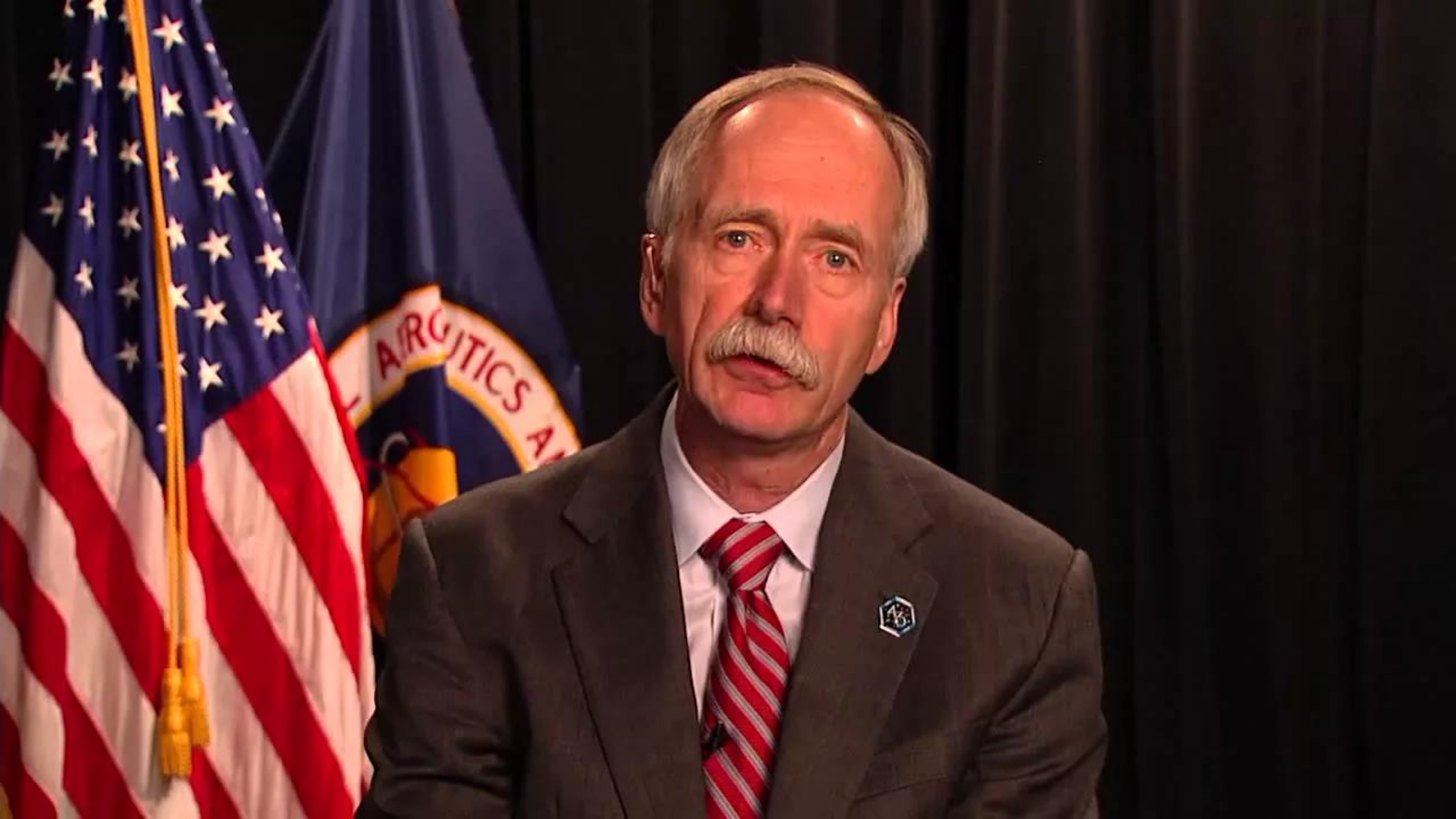

1
00:00:03,850 --> 00:00:05,100
Good afternoon.

2
00:00:05,100 --> 00:00:09,420
I'm Stephanie Schierholz from NASA’s office
of communications here at Kennedy Space Center

3
00:00:09,420 --> 00:00:10,950
in Florida.

4
00:00:10,950 --> 00:00:16,400
Welcome to today's briefing about the status
of SpaceX's seventh commercial resupply servicing

5
00:00:16,400 --> 00:00:20,010
mission to the International Space Station.

6
00:00:20,010 --> 00:00:25,570
SpaceX's Falcon 9 rocket experienced a problem
after liftoff at 10:21 a.m.

7
00:00:25,570 --> 00:00:27,230
Eastern time.

8
00:00:27,230 --> 00:00:33,630
Hans Koenigsmann, vice president of mission
assurance for SpaceX is leading the investigation.

9
00:00:33,630 --> 00:00:41,249
To discuss today's events are on the phone,
Gwynne Shotwell, president and chief operating

10
00:00:41,249 --> 00:00:49,749
officer at SpaceX, via video conference from
NASA Headquarters, Bill Gerstenmaier, associate

11
00:00:49,749 --> 00:00:55,640
administrator of NASA's Human Exploration
and Operations Mission Directorate.

12
00:00:55,640 --> 00:01:01,260
Here in the room with me is Michael Suffredini,
NASA's International Space Station Program

13
00:01:01,260 --> 00:01:10,000
manager, and joining us by phone is Pam Underwood,
Deputy Division manager at the Federal Aviation

14
00:01:10,000 --> 00:01:13,909
Administration's Operations Integration Division.

15
00:01:13,909 --> 00:01:17,840
We will begin with some opening remarks from
each participant.

16
00:01:17,840 --> 00:01:19,850
We will then take a few questions.

17
00:01:19,850 --> 00:01:26,039
We will start with reporters here in the room
and then media who have joined us by phone.

18
00:01:26,039 --> 00:01:30,789
For those dialed in, when it's your turn to
ask a question, please limit it to one.

19
00:01:30,789 --> 00:01:35,829
Please state your name and your affiliation
and to whom you are addressing your question.

20
00:01:35,829 --> 00:01:40,430
To get into the queue to ask a question, please
dial star 1 on your phone.

21
00:01:40,430 --> 00:01:44,320
We will go ahead and begin with Gwynne Shotwell.

22
00:01:44,320 --> 00:01:46,509

Good afternoon.

23
00:01:46,509 --> 00:01:51,909
As Stephanie mentioned, Falcon 9 lifted off
today for the seventh commercial resupply

24
00:01:51,909 --> 00:01:55,090
mission to the name at 10:21.

25
00:01:55,090 --> 00:02:03,409
Liftoff was successful, first stage of flight
was successful, up until 139 seconds into

26
00:02:03,409 --> 00:02:05,130
that flight.

27
00:02:05,130 --> 00:02:12,940
We experienced an anomaly which led to the
failure of the mission.

28
00:02:12,940 --> 00:02:18,330
We are collecting data and will be for the
next few hours.

29
00:02:18,330 --> 00:02:22,970
What I can tell you at this point is the first
stage flight remained nominal.

30
00:02:22,970 --> 00:02:26,500
We do not expect this to have been a first
stage issue.

31
00:02:26,500 --> 00:02:31,050
We saw some pressurization indications in
the second stage, which we will be tracking

32
00:02:31,050 --> 00:02:34,770
down and following up on there.

33

00:02:34,770 --> 00:02:38,650
We did receive telemetry from Dragon after
the event as well.

34
00:02:38,650 --> 00:02:45,110
So we will be continuing to monitor all the
data that we collect to identify the issue

35
00:02:45,110 --> 00:02:48,520
that we experience, fix it and get back to
flight.

36
00:02:48,520 --> 00:02:53,890
Just so everybody understands, all the processes,
protocols and procedures were followed with

37
00:02:53,890 --> 00:02:59,030
respect to safety of the public as well as
the mission participants.

38
00:02:59,030 --> 00:03:04,360
We have received no indication and expect
no indication of any safety issues at all.

39
00:03:04,360 --> 00:03:11,600
So I look forward to your questions and hope
to answer any that I can at this point.

40
00:03:11,600 --> 00:03:13,140
Thank you.

41
00:03:13,140 --> 00:03:18,530
We will now move over to Bill

42
00:03:18,530 --> 00:03:20,880
Thank you, Stephanie and thank you, Gwynne.

43
00:03:20,880 --> 00:03:22,720
Again, this is a tough day.

44
00:03:22,720 --> 00:03:27,470
This is not really where I wanted to be on
a Sunday afternoon but spaceflight's not easy,

45
00:03:27,470 --> 00:03:33,150
as we have described to you before and especially,
I think this points out the difficulty of

46
00:03:33,150 --> 00:03:35,570
and the challenges we face in spaceflight.

47
00:03:35,570 --> 00:03:40,650
We started with the Orbital loss last fall
and had the Progress loss several months ago

48
00:03:40,650 --> 00:03:46,160
and now the SpaceX loss and there's really
no commonality across these three events,

49
00:03:46,160 --> 00:03:49,580
other than the fact it's space and it's difficult
to go fly.

50
00:03:49,580 --> 00:03:55,540
We are essentially operating systems at the
edge of their ability to perform and operate.

51
00:03:55,540 --> 00:04:00,570
This is a very demanding environment, requires
tremendous precision and tremendous amount

52
00:04:00,570 --> 00:04:04,620
of engineering skill and hardware to perform
exactly as it should.

53
00:04:04,620 --> 00:04:08,730
The SpaceX team and the ISS team performed
extremely well today.

54

00:04:08,730 --> 00:04:10,890
They did everything exactly right.

55
00:04:10,890 --> 00:04:12,540
They continued to stay focused.

56
00:04:12,540 --> 00:04:14,980
They continued to monitor the ascent.

57
00:04:14,980 --> 00:04:20,570
They continued to monitor activities and make
sure that there was no impacts to the public

58
00:04:20,570 --> 00:04:22,400
or to anyone else.

59
00:04:22,400 --> 00:04:24,980
The space station crew is fine on orbit.

60
00:04:24,980 --> 00:04:30,290
Again, through a testimony to the space station
team, they have done a tremendous job of balancing

61
00:04:30,290 --> 00:04:32,900
all the consumables on orbit.

62
00:04:32,900 --> 00:04:36,740
We are in good shape from a food standpoint,
from a water standpoint.

63
00:04:36,740 --> 00:04:41,210
We need to watch multifiltration bed that
purifies water.

