



1

00:00:06,746 --> 00:00:13,606

Expedition 30 Commander Dan Burbank spent much of his day today in the final EPIC upgrades,

2

00:00:13,606 --> 00:00:17,486

EPIC standing for Enhanced Processor and Integrated Communications.

3

00:00:18,876 --> 00:00:24,106

This is a major update to the Guidance, Navigation, & Control; Command and Control;

4

00:00:24,106 --> 00:00:29,056

and Payload computers, equipping them with faster processors, more memory

5

00:00:29,566 --> 00:00:32,676

and an Ethernet interface - which many of you may be familiar

6

00:00:32,676 --> 00:00:38,306

with with your own home networking - in order to assist with data output.

7

00:00:39,436 --> 00:00:44,946

This has been a fairly exhaustive upgrade to the station's computer systems,

8

00:00:45,826 --> 00:00:49,446

starting back in December, just about a week ago.

9

00:00:57,526 --> 00:01:02,816

Then Commander Burbank's activities today are dedicated to installing these cards,

10

00:01:02,816 --> 00:01:06,476

upgrading one of the Guidance, Navigation, & Control computers

11
00:01:06,896 --> 00:01:08,976
and one of the Command and Control computers.

12
00:01:09,096 --> 00:01:15,916
And then he was assisted throughout the day by
fellow NASA astronaut Don Pettit who did a lot

13
00:01:15,916 --> 00:01:21,826
of the cable routing, installing those
Ethernet cables to assist in the data output.

14
00:02:36,166 --> 00:02:43,186
And again, this was video taken earlier today as
Commander Burbank continued those EPIC upgrades,

15
00:02:43,326 --> 00:02:46,756
EPIC standing for Enhanced Processor
and Integrated Communications.

16
00:02:49,796 --> 00:02:56,166
These upgrades are going to enable the operation
of more controlled experiments at any one time.

17
00:02:57,366 --> 00:03:04,266
Right now it's capped at around 12, and this
will increase that to more than 25 at a time.

18
00:03:05,926 --> 00:03:10,746
This is an upgrade to the
main processor card of seven

19
00:03:10,746 --> 00:03:13,796
of the primary computers onboard
the International Space Station,

20
00:03:14,296 --> 00:03:17,616
a fairly major and exhaustive upgrade.

21
00:03:17,736 --> 00:03:26,116

And then as a part of these upgrades, it will equip the station with the necessary capability

22

00:03:26,116 --> 00:03:29,646

to support operations for the upcoming commercial vehicles

23

00:03:30,276 --> 00:03:32,626

that will begin making their first flights

24

00:03:32,626 --> 00:03:35,636

to the International Space Station a little later on this year.

25

00:03:41,256 --> 00:03:49,166

And each of the cards that were flown earlier to the station before the Soyuz 29 were tested once

26

00:03:49,166 --> 00:03:54,576

on board to ensure that no potential problems would arise after their installation,

27

00:03:54,576 --> 00:03:56,526

and they all checked out perfectly fine.

28

00:04:02,586 --> 00:04:06,686

And as mentioned before that's NASA astronaut Don Pettit there on your screen.

29

00:04:06,686 --> 00:04:08,596

He was assisting the commander with...

30

00:04:09,336 --> 00:04:13,666

Well, first he, as you can see there leaning on kind of that large rack.

31

00:04:13,666 --> 00:04:20,776

It was removed from its position in order to get to the necessary computer components

32
00:04:20,826 --> 00:04:28,766
to do the upgrade, the microgravity environment
providing the astronauts with a unique ability

33
00:04:28,766 --> 00:04:33,506
to move these very large
refrigerator-sized objects with relative ease.

34
00:04:35,456 --> 00:04:41,186
Along with assisting with that move,
Pettit was relaying and laying down a lot

35
00:04:41,186 --> 00:04:44,296
of the Ethernet cables for today's activities.

36
00:04:44,846 --> 00:04:49,966
That Ethernet similar to what you may
find in your own home networks and offices

37
00:04:50,166 --> 00:04:55,246
and will provide a better interface for
data output with the station's computers.

38
00:06:10,826 --> 00:06:15,416
Again, you're watching as Expedition 30
Commander Dan Burbank there at the top

39
00:06:15,416 --> 00:06:19,786
of your screen and NASA astronaut Don Pettit,
who's disappearing into the back behind

40
00:06:19,786 --> 00:06:23,386
that rack there, as they worked on
the EPIC upgrades earlier today,

41
00:06:24,336 --> 00:06:26,996
that being a major processor card upgrade