
FRIDAY, APRIL 19 ON NASA TV
Expedition 35 Russian Spacewalk Coverage
8:30am CT / 9:30am ET

1
00:00:00,506 --> 00:00:10,826
[Music]

2
00:00:11,326 --> 00:00:11,836
>> [Background Music]
Good morning,

3
00:00:11,836 --> 00:00:13,306
this is Mission Control Houston.

4
00:00:13,306 --> 00:00:15,676
Welcome, and thank you for
joining us for today's edition

5
00:00:15,676 --> 00:00:19,776
of Space Station Live,
this Thursday, April 18.

6
00:00:19,776 --> 00:00:22,046
Joining us now, inside the
International Space Station

7
00:00:22,046 --> 00:00:24,486
Flight Control Room, where the
team has been keeping track

8
00:00:24,486 --> 00:00:26,626
of the systems aboard
the Station,

9
00:00:26,696 --> 00:00:27,986
and supporting the
day's activities

10
00:00:28,116 --> 00:00:33,026
of the Expedition
35 crewmembers.

11
00:00:33,026 --> 00:00:34,446

Leading the Orbit 2 Team here

12
00:00:34,446 --> 00:00:36,086
in the Station Flight
Control Room today,

13
00:00:36,116 --> 00:00:37,766
is Flight Director,
Mike Lammers.

14
00:00:38,206 --> 00:00:45,196
Serving as Capcom, is Marc
Reagan, who is responsible

15
00:00:45,196 --> 00:00:49,076
for relaying all ground
messages up to the crew.

16
00:00:49,266 --> 00:00:51,406
And now, aboard the
International Space Station is

17
00:00:51,646 --> 00:00:54,606
Commander of the complex,
Canadian Space Agency Astronaut,

18
00:00:54,606 --> 00:00:56,936
Chris Hadfield, shown here
on the right-hand side,

19
00:00:57,366 --> 00:00:59,266
along with Flight
Engineers Russian Cosmonaut,

20
00:00:59,266 --> 00:01:03,066
Roman Romanenko, NASA
Astronauts, Tom Marshburn,

21
00:01:03,226 --> 00:01:07,246
and there on the left-hand side,

Chris Cassidy and Cosmonauts,

22
00:01:07,246 --> 00:01:09,696
Pavel Vinogradov and
Alexander Misurkin.

23
00:01:11,046 --> 00:01:13,126
Hadfield, Romanenko,
and Marshburn,

24
00:01:13,126 --> 00:01:15,686
had arrived at the International
Space Station back in December

25
00:01:15,686 --> 00:01:18,866
of last year, aboard their Soyuz
Spacecraft, after docking it

26
00:01:18,866 --> 00:01:22,276
to the Rassvet module, following
their launch, on December 19.

27
00:01:22,686 --> 00:01:25,346
Now, in their fourth month
aboard this Space Station,

28
00:01:25,346 --> 00:01:29,286
they complete 121 consecutive
days in space today --

29
00:01:30,926 --> 00:01:33,896
and joining them, Cassidy,
Vinogradov, and Misurkin,

30
00:01:33,896 --> 00:01:36,026
arrived at the Space
Station a few weeks ago,

31
00:01:36,146 --> 00:01:39,096
aboard their Soyuz Spacecraft,

docking it to the Poisk module

32
00:01:39,096 --> 00:01:41,796
on the same day of their
launch, on March 28.

33
00:01:41,916 --> 00:01:44,796
This is the first crew to
arrive at the Space Station

34
00:01:44,796 --> 00:01:47,336
on the same day of its launch.

35
00:01:47,566 --> 00:01:50,016
Today, they complete
22 days in space.

36
00:01:51,806 --> 00:01:54,376
The Space Station, with its
crew aboard, is flying now

37
00:01:54,376 --> 00:01:58,176
at an altitude of a little
more than 260 statute miles.

38
00:01:58,516 --> 00:02:01,166
The orbiting facility is
on a nighttime pass --

39
00:02:03,056 --> 00:02:04,636
across the South Pacific Ocean,

40
00:02:04,636 --> 00:02:06,056
swinging from the
southeast track

41
00:02:06,496 --> 00:02:08,056
to make a northeast track --

42

00:02:09,166 --> 00:02:11,126
as it passes into an
orbital sunrise here,

43
00:02:11,126 --> 00:02:12,266
in just a few minutes.

44
00:02:14,376 --> 00:02:16,126
The Space Station
crewmembers began their day

45
00:02:16,126 --> 00:02:19,126
with some time this morning
for work prep, breakfast,

46
00:02:19,536 --> 00:02:21,956
morning hygiene, and a
daily Station inspection.

47
00:02:22,516 --> 00:02:25,566
The crew then kicked off
the day with the first

48
00:02:25,566 --> 00:02:27,136
of two daily planning
conferences,

49
00:02:27,136 --> 00:02:28,616
with Ground Controllers
around the world,

50
00:02:28,946 --> 00:02:30,356
to review the days' activities,

51
00:02:30,906 --> 00:02:34,196
and plan for the
next set of tasks.

