

NOAA Issues Spring Outlook for 2022

By: NWS Staff



A look at a nearly empty Grant Lake in California, USA, August 2021. NOAA's 2022 Spring Outlook predicts prolonged, persistent drought in the West (George Rose/Getty Images)

NOAA issued its U.S. Spring Outlook today, and for the second year in a row, forecasters predict prolonged, persistent drought in the West, where below-average precipitation is most likely. [NOAA's Climate Prediction Center](#) – part of the National Weather Service – is also forecasting above-average temperatures for most of the U.S. from the Desert Southwest to the East Coast and north through the Midwest to the Canadian border from April to June. The Spring Outlook includes predictions on [drought](#), [temperature](#), and [precipitation](#).

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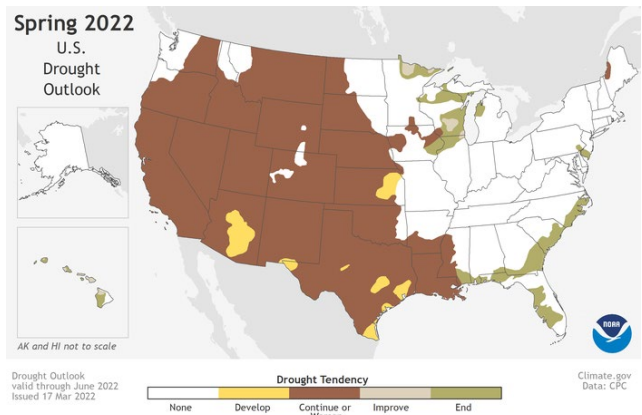
“NOAA’s Spring Outlook helps build a more weather and climate ready nation by informing local decision makers and emergency managers of this spring’s hazardous weather, such as extreme drought,” said NOAA Administrator Rick Spinrad, Ph.D. “NOAA’s seasonal outlooks provide advanced warning of the conditions to come, enabling communities to make preparations that boost their resilience to these hazards.”

“Severe to exceptional drought has persisted in some areas of the West since the summer of 2020 and drought has expanded to the southern Plains and Lower Mississippi Valley,” said Jon Gottschalck, chief, Operational Prediction Branch, NOAA’s Climate Prediction Center. “With nearly 60% of the continental U.S. experiencing minor to exceptional drought conditions, this is the largest drought coverage we’ve seen in the U.S. since 2013.”

Short-term drought recently developed in a region stretching from North Carolina southward through parts of Florida. Dry conditions will bring an elevated risk of wildfires across the Southwest and southern Plains and north to the Central Plains, especially when high winds are present. Drought conditions in the Southwest are unlikely to improve until the late summer monsoon rainfall begins.

More than half of the U.S. is predicted to experience above-average temperatures this spring, with the greatest chances in the Southern Rockies and Southern Plains. Below-average temperatures are most likely in the Pacific Northwest and southeast Alaska.

Above-average precipitation is most likely in portions of the Great Lakes, Ohio Valley, mid-Atlantic and the west coast of Alaska, while below-average precipitation is forecast for portions of the Central Great Basin, Southwest, Central, and Southern Rockies and Central and Southern Plains, eastward to the Central Gulf Coast.



This map depicts where there is a greater than 50% chance of drought persistence, development, or improvement based on short- and long-range statistical and dynamical forecasts during March 17 through June 30, 2022. (NOAA)

There is a minor-to-moderate flood risk throughout much of the eastern half of continental U.S., including the Southeast, Tennessee Valley, lower Mississippi Valley, Ohio Valley, and portions of the Great Lakes, upper Mississippi Valley, and middle Mississippi Valley. An above-normal ice breakup and flood potential is also present in Alaska.

