ICSC - Canada

https://www.icsc-canada.com/

International Climate Science Coalition - Canada

ACTION 4 CANADA

Protecting Faith, Family and Freedom

"My journey from climate alarmism to climate realism"

Tom Harris, B. Eng., M. Eng.
Executive Director - International Climate Science Coalition - Canada

www.icsc-canada.com; icsc.tom.harris@gmail.com

CLIMATE IS EVERYTHING.

HOW THE PANDEMIC CAN LEAD US TO A BETTER, GREENER WORLD BY JUSTIN WORLAND

TIME

Artist Red Hong Yi created this image out of 50,000 matchsticks to represent how the climate crisis connects us all

The Washington Post | 5 Apr 2022

U.N.: Earth is approaching a key climate tipping point

BY SARAH KAPLAN AND BRADY DENNIS

The world is on track to blaze past a crucial climate target within eight years, some of the planet's top researchers, economists and social scientists said in a sober assessment Monday.

Whether humanity can change

COMMENTS

"He is a dynamic, effective communicator who can captivate an audience of any age."

Michel Lamontagne
Astronomy Programme Coordinator
National Museum of Science and Technology

". . . I was extremely happy with the praise we received from all of those in attendance. . . . (In) quoting the words of one of our Past District Governors, Lion Ed Ayoub: When someone said that the speaker was expellent he said, 'That is not the correct evaluation, it was superb'."

Lion Sam Colwick
Program Chairman
Ottawa Sunrise Lions Club Inc.

"Tom Harris was both informative and entertaining, and has created a presentation that will continue to be relevant in both an environmental context and with regard to the future of space exploration. 'Earth Day Ottawa' recommends seeing it, for both young and old alike!"

Kathleen Lowsen
Ottawa Organizing Committee
Earth Day 1990

". . . the experience was of a whole new world opening up in vivid detail, filled with mystery, beauty, challenge and inspiring awe. Mr. Harris, ever keeping in touch with his audience, brought it close and helped us to glimpse a possible future with a sense of renewed hope. Hope for our home planet . . . Hope for a more enlarged and conscious existence of man at home in the universe."

Dan Sokolski
Environment Teacher
The Carleton Board of Education

"Your talk was very well received and many members have commented on the timeliness of your chosen topic. The audience was also impressed with your presentation and style and commented on your obvious enthusiasm for your work. . ."

Sandra Ferguson
First Vice President (1988, 1989), Ottawa Centre
Royal Astronomical Society of Canada

NASA photo

Humanity's first view of "Earthrise" over the moon (as seen by the crew of Apollo 8 — Christmas Eve, 1968).

Using breathtaking audio-visuals and mind-expanding new perspectives, Tom's presentations stimulate debate and encourage a new understanding of the crucial role that space exploration plays in solving global problems.

For details concerning Tom Harris' presentations, fee and availability, please contact:

TOM HARRIS, Speaker
Space Exploration and Environment
26 Florette Street
Gloucester, Ontario
K1J 7L4
Canada

Telephone: (613) 741-5646

Printed in Canada on recycled paper

Space Exploration, Environment and Human Survival

- the crucial connection

TOM HARRIS B.Eng., M.Eng.

Speaker

TOM HARRIS

With a Masters in Engineering, ten years of work in aeronautics and broad experience as a speaker, TOM HARRIS will change your perspectives of space travel and the environment. Besides independent presentations, Tom has regularly spoken in astronomy and space exploration at the National Museum of Science and Technology in Ottawa. He has also had space related feature articles published in major Canadian newspapers.

In recent years, Tom has researched both technical and human aspects of space exploration and has uncovered critical space/environment connections. He combines elements of anthropology, psychology, spirituality, engineering and physical sciences in order to explain the real reasons for the human expansion into space. This expansion is already playing a significant role in the struggle to save our environment and will become a key component to ensuring the survival of humanity itself.

Because there may be a fairly limited "window of opportunity" during which time the expansion into space can reasonably happen, Tom uses his speeches to encourage debate on where we are really headed and why. His unique presentations include spectacular slides, video and music to both entertain and challenge. Your group will never look at the space program in the same way again!

TWO DISTINCT PRESENTATIONS!

#1 - SAVING THE HOME PLANET

Space Travel and the Environment

Current environmental and other global problems differ significantly from those that humanity has faced in the past. Consequently, a new perspective has been required to properly understand and address these vast and complex threats. Space travel has already had an enormous impact in this area, changing the way we think about our world.

In this presentation, Tom shows how our view of the Earth has evolved as a result of our space activities. He discusses how sending people into space is changing humanity in such a way as to make us more effective in our efforts to save our troubled environment. Understanding this space/environment connection is crucial if we are to develop a sensible course of action for the future.

"The first day or so we all pointed to our countries. The third or fourth day we were pointing to our continents. By the fifth day we were aware of only one Earth."

Sultan Bin Salman al- Saud
Saudi Arabian Prince / Astronaut

NASA photo

Human space flight has encouraged the initiation of new philosophical perspectives important to our survival.

#2 - SPACE EXPLORATION

Humanity's Greatest Adventure

The 1990's mark the beginning of an exciting new era in the exploration of our solar system. We'll be dropping probes into the mysterious atmospheres of Jupiter and Saturn's moon Titan. We'll use robots to map Mars, first from orbit and later with stereo vision equipped surface rovers. For the first time, pieces of Mars will be returned to Earth. Humans will soon follow the robots to explore and settle these new frontiers, beginning an expansion that will lead to radical changes in the nature of humanity itself.

Tom begins this show with an overview of future robotic and human exploration of the solar system. He then focuses on some of the past and near future robotic exploration of Mars, missions that are preparing the way for the first human visitors to the red planet early in the 21st century. Finally, Tom discusses the long term importance of space exploration and shows how this adventure is critical to the future of our species.

Courtesy NASA - JPL

The MARS OBSERVER robot spacecraft is to be launched in September 1992. This is just one of the many exciting missions of this "Second Golden Age of Planetary Exploration".

"I believe that there are moments in history when challenges occur of such a compelling nature that to miss them is to miss the whole meaning of an epoch. Space is such a challenge".

James A. Michener
Author

SAVING
the Home Planet
The Space Programme's Most Crucial Mission

Earth Day
April 22, 1990

A slide show and talk by **Tom Harris**
7:00 p.m. in the Auditorium
National Museum of Science and Technology
1867 St. Laurent Blvd.
Ottawa
For more information call
613 991-3044

Journée de la Terre
22 avril 1990

Causerie illustrée de diapositives de **Tom Harris** (en anglais)
À 19 h, dans l'auditorium
Musée national des sciences et de la technologie
1867, boul. Saint-Laurent,
Ottawa
Pour plus de renseignements, téléphoner au
613 991-3044

THE KIWANIAN

THE KIWANIS CLUB OF OTTAWA

THIS WEEK

TOM HARRIS

"SPACE EXPLORATION AND ENVIRONMENT"

WE COULD NOT HAVE A MORE TIMELY TOPIC

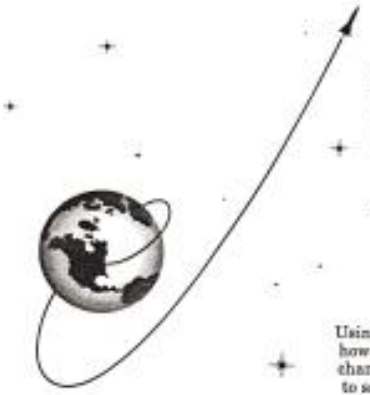
COME OUT AND BRING A GUEST

SPECIAL PUBLIC PRESENTATION

"SAVING THE HOME PLANET
Space Travel and the Environment"

Presented by:

TOM HARRIS M. Eng.
Speaker - Space Exploration and Environment



Friday Evening
7:15 - 9:15 pm May 12/95
at
International Academy of Natural Health Sciences (Canada)
(an academic foundation to develop a balanced understanding of natural health)
380 Forest Street (off Carling)
Ottawa, Ontario
K2B 8E6

Using breathtaking slides, Tom explains how the human expansion into space is changing humanity, making our efforts to save the environment more effective.

This presentation is designed for an ADULT audience. Cost: $5.00
Space Limited - Reservations Required
Information: (613) 820-0318 or 1-800-267-8732

National OTTAWA CITIZEN Online

Saving The Home Planet
By Exploring Other Worlds

Environmentalists Should be Boosting Cassini, Not Trying To Block It

Tom Harris
Professional Speaker
Space Exploration And The Environment

Over the past few weeks thousands of activists across the United States have been holding demonstrations to protest Monday's launch of the Cassini robot spacecraft being sent to explore the planet Saturn. They fear that there would be a dangerous release of radioactivity if the onboard nuclear power source was destroyed in a catastrophic accident such as that which destroyed the space shuttle Challenger.

However, as is frequently the case when nuclear issues are being discussed, the dangers have been grossly overstated. The real risks to the environment or the nearby population are trivial, far less, for example, than that which protesters are taking simply by driving to the demonstration sites. Comprehensive studies have clearly shown that even a Challenger-like explosion would not release radioactive fuel from their ceramic enclosures. A thorough White House evaluation of the safety analysis done by NASA and its interagency partners concluded that, the important benefits of this scientific mission outweigh the potential risks.

