



TRANSCRIPT

NOAA 2022 U.S. Winter Outlook Media Teleconference

October 20, 2022 at 11:00 a.m. EDT

Hosted by NOAA National Weather Service Public Affairs

Media advisory about teleconference

[NOAA to issue 2022-2023 U.S. Winter Outlook](#)

Winter Outlook news release

[U.S. Winter Outlook: Warmer, drier South with ongoing La Nina](#)

Welcome and thank you for standing by. All participants will be in listen only mode until the question and answer session. At that time to ask a question, please press star one. Today's conference is being recorded. If you have any objections, you may disconnect at this time. I would now like to turn the call over to Jasmine Blackwell. You may begin.

00;00;21;22 - 00;00;49;06

Thank you and good morning. My name is Jasmine Blackwell and I am the media contact for today's winter outlook. Before we get started, I would like to go over a few housekeeping items. Today you will hear from John Gottschalck, chief of the operational prediction branch at NOAA's Climate Prediction Center, who will deliver NOAA's 2022-2023 winter outlook.

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A news release and graphics related to today's announcement will be made available on NOAA.gov momentarily and following Mr. Gottschalck's remarks, you will have the opportunity to ask questions about the outlook. Brad Pugh, Operational Drought Lead with NOAA's Climate Prediction Center, and Tom Diliberto, climate scientist with NOAA's Climate Program Office, will also be available during the question and answer portion of this call.

00;01;19;04 - 00;01;51;13

If you have any additional questions about the outlook, please contact me at Jasmine.Blackwell@noaa.gov. That's J-A-S-M-I-N-E DOT B-L-A-C-K-W-E-L-L And with that I would like to turn it over to John to deliver the winter outlook.

01:44

Thank you, Jasmine. And thank you all for joining today's announcement of NOAA's 2022-2023 winter outlook.

00;01;52;12 - 00;02;16;16

The National Weather Service plays a critical role in helping the nation become more ready, responsive and resilient to extreme weather and climate events. Providing accurate and timely forecasts along with forecast advice and interpretive services that we refer to as impact-based decision support services enhances America's public ability to quickly make informed, lifesaving decisions in the face of extreme weather.

00;02;17;07 - 00;02;51;29

This will ultimately result in a more weather and climate ready nation. We produce seasonal forecasts such as the winter outlook to give American communities the best possible scientific prediction of how we think the weather will develop across the nation. The seasonal forecasts produced by the Climate Prediction Center also help users account for risks and opportunities when making climate sensitive decisions.

00;02;52;29 - 00;03;17;24

This outlook supports everyone from local and state governments that must plan for public needs this winter to large and small businesses as they determine how the winter could impact transportation market demand for their goods and services and prices. The winter outlook is probabilistic in nature, meaning that the map shows areas that are most likely to be warmer or colder than normal and wetter or drier.

00;03;18;05 - 00;03;49;15

However, the nature of a probabilistic forecast means that other outcomes are always possible, just less likely. And in fact, for our probabilities to be reliable, the less likely outcomes must occur from time to time. La Nina conditions continued through the summer months and remain in place for the third consecutive winter and are forecast to persist into spring 2023. So it should be no surprise that the winter outlook is consistent with typical La Nina impacts which include a general warmer and drier South and cooler, wetter North.

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More specifically, the winter 2022 temperature forecast favors above normal temperatures for the northwest to Alaska, the Central Valley Basin and southwest extending eastward through the southern plains. Warmer than average conditions are also favored for the southeastern U.S. and along the Atlantic seaboard, with the greatest chance of below

normal temperatures most likely from the Pacific Northwest eastward to the western Great Lakes and the Alaska Panhandle.

00;04;23;02 - 00;04;55;18

For precipitation, wetter-than-average conditions are favored in western Alaska, the Pacific Northwest, Northern Rockies and parts of the Great Lakes and Ohio Valley. Drier-than-average conditions are most likely for portions of California, the southwest, the southern Rockies, Southern Plains, Gulf Coast, and much of the Southeast. The greatest odds for below average precipitation are forecast for southern Texas. The remainder of the U.S. falls into the category of equal chances for below near or above average precipitation.

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As for the drought conditions this winter, we anticipate widespread extreme drought to persist across much of the West, the Great Basin and the central to southern Great Plains, the middle and Lower Mississippi Valley is currently experiencing historic low water conditions and we expect drought to continue to impact this area as well. Drought development is likely to occur across the south central and southwestern U.S., while drought conditions will likely improve across the northwestern U.S. and northern Rockies during the coming winter months.

00;05;27;01 - 00;05;51;01

With that, I will turn it back over to the operator to moderate the question and answer session. Thank you. And at this time for your questions, please press star one. Please unmute your phone and record your name and media outlet at the prompt to withdraw your request. Please press star two. One moment, please, for questions to come through.

00;05;51;02 - 00;06;19;04

At this time, as a reminder, John Gottschalk, chief of the Operational Prediction Branch at NOAA's Climate Prediction Center. Brad Pugh, Operational Drought Lead with NOAA's Climate Prediction Center, and Tom DiLiberto, climate scientist with NOAA's Climate Program Office, will take questions about NOAA's 2022-2023 winter outlook. If you have any questions that are not related to the outlook, please reach out to me following the call.

00;06;19;29 - 00;06;37;01

I will now hand it back over to the operator to facilitate the question and answer portion of this call. Thank you. And our first question comes from Tony Wood from the Philadelphia Inquirer. Your line is open. Hi, can you hear me okay?

