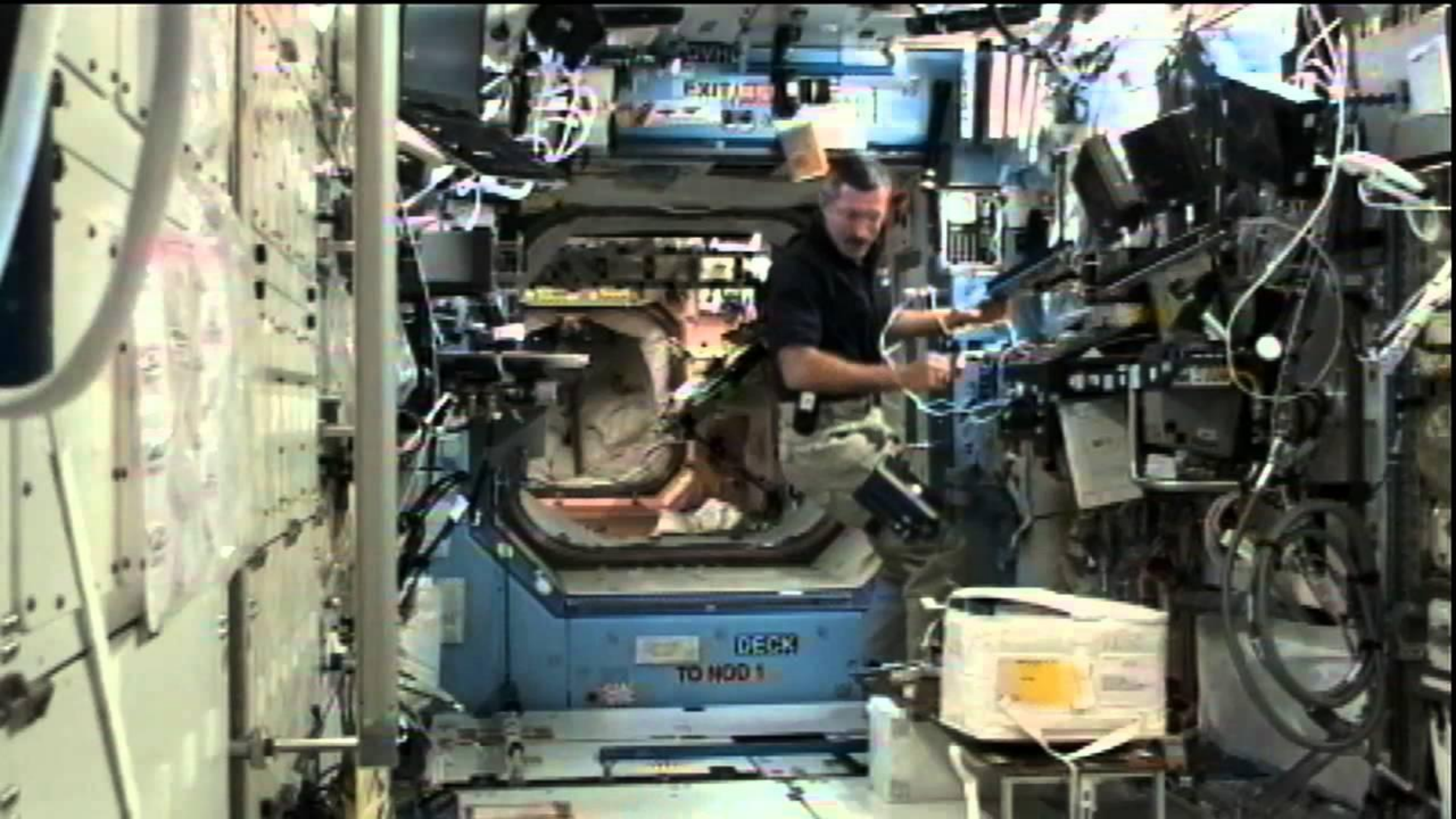
EXIT
DECK
TO NOD 1

1
00:00:02,810 --> 00:00:06,220
Good morning and welcome to today's International
Space Station update.

2
00:00:06,220 --> 00:00:10,900
Getting a look now inside of the flight control
room here at the Johnson Space Center in Houston

3
00:00:10,900 --> 00:00:16,580
Texas as the Orbit 2 team is currently on
console monitoring systems onboard the orbiting

4
00:00:16,580 --> 00:00:17,580
laboratory.

5
00:00:17,580 --> 00:00:24,080
They are being led today by flight director
Ron Spencer, and joining him at the Capcom

6
00:00:24,080 --> 00:00:28,779
console is Hal Getzleman.

7
00:00:28,779 --> 00:00:33,100
Onboard the crew of Expedition 30 is moving
through a range of experiments and maintenance

8
00:00:33,100 --> 00:00:34,200
work today.

9
00:00:34,200 --> 00:00:40,330
They are being led by NASA astronaut Dan Burbank
veteran of two shuttle missions, currently

10
00:00:40,330 --> 00:00:43,390
on his first extended Expedition flight.

