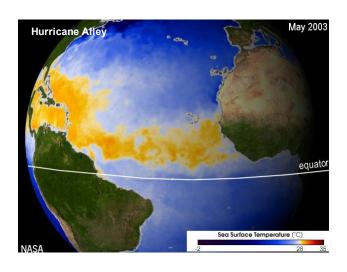
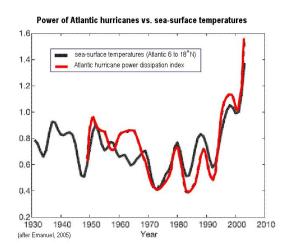


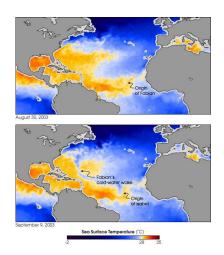
Kerry Emanuel, MIT

Power Dissipation Index (PDI) for a tropical cyclone is defined as, "the sum of the maximum one-minute sustained wind speed cubed, at six-hourly intervals, for all periods when the cyclone is at least tropical storm strength".

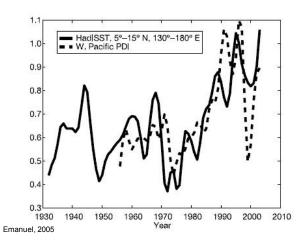
Emanuel, 2005



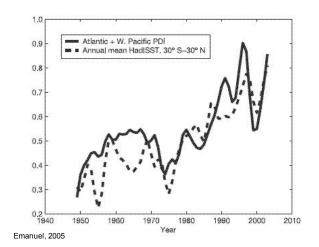




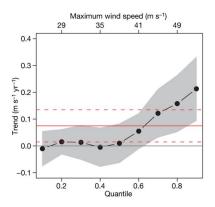
NASA



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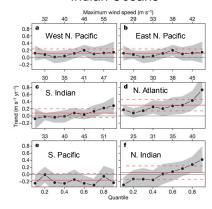
Atlantic Hurricanes

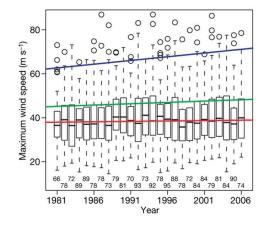


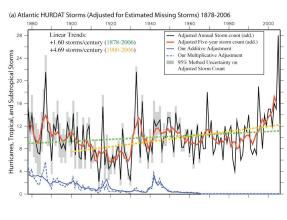
James Elsner (Florida State U.) James Kossin and Thomas Jagger (U. of Wisconsin)

Used archived satellite data to determine maximum wind speeds of cyclones in both the Atlantic and Pacific basins

Trends in other parts of the Pacific and Indian Oceans



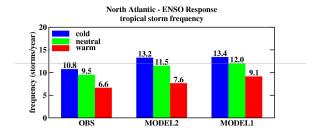




Source: Vecchi and Knutson, J. Climate, in press.

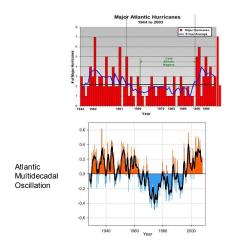
Knutson et al. (NOAA)

National Oceanographic and Atmospheric Administration



Source: Knutson et al. (2007) Bull. Amer. Meteor. Soc

Rapidly escalating hurricane damage in recent decades owes much to government policies that serve to subsidize risk. State regulation of insurance is captive to political pressures that hold down premiums in risky coastal areas at the expense of higher premiums in less risky places. Federal flood insurance programs likewise undercharge property owners in vulnerable areas. Federal disaster policies, while providing obvious humanitarian benefits, also serve to promote risky behavior in the long run.



We are optimistic that continued research will eventually resolve much of the current controversy over the effect of climate change on hurricanes. But the more urgent problem of our lemming-like march to the sea requires immediate and sustained attention. We call upon leaders of government and industry to undertake a comprehensive evaluation of building practices, and insurance, land use, and disaster relief policies that currently serve to promote an ever-increasing vulnerability to hurricanes.

Kerry Emanuel Richard Anthes Judith Curry James Elsner Greg Holland Phil Klotzbach Tom Knutson Chris Landsea Max Mayfield Peter Webster

Statement on the U.S. Hurricane Problem July 25th 2006

As the Atlantic hurricane season gets underway, the possible influence of climate change on hurricane activity is receiving renewed attention. While the debate on this issue is of considerable scientific and societal interest and concern, it should in no event detract from the main hurricane problem facing the United States: the ever-growing concentration of population and wealth in vulnerable coastal regions. These demographic trends are setting us up for rapidly increasing human and economic losses from hurricane disasters, especially in this era of heightened activity. Scores of scientists and engineers had warned of the threat to New Orleans long before climate change was seriously considered, and a Katrina-like storm or worse was (and is) inevitable even in a stable climate.