1 00:00:01.219 --> 00:00:05.819
good afternoon thank you for joining us

2 00:00:03.508 --> 00:00:09.209
here today for today's mission status

3 00:00:05.819 --> 00:00:11.039
update of sts-135 here with me today is

4 00:00:09.210 --> 00:00:12.960
the lead station flight director Chris

5 00:00:11.039 --> 00:00:16.138
Edelen he'll begin with a few remarks

6 00:00:12.960 --> 00:00:18.990
and then we'll open the floor for some

7 00:00:16.138 --> 00:00:20.399
questions Chris thank you amigo well I'm

8 00:00:18.989 --> 00:00:22.918
pleased to report another good day in

9 00:00:20.399 --> 00:00:25.979
space today we followed up yesterday's

10 00:00:22.919 --> 00:00:28.079
successfully VA with today a busy day of

11 00:00:25.980 --> 00:00:30.329
cargo transfer that was the theme for

12 00:00:28.079 --> 00:00:34.890
today the crew is now about halfway

13 00:00:30.329 --> 00:00:37.469
complete of unloading the raffello

14 00:00:34.890 --> 00:00:39.509
multi-purpose Logistics Module moving
that cargo out of the module and
into the space station and bringing back
the spare parts, the trash, and the other various pieces of equipment that will be coming back to Earth back into the Logistics Module so about halfway complete we're running ahead of the schedule as far as the remainder of the mission is concerned for cargo transfer from Atlantis mid-deck cargo.

we're also about halfway complete again.

we're right on schedule with that.

today the crew of Atlantis spent most of their day supporting cargo operations if
you saw some of the downlink video you
may have noticed that it's it's very
cluttered in the Logistics Module
there's bags and boxes everywhere just
like in your house on moving day but
it's a controlled chaos the the team
here in Houston is working very closely
with the crew they've choreographed the
movements of equipment in and out of the
Logistics Module so that there's a place
for everything and we're making sure
very carefully that everything that we
need to be resupplied on the station
ends up on the station and everything
that we want to come home ends up on

raffaello so we also had a great

assistance today from our Russian crew

members onboard the space station they

helped out with the cargo transfer task

as well as Satoshi Furukawa are Jack's

astronaut on the space station Mike

Fossum today he went into our closet on

the space station that's the permanent

mating adapter number three that's

attached to the tranquility module he

went into that closet and retrieved an

old piece of hardware that's no longer

required it's the resistive exercise

device or I read and it's a it was the
early weightlifting or resistive exercise device that was used in the early days of the space station program to keep astronauts healthy he retrieved that old piece of hardware and it is also being moved back into the Logistics Module for return that's going to free up a lot of storage space in the permanent multi-person on the space station so that was something that we took advantage of the extra day on the mission to add that activity that was not originally part of this flight plan but with the additional day that
Atlantis is going to stay dock that

allowed us to complete that activity Ron

Garan today he spent several hours

working on the space station toilet the

waste hygiene compartment whc he

replaced several components there that

were starting to give some noises and

vibrations that were indicating that the

those components were approaching their

end of life and he replaced those and

now reports that the space station

toilet is working just fine so of course

when you have a lot of company that

brought up a bunch of food and fresh
supplies you want to be good hosts and

and have a toilet that works when

they're there so we're pleased to report

that the space station toilet is fully operational and we've even invited the shuttle crew members to use it if they need to and we also followed up on yesterday's space walk with us some reports from the crew on their space suit fits and we have determined there's no problems with the space suits and everything's good in that department we also today on the space station resumed processing of the urine
processor apparatus as all of you know

we do recycle urine into drinking water

on the space station this is an

important technology that we are

demonstrating and perfecting in

low-earth orbit so that it can be used

on future missions into deep space it's

vitally important that we recycle all

our water all forms of our water because

it's so heavy and you can't resupply a

mission with water when you're far from

the earth and it's very rare in the

solar system so it's important that we

have that system working

we resumed processing today and that
system was working well so just to give you a couple examples of some of the hardware that was moved over today speaking of our urine recycling system we moved over some new recycle filter tank assembly that are used to filter the urine and turn that into new drink into fresh drinking water we got a new spare wireless EV a transceiver assembly which allows the spacewalking astronauts helmet cam to be transmitted to the monitors that that to the crew on board and to us on the ground so we've got now have a an additional spare we also
transferred over a distillation assembly

