
PAO

1
00:00:01,216 --> 00:00:03,536
>> Bill, first off, thank
you so much for being

2
00:00:03,536 --> 00:00:04,516
in here with me today.

3
00:00:05,106 --> 00:00:07,076
A very exciting day,
a very successful day.

4
00:00:07,076 --> 00:00:09,956
Why don't you tell us a
little bit about what we got

5
00:00:09,956 --> 00:00:10,756
to see this this morning.

6
00:00:11,556 --> 00:00:14,836
>> It was really my pleasure to
be down here and actually get

7
00:00:14,986 --> 00:00:16,886
to witness the capture
and birthing

8
00:00:16,886 --> 00:00:19,236
of the Dragon Spacecraft
to the Space Station.

9
00:00:20,006 --> 00:00:24,276
Again, I was here for the
demonstration flight and I got

10
00:00:24,316 --> 00:00:28,086
to watch a little bit of the
tension as we learned how some

11
00:00:28,086 --> 00:00:30,096

of the systems would
actually operate and work.

12
00:00:30,726 --> 00:00:32,826
And then I got to
see the results today

13
00:00:32,826 --> 00:00:34,226
of where they took
the lessons learned

14
00:00:34,226 --> 00:00:38,286
from that previous demonstration
mission and the lidars,

15
00:00:38,286 --> 00:00:40,706
the thermal imagers, all the
equipment that was needed

16
00:00:40,706 --> 00:00:43,526
to make this work just
worked extremely smooth.

17
00:00:43,996 --> 00:00:46,286
I can't say enough
about the crew on orbit

18
00:00:46,286 --> 00:00:48,336
that was really ready
to go do the capture.

19
00:00:48,836 --> 00:00:50,506
[inaudible] was ready
to do the capture,

20
00:00:50,506 --> 00:00:53,196
they did it a little bit early
and it worked out really well

21
00:00:53,306 --> 00:00:56,696

and the Control Center Team here
and the team out in Hawthorne

22
00:00:56,696 --> 00:00:59,096
and the SpaceX just
did a phenomenal job

23
00:00:59,096 --> 00:01:03,216
of making a pretty complex
ballet in space look pretty easy

24
00:01:03,216 --> 00:01:06,196
and it was not easy by any
stretch of the imagination

25
00:01:06,196 --> 00:01:08,736
but they just did a
great job and it's great

26
00:01:08,736 --> 00:01:11,266
to have the Dragon Spacecraft
onboard the Space Station today.

27
00:01:11,666 --> 00:01:13,736
>> It's not easy by any stretch,

28
00:01:13,736 --> 00:01:16,646
a lot of milestones
overcome throughout the years

29
00:01:16,696 --> 00:01:19,436
that we've been working
side by side with SpaceX,

30
00:01:19,436 --> 00:01:21,556
talk about some of
the milestones we had

31
00:01:21,556 --> 00:01:22,846
to over come to get

to this point.

32
00:01:23,326 --> 00:01:25,826
>> Yeah. I think what's
really interesting and fun

33
00:01:25,826 --> 00:01:27,646
for me is I get a chance
to kind of step back

34
00:01:27,646 --> 00:01:29,896
and see the teams interact
and work with each other

35
00:01:30,416 --> 00:01:33,156
and the beauty is really
them working together.

36
00:01:33,756 --> 00:01:38,736
The SpaceX Team has some new,
creative ways of doing business

37
00:01:38,736 --> 00:01:39,446
that are a little different

38
00:01:39,446 --> 00:01:42,106
than the way we would have done
business from a NASA standpoint.

39
00:01:42,646 --> 00:01:45,206
The NASA team gets to see that,
they get to learn from that,

40
00:01:45,206 --> 00:01:46,866
they can actually
react and implement

41
00:01:46,866 --> 00:01:48,496
that in their ways
of doing business.

42
00:01:48,986 --> 00:01:52,186
The NASA team also has some ways
they've been doing things along,

43
00:01:52,396 --> 00:01:54,126
you know, they've
learned throughout history

44
00:01:54,616 --> 00:01:57,226
and then the SpaceX
team sees those

45
00:01:57,226 --> 00:02:00,376
and at first they may be kind
of reject some of those ideas,

46
00:02:00,376 --> 00:02:02,486
some of the ideas for
configuration control

47
00:02:02,486 --> 00:02:04,676
and how we monitor
things and watch things.

