

Expedition 35-36/Soyuz TMA-08M Launch

MISSION EVENTS

ALL TIMES CENTRAL

Thursday, March 28

2:30pm - NASA TV Soyuz Launch Coverage

3:43pm - Soyuz Launch

8:45pm NASA TV Soyuz Docking Coverage

9:32pm Soyuz Docking with ISS

10:30pm - NASA TV Soyuz Hatch Opening Coverage

11:10pm Soyuz Hatch Opening



1
00:00:02,240 --> 00:00:04,730
>> Good morning, and welcome
to Mission Control Houston

2
00:00:04,730 --> 00:00:05,380
and a new week

3
00:00:05,380 --> 00:00:07,040
of the International
Space Station Update Hour.

4
00:00:07,040 --> 00:00:13,020
[silence] We're here with the
International Space Station

5
00:00:13,020 --> 00:00:14,180
Flight Control Team inside

6
00:00:14,180 --> 00:00:17,370
of the International Space
Station Flight Control Room

7
00:00:17,370 --> 00:00:21,000
where Flight Director Tomas
Gonzalez-Torres is leading the

8
00:00:21,000 --> 00:00:24,010
team with help from
CAPCOM Rob Hayhurst.

9
00:00:24,010 --> 00:00:28,070
Onboard the Space
Station the three members

10
00:00:28,070 --> 00:00:30,780
of the Expedition 35 crew
are more than halfway

11
00:00:30,780 --> 00:00:33,890

through their day, which
began early for two of them,

12

00:00:33,890 --> 00:00:36,500

Commander Chris Hadfield of
the Canadian Space Agency

13

00:00:36,500 --> 00:00:39,660

and NASA Flight Engineer
Tom Marshburn.

14

00:00:39,660 --> 00:00:43,200

Both started their day
yesterday, our time,

15

00:00:43,200 --> 00:00:45,480

at 10:00pm Central
in preparation

16

00:00:45,480 --> 00:00:49,280

for tomorrow's activities
with the SpaceX Dragon,

17

00:00:49,280 --> 00:00:51,540

while Russian Flight
Engineer Roman Romanenko stuck

18

00:00:51,540 --> 00:00:54,600

to the regular 1:00am
Space Station wake-up time.

19

00:00:54,600 --> 00:00:59,650

There was video there of some
of the Dragon preparations.

20

00:00:59,650 --> 00:01:00,760

Marshburn, Hadfield,

21

00:01:00,760 --> 00:01:03,620

and Romanenko launched the

Space Station on December 19

22

00:01:03,620 --> 00:01:07,180
in their Soyuz TMA-07M,
which they then docked

23

00:01:07,180 --> 00:01:10,490
to the Station's Rassvet
Module on December 21.

24

00:01:10,490 --> 00:01:16,200
That puts them on
their 97th day in space

25

00:01:16,200 --> 00:01:18,040
and their 94th day
at the Space Station.

26

00:01:18,040 --> 00:01:22,300
The three have been alone at
the Station since March 15,

27

00:01:22,300 --> 00:01:24,590
when their previous three
crew members, Kevin Ford,

28

00:01:24,590 --> 00:01:28,180
Yevgeny Tarelkin, and Oleg
Novitsky left to return home

29

00:01:28,180 --> 00:01:31,840
after about 143 days in space.

30

00:01:31,840 --> 00:01:34,410
They're not looking forward --

31

00:01:34,410 --> 00:01:35,790
they're now looking
forward to being joined

32

00:01:35,790 --> 00:01:38,410
by three crew members
on Thursday

33

00:01:38,410 --> 00:01:40,700
when NASA astronaut
Chris Cassidy

34

00:01:40,700 --> 00:01:43,830
and Russian cosmonauts
Pavel Vinogradov

35

00:01:43,830 --> 00:01:48,540
and Alexander Misurkin are
scheduled to not only launch

36

00:01:48,540 --> 00:01:51,540
at 3:43pm Central time from
the Baikonur Cosmodrome

37

00:01:51,540 --> 00:01:53,300
but also dock that same day

38

00:01:53,300 --> 00:01:57,670
to the Station's Poisk
Module at 9:32pm.

39

00:01:57,670 --> 00:02:01,580
This will be the first
single-day journey

40

00:02:01,580 --> 00:02:04,100
to the Space Station for
a [inaudible] vehicle,

41

00:02:04,100 --> 00:02:06,080
though the Russians
have tested the plan

42

00:02:06,080 --> 00:02:10,270

out with several progress
cargo ships recently.

43

00:02:10,270 --> 00:02:13,010

NASA TV coverage of the
day's events will begin

44

00:02:13,010 --> 00:02:15,990

at 2:30pm Central
time on Thursday.

45

00:02:15,990 --> 00:02:19,360

And you can get a rundown there

46

00:02:19,360 --> 00:02:22,970

of the exact coverage
times of all the events.

47

00:02:26,530 --> 00:02:28,780

[silence] Before the
Soyuz arrives, however,

48

00:02:28,780 --> 00:02:31,020

the current crew will
be bidding farewell

49

00:02:31,020 --> 00:02:36,370

to the SpaceX Dragon
Capsule and its 2,668 pounds

50

00:02:36,370 --> 00:02:39,560

of science samples for
human research, biology,

51

00:02:39,560 --> 00:02:43,110

and biotechnology studies,
physical science investigations,

52

00:02:43,110 --> 00:02:46,020

and educational activities.

53

00:02:46,020 --> 00:02:48,490

View here of the Dragon
on its arrival at the end

54

00:02:48,490 --> 00:02:50,470

of the Space Station's
robotic arm,

55

00:02:50,470 --> 00:02:53,840

which they'll be using
tomorrow to now release it.

