
CAIO

1
00:00:05,829 --> 00:00:04,070
okay

2
00:00:08,230 --> 00:00:05,839
this is mission control houston welcome

3
00:00:11,110 --> 00:00:08,240
to today's iss update it is wednesday

4
00:00:12,789 --> 00:00:11,120
june 13 2012 and this is a live view

5
00:00:14,629 --> 00:00:12,799
inside the flight control room for the

6
00:00:16,150 --> 00:00:14,639
space station

7
00:00:17,830 --> 00:00:16,160
today this team here is being led by

8
00:00:20,550 --> 00:00:17,840
flight director paul dye who is sitting

9
00:00:21,750 --> 00:00:20,560
there in the middle of the blue shirt

10
00:00:23,590 --> 00:00:21,760
right beside him in the green shirt is

11
00:00:26,470 --> 00:00:23,600
clay anderson he is serving as today's

12
00:00:31,029 --> 00:00:27,830
the crew has been very busy today they

13
00:00:33,270 --> 00:00:31,039

had a slightly off-duty day yesterday

14
00:00:35,510 --> 00:00:33,280
this is a houston flight i just want to

15
00:00:36,709 --> 00:00:35,520
say that it was a good experience the

16
00:00:38,630 --> 00:00:36,719
crew has been

17
00:00:41,590 --> 00:00:38,640
working this morning on a number of

18
00:00:46,950 --> 00:00:41,600
different experiments and

19
00:00:50,709 --> 00:00:48,709
oli kononenko started his day working on

20
00:00:52,389 --> 00:00:50,719
a russian experiment that studies the

21
00:00:54,950 --> 00:00:52,399
veins in the lower extremities down in

22
00:00:56,869 --> 00:00:54,960
the astronauts and cosmonauts legs

23
00:00:59,590 --> 00:00:56,879
as we talk about quite a bit on here the

24
00:01:01,670 --> 00:00:59,600
human body is an area of intense focus

25
00:01:03,110 --> 00:01:01,680
for the ground teams and researchers

26
00:01:17,030 --> 00:01:03,120
that try to find out how we react to

27
00:01:21,990 --> 00:01:19,670
the crew specifically kononenko and

28
00:01:23,350 --> 00:01:22,000
andre kuipers and don pettit also

29
00:01:24,630 --> 00:01:23,360
checked out their soyuz that's going to

30
00:01:27,429 --> 00:01:24,640
be bringing them home here in just a

31
00:01:29,030 --> 00:01:27,439
couple of weeks they got in their soyuz

32
00:01:30,149 --> 00:01:29,040
seat liners which are custom made for

33
00:01:32,149 --> 00:01:30,159
each one of them

34
00:01:34,230 --> 00:01:32,159
to make sure that they still fit and are

35
00:01:35,990 --> 00:01:34,240
okay to support the landing the human

36
00:01:37,350 --> 00:01:36,000
body actually gets a little bit taller

37
00:01:39,109 --> 00:01:37,360
in space especially whenever you're up

38
00:01:41,109 --> 00:01:39,119

there for about six months so each of

39
00:01:42,389 --> 00:01:41,119
the crews checks out their seats and

40
00:01:43,590 --> 00:01:42,399
measures everything and just make sure

41
00:01:45,590 --> 00:01:43,600
that they're still

42
00:01:47,830 --> 00:01:45,600
good to go to support

43
00:01:49,830 --> 00:01:47,840
the upcoming landing kononenko kuipers

44
00:01:52,710 --> 00:01:49,840
and don pettit are going to be landing

45
00:01:54,149 --> 00:01:52,720
coming up on sunday july 1st around 3 15

46
00:01:58,230 --> 00:01:54,159
a.m central time of course we'll have

47
00:01:59,910 --> 00:01:58,240
live coverage here on nasa television

48
00:02:01,990 --> 00:01:59,920
gennady padalka worked inside the

49
00:02:05,109 --> 00:02:02,000
russian segment on an electromagnetic

50
00:02:07,270 --> 00:02:05,119
experiment called kulonovsky crystal

51
00:02:09,589 --> 00:02:07,280
the basic examination of this is to look

52
00:02:11,910 --> 00:02:09,599
at the electrostatic interaction between

53
00:02:13,430 --> 00:02:11,920
electrically charged particles

