Newsletter February 2021

Next Meeting: **ZOOM Meeting - Monday 22 Feb 8pm**

Topic: AAS December Meeting - Jonathan Shanklin - An Astronomer in Antarctica

Time: Feb 22, 2021 08:00 PM London

Join Zoom Meeting
https://us02web.zoom.us/j/83918417678?pwd=ZTUvdVI2NkZIZ1YvVHpadUlmQi9qUT09

Meeting ID: 839 1841 7678
Passcode: Snow

Contents

President's Word

Hello to you all, and I hope that you are keeping well in the current circumstances and getting closer to receiving your COVID-19 vaccines, if you haven't already!

Recent news is looking good for space exploration this month with another rover, 'Perseverance' deployed to Mars successfully on Thursday 18th February in Jezero Crater.
The purpose of the mission, much like earlier NASA rover missions, is to understand the geological history and to find any signs of life on our neighbouring planet.

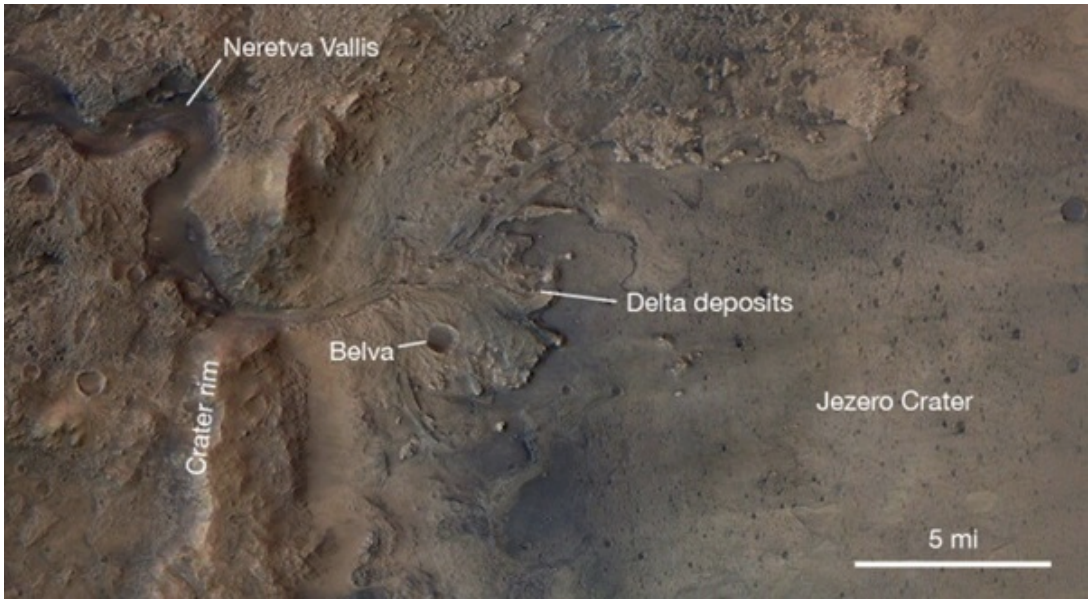
Why Jezero Crater?

Jezero Crater is located along the margins of one of the larger basins in the northern hemisphere of Mars. The crater is on the west side of the Isidis Planatia, a large impact basin filled by later sediment. Just to the south of the crater is a large shield volcano known as Syrtis Major and off to the west are valleys called the Nili Fossae.

Most strikingly, the area around Jezero Crater appears to be carved by rivers. A river valley called the Neretva Vallis meanders in from the west and then exits on the east side of the crater into the Isidis Planatia. This has lead geologists to think that Jezero Crater was once filled with a lake fed by the river.

Mapping of the region by the Mars Reconnaissance Orbiter (MRO) not only showed the remarkable topography including the river channels, but also gave us a clue about the composition of the rocks in and around Jezero. A recent US Geological Survey map of Jezero Crater suggests that there are some fascinating and different rocks that may be related to its watery past.

One of the most interesting aspects of Jezero Crater is the evidence from MRO that there are carbonates, clays and other minerals that likely require liquid water to form. These deposits may hold the evidence of any life that could have emerged in the ancient liquid surface waters of Mars. So all eyes will be on Perseverance for any new discoveries!



