



1
00:00:09,400 --> 00:00:06,909
well the safe return home yesterday of

2
00:00:10,959 --> 00:00:09,410
expedition 43 commander terry virts

3
00:00:12,850 --> 00:00:10,969
along with flight engineers anton

4
00:00:14,530 --> 00:00:12,860
shkaplerov and samantha Christopher

5
00:00:17,590 --> 00:00:14,540
ready after their stay aboard the

6
00:00:20,440 --> 00:00:17,600
station signaled the start of expedition

7
00:00:22,270 --> 00:00:20,450
43 and to get a preview of some of the

8
00:00:25,030 --> 00:00:22,280
highlights of the increment that has

9
00:00:28,030 --> 00:00:25,040
just started I'm pleased to welcome

10
00:00:30,550 --> 00:00:28,040
Scott Stover here Scott is the lead

11
00:00:34,540 --> 00:00:30,560
flight director for actually expedition

12
00:00:37,780 --> 00:00:34,550
43 and 44 so he's staying on for for

13
00:00:41,020 --> 00:00:37,790

another increment through the expedition

14

00:00:42,310 --> 00:00:41,030

44 and Scott welcome I know you you're

15

00:00:43,900 --> 00:00:42,320

very familiar with this room you've

16

00:00:46,300 --> 00:00:43,910

worked right over there but now you're

17

00:00:47,860 --> 00:00:46,310

kind of overseeing the team from the

18

00:00:50,260 --> 00:00:47,870

crow's nest and I guess representing

19

00:00:52,030 --> 00:00:50,270

this team to the outside mission

20

00:00:54,490 --> 00:00:52,040

management team and other entities

21

00:00:56,650 --> 00:00:54,500

within flight operations right yeah

22

00:00:57,910 --> 00:00:56,660

that's a great way to put it as a flight

23

00:00:59,800 --> 00:00:57,920

director you know sitting here in this

24

00:01:02,110 --> 00:00:59,810

room you you're in charge of the

25

00:01:03,460 --> 00:01:02,120

day-to-day what's going on entering crew

26

00:01:05,680 --> 00:01:03,470

calls making sure the timeline is

27

00:01:08,350 --> 00:01:05,690

getting done as an increment lead what

28

00:01:09,580 --> 00:01:08,360

we do is we look I often say I live a

29

00:01:11,110 --> 00:01:09,590

couple weeks in the future we're always

30

00:01:13,510 --> 00:01:11,120

looking at what's coming up and making

31

00:01:16,570 --> 00:01:13,520

sure that the overall requirements and

32

00:01:19,090 --> 00:01:16,580

big picture plans for the the rest of

33

00:01:21,250 --> 00:01:19,100

the increment is is getting planned out

34

00:01:22,810 --> 00:01:21,260

and and hopefully successfully completed

35

00:01:24,340 --> 00:01:22,820

you know we always have hiccups here

36

00:01:25,690 --> 00:01:24,350

there or if a piece of hardware doesn't

37

00:01:28,960 --> 00:01:25,700

work the way we want or something like

38

00:01:31,000 --> 00:01:28,970

that but our goal is to you know the the

39

00:01:33,100 --> 00:01:31,010

program NASA and the international

40

00:01:35,620 --> 00:01:33,110

partners all have requirements whether

41

00:01:37,480 --> 00:01:35,630

it's science experiments or adjusting

42

00:01:41,080 --> 00:01:37,490

the the space stations configuration or

43

00:01:43,120 --> 00:01:41,090

