1
00:00:00,766 --> 00:00:09,575
[Music]

2
00:00:11,077 --> 00:00:12,078
>> Brandi Dean: Good morning,

3
00:00:12,078 --> 00:00:13,012
and welcome to Mission
Control Houston

4
00:00:13,012 --> 00:00:15,014
and "Space Station Live".

5
00:00:15,014 --> 00:00:18,250
The International Space
Station is one vehicle short

6
00:00:18,250 --> 00:00:21,120
of where we expected it to be
today as yesterday's docking

7
00:00:21,120 --> 00:00:24,056
of the Cygnus cargo
vehicle, launched last week

8
00:00:24,056 --> 00:00:28,060
by Orbital Sciences Corporation,
has been delayed a few days.

9
00:00:28,060 --> 00:00:30,162
A new docking schedule is
still being determined,

10
00:00:30,162 --> 00:00:34,533
but the earliest possibility
is now this weekend.

11
00:00:34,533 --> 00:00:38,671
That's meant some changes to the

Expedition 37's crew' schedule,

12
00:00:38,671 --> 00:00:41,040
but the Space Station
Flight Control team here

13
00:00:41,040 --> 00:00:45,077
in the Space Station Flight
Control Room had been working

14
00:00:45,077 --> 00:00:49,315
diligently to make sure the
crew stays busy all the same.

15
00:00:49,315 --> 00:00:52,351
Flight Director Mike Lammers
is leading the team today,

16
00:00:52,351 --> 00:00:56,922
and astronaut Scott Tegel
is assisting as cap com.

17
00:00:56,922 --> 00:01:02,294
The Expedition 37 crew
is now more than halfway

18
00:01:02,294 --> 00:01:05,764
through their day, which began
at 1:00 a.m. Central Time.

19
00:01:05,764 --> 00:01:09,034
Currently orbiting 260 miles
above the Pacific Coast

20
00:01:09,034 --> 00:01:10,603
over Washington State.

21
00:01:10,603 --> 00:01:13,606
They are Russian
commander Fyodor Yurchikhin,

22
00:01:13,606 --> 00:01:16,175
U.S. flight engineer
Karen Nyberg,

23
00:01:16,175 --> 00:01:20,212
and European Space Agency
flight engineer Luca Parmitano.

24
00:01:22,047 --> 00:01:24,450
Those three arrived at
the Station on May 28th

25
00:01:24,450 --> 00:01:28,287
and now have spent
117 days in space.

26
00:01:28,287 --> 00:01:30,389
They've been alone at the Space
Station since the other half

27
00:01:30,389 --> 00:01:35,561
of what was then the Expedition
36 crew left on September 10th,

28
00:01:35,561 --> 00:01:37,029
but they'll be getting
some company soon

29
00:01:37,029 --> 00:01:38,964
with the Soyuz launch
scheduled for Wednesday,

30
00:01:38,964 --> 00:01:42,268
which will deliver flight
engineers Michael Hopkins,

31
00:01:42,268 --> 00:01:46,739
Oleg Kotov, and Sergey
Ryazansky.

32
00:01:46,739 --> 00:01:50,342
That's scheduled to lift off
at 3:58 p.m. Central Time

33
00:01:50,342 --> 00:01:52,778
and arrive at the
Station six hours later

34
00:01:52,778 --> 00:01:55,848
at 9:48 p.m. on Wednesday.

35
00:01:55,848 --> 00:01:59,485
Soyuz TMA [inaudible] that
they'll be traveling in rolled

36
00:01:59,485 --> 00:02:01,520
out to its launch pad at
the Baikonur Cosmodrome

37
00:02:01,520 --> 00:02:03,822
in Kazakhstan this morning.

38
00:02:07,092 --> 00:02:11,230
While they await the arrival
of both the Soyuz and Cygnus,

39
00:02:11,230 --> 00:02:14,733
Nyberg, Parmitano, and
Yurchikhin, have a hard day

40
00:02:14,733 --> 00:02:16,202
of work on a number of science

41
00:02:16,202 --> 00:02:18,704
and maintenance projects
ahead of them.

42
00:02:18,704 --> 00:02:21,774

Parmitano is working
through several runs

43
00:02:21,774 --> 00:02:24,543
of the inspace 3
experiment today.

44
00:02:24,543 --> 00:02:26,645
That looks at how magnetic
fluids are influenced

45
00:02:26,645 --> 00:02:29,415
by magnetic fields
and microgravity,

46
00:02:29,415 --> 00:02:32,418
which could help engineers here
on the ground design structures

47
00:02:32,418 --> 00:02:37,056
such as bridges and buildings
to better withstand earthquakes.

48
00:02:37,056 --> 00:02:40,326
He also spent some time on
the skin bee experiment,

49
00:02:40,326 --> 00:02:42,928
which is a European Space
Agency project aimed

50
00:02:42,928 --> 00:02:46,065
at better understanding
skin aging mechanisms.

51
00:02:46,065 --> 00:02:48,667
Those are so slow on Earth
that they're nearly impossible

52
00:02:48,667 --> 00:02:51,770

to study, but they
accelerate in weightlessness.

53
00:02:51,770 --> 00:02:55,507
And toward the end of the day,

54
00:02:55,507 --> 00:02:57,810
Parmitano will spend some
time reviewing procedures

55
00:02:57,810 --> 00:03:00,579
for the nano racks
experiments, which are a set

56
00:03:00,579 --> 00:03:03,482
of seven new experiments
devised by high school students

57
00:03:03,482 --> 00:03:06,986
and being carried to the
Space Station by Cygnus.

58
00:03:08,387 --> 00:03:10,990
Karen Nyberg, meanwhile,
has been working

59
00:03:10,990 --> 00:03:12,958
on the combustion
integrated rack,

60
00:03:12,958 --> 00:03:17,129
which is an experiment hardware
intended for use specifically

61
00:03:17,129 --> 00:03:21,000
with combustion related
investigations.

62
00:03:21,000 --> 00:03:23,535
It's recently been used

for the flex experiment

63
00:03:23,535 --> 00:03:25,337
or the flame extinguishment
experiment,

64
00:03:25,337 --> 00:03:27,673
and she spent some time
today replacing one

65
00:03:27,673 --> 00:03:31,977
of the manifold bottles
that help runs,

66
00:03:31,977 --> 00:03:34,780
that helps run experiments
on the hardware.

67
00:03:34,780 --> 00:03:39,151
And Fyodor Yurchikhin is
also working on a couple

68
00:03:39,151 --> 00:03:40,653
of experiments in
the Russian section

69
00:03:40,653 --> 00:03:42,321
of the Space Station today,

70
00:03:42,321 --> 00:03:44,256
including the [inaudible]
crystal experiment,

71
00:03:44,256 --> 00:03:46,959
which studies crystals, the
build special structures,

72
00:03:46,959 --> 00:03:51,563
the particles and the strong
electrical magnetic fields,

73
00:03:51,563 --> 00:03:54,199
and also the [inaudible]
experiment,

74
00:03:54,199 --> 00:03:56,168
which studies the
radiation environment

75
00:03:56,168 --> 00:03:58,337
on board the Space Station.

76
00:03:58,337 --> 00:03:59,838
That's what's going
on in space this week,