Geographic Area: SOUTHERN AREA PERIOD: SOND 2021 Prepared Aug 26, 2021

#### **Outlook Summary:**

Below average to average fire potential is still expected across most of the Southern Area through September as a humid and enhanced instability weather pattern should continue to produce recurring periods of average to above average rain activity across the Southern Area. Tropical development and the potential for impacting storm rain fall will also be peaking to mid-September which should lead to a continuation of low fire potential through the month. After September, and then through the fall, a cooling trend in the ENSO region of the tropical Pacific should produce and evolve a drier and below average rain pattern affecting, primarily, our east and southern states. This drier pattern, if it aligns and peaks during fall leaf drop is likely to produce a drier fuels, elevated ignition, and higher fire potential environment. Two yet to be known conditions will affect the outlook for the above average fall fire risk outlook: any significant rain impacts from the still unfolding Atlantic tropical season, and the rate at which the current high moisture surface/soil condition and elevated humidity weather pattern degrades and then persists through the fall. We do not expect any significant episodes of critical fire danger for Puerto Rico – average to below average fire threat here.

# Past Weather and Drought:

Status Quo continues for the Southern Area. Frequent frontal incursions, higher trending atmospheric instability over the southern and southeast U.S., and otherwise humid conditions, produced a continuing pattern of almost daily and widespread shower/thunderstorm activity. With this above average rain activity (occurrence and amounts), live and dead fuel moistures remain well above seasonal and monthly averages and is preventing drought conditions from developing. The one and more recent exception, and still a carryover from July, is the presence of a small but light D01/DO2 drought area in mainly western Virginia. The drought outlook (Aug 19 update), now forecasts this area to improve (eliminated) with no drought conditions forecast for the Southern Area during the forecast period which runs through November 30.

### Recent/Ongoing Fire Activity and Area Discussion (By exception):

Minimal and well below average. This trend is expected to continue through September. After that, and pending the forecast evolution of a drier La Nina or La Nina-ish pattern, fine fuel drying should begin to contribute to an increase in ignition and a likely elevated fire potential environment during the October-November timeframe.

## Fuel Conditions (by exception):

100 and 1000 hour fuel moistures remain very moist with 100 hour fuels ranging from near 10-17% for Texas/Oklahoma and 16 to 26% elsewhere. 1000 hour fuel moistures are similar with the range running from 15% to 25%.

#### **Outlook Discussion:**

An unfolding tropical Pacific ENSO episode change from neutral to a perhaps marginal La Nina condition should produce a typical drier and below average rain pattern. This drier pattern, if it aligns and peaks during fall leaf drop should produce a drier and drying fuels environment with elevated ignition and fire potential. Right now, the main target area for the amplified drying is along our Atlantic states. Any significant rain activity impacting the south, and particularly the eastern U.S. from the yet to conclude Atlantic tropical season, would necessarily alter (minimize) the drier and above average fire potential forecast.

FIRE POTENTIAL OUTLOOK DROUGHT OUTLOOK DROUGHT MONITOR Aug 19, 2021 LAST MONTH Jul 20, 2021 Aug 17, 2021 U.S. Drought Monitor U.S. Drought Monitor LAST SEP FOR REFERENCE Sep: With neutral to some cooler SEP than average sea surface temperatures trending in the ESNO region in the tropical Pacific, the resulting rain pattern across the South (given similar historical weather conditions) should still yield humidity and rain patterns which should keep fire danger at average to below average levels. Madden-Julian (MJO) phase LAST OCT FOR REFERENCE forecasts along with the neutral ENSO conditions should also OCT continue to produce a continued favorable peaking Atlantic tropical development environment - at least into early September. By about midmonth, the tropical pattern affecting MJO is likely to trend less favorable for tropical wave enhancement. From October on, and as forecasts are indicating the tropical Pacific will return to a "cooler to colder" and LAST NOV FOR REFERENCE NOV more La Nina-like ENSO pattern. Because of this, a drier and associated below average rain fall pattern is expected to evolve across our eastern and southeastern Southern Area state area (primarily). This drier pattern, if it aligns and peaks during fall leaf drop would produce a necessary higher dry fine fuel loading and an environment for elevated ignition and fire potential. Two yet to be known conditions will affect the above average fire risk LAST DEC FOR REFERENCE DEC outlook for the fall: any significant rain impacts in this area from the still unfolding Atlantic tropical season, and the rate at which the current high moisture surface/soil condition and humidity weather pattern degrades and then persists. Significant Wildland Fire Potential THREAT AREAS ARE AREAS TO BE MONITORED FOR PERIODS OF HIGHER FIRE POTENTIAL DUE TO Predictive Services EITHER CURRENT, PERSISITING, Area Boundary OR DEVELOPING DRYNESS OR A THREAT MONITOR CONDUCIVE FIRE/WX ENVIRONMENT.