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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Ice melt, sea level rise and superstorms: evidence from paleoclimate data, climate modeling, and modern observations that 2 °C global warming is highly dangerous" *by* J. Hansen et al.

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Response to SC C6954: '"Highly dangerous"?', Kenneth Towe, 17 Sep 2015

The timescales that Kenneth Towe refers to are addressed in the paper "Target atmospheric CO2: Where should humanity aim?", Open Atmos. Sci. J., 2, 217-231, 2008, the authors including several of the leading researchers in the world in paleoclimate and in carbon cycle research. The conclusion of that paper is that humanity must aim for an atmospheric CO2 level of no more than 350 ppm and possibly less, if we wish to

be fair to future generations and will them the possibility of a good life on the remarkable planet that we were fortunate to live on, with our coastal cities still inhabitable and most of the species still in abundance.

The major scientific issue that exists is how rapidly ice sheets can respond to the unprecedented human-made climate forcing, not whether they will respond. In our present paper we present substantial, compelling evidence that the ice sheet response will be non-linear and more rapid than has generally been acknowledged.

Interactive comment on Atmos. Chem. Phys. Discuss., 15, 20059, 2015.