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“Do not go gentle into that good night.
Rage, rage against the dying of the light.”

Scott Chapman / Charles Scott
Version 4.8
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Super Grand Solar Minimum

Beginner's Guide to Understanding the Sun

E-mail:

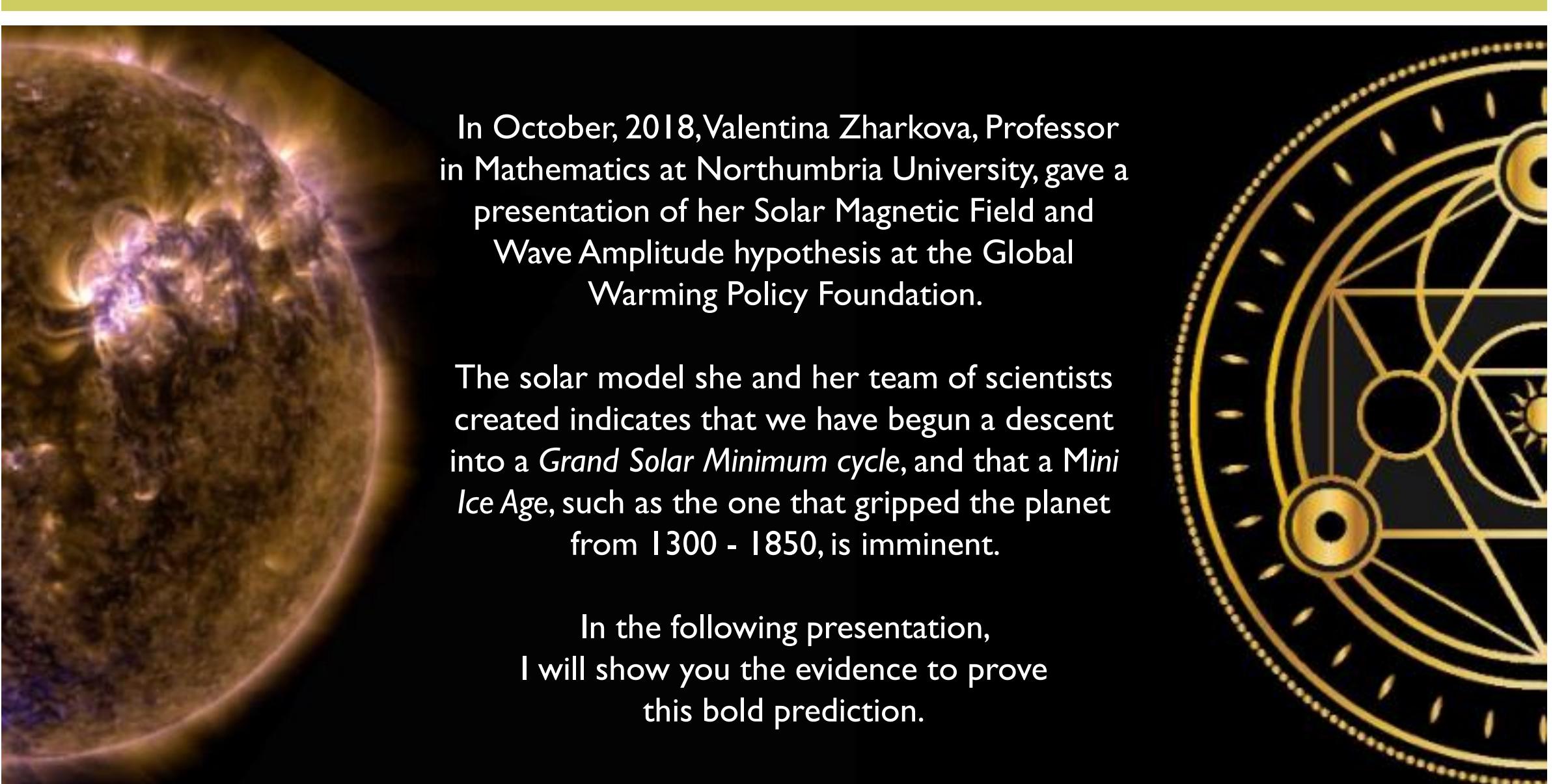
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Super Grand Solar Minimum Info



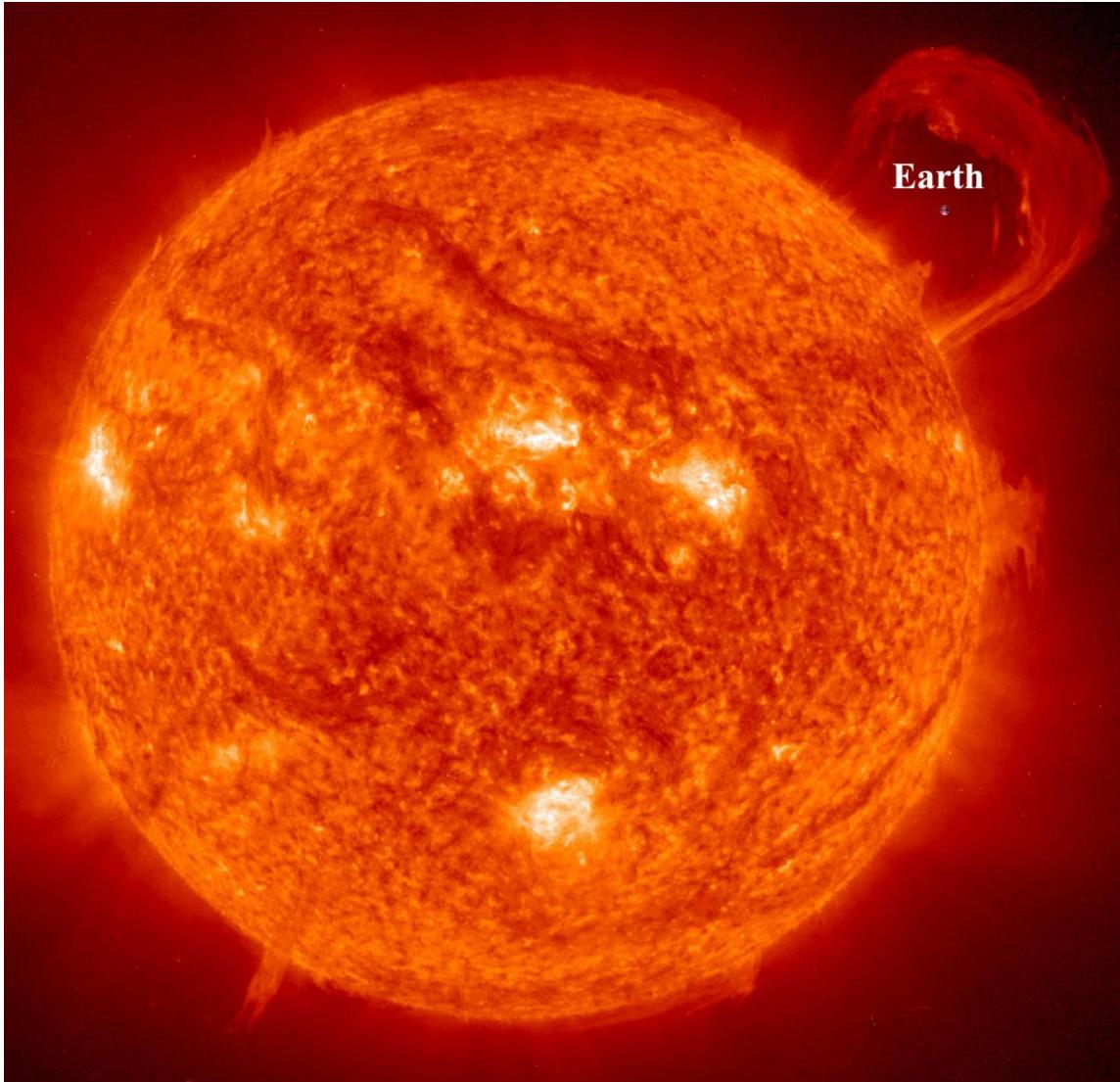
In October, 2018, Valentina Zharkova, Professor in Mathematics at Northumbria University, gave a presentation of her Solar Magnetic Field and Wave Amplitude hypothesis at the Global Warming Policy Foundation.

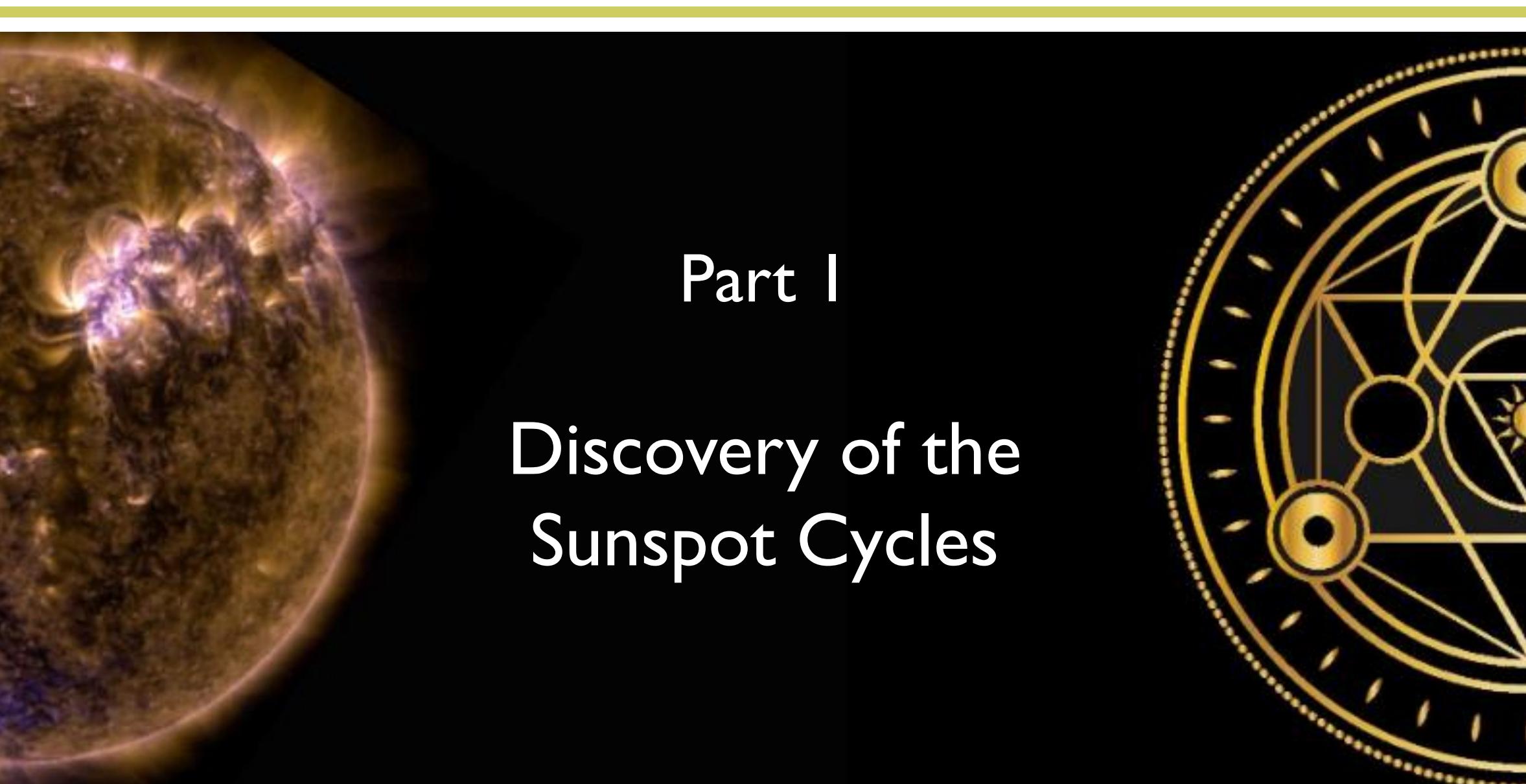
The solar model she and her team of scientists created indicates that we have begun a descent into a *Grand Solar Minimum cycle*, and that a *Mini Ice Age*, such as the one that gripped the planet from 1300 - 1850, is imminent.

In the following presentation,
I will show you the evidence to prove
this bold prediction.

OVERVIEW

- A shift in your perspective is essential for a thorough understanding of the events ahead.
- All of the information is readily available, it simply needed to be put in the correct order.
- Everything in the universe operates on a cycle if you have the right perspective. (Car / star stuff example.)
- The sun is the driver of Earth's climate.
- To see where we're headed and what to expect, we need to study history and previous known solar cycles.
- The GSM 'symptoms' are being reported if you know what to look for. Little by little, then all at once.
- No one alive has experienced what we're about to go through.



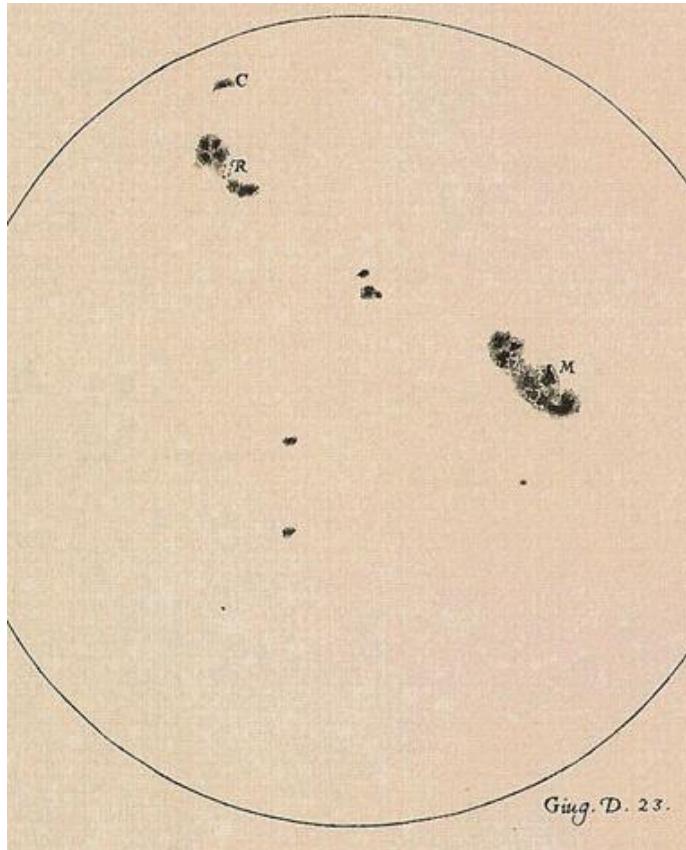


Part I

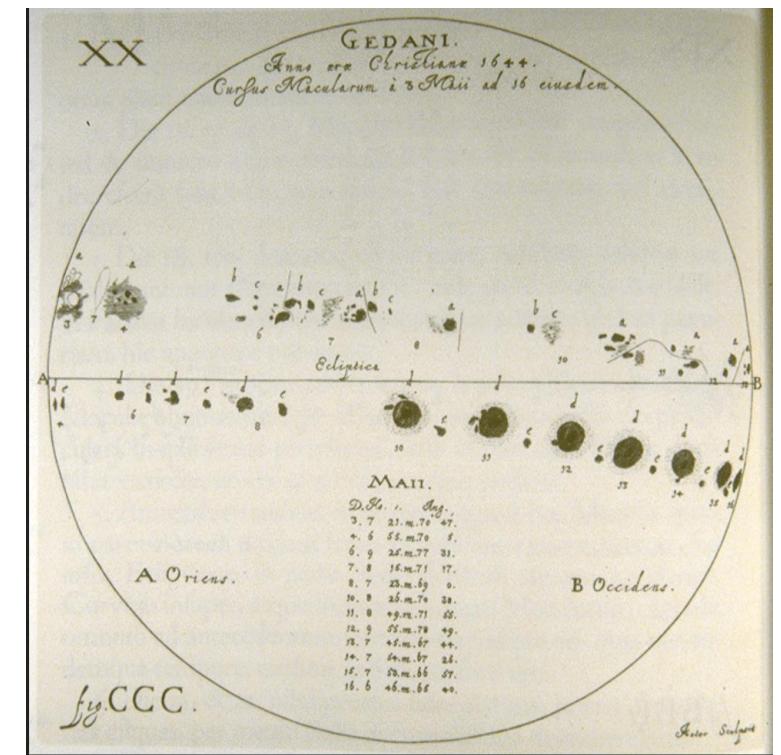
Discovery of the Sunspot Cycles

SUNSPOT DISCOVERY

- Within a week of the discovery/invention of the telescope (1609), we began to look at the sun and recorded dark spots on the surface.
- Viewed as dark spots on the sun.
- Sunspots form in groups. They appear, disappear, grow, morph around – seem to have a mind of their own.
- Chinese have sunspot records going back to 28 B.C.



Galileo Galilei recorded this drawing of sunspots on June 23, 1613.

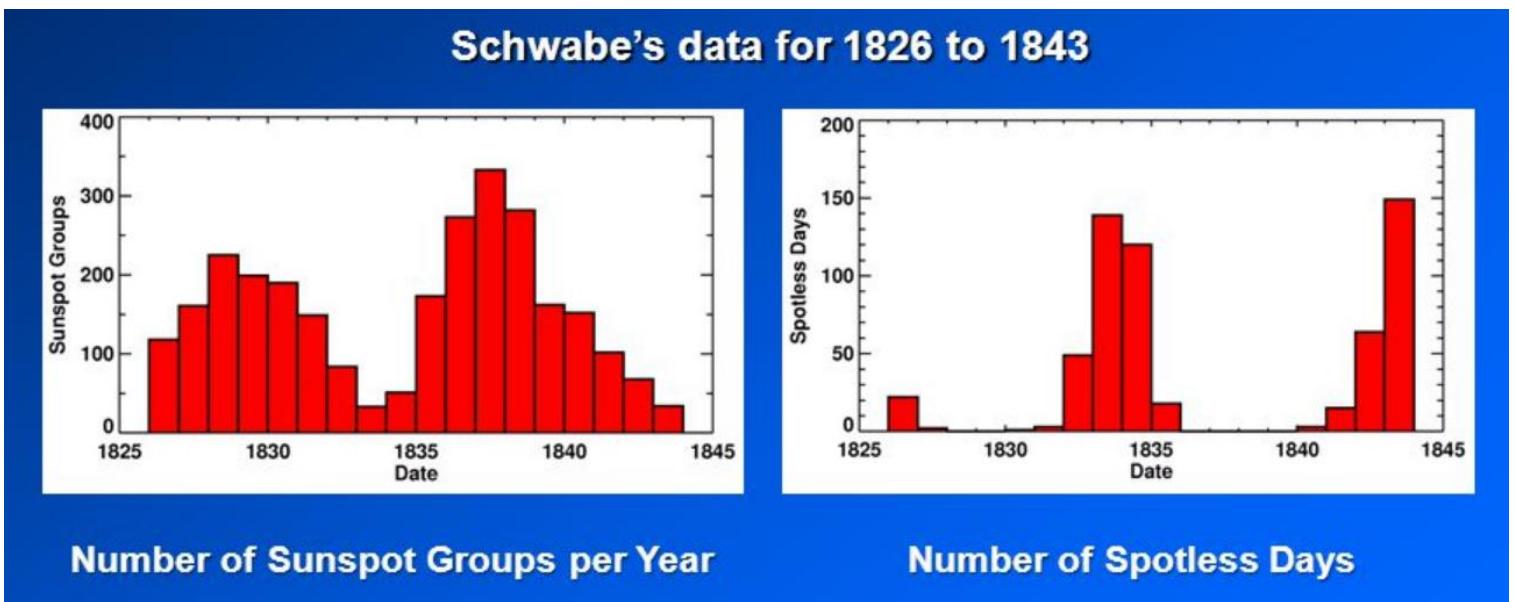


Johannes Hevelius 1611 - 1687

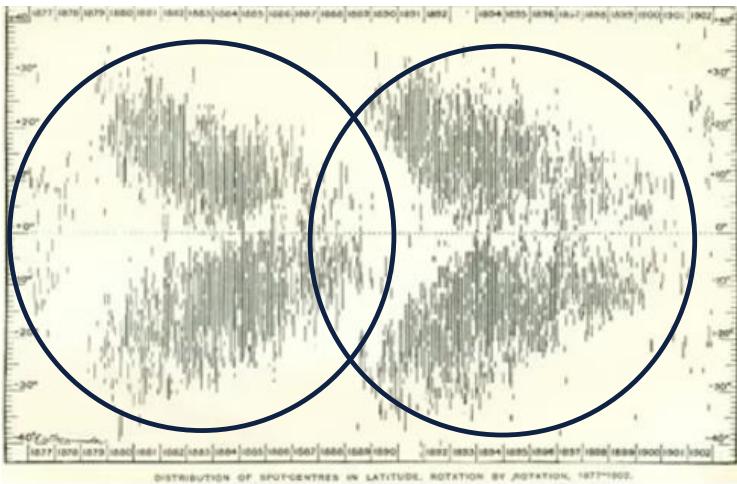
SUNSPOT CYCLE DISCOVERY

- For 230 years astronomers were recording and counting dark spots on the sun independently.
- In 1844, Heinrich Schwabe put the data into a chart for the first time.
- The results show periods of increased and decreased sunspot activity / solar output.
- Discovery of the ~11 year cycle. (Shortest of the sun's cycles)
- Shortly after Schwab's discovery of the 11 year cycle, Rudolph Wolf realized the need for continuous daily observations.
- He recognized the difficulty of counting individual sunspots and devised the below equation to help standardize the data.

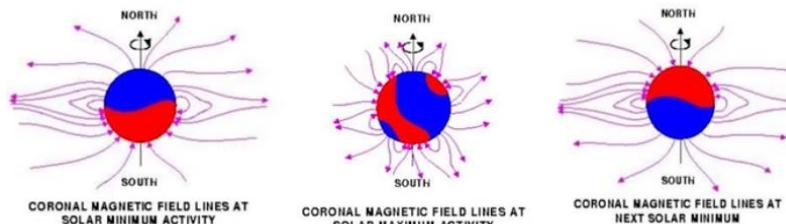
$$R=k(10g+n)$$



Maximums and Minimums of the 11 year cycle become apparent

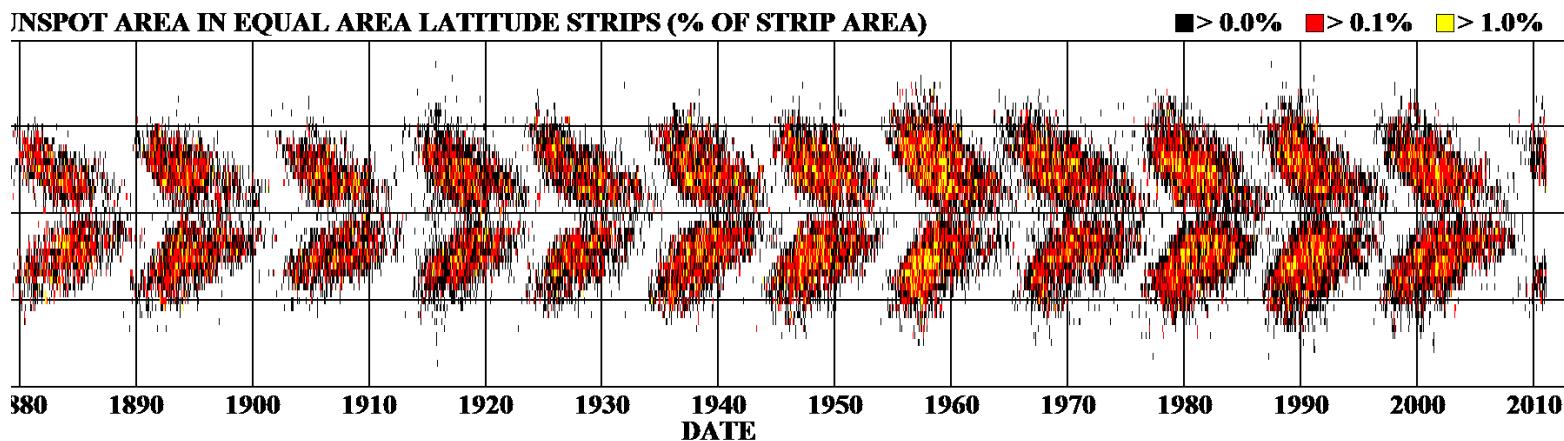


Solar magnetic field reversal



Zharkova 2018

DAILY SUNSPOT AREA AVERAGED OVER INDIVIDUAL SOLAR ROTATIONS

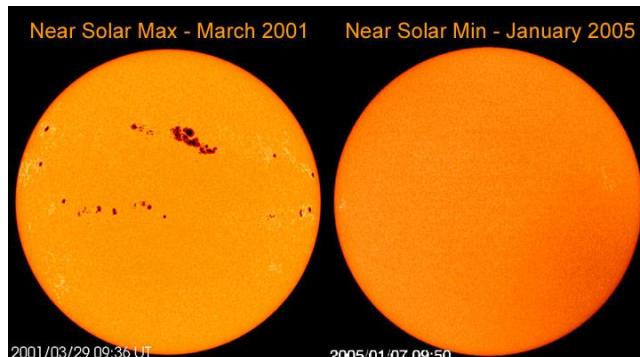


BUTTERFLY DIAGRAM

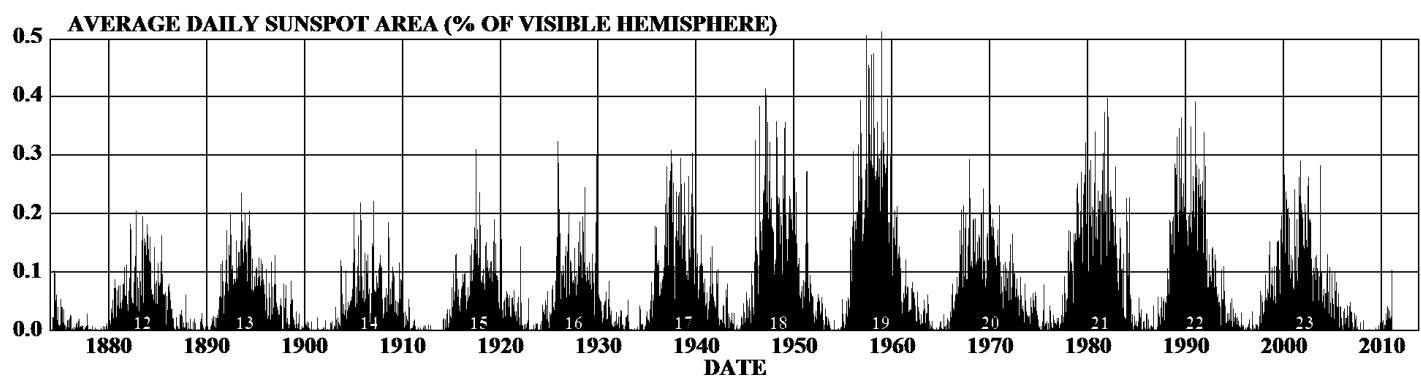
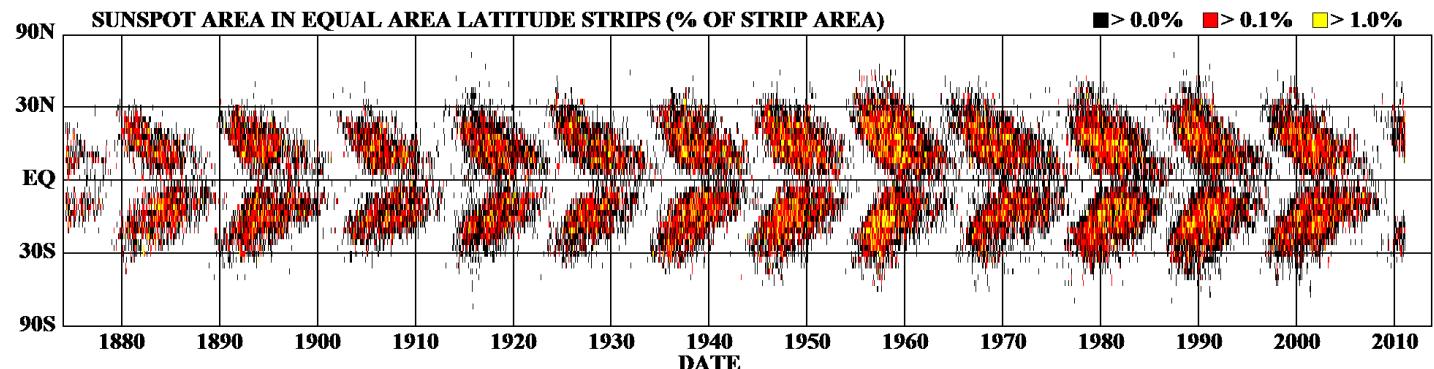
- 1858 - Richard Carrington noted that SS appear in two bands then drift towards the equator through the 11 year cycle.
- Every sunspot is charted by location at formation.
- As the cycle matures, the sunspots begin to form at lower and lower latitudes – terminating near the equator.
- Once the 11 year cycle ends, the sunspots return to the higher and lower latitudes and the cycle repeats.
- Wasn't accepted until Walter Maunder mapped out the Butterfly Diagram in 1904.
- The sun and its magnetic fields rotate at different speeds.

