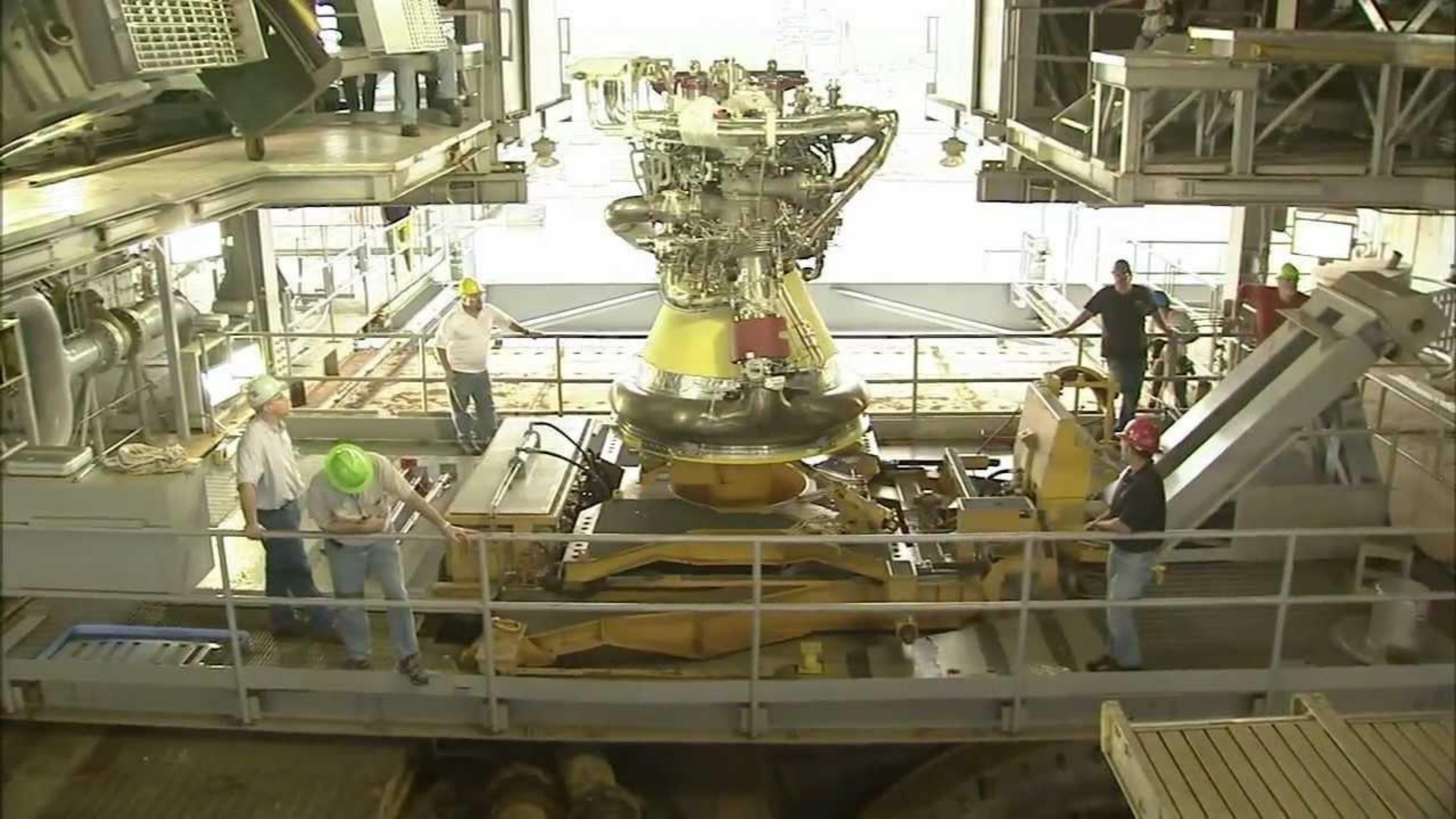

1
00:00:00,760 --> 00:00:10,930
This
Week at NASA…

2
00:00:10,930 --> 00:00:16,349
NASA Administrator Charlie Bolden and Deputy
Administrator Lori Garver helped announce

3
00:00:16,349 --> 00:00:21,270
a new series of Women@NASA during a Women's
History Month event at George Washington University

4
00:00:21,270 --> 00:00:22,410
in Washington.