64
00:04:41,210 --> 00:04:44,840
There was a replacement bed on this flight
and we will have to watch the water levels

65
00:04:44,840 --> 00:04:47,120

and mike and his teams will do that.

66
00:04:47,120 --> 00:04:49,120
Again, this is a blow to us.

67
00:04:49,120 --> 00:04:52,970
We lost a lot of important research equipment
on this flight.

68
00:04:52,970 --> 00:04:59,320
We lost the docking adapter that we had planned
to set us up for later.

69
00:04:59,320 --> 00:05:01,680
Again, we will be able to recover from that.

70
00:05:01,680 --> 00:05:03,040
We lost a space suit.

71
00:05:03,040 --> 00:05:07,630
Again, we will see how we can recover from
that and we lost a lot of research.

72
00:05:07,630 --> 00:05:11,500
So again, it's a pretty important loss to
us.

73
00:05:11,500 --> 00:05:16,020
I don't want to minimize a loss to us, but
again, from a macrolevel standpoint, the crew's

74
00:05:16,020 --> 00:05:17,130
in no danger.

75
00:05:17,130 --> 00:05:18,220
We are moving forward.

76
00:05:18,220 --> 00:05:20,370
The teams are ready to support.

77
00:05:20,370 --> 00:05:24,320
Mike can fill you in on the details when he
gets a chance to talk here in a minute and

78
00:05:24,320 --> 00:05:26,050
show you that we are in good shape.

79
00:05:26,050 --> 00:05:29,230
But again, the teams have really prepared
for this event.

80
00:05:29,230 --> 00:05:31,920
We have a Progress launch on July 3rd.

81
00:05:31,920 --> 00:05:37,020
We intend that will occur on time.

82
00:05:37,020 --> 00:05:41,330
We understand the differences associated with
that flight from the recent Progress failure,

83
00:05:41,330 --> 00:05:46,890
they have essentially replaced the third stage
of the rocket with an older configuration

84
00:05:46,890 --> 00:05:49,130
that's flown with Progress before.

85
00:05:49,130 --> 00:05:51,240
Mike and the teams have reviewed that in detail.

86
00:05:51,240 --> 00:05:55,150
The engineering teams at NASA reviewed that
and ready to go with the Progress flight on

87
00:05:55,150 --> 00:05:56,560
July 3rd.

88
00:05:56,560 --> 00:06:01,270
We have an upcoming Soyuz flight with crew
at the end of the month, July 23rd.

89
00:06:01,270 --> 00:06:04,970
We are still working through that flight,
readiness process.

90
00:06:04,970 --> 00:06:06,290
We will continue to review that.

91
00:06:06,290 --> 00:06:11,800
I don't anticipate that flight being impacted
by this event, by the loss of the SpaceX flight.

92
00:06:11,800 --> 00:06:15,860
But we still have some work ahead of us to
go ahead and make sure that the Progress flight

93
00:06:15,860 --> 00:06:18,870
loss didn't couple into the crew flight.

94
00:06:18,870 --> 00:06:20,470
So, we still have some open work there.

95
00:06:20,470 --> 00:06:25,250
We have not done yet our flight readiness
review but this loss will not impact the crew

96
00:06:25,250 --> 00:06:26,250
flight.

97
00:06:26,250 --> 00:06:29,860
Then there's a Japanese flight later in the
summer and then there's an Orbital flight

98
00:06:29,860 --> 00:06:31,640
toward the end of the year.

99
00:06:31,640 --> 00:06:36,440
And so, Mike and the teams will look at all
those and figure out the right way to manifest

100
00:06:36,440 --> 00:06:38,240
things and move things around.

101
00:06:38,240 --> 00:06:39,630
We have sufficient research.

102
00:06:39,630 --> 00:06:43,640
We have sufficient consumables on orbit that
the crew is safe and things are fine.

103
00:06:43,640 --> 00:06:49,130
So, again, from a macrolevel standpoint, this
is, you know, what we anticipated.

104
00:06:49,130 --> 00:06:54,840
I think I talked to you before, expected through
the commercial cargo program, we would lose

105
00:06:54,840 --> 00:06:56,230
some vehicles.

106
00:06:56,230 --> 00:07:01,210
I didn't think they would lose them all in
a one-year timeframe, but we have.

107
00:07:01,210 --> 00:07:03,940
I think there's no negligence here.

108
00:07:03,940 --> 00:07:07,020
There's no, you know, really problem with
this.

109
00:07:07,020 --> 00:07:11,560
It just shows the challenges that we have
facing engineering and challenges of space

110
00:07:11,560 --> 00:07:12,980
flight in general.

111
00:07:12,980 --> 00:07:17,690
The teams will work through this, learn from
these events and I think we will get stronger

112
00:07:17,690 --> 00:07:18,690
from these events.

113
00:07:18,690 --> 00:07:19,730
We will understand what occurred.

114
00:07:19,730 --> 00:07:21,691
We will understand where there were engineering
weaknesses.

115
00:07:21,691 --> 00:07:23,510
We will get chance to see these.

116
00:07:23,510 --> 00:07:24,780
The teams will learn from these.

117
00:07:24,780 --> 00:07:26,450
They will take that learning forward.

118
00:07:26,450 --> 00:07:29,420
They will get back, ready to go fly and go
back flying again.

119
00:07:29,420 --> 00:07:34,800
So the important thing is we stand down just
long enough to learn from the failure, internalize

120
00:07:34,800 --> 00:07:36,590
the learning and move forward.

121

00:07:36,590 --> 00:07:41,740
Again, an unfortunate event but I think it
is important for all of us to realize through

122
00:07:41,740 --> 00:07:47,470
these failures and events we can learn more,
come back stronger and get prepared to really

123
00:07:47,470 --> 00:07:50,810
keep pushing the envelope as we move into
space.

124
00:07:50,810 --> 00:07:53,490
If is not size living on the frontier of space.

125
00:07:53,490 --> 00:07:58,600
It is not easy taking care of space station
and I think sometimes folks think it's easy

126
00:07:58,600 --> 00:08:00,020
and it seems routine.

127
00:08:00,020 --> 00:08:03,350
That's when we get in trouble it is not easy
or routine.

128
00:08:03,350 --> 00:08:08,710
The evidence of these last three flights have
shown us the problems that can occur but also

129
00:08:08,710 --> 00:08:13,280
shows the resilience that the teams plan ahead
and work ahead, they can be ready to go support.

130
00:08:13,280 --> 00:08:17,660
So, again, I look forward to your questions
and again, I want to thank the teams for the

131
00:08:17,660 --> 00:08:21,820
excellent work today, for being focused, doing

the right things, from a safety standpoint

132
00:08:21,820 --> 00:08:26,490
and making sure the public was okay and making sure that the space station crew on orbit

133
00:08:26,490 --> 00:08:28,479
stayed in good shape.

134
00:08:28,479 --> 00:08:30,620
So, thank you.

135
00:08:30,620 --> 00:08:32,260
Thank you.

136
00:08:32,260 --> 00:08:33,260
Michael?

137
00:08:33,260 --> 00:08:36,050
I don't have a whole lot to add to what Bill just said.

138
00:08:36,050 --> 00:08:43,570
It is a disappointing loss, however, we managed the International Space Station to be able

139
00:08:43,570 --> 00:08:47,639
to get through these types of incidents, as Bill said.

140
00:08:47,639 --> 00:08:53,089
We always assume we had would lose a vehicle every so often.

141
00:08:53,089 --> 00:08:54,089
Spaceflight is very hard.

142
00:08:54,089 --> 00:09:00,350
Getting to low-Earth orbit is extremely challenging

and it does challenge the systems that fly

143
00:09:00,350 --> 00:09:02,550
into low-Earth orbit every time they go.

144
00:09:02,550 --> 00:09:04,339
So, we expect that.

145
00:09:04,339 --> 00:09:09,320
Of course, having three this close together
is not what we hoped for.

146
00:09:09,320 --> 00:09:14,970
However, fortunately, we had put ourselves
in a position prior to even the Orbital flight,

147
00:09:14,970 --> 00:09:19,180
we had quite a bit of logistics on board to
support the crew and that's helped us through

148
00:09:19,180 --> 00:09:24,339
this period and will continue to help us through
this next challenge.

149
00:09:24,339 --> 00:09:32,820
On board this particular vehicle was the docking
adaptor they're we talked about prelaunch.

150
00:09:32,820 --> 00:09:35,649
And the com system associated with that.

151
00:09:35,649 --> 00:09:42,959
The good news is we have a second docking
adapter and ultimately, the radio system has

152
00:09:42,959 --> 00:09:48,810
two radios and so we only flew one each on
this play and so those are available.

153

00:09:48,810 --> 00:09:55,790
So, we will be able to continue to press toward
the docking system on board ISS and support

154
00:09:55,790 --> 00:09:59,389
the Commercial Crew Program when they come
online.

155
00:09:59,389 --> 00:10:05,720
In addition to that, we have, as Bill said,
Progress fixing to fly, we will have a lot

156
00:10:05,720 --> 00:10:09,149
of crew logistics, food and water and provisions.

157
00:10:09,149 --> 00:10:13,579
They are trying to get their supplies back
up to a higher level.

158
00:10:13,579 --> 00:10:19,660
And so, that, in turn, will drive the logistics
up for the entire ISS.

159
00:10:19,660 --> 00:10:22,720
And so, that's in pretty good shape.

160
00:10:22,720 --> 00:10:29,110
As Bill said, when you look forward, from
a logistics standpoint, you have the HTV vehicle

161
00:10:29,110 --> 00:10:33,740
which we will talk to our colleagues, any
adjustments we need to make there the Orbital

162
00:10:33,740 --> 00:10:38,149
flight due in December, might be able to pull
that up a little bit.

163
00:10:38,149 --> 00:10:42,110
We will be able to continue to crew with six.

164
00:10:42,110 --> 00:10:46,319
We will provide provisions on board, but in addition to that I still expect to fly quite

165
00:10:46,319 --> 00:10:49,670
a bit of research and keep the research going.

166
00:10:49,670 --> 00:10:52,769
And this is challenging for those folks that fly with us.

167
00:10:52,769 --> 00:10:58,309
We have been working very hard to get the external community to understand ISS is available

168
00:10:58,309 --> 00:11:02,889
and the things you can do on ISS.

169
00:11:02,889 --> 00:11:06,970
We had quite a few student experiments on this flight.

170
00:11:06,970 --> 00:11:13,100
And so I know that's significant impact to them and it will be a challenge for them,

171
00:11:13,100 --> 00:11:16,519
this loss will certainly be a challenge for them.