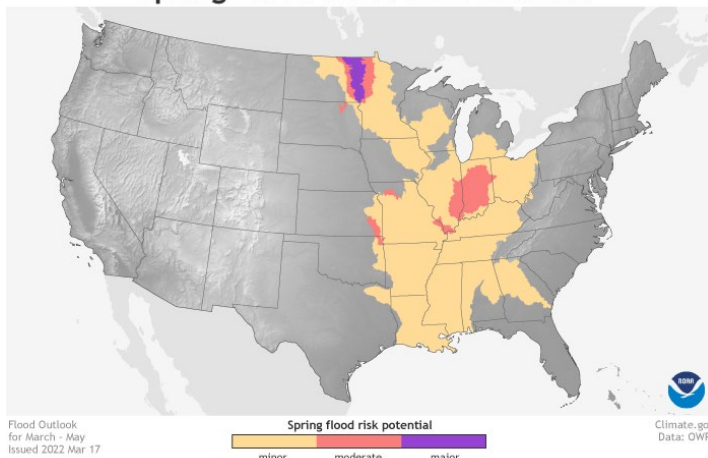
“Due to late fall and winter precipitation, which saturated soils and increased streamflows, major flood risk potential is expected for the Red River of the North in North Dakota and James River in South Dakota,” said Ed Clark, director, NOAA’s National Water Center.

Spring snowmelt in the western U.S. is unlikely to cause flooding.

NOAA’s National Hydrologic Assessment evaluates a number of factors, including current conditions of snowpack, drought, soil saturation levels, frost depth, streamflow and precipitation.

NOAA produces seasonal outlooks to help communities prepare for likely weather and environmental conditions during the coming months to minimize impacts on lives and livelihoods. Heavy rainfall at any time can lead to flooding, even in areas where the overall risk is considered low. Rainfall intensity and location can only be accurately forecast days in the future, therefore flood risk can change rapidly. Stay current with flood risk in your area with the latest official watches and warnings at weather.gov. For detailed hydrologic conditions and forecasts, visit water.weather.gov.

Spring 2022: U.S. Flood Outlook



This map depicts the locations where there is a greater than 50% chance of moderate or minor flooding during March through May, 2022. (NOAA)

SPC and WFO Shreveport Conduct IDSS Tornado Simulation

By: NWS Staff

SPC and WFO Shreveport Conduct IDSS Tornado Simulation

Tornado Watch

* Tornado Watch for portions of Eastern Texas, southeast Oklahoma, southwest Arkansas, and western Louisiana.

* Effective this Friday afternoon and evening from 300 PM until 1100 PM CST.

* Primary threats include...

- Several tornadoes and a couple intense tornadoes likely
- Scattered damaging winds likely with isolated significant gusts to 75 mph possible
- Scattered large hail and isolated very large hail events to 2 inches in diameter possible

SUMMARY... Scattered supercell development is expected this afternoon through early tonight from central Texas northeastward toward central Arkansas. Other storm development is expected early tonight along a cold front moving into central Texas. The storm environment will favor the potential for a few strong tornadoes this evening through early tonight, as well as damaging winds and large hail.

Evan Bentley, Storm Prediction Center, briefing WFO Shreveport staff and emergency managers on a mock Tornado Watch covering their area

The Storm Prediction Center (SPC) teamed up with WFO Shreveport, LA to conduct an Impact-based Decision Support Services (IDSS) simulation for staff and partners of the Shreveport office. The purpose of this simulation was to virtually exercise three key aspects related to tornadoes:

- Coordination between the WFO and SPC in a fully integrated field structure
- Briefing partners for a tornado event where the threat quickly escalates
- Quickly providing an update to an emergency manager when a Tornado Emergency is issued for their area

Evan Bentley, Meso-Assistant/Fire Weather Forecaster at the Storm Prediction Center, provided insight on the SPC convective outlook products, along with the wind/hail/tornado hazard probability graphics. He also gave insight on mesoscale discussions and Tornado Watches to office team members and core partners. Meanwhile, Aaron Davis, Meteorologist at WFO Shreveport, developed a mock local convective outlook Day 1 graphic while also taking tornado radar images from the December 10-11 long-tracked tornado that moved across southwestern Kentucky and superimposed it over the local area.

