hi I'm Steve Lindsey commander of sts-133 you're watching NASA TV we waited long for this day to come the robber men not Lots butts into the Morning Sun I can't wait to see y'all sweet mysteries the moon stars our Sun the universe the galaxies flat home on your silver wings yo new song for the world the same lapis candle lady ride yes you can change the world true love discovers and she stands and she won't back down oh oh yes you can change the world there is no the whole long believe in
you will find blue sky
gonna chase the drain gonna set it free
gonna make it real gonna make it shine
I'm gonna keep it grooving on one small stepping stone
they will not alone gonna take your fiber how faster than you're out of sight
you've got my flame and your fire baby
you've gotten my twinkle in ya reach and fall
yes you can
change the world true love discovers and
she stands and she won't back down
oh yes you can change the word there is

now up the wall believing you will find

blue sky

don't you change too late yeah yeah a

fadeaway

Master hallway

yes you can

change the world

Truelove discoverers and she stand and

she won't back down

now yes you can change the word there is

now the one believe in you will find

blue sky

good morning discovery and you'll wake
up music this morning was brought to you

live by bighead Todd and the monsters

well good morning and thanks to them and

they were the number one vote getter and

the little program song contest whoo

congratulations them and thanks for that

special recording that's they did it to

be up here looking forward to the day

greetings this is Todd from they got

down the monsters well good morning Todd

thanks thanks very much for that that

was great

if you just do that like I did just do

that live and I believe it's a first in

history well that was terrific we really
appreciate it and congratulations on winning the contest well on behalf of bigot on the monsters and songwriters and artists everywhere we just want to thank you so much for your courage and your bravery and your effort in just giving all of us a better shot at knowing more and it's very inspirational to the arts as well and I just want you to be home as safely and as soon as you can thank you very much and and well wish you could see what we can see we look at it the earth and hopefully everybody will be able to do that one of
these days

hopefully sooner rather than later well

what we'll work on that together thank

you so much that was Todd Park more a

big head Todd and the monsters talking

with a crew of the sts-133 mission on

board discovery

this is Mission Control Houston now that

the crew has wrapped up the flight

control surfaces check out there in the

middle of the reaction control system

jet check out it's called the hawk fire

test they will pulse each of the jets

twice while they're doing that the
00:06:39,720 --> 00:06:43,080
propulsions officer here inside Mission

87
00:06:41,399 --> 00:06:44,579
Control will follow along make sure that

88
00:06:43,079 --> 00:06:47,069
there are no errors and all the Jets are

89
00:06:44,579 --> 00:06:48,329
ready to support tomorrow's landing as

90
00:06:47,069 --> 00:06:53,219
the crew works through this everything

91
00:06:48,329 --> 00:06:55,379
checking out a-okay so far commander

92
00:06:53,220 --> 00:06:57,180
Lindsey I just heard the call from mmt

93
00:06:55,379 --> 00:06:59,670
that you're clear for re-entry

94
00:06:57,180 --> 00:07:05,639
how sad does it make you that you can't

95
00:06:59,670 --> 00:07:07,379
keep flying up there you know I think it

96
00:07:05,639 --> 00:07:09,539
makes all of us said we've met we've had

97
00:07:07,379 --> 00:07:11,069
a fantastic mission we've accomplished

98
00:07:09,540 --> 00:07:12,270
all of our mission objectives plus a

99
00:07:11,069 --> 00:07:14,550
whole bunch we never thought we would

100
00:07:12,269 --> 00:07:17,159
get I've been extended a couple of days

and would love to be extended longer but

unfortunately we're running out of

supplies up here and it's time to come

home but we're all sad that this is our

last day in orbit and we're sad that

this is the last day potentially for

discovery unless we weather wave off or

something like that

for commander Lindsay and a couple of

other crew members tell us something

about discovery that we don't know what

are the quirks of this particular ship

where does it make noises in the middle

of the night did you find anything
tucked in the compartments you didn't expect well the one thing I will tell you about discover is Discovery's been flying since 1984 this is her 39th mission into space and we've been flying up here for 1213 days now and there is not a single thing wrong with her every single system and every piece of every system is working just like it was brand-new and that's probably something people would be surprised to hear about a vehicle that's I guess over 25 years old you know sometimes people who do
renovation but I think sorry about that

