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Utqiaġvik/BARROW, ALASKA

THE NON-CORRELATION OF EMPIRICAL CARBON DIOXIDE AND TEMPERATURE TRENDS

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<https://adfg.alaska.gov/index.cfm?adfg=owls.snowy#:~:text=Alaska's%20heaviest%20owl%2C%20the%20Snowy,it%20has%20long%20wings.>



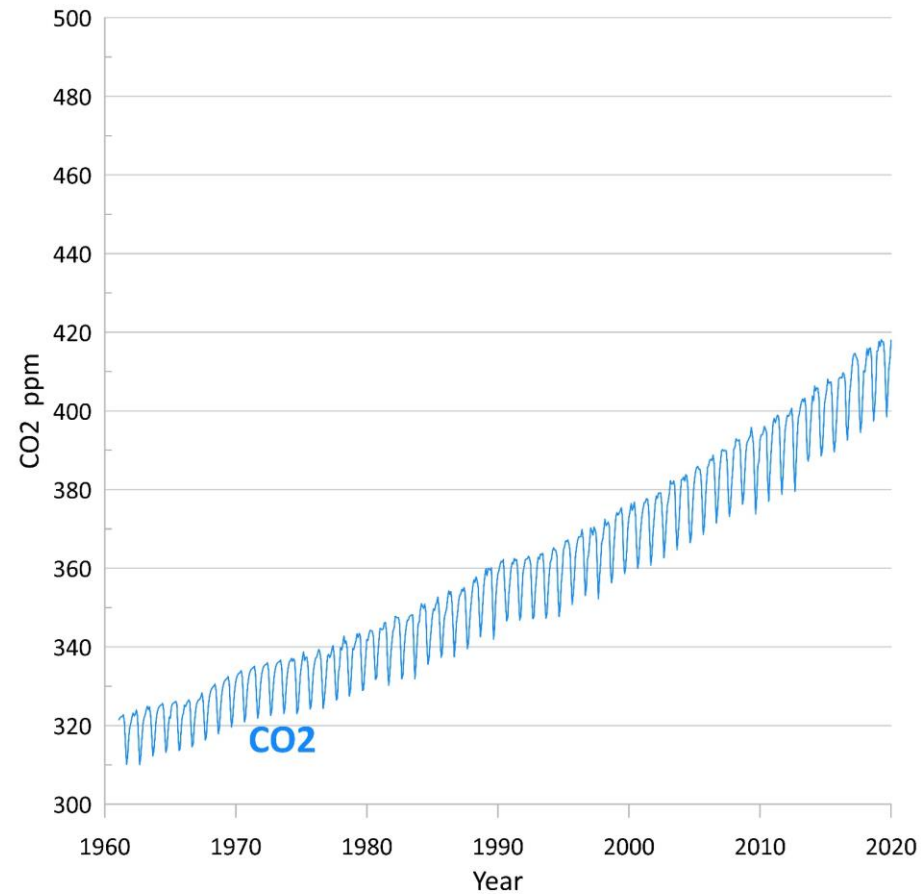
Utqiagvik, Alaska
Formerly known as Barrow

