
MADE
IN SPACE

1
00:00:00,930 --> 00:00:04,150
“Here’s some of the stories trending This
Week at NASA!”

2
00:00:04,150 --> 00:00:09,640
NASA’s Terry Virts and Expedition 42/43
crewmates, Anton Shkaplerov of the Russian

3
00:00:09,640 --> 00:00:14,560
Federal Space Agency and the European Space
Agency’s Samantha Cristoforetti, launched

4
00:00:14,560 --> 00:00:19,860
Nov. 23 at 4:01 p.m. Eastern Standard Time,
from Baikonur, Kazakhstan.

5
00:00:19,860 --> 00:00:24,741
Almost six hours later, their Soyuz spacecraft
docked to the International Space Station

6
00:00:24,741 --> 00:00:29,800
– where they joined Expedition 42 Commander
Barry Wilmore of NASA, and Flight Engineers

7
00:00:29,800 --> 00:00:35,800
Alexander Samokutyaev and Elena Serova of
Roscosmos – returning the station crew to

8
00:00:35,800 --> 00:00:38,640
its full complement of six people.

9
00:00:38,640 --> 00:00:44,170
On Nov. 24 ground controllers uploaded instructions
for the station’s recently installed 3-D

10
00:00:44,170 --> 00:00:49,559
printer to make the first 3-D printed part
in space -- a spare faceplate for the printer

11

00:00:49,559 --> 00:00:50,559
itself.

12
00:00:50,559 --> 00:00:55,380
The 3-D printer uses a process formally known
as additive manufacturing to heat a plastic

13
00:00:55,380 --> 00:00:59,399
filament and extrude it one layer at a time
to build parts.

14
00:00:59,399 --> 00:01:04,600
The device is part of the station's 3-D
Printing in Zero-G Technology Demonstration,

15
00:01:04,600 --> 00:01:11,350
which aims to show the printer can be used
to make parts and tools on long duration spaceflights.

16
00:01:11,350 --> 00:01:15,431
Following completion of the recent Flight
Readiness Review, NASA has the "go" to

17
00:01:15,431 --> 00:01:20,640
proceed toward the December 4 first flight
test of the Orion spacecraft from Cape Canaveral

18
00:01:20,640 --> 00:01:22,090
Air Force Station.

19
00:01:22,090 --> 00:01:27,280
The FRR is a rigorous assessment of the spacecraft
and the mission operations and support functions

20
00:01:27,280 --> 00:01:30,800
needed to successfully complete the flight.

21
00:01:30,800 --> 00:01:36,299
The two-orbit, 4.5 hour test of the uninhabited
Orion will evaluate many of the systems critical

22
00:01:36,299 --> 00:01:42,259
to safety before the capsule begins carrying
crews to new destinations in the solar system,

23
00:01:42,259 --> 00:01:46,990
including an asteroid and on the journey to
Mars.

24
00:01:46,990 --> 00:01:52,280
NASA has approved 5 new airborne Earth science
missions to begin in 2015.

25
00:01:52,280 --> 00:01:57,590
The new campaigns will cover a wide range
of research, including the long-range transport

26
00:01:57,590 --> 00:02:03,090
of air pollution across the Pacific, the impact
of tiny airborne particles from living organisms

27
00:02:03,090 --> 00:02:08,700
on ocean ecosystems, identifying the amount
and sources of regional carbon dioxide and

28
00:02:08,700 --> 00:02:11,769
other greenhouse gases and other investigations.

29
00:02:11,769 --> 00:02:16,689
NASA’s host of Earth Science missions are
designed to help answer some of the critical

30
00:02:16,689 --> 00:02:19,950
challenges facing our planet today and in
the future.

31
00:02:19,950 --> 00:02:21,319
“This is smoked turkey.

32

00:02:21,319 --> 00:02:24,790
So I’m going to have some smoked turkey.”

33
00:02:24,790 --> 00:02:29,669
Space station Commander Barry Wilmore, recently
talked about his Thanksgiving Day menu and

34
00:02:29,669 --> 00:02:34,819
how thankful he is for the opportunity to
work on the important research conducted aboard

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00:02:34,819 --> 00:02:35,849
the station.

36
00:02:35,849 --> 00:02:41,209
“So with that, I say to all of you there,
Happy Thanksgiving, may it be a blessed day

37
00:02:41,209 --> 00:02:42,599
for every one of you.

38
00:02:42,599 --> 00:02:45,290
Don’t eat too much!”

39
00:02:45,290 --> 00:02:47,250
And that’s what’s up this week @NASA …
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