good afternoon and welcome back to the
space vehicle mock-up facility at
Johnson Space Center we are here with 12
Newt brand new astronaut candidates
you're going to make up the 2017
astronaut candidate class and we have
just a little while with them for folks
here in the audience to ask questions
but before we do I'm going to go through
their names one more time and then we
will get started so we have here with us
today
Caleb Barron we're going to go in
alphabetical order Zeena Cartman Raja's
Chari Matthew Dominic ball pines Warren

woody Hubbard Johnny Kim Rob cooling

jasmine low belly Laurel O'Hara

Frank Rubio and Jessica Watkins so we

have I believe Mike ready for you to ask

questions with them if you can raise

your hands and let us know where to if

you have a question and we be sure net

give us your name and affiliation and

ask in direct your question to the

candidate you want to answer it

all right here thank you

hi Robert Perlman with collective

acecomm and space comm a question for
all of you I wonder how many of you knew

that you wanted to be an astronaut when

you were a kid if there was any specific

memory that inspired that if you

attended Space Camp or if there was some

other experience that sort of led you to

this point yeah absolutely I don't know

that there was a specific defining point

I know there's a I was always interested

in aviation and their pictures and our

photo albums with me whack and I was a

one or two at the Munich Airport if my
	nose pressed up against the windows

watching the airplanes out
there so aviation was always in it and

44
00:02:03,670 --> 00:02:08,289
then the first memory I have about

45
00:02:06,040 --> 00:02:09,520
spaceflight was really watching STS one

46
00:02:08,289 --> 00:02:13,269
we had just moved back to the United

47
00:02:09,520 --> 00:02:15,040
States and it was on TV and I just be

48
00:02:13,270 --> 00:02:18,520
remember being absolutely amazed with it

49
00:02:15,039 --> 00:02:20,289
I tell people quite a bit that you know

50
00:02:18,520 --> 00:02:22,659
if you asked me when I was a kid what I

51
00:02:20,289 --> 00:02:24,699
wanted to be when I grew up I would have

52
00:02:22,659 --> 00:02:27,400
said a pilot because the astronaut thing

53
00:02:24,699 --> 00:02:29,859
was not even on the radar for me in

54
00:02:27,400 --> 00:02:31,120
terms of being possible had you rephrase

55
00:02:29,860 --> 00:02:33,130
it and said do you want to be an

56
00:02:31,120 --> 00:02:37,420
astronaut I'd have been like absolutely

57
00:02:33,129 --> 00:02:39,819
husband heroes that was so but I did get
to attend Space Camp at one point and it
was it just fan that flame that interest
and getting down there and really
getting able being able to see big
hardware like the stuff you see around
here is it just fan that flame and I was
really excited and it just it just kept
me going throughout the rest of my
career
right here and also I forgot to mention
that we do have also with us Chris
Cassidy who was the Deputy Chair of the
astronaut selection board in case we
have any astronaut selection related
questions that candidates don't know the
inside scoop on go ahead hi everyone
congratulations my name is Karl Clark
I'm with in space on the left so I have
one question about propulsion for you
Caleb
considering you were on subs and nuclear
propulsion is a big deal there what were
your thoughts on nuclear thermal
propulsion all kind of like the nerve
engine maybe solar electric things like
that or maybe using ion electric with a
fission reactor I know that was your
degree field correct and I'm asking the
wrong person I was trying to remember
everybody that was missed it off earlier

and I remember there was a nuclear physicist a nuclear engineering from a
graduate degree working on a thorium fueled next-generation terrestrial base

