Listen to the Earth smash another global temperature record

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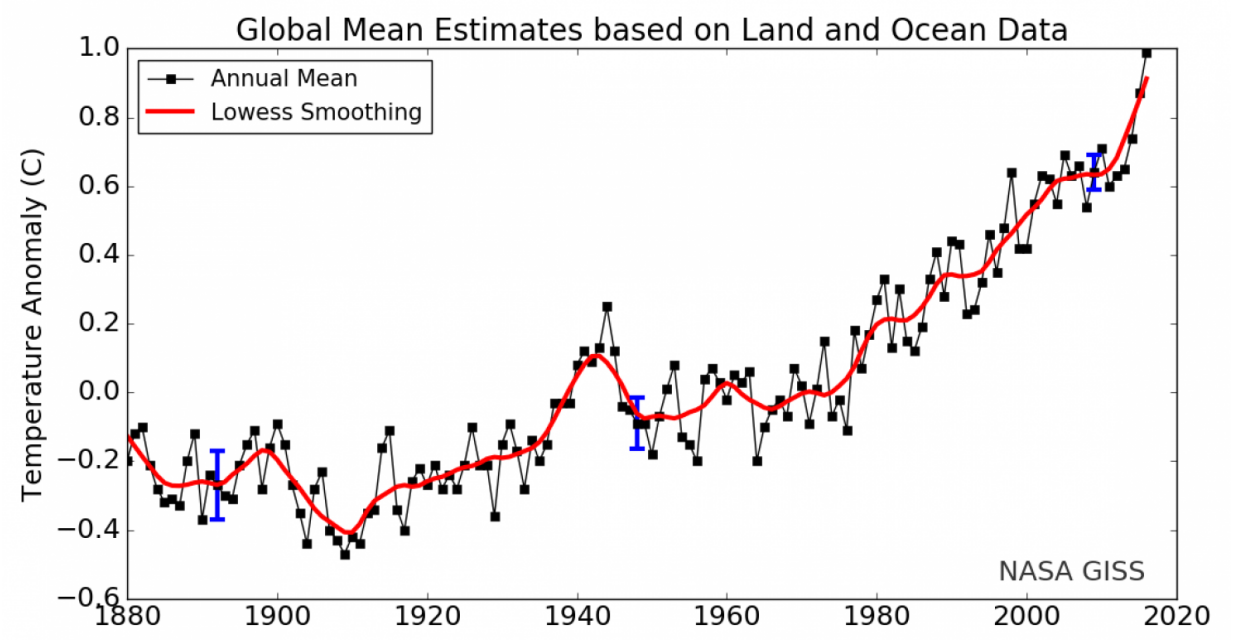

The global temperature trend, now updated through 2016. Credit: NASA

Federal science agencies announced Wednesday that 2016 was the warmest year on record, beating the previous record of global temperature set in 2015, which had beat the previous record set in 2014.

Now atmospheric scientists at the University of Washington have set the new temperature record to an electronic dance beat.

This is their second project to convert scientific data to an audio track, a process known as sonification.

The notes represent global temperature observations compiled by NASA and National Oceanic and Atmospheric Administration from 1880 to the just-released 2016 data. Each note is the yearly average of temperatures during that year. For about a century, the notes wobble around. Then the music pauses in 1977 for some narration.

"We picked 1977 for two reasons," said co-creator Dargan Frierson, a UW associate professor of atmospheric sciences. "First, that is when global warming really kicked in. Also that's the year Exxon scientists told their management that CO2 from fossil fuels is the main way humans cause climate change."

The past four decades have a rising tune, finishing with a piercing squeal for 2016.

Last year, Frierson and doctoral student Judy Twedt turned the Keeling Curve, a 58-year record of global carbon dioxide levels, into a soundtrack and video. Now they are turning to temperatures, which are showing a similar upward trend. Global temperatures are rising, as anticipated, following the addition of heat-trapping gas in the Earth's atmosphere.

"The prediction of higher temperatures from fossil fuel burning was well before most of it was observed," Frierson added. "That is a message that I'd really like to get across with this project."

The new temperature milestone drew international media attention, especially with continued questions about the link between greenhouse emissions and global climate.

"The string of records reflect the fact that we are going down a path that is dangerous and well-described," UW oceanographer Sarah Myhre, who studies prehistoric climate, told Mashable.

The sonification is another way for people to experience and interpret the observations for themselves.

"By listening to Earth's temperature rise, we hope people will be in a better position to judge fact from fiction when they hear people deny that humans are influencing global climate," Twedt said.

Provided by University of Washington