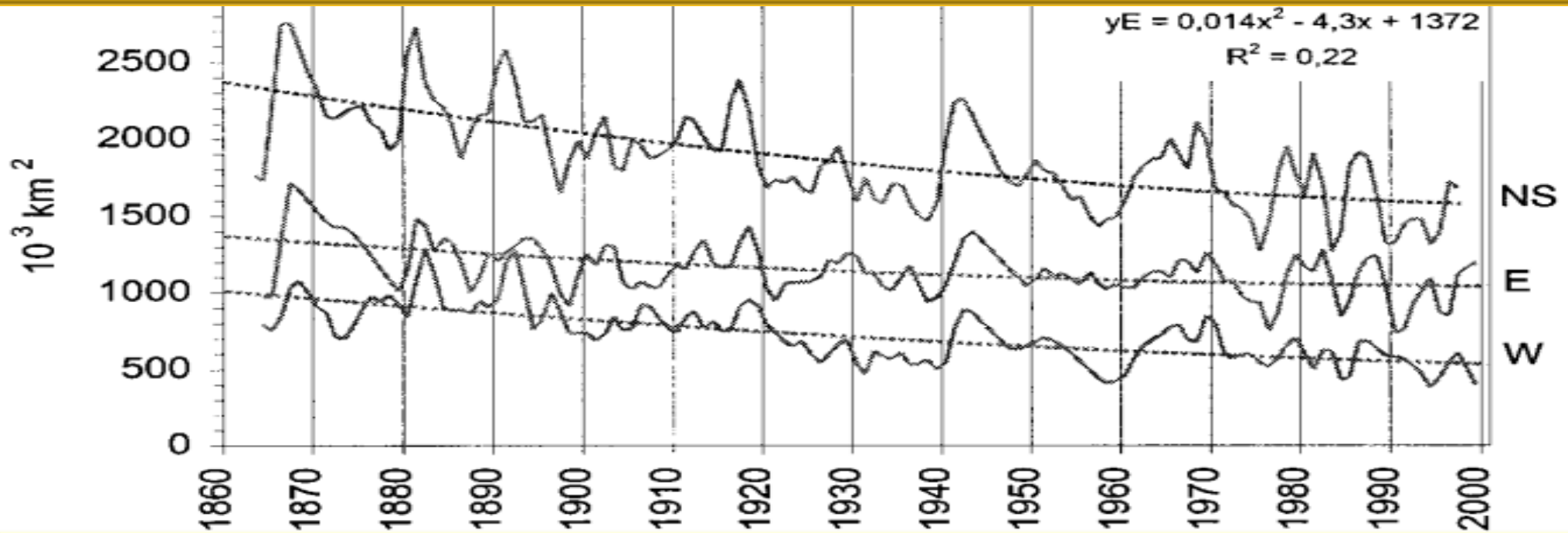
Doubting Catastrophic Anthropogenic Climate Change
"Declining Arctic Sea Ice Extent"



Bob Endlich

bendlich@msn.com

18 May 2019

Cruces Atmospheric Sciences Forum

https://science2017.globalchange.gov/chapter/executive-summary/

CSSR About Chapters Chapter Sections Downloads

Executive Summary

Arctic Sea Ice Loss

Since the early 1980s, annual average arctic sea ice has decreased in extent between 3.5% and 4.1% per decade, has become thinner by between 4.3 and 7.5 feet, and is melting at least 15 more days each year. September sea ice extent has decreased between 10.7% and 15.9% per decade. (*Very high confidence*) (Ch. 11)

- Arctic sea ice loss is expected to continue through the 21st century, *very likely* resulting in nearly sea ice-free late summers by the 2040s (*very high confidence*). (Ch. 11)
- It is *very likely* that human activities have contributed to observed arctic surface temperature warming, sea ice loss, glacier mass loss, and northern hemisphere snow extent decline (*high confidence*). (Ch. 11)

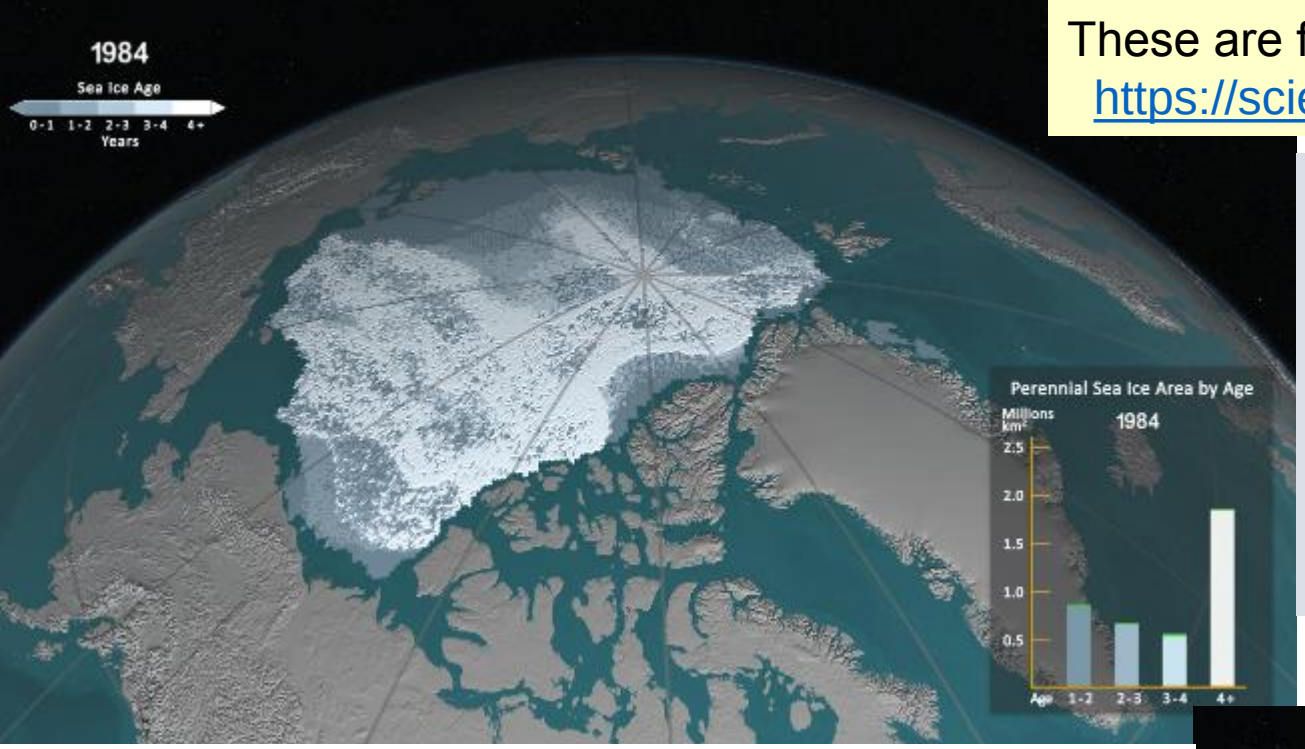
Claims of “continued decline in Arctic Sea Ice”

“The last few years have also seen record-breaking, climate-related weather extremes, the three warmest years on record for the globe, and **continued decline in arctic sea ice.”**

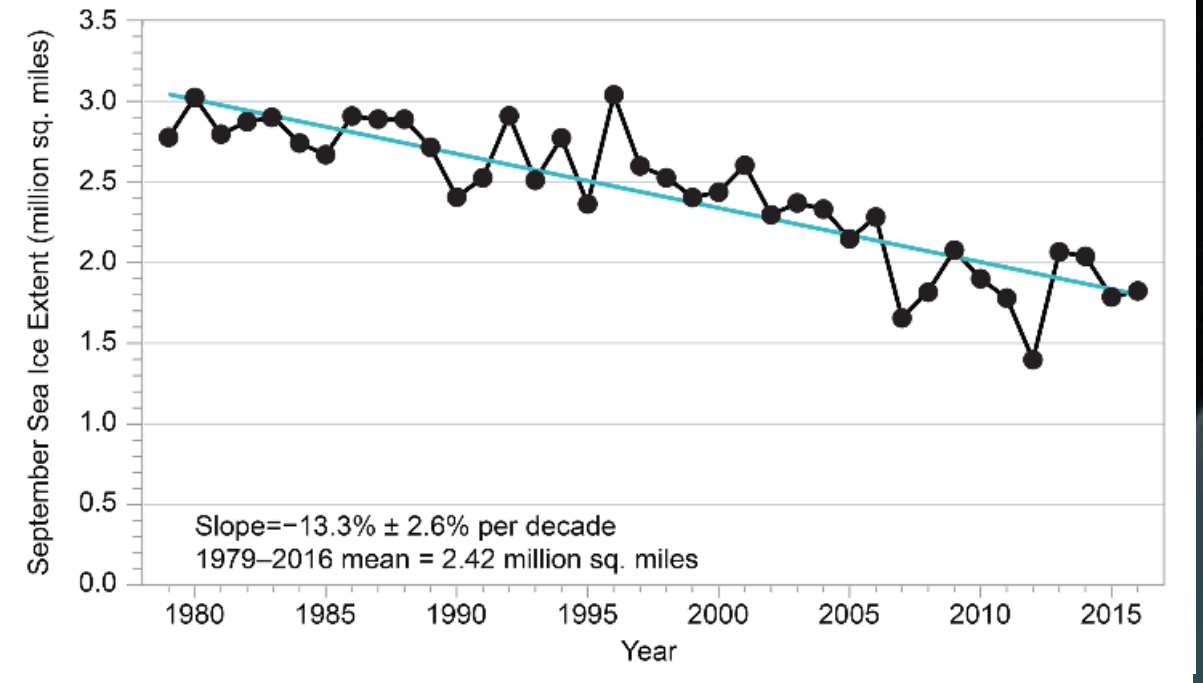
https://science2017.globalchange.gov/chapter/executive-summary/

Please remember that Very High Confidence of 11-16% Arctic Sea Loss per decade, previous page

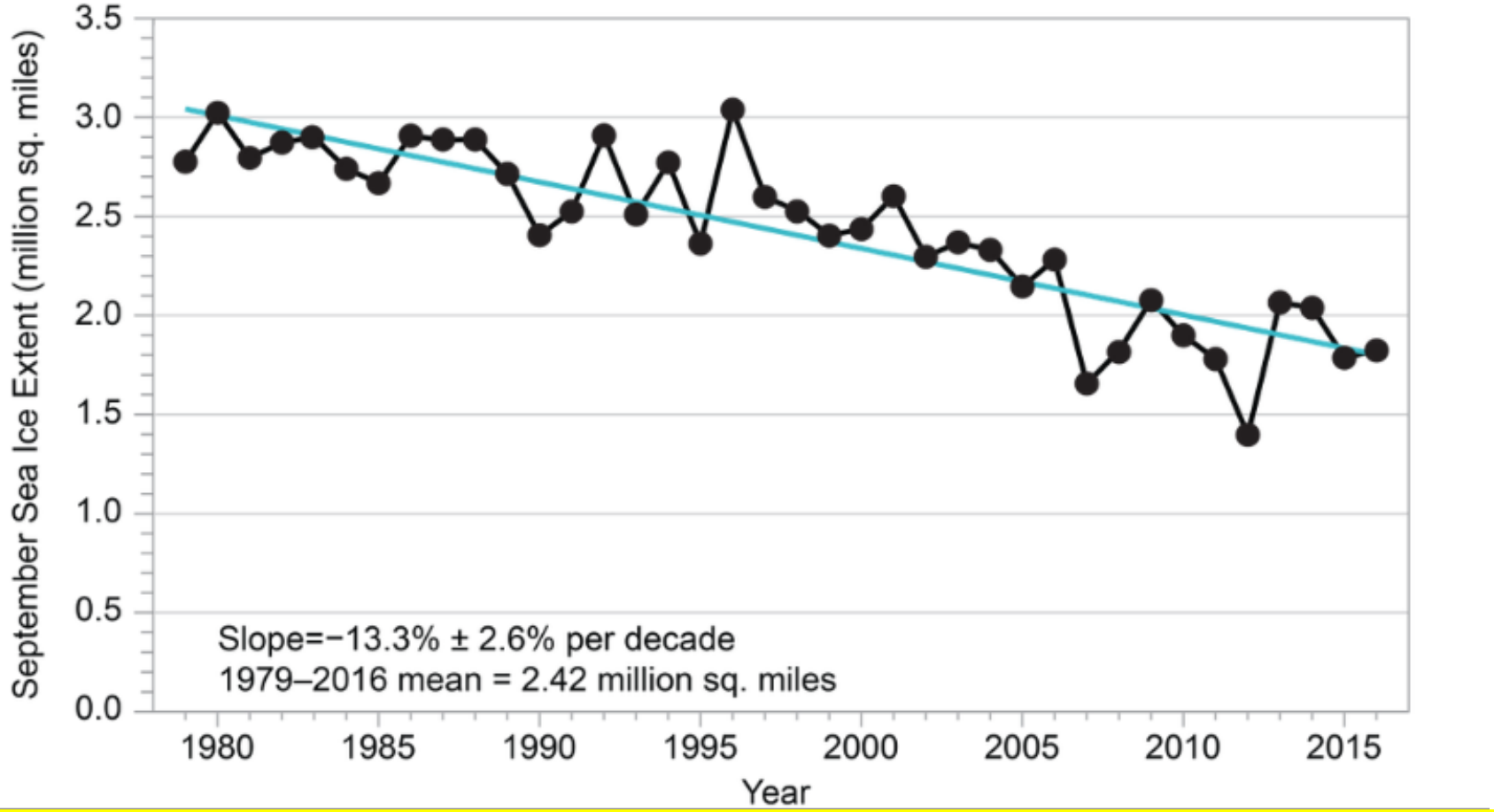
These are from Fig 10, 11, “Arctic Sea Ice Loss”
https://science2017.globalchange.gov/chapter/executive-summary/



September sea ice extent and age shown for (top) 1984 and (middle) 2016, illustrating significant reductions in sea ice extent and age (thickness). The bar graph in the lower right of each panel illustrates the sea ice area (unit: million km^2) covered within each age category (> 1 year), and the green bars represent the maximum extent for each age range during the record. The year 1984 is representative of September sea ice characteristics during the 1980s. The years 1984 and 2016 are selected as endpoints in the time series; a movie of the complete time series is available at http://svs.gsfc.nasa.gov/cgi-bin/details.cgi?aid=4489. (bottom) The satellite-era arctic sea ice areal extent trend from 1979 to 2016 for September (unit: million mi^2). *From Figure 11.1 in Chapter 11.*



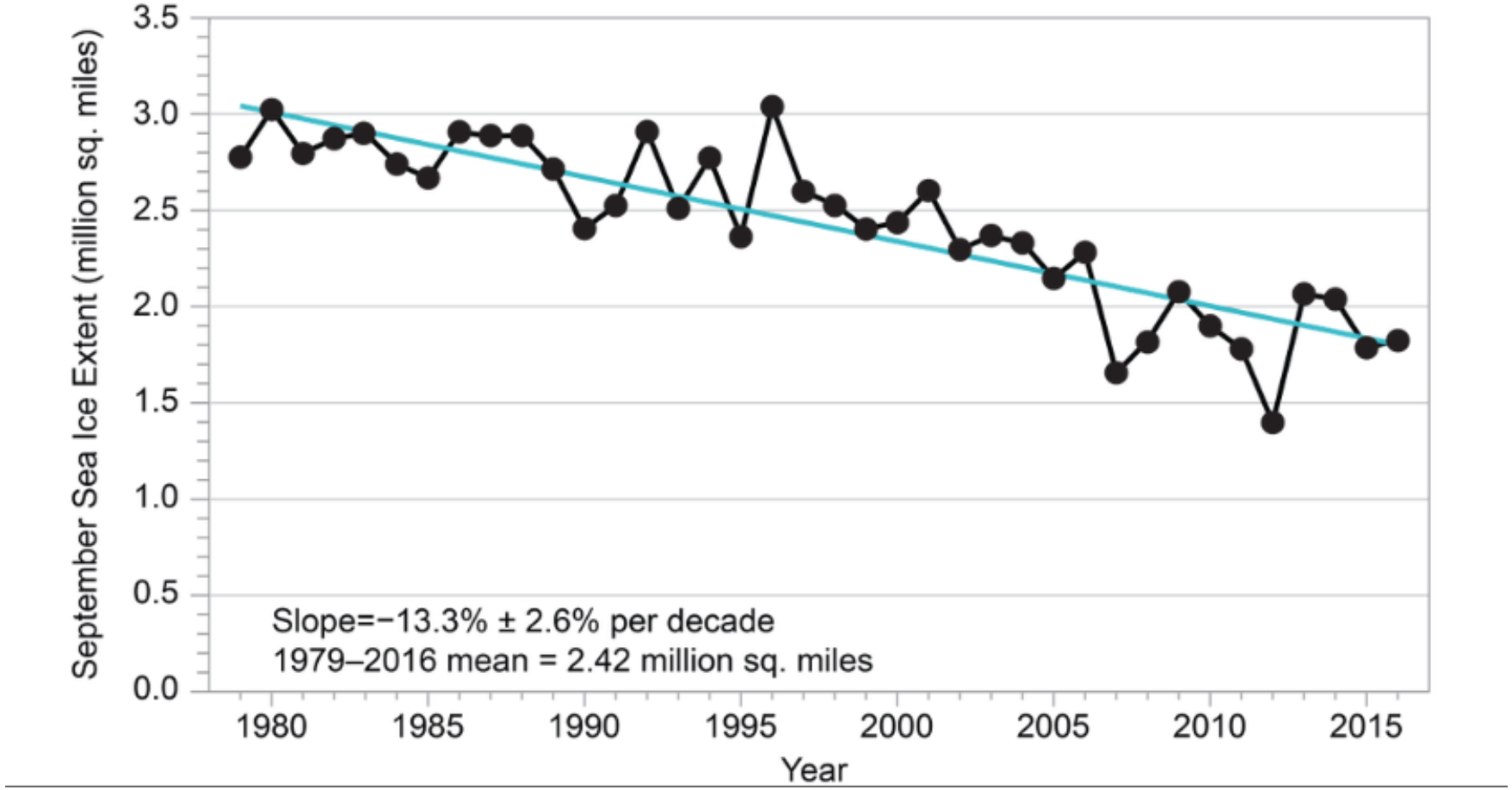
September Sea Ice extent in millions of square miles.



The years 1984 and 2016 are selected as endpoints in the time series; a movie of the complete time series is available at http://svs.gsfc.nasa.gov/cgi-bin/details.cgi?aid=4489. (bottom)

The satellite-era arctic sea ice areal extent trend from 1979 to 2016 for September (unit: million mi2). From Figure 11.1 in Chapter 11.

September Sea Ice extent in millions of square miles.



This time domain is 36 years. Why did they choose this time interval?

Outline

Arctic Geography

Bond Cycles Dominate Climate in the Arctic & Northern Hemisphere

Figures of Merit on Arctic Ice

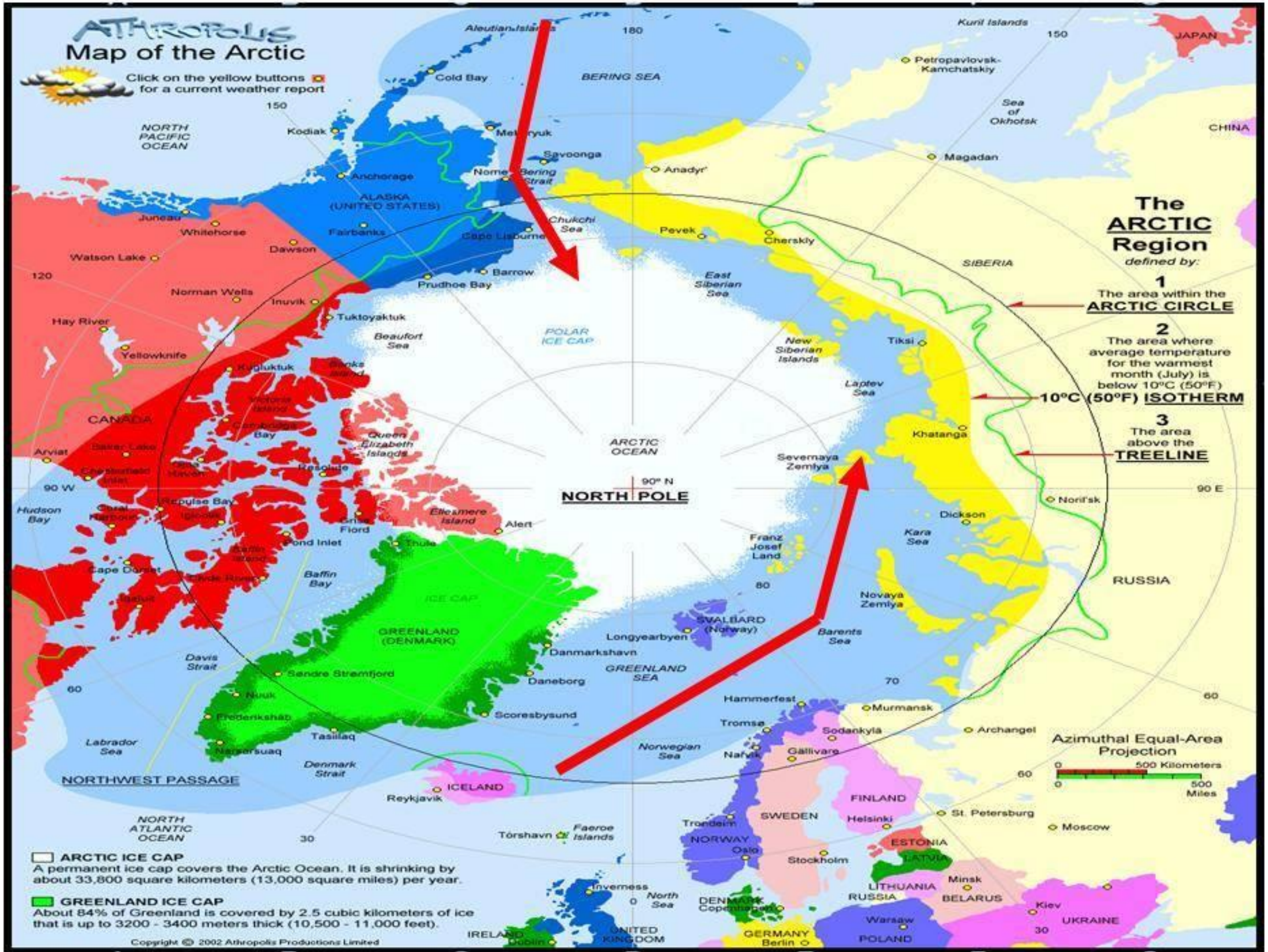
Greenland—has largest NH Ice Mass

Alaska—History and Temperature History offer some clues

Analysis

Conclusions

Arctic Geography



ATHROPOLIS
Map of the Arctic
Click on the yellow buttons for a current weather report
The ARCTIC Region defined by:
1 The area within the ARCTIC CIRCLE
2 The area where average temperature for the warmest month (July) is below 10ºC (50ºF)
10ºC (50ºF) ISOTHERM
3 The area above the TREELINE
NORTH POLE
90º N
ARCTIC OCEAN
POLAR ICE CAP
NORTH PACIFIC OCEAN
BERING SEA
Aleutian Islands
Cold Bay
Kodiak
Anchorage
Nome
Bering Strait
Savoonga
ALASKA (UNITED STATES)
Fairbanks
Juneau
Whitehorse
Dawson
Watson Lake
Cape Lisburne
Chukchi Sea
Barrow
Prudhoe Bay
Norman Wells
Inuvik
Tuktoyaktuk
Hay River
Yellowknife
Beaufort Sea
Kugluktuk
CANADA
Arviat
Resolute
Queen Elizabeth Islands
Ellesmere Island
Alert
Repulse Bay
Hudson Bay
Pond Inlet
Thule
Baffin Bay
Cape Dorset
Clyde River
GREENLAND (DENMARK)
ICE CAP
Davis Strait
Søndre Strømfjord
Nuuk
Frederikshåb
Narsarsuaq
Tasiilaq
Scoresbysund
Daneborg
Danmarkshavn
Labrador Sea
NORTHWEST PASSAGE
Denmark Strait
ICELAND
Reykjavik
NORTH ATLANTIC OCEAN
Tórshavn
Faeroe Islands
GREENLAND SEA
Longyearbyen
SVALBARD (Norway)
Franz Josef Land
Barents Sea
Norwegian Sea
Hammerfest
Tromsø
Narvik
Gällivare
Sodankylä
Murmansk
Archangel
Trondheim
NORWAY
Oslo
SWEDEN
Stockholm
FINLAND
Helsinki
St. Petersburg
Moscow
ESTONIA
LATVIA
LITHUANIA
RUSSIA
Minsk
BELARUS
Kiev
UKRAINE
Warsaw
POLAND
GERMANY
Berlin
DENMARK
Copenhagen
IRELAND
Dublin
UNITED KINGDOM
Inverness
North Sea
Novaya Zemlya
Kara Sea
Dickson
Noril'sk
Khatanga
Severnaya Zemlya
Laptev Sea
Tiksi
New Siberian Islands
East Siberian Sea
Pevek
Cherskiy
Anadyr'
Magadan
Sea of Okhotsk
Petropavlovsk-Kamchatskiy
Kuril Islands
JAPAN
CHINA
SIBERIA
RUSSIA
Azimuthal Equal-Area Projection
500 Kilometers
500 Miles
ARCTIC ICE CAP
A permanent ice cap covers the Arctic Ocean. It is shrinking by about 33,800 square kilometers (13,000 square miles) per year.
GREENLAND ICE CAP
About 84% of Greenland is covered by 2.5 cubic kilometers of ice that is up to 3200 - 3400 meters thick (10,500 - 11,000 feet).
Copyright © 2002 Athropolis Productions Limited

https://www.arcticcentre.org/EN/arcticregion/Maps/Administrative-areas

https://www.arcticcentre.org/EN/arcticregion/Maps/Cities

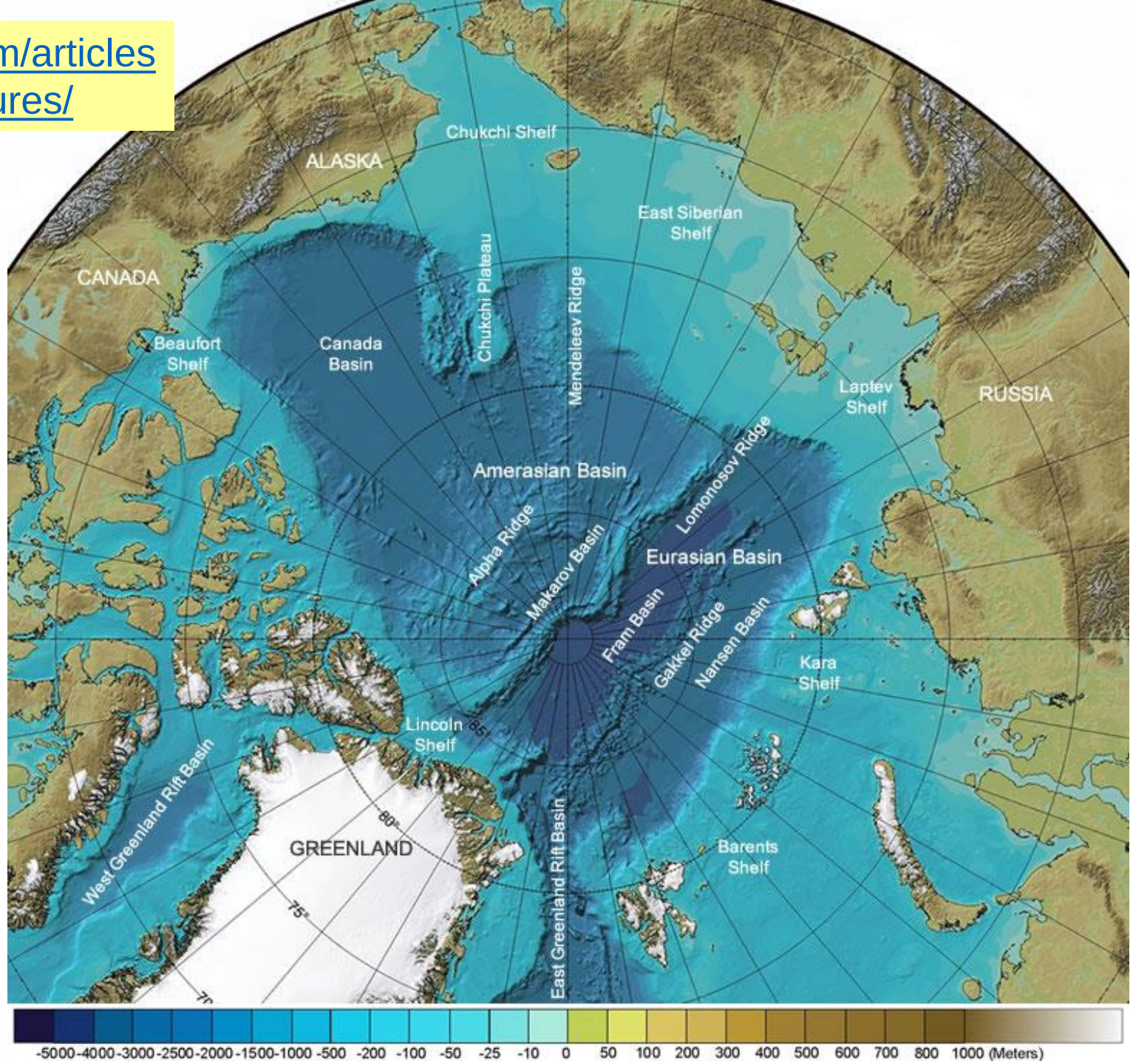
Topography of the Arctic

Image from the United Nations

Several days ago, I emailed them asking for the high resolution version

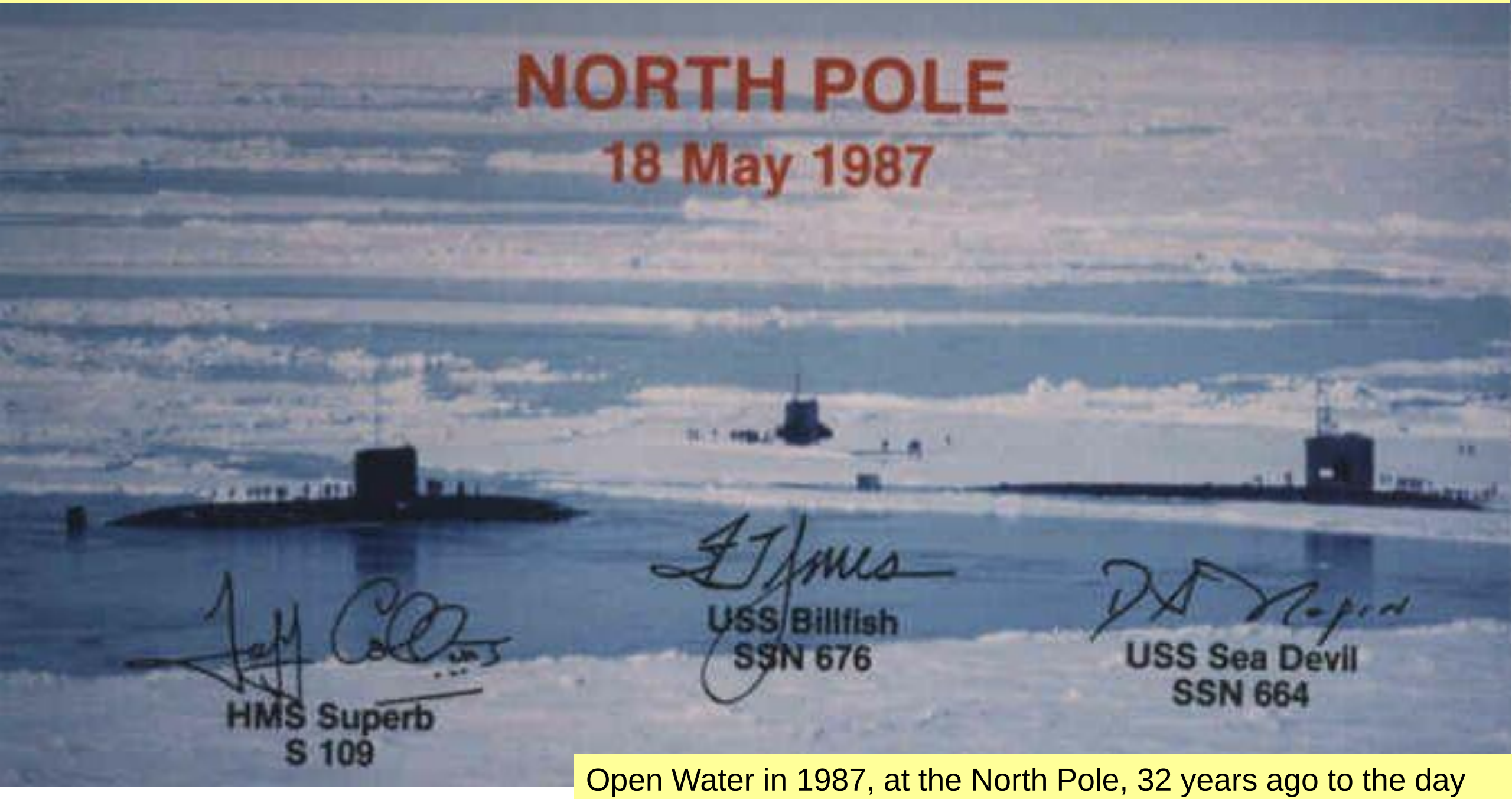
No answer or image yet…

https://geology.com/articles/arctic-ocean-features/



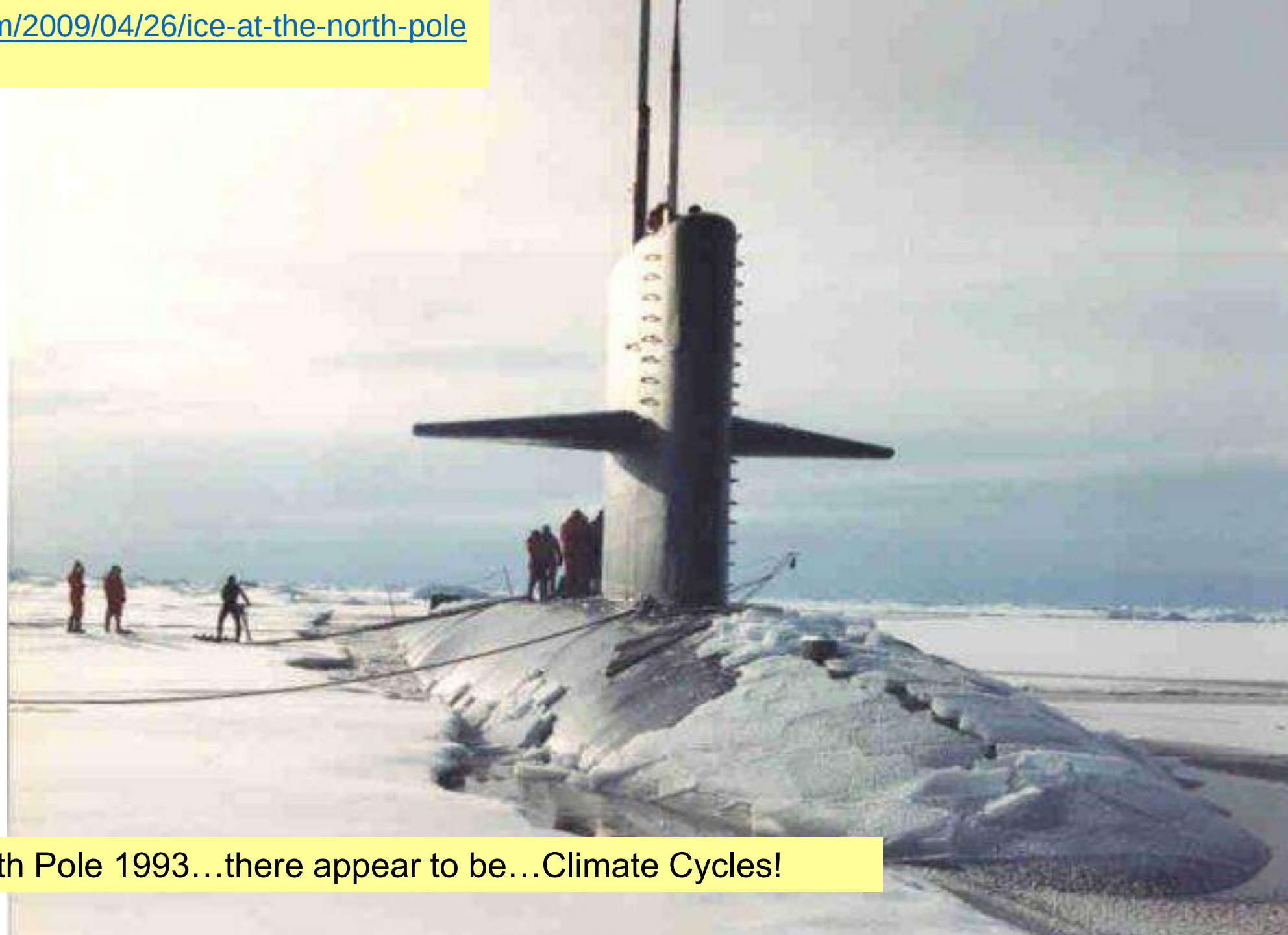
Drift Ice in the Arctic

https://wattsupwiththat.com/2009/04/26/ice-at-the-north-pole-in-1958-not-so-thick/



Open Water in 1987, at the North Pole, 32 years ago to the day

https://wattsupwiththat.com/2009/04/26/ice-at-the-north-pole-in-1958-not-so-thick/



Thick Ice at North Pole 1993…there appear to be…Climate Cycles!