Potential river delta deposits will be investigated by Perseverance

Closer to home, I have good news for AAS members.

After a recent committee meeting held on Zoom, it has been decided that members will be able to receive newsletters and join virtual Zoom meetings at no cost to themselves for the foreseeable future, or until the society is able to return to physical meetings.
Also, we are happy to allow new members to join us, again, free of charge… This can be facilitated by downloading a membership form (ignore the date) from the resources page of the AAS Website which can be found here: http://ayrastro.com/resources.html and returned via email to president@ayrastro.com
Details will be then passed on to our secretary and the applicant will be added to our newsletter list.
One would hope that with the rapid delivery of vaccines to the general public, a resumption of physical meetings shouldn't be too far into the future, but we will have to be patient.

So I wish you all clear skies, keeping looking up, and most importantly...

Stay safe!

Roger Harman

Member Articles

Alex's Space

No, not Robert Burns but Alfred Lord Tennyson. He also had a passion for astronomy since his childhood and as a young lad he knew enough about astronomy to write the following: "The rays of many a star flashing earthwards have not yet reached us." He also wrote about the moon being a place where there were "Monstrous rocks with craggy snouts displaying globes raging with fire."

When Tennyson became Poet Laurate it made him very popular, and to escape the pressure that came with it, he moved to the Isle of Wight where he bought a property – Farringford House on the west side of the island, which was free of artificial light, an ideal place for his hobby. He had a viewing platform built on the roof of the house where he set-up his small telescopes. One night he invited a fellow poet up to the viewing platform to observe a meteor shower. While up there Tennyson slipped and fell 10 feet onto a lower roof. Fortunately, he was not hurt – you need to be tough to take up this hobby! A reference is found to meteors is to be found in one of his poems – "Now slides the silent meteor on and leaves a shining furrow."

Tennyson acquired a 15" reflecting telescope and was able to see the nebulae in Lyra and Cassiopeia. In a book written by one of his sons called "Memoir," he wrote about his father's knowledge of Astronomy that surprised many great astronomers of the day. Tennyson built a home-made spectroscope (!) to analyse the spectra of the stars. He wrote a long detailed analysis of his findings, but mysteriously this has disappeared. Tennyson was very keen to share his enthusiasm with others, not least his two sons and wife Emily. He once got the boys out of bed in the middle of the night to observe the splendour of Donati's Comet – it is only hoped the boys shared the same enthusiasm!!

For anyone interested in further reading a book by his wife Emily is worth considering, it is not in the AAS library, but may be still available from Ilse of Wight Country Press.

Good luck.

A gran asked her granddaughter – "What are you going to do when you grow up into a big girl like your mummy?" "Diet" was the instant reply.

Alex Baillie
February 2020

February / March Observing

General

The winter sky predominates, but as the weeks move on Orion will shift decisively to the west, giving way to the Spring constellations of Leo and Virgo later in the evening. Ursa Major also climbs higher in the sky With these constellations comes galaxy season with many examples to spot. There are also numerous open clusters along the path of the winter Milky Way worth observing, running from Cassiopeia through to Cancer. Several are easily accessible with binoculars. This period is not great for planetary observation as Mercury, Venus, Jupiter and Saturn are maddingly close to the sun in the morning sky. At this time of year there is the extra bonus of zodiacal light, which may be visible from dark locations on moonless nights for about an hour after dusk.

Planets

Mars: continues to be well placed for observation, but remains small, shrinking to about five and a half arcseconds in diameter by the end of March. It will move from Ares to Taurus by the end of February, and will pass near the Pleaides on the 5th of March.

Uranus and Neptune: Uranus remains in Ares, getting more distant from Mars, and is reasonably placed for observation. Neptune is lost in the glare of the sun.

Meteor Showers

There are no major meteor showers until the Lyrids in April.

Comets

There are no easily observable comets visible present during this period.

ISS

The ISS will be visible in the morning through to the 8th of March, then will return in the evenings on the 19th of that month. Consult https://www.heavens-above.com for specific times and locations.