Coordinates:
 $71^{\circ}17'26''\text{N}$
 $156^{\circ}47'19''\text{W}$



BARROW ALASKA : CO2 vs Temperature Trends

Latitude : 71° 17' 16" N Longitude: 156° 45' 25" W

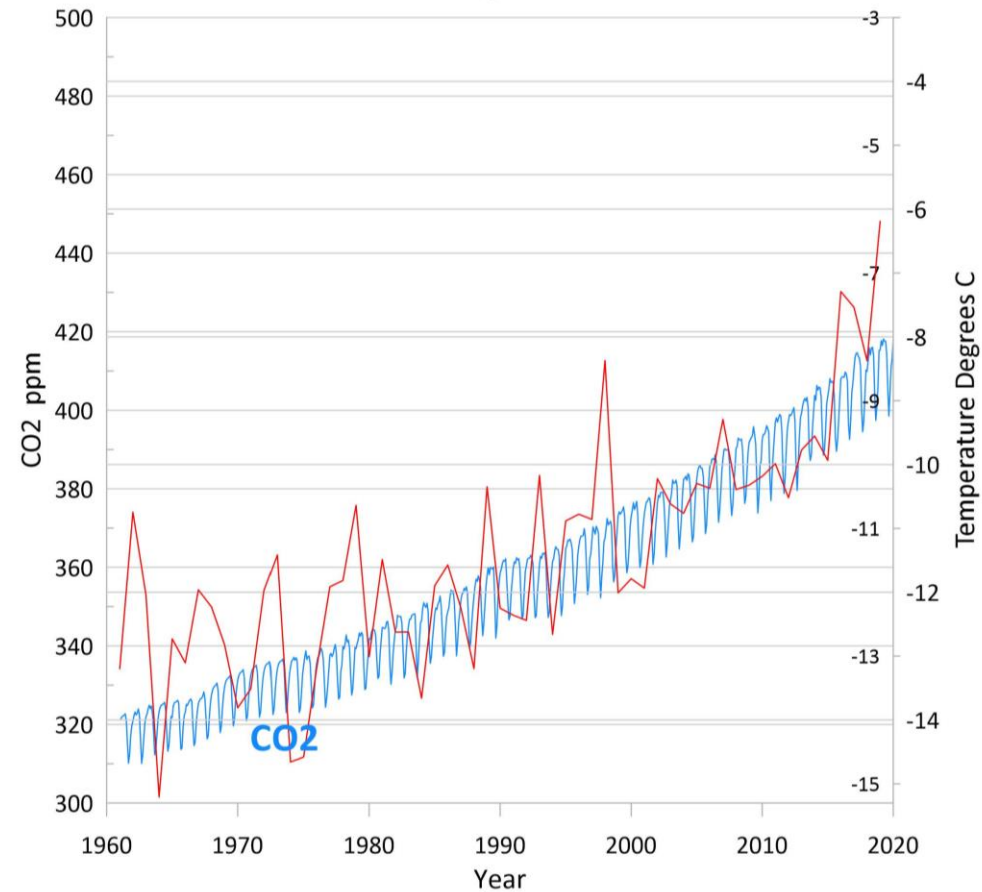


CO₂ has been monitored at Barrow since 1961. The annual swing in CO₂ is approximately 20 ppm – the arctic has the largest ranges in annual CO₂ yet the arctic appears to lack a sizable sink.

Source: https://scrippsco2.ucsd.edu/assets/data/atmospheric/stations/merged_in_situ_and_flask/monthly/monthly_merge_co2_ptb.csv

