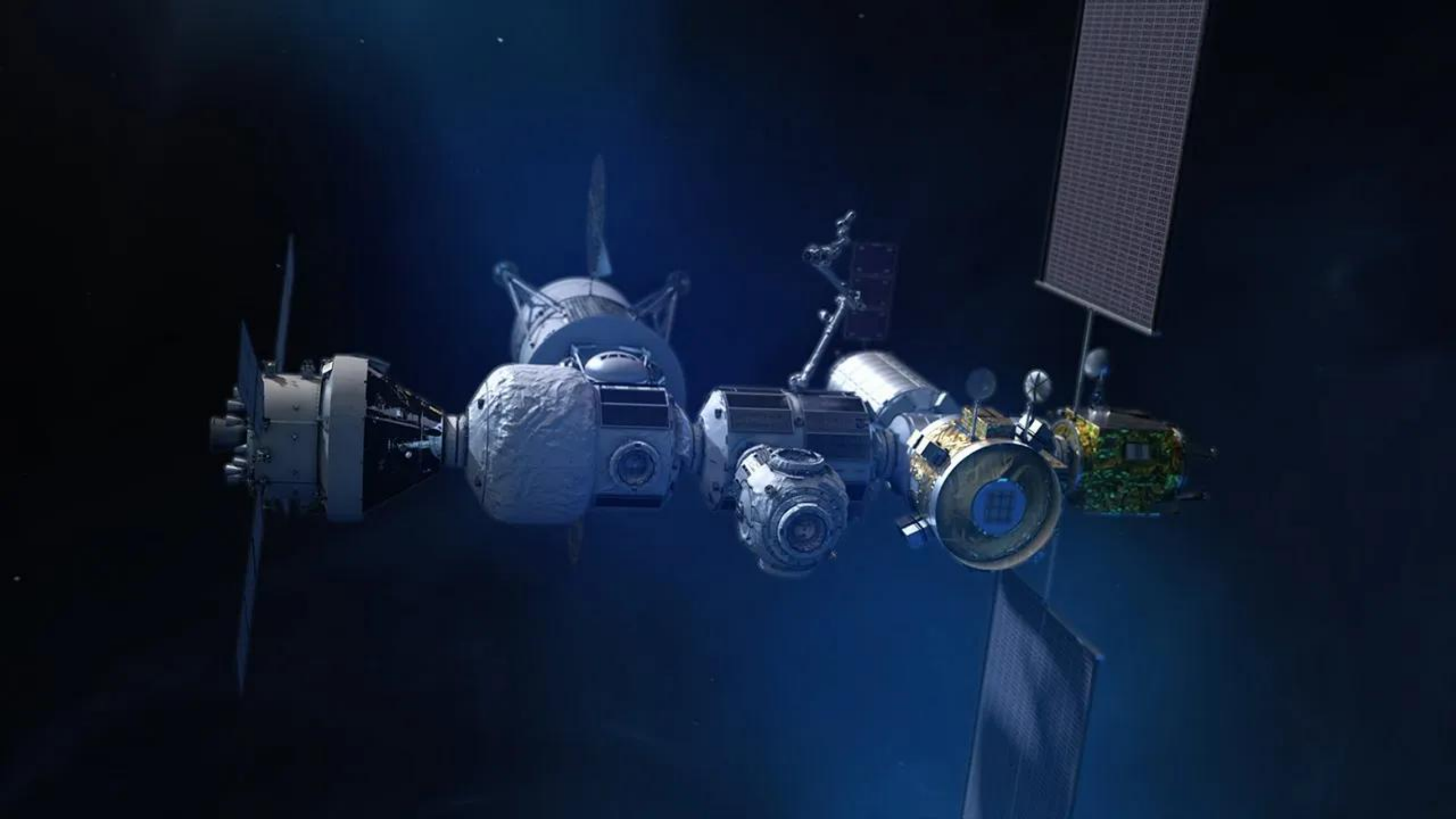

1
00:00:01,600 --> 00:00:04,400
An international agreement\h
to collaborate on Artemis …
\h

2
00:00:04,400 --> 00:00:09,120
An intriguing discovery on the Moon …
And an update on OSIRIS-REx … a few\h\h

3
00:00:09,120 --> 00:00:11,440
of the stories to tell you\h
about – This Week at NASA!
\h

4
00:00:13,040 --> 00:00:17,280
On Oct. 27, NASA and ESA (European Space\h
Agency) finalized an agreement to collaborate\h\h

5
00:00:17,280 --> 00:00:22,320
on the Gateway for our Artemis program. Under\h
the agreement, ESA will contribute habitation\h\h

6
00:00:22,320 --> 00:00:27,200
and refueling modules, lunar communications,\h
and other key technologies. This is part of\h\h

7
00:00:27,200 --> 00:00:32,080
our effort to collaborate with international\h
partners for sustainable lunar exploration and\h\h

