

Climate Dysfunction: The Facts of Global Warming. Political Science or Science Fiction ?

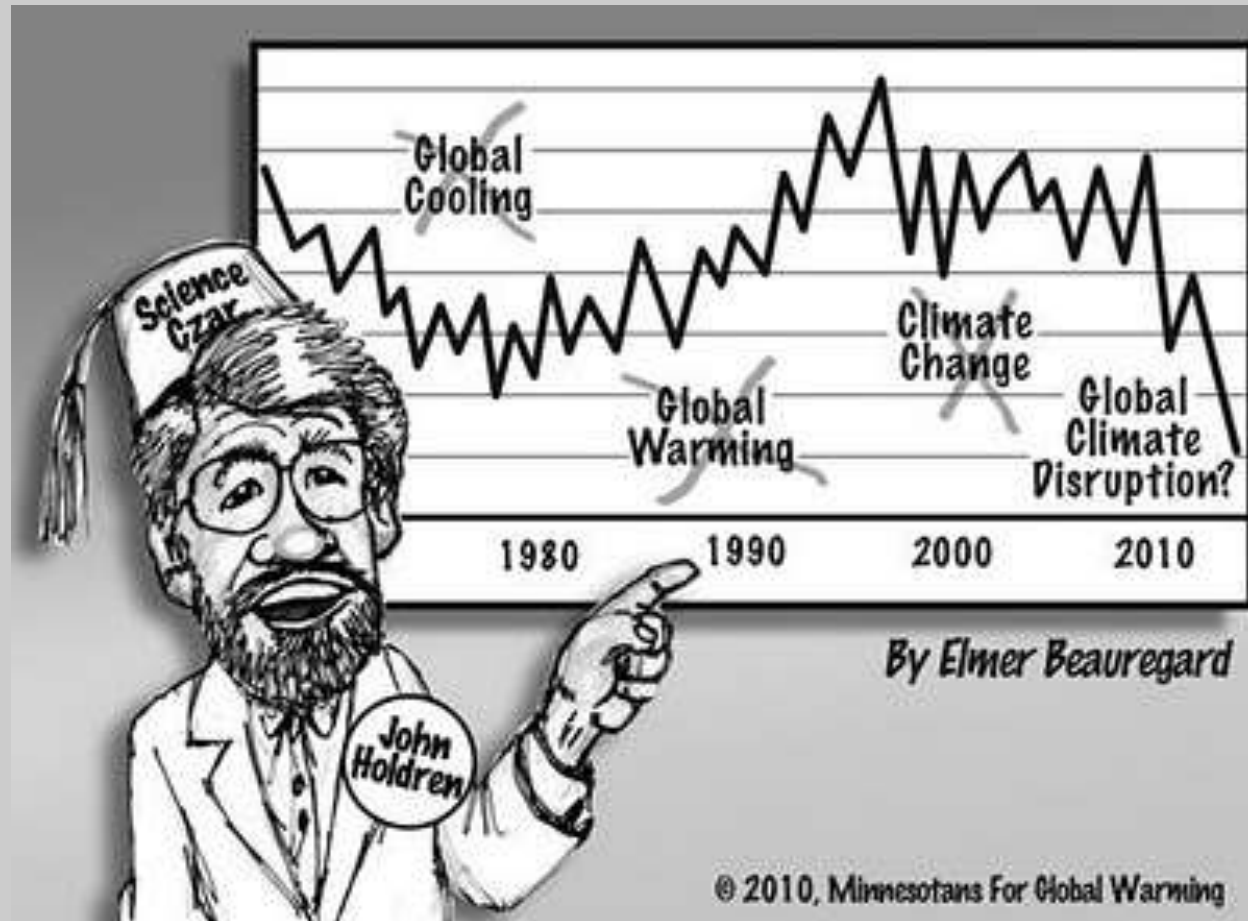
Dr. Richard A. Keen

**University of Colorado,
Boulder (Emeritus/Ret.)**

**Weather observer,
Coal Creek Canyon, CO**

richard2keen@gmail.com

**Good Neighbor Forum
Castle Rock, CO
September 2012**



**My thoughts on climate are tainted
by my background as a...**

Climate researcher

Astronomer

Reporter & Author

Photographer

Mountaineer & Glaciologist

Storm chaser

Army Met guy

Weather observer

Weather “historian”

Talking Head

IPCC WG1 AR5 Expert Reviewer

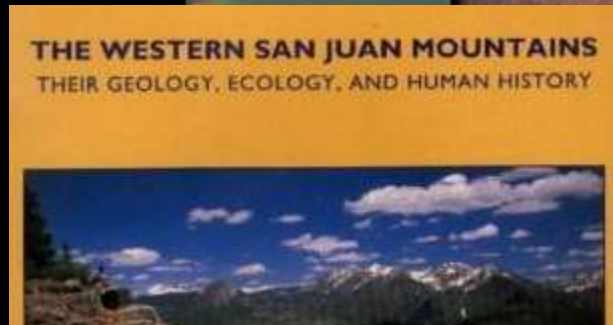
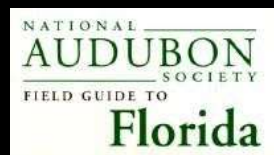
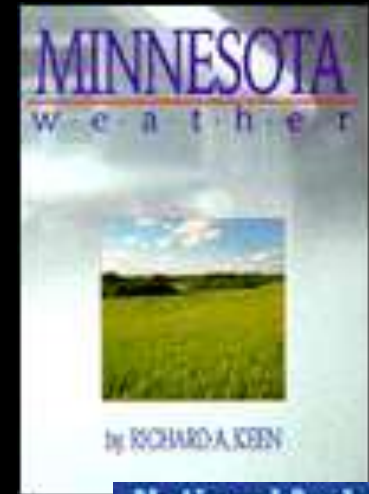
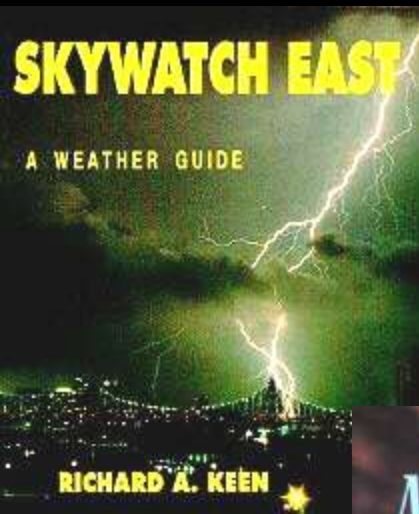
Taxpayer

**I’ve also done some climate modeling,
but that was in my reckless youth.**

I prefer working with data.



I write books, too. About weather.



**And a PhD thesis about climate change in the Arctic.
Conclusion: jet stream winds and storm tracks are the major factors.**