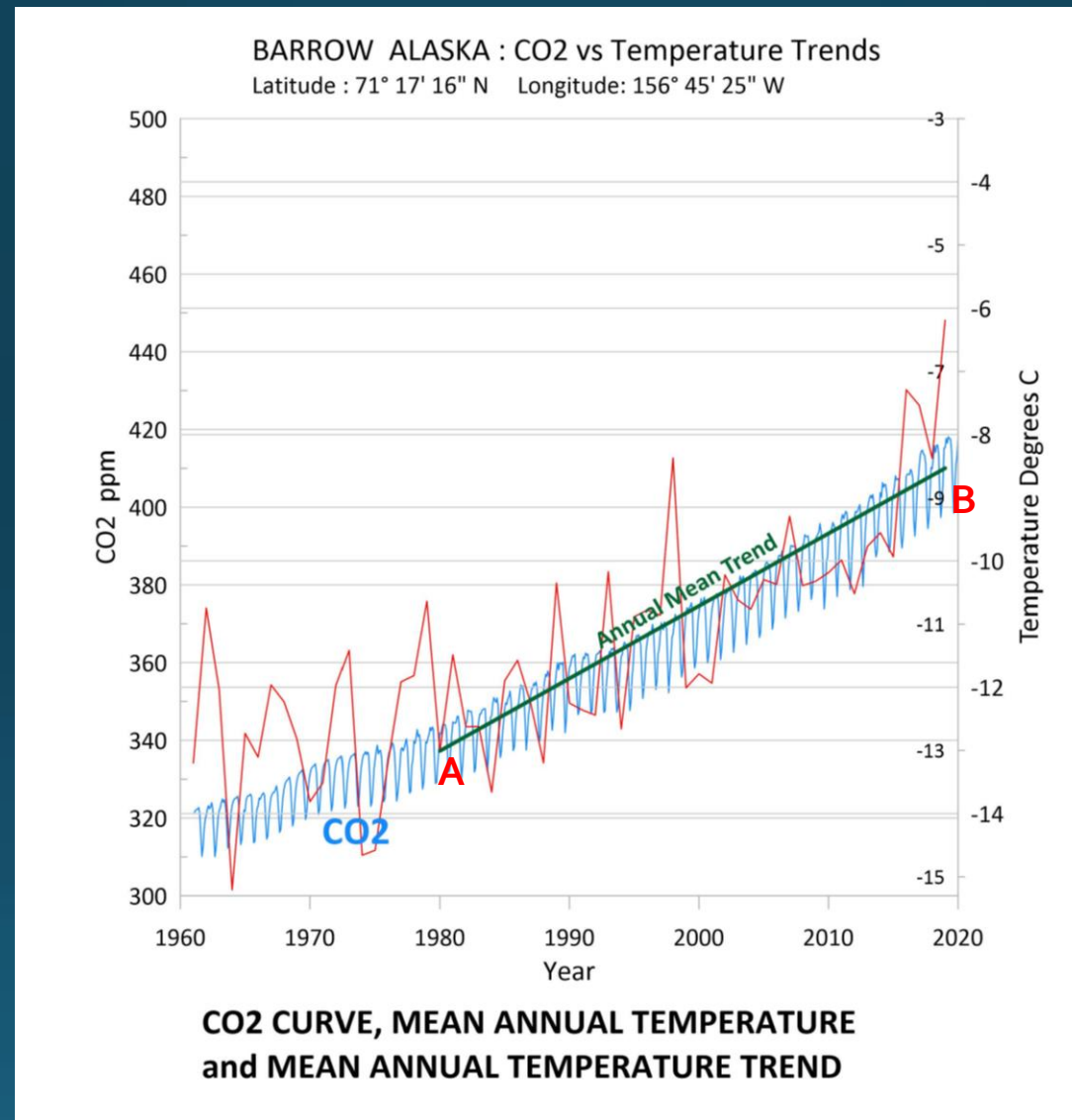
BARROW ALASKA : CO2 vs Temperature Trends

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CO2 CURVE and MEAN ANNUAL TEMPERATURE

All arctic weather stations show a substantial change in slope at or near 1980. Most show cooling from 1940 to 1980. Barrow is an anomaly by showing a slight warming trend during that interval.



