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TRANSCRIPT

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Michelle (Operator):

Good morning, and thank you for standing by. Your lines are going to listen-only mode until the question and answer session of today's conference. At that time you may press star followed by the number one to ask a question. Please unmute your phones and state your name and prompt it. Today's conference is being recorded. If you have any objections, you may disconnect at this time. It is now my pleasure to turn the call over to Mr. John Bateman. Sir, you may begin.

John Bateman:

Thanks, Michelle. Good morning, and thank you for joining this monthly climate update call, part of the suite of climate services that NOAA provides to government, business, academia, the media, and the public to support informed decision-making. I'm John Bateman with NOAA Communications and I'll be facilitating the call today. If you have additional questions after the conclusion of today's call, my colleague John Leslie and I can both be reached by email at and I will spell it, N-E-S-D-I-S.P-A@N-O-A-A.G-O-V. That's Nesdis.pa, as in public affairs, @noaa.gov.

Today's update will feature three short presentations followed by an operator-assisted question and answer session. A copy of the presentation our speakers will follow can be downloaded from the link in the media advisory. And with that, I will introduce our speakers. Our first presenter is Karin Gleason, monitoring section chief from NOAA's National Centers for Environmental Information, who will provide a summary of the March 2024 U.S. and Global Climate Report, as well as the latest Drought Monitor update.

Our second presenter is Aaron Ward, science operations officer with NOAA's National Weather Service Forecast office in Amarillo, Texas, who will provide a review of the wildfires that burned across the Texas Panhandle in late February and early March.

And our third presenter is Anthony Artusa, a meteorologist with NOAA's Climate Prediction Center who will review the latest El Niño, La Niña update and provide the U.S. temperature, precipitation and drought outlooks for May, June, and July. Our first speaker will be Karin Gleason from NOAA-NCEI.

Karin Gleason:

Good morning, and thank you, John, and thanks to everyone for joining our call today. Let's begin by looking at slide number two and the global temperature data for March of 2024. We see that the global surface temperature anomaly was 1.35 degrees Celsius above the 20th century average, making this the

warmest March on record by 100th of a degree Celsius over March of 2016. This is the 10th consecutive month of record warm global temperatures. Global land only March temperatures ranked fourth-warmest on record at 2.09 degrees Celsius above average. Ocean-only temperatures ranked warmest on record for March at 1.01 degrees Celsius above average. This is 0.18 degrees Celsius warmer than the second-warmest ocean temperatures in March of 2016, and is now the 12th consecutive monthly record high for the ocean.

Looking at the temperature departure map on the left and the corresponding percentiles in the map on the right, we see that temperatures were above average across much of Eastern North America, Alaska, Central and South America, Africa, Western and Central Europe, Southeast Asia, Eastern Russia, and Eastern Australia.

Sea surface temperatures were above average across much of the northern, western and equatorial Pacific Ocean, as well as a large portion of the Indian Ocean. Much of the central Atlantic Ocean continues to be record warm during the month of March. Near to cooler than average temperatures during March were observed across a large portion of Western North America, parts of Northwestern Siberia, Southwestern Asia, and Western Australia. Sea surface temperatures were near to below average over parts of the southeastern Pacific Ocean, the Southern Ocean, portions of the Northern Atlantic, and southwestern Indian Ocean.

Looking at our continental temperatures, South America and Africa each had their warmest march on record, while Europe was second warmest. North America had its ninth-warmest March, Asia 12th warmest, and Oceania 17th warmest on record. Record warm temperatures which can be seen in the dark red areas in the percentiles map on the right covered approximately 10.8% of the world's surface, which is the highest percentage from March since the start of these records in 1951, and was 2.3% higher than the previous records set in March of 2016.

Shifting our attention now to slide number three, we see the January through March 2024 global temperature percentile map, the year-to-date box for the 10 warmest years on record, as well as the annual temperature ranking outlook for the year. The January to March global surface temperature ranked warmest in the 175-year record, also at 1.35 degrees Celsius above the long-term average, and was five hundredths of a degree Celsius above the previous record set in 2016. January through March was characterized by widespread much warmer than average and record warm conditions across almost all of South America. Large parts of Southern and Western Europe also were record warm for this three-month period. And record warm temperatures were widespread in southwest Asia and many parts of Africa. Cooler than average temperatures were widespread across Antarctica.

