

Wireless Radiation (RFR) – Is U.S. Government Ignoring Its Own Evidence for Risk?

To EMF Community:

Below is information I pulled together for a government employee questioning risks from non-ionizing radiation, as he was under the impression only thermal effects cause harm. The material below, and attached, documents that the U.S. has known for over a half century that there are biological and health effects of non-thermal radio frequency radiation.



1. **Naval Medical Research Institute (1971)**, “BIBLIOGRAPHY OF REPORTED BIOLOGICAL PHENOMENA (‘EFFECTS’) AND CLINICAL MANIFESTATIONS ATTRIBUTED TO MICROWAVE AND RADIO-FREQUENCY RADIATION”, Zorach R. Glaser, PhD,
2. **NASA publication (February 1972)**- Translation of Russian Research, “INFLUENCE OF MICROWAVE RADIATION ON THE ORGANISM OF MAN AND ANIMALS
3. **Defense Intelligence Agency (March 1976)**“BIOLOGICAL EFFECTS OF ELECTROMAGNETIC RADIATION (RADIOWAVES AND MICROWAVES”, prepared by U.S. Army Medical Intelligence and Information Agency
4. **NASA Report (April 1981)**“ELECTROMAGNETIC FIELD INTERACTIONS WITH THE HUMAN BODY: OBSERVED EFFECTS AND THEORIES”
5. **U.S. Air Force (June 1994)**- “RADIOFREQUENCY/MICROWAVE RADIATION BIOLOGICAL EFFECTS AND SAFETY STANDARDS: A REVIEW”. Original classified report June 1988.
6. **Department of the Army – “Bioeffects of Selected Nonlethal Weapons” (February 1998, declassified Dec. 6, 2006)**, Addendum to the Nonlethal Technologies Worldwide Study -NGIC 1147-101-98 study) provided through FOIA request
7. Please also see the **attached report on 5G biological risks by Martin Pall, PhD, Professor Emeritus of Washington State University (May 2018)**:

“5G: Great risk for EU, U.S. and International Health! Compelling Evidence for Eight Distinct Types of Great Harm Caused by Electromagnetic Field (EMF) Exposures and the Mechanism that Causes Them”
8. Also see Dr. Martin Pall’s **“List of 170 Reviews on Non-thermal Effects of Microwave/Intermediate Frequency EMFs”**. These scientific reviews document the non-thermal effects from Radio Frequency Radiation, citing many thousands of studies.
9. Finally, last year the **NIEHS’s National Toxicology Program(NTP)** published a large \$30mm animal study on cancer risks from Radio Frequency Radiation, which found the very same cancers, glioma brain tumors and schwannomas (nerve sheath tumors), previously found in human epidemiology studies and in another recent large animal study published last year by the Ramazzini Institute in Italy. Dr. Ron Melnick, the leader of the team that designed the NTP study, said “The assumption has always been that RF radiation could not cause cancer. Now we know that was wrong.” (*Microwave News*)

It is a fallacy that the only risk from electromagnetic fields are the thermal effects.

The FCC exposure guidelines today are non-protective of *existing* cell phone and wireless exposures. They do not take into consideration the large body of science documenting non-thermal effects, including the U.S. government's own science, nor the reality that the biological effects of our many kinds of exposures these days are additive and cumulative. And, the guidelines are certainly also non-protective from the coming higher frequency and higher pulsation (i.e. more biologically disruptive) millimeter exposures planned for antennas using 5G, that the industry plans to densely place throughout our neighborhoods, on every few utility poles, unless the American people stand up for their right to health.

The U.S. government has terribly failed the American people by not acting on the very serious risks its own science has long revealed. And we are at a disgraceful place where industry's plans for further antenna densification may put our very species at risk.

Thank goodness Senators Richard Blumenthal and Anna Eshoo are now questioning the safety of 5G in Congressional hearings. Thank goodness for their courage and truth-telling.

Others within the U.S. government have warned before. For example,

- **FDA – 1993** – An FDA internal memo admitted microwaves can accelerate cancer. Food and Drug Administration (FDA) biologists concluded that the available data ****strongly suggest**** that microwaves can ****accelerate the development of cancer****. This assessment is in an internal agency memo obtained by *Microwave News* under the Freedom of Information Act. <http://microwavenews.com/news/backissues/j-f03issue.pdf>
- **EPA– 2002– EPA Letter to EMR Network affirmed the following:**

This letter from the EPA stated, “The FCC’s current exposure guidelines, as well as those of the IEEE and ICNRP, are thermally based, and do not apply to chronic, non-thermal exposure situations. They are believed to protect against injury that may be caused by acute exposures that may result in tissue heating or electric shock or burn”.

- **Department of Interior Letter –2014–to the National Telecommunications and Information Administration of the Department of Commerce. This letter stated:**

“ FCC standards for cell phone radiation are outmoded and no longer applicable as they do not adequately protect wildlife.” (Feb 2014)

“Study results have documented nest and site abandonment, plumage deterioration, locomotion problems, reduced survivorship, and death. Nesting migratory birds and their offspring have apparently been affected by the radiation from cellular phone towers in the 900 and 1800 MHz frequency ranges- 915 MHz is the standard cellular phone frequency used in the United States. **However, the electromagnetic radiation standards used by the Federal Communications Commission (FCC) continue to be based on thermal heating, a criterion now nearly 30 years out of date and inapplicable today.**

It is highly unusual to have one U.S. Department criticizing another.

And also, we've known about risk from an industry-commissioned report, The Ecolog Report, published in 2000 (conducted for T-Mobile Deutsche Telecom). This review of the scientific literature showing non-thermal effects cited evidence for the following:

1. Gene Toxicity
2. Impacts on Cellular Processes, Communication and Proliferation
3. Pathological Effects on:
 - Immune system
 - Central nervous system, including the Blood Brain Barrier, Neurotransmitters, EEG and Cognitive Functions
 - Hormone systems—including stress hormones, melatonin
4. Evidence for association with Cancer and Infertility

Note some of the Ecolog report's conclusions:

"Given the results of the present epidemiological studies, it can be concluded that electromagnetic fields with frequencies in the mobile telecommunications range do play a role in the development of cancer."

"Impairment of cognitive functions was found in animal experiments at power flux densities of 2W/m². In humans, there are indications that brain functions are influenced by fields such as they occur when using a mobile telephone."

"An epidemiological study of children who had been exposed to pulsed high frequency fields, found a decrease in the capability to concentrate and an increase in reaction times."

"Effects of high frequency electromagnetic fields on the central nervous system are proven for intensities well below the current guidelines."

I hope this information is helpful to all.

If anyone would like to add to this list please be in touch.