GLOBAL WARMING IS MORE WIDE-SPREAD THAN WE THINK

The Biblical Astronomer has long voiced its opposition to the claim that global warming is caused by the activities of man. We have maintained all along that man-caused global warming is the brainchild of greedy, power-maddened politicians to incite frenzy and to extract money from their emotionally-driven robots. By funneling research funds only to scientists willing to say "Yes, and amen!" to their fiction, these dangerous dictators buy scientific "respectability" for themselves.¹ But global warming is just part of a much bigger picture. The entire solar system is warming. We report here on several articles that have appeared in the recent literature in recent times supporting that little known fact.

Mars

Two satellites have mapped the Martian surface and its weather in recent years. The oldest is NASA's Mars Global Surveyor which has been in orbit about Mars for nine years, and the other is NASA's Mars Odyssey orbiter which has been orbiting Mars since 2002. Their findings have shed some light on Martian surface temperatures and have presented evidence for Martian global warming.

For three Martian summers in a row, deposits of frozen carbon dioxide near Mars' south pole have shrunk from the previous year's size. Frozen carbon dioxide is a very sensitive indicator of Martian temperatures because the layer of carbon dioxide is very thin on Mars, there being not too much of it in its atmosphere and the temperature of Mars being just cold enough to freeze carbon dioxide (CO_2) in the first place. Nevertheless, the observations suggest that a climate change is in progress.

Man has been monitoring the size of the Martian polar caps for more than a hundred years. The caps have fluctuated in size before, so there is really nothing new there. Your editor does not have enough data on that to ascertain whether Mars, too, is undergoing global warming as the earth has been since the medieval little ice age. However, I do have in my library the first sketch ever made of Mars' south polar cap. It was made by Christian Huygens on 13 August 1672 and is re-

¹ Panorama, 2003. "Increasingly, data from GSFC shows global warming is bunk," *B.A.* **13**(103):26. *Ibid.*, 2004. "Global cooling? Global warming? Make up your mind," **14**(107):20. *Ibid.*, 2005. "Carbon dioxide, the formation of Antarctica, and global warming," **15**(113):100. Anon., 2006. "The whys and wherefores of global warming," **16**(115):8.

produced at right. The diameter of the polar cap in 1672 divided by the diameter of the planet is 0.21. The same ratio in a picture taken in the 1950s is 0.12, but on other, smaller pictures, the ratio is 0.20. From this you can make what you will.

In addition to the Martian CO_2 frost cap's shrinking dramatically in recent years, other possibly thawing related phenomena



have been discovered recently. New gullies which did not exist in mid-2002 have appeared on a Martian sand dune. Boulders have tumbled down a Martian slope, leaving tracks that weren't there in 2003. These all could well be caused by a thawing of ice in a permafrost-like soil.

As if that wasn't bad enough, new impact craters formed since the 1970s require changes to age-estimating models. In other words, the surface of Mars may not be as old as the modern explanation of craters assumes.

Jupiter²

Jupiter's atmosphere, as observed in the 1979 Voyager spacecraft images, is characterized by 12 zonal jet streams and about 80 vortices, the largest of which are the Great Red Spot and three White Ovals that had formed in the 1930s. The Great Red Spot has been observed continuously since 1665 and, given the dynamical similarities between the Great Red Spot and the White Ovals, the disappearance of two White Ovals in 1997 was unexpected. Their longevity and sudden demise has been explained, however, by the trapping of anticyclonic vortices in the troughs of Rossby waves, forcing them to merge. Here I propose that the disappearance of the White Ovals was not an isolated event, but part of a recurring climate cycle which will cause most of Jupiter's vortices to disappear within the next decade. In my numerical simulations, the loss of the vortices results in a global temperature change of about 10 K, which destabilizes the atmosphere and thereby leads to the formation of new vortices. After formation, the large vortices are eroded by turbulence over a time of 60 years, consistent with observations of the White Ovals, until they disappear and the cycle begins again.

A new spot has appeared on Jupiter within the last several months. [-Ed.]

² Marcus, Philip S., www.nature.com/nature/journal/v428/n6985/abs/nature02470.html. The quote is an abstract.

Pluto³

"BIRMINGHAM, Ala.--Pluto is undergoing global warming, as evidenced by a three-fold increase in the planet's atmospheric pressure during the past 14 years, a team of astronomers from Massachusetts Institute of Technology (MIT), Williams College, the University of Hawaii, Lowell Observatory and Cornell University announced in a press conference today at the annual meeting of the American Astronomical Society's (AAS) Division for Planetary Sciences in Birmingham, AL.

"The team, led by James Elliot, professor of planetary astronomy at MIT and director of MIT's Wallace Observatory, made this finding by watching the dimming of a star when Pluto passed in front of it Aug. 20. The team carried out observations using eight telescopes at Mauna Kea Observatory, Haleakala, Lick Observatory, Lowell Observatory, and Palomar Observatory. Data were successfully recorded at all sites.

"An earlier attempt to observe an occultation of Pluto on July 19 in Chile was not highly successful. Observations were made from only two sites with small telescopes because the giant telescopes and other small telescopes involved lost out to bad weather or from being in the wrong location that day. These two occultations were the first to be successfully observed for Pluto since 1988."

That was the state insofar as occultation studies went in 2002. Pluto was warming up even though it was moving away from the sun in the course of its regular orbit. Normally, as it moves away from the sun it should be getting colder, however, the rate at which Pluto is currently receding from the sun is not at all great.

Things did not change last year when another occultation happened.⁴

Astronomers at the University of Tasmania have found that the solar system's smallest planet is not getting colder as first thought and it probably does not have rings. Dr. John Greenhill has collected observations from last month's event [June 2006, -Ed.] when Pluto passed in front of a bright star, making it easier to study.

