To be removed from Jim Hansen's e-mail distribution respond with REMOVE as subject.

A draft paper "Current GISS Global Surface Temperature Analysis" is available at <u>http://data.giss.nasa.gov/gistemp/paper/gistemp2010\_draft0319.pdf</u> Criticisms welcome. I intend to revise it for submission to a journal within a month or so.

Sorry, it is too long for popular use. Here are some of the main conclusions:

(1) Contrary to popular belief, global warming has not stopped nor has the rate of warming even slowed down in the past decade (Figure 21).

(2) 12-month running mean temperature is more revealing than the usual annual-mean graph, doing a better job of characterizing individual El Ninos, volcanoes, e.g., as well as providing an up-to-date assessment of annual mean temperature (Figures 9b and 10b).

(3) A new global temperature record (for the period of instrumental measurements) will be set within the next few months (Figure 10b and accompanying information).

(4) Urban effects on the analyzed global temperature are small (not a new conclusion) (Figure 3 and several more) – we account for it via satellite nightlight (Figure 1) identification of remote stations that are used to adjust the long-term trends of urban stations.

(5) Upside-down weather in the Northern Hemisphere this winter (Arctic warm, mid-latitudes cold) coincides with the most extreme Arctic Oscillation in the period 1950-2010. The AO fluctuations from year to year are mostly weather noise, i.e., unpredictable chaotic fluctuations. There seems no reason to anticipate frequent repeat performances – on the contrary, the slight long-term trend of the AO is toward more positive values and the (greenhouse gas driven) global warming trend has a larger effect than the AO trend on regional temperature, as well as on global temperature. Of course winter weather will always be highly variable and those places cold enough to have snow can expect greater amounts from an atmosphere containing more water vapor. The AO indices for the past three months are remarkable (Figure 15a), yet the cold temperature anomalies are relatively small compared to say the late 1970s (Figures 15b, 16, 17).

The paper will need a better summary/discussion section. Not quite sure where I can send the final version. The paper has relevance to current public discussions, but the usual scientific journals are not too accommodating for explicit discussion of that relevance. Perhaps Atmospheric Chemistry and Physics is a possibility – which has a "Discussions" of papers pre-acceptance. We used that journal for our paper "Dangerous human-made interference with climate: a GISS modelE study" – the referees there suggested that it was o.k. to include a brief section (Role of scientists in the climate debate), set off from the climate analysis, that included opinions about the public relevance.

Somehow we have to do a better job of communicating. The tricks being used by people supporting denial and business-as-usual are recognizably dirty, yet effective. We are continually burdened by sweeping FOIA (Freedom of Information Act) requests, which reduce our ability to do science and write it up (perhaps this is their main objective), a waste of tax-payer money. Our

analyses are freely available on the GISS web site as is the computer program used to carry out the analysis and the data sets that go into the program.

The material that we supplied to some recent FOIA requests was promptly posted on a website, and within minutes after that posting someone found that one of the e-mails included information about how to access Makiko Sato's password-protected research directory on the GISS website (we had not noticed this due to the volume of material). Within 90 minutes, and before anyone else who saw this password information thought it worth reporting to GISS staff, most if not all of the material in Makiko's directory was purloined by someone using automated "web harvesting" software and re-posted elsewhere on the web. The primary material consisted of numerous drafts of webpage graphics and article figures made in recent years.

It seems that a primary objective of the FOIA requestors and the "harvesters" is discussions that they can snip and quote out of context. On the long run, these distortions of the truth will not work and the public will realize that they have been bamboozled. Unfortunately, the delay in public understanding of the situation, in combination with the way the climate system works (inertia, tipping points) could be very detrimental for our children and grandchildren. The public will need to put more pressure on policymakers, enough to overcome the pressure from special financial interests, if the actions needed to stabilize climate are to be achieved.

Jim