Expedition 36 Spacewalkers

RUSSIAN SPACEWALK 34

FYODOR YURCHIKHIN
FLIGHT ENGINEER
EV1

ALEXANDER MISURKIN
FLIGHT ENGINEER
EV2

1
00:00:02,540 --> 00:00:15,990
[Music]

2
00:00:20,670 --> 00:00:17,990
good day and welcome to space station

3
00:00:22,230 --> 00:00:20,680
live for tuesday august 6

4
00:00:24,310 --> 00:00:22,240
2013.

5
00:00:26,470 --> 00:00:24,320
you are inside the international space

6
00:00:28,630 --> 00:00:26,480
station flight control room in the midst

7
00:00:30,390 --> 00:00:28,640
of a loss of signal period where the

8
00:00:32,310 --> 00:00:30,400
international space station is out of

9
00:00:34,389 --> 00:00:32,320
range at the moment from our tracking

10
00:00:36,150 --> 00:00:34,399
and data relay satellite system the

11
00:00:38,549 --> 00:00:36,160
orbit 2 team of flight controllers

12
00:00:40,630 --> 00:00:38,559
taking a short break before returning to

13
00:00:43,430 --> 00:00:40,640

consoles to oversee the work of the

14
00:00:44,389 --> 00:00:43,440
expedition 36 crew on board the orbital

15
00:00:46,549 --> 00:00:44,399
outpost

16
00:00:49,190 --> 00:00:46,559
it has been an extremely busy day so far

17
00:00:51,029 --> 00:00:49,200
and will continue to be a busy day for

18
00:00:53,189 --> 00:00:51,039
the six crew members on board the

19
00:00:55,670 --> 00:00:53,199
international space station the half

20
00:00:57,830 --> 00:00:55,680
dozen crew members are divided into two

21
00:01:00,310 --> 00:00:57,840
trios who arrived at the international

22
00:01:02,950 --> 00:01:00,320
space station on separate russian soyuz

23
00:01:04,390 --> 00:01:02,960
vehicles two months apart on the left of

24
00:01:06,870 --> 00:01:04,400
your screen on this crew portrait

25
00:01:09,670 --> 00:01:06,880
alexander misurkin the current station

26
00:01:12,310 --> 00:01:09,680
commander pavel vinogradov and nasa

27
00:01:15,750 --> 00:01:12,320
flight engineer chris cassidy who rode

28
00:01:17,590 --> 00:01:15,760
their soyuz tma-08m spacecraft from the

29
00:01:20,390 --> 00:01:17,600
launch pad of the baikonur cosmodrome in

30
00:01:22,310 --> 00:01:20,400
kazakhstan to a docking to the poisk

31
00:01:25,350 --> 00:01:22,320
module on the international space

32
00:01:27,830 --> 00:01:25,360
station back on march 29th just two

33
00:01:30,310 --> 00:01:27,840
months later the other trio of crew

34
00:01:32,710 --> 00:01:30,320
members for expedition 36 arrived karen

35
00:01:35,350 --> 00:01:32,720
nyberg the nasa flight engineer soyuz

36
00:01:37,350 --> 00:01:35,360
commander fyodor yurchikhin and european

37
00:01:40,830 --> 00:01:37,360
space agency flight engineer luca

38
00:01:43,749 --> 00:01:40,840

parmitano who arrived on their soyuz

39
00:01:46,310 --> 00:01:43,759
tma-09m spacecraft docking to the

40
00:01:47,590 --> 00:01:46,320
rassvet module on the earth-facing side

41
00:01:51,990 --> 00:01:47,600
of the russian segment of the

42
00:01:54,069 --> 00:01:52,000
international space station on may 29th

43
00:01:56,870 --> 00:01:54,079
the day has been highlighted by a

44
00:01:59,749 --> 00:01:56,880
variety of activities involving robonaut

45
00:02:00,870 --> 00:01:59,759
the humanoid robot that was set up

46
00:02:02,550 --> 00:02:00,880
yesterday

47
00:02:05,190 --> 00:02:02,560
in the destiny laboratory of the

48
00:02:07,350 --> 00:02:05,200
international space station and which uh

49
00:02:09,830 --> 00:02:07,360
on this day was operated

50
00:02:11,830 --> 00:02:09,840
tele-robotically by chris cassidy that

51
00:02:13,510 --> 00:02:11,840
you see here in video that we acquired

52
00:02:15,990 --> 00:02:13,520
earlier in the day

53
00:02:19,030 --> 00:02:16,000
as robonaut was put through its paces

54
00:02:21,670 --> 00:02:19,040
moving its head its neck and its arms on

55
00:02:24,949 --> 00:02:21,680
