
What's Up

1
00:00:00,000 --> 00:00:02,000
Music.

2
00:00:02,000 --> 00:00:07,000
Jane Houston Jones: What's Up for January. Jupiter at opposition. Venus at conjunction.

3
00:00:07,000 --> 00:00:11,000
A Juno mission update. And the Quadrantid meteor shower.

4
00:00:11,000 --> 00:00:17,000
Hello and welcome. I'm Jane Houston Jones from NASA's Jet Propulsion Laboratory in Pasadena, California.

5
00:00:17,000 --> 00:00:22,000
The giant planet Jupiter puts on its best appearance in over a year this month.

6
00:00:22,000 --> 00:00:28,000
On January 5 it reaches opposition, when Jupiter, the Earth and the sun are in a straight line

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00:00:28,000 --> 00:00:30,000
with the Earth in the middle.

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00:00:30,000 --> 00:00:37,000
Jupiter's average distance from the Earth is 5.2 A U or 483 million miles.

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00:00:37,000 --> 00:00:44,000
But at opposition it's only 4.2 A U or 391 million miles away.

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00:00:44,000 --> 00:00:50,000
NASA's Juno spacecraft flew by Earth in October to get the gravitational boost it would need

11
00:00:50,000 --> 00:00:54,000
in order to reach Jupiter in July 2016.

12
00:00:54,000 --> 00:00:58,000
Several Juno science instruments made observations during the approach to Earth,

13
00:00:58,000 --> 00:01:06,000

including the Advanced Stellar Compass, JunoCam and Waves.

14
00:01:06,000 --> 00:01:12,000
During the flyby, amateur radio operators around the world said 'hi' to Juno in Morse Code.

15
00:01:12,000 --> 00:01:15,000
And the spacecraft actually heard their greeting.

16
00:01:15,000 --> 00:01:18,000
Sound: Beeps.

17
00:01:18,000 --> 00:01:19,000
Sound: Whoosh.

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00:01:19,000 --> 00:01:22,000
Jones: The only object brighter than Jupiter this month is Venus.

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00:01:22,000 --> 00:01:29,000
This month Venus shines at magnitude minus 4 point 4, and it sets an hour after sunset.

20
00:01:29,000 --> 00:01:35,000
Through binoculars or telescopes you'll see an amazingly-thin crescent until the planet disappears

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00:01:35,000 --> 00:01:42,000
at inferior conjunction, when Venus is directly between the Earth and the sun on January 11.

22
00:01:42,000 --> 00:01:46,000
Venus will return as the bright morning 'star' at dawn a week later.

23
00:01:46,000 --> 00:01:47,000
Sound: Whoosh.

24
00:01:47,000 --> 00:01:53,000
Jones: The January Quadrantid meteor shower peaks on January third and fourth.

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00:01:53,000 --> 00:01:59,000
The Quadrantids have a very sharp peak, which means the meteors are visible for only several hours near daw

26
00:01:59,000 --> 00:02:02,000
instead of several days.

27
00:02:02,000 --> 00:02:08,000
Look in the northeast, between and below the Big and Little Dippers and the bright star Arcturus.

28
00:02:08,000 --> 00:02:11,000
This shower isn't named for the modern constellation in which it appears,

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00:02:11,000 --> 00:02:16,000
but for the constellation's original name: Quadrans Muralis.

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00:02:16,000 --> 00:02:20,000
You can see the latest from the Juno mission and learn about all of NASA's missions

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00:02:20,000 --> 00:02:23,000
at w w w dot nasa dot gov.