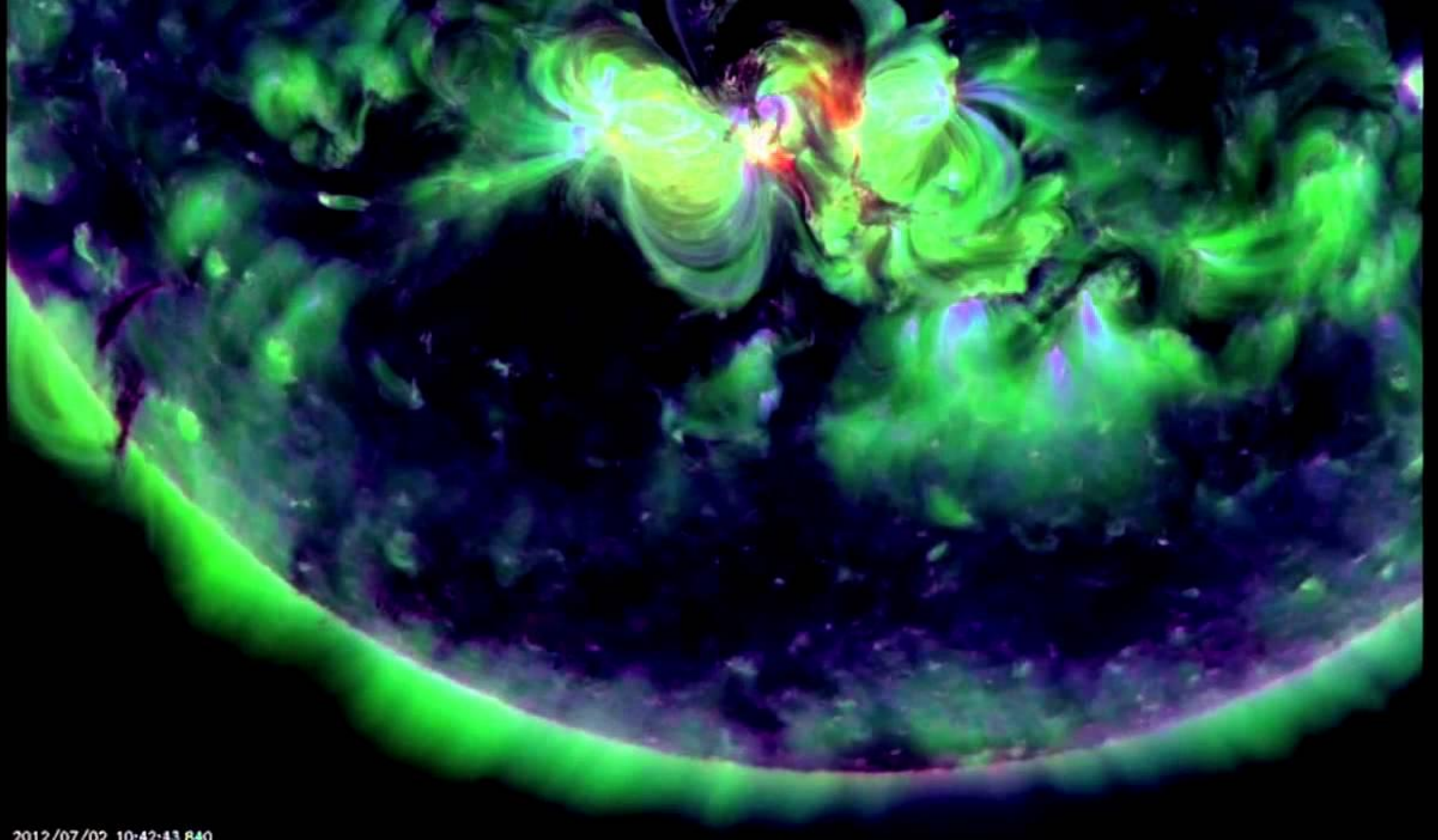
2012/07/02 10:42:43.840

1
00:00:05,310 --> 00:00:07,090
This Week at NASA…

2
00:00:07,090 --> 00:00:10,780
“Well is everybody ready?

