



TRANSCRIPT

Audio file from February 17 NOAA Monthly Climate Report Call

NOAA monthly U.S., global climate report call: February 17 - Experts recap January and provide outlooks through May
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Hosted by NOAA

Operator: Welcome and thank you for standing by. I would like to inform all participants that your lines have been placed on a listen-only mode until the question and the answer session of today's call. Today's call is being recorded. If anyone has any objections, you may disconnect at this time. I would now like to turn the call over to John Bateman. Thank you. You may begin.

John Bateman: All right. Thank you and good morning. Thanks 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 additional questions after today's call, my colleague, John Leslie, and I can both be reached by email at nesdis.pa@noaa.gov. And I will spell that for you. It 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 follow, can be downloaded from the link in the media advisory. If you don't have that link, I will spell it for you now so you can download it and follow the presentation. That link is <https://www.ncdc.noaa.gov/sotc/briefings>.

With that, I will introduce our speakers. The first presenter is Ahira Sanchez-Lugo, a climatologist with NOAA's National Centers for Environmental Information, who will provide a summary of the January 2022 U.S. and Global Climate Report, as well as the latest Drought Monitor update. Our second presenter is Samantha Borisoff, a climatologist with the Northeast Regional Climate Center, who will review last month's bomb cyclone nor'easter that battered the Northeast and brought blizzard conditions and record snowfall to some areas. And our third presenter is Dan Collins, a meteorologist at NOAA's Climate Prediction Center, who will provide the latest El Nino, La Nina update as well as the U.S. temperature, precipitation, and drought outlook for the months of March, April, and May. Our first speaker will be Ahira from NOAA.

Ahira Sánchez-Lugo: Thanks, John, and hello everyone. I'm going to go ahead and start on slide two to look at the global temperatures for the month of January. So the January 2022 global surface temperature was .89 degrees Celsius or 1.60 degrees Fahrenheit above the 20th century

average. And this was the sixth highest for January since global records began in 1880, which is 143 years of global data records.

During the month, temperatures were much warmer than average across much of the globe, in particular across much of South America, the Atlantic, northern Indian and western Pacific Oceans, as well as parts of Southern Mexico, Central America, Western and Southern Africa, and Southern Asia. Record warm January temperatures were observed across a large area of Central/South America and across small areas in the Atlantic, the Indian, western Pacific Oceans, and as well as Asia.

Meanwhile, cooler-than-average conditions were present across much of North America, parts of Northern Africa, India, and Central and Eastern Tropical Pacific Ocean. Regionally, average as a whole, North America, even though it had an above-average January temperature, it was the coolest January since January of 2009. And South America had its second warmest January on record while Asia had its fourth warmest January on record.

Moving now to slide three, looking how the year might end. Similar to 2021, this year began with an episode of La Nina in the Tropical Pacific Ocean. And we know that ENSO, which is the El Nino Southern Oscillation, can have an effect on global temperatures. We tend to see that during an episode of La Nina. La Nina tends to cool global temperatures slightly while El Nino tends to boost global temperatures. So with a slightly cool start to the year, there's about only 10% chance of this year ending as the warmest year on record. However, it is virtually certain that the year will rank among the 10 warmest years on record.

Now, moving to slide number four to take a closer look at the climate conditions across the U.S. So the January 2022 average temperature for the contiguous U.S. was 31 degrees Fahrenheit, which is .9 degrees Fahrenheit above the 20th century average. And even though it was above average, this was the coolest January since 2019.

As you can see in the map, temperatures were above average across much of the West and parts of the Northern Plains. California was the only state that had a statewide average temperature that ranked among the 10 warmest. Particular, California had its ninth warmest January on record. Temperatures were below average from the Midwest and Tennessee Valley to the Northeast. And this was mainly associated with a trough of low pressure system across the region.

In terms of precipitation, the U.S. had a total of 1.60 inches, which is .71 inch below average. And this tied with January of 2009 as the 14th driest January on record. As you can see from the map, precipitation was below average across much of the contiguous U.S. Regions with below average included much of the West, the High Plains, the Deep South, the Great Lakes, and the Northeast. Statewide, Nevada and California had their second driest January, and Utah had its third driest January on record. In terms of above-average precipitation, there were only the states of Tennessee, Kentucky, Maryland, Delaware, West Virginia, Virginia, and North Carolina that had above average January precipitation. However, no state had a statewide average precipitation that ranked among the 10 wettest for the month of January.

