EARTH RISING THE REVOLUTION

Toward a Thousand Years of Peace

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Earthpulse Press P. O. Box 201393 Anchorage, Alaska 99520 U. S. A. technologies are being developed for personal use and as security measures, consider the possibilities for abuse by commercial interests where the messages might be "buy, buy, buy," "drink more, don't worry" or some other self-serving script. Should these systems be regulated? By whom and under what conditions?

New Standards for What is a Memory?

"Nevada is currently the only state to allow witness testimony of a person who has undergone hypnosis. As of October 1, 1997, courts hearing both civil and criminal cases can take a hypnotically refreshed testimony, as long as the witness, if a minor, has had the informed consent of parent or guardian, and the person performing the hypnosis is any of the following: a health care provider, a clinical social worker licensed in accordance with 641B of Nevada Revised

statue, or a disinterested investigator."286

This issue will surely become more complex as technology advances in terms of evidence. When the day arrives when it is possible to completely change or after memory as was suggested earlier by military officers, what then? How will we separate the real from the unreal? What will be the impact on the burden of proof in courts as it relates to "reasonable doubt"? Again the emergence of the technology has to first be recognized as real before laws can be constructed and systems established for controlling misuse. Think how long it has taken the courts to even recognize hypnotherapy as valid science. We are hopeful that we will not have to wait so long for legislative bodies to take the initiative to address these issues.

Auditory Effect?

The questions which this section raises are profound. Is it possible to transmit a signal to the brain of a person, from a distance, which deposits specific sounds, voice or other information which is understandable? Is it possible to transfer sound in a way where only the targeted person can hear the "voice in the head" and no one else hears a thing? Is it possible to shift a person's emotions using remote electromagnetic tools? The answer to each of these questions is a resounding — Yes! The state of the science has passed even the most optimistic predictions and the capabilities are here now.

Military literature suggests that this is possible. A series of experiments, patents and independent research confirm that this technology exists today. While giving testimony to the European Parliament in 1998, I demonstrated one such device to the astonishment of those in attendance. This particular device required physical contact in order to work and was nearly forty years old. This area is one of the most important because it points to the ultimate weapons of

785. Hall, E. Gene. "Watch Cariffully Now: Solving Crime in the 21st Century." Police, June 1999. Vol. 23, No. 8. Source: NLECTC Law Embroamant & Technology News Summary, June 17, 1999. EPI944 political control - the ability to place information directly into the human brain, bypassing all normal filtering mechanisms.

The Department of Defense put forward the following information in 1995 which would be used for direct communications with military personnel. "Communicating Via the Microwave Auditory Effect; Awarding Agency: Department of Defense; SBIR Contract Number: F41624-95-C-9007." The description of this technology was written as follows:

"Title: Communicating Via the Microwave Auditory Effect

Description: An innovative and revolutionary technology is described that offers a means of low-probability-of-intercept Radio Frequency (RF) communications. The feasibility of the concept has been established using both a low intensity laboratory system and a high power RF transmitter. Numerous military applications exist in areas of search and rescue. security and special operations."287

The feasibility was not only demonstrated in the laboratory but also in the field using a radio frequency carrier. In the case of the Gulf War, we had always suspected that the reason that the Iraqis gave up in mass was not because of the heavy bombardments but because they were being hit with new "non-lethal" systems which created feat and perhaps even worse. Our research uncovered reports which now confirm our suspicions as fact.

"What the 'Voice of the Gulf' began broadcasting, along with prayers from the Koran and testimonials from well-treated Iraqi prisoners, was precise information on the units to be bombed each day, along with a new, silent psychological technique which induced thoughts of great fear in each soldier's mind..."288 This makes a * great deal of sense today given what has become increasingly known about mind control weapons. "According to statements made by captured and deserting Iraqi soldiers, however, the most devastating and demoralizing programming was the first known military use of the new, high tech, type of subliminal messages referred to as ultrahigh-frequency 'Silent Sounds' or 'Silent Subliminals.'"289 The use of these new techniques, we believe, went well beyond the injection of fear and may have involved more powerful signal generators which caused the other symptoms which the world observed including head pain, bleeding from the nose, disorientation and nausea - all possible with so-called non-thethal weapons. The questions which now remain: Are they still using the techniques like an electronic concentration

^{287.} Uspl. of Ustense (awarding Agency). Communicating Via the Microwave Auditory Effect. SBIR Contract Number: F41624-95-C-9007. EPI277
288. ITV News Bureau, Ltd. "A Psy-Ope Bonanza On The Desent." 1991. http://www.mindspring.com/-ellent/xx/dalsy.htm EPI568
289. ITV News Bureau, Ltd. "High Tech Psychological Warlare Armyes in The Micke East." 1991. http://www.mindspring.com/-ellent/xx/news.htm EPI567

camp in order to control the population? Is this part of the way in

which modern governments will suppress rogue nations?

