# OBSERVER REVIEW

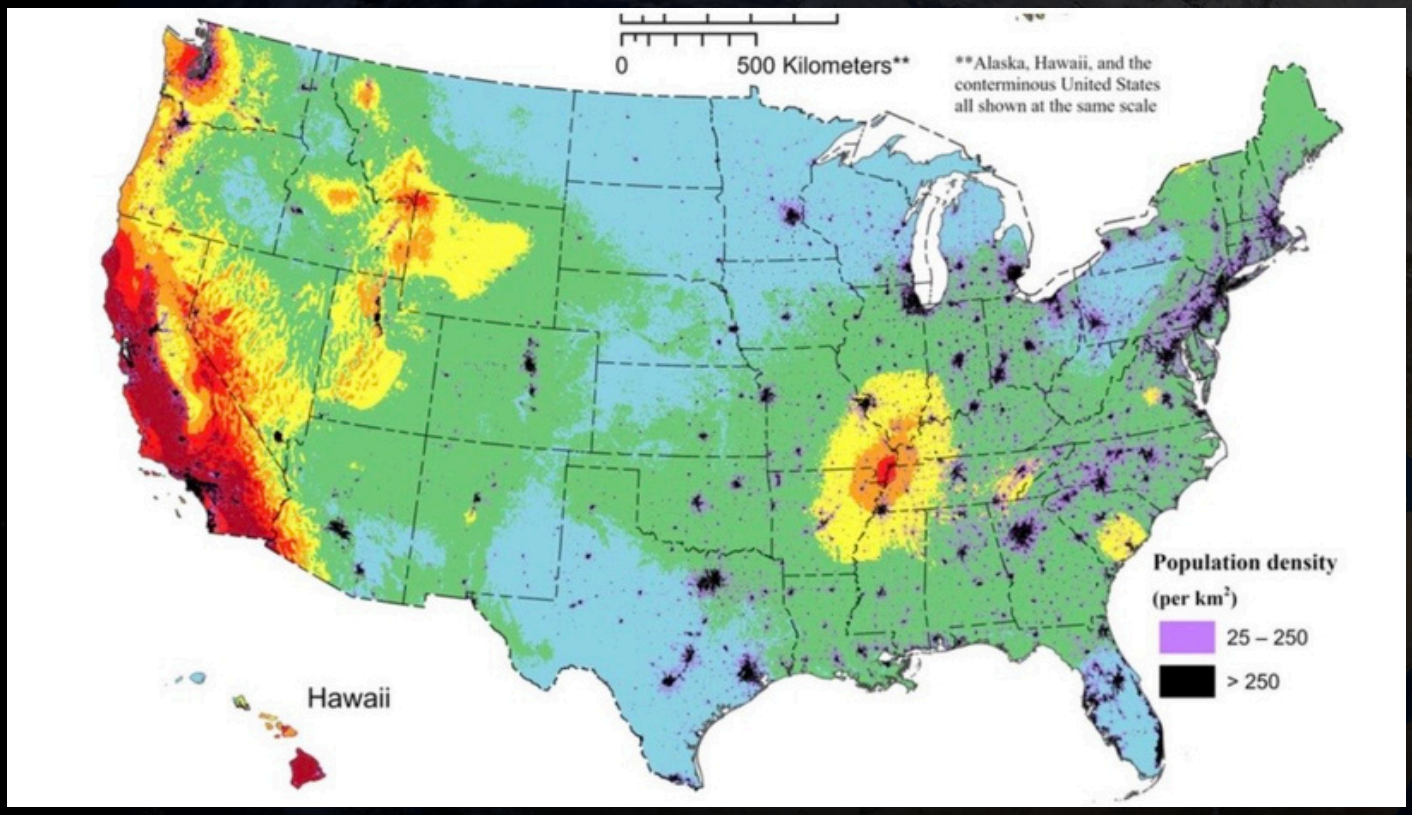
ANALYZING THE ONGOING STUDIES AND FINDINGS ON CATASTROPHISM

# US QUAKE RISK

*ARTICLE REFERENCED: HTTPS://WWW.USGS.GOV/NEWS/NATIONAL-NEWS-RELEASE/NEW-USGS-MAP-SHOWS-WHERE-DAMAGING-EARTHQUAKES-ARE-MOST-LIKELY-OCCUR-US*

BY: BEN DAVIDSON

Everyone knows the west coast of the United States is an earthquake hazard. Most people have at-least hear of the New Madrid fault line which threatens region where Tennessee, Kentucky, Missouri, and Arkansas meet. However, virtually nobody knows about the risk in places like Utah, Wyoming, Idaho and Montana.




When the United States Geological Survey (USGS) released this map it was a shock to many in that area, as few can remember there being a significant earthquake to strike there. However, a closer look at fault systems, aquifers, and the geology of the area reveals that indeed it IS a significant seismic hazard area.

While it is fortunate that the region has remained quiet for a many years, the data suggests that when it does have a seismic rupture, it is going to be a bad one, and that it has done so several times in the past. For those who are into location-based prepping, you know that these states are some of the most favorable in the United States, but this has caused many people to stop and wonder if perhaps they are not as safe as they had believed.

While during most times the risk here is relatively low, our community is looking ahead to the earth disaster cycle reset in the coming years, and in that context, this map should be used along with every other tool and resource to make the best decision possible. If that area is going to rupture, it is most-likely going to during the great catastrophe cycle.

# MONO LAKE ICE RAFTING AND VOLCANOS

*ARTICLE REFERENCED:*

*IDENTIFICATION OF THE CAMPANIAN IGNIMBRITE IN THE DEAD SEA AND CONSEQUENT TIME-TRANSGRESSIVE HYDROCLIMATIC SHIFTS IN THE EASTERN MEDITERRANEAN.*

BY: BAILEY

As we are very well aware, the catastrophism cycle is marked by cycles of change, and deciphering these patterns is essential for gaining insights into the mechanisms driving large-scale climatic shifts. One such enigma lies in the interplay between cryptotephra, microscopic volcanic ash, and Heinrich events, particularly focusing on the Dead Sea region.

Cryptotephra, with its ability to serve as a time-synchronous tie-point, plays a pivotal role in reducing chronological uncertainties in paleoclimatic reconstructions. In the Dead Sea Deep Drilling sedimentary record (DSDDP 5017-1A), researchers have conducted major, minor, and trace element analyses of cryptotephra shards, unraveling a remarkable connection to the Campanian Ignimbrite (CI). This geochemical identification expands the known dispersal range of the CI to the southeastern Mediterranean, a staggering distance of over 2,300 km from its volcanic source.

The simultaneous occurrence of the CI eruption and Heinrich Event 4 (HE4) in the North Atlantic adds a layer of complexity to our understanding of regional responses to large-scale climatic changes. As these events unfold near-synchronously, the cryptotephra in the Dead Sea sedimentary record provides a unique window into the climatic dynamics of the southeastern Mediterranean during this period.

When we look at how big icebergs break off and move during Heinrich events, known as Ice Rafts, it turns out they obviously have a big impact on how the land underneath them changes. This is because these events, where a lot of icebergs break off, work together with volcanic ash that gets scattered by tiny volcanic particles called cryptotephra. This combination tells a story about how the environment changes over time. In the records of mud and sand on the ocean floor, you can see distinct layers of debris carried by ice, especially during Heinrich events.

Contrary to expectations, the presence of the CI layer in the Dead Sea sedimentary record is associated with wetter climatic conditions. This intriguing finding contrasts with contemporaneous dry conditions observed in the northern and western Mediterranean.

# MYSTERY OF SEDIMENT: CLUE TO CATASTROPHE?

BY: BEN DAVIDSON

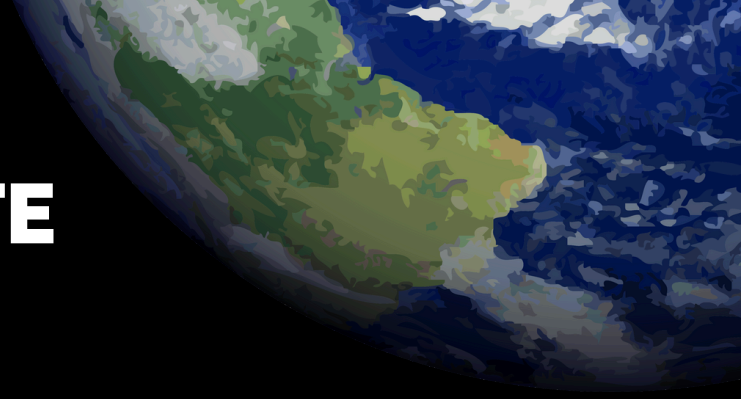
New analysis of sedimentation on the bottom of the ocean are telling us an interesting story of these Heinrich events. They are finding all the usual things- major ice rafting, major climate change, major changes in sea level, but also something new. In order for the sediment to present as it is presenting, the icebergs must have been completely polluted by the sediment - the mud and dirt. This runs contrary to the common understanding of the ice, especially since we don't see any ice anywhere on earth today that has such sediment content throughout the layers of the ice.

