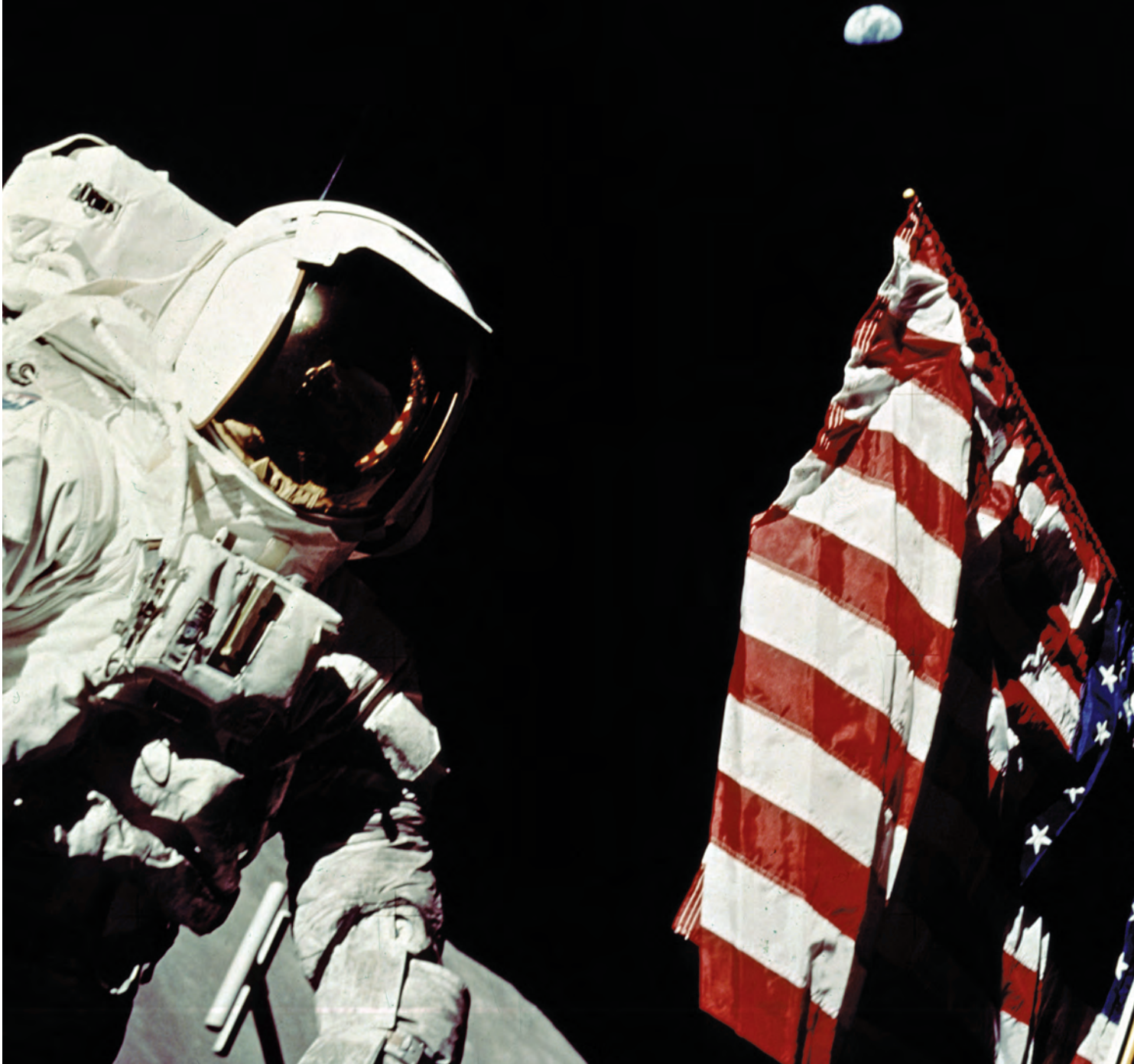


**“In God we trust; all others bring data.”**

**—The Right Climate Stuff**



# Thinking Like an Astronaut

Like our space heroes, landowners know that real-world climate data always trump computer model output.

By Tom Harris

America's cowboys, ranchers and farmers have a lot in common with astronauts and rocket scientists. Both groups are composed of consummate professionals, known for their no-nonsense straight talk, grit and determination. Both are intensely focused on doing what works in the real world, either on the ground or in space. The alternative is bankruptcy, injury and death. That a Washington bureaucrat thinks differently makes no difference. When the rubber hits the road, no politically correct theory can replace the hard-nosed realities of the range or lunar orbit.

Readers of *RANGE* magazine will be interested to hear about The Right Climate Stuff (TRCS), a group of retired, highly experienced astronauts, engineers and scientists, many of whom took America to the moon in the Apollo program. Their motto is: "In God we trust; all others bring data."

