



1
00:00:00,000 --> 00:00:00,967
[Music]

2
00:00:00,967 --> 00:00:04,571
NASA's Lucy mission is heading
to the Jupiter Trojans

3
00:00:04,571 --> 00:00:07,007
two swarms of unexplored
asteroids

4
00:00:07,007 --> 00:00:09,342
trapped in Jupiter's orbit.

5
00:00:09,342 --> 00:00:11,845
Because Lucy will venture
further from the Sun

6
00:00:11,845 --> 00:00:14,114
than any previous solar-powered
spacecraft

7
00:00:14,114 --> 00:00:16,716
it is equipped with two
expansive solar arrays

8
00:00:16,716 --> 00:00:19,019
to carry out its deep
space journey.

9
00:00:19,019 --> 00:00:21,955
LAUNCH COMMENTATOR
Liftoff! Atlas V takes flight,

10
00:00:21,955 --> 00:00:25,458
sending Lucy to uncover the
fossils of our solar system.

11
00:00:25,925 --> 00:00:29,496

In the early morning hours of
October 16, 2021,

12

00:00:29,496 --> 00:00:33,199

Lucy rose above Cape Canaveral
in a picture-perfect launch.

13

00:00:33,199 --> 00:00:36,503

But when the spacecraft
began to unfurl its solar arrays

14

00:00:36,503 --> 00:00:38,605

it encountered an anomaly.

15

00:00:38,605 --> 00:00:41,908

One of the arrays failed to
fully deploy and latch shut,

16

00:00:41,908 --> 00:00:44,344

putting the mission at risk.

17

00:00:44,344 --> 00:00:47,013

Lucy's cameras are not pointed
at the spacecraft,

18

00:00:47,013 --> 00:00:50,617

so the flight operations team
could not see what had happened.

19

00:00:50,617 --> 00:00:53,787

Instead, they had to work with
spare equipment on the ground,

20

00:00:53,787 --> 00:00:56,790

computer models, and data from
Lucy to piece together

21

00:00:56,790 --> 00:01:00,126

the puzzle and determine the
best path forward.

22

00:01:00,126 --> 00:01:02,495

After months of analysis and testing, the team

23

00:01:02,495 --> 00:01:05,698

sent the spacecraft a series of carefully developed commands

24

00:01:05,698 --> 00:01:07,901

to further deploy the array, stabilizing it

25

00:01:07,901 --> 00:01:10,070

sufficiently for the mission to proceed.

26

00:01:10,070 --> 00:01:12,405

[Music & engine audio]

27

00:01:12,405 --> 00:01:14,474

Now Lucy can continue its journey

28

00:01:14,474 --> 00:01:17,377

setting course for a darker region of space,

29

00:01:17,377 --> 00:01:19,512

powered by the distant Sun.