Sea surface temperatures were much warmer than average across a large portion of the northern and equatorial Pacific, as well as the southwest Pacific Ocean. Record warm sea surface temperatures stretched from the Caribbean Sea across the tropical Atlantic into the northeastern Atlantic Ocean. Record warm temperatures also affected large parts of the Indian Ocean, southern Atlantic Ocean, and parts of the southwestern Pacific Ocean. The most widespread areas of cooler than average sea surface temperatures occurred in the southeastern Pacific and parts of the Southern Ocean.

Looking at the time series plot of the year-to-date temperature anomalies for the 10 warmest years on record, we see that the January through March 2024 year-to-date anomaly value as depicted by the black bar on the upper left-hand side of the plot, is the warmest January through March period amongst the warmest 10 years on record and was slightly warmer than the January through March anomaly value in 2016. And according to NCEI's annual temperature ranking outlook statistical analysis as depicted by the bar at the bottom of this slide, there is a 55% chance that 2024 will end as the warmest year on record and a 99% chance of a top five warm year.

Moving on now to slide number four and zooming in a little closer to home. We see that march temperatures across the contiguous U.S. averaged 45.1 degrees Fahrenheit, which is 3.6 degrees Fahrenheit above the long-term average. This ranks as 17th warmest on record. Looking at the temperature ranks map on the left, we see that in general temperatures were above to much above average from the Rocky Mountains to the East Coast and across the Northwest. Connecticut and Delaware

each had their eighth-warmest March on record with nine additional states across the Great Lakes and Northeast, ranking among their top 10 warmest Marches on record. Precipitation for the month averaged 2.85 inches, which was .34ths of an inch above average. And this translates to the upper third of the distribution or an above average month. Looking at the precipitation map on the right, we can see that precipitation was above average across much of the west, parts of the Great Lakes, the Gulf Coast states, and much of the East Coast.

Conversely, precipitation was below average across portions of the Ohio and Tennessee Valleys and the Plains. Maine and Rhode Island each ranked second wettest for March while six additional states across the northeast had one of their top 10 wettest March's on record.

Now turning our attention to slide number five. We see the temperature and precipitation state ranks for the January through March year-to-date period across the contiguous U.S. Temperatures averaged 39.4 degrees Fahrenheit, which was 4.2 degrees Fahrenheit above average translating to a rank of fifth warmest. Looking at the temperature ranks map on the left, we see that the entire lower 48 was above average during this period, with Wisconsin, Michigan, New York, Vermont, New Hampshire and Maine each ranking second-warmest on record. Precipitation for this year-to-date averaged 8.15 inches, which was 1.19 inches above the long-term means, translating to a rank of 10th wettest. Below average precipitation occurred across much of the northern plains while wetter than average conditions were present across much of the west, south, and northeast.

Rhode Island had its second-wettest January through March on record and six additional states across the northeast had one of their top 10 wettest year-to-date periods on record. And now turning our attention to slide number six and the latest U.S. drought monitor map release this morning. We see that 17.9% of the contiguous U.S. is currently in drought. This is down nearly four percentage points when compared with early March. And over the last six weeks we saw drought conditions lessen in intensity or in size of the drought footprint across portions of the lower Mississippi Valley, the upper Midwest and Midwest, the northern Great Lakes, Northern Rockies, and Southwest. Drought conditions intensified or expanded across the portions of the Central Plains and southwest Texas. Outside of the contiguous U.S. drought coverage contracted across Puerto Rico and expanded across Hawaii in specifically on the island of Maui. And with that I'll turn the presentation over to Aaron.

Aaron Ward:

Thanks Karin, and good morning. We'll be looking here at slide seven. And I'll start here by giving some background on what would become a historic wildfire event across portions of the Texas and Oklahoma panhandles into far Western Oklahoma over the course of February 26th and 27th. In total, there was 41 wildfires that started over these two days, many of which were small or merged into larger fires. A few fires did become very large, however. And some of the largest fires shown here include the Smokehouse Creek Fire, which is now the largest wildfire in Texas history at over one million acres. The Windy Deuce fire, which was just west of the Smokehouse Creek Fire, was over 100,000 acres, and there was the Catesby Fire in Western Oklahoma, the Grape Vine Creek Fire and the Slapout fire.

