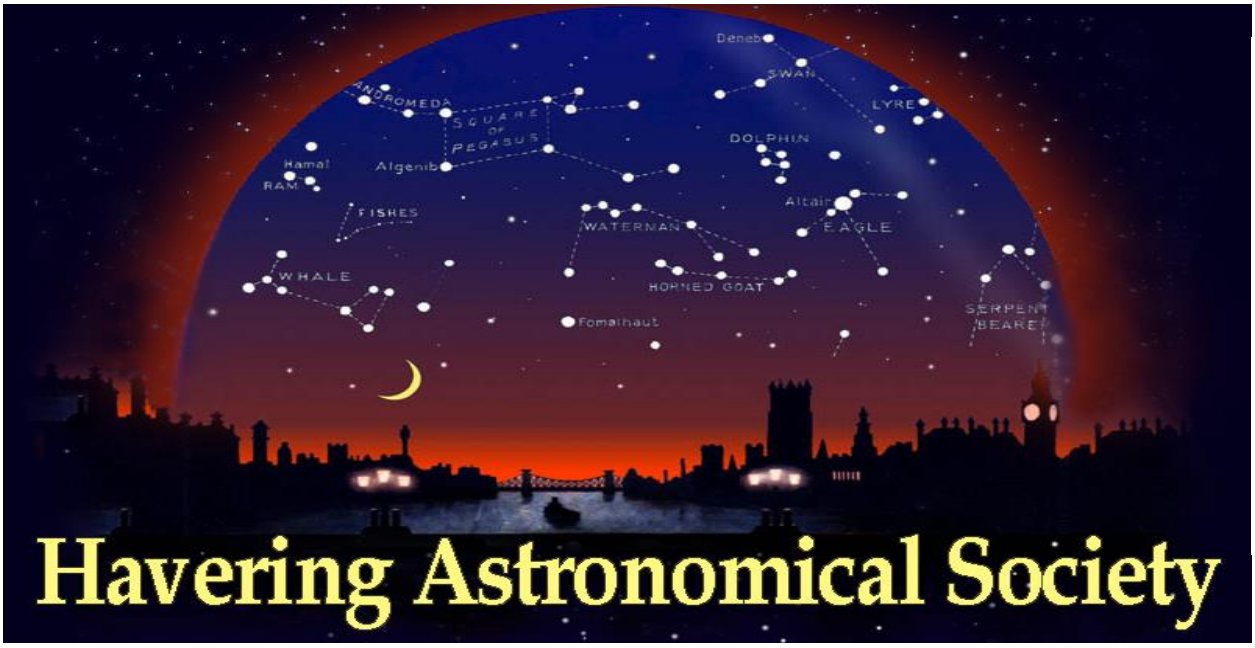
# WELCOME TO OUR MEMBERS AND GUESTS.
# PLEASE SIGN IN AND WE HOPE YOU ENJOY THE EVENING

JANUARY 2016

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**This Month**

Tonight is a Member's Evening and we will be having contributions from **John**, **Tony** and **Chris**. Thank you all for your contributions.

**Last Month**

We had our traditional Christmas Quiz with **John** again posing his questions to two teams. After a slow start, Team 1 won the quiz by just 1 point. During the evening we enjoyed some festive drinks and nibbles and took part in a raffle. Our thanks again to **John** for setting and running the quiz.

**Member's News**

Members are reminded that the Society's Annual Membership is now due. It is **£13.00** for Ordinary Membership and **£10.50** for Seniors. Please pay at the Registration Desk. Members are also asked to check at the Desk that their contact details are up to date. We will be holding a raffle in **March** so please come prepared to contribute and play.

**St Lawrence Church Brownies and RJ Mitchell Junior School Presentations**

We are still waiting to hear from the Brownies and The RJ Mitchell school about dates for their requests for the Society to give presentations. Please let **Barbara** or **Frances** know if you think you may be able to help.

**European Astrofest 2016**

Tickets are available for the European AstroFest being held on 5th and 6th February at the Kensington Conference and Events Centre, Kensington and Chelsea Town Hall, Hornton Street, London W87NX. This is a great event with many trade stands and talks by renown speakers. See ***europeanastrofest.com*** for details.

**Astronomy Evening at the Ingrebourne Visitor's Centre – Saturday March 12th**

We have been asked to give another presentation at the Visitor's Centre in Hornchurch Country Park. Please let either **Barbara** or **Frances** know if you are able to attend and help.

