



ULA

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1
00:00:04,630 --> 00:00:02,629
we are just 34 minutes away from

2
00:00:06,630 --> 00:00:04,640
launching this atlas 5 rocket you see

3
00:00:08,470 --> 00:00:06,640
right there on your screen on board are

4
00:00:10,709 --> 00:00:08,480
several payloads including nasa

5
00:00:13,749 --> 00:00:10,719
technology that could revolutionize how

6
00:00:15,110 --> 00:00:13,759
we communicate to and from space

7
00:00:17,109 --> 00:00:15,120
thank you for joining me for today's

8
00:00:19,429 --> 00:00:17,119
live launch coverage of nasa's laser

9
00:00:21,830 --> 00:00:19,439
communications relay demonstration or

10
00:00:23,990 --> 00:00:21,840
lcrd i'm megan cruz and i'm joining you

11
00:00:26,310 --> 00:00:24,000
live from nasa's kennedy space center in

12
00:00:29,429 --> 00:00:26,320
florida today's two hour launch window

13
00:00:31,349 --> 00:00:29,439

opens at 404 a.m eastern time and that

14

00:00:33,910 --> 00:00:31,359

rocket you just saw sitting on space

15

00:00:35,750 --> 00:00:33,920

launch complex 41 at cape canaveral

16

00:00:38,709 --> 00:00:35,760

space force station which is just behind

17

00:00:41,030 --> 00:00:38,719

me across the water here now lcrd is

18

00:00:44,069 --> 00:00:41,040

hitching a ride on the u.s space force's

19

00:00:45,990 --> 00:00:44,079

space test program three mission or stp

20

00:00:48,630 --> 00:00:46,000

3. you can think of the space test

21

00:00:50,389 --> 00:00:48,640

program as a ride share to space it's

22

00:00:52,229 --> 00:00:50,399

primarily for the department of defense

23

00:00:55,189 --> 00:00:52,239

to send up science and technology

24

00:00:57,270 --> 00:00:55,199

experiments but if there's room others

25

00:00:58,869 --> 00:00:57,280

can share that ride and that's what nasa

26

00:01:01,029 --> 00:00:58,879

is doing today

27

00:01:02,869 --> 00:01:01,039

so what does lcrd look like well there

28

00:01:06,070 --> 00:01:02,879

it is in the middle of your screen there

29

00:01:08,310 --> 00:01:06,080

about as big as a king-sized mattress

30

00:01:10,310 --> 00:01:08,320

sharing a spacecraft with other payloads

31

00:01:12,070 --> 00:01:10,320

it will showcase the unique benefits of

32

00:01:14,950 --> 00:01:12,080

laser also known as optical

33

00:01:16,710 --> 00:01:14,960

communications nasa has relied on radio

34

00:01:19,109 --> 00:01:16,720

communication since we first started

35

00:01:21,350 --> 00:01:19,119

exploring space but as we fly more

36

00:01:23,190 --> 00:01:21,360

missions that generate more data and as

37

00:01:25,429 --> 00:01:23,200

we work to establish a presence on the

38

00:01:27,270 --> 00:01:25,439

moon and send humans to mars we are of

39

00:01:29,749 --> 00:01:27,280

course going to need a communications

40

00:01:32,469 --> 00:01:29,759

upgrade lasers can transfer a lot more

41

00:01:35,190 --> 00:01:32,479

data at once how much more we'll say

42

00:01:37,910 --> 00:01:35,200

there's a high resolution map of mars it

43

00:01:40,390 --> 00:01:37,920

would take about nine weeks yes nine

44

00:01:42,950 --> 00:01:40,400

weeks to send that map to earth using