

Secret Santa Whistleblower Files End Climate Change Catastrophe Cult says Friends of Science – Backgrounder and Additional References

- 1. The IPCC now admits there are many empirical relationships that show solar forcing far in excess of TSI changes. They list only three studies, but there are in fact hundreds.
- 2. Page 9 of the Friends of Science Doha <u>Position Paper</u> shows a graph of northern hemisphere temperatures and TSI that indicates that most of the 20th century warming was natural, and a link to a chart showing excellent correlation between temperatures and a solar proxy over 3000 years. These come from peer-reviewed sources.
- 3. Friends of Science website offers a compilation of papers on solar science. From the left navigation menu on the <u>FoS website</u>, select Climate Science. The Sun <u>here</u>. This lists 25 articles on the solar-climate connection. Many of these articles are peer-reviewed publications, some are summaries based on published articles.
- 4. The "Sun activity correlates with temperature" of Climate Change Science essay here shows these papers:

The Varying Sun & Climate Change <u>here</u>, which references two important peer-reviewed papers:

Baliunas, Soon (1995, 2003) here [Proxy data shows the 20th century was not the warmest of the millenium]

Herschel (1801) [Wheat and sun spots]

Frits-Christensen and Lassen (1991) here [Solar cycle length and climate]

Scafetta and West (2007) <u>here</u> [northern hemisphere solar and temperature 400 years, source of graph <u>here</u> in Position Paper]

Ruzmaikin and Feynman (2007) [solar-auroras and old Nile records, 622 to 1470 AD]

Alexander et al (2007) here [Lake Victoria level and sunspots]

Neff et al (2001) <u>here</u>, source of the graph <u>here</u> featured in Position paper [stalagmite study temperature and solar proxies correlation over 3000 years]

Shaviv and Veizer (2003) <u>here</u>, [Celestrial driver of Phanerozoic climate, cosmic rays vs temperature over 500 million years.]

Friends of Science
P.O.Box 23167, Connaught P.O. Calgary, Alberta
Canada T2S 3B1

Toll-free Telephone: 1-888-789-9597





Secret Santa Whistleblower Files End Climate Change Catastrophe Cult says Friends of Science – Backgrounder and Additional References

Also see:

Bond et al (2001) here [North Atlantic solar vs Holocene climate]

Shaviv (2002) here [Cosmic rays recorded in iron meteorites vs temperature]

Three paper showing correlations between cosmic rays (due to solar variations) and low cloud cover are:

Marsh and Svensmark (2000) here [Low clouds and cosmic rays]

Marsh and Svensmark (2003) here [El Nino trends in low clouds and cosmic rays]

Usoskin et al (2004) here [geographic signature of the cosmic ray variations in the low clouds]

- Chapter 5 of the Non-Intergovernmental Panel on Climate Change here gives an excellent review of the sun-climate connection. The chapter has references to hundreds of peer-reviewed studies.
- 6. The "Solar Influence on Climate page at CO2Science.org <u>here</u> has a list of 40 papers that finds strong evidence for the sun having a significant influence on climate.

All of the papers referenced above imply that the solar influence is much greater than the variation of the sun's output, or TSI (Total Solar Irradiance).

- 7. The Friends of Science Doha Position Paper states on page 2, "The Sun's strong magnetic field ... has increased throughout the 20th century causing climate change", NOT sun's output. Page 8 "How the Sun Affects Climate" states, "The total energy emitted by the Sun varies only a fraction of a percent, but the solar magnetic field has increased nine fold from 1890 to 1990."
- 8. Milankovitch cycles and CO2 explain past climate variability, but do not account for recent warming.
- 9. CO2 emissions do not explain the lack of warming of the last 15 years, the cooling from 1941 to 1964, or the warming from 1911 to 1941. Climate models do a spectacularly poor job of replicating global temperature changes over the 20 century and by latitude region.
- 10. The UK Met Office reports their HadCrut3 temperature index here:

1998 = 0.529 C

2010 = 0.478 C

The satellite data of the lower troposphere from RSS shows:

1998 = 0.550 C

2010 = 0.476 C

A solar cycle is too short to cause much of a temperature change. The large heat capacity of the oceans smooths and delays solar induced temperature changes. A solar cycle causes about a 0.05 C temperature variation, a change which can be overwhelmed by ENSO events. Several low intensity solar cycles are required to cause a significant temperature change.

Friends of Science
P.O.Box 23167, Connaught P.O. Calgary, Alberta
Canada T2S 3B1

Toll-free Telephone: 1-888-789-9597

