

## Adrian Zielonka's Space and Astro notes for May '17

The best chance to see **Comet C/2017 E4 Lovejoy** (if you haven't seen it already) will be in the first few days of the month in the constellation of **Triangulum** which is approximate 20 degrees north of the **Sun**. So the early in the morning and around an hour before dawn. (See website below for further details. Currently at 7 magnitude (April 10<sup>th</sup>).

**Comet C/2015 ER Pan-starrs** stays approximately **10 degrees** to the right of **Venus** all month. (See website below for further details). Currently at 8.5 magnitude (March 27<sup>th</sup>).

**Comet 41P Tuttle-Giacobini-Kresak** on the 2<sup>nd</sup> is just **0.197AU** distance from us. At 10:00pm low in the north east is the constellation of **Lyra**. The brightest star is **Vega** and it is close to this. (See star charts which will be sent separately). Currently at 7.5 magnitude (April 10<sup>th</sup>).

On the 1<sup>st</sup> at **10:00pm** the **Moon** is in a straight line between the stars **Pollux (Gemini)** and **Procyon (Canis Minor)**.

On the 3<sup>rd</sup> at **10:00pm** the star **Regulus (Leo)** is 7 degrees to the upper left of the **Moon**.

An occultation of the star **Regulus (Leo)** by the **Moon** occurs on the 4<sup>th</sup>. This is during the daytime between **8:58am** and **1:00pm** and will be seen in **North Australia**.

At **10:00pm** on the 4<sup>th</sup> the star **Regulus (Leo)** is 6 degrees to the right of the **Moon**.

The **Eta Aquarids** meteor shower reaches its peak on the 5<sup>th</sup> though they can be seen until the 28<sup>th</sup>.

**Mercury** reaches Aphelion ( its most distant from the Sun in its orbit) on the 6<sup>th</sup>.

At **midnight** on the 7<sup>th</sup>, **Jupiter** is just **1 degree** below right of the **Moon**.

At **midnight** on the 12<sup>th</sup>, **Saturn** is **11degrees** to the lower left of the **Moon** and only **3 degrees** above the south eastern horizon.

On the 13<sup>th</sup> at **midnight**, **Saturn** is just **2 degrees** to the lower right of the **Moon**. The **Moon** being just **5 degrees** above the south eastern horizon.

At **12:30am** on the night of the 14<sup>th</sup>, **Saturn** will be **12½ degrees** to the upper right of the **Moon**, with the Moon just **2½ degrees** above the south eastern horizon.

At **4:30am** on the 16<sup>th</sup> in the east, **Venus** will be **5 degrees** above the horizon.

On the 18<sup>th</sup>, **Mercury** reaches Maximum western elongation from the **Sun**.

The best time this month to see **Mercury** (If your lucky, with the Sun rising soon after) will be a few days either side of the 20<sup>th</sup> and just above the horizon in the east, and soon after the time **Mercury** rises.

At **4:30am** on the 20<sup>th</sup> , **Neptune** is just **1½ degrees** to the upper left of the **Moon**. On occultation of **Neptune** occurs from 4:43am till 8:49am, though this will only seen from South Atlantic Ocean, Southern Africa and the Indian Ocean.

On the 22<sup>nd</sup> at 4:30am, **Venus** is 6 degrees to the upper left of the crescent **Moon**. The **Moon** being just 5½ degrees above the horizon.

At 4:30am on the 23<sup>rd</sup> the thin **crescent Moon** is barely a degree above the eastern horizon. **Venus** is 8½ degrees to the upper right of the **Moon** and **Uranus** is 4½ degrees to the upper left of the **Moon**.

If you manage to see a very thin crescent **Moon** on the ENE horizon on the 24<sup>th</sup> (close to 4:50am) look 2½ degrees above it and you will see **Mercury**.

At 4:00am few days either side of the 26<sup>th</sup> the asteroid **Pallas** will be just a few degrees to the lower right of **Venus**. At 10.1 magnitude, a strong pair of binoculars or telescope will be required to see it. (See website below for further details)

As the sun sets at 9:08pm on the 26<sup>th</sup> a very thin **crescent Moon** will be 14 degrees to the upper left of where the **Sun** sets and just 4½ degrees above the horizon.

On the 27<sup>th</sup> at 10:00pm, **Mars** will be 12 degrees to the right and slightly lower than the height of the **Moon**. The **Moon** being just 6 degrees above the WNW horizon.

An occultation of **Regulus** by the **Moon** is on the 31<sup>st</sup>. It too is in the daytime between 3:16pm and 7:34pm with the mid-occultation observing point over **Gabon, Africa**.

At 10:00pm on the 31<sup>st</sup> the star **Regulus (Leo)** is just 2½ degrees to the right of the **Moon**.

On the 31<sup>st</sup> at 10:30pm **Comet C/2015 V2 Johnson** is in the constellation of **Bootes**. The Last observed magnitude was 9.5 (April 10<sup>th</sup>). Its distance from **Earth** will be 0.814AU and its distance from the **Sun** is 1.644AU (See star chart which will be sent separately)

There are planned missions this month from Baikonur, French Guiana and Satish Dhawan, India.

**NASA News:** It was announced on April 19<sup>th</sup> that **President Donald Trump, First Daughter Ivanka Trump, and NASA astronaut Kate Rubins** will make a special Earth-to-Space call on Monday 24<sup>th</sup> April, from the Oval Office to personally congratulate **NASA Peggy Whitson** for her record-breaking stay aboard the ISS.

**Facts:** As well as helping determine the parallax of **61 Cygni**, **Friedrich Wilhelm Bessel** precise measurements using a new meridian circle from '**Adolf Repsold**' allowed him to notice deviations in the motions of **Sirius** and **Procyon**, which he deduced must be caused by the gravitational attraction of unseen companions. His announcement of Sirius's "dark companion" in 1844 was the first correct claim of a previously unobserved companion by positional measurement, and eventually led to the discovery of '**Sirius B**'.

A useful site: [heavens-above.com](http://heavens-above.com)

Adrian S Zielonka