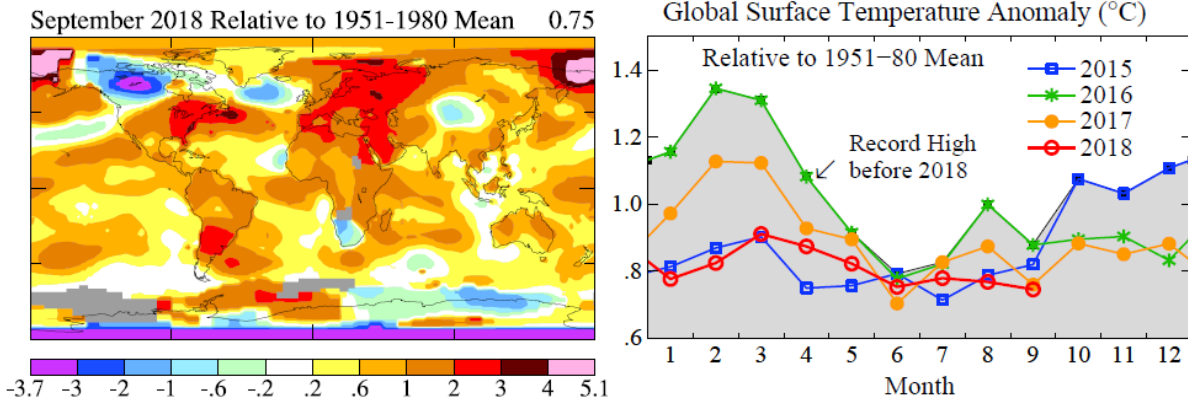


September 2018 Global Temperature Update



September 2018 global temperature, at 0.75°C relative to the 1951-1980 base period, was the sixth warmest September (tied with 2005) since reliable measurements began in 1880, with some very warm and very cold areas in the northern high latitudes (left side of the figure on the top). Most of Europe and the U.S. were 1-3°C warmer than the 1951-1980 mean. Warmer Septembers occurred in 2014 and 2016 (+0.88°C), 2015 (+0.82°C), 2013 (+0.77°C) and 2017 (+0.76°C). January through September means were, from the warmest, 2016 (1.03°C), 2017 (0.91°C), 2018 (0.81°C) and 2015 (0.80°C). 2018 seems likely to end up as the fourth warmest year since 1880.

For the base period 1880-1920, which provides our best estimate of pre-industrial temperature, the September 2018 anomaly was 1.02°C. Models predict an El Niño to begin in the next few months, and the tropical Pacific has begun to warm. We conclude that global temperature has reached a level of at least 1°C relative to pre-industrial climate even in the presence of La Niña cooling.

