
HATCH
EXPLORE LIKE A CHAMPION TODAY

1
00:00:01,100 --> 00:00:02,301
This is Mission Control Houston.

2
00:00:02,301 --> 00:00:03,602
You're looking

3
00:00:03,602 --> 00:00:05,738
at the International Space
Station flight control room

4
00:00:05,738 --> 00:00:08,340
as a team of flight
controllers overseen

5
00:00:08,340 --> 00:00:14,046
by flight director Royce
Renfrew serve on the team

6
00:00:14,046 --> 00:00:16,949
and overseeing the
team all week long

7
00:00:16,949 --> 00:00:19,218
through all the activities
aboard the International

8
00:00:19,218 --> 00:00:20,820
Space Station.

9
00:00:20,820 --> 00:00:28,027
The crew on board is in its 46th
day in space, 19 of those now

10
00:00:28,027 --> 00:00:30,396
as the Expedition 34 crew.

11
00:00:30,396 --> 00:00:34,300
It's been a busy week for
this crew aboard the complex.

12
00:00:34,300 --> 00:00:37,470
Monday Commander Kevin Ford
worked the In-Space experiment

13
00:00:37,470 --> 00:00:40,239
within the Microgravity
Science Glovebox.

14
00:00:40,239 --> 00:00:43,209
Performed periodically the
experiment studies particles

15
00:00:43,209 --> 00:00:46,045
and fluid which could have
benefits in the design

16
00:00:46,045 --> 00:00:47,680
of stronger building materials

17
00:00:47,680 --> 00:00:49,982
that could withstand
earthquake forces.

18
00:00:49,982 --> 00:00:53,419
Flight Engineer Oleg Novitskiy
configured communications

19
00:00:53,419 --> 00:00:57,323
equipment inside the Poisk
mini research module.

20
00:00:57,323 --> 00:01:00,726
He also worked on an ongoing
Russian science experiment.

21
00:01:00,726 --> 00:01:04,230
The Kulonovskiy Kristall
experiment will help model the

22
00:01:04,230 --> 00:01:08,634
physical dynamics of space dust
particles exposed to sunlight

23
00:01:08,634 --> 00:01:12,438
as well as controller
particles in a magnetic field.

24
00:01:12,438 --> 00:01:13,839
Tuesday Ford worked

25
00:01:13,839 --> 00:01:17,710
in the European Space Agency's
Columbus module's fluid science

26
00:01:17,710 --> 00:01:21,247
laboratory on the Geoflow
experiment that studies heat

27
00:01:21,247 --> 00:01:24,717
and fluid flow currents
within the Earth's mantle.

28
00:01:24,717 --> 00:01:28,020
He also checked water quality
for an experiment that observes,

29
00:01:28,020 --> 00:01:33,259
bone and mineral density in
fish living in microgravity.

30
00:01:33,259 --> 00:01:35,895
Novitskiy and flight engineer
Evgeny Tarelkin worked

31
00:01:35,895 --> 00:01:39,265
in the station's Russian segment
checking fans and filters

32

00:01:39,265 --> 00:01:43,135
and continued work with the
Kulonovskiy Kristall experiment.

33
00:01:43,135 --> 00:01:45,304
Wednesday the crew join
the newly announced

34
00:01:45,304 --> 00:01:48,374
and first long-term
expedition crew of Scott Kelly

35
00:01:48,374 --> 00:01:51,277
and Mikhail Kornienko
to congratulate them

36
00:01:51,277 --> 00:01:55,281
on their planned 2015
year-long mission.

37
00:01:55,281 --> 00:01:59,685
The decision was made jointly by
the ISS partnership and detailed

38
00:01:59,685 --> 00:02:01,320
by program managers on NASA

39
00:02:01,320 --> 00:02:03,289
and the Russian federal
space agency.

40
00:02:03,289 --> 00:02:06,659
Ford conducted research
throughout the day

41
00:02:06,659 --> 00:02:09,061
on the Nanoracks
experiment hardware

42
00:02:09,061 --> 00:02:12,164

such as the plate
reader and microscope 2.

43
00:02:12,164 --> 00:02:15,801
The research gear allows crew
members and station systems

44
00:02:15,801 --> 00:02:19,171
to interface with a variety
of researchers on the ground.

45
00:02:19,171 --> 00:02:24,043
Nanoracks is the first
commercial laboratory in space.

46
00:02:24,043 --> 00:02:27,546
The plate reader will provide
biopharmaceutical research

47
00:02:27,546 --> 00:02:31,417
opportunities in space and
the microscope captures images

48
00:02:31,417 --> 00:02:36,355
from slide samples for downlink
to researchers on the ground.

49
00:02:36,355 --> 00:02:39,124
Thursday Ford spent
most of the day

50
00:02:39,124 --> 00:02:41,860
in the Quest airlock
cleaning cooling loops

51
00:02:41,860 --> 00:02:44,597
and recharging water
systems associated

52
00:02:44,597 --> 00:02:47,366

with the spacesuits
used for spacewalks.

53
00:02:47,366 --> 00:02:50,502
This periodic maintenance
ensures they are healthy

54
00:02:50,502 --> 00:02:54,006
and ready to support an
extravehicular activity.

55
00:02:54,006 --> 00:02:56,976
This periodic maintenance
ensures they're healthy

56
00:02:56,976 --> 00:03:00,512
and ready to support spacewalk
should one be required.

57
00:03:00,512 --> 00:03:04,149
He also talked about his
mission with the CBS news

58
00:03:04,149 --> 00:03:06,852
and the Cable News Network.

59
00:03:06,852 --> 00:03:10,823
Friday Ford as he started
the week worked extensively

60
00:03:10,823 --> 00:03:12,291
with the In-Space experiment

61
00:03:12,291 --> 00:03:15,060
within the Microgravity
Science Glovebox

62
00:03:15,060 --> 00:03:17,896
to utilize the unique
environment of microgravity

63
00:03:17,896 --> 00:03:21,367
to study the dynamics
of particles in fluid.

64
00:03:21,367 --> 00:03:26,138
He also brushed up on Crew
Medical Officer procedures.

65
00:03:26,138 --> 00:03:30,142
This weekend, the crew will
spend a relatively quiet time

66
00:03:30,142 --> 00:03:34,313
talking with families, checking
on some autonomous experiments,

67
00:03:34,313 --> 00:03:38,517
exercising and conducting
routine housekeeping chores

68
00:03:38,517 --> 00:03:40,386
on board.

69
00:03:40,386 --> 00:03:43,489
Meanwhile back here on Earth
the next three crew members

70
00:03:43,489 --> 00:03:45,057
continued their preparations

71
00:03:45,057 --> 00:03:48,093
for their months long
stay on the station.

72
00:03:48,093 --> 00:03:50,262
Cosmonaut Roman Romanenko,

73
00:03:50,262 --> 00:03:52,364

Canadian astronaut
Chris Hadfield

74
00:03:52,364 --> 00:03:56,135
and US astronaut Dr. Tom
Marshburn will launch Wednesday,

75
00:03:56,135 --> 00:03:59,171
December 19 and are
now at the launch site