So what are these important benefits? Ironically, among the most significant are those which relate to understanding and protecting the Earth's environment. Like a medical doctor who travels to other continents to learn how differences in diet, living conditions and medical techniques affect human health, planetary scientists gain important new insights into our own planet's past and future by exploring other worlds. In a field generally referred to as **Comparative Planetology**, we are using other planets as full scale laboratories to improve our environmental theories and to show us what can happen to the Earth if we continue to abuse it. By exploring our solar system we widen our perspectives and gain a better understanding of the mechanics of worlds in general, making us better able to protect our planet's fragile biosphere. Instead of opposing the mission, environmentalists should be cheering NASA and encouraging the agency to launch many more such spacecraft.

Comparative Planetology is nothing new. Since our first interplanetary missions three and a half decades ago, we have continued to make revolutionary environmental discoveries as a result of data returned by robot spacecraft. A good example of this comes as a result of the exploration of

scientific mission outweigh the potential risks.

So what are these important benefits? Ironically, among the most significant are those which relate to understanding and protecting the Earth's environment. Like a medical doctor who travels to other continents to learn how differences in diet, living conditions and medical techniques affect human health, planetary scientists gain important new insights into our own planet's past and future by exploring other worlds. In a field generally referred to as **Comparative Planetology**, we are using other planets as full scale laboratories to improve our environmental theories and to show us what can happen to the Earth if we continue to abuse it. By exploring our solar system we widen our perspectives and gain a better understanding of the mechanics of worlds in general, making us better able to protect our planet's fragile biosphere. Instead of opposing the mission, environmentalists should be cheering NASA and encouraging the agency to launch many more such spacecraft.

Comparative Planetology is nothing new. Since our first interplanetary missions three and a half decades ago, we have continued to make revolutionary environmental discoveries as a result of data returned by robot spacecraft. A good example of this comes as a result of the exploration of Venus.

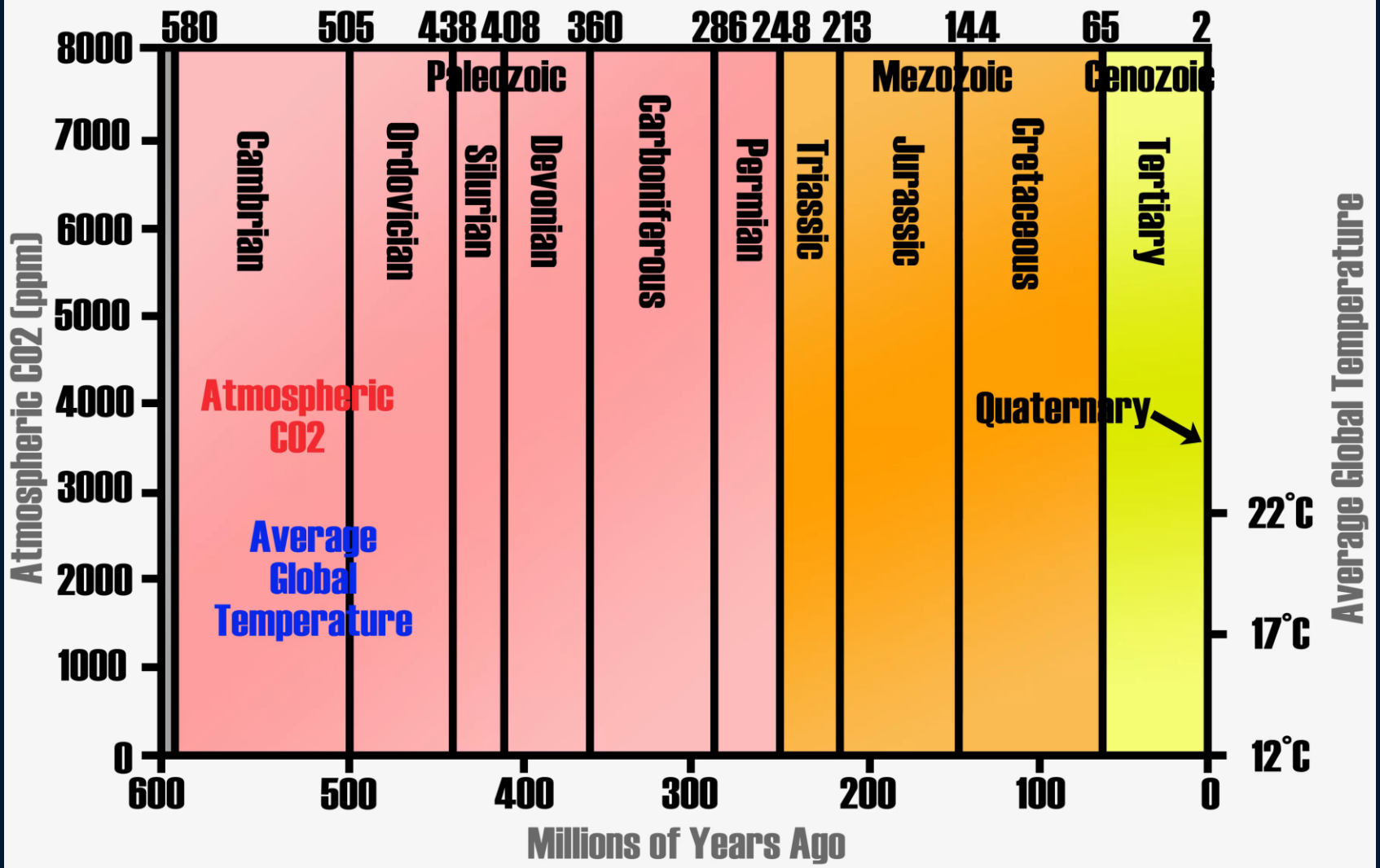
Since the late 1950's, measurements from earth-based radio telescopes have indicated that Venus' surface temperature was almost 900 degrees Fahrenheit, hot enough to melt lead or tin. Because this was significantly hotter than Mercury, the sun's closest companion, many scientists simply did not believe these findings. Of course, Venus should have been cooler than Mercury. It also should have been cooler than the Earth because Venus has so much more cloud cover than does our planet, and so reflects back into space a far higher fraction of the sunlight arriving at the cloud tops. Yet measurements consistently indicated that Venus was by far the hottest world in the solar system.

The answer to this mystery was finally supplied in 1962 when the Mariner 2 robotic spacecraft flew by Venus. It found that the planet really was in the 900 degree range and that its massive atmosphere was mostly Carbon Dioxide (CO_2). The fact that this world was so hot due to a runaway greenhouse effect, was a sobering example of what can happen on a planetary scale if the amount of CO_2 becomes too high. Using the conditions on Venus, along with those on Mars and Earth, two other worlds which also have CO_2 in their atmospheres, scientists could now more thoroughly test out theoretical models of greenhouse warming. They found that their equations gave results that were amazingly close to the conditions actually observed on the Earth as well as that recorded by robots on Venus and Mars. This correlation was very important, as it confirmed our ability to predict future trends in Earth's global warming due to CO_2 build up.

The exploration of Mars has also led to a better understanding of earthly environmental threats, the most prominent of these being nuclear winter. It is now known that following a significant nuclear exchange, fine smoke particles from the burning of cities and petroleum facilities would block out much of the incoming sunlight to our planet's surface, resulting in drastic temperature reductions worldwide. However, before 1971, the seriousness of nuclear winter was not properly recognized. In that year, Mariner 9 went into orbit around Mars during the peak of a planet-wide dust storm and discovered that the high atmosphere was warmer and the surface colder than theoretical models then predicted. This led researchers to work out new atmospheric particulate models which were soon used to predict nuclear winter back here on Earth.

Even the Ulysses spacecraft, cited by environmentalists as a mission which should not have been launched due to its on-board radioactive heat source, is now making significant environmental contributions in the field of climate change. Because the spacecraft is able to observe the Sun's poles, currently regarded as centres of solar activity variations, we will soon be able to more accurately forecast long term variations in the sun's brightness. Solar input to our planet has a major influence on Ozone depletion, greenhouse warming and other environmental processes of vital importance to life on Earth. Clearly, Ulysses ranks as another mission environmentalists should be enthusiastically supporting.