This is leading the scientists to an interesting and potentially incorrect conclusion. They are concluding that the ice did indeed contain such polluted layering back then, and that all that ice is now gone today. If you are thinking to yourself, “that doesn't make sense with how ice would form, it wouldn’t be full of sediment”- I am inclined to agree with you. So what’s the explanation?

The earth disaster scenario, where these Heinrich events are quite rapid and violent, can explain the data. If instead of slow ice rafting it was catastrophic destabilization of ice sheets, dragging enormous amounts of sediments into the oceans with them, then the shear volume of dirt and mud would actually make sense, and we don’t need to imagine a new type of ice that is absent from the entire world today.

It is my firm opinion that the catastrophic explanation is the better one.

*ARTICLE REFERENCED:*
*MODELING THE PRODUCTION OF HEINRICH LAYERS WITH A SEDIMENT-ENABLED ICEBERG MODEL*



# THE CURRENT STATE OF EARTH'S OZONE

BY: BAILEY

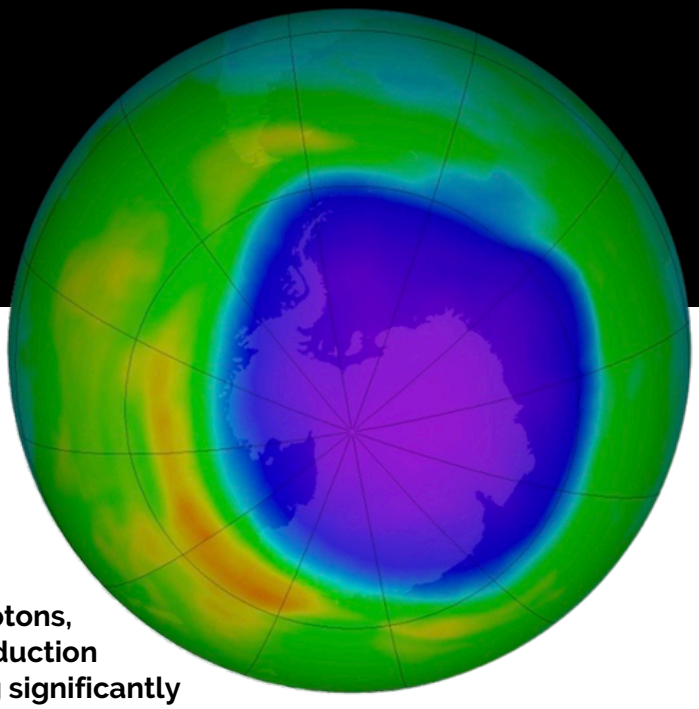
**THROUGHOUT OUR ANALYSES OF THE EFFECTS OF OZONE, AN EVOLVING TREND HAS EMERGED, FOCUSING ON THE INTRICATE RELATIONSHIP BETWEEN OZONE AND VARIOUS NATURAL PHENOMENA AND SOLAR FORCING.**

**THIS NARRATIVE DRAWS FROM A SERIES OF RESEARCH FINDINGS WE'VE DISCUSSED IN THE PAST 6 MONTHS THAT COLLECTIVELY PROVIDE VALUABLE INSIGHTS INTO THE COMPLEX INTERPLAY BETWEEN SOLAR ACTIVITY, GEOMAGNETIC CHANGES, COSMIC RAYS, AND OZONE DEPLETION, WITH FAR-REACHING IMPLICATIONS FOR OUR CLIMATE AND THE ECOSYSTEM.**

## WHAT IS THE OZONE?

EARTH'S OZONE REFERS TO THE OZONE LAYER, WHICH IS A REGION OF THE EARTH'S STRATOSPHERE THAT CONTAINS A RELATIVELY HIGH CONCENTRATION OF OZONE ($O_3$) MOLECULES. OZONE IS A MOLECULE COMPOSED OF THREE OXYGEN ATOMS ($O_3$) AND IS DIFFERENT FROM THE OXYGEN ($O_2$) WE BREATHE. THE OZONE LAYER IS LOCATED APPROXIMATELY 10 TO 30 KILOMETERS (6 TO 19 MILES) ABOVE EARTH'S SURFACE

## IN ADDITION TO OZONE VARIATIONS, TO DISCUSS THIS, LET'S BREAK IT DOWN INTO GUIDING FINDINGS:



### SOLAR PROTON EVENTS (SPE) AND OZONE DEPLETION

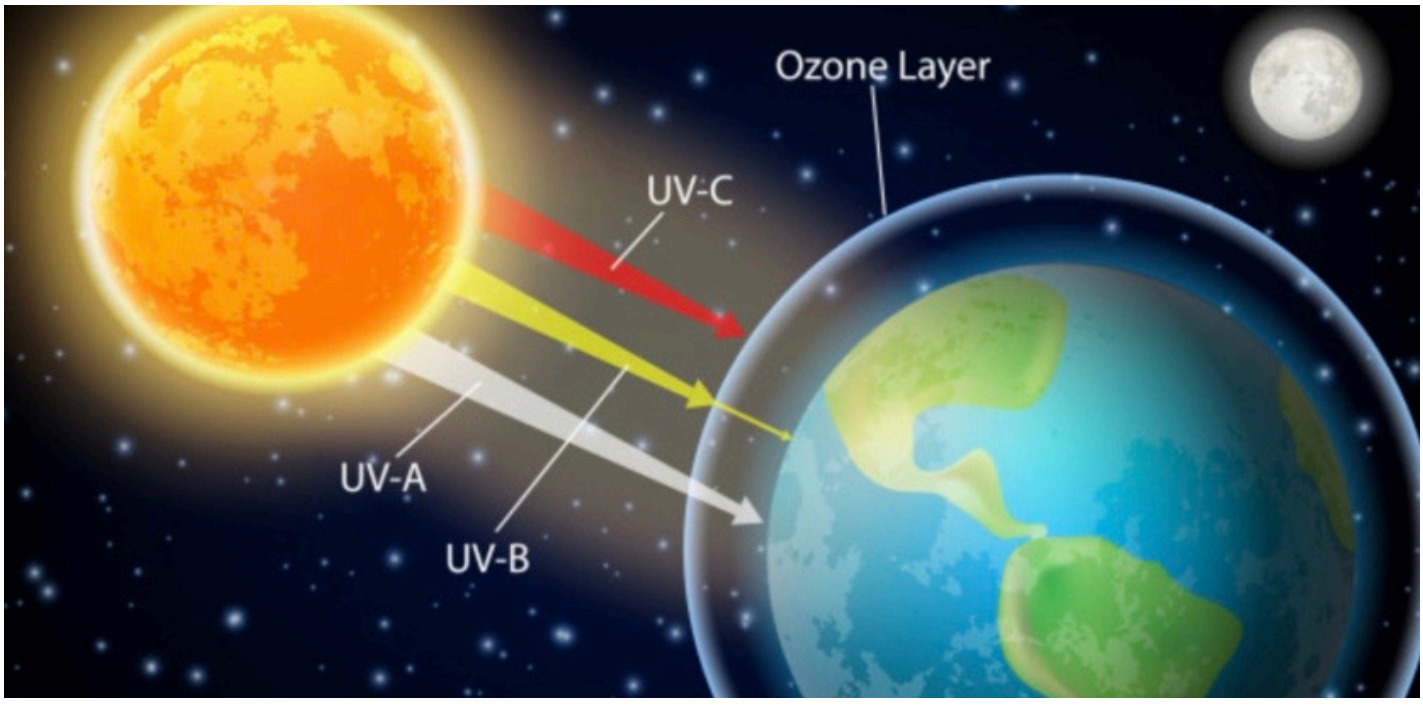
A key aspect of this narrative is the impact of solar proton events (SPEs) on Earth's atmosphere. These events are triggered by coronal mass ejections (CMEs) on the Sun's surface, accelerating charged particles, predominantly protons, into Earth's atmosphere. As a result, ionization and the production of odd hydrogen and nitrogen particles occur, contributing significantly to ozone depletion.