for our urine processing apparatus and

lots and lots of food and clothes so

again it was a very successful day and

the crews doing great we're not working

any issues on Atlantis and the space

stations also in great shape for

tomorrow's plan we're going to finally

give the both the US and Russian crew

half a day off they're going to do half

a day of transfer in the morning the

Russians will be working on replacing

the gyroscope on their treadmill the

Tevas treadmill back in the service
module and and then in the afternoon the crews will take some well-deserved time off here on the seventh day of the mission so with that that's all I had I'll be glad to open up the floor for any questions ok and for those of you who are here and if you will just please step up to the mic any questions go ahead dan vergano with USA today as we could say a little bit about the astronauts going from sort of the sublime of the spacewalk and some of the other more dramatic things to this sort of maybe
more work a day seeming things that went

158
00:06:18,819 --> 00:06:23,709
on today is that all in the life of an

159
00:06:21,129 --> 00:06:26,199
astronaut that is exactly right in fact

160
00:06:23,709 --> 00:06:28,599
I think I was Mike fossen actually made

161
00:06:26,199 --> 00:06:30,879
that very comment that you know just you

162
00:06:28,600 --> 00:06:32,530
know 24 hours ago he was doing the most

163
00:06:30,879 --> 00:06:34,449
amazing thing that a human being could

164
00:06:32,529 --> 00:06:37,179
possibly do to walk in the you know to

165
00:06:34,449 --> 00:06:39,430
float in the vacuum of space 240 miles

166
00:06:37,180 --> 00:06:41,410
above the earth and today he's basically

167
00:06:39,430 --> 00:06:43,420
rearranging a closet in his buddy is

168
00:06:41,410 --> 00:06:47,340
working on the toilet so yes that's

169
00:06:43,420 --> 00:06:47,340
that's all in the life of an astronaut

170
00:06:51,240 --> 00:06:56,920
hi Robert Pearlman with collectspace.com

171
00:06:54,329 --> 00:06:59,259
given this cruise tendency to want to
work ahead and be here and getting ahead on their schedule how much enforcement will do you think you'll need to give them to take the time off tomorrow afternoon are they eager for the time offer do you think they might work through that as well I think part of the reason they've been working so hard is that they do want to you know take advantage of a little bit of downtime and so I do not expect any problem at all tomorrow getting them to take a little bit of time off we're going to emphasize that in our morning
tag up that they are actually running

ahead of schedule there's no need at all

for them to work into their off-duty

time and I'm sure they'll take advantage

of it they've been going strong for you

know for a week straight now

without any time off go ahead light

thanks mark kuro for aviation week you

mentioned in your remarks that there was

work on the urine processor assembly and

I wondered if that was a repair or

maintenance and just sort of what they

were trouble shooting and actually that

was all ground command and activity we
kicked off another cycle of our urine processor apparatus and again there was no crew involvement the issue was about 10 days ago over the July fourth weekend we did have a leak in part of the space station toilet the the pump separator motor had a leak and in the process of changing that out successfully it did allow some air to we believe some air was ingested into the urine processor and so we've been very gingerly and very carefully doing our urine processing to make sure that we're not over stressing
any of the components in that and we and

00:08:36,879 --> 00:08:41,019
there was a report of an odor the day

00:08:39,009 --> 00:08:43,210
before yesterday that we believe is

00:08:41,019 --> 00:08:44,829
associated with that air that was

00:08:43,210 --> 00:08:46,990
ingested as it works its way out of the

00:08:44,830 --> 00:08:49,180
system so we were pleased today that we

00:08:46,990 --> 00:09:02,210
were able to process for almost four

00:08:49,179 --> 00:08:54,309
were no issues no odors reported

00:08:52,210 --> 00:08:59,860
and uh no anomalous indications on the

00:08:54,309 --> 00:09:01,719
on the equipment there gina-san sorry

00:08:59,860 --> 00:09:03,850
ABC News so tomorrow the crew is having

00:09:01,720 --> 00:09:05,440
your virtual dinner are you going to

00:09:03,850 --> 00:09:07,659
share in this dinner in Mission Control

00:09:05,440 --> 00:09:09,400
oh I hope they if they are having a

00:09:07,659 --> 00:09:10,959
virtual dinner I do hope we get a little
bit of downlink and they typically do

