00:00:07,879 --> 00:00:11,199
copy mic stand by

00:00:41,808 --> 00:00:48,269
station Houston on one mic what you had

00:00:44,969 --> 00:00:55,558
called down is acceptable to us so go is

00:00:48,270 --> 00:00:57,030
plan okay great and I'm take them some

00:00:55,558 --> 00:00:58,459
photos of all the above so you know what

00:00:57,030 --> 00:01:01,609
they look like when they're starting

00:00:58,460 --> 00:01:01,609
sounds great

00:01:24,849 --> 00:01:27,849
and

00:04:28,000 --> 00:04:33,209
Atlantis ISS this is Houston are you

00:04:30,430 --> 00:04:33,209
ready for the event

00:04:38,100 --> 00:04:41,780
I guess we're ready for the event

00:04:42,639 --> 00:04:48,439
wbbm-tv this is Mission Control Houston

00:04:45,769 --> 00:04:57,349
and please call Atlantis ISS for voice

00:04:48,439 --> 00:04:58,370
check hello check can you hear me yes we
15
00:04:57,350 --> 00:05:02,330
can hear you loud and clear how do you

16
00:04:58,370 --> 00:05:04,430
hear the space station I can hear you

17
00:05:02,329 --> 00:05:05,930
perfectly wow that's amazing it's so

18
00:05:04,430 --> 00:05:07,699
good to see all of you I want to thank

19
00:05:05,930 --> 00:05:09,620
you for talking to us and I want to

20
00:05:07,699 --> 00:05:10,939
start by asking a question to Sandra as

21
00:05:09,620 --> 00:05:13,610
possible because we know she's from

22
00:05:10,939 --> 00:05:15,920
downstate Illinois Sandra how meaningful

23
00:05:13,610 --> 00:05:20,990
is it for you to be a part of this last

24
00:05:15,920 --> 00:05:23,449
launch well you know we were so focused

25
00:05:20,990 --> 00:05:25,310
on the launch the training during most

26
00:05:23,449 --> 00:05:27,229
of our preparation time I hadn't really

27
00:05:25,310 --> 00:05:28,759
thought about it but I will tell you

28
00:05:27,230 --> 00:05:30,770
it's an honor to be a part of any
shuttle crew and this one is really special because it is the last one and we're just very busy up here and I think it's going to hit us a little bit harder once we land there at the Cape and have to say goodbye to Atlantis for the last time Wow it sure is what's next for the space program and what is the impact for future generations without the space shuttle launches well we're going to find out here next year I think that there's one big capability we're going to miss up here on the International Space Station and that's
being able to return items like the space shuttle Atlantis is returning when we come back last year there was a pump a critical pump that failed and we're going to bring it home so the engineers can take a look at it of course when we lose the Space Shuttle we're not going to have that capability anymore but we are building new rockets some of our commercial folks are putting rockets together for us so we'll be able to visit the Space Station again soon in a US product so what happens personally for you and your careers what what is your next operations involved without
being able to go up in space well it's

it's not exactly correct I mean we have

opportunities following this we're going

to continue to crew the International

Space Station for the next decade at

least so we've got the opportunities

there to fly in space

then we've got some great opportunities

on the ground as well supporting

development of our next vehicle which is

going to go beyond low-earth orbit and

then we also have you know a chance to

contribute with the commercial companies

as they come online to build vehicles
that are going to come to the International Space Station so there's going to be plenty for us to do.

you know that's interesting because I wanted to ask you that there's so much talk about the commercial programs and sending citizens private citizens into space what do you feel about that I you guys are moving forward and can in advancing science how do you feel about just us average Joes trying to do what you do okay I think that's a really important the more people can get in space I think the better it's just an
amazing place up here and I'd like everybody to be able to experience it

the problem is right now it's very expensive to get people in space and so the reason the way we'll get more and more people have access to space is to bring that launch cost down and so we're gonna try to do that and as we do that it'll make it cheaper to do important research up here on the space station but also eventually someday it'll make it easier to have access to everyday person to be able to get to space what is your advice for young
people who are interested in moving into

