1
00:00:07,049 --> 00:00:13,370
This Week at NASA…
It was a week full of activity for the crews

2
00:00:13,370 --> 00:00:18,119
of the International Space Station.
“It is time for Expedition 30 to step aside

3
00:00:18,119 --> 00:00:24,699
and make way for Expedition 31. Oleg with
that I herby hand over command of the International

4
00:00:24,699 --> 00:00:27,109
Space Station to you.”

5
00:00:27,109 --> 00:00:32,460
NASA astronaut and Expedition 30 Commander
Dan Burbank officially transferred the helm

6
00:00:32,460 --> 00:00:38,420
of the orbiting outpost to Russian cosmonaut,
Oleg Kononenko who, along with NASA astronaut

7
00:00:38,420 --> 00:00:45,600
Don Pettit and Andre Kuipers of the European
Space Agency, has now begun Expedition 31.

8
00:00:45,600 --> 00:00:51,570
Two days later, Burbank and his Expedition
30 crewmates, Russian cosmonauts Anton Shkaplerov

9
00:00:51,570 --> 00:00:58,269
and Anatoly Ivanishin, said their farewells,
climbed into their Soyuz TMA-22 spacecraft

10
00:00:58,269 --> 00:01:07,820
and departed the station for the trip back
to Earth.

11

00:01:07,820 --> 00:01:13,690
After a five-and-a-half month stay onboard
the ISS, Burbank, Shkaplerov and Ivanishin

12
00:01:13,690 --> 00:01:15,030
landed safely in Kazakhstan.
“What’s been really nice is that, you

13
00:01:15,030 --> 00:01:21,220
know, coming from the United States – of
course the cultures are different, the language

14
00:01:21,220 --> 00:01:26,570
is difficult and everyone has been really
nice and has been patient with us and making

15
00:01:26,570 --> 00:01:30,220
sure that we’re going to be ready for our
flight.”

16
00:01:30,220 --> 00:01:35,370
Meanwhile, the other three members of Expedition
31 participated in their pre-launch activities.

17
00:01:35,370 --> 00:01:40,970
At the Gagarin Cosmonaut Training Center in
Star City, Russia, NASA Flight Engineer Joe

18
00:01:40,970 --> 00:01:46,780
Acaba, and his Russian crewmates, Soyuz Commander
Gennady Padalka and Flight Engineer Sergei

19
00:01:46,780 --> 00:01:48,361
Revin, fielded questions from reporters.

20
00:01:48,361 --> 00:01:54,640
The trio is undergoing final qualification
training for the Soyuz vehicle that’s scheduled

21
00:01:54,640 --> 00:02:00,700

to launch them to the ISS on May 14, and their subsequent rendezvous on-orbit with Pettit,

22
00:02:00,700 --> 00:02:07,031
Kuipers and Kononenko.
The week after it was mated to NASA's Shuttle

23
00:02:07,031 --> 00:02:13,030
Carrier Aircraft, Enterprise, NASA's first orbiter, was lifted skyward on the shuttle's

24
00:02:13,030 --> 00:02:17,920
final ferry flight from Washington's Dulles International Airport to its new home in New

25
00:02:17,920 --> 00:02:24,310
York.

26
00:02:24,310 --> 00:02:28,190
Several hours later, in a sight reminiscent of its fly-around of the Washington, D.C.

27
00:02:28,190 --> 00:02:34,310
metro area a week earlier, the SCA brought Enterprise over several Big Apple landmarks

28
00:02:34,310 --> 00:02:39,670
before finally touching down at John F. Kennedy International Airport. Enterprise will remain

29
00:02:39,670 --> 00:02:44,750
at JFK until July, when it's scheduled to "barge" its way up the Hudson River to

30
00:02:44,750 --> 00:02:49,210
its new, permanent home, the Intrepid Sea, Air and Space Museum.

31
00:02:49,210 --> 00:02:53,850
"The space program is alive and well because

of the Space Shuttle Enterprise and what she

32
00:02:53,850 --> 00:03:02,040
has brought to this nation and we are so pleased
that you will, at the Intrepid continue to

33
00:03:02,040 --> 00:03:11,130
tell, not only the story of the past, but
this rich and full story of the future.”

34
00:03:11,130 --> 00:03:15,690
Scientists working with images from NASA's
Cassini spacecraft have discovered strange,

35
00:03:15,690 --> 00:03:22,690
half-mile-sized objects punching through Saturn’s
F, or outermost, main ring. These objects

36
00:03:22,690 --> 00:03:28,700
appear to collide with the F ring at about
4 mph, leaving behind so-called “mini-jets,”

37
00:03:28,700 --> 00:03:35,490
glittering trails of ice particles from 20
to110 miles long. Scientists have known relatively

38
00:03:35,490 --> 00:03:41,050
large objects can create channels, ripples
and snowballs, or clumps of icy material,

39
00:03:41,050 --> 00:03:46,780
in the F ring. However, they didn’t know
what happened to these snowballs after they

40
00:03:46,780 --> 00:03:52,620
were created. Some were broken up by collisions
or tidal forces in their orbit around Saturn.

