

Scientists are now warning that global cooling is the real danger. By Michael S. Coffman, Ph.D.

"My breath was taken away in an instant. I made a slow, deliberate backward rock in my chair...and uttered a nearly silent 'Wow!' and again 'Wow!' Surely, this cannot be!"

JOHN CASEY, PHYSICIST AND PRESIDENT OF SPACE & SCIENCE CORPORATION, FROM HIS BOOK, "COLD SUN"

everal new studies from around the world are providing powerful evidence that we are entering a cooling period that could last 40 years or more. The quote from John Casey's book (above) shows the magnitude of his and dozens of other discoveries by physicists in more than a dozen countries.

Even though global cooling poses a far greater danger than global warming ever will, the mainstream media is ignoring it, as are global-warming zealots. But it is critical that people realize the danger of global cooling because the Obama administration is making an all-out effort to get a de facto cap-and-trade agreement with the United Nations this December in Paris, all

in the name of global warming.

A brand-new set of ultra-accurate temperature data is now available that utterly destroys the man-caused warming theory of the alarmists. The new measuring stations were installed in the early 1990s using exacting protocols that prevent human error from creeping into the data. Called the U.S. Climate Reference Network, it provides the most accurate data in the world. No longer can the National Aeronautics & Space Administration and the National Oceanic & Atmospheric Administration and other government climate agencies "manipulate" the data to "create" global warming when none exists (see "Racing to Tyranny," RANGE, Fall 2015). Both NASA and NOAA continue to

Contiguous U.S. Average Temperature Anomaly (degrees F) 2005-2015
Source: NOAA U.S. Climate Reference Network (USCRN)

Trend
y=0.6186-0.002678x

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015
Month by month data, January 2005-May 2015

The most accurate temperature data for the United States comes from NOAA's U.S. Climate Reference Network that was installed in the early 1990s to remove all error from placement near artificially warm objects, different equipment having different errors. There is no longer any reason to manipulate the data as has been done for every station around the world to make station data appear to show global warming when it in fact does not (see "Racing to Tyranny," RANGE, Fall 2015, at rangemagazine.com). This U.S. accurate data shows a slight decline which will get steeper by the 2020s. This data does not conform to the global-warming mantra put out by the administration and environmentalists, so it is not used. Instead, corrupted data is used to increase the public's fear that the world is about to be destroyed.

use the corrupted data.

Ask yourselves why. What is driving climate change if it is not carbon dioxide? Increasingly, scientists believe it is likely the sun, just as solar scientists and skeptical climatologists have thought for decades.

Solar Cycles

The sun goes through an 11-year solar cycle, as can be seen in NASA's graphic on the next page. Its scientists use sunspots because they happen to be a result of an active sun that has numerous solar flares, coronal mass ejections, and other solar activities. Yet, the sun as a source of earth's warming and cooling cycles has been discounted for years by warming alarmists. They claim that the increase in the sun's irradiance when it is active during its 11-year cycle is only about one percent of the total released by the sun, which is not enough heat energy to cause warming—at least in the simplistic way they look at it.

What Casey and others have found is that earth's temperature cycles are not based on simple solar irradiance, but on the internal cycles of the sun itself. Although there are several shorter cycles, the one having the greatest impact on earth's climate is what Casey calls the Bicentennial Cycle, or the 206-year cycle. He has found that this 206-year cycle correlates with near 100-percent accuracy to every major cold temperature period in the last 1,200 years, including the one that started in 2009. The earth's 11-year cycle is not to be confused with the 206-year cycle, even though the 11-year cycles are highly influenced by the 206-year cycle.

Currently, we are in the tail end of sunspot Cycle 24 and at the start of the 206-year cycle. It officially started in 2009—the same year Casey claims in "Cold Sun" that the Bicentennial Cycle started. Cycle 24 shocked solar scientists when the number of sunspots they actually found was only about 60 percent of what they expected. The plummeting number of sunspots recorded by NASA is clearly obvious in the graph. However, most Americans have probably never heard that the level of solar

activity is declining, even though it may be the most important event in our lives.

A similar pattern of declining sunspots is thought by many scientists to be responsible for the Little Ice Ages of the late 1600s (Maunder Minimum) and early 1800s (Dalton Minimum), as is clearly seen in the graph showing 400 years of sunspot observations.

While U.S. climate scientists have spent more than \$30 billion unsuccessfully trying to prove man is responsible for the catastrophe they believe is coming, a number of other climate and solar scientists have found important correlations between solar cycles and warming and cooling cycles of the earth.

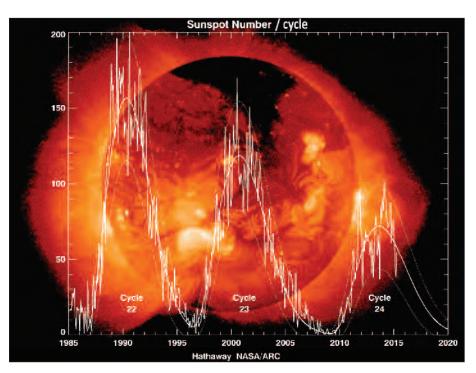
To illustrate Casey's accuracy in predicting future solar events using the 206-year model, NASA had initially predicted Cycle 24 to have many more sunspots than Cycle 23. In 2005, Casey called Dr. David Hathaway, head of NASA's heliophysics team at the Marshall Space Flight Center which makes the solar predictions, and politely told

Global-warming alarmists are still clinging to their theory that man causes global warming. To them all the warming we should have received the past 18 years has somehow been gobbled up by the ocean, even though there is no evidence of any mechanism to explain how the ocean absorbs this much heat.