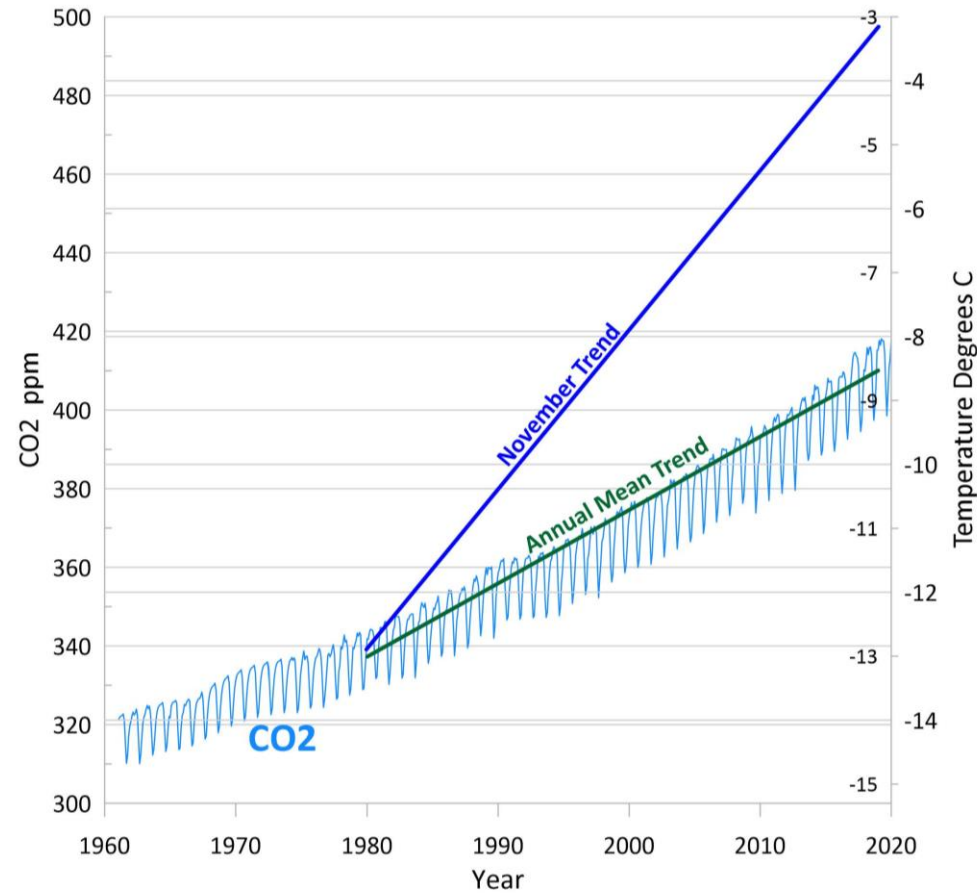
The right “y” axis “Temperature Degrees C” is linked to the red Mean Annual Temperature curve. The scaled Annual Mean Trend is anchored to the middle of the CO₂ curve at Year 1980 because that is near the point of a recognizable climate shift at most North American weather stations.

