



1
00:00:03,710 --> 00:00:03,139
eighty seconds our CEO report range go

2
00:00:08,299 --> 00:00:03,720
for launch

3
00:00:13,610 --> 00:00:08,309
you go for lunch

4
00:00:20,779 --> 00:00:13,620
Roger 70 seconds SSE hydraulics internal

5
00:00:23,060 --> 00:00:20,789
internal t-minus one minute and Counting

6
00:00:34,569 --> 00:00:23,070
our countdown limit conditions t-minus

7
00:00:41,830 --> 00:00:38,740
45 seconds clcd are 17b launch enabled

8
00:00:48,990 --> 00:00:41,840
to flight flight atc 3 main power

9
00:00:57,240 --> 00:00:52,360
30 seconds t-minus 30 seconds and

10
00:01:05,859 --> 00:01:01,299
wait a second like a green board here in

11
00:01:14,169 --> 00:01:05,869
the mission directors Center matters 15

12
00:01:20,200 --> 00:01:14,179
seconds green board t-minus 10 9 8 7 6 5

13
00:01:23,529 --> 00:01:20,210

4 3 2 indignance engine start one zero

14

00:01:26,260 --> 00:01:23,539

and liftoff of the delta ii rocket with

15

00:01:28,270 --> 00:01:26,270

Kepler on a search for planets in a

16

00:01:30,219 --> 00:01:28,280

subway like our own premiere engine

17

00:01:31,690 --> 00:01:30,229

changes pressures are building rounded

18

00:01:37,589 --> 00:01:31,700

solid motors are building and tango

19

00:01:41,740 --> 00:01:37,599

pressure increasing at this time

20

00:01:43,220 --> 00:01:41,750

pressures looking good 1 seconds into

21

00:01:48,450 --> 00:01:43,230

the flight

22

00:01:50,550 --> 00:01:48,460

[Music]

23

00:01:55,740 --> 00:01:50,560

a covering from the initial launch

24

00:02:00,510 --> 00:01:55,750

transients guessing 34 seconds Mach 1

25

00:02:02,880 --> 00:02:00,520

vehicle is now going supersonic the

26
00:02:06,499 --> 00:02:02,890
motor chamber pressure is beginning to

27
00:02:08,699 --> 00:02:06,509
trail off as we're passing 45 seconds

28
00:02:11,640 --> 00:02:08,709
engine chamber pressure good steady

29
00:02:15,360 --> 00:02:11,650
state value it symmetrical burn on the

30
00:02:17,940 --> 00:02:15,370
ground with solids coming up 55 seconds

31
00:02:21,660 --> 00:02:17,950
anywhere three Qin channel one secret

32
00:02:24,300 --> 00:02:21,670
ending by for burnout you're running out

33
00:02:29,370 --> 00:02:24,310
of the solids for separation seven

34
00:02:31,380 --> 00:02:29,380
that's ball four six five see separation

35
00:02:35,430 --> 00:02:31,390
of decimal four six and we have ignition

36
00:02:41,090 --> 00:02:35,440
of the air lit solid motors let's solid

37
00:02:46,140 --> 00:02:44,460
minute 22 seconds into the flight Delta

38
00:02:48,210 --> 00:02:46,150

two vehicle now only was about one-half

39

00:02:50,490 --> 00:02:48,220

of what it did at launch minute and 28

40

00:02:53,420 --> 00:02:50,500

seconds ago losing propellant at the

41

00:02:56,550 --> 00:02:53,430

rate of about 2,200 pounds per second

42

00:02:57,840 --> 00:02:56,560

one minute 35 seconds altitude now 15

43

00:03:00,539 --> 00:02:57,850

point 4 nautical miles downrange

44

00:03:07,490 --> 00:03:00,549

distance thirty five point six nautical

45

00:03:19,140 --> 00:03:12,990

minute 48 seconds and let motor chamber

46

00:03:20,910 --> 00:03:19,150

pressures beginning to drop about the

47

00:03:31,480 --> 00:03:20,920

ten seconds vulnerable we burn out those

48

00:03:40,330 --> 00:03:33,940

anyway first step and we have separation

49

00:03:43,150 --> 00:03:40,340

air let's except separated pins into the

50

00:03:44,950 --> 00:03:43,160

flight altitude now 31 point 3 nautical

51
00:03:47,110 --> 00:03:44,960
miles downrange distance seventy nine

52
00:03:48,850 --> 00:03:47,120
point five nautical miles velocity fifty

53
00:03:55,110 --> 00:03:48,860
three hundred ninety eight miles per

54
00:03:59,260 --> 00:03:57,370
main engine chamber pressure is still

55
00:04:00,940 --> 00:03:59,270
very steady burning your engine chamber

56
00:04:09,760 --> 00:04:00,950
pressure still very steady right in the

57
00:04:12,730 --> 00:04:09,770
expected range engine transient settling

58
00:04:20,650 --> 00:04:12,740
down now as we're approaching the three

59
00:04:22,420 --> 00:04:20,660
minute mark mark three minutes into the

60
00:04:23,920 --> 00:04:22,430
flight altitude now forty three point

61
00:04:25,480 --> 00:04:23,930
five nautical miles downrange distance

62
00:04:28,090 --> 00:04:25,490
one hundred and thirty four point six

63
00:04:38,550 --> 00:04:28,100

nautical miles velocity is six thousand

64

00:04:42,930 --> 00:04:40,890

during minimal steering now on the main

65

00:04:46,920 --> 00:04:42,940

engine pitch and yaw and on the verniers

66

00:04:49,050 --> 00:04:46,930

now passing three minutes and 27 seconds

67

00:04:57,510 --> 00:04:49,060

of the flight less than one minute until

68

00:05:00,780 --> 00:04:57,520

main engine cutoff which is now 53

69

00:05:01,680 --> 00:05:00,790

nautical miles downrange distance 197.50