BUTTERFLY DIAGRAM

- Periods of increased and decreased solar activity were identified.
- Sunspots don't control the sun's temperature. Rather, they're an indicator of what the sun is up to.
- An active (warm) sun has a lot of sunspots. **Solar Maximum**
- An inactive (cold) sun has fewer or no sunspots. **Solar Minimum**



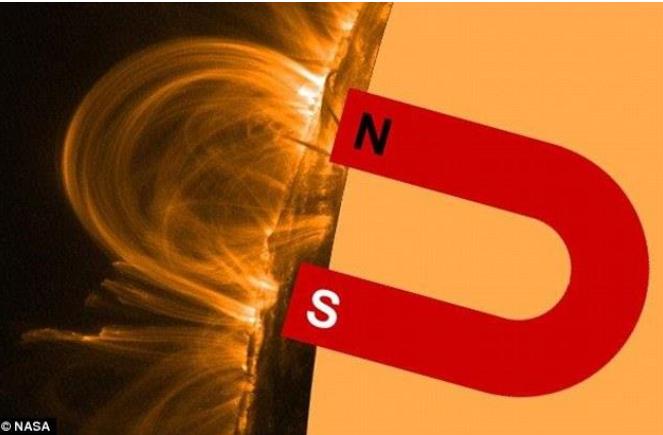
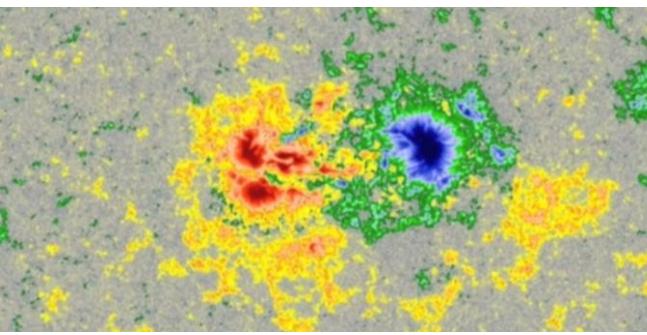
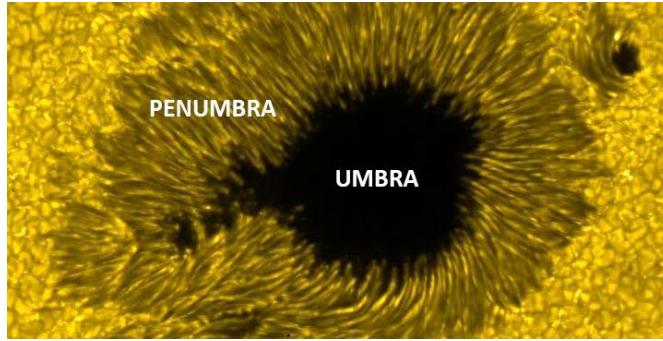
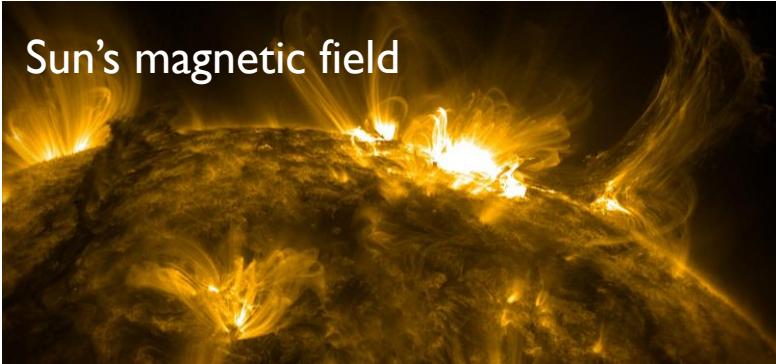
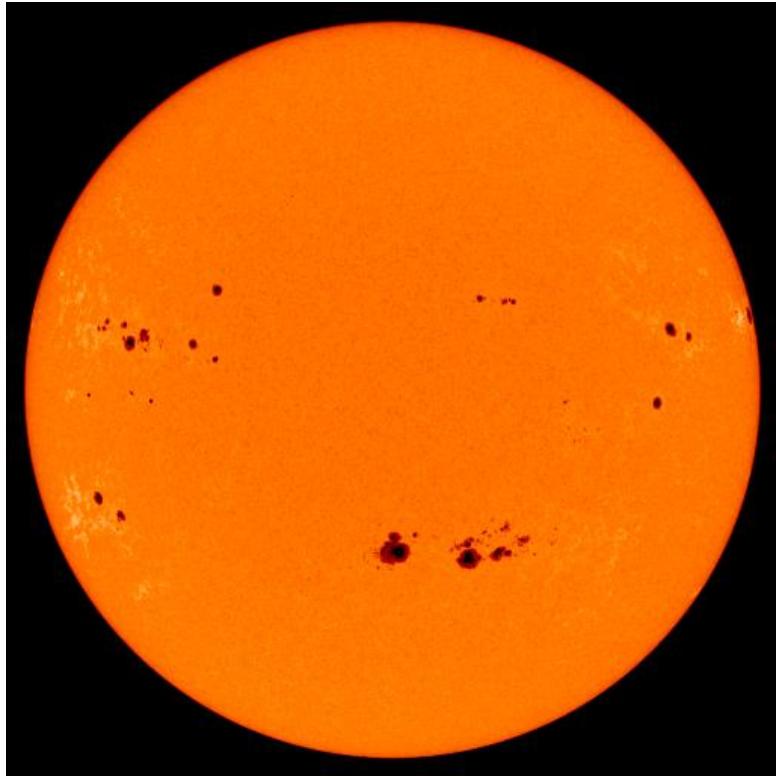
DAILY SUNSPOT AREA AVERAGED OVER INDIVIDUAL SOLAR ROTATIONS



<http://solarscience.msfc.nasa.gov/>

HATHAWAY/NASA/MSFC 2011/04

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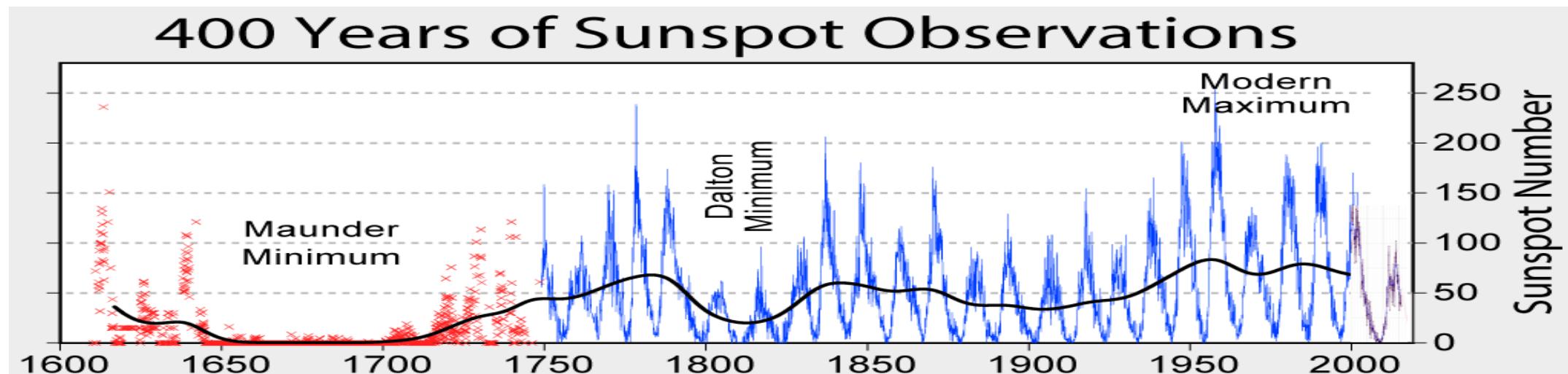
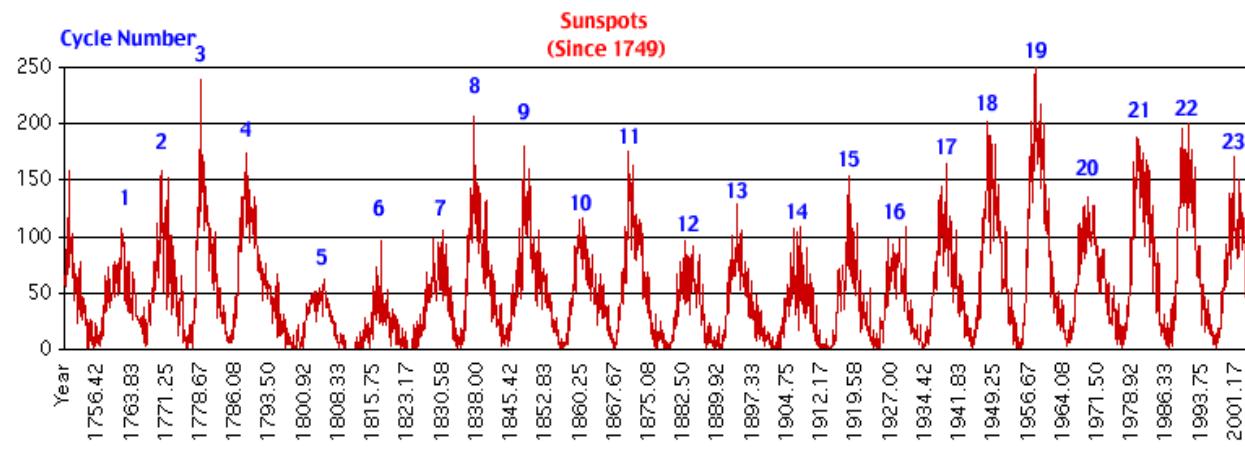


MODERN SUNSPOT ACTIVITY

- Form in pairs. Leading polarity / trailing polarity.
- Pot of boiling water analogy.
- Umbra / Penumbra. An electromagnetic phenomenon connected by magnetic fields through their centers.
- Arches (or loops) connect the sunspots and carry plasma, charged particles from one sunspot to another. (**Electric theme**)
- The loops connect at oppositely magnetized fields. Blue is positive and red is negative. The loops come out of one sunspot and dive down into one of the opposite charge.

CYCLES I-24 & 400 YEARS OF SUNSPOT ACTIVITY

- We can clearly see periods of solar **Maximums** and **Minimums**.
- **Grand Solar Minimums** = Large clusters of 11 year cycles together collectively = low solar activity.
- **Grand Solar Maximums** = Large clusters of 11 year cycles together collectively = high solar activity.



Sunspot number: 11

[What is the sunspot number?](#)

Updated 04 May 2019

Spotless Days

Current Stretch: 0 days

2019 total: 74 days (60%)

2018 total: 221 days (61%)

2017 total: 104 days (28%)

2016 total: 32 days (9%)

2015 total: 0 days (0%)

2014 total: 1 day (<1%)

2013 total: 0 days (0%)

2012 total: 0 days (0%)

2011 total: 2 days (<1%)

2010 total: 51 days (14%)

2009 total: 260 days (71%)

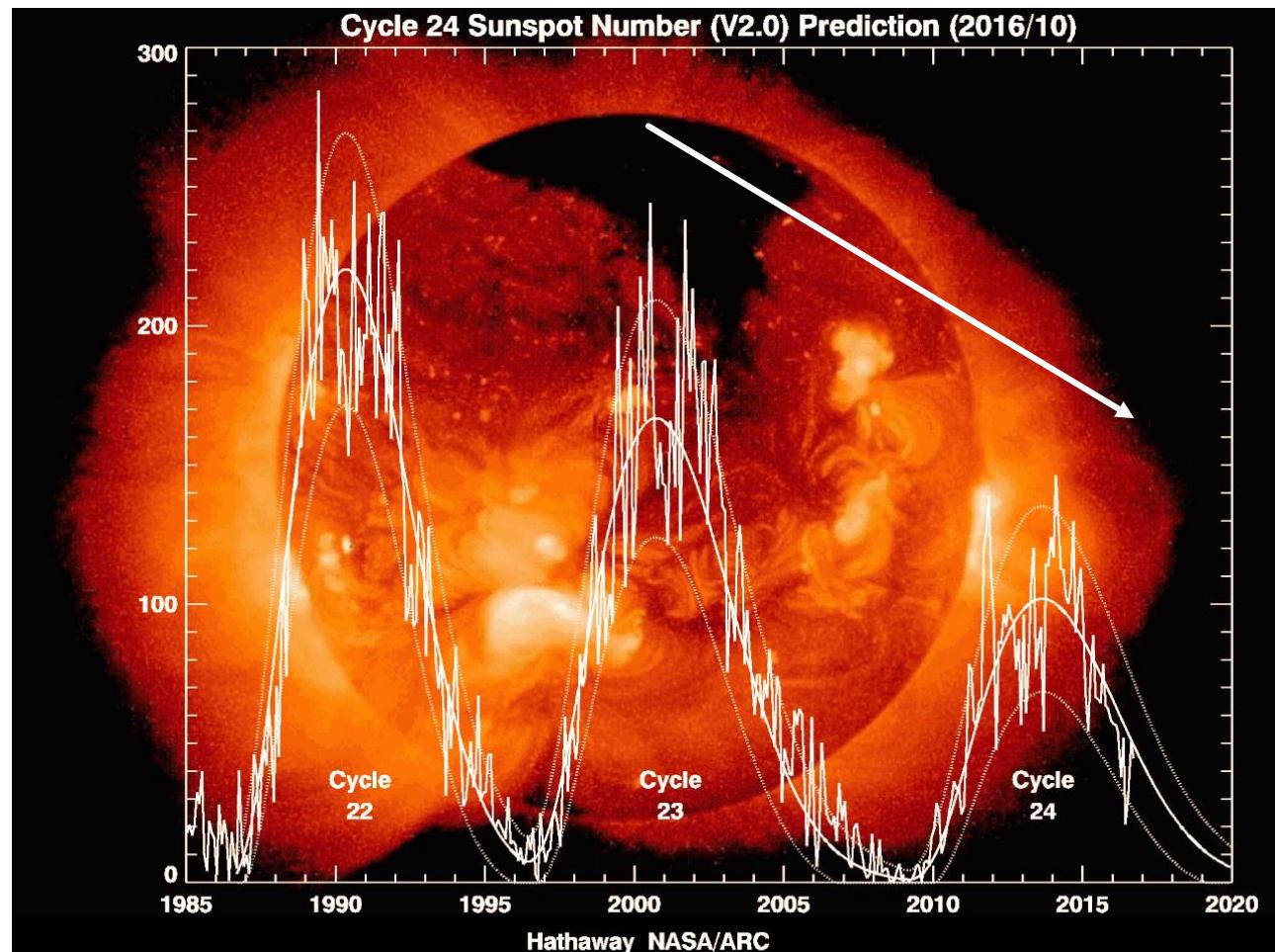
2008 total: 268 days (73%)

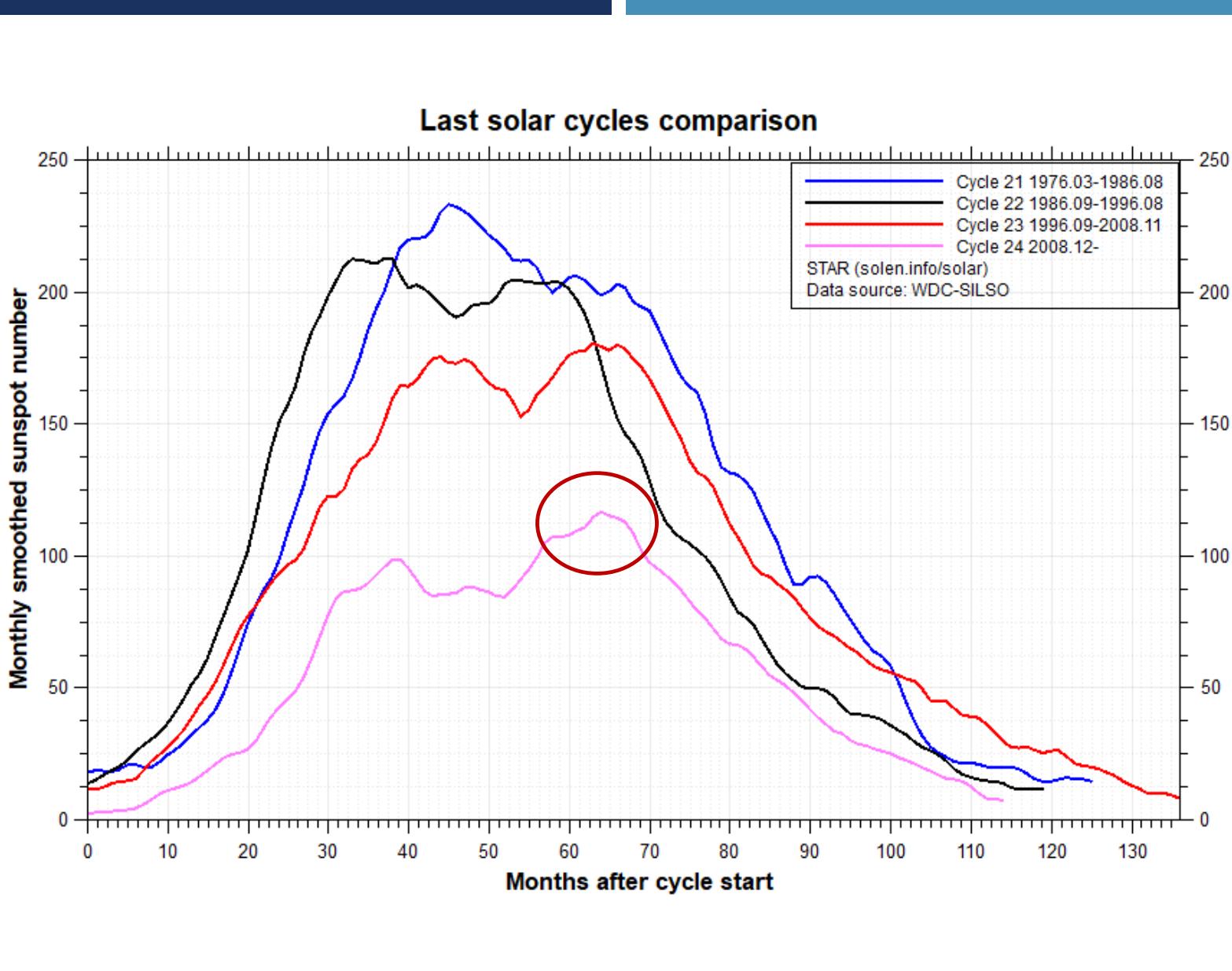
2007 total: 152 days (42%)

2006 total: 70 days (19%)

Updated 04 May 2019

TODAY'S SUNSPOT DATA

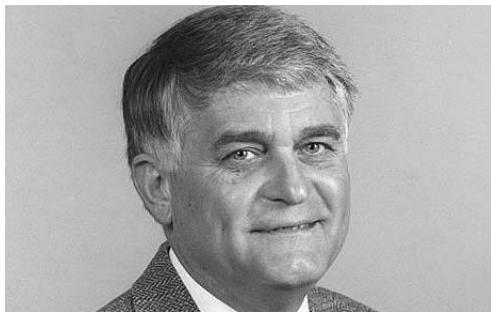




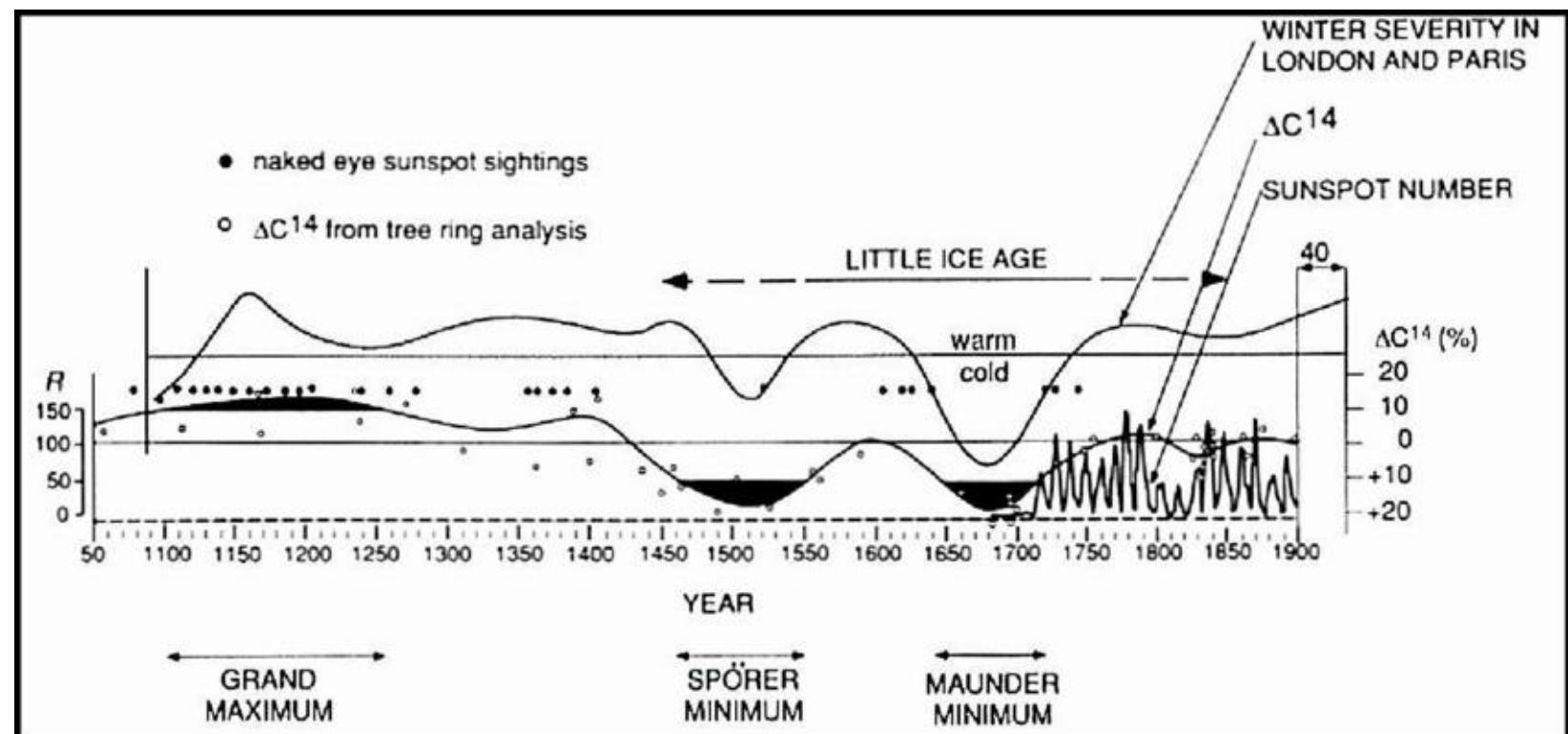
REDUCING IN STRENGTH

- Roughly 30% reduction in solar strength per cycle over the past 4 solar cycles (11 year cycle).
- Note the double peaks.
- February 2014 signaled the beginning of the descent into the Grand Solar Minimum.

JACK EDDY PHD



- Jack Eddy linked the temperature of the Earth with the cycles of solar activity.
- Proved that a decrease of solar activity will result in lower terrestrial temperature.
- Eddy Minimum
- Gives history a brand new perspective.



HISTORY

CZECH REPUBLIC “HUNGER STONES”

- The signs and symptoms of a solar minimum are found throughout history. If you know what to look for.
- Czech Republic was experiencing a massive drought in 2018.
- At the end of the summer, the Elbe River was low enough to expose the “Hunger Stone”.
- Inscribed on the stone are dates of when the stone was last exposed.
- In addition, a more ominous carving is found. “If you can see me, then cry.” A possible harbinger of rough times ahead.
- A sign of a hibernating sun includes droughts.



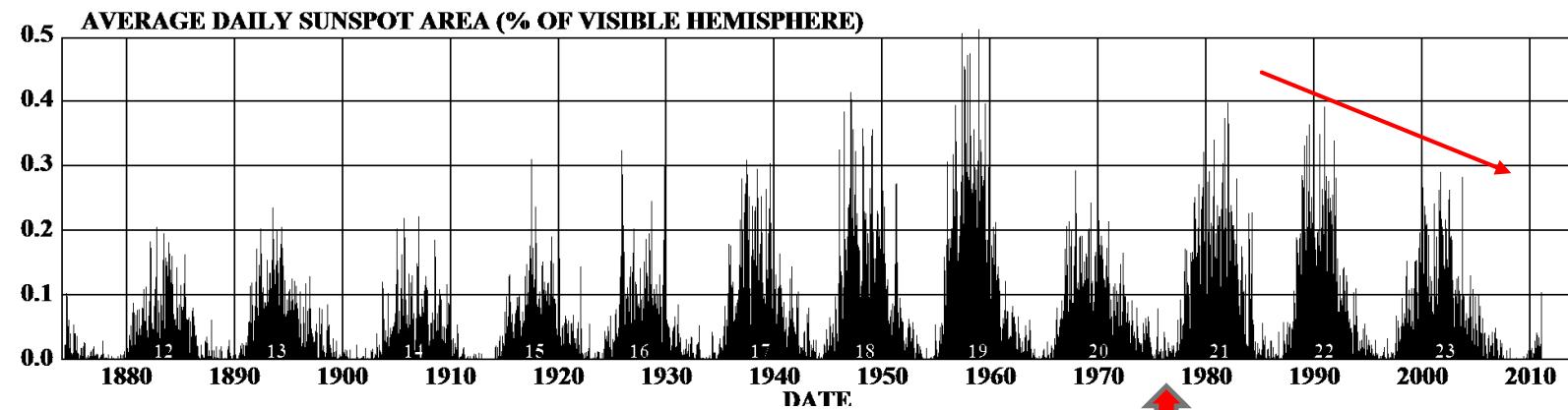
© AP Photo/Petr David Josek

One of the so called "hunger stones" exposed by the low level of water in the Elbe river in Decin, Czech Republic, Thursday, Aug. 23, 2018.

AMERICAN HISTORY

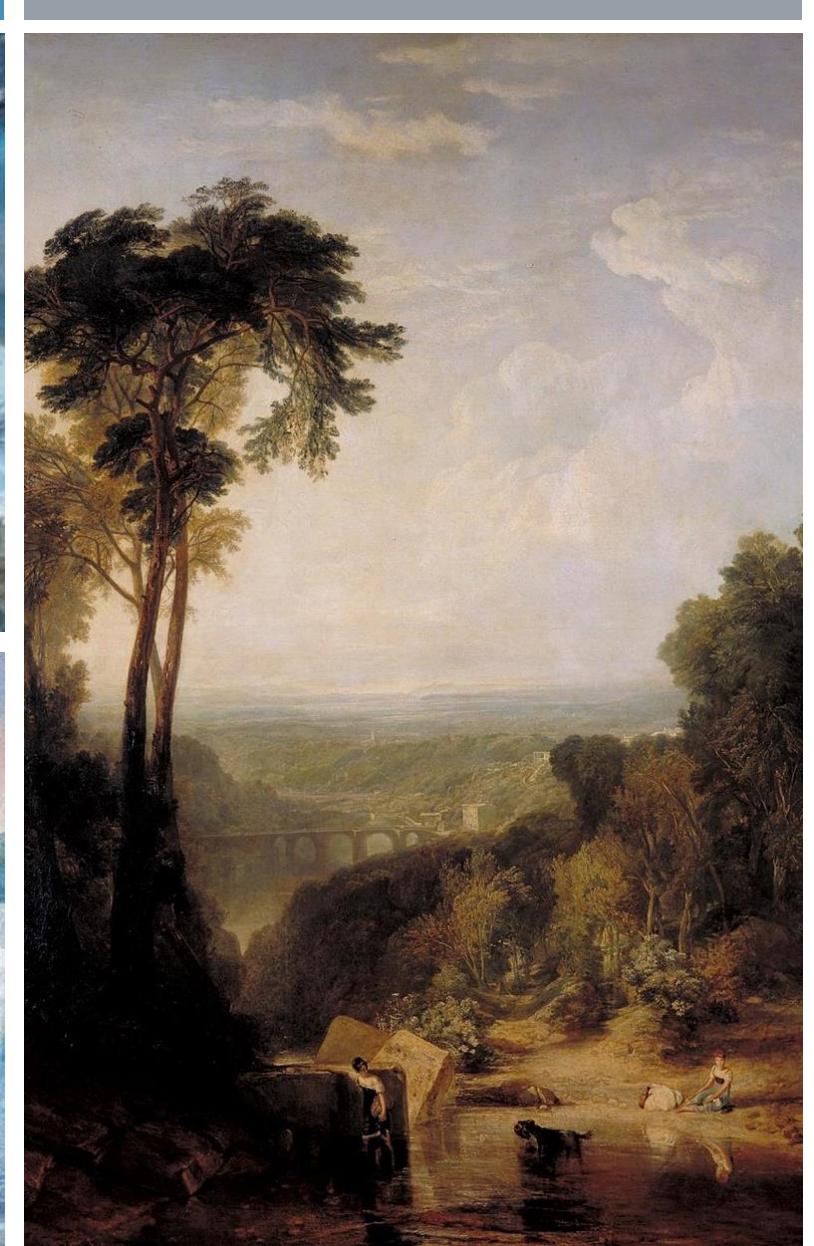
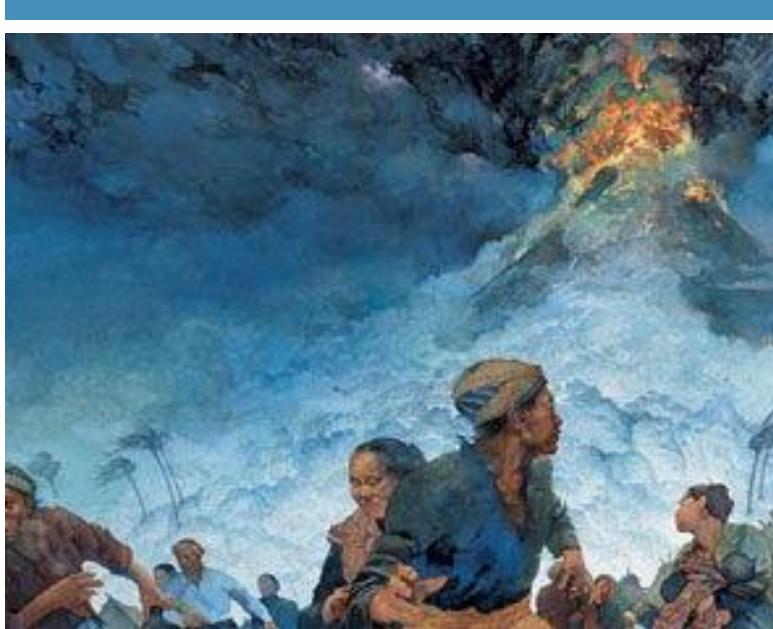
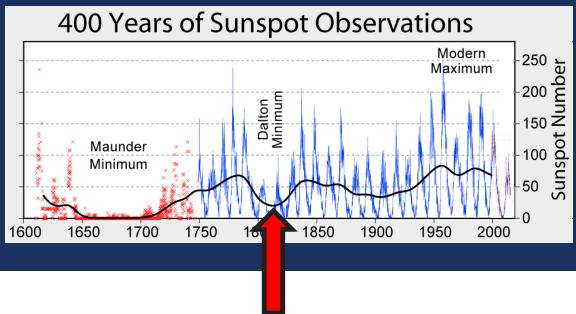
- BUFFALO, NY 1977

- Buffalo, NY experienced blizzard in January of 1977 that was unprecedented.
- Solar cycle 20 was weak.
- A weak solar cycle resulted in lower energy (heat) from the sun stored in the Earth.
- January 1977 was 10 degrees below normal.
- Miami, FL also received snow.
- Minor changes in the sun cause drastic effects on our planet.
- Net heat loss

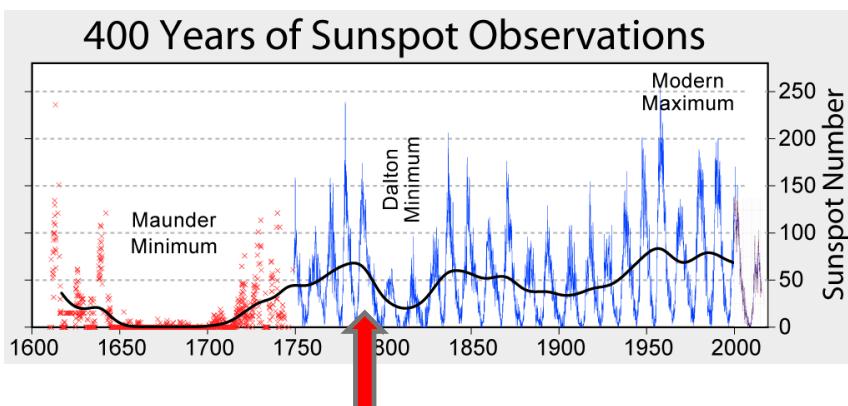


AMERICAN HISTORY YEAR WITHOUT A SUMMER

- 1816 was known as '**The Year Without a Summer**' in New England because six inches of snow fell in June and every month of the year had a hard frost.
- 1815 eruption of Mt. Tambora. Volcano Explosivity Index 7 (VEI). The eruption column reached an altitude of more than 141,000 ft.
- Artists during that time painted what they saw. Majority of paintings in that era show a sky full of clouds or a hazy horizon.

