1
00:00:06,470 --> 00:00:03,669
this is mission control houston welcome

2
00:00:08,390 --> 00:00:06,480
to iss update it is uh wednesday march 6

3
00:00:10,150 --> 00:00:08,400
2013. you're looking at a live view

4
00:00:12,390 --> 00:00:10,160
inside the international space station

5
00:00:13,990 --> 00:00:12,400
flight control room here at the johnson

6
00:00:15,910 --> 00:00:14,000
space center this team today is being

7
00:00:17,109 --> 00:00:15,920
led by flight director michael lammers

8
00:00:19,109 --> 00:00:17,119
he is sitting there at the center

9
00:00:20,310 --> 00:00:19,119
console there on the right astronaut

10
00:00:22,310 --> 00:00:20,320
dougly lock there on the left and the

11
00:00:23,830 --> 00:00:22,320
white shirt he is today's capcom the

12
00:00:26,710 --> 00:00:23,840
voice up to

13
00:00:29,589 --> 00:00:28,070

it's going to be a busy day on board the

14
00:00:31,509 --> 00:00:29,599
international space station lots of

15
00:00:34,150 --> 00:00:31,519
activity taking place inside as the crew

16
00:00:36,630 --> 00:00:34,160
works on various science and maintenance

17
00:00:39,190 --> 00:00:36,640
tasks and then outside the space station

18
00:00:41,830 --> 00:00:39,200
quite an unusual activity going on today

19
00:00:44,150 --> 00:00:41,840
as this will be the first time that

20
00:00:46,869 --> 00:00:44,160
an unpressurized cargo piece is going to

21
00:00:48,470 --> 00:00:46,879
be removed from the spacex dragon

22
00:00:50,150 --> 00:00:48,480
spacecraft which you see they're docked

23
00:00:52,470 --> 00:00:50,160
with the international space station it

24
00:00:53,990 --> 00:00:52,480
is currently plugged into the harmony

25
00:00:55,590 --> 00:00:54,000
node

26
00:00:57,189 --> 00:00:55,600
this is a view from the bottom side of

27
00:00:59,510 --> 00:00:57,199
dragon you're looking up inside the

28
00:01:02,630 --> 00:00:59,520
trunk there you can sort of make out to

29
00:01:05,270 --> 00:01:02,640
what looks like a y-shaped uh devices

30
00:01:06,550 --> 00:01:05,280
there those are grapple bars

31
00:01:09,109 --> 00:01:06,560
those were flown up in this

32
00:01:10,630 --> 00:01:09,119
unpressurized section of dragon up to

33
00:01:13,190 --> 00:01:10,640
the international space station together

34
00:01:15,190 --> 00:01:13,200
they weigh about 602 pounds those are

35
00:01:17,350 --> 00:01:15,200
going to be removed later on today

36
00:01:18,710 --> 00:01:17,360
beginning at about 1 pm central time

37
00:01:20,870 --> 00:01:18,720
this will be a completely ground

38
00:01:23,670 --> 00:01:20,880

commanded maneuver with the teams here

39
00:01:26,310 --> 00:01:23,680
in houston uh commanding the station's

40
00:01:28,870 --> 00:01:26,320
giant 58 foot long robotic arm to reach

41
00:01:31,749 --> 00:01:28,880
in there and to pull these grapple bars

42
00:01:33,270 --> 00:01:31,759
out now what these gravel bars are

43
00:01:35,910 --> 00:01:33,280
are pieces of equipment that will be

44
00:01:37,830 --> 00:01:35,920
used to remove a failed radiator on the

45
00:01:39,590 --> 00:01:37,840
s1 and p1 truss of the international

46
00:01:40,870 --> 00:01:39,600
space station should that ever be deemed

47
00:01:42,950 --> 00:01:40,880
necessary

48
00:01:45,030 --> 00:01:42,960
these grapple bars are stored inside

49
00:01:45,990 --> 00:01:45,040
dragon they're sort of canted or tilted

50
00:01:48,149 --> 00:01:46,000
over

51
00:01:50,069 --> 00:01:48,159
diagonally a little bit just to make

52
00:01:52,069 --> 00:01:50,079
them a little bit smaller make it a bit

53
00:01:54,469 --> 00:01:52,079
easier to back them out of the dragon

54
00:01:56,310 --> 00:01:54,479
spacecraft coming up later on today but

55
00:01:59,030 --> 00:01:56,320
those are going to be stored temporarily

56
00:02:01,109 --> 00:01:59,040