00;06;39;26 - 00;06;48;13

Yes, we can hear you.

00;06;51;00 - 00;07;15;21

Tony, it sounds like you've gone on mute. How about now? Can you hear me now? Yes, we can hear you now. Oh, great. Okay. Two quick questions. One is about La Nina. Now, I know the sample size is very small. It's only been two of these triple dips in the last 50 or 60 years. But would a triple dip be in any way more impactful to the United States winter than a conventional event?

00;07;16;19 - 00;07;44;12

And my second question really is regarding the undersea eruption. I've seen this elsewhere. I just want to know if there's any evidence that the aftermath of that eruption is having any impact on worldwide temperatures so far? And could it possibly have a subtle impact on the winter? Thank you. Thanks, Tony. This is John Gottschalk at the Climate Prediction Center, referring to your first question with a third La Nina.

00;07;44;20 - 00;08;11;27

As you mentioned, very small sample size only. This would just be the third time that that's happened. And they're looking back at this and making this forecast. There really was no consistent with only a few cases of making the La Nina impacts any stronger or more robust or more reliable in the given areas. I will say there's different changes during the three La Nina, during La Nina sometimes.

00;08;12;07 - 00;08;43;04

One of the events was stronger than the other two with respect to the ocean temperatures. And another one was actually more aligned or actually weak or so, we don't really have much gauge on the impacts because there was such a large discrepancy in what that third La Nina ocean temperature response was overall. So with respect to how it impacted the outlook or if there's any significant changes that would play into our decision making for this year's outlook, that really wasn't possible and we didn't make much use of any of that information.

00;08;43;23 - 00;09;21;05

With respect to the second question, Tom, would you be able to answer or shed some light on that second question? Sure. Thanks, John. This is Tom DiLiberto, climate scientist with NOAA's climate program office. In relation to the volcanic eruption that happened earlier this year. It might have a very, very slight impact. But overall, in terms of global temperatures, I believe that you're still looking, it's not gonna have an overarching larger impact on the global temperatures for this year.

00;09;21;05 - 00;09;25;02

Okay. Thank you.

00;09;27;25 - 00;09;52;17

The next question is from Patrick Whittle of Associated Press. Your line is open. Hi. Thank you so much for taking our questions. I have kind of a two part question. One source told me that the last time there were three La Nina years in a row was in the seventies. I would love to confirm if that's true.

00;09;52;25 - 00;10;22;12

And also, I believe John mentioned, um, we expect widespread extreme drought in much of the West. Is there anything that can be said about the impact that could have on wildfires? Yes. Thank you. This is John Gottschalk of the Climate Prediction Center, again. Actually we've had to triple dip when Nina's one was in the early seventies, as you mentioned, but there was also one later than that in the late nineties, early 2000s.

00;10;22;23 - 00;10;56;27

So there that was more recent than the first the source gave you for the first one with respect to the extreme drought and fires. Certainly the dry conditions that we've had through much of the summer months in early autumn have certainly produced or made areas of fires more likely. And likely stronger. And most recently, for example, the heat wave or above normal temperatures that we're seeing pretty late in the season across the Pacific Northwest, northern Rockies.

00;10;57;18 - 00;11;30;09

And drier conditions, they have certainly increased the drought categories there. And the drought conditions continue to worsen in some of those areas and have led to more likely and more coverage for fires. If you would like to add to that. Feel free. Yeah. This is Brad Pugh at the Climate Prediction Center. Just to add on to what John said, one of the areas over the next couple of months that are likely to have enhanced wildfire danger will be the south central U.S.

00;11;30;18 - 00;12;19;28

Oklahoma, Texas, Arkansas had very dry conditions there during the past 30 to 45 days, seen an increase in drought coverage and intensity. So with that and the seasonal dryness, that will be an area for high wildfire danger during the next couple of months. And this is Tom Diliberto from NOAA's climate program office. In terms of the dates, the last times we've had triple dip La Nina's in the winter, we had stretches from the 1973-74 winter through the 1975-76 winter and then the 1998 to 1999 winter through the 2000-2001 winter.

00;12;22;03 - 00;12;24;22

Okay, terrific.

00;12;27;14 - 00;12;58;01

The next question is from Scott Dance, The Washington Post. Your line is open. Yeah. Thank you. I was just wondering if you could address any level of uncertainty or uncertainty in this forecast. Obviously, I know it's seasonal, so that always brings some uncertainty. But, you know, just given the La Nina giving the strong signal here, you know, we've had polar vortex, you know, invasions, I guess you would say, in past La Nina years.

00;12;58;10 - 00;13;25;22

Is that possible this year? You know, how confident are you in sort of the classic La Nina conditions? Yeah. Thank you, Scott. This is John Gottschalk at the Climate Prediction Center. You raise a very good point over the last two years, we've had two very different eventual verifications of what was eventually observed during the December to February period.

00;13;25;22 - 00;13;48;15

Focusing on the first La Nina we had, the La Nina impacts were pretty consistent focusing on temperature, but were generally consistent for the most part. What changed was a very cold February in 2021, and I think we all remember that the very strong cold air outbreak that moved down into Texas and caused some of the energy related issues and problems down in the South Central Plains.

00;13;49;00 - 00;14;10;17

And so there was actually a large area of near-normal when you average all the temperatures over the season. And so your point is well taken. We do know during La Nina events there's considerably more variability, some seasonal variability or week to week variability during La Nina events as opposed to, say, more moderate to strong El Nino events. So we expect high variability.