56

00:02:57,470 --> 00:02:59,610

[silence] Marshburn and Hadfield
are spending the majority

57

00:02:59,610 --> 00:03:02,350

of their day preparing for
tomorrow's Dragon departure.

58

00:03:02,350 --> 00:03:04,610

They finished loading the
last of the cargo into it

59

00:03:04,610 --> 00:03:07,210

at 7:20am this morning.

60

00:03:07,210 --> 00:03:09,890

Seeing some video of that here.

61

00:03:09,890 --> 00:03:14,650

And they've since been -- have
been working to prepare the --

62

00:03:14,650 --> 00:03:15,640

[inaudible] close the hatch.

63

00:03:15,640 --> 00:03:17,870

That occurred at 8:09am,
and now they're working

64

00:03:17,870 --> 00:03:20,840

to prepare the vestibule
between the Dragon hatch

65

00:03:20,840 --> 00:03:25,350

and the Harmony hatch for
the vehicles in docking.

66

00:03:25,350 --> 00:03:26,710

And before wrapping
up for the day,

67

00:03:26,710 --> 00:03:30,070

they'll also install a control
panel in Harmony that's going

68

00:03:30,070 --> 00:03:31,270

to allow the team
here on the ground

69

00:03:31,270 --> 00:03:34,430

to get the common berthing
mechanism connecting the vehicle

70

00:03:34,430 --> 00:03:36,060

to the Space Station
ready as well.

71

00:03:36,060 --> 00:03:41,850

The work to actually undock the
Dragon using the Space Station's

72

00:03:41,850 --> 00:03:43,240

robotic arm is scheduled
to begin

73

00:03:43,240 --> 00:03:46,210
at 3:05am Central time tomorrow.

74

00:03:46,210 --> 00:03:50,500
NASA TV coverage is going
to begin at 3:00am Central.

75

00:03:50,500 --> 00:03:55,000
And then Hadfield and Marshburn
will be using the robotic arm

76

00:03:55,000 --> 00:03:59,350
to release the Dragon at 5:56am.

77

00:03:59,350 --> 00:04:02,790
The vehicle will complete a
series of three departure burns

78

00:04:02,790 --> 00:04:04,850
in the 10 minutes that
follow that release,

79

00:04:04,850 --> 00:04:08,470
and the final de-orbit burn
that will drop the vehicle back

80

00:04:08,470 --> 00:04:10,860
into the Earth's atmosphere for
its return home is scheduled

81

00:04:10,860 --> 00:04:14,250
to take place at
10:42am Central time.

82

00:04:14,250 --> 00:04:19,690
[silence] You can see an
animation of that procedure

83

00:04:19,690 --> 00:04:22,820
from its undocking

to its release here.

84

00:04:26,670 --> 00:04:29,610
[silence] Again, that de-orbit
burn's scheduled to take place

85

00:04:29,610 --> 00:04:32,100
at 10:42am Central time,
and that's going to lead

86

00:04:32,100 --> 00:04:36,630
to a splashdown landing
at 11:34am Central,

87

00:04:36,630 --> 00:04:40,890
about 246 miles off the
coast of Baja, California.

88

00:04:40,890 --> 00:04:44,460
You can see a rundown of
those activities here.

89

00:04:44,460 --> 00:04:47,130
The ships that will pick
up and bring it back

90

00:04:47,130 --> 00:04:49,990
to land left yesterday, and they
should have the capsule back

91

00:04:49,990 --> 00:04:53,110
on land about 30 hours
after its return.

92

00:04:53,110 --> 00:04:55,510
Then the scientific cargo
it's carrying will be returned

93

00:04:55,510 --> 00:04:56,130
to NASA that day.

94

00:04:56,130 --> 00:05:00,880

With all these comings
and goings,

95

00:05:00,880 --> 00:05:03,470

and with only half
the normal crew size,

96

00:05:03,470 --> 00:05:05,520

there's not a great deal of
time leftover, but Marshburn

97

00:05:05,520 --> 00:05:07,050

and Hadfield are still
managing to squeeze

98

00:05:07,050 --> 00:05:08,960

in some scientific work.

99

00:05:08,960 --> 00:05:11,710

In fact, last week, they
completed more than 45 hours

100

00:05:11,710 --> 00:05:14,810

of science operations
between the two of them.

101

00:05:14,810 --> 00:05:19,190

Over the weekend, Hadfield spent
some time preparing the CSL-M3

102

00:05:19,190 --> 00:05:20,710

experiment for return to Earth.

103

00:05:20,710 --> 00:05:23,430

The full name for that
investigation is the Coarsening

104

00:05:23,430 --> 00:05:26,550
in Solid Liquid Mixtures
3 Experiment.

105
00:05:26,550 --> 00:05:30,470
It studies the growth and
solidification process

106
00:05:30,470 --> 00:05:33,380
of lead-tin solid
liquid mixtures

107
00:05:33,380 --> 00:05:36,630
that contain small amounts
of tin branchlike structures.

108
00:05:36,630 --> 00:05:40,530
The final run of that experiment
was completed last week.

109
00:05:40,530 --> 00:05:42,680
And right before bedtime
today, both Hadfield

110
00:05:42,680 --> 00:05:43,880
and Marshburn will do some work

111
00:05:43,880 --> 00:05:46,180
on the Reaction Self
Test Experiment,

112
00:05:46,180 --> 00:05:49,220
which allows crew members
to monitor the daily effects

113
00:05:49,220 --> 00:05:53,590
of fatigue on their performance
at the Space Station.

114
00:05:53,590 --> 00:05:55,440

That's what's been
going on in space today,