48
00:02:05,076 --> 00:02:06,696
It's a little different
than what they're used to

49
00:02:06,696 --> 00:02:08,966
and they discount those
initially and then

50
00:02:08,966 --> 00:02:11,156
after a while, they start
saying, hey, you know,

51
00:02:11,226 --> 00:02:12,216
this is really --

52
00:02:12,216 --> 00:02:14,766
now we understand what you
NASA guys have been doing

53
00:02:14,766 --> 00:02:17,096
and they modify their stuff
a little bit together.

54
00:02:17,096 --> 00:02:20,346
So the beauty is like in
any teaming relationship,

55
00:02:20,706 --> 00:02:23,406
if you come together with an
open mind and you look together

56
00:02:23,406 --> 00:02:25,506
and you work together and
you have that common goal,

57
00:02:25,916 --> 00:02:29,056
you can achieve so much
more as a combined team

58
00:02:29,056 --> 00:02:30,276
than you can individually.

59
00:02:30,276 --> 00:02:33,316
And I think it's just a
real pleasure for me to get

60
00:02:33,316 --> 00:02:36,776
to watch the best of spaceflight
come out in the SpaceX team

61
00:02:36,776 --> 00:02:39,926
and the best of spaceflight
come out in the NASA team to end

62

00:02:39,926 --> 00:02:42,326
up with this wonderful
event that occurred today

63
00:02:42,326 --> 00:02:43,466
with this capture and birthing.

64
00:02:43,796 --> 00:02:46,196
>> They're really bringing in
kind of the best of both worlds,

65
00:02:46,196 --> 00:02:49,296
some old school NASA knowledge,
some new blood from SpaceX,

66
00:02:49,296 --> 00:02:51,206
making this Dragon
Capsule successful,

67
00:02:51,736 --> 00:02:52,796
really exciting stuff.

68
00:02:52,796 --> 00:02:55,456
So now first commercial
resupply mission [inaudible]

69
00:02:55,456 --> 00:02:57,046
to the International
Space Station,

70
00:02:57,046 --> 00:02:58,206
what does this mean for NASA?

71
00:02:58,276 --> 00:02:59,246
Why is this important?

72
00:02:59,556 --> 00:03:01,996
>> You know, again, I think
this is tremendously important

73
00:03:01,996 --> 00:03:05,296
when we retired the shuttle, we
needed a way to get, you know,

74
00:03:05,296 --> 00:03:08,686
scientific investigations, as
well as necessary supplies,

75
00:03:09,156 --> 00:03:11,116
crew equipment, food,
other things,

76
00:03:11,116 --> 00:03:13,766
to and from Space
Station and we entered

77
00:03:13,766 --> 00:03:18,106
into the commercial orbital
transportation system activity

78
00:03:18,146 --> 00:03:20,846
with the Space Act
Agreements with both orbital

79
00:03:20,846 --> 00:03:23,906
and with SpaceX, now this is
the first commercial flight

80
00:03:23,906 --> 00:03:25,616
where we're buying
essentially services

81
00:03:25,616 --> 00:03:28,026
to carry up things to orbit.

82
00:03:28,026 --> 00:03:31,826
And I think the thing we miss
sometimes is the exciting cargo

83

00:03:31,826 --> 00:03:33,356
that is really onboard
this flight.

84
00:03:33,356 --> 00:03:35,616
There's some critical components
that we needed to get launched

85
00:03:35,616 --> 00:03:36,696
to station, they're there.

86
00:03:37,196 --> 00:03:39,306
Probably the most
important thing

87
00:03:39,306 --> 00:03:42,076
for this flight is this will
allow us to return some samples

88
00:03:42,076 --> 00:03:42,956
from the Space Station.

89
00:03:43,536 --> 00:03:45,706
There's a glacier
freezer that's on board,

90
00:03:45,706 --> 00:03:48,656
as well as some cold packs
that are in the Dragon Capsule.

