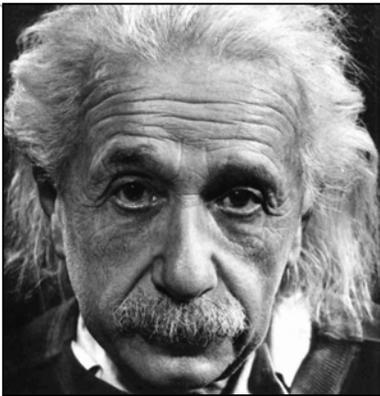
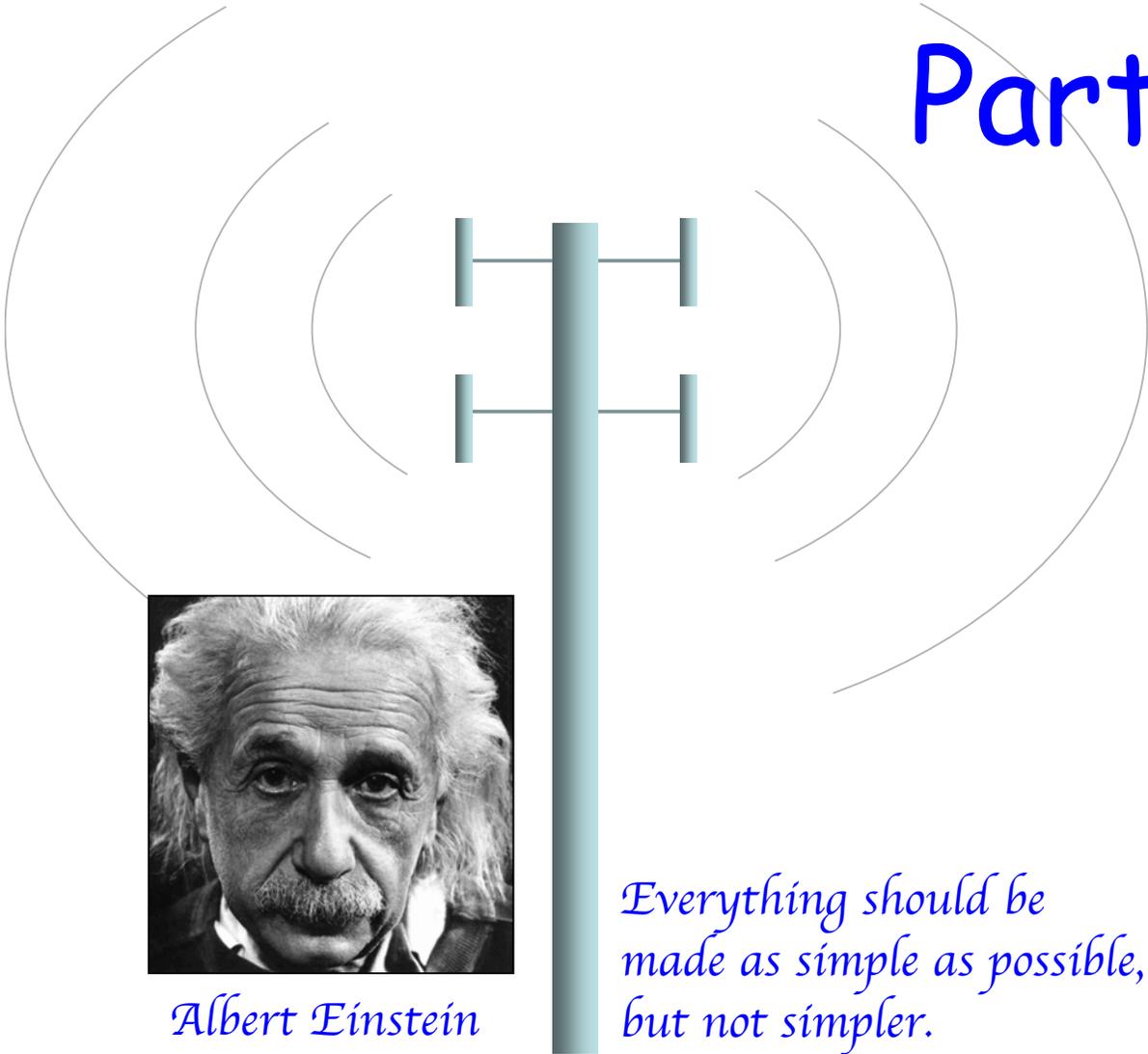




BRAG™ Antenna Ranking of Schools

Survey of schools exposed to radio frequency radiation from neighborhood antennas in U.S. State Capitols

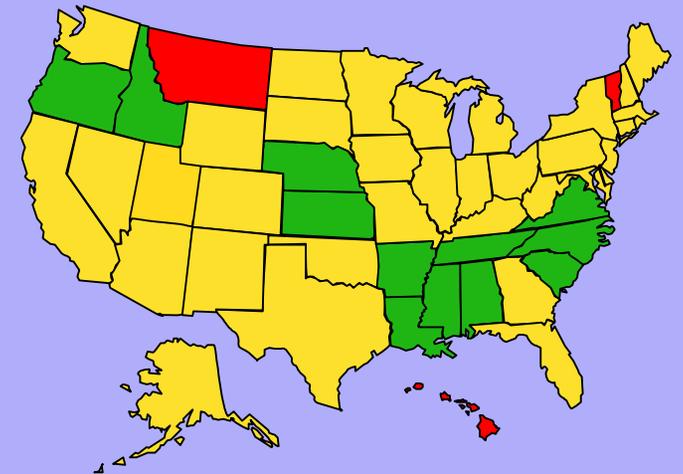


Albert Einstein

Part

One

Executive Summary



Everything should be made as simple as possible, but not simpler.