### SIMULATION OF OZONE DEPLETION

Comprehensive simulations using advanced models, such as the Whole Atmosphere Community Climate Model (WACCM), have allowed researchers to recreate extreme historical events. These simulations demonstrate the potential for substantial reductions in the ozone layer, with the most extreme scenarios showing up to a 40% reduction in the total ozone column.

### OZONE FORCING IN CLIMATE MODELS:

Advancements in climate models, particularly the transition from CMIP6 to CMIP7, have been a noteworthy part of the narrative. The adoption of solar spectral irradiance and ozone-forcing datasets in these models aim to enhance our understanding of the influence of solar phenomena on Earth's climate and ozone layer.



**AS WE KNOW, FINDINGS HIGHLIGHT THE EARTH'S WEAKENING MAGNETIC FIELD AS THE MAGNETIC POLES SHIFT, ALLOWING MORE SOLAR AND COSMIC RAYS TO PENETRATE THE ATMOSPHERE. THIS PHENOMENON WILL IMPACT OZONE LEVELS, CLIMATE PATTERNS, AND RESULT IN SIGNIFICANT CHANGES ON EARTH.**

Notably, past research shows that during solar superflares, mechanisms for ozone destruction are significantly amplified. This raises concerns about long-lasting impacts on the protective ozone layer.

In addition, let's look at on another article discussing the Observed Loss of Polar Mesospheric Ozone Following Substorm-Driven Electron Precipitation.

ARTICLE: OBSERVED LOSS OF POLAR MESOSPHERIC OZONE FOLLOWING SUBSTORM-DRIVEN ELECTRON PRECIPITATION"

In this article, researchers explore the phenomenon of substorm-induced energetic electron precipitation (EEP) and its previously unobserved impact on the ozone balance in the polar atmosphere.

Energetic particle precipitation into the Earth's atmosphere can be attributed to multiple sources, including Solar Proton Events (SPEs) and the Earth's magnetosphere and radiation belts. These particles ionize the atmosphere and contribute to the production of HOx and NOx gases, both of which catalytically destroy atmospheric ozone. While some of these sources of EEP have been extensively studied, one source that has received less attention until now is substorms.

### WHAT ARE EEP'S?

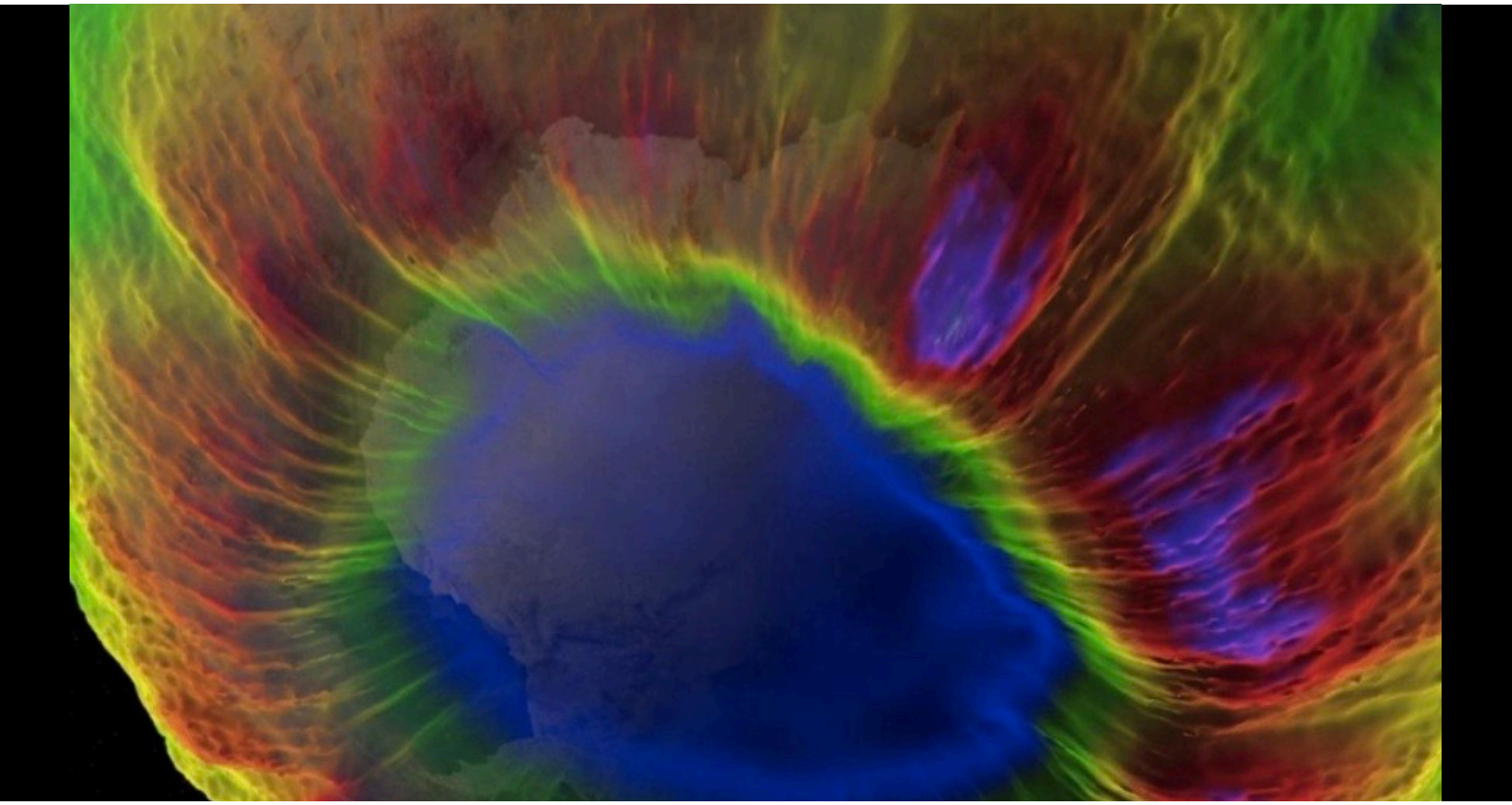
ENERGETIC ELECTRON PRECIPITATION (EEP) REFERS TO THE PROCESS BY WHICH HIGH-ENERGY ELECTRONS FROM THE EARTH'S MAGNETOSPHERE OR RADIATION BELTS DESCEND INTO THE EARTH'S ATMOSPHERE AND INTERACT WITH ATMOSPHERIC GASES. THIS PHENOMENON IS MOST COMMONLY ASSOCIATED WITH THE INTERACTION OF THESE HIGH-ENERGY ELECTRONS WITH THE GASES IN THE EARTH'S IONOSPHERE, OZONE, AND THERMOSPHERE.

Substorms are disturbances in Earth's magnetosphere that lead to the acceleration and subsequent precipitation of electrons into the atmosphere. The precise mechanisms and order of events within the magnetosphere that trigger substorms remain subjects of ongoing research. Substorms are characterized by three key phases: magnetotail reconnection, current disruption in the near-Earth magnetic field, and auroral break-up.

These events occur frequently, with hundreds or even thousands of substorms taking place each year, and their frequency is known to vary with the solar cycle. The energy of the precipitating electrons determines how deep they penetrate into the atmosphere and at what altitudes they deposit their peak energy.

While the exact energy range for substorm-induced electron precipitation is still under investigation, it is believed to range from tens of electronvolts (eV) to as high as 1 megaelectronvolt (MeV). This suggests that substorm-driven electron precipitation could impact the atmosphere at altitudes ranging from 50 km to 65 km or even higher.