91
00:03:49,206 --> 00:03:53,386
We have three minus 85 degree
freezers on board Space Station.

92
00:03:53,826 --> 00:03:56,186
We've not returned
anything from those freezers

93
00:03:56,186 --> 00:03:58,516
since the shuttles

quit flying last year

94
00:03:58,516 --> 00:04:02,736
so they're stocked full of
really precious blood samples

95
00:04:02,736 --> 00:04:03,866
for the crew 'cause we're trying

96
00:04:03,866 --> 00:04:06,416
to monitor how the
blood chemistry changes

97
00:04:06,416 --> 00:04:08,656
over time during an expedition.

98
00:04:09,206 --> 00:04:12,026
There's also biological
samples in there,

99
00:04:12,476 --> 00:04:15,266
there's also some plant
samples where we had some plants

100
00:04:15,266 --> 00:04:18,236
that we've fixated the
plants and then we froze them

101
00:04:18,236 --> 00:04:19,966
in the minus 85 degree freezers.

102
00:04:20,336 --> 00:04:23,436
So these are unbelievably
unique and precious specimens.

103
00:04:23,436 --> 00:04:27,286
And you know they've been
captured, the unique presence

104

00:04:27,286 --> 00:04:28,436
of Space Station, they're --

105
00:04:28,556 --> 00:04:31,346
and locked in these frozen
samples are potentially

106
00:04:31,346 --> 00:04:34,226
information that can reveal a
lot about what microgravity is

107
00:04:34,226 --> 00:04:36,306
and how it works in
the biological sense.

108
00:04:36,426 --> 00:04:37,416
So those are sitting up there.

109
00:04:37,566 --> 00:04:39,716
They're waiting to come home,
they need a way to come home.

110
00:04:39,716 --> 00:04:41,796
Our freezers were starting
to get full so we're going

111
00:04:41,796 --> 00:04:45,226
to take approximately
one third of the samples

112
00:04:45,226 --> 00:04:47,056
that have been stored in
those freezers on orbit,

113
00:04:47,106 --> 00:04:49,136
put them in this glacier
freezer and then get a chance

114
00:04:49,136 --> 00:04:51,356
to return them here to the

earth on the Dragon Capsule

115
00:04:51,356 --> 00:04:52,216
at the end of the mission.

116
00:04:52,216 --> 00:04:53,996
So it's not only the [inaudible]

117
00:04:54,076 --> 00:04:55,986
but it's also given
us the ability

118
00:04:55,986 --> 00:04:57,416
to return this precious cargo.

119
00:04:57,416 --> 00:05:01,096
So I look at the vision of
where we were when we laid

120
00:05:01,096 --> 00:05:03,706
out this concept to go
move forward to bring

121
00:05:03,706 --> 00:05:07,206
in some commercial providers
to provide services for us.

122
00:05:07,206 --> 00:05:09,006
There were a lot of
skeptics at the beginning

123
00:05:09,006 --> 00:05:11,816
but as evidenced today, I
think you're starting to see

124
00:05:11,816 --> 00:05:13,916
that this can work
and can move forward.

125

00:05:14,096 --> 00:05:16,306
And I think we also
need to not lose sight

126
00:05:16,306 --> 00:05:19,956
of how difficult this is so if
a problem occurs, we just need

127
00:05:19,956 --> 00:05:22,486
to react to that and not lose
faith in what we're doing

128
00:05:22,486 --> 00:05:24,186
and just continue to
keep moving forward.

129
00:05:24,916 --> 00:05:26,456
You know, we're --
it will be exciting

130
00:05:26,456 --> 00:05:28,746
to get these samples back, it
will be exciting to see some

131
00:05:28,746 --> 00:05:32,396
of this research actually get
investigated by the folks here

132
00:05:32,396 --> 00:05:34,656
on the ground and Dragon
has allowed us to do

133
00:05:34,656 --> 00:05:36,696
that with this return portion
of the flight coming up.

134
00:05:37,126 --> 00:05:38,356
>> So, really excited.