I think I'll continue along Steve's line

there and that in addition to the

systems operating beautifully you look

around whether you're on the flight deck

or the mid deck or even out into the

payload Bay and on the outside of the

vehicle and it and it really does look

brand-new you get that sense that you

know that maybe were the first ones to

travel on her and we've tried to treat

her well and she certainly has done that

for us and I think I was reading your

mind there I was thinking about people
who renovate and restore old vehicles
and keep them in really pristine condition
well that's discovery but she doesn't just look good in order to fly into space and do the mission that discovery does she has to be really pristine and really perform well and everything I've seen on this my first shuttle flight is that discovery is just really at the top of her game and performing like a champ and what's it going to say on the placket Smithsonian about discoveries accomplishments in history in your view
I don't know what the I don't know what

158
00:09:46,509 --> 00:09:52,210
the plaque is gonna say but hopefully it

159
00:09:49,299 --> 00:09:55,000
will talk about Discovery's legacy as a

160
00:09:52,210 --> 00:09:57,550
great ship of exploration as a great

161
00:09:55,000 --> 00:09:59,830
spacecraft as a class of spacecraft with

162
00:09:57,550 --> 00:10:02,919
capabilities of lifting people and loads

163
00:09:59,830 --> 00:10:04,660
and returning them from space unmatched

164
00:10:02,919 --> 00:10:06,849
by anything else that we've ever seen

165
00:10:04,659 --> 00:10:08,259
the versatility that's unmatched of

166
00:10:06,850 --> 00:10:11,560
anything else we've ever seen in space

167
00:10:08,259 --> 00:10:13,779
and probably unmatched for a long long

168
00:10:11,559 --> 00:10:16,419
long time time to come so hopefully it

169
00:10:13,779 --> 00:10:18,339
will say something about that but more

170
00:10:16,419 --> 00:10:22,179
importantly hopefully it will talk about

171
00:10:18,340 --> 00:10:25,120
not the cruise not us but talk about the
the entire space shuttle team that spans across the country for these past 30 years that have allowed this to happen you see us in space were visible but it takes a team of thousands and thousands and thousands of people to keep this vehicle running to allow it to execute the complex missions that we do within so hopefully the legacy will be more about the people than anything else last thoughts when you bring it in tomorrow what are you gonna be thinking I think as a crew what we'll be thinking as we're coming in is we'll be pretty
focused on doing in that and doing it

right and so we're gonna concentrate on

our jobs looks just like like we should

make sure we don't miss any steps make

sure we do everything exactly right in

bringing in as safely and successfully

as possible after we land us that'll be

the time which will reflect and I

suspect sitting on the runway I'll be

sitting in my seat when we do the last

switch throw and it's time for me to go

and I don't think I'm gonna want to

leave my seat

we'll put safe returned folks ABC done
thank you thank you
discovery good morning this is CBS news
at the Kennedy Space Center how do you hear me
discovery has you loud and clear how us
sound great and good morning this is
Peter King along with bill Harwood and
we've got a whole slew of questions for
you so we'll get right to it
commander Lindsay you've probably said
we probably reported everything that can
possibly be said about this being the last flight for discovery for somebody
who flies these things for a living how
hard is it to retire a spacecraft that

