

NASA Virtual Town Hall: Ask the Administrator

Speakers:

JIM BRIDENSTINE, Administrator
STEVE JURCZYK, Associate Administrator
J.D. POLK, M.D., Chief Medical Officer

Moderated by **BETTINA INCLÁN**,
Associate Administrator for Communications

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BETTINA INCLÁN: Hi. I'm Bettina Inclán with NASA's Office of Communications. Thank you for joining us for this virtual town hall with NASA Administrator Jim Bridenstine. Today we'll be answering questions about the agency's response on coronavirus also known as COVID-19. These questions were submitted by NASA workforce. Joining the NASA Administrator is Associate Administrator Steve Jurczyk and NASA's Chief Medical Officer, Dr. J.D. Polk.

Earlier this week, we asked the NASA workforce to submit their questions through our IO platform on nasa.gov/townhall. We will go through those questions in order and how they were ranked by the workforce, taking the questions with the most uploads first and then going down the list. We hope to answer as many questions as possible. If you're watching this, you've accessed the video of the virtual town hall, and we'll provide this information in written form on nasapeople.nasa.gov. Also, we'll be doing more of these Ask the Administrator videos in the days to come to ensure we're responding to as many questions as possible.

But for right now, let's turn it over to NASA Administrator Jim Bridenstine for some opening remarks. Jim?

ADMINISTRATOR JIM BRIDENSTINE: Well, thank you, Bettina, and I certainly want to get to questions as quickly as possible, but I just want everybody to know that our number one, highest priority as an agency is your health and your safety, and we don't want to ask you to do anything that you feel is unsafe. If you are asked to do something that you feel is unsafe, please communicate with your supervisor, but know that you will have our support to do nothing that you feel is unsafe. Our priority is your health and safety, and we will continue to make that our highest priority.

As always, we ask all of our employees to follow the guidance from the White House Coronavirus Task Force, the Centers for Disease Control, and of course, your state and local authorities, which, at this point, many of our centers have very restrictive kind of capabilities based on state and local authorities. So I just want you to know that I'm looking forward to getting into the questions, but as always, we want you to be safe and take all the necessary

precautions as we continue to, in some cases, telework and, other cases, actually work on-site and, in other cases, really not work at all, isolate and/or find a—stay at home.

So, Bettina, I'm happy to go into questions whenever people are ready.

BETTINA INCLÁN: Thank you, Jim, Steve, and J.D. We're going to go into questions. The first question is NASA has many unique and rich resources that can help our nation win the war against the coronavirus. Why cannot NASA manufacture ventilators? We can rapidly design, build, test, and manufacture large-size ventilators that could be used to simultaneously support several patients. That is what our great nation needs at this moment in history. We can undoubtedly help.

ADMINISTRATOR JIM BRIDENSTINE: So I think that's a wonderful statement and a great question. I think this is why all of us love working at NASA because we really do have an absolute can-do spirit, and we want to do the things that are going to help this nation the most.

So, in a few seconds, I'll turn it over to Steve to talk about kind of the big picture, how NASA can help, and I'll turn it over to J.D., Dr. Polk, to talk specifically about the ventilators, which were embedded in the question. But I think the big thing is NASA does have a lot of capabilities.

We're seeing those capabilities being put to use right now all across the centers, across the nation, but when we look specifically, one center that got in front very early was Ames. And they opened up the Ames Research Center to having the California National Guard establish clinics and even makeshift hospitals, enabling the old Moffett Field to become one of those places where people can go get health care if they need health care as it relates to the coronavirus.

We also see the Ames Research Center enabling supercomputer capacity so that the researchers that are looking for either treatments or a vaccine, those researchers have access to the Ames Research Center supercomputer.

We also see Ames offering its great biologists. When we think about planetary biology, the idea that we could find life on another planet, we've got a lot of great biologists there at Ames, and they're being offered and requested. So I really think Ames is stepping up in a big way, but that's happening all across the nation as it relates to our centers. And, certainly, I think there are opportunities for more support from NASA.

Steve, I'll turn it over to you to talk about what those possibilities might be and how the NASA workforce can engage in it.

STEVE JURCZYK: Thank you, Jim. We have several activities to kind of organize our efforts to help combat the COVID-19 situation. The first is we're participating in meetings with the White House on coordinating the Federal Government's response across agencies, with Department of Defense, Department of Energy, National Science Foundation, NASA, et cetera. So we're

making sure we're staying coordinate and synched up at the federal level to see how the Federal Government can provide assistance to state and local governments, the health care sector, and industry in general. So that's one thing we'll continue to do and identify opportunities through that mechanism.

The second thing is we're going to set up a NASA at-work internal challenge for everybody in the agency. So STMD is going to work with the Johnson Space Center and Dr. Polk to set up a challenge. We're going to put specific areas where we think we can best contribute and solicit anybody from the cross-agency's ideas on addressing the challenges and contributing to those areas where we think we can help, and we'll prioritize those. And we'll figure out how to get those up and running and resource those.