**TEMPERATURE AND CIRCULATION ANOMALIES
IN THE EASTERN CANADIAN ARCTIC
SUMMER 1946-76**

Richard A. Keen



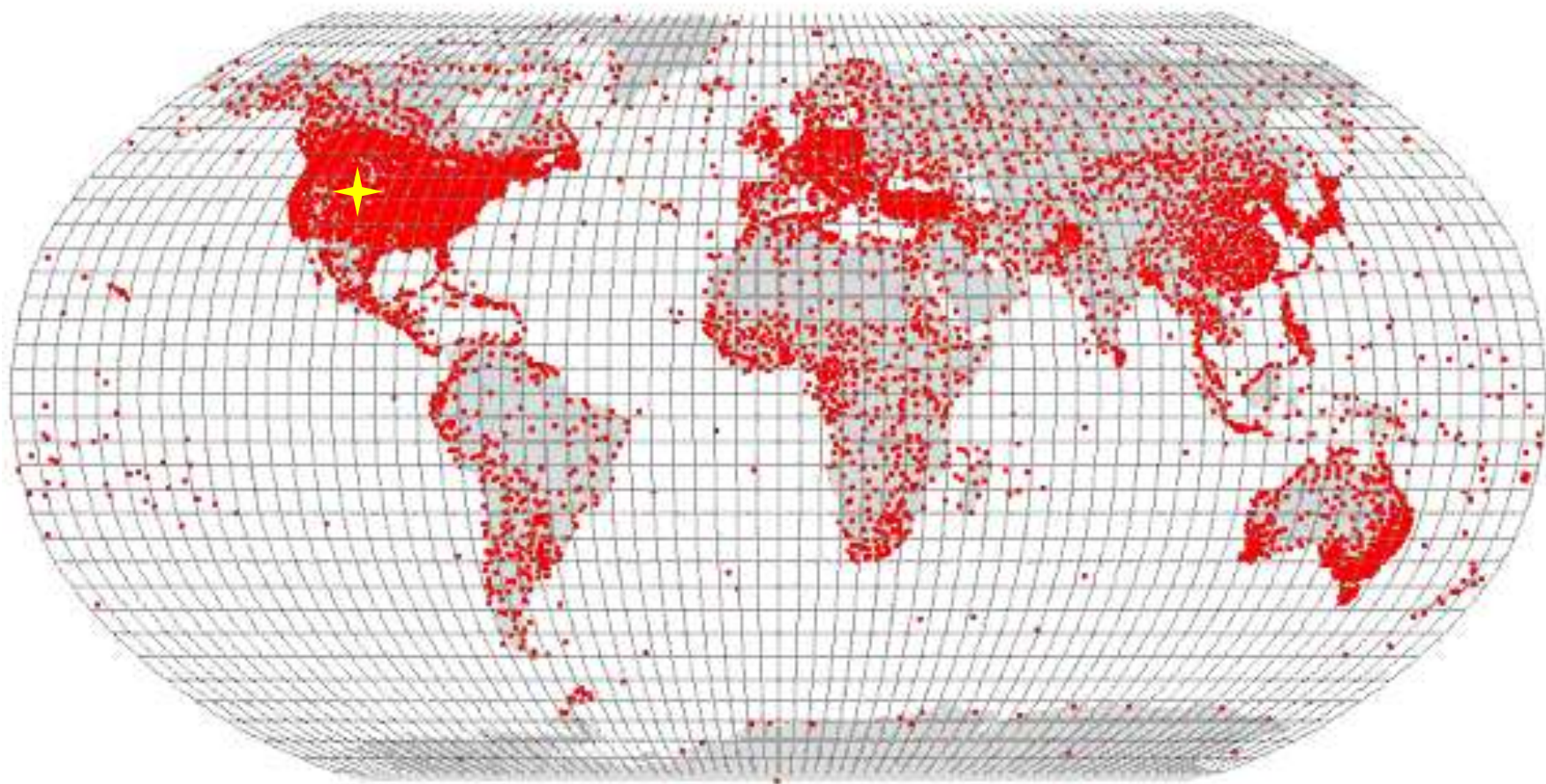
**Occasional Paper No. 34
1980**

INSTITUTE OF ARCTIC AND ALPINE RESEARCH • UNIVERSITY OF CALIFORNIA



**Global temperatures are not global.
Only a third of the globe is sampled, leaving lots of
blanks to fill with created “data”.**

GHCN Temperature Data Set Station Locations



Station locations are indicated by the individual red circles that are superimposed on top of the 5° latitude by 5° longitude grid boxes to which they belong.

“Global” temperatures are a fantasy.

Let’s take a different approach.

Like doctors, find some “sweet spots” that are particularly sensitive to AGW* and which have reasonably good data.



Then look at their record.

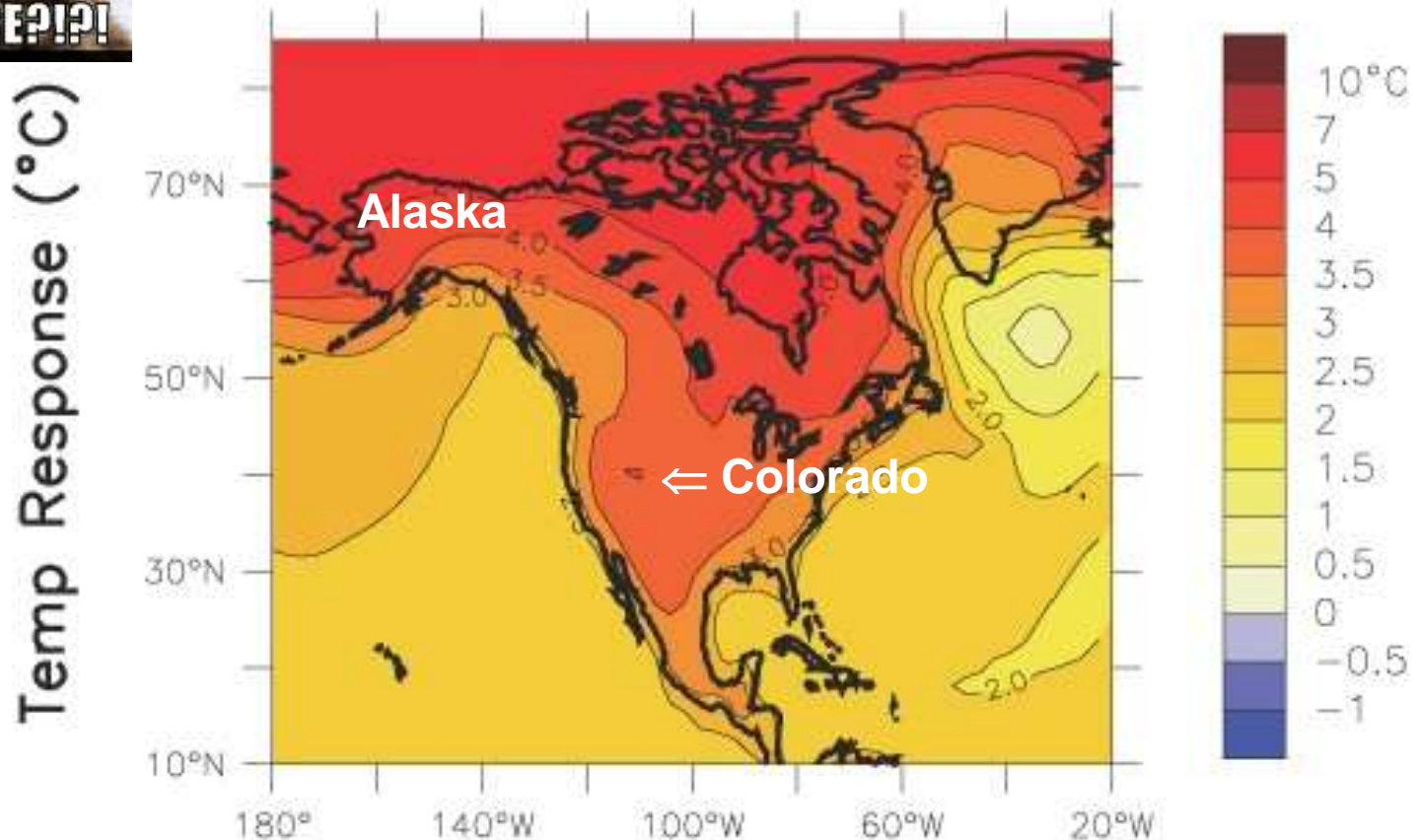
***AGW = Anthropogenic Global Warming**





Two sweet spots – Alaska and Colorado Both predicted to warm 4°C (7°F) by 2099

Annual



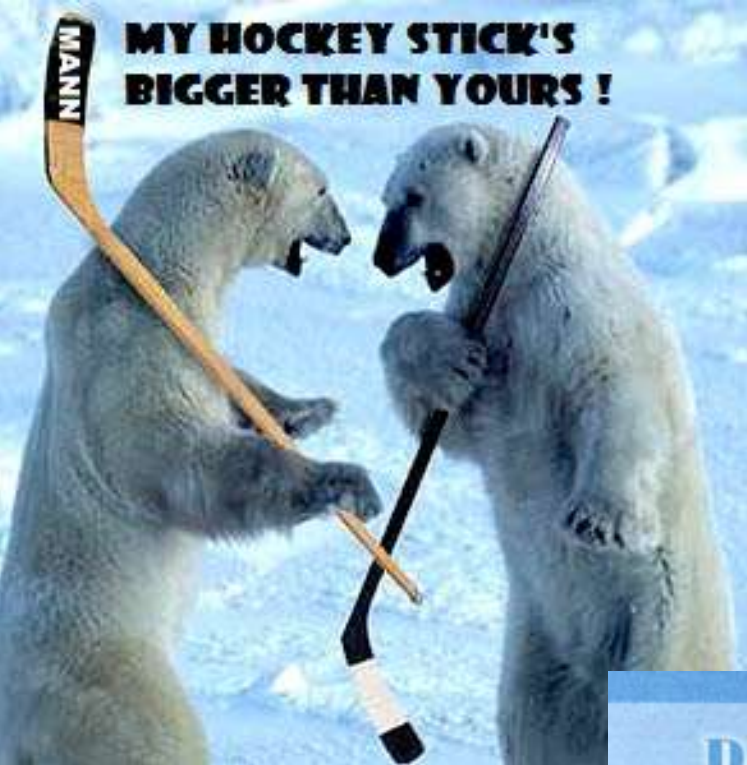
IPCC fig-11-12

Temperature changes over North America from the MMD-A1B simulations. Annual mean temperature change between 1980 to 1999 and 2080 to 2099, averaged over 21 models

