

# Electronic warfare

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*For warfare on the Internet, see [Cyberwarfare](#).*

**Electronic warfare (EW)** is any action involving the use of the [electromagnetic spectrum](#) or [directed energy](#) to control the spectrum, attack an enemy, or impede enemy assaults via the spectrum. The purpose of electronic warfare is to deny the opponent the advantage of, and ensure friendly unimpeded access to, the EM spectrum. EW can be applied from air, sea, land, and space by manned and unmanned systems, and can target humans, communications, radar, or other assets.<sup>[1]</sup>

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## The electromagnetic environment

Military operations are executed in an information environment increasingly complicated by the electromagnetic (EM) spectrum. The [electromagnetic spectrum](#) portion of the information environment is referred to as the electromagnetic environment (EME). The recognized need for military forces to have unimpeded access to and use of the electromagnetic environment creates vulnerabilities and opportunities for electronic warfare (EW) in support of military operations.<sup>[1]</sup>

Within the information operations construct, EW is an element of information warfare; more specifically, it is an element of offensive and defensive counterinformation.<sup>[2]</sup>

NATO has a different and arguably more encompassing and comprehensive approach to EW. A Military Committee conceptual document from 2007 (MCM\_0142 Nov 2007 Military Committee Transformation Concept for Future NATO Electronic Warfare) recognised the EME as an operational manoeuvre space and warfighting environment/domain. In NATO, EW is considered to be warfare in the EME. NATO has adopted simplified language which parallel those used in the other warfighting environments like maritime, land and air/space. For example, Electronic Attack is offensive use of EM energy. ED is electronic defence and ES electronic surveillance. The use of the traditional NATO EW measures (ECM, EPM and ESM) has been retained as they contribute to and support EA, ED and ES. Besides EW, other EM

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V · T · E



# Interferometry

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**Interferometry** is a family of techniques in which waves, usually electromagnetic, are superimposed in order to extract information about the waves.<sup>[1]</sup> Interferometry is an important investigative technique in the fields of astronomy, fiber optics, engineering metrology, optical metrology, oceanography, seismology, spectroscopy (and its applications to chemistry), quantum mechanics, nuclear and particle physics, plasma physics, remote sensing, biomolecular interactions, surface profiling, microfluidics, mechanical stress/strain measurement, and velocimetry.<sup>[2][3]</sup> Interferometers are widely used in science and industry for the measurement of small displacements, refractive index changes and surface irregularities. In analytical science, interferometers are used in continuous wave Fourier transform spectroscopy to analyze light containing features of absorption or emission associated with a substance or mixture. An astronomical interferometer consists of two or more separate telescopes that combine their signals, offering a resolution equivalent to that of a telescope of diameter equal to the largest separation between its individual elements.

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## Basic principles

See also: *Interference (wave propagation)*

Interferometry makes use of the principle of superposition to combine waves in a way that will cause the result of their combination to have some meaningful

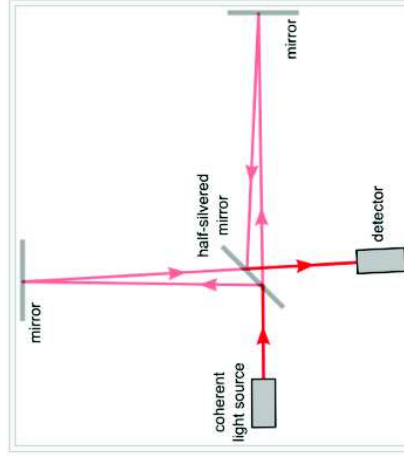


Figure 1. The light path through a Michelson interferometer. The two light rays with a common source combine at the half-silvered mirror to reach the detector. They may either interfere constructively (strengthening in intensity) if their light waves arrive in phase, or interfere destructively (weakening in intensity) if they arrive out of phase, depending on the exact distances between the three mirrors.



Good  
Morning

# Eugene Register-Guard

Cloudy

Weather details, Page 2A

111TH YEAR, NUMBER 154

8 SECTIONS

EUGENE, OREGON, SUNDAY, MARCH 26, 1978

110 PAGES

35 CENTS

## Mystery signal discovered in Eugene area

*Strong radio 'pulse' of unknown origin may cause health problems*

By MIKE THOELE

Copyright 1978  
Eugene Register-Guard

A powerful radio signal that may be affecting human health has been monitored in several Eugene locations and in the air 3,000 feet above the city.

The source of the radio signal is unknown.

Public agencies, dogged for the past two months by Marshall Van Ert, a University of Oregon staff member whose own health was moderately affected after he began his research last October, have quietly begun their own study to verify the existence of the radio signal and the health problems that Van Ert uncovered. A State Health Division physicist who completed a night of radio monitoring Friday confirmed the existence of the signal.

Van Ert and the experts he has drawn into the Eugene investigation are aware that the problem has an aura of science fiction. Dr. David White, Lane County health officer, is concerned, on the one hand, that he may get a stampede of imaginative patients who are convinced they're afflicted with radio wave symptoms and, on the other, that a potentially serious health problem may be laughed off as "flying saucerism."

However, health officials cautioned that evidence to date indicates no cause for public alarm.

The problem of errant radio waves,

"electronic smog," is a national issue of ever-widening ripples. The controversy it has generated has spilled over in scientific symposiums and in congressional hearings. But the radio frequency discovered by Van Ert and those assisting him apparently is the first evidence of the problem in Eugene or in Oregon.

"We're trying to determine if there's any direct correlation between the radio frequency and the biological effects," said Kay Prince, a health physicist from the State Health Division's radiation control section. Prince conducted the state tests which confirmed the presence of the radio signals.

"We know both things exist," she said. "Now we've got to find out if they're tied together, if one is causing the other."

Prince said the data that the health division is attempting to assemble will serve as "probable cause" evidence to bring radio frequency specialists from the federal Environmental Protection Agency into the investigation. The state already has formally requested the assistance of the EPA, she said, but it may be two months before the EPA assigns a technician to Eugene.

The health division entered the investigation on the request of Dr. David White, Lane County health officer — the first public official approached by Van Ert.

White, like other doctors, scientists

and engineers whose aid was sought by Van Ert over the past several months, said that dealing with the problem from a public health standpoint is difficult.

Research literature supports the position that, under certain conditions, a radio signal with the characteristics monitored here can produce certain symptoms. Some researchers have blamed such signals for disorders ranging from cancer and cataracts to headaches and insomnia.

The fact that the signal has been discovered and that a small number of persons have complained of symptoms mean that the problem should not be ignored, White said. But he also cautioned that the symptoms are general and that so far there are no conclusions that indicate a cause for alarm.

Van Ert has complained that official response to the problem has been sluggish. But White said the lack of precedents for dealing with public health problems possibly caused by radio waves has made it difficult for agencies to respond.

"This is the kind of problem that ought to fall in somebody's bailiwick," he said. "It's not the kind of problem agencies are used to dealing with. But it's something that needs to be dealt with. It's just that everybody — including me — has been saying 'not me.'"

The difficulty in dealing with an unconventional health problem that may be related to radio signals was noted by

Dr. Harold Osterud, chairman of the Department of Public Health at the University of Oregon Medical School. Although Osterud himself has not been directly involved in investigation of the Eugene phenomenon, his department was the scene last week of a group interview with several physicists and engineering specialists involved in the work.