In total, including these fires and the others, almost 1.4 million acres burned across the Texas Panhandle, Oklahoma Panhandle in Western Oklahoma. And many of these fires would not be contained for about a week. I did want to point out here that the image you see here is that goes Geo color image and it's basically showing the extensive nature of the fires on February 27th where about 100 miles of fire line extended across the Texas Panhandle into Western Oklahoma.

And now we'll turn our attention to slide nine, and we'll talk a little bit about the impacts. It's estimated that over 2,000 houses were directly affected and within the fire perimeter on these two days. And unfortunately, 400 structures, including homes were completely destroyed. With the main communities affected being areas around Fritch, Texas and Canadian, Texas. Unfortunately, nine were injured and two were killed in the fires and over 4,000 lives will forever be changed.

These numbers could have been much worse and we will take a little closer look at that here in a second. But there have been no official numbers out yet, but it is thought that anywhere from a few thousand to

over 6,000 livestock have been lost. And with that we'll turn our attention to slide nine. How did all of this come about? Especially during an El Nino year when fire activity is typically more suppressed, the first thing that we can look at here is the availability of fuels. Like grasses, shrubs, trees, things that fire can feed off of. And the amount or the availability of fuels is known as fuel loading. In the Texas Panhandle grasses dominate the landscape and can become volatile much more quickly than larger fuels such as shrubs and trees. It was apparent that the area grasses would be much more robust compared to most years because of the extensive rain that occurred during the growing season, primarily during May and June of 2023. This rain primed the grasses, which makes for a more continuous fuel to burn across the landscape.

The fires also occurred in some of the most volatile fuels in the area being the Canadian River Valley where a mixture of grasses, shrubs, and trees exist, which allow the fires to burn longer and hotter. On this image on the left, you can see that we were around 200% of normal precipitation during the growing season across much of the Texas and Oklahoma panhandle into Northwestern Oklahoma. And then on the image on the right, this is something that we get from the Texas Forest Service basically showing that much of the area had above normal fuel loading. The fuels were larger, thicker, and more continuous across the area. We'll now look at slide 11. Looking at the winter season precipitation leading up to this February 26, 27th event. One might be led to believe that fires would not be likely due to the much above normal precipitation that occurred during this time.

And now normally this is a limiting factor in most El Nino years and that's why we don't typically see a very active fire season during El Nino years. However, most of the precipitation that was received during this winter was mostly in December. With January and February being closer to normal, which around here typically is more on the dry side. This precipitation also, off course occurred during the dormant season, so it did not have the same effects that it would have during the growing season. Thus, it would not take much of a dry or a warm spell to allow fuels to dry out and become volatile very quickly. And so here on the left you can see that the overall county ranks were much above average for the Texas panhandle, Oklahoma panhandle in northwest Texas for the winter season. That's basically November, December, January, but most of that did occur in December. And then I just showed February here showing more normal precipitation that occurred.

We did get a winter storm around February 11th. There was a little bit of snow that occurred, but most of that snow actually did not occur over some of these fire burn areas, so it did not have much of an effect. Looking now at slide 12, we can see why the area dried out so quickly. We're looking here at the county maximum temperature ranks here on the left and the minimum temperature ranks on the right. And so this warm and dry spell did in fact occur in the weeks leading to February 26th and 27th. And it is apparent that most of the country saw well above normal temperatures during this time. The record warm minimum temperatures was something that really stood out as we had several nights where we were only getting into the 40s and 50s for overnight lows, which is quite remarkable for this area considering normal lows are in the 20s.

And that overnight, getting cooler overnight allows fuels to recover their moisture. And since that wasn't happening the area grasses were not able to recover the moisture that they normally do. And that allowed them to basically dry out much more quickly than what we typically see. Getting to the weather now on February 26. There was no doubt that the conditions were going to be critical for fire weather given the expected dry Southwest winds and anomalously warm temperatures with highs in the 80s, some 20 to 25 degrees above normal as you can see in that picture in the top right. However, the overall pattern did not fit the typical outbreak pattern, which would support much lower relative humidity, typically below 10%, and even stronger winds. But if a fire were to start in the perfect location such as the Canadian River Valley where fuels were most volatile and the terrain makes suppression very difficult, that it would be a situation where things could get bad in a hurry.

