1
00:00:04,303 --> 00:00:06,272
>> This is Mission Control
Houston; we want to welcome you

2
00:00:06,272 --> 00:00:07,706
to today's space station live.

3
00:00:07,706 --> 00:00:10,376
It is Tuesday, August 27, 2013.

4
00:00:10,376 --> 00:00:12,545
The crews are very busy
onboard the space station today,

5
00:00:12,545 --> 00:00:15,081
the biggest news of the
day is that Luca Parmitano

6
00:00:15,081 --> 00:00:17,049
and Chris Cassidy
have been working

7
00:00:17,049 --> 00:00:18,884
on that troublesome spacesuit

8
00:00:18,884 --> 00:00:22,188
that Luca Parmitano was
wearing back on July 16th.

9
00:00:22,188 --> 00:00:25,191
You're taking a look at pretty
much what Luca Parmitano had

10
00:00:25,191 --> 00:00:27,293
seen during that
eventful spacewalk

11
00:00:27,293 --> 00:00:29,762
that lasted one hour

and 32 minutes.

12
00:00:29,762 --> 00:00:31,831
What the crew has been doing
today is basically powering

13
00:00:31,831 --> 00:00:33,866
up the spacesuit,
almost as if they were

14
00:00:33,866 --> 00:00:35,601
about to conduct
another spacewalk.

15
00:00:35,601 --> 00:00:37,903
Obviously Luca's not
inside the suit this time

16
00:00:37,903 --> 00:00:40,005
but they did verify
that this water problem

17
00:00:40,005 --> 00:00:43,509
with this water coming up into
the helmet still does exist.

18
00:00:43,509 --> 00:00:46,212
This is important because
as the ground teams

19
00:00:46,212 --> 00:00:48,714
and the crew onboard attempt
to recreate this problem,

20
00:00:48,714 --> 00:00:51,584
they want to make sure obviously
that the problem is still there.

21
00:00:51,584 --> 00:00:54,286
The investigation does

continue into this spacesuit

22
00:00:54,286 --> 00:00:55,988
on two different fronts;

23
00:00:55,988 --> 00:00:59,525
the engineering teams are
taking a look at the root cause.

24
00:00:59,525 --> 00:01:02,995
They're going to have the crew
begin to manipulate this suit

25
00:01:02,995 --> 00:01:05,631
and to take some of the parts
out that will be returned

26
00:01:05,631 --> 00:01:08,367
to earth for investigation
but they needed to verify

27
00:01:08,367 --> 00:01:10,903
that this problem did exist
before they do that so sort

28
00:01:10,903 --> 00:01:14,273
of a form of baseline so that
anything they do to the suit

29
00:01:14,273 --> 00:01:17,042
in the future, any
changes they do make,

30
00:01:17,042 --> 00:01:19,411
they know whether
those will work or not.

31
00:01:19,411 --> 00:01:20,913
So again, you're seeing
some of this water come

32
00:01:20,913 --> 00:01:22,281
up into this spacesuit helmet.

33
00:01:22,281 --> 00:01:25,484
This is very similar to what
Luca Parmitano did experience

34
00:01:25,484 --> 00:01:28,954
back on July 16th, as he and
Chris Cassidy stepped outside

35
00:01:28,954 --> 00:01:31,590
for this spacewalk that
was due to last about six

36
00:01:31,590 --> 00:01:33,192
and a half, seven hours.

37
00:01:33,192 --> 00:01:35,561
It was cut short, down to
an hour and 32 minutes,

38
00:01:35,561 --> 00:01:38,030
whenever Luca did feel
this water coming up,

39
00:01:38,030 --> 00:01:39,798
back behind his head.

40
00:01:39,798 --> 00:01:41,433
Of course that is not
something that you want

41
00:01:41,433 --> 00:01:44,303
to have happen while you're
out doing a spacewalk so he

42
00:01:44,303 --> 00:01:48,107

and Chris did cut
the spacewalk short.

43
00:01:48,107 --> 00:01:49,575
While this activity's
taking place,

44
00:01:49,575 --> 00:01:51,277
Karen Nyberg has
been busy as well,

45
00:01:51,277 --> 00:01:53,546
working on the experiment
known as Spheres,

46
00:01:53,546 --> 00:01:54,947
you've see it quite a bit here

47
00:01:54,947 --> 00:01:57,016
on NASA Television throughout
these expeditions onboard the

48
00:01:57,016 --> 00:01:58,317
space station.

49
00:01:58,317 --> 00:01:59,618
It looks like something
out of a movie

50
00:01:59,618 --> 00:02:03,255
but these are basically free
flying satellites or pods

51
00:02:03,255 --> 00:02:05,424
that are designed to test

52
00:02:05,424 --> 00:02:09,028
out formation flying onboard
the international space station.

53
00:02:09,028 --> 00:02:10,896
this particular Spheres
experiment

54
00:02:10,896 --> 00:02:13,566
which is called Spheres Rings
looks a little bit different.