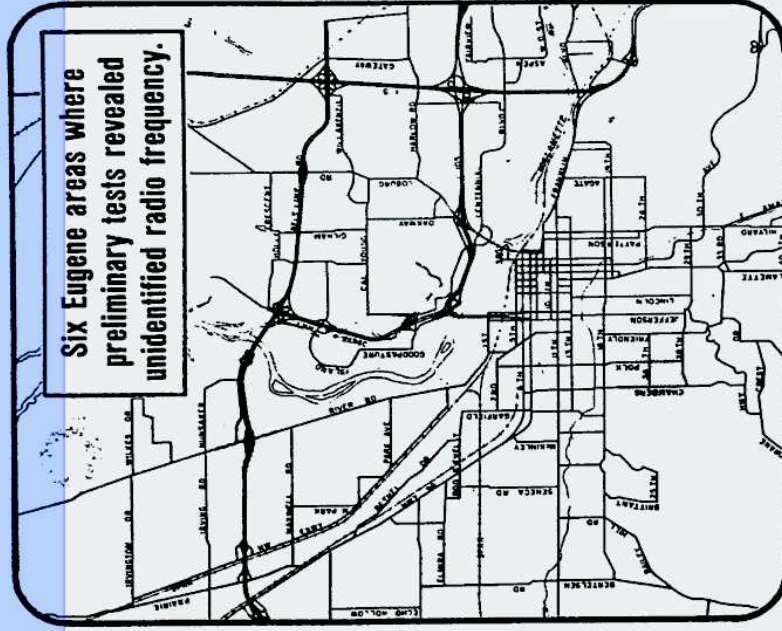
"This isn't anything that I know much about," he said. "But it's the sort of thing you can't ignore. We need to find out what's happening there."

The radio signal that has mobilized the health division and that is expected to bring federal experts to Eugene is described by personnel at the University of Oregon and at the U of O Medical School in Portland as a "radio frequency pulse signal." The experts who have investigated the phenomenon describe it as a 4.75 megahertz pulse occurring 1,100 times per second.

The signal has been recorded at weak levels inside at least two Eugene homes. But 3,000 feet above the city of Eugene, and extending northward as far as Corvallis, it has been measured at power intensities as high as 500,000 watts — 10 times the level of the most powerful AM radio stations licensed by the Federal Communications Commission.

"I was surprised," said Clifford Shrock of Portland, a Tektronics Inc.

Please turn to Page 3A



Shaded areas are general, not pinpoint, locations of signals



ernment, military and defense industry experts who have consistently denied any adverse effects from communications and radar gear. And on the other are physicians, engineers and environmental experts who say that the government and the defense industry are stonewalling the problem and ignoring a mounting body of evidence pointing to adverse health effects.

The critics say that the Soviet Union, which has done far more research on the problem than the United States, sets human exposure levels a thousand times lower than U.S. regulations. Some of the critics, such as Dr. Milton Zaret, a New York ophthalmologist,

realize that certain types of non-ionizing radiation, for example, microwaves and radio waves, can have similar effects to the readily recognized dangers of ionizing radiation — X-rays and gamma rays.

"The continuing rapid increase in the uses of microwave and radio waves in the military and civilian communication and sensor systems, as well as the growing popularity of microwave cooking in the home, means that it is imperative to develop accurate and adequate health risk estimates from sources which cannot be accused of vested interest."

What's it all about?

First, some kindergarten physics.

# Mystery signal discovered

engineer who specializes in radio frequency analysis. "I'd never seen anything like it before."

Schrock conducted the aerial tests that detected the powerful signal over Eugene. He sits on several FCC committees dealing with radio frequencies. He has been an editor of a technical magazine serving engineers in his field. And, in connection with his work at Tektronix, he wrote sections of the Central Intelligence Agency and National Security Agency manuals on "debugging" methods involving radio frequencies.

"I've seen things like that frequency that I could explain — like when you know you're flying directly over a big military transmitter or a transmitter on a mountain top," he said. "But to be in that location, over Eugene, and to have

a signal stay in that amplitude range for that great an area — that's something."

According to the specialists investigating the problem, the frequency range in which the signal occurs is in the shortwave radio band and is not in itself the reason for health concerns. The "pulsed" nature of the signal, unlike the continuous wave in typical radio signals, spurs the concern over health effects.

"Exposure to pulsed or pulse modulated electromagnetic radiation produces a large number of biological effects in humans and animals," Prince said after an extensive study of research material available on the subject.

A Eugene resident who says that he had been experiencing some of these effects for over two years was the cata-

or work in areas where the radio signal has been detected at ground level are consistent with those contained in research literature.

"We saw some rather atrocious signal levels in our aerial search over Eugene," says Bill Blise, a Portland radio engineer. "The frequency didn't worry me. But the pulse portion of the signal is something to be concerned about. I've seen about 25 references to pulse sources causing biological effects."

Until about 10 years ago Blise had worked steadily as an engineer for various Portland broadcast stations. Then he became convinced that radio equipment he had installed in his home was directly connected with health

views with persons who live or work in areas where the signals have been detected. A few of the contacts were in Corvallis, where aerial testing also showed the signal to be present, he said.

The six Eugene locations identified in the limited initial testing were the areas around:

- The extreme northern edge of Santa Clara, east of River Road.
- Belt Line Road and River Road.
- Belt Line Road and Coburg Road.
- Seventh Avenue at the approach to the Ferry Street Bridge.
- Franklin Boulevard and Agate Street.
- 25th Avenue and Chambers Street.

According to Van Ert, the persons he spoke with complained of a common set of symptoms. Van Ert, White and others describe the symptoms as "non-specific" — a collection of ear and throat problems, headaches, insomnia, coordination difficulties and other symptoms that are common to many ailments.

But Van Ert said persons who seem to be affected by the radio signal report the symptoms appearing and disappearing in a group. Persons who say they have perceived a recurring sound or vibration in their homes also report that many of the symptoms appear only

when the vibration is present.

Ironically, Van Ert began to suspect the presence of the signal in his own home after his investigation began. Initially, he says, he wondered whether his imagination was overactive.

But testing by Blise and Prince detected the signal at Van Ert's apartment. And White, who visited the apartment, has detected one of the symptoms, a reddening of the skin, in Van Ert. White also said he perceived the same low level noise or vibration that others in Eugene have noted.

"I perceived a high-pitched, barely audible sound accompanied by a 'stuffedness' in both ears," he said. "This sound and the stuffiness disappeared upon leaving the residence. I repeated my observation three times, including once with all electrical power turned off. There was no detectable difference with the power turned off."

Although the source of the powerful signal is unknown, Van Ert, Blise and Schrock offer several possibilities. One is an errant signal from a government or military installation. Another is the possibility of a "spurious" signal, a physical phenomenon that occurs under certain conditions when two or more frequencies combine to produce another signal.

And still another possibility is "skywave," or "skip," the freak transmissions that occur when signals

rant radio signal in Eugene probably can be quickly identified if the Environmental Protection Agency makes its resources available. But they say they're concerned about the possibility of a cover-up. "I hope that we'll be able to look over their shoulders while they're working," Toombs says.

Schrock, who's aware of the subject's science fiction overtones, says he's hopeful that public agencies will give the Eugene situation the quick and serious scrutiny he believes it deserves.

"I'm the world's worst skeptic," says Schrock. "But this case is something to think about. We're not bridging into science fiction."

from a distant location bounce off the atmosphere and are directed to earth again.

