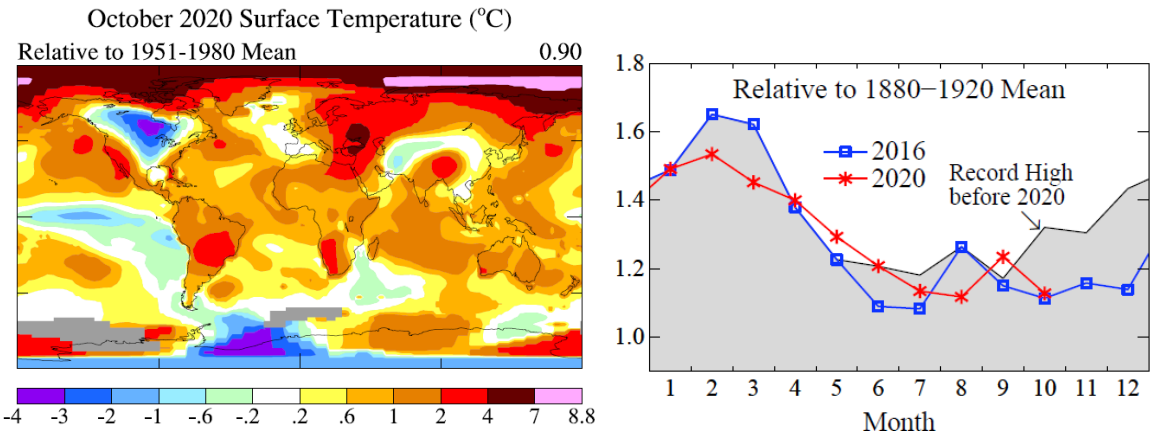
October 2020 Global Temperature Update



October 2020 was the 4th warmest October, tied with 2017, since adequate global data began in 1880. Global temperature was +0.90ºC relative to 1951-1980 and +1.13ºC relative to 1880-1920.

The January-October 2020 mean of +1.03°C relative to 1951-1980 is nearly even with 2016 (+1.04°C). For practical purpose 2020 and 2016 are tied for warmest year and will likely end that way, but their race provides entertainment during the Covid pandemic and a weak hint about climate physics. 2020 could pass 2016 in the next two months, because 2016 was stuck in La Nina mud (upper right and lower left figures). 2020 is in a deeper La Nina, but 2020 is buoyed by 4-year growth of greenhouse gases (and possibly by less aerosol cooling, if only we knew the aerosol forcing). In any case, George Jones continues to happily call the horse race.

A large area in Canada and the U.S. was unusually cold (as much as 4ºC colder than 1951-1980) while California and Arizona remained very hot (4ºC hotter than 1951-1980 mean). The Arctic was extremely warm (as much as +10ºC at the Arctic Coast). That warmth is related to the unusually large ice-free area in the Arctic Ocean in October: “A vast area of the Arctic Ocean remains ice free as November begins, far later in the season than is typical. The monthly average ice extent for October is the lowest in the satellite record.” (http://nsidc.org/arcticseaicenews/) The sea ice area has increased rapidly in the past 2-3 weeks, but the ice thickness and ice volume are likely to remain unusually low.

Sign up for our Monthly Temperature Updates here. Sign up for our other Communications here.