



1
00:00:07,180 --> 00:00:10,880
This Week at NASA...

2
00:00:10,880 --> 00:00:13,840
"4-3-2-1-FIRE!"

3
00:00:13,840 --> 00:00:22,290
NASA's next-generation, five-segment solid
rocket development motor -- or DM-2 -- was

4
00:00:22,290 --> 00:00:28,390
fired in its test stand at ATK's facility
in Promontory, Utah. The successful cold motor

5
00:00:28,390 --> 00:00:33,440
test was completed in less than three minutes
and was designed to advance the understanding,

6
00:00:33,440 --> 00:00:39,260
safety, technology and capability of solid
rocket motors. The DM-2's overall temperature

7
00:00:39,260 --> 00:00:44,890
was lowered to 40 degrees Fahrenheit to validate
the motor's performance in cold weather -- in

8
00:00:44,890 --> 00:00:48,860
contrast to the DM-1 testing which was conducted
at ambient temperature.

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00:00:48,860 --> 00:00:53,180
Alex Priskos: "This was a cold test, which
is one of the most severe and tough environments

10
00:00:53,180 --> 00:00:58,290
for a solid rocket booster to undergo, and
it looks like the motor performed brilliantly."

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00:00:58,290 --> 00:01:03,360

The DM-2 motor which is capable of producing 22 million horsepower and generating as much

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00:01:03,360 --> 00:01:13,520
as 3.6 million pounds of thrust -- was developed by ATK Space Systems.

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00:01:13,520 --> 00:01:19,080
NASA's Chief Technologist Bobby Braun made several stops on his agency-wide tour, visiting

14
00:01:19,080 --> 00:01:24,630
various facilities at the Jet Propulsion Laboratory, the Glenn Research Center, and Dryden Flight

15
00:01:24,630 --> 00:01:29,820
Research Center. Braun was shown some of the cutting-edge technologies in development at

16
00:01:29,820 --> 00:01:31,110
each center.

17
00:01:31,110 --> 00:01:36,240
Braun told employees that NASA is moving back to its roots and its three interrelated core

18
00:01:36,240 --> 00:01:37,340
competencies:

19
00:01:37,340 --> 00:01:42,270
Bobby Braun SOT - "When I think about NASA, I think really about three things; one research

20
00:01:42,270 --> 00:01:51,320
and technology; two, flight systems, flight hardware and software, and three, mission operations."

21
00:01:51,320 --> 00:01:56,689
All ten programs -- under the Office of Chief Technologist -- are designed to take ideas

22
00:01:56,689 --> 00:02:02,829
from basic concept to the working prototype
or testing phase -- then use them in applicable

23
00:02:02,829 --> 00:02:07,380
projects and missions.

24
00:02:07,380 --> 00:02:11,709
And now, "Centerpieces,"

25
00:02:11,709 --> 00:02:17,590
The Magnetospheric Multiscale mission, MMS,
has passed its critical design review. The

26
00:02:17,590 --> 00:02:21,849
mission consists of four identical satellites
that will orbit in formation. They'll study

27
00:02:21,849 --> 00:02:32,300
how, when triggered by solar activity like
flares and coronal mass ejections, the Earth's

28
00:02:32,300 --> 00:02:40,209
magnetic fields affect power grids, communication
and navigation. The data MMS collects will

29
00:02:40,209 --> 00:02:46,999
help scientists predict these disruptive solar
events and protect our electronic infrastructure.

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00:02:46,999 --> 00:02:51,780
Goddard engineers will build and monitor the
four satellites used in the MMS mission. The

31
00:02:51,780 --> 00:02:55,590
MMS satellites are scheduled for launch in
2014.

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00:02:55,590 --> 00:03:03,029

To the sounds of shovels and cheers, the Glenn Research Center broke ground for a 93,000

33

00:03:03,029 --> 00:03:07,629

square foot structure that'll be become Glenn's new Centralized Office Building.