Another possibility could be a frequency generated by an "improperly shielded" industrial application that uses radio signals in a manufacturing process. Industrial applications that may use radio signals, usually in the microwave range, include lumber and veneer dryers, glue dryers, medical diathermy machines and commercial food processing plants.

Prince said the health division plans to resume monitoring in Eugene within about a week, after making some equipment modifications and arranging for aerial testing from the Air National Guard. She said EPA technicians might not be assigned to Eugene for more than two months.

For his part, Schrock isn't certain that it should take that long.

"If you got the right people and the right equipment," he says, "in about two days you could throw out about 99 percent of the theory and start coming to some conclusions."

**THANK YOU!  
I FOUND MY DOG  
MUFFIN**

No more calls, please





# Had enough field-burning? Try electronic smog

By MIKE THOLE  
Of the Register-Guard

Historically, Eugene residents have been concerned about injury to their environment.

They've railed over the felling of trees both close to the city and in remote locations. They've waxed indignant about toxic sprays and contaminated water. They've spiraled into high dudgeon over smoke from the burning of grass seed fields and logging slash.

Problems enough?

Then how about electronic smog?

That's the term used by a growing number of health professionals and environmentalists who believe that inadequate controls on some forms of radio frequency and microwave transmissions pose a threat to human health. The powerful "radio pulse frequency" that has been monitored in and above Eugene falls into a radio signal category that some experts say may be a health threat.

"It is an area where there is no black and no white," says Robert Sudmann, a University of Oregon health physicist who served as a technical sounding board for Marshall Van Ert, the industrial hygienist whose work spurred the public agency investigation that is just beginning. "It's a gray area."

It is also a controversial one. Arrayed on one side of the electronic battle line are government, military and defense industry experts who have consistently denied any adverse effects from communications and radar gear. And on the other are physicians, engineers and environmental experts who say that the government and the defense industry are stonewalling the problem and ignoring a mounting body of evidence pointing to adverse health effects.

The critics say that the Soviet Union, which has done far more research on the problem than the United States, sets human exposure levels a thousand times lower than U.S. regulations. Some of the critics, such as Dr. Milton Zaret, a New York ophthalmologist,

say the government undercuts its own denials in such ways as refusing to admit that close exposure to radar can cause eye problems, while paying, through the Veterans Administration, disability benefits to former radar technicians with cataracts.

The most prominent critic is probably Paul Brodeur, an environmental writer for The New Yorker magazine. Brodeur's book, "The Zapping of America," embraced eagerly by environmentalists, has also been accepted by more cautious engineers and researchers, such as Clifford Schrock, a Portland radio frequency specialist, and Dr. William Morton, head of the department of environmental medicine at the University of Oregon Medical School.

"We are living under an electronic sword of Damocles," Brodeur says, "for we are entirely without any idea of how such radiation may affect us."

Morton put the issue more prosaically in written testimony presented at the radiation, health and safety hearings of the U.S. Senate Committee on Commerce, Science and Transportation in 1977.

"It has . . . become apparent that certain federal agencies and private contractors have vested interest in obstructing the public scrutiny and adequate research support for accurate determination of the risks of these apparent hazards," he said. "Most people do not realize that certain types of non-ionizing radiation, for example, microwaves and radio waves, can have similar effects to the readily recognized dangers of ionizing radiation — X-rays and gamma rays."

"The continuing rapid increase in the uses of microwave and radio waves in the military and civilian communication and sensor systems, as well as the growing popularity of microwave cooking in the home, means that it is imperative to develop accurate and adequate health risk estimates from sources which cannot be accused of vested interest."

What's it all about?

First, some kindergarten physics.

Radio waves come in a known range of strengths, or frequencies. Consider that range as a 12-inch ruler. At the upper end, from about 8 to 12 inches, are the ionizing radiation — X-rays and gamma rays. Their benefits and dangers are well documented and not involved in the dispute.

Below eight inches on the imaginary radio ruler is non-ionizing radiation. And in the bottom five inches are radio frequencies. That's where the argument is: In inches four and five, which includes microwave — from ovens to radar. And below four inches, which includes commercial radio, television and shortwave frequencies.

Because of other radio wave components, such as pulse, strength, wave length and cycles per second, almost infinite signal variations are possible. The critics don't say all of them are harmful. But some researchers in both the Soviet Union and the United States have blamed certain types of microwave and radio signals for disorders ranging from cancer and cataracts to headaches and insomnia.

The 4.75 megahertz radio frequency pulse signal monitored in and above Eugene falls at about the 2½-inch mark on the imaginary ruler. But it has been monitored at signal strengths of 500,000 watts, far greater than any commercial broadcast station.

According to Van Ert, the symptoms reported by about 25 Eugene residents who live or work in areas where the radio signal has been detected at ground level are consistent with those contained in research literature.

"We saw some rather atrocious signal levels in our aerial search over Eugene," says Bill Bise, a Portland radio engineer. "The frequency didn't worry me. But the pulse portion of the signal is something to be concerned about. I've seen about 25 references to pulse sources causing biological effects."

Until about 10 years ago Bise had worked steadily as an engineer for various Portland broadcast stations. Then he became convinced that radio equipment he had installed in his home was directly connected with health

problems being experienced by his wife. Eventually, he quit his full-time radio work, supported himself with a small consulting business and began researching biological effects of radio frequencies.

Along the way he founded a non-profit corporation — Pacific Northwest Center for the Study of Non-Ionizing Radiation — in a futile attempt to obtain grant money for research. Nevertheless, he completed a small pilot study, using human volunteers to test the neurological effects of certain radio waves.

The report made him a pariah in his own profession. But since then, those who once rejected or ridiculed his findings — Morton (at the medical school), Sudmann (the U of O physicist) and Schrock (the Portland radio engineer) — have attached great credence to his work. Morton now uses him as an instructor in the medical school's environmental health department.

When Van Ert hit a dead end in his attempt to monitor sounds and vibrations that a Eugene man had reported in his home, he turned to Bise. Bise and Schrock, a Tektronix engineer who has written portions of Central Intelligence Agency and National Security Agency manuals on the use of radio equipment for debugging, came to Eugene with more sophisticated equipment and turned up the signal at ground level and in the air.

According to the two men, the aerial portion of their test detected the signal at 3,000 feet over Eugene. They kept their small plane in the signal field for an extended period of time. Both reported feeling physical effects. Schrock said he developed a splitting headache, while Bise said he had a visible swelling on his forehead.

"I'm inclined to be cautious about drawing conclusions," Schrock said. "I know that discomfort from air pressure changes happens in light aircraft. I know what happened but I won't say that it happened because of the radio frequency."

Bise, Schrock and George Toombs, a health physicist associated with both the med-

ical school and the State Health Division, say they have hopes that the attention focused on the frequency detected over Eugene will lead to quick response and documentation by state and federal agencies.

Schrock says he is convinced that the signal can be isolated and perhaps tracked to a source in a short time if the proper equipment and expertise are thrown into the effort.

But residents of some other communities might be skeptical about a quick solution.

Citizens and medical officials of communities in California, Massachusetts, Alabama and other states have met with difficulty in obtaining information about the biological effects of proposed and existing government microwave transmissions. Residents of Cape Cod, where Brodeur lives, have been complaining of health effects and battling for data for several years.

