
What's Up

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

2
00:00:02,000 --> 00:00:05,000
Jane Houston Jones: What's Up for November? MAVEN launches to Mars

3
00:00:05,000 --> 00:00:08,000
and Comet ISON should be visible before dawn.

4
00:00:08,000 --> 00:00:15,000
Hello and welcome. I'm Jane Houston Jones from NASA's Jet Propulsion Laboratory in Pasadena, California.

5
00:00:15,000 --> 00:00:22,000
MAVEN, the Mars Atmosphere and Volatile Evolution Mission, will explore the planet's upper atmosphere,

6
00:00:22,000 --> 00:00:26,000
ionosphere and their interactions with the sun and solar wind.

7
00:00:26,000 --> 00:00:32,000
A 2013 launch allows mission scientists to collect data on Mars' atmosphere

8
00:00:32,000 --> 00:00:38,000
and how it's being lost to space at an active time in the 11-year solar cycle.

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00:00:38,000 --> 00:00:43,000
MAVEN will also relay data from the Curiosity and Opportunity rovers back to Earth as needed.

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00:00:43,000 --> 00:00:49,000
The rovers are presently supported by Mars Odyssey, launched in 2001,

11
00:00:49,000 --> 00:00:53,000
and Mars Reconnaissance Orbiter, launched in 2005.

12
00:00:53,000 --> 00:00:55,000
Sound effect: whoosh.

13
00:00:55,000 --> 00:01:00,000

Jones: On November 27 Mars is a pretty sight, two-thirds of the way from the horizon to overhead.

14
00:01:00,000 --> 00:01:04,000
And the crescent moon is nearby.

15
00:01:04,000 --> 00:01:08,000
Amateur astronomers and astrophotographers have used Mars as a signpost

16
00:01:08,000 --> 00:01:14,000
to find Comet ISON in the dawn sky for the last month.

17
00:01:14,000 --> 00:01:17,000
Comet viewing this month will occur an hour before dawn,

18
00:01:17,000 --> 00:01:21,000
so plan your viewing spot and set an alarm clock for a wake-up call.

19
00:01:21,000 --> 00:01:22,000
Sound effect: clock ringing.

20
00:01:22,000 --> 00:01:27,000
Jones: In early November Comet ISON may not have reached visibility to the unaided eye,

21
00:01:27,000 --> 00:01:31,000
but it will be easy to spot in backyard telescopes.

22
00:01:31,000 --> 00:01:36,000
In mid-November the comet passes near Virgo's bright white star Spica.

23
00:01:36,000 --> 00:01:43,000
Both objects will appear about 20 to 25 degrees above the horizon, 45 minutes before sunrise.

24
00:01:43,000 --> 00:01:48,000
Comet ISON is racing towards the sun at 5 degrees a day.

25
00:01:48,000 --> 00:01:53,000
To spot it, you'll need to be able to see the southeast horizon just before dawn.

26
00:01:53,000 --> 00:02:00,000
On the 24th ISON passes near Saturn and Mercury only 10 degrees above the horizon.

27
00:02:00,000 --> 00:02:04,000
It should have an impressive tail facing away from the sun.

28
00:02:04,000 --> 00:02:09,000
On November 25th and 26th Saturn and Mercury appear even closer together--

29
00:02:09,000 --> 00:02:13,000
less than one moon diameter between them.

30
00:02:13,000 --> 00:02:19,000
On the 28th Comet ISON passes less than one solar diameter from the sun's surface.

31
00:02:19,000 --> 00:02:26,000
Will it live up to predictions? Remember never to look directly at the sun. You can damage your eyes.

32
00:02:26,000 --> 00:02:33,000
You can see collections of images of the comet at: solarsystem dot nasa dot gov slash ISON

33
00:02:33,000 --> 00:02:42,000
and at NASA's Comet ISON Observing Campaign website: w w w dot isoncampaign dot org.

34
00:02:42,000 --> 00:02:49,000
And you can read about all of NASA's missions, including MAVEN, at: w w w dot nasa dot gov.