

# WebMemo



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## Time for a National EMP Awareness Day

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An electromagnetic pulse (EMP) produced by the detonation of a nuclear weapon at high altitude or as the result of unusually powerful solar activity (often called severe space weather) could produce catastrophic destruction in the United States. Congress has long deliberated this threat, but it has not produced substantive legislative guidance or demonstrated effective oversight. The Administration and federal agencies remain mostly ambivalent. It is time to make August 15 National EMP Awareness Day to wake up America's nation's leaders. This should be recognized as a clear and present danger—one that could be devastating if it finds the nation ill-prepared.

**Lights Out!** An EMP is a high-intensity burst of electromagnetic energy caused by the rapid acceleration of charged particles. A wave of EMP creates three chaotic effects. First, the electromagnetic shock can disrupt electrical devices. The second effect is similar to lightning—a power surge that would burn circuits and immobilize electronic components and systems. The third is a pulse effect that flows through electricity transmission lines, damaging distribution centers and fusing power lines. Any of these can cause irreversible damage to an electronic system.

EMPs can be generated in various manners, but the cause of greatest concern is a high-altitude burst of a nuclear weapon. Another particularly dangerous source of EMP might be a repeat of the Carrington Event. On September 1, 1859, British astronomer Richard Carrington observed an unusually large

solar flare. Minutes later, the flare reached Earth. Telegraph operators were shocked unconscious. Their machines caught on fire as the EMP effect from the flare surged through the lines. When this event occurred, only a small portion of the world was electrified. A solar flare of this magnitude today might have a much more devastating impact. “An event that could incapacitate the network for a long time,” stated one participant in a U.S. National Academies of Science study, “could be one of the largest natural disasters that we could face.”

The result of a massive EMP event could be devastating. Communications would collapse, transportation would halt, and electrical power would simply be nonexistent. Not even a global humanitarian effort would be enough to keep hundreds of millions of Americans from death by starvation, exposure, or lack of medicine. Nor would the catastrophe stop at U.S. borders. Most of Canada would be devastated, too, as its infrastructure is integrated with the U.S. power grid. Without the American economic engine, the world economy would quickly collapse. Much of the world's intellectual brain power (half of it is in the United States) would be lost as well. Earth would most likely recede into the “new” Dark Ages.

This paper, in its entirety, can be found at:  
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**A Day to Think About the Day After.** To increase congressional awareness of this issue, we proposed a Congressional EMP Awareness Day, arguing that if, just for one day, Congress simulated even a fraction of the impact such an attack would have (from shutting off their BlackBerries to turning off the lights), the scope of the danger would be clear. The date proposed was March 23, 2011. In a speech on March 23, 1983, President Ronald Reagan detailed his plans for the Strategic Defense Initiative (SDI). SDI was aimed at ensuring America's safety against a nuclear missile attack by implementing land-based and space-based defense systems. Reagan's vision was never completely realized, but the missile threats against the United States have never dissipated. Particularly since a ballistic missile could be used to deliver an EMP attack, the need for such a system grows more pressing. Thus, March 23 would have been an excellent date for Congress to observe EMP Awareness Day.

Yet despite the fact that six national commissions and major independent U.S. government studies have independently concurred with the significance of the danger, Congress has yet to act in a substantive manner. For the most part, U.S. government agencies have not taken planning for their response to an EMP attack out of the theoretical stages.

**Alerting the American People.** All Americans need to understand what their leaders in Washington know and what they are not doing with the information. Therefore, we propose a new date for National EMP Awareness Day: August 15. On August 15, 2003, a major blackout occurred throughout the northeastern United States and Canada. More than 55 million people received a brief object lesson in what life would be like after an EMP event. For the most part, services were restored within a day. That would not be the case after an EMP event.

EMP Day should cause all Americans to think about what Washington ought to be doing about this grave danger. Washington should:

- **Fund comprehensive missile defense.** Building a comprehensive missile defense system will allow the U.S. to intercept and destroy a missile bound for the United States, regardless of the launch point or the objective—whether the attack is aimed at destroying a city or engaging in an EMP attack.
- **Demand the Administration develop a National Recovery Plan and a plan to respond to severe space weather emergencies.** In order to minimize lives lost and property destroyed, the United States needs a plan that will address its ability to recover quickly after an attack or space weather incident. The EMP Commission emphasized that the nation must first improve the infrastructure on which all other sectors are dependent, specifically citing electric power and telecommunications. This risk-based approach recognizes that certain infrastructure is key to post-EMP attack recovery. EMP should also be added to the list of 15 national disaster scenarios.
- **Require more research on the EMP threat.** More research is needed to ensure that the United States fully understands the scope of the danger and can prepare cost-effective countermeasures.

Simply recognizing the EMP threat would go a long way toward better preparing America for the unthinkable.

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