And unfortunately that's exactly what happened. As you can see here on the bottom right, that is a satellite image of the fires that started on February 26. And on the bottom left you can see the relative humidity that we were experiencing. Again, not the worst that we typically see, but still very dry with relative humidity around that 15 to 20% range. And on the top left we have the mid-level winds showing

that we did have a strong mid-level jet maxima that was moving across the panhandles during this timeframe.

Now looking at slide 14. Moving on to February 27th. Wildfires that started on the 26 burned through the night and included what would become the Smokehouse Creek fire and the Windy Deuce fire. And unfortunately, even though temperatures would be slightly cooler on the 27th winds would be stronger and the pattern overall was more favorable for significant fires. This pattern included strong winds aloft, which were present above normal temperatures, which even though the temperatures were cooler than the previous day, they were still above normal. And we also typically see in this pattern a wind shift which we were expecting a cold front be coming in from the north. And that did occur that afternoon.

At which point Smokehouse Creek was already nearly 100 miles long and lying perpendicular to the wind shift, which was basically the worst-case scenario we could have. This wind shift is what resulted in a massive increase in the acres burned as almost 100 miles of fire line became very active as it moved south across the fuel scape where we had those continuous grasses to burn.

And with that I'll move to my last slide, slide 14. And to close here, I did want to mention that even though this event did tragically acclaim two lives, I believe it could have been much worse if the response from the National Weather Service and its partners in emergency management was not what it was. Based on preliminary data there has never been more fire warnings issued in the 24 timeframe in history. And this was done based on a new integrated warning team approach where officials were notified of particular dangerous wildfires ahead of time using a tool called a Hotspot Notification tool. And this cut down on the time it took to get fire warnings and evacuation notices issued.

The overall increase in communication between various NWS local and state agencies allowed for a more timely and the unified message despite the chaos that was unfolding. Compared to previous fires on the scope across the plains, the fatality rate was 10 times lower per a hundred thousand acres. And that was just a true testament to this process and I hope to see this process expand across the nation. With that said, that's all I have and I will pass it on to Anthony.

John Bateman:

Hi, Anthony, this is John Bateman. Just wanted to see if you were off mute. Hi Anthony, are you with us?

Michelle (Operator):

Anthony is still connected.

John Bateman:

Okay, Thank you, Michelle. Anthony, if you're still able to provide your CPC outlook, we are looking forward to hearing it. If you are having problems, you might need to unmute or maybe try dialing in again.

Michelle (Operator):

Anthony, possibly checking your mute on your phone, or your volume. Are you there, Anthony?

John Bateman:

Okay, Michelle, you know what we might do now while we wait for maybe Anthony to come back with us. We could see if we have any questions from the participants that we can take now and maybe you can work with Anthony and see if we can get him back on to do his part of the presentation.

Michelle (Operator):

That sounds great, thank you. At this time if you would like to ask a question, you may press star one. Please unmute your phone and state your name when prompted. Again, that is star one for any or comments. Seth Borenstein with AP. You may go ahead.

Seth Borenstein:

Yes, thank you. And thankfully one of my questions was for Karin. Karin, if this is the 10th straight record warm month and 12th straight record warm month for oceans. I know this is a flyer, it's unlikely. Does anyone keep track of what is the longest streak of record months? I mean, is this the longest streak of record months? And this probably is going to be more for Anthony, but is there any, I mean a lot of this seems to be driven by the Atlantic, the warm Atlantic, not just the El Nino that seems to be fading. Is there any indications right now that this anomalous warm Atlantic started before last year's El Nino is changing? Is it still anonymously warm? Is it weakening with El Nino or is it staying strong?