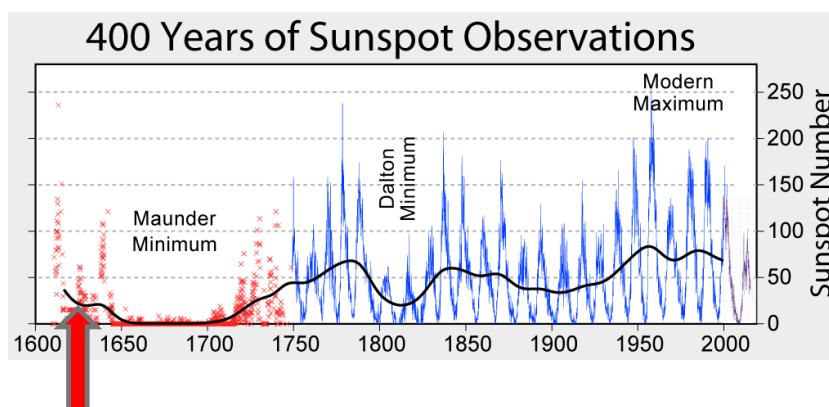


AMERICAN HISTORY – AMERICAN REVOLUTION 1776

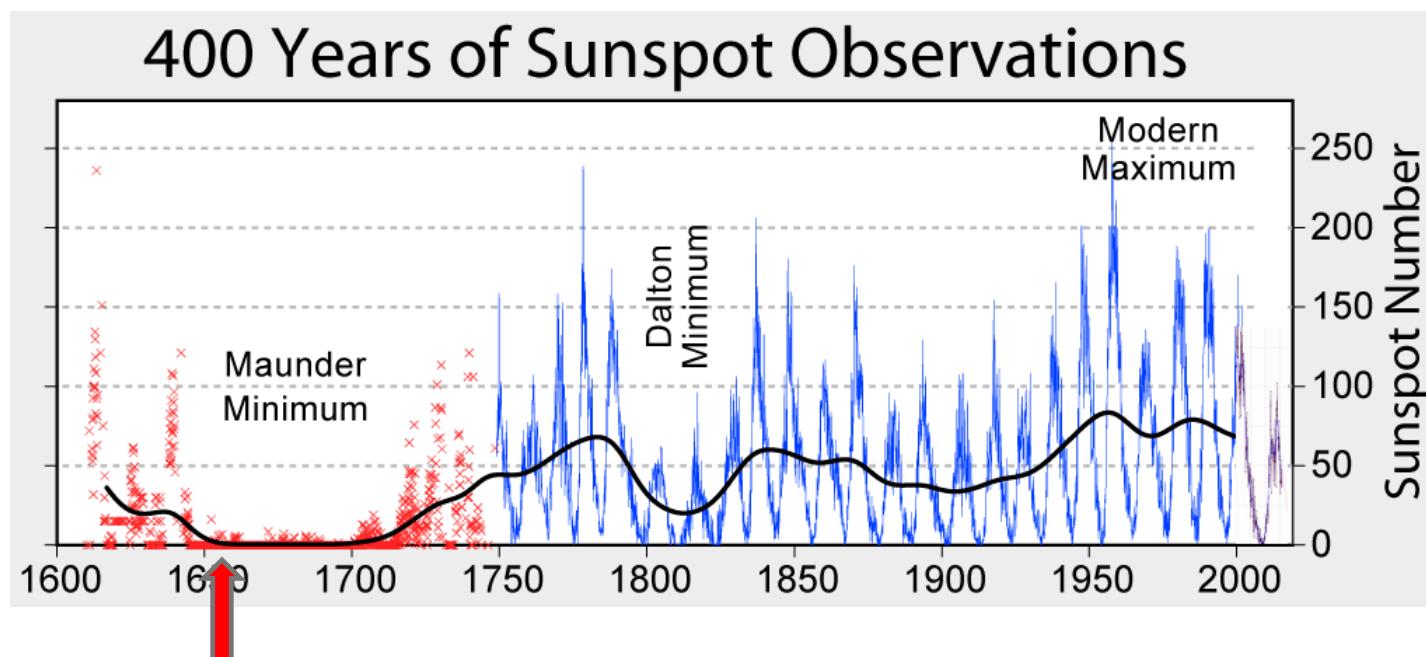


- 25 Dec 1776: George Washington led a small raid force across the frozen Delaware River. New York Harbor was also frozen solid.
- Note the ice in the famous painting.
- Washington's army was able to ride horses and roll cannons across the frozen river.
- Does anyone remember a time when the Delaware river froze over solid enough where you can move an army across it?
- The American Revolution took place during a period of reduced solar activity. Specifically, during the descent into the Dalton Minimum.

AMERICAN HISTORY – LANDING AT JAMESTOWN 1607



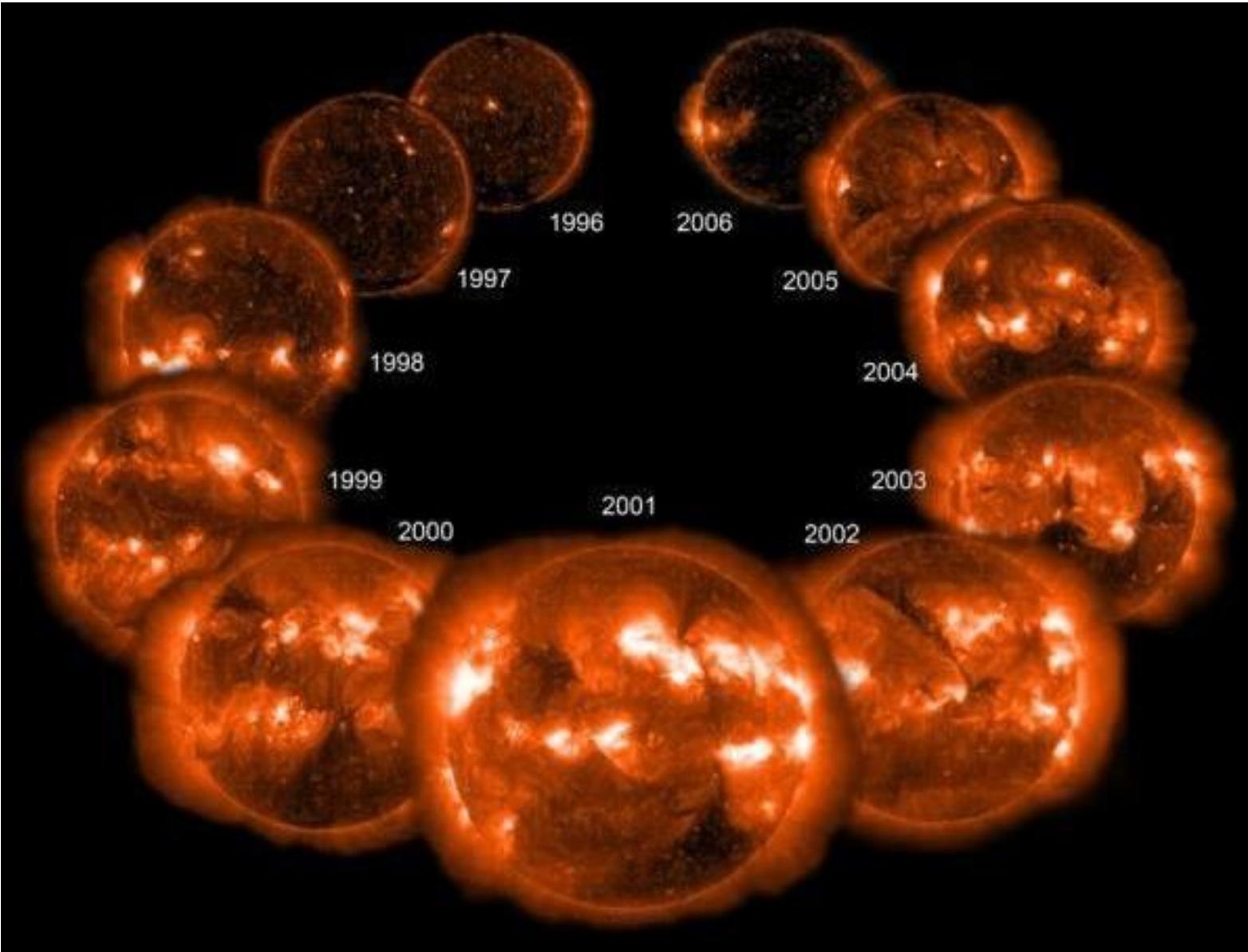
- The people who volunteered to travel to a New World and set up a brand new colony were hardened settlers. They knew how to live off the land and were armed with homesteading and survival knowledge that's lost in today's society.
- Of the first 104 colonists, only 38 survived the first winter.
- Of the 10,000 colonists who left England in the next 15 years, only 20% were still alive in Jamestown by 1622.
- They suffered greatly from disease, famine, and conflict with local natives. (A starving person's immune system is greatly diminished).
- Jamestown received a constant supply of replacement colonists to replace the dead.
- North America was founded during the Maunder Minimum.



HISTORY

FROST FAIRS ON THE RIVER THAMES

- River Thames in London froze at least 23 times between 1309 and 1814, with first recorded frost fair in 1608.
- Period from mid-14th to 19th century in Europe is referred to as the 'Little Ice Age' due to severity of the climate.
- The last occurrence was two centuries ago in 1814, but in the past a number of festivals known as the River Thames Frost Fairs sprang up on the river.
- Number of times the River Thames froze over by century:
 - 15th century = 2
 - 16th century = 5
 - 17th century = 10
 - 18th century = 6
 - 19th century = 1



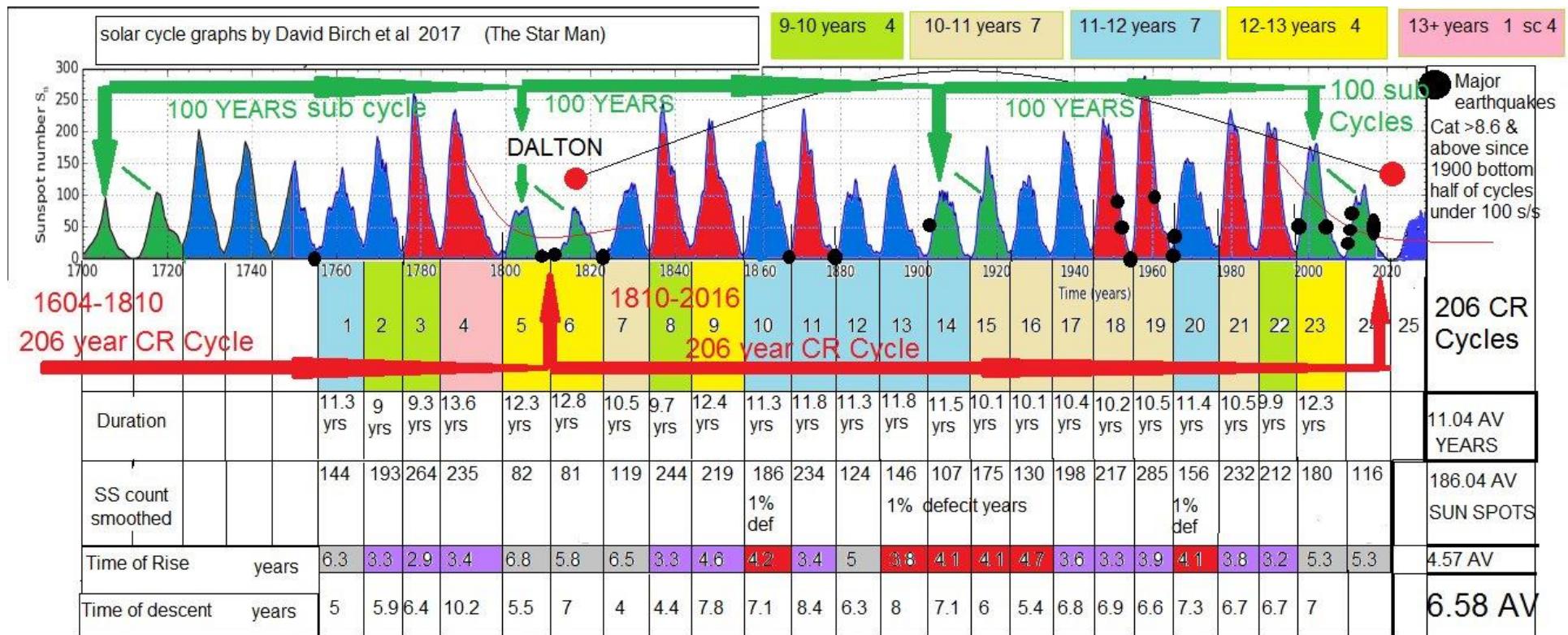
RELATIONAL CYCLE (RC) THEORY

JOHN CASEY

- The cycles are measurable. Therefore, if you can measure it, then you can see where it was and also see where it's going.
- Predictable periods of increased and decreased output.
- If you have the right perspective, everything in the universe operates on a cycle.
- **~ 90-100 years (Centennial Cycle)**
- **~ 206 years (Bicentennial Cycle)**
- **~ 500 year cycle**
- **~ 1,000 year cycle**
- **~ 11,500 year cycle**

PERSPECTIVE

- Everything operates on a cycle if you have the right perspective.
 - Patterns begin to emerge.
 - Patterns lead to predictions.
 - Predictions become reality.



No correlation found between sun spot count and duration.

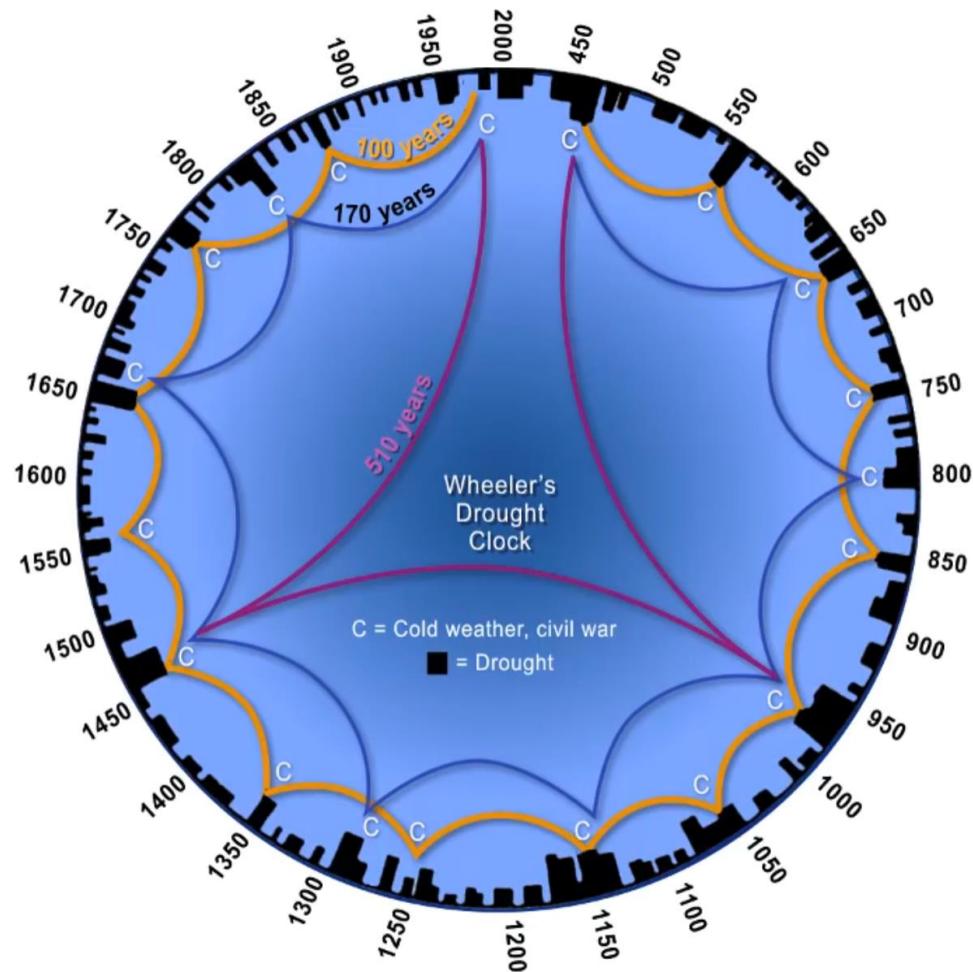
correlation found between long time rise + low to medium Sun Spot count. (cycles 1/5/6/7/23/24.) over 5.3 years time of rise. => 80-143 S/Spots 97% Accuracy

=>193 + S.Spots 97% accuracy

Correlation found = double 200+ sun spot cycles are always followed by smaller cycles, never 3 in a row. correlation found weak followed by min + 1.5 weak cycles

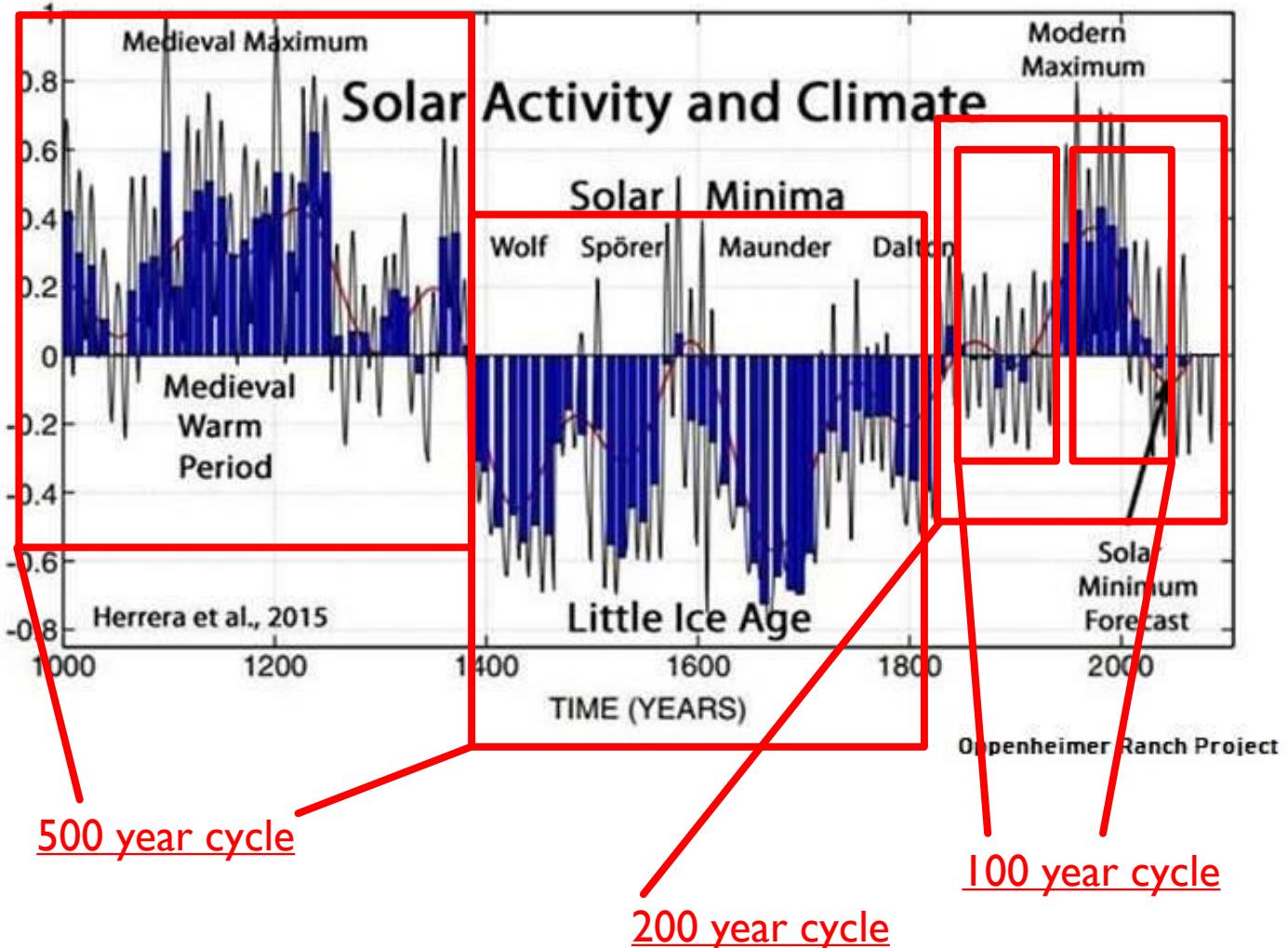
PATTERNS EMERGE – WHEELER’S DROUGHT CLOCK

- Patterns emerge once you have the right perspective.
 - The drought cycle coincides with RC Theory's cycles. (100, 170, 510 years)
 - Dr. Raymond H. Wheeler (1892-1961) developed a clock to forecast recurring droughts, which coincided with colder climates. He found that every 170 years, the climate would turn colder and dryer, social mood would turn negative, civil wars would proliferate, and the economy would suffer from financial collapse.
 - Droughts are a symptom of a Solar Minimum

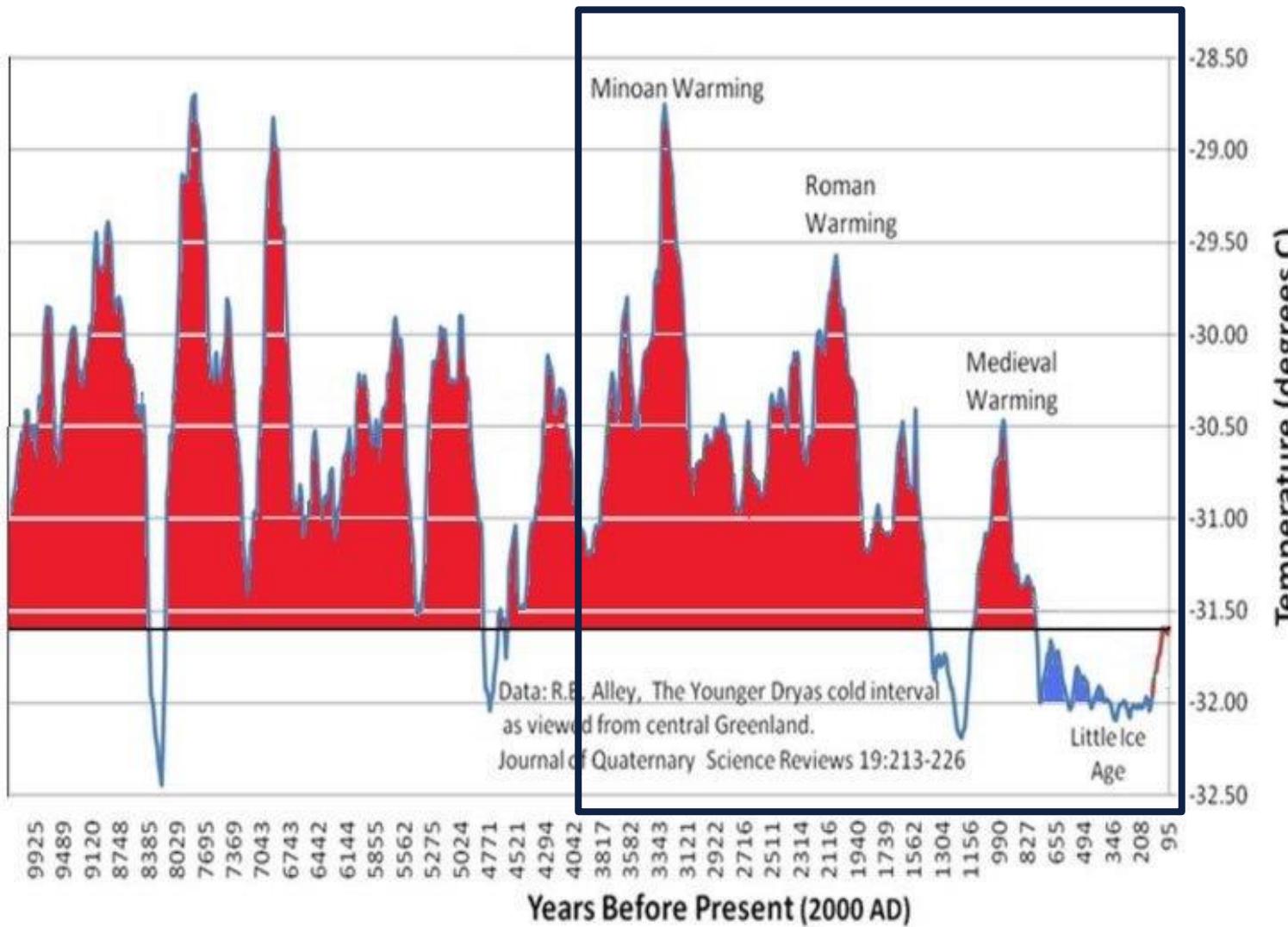


- Medieval Maximum / Medieval Warm
- Wolf Minimum
- Sporer Minimum
- Maunder Minimum
- Dalton Minimum
- Modern Maximum / Modern Maximum
- Eddy Minimum

Solar Activity Is The Clear Driver Of Earth's Climate

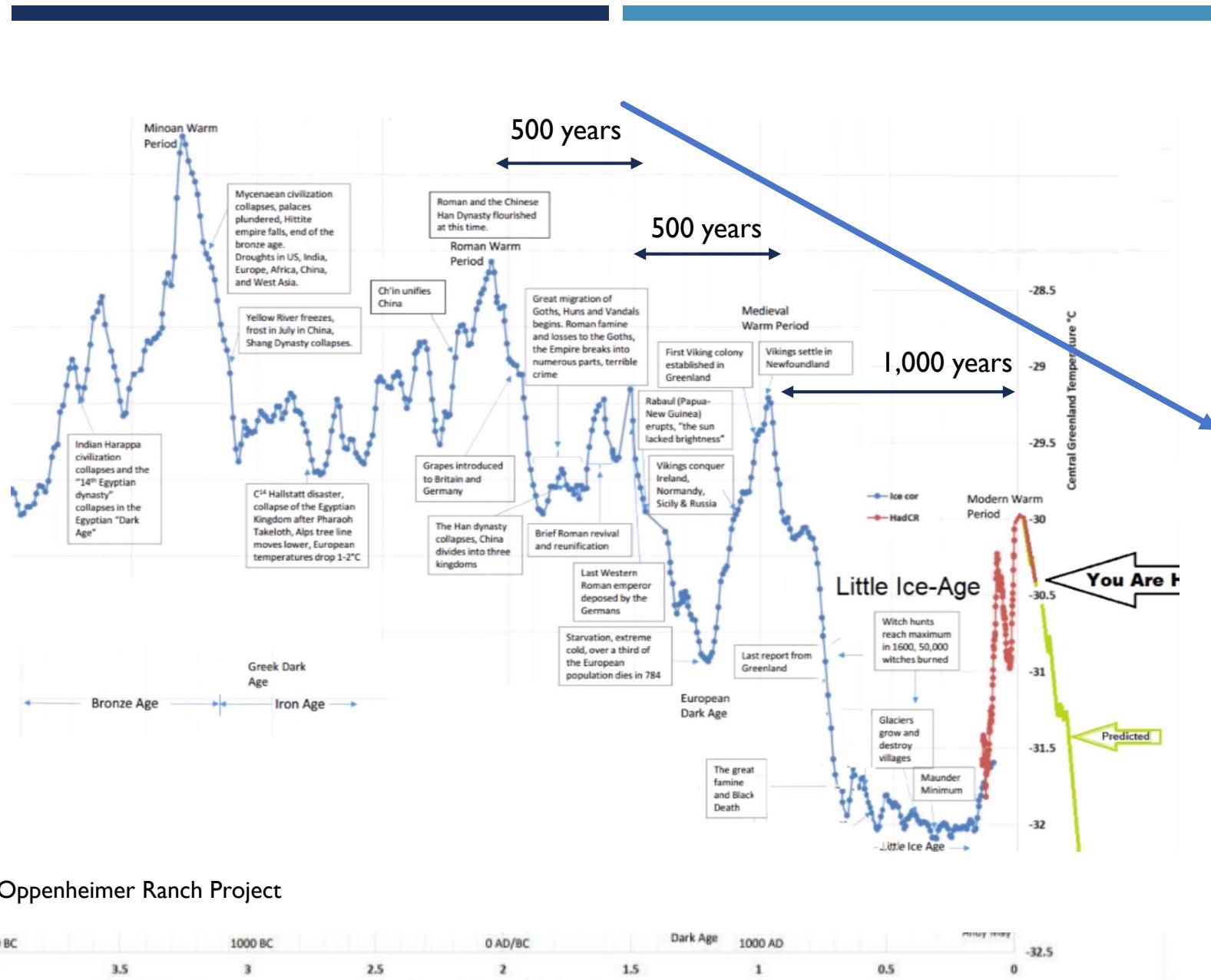


Greenland GISP2 Ice Core - Temperature Last 10,000 Years



GISP 2

- Greenland Ice Sheet Project
- On 1 July 1993, after five years of drilling, the Greenland Ice Sheet Project Two (GISP2,) penetrated through the ice sheet and 1.55 meters into bedrock recovering an ice core 3053.44 meters in depth.
- At the time, it was the deepest ice core recovered in the world.