Dr. Tim Patterson, Professor of Earth Sciences
Carleton University, Ottawa, Canada


580
505
438
408
360
286
248
213
144
65
2
Paleozoic
Mezozoic
Cenozoic
Cambrian
Ordovician
Silurian
Devonian
Carboniferous
Permian
Triassic
Jurassic
Cretaceous
Tertiary
Quaternary
Atmospheric CO2
Average Global Temperature
Atmospheric CO2 (ppm)
8000
7000
6000
5000
4000
3000
2000
1000
0
22°C
17°C
12°C
Average Global Temperature
600
500
400
300
200
100
0
Millions of Years Ago

Earth’s Geologic History

- **Scientists note that geologically speaking, the Earth is currently in a “CO_2 famine.”**

Earth’s Geologic History

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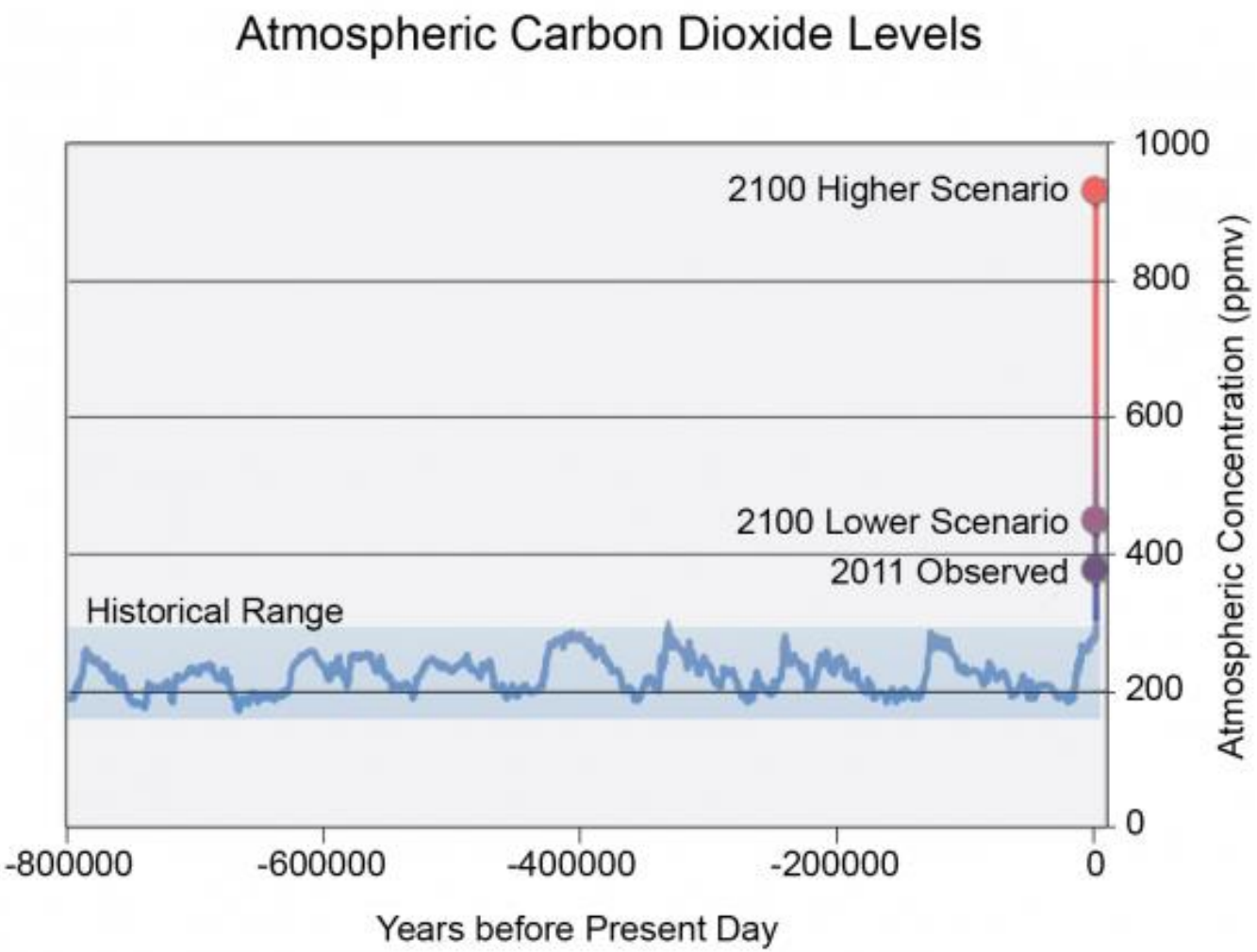
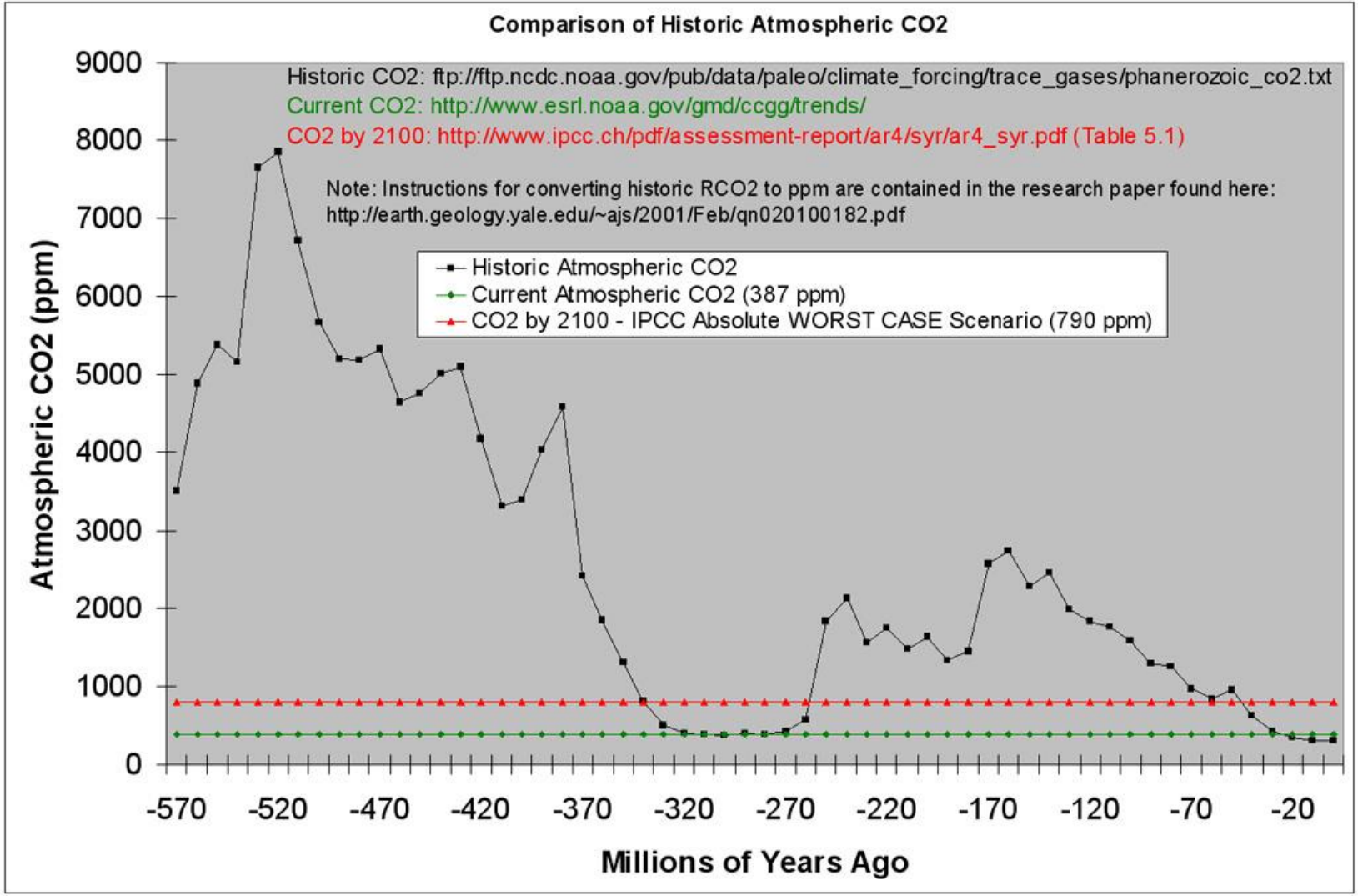
- **Geologic record reveals ice ages and ice houses have occurred when CO_2 was at 2000 ppm to up to 8000 ppm.**

