CADAS

**Night Sky 2017- June**

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| **Venus Rises** | **Sunrise** | **Sunset** | **Mercury Sets** |

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| 1st – 3:29am  10th – 3:13am  20th – 2:57am  30th – 2:44am | 1st – 5:02am  10th – 4:57am  20th – 4:56am  30th – 5:00am | 1st – 9:17pm  10th – 9:25pm  20th – 9:29pm  30th – 9:29pm | 26th – 9:59pm  28th – 10:07pm  30th – 10:14pm |

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| **Moon Rises New-Full** | **Moon Sets New-Full** | **Moon Rises Full-New** | **Moon Sets Full-New** |
| 1st – 12:38pm**(FQ)**  2nd – 1:47pm  3rd – 2:53pm  4th – 3:59pm  5th – 5:03pm  6th – 6:06pm  7th – 7:08pm  8th – 8:08pm  9th – 9:05pm**(Full)**  **\_\_\_**    25th – 6:41am  26th – 7:52am  27th – 9:06am  28th – 10:20am  29th – 11:32am  30th – 12:41pm | 1st – 1:51am**(FQ)**  2nd – 2:18am  3rd – 2:42am  4th – 3:05am  5th – 3:28am  6th – 3:52am  7th – 4:18am  8th – 4:47am  9th – 5:21am**(Full)**  **\_\_\_**    25th – 10:33pm  26th – 11:16pm  27th – 11:52pm  28th – **(NoMS)**  29th – 12:21am  30th – 12:47am | 10th – 9:57pm  11th – 10:44pm  12th – 11:25pm  13th – **NoMR**  14th – 12:01am  15th – 12:32am  16th – 1:00am  17th – 1:26am**(LQ)**  18th – 1:52am  19th – 2:18am  20th – 2:46am  21st – 3:17am  22nd – 3:55am  23rd – 4:41am  24th – 5:36am**(New)** | 10th – 6:00am  11th – 6:46am  12th – 7:38am  13th – 8:35am  14th – 9:37am  15th – 10:42am  16th – 11:50am  17th – 1:00pm**(LQ)**  18th – 2:13pm  19th – 3:28pm  20th – 4:46pm  21st – 6:05pm  22nd – 7:23pm  23rd – 8:36pm  24th – 9:40pm **(New)** |

**Comet 41P Tuttle-Giacobini-Kresak** is just 0.297AU from us on the **1st**. It starts of in the constellation of **Hercules** then enters **Ophiuchus** on the **5th**. Its last observable magnitude was 8.5 (29th May)and should be visible through binoculars at the beginning of the month than at the end.

On the**1st** \*there is a planned launch of **SpaceX CRS-11** Cargo Mission to the **International Space Station**(ISS). An uncrewed cargo space will lift off on a Falcon 9 rocket from Kennedy Space Centre in Florida. In addition to supplies and equipment, on board are NASA's Neutron star Interior Compposition Explorer (NICER) instrument, the Roll-Out Solar Array (ROSA) and an Earth-viewing imaging platform created by Teledyne Brown called MUSES.

 On the **1st** \* there is a scheduled launch from **Tanegashima**, **Japan** of the **H-IIA 202**. Its payload is the **Quasi-Zenith Satellite(QZS-2)**.

 Also on the 1st \* there is a planned launch from **French Guiana** of **Ariane 5 ECA**. Its payload are the **ViaSat-2** and **Eutelsat 172B**.

 On the **2nd** \* there is a scheduled **Undocking** from the **ISS** and **Landing** in **Kazakhstan**. **European Space Agency (ESA)** astronaut **Thomas Pesquet** and **Oleg Novitskiy** of the Russian space agency Roscosmos will undock their Soyuz MS-03 spacecraft from the ISS's Rassvet module and return back to Earth.

 At **11:00pm**on **2nd** **Jupiter** is 12 degrees to the left of the **Moon**.

 On the **3rd**at**11:00pm, Jupiter**is just**2 degrees**to the lower left of the **Moon**.

**Venus** reaches maximum western elongation (45.9degrees) from the **Sun** on the **3rd**.

 At **10:30pm** on the **4th Jupiter** is 8½ degrees to the right of the **Moon**.

 At **4:30am** on the **6th** **Comet C/2017 E4 Lovejoy** is just **½ a degree** to the right of **Mercury**. With **Mercury** barely above the horizon and the morning dawn fast approaching you are unlikely to see it. The end of the month you have better chances to see**Mercury**.

 On the **8th** at **10:30pm**, **Saturn** is 13½ degrees to the lower left of the **Moon**.

