

HUMANS VERSUS ANTARCTICA

a scientific proposal by Harry E. Decker
hdeckeraz@gmail.com

Let's put these global warming/climate change claims to a scientific thought test. Let's take every vehicle and machine and device having an internal combustion engine and place it on Antarctica. Each will have a full tank of gas or diesel fuel. Let's also place every human being on Antarctica. Each will be dressed in winter clothing, and each will be given a small portable stove that burns either gas, oil, wood, or coal. All vehicles, machines and devices will be started, and all stoves will be ignited at the same time. When any of these run out of fuel, the fuel can be replenished. QUESTION: Under these circumstances, how long will it take to melt all the ice in Antarctica? Let's do some calculations.

First, we need to determine how many gas-powered vehicles and machines there are in the world. An internet search indicates there are approx 1.5 billion vehicles, but that only includes cars and commercial vehicles. Many other machines burn gas and oil. So let's include all military equipment, construction equipment, farm equipment, road equipment, mining equipment, and logging equipment. Let's include all boats and planes and motorcycles. Let's add another 1.5 billion to include these vehicles and machines. (Motorcycles and related motorized vehicles take up 600 million of this figure.)

Next, if we concentrate all these devices in one area, how much space will they take up? A car's average length and width are approx 15 and 6 feet respectively. Thus the average car takes up 90 square feet. Three motorcycles on average can fit into a 90 square foot space. Trucks, buses, and boats, of course, are much larger for the most part. Most construction and farming equipment are larger as well. Most commercial and school buses are 40 to 45 feet length and 7.5 feet wide, up to 338 square feet. Most construction and farming equipment are not this long and wide, however. Many personal boats are smaller. Other boats are larger, particularly naval vessels, yachts, cruise ships, and container ships. Most private airplanes are a little larger. Commercial aircraft are much larger. Even so, let's assign an average value of 45 feet long and 8 feet wide for all 3 billion vehicles and machines. One takes up 360 square feet. Let's give them all a little more room and round it off to an average of 400 square feet each. All these machines and vehicles will take up a space of 1.2 trillion square feet.

There are 27,878,400 square feet in a square mile. That comes out to approx 75,000 square miles.

We also need to include lawn maintenance equipment. Worldwide, there are billions of gas-powered mowers, leaf blowers, trimmers, and chain saws. One internet site reports approx 31 billion lawnmowers alone. (Though some are electric, the connecting plug most likely derives power from fossil-fuel, nuclear, or hydro power plants.) Not everyone owns these devices, but there are lawn maintenance companies that own multiple of these devices. Even so, let's assume there are 50 billion of these devices altogether that burn gas and oil. And let's fill their tanks and put them all on Antarctica too. The standard self-propelled mower varies in size from 3 feet long and 2 feet wide to a riding mower that can be up to 7 feet long and 5 feet wide. The footprint is anywhere from six square feet up to 35 square feet. There are industrial mowers even larger. Leaf blowers, trimmers, and chain saws have a very small footprint. So let's put one mower, one leaf blower, one trimmer, and one chain saw into a block, and let's assign an average value of 40 square feet for each block. 40 square feet times 50 billion of these gas-powered devices takes up 2 trillion square feet. That comes out to approx 72,000 square miles.

How much space do 8 billion humans take up? According to an internet search, if all humans stood shoulder to shoulder, they would take up 500 square miles (the size of Los Angeles). Since all are also holding a stove, let's make that 1000 square miles.

When we put the three figures together to determine how much space is needed to contain all vehicles, machines, and devices that burn fossil fuels as well as all humans holding a small stove, it comes out to approx 148,000 square miles. Let's round that up to 150,000 square miles. Antarctica occupies approx 5.3 million square miles. 150,000 square miles takes up about 2.8 percent of the land mass. It would seem that all humans, vehicles, machines and devices in this experiment would take up the space of the letters ANT in the word ANTARCTICA on the following map. If estimates for all fossil-fuel burning devices seem low, let's double their amount. In such case, they would take up 5.6 percent of the land mass.



