

# HAARP'S THREAT TO THE "VOICE OF THE PLANET"

*The subtle  
electromagnetic  
interactions  
between the Earth's  
biosystems and the  
ionosphere are  
under threat from  
HAARP, a weapon  
of mass destruction  
that's part of the US  
military's 'Joint  
Vision 2020' plan.*

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[www.nwbotanicals.org](http://www.nwbotanicals.org) and  
[www.geocities.com/ionam](http://www.geocities.com/ionam)

## Introduction: SR Frequencies and Biocommunication

**S**chumann's resonance (SR) may be the substrate for a radar-type extrasensory perception (ESP) mechanism common to all living beings. Non-specific frequencies can be absorbed and re-radiated in unique interference patterns by all objects encountered. These "sounding waves" can be frequency and pattern modulated by conscious intent in order to yield specific information (interference patterns).

Decoded by the brain, they return almost instantly on the "back" of the Schumann's resonance and are then translated by the brain into conscious data. Also, bioinformation can be remotely imprinted intentionally on a target through a primitive, radar-type sensory interface with an SR carrier wave. All these and more mechanisms depend on the SR frequencies staying within their median range.

Electrical engineer Ben Lonetree, based in Sedona, Arizona, USA, conducts extensive monitoring of the Earth's SR frequencies, which he calls the "Voice of the Planet", and its electromagnetic fields. His site (<http://sidereal7.org>) provides atmospheric and geophysical real-time readings with high reliability. Lonetree also has a strong background in MRI scanning technology and brain-wave training. His speciality is low-amplitude ELF and UHF readings.

## RHYTHM AND CHAOS IN THE IONOSPHERE

The rhythm of life has evolved at an even tempo for epochs. We live in a complex matrix of oscillating fields; the tiniest fluctuations in one interlocked field carry over perturbations into others. Many times per second, pulses travel completely around the world between our planet's surface and the ionosphere, sending coordinating signals to all organisms. These signals couple us to the global electrostatic field. Named for their discoverer, the Schumann's resonance (SR) provides an orchestrating pulse for life on our planet. This standing wave is continually recharged, like the ringing of a bell, by lightning.

We all march to the cadence of this cosmic drummer—our planetary heartbeat, which sets the tempo for health and well-being. Damaging this planetary pacemaker could spell doom for life as we know it. In the name of progress and defence, this pacemaker is now threatened, while vast amounts of public money are spent on this atmospheric exploitation. Even more tax funds are allocated to implement the ill-conceived "Star Wars" missile defence system by the year 2020 and the already-operational energy beam project HAARP (High-frequency Active Auroral Research Program), operating in Gakona, Alaska.

This environmental rhythm—the fundamental driving system for all life on our small blue planet—is jeopardised by human manipulations of the ionosphere, such as HAARP. Some physicists have gone so far as to identify the upper atmosphere as essentially "alive", transmitting a type of consciousness to all living things. It is dangerous to fool with Mother Nature, as the results of ozone depletion and other ecological calamities have shown. Tampering could destroy this system, essentially leaving it—and us—dead. It might be easy to see that such survival risks don't balance alleged benefits, but targeted research on potential problem areas has been virtually non-existent.

*What is clear is that part of the money voted to Bush's Star Wars plan would be used for research into space-based lasers... What the Russians are worried about... are US plans to begin large-scale scientific experiments using the Alaska-based HAARP in 2003. Ninety Russian deputies signed the appeal against the HAARP program, charging that the experiments would create weapons capable of breaking radio communication lines and equipment installed on spaceships and rockets, provoke serious accidents in electricity networks and in oil and gas pipelines and have a negative impact on the mental health of people populating entire regions. (Fitrikis, 2002)*

The ionosphere shields us from deadly radiation from the Sun and deep space. Holes are now being routinely punched in this insulating blanket by high-frequency radio waves, and may accidentally tear open the fragile cocoon of human and planetary evolution. Dire consequences could be as devastating as the failure of an individual's pacemaker. The forces of chaos could be let loose, doing irreversible damage.

The Strategic Defense Initiative (SDI) puts this technology for environmental modification in the hands of the military command—a frightening prospect. Because of national security mandates, we can't be sure just what they are doing with it, and conjecture is running rampant. Hopefully, it can be disclosed before it is too late for all of us.

## PERTURBATIONS AFFECTING EARTH'S CLIMATE

To comprehend just how delicately balanced our fragile planet is, we need to consider the astrophysics converging on our region of space. We have to look into deep time and space. Then it becomes easier to see how the slightest perturbations to our atmosphere can cause dramatic rifts in the course of our geophysical destiny.

Many complex forces are already impacting the Earth, particularly our global weather patterns. Looking at the broadest scale, there is a galactic ice age threat from supernovas, whose cosmic rays create clouds when they hit our atmosphere, cooling it. Also, the solar system is passing through the densest portion of the Milky Way Galaxy, a roughly 30-million-year cycle.

