
Shannon Walker
EXPEDITION 25 FLIGHT ENGINEER

1
00:00:05,510 --> 00:00:03,110
the International Space Station marks 10

2
00:00:08,120 --> 00:00:05,520
years of continuous human habitation and

3
00:00:09,169 --> 00:00:08,130
the last scheduled space shuttle visit

4
00:00:10,970 --> 00:00:09,179
late this year

5
00:00:13,280 --> 00:00:10,980
the flight crew will mark those

6
00:00:18,349 --> 00:00:13,290
milestones while doing the work that the

7
00:00:20,060 --> 00:00:18,359
station was built for I think one of the

8
00:00:24,460 --> 00:00:20,070
most important tests that our crew

9
00:00:27,920 --> 00:00:24,470
members will have is promoting

10
00:00:31,759 --> 00:00:27,930
scientific research in space human space

11
00:00:33,950 --> 00:00:31,769
flight program because I believe that

12
00:00:37,160 --> 00:00:33,960
humanity as a whole should strive to

13
00:00:40,190 --> 00:00:37,170

achieve loftier goals and try to expand

14
00:00:42,440 --> 00:00:40,200
them horizons to support human

15
00:00:45,160 --> 00:00:42,450
exploration the station's research

16
00:00:47,600 --> 00:00:45,170
agenda focuses on the human explorers

17
00:00:49,549 --> 00:00:47,610
learning how best to prepare those

18
00:00:52,279 --> 00:00:49,559
people physically and psychologically

19
00:00:54,290 --> 00:00:52,289
for a smooth adaptation to the

20
00:01:00,770 --> 00:00:54,300
microgravity environment to begin their

21
00:01:10,250 --> 00:01:00,780
work recovery and adaptation of human

22
00:01:13,580 --> 00:01:10,260
body after landing people to not spend

23
00:01:16,179 --> 00:01:13,590
too much time on trying to recover

24
00:01:19,460 --> 00:01:16,189
they're strengthened after a spaceflight

25
00:01:21,620 --> 00:01:19,470
while the expedition 24 crew members are

26
00:01:24,469 --> 00:01:21,630
the subjects for some station research

27
00:01:26,510 --> 00:01:24,479
there are also operators for dozens of

28
00:01:29,149 --> 00:01:26,520
experiments in a range of scientific

29
00:01:31,160 --> 00:01:29,159
disciplines those investigations use

30
00:01:33,590 --> 00:01:31,170
facilities in the station's several

31
00:01:34,640 --> 00:01:33,600
laboratory modules and outside the

32
00:01:36,910 --> 00:01:34,650
vehicle as well

33
00:01:40,010 --> 00:01:36,920
we've got experiments that go outdoors

34
00:01:43,039 --> 00:01:40,020
on all points of the station it seems

35
00:01:46,219 --> 00:01:43,049
that are trying to monitor measure

36
00:01:48,859 --> 00:01:46,229
observe the effects of the space

37
00:01:51,679 --> 00:01:48,869
environment the temperature extremes of

38
00:01:55,520 --> 00:01:51,689

the pressure extreme the the particles

39
00:01:58,760 --> 00:01:55,530
the the long-duration exposure and and

40
00:02:02,270 --> 00:01:58,770
take that information and and how can we

41
00:02:03,850 --> 00:02:02,280
build better structures in space and on

42
00:02:06,370 --> 00:02:03,860
the moon

43
00:02:08,650 --> 00:02:06,380
to maintain his orbiting laboratory

44
00:02:11,920 --> 00:02:08,660
Dyson and flight engineer Doug Wheelock

45
00:02:14,140 --> 00:02:11,930
conduct a spacewalk in July to install a

46
00:02:17,020 --> 00:02:14,150
power and data grapple fixture on the

47
00:02:20,110 --> 00:02:17,030
Zarya module to serve as a new operating

48
00:02:22,420 --> 00:02:20,120
