



1
00:00:01,667 --> 00:00:05,037
Good day and welcome to Mission
Control Houston, where a team

2
00:00:05,037 --> 00:00:06,806
of flight controllers
is watching

3
00:00:06,806 --> 00:00:09,942
over the systems aboard the
International Space Station

4
00:00:09,942 --> 00:00:12,378
currently populated
by three crew members,

5
00:00:12,378 --> 00:00:14,613
one America and two Russians.

6
00:00:14,613 --> 00:00:17,216
Kevin Ford is the commander
of the space station.

7
00:00:17,216 --> 00:00:20,486
He originates from NASA and
of course the United States.

8
00:00:20,486 --> 00:00:24,090
Oleg Novitskiy and Evgeny
Tarelkin are his cohorts

9
00:00:24,090 --> 00:00:25,324
on board.

10
00:00:25,324 --> 00:00:27,426
They're both from the
Russian Federal Space Agency

11
00:00:27,426 --> 00:00:32,164

and are working together
to keep the space station

12

00:00:32,164 --> 00:00:33,399
in good working order

13

00:00:33,399 --> 00:00:36,502
and to conduct research
aboard the orbiting outpost.

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00:00:36,502 --> 00:00:38,938
They're also getting
ready for the arrival

15

00:00:38,938 --> 00:00:43,776
of three additional crew
members, NASA's Tom Marshburn,

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00:00:43,776 --> 00:00:45,678
Canada's Chris Hadfield

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00:00:45,678 --> 00:00:48,981
and Russia's Roman Romanenko
are scheduled to launch

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00:00:48,981 --> 00:00:53,886
from the Baikonur Cosmodrome
in Kazakhstan early tomorrow.

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00:00:53,886 --> 00:00:55,754
Here in Mission control
today the team

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00:00:55,754 --> 00:00:59,158
of flight controllers is led by
flight director Dina Contella.

21

00:00:59,158 --> 00:01:03,129
She is working with spacecraft
communicator Clay Anderson,

22

00:01:03,129 --> 00:01:05,698

a veteran space station
astronaut.

23

00:01:05,698 --> 00:01:10,836

On orbit today Kevin Ford
is working on a variety

24

00:01:10,836 --> 00:01:14,073

of activities ranging from
experiment work to maintenance.

25

00:01:14,073 --> 00:01:18,244

He performed some upkeep on
the Medaka fish experiment.

26

00:01:18,244 --> 00:01:22,414

That is an experiment in with,
a new newly arrived experiment

27

00:01:22,414 --> 00:01:26,619

from the Japan aerospace
exploration agency one

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00:01:26,619 --> 00:01:28,354

of the international partners

29

00:01:28,354 --> 00:01:32,725

for the International
Space Station and it looks

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00:01:32,725 --> 00:01:34,927

at how bones react

31

00:01:34,927 --> 00:01:38,264

to the microgravity environment
using the tiny Medaka fish

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00:01:38,264 --> 00:01:42,768
as analogs for human
skeletal systems.

33
00:01:42,768 --> 00:01:47,072
He also routed some
local area network cables

34
00:01:47,072 --> 00:01:51,577
through the space
station into the cupola.

35
00:01:51,577 --> 00:01:54,813
The cupola is that
360 degree Bay window

36
00:01:54,813 --> 00:01:57,716
that provides the
astronauts a wonderful window

37
00:01:57,716 --> 00:02:00,686
on the Earth below
and also a good place

38
00:02:00,686 --> 00:02:02,821
to conduct robotic
arm operations

39
00:02:02,821 --> 00:02:04,890
so they can see anything
that happens to be

40
00:02:04,890 --> 00:02:06,325
within that field of view.

41
00:02:06,325 --> 00:02:09,695
The cupola is attached

42
00:02:09,695 --> 00:02:12,431
to the space station's

Tranquility module

43

00:02:12,431 --> 00:02:16,802
and that LAN cable
routing is intended

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00:02:16,802 --> 00:02:19,438
to improve the computer
connectivity

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00:02:19,438 --> 00:02:25,144
within the International Space
Station's 360 degree window.

46

00:02:25,144 --> 00:02:30,316
That cupola section was built
by the Italian space agency

47

00:02:30,316 --> 00:02:33,385
in support of the European
space agency contribution

48

00:02:33,385 --> 00:02:35,988
to the International
Space Station.

49

00:02:37,089 --> 00:02:39,625
Also today he is
performing some maintenance

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00:02:39,625 --> 00:02:43,929
on the Combined Operational Load
Bearing Experimental Treadmill

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00:02:43,929 --> 00:02:46,232
system known as COLBERT
or also T2

52

00:02:46,232 --> 00:02:48,634
because it's the second

treadmill onboard the

53

00:02:48,634 --> 00:02:50,035

International Space Station.

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00:02:50,035 --> 00:02:53,839

But he's doing it with minimal
help from mission control today.

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00:02:53,839 --> 00:02:56,875

This is one of a number
of different experiments

56

00:02:56,875 --> 00:03:00,446

that are designed to prepare
this team and the crew on board

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00:03:00,446 --> 00:03:04,083

for days ahead will we'll go
to more distant destinations

58

00:03:04,083 --> 00:03:07,753

and have potentially really
long communication delays.