This dense molecular cloud and fluctuating galactic tidal forces of distant matter can destabilise comets in the Oort cloud and send them hurtling toward the planets and Sun. This rain of small comets, called "impact surges", is influential in the pulsing and advancing of ice sheets over millennia and implicated in mass extinctions. It affects the oceanic heat pump (with a rain of fresh water) that acts as a global ocean conveyor.

This salt pump moves warm water into northern climes, like the US eastern seaboard and Europe, keeping them habitable while cooling the tropics. Its collapse would mean that warm, salty Gulf Stream water would no longer move north, thus facilitating another Ice Age.

The motor of evolution is not natural selection, but climate and ice. Ice sheets have pulsed 30 times in the last 2.5 million years since the isthmus of Panama formed, blocking tropical circulation between the Pacific and Atlantic oceans. This diverted warm water north, where it began falling as snow and became built into glaciers. These glaciers ebb and flow depending on the wobble of the Earth.

Dryness created by these glacial cycles forced the African tropical rainforests to die back, creating savannahs, and our progenitors left the forest and modern humans, reliant on intelligence for survival, emerged. Intelligence and versatility became our hallmarks because we had to learn to survive in volatile climates. Only about 1,000 generations have passed since the Ice Age in Europe, when human population was incredibly low due to climatic stress.

All research indicates Earth's climate system has sensitive thresholds, which when crossed will push the system from one stable operating mode into another. Oceanic systems control weather on land, as El Niño has shown. It is also revealed in deep-sea sediments, ice-core sheets and the fossil record. They all show the conveyor has shut down in the past. It has been called the "Achilles heel" of our climatic system. The pump is in

decline, according to researchers, and could signal an abrupt and dramatic shift. A paper in *Nature* in 2002 showed that the deep current is freshening by as much as 20%; this is *not* a good sign. Melting and calving glaciers could hasten the process.

Fossil evidence demonstrates collapse can happen within a decade and persist for centuries. This new paradigm of rapid climate change is now broadly accepted worldwide. Such triggers can create spikes of around 10°C in about a decade, followed by plateaus of about 20 years, then dramatic cooling of around 20°C in around two decades.

In the last 8,000 to 10,000 years, these pulsations have been milder, but solar instability, axis tilt and current declines could precipitate their return. So could human tampering with the weather through energy beam technology and weaponry.

A rise in temperature of only 3–4°C could trigger a rise in sea level of 20 metres within one decade! Further warming and ice-melt creates a cycle where temperatures could spike 8–10°C in 30 years. Then ocean currents would shift and new heat/cold patterns emerge. New shallow seas would decrease land mass; agricultural plains would be flooded, diminishing food-growing areas further. Approximately 30–40% of the land would be lost and mankind would be displaced from inundated valleys on all continents. Trade, commerce and industrial production would be flooded out. In 2003, the US EPA predicted a rise of 3–9°F over the next hundred years. Tropical oceans have warmed 1.8–2.6°F over the past 100 years, and glaciers are melting in many locations worldwide.

Research has also suggested that the Sun itself has been in a heating cycle and may be a significant component in global warming (1°F per year since 1880). Limited results suggested the Sun produced 0.05% more radiation per decade since the late 1970s. The Sun's alleged increasing output means stronger solar winds sweeping across the Earth's upper atmosphere, exciting and ionising it with charged particles.

Roughly half the global warming in the last century can be attributed to the Sun. The hotter it burns, the more cosmic rays it deflects. Sustained over decades, it could lead to dramatic climate fluctuation—as has happened in the historical past with events such as the Little Ice Age between the 13th century and the most frigid 17th century.

The output of the Sun fluctuates in an 11-year cycle, which had two peaks in 2000 and 2002. Solar minimum is about three years away (the solar minimum time period doesn't necessarily equal the solar maximum period). These changes in the solar cycle cause short-term changes on Earth. At solar maximum, an increase in cloud cover by as much as 2% over the USA was reported. When bombarded with maximum solar output, the temperature of the thin upper atmosphere doubles. It swells and puffs up further into space, up to and beyond the orbit of the International Space Station. It can even increase drag on the station, necessitating frequent boosts from space shuttles to maintain momentum.

Recently it has become easier and more accurate to measure solar activity outside of the Earth's atmosphere. We now measure total solar energy at all wavelengths, with the resultant measurement called Total Solar Irradiance (TSI). The jury is out on whether current indications of increases are a long-term trend or a brief aberration.

In a recent study, data was analysed from six satellites orbiting Earth at different times over the 24 years. Richard Willson, a researcher from Columbia University who is affiliated with the National Academy of Sciences and the Goddard Institute for

Space Studies, ferreted out errors in one of the datasets that had prevented previous studies from discovering the trend.

*The new study shows that the TSI has increased by about 0.1 percent over 24 years. That is not enough to cause notable climate change, Willson and his colleagues say, unless the rate of change was maintained for a century or more. On time scales as short as several days, the TSI can vary by 0.2 percent due to the number and size of sunspots crossing the face of the Sun. (Britt, 2003)*

However, that shift, said to be insignificant to weather, is equal to the total amount of energy used by humans globally for a year, the researchers estimate.

