

Liz Burr

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Event: The Austin TCEQ Sunset Town Hall Meeting

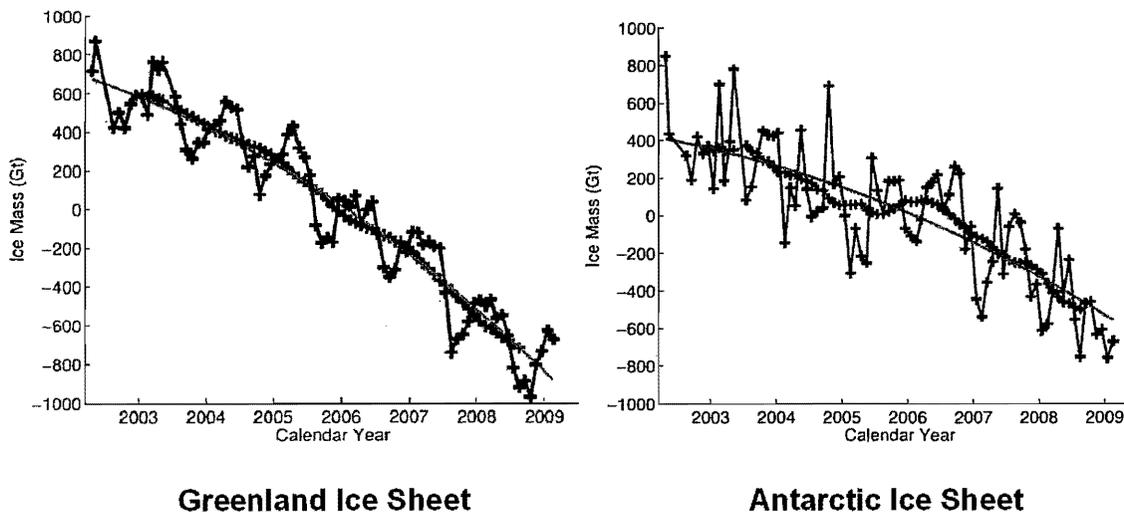
Dear Committee Members:

As a registered professional engineer I am supplying this information to you as part of my code of ethics. I am required to bring to the attention of others when unsafe engineering practices are being used, which new scientific evidence shows is happening.

The TCEQ is an agency designed to protect the public from hazardous elements released into our environment. Today I will show why the TCEQ will soon be responsible for monitoring green house gases including CO₂, in spite of the current Texas lawsuit against the EPA. The evidence I present shows a clear need for green house gas regulation which will likely be the responsibility of the TCEQ in the near future.

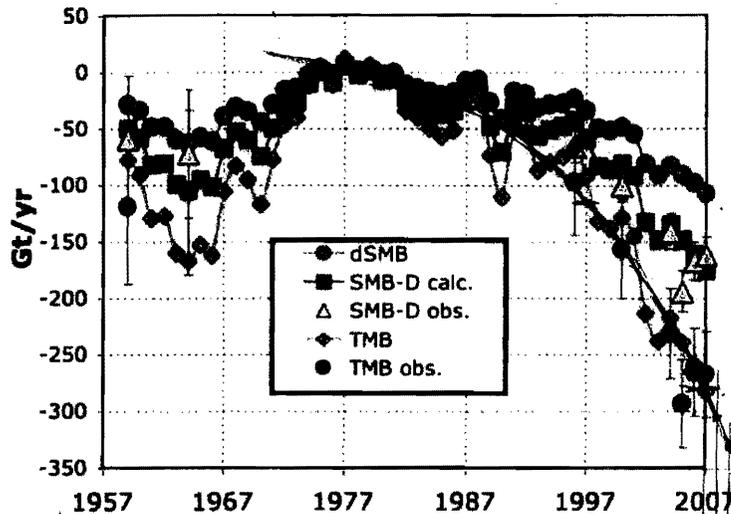
Below is a recent graph of the rate of ice melting in Greenland and Antarctica. It shows that the Greenland ice melting rate is accelerating about 10% per year.

Gravity Satellite Ice Sheet Mass Measurements



Source: Velicogna, I. *Geophys. Res. Lett.*, **36**, L19503, doi:10.1029/2009GL040222, 2009.

The Greenland graph shows a cumulative melting of the ice and is positioned so that 2006 has 0 on the graph and 600 in 2003 and -800 in 2009. The graph shows a smooth acceleration of about 10% increase in the loss of Greenland's ice per year. The 10% acceleration rate is shown to be a good fit to the above graph. This trend has been going on since 1977, at which time there was a sharp break point as shown below:



If the Greenland ice melting rate continues at 10% per year increase, then extrapolating this into the future shows that all the Greenland ice will be gone by the year 2080 as shown in the spreadsheet posted at www.egpreston/temp.xls.

The reason you have ^{not} seen this analysis is that climate scientists have atmosphere models, they have ocean models; however, they do not have ice melting models. Thus, climate scientists are reluctant to publish an ice melting forecast for Greenland that recognizes the acceleration component we are currently observing.

However as an engineer, I thought you should see this evidence for yourselves. This data shows that if the current rate of ice melting continues, then we could see a 20 foot ocean rise by the end of the century. Based on this evidence, I believe we need to plan on the TCEQ regulating green house gases for the safety and well being of Texans.

Sincerely,

Eugene G. Preston

Eugene G. Preston
<http://egpreston.com>



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this report is posted at www.egpreston.com/temp.doc