

Global Hurricane tracks

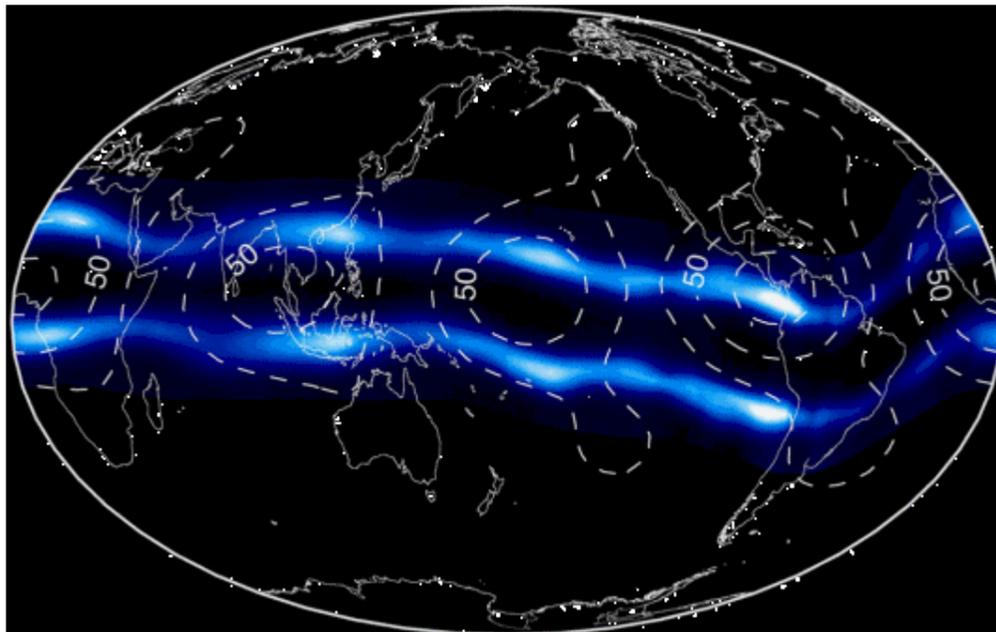


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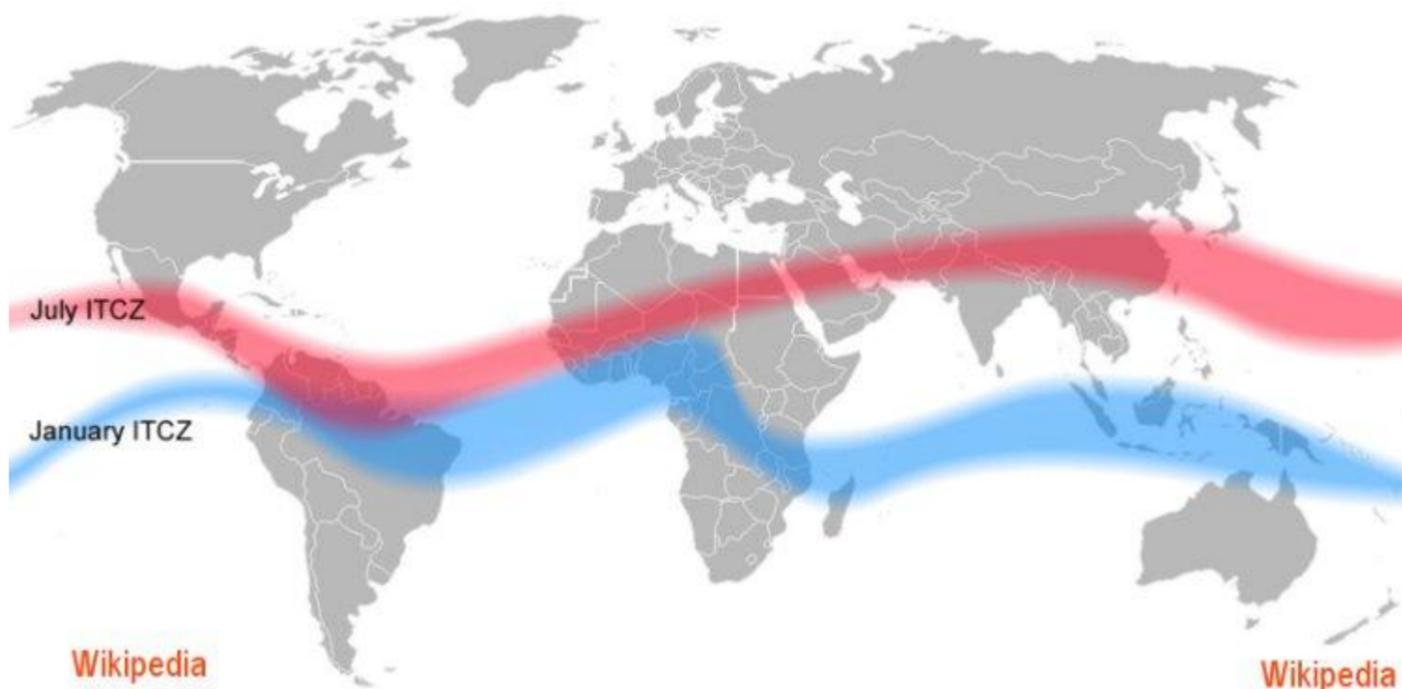
Why is the equator free of hurricanes?