put a camera on for part of that just to

sort of let us share in the fun and

they'll typically you know everyone will

bring their food to the party like any

good potluck meal with the shuttle food

and some of the space station food and

their Russian food so yeah hopefully

we'll take part in that hi Irene Klotz

with Reuters I know you're very focused

on day-to-day things but today NASA

announced its selection for the

nonprofit to run the national lab

portion of ISS and I was wondering if
you had any thoughts on operationally

what that will mean to have another

entity as a kind of a co-host co user of

station and also if delhi agreement do

you think eventually would lead to non

nasa astronauts or non-government

astronauts being guest researchers on

the station okay well hit the last part

first on on the shuttle we used to fly

occasionally would fly payload

specialists a non astronaut that would

be trained to operate experiments on a

shuttle mission I’m not aware of any

plans to do that on the space station
but it's certainly not beyond the realm

of possibility considering we've done it

in the past as far as the announcement

that you mentioned I did hear about that

I don't have any in any detailed

knowledge obviously we're focusing on

the day-to-day operations in the mission

but just a comment a little bit on where

we're going with the space station you

know this being the last shuttle flight

to the station means we're moving from

an assembly phase and a resupply you

know an intense resupply phase of lots

and lots of spares more into a
utilization phase where the focus is

really going to be on science we do a

lot of science already on the station

but we're expecting to increase the

number of hours that the crew works

science experiments and I think this

announcement sort of heralds the

beginning of that really high

utilization phase and I think you know

the kind of research we're doing on the

station you know it really provides a

lot of benefits for people on earth it's

not just about you know how the

astronauts adapt a space and improving

equipment for spaceflight for example
you know on the flight we're flying now on Atlantis we're flying and Optus el processing module which is a cell biology experiment and we're also flying 30 mice and these mice are they're having a therapeutic countermeasure for muscle atrophy so again the immediate application is for astronauts adapting to weightlessness in the muscle decay that we see in astronauts but there are applications for people that are on bed rest on the earth and in those with you know that with weak muscles that we can understand
basically how the human body works

because space is a very unique environment and it allows us to see the human body from a different vantage point so the life sciences research that we do on space space station is very pertinent to life on Earth as well as you know the studies of the heavens like for example the Alpha Magnetic Spectrometer looking back into the into the past towards the Big Bang and looking for any matter so it the space station is just such a unique asset a national asset that runs the gamut of
many different disciplines of science so

I'm excited that we're moving more into

the utilization phase

Philips loss with NASA Space Flight calm

I think on Mike's in the flap on for

Mikey when he was in doing the work on

p.m. a3 there was also a senator disc

cover install on the port I guess on the

port hatch could you just explain why he

was doing that now and what that's for

yes he was just doing that too we wanted

to make sure that the items inside the

permanent mating adapter number three

don't shift into the into the hatch

mechanism envelope thanks Marco for

00:13:13,839 --> 00:13:18,459
aviation week I'm going to go back to

00:13:15,578 --> 00:13:21,039
your report on the cargo transfers and

00:13:18,458 --> 00:13:23,889
see if I understood correctly did you

00:13:21,039 --> 00:13:26,588
say that half of the MPL em and half of

00:13:23,889 --> 00:13:29,889
the mid-deck have been transferred to

00:13:26,589 --> 00:13:32,380
the station side at this point or off

00:13:29,889 --> 00:13:35,879
the half of the gross half of the out

00:13:32,379 --> 00:13:40,208
were halfway complete with the with the

00:13:35,879 --> 00:13:43,838
with the with the number of hours that

00:13:40,208 --> 00:13:45,489
we expect so unloading the MPN is about

00:13:43,839 --> 00:13:48,640
a third of the hours that we've budgeted

00:13:45,490 --> 00:13:50,620
and reloading it is a little more little

00:13:48,639 --> 00:13:52,240
more complicated and it's that's about

00:13:50,620 --> 00:13:55,299
two-thirds of the time that we've
budgeted so of that total 100% time

