



EEVC NEWSLETTER

Published by the Eastern Electric Vehicle Club

Peter Cleaveland, Editor

Vol 37 No 1-2

Club Address: P.O. Box 134, Valley Forge, PA 19481-0134 JANUARY-FEBRUARY, 2017

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A SKEPTICAL LOOK AT CLIMATE ALARMISM Oliver Perry

The mainstream media has hit the public hard, over and over pushing their belief that we can save the world — must save the world — by reducing fossil fuels. This may be true, or not. Nobody knows for sure what built-in systems the planet has for absorbing CO₂ and staying relatively the same.. or how much CO₂ in the atmosphere it will take to set off a more rapid change.

I feel it does not hurt to keep reminding folk that whatever change is taking place it is SLOW. The media tries to make it sound otherwise.

“World Data Indicate 2016 Was Warmest Year on Record”

Wall Street Journal, Jan 19 2017, page A3

The following are my comments:

Don't hold your breath while waiting to experience a meltdown. And don't plan on getting rid of your warm clothes. According to the article, during 2016, the average temperature across global land and ocean surfaces was 0.94 degrees Celsius above the 20th century average for the 137 years since records began in 1880. When you read the fine print you find out that we are not heating up very quickly. If you own an acre in the Arctic it is doubtful that you will grow tomatoes on it before you die.

Why was the above article headlined and set next to a picture showing a melting glacier in northern Greenland in mid July?

[Editor's note: probably because the rate of warming in the Arctic and Antarctic is twice that of the rest of the world, according to NASA. “When compared to longer-term, ground-based surface temperature data, the rate of warming in the Arctic from 1981 to 2001 is eight times larger than the rate of Arctic warming over the last 100 years. There have also been some remarkable seasonal changes. Arctic spring, summer, and autumn have each warmed, lengthening the seasons when sea ice melts by 10 to 17 days per decade. Temperatures increased on average by almost one and a quarter (1.22) degrees Celsius (C) per decade over sea ice in the Arctic summer. Conversely, Arctic winters cooled from the 1980s to the 1990s. The study finds that winters were almost 1 (0.89) degree C cooler per decade.” *NASA Earth Observatory*]

Gavin Schmidt, director of NASA's Goddard Institute for Space Studies in New York, which is responsible for the NASA climate data, said, “The long-term trend is not because of the El Ninos, but because of the long term-warming of the planet by greenhouse gases.”

A point to remember... warming of the planet by something else other than greenhouse gases will cause an increase in the amount of greenhouse gasses, possibly water vapor, which is a green house gas. So which

comes first, the chicken or the egg, the Democrat or the Republican?

We may not live long enough to find out, not because of a rapid end of the earth due to storms and rising water, but because it takes ages for climate change to be documented accurately, let alone establish an undeniable cause and effect. Do I believe in climate change? Yes. The climate has forever been changing since the beginning of earth's creation. The Indians of the southwestern part of the U.S. had to move — or die off — because of shifting rain patterns.

Fortunately or unfortunately our politicians will decide what steps we need to take in regard to their perception of climate change (and economic preference) using climate change as a carrot or stick to direct us.

For those questioning the purpose of this article in an electric vehicle newsletter here is a reminder. The advancement of the electric car depends greatly on rules and regulations for the auto industry pertaining to climate change issues. These rules and regulations are linked to climate change beliefs. The fortunes of men depend upon what positions their leaders take on climate change. I tend to believe that many leaders take positions on climate change that favor particular economic gains — on both sides of the aisle. I can sell umbrellas to the crowd entering the ball park if I can convince them that it is going to rain. You can sell air conditioned beanies if you can convince them that instead of rain they will have hot sunshine. Neither of us should purposely lie to the public in order to sell our wares. Perhaps each of us received a different weather forecast and are convinced we are correct. In truth we should both back off our need to make money and agree that sometimes the weather is unpredictable — and each of us could be right or wrong.

If man's use of fossil fuels is the cause of this very slow — SLOW — change in climate.. it will take a long time to convince the majority of users that they need to make changes in their life style to solve the problem. This problem is unlike the one that Rachel Carson's book *Silent Spring* successfully addressed. It didn't take long for the world to find out that the unrestricted use of pesticides and man-made chemicals were slowly killing us. Yes, the matter was debat-

ed.. and the truth denied — for a time. But the problem was clearly identified and rectified in less than a man's lifetime. It won't be the same in regard to climate change.