The following map shows that Antarctica is about 1 ½ times the size of the United States. Greenland is also shown. As stated on the map, Antarctica and Greenland are covered by ice that averages one mile in thickness. (Antarctica ice at its thickest point is about 3 miles.)



Now back to our original question. By burning as much fossil fuel as they can directly on the ice using all machines and devices that burn fossil fuels, how long will it take humans to melt all the ice in Antarctica? Not only will these devices emit a great deal of heat, they will emit a great deal of carbon dioxide as well. Keep in mind that all 8 billion humans inhale a trace amount (0.04%) of carbon dioxide and exhale 4% carbon dioxide with each breath. So that adds to the concentration of carbon dioxide. Here are pertinent facts about Antarctica.

- Antarctic ice weighs about 27 million gigatons (27,000,000,000,000,000). Temperatures in Antarctica range from 14 F on the coast to -70 F in the interior for an average of -59 F. It has gotten as cold as -128 F. Temperature must be above 32 F for ice to melt.
- There are 57 weather stations in Antarctica. Most record subzero temps year round. An exception is Esperanza Base, which is located in the southernmost and warmest region of Antarctica in an area called Hope Bay. Temperatures there can exceed 32 F for a few months, having once recorded a high of about 65 F. Not far from this base is Deception Island, which contains the caldera of an active volcano. The area is frequented by tourists who hike there and lounge in the hot springs.
- Antarctica contains the largest cluster of volcanoes on earth, 138 of them, on and below the surface. In 2018, scientists discovered a substantial volcanic heat source beneath Pine Island Glacier, which causes tremendous melting. The glacier has been retreating since the 1940s. The glacier takes up approx 68,000 square miles.
- A Grand Canyon-like rift was discovered beneath the Antarctic ice during an expedition conducted during 2009-2010. It is roughly 6 miles across, at least 62 miles long, and extends nearly a mile down at its deepest.
- Antarctica is enormously geologically active. Like all continents, Antarctica experiences continental drift, which is the natural migration of crustal plates driven by massive geological forces inside the earth. There are thousands of tremors and a few major earthquakes in the Antarctic every year.
- The West Antarctic Rift is about 1900 miles long and 430 miles wide. Natural geological forces will eventually cause a huge chunk of the Antarctic to break away.
- On average, Antarctica is the windiest continent. Winds in some places can reach 200 mph. The world's largest wind-driven current, the Circumpolar Current, circles clockwise around Antarctica, from west to east.
- All scientists agree that gradual global warming is occurring. However, some claim this warming is primarily natural, whereas others claim that humans are the main cause, because they burn fossil fuels, which in turn causes CO2 levels to rise, which in turn causes global temperatures to gradually increase. It's a fact that scientists who claim warming is primarily natural are ignored and even disparaged.
- The Ross Ice Shelf is the largest of Antarctica's ice shelves (floating tongues of ice, which occupies about 197,000 square miles or 3.7 percent of the total area of Antarctica. This shelf is labeled on the first map. Because all humans and all vehicles, machines, and devices could occupy as little as 2.8 percent of Antarctica, they would easily fit onto the Ross Ice Shelf with room to spare.

