



1
00:00:01,350 --> 00:00:03,530
Good morning, this is
Mission Control Houston.

2
00:00:03,530 --> 00:00:05,770
Welcome and thank you for
joining us for today's edition

3
00:00:05,770 --> 00:00:09,150
of ISS update this
Wednesday, July 18.

4
00:00:09,150 --> 00:00:12,850
Those of you joining us now,

5
00:00:12,850 --> 00:00:15,430
we are live inside the
International Space Station

6
00:00:15,430 --> 00:00:18,370
flight control room where the
team here has been monitoring

7
00:00:18,370 --> 00:00:19,660
the systems aboard the station

8
00:00:19,660 --> 00:00:21,050
and supporting today's
activities

9
00:00:21,050 --> 00:00:24,960
of the Expedition
32 crew members.

10
00:00:24,960 --> 00:00:26,660
Leading the Orbit Two team here

11
00:00:26,660 --> 00:00:29,920
in the station flight control

room today is flight director

12

00:00:29,920 --> 00:00:33,440

Richard Jones, seen there
standing at the console,

13

00:00:33,440 --> 00:00:35,060

and next to him and serving

14

00:00:35,060 --> 00:00:36,900

as Capcom relaying
all ground messages

15

00:00:36,900 --> 00:00:38,920

up to the crew is Anna Fisher.

16

00:00:38,920 --> 00:00:44,460

Aboard the orbiting complex
station Commander Gennady

17

00:00:44,460 --> 00:00:47,700

Padalka and flight engineers Joe
Acaba and Sergei Revin who are

18

00:00:47,700 --> 00:00:50,800

in their 10th week in
space now have the help

19

00:00:50,800 --> 00:00:52,200

of three new crew members,

20

00:00:52,200 --> 00:00:57,070

Flight Engineers Russian
cosmonaut Yuri Malenchenko,

21

00:00:57,070 --> 00:01:01,200

NASA astronaut Suni Williams and
Japanese astronaut Aki Hoshide

22

00:01:01,200 --> 00:01:03,420
who joined them aboard the
International Space Station

23

00:01:03,420 --> 00:01:05,640
early yesterday morning.

24

00:01:06,930 --> 00:01:11,710
The newest crew members of
Expedition 32 - Malenchenko,

25

00:01:11,710 --> 00:01:16,260
Williams and Hoshide -- launched
aboard the Soyuz TMA 05M

26

00:01:16,260 --> 00:01:21,110
from the Baikonur Cosmodrome in
Kazakhstan on Saturday night.

27

00:01:21,110 --> 00:01:24,910
They began their two-day
chase on orbit to catch

28

00:01:24,910 --> 00:01:26,760
up to the International
Space Station.

29

00:01:26,760 --> 00:01:29,090
The Soyuz is now docked
to the Rassvet module

30

00:01:29,090 --> 00:01:30,950
of the space station
having docked

31

00:01:30,950 --> 00:01:33,760
at 11:51 PM late Monday night

32

00:01:33,760 --> 00:01:35,970
with hatch opening

early yesterday morning

33

00:01:35,970 --> 00:01:41,840
at 2:23 AM central time.

34

00:01:41,840 --> 00:01:44,920
Meanwhile, there
aboard the station

35

00:01:44,920 --> 00:01:48,380
to greet their new crew
members Commander Padalka

36

00:01:48,380 --> 00:01:51,520
with Flight Engineers Sergei
Revin and Joe Acaba launched

37

00:01:51,520 --> 00:01:56,200
to the orbiting complex
aboard their Soyuz spacecraft

38

00:01:56,200 --> 00:01:58,850
as the Expedition
31 crew in May.

39

00:01:58,850 --> 00:02:01,740
Their vehicle docked to
the Poisk module seen here

40

00:02:01,740 --> 00:02:06,150
in this view is the TMA-04M.

41

00:02:06,150 --> 00:02:10,170
Two days after their
launch on may 14th.

42

00:02:10,170 --> 00:02:14,930
Today they will complete their
66th consecutive day in space.

43

00:02:14,930 --> 00:02:17,000

The space station
with its crew aboard

44

00:02:17,000 --> 00:02:22,800

and the newly arrived Soyuz
TMA-05M docked is now flying

45

00:02:22,800 --> 00:02:27,170

at an altitude of about
249 statute miles.

46

00:02:27,170 --> 00:02:29,780

The orbiting facility crossed
into an orbital sunrise

47

00:02:29,780 --> 00:02:32,840

over the North Pacific
Ocean about a half hour ago

48

00:02:32,840 --> 00:02:34,610

as it passed across
southern parts

49

00:02:34,610 --> 00:02:37,220

of Canada just North
of the United States.