CENTRAL GREENLAND TEMPERATURE RECORDS

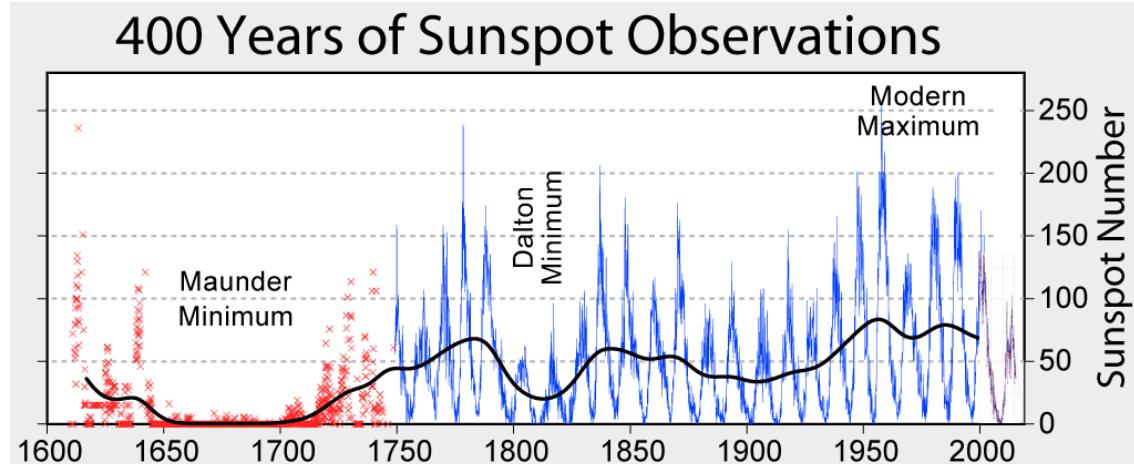
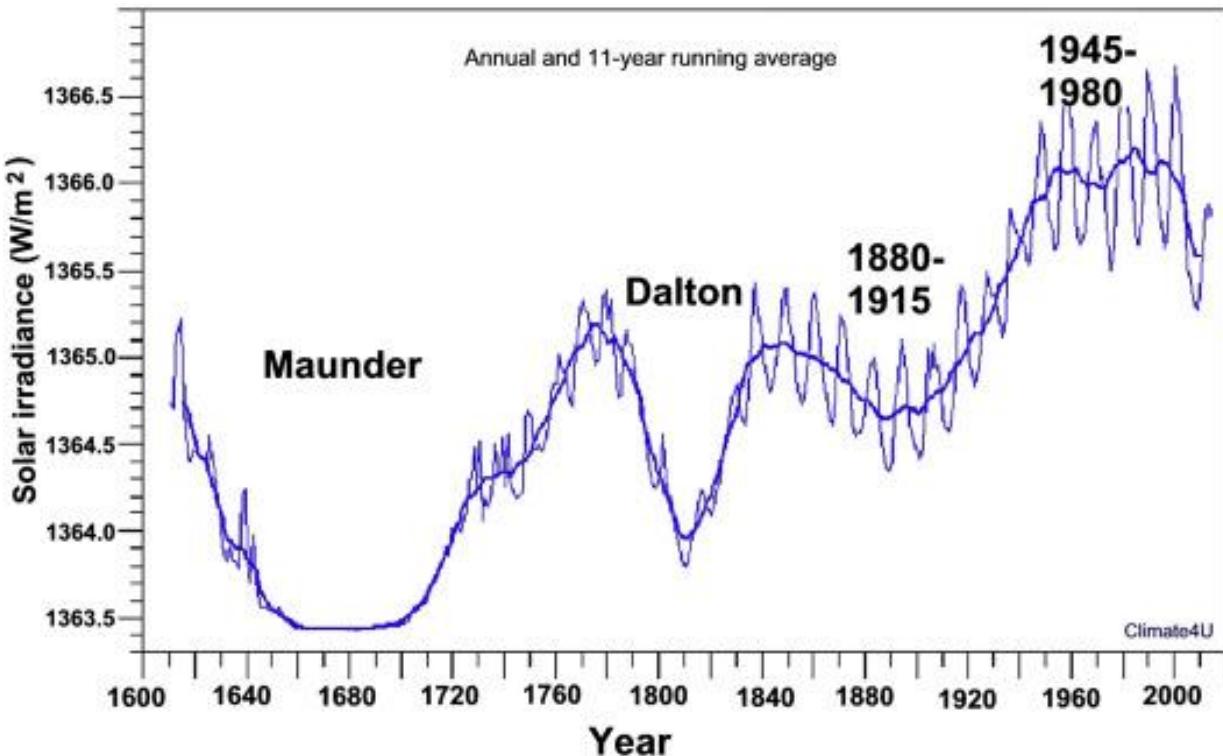
- Peaks
 - Minoan Warm - 3,750 BC
 - Roman Warm - 2,000 BC
 - Medieval Warm - 1,000 AD
 - Modern Warm - Present
- Roughly 30% reduction per warm period.
- Civilizations collapsed during these cold periods.
- Beginning of a new cold epoch.

SO FAR WE ESTABLISHED 3 THINGS

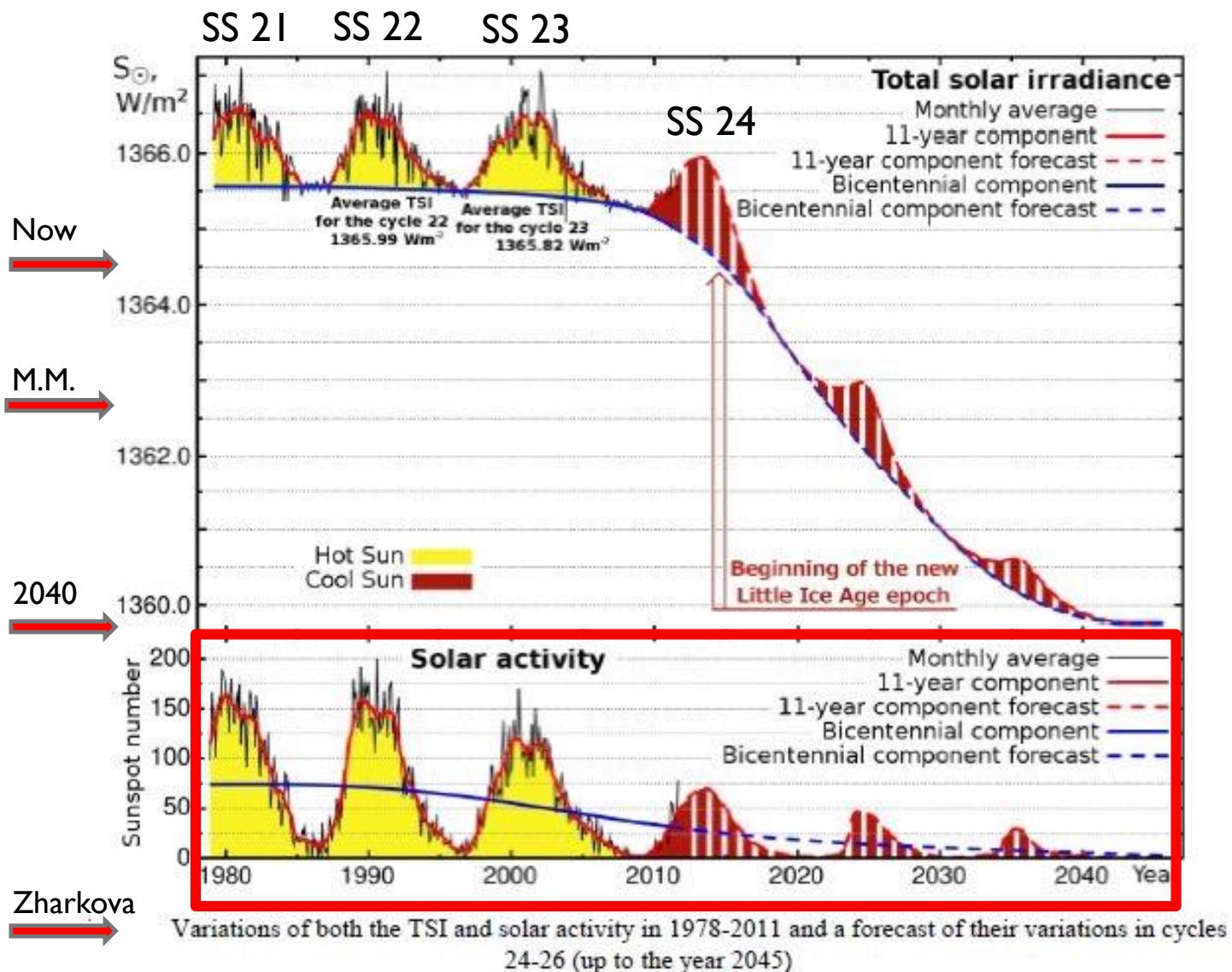
1. Sunspots occur in cycles.
2. Sunspot activity is an indicator of Earth's temperature.
3. These cycles occur in predictable patterns.

TOTAL SOLAR IRRADIANCE (TSI)

- Energy from the sun is measured in Watts per squared meter. (Wm^2)
- A reduction of **3 - 4 Wm²** is the difference between the Maunder Minimum and today's warm climate.
- Just like Fahrenheit and Celsius. TSI is measured using two different measurement systems. We're looking at the European unit of measure.



Habib Ullo Ismailovich Abdussamatov 2014



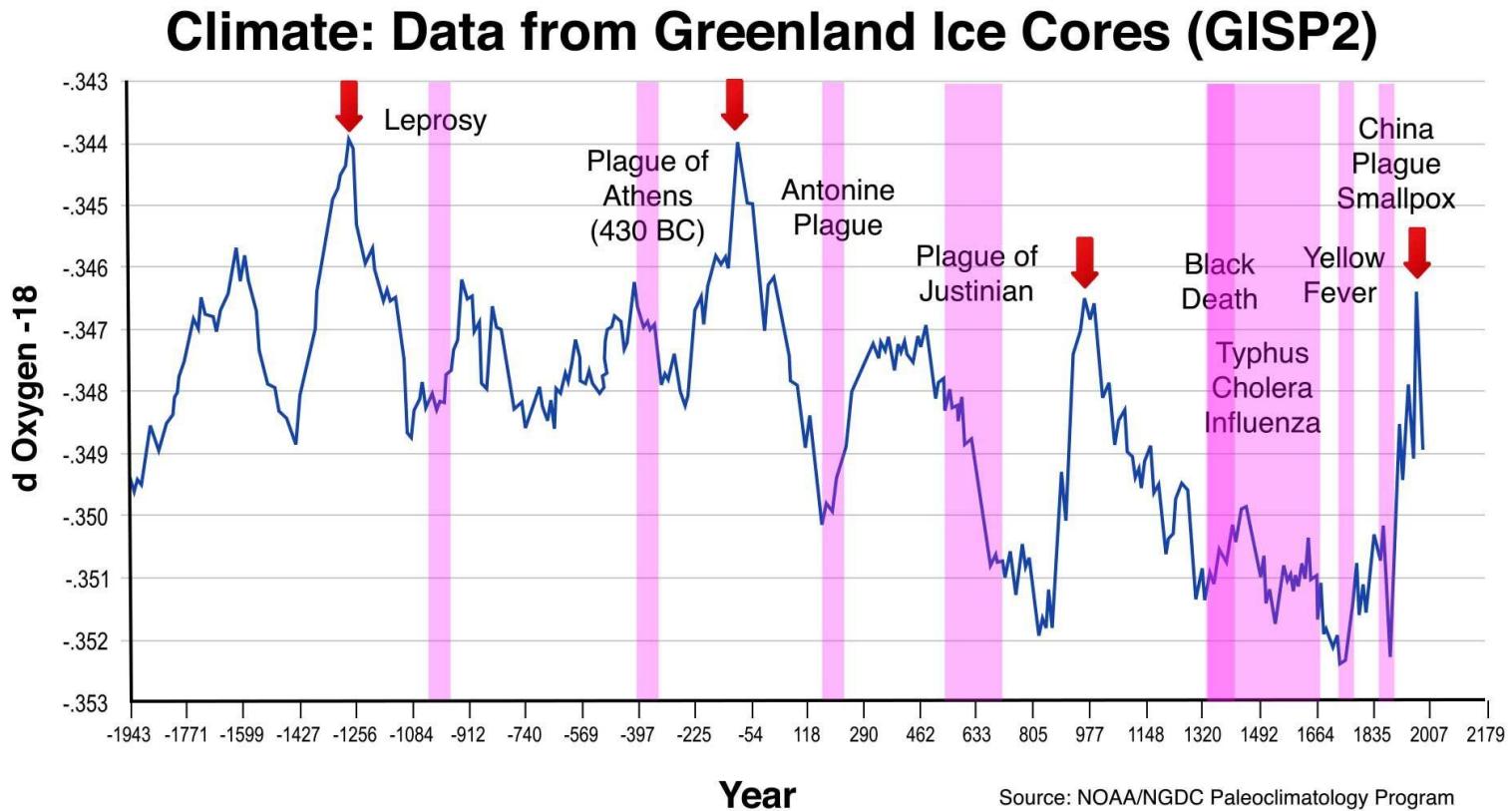
TOTAL SOLAR IRRADIANCE (TSI)

- Lower chart is viewed on a linear plain. It lacks depth.
- Upper chart adds the element of depth for perspective.
- During the Maunder Minimum, the sun's TSI output was **1363.5**
- TSI predicted to be **1360.0 Wm²** by 2040.
- Minor changes in the sun causes drastic changes on the planet.
- TSI is the solar radiative power per unit area incident on the Earth's upper atmosphere.
- Upcoming solar cycles 25 and 26 are projected to be extremely weak.
- The rate of descent (TSI loss) is unprecedented.

HISTORY

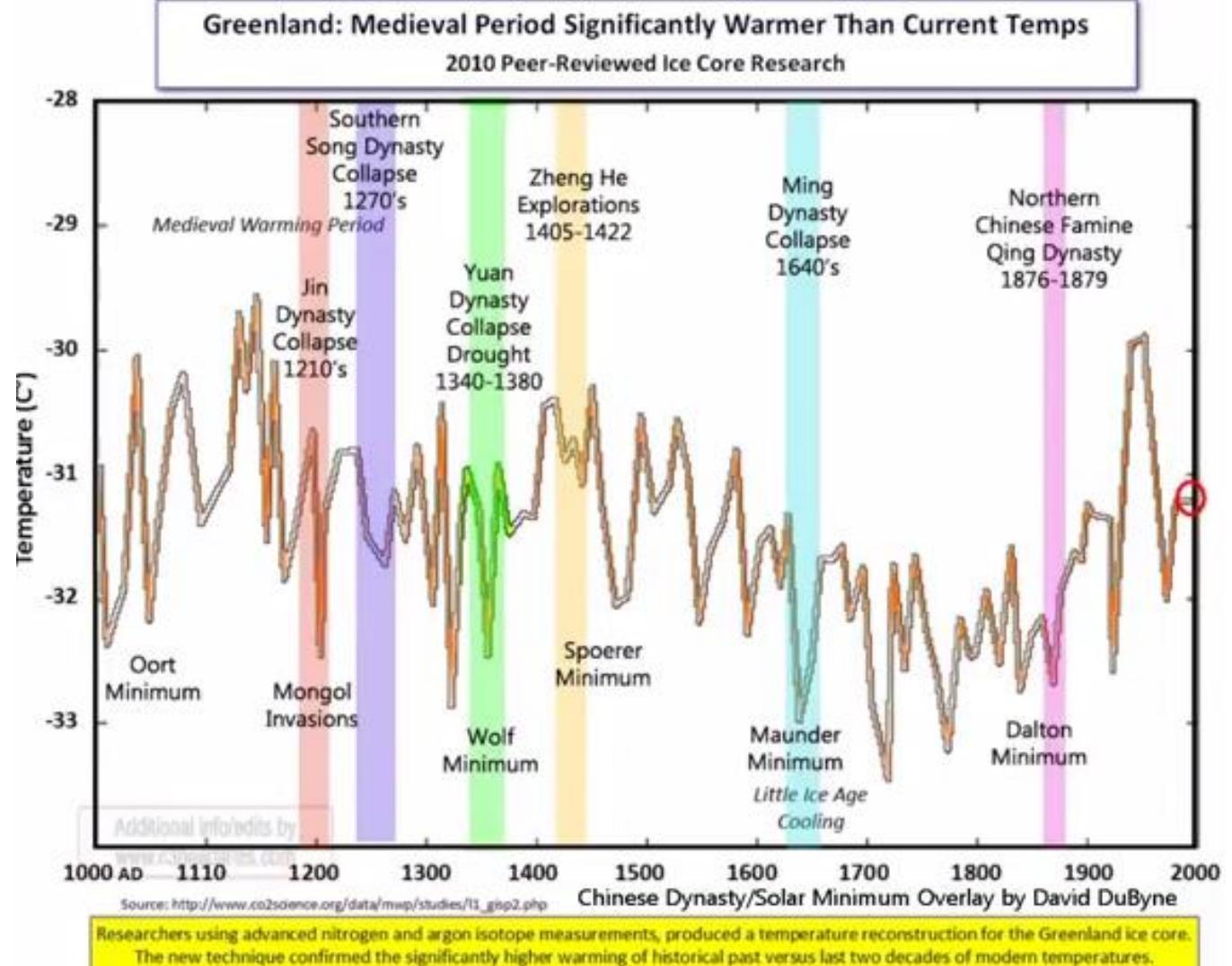
DISEASE AND PLAGUES

- GISP2 data reconstruct temperature records.
- Red arrows denote maximum warm periods of the cycle.
- Overlay periods of major plagues and diseases.
- We see an increase of illness during times of low temperature records.
- Cold weather destroys crops.
- Humans thrive in the warmth.
- Our immune system is weaker when we're hungry.



CHINESE HISTORY

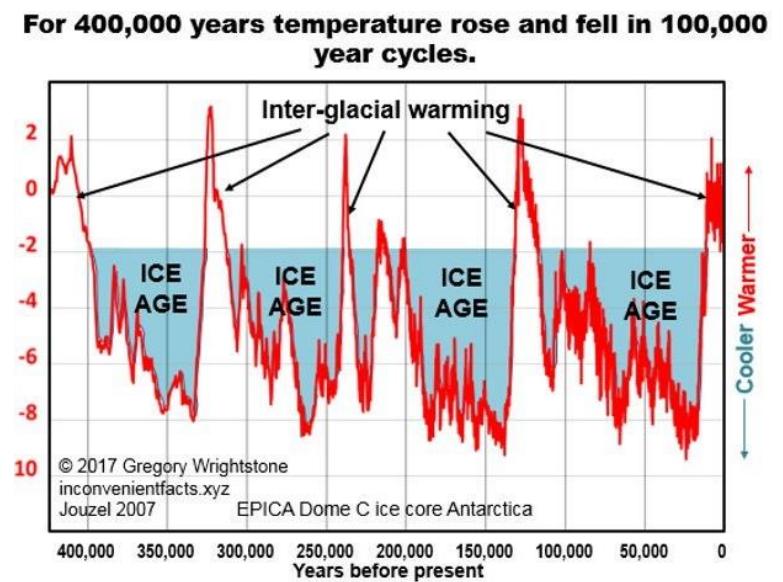
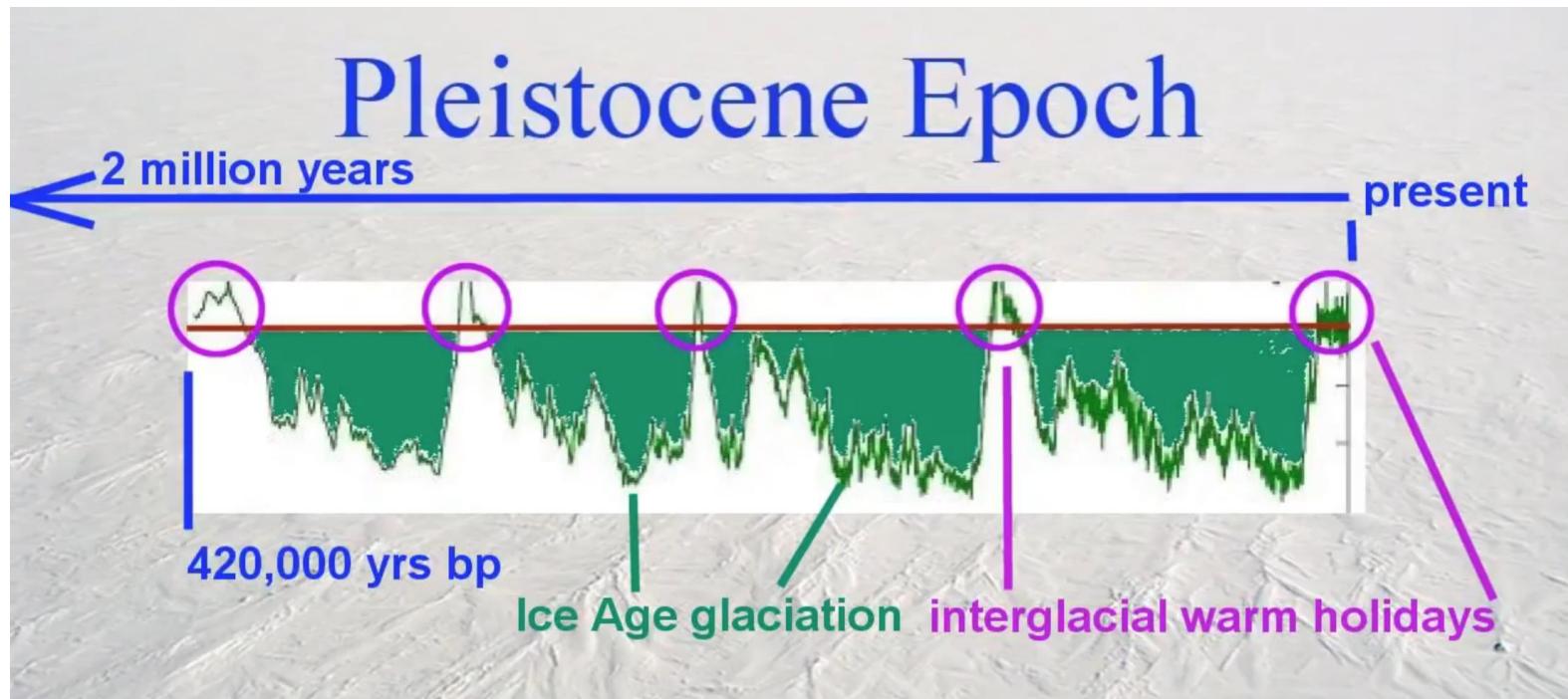
- Another way to reconstruct temperature records is through Greenland's ice core data.
- Greenland Ice Sheet Project (GISP)
- The Chinese have sunspot and farming records that go back thousands of years.
- American Farmers only have records showing the past few hundred years.
- If you overlay the rise and fall of every Chinese Dynasty against the temperature records, you'll find a stark correlation.
- Note: Previous temperatures were much warmer than today.



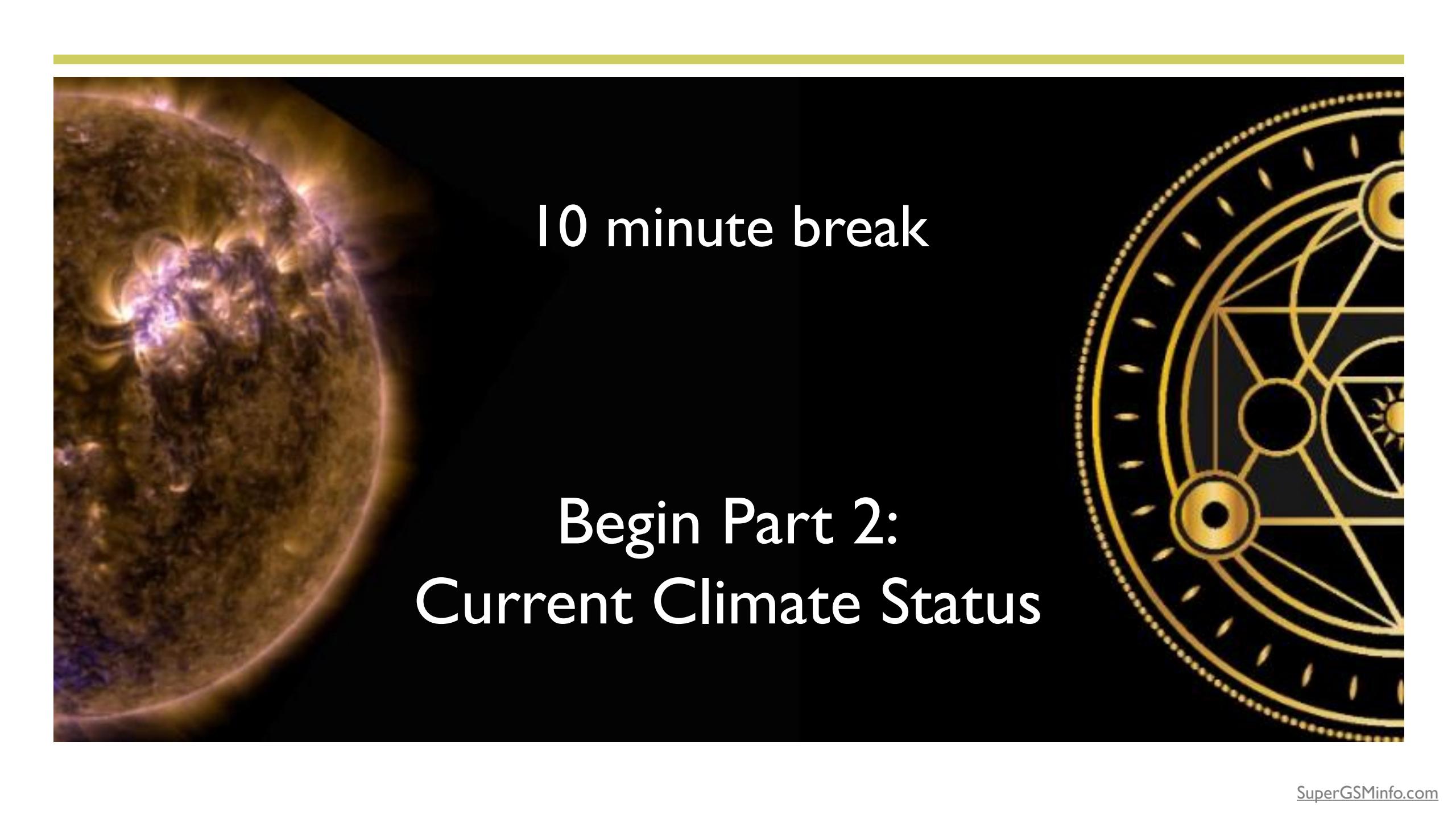
David DuByne ADAPT2030

FURTHER BACK - INTERGLACIAL

Looking further back, we can see that we're living between ice ages. This period of time is called the “Interglacial Warm.”

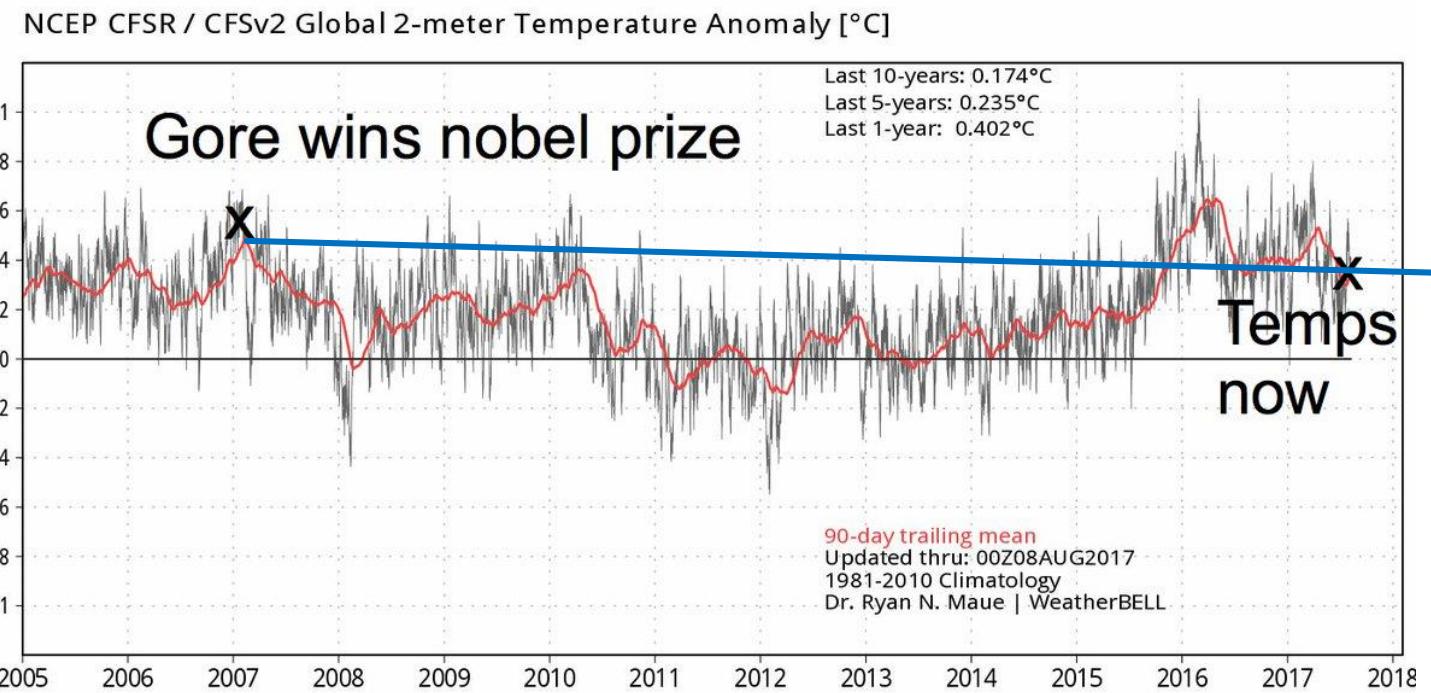


Jouzel J, et al. (2007a) EPICA Dome C Ice Core 800K Yr Deuterium Data and Temperature Estimates. IGBP PAGES/World Data Center for Paleoclimatology Data Contribution Series # 2007-091. NOAA/NCDC Paleoclimatology Program, Boulder CO, USA.

A collage background featuring a solar flare on the left and a golden compass rose on the right, set against a dark background.

10 minute break

Begin Part 2:
Current Climate Status

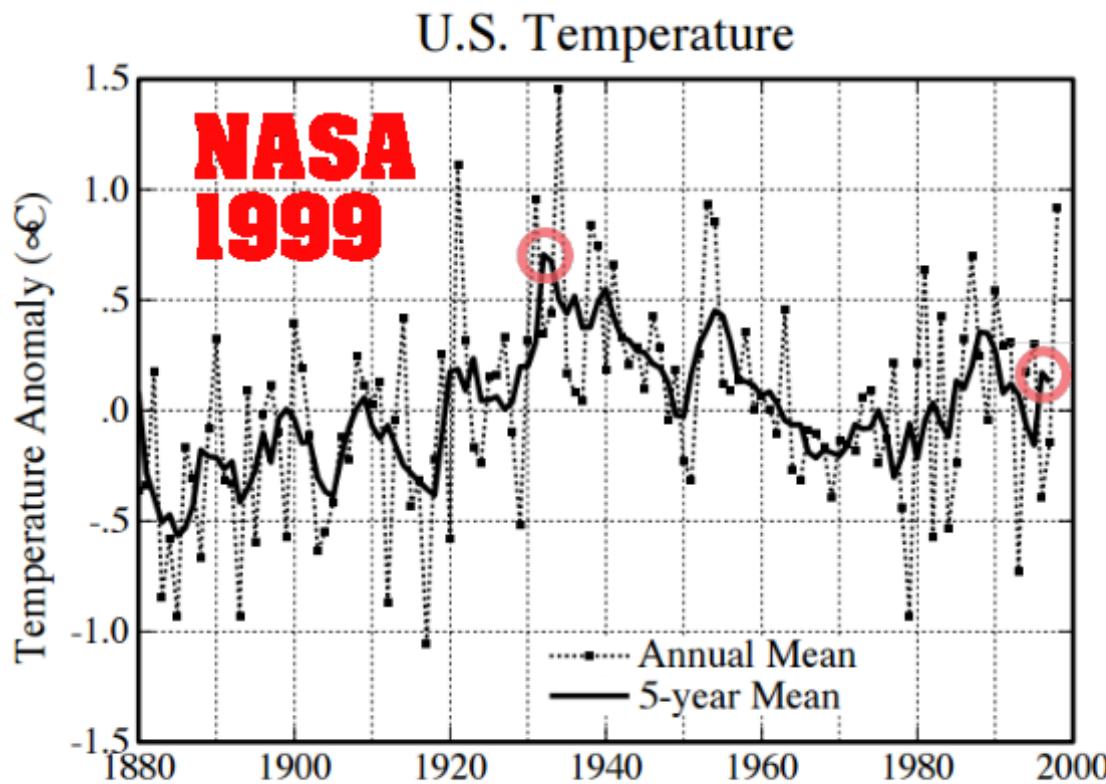


- NOAA and NASA have been caught manipulating data.
- Temperature collectors positioned near airports, bus stops, and ‘heat islands’. Data sets for ocean temperatures found within land-locked regions.