Alaska



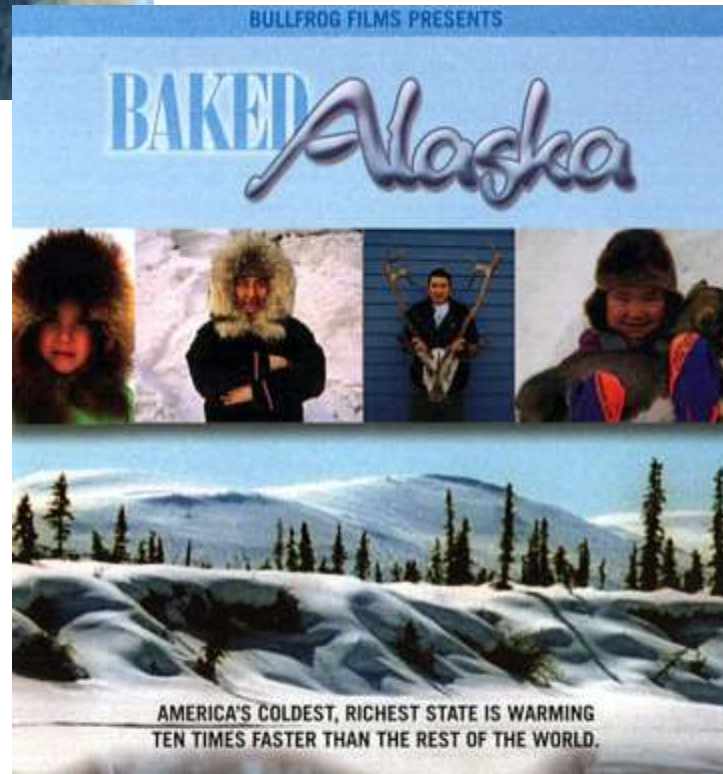
Gilkey Glacier, Juneau Ice Field, Alaska
Photo: Richard Keen



**MY HOCKEY STICK'S
BIGGER THAN YOURS !**

**Alaska is a
Global Warming
poster child.**

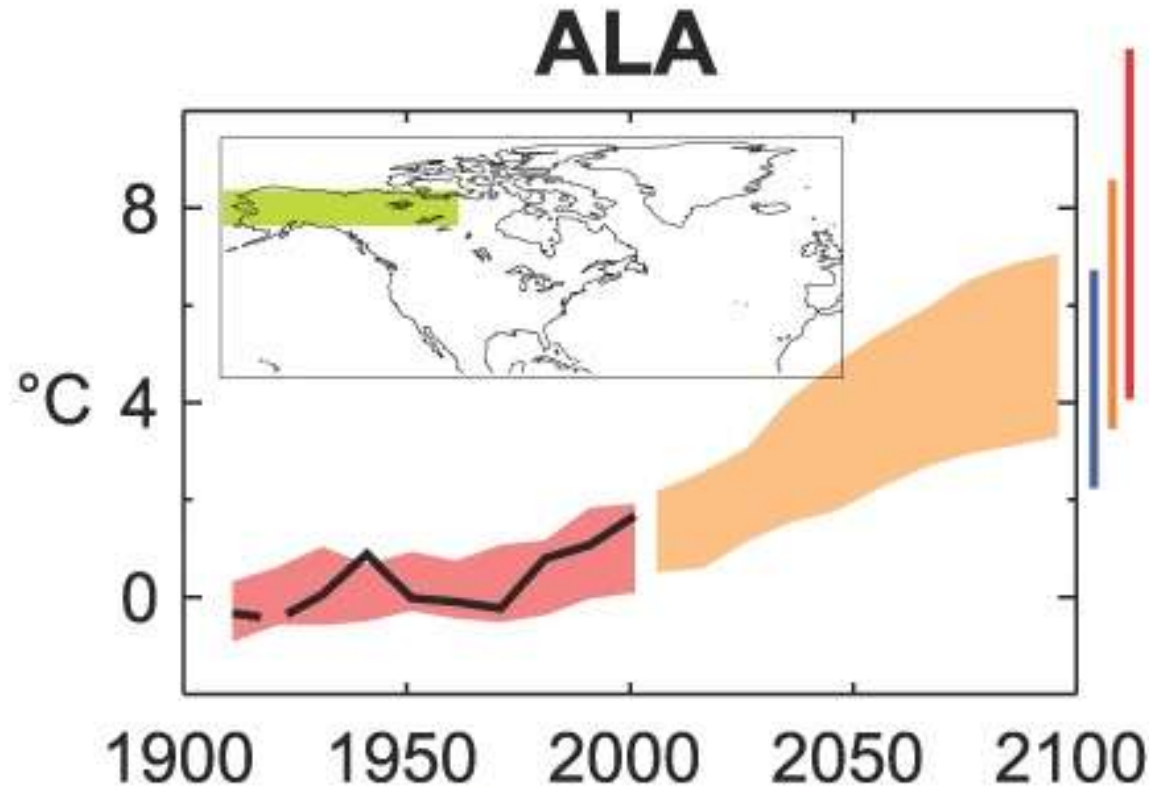
Is it melting?



**AMERICA'S COLDEST, RICHEST STATE IS WARMING
TEN TIMES FASTER THAN THE REST OF THE WORLD.**

IPCC would like to think so.

**Alaska: 4°C (7°F) warming by 2100
1°C (2°F) has already happened, says IPCC**



IPCC fig-11-11

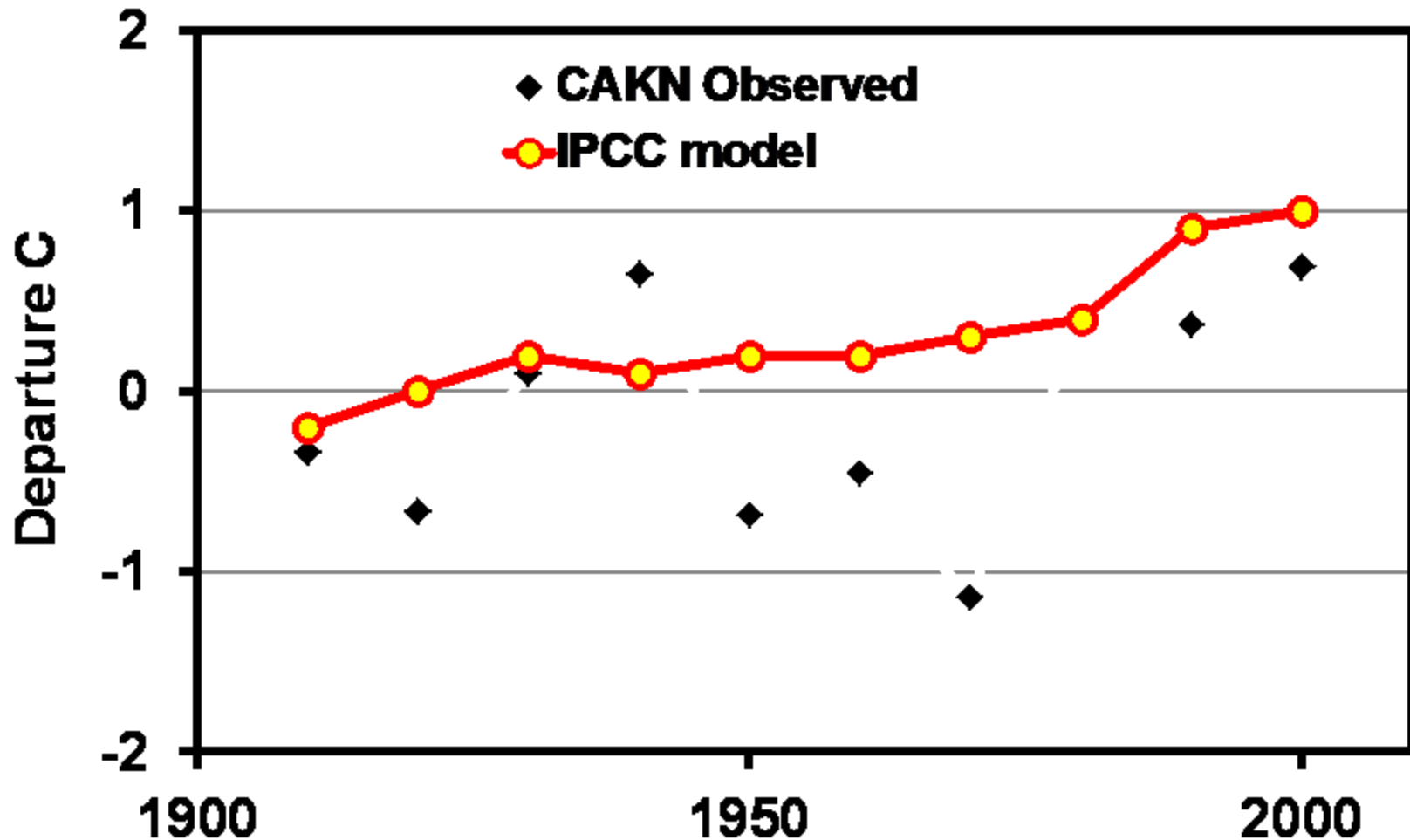
Alaska climate: past century (black line)

