
48

1
00:00:00,500 --> 00:00:02,380
2015 was a great
year for Marshall,

2
00:00:02,380 --> 00:00:04,260
and for space exploration.

3
00:00:04,260 --> 00:00:06,560
Over the past year we've
supported the one year crew

4
00:00:06,560 --> 00:00:08,500
mission with
Commander Scott Kelly.

5
00:00:08,500 --> 00:00:12,270
The space launch system team has
made great progress this year.

6
00:00:12,270 --> 00:00:14,870
The time is now to drive
up the technologies that

7
00:00:14,870 --> 00:00:16,350
will take us to Mars.

8
00:00:16,350 --> 00:00:18,620
Our team is advancing
propulsion technologies

9
00:00:18,620 --> 00:00:21,260
and life support systems
that will make deep space

10
00:00:21,260 --> 00:00:22,930
exploration possible.

11
00:00:22,930 --> 00:00:25,280
Getting the world's largest

rocket off the ground

12
00:00:25,280 --> 00:00:27,230
requires serious lift.

13
00:00:27,230 --> 00:00:30,163
We've just completed our
critical design review,

14
00:00:30,163 --> 00:00:33,450
we are testing
engines and boosters,

15
00:00:33,450 --> 00:00:36,940
and we're making great advances
in avionics, and software,

16
00:00:36,940 --> 00:00:40,210
and manufacturing components
all over the country.

17
00:00:40,210 --> 00:00:43,710
New technologies that help with
lighter, higher performance

18
00:00:43,710 --> 00:00:46,280
and more affordable,
large structures

19
00:00:46,280 --> 00:00:48,530
have been tested and
developed here at Marshall.

20
00:00:48,530 --> 00:00:50,400
The Chandra
Observatory continues

21
00:00:50,400 --> 00:00:52,970
to write and rewrite textbooks.

22
00:00:52,970 --> 00:00:55,170
Recently, the
surface of Pluto has

23
00:00:55,170 --> 00:00:58,010
been revealed by the
New Horizon spacecraft,

24
00:00:58,010 --> 00:01:00,250
and we've recently
launched a new severe node,

25
00:01:00,250 --> 00:01:03,710
which uses satellite imagery
to help with natural disasters.

26
00:01:03,710 --> 00:01:05,580
We support the
crew in the science

27
00:01:05,580 --> 00:01:08,580
experiments 24 hours a
day, seven days a week,

28
00:01:08,580 --> 00:01:10,610
365 days a year.

29
00:01:10,610 --> 00:01:14,360
We've actually printed 21 parts
in space-- first parts ever

30
00:01:14,360 --> 00:01:17,530
printed-- and we've analyzed and
tested those, and compared them

31
00:01:17,530 --> 00:01:19,600
to the parts printed
on the ground.

32

00:01:19,600 --> 00:01:21,340
And we've incorporated
those lessons

33
00:01:21,340 --> 00:01:24,230
learned for the next periods
of print on space stations.

34
00:01:24,230 --> 00:01:26,660
What we're learning through
our one year crew mission

35
00:01:26,660 --> 00:01:30,250
will enable us to go further
on our mission to Mars.

36
00:01:30,250 --> 00:01:34,370
Scores of tests, nodes,
dynamics, wind tunnels,

37
00:01:34,370 --> 00:01:37,490
structure, avionics, software.

38
00:01:37,490 --> 00:01:41,610
These are helping us build the
safest rocket for the crew.

39
00:01:41,610 --> 00:01:43,290
Through our major
STEM activities,

40
00:01:43,290 --> 00:01:45,730
the Rover challenge,
and student launch,

41
00:01:45,730 --> 00:01:48,250
plus the Centennial
Challenge competition,

42
00:01:48,250 --> 00:01:50,280

we've reached thousands
of competitors.

43
00:01:50,280 --> 00:01:53,120
NASA is working closely
with companies, acadamia,

44
00:01:53,120 --> 00:01:55,260
and other government
entities in order

45
00:01:55,260 --> 00:01:58,960
to leverage these technology
advancements within the budget

46
00:01:58,960 --> 00:02:00,850
and the schedule that we have.

47
00:02:00,850 --> 00:02:03,250
With all the innovation, and
progress, and discoveries,

48
00:02:03,250 --> 00:02:04,510
it was a great year.