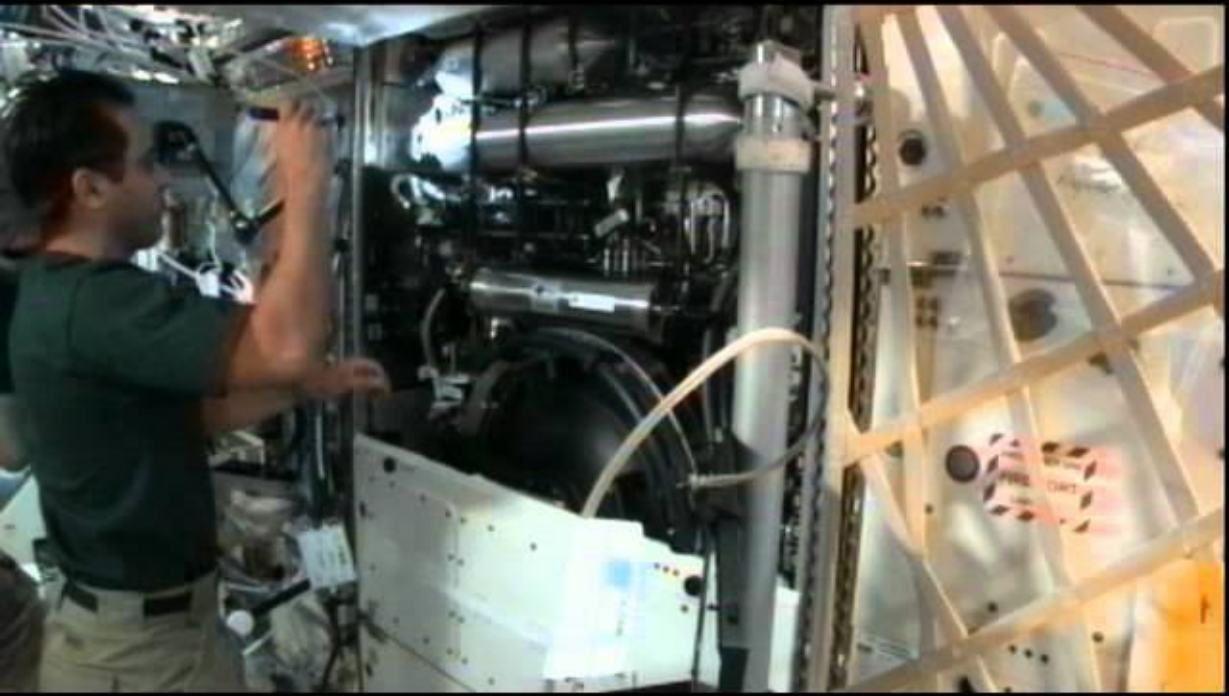

1
00:00:00,006 --> 00:00:01,696
[radio chatter]

2
00:00:01,696 --> 00:00:04,426
This is Mission Control,
Houston.

3
00:00:04,426 --> 00:00:06,686
Good morning to everyone
and welcome

4
00:00:06,686 --> 00:00:09,186
to the International Space
Station flight control room here

5
00:00:09,186 --> 00:00:10,786
at the Johnson Space Center.

6
00:00:12,326 --> 00:00:13,816
This is today's ISS update.

7
00:00:13,816 --> 00:00:16,376
It is Monday, June 11, 2012.

8
00:00:16,566 --> 00:00:20,306
The crew on board the space
station is busy working

9
00:00:20,306 --> 00:00:24,606
on a series of experiments
and routine maintenance work.

10
00:00:24,606 --> 00:00:26,676
The team down here on
Earth is being led today

11
00:00:26,676 --> 00:00:28,446
by Flight Director
Royce Renfrew.

12
00:00:28,446 --> 00:00:29,666
He is standing up there.

13
00:00:29,666 --> 00:00:32,076
He is joined by the Capcom today

14
00:00:32,076 --> 00:00:33,916
which is veteran
astronaut Sandy Magnus.

15
00:00:33,916 --> 00:00:36,836
She herself lived on board
the space station complex,

16
00:00:36,836 --> 00:00:41,146
also flew the last space
shuttle mission STS 135.

17
00:00:41,146 --> 00:00:45,246
Today is her actual final
day of training as a Capcom,

18
00:00:45,246 --> 00:00:46,876
so we'll be seeing her face

19
00:00:46,876 --> 00:00:50,556
and hearing her voice a bit more
here inside mission control.