**THEIR ANALYSIS FOCUSED ON SUBSTORM EVENTS WITH AN ASSOCIATED AE INDEX OF ⩾ 500 NT AND EXAMINED OZONE OBSERVATIONS AVERAGED WITHIN SPECIFIC L SHELLS (4-7). THE RESULTS WERE ASTONISHING. THE RESEARCHERS FOUND A CLEAR OZONE DECREASE SIGNAL AROUND THE DAY OF THE SUBSTORM EVENT, WITH A PEAK REDUCTION OF APPROXIMATELY 11% AT AN ALTITUDE OF AROUND 76 KM. THIS OZONE LOSS LASTED FOR ABOUT FIVE DAYS, AFTER WHICH OZONE LEVELS RETURNED TO BACKGROUND LEVELS. STATISTICAL ANALYSIS CONFIRMED THAT THE OBSERVED OZONE LOSS WAS STATISTICALLY SIGNIFICANT AND LINKED TO THE SUBSTORM-DRIVEN EEP.**



Furthermore, when considering the horizontal distribution of ozone loss, up to 21% regional ozone loss was observed in the southern hemisphere at high latitudes (poleward of 60°S). This observation aligns with previous studies that indicated the importance of HOx in ozone depletion in the mesosphere.

The discovery of substorm-induced ozone loss is a significant advancement in our understanding of atmospheric dynamics and the role of energetic electron precipitation in ozone depletion. This finding underscores the need to incorporate substorm-induced precipitation into proxies used in atmospheric and climate models, as it may have a more substantial impact on ozone levels than previously assumed.

**THAT BRINGS US TO LEARNING ABOUT OBSERVATIONS OF LARGE AND ALL-SEASON OZONE LOSSES OVER THE TROPICS FROM ANOTHER RECENT ARTICLE DISCUSSED THIS PAST MONTH ON OUR CHANNEL.**

## ARTICLE: OBSERVATIONS OF LARGE AND ALL-SEASON OZONE LOSSES OVER THE TROPICS

This additional article focuses on the persistent and all-season ozone hole that has been forming in the lower stratosphere over the tropics since the 1980s. This ozone hole, defined as an area with ozone loss exceeding 25% compared to the undisturbed atmosphere, has a depth comparable to the well-known Antarctic ozone hole but covers an area approximately seven times larger.

The research relies on a comprehensive dataset from various sources, including a standard troposphere-stratosphere ozone climatology, latitude-altitude distribution of chlorofluorocarbons (CFCs), time-series data for total ozone, Ozonesonde data, Umkehr datasets, and lower stratospheric temperature climatology from multiple ground-based and satellite measurements.

### WHAT ARE CFC'S?

CHLOROFLUOROCARBONS, COMMONLY KNOWN AS CFCS, ARE ORGANIC COMPOUNDS THAT CONTAIN CARBON, CHLORINE, AND FLUORINE ATOMS

The ozone hole over the tropics has persisted throughout the year since the 1980s, unlike the well-known Antarctic ozone hole, which is seasonal. This tropical ozone hole has a depth comparable to the Antarctic hole, with both experiencing approximately 80% ozone depletion at their centers. The tropical ozone hole is expansive, covering an area approximately seven times larger than the Antarctic hole. It spans the region between 30 degrees North and 30 degrees South latitude.

**IT ALSO SHOWCASES THAT THE OZONE DEPLETION IN BOTH THE ANTARCTIC AND TROPICAL OZONE HOLES ARISE FROM AN IDENTICAL PHYSICAL MECHANISM. THE AUTHORS PROPOSE THE COSMIC-RAY-DRIVEN ELECTRON REACTION (CRE) MODEL, WHICH DEMONSTRATES GOOD AGREEMENT WITH OBSERVATIONAL DATA, AS A PLAUSIBLE EXPLANATION FOR THE PHENOMENON.**

The latest data on the Antarctic ozone hole was released just a few days ago and it is one of the largest on record. Pollution levels are low, other natural factors are low. The only explanation for the current state of the ozone is that more solar particles are entering the earth system as earth's magnetic field weakens, allowing for excess loss of that layer. The processes described in this article are ALL amplified by having a weaker magnetosphere, and we expect that will continue.

The presence of a year-round tropical ozone hole is a concern as you know, as it plays a role in the catastrophism cycle and allows an increase in ground-level ultraviolet (UV) radiation.

**OVERALL, THIS IS OUR CURRENT KNOWLEDGE ON THE STATE OF OUR OZONE AND ITS DEPLETION PROCESS.**

**WE WILL CONTINUE TO DISCUSS NEW ARTICLES AND RESEARCH COMING FORTH ON THIS ISSUE.**

# MAGNETIC PEAK 3000 YEARS AGO

*ARTICLES REFERENCED:*
*MESOPOTAMIAN BRICKS UNVEIL THE STRENGTH OF EARTH'S ANCIENT MAGNETIC FIELD*

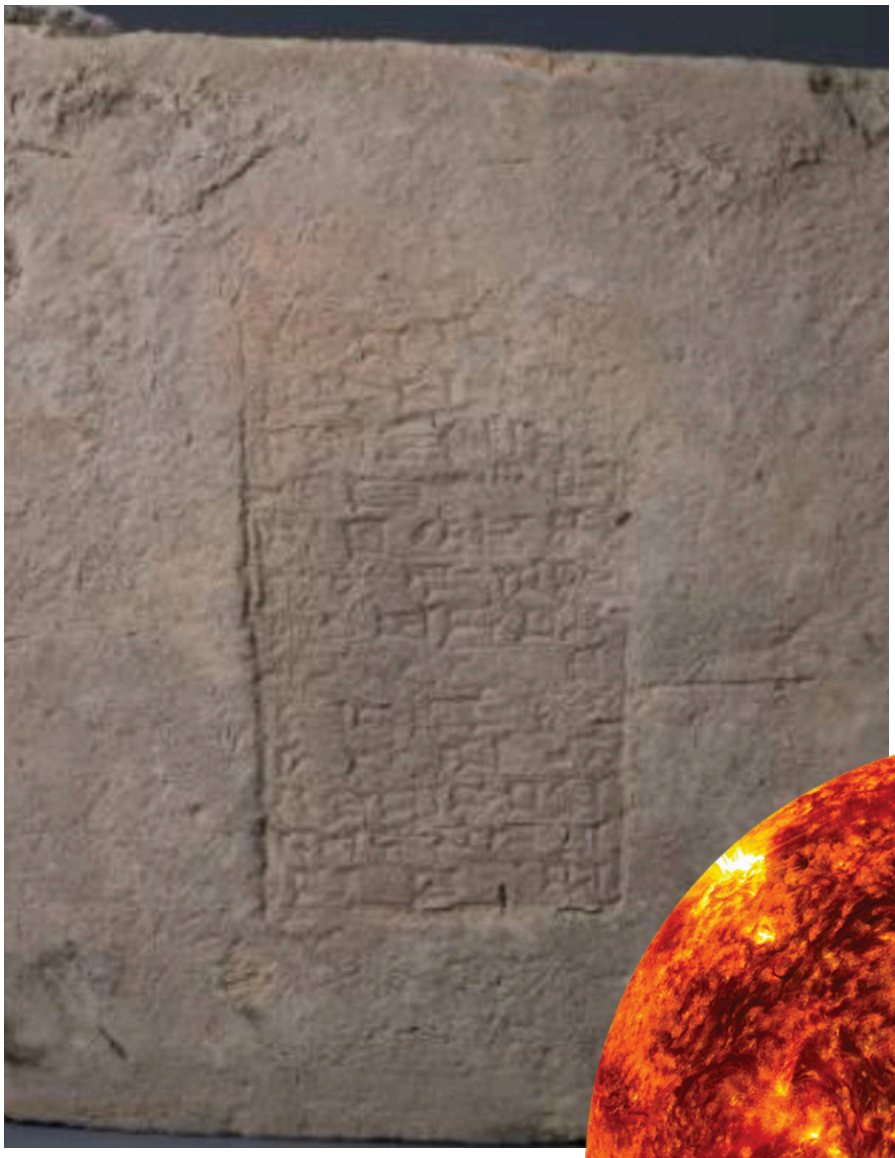
BY: BEN DAVIDSON

## BACKGROUND:

We have spent considerable effort focusing on the geomagnetic "weak points" which occur on 12,000 year cycles, and the miniature versions on the 6000-year half-cycle. However, it we have spent far-less time discussing and investigating the peaks of geomagnetic field strength expected to occur between these cycles.

