

✖ Andrew Leonard had a great [post](#) on Salon this week arguing — essentially — that liberal bloggers are wimps when it comes to connecting extreme climate events like heat waves to climate change. By contrast, he notes, conservatives eagerly throw barbs at Al Gore any time it snows in D.C.: climate denier James Inhofe's grandchildren apparently built an igloo last winter and proclaimed it "Gore's New Home." Leonard notes both that conservatives have been glaringly quiet during the recent record heat wave on the east coast and that liberals are, well, conservative in their response to the inevitable question about the connection between the heat wave and global warming. He suggests a similarly smart ass twitter campaign from Gore and other Democratic leaders — lots of jokes, for instance, about political opposition to climate change regulation melting, and so forth.

I think Leonard's exactly right and that his message ought to apply to anybody serious about climate change who is faced with the question of whether a particular weather event — especially a heat wave — is "caused" by climate change. While we can't, of course, absolutely prove a causal connection, the scientific community has already [stated](#) in the Intergovernmental Panel on Climate Change Fourth Assessment, global warming will "very likely" increase both the frequency and the intensity of heat waves over this century. So an easy answer to whether something like this week's record east coast heat is related to climate change is to say, "this is exactly the kind of weather we expect from climate change: more heat waves with even higher temperatures." Moreover, as Leonard points out, 2010 has already brought us the warmest January-May 2010 period [on record](#).

Here are a few other important pieces of information about heat waves from [previous work](#) I've done:

- More people die heat-related deaths in the U.S., on average, than from any other natural disaster;
- 52,000 Europeans died in the extreme summer heat of 2003;
- The areas of the country most vulnerable to heat wave deaths are *not* the hot parts of the country. Areas of the country that experience temperature swings are much more vulnerable, both because air conditioning is less prevalent and because humans in consistently hot areas of the country appear to acclimate to high temperatures.
- The elderly and the poor are particularly vulnerable: the elderly are more likely to have preexisting physical conditions that heat can exacerbate; the poor less likely to have or be willing to use air conditioning. Not surprisingly, being both elderly and poor is a double whammy.
- Scientists predict that cities in the northeast and midwest — New York, Philadelphia, Detroit, Chicago and Minneapolis — are likely to fare particularly badly as heat waves occur more frequently due to climate change. But places like Seattle and Portland

could suffer too.

- And as temperatures rise, so does the availability and use of air conditioning, creating a vicious cycle in which we use more air conditioning and therefore emit more greenhouse gases which in turn contribute to climate change, which brings us more heat waves. And so forth.

So next time you're asked if climate change causes heat waves, the right answer is "Yes."