Beaufort Gyre & Transpolar Drift

Strength of the

High Pressure Cell

at the center of the

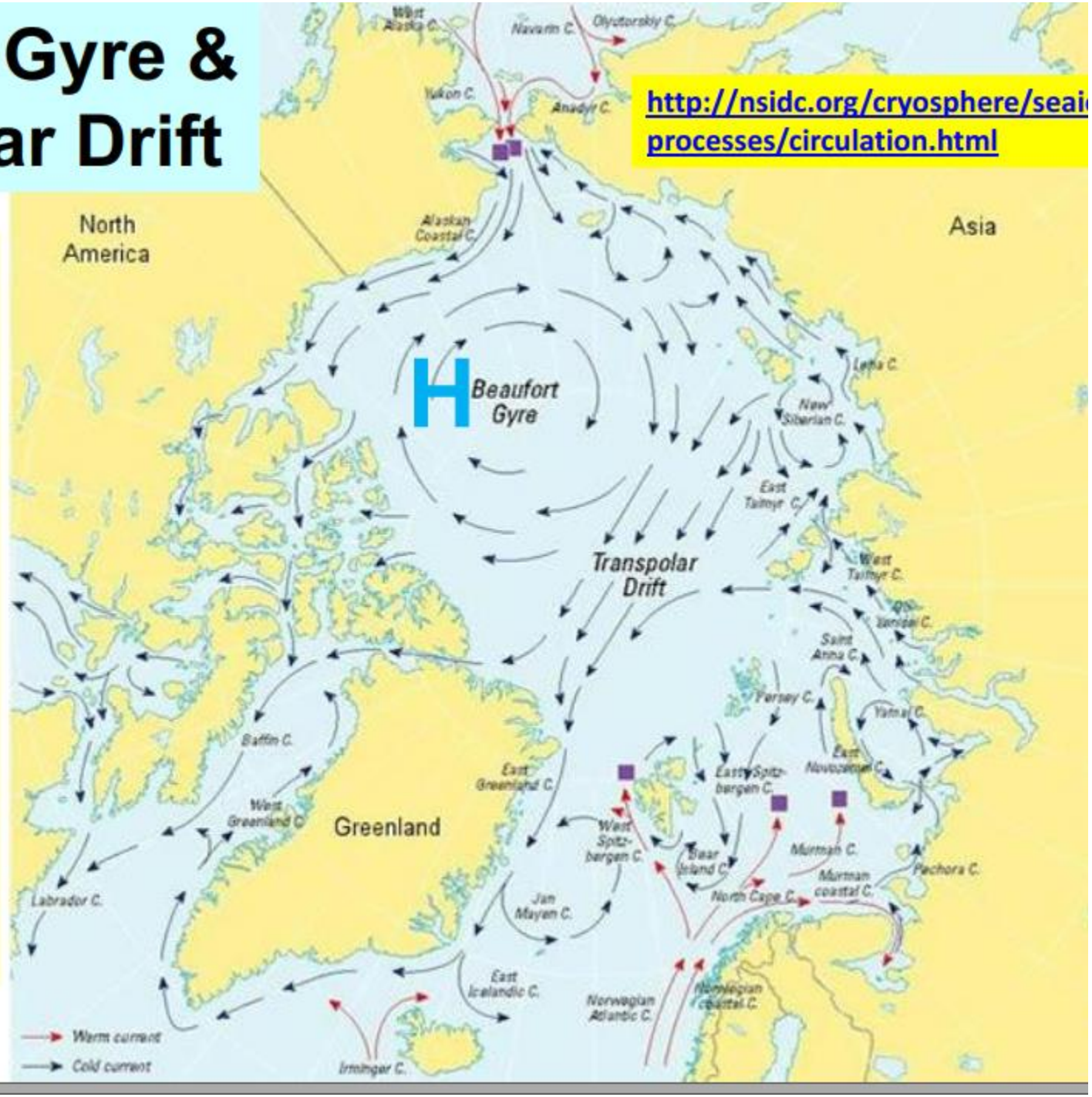
Beaufort Gyre and

Transpolar Drift

Wind Strength

control loss of

Arctic Ocean Ice



Arctic Reference Map

Nat'l Snow Ice Data Center

Fram Strait: where fresh Water and Ice flow From the Arctic Ocean to the North Atlantic Ocean

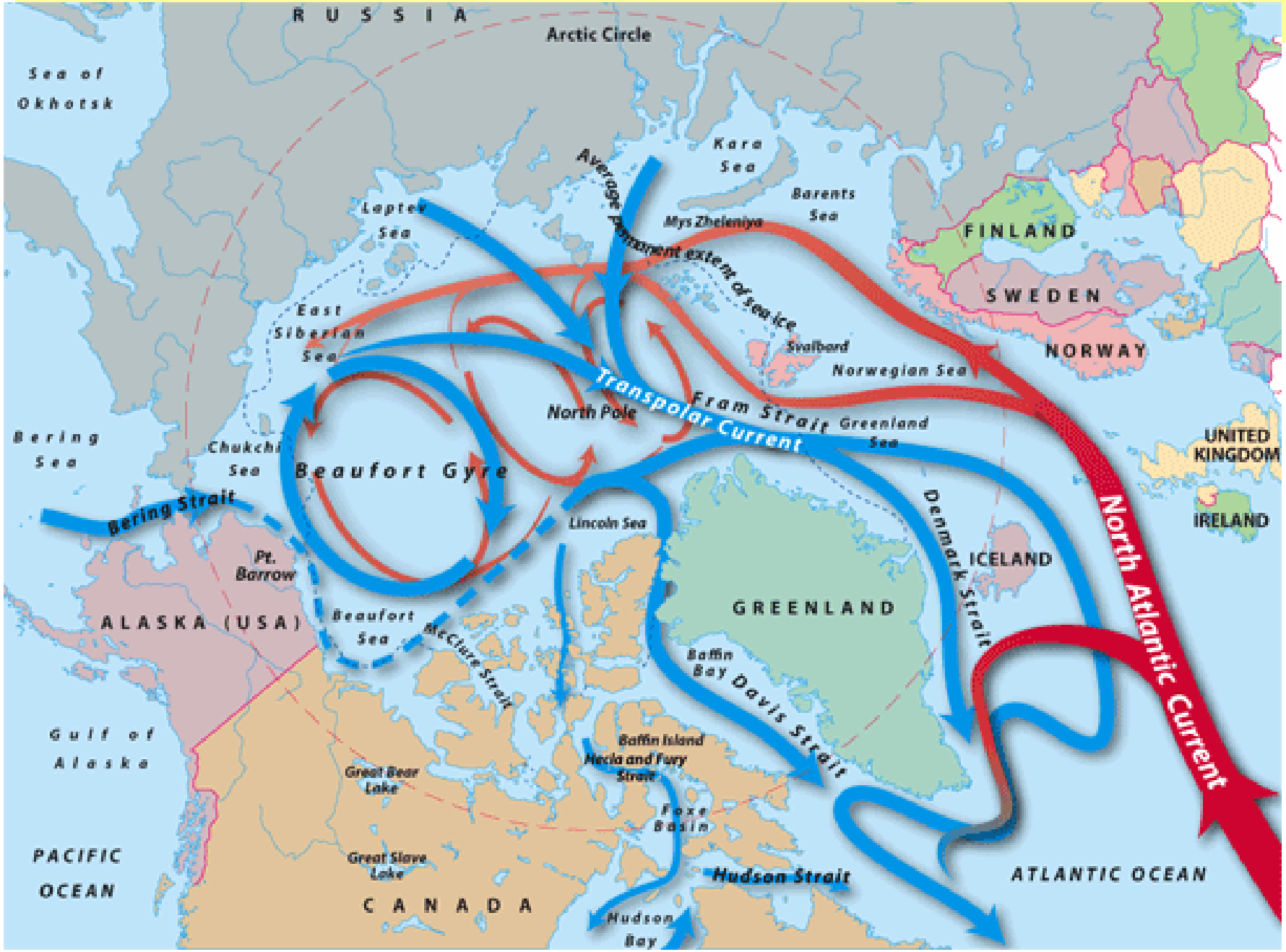
Red Line defines the warmest month
Temp = 10C = 50F

https://nsidc.org/sites/nsidc.org/files/images//arctic_map.gif

https://polarbearscience.files.wordpress.com/2013/06/beaufort-gyre_athropolis.jpg

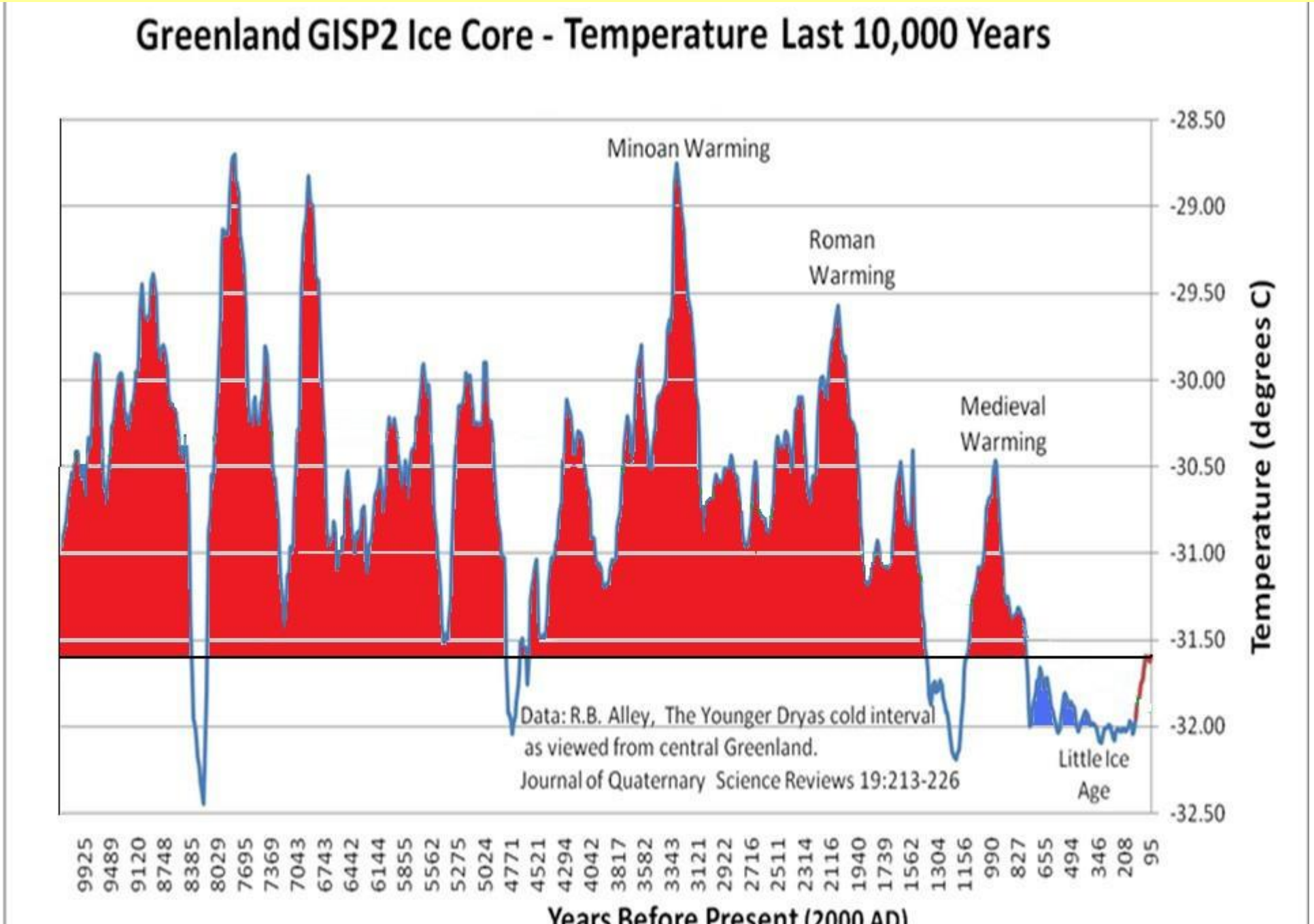
https://polarbearscience.com/2013/06/28/why-is-it-that-every-decade-eastern-beaufort-sea-ice-gets-really-thick/

https://rclutz.wordpress.com/category/oceans-make-climate/



Bond Cycles Dominate Climate in Arctic, Northern Hemisphere

http://wattsupwiththat.files.wordpress.com/2013/03/gisp2-ice-core-temperatures.jpg?w=960&h=720



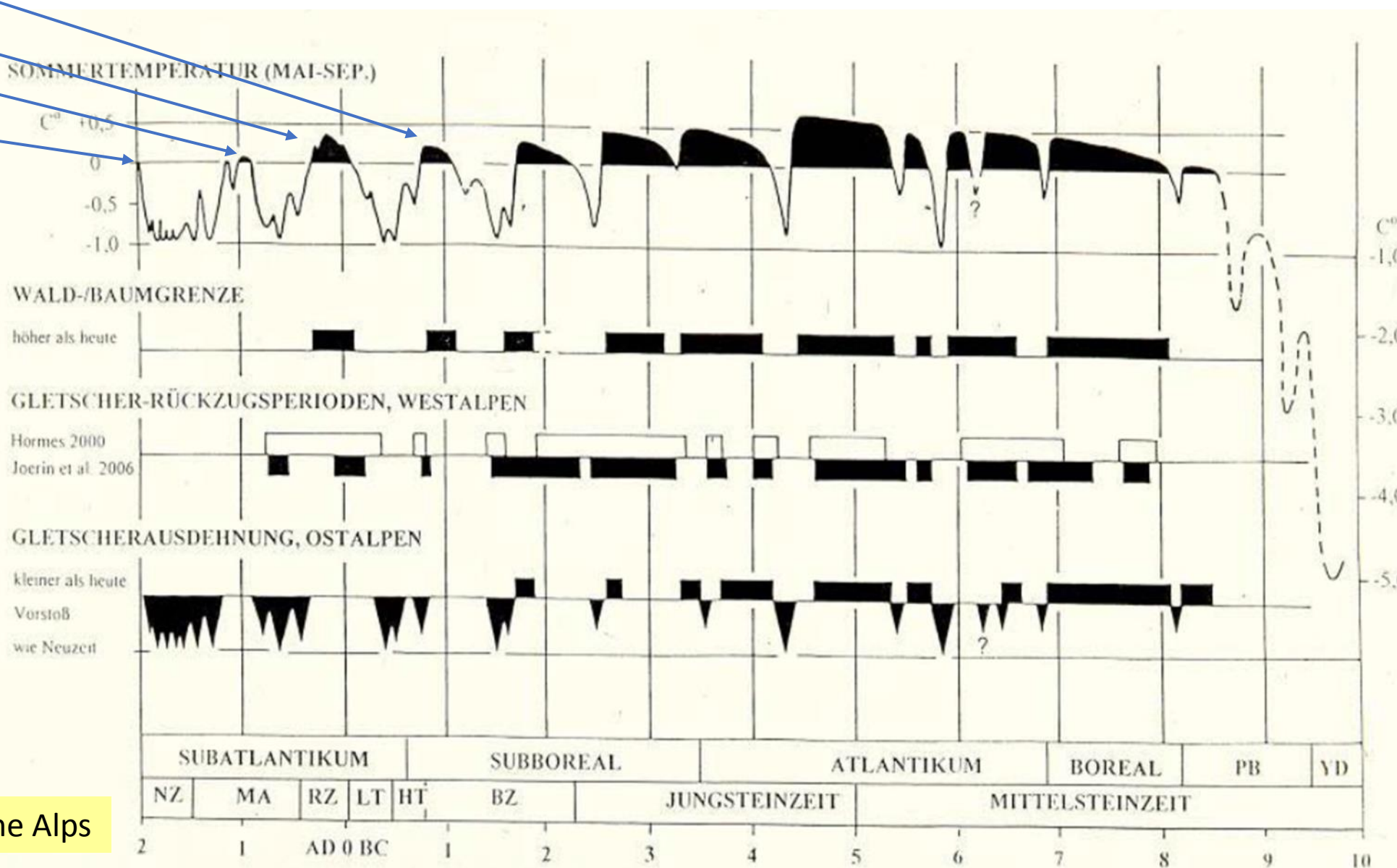
http://www.iufberlin.org/wm_files/wm_pdf/prof._patzelt_berlin_4.12.2009.pdf

Minoan
Roman
Medieval
Present

The top line of the graph below is the May to September temperature time series

These are tree-ring-derived "proxy" temperatures from the Alps.

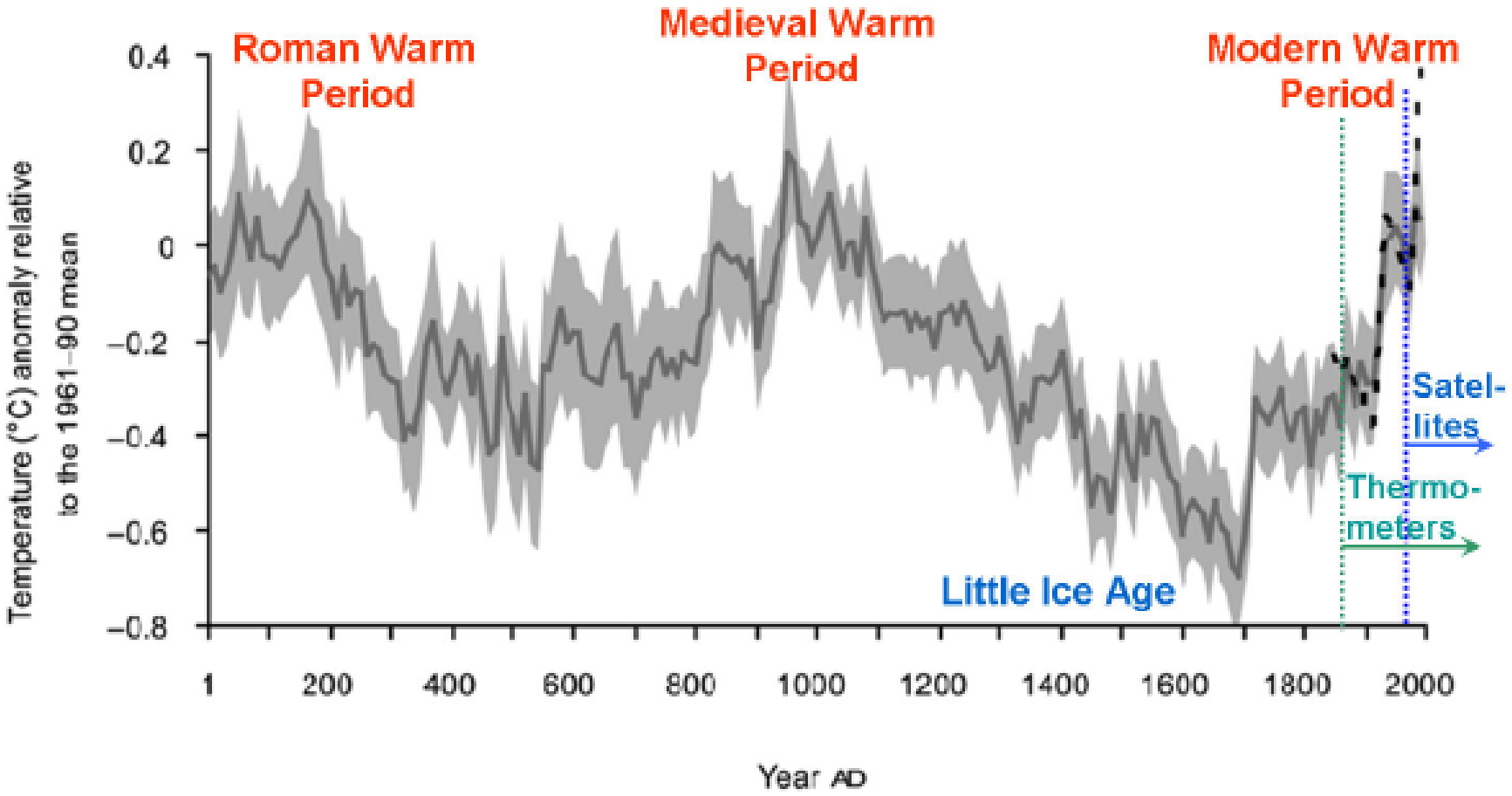
The top line shows thirteen separate warm periods since the last glacial maximum.



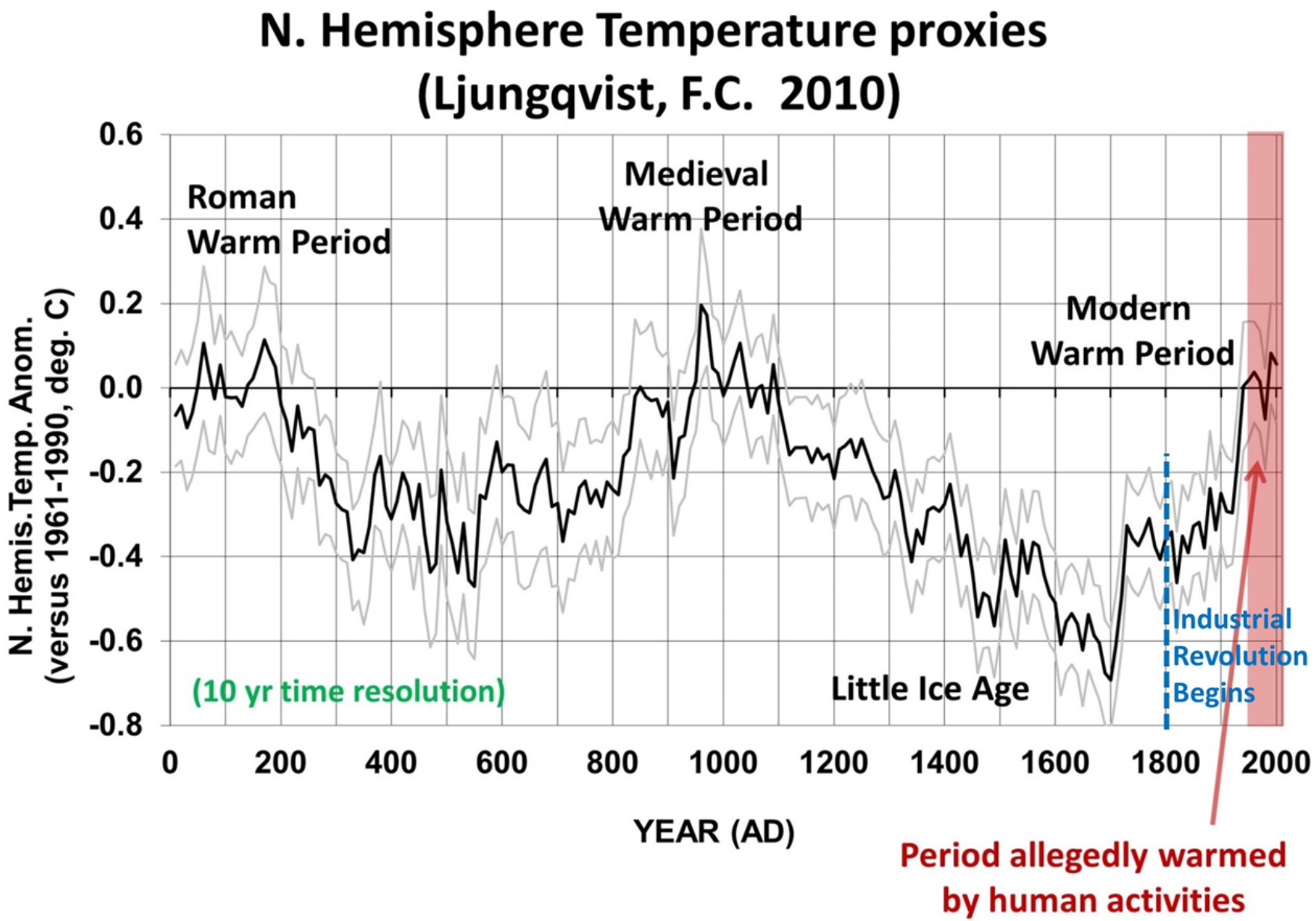
Time Line last 12,000 years, the Alps

http://www.drroyspencer.com/wp-content/uploads/Spencer_EPW_Written_Testimony_7_18_2013_updated.pdf

Temperature Reconstruction* for N. Hemisphere, 1 - 2000 AD
Shows Modern Warm Period Not Exceptional



*Ljungqvist, F.C. 2010. A new reconstruction of temperature variability in the extra-tropical Northern Hemisphere during the last two millennia. Geografiska Annaler: Physical Geography, Vol. 92 A(3), pp. 339-351, September 2010. DOI: 10.1111/j.1468-0459.2010.00399.x



http://www.drroyspencer.com/wp-content/uploads/2000-years-of-global-temperatures-industrial-revolution-start.jpg

Arctic Ice Figures of Merit

From the Danish Meteorological Institute:

Arctic Ice

Sea Ice Coverage

Sea Ice Thickness

Arctic Sea Ice Volume

Greenland

Surface Mass Balance

DMI
Danish Meteorological Institute

Modelled Arctic Sea Ice

Home | Forecasts and observations | Research and development | Arctic | Contact

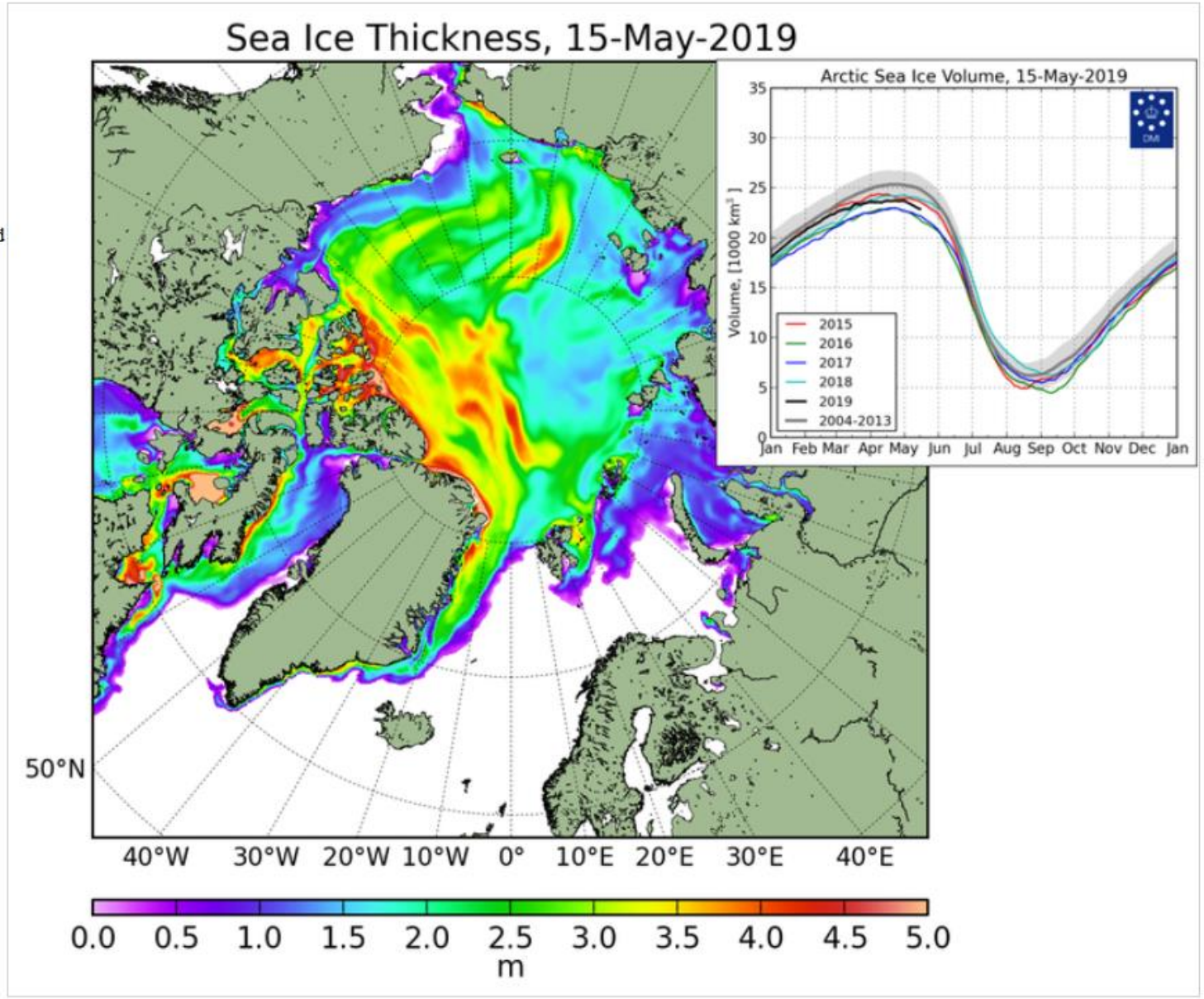
Modeled ice thickness and volume

The plots show maps with sea ice thickness, and seasonal cycles of the calculated total arctic sea ice volume. The mean sea ice volume and standard deviation for the period 2004-2013 are shown with gray. The figures are based on calculations using DMI's operational ocean and sea ice model **HYCOM-CICE**.

Time step
|<< < > >|
-30 +30
-365 +365

Animation
start stop
+3 +10 +30 +365
slower faster

More info **here**.

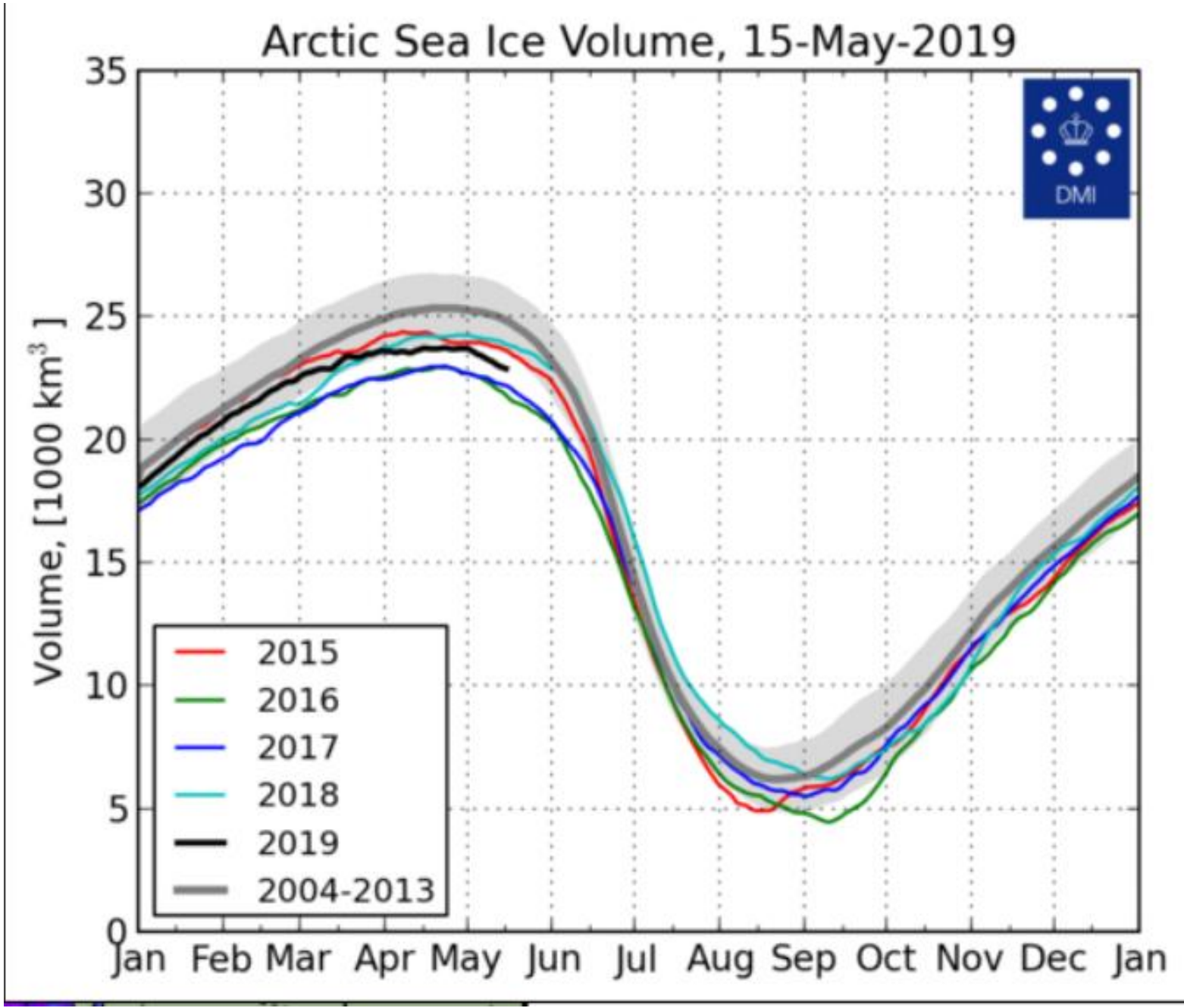


http://ocean.dmi.dk/arctic/icethickness/images/FullSize_CICE_combine_thick_SM_EN_20190515.png

There is a factor of five or so between

maximum Arctic ice extent
(late April)

And the minimum
(around 11 September)



DMI Analysis of average temperature north of 80N

DMI
Danish Meteorological Institute

Arctic Temperatures

Daily Mean Temperatures North of 80 degree North.

Greenland Climate Research Centre

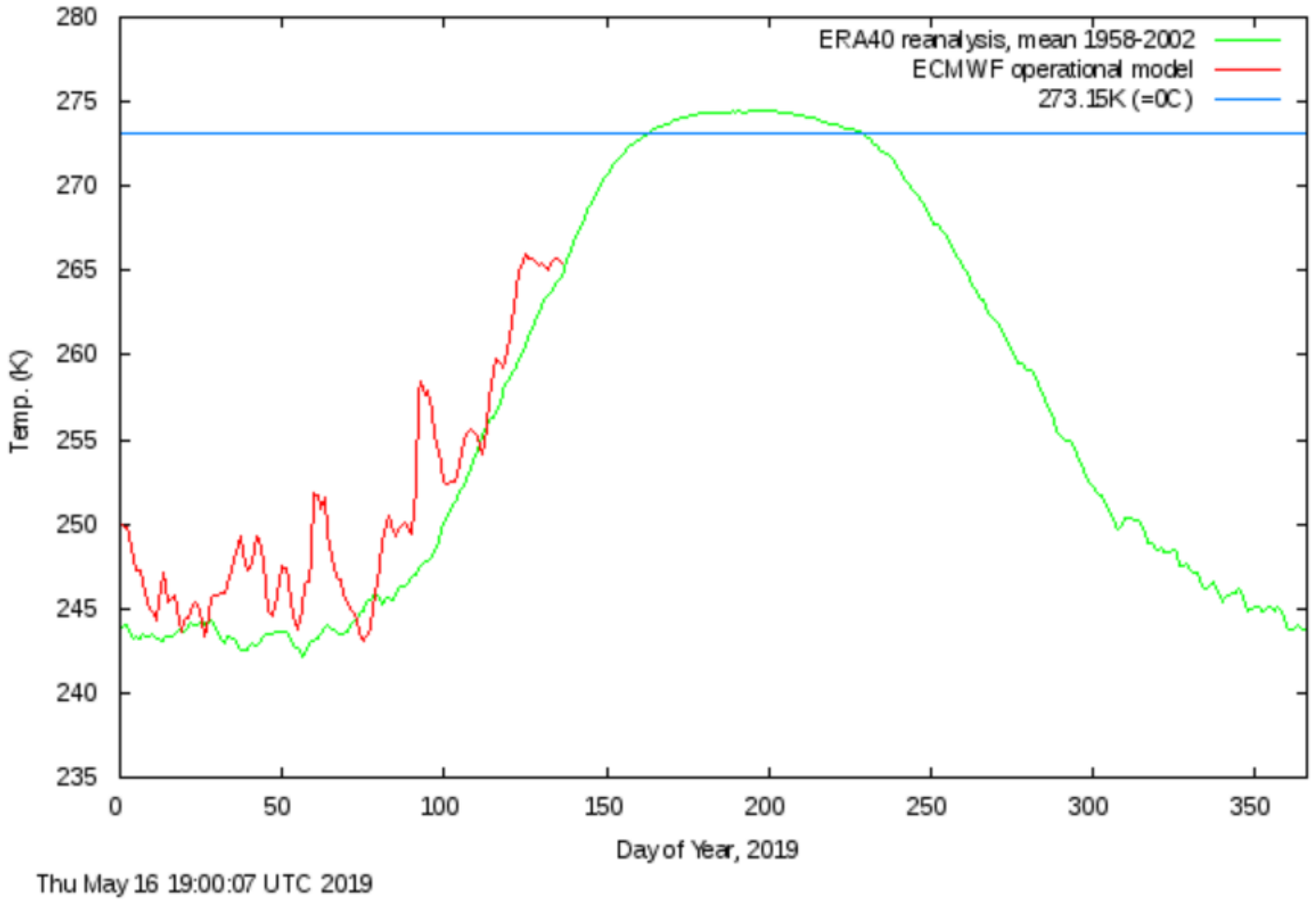
Daily Mean Temperatures in the Arctic 1958 - 2019

Daily mean temperatures for the Arctic area north of the 80th northern parallel, plotted with daily climate values calculated from the period 1958-2002.

