TRANSCRIPT

NOAA Monthly U.S./Global Climate Media Telecon

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Media advisory about briefing:

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The Operator:

Welcome, and thank you for standing by. Today's call is being recorded. If you have any objections, you may disconnect at this time. All participants are in a listen only mode until the question and answer session of today's conference. At that time, you may press star one on your phone to ask the question. I'll now turn the call over to your host, John Bateman. You may begin.

John Bateman:

Right. Thanks so much. Good morning. Thank you for joining this monthly climate update call, part of the suite of climate services that NOAA provides to government, business, academia, 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 any additional questions after the conclusion of today's call my colleague, John Leslie, and I can both be reached by email. And I will spell it. It is N-E-S-D-I-S dot P-A @ N-O-A-A dot G-V. That is nesdis.pa@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 be following can be downloaded from the link in the media advisory, so please download that now. With that, I will introduce our speakers.

John Bateman:

The first presenter is Ahira Sanchez-Lugo, a climatologist with NOAA's National Centers for Environmental Information, who will provide a summary of the June, 2022 US and global climate report, as well as the latest drought monitor update. Our second presenter is Rick Thoman, an expert from the Alaska Center for Climate Assessment and Policy, who will review the extreme warmth, dryness and wildfires that have plagued Alaska so far this summer. And our third presenter is Dan Collins, a meteorologist at NOAA's Climate Prediction Center, who will provide the latest [inaudible 00:01:56] update, as well as the US temperature, precipitation, and drought outlook for August, September, and October. Our first speaker will be Ahira from NOAA NCEI

Ahira Sanchez-Lugo:

Thank you, John. And thanks to everyone who joined in today. I'm going to go ahead and start on slide two to discuss the June global temperatures. So, the month of June was characterized by above average temperatures across much of the world's land and ocean surfaces. We saw record warm June temperatures across parts of the Pacific Ocean, as well as parts of Southern Asia and Northern Africa. Near to cooler than average conditions were also observed across parts of

Western and Southern South America, central and eastern tropical Pacific Ocean, the Northern Atlantic Ocean, as well as small regions in Western Russia, Southern Africa, and Eastern Australia. Averaged as a whole, the global surface temperature for June, 2022 was the sixth highest in the 143 year record at point 87 degrees Celsius, or 1.57 degrees Fahrenheit above the 20th century average. Looking at just the global land temperatures, June, 2022, tied with 2019 as the second highest for June. And only June of 2021, which was last year, was warmer.

Ahira Sanchez-Lugo:

And this was mainly driven by the very warm land temperatures that we saw across much of the Northern hemisphere. The land portion of the Northern hemisphere also had a near record warm June with a temperature departure of 1.56 degrees Celsius, or 2.81 degrees Fahrenheit above average. And the current record was set also in June of last year. So, the month of June marks the beginning of the meteorological summer for the Northern hemisphere, and it marks the beginning of winter for the Southern hemisphere. So, during the month of June, it started off with very warm temperatures across much of the Northern hemisphere. Several locations across Europe, Northern Africa, and the middle east experienced daytime temperatures that were over 35 degrees Celsius or 95 degrees Fahrenheit. And minimum temperatures were also unusually warm, some locations reporting, minimum temperatures or nighttime temperatures above 25 degrees Celsius or 77 degrees Fahrenheit.

Ahira Sanchez-Lugo:

So, the extreme heat that we saw across much of Asia and Europe resulted in a continental average for Europe and Asia as the second warmest for June. For North America and Africa, they also had a top 10 warm June, while South America, even though the temperature for June was above average, it was the smallest temperature departure since June of 2016. Moving now to slide number three to look at the year to date, so the global surface temperature for the first six months of the year was also six highest on record at 0.85 degrees Celsius, or 1.53 degree Fahrenheit above average. And the first half of the year was characterized by much warmer than average temperatures across much of the globe, with record high temperatures across parts of the north Atlantic and Pacific oceans, as well as parts of Asia and small areas in Africa and South America.

Ahira Sanchez-Lugo:

Cooler than average conditions were present across parts of the central and Eastern tropical, as well as Southeastern Pacific Ocean, North America, the north Atlantic and Southern Africa. But as you can see from the map, no land or ocean areas had a record cold January through June temperature. Looking at the continents, Asia as a whole had eight temperature departure of 2.23 degrees Celsius, or 4.01 degrees Fahrenheit above average, and this was the second warmest January through June period for Asia. Europe and Oceania had a top seven warm January through June period. And North America, South America, and Africa did have an above average year to date as well. And according to our statistical analysis with data through June of 2022, it is very, very likely that the year 2022 will rank among the 10 warmest years on record, and has only about 11% chance of ranking among the five warmest. And this is according to our data.