seemingly has a lot of life left in her

your emotions right now

I guess it's very going to be sad when it's over when we land tomorrow

or the next day I guess the

hardest part of this for me

is giving up the capability because

if you really look at what this spacecraft does it can do everything

except leave low-earth orbit it's a science laboratory we can talk with

Space Station's we we helped build this

we did build the u.s. segment of

the u.s. OS section of the International
Space Station with these vehicles called cargo and people up and down with up mass and down mass that's unmatched anywhere we've deployed the Hubble Space Telescope with this vehicle it starts out its life as a rocket becomes an orbiting laboratory or a docking vehicles maneuverable spacecraft on orbit and lands like an airplane and that capability is unmatched anywhere and probably will be unmatched for many years many many years to come and so giving up all of that capability and the amazing versatility
this spacecraft is what's most difficult
for me and probably for everybody that's
working in the program and along those
lines for nicole stott with so much
uncertainty right now the future of us
human spaceflight what are your concerns
and what are the things that most excite
you about what's ahead well I think from
the concerns standpoint right now is
just you know I think we're still in
this phase of really defining what the
next steps are going to be and you know
I look forward to seeing what that is I
hold real hope that we'll be challenging
ourselves we'll be doing you know big things and going out of low Earth orbit I would love to see us go back to the moon I don't know if that's in the plans or not but you know I hope that that what will be happening is is a challenge and will be and will be taking us places you know as as much as what have you know vehicles like Discovery and the Space Shuttle have done for us and that will be you know learning all kinds of new things and I think that's what makes it exciting as well is that you know there's plenty of opportunities out
there and you know we're a great country

00:14:37,250 --> 00:14:42,649
that has done really really amazing

00:14:39,169 --> 00:14:46,059
things with our space program and I

00:14:42,649 --> 00:14:46,059
really just hope that that will continue

00:14:47,019 --> 00:14:51,079
harwood let me ask a couple if I can and

00:14:49,399 --> 00:14:53,539
I'm gonna keep with the discovery theme

00:14:51,080 --> 00:14:54,860
obviously I I think a lot of people you

00:14:53,539 --> 00:14:57,169
know your mission is the first really

00:14:54,860 --> 00:14:59,360
concrete sign that the beginning of the

00:14:57,169 --> 00:15:01,279
end is finally here for this program and

00:14:59,360 --> 00:15:03,680
for mike barratt what do you say to the

00:15:01,279 --> 00:15:05,750
workforce and really to all americans on

00:15:03,679 --> 00:15:07,069
the eve of this final landing for

00:15:05,750 --> 00:15:12,379
discovery and of course the two flights

00:15:07,070 --> 00:15:15,590
coming up hey Bill
It's a great question, you know. I think about this space shuttle fleet, like the clipper ships that were strong and fast and powerful, they did their jobs but they were also graceful and beautiful. They conjured up imagination for travel and exotic places. Exploration and discovery is just an elite member of this elite fleet, and you know when the Clippers faded it was because there were alternatives there was another ship that was coming in steam power that was stronger, faster perhaps not quite as...
beautiful we don't have that yet we have

the legacy of the Clippers in our shuttle fleet and it's a legacy that everybody who's ever touched these vehicles should be extremely proud of I think the only problem area there is that we just we don't have that follow-on we're not replacing the shuttle with something and I think that's what makes a little bit sad for us but make no mistake when we bring discovery home it's a time to celebrate I mean the legacy that this spaceship has has made for herself is just nothing
more than cause for celebration she's returned so much science so much experience and the experience that we have crew members have had has just been marvelous and as again just something that our country should be very very proud of this question is for Eric BOE you've got kids and down the line maybe some grandchildren on the way who will only know about the space shuttle from history books and from video and things on the internet maybe you'll take them to see discovery at the Smithsonian or wherever it winds up what will you tell
them about what it was like to fly the