172
00:11:16,519 --> 00:11:22,720
This is also a learning experience for them and all of us, it is not whether you stumble

173
00:11:22,720 --> 00:11:23,720
or fall.

174
00:11:23,720 --> 00:11:30,089

It is what you do after you stumble and fall
that will define success and greatness.

175
00:11:30,089 --> 00:11:32,560
So, we will all pick ourselves up.

176
00:11:32,560 --> 00:11:37,619
We will watch the SpaceX team, I'm sure, sort
through this anomaly and figure out the cause

177
00:11:37,619 --> 00:11:39,639
and get back to flying.

178
00:11:39,639 --> 00:11:47,389
Meanwhile, we are in a good position on board
ISS in terms of continuing to house the crew,

179
00:11:47,389 --> 00:11:50,740
continue to protect the schedule going forward,
continue to do research.

180
00:11:50,740 --> 00:11:54,829
Without a doubt, we have lost some research
hardware we will have to recover.

181
00:11:54,829 --> 00:12:03,300
We have clearly lost some significant hardware
for ISS that we will have to recover at some

182
00:12:03,300 --> 00:12:04,470
point.

183
00:12:04,470 --> 00:12:05,470
And we will do that.

184
00:12:05,470 --> 00:12:10,670
And we will get on with flight in low-Earth
orbit on the International Space Station.

185

00:12:10,670 --> 00:12:15,230
So, this is a big loss, I don't want to underplay
that.

186
00:12:15,230 --> 00:12:22,220
But I do want everyone to know that as a program,
we are managing this in a way to keep us healthy

187
00:12:22,220 --> 00:12:28,050
and we will pick ourselves up and get on to
the next flight and continue to do research

188
00:12:28,050 --> 00:12:29,160
on board ISS.

189
00:12:29,160 --> 00:12:37,160
So, as the next few weeks go by and we learn
a little bit about what SpaceX figures out,

190
00:12:37,160 --> 00:12:42,509
from the cause and what our other options
are and our other vehicles, we will let folks

191
00:12:42,509 --> 00:12:48,339
know how we adjust, but you can expect that
we will adjust some of our flights here in

192
00:12:48,339 --> 00:12:52,499
the future to make sure we have all the supplies
we need on board ISS.

193
00:12:52,499 --> 00:12:56,619
But we will continue to do research during
that period as well.

194
00:12:56,619 --> 00:12:58,790
And that's all I have for now.

195
00:12:58,790 --> 00:12:59,790
Thank you.

196
00:12:59,790 --> 00:13:03,670
We will now go back to the phones, where we have pam underwood from the FAA.

197
00:13:03,670 --> 00:13:05,620
Thank you, Stephanie.

198
00:13:05,620 --> 00:13:14,079
For everyone's awareness, this activity was being conducted under an FAA launch license.

199
00:13:14,079 --> 00:13:22,579
So according to the information that we currently have, this is being classified as a mishap.

200
00:13:22,579 --> 00:13:29,079
That means that going forward, the mishap investigation will be conducted by SpaceX

201
00:13:29,079 --> 00:13:31,619
with FAA oversight.

202
00:13:31,619 --> 00:13:38,850
We have 50 inspectors on site now and we will monitor activities.

203
00:13:38,850 --> 00:13:43,860
We will monitor this as SpaceX continues their investigation.

204
00:13:43,860 --> 00:13:49,910
That is all we have from the FAA at this time but I do look forward to any questions that

205
00:13:49,910 --> 00:13:53,850
some may have.

206
00:13:53,850 --> 00:13:55,170

Okay.

207
00:13:55,170 --> 00:13:56,170
Thank you.

208
00:13:56,170 --> 00:13:57,170
Thank you to all of you.

209
00:13:57,170 --> 00:13:58,449
We will take some questions here in the room first.

210
00:13:58,449 --> 00:14:00,819
And then we will get to the questions on the phone.

211
00:14:00,819 --> 00:14:06,490
Again, if you want to ask a question on the phone, please dial star 1 to get into the

212
00:14:06,490 --> 00:14:07,490
queue.

213
00:14:07,490 --> 00:14:09,970
And please limit your question to one each.

214
00:14:09,970 --> 00:14:13,629
State your name, affiliation and to whom you are addressing your question.

215
00:14:13,629 --> 00:14:16,569
We will start here in the room.

216
00:14:16,569 --> 00:14:18,339
Irene –

217
00:14:18,339 --> 00:14:21,880
Thanks, Stephanie.

218
00:14:21,880 --> 00:14:25,490
Irene Klotz with Reuters.

219
00:14:25,490 --> 00:14:31,769
For Gwynne, you guys have been pushing really
hard to get your launch rate up and also recently

220
00:14:31,769 --> 00:14:36,649
had that huge success at getting certified
for Air Force flights.

221
00:14:36,649 --> 00:14:41,239
Can you talk a little bit about what impact
you think this might have and if there's anything

222
00:14:41,239 --> 00:14:46,420
kind of at first blush that you can see was
done differently for this flight that you've

223
00:14:46,420 --> 00:14:51,239
done for your 18 successful previous flights?

224
00:14:51,239 --> 00:14:52,239
Thanks.

225
00:14:52,239 --> 00:14:53,239
Sure, Irene.

226
00:14:53,239 --> 00:15:00,189
There's nothing that stands out as being different
for this particular flight that we have done

227
00:15:00,189 --> 00:15:01,529
for other flights.

228
00:15:01,529 --> 00:15:06,269
I don't want to speculate as to what it's
going to take to get back to flight because

229
00:15:06,269 --> 00:15:10,029
we don't yet know, pinpointed what happened
yet.

230
00:15:10,029 --> 00:15:15,259
However, we are certainly in an extraordinary
position to know what happened, to find what

231
00:15:15,259 --> 00:15:20,049
happened, to fix what happened and to get
back to flight, given the fact that the majority

232
00:15:20,049 --> 00:15:24,600
of this launch vehicle and all its components
are ours, so we don't have to go through legal

233
00:15:24,600 --> 00:15:29,420
and contracts negotiations and discussions
to get data on any components.

234
00:15:29,420 --> 00:15:30,420
We own it all.

235
00:15:30,420 --> 00:15:32,720
I'm sure we will find it rapidly.

236
00:15:32,720 --> 00:15:35,930
And we will get back to flight as soon as
we safely and reliably can.

237
00:15:35,930 --> 00:15:42,319
By the way, I did want to extend a thanks
to all the folks at NASA and the Air Force.

238
00:15:42,319 --> 00:15:44,319
Everybody's reached out, offering help.

239
00:15:44,319 --> 00:15:47,769
And I certainly wanted to acknowledge that

and thank everybody.

240
00:15:47,769 --> 00:15:50,879
And we will certainly take you up on it if
we can leverage that.

241
00:15:50,879 --> 00:15:51,879
Okay.

242
00:15:51,879 --> 00:15:52,879
Thanks.

243
00:15:52,879 --> 00:15:54,149
James dean?

244
00:15:54,149 --> 00:15:55,149
Thanks.

245
00:15:55,149 --> 00:15:57,209
James Dean, Florida Today

246
00:15:57,209 --> 00:16:05,369
Gwynne, can you tell us how this event might
affect your progress moving forward with Commercial

247
00:16:05,369 --> 00:16:10,670
Crew and are you concerned about it shaking
people's confidence in that strategy?

248
00:16:10,670 --> 00:16:15,180
So it’s as both Bill and Mike mentioned.

249
00:16:15,180 --> 00:16:22,290
This is a tough business, any launch provider
has to have considered this in their operational

250
00:16:22,290 --> 00:16:24,679
plans going forward.

251
00:16:24,679 --> 00:16:30,239
So, I don't anticipate this to impact any
program that we have ongoing.

252
00:16:30,239 --> 00:16:34,360
We must find the cause of the failure, we
must fix it and obviously, we are going to

253
00:16:34,360 --> 00:16:36,970
get back to flight.

254
00:16:36,970 --> 00:16:41,519
We will also… it's a reminder, it is not
a great reminder, but a reminder nonetheless

255
00:16:41,519 --> 00:16:47,720
of how difficult this is and we will pour
even more effort into looking at every other

256
00:16:47,720 --> 00:16:51,290
possible source of issues in the future.

257
00:16:51,290 --> 00:16:55,989
We don't want to have dodged a bullet in the
past only to get bitten again.

258
00:16:55,989 --> 00:17:00,429
So, this doesn't change our plans.

259
00:17:00,429 --> 00:17:02,449
Our customers have always been loyal.

260
00:17:02,449 --> 00:17:04,380
We let them see how we operate.

261
00:17:04,380 --> 00:17:07,900
They are very confident in our technical team
and our operations team.

262
00:17:07,900 --> 00:17:10,500
So, it's a hiccup.

263
00:17:10,500 --> 00:17:15,770
It's certainly a time to take to pause and
make sure we are doing everything we need

264
00:17:15,770 --> 00:17:16,770
to do.

265
00:17:16,770 --> 00:17:21,050
But, no, I don't anticipate any significant
changes.

266
00:17:21,050 --> 00:17:24,079
We have some additional comments from Mr.
Gerstenmaier.

267
00:17:24,079 --> 00:17:31,389
Yeah, I would just like to add that, again,
one of the advantages of the overall program

268
00:17:31,389 --> 00:17:34,399
is we can learn from this event on cargo.

269
00:17:34,399 --> 00:17:39,760
Although it's unfortunate it's still recoverable
and we can understand what occurred with the

270
00:17:39,760 --> 00:17:45,080
SpaceX team and this information can be really
important as we move forward into the crew

271
00:17:45,080 --> 00:17:46,080
designs and flights.

272
00:17:46,080 --> 00:17:50,950
So, we can understand if there's a problem
or a concern, what occurred and when we get

273
00:17:50,950 --> 00:17:55,380
that data, we will if it impacts crew, but
give us a chance to learn in an environment

274
00:17:55,380 --> 00:18:04,120
that we can target more risk and that shows
the overall strength of the strategy moving

275
00:18:04,120 --> 00:18:05,120
forward.

276
00:18:05,120 --> 00:18:11,799
It is good to gain experience in an environment
where you can take a little risk and understand

277
00:18:11,799 --> 00:18:16,039
but then if a failure occurs, you can learn
from that failure and make sure it doesn't

278
00:18:16,039 --> 00:18:19,750
occur and take it out of the crew program
before you get to the crew program.