 On the **9th** at **10:30pm** in the **SE**, **Saturn** will be just **2½** degrees below the **Full Moon**.

**Saturn** will be 8½ degrees to the upper right of the **Moon** on the **10th** in the **SE**.

 On the **12thVenus** is at Aphelion (its most distant from the Sun in its orbit).

 At midnight on the **12th** the **Moon** is just **3½ degrees** above the south eastern horizon.

**Comet C/2015 V2 Johnson** is at perihelion (closest to the Sun) on the **12th**. It will then be 1.637AU from the Sun and 0.824AU from the Earth and in the constellation of **Bootes**. Its approximate location at **11:00pm** on the **12th** is south and its around 50 degrees altitude. On the **13th** at **11:00pm** it will be just above 3 stars in a short straight line (see Star Charts dated the 9th). From the **14th** it will be in the constellation of **Virgo**. Its last observable magnitude was **8** (29th May). See star charts that will be sent seperately.

 On the **14th** \* there is a scheduled launch from **Baikonur, Russia** of the **Soyuz 2-1A**. Its payload is Progres**s MS-6**.

**Saturn** is at opposition on the **15th** and is due south at **1:00am**and just **17 degrees** above thehorizon.**Saturn** is at its best to view this month.

An **Occultation of Neptune** by the **Moon** occurs on the **16th**. It will only be visible from the **South Pacific and and Antartica**.

 On the **16th** at **4:00am**, **Neptune** is **5 degrees** to the left of the **Moon**....

 ….and at the same time on the**17th Neptune** is **7½ degrees** to the upper right of the**Moon.**

**Uranus** is **9½** degrees to the left of the **Moon** on the morning of the **19th** at **4:00am**.

 On the morning of the **20th** at **4:00am**, **Venus**will be 11 degrees to the left of the **Moon** and **Uranus**7½ degrees above and to the right of the **Moon**.

 When the Crescent **Moon** is barely above the horizon on the **21st** at **3:30am**, **Venus** will be just 4 degrees above it.

**Mercury** is at superior conjunction with the **Sun** on the**21st**.

 At **4:20am** on the **22nd** the crescent **Moon** will be just **3 degrees** above the north eastern horizon.

A very thin crescent **Moon** occurs on the **25th**. At **10:00pm** the **Moon** will be just 3 degrees above the WNW horizon with Mars 15 degrees to the right and just 1 ½ degrees above the horizon.

 On the **27th** the bright star **Regulus** will be **3 degrees** to the above left of the **Moon**.

 On the **27th Mercury** will be just to the right of **Mars** before**10:00pm** and very low in the north west.

On the **28th** \* there is a scheduled launch from **French Guiana** of the **Ariane 5 ECA**. Its payload are **Inmarsat-S-EuropaSat/HellasSat 3 and GSAT-17**.

 On the **28th** there is a very close conjunction between **Mercury** and **Mars**. Just before **10:00pm** on a very low horizon in the north west, **Mercury** will be just above **Mars** though it does depend on viewing conditions.

 On the **29th** \* there is a planned launch **Vandenberg** of the **Falcon 9**. Its payload are **10 Iridium NEXT (flight 2)**

 On the **30th** at **10:00pm**, **Mercury** will be barely**2 degrees** above the north western horizon.

**Jupiter**will be **6 degrees**to the left of the**Moon at 11:00pm**on the**30th**.

 There are further launches during this month from**Satish Dhawan, India; Jiuquan, China, Wenchang, China.and Kwajalein Atoll:**The**Ionospheric Connection (ICON) Explorer**will study the frontier of space: the dynamic zone high in our atmosphere where Earth weather and space weather meet. It will launch from**Kwajalein Atoll**,**Marshall Islands**aboard an**Orbital ATK Pegasus.**

**Fact**: An extremely rare event took place on the morning of Thursday 20th March 2014. An occultation of the bright star **Regulus** by the asteroid known as **163 Erigone**. It occurred along a 45 mile-wide path that extended from **New York City**to **Oswego** in **New York State** and continued northwest into **Ontario, Canada**. For those in the centre of its path the star remained invisible for 12 seconds.

**News**: One surprise from **Juno's Mission** to **Jupiter** comes from **Juno's Microwave Radiometer (MWR)**, which senses behaviour below the visible cloud surface. Its data indicates the presence of a broad band of ammonia around the equator that goes from the top of the atmosphere to as deep as it is possible to detect, at least 350km down. The ammonia at higher latitudes are much more variable. It could be part of a major circulation system. “ It is telling us that Jupiter is not very well mixed on the inside”.

 \*= Dates and times are subject to change.

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

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