



New concerns are being raised that the nation's electrical grid and critical infrastructure are increasingly vulnerable to a catastrophic foreign attack -- amid speculation over whether officials are eyeing a former Cold War bunker, inside a Colorado mountain, as a "shield" against such a strike.

North American Aerospace Defense Command is looking for ways to protect itself in the event of a massive electromagnetic pulse, or EMP, attack -- a deliberate burst of energy that could disrupt the electrical grid and cripple NORAD's ability to defend the nation.

"What it could do, these various threats, is black out the U.S. electric grid for a protracted period of months or years," warned Peter Pry, executive director of the EMP Task Force, a bipartisan congressional commission. "Nine out of ten Americans could die from starvation, disease and societal collapse, if the blackout lasted a year."



Congress of the United States
Washington, DC 20515

17 November 2011

*CONGRESSIONAL EMP CAUCUS:
Task Force on National and Homeland Security*

The Task Force on National and Homeland Security is a privately-funded and operated body with a mandate to educate and help protect the United States from the existential threat posed by a natural or manmade electromagnetic pulse (EMP) catastrophe and other threats vital to U.S. national and homeland security that imperil the survival of the American people.

This visionary Congressional action – in the absence of taxpayer monies – represents a critical precedent in what could be properly termed "21st century national security." In this new era of fiscal austerity and deep, often debilitating, cuts in defense spending, the Task Force presents a model for the growing privatization of U.S. national security. Specifically, it permits private sector experts and former senior government officials to partner with Congress and other U.S. policy-makers in marshaling highly-proficient views and advice on a range of EMP-relevant technical and operational matters as well as concerning pressing security interests such as proliferation, energy security, economic and financial warfare, missile defense and intelligence-related challenges.

We strongly endorse and approve the Task Force on National and Homeland Security as it pertains to Electromagnetic Pulse (EMP) applications. This newly established task force is under the leadership of Dr. Peter Vincent Pry, its Executive Director. Dr. Pry played a key role in establishing and serving on the Congressional Commission To Assess The Threat To The United States From Electromagnetic Pulse Attack.

We, as Co-Chairs of the Congressional EMP Caucus, support policies and legislation that will protect against nuclear, non-nuclear, and natural EMP threats to the critical infrastructures of the United States that sustain the U.S. economy and the lives of the American people.

Unfortunately, no credible official body, like the Congressional EMP Commission, now exists to inform and support the Congress on issues of national and homeland security related to EMP.

Accordingly, a Task Force on National and Homeland Security may serve, to the extent possible, as a surrogate for the Congressional EMP Commission, by providing expert views and advice on any and all technical, operational, and policy matters of relevance to EMP. Protection of the critical infrastructures--including electric power, communications, transportation, energy, banking and finance, food and water--is a very broad challenge. Issues for the Task Force on National and Homeland Security include: EMP, proliferation, energy security, financial issues, missile defense, intelligence and any other issues of relevance.

It is understood that, as there are no congressional monies available for the support of the Task Force on National and Homeland Security, the Task Force must be self-sustaining by means of private contributions of funding, labor, and other support.