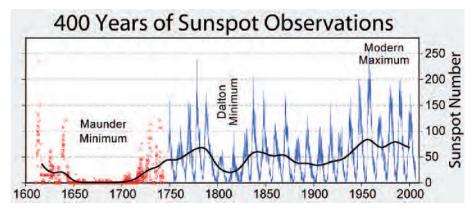
him that his predictions were wrong—Cycle 24's sunspot count would be much lower than Cycle 23. They had a good discussion and Hathaway politely told Casey that NASA was going to continue to proclaim that Cycle 24 was going to have more sunspots than Cycle 23. Big mistake. As time went on, Hathaway constantly had to lower his estimate for Cycle 24 until it matched what Casey had told him years earlier.

Casey explains that "by properly looking at the various components of solar activity, we have been able to discern the key cycles that schedule climate change, and we have made substantial headway in making highly reliable predictions based on that model."

In Hathaway's defense, he and a colleague had investigated the 206-year cycle



The past three cycles show a stunning decline of sunspots in each cycle. Solar irradiance is also declining. Cycle 24 turned out to be about 60 percent less than predicted and much less than Cycle 23. This rapidly declining number of sunspots is similar to what happened in the Little Ice Ages of the late 1600s and early 1800s, especially the Dalton Minimum (see graph below). The image of the sun was taken to illustrate infrared radiation using the Chandra space telescope. SOURCE: NASA, Marshall Space Flight Center. Drawn by Dr. David Hathaway, director of the Flight Center until 2015.



Sunspot observation is accurate until the mid-1700s (blue). Sunspot information from between 1600 and 1750 has missing data (red). The Dalton Minimum was accompanied by very cold winters and shortened growing seasons, which caused crop failures, famine and pestilence. It was not a good time for humanity. Those two minimums have been called the Little Ice Age. Many solar scientists are concerned that we are heading for a cold period similar to the Dalton Minimum. SOURCE: Robert A. Rohde http://www.globalwarmingart.com/wiki/File:Sunspot_Numbers_png.

and found that just before the changeover from warm to cold occurred in previous Bicentennial Cycles, there were a large number of sunspots and the earth warmed. Somehow, he was convinced that Cycle 24 was the final warm gasp before the changeover to cold occurred, so he predicted large numbers of sunspots for Cycle 24.

Even though Hathaway and his team at the Marshall Space Flight Center overestimated the number of sunspots in Cycle 24, to his credit they did predict in 2006 that sunspot numbers would plummet in Cycle 25—down to only 50 spots when the average was 150 to 200 in the 1900s.

The Solar Conveyor Belt

Every 11-year solar cycle is different. The reason has eluded solar scientists until this year when professor Valentina Zarkova released her team's study that shows there are two conveyer belts operating in the sun—one



Venice's lagoon froze several times during the Little Ice Age, as shown by an anonymous painter in 1708. Europe suffered massive crop failures, the plague, and death. Although not well reported, Venice's canals have again frozen in the past few years.

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near the surface and one much deeper. In the case of Zarkova's model, it now predicts with 97-percent accuracy for the past three solar cycles.

The solar conveyor belt moved about one meter per second during the 20th century. Fast belts mean stronger solar activity, and slow belts mean lower solar activity. The speed of these belts has slowed down dra-

matically in the past 11year cycle. No one knows why. What Zarkova's model shows is that while the two belts move at close to the same rate, the surface belt is slightly slower, allowing them to be

out of sync, or phase. The more out of phase they are, the fewer number of sunspots and solar activity, and the colder the earth.

"When we have a full-phase separation," explains Zarkova, "we have the conditions last seen during the Maunder Minimum, 370 years ago." The full-phase separation will occur in Cycle 26. She and her team predict that Solar Cycle's 25 and 26 will have 60 percent fewer sunspots and solar activity by the 2030s, backing up what Casey predicted back in 2005.

Be Prepared

If the Dalton Minimum did cause the Little

Ice Age, then that is what we must prepare for in the coming years. Scientists cannot say with finality that we are going into a cold cycle, but there is far more evidence that we are going into global cooling than global warming. If we are repeating the Dalton Minimum, then we can expect to have early and late frosts that kill crops. We can hope that modern agricultural technology may be

able to avoid the crop failures due to early and late frosts, but right now little, if any, research is being done to prevent massive crop failure, occurred in the Dalton Minimum. Nor

are we doing research on how to stop the plague that occurred during the Dalton Minimum. Many things should be done to prepare for the coming cold cycles, but because this issue is so completely politicized, nothing is happening. ■

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