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Executive Summary

Rationale & Introduction

The invention of the mobile phone and the wireless internet has revolutionized the way many of us communicate and the demand for this technology seems inexhaustible. Our love-affair with wireless technology however, has its dark side. Each time we make a phone call our cell phone communicates with nearby antennas by emitting microwave radiation. With approximately 270 million cell phone users in the United States the amount of radiation, to which we are all exposed, is hundreds of thousands of times higher than background levels.

The question is . . . **how much of this radiation can the human body tolerate before it becomes ill and who among us is likely to be the most sensitive?**

While there is controversy about how much of this radiation is "safe" there is no disagreement that children are the most sensitive to any form of environmental pollutant.

Despite knowing this, antennas are still erected on or near school property and students and their teachers are exposed to this radiation because microwave radiation penetrates buildings. Indeed a growing number of schools are installing WiFi for their computers, which exposes students and teachers to yet another source of microwave radiation.

School boards, strapped for funding, readily agree to decade-long contracts that bring in thousands of dollars of additional revenue by renting space to the wireless providers for their towers and antennas.



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What We Did



Government officials tell us microwave radiation is safe if it doesn't heat tissue, but scientific studies, going back decades, show adverse biological and health effects for those exposed to levels well below federal guidelines, which are based exclusively on this thermal effect. Guidelines don't change overnight, especially when science to study the health effects of this technology is not funded and when vested commercial interest groups lobby the government to accelerate the process of providing more wireless infrastructure. We are literally microwaving the planet.

The purpose of this report is to raise awareness concerning the number of antennas near schools so we can begin the dialogue of how much microwave radiation is too much.

We asked a simple question . . . **"How many antennas are near schools in the United States?"** We limited our inquiry to schools in the 50 State Capitols and to Washington, D.C.

Information on the number of antennas near a particular address is available at the Antenna Search website (www.antennasearch.com). We based our comparisons on three different distances as follows: the closest antenna, the number of antennas within 0.25 miles (400 meters, which the science shows is the critical distance for adult exposure), and the number of antennas within 0.6 miles (1 km). We designed a special metric - the BRAG™ Color Code and Grade - to facilitate communication of the results. We documented antennas near 6,140 schools attended by 2.3 million students in 51 U.S. cities.



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Executive Summary

Schools & Students



Good News:

2,061 schools (35%) are classified as BRAG™ **GREEN** (fewest nearby antennas) and these schools are attended by **849,000 students (37%)**. These schools are likely to have the lowest exposure to microwave radiation coming from nearby antennas.

Caution:

3,067 schools (51%) with **1.1 million students (50%)** attend BRAG™ **AMBER** schools and these schools are likely to get worse if the construction of antennas continues at the present rate.

Bad News:

1,012 schools (17%) with **299,000 students (13%)** attend BRAG™ **RED** or **BLACK** schools. These schools may have the highest levels of microwave radiation coming from neighborhood antennas.

Really Bad News:

240 schools have more than **20 antennas** within a quarter mile radius, **95 schools** have more than **50 antennas**, and **36 schools** have more than **100 antennas** within the same distance. **The worst school in this survey has 304 antennas within 0.25 miles.**



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State Capitols



Good News:

The **5 BEST** state capitols are **Richmond, Columbia, Nashville, Little Rock, and Jackson**. These cities have composite grades above 80% and have predominantly **GREEN** schools.

Caution:

Most of the state capitols are given a BRAG™ **AMBER** color code, which represents the majority of the schools in that city. This can change quickly if more antennas are erected near schools, leading to higher exposure of students to microwave radiation.

Bad News:

The **5 WORST** capitols are **Carson City, Hartford, Washington, Honolulu, and Boston**. These cities have composite grades below 60% and had predominantly **AMBER** or **RED** schools.

Really Bad News:

In **30 state capitols** there are more than **100 antennas** within a 0.6 mile radius of schools. The worst offenders are **Boston (with 749 antennas within 0.6 miles), Atlanta (679 antennas), Denver (581 antennas), and Indianapolis (459 antennas)**.



BRAG™ Antenna Ranking of Schools

Executive Summary The BRAG™ Report Recommends that . . .



1. schools, school districts, all municipalities and states call upon the FCC for a ruling that requires a 1,500 feet setback for any/all wireless infrastructure near schools. This is the distance at which the scientific literature indicates acute symptoms of electrohypersensitivity are not noticeable and background levels of radiation return to normal from most cellular infrastructure. *Note this does not apply to WiMax, a high-powered series of antennas being installed across the U.S., for which the return to background level distance is likely to be much greater than 1,500 feet.* Symptoms of electrohypersensitivity have been demonstrated at exposures that are a fraction (0.04%) of U.S. exposure guidelines, in part because the guidelines themselves only take into consideration a 30-minute exposure, not chronic exposures. Until guidelines are formally changed to reflect the current science, a policy of "prudent avoidance" would justify setbacks for antenna infrastructures near schools.
2. radio frequency radiation in school environments be monitored and documented on a regular basis, and especially after antennas are erected nearby or when new wireless technology is introduced into the school environment.
3. if levels of exposure to radiofrequency fields, magnetic fields or dirty electricity exceed the BRAG™ recommendations for these frequencies, that steps be taken to reduce these exposures on school property.
4. health complaints of electrohypersensitivity reported by students and staff be taken seriously, that they be documented, and that appropriate steps be taken in a timely fashion to address the complaint. This involves education of teachers and nursing staff.

Note: those who want to conduct a BRAG™ antenna search for their school, visit www.magdahavas.com for "how to" instructions..