

E.M.P. vulnerability invites catastrophe

July 29, 2013

By Frank Gaffney, Jr.

Former Defense Secretary Donald Rumsfeld noted long ago that there is a geopolitical counterpart to Aristotle's axiom that "nature abhors a vacuum." As the author of the terrific new book, *Rumsfeld's Rules*, quipped: "Weakness is provocative."

A corollary to this rule might be "Vulnerability invites catastrophe." For just as bad actors have, throughout history, been induced to act aggressively when they perceive irresolution or incapacity on the part of their adversaries, the perception that the latter have vulnerabilities that might be decisively exploited can amount to an invitation to doing so – at least in some cases, with potentially catastrophic consequences.

Unfortunately, America has one such portentous vulnerability: Its electric grid's lack of resiliency in the face of electromagnetic pulse (EMP) events. Widespread EMP can be most efficiently precipitated by detonating a nuclear weapon many miles above the United States, unleashing gamma rays that interact with the atmosphere to expose every unshielded electrical and computer-based device within line of sight to immensely powerful pulses of energy.

According to a blue-ribbon commission empaneled by Congress in the last decade to evaluate this EMP threat, the effect of such an attack – perhaps delivered by a relatively short-range ballistic missile launched from a ship off a U.S. coast – would be "catastrophic." That is because, at present, our grid has not been "hardened" to withstand such electromagnetic pulses.

As a result, the EMP Threat Commission found that our bulk power system and particularly its key components – notably, roughly 1,000 large and smaller transformers that are its backbone – would be damaged or destroyed. This would cause power outages that would be widespread, protracted and result in the rapid and enduring collapse of all other critical infrastructures (food, water, medical, telecommunications, transportation, finance, etc.)

The Commission's chairman, Dr. William Graham, put a fine point on the magnitude of the catastrophe. He estimated that within a year of such a take-down of our grid, nine-out-of-ten Americans would be dead.

At least four hostile nations are known to be aware of our acute vulnerability to EMP effects: Russia, China, North Korea and Iran. Three of the four appear to have the means to exploit it. And the Iranians reportedly are working hard to acquire them.

In fact, as the executive director of the EMP Threat Commission, Dr. Peter Pry, reported in a briefing last week (<http://www.centerforsecuritypolicy.org/2013/07/26/missiles-intercepted-on-north-korean-freighter-prompt-fresh-warnings-from-electromagnetic-pulse-experts/>), the Cuban nuclear-capable surface-to-air missiles that Panamanian authorities recently discovered stashed away in the hold of a

North Korean freighter could have been used to mount an EMP attack from the Caribbean. If the North Koreans have this capacity, their Iranian strategic partners will, too, in due course. On that occasion, Dr. Henry Cooper, who formerly directed the Strategic Defense Initiative Organization, warned that, in addition to a dangerously vulnerable grid, we have no warning radars or missile defenses looking southward to protect against such a strike.

To make matters worse, as Michael Del Rosso, the former chairman of the Institute of Electrical and Electronics Engineers' Critical Infrastructure Protection Committee, added – even if no hostile power responds catastrophically to our vulnerability to EMP, a similar level of devastation can be caused by natural phenomena. Specifically, intense solar flaring of the kind currently occurring could, according to an estimate by Lloyds of London, leave up to 40 million Americans without power for as long as two years.

That such a sun-induced occurrence will afflict our planet is not merely a hypothetical possibility. It is a matter of when, not if. In fact, the earth's orbit recently missed *by one week* intersecting with the devastating geomagnetic disturbances caused by a powerful coronal mass ejection.

So great is our vulnerability and so high are the stakes if it is not promptly mitigated that an informal EMP Coalition has just been established to raise awareness and campaign for corrective action. Its bipartisan honorary co-chairs are former House Speaker Newt Gingrich and former Director of Central Intelligence R. James Woolsey. And its partners include many of the most knowledgeable and effective experts, organizations and activists in this field including: EMPact America, the Electric Infrastructure Security Council, High Frontier and the Center for Security Policy.

An immediate focus of the EMP Coalition's efforts is to provide educational support to legislative efforts at both the federal and state levels to protect America's electric grid. The former include the Secure High-voltage Infrastructure for Electricity from Lethal Damage (SHIELD) Act, H.R. 2417, sponsored by Reps. Trent Franks (R-Arizona) and Yvette Clark (D-New York). A model for the latter is the recently enacted Maine State law, LD 131, sponsored by State Rep. Andrea Boland. (To find out more about these initiatives and how you can help the Coalition's vital work, visit www.StopEMP.org.)

Another impetus for action, if any were needed, is the recent revelation that a top target for foreign espionage in this country is stealing our radiation-hardened electronics technology. While there may be multiple factors contributing to such thefts (notably, others' ambitions to operate in and exercise control of outer space – an alarming prospect in its own right), utilizing these technologies can help potential adversaries be prepared for EMP. To do no less ourselves, on a comprehensive and national basis, is truly to invite catastrophe.