SYNTHETIC TELEPATHY AND THE EARLY MIND WARS

By Richard Alan Miller copyright 2001
[Presented at the Consciousness Technologies Conferenc-July 19-21, 2001, on Saturday, July 20th, 2001, in Sisters, OR]

updated 03/04/2003



I first became aware of <u>Allan H. Frey's work</u> at Willow Grove in 1972, just after completing <u>"The Holographic Concept of Reality."</u> I was working with Dr. Carl Scheicher (MRU) at the time, and was asked about the significance of this work. Realizing its possible use in mind control, my first reaction was to go on "red alert."

Full significance was not yet understood at this time. Basically, Frey had discovered another sensory motor input in the higher blue-band frequencies of 0.3-3.0 GHz. - at very low amplitudes of power. It was "as if" we had another type of "vision," but did not know how to "see" what was being received. It constituted the next generation of subliminal communications.

My work at the time was involved with an AI database for paranormal references (Project Parafile). A second paper was also presented at the Omniversal Symposium, California State College at Sonoma, (September 29, 1973). This was titled <u>"Embryonic Holography,"</u> and was an application of <u>"The Holographic Concept of Reality"</u> model. It dealt with biogenesis and neurological regeneration, and included speculation on the origins of cancer, faith healing, psychic surgery and more technical aspects of mind-body energetics.

One week after the delivery of that paper, four men came into my place of business, two in suits and two in full Army dress. The two suits held me under close arrest, while the two Army personnel went through my files, pulling anything related to <u>"Embryonic Holography."</u> The paper was rewritten from old notes and memory, but it was not the same.

What got this paper classified "**top secret**" for almost 20 years was that it was critical for the use of Allan Frey's study, and its possible application to mind control. I never was able to draw what was so important in that initial paper until I began researching this paper, more than 24 years later. I will discuss those aspects further into this document.

In 1961, Allan Frey, a freelance biophysicist and engineering psychologist, reported that humans could hear microwaves. Most United States scientists dismissed this discovery as the result of outside noise.

James C. Linn offered a more technical description of the experiment.

"Frey found that human subjects exposed to 1310 MHz and 2982 MHz microwaves at average power densities of 0.4 to 2 mW/cm2 perceived auditory sensations described as buzzing or knocking sounds. The sensation occurred instantaneously at average incident power densities well below that necessary for known biological damage and appeared to originate from within or near the back of the head."



Pulsed microwave voice-to-skull (or other-sound-to-skull) transmission was discovered during World War II by radar technicians who found they could hear the buzz of the train of pulses being transmitted by radar equipment they were working on. This phenomenon has been studied extensively by Dr. Allan Frey, (Willow Grove, 1965) whose work has been published in a number of reference books.

What Dr. Frey found was that single pulses of microwave could be heard by some people as "pops" or "clicks", while a train of uniform pulses could be heard as a buzz, without benefit of any type of receiver.

Dr. Frey also found that a wide range of frequencies, as low as 125 MHz (well below microwave) worked for some combination of pulse power and pulse width. Detailed unclassified studies mapped out those frequencies and pulse characteristics which are optimum for generation of "microwave hearing".

Very significantly, when discussing electronic mind control, is the fact that the peak pulse power required is modest - something like 0.3 watts per square centimeter of skull surface, and that this power level is only applied or needed for a very small percentage of each pulse's cycle time. 0.3-watts/sq cm is about what you get under a 250-watt heat lamp at a distance of one meter. It is not a lot of power.

When you take into account that the pulse train is off (no signal) for most of each cycle, the average power is so low as to be nearly undetectable. This is the concept of "spike" waves used in radar and other military forms of communication.

Frequencies that act as voice-to-skull carriers are not single frequencies, as, for example TV or cell phone channels. Each sensitive frequency is actually a range or "band" of frequencies. A technology used to reduce both interference and detection is called "spread spectrum". Spread spectrum signals usually have the carrier frequency "hop" around within a specified band.

Unless a receiver "knows" this hop schedule in advance, like other forms of encryption there is virtually no chance of receiving or detecting a coherent readable signal. Spectrum analyzers, used for detection, are receivers with a screen. A spread spectrum signal received on a spectrum analyzer appears as just more "static" or noise.

The actual method of the first successful unclassified voice to skull experiment was in 1974, by Dr. Joseph C. Sharp and Mark Grove, then at the Walter Reed Army Institute of Research. A Frey-type audible pulse was transmitted every time the voice waveform passed down through the zero axes, a technique easily duplicated by ham radio operators who build their own equipment.

The sensation is reported as a buzzing, clicking, or hissing which seems to originate within or just behind the head. The phenomenon occurs with carrier densities as low as microwatts per square centimeter with carrier frequencies from 0.3-3.0 GHz. By proper choice of pulse characteristics, intelligent speech may be created.

Dr. James Lin of Wayne State University has written a book entitled: Microwave Auditory Effects and Applications. It explores the possible mechanisms for the phenomenon, and discusses possibilities for the deaf, as persons with certain types of hearing loss can still hear pulsed microwaves (as tones or clicks and buzzes, if words aren't modulated on). Lin mentions the Sharp and Grove experiment and comments: "The capability of communicating directly with humans by pulsed microwaves is obviously not limited to the field of therapeutic medicine."



In 1975, researcher A. W. Guy stated that "one of the most widely observed and accepted biologic effects of low average power electromagnetic energy is the auditory sensation evoked in man when exposed to pulsed microwaves."

He concluded that at frequencies where the auditory effect can be easily detected, microwaves penetrate deep into the tissues of the head, causing rapid thermal expansion (at the microscopic level only) that produces strains in the brain tissue.

An acoustic stress wave is then conducted through the skull to the cochlea, and from there, it proceeds in the same manner as in conventional hearing. It is obvious that receiver-less radio has not been adequately publicized or explained because of national security concerns.

Today, the ability to remotely transmit microwave voices inside a target's head is known inside the Pentagon as "**Synthetic Telepathy.**" According to Dr. Robert Becker, "Synthetic Telepathy has applications in covert operations designed to drive a target crazy with voices or deliver undetected instructions to a programmed assassin."

This technology may have contributed to the deaths of 25 defense scientists variously employed by Marconi Underwater and Defense Systems, Easems and GEC. Most of the scientists worked on highly sensitive electronic warfare programs for NATO, including the Strategic Defense Initiative. It is claimed that directed energy weapons might have been used to literally drive these men to suicide and 291accidents.



Biological Amplification

Using Microwave Band Frequencies previous / (top)

The next major development in ELF weaponry was the concept of a biological amplification of these signals at the cell level to perpetuate and set up resonance for more sophisticated information transfer. This was the beginning of using more than one technology in a stack to do something "more." While this was implied, it was never developed in "*The Holographic Concept of Reality.*"

Electromagnetic fields or relatively weak power levels can affect intercellular communication. Bio-amplification is apparently why radio signals of very low average power (mw) can produce audio effects, and is difficult to detect. [Electromagnetic Interaction with Biological Systems, ed. Dr. James C. Lin, Univ. of Illinois, 1989, Plenum Press, NY]

Imposed weak low frequency fields (and radio frequency fields) that are many orders of magnitude weaker in the pericellular fluid (fluid between adjacent cells) than the membrane potential gradient (voltage across the membrane) can modulate the action of hormones, antibody neurotransmitters and cancerpromoting molecules at their cell surface receptor sites.

These ELF sensitivities appear to involve nonequilibrium and highly cooperative processes that mediate a major amplification of initial weak triggers associated with the binding of these molecules (specific cell surface receptor sites). Membrane amplification is inherent in this trans-membrane signaling sequence.

Initial stimuli associated with weak perpendicular EM fields and with binding of stimulating molecules at their membrane receptor sites elicit a highly cooperative modification of Ca++ binding to glycoproteins along the membrane.

A longitudinal spread is consistent with the direction of extracellular current flow associated with physiological activity and imposed EM fields. This cooperative modification of surface Ca++ binding is an amplifying stage. By imposing RF fields, there is a far greater increase in Ca++ efflux than is accounted for in the events of receptor-ligand binding. from imposing RF fields.

Enzymes are protein molecules that function as catalysts, initiating and enhancing chemical reactions that would not otherwise occur at tissue temperatures. This ability resides in the pattern of electrical charges on the molecular surface.

Activation of these enzymes and the reactions in which they participate involve energies millions of times greater than in the cell surface, triggering events initiated by the EM fields, emphasizing the membrane amplification inherent in this trans-membrane signaling sequence.

Frey and Messenger confirmed that a microwave pulse with a slow rise time was ineffectual in producing an auditory response. Only if the rise time is short, resulting in effect in a square wave with respect to the leading edge of the envelope of radiated radio-frequency energy, does the auditory response occur. This is why we don't "hear" ordinary radio and TV signals.

The significance of "*Embryonic Holography*" now becomes more understandable. For example, the specific frequency bands (0.3-3.0 Hz) are so flat as to appear almost 2-dimensional to most biological processes on a semi-quantum mechanical level. This means that these frequencies can be seen as "scalar" in their possible interaction with specific brain processes.

What these frequencies really are, however, are actual holograms of specific thoughts. They have a third component of detail (much like the patented P300 wave). This means that a hybrid form of brain fingerprinting is now possible. And, once these "images" are stored (usually in a very sophisticated super-cooled computer), similar responses can be fed back to the person, inducing virtually any state desired (via entrainment protocols).