329 00:16:49,409 --> 00:16:56,909
space shuttle well I'll tell them that

330 00:16:54,750 --> 00:16:58,950
the discovery and the space shuttle

331 00:16:56,909 --> 00:17:00,719
fleet was a dream is a dream machine

332 00:16:58,950 --> 00:17:03,990
it's just amazing what this vehicle can

333 00:17:00,720 --> 00:17:05,970
do it can launch like a rocket go into

334 00:17:03,990 --> 00:17:08,160
orbit change it into a spacecraft and

335 00:17:05,970 --> 00:17:10,588
land as a hypersonic airplane on entry

336 00:17:08,160 --> 00:17:13,410
and what's amazing is just how well she

337 00:17:10,588 --> 00:17:14,789
she sails and it's an honor and

338 00:17:13,410 --> 00:17:19,170
privilege for all of us to get the

339 00:17:14,789 --> 00:17:20,519
chance on her final voyage this is

340 00:17:19,170 --> 00:17:22,830
partially done speaking to you from

341 00:17:20,519 --> 00:17:26,069
Kennedy Space Center where the skies are

342 00:17:22,829 --> 00:17:28,049
clear today for commander Lindsay Wow a
tribute from William Shatner and live today the whole country seems to be watching Discovery's last flight I'm wondering can you sense the all the attention that's going on down here and what's the mood up there for you like and is it all sadness or or please elaborate well as far as the attention discovery is getting on the ground honestly I have no idea about that we get we get a little bit of news up here I haven't had time to read it for several days so we've been focusing on doing our job so
as far as what's going on in terms of attention I have no idea what we're feeling is we're obviously in our last day of orbit and we're getting every taking every chance we can to look out the windows and so we're kind of kind of sad at this last day wish we could have a few more days but it's time for us to come home but we're mostly enjoying this last day getting ready for entry looking out the windows and just thinking about the great experience we have and the success of our mission and we're getting ready now to focus on this this
final task we have tomorrow which is to
do the deorbit prep safely enter safely
and then land I think once we land then
we'll all have time to really reflect on
what we did and that we got to have got
to fly this final flight of discovery
which is truly an honor for all of us
you know we've been talking about
discovery retiring and the fact that
there really isn't a replacement for the
space shuttle that kind of look at it
that just as nowadays we look back at
the shipwrights of the 18th and 19th
century and we look at the ships they
built we still ask questions as to how they did it and how those ships managed
to stay at sea for so long and be successful and I think when they do get around to building another vehicle that is as capable as the Space Shuttle they're gonna look back and ask a lot of questions how in the world did the engineers and technicians and the maintenance people manage to make these vehicles so incredible that they're still flying up there 39 missions in 25 years it's pretty amazing and I think that's really gonna be the long-term legacy of this vehicle
thank you along those lines first anyone

on board do you expect the shuttle

program one day to be revered as much as

the Apollo moon program is today

I guess it's my turn to wax poetic yes I believe in indeed when I talked to the

Apollo astronauts the mercury and Gemini

astronauts they talked to us with

amazement they look at the complexity of

the missions we do now in space and they can't believe that they said they never did anything nearly as difficult to complex is what we were doing with the

shuttle and like Steve said we won't do
anything nearly as complex with other

vehicle for a very long time even if we

started today to try and build a

replacement shuttle it might take 15 to

20 years to get there there's just been

nothing more capable out there to do it

so I think that five or ten years now

they're gonna look back and go how did

we ever build a vehicle that could do

all these things this was a pretty bold

not daesh's thing to put together back

in the 1970s and I just don't know that

we had that audacity now to build

something nearly as ambitious as the
shuttle is keep the mic for a moment

what do you expect it will be like for you to be part of Discovery's historic return to Earth tomorrow and be walking away for the ship from the ship one last time Uganda's like-like-like her commander said I've been more focused on just getting through the mission here and making sure that we have a safe and effective return from orbit back to earth to cap off a successful mission I'll probably give more thought once we're done we will stop on their own way about the legacy discovery and the
legacy of this particular mission but I