The development of the technology followed a very traceable history which began in the early 1960s at the height of the cold war. in 1961 Dr. Allen Frey wrote, "Our data to date indicate that the hillinan auditory system can respond to electromagnetic energy in at least a portion of the radio frequency (RF) spectrum. Further, this response is instantaneous and occurs at low power densities, densities which are well below that necessary for biological damage. For stample, the effect has been induced with power densities 1/60 of the standard maximum safe level for continuous exposure,"290 This observation had incredible ramifications because it meant that within certain ranges RF could create a sound within the brain of a person at energy concentration levels considered too small to be significant.

Later that year a patent was issued to Dr. Puharich which stated in part, "The present invention is directed to means for auxiliary hearing communication, useful for improving hearing, for example, and relates more specifically to novel and improved arrangements for auxiliary hearing communications by effecting the transmission of sound signals through the dental structure and facial nervous system of the user."291 This crude device produced a signal which could be heard in the brain by inducing a vibration which was transferred through the bone into the inner ear where it was then carried to the brain via the nervous system. Puharich continued researching along this line, gaining an additional patent in 1965,292. Both of these inventions required physical contact with the head of the subject.

By 1962 Dr. Allan Frey had advanced his work and was able to create sound at a distance from the subject using a pulsed (modulated) radio transmitter. "Using extremely low average power densities of electromagnetic energy, the perception of sounds was induced in normal and deaf humans. The effect was induced several hundred feet from the antenna the instant the transmitter was turned on, and is a function of carrier frequency and medulation."293 What was occurring in this research were the first attempts to "tune" into the brain of a human in the same manner as "tuning" into a radio station. The same energy was being used, it was just at a different frequency with a slight vibration (modulation) on the carrier wave which delivered the signal.

In 1968 G. Patrick Flanagan was issued a patent for a device which also required physical contact with the skin of the subject. "This invention relates to electromagnetic excitation of the nervous system of a mammal and pertains more particularly to a method and

^{290.} Fréy. Altan H. "Audiflory System Response to Radio Frequency Energy." Aerospace Medicine, 2ec. 1961, Vol. 32, pp. 1140-1142. EP1370 291, US Patent #2,995,633, Aug. 8, 1961. Means for Aiding Hearing, Inventors: Published et al.

²⁹² US Patent #3,170,993, Feb 23, 1965. Means For Alding Hearing By Electrical Stimulation Of The Facial Nerve System. Inventors: Pubarich et al. EPI1119 293. Fray, Alian H. "Human Auditory System Response To Modulated Electromagnetic Energy." Jumal of Applied Physiology, 17(4): 689-692. 1962. EPI544

apparatus for exciting the nervous system of a person with electromagnetic waves that are capable of causing that person to become conscious of information conveyed by the electromagnetic waves."294 This invention was much different than what others had created by that time because this device actually sent a clear audible signal through the nervous system to the brain. The device could be placed anywhere on the body and a clear voice or music would appear in the head of the subject. This was a most unbelievable device which had actually been invented in the late 1950s. It had taken years to convince patent examiners that it worked. The initial patent was only granted after the dramatic demonstration of the device on a deal employee of the US Patent Office. In 1972 a second patent was issued to G. Patrick Flanagan after being suppressed by the military since 1968. This device was much more efficient in that it converted a speech waveform into "a constant amplitude square wave in which the transitions between the amplitude extremes are spaced so as to carry the speech information,"295 What this did is establish the code of modulation or timing sequences necessary for efficient transfers into the nervous system where the signals could be sent to the brain and decoded as sound in the same way that normal sound is decoded. The result was a clear and understandable sound.

The military interest was present since the first inventions were patented, but in 1971 a system was designed which would allow troops to communicate through a radio transmitter which would render the enemy deaf and disoriented while allowing "friendly" combatants to communicate at the same time. The device was described as follows: "Broadly, this disclosure is directed to a system for producing aural and psychological disturbances and partial deafness of the enemy during combat situation. Essentially, a high directional beam is radiated from a plurality of distinct transducers and is modulated by 2 noise, code, or speech beat signal. The invention may utilize various, forms and may include movable radiators mounted on a vehicle and oriented to converge at a desired point, independently positioned vehicles with a common frequency modulator, or means employed 10 modulate the acoustical beam with respect to a fixed frequency. During combat, friendly forces would be equipped with a reference generator to provide aural demodulation of the projected signal. thereby yielding an intelligible beat signal while enemy personnel would be rendered partially deaf by the projected signal as well as being unable to perceive any intelligence transmitted in the form of 2 modulated beat signal."296 What this says simply is that at-a-distance personal communication could be achieved by one's own forces while denying it to another and disabling adversaries at the same time.