your profession and also just people in

general who are interested in the space

program with all the changes going on

right now what do you advise them well

certainly keep keep tuned in because a

lot of exciting things are going on and

for young people you know when we were

all younger we dreamed of being

astronauts and it seemed like a very

remote chance or a remote idea but if

you work really hard you persevere and

you follow your dreams anything can

happen and here we are testimony to that

so I would advise any young person
whether you're interested in being an astronaut or are being involved in the space program or whatever your dream is. Just give it a shot go for it believe in yourself work hard you can do it and for those of us who are maybe fantasizing about it now that there is talk of private people going into space what is it what is your advice for those people who want to get involved in the program what's the coolest thing about actually being up there it's fun to see you guys having anti-gravity effects what would we expect of course there's a lot of
things to enjoy up here and not the least of which is being able to float around that's a sensation that very few people have experienced and it's a it's really kind of interesting to translate to travel between these modules kind of like Superman your legs your legs don't get a lot of use in your arms get an awful lot of use so you know there's a lot of great things to look forward to and when folks perhaps who not just the wealthy few who have been able to travel to spurt space commercially so far but when the average person is B is going to
be able to do it it'll be more like commercial air travel so I would see maybe 20 or 30 years in the future we'll have a commercial airlines to space just like we have commercial airlines that go between cities in the United States now I know Sandra mentioned before that you guys are very busy and didn't really have a lot of time to reflect but is there anybody who's feeling particularly nostalgic or sentimental about this final journey well it's yeah as you know we are very busy and we're concentrate on a mission
but every once in a while when it just
quiets down for a minute yeah yeah I
remember sitting on the mid-deck the
other day and thinking wow this is the
last time this vehicles gonna fly here
we are in space so just in in fleeting
moments between being really busy
you kind of think wow this is this is
really it but boy it's gonna hit when we
when we land and we'll stop and when all
the pressures off of the mission and all
the busyness is done we'll reflect back
and we'll realize that the Space
Shuttle has completed its it completed
its mission and it's not a time for
It's a time for celebration it's had a storied 30-year career and we're very proud of it and so I plan on when we get back to the ground celebrating with everybody who's worked so hard in this program to celebrate the great achievements over the last 30 years well thank you all so much for talking to us and thank you for the wonderful work that you've been doing for us on behalf of the program.

thank you very much we'll see you Atlantis ISS this is Houston ACR that concludes the WBBM portion of the event.
please stand by for a voice check from

KTVU TV on KTVU morning news it's

Thursday it's July 14th sounds good

standby hey I'm good thank you for

joining us it's 626 right now this is an

incredible morning because for almost a

week we've been showing you the

incredible pictures of the crew members

of the space shuttle Atlantis well this

morning Pam and I have the privilege of

talking to the shuttle food live about

their historic mission Atlantis ISS this

is KTVU TV can you hear us yes Space

Station read you loud and clear how do
you copy us copy there yeah we hear you

good morning gentlemen thank you and man

with us for joining us this morning

tells okay we've been talking about the

barbecued chicken and the bean what what

is that

it's called thermo stabilized tell us

about the food how does it look as it

pays actually the food's pretty good

some of it is sort of in the form of

meals ready to eat that the military has

or it's a pouch you just heated up and

and you eat it the thermal stabilized is

in a dehydrated sort of form as well it
comes in that form you just add water

00:12:45.970 --> 00:12:50.649
put it in the oven and heat it up and

00:12:48.370 --> 00:12:52.480
that's good to go as well and of course

00:12:50.649 --> 00:12:53.740
we have you know our special meal we're

00:12:52.480 --> 00:12:56.080
gonna be sharing with the space station

00:12:53.740 --> 00:12:57.789
crew and and we'll be having a very nice

00:12:56.080 --> 00:12:59.950
time and reflecting you know we

00:12:57.789 --> 00:13:03.870
originally wanted it on July 4th but no

00:12:59.950 --> 00:13:06.940
Bowl have it too instead at this time

00:13:03.870 --> 00:13:09.370
well just an observation the four of you

00:13:06.940 --> 00:13:11.440
look terrific up there in space we're so

00:13:09.370 --> 00:13:14.289
happy to be able to talk to you but this

00:13:11.440 --> 00:13:15.700
is also the end of the shuttle mission

00:13:14.289 --> 00:13:17.529
what are your thoughts now the average

00:13:15.700 --> 00:13:19.900
person doesn't get a chance to talk to
the space shuttle crew you're winding down this is the end of the shuttle mission what are your emotions

well you know it's it's like any amount your first car for example you know you love it you hate to see it go but you realize that every vehicle has its time and while you know I personally believe there's a little bit of life time left in the space shuttle we do have to realize that if we want to go beyond and get another rocket or craft that will go outside of low-earth orbit the space shuttles not the one and eventually we
do want to go to back to the moon