Member Images

Marc Charron

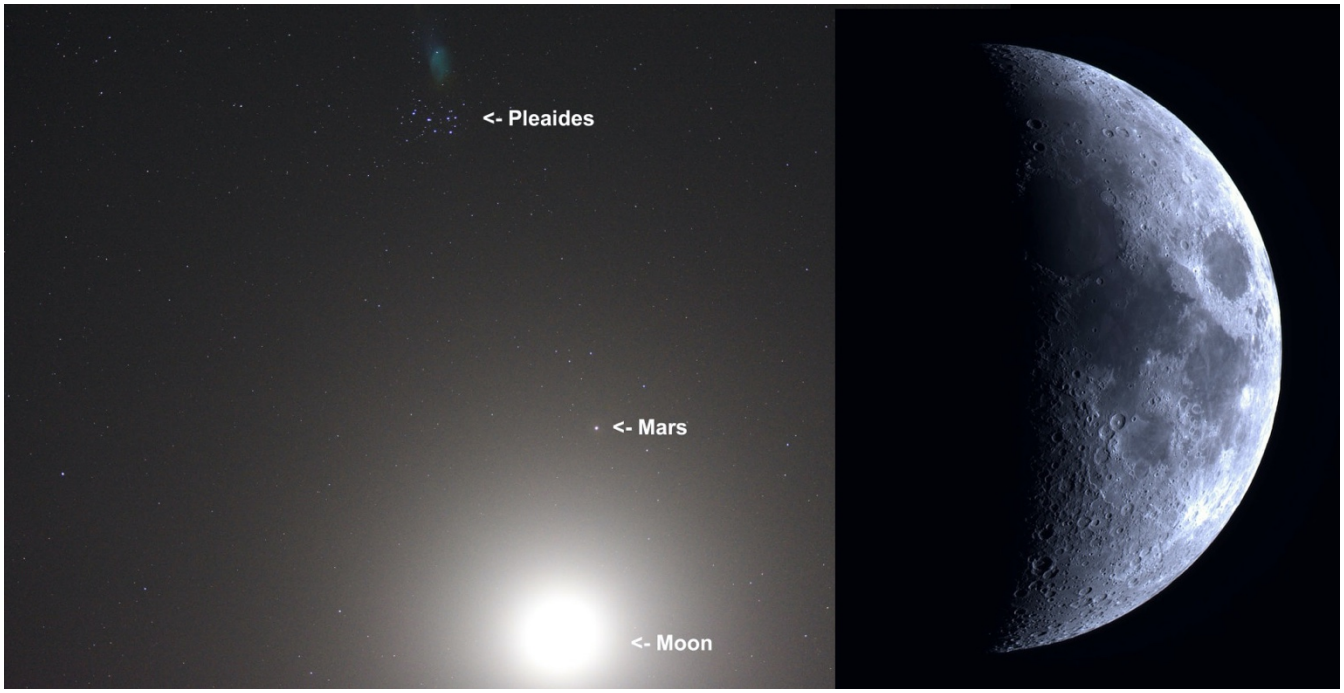
The weather over January and February to date has not been great for observing, here are few images that I was able to capture over this period.