^{294.} US Palent #3,393,279, July 16, 1968. Nervous System Excitation Device, Inventor: Flansgan. Gilfis Patrick. Assignes: Listening Incorporated. EPI261
295. US Patent #3,647,970, March 7, 1972. Method and System of Samplifying Speech Wavelorms Inventor: Flansgan, Gillis P. EPI259
296. US Patent #3,566,347, Feb. 23, 1971. Psycho-Acoustic Projector. Inventor: Flanders, Andrew E. Assignes: General Dynamics Corporation. EPI260

In 1974, using a microwave, it was noted that the signal was changed (transduced) by the receiver into an acoustic signal. This was the signal that was "heard" inside or just behind the head. The report stated: "...it was noticed that the apparent locus of the 'sound' moved from the observer's head to the absorber. That is, the absorber acted as a transducer from microwave energy to an acoustic signal. This observation, to the best of our knowledge, has not been described in the literature and may serve as a mechanism mediating the 'hearing' of pulsed microwave signals." 297

By 1989 the science took another leap forward with the combination of the modulated signal on a microwave carrier. This provided a much more efficient delivery of the sound. It was reported that, "Sound is induced in the head of a person by radiating the head with microwaves in the range of 100 megahertz to 10,000 megahertz that are modulated with a particular waveform. The waveform consists of frequency modulated bursts. Each burst is made up of ten to swenty uniformly spaced pulses grouped tightly together. The burst width is between 500 nanoseconds and 100 microseconds. The pulse width is in the range of 10 nanoseconds to 1 microsecond. The bursts are frequency modulated by the audio input to create the sensation of hearing in the person whose head is irradiated."298 Two patents were filed that year which addressed this breakthrough. The first Sovention relates to devices for aiding of hearing in mammals. The invention is based upon perception of sounds which is experienced in the brain when the brain is subjected to certain microwave radiation signals."299 And the second confirmed the earlier observations by stating that "Sound is induced in the head of a person by radiating the head with microwaves in the range of 100 megahertz to 10,000 megahertz that are modulated with a particular waveform. The waveform consists of frequency modulated bursts. Each burst is made up of ten to twenty uniformly spaced pulses grouped tightly together."300

In 1992 another patent described: "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." 301 This device had limited practicality in that it required that the person be in contact or close proximity to the sending device. When examined together, each of these patents are seen to be discrete steps toward a new weapon system.

^{297.} Sharp et al. Generation of Acoustic Signals by Pulsed Microsave Energy." IEEE Transactions On Microwave Theory And Techniques, May 1974. EP1817. 298. US Palent 84,877,027. Oct. 31, 1989. Hearing System. Inventor: Brunkan, Wayne. EP11124. 299. US Patent 84,858,612, Aug. 22, 1989. Hearing Device. Inventor: Stockin, William L. EP1270. 300. US Patent 84,877,027. Oct. 31, 1989. Hearing System, Inventor: Brunkan, Wayne B. EP1262. 301. US Patent 85,159,703. Oct. 27, 1992. Silent Subliminal Presentation System. Inventor: Lowny, Oliver M. EP1285.

In 1995 it was reported that in the early research, clear sound signals had been sent and received. It is difficult now to determine what level of military or other research was being advanced in these areas. History was clear from Congressional Reports that this entire area was of great interest to the intelligence communities, "Drs. Allan Frey and Joseph Sharp conducted related research. Sharp himself took part in these experiments and reported that he heard and understood words transmitted in pulse-microwave analogs of the speakers sound vibrations. Commenting on these studies, Dr. Robert Becker, twice nominated for the Nobel Peace Prize, observed that such a device has obvious applications in covert operations designed to drive a target crazy with voices, or deliver undetectable instructions to a potential assassin,"302

Later, in 1996 "A wireless communication system undetectable by radio frequency methods for converting audio signals. including human voice, to electronic signals in the ultrasonic frequency range, transmitting the ultrasonic signal by means of acoustic pressure waves across a carrier medium, including gases. liquids, or solids, and reconverting the ultrasonic acoustical pressure waves back to the original audio signal."303 was developed. Although this was meant to be used with both receiving and sending hardware. what was determined were the modulation methods for transferring the signal.

The real work was yet to be made public in the form of patents. However, the military claims in the area were starting to surface. What was known from experience was that patents were being held back by the government and confiscated by the military. When this intellectual property was seized the inventors were given a choice work for the government or you can not continue research, or even talk about, your invention under a national security order. Those who did not cooperate could have their work effectively shut down.

Brain to Computer Connections

Major steps are being made to connect biology to information technology. "Researchers said they took a key first step toward creating electronic microchips that use living brain cells. The researchers said they had learned how to place embryonic brain cells in desired spots on silicon or glass chips and then induce the brain cells to grow along desired paths."304 In addition, "Scientists have succeeded for the first time in establishing a colony of human brain cells that divide and grow in laboratory dishes, an achievement with profound implications for understanding and treating a wide range of neurological disorders from epilepsy to Alzheimer's disease."305 The

302. Scientists for Global Hasports billty. "Non-Lethal Delence: The New Age Mertal War Zone."

10. 1995. EPIB10

303. US Patent #5,539,705, July 23, 1996. Ultrasonic Speech Translator and Communication System. Inventor: Akeman, M. Alfred et al. Assignee: Manin Marietta Energy Systems. EPI293, 304. Bishop, Jerry. Theory Scientists Move Toward Union Of Living Brain Cella With Microchips. Wall Street Journal, Feb. 1, 1994, p. 83. EPI49