Model past & future (color band)

IPCC = Intergovernmental Panel on Climate Change (UN)

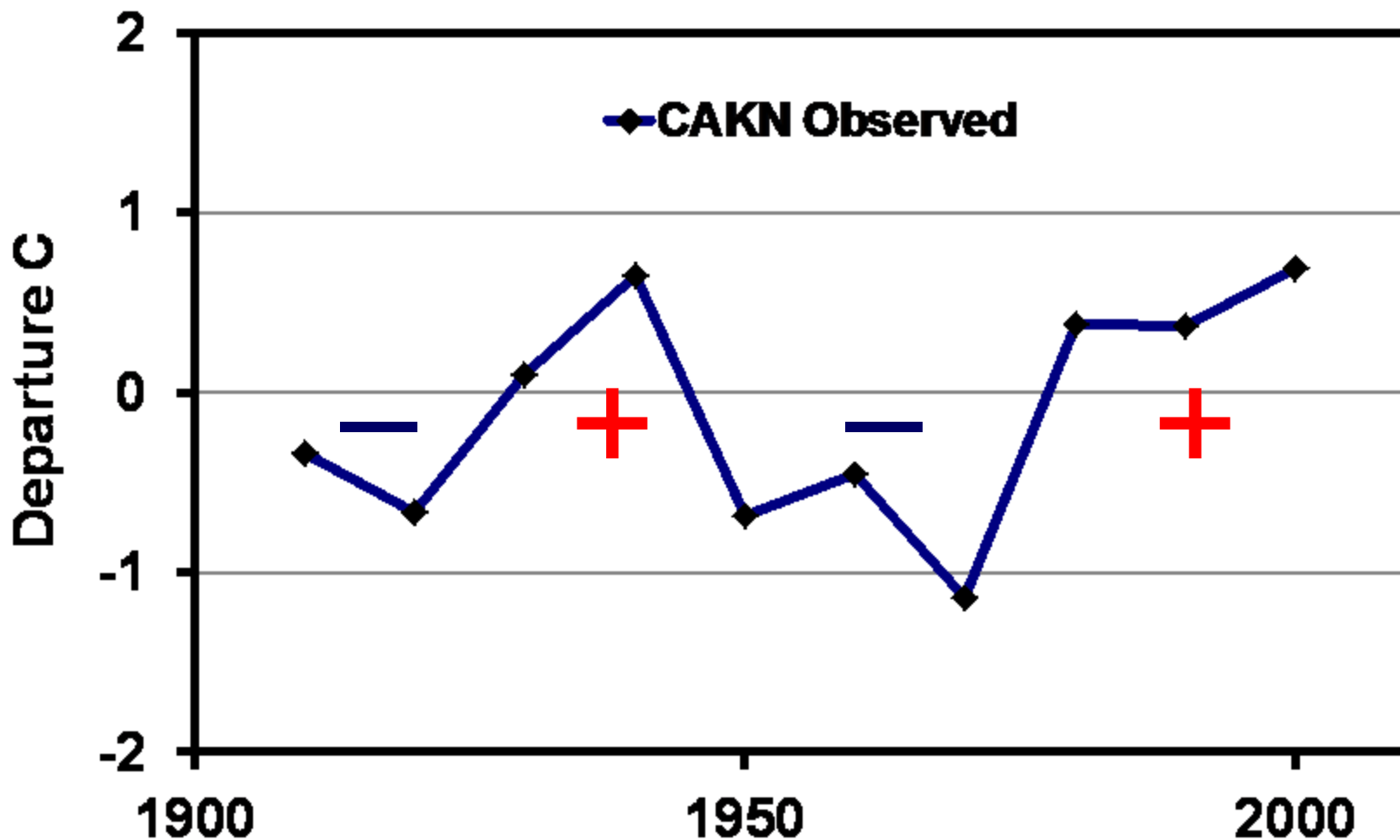
IPCC's models show a 1°C warming since 1900.