5
00:00:22,410 --> 00:00:28,779
The Women, Aerospace, and Innovation event
showcased new videos from the Women@NASA website

6
00:00:28,779 --> 00:00:34,789
highlighting the role of women in science,
technology, engineering and math at the agency.

7
00:00:34,789 --> 00:00:40,479
Inspiring and engaging young females in the
STEM fields was detailed in data presented

8
00:00:40,479 --> 00:00:42,399
by the Girl Scouts Research Institute.

9
00:00:42,399 --> 00:00:48,110
"We can be proud of the fact that NASA is
the largest employer of women in S.T.E.M.

10
00:00:48,110 --> 00:00:52,309
fields, with over 6-thousand women who hold
jobs at NASA of our 18-thousand."

11
00:00:52,309 --> 00:00:57,039

“I am proud of the contributions women have
made and continue to make at NASA at every

12
00:00:57,039 --> 00:00:58,039
level.

13
00:00:58,039 --> 00:01:03,760
And we are determined to keep that pipeline
flowing through recruitment, support and promotions,

14
00:01:03,760 --> 00:01:06,330
as well as our investments in STEM.

15
00:01:06,330 --> 00:01:08,690
America needs you.

16
00:01:08,690 --> 00:01:11,300
Aerospace needs you.

17
00:01:11,300 --> 00:01:12,980
NASA needs you.”

18
00:01:12,980 --> 00:01:21,190
Check out the Women@NASA website, at www.women.nasa.gov.

19
00:01:21,190 --> 00:01:26,720
In Yuma, Arizona, NASA successfully conducted
another drop test of the Orion crew vehicle's

20
00:01:26,720 --> 00:01:33,390
entry, descent and landing parachutes in preparation
for its orbital flight test in 2014.

21
00:01:33,390 --> 00:01:39,260
After the vehicle’s drop from an Air Force
C-17 at 25-thousand feet, researchers gauged

22
00:01:39,260 --> 00:01:43,950
how its choppy wake affected the ‘chute

system’s performance.

23
00:01:43,950 --> 00:01:47,240
Choppy air can reduce how much a parachute inflates.

24
00:01:47,240 --> 00:01:53,810
Orion will carry astronauts deeper into space than ever before.

25
00:01:53,810 --> 00:01:59,270
Engineers at the Stennis Space Center have moved a J-2X engine to the A-2 Test Stand

26
00:01:59,270 --> 00:02:02,450
in preparation for another round of testing.

27
00:02:02,450 --> 00:02:07,409
Both the developmental engine and the stand have been modified for simulated altitude

28
00:02:07,409 --> 00:02:10,789
testing scheduled to begin in the coming months.

29
00:02:10,789 --> 00:02:16,569
An initial round of J-2X testing was completed last year.

30
00:02:16,569 --> 00:02:22,459
SpaceX has reached a milestone in preparing for its upcoming Falcon 9 demonstration flight

31
00:02:22,459 --> 00:02:24,799
to the International Space Station.

32
00:02:24,799 --> 00:02:29,900
During a “Wet Dress Rehearsal”, the rocket was hoisted into position on the launch pad

33

00:02:29,900 --> 00:02:32,129
and loaded with propellants.

34
00:02:32,129 --> 00:02:35,340
Other tests were also performed successfully.

35
00:02:35,340 --> 00:02:39,209
SpaceX will provide cargo resupply services
to the ISS.

