



1  
00:00:00,830 --> 00:00:04,180  
Blast Off!

2  
00:00:04,180 --> 00:00:12,560  
Look at the rocket ship!

3  
00:00:12,560 --> 00:00:17,580  
(Rocket Engine Sounds)

4  
00:00:17,580 --> 00:00:24,100  
At NASA, we're reaching for new heights so  
we remain the world's leader in

5  
00:00:24,100 --> 00:00:25,100  
space...

6  
00:00:25,100 --> 00:00:26,570  
We're pioneers and we always have been.

7  
00:00:26,570 --> 00:00:30,949  
And we're building on that pioneering  
sprit in science and technology so that we

8  
00:00:30,949 --> 00:00:37,040  
make the world a better place, so we  
create jobs right here on earth.

9  
00:00:37,040 --> 00:00:40,060  
Everything we do is unique

10  
00:00:40,060 --> 00:00:43,520  
When you explore space, you not only learn  
about what's out there, but what's

11  
00:00:43,520 --> 00:00:45,810  
down here and why it's the way it is.

12  
00:00:45,810 --> 00:00:49,270

We have the best engineers and scientists  
in the world and today...

13  
00:00:49,270 --> 00:00:53,000  
right now...  
they are developing the technologies for our

14  
00:00:53,000 --> 00:00:55,150  
next great achievements in space.

15  
00:00:55,150 --> 00:00:58,730  
We're building something that can go lunar,  
something that can go to an asteroid,

16  
00:00:58,730 --> 00:01:04,400  
we can go to Mars with this, this is the next  
step we've been looking for since the

17  
00:01:04,400 --> 00:01:05,400  
Apollo era.

18  
00:01:05,400 --> 00:01:08,480  
With Orion and our heavy-lift Space Launch  
System... we're going to send

19  
00:01:08,480 --> 00:01:12,720  
humans into space farther than they've ever  
gone before.

20  
00:01:12,720 --> 00:01:17,461  
This years Orion's test flight will be the  
most aggressive human spacecraft flight

21  
00:01:17,461 --> 00:01:18,960  
in more than forty years!

22  
00:01:18,960 --> 00:01:23,850  
Apollo happened before I was born so this,  
for our generation, will be the

23

00:01:23,850 --> 00:01:26,580

exploration missions that we get to see in our lifetime.

24

00:01:26,580 --> 00:01:30,810

As the NASA Administrator, I feel like a new father, because as a result of

25

00:01:30,810 --> 00:01:35,020

NASA's efforts, we now have an American capability to get our cargo to the

26

00:01:35,020 --> 00:01:38,270

International Space Station through Orbital Sciences and Space X.

27

00:01:38,270 --> 00:01:41,133

And, in just a few years, we're expecting that we will have

28

00:01:41,133 --> 00:01:44,950

that same capability to get our own astronauts to space from American soil, where

29

00:01:44,950 --> 00:01:47,840

we ought to be launching.

30

00:01:47,840 --> 00:01:49,159

That's going to be an amazing day.

31

00:01:49,159 --> 00:01:53,760

When that finally happens, that a private company gets to go do this, its just going

32

00:01:53,760 --> 00:01:54,760

to be amazing.

33

00:01:54,760 --> 00:01:59,670

We are going to have our own safe and reliable

American vehicle.

34

00:01:59,670 --> 00:02:02,940

Well the crews right now on International Space Station are using this wonderful

35

00:02:02,940 --> 00:02:07,420

outpost to help us get further and further into space, to asteroids, to Mars

36

00:02:07,420 --> 00:02:11,240

eventually, I think the science on station is making incredible breakthroughs that

37

00:02:11,240 --> 00:02:14,610

are going to help us make life better for people right here on Earth.

38

00:02:14,610 --> 00:02:18,720

We and our other international partner crewmates are working off the planet for

39

00:02:18,720 --> 00:02:20,250

the planet.