135
00:05:38,726 --> 00:05:40,646

I mean science, such a huge part

136
00:05:40,646 --> 00:05:42,936
of the International Space
Station, such an integral part,

137
00:05:42,936 --> 00:05:45,556
now all those important samples
have a ride back down to earth.

138
00:05:46,026 --> 00:05:48,796
We talked a little bit
earlier, telling me about some

139
00:05:48,796 --> 00:05:50,196
of the really cool
science experiments

140
00:05:50,196 --> 00:05:51,106
that we have going on.

141
00:05:51,106 --> 00:05:52,536
Tell me a little bit
about some of those.

142
00:05:52,766 --> 00:05:56,376
>> Yeah. What's going on on
station is we have an aquarium,

143
00:05:56,376 --> 00:05:59,006
a fish habitat that
was launched on the HTV

144
00:05:59,006 --> 00:06:01,736
and it's been installed by
[inaudible] on board station.

145
00:06:02,016 --> 00:06:03,426
It's there, it's
been checked out,

146
00:06:03,426 --> 00:06:05,156
it's ready to be
operated and used.

147
00:06:05,476 --> 00:06:08,226
The fish are coming up on
the Soyuz flight and I was

148
00:06:08,226 --> 00:06:11,016
down here not only for the
capture and birthing but I was

149
00:06:11,016 --> 00:06:12,396
down here for the
flight readiness review

150
00:06:12,396 --> 00:06:13,406
for the Soyuz flight.

151
00:06:13,406 --> 00:06:16,916
And on that Soyuz flight, we'll
fly up some [inaudible] fish

152
00:06:16,916 --> 00:06:19,006
that will actually
inhabit the aquarium.

153
00:06:19,006 --> 00:06:21,156
And what's intriguing
about that is we've --

154
00:06:21,586 --> 00:06:23,906
we were looking at bone
loss potentially with this,

155
00:06:23,906 --> 00:06:26,946
we've flown these fish before
in space for a 16 day mission

156
00:06:26,946 --> 00:06:29,746
but we've never been able to
fly them for 60 or 90 days.

157
00:06:30,056 --> 00:06:33,146
And if you think about it,
you know, humans that walk

158
00:06:33,146 --> 00:06:35,526
around on the earth, we
experience bone loss in space

159
00:06:35,876 --> 00:06:37,876
but our systems are
loaded by one gravity.

160
00:06:37,876 --> 00:06:40,186
You know, the bones are
stressed by just walking

161
00:06:40,186 --> 00:06:42,576
around on the earth, or we fly
[inaudible], same kind of thing.

162
00:06:43,056 --> 00:06:44,936
Their bones are loaded
by one gravity.

163
00:06:45,296 --> 00:06:48,016
The fish bones are not
loaded by one gravity,

164
00:06:48,016 --> 00:06:51,656
they're essentially swimming
around in the lakes or oceans

165
00:06:51,656 --> 00:06:54,276
or aquariums here on
the earth so it's much

166
00:06:54,276 --> 00:06:55,696
like our neutral
buoyancy facility

167
00:06:55,776 --> 00:06:57,376
where we go simulate
microgravity

168
00:06:57,376 --> 00:07:00,356
for our crew members, these fish
experience that all the time.

169
00:07:00,726 --> 00:07:03,936
So now we'll fly these fish to
space, put them in this habitat

170
00:07:03,936 --> 00:07:06,446
on board Space Station and
then we'll go look and see

171
00:07:06,446 --> 00:07:08,606
if they actually have
the same bone loss

172
00:07:08,606 --> 00:07:14,696
from [inaudible] terrestrially
one G loaded other animals have

173
00:07:14,696 --> 00:07:16,566
or there's something
different that goes on.

174
00:07:16,566 --> 00:07:18,696
And what this will do is this
will allow the researchers

175
00:07:18,696 --> 00:07:22,166
to get more insight into the
mechanism behind bone loss

176
00:07:22,166 --> 00:07:23,096
that occurs in space.

177
00:07:23,096 --> 00:07:26,516
So is it truly a one
gravity loading condition?