8
00:00:32,080 --> 00:00:39,120
technology needed to send humans to Mars.
The SOFIA flying observatory has confirmed,\h\h

9
00:00:39,120 --> 00:00:43,440
for the first time, water molecules\h
on the sunlit surface of the Moon.\h\h

10
00:00:43,440 --> 00:00:49,120
This indicates that water may be distributed more\h

widely across the lunar surface; not just in cold,\h\h

11
00:00:49,120 --> 00:00:54,160
shadowed regions of the Moon. NASA is looking\h
to learn as much as possible about the presence\h\h

12
00:00:54,160 --> 00:00:59,840
of water on the Moon ahead of sending the first\h
woman and next man to the lunar surface in 2024.
\h

13
00:01:01,440 --> 00:01:07,760
NASA’s OSIRIS-REx spacecraft collected so much\h
sample material from asteroid Bennu on Oct. 20\h\h

14
00:01:07,760 --> 00:01:13,040
that the overfilled collection unit could not hold\h
it all. So mission managers made the call to stow\h\h

15
00:01:13,040 --> 00:01:19,120
the sample days earlier than planned – to minimize\h
losing any more material. The stowage process\h\h

16
00:01:19,120 --> 00:01:23,600
safely seals the material in a capsule that\h
will transport it back to Earth for study.
\h

17
00:01:25,040 --> 00:01:32,560
NASA and SpaceX now are targeting Saturday, Nov.\h
14, at 7:49 p.m. EST, for the launch of Crew-1,\h\h

18
00:01:32,560 --> 00:01:36,480
the first crew rotation mission to the\h
International Space Station as part of\h\h

19
00:01:36,480 --> 00:01:41,120
our Commercial Crew Program. Crew-1 will\h
increase the station’s regular crew size\h\h

20

00:01:41,120 --> 00:01:46,000
from six to seven astronauts, adding to the\h
amount of crew time available for research.

21
00:01:47,440 --> 00:01:51,520
Cameras outside the International Space\h
Station captured views of Hurricane Zeta\h\h

22
00:01:51,520 --> 00:01:56,960
on the afternoon of Oct. 28 in the Gulf of\h
Mexico. Zeta made landfall later the same day\h\h

23
00:01:56,960 --> 00:02:02,000
near New Orleans as a Category 2 storm. Our\h
Michoud Assembly Facility and Stennis Space\h\h

24
00:02:02,000 --> 00:02:07,840
Center were affected by the storm and are both\h
assessing any impacts to operational status.

25
00:02:08,400 --> 00:02:13,120
Nov. 2, marks 20 years that humans have\h
lived and worked continuously aboard the\h\h

26
00:02:13,120 --> 00:02:17,200
International Space Station. Members\h
of the station’s first resident crew,\h\h

27
00:02:17,200 --> 00:02:20,880
including former NASA astronaut Bill\h
Shepherd, shared some thoughts about\h\h

28
00:02:20,880 --> 00:02:25,200
the importance of the orbital outpost\h
during an Oct. 29 panel discussion.

29
00:02:25,760 --> 00:02:28,000
“Space station, particularly Expedition One,\h\h

30
00:02:28,880 --> 00:02:35,520

set the tone for how crews needed to operate\h
in space. I think it’s the blueprint for larger\h\h

31
00:02:35,520 --> 00:02:40,240
expeditions and going certainly to the Moon and\h
probably beyond that to Mars and elsewhere.”

32
00:02:40,240 --> 00:02:46,240
241 people from 19 countries have visited this\h
unique microgravity laboratory that has hosted\h\h

33
00:02:46,240 --> 00:02:50,880
over 3,000 investigations from people\h
in more than 100 countries and areas.
\h

34
00:02:51,840 --> 00:02:56,880
NASA has identified a molecule in the atmosphere\h
of Saturn’s largest moon Titan that has never\h\h

35
00:02:56,880 --> 00:03:02,080
been detected in any other atmosphere.\h
Cyclopropenylidene is a simple carbon-based\h\h

36
00:03:02,080 --> 00:03:08,480
molecule scientists say may be a precursor to\h
more complex compounds that could form or feed\h\h

37
00:03:08,480 --> 00:03:14,720
possible life on Titan. Our Dragonfly mission\h
is targeted for launch to Titan in 2027.
\h

38
00:03:16,080 --> 00:03:21,920
Just in time for Halloween – our latest Galaxy\h
of Horrors posters, featuring a dead galaxy,\h\h

39
00:03:21,920 --> 00:03:28,640
an explosive gamma ray burst caused by colliding\h
stellar corpses, and the ever-elusive dark matter.\h\h

40
00:03:28,640 --> 00:03:34,240
You can download the posters for free, in English\h
and Spanish, at exoplanets.nasa.gov/galaxy.
\h