



Secure the Grid Coalition
A Project of the Center for Security Policy
2020 Pennsylvania Avenue, N.W., Suite 189
Washington, D.C. 20006

February 13, 2020

General Joseph L. Lengyel
National Guard Bureau
111 S. George Mason Dr.
Arlington, VA 22204

Re: Section 1720 of the National Defense Authorization Act for Fiscal Year 2020¹

Dear General Lengyel,

As you know, Section 1720 of the NDAA charged the Chief of the National Guard Bureau with the responsibility to submit to the congressional defense committees by September 30, 2020 a report setting forth:

- (1) A clarification of the roles and missions, structure, capabilities, and training of the National Guard and the United States Northern Command, and an identification of emerging gaps and shortfalls in light of current homeland security threats to our country.
- (2) A list of the resources that each State and Territory National Guard has at its disposal that are available to respond to a homeland defense or security incident, with particular focus on a multi-State electromagnetic pulse event.
- (3) The readiness and resourcing status of forces listed pursuant to paragraph (2).
- (4) The current strengths and areas of improvement in working with State and Federal interagency partners.
- (5) The current assessments that address National Guard readiness and resourcing of regular United States Northern Command forces postured to respond to homeland defense and security incidents.
- (6) A roadmap to 2040 that addresses readiness across the spectrum of long-range emerging threats facing the United States.

In addition to the NDAA, the President issued Executive Order 13865² on March 26, 2019 ordering Executive Agencies of the government to take action on threats related to electromagnetic pulse (EMP) and geomagnetic disturbance (GMD).

The *Secure the Grid Coalition* is a national organization of critical infrastructure protection and emergency preparedness experts. Our Coalition believes that EO 13865 and Sections 1720 and 1740 of the NDAA present an opportunity for government agencies and the National Guard to significantly strengthen the National Security of the United States. We stand ready to assist the Guard Bureau and the Federal Emergency Management Agency (FEMA) in any way we can to effectuate the intent of the President and Congress.

Attached is a letter to the Administrator of Federal Emergency Management Agency (FEMA) and a whitepaper authored by Secure the Grid Coalition member and retired U.S. Army Command Sergeant

¹ Public Law 116-92, available at: <https://www.congress.gov/116/bills/s1790/BILLS-116s1790enr.pdf> (Accessed February 11, 2020).

² Executive Order 13865, available at: <https://www.govinfo.gov/content/pkg/FR-2019-03-29/pdf/2019-06325.pdf> (Accessed February 11, 2020).

Major Michael Mabee. The whitepaper outlines ways in which the Guard Bureau and FEMA can work together to achieve our mutual goal: to protect our nation and our democracy.

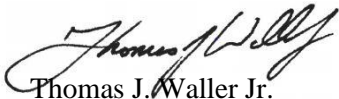
Mr. Mabee is shipping to your attention, at his own expense, 20 copies of his book on community preparedness. This well-researched book will help inform your staff on what problems communities and the nation will face during a wide-scale, long-term power outage. It also contains solutions. We highly recommend that your key staff and the Adjutants General examine this book.

If we may be of any assistance to the Bureau or to the Adjutants General, please do not hesitate to contact Coalition Director Tommy Waller at (202) 302-1974, or by email at twaller@centerforsecuritypolicy.org.

Best personal regards,



Frank J. Gaffney
Executive Chairman, Center for Security Policy
Founder, Secure the Grid Coalition
Former Assistant Secretary of Defense (acting)



Thomas J. Waller Jr.
Vice President, Special Projects, Center for Security Policy
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February 13, 2020

Pete T. Gaynor, Administrator
Federal Emergency Management Agency
500 C Street S.W.
Washington, D.C. 20472

Subject: FEMA's Strategic Plan and the NDAA FY2020

Dear Mr. Gaynor,

Section 1740 of the National Defense Authorization Act for Fiscal Year 2020¹ (NDAA) and Executive Order 13865² charged the Federal Emergency Management Agency (FEMA) with new responsibilities, but also present us with great opportunities. Specifically, I believe we have the opportunity to use the EO and NDAA to make the three goals of FEMA's Strategic Plan a reality.

Section 1740 of the NDAA requires that FEMA:

- (I) not later than June 19, 2020, develop plans and procedures to coordinate the response to and recovery from EMP and GMD events; and
- (II) not later than December 21, 2020, conduct a national exercise to test the preparedness and response of the Nation to the effect of an EMP or extreme GMD event.