- Ice shelves jut into the ocean and waves constantly undulate beneath them. Huge masses of ice breaking away from Antarctica have been going on for millions of years. To claim that “global warming” alone causes ice shelves to break away is scientifically inaccurate and journalistically irresponsible.
- Antarctica contains about 90 percent of the world’s ice. Greenland contains about 10 percent of the world’s ice. Arctic sea ice and all glaciers worldwide combined comprise one percent or less of the world’s ice.
- According to a report by the United States Environmental Protection Agency (dated August 01, 2022) titled: “Climate Change Indicators: Sea Level,” average sea level has risen 0.12 to 0.14 inch since 1993. Using the higher figure, and assuming sea level will continue to rise at this rate, sea level will rise 14 inches in 100 years, which is one foot and two inches. Is that really cause for alarm? If all Antarctica melts and raises sea level by 200 feet, at the current rate the process would take over 17,000 years.
- This same report mentions the last Ice Age occurred 20,000 years ago. Scientists tell us that there have been at least five major ice ages that have occurred throughout Earth's history. They also tell us we are currently living in an ice age, but we happen to be in a warm interglacial period that began about 11,000 years ago. That means something caused the earth to start warming 11,000 years ago, and we can't blame it on humans for burning fossil fuels, because there were only a few million humans then. During the last ice age, sea levels were 300 feet lower. The state of Florida had three times its present land mass. Coastlines were much more extensive all over the world.
- If sea levels gradually rise over the centuries (until the next ice age comes along), will human beings living in coastal areas allow the rising water to flood them, or would they have enough sense to move inland a little?
- Tropical storms can easily cause the ocean to surge inland 200 feet or more. Small tsunamis can cause the sea to surge inland for up to a 1,000 feet. (Big tsunamis can surge inland for up to 10 miles.)
- Scientists tell us that Antarctica was once ice-free until about 34 million years ago. Before the “big freeze,” dinosaurs roamed its tropical forests. Antarctica continued to remain largely unfrozen for tens of millions of years into the Cenozoic when global temperatures plunged an average of forty degrees Fahrenheit. Ice sheets and glaciers soon formed. Scientists are still trying to determine what happened to cause this drastic change in climate.
- Periods of global warming and global cooling occurred numerous times before humankind came along. According to research, when a period of global warming occurred, carbon dioxide levels rose *after* the warming, not before. Otherwise, the warming was not caused by an increase in carbon dioxide.
- **CONCLUSION?** Would you agree that humans and all their gas-burning inventions might never be able to melt all that ice because frigid conditions in Antarctica are too extreme to overcome? Or would you agree, if given enough time, humans could indeed melt all that ice and cause sea levels worldwide to rise by a whopping 200 feet?

MORE DATA TO CONSIDER

Here's a quote from that Environmental Protection Agency report (mentioned on the prior page), which explains there are many factors that cause sea level to rise and fall.

"The sea level changes that affect coastal systems involve more than just expanding oceans, however, because the Earth's continents can also rise and fall relative to the oceans. Land can rise through processes such as sediment accumulation (the process that built the Mississippi River delta) and geological uplift (for example, as glaciers melt and the land below is no longer weighed down by heavy ice). In other areas, land can sink because of erosion, sediment compaction, natural subsidence (sinking due to geologic changes), groundwater withdrawal, or engineering projects that prevent rivers from naturally depositing sediments along their banks. Changes in ocean currents such as the Gulf Stream can also affect sea levels by pushing more water against some coastlines and pulling it away from others, raising or lowering sea levels accordingly."

In an article titled: "Coastline evolution: The rise and fall of sea level through time," it is stated: "*Changes in global sea level have been ongoing throughout the Earth's geological history, driven by the growth and decay of ice sheets.*" We can conclude that periods of warming and cooling causing sea level to rise and fall have been taking place for millions of years by NATURAL PROCESSES. Those natural processes continue to occur today. Humans by burning fossil fuels are contributing *slightly* to the process, but it's not significant. For certain, reaction has been blown out of proportion due to politicians with an agenda, scientists eager to obtain government funding, and the news media exploiting scare tactics to the maximum to increase ratings. And the public is paying for it—which is the idea!

The article specifically fails to mention "continental drift," meaning that the continents are slowly moving and have been moving for billions of years as they ride atop tectonic plates, about 15 to 20 of them. These plates are driven by powerful geological forces taking place in hot molten rock in the earth's mantle. This also gives rise to volcanoes, many of them located on the boundaries of these plates (about 1,350 active). In addition, movements of tectonic plates and active volcanoes cause seismic activity. Earthquakes can and have changed the shape of coastlines as well interior landscapes. According to current theory, all the continents will merge into one giant landmass in 250 million years. For certain, this will drastically affect the climate, ocean currents, and wind patterns. Humans are simply along for the ride, unless, of course, they can figure out how to travel to another planet.

