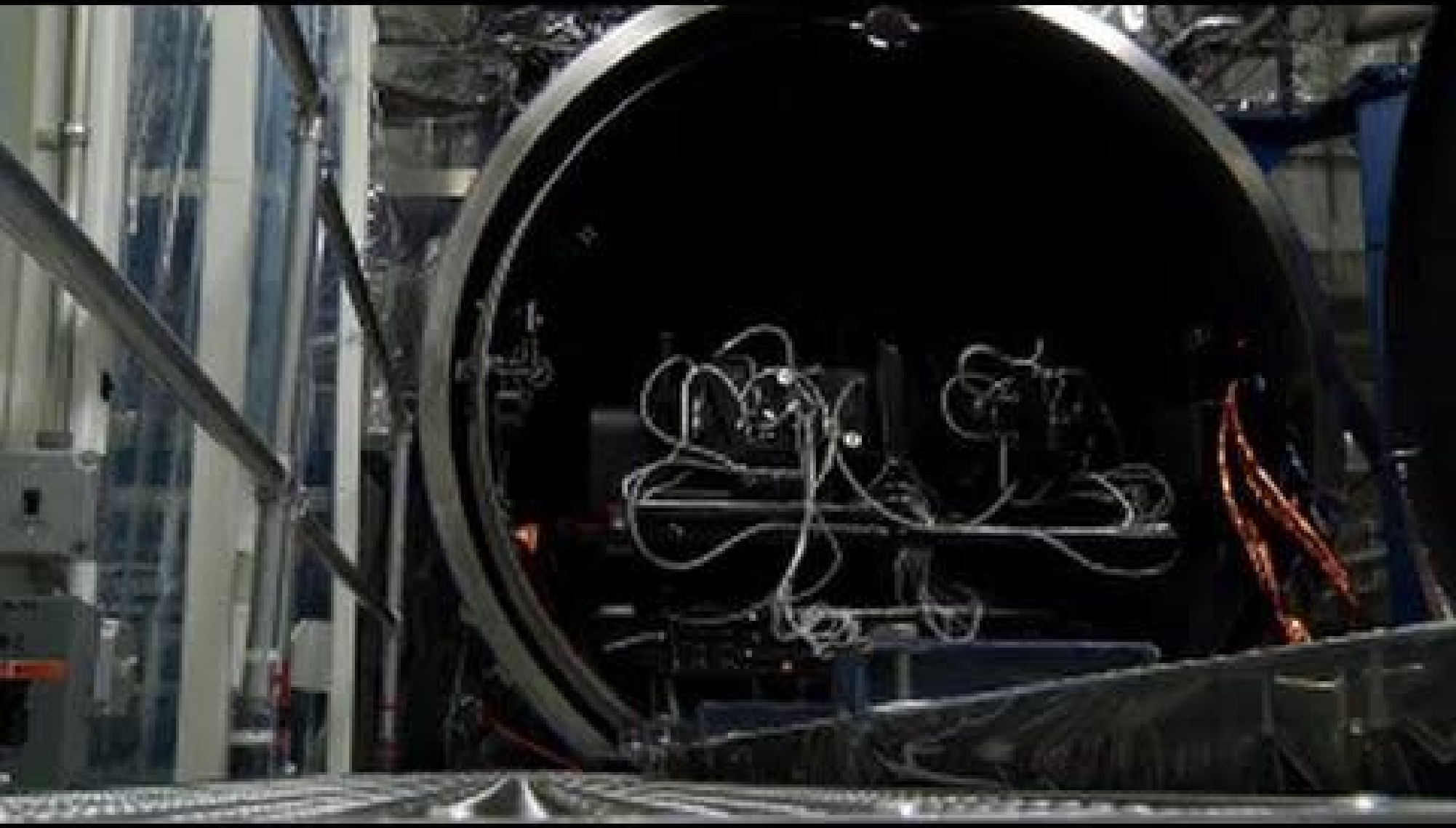

1
00:00:08,600 --> 00:00:11,980
We've been working on TIRS since 2008.