279
00:18:19,750 --> 00:18:23,970
I don't think this really impacts much of
our strategy for crew but I think it also

280
00:18:23,970 --> 00:18:28,760
shows us how by continuing to fly, we can
learn from these flights and learn things

281
00:18:28,760 --> 00:18:32,510
and learn hard lessons and apply them to crew
and make sure we are really ready and really

282
00:18:32,510 --> 00:18:36,649
safe when it is time to fly crew to space
station.

283
00:18:36,649 --> 00:18:43,950
I think today does reinforce everyone not
only how difficult but potentially dangerous

284
00:18:43,950 --> 00:18:44,950
space travel can be.

285
00:18:44,950 --> 00:18:47,480
Bill, I just wanted to ask a follow-up question.

286
00:18:47,480 --> 00:18:52,549
Do you see this impacting the timeline that
you have for the crew transport program?

287
00:18:52,549 --> 00:18:54,320
The current timeline is 2017.

288
00:18:54,320 --> 00:18:59,299
I understand that you do look at this as a
chance to learn from what happened today but

289
00:18:59,299 --> 00:19:00,559
right now, we are two years out.

290
00:19:00,559 --> 00:19:04,580
Do you think that timeline will be affected?

291
00:19:04,580 --> 00:19:13,450
Again, I think it's too early to really make
those discussions about if it's going to affect

292
00:19:13,450 --> 00:19:14,580
the timeline or not.

293
00:19:14,580 --> 00:19:17,309
I don't anticipate it will affect the timeline.

294
00:19:17,309 --> 00:19:19,250

And we will understand what the failure was.

295
00:19:19,250 --> 00:19:21,980
When we see what the failure was, we will
see it impacts.

296
00:19:21,980 --> 00:19:24,710
This learning can actually kind of expedite
things.

297
00:19:24,710 --> 00:19:29,880
We can actually learn from this failure, understand
a weakness or flaw or design we might not

298
00:19:29,880 --> 00:19:31,210
have seen for a while.

299
00:19:31,210 --> 00:19:35,980
So, this could maybe actually lower some of
the speculation about how we want to move

300
00:19:35,980 --> 00:19:38,260
forward and how we want to work on the crew
design.

301
00:19:38,260 --> 00:19:43,710
At this point, I don't think there's any impact
at all to the overall crew development timeline,

302
00:19:43,710 --> 00:19:49,230
through the December 2017 kind of activity
and we will keep moving forward with that.

303
00:19:49,230 --> 00:19:53,080
But I think the first thing is we will let
the SpaceX team and the FAA team and the NASA

304
00:19:53,080 --> 00:19:56,889
team take a look at this failure, understand
what occurred and then take that learning

305
00:19:56,889 --> 00:19:58,389
and apply it directly to crew.

306
00:19:58,389 --> 00:20:01,450
And at this point, I don't anticipate it impacting
the schedule.

307
00:20:01,450 --> 00:20:05,390
In fact, it could help us to name down designs
and move forward.

308
00:20:05,390 --> 00:20:10,250
We will take another question in the room,
then go to some of the questions on the phone.

309
00:20:10,250 --> 00:20:11,830
Thank you, Derrol Nail, Fox Orlando.

310
00:20:11,830 --> 00:20:17,799
Mike, what's your reaction about students
who had experiments going on this flight that

311
00:20:17,799 --> 00:20:21,919
were destroyed in Wallops, Virginia, then
rebuilt them and then had them destroyed again

312
00:20:21,919 --> 00:20:22,919
in Cape Canaveral here?

313
00:20:22,919 --> 00:20:27,800
And, I tried to touch on that a little bit
earlier.

314
00:20:27,800 --> 00:20:33,029
You know, it's also true for all of us, right?

315
00:20:33,029 --> 00:20:41,700
So, these young people are learning a valuable

lesson, I think that not only is it going

316
00:20:41,700 --> 00:20:48,309
to certainly apply in spaceflight but applies
in life as well, that you do have setbacks,

317
00:20:48,309 --> 00:20:55,690
but you know, they can be recovered from,
you just trying to, we have the same thing.

318
00:20:55,690 --> 00:21:01,240
On ORB-3 and this flight, crew provisions…

319
00:21:01,240 --> 00:21:06,840
on Orb-3 and Progress flight, we had crew
provisions for the upcoming crew that have

320
00:21:06,840 --> 00:21:07,840
both been lost.

321
00:21:07,840 --> 00:21:11,020
Those are relatively inexpensive and we will
fly those again.

322
00:21:11,020 --> 00:21:16,929
We had multifiltration beds for water processing
that we have lost on the Orbital and on this

323
00:21:16,929 --> 00:21:20,860
flight now that's setback for us.

324
00:21:20,860 --> 00:21:26,850
As I said, it's really what you do after you
have had to face adversity that really defines

325
00:21:26,850 --> 00:21:32,500
what you're going to be able to do and I think
that's really important lesson for these kids.

326

00:21:32,500 --> 00:21:35,340
So, we will help them get back online.

327
00:21:35,340 --> 00:21:41,669
We will help them getting their hardware built
again and get to orbit and do their experiments

328
00:21:41,669 --> 00:21:45,769
and hopefully, this will be a positive lesson
for them in the end.

329
00:21:45,769 --> 00:21:50,580
But it's a big impact and it's hard on them,
I know, 'cause it's hard on me.

330
00:21:50,580 --> 00:21:52,370
Okay.

331
00:21:52,370 --> 00:21:58,509
Our first question on the phone is from Alan
Boyle of MSNBC

332
00:21:58,509 --> 00:21:59,509
Thank you.

333
00:21:59,509 --> 00:22:02,950
I guess this would be a question for pam,
perhaps for Gwynne.

334
00:22:02,950 --> 00:22:07,399
And it has to do with the FAA role in the
investigation.

335
00:22:07,399 --> 00:22:15,549
Does this mean SpaceX would have to stand
down from all future Falcon 9 flights or could

336
00:22:15,549 --> 00:22:16,549
those proceed?

337
00:22:16,549 --> 00:22:20,820
What would the timeline generally be for this
sort of investigation and will the FAA have

338
00:22:20,820 --> 00:22:26,090
to sign off before the next step is taken,
whatever that is?

339
00:22:26,090 --> 00:22:27,090
Thank you.

340
00:22:27,090 --> 00:22:28,730
How about if I start?

341
00:22:28,730 --> 00:22:35,039
This is Gwynne and I will have Pam pick up.

342
00:22:35,039 --> 00:22:43,360
Given this is a mishap SpaceX is in charge
of the anomaly investigation, we will leverage

343
00:22:43,360 --> 00:22:48,960
the help and support of the FAA, I mentioned
earlier, NASA and the Air Force as well.

344
00:22:48,960 --> 00:23:00,460
Once we do identify the issues, we will submit
that documents to the FAA and considered prior

345
00:23:00,460 --> 00:23:02,380
to the next flight.

346
00:23:02,380 --> 00:23:04,970
I don't have a timeline for that right now.

347
00:23:04,970 --> 00:23:07,510
It certainly isn't going to be a year.

348

00:23:07,510 --> 00:23:11,240
I imagine a number of months or so.

349
00:23:11,240 --> 00:23:13,419
But again, I don't want to speculate.

350
00:23:13,419 --> 00:23:16,720
Pam, is there anything I missed?

351
00:23:16,720 --> 00:23:19,220
No, Gwynne, thank you.

352
00:23:19,220 --> 00:23:23,570
I completely agree with everything you said,
being conducted under an FAA license, SpaceX

353
00:23:23,570 --> 00:23:30,960
will have a responsibility to inform us, give
us a report, a final report of their findings.

354
00:23:30,960 --> 00:23:36,809
Of course, participating in overseeing the
mishap investigation along the way, as SpaceX

355
00:23:36,809 --> 00:23:41,960
already told us they would do in their license
application.

356
00:23:41,960 --> 00:23:46,980
I think you frame it had up well, process
going forward, and I, too can't speculate

357
00:23:46,980 --> 00:23:47,980
on timeframe.

358
00:23:47,980 --> 00:23:54,110
The important thing is this investigation
is done proper and going forward, we look

359

00:23:54,110 --> 00:23:58,309
forward to working with SpaceX on that.

360
00:23:58,309 --> 00:24:00,399
Next question also is from the phone.

361
00:24:00,399 --> 00:24:02,870
Seth Borenstein from the Associated Press.

362
00:24:02,870 --> 00:24:03,960
Yes, thank you.

363
00:24:03,960 --> 00:24:06,730
I guess this is for Gerst more than anyone.

364
00:24:06,730 --> 00:24:12,580
Can you expand a little on the thinking why
at the moment you are not looking at delaying

365
00:24:12,580 --> 00:24:20,970
again the July 3 launch, given that you have
had three consecutive supply failures, what

366
00:24:20,970 --> 00:24:28,660
would it take to make you decide to… that
it's safe to launch or alternatively, what

367
00:24:28,660 --> 00:24:33,590
would make it…you decided that it needs
to be delayed?

368
00:24:33,590 --> 00:24:34,950
Thank you.

369
00:24:34,950 --> 00:24:44,540
Again, I will start the response and I think
Mike can add some details on top of it.

370
00:24:44,540 --> 00:24:50,639

Again, I think when we look at the overall consumable standpoint on station, we are good

371
00:24:50,639 --> 00:24:55,470
from a food and water standpoint, basic living supplies.

372
00:24:55,470 --> 00:24:58,159
We also have a good amount of research on orbit.

373
00:24:58,159 --> 00:25:03,750
And, in fact, we are kind of in a situation where we could actually benefit from additional

374
00:25:03,750 --> 00:25:04,850
crew being on orbit.

375
00:25:04,850 --> 00:25:10,769
There's a shortage of research time available for our crews to actually perform.

376
00:25:10,769 --> 00:25:14,789
So, there's not enough crew members on orbit with enough hours in the day to actually do

377
00:25:14,789 --> 00:25:16,399
the research that we've got there.

378
00:25:16,399 --> 00:25:20,080
So, there's actually an advantage of us getting the crew up there and increasing the crew

379
00:25:20,080 --> 00:25:24,409
size back to six and getting back to the research tempo, 'cause we are in space to do something

380
00:25:24,409 --> 00:25:25,570
and that's to do research.

381
00:25:25,570 --> 00:25:29,880
So, I think at this point, we don't see a
need to slip it.

382
00:25:29,880 --> 00:25:32,889
The supplies are adequate on orbit.

383
00:25:32,889 --> 00:25:35,910
The food is there and the research to be done
needs to be done.

