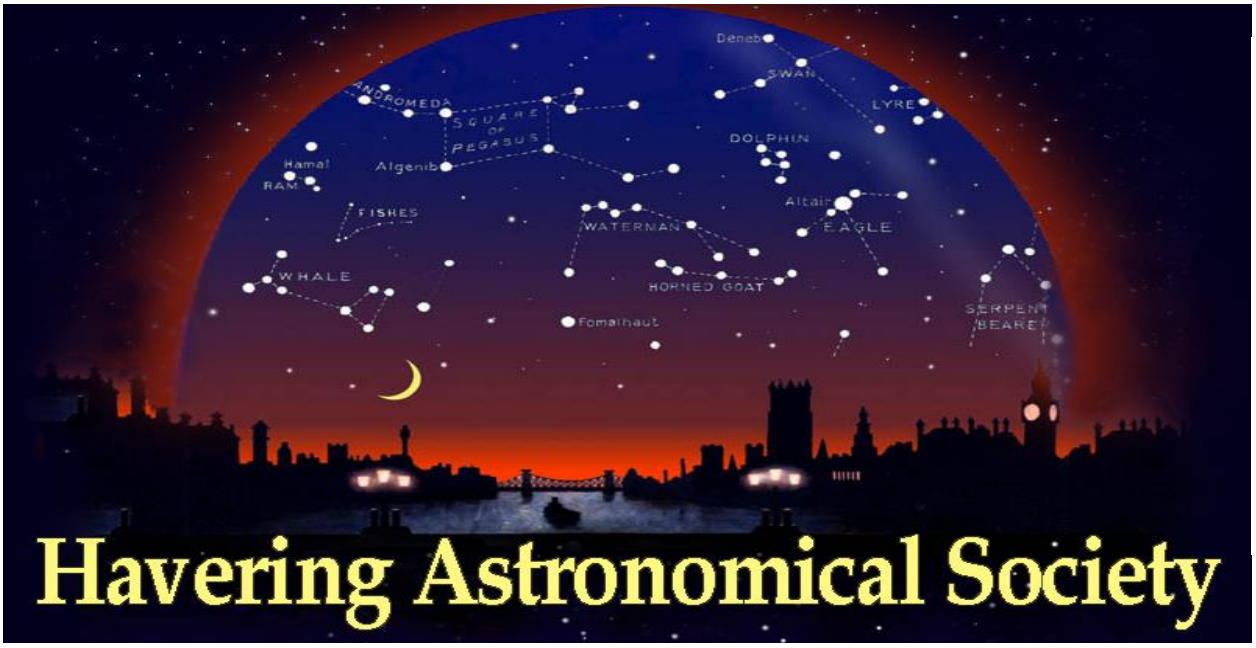
WELCOME TO OUR MEMBERS AND GUESTS.
PLEASE SIGN IN AND WE HOPE YOU ENJOY THE EVENING

MARCH 2017



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This Month

We look forward to ***Les Brand*** and ***Tony*** speaking to us about their various interesting subjects. There may be some other members also wishing to contribute. We will also be having a raffle tonight.

Last Month

John Neal gave a very interesting and informative talk on spectroscopy and showed how amateur astronomers can also become involved. ***John Sweeney*** also gave an interesting talk on Pole Stars now and in the future. We thank them both for their time and efforts

Member's News

Terry and ***Christine*** are now travelling the world and we hope to see them in April. ***Sid*** wishes to be remembered to everyone. ***All Members are kindly reminded that the Annual Membership was due in January. It is £13.00 for Ordinary Membership and £10.50 for Seniors. Please pay at the Registration Desk.***

Brentwood Scouts - February 28th

Although it was raining we were able to present an interesting evening for 18 scouts with ***John***, assisted by ***Tony,*** ably fending questions after giving a tour of the night sky. ***Frances***, ***Barbara*** and ***Liz*** manned our display and ***Les Jones*** and ***Phil*** explained how their different telescopes are used. The scouts then made us all some pancakes and presented us with our own astronomy badges. Thank you to all who came to help.