According to Morton and others, research information that could lead to definitive safety standards for microwave and radio frequency transmissions is thwarted by government and by industries that might be affected by the standards.

On the local scene, Van Ert complains that government agencies were slow to respond to his warnings of a possible health hazard until he decided to "go public" with his findings.

Bise, Schrock and Toombs say the aberrant radio signal in Eugene probably can be quickly identified if the Environmental Protection Agency makes its resources available. But they say they're concerned about the possibility of a cover-up. "I hope that we'll be able to look over their shoulders while they're working," Toombs says.

Schrock, who's aware of the subject's science fiction overtones, says he's hopeful that public agencies will give the Eugene situation the quick and serious scrutiny he believes it deserves.

"I'm the world's worst skeptic," says Schrock. "But this case is something to think about. We're not bridging into science fiction."



the geologic conditions were unfavorable

were covered by the experimental in royalties.

in Huntsville," she said.

## Oregon's 'close encounter' turns out to be of an ordinary kind

United Press International

EUGENE, Ore. — Those mysterious radio signals that some Eugene residents say turn their skin red and cause other health problems are not coming from outer space, but from a "naval operation" in Alameda, Calif., a Federal Communications Commission (FCC) official said Tuesday.

Theories on the source of the signals, which have been investigated by engineers and Oregon health officials, ranged all the way to outer space. But the answer is nothing so exotic, said Richard Smith, assistant chief of the enforcement division of the FCC.

"Frankly, I think it's much ado about nothing," Smith said.

Kristine Gebbie, administrator of the Oregon State Health Division, said the signals had been heard at widely scattered areas in Oregon, but they were up to 100 times stronger in the Eugene area.

"At the same time this electromagnetic source has been detected, people have reported noises in the head, stuffiness and reddened skin," she said Monday.

Marshall Van Ert, an industrial hygienist at the University of Oregon who was one of the original investigators of the pulses in

the Eugene area, said the signals caused his skin to turn red.

"On at least five occasions I have had to leave my apartment," Van Ert said. "The signal strength will begin to increase in intensity in the evening from 6 to 7 o'clock and continue through the night and into the morning until about 8 or 9 o'clock."

Smith said the FCC had determined the signal was emanating from a "naval operation" at the Alameda Naval Air Station, on San Francisco Bay, but he did not know what the operation was.

"The data transmission is something that has been going on for some time," he said, "and there is nothing particularly mysterious about these radio signals that we can see."

Van Ert said his investigation began when he was asked to investigate a house in nearby Santa Clara, Ore. last October.

"In the house I perceived a high-pitched, nonaudible sensation that set up a ringing in my ears. It felt like a pressure around my head."

The Oregon State Health Division said Tuesday the matter now is in the hands of the federal Environmental Protection Agency for any further action.

## National digest

### International report warns of future oil shortages

A report released Tuesday by representatives of six nations warns that future oil shortages may split Western allies and lead to new military threats in the Middle East. The report said key steps to avoid a crisis include more conservation by industrial nations, the development of alternate energy sources and a joint effort to link more closely the economic futures of producing and consuming nations. The report was sponsored by the Rockefeller Foundation and was written by experts from Britain, France, Italy, West Germany, Japan and the United States.

### Navy questions fleet projections

A Navy study made public Tuesday suggests that a future fleet of about 500 ships projected by Defense Secretary Harold Brown would fall below "minimum acceptable risk" for U.S. security. The Navy study concluded that a 585-ship fleet would give the United States "all around superiority" over the Soviet Navy. Defense officials countered by saying the sharply reduced Navy shipbuilding program they recommend "is the largest we can responsibly propose" to Congress.

### Newspaper unions ready to strike

The union representing 200 lithographers and photoengravers at *The New York Times* and *Daily News* voted Tuesday to authorize a strike against the



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PRESIDENTIAL COMMISSION FOR THE STUDY OF BIOETHICAL ISSUES

July 27, 2011

Dear Commenter:

We are writing to advise you on our ongoing work and plans for the next meeting of the Presidential Commission for the Study of Bioethical Issues. We appreciate the time that you have taken to engage with us.

We would like to clarify for your information that the Commission is not investigating or reviewing any concerns or complaints concerning claims about targeted individuals. This includes claims concerning: MK-ULTRA; COINTELPRO; electromagnetic torture or attacks; organized stalking; remote influencing; microwave harassment; covert harassment and surveillance; human tracking; psychotropic or psychotropic weapons and radio frequency or military weapons or other claims.

As such the Commission will not hear further testimony on these subjects. Many of these issues have been investigated in the past. The Commission is not a law enforcement, regulatory or legislative body. It does not control any federal monies. In addition, the Commission has no involvement with the public or private grants and has no power to open or undertake criminal cases.

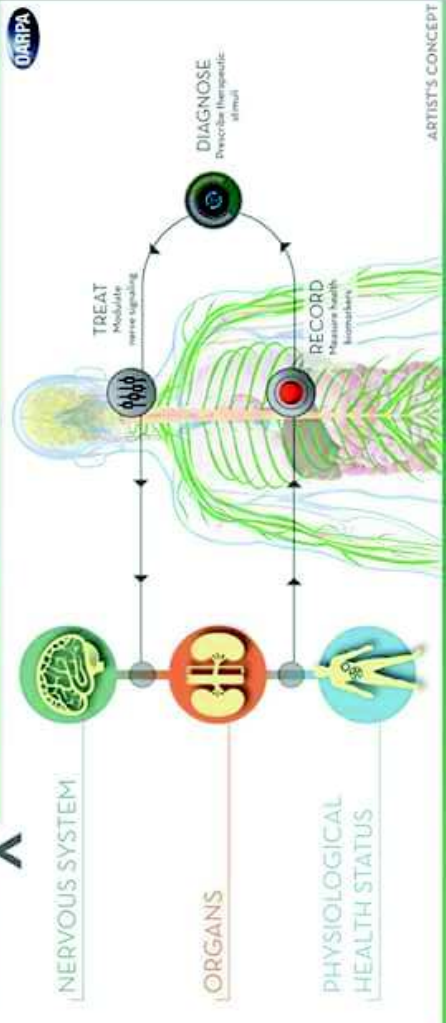
As advisors to the President, we will ensure that all of your concerns, information and testimony are provided to the White House. We sincerely appreciate your interest in the work of the Commission and the time you have taken to share your personal history with us.

Sincerely,

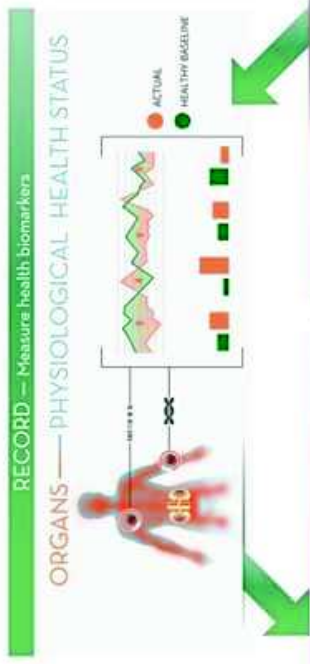
A handwritten signature in blue ink, reading "Valerie H. Bonham".

Valerie H. Bonham  
Executive Director





**GOALS**  
Develop new high-precision, minimally invasive technologies for monitoring and regulating peripheral nerve signals to adaptively control organ functions.