00;14;10;17 - 00;14;49;20

Again, this winter, similar to the last two winters, last year's winter outlook actually before quite well. We did have colder conditions along the northern tier similar to what we've noted here in generally warmer conditions along the south and part in the eastern areas. But we did have areas of near normal. And so one reason we're trying to indicate some of that uncertainty that you're referring to is a rather large area of equal chances, sort of the area that's depicted way across parts of the interior in the eastern northeastern United States during the December, January, February period, in January or February, March period, to try to even try to address or try to communicate some of

00;14;49;20 - 00;15;11;17

the variability that we expect. We do expect similar to last year that the most likely outcome will be, for the most part, typical La Nina impacts. And that's why the forecast for temperature is quite similar to that augmented by various other model guidance and so on. So I hope that answers your question. Yeah. And this is John, right?

00;15;11;17 - 00;15;16;29

I'm sorry. Yes. Yes. Jon. Yes. Okay. Thank you.

00;15;19;10 - 00;15;44;13

The next question is from Karl Plume, the Reuters news. Your line is open. Hi there. I have been reporting on commercial shipping problems on the Mississippi River due to low water. I was hoping that you could, could you provide any more color on the Mississippi River Valley outlook and the river itself? I believe you said there would be a wetter outlook for the upper Midwest and Ohio River Valley, but drier in the southern plains and Mississippi River Valley.

00;15;44;26 - 00;16;22;03

So just kind of wondering, should we expect any improvement in river levels any time soon? This is Jon Gottschalck at the Climate Prediction Center. I'll just give a brief overview of the outlook and then I'll turn it over to Brad potentially and also our water level expert that's on the call. First, as you mentioned, December for January and February, you are favoring above average precipitation, say, from basically the Ohio River Valley northward into the Great Lakes with just

just a slight tilt for parts of the upper Mississippi and upper central and upper Mississippi River Valley, but pretty low confidence in that.

00;16;22;15 - 00;16;51;28

Further to the south, however, across the lower Mississippi Valley, we are favoring continuation of below normal precipitation in that region. That would certainly if realized, continue low water levels and exacerbate drought conditions there. But it's more a mixed signal across, a little further up right now. I will say for the November/January/February, I'm sorry, the November/December/January outlook, we don't have that same signal for above average precipitation that we have in the official winter outlook shown here.

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So this would be more of an impact later on in the winter months than, say, early on. I'll turn it over to Brad. If you'd like to add. Yes, sure. This is Brad Pugh at the Climate Prediction Center. So in terms of the drought outlook for the Midwest, we are favoring improving drought conditions during the next few months.

00;17;13;26 - 00;17;43;16

A couple of reasons for that. The drought is more on the short term time scale, so it'd be a little bit easier to see some improvement with the shorter term drought over the Midwest. And we're also going into a very favorable time of year for soil moisture recharge. That evapotranspiration rates are declining rapidly. So any rainfall that does occur will help to replenish the soil moisture.

00;17;44;00 - 00;18;19;26

And there's really no distinct dry signal on the seasonal timescale. So, you know, right now it looks like improving drought conditions are most likely for the Midwest during the next few months. Our next question comes from Sandeep Patel, with ABC seven. Your line is open. Good morning, everyone. John, this question is for you or someone else who might be able to address it or add to it.

00;18;20;16 - 00;18;43;15

I understand this is a probabilistic forecast and this is you know, we've seen two other triple La Nina events in a row previously, and they don't all behave the same. But having forecasted the weather here in California for over 25 years, I know I can tell you that we've seen variability during La Nina years in terms of precipitation.

00;18;44;07 - 00;19;06;22

And when you say drier than average for parts of the West, California, parts of California, can you give us some sort of percentage when we're talking specifically about the Bay Area, you know, what is the likelihood that it's going to be drier than average? Yeah, thank you very much. Great question. This is John Gottschalk again at the Climate Prediction Center.

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First off, you're completely correct about the range of eventual observations that are observed during the winter months, more on the Pacific Northwest Coast, all the way down to Southern California. Yeah, there's quite a bit of variability across the whole West Coast. And if you look at La Nina events, as you mentioned over many years, you'll see for La Nina events.

00;19;27;13 - 00;20;06;25

You'll see areas in the Bay Area in north, and that can be drier than normal near-normal or above normal for any of those La Nina events. When I'm referring to dry driving overall across parts of the west in the outlook, mainly favoring parts of mainly Southern California and the southwest, that's where the signal is more reliable. The reason why we have equal chances in the Bay Area and California, which I know is difficult and, you know, for users to understand is just for the exact reasons that you mentioned, is that there basically is such high variability along the West Coast in a middle area and even a little further to the north and in

00;20;06;25 - 00;20;32;00

Oregon that we usually end up forecasting equal chances of this forecast because of the uncertainty, the rainfall events or seasonal rainfall. And some of these areas will eventually be determined by more seasonal type weather and climate events or that appear over a couple of weeks, such as atmospheric rivers or areas of high pressure that last for two or three weeks at a time as opposed to one longer term general average pattern.

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So if you go further to the north across Washington, we do have high, we feel that there's more likelihood of above normal precipitation there as you go towards the middle part near the Bay Area region, as you mentioned, it's really quite uncertain. And further south will be the greatest confidence for drier conditions across south, central and southern California.