## INTERFERING WITH THE IONOSPHERE

Further perturbing, much less tearing holes in a super-heated ionosphere, can create catastrophic weather changes. These can potentially be triggered by the military under the Strategic Defense Initiative (SDI) to destabilise whole areas with climatic manipulation without the risks of conventional warfare. Deploying this weaponry for economic and strategic purposes could collapse ecological systems and disrupt agricultural production dramatically. The Department of Defense has, of course, already implemented the development of intelligence and weather monitoring systems related to this program.

Latest speculation has also tried to link appearance of mysterious "chemtrails" to the deployment of HAARP technology. Some think that the reflective qualities of these clouds influence atmospheric heating and weather patterns. Reported analyses of the "angel-hair" taken from the atmosphere after a day of spraying claim the presence of a variety of toxins. Viral bacteria, toxic moulds, carbon black and EDBM (ethylene di-bromide) have been identified. Speculation about these sprayed grids includes increasing reflectivity in certain layers of the atmosphere. These sprayings are also responsible for a massive decrease in the production of negative ions by the forests. This is eventually deadly for all biological life.

Further, explanation of the serious and widespread drought conditions are directly related to the fact that the highly toxic and moisture-absorbing (up to seven times its own weight) barium salt has also been detected in high quantities in the atmosphere right after a spraying event. These sprayings may therefore be linked to HAARP and its "weather engineering" capabilities.

ARCO Petroleum owns the patents on this Tesla technology. It appears that ARCO was directly funding HAARP, as reported a number of years ago. Many research groups have shown that we are being constantly showered with ELF's (extremely low frequencies) as electronic "smog". ELF's can be deadly to any biological life-form as they alter the normal frequency of that life-form, causing serious illness including irrational thought, inability to concentrate, chronic fatigue and/or death.

Interfering with this delicately balanced dynamic system could induce a catastrophic collapse, much like an avalanche. Therefore, the potentials from so-called "ionospheric heaters" are truly frightening. We have no idea what possibilities can emerge from long-term meddling with the sensitive balance of the ionosphere and global temperature, which is also linked to the worldwide oceanic pumping system whose source lies off Greenland.

As if the weather isn't disrupted enough from other human pollution, tampering with beam energy devices compounds the problem much further. The United Nations is sponsoring continued debates on climate change, greenhouse gases, and "non-lethal

weapons" which can be deployed by at least the Americans and Russians. "Weather war" means triggering atmospheric disturbances with ELF radar waves. Through electronic weaponry, the US wants to "own the weather" and the space platform for military superiority, tailoring natural patterns and dominating global communications.

*Recent scientific evidence suggests that HAARP is fully operational and has the ability of potentially triggering floods, droughts, hurricanes and earthquakes. From a military standpoint, HAARP is a weapon of mass destruction. Potentially, it constitutes an instrument of conquest capable of selectively destabilising agricultural and ecological systems of entire regions. While there is no evidence that this deadly technology has been used, surely the United Nations should be addressing the issue of "environmental warfare" alongside the debate on the climatic impacts of greenhouse gases...*

*...Dr Rosalie Bertell confirms that "US military scientists...are working on weather systems as a potential weapon. The methods include the enhancing of storms and the diverting of vapor rivers in the Earth's atmosphere to produce targeted droughts or floods..."*

*Marc Filterman, a former French military officer, outlines several types of "unconventional weapons" using radio frequencies. He refers to "weather war", indicating that the US and the Soviet Union had already "mastered the know-how needed to unleash sudden climate changes (hurricanes, drought) in the early 1980s". (Chossudovsky, 2000)*

There are smaller systems at Arecibo, Puerto Rico, at Fairbanks, Alaska, in Tromsø, Norway, and in the cities of Moscow, Nizhny Novgorod and Apatity, Russia, as well as in Kharkov, Ukraine, and Dushanbe, Tadjikistan, and possibly in Israel (at an unknown location).

*HAARP has been presented to public opinion as a program of scientific and academic research. US military documents seem to suggest, however, that HAARP's main objective is to "exploit the ionosphere for Department of Defense purposes".*

*Without explicitly referring to the HAARP program, a US Air Force study points to the use of "induced ionospheric modifications" as a means of altering weather patterns as well as disrupting enemy communications and radar. (Chossudovsky, 2000)*

## HAARP & 'JOINT VISION 2020'

International concerns over HAARP and sister projects deploying similar energy beams have continued unabated for over a decade. The most recent developments and proposals are not encouraging. Both the foreign press and Western allies of the US have denounced a "Joint Vision 2020" plan for missile defence and space-based lasers as a highly dangerous move towards world domination.

Earlier this year, US Representative Dennis Kucinich told *Columbus Alive* that Joint Vision 2020 is already an ongoing military program to experiment with directed energy. On November 9, 2002, Carol R. Schuster, Director for Defense Capabilities and Management at the General Accounting Office (GAO), briefed the Democratic minority members of the House Armed Services Committee on Joint Vision 2020. Schuster explained that "Joint Vision 2020 also emphasizes the importance of experimentation to identify innovations in war fighting".