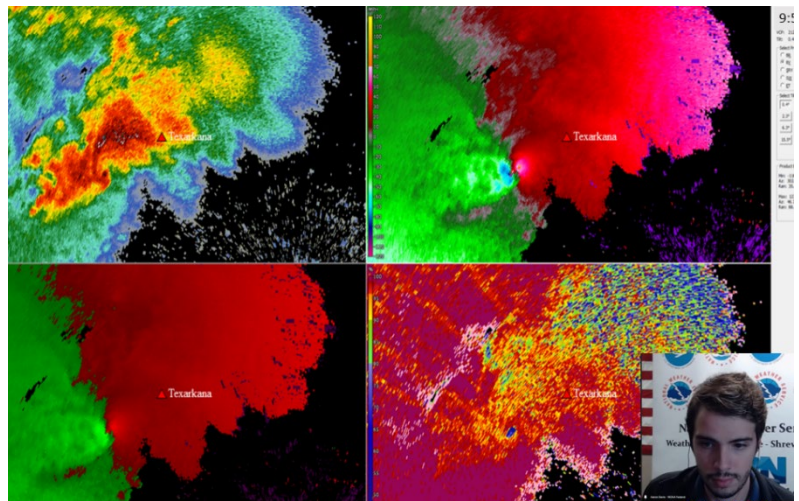
The simulation provided operational staff with a realistic event that could happen in their area. While the Shreveport office hasn’t issued a Tornado Emergency since a tornado hit Monroe, Louisiana in 2020, this allowed all operational

staff to practice dealing with this scenario. In addition, four newer emergency managers were invited to listen to the briefings, ask questions, and provide constructive feedback after the simulation concluded. The simulation demonstrated to them the capabilities of SPC and also how the Shreveport office is available to assist them with decision support for these high impact events.

Luciana Barr, Emergency Manager for Shelby County, TX, commented: *“I feel that I will be better prepared to take part in a tornado briefing that could happen in our area. It also made me think of some things we need to do that will help our community be safer on our end in the event we have this type of storm.”*

The simulation concluded with an internal discussion between the WFO and SPC on the use of mesoscale discussions for high-impact tornadoes and a conversation between WFO staff on the usage of the Tornado Emergency product. The office reviewed NWS directive criteria and WDTD guidance for issuing Tornado Emergencies, and then discussed warning philosophy (issuing a TOR SVS vs. a new TOR) on emergencies.

While Tornado Emergencies are rare, they can be some of the most high impact decisions that radar operators make, so exercising this event helped staff refresh and familiarize themselves on this important product.



Aaron Davis, WFO Shreveport, briefs co-workers and emergency managers on a mock long-tracked tornado heading toward Texarkana

NOAA Incident Meteorologists Prepare for another Busy Fire Year

By: NWS Staff

Weather is one of the most important determinants of how easily a wildfire starts, how dangerous it is, how fast it spreads and where it goes. That’s why meteorologists at the National Weather Service (NWS) play an important role in the nation’s firefighting efforts. [NWS Incident Meteorologists \(IMETs\)](#) are key members of wildfire incident command teams. Working alongside fire managers, IMETs provide weather forecasts and meteorological support to help them fight and control wildfires.

More than 100 IMETs and trainees gathered in Boise, Idaho last week to complete specialized, intensive fire weather training to sharpen skills and ensure IMET readiness. Understanding how a fire reacts to certain weather, fuel, and topographic conditions and forecasting fire weather in complex mountain terrain are key goals of the training program.



Left: IMETs attend training in preparation for being deployed to a wildfire. Right: IMETs working on Wind Ninja, a computer program used to model wind for wildland fire support.

Over the week-long training, IMETs practiced launching weather balloons and setting up remote weather stations, both used to gather weather observations. They participated in simulated exercises to develop spot weather forecasts and delivered fire weather briefings. They were trained on [interpreting wildfire hotspots using GOES satellite imagery](#), [reading computer models that predict the height and movement of wildfire smoke](#) and in critical incident stress

due to the physically and mentally demanding employments. Trainees complete more than 225 hours of fire weather training and on-the-job training before becoming certified.

Once ordered to deploy to a wildfire, IMETs pack their equipment – cell phone, laptop, printer, handheld weather meter, and portable upper air kit – then travel to the front lines to provide critical data about the weather so that decision makers can map out the safest possible tactics for firefighters. At incident command, IMETs are outfitted with the same emergency equipment carried by fire crews: fire-resistant clothes and boots, a portable fire shelter, personal protective equipment, and first aid kits.