20
00:00:52,256 --> 00:00:54,986
Today, the three Russian
crew members including Oleg

21
00:00:54,986 --> 00:00:56,526
Kononenko, Gennady Padalka

22
00:00:56,526 --> 00:01:00,556
and Sergei Revin are spending

some time observing Russia Day,

23
00:01:00,556 --> 00:01:02,976
which is a holiday for
our colleagues in Russia

24
00:01:03,456 --> 00:01:06,156
that recognizes national
pride and social

25
00:01:06,156 --> 00:01:08,066
and economic achievements
throughout history.

26
00:01:08,066 --> 00:01:11,266
Of course, there are
many from that nation,

27
00:01:11,346 --> 00:01:12,976
the space program not the least

28
00:01:12,976 --> 00:01:17,956
of which gets recognized
on Russia Day.

29
00:01:18,276 --> 00:01:20,756
Joe Acaba, one of the
flight engineers on board,

30
00:01:20,756 --> 00:01:23,356
is performing a quarterly
inspection of one

31
00:01:23,356 --> 00:01:24,916
of the onboard treadmills.

32
00:01:24,916 --> 00:01:27,956
Those treadmills are an
important piece of equipment

33
00:01:27,956 --> 00:01:30,806
for the crew to use
each and every day.

34
00:01:30,806 --> 00:01:35,006
It requires some
upkeep up there on board

35
00:01:35,006 --> 00:01:36,966
so he is taking care
of that today.

36
00:01:36,966 --> 00:01:38,216
He is also doing some work

37
00:01:38,216 --> 00:01:42,096
on what is called the
Combustion Integrated Rack,

38
00:01:42,286 --> 00:01:45,696
or the CIR. This rack,
including its twin

39
00:01:45,696 --> 00:01:51,126
which is the Fluid Integrated
Rack, are large pieces

40
00:01:51,126 --> 00:01:53,926
of experiment hardware on
board the space station.

41
00:01:54,146 --> 00:01:56,126
The Combustion Integrated
Rack is used

42
00:01:56,126 --> 00:01:57,706
to perform combustion
experiments just

43

00:01:57,706 --> 00:01:59,616
like its name sounds
up in space.

44
00:02:00,326 --> 00:02:01,336
It's fairly large.

45
00:02:01,336 --> 00:02:03,416
It has a 100-liter
combustion chamber,

46
00:02:03,416 --> 00:02:05,756
which you see the
majority of there,

47
00:02:05,756 --> 00:02:08,026
and five different
cameras that the crew

48
00:02:08,026 --> 00:02:09,466
and also the ground
teams can use

49
00:02:09,466 --> 00:02:12,306
to see the different
experiments that are inside.

50
00:02:12,356 --> 00:02:17,576
The crew actually helps maintain
the racks and the fuel bottles

51
00:02:17,576 --> 00:02:19,736
which are mounted down
below that provide the fuel

52
00:02:19,736 --> 00:02:23,146
to burn inside the rack, but the
actual experiments themselves

53
00:02:23,146 --> 00:02:24,456

are run from the ground.

54
00:02:24,456 --> 00:02:25,456
So they're remote controlled.

55
00:02:25,776 --> 00:02:29,416
Acaba also spending
some time moving cargo

56
00:02:29,416 --> 00:02:32,416
out of the Automated Transfer
Vehicle that is still docked

57
00:02:32,416 --> 00:02:35,186
with the station back there
on the Russian segment.

58
00:02:35,706 --> 00:02:40,046
That ATV, which is called the
"Amaldi," came up back in March

59
00:02:40,046 --> 00:02:42,666
and docked with the
International Space Station.

60
00:02:42,666 --> 00:02:44,946
You see this very
large spacecraft here

61
00:02:44,946 --> 00:02:46,976
with its x-wing solar arrays

62
00:02:46,976 --> 00:02:49,106
which set it apart
from other vehicles.

63
00:02:49,106 --> 00:02:52,436
It's going to spend the
next several months attached

64
00:02:52,436 --> 00:02:53,016
to the station.

65
00:02:53,016 --> 00:02:56,146
It brought up more than seven
tons of supplies for the crew,

66
00:02:56,146 --> 00:02:58,206
so they've been spending
the last several weeks

67
00:02:58,206 --> 00:03:00,156
and couple months unloading it.

68
00:03:00,726 --> 00:03:02,486
They will continue this
throughout the summer,

69
00:03:02,576 --> 00:03:04,836
and then pack it full
of trash and other items

70
00:03:04,836 --> 00:03:05,966
that they don't need anymore.