305. Specier, Michael. "Scientists make brain cells grow." Anchorage Daily News, May 4, 1990. EPI527

brain to effect a desired change in electrical activity therein."314 In simple terms, the brain's activity is mapped in order to read a person's emotional state, conceptual abilities or intellectual patterns. A second signal can be generated and sent back into the brain which overrides the natural signal, causing the brain's energy patterns to shift. This is called "brain entrainment" which causes the shift in consciousness. There are many uses, of a positive nature, for this kind of technology, as was mentioned at the front of this section, the important factor being who controls the technology and for what outpose. In the leading scientific journal, Nature, the following encapsulating statement appeared:

"But neuroscience also poses potential risks, he said, arguing that advances in cerebral imaging make the scope for invasion of privacy immense...it will become commonplace and capable of being used at a distance, he predicted. That will open the way for abuses such as invasion of personal liberty, control of behavior and brainwashing."315

Dancing to the Tune of an Unknown Drummer

In "a dramatic demonstration of mind reading, neuroscientists have created videos of what a cat sees by using electrodes implanted in the animal's brain. 'Trying to understand how the brain codes information leads to the possibility of replacing parts of the nervous system with an artificial device, he said."316 The scientist commenting on this technology saw the future possibility of brain activity mapping being used in creating electronic components to replace damaged parts of the system. The use of mind mapping had other possibilities as well. Similar research was pursued by Dr. José Delgado at one of the country's leading research institutions in controlling the behavior of humans and animals. Actual testing of certain systems proved "that movements, sensations, emotions, desires, ideas, and a variety of psychological phenomena may be induced, inhibited, or modified by electrical stimulation of specific areas of the brain."317 By 1985, Dr. Delgado was able to create these effects using only a radio signal sent to the brain remotely, using energy concentrations of less than 1/50th of what the Earth naturally produces. This discovery implied that frequency, waveform and pulse rate (modulation) were the important factors rather than the amount of energy being used. In considering this it makes sense because the human body does not require high electromagnetic power concentration to regulate its normal functioning - the key was in finding the "tuning" mechanisms for locating the right "receiving station" in the brain.

^{314.} US Patent #3,951,134, April 20, 1976. Apparatus And Method For Remotely Monitoring And Atenna Brakmuses. Inventor: Malech, Robert G. Assignes: Come & Margolin Inc. EP11122 315. Nature, "Advances in Neuroscience "May Threatien human rights." Vol 391. Jan. 22, 1998.

^{316.} Katnney, Leender. "A Cat's Eye Marvel." Wired News, Oct. 7, 1999.

Mp://www.weed.com/news/technology/story/22116.html EPI832

317. Delgado, Jose M.R. Physical Control of the Mind: Toward a Psychochrilized Society. Herper & Row, Publishers. New York, 1989. EPI850

By 1998, publicly released information was being discussed as a result of information openly flowing out of Russia. A meeting was held to assess the threat: the "main purpose of the March meetings was described in the Psychotechnologies memo as to 'determine whether psycho-correction technologies represent a present or future threat to U.S. national security in situations where inaudible commands might be used to after behavior."318 The threat assessment was likely to begin to condition Americans for the pubic acknowledgement of one of the government's long held secrets - the human mind and body could be controlled remotely without a trace of evidence being left behind. In another quote, one of the leading researchers in this area began to announce his findings: "But psychological-warfare experts on all sides still dream that they will one day control the enemy's mind. And in a tiny, dungeon like lab in the basement of Moscow's ominously named Institute of Psycho-Correction, Smirnov and other Russian psychiatrists are already working on schizophrenics, drug addicts and cancer patients."319 The results of this research have been investigated and demonstrated to members of the intelligence community in the United States and have even been demonstrated on a Canadian television documentary by Dr. Smirnov.

"Fantasies are thought processes involving internal monologues and imaginative sequences which can motivate healthy people to constructive behavior; likewise, they can inspire unbalanced individuals to destructive or dangerous behavior. One conclusion from that research was that fantasy played a major role among violent criminals. Researchers learned that criminals often daydreamed their fantasies, and then practiced elements of those fantasies before committing their crime. FBI agents determined that violent criminals often exhibit telltale signs as children and as adults. Hence, disturbed employees or students may demonstrate signs of violent fantasies to close observers. Troubled individuals may be obsessively interested in music with violent lyrics, or may have a drug or alcohol problem. When these signs reveal themselves, they should be reported to a threat management team, which can then neutralize the threat, either by therapy, if rehabilitation is possible, or by firing the employee. Workplace and school violence is usually preceded by warning signs."320 This issue is also an interesting one as the next chapter will show. The ability to determine a "predisposition" for a behavior does not mean that a person will make the "choice" to act on the feelings and internal thoughts. Every person on the planet can remember times when his thoughts were dangerous, immoral or otherwise unacceptable, falling below the standards set by societal and cultural "norms." Yet, we could have these thoughts in the privacy of our 318. Defense Electronics. "DoD, Intel Agencies Look at Russlan Mind Control Technology. Claims". July 1993. EPI538
319. ERiot, Dorinda and Barry, John. "A Subtiminal Dr. Strangelove." Newsweek, Aug. 21, 1994.