36
00:02:39,209 --> 00:02:47,079
Falcon 9, with its Dragon capsule, is targeted
to launch to the station in late April.

37
00:02:47,079 --> 00:02:51,840
Ground controllers at Goddard Space Flight
Center have conducted the first on-orbit operations

38
00:02:51,840 --> 00:02:53,921
of NASA's Robotic Refueling Mission.

39
00:02:53,921 --> 00:03:00,939
The RRM is an external experiment on the International
Space Station designed to demonstrate and

40
00:03:00,939 --> 00:03:06,739
test the tools, technologies, and techniques
needed to robotically refuel satellites in

41
00:03:06,739 --> 00:03:11,319
space – especially satellites not designed
for on-orbit servicing.

42
00:03:11,319 --> 00:03:17,760
A joint effort between NASA and the Canadian
Space Agency, RRM uses the Dextre robotic

43
00:03:17,760 --> 00:03:20,980
"handyman" for the delicate task of refueling.

44
00:03:20,980 --> 00:03:24,669
“We’ll be following along with the robot,
so if there are issues on the Space Station

45
00:03:24,669 --> 00:03:31,560
our robot here could demonstrate ways to solve
the problem that they’ve run into in space.”

46
00:03:31,560 --> 00:03:36,510
Also aboard the ISS, NASA flight engineer
Don Pettit completed his third session for

47
00:03:36,510 --> 00:03:40,059
the Integrated Resistance and Aerobic Training
Study.

48
00:03:40,059 --> 00:03:46,799
Known as SPRINT, this investigation evaluates
how well high-intensity, low volume exercise

49
00:03:46,799 --> 00:03:53,499
minimizes loss of muscle, bone and cardiovascular
function in station crew members on long-duration

50
00:03:53,499 --> 00:03:54,809
missions.

51
00:03:54,809 --> 00:03:59,819
Data from the study could also prove helpful
in promoting muscle, bone and cardiovascular

52
00:03:59,819 --> 00:04:03,260
health in those of us back on the ground.

53
00:04:03,260 --> 00:04:06,549
“Angry Birds Space” is coming!

54
00:04:06,549 --> 00:04:10,489
And to help introduce the new version of the

hit game, Pettit worked aboard the Station

55
00:04:10,489 --> 00:04:14,840
to create a video explaining how physics works
in space.

56
00:04:14,840 --> 00:04:19,760
He demonstrated trajectories in microgravity
by catapulting an Angry Bird through the space

57
00:04:19,760 --> 00:04:20,980
station.

58
00:04:20,980 --> 00:04:26,160
NASA worked in cooperation with Finland-based
Rovio Entertainment, creator of the Angry

59
00:04:26,160 --> 00:04:29,720
Birds franchise, to produce "Angry Birds Space."

60
00:04:29,720 --> 00:04:33,280
The game becomes available on March 22.

61
00:04:33,280 --> 00:04:40,310
A new generation of space vehicles capable
of safely and economically delivering payloads

62
00:04:40,310 --> 00:04:45,980
and researchers to suborbital space was the
focus of a NASA co-sponsored event in Palo

63
00:04:45,980 --> 00:04:47,220
Alto, California.

64
00:04:47,220 --> 00:04:55,190
The agency’s Flight Opportunities Program
co-hosted the Next-Generation Suborbital Researchers

65
00:04:55,190 --> 00:05:01,510

Conference, where researchers and educators
were encouraged to participate in, learn about

66
00:05:01,510 --> 00:05:06,630
and contribute to the new era of commercial
suborbital spaceflight.

67
00:05:06,630 --> 00:05:13,880
During a presentation about the storied, suborbital
X-15 aircraft, Apollo 11 Commander Neil Armstrong

68
00:05:13,880 --> 00:05:18,730
talked about that experimental vehicle's
groundbreaking contribution to spaceflight.