Silent (converted-to-voice FM) hypnosis can be transmitted using a voice frequency modulator to generate the "voice." It is a steady tone, near the high end of hearing range (15,000 Hz), plus a hypnotist's voice, varying from 300 - 4,000 Hz. These two signals are frequency modulated. The output now appears as a steady tone, like tinnitus, but with hypnosis embedded. The FM-voice controls the timing of the transmitter's pulse.

Each vertical line is one short pulse of microwave signal at a frequency to which the human brain is sensitive. Timing of each microwave pulse is controlled by each down-slope crossing of the voice wave (Sharp's method, 1974). Then the brain converts the train of microwave pulses back to inaudible voice. There is **no conscious defense** possible against this form of hypnosis.

Ordinary radio and TV signals use a smooth waveform called a 'sine' wave. This wave signal cannot normally penetrate the voltage gradient across the nerve cell walls. Radar signals consist of very short and powerful pulses of sine wave type signals, and can penetrate the steep voltage gradient across these nerve cell walls (Allan H. Frey, Cornell University, 1962).

Differences in osmosis of ions (dissolved salt components) cause a small voltage difference across cell walls. When a small voltage appears across a very tiny distance, the change in voltage is called very 'steep.' It is this steep gradient that keeps normal radio signals from throwing us into convulsions.

The mind-altering mechanism is based on a subliminal carrier technology: the Silent Sound Spread Spectrum (SSSS), sometimes called "S-quad" or "Squad". It was developed by Dr Oliver Lowery of Norcross, Georgia, and is described in US Patent #5,159,703, "Silent Subliminal Presentation System", dated October 27, 1992. The abstract for the patent reads:

"A silent communications system in which nonaural carriers, in the very low or very high audio-frequency range or in the adjacent ultrasonic frequency spectrum are amplitude- or frequency-modulated with the desired intelligence and propagated acoustically or vibrationally, for inducement into the brain, typically through the use of loudspeakers, earphones, or piezoelectric transducers. The modulated carriers may be transmitted directly in real time or may be conveniently recorded and stored on mechanical, magnetic, or optical media for delayed or repeated transmission to the listener."

According to literature by Silent Sounds, Inc., it is now possible, using supercomputers, to analyze human emotional EEG patterns and replicate them, then store these "emotion signature clusters" on another computer and, at will, "silently induce and change the emotional state in a human being".

Edward Tilton, President of Silent Sounds, Inc., says this about S-quad in a letter dated December 13, 1996:

"All schematics, however, have been classified by the US Government and we are not allowed to reveal the exact details... ... we make tapes and CDs for the German Government, even the former Soviet Union countries! All with the permission of the US State Department, of course... The system was used throughout Operation Desert Storm (Iraq) quite successfully."

"Induced Alpha to Theta Biofeedback Cluster Movement" is an output from "the world's most versatile and most sensitive electroencephalograph (EEG) machine". This device has a gain capability of 200,000, as compared to most other EEG machines (with gain capability of 50,000). It is software-driven by the "fastest of computers" using a noise nulling technology similar to that used by nuclear submarines for detecting small objects underwater at extreme range.

The purpose of all this high technology is to plot and display a moving cluster of periodic brainwave signals. The illustration shows an EEG display from a single individual, taken of left and right hemispheres simultaneously. This technology is very similar to that used to generate P300 waves.



By using these computer-enhanced EEGs, scientists can identify and isolate the brain's low-amplitude "emotion signature clusters," synthesize them and store them on another computer. In other words, by studying the subtle characteristic brainwave patterns that occur when a subject experiences a particular emotion, scientists have been able to identify the concomitant brainwave pattern and can now duplicate it.

"These clusters are then placed on the Silent Sound[TM] carrier frequencies and will silently trigger the occurrence of the same basic emotion in another human being!"

Regarding system delivery and applications, there is a lot more involved here than a simple subliminal sound system. There are numerous patented technologies that can be piggybacked individually or collectively onto a carrier frequency to elicit all kinds of effects.

There appear to be two methods of delivery with the system. One is direct microwave induction into the brain of the subject, limited to short-range operations. The other, as described above, utilizes ordinary radio and television carrier frequencies.

Far from necessarily being used as a weapon against a person, the system does have limitless positive applications. However, the fact that the sounds are subliminal makes them virtually undetectable and possibly dangerous to the general public.

In more conventional use, the Silent Sounds Subliminal System might utilize voice commands, e.g., as an adjunct to security systems. Beneath the musical broadcast that you hear in stores and shopping malls may be a hidden message

that exhorts against shoplifting. And while voice commands alone are powerful, when the subliminal presentation system carries cloned emotional signatures, the result is overwhelming.

Free-market uses for this technology are the common self-help tapes, positive affirmation, relaxation and meditation tapes, as well as methods to increase learning capabilities. But there is strong evidence that this technology is being developed toward global mind control.

The secrecy involved in the development of the electromagnetic mind-altering technology reflects the tremendous power that is inherent in it. **To put it bluntly, whoever controls this technology can control the minds of men - all men.**

There is evidence that the U.S. Government has plans to extend the range of this technology to envelop all peoples, all countries. This can be accomplished, and is being accomplished, by utilizing the nearly completed HAARP project for overseas areas and the GWEN network now in place in the U.S. The U.S. Government denies all this.

Dr Michael Persinger is a Professor of Psychology and Neuroscience at Laurentian University, Ontario, Canada. His work and findings indicate that strong electromagnetic fields can and will affect a person's brain.

"Temporal lobe stimulation can evoke the feeling of a presence, disorientation, and perceptual irregularities. It can activate images stored in the subject's memory, including nightmares and monsters that are normally suppressed."



Alan Yu, a former lieutenant colonel in the Taiwan National Defense Department, says that the United States has not only developed an operational mind control machine, but has also distributed models for use by allied countries. Yu states that such machines pose a great threat to human rights and the American way of life. He calls the device the "Mind Reading Machine" (Mind Machine).

Yu writes that there are two sources of information detailing the existence of the Mind Reading Machine. The first evidence: In the 1970s, The South China Morning Post reported that the University of Maryland had invented a Thought Reading Machine. The original purpose of this invention was to help authorities

investigate severe car accidents. It was to be used on people who were severely injured to get their accounts of how the accidents occurred.

In the spring of 1984, Yu was a lieutenant colonel serving in the National Defense Department of Taiwan. At that time, Yu read a classified document from the department that he serviced under. The document said the Military Police Department of Taiwan had purchased several of the Mind Reading Machines from the United States (In Taiwan, it was called Psychological Language Machine).

The document was a request to the United States for parts to repair several malfunctioning machines. The machine allegedly uses microwaves to deliver spoken messages directly to the human brain, as well as using radio waves to hypnotize people or change their thoughts. Yu reports that before he left, this machine had become the most effective weapon for the security departments of Taiwan.

In 1993, Defense News announced that the Russian government was discussing with American counterparts the transfer of technical information and equipment known as "Acoustic Psycho-correction." The Russians claimed that this device involves the transmission of specific commands via static or white noise bands into the human subconscious without upsetting other intellectual functions.

Demonstrations of this equipment have shown encouraging results after exposure of less than one minute and have produced the ability to alter behavior on unwilling subjects. A US Department of Defense medical engineer claimed in 1989 that the U.S. and Israel had regularly used microwaves to condition and control the minds of Palestinians.



Unclassified ELF-Type Weapons previous / (top)

Remote physical manipulation: Not covered in this document. At time of writing, that technology appears to be classified.

Transmission methods for neuro-effective signals: This includes pulsed microwave (i.e., like radar signals) and ultrasound and voice-FM (transmitted through the air), which is also known as "Synthetic Telepathy."

While transmission of speech, dating from the early 1970s, was the first use of pulsed microwave, neuro-effective signals can now cause many other nerve groups to become remotely actuated. That specific technology is classified.

Pavlovian hypnotic triggers: A [Pavlovian] hypnotic trigger is a phrase or any sensory cue that the subject is programmed to involuntarily act in a certain way. MKULTRA survivors can still be triggered from programming done decades ago.

One of the main goals of the institutional/drug/child abuse phases of the CIA MKULTRA atrocities (1950's through 1970's) was to implant triggers using a "twilight state" (half-conscious) medication and tape-recorded hypnosis. The ultimate goal was to have the acting out of Pavlovian triggers erased from the victim's memory.

These triggers are now planted using either of the above two transmission methods, but with the words moved up just above (or near the top of) the audible frequency range. The result is that hypnotic triggers are planted without the subject being aware. This technology was used in the Gulf War as "Silent Sound."

Through-wall surveillance methods: This includes top end of microwave (near infrared), and the so-called "millimeter wave" scanning. This method uses the very top end of the microwave radio signal spectrum just below infrared. To view small objects or people clearly, the highest frequency that will penetrate non-conductive or poorly-conductive walls is used.

Millimeter wave scanning radar can be used in two modes: The first is passive (no radiated signal) and uses background radiation already in the area to be scanned. It is totally undetectable. The active system uses a (low power millimeter wave) "flashlight" attached to the scanner.

Thought reading: Thought reading can be classed as a form of "through wall surveillance" technology. In the unclassified and commercial realms, it is called thru-skull microwave reading, and magnetic skull-proximity reading.

