



1
00:00:06,390 --> 00:00:03,909
so on this first eva butch wilmore is

2
00:00:08,230 --> 00:00:06,400
going to be ev1

3
00:00:11,830 --> 00:00:08,240
and he'll egress the airlock first

4
00:00:14,789 --> 00:00:13,030
he'll bring out a large bundle

5
00:00:17,510 --> 00:00:14,799
consisting of the ida cable bag and a

6
00:00:19,750 --> 00:00:17,520
crew lock bag and then terry will egress

7
00:00:22,870 --> 00:00:19,760
with the pure white suit and carrying an

8
00:00:25,269 --> 00:00:22,880
identical large bundle

9
00:00:27,269 --> 00:00:25,279
which will translate up the cedar spur

10
00:00:29,669 --> 00:00:27,279
and over to the port zena side of the

11
00:00:31,269 --> 00:00:29,679
destiny lab

12
00:00:33,110 --> 00:00:31,279
and then to the forward end cone of the

13
00:00:34,709 --> 00:00:33,120

harmony node

14

00:00:37,590 --> 00:00:34,719

and that of course is using the handrail

15

00:00:39,590 --> 00:00:37,600

path you see blinking there

16

00:00:41,270 --> 00:00:39,600

meanwhile terry will translate around

17

00:00:44,069 --> 00:00:41,280

the perimeter of external stowage

18

00:00:46,630 --> 00:00:44,079

platform number two

19

00:00:53,830 --> 00:00:46,640

and along the starboard side of destiny

20

00:01:01,590 --> 00:00:55,830

and once there both crew members will

21

00:01:06,789 --> 00:01:03,910

and the ida cable bags near the work

22

00:01:10,390 --> 00:01:08,149

and they'll then spend some time

23

00:01:12,550 --> 00:01:10,400

installing wire tie restraints on the

24

00:01:13,830 --> 00:01:12,560

pma2 along the routes that the cables

25

00:01:14,950 --> 00:01:13,840

will follow throughout the rest of the

26

00:01:17,350 --> 00:01:14,960

eva

27

00:01:19,109 --> 00:01:17,360

you can see in this video from the

28

00:01:19,910 --> 00:01:19,119

training in the neutral buoyancy lab

29

00:01:22,070 --> 00:01:19,920

they're

30

00:01:23,270 --> 00:01:22,080

wrapping wire ties around handrails and

31

00:01:24,950 --> 00:01:23,280

different things

32

00:01:27,670 --> 00:01:24,960

that we can then use to restrain the

33

00:01:30,390 --> 00:01:27,680

cables finally butch will move some of

34

00:01:32,230 --> 00:01:30,400

the existing pma2 cabling to get it out

35

00:01:33,590 --> 00:01:32,240

of the way for removal of the first

36

00:01:36,950 --> 00:01:33,600

shield you can see that it's routed

37

00:01:38,469 --> 00:01:36,960

across the shield that we need to open

38

00:01:40,469 --> 00:01:38,479

so butch and terry will work together to

39

00:01:42,390 --> 00:01:40,479

release the three bolts holding the port

40

00:01:43,350 --> 00:01:42,400

shield in place and move it out of the

41

00:01:45,510 --> 00:01:43,360

way

42

00:01:46,950 --> 00:01:45,520

and terry will open the port ida cable

43

00:01:48,550 --> 00:01:46,960

bag

44

00:01:50,550 --> 00:01:48,560

which will disconnect the four existing

45

00:01:52,310 --> 00:01:50,560

cables under the shield which previously

46

00:01:53,749 --> 00:01:52,320

provided services for the space shuttle

47

00:01:55,910 --> 00:01:53,759

and still do provide the heater power

48

00:01:58,310 --> 00:01:55,920

for pma2

49

00:02:05,590 --> 00:01:58,320

one by one terry will hand him four new

50

00:02:08,630 --> 00:02:07,270

and on this graphic here you can see on

51
00:02:10,550 --> 00:02:08,640
the left side is the current

52
00:02:12,390 --> 00:02:10,560
configuration with circ red circles

53
00:02:14,470 --> 00:02:12,400
around the four that butch will

54
00:02:16,309 --> 00:02:14,480
disconnect and on the right side you can

55
00:02:17,990 --> 00:02:16,319
see the four new ida cables connected

56
00:02:19,510 --> 00:02:18,000
with the light blue and the dark blue

57
00:02:20,949 --> 00:02:19,520
cables are actually routed underneath

58
00:02:22,309 --> 00:02:20,959
the handrails

59
00:02:24,550 --> 00:02:22,319
and the other two are routed past the

60
00:02:26,390 --> 00:02:24,560
handrails and in that way the cables

61
00:02:27,830 --> 00:02:26,400
actually fit into gaps on either side of

62
00:02:29,990 --> 00:02:27,840
the handrail so they can exit from

63
00:02:31,430 --> 00:02:30,000

underneath the shield

64

00:02:33,190 --> 00:02:31,440

so once all four cables have been

65

00:02:35,030 --> 00:02:33,200

connected the crew will reinstall the

66

00:02:38,470 --> 00:02:35,040

shield and then translate to the other

67

00:02:40,550 --> 00:02:38,480

side where they will swap rolls

68

00:02:43,750 --> 00:02:40,560

which will open the cable bag

69

00:02:47,350 --> 00:02:43,760

