Military OneSource Podcast — 2024 Total Solar Eclipse With NASA

Morale, Welfare and Recreation Program

Episode transcript

Intro voiceover:

Speaker 1:

Welcome to the Military OneSource Podcast. Military OneSource is an official program of the Defense Department with tools, information and resources to help families navigate all aspects of military life. For more information, visit militaryonesource.mil.

Bruce Moody:

Welcome to the podcast. I'm Bruce Moody. We have a solar eclipse coming up that's going to be the topic for today's podcast. Joining us today, we have Anita Dey, who's with NASA. Anita, welcome to the podcast.

Anita Dey:

Thank you so much for having me. I really appreciate it.

Bruce Moody:

Well, we're glad to have you with us. You're the strategic partnerships manager. What do you do with NASA?

Anita Dey:

My job is to make sure that we're working with organizations outside of NASA, you know academic organizations, nonprofit, government like you guys, to make sure that our message about our work is being spread far and wide.

Bruce Moody:

All right, well we're helping out with that today.

Anita Dey:

Yeah.

Bruce Moody:

Right. So we have this total solar eclipse coming up Monday, April 8. Specifically, we're going to talk about some of the things that NASA has planned. First of all, the track of the eclipse is going to go through Mexico, then it's going to enter the United States. This

is the total eclipse path, right? It is going to be of going basically from Texas to Maine, then it's going to exit North America along Canada's coast. So Anita, NASA, you guys are planning live broadcast coverage of the eclipse. Talk to us about the coverage that you're planning and how people can tune in.

Anita Dey:

Yeah, I'd be happy too. So the best way to find the broadcast is on NASA+. It's an on-demand streaming service. You can find it as a phone app or you can go to plus.nasa.gov. We're also on social media, so you can catch the broadcast there, or you can enter a conversation with us about the eclipse. The coverage is really going to be amazing. I just saw the run of show for it earlier this morning, and it's just going to be phenomenal.

It's going to be from 1 to 4 p.m. Eastern Time, and it's going to include scientists talking about what the eclipse is and why it's valuable for us to learn from it. We're going to have some special guests. Also, we're going to have telescope feeds from across the entire path of totality. It's going to be amazing to see totality happening in a way over and over and over from the different locations. And if I could just say it's really worth watching the broadcast even if you're outside watching the eclipse, because I just want to brag on my colleagues. Their work is incredible. I've seen some of the NASA broadcasts, and I really appreciate the hard work they put into it and it's really, really enjoyable.

Bruce Moody:

I want to give you a chance to brag on your colleagues later in the podcast because you know a question that basically goes, what is it like to literally work with a bunch of rocket scientists? So we'll get back to that, but so you're doing this online event, which is very, very cool, but you're also doing these in-person events and you're calling them sunspots. Again, if you sort of drag an arc of a line that starts in Texas, goes to Niagara Falls, you're going to have in-person events along the path of the eclipse. I really want to point out one in particular because San Antonio is a huge military population. So if you're stationed in San Antonio or thereabouts, there is a park, it's Louise Hays Park in Kerrville, Texas. You're going to have one of your sunspots there. What are the events like and what happens there and what should people plan to expect?

Anita Dey:

Yeah, the sunspots are going to be really fabulous. NASA was in Kerrville for the annual eclipse in October, so it was a big festival there, and they're so lucky that they get this total eclipse as well. So it's going to be four minutes and 25 seconds of totality. So that's a really long time for the sun to be blotted out by the moon. So that's a special place in and of itself, but the festival will be free. That's really important to note. NASA is going to have speakers. We're going to have a tent that is welcoming to all ages. We're going to have activities and goodies that will suit everybody. We're going to be there from 10 a.m. to 5 p.m. local time. Kerrville is also going to be a broadcast site, so you'll be able to see our cameras and our stage set up there. So the broadcast local time will be 12 to 3

p.m. so that'll be an attraction. And then there's going to be an astronaut there in the afternoon for photographs. So it's going to be a really, really big day in Kerrville.

Bruce Moody:

Very cool. I really hope people listening to this in the San Antonio area will share information about the sunspot that's going to be there. But again, there's going to be several of these along the path all the way up to Niagara Falls. Anita, I want to talk more about what NASA is doing, but I don't want to get too far away the fact that we have to be safety-minded when we're talking about an eclipse, and of course we're talking about eye safety. Why don't you address that for us?