Arkiv

1958	1959	1960	1961	1962
1963	1964	1965	1966	1967
1968	1969	1970	1971	1972
1973	1974	1975	1976	1977
1978	1979	1980	1981	1982
1983	1984	1985	1986	1987
1988	1989	1990	1991	1992
1993	1994	1995	1996	1997
1998	1999	2000	2001	2002
2003	2004	2005	2006	2007
2008	2009	2010	2011	2012
2013	2014	2015	2016	2017
2018	2019			

*Back to the **Arctic front page***



Daily mean temperature and climate north of the 80th northern parallel, as a function of the day of year.

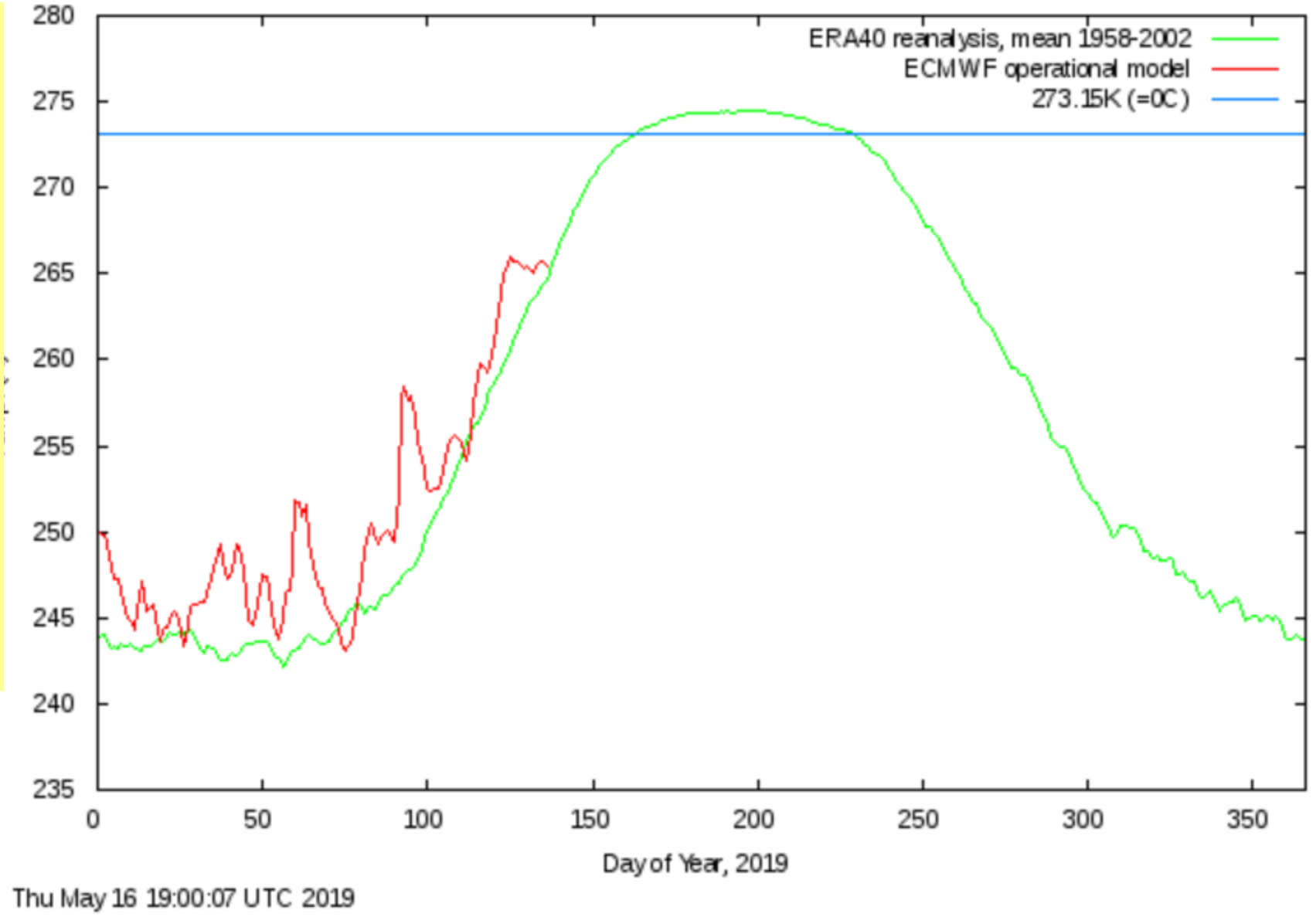
Information:

ERA40 (green line) is the ECMWF (re) analysis mean, each day of the year from 1998-2002

Red Line is the season to date

Blue Line is 0C or 273.15K

Waviness of red line represents surges of warm air into the Arctic.



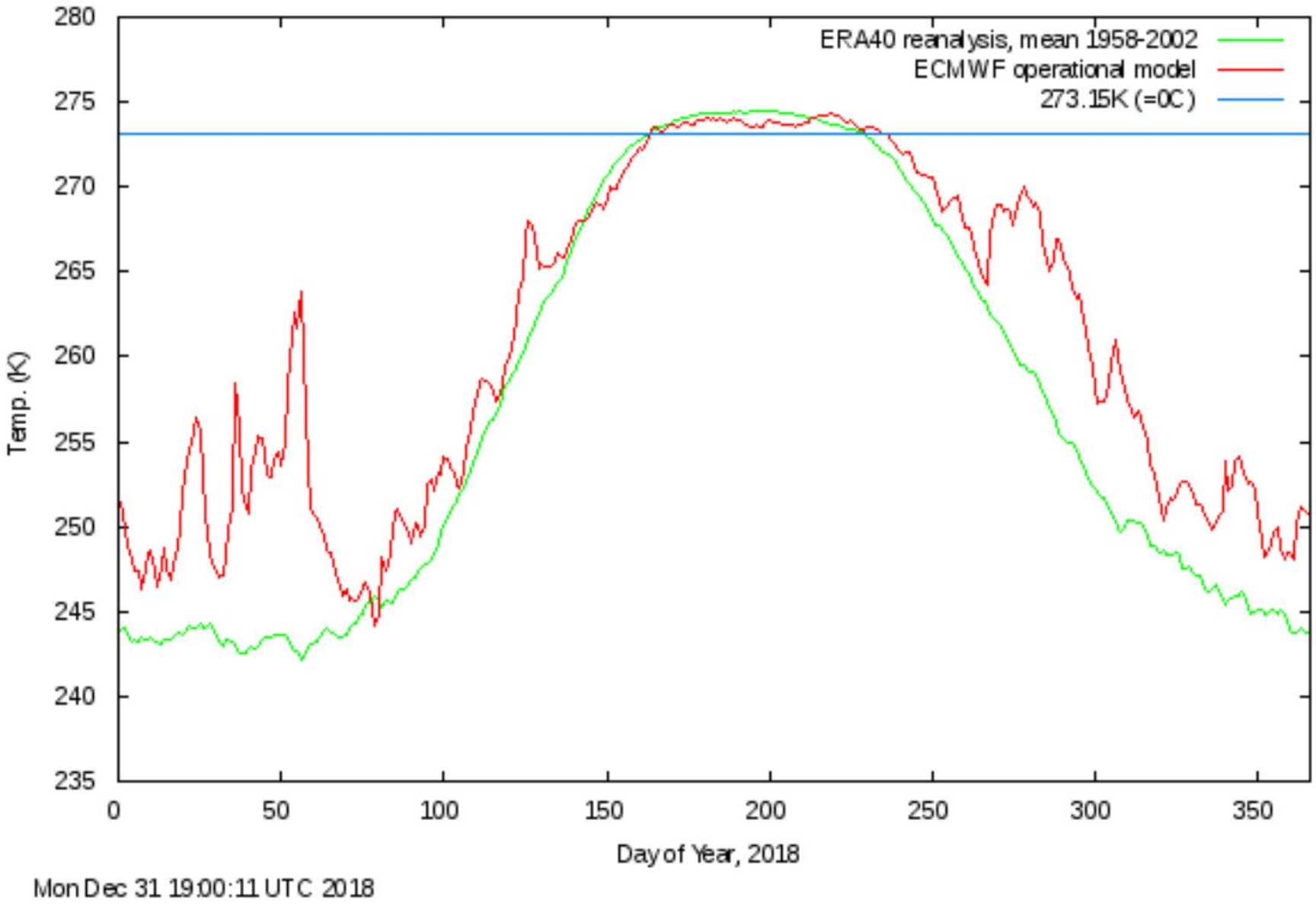
Daily mean temperature and climate north of the 80th northern parallel, as a function of the day of year.

31 Dec 2018 Analysis:

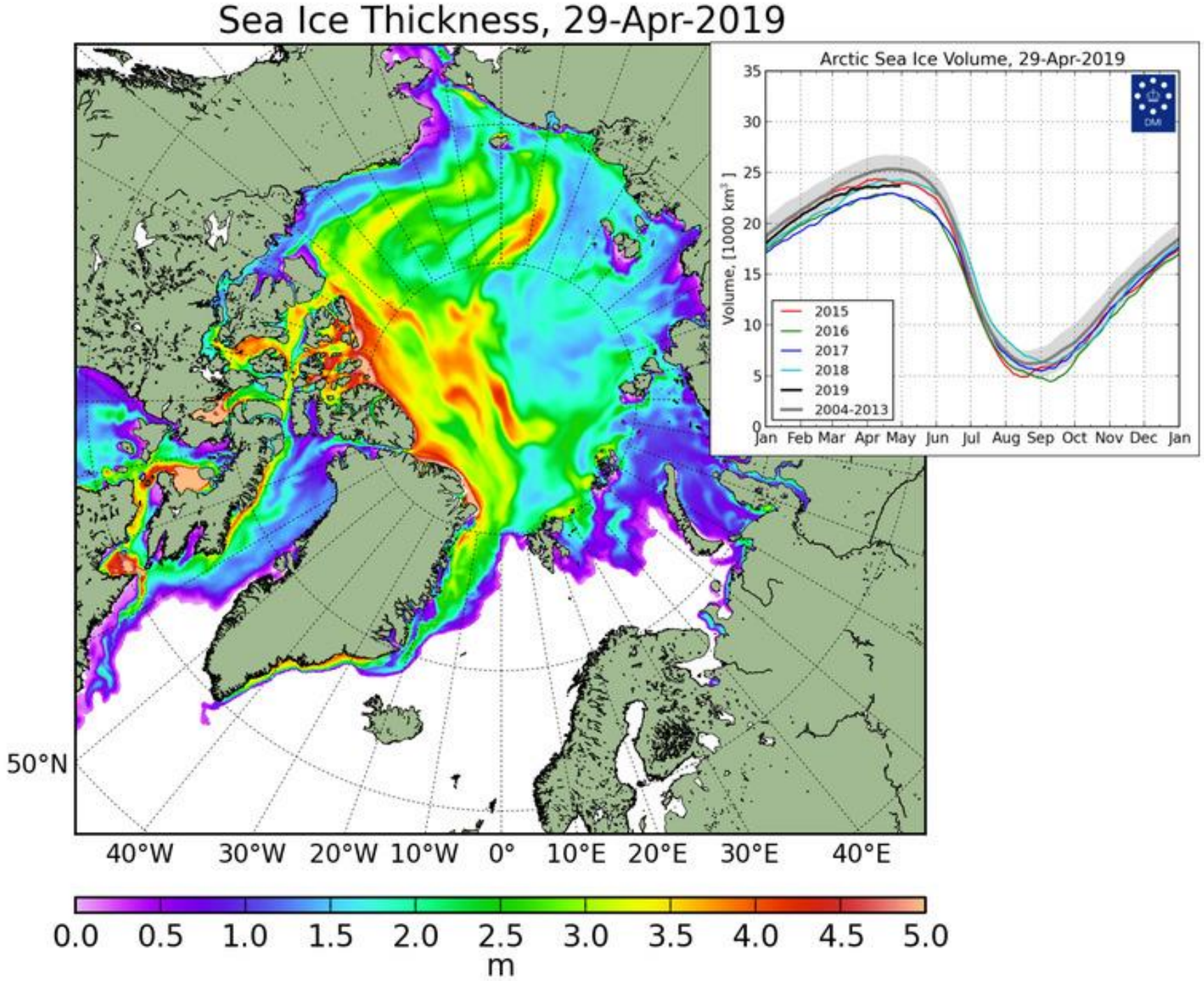
Melt season is where red line exceeds 0C

It was colder than average for the 2018 melt season.

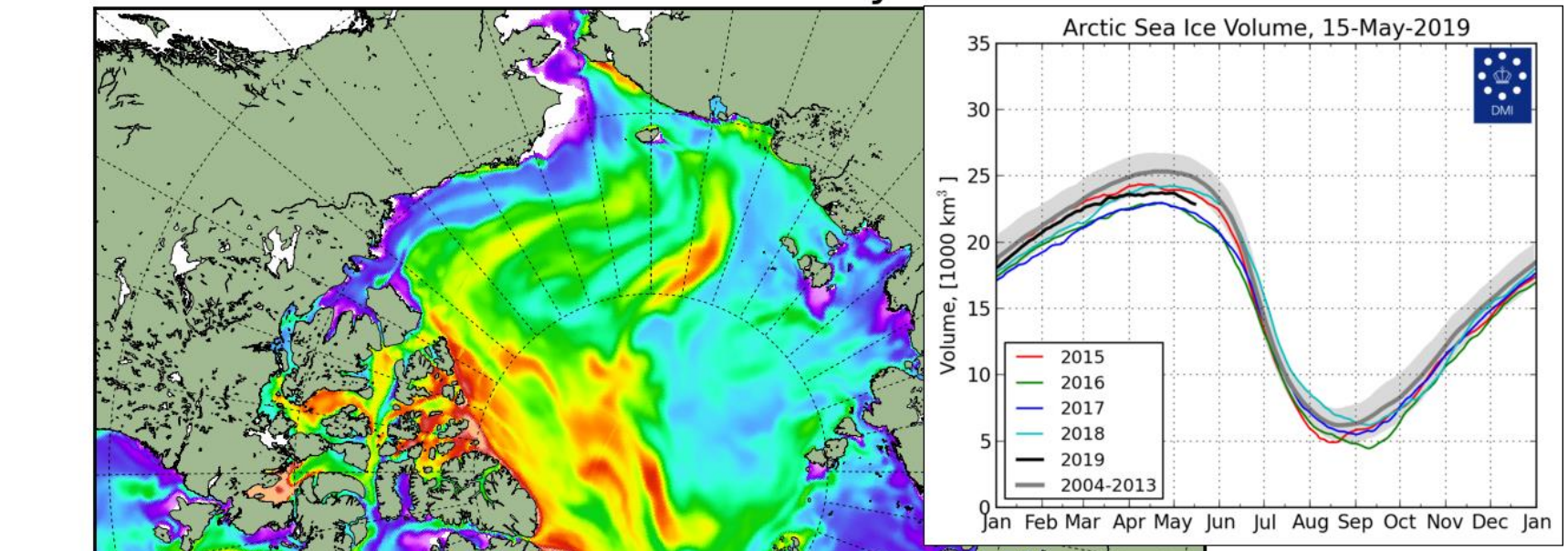
Likely
Less Ice (than average) melted

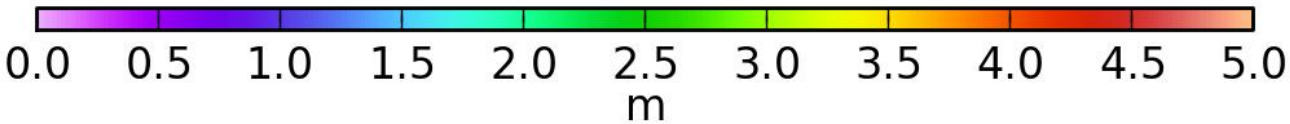


Daily mean temperature and climate north of the 80th northern parallel, as a function of the day of year.


Sea Ice Thickness, 29-Apr-2019
Arctic Sea Ice Volume, 29-Apr-2019
Volume, [1000 km³]
35
30
25
20
15
10
5
0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan
2015
2016
2017
2018
2019
2004-2013
50°N
40°W 30°W 20°W 10°W 0° 10°E 20°E 30°E 40°E
0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0
m

Sea Ice Thickness, 15-May-2019





https://journals.ametsoc.org/doi/10.1175/1520-0442%282001%29014%3C0255%3AAATOSI%3E2.0.CO%3B2

Anomalies and Trends of Sea-Ice Extent and Atmospheric Circulation in the Nordic Seas during the Period 1864–1998

Feb 2001

Torgny Vinje Norwegian Polar Institute, Oslo, Norway

Multi-year cycles in Nordic Sea Extent. over the 140-year period of record

Bob's analysis

Smaller cycles appear to mimic the 3-year to 7-year periodicity of the ENSO cycles.

Others appear to mimic the 18 years between the grand El Ninos in 1998 and 2016

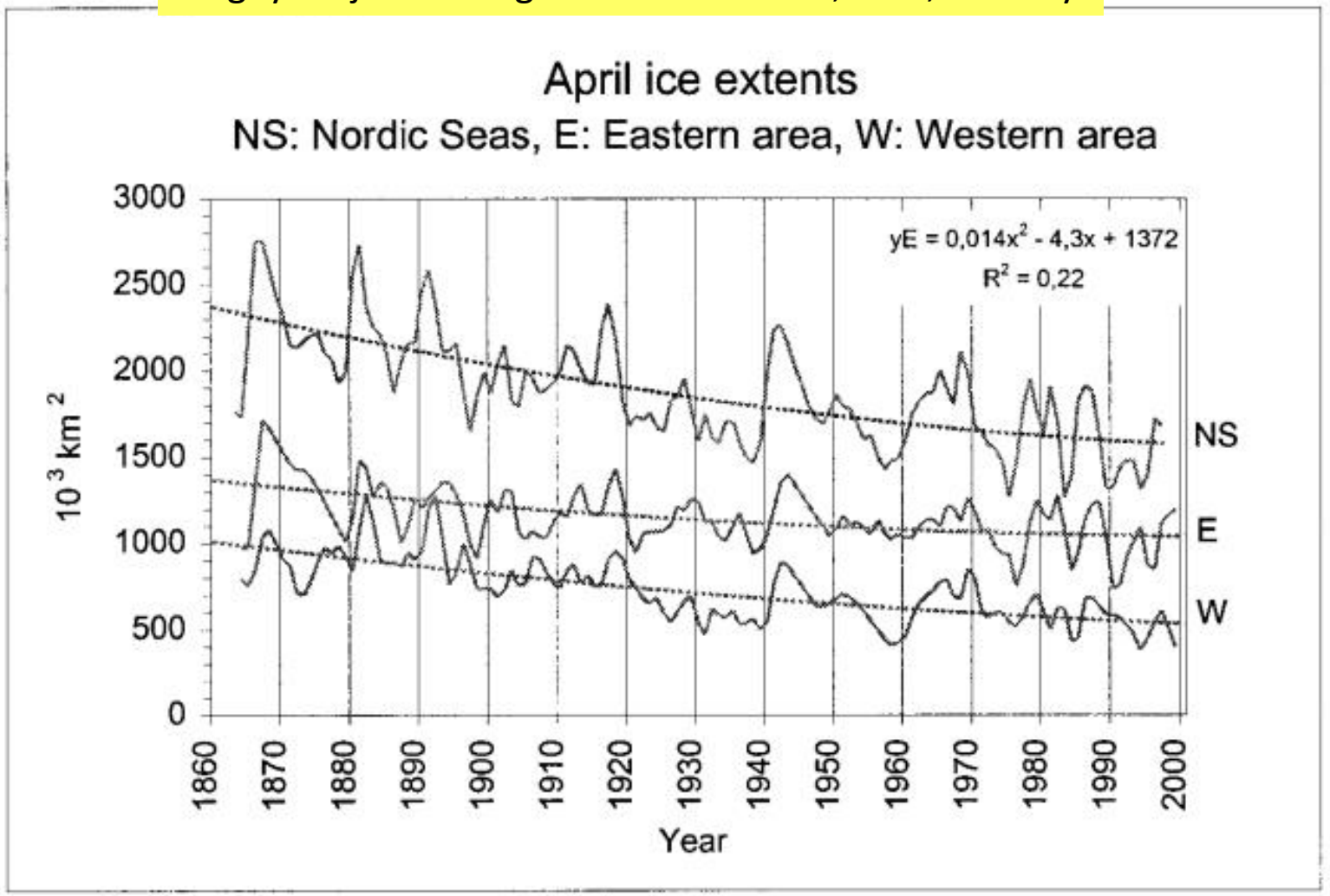
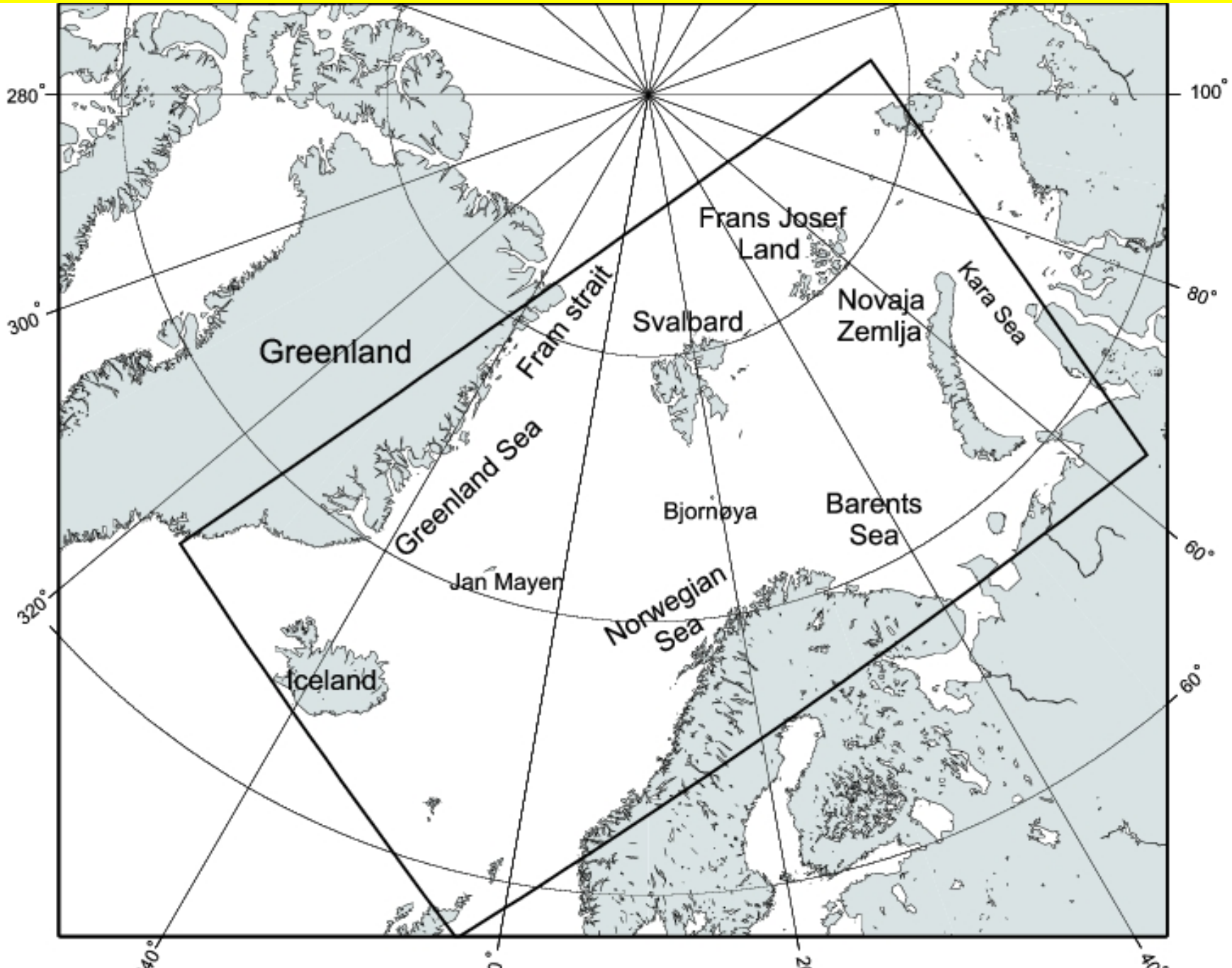
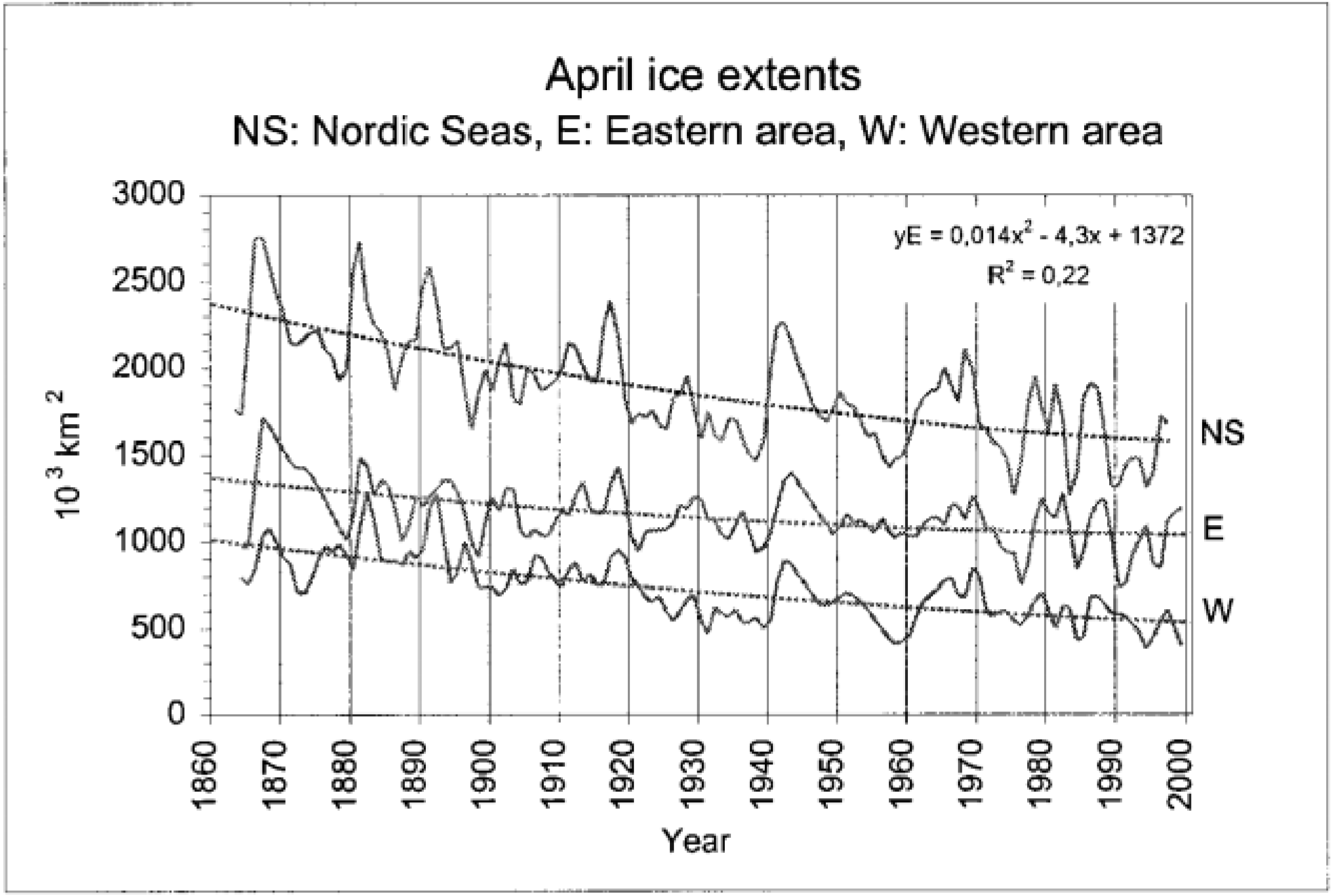


FIG. 2. Time series of the Apr ice extent in the Nordic Seas (NS), eastern area (E), and western area (W) given by 2-yr running mean and regression lines. Linear year-to-year interpolations of the ice extent have been made for the western area for 1940 and 1944–46, and for the eastern area for 1868–70, 1874–78, 1880, 1892, 1894, 1940–41, 1943–48, and 1961. Observations for Apr

Domain of the Nordic Seas https://en.wikipedia.org/wiki/Nordic_Seas#/media/File:Map_of_the_Nordic_Seas.jpg




April ice extents
NS: Nordic Seas, E: Eastern area, W: Western area
yE = 0,014x² - 4,3x + 1372
R² = 0,22
NS
E
W
10³ km²
3000
2500
2000
1500
1000
500
0
1860
1870
1880
1890
1900
1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
Year

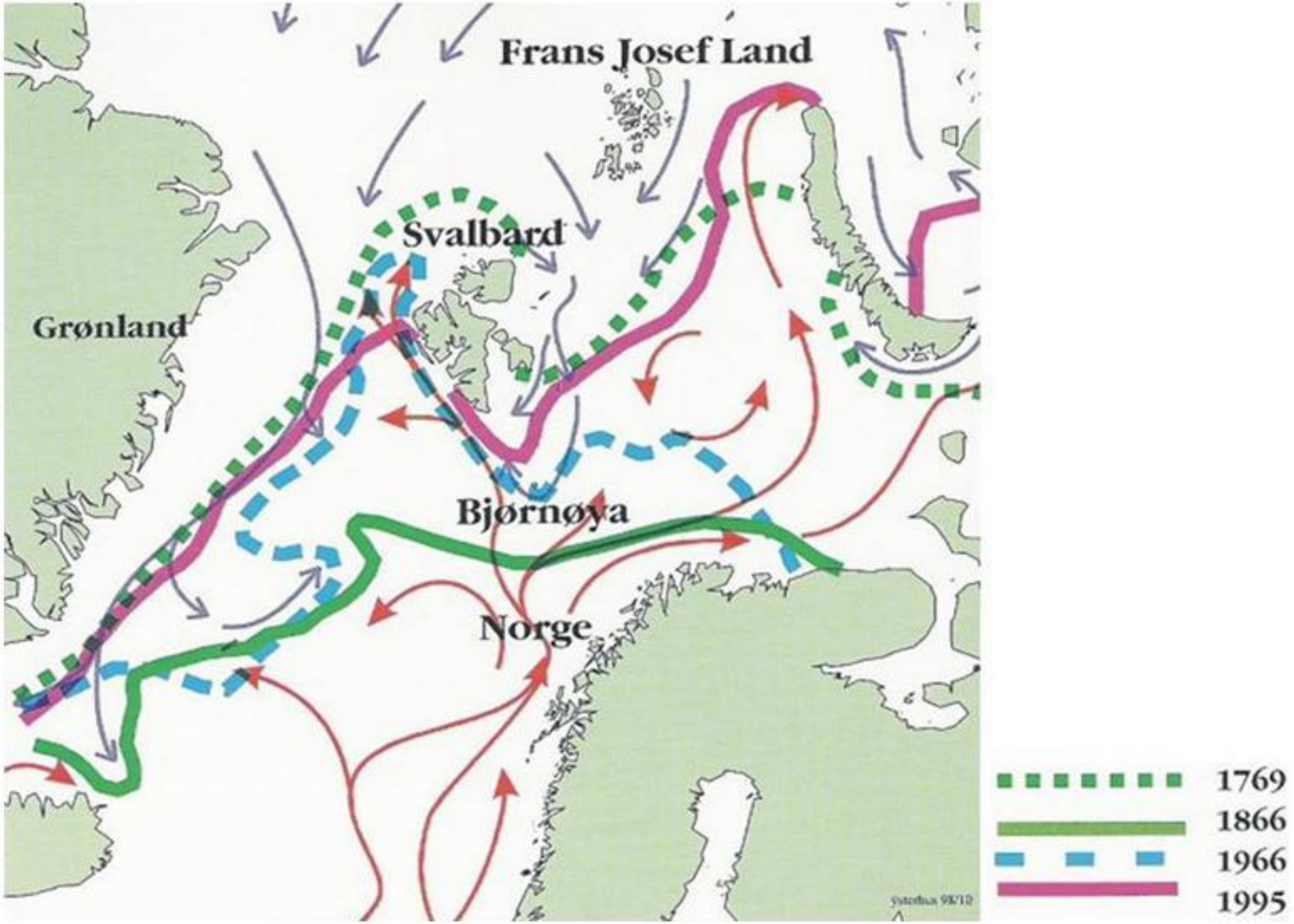
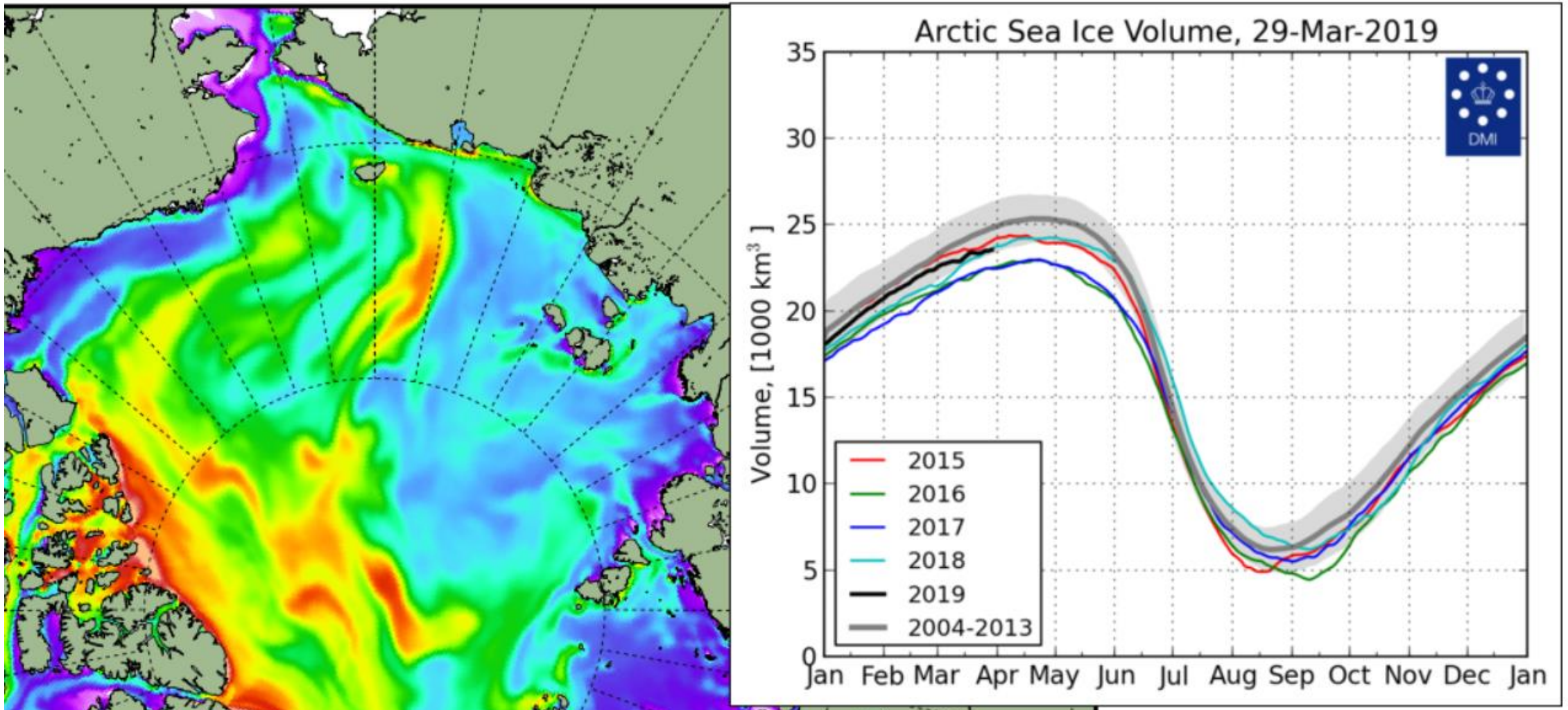


Figure 2. *Map showing maximum (April) sea ice extension in the Atlantic sector of the Arctic (Norwegian Polar Institute 2000). The map is based on a database on sea-ice extension in the area during the past 400 years, largely derived from written record found in ship logbooks.*

http://ocean.dmi.dk/arctic/icethickness/images/FullSize_CICE_combine_thick_SM_EN_20190329.png

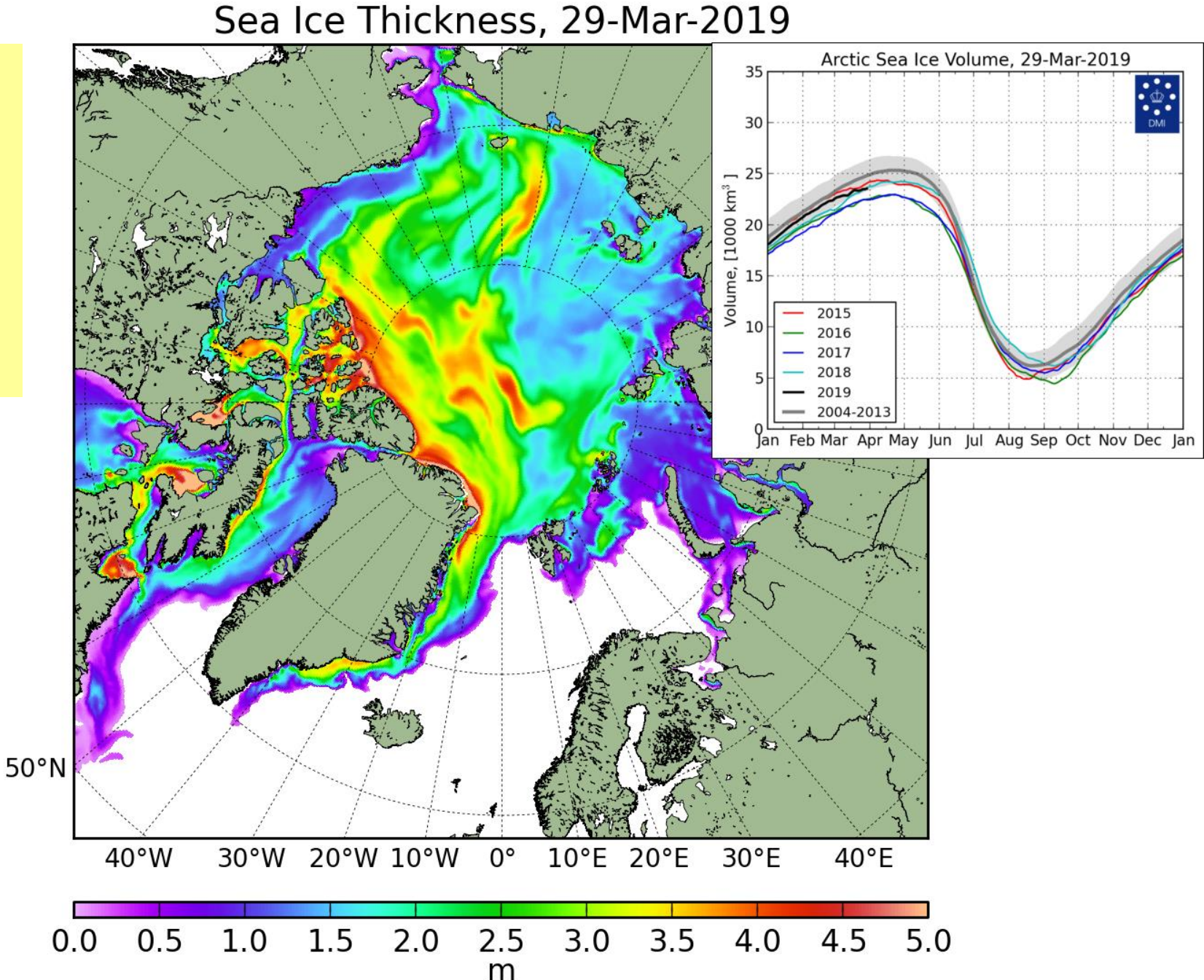
Ice Thickness, 29-Mar-2019



http://ocean.dmi.dk/arctic/icethickness/images/FullSize_CICE_combine_thick_SM_EN_20190329.png

The data plainly show that the 2019 Arctic sea ice volume in March, 2019 was greater than that in 2017 and 2018.

