1
00:00:07,600 --> 00:00:09,719
This Week At NASA…

2
00:00:09,719 --> 00:00:16,830
The STS-131 Crew and space shuttle Discovery
continues their progress toward an April 5

3
00:00:16,830 --> 00:00:21,699
launch to the International Space Station.
Discovery has been rolled out to Launch Pad

4
00:00:21,699 --> 00:00:28,910
39A, while the seven STS-131 astronauts participated
in launch countdown dress rehearsal activities

5
00:00:28,910 --> 00:00:30,130
and other prelaunch training.

6
00:00:30,130 --> 00:00:34,440
“I’ve had two space launches and I’ve
done three spacewalks, but I’m telling you

7
00:00:34,440 --> 00:00:38,940
the rollout of the space shuttle Discovery
the other night was one of the most spectacular

8
00:00:38,940 --> 00:00:40,370
things I’ve ever seen.”

9
00:00:40,370 --> 00:00:45,550
During their mission, Commander Alan Poindexter,
Pilot Jim Dutton and Mission Specialists Rick

10
00:00:45,550 --> 00:00:52,920
Mastracchio, Clay Anderson, Dorothy Metcalf-Lindenburger,
Stephanie Wilson and Japan Aerospace Exploration

11
00:00:52,920 --> 00:00:58,799
Agency astronaut Naoko Yamazaki will deliver

a multi-purpose logistics module filled with

12
00:00:58,799 --> 00:01:03,179
science racks that will be transferred to
the International Space Station’s laboratories.

13
00:01:03,179 --> 00:01:10,690
STS-131 is the 33rd shuttle mission to the
station.

14
00:01:10,690 --> 00:01:16,960
The World Wind Java computer program developed
at the Ames Research Center has earned NASA's

15
00:01:16,960 --> 00:01:23,320
2009 Software of the Year Award. World-Wind
is an open-source platform used to display

16
00:01:23,320 --> 00:01:30,430
NASA and U.S. Geological Survey data on virtual
3-D globes of Earth and other planets.

17
00:01:30,430 --> 00:01:36,710
The user friendly program uses button or mouse
controls to rotate, pan and zoom through models

18
00:01:36,710 --> 00:01:42,360
to engage the public to learn more about our
planet and NASA technology. The displayed

19
00:01:42,360 --> 00:01:47,500
information comes from satellites, aerial
photography, and topographic and geographic

20
00:01:47,500 --> 00:01:48,719
data.

21
00:01:48,719 --> 00:01:53,700
Software engineers also envision the program
helping to better enable government, commercial

22
00:01:53,700 --> 00:01:59,100
enterprises, and individual developers build
the applications they need for research and

23
00:01:59,100 --> 00:02:00,200
business.

24
00:02:00,200 --> 00:02:05,729
Members of the software development team received
medals during a special ceremony at the NASA

25
00:02:05,729 --> 00:02:12,290
Project Management Challenge Conference in
Galveston, Texas.

26
00:02:12,290 --> 00:02:18,450
NASA is replacing an aging fleet of 230-foot-wide
antennas used in the Deep Space Network with

27
00:02:18,450 --> 00:02:23,560
new "beam wave guide" antennas that enable
the network to operate on several different

28
00:02:23,560 --> 00:02:28,540
frequency bands within the same antenna. The
replacement antennas are approximately half

29
00:02:28,540 --> 00:02:34,470
the size of the originals. The NASA Deep Space
Network - or DSN - is an international network

30
00:02:34,470 --> 00:02:41,220
of antennas that supports interplanetary spacecraft
missions and radio and radar astronomy observations

31
00:02:41,220 --> 00:02:46,340
for the exploration of the solar system and
the universe. The network also supports selected

32
00:02:46,340 --> 00:02:47,610
Earth-orbiting missions.

33
00:02:47,610 --> 00:02:56,950
In the first phase of the project, near Canberra,
Australia, up to three 110 feet-wide antennas

34
00:02:56,950 --> 00:03:03,670
will be built. That work should be completed
by 2018. The DSN currently consists of three

35
00:03:03,670 --> 00:03:08,930
deep-space communications facilities placed
approximately 120 degrees apart around the

36
00:03:08,930 --> 00:03:16,100
world: at Goldstone, in California's Mojave
Desert; near Madrid, Spain; and near Canberra,

37
00:03:16,100 --> 00:03:21,030
Australia. This strategic placement permits
constant observation of spacecraft as the

38
00:03:21,030 --> 00:03:26,820
Earth rotates, and helps to make the DSN the
largest and most sensitive scientific telecommunications

39
00:03:26,820 --> 00:03:32,400
system in the world. The antennas are more
than 40 years old and show wear and tear from

40
00:03:32,400 --> 00:03:38,450
constant use. The decision to begin construction
came on the 50th anniversary of U.S. and Australian

41
00:03:38,450 --> 00:03:43,320
cooperation in space tracking operations.
\h\h

42

00:03:43,320 --> 00:03:47,770
Christopher DellaCorte, of the Glenn Research Center's Tribology & Mechanical Components

43
00:03:47,770 --> 00:03:54,910
branch has received the 2009 Quality and Safety Achievement or Qasar Award for figuring out

44
00:03:54,910 --> 00:04:00,730
what caused severe degradation of a starboard solar array alpha rotary joint on the International

45
00:04:00,730 --> 00:04:02,290
Space Station.