3
00:00:10,780 --> 00:00:13,559
OK, let’s go.”

4
00:00:13,559 --> 00:00:19,480
In Star City, Russia, at the Gagarin Cosmonaut
Training Center, Expedition 32 crewmembers,

5
00:00:19,480 --> 00:00:25,710
Cosmonaut Yuri Malenchenko, NASA Astronaut
Suni Williams and Akihiko Hoshide of the Japan

6
00:00:25,710 --> 00:00:30,970
Aerospace Exploration Agency participated
in traditional ceremonies in advance of their

7
00:00:30,970 --> 00:00:33,420
mid-July launch to the station.

8
00:00:33,420 --> 00:00:38,290
Malenchenko, Williams and Hoshide will complete
their training at the Baikonur Cosmodrome

9
00:00:38,290 --> 00:00:39,680
in Kazakhstan.

10
00:00:39,680 --> 00:00:45,270
Upon their arrival to the space station, the
trio will join ISS Commander Gennady Padalka,

11
00:00:45,270 --> 00:00:51,210
NASA astronaut Joe Acaba and Cosmonaut Sergei
Revin – the other three members of Expedition

12
00:00:51,210 --> 00:00:52,710
32.

13
00:00:52,710 --> 00:00:59,690
“Today, NASA and Kennedy Space Center are
again lifting our sights and lifting our spirits

14
00:00:59,690 --> 00:01:00,780
to new heights.”

15
00:01:00,780 --> 00:01:05,920
The first Orion spacecraft destined for orbit
arrived at NASA's Kennedy Space Center in

16
00:01:05,920 --> 00:01:11,030
Florida to begin processing for a flight test
in 2014.

17
00:01:11,030 --> 00:01:17,520
The flight test, called Exploration Flight
Test-1 or EFT-1, will not carry any people

18
00:01:17,520 --> 00:01:19,560
into space during the mission.

19
00:01:19,560 --> 00:01:24,850
Instead, it will be loaded with a wide variety
of instruments to evaluate how it behaves

20
00:01:24,850 --> 00:01:33,689
during launch, in the vacuum of space and
the through the searing heat of reentry.

21
00:01:33,689 --> 00:01:39,470
Later Orion spacecraft will take astronauts
far beyond Earth on missions to an asteroid,

22
00:01:39,470 --> 00:01:42,289
the moon and perhaps even Mars.

23
00:01:42,289 --> 00:01:46,039
“Ladies and Gentlemen, we’re going to
Mars!

24
00:01:46,039 --> 00:01:54,930
We know that the Orion capsule is a critical
part of the system that is going to take us

25
00:01:54,930 --> 00:01:55,930
there.

26
00:01:55,930 --> 00:01:59,330
And so, we’re working on it.”

27
00:01:59,330 --> 00:02:05,259
For now, though, all attention is focused
on completing the assembly of this Orion.

28
00:02:05,259 --> 00:02:09,530
The work will take place in the Operations
and Checkout Building at NASA's Kennedy Space

29
00:02:09,530 --> 00:02:12,260
Center in Florida.

30
00:02:12,260 --> 00:02:18,040
Refurbished extensively in 2006, the high
bay at the O&C has been outfitted with large

31
00:02:18,040 --> 00:02:23,720
fixtures and tooling to turn the aluminum
shell of Orion into a functioning spacecraft

32
00:02:23,720 --> 00:02:28,730
complete with avionics, instrumentation and
the heat shield.

33
00:02:28,730 --> 00:02:34,900

A Delta IV Heavy rocket from United Launch Alliance will lift the capsule into an orbit

34
00:02:34,900 --> 00:02:42,090
reaching 3,600 miles, about 15 times higher than the International Space Station.