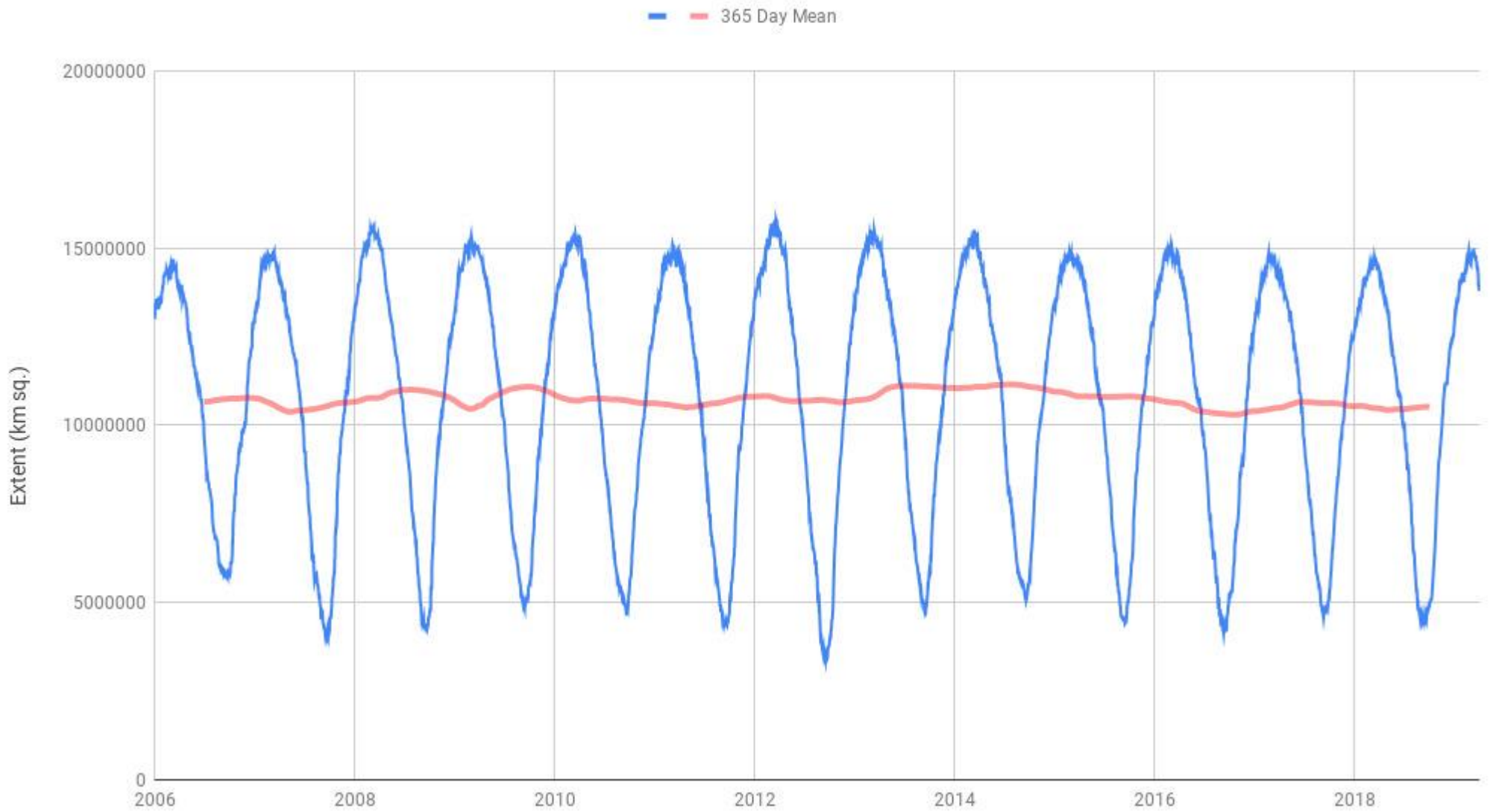
What do longer time series show?



https://realclimatescience.com/2019/04/arctic-sea-ice-continues-to-grow-2/

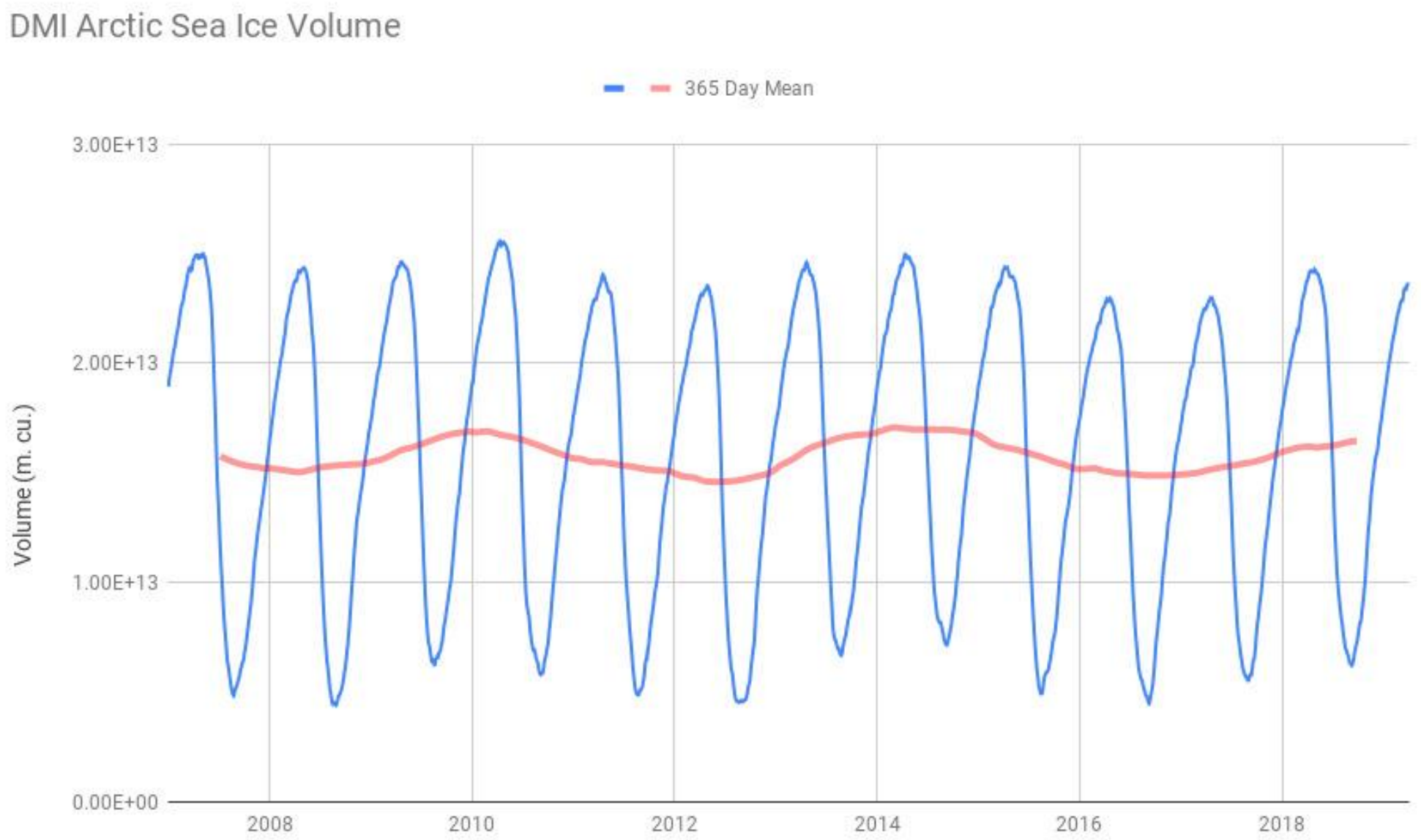
MASIE

Multi-sensor Analyzed Sea Ice Extent - Northern Hemisphere from the (US) National Snow and Ice Data Center



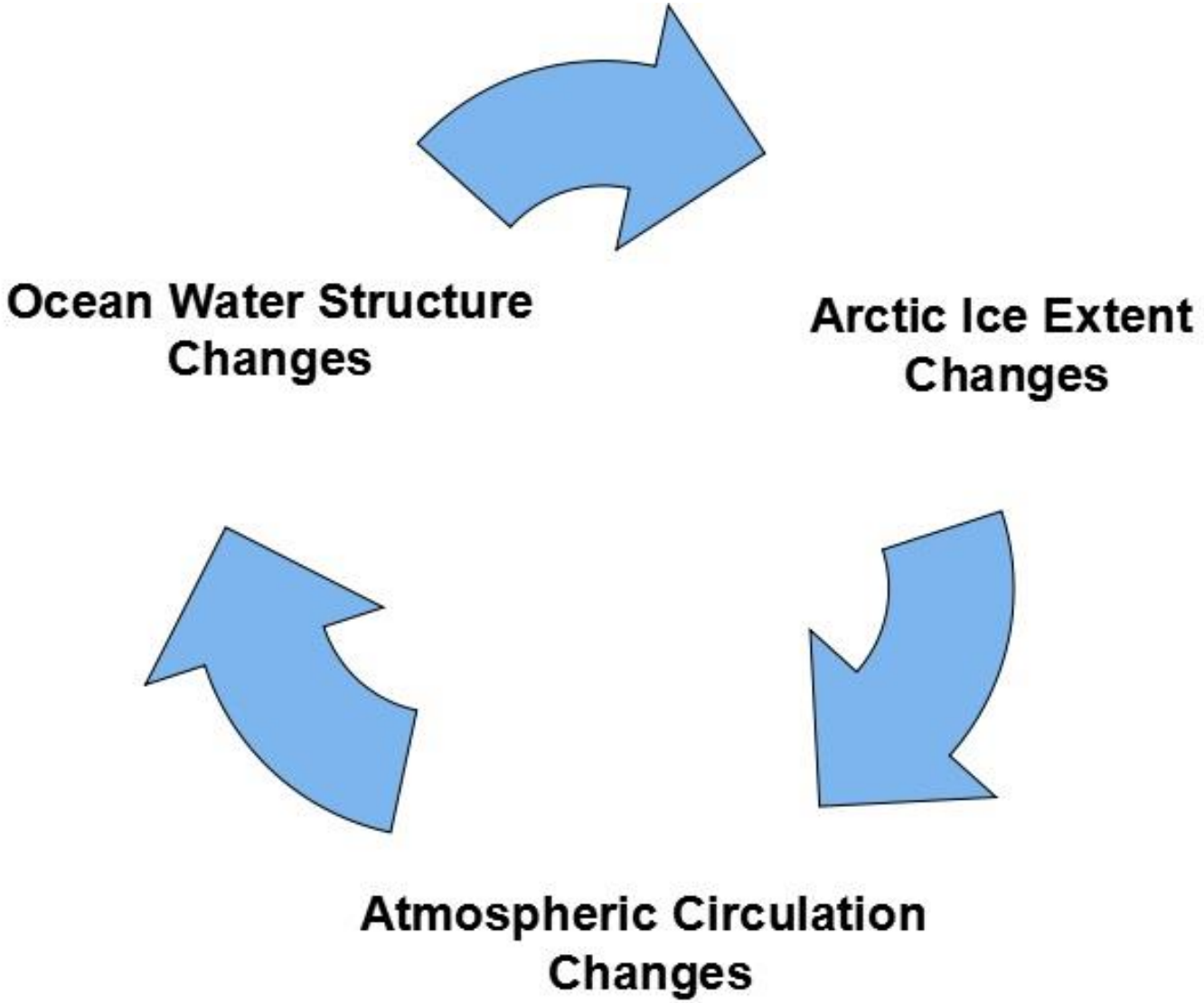
https://realclimatescience.com/2019/04/arctic-sea-ice-continues-to-grow-2/

The Danish Meteorological Institute has about the same result as NSIDC



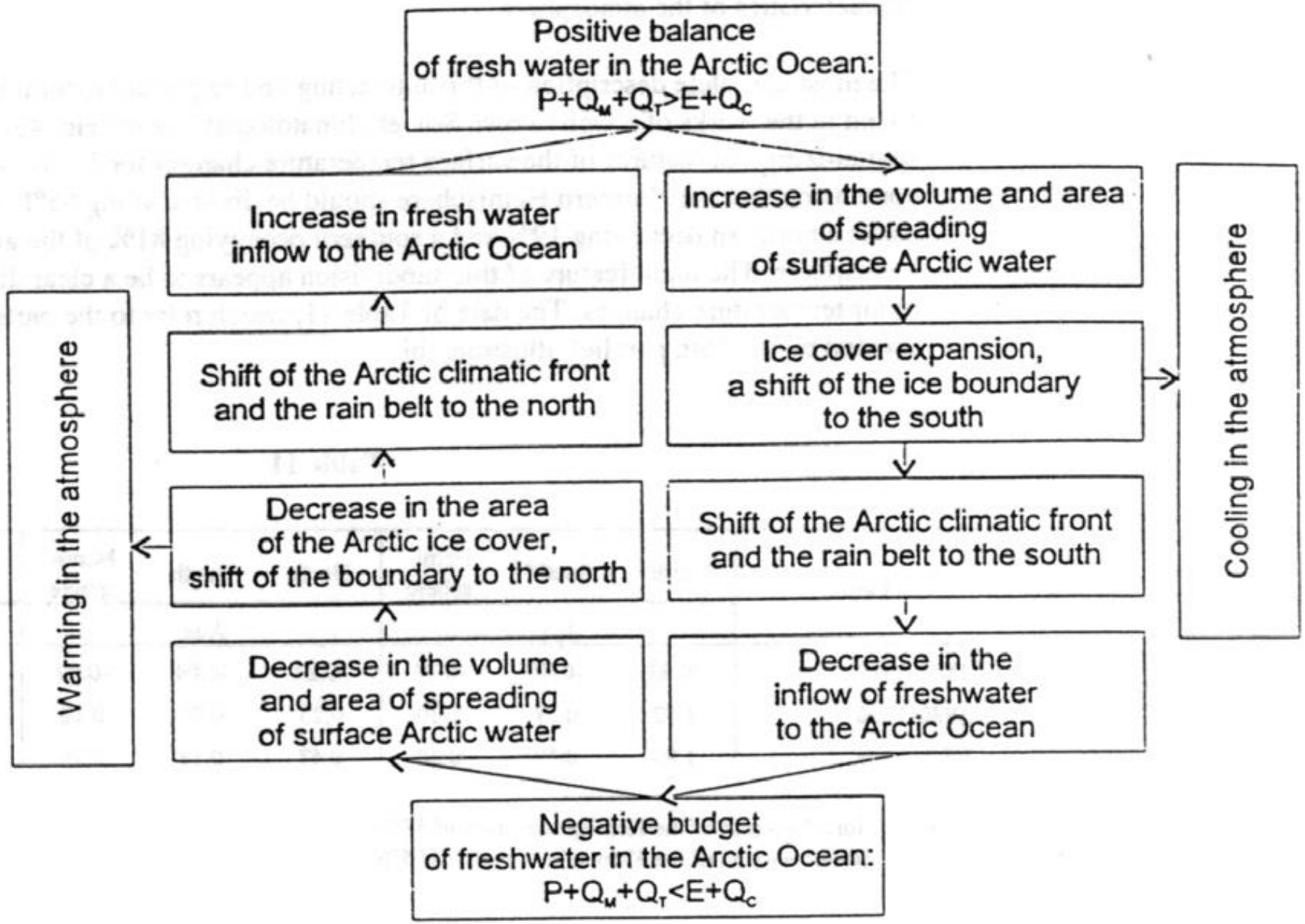
https://rclutz.files.wordpress.com/2015/12/sea-ice-oscillation1.jpg

The Climate System is Self-Oscillating: Sea Ice Proves It.



https://rclutz.wordpress.com/2015/12/23/arctic-sea-ice-self-oscillating-system/

Zakharov fig.24



Greenland

Glacier Girl

https://en.wikipedia.org/wiki/Glacier_Girl

On 15 July 1942, due to poor weather and limited visibility, six P-38 fighters of 94th Fighter Squadron/1st FG and two B-17 bombers of a bombardment squadron were forced to return to Greenland en route to the British Isles during Operation Bolero. The aircraft were forced to make emergency landings on the ice field. All the crew members were subsequently rescued. However, Glacier Girl, along with the unit's five other fighters and the two B-17s, were eventually buried under 268 feet of snow and ice that had built up over the ensuing decades.

Glacier Girl recent flight

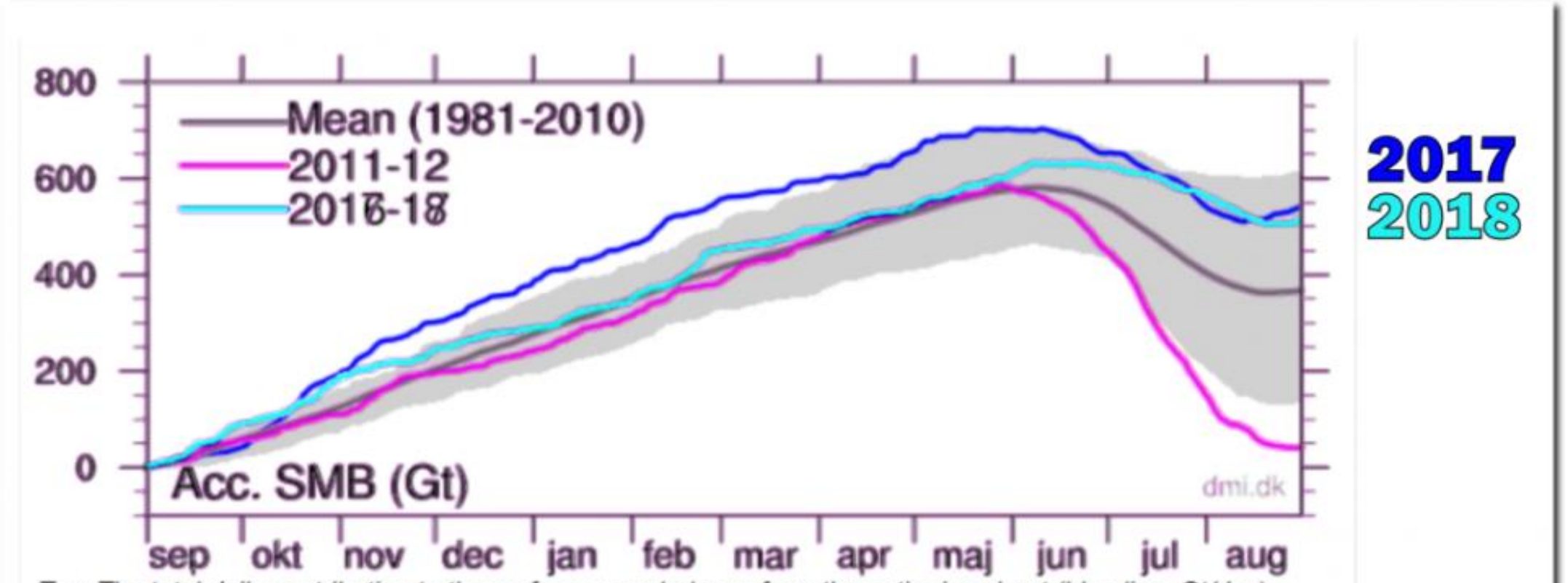
Glacier Girl being disassembled under 268 ft of Ice in 1992

268 Ft in Fifty years…over 5.3 Feet of Ice per year.
That may be 50 ft of snow per year, using 10 ft snow=1 ft Ice

Greenland's Surface Mass Balance (SMB) change for every day of the year as it accumulates 1 Sep-30 August.

2017 in Royal Blue ——— 2018 is in Aqua ———

https://web.archive.org/web/20170831040633/https://www.dmi.dk/en/groenland/maalinger/greenland-ice-sheet-surface-mass-budget/



Top: The total daily contribution to the surface mass balance from the entire ice sheet (blue line, Gt/day). Bottom: The accumulated surface mass balance from September 1st to now (blue line, Gt) and the season 2011-12 (red) which had very high summer melt in Greenland. For comparison, the mean curve from the period 1981-2010 is shown (dark grey). The same calendar day in each of the 30 years (in the period 1981-2010) will have its own value. These differences from year to year are illustrated by the light grey band. For each calendar day, however, the lowest and highest values of the 30 years have been left out.

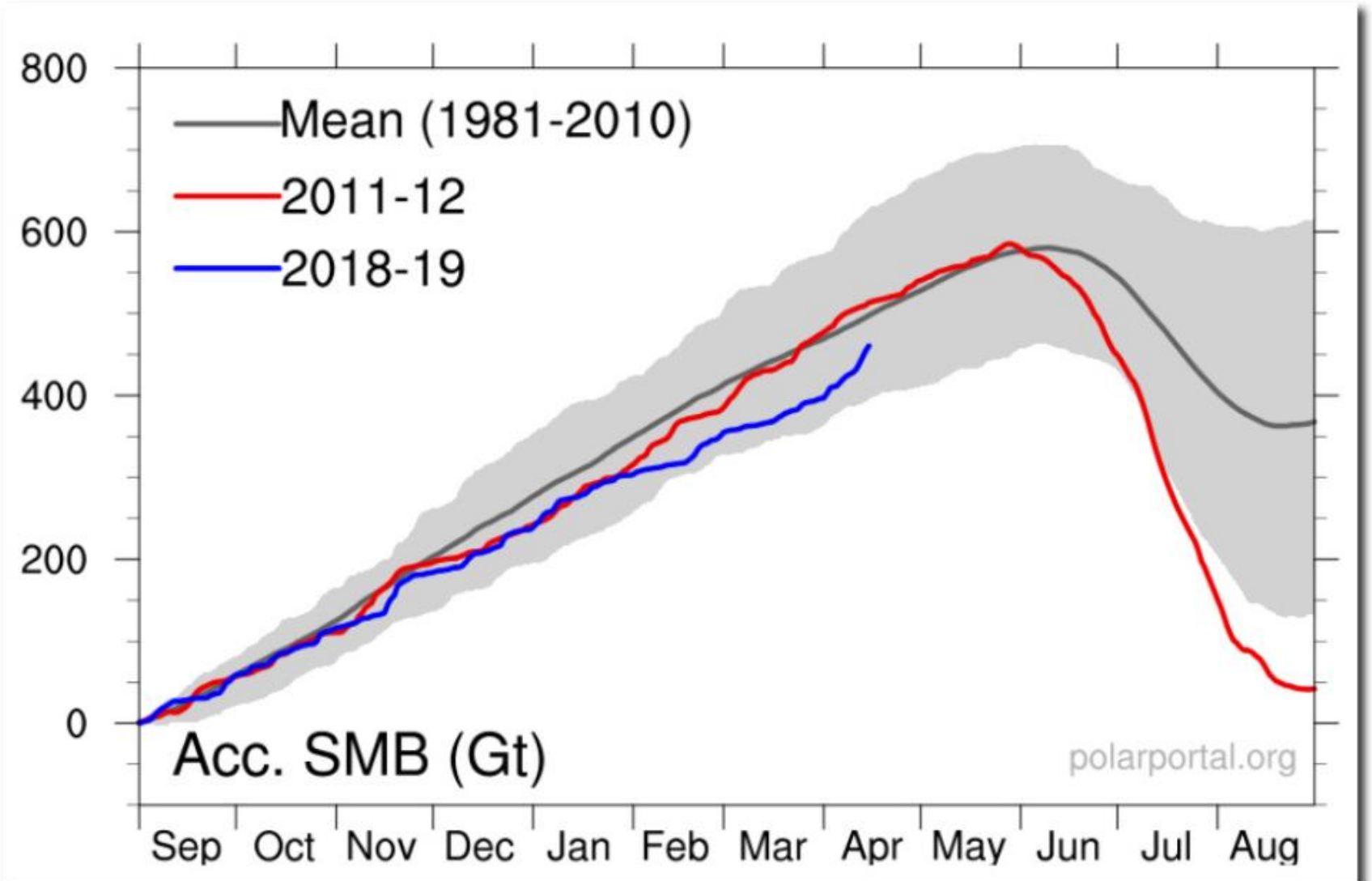
https://realclimatescience.com/2019/04/another-greenland-hockey-stick/

This graphic from the Danish Meteorological Institute plots the accumulated surface Mass balance, in gigatons, Gt, of Greenland's surface ice, starting 1 September to the next 30 August.

Another Greenland Hockey Stick

Posted on April 16, 2019 by tonyheller

Greenland has gained nearly 100 billion tons of ice so far this month.

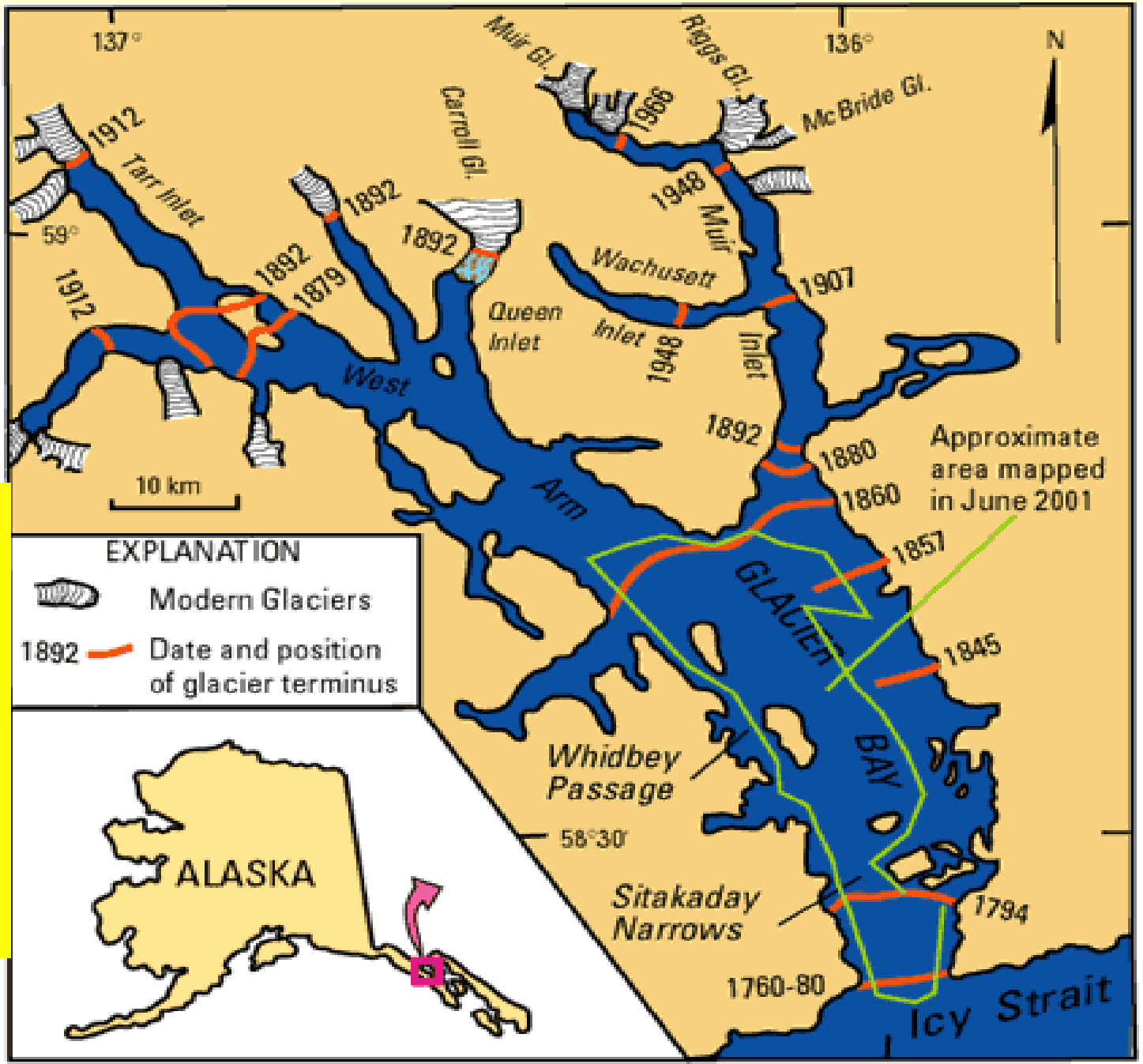


Alaska

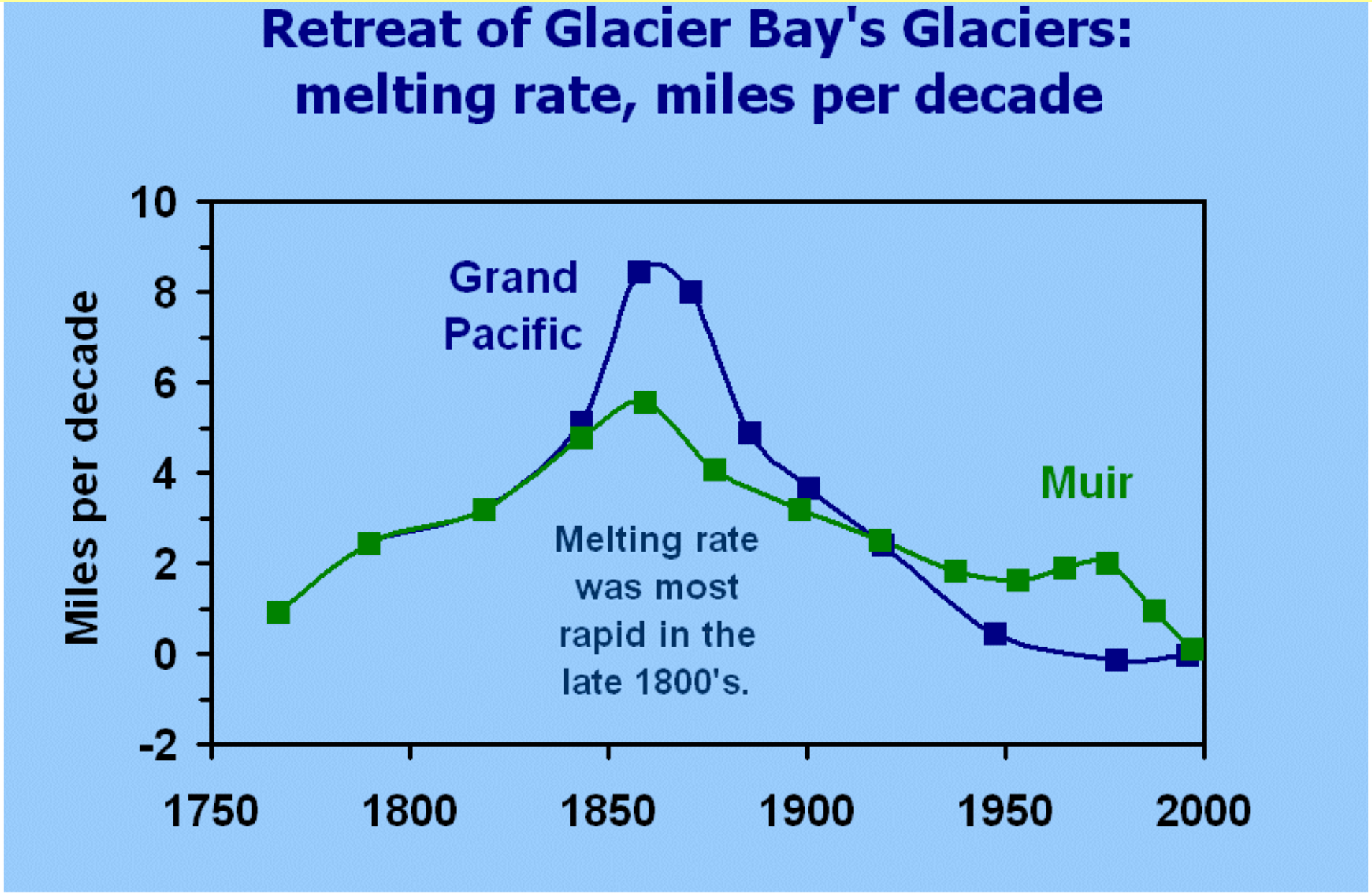
http://soundwaves.usgs.gov/2001/07/glacierbaymap.gif

US Geological Survey map of Glacier Bay showing how glacial melt occurred over time

Glacier Bay melt map shows glaciers have been melting back from Glacier Bay since 1760-1780, i.e., since Washington was President.



Maximum retreat of Glacier Bay's Glaciers was in the 1860s, well before modern increase in CO2.
Where is the CO2 signal in these data?



