
TW@N
THIS WEEK @ NASA

1
00:00:00,333 --> 00:00:03,536
Equipping the space station to produce more power …

2
00:00:04,404 --> 00:00:06,706
Our newest experimental X-plane …

3
00:00:07,474 --> 00:00:11,311
and preparing to test a new laser communications system …

4
00:00:11,644 --> 00:00:15,648
A few of the stories
to tell you about this week at NASA.

5
00:00:16,850 --> 00:00:19,386
On June 15th, NASA astronauts

6
00:00:19,419 --> 00:00:23,990
Steve Bowen and Woody Hoburg
conducted their second spacewalk in a week

7
00:00:24,124 --> 00:00:27,060
to install
an upgraded International Space Station

8
00:00:27,060 --> 00:00:29,863
Roll Out Solar Array, or IROSA.

9
00:00:30,363 --> 00:00:34,768
This was the last of six new IROSAs currently planned for the station.

10
00:00:35,402 --> 00:00:38,972
The new arrays are designed to augment
the station's power system

11
00:00:39,105 --> 00:00:43,710
and enable the orbiting laboratory
to generate about 30% more power.

12

00:00:44,210 --> 00:00:47,047
During the AIAA Aviation Forum

13
00:00:47,047 --> 00:00:51,451
the week of June 12th in San Diego, NASA
and Boeing announced

14
00:00:51,451 --> 00:00:55,688
that the experimental aircraft produced
through the agency's Sustainable Flight

15
00:00:55,722 --> 00:00:59,225
Demonstrator project has become our newest X-plane -

16
00:00:59,492 --> 00:01:04,264
designated by the U.S. Air Force as the X-66A.

17
00:01:04,731 --> 00:01:10,703
Working with NASA, Boeing will build, test, and fly
the Transonic Truss-Braced Wing

18
00:01:10,703 --> 00:01:14,707
concept aircraft
with the specific goal of helping the U.S.

19
00:01:14,707 --> 00:01:19,546
achieve net zero
greenhouse gas emissions by 2050.

20
00:01:20,413 --> 00:01:23,183
The Orion spacecraft
that will carry astronauts

21
00:01:23,183 --> 00:01:27,554
around the moon on our Artemis II
mission will also test

22
00:01:27,554 --> 00:01:31,291
a new laser communications
terminal known as the

23
00:01:31,291 --> 00:01:37,063
Orion Artemis II Optical Communications System, or O2O.

24
00:01:37,063 --> 00:01:41,868
Laser communications systems offer increased data
transfer rates that allow more information

25
00:01:41,868 --> 00:01:46,206
to be sent in a single transmission
than with traditional radio waves systems.

26
00:01:46,673 --> 00:01:49,742
More data could mean more discoveries.

27
00:01:50,810 --> 00:01:54,047
Our Curiosity Mars rover recently captured

28
00:01:54,047 --> 00:01:58,351
this composite image of an area
known as “Marker Band Valley.”

29
00:01:58,551 --> 00:02:01,421
The image combines
a morning scene, an afternoon

30
00:02:01,421 --> 00:02:04,657
scene and added color
for artistic interpretation.

31
00:02:05,191 --> 00:02:07,794
The combined dramatically different
lighting conditions

32
00:02:07,794 --> 00:02:12,298
at those times of day
make details in the scene stand out.

33
00:02:12,332 --> 00:02:15,101

Marker Band
Valley is in the region where the rover

34
00:02:15,135 --> 00:02:18,705
unexpectedly discovered
signs of an ancient lake.

35
00:02:19,939 --> 00:02:21,941
That's what's up this week at NASA.