Central Alaska Decadal Temperatures
Average of 9 long-term rural stations

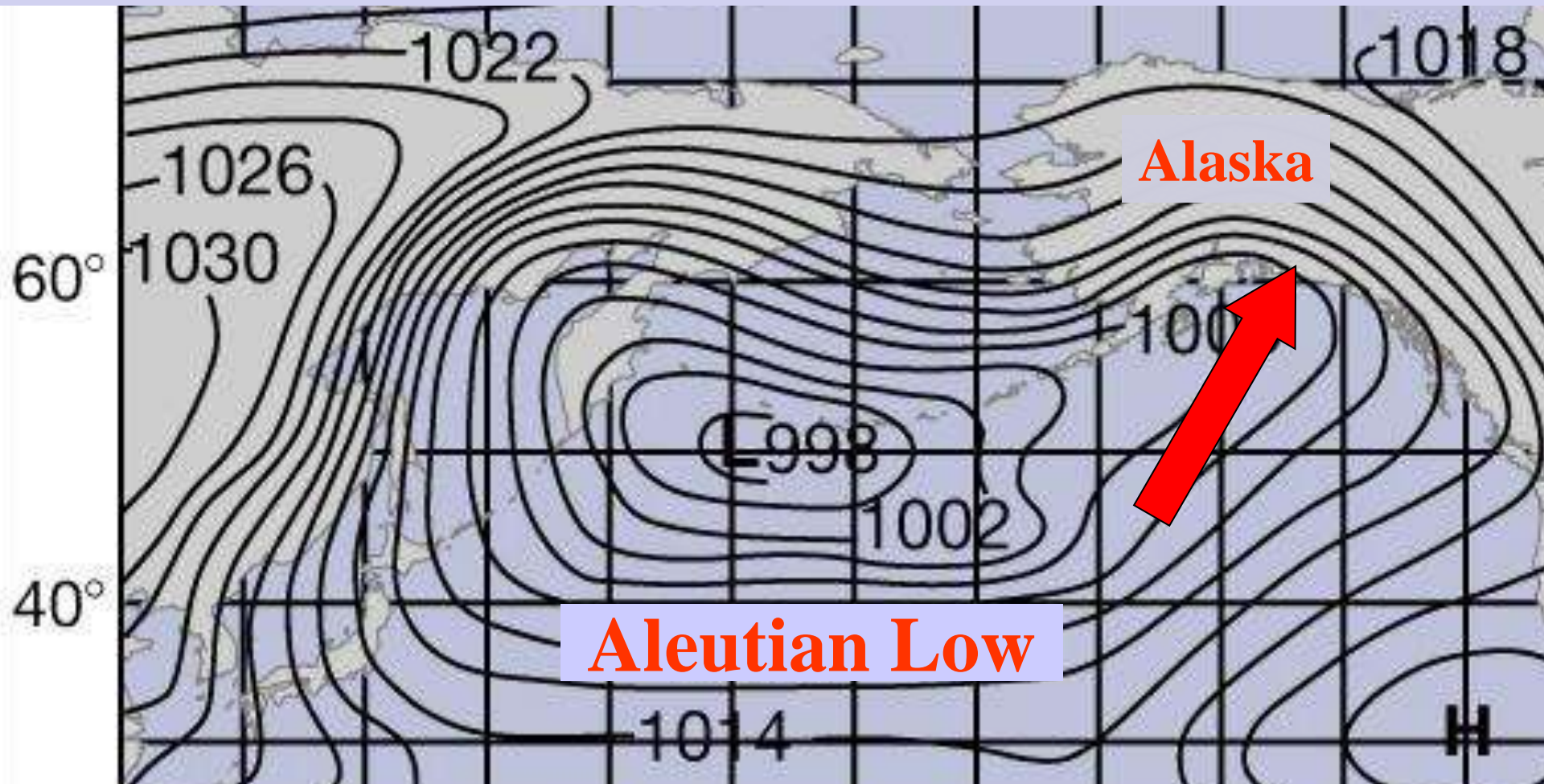


Actual data for Alaska shows 30-year cycles, but no change overall. What causes the cycles?

Central Alaska Decadal Temperatures
Average of 9 long-term rural stations

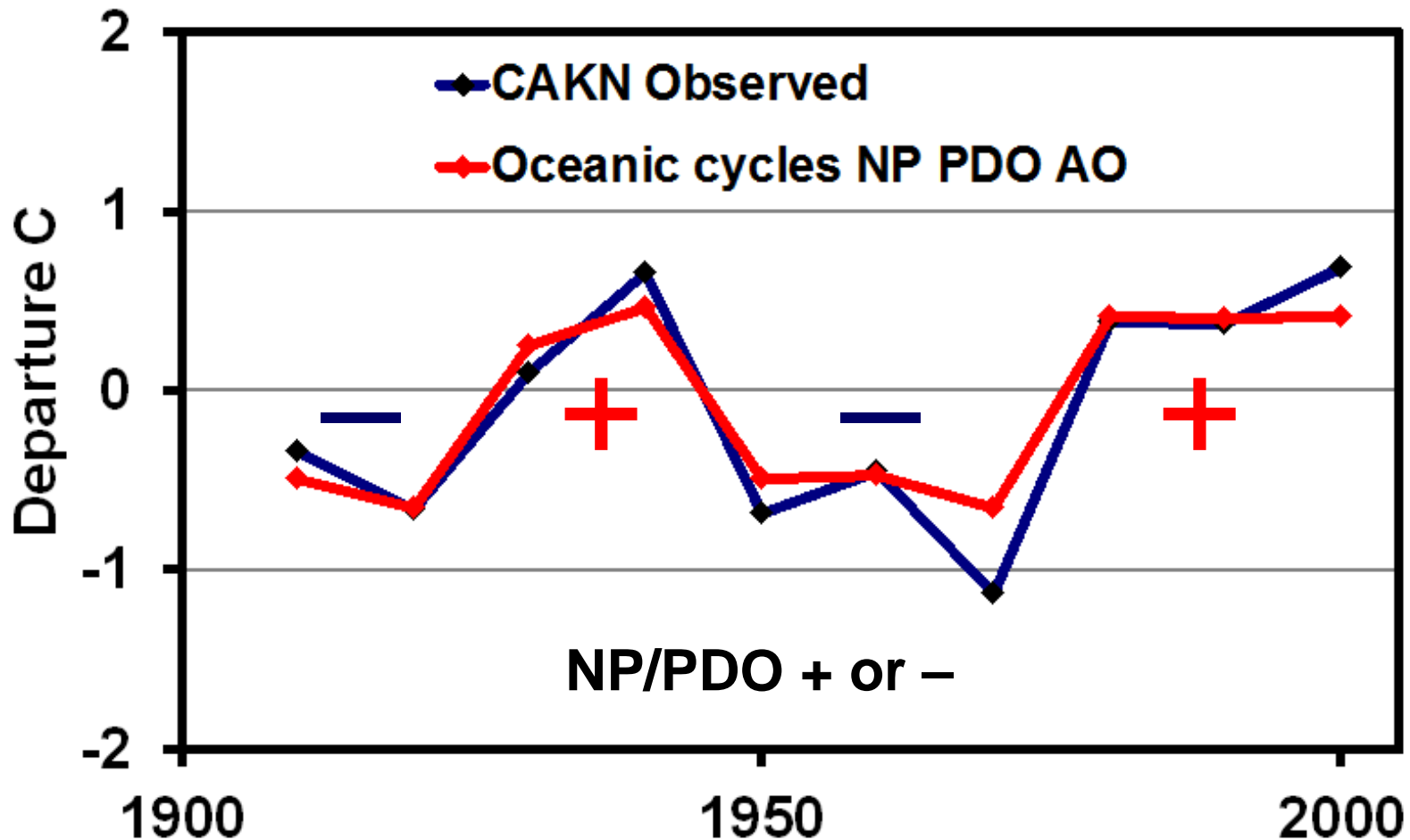


The PDO = Pacific Decadal Oscillation, or NP = North Pacific index, a measure of the atmospheric pressure over the North Pacific Ocean. When pressure goes down, the Low is stronger, and Alaska gets warm southerly winds.



Alaska's climate variations follow the PDO cycle closely. The models do not.

Central Alaska Decadal Temperatures
Average of 9 long-term CAKN stations compared to
Oceanic cycles



PDO/NP cycles are natural, lasting 20 - 66 years, typically around 30 years since 1600.

