



1  
00:00:00,506 --> 00:00:04,036  
[ Music ]

2  
00:00:04,536 --> 00:00:06,896  
>> Greetings from Mission  
Control Houston and welcome

3  
00:00:06,896 --> 00:00:08,376  
to Space Station Live.

4  
00:00:08,706 --> 00:00:12,246  
The crew of Expedition 36  
currently locked into a number

5  
00:00:12,246 --> 00:00:14,106  
of maintenance tasks  
and get ahead work

6  
00:00:14,186 --> 00:00:17,146  
for a major upcoming operations  
over the next few weeks;

7  
00:00:17,676 --> 00:00:20,086  
starting off with  
Commander Vinogradov who's

8  
00:00:20,086 --> 00:00:22,656  
over in the Russian  
segment this morning,

9  
00:00:22,656 --> 00:00:24,706  
installing an onboard  
measurement system

10  
00:00:24,706 --> 00:00:26,896  
for payload monitoring  
throughout some

11  
00:00:26,896 --> 00:00:29,156

of the Russian payload  
experiments.

12

00:00:29,536 --> 00:00:31,846

He's also transferring  
some cargo from one

13

00:00:31,846 --> 00:00:34,376

of the unmanned cargo  
vehicles currently docked

14

00:00:34,376 --> 00:00:36,926

to the International  
Space Station, the 52P.

15

00:00:37,616 --> 00:00:41,206

Meanwhile his fellow Russian  
Cosmonaut Alexander Mazurkin was

16

00:00:41,206 --> 00:00:43,286

busy earlier installing  
some samples

17

00:00:43,286 --> 00:00:46,086

for an experiment onboard  
the station which is looking

18

00:00:46,086 --> 00:00:48,816

to study the effects of  
space environment factors

19

00:00:49,086 --> 00:00:52,296

on the strain and also strength  
and fatigue characteristics

20

00:00:52,296 --> 00:00:56,226

of different materials exposed  
to the outside vacuum of space.

21

00:00:56,226 --> 00:01:00,056

He'll also be doing some repair work on [inaudible] M satellite,

22

00:01:00,056 --> 00:01:03,406

a small, free flying Russia satellite which is designed

23

00:01:03,406 --> 00:01:06,906

to study lightning and plasma in the upper earth's atmosphere.

24

00:01:07,416 --> 00:01:11,976

Also he'll be reviewing quite a few EVA or spacewalk procedures

25

00:01:11,976 --> 00:01:16,966

in translation paths through the windows pointing to the outside

26

00:01:16,966 --> 00:01:19,856

of the Russian segment as Mazurkin

27

00:01:19,856 --> 00:01:23,616

and Yurchikhin are reviewing all these checklists and time lines

28

00:01:23,896 --> 00:01:26,866

as they prepare for two upcoming spacewalks

29

00:01:27,286 --> 00:01:30,236

on August 16 and August 22.

30

00:01:30,476 --> 00:01:32,336

They'll be stepping outside

31

00:01:32,336 --> 00:01:34,436

but today they'll be reviewing the checklists

32

00:01:34,436 --> 00:01:37,766  
and all the time lines and tasks  
that they'll be responsible

33

00:01:37,766 --> 00:01:41,686  
for during those spacewalks and  
also mapping out their paths

34

00:01:41,686 --> 00:01:43,706  
that they'll be translating  
along the outside

35

00:01:43,706 --> 00:01:45,336  
of the International  
Space Station.

36

00:01:45,756 --> 00:01:48,256  
Meanwhile Chris Cassidy is  
doing quite a bit of work today

37

00:01:48,256 --> 00:01:51,456  
to prepare for the arrival of  
another unmanned cargo craft,

38

00:01:51,456 --> 00:01:55,206  
the HTV, he'll be setting  
up and testing the HTV

39

00:01:55,206 --> 00:01:58,796  
for control panel, alongside  
him will be Karen Nyberg.

40

00:01:59,146 --> 00:02:02,106  
They'll be using this monitor  
the approach of the craft

41

00:02:02,106 --> 00:02:04,896  
when it arrives tomorrow  
on Friday.

42

00:02:05,306 --> 00:02:09,366

If necessary, they can use the control panel to send commands

43

00:02:09,366 --> 00:02:12,276

to the spacecraft to abort its approach in the event

44

00:02:12,276 --> 00:02:13,866

of any system malfunctions.

45

00:02:14,476 --> 00:02:16,466

And Cassidy and Nyberg also doing some

46

00:02:16,466 --> 00:02:19,206

on orbit training today with the space station's robotic arm

47

00:02:19,206 --> 00:02:21,366

which you can see here will be used to grapple

48

00:02:21,746 --> 00:02:25,346

and later dock the HTV to the earth facing port

49

00:02:25,346 --> 00:02:26,376

of the Harmony Module;

50

00:02:27,076 --> 00:02:30,236

he and Nyberg doing a quick refresher course on that.

