

Night Sky 2017- August

Venus	Sunrise	Sunset	Moon Phases
1 st – 2:34am	1 st – 5:37am	1 st – 8:57pm	Full Moon – 7 th
10 th – 2:43am	10 th – 5:50am	10 th – 8:41pm	Last Quarter – 15 th
20 th – 3:00am	20 th – 6:06am	20 th – 8:22pm	New Moon – 21 st
30 th – 3:22am	30 th – 6:21am	30 th – 8:01pm	First Quarter – 29 th
Moon Rises New-Full	Moon Sets New-Full	Moon Rises Full-New	Moon Sets Full-New
1 st – 3:50pm	1 st – 12:53am	8 th – 9:09pm	8 th – 6:24am
2 nd – 4:50pm	2 nd – 1:23am	9 th – 9:37pm	9 th – 7:31am
3 rd – 5:46pm	3 rd – 1:58am	10 th – 10:03pm	10 th – 8:41am
4 th – 6:37pm	4 th – 2:39am	11 th – 10:28pm	11 th – 9:51am
5 th – 7:23pm	5 th – 3:27am	12 th – 10:53pm	12 th – 11:03am
6 th – 8:03pm	6 th – 4:20am	13 th – 11:21pm	13 th – 12:17pm
7 th – 8:38pm(Full)	7 th – 5:20am(Full)	14 th – 11:52pm	14 th – 1:31pm
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22 nd – 6:47am	22 nd – 8:47pm	16 th – 12:28am	16 th – 3:58pm
23 rd – 8:01am	23 rd – 9:14pm	17 th – 1:12am	17 th – 5:06pm
24 th – 9:13am	24 th – 9:39pm	18 th – 2:05am	18 th – 6:07pm
25 th – 10:22am	25 th – 10:03pm	19 th – 3:08am	19 th – 6:58pm
26 th – 11:30am	26 th – 10:38pm	20 th – 4:17am	20 th – 7:41pm
27 th – 12:35pm	27 th – 10:54pm	21 st – 5:31am(New)	21 st – 8:17pm(New)
28 th – 1:38pm	28 th – 11:23pm		
29 th – 2:39pm(FQ)	29 th – 11:56pm(FQ)		
30 th – 3:36pm	30 th – (NoMS)		
31 st – 4:29pm	31 st – 12:35am		

On 2nd* there is a scheduled launch from **French Guiana** of a **Vega** rocket. Its payload is **OPTSAT-3000 & Venus**.

At **10:30pm** on the **2nd**, **Saturn** is 6 degrees to the lower left of the **Moon**.

In the early hours of the morning of the **3rd*** there is a scheduled launch from NASA's Kennedy Space centre in Cape Canaveral of the **Atlas V** rocket. Its payload is the **Tracking and Data Relay Satellite M (TDRS-M)**. It will orbit 22,300 miles above the Earth and provide near-constant communication links between the ground and orbiting satellites, such as Hubble and the International Space Station.

Saturn is 7 degrees to the lower right of the **Moon** on the **3rd** at **10:30pm**.

A partial **Eclipse of the Moon** occurs on the **7th**. It will be visible from **Africa, Asia, Australia, New Zealand and most of Europe**. Unfortunately we will not see the partial phase even though **France** will. From the time the **Moon** rises (**8:38pm**) till **9:50:56pm** when the penumbral shadow ends you may see a darker shade to the full **Moon**. The partial phase ends at **8:18:10pm** so to see the penumbral shadow its best to view sooner than later after the **Moon** rises.

Neptune is **3 degrees** to the upper left of the **Moon** at **10:30pm** on the **9th**. An occultation of **Neptune** by the **Moon** occurs also on this day, though this will only be visible from the **southern oceans and Antartica**.

On the **10th** an uncrewed SpaceX Dragon cargo spacecraft will lift off on a **Falcon 9** rocket from **NASA's Kennedy Space Centre** in Florida delivering supplies and equipment to the **International Space Station (ISS)**. Dragon will also deliver several science investigations including building on the success of the **Cosmic Ray Energetics And Mass (CREAM)** balloon flights.

At midnight on the **10th**, **Neptune** is 13 degrees to the upper right of the **Moon**.

On the **11th*** there is a scheduled launch from **Tanegashima, Japan** of the **H-IIA** rocket. Its payload is QZS-3.

On the **11th, 12th and 13th** The asteroid **Ceres** will be just one degree above and to the upper left of **Venus**. At **4:00am**, **Venus** will be **10 degrees** above the ENE horizon. (**Star charts will be sent for each of these dates**).

