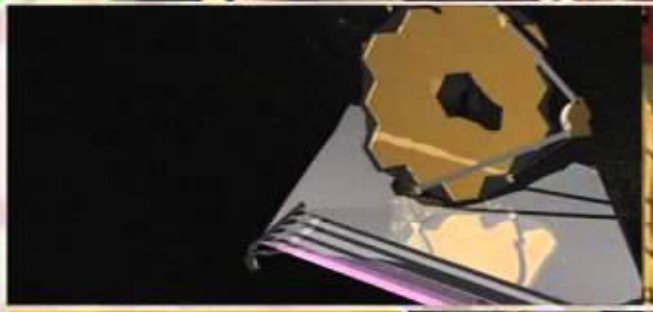
Webb's replica backplane



1
00:00:00,830 --> 00:00:05,029
“Here’s some of the stories trending This
Week at NASA!”

2
00:00:05,029 --> 00:00:08,919
Engineers at Kennedy Space Center have finished
installing the Orion spacecraft’s backshell

3
00:00:08,919 --> 00:00:14,280
– the black protective tiles on the cone-shaped
sides of NASA’s new deep space capsule.

4
00:00:14,280 --> 00:00:18,519
The backshell tiles are the same type that
protected the underside of space shuttles

5
00:00:18,519 --> 00:00:23,430
-- and will not only provide protection from
debris while in space but from extreme temperatures

6
00:00:23,430 --> 00:00:28,599
in that area of the spacecraft as it returns
from space – which could exceed 31-hundred

7
00:00:28,599 --> 00:00:31,039
degrees Fahrenheit.

8
00:00:31,039 --> 00:00:34,910
Anti-geyser testing is underway at Marshall
Space Flight Center to make sure the liquid

9
00:00:34,910 --> 00:00:39,970
oxygen tank feed system of NASA’s Space
Launch System rocket doesn’t spring a leak.

10
00:00:39,970 --> 00:00:44,550
Geysering can happen if gas bubbles displace
the liquid in the system.

11

00:00:44,550 --> 00:00:48,710
Engineers are using a full-scale replica of
the system, set up on one of Marshall's test

12
00:00:48,710 --> 00:00:52,100
stands to test procedures to prevent geysering.

13
00:00:52,100 --> 00:00:53,660
The Space Launch System rocket.

14
00:00:53,660 --> 00:00:58,190
-- will make deep space missions possible,
including to an asteroid and ultimately to

15
00:00:58,190 --> 00:01:04,120
A replica of the James Webb Space Telescope's
backplane or "central backbone" arrived

16
00:01:04,120 --> 00:01:09,690
recently at Goddard Space Flight Center, where
engineers and scientists will use it to practice

17
00:01:09,690 --> 00:01:15,860
the delicate procedure of installing the observatory's
mirrors before the actual backplane arrives.

18
00:01:15,860 --> 00:01:21,870
Targeted for launch in 2018, the JWST is the
world's next-generation space observatory

19
00:01:21,870 --> 00:01:25,260
and successor to NASA's Hubble Space Telescope.

20
00:01:25,260 --> 00:01:30,970
A new NASA airborne campaign this summer will
study the effect of sea ice retreat on Arctic

21
00:01:30,970 --> 00:01:31,970
climate.

22
00:01:31,970 --> 00:01:38,200
ARISE, The Arctic Radiation IceBridge Sea
and Ice Experiment is NASA's first airborne

23
00:01:38,200 --> 00:01:44,020
investigation designed to take simultaneous
measurements of ice, clouds and radiation

24
00:01:44,020 --> 00:01:48,420
levels in the Arctic, to help determine the
degree of climate warming.

25
00:01:48,420 --> 00:01:54,050
Flights are scheduled August 28 through October
1 -- the peak of summer sea ice melt.

26
00:01:54,050 --> 00:01:59,630
During an August 20 event at NASA headquarters,
called Ancient Earth, Alien Earths, a panel

27
00:01:59,630 --> 00:02:05,860
of scientists from NASA and other organizations
discussed how vastly different and inhospitable

28
00:02:05,860 --> 00:02:10,100
we all would find ancient Earth, if we could
go back in time.

29
00:02:10,100 --> 00:02:14,800
Despite the conditions, though, it was an
environment in which life began and evolved

30
00:02:14,800 --> 00:02:19,360
– and understanding how that was possible
could help us recognize habitable planets

31
00:02:19,360 --> 00:02:22,230
around other stars.

32

00:02:22,230 --> 00:02:27,170
During a 5- hour, 11-minute spacewalk outside the International Space Station on August

33
00:02:27,170 --> 00:02:32,950
18, Expedition 40 Flight Engineers Alexander Skvortsov and Oleg Artemyev of the Russian

34
00:02:32,950 --> 00:02:38,930
Federal Space Agency deployed a nanosatellite and completed work on other science hardware

35
00:02:38,930 --> 00:02:41,910
and experiments on the Russian segment of the ISS.

36
00:02:41,910 --> 00:02:48,970
It was the 181st spacewalk in support of space station assembly and maintenance.

37
00:02:48,970 --> 00:02:50,950
And that’s what’s up this week @NASA …