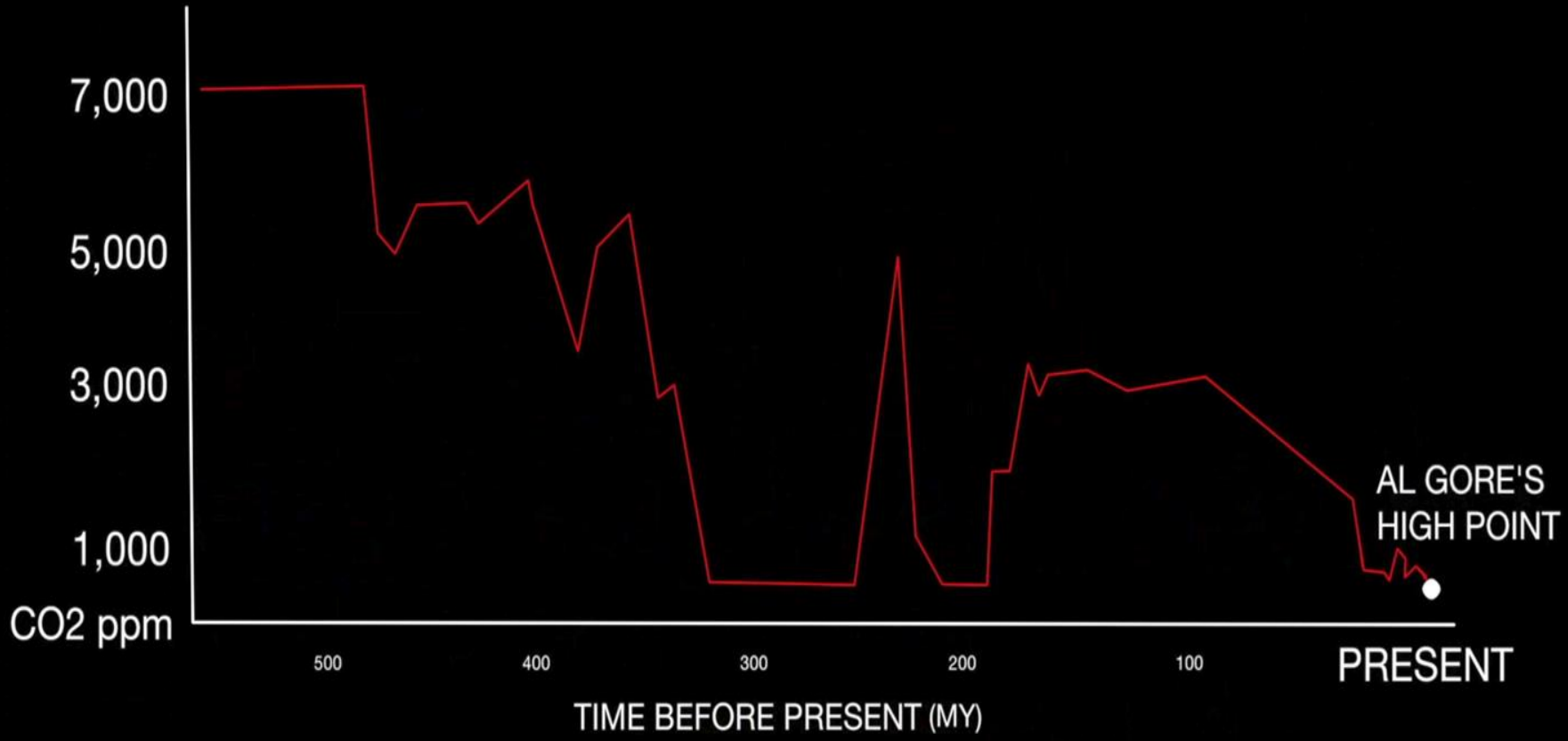
Earth's Geologic History

- Scientists note that geologically speaking, the Earth is currently in a "CO_2 famine."
- Geologic record reveals ice ages and ice houses have occurred when CO_2 was at 2000 ppm to up to 8000 ppm.
- Temperatures have been similar to the present day on Earth when carbon dioxide was up to twenty times higher than today's levels

Gore only told part of CO_2 story

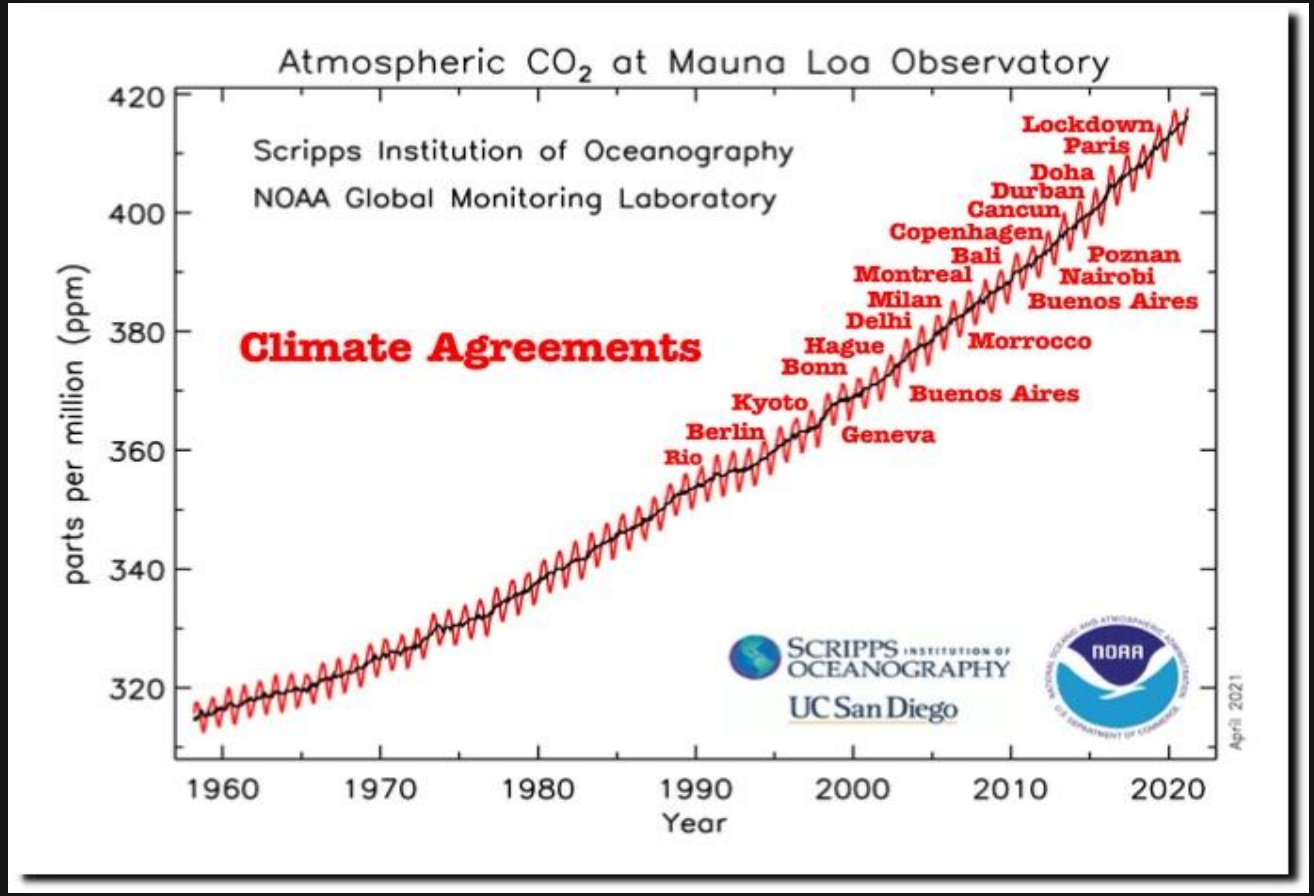

Atmospheric Carbon Dioxide Levels
2100 Higher Scenario
2100 Lower Scenario
2011 Observed
Historical Range
1000
800
600
400
200
0
Atmospheric Concentration (ppmv)
-800000
-600000
-400000
-200000
0
Years before Present Day


Comparison of Historic Atmospheric CO2
Historic CO2: ftp://ftp.ncdc.noaa.gov/pub/data/paleo/climate_forcing/trace_gases/phanerozoic_co2.txt
Current CO2: http://www.esrl.noaa.gov/gmd/ccgg/trends/
CO2 by 2100: http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf (Table 5.1)
Note: Instructions for converting historic RCO2 to ppm are contained in the research paper found here:
http://earth.geology.yale.edu/~ajs/2001/Feb/qn020100182.pdf
Historic Atmospheric CO2
Current Atmospheric CO2 (387 ppm)
CO2 by 2100 - IPCC Absolute WORST CASE Scenario (790 ppm)
Atmospheric CO2 (ppm)
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
-570
-520
-470
-420
-370
-320
-270
-220
-170
-120
-70
-20
Millions of Years Ago



Modified by H. Leighton Steward
Modified after Benner, 2004

Climate Futility



Greenhouses force CO_2 to 1,200 to 2,000 ppm, 3-5 times the 415 ppm of CO_2 in the atmosphere. Because it causes plants to grow bigger and need less water! faster.

Worldwide food harvests are up more than 30% over the last 30 years. Bigger harvests on less land. Thanks to CO_2.