**RECORD**  
Measure health biomarkers  
Physiological health status would be monitored continuously through recordings of peripheral nerve activity and biomarkers

**DIAGNOSE**  
Describe therapeutic stimuli  
Health status would be evaluated against healthy baseline levels to diagnose unhealthy activity and prescribe appropriate therapeutic stimuli

**TREAT**  
Modulate nerve signaling  
Therapeutic stimuli would be delivered to peripheral nerves, modulating cell and organ function to restore healthy status

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*Work Begins to Support Self-Healing of Body and Mind Integrated, international efforts under ElectRx program blend mapping of neural circuits and development of novel bio-electrical interfaces*

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enslavement.



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**ELECTRONIC WARFARE HIT**

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# Military Mind Control

CIA Truth







NATIONAL SECURITY AGENCY  
CENTRAL SECURITY SERVICE  
FORT GEORGE G. MEADE, MARYLAND 20755-6000

Serial: J9728-96

19 March 1997

Ms. Cheryl Welsh  
915 Zaragoza St.  
Davis, CA 95616

**Obvious question:  
If government-sponsored  
mind control is not happening,  
then why could it "reasonably  
be expected to cause  
exceptionally grave damage  
to national security"!?**

Dear Ms. Welsh:

This responds to your Freedom of Information Act (FOIA) request dated 28 July 1995 submitted to the Defense Intelligence Agency (DIA) for records pertaining to yourself and other various topics. A copy of your request is attached for your convenience. On 21 October 1996 the DIA referred one responsive NSA-originated document relating to a Soviet mind control system to this Agency for our review and direct response to you.

The document has been reviewed by this Agency pursuant to the provisions of the FOIA and has been found to be currently and properly classified in accordance with Executive Order 12958. This document meets the criteria for classification as set forth in subparagraphs (c) and (g) of section 1.5 and remain classified TOP SECRET as provided in section 1.3 of Executive Order 12958. The information is classified because its disclosure could reasonably be expected to cause exceptionally grave damage to the national security. Because the information is currently and properly classified, it is exempt from disclosure pursuant to the first exemption of the FOIA (5 U.S.C. section 552(b)(1)).

In addition, this Agency is authorized by various statutes to protect certain information concerning its activities. We have determined that such information exists in this document. Accordingly, those portions are also exempt from disclosure pursuant to the third exemption of the FOIA which provides for the withholding of information specifically protected from disclosure by statute. The specific statutes applicable in this case are



Amy Gutmann, Ph.D.  
Commission Chair





[54] **APPARATUS AND METHOD FOR  
REMOTELY MONITORING AND  
ALTERING BRAIN WAVES**

[75] Inventor: **Robert G. Malech**, Plainview, N.Y.

[73] Assignee: **Dorne & Margolin Inc.**, Bohemia,  
N.Y.

[22] Filed: **Aug. 5, 1974**

[21] Appl. No.: **494,518**

[52] **U.S. Cl.**..... **128/2.1 B**

[51] **Int. Cl.<sup>2</sup>**..... **A61B 5/04**

[58] **Field of Search** ..... 128/1 C, 1 R, 2.1 B,  
128/2.1 R, 419 R, 422 R, 420, 404, 2 R, 2 S,  
2.05 R, 2.05 V, 2.05 F, 2.06 R; 340/248 A,  
258 A, 258 B, 258 D, 229

[56] **References Cited**

**UNITED STATES PATENTS**

2,860,627	11/1958	Harden et al.	128/2.1 B
3,096,768	7/1963	Griffith, Jr.	128/420
3,233,450	2/1966	Fry	128/2.1 R
3,483,860	12/1969	Namerow	128/2.05 F
3,495,596	2/1970	Condict	128/1 C

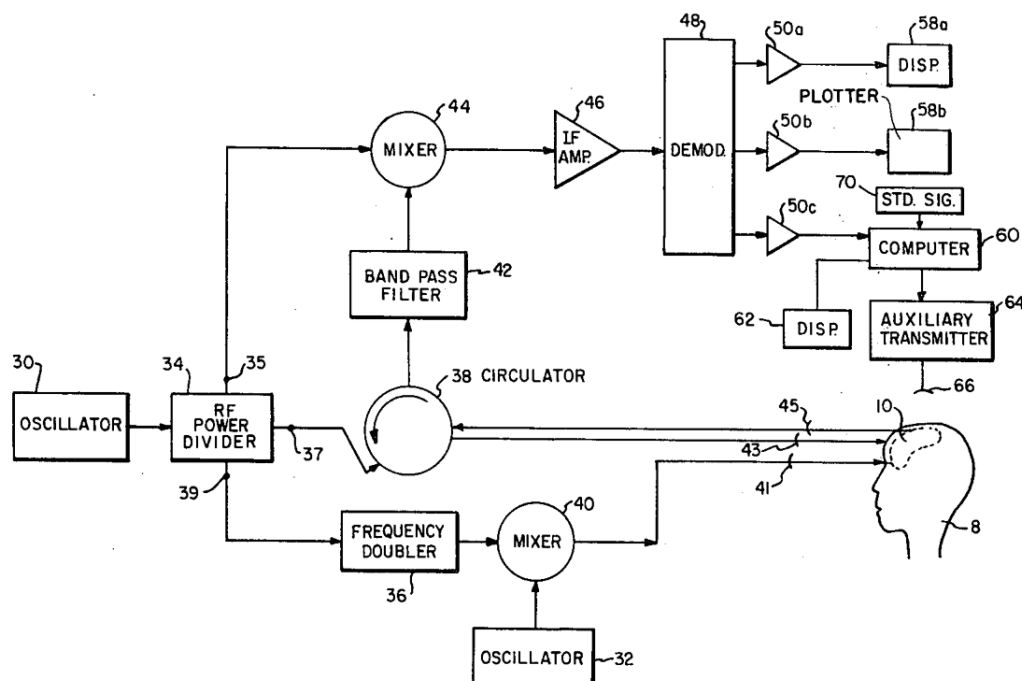
3,555,529	1/1971	Brown et al.	128/2.1 R
3,773,049	11/1973	Rabichev et al.	128/1 C
3,796,208	3/1974	Bloice	128/2 S