## NEW SCIENCE:

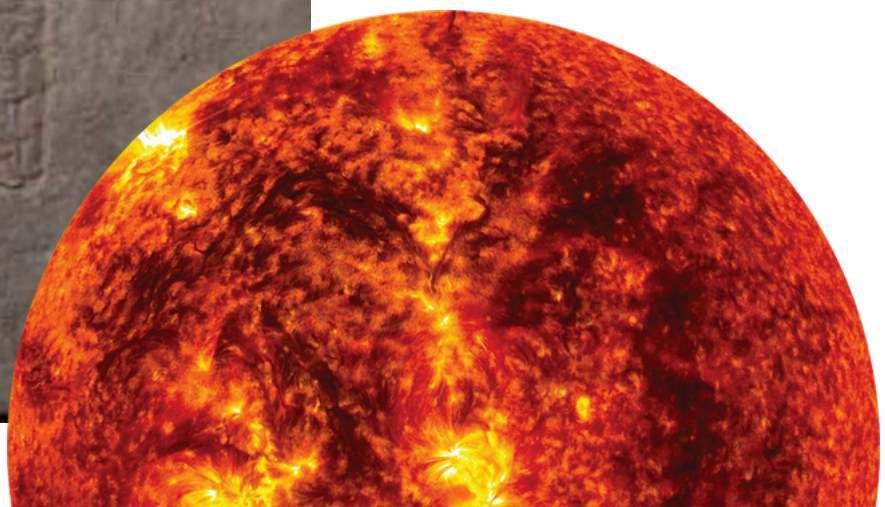
The levantine geomagnetic anomaly was thought to occur between 2000 and 4000 years ago, and represents the peak field strength since the mini-excursion 6000 years ago, which we call the China event, or the Noah event. A new study pegs that time to precisely 3000 years ago- the most recent peak in field strength.



## SIGNIFICANCE:

With the remarkably accurate cycle of 6000/12,000 years for the weak points in the field, it was imperative that we identify the last field peak to more-accurately gauge the time remaining until the next excursion weak point- and the next earth disaster cycle reset.

With the peak field being 3000 years ago, the last mini-excursion 6000 years ago, and the last full excursion 12,000 years ago, we now have the three most important data-points that suggest our time is up, and that the modern changes in the geomagnetic field are indeed the beginning of the next catastrophe cycle.



# EARTH'S CORE IS DEFORMING

BY: BEN DAVIDSON

*ARTICLE REFERENCED:*
*EARTH'S INNER CORE IS CHANGING IN SHAPE AS WELL AS IN ROTATION RATE*

Recent news made major headlines this month regarding the Earth's core. Following recent reports describing a surprising slowdown in its rotation, scientists now believe they are also observing a deformation occurring within the inner core itself. This unexpected revelation has sparked widespread interest and further deepened the mystery surrounding Earth's internal dynamics.

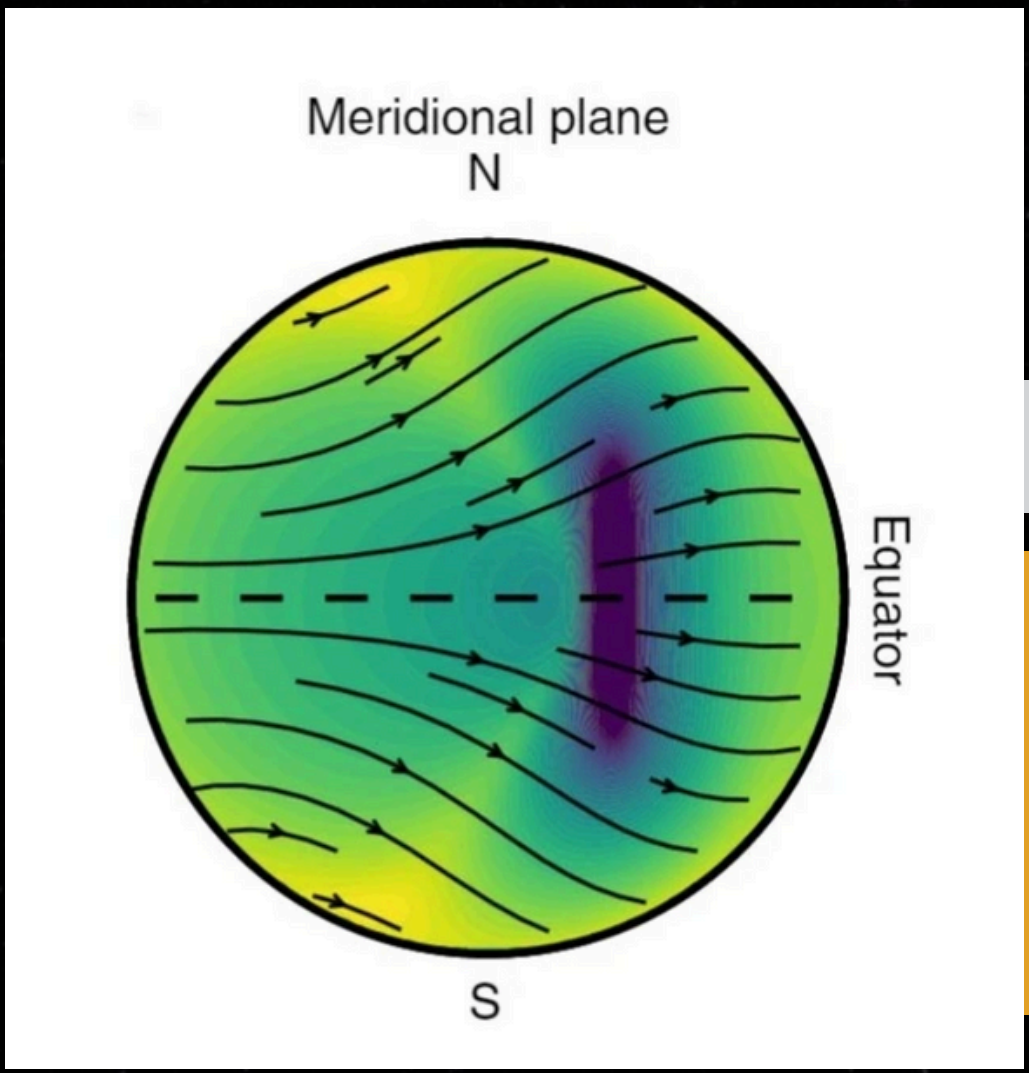
## BACKGROUND RESEARCH

For years, we have been tracking the gradual changes in Earth's rotation speed—most notably, its recent acceleration, which has led to a measurable shortening of the length of a day. Additionally, a report from a few years ago already suggested that the inner core was somewhat lopsided. This latest discovery adds another intriguing layer to our understanding of the solid-Earth impacts associated with the planet's disaster cycle.

Even with our knowledge of the changing rotation rate and the asymmetrical nature of the core, there was never a strong reason to assume that deformation would occur at such a scale or at a speed rapid enough to be detected before the larger planetary disaster unfolds. And when that catastrophe does arrive—who's looking?

## CONCLUSION

**AT THIS POINT, WE HAVE A FAIRLY SUBSTANTIAL AND GROWING LIST OF SOLID-EARTH CHANGES THAT CAN BE REALISTICALLY AND DIRECTLY LINKED TO THE ONGOING TRANSFORMATIONS HAPPENING ON THIS PLANET. THE DISASTER CYCLE CONTINUES ITS MARCH FORWARD, REVEALING MORE WITH EACH NEW DISCOVERY.**




Is Earth's Core Lopsided?

"Asymmetric growth and movement in from the Equator and towards the poles causing lateral and vertical advection of the strongest deformation. (Photo: Nature)"

# OZONE-CLIMATE INTERACTIONS

*ARTICLE REFERENCED: EXPLORING OZONE-CLIMATE INTERACTIONS IN IDEALIZED CMIP6 DECK EXPERIMENTS*

BY: BAILEY

Ozone plays a crucial role in regulating Earth's climate and atmospheric chemistry. The CMIP6 DECK experiments provide insight into how stratospheric ozone responds to changes in climate. This article explores the mechanisms of ozone-climate feedback in the context of CMIP6 experiments and as they can be related then to large-scale disruptions caused by variations in Earth's magnetic field and solar activity. Stratospheric ozone is highly sensitive to temperature and circulation changes. Under the study's "increased" $CO_2$ forcing, ozone experiences responses, including Tropopause Expansion and Ozone Transport, the Acceleration of Brewer-Dobson Circulation, Stratospheric Cooling, and Tropical Upwelling.
In this Co2 lens, Surface warming leads to an expansion of the tropopause, replacing ozone-rich stratospheric air with ozone-poor tropospheric air, resulting in ozone depletion near the tropopause. Rising tropical tropospheric temperatures enhance subtropical jet speeds, increasing upwelling and poleward transport of ozone. This redistributes ozone, increasing its presence in the extratropical lower stratosphere but decreasing it in the tropical lower stratosphere. In the upper stratosphere, ozone increases due to reduced photochemical destruction, while the lower stratosphere sees competing effects from transport and chemistry. These models indicate stronger tropical upwelling with warming, correlating with a depletion of lower-stratospheric tropical ozone.