UN'S FIFTY YEARS OF ECO-DOOM WARNINGS

1972: UN "environment protection boss" warns:


"Vi har tio år på oss att hejda katastrofen"

"We have ten years to stop the catastrophe"

1982: *Tolba, head of UN Environment Programme in* **The New York Times :**

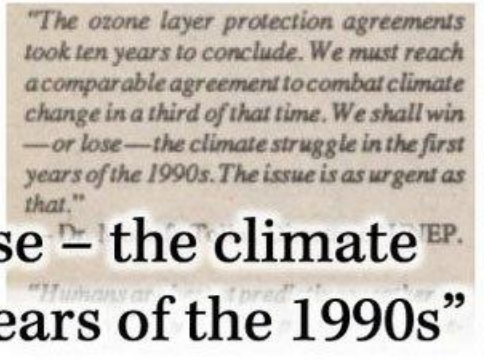
If the nations of the world continue their current policies they will face **by the year 2000:**


U.N. Ecology Parley Opens Amid Gloom

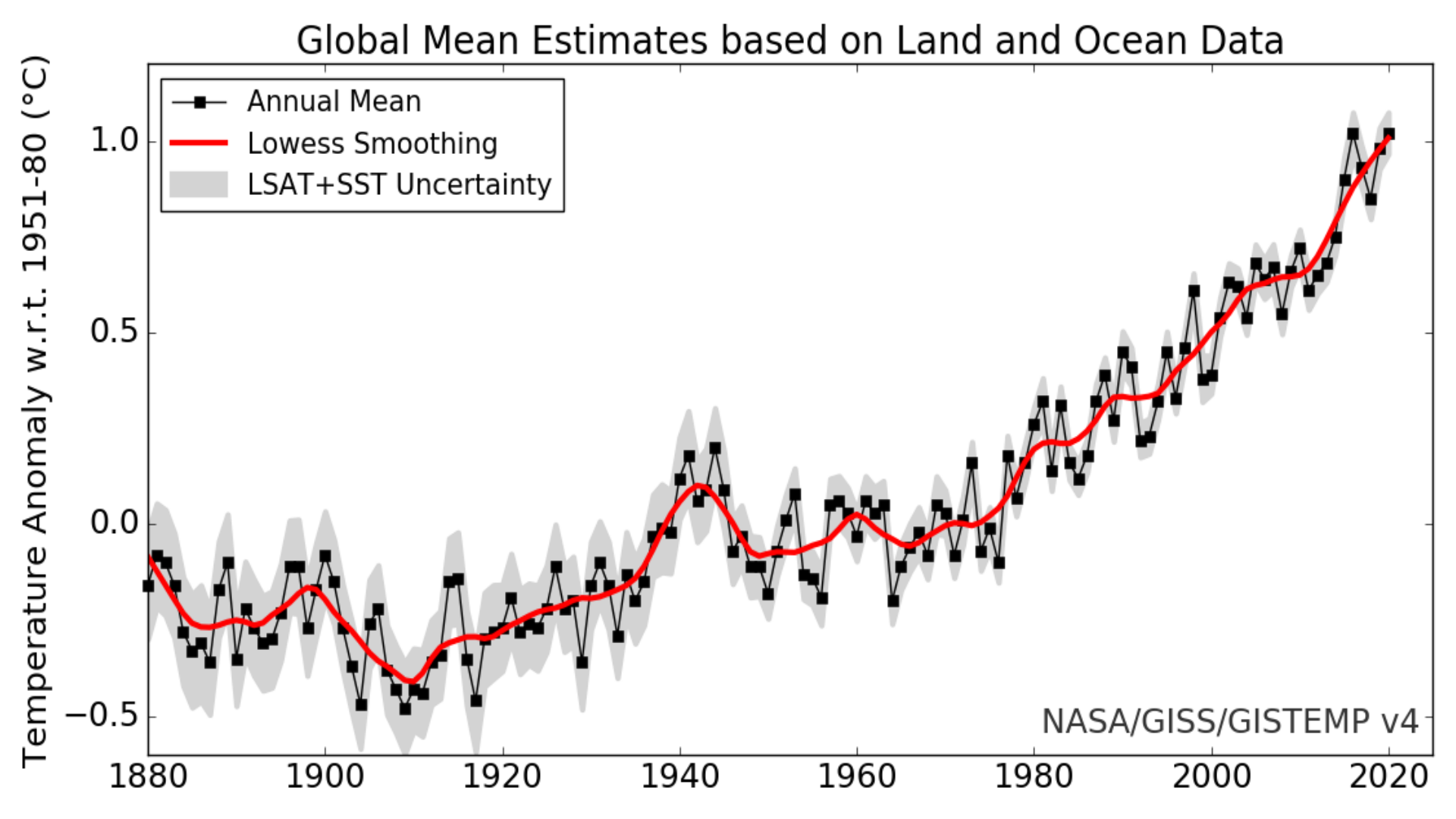
"an environmental catastrophe as irreversible as any nuclear holocaust"

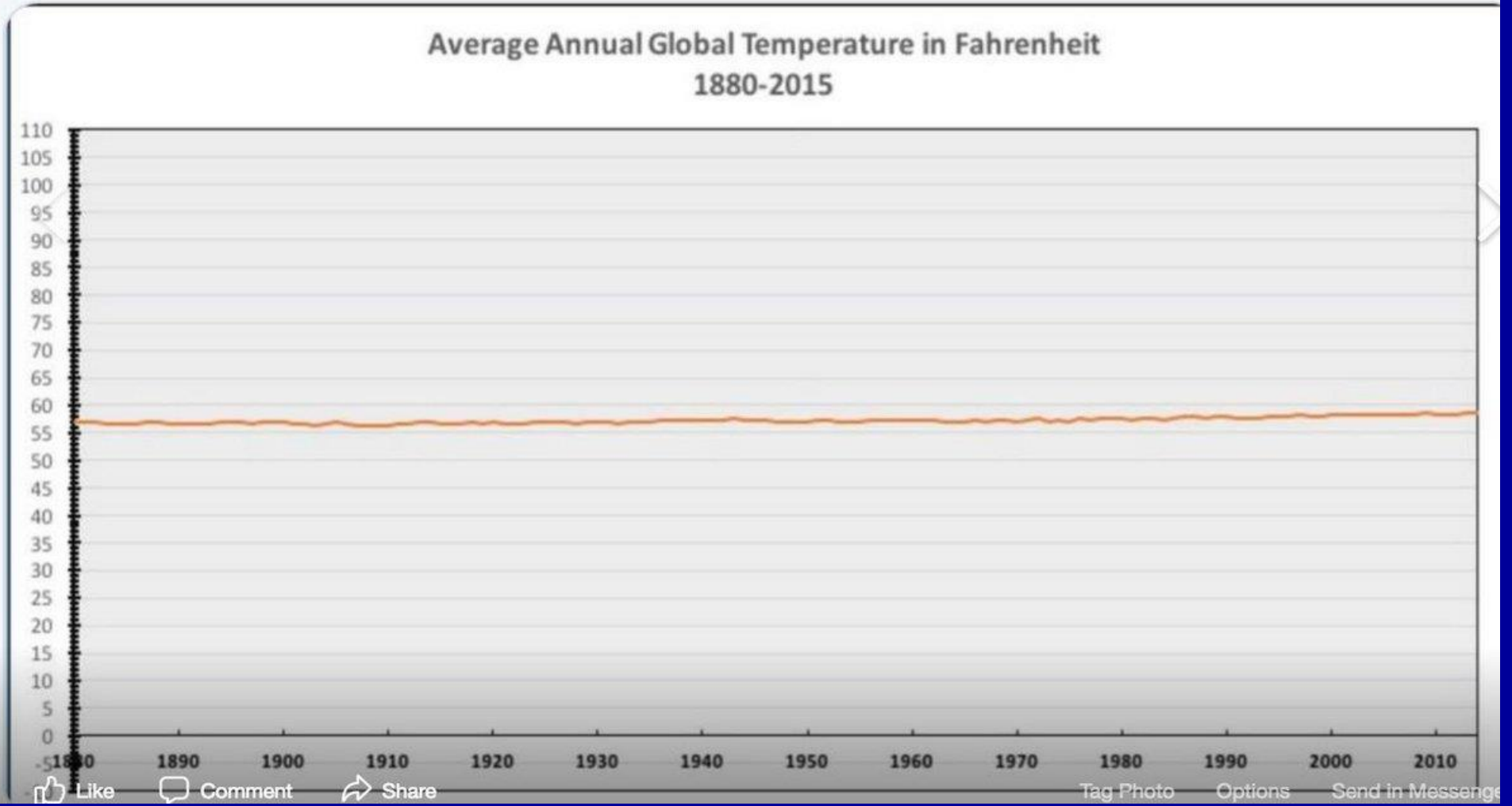
1990*: Mostafa Tolba, head of UN Environment Programme:*