The third thing is companies—state and local governments and companies are reaching out directly to our centers, and we want that to continue. Our center leadership is looking at those opportunities and meeting with companies and figuring out how we can best help, including manufacturers. So that will also continue, but we'll hopefully have this NASA at-work challenge up and running pretty soon. So everybody in the agency can submit their ideas, and we can prioritize those.

So now I'll turn it over to Dr. Polk to talk specifically about ventilators.

DR. J.D. POLK: Yeah. The ventilator question is a great question, and although we have ventilators in the national stockpile, there's estimated that we will have a gap. Where do we vector our engineering expertise and our knowledge expertise? There's a national call going on tomorrow that JPL, the NASA Engineering and Safety Center, folks from STMD and the Innovation Challenge will all be on there in addition to DHS, HHS, the Assistant Secretary of Preparedness and Response, and the FDA to figure out where we can vector that expertise. It may not be just in building of ventilators, but it may be in helping the companies that already build ventilators change their ventilators. It could be coding, for example, to allow a ventilator to treat multiple patients. It could be 3D printing of parts that are in short supply for those ventilator manufacturers. So that will help us focus our expertise to where the needs really are, and I think that comes together tomorrow. It's a whole-of-government approach to try to find out how we can turn on the expertise of multiple federal agencies and especially NASA towards that end to help in this COVID-19 pandemic.

ADMINISTRATOR JIM BRIDENSTINE: I think the important takeaway is that—I think the person who asked this question—obviously came to the top of the list. So this is on the minds of a lot of people at the agency.

Just know this. Your agency, NASA, is involved in providing solution sets for the nation, and we will be more and more involved as days go on because we do have an extremely talented, very bright workforce and a lot of capabilities that can help. So we are very focused on seeing where we can help the nation at this time.

BETTINA INCLÁN: Thank you so much. Our next question is, are you working to guarantee contractor pay?

ADMINISTRATOR JIM BRIDENSTINE: The answer is yes, 100 percent. When we talk about contractors, different people have different things in mind. But, of course, our civil servants are going to get paid. Then we have government support contractors that work side by side with our civil servants.

I got a call a number of days ago from Representative Posey, Bill Posey, who represents the Kennedy Space Center. He brought this up to me. He said, "Hey, look, some of our contractors are going to have to go through furloughs or layoffs," and, of course, we went high order very quickly and started looking at clauses in contracts that can prevent that from happening. So if you're a government support contractor and you work at a center that has gone to—if you don't have access to that center because they're going to telework and you don't have the ability to telework, there's an opportunity there that you get denied access to the center where your work is to be done. There's a denied access clause in your contract, which means we can pay the contractor who can then pay the employees because you were denied access. So that's important to note.

It's also important to note that some contractors, support contractors don't work on the center itself, and so you're not denied access. But at the same time, you might not be able to get to work. In cases like that, we're going to lean forward, and we're going to issue stop work orders so that your contractor, your company can actually make a request to get reimbursed for the work they would have otherwise done.

So, look, I will tell you we have turned this over to procurement. Monica Manning has done an amazing job. We've turned it over to our lawyers to figure out what are the ways by which we can keep people whole while they are in this very difficult circumstance where they are being denied access to work or maybe they don't feel safe going to work. These are all challenges that we need to work through.

But we do think we have some really good solution sets that will enable everybody to get paid who is either a civil servant or a contractor working for NASA, and that's our highest priority. As you know, we have a lot more support contractors than we actually have civil servants. So we want to make sure that all those people are whole. We're going to continue working on it, but I think we've got a good solution set.

I also think that when the House and the Senate pass a bill, there could be language in there that would make it even easier. These are all things that we want to make sure happen for the benefit of all the people who work for NASA.

Steve, I know you've probably got some thoughts as well.

STEVE JURCZYK: You know, you really covered it very well, Jim. What I'll say is this week, in implementing what you just described this week, the whole procurement community has been working very diligently to get letters out to our contractors, both our contractors who work on-site as well as our contractors who work at their facilities. Some of those letters went out on Monday. Some will go out from the center procurement offices today, and that will start the process that Jim described, which we think we can execute relatively quickly. And it will also allow us to pay contractors who are not able to telework and not able to get to a center or work on their sites before we issue the letter. It will be retroactive. We figured out a way to do that also.

So if you've been at home, not able to telework, not able to work, you'll get paid, and then moving forward, you'll also be able to get paid. Then when we're done with the outcome out of the emergency situation, we'll then make adjustments to contracts and move forward. So I think we have a—procurement did an excellent job with OGC, Office of General Counsel, coming up with a plan, and we're implementing it this week, so that's it. Thanks.

BETTINA INCLÁN: Thanks, gentlemen.

ADMINISTRATOR JIM BRIDENSTINE: I would add one more thing, Bettina, if it's okay.

