Illness Suffered by US Diplomats Likely Caused by Pulsed Microwaves- National Academies of Sciences Report says

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The National Academy of Sciences (NAS) Report "An Assessment of Illness in U.S. Government Employees and Their Families at Overseas Embassies" commissioned by the US State Department was released by a committee of 19 experts citing "directed, pulsed radiofrequency energy" as "the most plausible mechanism" to explain the mystery illness suffered by U.S. Embassy personnel. The New York Times describes how the report "provides the most definitive explanation yet of the illness that struck scores of government employees, first at the U.S. Embassy in Havana in 2016, and then in China and other countries. Many of the officers suffered from dizziness, fatigue, headaches, and loss of hearing, memory and balance, and some were forced into permanent retirement."

The NAS report states that "overall, directed pulsed RF (radio frequency) energy, especially in those with the distinct early manifestations, appears to be the most plausible mechanism in explaining these cases among those that the committee considered."

In 2018, Dr. Beatrice Golomb shared her published paper with the US State Department entitled "Diplomats' Mystery Illness and Pulsed Radiofrequency/Microwave Radiation which states, "A tremendous number of physicians and scientists and entities and scientific studies and government reports, in many nations, over many decades, have identified that RF/MW causes symptoms consistent with the spectrum now described for diplomats." Her paper concluds that "Reported facts appear consistent with radiofrequency microwave as the source of injury in diplomats in Cuba. Nondiplomats citing symptoms from radiofrequency microwave often with an inciting pulsed-radiofrequency microwave exposure, report compatible health conditions."

In March of 2018, JAMA published a study on the diplomats as they experienced the following symptoms:

43% had MRI result finding of T2 hyperintensity (bright-foci) in the white matter,

76% had headaches,

57% had nervousness.

76% had memory problems,

71% had impaired concentration,

67% feeling cognitively slowed,

86% had sleep problems, and

67% had irritability.

Wireless devices from cell phones, to baby monitors to Wi-Fi speakers and cell towers all emit pulsed radiofrequency microwave radiation. Although the levels emitted are lower than ICNIRP and FCC limits, they have been found to cause adverse effects in thousands of research studies which have found memory deficits, behavioral problems, brain cancer, breast cancer, DNA damage, and headaches.

The American Academy of Pediatrics Web Page on Electromagnetic Fields: A Hazard to Your Health? states:

"In recent years, concern has increased about exposure to radio frequency electromagnetic radiation emitted from cell phones and phone station antennae. An Egyptian study confirmed concerns that living nearby mobile phone base stations increased the risk for developing: Headaches, Memory problems, Dizziness, Depression, Sleep problems"

Although the National Academy of Sciences committee stated they "cannot rule out other possible mechanisms and considers it likely that a multiplicity of factors explains some cases and the differences between others" the committee found the symptoms to be consistent with effects from radiofrequency radiation.

"The committee found the unusual presentation of acute, directional or location-specific early phase signs, symptoms and observations reported by DOS employees to be consistent with the effects of directed, pulsed radio frequency (RF) energy. Many of the chronic, nonspecific symptoms are also consistent with known RF effects, such as dizziness, headache, fatigue, nausea, anxiety, cognitive deficits, and memory loss. Patient clinical heterogeneity could be due to variability of exposure dosage conditions, differences in interpretation of non-physiological vestibular stimuli, and anatomical differences that could influence individual exposure and/or response."

Several cases "began with the sudden onset of a loud noise, perceived to have directional

features, and accompanied by pain in one or both ears or across a broad region of the head, and in some cases, a sensation of head pressure or vibration, dizziness, followed in some cases by tinnitus, visual problems, vertigo, and cognitive difficulties. Other personnel attached to the U.S. Consulate in Guangzhou, China, reported similar symptoms and signs to varying degrees, beginning in the following year. As of June 2020, many of these personnel continue to suffer from these and/or other health problems. Multiple hypotheses and mechanisms have been proposed to explain these clinical cases, but evidence has been lacking, no hypothesis has been proven, and the circumstances remain unclear."

The Report made several recommendations including:

The Department of State should expand its collection of baseline and longitudinal data and biological specimens from all personnel prior to and during overseas assignments.

