

# 2008: THE SECOND MOST ACTIVE YEAR FOR TORNADOES IN THE HUNTSVILLE COUNTY WARNING AREA

Kurt Weber and Andy Kula

## I. Updated Annual Trends / F-scale Distribution in Huntsville CWA from 1970 - July 2008

2008 has been the 2<sup>nd</sup> most active year for tornadic activity (only 2<sup>nd</sup> to 2006) for the 14 county warning area (CWA) served by the NWS in Huntsville. Through July of 2008, 24 tornadoes have occurred, second to 32 in 2006. Nationwide, the 2008 tornado count is also quite high.

An overall increase in tornadic activity has occurred since 2002, though 2005 and 2007 were relatively quiet years. In this period, there have been 4 years with 15 or more tornadoes. 1985 was the only other year since 1970 which had over 15 tornadoes. The period from 1986 through 2002 brought relatively low tornado frequency with 5 or less tornadoes occurring in 9 different years. The most active year between 1986 and 2002 was in 1997, when 13 tornadoes occurred.

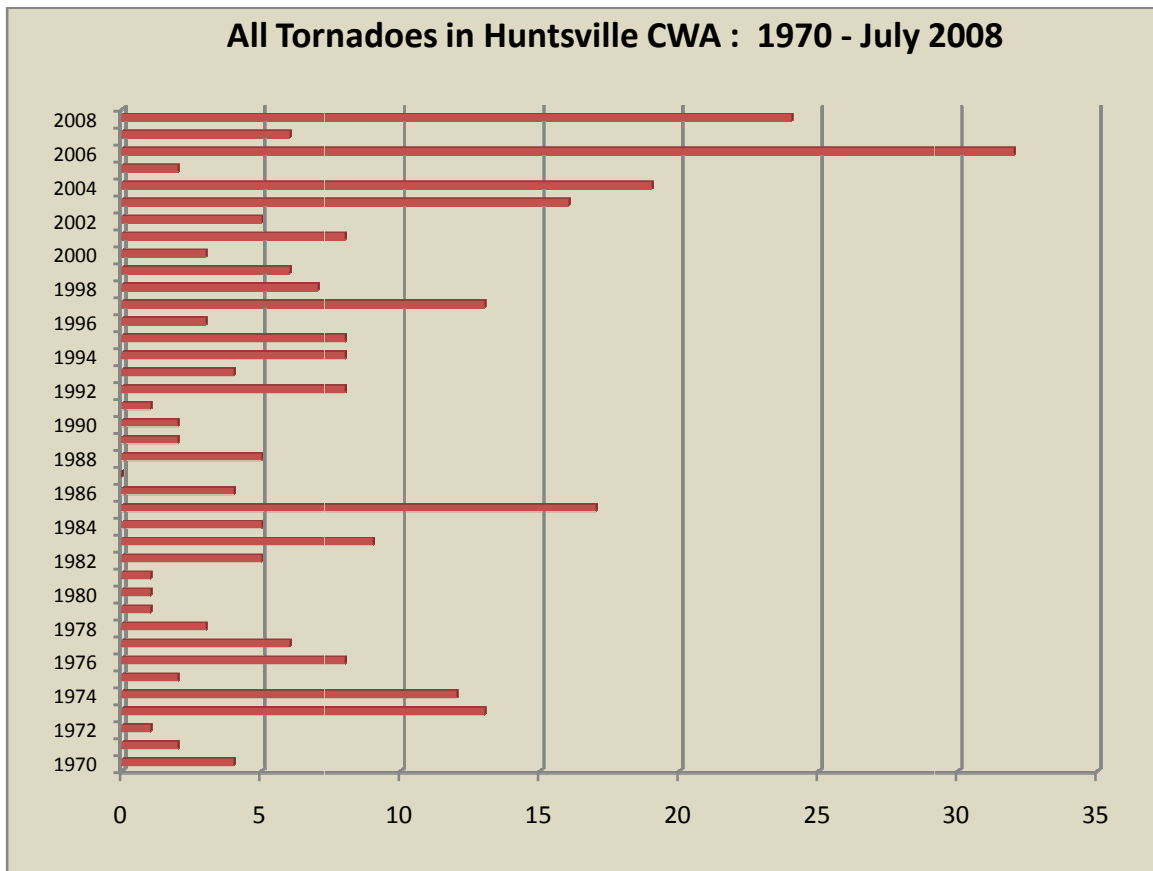


Figure 1

Overall, 52 tornadoes occurred between 2002 and 2005, of which only two were rated F2 or higher. In comparison, from 2006 to July 2008 there have been 62 tornadoes, 5 of which were rated at least an F2 or EF2. (see Figure 2).

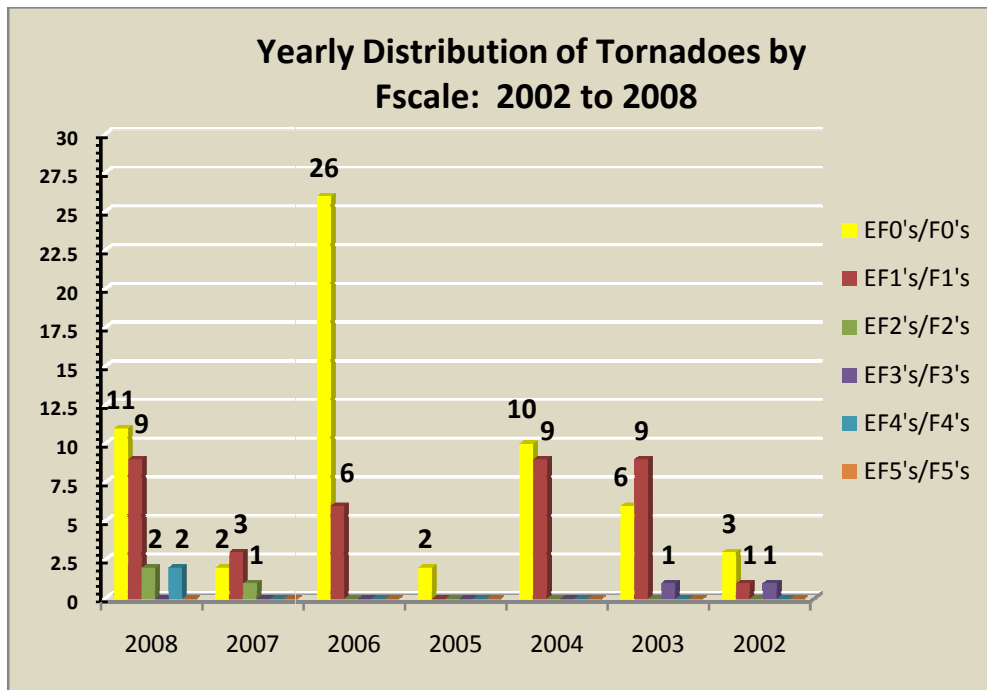


Figure 2

## II. 2008 County Distributions of Tornadoes in the Huntsville CWA

Maximum tornadic activity occurred from northwest AL through north central AL peaking in Cullman County, where a total of 7 tornadoes occurred over four calendar days. Lincoln, Moore and Franklin Counties in Tennessee, and Franklin County in Alabama reported no tornadoes thus far in 2008. This is illustrated in Figure 3 below.

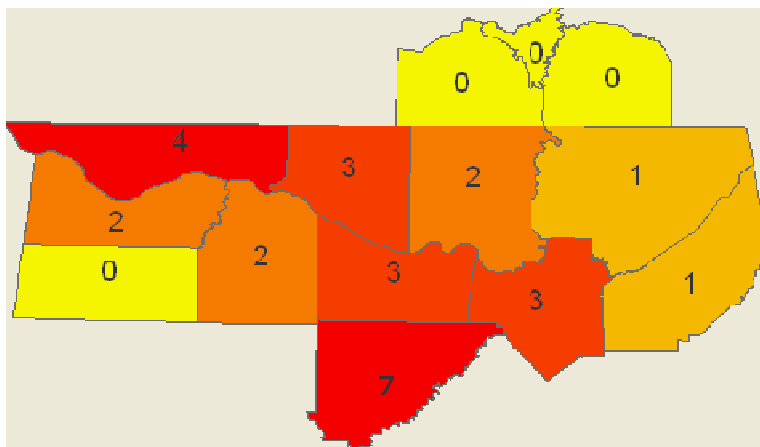


Figure 3: Total number of Tornadoes Per County in 2008 through July.