00;20;49;28 - 00;21;08;07

I hope that helps them. Yeah, no, that definitely helps. I think, John, the biggest problem we have is our viewers here in the Bay Area and our followers on social media. The biggest thing they have a problem with is how come there is a definite signal for the Pacific Northwest and for Southern California, but we're sort of in that gray area.

00;21;08;07 - 00;21;24;27

And you're not telling me anything. And I'm not saying they say this to me, but they're just they're like, well, you know, we want to know, are we going to have a dry winter or a wet winter somewhere in between? Obviously, everybody wants to know. I mean, we've been in a drought for so many years and it's been so severe.

00;21;24;27 - 00;21;50;01

And then with La Nina, I think there's also an automatic assumption every time there's an El Nino that it's going to be wet and every time there's a La Nina, it's going to be dry here in the Bay Area. But I can tell you, I mean, having gone through the 97-98 El Nino and having gone through other La Nina events, that it doesn't always pan out exactly the way we would assume as viewers it's going to pan out.

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Understood. And if I could just add, just if I could just add just five more just a few seconds to that. The reason that that is in the central coastal area is that the La Nina continues to tend to have more higher pressure and type blocking type high pressure just off the coast of the north central Pacific. And downstream with that, you have upper level low pressure troughs, as you know, that will impact the Pacific Northwest.

00;22;14;05 - 00;22;43;03

But very often that where that ridge placement is our high pressure placement in that north central Pacific, it makes all the difference. For example, that shifted just to 20 degrees longitude to the west. Dropping won't be an impact in the Pacific Northwest. It will impact the whole West Coast, including parts of Central and Southern California. Other times will have, like we've had in February a number of years ago with that resilient ridge, as it was phrased, shifting further to the East to the coast, then you have dry across most of the entire West Coast.

00;22;43;03 - 00;23;02;27

And the precipitation that you would expect of the Pacific Northwest is more in the northern Rockies and into the Northern Plains. And so it's very hard to predict how that's going to set up over a few weeks at a time, let alone over an average over the whole season. So that's why your viewers have that concern, because that's a real, real impact and a real reality.

00;23;03;29 - 00;23;10;28

Right. Right. Okay. That makes sense. Thank you so much. I really appreciate it. You're welcome.

00;23;14;22 - 00;23;46;07

The next question is from Evan Busch, NBC News. Your line is open. Hi. I think readers might be sort of with the Western drought. I think readers might be a little fatigued from seeing those headlines. You know, drought continues, that sort of thing. And I'm just wondering if we could put into context how extreme conditions are at this point and what some impacts that people should be focused on might be for the Western drought.

00;23;46;14 - 00;23;52;09

I'm just trying to better understand and convey to readers how unique this is.

00;23;54;23 - 00;24;32;11

Yeah, this is Brad to you at the Climate Prediction Center. So, yeah, we're going on our third year of this extreme drought for much of the western U.S. with the extreme drought currently focused over much of California, the Great Basin, and also extending northward into parts of Oregon. And in terms of impacts adversely affecting agriculture, also increasing the wildfire danger and even has impacts on tourism as well.

00;24;32;26 - 00;25;05;27

That part of the economic sector. Our seasonal drought outlook, though, is calling for improving drought conditions over the Pacific Northwest. But right now we're seeing a major pattern change unfolding near the West Coast with a trough of low pressure that'll be becoming established next week near the West Coast. So it looks like a much wetter pattern for Washington and Oregon during late October into at least the beginning of November.

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So that should begin to perhaps start the improvement process there in Washington and Oregon. And then as we head later into the late fall and winter, consistent with CPC's seasonal precipitation outlook and typical La Nina impacts, we are expecting those improving conditions to continue into the wintertime.

00;25;37;09 - 00;26;14;29

Thanks so much. You're welcome. The next question is from Joan Grama from Newsday. Your line is open. Hi. Thank you for taking my question. Sorry that New York focused. Could you please address how this third La Nina will affect New York's winter storms? Yes, thank you for the question. This is John Gottschalck about the Climate Prediction Center. We're still in favor of general weather similar to the last couple of La Nina, as typically during La Nina events.

00;26;15;23 - 00;26;38;21

The East Coast storm track that obviously affects New York City and New England in the mid-Atlantic in general typically has shifted somewhat to the West as compared to climatology a little further closer to the coast or over, in fact, inland at times of the Appalachians. Whereas during El Nino events, that storm track typically actually shifted to the east or southeast of climatology.

00;26;39;00 - 00;27;09;01

So what will typically happen with La Nina events in your area? Very often you'll have less there, some less likely or enhanced chances for actually less snowfall from, say, the mid-Atlantic mid-Atlantic region up into your region because of the storm track shifting further to the west and often allows the main area precipitation to be west of your area, but also warmer temperatures from the Atlantic Ocean to creep in and affect some of the coastal areas from New England all the way down to the mid-Atlantic.

00;27;09;12 - 00;27;44;22

So typically snowfall on average over the season is near to below normal in your region. But each event is different and each storm track is different. And so it doesn't preclude having, you know, very severe snowstorms during the period. But on average, typically snowfall is favored to be below normal for La Nina events. Oh, and can I also ask, if you don't mind, is there any way to characterize how this might affect the rest of the hurricane season in the Atlantic Basin?

00;27;46;20 - 00;28;13;00

Well, I mean, with respect to the hurricane outlook, the updated outlook was released in early August. We've been actually in La Nina conditions from last winter all the way through the summer and actually currently in a La Nina

advisory. And this is expected to continue, as we noted, through the winter months. So we're already in the La Nina situation that would impact the Eastern Pacific in the Atlantic basin.