command from cassidy wearing specially

56
00:02:27,350 --> 00:02:24,959
equipped vest in which he sent commands

57
00:02:30,309 --> 00:02:27,360
in a tele-robotically fashion

58
00:02:32,550 --> 00:02:30,319
to the robonaut humanoid robot to

59
00:02:34,390 --> 00:02:32,560
continue to gather research on the

60
00:02:36,229 --> 00:02:34,400
ability of robots to interact with

61
00:02:39,670 --> 00:02:36,239
humans on board the international

62
00:02:42,070 --> 00:02:39,680
outpost the 300-pound robonaut consists

63
00:02:44,630 --> 00:02:42,080

of a head and torso with two arms and

64
00:02:47,990 --> 00:02:44,640
two hands it was launched aboard the

65
00:02:50,150 --> 00:02:48,000
shuttle discovery on the sts-133 mission

66
00:02:51,990 --> 00:02:50,160
about two and a half years ago and has

67
00:02:54,470 --> 00:02:52,000
been acquiring critical data for

68
00:02:57,430 --> 00:02:54,480
researchers on the ground who are

69
00:03:00,229 --> 00:02:57,440
perfecting the techniques used to

70
00:03:05,110 --> 00:03:00,239
operate robots in orbit from ground

71
00:03:09,509 --> 00:03:07,830
the work of the expedition 36 crew on

72
00:03:11,990 --> 00:03:09,519
board the international space station

73
00:03:14,070 --> 00:03:12,000
also highlighted today by looking ahead

74
00:03:16,949 --> 00:03:14,080
towards a pair of space walks in the

75
00:03:19,270 --> 00:03:16,959
weeks ahead by russian cosmonauts fiora

76
00:03:21,270 --> 00:03:19,280
yurchikhin and alexander misurkin as

77
00:03:23,270 --> 00:03:21,280
they continue to gather and prepare a

78
00:03:25,030 --> 00:03:23,280
series of tools that they will take

79
00:03:27,190 --> 00:03:25,040
outside the piers docking compartment

80
00:03:30,710 --> 00:03:27,200
with them for a pair of space walks on

81
00:03:33,190 --> 00:03:30,720
august 16 and august 22nd clad in

82
00:03:35,030 --> 00:03:33,200
russian orlan space suits to continue

83
00:03:37,190 --> 00:03:35,040
hooking up cables

84
00:03:39,190 --> 00:03:37,200
and other equipment outside for the

85
00:03:41,270 --> 00:03:39,200
future arrival of a russian laboratory

86
00:03:43,910 --> 00:03:41,280
module that is scheduled to be launched

87
00:03:46,949 --> 00:03:43,920
late this year on top a proton rocket

88
00:03:49,110 --> 00:03:46,959

from the baikonur cosmodrome

89
00:03:50,869 --> 00:03:49,120
all the while another cargo ship is

90
00:03:54,070 --> 00:03:50,879
headed for the international space

91
00:03:56,710 --> 00:03:54,080
station the japanese h2 transfer vehicle

92
00:03:58,309 --> 00:03:56,720
or htv4 as it is known

93
00:03:59,589 --> 00:03:58,319
more affectionately by the name of

94
00:04:02,789 --> 00:03:59,599
khanatori

95
00:04:05,429 --> 00:04:02,799
the japanese word for white stork the

96
00:04:07,270 --> 00:04:05,439
htv-4 was launched from the tanegashima

97
00:04:10,229 --> 00:04:07,280
space center in southern japan on

98
00:04:11,990 --> 00:04:10,239
saturday u.s time and has been steadily

99
00:04:14,309 --> 00:04:12,000
making its way toward the international

100
00:04:15,750 --> 00:04:14,319
space station conducting a series of

101
00:04:17,990 --> 00:04:15,760
rendezvous burns

102
00:04:20,310 --> 00:04:18,000
the latest of which is taking place to

103
00:04:22,629 --> 00:04:20,320
fine-tune its path to the international

104
00:04:25,909 --> 00:04:22,639
space station where crew members karen

105
00:04:27,909 --> 00:04:25,919
nyberg and chris cassidy will reach out

106
00:04:30,390 --> 00:04:27,919
with the station's robotic arm working

107
00:04:31,990 --> 00:04:30,400
from a robotic workstation in the cupola

108
00:04:35,510 --> 00:04:32,000
of the international space station

109
00:04:37,670 --> 00:04:35,520
they'll grapple the htv4 maneuver it

110
00:04:39,670 --> 00:04:37,680
very carefully so that its birthing