BETTINA INCLÁN: Yeah.

ADMINISTRATOR JIM BRIDENSTINE: I know this is very important to a lot of people personally. I would also say this is an important issue for the nation because we want to make sure that when we do get back to work, as Steve just suggested, that we haven't lost a big chunk of our workforce. We want to make sure that when we do get back to work, we can come back full steam and get as much work done as possible and return as quickly as possible. So I think it's important for our nation that we do everything possible to continue to make sure that all of our people get paid, even the government support contractors that sometimes in these circumstances would not.

BETTINA INCLÁN: Thank you. Our next question is, If the President directs NASA and other federal agencies to resume normal operations against CDC or NIH or other medical advice, how will you proceed?

ADMINISTRATOR JIM BRIDENSTINE: So I don't think that that will happen. I think that's a very, very, very low probability. I just can't imagine the President giving a directive that would be contradictory to CDC.

But I would also say this. Here's what I have heard the President say. He has, you know, an agenda to get America back to work eventually. That's absolutely true, and of course, aspirationally, he has suggested that maybe even Easter would be when we can start that. But if you listen to everything that the President has said, he's been very clear that the highest priority on his agenda is the health and safety of America. That's the highest priority. And

number two, he's going to make decisions based on the data and the information that is available, and of course, that's going to be based on the conditions on the ground.

I think what we have to do as an agency—we went—and I think we did a really good job—going from Stage 2 to Stage 3 to Stage 4, in some cases very quickly, in other cases not so fast, but I think we made really good decisions getting in front of it as early as possible. But we have to remember that there's going to come a day when we're on the back side of this, and we need to be planning today for how do we go from Stage 4, in many cases, back to Stage 3 and then to Stage 2 and then back to eventually normal operations.

I don't know when that's going to happen. I don't think anybody knows when that's going to happen. What we do know is that this will be behind us at some point, and the President is going to make decisions based on the data and the information that we get in the coming weeks and months. So I have every bit of confidence that this agency is going to make good decisions.

Finally—and this is so important. I should have said this up front. Your NASA Administrator, me, will not ask anybody to do anything that they deem is unsafe, period. I just want to be really clear about that. If you think something is unsafe, then don't do it. Talk to your supervisor. Make sure you're communicating. Don't just not show up, but please, please, please don't do anything that you deem is unsafe. Your safety is my highest priority, and you've got my commitment to continue defending your decisions because I know this agency has a lot of people that like to do work, like to do really impressive work. This is an agency filled with amazingly talented people who love to do what they do, but if you feel it's unsafe, you'll have my support.

BETTINA INCLÁN: Thank you, Jim. Which leads into our next question very easily. How long do you anticipate all centers will stay at Stage 3 or above?

ADMINISTRATOR JIM BRIDENSTINE: I think it's going to be based on conditions on the ground. Obviously, we've got governors in different states that have put out an order for basically shelter in place. That makes it very difficult for us to continue doing some work. There's other work that is essential work, but we will make, I think, these decisions based on conditions on the ground.

I know, Steve, you've already been working on how to come back from this eventually, but I'll let you kind of share what your thoughts are on that, Steve.

STEVE JURCZYK: Sure. Yeah, Jim. First, I want to kind of talk about our response framework. We put this system in place, the initial framework in place about a month ago, to guide our decision-making, risk-based decision-making, like you said, Jim, based on conditions on the ground to protect—with the number one priority of protecting our employees while getting the work done that we can safely get done.

It's evolved since we first put it in place over the last several weeks because we didn't anticipate things like local and state shelter-in-place orders. So we have evolved it as we've moved through.

Just real quickly, Stage 1 is normal operations, but we're preparing for maybe to move to Stage 2 where we're going to start to constrain operations. We're making sure people can telework, they have agreements, they have the IT that they can effectively telework, and it's more of the preparation stage, Stage 1. We also are starting to look at travel. Can we do things virtually in Stage 1 effectively? If not, then travel—the centers can authorize travel. So that's Stage 1.

Stage 2, we're really looking at conditions on the ground changing and being a little bit more conservative and protecting our folks. So we're encouraging teleworking, and everybody who can telework should telework and limit the number of people we have traveling and are on the center. We will allow people on the center for the work at the center that needs to be physically done at the center, so, generally, whether it's mission-critical or not. But we are restricting travel. It's mission-critical travel only because we don't know how the conditions are changing across the country. We're not traveling internationally at all. If we are, it's only in extremely high-priority circumstances. So we are going to constrain travel under Stage 2.

Now, Stage 3, it's mandatory telework. Mandatory telework, we are restricting access to the center under Stage 3, and we're really looking at what we need, can do safely and need to do on the centers. We are looking for people who normally would be on the center doing work to do sort of creative teleworking, training, and maybe some catch-up work like we're giving procedures. And we're really scrutinizing travel for mission-critical travel only.