Executive Order 13865 and the NDAA makes clear both the President and Congresses' intent that we must be prepared for a wide-scale, long-term power outage. The first step of this preparedness is to "imagine" what such a blackout would do to the nation. 9/11 has often been described as a "failure of imagination"³ and so it is incumbent upon us not to let this happen again. Presently, our critical infrastructures are vulnerable to numerous threats that could cause a wide-scale, long-term power outage (all of which I have listed at the beginning of the attached whitepaper). However, only at high levels of government does the *cause* of the power outage matter.

At the local level, whether the cause was an EMP, GMD, cyberattack, physical attack, pandemic, extreme weather or any other cause, the impact is exactly the same. Local communities will be dealing with the same devastating consequences of a long-term power outage and are not likely to have time to worry about the cause in the midst of life-threatening crises. Therefore, in responding to the EO and NDAA's direction on EMP & GMD mitigation and preparedness, we can take an "all hazards" approach to the problem of blackouts on the state, county and local level.

¹ Public Law 116-92, available at: <https://www.congress.gov/116/bills/s1790/BILLS-116s1790enr.pdf> (Accessed February 11, 2020).

² Executive Order 13865, available at: <https://www.govinfo.gov/content/pkg/FR-2019-03-29/pdf/2019-06325.pdf> (Accessed February 11, 2020).

³ The National Commission on Terrorist Attacks Upon the United States. "The 9/11 Commission Report." July 22, 2004
<https://www.govinfo.gov/content/pkg/GPO-911REPORT/pdf/GPO-911REPORT.pdf> (accessed February 8, 2020).

In the following pages, I offer some recommendations on how EO 13865 and Sections 1740 and 1720 of the NDAA can fit together with FEMA's Strategic Plan and make the nation more resilient to all catastrophic disasters.

We now have a great opportunity to make the three goals of FEMA's Strategic Plan a reality while also using the EO and NDAA requirements to supercharge our efforts. Everything fits if we let it.

At my own expense, I have shipped 20 copies of my book on community preparedness to you. I hope you will share them with your staff. The book has a lot of ideas and information that will be helpful to FEMA in preparing a community Tabletop exercise.

I would be happy to meet with you to further discuss how we can build a culture of preparedness in the U.S.

Sincerely,

A handwritten signature in blue ink, appearing to read 'm' followed by a flourish.

Michael Mabee

Attachment: Whitepaper "How Executive Order 13865 and the National Defense Authorization Act Create Opportunities to Prepare the Nation"

CC: General Joseph L. Lengyel, Chief of the National Guard Bureau

How Executive Order 13865 and the National Defense Authorization Act Create Opportunities to Prepare the Nation

The President, in issuing Executive Order 13865⁴ and Congress, in enacting the National Defense Authorization Act for Fiscal Year 2020⁵ communicated their clear intent that agencies, including the Federal Emergency Management Agency (FEMA), The Secretary of Defense and the National Guard Bureau prepare the nation for a wide-scale, long-term power outage caused by an electromagnetic pulse (EMP) event or a geomagnetic disturbance (GMD). This Presidential and Congressional intent is also applicable to any threat that could cause a wide-scale, long-term power outage.

These two directives from the nation's leadership and FEMA's Strategic Plan can work together to strengthen the national security of the United States.

Threats that can cause a wide-scale, long-term power outage:

- Electromagnetic Pulse (EMP) Attack – In addition to state actors who have the capability of launching an EMP attack, such as China, North Korea, Russia and possibly Iran, it is important to remember that there are arguably at least 51 missing nuclear weapons⁶ which could potentially fall into the wrong hands. A terrorist organization could potentially launch a nuclear or non-nuclear EMP attack.
- Geomagnetic Disturbance (GMD) – It is a scientific fact that the sun will continue to cause periodic GMDs. The 1989 Quebec blackout was caused by such a GMD.⁷ However, the 1989 solar storm was smaller than other past storms such as the 1859 “Carrington Event” and the 1921 “New York Railroad Storm”⁸ (both of which occurred prior to the advent of the modern electric grid). It is a certainty that the earth will be hit by another large GMD in the future – it is just a matter of “when.”
- Cyberattack – Our critical infrastructures are vulnerable to cyberattacks from both state and non-state actors. Between 2010 and 2019, there have been 30 disturbance events reported to the Department of Energy related to cyberattacks on the electric grid.⁹ In addition, the Department of Homeland Security has issued multiple recent alerts related to cyberattacks on the energy sector.
- Coordinated Physical Attack – Between 2010 and 2019, there have been 628 disturbance events reported to the Department of Energy related to physical attacks on the electric grid.¹⁰ While many of these were deemed “vandalism,” a well-planned and coordinated sniper attack occurred in 2013 which raised significant concerns about terrorism.¹¹ Moreover, a coordinated attack on a few key substations could cause a wide-scale, long-term blackout.¹²

⁴ Executive Order 13865, available at: <https://www.govinfo.gov/content/pkg/FR-2019-03-29/pdf/2019-06325.pdf> (Accessed February 11, 2020).