50

00:02:37,220 --> 00:02:39,890

It's now making a
southeastern track just

51

00:02:39,890 --> 00:02:45,650

across the North Atlantic Ocean
between the West coast of Africa

52

00:02:45,650 --> 00:02:47,850

and East Coast of Brazil.

53

00:02:51,280 --> 00:02:54,620

Prior to the Expedition

32 crew waking up,

54

00:02:54,620 --> 00:02:57,990

the ground used the Automated

Transfer Vehicle-3 thrusters

55

00:02:57,990 --> 00:03:00,750

to perform a nominal

reboost of the station.

56

00:03:00,750 --> 00:03:04,170

The reboost placed the ISS

in the correct orientation

57

00:03:04,170 --> 00:03:07,980

for the accelerated 48

Progress single day rendezvous.

58

00:03:07,980 --> 00:03:11,660

The reboost was done

with the burn duration

59

00:03:11,660 --> 00:03:14,190

of 19 minutes and 25 seconds.

60

00:03:14,190 --> 00:03:16,300

This reboost raised the

altitude of the station

61

00:03:16,300 --> 00:03:19,570

to about 249 statute miles.

62

00:03:20,730 --> 00:03:24,430

The Expedition 32 crew that

expanded from three crew members

63

00:03:24,430 --> 00:03:25,560

to now six crew members

64

00:03:25,560 --> 00:03:28,350
as of yesterday kicked
off their first full day

65

00:03:28,350 --> 00:03:30,770
as a full crew aboard the
International Space Station

66

00:03:30,770 --> 00:03:32,670
with a daily planning
conference.

67

00:03:32,670 --> 00:03:35,560
These daily planning conferences
are held with ground controllers

68

00:03:35,560 --> 00:03:37,670
at mission control
centers around the world

69

00:03:37,670 --> 00:03:40,120
to review the day's activities.

70

00:03:40,120 --> 00:03:43,250
After a 14 hour rest
period that put them back

71

00:03:43,250 --> 00:03:46,200
on the normal station
operations clock,

72

00:03:47,280 --> 00:03:50,860
the crew members began work on a
variety of science experiments.

73

00:03:50,860 --> 00:03:53,610
They also performed maintenance
to the home away from home

74

00:03:53,610 --> 00:03:54,770

and prepared for the arrival

75

00:03:54,770 --> 00:03:57,880

of the third Japanese cargo
spacecraft that is slated

76

00:03:57,880 --> 00:03:59,980

to liftoff Friday night.

77

00:03:59,980 --> 00:04:04,700

Launch time is scheduled
to take place at 9:06 PM.

78

00:04:04,700 --> 00:04:07,290

Commander Padalka spent some
time this morning transferring

79

00:04:07,290 --> 00:04:09,900

wastewater to the Rodnik
tank of the Progress

80

00:04:09,900 --> 00:04:11,380

for eventual disposal.

81

00:04:11,380 --> 00:04:12,890

He performed his exercise

82

00:04:12,890 --> 00:04:14,960

and also began some
handover activities

83

00:04:14,960 --> 00:04:18,260

of the Russian segment
with Revin and Malenchenko.

84

00:04:22,350 --> 00:04:24,740

New to the station Flight
Engineer Suni Williams

85

00:04:24,740 --> 00:04:27,820
and Aki Hoshide also
participated

86

00:04:27,820 --> 00:04:33,520
in some handover activities
with Flight Engineer Joe Acaba.

87

00:04:33,520 --> 00:04:34,170
Williams, Hoshide

88

00:04:34,170 --> 00:04:37,220
and Malenchenko started
familiarization

89

00:04:37,220 --> 00:04:40,900
with onboard exercise equipment

90

00:04:40,900 --> 00:04:44,160
and also reviewed their
countermeasure exercise plans.

91

00:04:44,160 --> 00:04:46,430
Exercise for long-duration
crew members is essential

92

00:04:46,430 --> 00:04:49,780
to maintain their health and
mitigate the negative effects

93

00:04:49,780 --> 00:04:52,350
of microgravity on their bodies.

94

00:04:52,350 --> 00:04:55,110
The onboard gym is
equipped with a treadmill,

95

00:04:55,110 --> 00:04:57,900

a stationary bicycle and
a strength trainer known

96

00:04:57,900 --> 00:05:00,410

as the Advanced Resistive
Exercise Device

97

00:05:00,410 --> 00:05:02,490

that simulates weightlifting
on Earth.

