

Cache Valley Clear Skies

The Journal of the Cache Valley Astronomical Society



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www.cvas-utahskies.org

Meeting Announcement

Our monthly meeting will be held on Wednesday, **October 26th** in the Bonneville Room at the Logan Library at 7:00pm. **Please note that this is the fourth Wednesday rather than the third. We hope to be able to get a regular room schedule with the library in the near future.**

Club members Ned Miller and Lyle Johnson will be discussing **Binocular Astronomy**. This will be a perfect opportunity for both beginners and experts.

Remember also that dues of \$20 for the 2016 – 2017 year should be paid as soon as possible.

The President's Corner By Dell Vance, CVAS President

Well by popular demand (of the five members that attended the annual meeting) the CVAS has reelected the current officers. Not exactly an overwhelming vote of confidence, but we will do our best to increase member participation.

On the other hand, we had a good turnout at the CVAS Star Party, hosted by Gary Bracken, last Friday Night. Gary set up his 14" SCT and let us all get some beautiful views of our favorite deep sky

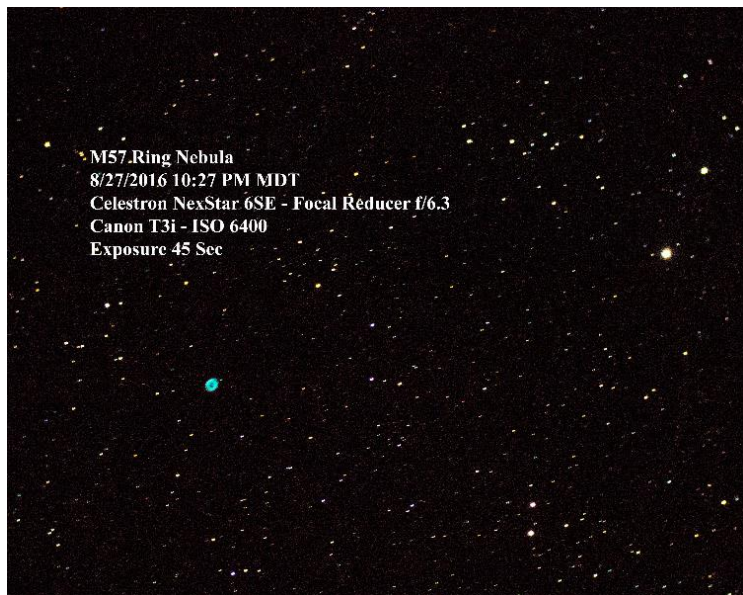


objects. We had about 15 people there and it was a clear sky event.

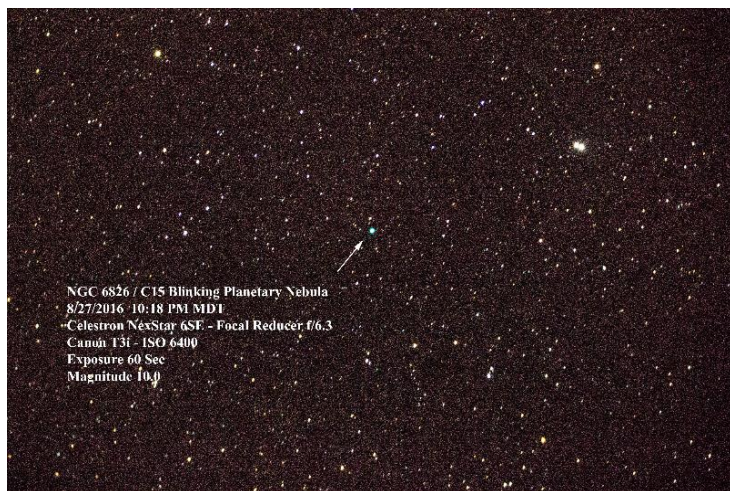
There were three other telescopes there so we had several objects available for everyone to see. I don't think anyone was bored with the event. We especially want to thank Gary for having us over to his place and hosting the event.

Some of the objects we saw that night I had photographed earlier, such as M57 the Ring Nebula and NGC 6826 the Blinking Planetary Nebula. Dale

Hooper explained why NGC 6826 is known as the Blinking Planetary Nebula. It has to do with how you view it through the telescope. If you look straight on, you see just the central star. But if you look away from it you will see the Nebula. The photo just picked up the Nebula. I am always learning something from you folks.