Then in Stage 4, the center is, for all intents and purposes, closed, and we're really restricting access in Stage 4. We've moved most of the centers to Stage 4 that have shelter-in-place orders, either locally or statewide. It's people, personnel on the center for mission-critical work, what we call our "mission-essential functions" that we do for the nation. So those are things like the space network TDRS, the Near-Earth Network, the Deep Space Network, International Space Station, and a few other things that we do that are important to the nation. Those are really the only activities that we're going to move forward with under Stage 4 and support under rare exceptions in Stage 4. And we're really going to scrutinize travel and really limit travel under Stage 4. We're really focused in Stage 4 on the personnel in the center are there to protect life and critical infrastructure, perform these national mission-essential functions that we have, and in rare cases do other mission work if we can do it safely.

One of those rare cases in a location that's under a shelter-in-place order is JPL in California. We are continuing work on the Mars 2020 mission, and because of the launch window and the criticality of making the launch window starting July—which opens up July 17th, because if we miss that window, it's a 26-month delay and a big impact to the program and to Science Mission Directorate. So, mostly, it protects—under Stage 4, it's protection of life and property, our mission-essential functions that we do for the nation, and then in rare cases, we'll approve other work if it can be done safely.

So I want to walk everybody through the framework. Now, in going and staying at Stage 4 or Stage 3 and moving from 4 to 3 and 3 to 2, Jim is exactly right. It's going to be a risk-based decision based on conditions on the ground, in the local area, in the state. As we call what's been referred to as "bending the curve," it's the number of cases, but it's the rate of increased cases, and we start to, quote/unquote, "bend the curve" and protect. Shelter-in-place orders get lifted. We will then look at moving from Stage 4 to 3, centers at 3 to 2, and then back to 1, normal operations and just looking and monitoring the situation to make sure things don't deteriorate again and we might have to move back to 2 or 3. We're being very conscious to not make—to be careful about the decision to go from 4 to 3 or 3 to 2 and not do it too early because conditions can deteriorate. Then we would be back. If we go from 4 to 3, in a day or two, we could be back, back in 4 again. We want to avoid moving back and forth between stages at a specific center or location.

So, again, risk-based safety is the number one priority, conditions on the ground, and we'll make decisions using our response framework.

BETTINA INCLÁN: Thank you. That's great. This next question, I'm going to send it over to Dr. Polk. Is it possible for NASA to donate clean room gear—masks, gloves—to local hospitals that are desperately in need?

DR. J.D. POLK: Oh, that's a great question too. We've had that question at least in our In Box probably dozens of times each day. The short answer is NASA orders its PPE in a just-in-time basis. We don't have a massive stockpile of PPE in which to donate. We also have some critical missions that JPL and Mars 2020 and the ISS that we are utilizing our PPE toward and actually have had to send PPE from other centers to Stennis and Goddard and to other places to help execute those very critical functions.

But in places where we might have additional PPE, whether that's boxes of PPE that are not in use, we're taking a look at that with legal and other folks to figure out how would we donate those, what's the right method, and also to make sure it's the right PPE. We don't want to put out PPE that's not really going to be protective for folks as well, but we're looking into that right now and have a lot of folks turning on that to figure out if we do have additional items where we can donate it.

BETTINA INCLÁN: Thank you. Our next question is perhaps one positive of the situation is that it's brought to light how many positions can effectively be done via 100 percent telework. How will the agency continue to implement full-time telework for those interested and able once things settle down?

ADMINISTRATOR JIM BRIDENSTINE: So that's a great question. I know at headquarters, for example, we have a lot of people that have telework agreements, and it's been very, very successful. And I think that's true around NASA at large. Some centers have more ability to telework than others, but telework is an important capability. I will tell you right now, we don't have a big plan to roll out a new framework for more telework, but certainly, it is something I'm

supportive of. And, certainly, we as an agency are very unique in the sense that we do have a lot of people capable of teleworking, and that's really enabled us to avoid a lot of the crisis that otherwise would have ensued.

When we could very early make a decision to have people telework as much as possible, and then some of those folks that were teleworking actually came down with coronavirus. But they hadn't been to work for a number of weeks. So it prevented us from having to go back and trace all of their contacts and shut down buildings at the center and those kind of things.

So teleworking is a great tool. We need to continue to use it. We don't have a big plan to roll out a new program or anything, but, Steve, I'll turn it over to you if you have any other thoughts.

STEVE JURCZYK: Yeah. And I think you're right, Jim. We've learned a tremendous amount, and we're also kind of, with the support of the Office of the Chief Information Officer, OCIO, kind of upped the game on use of tools. I never used NASA teams until last week when I was at home working full-time and used it to do many meetings each day and cover kind of all of my telecon meetings to NASA teams' meetings. We're also using WebEx. We're working on ways to expand the use of those. I was looking at the use of those tools to be able to videoconference with organizations and people outside of NASA. So there will be instructions on how to do that.

