TUESDAY, NOVEMBER 15 ON NASA TV

Exp. 29 Soyuz TMA-22 Docking to ISS

11:33pm CT / 12:33am ET Nov. 16

1
00:00:00,036 --> 00:00:06,656
Good morning and welcome
to Mission Control Houston

2
00:00:06,656 --> 00:00:08,336
and the International Space Station Update.

3
00:00:08,336 --> 00:00:15,026
The three Expedition 29 crew members onboard
the International Space Station have been joined

4
00:00:15,026 --> 00:00:21,596
in space, though not yet at the space station,
by three additional Expedition 29 crew members.

5
00:00:21,596 --> 00:00:26,066
NASA astronaut Dan Burbank and
Russian cosmonauts Anton Shkaplerov

6
00:00:26,176 --> 00:00:32,046
and Anatoly Ivanishin launched in their
Soyuz TMA-22 from the Baikonur Cosmodrome

7
00:00:32,106 --> 00:00:36,086
in Kazakhstan at 10:14 p.m.
Central time on Sunday.

8
00:00:36,626 --> 00:00:41,336
They are currently orbiting the Earth above
the Atlantic Ocean east of South America

9
00:00:41,936 --> 00:00:44,036
and trailing behind the International
Space Station

10
00:00:44,096 --> 00:00:47,406
which is 234 miles above
Indonesia at the moment.

11

00:00:47,606 --> 00:00:53,406
The two vehicles are scheduled to meet up
at 11:33 p.m. Central time tomorrow Tuesday

12
00:00:53,406 --> 00:00:57,056
when the Soyuz will be docking to
the station's Russian Poisk module.

13
00:00:58,116 --> 00:01:01,086
NASA TV coverage of that event
will begin at 11 p.m. Central

14
00:01:01,556 --> 00:01:05,266
and the docking itself will be followed by
a post-docking news conference from Russia.

15
00:01:06,766 --> 00:01:11,566
Then at 1:30 a.m. on Wednesday the
Expedition 29 crew currently at the station,

16
00:01:12,066 --> 00:01:15,556
U.S. Commander Mike Fossum, Russian
Flight Engineer Sergei Volkov

17
00:01:15,996 --> 00:01:20,856
and Japanese Flight Engineer Satoshi Furukawa,
will be opening the space station hatches

18
00:01:20,856 --> 00:01:22,656
and welcoming their new crewmates aboard.

19
00:01:25,256 --> 00:01:30,516
Fossum, Volkov and Furukawa spent part of their
day, which began at Midnight Central time,

20
00:01:30,796 --> 00:01:33,446
preparing for their colleagues
arrival, but they've also spent part

21
00:01:33,446 --> 00:01:35,086

of their day preparing for their departure.

22
00:01:36,196 --> 00:01:40,626
They launched to the space station in their
own Soyuz vehicle on June 7 and docked

23
00:01:40,626 --> 00:01:45,866
to the space station on June 9, which means that
they're wrapping up now their 160th day in space

24
00:01:46,456 --> 00:01:48,806
and their 158th day at the space station.

25
00:01:49,456 --> 00:01:52,626
That in turn means that they've
almost reached the end of their stay.

26
00:01:53,066 --> 00:01:57,166
They're scheduled to undock from the space
station a week from today on November 21

27
00:01:57,936 --> 00:02:00,676
and return to earth for landing in Kazakhstan.

28
00:02:01,676 --> 00:02:06,186
Despite all of those comings and goings
and the preparations associated with them,

29
00:02:06,316 --> 00:02:09,676
the crew currently on board the space
station has also managed to squeeze

30
00:02:09,676 --> 00:02:11,216
in a good bit of scientific work.

31
00:02:12,096 --> 00:02:14,346
Fossum worked today with the SpaceDRUMS,

32
00:02:14,346 --> 00:02:20,736

or Space Dynamically Responding Ultrasonic
Matrix System experiment which aims

33
00:02:20,736 --> 00:02:22,916
to provide a suite of hardware capable

34
00:02:22,916 --> 00:02:26,116
of facilitating containerless
advanced materials science.

35
00:02:26,806 --> 00:02:30,566
He also performed an ultrasound on his
leg as part of the Sprint experiment

36
00:02:30,566 --> 00:02:36,156
which evaluates the use of high-intensity, low
volume exercise training to minimize muscle,

37
00:02:36,156 --> 00:02:39,396
bone and cardiovascular function
loss during long stays in space.

38
00:02:40,406 --> 00:02:46,096
And he worked with the BCAT-6 experiment,
or Binary Colloidal Alloy Test-6,

39
00:02:46,706 --> 00:02:52,166
which uses microscopic particles, or colloids,
as models for studying the fundamental physics

40
00:02:52,166 --> 00:02:56,416
of a theoretically predicted, but
until now unseen, liquid crystal phase.