

Cellular Phone Task Force

August 19, 2015

Dear Members and Friends,

In my last newsletter, dated November 15, 2014, I wrote about plans to put Wi-Fi *everywhere*. Those who responded, asking “How can I help?” are now the core of a new organization called GUARDS. It stands for Global Union Against Radiation Deployment from Space. Its members live in Canada, the U.S., Italy, the U.K., Norway, France, Greece, and Australia.

The danger is greater and closer at hand than we thought. There will be not just hundreds, but thousands of satellites. Billions of dollars have already been invested. And the sheer numbers of planned rocket launches threaten to contribute to global warming and ozone depletion.

GUARDS

The (so far) eight companies seeking to rain high-speed Internet on every square inch of the world before 2020 are:

- **SpaceX:** 4,000 satellites, altitude 390 miles. Testing to begin in 2016.
- **OneWeb:** 2,400 satellites (648 satellites initially), altitude 500-590 miles. Target start-up date, 2018-2019.
- **Facebook:** Satellites, drones, and lasers.
- **Google:** 200,000(?) high altitude balloons (at 62,500 feet) (“Project Loon”)
- **Samsung:** 4,600 satellites, altitude 930 miles.
- **Iridium Next:** 66 satellites, altitude 483 miles. Iridium’s satellite hotspot, called “Iridium GO,” providing slow speeds, has been available for purchase since January 2014. Launching of the “next generation” (higher speed) satellites is scheduled to begin in October 2015 and to be completed by 2017.
- **Globalstar:** 24 satellites, altitude 880 miles. Also slow speed, and also already in operation. As an incentive to buy its “Sat-Fi” access points, Globalstar is offering free satellite phones until September 30, 2015.
- **Outernet:** 200 nanosatellites (4-inch cubes), altitude 560 miles. Target start-up date, 2019.

The name of the game is competition. The stakes are high, and there is plenty of money to be made. Four and one half billion human beings are not yet on social media. We may well face several large fleets of satellites providing high speed wireless Internet to penguins.

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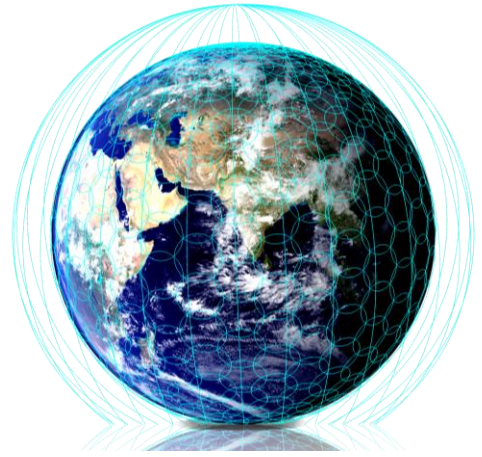
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Virgin Galactic and Qualcomm have invested in OneWeb's project. Honeywell International has already signed a memorandum of understanding to become OneWeb's first large customer. It plans to provide WiFi on business, commercial, and military aircraft throughout the world. At right is a press image from OneWeb's website.



Google is pouring money into every potential method of providing global wireless Internet. In addition to Project Loon, which would provide WiFi from balloons, Google bought Titan Aerospace, which makes high-altitude drones, in April 2014. Google is also investing heavily in Elon Musk's SpaceX project. Google and Fidelity Investments together have sunk one billion dollars in Musk's scheme to WiFi the Earth and Mars. Yes, Mars. South African born billionaire Musk hopes to plant a colony on the red planet within ten years, and intends to provide high speed Internet to both planets.

Samsung officially joined the fray last week, providing more details than any of its competitors. The just-published article titled "Mobile Internet from the Heavens" by Samsung engineer Farooq Khan reveals a plan to put 4,600 satellites into orbit at an altitude of 1,500 kilometers (930 miles), and transmitting at a frequency of 56 GHz. The antenna details are frightening. Each satellite will have phased array antennas with 1,024 elements, an actual power of 512 watts, and an effective radiated power of one hundred million watts.