Anita Dey:

Yeah, I know that it's been in the news as people have been talking more and more about the eclipse, but it's always important to emphasize that you should never look directly at the sun, and normally there's no reason to look directly at the sun. So it's really not a concern. But of course an eclipse, it gives you a reason to look and you really shouldn't without eye protection. So you can look at the eclipse with a direct viewing method if you have eclipse viewing glasses, they're also called solar viewing glasses. I hope you get them from a reputable source. NASA has given away more than 2 million glasses, so they should be floating out there. We've given them to libraries and museums. Other companies and reputable sources have gotten their own glasses, so that's one way of doing it. But then there are also indirect methods.

You could make a pinhole camera or you could just use shadows, which are really incredible. If you happen to be under some trees and you look down the trees, the leaves themselves act like pinhole cameras and you will see eclipses littering the ground. I experienced that in 2017. It was really gorgeous. If you don't have any trees, you may have a colander at home. If you take the colander outside, put your back to the sun, you will see every hole in that colander projecting an eclipse on the ground. Or if you don't have a colander handy, you can put your hands in a waffle, spread out your fingers and cross them. So you've got little holes that your fingers are making, and that will also project eclipses on the ground. So there are lots of ways to enjoy the eclipse, but to do it safely.

Bruce Moody:

I did not know these ideas. Very, very cool. And the idea of looking at a shadow seems like, well, okay, but you actually make it sound really interesting. I'm going to check that out. Let's get into the science of the eclipse. In particular, what are some of the ways that our listeners can get involved with the solar science during the eclipse?

Anita Dey:

People can help us learn from this eclipse. We have a lot of science projects that the public can participate in. You can find them all on our website, but I'll just talk about two of them. There's one called SunSketcher. So all it requires is a smartphone, and you download their app and it enables you to take pictures of the eclipse. So this is best if

you're in or very near the path of totality. And so these scientists will be studying the sun using the data that is gathered by all of these hopefully thousands, perhaps millions of phones if people will join us. So that's one great project, and I just checked the app is available for download now. Another great project is GLOBE Observer. So GLOBE is something that functions year-round. SunSketcher is specifically for the eclipse, but GLOBE is year-round and it helps you, using your smartphone, take observations of the weather, environmental conditions, including mosquitoes in a lot of places.

But for the eclipse, GLOBE has added a mode to allow you to observe changes in temperature and changes in clouds during the eclipse. So this data helps us learn more about our environment. So those are the science projects. And then there are lots of fun ways to participate in eclipse activities too. We have a lot of hands-on activities, especially for kids on our website. And I was looking specifically for art activities, especially because my daughter's spring break is coming up and I need to figure out how to keep her busy.

But we have coloring sheets for the littlest of our littles. We have fun things like how to decorate your eclipse glasses. My daughter is very artsy, so I think she'll enjoy that one. I also found an activity that helps you do straw paintings of the sun. And this is straw like a plastic straw that you blow paint through, and apparently, this is an ancient Chinese technique. And then there's another activity that my daughter is certainly going to love, marbled sun prints where you're using shaving cream and food coloring to make prints of the sun. It seems like shaving cream is a key part of a lot of kids' activities. So those all sound like a lot of fun.

Bruce Moody:

I have to say these do sound like a lot of fun. I'm really impressed with how creative you are with, I mean, just the use of shadows with the use of items found around the house like shaving cream to really enjoy the eclipse. But of course, on the sun, it's just another day at the office. So things are going to continue. So how does this attention to the sun continue after the eclipse is over?

Anita Dey:

So this is what NASA's calling our Heliophysics Big Year. Heliophysics, it's a big word, but it simply means the study of how the sun works. So this year is a global celebration of solar science and the sun's influence on Earth in the entire solar system. So we're taking a little bit more than a year. It's kind of like a baker's dozen, but we started with the annular eclipse in October of last year. And of course, we've got the total eclipse coming up this year, and we're ending the Heliophysics Big Year with Parker Solar Probe's closest approach to the sun in December. And the Parker Solar Probe launched a few years ago, and it's been studying the sun, and it's already made the closest pass to the sun of any human-made object, and it's going to get even closer in December. So it's really important for us to study the sun and to stop and think about what it means to us, because really the sun touches everything, it's Earth's life force, and it contributes to our physical, mental and emotional well-being.

I mean, you know how you feel on a sunny day versus a cloudy day, for example. That's just a small example of why the sun is so important to us. So during the Heliophysics Big Year, we're encouraging everybody to participate in solar science, like I talked about those public science projects earlier, there are more. And you could participate by watching the solar eclipse, by experiencing an aura if you happen to be in that kind of lucky geography, you can participate in those public science projects and you can just do these fun sun-related activities too.