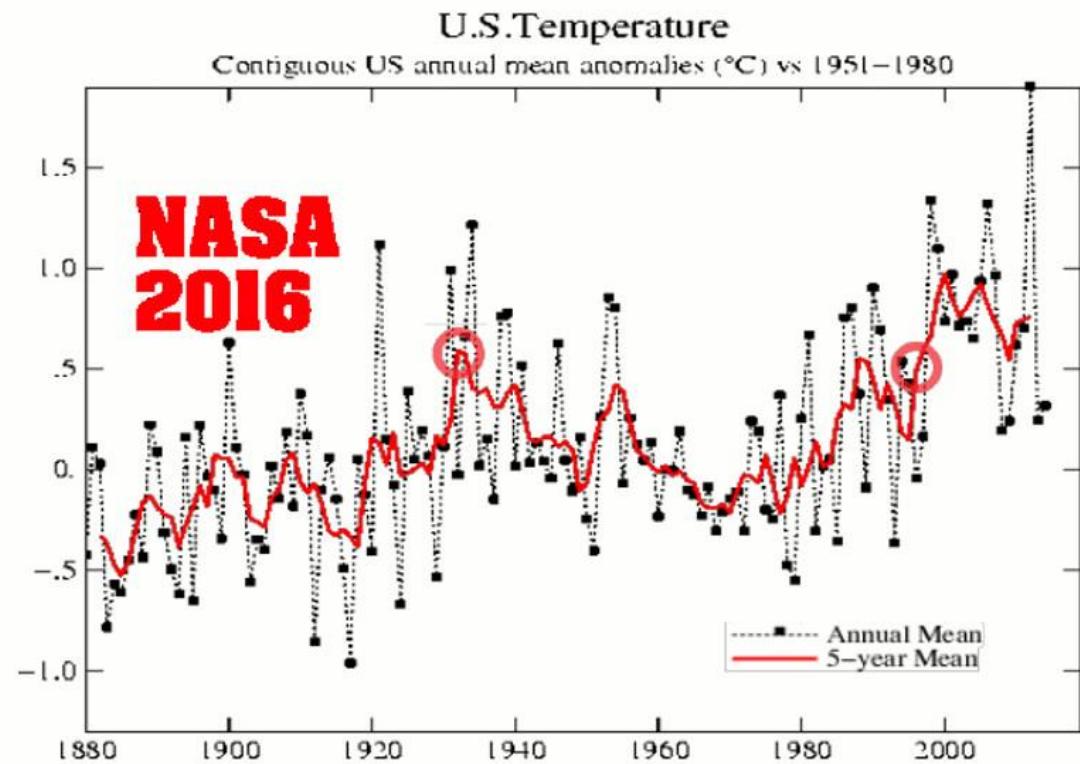
ANTHROPOGENIC GLOBAL WARMING (AGW)

- It's colder now than when Al Gore won the Nobel Prize in 2007.
- Narrative shift from GW to “Climate Change” in 2006.
- Govt funded scientists lose funding if they don't agree with political warming agenda.
- No other voice in climate debate has been allowed. Labeled “Climate Denier”.
- “Settled Science”
- CO₂ follows temperature by 800 years. CO₂ is plant food.
- CO₂ represents 0.04% of atmosphere. It's a trace gas. Termites produce more CO₂ than your SUV.

1999 NASA temperature chart shows a net cooling of the planet.



The current NASA graph has eliminated the 1930-1999 cooling and shows a net warming of the planet.



Chuck Todd Bans Climate ‘Deniers’ from Climate Change Special

Monday, December 31, 2018 12:52



The Closing of the American Mind was Allan Bloom's groundbreaking critique of "absolute understanding" in academia and the way that it undermines critical thinking.

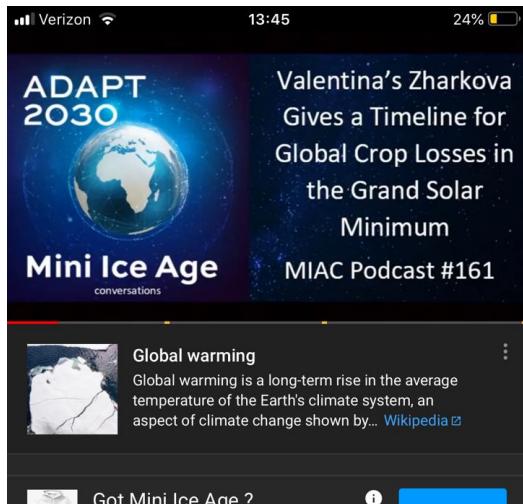
If Bloom were with us today, we could imagine him writing a sequel devoted to the way the climate change industry has sought to silence dissent.

Chuck Todd gave a stunning example of the phenomenon this morning in his introduction of a *Meet the Press* special edition on climate change.

Todd quite literally announced that dissent would not be tolerated. Here was Todd:

"Just as important as what we are going to do this hour is what we're not going to do. We're not going to debate climate change, the existence of it. The Earth is getting hotter, and human activity is a major cause. Period. We're not going to give time to climate deniers. The science is settled, even if political opinion is not."

“We’re not going to debate climate change, the evidence of it. The Earth is getting hotter, and human activity is a major cause. Period. We’re not going to give time to Climate Deniers.”

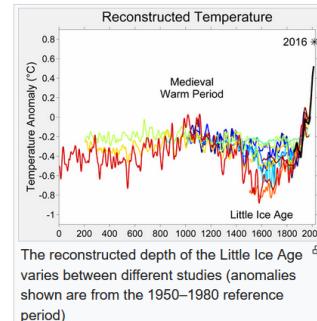


social period.

Although it was not a true [ice age](#), the term / defined as a period extending from the to about 1850.^{[7][8][9]} Climatologists and e period, which varied according to local

other about 1770, and the last in 1850, all [Assessment Report](#) considered the timing ther than a globally-synchronous iod.^[10]

anges in the [ocean circulation](#), reases in the human population.



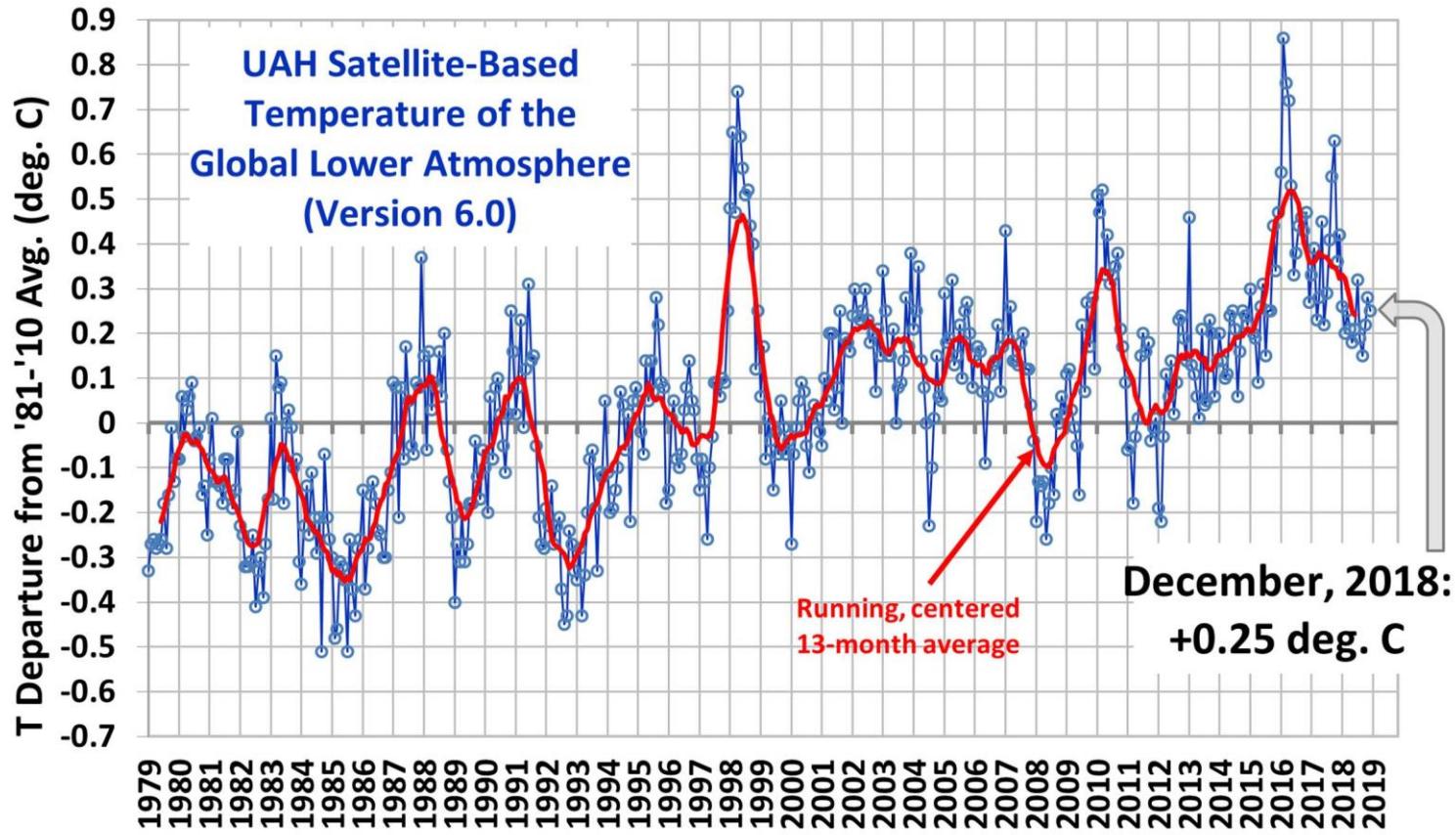
Wikipedia search for Little Ice Age shows “Hockey Stick” GW chart.

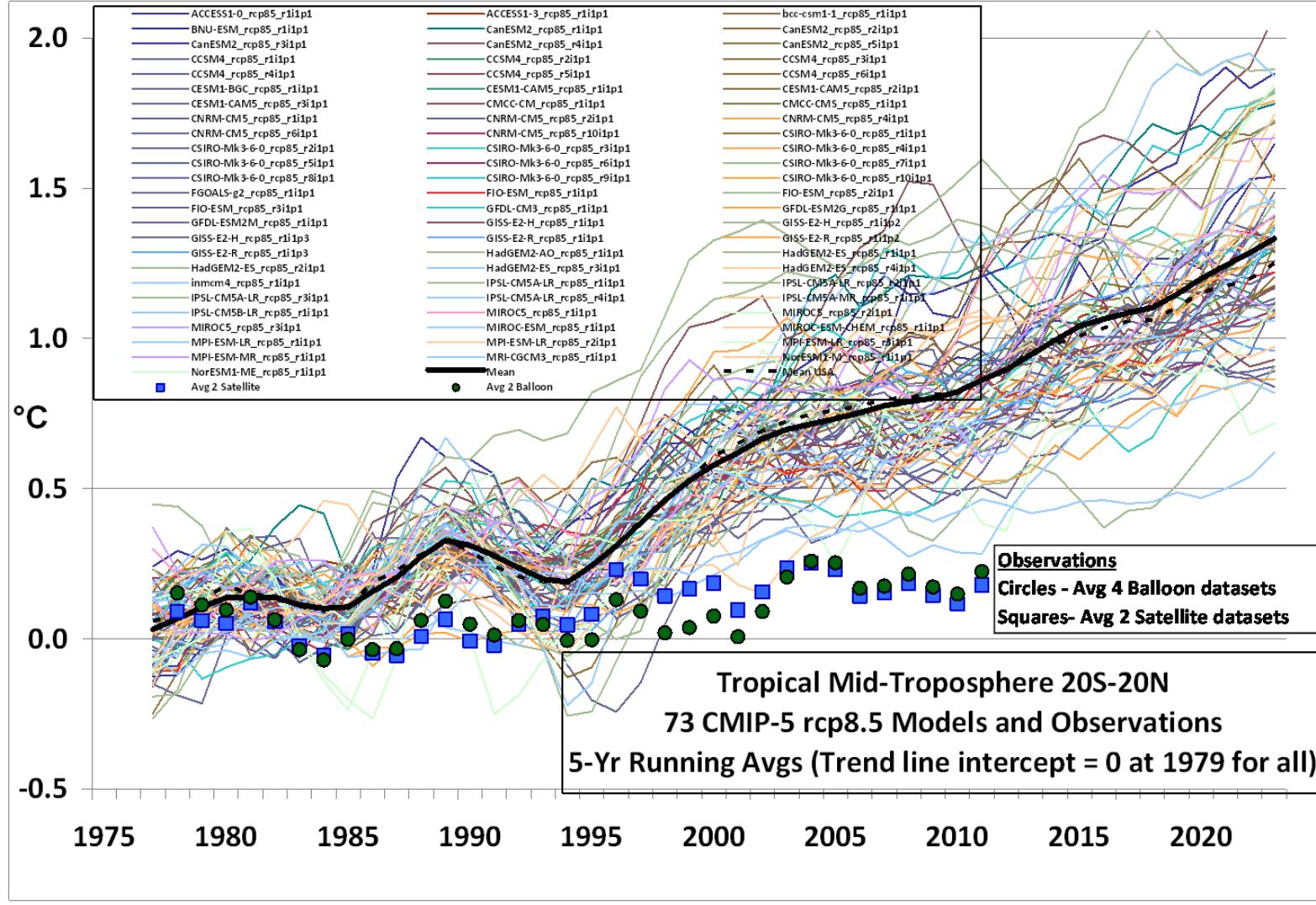
GLOBAL WARMING CENSORING THE ‘DENIERS’

- Global warming agenda is (and has been) forced into our view through the news, TV, social media, internet search engines, etc – for 30 years.
- Searching topics of global cooling, you’re forced to see ‘Global Warming’ data.
- Call to silence “climate deniers” by politicians and social justice warriors.
- Campaign to silence the facts or discussions.
- “97% Consensus” has been debunked over and over. Yet, it’s still locked in the arguments as proof.
- That is not how science works!

CURRENT DATA

- No net warming for the past 20 years.
- Sharp cooling for the past 3 years.
- The rate of decline in TSI is unprecedented
- Temperatures in the Thermosphere are plummeting.





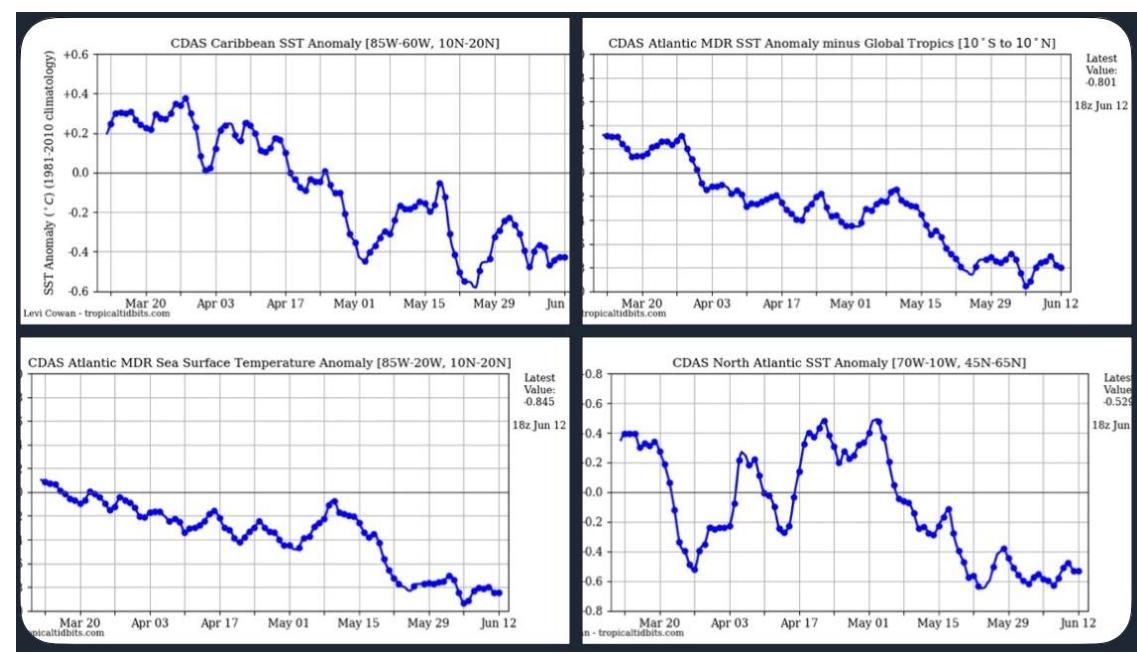
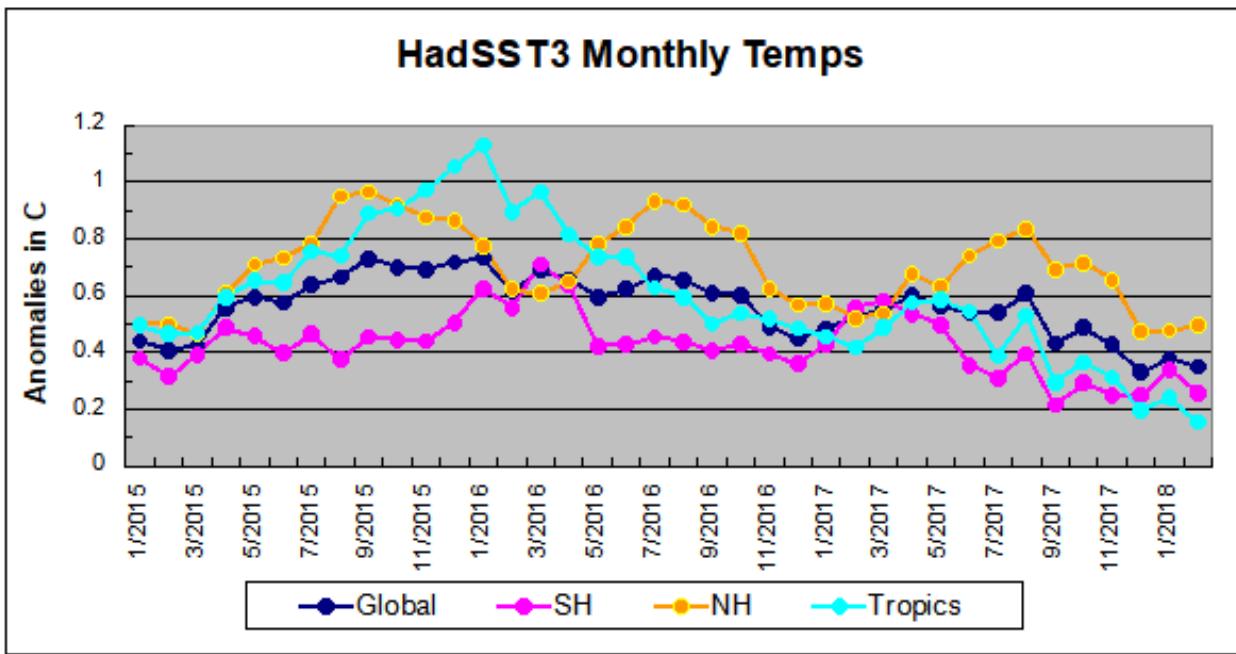
CLIMATE MODELS

"No amount of experimentation can ever prove me right; a single experiment can prove me wrong."

– Albert Einstein

- 73 Climate Models – every single one is wrong because they include CO₂ in their calculations.
- Dr. Roy Spencer and Dr. John Christy have published a graph comparing the predictions of 73 climate models versus the observations of radiosondes and satellites for tropical mid-troposphere global temperatures.

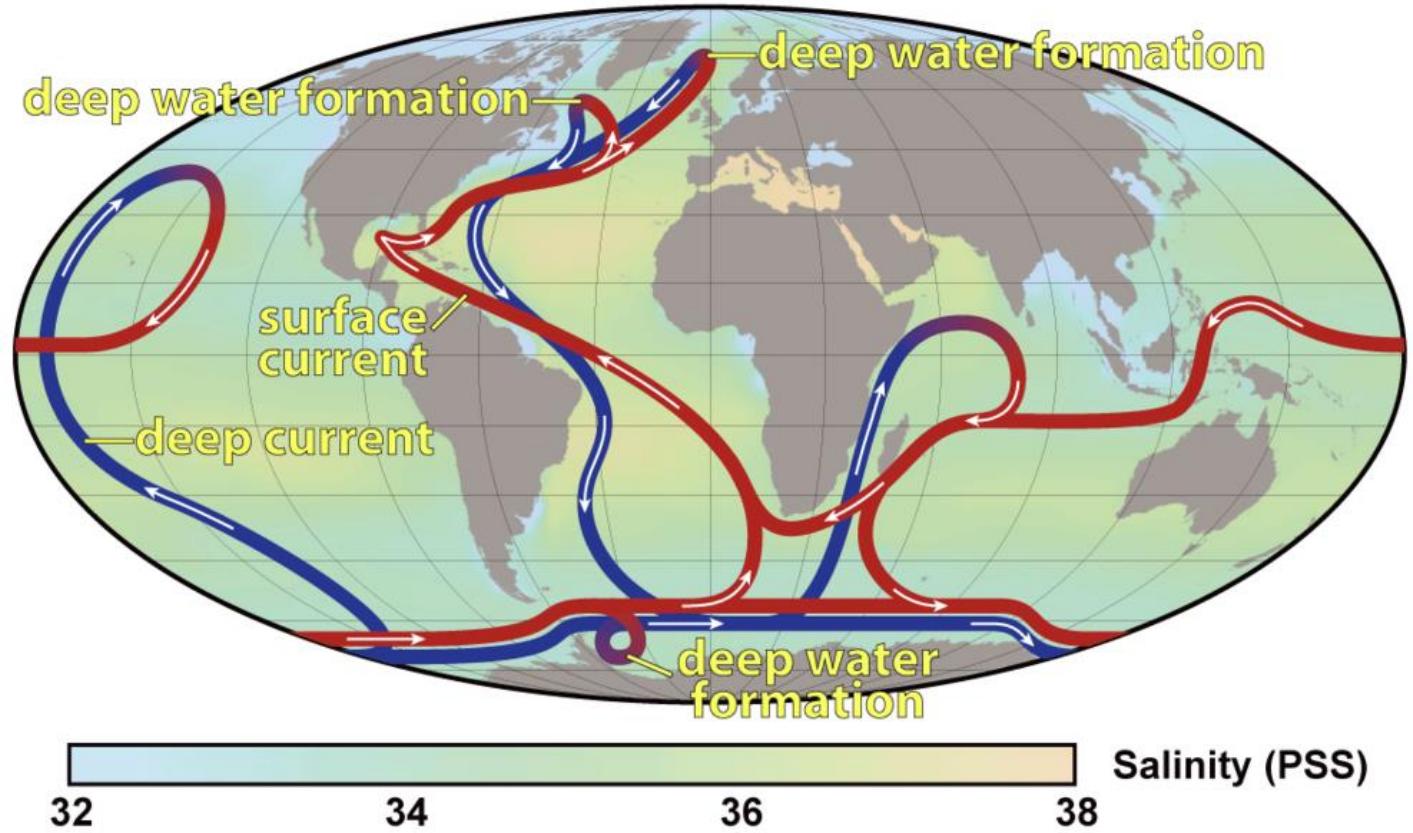
OCEAN TEMPERATURES FALLING



ATLANTIC CONVEYOR (GULF STREAM)

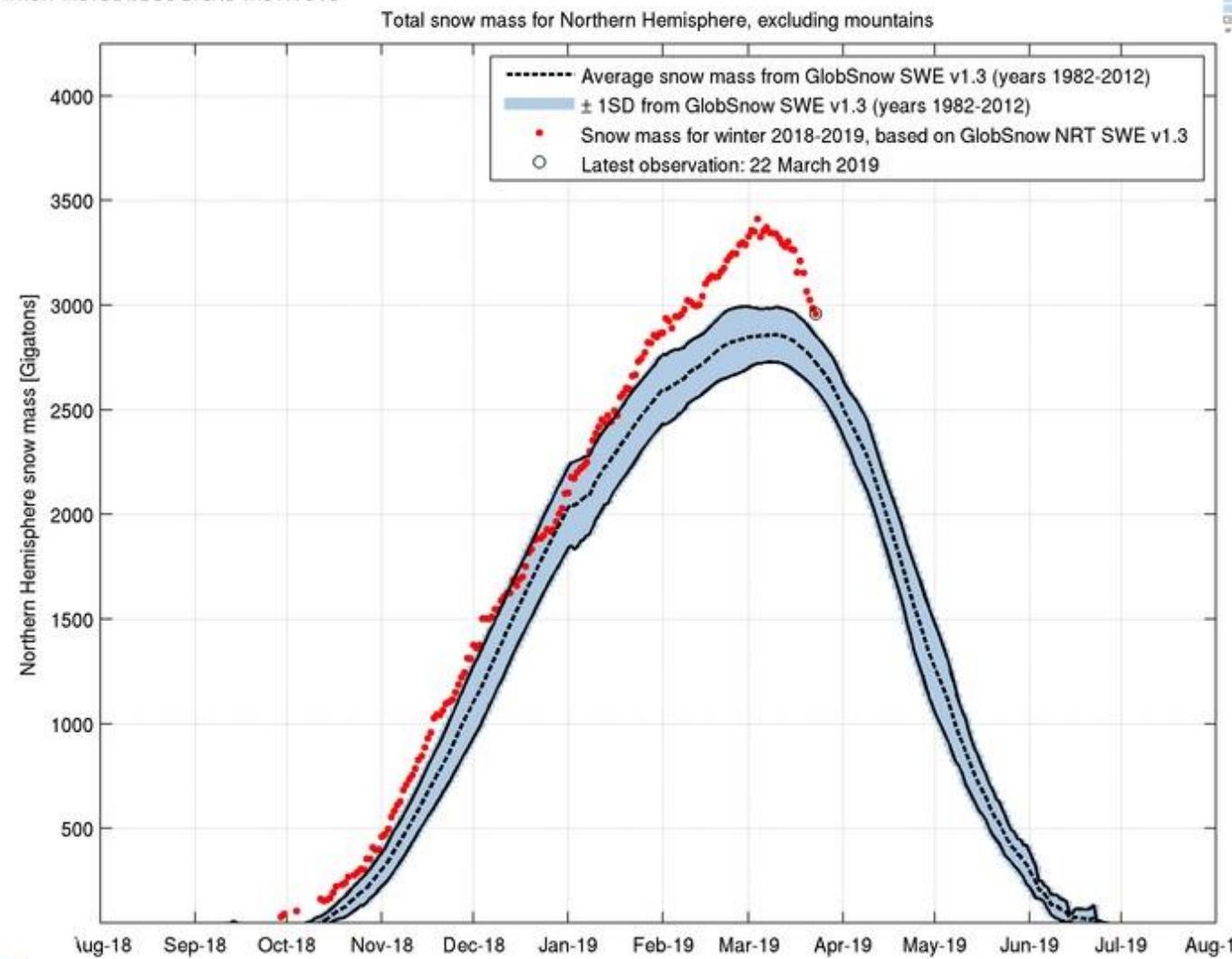
- From 2009 to 2010, the average strength of key ocean currents in the North Atlantic dropped by about **30 percent**, causing warmer waters to remain in the tropics rather than being carried northward.
- The consequences included an unusually harsh European winter, a strong Atlantic Basin hurricane season,

Thermohaline Circulation





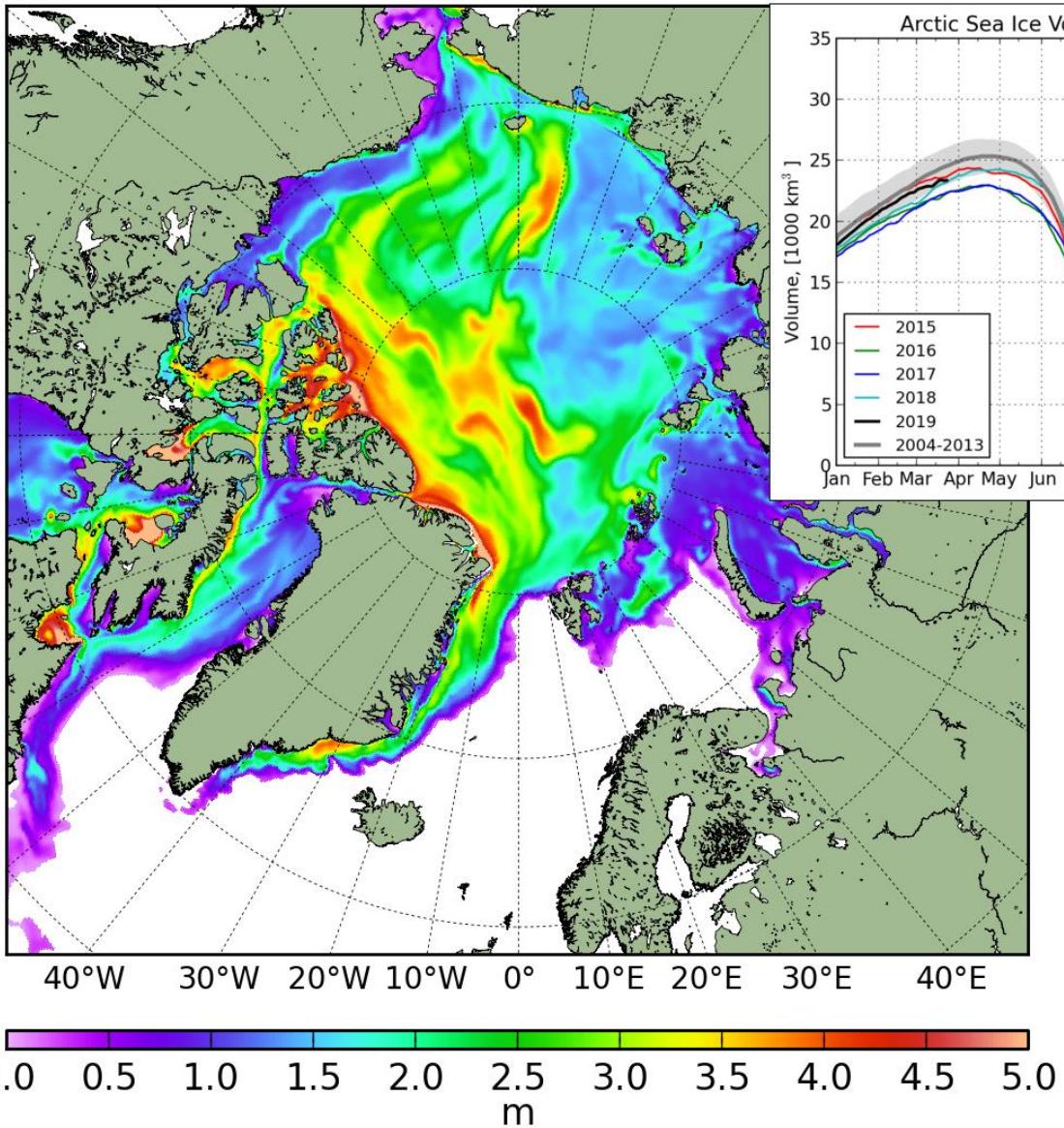
FINNISH METEOROLOGICAL INSTITUTE



FINNISH METEOROLOGICAL INSTITUTE

- Northern Hemisphere snow mass balance
- Above the 30 year average

Sea Ice Thickness, 23-Mar-2019



CURRENT DATA

DANISH METEOROLOGICAL INSTITUTE (DMI)

- Sea ice thickness shows a growing trend over the past 4 years.
- Beginning of glaciation.
- Sea Ice thickness steadily rising.