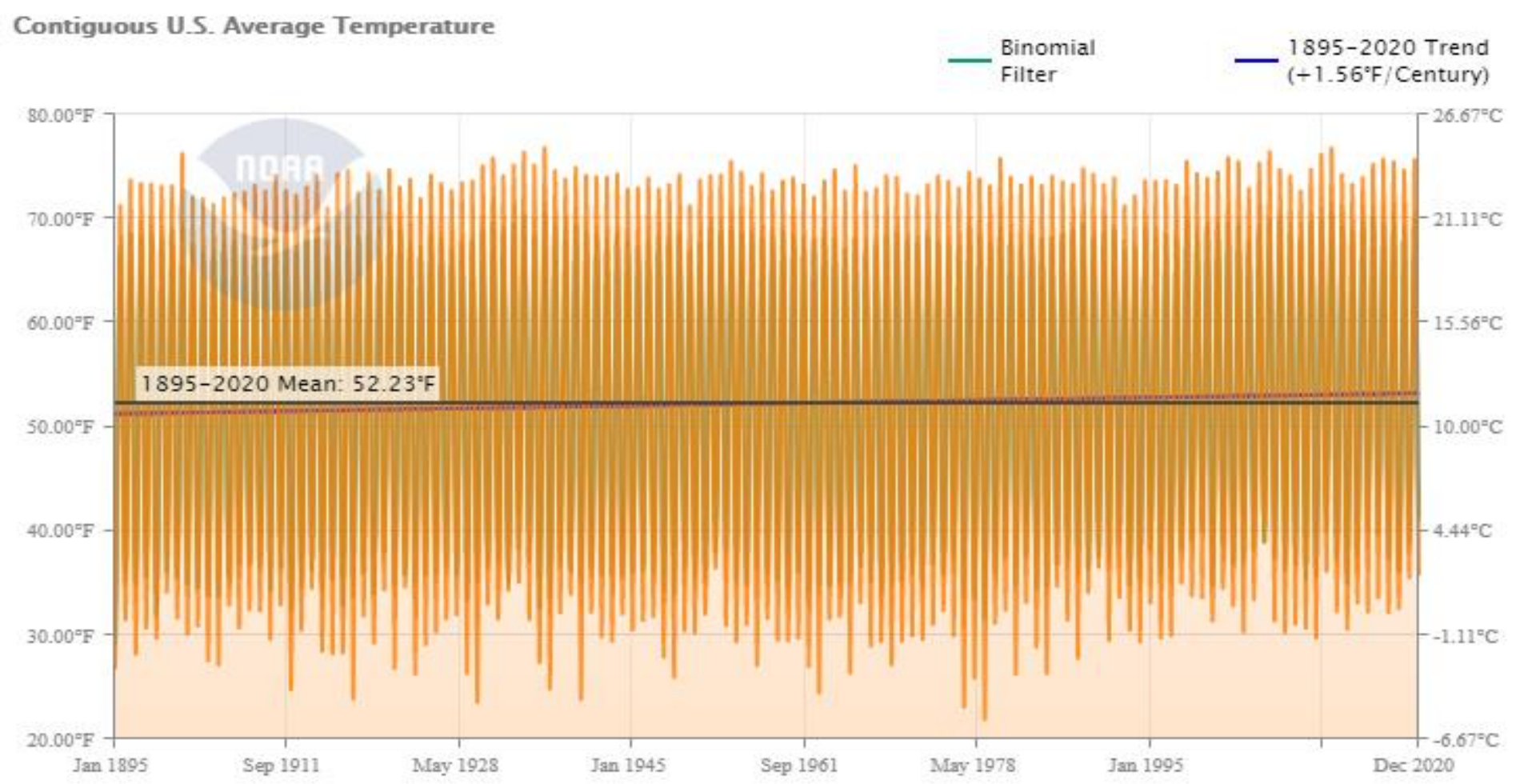
We must to fix climate change before 1995:

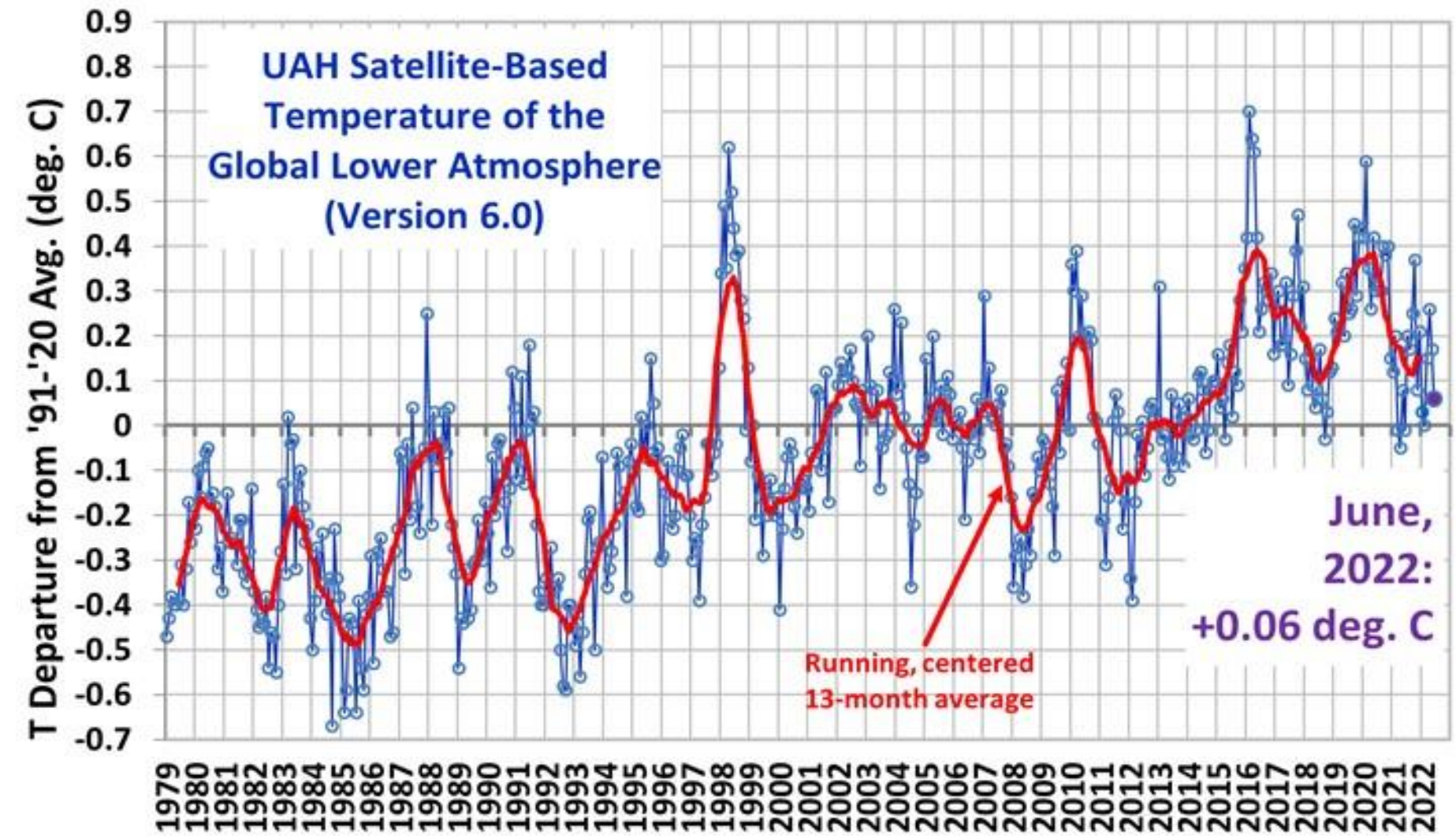

"The ozone layer protection agreements took ten years to conclude. We must reach a comparable agreement to combat climate change in a third of that time. We shall win —or lose—the climate struggle in the first years of the 1990s. The issue is as urgent as that."

"We shall win – or lose – the climate struggle in the first years of the 1990s"