Karin Gleason:

All right, Seth, this is Karin Gleason. Great question about streak records and are we at a record or are we nearing a record? And since this event started last spring, last summer kind of in earnest, we thought we might be in this for the long haul. We started doing some digging. It's not something that we have ... It's a manual process at this point for us to try and figure it out. Hopefully at some point we will get this automated so that we can do more than just back of the envelope calculations. But based on our data, on our climate at a glance system. The longest streak for combined land and ocean temperatures, so the full global, we're at 10 months right now, the record streak since 1980, so the modern sort of era is from May 2015 to May 2016. A 13-month consecutive month streak of record warm global temperatures.

We're three months away from that right now. It's entirely possible we could be neck and neck and right with that particular record, but right now we're at 10 months and the record streak is 13 months from May 2015 to May 2016. When looking at Ocean, our current 12-month streak is also not the record, not surprisingly, March 2015 to August 2016 and '18 consecutive month period is the current near term, the modern era record streak. In both of those cases, we're at 12 months with Oceans, 18 is the record. It's entirely possible that even if the land isn't a record for April or for May or for June, that the oceans might continue to be at record levels if history is any indication of the future. Typically, in these longer streak record streak warm periods, the oceans are warm or record warm before the global record and their record warm after the global record streak ends.

It's possible that because the oceans will respond more slowly that that could continue for several months beyond any global record streaks ending. I will attempt to at least address a little bit of what I do know about the record warm Atlantic temperatures that have been in place over many months now. And the one thing that we are seeing here at NCEI is that area contracting a little bit. The area of coverage of the record warm Central Atlantic, Northern Atlantic, record warm temperatures is still there, but it does appear to have a smaller footprint. The question is, is that responding to the waning El, Nino? Probably possibly. But in the observations we are seeing that record area shrink in the size, so it's not nearly as extensive. I hope that's helpful.

Seth Borenstein:

Yes, it is. Thank you so much.

Michelle (Operator):

Thank you. And our next caller is Brian Sullivan with Bloomberg News. You may go ahead.

Brian Sullivan:

Hi Karin, this is for you. You had mentioned the percentage of the Earth's surface that is record warm and I didn't quite get that number down. And also I have two other quick questions. One is if you could talk a little bit about why we're seeing this record warm? And if we aren't currently in a streak. Are we the second-longest streak?

Karin Gleason:

Yes, Brian, Karin Gleason here again at NCEI, the percentage of record warm temperatures across the globe is 10.8% of the world's surface, and that is the highest percentage for March since we've started this statistic, which began in 1951. And that is 2.3% higher than it was back in March of 2016, which is now in second place. Certainly I think probably the two main drivers that most folks are anticipating why we've been record warm for so long. And at this time from last spring, last summer through now, certainly the strong El Nino has a significant role that has played. But even prior to the record warm global temperatures, we had ocean basins that were at or near record warmth preceding the El Nino event. The El Nino certainly amplifies the heat that we see in the overall global record. But the heat was already at or near record levels even prior to the onset of the El Nino. I hope that's helpful.

Brian Sullivan:

Mm-hmm. And the current streaks, are they number two in the ranking?

Karin Gleason:

I'm sorry, I failed to answer that. The current streak is indeed for ocean streak. The 12 month is the second-longest streak behind 2015, 2016 and the combined land ocean. So, the overall global streak at 10 months is in second place behind May 2015, 2016, which is 13 months. So yes, both of them are in second place to the 2015 2016 streak record.

Brian Sullivan:

Thank you.

Michelle (Operator):

And would you like to go to the next caller?

John Bateman:

Yes, please. That'd be great. Thank you, Michelle.

Michelle (Operator):

Thank you. Rebecca Hersher from NPR. You may go ahead.

Rebecca Hersher:

Hi. Unfortunately this may be for Anthony, but I just saw that the Australians have said that El Nino is over and I'm wondering when we expect, I know it's waning, but when we expect it to be officially over and what you're able to tell us about that?

John Bateman:

Hi there, Rebecca, this is John Bateman. I'm fairly certain that would be an Anthony Artusa question, unless you have anything to add, Karin?