On February 6<sup>th</sup>, 2008, two deadly EF4 tornadoes struck Lawrence and Jackson Counties. Although much less frequent, there have been a few EF3/F3 – EF4/F4 tornadoes in February since 1874 in the Huntsville CWA. This is illustrated in Figure 4.

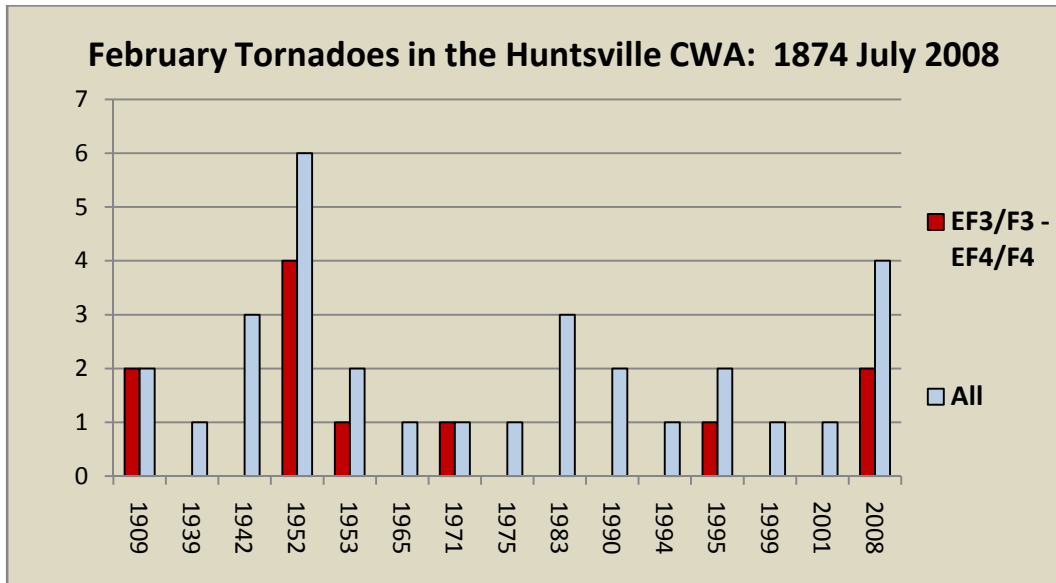


Figure 4

### III. Monthly Distribution of Tornadoes in the Huntsville CWA from 1970 - July 2008.

In the central Tennessee Valley, tornado activity peaks from March through May (primary peak) and in November (secondary peak) (see Figure 5). Only 4 percent of tornadoes have been F4 or F5 intensity, and 12 percent if you include F3 intensity (see Figure 6).