51

00:02:30,696 --> 00:02:34,666

The HTV which launched back on Saturday August 3

52

00:02:34,666 --> 00:02:37,866  
at 2:48 p.m. Central Time from  
the Tanegashima Space Center

53

00:02:37,866 --> 00:02:42,536  
in Southern Japan as of about 7  
a.m. this morning on Thursday,

54

00:02:42,916 --> 00:02:46,466  
was just a little over 1,000  
miles behind the International

55

00:02:46,466 --> 00:02:50,206  
Space Station, just about 18  
miles beneath its current orbit.

56

00:02:50,626 --> 00:02:55,066  
It will be completing a number  
of burns from its main engines

57

00:02:55,066 --> 00:02:58,566  
and control thrusters today  
to continue to raise its orbit

58

00:02:58,566 --> 00:03:00,746  
and catch up with the  
International Space Station

59

00:03:01,206 --> 00:03:04,166  
as it closes then for  
that grapple time tomorrow

60

00:03:04,476 --> 00:03:08,976  
at 6:29 a.m. Central Time with  
berthing expected to begin

61

00:03:08,976 --> 00:03:10,876  
about two hours later, again,

62

00:03:10,876 --> 00:03:13,146

to the earth facing  
side of Harmony.

63

00:03:14,126 --> 00:03:16,876

Russian Cosmonaut Fyodor  
Yurchikhin will be assisting

64

00:03:16,876 --> 00:03:19,236

Mazurkin in those  
[inaudible] satellite repairs,

65

00:03:19,596 --> 00:03:23,146

also spending the big bulk of  
his day in that EVA review,

66

00:03:23,656 --> 00:03:26,786

as he and Mazurkin prepare  
for those upcoming spacewalks

67

00:03:26,786 --> 00:03:31,286

and their Russian Orlan  
spacesuits on August 16 and 22.

68

00:03:32,066 --> 00:03:35,146

European Astronaut Luca  
Parmitano earlier today

69

00:03:35,146 --> 00:03:37,806

completed a monthly  
periodic fitness evaluation.

70

00:03:38,166 --> 00:03:41,226

He was using the [inaudible]  
device or the cycle ergometer

71

00:03:41,226 --> 00:03:43,996

with vibration isolation  
and stabilization,

72

00:03:44,526 --> 00:03:47,066

one of the numerous  
exercise devices onboard.

73

00:03:47,686 --> 00:03:49,906

He'll also be spending  
some time inside

74

00:03:50,006 --> 00:03:52,396

of the European ATV4 craft,

75

00:03:52,866 --> 00:03:55,496

this is another unmanned  
cargo vehicle currently docked

76

00:03:55,496 --> 00:03:56,916

to the International  
Space Station.

77

00:03:56,916 --> 00:03:59,986

He'll be doing some basic  
reconfiguration work

78

00:03:59,986 --> 00:04:01,916

and cleaning out some  
of the fan screens.

79

00:04:02,436 --> 00:04:05,956

Aside from that, he'll be  
conducting a cargo conference

80

00:04:05,956 --> 00:04:08,496

with Chris Cassidy and Karen  
Nyberg with the teams here

81

00:04:08,496 --> 00:04:12,636

in Houston a little bit later  
this afternoon, as they prepare

82

00:04:12,636 --> 00:04:16,666

for unloading all the

cargo arriving on that HTV,

83

00:04:16,666 --> 00:04:19,096  
over 3.6 tons of  
equipment coming

84

00:04:19,096 --> 00:04:21,696  
up for these Expedition  
36 astronauts.

85

00:04:22,206 --> 00:04:24,926  
And then our final crewmember  
Karen Nyberg earlier this

86

00:04:24,926 --> 00:04:27,586  
morning was setting up the  
capillary flow experiment

87

00:04:28,106 --> 00:04:31,326  
which is a number of fluid  
physics experiments onboard the

88

00:04:31,326 --> 00:04:34,436  
station looking to investigate  
how various fluids move

89

00:04:34,436 --> 00:04:38,066  
up surfaces via capillary  
action in microgravity.

90

00:04:38,906 --> 00:04:42,786  
There's [inaudible] hoping to  
improve models used down here

91

00:04:42,786 --> 00:04:45,396  
on the ground to design  
low gravity fluid systems

92

00:04:45,796 --> 00:04:48,826  
and eventually improve fluid

transfer systems for things

93

00:04:48,826 --> 00:04:52,436

like water and fuel on future  
spacecraft; aside from that,

94

00:04:52,436 --> 00:04:54,936

Nyberg, again, spending  
her time setting

95

00:04:54,936 --> 00:04:58,076

up that HTV4 control  
panel and completing some