1
00:00:07,029 --> 00:00:13,730
This Week at NASA…

2
00:00:13,730 --> 00:00:22,320
The European Space Agency has successfully
launched its third Automated Transfer Vehicle.

3
00:00:22,320 --> 00:00:28,310
The cargo ferry, named Edoardo Amaldi for
the Italian physicist and spaceflight pioneer,

4
00:00:28,310 --> 00:00:33,940
was sent on its way to the International Space
Station atop an Ariane 5 rocket from Europe's

5
00:00:33,940 --> 00:00:36,320
Spaceport in Kourou, French Guiana.

6
00:00:36,320 --> 00:00:43,489
The ATV brings essential supplies and propellant
to the ISS, as well as a re-boost to the station's

7
00:00:43,489 --> 00:00:44,489
altitude.

8
00:00:44,489 --> 00:00:49,430
ATV Edoardo Amaldi follows the two highly
successful supply missions carried out by

9
00:00:49,430 --> 00:01:03,579
ATV: Jules Verne in March 2008 and ATV Johannes
Kepler in February of last year.

10
00:01:03,579 --> 00:01:08,161
Members of the International Space Station’s
Expedition 32 crew aboard discussed with media

11
00:01:08,161 --> 00:01:10,090
members their upcoming mission aboard the

orbiting laboratory.

12
00:01:10,090 --> 00:01:15,030
“We have a great crew here and one that
will be up on board, and will be joined by

13
00:01:15,030 --> 00:01:17,430
Kevin Ford and his crew later on.

14
00:01:17,430 --> 00:01:18,810
Very international crew composition.

15
00:01:18,810 --> 00:01:27,240
Going to be loaded with the HTV spacecraft
visiting, hopefully SpaceX or Orbital after

16
00:01:27,240 --> 00:01:31,530
that, a Russian EVA as well.

17
00:01:31,530 --> 00:01:37,970
Our mission is only 4 months but will be packed
full of activity.”

18
00:01:37,970 --> 00:01:44,310
NASA astronaut Suni Williams, Russian cosmonaut
Yuri Malenchenko and Japan Aerospace Exploration

19
00:01:44,310 --> 00:01:50,740
Agency astronaut Aki Hoshide continue to train
ahead of their scheduled July 15 launch aboard

20
00:01:50,740 --> 00:01:54,990
a Soyuz spacecraft from the Baikonur Cosmodrome
in Kazakhstan.

21
00:01:54,990 --> 00:02:00,710
Williams, Malenchenko and Hoshide will replace
Expedition 31 crewmembers – NASA astronaut

22

00:02:00,710 --> 00:02:07,130
Don Pettit, Russian cosmonaut Oleg Kononenko
and European Space Agency astronaut Andre

23
00:02:07,130 --> 00:02:11,720
Kuipers; they're scheduled to return to
Earth on July 1st.

24
00:02:11,720 --> 00:02:16,340
Remaining on the station to round out the
Expedition 32 crew will be NASA astronaut

25
00:02:16,340 --> 00:02:22,400
Joe Acaba and Cosmonauts Gennady Padalka and
Sergei Revin, who are scheduled to launch

26
00:02:22,400 --> 00:02:32,610
to the station in mid-May.

27
00:02:32,610 --> 00:02:37,480
Engineers at the Marshall Space Flight Center
test fired a scaled down solid rocket booster

28
00:02:37,480 --> 00:02:41,010
for NASA's Space Launch System, or SLS.

29
00:02:41,010 --> 00:02:47,900
The 20-second firing tested new insulation
materials on the 109-inch-long, 24-inch-in-diameter

30
00:02:47,900 --> 00:02:48,900
motor.

31
00:02:48,900 --> 00:02:53,910
Testing of this low-cost replica will help
engineers develop and evaluate full-scale

32
00:02:53,910 --> 00:02:57,200
SLS solid rocket motor tests.

33
00:02:57,200 --> 00:03:02,110
The SLS is the new heavy-lift launch vehicle
that will propel the Orion spacecraft beyond

34
00:03:02,110 --> 00:03:07,099
low-Earth orbit and enable new missions of
exploration across the solar system.

35
00:03:07,099 --> 00:03:14,470
Marshall is leading the design and development
of the SLS on behalf of the agency.