base for Canada arm - so we can increase

49
00:02:24,850 --> 00:02:22,430
the essentially the working envelope of

50
00:02:27,490 --> 00:02:24,860
the of our robotic structures on board

51
00:02:30,430 --> 00:02:27,500
and that's our primary task on that EBA

52
00:02:33,220 --> 00:02:30,440
and there's also some routing of cables

53
00:02:35,740 --> 00:02:33,230
and and power cables and video cables

54
00:02:38,890 --> 00:02:35,750
and data cables and things that take up

55
00:02:41,350 --> 00:02:38,900
the majority of that of that e VA a

56
00:02:43,300 --> 00:02:41,360
second DBA is planned for later in the

57
00:02:45,880 --> 00:02:43,310
month for Kornienko and Fyodor

58
00:02:48,400 --> 00:02:45,890
yurchikhin to finish external outfitting

59
00:02:50,020 --> 00:02:48,410
of the new Rassvet module so future

60
00:02:52,480 --> 00:02:50,030
dockings can be completed in the

61
00:02:58,000 --> 00:02:52,490
automatic mode we should activate it

62
00:03:00,820 --> 00:02:58,010
emiram one its we connect mm one with

63
00:03:06,070 --> 00:03:00,830

power cable data cable from a same from

64
00:03:08,860 --> 00:03:06,080
FGB 2 mm one it's very very difficult

65
00:03:11,770 --> 00:03:08,870
Wheelock becomes expedition 25 commander

66
00:03:13,570 --> 00:03:11,780
when sports off Dyson and Kornienko

67
00:03:17,400 --> 00:03:13,580
returned to Earth in September just

68
00:03:20,229 --> 00:03:17,410
before space shuttle Discovery arrives

69
00:03:23,140 --> 00:03:20,239
sts-133 will leave a load of supplies

70
00:03:25,990 --> 00:03:23,150
and the cargo module Leonardo

71
00:03:28,390 --> 00:03:26,000
which will then become known as the PMM

72
00:03:33,580 --> 00:03:28,400
the permanent multi-purpose module

73
00:03:35,530 --> 00:03:33,590
it has a logistics module on there that

74
00:03:37,690 --> 00:03:35,540
we will actually be putting on the

75
00:03:38,830 --> 00:03:37,700
station and leaving it permanently so

76
00:03:40,540 --> 00:03:38,840
essentially we're going to have a big

77
00:03:43,300 --> 00:03:40,550
closet on board which is nice because

78
00:03:46,000 --> 00:03:43,310
there's just like most houses you never

79
00:03:47,860 --> 00:03:46,010
can have too much closet space discovery

80
00:03:50,259 --> 00:03:47,870
will be followed by a Soyuz spacecraft

81
00:03:52,810 --> 00:03:50,269
delivering astronaut scott Kelly and

82
00:03:55,590 --> 00:03:52,820
cosmonauts alexander kaleri and oleg

83
00:03:58,690 --> 00:03:55,600
skripochka to fill out expedition 25

84
00:04:01,090 --> 00:03:58,700
this crew will be on hand November 2nd

85
00:04:03,250 --> 00:04:01,100
to celebrate the 10th anniversary of the

86
00:04:05,650 --> 00:04:03,260
arrival of the first long-duration crew

87
00:04:07,810 --> 00:04:05,660
and the beginning of permanent human

88
00:04:10,600 --> 00:04:07,820

habitation of the International Space

89
00:04:12,309 --> 00:04:10,610
Station your chicken and skripochka are

90
00:04:14,590 --> 00:04:12,319
scheduled for two spacewalks in

91
00:04:17,199 --> 00:04:14,600
mid-november to refresh russian

92
00:04:20,110 --> 00:04:17,209
experiment samples and install new heart

93
00:04:22,090 --> 00:04:20,120
on the exterior of Zvezda and then your

94
00:04:24,670 --> 00:04:22,100
chicken Wheelock and Walker will pack

95