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00:03:07,629 --> 00:03:14,309

The three-story space will be U.S. Green Building LEED silver certified -- will house 300 workers

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00:03:14,309 --> 00:03:21,260

and include: open work areas, conference rooms, a conferencing center and a 400-seat auditorium.

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00:03:21,260 --> 00:03:27,569

"This is the first new office building here on the Glenn main campus in over twenty years

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00:03:27,569 --> 00:03:36,129

and it really represents the start of the master plan that we had approved back in 2007."

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00:03:36,129 --> 00:03:41,659

The LEED certification program is a nationally accepted benchmark for the design, construction

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00:03:41,659 --> 00:03:53,859

and operation of high-performance green buildings

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00:03:53,859 --> 00:03:59,249

Friends and families of the slumbering STS-132 astronauts picked the songs that woke 'em

41

00:03:59,249 --> 00:04:04,689

up last May. Now, NASA wants you to take over its morning show deejay duties!

42

00:04:04,689 --> 00:04:05,689

(song)

43

00:04:05,689 --> 00:04:09,900

With the "Wakeup Song Contest," you can help choose the morning music for the last

44

00:04:09,900 --> 00:04:15,260

two scheduled space shuttle missions. Pick your favorite from a list of 40 previously-played

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00:04:15,260 --> 00:04:20,979

songs, or submit an original, space-themed composition. The two wakeup songs with the

46

00:04:20,979 --> 00:04:28,500

most votes will be played during STS-133 and 134. To cast your vote or submit a song, visit:

47

00:04:28,500 --> 00:04:32,970

<https://songcontest.nasa.gov>

48

00:04:32,970 --> 00:04:36,460

(song)

49

00:04:36,460 --> 00:04:43,130

The STS-133 astronauts are scheduled to launch aboard space shuttle Discovery on Nov. 1.

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00:04:43,130 --> 00:04:49,530

STS-134 crew members are targeted for Feb. 26, 2011 to launch aboard Endeavour for the

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00:04:49,530 --> 00:04:55,500

International Space Station on the last space shuttle flight.

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00:04:55,500 --> 00:05:03,919

A little girl with a big heart has given NASA Centers a run for their money during the Fed

53
00:05:03,919 --> 00:05:09,520
Feeds Families food drive. Twelve-year-old
Laily Amenian, whose mother, Roya Maher (MAY-er),

54
00:05:09,520 --> 00:05:14,870
works for NASA's Independent Validation
and Verification facility, IV&V, in Fairmont,

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00:05:14,870 --> 00:05:21,669
West Virginia, donated more than a ton of
food from her community, 967 pounds of it

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00:05:21,669 --> 00:05:27,560
in July. If Laily was a NASA center, that
would've put her in sixth place for the

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00:05:27,560 --> 00:05:31,225
month! With funds she collected from friends,
family and neighbors, Laily purchased another

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00:05:31,225 --> 00:05:35,620
thousand-plus pounds of food in August.
Laily Amenian SOT: "I got cans from my neighborhood

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00:05:35,620 --> 00:06:00,129
and I got money. I also got coins around my
house, and I got money from uncles and aunts,

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00:06:00,129 --> 00:06:02,479
and family, and my dad's colleagues, and
my mom's' friends, and a lot of people.

61
00:06:02,479 --> 00:06:03,500
I sold snow cones in my neighborhood at our
pool."

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00:06:03,500 --> 00:06:05,259
Chad Morrison SOT: "She's done a phenomenal
job! This is an amazing amount of food, as

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00:06:05,259 --> 00:06:06,699

you can see here in the truck, for just one little girl to collect here in West Virginia.”

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00:06:06,699 --> 00:06:11,629

The Fed Feeds Families drive supports food banks across the country. The winning center

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00:06:11,629 --> 00:06:16,520

will be announced later this month.

And that's This Week at NASA!