EPI542

^{320.} Depue, Roger L. and Ospue, Joanne M. "To Dreem, Perchance to Kill." Security Management, July 1999. Vol. 43, No. 6. Source. NLECTC Law Enforcement & Technology News Summary, July 6, 1999. EPI932

own mind. The trend in the application of mind control technology now would make our most private internal thoughts, as we wrestle with the temptations and choices of everyday life, subject to scrutiny by government and employers. Who will define the rules for psychocontection? Who will decide what is ethical and right in this area as it develops over the next decade?

Control of the Mind and Body

The predominant brain wave frequencies indicate the kind of activity taking place in the brain. There are four basic groups of brain wave frequencies which are associated with most mental activity. The first, beta waves, (13-35 Hertz or pulses per second) are associated with normal activity. The high end of this range is associated with stress or agitated states which can impair thinking and reasoning skills. The second group, alpha waves (8-12 Hertz), can indicate relaxation. Alpha frequencies are ideal for learning and focused mental functioning. The third, theta waves (4-7 Hertz), indicate mental imagery, access to memories and internal mental focus. This state is often associated with young children, behavioral modification and deep/dream states. The last, ultra slow, delta waves (.5-3 Hertz), are found when a person is in deep sleep. The general rule is that the brain's predominant wave frequency will be lowest, in terms of pulses per second, when relaxed, and highest when people are most afert or agitated.321

External stimulation of the brain by electromagnetic means can cause the brain to be entrained or locked into phase with an external signal generator. 322 Predominant brain waves can be driven or pushed into new frequency patterns by external stimulation. In other words, the external signal driver or impulse generator entrains the brain, overriding the normal frequencies, and causing changes in the brain waves; which then cause changes in brain chemistry; which then cause changes in brain outputs in the form of thoughts, emotions or physical condition. As you are driven, so, you arrive — brain manipulation can be either beneficial or detrimental to the individual being impacted depending on the level of knowledge or the intentions of the person controlling the technology.

In combination with specific wave forms, the various frequencies trigger precise chemical responses in the brain. The release of these neurochemicals causes specific reactions in the brain which result in feelings of fear, lust, depression, love, etc. All of these, and the full range of emotional/intellectual responses, are caused by very specific combinations of these brain chemicals which are released by frequency-specific electrical impulses. "Precise mixtures of these brain juices can produce extraordinarily specific mental states, such as

^{321.} Maga Bosto, New Tools and Techniques for Brain Growth and Mind Expension, by Michael Hutchison, 1986. EPI1235

^{322.} US Patent #5,356,388, Oct. 18, 1994. Method and Apparetus for inducing Desired States of Consciousness, inventor, Monroe, Robert, Assignes; interstate industries, Inc. EPI298

fear of the dark, or intense concentration."323 The work in this area is advancing at a very rapid rate with new discoveries being made regularly. Unlocking the knowledge of these specific frequencies will yield significant breakthroughs in understanding human health. Radio frequency radiation, acting as a carrier for extremely low frequencies (ELF), can be used to wirelessly entrain brain waves.

The control of mind and body using various forms of electromagnetic energy, including radio signals, light pulsations, sound and by other methods has resulted in several inventions and innovations. The positive health effects and uses have been pursued by private researchers around the world. In 1973 an "apparatus for the treatment of neuropsychic and somatic disorders wherein light-. sound-, VHF electromagnetic field- and heat- sources, respectively. are simultaneously applied by means of a control unit to the patient's central nervous system with a predetermined repetition rate. The light radiation and sound radiation sources are made so as to exert an adequate and monotonous influence of the light-and-sound-radiation on the patient's visual analyzers and auditory analyzers, respectively,"324 This results in the brain following the external simulating source in triggering brain pattern changes which effect the brain immediately and directly. In a simple application patented in 1977 one "invention provides a device, for improving upon the aforesaid application in assisting the induction of natural sleep. As stated above. this invention is concerned specifically with an improvement that will permit the creation of several waveforms such that an analgesic noise device can approximate soothing sounds of nature, i.e., waves, rain. wind."325 These kinds of devices are available everywhere and are noted for their calming effects in helping people relax and sleep.

In 1980 another patent was issued which disclosed "a method and apparatus for producing a noise-like signal for inducing a hypnotic or anesthetic effect in a human being. The invention also has application in crowd control and consciousness level training (biofeedback). The invention may also be used in creating special musical effects."326 This device would have a profound effect in controlling individuals to a point otherwise only achievable through the application of hypnotherapy or drugs. A couple years later another device was engineered to create these types of effects, again using very subtle energy resulting in: "Brain wave patterns associated with relaxed and meditative states in a subject are gradually induced without deleterious chemical or neurological side effects."327

