
PAO

1
00:00:05,030 --> 00:00:03,270
so as mentioned in the beginning of our

2
00:00:06,950 --> 00:00:05,040
show a lot of spacewalk preparation

3
00:00:08,790 --> 00:00:06,960
happening one spacewalk happened earlier

4
00:00:11,830 --> 00:00:08,800
this week joining me now to give us a

5
00:00:14,470 --> 00:00:11,840
little more insight the lead eva officer

6
00:00:15,829 --> 00:00:14,480
for increment 42 alex canelecos alex

7
00:00:17,990 --> 00:00:15,839
thanks so much for joining me i've had

8
00:00:19,670 --> 00:00:18,000
you here a few times

9
00:00:21,029 --> 00:00:19,680
one of my eva experts so i really

10
00:00:22,630 --> 00:00:21,039
appreciate you you're just coming off

11
00:00:25,750 --> 00:00:22,640
console aren't you that's right i spent

12
00:00:27,670 --> 00:00:25,760
the evening from 11 p.m central time to

13
00:00:30,470 --> 00:00:27,680

8 pm working console work we're in

14
00:00:31,990 --> 00:00:30,480
between the two evas planned ebas this

15
00:00:33,190 --> 00:00:32,000
this fall all right well i'll try to

16
00:00:35,350 --> 00:00:33,200
make it quick so we can get you home and

17
00:00:37,670 --> 00:00:35,360
get some sleep so as i mentioned we had

18
00:00:39,270 --> 00:00:37,680
one spacewalk successfully done earlier

19
00:00:42,790 --> 00:00:39,280
this week on tuesday tell me a little

20
00:00:44,470 --> 00:00:42,800
bit you know what happened how did it go

21
00:00:46,709 --> 00:00:44,480
all right so uh we had two crew members

22
00:00:48,950 --> 00:00:46,719
go out the door and uh reid wiseman and

23
00:00:51,189 --> 00:00:48,960
alex gerst went out the the door and

24
00:00:53,189 --> 00:00:51,199
both of them were work were rookie

25
00:00:55,189 --> 00:00:53,199
astronauts as far as spacewalks are

26
00:00:56,790 --> 00:00:55,199
concerned first time first time and we

27
00:00:59,510 --> 00:00:56,800
haven't actually done that in quite a

28
00:01:00,950 --> 00:00:59,520
while so it was it was really neat to

29
00:01:02,950 --> 00:01:00,960
see them go out the door they did a

30
00:01:05,509 --> 00:01:02,960
great spacewalk it was about six hours

31
00:01:09,750 --> 00:01:05,519
and 13 minutes okay and the major tasks

32
00:01:10,550 --> 00:01:09,760
were to perform a pump module relocate

33
00:01:12,390 --> 00:01:10,560
so

34
00:01:15,830 --> 00:01:12,400
back in december we performed two

35
00:01:18,550 --> 00:01:15,840
spacewalks to repair a pump module

36
00:01:20,550 --> 00:01:18,560
and the failed one was left in a not

37
00:01:22,230 --> 00:01:20,560
optimal location and so this uh the

38
00:01:24,710 --> 00:01:22,240

beginning of the spacewalk we moved that

39
00:01:27,350 --> 00:01:24,720
from the non-optimal location to a good

40
00:01:29,350 --> 00:01:27,360
spare location okay and then the rest of

41
00:01:30,230 --> 00:01:29,360
the day was spent kind of getting ready

42
00:01:32,310 --> 00:01:30,240
for

43
00:01:34,149 --> 00:01:32,320
kind of subsequent evas that we have

44
00:01:35,749 --> 00:01:34,159
coming up so one of them was we

45
00:01:37,030 --> 00:01:35,759
retrieved a

46
00:01:40,069 --> 00:01:37,040
a light

47
00:01:42,870 --> 00:01:40,079
that had a burnt out bulb and right now

48
00:01:45,670 --> 00:01:42,880
alex is doing some iva work some work

49
00:01:47,830 --> 00:01:45,680
inside to replace that bulb and he is uh

50
00:01:50,149 --> 00:01:47,840
we'll actually take that bulb outside on

51
00:01:51,830 --> 00:01:50,159
the next cva and install it in a new

52
00:01:53,429 --> 00:01:51,840
location so that's going right back out

53
00:01:55,190 --> 00:01:53,439
it's going right back out

54
00:01:57,830 --> 00:01:55,200
and what was what was that light used

55
00:02:00,789 --> 00:01:57,840
for so several of our lights outside are

56
00:02:03,429 --> 00:02:00,799
used in conjunction with cameras okay so

57
00:02:05,190 --> 00:02:03,439
especially during night passes

58
00:02:06,950 --> 00:02:05,200
we can get better views

59
00:02:09,350 --> 00:02:06,960
from our cameras a lot of times our

60
00:02:11,910 --> 00:02:09,360
cameras are used for evas or they are

61
00:02:14,229 --> 00:02:11,920
also used for uh robotics and so when

62
00:02:16,390 --> 00:02:14,239
the crew members are flying the arm the

63
00:02:18,550 --> 00:02:16,400

canadian robotic arm they need really

64
00:02:20,229 --> 00:02:18,560