Messier 57 - Ring Nebula courtesy Dell Vance

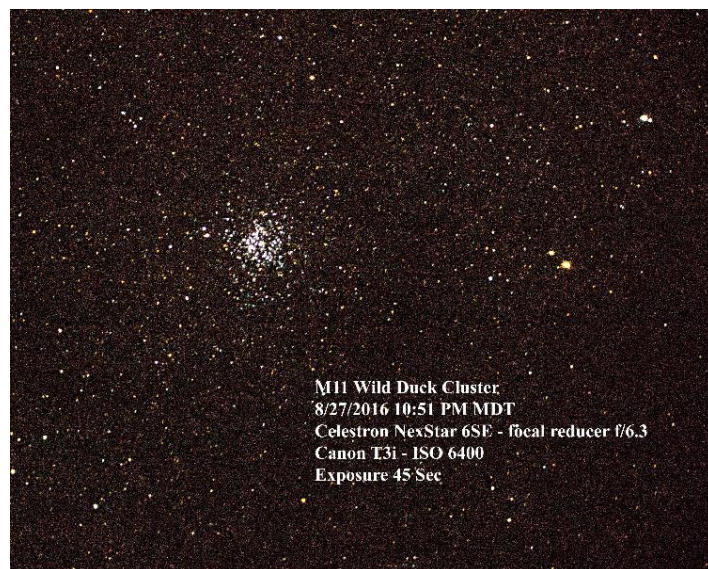


NGC 6826 - the Blinking Planetary courtesy Dell Vance

We also saw M11 the Wild Duck Cluster. This picture is from my small 6" SCT. You should see it through Gary's 14". Wow what a sight.

Last month Blaine Dickey had a great shot of the M27 the Dumbbell Nebula. I had also taken a picture of M27 with my 6" SCT. It is not as spectacular as

Blaine's, but it shows what you can do with a much smaller telescope.



Messier 11 - Wild Duck Cluster courtesy Dell Vance



Messier 27 - Dumbbell Nebula courtesy Dell Vance

There are opportunities for all of us to continue to improve and grow in this great hobby. I hope each of you will join us in exploring what we can do at whatever level we are at. It is a great adventure.

Hope to see you at our upcoming events.

Thanks for your support.

Clear Skies!

Star Party Info

By Tom Westre

Scheduled CVAS star parties at Tom Westre's:

CVAS member, Tom Westre, has offered a flexible opportunity to CVAS members to come to his home in Nibley for observing on clear weekend evenings and for CVAS star parties. Anyone wishing to do so needs to contact him in advance and confirm available dates, and let him know if plans change.

"Our place is open for star parties any Saturday except weekends of the Full Moon. People can call to get weather conditions or to confirm that there is a star party. Our phone number is 435-787-6380. They can e-mail me at twestre45@aol.com. E-mail me for directions if you have never been to my place.

Recent CVAS Star Parties

A few weeks ago CVAS member Tom Westre made arrangements with the Manager of Macey's in Providence for CVAS to host a public star party. We set up several telescopes just to the south of their main entrance. From 8:30 pm until 10:30 pm over 60 people viewed the first quarter moon, Mars, and Saturn. Most had never observed through a telescope.

Many were grateful for the opportunity. This star party provided CVAS with a chance to introduce the club to members of the community. We reported the successful event to the manager and he has agreed to let us have another star party on October 8th (Saturday). We will set up about 8 pm. CVAS members are encouraged to bring their scopes for the event. We appreciate Macey's for their support.

On the evening of Saturday October 1 CVAS held a club star party at the invitation of Gary Bracken out in Petersboro. Gary offered to let us observe with his Meade 14 inch telescope. Several members also brought their scopes. There were about 15 in attendance including some of Gary's family and friends. The sky was clear for viewing. We

managed to view dozens of deep sky objects. It was an excellent evening of observing and social interaction. This is what membership in CVAS is all about.

This coming week Dell Vance and Tom Westre will make some trips to two nearby schools to talk about astronomy and hopefully if the weather cooperates, help with a solar party and evening star party. This is another opportunity the club has to introduce young people to the wonderful science of astronomy. Many of us got our start in that hobby as youths. We encourage club members to make contact with their areas schools or scouting groups to let them know we are here to promote astronomy and provide our knowledge as a resource for their science classes. Let us know if you need any help. Contact any member of the Executive Committee, Dell Vance, Layne Pedersen, Dale Hooper, Ned Miller or Tom Westre.

CVAS Website Update

Our Webmaster, Tom Westre, has updated the club's webpage (cvas-utahskies.com). Tom has spent many hours putting this website together. The website has information about club events, a photo gallery where club members can submit images they have taken, a resource page of other internet websites related to astronomy and space science.

Also included in the webpage is the club constitution and by-laws, and application for club membership which can be printed out and sent in with your check. There is also a Logan weather chart and information about sky observing.

Tom is always looking for suggestions for the webpage. If you have websites you like we can add it...if you have images we can post them. We are also considering a classified page where club members can buy or sell astronomy related items. Contact Tom through his e-mail at twestre45@aol.com. The webpage is: cvas-utahskies.org.

CVAS Membership Benefits & Information

By Tom Westre

CVAS Benefits – Membership in the Cache Valley Astronomical Society (CVAS) includes invitations to all of the club meetings and star parties, each member will receive an email copy of the monthly newsletter “The Cache Valley Clear Skies.”

CVAS maintains a website (cvas-utahskies.org) for the benefit of members and public. Members are invited to submit articles to the newsletter as well as images/astrophotography to the newsletter and website. Only members may vote in CVAS elections or be eligible for CVAS drawings.

The Executive Committee is discussing the possibility of obtaining magazine discounts to Sky and Telescope and/or Astronomy for members. We will provide more Information about this in the near future.