The answer is found in the coincidence of two critical factors:

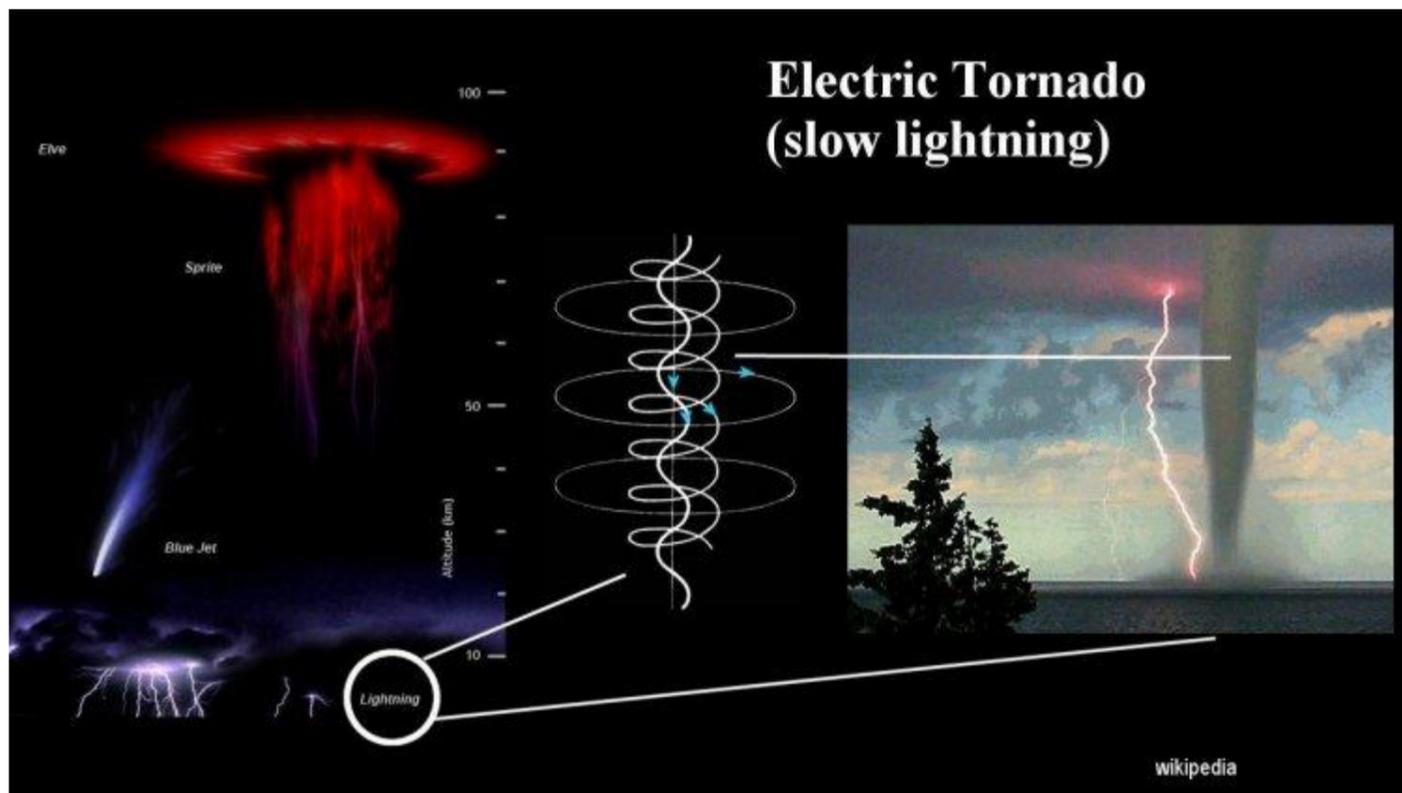
1 The location of the Equatorial Electrojets in the ionosphere