Brain entrainment: This involves moods and sleep states, the reverse of biofeedback. The low frequency electrical brain rhythms are characteristics of various moods and states of sleep. Not only can they now be read out using biofeedback equipment or EEG machines, but also radio, sound, contact electrodes, or flashing lights. These moods and sleep states can be generated or at least encouraged using brain entrainment devices.

Brain entrainment signals cannot carry voice, which is a much higher frequency range. Brain entrainment can, however, be used to "set up" a target to make him/her more susceptible to hypnosis.

Implantation: (no longer required)



Ultrasound and Voice-FM: Main advantage in mind control work is that it can carry verbal hypnosis, more potent than simple biorhythm entrainment. An example is Chicago's Airport Terminal connection tunnels and their "Keep Walking."

Steady tone, near the high end of hearing range (15,000 Hz). Hypnotist's voice, varying from 300 to 4,000 Hz, fed into a frequency modulator, where the voice controls the frequency. Output is now a steady tone, sounding like tinnitus, but with hypnosis embedded. While the brain can hear and understand, the ear only hears a "tone" or a "rush."

Acoustic Heterodyne American Technologies Corp. 13114 Evening Creek Drive. S. San Diego, CA 92128

Through-Wall Radar: Millimeter wave through clothing, through-luggage is currently in use at airports. Millimeter wave scanners can be purchased from:

Millivision Corp. Northampton, MA www.millivision.com

Thought Readings: Thought reading is an enhanced version of computer speech recognition, with EEG waves being substituted for sound waves. The easiest "thought" reading is actually remote picking up of the electro-magnetic activity of the speech-control muscles.

When we say words to ourselves, silently, or, read a book, we can actually feel the slight sensations of those words in our vocal muscles - all that is absent is the passage of air. Coordinated speech signals are relatively strong and relatively consistent.

We are "fed" hypnotic signals to force consistent "neutral" content (but of different character than prior to becoming test subjects) in dreams. These forced, neutral content ("bland" content) dreams occur every single night and may represent the experimenters' efforts to have our experiences portray themselves in such dreams, in effect, mining our experiences.

<u>www.raven1.net/elecvisn.htm</u> confirms the ability of current unclassified technology to actually see what a living animal sees, electronically. It is therefore

extremely likely that these forced dreams can be displayed on the experimenters' screens in an adjacent apartment or adjacent house, (which are made obvious to the involuntary experimentee).

Implants: Implants can either receive instructions via radio signals, passing them to the brain. Or, can be interrogated via external radio signals to read brain activity at a distance. Since implants for beneficial purposes are actively being promoted by NIH, it is obvious they will not disappear any time soon.

Thermal Gun, Seizure Gun, and Magnetophosphene Gun: Evokes a visual response and is thought to be centered in the retina (as seen in the movies Goldeneye, Broken Arrow, Escape From LA, and Eraser). The popular video "Waco: The Big Lie Continues" shows video footage of three EM weapons being used during the confrontation.

Silent Subliminals
ALTERED STATES LTD
P.O.Box 68-344, Newton,
Auckland, New Zealand.
Ph: +64-9-815-5095 or +64-9-815-5059
Fax: +64-9-815-5067
altered@ihug.co.nz

Note the format for this website has changed; please refer to this information under "Understanding Neurosync"

http://www.altered-state.com/index2.htm

From their brochure:

"Only your mind can hear. Your ears hear nothing but your mind hears and accepts the powerful suggestions.

You can safely play these tapes anywhere - in a car, while watching TV or listening to your favorite music, while working or even as silent sleep programming."

Warning: Everyone within listening range of the tape will be programmed by the suggestions. To assure yourself that strong suggestions are recorded on the tape, take it to any Radio Shack store, play it on their stereo and read the output with a Radio Shack Sound Level Meter (Item 33-2050)

How To Use The Tapes: Increase the volume until it is just below any tape noise. If your stereo deck has treble and bass controls, you can boost the subliminal output by increasing the treble and decreasing the bass. The player then emits a strong but inaudible frequency - modulated 60 - 90 decibel signal that is received and demodulated by the human ear.

Technical Information: The Suggestions are delivered on a carrier frequency of 14,800 cps, via a low-distortion sine wave signal. This frequency is slightly above the audible hearing range but the frequency-modulated (FM) signal is still strongly impinging upon the diaphragm of the ear. The listener can expect his subconscious mind to accept the suggestions with repeated listening.

The **Silent Subliminals** is a new brain/mind technology developed by an aerospace engineer. This new technique has been licensed to Valley of the Sun Audio/Video for this incredible new tape series. Patent pending. Note: Because the frequency is beyond normal recording range, the tape cannot be duplicated:

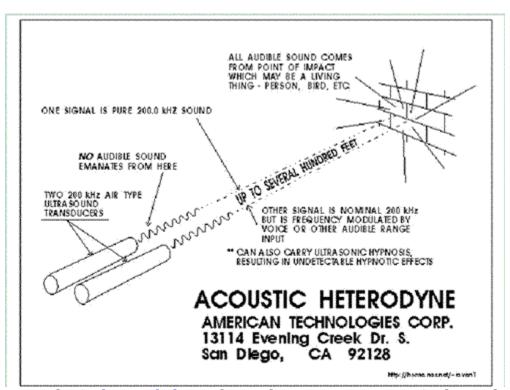
Examples of Suggestions:

- "Every day you become thinner and thinner"
- "You now lose weight and full fill your goals"
- "You attain your weight goals and the body you desire"
- "You have the power and ability to attain the perfect weight and body you desire"
- "You have the self-discipline to lose all the weight you want"
- "You live a healthy lifestyle and eat a proper diet"
- "You now quit smoking because it serves you"
- "You lose all desire to smoke"
- "You accept that you now quit smoking"
- "You are a non-smoker"
- "Quit smoking. Quit smoking. Quit smoking"
- "You have the willpower to do anything you want to do"
- "You have great self- discipline and you use it to quit smoking"
- "Cigarettes disgust you"
- "You are very sure of yourself"
- "You accept that you have great inner courage"
- "You are self-reliant and self-confident"
- "You are full of independence and determination"
- "You have great inner courage"
- "Every day in every way, you become more and more self-confident"
- "You feel good about yourself"
- "You project a very positive self-image"
- "You are relaxed and at ease"
- "You detach from worldly pressures and experience an inner calm"
- "Negativity flows through you without affecting you"
- "You accept other people as they are"
- "You peacefully accept the things you cannot change, and change the things you can"
- "You are at peace with yourself, the world and everyone in it"
- "Your mind is like calm water
- "You direct your time and energy to manifest your desires"
- "You have the self-discipline to accomplish your personal

and professional goals"

- "Every day, you increase your self-discipline"
- "You do what you need to do and stop doing what doesn't work"
- "You freely choose to do what you need to do"
- "You are assertive and feel good about yourself
- "You now focus your energy upon attaining success"
- "You know exactly what you want and you go for it"
- "You can accomplish whatever you set out to do"
- "Be ultra-successful. Be ultra-successful and become wealthy"
- "Every day in every way, you become more successful"
- "Your creative thinking opens the door to monetaryabundance"
- "You easily achieve and maintain a penile erection"
- "Your body performs perfectly during sex without thinking about it"
- "A hard, firm erection is your natural response to sexual stimulation "
- "You can make love for a long before you ejaculate"
- "Every day you feel better about your sexual prowess and your ability to achieve and maintain a hard, firm erection"

"Acoustic Spotlight (Can Target One person in Crowd)" Posted by F. Joseph Pompeii, MIT Media Lab



Usage: The <u>Audio Spotlight</u> can be used in two major ways: As directed audio, sound is directed at a specific listener or area, to provide a private or area specific listening space. As projected audio, sound is projected against a distant object, creating an audio image. This audio image is literally a projected loudspeaker - sound appears to come directly from the projection, just like light.

The <u>Audio Spotlight</u> consists of a thin, circular transducer array and a specially designed signal processor and amplifier. The transducer is about half an inch thick, nonmagnetic, and lightweight. The signal processor and amplifier are integrated into a unit about the same size as a traditional audio amplifier, and have similar power requirements.

Technology: Because it is impossible to generate extremely narrow beams of audible sound without extremely large loudspeaker arrays, we instead generate the sound indirectly, using the nonlinearity of the air to convert a narrow beam of ultrasound into a highly directive, audible beam of sound.

The device transmits a narrow beam of ultrasound (blue), which, due to the inherent nonlinearity of the air itself, distorts (changes shape) very slightly as it travels. This distortion creates, along with new ultrasonic frequencies, audible artifacts (green) that can be mathematically predicted, and therefore controlled.

By constructing the proper ultrasonic beam, this nonlinearity can be used to create, within the beam itself, an audible sound beam containing any sound desired. This is presently done in real-time using low cost circuitry, a specially designed amplifier, and transducers developed at MIT specifically for this project.

Hyperdirectivity: The directivity, or narrowness, of an acoustic wave generated by a circular transducer is proportional to the ratio of the diameter of the transducer to the wavelength of the sound. So a transducer much larger than the wavelength of the sound creates a very narrow beam.

Audible sound contains wavelengths reaching lengths of several feet, so a reasonably sized loudspeaker will always produce a very wide, non-directional source at lower frequencies. The Audio Spotlight, in contrast, outputs short, millimeter sized ultrasonic waves, which form a very narrow beam even in a small transducer, which in turn generates audible sound.

The nature of the nonlinear transformation also essentially eliminates side lobes in the resulting beam, and maintains relatively uniform directivity across the entire audible frequency range.