*Primary Examiner*—William E. Kamm  
*Attorney, Agent, or Firm*—Darby & Darby

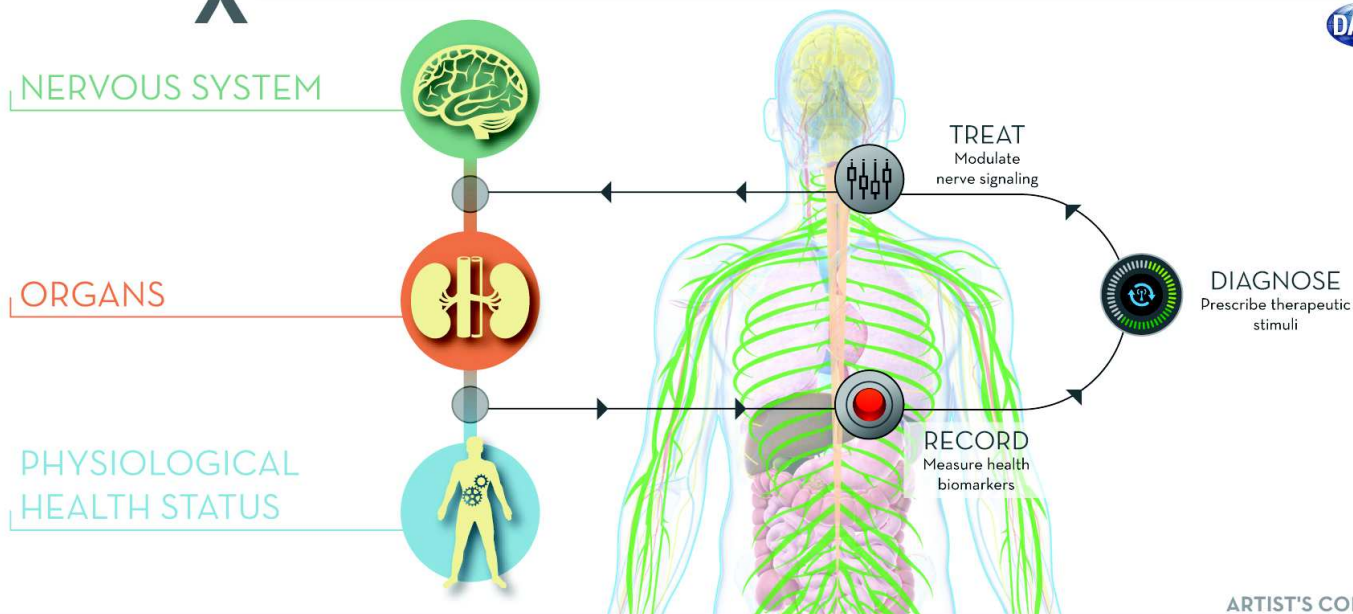
[57] **ABSTRACT**

Apparatus for and method of sensing brain waves at a position remote from a subject whereby electromagnetic signals of different frequencies are simultaneously transmitted to the brain of the subject in which the signals interfere with one another to yield a waveform which is modulated by the subject's brain waves. The interference waveform which is representative of the brain wave activity is re-transmitted by the brain to a receiver where it is demodulated and amplified. The demodulated waveform is then displayed for visual viewing and routed to a computer for further processing and analysis. The demodulated waveform also can be used to produce a compensating signal which is transmitted back to the brain to effect a desired change in electrical activity therein.

**11 Claims, 2 Drawing Figures**







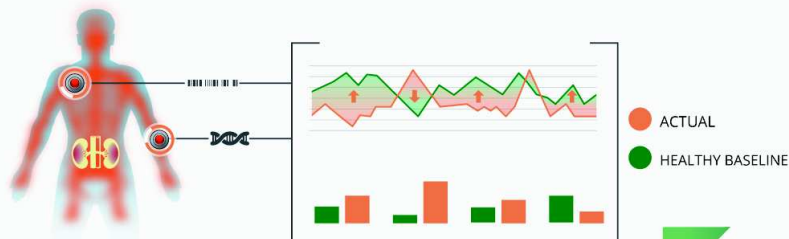
ARTIST'S CONCEPT

## GOALS

Develop new high-precision, minimally invasive technologies for monitoring and regulating peripheral nerve signals to adaptively control organ functions

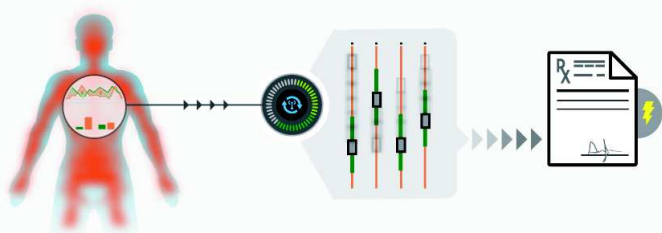
### RECORD — Measure health biomarkers

ORGANS — PHYSIOLOGICAL HEALTH STATUS



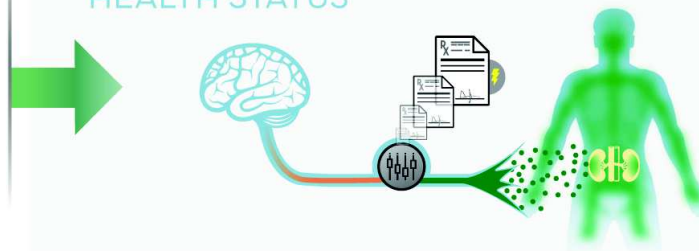
### DIAGNOSE — Prescribe therapeutic stimuli

NERVOUS SYSTEM — ORGANS



### TREAT — Modulate nerve signaling

PHYSIOLOGICAL HEALTH STATUS — NERVOUS SYSTEM



### RECORD

Measure health biomarkers

Physiological health status would be monitored continuously through recordings of peripheral nerve activity and biomolecules

### DIAGNOSE

Prescribe therapeutic stimuli

Health status would be evaluated against healthy baseline levels to diagnose unhealthy activity and prescribe appropriate therapeutic stimuli

### TREAT

Modulate nerve signaling

Therapeutic stimuli would be delivered to peripheral nerves, modulating cell and organ function to restore healthy status



## NANO IMPLANTS PX67

THOUGHT  
REACTION  
HEARING  
VISUAL

ACTIVATE

PARANOIA

■ FEAR

PAIN

CONFUSE

■ NAUSEA

MEMORY

PANIC

SLEEP

ATTACK

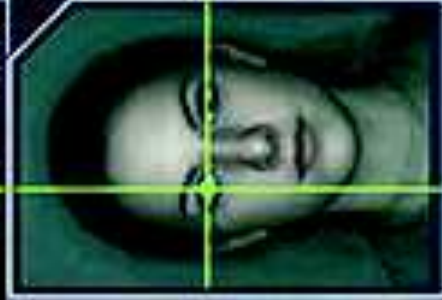
LETHARGY

SEXUAL

SUICIDE



IDENTITY  
CONFIRM



## DANA PLESSON

OREGON x 355 84 8439

ACTIVIST

Trouble-maker  
Whistleblower



IAN849-76==174-9JH

DARPA

CONFINE CONTROL TORTURE EXPELL TERMINATE

HARASS

DISCIPLINE



United States of America		First reply: 2015
Year of review: 2014		FIRST ASSESSMENT
Recommendations		Grade
5-i. Investigation of cases of unlawful killing, torture and other ill-treatment, unlawful detention and enforced disappearances		B2
5-ii. Establish the responsibility of those who provided legal pretexts for manifestly illegal behaviour		C1
5-iii. Incorporation of the doctrine of "command responsibility" in its criminal law		C1
5-iv. Declassification of the report of the Senate Special Committee on Intelligence into the CIA secret detention programme		B1
10-A. Efforts to curb gun violence including legislation requiring background checks for private firearms transfers		C1
10-B. Review of the Stand Your Ground laws		C1
21-i. Expedite the transfer of detainees and the process of periodic review for Guantánamo detainees		B2
21-ii. End the system of administrative detention of detainees in Guantánamo and in military facilities in Afghanistan		C2
22-A. Ensure surveillance activities within the US conforms to its obligations under the Covenant		C1/C2
22-B. Ensure interference with right to privacy family, home or correspondence are authorized by law		C1
22-C. Reform the current oversight system of surveillance activates		C1
22-D. Refrain from imposing mandatory retention of data by third parties		C1
22-E. Ensure affected persons have access to effective remedies in cases of abuse		D1