00;28;13;12 - 00;28;46;28

So right now, it's been an unusual year in many ways for the Atlantic basin. And so that general trend, what we've seen is likely to continue because as we're entering the tail end of the Atlantic hurricane season. Thank you very much. You're welcome. Next question is from Nancy Garner from Omaha World-Herald. Your line is open. Thank you. Could you please address how drought affects winter temperatures and precipitation?

00;28;47;25 - 00;29;18;02

And then could you address whether there's a connection between La Nina and drought either into the winter or continuing into the spring? And then I had a request after this. Thank you. Okay. This is John Gottschalck at the Climate Prediction Center. In your area in Nebraska. During the winter months, the soil moisture relationship to temperature and precipitation is not very strong.

00;29;18;21 - 00;29;45;06

That's more of a feedback or impact to near surface temperature during the spring, late spring, spring, late spring and summer months where you tend to have warmer temperatures based on drier soils and less evaporation from either the soil or vegetation. So the upcoming winter don't see much impact from that point of view with respect to impacts on drought from La Nina.

00;29;46;00 - 00;30;19;25

As Brad noted earlier, basically over the coming three months, La Nina approves drier conditions and the model guidance supports this as well across the southern tier. So with respect to the precipitation outlook itself, we are favoring drought to persist and develop along the southern tier of the U.S., meaning that some of the southern parts of the southeast and Gulf Coast states, but not necessarily too much further to the north because of the drier signals along the southern tier of the U.S..

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I hope that helps with the first two questions. You said you had a follow up. Yeah, thank you very much. I don't know whether this call is atypical, but if we could have those slides ahead of time, that's true. Would help, because I've struggled to keep track of which part of the countries where and all that.

00;30;36;14 - 00;30;43;27

So I really appreciate all you do, but would just ask if we could get the slides ahead of time. Thank you.

00;30;47;13 - 00;31;08;10

The next question is from Josh Saul of Bloomberg News. Your line is open. Oh, hi, everyone. Can you please tell me again just repeat what the U.S. can expect in terms of higher than average temperatures. And then also, what will this mean for energy demand this winter? Thank you. Sure. Sure. This is John Gottschalck from the Climate Prediction Center.

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Right now, the greatest likelihood for above normal temperatures for the December January-February period will be along the southern tier of the U.S. from central and southern California across the Great Basin, the southwest across the southern plains and southeast and along the Atlantic seaboard. With respect to energy demand, we're favoring typically in the early part of the winter, more likelihood of below normal temperatures across much of the western Great Lakes, Northern Plains and westward towards the Pacific Northwest.

00;31;45;24 - 00;32;11;13

So the energy demand, if realized, would be likely stronger in some of those areas early on. We also tend to see kind of a potential shift in some of the colder temperatures, although we have greater uncertainty across parts of the northeast a little bit later on in the winter, as well as further into the Pacific Northwest as we get into February and March, where the signal across the northern plains tends to ease somewhat.

00;32;11;22 - 00;32;33;15

The signal of below normal temperatures, I'm speaking of eases somewhat so that it would tend to be three or more in the early winter for the north central part of the country and the interior and potentially later on in the winter across parts of the northeast, northwest, Pacific Northwest region. So sorry. So in the early part of the winter, the below average temperature is along the where?

00;32;33;21 - 00;32;53;02

Could you say again, please? Favor the Pacific Northwest to the western Great Lakes along that northern tier. So that would include the northern plains, northern high plains, northern Rockies. And. Okay. And then later in the winter, you would expect colder colder temperatures in the northeast, you said. So greater energy demand there? Potentially.

00;32;53;03 - 00;33;14;23

They returned less in the last few La Nina's we've had colder temperatures later on in the winter due to various reasons that have occurred across parts of New England, the eastern Great Lakes. But that's been pretty variable from event to event. But that's what we've seen the last couple of years. It's hard to predict where it went specifically, but that tends to be a higher probability during the later part of the winter.

00;33;15;05 - 00;33;39;05

And colder temperatures in general make for greater energy demand. Is that right? In general, from a temperature perspective, I don't know all the details necessarily but from a heating point of view, the colder temperatures overall would tend to favor that I would believe. Okay. Thank you very much. You're welcome. Next question is from Barbara Moran from WBUR Boston.

00;33;39;06 - 00;34;02;02

Your line is open. Hi. Thanks for taking my call. Um, my questions are New England specific? Um, and following up on the Bloomberg reporter, you said that there's going to be warmer than average temperatures in the Northeast and New England. But I'm wondering, can you be more specific about how much warmer and then will that be just in the beginning of the season and toward the end?

00;34;02;13 - 00;34;32;10

And second question about winter storms. Do you think for New England, do you expect them to increase in frequency or intensity this winter? Or be average? Thank you. Sure. This is John Gottschalck with the Climate Prediction Center. Currently our November, December and January outlook plus the winter outlook we're showing now that we do tend to have a slight tilt in the odds towards above normal temperatures along the eastern seaboard, including Boston and lower New England.

00;34;33;08 - 00;35;03;27

But that's the probability or likelihood of the seasonal mean temperatures being in the upper range of the historical distribution or range of possibilities over the last 30 years. We're not able to accurately or reliably say how much above

normal for the season in those areas overall. With respect to the storminess, as I mentioned, the storm tract tends to be close to the coast or inland, but temperatures can sometimes be cold enough across parts of the northeast.