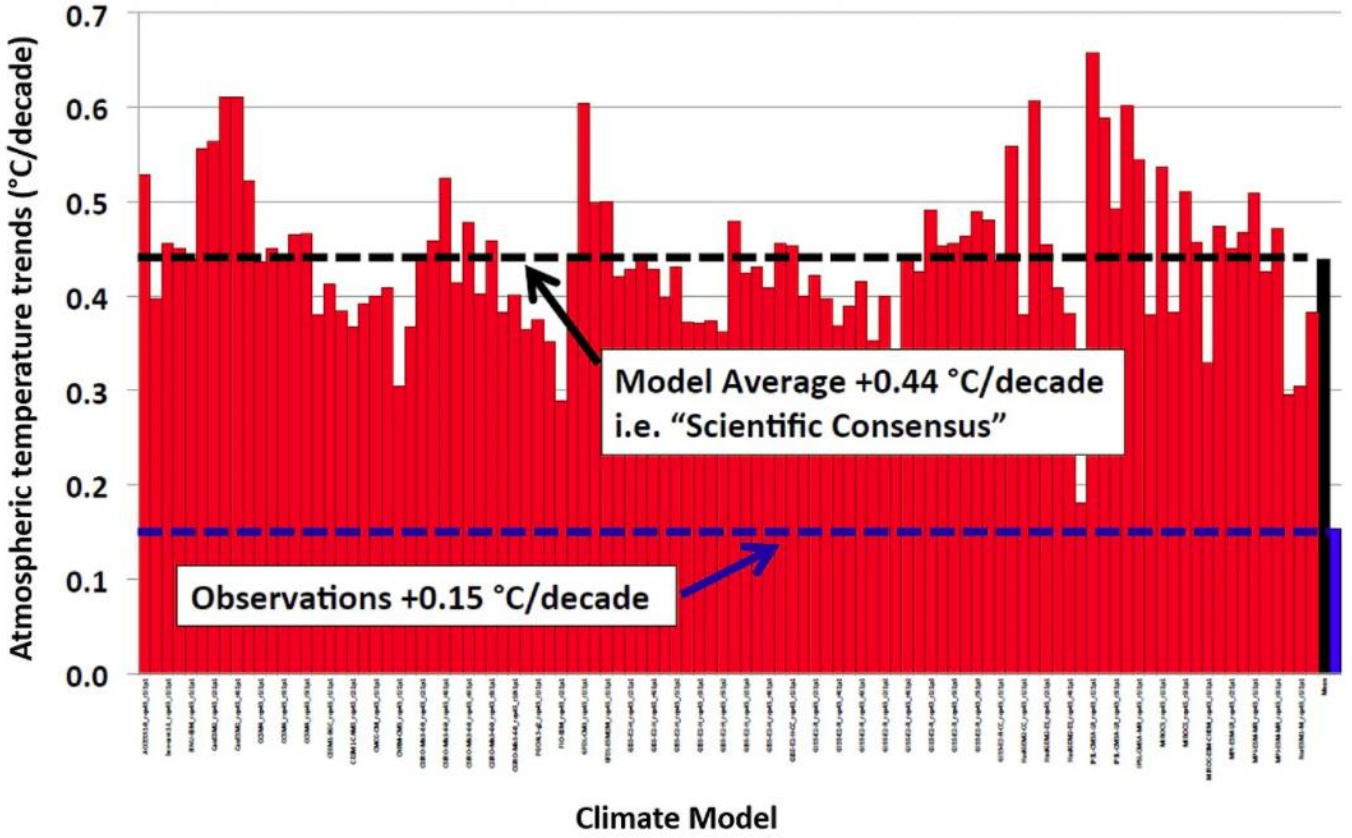

Global Mean Estimates based on Land and Ocean Data
Annual Mean
Lowess Smoothing
LSAT+SST Uncertainty
Temperature Anomaly w.r.t. 1951-80 (°C)
1.0
0.5
0.0
−0.5
1880
1900
1920
1940
1960
1980
2000
2020
NASA/GISS/GISTEMP v4

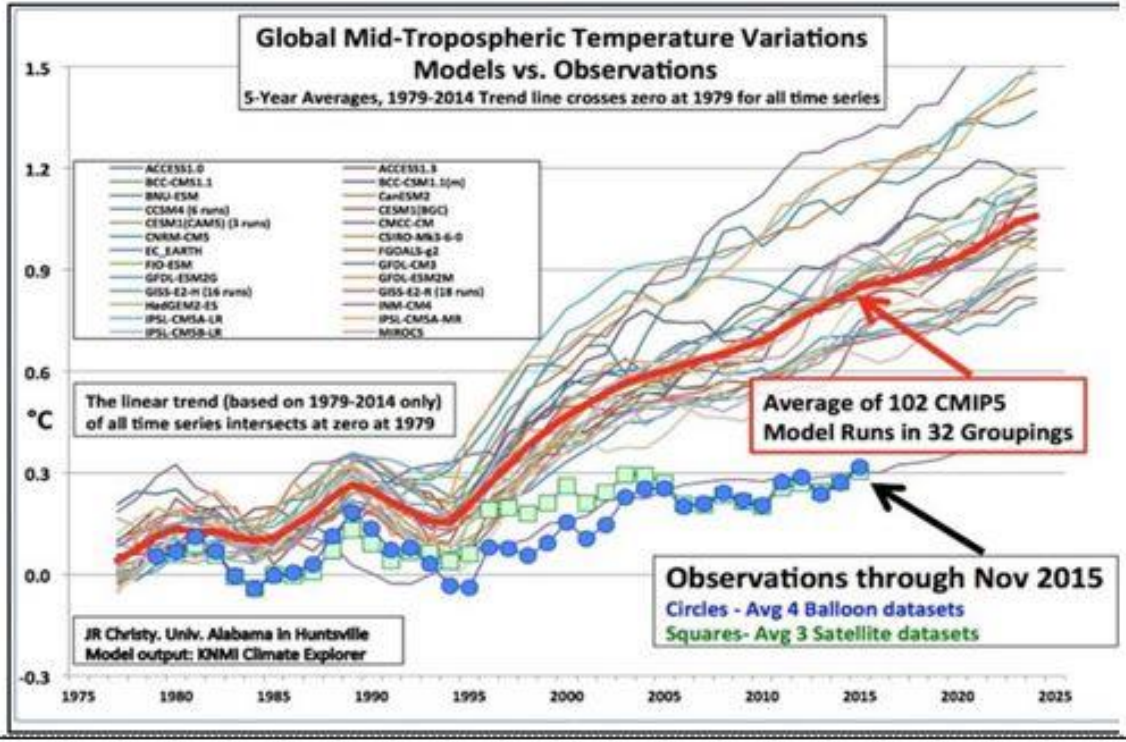



Contiguous U.S. Average Temperature
Binomial Filter
1895-2020 Trend (+1.56°F/Century)
80.00°F
70.00°F
60.00°F
50.00°F
40.00°F
30.00°F
20.00°F
26.67°C
21.11°C
15.56°C
10.00°C
4.44°C
-1.11°C
-6.67°C
1895-2020 Mean: 52.23°F
Jan 1895
Sep 1911
May 1928
Jan 1945
Sep 1961
May 1978
Jan 1995
Dec 2020

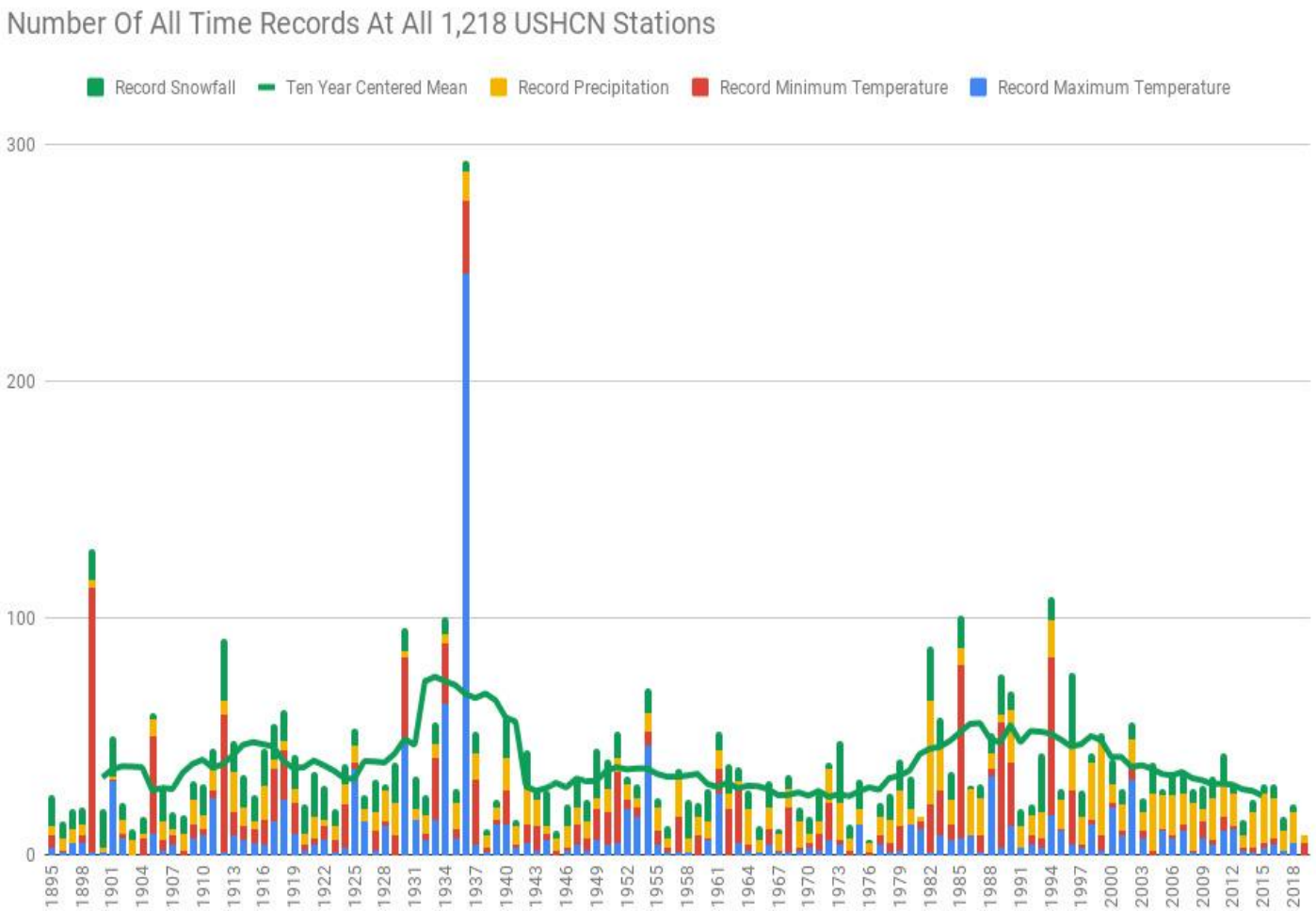

UAH Satellite-Based
Temperature of the
Global Lower Atmosphere
(Version 6.0)
T Departure from '91-'20 Avg. (deg. C)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Running, centered
13-month average
June,
2022:
+0.06 deg. C

Climate Model Forecasts vs Reality





Some say, according to the models there will be disaster over the next 100 years. United Nations climate models don't match reality.


