1
00:00:00,499 --> 00:00:03,736
[■]

2
00:00:03,769 --> 00:00:05,071
What's Up for June?

3
00:00:05,104 --> 00:00:08,241
Plan a planet party and
compare Saturn and Jupiter.

4
00:00:09,275 --> 00:00:11,277
Hello and welcome! I'm
Jane Houston Jones from

5
00:00:11,310 --> 00:00:14,447
NASA's Jet Propulsion Laboratory
in Pasadena, California.

6
00:00:15,448 --> 00:00:18,117
Why not meet at midnight
for a planet party,

7
00:00:18,150 --> 00:00:21,220
when you'll be able to see both
Saturn and Jupiter in the sky

8
00:00:21,253 --> 00:00:22,755
at the same time?

9
00:00:22,788 --> 00:00:25,258
The best time to try will
be a few hours after

10
00:00:25,291 --> 00:00:27,193
Saturn rises at sunset

11
00:00:27,226 --> 00:00:29,328
and before Jupiter sets.

12
00:00:29,361 --> 00:00:32,198
Jupiter sets at 3 a.m.
at the beginning of June

13
00:00:32,231 --> 00:00:34,267
and 1 a.m. by the
end of the month.

14
00:00:34,300 --> 00:00:37,640
To see cool details,
you'll need a telescope.

15
00:00:37,660 --> 00:00:40,900
Saturn reaches opposition
on June 15

16
00:00:40,940 --> 00:00:44,280
when Saturn, Earth and the Sun
are all in a straight line

17
00:00:44,310 --> 00:00:46,145
with Earth in the middle.

18
00:00:46,178 --> 00:00:49,649
Opposition provides the best
and closest views of Saturn

19
00:00:49,682 --> 00:00:52,018
and several of its
brightest moons.

20
00:00:52,051 --> 00:00:54,687
If you just see one,
that's Titan.

21
00:00:54,720 --> 00:00:58,324
Titan is 50% larger
than our own moon.

22

00:00:58,357 --> 00:01:02,161
It orbits Saturn about
every 16 Earth days.

23
00:01:02,194 --> 00:01:05,998
Our moon takes 27.3 days
to orbit Earth.

24
00:01:06,031 --> 00:01:07,733
Through a telescope
you'll be able to

25
00:01:07,766 --> 00:01:11,037
compare the cloud bands on
both Saturn and Jupiter.

26
00:01:11,070 --> 00:01:14,340
Saturn's cloud bands are fainter
than the bands of Jupiter.

27
00:01:14,373 --> 00:01:15,575
On Saturn you'll see

28
00:01:15,608 --> 00:01:18,311
delicate shades of cream
and butterscotch,

29
00:01:18,344 --> 00:01:22,281
while Jupiter's bands are shades
of white, rust and ochre.

30
00:01:22,948 --> 00:01:24,517
A telescope will also show

31
00:01:24,550 --> 00:01:28,421
Saturn's rings tilted toward
Earth about as wide as they get:

32
00:01:28,454 --> 00:01:31,157
26.6 degrees.

33
00:01:31,190 --> 00:01:33,593
The sunlight reflecting off
the ring particles

34
00:01:33,626 --> 00:01:36,429
makes the rings look
even brighter.

35
00:01:36,462 --> 00:01:40,133
You'll also have a ring-side
view of the Cassini division,

36
00:01:40,166 --> 00:01:44,904
discovered in 1675 by
Giovanni Domenico Cassini,

37
00:01:44,937 --> 00:01:48,207
namesake of NASA's
Cassini spacecraft.

38
00:01:48,240 --> 00:01:52,211
The spacecraft has been
orbiting Saturn since 2004.

39
00:01:53,279 --> 00:01:55,548
Cassini is on a trajectory
that will eventually

40
00:01:55,581 --> 00:01:57,850
plunge into Saturn's atmosphere

41
00:01:57,883 --> 00:02:02,688
and end Cassini's mission
on September 15, 2017.

42
00:02:03,622 --> 00:02:05,391
NASA's Juno mission
recently completed

43
00:02:05,424 --> 00:02:07,727
its sixth Jupiter flyby.

44
00:02:07,760 --> 00:02:11,264
Through binoculars Jupiter's
four Galilean moons --

45
00:02:11,297 --> 00:02:15,568
Io, Europa, Ganymede and
Callisto -- are easy to see.

46
00:02:16,602 --> 00:02:18,504
You can catch up on all
of NASA's missions at

47
00:02:18,537 --> 00:02:20,973
www.nasa.gov

48
00:02:22,074 --> 00:02:24,377
That's all for this month.
I'm Jane Houston Jones.

49
00:02:25,111 --> 00:02:26,279
NASA Jet Propulsion Laboratory