35
00:02:42,090 --> 00:02:47,590
The mission will last only a few hours, long enough to make two orbits before being sent

36
00:02:47,590 --> 00:02:56,400
plunging back into the atmosphere and parachuting safely into the ocean.

37
00:02:56,400 --> 00:03:01,220
The EFT-1 exercise in 2014 will also be the first opportunity for the Space Launch System

38
00:03:01,220 --> 00:03:05,050
program to checkout a new and versatile piece of flight hardware.

39
00:03:05,050 --> 00:03:09,549
The massive, aluminum adapter rings being built by engineers at Marshall Space Flight

40
00:03:09,549 --> 00:03:18,210
Center will be used to connect Orion to the Delta IV rocket used to power the EFT-1 flight.

41
00:03:18,210 --> 00:03:22,520
But the same design will also be used on Space Launch System flights.

42
00:03:22,520 --> 00:03:27,110
The adapter rings are being designed once for both applications, as part of NASA’s

43
00:03:27,110 --> 00:03:31,129

aggressive pursuit of affordable solutions
for the human exploration of space.

44
00:03:31,129 --> 00:03:35,280
“A lot of programs take years and years
and for us to have the opportunity to build

45
00:03:35,280 --> 00:03:39,459
the first piece of SLS flight hardware and
provide it to another program – that’s

46
00:03:39,459 --> 00:03:40,459
exciting.”

47
00:03:40,459 --> 00:03:47,530
The first flight test of the full-scale SLS
is planned for 2017.

48
00:03:47,530 --> 00:03:51,510
Students and educators from across the country
experienced what it is like to be a rocket

49
00:03:51,510 --> 00:03:56,189
scientist during "Rocket Week," at NASA's
Wallops Flight Facility.

50
00:03:56,189 --> 00:04:01,769
More than 100 participants received hands-on
training in building payloads for spaceflight,

51
00:04:01,769 --> 00:04:03,319
learned the basics of rocketry …

52
00:04:03,319 --> 00:04:09,290
… and developed activities for the classroom
through the fifth annual RockOn! workshop

53
00:04:09,290 --> 00:04:14,520
for university-level participants and the
concurrent second annual Wallops Rocket Academy

54
00:04:14,520 --> 00:04:19,990
for Teachers and Students or WRATS program.

55
00:04:19,990 --> 00:04:25,470
In addition to nine workshop-built experiments,
eight custom-built experiments flew on a NASA

56
00:04:25,470 --> 00:04:35,120
Terrier-improved sounding rocket inside a
payload canister known as RockSat-C. These

57
00:04:35,120 --> 00:04:40,290
experiments were developed at universities
that previously participated in a RockOn!

58
00:04:40,290 --> 00:04:41,290
workshop.

59
00:04:41,290 --> 00:04:44,330
\h
RockOn! and WRATS provide a unique experience

60
00:04:44,330 --> 00:04:49,460
for students, faculty and teachers to understand
the importance of a sounding rocket suborbital

61
00:04:49,460 --> 00:04:53,300
launch and the value of science that’s collected.

62
00:04:53,300 --> 00:04:58,430
Both opportunities demonstrate the practical
application of science, technology, engineering

63
00:04:58,430 --> 00:05:01,910
and mathematics.

64
00:05:01,910 --> 00:05:07,000
With the new NASA online game – Rocket Science

101, you don’t have to be a rocket scientist

65
00:05:07,000 --> 00:05:08,790
to build a spacecraft.

66
00:05:08,790 --> 00:05:14,539
The game, designed for computers and for iPads,
lets players select their favorite NASA mission

67
00:05:14,539 --> 00:05:19,810
and choose from three skill levels to build
a virtual rocket to send into orbit.

68
00:05:19,810 --> 00:05:25,620
The technology for the game is used by NASA's
Launch Services Program at Kennedy Space Center.

69
00:05:25,620 --> 00:05:31,180
LSP provides access to space for the studies
of Earth and exploration of our solar system

70
00:05:31,180 --> 00:05:32,720
and the universe.