178
00:07:26,516 --> 00:07:29,716
Can you compensate for it by
putting the crews on treadmills

179
00:07:29,746 --> 00:07:32,556
and loading them with bungees
or doing the, you know,

180
00:07:32,556 --> 00:07:36,736
dance resistive exercise device
that they use, the [inaudible].

181
00:07:37,216 --> 00:07:39,456
Can we accommodate that or that
is there something else that's

182
00:07:39,456 --> 00:07:40,556
fundamentally going on.

183
00:07:40,556 --> 00:07:43,366
So what's exciting is these fish
will give us another insight

184
00:07:43,366 --> 00:07:46,466
into this phenomena we observe
in space and we've really got

185
00:07:46,466 --> 00:07:48,766
to learn to control these
things if we're going

186
00:07:48,766 --> 00:07:51,606

to go beyond lower orbit,
go to asteroids, go to Mars,

187
00:07:52,186 --> 00:07:55,526
get out into space, we're going
to be exposed to long durations

188
00:07:55,526 --> 00:07:58,366
of microgravity conditions
and we need to understand how

189
00:07:58,366 --> 00:07:59,456
to control those symptoms.

190
00:07:59,456 --> 00:08:01,126
So this experiment that's coming

191
00:08:01,126 --> 00:08:04,486
up on the Soyuz will be very
important to give us some

192
00:08:04,486 --> 00:08:07,236
of the, some insight into
bone loss we've not been able

193
00:08:07,236 --> 00:08:08,026
to see before.

194
00:08:08,026 --> 00:08:11,126
So, again, it's exciting and
we have to dig a little bit

195
00:08:11,176 --> 00:08:13,426
to see what the sciences going
on board in Space Station

196
00:08:13,426 --> 00:08:15,956
but there's lots of great
investigations every day onboard

197
00:08:15,956 --> 00:08:16,636
the Space Station.

198
00:08:16,996 --> 00:08:19,906
>> Do they put in a
little plastic castle

199
00:08:19,906 --> 00:08:21,606
in that fish tank for the...

200
00:08:21,606 --> 00:08:24,916
>> I don't think there's
a little plastic castle

201
00:08:24,916 --> 00:08:27,476
or any plastic plants in
there but you'll get a chance

202
00:08:27,476 --> 00:08:28,926
to see some of the
video from station

203
00:08:28,926 --> 00:08:29,626
when the fish get [inaudible].

204
00:08:29,626 --> 00:08:31,246
>> We'll definitely be
following along with it.

205
00:08:31,526 --> 00:08:34,666
So, again, Dragon
commercial resupply,

206
00:08:35,466 --> 00:08:37,206
getting into full
swing but they're --

207
00:08:37,446 --> 00:08:39,826
SpaceX isn't our only partner

in the commercial resupply.

208
00:08:39,826 --> 00:08:42,156
We have another partner
who's moving through and well

209
00:08:42,156 --> 00:08:43,686
on their way to [inaudible]
supply

210
00:08:43,686 --> 00:08:45,436
on the International Space
Station, that's orbital.

211
00:08:45,606 --> 00:08:47,416
>> Yup. And the orbital is in --

212
00:08:47,416 --> 00:08:49,446
they're going to launch
out of Wallops, Virginia

213
00:08:49,726 --> 00:08:51,146
and Wallops Island, Virgina.

214
00:08:51,796 --> 00:08:53,336
They're out on the
launch pad now,

215
00:08:53,336 --> 00:08:56,906
they've just moved the rocket
out last week and they lifted it

216
00:08:56,906 --> 00:08:58,566
up and installed it
on the launch pad.

217
00:08:59,056 --> 00:09:01,266
You know, they had to build
essentially a launch pad

218
00:09:01,266 --> 00:09:01,846
from scratch.

219
00:09:01,846 --> 00:09:04,906
There was no launch pad for this
rocket before so they had to put

220
00:09:04,906 --> 00:09:08,596
in not only the cement
infrastructure and the facility,

221
00:09:08,596 --> 00:09:10,366
the [inaudible] that holds the
rockets but they had to put

222
00:09:10,366 --> 00:09:11,986
in a, you know, a
propellant system

223
00:09:11,986 --> 00:09:16,356
that can handle cryogenic oxygen
and kerosene to deliver it

224
00:09:16,356 --> 00:09:18,766
to the rocket and also
there's some helium that needs

225
00:09:18,766 --> 00:09:19,926
to be supplied, et cetera.