54
00:02:15,670 --> 00:02:13,440
so he worked on that and reported those

55
00:02:18,150 --> 00:02:15,680
results down to the ground teams

56
00:02:19,510 --> 00:02:18,160
padalka as well as sergey revin also

57
00:02:21,510 --> 00:02:19,520
worked together on an education

58
00:02:24,150 --> 00:02:21,520
experiment that looks at the

59
00:02:27,030 --> 00:02:24,160
complete gas to liquid phase separation

60
00:02:29,910 --> 00:02:27,040
of fine dispersion particles up there in

61
00:02:33,830 --> 00:02:31,670
joe acaba also reviewed procedures for

62
00:02:35,430 --> 00:02:33,840
the upcoming test of the amine swingbed

63
00:02:37,589 --> 00:02:35,440

this is a new prototype for the carbon

64
00:02:39,589 --> 00:02:37,599
dioxide removal system that will be used

65
00:02:41,670 --> 00:02:39,599
on the orion spacecraft coming up in the

66
00:02:43,190 --> 00:02:41,680
future

67
00:02:46,150 --> 00:02:43,200
the point of this is to test out brand

68
00:02:47,910 --> 00:02:46,160
new technology on that amine swingbed

69
00:02:50,790 --> 00:02:47,920
that basically makes it more efficient

70
00:02:52,390 --> 00:02:50,800
and much smaller than what is currently

71
00:02:53,430 --> 00:02:52,400
up on board the international space

72
00:02:55,110 --> 00:02:53,440
station throughout the years these

73
00:02:56,949 --> 00:02:55,120
carbon dioxide removal assemblies have

74
00:03:00,550 --> 00:02:56,959
gotten smaller and

75
00:03:03,350 --> 00:03:00,560
worked a bit better and more efficient

76
00:03:04,790 --> 00:03:03,360
of course orion does not have the space

77
00:03:07,509 --> 00:03:04,800
of the international space station and

78
00:03:09,589 --> 00:03:07,519
will be going on much longer journeys

79
00:03:11,509 --> 00:03:09,599
so smaller is better and the space

80
00:03:12,790 --> 00:03:11,519
station is the perfect place to test out

81
00:03:15,110 --> 00:03:12,800
that technology

82
00:03:17,270 --> 00:03:15,120
coming up here in the future

83
00:03:19,030 --> 00:03:17,280
the cobb also had a hand pass with saint

84
00:03:20,070 --> 00:03:19,040
anne's primary school near sydney

85
00:03:21,589 --> 00:03:20,080
australia

86
00:03:23,270 --> 00:03:21,599
he talked with some elementary and

87
00:03:24,710 --> 00:03:23,280
middle school student students about

88
00:03:26,710 --> 00:03:24,720

life on board the station to find out

89
00:03:29,110 --> 00:03:26,720
what it's like to work on board the

90
00:03:29,910 --> 00:03:29,120
orbiting complex and the students ask

91
00:03:32,149 --> 00:03:29,920
him

92
00:03:34,309 --> 00:03:32,159
what kind of food that the crew eats and

93
00:03:35,830 --> 00:03:34,319
what they do every day

94
00:03:37,750 --> 00:03:35,840
he also worked on the capillary flow

95
00:03:39,350 --> 00:03:37,760
experiment that looks at how liquids and

96
00:03:40,550 --> 00:03:39,360
solids interact

97
00:03:42,229 --> 00:03:40,560
in zero g

98
00:03:43,589 --> 00:03:42,239
that's an ongoing experiment that has

99
00:03:45,990 --> 00:03:43,599
been conducted throughout several

100
00:03:47,830 --> 00:03:46,000
expeditions

101
00:03:50,229 --> 00:03:47,840
andre kuipers worked on some of the

102
00:03:51,670 --> 00:03:50,239
water on off valves in the columbus

103
00:03:54,070 --> 00:03:51,680
laboratory you're seeing some footage of

104
00:03:56,070 --> 00:03:54,080
that from earlier today

105
00:03:57,509 --> 00:03:56,080
that activity took up the majority of

106
00:03:58,869 --> 00:03:57,519
his morning

107
00:04:00,550 --> 00:03:58,879
later on today he's also going to work

108
00:04:02,949 --> 00:04:00,560