perhaps Mars or an asteroid and we're
gonna need to stand down a little bit

and and take time and take perhaps the

money that was used to operate the space

shuttle and instead build a new vehicle

with it which is what we plan to do

that's certainly exciting to hear that

you know we intend to go back to the

Moon and Mars what would you say is the

most significant contribution that the

shuttle program has made well I can

definitely offer you one I think there

were a number of great contributions to
shuttle made but we're here talking to you from one of the crowning achievements of the space shuttle program and that's the International Space Station you know the shuttle was integral in constructing building and putting all this together 210 miles above the surface of the earth so you know we we get to see this you know this work of art every day for the next several days and it'll be here for years to come so definitely the space station is probably one of the greatest achievements of the space shuttle well
we love you we're pleased to talk to you

for what final question have you thought

of a Neil Armstrong type statement to

make about this as it winds down well

you know it's funny you should mention

that because if we launched on time on

July 8th our original landing was

supposed to be July 20th which of course

is the anniversary of Neil Armstrong's

landing on the moon as it as it was

we've extended one day we'll be landing

on July 21st a significant day

nonetheless and I put some thought into

how we're going to reflect on the moment

and perhaps we'll just save that so the
wheel stop call and we'll let you know

then

all right fantastic

thank you so much we are talking live to

the astronauts there notice the Cal Cal

fan in the back we appreciate that here

in the Bay Area thank you very much for

joining us there have a safe trip home

yes please thank you so very much have a

great day Atlantis ISS this is Houston

ACR that concludes the KTVU TV portion

of the event please stand by for a voice

check from wtx f TV let's go to space

what do you think doing alright here we
go the astronauts of the shuttle
Atlantis or making history right now on
the shuttles last mission in space you
know that and they are about to join us
live in fact I think we have them at the
International Space Station and there
they are
just floating there hi welcome to
Philadelphia hey it's it's great to be
here in my hometown of Philly how you
doing good that's great commander we're
so happy and proud of you
now we may talk to the rest of the crew
too but we're gonna concentrate on
commander Ferguson here always get to everybody eventually I'm trying to look at you and look at leather hair sticking straight up priceless Magnus Sandy Magnus so uh Chris Ferguson when did you first get involved in space you know Philly's own Will O or Will Smith's kid what's the thing with her song I whip my hair back and forth with my hand back and forth that's the first time we seen somebody with their hair back and forth from space anyway commander Ferguson when did you first have the dream of going to space
from living in Philadelphia oh I grew up

00:17:35,369 --> 00:17:39,359
in the Northeast there I went to st.

00:17:37,230 --> 00:17:40,829
Martha's grade school archbishop Bryan

00:17:39,359 --> 00:17:42,509
high school and I think it was somewhere

00:17:40,829 --> 00:17:44,158
in there I had some real motivational

00:17:42,509 --> 00:17:46,650
teachers who got me interested in

00:17:44,159 --> 00:17:48,600
science and taught me a little bit about

00:17:46,650 --> 00:17:50,820
aviation I thought wow you know maybe

00:17:48,599 --> 00:17:52,139
I'd like to fly airplanes someday one

00:17:50,819 --> 00:17:54,000
thing led to another I always had a

00:17:52,140 --> 00:17:55,440
fascination with the with the Earl

00:17:54,000 --> 00:17:58,710
the astronauts in the Apollo program and

00:17:55,440 --> 00:18:00,240
you know lo and behold you just just put

00:17:58,710 --> 00:18:01,559
your nose to the grindstone and you keep

00:18:00,240 --> 00:18:05,730
your dreams alive and you end up in
interesting places someday I'm telling

ya I've done a lot of these interviews

as well few of them from space the

technology now is amazing the picture

guys you look like you're in a studio

maybe in Omaha Nebraska or something the

shot is so clear is this a hoax are you

really in space still I don't know we're
gonna have to do something for you oh

yeah I can do that watch this

can everybody float around for it that

was really cool Chris I think I think

Sandy's hair is pretty much a dead
giveaway oh there's a pose for you right
there well which way is the is the space