226
00:09:19,926 --> 00:09:22,506
So there was a lot of
buildup of the launch pad.

227
00:09:22,506 --> 00:09:22,946
[Inaudible]

228
00:09:22,946 --> 00:09:26,796
Building it from

essentially open beach

229
00:09:27,276 --> 00:09:28,676
to essentially a launch pad

230
00:09:28,676 --> 00:09:30,966
so they've been very busy
getting that in place.

231
00:09:31,606 --> 00:09:34,036
There's been some, you
know, typical problems

232
00:09:34,036 --> 00:09:36,606
as they check things out, valves
don't quite function right,

233
00:09:36,606 --> 00:09:40,266
systems leak a little bit, some
flanges needed to be re-torqued

234
00:09:40,266 --> 00:09:41,776
so they've been working
through all those problems

235
00:09:41,776 --> 00:09:43,506
but now they're at the
point where the rocket is

236
00:09:43,506 --> 00:09:46,166
out on the launch pad, they'll
do some filling demonstrations.

237
00:09:46,616 --> 00:09:50,076
I think they started around
the 20th of this month,

238
00:09:50,076 --> 00:09:51,716
so probably about
10 days from now.

239
00:09:51,716 --> 00:09:54,786
And what they'll do there is
they'll actually fuel the rocket

240
00:09:55,036 --> 00:09:57,796
three times to make sure they
can really understand how it

241
00:09:57,796 --> 00:09:59,846
gets fueled to get
all the precise timing

242
00:09:59,846 --> 00:10:01,316
down to get ready
for the launch.

243
00:10:01,826 --> 00:10:04,326
Then they'll do a hot fire
test after that completes

244
00:10:04,486 --> 00:10:07,586
and that will verify that
the hold down system works,

245
00:10:07,586 --> 00:10:10,276
the launch countdown software
works, all those things work.

246
00:10:10,636 --> 00:10:13,356
And then they'll do a launch
probably later this year,

247
00:10:13,356 --> 00:10:15,636
probably some time in
December that we'll launch

248
00:10:15,636 --> 00:10:19,866
with a dummy Cygnus Capsule on
top, it will be just to check

249
00:10:19,866 --> 00:10:22,206
out the launch system to make
sure the rocket can operate.

250
00:10:22,616 --> 00:10:23,846
And we'll get to see that

251
00:10:23,846 --> 00:10:25,366
and then they'll do
their demonstration

252
00:10:25,366 --> 00:10:27,886
to station some time
next year in 2013.

253
00:10:27,886 --> 00:10:30,576
So, again, I think they're
making good progress,

254
00:10:31,306 --> 00:10:34,186
lots of challenges, you
know, things seem mundane

255
00:10:34,186 --> 00:10:35,596
but to deliver, you know,

256
00:10:35,596 --> 00:10:39,136
minus 420 some degrees
Fahrenheit oxygen

257
00:10:39,136 --> 00:10:40,246
at the right conditions.

258
00:10:40,246 --> 00:10:42,936
And by right conditions,
right pressure and flow rates

259
00:10:42,936 --> 00:10:46,446

and all these things, it's not
a trivial experiment at all.

260
00:10:46,446 --> 00:10:47,686
It's not trivial to get
the launch pad [inaudible].

261
00:10:47,686 --> 00:10:48,696
>> It's still rocket science.

262
00:10:48,696 --> 00:10:50,856
>> It's still rocket
science and they'll work

263
00:10:50,896 --> 00:10:52,886
through those things so we'll
see how these demonstrations

264
00:10:52,886 --> 00:10:55,386
and field tests go over the
next couple weeks but, again,

265
00:10:55,386 --> 00:10:57,656
they're making good solid
progress and moving forward.

266
00:10:58,116 --> 00:11:00,066
They've got several
rockets already

267
00:11:00,066 --> 00:11:01,256
at Wallops that are ready to go.