The **Perseids** meteor shower reaches its peak on the evening of the **12th**. They may also be seen from the **17th** July till the **24th** Aug.

Uranus is 7 degrees to the upper left of the **Moon** at midnight on the **12th**.

There is a planned launch on the **14th** from **Vandenberg, California** of the **Atlas V 541**. Its payload is **NROL-42**.

An occultation of a few bright stars in the constellation of **Taurus** by the **Moon** will occur during the night of the **15th**. You may be lucky in seeing some disappear on the left hand side of the **Moon** and reappear on the right.

On the **16th** there is a planned launch from **Jiuquan, China** of the **CZ-2D** rocket. Its payload are **Zhangheng-1** and others.

Venus is 13 degrees to the lower left of the **Moon** at 5:00am on the **18th**.

At **5:30am** on the **19th**, **Venus** is just **2½ degrees** to the upper left of the thin **Crescent Moon**. As the sky gets lighter keep watching the same area and you will see **Venus** even when the **Sun** has risen.

A very thin **Crescent Moon** may be seen just above the horizon to the lower left of **Venus** at **5:30am** on the **20th**.

On the **21st** there is a **Total Eclipse Of The Sun**. Totality will only be seen from the states; **Oregon, Idaho, Wyoming, Nebraska, Kansas, Missouri, Illinois, Kentucky, Georgia, North and South Carolina** in the USA. That's where to go if you want to see the Total Eclipse. - **Alternative** -, you can just see the ending of the partial phase from here before Sunset. From **SOMERTON** the start of the Partial Phase is at **7:40:26pm** when the **Sun** is at an altitude of **5.1 degrees** and ends when the **Sun** sets at **8:20pm**. (An occultation of the star **Regulus** by the **Moon** occurs on the same day that the **Moon** totally eclipses the **Sun**. How's that for a coincidence)

If it were a total eclipse from here in Somerset, at 7:45pm, you would see **Mercury** 10 degrees to the left of the **Moon/Sun** and **Mars** would be 8 degrees to the right.

On the **23rd**, low in the west a very thin crescent **Moon** will be just above the horizon from **8:45pm** until it sets at **9:14pm**.

On the **24th*** there is a scheduled launch from **Vandenberg, California** of a **Falcon 9** rocket. Its payload is **Formosat 5**.

There is an occultation of the bright star **Porrima** in **Virgo** by the crescent **Moon** on the **24th**. It starts as the sky begins to darken then just before the **Moon** sets, it will reappear on the lower righthand side of it.

At **9:00pm** on the **25th**, **Jupiter** will be just **3 degrees** to the lower right of the crescent **Moon**.

Mercury is at inferior conjunction on the **26th**.

There is a planned launch on the **28th** from **Kennedy Space Centre** of a **Falcon 9** rocket. Its payload is **X-37B OTV-5**.

At **10:30pm** on the **29th**, **Saturn** will be **9½ degrees** to the left of the **Moon**.

Saturn will be **4 degrees** to the lower right of the **Moon** at **10:30pm** on the **30th**.

On the **31st** there is a planned launch from **French Guiana** of the **Ariane 5 ECA** rocket. Its payload are **Intelsat 37e, Bsat-4**.

Also on the **31st** there is another launch. This time it's from **Cape Canaveral** and it's an **Atlas V 421** rocket with its payload **NROL-52**.

During the early hours (**3:00 – 3:30am**) of **September 1st**, **Comet 41P Tuttle-Giacobini-Kresak** will be **less than ½ a degree** to the upper left of the **Moon**. This viewing will be for those who have telescopes with a high magnification.

Other launches are also planned this month from **Baikonur, Kazakhstan** and **Satish Dhawan, India**.

* = Please note that dates and times may vary.

News: A Soyuz rocket successfully launched 73 satellites, including spacecraft for four companies' cubesat constellations on July 14th. The rocket deployed the primary payload, the **Kanopus-V-1K** remote sensing satellite, an hour after launch, followed by 72 smallsat secondary payloads over the next seven hours. Among the secondary payloads were 48 Dove satellites from Planet, completing the company's initial constellation of remote sensing cubesats. All the satellites had separated from the rocket's Fregat upper stage as planned, starting the process of positioning the satellites in their desired slots in sun-synchronous orbit. The commissioning and orbital spacing will take some months, but the Doves will begin imaging much sooner than that.

Fact: One of the few star clusters known since antiquity, the **Beehive (M44)** was called the “**Little Cloud**” or “**Cloudy Star**” by **Hipparchus**. The ancients used the cluster as a weather indicator: if it was invisible, then violent storms were on the way.

A useful site: www.heavens-above.com