station are you standing at you're

upside down actually we're in we're in

the Japanese module right now this is

one of several modules the space station

is really it's an incredibly large

vehicle it's weighs over a million

pounds right now and you know if you

have one of the unique opportunities

like we have to you know be a thousand

feet below and look up at this

tremendous vehicle it it's just all

inspiring it's hard to believe that

mankind has built this and we get to
live in it for a couple weeks it's great

you know every now and then you can see

the Space Shuttle go over Philadelphia

what are you looking at right now like

for instance right now where are you

floating we're actually we're like I

said we're floating in the Japanese

module which is one of the wings that

sits off the side of the space station

of course it's a series of tubes that

stick together but when you see the

space station fly over it's a very

bright light what you're usually seeing

is the reflection off the large solar
arrays that are about 300 feet long so

00:19:57,509 --> 00:20:04,609
that's what you typically see yeah

00:20:01,470 --> 00:20:08,000
so where is the space station right now

00:20:04,609 --> 00:20:08,000
over the earth

00:20:08,419 --> 00:20:13,919
Wow that's a real good question

00:20:10,619 --> 00:20:15,989
yeah we actually have this real neat

00:20:13,919 --> 00:20:17,640
computer application that tells us where

00:20:15,990 --> 00:20:19,349
we are in the world because sometimes

00:20:17,640 --> 00:20:22,200
just by looking out the window you can't

00:20:19,349 --> 00:20:24,269
tell but right now we don't have it up

00:20:22,200 --> 00:20:25,860
so honest-to-goodness we can't tell you

00:20:24,269 --> 00:20:27,450
where we are over the earth but if we

00:20:25,859 --> 00:20:30,029
went to a window we could find out well

00:20:27,450 --> 00:20:33,529
listen to this I've been told you're

00:20:30,029 --> 00:20:33,529
over the North East Atlantic oh
fantastic you know Rex here is just an expert in geography and all he has to go down to the cupola which is a kind of like a fishbowl if you will to allow us to look out the bottom of the space station and Rex can usually pick out exactly where we are at any given moment that's kind of cool Jose did you take any tasty capes tasty cakes up there and if you did which one do you like you know first thing we're gonna do is maybe get sandy go back and open one of these windows behind us we'll let you look out the window a
little bit did I take any tasty cakes

unfortunately no but believe me I am a

lifelong fan of tasty cakes okay now we

have some video of you of you folks

eating breakfast what did you have for

breakfast I'll tell you why let me pass

the microphone around a little bit yeah

this is Doug Hurley the pilot let's

really talk to him he'll let you know

let's see what I had oatmeal with brown

sugar this morning and I think somebody

else had eggs and I don't remember what

Rex has and a sausage patty so you know

pretty good pretty good hearty breakfast
now we don't we a lot of our meals are kind of you know similar to military meals ready to eat so they're in pouches or bags and some of them you have to add water to and we have a small oven in the shuttle now where we can heat things up both you know food and we can get hot or cold water out of the dispenser right above it so it's a pretty nice setup and the food is is really really good sandi your face is turning red is that the blood run it for rushing to your head and what are you looking out behind what's out the window a lot of water
most of the time when you look out the
window up here there's just a lot of

water and occasionally you'll go over a
continent

you know only takes us 90 minutes to go

around the world and so we get a sunset

in the sunrise about every 45 minutes

when you're over the Sahara it's very
dramatic there's a lot of browns

and oranges and tans and beiges it's

really beautiful the Caribbean is really

beautiful but right now we just see a

lot of water out the window yeah you

know it's Bette Miller once said from a

distance no I won't think so so I was
wondering what you wear we've had some
people tweet us this morning want to know by the way congratulations they say
to Commander Ferguson we're all proud of you everybody who ever went to Archbishop Ryan high school so that's one thing I'm not gonna ask this what they always ask you how do you go to the bathroom stuff like that you want to know my co-anchor Chanel Marie Jones wants to know how do you go to the bathroom and go into food let's just say it involves air flow rather than gravity I will just leave it at that on a gentle
little breeze thank you all very much

well we didn't talk to Rex all right

thank you all very much and

congratulations especially to our

commander Chris Ferguson from pralli

yeah a lot of my family and friends in

Philadelphia at Drexel University

Archbishop Brian go Philly can I tell

you I'm not even kidding this makes you

want to go back to school and do

something with Atlantis is s this is he

thanks so much folks have a great day

thank you that concludes the event thank

you wbbm-tv KTVU TV and WT XF TV the
Atlantis ISS we are now resuming operational communication

this is Mission Control Houston five
days 22 hours 17 minutes into the flight of Atlantis to the International Space Station with the completion of our second set of interviews with Atlantis's astronauts now complete we will look forward in about 14 minutes to the first airing of the video that was acquired through cameras on the solid rocket boosters the solid rocket booster video that was acquired for Atlantis final
launch on the last launch in shuttle

