
LAT = -44.5 INC = 51.7
ALT = 227.3 D/N: 0:57:19
LON= -139.9 BETA= 34.7

1
00:00:02,306 --> 00:00:04,276
Good morning and welcome
to Mission Control Houston

2
00:00:04,276 --> 00:00:06,186
and the International
Space Station Update.

3
00:00:06,736 --> 00:00:08,276
We're here with the
International Space Station

4
00:00:08,276 --> 00:00:10,796
flight control team inside the
International Space Station

5
00:00:10,906 --> 00:00:11,796
Flight Control Room

6
00:00:12,236 --> 00:00:13,736
at the Mission Control
Center in Houston.

7
00:00:14,246 --> 00:00:16,466
Today's flight director
is Tomas Gonzales-Torres

8
00:00:16,466 --> 00:00:18,846
and he's joined today
by two Capcoms actually.

9
00:00:19,356 --> 00:00:23,016
Hal Getzelman, at the
top center of the screen,

10
00:00:23,016 --> 00:00:24,826
is a familiar face
at that console.

11

00:00:24,826 --> 00:00:27,816
But he is accompanied here by
Kate Rubins who is training

12
00:00:27,816 --> 00:00:28,986
for the Capcom position.

13
00:00:31,576 --> 00:00:32,906
Here on the ground
today the team,

14
00:00:32,906 --> 00:00:35,856
and in particular engineers
at the European Space Agency,

15
00:00:36,346 --> 00:00:38,266
looking into what
caused a reboost

16
00:00:38,266 --> 00:00:40,236
to the space station
yesterday to cut off early.

17
00:00:40,496 --> 00:00:42,996
The reboost started at 11
a.m. Central time yesterday

18
00:00:42,996 --> 00:00:45,706
and was supposed to last for
31 minutes and 16 seconds.

19
00:00:46,236 --> 00:00:48,786
However, the Automated
Transfer Vehicle's thrusters,

20
00:00:48,846 --> 00:00:51,126
which were being used to boost
the station to a higher orbit,

21
00:00:51,906 --> 00:00:54,126

cut off after 20
minutes and 37 seconds.

22
00:00:54,616 --> 00:00:56,396
That reboost was
part of a strategy

23
00:00:56,396 --> 00:00:58,046
to use the propellant delivered

24
00:00:58,046 --> 00:00:59,676
by the Automated
Transfer Vehicle

25
00:00:59,676 --> 00:01:03,496
and begin setting the station
up for the next Soyuz departure

26
00:01:03,496 --> 00:01:06,436
on September 17, as well as the
Progress launch that's going

27
00:01:06,436 --> 00:01:07,796
to follow it at the
beginning of November.

28
00:01:08,556 --> 00:01:10,276
At the moment it's
at an altitude

29
00:01:10,276 --> 00:01:15,546
of 255.5 miles by 249.6.

30
00:01:17,046 --> 00:01:20,226
Another reboost could be planned
for as early as Wednesday

31
00:01:20,226 --> 00:01:22,326
to add a couple of miles to
that and leave the station

32
00:01:22,326 --> 00:01:26,726
in a 257.8 by 251.7 mile orbit.

33
00:01:28,376 --> 00:01:30,126
Onboard the International
Space Station,

34
00:01:30,626 --> 00:01:33,586
six Expedition 32 crew members
are halfway through their day.

35
00:01:33,936 --> 00:01:37,206
Commander Gennady Padalka,
U.S. Flight Engineers Joe Acaba

36
00:01:37,206 --> 00:01:40,666
and Suni Williams, Japanese
Flight Engineer Aki Hoshide

37
00:01:40,666 --> 00:01:43,456
and Russian Flight
Engineers Yuri Malenchenko

38
00:01:43,456 --> 00:01:45,856
and Sergei Revin got
their wake-up call

39
00:01:45,856 --> 00:01:48,386
at 1 a.m. Central time this
morning to start a full day

40
00:01:48,386 --> 00:01:50,116
of science and maintenance
activities,

41
00:01:50,426 --> 00:01:51,926
as well as spacewalk
preparations.

42
00:01:53,056 --> 00:01:54,946
The crew has been
together now for almost a,

43
00:01:55,676 --> 00:01:56,736
or about a full month.

44
00:01:56,906 --> 00:01:57,946
Williams, Hoshide

45
00:01:57,946 --> 00:02:03,276
and Malenchenko arrived aboard
their Soyuz 31S on July 16.

46
00:02:03,326 --> 00:02:05,516
And they have been in
space now for 33 days

47
00:02:05,516 --> 00:02:07,096
and at the space station for 31.

48
00:02:07,686 --> 00:02:09,136
They're planning to
stay until November.

49
00:02:09,596 --> 00:02:14,176
Acaba, Padalka and Revin on the
other hand launched on May 14th

50
00:02:14,176 --> 00:02:17,846
and have been in space for 94
days now, at the station for 92.

51
00:02:17,916 --> 00:02:19,156
They'll be heading back to Earth

52
00:02:19,506 --> 00:02:21,286
in their own Soyuz
vehicle next month.