we're about fifty percent completed so

that means we've just about completely

unloaded DMV alone well let me let me go

back we some of the items have not quite

been unloaded from the MPN yet I don't

have an exact number but we are in a

mixed config where some items are still

waiting to come out and many items to be

returned are already in the NT alone so

we're about halfway done in terms of the

number of hours that we expect it will

take and just just from a big picture

since going back to where you sort of
anticipated you might be at this point

which is almost a halfway point of the

mission with the extension it do you

feel like you're on on pace to

accomplish what you wanted within the

time you have or is there still a lot of

kind of pressure to to to get everything

done yeah that's that's a fair question

if we had not had the extension day

we would obviously we would not be ahead

of schedule and we would not have been

able to do for example today we would

not have been able to afford to have Ron

Garan work on the space station toilet
doing a little bit of pre-emptive maintenance that took about four hours we would not have done that we would have had him working cargo transfer we would have had to have dedicated the crew more extensively to cargo transfer than we've been able to do so we've instead of using the extension day for all cargo transfer knowing that we're going to get the you know that we have the extension day in the plan we're going ahead and filling some of the days with other activities besides cargo transfer Denise Chow its face calm with
the amount of cargo that alanis brought

00:15:40,639 --> 00:15:44,689
up em and with a lot of it being for

00:15:42,950 --> 00:15:46,250
long-term use has there been any

00:15:44,690 --> 00:15:49,610
problems with finding places to store

00:15:46,250 --> 00:15:53,080
all of us cargo yes yes that has been a

00:15:49,610 --> 00:15:56,570
huge challenge you may recall back on

00:15:53,080 --> 00:15:59,920
sts-133 earlier this year discovery on

00:15:56,570 --> 00:16:02,920
her last flight brought up the the

00:15:59,919 --> 00:16:05,779
another multi-purpose Logistics Module

00:16:02,919 --> 00:16:08,089
Leonardo and we call it the permanent

00:16:05,779 --> 00:16:09,709
multi-purpose module now the pmm its

00:16:08,090 --> 00:16:11,870
birth to the space station it is a

00:16:09,710 --> 00:16:13,070
permanent storage you can call it a

00:16:11,870 --> 00:16:15,320
basement because it's on one of the

00:16:13,070 --> 00:16:19,700
lower hatches towards the earth and it
is used just for storage and even with that big module just for storage after Atlantis's flight all of its rack

storage spaces are going to be full and

14 out of the 16 racks will have cargo

stacked on the front so it will be you

know not difficult to get in and out of

but it will certainly be congested and

full of lots of spares and many of the other locations in Space Station have

more cargo stored on it than was

originally intended I mean ideally you'd

have a nice clear path and open faces on

the very science racks and hardware
racks to where you wouldn't have to move

cargo around but because we have so much

cargo stored on station intention

it sometimes is difficult to access some

of the racks that we that the crew needs

to access and sometimes proves to be a

challenge to access tools and other

hardware that you need for maintenance

tasks so stowage is a challenge again

one reason we're more bulking up on our

our cargo is because we're entering a

new phase with shuttle being retired

we're going to be dependent upon our

commercial resupply vehicles SpaceX and
Orbital are both vying to supply the space station they'll be coming online early in 2012 and as they go through their flight test program we wanted to make sure we had plenty of supplies on board in case they run into any problems and of course we're always going to be partly reliant on the Russians with their supply craft as well as the Europeans and Japanese that perform periodic resupply missions with unmanned spacecraft to the space station thank you bill bill Harwood CBS just along those lines I was confused in the...
pre-flight briefings when Microsoft