And then moving now to slide number five to look at the U.S. drought. This map here was released early this morning, and overall about 57% of the contiguous U.S. was in a type of drought from moderate to exceptional. And this is about two percentage points higher than what it was about a month ago. As you can see from the map, about 87% of the West is in drought, with about 22% experiencing extreme to exceptional drought conditions. Drought was also present across much of the High Plains, the South, and across parts of the Midwest.

As I stated earlier, much of the Western contiguous U.S. had drier-than-average conditions during the month, and during the second week of February above-average temperatures prevailed across that region, which did not help for the drought. Outside the conas, about 79% of the Hawaiian islands were experiencing drought. Alaska is currently drought free. In the Caribbean, Puerto Rico had only a small area in the Southwestern coast that was experiencing moderate drought while the U.S. Virgin Islands are experiencing moderate to exception, excuse me, to extreme drought.

So that is all that I have for today. I will now turn it over to Samantha Borisoff.

Samantha Borisoff:

Thanks so much, Ahira. I'll be starting on slide six.

From January 20th to 29th, a storm off the U.S. East Coast underwent what is known as bombogenesis, which is rapid intensification, specifically dropping at least 24 millibars in 24 hours, creating what is known as a bomb cyclone. So this can happen when cold air collides with warm air over warm ocean temperatures, with the western North Atlantic being a favored location. Air rises rapidly in the center of the storm, allowing for intense precipitation. Also, air rushes towards the storm to replace that rising air, which is what we experience as strong winds.

The map on the left is the surface map the morning of January 29th. The bomb cyclone is located southeast of Massachusetts. When the isobars or lines of constant pressure are close together, like they are on the map, it indicates strong winds. So in this case, the strongest winds and heaviest snow were focused along coastal areas from Maryland to Maine.

Moving on to slide seven. The map on the left shows snow storm snowfall totals, with the pumpkin orange and red dots indicating locations that saw at least 12 inches of snow which included multiple coastal locations that exceeded that threshold. And the greatest snowfall totals though ranged from 24 to 30 inches, and that mostly occurred in Eastern Massachusetts, Rhode Island, and on New York's Long Island. The map in the bottom right shows snowfall totals in Massachusetts, Rhode Island, and Connecticut, with the area shaded red seeing the greatest amounts.

Now on to slide eight. The table on the left shows daily snowfall totals for the select sites on January 29th with ones highlighted yellow seeing record-setting snowfall. So Boston, Massachusetts picked up 23.6 inches of snow, tying as the sites all-time snowiest day since recordkeeping began there in 1891. And Providence, Rhode Island also had its all-time snowiest day with records back to 1904, accumulating 18.8 inches of

snow. And the rest of the sites on the list experienced one of their 10 snowiest January days on record.

And this storm also helped January become one of the 10 snowiest January's on record for sites listed in the table on the bottom right. So in fact, Atlantic City, New Jersey had its snowiest January since recordkeeping began there in 1946, receiving 33.2 inches of snow. And this January also ranked among the 20 all-time snowiest months on record, but that is looking at every month at a site's period of record for these particular sites on this list.

So on to slide nine. The storm produced wind gusts of 25 to 50 miles per hour in many coastal locations with localized gusts over 65 miles per hour in coastal Maine, Southeastern Massachusetts, Southern Rhode Island, and on New York's Long Island. The map in the bottom right shows some of those wind gusts in Massachusetts, Rhode Island, and Connecticut.

Blizzard conditions, which are defined as at least three consecutive hours of winds of 35 miles or higher and considerable snow that frequently reduces visibility to less than a quarter mile, were met at multiple locations from Maryland to Maine, including sites such as Atlantic City, New Jersey, Providence, Rhode Island, Boston, Massachusetts, and Portland, Maine. For parts of New Jersey and Delaware, this was the first blizzard since March of 2018.

