1
00:00:01,967 --> 00:00:04,637
Good morning, this is
Mission Control Houston.

2
00:00:04,637 --> 00:00:07,139
Welcome and thank you for
joining us for today's edition

3
00:00:07,139 --> 00:00:11,210
of ISS update this
Thursday, February 7.

4
00:00:11,210 --> 00:00:12,545
Commander Ford spent much

5
00:00:12,545 --> 00:00:14,814
of his morning continuing
yesterday's work

6
00:00:14,814 --> 00:00:16,348
to load new software

7
00:00:16,348 --> 00:00:20,453
to the science experiment's
EXPRESS rack three earlier this

8
00:00:20,453 --> 00:00:23,456
morning, in addition to his
regular two hours of workout

9
00:00:23,456 --> 00:00:26,559
for a conducted periodic
fitness evaluation.

10
00:00:26,559 --> 00:00:29,862
Later today Commander Ford
also will undergo periodic

11
00:00:29,862 --> 00:00:31,964

on orbit hearing exam.

12
00:00:31,964 --> 00:00:34,967
Ford also performed maintenance
to the water recovery system,

13
00:00:34,967 --> 00:00:38,871
activating the low low fluid
transfer pump to transfer fluid

14
00:00:38,871 --> 00:00:41,107
to the wastewater
bus of the system

15
00:00:41,107 --> 00:00:44,076
that converts condensation
as well as urine and sweat

16
00:00:44,076 --> 00:00:46,779
into drinkable water
for the station crew.

17
00:00:46,779 --> 00:00:50,015
And also later today Commander
Ford, an Indiana native,

18
00:00:50,015 --> 00:00:52,017
will take time out to
talk to legislators

19
00:00:52,017 --> 00:00:54,019
and locals attending a session

20
00:00:54,019 --> 00:00:57,857
of the Indiana State
Senate in Indianapolis.

21
00:00:57,857 --> 00:01:00,960
Meanwhile, Flight Engineer
Chris Hadfield has been working

22
00:01:00,960 --> 00:01:04,697
with a science experiment
known as InSPACE-3 this week.

23
00:01:04,697 --> 00:01:06,765
Today he continued
to manage operations

24
00:01:06,765 --> 00:01:09,668
of the scientific investigation.

25
00:01:09,668 --> 00:01:13,072
InSPACE-3 looks at the
changes of physical properties

26
00:01:13,072 --> 00:01:16,942
of colloids and fluids in
response to magnetic fields.

27
00:01:16,942 --> 00:01:19,812
This research has possible
technological application

28
00:01:19,812 --> 00:01:21,981
in structural design
here on Earth,

29
00:01:21,981 --> 00:01:24,350
including large-scale
structures, such as bridges

30
00:01:24,350 --> 00:01:28,053
and buildings, to better
withstand earthquake forces.

31
00:01:28,053 --> 00:01:31,624
Hadfield and Marshburn then
worked together with Neurospat.

32
00:01:31,624 --> 00:01:34,627
Neurospat is a human body
study that studies the effect

33
00:01:34,627 --> 00:01:37,496
of gravitational context
on brain processing

34
00:01:37,496 --> 00:01:40,900
through a virtual
reality session.

35
00:01:40,900 --> 00:01:44,036
At least five cognitive
processes are examined.

36
00:01:44,036 --> 00:01:45,938
That includes perception,
attention,

37
00:01:45,938 --> 00:01:49,308
memorization, decision
and action.

38
00:01:49,308 --> 00:01:52,478
Hadfield

39
00:01:52,478 --> 00:01:53,746
>> Mr. Shatner.

40
00:01:53,746 --> 00:01:59,151
This is the space research
vessel ISS in Earth orbit.

41
00:01:59,151 --> 00:02:00,419
And yes, I hear you
loud and clear.

42
00:02:00,419 --> 00:02:01,120

And how do you hear me?

43
00:02:01,120 --> 00:02:02,154
This is Chris Hadfield.