36
00:03:14,470 --> 00:03:20,220
Another season of science activity is underway
for NASA's Operation IceBridge.

37
00:03:20,220 --> 00:03:26,390
From mid-March through mid-May, Wallops Flight
Facility researchers aboard a modified P-3

38
00:03:26,390 --> 00:03:31,400
aircraft will study changes in the polar ice
as they fly over the Arctic.

39
00:03:31,400 --> 00:03:37,400
Since NASA's Ice, Cloud and Land Elevation
Satellite (ICESat) stopped its annual measurement

40
00:03:37,400 --> 00:03:44,970
of ice elevations in 2009, Operation IceBridge
has been collecting the data until a new satellite,

41
00:03:44,970 --> 00:03:48,240
ICESat-2, is launched in 2016.

42
00:03:48,240 --> 00:03:56,540
Operation IceBridge also conducts an annual
campaign over the Antarctic in the fall.

43

00:03:56,540 --> 00:04:00,580
The highly-anticipated Angry Birds Space is
out.

44
00:04:00,580 --> 00:04:06,189
Produced by Rovio in cooperation with NASA,
the game is not only charming and challenging,

45
00:04:06,189 --> 00:04:10,010
but also informing players worldwide about
the physics of microgravity.

46
00:04:10,010 --> 00:04:16,299
In the course of play, gamers are treated
to a glimpse of the NASA “meatball” atop

47
00:04:16,299 --> 00:04:20,010
the International Space Station!

48
00:04:20,010 --> 00:04:28,250
“1-2, 1-2-kick it.”

49
00:04:28,250 --> 00:04:30,530
It was a field trip like no other.

50
00:04:30,530 --> 00:04:34,680
Thousands of middle school students packed
the Charlotte Convention Center in North Carolina

51
00:04:34,680 --> 00:04:37,889
recently for NASA’s Education Day.

52
00:04:37,889 --> 00:04:46,110
The event aimed to inspire and motivate students
to think about their future.

53
00:04:46,110 --> 00:04:51,060
Area step teams and a University band and
cheerleaders wowed the students before motivational

54
00:04:51,060 --> 00:04:56,620
speaker Calvin Mackie took the stage.

55
00:04:56,620 --> 00:05:01,919
Mackie implored the students to begin thinking
of how science, technology, engineering, math

56
00:05:01,919 --> 00:05:04,401
and maybe NASA might a role in their future.

57
00:05:04,401 --> 00:05:05,401
“And we’re here today to let you that
science, technology, engineering and math

58
00:05:05,401 --> 00:05:13,450
… eighty percent of the jobs in the future
are going to be in those areas.”

59
00:05:13,450 --> 00:05:18,070
Students also heard from NASCAR driver Ryan
Gifford who shared his story of perseverance.

60
00:05:18,070 --> 00:05:21,370
He encouraged students to take their education
seriously.

61
00:05:21,370 --> 00:05:25,800
“Just really hope that you guys stick with
whatever y’all decide to do – stick with

62
00:05:25,800 --> 00:05:27,880
it—keep your head there, and don’t let
anybody tell you, you can’t do it because

63
00:05:27,880 --> 00:05:30,610
if you really want, you’ll find a way to
make it happen.”

64
00:05:30,610 --> 00:05:35,710

NASA continued its reach into the Charlotte
area by having a presence at the Central Intercollegiate

65
00:05:35,710 --> 00:05:41,770
Athletic Association or CIAA basketball tournament
and by hosting a series of STEM workshops

66
00:05:41,770 --> 00:05:43,139
for area teachers.

67
00:05:43,139 --> 00:05:47,330
Teachers spent the week at Cochrane Collegiate
Academy learning fun and exciting ways to

68
00:05:47,330 --> 00:05:50,610
incorporate NASA educational resources into
their curriculums.

69
00:05:50,610 --> 00:05:55,979
“Lots of\h hands-on engaging activities,
things that we can do and we can bring right

70
00:05:55,979 --> 00:06:00,479
back to our classrooms and explore with our
kids right away to get them excited about

71
00:06:00,479 --> 00:06:01,850
STEM activities.”