Another consideration is membership in the Astronomical League. There are some benefits to the club and membership as a result. More information will be forthcoming on this topic.

CVAS Library. Tom Westre is putting together a list of astronomy related books in a lending library for members only. We always value any items you would like to donate to this library. A copy of these materials will be included on the club website and a future newsletter. You will be able to contact Tom to borrow or donate materials.

CVAS also has a ten inch Dobsonian telescope which can be loaned out to club members. Brad Kropp can be contacted if any member wishes to use this telescope.

Joining or Renewing with CVAS

CVAS dues are \$20 a year, a fantastic bargain. Dues are payable in September. If you have not paid your dues yet for 2016-2017 please send or bring a check to our treasurer to re-subscribe, to keep the club financially solvent, and to continue to receive great membership benefits.

Make the check payable to CVAS and send to:

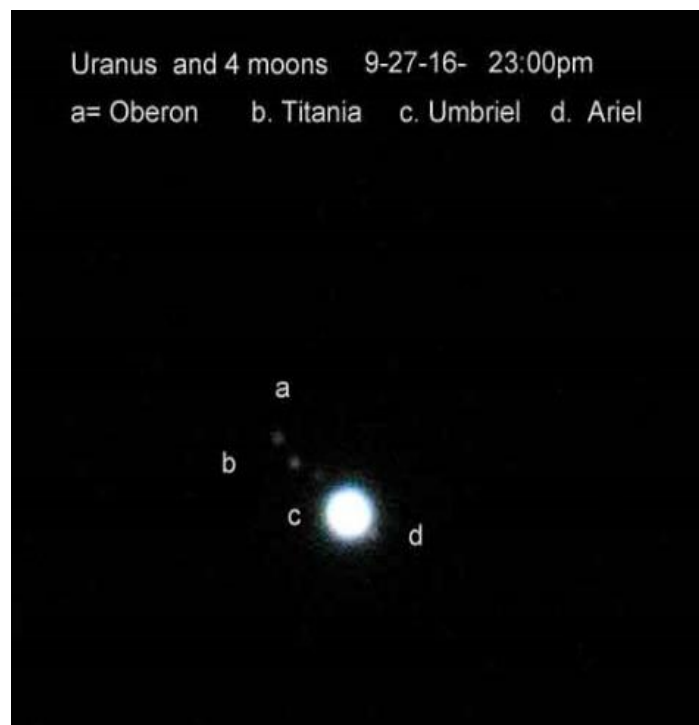
Ned Miller
480 N 400 E
Providence, Utah 84332

Skies of October

By Tom Westre

October 2016 is a great time to observe Uranus. It is well placed in the Constellation Pisces and is visible for much of the night. From Cache Valley it can be viewed from 9 pm to 5 am. It's best seen when higher in the sky about midnight.

On October 15 Uranus will reach opposition. This is when Uranus is directly opposite the Sun. At this time Uranus will also be the closest to the earth, called the perigee making it brighter and larger. Uranus lies at a distance of 18 AU from the earth and is small about 3.7 arc-seconds in diameter. It will be magnitude 5.7



Uranus and 4 moons imaged by Tom Westre; Sep 27, 2016

Uranus orbits the Sun once every 84 years at a distance of about 1.8 billion miles. Like its neighbor, Neptune; Uranus is an “Ice Giant”. It is composed of Hydrogen and Helium like Jupiter and

Saturn and also contains methane gas plus water and ammonia in the form of ice. Its atmosphere is the coldest in the solar system at -224.2 degrees C. and has wind speeds of up to 500 miles per hour.

Its day is 17 ¼ hours long. It is tipped on its side so we see its poles where most planets have their equators. Uranus has 27 moons and a ring system first detected in 1977. Uranus has five major moons which are, in order of increasing distance from the planet, **Miranda, Ariel, Umbriel, Titania** and **Oberon**. They range in size from 293 miles (472 kilometres) for Miranda up to 981 miles (1578 kilometres) for Titania. The moons are difficult visually at magnitude 14.

Neptune is in Aquarius and rises about 2 hours ahead of Uranus and shines about magnitude 7.



**Neptune and its moon Triton, imaged by Tom Westre;
September 27, 2016**

Saturn lies due south in Scorpio. On October 27th Venus moves between Saturn and Antares just after Sun set where they will form a nearly vertical line just after sunset. Saturn is magnitude +0.5, Venus -4.0, and Antares +1.0. Saturn is moving eastward.



Saturn imaged by Tom Westre

Mars is located in Sagittarius. At the start of the month it is near M8 the Lagoon Nebula. The planet has been moving east for the past few months.



Mars in Sagittarius, September 2016, image by Tom Westre

Other objects to view this month are:

- The Andromeda Galaxy Messier 31
- The Dumbbell Nebula Messier 27 in Vulpecula
- The Ring Nebula Messier 57 in Lyra
- The "Blinking Planetary," NGC 6826 in Cygnus
- Messier 52 an Open Cluster in Cassiopeia
- The Double Cluster in Perseus NGC 884 and 869
- Globular clusters M 15 in Pegasus
- M2 in Aquarius
- M 30 in Capricorn

These are only a few of the many great deep sky objects. Drop us a line and let us know what you are observing. What are some of your favorite Fall targets? If you take any images send them to me and I will be more than happy to post them on our website at cvas-utahskies.org.