So I think we've developed and matured a lot of capabilities that we can use moving forward, and we ought to take advantage of that because I think through use of the teleworking and use of those tools, we can be more productive and maybe cut down on travel time and travel expenses and do virtual meetings more often and do them effectively. So I think you're right. We'll think about it, but we're not going to plan right now to roll out a new telework program or anything like that. But I think we ought to think about how can we do our – run organizations, manage our programs and projects differently using some of the capabilities that we've exercised during the COVID-19 response.

BETTINA INCLÁN: Thank you, gentlemen. Our next question is, other federal agencies have granted 20 hours of administrative leave per pay period to employees with dependents who are no longer able to attend school or daycare. Can NASA consider a similar benefit for its employees?

ADMINISTRATOR JIM BRIDENSTINE: Yeah. So I will tell you that currently the U.S. Government is looking at this governmentwide through an organization called OPM, the Office of Personnel Management, and so depending on—and I know they're working with OCHCO right now, the Office of the Chief Human Capital Officer. They're working hand in hand to figure out what is in the realm of possibility to provide relief to the people who, like this person who asked the question, need help. So the answer is yes. I don't know what it's going to look like right now. I know that when OCHCO comes up with the guidance, they will be communicating directly with our entire workforce. So that's important. We want to provide

help where we can provide help. It's not NASA-specific. It will be governmentwide through OPM, the Office of Personnel Management.

Steve, if you have any more insight, I'd love to hear it.

STEVE JURCZYK: Yeah. I think we got communications from OPM yesterday, and it authorized us to allow people who are teleworking, who need to take care of dependents, children, and other dependents, to authorize them to use 20 hours of what we call "weather and safety leave," also known as "admin leave," per pay period. So OCHCO is going to put out implementing guidance for that to the human resource business partners at the centers and then down through the organizations.

They said also in rare cases, we can grant more than 20 hours of administrative leave per pay period if somebody is teleworking and has to take care of dependent children or other dependents.

So you're absolutely right, Jim. We got a little bit more specific guidance from OPM yesterday that's governmentwide, and OCHCO is going to put out guidance this week on implementing that. But people who need to take care of dependent children and others will be able to take 20 hours of admin leave per pay period at a minimum and up to 20 hours and maybe more under unusual circumstances and not have to take their annual leave.

ADMINISTRATOR JIM BRIDENSTINE: That's great to hear.

BETTINA INCLÁN: Thank you, gentlemen. One of the issues of working with telework is sometimes we don't always have the great internet that we usually have in our offices. I know for a moment, we lost Dr. Polk. Dr. Polk, are you back with us?

DR. J.D. POLK: Yeah, I'm back. Thanks, Bettina. I thought you guys were awfully quiet for a while and being very still. The joys of work.

BETTINA INCLÁN: Well, thank you so much. I know that a lot of people watching understand. They're facing similar challenges, just the unique situation of working from home these days.

Our next question is—it's not a question. In fact, it's a comment, but it has lots of up-votes. I would like to express my gratitude for NASA administration and center leadership taking every effort and making hard decisions to alleviate the health of the worker workforce above mission—I'm sorry—to elevate the health of the workforce above mission-critical schedules. I know these are costly decisions, but without hesitation, these decisions were executed in support of the family of NASA. Thank you.

ADMINISTRATOR JIM BRIDENSTINE: Wow. I think that's awfully nice to hear, and the person who wrote that obviously understands that a lot of very difficult decisions have been made by center directors. I know Dr. Polk and Steve Jurczyk and others within the NASA headquarters,

yes, we've all been working very hard to make difficult decisions. I will tell you they haven't all been easy. We made a decision early to close the Michoud Assembly Facility, move it to Stage 4, I should say, even though they hadn't had a case yet. But we had seen at Stennis that they have been a couple of cases.

There was a huge breakout in New Orleans, and I had a phone call with Dr. Polk and Steve Jurczyk. And we made a decision that we needed to move quickly to protect the workforce there because if one person gets a fever there, those are really close in—I know it's a big facility, make not mistake, but when you work on a rocket, a lot of people have to work very close to each other. And that could have really spread quickly, and so we made a decision to move to Stage 4.

We may have gotten some criticism for that, but within a day or two, the Governor of Louisiana made the same decision, anyway, because of how quickly the outbreak was occurring there in New Orleans.

I think we have done what we could to do everything possible to keep our people safe. It's what our commitment was from the beginning, and it's what our commitment will continue to be. I'm very grateful that somebody had that to say.

Steve, if you have anything, or Dr. Polk?

STEVE JURCZYK: No, Jim. I think that the only thing I can add is that we really have tried to be proactive, really look at conditions on the ground and make decisions based on not only the current conditions but, like you said, where things are headed and be proactive and try to stay out ahead of this with a singular focus on protecting the health and safety of the workforce.