00;35;03;27 - 00;35;28;28

New England and your area Boston to actually you're on the borderline between below normal favored below normal snowfall in the mid-Atlantic region during one year and actually above normal snowfall across parts of northern New England. So there's a lot of variability in the actual snowfall departures from normal in your area as far as how the storms are more the frequency or the intensity.

00;35;29;15 - 00;35;57;13

We really can't say anything reliably with or concisely with respect to that at this early stage of the winter. Those are more events that can be determined maybe a week in advance. Okay, great. Typical New England. Yeah. Yes, I agree. Okay. Thank you very much. Yeah, you're welcome. The next question is from Ezra Romero from KQED. Your line is open.

00;35;58;17 - 00;36;23;01

All right. Thank you so much. Can you characterize the outlook for the San Francisco Bay area? And then secondly, I know we had some big atmospheric rivers last year, that sort of drought for some parts of the Bay Area, you know, with a big area from San Jose to Sonoma. What do you expect that you could see of these like big extratropical, cyclone type atmospheric rivers as well?

00;36;24;20 - 00;36;51;23

Yeah, this is John Gottschalck at the Climate Prediction Center again, first, your first question generally favoring above normal temperatures in the Bay Area, especially to the south of the Bay Area in California at modest probabilities with respect to precipitation, as was discussed earlier, the official forecast for equal chances for any of the three categories because of the high variability that we discussed earlier for the West Coast.

00;36;52;03 - 00;37;17;05

However, your question is very spot on in that we certainly can have atmospheric river events that produce high amounts of precipitation and depending on this exact situation for higher elevations, heavy snowfall. We saw that last year during the month of December that you had a very strong atmospheric river event and drought improved considerably in some areas.

00;37;17;13 - 00;37;37;18

And then, however, we look at the observations for the season as a whole, we were actually below normal. So it's a real challenge. But my answer to the second question is that, yes, certainly atmospheric river events can occur during these La Nina winters, and I wouldn't expect anything otherwise. It's more of the frequency of them.

00;37;37;18 - 00;37;57;13

And when they occur and how cold the situation is in the Pacific Northwest and in California, weather, you can build up the snowpack at a sufficient level so that it melts over time in the spring to produce drought relief. Overall, I hope that helps some. I think so. Yeah. Thank you.

00;38;00;14 - 00;38;33;05

The next question is from Dan Jenkins, Capitol Press. Your line is open. Thank you. What else besides will affect the winter weather? Yeah. This is John Gottschalck from the Climate Prediction Center. Overall, in addition to just the typical La Nina understanding of impacts, the potential common impacts. We have a number of other forecast information that we utilize, such as numerical weather prediction models that are similar to what you see for the weather time scale.

00;38;33;05 - 00;39;06;10

But these also run out for our producer solution out into over three months. And so we have a number of these that we utilize in making the outlook so that information as we augment our current readiness facts background state forecast by using these these model predictions also in certain areas coastal sea surface temperatures are utilized as well as the above normal sea surface temperatures in the North Pacific right now in the North Atlantic.

00;39;06;21 - 00;39;29;06

We have products that are able to try to make use of that information to adjust the outlook. In addition to those seasonal factors, a lot of the things that will affect the winter eventual winter temperature precipitation patterns are more what we call sub seasonal variability or types of changes that occur over weeks as opposed to on average over the whole season.

00;39;30;00 - 00;40;04;06

And these play a role, but they're not typically predictable, such as long leads on the seasonal time scale. These are often returning. You may be familiar with our types of climate variability, such as the Arctic oscillation, which is a higher latitude phenomenon, or the Mandalorian oscillation, which is a tropical phenomenon or impacts. Those sorts of variations on the sub seasonal time scale can often go a long way in determining what your eventual seasonal mean temperature observations will be by the end of February.

00;40;05;09 - 00;40;29;12

Does that help? And if I may ask a quick follow up, is this likely to be a weak moderate or probably near intrinsic strength in the La Nina matter? Right. First question is we're favoring and it looks like it's going to be another moderate event similar to last year. So a low, low to mid-range moderate, moderate event.

00;40;29;22 - 00;40;56;14

And with La Nina's, to be honest, there is not much predictability or reliability in impacts whether we get moderate or strong with El Ninos, that's different. Stronger El Nino tend to be more reliable for the most part in some of the temperature precipitation patterns across most of the country. Thank you. You're welcome.

00;40;57;28 - 00;41;33;07

The next question is from Isaac Saki from Strata Markets. Your line is open. Hi. Thank you. I guess just returning to the California outlook question, we're a PR agency specializing in the tree nut sector. It looks like, you know, with the Bay Area discussion, you extend that into the Central Valley a little bit in that kind of central to northern part of the California Central Valley is going to be a little less predictable.

00;41;33;07 - 00;42;03;09

But southern Central Valley seems like drought is going to continue. Is that correct? Yes. This is Jon at CPC. Yes, that's correct. We have a bit more confidence in a tilting towards drier than normal winter precipitation for the areas you mentioned these central lower Central Valley, California, down towards the lower part of the state. And so therefore that would tend to, with the lack of precipitation, persist the drought in those areas.

