
What's Up

1
00:00:00,000 --> 00:00:03,000
Music.

2
00:00:03,000 --> 00:00:05,000
Jane Houston Jones: What's Up for March.

3
00:00:05,000 --> 00:00:13,000
Watch starlight get blocked by a passing asteroid, planets march across the sky and a lunar eclipse preview.

4
00:00:13,000 --> 00:00:18,000
Hello and welcome. I'm Jane Houston Jones from NASA's Jet Propulsion Laboratory in Pasadena, California.

5
00:00:18,000 --> 00:00:25,000
This month, on March 20th at 2:06 a.m. Eastern time, some lucky viewers in northeast America and Canada

6
00:00:25,000 --> 00:00:30,000
can watch Leo's brightest star Regulus disappear for up to 14 seconds

7
00:00:30,000 --> 00:00:34,000
as asteroid 163 Erigone passes in front of it.

8
00:00:34,000 --> 00:00:40,000
This passage of one celestial object in front of another is called an occultation.

9
00:00:40,000 --> 00:00:47,000
The most familiar occultation is a total solar eclipse, when our moon passes in front of, or occults, the sun.

10
00:00:47,000 --> 00:00:52,000
Another common occultation is when the moon passes in front of a planet

11
00:00:52,000 --> 00:00:56,000
like this occultation of Venus during the daytime in August 2012.

12
00:00:56,000 --> 00:01:03,000
The ground track for the occultation of Regulus is a 67-mile-wide path from the North Atlantic

13
00:01:03,000 --> 00:01:06,000

to the New York metropolitan area

14
00:01:06,000 --> 00:01:09,000
on to Ontario and the Arctic.

15
00:01:09,000 --> 00:01:16,000
If you live somewhere along the ground track, set your alarm and step outside before 2 a.m. on March 20th

16
00:01:16,000 --> 00:01:19,000
to familiarize yourself with the constellation Leo.

17
00:01:19,000 --> 00:01:24,000
It's easy to spot in the southwest sky between Jupiter and Mars,

18
00:01:24,000 --> 00:01:27,000
with the moon and Saturn nearby, too.

19
00:01:27,000 --> 00:01:32,000
The backwards question mark which outlines Leo's mane is easy to find.

20
00:01:32,000 --> 00:01:34,000
Regulus is the dot below the question mark.

21
00:01:34,000 --> 00:01:37,000
Asteroid occultations are quite common,

22
00:01:37,000 --> 00:01:42,000
but most are so faint you need a telescope and a timepiece to follow the action.

23
00:01:42,000 --> 00:01:47,000
Dedicated and patient amateur astronomers

24
00:01:47,000 --> 00:01:51,000
record a star's appearance and disappearance from different locations.

25
00:01:51,000 --> 00:01:59,000
Music.

26
00:01:59,000 --> 00:02:05,000
Jones: These observations are compiled to reveal the silhouette of the asteroid.

27
00:02:05,000 --> 00:02:10,000
If you aren't in the ground track, check out Leo anyway and take a look at brilliant, blue-white Regulus.

28
00:02:10,000 --> 00:02:18,000
An occultation of a bright magnitude 1 star like Regulus won't happen again until December 2023.

29
00:02:18,000 --> 00:02:19,000
Sound effect: whoosh.

30
00:02:19,000 --> 00:02:24,000
Jones: There's a lunar eclipse next month, so mark April 15 on your calendar.

31
00:02:24,000 --> 00:02:25,000
Sound effect: whoosh.

32
00:02:25,000 --> 00:02:30,000
Jones: Until then, you can't miss Jupiter high overhead in the evening sky.

33
00:02:30,000 --> 00:02:34,000
And Mars and Saturn glide through the sky from midnight to dawn.

34
00:02:34,000 --> 00:02:38,000
Early risers can spot Venus and Mercury in the southeast before dawn.

35
00:02:38,000 --> 00:02:43,000
You can learn about all of NASA's missions at w w w dot NASA dot gov.