



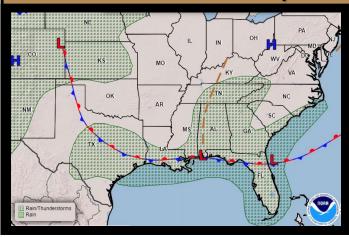
Thursday, August 22, 2024

Watches, Warnings and Advisories



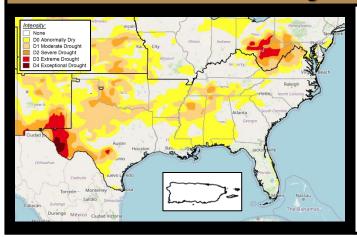
- Excessive Heat Warnings in effect for TX, southwest OK and St. Croix
- Heat Advisories for much of the rest of TX, southwest OK, southeast FL, PR and the other USVI
- Flood Warnings continue for parts of the eastern states
- Coastal Flood Advisory for parts of GA and the Carolinas

Today's Weather Outlook



- A stationary front will focus showers and thunderstorms over the FL peninsula into south GA and parts of AL today, while activity elsewhere along the Gulf Coast and Southeast Coast will be more isolated
- This front will also trigger spotty dry thunderstorms farther north in TX, including in areas experiencing high fire occurrence within the ongoing <u>Fuels and Fire Behavior Advisory</u>
- Thunderstorms over the southern Appalachians will also be isolated at best, with most areas remaining dry
- Dry air will continue to affect the Mississippi Valley into parts of the Appalachians and Mid-Atlantic, while areas south and west of the front in the Plains will see another day of record heat, along with dry and breezy conditions
- Numerous record low temperatures occurred this morning in KY, VA and the Carolinas, and temperatures will remain a good 5-10 degrees below normal this afternoon

U.S. Drought Monitor Update



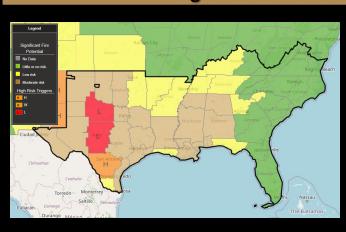
- A notable increase in drought and abnormal dryness is depicted on this week's Drought Monitor update
- Moderate to severe drought is more widespread over North TX into southern and western OK, while extreme drought expanded across the Trans Pecos
- Abnormal dryness now covers most of the coastal plain in the Lower Mississippi Valley, while severe drought was introduced in north MS, northwest AL and western parts of middle TN
- Northern and western VA continue to see drought conditions despite Debby's rainfall, though coverage of moderate and severe drought decreased slightly
- Some abnormal dryness was introduced along the East Coast of FL, in addition to Deep South TX, while the Caribbean remains free of any drought



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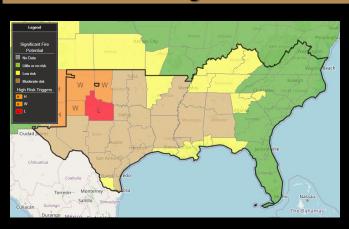


Significant Fire Potential Outlook Today



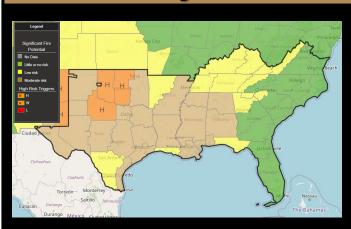
- HIGH RISK: Very hot and mostly dry conditions will continue from all of West TX into portions of the Hill Country and South TX today, but look for isolated to widely scattered thunderstorms this afternoon near the lingering stationary front; these will be capable of producing new lightning ignitions along with erratic outflow wind gusts up to 45 mph; lightning holdovers could emerge in the western Hill Country and Edwards Plateau from yesterday's activity, as well; otherwise, hot, dry and unstable conditions will maintain very high fire danger in the absence of any thunderstorms
- The High Plains and the rest of West TX will see record highs from 100-112 degrees, with RH dropping below 20%; IA and large fire risks may increase there today as winds gust from 20-30 mph
- OK into the rest of north TX will see a breezy and seasonably hot day, with isolated thunderstorms possibly leading ot new ignitions or emerging holdovers the next few days
- The Lower Mississippi Valley will remain seasonably hot and unusually dry, with RH as low as 25-30% expected again in parts of MS, southwest TN, far western AL and north/east LA; lightning ignitions could occur in AL and along the immediate Gulf Coast, while thunderstorms outflows will enhance winds in some areas that do not see wetting rain

Significant Fire Potential Outlook Friday



- HIGH RISK: record heat will continue in northwest TX and expand into western OK Friday, while winds are forecast to increase compared to previous days, with gusts of 25-35 mph, locally higher in far northwestern areas and near any thunderstorm outflows; widely scattered thunderstorms will be more likely in central and northern TX and southern OK, with new ignitions most likely where large fires have been common recently
- Drier air will expand from the Appalachians into AL, eastern MS and the western FL panhandle tomorrow, resulting in the potential for emerging holdovers where thunderstorms occur today; RH from 25-35% is expected in AL and adjacent areas; MS and AL into southeast LA will see breezy conditions, with wind gusts of 15-20 mph common inland and 20-30 mph at the coast; ERCs are likely to remain at or above the 90th percentile and locally higher than the 97th
- Look for isolated thunderstorms elsewhere in the Lower Mississippi Valley, while otherwise hot and dry weather continues