reactor concept so I don't know a ton

about the technology that NASA is working on for propulsion for deep-space

evolution mission certainly I think

nuclear is being considered both for

surface power on Mars or the moon and

also potentially to propel vehicles but

kind of our first day on the job here so
I don't know I thought about it yet but

I can say that I'm really excited to be

a part of NASA's super exciting and

phenomenal team and contribute in any

way I can

of course sir I'd love to be assigned

any project related to nuclear power by

this about a few years down the road

once we finish our candidate training

all right I think we have some over here

every burger with Ars Technica so the

last class in 2013 came in I think they

were told primarily that they were going

to be going to a space station

I'm curious during the interview process
what you were told about you know

destinations or vehicles or what you

know what you were being hired

essentially by NASA's to go and do

so the vehicles that we've been told is

the next dragon liner to remove that we

are possibly take in the future but I

think for the future it may be a little

unclear we're just happy to be here

finish our candidate training and

venture out to deepen up the space in

the solar system all right mark thank

you I'm mark Kuro with Aviation Week and

I don't know if two of you what would
self select but I’m interested in how

you think your group differs maybe

significantly from some of the earlier

astronaut groups there's seems to me

like some really different backgrounds

and professional and personal and I

don't know how do you guys see yourself

in that regard well I think one thing

that that was a bigger focus in this

election was skills that are appropriate

for longer term spaceflight so you know

ISS stays on the ISS that are six months

or longer or you know possible deeper

space exploration missions and so a lot
of us have a background or experience doing similar kind of work that involves similar skills like working in Antarctica for Xena are working on submarines for Kayla so yeah I think I think just we have a little bit more of a remote and extreme environment skill system than maybe previous classes can you go over here hi congratulations and my name is Keisha Rogers and I work with 24th century science and technology the vice president earlier mentioned the inspirational words of President John F
Kennedy who I don't know if you guys noticed but he turned would have turned 100 this year on May 29th and right you guys are a very extraordinary selection of candidates because you came out of 18,000 candidates and my question to you is what is your inspiration you know looking back on the history of NASA how do you see yourself continuing to move those footsteps forward in terms of what nasa will represent for the future with regards to moving things forward for me coming here yeah sure it'd be awesome me part of a the first person to do something new whether a new planet or
go back to the moon and go back to those things but more so it's about being part of the team working on tough problems I think we talked a moment ago about how diverse a background how maybe this group might be different having known this group now for 48 hours and having worked with them I can tell you that all of us are very similar and we're all passionate people that love to solve tough problems because they're hard and so moving forward that's what we want to do we want solves problem you don't have to be the person we can just be part of
a team that moves toward one back here

hi my name is rabia tor and I'm with

Lake City USA the questions for Laurel

and as the only the second native

Houstonian to be named an astronaut

what's your thought on it what's it mean

to Houston and did you talk to Shannon

Walter Walker at all in the last few

months about preparing for something

like this the question is that as the

second native Houston's and go into

astronaut corps did you talk or what are

your thoughts about Houston is the home

in this place for the human spaceflight

program and did you talk to the Shannon Walker about it at all well I was born here and raised in sugar land and I actually haven't lived here since high school but I'm really excited to move back to Houston my parents still up here and my sisters here and I did I met Shannon Walker during the energy process and we did talk a little bit about Houston and you know just it's a great city and I'm excited to move back so I would maybe add on to that you participated in a lot of NASA activities maybe because you were here you want to
talk a little bit about that yeah so I I