So the list on the left is of sites in the National Weather Service Boston area that experienced blizzard conditions as well as how long those conditions lasted. For instance, Marshfield, Massachusetts had over 10 hours of continuous blizzard conditions while Boston clocked over seven consecutive hours. And some of the impacts of the storm included numerous power outages in Massachusetts, particularly on Cape Cod. Travel was difficult, there were numerous flight cancellations, and coastal floating also occurred in several locations, especially on Cape Cod.

That is all I have. Thank you so much. And now I will turn it over to Dan Collins.

Dan Collins:

Thank you, Samantha. This is Dan Collins with NOAA Climate Prediction Center, and I will be providing the latest temperature, precipitation, and drought outlooks for the next month and season. And I will begin with slide number 10, which shows the current conditions in the Tropical Pacific Ocean as well as information on the El Nino Southern Oscillation or also known as ENSO, E-N-S-O.

Sea surface temperature anomalies from average are shown for the last four weeks in the map in the upper left. Below-normal sea surface temperatures are persisting in the Eastern Pacific near the Equator and into the Southern hemisphere as well. Both ocean and atmosphere conditions reflect the continuation of La Nina, or cooler-than-normal Eastern Tropical Pacific conditions. Easterly trade winds were slightly stronger than average in recent weeks, and precipitation over the central Pacific is less than normal.

Figure on the upper right shows the probability of either La Nina, cooler-than-normal Tropical Pacific conditions, by blue bars, El Nino, or warmer-than-normal ocean

temperatures, by red bars, or neutral conditions, near normal, by gray bars. La Nina is likely to persist through the next three months, March, April, and May, with a probability of 77% neutral, and so conditions are more likely late spring and early summer with probabilities exceeding 50%.

Turning to slide 11, we have the monthly outlook for temperature and precipitation for March, showing in the maps on the left for temperature and on the right for precipitation. In the map on the left, shades of orange and red are where above-normal temperatures are more likely to occur. Excuse me. Blue shades are where below-normal temperatures are more likely. Below-normal temperatures are most likely in parts of the Pacific Northwest, Northern Rockies, and parts of Montana. Below-normal temperatures are also likely across Southern Alaska, including the Alaska panhandle. Above-normal temperatures are likely for the season, or for the month, sorry. Above-normal temperatures are likely for the month of March from much of the Southwest across the Great Plains into the Eastern U.S. Above-normal temperatures are most likely across Southern areas, from the Southwest and across the Lower Mississippi Valley into the Eastern U.S.

In the map on the right shade, sorry. In the map on the right, we look at the precipitation outlook. Above-normal precipitation is likely in the Pacific Northwest and for the Northern Rockies. Above-normal precipitation is also likely for a large area of the Midwest from the Central Mississippi Valley up into the Great Lakes region. Above-normal precipitation is also likely for Western areas of Alaska. Below-normal precipitation is most likely for a large area of the Southwest into the Central Plains, along the Rio Grande Valley and along the Gulf Coast into the Southeast and the South Atlantic Coast. Below-normal precipitation is also likely for Southeastern regions of Alaska, including the Alaska panhandle, for March.

Turning now to slide number 12. We have the temperature and precipitation outlooks for the next three months of March, April and May shown in the maps on the left and the right. Below-normal temperatures are most likely, again, in parts of the Pacific Northwest and extending into parts of the Northern Rockies along the Canadian border. Above-normal temperatures are likely for the season for much of the Southwest and across the Central and Southern Great Plains and covering the Eastern U.S. Above-normal temperatures are most likely, once again, for the Rio Grande Valley and along the Gulf Coast. Looking to the map, below-normal temperatures are also likely for Southeastern regions of Alaska and the Alaska panhandle.

Looking to the map on the right, above-normal precipitation is likely for parts of the Northwest and for a substantial area of the Midwest and through the Ohio Valley. Below-normal precipitation is likely for a large area of the Southwest from Southern California across the Four Corners region into the Central and Southern Plains, as well as along the Gulf Coast and along the Southern Atlantic Coast. Above-normal precipitation is also likely for Northwestern areas of mainland Alaska and along the south coast of Alaska.