384
00:25:35,910 --> 00:25:38,600
So I think there's still a compelling need
to move forward.

385
00:25:38,600 --> 00:25:42,490
The only thing I would add is that we still
need to go through the flight readiness review

386
00:25:42,490 --> 00:25:43,490
process.

387
00:25:43,490 --> 00:25:47,350
We still need to understand the Progress failure
that occurred and we need to make sure that

388
00:25:47,350 --> 00:25:52,269
that Progress failure doesn't cross of near
the Soyuz launch vehicle that launches crew.

389
00:25:52,269 --> 00:25:54,169
That review is still in front of us.

390
00:25:54,169 --> 00:25:57,659
Mike has some reviews scheduled the middle
part of July.

391
00:25:57,659 --> 00:26:02,120
I have some reviews after his and head to

the launch on the 23rd.

392
00:26:02,120 --> 00:26:06,360
From an overall space station standpoint,
seems prudent to move forward and keep doing

393
00:26:06,360 --> 00:26:09,570
what we are supposed to do in space and that's
to do the research.

394
00:26:09,570 --> 00:26:15,200
I think important for the space station, really
learning a lot now and really starting to

395
00:26:15,200 --> 00:26:20,690
turn a new page in doing research and providing
data back to folks here on the earth.

396
00:26:20,690 --> 00:26:22,760
So, we need to keep doing that and keep moving
forward.

397
00:26:22,760 --> 00:26:25,500
I will see if Mike wants to add anything else.

398
00:26:25,500 --> 00:26:34,000
Well, I would just, like Gerst, we fly space
station not just to study the human's ability

399
00:26:34,000 --> 00:26:40,080
to survive in a microgravity environment in
preparation for exploration, which is important,

400
00:26:40,080 --> 00:26:44,009
but there to do research, across the board.

401
00:26:44,009 --> 00:26:50,259
So, there for example the question we ask
ourselves every day is the system able to

402
00:26:50,259 --> 00:26:52,289
support the crew?

403
00:26:52,289 --> 00:26:56,860
If the system is able to support the crew,
then we get on with doing the job at happened,

404
00:26:56,860 --> 00:26:57,860
which is research.

405
00:26:57,860 --> 00:27:01,590
So the system is well able to support the
crew, as I told you beforehand.

406
00:27:01,590 --> 00:27:06,990
We have well into October, probably late October,
if nothing else blew.

407
00:27:06,990 --> 00:27:13,049
We have plenty of opportunity for resources
to come to ISS to keep the crew going.

408
00:27:13,049 --> 00:27:16,759
And so, therefore, we should continue.

409
00:27:16,759 --> 00:27:21,059
Because without the crew, then we can't get
our logistics vehicles there with limited

410
00:27:21,059 --> 00:27:26,409
crew, limited time to do the repairs to keep
the systems going to do the research.

411
00:27:26,409 --> 00:27:30,700
We are not in a position today to stand down
on crew flights.

412
00:27:30,700 --> 00:27:33,549
In fact, we are quite healthy on orbit.

413
00:27:33,549 --> 00:27:38,140
But we are always in a safe position if the
time comes and we decide we don't have the

414
00:27:38,140 --> 00:27:42,289
logistics to support the crew, we always have
a vehicle there that can bring them home safe

415
00:27:42,289 --> 00:27:43,740
labor day we would certainly do that.

416
00:27:43,740 --> 00:27:48,179
But we are not even close to that kind of
conversation today, given the logistics we

417
00:27:48,179 --> 00:27:49,519
have on board.

418
00:27:49,519 --> 00:27:53,110
We will take one more question on the phone,
then come back to the room.

419
00:27:53,110 --> 00:27:58,650
Ken Chang, of the New York Times.

420
00:27:58,650 --> 00:28:01,010
Hi, thank you for taking my question.

421
00:28:01,010 --> 00:28:04,399
Um, Elon tweeted that it looked like it was
an overpressurization in the second stage

422
00:28:04,399 --> 00:28:13,460
oxygen tank and looked like there was two
of them, the cloud and then assembly.

423
00:28:13,460 --> 00:28:14,460
I was wondering if you can provide any more

details?

424
00:28:14,460 --> 00:28:17,020
I'm sorry, I don't have any more data than
that.

425
00:28:17,020 --> 00:28:22,720
I have got teams of folks looking at every
possible telemeter… every possible piece

426
00:28:22,720 --> 00:28:25,490
of telemetry and data.

427
00:28:25,490 --> 00:28:27,490
I don't want to speculate.

428
00:28:27,490 --> 00:28:32,610
We did have depressurization on the second
stage.

429
00:28:32,610 --> 00:28:35,129
We don't yet know root cause of that.

430
00:28:35,129 --> 00:28:38,620
So, that's all we have got, sorry.

431
00:28:38,620 --> 00:28:40,730
Elon tweeted it.

432
00:28:40,730 --> 00:28:43,549
That's all I know.

433
00:28:43,549 --> 00:28:44,960
Questions here?

434
00:28:44,960 --> 00:28:48,080
Jason Rhian for spaceflightinsider.com.

435

00:28:48,080 --> 00:28:52,550
Earlier this month, the senate appropriations committee voted to cut the commercial crew

436
00:28:52,550 --> 00:28:59,309
budget and hoping Gerst or Mike could answer the question of whether or not this might

437
00:28:59,309 --> 00:29:07,870
play for those members who made this vote, give them argument, basically ammo for their

438
00:29:07,870 --> 00:29:09,000
argument?

439
00:29:09,000 --> 00:29:12,299
You know, I can take a shot at that and try to answer.

440
00:29:12,299 --> 00:29:19,070
Again, I think it's really important in this business that we keep moving forward and so,

441
00:29:19,070 --> 00:29:24,630
when I look at the budget situation, we really need full funding for crew.

442
00:29:24,630 --> 00:29:27,129
There's a technical problem and then there's a financial problem.

443
00:29:27,129 --> 00:29:32,360
And I can guarantee you that if…what we are trying to do is very, very difficult technically

444
00:29:32,360 --> 00:29:37,730
and you have seen that through the losses of three spacecraft from three different providers,

445
00:29:37,730 --> 00:29:42,630

you know, from Orbital, from the Russian government
and then now from SpaceX.

446
00:29:42,630 --> 00:29:45,789
That shows you how difficult this technical
problem is.

447
00:29:45,789 --> 00:29:50,509
And we really need funding at the level we
requested at to let that technical work keep

448
00:29:50,509 --> 00:29:51,799
moving forward.

449
00:29:51,799 --> 00:29:56,700
When we get cut back in funding that suppresses
the amount of technical work or cuts the amount

450
00:29:56,700 --> 00:30:05,820
of work done in time and want redundant crew
in space so we are not solely dependent on

451
00:30:05,820 --> 00:30:06,899
the Russians.

452
00:30:06,899 --> 00:30:12,029
We need that funding at the level we have
requested so we can get that work moving forward.

453
00:30:12,029 --> 00:30:15,019
If we don't get the funding, we can't do the
technical work.

454
00:30:15,019 --> 00:30:20,919
The technical work gets delayed or compressed
and this environment is not conducive to letting

455
00:30:20,919 --> 00:30:24,159
us compress or delay technical work.

456
00:30:24,159 --> 00:30:29,919
We need the time to work the technical items,
we need the time to work the difficult engineering

457
00:30:29,919 --> 00:30:34,200
problems in front of us and to do that, we
need the funding at the levels we need it.

458
00:30:34,200 --> 00:30:38,640
So, we need to fund at that right level between
the funding and the technical work to match

459
00:30:38,640 --> 00:30:44,289
them and the plan that we have provided through
the budget process is what we need in '16.

460
00:30:44,289 --> 00:30:46,980
We need that full funding to keep the technical
work moving forward.

461
00:30:46,980 --> 00:30:52,259
It is not right to delay from a funding standpoint
and think you will catch up later technically.

462
00:30:52,259 --> 00:30:55,850
We really need to keep moving forward technically
and to do that, we need the funding level

463
00:30:55,850 --> 00:30:58,850
we requested.

464
00:30:58,850 --> 00:30:59,850
Thank you.

465
00:30:59,850 --> 00:31:02,159
Next question over here?

466
00:31:02,159 --> 00:31:08,360
I would like to address my question both to

Gwynne Shotwell and Bill Gerstenmaier and

467
00:31:08,360 --> 00:31:10,940
request an answer from both of you on.

468
00:31:10,940 --> 00:31:18,610
This was a destruct signal sent from the ground
or received by the launch vehicle after the

469
00:31:18,610 --> 00:31:21,720
initial breakup began?

470
00:31:21,720 --> 00:31:27,760
I don't believe there was a destruct signal
but I will follow up on that I have heard

471
00:31:27,760 --> 00:31:32,120
no indication that there was a destruct signal.

472
00:31:32,120 --> 00:31:39,049
Okay, we will take one more in the room and
then go back to the phone.

473
00:31:39,049 --> 00:31:44,850
Hi, Robert Pearlman with collectspace.com
with a question for Michael.

474
00:31:44,850 --> 00:31:49,419
Given that do you have a Progress going up
on Friday, is there anything from this flight

475
00:31:49,419 --> 00:31:54,129
or replacement parts from this flight or anything
of pry or that would you try to rush to Florida

476
00:31:54,129 --> 00:31:57,039
to get on board if that is a possibility?

477
00:31:57,039 --> 00:32:01,789

And was mentioned at the start of the water filtration issue on the station that you were

478
00:32:01,789 --> 00:32:04,050
flying a replacement bed.

479
00:32:04,050 --> 00:32:07,911
Is that something that you might want to get on the station sooner and can you give a few

480
00:32:07,911 --> 00:32:09,710
more details about what that issue is?

481
00:32:09,710 --> 00:32:11,330
Sure, I can address both.

482
00:32:11,330 --> 00:32:16,640
Like I said, our Russian colleagues have loaded the Progress up with food and your and other

483
00:32:16,640 --> 00:32:19,990
crew provisions.

484
00:32:19,990 --> 00:32:24,259
And that's really very important to us as a collective.

485
00:32:24,259 --> 00:32:28,070
And so for us, they are in good shape.

486
00:32:28,070 --> 00:32:33,519
I can't think of anything off the top of my head that is so important that we would want

487
00:32:33,519 --> 00:32:36,070
to rush it to our Russian colleagues.

488
00:32:36,070 --> 00:32:40,119
I'm sure we will talk about it here in the

next few hours, see if there's anything there

489
00:32:40,119 --> 00:32:41,119
we would like to do.

