1
00:00:01,100 --> 00:00:05,380
George Diller/NASA Launch Commentator: This is Delta Launch Control; 95 minutes 53 seconds into the flight

2
00:00:05,380 --> 00:00:09,710
Delta II and joining us here now is Garrett Skrobot.

3
00:00:09,710 --> 00:00:16,210
He is the ELaNa mission manager from the NASA Launch Services Program at Kennedy Space Center.

4
00:00:16,210 --> 00:00:24,260
And,Garrett we are coming up on the first ejection of the first P-POD.

5
00:00:24,260 --> 00:00:28,630
Show us what it is that is coming out if you can.

6
00:00:28,630 --> 00:00:32,810
Garrett Skrobot/ELaNa Mission Manager: Yeah George it is great that we are almost here to eject our first Cub

7
00:00:32,810 --> 00:00:37,980
As you saw earlier Roland showed you the P-POD and what will come out on

8
00:00:37,980 --> 00:00:42,810
the first one is this small four inch cube the size of a beanie baby.

9
00:00:42,810 --> 00:00:44,820
There is three of them in the first ejection.

10
00:00:44,820 --> 00:00:51,550
And then on the second P-POD ejection 100 seconds later you gonna have a full 3U,

11
00:00:51,550 --> 00:00:55,620
which we have three of these lined up together to make a full satellite.

12
00:00:55,620 --> 00:01:00,860
And, then the last P-POD when ejects it is gonna have what you call two 1.5 Us,

13
00:01:00,860 --> 00:01:06,260

which is a little bit longer and these two will do experiments together.

14
00:01:06,260 --> 00:01:12,540
George Diller/NASA Launch Commentator: So, tell us which one is going to come out here in about another mi

15
00:01:12,540 --> 00:01:14,620
Garrett Skrobot/ELaNa Mission Manager: Now in just about a minute we have the three,

16
00:01:14,620 --> 00:01:22,240
first three universities, Montana, Auburn University and Michigan.

17
00:01:22,240 --> 00:01:24,940
George Diller/NASA Launch Commentator: And, how much time is there between when

18
00:01:24,940 --> 00:01:27,550
those deploy and when the next set comes out?

19
00:01:27,550 --> 00:01:30,720
Garrett Skrobot/ELaNa Mission Manager: Approximately about 100 seconds in between each one of them.

20
00:01:30,720 --> 00:01:35,480
And, we have about 100 seconds between them for what we call collision avoidance between the cubes.

21
00:01:35,480 --> 00:01:40,980
We want to ensure that we don't re-contact the cube from another POD ejecting.

22
00:01:40,980 --> 00:01:46,800
So, we have a short duration between each one of them to vary the orbits a little bit so they will be safe to ever

23
00:01:46,800 --> 00:01:49,430
George Diller/NASA Launch Commentator: And, we are going to be listening here to I think Steve Agid in just a

24
00:01:49,430 --> 00:02:01,720
minute to confirm that we have had the first ejections from the P-POD carrier that Roland showed us.

25
00:02:01,720 --> 00:02:03,110
Garrett Skrobot/ELaNa Mission Manager: In just about 30 seconds,

26
00:02:03,110 --> 00:02:09,880
you know we showed them at the press conference that the POD is actually mounted on the second stage,

27
00:02:09,880 --> 00:02:12,720
just below NPP which successfully separated earlier this evening.

28
00:02:12,720 --> 00:02:24,350
And, now there is kids all around the United States waiting to hear the sounds.

29
00:02:24,350 --> 00:02:37,800
Steve Agid: Standing Bye: And we see the break wire for P-POD one.

30
00:02:37,800 --> 00:02:42,030
P-POD one has separated and so obviously that one M-Cubed and Explorer-1 [Prime]

31
00:02:42,030 --> 00:02:49,850
have separated from the Delta II Launch Vehicle.

32
00:02:49,850 --> 00:02:51,780
Garrett Skrobot/ELaNa Mission Manager: (Clapping in the Delta Launch Control)

33
00:02:51,780 --> 00:02:53,500
Alright, it sounds like we got the first one open.

34
00:02:53,500 --> 00:02:55,180
George Diller/NASA Launch Commentator: First one's out. So now let's see?

35
00:02:55,180 --> 00:02:59,380
Steve Agid:One minute 15 seconds now for P-POD 2 separation.

36
00:02:59,380 --> 00:03:01,900
P-POD 2, the Poly Picosatellite Orbital Deployers number 2,

37
00:03:01,900 --> 00:03:05,510
an experiment that quote tracks the Radio Aurora Ionosphere Experiment from the

38
00:03:05,510 --> 00:03:07,230

University of Michigan. Located 190 degrees?

39
00:03:07,230 --> 00:03:08,920
Garrett Skrobot/ELaNa Mission Manager: So now we are counting down to the second one. We have just abou

40
00:03:08,920 --> 00:03:11,110
George Diller/NASA Launch Commentator:O.K., this is the University of Michigan.

41
00:03:11,110 --> 00:03:13,570
Garrett Skrobot/ELaNa Mission Manager: Yeah, one of the things George, is we still have to wait 45 minutes

42
00:03:13,570 --> 00:03:18,120
after the cubes and all separate before we can turn the RS systems on and that is to

43
00:03:18,120 --> 00:03:22,430
ensure that we don't interfere with the launch vehicle and the RF.