111
00:04:41,670 --> 00:04:39,680
mechanism is perfectly aligned with a

112
00:04:44,070 --> 00:04:41,680
common berthing mechanism on the

113
00:04:47,030 --> 00:04:44,080

earth-facing port of the harmony module

114
00:04:49,030 --> 00:04:47,040
and then slowly but surely mating it to

115
00:04:51,510 --> 00:04:49,040
harmony where it will be bolted into

116
00:04:55,749 --> 00:04:51,520
place for a month's stay at the

117
00:05:03,110 --> 00:04:59,510
the htv-4 is loaded with valuable cargo

118
00:05:05,670 --> 00:05:03,120
both inside the spacecraft

119
00:05:08,150 --> 00:05:05,680
itself called pressurized cargo and

120
00:05:11,510 --> 00:05:08,160
unpressurized cargo that

121
00:05:14,390 --> 00:05:11,520
is housed on an exposed pallet in a slot

122
00:05:17,350 --> 00:05:14,400
on the side of the htv-4 the cargo

123
00:05:19,510 --> 00:05:17,360
consists of just about 4 100 pounds of

124
00:05:22,950 --> 00:05:19,520
dry cargo spare parts and experiment

125
00:05:25,350 --> 00:05:22,960
supplies some 1257 pounds of water and

126
00:05:27,430 --> 00:05:25,360
two dozen contingency bags and then on

127
00:05:29,350 --> 00:05:27,440
the outside in that exposed pallet that

128
00:05:31,990 --> 00:05:29,360
will be removed robotically from the

129
00:05:34,310 --> 00:05:32,000
htv-4 and handed off to the japanese

130
00:05:36,710 --> 00:05:34,320
robotic arm on the kibo module for

131
00:05:38,629 --> 00:05:36,720
installation on the outside of kibo

132
00:05:40,950 --> 00:05:38,639
there are three critical spare parts a

133
00:05:44,550 --> 00:05:40,960
main bus switching unit a utility

134
00:05:46,950 --> 00:05:44,560
transfer assembly and a an experiment

135
00:05:50,469 --> 00:05:46,960
suite for the department of defense

136
00:05:52,870 --> 00:05:50,479
called the space test program for pallet

137
00:05:55,270 --> 00:05:52,880
all of that equipment to be housed on a

138
00:05:57,189 --> 00:05:55,280

variety of external logistics uh

139
00:06:01,270 --> 00:05:57,199
platforms on the truss of the

140
00:06:06,230 --> 00:06:03,670
early this morning luca parmitano of the

141
00:06:08,710 --> 00:06:06,240
international space station's crew the

142
00:06:11,270 --> 00:06:08,720
european space agency flight engineer

143
00:06:14,390 --> 00:06:11,280
was in the quest airlock continuing his

144
00:06:16,790 --> 00:06:14,400
work to troubleshoot a video cable

145
00:06:19,270 --> 00:06:16,800
associated with a camera system inside

146
00:06:21,670 --> 00:06:19,280
quest that has been acting up in recent

147
00:06:23,430 --> 00:06:21,680
weeks that troubleshooting effort

148
00:06:25,990 --> 00:06:23,440
continues you see

149
00:06:29,029 --> 00:06:26,000
parmitano working in the equipment lock

150
00:06:31,749 --> 00:06:29,039
section of the quest airlock behind him

151
00:06:34,950 --> 00:06:31,759
is the crew lock section which crew

152
00:06:37,510 --> 00:06:34,960
members float into clad in their u.s

153
00:06:40,150 --> 00:06:37,520
spacesuits before they close the hatch

154
00:06:42,390 --> 00:06:40,160
depressurize the quest airlock and open

155
00:06:44,150 --> 00:06:42,400
the outside hatch to begin spacewalks

156
00:06:45,510 --> 00:06:44,160
from the u.s side of the international

157
00:06:48,629 --> 00:06:45,520
space station

158
00:06:50,790 --> 00:06:48,639
later today parmitano will be conducting

159
00:06:52,950 --> 00:06:50,800
some in-flight maintenance work as he

160
00:06:55,110 --> 00:06:52,960
replaces a pressure control and pump

161
00:06:57,189 --> 00:06:55,120
assembly for the urine processing

162
00:07:00,070 --> 00:06:57,199
assembly in the water recovery system

163
00:07:01,749 --> 00:07:00,080

that failed late last week and that's a

164
00:07:03,589 --> 00:07:01,759
glimpse of all of the work that's taking