I will continue to stress the following. If we favor the advancement of electric cars then we must not use the questionable and debatable "saving of the planet" as the primary reason to forward their use. Are those who need the governments of the world to force the reduction of CO₂ in the atmosphere and to force industry to make more expensive electric cars to accomplish that goal skating on thin ice? (ICE pun intended.)

Electric cars are superior to the internal combustion engine cars in many ways. But, the ICE (Internal Combustion Engine) vehicles likewise have their advantages. Few debate which of the two are best for the environment. And few can debate, for now at least, which are best for our pocketbook. Those who make it best for the pocketbook usually have little difficulty in the marketplace. And let's not push government to make rules that favor our pocketbook at the expense of our neighbor unless it is a life and death issue. And do you really think at this point that climate change is a life and death issue compared to the many other issues facing us in our world? Sea levels are NOT rising as fast as the media would have us believe.

[Editor's Note: "By 2100, sea levels are projected to rise by almost 1 meter (0.9 meters), according to the 2001 Intergovernmental Panel on Climate Change report." *NASA Earth Observatory*]

MORE COMMENTS ON THE NEWS **Oliver Perry**

Beijing's Plan For Clean Heat Is Leaving Villagers Cold

By Bria Spegele, *Wall Street Journal*, Jan 26th, 2017

"Beijing is installing electric heaters in village homes near Beijing to cut winter coal burning. Urban dwellers are growing frustrated by noxious smog that peaks in the winter time. The sprawling capital and its surrounding regions, home to more than 100 million people, is ground zero in the government's

three-year war on pollution. Reducing emissions from heating would be among the most effective ways to limit winter smog besides cleaning up industry, according to academics who study the problem. Coal-burning by households is particularly dirty because it often happens without the filtering required in power plants. Home heating is a sensitive issue in China, highlighting the gap between the capital's urban middle class and the rural poor. Cities and towns as far as 100 miles from Beijing have established "no-coal" zones.

"In Dongzhi West Village, 40 miles north of Beijing, officials recently installed an electric heating system in a courtyard home. The owner was thrilled at first but has discovered that her electric bill has become the family's greatest expense, requiring someone in the household to go out and acquire another job. According to Bria Spegele, officials have converted more than 12,000 homes in that particular region to electric heating since 2015, and aim to eliminate most coal-burning by 2020. They have offered new subsidies to help homeowners pay the additional cost, but some of these have been delayed.

"Beijing's antipollution campaign has begun to have some effect, with smog levels declining by more than 25% according to the U.S. Embassy."

You want smog?



Several years ago we took a trip to China in early winter. We had a chance to visit the home of a rural farming family. You can see the pile of wood in the kitchen smoke from the fire (in the photo above) that our hostess was using to cook our meal. In the winter time when it is excessively cold she and her husband climb into bed in order to keep warm. They do not have any method for heating their home other than burning wood.



The other two pictures show the smog over the mountains north of Beijing, and the city of Wuhan in winter time. Smog is typical, blue sky is atypical.

Did You Know What From of Transportation Introduced Better Highways In Our Early Nation?

According to an article I recently read in the *Saturday Evening Post*, Jan-Feb 2017 publication, it was the bicycle.

Quotes from "How Bikes Built our Highways" by Margaret Guroff.

"Bicycles were invented early in the 19th century, and by the 1860s they were all the rage."

(The *Post* and its sister publication *The Country Gentleman*, took note of this exciting trend in dozens of editorials and news items from the latter part of the 1880s through the turn of the century. It was only when the the motorized bicycle, precursor to the automobile, caught the public fancy that the fascination with the bicycle began to fade.)

"By the early 1890s more than a million Americans were riding bicycles. With that many cyclists on the road, the demand for smoother roadways began to go mainstream."

"As soon as American cyclists began riding high-wheelers outdoors they began kvetching

about the roadways”....”The majority of Americans do not know what a good road is,” wrote one rider in 1882, “and their horses who do know and could explain the differences in roads are barred from speaking.”

Groups of riders and cycle clubs quickly developed a political agenda. The League of American Wheelmen came to lead these efforts.

The following is a quote from *The Country Gentleman*, September 15, 1892.

“The agitation for good roads has evidently taken a strong hold on the public mind; but it is not to be supposed that because the League of American Wheelmen is unanimous for better roads, the therefore a great reform in road making is soon to come without other effort.”

“Our roads now are a shame to our civilization. Hundreds of steep hills have their stories of horrid accidents, wrecked wagons, horses running away, legs or arms broken, etc. To delay making repairs is selfish, as it seeks to put a most necessary work on another generation.”