2. The seasonal movement of the Inter Tropical Convergence Zone



When the two overlap an electric connection becomes possible between the oceans and the ionosphere high above the clouds and a hurricane is born. The development is similar for the birth of a twister on land



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Hurricanes are larger. They occur over the oceans that provide a stronger electric connection in comparison with tornadoes that occur primarily on land where the electric connection is weaker. In both cases the rotating force is electromagnetic in nature, with the electric power drawn from the ionosphere.

- This is the Unauthorized Reality of hurricanes -

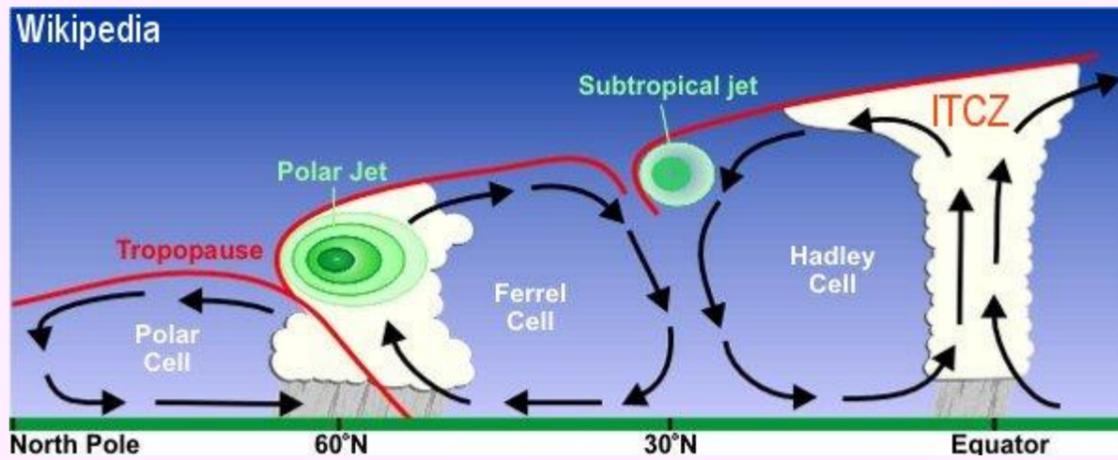
Hurricanes are also called cyclones. They are more powerful twisters than the tornados. They become more powerful, because they are powered directly by the vast electric currents in the electrojets that flow high in the ionosphere.

The Equatorial Electrojets in the ionosphere occur in two parallel bands of strong electric currents that are spaced more than a thousand miles apart and roughly follow the magnetic equator (the magnetic pole for this line is shifted 11 degrees from the geographic pole towards northern Canada). Hurricanes form when 'moist' updrafts reach high enough to draw power from the ionosphere near the regions of the jets. This condition is met in the Inter Tropical Convergence Zone where the Northern and Southern Hemisphere weather system merge.