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Barack Obama's SAPs/black world programs hide his targeting of American citizens with space capability, building penetrating tomography/interferometry/electronic warfare, it's the ultimate weapon for population control, warrantless surveillance, directed energy assault, harassment, no-touch torture, mind control, and total enslavement. holographic scans of our homes and brains 24/7.

lets negotiate a cease fire.. end the covert war on Americans, Barack Obama..

get the dirt @ [obamasweapon.com](http://obamasweapon.com)

Slaughter - Death - Corruption

CIA/DOD spy architect Dr. Robert Duncan AB, SM, MBA, PhD-NSA whistleblower backed

drrobertduncan.com \*\*\*

STOP  
TARGETING  
CITIZENS

DEW  
TORTURE

TARGETED IN THE FACE,  
HEAD, PARTS OF THE BODY, TARGETED  
FAMILY, SLEEP DEPRIVATION, CRUEL  
AND INHUMAN TORTURE, NO DUE PROCESS

AMERICAN TYRANNY

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AMERICA'S  
TORTURE  
TARGETED ENERGY  
WEAPONS (DEW's)  
'PAIN RAY'  
COMPLIANCE"

DEW  
TORTURE  
TARGETED IN THE FACE,  
Head, Parts of the body, TARGETED  
FAMILY, SLEEP DEPRIVATION, GUEL  
AND INHUMAN BEHAVOR, NO DUE PROCESS.  
AMERICAN TYRANNY

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OREGON STATE HOSPITAL  
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AMERICA'S TORTURE DIRECTED ENERGY WEAPONS (DEW's) "PAIN RAY" COMPLIANCE

STOP POPULATION ASYLUM

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Barack Obama's SAPs/black world programs hide his targeting of American citizens with space capability, building penetrating tomography/interferometry/electronic warfare, it's the ultimate weapon for population control, warrantless surveillance, directed energy assault, harassment, no-touch torture, mind control, and total enslavement, holographic scans of our homes and brains 24/7.

let's negotiate a cease fire... end the covert war on Americans, Barack Obama... CIA/DOD sys architect Dr. Robert Duncan AB SM, MBA, PhD-NSA whistleblower backed

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let's negotiate a cease fire...  
for the covert war on  
Americans, Barack Obama...  
CIA/DOD says architect Dr. Robert Duncan #B, SM, MBA, PhD/NEA, whistleblower backed

OREGON STATE  
HOSPITAL  
Slaughter - Death - Corruption  
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end the covert war on Americans, Barack Obama..

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Slaughter - Death - Corruption

CIA/DOD sys architect Dr. Robert Duncan AB, SM, MBA, PhD-NSA, whistleblower backed

\*\*\*  
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AMERICA'S  
TORTURE  
DIRECTED ENERGY  
WEAPONS (DEW)  
"PAIN RAY  
COMPLIANCE"







## Presidential Commission for the Study of Bioethical Issues

DATE 11/17/2015  
NAME Todd Giffen  
ORGANIZATION obamasweapon.com  
TITLE DOO/CIA scientist  
COMMENT OR QUESTION

When you classify all real intelligence keeping the public in the dark, they cannot react emotionally, learn, get involved, or fix ethical problems, such as torture and surveillance abuses. Dr Robert Duncan.com has info on classified ongoing torture programs. What can we do to involve everyone, if they are deliberately locked out?



9:00 - 9:15 a.m.

Welcome and Opening Remarks

Amy Gutmann, Ph.D.  
Commission Chair

Thomas Wagner, Ph.D.



Presidential Commission for the Study of Bioethical Issues

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Tuesday, November 17

9:00 - 9:15 a.m.

**Welcome and Opening Remarks**

Amy Gutmann, Ph.D.  
Commission Chair

James Wagner, Ph.D.  
Commission Vice Chair



**Presidential Commission for the Study of Bioethical Issues**

DATE	11/17/2015
NAME	Todd Giffen
ORGANIZATION	obamasweapon.com
TITLE	DOO/CIA scientist
COMMENT OR QUESTION	

Is profiting off the suffering of poor humans ok - as long as there's a benefit for the rich in terms of using and developing radiation, energy, particle, chemical weapons that kills, tortures, and maims? Going on today, drobertduncan.com has the facts?





# Presidential Commission for the Study of Bioethical Issues

DATE ~~11/17/2015~~ 11/17/2015  
NAME Todd Giffen  
ORGANIZATION oregon state hospital, net  
TITLE DOO/CIA scientist  
COMMENT OR QUESTION

The Executive Summary:  
Neuropsychological and Electronic  
No Touch Torture Report, by  
Dr. Robert Duncan ATB-SM-MBA-PhD,  
DOO/CIA scientist: The commission on  
bioethics failed to do its' job -  
thousands of victims nation wide today-  
ongoing abuse.  
dr robert duncan.com/dr-robert-duncan-neuropsychological-  
and-electronic-no-touch-torture-report.html

governments  
killing me  
what  
now do to  
do stop  
them?



Amy Gutmann, Ph.D.  
Commission Chair

James Wagner, Ph.D.  
Commission Vice Chair



### Presidential Commission for the Study of Bioethical Issues

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drrobertduncan.com/dr-robert-duncan-neuropsychological-  
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Governments  
willing we  
what  
now do to  
do them?  
stop