490
00:32:41,119 --> 00:32:42,369
It would have to be small.

491
00:32:42,369 --> 00:32:44,869
But overall, we are in very good shape on
orbit.

492
00:32:44,869 --> 00:32:50,321
So, there's nothing I can think of right now
that we would want to go get on the Progress

493
00:32:50,321 --> 00:32:51,659
at this point.

494
00:32:51,659 --> 00:32:58,570
To answer your question about water filtration,
yes, on orbit, we have a water filtration

495
00:32:58,570 --> 00:33:06,179
system and we monitor its capability by checking
the water constituents on a regular basis.

496
00:33:06,179 --> 00:33:11,669
The multifiltration beds we have and the water
processor today are starting to get full,

497
00:33:11,669 --> 00:33:15,080
as indicated by the measurements we have been
taking lately.

498
00:33:15,080 --> 00:33:19,139
When it starts to get full, we take water
samples and bring them home to understand

499

00:33:19,139 --> 00:33:22,750
a specific…specifically what the constituents
are.

500
00:33:22,750 --> 00:33:32,550
The constituents in the water are not a risk
to the crew at the levels that we see today.

501
00:33:32,550 --> 00:33:36,470
We are reaching the limit where we would say
we would stop using the water processor.

502
00:33:36,470 --> 00:33:41,860
I suspect we have some flexibility in that
number and working that the next little while

503
00:33:41,860 --> 00:33:49,200
because we know what the stilts are specifically
that are making the total organic number go

504
00:33:49,200 --> 00:33:51,499
up higher.

505
00:33:51,499 --> 00:33:56,240
And so, I expect that we have some more run
time left on that… the water processor.

506
00:33:56,240 --> 00:34:01,529
If we don't use the water processer, actually
the water situation is about like food, it

507
00:34:01,529 --> 00:34:04,350
can last a little bit longer than the food.

508
00:34:04,350 --> 00:34:09,619
So if we have no water processer at all, we
are okay on water as well.

509
00:34:09,619 --> 00:34:15,040
The HTV itself is loaded heavily with water,

so we will get quite a bit when the HTV shows

510
00:34:15,040 --> 00:34:17,870
up and quite a bit of Progress on water.

511
00:34:17,870 --> 00:34:25,140
Unfortunately, it is the second set of multifiltration beds that we lost, we don't have that big

512
00:34:25,140 --> 00:34:26,140
a pipeline.

513
00:34:26,140 --> 00:34:32,360
So the team is building the next set of multifiltration beds.

514
00:34:32,360 --> 00:34:39,250
I doubt very seriously we will have them ready in time for the August flight of the HTV.

515
00:34:39,250 --> 00:34:42,390
But we will work it really hard and see how quickly we can get them to orbit.

516
00:34:42,390 --> 00:34:48,030
But again, the situation, like I said, is…we are in good shape because we store quite a

517
00:34:48,030 --> 00:34:53,630
bit of processed water on board as well to protect for this particular anomaly.

518
00:34:53,630 --> 00:34:58,570
We'll go to another question on the phone from Frank Morring of Aviation Week

519
00:34:58,570 --> 00:35:01,400
Thank you.

520

00:35:01,400 --> 00:35:06,230
This is for Bill Gerstenmaier, you have redundant capability to get to the station with cargo,

521
00:35:06,230 --> 00:35:08,640
but both of your vehicles are down now.

522
00:35:08,640 --> 00:35:15,950
Could you give us an update on the return to flights of the other vehicles, the Orbital

523
00:35:15,950 --> 00:35:20,930
ATK vehicle both in terms of its upcoming mission on the Atlas and then returning to

524
00:35:20,930 --> 00:35:23,080
flight on the Antares?

525
00:35:23,080 --> 00:35:26,070
Thank you.

526
00:35:26,070 --> 00:35:36,120
In terms of Orbital ATK, we have been working extensively with them and working with the

527
00:35:36,120 --> 00:35:40,050
United Launch Alliance to get on the Atlas V for this fall.

528
00:35:40,050 --> 00:35:45,670
As Mike said earlier in this press conference, they are currently scheduled in December.

529
00:35:45,670 --> 00:35:49,930
The launch manifest kind of compressed us into December.

530
00:35:49,930 --> 00:35:55,110
We will work with United Launch Alliance and Orbital ATK and see when the right time to

531
00:35:55,110 --> 00:35:56,160
time fly that flight is.

532
00:35:56,160 --> 00:36:01,150
If we can advance from December and the manifest
lets do that, we might want to do that maybe

533
00:36:01,150 --> 00:36:02,500
as early as October.

534
00:36:02,500 --> 00:36:05,960
We will work with the teams to see and ready
to go fly.

535
00:36:05,960 --> 00:36:10,120
And again, there's been very good technical
Progress between Orbital ATK and United Launch

536
00:36:10,120 --> 00:36:21,030
Alliance, some modal analysis they needed
to do with the Cygnus on top of the Atlas

537
00:36:21,030 --> 00:36:23,520
V and that moved along fairly well.

538
00:36:23,520 --> 00:36:29,840
Again, we are making pretty good progress
for Orbital ATK returning to flight on an

539
00:36:29,840 --> 00:36:31,300
Antares.

540
00:36:31,300 --> 00:36:33,760
The engine work has been completed in Russia.

541
00:36:33,760 --> 00:36:39,810
The Orbital ATK teams that picked a new engine
for that rocket, the RD-181.

542
00:36:39,810 --> 00:36:48,780
The pad repairs are going well at Wallops.

543
00:36:48,780 --> 00:36:54,530
The pad is coming along and should support
some test flights at the end of this year

544
00:36:54,530 --> 00:36:59,820
- our test firing of the Antares rocket with
the anticipation that the Antares comes rocket

545
00:36:59,820 --> 00:37:02,680
back to flight next spring.

546
00:37:02,680 --> 00:37:07,240
I think the teams have done a remarkable job
of working together.

547
00:37:07,240 --> 00:37:13,300
There's been a lot of resourcefulness shown
for the orbital team to go look and find another

548
00:37:13,300 --> 00:37:18,510
launch vehicle and to reach out to United
Launch Alliance and because of their experience

549
00:37:18,510 --> 00:37:23,480
flying different satellites on a variety of
launch vehicles, they were able to show they

550
00:37:23,480 --> 00:37:27,980
could put the Cygnus on top of an Atlas V
and get ready to support this fall.

551
00:37:27,980 --> 00:37:32,730
We didn't know how important it would be for
them to return and add redundancy back in

552

00:37:32,730 --> 00:37:38,940
the cargo resupply chain but turns out, again,
their creativity in working with other providers

553
00:37:38,940 --> 00:37:42,540
to get another launch vehicle will turn out
to be, I think, very beneficial to us.

554
00:37:42,540 --> 00:37:47,140
So, again, I think you can see the benefit
of this strategy of where we have multiple

555
00:37:47,140 --> 00:37:48,140
providers.

556
00:37:48,140 --> 00:37:54,060
We have robustness and then it also shows
the ingenuity and cleverness of the teams

557
00:37:54,060 --> 00:37:56,170
to work together to overcome problems.

558
00:37:56,170 --> 00:38:00,010
So again, I think as you heard through this
press conference, these events are hard for

559
00:38:00,010 --> 00:38:01,690
us.

560
00:38:01,690 --> 00:38:03,040
Failure is not easy.

561
00:38:03,040 --> 00:38:07,600
It is not easy watching things not go right.

562
00:38:07,600 --> 00:38:13,790
Every launch is a risk to us but again, the
exciting thing is when you see the teams overcome

563

00:38:13,790 --> 00:38:18,800
this failure, learn from this failure, put
it behind them and actually improve and get

564
00:38:18,800 --> 00:38:20,820
better, that's the way that things work better.

565
00:38:20,820 --> 00:38:25,470
So again, the overall ATK Orbital plan looks
solid with the flight potentially this fall

566
00:38:25,470 --> 00:38:28,920
and return back to Antares next spring

567
00:38:28,920 --> 00:38:35,220
Okay, next we have a reporter from space.com
on the phone.

568
00:38:35,220 --> 00:38:38,450
Yes, thank you.

569
00:38:38,450 --> 00:38:45,940
I guess for Bill and Mike, can you give specific
timeframes on when the crew is supplied and

570
00:38:45,940 --> 00:38:59,200
with the Progress supply coming up, how far
will those supplies extend that date?

571
00:38:59,200 --> 00:39:08,310
We use very specific dates when we start talking
about food and water and logistics and so

572
00:39:08,310 --> 00:39:14,450
we show a date in October, but the way we
consume food and the way we consume water

573
00:39:14,450 --> 00:39:20,190
and conservativism we put in our numbers,
we could go to the end of October.

574
00:39:20,190 --> 00:39:25,370
I would expect that the progress will probably
add about a month to that.

575
00:39:25,370 --> 00:39:27,190
Okay.

576
00:39:27,190 --> 00:39:28,190
Thank you.

577
00:39:28,190 --> 00:39:31,590
Next we have Eric Berger from the Houston
Chronicle on the phone.

578
00:39:31,590 --> 00:39:32,590
Hi.

579
00:39:32,590 --> 00:39:33,590
Good afternoon.

580
00:39:33,590 --> 00:39:36,400
Thanks so much for doing this on short notice.

581
00:39:36,400 --> 00:39:41,480
Question for Gerst, given some of the congressional
skepticism about SpaceX and budget short falls

582
00:39:41,480 --> 00:39:46,730
you addressed earlier regarding commercial
crews, does this push NASA closer to a leader-follower

583
00:39:46,730 --> 00:39:56,700
model with flights to the station or are you
confident you can press forward with two options?

584
00:39:56,700 --> 00:40:03,600
Again, if you go back to our original philosophy
of why we chose two to begin with, I think

585
00:40:03,600 --> 00:40:11,620
that philosophy is still sound, it is really
important to have two developers working for

586
00:40:11,620 --> 00:40:15,320
crew capability at the same time in parallel.

587
00:40:15,320 --> 00:40:21,830
The leader follower that negates the benefit
of having the two operating in parallel.

588
00:40:21,830 --> 00:40:27,420
Very difficult to pick a winner in this situation
or the one that has the technical advantage

589
00:40:27,420 --> 00:40:29,100
over the other.

590
00:40:29,100 --> 00:40:35,460
You can see through the three failures, I
stressed earlier, three separate entities

591
00:40:35,460 --> 00:40:37,310
all of which have experienced a failure.

