1
00:00:01,690 --> 00:00:03,240
This is mission control Houston.

2
00:00:03,240 --> 00:00:05,670
A team of flight
controllers continually watch

3
00:00:05,670 --> 00:00:07,850
over the International
Space Station from here

4
00:00:07,850 --> 00:00:09,410
and other centers
around the world

5
00:00:09,410 --> 00:00:12,350
as the complex circles
the Earth every 92 min.

6
00:00:12,350 --> 00:00:16,530
at an average altitude
of 260 statute miles.

7
00:00:16,530 --> 00:00:18,750
These flight controllers
also assist the crew

8
00:00:18,750 --> 00:00:21,390
of six aboard the International
Space Station that make

9
00:00:21,390 --> 00:00:24,080
up the Expedition 32 crew.

10
00:00:24,080 --> 00:00:27,250
That crew includes
Commander Gennady Padalka

11
00:00:27,250 --> 00:00:30,520

and five flight engineers:
Sergei Revin,

12
00:00:30,520 --> 00:00:36,730
Joe Acaba Yuri Malenchenko,
Suni Williams and Aki Hoshide.

13
00:00:36,730 --> 00:00:37,940
It's been another busy week

14
00:00:37,940 --> 00:00:41,260
for the six crew members
aboard the station.

15
00:00:41,260 --> 00:00:44,250
Two of the crew members started
their Monday with a little walk,

16
00:00:44,250 --> 00:00:47,690
a spacewalk or extravehicular
activity that is,

17
00:00:47,690 --> 00:00:49,650
as Expedition Commander
Gennady Padalka

18
00:00:49,650 --> 00:00:52,480
and Flight Engineer Yuri
Malenchenko spent five hours,

19
00:00:52,480 --> 00:00:53,290
51 min.

20
00:00:53,290 --> 00:00:55,630
prepping the outside
of the Russian segment

21
00:00:55,630 --> 00:00:58,510
for a future scientific
laboratory

22
00:00:58,510 --> 00:01:01,450
and adding additional panels
on the Zvezda service module

23
00:01:01,450 --> 00:01:04,020
to better protect it
against potential impacts

24
00:01:04,020 --> 00:01:05,440
from micrometeoroids.

25
00:01:05,440 --> 00:01:09,920
It was the 163rd spacewalk in
support of station assembly,

26
00:01:09,920 --> 00:01:15,570
maintenance and scientific work
totaling 1027 hours and 38 min.

27
00:01:15,570 --> 00:01:19,020
Padalka has conducted nine
EVAs in his spaceflight career

28
00:01:19,020 --> 00:01:21,510
for combined duration
of 33 hours, 6 min.,

29
00:01:21,510 --> 00:01:26,760
and Malenchenko five EVAs
totaling 30 hours 5 min.

30
00:01:26,760 --> 00:01:28,200
US astronaut Suni Williams

31
00:01:28,200 --> 00:01:30,980
and Japanese astronaut Aki
Hoshide will continue the

32

00:01:30,980 --> 00:01:34,080
preparatory work for
the new Russian lab

33
00:01:34,080 --> 00:01:37,510
by routing some cables
necessary for thermal and power

34
00:01:37,510 --> 00:01:41,350
and swap a balky main
bus switching unit,

35
00:01:41,350 --> 00:01:43,840
one of several power
relay avionics boxes

36
00:01:43,840 --> 00:01:47,190
on the long truss
backbone of the station.

37
00:01:47,190 --> 00:01:49,730
They also will remove and
replace a failing camera

38
00:01:49,730 --> 00:01:51,710
on the mobile base system.

39
00:01:51,710 --> 00:01:55,090
Along with astronaut Joe Acaba,
they spent the week preparing

40
00:01:55,090 --> 00:01:58,770
for that EVAs scheduled for
Thursday, August 30 by checking

41
00:01:58,770 --> 00:02:01,650
out their spacesuits
and spacewalk systems

42
00:02:01,650 --> 00:02:04,360

in the US quest airlock.

43
00:02:04,360 --> 00:02:06,350
Additionally this week
Hoshide worked inside

44
00:02:06,350 --> 00:02:10,190
of the Japanese Kibo laboratory
preparing its unique airlock

45
00:02:10,190 --> 00:02:12,840
and robotic arm for
experiment operations

46
00:02:12,840 --> 00:02:16,460
as the systems interface
through a laptop computer.

47
00:02:16,460 --> 00:02:18,080
He also talked about his voyage

48
00:02:18,080 --> 00:02:19,850
with a television
program sponsored

49
00:02:19,850 --> 00:02:24,410
by TV Asahi showing
how host Ayaka Ogawa

50
00:02:24,410 --> 00:02:28,650
around Kibo while talking
about life in microgravity.

51
00:02:28,650 --> 00:02:30,810
Midweek the station's
altitude was boosted

52
00:02:30,810 --> 00:02:32,870
to a record average
height above the Earth

53
00:02:32,870 --> 00:02:36,210
when the European Space Agency's
Automated Transfer Vehicle

54
00:02:36,210 --> 00:02:38,590
Edoardo Amaldi fired
its thrusters

55
00:02:38,590 --> 00:02:42,740
on two strategically timed burns
to increase the ISS's apogee

56
00:02:42,740 --> 00:02:47,460
by 8.7 statute miles
and perigee by 3.6.