^{323.} Nach Brain, New Tools and Technicales for Brain Growth and Mind Expansion, by Michael Hutchison, 1988, pg 114. EPI1235
324. US Patent #3,773,049, Nov. 20, 1973. Apparatus for the Treatment of Neuropaychic and Somatic Diseases with Heat, Light, Sound and VHF Electromagnetic Radiation. Inventors: Rabichel et al. EPI257
325. US Patent #4,834,741, July 12, 1977. Noise Transmitter and Generator, Inventors: Adams et al. EPI257
325. US Patent #4,834,741, July 12, 1977. Noise Transmitter and Generator, Inventors: Adams et al. EPI267
326. US Patent #4,191,175, March 4, 1980. Method and Apperatus for Repetitively Producing # Noise-Like Audible Signal. Inventor: Nagle, William L. EPI269
327. US Patent # 4,335,710, June 22, 1982. Device For the Induction of Specific Brain Wave Patiams. Inventor: Williamson, John D. Assignee: Omnitronics Research Corporation. EPI292

Various systems were perfected and patents issued for controlling brain activity.328,329,330,331,332.333.334,335 These inventions generated a whole array of breakthroughs for controlling a person's emotional state, concentration, and pain levels, and creating other effects as well. In 1990, the results of a study strongly indicated "that specific types of subjective experiences can be enhanced when extremely low frequency magnetic fields of less than 1 milligauss are generated through the brain at the level of the temporal lobes. Vestibular feelings (vibrations, floating), depersonalization (feeling detached, sense of a presence) and imaginings (vivid images from childhood) were more frequent within the field exposed groups than the sham-field exposed group."336

In another 1996 "new age" invention, quartz crystals are used to create stress relief by slowing brain activity. "Physiological stress in a human subject is treated by generating a weak electromagnetic field about a quartz crystal. The crystal is stimulated by applying electrical pulses of pulse widths between 0.1 and 50 microseconds each at a pulse repetition rate of between 0.5k and 10k pulses per second to a conductor positioned adjacent to the quartz crystal thereby generating a weak magnetic field. A subject is positioned within the weak magnetic field for a period of time sufficient to reduce stress."337 It is interesting that "new age" thinkers have played on "crystal magic" as a way to get in "tune" with oneself and relax and here is a quartz crystal being included as a component of this invention. Again, the crossovers between fiction and science continue to appear.

Consciousness training is also a big theme in cults, religious organizations and others pursuing the "new age." Science has now gained a greater understanding of how the mind and brain work so that what used to take years, or even decades, to achieve, can now be mastered in weeks, days or even minutes. For instance, in 1996 a method and apparatus for the use in achieving alpha and theta brainwave states and effecting positive emotional states in

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228. US Patent #4,717,343, Jan. 5, 1968, Method of Changing a Personia Behavior. Inventor. Density, Alan. EP1284
329. US Patent #4,834,701, May 30, 1969. Apparatus for Inducing Frequency Reduction in Bransare. Inventor: Mesatil, Kazumk Assignee: Hayashibara, Ken. EP1265.
330. US Patent #4,889,526, Dec 26, 1969. Non-invasiva Method and Apparatus for Modulating Brain Signals Through an External Magnetic Or Electric Field To Reduce Pain. Inventors, Rauscher, Elizabeth A. and Van Base, William L. Assignee: Megatech Laboratories, Inc. EP1268.
331. US Patent #4,227,516, Oct. 14, 1990. Apparatus for Stectrophysiological Stimulation. Inventors: Metand et al. EP1263.
332. US Patent #4,883,067, Nov. 28, 1989. Method and Apparatus for Translating the EEG into Musical Instrument, Inventors: Knispel et al. Assignee: Neurosponics, Inc. EP1282.
333. US Patent # 5,123,899, June 23, 1992. Method and System for Altering Consciousness Inventor: Gell, James. EP1289.
334. Petent # 5,352,181. Oct. 4, 1994. Method and Recording For Producing Sounds and Messages To Achieve Alpha and Theta Brainnews States and Positive Emotional States in Humans, Inventor. Davis, Marik E. EP1281.
335. US Patent #5,269,438, Feb. 22, 1984. Method and System For Altering Consciousness. Gell, James. EP1333.
336. Ruttan, Leets A. et al. "Enhancement of Temporal Lobe-Related Experiences During Brist Exposures To Milligenses Intensity Extremely Low Frequency Magnetic Fields." Journal of Biological/Chip, 9(1), 33-54 (1990). EP1311.
337. US Patent #5,862,587, Oct. 8, 1998. Method and Apparatus for Reducing Physiological Stress. Inventor: Van Dick, Robert C. EP1284.
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humans,"338 was developed. Two years later another patent was issued which could create desired consciousness states; in the training of an individual to replicate such states of consciousness without further audio stimulation; and in the transferring of such states from one human being to another through the imposition of one person's EEG, superimposed on desired stereo signals, on another individual, by inducement of a binaural beat phenomenon."339 Thought transference? This is interesting in that it speaks to the ideas alluded to earlier by the military in changing the memory of a person by imposing computer manipulated signals which would integrate with the normal memory of a person. The possibility of abuse are obvious and the opportunity for personal advancement is also great. Consider the possibility of gaining education by the transfer of data directly into the human brain by these new methods rather than the standard methods of learning. A serious consideration in developing these types of memory transfer systems will be the fact that they bypass normal intellectual filters - they are deposited into the brain as fact. without question or careful consideration. What happens when the new information conflicts with existing information? Would it be possible to include hidden information meant to unduly influence things like religious beliefs, politics or consumption of goods and services?