grew up in Sugar Land

and we got to go on lots of class field

trips to Johnson Space Center and then

my family would just go to Johnson Space Center as well on the weekends for

visits and then I also had opportunities

in school like the project I mentioned

earlier in second grade where my class

got to plant tomato seeds that flown on

the space shuttle and just opportunities

like that that we're kind of unique I

guess - growing up in Houston and that

kind of set me on the path I think to

taking advantage taking advantage
opportunities with NASA down the road -

and I can high school I used to come to

watch the Space Shuttle debriefings when

they used to do those at the Space

Center and then in college I worked with

the Space Grant and there's a reduced

gravity students like opportunities

program and then several internships so

it was kind of an early involvement with

NASA that I just stuck with I think we

have some questions from social media

now all right we got a couple questions

from social media on Facebook Greta

wants to know my third grade class in
Houston Texas wants to know what's the first thing you want to do in space who has plans a victory dance forget in there I'd say options open I'd say check out the view I think it I think it'd be yes check out the view but also make sure I don't throw up a banner day all right we have another one from Tracy wants to know what internship experiences prepared you most for this opportunity I know we have a few who have interned at NASA before and I'm guessing there are some other Nestle or internships mixed in I didn't intern
directly at NASA but I had a lot of funding and support for internships and field experiences from space grants especially the North Carolina Space Grant and later the Pennsylvania Space Grant and so these experiences took me to British Columbia to work for the pavilion Lake research project which is a NASA and Canadian Space Agency project you a lake there to draw analogies for space exploration learning how to conduct science under the constraints of a space mission and that was incredibly helpful
and let me meet a lot of people who

actually work for NASA including several astronauts this is just an awesome experience two internships for NASA that was definitely a huge piece of what drove my interest in understanding the culture and the work ethic of the folks here so in was it the Academy I got to work at Goddard Space Flight Center at the time on what was the what was called facility and it was pretty much you know one of my tasks was to make an acronym list so I was by no means cutting-edge engineering I was basically like a
errand boy go do but it was awesome

to be a part of that and in the grad

school I worked on some of the Mars

sample return mission algorithms for how

to do a ton of s orbital rendezvous and

again it was just the exposure to the

folks in that case that at JPL and

really reinforced for me that this is

the community that I want to be a part

of and that's why didn't you know I'm

still beaming that you know we've got

the opportunity to be such a part of

such an amazing team here at Johnson at

NASA it's going to be an awesome awesome
future in front of us and for the agency

just the kinds of things well yeah just

really quick I also have done several

internships at NASA I worked at NASA

Ames working on the Phoenix Mars Lander

looking at at Martian soil I've also

done three internships at the Jet

Propulsion Laboratory in Pasadena

working on the also Mars sample return

and Mars 2020 the upcoming Rover as well

as MSL the Mars Science Laboratory Rover

and also working on some asteroid work

looking at do is the NEOWISE mission and

all of these opportunities have been
really beneficial in providing me the
experience I think has helped me get
here and as well as the understanding of
what Roger was was mentioning the
teamwork aspect of it and
much NASA works together to accomplish
the impossible all right question over
here my name is Lindsey Henry I'm a
reporter with Fox 26 and Congrats
first off I'm so excited for all of
y'all and to be here so thank you my
questions for Robert Heinz Robert you
are the only astronaut right now or the
future astronaut the new astronaut that
currently works for NASA and so has

00:14:29,250 --> 00:14:32,820
becoming an astronaut been something

00:14:31,528 --> 00:14:34,528
that was your goal from the very

00:14:32,820 --> 00:14:38,040
beginning and to finally reach that goal

00:14:34,528 --> 00:14:39,240
how does it feel actually no I didn't

00:14:38,039 --> 00:14:41,159
really learn about until I got hired

00:14:39,240 --> 00:14:42,360
here that there I don't want to say

00:14:41,159 --> 00:14:44,789
there's a long history but there's

00:14:42,360 --> 00:14:46,860
certain precedent for people that were

00:14:44,789 --> 00:14:50,129
doing the research pilot job to have

00:14:46,860 --> 00:14:51,750
been picked up it's been 25 years I

00:14:50,129 --> 00:14:54,689
think since the last somewhere around

00:14:51,750 --> 00:14:57,570
there since the last individuals was

00:14:54,690 --> 00:14:59,730
selected out of the aircraft operations

00:14:57,570 --> 00:15:02,100
division out there so actually what
drove would brought me down here I mean