41
00:03:52,620 --> 00:03:57,700
Now it appears that some of these smaller

snowballs survived, with their differing orbits

42
00:03:57,700 --> 00:04:03,030
directing them through the F ring on their
own.

43
00:04:03,030 --> 00:04:07,430
On a sunny spring morning the crew of the
Freedom Star gets ready to head out from the

44
00:04:07,430 --> 00:04:09,480
Cape Canaveral Air Force Station.

45
00:04:09,480 --> 00:04:13,690
"All lines are in. Ready to depart dock to
get underway to sea."

46
00:04:13,690 --> 00:04:18,970
Its NASA mission – training for the dawn
of a new day in space travel – capturing

47
00:04:18,970 --> 00:04:24,169
the launch of the first commercial spacecraft
going to the International Space Station.

48
00:04:24,169 --> 00:04:28,669
“Very similar to what you'd see in front
of your high definition television set at

49
00:04:28,669 --> 00:04:33,270
home, we're looking at getting very high spatial
resolution, high definition quality visual

50
00:04:33,270 --> 00:04:40,020
imaging during the launch as well as high
spatial resolution thermal imaging from an

51
00:04:40,020 --> 00:04:43,099
infrared camera.”
The Freedom Star – once used to recover

52
00:04:43,099 --> 00:04:49,419
shuttle rocket boosters – is now outfitted
as a floating high-tech radar and camera platform.

53
00:04:49,419 --> 00:04:55,849
Inside a huge metal clamshell is a mobile
optical system on a gyroscope-like tracking

54
00:04:55,849 --> 00:05:01,860
mount. During launch the system will be focused
skyward to take images of the Space X Falcon

55
00:05:01,860 --> 00:05:06,990
rocket and its Dragon capsule as far as two
hundred miles away.

56
00:05:06,990 --> 00:05:13,490
“We have several key events that will occur
during ascent so we have one ground station

57
00:05:13,490 --> 00:05:20,189
at Daytona Beach, Florida that will capture
early events and ascent and then we have a

58
00:05:20,189 --> 00:05:25,490
second tracker that will be located on a ship
in the North Atlantic.”

59
00:05:25,490 --> 00:05:30,169
That will be the Freedom Star that will capture
later parts of the trip – including deployment

60
00:05:30,169 --> 00:05:36,710
of the capsule and solar panels. Even with
high-powered telescopes and cameras and a

61
00:05:36,710 --> 00:05:42,729
team that has had success in taking thermal
snapshots of the space shuttle at Mach 18

62
00:05:42,729 --> 00:05:47,389
… imaging the launch will be no easy task.
“It's like standing and looking through

63
00:05:47,389 --> 00:05:52,389
a soda straw and trying to capture and see
a bird flying through that soda straw.”

64
00:05:52,389 --> 00:05:57,219
Then imagine that soda straw bobbing on a
boat off the northeastern coast of the U.

65
00:05:57,219 --> 00:06:02,499
S. in seas that could swell up to twenty feet.
The crew can only hope that the weather at

66
00:06:02,499 --> 00:06:10,770
launch and ascent is more like a day at the
beach and not the perfect storm.

67
00:06:10,770 --> 00:06:15,419
NASA Administrator Charles Bolden and Small
Business Programs Associate Administrator

68
00:06:15,419 --> 00:06:21,159
Glenn Delgado seen here on the far right presented
the annual Small Business Administrator’s

69
00:06:21,159 --> 00:06:27,380
Cup award to Stennis Space Center in recognition
of its stellar small business program. The

70
00:06:27,380 --> 00:06:33,400
award recognizes successful and innovative
practices promoting small business participation

71
00:06:33,400 --> 00:06:37,060
in NASA initiatives.

72
00:06:37,060 --> 00:06:41,400
NASA astronaut Cady Coleman, a member of the
International Space Station's Expedition

73
00:06:41,400 --> 00:06:48,370
27 crew, participated in the White House Council
on Women and Girls in STEM event. The panel

74
00:06:48,370 --> 00:06:54,639
discussion focused on inspiring and encouraging
young women to pursue careers in Science,

75
00:06:54,639 --> 00:06:59,559
Technology, Engineering and Math. Coleman
and the other guests shared stories about

76
00:06:59,559 --> 00:07:03,380
some of the cool things they've experienced
in their STEM-related jobs.

77
00:07:03,380 --> 00:07:08,379
"I love this picture because it's a picture
of a human being in space looking back at

78
00:07:08,379 --> 00:07:12,710
the planet we come from and there's no way
that only guys should be in a picture like

79
00:07:12,710 --> 00:07:16,604
this. And I'm not saying that to be funny,
I know it kind of is, but it's because we

80
00:07:16,604 --> 00:07:24,449
are a part of the planet and we bring a lot
to the planet. And if you start doing things

81
00:07:24,449 --> 00:07:29,719
without the talents that women bring, you
are just not doing them good enough."