they'll work together to open the shield

70

00:02:49,190 --> 00:02:47,360

terry will disconnect the existing cable

71

00:02:52,150 --> 00:02:49,200

and butch will hand him the new ida

72

00:02:52,160 --> 00:02:57,350

and then they'll reinstall that shield

73

00:03:01,190 --> 00:02:59,030

and before leaving the starboard cable

74

00:03:03,270 --> 00:03:01,200

bag butch will retrieve a cable from it

75

00:03:06,949 --> 00:03:03,280

and bring it to the port side of harmony

76

00:03:09,110 --> 00:03:06,959

where he'll attach it to a handrail

77

00:03:10,229 --> 00:03:09,120

and begin uncoiling it

78

00:03:12,149 --> 00:03:10,239

he'll first

79

00:03:13,750 --> 00:03:12,159

follow the handrail path you see

80

00:03:14,390 --> 00:03:13,760

highlighted in yellow

81

00:03:18,309 --> 00:03:14,400

to

82

00:03:20,710 --> 00:03:18,319

lab where he'll make two connections

83

00:03:21,509 --> 00:03:20,720

then he'll come back forward and stow a

84

00:03:23,830 --> 00:03:21,519

leg

85

00:03:26,790 --> 00:03:23,840

that will ultimately go up pma3 towards

86

00:03:28,710 --> 00:03:26,800

item number two later on

87

00:03:31,430 --> 00:03:28,720

and finally he'll take the remaining leg

88

00:03:32,949 --> 00:03:31,440

and uncoil it as he moves forward

89

00:03:34,390 --> 00:03:32,959

securing the cable

90

00:03:37,589 --> 00:03:34,400

in the wire ties that were installed at

91

00:03:41,910 --> 00:03:38,949

the remaining coil of cable will be

92

00:03:43,670 --> 00:03:41,920

stowed on pma2 until ida one arrives

93

00:03:48,390 --> 00:03:43,680

and that's the longest of the the cables

94

00:03:52,229 --> 00:03:50,309

meanwhile terry will begin unpacking and

95

00:03:53,509 --> 00:03:52,239

routing cables from the port cable bag

96

00:03:55,750 --> 00:03:53,519

starting with the two cables that

97

00:04:03,110 --> 00:03:55,760

restore power and telemetry for the pma2

98

00:04:08,550 --> 00:04:04,630

and he'll be making the two connections

99

00:04:10,710 --> 00:04:08,560

that you see there labeled as p1 and p2

100

00:04:12,869 --> 00:04:10,720

now each of these two cables has a leg

101
00:04:14,869 --> 00:04:12,879
that continues forward towards the

102
00:04:19,430 --> 00:04:14,879
forward end of pma2 one of them goes

103
00:04:22,550 --> 00:04:21,110
and one goes nader

104
00:04:24,150 --> 00:04:22,560
and these are stowed near those

105
00:04:29,430 --> 00:04:24,160
locations i pointed out earlier where

106
00:04:33,510 --> 00:04:31,189
so for the remainder of the eva butch

107
00:04:35,909 --> 00:04:33,520
will deploy the cables that follow the

108
00:04:37,909 --> 00:04:35,919
port nader route

109
00:04:40,790 --> 00:04:37,919
and terry will deploy cables that follow

110
00:04:42,070 --> 00:04:40,800
a zenith or starboard path

111
00:04:43,830 --> 00:04:42,080
and you'll see that we just continue

112
00:04:45,350 --> 00:04:43,840
stowing the cables on the pma near where

113
00:04:47,350 --> 00:04:45,360

those connector panels will be and they

114

00:04:49,430 --> 00:04:47,360

they tend to follow sort of highways and

115

00:04:56,950 --> 00:04:49,440

so that's the route that we put the wire

116

00:05:00,629 --> 00:04:58,710

the final set of cables that butch will

117

00:05:02,710 --> 00:05:00,639

stow are three legs that will ultimately

118

00:05:04,710 --> 00:05:02,720

go to item number two

119

00:05:14,230 --> 00:05:04,720

and once we have those stowed that will

120

00:05:19,189 --> 00:05:16,150

and during that time terry finishes his

121

00:05:21,990 --> 00:05:19,199

last cable on the starboard side

122

00:05:24,469 --> 00:05:22,000

and that cable has an ida one leg

123

00:05:29,909 --> 00:05:24,479

and an ida ii leg that gets stowed on

124

00:05:33,350 --> 00:05:31,749

at this point there will be two cables

125

00:05:38,230 --> 00:05:33,360

remaining in the starboard cable bag

126

00:05:40,550 --> 00:05:39,590

the crew will pack up their crew lock

127

00:05:42,310 --> 00:05:40,560

bags

128

00:05:44,150 --> 00:05:42,320

and the port ida cable bag will leave

129

00:05:48,070 --> 00:05:44,160

the starboard item cable bag there with

130

00:05:52,390 --> 00:05:49,510

and the crew will follow their original

131

00:05:54,230 --> 00:05:52,400

translation path back to the airlock

132

00:05:56,950 --> 00:05:54,240

if we are ahead on the timeline on this

133

00:05:58,950 --> 00:05:56,960

day we will go ahead and and finish as

134

00:06:00,550 --> 00:05:58,960

much of the cable routing as time allows