obviously there was a job opening so but

I it really appealed to me because you

know like all where all of us are

alluding to we've seen NASA the whole

time growing up and we've heard about

all the great things that they do and

and the amazing teamwork and that you

know being a part of the team down here

that was one thing I told my previous

employer when I left like yeah I'm going

to be a tiny little cog in this giant

space wheel but that's worth it you know

it's going to be so cool to get down
there and be able to train the Astra do

these guys in the airplanes was just

really exciting to me and then I got

here and I'm like holy cow someone

actually came from this job and went

into the astronaut office and then I put

the glimmer of hope out there and then

once I started get wind of there being a

astronaut selection coming up I thought

all right that was my chance I'm the I'm

the old guy on the board here right now

so I knew the clock was ticking on me

but thankfully it all worked out and

that's a blessing to be here
have you given your fellow classmates any tips on me moving to Houston yes

we've been talking about places to live and obviously the whole Clear Lake

Friendswood area down here is just amazing and you can't really go wrong

right the school districts are great and the NASA influence in the whole area
down here is just awesome so in coming out of the military

were very rarely in urban areas near big cities and so for us when we got down here we were sure how we would handle it

but we absolutely loved the area
Houston community and the sense of

00:16:32,559 --> 00:16:36,250
community around here even though it's a

00:16:34,090 --> 00:16:38,769
big city is is really awesome and the

00:16:36,250 --> 00:16:41,590
support that everybody has for NASA the

00:16:38,769 --> 00:16:44,789
whole Houston area really seems to

00:16:41,590 --> 00:16:44,790
support NASA so that's awesome

00:16:45,389 --> 00:16:50,409
burger again with Ars Technica question

00:16:48,250 --> 00:16:52,929
for Rob could you talk about what you

00:16:50,409 --> 00:16:55,089
did at SpaceX what you worked on and

00:16:52,929 --> 00:16:59,199
then you're not actually actually gonna

00:16:55,090 --> 00:17:01,660
ride in a struggle at all right man all

00:16:59,200 --> 00:17:03,100
right on whatever spacecraft I can go on

00:17:01,659 --> 00:17:07,000
I'm pretty confident the processes as a

00:17:03,100 --> 00:17:08,920
whole to uh to get us there safely so

00:17:07,000 --> 00:17:10,959
during my tenure at SpaceX I started out
doing design and analysis of various systems on Falcon 9 so actually started kind of the basic level there got involved in actually building some of the first V 1.1 vehicle that flew just 2012 or 2013 and Welbeck worked operations for the structures department or launch operations and then most recently I've been running the launch chief engineering group and what we call flight reliability and the whole you know part of flight reliability is really to try to make sure things don't go wrong and when they unfortunately do
like in the flight 29 failure this last fall is to try to run those things to the ground to make sure they don't happen again you know even before I got lucky enough to get a phone call a couple weeks ago you know my whole goal coming out of that and I would say the team sole goal was to make sure that the Falcon 9 was is reliable and successful as possible for SpaceX its commercial partners but also of course very importantly for the crew that will fly on that vehicle and I think it's something that just helped us grow
stronger and Amigo stronger as an inch

when I hear as well how many of you hope
to be on the first mission to Mars have

you gotten a look at the Orion space

ball alright question up here Karl Clark

began with in space on the left kind of

along the same vein as that if you could

imagine yourself discovering one thing

in your career as an astronaut kind of

what would you like it to be given your

very diverse background of engineering

science physics all that kind of stuff

there's something you could discover

what would you like it to be I think for

there's something you could discover
me one of the things that always kind of

deleted

drawn me to space is the different view

that it seems like space must must give

you right so trying to look from space
down on earth and realizing how delicate

this planet is and honestly I think less

of a discovery of something new but more

discovered a way to really express that
to all the people across the planet I

think that would be something amazing if

we could really try to help people

realize that borders are something that

we create are not natural I think we

would just make the world a better place

if we could discover a way to kind of
spread that that understanding or

knowledge that the in-crowd

look like what are you making I don't

think those ingredients are so I I'm an engineer and one of the things that I've found about the drought my whole career

is that just to expect the unexpected

and so that's kind of the very nature of discovery is hey we don't know what we're going out to find but it's gonna be really cool when we do so I think

