On the Effectiveness of Aluminium Foil Helmets: An Empirical Study

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Abstract

Among a fringe community of paranoids, aluminum helmets serve as the protective measure of choice against invasive radio signals. We investigate the efficacy of three aluminum helmet designs on a sample group of four individuals. Using a $250,000 network analyser, we find that although on average all helmets attenuate invasive radio frequencies in either directions (either emanating from an outside source, or emanating from the cranium of the subject), certain frequencies are in fact greatly amplified. These amplified frequencies coincide with radio bands reserved for government use according to the Federal Communication Commission (FCC). Statistical evidence suggests the use of helmets may in fact enhance the government's invasive abilities. We speculate that the government may in fact have started the helmet craze for this reason.

Introduction

It has long been suspected that the government has been using satellites to read and control the minds of certain citizens. The use of aluminum helmets has been a common guerrilla tactic against the government's invasive tactics [1]. Surprisingly, these helmets can in fact help the government spy on citizens by amplifying certain key frequency ranges reserved for government use. In addition, none of the three helmets we analyzed provided significant attenuation to most frequency bands.

We describe our experimental setup, report our results, and conclude with a few design guidelines for constructing more effective helmets.

Experimental Setup

We evaluated the performance of three different helmet designs, commonly referred to as the Classical, the Fez, and the Centurion. These designs are portrayed in Figure 1.

The helmets were made of Reynolds aluminium foil. As per best practices, all three designs were constructed with the double layering technique described elsewhere [2].

A radio-frequency test signal sweeping the ranges from 10 Khz to 3 Ghz was generated using an omnidirectional antenna attached to the Agilent 8714ET's signal generator. A network analyser (Agilent 8714ET) and a directional antenna measured and plotted the signals. See Figure 2.

Because of the cost of the equipment (about $250,000), and the limited time for which we had access to these devices, the subjects and experimenters performed a few dry runs before the actual experiment (see Figure 3).

The receiver antenna was placed at various places on the cranium of 4 different subjects: the frontal, occipital and parietal lobes. Once with the helmet off and once with the helmet on. The network analyzer plotted the attenuation betwen the signals in these two settings at different frequencies, from 10Khz to 3 Ghz. Figure 4 shows a typical plot of the attenuation at different frequencies.

Results

For all helmets, we noticed a 30 db amplification at 2.6 Ghz and a 20 db amplification at 1.2 Ghz, regardless of the

Figure 1. The three helmet types tested

The Classical | The Fez | The Centurion

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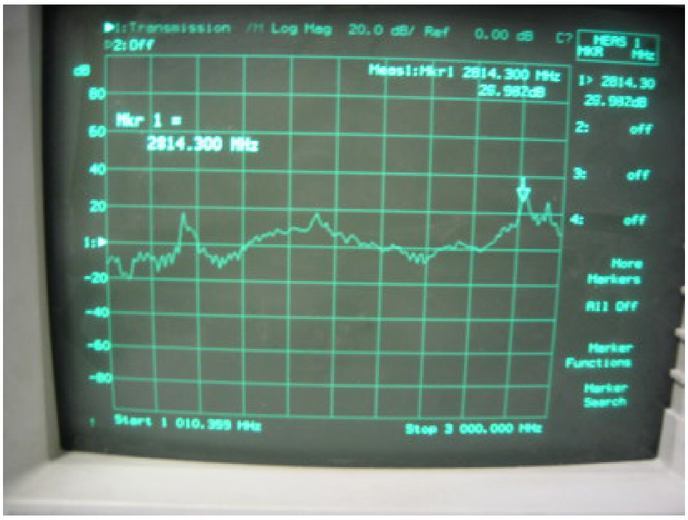
Figure 2. The experimental apparatus, including a data recording laptop, a $250,000 network analyser, and antennae.

position of the antenna on the cranium. In addition, all helmets exhibited a marked 20 db attenuation at around 1.5 Ghz, with no significant attenuation beyond 10 db anywhere else.

Conclusion

The helmets amplify frequency bands that coincide with those allocated to the US government between 1.2 Ghz and 1.4 Ghz. According to the FCC, These bands are supposedly reserved for ”radio location” (ie, GPS), and other communications with satellites (see, for example, [3]). The 2.6 Ghz band coincides with mobile phone technology. Though not affiliated by government, these bands are at the hands of multinational corporations.

Figure 4. A the typical attenuation trace form network analyser.



It requires no stretch of the imagination to conclude that the current helmet craze is likely to have been propagated by the Government, possibly with the involvement of the FCC. We hope this report will encourage the paranoid community to develop improved helmet designs to avoid falling prey to these shortcomings.

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Figure 3. Test subjects during a dry run.