A task force of DoD, US Joint Forces Command, and the Joint Chiefs of Staff continues to investigate and implement means of deploying electronic weaponry capable of destroying any global opposition by 2020. Schuster confirmed Kucinich's comments:

In 1998, the US Joint Forces Command began to implement a joint experimentation program to test new war-fighting concepts that now support Joint Vision 2020.

HAARP is jointly administered by the US Navy and Air Force and is a central part of the Joint Vision 2020 strategy. A February 1990 HAARP Joint Service program plan drafted by the Air Force's Geophysical Laboratory and the Navy's Office of Naval Research documents the plan's military applications. The document indicates that, among other things, HAARP will be used for generating extremely low frequency waves for submerged submarine communication and possible weather warfare applications, and for attempts to take advantage of natural ionospheric processes by directing energy through the ionosphere and back to Earth.

### HAARP MOON-BOUNCING EXPERIMENTS

The Russians and some European allies are worried that the US military's experiments focusing large amounts of high-frequency energy for military purposes could theoretically trigger earthquakes. In April 1992, Defense News reported that the US deployed an electromagnetic pulse weapon during Operation Desert Storm. (Fitakis, 2002)

Researcher Guy Cramer has suggested the HAARP array may be used to bounce deadly signals off the ionosphere and Moon to target sites on Earth with major explosions, virtually eliminating the need for tactical nuclear weapons. The three-billion-watt (3,000,000,000-watt) signal, originating in Alaska, can be carried off the Moon to reach virtually anywhere on the planet, on the surface or underground, with heat radiation. Since it does not leave contamination, it can even terminate targets covertly, being passed off as conventional or Special Forces results.

It may also be used to search out underground installations with penetrating topography or ground-penetrating radar, as well as in its conventional deployment as over-the-horizon radar. To neutralise or penetrate a target, the upper atmosphere is heated to make a reflective lens for the signal. Cramer suspects Moon-bounce experiments have been going on since 1998, using a technique ham radio people have employed since the 1950s.

A similar array proposed for installation in central Australia could target positions unreachable by Alaska's HAARP, with both high and low frequencies.

In late 1998 and early 1999 the ELFRAD Group monitored a daily frequency from .9 to .95 hertz (pulses per second); the wavelength of this frequency was approximately 319,877 km or 198,711 miles. The Moon's distance is fairly close to the wavelength. The signal appears to be a controlled signal transmitted from an unknown source at approximately the same time daily except weekends. The signal is strong enough to generate its third harmonic, which is 2.81235 Hz...

An Ultra Low Frequency signal in late 1998 through early 1999 from an unknown source which occurs only on week days, powerful enough to create a third harmonic wave, with a quick rise/slow decay which tracks better with magnetometers in the North and a wavelength approximately matching the distance to the Moon? The answer seems apparent: HAARP or a similar array in the North is bouncing signals off the Moon, back to the Earth. (Cramer, 2001)

### VOICE OF THE PLANET: SR AND THE MIND/BODY

SR frequencies are related mathematically but are not true harmonics. Perhaps it is more apt to think of SR as the "Voice of the

Planet", rather than its heartbeat—which is around the 10 Hz cycle (Lonetree). There is an harmonic relationship between the Earth and our mind/body. Earth's low frequency isoelectric field, the magnetic field of the Earth and the electrostatic field that emerges from our bodies are closely interwoven. Our internal rhythms interact with external rhythms, affecting our balance, REM patterns, health and mental focus. SR waves probably help regulate our body's internal clock, affecting sleep/dream patterns, arousal patterns and hormonal secretion.

The rhythms and pulsations of the human brain mirror those of the resonant properties of the terrestrial cavity, which functions as a wave guide. This natural frequency pulsation is not a fixed number but an average of global readings, much like EEG is an average of brain-wave readings. SR actually fluctuates like brain-waves, due to geographical location, lightning, solar flares, atmospheric ionisation and daily cycles.

Finnish physicist Matti Pitkanin believes that even interplanetary and interstellar magnetic fields influence conscious life. He has worked out a model correlating psi phenomena with sidereal time, which describes the two-hour interval around 1.30 am (0130 hours) as optimal. He implicates magnetic flux from the galactic core, combined with lowered noise level in the geomagnetic field. As other research is beginning to reveal, he thinks that microwaves and radiowaves play an influential role in biocontrol, homeostasis and remote mental interactions.

Pitkanin suggests that in some ways the mind/body functions

like a quantum biocomputer, directing the binding of molecular lock-and-key mechanisms. He implicates plasmons as the basis of neural circuitry, and topologically quantised dipolar magnetic fields—whose knotting, linking and twisting may entrain with geomagnetic forces—as creating changes in magnetic polarity.

