



1  
00:00:01,516 --> 00:00:06,086  
[ Music ]

2  
00:00:06,586 --> 00:00:08,426  
>> Good morning and welcome  
to Mission Control Houston

3  
00:00:08,426 --> 00:00:09,546  
and Space Station Live.

4  
00:00:10,316 --> 00:00:13,396  
Today is all about eye exams,  
experiments and EXPRESS racks

5  
00:00:13,396 --> 00:00:14,846  
on the International  
Space Station.

6  
00:00:15,636 --> 00:00:17,786  
A good portion of the  
crew's time on the US side

7  
00:00:17,786 --> 00:00:20,146  
of the space station is being  
devoted to the eye exams

8  
00:00:20,146 --> 00:00:21,586  
that have been going  
on this week as part

9  
00:00:21,586 --> 00:00:23,376  
of the ocular health experiment.

10  
00:00:23,936 --> 00:00:28,046  
After taking part in regular  
eye chart and tonometry exams

11  
00:00:28,046 --> 00:00:30,766  
on Monday and a fundoscope

exam yesterday.

12

00:00:31,626 --> 00:00:34,586

Nyberg and Parmitano are  
today enlisting Cassidy's help

13

00:00:34,586 --> 00:00:37,016

to perform ultrasounds  
of their eyes

14

00:00:37,016 --> 00:00:38,726

and take blood pressure  
measurements.

15

00:00:39,276 --> 00:00:41,046

This is part of an  
ongoing experiment aimed

16

00:00:41,046 --> 00:00:43,026

at gathering data on how being

17

00:00:43,026 --> 00:00:45,656

in space affects astronauts  
intracranial pressure

18

00:00:45,656 --> 00:00:46,706

and in turn their vision.

19

00:00:47,556 --> 00:00:48,676

Meanwhile on the Russian side

20

00:00:48,676 --> 00:00:51,306

of the space station Commander  
Vinogradov is working again

21

00:00:51,306 --> 00:00:54,566

today to unpack the almost  
3 tons of supplies delivered

22

00:00:54,566 --> 00:00:58,786  
to the station on Saturday  
by Progress 52 while Misurkin

23

00:00:58,786 --> 00:01:01,826  
and Yurchikhin work with  
Nyberg to gather some

24

00:01:01,826 --> 00:01:03,376  
of the NASA tools  
they'll be borrowing

25

00:01:03,376 --> 00:01:05,746  
for their next space  
walk on August 16th.

26

00:01:06,446 --> 00:01:08,016  
They'll also spend a  
good deal of time going

27

00:01:08,016 --> 00:01:09,536  
over the procedures  
for that space walk

28

00:01:09,566 --> 00:01:12,016  
which will prepare the  
station for the arrival

29

00:01:12,016 --> 00:01:13,786  
of the new multi-purpose  
laboratory module

30

00:01:14,056 --> 00:01:16,916  
that will be launching to the  
space station in the future.

31

00:01:17,566 --> 00:01:19,356  
Nyberg and Parmitano  
again took part

32

00:01:19,356 --> 00:01:21,706  
in the reaction self-test  
today looking

33

00:01:21,706 --> 00:01:24,896  
at how fatigue affects their  
performance and they'll repeat

34

00:01:24,896 --> 00:01:26,646  
that test tonight  
before they go to sleep

35

00:01:27,366 --> 00:01:29,846  
and Nyberg also joined  
Parmitano in an experiment

36

00:01:29,846 --> 00:01:32,996  
that he's been taking part in  
all week the Pro-K Experiment,

37

00:01:33,486 --> 00:01:34,746  
which looks at how changes

38

00:01:34,746 --> 00:01:37,966  
in an astronaut's diet can  
decrease their bone loss during

39

00:01:37,966 --> 00:01:39,066  
long stays in space.

40

00:01:39,476 --> 00:01:42,206  
Plus Parmitano did a bit of  
work with a BCAT Experiment

41

00:01:42,206 --> 00:01:45,996  
with a binodal colloidal  
test which is an experiment

42

00:01:45,996 --> 00:01:49,216  
that looks at how liquids

and gases separate in space

43

00:01:49,636 --> 00:01:52,606  
as gravity masks the  
fundamental physics that drive

44

00:01:52,606 --> 00:01:53,916  
that separation here on earth.

45

00:01:54,366 --> 00:01:57,826  
It allows a space scientist  
to get a better look

46

00:01:57,826 --> 00:02:00,006  
at what is actually going  
on in that separation.

47

00:02:00,606 --> 00:02:02,846  
The bulk of Cassidy's time  
today was spent working

48

00:02:02,846 --> 00:02:05,306  
on the station's EXPRESS Rack 7,

49

00:02:05,726 --> 00:02:09,256  
which has a filled rack  
interface controller.

50

00:02:09,546 --> 00:02:13,026  
EXPRESS is actually an acronym  
for the Expedite, the Processing

51

00:02:13,026 --> 00:02:15,136  
of Experiments for Space Station

52

00:02:15,706 --> 00:02:19,526  
and they are refrigerator-sized  
houses for science experiments

53

00:02:19,526 --> 00:02:20,766  
in a number of different  
disciplines.

54

00:02:21,516 --> 00:02:25,096  
Cassidy devoted about 4 hours  
of his day today working

55

00:02:25,096 --> 00:02:28,276  
to rotate the Rack away from  
the space station's wall