98

00:05:02,490 --> 00:05:04,320

The trio also spent more time

99

00:05:04,320 --> 00:05:06,860

with station adaptation
and familiarization.

100

00:05:06,860 --> 00:05:12,870

Much of today's work is
focused on the pending arrival

101

00:05:12,870 --> 00:05:15,230

of the new cargo ship
that is slated to launch

102

00:05:15,230 --> 00:05:17,810

to the International Space
Station Friday night.

103

00:05:17,810 --> 00:05:20,880

The Japanese H-II
Transfer Vehicle-3

104

00:05:20,880 --> 00:05:23,020

or the Konotori 3 is
scheduled to launch

105

00:05:23,020 --> 00:05:28,860

from Tanegashima Space Center in

Japan Friday night at 9:06 PM.

106

00:05:28,860 --> 00:05:31,550

Flight Engineers Joe
Acaba, Suni Williams

107

00:05:31,550 --> 00:05:37,580

and Aki Hoshide participated
in a HTV-3 timeline conference.

108

00:05:37,580 --> 00:05:40,780

This is to review the
upcoming cargo ship's arrival.

109

00:05:40,780 --> 00:05:43,520

They then participated
in some onboard training

110

00:05:43,520 --> 00:05:45,720

of the vehicle's
rendezvous and approach.

111

00:05:45,720 --> 00:05:52,830

Aki and Joe Acaba presently
working on some of the training

112

00:05:52,830 --> 00:05:54,980

with the robotics training.

113

00:05:56,950 --> 00:06:00,010

Williams also had spent
some time to begin work

114

00:06:00,010 --> 00:06:01,870

and review for science research.

115

00:06:01,870 --> 00:06:04,980

One of these investigations
known as InSpace-3 looks

116

00:06:04,980 --> 00:06:07,610

at the changes of physical
properties of colloids

117

00:06:07,610 --> 00:06:11,700

and fluids in response
to their magnetic fields.

118

00:06:11,700 --> 00:06:14,530

The research has possible
technological application

119

00:06:14,530 --> 00:06:16,750

in structural design
here on Earth.

120

00:06:16,750 --> 00:06:18,680

Structures, such as
bridges and buildings,

121

00:06:18,680 --> 00:06:21,490

to better withstand
earthquake forces.

122

00:06:23,420 --> 00:06:25,410

Williams also reviewed
procedures

123

00:06:25,410 --> 00:06:31,040

of onboard research known as
BASS, Burning And Suppression

124

00:06:31,040 --> 00:06:33,810

Of Solids that studies
the characteristics

125

00:06:33,810 --> 00:06:37,270

of a wide variety of fuel
samples in microgravity.

126

00:06:37,270 --> 00:06:40,900

These research results may aid
in the design of fire detection

127

00:06:40,900 --> 00:06:45,230

and suppression systems in
microgravity here on Earth.

128

00:06:46,890 --> 00:06:50,290

On the Russian side of the house
Flight Engineer Sergei Revin

129

00:06:50,290 --> 00:06:52,180

worked with several
ongoing experiments.

130

00:06:52,180 --> 00:06:55,500

One of which is known
as the Bar experiment.

131

00:06:55,500 --> 00:06:58,390

This experiment looks at
methods and instruments

132

00:06:58,390 --> 00:07:00,190

for detecting the
location of a loss

133

00:07:00,190 --> 00:07:02,500

of pressure aboard the station.

134

00:07:02,500 --> 00:07:07,090

And also Flight Engineer
Malenchenko spent some time

135

00:07:07,090 --> 00:07:08,580

transferring items
that was brought

136

00:07:08,580 --> 00:07:13,660
up on the newly docked
Soyuz TMA-05M vehicle.

137
00:07:13,660 --> 00:07:18,060
You're getting a live view
inside the International Space

138
00:07:18,060 --> 00:07:19,670
Station flight control room

139
00:07:19,670 --> 00:07:22,930
where the Orbit Two team
continues to monitor the systems

140
00:07:22,930 --> 00:07:27,000
and the crew activities aboard
the International Space Station.

141
00:07:27,000 --> 00:07:32,710
Later today the Expedition
32 crew will participate

142
00:07:32,710 --> 00:07:34,060
in a few recorded message

143
00:07:34,060 --> 00:07:36,050
that will be downlinked
for later use.

144
00:07:36,050 --> 00:07:39,380
The crew members will do some
evening prep work before their

145
00:07:39,380 --> 00:07:41,690
evening meal and
presleep period.

146
00:07:41,690 --> 00:07:42,930
They also will participate

147

00:07:42,930 --> 00:07:46,170

in their final daily planning
conference before bedtime.