11
00:00:43,390 --> 00:00:49,140
His is further joined by Russian cosmonauts
Anton Shkaplerov, there on your left, and

12
00:00:49,140 --> 00:00:51,030
Anatoly Ivanishin on the right.

13
00:00:51,030 --> 00:00:56,070
They are both on their first spaceflights.

14
00:00:56,070 --> 00:01:03,420
Yesterday evening while the crew slept, a
reboost was performed with the engines on

15
00:01:03,420 --> 00:01:07,399
the Zvezda service module firing for about
62 seconds.

16
00:01:07,399 --> 00:01:14,100
That took place at 5:11 p.m. central time,
and this is being done to correct the altitude

17
00:01:14,100 --> 00:01:19,240
of the International Space Station for the
eventual launch of the remainder of the Expedition

18
00:01:19,240 --> 00:01:24,200
30 crew coming up on December 21.

19
00:01:24,200 --> 00:01:30,390
Prior concerns that a possible conjunction
with piece of Russian satellite debris were

20
00:01:30,390 --> 00:01:39,469
alleviated after further tracking revealed
it to not be an issue.

21
00:01:39,469 --> 00:01:43,649
Onboard the crew awoke today at about midnight
central time, beginning their day with some

22
00:01:43,649 --> 00:01:47,869

morning prep work before going into their
first daily planning conference where they

23
00:01:47,869 --> 00:01:52,259
went over the day's activities with flight
controllers around the globe in different

24
00:01:52,259 --> 00:01:55,549
mission control centers.

25
00:01:55,549 --> 00:02:00,829
Commander Burbank started his day off by quickly
opening the window shutters on the U.S. lab.

26
00:02:00,829 --> 00:02:06,999
These had been closed prior to that reboost
to shield them from any potential danger.

27
00:02:06,999 --> 00:02:10,950
Much of his day is being taken up working
on the PACE experiment.

28
00:02:10,950 --> 00:02:17,230
This stands for the Preliminary Advanced Colloids
Experiment and is part of some get ahead work

29
00:02:17,230 --> 00:02:23,590
being done on the station to prepare for the
eventual utilization of the Advanced Colloids

30
00:02:23,590 --> 00:02:25,920
Experiment.

31
00:02:25,920 --> 00:02:31,110
He will be removing a number of cables and
setting up the experiment.

32
00:02:31,110 --> 00:02:36,879
Also doing some work with the Light Microscopy
Module, which will be taking visual readings

33
00:02:36,879 --> 00:02:42,939
of any of the goings on of the experiment.

34
00:02:42,939 --> 00:02:48,640
After doing this he prepared a sample then
installed such items as an LED base, some

35
00:02:48,640 --> 00:02:54,080
power cables and an oil dispenser to prepare
its work for the day.

36
00:02:54,080 --> 00:03:01,720
He also ended his work with the Integrated
Cardiovascular ambulatory monitoring system,

37
00:03:01,720 --> 00:03:07,000
which has been currently taking body readings
off of Commander Dan Burbank over the last

38
00:03:07,000 --> 00:03:08,370
few days.

39
00:03:08,370 --> 00:03:16,870
An ongoing investigation into cardiac atrophy
and that is the weakening of the heart muscle.

40
00:03:16,870 --> 00:03:21,299
Cardiac atrophy occurs during spaceflight
due to the microgravity environment that the

41
00:03:21,299 --> 00:03:23,510
astronauts are subject to.

42
00:03:23,510 --> 00:03:30,180
This experiment hopes to determine how fast
such atrophy develops, what causes it, and

43
00:03:30,180 --> 00:03:35,959

whether this is interfering with the heart's pumping or any electrical functions.

44
00:03:35,959 --> 00:03:44,939
SSC 8 has photos for downlink, that'll cover all the fluid integrated rack's PACE activities

45
00:03:44,939 --> 00:03:48,159
today, closeout photos, et cetera.

46
00:03:48,159 --> 00:03:50,400
Probably need to get to Huntsville in the PD.

47
00:03:50,400 --> 00:03:51,810
Okay, sounds good.

48
00:03:51,810 --> 00:03:54,510
We'll go get them.

49
00:03:54,510 --> 00:04:01,609
Commander Burbank will later do crew orientation time, which is set aside for about the first

50
00:04:01,609 --> 00:04:04,310
two weeks after a crew gets onboard.

51
00:04:04,310 --> 00:04:09,959
He of course arrived back on November 15, along with Shkaplerov and Ivanishin.

52
00:04:09,959 --> 00:04:13,709
And he will take some time out to continue to familiarize himself with the station's

53
00:04:13,709 --> 00:04:15,999
structure and systems.

54
00:04:15,999 --> 00:04:18,721

He'll end his day getting some exercise
in.

55
00:04:18,721 --> 00:04:22,440
Each crew member exercising for about two
hours each day.

56
00:04:22,440 --> 00:04:27,090
He'll be using the treadmill and the ARED
device, which stands for the Advanced Resistive

57
00:04:27,090 --> 00:04:30,060
Exercise Device.