Satellite Network Predicted in 2001

A satellite network very similar to what Samsung is proposing was predicted almost fifteen years ago by three Ukrainian scientists, who warned that such a network would have dire consequences. Their article, titled "Influence of High-frequency Electromagnetic Radiation at Non-thermal Intensities on the Human Body," was commissioned by EMFacts Consultancy, Australia, and Powerwatch, England, and partially funded by the Foundation for Children with Leukaemia. It was published in print by the Cellular Phone Task Force as a supplement to the February 2001 issue of our publication, *No Place To Hide*, and online by EMFacts Consultancy.

At that time, authors Nikolai Kositsky, Aljona Nizhelska and Grigory Ponezha postulated a fleet of low-orbit communication satellites with phased array antennas, "transmitting with a power of 800 W, working at frequencies of 20 and 30 GHz, at an orbital height of 1400 km." Such a global satellite system, they wrote, "may provide the Earth's surface with power densities of 10^{-8} to 10^{-9} W/cm² or pulsed 10^{-2} to 10^{-3} W/cm² in the microsecond range." The power and duration of the radiation, they said, "will significantly exceed (by ten or more orders of magnitude—such irradiation is possible over the course of a whole lifetime) the energetic doses inducing changes in living cells." They predicted changes in cell structures, physiology and behavior, genetic changes, mutations, and "a catastrophic increase in the number of cases of cancer" throughout the world.

Ozone and Climate Change

Radiation is not the only threat. Some of you may remember that in the early days of the space shuttle, there was a flurry of interest in its potential to destroy the stratospheric ozone layer. After all, rocket exhaust injects ozone-destroying substances directly into the stratosphere. Well, around 1990, scientists concluded that twelve rocket launches per year just wasn't enough to worry about, and they quickly forgot about that part of the problem. Today, virtually no one is working on the threat to ozone from rocket exhaust.

But here come Google and company. Suddenly, there are going to be not twelve, but hundreds of rocket launches each year, popping up satellites from the world's spaceports like so much confetti. If the OneWeb, SpaceX and Samsung projects all come to fruition, we are talking about 11,000 new satellites. By comparison, there are in total about 1,100 functioning satellites orbiting the earth today.

In August 1990, *Discover Magazine* had an article about the threat to the ozone layer titled "The Rockets' Red Glare." Aleksandr Dunayev, head of the Russian Space Agency, was quoted in the *New York Times* on May 14, 1991 as saying, "About 300 launches of the space shuttle each year would be a catastrophe and the ozone layer would be completely destroyed." I tried to contact Mr. Dunayev, but unfortunately he died last year.

Unlike the space shuttle, which used a solid fuel that contained chlorine, the satellite companies that I have investigated—SpaceX and OneWeb—plan to use rockets that burn kerosene. Exhaust from burning this type of propellant contains carbon dioxide, water and a lot of black soot. Both water and soot destroy ozone, just not as ferociously as chlorine. Black soot is also very efficient at absorbing the sun's heat. Considering that rockets produce one thousand times more black soot than airplanes for the same amount of fuel, and that black soot that is emitted into the stratosphere remains there for at least five years, the cumulative effect of hundreds of rocket launches per year would contribute significantly to global warming. Black carbon from all global sources is second only to carbon dioxide in adding heat to the atmosphere.

Martin Ross of the Aerospace Corporation wrote a paper in 2010 titled "Potential climate impact of black carbon emitted by rockets." He said that currently there are about 25 rockets launched per year that burn kerosene. He developed a computer model to predict what would happen in different parts of the planet if the number of launches increased by a factor of ten. His model predicts as much as a 4% loss of ozone over the tropics and subtropics, as much as a 3-degree Celsius summertime increase in temperature over the South Pole, more than a one-degree overall increase in Antarctic temperature, and a decrease in Antarctic sea ice by 5% or more.

Ross therefore worries that space tourism could contribute significantly to climate change. It will be many years, however, before the space tourism industry is large enough to require hundreds of launches per year. The more immediate threat is Internet from space. Ross, however, did not answer my email.