Starfest 2017

Starfest 2017 takes place on Saturday 15th July at Chelmer Valley High School, Chelmsford. Events will include 6 guest astronomy speakers, a planetarium dome, displays, trade and art work stands, an astrophotography workshop, scale spacecraft models and lots more. Tickets, which are £10 for adults and £5 for under 16's, are bookable online at neas.me.uk

Next Meeting ~ April 19th

At our next meeting we will be celebrating our 22nd anniversary and, as usual, we will be welcoming ***Konrad Malin-Smith*** who will talk about "*Light and Time*". We hope that ***Liz*** will again produce a lovely cake for the occasion. There will also be a ***raffle*** and any contributions will be greatly appreciated.

NIGHT SKY

Mercury: can best be seen on March 19th at 18:50 low in ***Pisces*** in the West. At this time *Mercury* is not far from the ecliptic and so its position is at its best in the spring evening skies. Although it can be tricky to identify, once you have managed it, it becomes easier. A 3 inch or larger telescope should see its tiny 5-arcsecond disc with surface shading.

Saturn: can best be seen on March 31st at 05:00 low in ***Sagittarius*** in the South-southeast. At this time *Saturn* is a mag.+0.5 morning object and, if your view is unobstructed in the pre-dawn hour, a small telescope should show the rings well presented with the planet's north pole being tilted toward the Earth by 26.5°.

Jupiter at Opposition: can best be seen on April 7th at midnight in ***Virgo*** in the South. The giant planet will be at its closest approach to Earth and its face will be fully illuminated by the Sun. It will be brighter than any other time of the year and will be visible all night long. This is the best time to view and photograph Jupiter and its moons. A medium-sized telescope should be able to show you some of the details in Jupiter's cloud bands. A good pair of binoculars should allow you to see Jupiter's four largest moons, appearing as bright dots on either side of the planet.

Thank you to everyone who helps with refreshments.

Observing at South Weald

There was no observing last month due to bad weather The next suitable dates are Saturday April 1st from 8pm or Sunday April 2nd if the weather is unsuitable on the Saturday. ***Kerry*** will post updates nearer the time on the **HAS Observing Group Chat on WhatsApp**.

Young Astronomers

We were able to look at a hazy Moon through the telescope and saw three stars. Then ***John*** explained how some planets seem to move backwards in the sky. We had a very enjoyable evening with seven young astronomers and their parents in attendance. Our next meeting will be on Thursday 6th April.

Spaceflight News

NASA's Jupiter moon mission named 'Europa Clipper'

NASA announced on Thursday, March 9, that the space agency's upcoming mission to study the habitability of *Jupiter*'s frozen moon Europa will be named the ***Europa Clipper***. The name harkens back to the wooden clipper ships that sailed Earth's oceans in the 19th century. During the conceptual phase of the mission's development, it was sometimes informally called *Europa Clipper*, but now NASA has made the name official. Once *Europa Clipper* arrives at the *Jupiter* system, it will fly by *Europa* as frequently as once every two weeks, providing several opportunities to observe the moon close up. The main part of the mission will include 40 to 45 flybys, during which *Europa Clipper* will image the moon's icy surface and study the composition and structure of its interior and frozen shell. *Europa* has long been of interest to scientists because it has a salty ocean beneath its icy surface. The primary purpose of the *Europa Clipper* mission is to determine if *Europa* possesses all three ingredients necessary for life: liquid water, chemical ingredients, and an energy source. "During each orbit, the spacecraft spends only a short time within the radiation environment near *Europa*. It speeds past, gathers a huge amount of science data, then sails on out of there," said ***Robert Pappalardo,*** *Europa Clipper* project scientist at NASA's Jet Propulsion Laboratory in Pasadena, California. Last month, the ***Europa Clipper*** mission completed its Key Decision Point-B review and started its design phase. The mission is scheduled to launch sometime in the 2020s and reach *Jupiter* after a journey of several years.