268
00:11:01,256 --> 00:11:03,196
They've got a couple Cygnus
Capsules that are there

269
00:11:03,566 --> 00:11:05,936
so I think once they get through
this kind of startup stuff,

270
00:11:05,966 --> 00:11:09,166
they'll be ready to go ahead
and deliver cargo to station,

271
00:11:09,166 --> 00:11:11,146
which will be, again,
another way

272
00:11:11,146 --> 00:11:13,906
to really effectively
utilize station.

273
00:11:13,906 --> 00:11:16,906
And we really designed it that
we need both of these companies,

274
00:11:16,906 --> 00:11:19,046
we can't do it just
with SpaceX alone.

275
00:11:19,406 --> 00:11:22,406
We need both the cargo delivered
by orbital and by SpaceX

276
00:11:22,406 --> 00:11:23,616
to make station functional

277
00:11:23,616 --> 00:11:25,036
and get the research
that we intended.

278
00:11:25,036 --> 00:11:27,686
So we're looking, again, for
them coming online as soon

279
00:11:27,686 --> 00:11:28,766
as they're ready to come online.

280

00:11:28,766 --> 00:11:31,906
And, again, I get to
see the same NASA teams,

281
00:11:31,906 --> 00:11:33,776
maybe different teams,
working with these folks,

282
00:11:33,776 --> 00:11:36,136
helping out with
the orbital team.

283
00:11:36,646 --> 00:11:39,286
I've been seeing it where a
lot of our folks from Kennedy

284
00:11:39,286 --> 00:11:42,576
and Marshall and Stennis who
have experience in launch pads

285
00:11:42,576 --> 00:11:45,926
and in launch design, we
ship those up to Wallops

286
00:11:45,926 --> 00:11:47,806
and they've been
helping the orbital team.

287
00:11:47,806 --> 00:11:50,206
They've actually done some
work with them hand in hand,

288
00:11:50,206 --> 00:11:52,826
done some test conducting with
them as they do through tests,

289
00:11:52,826 --> 00:11:55,016
teaching them how to
operate and do things.

290

00:11:55,016 --> 00:11:59,066
So, again, I'm seeing the
NASA team take the newer teams

291
00:11:59,246 --> 00:12:01,406
and give them some
experience, help them along

292
00:12:01,406 --> 00:12:03,556
over through some of the
rough spots, be encouraging

293
00:12:03,896 --> 00:12:06,896
but then I also get to see my
team get excited and invigorated

294
00:12:06,896 --> 00:12:08,316
about a new way of
doing business

295
00:12:08,316 --> 00:12:10,056
that they've not had a
chance to experience.

296
00:12:10,056 --> 00:12:12,666
So, again, that teaming
relationship I described

297
00:12:12,666 --> 00:12:15,716
with SpaceX, that same teaming
relationship is alive and well

298
00:12:15,766 --> 00:12:19,506
with orbital and it's a
tremendous thing for me to get

299
00:12:19,566 --> 00:12:23,846
to see that drive, that pull
of spaceflight, that wanting

300

00:12:23,846 --> 00:12:26,716
to go beyond low earth orbit
to understand what we can do

301
00:12:26,716 --> 00:12:27,446
with Space Station,

302
00:12:27,446 --> 00:12:29,386
to understand those
research questions,

303
00:12:29,676 --> 00:12:32,276
to see these teams get
united by that passion

304
00:12:32,276 --> 00:12:35,736
and move forward is just, is
a tremendous blessing for me

305
00:12:35,736 --> 00:12:38,186
to get to see these
teams work together.

306
00:12:38,246 --> 00:12:41,086
>> Really fascinating to see the
synergies between the two teams

307
00:12:41,086 --> 00:12:42,496
and really spreading
the knowledge out,

308
00:12:42,496 --> 00:12:44,696
getting as many people
involved in spaceflight

309
00:12:44,696 --> 00:12:47,466
as we possibly can,
really exciting stuff.

310
00:12:47,466 --> 00:12:50,006

So, successful Dragon today.

311
00:12:50,126 --> 00:12:52,736
Anything else you'd
like to say real quick?