To determine the total “Annual Mean” temperature rise from 1980 to 2019, select 1980 on the abscissa(x) and go up to the anchoring point on the CO₂ curve (point A). Then proceed right to the ordinate (y) axis and read the temperature (in this case -13 deg. C). Then go to 2019 on the abscissa and go up to the green trend line (point B) and read the temperature on the “y” axis (in this case -8.5 deg. C). The total rise in temperature is B minus A, (-8.5 minus -13.5 = +4.5 deg C).

The annual mean temperature trend appears to track the CO₂ curve but this is a display trick whereby the trend was scaled to match the CO₂ slope.

BARROW ALASKA : CO2 vs Temperature Trends

Latitude : 71° 17' 16" N Longitude: 156° 45' 25" W

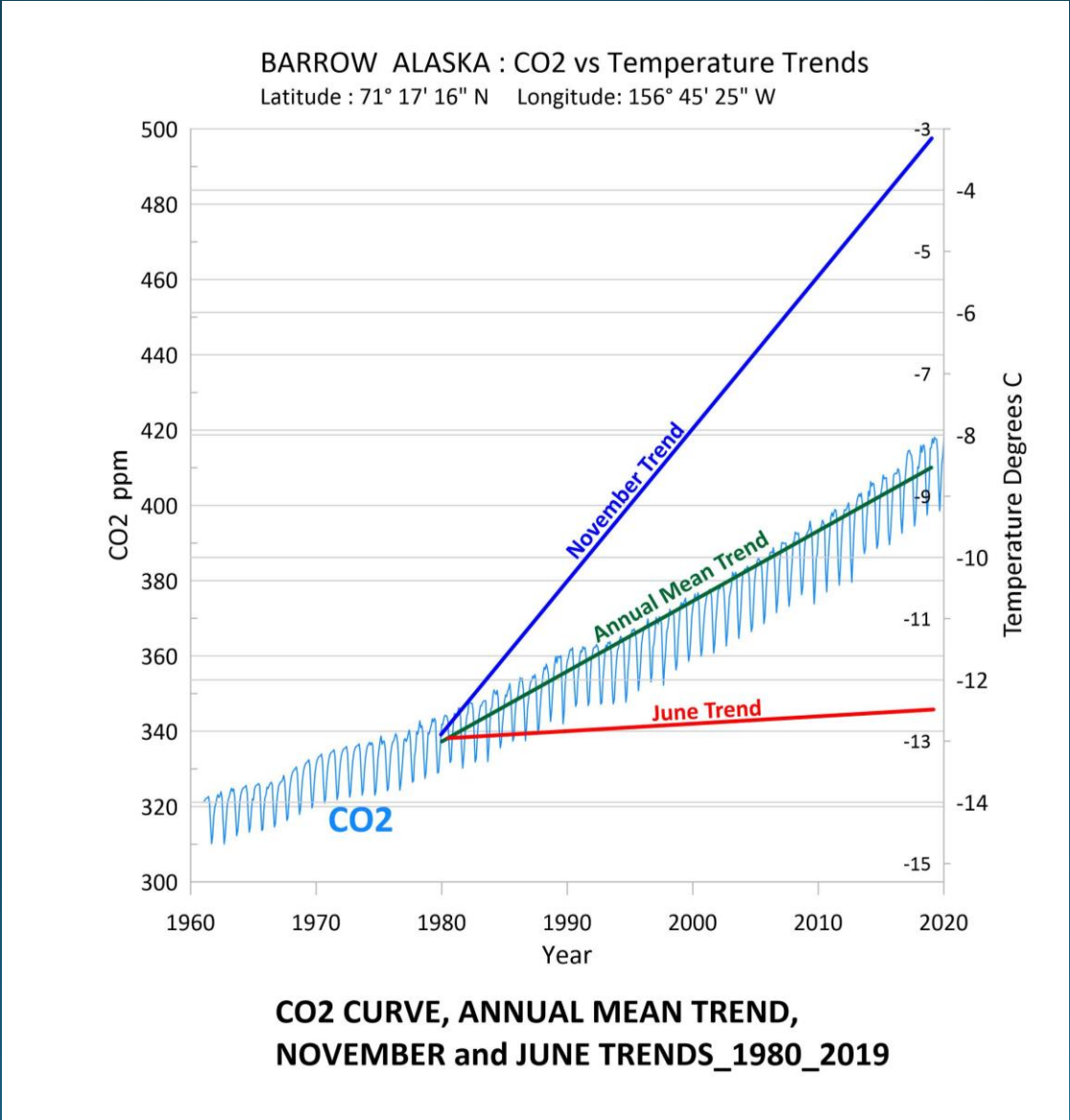


**CO2 CURVE, ANNUAL MEAN TREND
and NOVEMBER TREND_1980-2019**

In 40 years (1980-2019), the Annual Mean Temperature has risen more than 4 degrees C which has been confirmed by most researchers that have studied the arctic; however, the November trend has risen almost 10 degrees C in that same time period at Barrow.