The possibilities are immense and the ethical and moral questions surrounding these matters equally large. We can no longer avoid the debate, in fact the debate is lagging far behind the scientific advancements. In the interim, there are some simple things we could all do to enhance our own, or our children's, learning capacity by applying simple and available knowledge. For instance: "researchers at the Center for the Neurobiology of Learning and Memory at University of California, Irvine, have determined that 10 minutes of listening to a Mozart piano sonata raised the measurable IQ of college students by up to nine points."340 This is a simple thing of great use to anyone seeking self improvement.

Weapons of the Mind

"The results of many studies that have been published in the last few years indicate that specific biological effects can be achieved by controlling the various parameters of the electromagnetic (EM) field. A few of the more important EM factors that can be manipulated are frequency, wave shape, rate of pulse enset, pulse duration, pulse amplitude, repetition rate, secondary modulation, and symmetry and asymmetry of the pulse. Many of the clinical effects of electromagnetic

338, US Fatent # 5,588,967, Dec. 24, 1996. Method and Recording or Producing Sounds and Messages To Achieva Alpha and Theta Brainwaye States in Humans, Inventor, Davis, Mark E.

EPT280
339. US Patent #5,213,582, May 25, 1993. Method of Inducing Mental, Emotional and Physical
States of Consciousness, Including Specific Mental Activity in Human Beings, Inventor, Montoe,
Robert, Assignes: Interstate Industries, Inc. EP1287
340. Hotz, Robert Lee, "Listening to Mozart a real - but temporary - IQ builder, study says."
Anchorage Daily News, Oct. 15, 1993. EPI529

radiation were first noticed using direct current applied directly to the skin. Later the same effects were obtained by applying external fields. Electromagnetic radiation has been reported in the literature to induce or enhance the following effects:

- Stimulation of bone regeneration in fractures.
- Healing of normal fractures.
- 3. Treatment of congenital pseudarthosis.
- 4. Healing of wounds.
- Electroanesthesia.
- Electroconvulsive therapy.
- Behavior modification in animals.
- Altered electroencephalograms in animals and humans.
- Altered brain morphology in animals.
- Effects of acupuncture.
- Treatment of drug addiction.
- 12. Electrostimulation for relief of pain.

These are but a few of the many biological effects and uses that have been reported over the past decade. They are not exhaustive and do not include many of the effects reported in the Soviet and East European literature.

As with most human endeavors, these applications of electromagnetic radiation have the potential for being a double-edged sword. They can produce significant benefits, yet at the same time can be exploited and used in a controlled manner for military or covert applications. This paper focuses on the potential uses of electromagnetic radiation in future low-intensity conflicts.

POTENTIAL MILITARY APPLICATIONS OF EMR

The exploitation of this technology for military uses is still in its infancy and only recently has been recognized by the United States as a feasible option. A 1982 Air Force review of biotechnology had this to say:

'Currently available data allow the projection that specially generated radiofrequency 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.

Experience with electroshock therapy, RFR experiments and the increasing understanding of the brain as an electrically mediated organ suggested the serious probability that 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 speedof-light weapons effect.

A rapidly scanning RFR system could provide an effective stun or kill capability over a large area. System effectiveness will be a function of wave form, field intensity, pulse widths, repetition frequency, and carrier frequency. The system can be developed using tissue and whole animal experimental studies, coupled with mechanisms and waveform effects research.

Using relatively low-level RFR, it may be possible to sensitize large military groups to extremely dispersed amounts of biological or chemical agents to which the unitradiated population would be immune.

The potential applications of artificial electromagnetic fields are wide ranging and can be used in many military or quasi-military operations.

Some of these potential uses include dealing with terrorist groups, crowd control, controlling breeches of security at military installations, and antipersonnel techniques in tactical warfare...One last area where electromagnetic radiation may prove to be of some value is in enhancing abilities of individuals for anomalous phenomena."341

Quite the paper for 1984. Stimulating anomalous phenomena was another interesting point revealed in this paper. What could this mean? In one press report, the interest of the CIA was disclosed when it was announced that for "20 years, the United States has secretly used psychics in attempts to help drug enforcement agencies, track down Libyan leader Moammar Gadhafi and find plutonium in North" Korea, the CIA and others confirm. The ESP spying operations code named 'Stargate' - were unreliable, but three psychics continued to work out of Ft. Meade, at least into July, researchers who evaluated the program for the CIA said Tuesday."342 It is also worth pointing out that this report coincided with the public disclosure by military personnel of this project. The story was revealed in a book called Psychic Warrior. John Alexander, working out of Los Alamos. and a major proponent of this area of research, wrote that "there are weapons systems that operate on the power of the mind and whose lethal capacity has already been demonstrated...The psychotronic weapon would be silent, difficult to detect, and would require only a human operator as a power source."343

^{341.} U686, Lt. Col. David. Low-Intensity Conflict and Modern Technology. Air University Press, June 1966. EPI709 342. Cola, Richard. "ESP spies. 'Stargate' are psychic reality." Saint Paul Ploneer Press, Nov. 30.