57
00:02:47,460 --> 00:02:48,930
The result placed the station

58
00:02:48,930 --> 00:02:52,560
in an average orbit
of 260 statute miles.

59
00:02:52,560 --> 00:02:55,420
This is the highest average
the station has ever been

60
00:02:55,420 --> 00:02:58,010
and sets the stage for the
departure of three crew members

61
00:02:58,010 --> 00:02:59,980
in mid-September and the arrival

62
00:02:59,980 --> 00:03:02,210
of the next Russian
Progress supply vehicle

63

00:03:02,210 --> 00:03:04,380
on Thursday, November 1.

64
00:03:04,380 --> 00:03:07,330
Experiment work has been
embedded throughout the week's

65
00:03:07,330 --> 00:03:09,360
schedule each day
with focus being

66
00:03:09,360 --> 00:03:12,250
on the flame experiment
known as BASS for Burning

67
00:03:12,250 --> 00:03:14,160
And Suppression of Solids.

68
00:03:14,160 --> 00:03:17,460
The last in a series of samples
were tested by Suni Williams

69
00:03:17,460 --> 00:03:18,660
in the controlled environment

70
00:03:18,660 --> 00:03:21,960
of the Microgravity
Science Glovebox on behalf

71
00:03:21,960 --> 00:03:24,580
of the ground team
in Cleveland Ohio.

72
00:03:24,580 --> 00:03:26,250
Further experimentation
in support

73
00:03:26,250 --> 00:03:28,520
of BASS will now
wait a few months

74
00:03:28,520 --> 00:03:32,370
until additional samples can
be launched to the station.

75
00:03:32,370 --> 00:03:36,270
The Binary Colloidal Alloy
Test or BCAT took center stage

76
00:03:36,270 --> 00:03:40,020
for part of Joe Acaba's week as
he provided the on orbit hands

77
00:03:40,020 --> 00:03:41,590
for the Canadian investigators

78
00:03:41,590 --> 00:03:46,210
in helping study nanoscale
particles dispersed in liquid.

79
00:03:46,210 --> 00:03:48,730
Here on the ground these
particles are commonly found

80
00:03:48,730 --> 00:03:53,190
in paint, electronic polishing
compounds and food products.

81
00:03:53,190 --> 00:03:56,510
This study continues to collect
data in hopes of development

82
00:03:56,510 --> 00:04:00,770
of new insights into this
important material process.

83
00:04:00,770 --> 00:04:04,490
Expedition 32's seventh crew
member Robonaut performed some

84
00:04:04,490 --> 00:04:09,230
intricate tasks on various task
boards in the Destiny laboratory

85
00:04:09,230 --> 00:04:12,490
to demonstrate its ability to
be commanded from the ground

86
00:04:12,490 --> 00:04:15,870
in exercises that could
assist crewmembers on orbit

87
00:04:15,870 --> 00:04:18,300
with hand intensive activities.

88
00:04:18,300 --> 00:04:21,000
These included manipulating
needles and knobs,

89
00:04:21,000 --> 00:04:24,240
similarly to how astronauts
would work with them.

90
00:04:24,240 --> 00:04:25,390
Testing included use

91
00:04:25,390 --> 00:04:28,430
of Robonaut's vision recognition
software to determine

92
00:04:28,430 --> 00:04:31,190
if the task were
completed successfully.

93
00:04:31,190 --> 00:04:34,880
Further Robonaut activities
are planned for Monday --

94
00:04:34,880 --> 00:04:36,460

attempting to grab a handrail

95
00:04:36,460 --> 00:04:39,150
and using a wipe to
clean it as well.

96
00:04:39,150 --> 00:04:42,220
Be sure to follow
Robonaut in its activities

97
00:04:42,220 --> 00:04:48,330
out on the Twitter account
located at @AstroRobonaut.

98
00:04:48,330 --> 00:04:51,020
All crew members collected
human research samples,

99
00:04:51,020 --> 00:04:52,950
urine and blood,
for ongoing study

100
00:04:52,950 --> 00:04:55,010
of how the human body
reacts and adapts

101
00:04:55,010 --> 00:04:58,070
to the long-term
exposure to microgravity.

102
00:04:58,070 --> 00:05:00,590
These samples are returned
to Earth for evaluation

103
00:05:00,590 --> 00:05:02,560
and developing countermeasures

104
00:05:02,560 --> 00:05:06,370
to maintain a healthy
environment onboard.

105
00:05:06,370 --> 00:05:08,050
Friday, Commander
Gennady Padalka

106
00:05:08,050 --> 00:05:09,620
and Flight Engineer Sergei Revin

107
00:05:09,620 --> 00:05:13,420
and Joe Acaba enjoyed their
100th day on the space station

108
00:05:13,420 --> 00:05:18,070
and 102nd day in space, and over
the weekend all six crew members

109
00:05:18,070 --> 00:05:21,170
will get some time off to talk
to their friends and families.

110
00:05:21,170 --> 00:05:23,860
They'll also perform some
routine housekeeping chores

111
00:05:23,860 --> 00:05:25,340
as usual.

112
00:05:25,340 --> 00:05:28,310
Next week the focus will be
of course on the preparations