Bruce Moody:

So yes, but okay, so there are a lot of sun-related activities coming up, including this eclipse and the one that we had last year, but this one's special. This is the big one. Talk about why people shouldn't just say, "Oh, this is good. I'll catch the next one after this one." What's really big about this particular eclipse?

Anita Dey:

So, people may think that eclipses happen very frequently, and you couldn't be blamed because there was just one in 2017 in the United States. So this one is special for a few reasons in contrast to 2017. So there are more people on the path of totality, and that's because it's a much more accessible geography. The one in 2017 went through the West, so it went through some remote areas. This one is going through almost all highly populated areas. There are 31 million people on the path. It's a wider path also, and that has to do with the moon being a little bit closer to the Earth during this particular eclipse. But I think this eclipse is really, really special because the next one in the United States isn't for 20 years, and that one isn't going to be as accessible across this easy geography as this one is. So just think of where will you be in 20 years. Where will I be? Where will my 6-year-old daughter and my 3-year-old son be? So, the time, if you can do it is now to enjoy what we are about to have.

Bruce Moody:

Yeah, thanks for making that point. People really need to take time out to really be a part of this event. Now, it's amazing. It's awesome. There's a wow factor involved, certainly. But we talked about this earlier. There's more to that when you have an event that brings people together like this, that's so awe-inspiring. Talk about that sort of deeper meaning or the deeper experience one can have with this eclipse.

Anita Dey:

Yeah, I think we take the sun for granted. I mean, I certainly do. I'm glad when it's a sunny day, but I don't really think about much more than that. But an eclipse is a reminder of our connection to the celestial bodies around us, to our solar system and to the entire universe. And that's a really big idea. And the awe that an eclipse can inspire is really good for us.

Research has shown that awe helps us to step outside of ourselves. It helps us gain a fresh perspective, and it opens us up to new connections. So, awe can help us connect to something larger than ourselves like I was talking about the solar system in the

universe, but also it can help us connect to our family, our friends or our community. I mean, I keep talking about my daughter, but I'm really looking forward to sharing this with her. Also, the awe that you can experience with the eclipse or any other awe-inspiring moment, it can give you a boost that lasts longer than just the moment. So it's good for you in that sense as well. So I hope everybody is going to embrace the awe that the sun and the universe are going to give us today and always.

Bruce Moody:

We have a bunch of links. They're in the program notes, and I really encourage people to look at what NASA in particular has to offer because just from this conversation, you really get the understanding that there's certainly science involved here. There's information to share, but a lot of the events that they have planned really bring people together, communities together. So really check out these links. Anita, as we wrap up, I did promise I wanted to give you the opportunity to talk about NASA. You work at NASA, most of us don't. What is it like to work at NASA? I mean, it just sounds very, very cool to me.

Anita Dey:

And I'm so glad you're asking this question. It really makes me step back and reflect on just how lucky I am. I've been at NASA for about six years, and it is such a gift to know that I'm playing a small role in the advancement of human knowledge and exploration. That is a big, big deal. I have had the pleasure of working for and with so many great leaders and great leaders, not just from a work perspective, but from a human perspective. Learning my professional work, but also learning how to be a better human has been really important to me. And I am just so impressed with how everyone is so good at their jobs. Not just good but great, and people are so dedicated.

We joke about all being overachievers, but it's kind of true. The people love what they do at NASA, whatever it is, whether it's comms in my group, whether it's the literal rocket scientists, whether it's the people who study biology and space, engineers, everybody, they love what they do, and it's a little bit overwhelming to know that you work with so many people like that. And I will say I am incredibly proud of my colleagues, having been a part of the planning for this eclipse outreach work, my colleagues work really, really hard, and they have great ideas, and they are so dedicated and put in so many extra hours to get the thing done the right way. I'm very proud of everybody.

Bruce Moody:

Anita Dey, thank you for joining us, and what a great conversation. I'm so glad that you could join us today.

Anita Dey:

Thank you so much. This was such a thrill.

Bruce Moody:

Oh, same here. Same here. Well, enjoy the eclipse, everybody. Want to remind you that Military OneSource is an official resource of the Defense Department. We have a link in the program notes. You can send us a question, a comment, maybe an idea for a future episode. Be sure to subscribe to this podcast wherever you listen to your podcasts because we cover a wide range of topics to help military families navigate military life. I'm Bruce Moody. Thank you for listening. Take care. Bye-bye.