The figure above (from American Technologies Corp.) compares the directivity of the <u>Audio Spotlight</u> (yellow) to that of an ordinary loudspeaker (purple) at 400 Hz. Note that the directivity of the Audio Spotlight is only three degrees, compared to the essentially omni directional directivity of the loudspeaker.

In order to obtain such narrow directivity from a traditional loudspeaker system, one would need a loudspeaker array fifty meters across! A loudspeaker is like a light bulb, but the <u>Audio Spotlight</u> is like a laser.

History: The use of nonlinear interaction of high frequency sound to generate directive low frequency sound sources has been a well-researched subject in the

field of underwater acoustics since the early 1960's. Often misattributed to socalled "Tartini Tones," the effect is more accurately described as a parametric array, a term introduced by Westervelt.

In the past several decades, many underwater sonar researchers have used the effect to generate directive low frequency sonar beams, detect underwater sound (parametric receiving array), and extend the bandwidth of underwater transducers.

The first published demonstration of an airborne parametric array was in 1975 by Bennett and Blackstock. Rather than using inaudible ultrasound, they instead used very intense, high frequency audible sound to produce simple difference tones. While their goal was not a practical audio reproduction device, they nonetheless effectively demonstrated that the parametric array would work in air in addition to underwater.

Life Assessment Detector System (LADS): The Life Assessment Detector System (LADS), a microwave Doppler movement measuring device, can detect human body surface motion, including heartbeat and respiration, at ranges up to 135 feet (41.15 meters).

The primary function of the LADS is to provide a reliable method by which medical and emergency personnel can locate personnel buried in building collapses or injured on the military battlefield. LADS can detect such signs of life as movement, heartbeat, or respiration.

Originally designed to detect heartbeat and respiration of military personnel wearing chemical-biological warfare protective overgarments, the LADS has been restructured, greatly increasing its operational range and providing a means for eliminating "nuisance alarms" which could mimic human life signs, such as fans, wind drafts, or swaying trees.

This is accomplished through neural network technology, which "trains" the system to recognize human motion and heartbeat/respiration functions. If these functions are not detected, the reasonable assumption is that there are no survivors. Operating under such an assumption, the rescue team can now proceed without fear of further loss of life, i.e., rescue and medical personnel and equipment can be deployed more effectively and efficiently.

The LADS consists of a sensor module, a neural network module, and a control/monitor module. The sensor module is an x-band (10 GHz) microwave transceiver with a nominal output power of 15 milliwatts, operating in the continuous wave (CW) mode. The neural network module device can store many complex patterns such as visual waveforms and speech templates, and can easily compare input patterns to previously "trained" or stored patterns.

The control/monitor module provides the LADS' instrument controls, such as on-off switches, circuit breakers, and battery condition, as well as motion, heartbeat waveform, pulse strength, and pulse rate displays.

LADS provides life assessment capabilities for people who are:

- Trapped in building rubble;
- Battlefield casualties in a chemical/biological warfare environment;
- Victims of airline, train, or automobile crashes;
- Trapped in an avalanche or mudslide;
- Trapped on a mountain ledge;
- Trapped under a collapsed tent structure; or
- Hostages being held in a nonmetallic room.

For more information about the LADS, send E-mail to: <u>info@vsecorp.com</u>

Radar Flashlight: The National Institute of Justice (NIJ), through the Joint (Justice-Defense) Program Steering Group (JPSG), is sponsoring Georgia Tech Research Institute (GTRI) in developing inexpensive, handheld, low-power radar that will enable law officers to detect individuals through interior building walls. It works by sensing the motion of an individual's chest when they breathe.

GTRI is currently designing and refining the first prototype unit. A laboratory test area has been constructed consisting of a section of home siding and drywall, a wooden front door, and a section of brick and mortar.

It also demonstrated the ability to detect an individual through the laboratory's cinder block walls. GTRI is working to combine the two parts of this device into a single unit. NIJ plans on demonstrating the Radar Flashlight with law enforcement agencies through its National Law Enforcement and Corrections Technology Center (NLECTC) (Southeast Regional Center) before the end of 1999.

Dr. Pete Nacci Project Manager (703) 351-8821 pnacci@darpa.mil

Millivision Radar Millimeter-Wave Camera picks up both metallic and plastic concealed handguns. Between microwave and infrared lies the millimeter wave band. This little-heralded portion of the electromagnetic spectrum turns out to be perfect for "remote frisking." Millitech Corp. has designed a camera to accomplish just that.

The idea calls for measuring the time delay and intensity of millimeter wave energy that radiates naturally. At millimeter wavelengths, people are good

emitters, while metals are very poor. Dielectric objects, such as plastics, ceramics and powdered drugs, are somewhere in between. *Clothing and building materials, such as wallboard, are virtually transparent.*

http://www.millivision.com/

Ground (or Home/Apt. Wall) Penetrating Radar: <u>Patriot Scientific</u> <u>Corporation</u> has developed radar technologies with a wide range of possible applications.

A pulse generator is used to drive the transmit antenna. The pulse is a positive spike going up to 100V then falling back to ground in one and a half nanoseconds corresponding to a pulse transmit frequency of 750 MHz.

The return signal is read by the receive antenna. At this point some simple analog processing is done and the signal is digitized at a resolution of 6 GHz, and sent to a PC. The PC correlates the data into a conventional waveform, does some processing, and then transmits the data over an Ethernet cable to a Pentium workstation (not shown).

The Pentium workstation is used to apply different digital filters, combine waveforms, and display the results. This system can be used to demonstrate detection of small targets buried in sand, people behind walls, and other targets.

Patriot has used its antenna system to demonstrate detection of objects as small as a coke buried in sand, through a wall. Even small targets disturb the wavefront of the pulse, producing reflections and modifying the field in measurable ways.

The key to Patriot's Radar system is its ability to transmit and receive pulses barely longer then single cycles at the transmit frequency. The first waveform shown here is a pulse generated by an earlier Patriot Design, based on "off the shelf" antenna technology. The waveform on the bottom was produced and received by Patriot's current Design.

The current Patriot antenna system produces a pulse at the desired frequency with little leading or trailing noise. The Patriot antenna system provides many advantages over pulse-based systems.

Patriot originally developed the impulse radar system to allow time domain processing in Patriot's GPR systems. Because the impulse is extremely short (3 nanoseconds), the time to return can be used to gauge the distance traveled by the pulse.

Furthermore, the transmitter and receiver antennas are very directional, eliminating much of the multipath components of the return signal. The short

pulses combined with the directional transmit and receive to provide us with a number of important advantages:

- Very low average power during transmission
- Low interference from other transmitters
- Transmission invisible to conventional receivers
- High bandwidth digital data transmission possible
- Difficult detection by other impulse receiver

Interference with other sources and receivers is further reduced by using directional antennas. The antenna design shown is highly directional.

When penetrating the ground, we wish to eliminate as much of the multipath signal as possible. The directional antennas reduce the multipath signals detected to those that are relatively inline with the wave path, and eliminate much of the multipath signal that returns at odd angles.

Impulse radar uses low power inherently because the transmissions occur in pulses separated by periods of no transmission. The power of the pulses is offset by the dead time between the pulses. The average output of the current system is about 300 microwatts. The low average power of an impulse system effectively hides the transmissions from conventional receivers.

Interference can be further reduced in an impulse system by using random interval spacing. As long as the transmit and receive antennas are in sync, the period between pulses can be varied to prevent aliening with other continuous- or pulse-transmission systems that might be operating in the same locale.

Furthermore, if an impulse system is being used to transmit data, varying the intervals between pulses prevents other impulse systems from locking onto the signal. Patriot Scientifics' current GPR system does not use random interval spacing.

Patriot Scientific Corporation

Commercial Thought Reading Devices: The Cyberlink Mind Mouse is a revolutionary hands-free computer controller which allows you to move and click a mouse cursor, play video games, create music, and control external devices, all without using your hands.

A headband with three sensors detects electrical signals on the forehead resulting from subtle facial muscle, eye, and brain activity. This headband connects to an interface box that amplifies and digitizes the forehead signals and sends them to your computer.

The Cyberlink software decodes the forehead signals into ten Brain Fingers for continuous cursor control. It also decodes eye motion and facial gestures into

mouse button clicks, keystrokes, and cursor resolution control. With a little practice, most or all of these commands can be mastered to operate virtually all computer functions.

By learning to change the energy levels of your Brain Fingers, you will be able to do just about anything on a computer, except turn it on! The Cyberlink Mind Mouse supports hands-free mouse, keyboard and joystick cursor control, switch closure, video game control, and music and art synthesis.

The Cyberlink Mind Mouse features a Windows 95 Mouse Driver for handsfree control of third party software like games, business software, Internet browsers, and a range of assistive technologies, such as the X-10 Home Controller and special needs word-processing and communication software, including WiVik2, Words Plus, and Clicker Plus.

The Cyberlink Mind Mouse is priced at \$1495.00 (U.S.\$) plus shipping. Free upgrades are included for one year.

Hearing For the Deaf: It was during these [Frey] studies that a profoundly important discovery was made: Deaf subjects often had the ability to hear radio frequency sound. The clinical criterion was that, if a given person could hear audio above 5 kHz [higher range of a piano] by bone or air conduction, then radio frequency sound could be heard as well.