that's what most excites me

hi Robert purlins with collects bass

space.com again
you're about in August you'll begin two

years of basic training is there any

particular experience you're really

looking forward to is there any

particular things you know about the

astronaut experience that you're not

looking forward to really looking

forward to working at the new co

buoyancy lab and competent spacesuit and

pretending to do spacewalks and EBA I'm

actually really looking forward to

learning the Russian language I think

the chance to learn a new language as an

adult is a pretty amazing opportunity
and then from there getting to do all of this international collaboration and traveling abroad to other centers to learn from them I think that's going to be really exciting if there's one thing I've learned in the last 48 hours it's how cool it is to be a naval aviator so I'm really looking forward to flying. jack and you ain't got anything you're not looking forward to all right another question from social media now a couple more I know we've touched on this earlier but it's worth reiterating TJ on Facebook wants to know how many of you
were inspired in part by the NASA outreach through its Education Office

absolutely I was in when I was University Diego I put in a request and put a proposal in and got to do the reduced gravity student flight Opportunities program and came out here to Ellington and that I think is through the Education Office incredible opportunity incredibly inspirational there's a couple key phrases we got mentioned to be there that I have never forgotten and things that inspired me there for sure that's awesome things from Holley my daughter just graduated
high school and last month visited NASA in Florida she was inspired to major in engineering at college this fall what are some other things she can do to achieve her goal of working at NASA someday I've got the mic right now I continue to do what you love right you know astronaut was always an option in the back of my head or the front of my head as I went through life but just continue do what you love and the pieces will fall in every time I learn to be a team player now also that but so I actually I
actually started out as an engineering major in college and I found that that wasn't what I loved it wasn't what I was passionate about and so I actually went back to the kind of requirements for being an astronaut because I knew then that that was kind of the end goal and found that that you can major in any stem field so science technology mathematics and so that's how I fell into geology and particularly planetary geology and that path has led me here so I would say that keep those super-high goals but but know that your
path to get there may change well and on

the on the subject of being a team

player you played on quite a few teams I

think you think that had anything to do

yes I played sports most of my life I in

college in particular I played rugby on

the Stanford women's rugby team and also

played on the national team as well

national within seven

b-team and definitely that experience

has helped me understand the importance

of teamwork and discipline and working

towards goals and putting in that hard

work and dedication so certainly I think

00:24:01,400 --> 00:24:08,570
that has shaped Who I am today and

00:24:03,259 --> 00:24:13,059
helped me get here any other question

00:24:08,569 --> 00:24:13,059
I'm going to close with one for Chris

00:24:16,240 --> 00:24:20,750
having the opportunity to make the phone

00:24:18,710 --> 00:24:26,000
calls to offer you guys jobs except for

00:24:20,750 --> 00:24:28,069
Bob's infant and and there's lots of

00:24:26,000 --> 00:24:32,000
emotion in those phone calls but by far

00:24:28,069 --> 00:24:33,889
the most emotion Zena was your phone

00:24:32,000 --> 00:24:36,170
call can you tell us or share with the

00:24:33,890 --> 00:24:38,240
audience what was going through your

00:24:36,170 --> 00:24:40,750
mind where were you and what happened

00:24:38,240 --> 00:24:44,900
when you hung up the phone after you

00:24:40,750 --> 00:24:46,190
said yes to us sure um so we knew the

00:24:44,900 --> 00:24:49,460
day that we were going to get the phone
call and my fiancé is actually out on a research vessel right now and so I asked a couple of very close friends to first keep the secret and second come keep me company come babysit me so they made me breakfast tacos and we were sitting around in my living room and there's a series of photos of that morning where you can just watch my face going from you know anything could happen this is going to be a great day no matter what - just like oh no I'm you know as I'm just losing energy losing hope and then a photo of me getting the phone call and
you know I had my hand over my heart

because it was just absolute utter

overwhelming emotion you know I I

haven't stopped smiling since but I

really I don't think I've ever smiled

that big in my life it was it was

awesome and right after that I

immediately called my fiance I woke him

up in his bunk he was asleep he was on

the night shift and according to my

friends I didn't even tell him I got the

job I'm just you know sort of laughs

crying over the phone yes and I guess he

figured it out but yeah getting getting
to share that moment with those friends

and

everyone that was just awesome through

on the phone and we had our hands on our
hearts lose oh it's really very thank

you

all right well Christmas you got to
spend a lot of time with these guys
during the interview process and you
were one of many who work to get the
18,000 plus applications down front down
from 18,000 to 12 anything you'd say
about this class and kind of what you
see going forward for them in the future