40

00:02:20,250 --> 00:02:25,209

NASA, along with our international partners, conduct scientific research everyday

41

00:02:25,209 --> 00:02:26,530

here on the station.

42

00:02:26,530 --> 00:02:29,840

We use this orbiting laboratory as a stepping-stone for future

43

00:02:29,840 --> 00:02:32,310

deep space exploration.

44

00:02:32,310 --> 00:02:36,560

Certainly we have an opportunity I think in the space station program to be able

45

00:02:36,560 --> 00:02:39,960

to show something that's real, it's on orbit, and it's something that's there today.

46

00:02:39,960 --> 00:02:43,970

It's built for science, it's ready to go and now we are going to use it to it's full

47

00:02:43,970 --> 00:02:44,970

extent.

48

00:02:44,970 --> 00:02:47,790

Se we want to bring on new researchers, bring on new educational

49

00:02:47,790 --> 00:02:52,319

opportunities, bring on new commercial opportunities and make this thing fully

50

00:02:52,319 --> 00:02:54,991

usable so that we bring good results back to Earth.

51

00:02:54,991 --> 00:02:58,870

Through our investment in space technology R&D and our partnerships with

52

00:02:58,870 --> 00:03:04,050

private industries and our constant efforts to out-innovate the world, our scientists

53

00:03:04,050 --> 00:03:08,160

are innovating new chapters in space exploration.

54

00:03:08,160 --> 00:03:13,620

We're exploring new destinations, identifying

and studying asteroids, all on our

55

00:03:13,620 --> 00:03:15,410

pathway to Mars.

56

00:03:15,410 --> 00:03:19,940

We need make sure that the science is behind  
is behind all those big lofty

57

00:03:19,940 --> 00:03:20,940

missions.

58

00:03:20,940 --> 00:03:25,410

Can we really, truly, jump on an asteroid  
and redirect it out of Earth's path so that

59

00:03:25,410 --> 00:03:28,560

it does not hit Earth and have a catastrophe  
or things of that nature?

60

00:03:28,560 --> 00:03:30,330

I mean

what better benefit to mankind?

61

00:03:30,330 --> 00:03:36,260

And to do that, we need to test and develop  
next generation technologies.

62

00:03:36,260 --> 00:03:40,110

Through advanced aerospace technologies, used  
in everything from modern

63

00:03:40,110 --> 00:03:44,300

aircraft to suborbital rockets and the commercial  
vehicles servicing low Earth

64

00:03:44,300 --> 00:03:49,610

orbit today, we're building the machines to  
take us further into the high frontier.

65

00:03:49,610 --> 00:03:55,459

When you say "Think out of the box," well,  
looking at other planets is thinking out

66

00:03:55,459 --> 00:03:57,740

of our planetary box."

67

00:03:57,740 --> 00:04:01,599

We are using these technologies to answer  
some of the critical questions facing

68

00:04:01,599 --> 00:04:04,769

Earth right now... and in the future.

69

00:04:04,769 --> 00:04:09,460

We need to know more about climate change,  
natural events, and the forces that

70

00:04:09,460 --> 00:04:11,850

affect us every single day.

71

00:04:11,850 --> 00:04:15,420

This mission (GPM), will provide the best  
global data set of precipitation that we

72

00:04:15,420 --> 00:04:19,870

have ever had and that's really important  
for everybody from understanding drought in

73

00:04:19,870 --> 00:04:23,050

the Southwest to the monsoon  
patterns in Asia.

74

00:04:23,050 --> 00:04:27,439

These are big questions about our Earth and  
about our climate and if we want to

75

00:04:27,439 --> 00:04:30,999

be able to make sure the Earth is still a

healthy place for people to live in fifty

76  
00:04:30,999 --> 00:04:34,990  
years we need to understand these things so  
it's important from that sense.