00:21:20,719 --> 00:21:23,528
just don't have a whole lot of deep

00:21:21,858 --> 00:21:25,999
thoughts about it right now

00:21:23,528 --> 00:21:27,858
dr. berry you were so eloquent a few

days ago describing all the historic
voyages of the ships named discovery put

00:21:31,219 --> 00:21:35,479
that in perspective for me again if you

00:21:32,898 --> 00:21:36,858
will how will space shuttle Discovery

00:21:35,479 --> 00:21:40,929
stack up against all the other

00:21:36,858 --> 00:21:40,928
discoveries from ages past using

00:21:42,250 --> 00:21:47,079
well that's a great question there have

00:21:44,679 --> 00:21:48,820
been ships named discovery for over four

00:21:47,079 --> 00:21:51,480
centuries and they've been captained by

00:21:48,819 --> 00:21:53,769
great people like Henry Hudson and

00:21:51,480 --> 00:21:55,990
Matthew Kirk I'm sorry John clerk who
was on Captain Cook second voyage Robert

Falcon Scott had a discovery going to

the Antarctic and I think everybody

knows that our shuttle fleet was named

after great ships of exploration we

wanted to carry on that heritage the

legacy of that name and I think this

discovery has done that with flying

colors and she retires with all of the

honors and dignity do any of those ships

that make great discoveries so I think

we salute discovery and that in that way

with all the accolades that she deserves

but it also lays out a challenge well
we'll be the next ship named discovery
the next ship to bear this name
hopefully we'll go further than this one
and make every bit as much of a
contribution to history into discovery
as this ship you for anyone on board
discovery has promised the Smithsonian
Institution but the decision on where
the other shuttles go will be coming up
next month do any of you wish you were
doing the picking and do you have any
recommendations to give in that regard

hi I'm Steve Lindsey commander of space
shuttle Discovery on space on
Discovery's final voyage into space for a 39th trip into space we prepared a more formal tribute to discovery that will we will put together later but for now on this final day on orbit I just like to get each crew member to say a few words and their thoughts of discovery for me Discovery's a very very personal thing because I've actually flown discovery three times now my first flight I flew in 1999 on sts-95 when we brought Senator John Glenn back into space I flew her again and as one of the return to flight test missions sts-121
in 2006 and then finally sts-133 her

final flight so Discovery's a very

special vehicle to me discovery has

contributed greatly to the space shuttle

program she's flown a good portion of

the major most significant flights in

the space shuttle program she she

deployed the Hubble Space Telescope 13

trips to the space station contributing

the Assembly of a space station in a

very big way he's been in the MIR space

station she's done science missions

she's done all of the return to flight

test missions both after Challenger and

after Columbia bringing us back into
space after those tragedies on this final day on orbit when I think about discovery I think about all that I think about all the people that went before them before us on this vehicle but mostly what I think about are the thousands and thousands of people across a space shuttle program these past 30 years who designed this vehicle built this vehicle have taken care of this vehicle in operating this vehicle not just from the cockpit but also those who operated this vehicle from the ground and that that is her greatest legacy to
00:25:07,259 --> 00:25:09,409
me

00:25:12,019 --> 00:25:17,269
I remember marveling at the Space

00:25:15,558 --> 00:25:19,700
Shuttle at the new Air and Space Museum

00:25:17,269 --> 00:25:22,069
when I was a teenager and now as we fly

00:25:19,700 --> 00:25:25,970
Discovery's final voyage I still marvel

00:25:22,069 --> 00:25:28,669
at her today but also like the I would

00:25:25,970 --> 00:25:30,799
call the space shuttle Discovery a dream

00:25:28,670 --> 00:25:32,179
machine and it's the people that make

00:25:30,799 --> 00:25:34,039
the ship the people that are involved in

00:25:32,179 --> 00:25:35,960
all our training and it's a testament to

00:25:34,039 --> 00:25:38,629
the people that maintain her trainer

00:25:35,960 --> 00:25:50,630
that the first flight is as clean as it

00:25:38,630 --> 00:25:53,030
is on the final flight in 1948 in Europe

00:25:50,630 --> 00:25:54,679
after the ravages of world war two a
bunch of wild-eyed scientists got together and mapped out a vision for the future among them was Wernher von Braun

he saw a vision where we'd have a put-up mankind pushing out into the solar system on a pyramid of space stations being serviced by a fleet of shuttles that went to and from the earth here we are at the turn of the century in the 21st century with the fleet of shuttles that does just that and a space station platform for leaping off into the solar system
discovery is one of those workhorse

