

# Expedition 34/Soyuz TMA-06M Departure

## MISSION EVENTS

ALL TIMES CENTRAL

### Thursday, March 14

3:45pm Soyuz Farewell & Hatch Closure Coverage

4:15pm Soyuz Hatch Closure

7:15pm Soyuz Undocking Coverage

7:30pm Soyuz Undocking from ISS

9:45pm Soyuz Landing Coverage

10:04pm Soyuz Deorbit Burn

10:57pm Soyuz Landing in Kazakhstan



1  
00:00:01,890 --> 00:00:03,660  
>> This is Mission  
Control Houston.

2  
00:00:03,660 --> 00:00:07,430  
It has been an incredibly busy  
and whirlwind week for the crew

3  
00:00:07,430 --> 00:00:10,470  
of Expedition 34 on board the  
International Space Station.

4  
00:00:10,470 --> 00:00:13,000  
Their week got kicked off  
on Monday with quite a bit

5  
00:00:13,000 --> 00:00:16,320  
of cargo unloading from the  
Space X Dragon Spacecraft

6  
00:00:16,320 --> 00:00:19,360  
that is currently docked with  
the International Space Station.

7  
00:00:19,360 --> 00:00:21,870  
The crew made quick work of  
getting all of this cargo

8  
00:00:21,870 --> 00:00:24,860  
and the supplies and  
scientific experiments that came

9  
00:00:24,860 --> 00:00:28,230  
up on Dragon unloaded  
within about 24 hours or so

10  
00:00:28,230 --> 00:00:29,960  
after Dragon first arrived.

11

00:00:29,960 --> 00:00:33,610

There was 1,268 pounds of equipment that came up.

12

00:00:33,610 --> 00:00:36,180

They got all that moved out, they're in the process now

13

00:00:36,180 --> 00:00:41,230

of moving back over 2,668 pounds of equipment and supplies,

14

00:00:41,230 --> 00:00:44,300

and scientific experiments that will come home at the end

15

00:00:44,300 --> 00:00:46,430

of March -- on March 25th,

16

00:00:46,430 --> 00:00:51,560

as Dragon makes a splashdown off the coast of Baja, California.

17

00:00:51,560 --> 00:00:54,800

Dragon also brought up two grapple bars that were removed

18

00:00:54,800 --> 00:00:59,520

in the middle of the week from its external payloads trunk.

19

00:00:59,520 --> 00:01:03,090

This is an unpressurized section of Dragon that brought

20

00:01:03,090 --> 00:01:04,640

up these two pieces of equipment

21

00:01:04,640 --> 00:01:08,270

to the ground team's commanded

station's 58-foot long robotic

22

00:01:08,270 --> 00:01:11,520  
arm to reach in, and retrieve  
these two grapple bars.

23

00:01:11,520 --> 00:01:15,550  
They are currently stowed out  
on a payload attachment point

24

00:01:15,550 --> 00:01:17,960  
that is part of the station's  
mobile base structure.

25

00:01:17,960 --> 00:01:20,790  
That is where they will  
stay until this summer,

26

00:01:20,790 --> 00:01:23,190  
when Chris Cassidy [phonetic]  
and Luka Parmatano [phonetic],

27

00:01:23,190 --> 00:01:26,230  
as part of Expedition  
35, will go outside

28

00:01:26,230 --> 00:01:28,360  
and conduct a couple  
of space walks.

29

00:01:28,360 --> 00:01:31,080  
This first one will be  
focused on a variety of things,

30

00:01:31,080 --> 00:01:34,590  
including moving those grapple  
bars from that temporary spot

31

00:01:34,590 --> 00:01:37,110  
over to the S1 and P1 truss.

32

00:01:37,110 --> 00:01:40,420

These two grapple bars would be used in the event that one

33

00:01:40,420 --> 00:01:45,090

of the station's radiators needed to be replaced.

34

00:01:45,090 --> 00:01:47,990

Dragon also took up an experiment called the coarsening

35

00:01:47,990 --> 00:01:50,250

and solid liquid mixtures experiment.

36

00:01:50,250 --> 00:01:53,890

This takes a look at how liquid metal solidifies

37

00:01:53,890 --> 00:01:55,350

in coarsens up in space.

38

00:01:55,350 --> 00:01:57,340

There's lessons to be learned in terms

39

00:01:57,340 --> 00:02:00,840

of how zero gravity affects that particular process.

40

00:02:00,840 --> 00:02:03,420

But this CSLM experiment has been running inside the

41

00:02:03,420 --> 00:02:06,910

microsciences -- microgravity sciences glove box.

42

00:02:06,910 --> 00:02:08,880

Over the next several  
days there's going

43

00:02:08,880 --> 00:02:11,160

to be 21 days' worth  
of operations

44

00:02:11,160 --> 00:02:14,250

of this particular experiment,  
and then it will come back home

45

00:02:14,250 --> 00:02:18,360

with Dragon at the  
conclusion of the mission.

46

00:02:18,360 --> 00:02:22,200

Robonaut also being put through  
it spaces earlier this week.