The location of the Inter Tropical Convergence Zone is critical for establishing the connection to the ionosphere that powers a hurricane. When the location coincides with the location of an electrojet a strong down-flowing electric Birkeland current is formed that causes rotating magnetic fields and rotating secondary currents.

Once this kind of connection is established the hurricane remains connected by the Birkeland currents to the ionosphere. While it remains connected it is drawn towards the polar electrojets (not shown here). When the resulting hurricane remains exclusively located over the oceans, its can move long distances. However, when it moves inland, the hurricane looses is strong electric connection, which the ground cannot provide, whereby it rapidly diminishes.

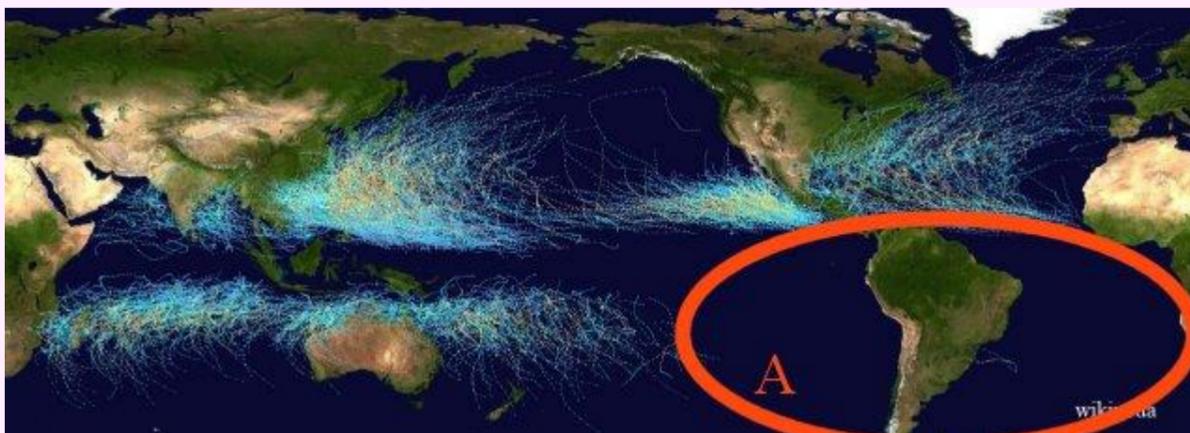
The ITCZ, which is the critical element for getting the connection started, is a part of the global air-circulation system. It is the part that provides highest-reaching upwelling water-vapor air currents. Since, the ITCZ is seasonally mobile, its north/south movement brings it invariably near one of the two Equatorial Electrojets where an electric connection with the ionosphere becomes possible and the formation of a hurricane thereby becomes likely.



While the tropics are essentially none-seasonal, the necessary coincidence of the ITCZ with the location of the electrojets is provided by the one thing that is seasonal in the tropics, which is the shifting of the ITCZ. This seasonal shifting of the hemispheric boundary makes the hurricane occurrences seasonal events.

