1
00:00:00,400 --> 00:00:03,803
[■]

2
00:00:03,836 --> 00:00:05,338
What's Up for November?

3
00:00:05,371 --> 00:00:07,774
Your binoculars will come in
handy this month--

4
00:00:07,807 --> 00:00:10,009
to view the moon, star clusters,

5
00:00:10,042 --> 00:00:12,378
and a close pairing
of Venus and Jupiter.

6
00:00:13,446 --> 00:00:15,314
Hello and welcome!
I'm Jane Houston Jones from

7
00:00:15,347 --> 00:00:18,851
NASA's Jet Propulsion Laboratory
in Pasadena, California.

8
00:00:19,985 --> 00:00:23,322
You can't miss bright
Venus in the predawn sky.

9
00:00:23,355 --> 00:00:25,258
This month Venus pairs up
with Jupiter

10
00:00:25,291 --> 00:00:27,493
on the morning of November 13th,

11
00:00:27,526 --> 00:00:31,497
as they did in 2015 and 2016

12
00:00:31,530 --> 00:00:35,168
when the two planets appeared a
little closer than this year.

13
00:00:35,201 --> 00:00:36,836
You'll have to be
looking very low

14
00:00:36,869 --> 00:00:39,005
on the east-southeast
horizon

15
00:00:39,038 --> 00:00:41,941
about 45 minutes before sunrise.

16
00:00:41,974 --> 00:00:43,342
But protect your eyes!

17
00:00:43,375 --> 00:00:44,644
[crunch-click]

18
00:00:44,677 --> 00:00:47,413
Don't aim your binoculars
directly at the sun

19
00:00:47,446 --> 00:00:49,382
and don't look at the
approaching sunrise

20
00:00:49,415 --> 00:00:52,085
with your unaided eyes
or telescopes.

21
00:00:52,118 --> 00:00:53,086
[whoosh]

22
00:00:54,054 --> 00:00:56,189
There are three
meteor showers this month,

23
00:00:56,222 --> 00:00:58,724
but none of them will present
high numbers of meteors

24
00:00:58,757 --> 00:00:59,992
at their peak.

25
00:01:01,026 --> 00:01:04,230
The Leonids peak on a
moonless November 17th.

26
00:01:04,263 --> 00:01:07,967
Expect no more than 10 meteors
an hour around 3:00 a.m.,

27
00:01:08,000 --> 00:01:09,836
the height of the shower.

28
00:01:09,869 --> 00:01:12,438
The Northern and
Southern sub-branches of the

29
00:01:12,471 --> 00:01:15,208
Taurid meteor shower offer
sparse counts

30
00:01:15,241 --> 00:01:17,610
of about 5 meteors per hour,

31
00:01:17,643 --> 00:01:20,746
but slow, bright meteors
are common.

32
00:01:20,779 --> 00:01:24,550
The nearby November Orionids
peak on the 28th,

33
00:01:24,583 --> 00:01:28,387

In contrast to the Taurids,
the Orionids are swift.

34
00:01:28,420 --> 00:01:30,957
But don't expect more
than 3 meteors per hour.

35
00:01:30,990 --> 00:01:32,091
[whoosh]

36
00:01:33,125 --> 00:01:35,161
The moon glides by three
beautiful star clusters

37
00:01:35,194 --> 00:01:37,063
in the morning sky this month,

38
00:01:37,096 --> 00:01:39,298
and a pair of binoculars
will allow you to see

39
00:01:39,331 --> 00:01:42,068
the individual stars
in the clusters.

40
00:01:42,101 --> 00:01:43,870
Aim your binoculars at

41
00:01:43,903 --> 00:01:46,072
the Pleiades and the moon
on the 5th,

42
00:01:46,105 --> 00:01:50,009
the Messier or M-35 cluster
and the moon on the 7th,

43
00:01:50,042 --> 00:01:53,946
and the Beehive cluster
and the moon on the 10th.

44
00:01:53,979 --> 00:01:57,049
Meanwhile, at dusk, catch
Saturn as it dips closer

45
00:01:57,082 --> 00:01:58,618
to the western horizon,

46
00:01:58,651 --> 00:02:03,189
and pairs up with Mercury
on the 24th through the 28th.

47
00:02:03,222 --> 00:02:08,928
Comet C/2017 O1, discovered
only in July by the

48
00:02:08,961 --> 00:02:11,797
All-Sky Automated
Survey for Supernovae,

49
00:02:11,830 --> 00:02:15,268
came close to the sun in
October, and should still be

50
00:02:15,301 --> 00:02:18,037
a binocular-friendly
magnitude 7 or 8

51
00:02:18,070 --> 00:02:20,673
greenish object
in November.

52
00:02:20,706 --> 00:02:24,043
Use Polaris, the North Star
as a guide.

53
00:02:24,076 --> 00:02:27,747
Look in the East to Northeast
sky in the late evening.

54

00:02:29,048 --> 00:02:33,152
You can find out about all of
NASA's missions at: www.nasa.gov

55
00:02:34,286 --> 00:02:36,222
That's all for this month. I'm
Jane Houston Jones.

56
00:02:36,956 --> 00:02:38,491
NASA Jet Propulsion Laboratory