Ahira Sanchez-Lugo:

So, now moving to slide number four to look at the US. So, during June, 2022, much of the contiguous US had above average temperatures, and no state had a statewide temperature that was the low average for the month. There were several southern tier states that had a June temperature that ranked among the 10 warmest for June, and this included Texas, Louisiana, Mississippi, and Florida. In average, as a whole, the contiguous US had a June temperature of 70.7 degrees Fahrenheit, which is 2.2 degrees Fahrenheit above average. And this resulted in the 15th, warmest June in the nation's 128 year record. In terms of precipitation, the national June precipitation total for the contiguous US was 2.33 inches, which has 0.60 inch below average and tied with 1930 as the 12th driest June on record. As you can see from the

map much of the Eastern half of the contiguous US had near to drier than average conditions, while much of the Western half had either near or above average conditions, with the exception of the Nevada that had dryer than average precipitation.

Ahira Sanchez-Lugo:

The Pacific Northwest had above average conditions, and this was mainly associated with several atmospheric river events that occurred during the month, while the Southwest also had an above average precipitation during the month, and this was associated with the return of the monsoon. Several states had a top 10 wettest June, and this included New Mexico, Washington, and Oregon, and a dominant ridge of high pressure across parts of the Eastern US resulted in below average conditions for the reason. And we saw that North Carolina had its second dries June on record, and Nebraska had its seventh driest. Now moving to slide number five, to look at the year to date, the year to date temperature for the contiguous US with 48.7 degrees Fahrenheit or 1.2 degrees Fahrenheit above average. And this ranked as the 30th warmest period for January through June, which is also the warmest third of the record. Temperatures were above average across the east, southern and southwestern US, and several states had a statewide average temperature for the January through June period that ranked among the 10 warmest for that period. And this included Florida, California, and South Carolina.

Ahira Sanchez-Lugo:

There were only two states, Idaho and Minnesota, that had a statewide average temperature that was below average. However, no state had a top 10 cold January through June temperature. The January through June precipitation total for the contiguous US was 13.84 inches, or 1.47 inch below average, ranking in the dry third of the record. And precipitation during the first half of the year varied across the regions, as you can see in the map, but overall, there was above average conditions across portions of the Pacific Northwest, the Northern Plains, Great Lakes, and in pockets from the Midwest, excuse me, the mid-Mississippi Valley to the northeast. And we saw below average conditions across much of the west and the south, as well as portions of the Central Plains and the Southeast. In terms of statewide averages, California had its driest January through June period on record, while Nevada had its second and Utah had its third driest for January through June. And Texas had its sixth driest.

Ahira Sanchez-Lugo:

Now moving to slide six, my last slide, looking at drought across the contiguous US. So, this map was released today. So as of today, about 52% of the contiguous US was in some type of drought. And this is about seven percentage points more than about a month ago. And looking at the regions, about 74% of the western US, 79% of the south, and 55% of the High Plains were in some type of drought. Just looking at southern US, this, the 79%, was about a 30 percentage points more than a month ago. And this was mainly due to very warm temperatures and lack of precipitation across the region that contributed to the expansion of drought in this region. Drought also deteriorated across parts of the Northeast, and across parts of the Midwest. However, we did see some improvements, and this occurred across parts of Mexico, Montana, and across the Southeast. So that is all that I have for today. I will now turn it over to Rick Thoman.

Rick Thoman:

Okay. Thanks very much, Ahira. Can you hear me?

Ahira Sanchez-Lugo:

Yes.

Rick Thoman:

Thanks very much. So, very happy to be here this morning. We are now on slide seven and getting to the Alaska portion of the program here. So, mostly warm, dry, and wildfire dominated the June highlights in Alaska. Much of Alaska was exceptionally dry in May, and indeed the spring season. And wildfire activity really ramped up the first week of June and really burned at a record pace through the month. Now, as you would expect when you burn more than a thousand square miles of Tundra and forest, smoke was widespread and locally thick. Now, in addition to the highlights on the graphic here, daily record high temperatures were set at many locations in Southern and Southeast Alaska early in the month. Yakutat, for example, had 82 degrees on June 4th, and that is the highest temperature on record there, so early in the summer. Juneau had four consecutive record high temperatures set to start June.