Number Of All Time Records At All 1,218 USHCN Stations
Record Snowfall
Ten Year Centered Mean
Record Precipitation
Record Minimum Temperature
Record Maximum Temperature
300
200
100
0
1895
1898
1901
1904
1907
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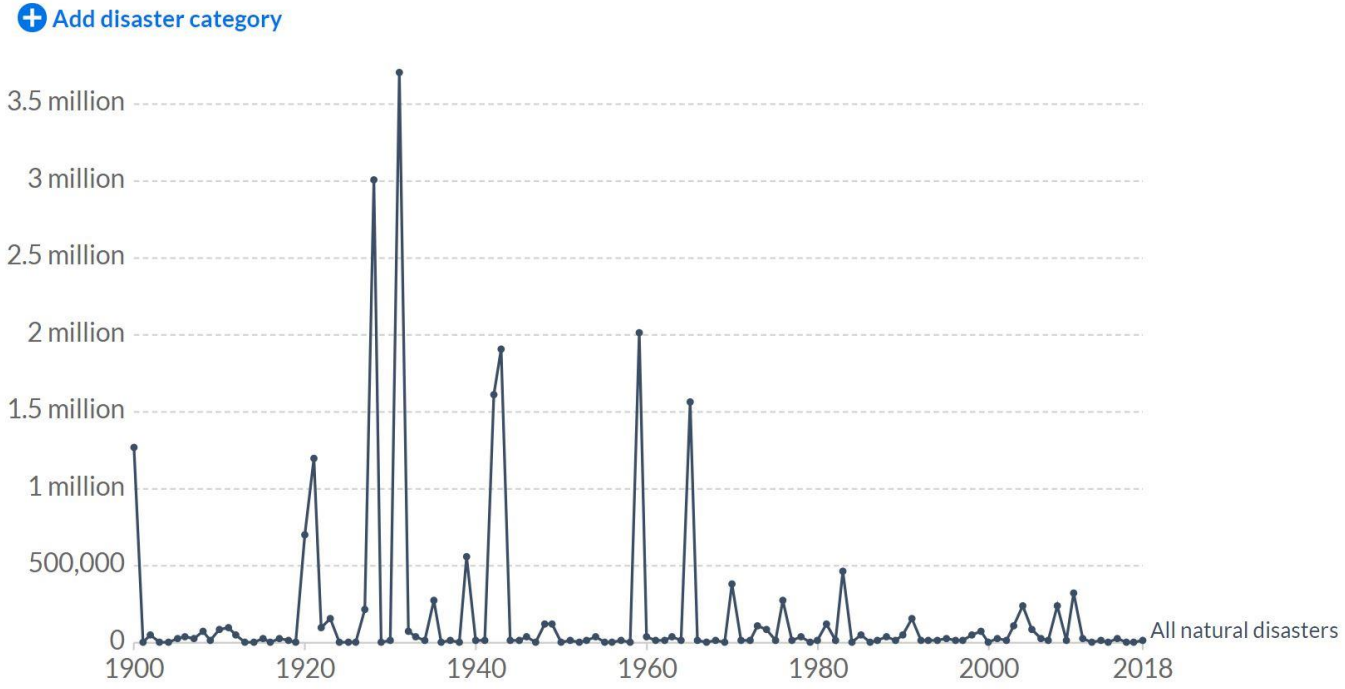
2012
2015
2018

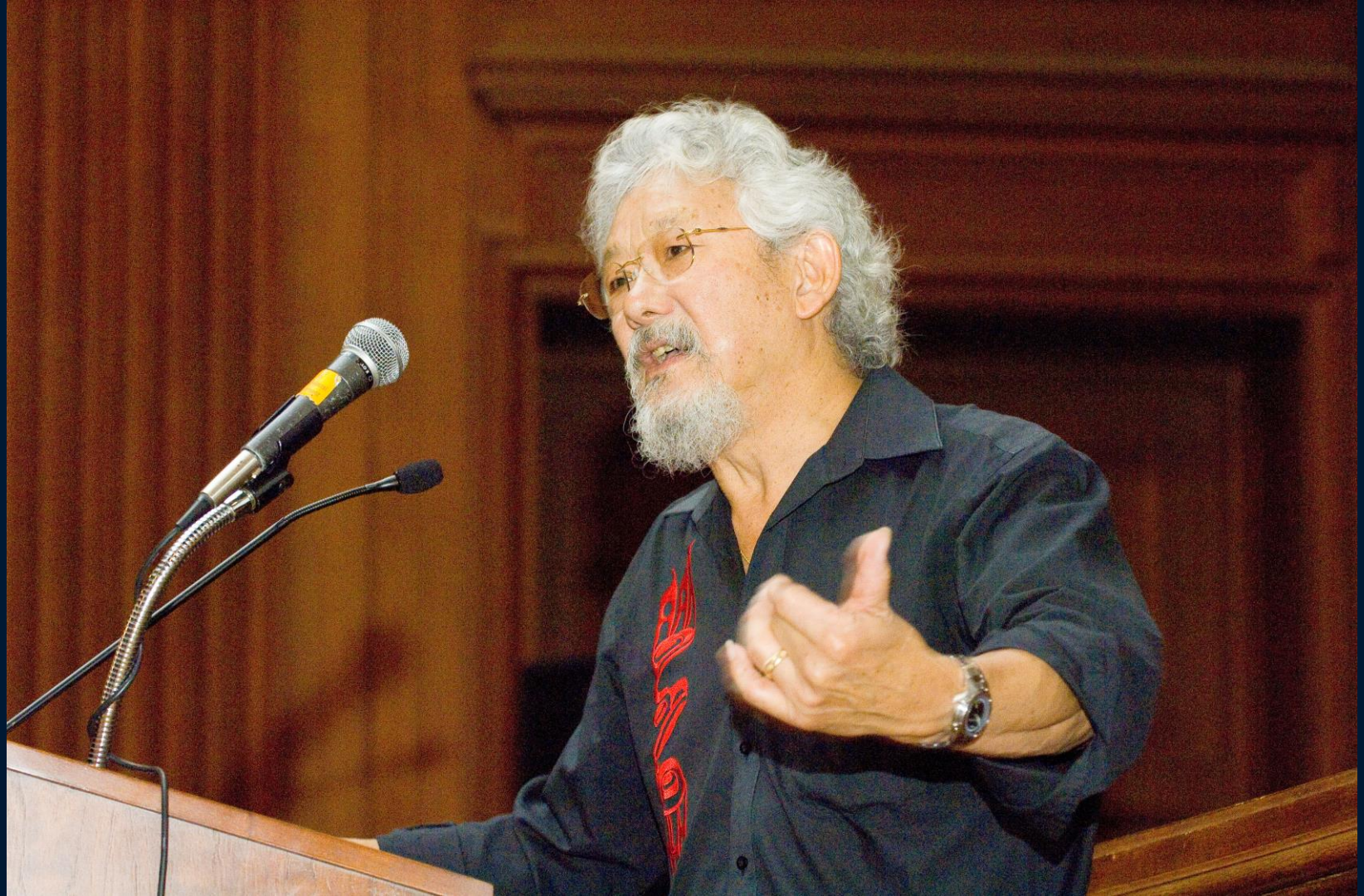
Global deaths from natural disasters, 1900 to 2018

Our World in Data

Absolute number of global deaths per year as a result of natural disasters. "All natural disasters" includes those from drought, floods, extreme weather, extreme temperature, landslides, dry mass movements, wildfires, volcanic activity and earthquakes.

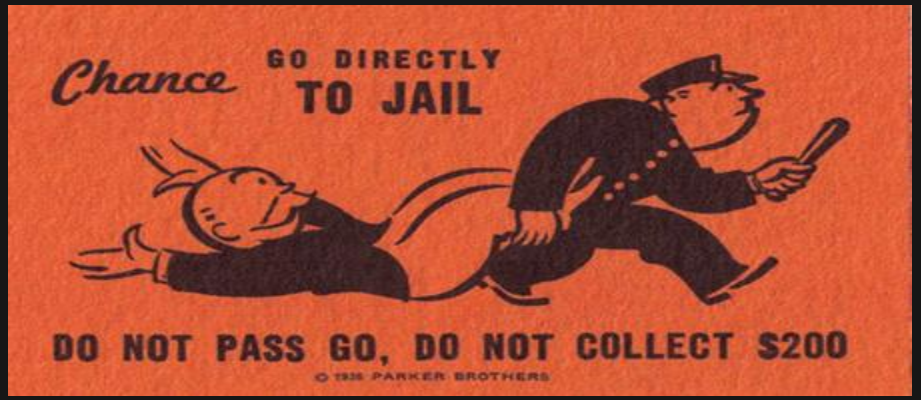


Source: EMDAT: OFDA/CRED International Disaster Database, Université catholique de Louvain – Brussels – Belgium



And if you Disagree with Any of this…

- You are a ‘climate denier’ and you belong in jail!



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