DR. J.D. POLK: Yeah. We've avoided some issues by having folks—when they came back, they were already teleworking, when they actually turned out to be positive for the virus, which prevented it from spreading through the workforce. Every time we've made a decision and we felt like maybe we're leaning too far forward, the world catches up to us very quickly, and it turns out to be a good decision.

BETTINA INCLÁN: Yes. Well, thank you, and thank you to everyone that's working on this issue.

Our next question, it is a repeat, but I still want to ask it and see if anyone has additional thoughts. Under what circumstances will NASA deescalate the stage agency-wide to Stage 3?

ADMINISTRATOR JIM BRIDENSTINE: Yeah. I mean, I think it will be based on the conditions on the ground, based on the data that we're seeing and the local and the state guidance that we're receiving. But I think Steve gave a really good rundown earlier about the different staging and how we go from 1 to 4 and how we go from 4 back to 1.

Steve, if you have anything to add, I'm happy to yield to you.

STEVE JURCZYK: The only thing I didn't mention under the mission-essential functions that we do for the nation under Stage 4 and other stages also, obviously, is our other missions and operations, all our science missions and other missions in orbit in addition to ISS. We're going to continue to operate those. A lot of them have highly automated operations, but there are some personnel that even if they come in to operate those.

We know ESA has put some of their spacecraft into safehold mode, so they can kind of have 100 percent automated operations and just reduce the amount of people that need to work. We're looking at that possibly if things deteriorate further, but we're going to maintain all our operating—all our missions in space in mostly normal operations for now.

BETTINA INCLÁN: Yeah. And I do want to remind everyone that recently last Friday, we put out a press release kind of explaining what those mission-critical—these missions that both Steve and J.D. and the Administrator are talking about, a list of those to give a little more clearance. So I would advise everyone, you can go to the website and look at that press release to get a little bit more information. Our next—

ADMINISTRATOR JIM BRIDENSTINE: Hey, Bettina?

BETTINA INCLÁN: Yes.

ADMINISTRATOR JIM BRIDENSTINE: If I could just add. You know, when we talk about these mission-essential—the work that we're doing for our mission-essential kind of work, I think it's important. Again, we want to make sure that anybody who is feeling unsafe recognizes it and chooses the right decision to be safe. I think that's the highest priority.

I will also say this morning, we had a meeting with Dr. Zurbuchen, Thomas Zurbuchen, who is the head of the Science Mission Directorate, and he was working with some folks out at JPL who are very keen on Mars 2020. And the work continues on that, now called "Mars Perseverance," which I love. I love the name "Perseverance" because that's what we do as an agency. We persevere.

But I will say that one of the leaders there at JPL said something to Thomas that I think is important. What he said was we are going to create the conditions such that if you come to work to work on Mars Perseverance, which is going to launch here this summer, we want your work conditions to be even safer than if you were to stay at home, and that's the kind of leadership that I think is important for the agency. As we go forward with mission-essential work, we need to make sure that that doesn't mean that we're not safe. That means we're even safer. We need to do everything possible to do all of the social distancing and give people protective equipment when necessary so that we can do these mission-essential functions, but we can do it even safer than if you were to stay at home. I know that's a tall order, but certainly, it's something that we can aspire to and work towards.

BETTINA INCLÁN: Absolutely. Thank you so much. We're going to go to our next question. During these tough economic times, is there any chance of cutting staff or funding to any program?

ADMINISTRATOR JIM BRIDENSTINE: I will tell you I don't see that. Right now, NASA has the highest budget in nominal dollars that we've ever had in the agency's history. The budget got passed with bipartisan support, and of course, the 2021 budget that has been requested by the President is even a lot higher. We're talking about going from \$21 billion to \$25 billion. For the first time in human history—or for the first time since 1972, I should say, funding a human landing system to, no kidding, take the next man and the first woman to the Moon. So these are big agenda items.

We look at the bipartisan support we have, the support we have from the President. I think we're in good shape as an agency for continued growth in our budget.

BETTINA INCLÁN: Great. Our next question, what happens if the work content that can feasibly be accomplished via telework runs out? Must we then use accrued leave?

ADMINISTRATOR JIM BRIDENSTINE: Steve, I'll yield to you on this one.

STEVE JURCZYK: Yeah. So we're using telework to the maximum extent possible. Every center is under mandatory telework because they're in Stage 3 or Stage 4. We're asking supervisors to be creative with their employees who don't normally telework and on-site didn't work, like I mentioned, catch up on training, catch up on maybe taking courses that are relevant to their job, updating—reviewing and updating procedures. So there is work that can be done that maybe you hadn't gotten around to do because you've been busy on the center doing your work, right? So there's that.

However, at some point, even after being creative about what work you can do, training, coursework, procedure review, you may run out of work and if you normally don't need to be on the center to do your work. In those cases, your supervisor can authorize you to take the weather and safety leave, what we call "administrative leave," and not use your annual leave and preserve your annual leave in that way.