Rick Thoman:

And on the 28th, the Alaska's capital hit 85 degrees. And that's the third highest temperature on record there, and the highest since July, 1975. And to top it off, at Anchorage, which I had the second warmest June on record, every day during the month had a high temperature of 60 degrees or higher. And that might not sound like much, but that is the first time that has happened that every day in June in Anchorage had a high of 60 or higher. So, on slide eight now, take a look at temperatures here. And I'm using National Centers for Environmental Information's county level analysis here of temperature rankings. Alaska, of course, doesn't have counties, but we call these county equivalents. And what we're looking at here is the May and June period, because that's really helped shape the wildfire season. So, basically you can think about this as the conditions that prevailed after the spring snow melt.

Rick Thoman:

Now, as you can see areas of mainland Alaska in south central and the Southwest portions had basically a top 10 since 1925, top 10 warmest May and June. Most other areas were in that significantly warmer than normal category, Northwest Alaska being in exception, as well as parts of the Southern panhandle. But overall, this very mild weather was a significant factor in the wildfires, as we see. And importantly, in Southwest Alaska, that one part of the area there the top 10 warmest, was one of the only areas in the state that had earlier the normal snow pack melt out. And so that allowed for earlier and greater drying of the land than is typical. Now, onto slide eight, and precipitation was really the big climate story for this spring. Again, the May June period here shown on the graphic. For the state as a whole, this was the driest June, May-June, and April to June late spring season.

Rick Thoman:

Now, as with temperatures, south central and Southwest Alaska were the most extreme. But in this case, we have a significant area there, that darkest brown color, indicating the driest May-June on record in since 1925 in those areas. And as I have there on the slide, there were a number of communities there in Southwest and south central Alaska, not just drier than normal, not just a lot drier than normal, but places like Talkeetna, Iliamna, even Anchorage [inaudible 00:15:41] had next to no rain in those two months, so really quite dramatic. Now, onto slide 10. So, now just to look at a little bit more detail in Alaska wildfire. And like elsewhere in Alaska or elsewhere where wildfire occurs in Alaska, there's three key ingredients, and you have to have them all to come together to get wildfire going. You need dry air, so low relative humidity. You need stuff to burn. You need dry fuels, dry biomass, and you need something to get it going, a spark. Now, in Alaska, the wildfire season is typically...

Rick Thoman:

It's short, but it's intense. Typically just runs from the end of May to the end of July, and it's limited on the start by the timing of snow melt in the spring. And on the other book end is the onset of interior Alaska's rainy season, which typically starts up in late July or the end of August. Now, unlike many areas that you may be familiar with in the Western US, there is no correlation between the depth of the spring snow pack and the subsequent wildfire season. Now, in most years, the number of humans started fires and lightning started fires in Alaska is roughly equal, but lightning starts

almost always account for the vast majority of the area burned. And this year is no exception. More than 99% of the total area burned in the state this year is from lightning starts. Now, human starts are important, especially in the more highly populated areas in south central Alaska, where wildfires at that urban wild land interface have caused the highest property damage from fires in Alaska.

Rick Thoman:

We have happily not had any of those so far this season. Now, onto slide 11. Really the really big, unusual this wildfire season Alaska has been Southwest Alaska, a little insert on the graphic there showing the amount of acreage burned in this area. So, the red dot there is Anchorage. So, we're looking at the area west and Southwest of Anchorage. This is an area that historically has very little wildfire, but obviously not this year. For these three regions, the Yukon, Kuskokwim Delta, Kuskokwim Valley, and Bristol Bay, the total wildfire area, as you can see, is twice as large as the previous largest season, going all the way back to 1950. Now, this includes the two wildfires in the Yukon, Kuskokwim Delta, the two largest, the East Fork fire threatened several communities early in June. And that East Fork fire, also the largest wildfire in a predominantly Tundra ecosystem in Alaska since 2007.