52
00:02:34,386 --> 00:02:37,596
After the first of the day's

daily planning conference,

53
00:02:37,676 --> 00:02:40,236
the Expedition 35
crew participated

54
00:02:40,236 --> 00:02:42,796
in a weekly conference with the
Russian Flight Control Team.

55
00:02:43,236 --> 00:02:48,166
Aboard the orbiting complex
today, is a day of rest

56
00:02:48,166 --> 00:02:50,316
for several of the crewmembers
on the Space Station --

57
00:02:50,636 --> 00:02:53,936
in advance of tomorrow's
spacewalk, by Flight Engineers,

58
00:02:53,936 --> 00:02:55,546
Vinogradov and Romanenko.

59
00:02:56,436 --> 00:03:00,226
They will deploy and retrieve
several experiment packages,

60
00:03:00,226 --> 00:03:02,646
on the Russian segment
of the complex --

61
00:03:02,716 --> 00:03:07,416
and also, will replace a faulty
reflector device, on the aft end

62
00:03:07,416 --> 00:03:09,966
of the Zvezda Service
Module that is part

63
00:03:09,966 --> 00:03:10,966
of the navigational aides --

64
00:03:10,966 --> 00:03:12,916
to be used for the
automated docking

65
00:03:13,216 --> 00:03:16,046
of the European Space
Agency's, "Albert Einstein,"

66
00:03:16,276 --> 00:03:21,786
the Automated Transfer
Vehicle 4 cargo ship to Zvezda,

67
00:03:21,786 --> 00:03:26,076
that will arrive there aboard
the International Space Station,

68
00:03:26,126 --> 00:03:27,006
later in June.

69
00:03:28,396 --> 00:03:31,946
The spacewalk is scheduled
to begin with the opening

70
00:03:31,976 --> 00:03:34,776
of the hatch to the Pirs
Docking Compartment airlock,

71
00:03:34,776 --> 00:03:37,956
at 9:06 a.m., Central
Time, with a start

72
00:03:37,956 --> 00:03:39,716
of the planned six-hour
excursion.

73

00:03:40,906 --> 00:03:45,406
This excursion will be the 167th
spacewalk in support of Station,

74
00:03:46,136 --> 00:03:49,446
assembly, and maintenance -- the
seventh, in Vinogradov's career,

75
00:03:49,446 --> 00:03:51,126
and a first, for Romanenko.

76
00:03:52,896 --> 00:03:56,176
Earlier this morning, the
pair had reviewed tomorrow's

77
00:03:56,176 --> 00:03:58,946
spacewalk timeline with the
Space Station Commander,

78
00:03:59,006 --> 00:03:59,806
Chris Hadfield.

79
00:04:01,436 --> 00:04:03,316
Meanwhile, others
continue their work

80
00:04:03,316 --> 00:04:05,376
with a few science
experiments, maintenance,

81
00:04:05,376 --> 00:04:07,696
and the Station's extensive
communications upgrade.

82
00:04:08,306 --> 00:04:10,776
Commander Hadfield and Flight
Engineer Marshburn wrap

83
00:04:10,776 --> 00:04:12,886
up the upgrades to the new,

84
00:04:12,976 --> 00:04:14,946
high [inaudible]
communication system today --

85
00:04:15,216 --> 00:04:16,946
by connecting coaxial cables

86
00:04:18,006 --> 00:04:21,446
to bus-tie the new KU
Communications Unit 1

87
00:04:21,446 --> 00:04:24,156
to its redundant KU
Communications 2.

88
00:04:24,536 --> 00:04:25,976
KU Band Communications will be

89
00:04:25,976 --> 00:04:28,086
down for several hours
today during the mating

90
00:04:28,086 --> 00:04:30,606
of these cables, and
the ensuing checkout.

91
00:04:33,816 --> 00:04:37,236
Hadfield and Marshburn
also both continue

92
00:04:37,236 --> 00:04:40,586
to follow a special diet, and
log their diet consumption

93
00:04:40,586 --> 00:04:42,656
as part of a couple
of human body studies,

94

00:04:42,826 --> 00:04:44,596
known as Pro K and Energy.

95
00:04:45,096 --> 00:04:47,276
Pro K seeks a dietary
countermeasure

96
00:04:47,276 --> 00:04:52,766
by increasing protein in their
diets, the countermeasure

97
00:04:52,766 --> 00:04:57,036
for bone loss -- while also,
Energy evaluates energy balance

98
00:04:57,146 --> 00:05:00,136
of a long-duration
spaceflight crewmember.

99
00:05:03,426 --> 00:05:06,606
Commander Hadfield also had
performed regular maintenance

100
00:05:06,606 --> 00:05:08,766
to the onboard Water
Recovery System.