good views uh to watch from for

65
00:02:21,910 --> 00:02:20,239
clearances and make sure that the arm's

66
00:02:23,350 --> 00:02:21,920
not going to run into anything don't

67
00:02:25,270 --> 00:02:23,360
want to smash into anything got to be

68
00:02:28,710 --> 00:02:25,280
careful right so that that's what that

69
00:02:30,630 --> 00:02:28,720
light was used for okay and so that was

70
00:02:32,949 --> 00:02:30,640
was it were there any other tasks the

71
00:02:35,910 --> 00:02:32,959
other major task was um installing a

72
00:02:38,390 --> 00:02:35,920
relay box okay to our mt which is our

73
00:02:40,630 --> 00:02:38,400
mobile transporter and what this um

74
00:02:43,270 --> 00:02:40,640
relay box does is it allows the mt to

75
00:02:46,229 --> 00:02:43,280
have more redundancy in case it lost

76
00:02:48,150 --> 00:02:46,239
some power okay so like you just said

77
00:02:49,750 --> 00:02:48,160
one eva in the bag and another one

78
00:02:51,110 --> 00:02:49,760
coming up next week and we're going to

79
00:02:52,710 --> 00:02:51,120
be switching up crew members a little

80
00:02:53,509 --> 00:02:52,720
bit and some different tasks tell us

81
00:02:55,589 --> 00:02:53,519
about what's going to be happening

82
00:02:57,750 --> 00:02:55,599
that's right so reid uh wiseman will go

83
00:03:01,270 --> 00:02:57,760
out again as ev1 and joining him is

84
00:03:03,350 --> 00:03:01,280
butch wilmore butch will be ev2 and they

85
00:03:06,869 --> 00:03:03,360
will go out and actually do a remove and

86
00:03:08,949 --> 00:03:06,879
replace of the sequential shunt unit and

87
00:03:11,110 --> 00:03:08,959
where there's several of these on board

88
00:03:12,630 --> 00:03:11,120

and one of them has failed and basically

89
00:03:15,190 --> 00:03:12,640
this unit

90
00:03:17,910 --> 00:03:15,200
shunts the arrays from the batteries

91
00:03:20,309 --> 00:03:17,920
and kind of manages power levels uh when

92
00:03:22,229 --> 00:03:20,319
we're charging our batteries so kind of

93
00:03:25,430 --> 00:03:22,239
like a voltage regulator that's that's

94
00:03:27,750 --> 00:03:25,440
exactly right and uh so this unit will

95
00:03:30,309 --> 00:03:27,760
be um arnard it's one of eight that will

96
00:03:31,509 --> 00:03:30,319
be removed and replaced and so we'll

97
00:03:34,390 --> 00:03:31,519
we'll do that at the very beginning of

98
00:03:36,949 --> 00:03:34,400
the eva it involves some pretty pretty

99
00:03:39,270 --> 00:03:36,959
rigorous timing we have to perform this

100
00:03:41,110 --> 00:03:39,280
in an eclipse so it has to be night out

101
00:03:42,949 --> 00:03:41,120
during the during this portion and our

102
00:03:44,630 --> 00:03:42,959
eclipse times are only about 30 minutes

103
00:03:45,750 --> 00:03:44,640
so the crew has to be very efficient

104
00:03:49,990 --> 00:03:45,760
during this

105
00:03:52,229 --> 00:03:50,000
and then after that they'll go into

106
00:03:55,509 --> 00:03:52,239
doing kind of a little leapfrog activity

107
00:03:57,750 --> 00:03:55,519
with several cameras lights and antennas

108
00:04:00,149 --> 00:03:57,760
and so we're getting ready to relocate

109
00:04:03,030 --> 00:04:00,159
our permanent logistics module on space

110
00:04:05,190 --> 00:04:03,040
station to a new a new location on node

111
00:04:06,949 --> 00:04:05,200
three we're moving it from node one to

112
00:04:10,149 --> 00:04:06,959
node three and in order to do that we

113
00:04:12,710 --> 00:04:10,159

have to relocate a lot of antennas and

114
00:04:14,949 --> 00:04:12,720
cameras and so for the rest of the eva

115
00:04:16,550 --> 00:04:14,959
they're basically removing one camera

116
00:04:18,069 --> 00:04:16,560
and stanchion and putting it somewhere

117
00:04:19,189 --> 00:04:18,079
else and then they're taking another one

118
00:04:21,749 --> 00:04:19,199
and moving it

119
00:04:24,310 --> 00:04:21,759
another place and also this allows us to

120
00:04:26,629 --> 00:04:24,320
optimize our camera and antenna

121
00:04:28,469 --> 00:04:26,639
reception that we get for evas okay so

122
00:04:30,550 --> 00:04:28,479
kind of clear clearing the way for that

123
00:04:33,110 --> 00:04:30,560
relocate and moving things around and

124
00:04:35,830 --> 00:04:33,120
again a lot of this work being done

125
00:04:38,070 --> 00:04:35,840
on these evas is getting us ready for a

126