The principals of the major players are:

OneWeb: Greg Wyler, CEO. Richard Branson, CEO of investor Virgin Galactic. Paul Jacobs, CEO of investor Qualcomm.

SpaceX: Elon Musk, CEO. Abigail Johnson, CEO of investor Fidelity Investments.

Google: Larry Page, CEO. Astro Teller, director of Project Loon.

Facebook: Mark Zuckerberg, CEO.

Samsung: Jong-Kyun Shin, CEO. Farooq Khan, president of Samsung Research America.

Please contact me if you would like to help with GUARDS, or if your organization would like to be listed as a supporter of GUARDS—or if, by chance, you have a connection, however remote, to one of the people listed above and could get us a sit-down audience with them.

UPDATE ON LAWSUITS

Pettipas

Trial in the case of *Pettipas v. Bell Alliant* was originally set for April 20 - May 1, 2015 but has been postponed. Edna and Marshall Pettipas of Afton Station, Nova Scotia, were injured in 2007 by a cell tower that was built behind their home, and Edna has developed breast cancer and had a bilateral mastectomy. They have been unable to live in their home since, and are in jeopardy of losing their property. They have secured ten top medical and scientific experts from around the world to testify.

Because the Pettipas have the best personal injury case against this industry that we have ever seen, the Cellular Phone Task Force undertook to raise funds for them. Although their attorney took the case on contingency (no lawyer's fees), the Pettipas were responsible for paying actual expenses, including the expenses of securing experts from several countries and flying them in for trial. In March, when Bell Alliant asked the court to delay the trial, we suspended fundraising.

The current situation is this: the trial date has not yet been re-scheduled, and the money raised thus far has gone to securing experts, paying for their reports, etc. At this time, rather than ask for more donations now, the Pettipas are asking for pledges. They will call in their pledges only if they receive enough promised donations to see them through the trial. Donations will be funneled through our nonprofit at that time for U.S. citizens who need tax deductions.

If you wish to pledge money towards the Pettipas' trial, please send your pledge to Edna directly, either by postal mail to

Edna Pettipas
484 Old Antigonish Rd.
RR 1 Afton
Antigonish County, NS
Canada B0H 1A0

or by email to <epettipas@hotmail.com>. Give her your name, contact information, and how much money you pledge.

Firstenberg

A decision on the rights of electrically sensitive people under the Americans with Disabilities Act (ADA) will have to wait for another judge and another day. I had brought the City of Santa Fe to court in 2010 when AT&T upgraded all of its cell towers from 2G to 3G. I said that the increase in radiation was an illegal intensification of use, and that the city, in allowing it, discriminated against the electrically sensitive in violation of the ADA. After five years of litigation, the New Mexico Court of Appeals ruled against me. On January 12, 2015, that court ruled that an increase in radiation is not an “intensification of use” under the Santa Fe City Code and refused to rule on my federal claim. On April 6, 2015, the New Mexico Supreme Court refused to hear the case.

My claims against my neighbor, also filed in 2010, asserting that wireless technology is a nuisance, and suing for the right to live in my own home, were dismissed by the New Mexico Court of Appeals on March 5, 2015. On June 3, 2015, the New Mexico Supreme Court refused to hear this case as well. I have been able to live in my home for the last two years because my neighbor moved back to California and the house she had rented remained vacant pending the conclusion of the lawsuit. The owner of that house wants to sell it.

House for Sale. I am therefore now advertising for an electrically sensitive person to buy the house next door to mine. The asking price is \$319,000. It is a 2-bedroom, 2-bath, well-kept adobe house at the end of a dead-end street, on a 3,049 square foot walled property. It is located in the desirable Westside Guadalupe Historic District. Pesticides are not used by anyone on that street, and have never been used on that property for at least the last eleven years. Wood smoke is not a problem in this neighborhood. It is extremely quiet with no traffic noise, and there are no nearby cell towers. There are also no smart meters in Santa Fe, and our electric company has no plans to bring us any. There are wireless gas meters, but we have the right to opt out of them at no charge. If you would like to know more, please call me at (505) 471-0129.