71
00:05:32,720 --> 00:05:38,360
Now, LSP is turning over the virtual selection,
construction and launch of a mission to players

72
00:05:38,360 --> 00:05:50,870
who will decide the best rocket to assemble
for launching a spacecraft.

73
00:05:50,870 --> 00:05:56,490
Images captured by NASA’s Solar Dynamics
Observatory show some pre-Fourth of July fireworks

74
00:05:56,490 --> 00:05:58,680
in the Sun’s southern hemisphere.

75

00:05:58,680 --> 00:06:04,479
SDO spotted an M5.6-class solar flare eruption
from Active Region 1515.

76
00:06:04,479 --> 00:06:10,020
The solar flare was accompanied by a Coronal
Mass Ejection (CME) which hurled a cloud of

77
00:06:10,020 --> 00:06:11,940
plasma into Space.

78
00:06:11,940 --> 00:06:16,879
A portion of the CME, which was not Earth-directed,
did not have the velocity needed to escape

79
00:06:16,879 --> 00:06:20,650
the Sun’s gravity – and was pulled back
to the surface.

80
00:06:20,650 --> 00:06:26,870
It may have been hot, but Goddard employees
and their families couldn’t stay away from

81
00:06:26,870 --> 00:06:29,550
the Center’s annual “Celebrate Goddard
Day.”

82
00:06:29,550 --> 00:06:34,691
It was a chance for the Goddard community
to celebrate the challenging work and the

83
00:06:34,691 --> 00:06:37,139
diverse workforce at the Center.

84
00:06:37,139 --> 00:06:42,039
Goddard directorates, advisory committees
and clubs provided tours of their facilities

85
00:06:42,039 --> 00:06:47,599
and their exhibits in an effort to give employees

an opportunity to learn more about the wide

86
00:06:47,599 --> 00:06:53,629
range of projects and programs currently being
worked on at Goddard as well as upcoming missions

87
00:06:53,629 --> 00:06:56,680
and science projects

88
00:06:56,680 --> 00:07:01,860
Ames Research Center opened its doors to more
than one thousand visitors during Family Day.

89
00:07:01,860 --> 00:07:06,009
The guests learned about some of the science
and technologies being developed at the Center,

90
00:07:06,009 --> 00:07:10,990
such as telerobotics, which allows humans
and robots to work together in space.

91
00:07:10,990 --> 00:07:16,190
They were also introduced to the world's
largest wind tunnel and the Vertical Motion

92
00:07:16,190 --> 00:07:20,340
Simulator, which was used to train astronauts
to fly the Space Shuttle.

93
00:07:20,340 --> 00:07:26,039
Physics and science were also showcased at
the Ames Exploration Encounter, a hands-on

94
00:07:26,039 --> 00:07:30,889
learning environment located inside a former
supersonic wind tunnel building.

95
00:07:30,889 --> 00:07:37,930
"The problem is, is that there's an eight
minute time delay."

96
00:07:37,930 --> 00:07:42,419
Female engineers from Langley Research Center
helped the Girl Scouts celebrate its 100th

97
00:07:42,419 --> 00:07:47,360
year during an Engineering Day at Busch Gardens
in Williamsburg, Virginia.

98
00:07:47,360 --> 00:07:51,800
Langley Center Director Lesa Roe delivered
the keynote speech for the event, which was

99
00:07:51,800 --> 00:07:54,729
attended by more than 800 Girl Scouts.

100
00:07:54,729 --> 00:07:59,789
NASA's participation in events like this
gives the agency an opportunity to engage

101
00:07:59,789 --> 00:08:06,069
and introduce students to Science, Technology,
Engineering and Math, or STEM-related careers

102
00:08:06,069 --> 00:08:10,800
that are critical to the nation and the future
of space exploration.