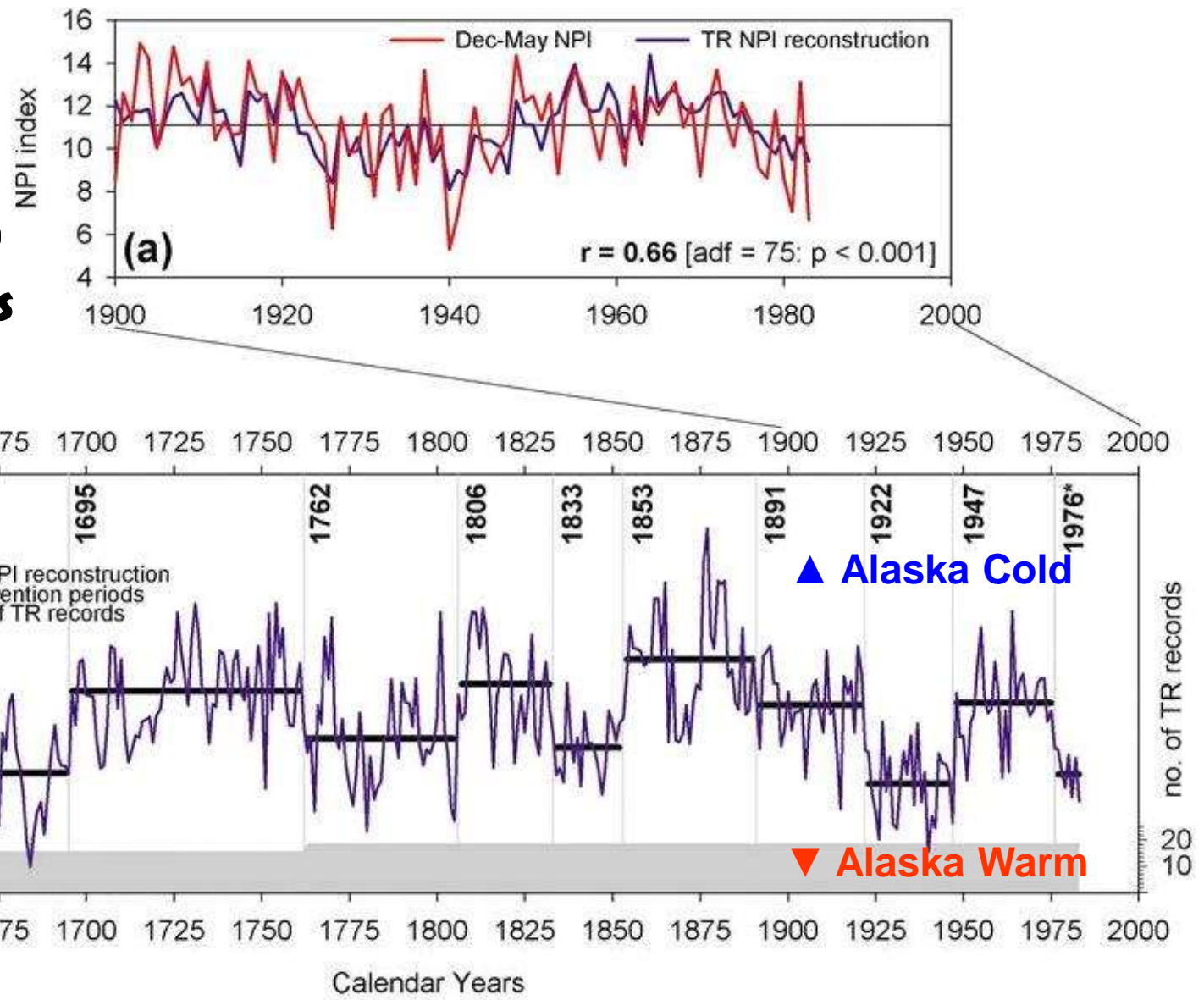


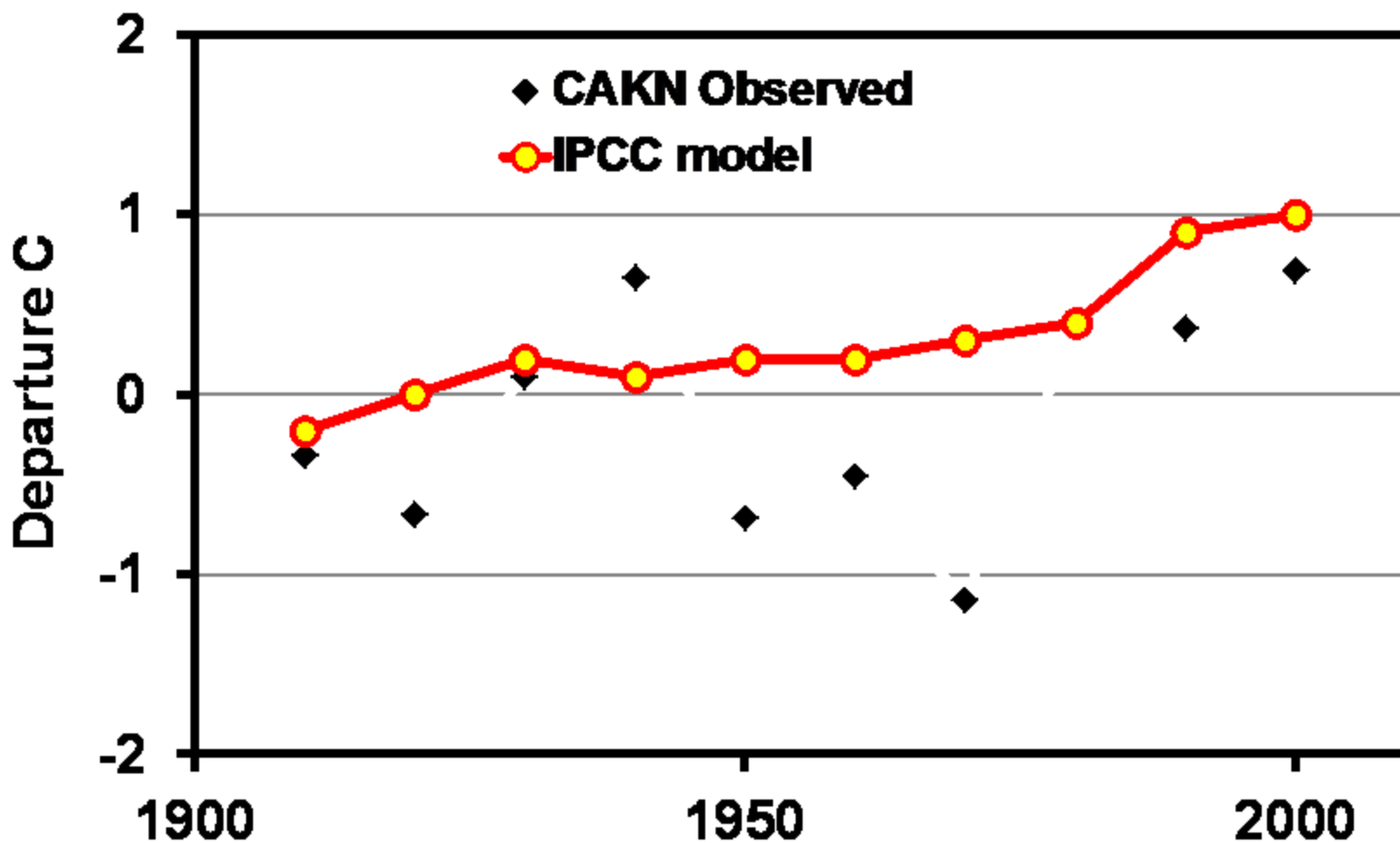
Fig. 2. Tree-ring based NPI reconstruction. (a) Actual and estimated Dec–May NPI for the 1900–83 calibration period: (b) Reconstruction of Dec–May NPI from 1600–1983 based on North Pacific tree-ring data. Highlighted phase shifts identified using intervention analysis (significant at the 90% confidence limit).

Journal of Climate Volume 18, Issue 24 (December 2005): pp. 5253–5265 Tropical–North Pacific Climate Linkages over the Past Four Centuries
 Rosanne D’Arrigo, Rob Wilson, Clara Deser, Gregory Wiles, Edward Cook, Ricardo Villalba, Alexander Tudhope, Julia Cole, and Braddock Linsley
 Tree-Ring Laboratory, Lamont-Doherty Earth Observatory, Palisades, New York

Models do not forecast the PDO and other cycles, which are the largest influences on regional climate.

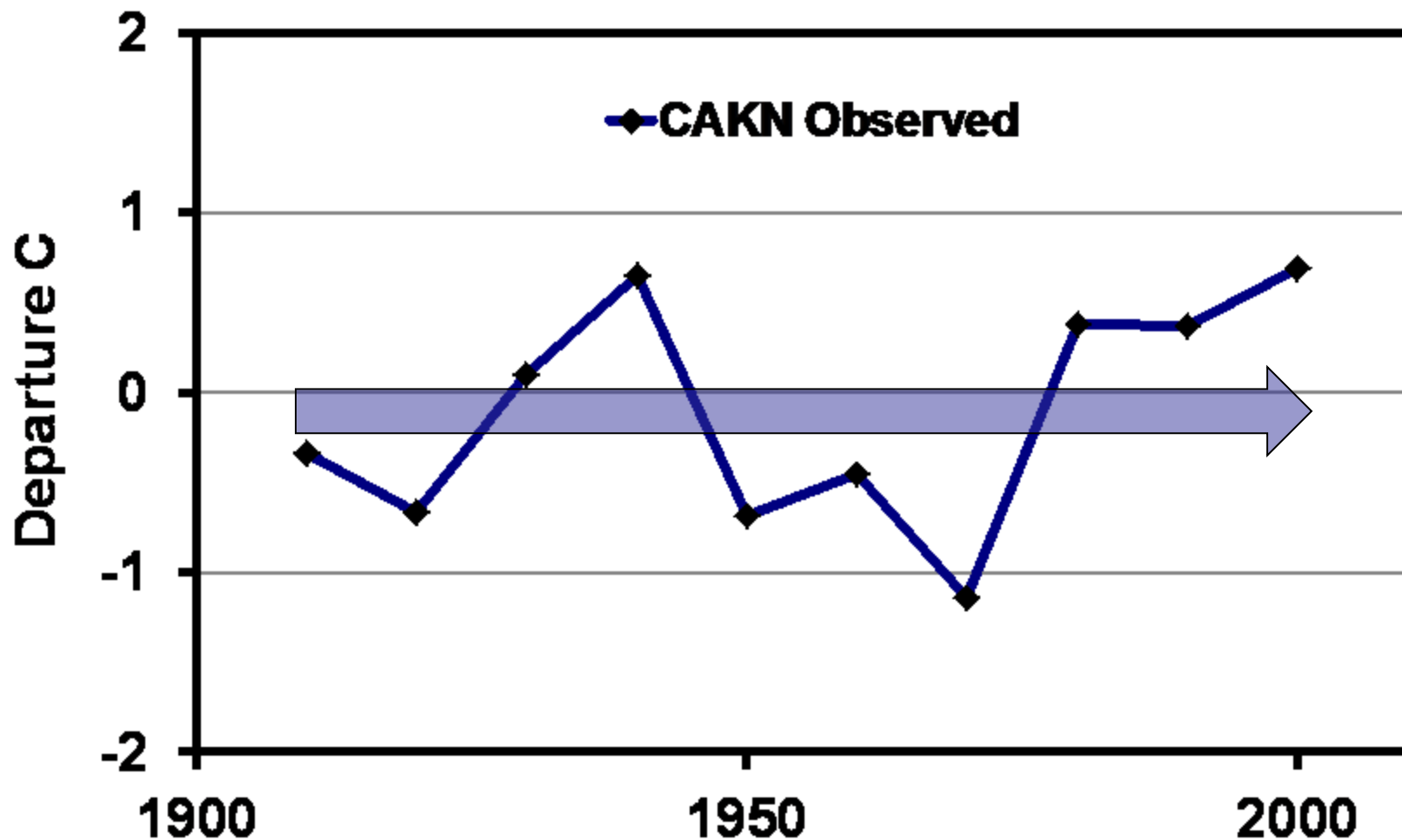
How do IPCC modelers get around this ?