So, again, telework to the maximum extent possible, get creative about what you can do at home if you can't come to the center and need to, and then if you absolutely run out of telework to do, then your supervisor can grant you admin leave.

BETTINA INCLÁN: Thank you. Next question, has NASA leadership formulated a plan or established criteria for transitioning back from Stage 4 to 3 to 2 to 1?

ADMINISTRATOR JIM BRIDENSTINE: Yes. I think that's what we're working through right now. That's ultimately the direction. Most of our centers are either in 3 or 4 right now. So we need to start thinking about what does it take to go from 4 to 3, what does it take to go from 3 to 2,

and I think it's all going to be based on conditions on the ground. It's going to be based on the guidance that we get from the White House Coronavirus Task Force, from the CDC, and then also from state and local authorities that are very relevant to the local centers across the nation. Again, it will be based on conditions, but certainly, when we get on the back side of the curve here, we need to start thinking about how we go back to work in an orderly way.

But we also want to make sure—and, Dr. Polk, you alluded to this earlier, or maybe it was Steve. We certainly don't want to go too early, because then we have to go back up the chain, which creates a lot of challenges, a lot of disruption. It's better to stay in 4 or stay in 3 for a long period of time rather than go back and forth, which can be more problematic than just staying where we currently are.

BETTINA INCLÁN: Thank you. We have this next question. Why are contractors working, putting themselves at risk, while civil servants work from home?

ADMINISTRATOR JIM BRIDENSTINE: So I don't know that that is necessarily accurate. Some people are working and some people are not working or teleworking, but it's not based on who's a contractor necessarily and who is a civil servant. It's based on what missions are essential, given the priorities of the nation.

So when we think about the International Space Station, the International Space Station is a \$100 billion investment by the American taxpayer. We've got humans on board right now, and we've got to make sure that they're kept safe. Also, now it's had humans on board for 20 years in a row, and it's doing amazing science for the nation and, in fact, for the world. Medical science, we're talking about, maybe not necessarily for the coronavirus but vaccines and other types of medicine, and of course, there's a long story about how important the International Space Station is.

But I think the point is that there's a lot of government support contractors that work to make sure that the International Space Station continues to function, and there's a lot of civil servants that work to make sure that the International Space Station continues to function. So it's not based on whether or not you're a contractor or a civil servant. It's more based on whether or not what you're working on is mission-essential.

It's also important to remember that even if you are working on something that's mission-essential, we want to practice all of the guidelines that are necessary to keep people safe. And if you feel you're unsafe, remember you have my support. If you think you're doing something that is unsafe, tell your supervisor, and then you'll have my support to do something different because we don't want you to do anything that you feel is unsafe.

BETTINA INCLÁN: Thank you. Our next question, NASA centers have some N95, P95, and R95 masks. Has there been an effort to find all unopened masks and give them to medical professionals? We've kind of addressed this, but I don't know if, J.D., you want any additional information on this.

DR. J.D. POLK: Yeah, I think we pretty much addressed that one. Obviously, we're trying to make sure we can save our hardware and save our missions, and if we do have the ability to give excess equipment, that we do it in the right way and to the right folks. We are looking into that, but we want to make sure that we give them the proper equipment too.

BETTINA INCLÁN: Thank you. This next one is also a little bit of a repeat, but I'll read it. NASA should mobilize to design simple and quick-to-fabricate ventilators that can be manufactured within weeks rather than months. Mars and Moon and electric airplanes can wait. There's an urgent need for ventilators to save tens of thousands of lives in the certain-to-come patient surge.

DR. J.D. POLK: Yeah. We covered that one as well, Bettina. That one, I definitely agree, and a multiagency group meets tomorrow, which includes our NESC and JPL and STMD and multiple agencies to address just that particular issue.

BETTINA INCLÁN: Our next question is another repeat. Is there any administrative leave or flexibility to help support thousands of employees that are now required to teach their children from home? So anything else on this, gentlemen?

ADMINISTRATOR JIM BRIDENSTINE: I think it's been pretty much covered. The Office of Personnel Management is working on government-wide solutions, not just specific to NASA, and they're working with NASA's Chief of Human Resources to make sure that we are implementing their guidance. So I think the workforce is going to learn a lot more in a day or two about those capabilities, and we want to make sure we're communicating as robustly as possible.

BETTINA INCLÁN: Thank you. Next question, is there any guidance insofar as being allowed to return to work? Will we need to be tested negative for the virus before returning and show a doctor's report of that or proof of vaccination? I know that sounds drastic, but I'm trying to understand how we make sure that we have not done this isolation in vain. Dr. Polk, any thoughts on that, or anybody else?

DR. J.D. POLK: Yeah. Actually, that's a great question, and it actually doesn't sound drastic at all if you think about in the 1960s when we had the smallpox vaccination and we vaccinated the entire United States against smallpox at that time.