This and related work has resulted in the manufacture of radio frequency type hearing aids for the deaf, one of which is made by Listening, Inc., of Arlington, Mass., and is known as the Neurophone Model GPF-1. It operates at 100 kHz (about five times the normal maximum hearing frequency) and employs crystal control.

These observations tie in with the fact that some individuals can detect radio programs through fillings in their teeth. This phenomenon was technically verified by interposing shields between respective people who exhibited this effect and the modulated radio frequency sources.

When the lower half of the head was covered, including the maxillary dental area, the radio frequency sound was perceived. The sound ceased on covering the top half of the head. While the mechanism responsible for this phenomenon is only imperfectly understood, it can be assumed to be the result of DIRECT cortical stimulation.

In other words, even when the sound seems to be coming from the teeth, it is actually being directly received and interpreted in the brain, not the teeth.



Some Important Historical Developments previous / (top)

Brain-Wave Detection: Some 40-odd years ago, university professor F. Cazzamalli started publishing papers on the subject of brain-wave detection [using radio signals] and implied that he had detected radiations from the mind.

He placed his subjects in a shielded room (or Faraday cage), emanated VHF radio waves through their heads, and claimed to have recorded "beat frequencies" obtained with an untuned receiver consisting of a galena crystal or diode tube, a fixed capacitor, an antenna, and a sensitive light beam galvanometer. A "galvanometer" is a voltmeter; light beam types show up in physics labs and are one of the most sensitive types of voltmeter.

The trouble is that Cazzamalli never mentioned transmitter power in his somewhat unprofessional papers. His oscillograms meant to show variations of the "beat" when his subjects were emotionally aroused or engaged in creative tasks when they were in the Faraday cage. "Beat" as used by Cazzamalli refers to EEG-frequency, i.e., ELF, traces.

Later he told an astounded world that his subjects would hallucinate when under the influence of his "oscillatori telegrafica," its frequency being around 300 MHz at the time. Aviation radios are in this range.

Tom Jaski, a noted science writer and engineer duplicated some of Cazzamalli's work with a modern low-power oscillator that was swept from 300 MHz to 600 MHz. Cell phones start at over 900 MHz.

His subjects could not see the dial. They were told to sound off as soon as they felt something unusual. At a certain frequency range - varying between 380 MHz and 500 MHz - the subjects repeatedly indicated points with exact accuracy in as many as 14 out of 15 trials. At these "individual" frequencies, the same subjects announced having experienced pulsing sensations in the brain, ringing in the ears, and an odd desire to bite the experimenters.

The oscillator's output power was only a few milliwatts, while the oscillator itself was located several feet away from the subjects. Any experimenters out there want to try this? Milliwatts are quite safe for short-term experiments. Kids' walkie-talkies are 50 to 100 milliwatts, for example.

LIDA Machine: 1960 Soviet device that bombards brains with low-frequency radio waves. Now with Dr. Ross Adey, Chief of Research, Veterans Hospital, Loma Linda. CA.

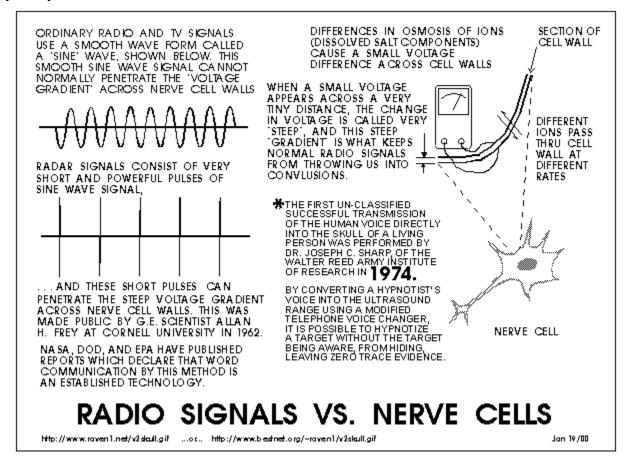
Low frequency square wave modulation of a radio frequency field. It was developed by L. Rabichev and his colleagues in Soviet Armenia, for "the treatment of neuropsychic and somatic disorders, such as neuroses, psychoses, insomnia, hypertension, stammering, bronchial asthma, and asthenic and reactive disturbances." (U.S. Patent # 3,773,049)

The radio frequency field has a nominal carrier frequency of 40 MHz and a maximum output of approximately 40 watts. The E-field is applied to the patient on the side of neck through two disc electrodes approximately 10 cm in diameter. The electrodes are located at a distance of 2 to 4 cm from the skin.

The radio signal appears to be the primary cause of the sleep/trance effect. Optimal repetition frequencies are said to lie in the range from 40 to 80 pulses per minute.

Voice to Skull, 1974: The demonstration of sonic transduction of microwave energy by materials lacking in water LESSENS the likelihood that a thermo hydraulic principle is operating in human perception of the energy. Nonetheless, some form of thermo acoustic transduction probably underlies perception. If so, it is clear that simple heating is NOT a sufficient basis for the Frey effect; the requirement for pulsing of radiations appears to implicate a thermodynamic

principle.



Frey and Messenger (1973) and Guy, Chou, Lin, and Christensen (1975) confirmed that a microwave pulse with a slow rise time is ineffective in producing an auditory response; only if the rise time is SHORT, resulting in effect in a square wave with respect to the leading edge of the envelope of radiated radio-frequency energy, does the auditory response occur.

Thus the rate of change (the first derivative) of the waveform of the pulse is a CRITICAL factor in perception. Given a thermodynamic interpretation, it would follow that information can be encoded in the energy and "communicated" to the "listener".

Communication has in fact been demonstrated. A. Guy, a skilled telegrapher, arranged for his father, a retired railroad telegrapher, to operate a key, each closure and opening of which resulted in a pulse of microwave energy. By directing the radiations at his own head, complex messages via the Continental Morse Code were readily received by Guy.

Sharp and Grove found that appropriate modulation of microwave energy can result in "wireless" and "receiverless" communication of SPEECH. They recorded

by voice on tape each of the single-syllable words for digits between 1 and 10. The electrical sine-wave analogs of each word were then processed so that each time a sine wave crossed ZERO REFERENCE IN THE NEGATIVE DIRECTION, a brief pulse of microwave energy was triggered.

This is, in effect, is a form of what is called pulse-RATE modulation. By radiating themselves with these "voice modulated" microwaves, Sharp and Grove were READILY able to hear, identify, and distinguish among the 9 words. Persons with artificial larynxes not unlike those emitted the sounds heard.

Communication of more complex words and of sentences was not attempted because the averaged densities of energy required to transmit longer messages would approach the current 10 milliwatts per square centimeter limit of safe exposure.

The capability of communicating directly with a human being by "receiverless radio" has obvious potentialities both within and without the clinic. But the hotly debated and unresolved question of how much microwave radiation to which a human being can safely be exposed will probably forestall applications within the near future.

EC-130E Commando Solo: Primary function is "Psychological operations broadcasts." Air Force Mission statement: Commando Solo conducts psychological operations and civil affairs broadcasts missions in the standard AM, FM, HF, TV and military communications bands.

It was called EC-121, known at the time as the Coronet Solo, and was used in Operation Urgent Fury. Volant Solo was during Operation Just Cause.

The Commando Solo aircraft and earlier generations of this design have participated in the following missions:

- Operation Urgent Fury (Grenada, October-November 1983, January-June 1985)
- Operation Just Cause (Panama, late December 1989)
- Operation Desert Shield (Kuwait, Iraq, from August 1990)
- Operation Desert Storm (Saudi Arabia, Turkey, Iraq, 1991)
- Operation Uphold Democracy (Haiti, 1994-1995)
- Operation Joint Guard (Part of a U.N. operation in Bosnia-Herzegovina, 1995)
- Operation Desert Thunder (part of a U.N. operation in Iraq)
- Operation Desert Fox (Iraq, 2 to 3 days in December 1998)

HAARP: HAARP (<u>High Frequency Active Auroral Research Project</u>), 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 before any further research and testing, regrets the repeated refusal of the United States Administration to send anyone in person to give evidence to the public hearing or any subsequent meeting to be held by its competent committee into the environmental and public risks connected with the HAARP programmed currently being funded in Alaska.

One of HAARP's potential uses is a communications system. The military officially acknowledges two communications-related applications:

- (1) to replace the existing Extremely Low Frequency (ELF) submarine communications system now operating in Michigan and Wisconsin;
- (2) to provide a way to wipe out communications over an extremely large area, while keeping the military's own communications system working.

As we have seen, the mind-control subliminal messages are carried on radio-frequency broadcasts. The HAARP facility could be used to broadcast global mind-control messages, or such messages could simply be inserted into existing systems.

Dr. Igor Smirnov, of the Institute of Psycho-correction in Moscow, says in regard to this technology: "It is easily conceivable that some Russian 'Satan', or let's say Iranian [or any other 'Satan'], as long as he owns the appropriate means and finances, can inject himself [intrude] into every conceivable computer network, into every conceivable radio or television broadcast, with relative technological ease, even without disconnecting cables.

Recent Media on HAARP

HAARP TRANSMITTER NOW RUNNING AT FULL POWER!!