"Kindling" is a term applied in particular to the entrainment of neurons in the brain. These are ignited in coherent global patterns, producing larger waves across a greater surface of the brain. It becomes obvious that in deep

meditation, when waves of alpha and theta rhythms cascade across the entire brain, it is possible for the human being and the planet to come into resonance.

There is a transfer of energy and information, which is *embedded* in a field rather than being a field. Perhaps the planet communicates with us in this primal language of frequencies. This may explain why trancing and healing seem to occur in the primary SR frequency associated with alpha rhythms.

Ample anthropological evidence shows that humans have intuitively synchronised with the planetary resonance throughout human history and back into the mists of time. There is cross-cultural evidence demonstrating a variety of ritualistic practices that enhance this harmonisation with the planetary field.

Perhaps the most obvious "drivers" of these trance states are shamanic drumming and trance dance, arguably employed for over 50,000 years. Pulsing or flickering light is another driver. A further example comes from the Jewish and Islamic faiths, many of whose adherents bob and sway while praying or reading holy books. This trancing phenomenon can be presumed to ingrain texts at a deeper level and create "experiences" to go along with conceptual indoctrination. It may also be linked in some manner to hypnotic gesturing (*mudra*) and speech, and therefore to charismatic or so-called "mana" personalities.

As part of their chronicling of personality formation, Mead and Bateson reported a technique transmitted to Balinese children that this culture intuitively employed to harmonise their communities.

Anyone can do the same thing and may already be doing it unconsciously. If you sit in a chair and move your foot so that it's resting on the ball of the foot and you get it at the right angle, your whole leg will start to vibrate or oscillate. When that oscillation is close to the SR frequencies, it facilitates trance.

Teachers and parents become annoyed with excitable children, constantly telling them, "Sit still!" But, constantly bouncing their legs and moving their arms may be a natural way to energise our bodies. And this may even be the heart and soul of many ceremonial experiences, such as healing. The body begins to move and hands begin to flutter, and, where there is less constraint or inhibition, the whole body can be set in resonant motion reflecting that healing intention. For example, in the Kalahari Bushmen's healing dance, shamans infused with life energy become aroused, hot and begin shaking. When they grab another person and hug them, that person also begins shaking and may turn and grab someone else. One by one, everyone begins literally to vibrate with this pulsing energy. However (like Chinese medicine), by the time it gets to our culture or other contemporary cultures, this phenomenon becomes very constrained and expresses through more subtle practices, such as "therapeutic entrainment" (the empathic rapport of physician or healer and client).

Anyone can intentionally induce this healing/energising frequency, and there is no single "correct" way. It is a very natural capacity our bodies are intuitively capable of effecting: vibrating with the pulse of life itself. The purpose of this movement is to get outside the limitations and constraints of isolated individual mind and connect with something greater.

It has any number of names, but this "greater Mind" links us to one another and to Nature, embodying the metaphysical axiom, "As Above, So Below". This dynamic interconnectedness links mind/body, galaxy/atom and sensation/stimulus in a mind-over-matter loop, where subject and object become one, where galactic and human consciousness are effectively joined.

C. M. Anderson, MD (1998) of Harvard describes a commonly experienced yet little understood phenomenon which he calls the "Persistent Oscillatory Sound" (POS). Many people notice this internally generated "sound", particularly when ill or dehydrated, as it seems to become "louder". It sounds like an insect hum. Anderson links it not just to the REM (rapid eye movement) or dream state and post-traumatic stress disorder (PTSD), but to the normal alpha 10 Hz rhythmicity.

*Anderson speaks of the disturbing effect of lights and sounds, which might result from loss of normal global habituation due to RF [reticular formation] destabilization, resulting in fear and/or rage. Again, trauma and drug abuse history is strongly associated with asymmetric hemispheric function. Temporal lobe structures such as the hippocampus and amygdala are particularly sensitive to the effects of child abuse and trauma.*

*Anderson conjectures the oscillatory sound could indicate rapid shifting or cycling of attentional resources between the left and right hemispheres, downshifting the normally constant 10 Hz rhythmicity of the olivocerebellar system. This oscillatory auditory effect may function as an auditory driver. The downshift effect may indicate possible flooding of the left hemisphere by material from the uninhibited right which takes over primary conscious focus. This sets the stage, along with phasic fluctuations of the S-Net [the network of serotonergic neuron cell body groups] and uninhibited PGO [pons-geniculate-occipital], for the sudden onset of the SOC state [self-organized critical state] and the waking dream period.*

*Anderson alludes to "waking dreams as a healing journey through the fractal hyperspace of emotionally indexed childhood memories..."*

*"The recall of traumatic childhood experiences in adults, due to the immaturity of limbic structures at the time of trauma, may require electrical stimulation or intensive PGO-like activity present during the oneiric [dream] state. Habitual disruption of normal sleep processes by stress associated with combat, bereavement, divorce, child abuse, neglect or chronic drug abuse interferes with the natural restorative function of phasic REM processes." (I. Miller and G. Swinney, 2001)*

## EM FIELDS, CONSCIOUSNESS AND DNA

Further research on these electromagnetic relationships is essential, perhaps even to our psychophysical survival as a species. They affect our minds, the cellular and genetic structure of our body, our sleep and dream cycles, our emotions, perhaps even our spirit. Monitoring and collating these effects of atmospheric tampering and their potential influence on the ionosphere and SR—and therefore human brain-waves and health—should be continued. We are approaching the end of the current sunspot cycle, and should use an entire 11-year cycle to acquire accurate data results, as Hainsworth suggested (Miller and Miller, 2002–2003).