⁵ Public Law 116-92, available at: <https://www.congress.gov/116/bills/s1790/BILLS-116s1790enr.pdf> (Accessed February 11, 2020).

⁶ Dr. Ori Nissim Levy. Begin-Sadat Center for Strategic Studies. “The Day After an Iranian Nuclear Strike.” September 10, 2019.

<https://besacenter.org/perspectives-papers/iranian-nuclear-strike/> (accessed February 8, 2020).

⁷ NASA. “The Day the Sun Brought Darkness.” March 13, 2009. https://www.nasa.gov/topics/earth/features/sun_darkness.html (accessed February 8, 2020).

⁸ O’Callaghan, Jonathan. Scientific American. “New Studies Warn of Cataclysmic Solar Superstorms.” September 24, 2019.

<https://www.scientificamerican.com/article/new-studies-warn-of-cataclysmic-solar-superstorms/> (accessed February 8, 2020).

⁹ See: <https://michaelmabee.info/oe-417-database/> (accessed February 8, 2020).

¹⁰ See: <https://michaelmabee.info/oe-417-database/> (accessed February 8, 2020).

¹¹ Smith, Rebecca. The Wall Street Journal. “Assault on California Power Station Raises Alarm on Potential for Terrorism.” February 5, 2014. <https://www.wsj.com/articles/assault-on-california-power-station-raises-alarm-on-potential-for-terrorism-1391570879> (accessed February 8, 2020).

¹² Smith, Rebecca. Wall Street Journal. “U.S. Risks National Blackout From Small-Scale Attack.” March 12, 2014. <https://www.wsj.com/articles/u-s-risks-national-blackout-from-small-scale-attack-1394664965> (accessed February 8, 2020).

- Pandemic – The Department of Energy (DOE) has long considered a pandemic to be a threat to the electric grid. Because the grid is comprised of thousands of interdependent public and private sector entities, a pandemic poses a grave risk to the reliability of the grid.¹³
- Extreme Weather – Between 2010 and 2019, there have been 800 disturbance events reported to the Department of Energy related to weather. As we saw in the Great Northeast Blackout of 2003, events in one region of the country can quickly cascade into other areas.¹⁴

1. Build a Culture of Preparedness (FEMA’s Strategic Plan Goal #1)

To “build a culture of preparedness” we must start at the local level. We cannot do it from a building in D.C. – it must be done in living rooms, churches, meeting halls and libraries in individual communities across the country. Unfortunately, across the country we are preparing for past disasters, such as Hurricane Katrina or Super Storm Sandy. The major flaw here is that in all past disasters, outside resources have always been available. We currently *are not preparing* for a national-scale long-term catastrophe in which “the cavalry is not coming.”

And on the local level, that is *exactly* what communities need to do.

The NDAA requires that FEMA “conduct a national exercise to test the preparedness and response of the Nation to the effect of an EMP or extreme GMD event.”

Recommendation #1: Develop a local Tabletop exercise on a six month plus power outage

The initial problem we must overcome is mindset. Local Emergency Managers and local communities believe that in a disaster, outside resources will always be available (because they always have been). We have successfully exercised ourselves out of self-reliance over the years and immediate outside resources is the expectation.

In a wide-scale, long-term power outage (for any reason), this assumption would be false. Communities would have to survive for weeks or months with what they have. Neighboring communities would not be able to help. The states would be overwhelmed. FEMA would not be able to ride to the rescue: FEMA cannot helicopter in MREs and water to 35,000 towns and cities in the United States, or even a fraction of that number.

Making matters worse, as we saw in Hurricane Maria, our normal “responders” are also going to be disaster victims. Police, Fire, EMS and National Guard personnel may have difficulty devoting their attention to their “day jobs” when their families are starving or in danger. In addition to the cascading failure of the critical infrastructures, we find that we end up in a full societal collapse and our very democracy is threatened.

The good news is that if we give some thought and effort ahead of time, many of the problems we know we would face at the local level can be mitigated. A prepared community could avoid, or at least greatly mitigate the loss of life from the collapse of the critical infrastructures and can avoid societal collapse. But we must prepare for the actual worst-case scenario: Your town is on its own for six months or longer with no outside resources.