After analyzing the best empirical data available, the record of what is happening and has happened in the real world, the TRCS team concluded that there is no climate crisis and that increasing carbon dioxide (CO<sub>2</sub>) and rising temperatures will benefit our civilization and the biosphere. That climate catastrophe is forecast by flawed computer models promoted by governments that want to cull our livestock and reduce fertilizer use in the name of saving the climate is irrelevant.

Many of our space champions recognize that the climate scare is a mistake. Included in the long list of qualified people who are skeptical of the climate alarmist narrative are Apollo 11 astronaut Dr. Buzz Aldrin and at least five other Apollo astronauts.

On April 10, 2012, 49 former NASA scientists and astronauts sent a letter to then-NASA administrator Charles Bolden criticizing the agency for advocating a high degree of certainty that man-made CO<sub>2</sub> is a major cause of climate change while ignoring empirical evidence that calls the theory into question. Signing the open letter were Walter Cunningham (Apollo 7): Charles Duke (Apollo 16), Richard Gordon (Apollo 12), Dr. Harrison (Jack) Schmitt (the only scientist to yet walk on the moon on Apollo 17), and Al Worden (Apollo 15), as well as Apollo flight

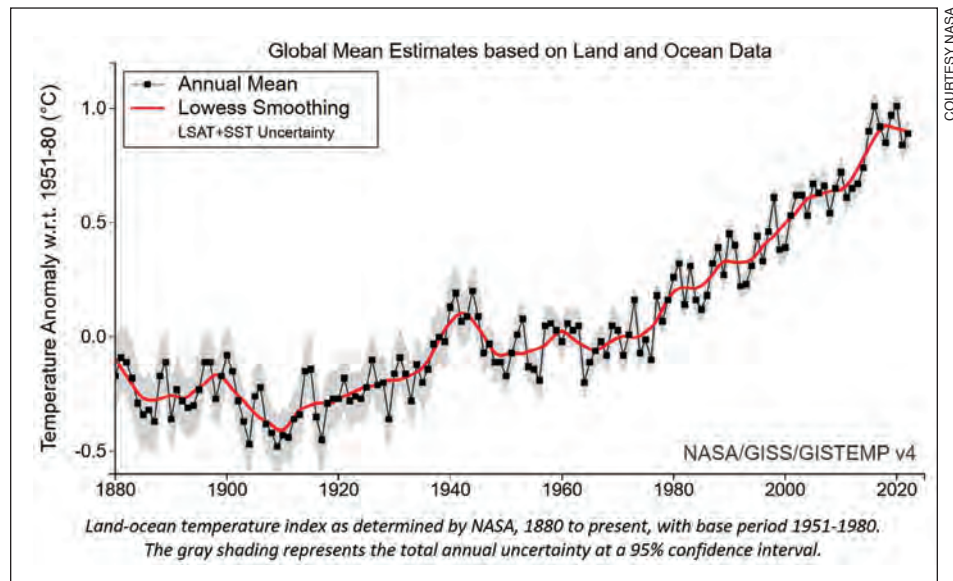
directors and former directors of the Johnson Space Center, Dr. Christopher Kraft and Gerald C. Griffin. Following are excerpts:

- "The unbridled advocacy of CO<sub>2</sub> being the major cause of climate change is unbecoming of NASA's history of making an objective assessment of all available scientific data prior to making decisions or public statements."
- "We believe the claims by NASA and

GISS that man-made carbon dioxide is having a catastrophic impact on global climate change are not substantiated."

- "We request that NASA refrain from including unproven and unsupported remarks in its future releases and websites on this subject."

Even today, The Right Climate Stuff continues to speak out against climate alarmism. We at the International Climate Science



ABOVE, FIGURE 1: Temperature rise in the past 143 years has been modest—about 1°C. BELOW, FIGURE 2: There has been no consistent correlation between CO<sub>2</sub> and temperature in the geologic record. OPPOSITE: Apollo 17 Commander Eugene Cernan, the last human to walk on the moon.