## Next Meeting ~ February 17th

We will be having a visit from **Paul Coleman** who will be giving us a presentation on last year's Solar Eclipse.

# NIGHT SKY

**Moon and Jupiter Conjunction:** Can best be seen on January 28th at 00:15 UTC in **Leo**. The **Moon** and **Jupiter** will make a close approach, passing within 1°20' of each other when the **Moon** will be at mag -12.4, and **Jupiter** at mag -2.4. The pair will be too widely separated to fit within the field of view of a telescope, but will be visible to the naked eye or through a pair of binoculars.

**Jupiter, Saturn and Mars.** Can all best be seen on January 31st in the early hours. At 03:00 UTC in **Leo** in the South, when viewed through a telescope, **Jupiter**'s disc will show its atmospheric belts as well as the Great Red Spot. Next at 06:30 UTC in **Ophiuchus**, low in the southeast as the sky starts to brighten, **Saturn**'s increased altitude will give you a steady view. Then at 07:00 UTC in Libra in the south, **Mars** will be seen with an apparent 7 arcseconds diameter and a 90% phase. Visually, **Mars** is now starting to get brighter

**Jupiter:** on February 2nd at 23:10 UTC just after it has risen in **Leo** in the Southeast you will be able to see through a telescope the shadow of **Jupiter**'s giant moon, **Ganymede**, crossing its disc. The shadow heads towards the western side of the planet when Ganymede itself begins its transit across **Jupiter** leaving the disc around 02:25 UCT on February 3rd.

**Venus and Mercury.** Can be seen on together on February 6th at 06:45 UTC low in **Sagittarius** in the Southeast forming a triangle with the nearby waning crescent **Moon**. This lovely conjunction between a mag. 0.0 **Mercury**, -3.9 **Venus** and a 6% -lit waning **Moon** will best be seen from somewhere with a flat southeast horizon.

*Thank you to everyone who helps with refreshments.*

## Observing at South Weald

Unfortunately, due to cloudy conditions, no observing was possible last weekend. The next suitable dates are Saturday February 13th or Sunday 14th if necessary. **Martin** will no longer be able to coordinate these evenings and we will be looking for some other member or members to assist in this role in future.

## Young Astronomers

We were able to view The **Moon** and the **Orion Nebula** before the clouds came across. **Terry** very kindly showed a new member how to use the telescope she had been bought and her remark on viewing The **Moon** was "wow, amazing!". Unfortunately, **Sid** was unable to join us as he had a cough and cold.

## Spaceflight News

### SpaceX Falcon rocket explodes on landing after delivering satellite to space

One of four landing legs mounted to the base of SpaceX's Falcon 9 booster failed to engage on the rocket's final descent to a barge in the Pacific Ocean on Sunday, leaving wreckage scattered on the football field-sized deck of the landing ship after an otherwise successful launch with an ocean research satellite. The rocket landings have become a regular fixture on SpaceX launches as the California-based company tries to perfect techniques to make the Falcon 9 first stage reusable, a goal SpaceX founder and chief executive Elon Musk says is vital to reducing the cost of spaceflight. It was SpaceX's third attempt to land a Falcon 9 booster on the company's drone ship positioned downrange in the ocean. SpaceX's first rocket landing attempt on shore in December was successful, giving the company a triumph to close the year after a launch failure in June grounded the Falcon 9 for nearly six months. The Falcon 9's first stage, which stands 14 stories tall and measures 12 feet in diameter, flew on course to the drone ship after liftoff from Vandenberg Air Force Base in California. The booster jettisoned from the Falcon 9's upper stage, which continued into orbit with the Jason 3 oceanography satellite for U.S. and European science institutions, then flipped around and slowed down before reaching the landing platform. The rocket's center engine, one of nine Merlin engines on the Falcon 9 first stage, fired to put on the brakes just as the vehicle approached the drone ship named "Just Read the Instructions" after a starship featured in science fiction writer Iain Banks' novels. The rocket was right on course — just 4.3 feet (1.3 meters) off center, SpaceX said — but a collet on leg No. 3 failed to latch, and the landing gear crumpled as the booster settled on the ship's deck. Officials admit landing on a ship presents more challenges the returning than booster to land, but if SpaceX eventually aims to recover and reuse all its Falcon 9 boosters, the barge is essential.