53
00:02:21,846 --> 00:02:33,306
The crew is currently flying at
an altitude of about 260 miles

54
00:02:34,556 --> 00:02:36,376
above the Pacific Ocean,

55
00:02:36,726 --> 00:02:39,646
just about to reach the
southernmost portion

56
00:02:39,646 --> 00:02:40,616
of this orbit around the Earth

57
00:02:40,616 --> 00:02:43,826
and begin heading North
East across South America.

58
00:02:44,736 --> 00:02:48,756
The first item on today's agenda

59
00:02:48,756 --> 00:02:50,516
for the entire career
was a safety briefing

60
00:02:50,516 --> 00:02:51,596
to prepare the upcoming...

61
00:02:51,936 --> 00:02:55,036
for the upcoming Russian
spacewalk scheduled for Monday.

62
00:02:55,206 --> 00:02:58,356
The entire crew got
together to talk

63
00:02:58,356 --> 00:03:00,786
through what those

inside should be prepared

64
00:03:00,786 --> 00:03:03,046
for in the unlikely
event of an emergency.

65
00:03:03,096 --> 00:03:05,656
And then the spacewalkers,
Gennady Padalka

66
00:03:05,656 --> 00:03:07,556
and Yuri Malenchenko, went

67
00:03:07,556 --> 00:03:09,916
to work getting their
spacesuits moved in to place

68
00:03:09,916 --> 00:03:11,376
and gathering their
equipment and tools.

69
00:03:13,356 --> 00:03:15,406
Meanwhile, here on the ground
the flight controllers are

70
00:03:15,406 --> 00:03:18,206
moving the space station's
robotic arm, Canadarm2,

71
00:03:18,206 --> 00:03:21,526
from the Harmony node across
the Destiny laboratory and then

72
00:03:21,526 --> 00:03:24,986
into the arm's mobile base
to get it in to position

73
00:03:24,986 --> 00:03:27,906
to provide good camera views of
the spacewalk which is scheduled

74
00:03:27,906 --> 00:03:33,186
to begin at 9:40 a.m. on
Monday, NASA TV coverage picking

75
00:03:33,186 --> 00:03:34,636
up at 9 a.m. Central time.

76
00:03:38,756 --> 00:03:40,806
The rest of station's
crew spent at least part

77
00:03:40,806 --> 00:03:44,036
of their day working on a
variety of science experiments.

78
00:03:44,766 --> 00:03:46,976
Flight Engineer Joe
Acaba performed a run

79
00:03:46,976 --> 00:03:49,666
of the BASS experiment --
that stands for Burning

80
00:03:49,666 --> 00:03:50,966
and Suppression of Solids --

81
00:03:52,976 --> 00:03:55,786
and test the hypothesis that
all other things being equal,

82
00:03:55,786 --> 00:03:58,416
materials in microgravity
burn as well or better

83
00:03:58,476 --> 00:03:59,566
than they would in gravity.

84
00:04:00,286 --> 00:04:03,016

Flight Engineer Suni
Williams replaced a camera

85
00:04:03,016 --> 00:04:04,656
on the InSpace-3 experiment

86
00:04:04,656 --> 00:04:06,176
which studies the
fundamental behavior

87
00:04:06,176 --> 00:04:09,236
of magnetic colloidal
fluids under the influence

88
00:04:09,236 --> 00:04:11,896
of various magnetic fields in
hopes of improving our ability

89
00:04:11,896 --> 00:04:14,436
to design structures such
as bridges and Earth...

90
00:04:14,516 --> 00:04:17,326
and bridges to better
withstand earthquakes.

91
00:04:18,756 --> 00:04:21,236
Flight Engineer Aki
Hoshide, meanwhile,

92
00:04:21,236 --> 00:04:22,646
prepared for another segment

93
00:04:22,646 --> 00:04:26,596
of the Integrated Cardiovascular
Experiment that looks

94
00:04:26,596 --> 00:04:29,776
at how being in space affects
astronauts' heart muscles.

95
00:04:30,196 --> 00:04:31,886
And he also replaced
a disk drive

96
00:04:31,886 --> 00:04:34,936
on the Combustion
Integrated Rack's Fluid

97
00:04:34,936 --> 00:04:35,966
and Combustion Facility.

98
00:04:36,096 --> 00:04:39,896
And on the Russian
side of the station,

99
00:04:39,896 --> 00:04:41,426
Flight Engineer Sergei
Revin worked

100
00:04:41,426 --> 00:04:44,186
on the Identification
and Bar experiments.

101
00:04:44,356 --> 00:04:46,916
Identification is aimed
at identifying sources

102
00:04:46,916 --> 00:04:50,196
of vibrations that disrupt
the microgravity conditions

103
00:04:50,196 --> 00:04:51,106
on the space station.

104
00:04:51,306 --> 00:04:53,916
Those conditions are important
for many of the experiments

105

00:04:53,916 --> 00:04:55,466
that go on onboard
the space station.

106
00:04:57,816 --> 00:04:59,996
And the Bar experiment
looks at different methods

107
00:04:59,996 --> 00:05:01,856
of detecting leaks
on the station.

108
00:05:03,226 --> 00:05:04,506
That's what's going
on in space today