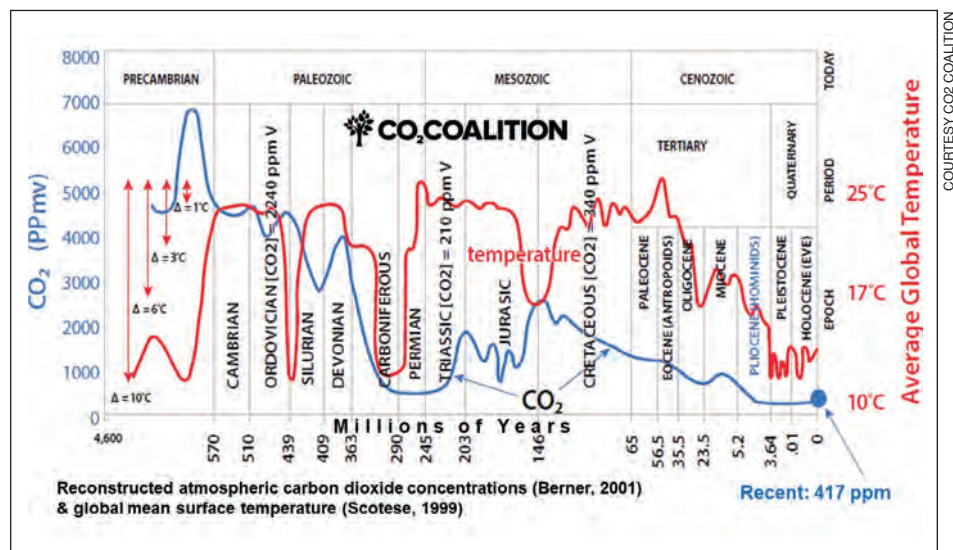




PHOTO BY DAN FITTS, COURTESY NOAA

FIGURE 3: Hailstone that fell in Colorado set the only statewide record in the United States in 2023. It was 5.25 inches wide.

Coalition follow the same approach, telling the public what is real to help us understand what is likely to happen in the future. So let's follow TRCS's lead and examine what real world data tell us about what is actually happening with temperature and extreme weather, two climate characteristics that would most concern cowboys, ranchers and farmers.

### Today's Temperatures Are Normal

As can be seen in Figure 1 on previous page, the so-called global average temperature has risen just over 1°C since the late 1800s. No informed person would call this temperature record a "climate emergency," as proclaimed by the United Nations, mainstream media and activists. This rate of warming is too low to even notice in a normal human lifetime and has been beneficial as we recovered from the Little Ice Age during which cold conditions caused widespread crop failures and other hardships.

A common refrain from climate activists is "1.5 to stay alive." Indeed, the U.N. Intergovernmental Panel on Climate Change advocates that we make greenhouse gas emission reductions adequate to supposedly limit global warming to 1.5°C above preindustrial levels. The IPCC even published a special report in 2018 titled "Global Warming of 1.5°C."

But this is irrational. According to the World Meteorological Organization's "State of the Global Climate 2022" report, "The global

mean temperature in 2022 was 1.15 [1.02 to 1.28]°C above the 1850-1900 preindustrial average."

So we are only 0.35°C from the 1.5°C rise that so frightens climate campaigners. An additional three-tenths of a degree rise in a

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DR. MADHAV L. KHANDEKAR  
CANADIAN SCIENTIST

statistically computed global temperature is obviously inconsequential.

There is no question that climate change, temperature change especially, has had a huge impact on human affairs throughout history. However, it is cold periods that have coincided with hardships for humanity, while in most cases warm periods were beneficial. Ranchers and farmers will not be surprised to hear that every year more people die from

cold than from heat. A study in the British medical journal *The Lancet* found, "Cold weather kills 20 times as many people as hot weather, according to an international study analyzing over 74 million deaths in 384 locations across 13 countries."

Over at least the past few thousand years, temperatures have apparently followed in accordance with solar cycles, not CO2 levels, and, indeed, we may be entering a Grand Solar Minimum when the sun could be at its weakest in 300 years. This could result in significant global cooling, something we need to prepare for.

If one goes back further in geologic time, there is even more evidence that today's temperatures are normal. Note that in the plot of temperature and CO2 (Figure 2 on previous page), the estimated range in temperatures on Earth is from about 12°C to 25°C over the past 4.6 billion years, with the mean of about 17°C. Clearly, we are near the low end today at 15°C because we are still warming from the last glacial period. Also note that there is no consistent correlation between temperature and CO2, and even with the 50 percent rise in this, the gas of life, since 1880, we are still at one of the lowest levels in both CO2 and temperature in the geologic record. Since plants evolved in a relatively high CO2 environment, it should surprise no one that greenhouse operators inject an extra 1,000 ppm of CO2 into their greenhouses to stimulate plant

growth. Farmers will be glad to hear that rising atmospheric CO<sub>2</sub> is significantly helping plant growth across the world.

Let's next consider the supposed increase in extreme weather that we are always hearing about.

### Extreme Weather Is Not Increasing

Extreme weather expert and former Environment Canada scientist Dr. Madhav L. Khandekar explains: "Extreme weather is an integral part of weather and climate that has always been with us whether our climate was cooler or warmer. Reducing CO<sub>2</sub> levels in order to reduce extreme weather is a fantasy."