Significant Fire Potential Outlook Saturday



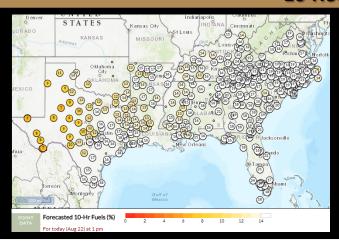
- HIGH RISK: temperatures will continue to run as much as 10-15 degrees above normal in western North TX, the High Plains and OK, while isolated to widely scattered thunderstorms could form again (low confidence in where); breezy conditions will enhance fire risks in these areas, with gusts of 20-30 mph common and up to 50 mph in association with any outflow boundaries; lightning holdovers could emerge, as well
- Another surge of abnormally dry air will overspread the Mississippi Valley, while the immediate Gulf Coast will see breezy and more humid conditions, along with scattered thunderstorms; these could result in new lightning ignitions near the coast, while outflow boundaries are likely to surge north in association with the sea breeze late in the day; RH for inland areas is forecast to reach as low as 20-30%, generally lowest in northern MS and AL
- The Appalachians into the rest of KY and TN will also see abnormally dry and warmer conditions, with an increase in IA possible as RH drops to 20-30% in many areas



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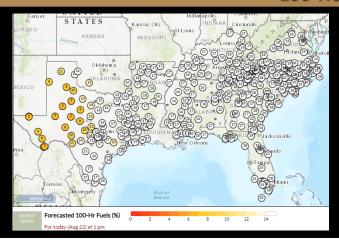


10-Hour Fuels



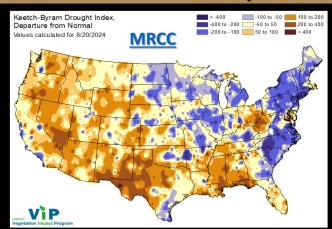
- 10-hour dead fuel moisture is forecast to be well below normal in most of the geographic area today, largely below the 10th percentile from the Mississippi Valley to the Plains and below the 3rd percentile in the western half of TX into far southwest OK
- Similar conditions will continue in the Plains the next few days, but the good news is that 10FM will increase this weekend into next week for most of TX and OK
- Inland portions of the Miss. Valley will likely see values dip to near the 3rd percentile at times this weekend into the middle of next week, while coastal areas will occasionally benefit from intrusions of more humid Gulf air and spotty thunderstorms; conditions will remain drier than normal, however
- Look for a drying trend throughout the eastern states, with the exception of the FL peninsula

100-Hour Fuels



- 100-hour dead fuel moisture is forecast to be below the 3rd percentile across West TX today into Saturday, with scattered areas of East TX into the Mississippi Valley likely to see similar or even drier conditions, relative to normal
- 100-hour fuels will begin to moisten up in the Plains this weekend and especially next week, though the degree of improvement will be dependent on rainfall chances, which are still uncertain
- Areas in the Mississippi Valley and Appalachians will see a continued drying trend into next week as record heat becomes common and the air mass remains drier than normal

Keetch-Byram Drought Index Anomalies



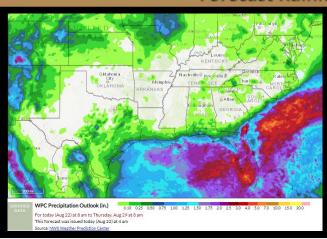
- KBDI anomalies from MRCC are depicted
- Drought is most evident across West TX into portions of north-central TX and far southern OK, in addition to MS, AL, western TN and the FL panhandle – KBDIs in these areas are mostly well above 600 and increasingly above 700
- Below normal KBDIs along the East Coast are likely to trend up closer to normal over the next week, while some decrease in KBDIs can be expected for the FL peninsula
- KBDIs in LA, MS, AR, TN, AL and adjacent areas are likely to increase substantially over the next week, especially inland from the immediate Gulf Coast, due to increasing high temperatures (10-20+ degrees above normal) and little to no expected rain; some areas may see values approach records set last year, especially in MS and AL





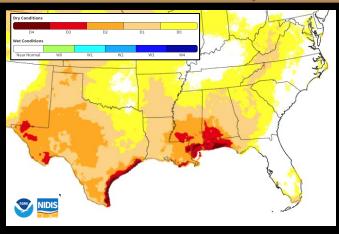
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Forecast Rainfall the Next Week



- There are no major changes to forecast rainfall during the next week, though conditions will begin to change towards the middle and end of next week, especially in TX
- Rainfall will be heaviest over the FL peninsula, with flash flooding possible where rainfall exceeds 4-6" due to a passing tropical wave interacting with a stationary front
- This tropical wave could bring some rain to the Gulf Coast, and ensemble guidance increasingly supports the potential for a tropical depression or storm to develop over the Gulf next week; confidence is low for now
- Any thunderstorms over the Appalachians will mostly be isolated, while increasing showers and storms should begin to work northwest across TX next week

Forecast Evaporative Demand the Next Month



- This experimental product attempts to predict where evaporative demand could drive flash drought risks over the next four weeks; note that it does not account for rainfall
- Areas of D3-D4 are indicative of unusually sunny/dry/breezy/hot conditions forecasted by the CFSv2 model – areas along the Gulf Coast are most notable, and this could be driven largely by below normal humidity and above normal winds at times, though any tropical systems would ease drying concerns
- Areas in TX may sink deeper into drought with this forecast, especially over western and southern parts of the state, while the coast will be dependent on whether tropical systems bring rainfall
- Portions of the Appalachians may see above normal evaporative demand, while the East Coast and the rest of KY and TN, in addition to eastern OK, are forecast to see near normal conditions, on average