
NASA, ESA, STScI, Caltech/IPAC
rtual Flight Through
rion Nebula

1
00:00:00,260 --> 00:00:01,582
What’s next for the James Webb Space Telescope?

2
00:00:01,582 --> 00:00:02,582
…

3
00:00:02,582 --> 00:00:06,060
What’s up with the raging water on this
launch pad?

4
00:00:06,060 --> 00:00:10,820
And virtual journeys to some distant destinations
… a few of the stories to tell you about

5
00:00:10,820 --> 00:00:14,220
– This Week at NASA!

6
00:00:14,220 --> 00:00:18,900
The James Webb Space Telescope’s cryogenic
vacuum testing at our Johnson Space Center

7
00:00:18,900 --> 00:00:23,250
verified it’s ready for the cold, harsh
environment of space, and its mission …

8
00:00:23,250 --> 00:00:28,130
“…that uncovers a part of the universe
we have not seen."

9
00:00:28,130 --> 00:00:32,720
From distant worlds orbiting other stars,
to mysterious cosmic structures that could

10
00:00:32,720 --> 00:00:36,329
help answer questions about our universe and
our place in it.

11
00:00:36,329 --> 00:00:40,170
"Webb is truly a civilization scale mission.

12
00:00:40,170 --> 00:00:44,499
Everything we're going to see from Webb is
going to be profoundly new and surprising."

13
00:00:44,499 --> 00:00:48,649
Launch of Webb is set for 2019.

14
00:00:48,649 --> 00:00:53,699
A new visualization that takes you on a virtual
flight through the Orion Nebula uses visible-light

15
00:00:53,699 --> 00:00:58,859
observations from our Hubble Space Telescope
and infrared-light observations from the Spitzer

16
00:00:58,859 --> 00:01:00,319
Space telescope.

17
00:01:00,319 --> 00:01:05,390
The visible and infrared views alternate as
you fly into the star-forming region – to

18
00:01:05,390 --> 00:01:11,670
show how the gaseous landscape has been illuminated
and carved by high-energy radiation and strong

19
00:01:11,670 --> 00:01:16,600
stellar winds from the massive hot stars in
the central cluster.

20
00:01:16,600 --> 00:01:22,920
From the Orion Nebula, to the center of our
Galaxy … a new 360 degree online movie created

21
00:01:22,920 --> 00:01:28,270
with data from our Chandra X-ray Observatory
and other telescopes, lets you take a self-guided

22

00:01:28,270 --> 00:01:32,560
“look-see” around the Milky Way galaxy
– from the vantage point of the Milky Way’s

23
00:01:32,560 --> 00:01:36,090
supermassive black hole, Sagittarius A.

24
00:01:36,090 --> 00:01:44,950
The movie, which starts 350 years in the past,
spans about 500 years.

25
00:01:44,950 --> 00:01:50,920
On first glance -- looks like launch pad 39B
at our Kennedy Space Center has sprung a massive

26
00:01:50,920 --> 00:01:51,920
leak.

27
00:01:51,920 --> 00:01:53,090
But it’s actually a test …

28
00:01:53,090 --> 00:02:01,530
… about 450,000 gallons of water – from
a holding tank at the launch pad, was used

29
00:02:01,530 --> 00:02:06,920
to test the Ignition Overpressure/Sound Suppression
system, designed to protect our Space Launch

30
00:02:06,920 --> 00:02:13,099
System rocket and Orion spacecraft from acoustic
and temperature effects during a launch.

31
00:02:13,099 --> 00:02:18,209
Orion and SLS are set to begin flights next
year, and will carry humans farther into the

32
00:02:18,209 --> 00:02:20,040
solar system than ever before.

33
00:02:20,040 --> 00:02:23,360
That’s what’s up this week @NASA …