1
00:00:00,410 --> 00:00:04,390
A new cooling system for a device on the space station …

2
00:00:04,390 --> 00:00:07,769
First results from the first spacecraft to touch the Sun …

3
00:00:07,769 --> 00:00:12,929
And preparing Orion for some critical testing … a few of the stories to tell you about

4
00:00:12,929 --> 00:00:15,299
– This Week at NASA!

5
00:00:15,299 --> 00:00:20,359
On Dec. 2, our Andrew Morgan and the European Space Agency's Luca Parmitano conducted

6
00:00:20,359 --> 00:00:25,420
the third in a series of spacewalks outside the International Space Station to refurbish

7
00:00:25,420 --> 00:00:30,679
the Alpha Magnetic Spectrometer, or AMS – a cosmic particle detector.

8
00:00:30,679 --> 00:00:35,730
The astronauts installed a new cooling system for the AMS, which was then successfully powered

9
00:00:35,730 --> 00:00:38,250
up by the control team on Earth.

10
00:00:38,250 --> 00:00:42,710
Data gathered from our Parker Solar Probe during two unprecedented and record-breaking

11
00:00:42,710 --> 00:00:48,649

close flybys of our Sun are being shared for
the first time in four scientific papers featured

12
00:00:48,649 --> 00:00:50,160
in the journal Nature.

13
00:00:50,160 --> 00:00:54,740
The spacecraft's super-close proximity to
the Sun – some 15 million miles away at

14
00:00:54,740 --> 00:01:00,250
the time – helped reveal new insights into
processes that affect the solar wind, the

15
00:01:00,250 --> 00:01:05,250
dust located extremely close to the Sun's
corona, and the acceleration events of solar

16
00:01:05,250 --> 00:01:10,720
energetic particles, which are so small they
are undetectable from our vantage point, nearly

17
00:01:10,720 --> 00:01:13,330
93 million miles from the Sun.

18
00:01:13,330 --> 00:01:18,090
This information will be vital to protecting
astronauts and technology in space – an

19
00:01:18,090 --> 00:01:22,540
important part of NASA's Artemis program,
which will send the first woman and the next

20
00:01:22,540 --> 00:01:28,040
man to the Moon by 2024 and, eventually, on
to Mars.

21
00:01:28,040 --> 00:01:32,980
The Orion spacecraft that will make a round-trip
to the Moon and back on our Artemis I test

22
00:01:32,980 --> 00:01:38,330
flight – with no astronauts onboard, is
at our Plum Brook Station in Sandusky, Ohio.

23
00:01:38,330 --> 00:01:43,170
Plum Brook houses the largest and most powerful
space environment simulation facilities in

24
00:01:43,170 --> 00:01:44,350
the world.

25
00:01:44,350 --> 00:01:49,280
Orion will undergo a four-month test campaign
while there, to subject the spacecraft to

26
00:01:49,280 --> 00:01:55,220
the vacuum, extreme temperatures and electromagnetic
environment it will experience during Artemis

27
00:01:55,220 --> 00:01:57,110
I.

28
00:01:57,110 --> 00:02:02,451
During a Dec. 3 agency-wide town hall at our
headquarters in Washington, D.C., Administrator

29
00:02:02,451 --> 00:02:08,030
Jim Bridenstine introduced the agency's
new associate administrator for Human Exploration

30
00:02:08,030 --> 00:02:10,700
and Operations, Douglas Loverro.

31
00:02:10,700 --> 00:02:15,780
"Finding somebody with this very unique
skill set that could fit this role took a

32
00:02:15,780 --> 00:02:16,780

bit of time.

33
00:02:16,780 --> 00:02:20,920
But I do believe that we have found the right person in Doug Loverro.”

34
00:02:20,920 --> 00:02:24,840
Loverro spent three decades in the Department of Defense and the National Reconnaissance

35
00:02:24,840 --> 00:02:30,610
Office developing, managing, and establishing national policy for the full range of national

36
00:02:30,610 --> 00:02:32,190
security space activities.

37
00:02:32,190 --> 00:02:39,170
Most recently, from 2013 to 2017, he served as the Deputy Assistant Secretary of Defense

38
00:02:39,170 --> 00:02:40,360
for Space Policy.

39
00:02:40,360 --> 00:02:45,030
“My job is to support the people who work for me – to go ahead and make sure they

40
00:02:45,030 --> 00:02:50,090
have the tools they need, whether it’s turning a bolt or creating a contract or whatever

41
00:02:50,090 --> 00:02:51,630
the tool is.

42
00:02:51,630 --> 00:02:56,230
And my job as a leader is to support them in that.”

43

00:02:56,230 --> 00:03:01,330
On Dec. 5, our commercial cargo provider,
SpaceX, launched its Dragon spacecraft from

44
00:03:01,330 --> 00:03:06,010
Florida’s Cape Canaveral Air Force Station
with a variety of cutting-edge scientific

45
00:03:06,010 --> 00:03:09,060
experiments for the International Space Station.

46
00:03:09,060 --> 00:03:13,620
These include an investigation studying the
process of malting barley in microgravity,

47
00:03:13,620 --> 00:03:19,670
a high resolution imaging suite capable of
specifically identifying materials on Earth’s

48
00:03:19,670 --> 00:03:26,010
surface – whether they be soil, rocks, vegetation,
or human-made, and an external stowage unit

49
00:03:26,010 --> 00:03:32,160
where remote-control robots capable of detecting
leaks outside the station can cool their heels

50
00:03:32,160 --> 00:03:34,270
until they are called into service.

51
00:03:34,270 --> 00:03:39,760
A Russian Progress cargo ship lifted off from
Kazakhstan on Dec. 6 with almost three tons

52
00:03:39,760 --> 00:03:42,770
of food, fuel and supplies for the space station.

53
00:03:42,770 --> 00:03:46,561
We and our partners have supported humans
living and working aboard the station for

54
00:03:46,561 --> 00:03:48,630
more than 19 years.

55
00:03:48,630 --> 00:03:54,050
The station remains the sole space-based proving ground and stepping stone for achieving the

56
00:03:54,050 --> 00:03:59,110
goals of our Artemis program, which will land the first woman and next man on the Moon in

57
00:03:59,110 --> 00:04:00,110
2024.