82
00:07:29,719 --> 00:07:32,469
“So did you play the game or did you design
game?”

83
00:07:32,469 --> 00:07:33,469
“I designed the game.”

84
00:07:33,469 --> 00:07:34,469
“You designed the game!”

85
00:07:34,469 --> 00:07:39,289
The event also included the first public screening
of "Girls in STEM", a video showcasing young

86
00:07:39,289 --> 00:07:44,270
women demonstrating their experiments for
President Obama at this year’s White House

87
00:07:44,270 --> 00:07:47,870
Science Fair.

88
00:07:47,870 --> 00:07:53,080
NASA's newest green building was formally
dedicated in a VIP ceremony held at Ames Research

89
00:07:53,080 --> 00:07:58,749
Center. On hand for the dedication was NASA
Associate Administrator Woodrow Whitlow, Congressional

90
00:07:58,749 --> 00:08:04,069
Representatives Ann Eshoo and Zoe Lofgren,
as well as the building's architect, William

91
00:08:04,069 --> 00:08:09,419
McDonough. The event also included a message
from President Obama's Science Advisor John

92
00:08:09,419 --> 00:08:14,279
Holdren. One of the highlights was the announcement

that the building had officially been granted

93
00:08:14,279 --> 00:08:20,210
the U.S. Green Building Council's Leadership
in Energy and Environmental Design or LEED

94
00:08:20,210 --> 00:08:26,340
Platinum status, which is its highest rating.
The building is referred to as Sustainability

95
00:08:26,340 --> 00:08:32,370
Base in honor of Apollo 11's landing site
Tranquility Base, the first human outpost

96
00:08:32,370 --> 00:08:38,969
on the moon. Like a spacecraft, it uses NASA-derived
technologies to make it as self-reliant as

97
00:08:38,969 --> 00:08:45,220
possible for utilities such as water and power.
Construction materials and interior furnishings

98
00:08:45,220 --> 00:08:50,180
were selected for their recyclable qualities.
Among the dignitaries who toured the building

99
00:08:50,180 --> 00:08:57,410
to get a closer look was California Lieutenant
Governor Gavin Newsom.

100
00:08:57,410 --> 00:09:05,490
A ceremonial ribbon-cutting at Stennis Space
Center signaled the opening of NASA’s newest

101
00:09:05,490 --> 00:09:11,279
visitor and science attraction. The Infinity
Science Center is a state-of-the-art facility

102
00:09:11,279 --> 00:09:16,610
featuring exhibits representing the wide range

of research conducted at Stennis, from the

103
00:09:16,610 --> 00:09:22,060
depths of the ocean to the far reaches of
the universe. Center Director Patrick Scheuermann

104
00:09:22,060 --> 00:09:26,990
was joined by several dignitaries to mark
the occasion, including Mississippi Governor

105
00:09:26,990 --> 00:09:33,750
Phil Bryant, U.S. Senators Thad Cochran and
Roger Wicker and Apollo 13 astronaut Fred

106
00:09:33,750 --> 00:09:39,670
Haise, Vice-Chairman of the Infinity Science
Center.

107
00:09:39,670 --> 00:09:46,510
The U.S. Air Force has retired its first C-17
Globemaster III transport after 21 years of

108
00:09:46,510 --> 00:09:51,870
flight testing for NASA propulsion research.
Frank Batteas (Bah-TEES), Associate Director

109
00:09:51,870 --> 00:09:56,910
for Flight Operations at the Dryden Flight
Research Center, joined an Air Force and Boeing

110
00:09:56,910 --> 00:10:02,839
flight crew on the C-17's ferry flight from
Edwards Air Force Base in Southern California

111
00:10:02,839 --> 00:10:08,930
to its new, permanent home at the National
Museum of the Air Force in Dayton, Ohio. Batteas

112
00:10:08,930 --> 00:10:15,300
was an Air Force C-17 test pilot before coming

to NASA, and flew chase on the C-17's first

113
00:10:15,300 --> 00:10:23,850
flight back in 1991. Joint NASA – Air Force
flight research efforts included noise mitigation

114
00:10:23,850 --> 00:10:27,240
and engine health management projects.

115
00:10:27,240 --> 00:10:33,589
NASA’s Aeronautics Research Mission Directorate
held its second annual Associate Administrator

116
00:10:33,589 --> 00:10:38,550
Awards ceremony to honor individuals and groups
whose work has distinguished them through

117
00:10:38,550 --> 00:10:42,519
the past year.
Acting Associate Administrator Robert Lightfoot

118
00:10:42,519 --> 00:10:49,410
provided remarks and Jaiwon Shin, Associate
Administrator for ARMD helped hand out the

119
00:10:49,410 --> 00:10:52,380
awards.
And that’s This Week @ NASA!

120
00:10:52,380 --> 00:10:57,129
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