At 4:46 “we see sinking villages in Alaska…Up in the Arctic we see what used to be permanently frozen ground, with houses tumbling into the sea…”

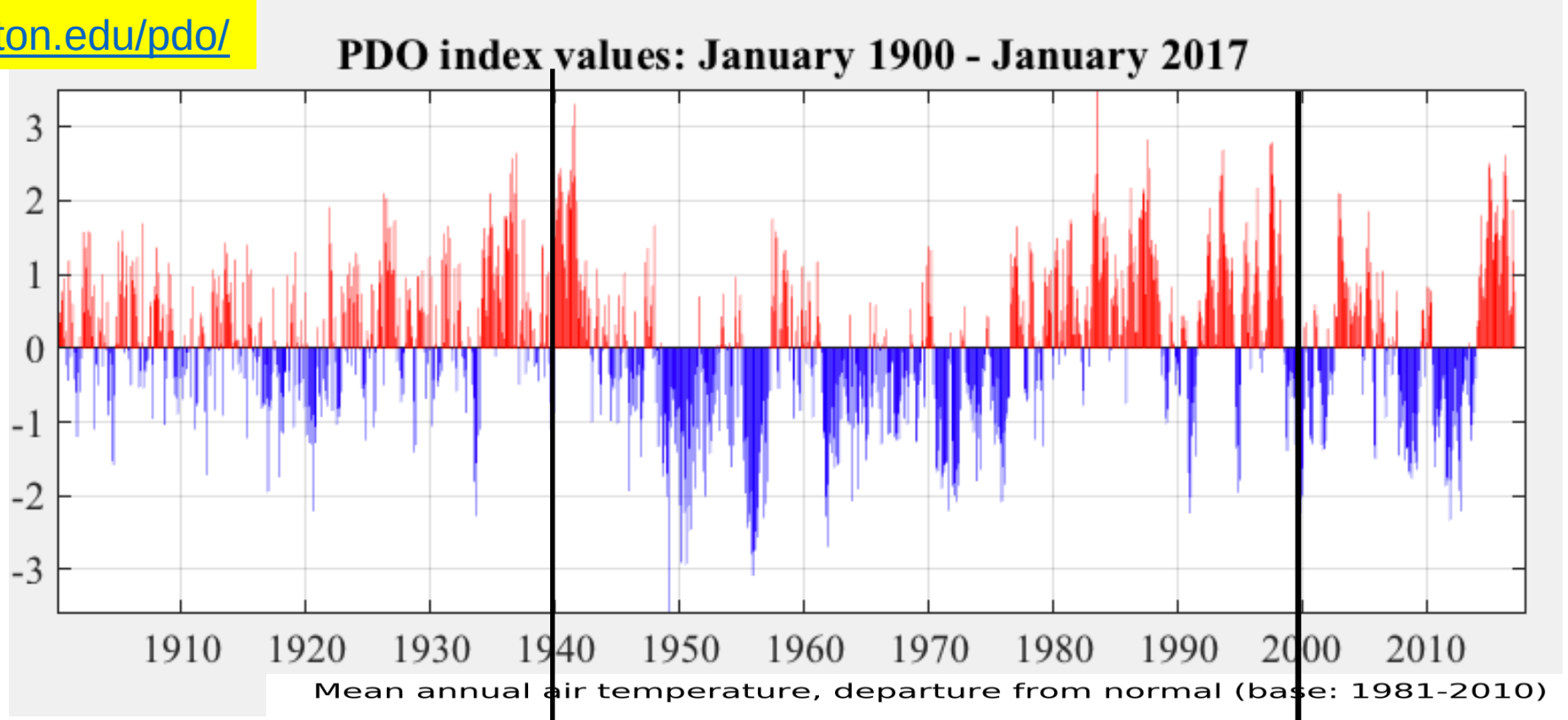
This manufactured home was placed on the barrier island at Shishmaref Alaska

http://research.jisao.washington.edu/pdo/

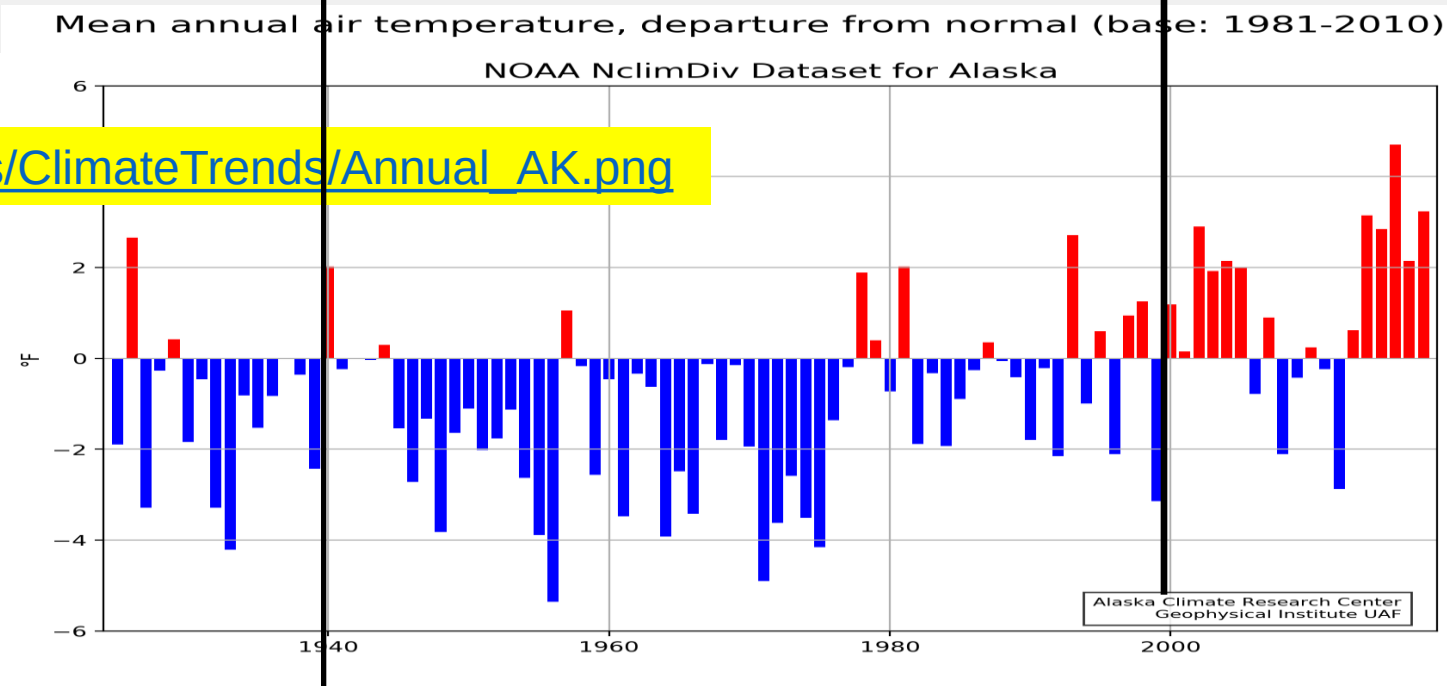
Top: Pacific Decadal Oscillation Index from the University of Washington.

Bottom. Alaska annual Temperature Trends from the University of Alaska.

Alaska's Temperatures are Controlled by the Pacific Decadal Oscillation.



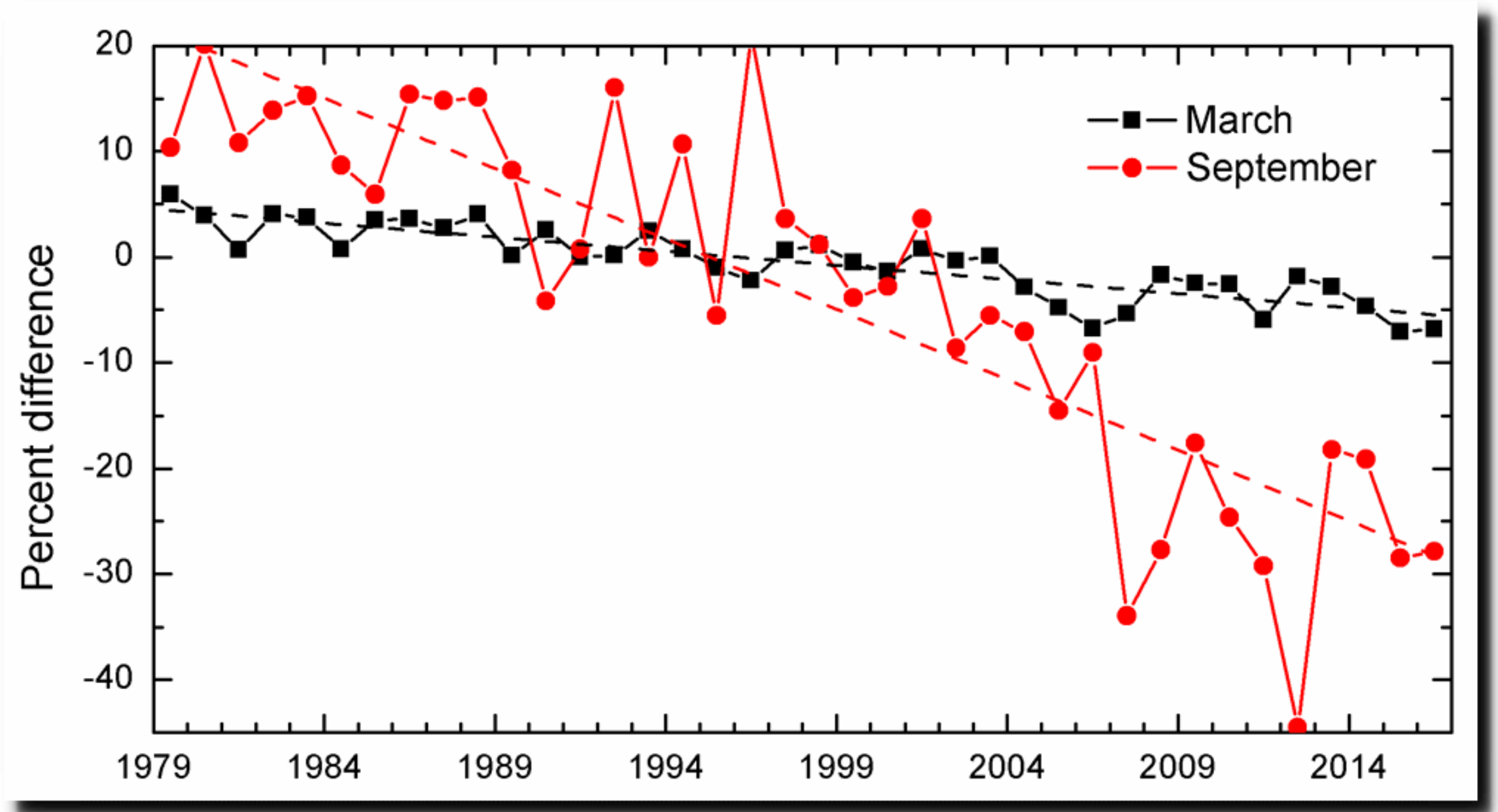
http://climate.gi.alaska.edu/sites/default/files/ClimateTrends/Annual_AK.png



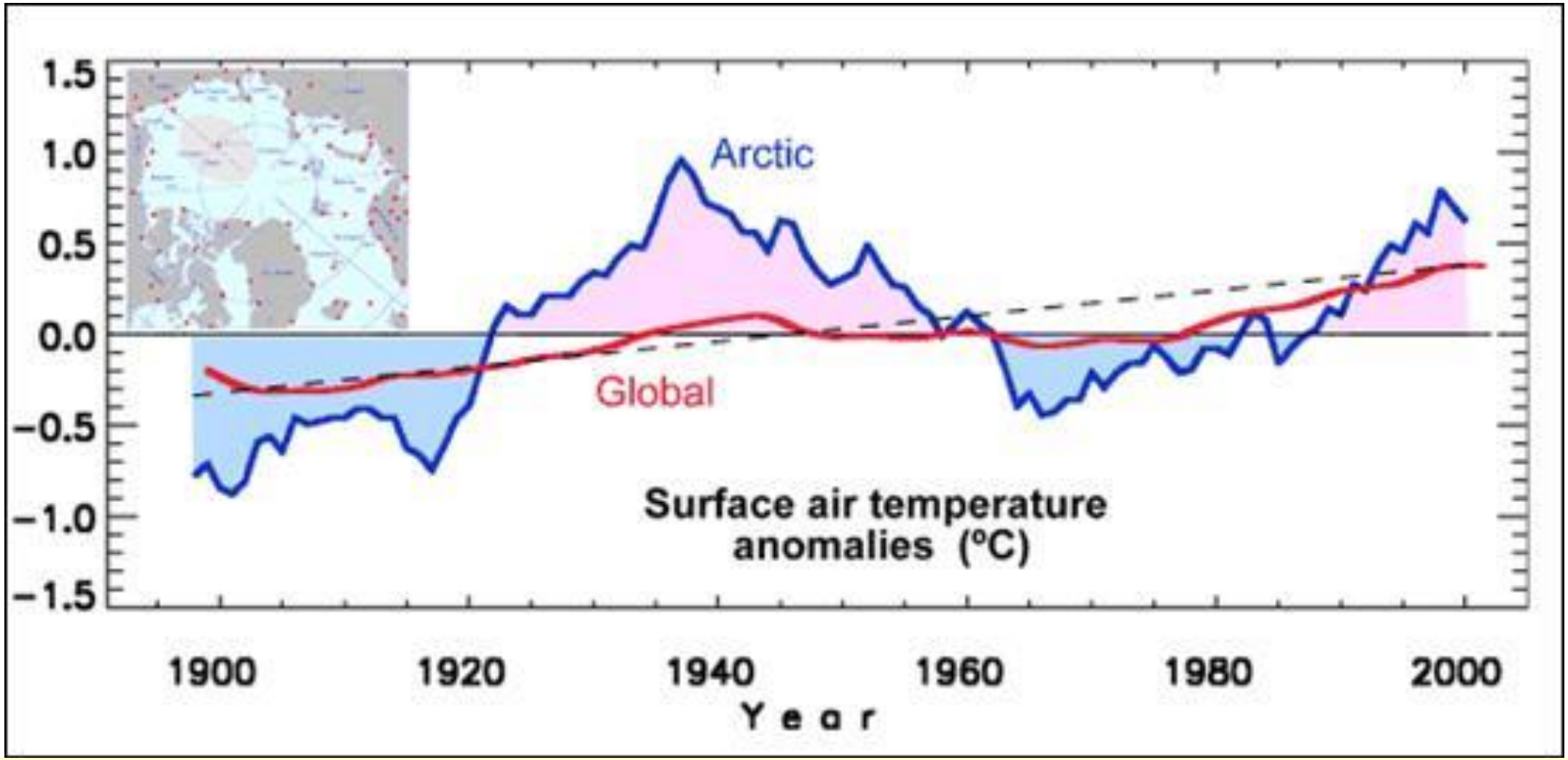
Analysis

https://realclimatescience.com/arctic-sea-ice-unchanged-from-60-years-ago/

1980-2014 Remember this next slide



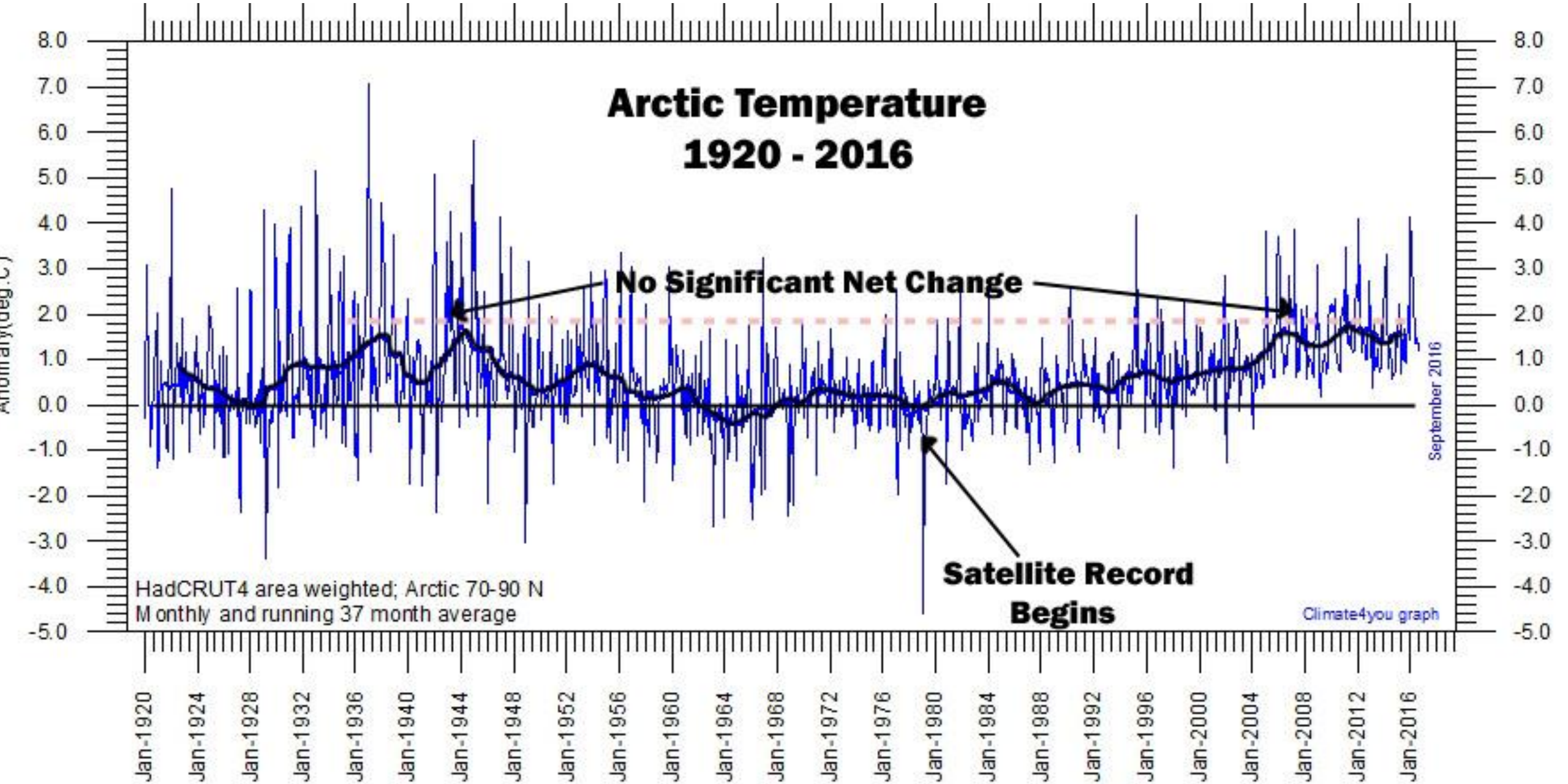
http://research.iarc.uaf.edu/multidecadal_variability/ocean.php?img=Slide21.jpg#fig



Long term increase in global temperature, the red line, appears to be an artifact of the 1000-1500 year Bond Cycles. The blue line shows the Arctic Temperature time series, present Arctic Temperatures were exceeded in the 1930s. There is a 60-year temperature periodicity in the Arctic temperature.

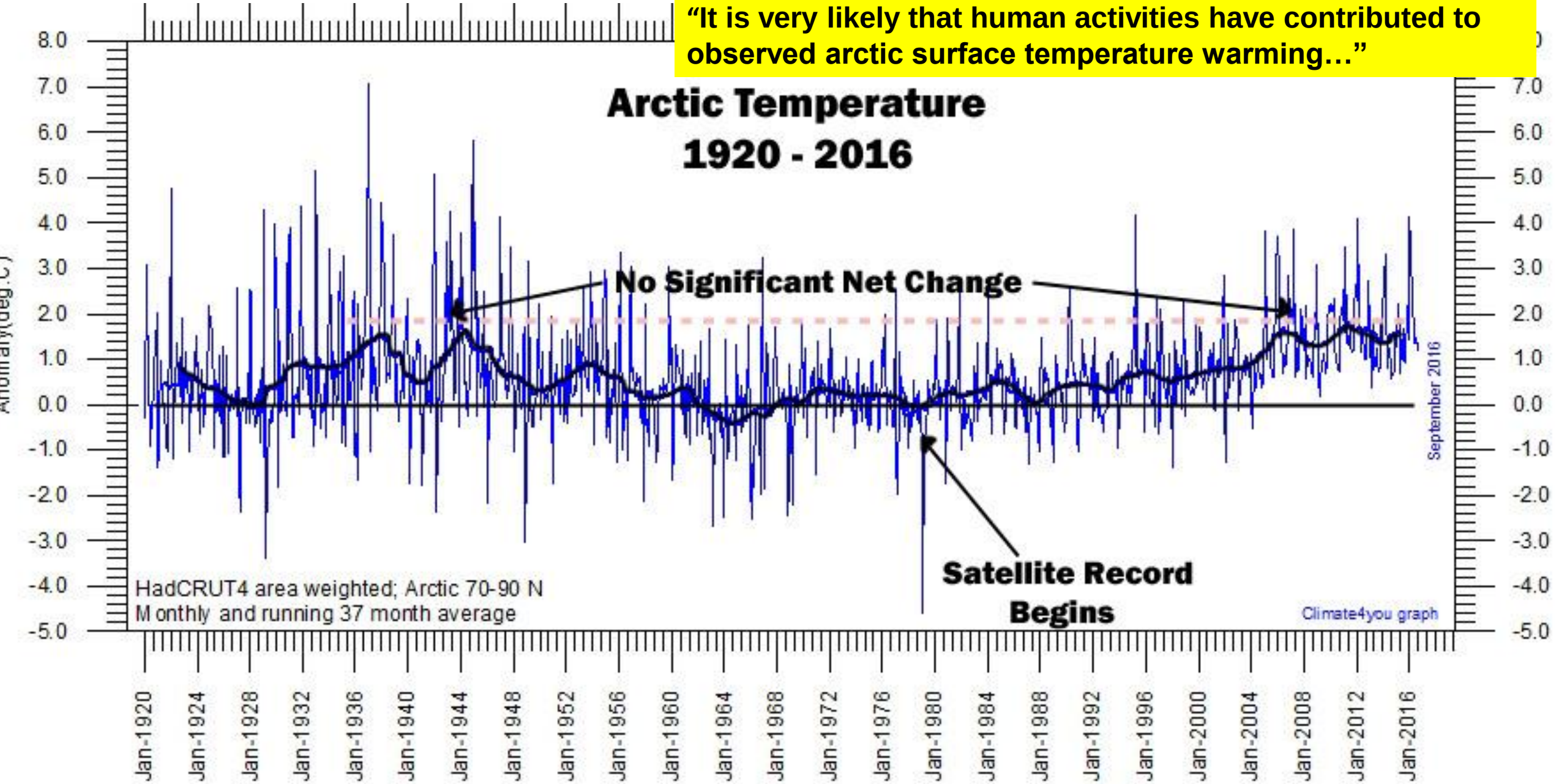
NCA4 DELIBERATELY chose the 36 year period 1980-2016

https://notrickszone.com/2016/11/28/there-has-been-no-significant-net-change-in-arctic-sea-ice-extent-in-the-last-80-years/



https://notrickszone.com/2016/11/28/there-has-been-no-significant-net-change-in-arctic-sea-ice-extent-in-the-last-80-years/

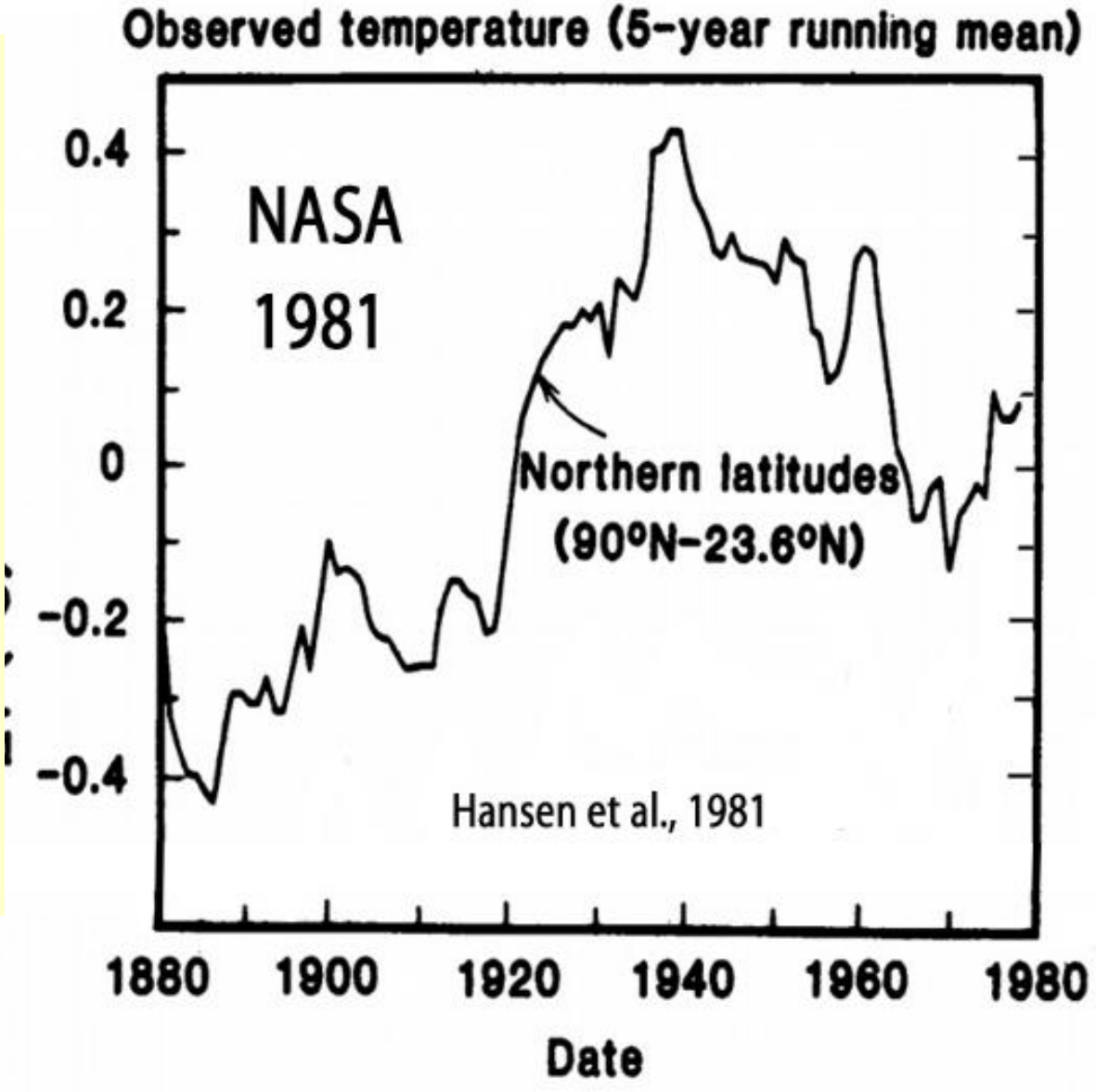
"It is very likely that human activities have contributed to observed arctic surface temperature warming…"



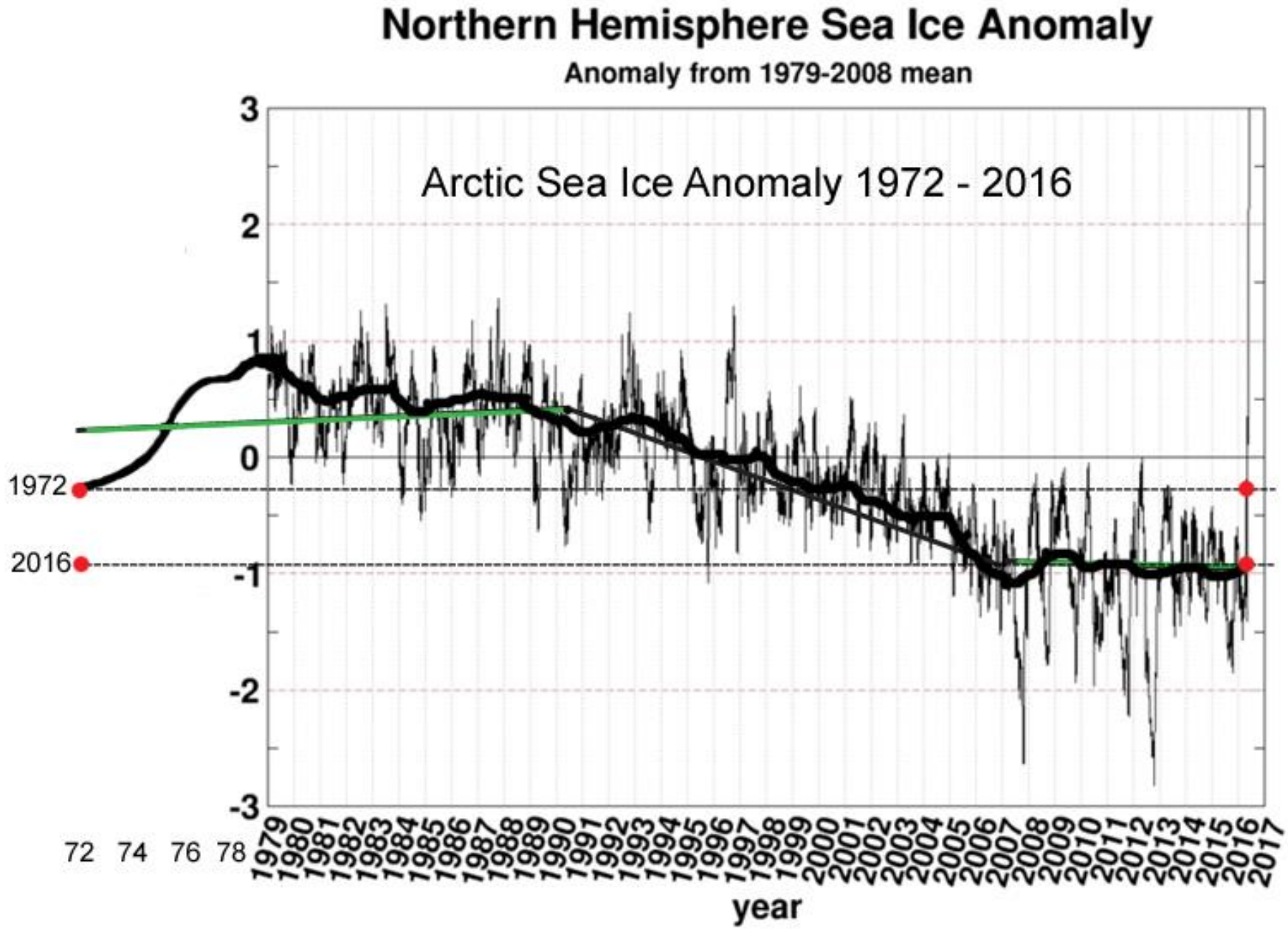
https://realclimatescience.com/arctic-sea-ice-unchanged-from-60-years-ago/

Arctic Sea Ice Unchanged From 60 Years Ago

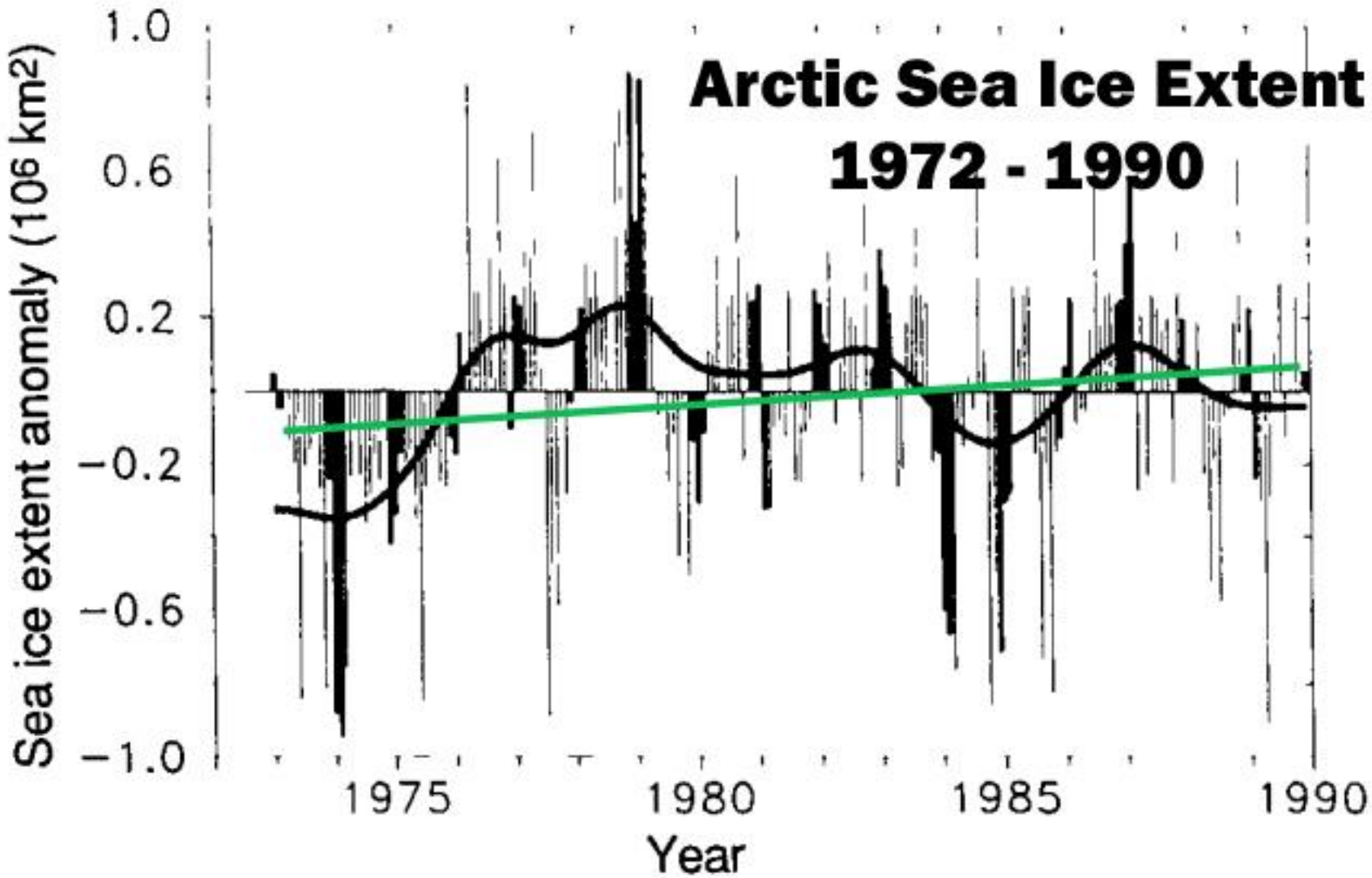
From the 1920's to the 1950's, the Arctic warmed tremendously. Glaciers were disappearing and collapsing, and Arctic sea ice was thinning and shrinking.



https://notrickszone.com/2016/11/28/there-has-been-no-significant-net-change-in-arctic-sea-ice-extent-in-the-last-80-years/



https://notrickszone.com/2016/11/28/there-has-been-no-significant-net-change-in-arctic-sea-ice-extent-in-the-last-80-years/

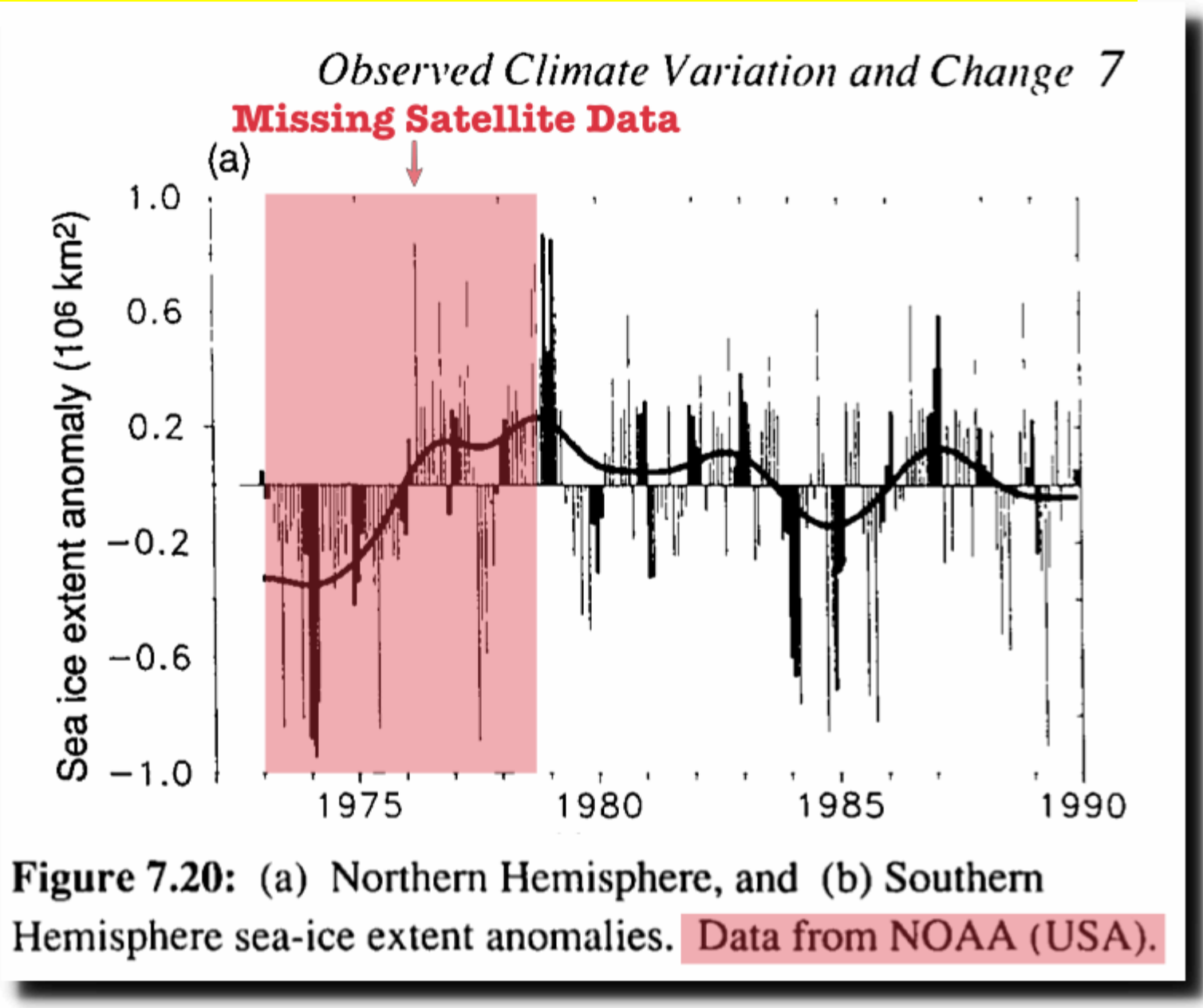


https://realclimatescience.com/arctic-sea-ice-unchanged-from-60-years-ago/

"However the 1990 IPCC report showed the inconvenient data NOAA is now hiding.

in 1972-1975 sea-ice extent was significantly less."

