



US SPACEWALK #65

1
00:00:01,401 --> 00:00:02,168
>> THIS EVA

2
00:00:02,168 --> 00:00:03,436
BEGINS THE ONE BRAVO

3
00:00:03,436 --> 00:00:05,105
POWER CHANNEL UPGRADE.

4
00:00:05,105 --> 00:00:06,906
CHRIS, WEARING THE RED STRIPE,

5
00:00:06,906 --> 00:00:08,742
DEGRESSES FIRST.

6
00:00:08,742 --> 00:00:10,343
HE SETS UP THEIR TETHER ANCHORS

7
00:00:10,343 --> 00:00:11,611
AWAY FROM THE AIRLOCK

8
00:00:11,611 --> 00:00:12,645
TO ENABLE THEM TO GO

9
00:00:12,645 --> 00:00:14,447
FARTHER UPWARD.

10
00:00:14,447 --> 00:00:15,281
THEN BOB,

11
00:00:15,281 --> 00:00:16,383
WEARING THE WHITE STRIPE,

12
00:00:16,383 --> 00:00:17,817
GRABS HIT FOOT RESTRAINT

13
00:00:17,817 --> 00:00:20,387

AND FOLLOWS OUTBOARD.

14

00:00:20,387 --> 00:00:21,121

CHRIS PICKS UP

15

00:00:21,121 --> 00:00:22,222

HIS FOOT RESTRAINT

16

00:00:22,222 --> 00:00:24,224

ON THE CETA CART

17

00:00:24,224 --> 00:00:25,058

AND HEADS TO

18

00:00:25,058 --> 00:00:26,092

THE EXTERNAL PALLET,

19

00:00:26,092 --> 00:00:28,528

OR EP.

20

00:00:28,528 --> 00:00:30,930

THE EXTERNAL PALLET IS HELD

21

00:00:30,930 --> 00:00:32,532

BY THE ROBOTIC ARM

22

00:00:32,532 --> 00:00:34,100

AND HOUSES THE NEW BATTERIES

23

00:00:34,100 --> 00:00:35,869

LAUNCHED FROM JAPAN

24

00:00:35,869 --> 00:00:39,305

ON HTV-9 IN MAY.

25

00:00:39,305 --> 00:00:41,741

CHRIS SETS UP HIS TOOLS

26
00:00:41,741 --> 00:00:44,511
AND PREPARES HIS WORK SITE.

27
00:00:44,511 --> 00:00:46,246
BOB TRANSLATES TO THE S-6

28
00:00:46,246 --> 00:00:48,214
INTEGRATED ELECTRONICS ASSEMBLY,

29
00:00:48,214 --> 00:00:50,049
OR IEA, WHICH WILL BE

30
00:00:50,049 --> 00:00:51,618
HIS MAIN WORK SITE

31
00:00:51,618 --> 00:00:53,453
THROUGHOUT THE EVA.

32
00:00:53,453 --> 00:00:54,754
THE IEA HOUSES THE BATTERIES

33
00:00:54,754 --> 00:00:56,556
AND HARDWARE FOR THE 1-B

34
00:00:56,556 --> 00:00:59,392
SOLAR RAYS AND POWER CHANNEL.

35
00:00:59,392 --> 00:01:00,427
CHRIS WILL JOIN BOB

36
00:01:00,427 --> 00:01:01,628
AND THEY WORK TOGETHER

37
00:01:01,628 --> 00:01:03,496
TO FINISH SETUP.

38
00:01:03,496 --> 00:01:04,964

FIRST, BATTERY FROM SLOT

39

00:01:04,964 --> 00:01:07,634
NUMBER ONE IS RETRIEVED.

40

00:01:07,634 --> 00:01:09,235
THE CREW NEEDS TO RELEASE TORQUE

41

00:01:09,235 --> 00:01:10,537
WITH THE RATCHET

42

00:01:10,537 --> 00:01:11,905
THEN USE THE PISTOL GRIP TOOL,

43

00:01:11,905 --> 00:01:14,140
OR PGT, TO COMPLETE THE RELEASE

44

00:01:14,140 --> 00:01:16,976
OF THE BOLTS.

