



1
00:00:00,440 --> 00:00:05,430

Music

2
00:00:05,430 --> 00:00:10,770

The first spacecraft in the next generation of space communications is ready to take its place in NASA's

3
00:00:10,770 --> 00:00:14,570

Tracking and Data Relay Satellite System, or TDRS.

4
00:00:14,570 --> 00:00:19,820

The nearly 4,000-pound TDRS-K satellite will join several predecessors that provide

5
00:00:19,820 --> 00:00:27,320

communications between Earth and the International Space Station, the Hubble Space Telescope and many s

6
00:00:27,320 --> 00:00:33,370

A powerful, two-stage Atlas V rocket, built by United Launch Alliance, will deliver TDRS-K

7
00:00:33,370 --> 00:00:38,980

into geosynchronous orbit more than 22 thousand miles above Earth's surface.

8
00:00:38,980 --> 00:00:46,280

The rocket's Centaur upper stage arrived at Florida's Port Canaveral in October 2012 aboard ULA's

9
00:00:46,280 --> 00:00:48,550

Delta Mariner barge.

10
00:00:48,550 --> 00:00:53,440

From there it was transported a few miles north, to the Atlas Spaceflight Operations Center at

11
00:00:53,440 --> 00:00:56,070

Cape Canaveral Air Force Station.

12
00:00:56,070 --> 00:01:01,790

Less than one month later, a massive Ukrainian Antonov-124 aircraft delivered the rocket's

13
00:01:01,790 --> 00:01:07,030

first stage, which then joined the upper stage in the operations center.

14

00:01:07,030 --> 00:01:11,950

In December, the TDRS-K satellite arrived at NASA's Kennedy Space Center inside an

15

00:01:11,950 --> 00:01:15,500

Air Force C-17 aircraft.

16

00:01:15,500 --> 00:01:20,810

The spacecraft was taken to the Astrotech payload processing facility in nearby Titusville,

17

00:01:20,810 --> 00:01:25,580

where it was unpacked to start final prelaunch testing and preparations.

18

00:01:25,580 --> 00:01:31,180

As 2013 began, the first stage of the Atlas V rocket was raised to vertical in the

19

00:01:31,180 --> 00:01:37,630

Vehicle Integration Facility near Cape Canaveral Air Force Station's Space Launch Complex 41.

20

00:01:37,630 --> 00:01:44,120

Shortly after, the Centaur upper stage was lifted into position and attached to the first stage.

21

00:01:44,120 --> 00:01:50,620

The TDRS-K satellite was encapsulated in its protective payload fairing on Jan. 16.

22

00:01:50,620 --> 00:01:58,440

Long before sunrise on Jan. 20, the payload departed Astrotech for the ride to Space Launch Complex 41,

23

00:01:58,440 --> 00:02:02,140

where it was secured to the waiting Atlas V.