M45 Pleiades

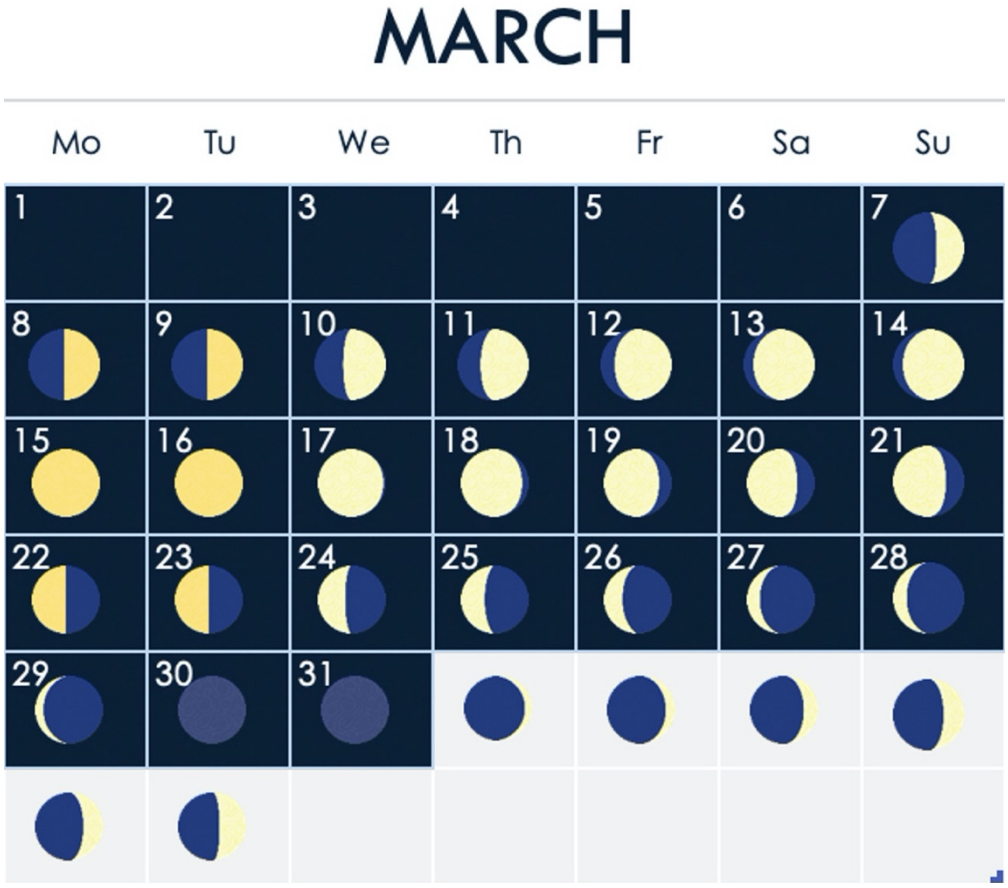
Shoe Buckle Cluster M35 (left), NGC 2158 to its right with 1 Gem at the lower right.

Rosetta Nebula

Moon, Mars and Pleiades, moments before Perserverance entered the Martian atmosphere on Feb 18