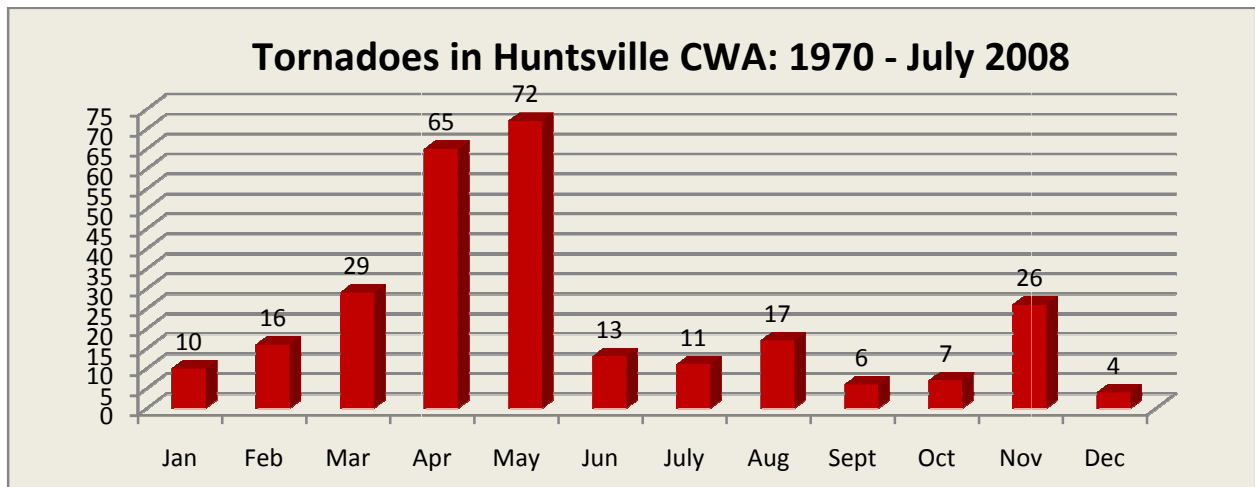


Figure 5

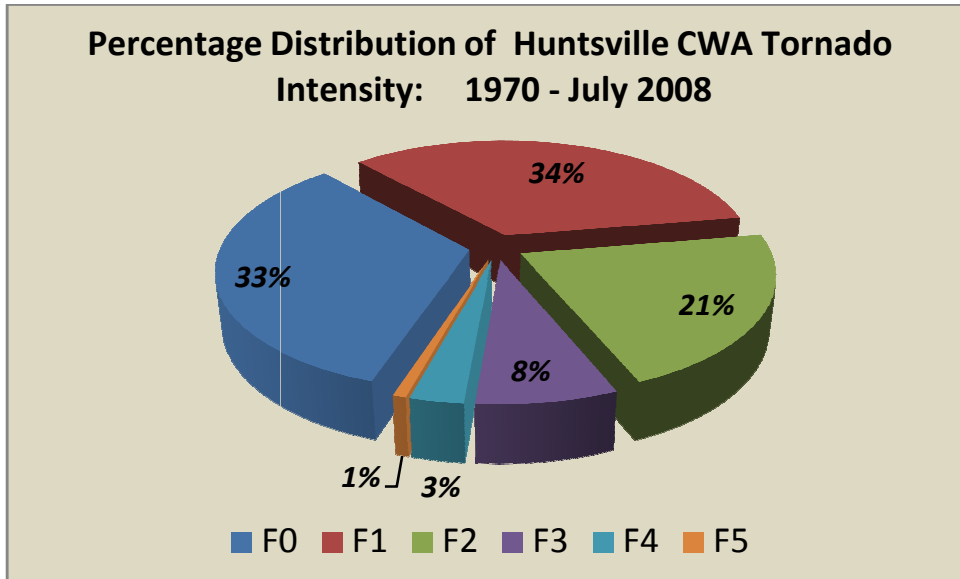


Figure 6

Referring to Figure 7, a spike in tornadic activity is noted in February (on the 6<sup>th</sup>) with a more substantial spike during April and May. Although no tornadoes occurred in March, this is not unusual when referring to previous active (10 or more) tornado years prior to 2008..

