
LAUNCH TEAM

1
00:00:00,140 --> 00:00:01,140
Thank you, Joshua.

2
00:00:01,140 --> 00:00:05,270
We're here with Cesar Garcia, the program manager for Solar Orbiter.

3
00:00:05,270 --> 00:00:07,999
Thank you for coming over and talking to us, and congratulations.

4
00:00:07,999 --> 00:00:09,490
Thank you very much.

5
00:00:09,490 --> 00:00:11,480
This is a very good moment.

6
00:00:11,480 --> 00:00:13,580
Yeah, tell me a little bit about the moment.

7
00:00:13,580 --> 00:00:16,260
Just a few minutes ago where you made the announcement.

8
00:00:16,260 --> 00:00:21,150
Yeah, there's always a bit of tension before you get the signal, and we got the signal

9
00:00:21,150 --> 00:00:24,759
of the spacecraft pretty quickly, and that's a good sign.

10
00:00:24,759 --> 00:00:28,339
And then we had to deploy, uh, point to the Sun and deploy the solar arrays.

11
00:00:28,339 --> 00:00:34,260
Then, there was a switchover of the antennas and it took a little bit longer to receive

12
00:00:34,260 --> 00:00:37,050
the information that the solar array had fully deployed.

13
00:00:37,050 --> 00:00:39,019
Uh, so we were a bit tense.

14
00:00:39,019 --> 00:00:43,789
Then we got the confirmation; and once you get that confirmation, then it’s like the

15
00:00:43,789 --> 00:00:50,430
water is calm, and then you start becoming not only, let’s say, confident but extremely

16
00:00:50,430 --> 00:00:51,430
happy.

17
00:00:51,430 --> 00:00:55,370
And then there’s the moment when you start hugging people around because this is the

18
00:00:55,370 --> 00:00:59,230
moment of so many years of work, like Tim (Dunn) was saying before.

19
00:00:59,230 --> 00:01:01,400
And we are on the way to the Sun — go Solar Orbiter.

20
00:01:01,400 --> 00:01:06,250
It’s a fantastic moment, and it’s really something unique, if I may say.

21
00:01:06,250 --> 00:01:07,380
And, and you may.

22
00:01:07,380 --> 00:01:08,909

And it was certainly capped with a lot of celebrations.

23
00:01:08,909 --> 00:01:12,930
I saw you hugging a lot of people in the room, a lot of handshakes.

24
00:01:12,930 --> 00:01:17,640
Going back to the beginning of the launch, where we launched right at 11:03 eastern time,

25
00:01:17,640 --> 00:01:21,850
from right here at the Cape Canaveral Air Force Station, um, what was launch like for

26
00:01:21,850 --> 00:01:26,649
you as you kind of, uh, experienced that here inside the Mission Directors Center?

27
00:01:26,649 --> 00:01:29,409
Well, I have told people that I abandoned post.

28
00:01:29,409 --> 00:01:36,560
Normally, I sort of stay on post continuously throughout the launch but after L-minus 15

29
00:01:36,560 --> 00:01:43,780
seconds where we cannot hold anymore, so I actually picked up the phone and called our

30
00:01:43,780 --> 00:01:48,409
colleagues at ESA so that I could still have contact with them on the phone, and we run

31
00:01:48,409 --> 00:01:51,880
out to see the launch, and it’s a fantastic experience.

32
00:01:51,880 --> 00:01:58,649

First you see the night is nice lit by the
rocket, and then like 15 seconds later, you

33
00:01:58,649 --> 00:02:02,340
start feeling — not hearing, but feeling
the rocket roar.

34
00:02:02,340 --> 00:02:06,230
And then you see all the dreams and the expectations
going up in the sky.

35
00:02:06,230 --> 00:02:11,450
And it was a very clear sky; we could see
for very many seconds, going south, southeast,

36
00:02:11,450 --> 00:02:18,560
and, um, I don't know — it is difficult
for me to describe it but it's like, well,

37
00:02:18,560 --> 00:02:19,900
we're unstoppable.

38
00:02:19,900 --> 00:02:21,400
You get that feeling, right?

39
00:02:21,400 --> 00:02:26,470
I love that you actually got up, got on the
phone, so that you could stay connected, and

40
00:02:26,470 --> 00:02:30,780
got outside to see the launch because that
is one of the most amazing things for folks

41
00:02:30,780 --> 00:02:34,510
who live here, who get to see these launches,
but even those who travel here from long distances

42
00:02:34,510 --> 00:02:36,480
to watch it is a very unique experience.

43
00:02:36,480 --> 00:02:40,960
Yeah, yeah, yeah … it is, I mean, we've
been here for a few months, we've been able

44
00:02:40,960 --> 00:02:47,870
to see some other launches before, but nothing
compares to actually seeing yours, when your

45
00:02:47,870 --> 00:02:50,090
spacecraft is going up.

46
00:02:50,090 --> 00:02:52,099
And then you see, as I said, the dreams and

47
00:02:52,099 --> 00:02:58,159
the expectations of so many people going up
with a, with a rocket, and with a spacecraft

48
00:02:58,159 --> 00:02:59,230
in this case.

