



1
00:00:01,686 --> 00:00:04,966
>> The Dragon space craft
is still on the launch pad.

2
00:00:05,576 --> 00:00:07,746
The commercial cargo
vehicle developed

3
00:00:07,746 --> 00:00:11,336
under NASA's Commercial Orbital
Transportation Services Program

4
00:00:11,766 --> 00:00:14,306
did not launch this
past Saturday morning,

5
00:00:14,756 --> 00:00:18,096
but SpaceX does plan to
try again tomorrow morning.

6
00:00:18,616 --> 00:00:20,556
We're going to learn the
latest on the new plans

7
00:00:20,556 --> 00:00:23,086
for the Dragon launch
from Mike Horkachuck.

8
00:00:23,336 --> 00:00:26,176
He's the NASA project
executive for SpaceX,

9
00:00:26,246 --> 00:00:28,486
and he joins us this
morning by phone

10
00:00:28,486 --> 00:00:30,286
from the launch site in Florida.

11

00:00:30,956 --> 00:00:33,646

Mike, if I could get you to start with just a brief recap.

12

00:00:33,736 --> 00:00:36,326

Tell us what happened there on Saturday morning

13

00:00:36,576 --> 00:00:38,796

that caused the launch of Dragon to be aborted.

14

00:00:39,676 --> 00:00:41,936

>> Well, we were going through a nominal countdown,

15

00:00:41,936 --> 00:00:43,736

everything was looking really good,

16

00:00:44,266 --> 00:00:47,936

and just as the engines were starting to spin

17

00:00:47,936 --> 00:00:53,526

up to full power, we aborted on a high pressure one

18

00:00:53,526 --> 00:00:54,746

of the engine chambers.

19

00:00:55,156 --> 00:00:59,806

After they safed the vehicle, SpaceX got out to the pad

20

00:00:59,806 --> 00:01:03,706

and started doing inspections of that engine area and the engine,

21

00:01:03,706 --> 00:01:06,946

and they found that they had a check valve that failed on them.

22

00:01:07,356 --> 00:01:12,276

Since then they've replaced that check valve with a new unit,

23

00:01:12,276 --> 00:01:16,426

and have tested all the other engines for similar problems

24

00:01:16,426 --> 00:01:18,536

and believe that they're good to go.

25

00:01:19,086 --> 00:01:23,566

>> Are there then additional tests or reviews that have

26

00:01:23,596 --> 00:01:25,876

to be completed on the repair component?

27

00:01:26,936 --> 00:01:28,586

>> We had a review yesterday.

28

00:01:28,826 --> 00:01:31,546

SpaceX held their internal launch readiness review,

29

00:01:32,106 --> 00:01:35,616

and believe that they've found the root cause of the problem,

30

00:01:36,306 --> 00:01:39,766

and they've put into place the replacement part.

31

00:01:39,876 --> 00:01:43,826

And they still have all the

safety checks that they had

32

00:01:43,826 --> 00:01:47,326

on the initial launch

attempt to be able to screen

33

00:01:47,326 --> 00:01:51,586

for this problem on any other

engines should it somehow manage

34

00:01:51,586 --> 00:01:52,596

to manifest itself.

35

00:01:52,816 --> 00:01:56,136

>> I take it that you're

referring to the normal checks

36

00:01:56,136 --> 00:01:58,646

that they would do on a normal

countdown as they proceed.

37

00:01:59,286 --> 00:01:59,926

>> That is correct.

38

00:01:59,926 --> 00:02:04,066

>> You attended the Station

Mission Management Team meeting

39

00:02:04,066 --> 00:02:04,686

this morning.

40

00:02:04,796 --> 00:02:08,346

What was the discussion on

the SpaceX situation there?

41

00:02:09,126 --> 00:02:10,976

>> They were still talking

42

00:02:10,976 --> 00:02:14,376

about the overall mission when I broke off.

43

00:02:14,866 --> 00:02:19,026

It looked like they understood what the launch problem was.

44

00:02:19,056 --> 00:02:22,466

They're working a few final analyses

45

00:02:22,556 --> 00:02:25,986

for the birthing operations and the rendezvous and capture,

46

00:02:26,446 --> 00:02:28,936

and they're just working that with the international partners

47

00:02:29,336 --> 00:02:31,006

as we're speaking now.

48

00:02:31,006 --> 00:02:34,156

I believe that's all looking good for launch as well,

49

00:02:34,506 --> 00:02:39,956

and we're scheduled to launch on May 22 at 3:44 Eastern.

50

00:02:40,476 --> 00:02:42,576

>> That's 3:44 AM Eastern?

51

00:02:43,156 --> 00:02:44,406

>> AM, correct.

52

00:02:44,406 --> 00:02:48,306

>> And then the Mission Operations and the schedule

53

00:02:48,306 --> 00:02:50,636

that we saw before, it
all pretty much slides

54

00:02:50,636 --> 00:02:51,876

to the right by 3 days?

55

00:02:52,066 --> 00:02:54,266

>> Yeah, there's some
very slight differences

56

00:02:54,266 --> 00:02:55,416

in the overall trajectory.

57

00:02:55,416 --> 00:02:57,956

But there'd be a
fly-by on the 24th.

58

00:02:58,346 --> 00:03:00,956

That activity generally
starts early in the morning,

59

00:03:00,956 --> 00:03:02,736

again, about 3 AM Eastern.