Moon Phases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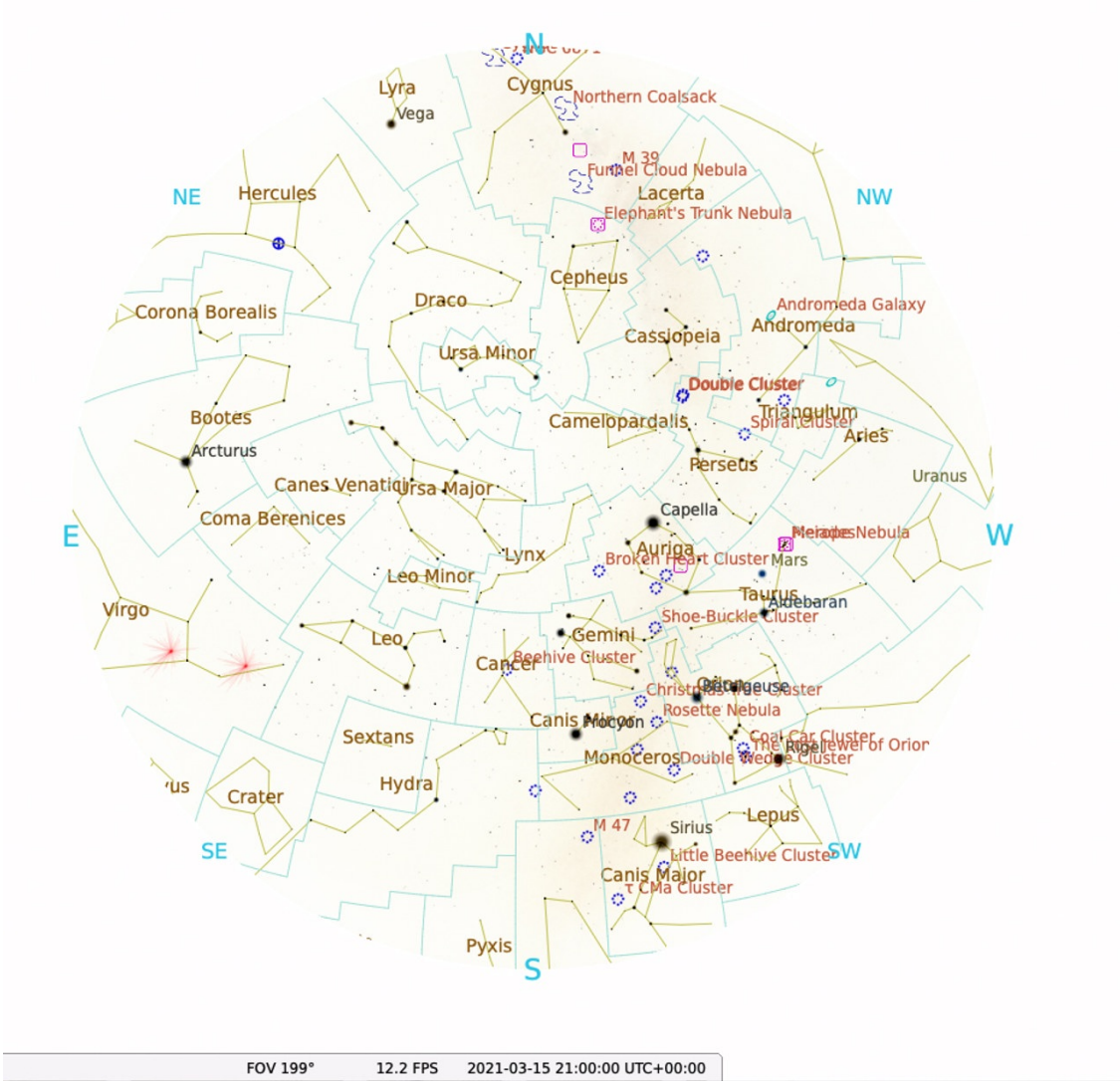
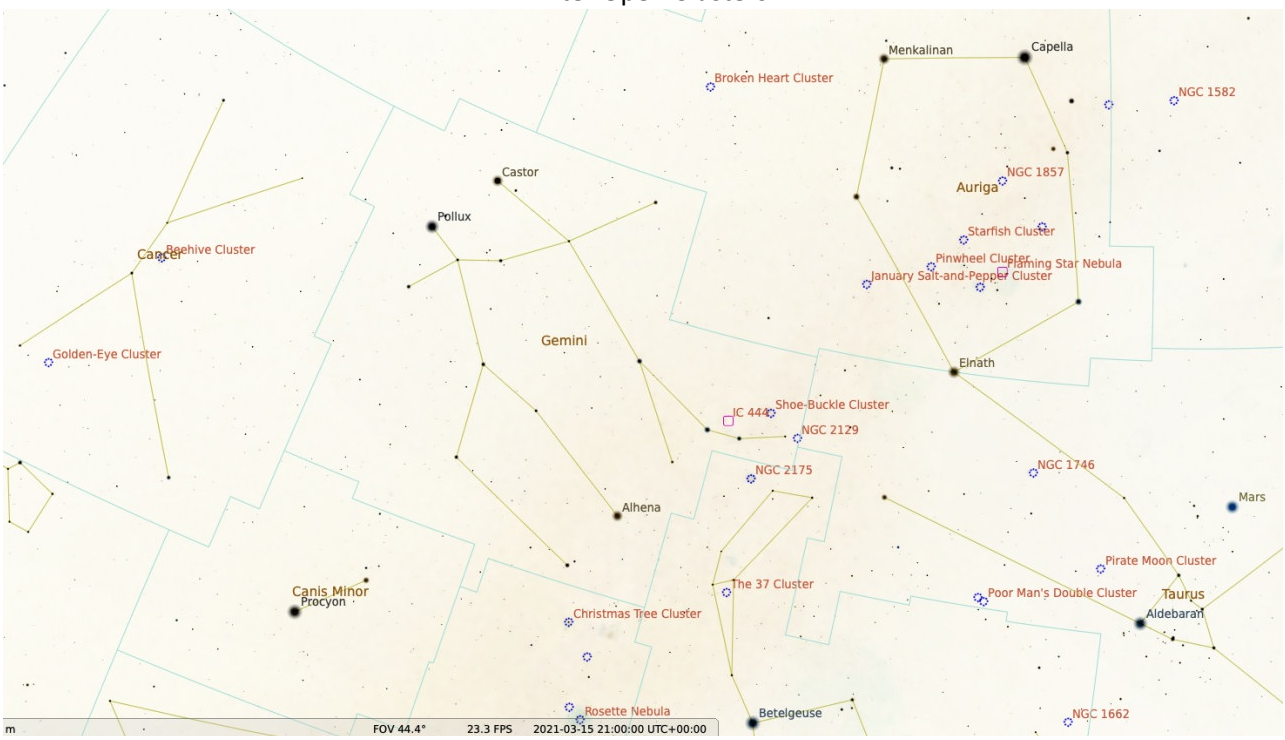