Clear Skies.

Spotlight on Aquarius, the Water-Bearer

By Dale Hooper

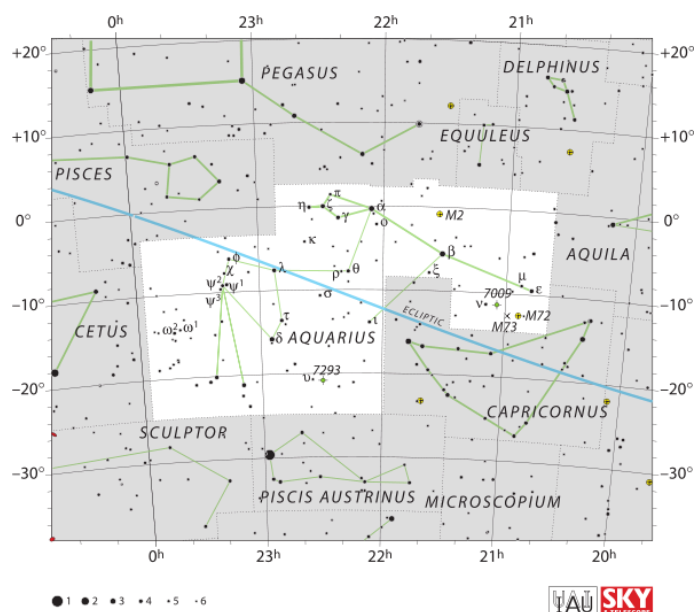
Aquarius is one of the constellations whose paucity of bright stars is basically made up for by a decent number of deep sky objects. It is the current location for the planet Neptune (R.A. 22h37.3m, Dec -9°35') and the Helix nebula (R.A. 19h30.7m, Dec -20°48') neither of which make it onto our table but are still worth observing. You will need to observe the Helix nebula from a dark sky location if you hope to observe it. It is a fairly large object, but it has a rather low surface brightness.



Helix Nebula (NGC 7293) - HST

Galaxies which rank at least three stars and other objects of four to five stars in *The Night Sky Observer's Guide* (Aquarius is in Volume 1) have been included.

As usual, the table is organized according to increasing Right Ascension values.



IAU and Sky & Tel - Roger Sinnott & Rick Fienberg

Object	R.A.	Dec.
Messier 72 (Globular cluster)	20h53.5m	-12°32'
NGC 7009 (Saturn nebula)	21h04.2m	-11°22'
Messier 2 (Globular cluster)	21h33.5m	-00°49'
NGC 7180 (Galaxy)	22h02.3m	-20°33'
NGC 7183 (Galaxy)	22h02.4m	-18°56'
NGC 7184 (Galaxy)	22h02.7m	-20°49'
55 Aquarii (Double star)	22h28.8m	-00°01'
69 Aquarii (Double star)	22h47.7m	-14°03'
NGC7392 (Galaxy)	22h51.8m	-20°36'
91 Aquarii (Double star)	23h15.9m	-09°05'
NGC 7585 (Galaxy)	23h18.0m	-04°39'
NGC 7606 (Galaxy)	23h19.1m	-08°29'
94 Aquarii (Double star)	23h19.1m	-13°28'
NGC 7721 (Galaxy)	23h38.8m	-06°31'
NGC 7723 (Galaxy)	23h38.9m	-12°58'
NGC 7727 (Galaxy)	23h39.9m	-12°18'
107 Aquarii (Double star)	23h46.6m	-18°41'

CVAS Minutes – Sep 2016

The CVAS Annual General Meeting was held on September 22, 2016 in the Bonneville Room of the Logan Library. President Dell Vance welcomed those in attendance.

The first order of business was the financial state of the club. A club checking account has been opened

at Mountain America Credit Union with a current balance of approximately \$470.

Those in attendance voted to approve reimbursing Ned Miller for the monitor and Tom Westre for website fees.

It was recognized that the only ones in attendance are also associated with the executive committee so a discussion was held concerning why the attendance was so light. Some of the discussed topics included whether the membership really wanted an astronomy club in Cache Valley, possible reasons why some members might not have made it to this specific meeting, ideas to increase membership and increase attendance and possible changes to club structure related to benefits of club membership.

The next order of business was election of club officers. There were no additional nominations for officers so the existing leaders were sustained by acclamation to serve as officers for this next year.

The 2016 – 2017 officers are:

Dell Vance, President
Layne Pedersen, Vice President
Dale Hooper, Secretary
Ned Miller, Treasurer

Proposed changes to the club constitution were then discussed. The proposed changes were as follows:

1. Eliminate the membership form from the constitution but still maintain one.
2. One signature for check signing (since the credit union doesn't provide for two signatures).
3. Regular meetings will be published on the website and in the newsletter.

The proposed changes were seconded and adopted unanimously by the members in attendance. The updated constitution is included in this newsletter.