72
00:06:01,850 --> 00:06:06,880
Whether through hoops, workshops or special
events, people of all ages in Charlotte NC

73
00:06:06,880 --> 00:06:14,630
got to know NASA a little bit better.

74
00:06:14,630 --> 00:06:20,120
NASA's Cassini mission to Saturn, managed
by the Jet Propulsion Laboratory, Pasadena,

75
00:06:20,120 --> 00:06:25,970
Calif., has received the top group honor from
the Smithsonian's National Air and Space Museum

76
00:06:25,970 --> 00:06:29,220
– the prestigious Trophy for Current Achievement.

77
00:06:29,220 --> 00:06:34,371
The Cassini-Huygens mission, a collaboration
of NASA, and the European and Italian space

78
00:06:34,371 --> 00:06:37,780
agencies, was launched in 1997.

79
00:06:37,780 --> 00:06:44,000
Since it began its orbit of Saturn in 2004,
Cassini has made many significant discoveries,

80
00:06:44,000 --> 00:06:50,220
among them: plumes of water ice and organic
particles spraying from Saturn’s icy moon,

81
00:06:50,220 --> 00:06:55,830
Enceladus; signs of seasonal change in the
planet’s northern hemisphere; two new Saturnian

82
00:06:55,830 --> 00:06:59,430
rings; and, four new moons orbiting the planet.

83
00:06:59,430 --> 00:07:04,010
The trophies for current and lifetime achievement
are the National Air and Space Museum's most

84
00:07:04,010 --> 00:07:11,729
prestigious awards in recognition of advances
in aerospace science and technology.

85
00:07:11,729 --> 00:07:17,780
In honor of Women’s History Month 20-12

– a celebration of Empowerment and Education,

86
00:07:17,780 --> 00:07:23,500
NASA recognizes Lakeesha Flowers, of The Kennedy
Space Center and other women for their contributions

87
00:07:23,500 --> 00:07:25,479
to the cause of space exploration.

88
00:07:25,479 --> 00:07:29,979
“My name is Lakeesha Flowers and I’m a
Human Resources Specialist here and as a Human

89
00:07:29,979 --> 00:07:35,300
Resources Specialist, I share the responsibility
of implementing an effective strategy for

90
00:07:35,300 --> 00:07:36,300
our workforce.

91
00:07:36,300 --> 00:07:40,200
And I play the part in bringing the right
people to the right positions to make sure

92
00:07:40,200 --> 00:07:44,139
that we can get accomplished the work that
makes us successful in our mission.

93
00:07:44,139 --> 00:07:47,860
What I really love about my job is the people.

94
00:07:47,860 --> 00:07:52,160
We have incredibly talented and passionate
people.

95
00:07:52,160 --> 00:07:57,350
And just to be a part of that and seeing how
we all come together and are successful in

96

00:07:57,350 --> 00:08:02,870
completing our missions continuously is remarkable
and it’s inspiring to the people.

97
00:08:02,870 --> 00:08:06,099
Because we’re in such a dynamic environment,
I think it’s so important that we have a

98
00:08:06,099 --> 00:08:11,870
diverse workforce because with diversity comes
a variety of ideas, backgrounds, perspectives

99
00:08:11,870 --> 00:08:17,610
and problems solving and when you have a variety
of mindsets approaching an issue then you’re

100
00:08:17,610 --> 00:08:22,130
more productive in reaching the right solution
and mitigating any risks.

101
00:08:22,130 --> 00:08:28,720
NASA has such a dynamic mission and we as
a Human Resources Office want to ensure that

102
00:08:28,720 --> 00:08:33,410
we’re providing and supporting the Center
in getting the right mix of skill sets at

103
00:08:33,410 --> 00:08:37,740
the right time and do as much as we can to
cultivate a workforce that’s going to be

104
00:08:37,740 --> 00:08:44,910
effective and able to respond to any of the
demands that may come with a changing mission.”

105
00:08:44,910 --> 00:08:49,830
The past four decades has seen the city of
Las Vegas grow enormously.

106

00:08:49,830 --> 00:08:54,290
Just how much is illustrated in this special
time-lapse imagery released by the Landsat

107
00:08:54,290 --> 00:09:00,110
program to celebrate the 28th anniversary
of the launch of the Landsat 5 satellite.