Atlantic Canada on track for a 'bad ice year,' Coast Guard official says

By The Canadian Press
Tues., Dec. 18, 2018



ST. JOHN'S, N.L.—Coast guard officials say Atlantic Canada is on track to see an uptick in sea ice this winter, with cold temperatures and high winds contributing to early ice growth.

Brad Durnford, superintendent of ice operations for the Atlantic region, told a media briefing Tuesday that the Canadian Coast Guard's icebreaking operations have already assisted vessels trapped in ice.



The Canadian Coast Guard's medium icebreaker Henry Larsen is seen in Allen Bay during Operation Nanook as Prime Minister Stephen Harper visits Resolute, Nunavut on the third day of his five day northern tour to Canada's Arctic on



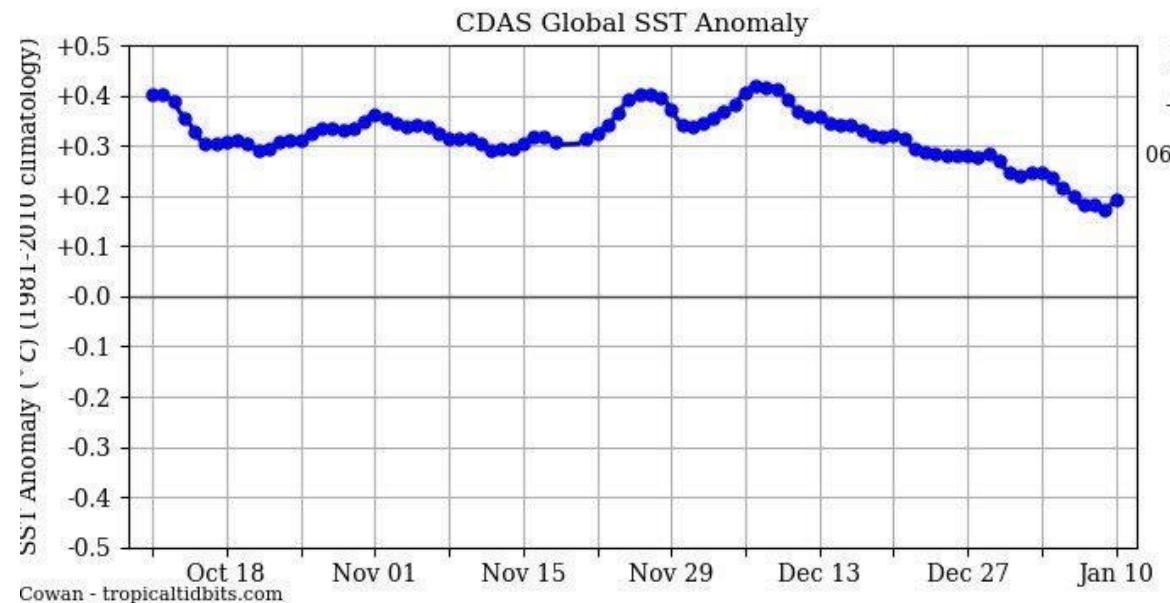
New York Times World
@nytimesworld

The world's oceans are heating up 40 percent faster than the United Nations estimated five years ago, according to a new study



Ocean Warming Is Accelerating Faster Than Thought, New Research Finds

nytimes.com



- NY Times article 11 Jan 2019 says “ocean temperatures are heating up 40% faster than the U.N. estimated...”
- Reviewing the actual data shows stark difference.
- Deliberate attempts to obfuscate the truth.

IN THE NEWS

If you know what to look for,
the signs and symptoms of a cooling planet are everywhere.

Polar bear numbers in Canadian Arctic pose threat to Inuit, controversial report says

Report bitterly contested by scientists who say threat comes from climate change, which has pushed bears closer to humans - not because the population is growing



Trump seeks new icebreaker for Coast Guard

[News Home](#) | [More from News of the North](#)

Wednesday, December 26th, 2018 1:11pm



Washington, D.C. (KINY) - President Donald Trump renewed a pledge on Tuesday to fund a new vessel for the U.S. Coast Guard.

According to The Military Times, the president compared it with his effort to build a wall on the southern border.

"It's like the border wall. We still need a wall," and the Coast Guard needs an icebreaker to replace the 42-year-old Polar Star, Trump said.

In a call to the U.S. Coast Guard's District 17 in Juneau, he said the new icebreaker will be fitted with the latest technology, but its defining feature will be the thick steel in its hull.

"With all of the technology, it still needs very thick steel," Trump said.

The Barents Observer

PYCC
Menu



Icebreaker assistance in Gulf of Ob. Illustration photo:
Sovcomflot

At midsummer, tankers get ice-trapped near Russian Arctic port

Shipping in the Gulf of Ob is paralysed and the situation complicated, icebreaker company Rosatomflot says.

Europe's Southern Most Ski Area Opens Early With A Huge Amount Of Snow

400 [SHARE](#) [TWEET](#) [EMAIL](#)



By: UnofficialNet | November 27, 2018



Reuters Top News

@Reuters

Insight: China's multi-story hog hotels elevate industrial farms to new levels
reut.rs/2rzdd7w



5/10/18, 23:40

Check Out The Massive Chinese-Built Ghost Town In The Middle Of Angola

Mamta Badkar Jul 3, 2012, 12:18 PM

There's been a lot written about ghost towns in China.

Now, state-owned China International Trust and Investment Corporation (CITIC) has built a town in Angola. And it's fairly empty.



Angola / Facebook

Just outside Angola's capital city of Luanda is Nova Cidade de Kilamba a residential development of 750 eight-story apartment buildings, a dozen schools, and more than 100 retail units, reports the BBC's Louise Redvers.

[Click here to see pictures of the ghost city >](#)

It snowed in one of the hottest places in the world

By AJ Willingham, CNN
Updated 12:33 PM ET, Tue January 9, 2018



Sahara first began to receive snow in Feb 2016.

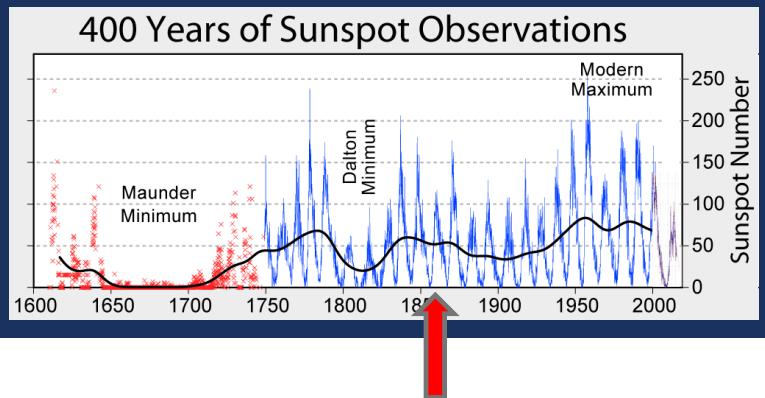
- 
- I. No net warming over 20 years
 - 2. Sharp cooling trend
 - 3. Deliberate actions to conceal facts

Begin Part 3:

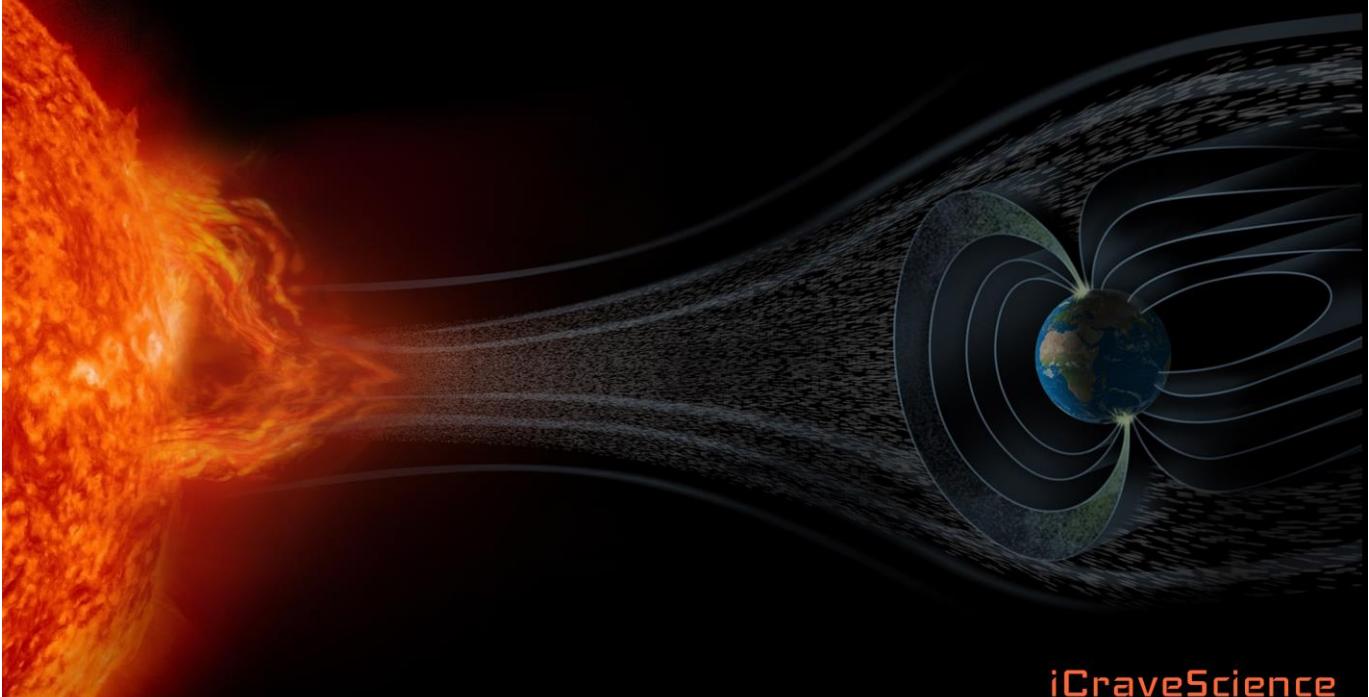
Process of a GSM and
what to expect

SOLAR STORM OF 1859 CARRINGTON EVENT

- Occurred just after the Dalton Minimum.
- Telegraph lines caught fire. Telegraph operators were shocked. The sky lit up causing workers to start making breakfast.
- Life was mostly unaffected because they didn't rely on electronics for survival.
- Minor changes in the sun have drastic effects on our planet.
- “Just in time delivery” of our food



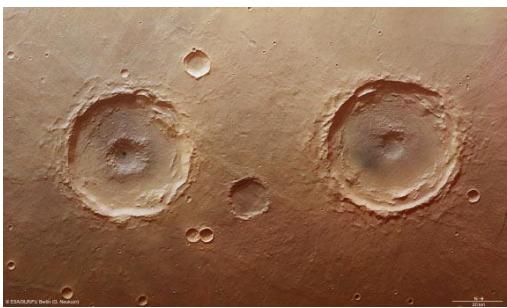
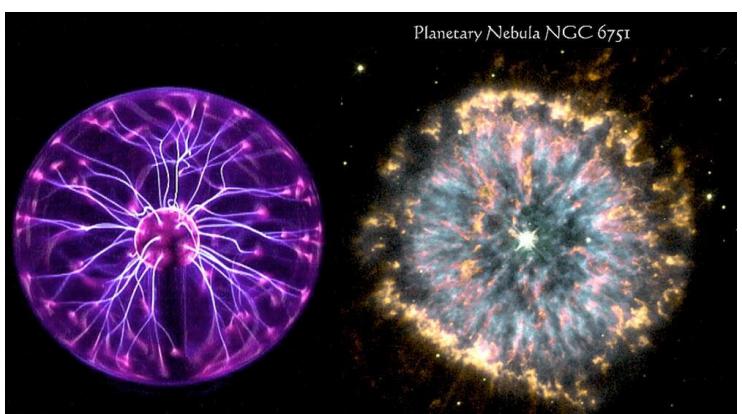
The Carrington Event: Solar Superstorm



iCraveScience

In 1859, a massive solar Flare erupted on the sun blasting high-energy light and charged particles at the earth. It produced brilliant auroras as far south as Hawaii and Cuba, destroyed telegraph equipment, shocked operators, and ignited telegraph paper. A Carrington-level Flare today would likely overload the entire power grid.

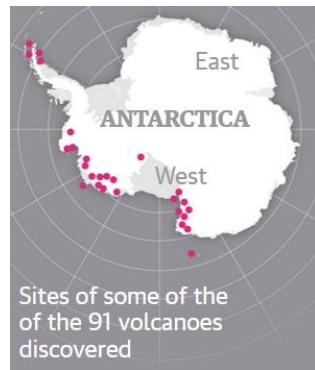
SIGNS, SYMPTOMS, AND THE PROCESS OF A GRAND SOLAR MINIMUM – ELECTRIC UNIVERSE



“Bullseye Craters” on Mars. Formed by massive plasma discharges.

- Once you view the world and universe from the perspective that our sun is a “Constant Oscillator” (Zharkova), then the variable climate makes sense.
- The universe is electric. (Thunderbolts Project)
- Everything is made of electricity or uses electricity in some capacity. Electricity is everywhere and nowhere. Our planet is not unique in this regard. The sun controls every planet in the solar system. There’s strong evidence that the surface of Mars is scarred by massive plasma burns that have been caused by electrical discharges millions of years ago.
- Our North pole / South pole are like the positive / negative connections on a battery. We’re connected to the sun magnetically, through gravity, and also through streams of electricity called “Birkeland Currents”.
- The sun is connected to every planet in the solar system through streams of energy (Total Solar Irradiance TSI).

SIGNS, SYMPTOMS, AND THE PROCESS OF A GRAND SOLAR MINIMUM – VOLCANIC ACTIVITY



91 volcanoes
were discovered
under Antarctica
in 2017.

How many are
active?

- A minor change in the sun's solar activity will cause a ripple effect like plucking a string on a guitar. The ripple (or tug) of energy causes seismic events on the Earth. As the sun cools and the Total Solar Irradiance (TSI) diminishes, Earth loses heat and power. Minor changes in the sun have drastic effects on our little planet. (i.e. Goldilocks Zone)
- Solar flares, coronal holes, and coronal mass ejections (CME) all push energy towards the Earth in the form of solar wind / **cosmic rays**. Just a slight tug on gravity or a pulse in the magnetic connection will cause plates to shift and then earthquakes to occur. Earthquakes are not random events. They are, in fact, predictable.
- New research is coming out by independent researchers suggesting that the sun causes earthquakes by disrupting magnetic connections (Blot Echo). The earthquakes send energy and pressure through the tectonic plates like a wave in a swimming pool.
- The force and pressure is released and at volcanoes. During a GSM, we see increased seismic and volcanic activity. We're currently seeing an increase in volcanic activity around the planet. Minor changes on the sun, cause drastic effects on our little planet.



Volcano Fuego in Guatemala 2018.

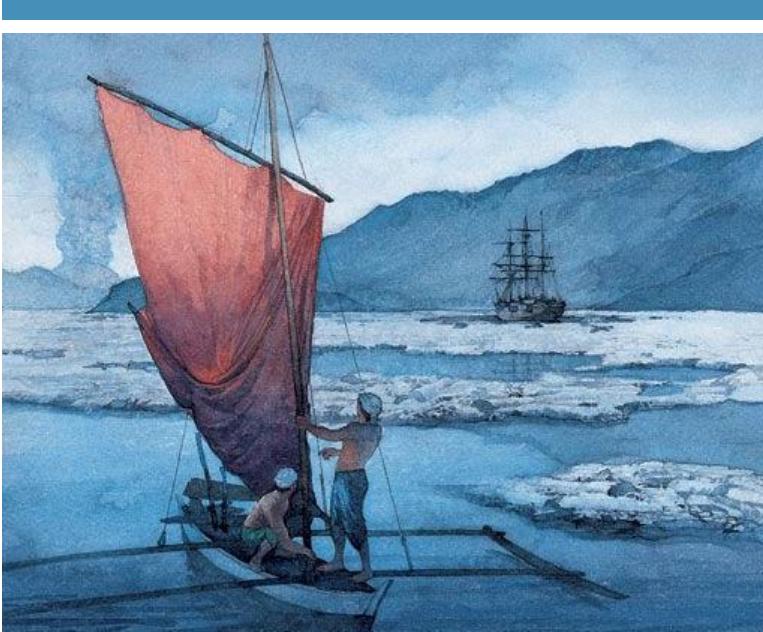
SIGNS, SYMPTOMS, AND THE PROCESS OF A GRAND SOLAR MINIMUM – CLOUD NUCLEATION

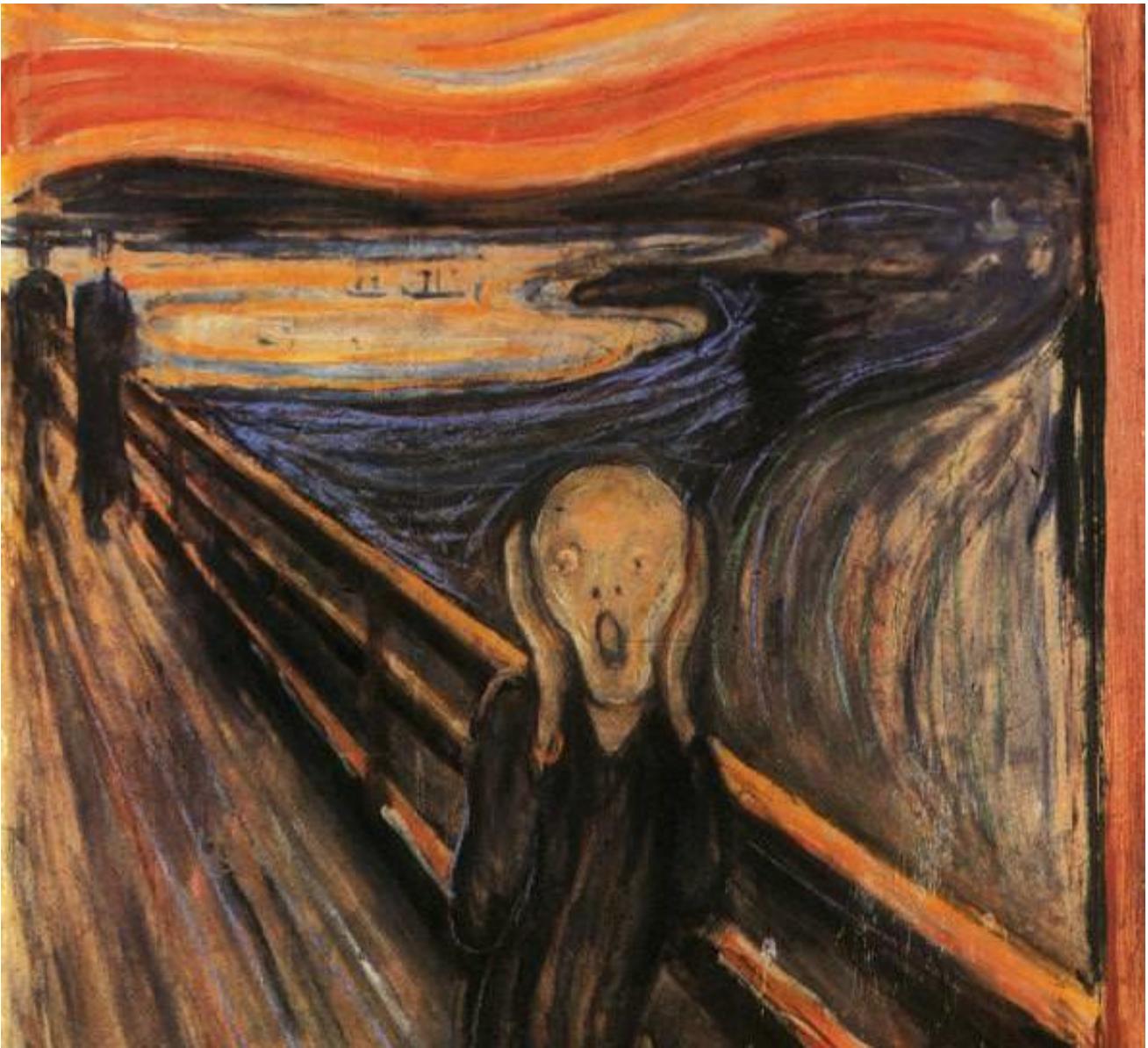
- The volcanic eruptions release millions of tons of aerosols into the atmosphere. If an eruption is strong enough to reach the stratosphere (50,000ft), the aerosols will remain in the upper atmosphere for years or decades and circle the planet.
- The volcanic particulates in the atmosphere are the host for water vapor. Rapid cloud formation. (Cloud Nucleation). It's nearly impossible for a single water molecule to attach itself to another single water molecule without a binding agent (aerosols).
- In this case, the millions of tons of volcanic ash in the atmosphere act as the binding agent. Rapid formation of clouds occur.

SIGNS, SYMPTOMS, AND THE PROCESS OF A GRAND SOLAR MINIMUM

CLOUD NUCLEATION

- Cosmic rays are highly charged particles. They add energy and electricity to water vapor in the sky (clouds) causing a rapid formation of clouds.
- Sudden increase in hurricane strengths during 2018 hurricane season.
- Clouds further block the sun's dimming energy.
- Art showing Mt. Tambora. Note the cloud filled skies.





KRAKATOA

Edvard Munch's *The Scream* - 1893

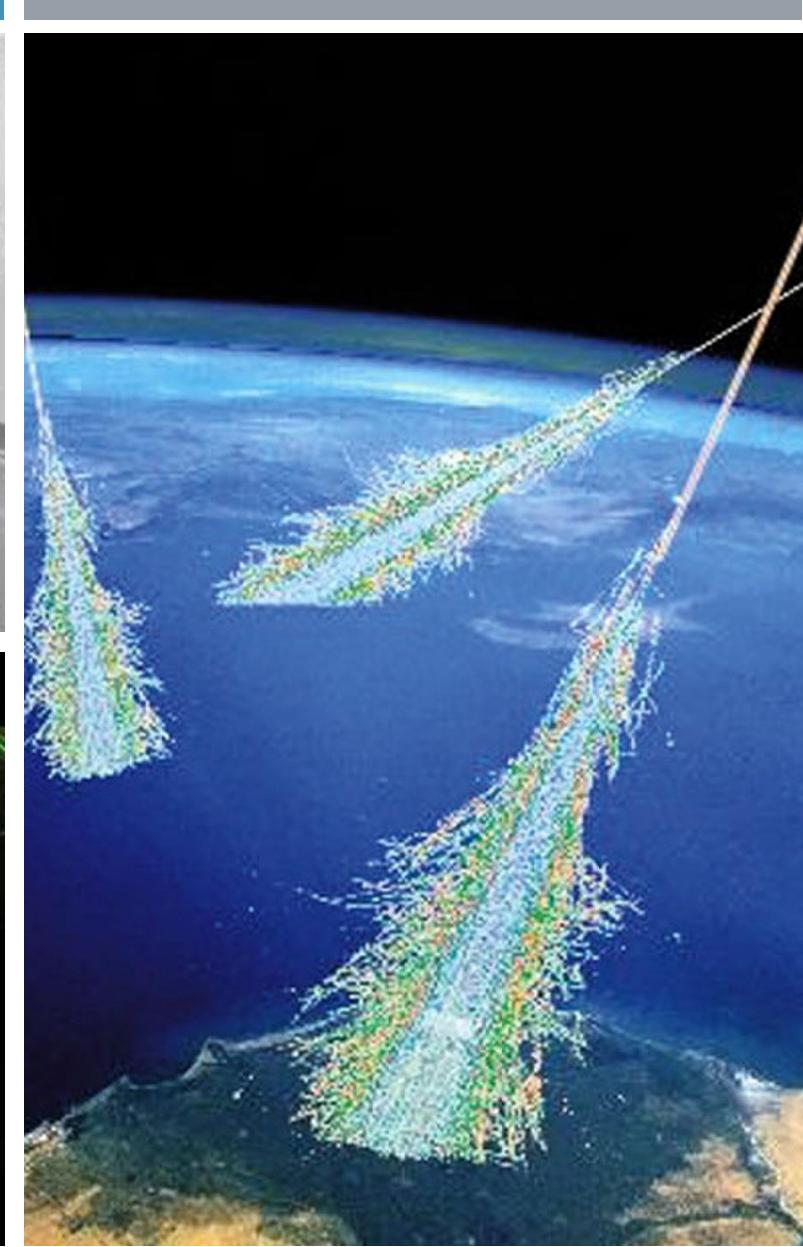
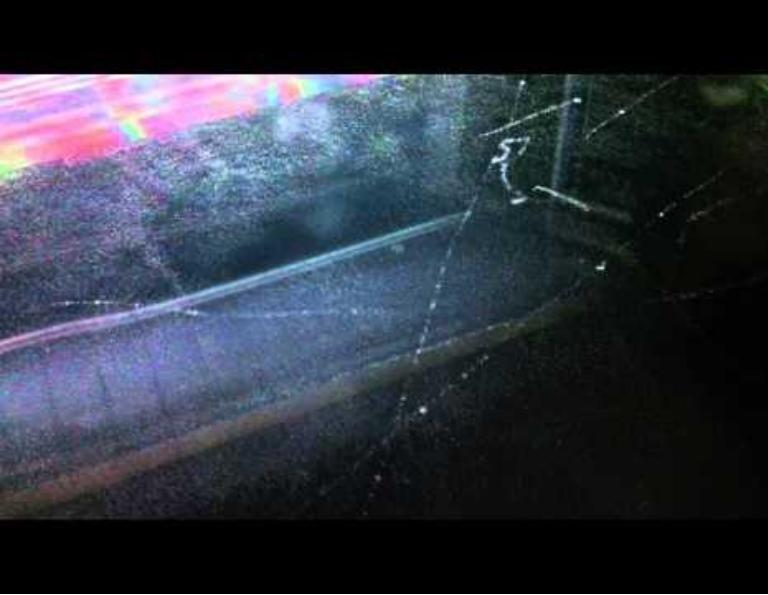
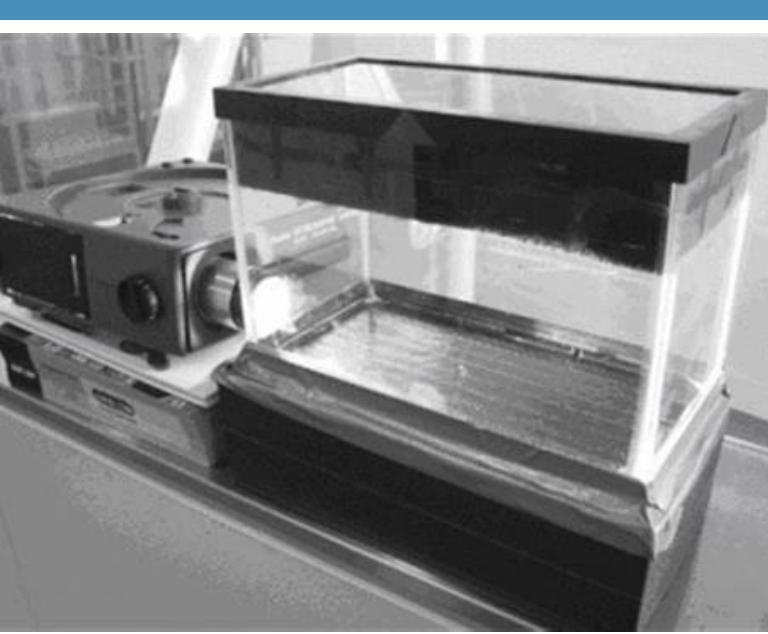
The blood-red sky depicted in the famous painting can be attributed to Krakatoa's VEI 6 eruption in 1883. (10 years after the eruption)

Through Munch's journals, topographic analysis, and a connection to the eruption of Krakatoa, proof now exists that the spectacular twilight seen in one of today's most recognizable paintings was inspired by Krakatoa.