^{1995.} EPI491 343. Altergood, Steven. "The "Soft Kill" Fallacy." Bulletin of the Alomic Scientists, September/October 1994 EPI281

An "RF weapon currently under development is the high powered very low frequency (VLF) modulator. Working in the 20-35 KHZ spectrum, the frequency emits from a 1-2 meter antenna dish to form into a type of acoustic bullet. The weapon is especially convenient because the power level is easily adjustable. At its low setting, the acoustic bullet causes physical discomfort - enough to deter most approaching threats. Incrementally increasing the power nets an effect of nausea, vomiting and abdominal pains. The highest settings can cause a person's bones to literally explode internally. Aimed at the head, the resonating skull bones have caused people to hear 'voices.' Researched by the Russian military more extensively than by the U.S., the Russians actually offered the use of such a weapon to the FBI in the Branch Davidian standoff to make them think that 'God' was talking to them. Concerned with the unpredictability of what the voices might actually say to the followers, the FBI declined the offer. Another RF weapon that was ready for use hack in 1978 was developed under the guise of Operation PIQUE. Developed by the CIA, the plan was to bounce high powered radio signals off the ionosphere to affect the mental functions of people in selected areas, including Eastern European nuclear installations."344

The use of the ionosphere in the CIA's experiments reminds one of the possibilities now available with systems such as HAARP, which was developed fifteen years later. What is clear in all of this is that these systems have been developed and hidden from public view.

The practice continues to this day.

"The next area of non-lethal weapons is primarily used against machinery...these devices can either cause the machinery to stop functioning or to render it vulnerable to further, more lethal attacks. In addition to this effect, man has become very dependent upon the use of machines and is often rendered helpless in a situation when they become dysfunctional. Therefore, it is only appropriate that they are covered here. The primary anti-machinery arsenal includes the microwave weapon, the non-nuclear electromagnetic pulse, and the laser weapon.

U.S. Special Operations Command has in its arsenal the portable microwave weapon. The capability of such a weapon is varied in that it can not only disrupt enemy communications, but can also superheat internal organs. Of course, directing this type of weapon towards personnel eliminates it from the non-lethal classification. Developed in the Los Alamos National Laboratory, the weapon forms its signal similar to the RF weapons discussed above in that it directs the energy into a high-powered pulse and destroys transistors and other electrical equipment...On an even smaller scale, a portable EMP weapon could be carried by ground forces to destroy the electrical components in an armored vehicle or tank. This capability is being

344. Suhijda, Joseph M. Wor-Lathal Weapons for Military Operations Other Than War * http://www.usafe.af.mil/wng/34edg/sirmar/euhajd-1.htm EPi348

developed with police forces to emit a pulse that would stop a car

almost immediately."345

These systems offer both promise and risks as we move into the next century. What will be the public reaction to these systems? We suggest that the reaction will cause a significant change in the uses and further development of these technologies. Additionally, we suspect that monitoring systems would be developed which would allow for the detection of these technologies in order to control abuse.

Beamers?

Sometimes referred to as "wavies" or "beamers," these individuals are usually dismissed when asserting that they are the victims mind control weapons testing. In fact, at the "University of South Florida researchers have published a study showing that fears of the Internet are replacing the CIA and radio waves as a frequent delusion in psychiatric patients. In every case of Internet delusion documented by the researchers, the patient actually had little experience with computers."346 The problem is that it is difficult if not impossible to sort out which people might be victims and which are defusional. Attempts to determine the reality of the complaints are often the butt of jokes and fear. For example the "University of Albany has shut down the research of a psychology professor probing the 'X-Files' world of government surveillance and mind control. At conferences, in papers and research over two semesters, Professor Kathryn Kelley explored the claims of those who say they were surgically implanted with communications devices to read their thoughts."347 Since the release of our first book, Angels Don't Play This HAARP: Advances in Tesla Technology, we have heard from hundreds of people making such claims. We can not sort out what might be real experimentation from that which resides only in the minds of these people. We believe that the claims should be taken seriously and that people should have someplace to go in order to find the truth or gain the medical treatments they otherwise deserve The history of the United States is littered with examples of people being exploited by scientists working under the cover of darkness provided by "black budgets" - could these reports have a factual basis? We believe that some do.

Government control of the mind in order to impose its will on people is best summarized on the wall of the Franklin D. Roosevell Memorial where an inscription appears that reads, "They (who) seek to establish systems of government based on the regimentation of all human beings by a handful of individual rulers...call this a new order It is not new and it is not order."348

^{346,} AP, Tritamat Feeds Delusions." July 5, 1999. EPI123
347. Brownstein, Andrew "LiAlbarry Suspends Implants research." Times Linion, Aug. 25, 1999.

^{348.} Lelli, Anthony N. "Hurran Research Subject Protection." http://www.pw2.netcom.com-allari/fill/Site_analysis/papar_web.html EPI819