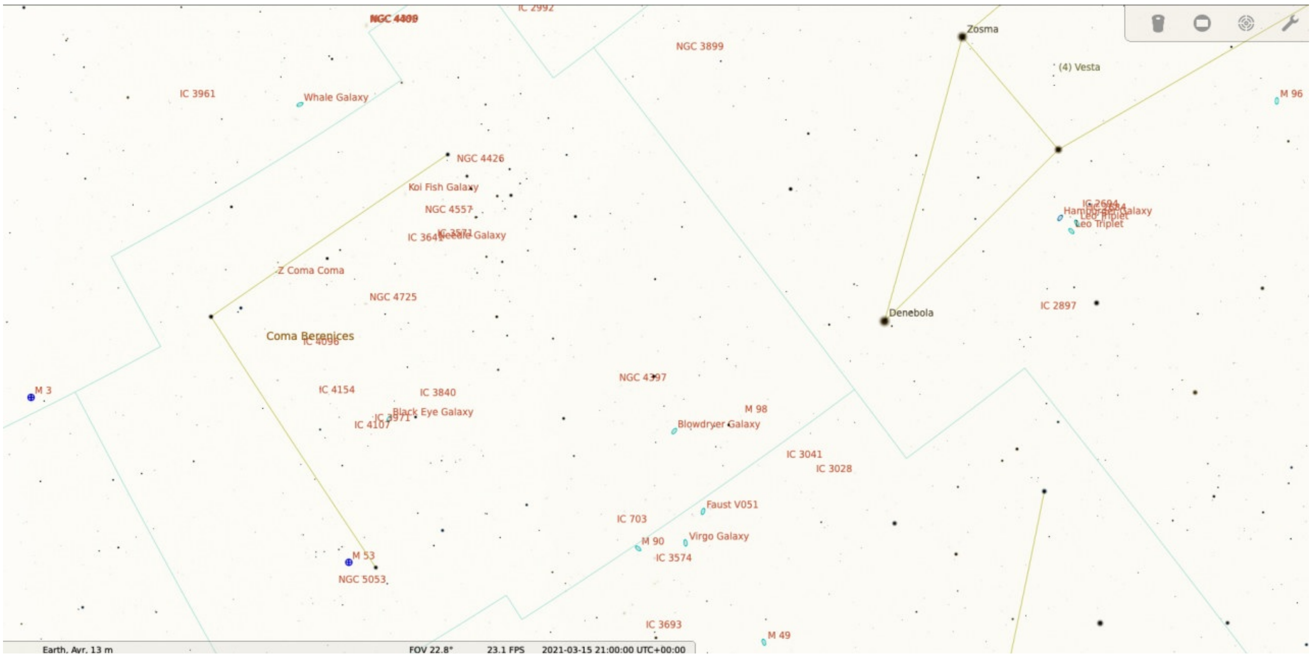
March Sky Charts



Winter Open Clusters



Winter and Spring Galaxies in Leo and Coma Berenices



Ursa Major and Canis Venatici – Key Galaxies