00:26:27,829
well I think their egos are blown up

00:26:26,148 --> 00:26:29,538
quite enough already so I don't need to

00:26:27,829 --> 00:26:33,168
let them know how great they are but no

00:26:29,538 --> 00:26:35,628
in all seriousness getting down from

00:26:33,169 --> 00:26:37,639
18,000 to some manageable number was a

00:26:35,628 --> 00:26:39,769
feat in of it in and of itself and we

00:26:37,638 --> 00:26:42,798
physically interviewed 120 people here

00:26:39,769 --> 00:26:46,669
in Houston obviously these 12 were were

00:26:42,798 --> 00:26:49,190
part of that and that's when it really

00:26:46,669 --> 00:26:50,960
gets hard I thought the 18,000 to 120

00:26:49,190 --> 00:26:52,909
was difficult but that's all paper and

00:26:50,960 --> 00:26:55,579
there's no emotion we don't know the

00:26:52,909 --> 00:26:57,049
individuals as people yet and then we

00:26:55,579 --> 00:26:59,148
spend an hour with them in the

00:26:57,048 --> 00:27:01,819
conference room and socialize with them
in the evening and get to know all the

individuals personally and it was really
hard to make some of the other phone
calls to the folks that you guys met

with and interviewed with and know that

there's some really talented capable

people out there but we're so happy to

have these twelve and it was just a real
treat

to invite and talk about those

particular names in these particular

faces and make the phone calls to bring

him here we're just really excited to

get started and get them going and
integrate them into the office we're looking forward to getting them back here in August and I think we have one more question then we'll wrap up okay Keisha Rogers 21st century again I just wanted to ask that remembered earlier someone was saying that they had four children and the wife I couldn't remember who it was and I'm sure the rest of you all have husbands wives children and that's a big really big undertaking there how how's your family taking it what is the support level from the family and then also how do you
transition from family life to the career yeah so I think most of us would agree we all have amazing spouses or partners or family members I mean date again it's just the amount of support you need to do some of the things we've been blessed to do is immeasurable and you know but it's also important you know you read these resumes and you look at our careers and you think that all you ever do is work but I think it's really important to have balance in life and I personally have tried to do that at every step of the way you know they
may not get a ton of time at the time.

00:28:44,298 --> 00:28:48,769
time that they do get try to make a

00:28:46,190 --> 00:28:51,558
quality and sometimes you have to just

00:28:48,769 --> 00:28:53,990
put down the work and focus on family

00:28:51,558 --> 00:28:55,898
and if that means passing up a goal or

00:28:53,990 --> 00:28:58,548
an accomplishment then so be it

00:28:55,898 --> 00:29:02,719
fortunate enough that it's worked out

00:28:58,548 --> 00:29:05,329
okay so far but I think that balance you

00:29:02,720 --> 00:29:06,679
know to is an advice that I try to give

00:29:05,329 --> 00:29:10,308
to all young people that I talk to

00:29:06,679 --> 00:29:11,899
because because it's important all right

00:29:10,308 --> 00:29:13,668
I think that's a great note to wrap on

00:29:11,898 --> 00:29:14,928
wrap up on so we're going to say goodbye

00:29:13,669 --> 00:29:16,850
but of course you're going to want to

00:29:14,929 --> 00:29:20,538
find out more about these guys you can
go to nasa.gov slash 2017 astronaut for
their BIOS and photos and lots more
information thanks for joining us