103
00:08:10,800 --> 00:08:16,879
"One, zero and liftoff, the final liftoff
of Atlantis …"

104
00:08:16,879 --> 00:08:23,530
One year ago on July 8, 2011, an estimated
one million spectators braved the balmy Florida

105
00:08:23,530 --> 00:08:24,530
temperatures …

106

00:08:24,530 --> 00:08:26,849
“Fantastic … Go!”

107
00:08:26,849 --> 00:08:33,479
… to watch Space Shuttle Atlantis rise skyward
from The Kennedy Space Center to begin STS-135,

108
00:08:33,479 --> 00:08:35,750
the final space shuttle mission.

109
00:08:35,750 --> 00:08:41,051
The crew of four veteran astronauts onboard
Atlantis -- Commander Chris Ferguson, Pilot

110
00:08:41,051 --> 00:08:46,700
Doug Hurley, and Mission Specialists Sandy
Magnus and Rex Walheim -- set off to deliver

111
00:08:46,700 --> 00:08:50,760
a stockpile of supplies and parts to the space
station.

112
00:08:50,760 --> 00:08:54,930
On orbit highlights of the mission included
a call from President Obama during which he

113
00:08:54,930 --> 00:08:57,250
acknowledged the significance of the mission.

114
00:08:57,250 --> 00:09:01,231
“There have been thousands who’ve poured
their hearts and souls into America’s Space

115
00:09:01,231 --> 00:09:05,540
Shuttle Program over the last three decades
that are following this journey with special

116
00:09:05,540 --> 00:09:11,380
interest and to them and all the men and women
of NASA, I want to say thank you.”

117
00:09:11,380 --> 00:09:19,250
And the delivery to the ISS of a U.S. flag
flown on STS-1, the very first shuttle mission.

118
00:09:19,250 --> 00:09:24,420
13-days later Atlantis and her crew returned
to Earth – bringing to an end the 30-year

119
00:09:24,420 --> 00:09:30,010
space shuttle program.

120
00:09:30,010 --> 00:09:35,880
And 50 years ago on July 10, 1962 … NASA
launched a Delta rocket from Cape Canaveral

121
00:09:35,880 --> 00:09:42,510
carrying the Telstar I satellite, the world's
first commercial telecommunications satellite.

122
00:09:42,510 --> 00:09:48,110
The AT&T satellite relayed its first non-public
television pictures -- a flag outside Andover

123
00:09:48,110 --> 00:09:53,279
Earth Station in Maine to France on July 11,
1962.

124
00:09:53,279 --> 00:09:58,190
Almost two weeks later it relayed the first
publicly available live transatlantic television

125
00:09:58,190 --> 00:10:02,560
signal – a broadcast that featured a speech
by President John F. Kennedy.

126
00:10:02,560 --> 00:10:04,589
"Telstar communications satellite."

127

00:10:04,589 --> 00:10:09,430
Telstar 1 also relayed the first telephone
call to be transmitted through space.

128
00:10:09,430 --> 00:10:15,190
Telstar 1 went out of service in February
1963.

129
00:10:15,190 --> 00:10:20,320
And the NASA family is mourning the loss of
retired astronaut Alan Poindexter, who died

130
00:10:20,320 --> 00:10:24,000
on July 1 following a jet ski accident.

131
00:10:24,000 --> 00:10:27,440
in Little Sabine Bay at Pensacola Beach, Florida.

132
00:10:27,440 --> 00:10:33,230
Selected as a NASA astronaut in June 1998,
Poindexter, a Captain in the U.S. Navy flew

133
00:10:33,230 --> 00:10:40,490
on two space shuttle missions – he was the
pilot of Atlantis on STS-122 in 2008 and in

134
00:10:40,490 --> 00:10:44,440
2010 served as Commander onboard Discovery
during STS-131.

135
00:10:44,440 --> 00:10:48,220
He is survived by his wife and two sons.

136
00:10:48,220 --> 00:10:51,279
Poindexter was 50 years old.

137
00:10:51,279 --> 00:10:53,339
And that’s This Week @NASA!

138

00:10:53,339 --> 00:10:58,370
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