47

00:02:22,200 --> 00:02:24,430

Yesterday, on Thursday,

48

00:02:24,430 --> 00:02:27,600

the particular robot onboard  
the Space Station was moved

49

00:02:27,600 --> 00:02:29,870

through a series  
of arm movements.

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00:02:29,870 --> 00:02:32,810

Also its vision sensor  
was checked out.

51

00:02:32,810 --> 00:02:37,170

As ground teams watched on,  
Robonaut checked out A-OK.

52

00:02:39,050 --> 00:02:43,920

Also Thursday and Friday  
were spent doing some work

53

00:02:43,920 --> 00:02:47,050

on the carbon dioxide removal  
assembly unit inside the Kebo

54

00:02:47,050 --> 00:02:47,810

[phonetic] laboratory.

55

00:02:47,810 --> 00:02:50,390

This particular procedure is  
typically housed inside the

56

00:02:50,390 --> 00:02:53,030

tranquility node, but

Tom Marshford [phonetic]

57

00:02:53,030 --> 00:02:55,720

and Kevin Ford [phonetic]

spent a lot of time --

58

00:02:55,720 --> 00:02:59,230

almost two full days working

on this particular piece

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00:02:59,230 --> 00:03:01,900

of equipment that's part of the  
station's environmental system.

60

00:03:01,900 --> 00:03:04,300

It scrubs out carbon  
dioxide from the air,

61

00:03:04,300 --> 00:03:07,320

makes it acceptable  
for the crew to use.

62

00:03:07,320 --> 00:03:10,200

They had to swap out some of the beds that help scrub that air,

63

00:03:10,200 --> 00:03:12,060

and also a valve that you get a sense

64

00:03:12,060 --> 00:03:14,120

of exactly how big this piece of equipment is.

65

00:03:14,120 --> 00:03:17,350

That is why they moved it into Kebo, so they could work

66

00:03:17,350 --> 00:03:18,790

on it a little bit easier.

67

00:03:18,790 --> 00:03:21,100

And then over the weekend the crew should be moving it back

68

00:03:21,100 --> 00:03:24,860

over to tranquility, and reactivating it once again.

69

00:03:24,860 --> 00:03:28,430

In the meantime, Kevin Ford, Oleg Naviski [phonetic],

70

00:03:28,430 --> 00:03:29,650

and Agini Torelkon [phonetic] now

71

00:03:29,650 --> 00:03:32,140

in their final days aboard the International Space Station

72

00:03:32,140 --> 00:03:35,720

as part of Expedition 34, this

trio getting ready to wrap

73

00:03:35,720 --> 00:03:40,680  
up 143 days in space, 141  
days aboard the International

74

00:03:40,680 --> 00:03:41,420  
Space Station.

75

00:03:41,420 --> 00:03:44,250  
We'll have live coverage  
coming up on March 14th

76

00:03:44,250 --> 00:03:47,450  
as they depart the International  
Space Station and head home.

77

00:03:47,450 --> 00:03:51,610  
Our first broadcast will begin  
at 3:45 p.m. central time.

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00:03:51,610 --> 00:03:53,800  
We'll have live coverage  
of the farewells,

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00:03:53,800 --> 00:03:56,210  
and the hatch closure, which  
actually should take place

80

00:03:56,210 --> 00:04:01,290  
at around 4:15 p.m. central  
time, 5:15 p.m. eastern time.

81

00:04:01,290 --> 00:04:05,300  
Our second broadcast will come  
on the air at 7:15 p.m. central.

82

00:04:05,300 --> 00:04:08,880  
We'll have live coverage of the  
undocking of the Soyuz TMA 06M

83

00:04:08,880 --> 00:04:12,650  
with Ford, Naviski,  
and Torelkon inside.

84

00:04:12,650 --> 00:04:16,050  
That undocking should take  
place at 7:30 p.m. central time

85

00:04:16,050 --> 00:04:18,280  
as they back away from  
the [inaudible] module.

86

00:04:18,280 --> 00:04:20,400  
Our third and final  
broadcast will air

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00:04:20,400 --> 00:04:24,730  
at 9:45 p.m. central time,  
with landing coverage.

88

00:04:24,730 --> 00:04:29,070  
The deorbit burn will occur  
at 10:04 p.m. central time,

89

00:04:29,070 --> 00:04:31,530  
that'll begin the process  
of sending Ford, Naviski,

90

00:04:31,530 --> 00:04:33,970  
and Torelkon back through  
earth's atmosphere,

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00:04:33,970 --> 00:04:36,250  
and they will land  
less than an hour later

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00:04:36,250 --> 00:04:39,090  
at 10:57 p.m. central time.

93

00:04:39,090 --> 00:04:41,930

They're going to be landing just to the northeast of the town

94

00:04:41,930 --> 00:04:44,710

or Arkelic [phonetic], that is the northern landing zone there

95

00:04:44,710 --> 00:04:46,790

in Kazakhstan, the weather due to be in the 20s,

96

00:04:46,790 --> 00:04:49,120

climbing up to the 30s throughout the day.

97

00:04:49,120 --> 00:04:53,000

But it will be 9:57 a.m. the next morning, March 15th,

98

00:04:53,000 --> 00:04:54,210

there at the landing site.

99

00:04:54,210 --> 00:04:55,910

Of course we will have live coverage not only