45

00:01:16,976 --> 00:01:20,380
THE LARGE BATTERY IS REMOVED

46

00:01:20,380 --> 00:01:21,714
AND THE CREW WORK TOGETHER

47

00:01:21,714 --> 00:01:23,149
TO MOVE IT OVER TO THE EP

48

00:01:23,149 --> 00:01:26,719
FOR DISPOSAL.

49

00:01:26,719 --> 00:01:27,654
CHRIS INGRESSES

50

00:01:27,654 --> 00:01:29,756
THE FOOT RESTRAINT AND

51
00:01:29,756 --> 00:01:30,857
THE CREW INSTALLS THE BATTERY

52
00:01:30,857 --> 00:01:34,127
IN EMPTY SLOT X.

53
00:01:34,127 --> 00:01:35,562
THEN THE ARM MANEUVERS

54
00:01:35,562 --> 00:01:36,996
TO PLACE CHRIS IN FRONT OF

55
00:01:36,996 --> 00:01:39,499
THE FIRST NEW BATTERY IN SLOT A.

56
00:01:39,499 --> 00:01:40,300
AFTER PLACING SCOOPS

57
00:01:40,300 --> 00:01:42,168
TO CREATE HAND HOLDS,

58
00:01:42,168 --> 00:01:43,536
THE CREW WILL RELEASE THE BOLT

59
00:01:43,536 --> 00:01:45,305
TO REMOVE THE BATTERY.

60
00:01:45,305 --> 00:01:46,306
CHRIS AND BOB WILL

61
00:01:46,306 --> 00:01:47,841
TRANSLATE THE NEW BATTERY

62
00:01:47,841 --> 00:01:50,310
TO THE TRUSS AND INSTALL

63
00:01:50,310 --> 00:01:53,913

IN EMPTY SLOT NUMBER ONE.

64

00:01:56,249 --> 00:01:57,217
THROUGHOUT THE EVAs,

65

00:01:57,217 --> 00:01:58,251
BOB WILL NEED TO MOVE

66

00:01:58,251 --> 00:01:58,918
HIS FOOT RESTRAINT TO REACH

67

00:01:58,918 --> 00:02:01,554
THE DIFFERENT BATTERIES.

68

00:02:01,554 --> 00:02:04,424
NEXT, THE BATTERY IN SLOT TWO

69

00:02:04,424 --> 00:02:05,658
IS REMOVED

70

00:02:05,658 --> 00:02:07,594
AND TRANSLATED OVER

71

00:02:07,594 --> 00:02:09,095
TO THE PALLET.

72

00:02:09,095 --> 00:02:10,196
AT THE EP, CHRIS IS IN

73

00:02:10,196 --> 00:02:11,264
A FOOT RESTRAINT

74

00:02:11,264 --> 00:02:12,665
AND PLACES THE BATTERY

75

00:02:12,665 --> 00:02:14,334
ON HIS BRT,

76
00:02:14,334 --> 00:02:15,969
OR BODY RESTRAINT TETHER.

77
00:02:15,969 --> 00:02:16,870
CHRIS WILL RELEASE

78
00:02:16,870 --> 00:02:18,304
THE ADAPTER PLATE LAUNCHED

79
00:02:18,304 --> 00:02:19,539
UNDERNEATH THE BATTERY.

80
00:02:19,539 --> 00:02:21,508
LIKE WITH THE BATTERIES,

81
00:02:21,508 --> 00:02:22,909
HE HAS TO USE THE RATCHET

82
00:02:22,909 --> 00:02:24,777
TO RELEASE THE HIGH TORQUE

83
00:02:24,777 --> 00:02:25,979
AND IN THE PGT

84
00:02:25,979 --> 00:02:28,014
TO FULLY RELEASE THE BOLT.

85
00:02:28,014 --> 00:02:29,249
CHRIS REMOVES THE ADAPTER PLATE

86
00:02:29,249 --> 00:02:30,984
TO HAND TO BOB.

87
00:02:35,722 --> 00:02:38,958
BOB TRANSLATES BACK TO THE TRUSS

88
00:02:38,958 --> 00:02:40,460

TO INSTALL THE ADAPTER PLATE

89

00:02:40,460 --> 00:02:42,395
AND OPEN SLOT TWO.