program history

last Friday at 10:29 a.m. Central time

from the Kennedy Space Center

again the sts-135 solid rocket booster

video from last Friday's launch of

Atlantis to be played for the first time

at 9:00 Central Time

there are replays of this scheduled throughout the course of the day today

here in the shuttle flight control room

a shift handover has just begun as the orbit 2 team led by flight director Rick

love road working bankers hours during

this mission about to take over from the
lead shuttle flight control team the
orbit 1 team that has been on console
since 12:30 this morning
as the crew members are press into the
second half of their day this will be
off-duty time for the ten crew members
on the shuttle station complex this is
the first opportunity since Atlantis
docked to the station Sunday morning for
the crew members to catch up on some
work to essentially relax and take a
breather and enjoy the view of Earth
from orbit with their station
counterparts commander Chris Ferguson in
the foreground pilot Doug Hurley in the background down on the mid deck of Atlantis where they have been working on with some of the stowage activities for the past few hours the shuttle station complex is orbiting 246 miles above the earth crossing over the Sahara Desert moving from northwest to southeast across the eastern portion of Africa soon to cross over into the Indian Ocean and across the equator once again the crew members have been working over the past several hours on continuing the cargo transfer of items
from the Raffaello multi-purpose Logistics Module that is mated to the earth-facing side of the harmony module of the International Space Station all of that cargo transfer moving from the cargo module itself onto the station that will provide a year's worth of stockpiling for the station crews including the current crew the expedition 28 crew the commander of the station andrey along with his Russian crewmates alexander samokutyae and sergei volkov
japanese flight engineer Satoshi

00:34:52,668 --> 00:34:59,409
Furukawa and NASA flight engineers Ron

558 00:34:56,300 --> 00:34:59,410
Garan and Mike Fossum

559 00:35:14,099 --> 00:35:18,750
on the big loop look at the procedure

560 00:35:17,099 --> 00:35:22,500
and all it really says is apply the

561 00:35:18,750 --> 00:35:24,989
clear pen to the sensor so I guess I

562 00:35:22,500 --> 00:35:26,400
wanted to make sure I guess I wanted to

563 00:35:24,989 --> 00:35:27,839
figure out what exactly that means I'm

564 00:35:26,400 --> 00:35:35,190
looking at the end of the center looks

565 00:35:27,840 --> 00:35:36,900
kind of like how I showed I'm looking at

566 00:35:35,190 --> 00:35:38,909
actually so it looks it's black and it's

567 00:35:36,900 --> 00:35:41,760
kind of a cloth like surface and I'm I'm

568 00:35:38,909 --> 00:35:43,649
not really sure how that's it it's got

569 00:35:41,760 --> 00:35:48,980
like a tack to it it picks up dust off

570 00:35:43,650 --> 00:35:48,980
of the sensor or so what does that do
checking

this is Mission Control Houston sailing

245 miles above the earth at a speed of five miles a second the shuttle station

complex has passed a just south of the Saudi peninsula skirting the east coast of Africa moving from Northwest to southeast and in orbit inclined 51.6 degrees to either side of the Equator

everything going extremely well onboard

the two spacecraft this has been a day so far devoted to some in-flight maintenance on the station's side the continuation of the transfer of cargo
from the Raffaello Logistics Module over to the International Space Station and now the crew plans to enjoy some off-duty time cleaning that you're working on is the in Step three you're going to put the sensor clear loop over where the lens mounted and then the sensor clear pin would be put in the window of the loop and then you gently dab the dirt this conversation taking place between Sandy Magnus and the station Capcom Rob Hayhurst involves a slightly leaking one of the water bags that the crew is filling up before
00:40:40:41,608 --> 00:40:47,130
transfer over to the International Space

600
00:40:44,039 --> 00:40:51,838
Station a slight - leak at the point at

601
00:40:47,130 --> 00:40:55,950
which the bag is sealed off Magnus plans

602
00:40:51,838 --> 00:40:58,588
to use some towels to dab off the leaky

603
00:40:55,949 --> 00:41:01,319
portion and to seal that up so that the

604
00:40:58,588 --> 00:41:03,568
bag can be usable over on the station's

605
00:41:01,320 --> 00:41:05,369
side one of a multiple

606
00:41:03,568 --> 00:41:07,048
number of bags that are being filled up

607
00:41:05,369 --> 00:41:11,400
with water and brought over to the

608
00:41:07,048 --> 00:41:13,018
International Space Station one reminder

609
00:41:11,400 --> 00:41:15,838
a programming note coming up in four

610
00:41:13,018 --> 00:41:17,399
minutes we will air the solid rocket

611
00:41:15,838 --> 00:41:19,440
booster video from the boosters that

612
00:41:17,400 --> 00:41:22,108
helped propel Atlantis to orbit last

613
00:41:19,440 --> 00:41:24,298
Friday from the Kennedy Space Center the

solid rocket booster video with multiple

views spectacular views of the launch of

atlantis and the SRB separation and the

eventual splashdown of those boosters in

the atlantic is 32 minutes in length

coming up at the top of the hour at 9:00

Central time 10:00 eastern time with

subsequent replays throughout the day

Association one for CWC which in the big

loop