Upcoming Star Parties

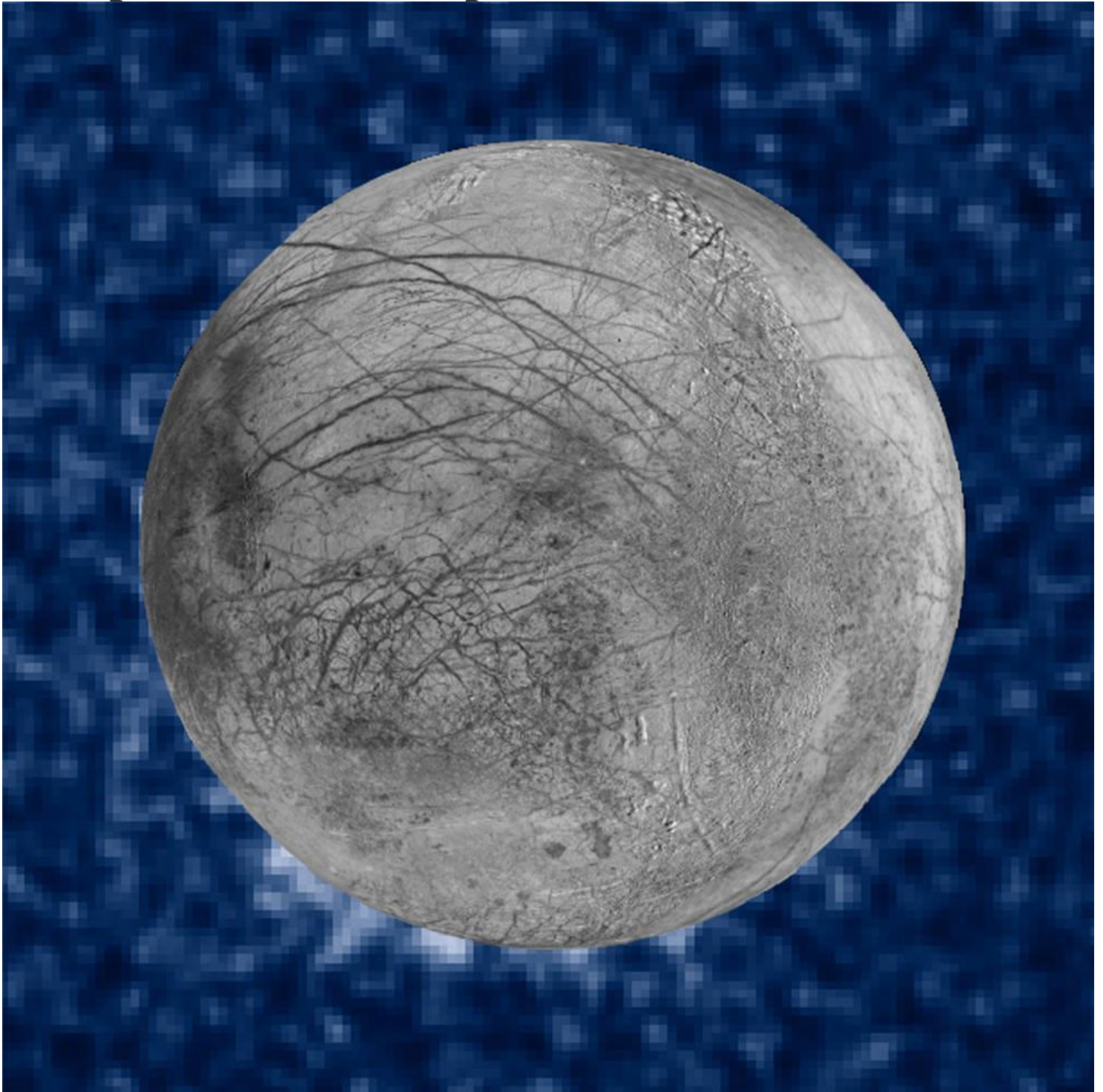
08 Oct Public Star Party – Macey's Parking Lot

** Tentative End of Star Parties for 2016 **

Upcoming Events

04 Oct	Sputnik 1 Launched and began the space race. (1957)
05 Oct	Edwin Hubble identifies Cepheid variables in M31, (1923)
07 Oct	Luna 3 photographs lunar far side (1959)
08 Oct	Draconid meteors Ejnar Hertzsprung born (1873) Draconid meteors
09 Oct	First Quarter Moon
10 Oct	Columbus Day Mercury 0.9° north of Jupiter William Lassell discovers Triton, moon of Neptune (1846)
13 Oct	Neptune 1.2° south of Moon
15 Oct	Uranus at opposition Uranus 3° north of Moon
16 Oct	Full Moon
19 Oct	Aldebaran 0.3° south of Moon
20 Oct	Orionid meteors
21 Oct	Orionid meteors
22 Oct	Last Quarter Moon First recorded solar eclipse (China 2136 BC) Orionid meteors
24 Oct	William Lassell discovers Ariel and Umbriel, moons of Uranus (1851)
25 Oct	Giovanni Cassini discovers Iapetus, moon of Saturn (1671) Henry Norris Russell born (1877)
28 Oct	Jupiter 1.4° south of Moon