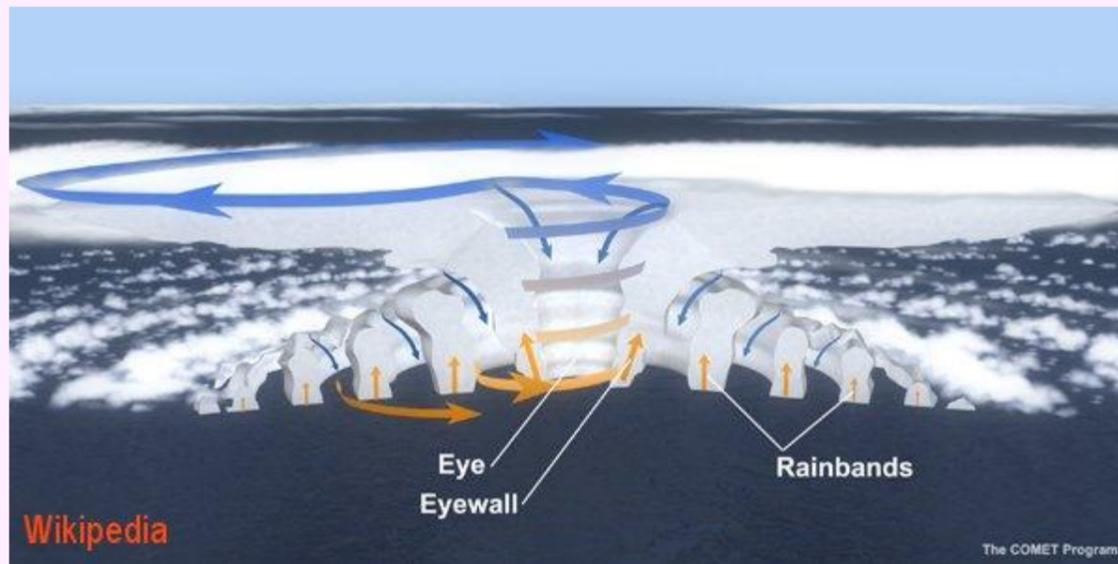
That the ITCZ by itself is not the mechanistic driver that causes hurricanes to happen by sheer thermal convection, is evident by the lack of hurricanes in the thousand-mile wide gap across equatorial region where no hurricanes occur. The gap remains hurricane free in spite of the close uniformity of thermal conditions near the equator, which the ITCZ crosses. The gap between the hurricane bands, roughly reflects the gap between the bands of the electrojets.

That the coincidence between the ITCZ and the electrojets is critical is also shown by the glaring lack of hurricanes in area A below, which has the same tropical climate than the area near Australia where hurricanes are common, but which is an area where the southern electrojet is tilted too far south by the offset of the magnetic equator, which thereby puts it out of reach of the southern ITCZ so that no hurricanes are able to form there.



Ultimately hurricanes will become a thing of the past when humanity begins to draw on the ionosphere for its comparatively modest electric power needs. While the ionosphere is not primarily a capacitor, but an interface to the galactic electric power streams, our utilization of the power of the ionosphere won't be able to draw it down significantly, as the power is constantly being re-supplied. However, our utilization of this power may reduce the sharp excesses in electric potential that may be a factor in 'igniting' the electric circuit that causes hurricanes. Also, as the ice age cooling sets in, the convective upwelling of air currents in the ITCZ will likely be weaker and reduce further the forming of the hurricanes and eventually end them altogether.

Another item of evidence of the electric nature of hurricanes is found in the dual-directional rotation in the structure of hurricanes in the northern hemisphere.



The above illustration by NOAA shows how the upper cloud layer that comes out of the eye of the hurricane rotates in the cyclonic direction while the core of the hurricane rotates in the opposite direction. No known mechanistic cause can result in these two opposite rotations. The puzzle resolves itself when one recognizes that two separate causes are involved. The upper cloud rotation that forms the cyclonic shape that one sees from space is caused by the mechanistic effect of the Coriolis principle, while the inner rotation of the body of the hurricane is the electrodynamic rotational effect inherent in the principle of the self-twisting Birkeland Current.

This type of interaction between electrodynamic and mechanistic effects is quite common in the universe. The burning flame of a candle is a common example of it. When oxygen and carbon atoms are brought close together so that the electrons in their outer shells share each other's open spaces, a part of their surrounding electrodynamic energy becomes redundant as the larger structure requires less binding energy. The redundant energy lights the candle. The larger structure remains stable, because a corresponding electric energy input is required to restore the joined atoms back to their original state. This reversal process is what the chlorophyll molecules in plants accomplish. In both cases we encounter an interaction of mechanistic and electrodynamic effects.

In the universe, the electrodynamic effects are the most powerful, since the electric force is 36 orders of magnitude stronger than the cosmic mechanistic force, which is the force of gravity that also diminishes with the square of the distance. Thus, on the larger cosmic scale, such as the galactic scale, all effects are electrodynamic in nature. On this larger scale gravity plays no role at all. It is a 'local' force that operates on the scale of planetary and solar systems. The gravity of the Sun barely reaches past the extend of the heliosphere. Hurricanes, in contrast, are powered by the dynamic effect of the cosmic electric force. They are part of the evidence on Earth that we live in an electrically powered universe.

