



1  
00:00:05,630 --> 00:00:02,030  
this is shuttle launch control at

2  
00:00:07,430 --> 00:00:05,640  
t-minus three hours and holding space

3  
00:00:09,919 --> 00:00:07,440  
shuttle Discovery is poised and ready

4  
00:00:11,690 --> 00:00:09,929  
for action this evening as launch

5  
00:00:13,370 --> 00:00:11,700  
controllers oversee their data here in

6  
00:00:18,560 --> 00:00:13,380  
firing room for at Kennedy Space

7  
00:00:20,840 --> 00:00:18,570  
Center's launch control center discovery

8  
00:00:23,750 --> 00:00:20,850  
performed flawlessly during its August

9  
00:00:25,490 --> 00:00:23,760  
25th launch attempt before showers and

10  
00:00:28,519 --> 00:00:25,500  
thundershowers migrated into the launch

11  
00:00:32,799 --> 00:00:28,529  
pad 39a Rhea and refused to leave before

12  
00:00:35,360 --> 00:00:32,809  
our 136 a.m. launch time and then on our

13  
00:00:37,160 --> 00:00:35,370

next attempt on Tuesday afternoon while

14

00:00:38,840 --> 00:00:37,170

discoveries external tank was being

15

00:00:41,959 --> 00:00:38,850

loaded with liquid hydrogen and liquid

16

00:00:43,729 --> 00:00:41,969

oxygen launch controllers failed to

17

00:00:45,529 --> 00:00:43,739

receive the proper indication that a

18

00:00:47,630 --> 00:00:45,539

valve had closed and discoveries aft

19

00:00:52,310 --> 00:00:47,640

compartment when they commanded it to do

20

00:00:53,479 --> 00:00:52,320

so when the fill and drain valve which

21

00:00:55,100 --> 00:00:53,489

is an important part of the main

22

00:00:57,470 --> 00:00:55,110

propulsion systems liquid hydrogen

23

00:01:00,470 --> 00:00:57,480

plumbing failed to revert to provide

24

00:01:02,270 --> 00:01:00,480

that proper signal launch commit

25

00:01:03,889 --> 00:01:02,280

criteria required that the launch team

26  
00:01:10,039 --> 00:01:03,899  
cease filling the tank and begin to

27  
00:01:11,780 --> 00:01:10,049  
drain it back subsequent analysis

28  
00:01:14,000 --> 00:01:11,790  
indicated that the problem likely was

29  
00:01:15,710 --> 00:01:14,010  
not with the valve or its actuator but

30  
00:01:18,020 --> 00:01:15,720  
instead with the valve position

31  
00:01:20,719 --> 00:01:18,030  
indicator which is a microswitch sensor

32  
00:01:23,600 --> 00:01:20,729  
and a test plan was developed to prove

33  
00:01:25,520 --> 00:01:23,610  
that analysis Wednesday evening launch

34  
00:01:27,230 --> 00:01:25,530  
controllers cycled the valve five times

35  
00:01:29,719 --> 00:01:27,240  
and received the proper indications

36  
00:01:31,160 --> 00:01:29,729  
every time and noted that the valve

37  
00:01:33,859 --> 00:01:31,170  
opened and closed within the required

38  
00:01:37,789 --> 00:01:33,869

time limit and within the time that it

39

00:01:39,260 --> 00:01:37,799

has on its previous 15 flights the space

40

00:01:41,539 --> 00:01:39,270

shuttle program mission management team

41

00:01:43,730 --> 00:01:41,549

met on Thursday and determined that more

42

00:01:45,649 --> 00:01:43,740

time was needed to develop plans for how

43

00:01:47,929 --> 00:01:45,659

to resolve the issue in case we received

44

00:01:52,700 --> 00:01:47,939

the not closed indication when we

45

00:01:54,859 --> 00:01:52,710

attempted our launch tonight at noon

46

00:01:57,200 --> 00:01:54,869

today the mission management team again

47

00:01:58,639 --> 00:01:57,210

convened and ratified the plan that

48

00:02:00,889 --> 00:01:58,649

would allow us to look at alternative

49

00:02:03,920 --> 00:02:00,899

readings to ensure the valve closed as

50

00:02:06,020 --> 00:02:03,930

expected but as it turned out those

51

00:02:08,389 --> 00:02:06,030

plans were not needed because at around

52

00:02:10,660 --> 00:02:08,399

four twenty p.m. the vow was closed and

53

00:02:13,690 --> 00:02:10,670

we received the proper closed indication

54

00:02:16,869 --> 00:02:13,700

so that whole issue is behind us