1
00:00:00,120 --> 00:00:06,700
>> SPEX is a so-called spectropolarimeter. It
is designed to measure dust particles in the

2
00:00:06,700 --> 00:00:13,070
atmosphere of the Earth. And it's an instrument
that has been developed in the Netherlands

3
00:00:13,070 --> 00:00:17,610
based on a new technology to measure polarization.
Today is our maiden flight.

4
00:00:17,610 --> 00:00:26,140
[Music]

5
00:00:26,140 --> 00:00:32,300
>> Our engineering team has been working over the past year and a bit more to get it together so that it

6
00:00:32,300 --> 00:00:35,640
would fit with the ER-2 airplane.

7
00:00:35,640 --> 00:00:38,100
[Music/Background noise]

8
00:00:38,100 --> 00:00:41,499
>> As this is the
first time that we have been able to connect

9
00:00:41,499 --> 00:00:46,089
to the aircraft, we had to make sure that
all the electronic equipment was operating,

10
00:00:46,089 --> 00:00:51,890
and then, of course, you have to connect with
the aircraft on the ground, to see if you

11
00:00:51,890 --> 00:00:58,350
can communicate with the aircraft, if the
power that is delivered by the aircraft is

12
00:00:58,350 --> 00:01:03,149
processed properly by the electronic equipment,
and if you can talk to it, because the pilot

13
00:01:03,149 --> 00:01:07,820
has to switch it on, and you have to check
if, indeed, all those things work, because

14
00:01:07,820 --> 00:01:09,320
many things can go wrong.

15
00:01:09,320 --> 00:01:11,660
>> For today, the weather
is good. In general, it's a good day to

16
00:01:11,660 --> 00:01:15,750
fly, let's put it that way. That's the
flight plan, and everyone's gotten a chance

17
00:01:15,750 --> 00:01:17,170
to see the log...

18
00:01:17,170 --> 00:01:21,640
>> We are very anxious to see
if our instrument can withstand the cold temperatures

19
00:01:21,640 --> 00:01:25,360
and the low pressures that it's being exposed
to when it's up there.

20
00:01:25,360 --> 00:01:35,020
[Music/Background noise]

21
00:01:42,540 --> 00:01:48,200
>> Today is the day that we're gonna see if it's all working. And from there on, we are going for the real

22
00:01:48,200 --> 00:01:51,040
thing and we'll do some science with it.

23
00:01:51,040 --> 00:01:59,460
[ER-2 taking off]

24
00:01:59,460 --> 00:02:01,560
>> This is the attitude you hold all the way up?

25
00:02:01,570 --> 00:02:04,330
[Radio chatter]

26
00:02:04,330 --> 00:02:05,230
>>...maintain speed.

27
00:02:05,230 --> 00:02:07,970
>> Ok. Standby for the power...

28
00:02:07,970 --> 00:02:09,970
...and go for it.

29
00:02:10,980 --> 00:02:16,080
[Music]

30
00:02:16,080 --> 00:02:22,920
>> Well, this was really exciting, we saw the plane go up with our instrument, and it was really cool. And it

31
00:02:22,920 --> 00:02:28,599
looks like everything went ok. At the start,
we had to ask the pilot to restart our instrument

32
00:02:28,599 --> 00:02:35,829
again. But after that, it just stayed, and
functioned nominally, so we could monitor

33
00:02:35,829 --> 00:02:41,459
the health status of the instrument, and always
looking clear, and most importantly, it didn’t

34
00:02:41,459 --> 00:02:45,870

give up on us during the flight. So we're
really happy about it. And now it's time

35
00:02:45,870 --> 00:02:50,329
that we have to look at the details- we noticed
that our instrument was a little too cool-

36
00:02:50,329 --> 00:02:55,780
about ten degrees Celsius below our setting
point, so we have to look into that, and I'm

37
00:02:55,780 --> 00:03:01,499
really anxious also to get my hands on the
science data, to actually see what light has

38
00:03:01,499 --> 00:03:08,810
come in, and to see how that looks. So, yeah,
we're anxious to go to the aircraft, get

39
00:03:08,810 --> 00:03:13,670
our instrument off, and to start looking,
working on the details. But so far so good.

40
00:03:13,670 --> 00:03:20,269
We will start setting out specific flights
to address things like air quality, to see