The November temperature trend is also anchored at Year 1980 in the middle of the CO2 curve. Whereas the Annual Mean Trend shows a “warming” of 4.5 degrees C from 1980 to 2019 the November Trend shows a “warming ” of 10 degrees C

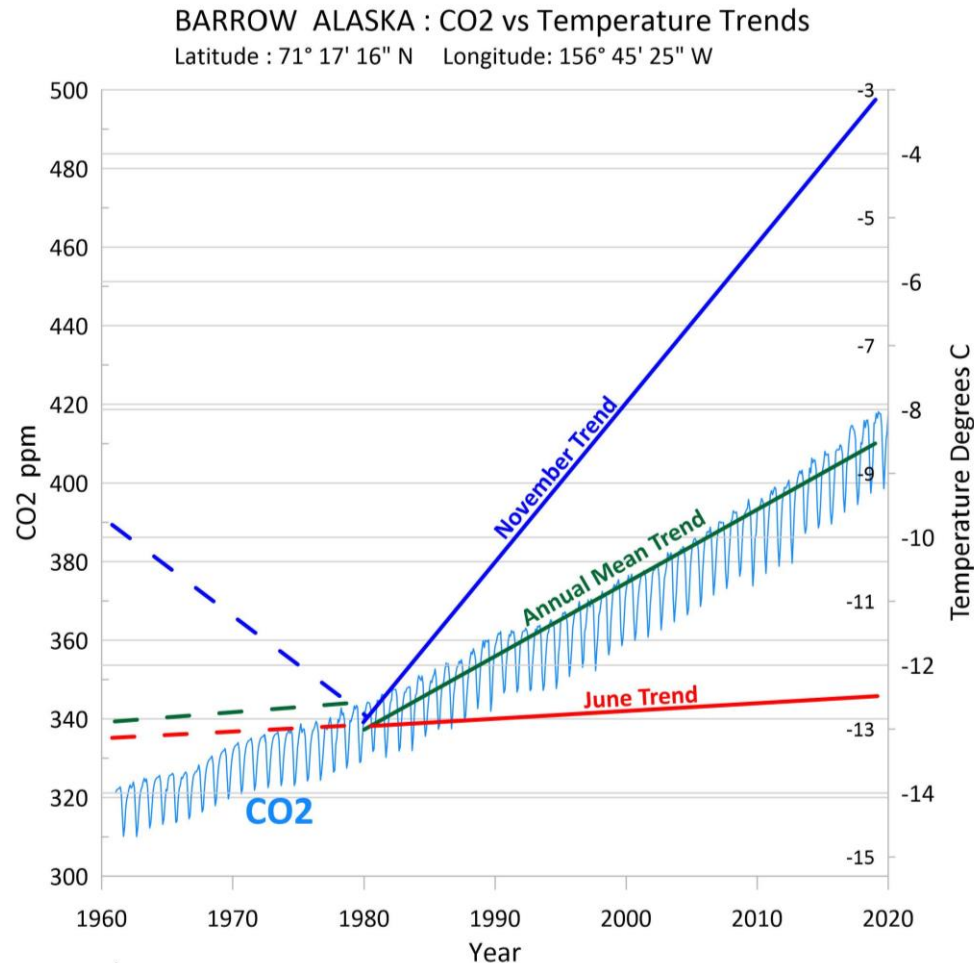
Surprise. Surprise. The June Temperature Trend has scarcely risen 0.5 degrees in the same period – 1980-2019. The dominant explanation by experts for rapid arctic warming is extensive loss of ice which decreases the albedo, warms the water and adjacent land areas but this explanation is contrary to the empirical data recorded at weather stations. The summer months when warming is supposed to occur have not warmed, in fact, August has cooled over the last 40 years at many arctic stations. All of the warming has occurred in the winter months when there is no sun. Most arctic weather stations also show that the greatest warming in the winter time is in the minimum temperature for the day.