Morganroth Cases

The thirty cell phone brain tumor cases that have been working their way through the courts since 2001 have yet to go to trial. Last year, in D.C. Superior Court, Judge Frederick H. Weisberg admitted the testimony of five expert witnesses for the injured plaintiffs, but he did not set a trial date. Instead, Judge Weisberg allowed the industry defendants to immediately appeal his ruling admitting the expert testimony. Oral argument on their appeal is expected to take place in the D.C. Court of Appeals in October.

G v. The Fay School

A new ADA lawsuit was filed in U.S. District Court in Massachusetts on August 12, 2015. This case was brought by a 12-year-old boy and his parents. They have sued under fictitious names because the boy is a minor. He attends a private school in Southborough, has been made ill by WiFi at the school, and has been refused accommodation. This is an important case because the same thing is happening in schools all over the country—indeed, all over the world.

In the spring term of 2013, when Fay School installed a powerful, industrial-capacity WiFi system, G began suffering from headaches, itchy skin, and rashes everyday while at school. These symptoms took several hours to recede after he came home. During the 2014 academic year he began also to have nose bleeds, dizziness, chest pains, and nausea while at school. The school nurse said that various other children were reporting sick with similar symptoms. G's doctor, Jeanne Hubbuch, diagnosed him with electromagnetic hypersensitivity syndrome (EHS). G also gave the Fay Board of Trustees letters from four other experts: Dr. Martin Blank, Dr. Stephen Sinatra, Dr. David Carpenter, and Dr. Olle Johansson. Yet school officials stubbornly refused to provide wired internet in G's classroom, or even to provide G himself with a wired computer connection in his classes.

G is suing in federal court for violation of the Americans with Disabilities Act, breach of contract, and negligence. His attorney is John J.E. Markham, II of the Boston law firm of Markham and Read.

INTERNATIONAL SCIENTISTS APPEAL

On May 11, 2015, 190 scientists from 39 countries signed an International Appeal calling for protection from electromagnetic fields. It is addressed to Ban Ki-moon, Secretary-General of the United Nations; Dr. Margaret Chan, Director-General of the World Health Organization; and United Nations Member States. Since then, 17 additional scientists have added their names.

All of the signatories have published peer-reviewed papers on electromagnetic fields and biology or health. They hail from Armenia, Australia, Austria, Bahrain, Belgium, Brazil, Canada, China, Croatia, Egypt, Estonia, Finland, France, Georgia, Germany, Greece, Iceland, India, Iran, Israel, Italy, Japan, Jordan, Kazakhstan, New Zealand, Nigeria, Oman, Poland, Russian Federation, Serbia, Slovak Republic, South Korea, Spain, Sweden, Switzerland, Taiwan, Turkey, Ukraine, United Kingdom, and USA.

They call upon the world bodies to take action to protect people, plants and animals. They specifically name cell phones and cell towers, cordless phones, Wi-Fi, broadcast antennas, smart meters and baby monitors among sources of hazardous fields. Most significantly, they request that white zones (radiation-free areas) be established.

A letter of support for the appeal, signed to date by 92 non-governmental organizations from 21 countries, has also been sent to the United Nations and the World Health Organization.

The text of the appeal, and the complete list of signatories, can be found on the website of <EMFscientist.org>.



Arthur Firstenberg

Membership/Donation Form

All dues and donations are tax deductible.

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<p style="text-align: center;"><i>International dues and donations may be paid via PayPal on our website: http://cellphonetaskforce.org</i></p>
<input type="checkbox"/> I would like to be contacted by others in my region. I give permission for the Cellular Phone Task Force to share my ___ phone number ___ address ___ email address, with other members. (This information will not be used for any other purposes.)

Mail to: Cellular Phone Task Force, PO Box 6216, Santa Fe, NM 87502