



1  
00:00:04,910 --> 00:00:09,700

NARRATOR: A team of engineers at NASA's Kennedy Space Center in Florida branched out from their

2  
00:00:09,700 --> 00:00:14,600

usual work on rockets to launch an instrument package from a high-altitude balloon.

3  
00:00:14,600 --> 00:00:19,160

Working from specifications provided by Johnson Space Center, participants in

4  
00:00:19,160 --> 00:00:26,060

NASA's Rocket University oversaw the construction of the six-pound aerodynamic capsule they would work with

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00:00:26,060 --> 00:00:30,180

The engineers built an instrument package for the capsule, packing in an altimeter,

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00:00:30,180 --> 00:00:35,430

accelerometer and two cameras, plus the navigation and tracking devices.

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00:00:35,430 --> 00:00:40,090

The control board was also loaded with software to conduct precisely timed operations

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00:00:40,090 --> 00:00:44,060

on the capsule without a human controller being involved.

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00:00:44,060 --> 00:00:50,340

The team took the capsule and a high-altitude balloon to Melbourne Beach, just a few miles south of Kennedy,

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00:00:50,340 --> 00:00:57,260

and released it into the sky. Participants were able to track the payload as it floated thousands of feet into the a

11  
00:00:57,260 --> 00:01:03,200

A glitch occurred around 80,000 feet, and the capsule did not separate from the balloon as planned.

12  
00:01:03,200 --> 00:01:11,760

Instead, it climbed higher and higher until, at 105,000 feet - or more than 19 miles above Earth - the balloon bu

13  
00:01:11,760 --> 00:01:14,990

The capsule started falling back at this point, and readings from

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00:01:14,990 --> 00:01:18,990

the instrument showed that it held position as it was supposed to.

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00:01:18,990 --> 00:01:25,070

The small package fell 55,000 feet before automatically deploying its own parachute.

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00:01:25,070 --> 00:01:28,570

From there, the Rocket University participants gave chase,

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00:01:28,570 --> 00:01:36,000

tracking the parachute as it floated down from 50,000 feet, almost twice as high as an airliner's cruising altitude

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00:01:36,000 --> 00:01:41,360

One of the teams positioned west of the space center gathered up the capsule in Central Florida.

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00:01:41,360 --> 00:01:46,060

The increasingly complex missions are meant to give the Rocket University engineers

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00:01:46,060 --> 00:01:49,520

more chances to learn by doing unusual things.