January 21,2025

To: Police, Sheriff, and Fire Commanders

Subject: EMP Protection for equipment / vehicles.

My name is Thomas Brent, aged 70, with a lifetime of experience in electronics and design including Biomedical Engineering at Vanderbilt Research.

After asking several police chiefs if they knew if their radio equipment was being protected against an emp attack I was shocked to hear over and over again that "NO" was the answer. To me, a patriot who loves my country, I consider this unacceptable and I hope you will too.

Background Info

Being a Amateur Radio operator, an engineer, and licensed to install and operate TV, Radio, and Land based radar systems since I was 19. I have read many articles on this subject dating from first publications from the 70's and 80's. Let me say that other than the government, information is scarce and inaccurate. Today there are companies who address this issue and offer products that do offer some protection. Some of these companies make claims that are unsubstantiated and I say this after investigations of their claims. The legitimate ones offer real world testing information from a company that does EMP testing professionally. However, this testing is done in laboratory conditions which do not reflect real world installations of equipment. And this is where things get sticky. On one hand their products do protect the connected device, but only proven in a laboratory environment, do you see where I'm going with this?

Only our government has done testing on actual installations, and they won't release any of the results of those tests. Why? Because they don't want our enemies to be able to defend against this type of attack, that's why.

But, that being said, there is a company that has had their products tested by the government and accepted for use. Again the government will not even tell this company, that makes these products, the results of the tests, only that they passed.

I can understand why the communications companies don't talk about this. They don't have any guaranteed products to sell you and they don't want to sued over a failure.

So I step in and offer some possibilities. If you are not interested in protecting your equipment then read no farther. I can understand the bureaucracies you have to work with. And the headaches that can produce. Still I suggest you at least look at what I have to say. After all, I'm not getting paid to do this, I do it

because I care about our country. And believe me, there will be an attack at some point. War is inevitable and we all know it.

Here are the facts:

Protecting the mobiles units and base station are not as hard or as complicated as you might think. And can be done for a lot less money than you think. But, and there's always a "but".... And here it is, plain and simple.

Fact one, There are NO Guarantee's that your equipment will survive an attack. I know you want a guarantee, especially if you're going to spend money, but that's not the way it works in this case. Why? Because we've never had an attack, and laboratory testing is not the same as real world installations.

So, knowing there is no guarantee you must ask yourself this one thing.......... "Is it worth it to *try* to protect my equipment in the event of an emergency?"

"If so, would you spend \$ 150 per car and base station to at least try?"

I say yes, I would want to be able to communicate with my people in a catastrophe such as nuclear war. A nuclear war is survivable for some, depending on location, wind, and distance.

"How do I know if my cars would still work after a EMP attack?" You don't, but after researching this subject for years, there are 2 schools of thought on this. One says your cars will survive if they are turned off, the other says they probably won't survive. The choice is yours, but if I had any chance at all for only \$ 150 per car, I would spend the money.

"So what are you recommending we do?"

I'm recommending you purchase a protection device to go between the antenna on the vehicle and radio for about \$ 60. Then apply TVS diodes across the DC supply line going to the radio equipment for \$ 20. The base station would use the same device on the antenna system and AC power source. The \$150 I quoted is for the devices and installation costs. So as you can see, there isn't a lot of money involved here and you can do it yourself with a little training and save even more money. I'm not here to make a lot of money, I just want our country to survive. And the serious lack of preparations on the part of not only our federal government but also the local governments is shameful.

"So what is this equipment you are talking about?"

The antenna protection device is made by a company called "Alpha Delta" and the specific device is called a model TTG3-50U and I'm sure you could get a discount for multiple units. Below is the link:

https://www.alphadeltaradio.com/surge-protectors/model-att3g50u

The TVS diodes are a little different and you need two different models for the power supply protection. One is a 16 volt standoff voltage for the cars, and the other is a 200 volt bi-directional standoff voltage for protecting the AC line on in house equipment. Several of these units in parallel should be sufficient enough to keep the EMP surge from entering thru the power supply. These diodes are specifically designed to stop voltage surges.

So in a nutshell this is a basic and inexpensive way to protect your equipment. And it has a good chance of success in the event of an EMP attack. The Alpha Delta company products have pass the federal government EMP testing....

If you are interested in talking to me about this subject you can contact me via email at

R35corp@gmail.com

Provide an email address or phone number for contact and I will respond as soon as possible.

Of course there are small details regarding use and installation but based upon current data available this is a good start and may prove more effective that what many people think. And of course there are companies who specialize in selling an expensive product that does the same thing.

Suggested reading "one second after" by <u>William R. Forstchen</u> whose forward was written by Newt Gingrich, speaker of the house....