Earth has warm year, but not as hot as the U.S.

Lauren Morello, Environment and Energy Publishing, 1-16-13

The globe was unusually warm last year but fell shy of a global record despite chart-topping heat in the United States, according to separate federal analyses released yesterday.

NASA ranks 2012 as the ninth-warmest year for the planet since record keeping began in 1880, while the National Oceanic and Atmospheric Administration places it at No. 10.

The two agencies, which conduct separate analyses of global temperature data using slightly different methods, agree that the Earth was about 1 degree Fahrenheit warmer last year than the 20th-century average, in part due to record warmth in the lower 48 United States.

"This past year, unlike the U.S. temperatures, the global temperatures were not a record but they were certainly warm," said Tom Karl, director of NOAA's National Climatic Data Center.

According to NOAA's analysis, 2012 was the 26th consecutive year of above-average global temperatures. The average worldwide temperature reached 58 degrees Fahrenheit last year, the agency said. NASA arrived at a slightly different figure, 58.3 F.

But experts from both agencies said the above-average warmth last year fit the pattern of increasing temperatures caused by man-made climate change.

Planet moving 'out of energy balance'

"Each decade has been significantly warmer than the prior decade since the mid-1970s, and that warming trend has been conclusively related to the effect of increasing greenhouse gas emissions," said climate scientist James Hansen, director of NASA's Goddard Institute for Space Studies.

According to NASA's analysis, eight of the nine hottest years on record have occurred since 2000. NOAA ranks all 12 years of the 21st century among the 14 warmest in its record.

The pace of warming appears to have slowed somewhat, Hansen said, describing a temporary "standstill" he attributed to the cooling influence of more frequent La Niña weather patterns.

But the scientist, noting that each of the past several decades has been warmer than its predecessor, said he expected the pace of warming to pick up again soon.

"On the decadal time scale, it's going to get warmer because we know the planet is out of energy balance," Hansen said.

In addition to record warmth in the contiguous United States, 2012 saw unusual heat blanket the Arctic, where sea ice cover melted to an annual low last summer, shattering the record set in 2007. The eastern tropical Pacific Ocean was cooler than normal, a sign of the La Niña pattern that was in place as 2012 began and fizzled later in the year.

2012 is the warmest year with a low- to moderate-strength La Niña in NOAA's records, Karl said, bumping