Can be Easily Heard Around the World on Short-wave Radio.
Has Space War Begun?
-BJNews by Marshall Smith

"As of this morning, Saturday Feb 17, 2001, HAARP began doing testing with greatly increased FULL power. The transmitter can now be heard all day long on 3.39 MHz. Very early this morning about 3 AM, HAARP could be heard at its "old" normal signal strength. About 4 AM the signal changed in both its pulse timing and inter-pulse spacing. At 4:30 AM the signal strength suddenly increased tremendously.

"Unlike previous mornings, there was no regular F-layer daytime fade out when the sun rose here in California about 6:45 AM. I continued to monitor during the daylight. I have never heard the HAARP signal during the daytime before. The sun now rises in Gakona Alaska about 10 AM PST. The received signal again increased from about S5 to S9 at 10:05 AM. With sunlight at both the transmitter

and receiver there is no F-layer skip to bend the powerful signal around the planet. This means this is an extremely powerful direct ground wave signal. And I'm only receiving the leakage off the side lobes of the antenna array.

"The full HAARP design power is supposed to be about 350 Megawatts. But that is only the published spec, not necessarily what is done in practice (as in those CB'rs running illegal 1KWatt linear amplifiers). There is a planned Air Force "Star Wars" test with two vehicles, one from California and the other in the south Pacific, similar to last summer's failed test. The tentative published launch is set for late March or April. I will monitor HAARP to confirm it is running full power during the launch, as it was last summer.

"Last summer's "failure" is exactly what a HAARP device is supposed to do; destroy the electronic controls of a vehicle so the second stage cannot separate from the booster. A very cheap, simple way to knock down missiles launched from anywhere on the planet. It also can destroy military satellites in low orbit. Maybe that's why the Russians and Chinese have been complaining in the last several weeks about Bush's intention to "build" the star wars system. Maybe they've been losing some of their "secret hardware." But of course, they won't say that in public.

"Its now 11 AM PST, on Saturday the 17th, and the signal is blasting in with the powerful pre-pulse tone around S+20 and the main signal about S9. The signal varies 3 to 6 db over a series of several pulses. Since this is not due to F-layer skip fading, I must assume they are slewing the beam of the antenna in various directions, and thus changing the amount of the side lobes in this direction. This must be a test of a simulated space warfare game with multiple targets. Rapid slewing of the antenna in just a matter of a minute or two is not useful for submarine communication, nor for their stated purpose of doing "ionospheric research."

"To show the HAARP signal is abnormally large, at this time, the 80-meter band is silent and WWV at 5 MHz cannot be heard, as would be expected during the daytime. WWV at 10 MHz is barely heard but does not even register on the S meter. Tuning back to 3.39 MHz, the S meter jumps off the top of the scale. Even the extremely powerful Russian "woodpecker" transmitters during the cold war never did that, and they were aimed along the ground not out into space. I have no way to estimate how many Gigawatts that represents.

"It may be only coincidence but just several days ago, Russia announced it would be conducting a massive space war game, including the launch of numerous missiles, from both ground sites and submarines. Of course this is only a coincidence. You Think. For more information about HAARP, how the transmitter works and to hear what the transmitter sounds like, go back to the Brother Jonathan Gazette front page article about the HAARP facility and how it is used in space warfare.

"I should point out in 1983 a number of Air Force ER-135 electronic warfare planes were shot down in the Sea of Japan. They were apparently making a covert entry into soviet airspace to test the latest Russian technology. What the Air Force did not know then was the Soviets had developed a stealth fighter so the 135's never saw the Russians coming and all 5 of the US e-warfare planes were shot down. To cover this "covert" event, the US shot down a 747, a plane similar to the 135's (or modified Boeing 707's whose parts are very similar to a 747) so if plane parts are found in the Sea of Japan they are claimed to be the 747. The 747 may, in fact, have played a part in the covert event. This is the supposed "Russian" shoot down of Korean Airlines Flight 007, on Sept 1, 1983. I remember the event well, since it is my son's b-day.

"The proof of a covert event with stealth Russian fighters shooting down 5 Air Force ER- 135's is documented in R.W. Johnson's book, SHOOTDOWN, published in 1986. The most convincing evidence is the strange fact that 27 US active duty electronic warfare officers somehow end up on the passenger list among the dead on the civilian KAL Flight 007 going to Korea. I only point this out to show how high tech secret warfare between Russia and the US may result in deaths and the destruction of hardware, and yet is never reported to the public.

"The US did not announce and demonstrate deployment of its own stealth fighters until the Gulf War in '90-91, seven years later. In 1991, three events occurred, (1) the US demonstrates stealth fighter-bombers which can travel anywhere in the world without detection, (2) the announcement of the construction of HAARP which would neutralize all soviet missiles coming over the pole, and (3) the collapse of the Soviet Union. To see these as unrelated events is to miss the point of history.

"At the present time, both the Russian's and Chinese have demonstrated their ability and inclination to engage in warfare, especially space warfare. It would thus seem clear the "coincidence" of the massive Russian war games and the sudden increase in the output of HAARP in a warfare mode, would indicate that on this Presidents Day Weekend 2001, warfare is actually occurring, not just games. Just as in 1985, when planes were destroyed and US airmen died, the story was completely covered up, but it nonetheless had great implications on the relations between the governments of the world.

"There are, of course, no airmen on the Russian missiles, nor the Chinese and Russian satellites in orbit. This is the new hi-tech robotic remote control warfare of outer space. But, the "war games" are real, nonetheless. The massive increase in the output of HAARP, under the control of the Air Force's Space Vehicles Command which operates HAARP and has the mission of engaging in space warfare, would indicate of a lot of expensive space hardware is now biting the dust. The Russians will claim their exercise was a "success." The Chinese who have just lost their "eyes in orbit" will say nothing. And the US will claim, as usual, "What, who me? HAARP hasn't been in operation since October '99." But

you can listen for yourself on any short-wave receiver by tuning to 3.390 MHz. Good Listening."

http://www.anomalous-images.com



Some Concluding Remarks previous / (top)

The discovery of "Synthetic Telepathy," as an EM way to communicate information directly onto the brain has changed everything. And, with related discoveries on membrane responses to specific frequency bands, and their amplification, has led to some very serious questions. Where are these technologies really leading man?

Certainly not toward a better way of living.... We see little application in their uses in medicine. In fact, most aspects have remained classified, and are still being used (historically) for military applications and uses. When you consider our ability to clone emotions, and the possible uses of HAARP, there is NO QUESTION on the possibility of its use for the complete mind control of humanity.

We can do it now. We have the theory. We have the technology. Why would it not be done? And then, by whom? Dr. Robert O. Becker, twice-nominated for the Noble prize for his health work in bio-electromagnetism, was more explicit in his concern over illicit government activity. He wrote of "obvious application in covert operations designed to drive a target crazy with voices."

What is frightening is that words, transmitted via low-density microwaves or radio frequencies, or by other covert methods, might be used to create influence. For instance, according to a 1984 U.S. House of Representatives report, a large number of stores throughout the country use high frequency transmitted words (above the range of human hearing) to discourage shoplifting. Stealing is reduced by as much as 80 percent in some cases.

With frequencies of electromagnetic radiation able to be converted into tight beams, it is worth considering the possibility that low-orbiting satellites could transmit such signals directly to a chosen person. Such a capability would have obvious strategic value.

What if some group or organization wanted to conduct terrorist activities that would strike right into the heart of their intended victims? What better way than to create killers from the most ordinary of citizens? Worse yet would be to cause children to unexpectedly lash out and murder those around them.

It is apparent that the technology exists to elicit such behavior using waves of electromagnetic energy sent directly into the brain.

"ELF" frequencies, as we know now, are not the most invasive weapons-capable frequencies. Doses of ELF can act as either sedatives or stimulants, entraining the target's EEG as with the Russian LIDA machine. Weapons that can transmit hypnotic commands silently and untraceably, over distance and through walls, can cause a far wider spectrum of effects.

In other words, don't assume that "ELF" is the only form of electromagnetic signal which can do damage. And, if you might wonder what that "buzzing" sound you sense behind you ear might be? It is HAARP. You can actually hear it when they have it "on."

The obvious next important discussion should be around the changing Shuman Resonance, and its affects and importance to biological functions and activities. There is no question that the Shuman Resonance is changing toward the higher frequencies associated with our "conscious states" of mind... Why is that?

View Book and Media References (currently under editing)

IMPORTANT TECHNICAL REFERENCES

http://www.raven1.net/lida.htm

Photo and description of the Korean War LIDA machine, a radio frequency brain entrainment device.

http://www.raven1.net/frey.htm

"Human Auditory System Řesponse To Modulated Electromagnetic Energy," Allan H. Frey, General Electric, Advanced Electronics Center, Cornell University, Ithaca. New York.

http://www.raven1.net/v2s-nasa.htm

NASA technical report abstract stating that speech-to-skull is feasible.

http://www.raven1.net/v2s-kohn.htm

DOD/EPA small business initiative (SBIR) project to study the unclassified use of voice-to- skull technology for military uses.

http://www.raven1.net/bioamp.htm

Excerpts, Proceedings of Joint Symposium on Interactions of Electromagnetic Waves with Biological Systems, 22nd General Assembly of the International Union of Radio Science, August 25 - September 2, 1987, Tel Aviv, Israel.

http://www.raven1.net/v2succes.htm

Excerpt, Dr. Don R. Justesen, neuropsychological researcher, describes Dr.