Sky and Telescope 2004

SIGNS, SYMPTOMS, AND THE PROCESS OF A GRAND SOLAR MINIMUM

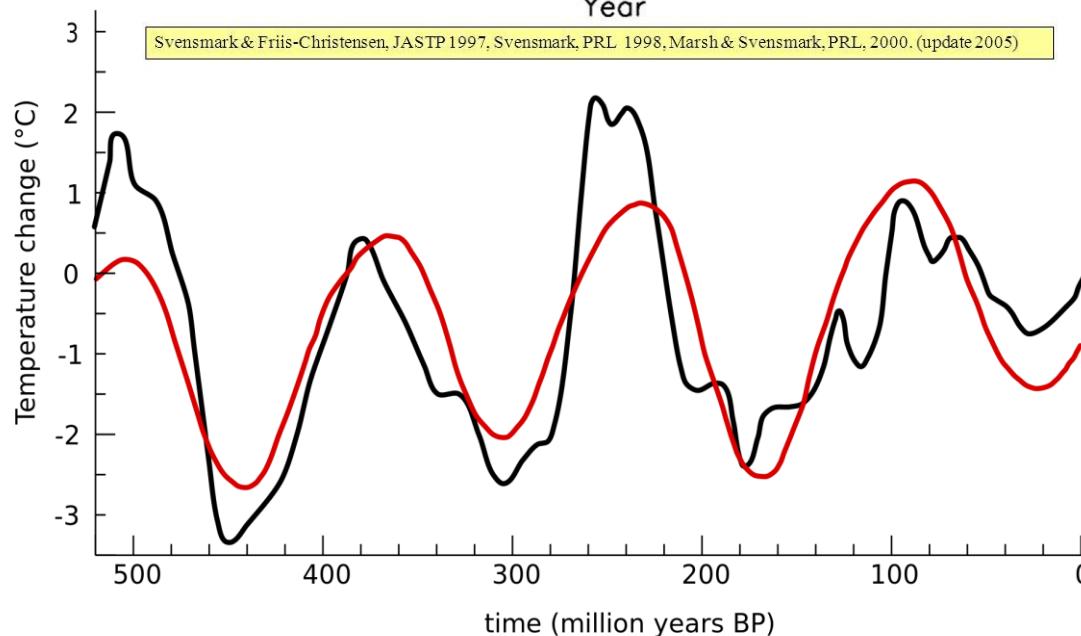
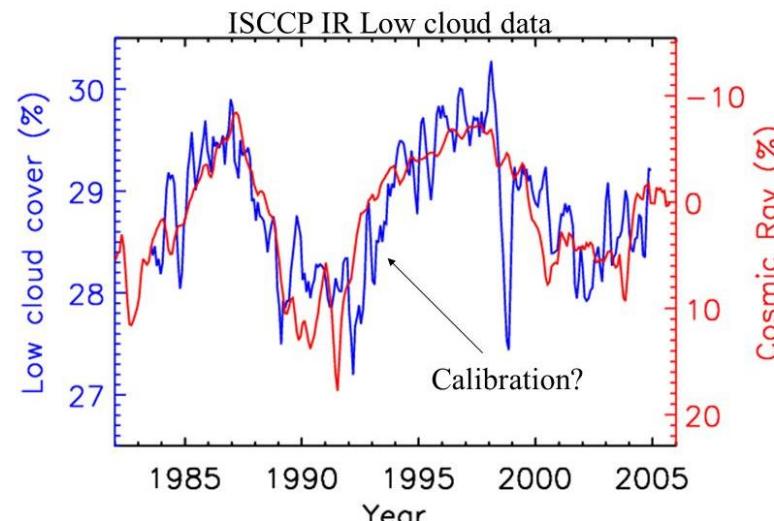
- The Cosmic Rays (CRs) that form in our universe are produced by our star and amplified through Coronal Mass Ejections (CMEs).
- Cosmic Rays are highly charged particles of protons and atomic nuclei traveling at near light speed.
- When a cosmic ray hits the upper atmosphere, the particles cascade into a shower of gamma-rays, x-rays, protons, neutrons, positrons, and electrons. They're produced in cascading showers of energy.



SIGNS, SYMPTOMS, AND THE PROCESS OF A GRAND SOLAR MINIMUM

- Heinrich Svensmark's research in "The Cloud Mystery" proves that clouds are not the result of climate. Rather, the climate is the result of the clouds.
- This theory was not welcomed by the GW community. So, he proved it using the Large Hardron Collider (LHC).
- The link between low cloud formation and cosmic rays is apparent.
- An increase in cosmic rays cause an increase in cloud formation.

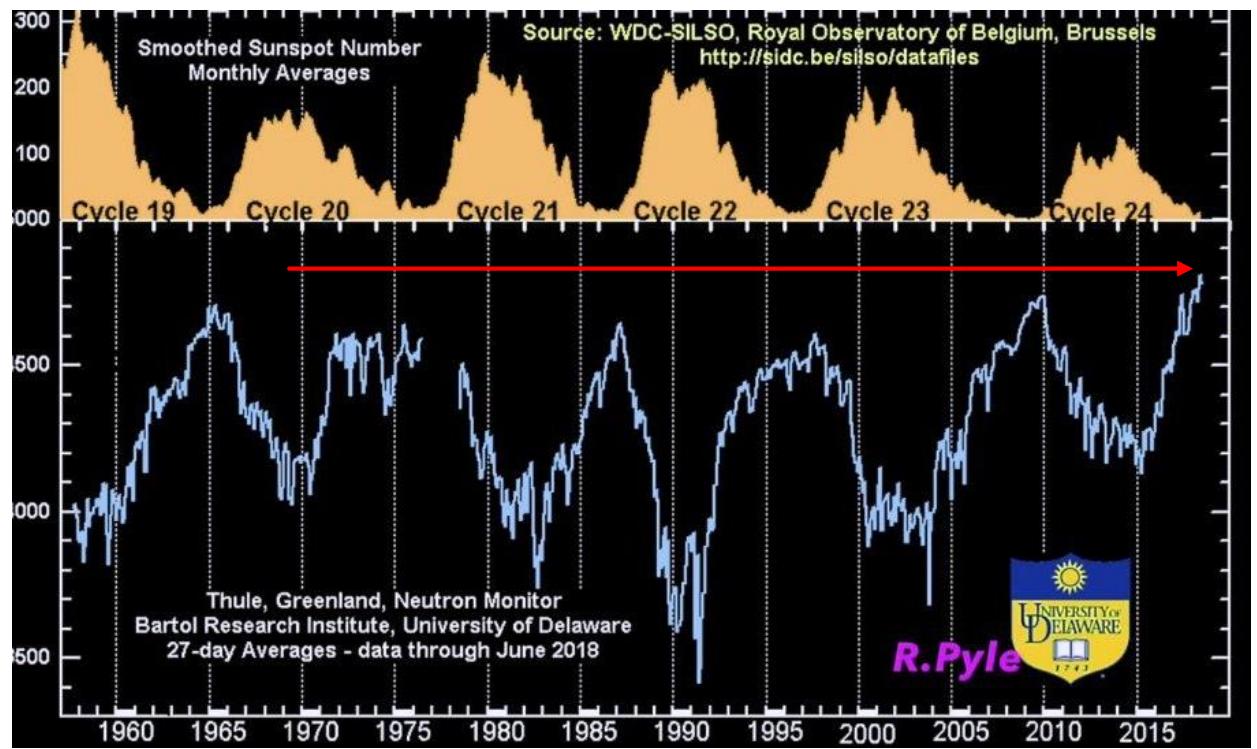
Link between Low Cloud Cover and Galactic Cosmic Rays?



SIGNS, SYMPTOMS, AND THE PROCESS OF A GRAND SOLAR MINIMUM

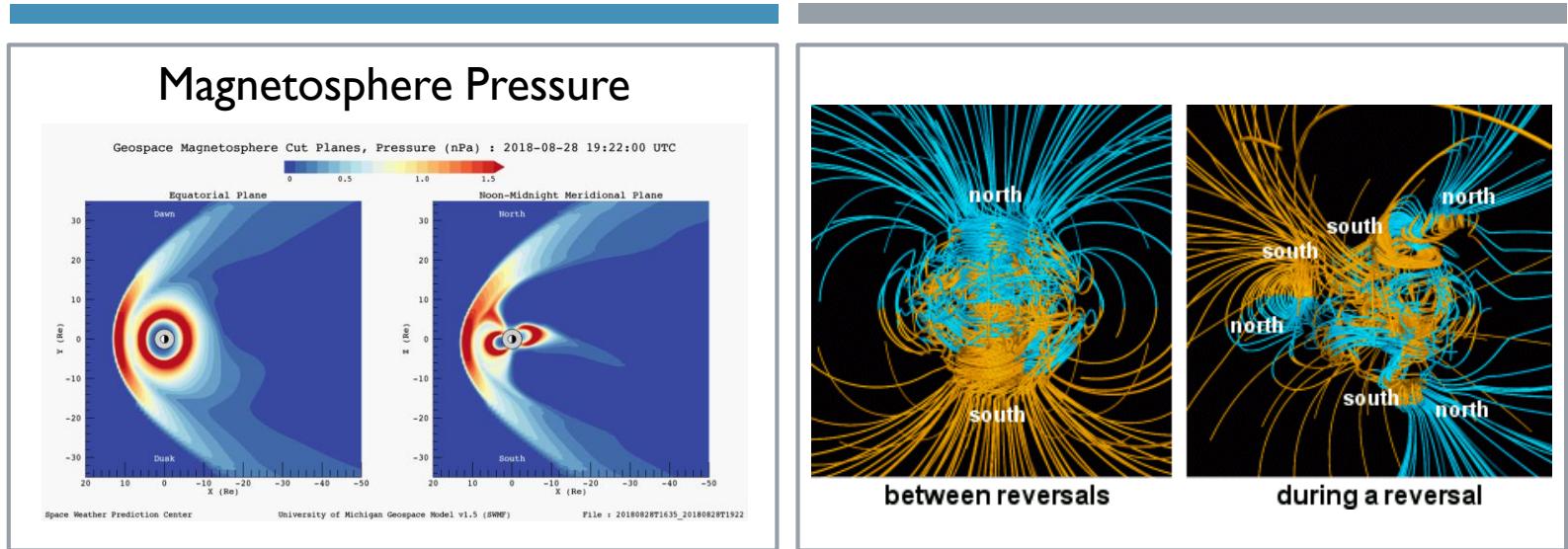
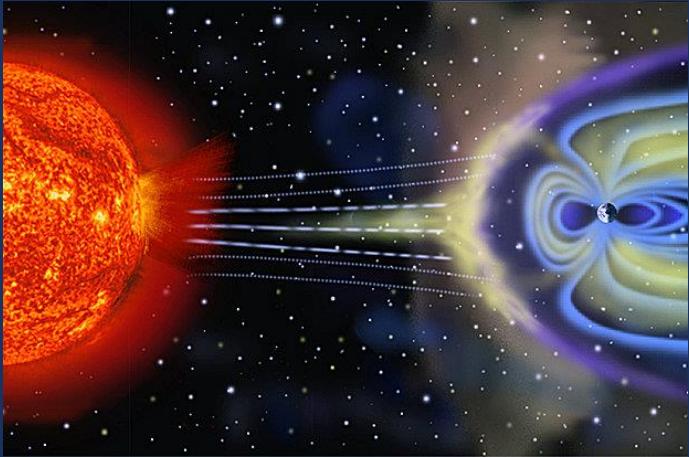
Cosmic Rays

- Highly charged particles excite magma chambers and cause volcanic eruptions.
- Cosmic Rays can alter or destroy DNA.
- In July 2018, we detected the most amount of cosmic rays to ever hit the Earth (in recorded history). We're living in a **cosmic ray maximum**. This is another sign of an incoming Grand Solar Minimum.
- There's an inverse relationship between cosmic rays and the sun's sunspot cycle. An active sun has a strong heliosphere and is able to block GCRs. An inactive sun has a weaker heliosphere and cannot block as many GCRs from hitting the Earth.



SIGNS, SYMPTOMS, AND THE PROCESS OF A GRAND SOLAR MINIMUM

MAGNETOSPHERE



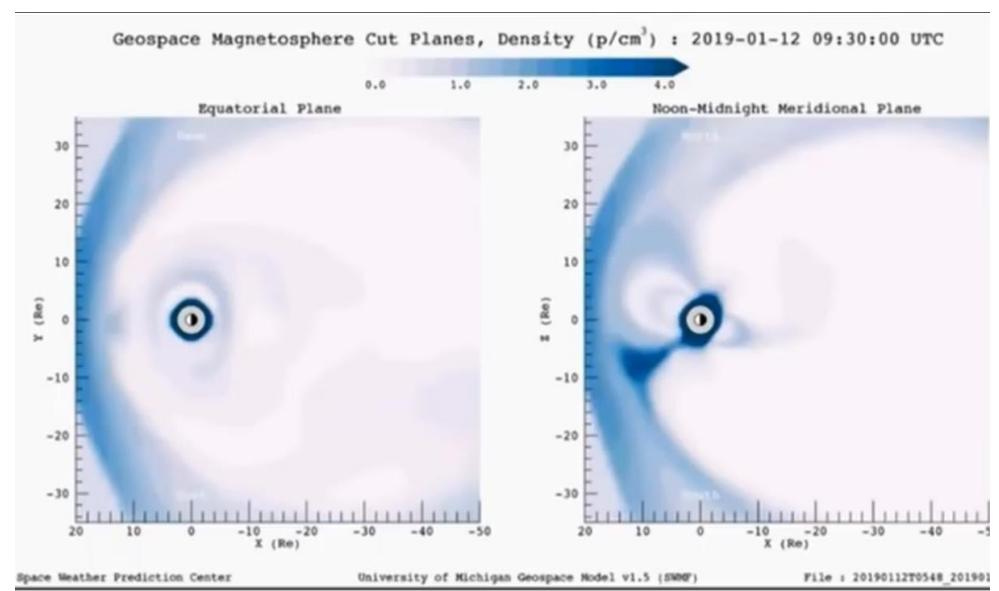
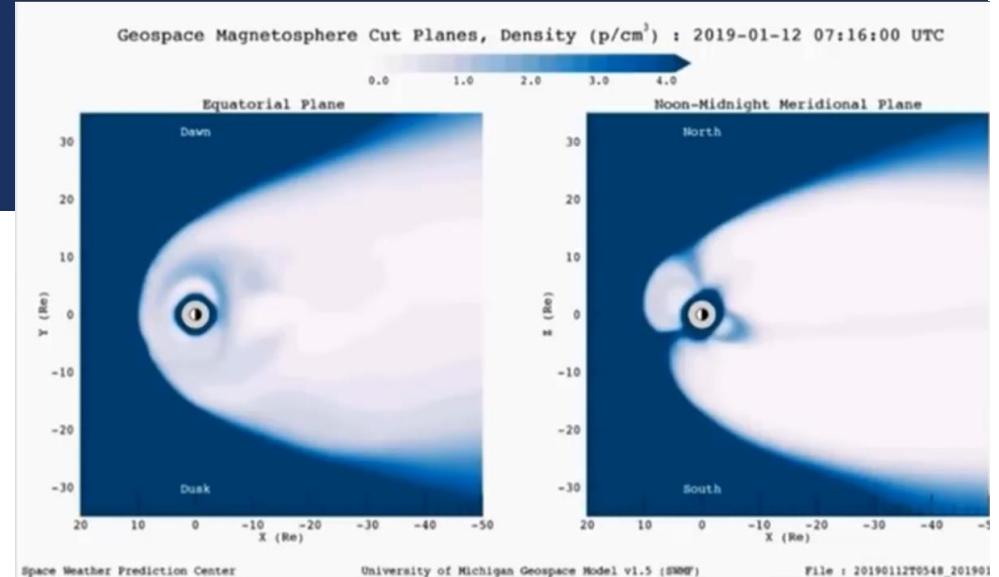
- The Magnetosphere is our only protection from the sun's solar wind and cosmic rays.
- The Magnetosphere is weakening at an exponential rate.
- Exiting the “Geomagnetic Maximum.” That timeframe spans thousands of years. Since the ‘maximum’, estimated magnetosphere was weakening at a rate of **.25% per couple of decades or century**.
- Then in 2000, readjusted the rate of decline as compared to the 1800s. Lost 10% of the field. Losing at a rate of **5% per century**.
- In 2010, new data showed we’re losing **5% per decade**.
- In 2015, no data was released.

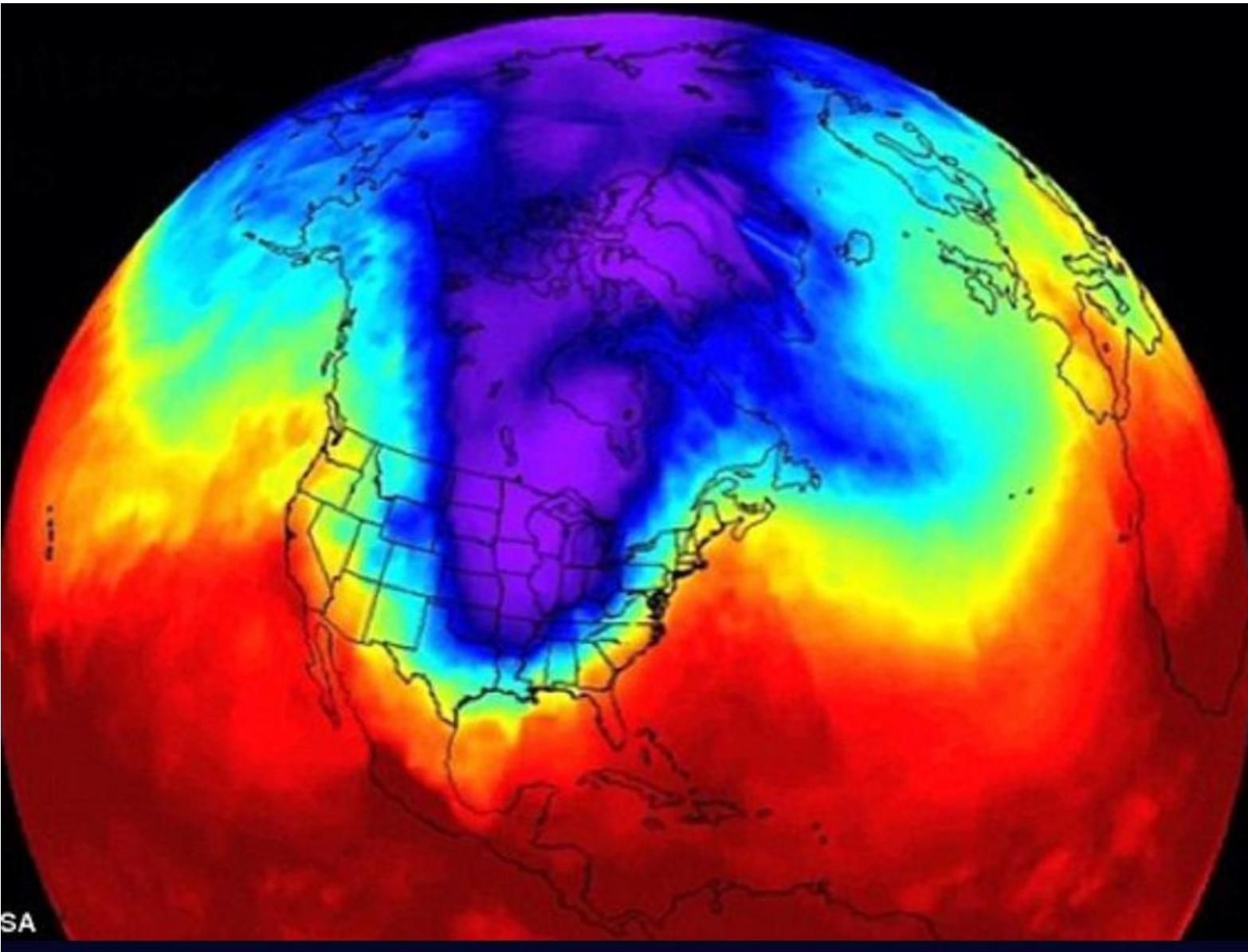
MAGNETOSPHERE DENSITY

The Magnetosphere's strength is not a constant. It fluctuates as it blocks solar wind. The stronger the solar wind, the more tight and compact and strong the magnetosphere becomes.

When the sun cools, the sun doesn't produce as much solar wind and the magnetosphere 'puffs' out. There's nothing to keep it compact.

Example. Let's say you have advanced windows in your house. They turn into hurricane-impact windows when there's hurricane force wind. Then they return to single pane windows when it's a slight breeze. However, they turn into a screen mesh if there's no wind. *The amount of wind received determines their strength.*

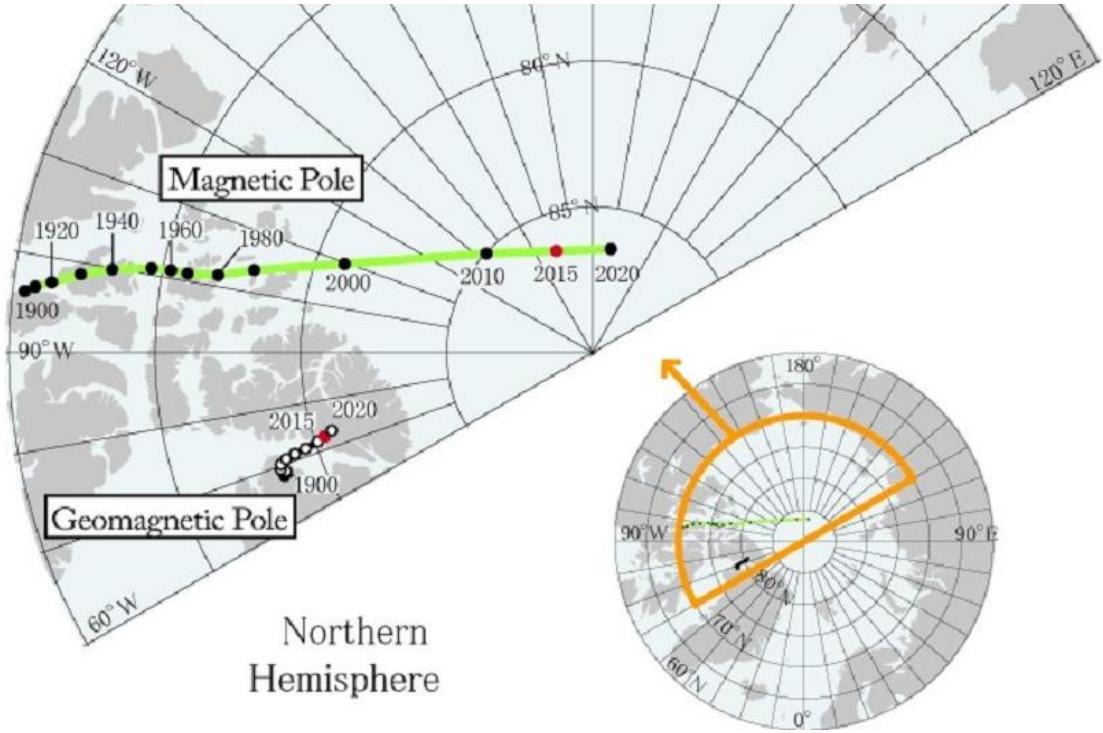




POLAR VORTEX

JAN 2019

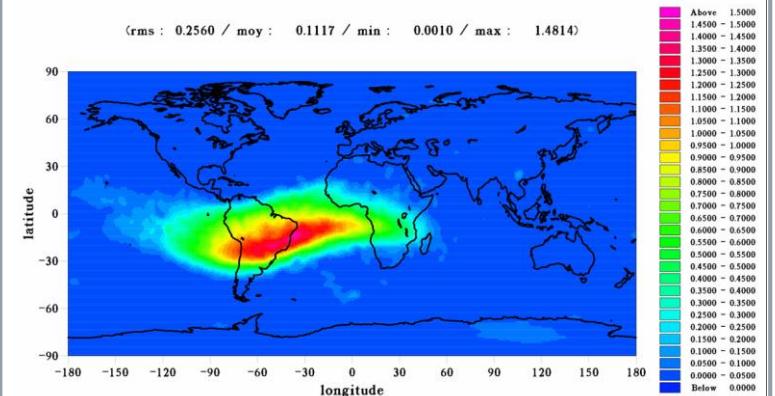
- The Magnetosphere locks the Jet Stream in place. As the Magnetosphere continues to weaken, it's unable to hold the Jet Stream in its 'usual' location.
- When the Jet Stream dips south, like it did in Jan 2019, it pulls Arctic Air with it.
- The news and our Govt said there was too much moisture off the East Coast and Global Warming caused the record cold. (Cold air has less moisture and cannot cause warmth)



The magnetic poles are accelerating towards each other at a rate that's unprecedented.

South Atlantic Anomaly

As the poles migrate towards each other, it weakens the Magnetosphere on the other side.



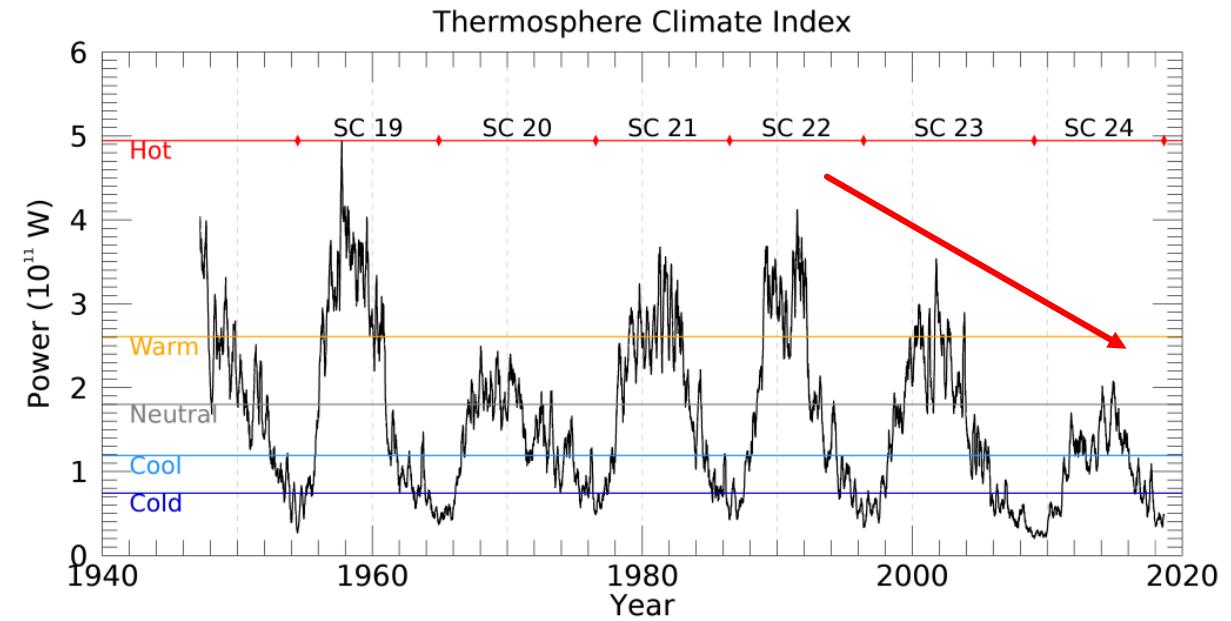
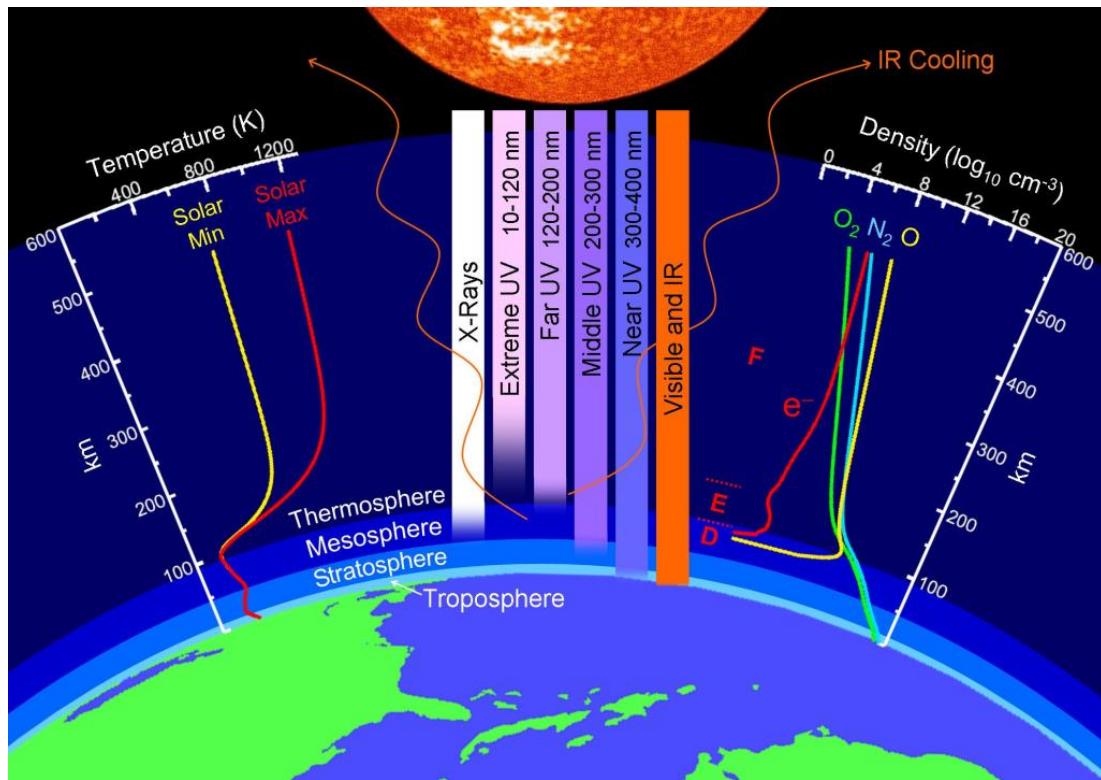
POLES ARE MIGRATING

The planet is a system of components working together. You can't change one thing without disrupting everything in the entire system. Just like a car engine...you can't take one thing out and expect everything to function normally.

The poles are migrating towards each other. Once the process starts, it accelerates. Scientists once thought the process took millions of years. New research shows that the poles can flip within one human lifetime.

THERMOSPHERE RAPIDLY COOLING

Earth's thermosphere is one of the least explored parts of the atmosphere, but it is important because the thermosphere is where the sun first interacts with our atmosphere.