58
00:04:30,060 --> 00:04:33,900
Here you see it now.

59
00:04:33,900 --> 00:04:39,870
The ARED functioning as a multipurpose weightlifting
device there on the station helping the astronauts

60
00:04:39,870 --> 00:04:47,930
fight any bone density losses or muscle atrophy
that they experience.

61
00:04:47,930 --> 00:04:53,870
Anton Shkaplerov began his day transferring
data from a micro-accelerometer onto a laptop

62
00:04:53,870 --> 00:04:58,690
as part of an ongoing investigation of dynamic
loads on the ISS.

63
00:04:58,690 --> 00:05:01,280
Ready to copy.

64
00:05:01,280 --> 00:05:06,150
He then took a good chunk of his day out to
do some preventative maintenance to the Zvezda

65
00:05:06,150 --> 00:05:08,710
service module’s ventilation system.

66
00:05:08,710 --> 00:05:19,280
Two one, that you can grab from the Columbus
1, overhead 2, delta 2 location.

67
00:05:19,280 --> 00:05:28,850
And for the Crytox kit, you can go to the
Columbus 1, overhead 2, alpha 1 location and

68
00:05:28,850 --> 00:05:30,080
stow that there.

69
00:05:30,080 --> 00:05:31,960
We weren’t actually expecting it to be empty.

70
00:05:31,960 --> 00:05:36,370
You can just kind of stow it right there in
that area.

71
00:05:36,370 --> 00:05:40,670
And for the oil dispensers, we’re going
to work a little bit of a plan, and we’ll

72
00:05:40,670 --> 00:05:44,390
try to get you an answer in evening DPC tonight.

73
00:05:44,390 --> 00:05:47,910
Okay, copy that.

74
00:05:47,910 --> 00:05:50,250
Sounds good.

75
00:05:50,250 --> 00:05:54,910
And, I guess I still have a couple of zip
lock bags, I’ll check the stowage notes

76

00:05:54,910 --> 00:05:55,910
for these.

77
00:05:55,910 --> 00:06:00,770
These are the zip lock bags for the power
data cable, and, well the PACE [unintelligible]

78
00:06:00,770 --> 00:06:02,980
power data cable and the PACE power data cable.

79
00:06:02,980 --> 00:06:10,300
I guess you want to keep those when we swap
those cables out later.

80
00:06:10,300 --> 00:06:17,470
You're listening to Commander Burbank having
a discussion with payload commanders over

81
00:06:17,470 --> 00:06:22,990
in Huntsville as he continues some cleanup
work on that PACE experiment.

82
00:06:22,990 --> 00:06:27,080
Again his Russian colleague Anton Shkaplerov
after he does that preventative maintenance

83
00:06:27,080 --> 00:06:34,169
on the Zvezda service module's ventilation
system, he will get some of his exercise in

84
00:06:34,169 --> 00:06:38,879
before then doing some familiarization work
with the onboard computer network along with

85
00:06:38,879 --> 00:06:40,440
Anatoly Ivanishin.

86
00:06:40,440 --> 00:06:46,699
He'll then do some later work on the Russian
cooling systems and Elektron, which is the

87
00:06:46,699 --> 00:06:51,860
oxygen generation system on the Russian segment
of the International Space Station, before

88
00:06:51,860 --> 00:06:53,819
moving on to some transfer activity.

89
00:06:53,819 --> 00:06:58,699
He’s moving some cargo out of the 45 Progress
resupply vehicle.

90
00:06:58,699 --> 00:07:04,340
And then the third member of the Expedition
30 crew, Anatoly Ivanishin began his day doing

91
00:07:04,340 --> 00:07:09,360
some laptop activation working alongside experts
in the Russian mission control center on the

92
00:07:09,360 --> 00:07:10,360
ground.

93
00:07:10,360 --> 00:07:12,210
Do you want to put these bags there?

94
00:07:12,210 --> 00:07:16,720
And then following that he got in some exercise
and then went to work on the Matryoshka, which

95
00:07:16,720 --> 00:07:19,710
is a Russian experiment.

96
00:07:19,710 --> 00:07:27,330
He installed a dosimeter, which helps to measure
the ionizing radiation exposure that anybody

97
00:07:27,330 --> 00:07:30,080
may experience while on the station.

98
00:07:30,080 --> 00:07:37,129
That Matryoshka is a torso mannequin-like
object with a number of sensors throughout

99
00:07:37,129 --> 00:07:42,550
it that helps scientists measure the amount
of radiation any astronaut onboard the station

100
00:07:42,550 --> 00:07:46,630
may be experiencing.

101
00:07:46,630 --> 00:07:51,000
Later he did his familiarization work with
that onboard computer network alongside Anton

102
00:07:51,000 --> 00:07:56,639
Shkaplerov and then did some item transfer
ops of his own, moving some items out of their

103
00:07:56,639 --> 00:08:03,460
Soyuz launch vehicle, and then ending his
day with some exercise on one of the treadmills.

104
00:08:03,460 --> 00:08:07,860
Crew will end their day with a second daily
planning conference, again talking to flight