Various researchers and physicists are pulling together some relevant data under the auspices of the *Journal of Non-Local and Remote Mental Interactions (JNLRI-MI)* (<http://www.emergentmind.org>), edited by physicist Lian Sidorov. A major hypothesis of this group is that EM fields outside the body are crucial for our consciousness. Matti Pitkanen has developed a physics model, called Topological Geometro-dynamics (TGD), highlighting the close relationship of human physiology with SR and other ELF and electromagnetic patterns.

Pitkanen believes that not only global, but also interplanetary and interstellar magnetic fields are of great importance for conscious life.

His explanations involve magnetic flux tubes, a dipole-like part of a field. A wide range of EM waves, in particular microwaves and radiowaves, are likely key elements in homeostasis, remote mental interactions between cells and other structures, and sensory representation, as well as in remote mental interactions both within and outside the body. He explains that the noise level of Earth's magnetic field must be low for anomalous cognition (also called "psi" and ESP) to occur. Alan Frey suggested similar field notions decades ago, speaking specifically of microwave-range inputs.

These EM fields are only correlates of consciousness. Still, TGD allows the possibility of assigning to someone's field body a topological field quanta identity. Pitkanen also suggests these fields and waves are influential when biological systems perform quantum computation-like processes. His biophysics suggests that neural circuits and molecules are bound by lock-and-key mechanisms through this process of magnetic circulation (topologically quantised dipolar magnetic fields).

Pitkanen even sees Earth's magnetic field as a quantised dipolar magnetic field interaction of knotting, linking and complex twisting. TGD views the brain and nervous system as a sensory organ for our extended electromagnetic self, which has a length scale at least the size of the Earth's diameter. He suggests further that PSI phenomena and distant healing may involve transfer of specific electromagnetic frequencies through Planck-length wormholes and join-along boundaries postulated by TGD, which would allow

for the near-instant transfer of information.

*[T]he magnetic sensory canvas (MSC) hypothesis provides a mechanism for "sharing qualia" associated with distant points on the geomagnetic sphere—essentially a form of cognitive entanglement between operator and target... [O]ne clear advantage of TGD over other models of subtle energy transmission is that the EM fields are not directly carried from sender to target, but are simultaneously generated at the two locations by a vacuum (geometrical) current: hence they remain coherent while bypassing the paradox of non-attenuation with distance...*

*[T]he illusion of our locality is perpetuated by the data fed to us by our senses—that is, those perceptions we are habituated to pay attention to. (Sidorov, 2002)*

Other research suggests the fundamental interaction of internal and external fields is the right track. Joseph Jacobson (2002), at MIT, found a way to switch cells off and on with radiowaves. His team also "unzipped" and manipulated DNA with a radio-frequency pulse. The same approach worked on proteins as well, and proteins orchestrate nearly all cellular chemical processes.

Further, physicist Peter Gariaev has proposed a wave-based genome, whose main information channel is the same for both biophotons and radiowaves (see <http://www.emergentmind.org>).

In 1973, Miller and Webb described DNA as a holographic projector (see "Embryonic Holography", 2002). In other words, genes encode and express themselves via light and radio waves, or acoustical holography (see Miller, Miller and Webb, "Quantum Bioholography", 2002). Delocalised interference patterns create calibration fields (blueprints) for our body's space-time organisation. The system works as a biocomputer—a wave biocomputer. DNA can also function as a gel-like liquid crystal, emitting a weak laser-like light that can be converted into an electro-acoustic signal.

## BIOSYSTEMS, SCHUMANN'S RESONANCE AND ESP

In conclusion, Miller and Miller postulate, along with others, that:

1. Complex electrodynamic fields establish the organisation of all biological systems. We are fundamentally electromagnetic, rather than chemical beings. Wave interaction is a key determinant of biological structure and optimal functioning. Biosystems are sensitive to natural and artificial electromagnetic fields. Perturbations in environmental fields can induce changes in organisms informed by those fields. Field frequencies and amplitudes affect our biodynamic state.

2. ELF frequencies of Schumann's resonance are intimately linked with those of human brain-waves. Natural or artificially induced changes in SR could affect subtle and perhaps gross brain-wave generation. In particular, it could lead to changes in patterns and frequencies of resonance and resulting phenomena such as homeostasis, REM, psi and healing.