“As road improved, city dwellers increasingly used bikes to explore the country between railway stations. Wayside inns suddenly became overwhelmed by wheelmen (cyclists) who installed signposts, and created road maps to help other cyclists find their way. When automotive tourists took to the roads in the 1910s and 20s they often found the way marked, mapped, and paved by cyclists who had come before.”

One last interesting fact. The bicycle of 1881 was the combined product of the ideas of four great nations. The American contribution, generally regarded as the most valuable contribution of all was the rubber Tire! The rubber tire enabled the bicyclist to accomplish the impossible feat of riding UP HILL !

21ST CENTURY AUTOMOTIVE CHALLENGE

Ollie Perry informs us that Dr. Joel Anstrom has set the 2017 21 CAC for April 7-9, at Penn State. “There is a possibility that GM might want to participate... but still only in the possibility stages,” he says. According to Joel, “Dave Riley confirmed the MorningStar would be available April 7-9 to coincide with

a GM Bolt rollout event and 21st CAC.”

The event was discussed at the January EEVC meeting, but those interested can contact Ollie directly, or via the chatline.

NEWS UPDATE

Gigafactory begins production

On January 4 Tesla announced that its Gigafactory on Nevada had begun production of its cylindrical “2170 cell,” which, the company says, was “jointly designed and engineered by Tesla and Panasonic to offer the best performance at the lowest production cost in an optimal form factor for both electric vehicles and energy products.”

Production of 2170 cells for qualification started in December and full production units will be used in Tesla’s Powerwall 2 and Powerpack 2 energy products. Model 3 cell production will follow in Q2 and by 2018, the Gigafactory will produce 35 GWh/year of lithium-ion battery cells, nearly as much as the rest of the entire world’s battery production combined.

The Gigafactory is being built in phases so that Tesla, Panasonic, and other partners can begin manufacturing immediately inside the finished sections and continue to expand thereafter. The current structure has a footprint of 1.9 million square feet, which houses 4.9 million square feet of operational space across several floors, but, the company says, “we are still less than 30 percent done. Once complete, we expect the Gigafactory to be the biggest building in the world.”

Utility installing battery backup

A year ago (January and February, 2016) we reported on a blowout at a depleted oil field near Porter Ranch, CA used for storing natural gas that was spewing 130,000 pounds of gas per hour for 16 weeks. The leak was eventually stopped, and multiple lawsuits have been filed against Southern California Gas Company. Since the need for energy storage never went away, the utility needed to find another way, and has turned to batteries, according to a January 14 *New York Times* article by Diane Cardwell and Clifford Kraussjan. “After racing for months,” says the article, “engineers here in California have

brought three energy-storage sites close to completion to begin serving the Southern California electric grid within the next month. They are made up of thousands of oversize versions of the lithium-ion batteries now widely used in smartphones, laptop computers and other digital devices.”

“One of the installations, at a San Diego Gas & Electric operations center surrounded by industrial parks in Escondido, Calif., 30 miles north of San Diego, will be the largest of its kind in the world, developers say. It represents the most crucial test yet of an energy-storage technology that many experts see as fundamental to a clean-energy future.

“Here, about 130 miles southeast of Aliso Canyon, the site of the immense gas leak in 2015 — the global-warming equivalent of operating about 1.7 million cars over the course of a year — 19,000 battery modules the size of a kitchen drawer are being wired together in racks. They will operate out of two dozen beige, 640-square-foot trailers.”

Staying on top of the news



No one can accuse the *Philadelphia Inquirer* of rushing into things. On January 14 it ran an article by staff writer Kathy Boccella about Methacton High School’s EV program, nothing that it had begun 15 years earlier with EEVC member John Murphy’s donation of his three-wheeled Lomax (shown above in a picture from the 2009 21 CAC) to the school. What makes the story a little more timely is that Methacton is one of the few high schools that still has an EV club, and was invited to exhibit at the Philadelphia Auto Show, from Jan. 28 to Feb. 5. For the whole story, see www.philly.com/philly/education/20170115_Headed_for_Philly_Auto_Show_Montco_students_get_a_charge_out_of_electric_cars.html.

tion/20170115_Headed_for_Philly_Auto_Show_Montco_students_get_a_charge_out_of_electric_cars.html.