If research or assessments support the possibility of radio frequency (RF) energy as a cause of illness experienced by some of its employees, the Department of State should train and equip employees with the capability to measure and characterize their exposure to RF energy in real time should the need arise in the future.

The Report documented decades of research finding the same symptoms.

"There was significant research in Russia/USSR into the effects of pulsed, rather than continuous wave (CW) RF exposures because the reactions to pulsed and CW RF energy at equal time-averaged intensities yielded substantially different results (Pakhomov and Murphy, 2000). According to Pakhomov and Murphy, the Russian-language studies "indicated that pulsing may be an important (or even the most important) factor that determines the biological effects of low-intensity RF emissions" (Pakhomov and Murphy, 2000, p. 2). Military personnel (in Eurasian communist countries) exposed to non-thermal microwave radiation were said to have experienced headache, fatigue, dizziness, irritability, sleeplessness, depression, anxiety, forgetfulness, and lack of concentration, as well as internal sound perception for frequencies between 2.05-2.50 GHz (Adams and Williams, 1976). The review by Pakhomov and Murphy noted that many of the studies from the former Soviet Union were flawed in one or more ways, but that some were well done, replicated, and credible."

Click here to Download Report "An Assessment of Illness in U.S. Government Employees and Their Families at Overseas Embassies"

National Academies of Sciences, Engineering, and Medicine 2020. An Assessment of Illness in U.S. Government Employees and Their Families at Overseas Embassies. Washington, DC: The National Academies Press. https://doi.org/10.17226/25889. PDF

News Reports

CNN: 'Sonic attacks' suffered by US diplomats likely caused by microwave energy, government study says

New York Times: Report Points to Microwave 'Attack' as Likely Source of Mystery Illnesses That Hit Diplomats and Spies

In 2017, U.S. State Department officials contended that Cuba staged a sonic or some sort of attack on employees of the American embassy, causing a variety of neurological symptoms which include cognitive difficulties and problems with balance, eye tracking, sleep disturbances and headache.

A 2018 publication in JAMA The Journal of the American Medical Association authored by the team of doctors at the University of Pennsylvania who examined 21 of the U.S. government (Cuba)employees found the patients had suffered from concussion like symptoms—but without any blunt trauma to the head. The Associated Press reported that MRI scans showed damage to white matter in the brains of embassy employees.

According to a 2020 publication "Distinctive Convergence Eye Movements in an Acquired Neurosensory Dysfunction" published in Front. Neurol., 16 June 2020 | https://doi.org/10.3389/fneur.2020.00469 in "late 2016, diplomats in Havana, Cuba, began presenting with a unique symptom complex after perceiving a strange noise and/or feeling a pressure field in their domicile. This report is a retrospective, quantitative analysis of video-oculography data of pupillary light reflex performance and binocular disparity-driven eye and pupil movements during the acute time period after the reported exposure. The patterns of response in these 19 individuals are markedly different than those seen in a group of individuals with the usual acute mild traumatic brain injury (17 subjects) and from 62 control subjects (21–60 years old) with no injury. Complaints of sudden-onset tinnitus, ear pain, and dizziness emerged in late 2016 to early 2017 among diplomatic personnel and their families in Havana,

Cuba. These affected individuals often reported hearing a loud, high-frequency, localized sound, and were under the impression that it could follow them in a room."

During the Cold War, the Russians bombarded the US embassy in Moscow with radiofrequency (microwave) radiation for several hours a day from the 1950s until 1979. The US government never confirmed the reason for the irradiation though there were several theories. One was for covert audio surveillance of the embassy. The wireless listening devices employed by the Russians were passive, and they were only activated in the presence of radiofrequency electromagnetic fields. "The Thing" was the first such listening device discovered in the Ambassador's office of the US embassy. Other theories were for interference with American electronic-intelligence equipment or for affecting the health or behavior of the employees at the embassy. The irradiation exposed up to 3500 employees and dependents at the US embassy during this time, and it was kept secret from the embassy employees until 1976.