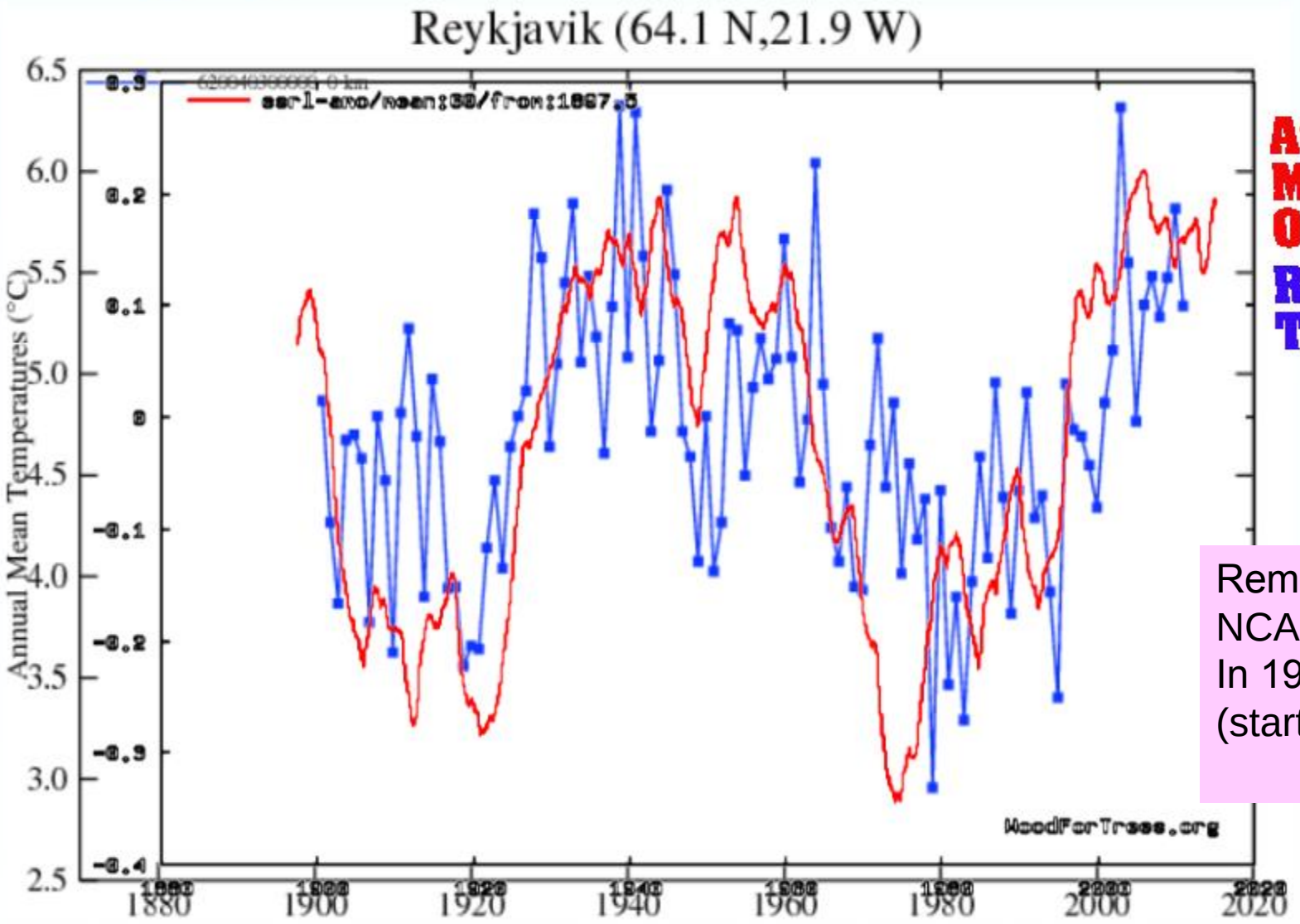
Remember…
NCA4 Chose the 36-year period starting In 1980 …
(starting from the maximum on this chart)



https://realclimatescience.com/arctic-sea-ice-unchanged-from-60-years-ago/

GISS Surface Temperature Analysis

Station Data: Reykjavik (64.1 N,21.9 W)



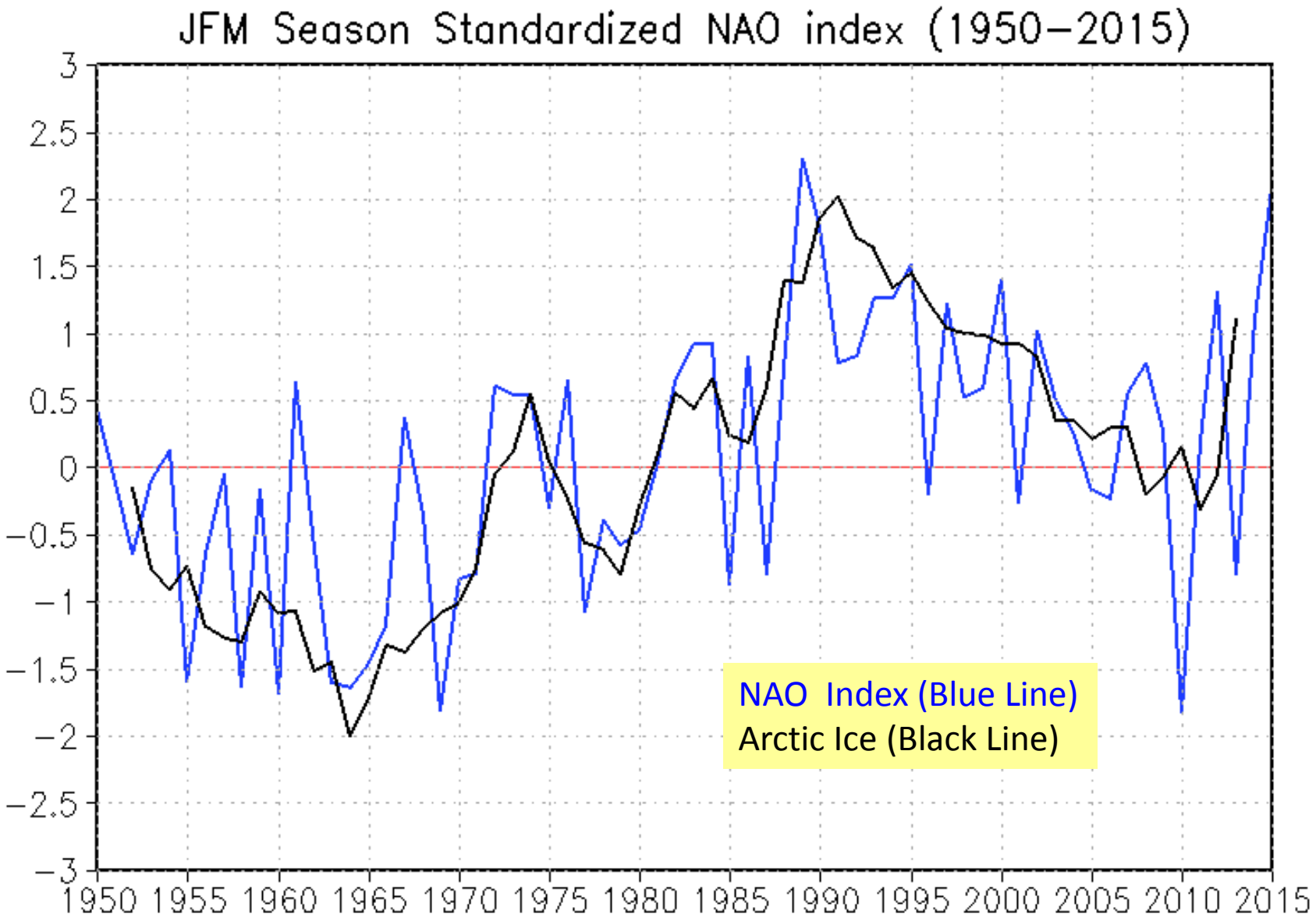
Atlantic Multidecadal Oscillation

Reykjavik, Iceland Temperature

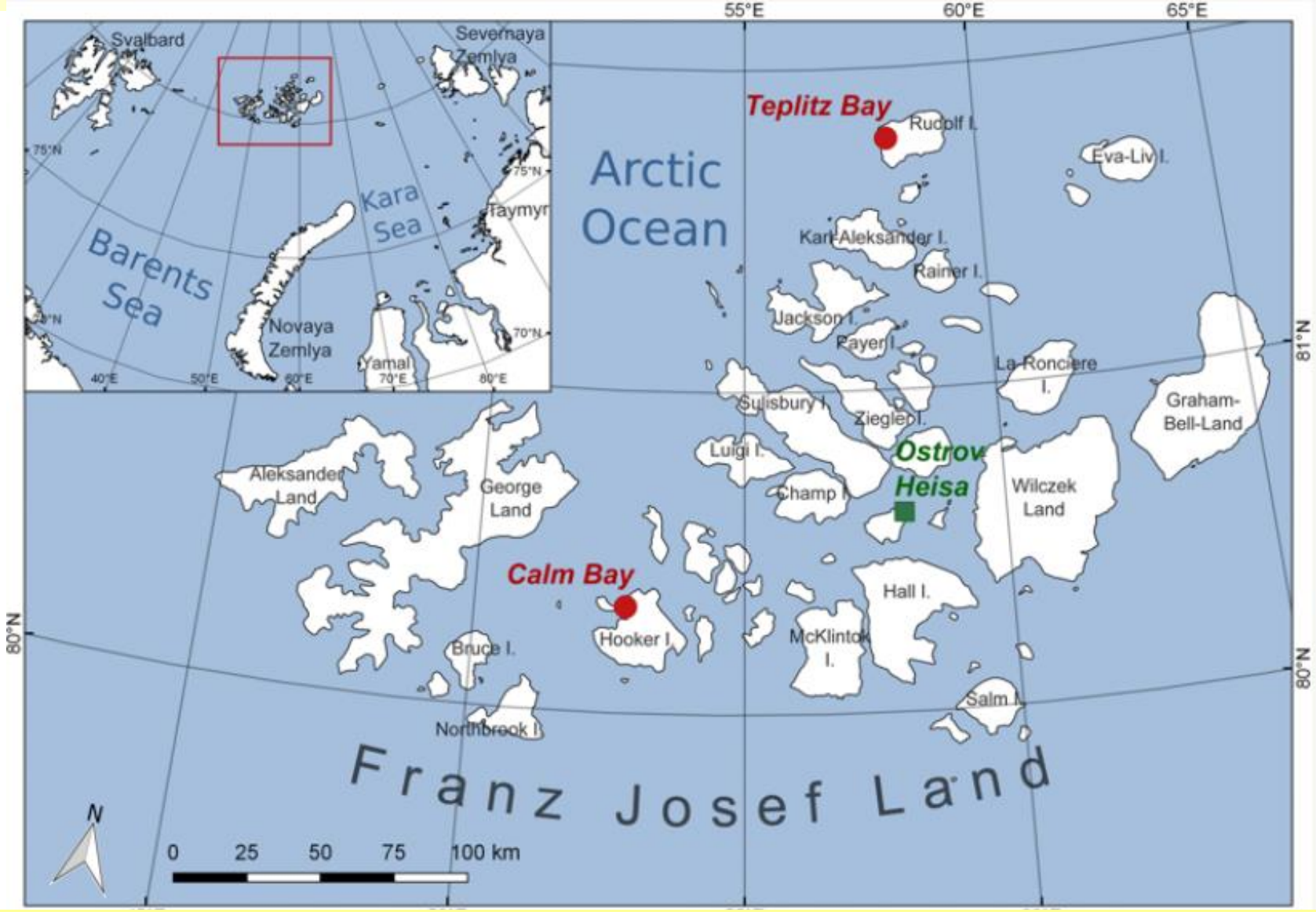
Remember…
NCA4 Chose the 36-year period starting In 1980 …
(starting from the minimum on this chart)

https://rclutz.wordpress.com/category/arctic-sea-ice/

Comparing Arctic Ice with winter NAO index



https://notrickszone.com/2019/05/10/scientists-request-revamping-of-climate-models-after-finding-arctic-4-6c-warmer-in-1930s-than-today/



Location of historical (dots) and modern (square) land meteorological stations in Franz Joseph Land

https://notrickszone.com/2019/05/10/scientists-request-revamping-of-climate-models-after-finding-arctic-4-6c-warmer-in-1930s-than-today/

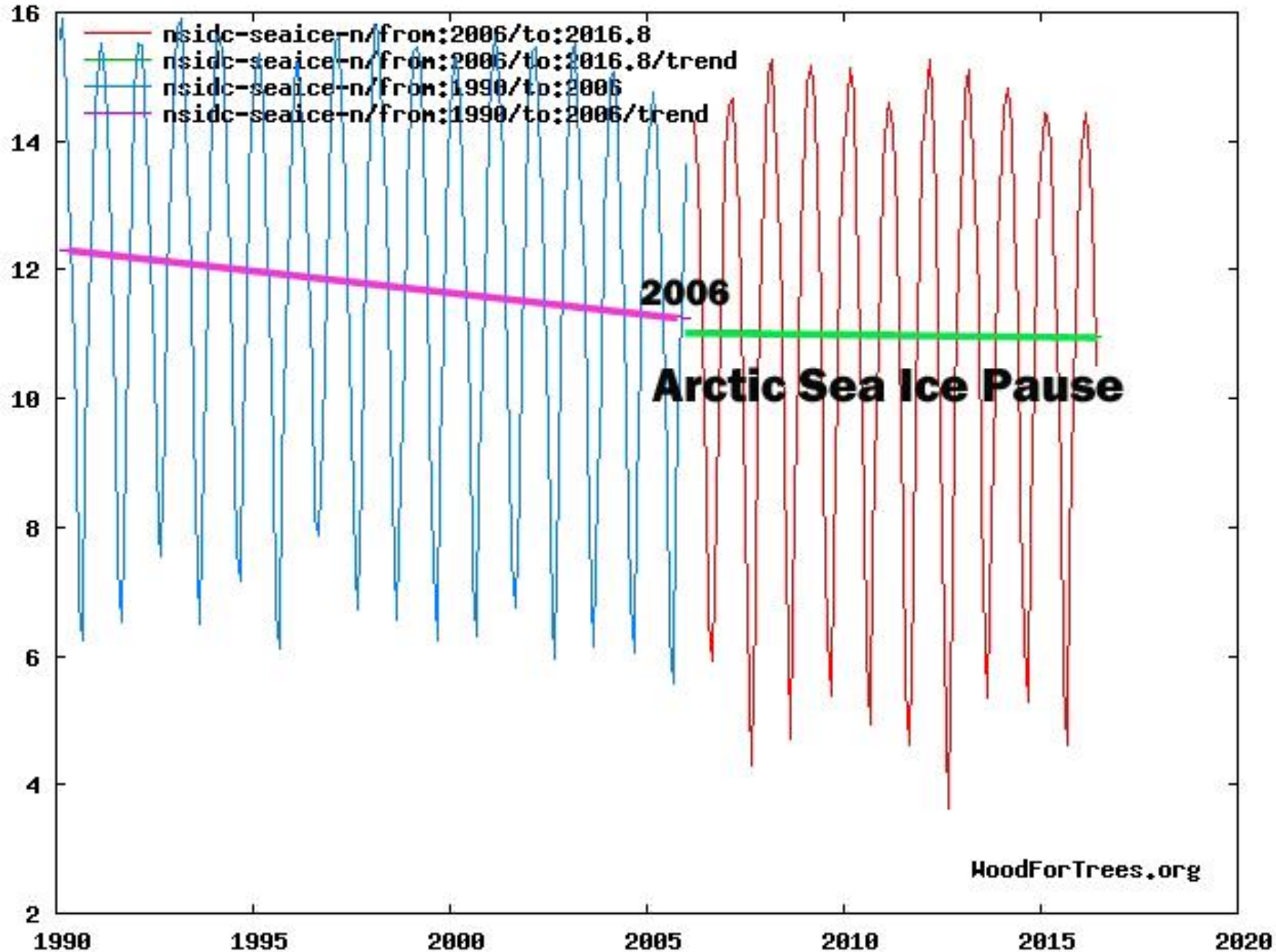
An analysis of the literature shows that the cause of such a significant warming in the present period is still not clear.

"…controversy over whether the main factors in the process are natural or anthropogenic…majority of researchers assign a greater role to natural factors

"…the greatest differences of opinion on the causes of the Early Twentieth Century Warmth are…in works presenting climate models…an excellent illustration of the still insufficient knowledge of the mechanisms governing the Arctic Climate System."

"…Conclusion……**…during the 1930/31 expedition it was 4.6 °C warmer than the years 1981–2010."**

https://notrickszone.com/2016/11/28/there-has-been-no-significant-net-change-in-arctic-sea-ice-extent-in-the-last-80-years/



https://notrickszone.com/2016/11/28/there-has-been-no-significant-net-change-in-arctic-sea-ice-extent-in-the-last-80-years/

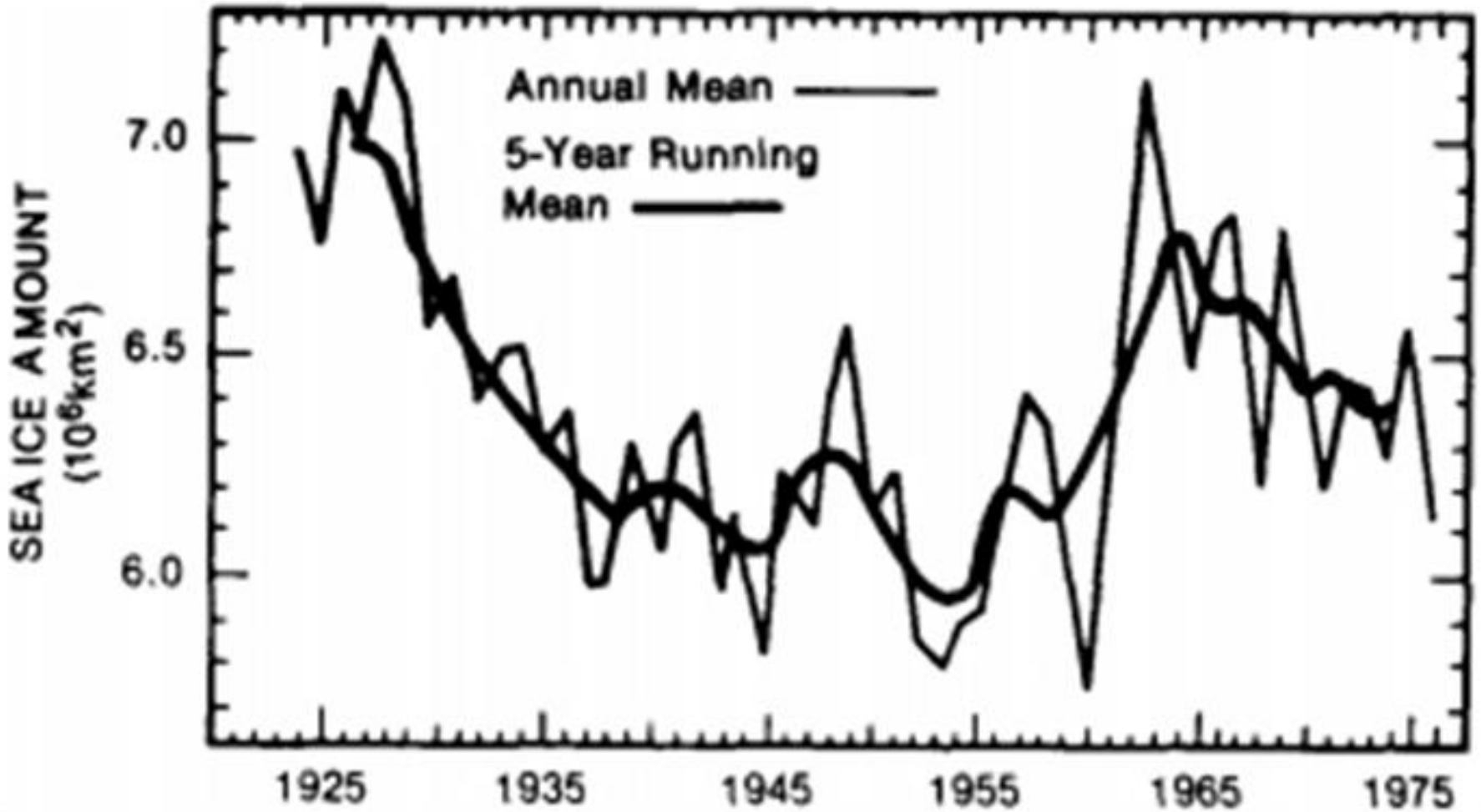
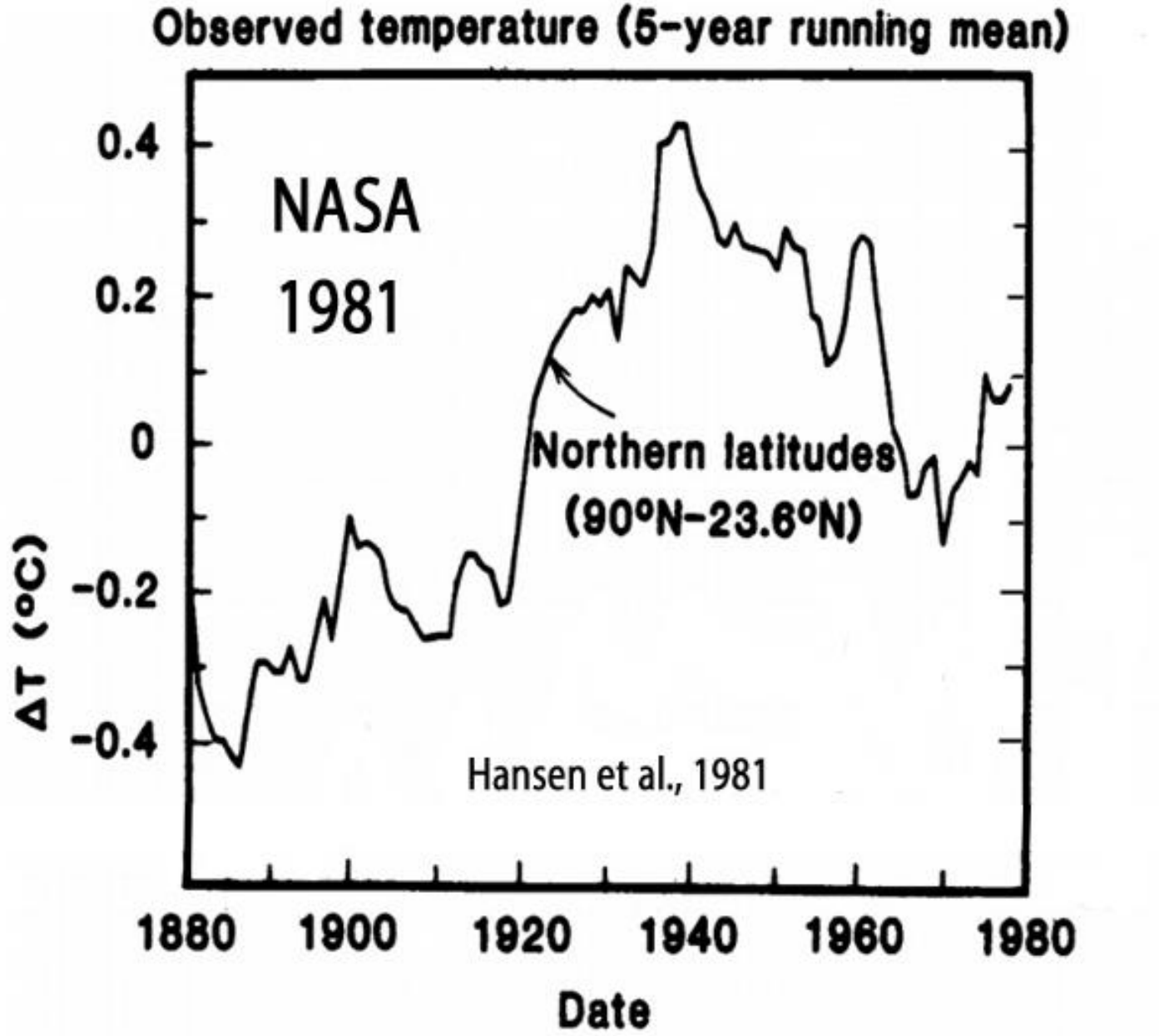


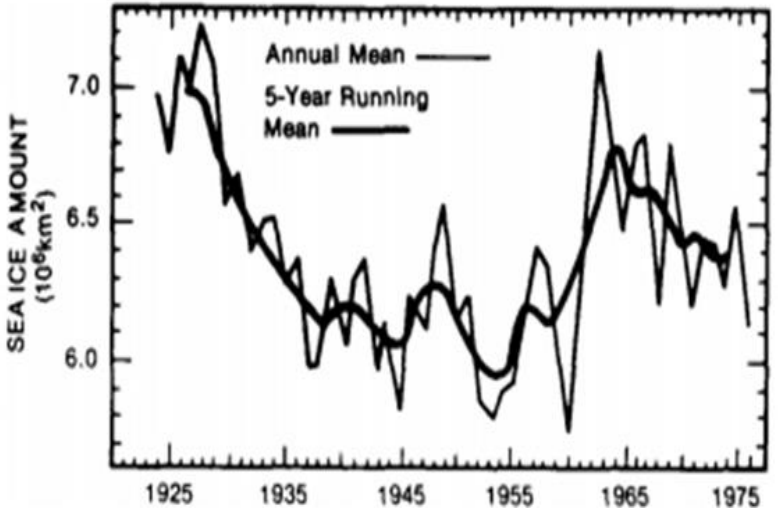
Figure 5.2. Annual mean and 5-year running mean sea ice amount in the Arctic Ocean from 1920–1975 (data from Vinnikov et al. [1980]).

A graph of "observed temperature" for the Northern Hemisphere was included in the paper to illustrate these climatic trends.



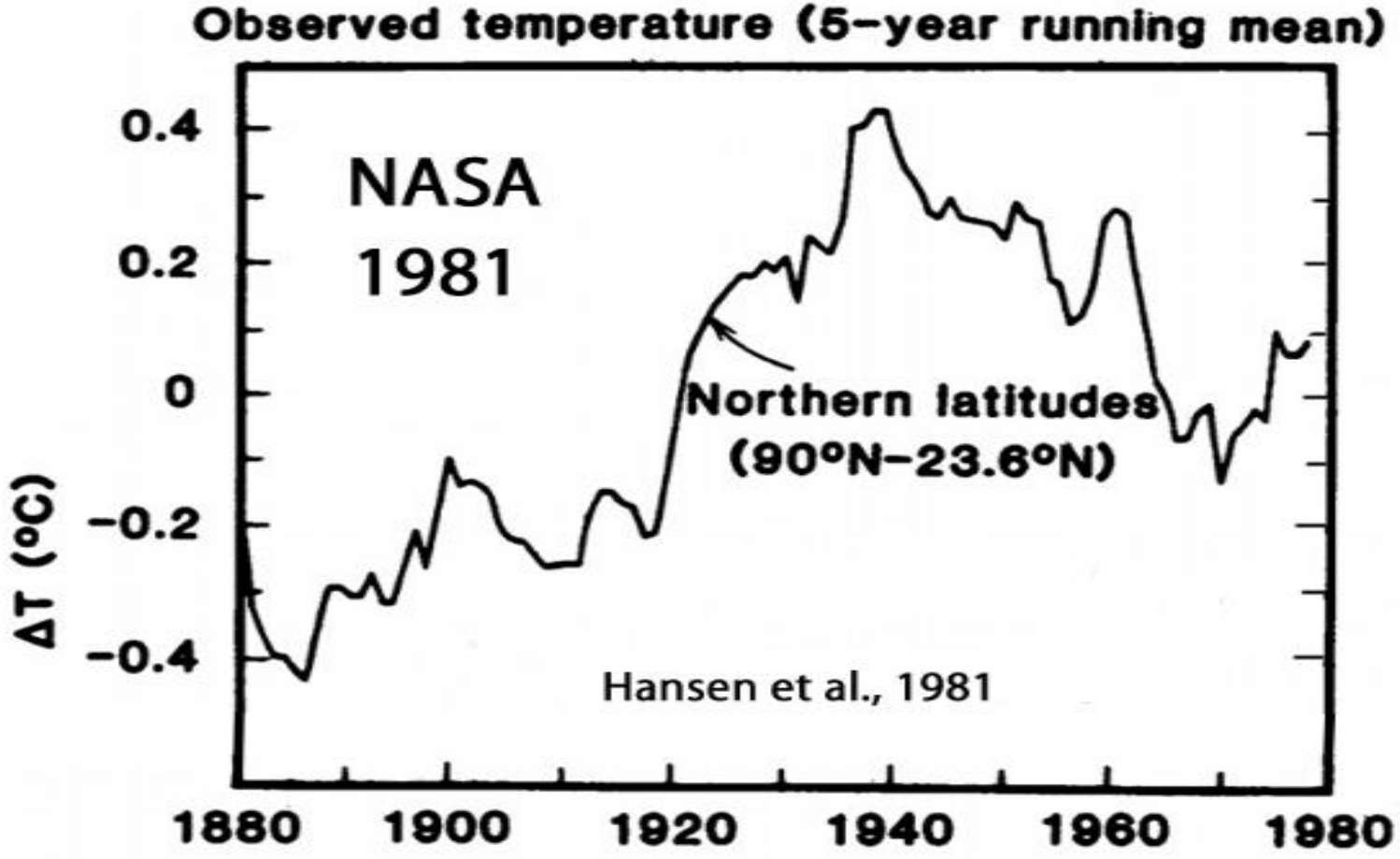
Powerpoint overlays for 5-year means.
Top. Arctic Sea Ice Area from Vinnikov, 1980
Bottom: Northern Latitude Temperatures from Hansen, 1981.

As temperatures increased sharply from 1920-1940, Arctic Sea Ice extent decreased significantly remaining low 1945-1960.
As temperatures fell into the 1960s, 70s, (the 70's cooling scare) Arctic Ice extent rose.



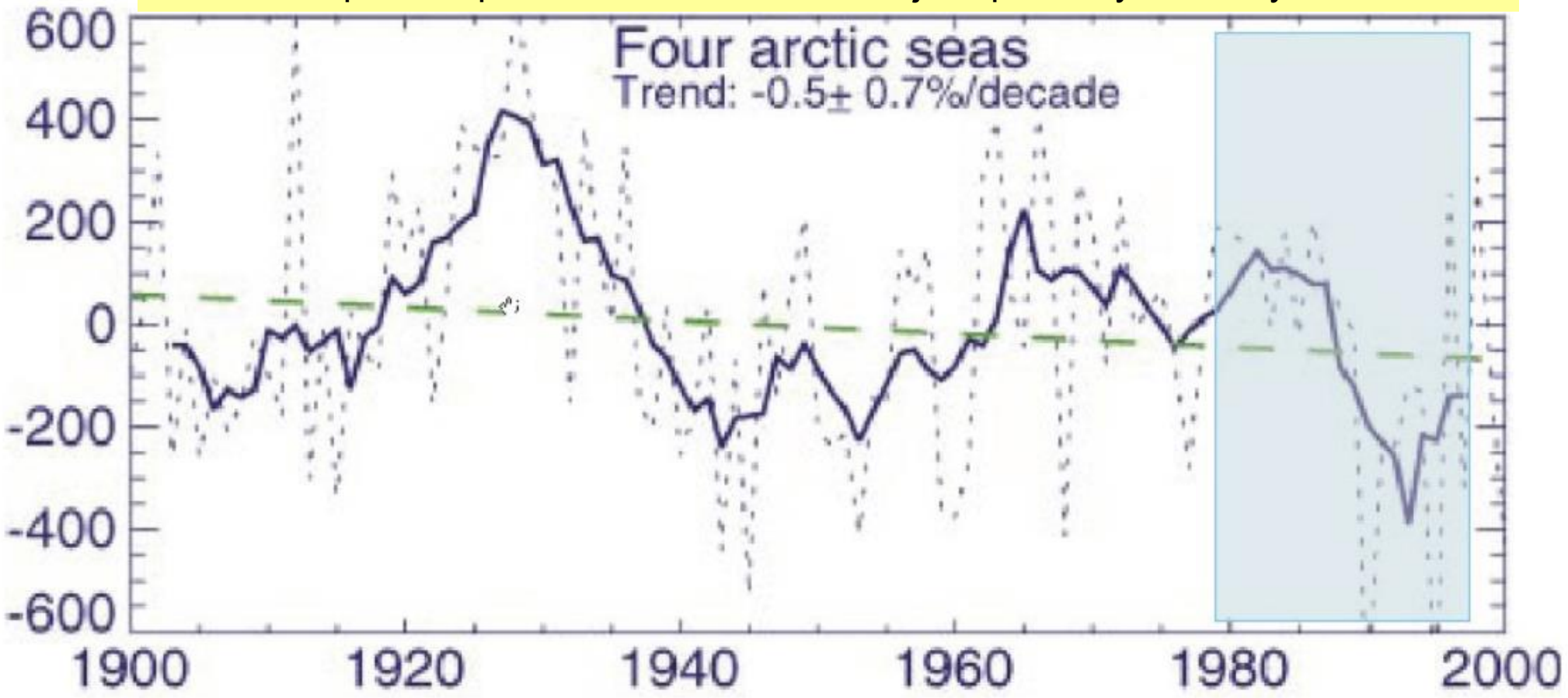
he paper to

In the 100-year temperature record there appears to be a ~60 –to 80 year periodicity in Northern Latitude Temperatures



http://climate4you.com/SeaIce.htm#Sea

Half of one percent per decade…similar to Vinje….probably Bond Cycle related…

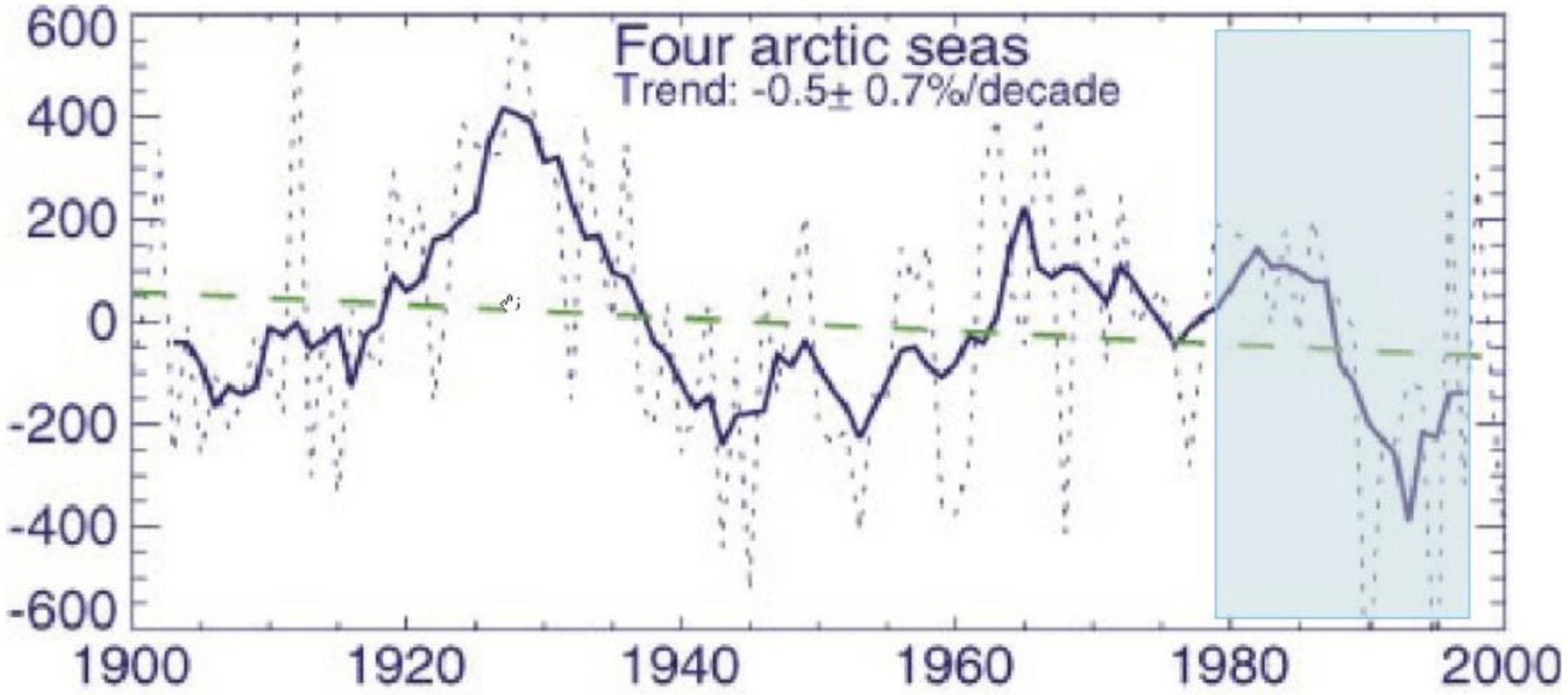


Time series showing the August ice-extent anomalies (x 1000 km^2) in the Arctic Ocean along the coast of Russia, Siberia and Alaska: The Kara Sea, the Laptev Sea, the East Siberian Sea, and Chuckchi Sea (Polyakov et al. 2003). The composite record show large sea ice variations around a small negative trend since 1900, although the trend from a statistical point of view is not significant (Polyakov et al. 2003). The blue area to the right shows the time extent of the satellite-era shown in the figure higher up in this paragraph.

http://climate4you.com/SeaIce.htm#Sea

Half of one percent per decade…similar to Vinje….probably Bond Cycle related…

Remember that Very High Confidence of 11-16% per decade Arctic Sea Loss from NCA4?