PROTECTING THE AQUIFERS By California Pete



California has a long history with the oil industry, but it has come at a cost. One problem, recently brought to public attention, is the way producers dispose of wastewater. Oil often comes from the ground mixed with large quantities of water — in some cases

85 percent of well output is water. Much of this is brine — water containing so much dissolved salt that it’s of no use to anyone. It has long been industry practice to pump this back into the ground using so-called injection wells. The problem has been that some of these wells have been feeding into aquifers — “groundwater reservoirs that were supposed to be protected by the federal Safe Drinking Water Act,” says a Jan 17 article by David Baker in the *San Francisco Chronicle*. Much of the pumping had been going on for 30 years, but finally, says the article, state regulators are requiring 475 wells to be shut down. “At the same time,” the article continues, “the state will allow oil companies to continue using 1,650 wells that are pumping wastewater into aquifers that may be suitable for waste disposal, either because they already contain oil or high concentrations of minerals, or because they aren’t connected to any aquifers that are used for drinking or irrigation.”

Shut up and drive

Distracted driving is a problem everywhere, but some places are worse than others. California stands out, if for the only reason that around here cell phones are surgically implanted — or, it seems, some users just wish they were, because it would immunize them against a recently-enacted law that makes it illegal to drive with a phone in your hand, let alone holding it to your ear. Not that it will do much good, because studies have shown that the distraction is in the brain, not the hand, and hands-free does not mean

attention-free. Oh, well...

Celebrating the hippie past

In its continuing nostalgia for all things liberal and counterculture, San Francisco recently noted the anniversary of the Human Be-In of Jan. 14, 1967, in which an estimated 30,000 bead-wearing, anti-war, pro-love, long-haired people descended on the Polo Fields in Golden Gate Park, according to a Jan 15 *Chronicle* article by Peter Hartlaub and Sam Whiting. The event “has been etched in history as a great moment of music, acid experimentation, fellowship and peace. On any calendar of the counterculture, it marks the day that Timothy Leary stood on a stage in the sun, dressed all in white with a flower over each ear, and advised the audience: ‘Turn on, tune in and drop out.’ This was the signal event of the 1960s, a catalyst to the Summer of Love. Everything from ‘love-ins’ to ‘Laugh-In’ came out of the Human Be-In.”

For the whole article, go to www.sfchronicle.com/music/article/Reliving-the-Human-Be-In-50-years-later-10854785.php.

COMING EVENTS

2017 IEF Solar Car Conference

Feb 3-5, Overland Park, KS. A prime topic of the conference will be the regulations for the 2018 American Solar Challenge. For info, go to <http://americansolarchallenge.org/get-involved/solar-car-conference/2017-ief-solar-car-conference/>

SAE 2017 Hybrid and Electric Vehicle Technologies Symposium

Feb 7-9, 2017, San Diego-Mission Valley, CA.

Green Truck Summit

March 14-17, Indianapolis. Held in conjunction with The Work Truck Show; go to www.worktruckshow.com/WTS/GreenTruckSummit/WTS/GTS/GreenTruckSummit.aspx

WCX 17: SAE World Congress Experience

April 4-6, Detroit. www.wcx17.org/

21st CAC

April 7-9, Penn State. More info to come.

Earth Day 2017

April 22. www.earthday.org

3rd International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS)

April 22-24, Porto, Portugal. www.vehits.org/
6th International Conference on Smart Cities and Green ICT Systems (SMART-GREENS)

April 22-24, Porto, Portugal, colocated with the above. Go to www.smartgreens.org.

7th China International New Energy Vehicle Forum 2017

April 24-25, Shanghai. www.ecvinternational.com/2017ChinaVehicle/

ACT Expo 2017 - Alternative Clean Transportation

May 1-5, Long Beach, CA. For info go to www.actexpo.com/

Electric Vehicles: Everything is Changing

May 10-11, Berlin. www.idtechex.com/electric-vehicles-europe/show/en/

National Drive Electric Week

Sept 9-17, nationwide. At press time no events were listed for the eastern PA-NJ area; for more information go to <https://driveelectricweek.org/>

2017 Bridgestone World Solar Challenge

Oct 8-15, Darwin to Adelaide, Australia. Go to www.worldsolarchallenge.org

NOTICE ON DUES

Annual dues are \$20 with electronic delivery of the Newsletter, or \$25 for a printed copy. Make checks payable to EEVC and mail to James Natale, 3307 Concord Dr, Cinnaminson NJ, 08077, or pay via PayPal to www.paypal.me/EEVC.

MEETING SCHEDULE

Meetings are held in Room 49, Plymouth-Whitmarsh High School, 201 East Germantown Pike in Plymouth Meeting, PA, and begin at 7:00 p.m.

February 8

March 8

April 12

May 10

June 14