*Robert Beck...for a decade researched the brain-wave activity of healers from all cultures and religious backgrounds (he enumerates psychics, shamans, dowzers, Christian healers, seers, ESP readers, kahuna, Santeria, wicca practitioners and others), and who, independent of their belief systems, exhibited "nearly identical EEG signatures" during their "healing" moments: a 7.8–8 Hz brain-wave activity, which lasted from one to several seconds and which was "phase and frequency synchronized with the Earth's geoelectric micropulsations—the Schumann resonance". (Sidorov, 2001)*

Liquid crystals (DNA, brain ventricles and cellular structures)

in the human body may operate as antennae for detecting and decoding such global and local ELF signals. Beal (1996) proposes that liquid crystals (which are an intrinsic part of cell membranes) act as a detector/amplifier/memory storage device for ELF EM patterns in the environment. Proteins tend to orient themselves in the 10-Hz resonant EMF, and so would be extremely sensitive to ELF changes in the 10-Hz region. A coherent wave-field may emerge from the body's own liquid crystal (LC) matrix.

*The very structure and organization of living tissues is, however, itself regulated by that master molecule, the DNA. The genetic system (consisting, to be more accurate, of an equidirectional translation function which may start equally well with DNA, RNA or protein) reveals itself as a complex, multidimensional code with both local (codon) and global (context) material (nucleotide) and field-like (EM hologram) parameters, all of which are mutually interdependent and at the same time subject to external, environmental influences. (Sidorov, 2002)*

3. There is a strong correlation between behavioural disturbances in humans and periods of solar and geomagnetic field turbulence. Conversely, studies show that subjects living in isolation from geomagnetic rhythms over long periods of time developed increasing irregularities and chaotic physiological rhythms—which were dramatically restored after the introduction of a very weak 10-Hz electrical field. Early astronauts suffered until SR generators were installed in their spacecrafts.

4. Geomagnetic anomalies (tectonic strain, earthlights, geomagnetic field perturbations) can induce some forms of anomalous cognition, such as auditory and visual hallucinations, and TLTs (temporal lobe transients, or small seizures). Also, one of the effects of meditation is to "quieten the mind" as a method of allowing the "free-run" (or silent thalamic periods) to become entrained by natural geophysical rhythms. This form of tuning or "magnetoreception" is mediated by the pineal gland (30% of its cells are magnetically sensitive) and organic magnetite-containing tissues.

*Persinger (1989) points out that deep temporal lobe activity exists in equilibrium with the global geomagnetic condition. When there is a sudden decrease in geomagnetic activity, there appears to be an enhancement of processes that facilitate psi reception, especially telepathy and clairvoyance. Increases in geomagnetic activity may suppress pineal melatonin levels and contribute to reductions of cortical seizure thresholds. Indeed, melatonin is correlated with temporal lobe-related disorders such as depression and seizures. (Krippner, 1996)*

5. Optimal global ELF (calm night, low sunspot activity, low EM pollution) conditions can facilitate anomalous cognitions, including psi such as ESP, remote viewing and remote healing.

*[P]si is always present in space and time, waiting to be accessed by crisis, emotion, or by optimal laboratory stimulus parameters. Geomagnetic activity may affect the detection capacity of the brain for this information, especially the neural pathways that facilitate the consolidation and conscious access to this information. Without this geomagnetic activity, awareness of the psi stimulus might not be as likely and the brain's "latent reserve capacities" would not be utilized. (Krippner, 1996)*

6. Sidorov (2001) and others have suggested that human intent functions as a variable window of transmission/reception in the exchange of extrasensory information, possibly within the range of ELF electromagnetic frequencies. Brain synchronisation with Schumann's resonance of both sender and receiver facilitates psi, or "therapeutic entrainment", amplifying, re-radiating coherent

wave-forms derived from the environment, simulating the wave pattern of the environment. Sidorov further hypothesises:

*[B]rain waves (particularly in the alpha range) can be transmitted along the perineural system (or via Frohlich excitation) to any distal parts of the body, and even to adjacent organisms, via ELF EM waves. These frequencies can be amplified by closely related Schumann resonance waves, or by feedback mechanisms typical of the body's physiological pathways (akin to immunologic and neuroendocrinologic cascades). In turn, these basic frequencies can re-activate stalled healing processes, enhance growth, accelerate immune responses, and generally "jump-start" functions inherent to the body's tissues, by "rebalancing its energies" (according to Oriental medicine) or (in Beal's terminology) by re-configuring the liquid crystal orientation of cell membrane components and thus triggering specific intracellular responses. (Sidorov, 2001)*

We are proposing, along with Pitkanin and Sidorov, that the Schumann's resonance may be the substrate for a radar-type extrasensory perception mechanism common to all living beings. Like water bouncing off rocks and other submerged objects, this non-specific frequency is absorbed and re-radiated in unique interference patterns by all objects it encounters.