anything like that and we plan to to get

44

00:01:45,850 --> 00:01:43,130

that all accomplished as crew time is

45

00:01:48,580 --> 00:01:45,860

available to do that you and I actually

46

00:01:51,660 --> 00:01:48,590

chatted yesterday afternoon about this

47

00:01:54,910 --> 00:01:51,670

but and there's been a name any

48

00:01:57,880 --> 00:01:54,920

significant impacts to the schedule with

49

00:02:01,690 --> 00:01:57,890

the kind of the one month delay in the

50

00:02:03,490 --> 00:02:01,700

start of expedition 44 I know we chatted

51
00:02:06,160 --> 00:02:03,500
about expedition 43 staying a little

52
00:02:08,080 --> 00:02:06,170
longer so I talked about the impacts if

53
00:02:10,419 --> 00:02:08,090
there even are any for the expedition

54
00:02:13,030 --> 00:02:10,429
that just got underway yeah so we've had

55
00:02:14,350 --> 00:02:13,040
to rearrange a few things the the

56
00:02:17,200 --> 00:02:14,360
benefit of having the

57
00:02:18,730 --> 00:02:17,210
31's crew stay longer was we did

58
00:02:21,160 --> 00:02:18,740
relocate the permanent multi-purpose

59
00:02:23,320 --> 00:02:21,170
module that had been planned to do later

60
00:02:25,180 --> 00:02:23,330
in the summer but with the additional

61
00:02:27,310 --> 00:02:25,190
crew time that was available early in

62
00:02:30,040 --> 00:02:27,320
the increment we were able to get that

63
00:02:31,540 --> 00:02:30,050

accomplished now we do have here about

64

00:02:33,850 --> 00:02:31,550

six weeks we're down to just three crew

65

00:02:38,440 --> 00:02:33,860

members on board included in that will

66

00:02:39,520 --> 00:02:38,450

be the SpaceX seven mission so one of

67

00:02:40,870 --> 00:02:39,530

the things that we're sort of

68

00:02:42,160 --> 00:02:40,880

constrained on is how much we can

69

00:02:44,710 --> 00:02:42,170

actually do with only three crew members

70

00:02:46,690 --> 00:02:44,720

on board we're going to be pulled pretty

71

00:02:48,010 --> 00:02:46,700

tight during that timeframe and we'll

72

00:02:51,670 --> 00:02:48,020

have to make up for it once we get back

73

00:02:55,470 --> 00:02:51,680

up to six crew the the planning team

74

00:02:58,090 --> 00:02:55,480

your team is also working toward

75

00:03:00,520 --> 00:02:58,100

potentially some space walks this summer

76

00:03:02,050 --> 00:03:00,530

the dates are still I guess to be

77

00:03:03,190 --> 00:03:02,060

determined based on how the schedules

78

00:03:06,220 --> 00:03:03,200

fall out with the launches and

79

00:03:08,350 --> 00:03:06,230

everything but these spacewalks actually

80

00:03:12,580 --> 00:03:08,360

constitute a pretty significant change

81

00:03:14,050 --> 00:03:12,590

to the station in terms of its outer

82

00:03:16,900 --> 00:03:14,060

mold line which we call in the business

83

00:03:19,030 --> 00:03:16,910

I guess but give us an overview of what

84

00:03:21,310 --> 00:03:19,040

that means when we get to that point yes

85

00:03:22,840 --> 00:03:21,320

specifically the one space u.s.