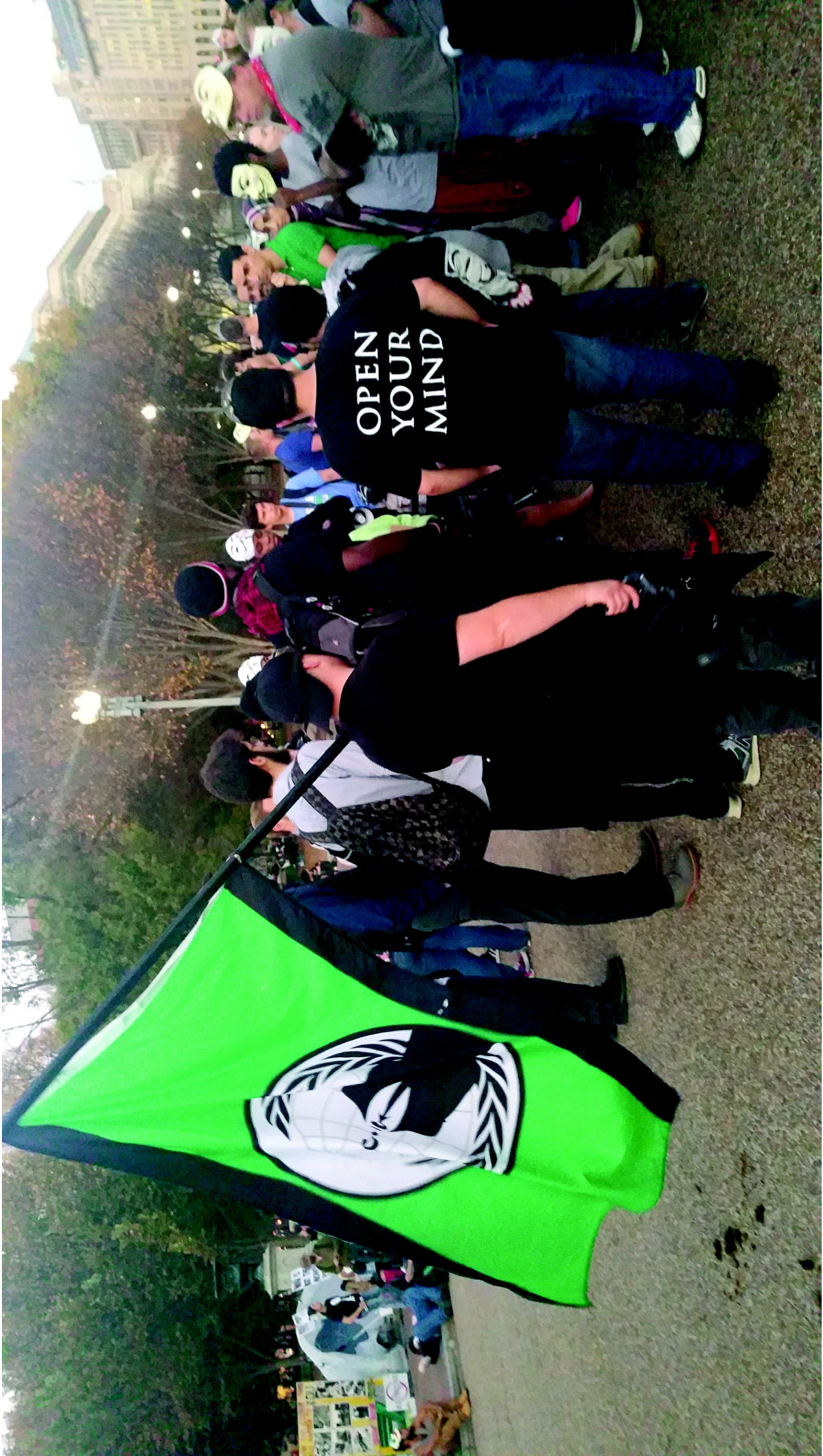










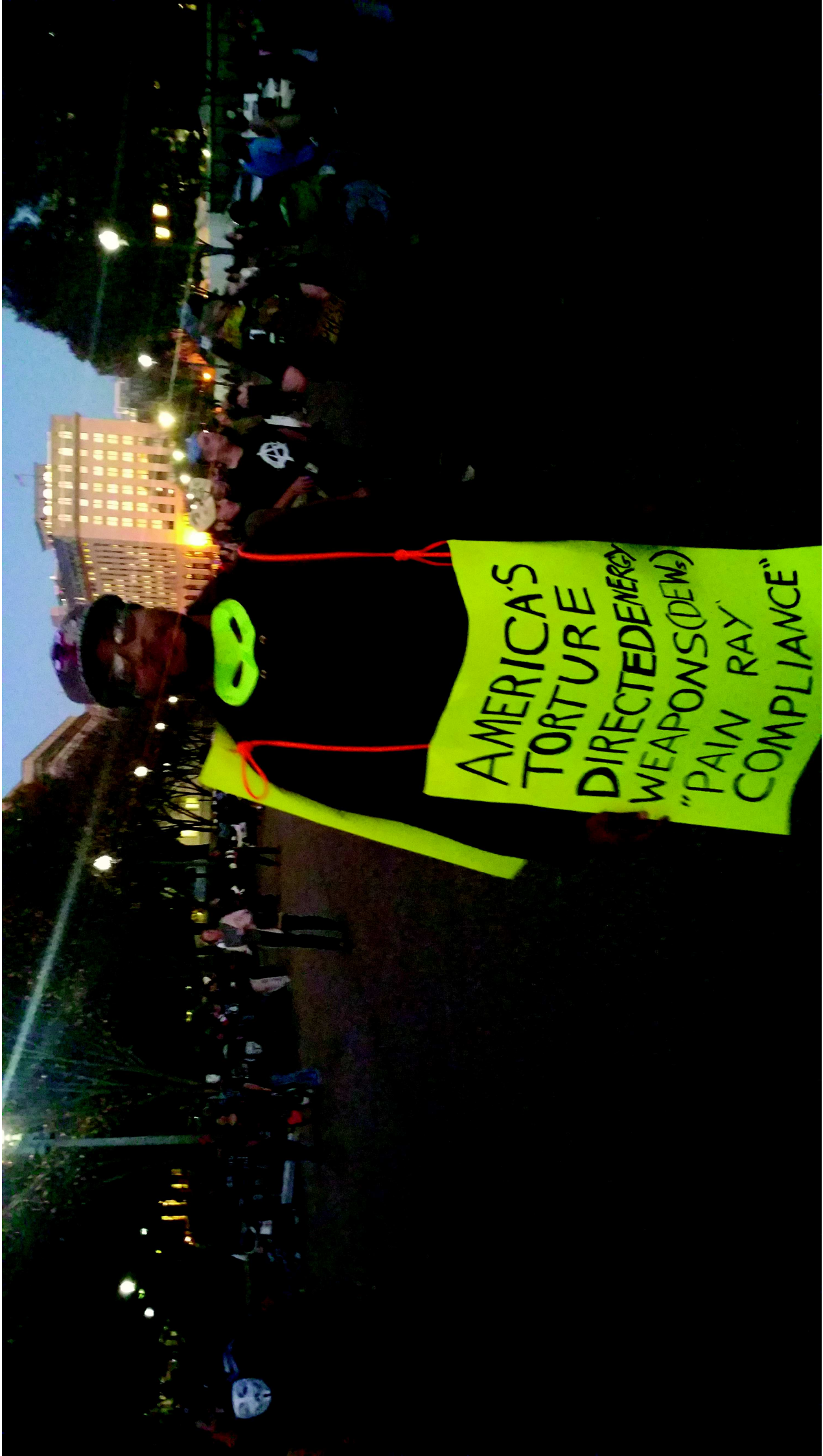




If You Stand  
For Nothing, you  
Fall for Everything

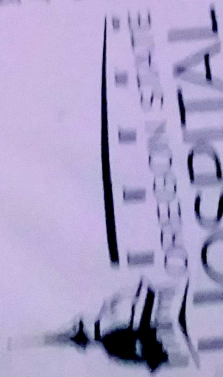


AMERICA'S  
TORTURE  
DIRECTED ENERGY  
WEAPONS (DEW's)  
"PAIN RAY"  
COMPLIANCE





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San Diego, CA - Oregon State Hospital

Let's negotiate a cease fire and the current war on America. Barack Obama

can't stop the war on America. Barack Obama

Barack Obama's State Black and  
programs hide the ongoing of  
American citizens with space  
capability, building, processing  
technology infrastructure  
electronic warfare is the ultimate  
weapon for population control  
warfare surveillance, directed  
energy, sound, harassment, nuclear  
nuclear, mind control and total  
enlightenment biological weapons  
our homes and hearts for it.

dirrobertduncan.com

















## TARGETED INDIVIDUAL AWARENESS

RAISING AWARENESS ABOUT AMERICAN CITIZENS  
BEING USED AS TARGETS IN  
MILITARY DIRECTED ENERGY WEAPONRY  
"NO TOUCH TORTURE"  
PROGRAMS



Victim  
Aaron Alexis  
September 16, 2013



Victim  
Myron May  
November 20, 2014



WASHINGTON  
NAVY YARD

TARGETED INDIVIDUAL  
AWARENESS

HELP!

WE ARE NOT  
MENTALLY ILL!

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TARGETED INDIVIDUAL  
AWARENESS

HELP!

VICTIMS OF MILITARY  
DIRECTED ENERGY WEAPONRY  
TERRORISM

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