Rick Thoman:

In the Bristol Bay region, so that's the Southwest region there, more wildfire has burned this summer than in the previous 72 years combined. And that was the area where we saw, on June 30th, extreme fire behavior from fires Northeast of Dillingham. 40 mile fire front pushed north by strong winds burned and estimated 75 square miles of boiled forest in one day. And an approaching weather front sent that thick choking smoke far to the Northwest, such that on July 1st, at Nom, more than 400 miles from the fires, Nom was enveloped in dense wildfire smoke so thick that air flights were canceled and the air quality index was roughly the equivalent of sticking your head into a fireplace chimney and breathing that air. So, to wrap up here on slide 12 now, wire flats in the state have burned now nearly 4,700 square miles. That's just about exactly the land area of Connecticut.

Rick Thoman:

That makes 2022 the seventh largest wildfire season in Alaska since 1950. And it's part of this post 1990 trend towards much more frequent big seasons. Much of mainland Alaska had very smokey conditions during the middle of June, continuing on into July Anchorage, which often escapes low level smoke because of their coastal location, had several days with fairly thick smoke in mid-June from those Southwest Alaska wildfires. And Fairbanks in the interior, with fires in most directions, we've had more than 440 hours with visibility reducing smoke, that's air quality roughly unhealthy or worse. And that makes this second only to 2004 for the amount of smokey conditions. And so while I'm very happy to say that the cooler temperatures and some rain have caused the fires to lay down and allowed firefighters to provide additional protection on fires that are threatening communities and infrastructure. It's unlikely, but it's possible that, as we saw in say 2002 and 1990, that this July pause could be followed by renewed activity, if, big if, warm and dry weather continues. So, that's what I have for you, and I'd like to hand it off now to Dan Collins.

Dan Collins:

Thank you, Rick. This is Dan Collins with NOAA Climate Prediction Center. I'm going to begin on slide number 13, and I will provide the latest update La Niña and El Niño, as well as temperature, precipitation, and drought outlooks for the next month and season. So, starting on slide 13 on the left panel, this shows sea surface temperature anomalies from average for the last four weeks. We can see that there are below normal sea surface temperatures continuing in the central equatorial Pacific Ocean and the Eastern ocean to the south of the equator as well. Both oceanic and atmospheric conditions reflect the continuation, what is known as La Niña, or a cooler than normal Eastern tropical Pacific Ocean. In addition to the cooler than normal temperatures and sea surface temperatures, the easterly trade winds are stronger than normal, and precipitation near the Date Line is below normal.

Dan Collins:

Looking at the chart to the right shows the probability of either La niña in blue bars, El Niño, or warmer than normal ocean temperatures in the tropical Pacific in red bars, or neutral conditions or near normal conditions in gray bars. La Niña is likely to persist through the next three month period, through autumn and into winter. Probability through autumn exceeds 60%. And next winter, the probability of continuing La Niña conditions is greater than 50%. Turning now to slide number 14, this is the temperature and precipitation outlooks for August. On the left is shown in shades of orange and red, where above normal temperatures are more likely to occur. Shades of blue would indicate where normal temperatures are more likely to occur.

Dan Collins:

Both normal temperatures, however, are more likely than below normal temperatures across virtually the entire us in August, bridging and higher pressure in the upper atmosphere are predicted by model forecasts. Above normal temperatures are most likely for parts of the central Rockies, in the central and Southern Plains, the lower Mississippi Valley, as well as the Northeast. There's an equal chance of above normal, near normal, or below normal temperatures in a small area of the Pacific Northwest, as well as in an area of the Northern Plains, where weather then average soil moisture conditions are present. Also, in the Southwest where greater than average monsoon precipitation is expected to reduce the chances of above normal temperatures. Equal chances is also predicted there. Probability of above normal temperatures are slightly above average for Northern Alaska as well, related to long term multi-decadal trends and temperatures. Otherwise, equal chances is predicted over much of Alaska.

Dan Collins:

And the map on the right shown in shade the brown are areas where below normal precipitation is more likely than above normal precipitation or near normal precipitation, and shades of green indicate where above normal precipitation is more likely than near normal or below normal precipitation. Below normal precipitation is slightly more likely than above normal precipitation, over a large area of the central US. That includes parts of the Northern Rockies, across much of the Great Plains, and into the Midwest. The probability of above normal precipitation is greater for Southern Texas, where soil moisture is much below average, as well as for areas of the Midwest. Above normal precipitation is more likely for interior and Northern areas of mainland Alaska. This is due, in part, to the impacts of La Niña, as well as the decadal climate trends for precipitation. Also, for the Southwest monsoon region, and for the Southeast Atlantic coastal states, above normal precipitation is more likely.