592
00:40:37,310 --> 00:40:40,640
A very different failure but all experienced
failures.

593
00:40:40,640 --> 00:40:45,340
Who would have predict we had would have lost
these three vehicles in this particular order

594
00:40:45,340 --> 00:40:52,000
and to have a leader/follower, you have to
have enough to forecast who is the leader

595
00:40:52,000 --> 00:40:54,230

and who is the follower with certainty.

596
00:40:54,230 --> 00:41:00,140
I think the events of these three losses shows
us how difficult this environment is and how

597
00:41:00,140 --> 00:41:02,350
difficult it is to make that prediction.

598
00:41:02,350 --> 00:41:07,900
That approach we have of having the two providers
working essentially or two developers working

599
00:41:07,900 --> 00:41:12,410
in parallel, the Boeing CST-100 and the Crew
Dragon.

600
00:41:12,410 --> 00:41:15,660
That is the right approach and we need to
stay with that I approach if we want to have

601
00:41:15,660 --> 00:41:20,520
ultimate success for Commercial Crew.

602
00:41:20,520 --> 00:41:23,190
Take another question from here in the room.

603
00:41:23,190 --> 00:41:28,110
A couple of questions, one for Mike.

604
00:41:28,110 --> 00:41:31,440
Dragon is your only vehicle to get significant
downmass.

605
00:41:31,440 --> 00:41:33,410
Can you talk about that side of it?

606
00:41:33,410 --> 00:41:39,250
Is there a lot of research on board, things

you need back to repair, look at, how does

607
00:41:39,250 --> 00:41:41,260
this impact that?

608
00:41:41,260 --> 00:41:45,540
And also, maybe for Gwynne, has there been
any debris recovered or is there an effort

609
00:41:45,540 --> 00:41:50,720
to survey the ocean for any debris that you
might be able to fish out?

610
00:41:50,720 --> 00:41:51,720
Thanks.

611
00:41:51,720 --> 00:41:53,250
Let's see I will do the first.

612
00:41:53,250 --> 00:41:56,020
One of the big things we worry about is our
freezers getting full.

613
00:41:56,020 --> 00:42:03,400
Fortunately SpaceX-6 just recently departed
and just about emptied our freezers for us.

614
00:42:03,400 --> 00:42:05,680
From that aspect, we are in pretty good shape.

615
00:42:05,680 --> 00:42:11,260
I haven't looked to see the levels of†--
as how fast we are going to fill them up and

616
00:42:11,260 --> 00:42:12,350
when we are going to get full.

617
00:42:12,350 --> 00:42:17,560
Certainly, that will be one of the things

we look at because that unique capability.

618
00:42:17,560 --> 00:42:24,630
We do have some hardware that we want to bring home at some point but none of it's critical.

619
00:42:24,630 --> 00:42:27,870
Again, SpaceX-6, we had filled up.

620
00:42:27,870 --> 00:42:32,850
In fact, SpaceX-7, we were going to bring trash home on because we just didn't have

621
00:42:32,850 --> 00:42:35,260
that much hardware to return.

622
00:42:35,260 --> 00:42:40,480
So, from that return standpoint, we were in pretty good shape this flight and...which

623
00:42:40,480 --> 00:42:44,681
tells you that overall on orbit, we are in pretty good shape and that will be one of

624
00:42:44,681 --> 00:42:47,980
the things we look at when we start looking at our projections as to when we need the

625
00:42:47,980 --> 00:43:01,750
next SpaceX and a big driver will be what you said, gets some of the research home.

626
00:43:01,750 --> 00:43:02,750
The question for Gwynne?

627
00:43:02,750 --> 00:43:05,780
Yeah, I think there was a follow-up to me with respect to recovery.

628

00:43:05,780 --> 00:43:11,380
We did have a number of vehicles out there
deployed to…for the recovery, possible recovery

629
00:43:11,380 --> 00:43:18,400
of the first stage, also other assets out
there looking at the flight, so we have deployed…redeployed

630
00:43:18,400 --> 00:43:23,580
them to what we believe to be the landing
location and if there is anything, we will

631
00:43:23,580 --> 00:43:28,590
try to… if there is any debris, we will
true I to bring it back.

632
00:43:28,590 --> 00:43:32,790
Obviously, anything that's found could be
helpful in the investigation.

633
00:43:32,790 --> 00:43:37,310
So we obviously want to retrieve anything
we possibly can.

634
00:43:37,310 --> 00:43:39,310
I don't have any word yet.

635
00:43:39,310 --> 00:43:43,450
We had a meeting just about an hour before
this press conference and we have got another

636
00:43:43,450 --> 00:43:45,570
technical discussion in about another hour.

637
00:43:45,570 --> 00:43:52,610
I will know then whether we have arrived at
the site and see if there's anything visible

638
00:43:52,610 --> 00:43:54,700
from which to go and try to recover.

639
00:43:54,700 --> 00:43:56,460
You will hear from us.

640
00:43:56,460 --> 00:43:59,610
Elon leans pretty far forward in the tweets.

641
00:43:59,610 --> 00:44:03,420
What I do want to state again is we are not
going to speculate.

642
00:44:03,420 --> 00:44:07,210
We are not gonna give information early only
to have to kind of pull it back and say, nope,

643
00:44:07,210 --> 00:44:08,970
it wasn't that it was something else.

644
00:44:08,970 --> 00:44:12,430
So, I appreciate everybody's patience in our
releasing data.

645
00:44:12,430 --> 00:44:16,190
We want to get you the information that is
accurate.

646
00:44:21,000 --> 00:44:17,300
Ken

647
00:44:21,000 --> 00:44:24,400
I was also interested in the recovery is one
question.

648
00:44:24,400 --> 00:44:31,350
Are you giving that a very hard priority to
recover debris as a way to aid the investigation?

649
00:44:31,350 --> 00:44:38,360
And for Mike or Bill, what is the ability

to replace that IDA and do you need two of

650
00:44:38,360 --> 00:44:42,450
them before you launch commercial crew or
is just having one of them sufficient?

651
00:44:42,450 --> 00:44:43,450
Thanks.

652
00:44:43,450 --> 00:44:48,840
I will let Gwynne answer first and then I
will answer the second question.

653
00:44:48,840 --> 00:44:53,860
Yeah, Ken, so all the assets we had available
in the area we have deployed to, as I mentioned,

654
00:44:53,860 --> 00:44:54,990
the landing site.

655
00:44:54,990 --> 00:44:58,650
It certainly is a priority of whether you
find something that's going to be helpful

656
00:44:58,650 --> 00:45:00,590
or not is unclear.

657
00:45:00,590 --> 00:45:06,200
But certainly, if there's something there,
with dough want to pick it up and examine

658
00:45:06,200 --> 00:45:07,350
it, absolutely.

659
00:45:07,350 --> 00:45:09,390
It could be very helpful.

660
00:45:09,390 --> 00:45:15,180
And, so we have two, the second one was going

to fly on SpaceX-9.

661
00:45:15,180 --> 00:45:21,760
Our plan, our overall plan, is to have two
docking ports and go back to what we call

662
00:45:21,760 --> 00:45:25,730
direct handover where the replacement crew
shows up while the other crew is still on

663
00:45:25,730 --> 00:45:29,230
orbit and they hand over to each other for
about a week or so and then the other goes

664
00:45:29,230 --> 00:45:30,230
home.

665
00:45:30,230 --> 00:45:31,820
But that's not mandatory.

666
00:45:31,820 --> 00:45:37,970
And so, if by the time the commercial crew
vehicles start to fly regularly to ISS, we

667
00:45:37,970 --> 00:45:41,970
need to, that will be our path until we get
a second IDA up there.

668
00:45:41,970 --> 00:45:47,300
We have parts for a third IDA and so we will
go look to see how quickly we can assemble

669
00:45:47,300 --> 00:45:48,570
that.

670
00:45:48,570 --> 00:45:54,730
Our next question comes on the phone, Jericka
Duncan from CBS Evening News

671

00:45:54,730 --> 00:45:57,630
Hi.

672
00:45:57,630 --> 00:46:00,140
I just had a question about the cost.

673
00:46:00,140 --> 00:46:08,700
Can you give us an estimate how much money
it took to launch the Falcon 9 rocket

674
00:46:08,700 --> 00:46:13,310
We actually don't talk about costs publicly.

675
00:46:13,310 --> 00:46:19,770
So, no, I don't have an estimate for the cost.

676
00:46:19,770 --> 00:46:27,610
I think there was a question on the phone,
Keith Cowing

677
00:46:27,610 --> 00:46:29,620
Yes, Keith Cowing.

678
00:46:29,620 --> 00:46:31,450
I have a question for Mike.

679
00:46:31,450 --> 00:46:36,550
I was thinking back to my days in station
when we were talking about logistics and the

680
00:46:36,550 --> 00:46:41,950
whole idea of skip cycle came up where you
could endure, I guess it was two quarters,

681
00:46:41,950 --> 00:46:45,760
about six months of bad news and then have
another perhaps quarter sitting there.

682
00:46:45,760 --> 00:46:49,770

Are you roughly in that†-- still doing that
sort of thing and if so, where are you sort

683
00:46:49,770 --> 00:46:55,840
of in that nice to have zone where you don't
really worry about getting worried about having

684
00:46:55,840 --> 00:46:56,840
logistics?

685
00:46:56,840 --> 00:47:00,320
Keith, we have evolved a little bit from there.

686
00:47:00,320 --> 00:47:06,160
But we try to protect about six months of
time on orbit.

687
00:47:06,160 --> 00:47:15,760
And what that means is if you have no means
to get supplies up at about 45 days before

688
00:47:15,760 --> 00:47:22,910
you get to zero, that's when we get into the
process of planning the return of the crew.

689
00:47:22,910 --> 00:47:29,140
And so, today, we are at about give or take
about four moments, as I mentioned in the

690
00:47:29,140 --> 00:47:31,640
prelaunch press conference.

691
00:47:31,640 --> 00:47:35,760
We are trying to get that back up to six but
also trying to do research at the same time.

692
00:47:35,760 --> 00:47:37,750
And so we are balancing that.

693

00:47:37,750 --> 00:47:41,020
Our plan was to be up to six by roughly the
end of this year.

694
00:47:41,020 --> 00:47:45,510
We will go look to see what we can end up
doing when the dust settles.

695
00:47:45,510 --> 00:47:48,960
But...so we are about four months today.