00:18:08,779 --> 00:18:13,160
rodini said that the stuff coming up on

00:18:10,970 --> 00:18:17,120
this flight would add six months when

00:18:13,160 --> 00:18:18,650
you look at a TV and HTV progress and

00:18:17,119 --> 00:18:19,789
everybody else we've been saying it's a

00:18:18,650 --> 00:18:22,280
year's worth of supplies and I'm

00:18:19,789 --> 00:18:23,839
confused about that what do you mean

00:18:22,279 --> 00:18:26,089
when you look in ahead to 2012 what

00:18:23,839 --> 00:18:28,819
exactly are you getting with this flight

00:18:26,089 --> 00:18:30,949
versus what would how it's extending if

00:18:28,819 --> 00:18:32,629
we had just this flight and no other

00:18:30,950 --> 00:18:35,450
resupply missions we would not be able

00:18:32,630 --> 00:18:38,480
to make it through 2012 so this flight

00:18:35,450 --> 00:18:40,480
gets us through 2012 but also including

00:18:38,480 --> 00:18:42,490
specifically the russian progress
contributions which the Russians are very key players and important players with cargo delivery with the progress is as well as as you know the crew delivery with the Soyuz so progress plus Atlantis gets us through 2012 and on i believe the HTV and atv plans provide additional margin on top of that everybody here today so maybe let's go to the bone bridge i think do we have Marsha yes hi can you hear me yes we do the exercise equipment that mike fossum bundled up for transferred to the cargo carrier
that sounds pretty big how bulky is it how much space is it I'm you know just trying to get an idea of what kind of
size we're talking about just a rough number approximately 10 cubic feet if you had a comparison if you were looking at that what would I remind you of all boxed up well let's see our standard cargo transfer bag that you might see on some of the video where the crew is moving those back and forth it's equivalent to about 10 of those so 10 small suitcases or large handbags great thank you and just one quick question
about the urine processor was anything done differently to try to get that smell out of the way or was it just a matter of letting it sit and let the air bubbles or whatever it was go through it was the latter we we just let it sit for a day primarily we didn't want to run a risk of introducing any odors yesterday when the crew had a very busy day in a very stressful day of getting in their spacesuits getting ready for the spacewalk and performing the robotics operations there in the tranquility module which is right across the aisle
from our urine processing apparatus so

500
00:20:42,009 --> 00:20:47,470
we stood down on any processing allow

501
00:20:44,769 --> 00:20:50,829
the system to settle out and and and

502
00:20:47,470 --> 00:20:53,049
then we reprocess today we count counted

503
00:20:50,829 --> 00:20:55,809
as a as good news that the odor didn't

504
00:20:53,049 --> 00:20:57,519
get released today but it may reappear

505
00:20:55,809 --> 00:20:59,500
tomorrow as this gas works through the

506
00:20:57,519 --> 00:21:02,950
system the engineers looking at the data

507
00:20:59,500 --> 00:21:05,589
do not see any abnormal indications so

508
00:21:02,950 --> 00:21:07,509
we really don't have a full

509
00:21:05,589 --> 00:21:09,339
understanding of whether all the gas

510
00:21:07,509 --> 00:21:11,289
made it out of the system or whether

511
00:21:09,339 --> 00:21:13,509
there still might be some some odor

512
00:21:11,289 --> 00:21:14,589
issues but again the crew said you know

513
00:21:13,509 --> 00:21:15,730
they can live with it they could deal
with it it's just again it's not the kind of thing you want to have when you have house guests and you have a real busy schedule thanks a lot okay thank you Chris and with that will conclude the today's mission briefing and we are the station crew has gone to bed at four o'clock Atlantis cruises is going to bed just now and up next on NASA TV just a couple of programming notes launching our dreams it's a special space shuttle program video will air at five p.m. central time here on NASA television also flight day six
highlights will begin airing at six pm
these will be aired at the top of every hour and also a special video on the Space Shuttle narrated by William
playback video from Atlantis's solid rocket boosters on splashdown that will begin at nine a.m. and then there'll be other replays after that throughout the day the next mission status briefing will be held here again tomorrow at 4pm central time thank you Chris and everyone for joining us here the TV schedule is now on revision f and can be
found at www.NASA.gov/shuttle TV now back

to Mission Control Houston hi I'm Steve

sides Ruben de Leon Shanna Andrew and

I'm Heidi Brewer we are the

instrumentation and communication

officers on the final shuttle mission

and you're watching NASA TV

you