Now, if we take a look at Earth's catastrophe cycle—characterized as we know by shifts in the magnetic field, solar superflares, and cosmic ray influx—has significant implications for ozone dynamics. Some of these key mechanisms include Magnetic Field Weakening and Cosmic Ray Penetration, Solar Proton Events and Ozone Loss, and Formation of New Ozone Holes.

A declining magnetic field allows increased solar and cosmic rays to reach the atmosphere, leading to intensified ozone depletion. This phenomenon is exacerbated during geomagnetic reversals or significant pole shifts.

During moderate solar proton events, ozone loss can range between 33-47%, while extreme events may result in 73-85% depletion. These figures align with historical records of solar-induced atmospheric disturbances.

Observations indicate new ozone-depleted regions, such as those found in the tropics, are emerging due to changes in the Earth's energy balance and atmospheric dynamics. These patterns echo past catastrophic events in Earth's climate history. Solar flares and magnetic field shifts can lead to abrupt and severe ozone depletion.

# DANSGAARD-OESCHGER EVENTS, RE-ENVISIONED

BY: BEN DAVIDSON

There are many cycles that impact the earth and its environment. Dansgaard-Oeschger events (DO events) are a series of abrupt climate changes that occur approximately every 1500 years. They are named after the Danish paleoclimatologist Willi Dansgaard and Swiss geophysicist Hans Oeschger, who independently discovered these events in the late 1970s.

DO events are a type of rapid warming that occurred during these colder periods, typically lasting a few decades to a few centuries, followed by a gradual cooling period. They are marked by abrupt temperature changes, accompanied by changes in ocean circulation, atmospheric circulation, and ice sheet dynamics.

The cause of DO events is still not fully understood; scientists used to believe they were related to changes in ocean currents and ice sheet dynamics, but recent evidence has shown that solar activity may play a prominent role. DO events were first identified in ice cores from Greenland and Antarctica and have been used to study past climate variability and the mechanisms behind abrupt climate change.

Recently, several articles have turned the science of DO events on its head. They are discovering that the temperature shifts ranged from 5 degrees (celsius) to up to 16 degrees, and had a global impact. These shifts, which took place over just a few decades, are now being put into perspective compared to modern climate change, which is approximately 1-2 degrees over the last 150 to 200 years. This has to make us look at modern climate change a bit differently than they tell us on the news- modern changes are not as rapid or extreme as we are led to believe, and they do not pose a catastrophic risk to our future.

For years there was a belief that DO events were confined to polar regions, but that logic is evaporating quickly. Modern climatologists regularly exclaim how the changing polar regions will impact the entire world, and these new studies likewise indicate that the DO events had impacts across the planet. These heating events melted polar ice, which cooled and freshened the oceans. This cooler water cooled the atmosphere, and the cooler/fresher polar waters more easily froze to reverse the process of heating.

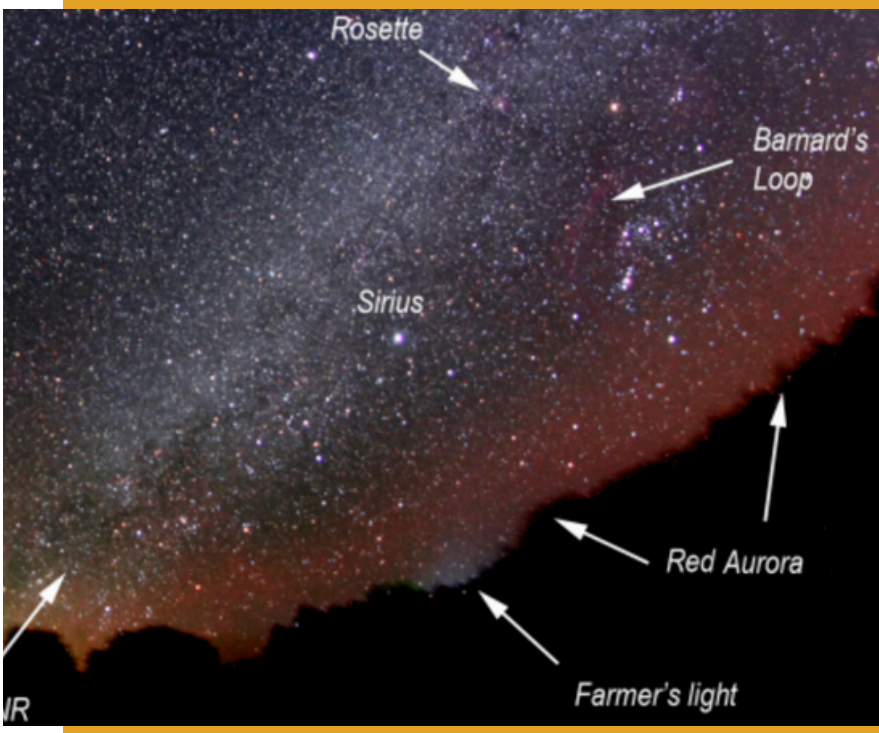
When you realize that earth regularly (and naturally) endures double-digit degrees of warming in a few decades, and it simply leads to a cold shift, it entirely reframes the narrative of modern global warming to a much tamer one.

## WHAT ARE DANSGAARD-OESCHGER EVENTS?

A Dansgaard-Oeschger event, also known as DO event, refers to a series of rapid and transitory shifts in global climate during the last ice age. These events are marked by sudden warming followed by gradual cooling, and are predominantly detected in Greenland ice cores and surrounding areas of the North Atlantic Ocean

# MYSTERIOUS GEOMAGNETIC EVENTS

BY: BEN DAVIDSON




On April 15th, 2022, something very unexpected happened with earth's magnetic field. The solar activity was relatively calm, the solar wind was calm as well, but things were not calm in the planetary magnetic shield. A severe disturbance was detected and there was absolutely no explanation for why it happened.

The magnetometer station at Kiruna, which has operated for many years, detected a severe deviation from normal activity, and at the same time, the riometers detected significant electron enhancement in the atmosphere. This event registered at 40% of the power of the strongest solar storm ever recorded at Kiruna, but alas, there was no solar storm.

We have seen similar events in recent years. For example, in February of 2022 40 Starlink satellites were lost due to an unexpected impact of a minor solar storm, one that would never be expected to have any impact on satellite function at all. These events, where considerable impacts to the earth's uppermost layers occurred beyond what would be expected, are exactly what one might expect if earth's magnetic field was in trouble.

Indeed, earth's magnetic field is weakening and the magnetic poles are shifting, leaving earth profoundly more vulnerable to energy from space. Another example is the repeated observation that earth's ionosphere, a charged particle layer sitting at the top of the atmosphere, is showing sustained disruption compared to decades ago, which should not be the case since the sun is decreasing its activity. However, with a weaker magnetic field, lesser solar activity would be able to produce similar impacts to historically stronger activity when the magnetic field of earth was stronger. Now, we have evidence that it is not just sustained, but is increasing in severity, sometimes even without any space weather impact at all- like in April of 2022. The implications of these events are profound. This photo (top right) of the Florida sky by Bill Williams was submitted to SpaceWeather.com after a solar storm that occurred in late March 2023, and it tells an even scarier version of the same story. Red aurora were last seen in Florida in 2003, during tremendous solar storm activity, and before that, 1989 during the great Quebec Blackout solar storm.

This is an extremely rare event, and it requires the grandest of solar storm activity - a once every few decades event. At least that used to be the case. The solar storm of late March 2023 was not anything spectacular. The solar wind was modestly enhanced, and while the magnetic field disruption was significant, it was not so significant that we should be seeing red auroras as far south as Florida.