Karin Gleason:

Well, I certainly don't want to steal any of Anthony's thunder, but on his slide number 15, there is a graphic that does show the official NOAA CPC probabilities for periods from March, April, May, which is the most current three-month period. All the way through to late fall into winter, November, December, January. And so the official, I think the official word is that we're we're nearing the end of the El Nino. It is cooling quite rapidly in the Equatorial Pacific. And as we get further into spring and late spring, the probabilities increase. Certainly neutral conditions will be in the transition, but it's odds favor la Nina taking hold in the summer months. Again, I'm not here to steal Anthony's thunder, hopefully he will be able to join us, but the graphic is pretty clear that there is a likelihood of transitioning to La Niña in the

summer and that El Niño is nearing its end for this particular event.

Anthony Artusa:

And yes, I'm back. I apologize.

John Bateman:

Great, Anthony Artusa, thank you for joining us. Sorry about the audio problems. Karin just tried to help answer a question about the El Niño, La Niña going on right now.

Anthony Artusa:

Yes.

John Bateman:

Did you pick up the presentation from where we left off?

Anthony Artusa:

Sure. Was that with the drought outlook?

John Bateman:

We got to, we did not hear any of your slides, so let me get-

Anthony Artusa:

Oh boy.

John Bateman:

Yeah.

Anthony Artusa:

I had some calls at this time and it must have really messed things up.

John Bateman:

Oh yeah. Let me see. Let me get to, we want you, if you don't mind, take us straight to slide 15 and you can take us down from there.

Anthony Artusa:

Okay, great. Great, thank you. Okay, so we'll start off again with sea surface temperatures over the equatorial and tropical Pacific. And the map that you see on the left is showing that. That's how these sea surface temperatures depart from normal. You can see that the orange shading corresponds to warmer than normal sea surface temperatures across most of the Pacific. This is consistent with El Nino, but the El Nino is weakening very rapidly now and is almost gone. And what we're starting to see are the transition toward a neutral event. And you're starting to see some of the blue shading or the below normal sea surface temperatures appearing off the South American coast. We are in a state of transition from El Nino to neutral and we think that neutral will be setting up probably within the next month. You can see on the bar graph to the right we have NOAA's, official ENSO probabilities.

You can see that the red bar corresponds to El Nino probabilities and that's the dominant category right now. But as you look at the bottom, you can see the seasons that are being indicated and predicted for. The first would be March, April, May, and for that season the red bar is the most probable. That's the El Nino. Then for April, May, June, which is the next season, and these are overlapping seasons, a neutral

event is favored. By May, June, July, the neutral event persists. And then by June, July, and August we start to see the dominance of the blue bars in this graph. And Le Blanc Nina, which is what this represents. Is expected to develop sometime during JJA, or June, July, August, and then persist throughout the summer and autumn months.

Okay, so with that, why don't we go down to slide 16. I'm showing the monthly forecast for May. Normally how we make these forecasts, just a very brief look inside is we look at the lingering effects of the El Nino, since we're coming out of the El Nino now. We also consider statistical and dynamical model information, which is very helpful. We consider long-term trends of both temperature and precipitation across the United States. We also look at El Nino, Southern Oscillation composites. And this just simply gives us historical information as to what normally happens to the U.S. during an El Nino, where do the precipitation pattern set up or during a la Nina, where do they not set up? That's all that is. We also look at soil moisture and how it departs from normal. And finally, over northwest coastal Alaska we try to look and account for changes in sea ice and how that might influence the forecast.

Okay, just wanted to give you a few pointers there into how we make these forecasts. Looking at the left-hand side on slide 16, we should have our monthly temperature outlook and then we have the precipitation on the right-hand side. On the left-hand side first we are going with favored above-normal temperatures that are shown in the orange shading. For the Eastern half of the lower 48 states, south-central part of the contiguous U.S. And also there up in parts of the northwest. You'll also see that above-normal temperatures are favored for approximately the eastern half or so of Alaska. Notice these are also probabilistic. Where you see the darkest orange shading that corresponds to probabilities of at least 50%. And over the southwestern part of the contiguous U.S. we'll see that there is a favoring of near-normal temperatures, not something that you see too often on our maps, but we think that it's justified in this case.

Elsewhere, where you see equal chances, that simply means that the chances for below, near, and above-normal are equal. Meaning we don't have any discernible tilt in the odds from any of our guidance to toward one of those three categories. By default we have to say that those three are equally likely.