86

00:03:25,120 --> 00:03:22,850

spacewalk that we're trying to get into

87

00:03:27,520 --> 00:03:25,130

the schedule right now has to install

88

00:03:29,350 --> 00:03:27,530

the international docking adapter that

89

00:03:32,860 --> 00:03:29,360

that piece of equipment flies up on the

90

00:03:34,720 --> 00:03:32,870

SpaceX seven mission and it enables the

91

00:03:39,520 --> 00:03:34,730

actual first docking of a commercial

92

00:03:40,990 --> 00:03:39,530

crew vehicle to the ISS so it takes two

93

00:03:43,270 --> 00:03:41,000

crew members to go outside and then also

94

00:03:47,380 --> 00:03:43,280

the help of the Canadian robotic arm and

95

00:03:49,780 --> 00:03:47,390

the the spdm to install this docking

96

00:03:52,720 --> 00:03:49,790

adapter on the front very front end of

97

00:03:54,250 --> 00:03:52,730

the ISS on PMA to once that gets

98

00:03:57,580 --> 00:03:54,260

installed and of course after our

99

00:03:58,930 --> 00:03:57,590

commercial partners get fully ready ISS

100

00:04:00,910 --> 00:03:58,940

will be ready to accept a commercial

101
00:04:02,530 --> 00:04:00,920
crew vehicle so we're very excited about

102
00:04:05,530 --> 00:04:02,540
having that capability brought on board

103
00:04:08,199 --> 00:04:05,540
you also have a number of visiting

104
00:04:11,680 --> 00:04:08,209
vehicles that are planned during during

105
00:04:14,770 --> 00:04:11,690
this increment and and potentially one

106
00:04:16,240 --> 00:04:14,780
of those being relocated at some point

107
00:04:18,460 --> 00:04:16,250
after it arrived what's the story there

108
00:04:21,039 --> 00:04:18,470
so yeah I'm still trying to figure that

109
00:04:23,260 --> 00:04:21,049
out myself um we have this basic seven

110
00:04:26,650 --> 00:04:23,270
mission coming up here in late July and

111
00:04:27,710 --> 00:04:26,660
so once that gets there lots of science

112
00:04:29,960 --> 00:04:27,720
experiments coming up a lot

113
00:04:32,750 --> 00:04:29,970

hardware coming up and including that

114

00:04:34,040 --> 00:04:32,760

international docking adapter and will

115

00:04:35,300 --> 00:04:34,050

the crew will be performing those

116

00:04:38,570 --> 00:04:35,310

experiments trying to transfer all the

117

00:04:40,250 --> 00:04:38,580

cargo and we have dragon stays on board

118

00:04:44,180 --> 00:04:40,260

for about 30 days we might extend this

119

00:04:46,070 --> 00:04:44,190

one closer to 40 if if we can and get it

120

00:04:49,160 --> 00:04:46,080

loaded up with important science samples

121

00:04:52,460 --> 00:04:49,170

and hardware to come home and then later

122

00:04:55,730 --> 00:04:52,470

in August the plan is to launch the HTV

123

00:04:58,640 --> 00:04:55,740

number five which is our jaksu our

124

00:05:01,190 --> 00:04:58,650

japanese transport vehicle and that one

125

00:05:02,840 --> 00:05:01,200

will initially birth to the nadir side

126

00:05:04,390 --> 00:05:02,850

or the bottom side of no 2 that's where

127

00:05:07,250 --> 00:05:04,400

we put most of our cargo vehicles

128

00:05:09,320 --> 00:05:07,260

however the there's the possibility that

129

00:05:11,150 --> 00:05:09,330

the next SpaceX will be coming up right

130

00:05:14,510 --> 00:05:11,160

right after that and we may have to keep

131

00:05:17,390 --> 00:05:14,520

HTTP on board Wow SpaceX is there so we

132

00:05:18,800 --> 00:05:17,400

may be moving the HTTP module to the

133

00:05:21,230 --> 00:05:18,810

node one nadir that's where the

134

00:05:23,840 --> 00:05:21,240

permanent multi-purpose module was just

135

00:05:26,300 --> 00:05:23,850

relocated from and that way we may

136

00:05:29,630 --> 00:05:26,310

actually have two cargo vehicles there

137

00:05:31,460 --> 00:05:29,640

at the same time lots going on and HTV

138

00:05:34,490 --> 00:05:31,470

is plan to stay beyond in the end of

139

00:05:36,980 --> 00:05:34,500