Time series showing the August ice-extent anomalies (x 1000 km^2) in the Arctic Ocean along the coast of Russia, Siberia

Haven’t we seen cherry-picked data to “prove” human influence on the climate BEFORE?

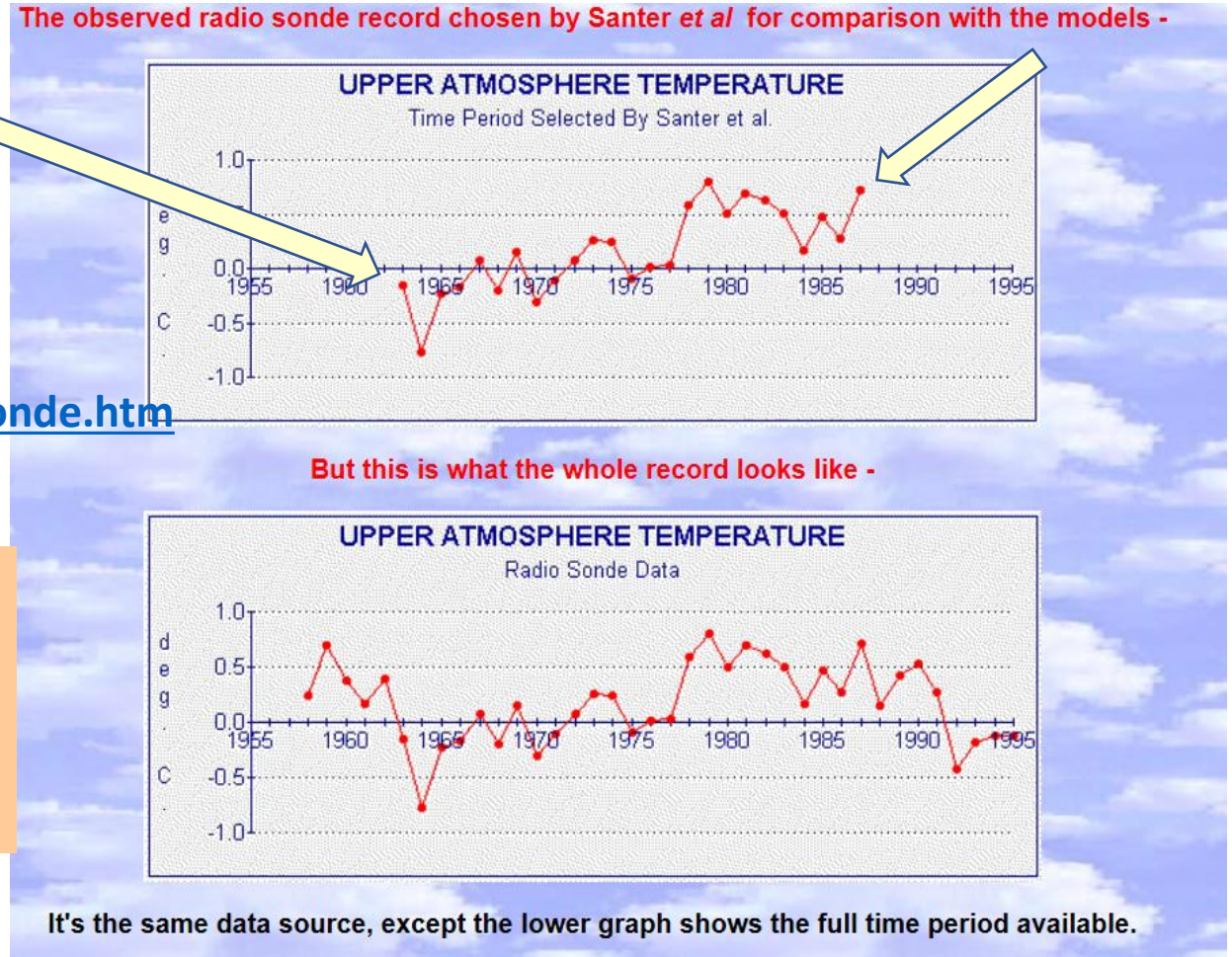
1995 Madrid Meeting of IPCC: "No attribution of climate change to changes in greenhouse gas concentrations."

1966 Second Assessment report: "…these results point towards a human influence on global climate." Changes made by Ben Santer singlehandedly, literally in the dark of night, without coordination with the Madrid Panel of Scientists.

Data showing the "Discernible Human Influence" on climate

http://www.john-daly.com/sonde.htm

The Rest of the Story!
Santer's deliberate deception:
He's using a cherry picked
Subset of the whole record…
which shows COOLING!



Singer, S. Fred, LACK OF CONSISTENCY BETWEEN MODELED AND OBSERVED TEMPERATURE TRENDS, ENERGY &ENVIRONMENT, VOLUME 22, No. 4 , June, 2011

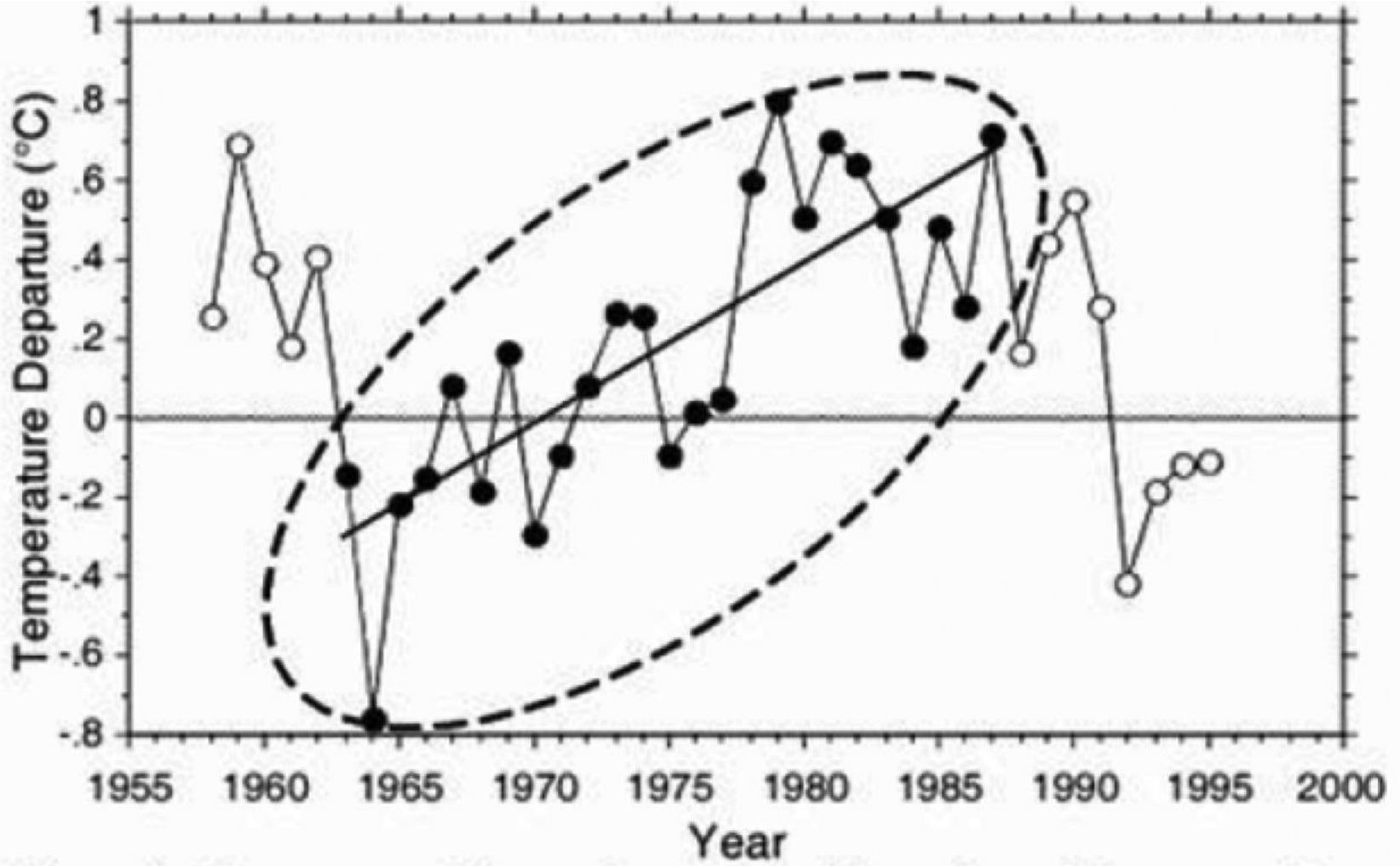


Figure 1. Temperature history from a crucial portion of the atmosphere, 1958–1995. For some reason, in the important paper "demonstrating" climate change, Ben Santer and colleagues only used the portion of the data circled here.

We have also seen this Cherry-Picking with Katharine Hayhoe

…in Hayhoe’s video presentation,

“Earthkeeping: A Climate for Change”:

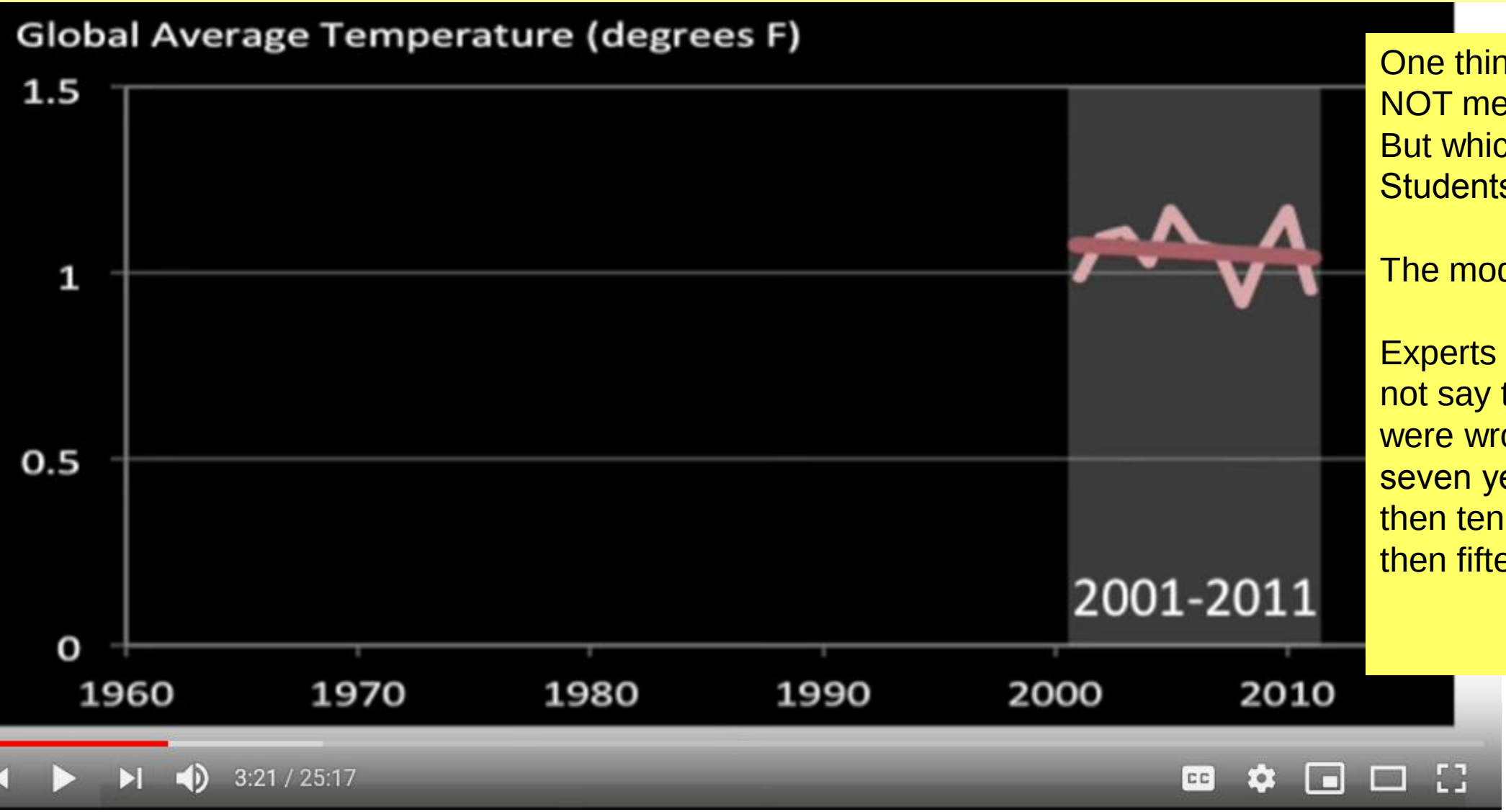
https://youtu.be/0HbbE74MrUc?list=PLZlaemZC4oceZ4MUIG5Aa_v0IlzoiTTch

At one point in the video she calls skeptics “Denialists.” Nice. Judgmental. So Christian

“Your Uncle Joe or one of his news sites will say, “Oh that Global Warming. It stopped seventeen years ago.”

“It comes from carefully selecting just the data you want.”

“But what’s missing?”



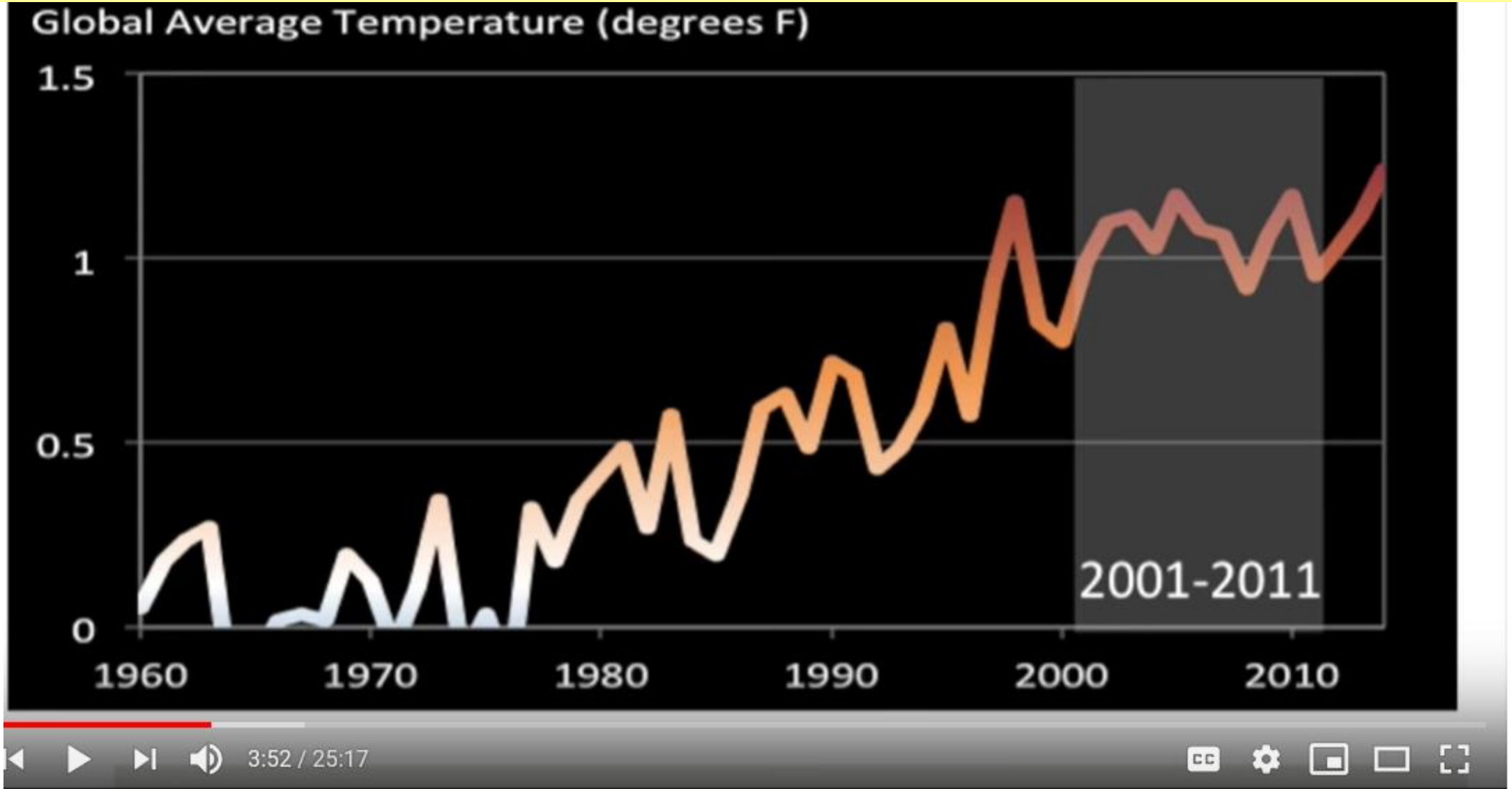
One thing Katharine does NOT mention at this point But which is obvious to Students of this subject…

The models were wrong

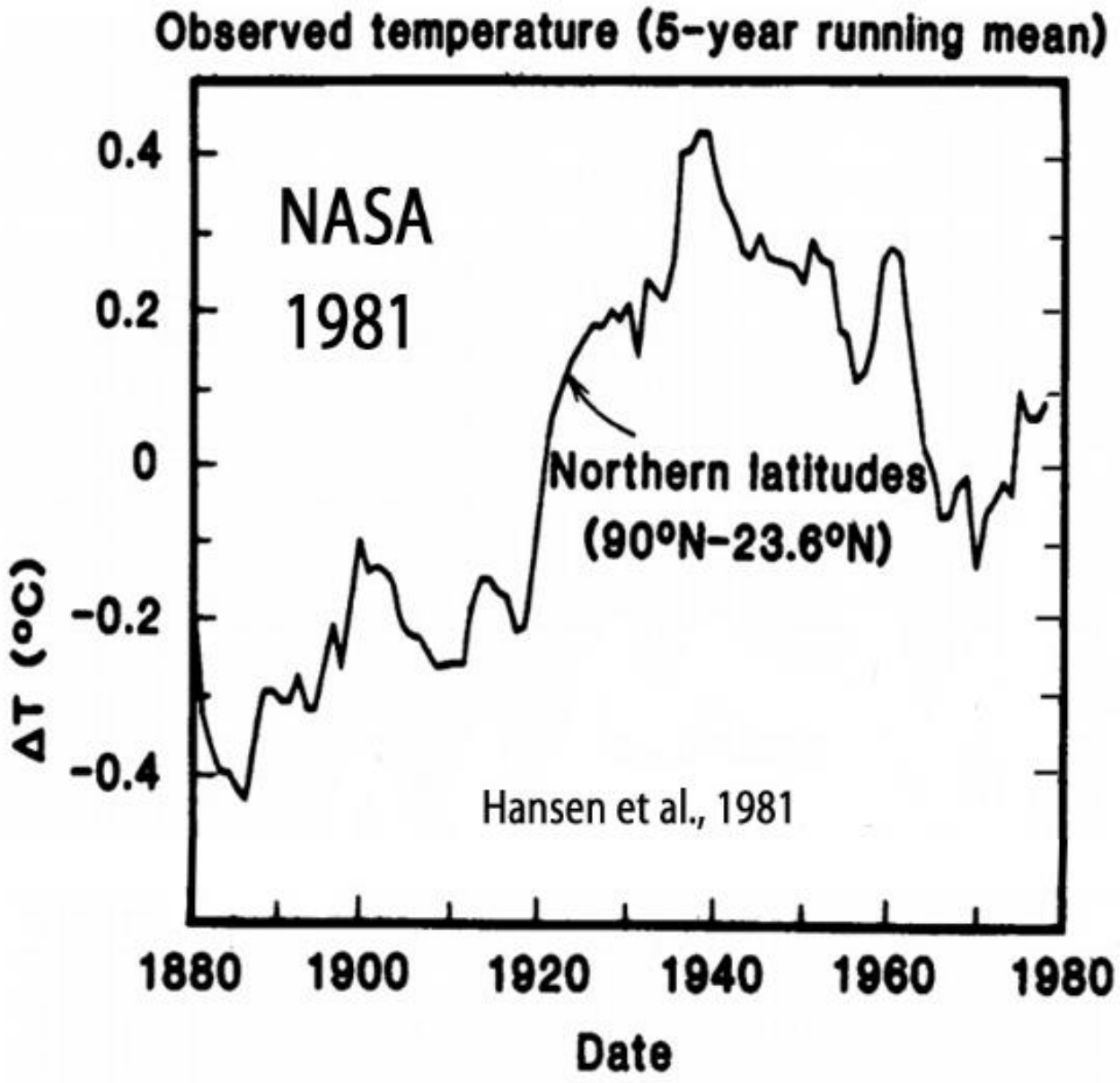
Experts said that you could not say that the models were wrong if there was seven years of cooling… then ten years of cooling then fifteen years of cooling

Referring to her previous slide, she says, “it comes from just selecting the data you want.” “As scientists, we have to look at the whole thing.”

“When we fill in “the rest of the data,” we see a very different picture.”



“As scientists, we have to look at the whole thing.” So why does Katharine Hayhoe start her analysis of the “rest of the data” in 1960, conveniently missing the 1930s Dust Bowl’s heat?



Failed Arctic Ice Predictions

http://content.usatoday.com/communities/ondeadline/post/2009/12/gore-new-study-sees-nearly-ice-free-arctic-summer-ice-cap-as-early-as-2014/1#.XKBWo6RMHnb

Dec 14, 2009

This shows that climate alarmists have been making flawed statements for decades at least

Gore: Polar ice cap may disappear by summer 2014

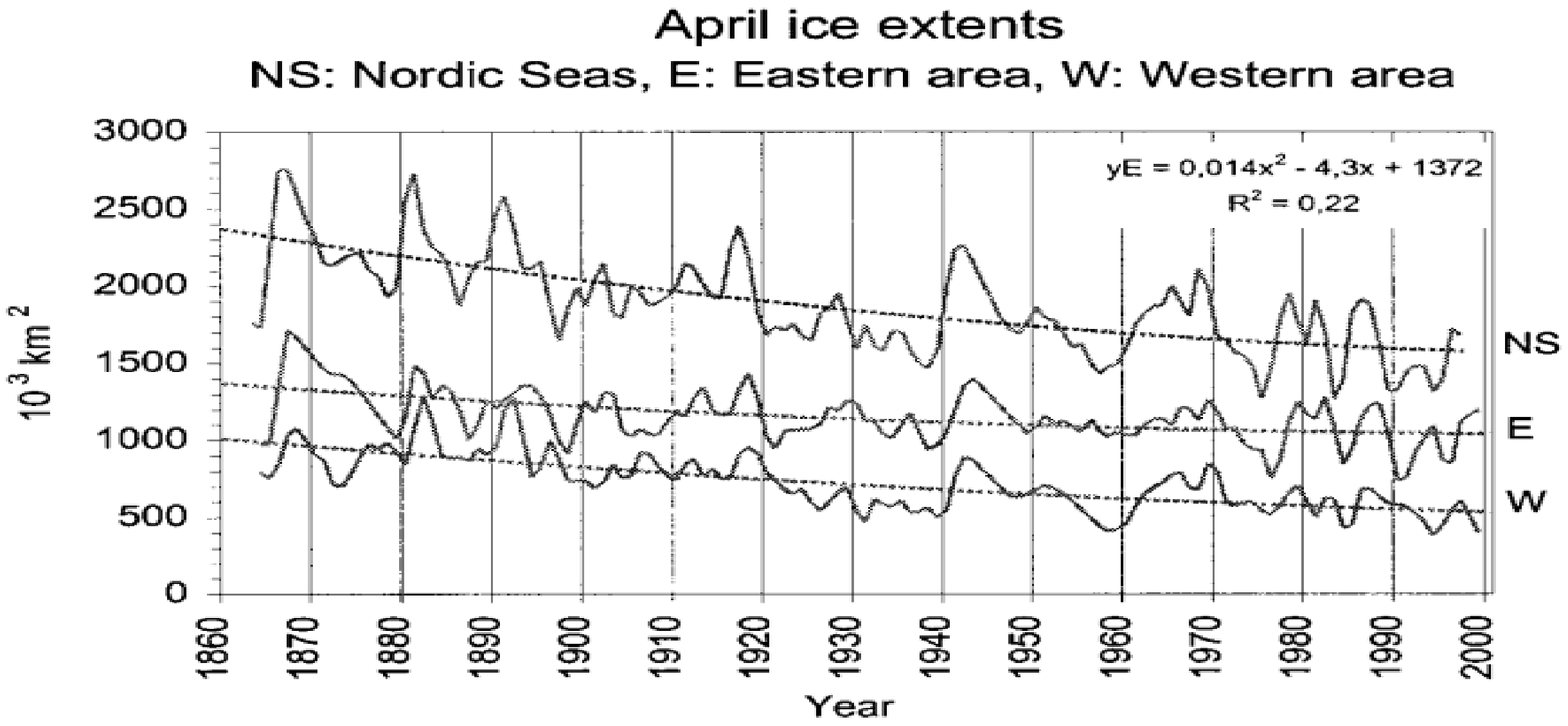
Comment | Recommend 880 | Tweet

By Douglas Stanglin, USA TODAY

Updated 2009-12-14 4:36 PM

New computer modeling suggests the Arctic Ocean may be nearly ice-free in summer as early as 2014, Al Gore said today at the U.N. climate conference in Copenhagen.

Nordic Sea Ice extent history from 1850 from Torgny Vinge



https://thinkprogress.org/arctic-death-spiral-naval-postgrad-schools-maslowski-projects-ice-free-fall-by-2016-3-yrs-8451a607c916/

Arctic death spiral: Naval Postgrad School's Maslowski "projects ice-free* fall by 2016 (+/- 3 yrs)"

But in the land of make-believe, Watts and Goddard say: "Arctic ice extent and thickness nearly identical to what it was 10 years ago."

Joe Romm 6 June 2010

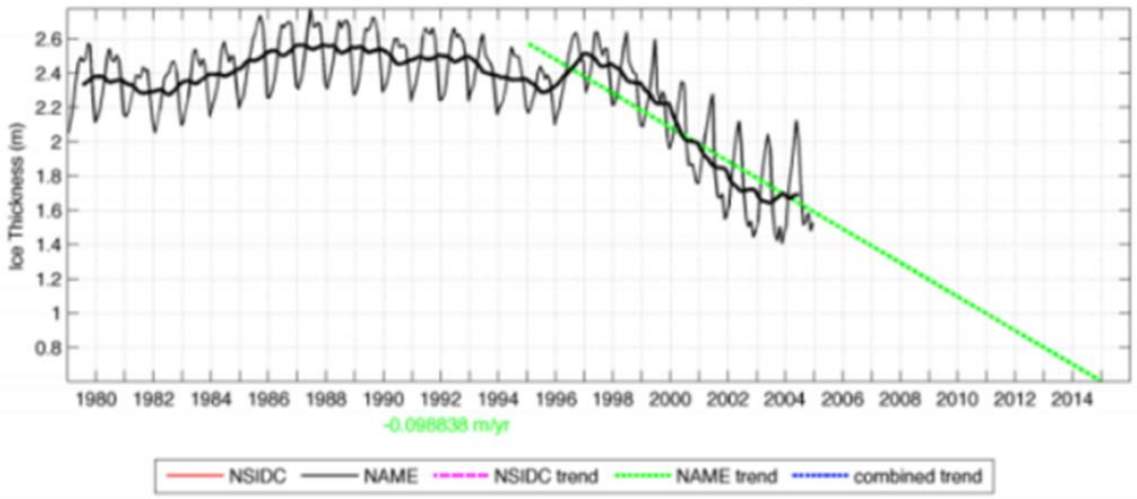
https://thinkprogress.org/arctic-death-spiral-naval-postgrad-schools-maslowski-projects-ice-free-fall-by-2016-3-yrs-8451a607c916

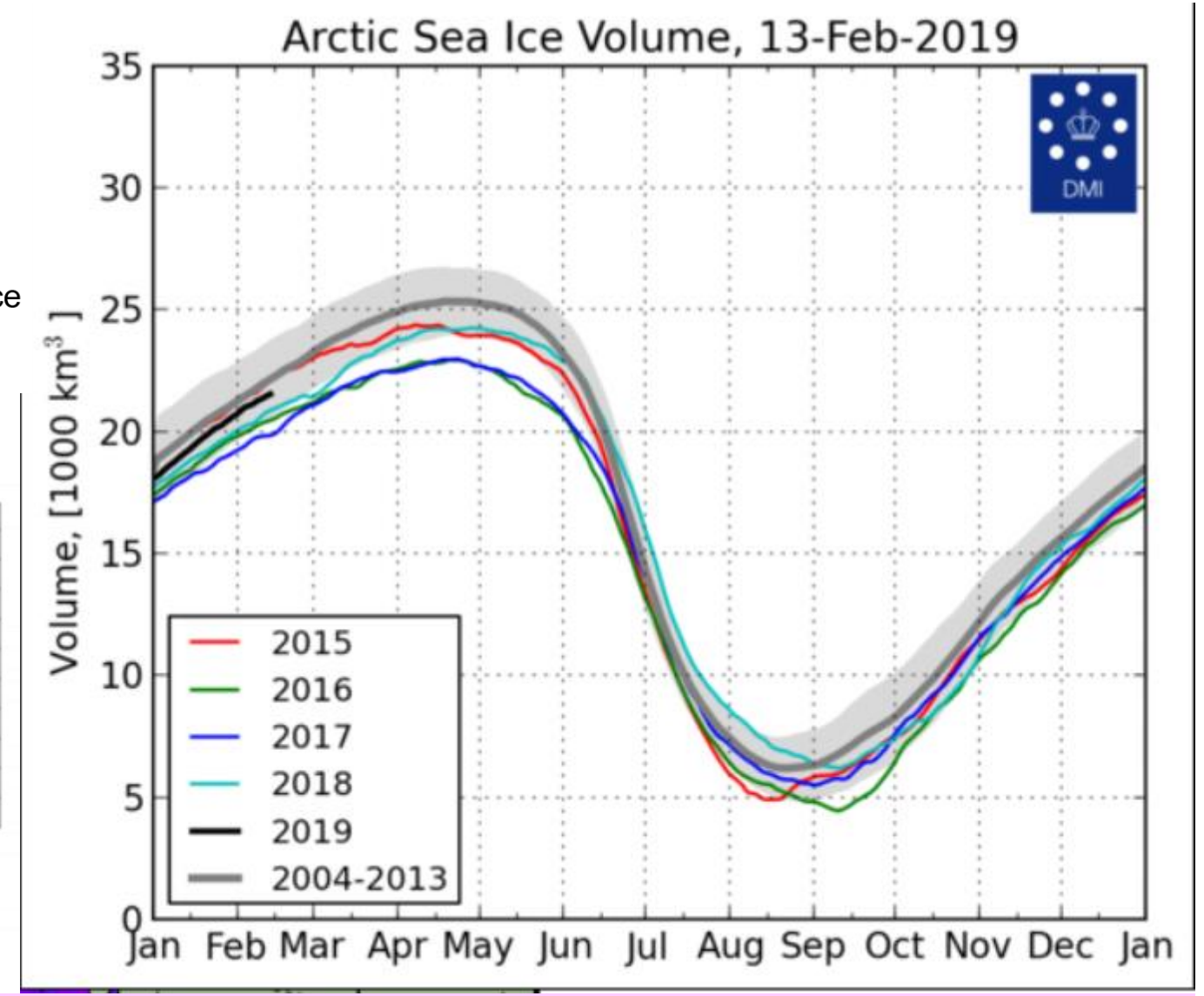
http://ocean.dmi.dk/arctic/icethickness/images/FullSize_CICE_combine_thick_SM_EN_20190213.png

Arctic death spiral: Naval Postgrad School's Maslowski "projects ice-free* fall by 2016 (+/- 3 yrs)"

But in the land of make-believe, Watts and Goddard say: "Arctic ice extent and thickness nearly identical to what it was 10 years ago."

Modeled ice thickness: 1.5-2.0 m or ~35%





Bob Comment: How can a modeler discount >140 years of Climate Cycles and predict linear ice fall-off?

https://web.archive.org/web/20140329183716/http://www.sierraclub.ca/en/AdultDiscussionPlease?fb_action_ids=633465710015337&fb_action_types=og.likes&fb_source=aggregation&fb_aggregation_id=288381481237582

Why Arctic sea ice will vanish in 2013

Submitted by Paul Beckwith on Mon, 2013-06-10 23:18

By Paul Beckwith

On March 23, 2013, I made the following **prediction**:

"For the record—I do not think that any sea ice will survive this summer. An event unprecedented in human history is today, this very moment, transpiring in the Arctic Ocean.

*The cracks in the sea ice that I reported in my Sierra **blog** and elsewhere have spread. Worse news is at this very moment the entire sea ice sheet (or about 99 percent of it) covering the Arctic Ocean is on the move (clockwise), and the thin, weakened icecap has literally begun to tear apart.*

This is abrupt climate change in real-time.

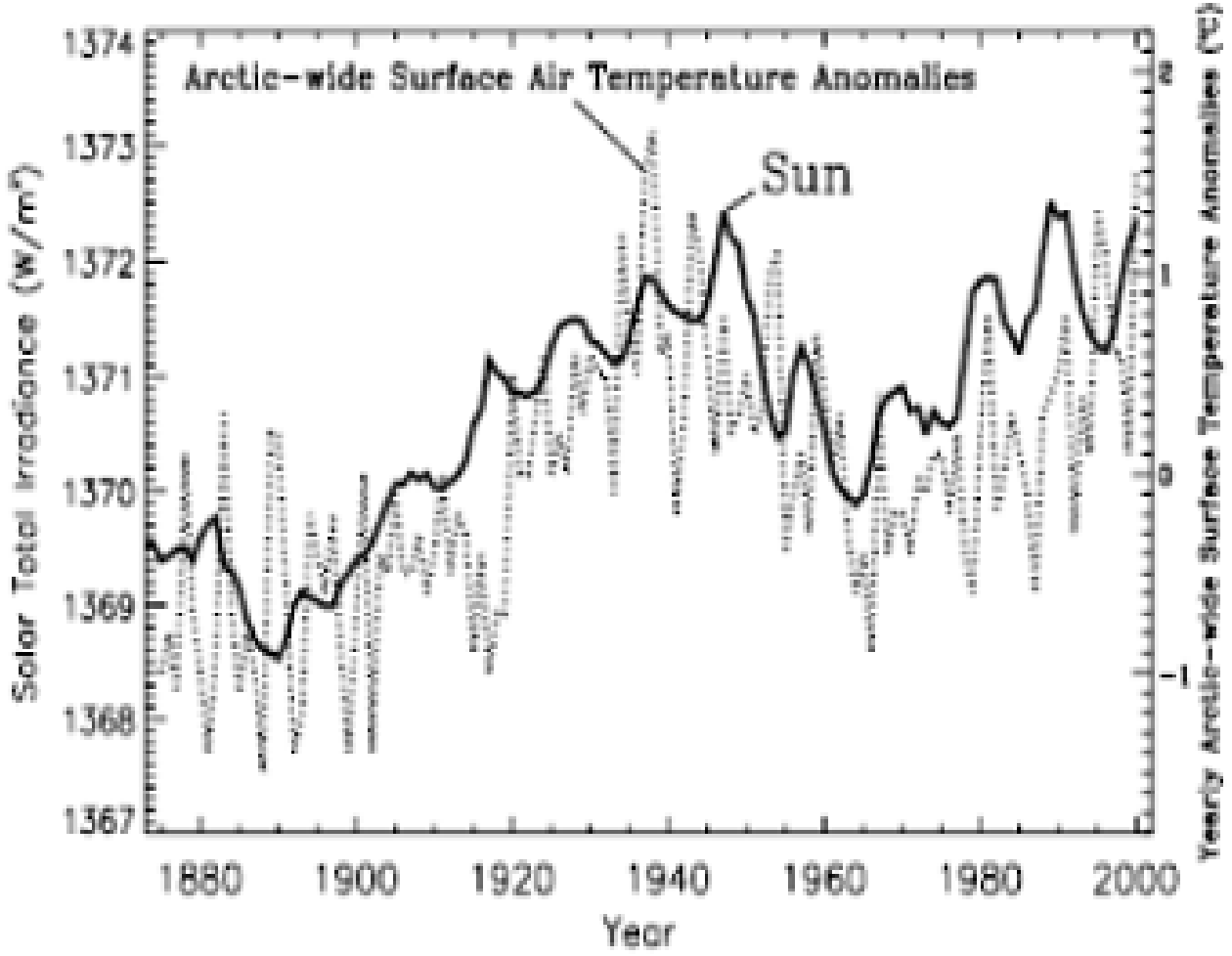
Humans have benefited greatly from a stable climate for the last 11,000 years (roughly 400 human generations). Not anymore. We now face an angry climate -- one that we have poked in the eye with our fossil fuel stick -- and have to deal with the consequences.