The bottom line is that the Earth is intimately connected to the vast cosmic electrodynamic system that also powers the Sun, just as it powers the twisters and hurricanes on Earth, and affects our climate by affecting cloud formation, and which also governs the occurrence of the ice age cycles, and so on.

The problem with the cosmic electrodynamic system is, that it is not mathematically predictable as one can predict mechanistic cycles. Ice ages are periods of weaker electric density in the cosmic dynamic system that powers our Sun and thereby affects the Earth. The exact timing of the ice age events is, as one might expect, therefore as unpredictable as hurricanes are, since both phenomena result from the operation of dynamic electric systems.

However, the seasons of their occurrences are predictable. Over the years society has learned to protect itself against the seasonal hurricanes and twisters, regardless of their unpredictable occurrences, though this knowledge is poorly utilized.

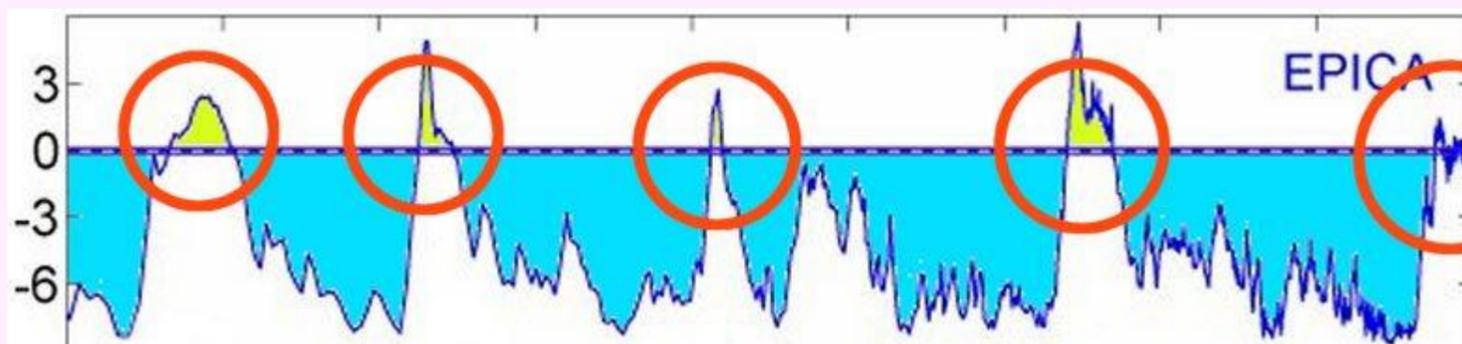
The occurrence of ice age conditions is likewise known to be 'seasonal' in the galactic context, and so is the devastating influence on human living when vast areas become rapidly disabled for agricultural use. When no preparations are made for the coming onset of the 'hurricane of the cold', the ice age impact will likely eradicate the major part of humanity or cause its complete extinction, since people cannot live without food.

However, since human beings are not animals, but have the cognitive capacity to discover that we live in an Ice Age Epoch (The Pleistocene Epoch) and that the next ice age glaciation cycle is near, it becomes possible for humanity to prepare itself and change its world in accord with the Ice Age Challenge before it. In this context, the withholding of this knowledge from society, so that the preparation will not be made, should be deemed the most absolute criminal offense possible.

The question of responding to the Ice Age Imperative is vastly more than just a mere moral question, because the changing dynamics involved have the potential to cause the extinction of humanity.