00:04:39,430 --> 00:04:38,080
lot coming up i mean i'm pretty sure

127
00:04:41,430 --> 00:04:39,440
starting january we're going to have a

128
00:04:43,110 --> 00:04:41,440
lot more spacewalks coming up on station

129
00:04:45,110 --> 00:04:43,120
why don't you and this is going to be

130
00:04:46,550 --> 00:04:45,120
increment 42 which

131
00:04:47,590 --> 00:04:46,560
you're the guy you're the one that's got

132
00:04:49,030 --> 00:04:47,600
to make sure he's going to go off

133
00:04:50,469 --> 00:04:49,040
without a hitch so what do you guys what

134
00:04:52,150 --> 00:04:50,479
are you guys getting ready for uh coming

135
00:04:54,469 --> 00:04:52,160
up next year so right now actually in

136
00:04:57,510 --> 00:04:54,479
the next uh several years we have quite

137
00:04:58,310 --> 00:04:57,520
a quite a wall of spacewalks ahead of us

138
00:05:00,150 --> 00:04:58,320

so

139
00:05:03,029 --> 00:05:00,160
a lot of them deal with space station

140
00:05:05,830 --> 00:05:03,039
reconfig we're moving several modules

141
00:05:08,070 --> 00:05:05,840
we're about to receive two international

142
00:05:10,070 --> 00:05:08,080
docking adapters which will allow our

143
00:05:11,430 --> 00:05:10,080
commercial crew vehicles to dock to the

144
00:05:13,189 --> 00:05:11,440
international space station very

145
00:05:15,590 --> 00:05:13,199
important and in order to do all these

146
00:05:18,150 --> 00:05:15,600
relocates and installs we have to get

147
00:05:20,390 --> 00:05:18,160
the station reconfigured both from a

148
00:05:21,830 --> 00:05:20,400
power standpoint and data standpoint as

149
00:05:23,830 --> 00:05:21,840
well as just getting camera views

150
00:05:26,550 --> 00:05:23,840
correct and so that's what we'll be

151
00:05:29,350 --> 00:05:26,560
doing in january as well we have

152
00:05:32,150 --> 00:05:29,360
two potentially three scheduled evas in

153
00:05:34,629 --> 00:05:32,160
which we will be routing cables to

154
00:05:36,629 --> 00:05:34,639
supply power heater heating power and

155
00:05:38,710 --> 00:05:36,639
data to the international docking

156
00:05:40,710 --> 00:05:38,720
adapters when they arrive one's arriving

157
00:05:42,469 --> 00:05:40,720
in 2015 and one will be arriving in

158
00:05:44,629 --> 00:05:42,479
2016.

159
00:05:48,070 --> 00:05:44,639
additionally in those evas we are going

160
00:05:50,230 --> 00:05:48,080
to lubricate the canadian end effector

161
00:05:52,550 --> 00:05:50,240
on the arm the canadian arm and defector

162
00:05:54,550 --> 00:05:52,560
and right now it's just having some high

163
00:05:56,870 --> 00:05:54,560

currents when it's going to latch on to

164
00:05:59,270 --> 00:05:56,880
certain payloads so in order to reduce

165
00:06:02,390 --> 00:05:59,280
those currents we're actually going to

166
00:06:04,390 --> 00:06:02,400
lubricate several of the screws and m

167
00:06:05,270 --> 00:06:04,400
drivers that are involved in in when we

168
00:06:07,990 --> 00:06:05,280
latch

169
00:06:10,309 --> 00:06:08,000
okay as well as we're going to be

170
00:06:12,150 --> 00:06:10,319
removing several covers that allow these

171
00:06:14,629 --> 00:06:12,160
international docking adapters to

172
00:06:16,950 --> 00:06:14,639
install um onto the international space

173
00:06:18,950 --> 00:06:16,960
station okay well like you said wall of

174
00:06:20,870 --> 00:06:18,960
evas a lot of work coming up for these

175
00:06:22,550 --> 00:06:20,880
crews on board the station a lot of work

176
00:06:24,309 --> 00:06:22,560
being done last week and next week or

177
00:06:25,990 --> 00:06:24,319
this week and next week

178
00:06:27,510 --> 00:06:26,000
a lot to come going to be a whole new

179
00:06:29,430 --> 00:06:27,520
station once all that stuff gets moved

180
00:06:30,629 --> 00:06:29,440
around and uh installed and ready for

181
00:06:32,870 --> 00:06:30,639
commercial crew so it's going to be a

182
00:06:34,469 --> 00:06:32,880
really exciting time alex thanks so much

183
00:06:35,990 --> 00:06:34,479
for uh joining me here today really

184
00:06:37,189 --> 00:06:36,000
appreciate it and we're gonna be looking

185
00:06:38,790 --> 00:06:37,199
forward to these spacewalks they're

186
00:06:41,909 --> 00:06:38,800
always really interesting always great

187
00:06:43,110 --> 00:06:41,919
to see um glad a lot glad this week went