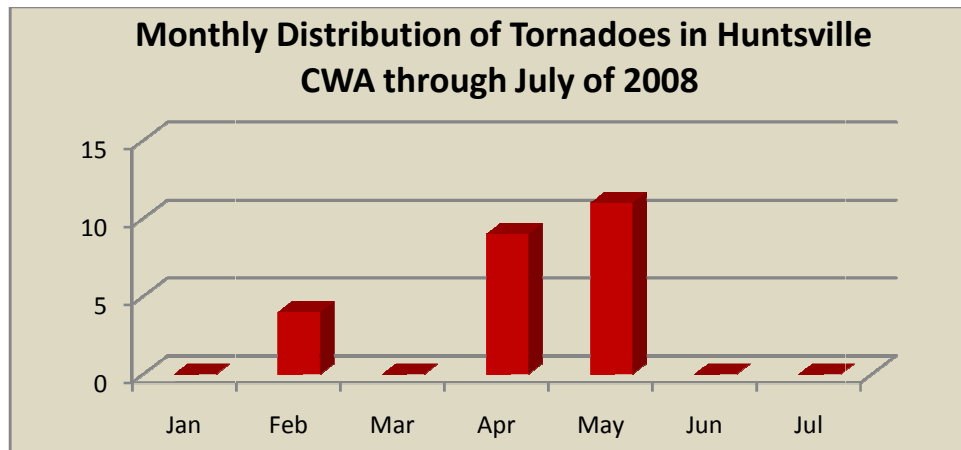


Figure 7

**IV. Hourly Distribution of Tornadoes in the Huntsville CWA from 1970 - July 2008.**

Most tornadoes occur between noon (1200 CST) and Midnight (0000 CST). Two peak periods of activity occur in the early afternoon and late afternoon/early evening hours. The highest level of activity is between Noon (1200 CST) and 2:59 PM (1459 CST). A second peak

is seen between 4 PM (1600 CST) and 7 PM (1859 CST). The most tornadoes during any single hour is between 1400 CST (2 PM) and 1459 CST (2:59 PM). Although infrequency is noted from midnight through 7:59 am, violent tornadoes (F3 to F5) have occurred during this period, as was the case on February 6<sup>th</sup>, 2008.

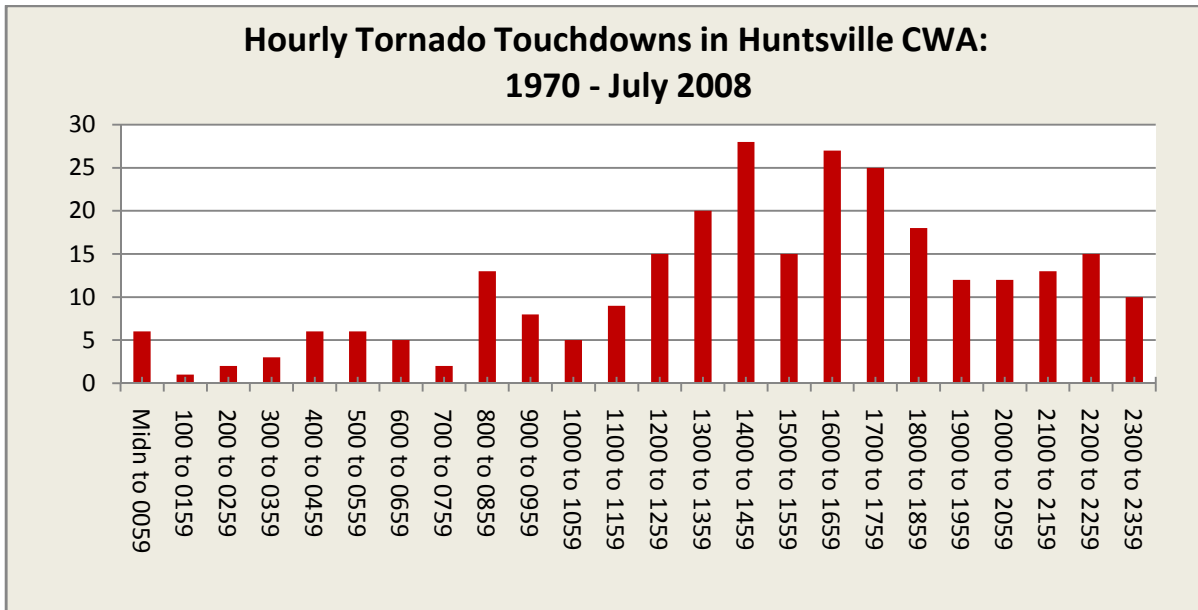


Figure 8