

POSITION: Oppose the proposal.

COMMENT FOLLOWS:

This proposal is well intentioned but ill conceived.

THE THREAT AS STATED IS UNREALISTIC

Somehow I do not see the EMP burst levels they have specified at twice the output of a high altitude nuclear burst to be something one would face from anything less than a superbly technological foe well advanced in Directed EMP weapons technology. This, I would think, is not a cost-effective option for most enemies.

The somewhat more realistic terrorist threat of a low yield ground burst nuclear device produces much less EMP with most of the energy directed up and away from radio equipment below the local horizon.

EVEN IF THE UNLIKELY OCCURS, INVENTORY EXPOSURE IS MINIMAL

The proposition fails the basic test of target susceptibility.

Even considering the growing threat of a terrorist nuclear event, the imposition of EMP hardening requirements on amateur radio equipment is entirely unnecessary. The tactical practicalities have clearly not been taken into account by the proponents.

In technical terms, equipment is only vulnerable if it happens to be within the effective  $r^3$  distance of an EMP burst to cause catastrophic damage WITH a sufficiently large and efficient receiving surface to collect the required damage energy.

As with a lightning strike, a radio not hooked to a coax cable connected to an outside antenna is unlikely to be damaged unless it's right next to the explosion; in which case it doesn't matter does it.

The fact of the matter is that it is an impossible case scenario that 100% of all amateur radio equipment within practical emergency response distance (say up to 100 miles away for a 6-12 hour mobilization) will be susceptible at any given instance.

The reserve inventory of usable equipment is large. In the thousands of radios and humans.

The practical matter is if one piece of equipment gets fried, you pick up another one. There are plenty to pick up. Many more than there are well trained operators. I would venture to say that the best trained of these probably keep a spare on hand in the first place.

A BETTER SOLUTION

By encouraging continued growth in participation and technical innovation in amateur radio, the inventory of trained operators and equipment in aggregate (including reserve spares) is

maximized.

The proponents would do better to turn their attention to recruiting more hams and making sure each one gets trained and adds one or two more radios each to the US emergency response inventory in the event of a nuclear event.

If they are still worried, they can spread the word that the concerned might want to keep their spare rig in a metal tool box or something that emulates a rudimentary Gaussian cage.

Dennis Santiago  
NB6I