Turning now to slide number 13. Shows the U.S. drought outlook for the period ending with the end of May, so from the current date through March, April, and May. Areas of

persistent drought are shown in brown, areas of drought development are shown in yellow, areas of improving drought are shown in gray, and areas where drought removal is expected are shown in green. This map refers to the U.S. Drought Monitor, which was shown earlier in the presentation.

Continuing drought is expected for most of the West and into the Great Plains and Western areas of the Gulf Coast, except for areas of Washington state and Idaho where above-normal precipitation and wetter climate is expected to reduce or eliminate drought. Drought development is also predicted for some areas near the East Coast that are abnormally dry and may see deficits in moisture in the next three months. Improvement and possible removal of drought is also expected for areas to the North near the Western Great Lakes and to the South in the Lower Mississippi Valley. Drought improvement or removal is expected for areas that are abnormally dry over Hawaii as well. These changes are related in part to short-term precipitation forecasts that start before March as well as areas where drought is less severe.

That concludes our look at the climate outlooks portion of the call, and I will return the call back over to John.

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. Operator, could you please remind the call participants how they can ask a question and then please cue up the first question?

Operator: Thank you. It is star one if you would like to ask a question. Once again, star one. The first question is from Brian Sullivan with Bloomberg News. Your line is open.

Brian Sullivan: Hi there. Thanks, everyone. Two quick questions. I mean, we're deep into the water year for California, and I was wondering if you folks have a long-term prognosis for how things look in California? And secondly, you mentioned this is the second driest January on record. When was the first driest January?

Ahira Sánchez-Lugo: Sorry. For California?

Brian Sullivan: Yeah. Yeah.

Ahira Sánchez-Lugo: Okay. Yeah. Let me get that really quickly for you because I don't, I can't recall from the top of...

Brian Sullivan: Yeah.

Ahira Sánchez-Lugo: ... my head right now.

Brian Sullivan: Not a problem.

Ahira Sánchez-Lugo: Okay. Sorry, my computer is taking a little bit longer than I expected.

Brian Sullivan: Yeah.

Dan Collins: This is Dan. I guess I'll, I guess the question is about the outlook also as well...

Brian Sullivan: Yeah.

Dan Collins: ... for California.

Brian Sullivan: Yeah.

Dan Collins: Yeah. So I'll just point out that there's a slight tilt towards lower-than-normal precipitation as you see in the outlook. Of course, more precipitation would be expected during wintertime, and we're moving into drier months as well. But I can tell you that for those areas that do normally receive precipitation, that the outlook continues to be on the dry side as we go into later reads. So that is future seasons. So there's not, from a climate perspective there does not seem to be a major change in the drier-than-normal conditions expected through the next months.

Brian Sullivan: Yeah.

Ahira Sánchez-Lugo: Okay. This is Ahira. I'm going to apologize because right now I can't for whatever reason access CAG.

Brian Sullivan: Yeah.

Ahira Sánchez-Lugo: So if you don't [inaudible 00:22:23] sending me an email, I will go ahead and respond as soon as I go back downstairs. Maybe if I connect it, I'll have access to it again.

Brian Sullivan: Yep. What's your email address again? I apologize. We have a weird email system, and it doesn't keep messages for me.

John Bateman: And Brian, if you would like, this is John Bateman, you're welcome to reach out to me and I can connect you to Ahira if you would like.

Ahira Sánchez-Lugo: Yes.

Brian Sullivan: Sure. That's easier. Yeah. Yeah. No problem, John.

Ahira Sánchez-Lugo: Thank you.

John Bateman: Be sure to connect you guys. Thanks, Brian.

Brian Sullivan: Yep.

Operator: The next question comes Harry Fountain with [inaudible 00:23:00]. Your line is open.

Henry Fountain: Hi, thanks a lot. Relating to the bomb cyclone, is there anything to be said at this point about climate change influence on what happened in late January?

Samantha Borisoff: Yeah, sure. This is Samantha Borisoff. So in terms of climate change and the bomb cyclone, it's hard to definitively say a single storm is caused by climate change at this point. But what I can say is a couple of factors that could have potentially enhanced what happened. So first of all, ocean warming due to climate change could have certainly played a role. So these bomb cyclones feed off of that temperature gradient between the cold air masses and then the warm water over the ocean. And parts of the western North Atlantic are quite warm. Gulf of Maine I believe was record warm, for instance, in 2021. So definitely warm ocean temperatures related to climate change could be playing a role, likely played a role.