00;42;04;11 - 00;42;47;24

Gotcha. And so maybe North, it seems like unsure more up in the air, though, correct? Yes, that's the part reality. Unfortunately, it's very uncertain. One of the things I would add is that we do produce forecasts as we go forward, you know, a few weeks in advance throughout the season. And so I encourage people to look at some of those outlooks that

are week two Outlook Week three and four Outlook that may give a little bit of lead time for potential wet periods coming up or dry periods for that matter in California that we may not be able to reliably depict on our seasonal precipitation map.

00;42;49;05 - 00;42;50;17

Got it. Got it. Thank you.

00;42;55;09 - 00;43;19;07

The next question is from Craig Miller. Next Avenue. Your line is open. Hi, thanks very much. I'm looking at your seasonal three month outlooks here for both temperature and precipitation. And I see that you've got New York State, most of New York State and New England in the normal or above temperature zone overall for the next three months.

00;43;19;20 - 00;43;48;19

But we do get these occasional intrusions or breakouts of the polar vortex, which I've read may increase or at least in longevity with climate change. How predictable are those things? And do you have any insights into how that might play out this winter. Yeah, thank you for the question. This is John Gottschalck and the Climate Prediction Center is the most recent research overall.

00;43;48;28 - 00;44;13;24

The question is still somewhat open as to whether some of the Arctic outbreaks, very amplified patterns do change with climate change. But there is some evidence that the polar vortex, for example, at higher latitudes becomes a little bit more wobbly, if you will, or more meridional, as we call it. That tends to make the polar vortex weaker and weaker.

00;44;13;24 - 00;44;35;28

You can tend to have more Arctic outbreaks across anywhere in the mid-latitudes, not just the central part of the country, of the U.S. or Northeast. So, you know, whether it's changing with becoming more frequent or more intense, we can't speak to that. But with respect to the timing of when we may know something like that may happen is very closely tied to the Arctic oscillation in some of these events.

00;44;36;09 - 00;45;11;26

And the other oscillations for the most part, that impact these colder outbreaks. And but typically, unfortunately, some very strong signals or reliable signals really can only be achieved for that a couple of weeks out, perhaps sometimes less, sometimes a little bit more, depending on the situation. For example, we can have some of the stratospheric warming, you may be familiar with that which can produce, give us a little bit more lead time potentially for a switch in the face of the Arctic, the arctic oscillation to a cold signal for the U.S., for example.

00;45;12;07 - 00;45;40;21

But we really can't say too much about that at this time. I would say a few weeks out, we would start to be able to see something like that potentially happening. Hope that makes some sense. Now, do you predict that you expect any improvement in that predictability from like the JPSS2 or anything that's upcoming? Well, although I do think that improvements will definitely be coming over time, they'll be incremental small changes and so on over time.

00;45;40;21 - 00;46;11;11

Specifically what you're referring to, I'm not familiar as much about that, but in general, all the information and projects with respect to whether the satellite data or improved modeling do, we do expect and hope that there will be improvements in these sort of extreme events moving forward over the next 10 to 20 years? We do think that they'll be incremental however. If I can just squeeze in a quick I see that a lot of your boundary lines on your heat maps cut right through New York State and New England, is that because we're kind of straddling the jet stream?

00;46;11;28 - 00;46;35;14

Yeah, exactly. The storm track, as I've mentioned, shifts weather, what phase you are in. And so for La Nina, it typically shifts to the north and west and every storm tracks that way. But in general, on average over the season, that's what typically happens for La Nina. So these storminess and snow, for example, is more in the Appalachians into the west, interior parts of New York, whereas warmer air is able to come along the coastal area.

00;46;35;14 - 00;46;54;24

So we know that we have the I-95 corridor of rain snow line almost seems like every storm that can often be a little further west. And so it's very, it's a challenge because the warm air comes from these storms off the water, even though it's winter. The water temperatures are warmer, obviously, than over the land. And so that can tend to keep temperatures above normal in coastal areas.

00;46;54;24 - 00;47;20;09

So that's kind of why that is drawn that way. Okay, thanks. I hope it didn't overstay my welcome. You're welcome. Now, before we take the next question as a reminder to ask a question today, please press star one at this time. Our next question comes from Travis Herzog, KTKR TV. Your line is open. Hey, thanks for doing this like I'll do every year.

00;47;20;20 - 00;47;44;19

Just a real quick question of what all goes into formulating the outlook beyond just looking at ENSO. Is there anything else you're looking at? And if it's primarily based off ENSO is there anything that you've been studying to perhaps add to these outlooks to enhance their predictability in the future? Yeah, thanks, Travis. A very good question. Although we use NESO

00;47;45;19 - 00;48;09;12

AS you mentioned, as the initial first sort of guess, if you will, that we're in one of the events, whether we be one year old. So we do have quite a bit of other information that I want to go into too much detail, but we have both empirical, statistical and dynamical model guidance, as you probably know, from a number of systems that are used to forecast out through the winter months.

00;48;09;12 - 00;48;34;12

And so what we tend to do is we sometimes do have distinct differences or nuances or adjustment of details that we use numerical modeling for with the seasonal outlooks so it's not entirely ENSO driven. It does serve as a first guess because that's one of the leading modes that are predictable for seasonal outlooks. But we do use American weather guidance to augment the forecasts.

00;48;34;19 - 00;49;03;09

And there's also relationships with various sea level pressure and SST, whether it be in the Pacific or the Atlantic, that often are not related to ENSO per say that we utilize in our outlooks, we also utilize natural analogs at times of previous over the previous historical record that doesn't necessarily link to La Nina's. We also use and so this all kind of combines itself into the outlook that you see.