557
00:26:23,420 --> 00:26:26,720
vessels that got us off on that vision

558
00:26:25,099 --> 00:26:28,819
and has it's going to and will take us

559
00:26:26,720 --> 00:26:31,069
into the future and hopefully it will be

560
00:26:28,819 --> 00:26:33,849
a model for how we do this later on the

561
00:26:31,069 --> 00:26:33,849
21st century

562
00:26:40,319 --> 00:26:45,599
and as a ship of discovery discovery has

563
00:26:43,019 --> 00:26:48,329
been truly amazing and I was thinking

564
00:26:45,599 --> 00:26:50,490
earlier when we look back even now at

565
00:26:48,329 --> 00:26:52,829
the shipwrights of the 19th and 18th

566
00:26:50,490 --> 00:26:55,500
century and we marvel at the work they

567
00:26:52,829 --> 00:26:56,819
did in the future when they go back when

568
00:26:55,500 --> 00:26:58,289
we build another vehicle that says

569
00:26:56,819 --> 00:27:00,210
capable as a space shuttle we're gonna

570
00:26:58,289 --> 00:27:02,490
look back at discovery and the engineers
the designers the people maintainer and
we'll have to ask them how in the world
they did that because it's truly amazing
and this vehicle even though it's only
spent the total of 365 days or so on
orbit which is less than those earlier
ships was spent on a single mission its
accomplishments are truly amazing as the
commander noted earlier and so thinking
about it looking back I'm just proud to
be a part of this team and a part of
this crew on our final flight well I
know a lot of sailors out there are
familiar with the term see kindly you
use those words of a vessel that just is

strong and powerful yet easy to handle

and works very well at sea and I think

discovery is that way she's space kindly

if you will she points where you steer

her she hauls what you put in her hold

and she just performs magnificently it's

an incredibly powerful machine it leaps

off the planet we were firing the

thrusters a little bit earlier and it's

just amazing how this ship can maneuver

and I think that one of the greatest

legacies is going to be the space

station that we just left when you look
at the space station you think my gosh

that is so big how on earth did we get a

million pounds to orbit

well this space shuttle helped to get a

lot of that mass up there I think the

legacy that she leaves behind is quite

incredible and all that makes her strong

and powerful and gives her that see

kindly nature is all the hands that have

taken care of her that fiercely defend

her and service her when she gets back

to homeport and even though it's the

last time we really do look forward to

bringing her back to her home port and

back into those caring hands I think

I'll be continuing on a common theme

here but there's a few words that come
to mind for me when I think about my own

experience with Discovery and the space

shuttle program as

well as just you know how we think about

the program itself and that's a blessing

and the words thank you and for me out

of college I was very very fortunate to

be hired on by NASA at the Kennedy Space

Center and this is over 20 years ago and

have the opportunity to work up close

and personal with these just incredible

indescribably beautiful vehicles and I
have a vivid recollection of coming to work at KSC one of the first days and I was very fortunate to be working in the orbiter processing facility which is the big hangar where we take care of the orbiter part of the Space Shuttle and having somebody walk me into the facility out into the middle of the floor and asking me if I knew where the Space Shuttle was and and I looked around and you know couldn't see anything the gear wasn't deployed and I remember looking up and seeing this just wall of black tiles and from that very
second being just so like overwhelmed

and impressed by the orbiter and I'd

like to just say thank you to all the

people who have taken such great care

care of her of discovery and the other

space shuttles and making it a safe

place for us to live and work up here

and I there's tears coming so I

will stop very soon but I am I'm looking

forward like Mike said to bringing her

home to the people who care for her most

and to the time when we were on that

runway and we can look back and still

see her standing on her own gear with
her through her own proud wings holding

her up before she goes back to that

hangar for the last time and thank you

you