out on a payload attachment point on the

57
00:02:03,190 --> 00:02:01,119
outside of the station and then later on

58
00:02:05,749 --> 00:02:03,200
this summer they will be moved over to

59
00:02:07,109 --> 00:02:05,759
the s1 and p1 trust on the left and

60
00:02:11,029 --> 00:02:07,119
right hand side

61
00:02:15,110 --> 00:02:12,790
in addition to that kevin ford the

62
00:02:16,390 --> 00:02:15,120
commander of expedition 34 has been

63
00:02:18,309 --> 00:02:16,400

working on

64
00:02:20,229 --> 00:02:18,319
the majority of his morning

65
00:02:21,750 --> 00:02:20,239
taking down the marangoni experiment

66
00:02:24,229 --> 00:02:21,760
which is inside the international space

67
00:02:26,949 --> 00:02:24,239
station this is a japanese experiment

68
00:02:28,710 --> 00:02:26,959
that takes a look at fluid tension and

69
00:02:30,229 --> 00:02:28,720
how that works in zero gravity you see

70
00:02:31,910 --> 00:02:30,239
fluid tension here on earth all the time

71
00:02:33,670 --> 00:02:31,920
if you ever washed your car

72
00:02:35,910 --> 00:02:33,680
you see how those water droplets sort of

73
00:02:37,350 --> 00:02:35,920
form into little balls that is surface

74
00:02:38,869 --> 00:02:37,360
tension

75
00:02:40,710 --> 00:02:38,879
so this marangoni experiment or the

76
00:02:42,790 --> 00:02:40,720
marangoni effect takes a look at that

77
00:02:44,790 --> 00:02:42,800
and also takes a look at how heat

78
00:02:46,229 --> 00:02:44,800
is transferred through those fluids and

79
00:02:49,270 --> 00:02:46,239
how that is different up in gravity

80
00:02:51,190 --> 00:02:49,280
versus here on earth

81
00:02:52,630 --> 00:02:51,200
kevin ford also working uh to review

82
00:02:55,030 --> 00:02:52,640
some procedures today on the carbon

83
00:02:56,550 --> 00:02:55,040
dioxide removal assembly uh this is part

84
00:02:58,710 --> 00:02:56,560
of the device on board the space station

85
00:03:00,710 --> 00:02:58,720
that removes carbon dioxide does exactly

86
00:03:02,470 --> 00:03:00,720
what it sounds like it keeps the air

87
00:03:04,790 --> 00:03:02,480
acceptable and keeps it clean for the

88
00:03:06,630 --> 00:03:04,800

crew members to breathe there were some

89
00:03:07,990 --> 00:03:06,640
spare parts flowing up on the spacex

90
00:03:11,110 --> 00:03:08,000
flight some new

91
00:03:12,229 --> 00:03:11,120
beds that helped scrub the air itself

92
00:03:13,589 --> 00:03:12,239
but there's going to be some ongoing

93
00:03:14,790 --> 00:03:13,599
maintenance taking place later on this

94
00:03:16,830 --> 00:03:14,800
week and he's taking a look at the

95
00:03:18,550 --> 00:03:16,840
procedures for that

96
00:03:20,550 --> 00:03:18,560
today

97
00:03:22,949 --> 00:03:20,560
ford oleg novitskiy and evgeny tarelkin

98
00:03:24,470 --> 00:03:22,959
also in their final uh week almost

99
00:03:27,509 --> 00:03:24,480
aboard the international space station

100
00:03:28,710 --> 00:03:27,519
they are due to come home on march 14th

101
00:03:30,229 --> 00:03:28,720
they're going to be landing just to the

102
00:03:31,589 --> 00:03:30,239
north of the town of arcolak in

103
00:03:33,750 --> 00:03:31,599
kazakhstan

104
00:03:35,430 --> 00:03:33,760
but they're getting everything gathered

105
00:03:37,110 --> 00:03:35,440
packing items up

106
00:03:38,869 --> 00:03:37,120
there's some very specific instructions

107
00:03:40,149 --> 00:03:38,879
that were sent up to the crew in terms

108
00:03:41,750 --> 00:03:40,159
of what they need to keep what they need

109
00:03:43,670 --> 00:03:41,760
to bring home and what they need to

110
00:03:44,789 --> 00:03:43,680
throw away so it's almost like packing

111
00:03:46,710 --> 00:03:44,799
whenever you're coming home from a

112
00:03:48,869 --> 00:03:46,720
vacation they're going to be gathering

113
00:03:50,390 --> 00:03:48,879