Joseph C. Sharp's successful transmission of "words" via a pulse-rate- modulated microwave transmitter of the Frey type.

http://www.raven1.net/russ.htm

FOIA article circulated among U.S. agencies describing the Russian TV program "Man and Law", which gives a glimpse into the Russian mind control efforts. (Dr. Igor Smirnov, a major player, was used as a consultant to the FBI at the Waco Branch Davidian standoff.)

http://www.raven1.net/armyparw.htm

SBIR (small business initiative contract) which clearly shows intent to use ultrasound as an anti-personnel weapon, including one-man portability and with power to kill.

http://www.raven1.net/acouspot.htm

A page originally from the MIT Media Lab's acoustic engineer, Joseph Pompeii. Describes a similar technique under commercial and military development (American Technologies Corp., San Diego) under the trade name "Hypersonic Sound". Shows that sound can be focused to the extent of targeting just one person in a crowd, acoustically, using ultrasound.

APPENDIX A (top)

Electromagnetic Weapons Timeline:

Electromagnetic (EM) weapons are of recent invention. They utilize the various frequencies of the electromagnetic spectrum to disable or kill the target. Psychotronic weapons are those EM weapons that interact with the nervous system of the target. These weapons usually operate in the very low (100 to 1,000 Hz) or extremely low (greater than zero but less than 100 Hz) frequency ranges.

1934 "A method for Remote Control of Electrical Stimulation of the Nervous System", a monograph by Drs. E. L. Chaffee and R. U. Light.

1934 Experiments in Distant Influence, book by Soviet Professor Leonid L. Vasiliev

Vasiliev also wrote an article, "Critical Evaluation of the Hypogenic Method" concerning the work of Dr. I. F. Tomashevsky on experiments in remote control of the brain.

1945 After World War II, the Allies discovered the Japanese had been developing a "death ray" utilizing very short radio waves focused into a high power beam. Tests were done on animals.

1950 The French conducted research on infrasonic weapons. (From "The Road From Armageddon", by Peter Lewis, Resonance #13, pp 9-14).

1953 John C. Lilly, when asked by the director of the National Institute of Mental Health (NIMH) to brief the Central Intelligence Agency (CIA), Federal Bureau of Investigation (FBI), National Security Agency (NSA), and the various military intelligence services on his work using electrodes to stimulate directly the pleasure and pain centers in the brain, refused.

1958, 1962 The U.S. conducts high-altitude Electromagnetic Pulse (EMP) bomb tests over the Pacific. (From "The Road From Armageddon" by Peter Lewis.)

1960 Headlines read "Khrushchev Says Soviets Will Cut Forces a Third; Sees 'Fantastic Weapon' ". (From article of same title, by Max Frankel, New York Times, Jan. 15, 1960, p1 as cited in "Tesla's Electro-magnetics and Its Soviet Weaponization", paper by T. E. Bearden.)

1965 A "Death Ray" weapon was developed by McFarlane Corporation, described as a modulated electron gun X-ray nuclear booster, could be adapted to communications, remote control and guidance systems, EM radiation telemetry and death ray.

Reported hearings before the House Subcommittee on Department of Defense Appropriations, chaired by Rep. George Mahon (Dem. - Texas). From "Hearing Voices" by Alex Constantine, Hustler, January 1994, pp 102-104, 113, 120, 134. Research by Harlan Girard.

1965 Project Pandora was undertaken in which chimpanzees were exposed to microwave radiation. The man who was in charge of this project said, 'the potential for exerting a degree of control on human behavior by low level microwave radiation seems to exist' and he urged that the effects of microwaves be studied for 'possible weapons applications' - (From "Electromagnetic Pollution: A Little Known Health Hazard. A new means of control?" by Kim Besley, Great Britain, p14. Research from Woody Blue).

1968 Dr. Gordon J. F. MacDonald, science advisor to President Lyndon Johnson, wrote, "Perturbation of the environment can produce changes in behavioral patterns." He was referring to low frequency EM waves in the ionosphere affecting human brain wave patterns. (From his book, Unless Peace Comes, a Scientific Forecast of New Weapons, cited in "New World Order ELF Psychotronic Tyranny", a paper by C. B. Baker.)

1970 Zbigniew Brzezinski, President Jimmy Carter's National Security Director, said in his book, Between Two Ages, weather control was a new weapon that would be the key element of strategy. "Technology will make available to leaders of major nations a variety of techniques for conducting secret warfare..." He also wrote "Accurately timed, artificially excited electronic strokes could lead to a

pattern of oscillations that produce relatively high power levels over certain regions of the Earth ... one could develop a system that would seriously impair the brain performance of a very large population in selected regions over an extended period." (Cited in Baker's "ELF Psychotronic Tyranny" paper.)

1972 The Taser, first electrical shock device developed for use by law enforcement, delivers barbed, dart shaped electrodes to a subject's body, and 50,000 volt pulses at two millionths of an amp over 12-14 seconds time. (From "Report on the Attorney General's Conference on Less Than Lethal Weapons", by Sherry Sweetman, 1987, p4, which cites "Non-Lethal Weapons for Law Enforcement: Research Needs and Priorities. A Report to the National Science Foundation by the Security Planning Corporation, 1972. Research by Harlan Girard.)

1972 A U.S. Department of Defense document said that the Army has tested a microwave weapon. It was an extremely powerful 'electronic flamethrower'." (From "Electromagnetic Pollution.")

1972 A study published by the U.S. Army Mobility Equipment Research and Development Center, titled 'Analysis of Microwaves for Barrier Warfare' examines the plausibility of using radio frequency energy in barrier counterbarrier warfare ... The report concludes that:

- (a) it is possible to field a truck-portable microwave barrier system that will completely immobilize personnel in the open with present day technology;
- (b) there is a strong potential for a microwave system that would be capable of delaying or immobilizing personnel in vehicles;
- (c) with present technology, no method could be identified for a microwave system to destroy the type of armored material common to tanks." (From "Electromagnetic Pollution" by Kim Besly, p15, quoting The Zapping of America by Paul Brodeur.) The report further documents the ability to create third-degree burns on human skin using 3 GHz at 20-watts/square centimeter in two seconds.

1972 Dr. Gordon J. F. MacDonald testified before the House Subcommittee on Oceans and International Environment, concerning low frequency research: "The basic notion there was to create between the electrically charged ionosphere in the higher part of the atmosphere and conducting layers of the surface of the Earth this neutral cavity, to create waves, electrical waves that would be tuned to the brainwaves ... about ten cycles per second ... you can produce changes in behavioral patterns or in responses." (From Baker's "ELF Psychotronic Tyranny" paper.)

1973 Sharp and Grove transmit audible words via microwaves.

- **1975 1977** "Unpublished analyses of microwave bioeffects literature were disseminated to the U.S. Congress and to other officials arguing the case for remote control of human behavior by radar." (From the Journal of Microwave Power, 12(4), 1977, p320. Research by Harlan Girard.)
- **1978** Hungarians presented a state-of-the-art paper on infrasonic weapons to the United Nations, "Working Paper on Infrasound Weapons", United Nations CD/575, 14 August 1978. (From "The Road From Armageddon" by Peter Lewis.)
- **1981 1982** "Between 1981 and September 1982, the Navy commissioned me to investigate the potential of developing electromagnetic devices that could be used as non-lethal weapons by the Marine Corp for the purpose of 'riot control', hostage removal, clandestine operations, and so on." Eldon Byrd, Naval Surface Weapons Center, Silver Spring MD. (From "Electromagnetic Pollution" by Kim Besly, p12.)
- **1982** Electromagnetic weapons for law enforcement use in Great Britain: Charles Bovill of the now defunct British firm, Allen International, developed a 10-30 Hz strobe light that can produce seizures, giddiness, nausea, and fainting. Addition of sound pulses in the 4.0 7.5 Hz range increases effectiveness, as utilized in the Valkyrie, a "frequency" weapon advertised in British Defense Equipment Catalogue until 1983.

The squawk box or sound curdles uses two loudspeakers of 350-watt output to emit two slightly different frequencies that combine in the ear to produce a shrill shrieking noise. The U.S. National Science Foundation report says there is "severe risk of permanent impairment of hearing." (From "Electropollution" by Kim Besley, citing the Manchester City Council Police Monitoring Unit document.)

- **1982** Air Force review of biotechnology: "Currently available data allow the projection that specially generated radio frequency radiation (RFR) fields may pose powerful and revolutionary antipersonnel military threats. Electroshock therapy indicates the ability of induced electric current to completely interrupt mental functioning for short periods of time, to obtain cognition for longer periods and to restructure emotional response over prolonged intervals.
- "... impressed electromagnetic fields can be disruptive to purposeful behavior and may be capable of directing and/or interrogating such behavior. Further, the passage of approximately 100 milliamperes through the myocardium can lead to cardiac standstill and death, again pointing to a speed-of-light weapons effect.
- "A rapidly scanning RFR system could provide an effective stun or kill capability over a large area."

(From Final Report on Biotechnology Research Requirements for Aeronautical Systems Through the Year 2000. AFOSR-TR-82-0643, vol 1, and vol 2, 30 July 1982.)

1986 "The Electromagnetic Spectrum in Low-Intensity Conflict" by Captain Paul Tyler, MC, USN quotes the above passage and further elaborates on the theme. (Published in Low Intensity Conflict and Modern Technology Lt. Col. David J. Dean, USAF, ed., Air University Press, Maxwell AFB, AL.Research by Harlan Girard.)