NASA's Hubble Spots Possible Water Plumes Erupting on Jupiter's Moon Europa



This composite image shows suspected plumes of water vapor erupting at the 7 o'clock position off the limb of Jupiter's moon Europa. The plumes, photographed by NASA's Hubble's Space Telescope Imaging Spectrograph, were seen in silhouette as the moon passed in front of Jupiter. Hubble's ultraviolet sensitivity allowed for the features -- rising over 100 miles (160 kilometers) above Europa's icy surface -- to be discerned. The water is believed to come from a subsurface ocean on Europa. The Hubble data were taken on January 26, 2014. The image of Europa, superimposed on the Hubble data, is assembled from data from the Galileo and Voyager missions.

Credits: NASA/ESA/W. Sparks (STScI)/USGS Astrogeology Science Center

Astronomers using NASA's Hubble Space Telescope have imaged what may be water vapor plumes erupting off the surface of Jupiter's moon Europa. This finding bolsters other Hubble observations suggesting the icy moon erupts with high altitude water vapor plumes.

The observation increases the possibility that missions to Europa may be able to sample Europa's ocean without having to drill through miles of ice.

"Europa's ocean is considered to be one of the most promising places that could potentially harbor life in the solar system," said Geoff Yoder, acting associate administrator for NASA's Science Mission Directorate in Washington. "These plumes, if they do indeed exist, may provide another way to sample Europa's subsurface."

The plumes are estimated to rise about 125 miles (200 kilometers) before, presumably, raining material back down onto Europa's surface. Europa has a huge global ocean containing twice as much water as Earth's oceans, but it is protected by a layer of extremely cold and hard ice of unknown thickness. The plumes provide a tantalizing opportunity to gather samples originating from under the surface without having to land or drill through the ice.

The team, led by William Sparks of the Space Telescope Science Institute (STScI) in Baltimore observed these finger-like projections while viewing Europa's limb as the moon passed in front of Jupiter.

The original goal of the team's observing proposal was to determine whether Europa has a thin, extended atmosphere, or exosphere. Using the same observing method that detects atmospheres around planets orbiting other stars, the team realized if there was water vapor venting from Europa's surface, this observation would be an excellent way to see it.

"The atmosphere of an extrasolar planet blocks some of the starlight that is behind it," Sparks explained. "If there is a thin atmosphere around Europa, it has the potential to block some of the light of Jupiter, and we could see it as a silhouette. And so we were looking for absorption features around the limb of Europa as it transited the smooth face of Jupiter."

In 10 separate occurrences spanning 15 months, the team observed Europa passing in front of Jupiter. They saw what could be plumes erupting on three of these occasions.

This work provides supporting evidence for water plumes on Europa. In 2012, a team led by Lorenz Roth of the Southwest Research Institute in San Antonio, detected evidence of water vapor erupting from the frigid south polar region of Europa and reaching more than 100 miles (160 kilometers) into space. Although both teams used Hubble's Space Telescope Imaging Spectrograph instrument, each used a totally independent method to arrive at the same conclusion.

"When we calculate in a completely different way the amount of material that would be needed to create these absorption features, it's pretty similar to what Roth and his team found," Sparks said. "The estimates for the mass are similar, the estimates for the height of the plumes are similar. The latitude of two of the plume candidates we see corresponds to their earlier work."

But as of yet, the two teams have not simultaneously detected the plumes using their independent techniques. Observations thus far have suggested the plumes could be highly variable, meaning that they may sporadically erupt for some time and then die down. For example, observations by Roth's team within a week of one of the detections by Sparks' team failed to detect any plumes.

If confirmed, Europa would be the second moon in the solar system known to have water vapor plumes. In 2005, NASA's Cassini orbiter detected jets of water vapor and dust spewing off the surface of Saturn's moon Enceladus.

Scientists may use the infrared vision of NASA's James Webb Space Telescope, which is scheduled to launch in 2018, to confirm venting or plume activity on Europa. NASA also is formulating a mission to Europa with a payload that could confirm the presence of plumes and study them from close range during multiple flybys.

"Hubble's unique capabilities enabled it to capture these plumes, once again demonstrating Hubble's ability to make observations it was never designed to make," said Paul Hertz, director of the Astrophysics Division at NASA Headquarters in Washington. "This observation opens up a world of possibilities, and we look forward to future missions -- such as the James Webb Space Telescope -- to follow up on this exciting discovery."

The work by Sparks and his colleagues will be published in the Sept. 29 issue of the Astrophysical Journal.

The Hubble Space Telescope is a project of international cooperation between NASA and ESA (the European Space Agency.) NASA's Goddard Space Flight Center in Greenbelt, Maryland, manages the telescope. STScI, which is operated for NASA by the Association of Universities for Research in Astronomy in Washington, conducts Hubble science operations.

