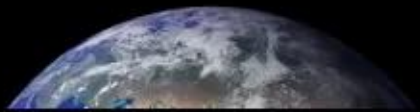

1
00:00:00,533 --> 00:00:03,803
■

2
00:00:03,836 --> 00:00:05,538
What's Up for October?

3
00:00:05,571 --> 00:00:09,509
Moon phases, Astronomy
Day, meteors and Saturn!

4
00:00:10,142 --> 00:00:11,444
Hello and welcome.

5
00:00:11,477 --> 00:00:14,480
I'm Jane Houston Jones from
NASA's Jet Propulsion Laboratory

6
00:00:14,513 --> 00:00:15,948
in Pasadena, California.

7
00:00:17,049 --> 00:00:20,686
The new moon phase starts
the month on October 1.

8
00:00:20,719 --> 00:00:22,388
Of course, the new moon isn't
visible,

9
00:00:22,421 --> 00:00:24,524
because it's between
Earth and the sun,

10
00:00:24,557 --> 00:00:26,959
and the unlit side
is facing Earth.

11
00:00:26,992 --> 00:00:30,329
Night by night the slender
crescent gets bigger

12
00:00:30,362 --> 00:00:34,534
and higher in the sky and easier
to see just after sunset.

13
00:00:34,567 --> 00:00:39,205
On the 3rd and 4th, the moon
will pass just above Venus!

14
00:00:39,238 --> 00:00:42,575
A week later on the 9th
the moon has traveled

15
00:00:42,608 --> 00:00:46,112
through one quarter of its
29-day orbit around Earth,

16
00:00:46,145 --> 00:00:48,414
and we see the first
quarter phase.

17
00:00:48,447 --> 00:00:51,751
Also look for Mars
just below the moon.

18
00:00:52,351 --> 00:00:53,686
Join me in celebrating

19
00:00:53,719 --> 00:00:57,123
International Observe the Moon
Night Saturday, October 8th,

20
00:00:57,156 --> 00:01:00,927
with your local astronomy
club or science center.

21
00:01:00,960 --> 00:01:04,297
Conveniently, the 8th is
also Fall Astronomy Day,

22
00:01:04,330 --> 00:01:09,402
celebrated internationally
by astronomy clubs since 1973.

23
00:01:10,570 --> 00:01:14,073
One week later on the 16th the
moon reaches opposition,

24
00:01:14,106 --> 00:01:16,008
or the full moon phase,

25
00:01:16,041 --> 00:01:18,978
when the moon and the sun
are on opposite sides of Earth.

26
00:01:19,011 --> 00:01:21,380
And the sun completely
illuminates the moon

27
00:01:21,413 --> 00:01:23,049
as seen from Earth.

28
00:01:23,082 --> 00:01:25,818
During this phase, the
moon rises in the east

29
00:01:25,851 --> 00:01:28,654
just as the sun is
setting in the west.

30
00:01:28,687 --> 00:01:32,091
Overnight, the moon crosses
the sky and sets at dawn.

31
00:01:32,958 --> 00:01:35,561
A week later, on the
22nd of October,

32
00:01:35,594 --> 00:01:38,364

the last quarter moon
rises at midnight.

33
00:01:38,397 --> 00:01:40,967
Later, the pretty and
bright Beehive Cluster

34
00:01:41,000 --> 00:01:44,070
will be visible near
the moon until dawn.

35
00:01:44,103 --> 00:01:47,874
To wrap up the month, 29
days after the last new moon

36
00:01:47,907 --> 00:01:50,676
we start the lunar
cycle all over again

37
00:01:50,709 --> 00:01:54,213
with another new moon
phase on October 30th.

38
00:01:55,481 --> 00:01:58,985
Will you be able to spot the
one-day old moon on Halloween?

39
00:01:59,018 --> 00:02:00,620
It will be a challenge!

40
00:02:00,653 --> 00:02:01,754
[Whoosh]

41
00:02:01,787 --> 00:02:04,223
There are three meteor
showers in October--

42
00:02:04,256 --> 00:02:05,491
the Draconids,

43
00:02:05,524 --> 00:02:06,459
the Taurids

44
00:02:06,492 --> 00:02:08,161
and the Orionids.

45
00:02:08,194 --> 00:02:11,998
Try for the Draconids
on October 8th.

46
00:02:12,031 --> 00:02:15,835
See the Taurids
on October 10th.

47
00:02:15,868 --> 00:02:19,672
The Orionids will be marred by
the full moon on the 21st,

48
00:02:19,705 --> 00:02:21,908
but all three meteor
showers will offer

49
00:02:21,941 --> 00:02:23,643
some possible bright meteors.

50
00:02:23,676 --> 00:02:24,777
[Whoosh]

51
00:02:24,810 --> 00:02:28,147
Finally, you'll have an
especially pretty view of

52
00:02:28,180 --> 00:02:31,317
Saturn, when it forms a
straight line with Venus

53
00:02:31,350 --> 00:02:34,654
and the red star
Antares on the 27th.

54
00:02:35,655 --> 00:02:37,890
You can catch up on
NASA's lunar mission,

55
00:02:37,923 --> 00:02:39,992
the Lunar
Reconnaissance Orbiter,

56
00:02:40,025 --> 00:02:41,994
the Cassini Mission to Saturn

57
00:02:42,027 --> 00:02:46,265
and all of NASA's missions at:
www.nasa.gov.