all that atom up all those items up and

114
00:03:53,350 --> 00:03:50,400
getting ready for the return to earth in

115
00:03:57,429 --> 00:03:53,360
terms of the timeline on march 14th

116
00:03:59,509 --> 00:03:57,439
their soyuz which is the soyuz tma-06m

117
00:04:01,750 --> 00:03:59,519
will be undocking the evening of march

118
00:04:03,990 --> 00:04:01,760
14th we're going to have coverage of the

119
00:04:06,789 --> 00:04:04,000
farewell and hatch closure beginning at

120
00:04:09,110 --> 00:04:06,799
about 3 45 pm that afternoon the central

121
00:04:10,550 --> 00:04:09,120
time here on nasa television the actual

122
00:04:12,630 --> 00:04:10,560
farewells and hatch closure will take

123
00:04:15,270 --> 00:04:12,640
place at 4 15 pm

124
00:04:17,909 --> 00:04:15,280
then undocking coverage begins at 7 15

125
00:04:19,349 --> 00:04:17,919
with undocking at 7 30 p.m central time

126
00:04:21,110 --> 00:04:19,359
as the soyuz backs away from the

127
00:04:23,990 --> 00:04:21,120
international space station and then

128
00:04:26,070 --> 00:04:24,000
we'll return at 9 45 pm central time for

129
00:04:29,110 --> 00:04:26,080
landing coverage the deorbit burn

130
00:04:31,270 --> 00:04:29,120
will take place at 1004 pm central time

131
00:04:33,350 --> 00:04:31,280
with landing uh there on the ground in

132
00:04:36,550 --> 00:04:33,360
kazakhstan less than an hour later at 10

133
00:04:38,230 --> 00:04:36,560
57 p.m central time even though it is

134
00:04:40,310 --> 00:04:38,240
march in kazakhstan

135
00:04:42,790 --> 00:04:40,320
the weather is still extremely cold it's

136
00:04:44,790 --> 00:04:42,800
in the single digits during the day uh

137
00:04:46,870 --> 00:04:44,800
falling into negative single digits so

138
00:04:48,150 --> 00:04:46,880

quite a frosty greeting for this crew as

139
00:04:51,670 --> 00:04:48,160
they return home

140
00:04:53,909 --> 00:04:51,680
after uh five months in space

141
00:04:55,990 --> 00:04:53,919
while they are doing that chris cassidy

142
00:04:57,749 --> 00:04:56,000
paul vinogradov and alexander misurkin

143
00:04:59,830 --> 00:04:57,759
which will be the next crew to fly up to

144
00:05:01,670 --> 00:04:59,840
the station have been undergoing final

145
00:05:03,110 --> 00:05:01,680
preparations at the gagarin cosmonaut

146
00:05:04,629 --> 00:05:03,120
training center they've been going

147
00:05:06,790 --> 00:05:04,639
through some final qualification

148
00:05:09,749 --> 00:05:06,800
simulations and tests

149
00:05:11,510 --> 00:05:09,759
and being officially certified to fly

150
00:05:12,629 --> 00:05:11,520
they will wrap up some simulation runs

151
00:05:13,990 --> 00:05:12,639
today

152
00:05:16,390 --> 00:05:14,000
and then tomorrow they're going to hold

153
00:05:19,110 --> 00:05:16,400
the traditional news conference at

154
00:05:20,710 --> 00:05:19,120
gctc and they'll take a ceremonial tour

155
00:05:22,310 --> 00:05:20,720
of red square they're in moscow and

156
00:05:24,950 --> 00:05:22,320
we'll lay flowers at the kremlin wall

157
00:05:27,909 --> 00:05:24,960
where several space icons are interred

158
00:05:30,230 --> 00:05:27,919
including yuri gagarin

159
00:05:31,990 --> 00:05:30,240
so uh quite a bit of tradition and

160
00:05:34,390 --> 00:05:32,000
activity taking place as this crew gets

161
00:05:36,469 --> 00:05:34,400
ready to fly up to the station on march

162
00:05:39,189 --> 00:05:36,479
28th they will be the first crew to

163
00:05:41,189 --> 00:05:39,199

perform a single day launch to docking

164
00:05:43,270 --> 00:05:41,199
flight as they head to the space station

165
00:05:45,110 --> 00:05:43,280
so they will talk about six hours

166
00:05:46,950 --> 00:05:45,120
after they lift off from the baikonur

167
00:05:48,469 --> 00:05:46,960
cosmodrome of course we'll have live