For images and more information about Europa and Hubble, visit:

<http://www.nasa.gov/hubble>

and

<http://hubblesite.org/news/2016/33>

CVAS Constitution as revised September 22, 2016. Please note that the constitution is also posted on the club website.

The Cache Valley Astronomical Society Constitution

1. NAME

1.1 The Society shall be called the Cache Valley Astronomical Society, hereinafter referred to as 'The Society', and will be known by the acronym CVAS.

2. AIMS & OBJECTIVES

The aims of the Society shall be to:

2.1 Promote interest in all aspects of astronomy.

2.2 Encourage observational work.

2.3 Organize regular meetings at which reports of practical work may be presented and discussed and to which guest speakers may be invited.

2.4 Provide equipment that members may use to develop their interest in astronomy (see Section 11).

2.5 Provide a focal point for astronomical activity in Cache Valley.

2.6 Provide a channel of communication with other local, regional and national astronomical Societies.

3. MEMBERSHIP

3.1 Any person with an interest in astronomy may attend meetings and star parties and is encouraged to do so. Anyone with an avid interest in astronomy is encouraged to become a member in good standing. Individuals may be admitted to membership upon payment of the applicable dues to the Treasurer.

3.2 To gain membership, and be a member in good standing, all applicants must satisfy the following conditions, unless specifically exempted by the Executive Committee:

- a. Request membership with a member of the Executive Committee.
- b. Pay the appropriate annual Dues.

3.3 Any member whose dues are more than two months in arrears will be dropped from the membership rolls of the Society.

3.4 A Societal Year or year of membership lasts from the September 1st of one calendar year to August 31st of the following calendar year.

a. The membership year is divided into two half-year periods: (1) September to February, (2) March to August.

b. New membership applications received during the first half-year period require payment of 100%, the second half-year 50% of the appropriate annual fee.

c. Dues for adult and junior members shall be established each year at the Annual General Meeting by the majority of votes of the members. To retain a membership in the society the individual or family must have current dues paid. Dues are not refundable.

3.5 Membership records will only contain information pertinent to that membership and will be treated with the strictest confidence. This information will not be circulated or otherwise distributed to a third party. It will be made known to only the Committee members the Committee deems absolutely necessary to know this information. A member's details may only be made known outside of the Committee with that individual member's consent.

3.6 For ease of administration membership records and information will be held by secure means for the Society's purposes only. This information will be held confidential to the Society and will not be used for any other purpose.

4. ADMINISTRATION

4.1 The officers of this organization shall be a President, a Vice President, a Secretary and a Treasurer, all of whom shall be members in good standing.

- a. President--to chair meetings and keep order in the same.
- b. Vice President—assist the President as the President may direct and shall assume the duties of the President in his absence.
- c. Secretary--to handle Society correspondence, keep records and organize the Society's functions; to record the proceedings of the Society's meetings and other society records.
- d. Treasurer--to regulate and account for the Society's financial affairs.

4.2 All officers, together with the immediate past President shall constitute the Executive Committee of the organization.

4.3 All Executive Committee positions (excluding the past President) are to be elected positions. The Executive Committee can appoint positions if they become vacant during the Societal year. Vacant Executive Committee positions may be filled by appointment at any time at the discretion of the Committee.

4.4 To serve on the Executive Committee a member must have been a member of the Society for at least one whole membership year, commencing one year after the ratification of this Constitution.

4.5 Nominations for those interested in the Executive Committee positions should be submitted to the Executive Committee at least 2 weeks prior to the Annual General Meeting (AGM). Unless indicated otherwise, it is assumed that existing Executive Committee members will stand for re-election.

4.6 All Executive Committee members shall attend or participate electronically, each regularly scheduled Executive Committee meeting where possible. Should Executive Committee members fail to attend three consecutive Executive Committee meetings without good reason, they will have been deemed to have relinquished their position. This will not affect their rights as a member.

4.7 Wherever possible, Executive Committee members unable to attend a Committee meeting should indicate this to the President.

5. OTHER OFFICERS

5.1 The President shall elect or appoint from the membership, ex-officio officers such as librarian, equipment manager, publicity officer, website manager etc. for the efficient running and promotion of the Society.

6. ELECTIONS

6.1 Each member in good standing shall be entitled to one vote. Voting for proposals and resolutions shall be by show of hands. Motions may be proposed and seconded by members in good standing after recognition by the presiding officer. To carry, a motion will require a simple majority from the members present and eligible to vote. No vote by members whose subscription is due is permitted.

6.2 No vote by proxy is permitted. Voting for officers shall be by secret ballot.

7. MEETINGS

7.1 The meetings of the Society shall consist of Regular Meetings (RM), Executive Committee Meetings (EC) and Annual General Meetings (AGM). The venue for these meetings will be published in the Society newsletter or members will be informed by email and or on the Society website.

7.2 Regular Meetings are where all members are invited to attend, where lectures and the like are given, observing sessions held and Society matters are open to formal and informal discussion. The Society will inform its members of these events on a regular basis.

7.3 Executive Committee Meetings, usually held by arrangement with at least 7 days notice, are where matters arising in the running of the Society are open to both formal and informal discussion, resolution and action, where only the elected or appointed Executive Committee members normally attend, and where other members may attend upon the Committee's invitation or the non-Committee members' request.