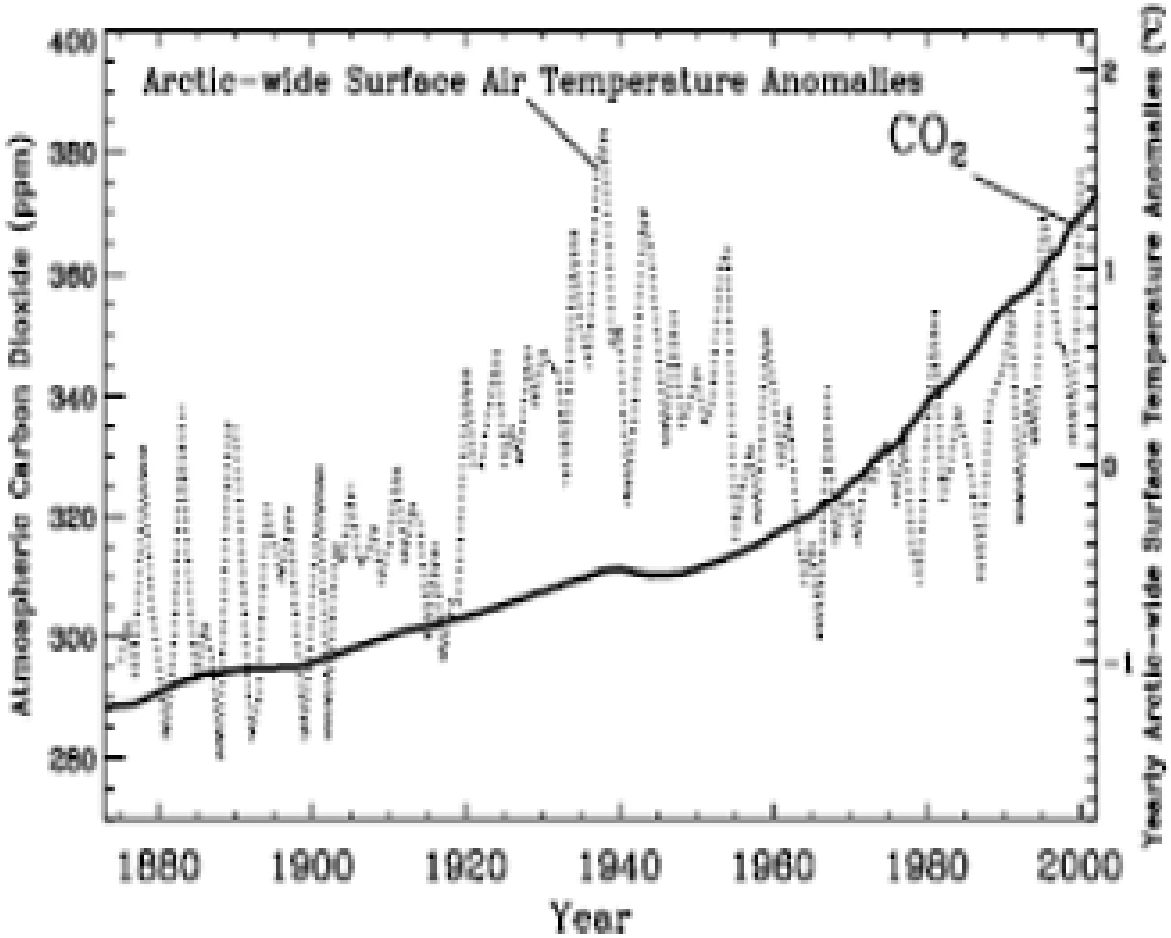
*We must set aside our differences and prepare for what we can no longer avoid: **massive disruption** to our civilization."*

Serious stuff: Adult discussion time…

Solar influence Arctic climate

Soon, W.H., "Variable Solar Irradiance as a Plausible Agent for Multidecadal Variations in the Arctic-wide Surface Air Temp*Geophysical Research Letters, Vol. 32, 2005*
erature Record of the Past 130 Years," http://www.agu.org/pubs/crossref/2005/2005GL023429.shtml





http://science.sciencemag.org/content/294/5549/2130

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RESEARCH ARTICLE

Persistent Solar Influence on North Atlantic Climate During the Holocene

Gerard Bond[1,*], Bernd Kromer[2], Juerg Beer[3], Raimund Muscheler[3], Michael N. Evans[4], William Showers...

+ See all authors and affiliations

Science 07 Dec 2001:
Vol. 294, Issue 5549, pp. 2130-2136
DOI: 10.1126/science.1065680

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http://www.essc.psu.edu/essc_web/seminars/spring2006/Mar1/Bond%20et%20al%202001.pdf

Persistent Solar Influence on North Atlantic Climate During the Holocene

Gerard Bond,[1]* Bernd Kromer,[2] Juerg Beer,[3] Raimund Muscheler,[3] Michael N. Evans,[4] William Showers,[5] Sharon Hoffmann,[1] Rusty Lotti-Bond,[1] Irka Hajdas,[6] Georges Bonani[6]

Surface winds and surface ocean hydrography in the subpolar North Atlantic appear to have been influenced by variations in solar output through the entire Holocene. The evidence comes from a close correlation between inferred changes in production rates of the cosmogenic nuclides carbon-14 and beryllium-10 and centennial to millennial time scale changes in proxies of drift ice measured in deep-sea sediment cores. A solar forcing mechanism therefore may underlie at least the Holocene segment of the North Atlantic's "1500-year" cycle. The surface hydrographic changes may have affected production of North Atlantic Deep Water, potentially providing an additional mechanism for amplifying the solar signals and transmitting them globally.

http://ruby.fgcu.edu/courses/twimberley/EnviroPhilo/BondPap.pdf

A Pervasive Millennial-Scale Cycle in North Atlantic Holocene and Glacial Climates

Gerard Bond; William Showers; Maziet Cheseby; Rusty Lotti; et al **Science; Nov 14, 1997; 278, 5341; Research Library**

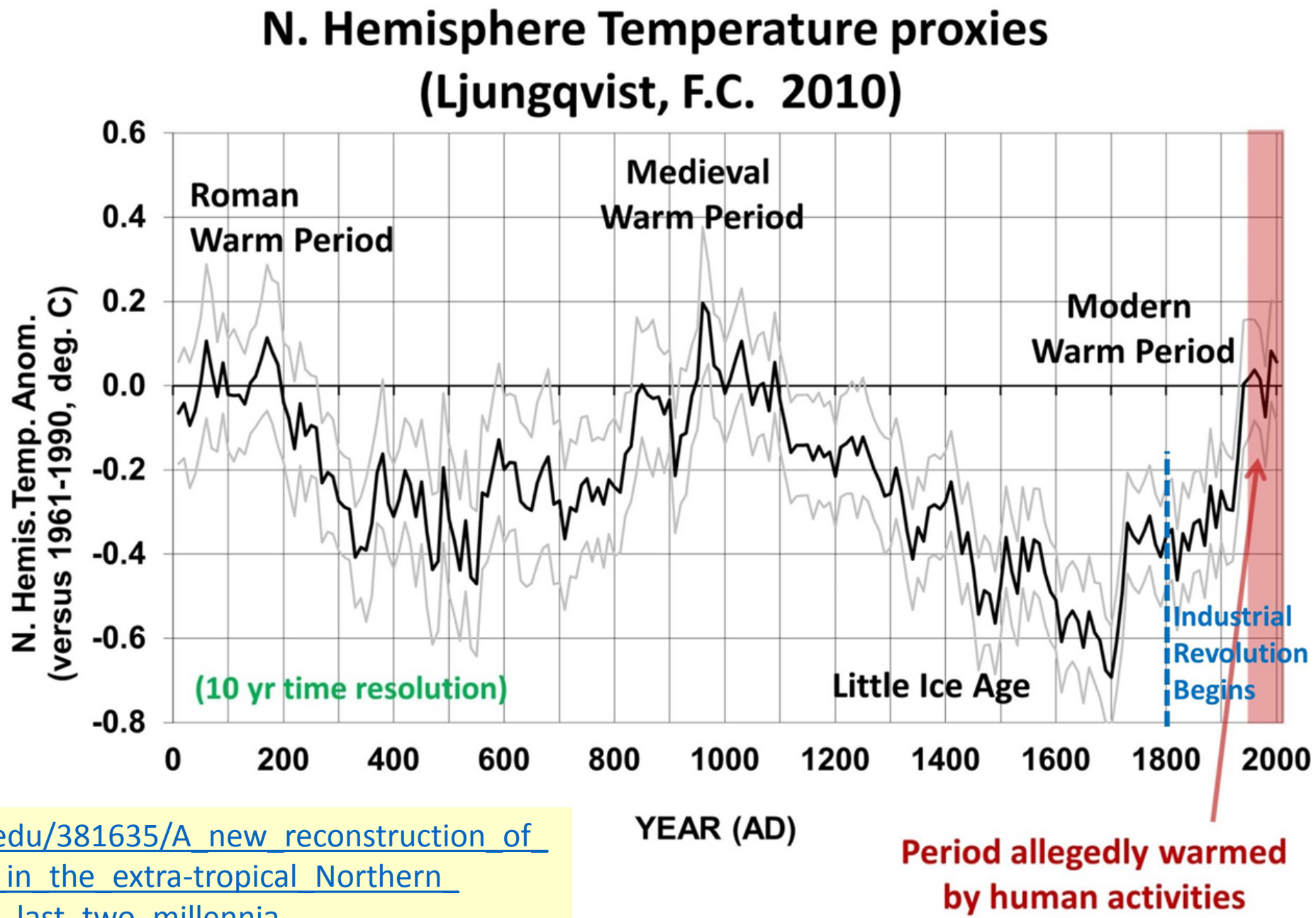
RESEARCH ARTICLE

A Pervasive Millennial-Scale Cycle in North Atlantic Holocene and Glacial Climates

Gerard Bond,* William Showers, Maziet Cheseby, Rusty Lotti, Peter Almasi, Peter deMenocal, Paul Priore, Heidi Cullen, Irka Hajdas, Georges Bonani

Evidence from North Atlantic deep sea cores reveals that abrupt shifts punctuated what is conventionally thought to have been a relatively stable Holocene climate. During each of these episodes, cool, ice-bearing waters from north of Iceland were advected as far south as the latitude of Britain. At about the same times, the atmospheric circulation above Greenland changed abruptly. Pacings of the Holocene events and of abrupt climate shifts during the last glaciation are statistically the same; together, they make up a series of climate shifts with a cyclicity close to 1470 ± 500 years. The Holocene events, therefore, appear to be the most recent manifestation of a pervasive millennial-scale climate cycle operating independently of the glacial-interglacial climate state. Amplification of the cycle during the last glaciation may have been linked to the North Atlantic's thermohaline circulation.

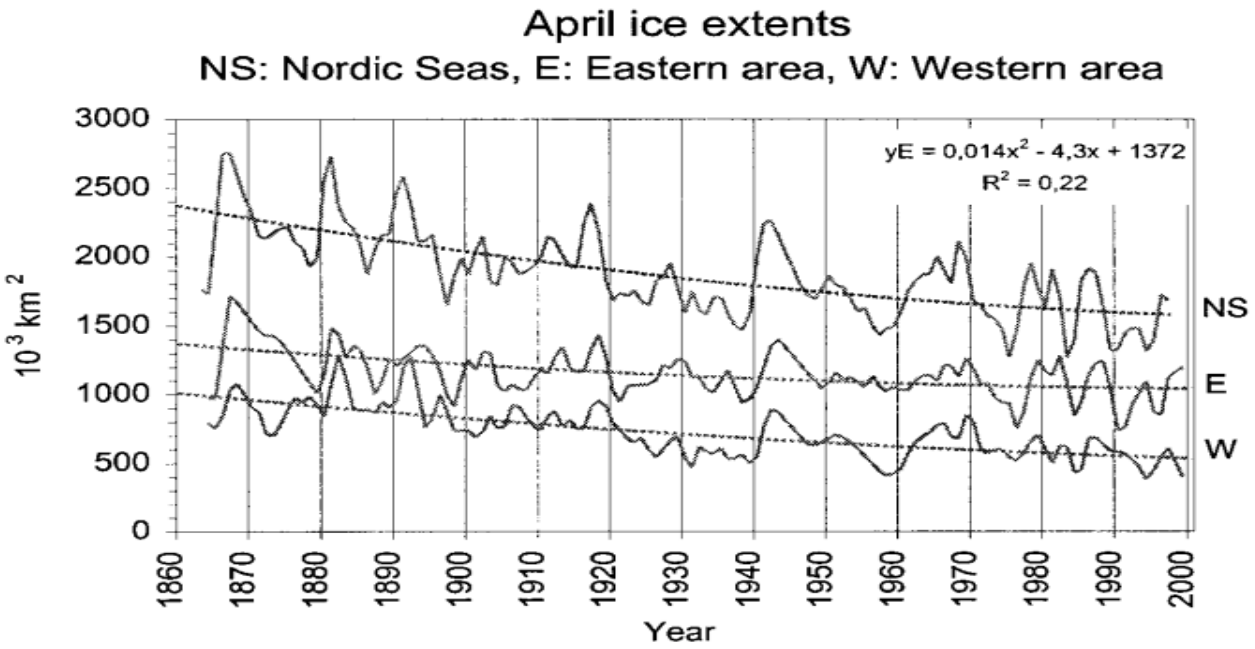
http://www.drroyspencer.com/wp-content/uploads/2000-years-of-global-temperatures-industrial-revolution-start.jpg

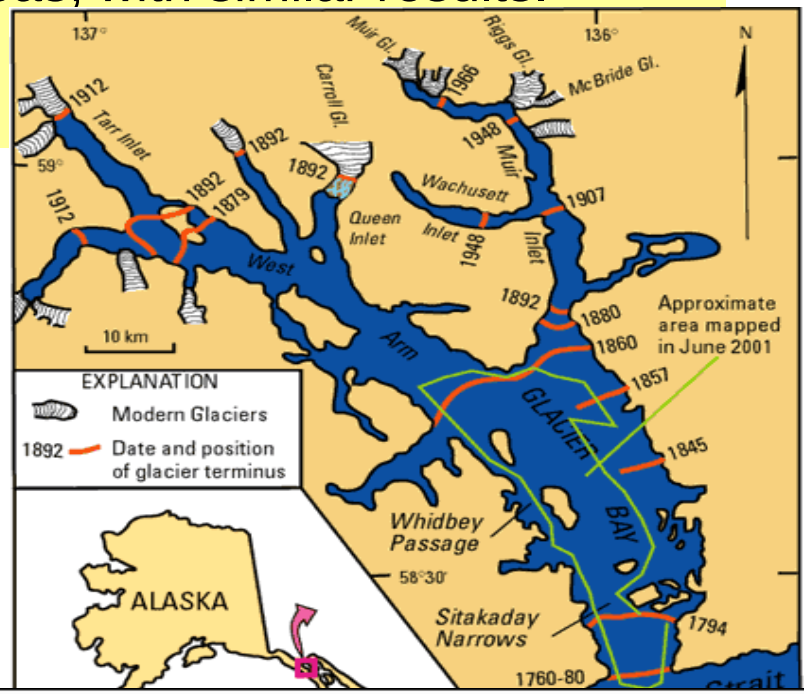


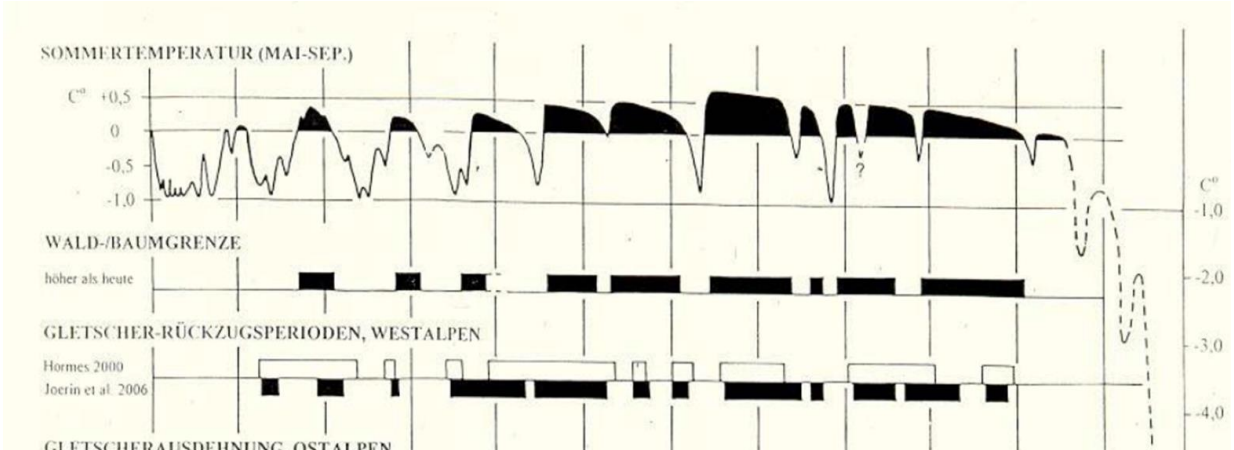
https://www.academia.edu/381635/A_new_reconstruction_of_temperature_variability_in_the_extra-tropical_Northern_Hemisphere_during_the_last_two_millennia

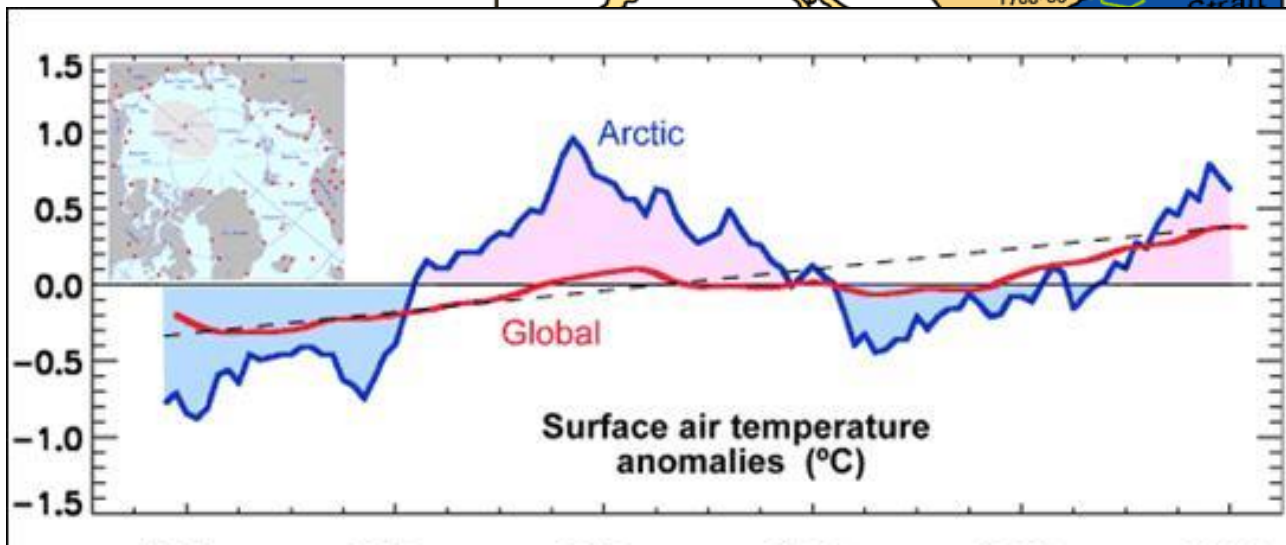
Conclusions

Bond Cycles dominate climate from multiple proxies over wide areas, with similar results.



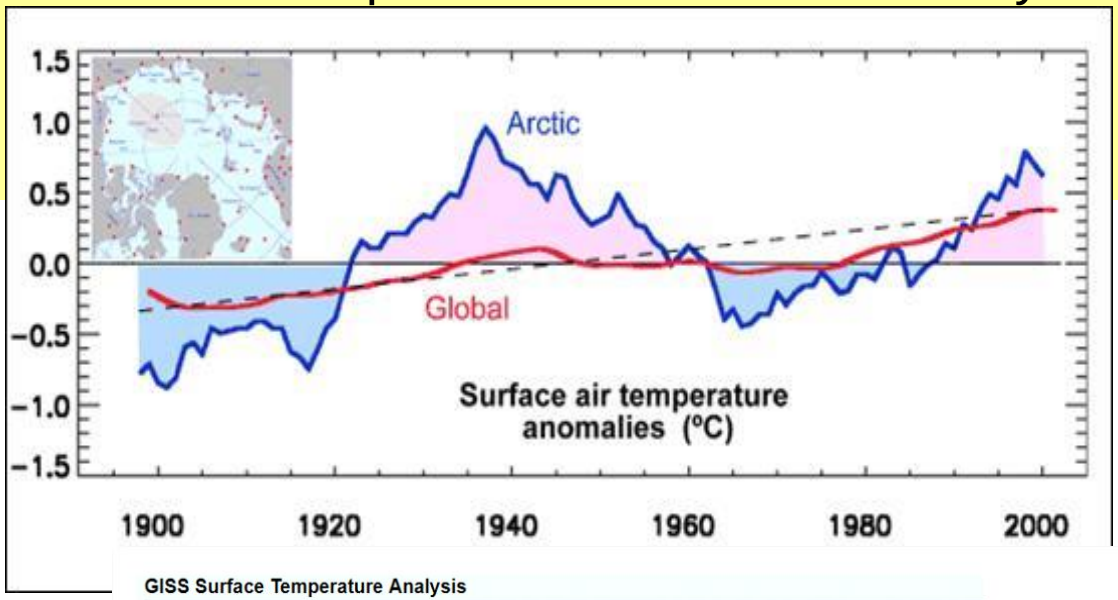


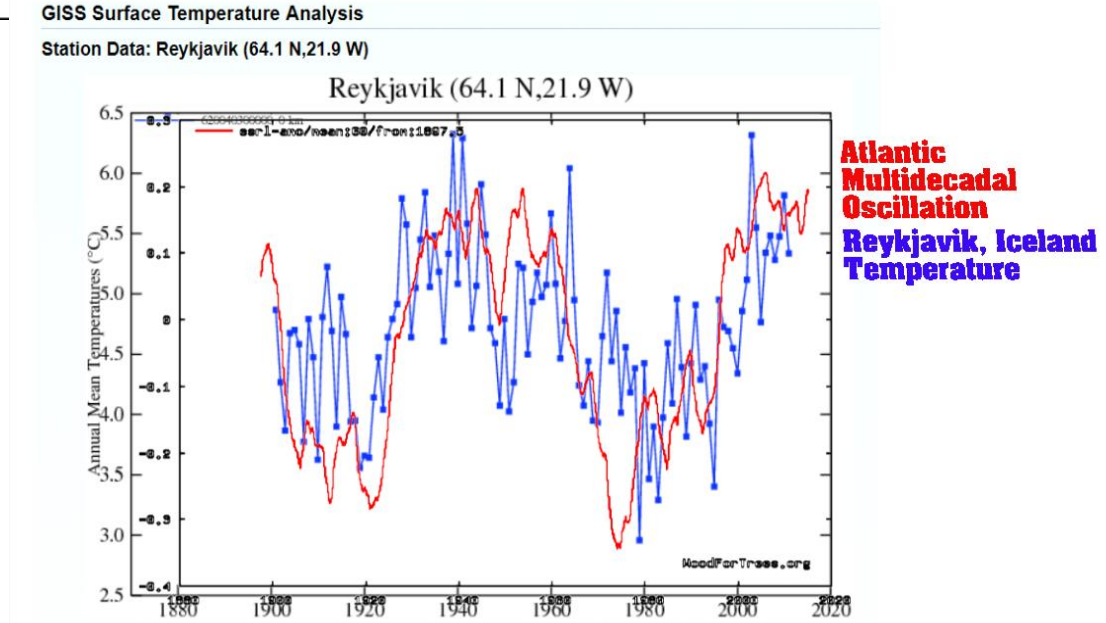




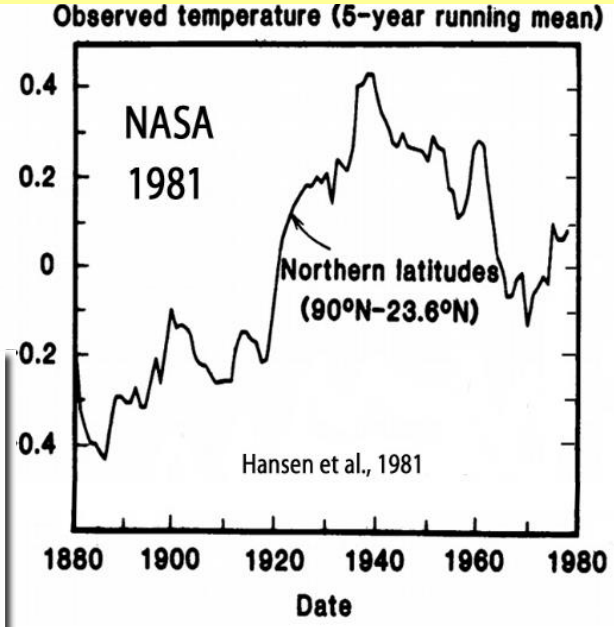
Conclusions

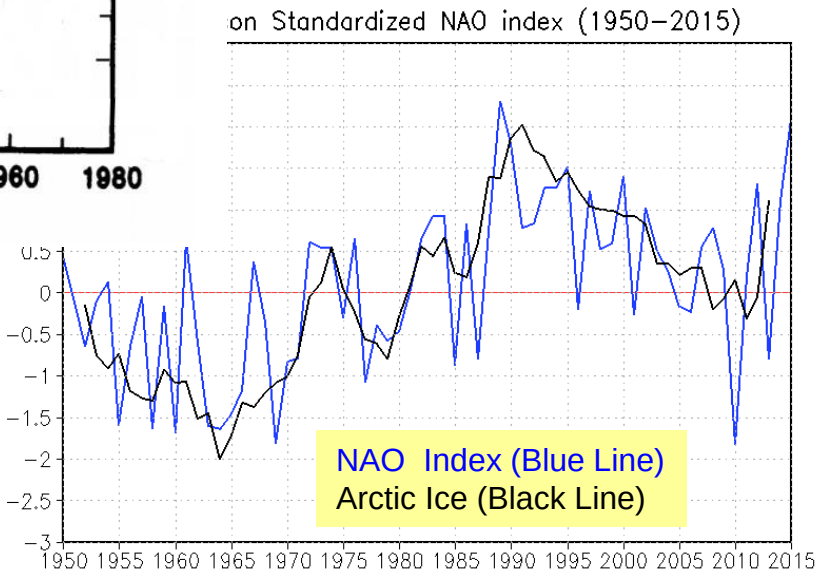
Multiple time series show 60-80 year variations in temperatures and sea ice cycles





Atlantic Multidecadal Oscillation
Reykjavik, Iceland Temperature

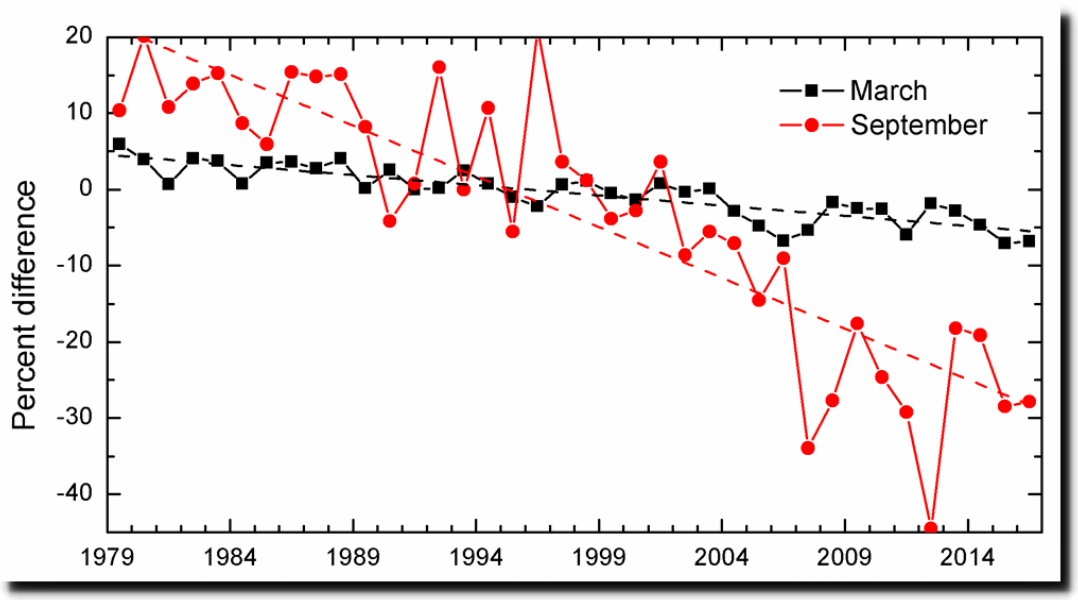


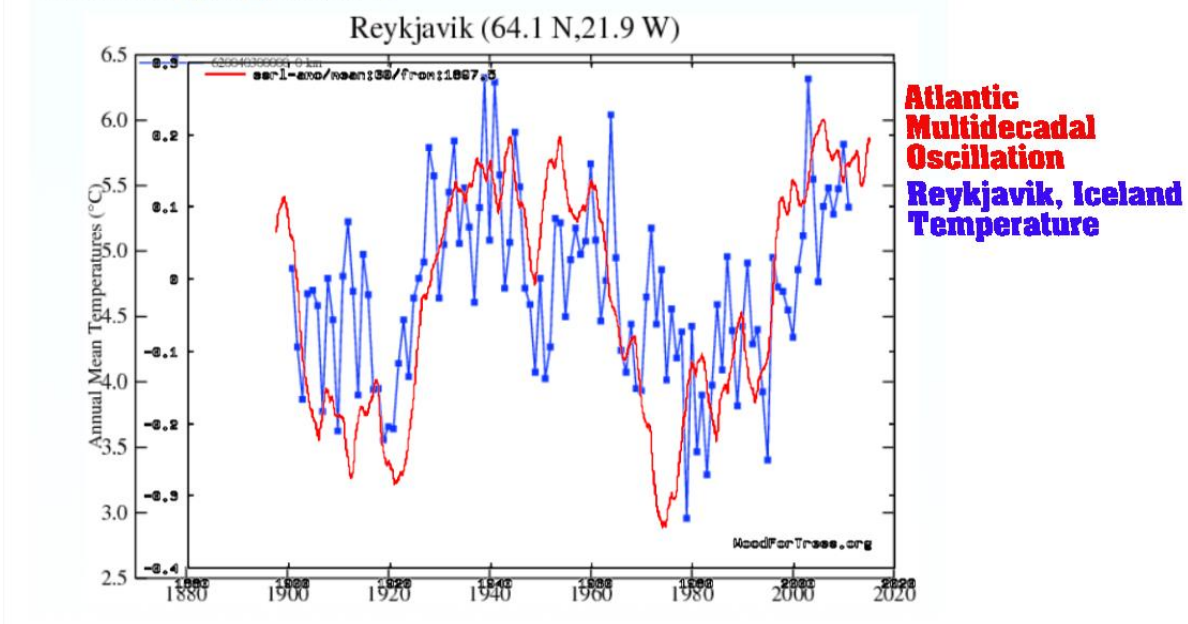


NAO Index (Blue Line)
Arctic Ice (Black Line)

Conclusions

NCA4 deliberately chose a 36-year period (and month) commencing with “1970s cold scare” and high Arctic Ice amount.





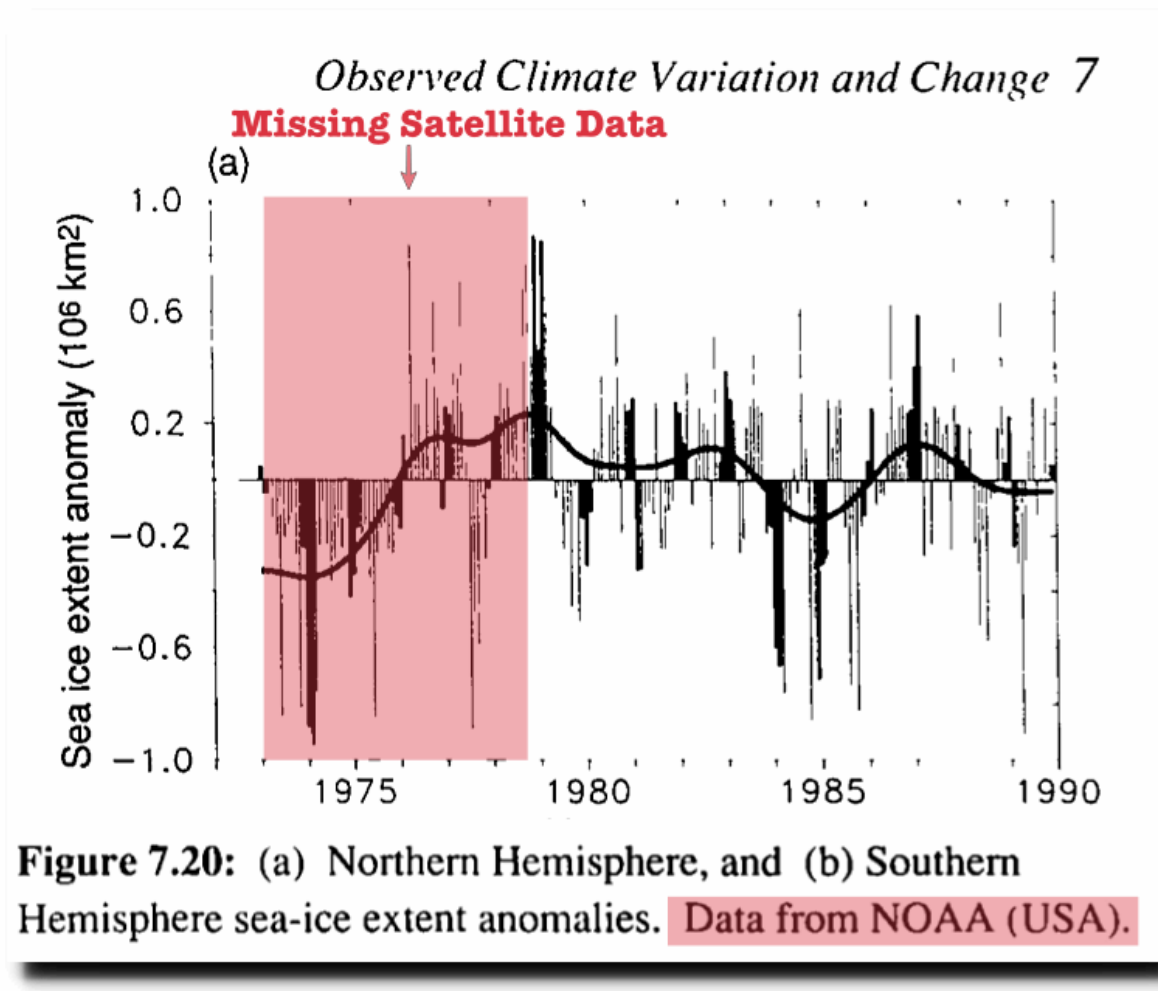


Figure 7.20: (a) Northern Hemisphere, and (b) Southern Hemisphere sea-ice extent anomalies. Data from NOAA (USA).

Conclusion:

NCA4 ‘s “very High confidence” of 11-16% per decade Arctic Ice decrease is a result of either poor scholarship or an attempt at deliberate deception, take your choice.

Remember that Very High Confidence of 11-16% Arctic Sea Loss per decade from NCA4?

Ole Humlum’s hundred year analysis from Polyakov et al 2003... ..half of one percent per decade…similar to Vinje….probably Bond Cycle related…