This simply should never happen. Imagine if a magnitude 4 earthquake had the impact like what happened in Japan in 2011 (magnitude 9), or if a light summer breeze was taking out buildings like an F5 tornado. Imagine if baseball players started hitting home runs into outer space, or if kindergarteners started powerlifting at olympic levels. These scenarios sound silly, because we instinctively know it's not possible. It would only be possible if something had fundamentally changed about the process of earthquakes, wind, baseballs or child development. In the case of these solar impacts, something HAS fundamentally changed- the earth's weakening magnetic field is allowing the more-vulnerable earth to sustain greater and greater impacts from lesser and lesser solar activity. One day, whether it is a big solar event or the continued weakening of earth's magnetic field, one of these space weather events is going to be catastrophic to our way of life, to the atmospheric dynamics, and the biosphere. It is only a matter of time.

# MICRONOVA UPDATE

BY: BEN DAVIDSON

ARTICLE REFERENCED:
HTTPS://ARXIV.ORG/PDF/2402.00553.PDF
HTTPS://ACADEMIC.OUP.COM/MNRAS/ARTICLE/529/1/664/7612994

Two new micronova studies came out this month and they offer some fantastic confirmations of the triggering and power of these outbursts. Our catastrophe model describes a miniature nova from the sun that is triggered by an increase in mass deposition in the corona, with a blast energy similar to the sun's peak flare energy.

The first study discovered four new micronova event, with energies equivalent to X300 to X3400 solar flares, lasting forms several hours up to 6 days. The solar micronova we discuss would have a likely outburst energy equivalent to and X1000 to X2000 solar flare, so these new events appear to confirm the general energy release of the micronova class of eruptions.

**THE SECOND STUDY CONFIRMED THAT MICRONOVA EVENTS ARE TRIGGERED MUCH MORE EASILY THAN OTHER NOVA EVENTS. A CLASSICAL NOVA, WHICH WOULD DESTROY THE ENTIRE SOLAR SYSTEM, IS VIRTUALLY INCONCEIVABLE WITHIN A MASSIVE MASS ACCUMULATION AROUND OUR STAR, WHICH WOULD REQUIRE ALMOST "A FEW JUPITERS" WORTH OF MATERIAL. HOWEVER, MICRONOVA EVENTS REQUIRE ONLY 0.1% TO AS LITTLE AS 0.005% OF THE SAME AMOUNT OF THAT MATERIAL.**

Based on these studies, and the existing knowledge about the galactic current sheet dust delivery, the solar micronova, which is already the only way to explain all the evidence within the disaster cycle, appears to remain the best explanation, and is now confirmed to be possible in two new ways.

# NEW SUBDUCTION

ARTICLE REFERENCED:
EARLY-STAGE SUBDUCTION INVASION

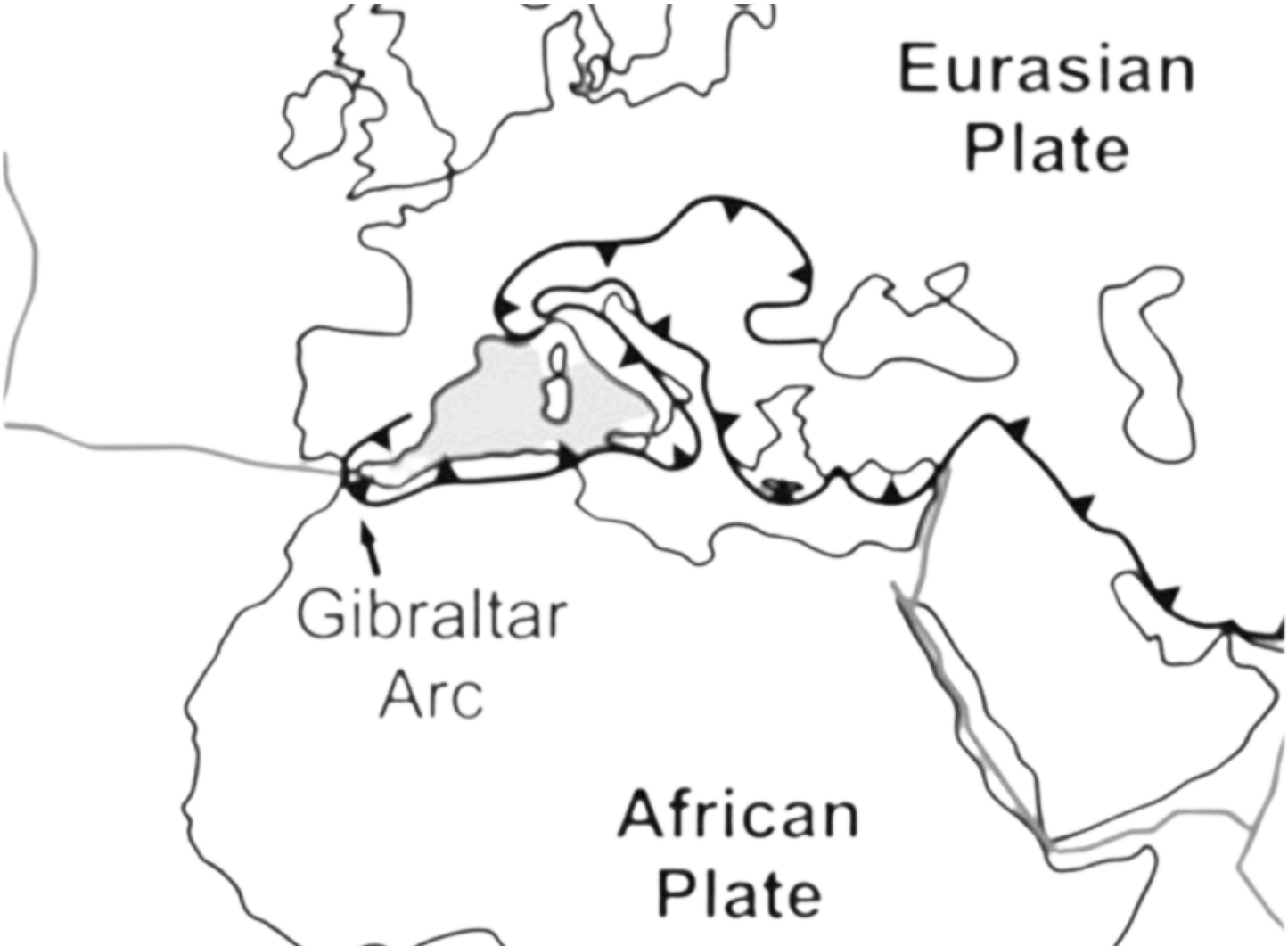
BY: BEN DAVIDSON

Of all the potential geophysical effects we expect during the disaster cycle event that is coming in the next decade or two, the most unpredictable is the mantle heaving and resulting land rise/fall. We have hypothesized several potential zones where this could be a factor- a splitting of the East-African rift, the rise of the West Pacific, the fall of the central United States and central Australian regions. Here is a new one:

The Gibraltar arc is the newest and next major subduction location of the planet. The scientific discovery is framed within the long timelines of geology, but we know that those are punctuated by rapid and drastic events during the disaster cycle.

While all of the land motion events are guesses- far less certain than things like the amplified space radiation effect as our magnetic field weakens- the region where the Mediterranean Sea begins at the meeting of Europe and Africa provides a terrifying risk for that broader region.

Hypothetically, if this region were to have a massive subductive event, the tsunamis hitting Northern Africa would be far worse than we have hypothesized, and the seismic activity through Eastern Europe would be far worse than in other areas, even some with known risky fault lines. Only time will tell, but this worth knowing for anyone interested in catastrophism.