46
00:04:02,290 --> 00:04:06,711
The repair alleviated the need to launch a massive replacement rotary joint to space

47
00:04:06,711 --> 00:04:11,840
station and enabled full operation of the solar arrays supplying primary power to space

48
00:04:11,840 --> 00:04:13,790
station modules and experiments.

49
00:04:13,790 --> 00:04:20,320
The QASAR recognizes individual government and contractor employees who have shown exemplary

50
00:04:20,320 --> 00:04:25,950
performance in contributing to the quality and/or safety of products, services, processes,

51
00:04:25,950 --> 00:04:32,280
or management programs and activities. DellaCorte's knowledge, skill and dedication played a major

52
00:04:32,280 --> 00:04:37,850
role in overcoming a malfunction that would

have limited the capability aboard the complex.

53
00:04:37,850 --> 00:04:44,570
His efforts have been referred to as the largest
lube job in space.

54
00:04:44,570 --> 00:04:49,620
Teachers became students while participating
in the second annual NASA Science, Technology,

55
00:04:49,620 --> 00:04:55,470
Engineering, and Mathematics -- STEM -- Educators,
Workshops held this year in Charlotte, N.C.

56
00:04:55,470 --> 00:05:00,600
The 40-session workshop provided elementary,
middle and high school teachers with creative

57
00:05:00,600 --> 00:05:05,940
hands-on ways to incorporate NASA content
into their classrooms. The workshops are specifically

58
00:05:05,940 --> 00:05:10,250
designed to give teachers tangible resources
for immediate use in classrooms.

59
00:05:10,250 --> 00:05:17,190
The three-day event culminated with a guest
appearance from Astronaut Leland Melvin, who

60
00:05:17,190 --> 00:05:21,930
spoke to an audience of hundreds of middle
school students at the NASA Sponsored Central

61
00:05:21,930 --> 00:05:24,880
Intercollegiate Athletic Association Education
Day.

62
00:05:24,880 --> 00:05:28,340
“It’s all about you today, because you

are the future.”

63
00:05:28,340 --> 00:05:36,240
The CIAA is an athletic conference made up
of\heleven historically African-American institutions

64
00:05:36,240 --> 00:05:40,990
of higher education and is the nation's oldest
black athletic conference.

65
00:05:40,990 --> 00:05:46,889
Melvin the son of teachers is the co-manager
of NASA's Educator Astronaut Program. In that

66
00:05:46,889 --> 00:05:51,230
role he travels across the country helping
teachers get students excited about careers

67
00:05:51,230 --> 00:05:59,430
in mathematics, science and technology and
the role they play in space exploration.

68
00:05:59,430 --> 00:06:04,380
The NASA supported “For Inspiration and
Recognition of Science and Technology” Robotics

69
00:06:04,380 --> 00:06:09,630
program began its 19th year with regional
competitions like this one held in Washington,

70
00:06:09,630 --> 00:06:15,980
D.C. FIRST is a nationwide competition that
teams young people with professionals to solve

71
00:06:15,980 --> 00:06:18,550
engineering design problems in a competitive
way.

72
00:06:18,550 --> 00:06:25,950
“You can always learn from things so a better

way to, you know, complete the task at hand."

73
00:06:25,950 --> 00:06:31,510
Each year First Robotics creates a new contest
that gives kids the chance to build a robot

74
00:06:31,510 --> 00:06:36,480
using skill sets they may later use to become
scientists, engineers, or inventors.

75
00:06:36,480 --> 00:06:41,590
"I expect to learn things that I didn't
know before and use it to apply to a career

76
00:06:41,590 --> 00:06:43,889
that I want to choose which is engineering."

77
00:06:43,889 --> 00:06:49,590
This year's competition is called "Breakaway"
where student teams will compete on a 27-by-54-foot

78
00:06:49,590 --> 00:07:01,870
field with bumps, attempting to earn points
by collecting soccer balls in goals.

79
00:07:01,870 --> 00:07:07,870
More than 1,800 teams will compete in forty-three
regional events in the U.S., Canada, and Israel

80
00:07:07,870 --> 00:07:14,010
all leading up to the Championship in Atlanta,
April 15-17.

81
00:07:14,010 --> 00:07:15,910
And that's This Week at NASA!