Dr Greenhill says the results are surprising because they show Pluto is warming up.

³ Massachusetts Institute of Technology press release, 9 Oct. 2002. The source for this section, quoted here, is http://web.mit.edu/newsoffice/2002/pluto.html.

⁴ http://www.abc.net.au/news/newsitems/200607/s1697309.htm. "Pluto thought to be warming up." Quoted here, reformatted soemwhat.

"It looks as though the atmosphere has not changed from 2002 [see above, -Ed.], which is pretty surprising because we expected the atmosphere would freeze out as the planet moved further away from the Sun," he said. "But so far, if anything, the atmosphere has gotten even denser."

French scientists have shared the measurements they took in Tasmania that night, which indicate that the planet is unlikely to have rings.

So far, we have looked at solar effects, how the sun is getting hotter. There are also some things happening that are cooling the solar system at the same time. We shall look at those next, though the sun is easily winning for now. Finally, we shall look at what is happening in the sun that is causing global warming throughout the solar system. I assume, of course, that our avaricious politicians are not yet willing to accuse mankind of polluting the solar system enough to be the cause of solar system warming.

Interstellar Dust

In the 1970s, when we were experiencing the political agonies of the global cooling fanatics, a group of astronomers proposed that the commonly supposed ice ages were caused by the passage of the solar system through clouds of interstellar dust. This dust is found throughout the galaxy.⁵ The Great Rift, the black area that seems to split the summer Milky Way into two streams, is one such cloud. The Coal Sack in the constellation of the Southern Cross is another.

As the sun passes through such a cloud, the theory goes, it absorbs sunlight on its way from the sun to the earth. As a result, the earth gets less sun than normal and so the earth cools, producing an "ice age."

A 1978 Astrophysical Journal paper claimed:

Observational arguments in favor of such a cloud are presented, and implications of the presence of a nearby cloud are discussed, including possible changes in terrestrial climate. It is suggested that the postulated interstellar cloud should encounter the solar system at some unspecified time in the 'near' future and might have a drastic influence on terrestrial climate in the next 10,000 years.

In 2003, there were some further developments in the dust observations, though not the theory for the origin of ice ages.

⁵ http://adsabs.harvard.edu/abs/1978ApJ...223..589V.

Until ten years ago, most astronomers did not believe stardust could enter our Solar System. Then ESA's [European Space Agency, -Ed.] Ulysses spaceprobe discovered minute stardust particles leaking through the Sun's magnetic shield, into the realm of Earth and the other planets. Now, the same spaceprobe has shown that a flood of dusty particles is heading our way.⁶

First off, we must note that only magnetic (nickel-iron) dust is affected by the sun's magnetic field. Dust made of stony or carbon materials is generally not subject to magnetic effects. Fine dust will, however, be affected by solar radiation, which is the pressure that light emanating from the sun exerts on the dust, and electrostatic effects.

What is considered surprising in the Ulysses discovery is that the amount of interstellar dust has continued to increase even after the solar activity calmed down and the magnetic field resumed its ordered shape in 2001. Scientists believe that this is due to the way in which the polarity changed during sunspot minimum. Instead of reversing completely, flipping north to south, the Sun's magnetic poles have only flipped half way and in 2003 were more or less lying sideways along the Sun's equator. This weaker configuration of the magnetic shield is letting in two to three times more stardust than at the end of the 1990s. The ESA team postulated that this dusty influx could increase by as much as ten times until the end of the current solar cycle in 2012. Despite this, the sun's increasing temperature overwhelms the cooling effect of the dust.

How Is the Sun Getting Hotter?

The sun's magnetic field flips over once every two solar cycles, that is, once every 22 years. Each half of the cycle starts with sunspots originating mainly in an area around thirty degrees latitude. In the course of 11 years, the spots form further and further away from the poles until they get to within about ten degrees from the equator. When they reach that region, the sun's magnetic field flips over so that what was once magnetic north is now magnetic south and vice-versa.

At the 1998 annual convention of the American Association for the Advancement of Science, astronomer Jay Paschof presented a paper in which he announced that since the International Geophysical Years of 1954 and 1959, the sunspots have been starting at higher and higher latitudes after each time the magnetic pole flips. You can see the effect

⁶ Press release: Date Released: Monday, August 18, 2003. Source: Artemis Society.



in the solar butterfly diagram on the next page. You can also see there that over the last three sunspot cycles, the sunspots are also starting to concentrate more to the equator. (See the figure on page 32.)

The number of sunspots has been found to correlate with the brightness of the sun over the time. Since sunspots are dark, it is natural to assume that more sunspots mean less solar radiation. However, the surrounding areas are brighter and the overall effect is that more sunspots means a brighter sun (see picture above). The variation is small, of the order of 0.1%, but the fluctuations match the temperature changes almost identically, certainly closer than CO_2 emissions.

Does This Mean the End of the World?

The frantic cries of the enviro-wackos are designed to make people think that the world is going to end if we don't do something soon. This is nonsense. A little global warming is good for us.

The Little Ice Age dominated both hemispheres for most of the last millennium. It started with the growth of the Arctic ice cap in roughly 1250 and ended with its fourth temperature minimum about

1850. The Little Ice Age was characterized by plagues, diseases, famines, poverty, fungi, and other serious disorders that accompany cold, damp climates. During that time the deserts of the world expanded while the rain that once watered them flooded Europe and central Africa. These conditions are the conditions to which modern global warming terrorists want to return. A return to the higher temperatures, when the Sahara was fertile, when the world enjoyed optimal health, and which temperatures we are now approaching, is apparently not to the liking of our political and entertainment elite.