**Central Alaska Decadal Temperatures
Average of 9 long-term rural stations**



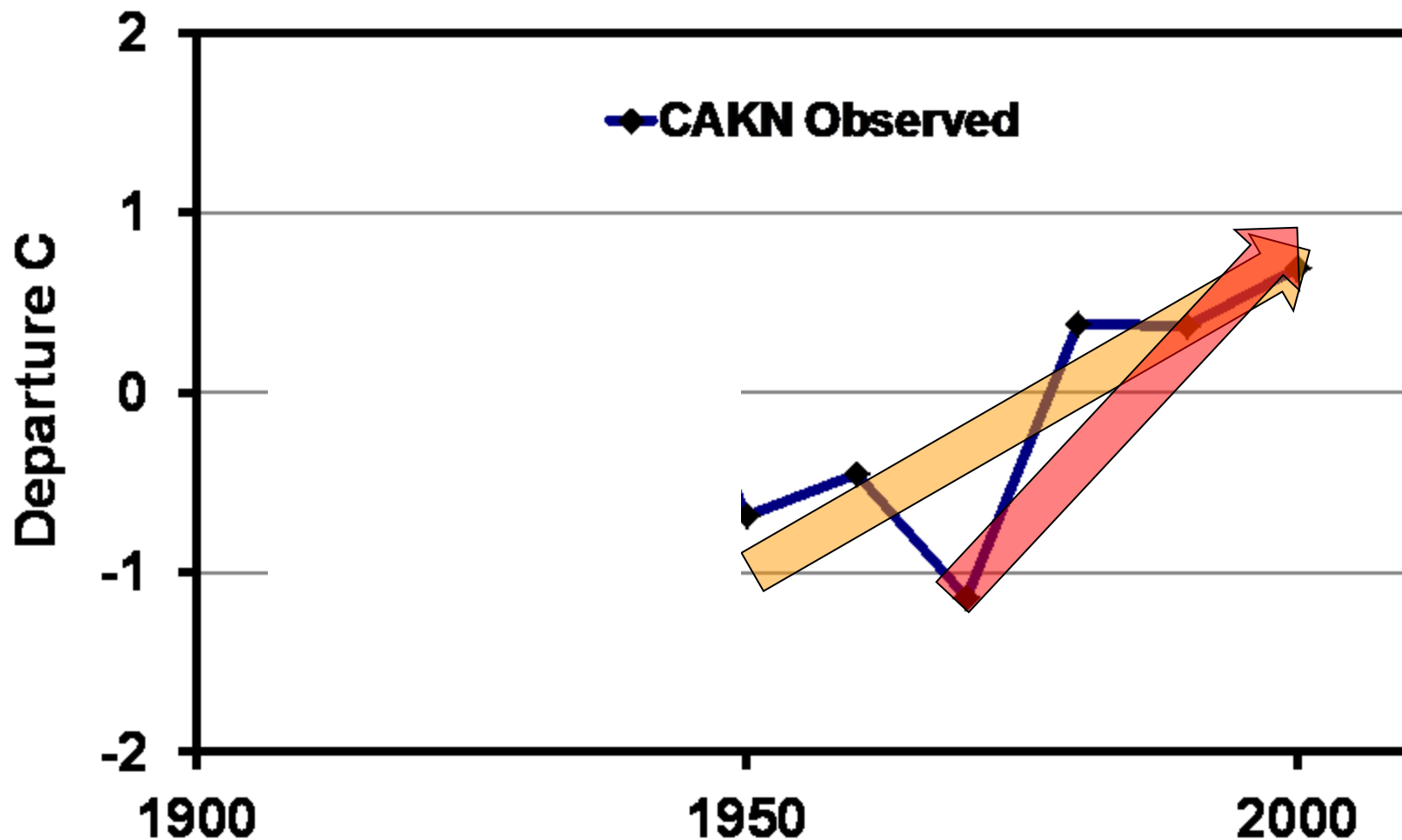
Easy: Ignore, or erase, climate history prior to 1950-1970 (Yezhov would understand)

Central Alaska Decadal Temperatures
Average of 9 long-term rural stations



Easy: Ignore, or erase, climate history prior to 1950-1970 (Yezhov would understand)

Central Alaska Decadal Temperatures
Average of 9 long-term rural stations



Dilbert would understand, too.



Dilbert.com DilbertCartoonist@gmail.com



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How are Polar Bears doing these days ?

Ursus Maritimus (Sea Bear) enjoy swimming, and are doing just fine, just as they did with thin ice 70 and 250 and 1000 and 8,000 years ago, thank you!



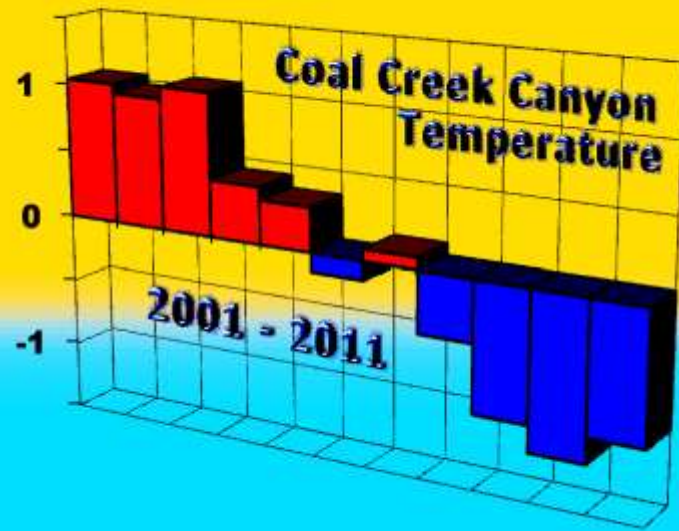
**Another Hot Spot:
Colorado.**

**Coal Creek Canyon
co-op station,
aka Home.**

**IPCC: 2°F warming
over 30 years.**



Bumper sticker science



COLORADO
COOLING

Down 2°F in 12 years. Colorado, and the rest of the world, hasn't warmed in 15 years (since 1998).

Not to worry, IPCC now says we need 17 years of cooling!