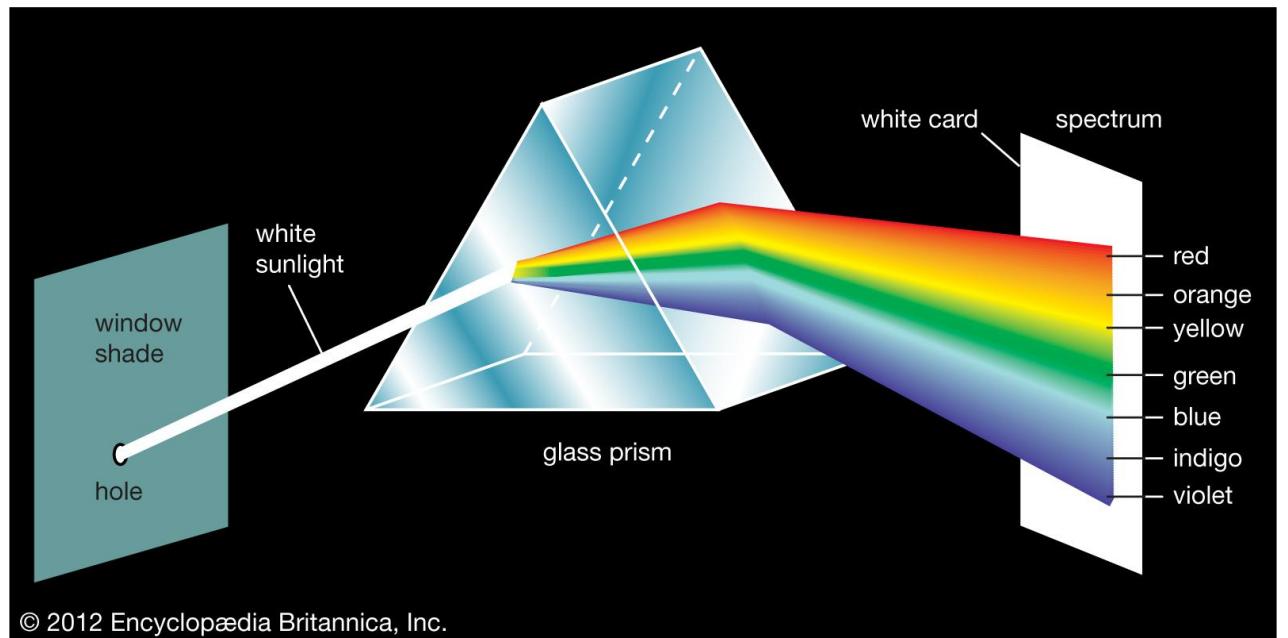


PROCESS OVERVIEW

- **Sun loses power / goes into hibernation > Increase of earthquakes > Increase volcanoes > Ash +50,000' = More clouds to block the sun = Further cooling the planet = Winter's become longer.**
- **Sun loses power / goes into hibernation > Magnetosphere shrinks > Increase cosmic rays > Cloud nucleation = More clouds to block the sun = Intense weather = Increase crop failures.**
- **Sun loses power / goes into hibernation > Grow seasons shrink > Severe weather destroys crops > Winters become longer > Food prices increase > Food shortages > Civil unrest > “Just in Time” food delivery system fails = Mass starvation / Mass cold weather deaths / Increase in sickness.**
- **It's a step-by-step process.**

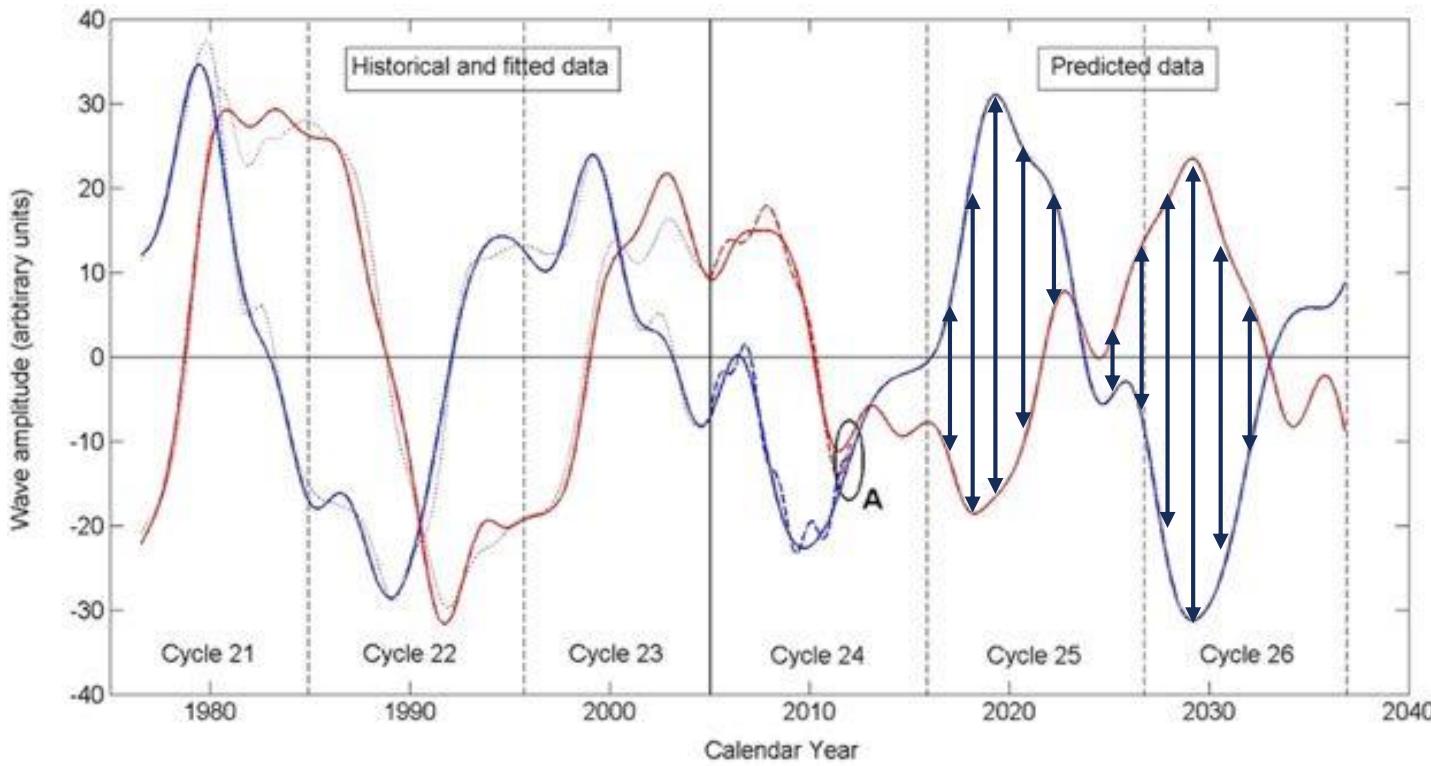
VALENTINA ZHARKOVA PHD - MAGNETIC WAVE FIELD SEPARATION

- Ukrainian scientist in applied Mathematics and Astronomy. Professor at Northumbra University.
- Predicted SS 24 with 97% accuracy. Only 2 people in the world were correct about SS 24. (Other accurate prediction was from John Casey.)
- She used wave amplitude and magnetic fields calculations (math) to predict SS24.
- Professor Zharkova was able to separate the sun's magnetic wavelengths into 4 separate wave fields.
- Just like light is separated into different wavelengths, she's able to view the sun's magnetic fields independently.

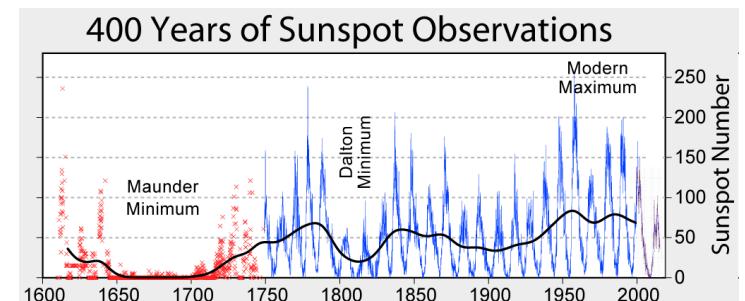


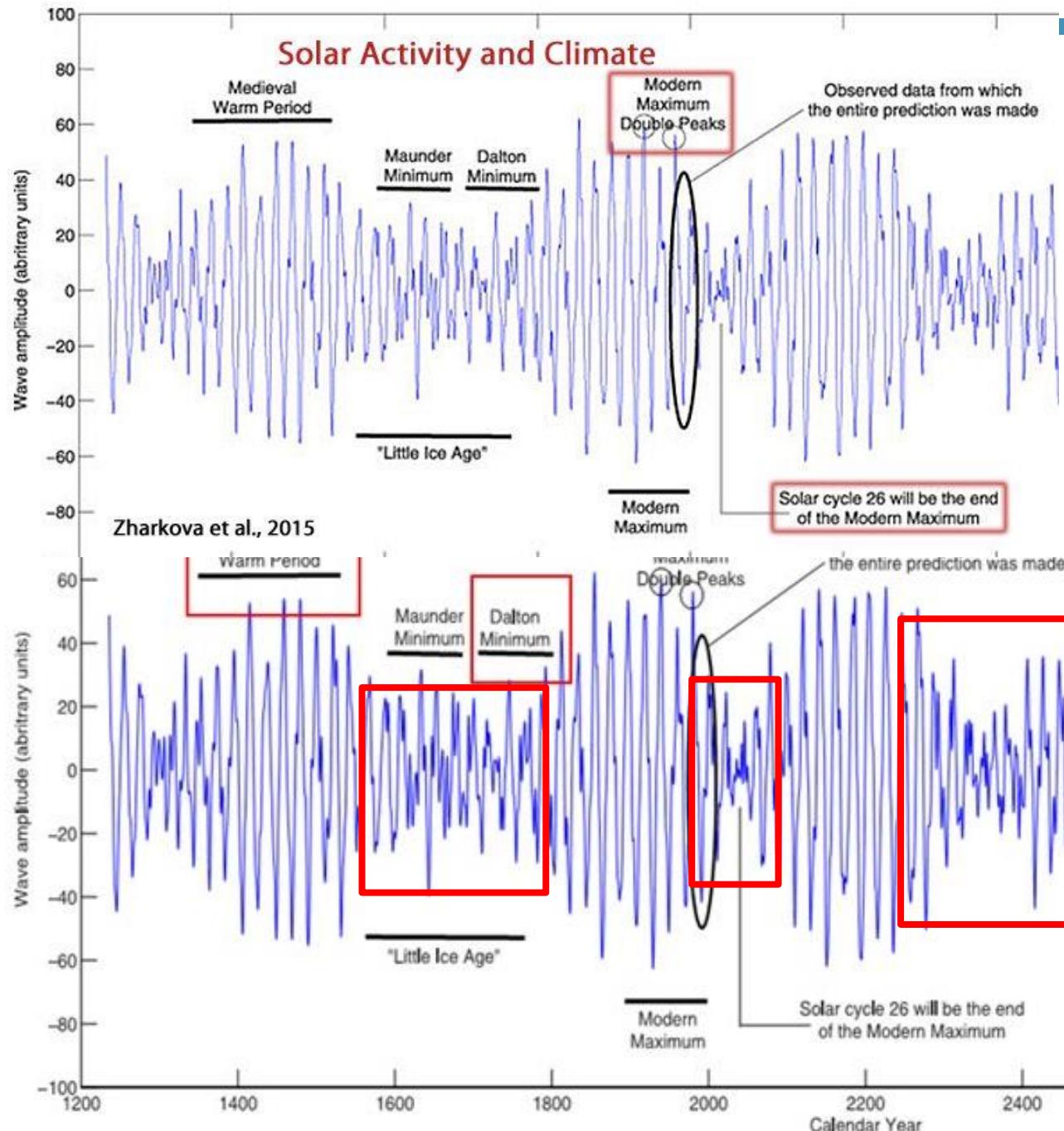
© 2012 Encyclopædia Britannica, Inc.

VALENTINA ZHARKOVA - WAVE AMPLITUDE



- During the Maunder Minimum, only 2 of the sun's magnetic fields were out of phase.
- Currently, all 4 of the sun's magnetic fields are going out of phase.
- Sunspots do not control the climate. Rather, they are **an indicator of what the magnetic fields of the sun are doing.**
- The frequencies are canceling each other out.





Valentina Zharkova PhD

- In October, 2018, she gave a presentation of her Solar Magnetic Field and Wave Amplitude hypothesis at the Global Warming Policy Foundation.
 - **She's predicting a reduction in TSI by 8 Watts per Meter squared.**

Grand Solar Minimum

330 – 400 years cold era

HOW FAST CAN THE CHANGE HAPPEN?

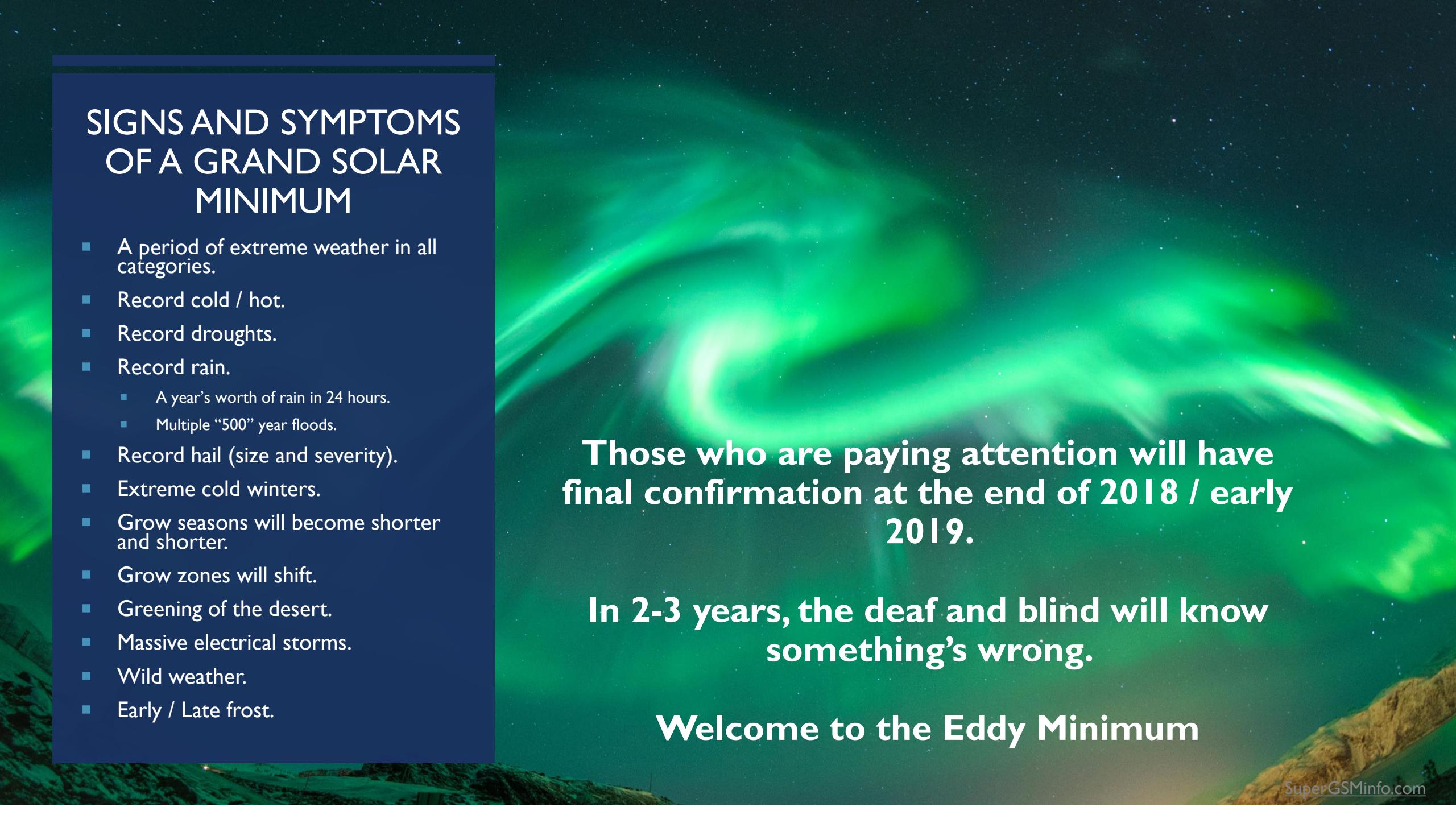
BERESOVKA MAMMOTH

- In 1901, hunters found a partially exposed mammoth skull along the Berezovka River in a remote part of Siberia.
- They reported that the meat was still marbled with fat. They even fed it to their dogs.
- Russian scientists were dispatched to conduct research. When they arrived (months later), they found that the meat was now rotting.
- The mammoth still had buttercup clovers in its mouth. The food in its stomach had not yet begun to putrefy. This suggests the mammoth was standing in a warm field enjoying lunch when it was instantly flash frozen.
- There is no doubt that this event occurred. The mechanism is still up for debate. No one knows exactly how this happened as scientists claim this is ‘impossible’. One theory states that a micro-nova event occurred – causing a rapid reduction of temperature. Other theories state it was a sudden reduction in solar output. However, one thing is for certain, the sun controls the temperature.



SIGNS AND SYMPTOMS OFA GRAND SOLAR MINIMUM

- A period of extreme weather in all categories.
- Record cold / hot.
- Record droughts.
- Record rain.
 - A year's worth of rain in 24 hours.
 - Multiple "500" year floods.
- Record hail (size and severity).
- Extreme cold winters.
- Grow seasons will become shorter and shorter.
- Grow zones will shift.
- Greening of the desert.
- Massive electrical storms.
- Wild weather.
- Early / Late frost.



A photograph of the Aurora Borealis (Northern Lights) in a dark night sky. The green lights form intricate, swirling patterns across the upper half of the frame. In the lower right corner, a small portion of a hillside with sparse vegetation is visible. The overall atmosphere is mysterious and dramatic.

Those who are paying attention will have final confirmation at the end of 2018 / early 2019.

In 2-3 years, the deaf and blind will know something's wrong.

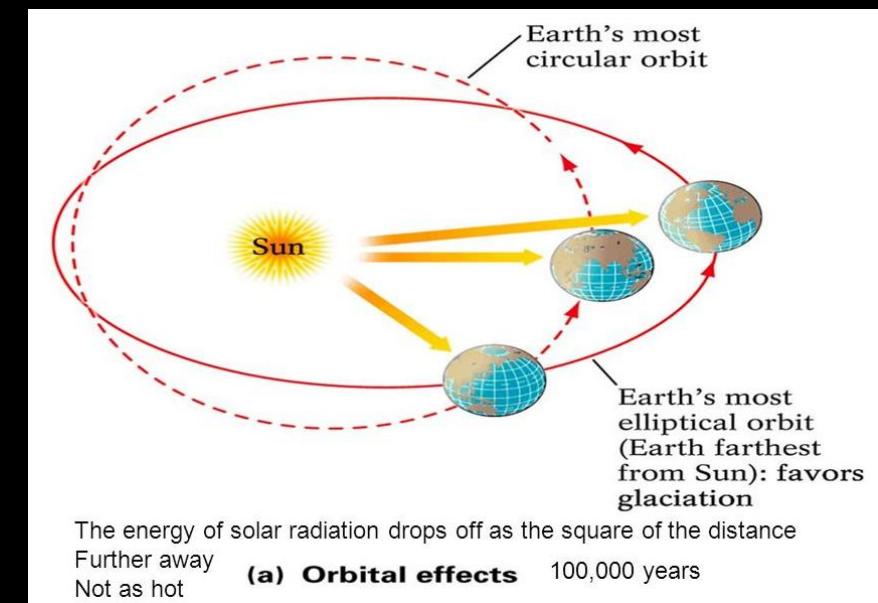
Welcome to the Eddy Minimum

- By 2030, Earth will be a 1,000,000 miles further from the sun due to the Milankovitch Cycles of rotation.
- All 4 of the sun's magnetic fields are going out of phase.
- The Atlantic Conveyor (Gulf Stream) has slowed by 30%.
- The sun is losing power output (TSI) at an unprecedented rate.
- We're overdue for a large VEI eruption.
- Our Magnetosphere is weakening exponentially (indicative of a pole reversal).
- Our poles are migrating towards each other. (indicative of a pole reversal).
- We're experiencing record number of cosmic rays and galactic cosmic rays.
- Worldwide food delivery systems use the “just in time” business model.
- We grow our food in the ground and allow no variables in the sun's variable output.
- We rely heavily on electronics for survival (food, water, transportation, safety, etc)
- Family farms and homesteading are forgotten skills. Nobody knows how to grow food anymore.
- We live in crowded population centers.
- Albedo effect will reflect the sun's diminishing energy.

Why will this solar minimum be far worse than previous solar minimums?



Heliospheric Current Sheet



MARCH 2019

BREAD BASKET FLOODING

- As of Dec. 1, food producers in states with flooding (South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin and Illinois) had **6.75 billion bushels of corn, soybeans and wheat stored on their farms.**
- **38% of the total U.S. supplies available at that time are destroyed.** (according to USDA.)
- Farmers were storing food on their farms to ride out the current trade war.
- Many farms are predicting 0% crop production for 2019.
- Food price increases are the “next step” in the Super GSM process to collapse our civilization.
- This flood arrived weeks after we reached global “Peak Wheat.” (This means the demand for wheat is greater than the supply.)

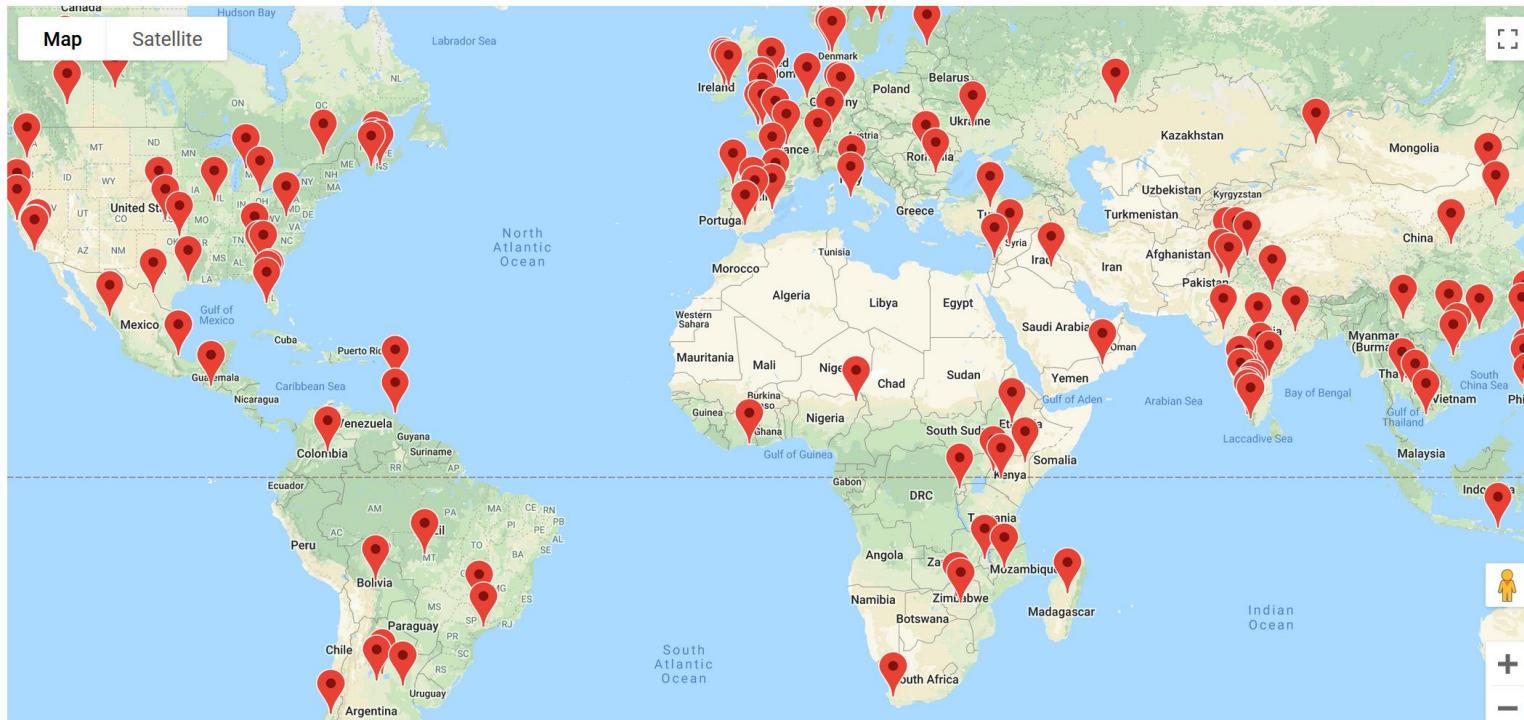
Food is the glue that holds our civilization together.



Start Preparing Now



Ice Age Farmer: Grand Solar Minimum Crop Loss Map



Modern agriculture is at risk due to cyclical changes in our sun's output that drive climate change on our planet.

This page tracks crop losses to the [Grand Solar Minimum](#): hail, storms, flooding, drought, early/late frosts...

Made possible by my [Patreon supporters](#) -- consider supporting my work! Thanks.

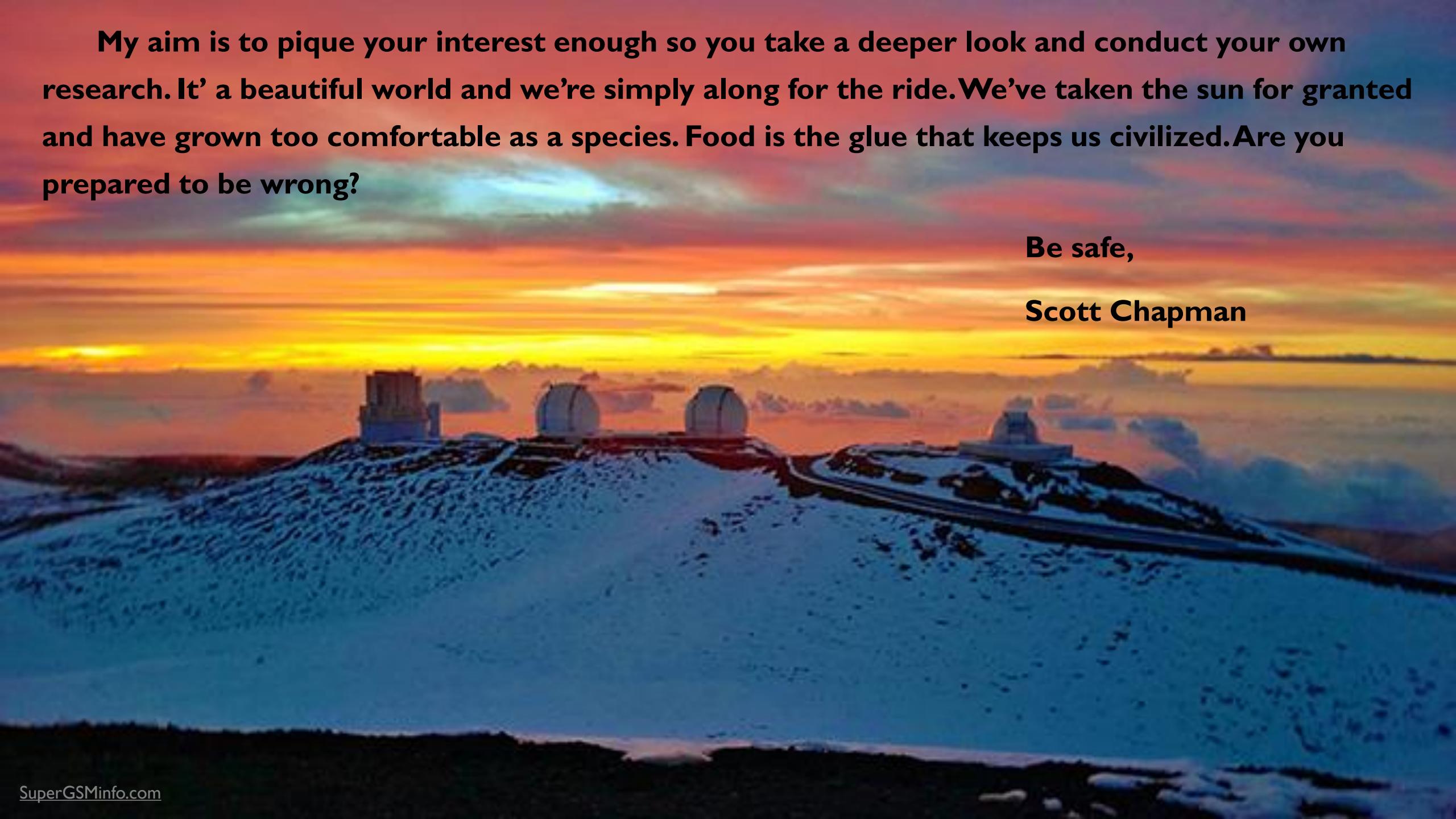
[Contact / Submit News](#)

- The process has already begun.
- **Earth is a system. You can't alter one component without affecting others.**
- It's been in motion for millions and millions of years.
- Civilizations rise and fall based on the resources and energy they have available.
- We're just along for the ride.
- **Simply stated, the sun controls the climate.**

My aim is to pique your interest enough so you take a deeper look and conduct your own research. It's a beautiful world and we're simply along for the ride. We've taken the sun for granted and have grown too comfortable as a species. Food is the glue that keeps us civilized. Are you prepared to be wrong?

Be safe,

Scott Chapman



AFFILIATES



ReadinessDeals has extended special pricing on preparedness supplies to our Super GSM community.

For inquiries on pricing, fill up your shopping cart then please e-mail your list of items to
SGSM@ReadinessDeals.com

ReadinessDeals was created to provide quality products and service to customers seeking only the best emergency readiness solutions and pricing. All products are fully tested and vetted by our team, ensuring customers get only the very best. "Don't Worry, Be Ready"

Depending on size and type of order, product discounts range from 5% - 90%

[Readiness Deals Homepage](#)



All greenhouses are not created equal.

iGrowOrganic provides rigid solar greenhouses that are designed to provide the most amount of protection possible from severe weather.

Additionally, their glazing materials provide protection against hail damage. As we descend into the Super GSM, four-season rigid greenhouses are essential for homestead food production.

Tell them I sent you to receive a 10% discount on any product.

[iGrowOrganic Homepage](#)



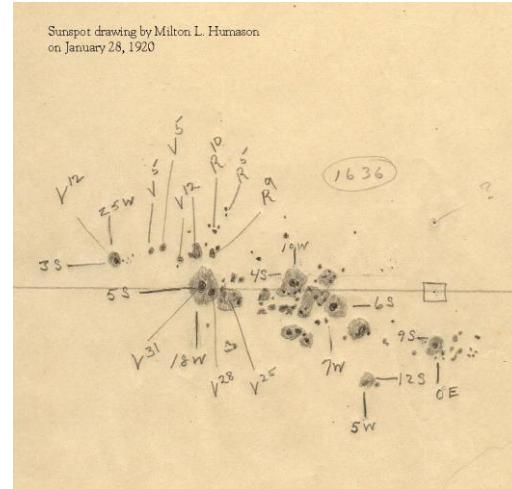
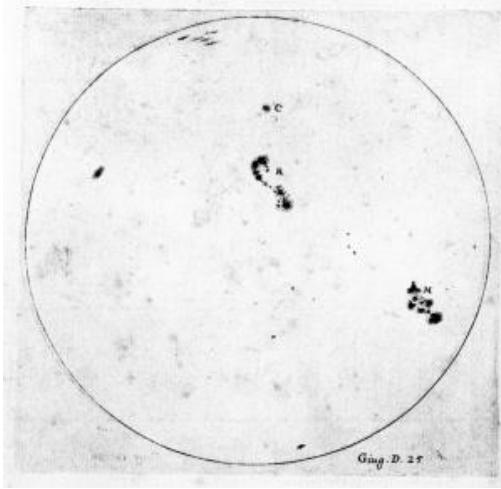
If you can only do one thing to protect your family, buy a dog. If you're going to buy a dog, buy a highly trained family-friendly bite dog from K-9 Specialists.

It's like flipping a switch from goofy family-friendly dog to attack fur-missile.

Tell Petr I sent you to receive a 10% discount on any dog or training aid.

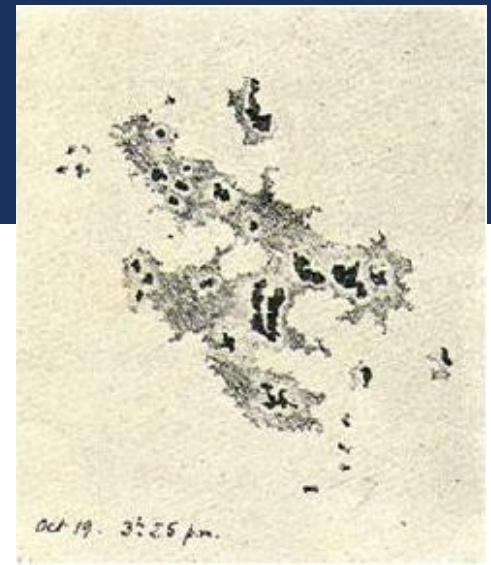
[K-9 Specialists Homepage](#)

To find this presentation or to book a speaking event, please visit
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Scott.C@SuperGSMinfo.com



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