312
00:12:52,736 --> 00:12:53,406
>> Not really.

313
00:12:53,406 --> 00:12:55,046
Again, I think, you know,

314
00:12:55,046 --> 00:12:57,396
spend the time understanding
what's going

315
00:12:57,396 --> 00:12:58,446
on with Space Station.

316
00:12:58,446 --> 00:13:01,316
I think here in the next couple
days, there's some good passes

317
00:13:01,316 --> 00:13:03,786
of station going overhead,
especially in the U.S.

318
00:13:03,786 --> 00:13:08,786
in Houston and also on the East
Coast so if you get a chance,

319
00:13:08,786 --> 00:13:11,116
go outside and watch this
little white dot go overhead.

320
00:13:11,526 --> 00:13:14,006
I tell people that you also have
to have a picture of the crew

321

00:13:14,006 --> 00:13:16,786
so you need a picture
of Uri and [inaudible]

322
00:13:17,206 --> 00:13:19,686
and Sunny [assumed spelling]
so you can show your friends

323
00:13:19,686 --> 00:13:21,636
that these little --
these three people are

324
00:13:21,636 --> 00:13:23,446
in that little white
dot [inaudible], right?

325
00:13:23,446 --> 00:13:25,576
And here they go across
the sky so I think --

326
00:13:25,986 --> 00:13:28,276
and also spend a little bit
of time, go out to the web,

327
00:13:28,276 --> 00:13:29,336
research a little bit, find

328
00:13:29,336 --> 00:13:32,086
out what the research is we're
doing today on Space Station

329
00:13:32,426 --> 00:13:35,116
and then figure out a way
to talk to you neighbors

330
00:13:35,116 --> 00:13:36,976
and friends about what
that research is and how

331
00:13:36,976 --> 00:13:38,506

that research affects
their lives.

332
00:13:38,506 --> 00:13:41,326
And so use that little white
dot going overhead that you see

333
00:13:41,326 --> 00:13:45,966
to essentially maybe talk to
your friends and neighbors

334
00:13:45,966 --> 00:13:48,306
about what you're doing
and what excitement you see

335
00:13:48,306 --> 00:13:49,286
in the space program.

336
00:13:49,286 --> 00:13:51,986
So, again, and my only thought

337
00:13:51,986 --> 00:13:54,546
for the day is the weather's
been good here in Houston

338
00:13:54,546 --> 00:13:56,626
so if you get a chance,
especially tonight

339
00:13:56,626 --> 00:13:58,916
or tomorrow night, get a chance
to get out there and take a look

340
00:13:58,916 --> 00:14:01,566
and see this marvelous
thing that flies overhead.

341
00:14:01,846 --> 00:14:04,256
>> Absolutely and it is
amazing to see it too,

342
00:14:04,256 --> 00:14:05,926
when you see it streaking
across the sky

343
00:14:05,926 --> 00:14:08,556
and just thinking there
are people living on that,

344
00:14:08,766 --> 00:14:11,776
it's been up there for 10
years, it's this modern marvel.

345
00:14:12,246 --> 00:14:13,366
It really is inspiring.

346
00:14:13,446 --> 00:14:15,036
>> Yup. And you can even
say there's a Dragon

347
00:14:15,036 --> 00:14:15,876
Capsule attached.

348
00:14:15,876 --> 00:14:16,916
>> And there's a Dragon -- yup.

349
00:14:17,056 --> 00:14:17,246
>> Yup.

350
00:14:17,306 --> 00:14:18,726
>> All right.

351
00:14:18,726 --> 00:14:20,776
Well, Bill, thank you so
much for being here today.

352
00:14:20,776 --> 00:14:22,796
Again, Bill Gerstenmaier,
Associated Administrator

353
00:14:22,796 --> 00:14:24,686
for Human Exploration
and Operations.

354
00:14:24,686 --> 00:14:25,756
A very successful day.

355
00:14:25,756 --> 00:14:26,516
It's been an honor.

356
00:14:26,586 --> 00:14:28,646
>> 'Kay. Well, thank
you very much.

357
00:14:28,686 --> 00:14:28,936
>> All right.