49
00:02:59,230 --> 00:03:03,210
And it was fantastic to see it up, and then
it was, of course, very interesting to follow

50
00:03:03,210 --> 00:03:09,190
the trajectory through the quite moments during
the coasting phase and then the execution

51
00:03:09,190 --> 00:03:14,020
of the end when there is, you know, the separation
and you start getting the good signs that

52
00:03:14,020 --> 00:03:17,660
separation was adequate, that the trajectory
was adequate, that we had acquired the signal,

53
00:03:17,660 --> 00:03:21,380
and eventually that we have positive power

on the spacecraft.

54
00:03:21,380 --> 00:03:26,510
Now the spacecraft is safe, it's pointing
to the Sun, and it's quite robust now to

55
00:03:26,510 --> 00:03:31,830
the next days where we'll start operating
the various deployables and some systems.

56
00:03:31,830 --> 00:03:36,510
Right, very good, and so you've got a lot
of work ahead of you, certainly, no doubt,

57
00:03:36,510 --> 00:03:41,379
and probably the tough part of spaceflight
is over, but now a couple years before the

58
00:03:41,379 --> 00:03:42,650
science starts, right?

59
00:03:42,650 --> 00:03:48,860
Yeah, well, uh, the first few days are critical
— we do the basic deployments and the basic

60
00:03:48,860 --> 00:03:49,860
tests.

61
00:03:49,860 --> 00:03:57,269
Then, during February, we will do, again,
a complete checkout of all the systems, and

62
00:03:57,269 --> 00:03:59,810
slowly we will start switching on the instruments.

63
00:03:59,810 --> 00:04:04,890
We will be making sure that the instruments
are operational, that they can as well change

64

00:04:04,890 --> 00:04:07,310
modes of operation and so on.

65
00:04:07,310 --> 00:04:12,810
And we expect to finalize this phase of testing
uh, in June — end of June.

66
00:04:12,810 --> 00:04:17,090
However, we can, some of the instruments will
start measuring immediately, some of the instruments

67
00:04:17,090 --> 00:04:24,590
will wait a bit longer, until the volatiles
and the water will evaporate or separate from

68
00:04:24,590 --> 00:04:25,590
the spacecraft.

69
00:04:25,590 --> 00:04:30,100
Uh, but yeah, in three months we will be able
to start taking science data.

70
00:04:30,100 --> 00:04:31,220
It’s exciting.

71
00:04:31,220 --> 00:04:32,220
That early?

72
00:04:32,220 --> 00:04:33,220
Yeah, yeah.

73
00:04:33,220 --> 00:04:40,630
I mean, we always say, well, we want to wait
for (inaudible) until the (inaudible) gets

74
00:04:40,630 --> 00:04:41,630
closer.

75
00:04:41,630 --> 00:04:43,550

But I think our scientists will not wait.

76
00:04:43,550 --> 00:04:49,360
Uh, they will start immediately to take, uh,
data, and I'm sure will start very early

77
00:04:49,360 --> 00:04:51,170
to learn from the Sun.

78
00:04:51,170 --> 00:04:53,160
Fire up those instruments, you gotta point
it at the Sun.

79
00:04:53,160 --> 00:04:54,540
Let's start getting some data, right?

80
00:04:54,540 --> 00:04:55,540
Absolutely.

81
00:04:55,540 --> 00:04:59,540
Nail: Well, you're going to leave here,
certainly, uh, a changed person, right, because

82
00:04:59,540 --> 00:05:03,390
I believe that you've got some kind of tattoo.

83
00:05:03,390 --> 00:05:05,400
Oh, yeah — I can show this.

84
00:05:05,400 --> 00:05:09,170
It's a Solar Orbiter temporary tattoo.

85
00:05:09,170 --> 00:05:13,610
It's a painless tattoo, and I think I'll
wear it with pride.

86
00:05:13,610 --> 00:05:14,610
Very good.

87
00:05:14,610 --> 00:05:16,570
Don’t wash it off — for a long time.

88
00:05:16,570 --> 00:05:19,980
Well, I might have to take a shower one of
these days.

89
00:05:19,980 --> 00:05:24,380
Well, certainly your spacecraft is going to
leave quite the imprint on our scientific

90
00:05:24,380 --> 00:05:28,610
community, as we, we’re very excited to
get that data back, and learn a lot more about

91
00:05:28,610 --> 00:05:30,560
the star that keeps us alive.

92
00:05:30,560 --> 00:05:34,290
Yeah, I think this is the purpose of this
mission; it’s the purpose of other missions

93
00:05:34,290 --> 00:05:37,710
before and of missions that will come.

94
00:05:37,710 --> 00:05:42,600
It’s the purpose of ground instrumentation,
which is, uh, also, uh, investigating the

95
00:05:42,600 --> 00:05:43,600
Sun.

96
00:05:43,600 --> 00:05:48,110
And I think it’s a growing community; space
weather is becoming very strong.

97
00:05:48,110 --> 00:05:53,690
We will need to understand our star much better
so that we can support our infrastructure

98
00:05:53,690 --> 00:05:57,020
but also astronauts as they go deeper into
the solar system.

99
00:05:57,020 --> 00:05:58,930
So this is a growing field.

100
00:05:58,930 --> 00:05:59,930
Absolutely.

101
00:05:59,930 --> 00:06:02,150
Cesar Garcia, program manager for Solar Orbiter.

102
00:06:02,150 --> 00:06:04,040
It’s my pleasure to speak with you tonight.

103
00:06:04,040 --> 00:06:05,040
It’s good to see you again.