increment 44 into the increment 45 at

140

00:05:38,540 --> 00:05:36,990

the same time will be so use operations

141

00:05:41,390 --> 00:05:38,550

will be going on progress operations

142

00:05:44,540 --> 00:05:41,400

began very busy time what I guess and

143

00:05:46,100 --> 00:05:44,550

early September looks like obviously

144

00:05:48,140 --> 00:05:46,110

there's a lot of science that's going on

145

00:05:50,510 --> 00:05:48,150

related to the one-year mission and that

146

00:05:53,930 --> 00:05:50,520

those that science keeps coming up right

147

00:05:56,120 --> 00:05:53,940

so as with the SpaceX flight correct and

148

00:05:59,930 --> 00:05:56,130

and just because the crew members are

149

00:06:01,880 --> 00:05:59,940

onboard science keeps going you know is

150

00:06:03,950 --> 00:06:01,890

you can imagine a normal person has to

151
00:06:06,409 --> 00:06:03,960
go to the doctor once a year or you may

152
00:06:09,290 --> 00:06:06,419
depending on your health condition need

153
00:06:11,719 --> 00:06:09,300
to go to the doctors more often well to

154
00:06:14,090 --> 00:06:11,729
in order to get good science samples the

155
00:06:15,890 --> 00:06:14,100
crew members are scheduled at regular

156
00:06:18,080 --> 00:06:15,900
intervals to have science samples taken

157
00:06:19,640 --> 00:06:18,090
you talked about vo2 max earlier that's

158
00:06:21,770 --> 00:06:19,650
one of the examples and as you said it's

159
00:06:24,200 --> 00:06:21,780
about once a month if that happens so we

160
00:06:25,700 --> 00:06:24,210
have very flight days specific samples

161
00:06:28,159 --> 00:06:25,710
and activities for the crew that

162
00:06:29,870 --> 00:06:28,169
monitors their health and and that's the

163
00:06:33,320 --> 00:06:29,880

data that the doctors are gathering to

164

00:06:36,320 --> 00:06:33,330

understand the impacts on the body one

165

00:06:38,000 --> 00:06:36,330

last question to touch on it's a busy

166

00:06:40,219 --> 00:06:38,010

agenda obviously especially with three

167

00:06:41,340 --> 00:06:40,229

people up there right now but is it

168

00:06:43,170 --> 00:06:41,350

helpful

169

00:06:45,810 --> 00:06:43,180

having an experienced crew like this one

170

00:06:48,510 --> 00:06:45,820

up up there oh yes I would say it's it's

171

00:06:50,670 --> 00:06:48,520

definitely beneficial to us you know if

172

00:06:52,950 --> 00:06:50,680

we launch new crew members that have

173

00:06:56,190 --> 00:06:52,960

never flown in space before we have to

174

00:06:58,950 --> 00:06:56,200

give them some adaptation time everybody

175

00:07:01,290 --> 00:06:58,960

is affected differently and 20 g some

176

00:07:02,880 --> 00:07:01,300

some people it's like a fish returning

177

00:07:04,980 --> 00:07:02,890

to water other people it's the fish out

178

00:07:07,860 --> 00:07:04,990

of water kind of kind of thing where the

179

00:07:10,560 --> 00:07:07,870

body just needs time to adjust you know

180

00:07:12,510 --> 00:07:10,570

ISS is a very large complex where we

181

00:07:14,010 --> 00:07:12,520

store things everything like that can be

182

00:07:15,840 --> 00:07:14,020

confusing if you have a crew member

183

00:07:18,240 --> 00:07:15,850

that's been there before has served long

184

00:07:20,760 --> 00:07:18,250

duration there before they sort of know

185

00:07:23,250 --> 00:07:20,770

it and we don't have to give them all

186

00:07:25,890 --> 00:07:23,260

that adaptation time and they know where

187

00:07:27,750 --> 00:07:25,900

things are and whatnot so they come up

188

00:07:30,390 --> 00:07:27,760

to speed and can be plugged in really

189

00:07:32,040 --> 00:07:30,400

quickly great well Scott we appreciate

190

00:07:33,210 --> 00:07:32,050

you taking a few minutes to stop by I

191

00:07:35,600 --> 00:07:33,220

know you're in this room all the time

192

00:07:38,850 --> 00:07:35,610

and I'm glad I was able to snag it today