44
00:02:02,154 --> 00:02:03,122
William Shatner

45
00:02:03,122 --> 00:02:04,089
>> Chris, I hear
you loud and clear.

46
00:02:04,089 --> 00:02:04,623
It's such a pleasure
to talk to you.

47
00:02:04,623 --> 00:02:05,691
COMMENTATOR

48
00:02:05,691 --> 00:02:07,092
>> Chris Hadfield
took some time to chat

49
00:02:07,092 --> 00:02:10,563
with the original Captain Kirk
from Star Trek, William Shatner,

50
00:02:10,563 --> 00:02:14,633
and also fielded questions from
participants attending a Tweetup

51
00:02:14,633 --> 00:02:18,137
at the Canadian Space Agency
headquarters in Quebec.

52
00:02:18,137 --> 00:02:22,975
Flight Engineer Tom Marshburn
had performed a periodic fitness

53

00:02:22,975 --> 00:02:25,244
evaluation this morning,
and then moved along

54
00:02:25,244 --> 00:02:27,546
to perform some maintenance
tasks.

55
00:02:27,546 --> 00:02:30,950
Marshburn worked to remove
and replace a hydrogen sensor

56
00:02:30,950 --> 00:02:33,085
of the oxygen generator
assembly.

57
00:02:33,085 --> 00:02:36,088
He also worked to
conduct a nitrogen cycle

58
00:02:36,088 --> 00:02:38,357
of the PFU2 valve.

59
00:02:38,357 --> 00:02:40,993
This is part of the total
organic carbon analyzer

60
00:02:40,993 --> 00:02:43,596
that is used to perform
quality testing

61
00:02:43,596 --> 00:02:46,031
of the onboard water supply.

62
00:02:46,031 --> 00:02:47,499
On the Russian side
of the house.

63
00:02:47,499 --> 00:02:50,469
Russian Flight Engineers Oleg

Novitskiy, Evgeny Tarelkin

64
00:02:50,469 --> 00:02:54,139
and Roman Romanenko divide
their day between maintenance,

65
00:02:54,139 --> 00:02:56,575
several science experiments
and also preparation

66
00:02:56,575 --> 00:02:59,245
for the arrival of
a new cargo ship.

67
00:02:59,245 --> 00:03:03,082
In advance of the upcoming
Progress resupply vehicle

68
00:03:03,082 --> 00:03:05,784
Novitskiy and Romanenko
practiced

69
00:03:05,784 --> 00:03:09,521
with the telerobotically
operated rendezvous system

70
00:03:09,521 --> 00:03:12,958
in the Zvezda service
module that will be used

71
00:03:12,958 --> 00:03:17,129
in the unlikely event the new
Progress cargo ship experiences

72
00:03:17,129 --> 00:03:20,933
a failure of its Kurs automated
rendezvous system during its

73
00:03:20,933 --> 00:03:24,703
approach for docking

next Monday.

74
00:03:24,703 --> 00:03:27,273
The Progress vehicle
that is now docked

75
00:03:27,273 --> 00:03:28,607
to the Pirs docking compartment

76
00:03:28,607 --> 00:03:32,911
of the space station Progress
48 is scheduled to undock

77
00:03:32,911 --> 00:03:36,015
on Saturday morning to clear
the Pirs for the arrival

78
00:03:36,015 --> 00:03:39,218
of the new Progress
resupply on Monday afternoon.

79
00:03:39,218 --> 00:03:40,653
Each of the crew
members will then put

80
00:03:40,653 --> 00:03:41,787
in their daily two hours

81
00:03:41,787 --> 00:03:44,356
of exercise using the
onboard gym equipment.

82
00:03:44,356 --> 00:03:46,992
That includes a station
bicycle, treadmill

83
00:03:46,992 --> 00:03:49,261
and an advanced resistive
exercise device

84
00:03:49,261 --> 00:03:51,397
that simulates weightlifting
here on Earth.

85
00:03:51,397 --> 00:03:52,965
The crew will then
wrap up their day

86
00:03:52,965 --> 00:03:56,368
with that final daily planning
conferences with the ground