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00:03:07,753 --> 00:03:11,523

This test is also going to help
improve procedure development

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00:03:11,523 --> 00:03:14,627

so that crews can work more
effectively without a lot

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00:03:14,627 --> 00:03:17,896

of back-and-forth communication
that has become a standard

62

00:03:17,896 --> 00:03:23,402

of human spaceflight
operations for decades.

63

00:03:23,402 --> 00:03:25,638

Meanwhile Oleg Novitskiy worked

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00:03:25,638 --> 00:03:28,907

on the Coulomb crystal
experiment.

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00:03:28,907 --> 00:03:32,244

That experiment again
studies the dynamics of solids

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00:03:32,244 --> 00:03:33,879

that are dispersed
in environments

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00:03:33,879 --> 00:03:38,083

that have a magnetic field
that varies in microgravity.

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00:03:38,083 --> 00:03:41,887

He also completed some
onboard training in his role

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00:03:41,887 --> 00:03:44,757

as the crew medical officer.

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00:03:44,757 --> 00:03:49,928

And Evgeny Tarelkin downloaded
data from the radiation sensors

71

00:03:49,928 --> 00:03:53,165

in the Russian end of the space
station and worked on packing

72

00:03:53,165 --> 00:03:55,567

up the Progress 48 vehicle,

73

00:03:55,567 --> 00:03:57,670

the resupply vehicle
has now been emptied

74

00:03:57,670 --> 00:04:01,507
of all the equipment, supplies
that are going to be used

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00:04:01,507 --> 00:04:03,976
on space station and
now is been transformed

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00:04:03,976 --> 00:04:07,913
into a giant trash receptacle
so that that can be disposed

77

00:04:07,913 --> 00:04:12,017
of when it burns up
during its reentry.

78

00:04:12,017 --> 00:04:15,721
The crew has several different
Earth observation opportunities

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00:04:15,721 --> 00:04:18,524
Thursday as they look at
the home planet below.

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00:04:18,524 --> 00:04:21,593
Currently the space station
orbiting over South America

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00:04:21,593 --> 00:04:23,362
on a northeasterly track.

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00:04:23,362 --> 00:04:26,365
The targets for Earth
observations today include a

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00:04:26,365 --> 00:04:31,437
volcano in Ecuador, which is

that opportunity is coming up,

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00:04:31,437 --> 00:04:34,740

which has had several
explosions in the past few days;

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00:04:34,740 --> 00:04:38,744

the Ganges River Delta
in India; Eastern Cuba;

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00:04:38,744 --> 00:04:41,246

and a tropical cyclone Evan

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00:04:41,246 --> 00:04:43,282

which is now a category
three storm

88

00:04:43,282 --> 00:04:44,983

that is moving toward
New Zealand.

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00:04:44,983 --> 00:04:49,922

Meanwhile, at the Baikonur
Cosmodrome in Kazakhstan,

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00:04:49,922 --> 00:04:51,390

Marshburn, Romanenko

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00:04:51,390 --> 00:04:56,128

and Hadfield conducted a crew
news conference earlier today

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00:04:56,128 --> 00:05:02,768

and we have photos
available on the Internet.

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00:05:02,768 --> 00:05:05,070

And again that launch
is scheduled

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00:05:05,070 --> 00:05:09,074

for in the early morning
hours tomorrow US time.

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00:05:09,074 --> 00:05:13,412

Our coverage begins at 5
AM central time 6 Eastern

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00:05:13,412 --> 00:05:17,082

with the following
coverage leading

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00:05:17,082 --> 00:05:23,455

up to a 6:12 AM central
time Soyuz TMA-07M launch.

98

00:05:23,455 --> 00:05:28,494

And then after the launch we'll
have 9 AM central time post

99

00:05:28,494 --> 00:05:29,928

launch video file.

100

00:05:29,928 --> 00:05:34,500

Friday the coverage
will focus on docking

101

00:05:34,500 --> 00:05:39,204

as the rendezvous
nears its completion.

102

00:05:39,204 --> 00:05:42,341

Docking coverage begins
at 7:30 AM central time

103

00:05:42,341 --> 00:05:45,677

and then docking itself
is scheduled for 8:12 AM.

104

00:05:45,677 --> 00:05:50,215

Once the two spacecraft have
been solidly connect then all

105

00:05:50,215 --> 00:05:52,851

of the seals checked, the
hatches will be opened

106

00:05:52,851 --> 00:05:56,054

at 10:15 AM central time
and then we'll look forward

107

00:05:56,054 --> 00:05:59,425

to coverage of the hatch
opening and welcoming ceremonies

108

00:05:59,425 --> 00:06:02,294

as the six crew members
greet each other

109

00:06:02,294 --> 00:06:04,897

at 10:45 AM central time.

110

00:06:04,897 --> 00:06:07,966

Our post docking and hatch
opening video file is planned

111

00:06:07,966 --> 00:06:10,102

for 1 PM central.

112

00:06:10,102 --> 00:06:13,839

With the International Space
Station traveling overhead