55
00:02:13,566 --> 00:02:17,236
It is run out of DARPA and
the University of Maryland

56
00:02:17,236 --> 00:02:20,539
and what it attempts to do is
not only test formation flying

57
00:02:20,539 --> 00:02:22,942
but also whether these two
little, mini satellites

58
00:02:22,942 --> 00:02:26,545
or three mini satellites can
transfer power between them

59
00:02:26,545 --> 00:02:28,647
which of course has
direct implications

60
00:02:28,647 --> 00:02:30,649
to bigger satellites
that could be up in orbit

61
00:02:30,649 --> 00:02:35,120
so that activity will continue
throughout Karen's afternoon.

62
00:02:35,120 --> 00:02:37,456
Luca Parmitano, himself,
has been working on not only

63
00:02:37,456 --> 00:02:39,191
that troublesome
spacesuit with Chris Cassidy

64
00:02:39,191 --> 00:02:40,726
but he's been working on
something that is called

65
00:02:40,726 --> 00:02:43,996
In Space 3; this is an
experiment that takes a look

66
00:02:43,996 --> 00:02:45,864
at something colloids.

67
00:02:45,864 --> 00:02:48,801
These are sort of particles
that are suspended in liquids;

68
00:02:48,801 --> 00:02:50,936
there's different forms of
this experiment onboard the

69
00:02:50,936 --> 00:02:54,206
international space station
but it has direct implications

70
00:02:54,206 --> 00:02:57,576
to life here on earth because
these particles that are

71
00:02:57,576 --> 00:03:00,913
in these fluids change
properties whenever a magnetic

72
00:03:00,913 --> 00:03:02,248
field is applied to it.

73
00:03:02,248 --> 00:03:05,451

They actually solidify and
the liquid can change now what

74
00:03:05,451 --> 00:03:09,154
that means for us here on earth
is that this particular type

75
00:03:09,154 --> 00:03:11,824
of colloid or liquid could
be used in brake systems,

76
00:03:11,824 --> 00:03:13,759
it could be used in
buildings and bridges

77
00:03:13,759 --> 00:03:17,129
to make them more earthquake
proof or things such as

78
00:03:17,129 --> 00:03:20,032
that and also robotics.

79
00:03:20,032 --> 00:03:23,836
So this In Space 3 will continue
throughout Luca's afternoon.

80
00:03:23,836 --> 00:03:26,272
The crew also has several
different crew earth observation

81
00:03:26,272 --> 00:03:27,406
opportunities today;
they're going

82
00:03:27,406 --> 00:03:28,907
to be passing over Tanzania.

83
00:03:28,907 --> 00:03:31,443
They will also be taking a
look at some of the flooding

84
00:03:31,443 --> 00:03:33,779
that is occurring
in Eastern Russia.

85
00:03:33,779 --> 00:03:34,880
This is considered some

86
00:03:34,880 --> 00:03:37,149
of the worst flooding
in almost 100 years.

87
00:03:37,149 --> 00:03:40,085
There's more than 32,000 people
that are being affected by it.

88
00:03:40,085 --> 00:03:42,821
The Amur River has
actually broken its banks

89
00:03:42,821 --> 00:03:45,557
and is currently overflowing so
they will take a look at that.

90
00:03:45,557 --> 00:03:47,226
There's also some
wildfires taking place

91
00:03:47,226 --> 00:03:48,560
over the United States and some

92
00:03:48,560 --> 00:03:51,230
of the smoke plumes should
be visible from the crew,

93
00:03:51,230 --> 00:03:53,666
they did capture some
images of that yesterday.

94

00:03:53,666 --> 00:03:55,034
So if you haven't seen those,

95
00:03:55,034 --> 00:03:58,037
just log onto nasa.gov slash
station and take a look at them.

96
00:03:58,037 --> 00:04:01,807
And of course you can always
take a look at all of the rest

97
00:04:01,807 --> 00:04:04,476
of the crew earth observations
by visiting the NASA website

98
00:04:04,476 --> 00:04:05,878
to take a look at
all the imagery

99
00:04:05,878 --> 00:04:08,814
that the crews have captured
throughout their times on orbit.

100
00:04:08,814 --> 00:04:11,317
Finally, a programming
reminder for tomorrow;

101
00:04:11,317 --> 00:04:13,218
we will have a crew news
conference from here

102
00:04:13,218 --> 00:04:15,487
at the Johnson Space Center,
that will be Expedition 38

103
00:04:15,487 --> 00:04:17,389
and 39, that will begin

104
00:04:17,389 --> 00:04:20,893
at 1 p.m. Central Time,

2 p.m. Eastern Time.

105
00:04:20,893 --> 00:04:23,362
The crew will be talking
to various traditional

106
00:04:23,362 --> 00:04:25,497
and social media members here
at the Johnson Space Center

107
00:04:25,497 --> 00:04:27,232
about what the two
expect as they get ready

108
00:04:27,232 --> 00:04:29,601
to get launch coming up toward
the end of the year; again,

109
00:04:29,601 --> 00:04:32,871
that Expedition 38, 39
crew news conference coming

110
00:04:32,871 --> 00:04:34,173
up on NASA television tomorrow