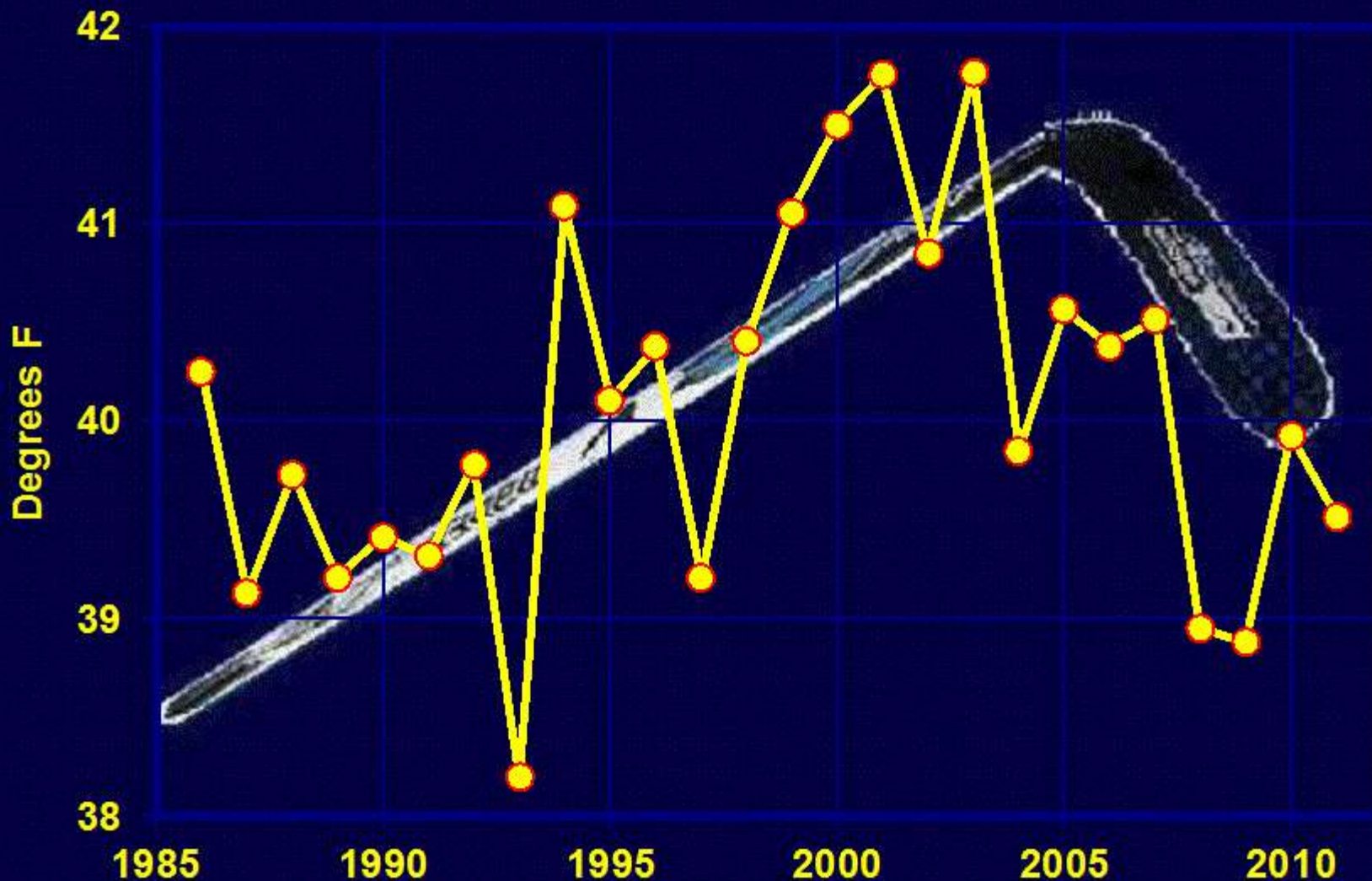
IPCC Santer et al. (2011):

“To separate human-caused global warming from the “noise” of purely natural climate fluctuations, temperature records must be **at least 17 years** long.”

OK, how about 28 years?
0.5°F warming, 1/4 of IPCC's guess
Coal Creek Annual Temperatures

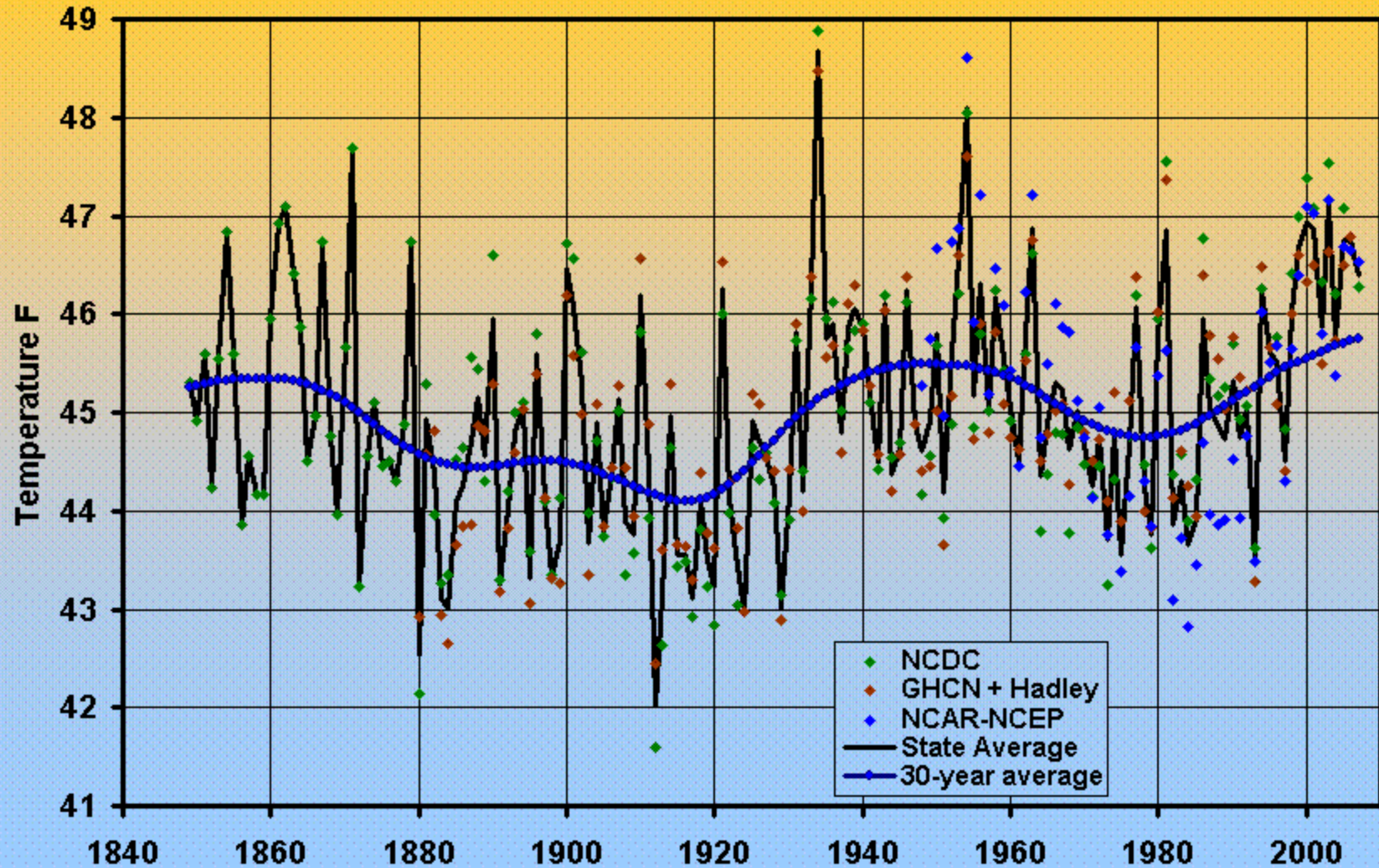


OK, how about 28 years?
0.5°F warming, 1/4 of IPCC's guess
Coal Creek Annual Temperatures



Is 160 years enough? Colorado: PDO cycles, but only 1/4-degree warming since 1849!

Colorado Annual Mean Temperature, 1849-2007
Average of four different sources



**“People underestimate the power of models.
Observational evidence is not very useful.”**

**-- John Mitchell, Chief Scientist UK Met Office
& IPCC**



**The power of models, indeed.
Rolling dice simulates the past climate
better than the taxpayer's billion \$\$ models.**

**Dr. Keen's Advanced Climate Simulation Model
(101 rolls of dice)**