"Radiofrequency (RF) Sickness in the Lilienfeld Study: An Effect of Modulated Microwaves?" published in Environmental Health concluded there were 4 statistically significant effects seen in exposed employees:

dermographism (eczema, inflammatory and allergic skin problems)

neurological

reproductive

tumors

Ambassador Walter Stoessel, who served at the US embassy in Moscow during the time it was irradiated and who died of leukemia at age 66, wrote a memo in 1976 that the radiation levels measured at the embassy, 1-15uW/cm2, is many times higher than background levels of cities and that their medical experts say prolonged exposure at the levels at the embassy is a potential health hazard. The memo was classified until 2006 and released by wikileaks. The radiation levels measured were lower than the current US government exposure guideline, which is the FCC maximum permissible exposure limit of 1000uW/cm2 for 30 minutes at frequencies 1.5-100 GHz.

This really happened. Here are some articles about it

"Soviet Halt Microwaves Aimed at U.S. Embassy." New York Times (30 May 1979).

Jerome, Jim. "The Microwave Menace Is Zapping Us All, Warns Writer Paul Brodeur." People (30 January 1978).

Klose, Kevin. "U.S. Protests Sudden Increase In Radiation at Moscow Embassy." Washington Post (12 November 1977).

Times of San Diego, UCSD Professor Offers Theory on What Affected Diplomats in Cuba and China, August 2018

New York Times, Microwave Weapons Are Prime Suspect in Ills of U.S. Embassy Workers, September 1, 2018

CNN, Microwaves suspected in 'sonic attacks' on US diplomats in Cuba and China, scientists say September 2, 2018

NBC News, Evacuated after 'health attacks' in Cuba and China, diplomats face new ordeals in U.S. October 29, 2018

NBC News, Mother of U.S. diplomat hurt in 'health attack' speaks out, November 18, 2018 VIDEO

CBC News, Another Canadian diplomat in Cuba affected by mysterious brain injury, November 29, 2018

AP News, Canada reducing Canadian staff at Cuba embassy by half, January 30, 2019

Washington Post, Five Canadian diplomats sue Canadian government for handling of Cuban Mystery illness, Feb 7, 2019

NPR, Doubts Rise About Evidence That U.S. Diplomats In Cuba Were Attacked, March 25, 2019

NBC Nightly News, Mother Of U.S. Diplomat Hurt In Mysterious 'Health Attack' Speaks Out, December 9, 2018

60 Minutes, Brain trauma suffered by U.S. diplomats abroad could be work of hostile foreign government, March 17, 2019

Since 2016, dozens of American officials have come home from Cuba and China with unexplained brain trauma. Evidence shows it may be the work of another government using a weapon that leaves no trace

60 Minutes Is an invisible weapon targeting U.S. diplomats? How do you report on an attack that you can't see? 60 Minutes producers say they approached it with skepticism, March 2019

60 Minutes, "60 Minutes" speaks with survivor of mysterious health attack in China, March 18 2019

Published Research

Golomb BA. Diplomats' Mystery Illness and Pulsed Radiofrequency/Microwave Radiation. Neural Comput. 2018 Sep 05; 1-104. PMID: 30183509. PUB MED, Full Paper

A mystery illness striking U.S. and Canadian diplomats to Cuba (and now China) "has confounded the FBI, the State Department and US intelligence agencies" (Lederman, Weissenstein, & Lee, 2017). Sonic explanations for the so-called health attacks have long dominated media reports, propelled by peculiar sounds heard and auditory symptoms

experienced. Sonic mediation was justly rejected by experts. We assessed whether pulsed radiofrequency/microwave radiation (RF/MW) exposure can accommodate reported facts in diplomats, including unusual ones.

Reported facts appear consistent with RF/MW as the source of injury in diplomats in Cuba. Nondiplomats citing symptoms from RF/MW, often with an inciting pulsed-RF/MW exposure, report compatible health conditions.

Frey Allen, Human Auditory System Response to Modulated Electromagnetic Energy J. Appl. Physiol. 17(4):689-692. 1962-

Allen Frey, Opinion: Cell Phone Health Risk? Security concerns during the Cold War may have led to the generation of misinformation on the physiological effects of microwave radiation from mobile phones.