The most severe weather of recent centuries occurred during the Little Ice Age which ended around 1880. The worst weather of the past century, however, was generally during the Dust Bowl years of the 1930s. "The Dirty '30s" were miserable for farmers on the American prairies, far worse than anything we see today. Well-known climatologist Stanley Changnon has documented how the 1920s and 1930s also witnessed significantly higher numbers of thunderstorms and associated violent weather than today.

The National Oceanic and Atmospheric Administration's (NOAA) State Climate Extremes Committee database is the best of its kind in the world. It shows that in 1936, 27 extreme weather records were set on a statewide basis, records which still stand today. In 2023 there was one—a 5.25-inch hailstone reported eight miles east-northeast of Kirk, Colo. (See Figure 3 photo on opposite page from the State Climate Extremes Committee Memorandum on the record.)

In 2022, no extreme weather records were set. In 2021, only three states set or tied maximum temperature records: Washington, Oregon (2021 tied with 1898) and Utah (2021 tied with 1985). Other records set in 2021 were: Texas (hail size), Kentucky (wind gust) and Tennessee (24-hour precipitation). In 2020, no extreme weather records were set. In the past 10 years, 34 extreme weather records were set, while 52 were set in the 1930s; again, records that still stand today.

A plot of all extreme weather records set that still stand today from NOAA's State Climate Extremes Committee database (Figure 4) shows the 1936 spike. It also reveals that there has been no significant overall trend in the incidence of extreme weather records in the United States since 1940.

## It should surprise no one that greenhouse operators inject an extra 1,000 ppm of CO<sub>2</sub> into their greenhouses to stimulate plant growth. Farmers will be glad to hear that rising atmospheric CO<sub>2</sub> is significantly helping plant growth across the world.

Intense wildfires are not caused by global warming or CO<sub>2</sub> rise, but by inept policy decisions by those responsible for managing our forests. And even the IPCC admits that there is no increase in climate-driven changes in the magnitude and frequencies of floods in the 20th and 21st centuries around the world.

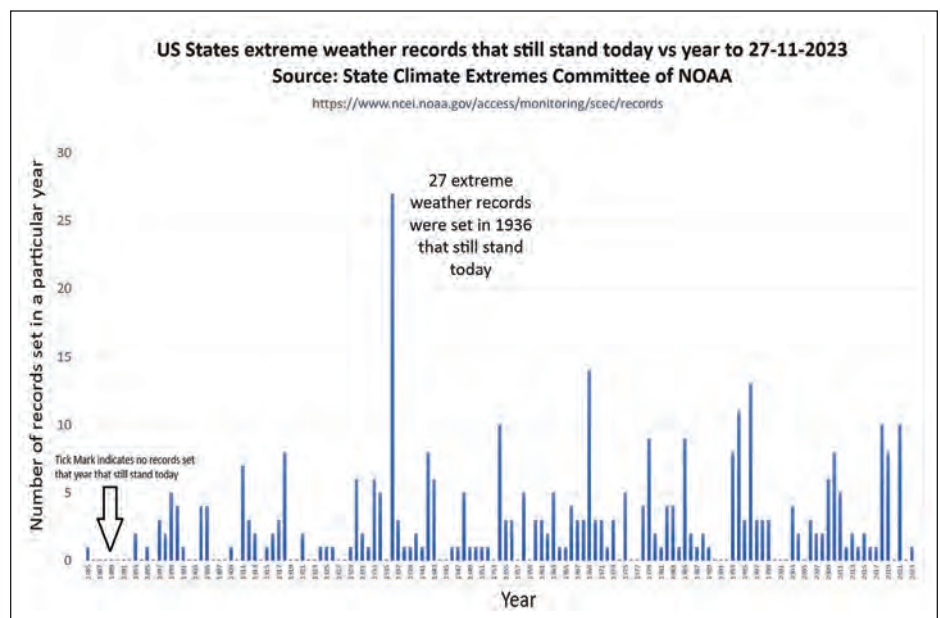
Nobel prize-winning physicist Dr. Richard

Feynman once said: "It doesn't matter how beautiful your theory is; it doesn't matter how smart you are. If it doesn't agree with the experiment, it's wrong."

The climate scare is wrong because it doesn't agree with real world observations. Like our space

heroes, America's cowboys, ranchers and farmers need to say exactly that the next time government tells them about the sacrifices they must make to save the climate. ■

*Tom Harris is executive director of the Ottawa, Canada-based International Climate Science Coalition. Go to [www.icsc-climate.com](http://www.icsc-climate.com).*



ABOVE, FIGURE 4: There has been no increase in the yearly rate of extreme weather records in the U.S.A. BELOW, FIGURE 5: A plot of numbers of extreme weather records set each decade, records that still stand today, also shows nothing unusual is happening.