FINAL THOUGHT. One would think there would be a government agency, such as the Environmental Protection Agency, that keeps track of exactly the number of vehicles, machines, and devices that burn fossil fuel worldwide—considering how important "net zero" and "green energy" are to the government. Considering there are over 50 billion such vehicles, machines, and devices, it seems ludicrous that all of them will eventually be powered by wind and solar and batteries. For all we know there could be 100 billion. Many that are worn out or damaged have been discarded and piled in junkyards where they leak gas and oil. There are also billions of tires discarded in heaps all over the world. At times humans set fire to them to dispose of them, which emits black toxic smoke. The odor is nauseating. Pollution is the main concern, not carbon dioxide—which is not a pollutant. CO₂ is plant food and the basis for all life. Ask anyone who propagates climate change alarmism—politician, journalist, scientist, movie star—to prove that CO₂ is a pollutant. This idea is currently a theory, not a fact. Yet it is treated like a fact, and major policies have been instituted to fight this "demon," which has to be cast out. And certain people are getting rich at the taxpayer's expense.

A GENERAL LIST OF MOST VEHICLES, MACHINES, AND DEVICES THAT ARE POWERED BY FOSSIL FUELS. THOSE POWERED BY ELECTRICITY STILL RECEIVE THE MAJORITY OF THEIR POWER FROM FOSSIL-FUEL, NUCLEAR, AND HYDRO POWER PLANTS.

TRANSPORTATION/
COMMERCE

Automobiles
Trucks, Commercial
Trucks, Private
Food Vender Trucks
Buses
Trains
Motorcycles
Commercial Aircraft
Private Aircraft
Civilian Airplanes
Civilian Helicopters
Ferries/Barges
Merchant Ships
Tanker Ships
Container Ships

RECREATIONAL

RV Campers
ATV's
Dirt Bikes
Snowmobiles
Pleasure/Fishing Boats
Racing Boats
Ski Jets
Cruise Ships
Yachts

ROAD CONSTRUCTION
AND MAINTENANCE

Wheel Tractors/Scrapers
Cold Planers
Graders
Pavers
Compactors
Drum Rollers

CITY MAINTENANCE

Street Sweepers
Snow/Ice removal vehicles
Manlifts/Cherry Pickers
Large mowers
Backhoes/Bobcats

FARM EQUIPMENT

Tractors/Plows
Combines
Balers
Harrowes
Manure Spreaders
Seed Drills
Cultipackers
Balers
Harvesters
Loaders
Post Diggers
Crop Duster Planes

MILITARY AIRCRAFT/
EQUIPMENT

Bombers/Jets
Tanker Planes
Transport Planes
Surveillance Planes
Patrol Planes
Attack Helicopters
Transport Helicopters
Drones
Tanks
Armored Vehicles
Transport Vehicles
Water Trucks
Weapons mounted on
Specialized Vehicles

NAVY SHIPS

Carriers
Destroyers
Battleships
Frigates
Corvettes
Transport Ships
Patrol Ships
Hospital Ships
Amphibious Ships
Littoral Combat Ships
Mine Sweepers
Submarines

HEAVY EQUIPMENT/
CONSTRUCTION
EQUIPMENT

Bulldozers
Backhoes
Excavators
Loaders
Huge Dump Trucks
Cranes
Forklifts/Zoom Boom Lifts
Trenchers
Gas-powered Electrical
Generators

LOGGING
AND LUMBER MILL
EQUIPMENT

Chain Saws
Delimbers
Feller Bunchers
Skidders
Forwarders
Log Loaders
Logging Trucks and
Trailers
Yarders
Mulchers/Chippers
Grinders
Planers
Processors/Harvesters

LAWN AND FIELD
MAINTENANCE

Lawnmowers
Field mowers
Leaf blowers
Hedge clippers
Weed eaters
Edgers
Small chain saws
Rototillers