# MONTHLY FIRE WEATHER / FIRE DANGER OUTLOOK

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1. **SOUTHWEST AREA**

2. **DATE:** August 30, 2004 **COVERS PERIOD**: September 1 - 30, 2004

3. **POTENTIAL FOR SERIOUS/CRITICAL FIRE PROBLEMS**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Fire Danger** | Below Normal | | Normal | x | Above Normal | x |
| **Large Fire Potential** | Below Normal | | Normal | x | Above Normal | |
| **Fire Season 2004** | Below Normal | | Normal | | Above Normal | |

4. **WEATHER FACTORS AND OUTLOOK:**

**Drought Conditions**: Much of the region, with the exception of west Texas, remains under a moderate to extreme long-term hydrological drought due to multi-year precipitation deficits. Short-term drought conditions changed some through August with especially northern Arizona showing some improvement. The driest conditions continued across much of western Arizona as well as northwestern New Mexico. Conditions improved slightly or remained nearly the same across eastern and northeastern New Mexico where areas of above normal rainfall occurred.

**Precipitation Anomalies and Outlook**: Precipitation for August was generally 30 to 75 percent of normal across Arizona, and 40 to 90 percent of normal across New Mexico and west Texas. Areas of 25 percent or less of normal occurred in parts of west Texas, northwestern Arizona, and much of western Arizona. The outlook for September calls for equal chances of above or below normal precipitation across most areas, although there will be a higher likelihood for drier conditions across western Arizona and a higher likelihood for wetter conditions across northern New Mexico. It is highly likely, however, that an erratic late season monsoonal flow and a prediction of above normal temperatures for much of the region will yield areas of below normal rainfall. Late August numerical models suggest that a shield of moisture has the potential to be swept into the southwestern states during the first week of September possibly due to the northward advancement of a tropical system just off the Baja California coast. If this turns out to be accurate, a few days of above average to well above average precipitation could occur in September across areas of the southwest, especially in Arizona.

**Temperature Anomalies and Outlook**: Temperatures for August averaged one to two degrees above normal across southwestern Arizona while northern and northeastern Arizona averaged one to two degrees below normal. Nearly all of New Mexico averaged from one to four degrees below normal during August. This was due, at least in part, to frequent or nearly daily cloud buildups across many areas of the region which limited diurnal heating and prevented extreme temperatures. During September, temperatures are expected to be above normal across Arizona into western New Mexico while below normal temperatures are predicted across eastern New Mexico into west Texas.

5. **FUEL FACTORS AND OUTLOOK:**

**CURRENT FINE FUELS:**

| GRASS STAGE: | Green | | Cured | x | | |
|---|---|---|---|---|---|---|
| NEW GROWTH: | Sparse | | Normal | x | Above Normal | |

| LIVE FUEL MOISTURE: | PERCENT |
|---|---|
| Ponderosa Pine | 110-138 |
| Douglas Fir | 119-190 |
| Pinon | 80-130 |
| Juniper | 80-112 |
| Sagebrush | 90-110 |
| 1000-HOUR DEAD FUEL MOISTURE: | 12-22 |
| AVERAGE 1000-HOUR FUEL MOISTURE FOR THIS TIME OF THE YEAR: | 12-18 |

## 6. FIRE OCCURRENCE:

Data Years: 1994 - 2003

**ALL FIRES:**

| | 2004 YTD Actual thru end of August | Historical YTD Avg. thru end of August | Historical YTD Avg. thru end of September | Average for September | Median for September |
|---|---|---|---|---|---|
| NUMBER OF FIRES: | 3,105 | 3,955 | N/A | N/A | N/A |
| ACRES INVOLVED: | 300,436 | 320,853 | N/A | N/A | N/A |

Data Years: 1991 - 2003

**LARGE FIRES:**

| | 2004 YTD Actual thru end of August | Historical YTD Avg. thru end of August | Historical YTD Avg. thru end of September | Average for September | Median for September |
|---|---|---|---|---|---|
| NUMBER OF FIRES: | 41 | 97 | 100 | 3 | 3 |

## 7. RESOURCE MOBILIZATION:

Data Years: 1991 - 2002

| | 2004 YTD Actual thru end of August | Historical YTD Avg. thru end of August | Historical YTD Avg. thru end of September | Average for September | Median for September |
|---|---|---|---|---|---|
| INCIDENTS W/TEAMS ASSIGNED: | 8 | 14 | 15 | <1 | <1 |

## 8. WRITTEN SUMMARY:

**GENERAL:** Long-term drought conditions continue to plague the region, while short-term drought conditions continued not to worsen much in many areas of the region during August. The precipitation outlook for September calls for equal chances of wet or dry conditions across most areas, although drier than normal conditions are expected across the western half of Arizona while wetter than normal conditions are likely across northern New Mexico. There is potential for tropical system remnants to affect parts of the southwest during the month of September. Temperatures are expected to be above normal across Arizona and the western half of New Mexico with the best potential for warmer temperatures across western Arizona.

**FIRE DANGER:** Fire danger levels through September are expected to remain near normal across New Mexico and west Texas, but will be above normal across much, if not all, of Arizona in conjunction with the warmer and drier than normal conditions.

**FIREFIGHTING RESOURCE IMPLICATIONS:** Overall, regional fire activity and firefighting resource need should be near normal, with the average of 4 large fires a reasonable estimate. Activity is more likely to be concentrated in Arizona, especially the western half of the state. Fire behavior on all fires in the region will likely be more advanced than usual, owing to the effects of long-term drought on the live to dead fuels ratio and fuel moistures in general.

**RX IMPLICATIONS**

Prescribed fire activity through August was minimal due to a combination of continued above normal fire danger across parts of the west and more moist and unfavorable conditions across the east. Prescribed fire activity during September will be on the increase, especially across parts of Arizona, due to an early end of the monsoon and overall drier conditions prevailing. Several landscape scale projects are currently scheduled during September where objectives can be met with lower humidity values. The draw on local resources to support fire activity in other Geographic Areas will likely not limit larger scale prescribed fire activity mainly due to the need to execute these projects.

## 9. MAP