44
00:03:22,430 --> 00:03:27,720
We already have confirmation from our ground stations in South Africa and Spain and France

45
00:03:27,720 --> 00:03:31,030
that they're ready to pick up those signals for us.

46
00:03:31,030 --> 00:03:33,690
George Diller/NASA Launch Commentator: So we'll know that the P-PODS have deployed,

47
00:03:33,690 --> 00:03:37,880
but it will be some amount of time before we have contact with them.

48
00:03:37,880 --> 00:03:41,050
Garrett Skrobot/ELaNa Mission Manager: It will be about another hour before we start getting some beacons fr

49
00:03:41,050 --> 00:03:45,970
to see the likeness of them and then the primary ground stations at the universities

50
00:03:45,970 --> 00:03:51,340
will start collecting the data and start initiating the science.

51
00:03:51,340 --> 00:03:55,380
George Diller/NASA Launch Commentator: Alright, let's listen to Steve Agid again who will be calling about the

52
00:03:55,380 --> 00:04:17,080
Steve Agid: We are 3 hours 35 minutes and 45 seconds in. About 15 second now until P-POD 2 deploys.

53
00:04:17,080 --> 00:04:20,250
And we have deploy of P-Pod 2, the RAX experiment, the Radio Aurora and

54
00:04:20,250 --> 00:04:22,300
Ionosphere Experiment from the University of

55
00:04:22,300 --> 00:04:28,870
Michigan experiment has successfully separated from the Delta II Launch Vehicle.

56
00:04:28,870 --> 00:04:31,330
George Diller/NASA Launch Commentator:Alright, which one is coming up finally?

57
00:04:31,330 --> 00:04:34,140
Garrett Skrobot/ELaNa Mission Manager: The last one is DICE from Utah State University .

58
00:04:34,140 --> 00:04:35,420
George Diller/NASA Launch Commentator: That's the big one right?

59
00:04:35,420 --> 00:04:38,930
Garrett Skrobot/ELaNa Mission Manager: That's two together, but they have the very complicated mechanisms

60
00:04:38,930 --> 00:04:42,570
on them that they have had some tough times getting through,

61
00:04:42,570 --> 00:04:49,350
but they made it and we are anxiously awaiting for their science to come through so we can gather it up.

62
00:04:49,350 --> 00:04:51,890
George Diller/NASA Launch Commentator: OK, we are about a minute away and each of these

63
00:04:51,890 --> 00:04:56,660

spacecraft have their own ground station somewhere to get ?

64
00:04:56,660 --> 00:04:58,230
Garrett Skrobot/ELaNa Mission Manager: Yeah they all have their own ground stations,

65
00:04:58,230 --> 00:05:03,270
but there is a community of students around the world that gets the initial beacon

66
00:05:03,270 --> 00:05:09,780
data from them to get some power and voltages just to make sure they are alive.

67
00:05:09,780 --> 00:05:16,490
And, then their main ground stations will commission them and download their main data.

68
00:05:16,490 --> 00:05:20,230
George Diller/NASA Launch Commentator: And, so they can start getting science?what almost right away I gu

69
00:05:20,230 --> 00:05:24,800
Garrett Skrobot/ELaNa Mission Manager: Practically right away. Usually?Probably in the fifth orbit today they w

70
00:05:24,800 --> 00:05:33,360
be going over U.S. ground stations and the team is already tailored up to collect that data for them.

71
00:05:33,360 --> 00:05:40,170
George Diller/NASA Launch Commentator: OK, let's listen to Steve Agid once again to get confirmation on the

72
00:05:40,170 --> 00:05:42,750
Steve Agid: We have P-POD 3 separation. (Clapping in the Delta Launch Control)

73
00:05:42,750 --> 00:05:45,760
Garrett Skrobot/ELaNa Mission Manager: Alright. There it is!

74
00:05:45,760 --> 00:05:47,510
Steve Agid: P-Pod number three is successfully separated from the Delta II second stage.

75
00:05:47,510 --> 00:05:53,990
Garrett Skrobot/ELaNa Mission Manager: ELaNa is now in orbit.

76
00:05:53,990 --> 00:05:58,570
George Diller/NASA Launch Commentator:So, that I guess is something that all of these students?

77
00:05:58,570 --> 00:06:03,480
and I guess they have been in a lot of locations all around the country watching this right?

78
00:06:03,480 --> 00:06:07,070
Garrett Skrobot/ELaNa Mission Manager: They are all over the United States in their ground stations preparing

79
00:06:07,070 --> 00:06:11,700
collect the data and my team is going to go get ready for ELaNa six in end of July timeframe.

80
00:06:11,700 --> 00:06:13,230
George Diller/NASA Launch Commentator: And, that will be launched on?

81
00:06:13,230 --> 00:06:16,360
Garrett Skrobot/ELaNa Mission Manager: It will be on the West Coast on an Atlas V with the NRO.

82
00:06:16,360 --> 00:06:18,900
George Diller/NASA Launch Commentator: So, it's another one here at Vandenberg.

83
00:06:18,900 --> 00:06:19,910
Garrett Skrobot/ELaNa Mission Manager: Yes.

84
00:06:19,910 --> 00:06:22,910
George Diller/NASA Launch Commentator: Alright. Alright, Garrett thank you very much

85
00:06:22,910 --> 00:06:26,520
our mission manager for the ELaNa program.

86
00:06:26,520 --> 00:06:27,550
Garrett Skrobot/ELaNa Mission Manager: Thank you George.