Re: Sunspots hit new highs

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From: Robert Grumbine (*bobg_at_radix.net*)
Date: 11/02/04

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In article <cm0raqfpt1@geraldo.cc.utexas.edu>,
starburst <chills@deathtospammers.utexas.edu> wrote:
>Martin Frey wrote:
>> "Tom H." <tom_reader@att.nospam.net> wrote:*
>>
>> <Much SNIPped>
>>
>>>Now back to science again, from what I have read there are still many parts
>>>of climate modeling that are big question marks. Three that come to mind
>>>are water vapor, ocean currents, and sunspot activity. Water vapor (and its
>>>condensation into clouds) plays a big roll in greenhouse warming, but its
>>>concentration varies widely both in time and in space, and a good model for
>>>this seems unavailable. So, if the models choose to neglect (or poorly
>>>calculate) the factors that are not well known, then the accuracy of the
>>>model could be way off.
>>
>>
>> We do seem to be in a period of less climate stability/predictability.
>
>I honestly don't know if this is reality or simply perception. Accurate
>records of climate have only been kept for 100 years or so, and records
>of climate taken from space, which would seem the most independent of
>local environmental issues (like increasing pavement in the region of
>the measurement, for example) have only been kept for around 20 or 30
>years. Who's to say that the yearly fluctuations we see today are not in
>part due to the increased accuracy of our ability to measure?

The people who study climate proxies, of which there are many, would be the ones. The interannual variability of recent years versus earlier years is also testable on a local basis. While good global surface temperature records only go back to about 1880, local areas go back to the 1600's.

>> Why? What has changed? Maybe sunspots, maybe ocean currents, maybe
>> something we know nothing about.
>>
>> But also the amount of CO2 has gone up steeply and among all the
>> natural factors that produce CO2 man's the increase is in step with

>> man's increased use of fossil fuels. There is at least a posibility of
>> a connection.
>
>Agreed, but it seems to me that the output of a decent sized volcano, of
>which there are several each year, would swamp the amount of CO2 and SO2
>produced by humans. It's true that we are putting a lot of junk into the
>atmosphere, but is it comparable to the amount produced by natural
>phenomena? I'm not asking this argumentatively − I'm curious. If anyone
>could point me to some info that lays this out clearly, I'd be obliged.

The FAQs by Jan Schloerer at my site (below) answers this in detail. In brief, yes, human output of CO2 (and methane, and various other greenhouse gases) is indeed the source for the observed increase in atmospheric concentrations.

Note that I answered a slightly different question than you asked. My answer was for the increase in atmospheric CO2, while you asked about total fluxes. The thing is, the totals were fairly well balanced for the, say, 2000 years before human activity became large. The increase, and consequent climate change (if any, a point for a different post), is the scientific matter at hand.

[snip]

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Robert Grumbine http://www.radix.net/~bobg/ Science faqs and amateur activities notes and links.
Sagredo (Galileo Galilei) "You present these recondite matters with too much evidence and ease; this great facility makes them less appreciated than they would be had they been presented in a more abstruse manner." Two New Sciences