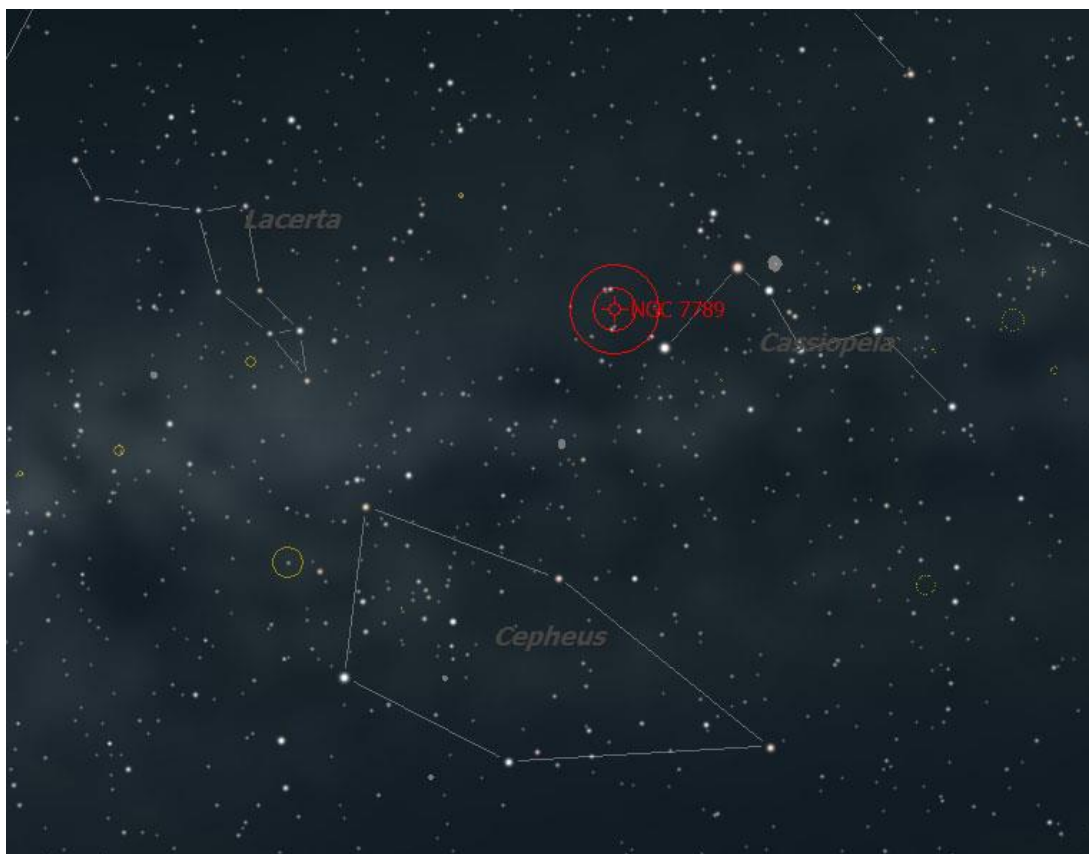
Our December General meeting will be held December 17th. Our topic is "The Christmas Star: Some astronomical possibilities" We hope this topic will be of interest to many in the Valley. Pass the words to friends, family and neighbors, bring them to the meeting. We will be advertising on radio, newspapers and in some businesses. We hope to see you at our meeting

I want to bring to your attention, NGC 7789, a large bright Open Cluster in Cassiopeiae. Sue French describes this in her December 2014 Sky and Telescope article, page 56. Open cluster don't have the interest as do other DSO's. But this is a keeper.