108
00:09:00,110 --> 00:09:06,660
The Landsat-collected data is shown as a false-color
time lapse -- the large red areas are actually

109
00:09:06,660 --> 00:09:10,340
green space, mostly golf courses and city
parks.

110
00:09:10,340 --> 00:09:16,210
The images become a lot sharper around 1984,
when new instrument designs improved the ability

111
00:09:16,210 --> 00:09:18,980
to resolve smaller parcels of land.

112
00:09:18,980 --> 00:09:24,570
Although the earliest images pre-date Landsat-5,
that satellite has been the workhorse of the

113
00:09:24,570 --> 00:09:30,040
program, providing vast amounts of data about
the land surfaces of our planet.

114
00:09:30,040 --> 00:09:35,380
“With this vehicle, the flight to the moon
will be accomplished.”

115
00:09:35,380 --> 00:09:41,180
March 23rd marks the 100th anniversary of
the birth of space pioneer, Wernher von Braun,

116
00:09:41,180 --> 00:09:46,280

chief architect of the Saturn V Moon rocket,
and first Director of the Marshall Space Flight

117
00:09:46,280 --> 00:09:51,450
Center.

118
00:09:51,450 --> 00:09:56,000
Speaking at a Space Transportation Association
reception on Capitol Hill to celebrate the

119
00:09:56,000 --> 00:10:02,070
milestone, NASA Administrator Charles Bolden
cited the importance of von Braun to America's

120
00:10:02,070 --> 00:10:03,070
space program.

121
00:10:03,070 --> 00:10:07,210
"We owe von Braun a great debt of gratitude
for helping usher us into the Space Age.

122
00:10:07,210 --> 00:10:11,510
And I'm really happy to be here tonight
as we chart our course toward even better

123
00:10:11,510 --> 00:10:12,720
milestones in the future.

124
00:10:12,720 --> 00:10:15,350
Thanks in large part to his pioneering work."

125
00:10:15,350 --> 00:10:21,900
NASA Historian Bill Barry says that in the
19-50's, prior even to NASA's establishment,

126
00:10:21,900 --> 00:10:27,580
von Braun played a major role in shaping public
opinion about sending humans into space.

127

00:10:27,580 --> 00:10:32,781
“von Braun was really important in terms
of catalyzing in the public imagination of

128
00:10:32,781 --> 00:10:36,970
the United States the expectation that, in
fact the opportunity to fly in space was not

129
00:10:36,970 --> 00:10:39,230
far away and was achievable in our lifetime.”

130
00:10:39,230 --> 00:10:42,720
“We built that rocket – we put it together
in six years.”

131
00:10:42,720 --> 00:10:48,370
As a recent German university graduate in
the mid-60’s, Jesco von Puttkamer was recruited

132
00:10:48,370 --> 00:10:53,110
by von Braun to come to Huntsville and join
the U.S. effort to go to the moon.

133
00:10:53,110 --> 00:10:58,030
“Today, when you talk to engineers, they
look at you and say, ‘how the heck did you

134
00:10:58,030 --> 00:10:59,030
do that?’”

135
00:10:59,030 --> 00:11:03,560
Von Puttkamer, who remains at NASA to this
day, says it was the strong presence of von

136
00:11:03,560 --> 00:11:09,100
Braun and his will to meet the challenge set
forth for the nation by President Kennedy

137
00:11:09,100 --> 00:11:10,240
that made it possible.

138
00:11:10,240 --> 00:11:19,520
“It was just the spirit, the enthusiasm
and the leadership of someone who made you

139
00:11:19,520 --> 00:11:22,340
convinced that he knew what he was talking
about.”

140
00:11:22,340 --> 00:11:25,520
“NASA would not be where we are without
him.

141
00:11:25,520 --> 00:11:32,670
We would not have had this preeminence in
space, this prestige that we have today with

142
00:11:32,670 --> 00:11:39,400
the ISS if it wouldn’t have been for von
Braun and his firm belief that a huge rocket

143
00:11:39,400 --> 00:11:50,790
could be built to bring people to the moon
and back safely within a decade.”

144
00:11:50,790 --> 00:11:52,770
And that’s This Week @ NASA!