60

00:03:03,226 --> 00:03:05,296

And May 25th is birthing day --

61

00:03:05,516 --> 00:03:08,786

a lot of the rendezvous to
the station starts very early

62

00:03:08,786 --> 00:03:15,556

in the morning, about 4-6 AM,
so before 1 AM Eastern leading

63

00:03:15,556 --> 00:03:17,226

up to the birthing
about noon time.

64

00:03:17,476 --> 00:03:20,436

And then the hatch opening is the following day on May 26th.

65

00:03:20,926 --> 00:03:23,096

>> So that's extending out until Saturday.

66

00:03:24,166 --> 00:03:27,826

This is a demonstration flight for Dragon and for SpaceX.

67

00:03:27,956 --> 00:03:31,086

Would you remind us what the official objectives are

68

00:03:31,086 --> 00:03:31,766

for this flight?

69

00:03:32,376 --> 00:03:34,856

>> Well, we've got the objectives

70

00:03:34,926 --> 00:03:37,456

from two different flights merged into one.

71

00:03:37,456 --> 00:03:41,086

We're giving them the chance to meet all those objectives

72

00:03:41,086 --> 00:03:42,556

in this one demo flight.

73

00:03:42,826 --> 00:03:45,516

So the first part of it is to do a fly-by

74

00:03:45,516 --> 00:03:47,686
of the station includes
a com link,

75
00:03:48,176 --> 00:03:50,426
make sure that they
can communicate

76
00:03:50,426 --> 00:03:53,396
between the space station
and the Dragon space craft.

77
00:03:53,616 --> 00:03:56,436
And they do that at a
slightly longer range

78
00:03:57,076 --> 00:03:59,496
from the space station then they
would on a normal rendezvous.

79
00:04:00,186 --> 00:04:04,346
They're checking out a number
of functions that are needed

80
00:04:04,346 --> 00:04:08,776
in case we need to ask
the vehicle to abort

81
00:04:09,016 --> 00:04:11,356
or do a hold in position.

82
00:04:12,516 --> 00:04:15,456
They go through those, and
then they fly out in front

83
00:04:15,456 --> 00:04:17,946
of the space station,
up above it

84
00:04:17,946 --> 00:04:21,596

and then phase back behind the space station, and come back

85

00:04:21,596 --> 00:04:24,476

around the next day to make a final attempt

86

00:04:24,476 --> 00:04:26,016

at a rendezvous and docking.

87

00:04:26,686 --> 00:04:31,096

And then they come up the R bar on actual rendezvous day.

88

00:04:31,686 --> 00:04:35,726

And there are a number of other demonstrations all

89

00:04:35,726 --> 00:04:39,036

around the R bar, and then eventually come in close enough

90

00:04:39,036 --> 00:04:41,406

for the robotic arm to grab onto the space craft

91

00:04:41,406 --> 00:04:42,706

and birth it to the space station.

92

00:04:43,156 --> 00:04:45,306

>> As you mentioned, that's the objectives really

93

00:04:45,306 --> 00:04:48,486

of what was planned as two flights, all put together

94

00:04:48,536 --> 00:04:51,006

and hope to be achieved

on this one.

95

00:04:51,776 --> 00:04:53,836

>> Right, so it is a fairly challenging mission,

96

00:04:53,836 --> 00:04:55,796

putting all those objectives together.

97

00:04:55,876 --> 00:04:58,146

But we've done a lot of work with SpaceX,

98

00:04:58,146 --> 00:05:03,296

and our mission ops teams are both coordinating very well,

99

00:05:03,296 --> 00:05:05,706

and we believe that we've got a good chance

100

00:05:05,706 --> 00:05:08,506

of meeting all those objectives on this flight.

101

00:05:08,506 --> 00:05:11,506

>> It's not an official objective, but I would guess

102

00:05:11,506 --> 00:05:13,476

that aborting the launch after getting

103

00:05:13,476 --> 00:05:15,766

that off nominal readings and diagnosing

104

00:05:15,766 --> 00:05:18,696

and repairing the issue

this quickly are good signs

105

00:05:18,766 --> 00:05:20,056

for the SpaceX team too.

106

00:05:20,716 --> 00:05:23,796

>> It is. That's one thing
that they are very good

107

00:05:23,796 --> 00:05:28,316

at is being able to work
through launch aborts

108

00:05:28,316 --> 00:05:32,506

and correct those problems
and be prepared to go again

109

00:05:32,636 --> 00:05:35,036

in a very short period of time.

110

00:05:35,036 --> 00:05:38,556

Some of their very early
missions, they've been able

111

00:05:38,556 --> 00:05:41,766

to turn some of those around
on the order of hours,

112

00:05:41,766 --> 00:05:43,926

and make another attempt,
keep it on the same day.

113

00:05:44,936 --> 00:05:47,306

>> At this point, all of
the signs are positive

114

00:05:47,306 --> 00:05:49,376

for tomorrow morning's
planned launch?

115

00:05:49,886 --> 00:05:51,016

>> Correct.

116

00:05:51,156 --> 00:05:54,506

We do have a, we are planning
a back-up day on May 25.

117

00:05:54,506 --> 00:05:56,706

I think it's a little bit
earlier in the morning

118

00:05:56,706 --> 00:06:00,636

at 2:33 Eastern time, but
hopefully we'll be going

119

00:06:00,636 --> 00:06:03,506

on May 22 and won't
need that back-up day.

120

00:06:03,796 --> 00:06:06,736

>> Mike, thank you for the few
minutes, appreciate the update.

121

00:06:07,996 --> 00:06:08,426

>> Very good.

122

00:06:08,726 --> 00:06:12,246

>> Mike Horkachuck is NASA's
project executive for SpaceX