77  
00:04:34,990 --> 00:04:39,009  
We want to understand global processes, that's  
why we use satellite images

78  
00:04:39,009 --> 00:04:44,930  
because we have a large view of our Earth,  
areas that are very remote - that we

79  
00:04:44,930 --> 00:04:50,249  
can't get to very easily, and we can observe  
these areas continuously.

80  
00:04:50,249 --> 00:04:52,050  
Exploring the universe is what we do.

81  
00:04:52,050 --> 00:04:56,629  
We are committed to answering those  
fundamental questions about the cosmos...

82  
00:04:56,629 --> 00:05:01,699  
its origins and how it works... and if  
there is life out there somewhere.

83  
00:05:01,699 --> 00:05:05,379  
I think some of the most amazing things that  
we are learning is actually how to be

84  
00:05:05,379 --> 00:05:09,529  
really good detectives on another planet which  
is a really difficult job.

85  
00:05:09,529 --> 00:05:12,659  
Europa is one of the few places in the solar  
system where we know liquid water

86  
00:05:12,659 --> 00:05:17,050  
exists, it exists under an ice shell and there  
is an exciting possibility that life

87  
00:05:17,050 --> 00:05:18,710  
exists under that ice shell.

88  
00:05:18,710 --> 00:05:21,120  
NASA is here to raise the bar for human achievement.

89  
00:05:21,120 --> 00:05:26,580  
I like to think that exploration is encompassing  
and inclusive, it encourages

90  
00:05:26,580 --> 00:05:31,300  
everybody to expand and reach and in doing  
that, more people realize they can

91  
00:05:31,300 --> 00:05:32,300  
expand and reach.

92  
00:05:32,300 --> 00:05:40,189  
I don't even know if the scientists who had  
the vision to create JWST understand

93  
00:05:40,189 --> 00:05:43,550  
what we are going to get as far as the data—it's  
probably going to be

94  
00:05:43,550 --> 00:05:44,550  
spectacular.

95  
00:05:44,550 --> 00:05:48,110  
MMS is studying the very trigger of Space  
Weather, which is where magnetic

96  
00:05:48,110 --> 00:05:49,680  
field lines come together.

97  
00:05:49,680 --> 00:05:52,159  
Hundreds of years ago we may not have cared  
so

98  
00:05:52,159 --> 00:05:55,800  
much that space weather was happening all  
around us with phenomena such as

99  
00:05:55,800 --> 00:05:59,400  
the solar wind happening, but we do today.

100  
00:05:59,400 --> 00:06:00,470  
NASA is everywhere...

101  
00:06:00,470 --> 00:06:04,569  
on every airplane... we are with you when  
you fly.

102  
00:06:04,569 --> 00:06:08,080  
Constantly monitoring the health of our home  
planet, the Earth is changing and

103  
00:06:08,080 --> 00:06:09,669  
we're ON it.

104  
00:06:09,669 --> 00:06:14,330  
Permanently working and living in space, reaping  
benefits for all of us here on

105  
00:06:14,330 --> 00:06:15,889  
Earth.

106  
00:06:15,889 --> 00:06:19,110  
Speeding across the solar system, in search  
of new discoveries.

107  
00:06:19,110 --> 00:06:20,250  
(Voyager Sound)

108

00:06:20,250 --> 00:06:23,669

Breaking the boundaries of interstellar space.

109

00:06:23,669 --> 00:06:27,990

Looking into our past with NASA's great observatories.

110

00:06:27,990 --> 00:06:30,960

Investing and creating those game-changing technologies.

111

00:06:30,960 --> 00:06:34,379

And we're doing it all to help secure our future.

112

00:06:34,379 --> 00:06:39,800

We are a community dedicated to research and discovery in service to society.

113

00:06:39,800 --> 00:06:43,599

We have a responsibility to the future generations of engineers, the future

114

00:06:43,599 --> 00:06:48,469

generations of engineers, scientists, technologists, explorers, that's our