



1
00:00:00,000 --> 00:00:01,969
[background music]

2
00:00:01,969 --> 00:00:05,205
You have now entered the
Operations Support Room. This is

3
00:00:05,205 --> 00:00:08,509
where engineers and specialists
run tests before sending new

4
00:00:08,509 --> 00:00:11,912
updates to Hubble. This ensures
that these additions will not

5
00:00:11,912 --> 00:00:16,550
cause anything unexpected to
happen on the spacecraft. Today

6
00:00:16,550 --> 00:00:19,286
engineers are testing potential
changes to Hubble's pointing

7
00:00:19,286 --> 00:00:23,724
control system. This room is
also used to figure out what's

8
00:00:23,724 --> 00:00:27,527
going on when the spacecraft
isn't operating as expected. The

9
00:00:27,527 --> 00:00:30,364
behavior could be caused by a
hardware failure, a strike from

10
00:00:30,364 --> 00:00:33,200
a high-energy particle, a
fluctuation in electrical

11

00:00:33,200 --> 00:00:37,804
current, or something else. Once
they know the cause, the team

12

00:00:37,804 --> 00:00:40,140
figures out how to get the
spacecraft back to normal

13

00:00:40,140 --> 00:00:44,778
operations. As you look around
the room, you'll see a world map

14

00:00:44,778 --> 00:00:48,615
on the large middle screen at
the front. This shows engineers

15

00:00:48,615 --> 00:00:51,652
whether Hubble is in sunlight or
darkness, where it is with

16

00:00:51,652 --> 00:00:54,821
respect to ground stations, and
whether it is passing through a

17

00:00:54,821 --> 00:00:59,192
high-radiation zone. Another
large display on the left of the

18

00:00:59,192 --> 00:01:02,362
front wall shows a ground-based
image of what astronomical

19

00:01:02,362 --> 00:01:06,466
object Hubble is scheduled to be
looking at. This same display is

20

00:01:06,466 --> 00:01:11,772
available to anyone on NASA's
Hubble Space Telescope website.

21

00:01:11,772 --> 00:01:14,308

In the back of the room is a model of Hubble in the space

22

00:01:14,308 --> 00:01:17,577

shuttle cargo bay. The model includes carriers that were

23

00:01:17,577 --> 00:01:20,080

mounted in the cargo bay to carry new instruments,

24

00:01:20,080 --> 00:01:23,517

spacecraft components, and astronaut tools during a

25

00:01:23,517 --> 00:01:28,288

servicing mission. In fact, during these missions, this room

26

00:01:28,288 --> 00:01:31,858

was fully staffed 24 hours a day, as engineers prepared