# ICE-FREE INTERGLACIAL

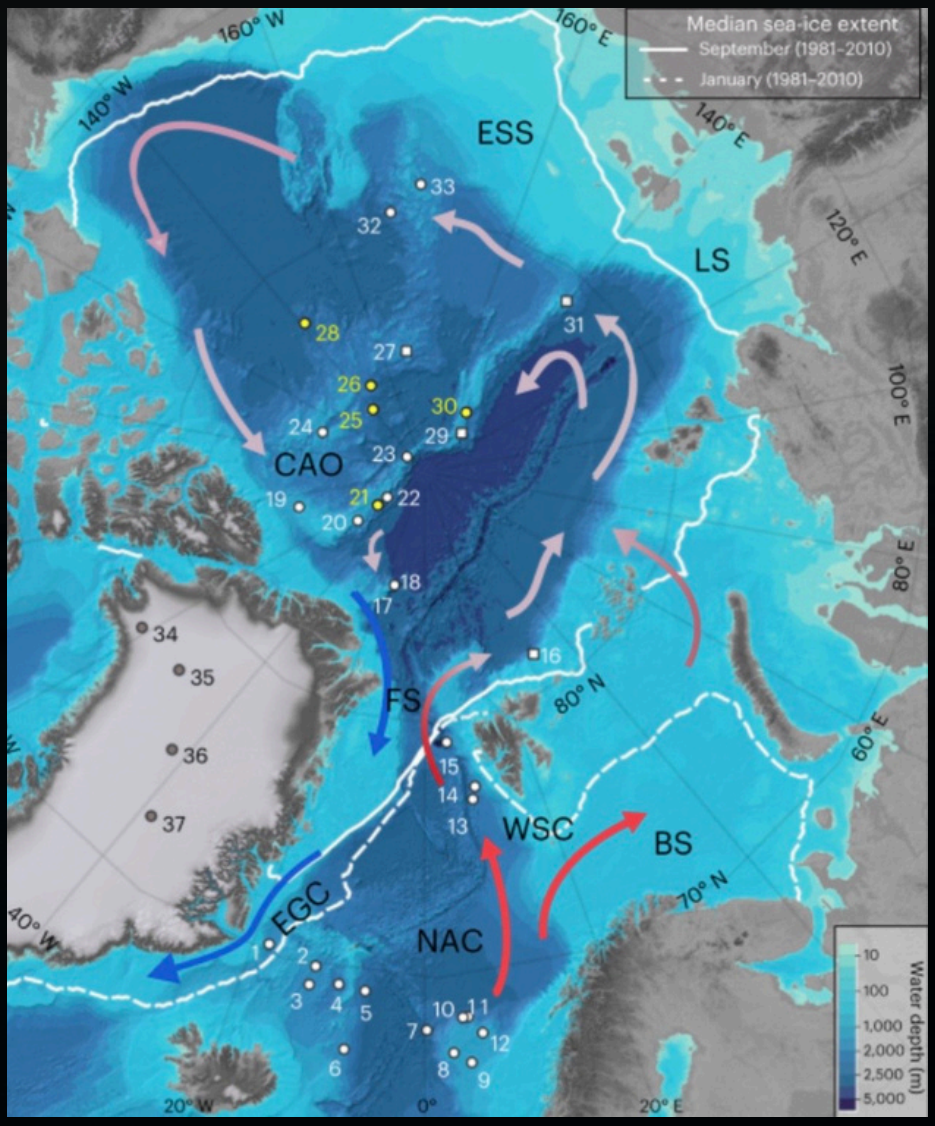
BY: BEN DAVIDSON

## BACKGROUND

Climate scientists have been telling us how warm the world is, how the global warming is unprecedented, and how our world is in danger of losing many species due to that warming, especially if the polar ice is reduced.

## NEW SCIENCE

The last interglacial period, which occurred about 100,000 to 120,000 years ago, had a seasonally ice-free Arctic Ocean, implying much higher temperatures than today.




## IMPORTANCE

**IF THE PREVIOUS INTERGLACIAL PERIOD WAS SEASONALLY ICE-FREE, THEN CLAIMS ABOUT OUR WORLD BEING HOTTER THAN EVER ARE CLEARLY WRONG, AND YOU DON'T NEED TO GO BACK MILLIONS OF YEARS TO PROVE IT. GIVEN THAT THE WORLD DIDN'T HAVE A MASS EXTINCTION DURING THAT PERIOD ALSO CONFRONTS WHAT WE'RE BEING TOLD IN THE POPULAR MEDIA. IN FACT, IT IS NOT AN EXISTENTIAL CATASTROPHE, AND THE WORLD IS SIMPLY JUST NOT AS WARM AS IT HAS BEEN (SAFELY) MANY TIMES IN THE PAST.**

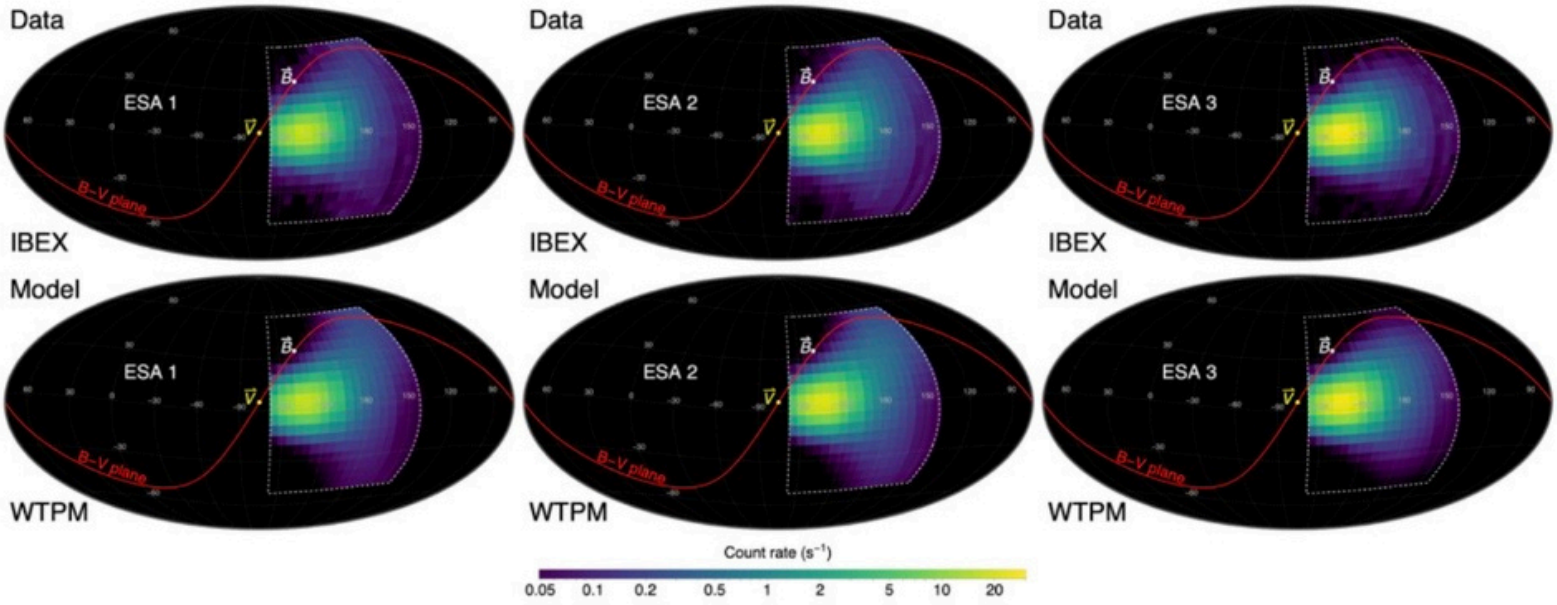
*ARTICLE REFERENCED: A SEASONALLY ICE-FREE ARCTIC OCEAN DURING THE LAST INTERGLACIAL*

# ISM SURPRISE

BY: BEN DAVIDSON

***ARTICLE REFERENCED:***

***INTERSTELLAR CONDITIONS DEDUCED FROM INTERSTELLAR NEUTRAL HELIUM OBSERVED BY IBEX AND GLOBAL HELIOSPHERE MODELING***




## BACKGROUND

An enormous amount of our catastrophism coverage hinges on the existence and current interaction of the galactic current sheet with our solar system. We have seen a profound change in the magnetic imprint of the galaxy on the sun's magnetic field (the IBEX ribbon), and an increase in dust, neutral atoms, and ions from the galaxy into our system.

## NEW SCIENCE

A study of the helium atoms entering our solar system has revealed data that cannot be reconciled with models, specifically, the local conditions of the galaxy exceed the statistical uncertainties. They also confirmed that the influx rates are directly related to the magnetic fields of the interaction.

## IMPORTANCE

To be honest, there is little doubt in this author as to the fact that the galactic current sheet (and galactic magnetic reversal) are impacting our solar system now. Mainstream models do not factor this effect, and so I am unsurprised by the mismatch between those models and the local conditions derived from their measurements.

It is also a nice (even if concerning) confirmation to know that the magnetic field interactions are driving these particle flux events, which further tells us that the galactic magnetic interactions are driving the higher levels of dust, atoms and ions we see in the solar system.

# CATASTROPHISM QUESTIONS

DO YOU HAVE ANY QUESTIONS ON THE TOPIC OF CATASTROPHISM?

IF SO, EMAIL THEM TO THE BELOW EMAIL ADDRESS:

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