



Orion Stage Adapter

**Interim Cryogenic
Propulsion Stage**

**Launch Vehicle Stage
Adapter**

DO NOT ENTER

1
00:00:00,969 --> 00:00:05,330

“Here’s some of the stories trending This
Week at NASA!”

2
00:00:05,330 --> 00:00:07,120

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Aboard the International Space Station, the

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00:00:07,120 --> 00:00:12,320

Expedition 45 crew – including new Commander
Scott Kelly and Kjell Lindgren of NASA, said

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00:00:12,320 --> 00:00:16,930

goodbye to Gennady Padalka of the Russian
Federal Space Agency, Andreas Mogensen of

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00:00:16,930 --> 00:00:21,119

ESA (European Space Agency) and Aidyn Aimbetov
of the Kazakh Space Agency (Kazcosmos) as

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00:00:21,119 --> 00:00:25,589

the trio climbed aboard their Soyuz spacecraft
for the return trip to Earth.

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00:00:25,589 --> 00:00:32,099

The Soyuz landed safely in Kazakhstan on Sept.
11 Eastern time, Sept. 12 in Kazakhstan -- closing

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00:00:32,099 --> 00:00:40,230

out a 168-day mission for Padalka and an 8-day
stay on the station for Mogensen and Aimbetov.

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00:00:40,230 --> 00:00:44,450

Engineers at NASA’s Michoud Assembly Facility
in New Orleans have welded together the first

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00:00:44,450 --> 00:00:49,800

two segments of the next Orion crew module
– bringing NASA a small step closer to sending

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00:00:49,800 --> 00:00:51,730

astronauts to Mars.

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00:00:51,730 --> 00:00:56,530

The primary structure of Orion's crew module is made of seven large aluminum pieces welded

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00:00:56,530 --> 00:01:01,341

together using a state-of-the-art technique called friction-stir welding to produce an

14

00:01:01,341 --> 00:01:03,440

incredibly strong bond.

15

00:01:03,440 --> 00:01:07,860

This Orion will be launched on NASA's new Space Launch System (SLS) rocket on a combined

16

00:01:07,860 --> 00:01:12,070

flight test beyond the far side of the moon.

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00:01:12,070 --> 00:01:16,491

At Marshall Space Flight Center, in Huntsville, Alabama panels for a test version of the Space

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00:01:16,491 --> 00:01:22,440

Launch System's Launch Vehicle Stage Adapter, or LVSA are being welded together.

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00:01:22,440 --> 00:01:27,410

This key piece of hardware connects two major sections of the SLS -- the core stage and

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00:01:27,410 --> 00:01:28,890

the upper stage.

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00:01:28,890 --> 00:01:33,500

When test versions of all the rocket's parts are completed, engineers will move the 56-foot

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00:01:33,500 --> 00:01:39,659

tall structure to a test stand to verify the integrity of the

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00:01:39,659 --> 00:01:44,560

Images from NASA's Dawn spacecraft are giving scientists the closest-yet views of the gleaming

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00:01:44,560 --> 00:01:49,100

bright spots from Occator crater on the dwarf planet Ceres.

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00:01:49,100 --> 00:01:53,530

The images – a composite view made from two different shots, and virtual fly-around

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00:01:53,530 --> 00:01:58,720

animations of the crater, including a topographic map, have about three times better resolution

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00:01:58,720 --> 00:02:06,070

than the
The expected year-long data download begun

28

00:02:06,070 --> 00:02:12,090

recently by NASA's New Horizons spacecraft, includes new high resolution images that reveal

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00:02:12,090 --> 00:02:15,480

the diversity and complexity of the Pluto system.

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00:02:15,480 --> 00:02:20,200

Some of the early imagery appears to feature possible dunes; ice flows that apparently

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00:02:20,200 --> 00:02:26,050

oozed out of mountainous regions onto plains; ice lakes; and even networks of valleys that

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00:02:26,050 --> 00:02:30,190
may have been carved by material flowing over
Pluto's surface.

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00:02:30,190 --> 00:02:34,580
The images downloaded so far have more than
doubled the amount of Pluto's surface seen

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00:02:34,580 --> 00:02:39,880
at resolutions as good as 440 yards per pixel.

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00:02:39,880 --> 00:02:43,099
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A memorial event for the Sept. 11, 2001 attack

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00:02:43,099 --> 00:02:47,940
on New York's World Trade Center was held
at NASA's Kennedy Space Center in Florida.

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00:02:47,940 --> 00:02:54,400
The event at the center's Fire Station 1,
paid tribute to the 343 fire and rescue personnel

38
00:02:54,400 --> 00:02:56,850
who lost their lives during the attack.

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00:02:56,850 --> 00:03:01,460
A piece of the World Trade Center also was
also on display at the ceremony.

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00:03:01,460 --> 00:03:06,630
On that day, 14 years ago – astronaut Frank
Culbertson – the only American off the planet

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00:03:06,630 --> 00:03:13,040
at that time, captured footage of the aftermath
from the International Space Station.

42

00:03:13,040 --> 00:03:17,790

September is National Preparedness Month ... a perfect opportunity to take advantage of emergency

43

00:03:17,790 --> 00:03:22,110

training activities offered by your community or place of work.

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00:03:22,110 --> 00:03:26,080

Some employees at NASA headquarters took a CPR class recently.

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00:03:26,080 --> 00:03:32,780

The Emergency Management Teams at all NASA facilities encourage everyone to visit www.ready.gov

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00:03:32,780 --> 00:03:37,140

to learn more about what to do at work and home to prepare for the unexpected.

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00:03:37,140 --> 00:03:40,829

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And that's what's up this week @NASA ...