Okay, shifting off to the right for the precipitation, you can see in the green shading across the southeast part of the lower 48, we have above normal precipitation favored. And that green shading extends up into South Dakota. We also have some below normal precipitation that's favored over parts of the northwest and also over the Four Corners region. Below normal precipitation is also favored over Alaska's via panhandle, excuse me, in the southeast. And then for the southwest part of Alaska weather the normal conditions are favored there. Okay, so that's a look at the monthly forecast.

So we go on to the next slide, we should see the seasonal forecasts. This should be slide number 17 and this is for the season May, June and July. Following the same idea here where we have the orange shading corresponds to the above normal temperatures that are being favored, and the darkest shades of orange correspond to 50% or better. You can see most of the lower 48 states is favored to be above normal, as is central and eastern parts of Alaska. You may be able to see a relatively small area of near normal temperatures that are favored along the southern California coast. And then elsewhere we have equal chances forecast, which simply means, again, we don't have any strong signals to point toward either below, near or above. We assume those categories are equally likely.

Okay, off to the right we have our seasonal precipitation forecast. And we have above normal precipitation that's favored over the southeast and the mid-Atlantic region, and the Ohio Valley and also over western parts of Alaska. And then for below normal precipitation, we can see that as being indicated across parts of the northwest, and also over parts of the central and southern Rockies extending into West Texas. Because there's normally more uncertainty with precipitation compared to temperature, we have a much larger area of equal chances indicated. Finally, I'd like to go down to our last map here, which is 18, and this is the seasonal drought outlook, which just came out today and takes us right through the end of July.

You can see from the legend that where we have the brown shading that indicates that the already existing drought is expected to continue or persist. You can see that over the southwest part of the contiguous U.S., also over the northwest. Then we have the silver or tan shading, which is where we think

the drought will improve, but yet it will remain. Remember, the drought outlook is based on the drought monitor. In this case the drought might improve from say D-III to D-II. It still remains, but we think it's likely to be on the way up to improve. The green shading represents or the olive green, the removal of drought is likely. That means it could from the drought monitor we are expected to go to D-Zero or even D-nothing that the drought and dryness is just gone.

And then finally, the yellow shading represents that area or those areas where we think drought development is likely during the season. And that you can see over parts of the Northern Rockies and also over parts of the Southwest and southern Rockies. Finally, for Alaska we don't have any drought and don't expect any during this season, that's upcoming. Drought is expected to persist over parts of the big island of Hawaii and Maui. And then it looks like for that small northwest corner in Puerto Rico, it looks like the drought is favored to be removed, which is good news as we go into their wet season. I hope this thing has worked out a lot better than the previous. Let me switch over now and turn things back over to John.

John Bateman:

All right, thanks so much, Anthony. Yes, we apologize to you and everyone else for the issues that happened today, but I believe we do have a question for you from one of our reporters. Michelle, could you please clarify?

Michelle (Operator):

Thank you. And once again that is star one. If you do have any questions or comments and that is coming from Rebecca Hersher with NPR, you may go ahead.

Rebecca Hersher:

Thanks, and thanks Karin for taking a whack at this question. Anthony, I was just wondering, the Australians have said that El Nino is officially over, and I wonder when we might expect based on your prediction to be the official end of El Nino.

Anthony Artusa:

Okay, yes, this is Anthony. Thank you, Rebecca for the question. And again, I apologize for the audio issues. Right now we base our El Nino information on a team that works at the Climate Prediction Center. And they have us still in a week, a very weak and almost gone El Nino, if I could use simple terminology there. El Nino is still in play, but the warm water that we normally see at the surface of the East Central Pacific is very thin now it's in a very thin layer and once you lose a deep reservoir of warmth under the surface, that means that the El Nino is nearly gone. I would suspect that by the next update, which will be in early May, that we may have switched over to neutral.

Also, there's another thing to consider. It's easy just to look at the ocean component of the El Nino, but there's also the atmospheric component, and we're also looking for certain things to happen in terms of the tropical convection in certain locations. And also with the upper and lower level winds to be in place before we say that El Nino is finished. Again, I think it's a little premature to say that it's finished. I think we're in the last vestiges of it, and we're just waiting for the atmosphere in a sense to catch up with the ocean indicators. But we're almost there. It's almost finished.