2
00:00:12,000 --> 00:00:14,480
We're building it in-house at Goddard and these last two months of testing

3
00:00:14,500 --> 00:00:18,380
we ran 3 shifts a day to monitor the instrument 24/7.

4
00:00:18,400 --> 00:00:22,080
Because TIRS is a thermal instrument that measures temperature from space,

5
00:00:22,100 --> 00:00:25,280
we do our testing in a thermal vacuum chamber where we can control the temp and pressure.

6
00:00:27,300 --> 00:00:29,980
At the front of the chamber is our calibration equipment.

7
00:00:30,000 --> 00:00:32,480
Behind is the TIRS instrument.

8
00:00:32,500 --> 00:00:36,200
Both sit on top of a sled that slides out of the chamber.

9
00:00:38,220 --> 00:00:40,980
But before we move TIRS we need to do a thorough inspection.

10
00:00:41,000 --> 00:00:45,480
Photographs document the layout of wires to see if anything is touching that shouldn't be.

11
00:00:45,500 --> 00:00:52,020
It only takes a little bit of accidental contact to add an extra heat load to the cryo-cooler.

12
00:00:53,250 --> 00:00:58,980
- So, OK, you can pull it out.

13
00:01:01,500 --> 00:01:05,010

Once satisfied with our inspection we disconnect the wires and cooling lines

14
00:01:05,030 --> 00:01:07,720
from the instrument and the calibration equipment.

15
00:01:07,740 --> 00:01:10,020
Then we pull out the sled.

16
00:01:12,040 --> 00:01:16,020
- And then we'll have three people out here pulling

17
00:01:16,040 --> 00:01:20,020
and everybody else that's not doing anything

18
00:01:20,040 --> 00:01:25,460
is going to be monitoring, making sure we don't catch any harnesses, cables, or whatnot.

19
00:01:31,380 --> 00:01:36,100
We need someone in the back of the chamber to handle the connections on that side too.

20
00:01:36,550 --> 00:01:38,730
They also help push the sled out.

21
00:01:39,200 --> 00:01:40,980
- Thank you.

22
00:01:47,160 --> 00:01:49,140
- Ready, Karl?
- Yes.

23
00:01:51,700 --> 00:01:54,660
It doesn't feel that heavy, even though it's a lot of weight.

24
00:01:54,680 --> 00:01:58,660
The sled is engineered to roll pretty smoothly.

25
00:02:00,680 --> 00:02:02,660
-Stop!

26
00:02:06,680 --> 00:02:08,720
As we work we stay connected to a grounding wire,

27
00:02:08,740 --> 00:02:12,930
to keep static electricity from damaging the instrument.

28
00:02:14,050 --> 00:02:16,730
- Watch your step, Michael.

29
00:02:23,550 --> 00:02:26,730
- Stop!
- There it is.

30
00:03:04,770 --> 00:03:08,980
We need to completely cover the equipment before we open the protective tent.

31
00:03:09,000 --> 00:03:14,920
This keeps dust and other particulates from contaminating or damaging the instrument.

32
00:03:16,340 --> 00:03:20,480
We'll move the whole platform down the hall with TIRS still on top.

33
00:03:25,000 --> 00:03:31,330
- We're going to have Karl, Mike pushing from the back

34
00:03:44,040 --> 00:03:49,960
The platform rides on a cushion of air, kind of like an air hockey table, or a hovercraft.

35
00:03:54,920 --> 00:04:00,840
It's pretty easy to steer, but we don't want to move too quickly and jolt the instrument .

36
00:04:04,020 --> 00:04:09,940
The important thing is safety, because we are moving hundreds of pounds of equipment.

37
00:04:21,730 --> 00:04:24,840
Once we get TIRS in the cleanroom, we can do the final touches

38
00:04:24,860 --> 00:04:28,540
and get on with the rest of our environmental testing.

39
00:04:31,160 --> 00:04:34,640
So far TIRS has done a beautiful job of providing the engineering team

40
00:04:34,660 --> 00:04:38,040
and the scientists with the data that they need.