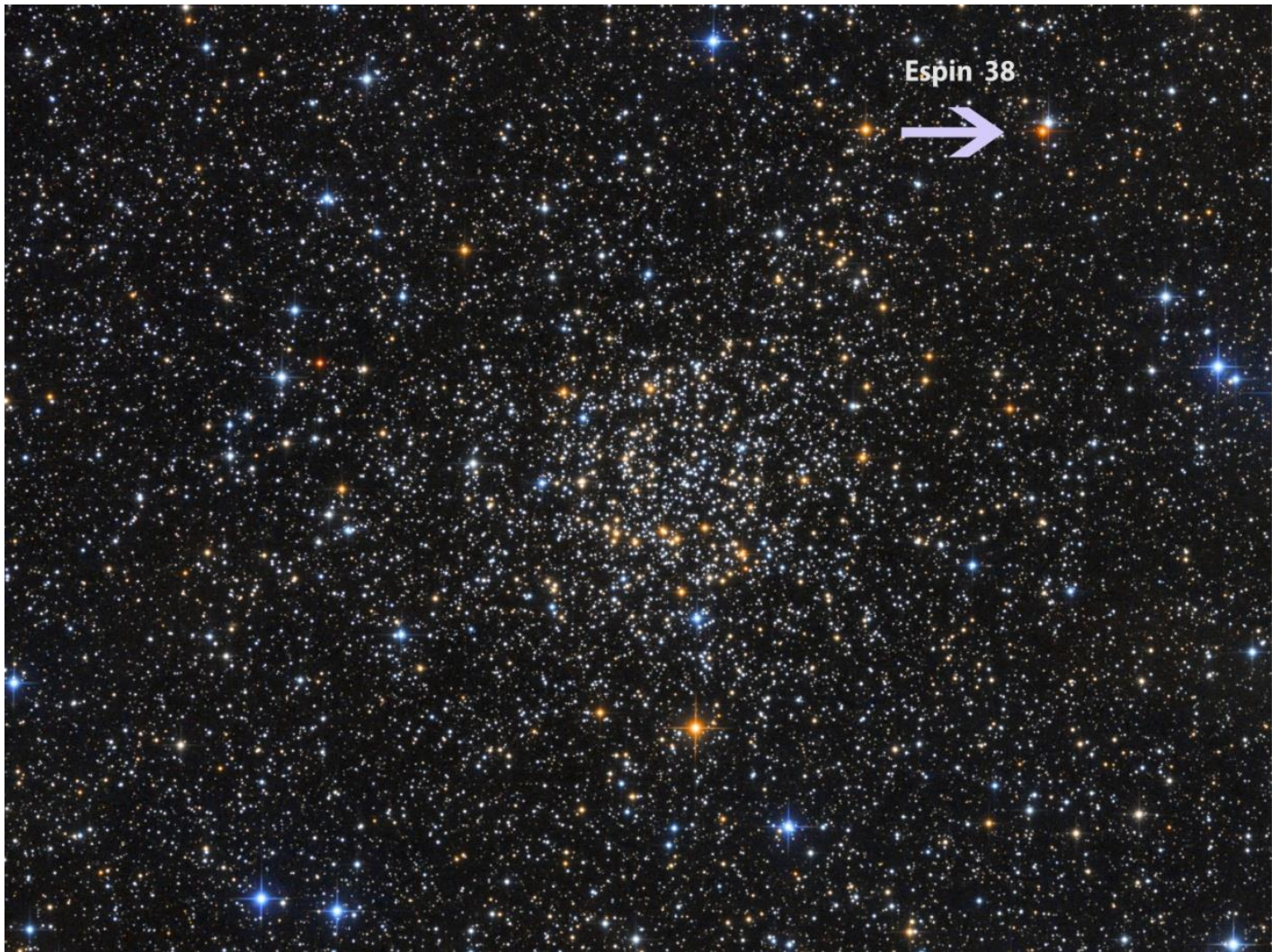
According to the author, NGC 7789 is one of the most beautiful gatherings in our sky...and easily visible in 8x50 binoculars. It's an ancient cluster as open clusters go, about 1 billion years, and has many red giant stars. There are over 500 stars this group. What makes this cluster stand out is the double star Espin 38 near the northeastern edge of the group. The companion is a carbon star with magnitudes from 9.9 to 12.7. If you get a chance to view this target drop me a line and give me a summary of what you see. I am including a photo I got from the internet and a map of where to find this beauty.

Have a great Christmas!!!

Tom Westre



Location of NGC 7789 in Cassiopeia



NGC 7789 and Double Star ESPIN 38. A very rich and ancient open cluster. Note the large number of red giants.

My Start in Astronomy

By Clark Salisbury

I am Clark Salisbury, and I live in North Logan. My interest in astronomy started really back in 1957, when I was 4 years old. We lived in Fort Collins, Colorado at the time, where my Dad worked at Colorado State University in the Plant Science department. He hauled our family out to a remote out of town location, and we watched the Sputnik satellite sent into orbit by the Russians fly silently overhead.

It was awesome, and I was always looking overhead at night after that. A few years later, when the Mariner probe was sent to take photos of Mars, my

Dad got black and white copies of those pictures, to help look for signs of plant life or other life on Mars.

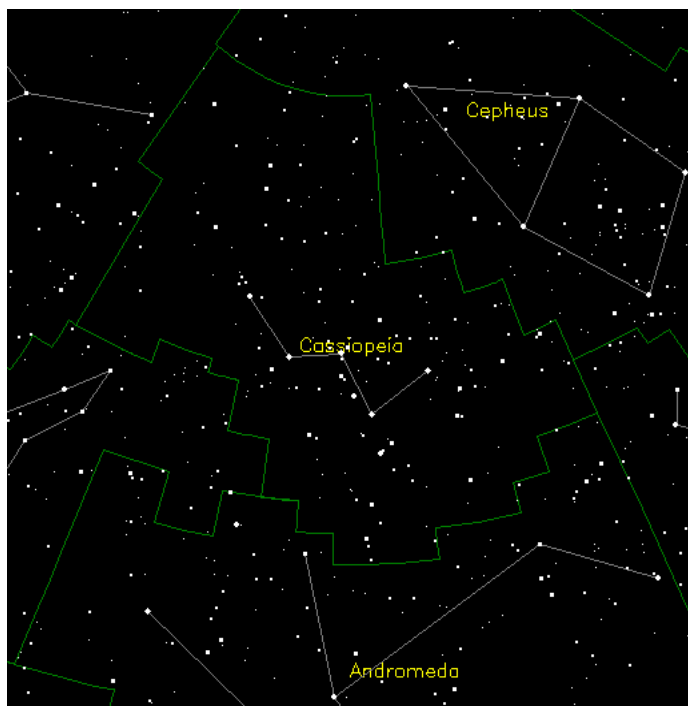
He was a plant physiologist, and NASA thought who better to send those pictures to. My Dad had a huge interest in UFO's also, and for a while, a lot of people who had seen UFO's were reporting their sightings to him. He also wrote a book in the late 60's about sightings in the Uintah basin here in Utah, (The Utah UFO Display) as many folks who lived there saw UFO's in the Summer of 66.