Rebecca Hersher:

Great. That's super helpful.

Anthony Artusa:

Thank you.

Michelle (Operator):

Thank you. Our next caller is James Regney with Seacoast Echo newspaper. You may go ahead, sir.

James Rigney:

Yes. So ENSO forecasters often talk about the spring predictability barrier, and yet, CPC seems very confident about La Nina taking over in the summer and in the fall. Is the spring predictability barrier not in play this year?

Anthony Artusa:

This is Anthony Artusa again. That's a great and very astute question. Yes, just for a little background, what we call the spring barrier is simply during the spring we kind of wait for the ocean atmosphere system to be reset after the winter that just finished, and before we move into the spring pattern. There is like a resetting of the climate system. Once that becomes set, then we can start to predict from there. That's why they call it the spring barrier. And we also find that our sea surface temperature modeling is not as accurate during this period because the atmosphere has not, and the ocean system has not reset yet. I think what this is showing is that the choices of moving from an El Nino to a La Nina is now high enough or it looks like it's significant enough so that it's overriding the spring barrier, what is typically a problem there?

Normally the spring barrier would be a big problem and we would have very low confidence for that, but it seems like the upcoming signal for La Nina is stronger, is high enough up so it's fallen within the signal rather than being lost in the noise. A very good question, very astute question. I hope I've answered it clearly enough.

James Rigney:

Thank you, Anthony.

Anthony Artusa:

Thank you.

Michelle (Operator):

Thank you. And the next caller is Seth Borenstein with Associated Press. You may go ahead, sir.

Seth Borenstein:

Yes, thank you. And just to follow up on that, Anthony. Obviously, the graph shows the confidence of a La Nina. What about, is there any forecast for the strength of this La Nina and La Ninas tend to persist longer. I mean all we have to do is look at the last La Nina, which lasted three years. Do we have any insight into both the strength and the likely persistence of the upcoming LA Nina?

Anthony Artusa:

Great question. Again, this is Anthony responding. Yes, we do have some sea surface temperature forecasts that are made by our statistical and dynamical climate models. And there's a number of them. And because there's so many, what we try to do is average them into what we call ensemble averages. But the majority of them are showing a nominal La Nina, pardon me, by June, July, August. And by nominal I mean that the East Central Pacific sea surface temperatures reach a threshold of minus one-half degree Celsius or colder. Once that threshold is met, once the water can cool down enough, then we're considered to be in a La Nina. So again, that threshold is minus 0.5 degrees C.

Most of the tools, but not all, have us going into a La Nina by June, July, August. There are some of the tools that are showing it being delayed until August. Now, what I can say is that what we have is called a CPC consolidation tool. And this shows, of course, this is our best estimate of what's going to happen. This shows at this early stage, we think that the La Nina is going to bottom out or be at a strongest in the

moderate phase. We have weak, moderate, and strong. We think it'll at least be in the moderate phase. And the peak would be September, October, November, and October, November, December. And this is often when you see the peaks in the La Nina during the fall.

Again, there's a lot of guidance that we look at. Not all the tools are in the best agreement, but our consensus view is that La Nina will be setting up during June, July, August should be the strongest in September, October, November, and October, November, December. Those two overlapping seasons. And it should get down to a moderate and perhaps borderline strong La Nina.

Seth Borenstein:

Thank you.

Anthony Artusa:

Okay.

Michelle (Operator):

And at this time I'm showing no further questions.

John Bateman:

All right, thanks so much, Michelle. I will wrap up the call then. First I'd like to thank all of our speakers for their time and to everyone else for participating in this conference call. I want to remind all of you to mark your calendar for a few upcoming events. The release of the April 2024 U.S. Climate Report is scheduled for May 8th. The release of the April 2024 Global Climate Report is scheduled for May 14th and our next monthly media climate call will be held on May 16th. Lastly, an audio file of this call will be posted to the noaa.gov online media advisory later today. And if you have any further informational needs, please feel free to email me, John Bateman. My contact information is available at the top of the media advisory. Thank you.

Michelle (Operator):

And thank you. This concludes today's conference call. You may go ahead and disconnect at this time.