00:04:26,559 --> 00:04:24,680
for their departure that will come just

96
00:04:28,839 --> 00:04:26,569
days before shuttle Endeavour is

97
00:04:31,839 --> 00:04:28,849
expected to arrive with more supplies

98
00:04:33,550 --> 00:04:31,849
and a long anticipated scientific

99
00:04:35,950 --> 00:04:33,560
instrument called the Alpha Magnetic

100
00:04:37,960 --> 00:04:35,960
Spectrometer which will be attached to

101
00:04:40,719 --> 00:04:37,970
the station's truss to search for

102
00:04:42,219 --> 00:04:40,729
antimatter and dark matter I'm very

103
00:04:45,600 --> 00:04:42,229
excited about this this is the physicist

104
00:04:47,350 --> 00:04:45,610
and me coming out is that it will be

105
00:04:50,080 --> 00:04:47,360
probing the secrets of the universe

106
00:04:51,430 --> 00:04:50,090
essentially it's got a very large magnet

107
00:04:54,100 --> 00:04:51,440
on there and so it's waiting for the

108
00:04:57,339 --> 00:04:54,110
race to zoop by and then it uses the

109
00:04:59,379 --> 00:04:57,349
magnet to direct the cosmic rays to the

110
00:05:02,740 --> 00:04:59,389
detectors essentially so the detectors

111
00:05:05,589 --> 00:05:02,750
can see what's coming by the delivery of

112
00:05:07,480 --> 00:05:05,599
the AMS is a high light activity during

113
00:05:10,120 --> 00:05:07,490

the last scheduled flight of the space

114
00:05:12,879 --> 00:05:10,130
shuttle program when I was a kid you

115
00:05:18,309 --> 00:05:12,889
know we had the Mercury Gemini and

116
00:05:21,159 --> 00:05:18,319
Apollo era and so my adult life has our

117
00:05:23,050 --> 00:05:21,169
entire nation's space program misspend

118
00:05:25,120 --> 00:05:23,060
the Space Shuttle and and then the

119
00:05:28,120 --> 00:05:25,130
development later on of the of the space

120
00:05:30,189 --> 00:05:28,130
station so it's a it's sort of a very

121
00:05:32,830 --> 00:05:30,199
going to be a very nostalgic moment I

122
00:05:35,860 --> 00:05:32,840
think to say goodbye to the shuttle STS

123
00:05:37,149 --> 00:05:35,870
134 will be the 36th shuttle mission for

124
00:05:39,279 --> 00:05:37,159
assembly and maintenance of the

125
00:05:42,459 --> 00:05:39,289
International Space Station out of the

126
00:05:45,430 --> 00:05:42,469
total of 134 flights in a program that

127
00:05:50,999 --> 00:05:45,440
defined an era of human space flight you

128
00:05:53,860 --> 00:05:51,009
don't have the station maybe will be

129
00:05:56,770 --> 00:05:53,870
different one but we have these days

130
00:06:00,100 --> 00:05:56,780
very huge station and thank you shuttle

131
00:06:02,080 --> 00:06:00,110
I think on the one hand it shown us how

132
00:06:03,850 --> 00:06:02,090
difficult space travel is just by the

133
00:06:06,490 --> 00:06:03,860
accidents that we've had on the other

134
00:06:08,680 --> 00:06:06,500
hand it has afforded us the ability to

135
00:06:10,719 --> 00:06:08,690
do things that we would not have been

136
00:06:12,999 --> 00:06:10,729
able to do without a shuttle type

137
00:06:15,790 --> 00:06:13,009
vehicle such as the servicing and repair

138
00:06:18,520 --> 00:06:15,800

of satellites the Hubble Space Telescope

139
00:06:21,159 --> 00:06:18,530
and as well as build the space station a

140
00:06:24,159 --> 00:06:21,169
station outfitted and ready for another