69
00:05:18,730 --> 00:05:27,650
"Based on our experience up to that time,
flight to Mach 7 was audacious by any standard.

70
00:05:27,650 --> 00:05:35,740
An enormous manufacturing challenge, but the
Air Force, NASA and the Navy were certain

71
00:05:35,740 --> 00:05:41,830
that was the aircraft they needed."

72
00:05:41,830 --> 00:05:47,870
A new fuel cell that will allow NASA rovers
to go farther and explore longer on the surface

73
00:05:47,870 --> 00:05:53,040
of other planets and moons was demonstrated
for media at the Glenn Research Center.

74
00:05:53,040 --> 00:05:59,030
A conventional fuel cell needs a pump to remove
water produced inside the device.

75
00:05:59,030 --> 00:06:05,450
This new, non-flow-through fuel cell uses

capillary action to wick away the water, making

76
00:06:05,450 --> 00:06:08,650
it simpler, lighter, and more reliable.

77
00:06:08,650 --> 00:06:15,330
The demo was done inside Glenn's Simulated
Lunar Operations facility.

78
00:06:15,330 --> 00:06:20,280
NASA Aeronautics chief Jaiwon Shin visited
the Langley Research Center, where he talked

79
00:06:20,280 --> 00:06:25,920
with employees about the agency’s ongoing
efforts to design safer, cleaner and more

80
00:06:25,920 --> 00:06:29,010
fuel-efficient aircraft.

81
00:06:29,010 --> 00:06:35,050
Shin also toured the center’s 14-by-22-foot
wind tunnel, which is being upgraded to advance

82
00:06:35,050 --> 00:06:40,350
research for environmentally-responsible aviation.

83
00:06:40,350 --> 00:06:46,310
Hundreds of teens interested in jobs in science
technology engineering and math, or STEM,

84
00:06:46,310 --> 00:06:50,390
came to NASA Langley Research in Hampton Virginia
for Career Day.

85
00:06:50,390 --> 00:06:55,620
Sponsored by NASA Langley, the Peninsula Engineering
Council and Newport News Shipbuilding, the

86

00:06:55,620 --> 00:07:00,000
event offered students the opportunity to
speak with STEM professionals in round table

87
00:07:00,000 --> 00:07:01,140
discussions.

88
00:07:01,140 --> 00:07:05,470
Similar to speed dating, groups of students
would move from table to table to speak with

89
00:07:05,470 --> 00:07:08,850
engineers and researchers from NASA Langley
and Newport News Shipbuilding

90
00:07:08,850 --> 00:07:13,440
The morning culminated with two design challenges
that had students working together to either

91
00:07:13,440 --> 00:07:19,200
build a boat out of duct tape or build a shock-absorbing
system out of marshmallows, cups and straws.

92
00:07:19,200 --> 00:07:25,110
The event, held during National Engineers
Week, was designed to broaden and reinforce

93
00:07:25,110 --> 00:07:34,160
students' interests in STEM and increase
awareness and appreciation of engineering.

94
00:07:34,160 --> 00:07:39,140
Ralph McQuarrie, whose sci-fi artwork was
featured in major motion pictures and hit

95
00:07:39,140 --> 00:07:40,960
TV series, has died.

96
00:07:40,960 --> 00:07:42,410
He was 82.

97
00:07:42,410 --> 00:07:48,811
McQuarrie’s creations included Star Wars
characters Darth Vader, Chewbacca, R2D2 and

98
00:07:48,811 --> 00:07:53,750
C-3PO, and the Mother Ship of Close Encounters
of the Third Kind.

99
00:07:53,750 --> 00:07:59,860
Near and dear to NASA is the animation McQuarrie
produced for CBS News of Apollo 11’s landing

100
00:07:59,860 --> 00:08:08,470
on the moon in 1969.

101
00:08:08,470 --> 00:08:10,510
And that’s This Week @NASA!

102
00:08:10,510 --> 00:08:15,210
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