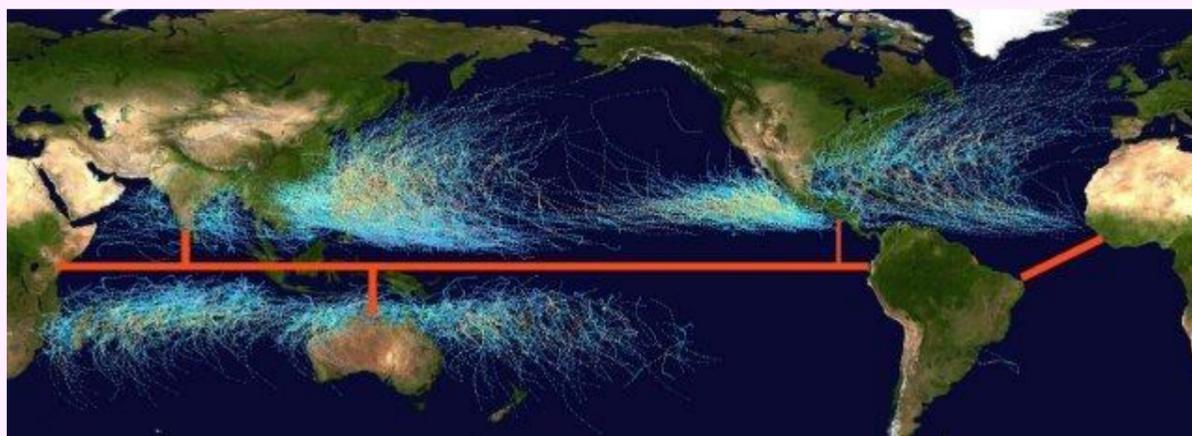
The Ice Age Imperative is by its nature the most critical imperative in the present age, because, if we fail ourselves by not having new agricultural resources in place before the next ice age transition begins, we will have closed the door on our survival. Once the transition begins, it is no longer possible to make up for lost ground. It takes time to build the infrastructures for new agriculture to replace what is endangered, which likely includes everything north of the 40 degree latitude.

While we don't know the exact time when the transition will be happening, we know that a dramatic change of 'season' is before us. We also know that the potential is extremely high that the transition will begin like a hurricane does without a warning, and will unfold rapidly.



Interglacial and glacial seasons of the last 450,000 years (wikipedia)

The comparison of the 'seasonal' ice age transitions with the seasonal hurricane occurrences is useful, because both phenomena are electrodynamic in nature. We know from previous hurricane seasons that once the season has started, one has to be prepared for the worst, or the consequences become tragic. We should also know, that with the the ice age transition being in season once again, the preparation for the worst consequences should have been started long ago. We should have already large-scale floating agriculture operating all across the tropics in the hurricane-free zone, extending from the two intercontinental floating bridges that would likely be connecting the continents initially across this zone.



This infrastructure imperative should have been met already, because we really don't know when, in the current ice age season, the next transition will hit us. It could hit us hard. It could hit us all the way to the 40 degree latitude where the permafrost boundary line was during the last glaciation cycle.

We also know from ice core samples that large transient 'ripples' have occurred, swinging back and forth between full glaciation conditions to full interglacial conditions for short periods in the order of decades, just as we have seen transient anomalies during the interglacial period. The imperative to respond, which we face in the present, is of a far more critical nature than any mere moral consideration. Thus, likewise the political imperative for meeting the Ice Age Challenge, makes all the other political imperatives appear also small, if not puny, and merely moral in comparison, such as the Glass Steagall imperative to separate commercial banking from

the looting enterprises of the investment banking. The Glass Steagall consideration is on the moral level, because the consequences are not as severe as the consequences of not meeting the Ice Age Challenge.

The Ice Age Imperative might possibly be seen as a moral imperative in the context of its power to create a brand new renaissance in our world, when the imperative is responded to, for which the capability already exists. However, a further argument can be made here, that creating a renaissance, for whatever imperative, takes us beyond the moral level into the spiritual domain when the human being comes to light as a discoverer, creator, and producer, with such power as to even snub the Ice Age at the height of its season. This supreme imperative in which humanity begins to wear its crown, should be real driver behind the Ice Age Challenge.

This now is the challenge that stands before us, the greatest challenge we will ever face, to build the grandest renaissance ever, which the Ice Age Challenge has the potential to bring to the foreground, by which all the lesser merely moral challenges, will be met along the way.

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