Dan Collins:

Turning now to slide number 15, this is the temperature and precipitation outlooks for the three month period of August, September, and October, with temperature outlook shown on the left and the precipitation outlooks shown on the right. Below normal temperatures. Nevermind. I'm sorry. That was a... As with the outlook for the month of August, above normal temperatures are more likely than near or below normal temperatures for most of the US. The greatest probability of above normal temperatures is for parts of the west and for parts of the Northeast, where probabilities exceed 60% in some areas. The likelihood of above normal temperatures in the next three months season for these areas have been increased by multi-decadal temperature trends due to climate change. And above normal temperatures are also likely for most of Alaska, except for parts of the Alaska panhandle. Lower probabilities of above normal temperatures along the Pacific coast, and for the Alaska panhandle are in part related to the potential impacts of the continuing La Niña and the tropical Pacific Ocean.

Dan Collins:

Looking at the map on the right for the precipitation outlook for the August, September, October period, below normal precipitation is more likely than above normal precipitation for a large area of the Western and central US. From the Northern central Rockies into parts of the Southwest, much of the Central Plains, and into the Western Great Lakes region. The probability of below normal precipitation is greater for the central Rockies eastward to the Central Plains, and for part parts of the Great Lakes above normal precipitation is more likely for Eastern mainland Alaska, as well as along Eastern Gulf coast, and along the Atlantic coast, from Florida to Southern [inaudible 00:28:26]. The forecast for Eastern Gulf coast and the Southern Atlantic coast is consistent with the outlook for greater than normal tropical storm season in the Atlantic.

Dan Collins:

Increased probabilities for above normal precipitation and the outlook for Alaska and for the Mid-Atlantic are consistent with multi-decadal timescale climate trends. Turning now to slide number 16, this is the drought outlook that begins with the end of July and carries through the months of August, September, and October. This map indicates expected changes in drought conditions by the end of October, and is relative to the drought monitor that was shown earlier in the presentation. Areas of persistent drought, where it is already present, are indicated in brown. Areas of predicted drought development are in yellow, and expected drought improvement over this period are shown in gray. Areas of expected drought removal are shown in green.

Dan Collins:

Continuing drought is expected for most of the west and across the Great Plains to the Mississippi. This is related to ongoing above normal temperatures and potentially below normal precipitation. [inaudible 00:29:49] of drought is expected for parts of Northern Rockies, as well as much of the remaining areas of the Central and Southern Plains, and as far east as the Mississippi Valley. Drought relief and removal in some locations is expected for parts of the Southwest. It is predicted to receive above normal precipitation in August. To the east, areas that are predicted to receive above normal precipitation along the east coast in the coming months are predicted to see drought relief or removal, while other areas and parts of the Midwest and the Northeast may see the persistence of drought. Drought removal was predicted for Alaska with increasing seasonal precipitation, as well as an above normal precipitation forecast for Eastern Alaska.

Dan Collins:

The persistence of drought is predicted for Hawaii due to the prediction of below normal rainfall in the coming months. And drought removal is predicted for Puerto Rico, where above normal precipitation is expected. That concludes our look at the climate outlooks portion of the call, and I will now turn the call back over to John Bateman.

John Bateman:

All right, thanks so much, Dan. We will now take specific questions from the call participants. Please be sure to identify who you would like to answer the question, if possible. Jordan, could you remind the call participants how they can ask a question, and then please queue up the first question?

The Operator:

Thank you. We will now begin our question and answer session. If you would like to ask a question over the phone lines, please press star then one on your phone, unmute your line, and speak your name clearly when prompted. Your name and affiliation are required when answering your question. If you would like to withdraw your question, press star two. Again, to ask a question over the phone line, please press star then one. One moment as we wait for any questions. I'm currently showing no questions in the queue at this time.

John Bateman:

All right, thanks so much, Jordan. If there are no questions, then I will wrap up the call. First, I'd like to thank all of our speakers for their time, and to everyone else for participating in this conference call, I will end by reminding you to mark your calendar for few upcoming events. The release of the July, 2022 US climate report is scheduled for August 8th. The release of the July, 2022 global climate report is scheduled for August 12. And the next monthly media climate call is for August 18th at 11:00 AM eastern time. Lastly, an audio file of this call will be posted on the noaa.gov media advisory site later today. And as always, if you have any further informational needs, please feel free to email me. My contact information is available at the top of the media advisory. Thank you.

The Operator:

Thank you for your participation in today's conference. You may disconnect at this time.

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