696
00:47:48,960 --> 00:47:54,950
And per the guidelines that we follow, if
we approach the month and a half period and

697
00:47:54,950 --> 00:47:59,970
we don't have a logistics vehicle coming in
the near term, even if we do, we will start

698
00:47:59,970 --> 00:48:06,570
the planning for the return of the crew and
certainly, if we didn't see any vehicles on

699
00:48:06,570 --> 00:48:12,320
the horizon today, we would be considering
whether or not to fly the three crew ready

700
00:48:12,320 --> 00:48:13,320
to go.

701
00:48:13,320 --> 00:48:14,880
That is not the position we are.

702
00:48:14,880 --> 00:48:16,550
Four months of sun place on board.

703
00:48:16,550 --> 00:48:21,250
Two or three vehicles lined up to come fly
to ISS.

704
00:48:21,250 --> 00:48:28,630
I would expect us to continue to operate nominally, although we have some work to do now to recover

705
00:48:28,630 --> 00:48:33,260
some of the hardware and get some spares on board that we need.

706
00:48:33,260 --> 00:48:36,610
We will take a couple more in the room and then go back to the phones.

707
00:48:36,610 --> 00:48:38,410
I think there's one here.

708
00:48:38,410 --> 00:48:40,650
Yeah, I'm with Rt America.

709
00:48:40,650 --> 00:48:42,350
My question is for Gerst.

710
00:48:42,350 --> 00:48:47,650
You mentioned the need for more federal funding to reduce what you said was a depend sign

711
00:48:47,650 --> 00:48:48,650
Russia.

712
00:48:48,650 --> 00:48:53,810
I'm wondering if you could explain what your concerns are when it comes to that dependency.

713
00:48:53,810 --> 00:49:04,880
When I say dependency, we only have a single crew provider to space station and again,

714
00:49:04,880 --> 00:49:10,930
as you can see, we benefit by having disimilar redundancy, it is very nice to have multiple

715
00:49:10,930 --> 00:49:17,940
providers to provide the capability or provide
a need for a particular activity works like

716
00:49:17,940 --> 00:49:23,970
to have a U.S. provider to augment the Russian
crew transportation capability to and from

717
00:49:23,970 --> 00:49:24,970
station.

718
00:49:24,970 --> 00:49:29,570
So, that's what I meant by the fact I kind
of wanted to end our solar reliance on the

719
00:49:29,570 --> 00:49:30,770
Russians.

720
00:49:30,770 --> 00:49:37,070
By that I mean we want to be have the ability
to come to station by two dissimilar means,

721
00:49:37,070 --> 00:49:44,650
one would be a U.S. provider, both SpaceX
and Boeing would be one of those…would be

722
00:49:44,650 --> 00:49:48,050
both of those would providers as well as a
Russian entity.

723
00:49:48,050 --> 00:49:54,290
We would like to get to where we have three
means to get crew to and from space station.

724
00:49:54,290 --> 00:49:56,090
Okay.

725
00:49:56,090 --> 00:49:59,890

We have one more in the room here.

726
00:49:59,890 --> 00:50:01,930
This is Jay Patterson with CT News Junkie.

727
00:50:01,930 --> 00:50:03,570
This is for Mike.

728
00:50:03,570 --> 00:50:08,630
You mentioned earlier that one of the cargo
lost was an EMU.

729
00:50:08,630 --> 00:50:17,270
How is that going to affect EVA planning and
repairs and any of that type of stuff that

730
00:50:17,270 --> 00:50:21,540
you have on the horizon at the moment?

731
00:50:21,540 --> 00:50:24,040
We will have to look at for certain.

732
00:50:24,040 --> 00:50:32,020
Our plan was to bring home another EMU, 3011,
which we had removed the pump from.

733
00:50:32,020 --> 00:50:37,500
I suspect we will have a conversation about
just replacing the pump and keeping it on

734
00:50:37,500 --> 00:50:39,360
orbit a bit longer.

735
00:50:39,360 --> 00:50:51,110
We do have two EMUs, three EMUs today operational
aboard and 311 doesn't have its pump installed.

736
00:50:51,110 --> 00:50:58,150
The given the way we were able to install

the pumps, if we can get through this last

737
00:50:58,150 --> 00:51:04,140
anomaly with the pump that we just had, then
I suspect we will be fine with suits for a

738
00:51:04,140 --> 00:51:09,760
while although we would like to get a couple
new units up there just because their life

739
00:51:09,760 --> 00:51:13,100
is getting long for the ones there.

740
00:51:13,100 --> 00:51:14,100
Okay.

741
00:51:14,100 --> 00:51:19,520
Our next question from the phone, from Sophie
Sanchez of the Huffington Post.

742
00:51:19,520 --> 00:51:20,520
Hi.

743
00:51:20,520 --> 00:51:22,250
Thank you.

744
00:51:22,250 --> 00:51:28,840
My question for Gwynne, your previous launches
have shared fuel tank videos and the tank

745
00:51:28,840 --> 00:51:33,370
[†inaudible†] i'm assuming that was to
capture some video of the air regarding the

746
00:51:33,370 --> 00:51:35,480
behavior of liquid fuel.

747
00:51:35,480 --> 00:51:42,000
Have those videos revealed anything concerning

and was there a camera in the liquid oxygen

748
00:51:42,000 --> 00:51:44,270
fuel tank today?

749
00:51:44,270 --> 00:51:51,350
We do have video in the first stage launch
tank and that was to help us understand the

750
00:51:51,350 --> 00:51:54,280
characteristics of launch.

751
00:51:54,280 --> 00:52:00,390
We...I don't believe we'd camera in the second
stage tank.

752
00:52:00,390 --> 00:52:07,290
So, and that's the one that we are focus the
investigation on right now.

753
00:52:07,290 --> 00:52:11,900
If we do have video data from the first stage
that can give us any information, we will

754
00:52:11,900 --> 00:52:13,150
obviously use it.

755
00:52:13,150 --> 00:52:20,850
We have over 3,000 telemetry channels to be
looking through data…to look at for data,

756
00:52:20,850 --> 00:52:22,030
including videos.

757
00:52:22,030 --> 00:52:24,350
So, if there's something there, we will find
it.

758
00:52:24,350 --> 00:52:28,650

We are going to look at everything, of course.

759
00:52:28,650 --> 00:52:29,890
Okay.

760
00:52:29,890 --> 00:52:30,930
Another question from the phone.

761
00:52:30,930 --> 00:52:32,800
Miriam Kramer from Mashable.

762
00:52:32,800 --> 00:52:36,070
Hi, thanks very much for taking my question.

763
00:52:36,070 --> 00:52:40,130
This is honestly for anybody that knows the
answer, maybe pam or Gwynne.

764
00:52:40,130 --> 00:52:47,700
But I'm wondering how large of a debris field
you're looking the now, an estimate how big

765
00:52:47,700 --> 00:52:48,930
it is?

766
00:52:48,930 --> 00:52:51,160
That's it.

767
00:52:51,160 --> 00:52:53,390
Thank you.

768
00:52:53,390 --> 00:52:56,420
I don’t have an estimate of that right now.

769
00:52:56,420 --> 00:52:58,630
I can find out from my recovery team.

770
00:52:58,630 --> 00:53:04,000

Pam, I'm assuming, if you knew one, you'd
speak up.

771
00:53:04,000 --> 00:53:05,080
Absolutely, Gwynne.

772
00:53:05,080 --> 00:53:11,920
And this being a SpaceX mishap investigation
I defer to whatever you have, I don't have

773
00:53:11,920 --> 00:53:15,480
anything to the contrary or otherwise.

774
00:53:15,480 --> 00:53:16,480
Okay.

775
00:53:16,480 --> 00:53:19,130
We will take one more in the room.

776
00:53:19,130 --> 00:53:21,570
Over here.

777
00:53:21,570 --> 00:53:24,710
Hi, I'm Kristen Corbett Moran.

778
00:53:24,710 --> 00:53:31,890
I'm a postdoctoral fellow astronomy NASA physics
at CalTech here at the NASA social.

779
00:53:31,890 --> 00:53:38,660
The upcoming flight abort test, would that
system have saved lives in the event of anomaly

780
00:53:38,660 --> 00:53:45,500
similar to today's and will commercial dragon
eventually have such abort capabilities to

781
00:53:45,500 --> 00:53:51,930
also save important commercial crew and experiments

in the future?

782
00:53:51,930 --> 00:53:53,570
Most definitely.

783
00:53:53,570 --> 00:54:03,640
The escape system slated for the second version
of dragon would have taken…should have certainly

784
00:54:03,640 --> 00:54:09,150
taken the astronauts to a safe place after
an anomaly like this.

785
00:54:09,150 --> 00:54:14,610
In fact, it's designed to take a far more
energetic convenient and get the astronauts

786
00:54:14,610 --> 00:54:15,610
safely away.

787
00:54:15,610 --> 00:54:21,410
I mentioned in my opening, this was not a
first stage for all indications, this was

788
00:54:21,410 --> 00:54:23,380
not a first stage issue.

789
00:54:23,380 --> 00:54:24,870
So, yep.

790
00:54:24,870 --> 00:54:31,770
So the launch escape system would have been
enormously helpful here for the astronauts

791
00:54:31,770 --> 00:54:38,770
and I also mentioned that we did have dragon
telemetry after the event.

792
00:54:38,770 --> 00:54:43,360

So, dragon was transmitting and appears to
have been healthy for the least some period

793
00:54:43,360 --> 00:54:46,520
of time.

794
00:54:46,520 --> 00:54:48,100
Okay.

795
00:54:48,100 --> 00:54:49,100
Thank you.

796
00:54:49,100 --> 00:54:50,280
That's all the time we have today.

797
00:54:50,280 --> 00:54:55,940
I want to extend a thank you to all of our
panelists who took time out of responding

798
00:54:55,940 --> 00:54:57,920
to this to come talk to us about it.

799
00:54:57,920 --> 00:55:04,310
So, thank you to Gwynne Shotwell, Bill Gerstenmaier,
Michael Suffredini and Pam Underwood and thank

800
00:55:04,310 --> 00:55:09,760
you to everyone who joined us in the room,
on the phones, on social media, online.

801
00:55:09,760 --> 00:55:16,020
As appropriate, SpaceX and NASA will be providing
updates on our websites and on social media.

802
00:55:16,020 --> 00:55:22,560
And for those who may find any debris, please
call 321-867-2121.

803
00:55:22,560 --> 00:55:32,720

Again, if you find any debris, please call the hotline, 321-867-2121.