71
00:03:06,046 --> 00:03:09,186
And ultimately, coming up in
August, September or at the end

72
00:03:09,186 --> 00:03:11,846
of the summer, that ATV will
be undocked from the station

73
00:03:11,846 --> 00:03:13,706
and sent into a destructive
reentry

74
00:03:14,296 --> 00:03:15,486
in the Earth's atmosphere.

75
00:03:15,486 --> 00:03:18,836
This ATV is the third of
the ATV's that have come

76
00:03:18,836 --> 00:03:22,386
up to the station complex.

77
00:03:22,726 --> 00:03:26,116
Andre Kuipers is working on
some routine work inside Kibo

78
00:03:26,216 --> 00:03:27,846
on the ventilation system.

79
00:03:30,816 --> 00:03:33,736
This is some routine maintenance
work that he and the rest

80
00:03:33,736 --> 00:03:34,296
of the crew have

81
00:03:34,296 --> 00:03:36,396
to do throughout the
entire space station complex

82
00:03:36,396 --> 00:03:37,806
on the different modules there.

83
00:03:38,736 --> 00:03:41,176
He will take care of that and
take some photos of his work

84
00:03:41,176 --> 00:03:43,986
and send that down to the
ground team so they can verify

85
00:03:43,986 --> 00:03:45,616
that everything has been

done according to plan.

86
00:03:46,636 --> 00:03:48,446
He's also working on
what's called the Integrated

87
00:03:48,446 --> 00:03:52,016
Cardiovascular ambulatory
monitoring experiment.

88
00:03:52,436 --> 00:03:57,166
Obviously the human body
is one of the main focuses

89
00:03:57,166 --> 00:04:00,706
of station experiments to find
out what happens to us as we're

90
00:04:00,706 --> 00:04:03,676
up in space for extended
periods of time.

91
00:04:03,676 --> 00:04:06,326
These lessons learned from the
space station will be important

92
00:04:06,326 --> 00:04:08,956
as humans venture beyond low
Earth orbit to destinations

93
00:04:08,956 --> 00:04:13,156
such as an asteroid or back to
the moon or the moons of Mars

94
00:04:13,156 --> 00:04:14,706
or whatever it may be.

95
00:04:15,846 --> 00:04:20,796
This particular experiment has
the crew member wear a device

96
00:04:20,796 --> 00:04:23,266
that monitors blood
pressure for 24 hours.

97
00:04:23,706 --> 00:04:26,466
After that takes place, then
they basically do the same thing

98
00:04:26,466 --> 00:04:27,846
with an EKG machine

99
00:04:27,846 --> 00:04:31,406
which records electrocardiogram
signals from heart.

100
00:04:32,226 --> 00:04:34,786
All this is put together to find
out exactly what happens to us

101
00:04:34,786 --> 00:04:36,836
up there on board
the space station.

102
00:04:37,416 --> 00:04:40,326
And finally Don Pettit
is working

103
00:04:40,326 --> 00:04:41,786
on an experiment called BASS.

104
00:04:42,396 --> 00:04:45,676
It stands for Burning
And Suppression

105
00:04:45,676 --> 00:04:47,216
of Solids up in space.

106
00:04:47,216 --> 00:04:48,616

It's an interesting experiment,

107
00:04:48,616 --> 00:04:51,016
sort of like the
Combustion Integrated Rack.

108
00:04:51,016 --> 00:04:52,896
It takes a look at how
things burn in space.

109
00:04:52,896 --> 00:04:56,966
Fire behaves extremely
differently inside the

110
00:04:56,966 --> 00:04:59,356
weightless environment of the
International Space Station.

111
00:04:59,356 --> 00:05:01,226
What BASS actually takes a look

112
00:05:01,226 --> 00:05:04,776
at is how do you
extinguish fires up in space

113
00:05:04,776 --> 00:05:07,216
because the accepted
theory is that here

114
00:05:07,216 --> 00:05:08,456
on Earth the way
a flame behaves,

115
00:05:08,456 --> 00:05:11,246
that you aim the fire
suppression or the extinguisher

116
00:05:11,246 --> 00:05:12,636
down at the base of
the flame which is

117
00:05:12,636 --> 00:05:17,316
where the flame is basically
created and also serves

118
00:05:17,316 --> 00:05:19,126
as its stabilization point.

119
00:05:19,156 --> 00:05:21,596
But that may be a bit
different up in space,

120
00:05:22,136 --> 00:05:24,376
so this BASS experiment
takes a look at that,