Last year, the IMETs completed a record 217 deployments to wildfire incident commands. On average, an IMET was deployed to three fires for a total of 36 days in 2021. These fire weather experts are based at NWS weather forecast offices throughout the country, and their operations are managed by NWS staff located at the National Interagency Fire Center in Boise, Idaho.



Top: IMETs launch a weather balloon and set up a Remote Automatic Weather Station, tools used to gather observations. Bottom: IMETs practice deploying a fire shelter and delivering a weather briefing.

Forecasting for a wildfire is different from general weather forecasting. Wind, humidity, and temperature near fires have a significant effect on fire intensity and firefighting tactics. Large fires can create their own weather, such as firestorms that produce dry lightning or send embers far from the site. Weather fronts can change wind speed and direction while dry thunderstorms can cause downbursts, erratic wind conditions and lightning that can cause additional fires. Operational fire management teams rely on input from IMETs and regular briefings to help plan where to place firefighters and how to fight the fires.

Due in part to the impacts of climate change, there is no longer an official “fire weather season,” as wildfires now occur year-round in the United States, burning more intensely and scorching more land than in years past. As a result, demand for IMET expertise has increased. The ongoing drought in the western U.S. will contribute to a busy fire year, and NOAA is ready to support firefighting efforts with a highly trained cadre of specialized meteorologists.

Other NWS wildfire resources can be found at the following links:

- [NWS IMET Operations Twitter](#)
- [Wildland Fire Potential Outlook](#)
- [NWS Fire Weather Products](#)
- [Fire Wx State of the Science Fact Sheet](#)
- [Videos of IMETs Training](#)

6th Annual #SafePlaceSelfie Day is April 6!

By: Douglas Hilderbrand, Aware Editor

Knowing your “safe place” is one of the most essential preparedness activities to save your life from extreme weather. On April 6, the National Weather Service, along with partners such as FEMA, CDC, and the National Weather Association, encourages everyone to:

- Know the hazards in your area.
- Identify your “safe place” and take a selfie.
- Post on social media using the hashtag #SafePlaceSelfie

Getting individuals, businesses, and WRN Ambassadors to document and post via social media creates excitement about overall preparedness across communities in a fun, free, and educational way. This year, the focus is not just on various hazards such as tornadoes and severe weather, but also on beach safety (rip currents), wildfires, flooding, tsunamis, and hurricanes. Look not just to your home, but also to the workplace, frequent locations such as gyms and shops, as well as outdoor locations such as parks, athletic fields, golf course, fishing spots.

#SafePlaceSelfie
Join us on April 6, 2022

Find safe places from tornadoes, floods, lightning, heat, tsunamis, and other hazards!

- Learn the weather hazards that happen in your area!
- Find locations that will keep you safe and take selfies!
- On April 6, post your photos using #SafePlaceSelfie!

weather.gov/SafePlaceSelfie

WFO Tucson Story Map Commemorates 25 Years at the University of Arizona

By: NWS Staff



From left to right: Mr. Nick Melcher (USGS, Tucson); Dr. Gordon Eaton (Director, USGS); Dr. Michael Cusanovich (Vice President for Research and Graduate Studies, University of Arizona); Mr. Mike Capraso (Water Resources Planner, Arizona Department of Water Resources, Tucson); Dr. Susan Zevin (Deputy Assistant Administrator of Operations NWS); Mr. Marvin Shogren (Meteorologist-in-Charge, NWS Tucson).

On February 25, 1997, WFO Tucson moved from their longtime location at the Tucson International Airport to the University of Arizona campus. The Environmental and Natural Resources Building at the University of Arizona was officially dedicated in March 1997 and is shared by NWS Tucson and the United States Geological Survey.

The 25th anniversary of this move was commemorated with the release of a [story map](#) looking back over the history of NWS Tucson and some of the observational and technological changes that occurred over the past 25 years. The story map highlighted temperature and precipitation trends and featured some of the top weather events since 1997, as picked by the current staff. The story received many favorable comments on social media from partners and the public and was featured on the ABC TV affiliate's news.

Aware

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