90

00:02:42,395 --> 00:02:43,363
AT THE SAME TIME,

91

00:02:43,363 --> 00:02:44,764
CHRIS IS PUTTING THE OLD BATTERY

92

00:02:44,764 --> 00:02:46,132
IN THE SLOT HE HAD JUST

93

00:02:46,132 --> 00:02:48,535
EMPTIED FOR DISPOSAL.

94

00:02:48,535 --> 00:02:50,470
TOGETHER ON THE IEA,

95

00:02:50,470 --> 00:02:51,538
THEY MADE A CABLE BETWEEN

96

00:02:51,538 --> 00:02:51,905
THE ADAPTOR PLATE

97

00:02:51,905 --> 00:02:53,573
AND THE NEW BATTERY

98

00:02:53,573 --> 00:02:55,875
TO COMPLETE THE CIRCUIT.

99

00:02:55,875 --> 00:02:57,243
WITH ONE OF THE THREE

100

00:02:57,243 --> 00:02:58,645
BATTERY PAIRS COMPLETE,

101
00:02:58,645 --> 00:03:00,313
THEY MOVE TO SLOT THREE

102
00:03:00,313 --> 00:03:03,216
TO REMOVE THE NEXT OLD BATTERY.

103
00:03:03,216 --> 00:03:04,584
THIS BATTERY WILL BE STOWED

104
00:03:04,584 --> 00:03:05,685
ON THE ADAPTER PLATE

105
00:03:05,685 --> 00:03:06,886
IN SLOT TWO,

106
00:03:06,886 --> 00:03:07,854
WHERE IT IS NO LONGER

107
00:03:07,854 --> 00:03:10,924
NEEDED TO FUNCTION.

108
00:03:10,924 --> 00:03:12,058
BOB AND CHRIS RETURN

109
00:03:12,058 --> 00:03:13,359
TO THE PALLET

110
00:03:13,359 --> 00:03:16,763
TO RETRIEVE BATTERY B.

111
00:03:16,763 --> 00:03:18,164
THEY REPEAT THE STEPS

112
00:03:18,164 --> 00:03:20,767
TO RELEASE THE BOLTS,

113
00:03:20,767 --> 00:03:23,836

TRANSLATE BACK TO THE TRUSS.

114

00:03:26,005 --> 00:03:27,373

AND TOGETHER INSTALL

115

00:03:27,373 --> 00:03:30,710

IN EMPTY SLOT NUMBER THREE.

116

00:03:32,345 --> 00:03:33,079

AT THIS POINT,

117

00:03:33,079 --> 00:03:34,681

BOB AND CHRIS BEGIN CLEANUP

118

00:03:34,681 --> 00:03:36,416

ON THE FIRST OF THE TWO

119

00:03:36,416 --> 00:03:39,619

ONE BRAVO BATTERY CHANNEL EVAs.

120

00:03:39,619 --> 00:03:40,753

THEY ALSO PREPARE FOR

121

00:03:40,753 --> 00:03:42,755

THE NEXT EVA, INCLUDING

122

00:03:42,755 --> 00:03:45,024

MOVING FOOT RESTRAINTS,

123

00:03:45,024 --> 00:03:47,460

SECURING TOOLS AND BAGS

124

00:03:47,460 --> 00:03:48,995

WHERE THEY WILL BE NEEDED.

125

00:03:48,995 --> 00:03:50,330

ONCE THE WORK SITE IS CLEAN,

126

00:03:50,330 --> 00:03:52,432

CHRIS TRANSLATES FROM

127

00:03:52,432 --> 00:03:56,169

THE END OF THE S6 TRUSS.

128

00:03:58,972 --> 00:04:00,273

PAUSING TO RECONFIGURE

129

00:04:00,273 --> 00:04:01,708

THEIR SAFETY TETHERS

130

00:04:01,708 --> 00:04:08,181

ON THEIR RETURN TO THE AIRLOCK.

131

00:04:08,181 --> 00:04:11,684

BOB FOLLOWS FOR INGRESS