1
00:00:03,626 --> 00:00:07,676
Good day from the International
Space Station flight control room.

2
00:00:07,676 --> 00:00:09,376
This is Mission Control Houston.

3
00:00:09,936 --> 00:00:17,276
The last ISS Update for calendar year 2011
as a team of flight controllers watches

4
00:00:17,276 --> 00:00:21,556
over the shoulders of the Expedition 30
crew aboard the International Space Station.

5
00:00:21,996 --> 00:00:27,996
The team is watching over the shoulders of Dan
Burbank, Anton Shkaplerov, Anatoly Ivanishin,

6
00:00:28,546 --> 00:00:32,176
Oleg Kononenko, Andre Kuipers and Don Pettit.

7
00:00:32,176 --> 00:00:38,036
Those six crew members make up the Expedition
30 crew aboard the International Space Station.

8
00:00:38,736 --> 00:00:41,866
They've spent a very busy day working

9
00:00:41,866 --> 00:00:48,236
with some human life sciences experiments aboard
the station, including an exercise protocol

10
00:00:48,236 --> 00:00:54,676
to measure the, what's known as the V02MAX,
standard measure of aerobic capacity.

11
00:00:55,036 --> 00:00:58,316
That being performed by Commander Dan Burbank.

12
00:00:58,636 --> 00:01:05,036
And the primary important activity onboard the
station is transitioning the avionics system

13
00:01:05,036 --> 00:01:07,376
to a new enhanced processor system,

14
00:01:07,806 --> 00:01:11,586
known as EPIC for Enhanced Processor
and Integrated Communications.

15
00:01:12,076 --> 00:01:16,986
That activity will speed up the
computer systems and processors onboard

16
00:01:17,366 --> 00:01:24,356
and allow experiment engineers and investigators
on the ground to monitor even more experiments

17
00:01:24,356 --> 00:01:27,886
at one time than ever before abaorad
the International Space Station.

18
00:01:28,626 --> 00:01:33,256
The crew began the week celebrating Christmas
onboard the International Space Station.

19
00:01:33,866 --> 00:01:38,606
They talked with flight controllers on the
ground and their family members and then got

20
00:01:38,606 --> 00:01:43,836
into some of the work associated with ongoing
experiments onboard the station as well

21
00:01:43,836 --> 00:01:46,616
as human life sciences, and of course

22

00:01:46,616 --> 00:01:54,466
that EPIC processing card upgrade aboard the
International Space Station's portable computer

23
00:01:54,466 --> 00:01:57,876
system onboard the complex.

24
00:01:58,076 --> 00:02:06,166
The crew wraps up the week with exercise
protocols onboard and also talking

25
00:02:06,166 --> 00:02:10,646
with flight directors on the ground
reviewing their procedures through the week

26
00:02:10,646 --> 00:02:13,096
and looking ahead toward next week.

27
00:02:13,776 --> 00:02:21,226
The International Space Station over
the course of 2011 enjoyed visitors

28
00:02:21,226 --> 00:02:28,716
from 13 different spacecraft that began
way back in early January with the arrival

29
00:02:28,716 --> 00:02:35,686
of the second HII Transfer Vehicle,
known as the Kounotori the "White Stork",

30
00:02:36,056 --> 00:02:41,426
arrived in January 21, or launched
January 21, arrived on the 27th.

31
00:02:41,886 --> 00:02:46,366
On that same day, the first of
four Progress suppy vehicles

32
00:02:46,366 --> 00:02:50,996
to the station launched, the

41P vehicle on January 27.

33
00:02:51,706 --> 00:02:56,356
The second ATV, Johannes Kepler,
the Automated Transfer Vehicle,

34
00:02:56,786 --> 00:03:03,756
provided by the European Space Agency,
arrived in late February followed by the first

35
00:03:03,756 --> 00:03:08,856
of the last three space shuttle
flights, the flight of Discovery STS-133

36
00:03:09,156 --> 00:03:10,906
to the International Space Station.

37
00:03:11,386 --> 00:03:17,186
That the final mission of Discovery delivered
the Leonardo Permanent Multipurpose Module

38
00:03:17,506 --> 00:03:27,666
to the complex adding 2,472 cubic
feet of volume to the complex.

39
00:03:29,126 --> 00:03:37,406
STS-133 was followed by one of the four Soyuz
crew rotation spacecraft TMA-21 in April.

40
00:03:37,906 --> 00:03:44,926
The 42 Progress vehicle in late April, a supply
craft, and then the final mission on Endeavour,

41
00:03:44,926 --> 00:03:50,746
STS-134, delivered the Alpha
Magnetic Spectrometer to the outside

42
00:03:50,746 --> 00:03:53,356
of the International Space
Station's truss system.

43
00:03:53,776 --> 00:03:54,796
That was in May.

44
00:03:55,486 --> 00:04:02,786
Another Soyuz crew rotation in June
and then the 43 Progress vehicle

45
00:04:02,786 --> 00:04:06,166
in late June delivering more
supplies to the station ahead

46
00:04:06,166 --> 00:04:10,956
of the final shuttle flight STS-135,
the flight of Atlantis in July.

47
00:04:11,566 --> 00:04:21,446
With that flight departng the station after
eight days of docked operations to the complex,

48
00:04:21,446 --> 00:04:26,756
the final crew delivering a host of
supplies to the station setting the stage

49
00:04:27,336 --> 00:04:31,486
for the post-shuttle era aboard the complex.

50
00:04:31,686 --> 00:04:39,636
The 44the Progress spacecraft was lost
about five minutes after launch on August 24

51
00:04:40,316 --> 00:04:45,806
and the flights of the Progress
supply vehicles resumed on October 29

52
00:04:45,806 --> 00:04:48,706
with the 45P vehicle currently at the station.

53
00:04:48,896 --> 00:04:54,516

Final two flights of the year, two
Soyuz spacecraft delivering crew members

54
00:04:54,516 --> 00:05:00,226
to the station back on November
13 with the TMA-22 and then

55
00:05:00,226 --> 00:05:04,416
of course this past week with the TMA-03M.

56
00:05:04,416 --> 00:05:06,826
So 13 voyages to the station.

57
00:05:06,826 --> 00:05:10,666
The final three shuttle flights closing
out the Space Shuttle Program as well.

58
00:05:11,156 --> 00:05:16,476
So it's been a busy year for the International
Space Station and 2012 will set the stage