1983 Nikolai Khokhlov, a Soviet KGB agent who defected to the West in 1976, interviews recently arrived scientists and reports: "The Soviet mind- control program is run by the KGB with unlimited funds." (From The Spectator, February 5, 1983, reported in "New World Order Psychotronic Tyranny" by C. B. Baker.)

1984 "USSR: New Beam Energy Possible?" possibly associated with early Soviet weather engineering efforts over the U.S. (From "Tesla's Electromagnetics and Its Soviet Weaponization" by T. E. Bearden.)

1985 Women in the peace camps at Greenham Common began showing various medical symptoms believed to be caused by EM surveillance weapons beamed at them. (See "Zapping: The New Weapon of the Patriarchy", Resonance #13, pp 22-24. Research by Woody Blue.)

1986 Attorney General's Conference on Less Than Lethal Weapons reviews current weapons available. They include the Taser, the Nova XR-5000 Stun Gun (can interrupt a pacemaker); the Talon, a glove with an electrical pulse generator; and the Source, a flashlight with electrodes at the base.

Photonic driving strobe lights tested by one conference delegate on 100 subjects, produced discomfort. Closed eyelids to not block the effect. Evidence that ELF produces nausea and disorientation. Suggestion to develop fast acting electro sleep inducing EM weapon.

Discusses problem of testing weapons on animals and human "volunteers". (From "Report on the Attorney General's Conference on Less Than Lethal Weapons", by Sherry Sweetman, March 1987, prepared for the National Institute of Justice. Research by Harlan Girard.)

1988 The Pentagon is ordered by courts to cease EMP tests at several locations due to a lawsuit filed by an environmental group. (From The Washington Post, May 15, 1988, see "U.S. and Soviets Develop Death Ray", Resonance 11, p10. Research by Remy Chevalier.)

1992 December. "The U.S. Army's Armament Research, Development and Engineering Center is conducting a one-year study of ACOUSTIC BEAM TECHNOLOGY ... the command awarded the one year study to Scientific Applications and Research Associates of Huntington Beach CA. Related research is conducted at the Moscow based Andreev Institute." (From "U.S. Explores

Russian Mind Control Technology", by Barbara Opal, Defense News, January 11-17, 1993. Research by Harlan Girard and others.)

1993 The Russian government is offering to share with the United States in a bilateral Center for Psychotechnologies the Soviet mind-control technology developed during the 1970s. The work was funded by the Department of Psycho-Correction at the Moscow Medical Academy.

"Acoustic psycho-correction involves the transmission of specific commands via static or white noise bands into the human subconscious..." The Russian experts, among them former KGB General George Kotov, present in a paper a list of software and hardware available for \$80,000. (From Opal article, "U.S. Explores Russian Mind Control Technology".)

1993 February 28, beginning of 51 day siege on the Branch Davidians at Waco Texas, which ended in the death of more than 80 people.

Until this incident, the electromagnetic weapons had kept a very low profile. But in the documentary video, "Waco: The Big Lie Continues", footage from the British Broadcasting (BBC) shows at least three EM weapons used by U.S. government agents. First, the noise generators used against the Davidians. Second, a powerful strobe light, shown during a nighttime sequence.

And the third was the Russian psychoacoustics weapon, considered, but agents deny use of this weapon against the Waco people. FBI agents met with Dr. Igor Smirnov in Arlington VA to discuss the possibility of using the weapon against the Davidians. (From "A Subliminal Dr. Strangelove", by Dorinda Elliot and John Barry, Newsweek, August 22, 1994)



APPENDIX B Most Common Known ELF Effects (top)

Here is a list of most of the common effects. It is intended to show how the various induced stress effects are broken down. Indent levels are used to show categories and sub-categories:

Invasive At-a-Distance Body Effects (including mind):

Sleep deprivation and fatigue:

- Silent but instantaneous application of "electronic caffeine" signal, forces awake and keeps awake
- Loud noise from neighbors, usually synchronized to attempts to fall asleep
- Precision-to-the-second "allowed sleep" and "forced awakening"; far too precise and repeated to be natural
- Daytime "fatigue attacks", can force the victim to sleep and/or weaken the muscles to the point of collapse

Audible Voice to Skull (V2S):

- Delivered by apparent at a distance radio signal
- Made to appear as emanating from thin air
- Voices or sound effects only the victim can hear

Inaudible Voice to Skull (Silent Sound):

- Delivered by apparent at a distance radio signal;
- Manifested by sudden urges to do something/go somewhere you would not otherwise want to
- Silent (ultrasonic) hypnosis presumed
- Programming hypnotic "triggers" i.e., specific phrases or other cues which cause specific involuntary actions

Violent muscle triggering (flailing of limbs):

- Leg or arm jerks to violently force awake and keep awake
- Whole body jerks, as if body had been hit by large jolt of electricity
- Violent shaking of body; seemingly as if on a vibrating surface but where surface is in reality not vibrating

Precision manipulation of body parts (slow, specific purpose):

- Manipulation of hands, forced to synchronize with closedeyes but FULLY AWAKE vision of previous day; very powerful and coercive, not a dream
- Slow bending almost 90 degrees BACKWARDS of one toe at a time or one finger at a time
- Direct at-a-distance control of breathing and vocal cords; including involuntary speech iv.
- Spot blanking of memory, long and short term

Reading said-silently-to-self thoughts:

 Engineered skits where your thoughts are spoken to you by strangers on street orReal time reading sub vocalized words, as while the victim reads a book and BROADCASTING those words to nearby people who form an amazed audience around the victim

Direct application of pain to body parts:

- Hot-needles-deep-in-flesh sensation
- Electric shocks (no wires whatsoever applied)
- Powerful and unquenchable itching, often applied precisely when victim attempts to do something to expose this "work"
- "Artificial fever", sudden, no illness present vs. sudden racing heartbeat, relaxed situation

Surveillance and tracking:

- Thru-wall radar and rapping under your feet as you move about your apartment, on ceiling of apartment below
- Thru-wall radar used to monitor starting and stopping of your urination - water below turned on and off in sync with your urine stream
- Loud, raucous artificial bird calls everywhere the victim goes, even into the wilderness

Invasive Physical Effects at a Distance (non-body):

- Stoppage of power to appliances (temporary, breaker ON)
- Manipulation of appliance settings
- Temporary failures that "fix themselves"
- Flinging of objects, including non-metallic
- Precision manipulation of switches and controls
- Forced, obviously premature failure of appliance or parts

External Stress-Generating "Skits":

Participation of strangers, neighbors, and in some cases close friends and family members in harassment:

- Rudeness for no cause
- Tradesmen always have "problems", block your car, etc.
- Purchases delayed, spoiled, or lost at a high rate
- Unusually loud music, noise, far beyond normal

Break-ins/sabotage at home:

- Shredding of clothing
- Destruction of furniture
- Petty theft
- Engineered failures of utilities

Sabotage at work:

- Repetitive damage to furniture
- Deletion/corruption of computer files
- Planting viruses which could not have come from your computer usage pattern
- Delivered goods delayed, spoiled, or lost at a high rate
- Spreading of rumors, sabotage to your working reputation
- Direct sabotage and theft of completed work; tradesmen often involved and showing obvious pleasure

In summary, the effects include:

To the Brain:

- Forced memory blanking and induced erroneous actions
- Induced changes to hearing. Both apparent direction and volume, and sometimes even content
- Reading and broadcasting thoughts. "How can that lady talk with her mouth closed?"
- Vivid controlled dreams.
- Forced waking visions: some synched with forced body motion
- Microwave hearing
- Sleep prevention each nigh, at exactly the same time (for weeks)

To the Face:

- Sudden violent itching inside eyelids
- Forced manipulation of airways, including externally controlled forced speech
- "Transparent eyelids"
- Artificial tinnitus (ringing in ears)
- Forced movement of jaw and clacking of teeth

To the Body:

- Wilding racing heart without cause
- Remotely induced violent no-rash itching
- Forced nudging of arm during delicate or messy work causing injury or spills
- Forced "muscle quaking" on large muscles on the back or other unexplainable vibrations
- Cases of repeated fresh watch batteries dying
- Forced precision manipulation of hands. Sometimes synched to the forced waking visions.

- Special attention to genital area: itching, forced orgasm, intense pain, "hot needles"
- Intense general pain in the legs, like stings.

[Remind you, that these are the unclassified effects only.] TOP

FOR MORE INFORMATION

For general information on additional books, manuscripts, lecture tours, and related materials and events by Richard Alan Miller, please write to:

Internet Addresses
OAK PUBLISHING, INC.

1212 SW 5th St.

Grants Pass, OR 97526
Phone: (541) 476-5588
Fax: (541) 476-1823

Internet Addresses
DrRam@MAGICK.net

http://www.nwbotanicals.org
http://www.herbfarminfo.com
also see the Q/A section of
http://www.richters.com

In addition, you can visit Richard Alan Miller's home page for a listing of his writings, also containing links to related subjects, and direction in the keywords Metaphysics, Occult, Magick, Parapsychology, Alternative Agriculture, Herb and Spice Farming, Foraging and Wildcrafting, and related Cottage Industries. Richard Alan Miller is available for lectures and as an Outside Consultant. No part of this material, including but not limited to, manuscripts, books, library data, and/or layout of electronic media, icons, et al, may be reproduced or transmitted in any form, by any means (photocopying, recording, or otherwise), without the prior written permission of Richard Alan Miller, the Publisher (and Author).