00;49;03;27 - 00;49;33;19

I hope that it does. And as a quick follow up, how warm relative to average the Northern Pacific is into the Gulf of Alaska. Is that typical for a La Nina or is that something that may set this particular La Nina pattern in the Pacific apart from others? That's a great question. Typically that does happen, but it's a little bit sometimes a little bit later in the

winter, because one of the patterns of the circulation that occurs during La Nina, as you know, is more blocking or high pressure in one Pacific.

00;49;33;19 - 00;49;57;08

And so the storm track is shifted north and therefore there's less storminess there and less cloudiness. So ocean surface temperatures become warm as we go through the winter, but right now we're starting in that phase. And so sometimes that can lead to a little bit more high pressure amplification to the pattern. Or during La Ninas, as you know, blocking is typically more likely than, say, during strong El Ninos.

00;49;57;08 - 00;50;25;16

And so with blocking, whether it be the North Pacific across Alaska or in the North Atlantic associated towards Greenland, that typically is a colder pattern for the central parts of the interior of Canada and north and north central U.S. And that's one of the factors that we considered outside of ENSO that you mentioned. That sort of SST pattern can produce more troughing in the interior part of North America and can lead to more potentially colder air.

00;50;26;05 - 00;50;47;03

But having said that, we know also that extra tropical or high latitudes, sea surface, meaning outside the tropics, can change very quickly over a few weeks, three weeks or so, as compared to ENSO which could be the last four seasons of it, as we've seen. So we consider it, but we have to be very careful about how we utilize it completely because of that, that it can change quickly.

00;50;47;09 - 00;50;50;03

Great perspective. Thank you. You're welcome.

00;50;52;22 - 00;51;24;04

The next question is from Alison with CNN. Your line is open. Thank you. I know you briefly talked about the Mississippi River water levels and talking about soil moisture rebounding in the Midwest and the below average levels for the lower Mississippi Valley region. Can you talk more specifically about the forecasts for the precipitation in the winter, specifically for the Mississippi stretch from Kentucky all the way down to Louisiana and its impacts there?

00;51;24;06 - 00;51;52;29

Sure. This is John Gottschalck at the Climate Prediction Center. Right now, say Kentucky southward, there's still some uncertainty in the northern part of that region, say for Kentucky and Tennessee, Missouri, Arkansas, areas where we have equal chances for any three categories. However, south of say central Arkansas, we are favoring below normal precipitation across the river area, river valley in that region.

00;51;53;14 - 00;52;06;29

So that's kind of what we're favoring overall. So drought, precipitation should realize will be below normal and further exacerbate drought conditions. Brad, do you have any other comments that you like to add?

00;52;09;17 - 00;52;16;16

No, that sums up well, John. All right. Thank you. You're welcome.

00;52;19;07 - 00;52;57;23

The last question comes from Scott Barnes, The Washington Post. Your line is open. Thanks for the second question. I also wanted to sort of come back to the Mississippi. But, you know, maybe I'll just say looking at like the drought outlook map compared to the precipitation outlook map. I'm curious like why, you know, it's such a massive area of, you know, continuing or worsening drought when, you know, we've got kind of equal signals for precipitation outlook in a lot of that area, although I guess we're still in a lot of it is in the southern tier.

00;52;57;23 - 00;53;27;17

But just yeah. Wondering if you could talk about the overall, you know, with, you know, more than 80% abnormally dry you know in the country now could you come back to the overall outlook for drought in the country? Yeah. This is Brad Pugh at the Climate Prediction Center. So a couple of areas for persistence that do touch upon the Great Plains is going into their drier time of year.

00;53;28;16 - 00;54;06;05

So that's a major factor in supporting persistence throughout the Great Plains. And also as you move southward into Oklahoma and Texas, the drier than normal conditions and persistence are consistent with La Nina. And then over the southwestern U.S., Southern California, with La Nina and the seasonal forecast favoring below normal precipitation, persistence is forecast there. Conversely, talked about this earlier in the call.

00;54;06;05 - 00;54;34;04

But we are expecting some improving conditions, though, for the northwestern U.S. Okay. But, yeah, I guess like for like the upper plains, for, you know, some of the Rockies, like I see those are the equal chances precipitation outlook. But, you know, in the continuing or worsening drought category, what how would you know, what? Why is that?

00;54;35;24 - 00;55;15;26

Yeah. So for like the northern plains east of the continental divide. So central and eastern Montana, eastward to to the Dakotas, the wintertime is a very dry time of year. So that's the reason we're not expecting any improvement in the drought conditions for that region of the country. And then over the southwest and much of California apart, part of the reason for the persistent forecast is the La Nina, but also just the long term nature of the drought, you know, dating back through back to 2020.

00;55;17;00 - 00;55;57;10

Mm hmm. Okay. Okay. Thank you. Yeah, you're welcome. We are showing no further questions at this time. Alright, thank you so much. This will conclude our press briefing today and you can find the news release and related graphics from today's call on NOAA.gov. If you have any additional questions, please contact me by email at Jasmine.Blackwell@noaa.gov.

00;55;57;19 - 00;56;20;15

That's J-A-S-M-I-N-E DOT B-L-A-C-K-W-E-L-L AT N-O-A-A DOT G-O-V or by phone at 202-841-9184. Thank you again for joining us today. Thank you. That does conclude today's conference. We do appreciate attending. You may disconnect at this time.

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