Right now, what we've learned with this virus is that even after you recuperate, you're still shedding the virus for a period of weeks, and that means that to return to work, you'll either need a negative test, or if that test is not available for you, if they have started to use those tests mostly for active patients, that you wait at least 30 days after you've had the illness, before you return to work, just to give a little bit of buffer from when that viral shedding could occur.

And more than likely, there will be a vaccination program, but we're waiting for national guidance on that. I'm sure a lot of folks at HHS and the CDC are working on that now, to figure out when they will implement that, and clinical trials are currently going on for that vaccine right now.

BETTINA INCLÁN: Great. I think we have time for one more question, and then we're going to turn it over for some closing remarks. This last question is, With so many of us performing our missions from home right now, can you highlight some of the lessons that NASA's astronauts have found most helpful for working in a confined space for long periods of time?

ADMINISTRATOR JIM BRIDENSTINE: I think that's a question for J.D.

DR. J.D. POLK: Well, yeah. Probably, you've seen several of the astronauts blogging or placing their experiences on board, and without a doubt, one of the things that is a recurring theme, whether it's the Antarctic expeditions or in space, is productive work and keeping busy, whether that's teaching your children at home, which is one of the questions that we had, or whether that's doing work for NASA. But doing productive work, getting proper sleep and proper exercise, all of those things are important for your overall health, especially when working at home, probably even more so when you're a captive audience.

BETTINA INCLÁN: Well, thank you, gentlemen. We'll go around the room for some closing remarks. Dr. Polk, anything else?

DR. J.D. POLK: You know, I guess for my closing remark, I'd remark that the White House and CDC have put together a website called [coronavirus.gov](https://www.coronavirus.gov)—again, dot-gov, not dot-com, but [coronavirus.gov](https://www.coronavirus.gov). It is very helpful. It answers a lot of questions about self-isolation, about the testing, some of the questions that we've covered here. And if folks have questions about what do I do if I'm symptomatic, what do I do about testing, many of those are answered on that website, and I'd encourage folks to check it out.

BETTINA INCLÁN: Thank you. Steve Jurczyk, any closing remarks?

STEVE JURCZYK: Yeah, just briefly. During this really challenging time, we just need to be sure we're looking out for each other. Life can be stressful under normal circumstances, and then this stress on top of it can be really challenging for folks, particularly if you're isolated and maybe not working with a group of people. Look out for your coworkers. Supervisors, look out for your folks. Leadership, we need to look out for our supervisors and managers and just make sure everybody is doing okay. You cannot overcommunicate during a situation like this. Communication is key, and we need to continue to communicate and check in with each other and make sure we're all doing okay.

BETTINA INCLÁN: Thank you. Administrator?

ADMINISTRATOR JIM BRIDENSTINE: I think a lot has been covered. I want to reemphasize that the health and safety of the entire workforce is the priority of all of us at headquarters, and I know the center directors feel the same way. If you feel like you're being asked to do something that's unsafe, make sure you tell somebody. We don't want you to do anything that's unsafe. We can figure out something else for you to work on. We can do all kinds of things to make sure that what's being done is in the best interest of the folks who work for NASA. Our employees are really the greatest asset we have as an agency, and we want to make sure that they're well taken care of.

I also want to be clear. We are going to get past this. There's going to come a day when we are going to be on the back side of the coronavirus curve, and NASA is an agency that will continue to do absolutely stunning achievements. And all of America is going to be watching us when we do these things.

This summer, we are planning to launch the Mars 2020 Rover, now called Mars Perseverance. This summer, we are planning to launch American astronauts again from American soil, which hasn't been done since the retirement of the Space Shuttles. So we have really big projects that we're working on that are critically important. The James Webb Space Telescope, that project is still underway. In 2021, we want to see that launched successfully to great fanfare.

Here's the thing. We need to make sure that we're thinking about a future that is bright. We need to think about a future where NASA is doing stunning achievements that inspire not just the nation but the world, and I think that's going to be a really important thing for us to do. Let's not get caught up in these times that seem dark. Let's start thinking about what the future looks like because the future is going to be bright. We will get past this. America will be better off for it. NASA will be better off. We're going to learn things. Certainly, there's nothing we can do when we lose loved ones. That's something that we're going to have to deal with as this goes forward, but it's also true that there's a lot we can learn. And we can move forward, and we can do stunning things. And when we're on the back side of the curve and NASA is doing amazing things, all of America will be very proud of us.

So I just want to thank the entire NASA workforce, the leadership at the centers, and of course, the leadership at headquarters who have been making very difficult and important decisions. We're not out of the woods, but there is a day coming when we will be. And it's going to be a good day. So thank you all for joining us.

BETTINA INCLÁN: Thank you all for joining us for this virtual town hall. As I mentioned before, we hope to do more of these. So thank you all who submitted questions and voted for those questions. You'll get more information on visiting nasapeople.nasa.gov, and have a great day and stay healthy. Thank you.

[End of recorded session.]