So also along with that, another thing that we're seeing is sea level rise due to climate change. This particular storm, luckily it didn't coincide with high tide and the winds weren't quite the right direction for major coastal impacts. But sea level rise due to climate change also has the potential to amplify storm surge with some of these coastal storms. And then kind of thirdly, another climate change tie-in, warmer air can contain more moisture. So the warmer air over the ocean definitely has the potential to add more moisture to the storm and getting you more precipitation.

Operator: And as a reminder, it is star one if you'd like to ask a question. I currently have no question.

Ahira Sánchez-Lugo: Hey, John. This is Ahira. CAG is working...

John Bateman: Yeah.

Ahira Sánchez-Lugo: ... for me. So just if Brian is around, I want to respond that the driest January occurred in 1984.

John Bateman: Wonderful. Thank you so much, Ahira. And Brian, if you did not get that, feel free to reach out to me as well by email and we will pass that along to you. I appreciate that, Ahira.

Ahira Sánchez-Lugo: Thank you.

John Bateman: All right. And I'm sorry, it does, operator it looks like we may have a couple more questions lined back up. Is that correct?

Operator: We do have a couple more questions. We do have Henry Fountain with New York Times. Your line is open.

Henry Fountain: Thanks again. I just wanted, if Dan could clarify something, I'm not quite sure I heard it right in response to the first question, are you talking about sort of not seeing any change in sort of the dryness beyond March, April, May? That's sort of what I think you said, but I just want to make it clear.

Dan Collins: Right. Yeah. To clarify, the outlooks going forward from March, April, May. We have three-month outlooks from the CPC, Client Prediction Center, which follow the seasons moving forward, April, May, June, May, June, July, and so on into autumn and next year.

So the below-normal precipitation outlooks continue to be dry over California as we go into the seasons forward. So with the climate being drier in the summer as well as the outlooks tilting more towards dry, we do not see a change beyond the three-month outlook in the precipitation, and therefore would not expect a substantial change in drought I would think as well, at least that would be a factor that would not expect relief.

Henry Fountain:

Great. Thanks very much.

Operator:

Next question is from Nidhi Subbaraman with Wall Street Journal. Your line is open.

Nidhi Subbaraman:

Hi, thanks for taking my question. This is I think for Dan Collins. My question is I wondered if there's anything more to say at the moment about the key factors driving the drought development in the Florida region for the next couple of months. Thanks.

Dan Collins:

The primary factor in the drought development in the Florida region, I believe is the seasonal outlook and the monthly outlook. I expect that current conditions there, I'm sure the current conditions there are drier than normal. So the development is related in part to the conditions preceding development of drought as well as the three-month outlook on temperature and precipitation. Also, temperature is a factor in the development of drought and there is a confident forecast for above-normal temperatures across the area during the same period.

Nidhi Subbaraman:

Thank you.

Operator:

Thank you. And I am showing no further questions [inaudible 00:28:35]. Thank you.

John Bateman:

All right. Thanks so much. If there are no further questions, I will wrap up the call. First, I'd like to thank all of our speakers for their time and everyone else for participating in this conference call. I will end by reminding you to mark your calendars for a couple of upcoming events, actually three of them.

The first one will be the release of the February 2022 U.S. Climate Report. That is scheduled for release on March 8th. The release of the February 2022 Global Climate Report is scheduled for March 14th, and in lieu of the monthly climate call next month, NOAA will host its U.S. Spring Outlook and Flood Risk Media Briefing at 11:00 a.m. Eastern Time on March 17th. Again, that is the U.S. Spring Outlook and Flood Risk Media Briefing at 11:00 a.m. Eastern Time on March 17th.

Lastly, an audio file of this call will be posted on the noaa.gov media advisory site later today. And if you have any other further informational needs, please email me at nesdis.pa@noaa.gov. And my contact information is also available at the top of the media advisory. Thank you.

Operator:

Thank you. That does conclude today's conference. We appreciate your participation and you may disconnect.

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