on the integrated cardiovascular

109
00:04:04,710 --> 00:04:02,959
ambulatory monitoring experiment which

110
00:04:05,509 --> 00:04:04,720
is something that he's done all week

111
00:04:06,589 --> 00:04:05,519
long

112
00:04:09,750 --> 00:04:06,599
this takes a look at how the

113
00:04:11,270 --> 00:04:09,760

cardiovascular system reacts to being up

114
00:04:13,429 --> 00:04:11,280
in space as we talked about the human

115
00:04:15,830 --> 00:04:13,439
body is one of the main experiments on

116
00:04:17,430 --> 00:04:15,840
board

117
00:04:18,949 --> 00:04:17,440
so that uh experiment has been

118
00:04:21,749 --> 00:04:18,959
monitoring his blood pressure throughout

119
00:04:23,189 --> 00:04:21,759
the week as well as some ekg signals

120
00:04:25,430 --> 00:04:23,199
much like you would find in a doctor's

121
00:04:27,909 --> 00:04:25,440
office here on earth

122
00:04:31,030 --> 00:04:27,919
don pettit worked on a rack called the

123
00:04:33,030 --> 00:04:31,040
multi-purpose small payload rack

124
00:04:34,550 --> 00:04:33,040
this is exactly what it sounds like it's

125
00:04:36,629 --> 00:04:34,560
in the kibo laboratory it has two

126
00:04:38,390 --> 00:04:36,639
different work spaces and one workbench

127
00:04:41,189 --> 00:04:38,400
and can hold all kinds of equipment

128
00:04:43,590 --> 00:04:41,199
supplies and power for the experiments

129
00:04:45,030 --> 00:04:43,600
that take place in that rack

130
00:04:47,030 --> 00:04:45,040
there's also a way for that rack to be

131
00:04:48,390 --> 00:04:47,040
communicated directly with the ground

132
00:04:50,790 --> 00:04:48,400
and there's some video equipment on

133
00:04:52,310 --> 00:04:50,800
board so the ground teams can monitor

134
00:04:53,909 --> 00:04:52,320
the experiments on board but it's

135
00:04:56,230 --> 00:04:53,919
basically a plug and play rack so

136
00:04:57,749 --> 00:04:56,240
anything that needs to go in there can

137
00:04:59,749 --> 00:04:57,759
and he was doing some routine

138
00:05:01,110 --> 00:04:59,759

maintenance on the quick disconnects

139
00:05:03,029 --> 00:05:01,120
that are part of the combustion chamber

140
00:05:04,870 --> 00:05:03,039
there

141
00:05:07,270 --> 00:05:04,880
and then earlier today the entire crew

142
00:05:09,830 --> 00:05:07,280
which you're hearing a debrief of now

143
00:05:12,070 --> 00:05:09,840
conducted a routine fire drill on board

144
00:05:13,749 --> 00:05:12,080
this happens periodically on board where

145
00:05:15,749 --> 00:05:13,759
they simulate what would happen

146
00:05:17,350 --> 00:05:15,759
if a fire occurred there's three

147
00:05:19,670 --> 00:05:17,360
different main emergencies that the crew

148
00:05:20,790 --> 00:05:19,680
does train and focus for fire being one

149
00:05:22,830 --> 00:05:20,800
of them

150
00:05:25,430 --> 00:05:22,840
toxicity or some sort of

151
00:05:27,710 --> 00:05:25,440
toxic chemical

152
00:05:30,070 --> 00:05:27,720
release is another one and of course

153
00:05:31,909 --> 00:05:30,080
depressurization is the third and final

154
00:05:33,430 --> 00:05:31,919
one so what they do is they

155
00:05:35,430 --> 00:05:33,440
reenact what would happen if a fire

156
00:05:37,909 --> 00:05:35,440
actually occurred on board they don

157
00:05:39,990 --> 00:05:37,919
their masks and their safety devices and

158
00:05:41,749 --> 00:05:40,000
the ground teams work with them and then

159
00:05:43,430 --> 00:05:41,759
what they do is they have a quick chat

160
00:05:46,310 --> 00:05:43,440
with the ground teams here in houston

161
00:05:48,870 --> 00:05:46,320
that you're hearing now to talk about