This interference pattern is a composite of external and internal properties, as the constituent atoms, molecules and their global assembly all re-transmit this energy according to their specific configurations. Not only that, but the "sounding waves" can be frequency and pattern modulated by conscious intent in order to yield specific information (interference patterns). Decoded by the brain, they return almost instantly on the "back" of the Schumann's resonance. Once recaptured, the brain then decodes the patterns. In this Fourier-type transformation, the information is translated into conscious data, much like other sensory processing. Conversely, specific effects may be imprinted as bioinformation and made to exercise a "mysterious action at a distance", once the signal wave reaches the target. That pattern in turn may, under the right ("pre-requisite") global conditions, avoid routine dissipation and instead become coupled to the dominating ("state-of-consciousness") standing wave that is picked up and carried by the Schumann's resonance.

Mental intent may function as a variable window of transmission/ reception in the exchange of extrasensory information. Tuned into the Schumann's resonance, it may carry such bio-regulating information to distant targets and act as a primitive, radar-type sensory interface. All these and more mechanisms depend on the SR frequencies staying within their median range, harmonising with our brain waves.

*After nearly eight decades of EEG and other brain imaging studies, it is sobering to realize that we still can't tell with certainty where EEG voltages come from (Becker, 1985, p. 88)...*

*It is conceivable that Becker's perineural system and/or the LC matrix of the organism (including, but not limited to, connective tissues, cell membranes and DNA) might act as a full-body array of sensory receptors for Pitkanen's magnetic sensory canvas signals, with specific excitation patterns coding for different types of information...*

*[T]he body's ubiquitous liquid crystal arrays and their almost infinite configuration possibilities make them a top candidate for the primary sensory receptors parapsychology has been looking for. It is even conceivable that DNA phase-conjugation properties (Popp and Chang, 1998) allow it to function as a multi-mode antenna, altering its function according to surrounding signal*

*fields and possibly acting not just as a regulatory program, but also an element of "extrasensory" perception. (Sidorov, 2002)*

## **HAARP: A THREAT TO HUMANITY AND THE PLANET**

As human beings we have extraordinary potentials that we have hardly begun to study, much less understand. Creative gifts, intuitions and talents that are unpredictable or emergent may become stabilised in generations to come. Hopefully we can learn to understand our emergence from an essentially electromagnetic environment and facilitate our potential for healing, growth and non-local communication.

A tremendous amount of money has been spent on HAARP and its allied projects (such as the proposed "Star Wars" missile defence program), without a complementary sum going towards research about potential hazards. The costs in both dollars and ruined lives could be staggering compared to any potential benefits derived from such programs. For epochs, Schumann's resonances have provided the orchestrating pulse for life on the planet—our planetary heartbeat, which sets the tempo for health and well-being.

But now, the very heart of the planet is in jeopardy, according to the Framework Convention on Climate Change (UNFCCC), signed at the 1992 Earth Summit in Rio de Janeiro. The UN has banned the hostile use of techniques that modify the environment or interfere with the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space.

Why, then, did the UN, disregarding the 1977 ENMOD Convention as well as its own charter, decide to exclude from its agenda climatic changes resulting from military programs? In February 1998, the European Parliament's Committee on Foreign Affairs, Security and Defense Policy, held public hearings in Brussels on HAARP. The Committee's "Motion for Resolution" submitted to the European Parliament (document no. A4-0005/99, 14 January 1999):

*Considers HAARP..by virtue of its far-reaching impact on the environment to be a global concern and calls for its legal, ecological and ethical implications to be examined by an international independent body...; [the Committee] regrets the repeated refusal of the United States Administration...to give evidence to the public hearing...into the environmental and public risks [of] the HAARP program.*

However, the Committee's request to draw up a "Green Paper" on "the environmental impacts of military activities" was casually dismissed on the grounds that the European Commission lacks the required jurisdiction to delve into "the links between environment and defence". Brussels was anxious to avoid a showdown with Washington.

*While there is no concrete evidence of HAARP having been used, scientific findings suggest that it is at present fully operational. What this means is that HAARP could potentially be applied by the US military to selectively modify the climate of an "unfriendly nation" or "rogue state" with a view to destabilizing its national economy...*

*Amply documented, IMF and World Bank "economic medicine" imposed on the Third World and the countries of the former Soviet bloc has largely contributed to the destabilization of domestic agriculture. In turn, the provisions of the World Trade Organization (WTO) have supported the interests of a handful of Western agri-biotech conglomerates in their quest to impose genetically modified (GM) seeds on farmers throughout the world.*

*It is important to understand the linkage between the economic, strategic and military processes of the New World Order. In the above context, climatic manipulations under the HAARP program (whether accidental or deliberate) would inevitably exacerbate these changes by weakening national economies, destroying infrastructure and potentially triggering the bankruptcy of farmers over vast areas...* (Chossudovsky, 2000)

Hopefully we will come to appreciate this fully before our technology drives the planet so far from the norm that the trajectory of human evolution is altered forever. Thus, it is more important than ever to study on the subtlest levels the relationship of our bodies with the electromagnetic environment and their interaction with potentially planet-altering technology. It seems that mankind now has the daunting task of determining whether the ionosphere and the Schumann's resonances will remain alive or be destroyed—whether the "Voice of the Planet" will continue to sing out or not. ∞

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