7.4 Annual General Meetings, usually held in September, are where all eligible members may attend and take part in the election of the Executive Committee, Committee members' reports are heard, constitutional additions or amendments are heard and any other matters arising to do with the Society's affairs are heard. Other special meetings may be held at the discretion of the Executive Committee.

8. QUORUM

8.1 A quorum shall consist of the members in good standing present at a meeting of the Society for which proper notice has been given to all members.

9. FINANCES

9.1 The Society's financial year shall run from September 1st to August 31st the following year.

9.2 There are no paid or salaried positions within the Society and the Society is a non-profit organization. Certain Society events do generate income but any profits are classified as surplus funding.

9.3 All surplus funds are to be used in the maintenance of the Society's facilities, objectives and obligations.

9.4 Donations of items, services or moneys where made to the Society are accepted on the understanding that the donations are for the Society's objectives, and that unless the committee sees fit to do so, the donors will not

receive remuneration or privilege, but their donations will be noted in Society meeting minutes and published in the newsletter.

9.5 The Society shall maintain a suitable bank account into which all monies shall be deposited. The account shall be administered by the Executive Committee, with the day to day running by the Treasurer. The signatories to this account shall be elected officials serving on the Executive Committee.

9.6 The Treasurer shall maintain proper accounting records of income and expenditure of the Society, which shall be subject to audit. Copies of un-audited draft accounts shall be circulated to all members not less than fourteen days before the AGM. Final audited accounts shall be laid before members at the AGM and shall be adopted if accepted in accordance with sections 8 & 9 of the Constitution.

9.7 The Treasurer shall also make available to the members of the Executive Committee a copy of records and supporting bank statements at intervals not exceeding 3 months.

9.8 The Society is organized exclusively for educational and scientific purposes, including, for such purposes, the making of distributions to organizations that qualify as exempt organizations under section 501 c(3) of the Internal Revenue Code of 1986 (or the corresponding provision of any future United States Internal Revenue Law).

9.9 No substantial part of the activities of the organization shall be the carrying on of propaganda, or otherwise attempting to influence legislation, and the Society shall not participate in or intervene in (including the publishing or distribution of statements) any political campaign on behalf of any candidate for public office.

9.10 The Executive Committee shall have the power to approve the expenditure of funds not to exceed a total of \$50.00 per month; excluding postage and shall not exceed balance in the Society Bank Account. All expenses in excess of \$50.00 per month must be voted on by the members in good standing present at a regular or annual general meeting and approved by a majority vote.

10. SOCIETY EQUIPMENT AND RESOURCES

10.1 As equipment and resources are acquired, or made available, the Society shall make them available to members in good standing; to aid in the development of the member's interest in astronomy. The use of such equipment shall be at the discretion of the Executive Committee or Equipment Manager, who will arrange a timetable for use with the member(s) concerned.

10.2 In the event of loss or damage to equipment either belonging to the Society or on loan to the Society, the member(s) responsible shall bear the cost of repair or replacement unless exempted in part or whole by the Executive Committee.

11. DISSOLUTION OF THE SOCIETY

11.1 The Society may be dissolved with the approval of not less half of the membership of the Society, at a special general meeting called for that purpose. At the dissolution of the Society all funds and effects of the Society shall be transferred by gift to members of the society or to one or more societies or bodies having similar objectives to those of the Society. Such transfers shall be approved by members attending the meeting at which the dissolution of the Society is agreed.

12. ALTERATIONS TO THE CONSTITUTION

12.1 This Constitution and/or accompanying bylaws may be amended by two-thirds vote of members in good standing present at any regular meeting if the members are informed in writing (or electronic equivalent) of the proposed amendment one month prior to the meeting at which the action is to be taken.

RULES OF THE SOCIETY

1. Guest speakers, from outside the Society, may receive a minimum honorarium of \$25.00 as a sign of gratitude for their time and efforts on our behalf.

CACHE VALLEY ASTRONOMICAL SOCIETY MEMBERSHIP APPLICATION FORM

Member # _____

NAME: _____
 First Middle Initial Last

Address: _____
 Street City State Zip Code

Home Phone: _____ Cell Phone: _____

Work Phone : _____ Occupation : _____

Email Address: _____

How did you learn about CVAS

_____ Website _____ Star Party _____ CVAS Member _____ Other _____

Membership: \$20 a year

Tell us about yourself: Do you have a special interest in astronomy? Do you have special skills? Are you willing to volunteer on CVAS projects or attend public outreach star parties? Astro equipment owned.

By signing this application, I acknowledge I have access to the CVAS website, cvas-utahskies.org, and the CVAS Constitution. I agree to abide by the constitution.

Signature: _____ Date: _____

Bring this form to the meeting or Mail Application to:

Ned Miller, CVAS Treasurer
480 N 400 E
Providence, Utah 84332

For any questions contact our Treasurer at nedmiller2008@gmail.com or our Secretary Dale Hooper at dchooper5@gmail.com.