

# **December Heatwave Highlights Climate Change**

By Don Sutherland

2021 has been a year of climate-change enhanced extremes. Never-before seen heat in the Pacific Northwest, record-breaking flooding in parts of western Europe and Tennessee, the latest first measurable snowfalls on record in Chicago and Denver, and a historic December outbreak were some examples. Now the year is concluding with more exceptional heat.

During the closing days of December, Rio Grande Village, TX registered a heatwave (at least 3 consecutive 90° temperatures) during December 24-26. Through December 26<sup>th</sup>, Rio Grande Village had seen 7 90° or above days during December. Additional 90° days were recorded at Wichita Falls, TX (91°, December 24), Junction, TX (90°, December 25), and Abilene, TX (90°, December 26).

Although the heat was not as extreme in Houston, Houston had already registered 13 80° or warmer days through December 26<sup>th</sup>. The old record was 10 days, which was set in 2012. Houston was also on track for a monthly mean temperature of around 67.5°, which would demolish the existing mark of 64.4°, which had stood since 1933. In fact, 67.5° would be high enough to rank as Houston's 5<sup>th</sup> warmest November.

What does 2022 have in store? More climate change-driven extremes are all but certain. The physics associated with enhanced greenhouse gas forcing is unforgiving. The only question really concerns what kind of extremes will unfold, their magnitude, and their location.