1 00:00:01,580 --> 00:00:14,968
t-minus 60 seconds and counting we have

2 00:00:09,570 --> 00:00:18,089
auto sequence start on timeline we copy

3 00:00:14,968 --> 00:00:20,329
that everything's in order up here feel

4 00:00:18,089 --> 00:00:20,329
great

5 00:00:23,940 --> 00:00:28,960
vehicle to internal power separation of

6 00:00:26,410 --> 00:00:32,700
the first tower drop it first umbilical

7 00:00:28,960 --> 00:00:32,700
now separating from the Rockets

8 00:00:33,329 --> 00:00:37,509
umbilical tower separation in process

9 00:00:36,149 --> 00:00:42,939
copy that

10 00:00:37,509 --> 00:00:45,089
in concur t-minus 20 seconds and

11 00:00:42,939 --> 00:00:45,089
counting

12 00:00:54,920 --> 00:00:58,269
second our supreme

13 00:01:02,210 --> 00:01:08,780
we have ignition of the Soyuz and

14 00:01:05,319 --> 00:01:11,898
liftoff liftoff this Chris Cassidy Pavel
Vinogradov and Alexander Misurkin are on a fast track to the International Space Station.

Thirty seconds into the flight, the rocket is nominal. The crew is doing well.

We have good first stage performance. The Soyuz delivering 102 tons of thrust from its four boosters in single engine mode.

First stage of the Soyuz measures 6.8 and I am etre it is burning liquid fuel for the first 2 minutes and 6 seconds of flight combustion chamber pressure.

Nominal one minute into the flight we're one minute into the plate copy did you
go in real nominal velocity is now 30
approaching 1,100 miles per hour 70
seconds into the flight flight is
proceeding nominally
one minute 30 seconds into the flight
everything going according to plan
90 seconds stage 1 operating nominally
copy calumny spacecraft is nominal we
feel great
copy karate 110 seconds
two minutes five seconds into the flight
the four strap-on boosters have now been
jettisoned these have completed their
job and have dropped away at an altitude
of 28 statute miles

00:03:15,259 --> 00:03:20,139
the Soyuz is traveling at about 3,000

350 miles an hour now

00:03:17,509 --> 00:03:23,500
3,000 miles an hour now

00:03:20,139 --> 00:03:23,500
Eagle staple

00:03:30,969 --> 00:03:35,139
there's a look at Chris Cassidy sitting in the left seat Papa Thunder grata of

00:03:33,819 --> 00:03:36,340
in the left seat Papa Thunder grata of

00:03:35,139 --> 00:03:37,539
the commander of the Soyuz there in the middle just off to the right of the

00:03:36,340 --> 00:03:40,030
middle just off to the right of the

00:03:37,539 --> 00:03:45,159
two engines are stable we

00:03:40,030 --> 00:03:47,349
can shroud that protects the Soyuz has been jettison the crew can now see

00:03:45,159 --> 00:03:48,759
outside hit searing separation jettison

00:03:47,349 --> 00:03:53,139
been jettison the crew can now see

00:03:48,759 --> 00:04:07,329
outside hit searing separation jettison

00:03:53,139 --> 00:04:15,789
is confirmed yeah we confirm that we

00:04:07,330 --> 00:04:20,049
have I5 eliminated one hundred and
ninety seconds one nine zero rocket
structure parameters are nominal
concur everything's completely nominal
up here on the spacecraft and we feel
great resting one copy three minutes and
30 seconds into the flight the crew
before reporting that everything is
going well they feel well the Soyuz core
stage is performing as expected the core
stage of the Soyuz is 56 feet in length
13 and a half feet in diameter with a
single engine with four fuel chambers
providing 96 tons of thrust for its
three minutes and 28 seconds of
operation the stage will continue to

burn until the four minute 43 second

mark the Soyuz uses what's called a hot

stage technique the third stage will

ignite while the second is still burning

this is why the Soyuz has an open area

in between the second and third stages

250 seconds bitch gon roll control

nominal we're copying you loud and clear

spacecraft is nominal we feel great

inaudible

four minutes 54 seconds into the flight

the core booster is separating at an

altitude of 105 miles the Soyuz is now
being propelled by the single engine of

the SOI uses third stage as we take a

live look inside the Mission Control

Center there in Moscow this engine is

providing 30 tonnes of thrust and will

burn for four minutes in two seconds

you

320 seconds 3 2 0 ruckettes structure

parameters are nominal 5 and a half

minutes into the flight the flight

controllers continue to confirm that the

rocket is behaving as expected

everything looking good there you see

Pavel integrand off in the middle


Alexander Mazurkin there on the right-hand side.

They did different the camera transition take place yes we're getting a really clear crisp picture excellent.

We feel great.

Copy karate.

Inaudible.

Maybe.

So stage engines are operating stable.

Six minutes 35 seconds into the flight.

The third stage is behaving and performing as expected everything being.

Reported as nominal 400 seconds four.

Zero zero nominal copy you loud and...
clear

seven minutes into the flight less than two minutes to go

430 seconds 4 3 0 is in nominal copy for four hundred

thirty seconds spacecrafts phenomenal we feel great copy that

seven and a half minutes into the flight

the velocity now almost thirteen thousand five hundred miles an hour once

the third stage delivers the Soyuz to orbit and the module is separated a

series of pre-programmed commands will

be executed to prepare the Soyuz for
orbital operations these stored commands called time tag commands allow many of the Soyuz as systems to be automatically activated by onboard computers and precise times stored in those machines engine nominal structure nominal eight minutes into the flight everything going well doctor glove name spacecraft nominal we copy already 500 seconds five zero zero proceeding 510 seconds 5 1 0 pitch yaw roll nominal separation copy regarding separation third stage separation is confirmed the
single liquid fueled engine has shut down and dropped away at an altitude of about 125 statute miles the spacecraft is a perfect congratulations on having successfully completed stage one we're standing by to have you guys come close to the station and about six hours from now Thank You mr. Pappas Ken