



1
00:00:01,390 --> 00:00:02,860
This is mission control Houston,

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00:00:02,860 --> 00:00:07,100
welcome to today's ISS update
for Tuesday, November 1, 2011.

3
00:00:07,100 --> 00:00:10,800
You're looking at a live view inside the
International Space Station Flight Control Room

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00:00:10,800 --> 00:00:12,650
here at the Johnson Space Center.

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00:00:12,650 --> 00:00:16,560
This is the Orbit 2 Team, they've been
on console since earlier this morning.

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00:00:16,560 --> 00:00:18,830
Today's flight director is Dina Contella.

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00:00:18,830 --> 00:00:20,290
She's sitting at the middle console.

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00:00:20,290 --> 00:00:23,940
Sitting beside her is Reed
Wiseman, he is today's Capcom.

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00:00:23,940 --> 00:00:28,100
The Expedition 29 crew on board the space
station consists of Commander Mike Fossum,

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00:00:28,100 --> 00:00:32,870
as well as Flight Engineers Sergei
Volkov and Satoshi Furukawa.

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00:00:32,870 --> 00:00:33,680
There is the crew.

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00:00:33,680 --> 00:00:36,160

They've been busy today working on a series of experiments

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00:00:36,160 --> 00:00:37,900

and also some maintenance activities.

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00:00:37,900 --> 00:00:42,640

They are also getting ready for the arrival of the Progress 45 cargo craft

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00:00:42,640 --> 00:00:45,600

that will take place early tomorrow morning.

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00:00:45,600 --> 00:00:49,770

Mike Fossum has been busy working on an experiment called SPHERES.

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00:00:49,770 --> 00:00:52,760

You see one of the SHPERES experiment modules there.

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00:00:52,760 --> 00:00:57,410

It looks like exactly what it sounds like, a large sphere, about the size of a bowling ball.

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00:00:57,410 --> 00:01:01,420

There are three of these, they test out autonomous rendezvous and docking maneuvers.

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00:01:01,420 --> 00:01:06,170

So basically, they fly formations by themselves and with one another.

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00:01:06,170 --> 00:01:10,070

Each satellite has its own self-contained power propulsion computers

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00:01:10,070 --> 00:01:12,710

and on board navigation equipment.

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00:01:12,710 --> 00:01:14,550

Something a little bit different today is

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00:01:14,550 --> 00:01:19,310

that Fossum is using a smart phone
attached to one of those SPHERES.

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00:01:19,310 --> 00:01:25,560

That smart phone is employing its use of
a camera, some video and also someWi-Fi.

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00:01:25,560 --> 00:01:31,030

Basically giving one of those SHPERES, those
cameras give those SPHERES basically some eyes

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00:01:31,030 --> 00:01:36,020

and ears for the ground controllers to
help Fossum program those maneuvers.

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00:01:36,020 --> 00:01:38,600

While he is doing that, Sergei
Volkov is working on a couple

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00:01:38,600 --> 00:01:40,800

of experiments inside the
Russian segment of the station.

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00:01:40,800 --> 00:01:42,520

One is called Typology.

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00:01:42,520 --> 00:01:47,330

You see Volkov there in the back,
Satoshi Furukawa there in the front.

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00:01:47,330 --> 00:01:50,570

Typology, which is one of the
experiments Volkov is working on,

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00:01:50,570 --> 00:01:56,620
takes a look at how the crew members see and react to different types of colors and shapes,

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00:01:56,620 --> 00:01:58,820
and through a variety of different tests,

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00:01:58,820 --> 00:02:04,170
the ground teams to monitor how the crew members are reacting to being up in space.

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00:02:04,170 --> 00:02:06,520
He is also working on an experiment called Identification.

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00:02:06,520 --> 00:02:11,470
This is another Russian experiment that examines the dynamic loads that happen

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00:02:11,470 --> 00:02:15,690
on the International Space Station during different types of operations such as docking

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00:02:15,690 --> 00:02:18,870
and reboosts, which take place from time to time.

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00:02:18,870 --> 00:02:22,980
Volkov, as well as Furukawa, are also going to be testing out the KU band antenna system.

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00:02:22,980 --> 00:02:26,020
This is one of the communication systems on board.

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00:02:26,020 --> 00:02:30,680
That system will be used tomorrow during the Progress 45 rendezvous and docking,

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00:02:30,680 --> 00:02:33,390
so that we can get live video of that event.

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00:02:33,390 --> 00:02:38,590
Furukawa is also going to be taking some
air quality monitoring measurements today,

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00:02:38,590 --> 00:02:44,740
as he continues a week's worth of work, taking
a look at the environments onboard the station.

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00:02:44,740 --> 00:02:48,500
He worked on some of the water yesterday, to
make sure that it is acceptable for the crew

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00:02:48,500 --> 00:02:52,430
to use and he will take some
samples today of the air on board.

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00:02:52,430 --> 00:02:56,690
Furukawa also working on a
plant experiment today as part

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00:02:56,690 --> 00:02:59,350
of the Commercial Generic
Bioprocessing Apparatus.

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00:02:59,350 --> 00:03:02,650
This is a large rack that is
used to maintain different types

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00:03:02,650 --> 00:03:05,740
of experiments at different temperatures.

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00:03:05,740 --> 00:03:07,520
So he will take care of that.

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00:03:07,520 --> 00:03:13,870
And the crew also has a some Crew Earth
Observations today of Egypt, Africa and Hawaii.

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00:03:13,870 --> 00:03:17,400

As we mentioned Progress 45 on its way
toward the International Space Station.

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00:03:17,400 --> 00:03:21,740

It launched Sunday morning
at 5:11 a.m. Central Time.

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00:03:21,740 --> 00:03:24,690

It will be docking with the International
Space Station tomorrow morning

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00:03:24,690 --> 00:03:29,490

at 6:40 a.m. Central Time,
7:40 a.m. Eastern Time.

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00:03:29,490 --> 00:03:33,060

Of course we will have live coverage
here on NASA Television beginning