101
00:05:08,766 --> 00:05:13,116
This is the system that converts
urine, sweat, and condensation

102
00:05:13,116 --> 00:05:19,326
into drinkable water
for the crew.

103
00:05:19,586 --> 00:05:23,406
Flight Engineers, Marshburn and
Cassidy, both have participated

104
00:05:23,406 --> 00:05:26,356

in their individual monthly
periodic fitness evaluation.

105
00:05:27,276 --> 00:05:29,786
Physical fitness is essential
for long-duration crewmembers,

106
00:05:30,646 --> 00:05:33,016
as it helps to mitigate
the negative affects

107
00:05:33,706 --> 00:05:35,296
of microgravity on
the human body.

108
00:05:36,326 --> 00:05:39,836
Then, Marshburn had spent some
time reviewing the new Canadian

109
00:05:39,836 --> 00:05:41,636
medical experiment, that seeks

110
00:05:41,636 --> 00:05:44,306
to understand why some
Station astronauts are prone

111
00:05:44,486 --> 00:05:47,836
to fainting spells after
returning to Earth.

112
00:05:47,836 --> 00:05:51,036
The new BP Reg study will
involve collecting data before,

113
00:05:51,036 --> 00:05:53,306
during, and after a
crewmember's mission --

114
00:05:53,796 --> 00:05:57,906
using inflatable cuffs, attached

to the crewmember's legs --

115
00:05:58,346 --> 00:05:59,806
looking for changes
in blood pressure

116
00:05:59,806 --> 00:06:03,546
that may help predict risk
of dizziness and fainting.

117
00:06:04,236 --> 00:06:06,996
BP Reg will not only
help understand dizziness

118
00:06:06,996 --> 00:06:09,286
in astronauts, but also
have the direct benefits

119
00:06:09,286 --> 00:06:10,856
for everyday people
right here on Earth --

120
00:06:11,126 --> 00:06:15,386
particularly, those predisposed
to falls and resulting injuries,

121
00:06:15,386 --> 00:06:16,396
as seen in the elderly.

122
00:06:18,896 --> 00:06:22,046
Flight Engineer Cassidy had
worked today to set up, review,

123
00:06:22,046 --> 00:06:25,086
and conduct a Capillary
Flow Experiment run.

124
00:06:25,796 --> 00:06:29,316
The Capillary Flow Experiment is
an ongoing fluid physics study

125
00:06:29,386 --> 00:06:31,886
that looks at the behavior
of fluids in microgravity.

126
00:06:32,406 --> 00:06:35,276
Results could improve the
design of fluid transfer systems

127
00:06:35,276 --> 00:06:39,636
on future spacecraft, such
as fuel and water tanks --

128
00:06:40,716 --> 00:06:43,406
and each of the crewmembers will
put in their daily two hours

129
00:06:43,406 --> 00:06:45,896
of exercise, using the
onboard gym equipment

130
00:06:45,966 --> 00:06:48,726
that includes a Station
bicycle, a treadmill,

131
00:06:49,076 --> 00:06:51,676
and the advanced
resistive exercise device

132
00:06:51,676 --> 00:06:53,516
that simulates weightlifting
here on Earth.

133
00:06:54,166 --> 00:06:56,526
The crew then will
wrap up their day

134
00:06:56,526 --> 00:06:58,896
with the final daily planning
conference with the ground.

135
00:06:59,356 --> 00:07:04,116
Each crewmember's sleep times
varies today, with some shifting

136
00:07:04,116 --> 00:07:05,236
from their normal
sleep period --

137
00:07:05,236 --> 00:07:09,466
in support of tomorrow's
spacewalk.

138
00:07:09,726 --> 00:07:12,946
Meanwhile, back on Earth,
NASA attempted its test launch

139
00:07:12,946 --> 00:07:16,226
of the Orbital Sciences'
Antares Rocket, from the wall

140
00:07:16,226 --> 00:07:18,276
of its flight facility
in Virginia yesterday,

141
00:07:18,696 --> 00:07:22,596
at about T-12 minutes,
3:48 p.m., Central Time --

142
00:07:22,676 --> 00:07:26,876
that rocket launch was scrubbed,
due to a premature dislocation

143
00:07:26,876 --> 00:07:28,316
of the second stage umbilical.

144
00:07:28,926 --> 00:07:32,946
A second attempt has been
scheduled for tomorrow.

145
00:07:33,266 --> 00:07:34,666
Coverage of that second attempt

146
00:07:34,666 --> 00:07:36,896
to launch the Orbital
Sciences' Antares Rocket

147
00:07:36,896 --> 00:07:40,906
on its test flight, will begin
on NASA Television tomorrow,

148
00:07:40,906 --> 00:07:43,626
at about 3:30 p.m.,
Central Time,

149
00:07:43,626 --> 00:07:45,906
right after the conclusion
of the spacewalk.