Since then, I have just enjoyed Astronomy in all its aspects. I earned the Astronomy merit badge, in the mid 60's, and of course, my Dad was my merit badge councilor. More recently, I purchased a Meade 8 inch Schmidt Cassegrain telescope, and hauled it out on many cold Winter nights to observe.

Two years ago, I decided that I could build a tower, taking me up over the trees in the neighborhood, to observe better. It took me about 9 months to build, but I now have a raised observatory, which is 25 ft. tall, and it has a regular roof, so it does not look like an observatory, but with 6 big single pane windows I can observe the sky in the comfort and warmth of an enclosed building.

Anyone who would like to come and observe from it, is sure welcome, just call me a few hours ahead, cell 232-5768.

Spotlight on Cassiopeia



By Dale Hooper

You can tell from Tom's beautiful image that this is a very good time to observe Cassiopeia. There are many wonderful objects to observe in Cassiopeia. There are several really nice double or multiple stars, some challenging emission and planetary nebulae and loads of open clusters.

Tom has highlighted a couple of these objects and the December issue of Sky and Telescope highlights many more. We often give a short shrift to open clusters, but there really are quite a few in Cassiopeia that truly are worth observing. The Owl

(or ET) Cluster (NGC 457) is one of my personal favorites.

Object	R.A.	Dec.
Cas A (SNR) [Challenge Obj]	23h23.4m	+58°48'
M52 (Open Cluster)	23h24.2m	+61°35'
NGC 7789 (Open Cluster)	23h57.5m	+56°43'
Espin 38 (Double Star)	23h59.1m	+56°58'
Sh 2-173 (Emission Nebula)	00h21.9m	+61°44'
NGC 278 (Galaxy)	00h52.1m	+47°33'
NGC 457 (Open Cluster)	01h19.1m	+58°20'
M103 (Open Cluster)	01h33.2m	+60°42'
NGC 654 (Open Cluster)	01h44.1m	+61°53'
NGC 663 (Open Cluster)	01h46.0m	+61°15'
Iota Cas (Triple Star)	02h29.1m	+67°24'

CVAS Minutes – November 2014

November's meeting was about how to choose your first telescope. Tom presented a variety of information about this with help from Lyle Johnson, Ned Miller, Dell Vance, Dale Hooper and Clark Salisbury. The topics discussed should greatly help someone that is just starting out in astronomy and is interested in purchasing a telescope. The topics covered consisted of:

- Telescopes versus binoculars
- Cost and Budget
- Trusted Manufacturers
- Specific telescope types:
 - Refractors
 - Newtonians
 - Schmidt Cassegrains
- Mount types:
 - Dobsonian (alt/az)
 - Fork Mount – Goto
 - German Equatorial – Goto
- Benefits of joining a club
- Non-telescope items (Prequel to buying a scope):
 - Magazines (Sky&Tel, Astronomy, etc.)
 - Atlases
 - Star charts (free skymaps.com chart, etc.)
 - Beginner books

- Red-lights
- Astronomy Apps & Programs
- Planispheres

Upcoming Star Parties

Currently there are no organized club star parties planned for December.

Upcoming Events

01 Dec	Jupiter rises at about 10pm local time
02 Dec	43 rd Anniversary (1971) of Mars 3, first craft to soft-land on Mars
02 Dec	40 th Anniversary (1974) of Pioneer 11 Jupiter flyby.
03 Dec	41 st Anniversary (1973) of Pioneer 10 Jupiter flyby (1 st Jupiter flyby)
13-14 Dec	Geminid Meteor Shower
14 Dec	52 nd anniversary (1962) of Mariner 2 flyby of Venus (1 st successful planetary flyby)
15 Dec	Jupiter shines at magnitude -2.3
21 Dec	Winter Solstice
21 Dec	46 th anniversary (1968) of Apollo 8 launch (first manned craft to leave earth's gravity)
31 Dec	Jupiter rises at about 8pm local time
31 Dec	Saturn rises at about 4:15am local time. Saturn shines at magnitude 0.6