The theory that supports global warming by greenhouse gases would imply that all months of the year should warm equally or at least their trend should be equal to the Annual Mean Trend because the CO2 content in the atmosphere is well mixed and is consistent throughout the year. There is a 20 ppm swing in CO2 concentration annually but the trends should be parallel and therefore equal but as one can see they are not.

When we examine the trends during 1961-1980, all hell breaks loose. The Annual Mean Trend departs substantially from the CO₂ trend -- no correlation. The June trend is marginally above 0 degrees C. and the November trend reverses course and has the same magnitude in the opposite direction. From 1961 to 1980 CO₂ concentration increased from 320 ppm to 340 ppm meanwhile the November temperature dropped by 3.5 degrees C.

If one stays the course evaluating only annual mean temperatures many details are lost and one can convince himself that there exists a correlation between CO₂ ppm and global temperatures. It is advisable to study monthly trends where one can see wild swings in temperature trends yet no change in CO₂ ppm.



- ★ The Annual Mean Trend was scaled to fit the CO₂ trend_1980-2019
1. Note the departure of the November and June trends from the CO₂ trend.
 2. Note the Annual Mean Trend departs from the CO₂ trend 1961-1980
 3. Note the abrupt departure of the November trend from the CO₂ trend_1961-1980

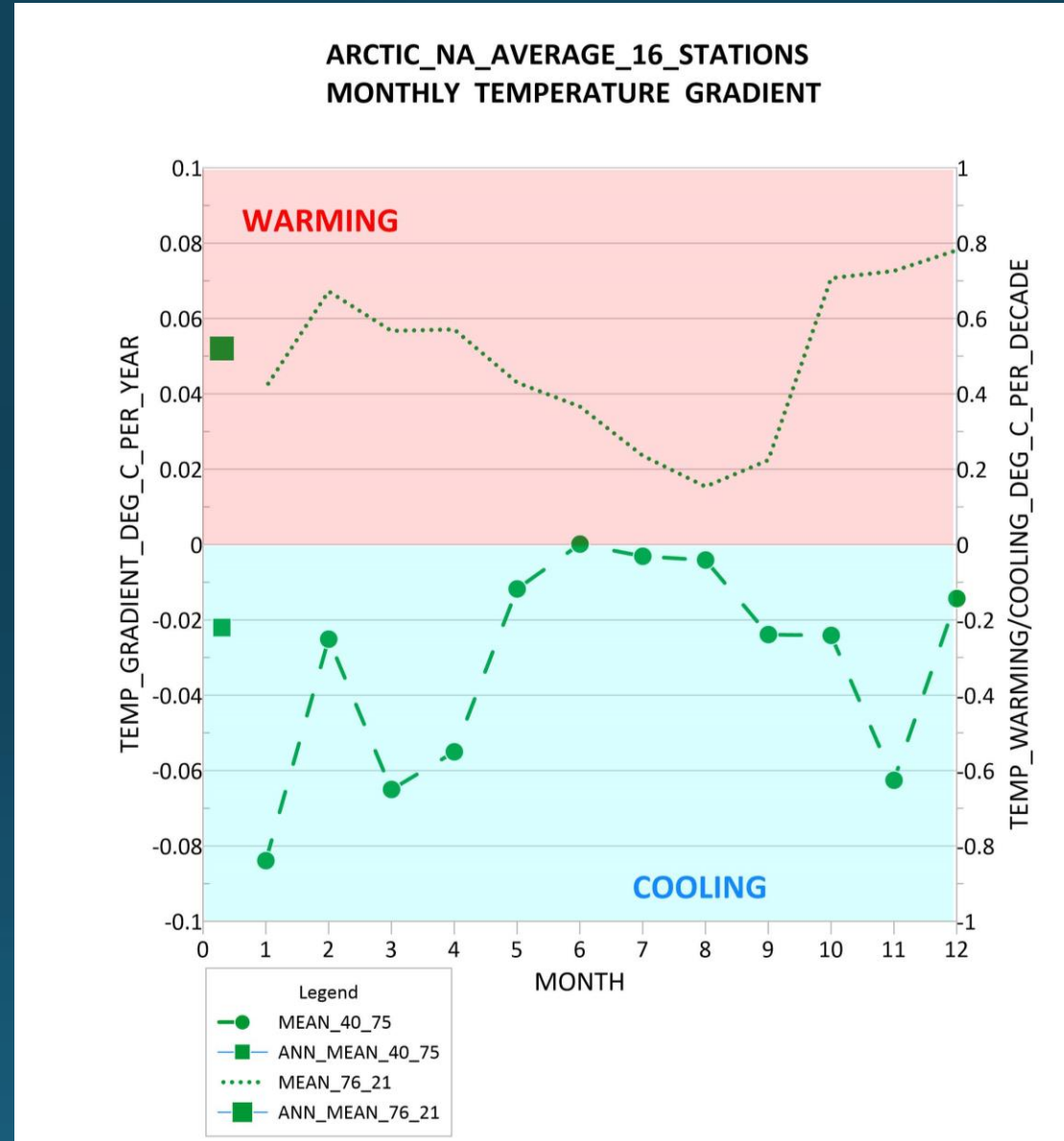
**CO₂ CURVE, ANNUAL, NOVEMBER, JUNE TRENDS_1980-2019
 and ANNUAL, NOVEMBER, JUNE TRENDS_1961-1980**

In this slide “dashed” temperature trend lines have been added for the period 1961 to 1980 for the Annual, November and June trends. The discontinuities of the trends at Year 1980 confirm the well known [climate shift](https://ocp.ldeo.columbia.edu/res/div/ocp/arch/climate_shift.shtml).

https://ocp.ldeo.columbia.edu/res/div/ocp/arch/climate_shift.shtml

The dashed curve displays monthly temperature trends for the years 1940 to 1975. The average annual temperature trend is minus 0.2 degrees per decade and all months cooled during the period while CO₂ concentration increased contrary to the global warming theory (IPCC). The dotted curve displays monthly temperature trends for the years 1976 to 2021. The average annual temperature trend is plus 0.55 degrees C per decade and all months show warming.

If CO₂ was the prime driver for temperature then all months should have the same temperature trend and should equal the annual temperature trends but we do not see this in the empirical data.



It should be noted that the summer months show minimal warming and cooling in both time periods and the winter months show maximum cooling in the years 1940-1975 and maximum warming in the years 1976-2021.

Again, empirical data shows no consistent correlation between CO₂ concentration and temperature trends.



ARCTIC NORTH AMERICA – 16 weather stations studied by MNC covering 165 degrees of longitude and 23 degrees of latitude.



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Friends of Science Society thanks Mike Chernoff for contributing this informative study.

About

Friends of Science Society is an independent group of earth, atmospheric and solar scientists, engineers, and citizens that is celebrating its 20th year of offering climate science insights. After a thorough review of a broad spectrum of literature on climate change, Friends of Science Society has concluded that the sun is the main driver of climate change, not carbon dioxide (CO₂).

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