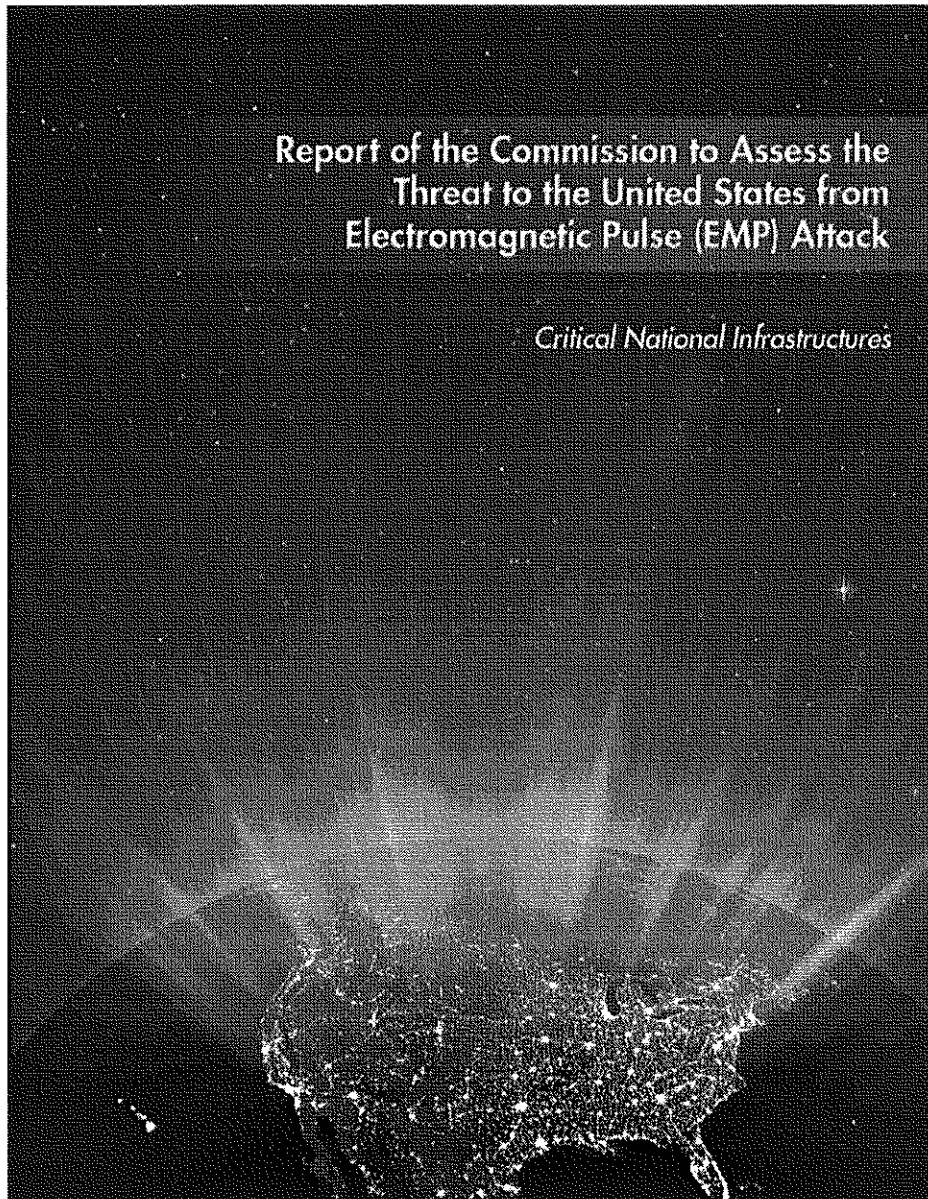
Sincerely,


Trent Franks
Member of Congress


Roscoe Bartlett
Member of Congress


Yvette Clarke
Member of Congress

THE OFFICIAL REPORT



The EMP Commission was established pursuant to title XIV of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (as enacted into law by Public Law 106-398; 114 Stat. 1654A-345). Duties of the EMP Commission include assessing:

1. the nature and magnitude of potential high-altitude EMP threats to the United States from all potentially hostile states or non-state actors that have or could acquire nuclear weapons and ballistic missiles enabling them to perform a high-altitude EMP attack against the United States within the next 15 years;
2. the vulnerability of United States military and especially civilian systems to an EMP attack, giving special attention to vulnerability of the civilian infrastructure as a matter of emergency preparedness;
3. the capability of the United States to repair and recover from damage inflicted on United States military and civilian systems by an EMP attack; and
4. the feasibility and cost of hardening select military and civilian systems against EMP attack.

The Commission is charged with identifying any steps it believes should be taken by the United States to better protect its military and civilian systems from EMP attack.

Multiple reports and briefings associated with this effort have been produced by the EMP Commission including an [Executive Report](#) (PDF, 578KB) and a [Critical National Infrastructures Report](#) (PDF, 7MB) describing findings and recommendations.

The EMP Commission was reestablished via the National Defense Authorization Act for Fiscal Year 2006 to continue its efforts to monitor, investigate, make recommendations, and report to Congress on the evolving threat to the United States from electromagnetic pulse attack resulting from the detonation of a nuclear weapon or weapons at high altitude.

Additionally, analyses available from foreign sources suggest that amplitudes and frequency content of EMP fields from bomb blasts calculated by U.S. analysts may be too low. While this matter is a highly technical issue that awaits further investigation by U.S. scientific experts, it raises the specter of increased uncertainty about the adequacy of current U.S. EMP mitigation approaches.

A key issue for the Commission in assessing the impact of such a disruption to the Nation's electrical system was not only the unprecedented widespread nature of the outage (e.g., the cascading effects from even one or two relatively small weapons exploded in optimum location in space at present would almost certainly shut down an entire interconnected electrical power system, perhaps affecting as much as 70 percent or possibly more of the United States, all in an instant) but more significantly widespread damage may well adversely impact the time to recover and thus have a potentially catastrophic impact.

For highly dependent systems such as commercial telecommunications and the financial system, electric power is frequently filtered through batteries. These act to condition the power as well as to provide limited backup. Local, at-site emergency generators are used quite extensively for high priority loads. These include hospitals, cold storage, water systems, airport controls, rail controls and similar uses. These systems, however, are themselves increasingly dependent on electronics to initiate start up, segregate them from the larger power system, and control their operating efficiency, thereby rendering them vulnerable to EMP.

Furthermore, emergency generators have relatively short-term fuel supplies, generally less than 72 hours. Increasingly, locally stored fuel in buildings and cities is being reduced for fire safety (after 9/11) and environmental pollution reasons, so that emergency generation availability without refueling is becoming even more limited. Batteries normally have a useful life well short of emergency generators, often measured in a few hours. All of these tools for maintaining a stable and adequate power supply, even to high priority loads, are intended to be temporary at best – bridging the time until restoration can take place.

The impact of such an EMP-triggered outage would be severe but not catastrophic if the recovery was rapid or the geographic impact sufficiently limited. The recovery times from previous large-scale outages have been on the order of one to several days. This record of quick recovery is attributable to the remarkably effective operation of protective systems and communications that are an essential part of the power infrastructure and the multiple sources of replacement components from surrounding nonimpacted systems. In this context, a short blackout scenario over a relatively small geographic region would be economically painful. Of the more than \$10 trillion U.S. Gross Domestic Product, about three percent is electricity sales. However, estimates of economic loss from historical blackouts range from factors of six (for domestic customers) to 20 (for industrial users) times the value of the interrupted service. By these measures, the economic impact of an outage is between 18 and 60 percent of total production in the affected area. Again, this estimate is for reasonably short-lived blackouts. A short blackout presents no threat to national survival.

On the other hand, a geographically widespread blackout that involves physical damage to thousands of components may produce a persistent outage that would far exceed historical experience, with potentially catastrophic effect. Simulation work sponsored by the

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