¹³ Department of Energy (DOE) & NERC. High-Impact, Low-Frequency Event Risk to the North American Bulk Power System. June 2010. <http://bit.ly/2O3Tlns> (accessed February 8, 2020).

¹⁴ Blackout 2003: How Did It Happen and Why? Before the Committee on Energy and Commerce. (108th Congress) September 3, 2003. <http://bit.ly/2qXsgKY> (accessed February 8, 2020).

FEMA should develop a local Tabletop exercise and encourage every Emergency Manager and community to bring together the local government, local businesses, local organizations and the public. Across the country, communities would engage in a local exercise where the community is completely on its own for six plus months due to a power outage of unknown origin and scale. The major learning points would be:

- What problems would our community face, week by week, in a long-term power outage?
- What should our community and individual families do now to mitigate these problems?

We know what the problems would be – that is relatively easy to figure out. But until communities and Emergency Managers contemplate these for themselves, in the context of their own community, we will not change our “rescue me” culture and end our complete dependence on outside resources in a disaster. We must have communities contemplate starvation, waterborne diseases, deaths from exposure when the heat no longer works, collapse of financial services and of the medical system, complete collapse of the critical infrastructures, security issues, etc. This all seems horrific, but let’s do it in a Tabletop exercise instead of waiting until it actually happens.

If we did this Tabletop exercise in every Community in the U.S., FEMA’s Strategic Plan Goal #1 would begin to take care of itself.

Recommendation #2: Give Emergency Managers at all levels the mission.

Another problem we presently have is that very few people (local emergency managers, mayors, town council members, etc.) believe that it is their mission, and responsibility, to “build a culture of preparedness.” Every community is going to need leadership to do this. Every community has an Emergency Manager. FEMA needs to make it clear that this leadership is *their* mission.

We should also give this mission of building a culture of preparedness to Community Emergency Response Teams (CERT). In fact, at the 2020 National CERT Conference, I will be presenting “The Cavalry Is Not Coming.”¹⁵ In this presentation, I discuss FEMA’s Strategic Plan goals and suggest that CERT take this mission. However, I can only suggest this – we need FEMA to make it official. If local Emergency Managers are given the mission to “build a culture of preparedness” their interest and advocacy of CERT will increase as CERT is a powerful, but long neglected, resource by which they can work toward a culture of preparedness.

Leadership at the local level is where we must start. We have that leadership in place presently, but it doesn’t have the mission. FEMA should formally give this mission of building a culture or preparedness to Emergency Managers and CERT Teams.

2. Ready the Nation for Catastrophic Disasters (FEMA’s Strategic Plan Goal #2)

Nobody would argue that the United States is prepared for a wide-scale, long-term power outage as contemplated in the NDAA. However, by building a culture of preparedness, we will also begin readying the nation for catastrophic disasters. A community that is preparing for a worst-case scenario (a six month plus power outage) will be exponentially more prepared for any “lesser” disasters. We are still going to have hurricanes, earthquakes, ice storms, wildfires and pandemics.

¹⁵ Several versions of this presentation are available here: <https://michaelmabee.info/the-cavalry-is-not-coming/> (accessed February 8, 2020).

I believe that when we morphed from “Civil Defense” to “Emergency Management” we somehow lost the critical aspect of public involvement and training. This came into clear focus at 8:07 a.m. on January 13, 2018 when residents of Hawaii received this emergency alert:



To me, the most disturbing aspect of this incident was the comment of a citizen in a media report:¹⁶

"Clearly, there is a massive gap between letting people know something's coming and having something for them to do," Honolulu resident Jonathan Scheuer said Sunday. "Nobody knew what to do."

"Nobody knew what to do" is precisely why we need to build a culture of preparedness. It also demonstrates that the nation *is not ready* for catastrophic disasters. We need to acknowledge that we have failed to engage the public in the past and try something new.

Imagine that if in communities across the U.S., leaders had internalized FEMA's Strategic Plan Goals #1 and #2 and were holding public meetings to teach their communities about the hazards and preparedness. This is already happening on a small scale in New Hampshire where we have held several community events on long-term power outage preparedness and have more scheduled.¹⁷ In these sessions, we inform the public of the threat of a wide-scale, long-term power outage from a variety of hazards (including EMP and GMD events as contemplated by the NDAA), and cover what families and communities should do to be prepared. We also provide a detailed take-home list of preparedness items and topics.¹⁸

If, in communities across the nation, leaders stepped up and held such events, we would be readying the nation for catastrophic disasters. How do we get leaders to step up and hold such public events?

Give them the mission and a local long-term power outage Tabletop exercise.

The NDAA also offers FEMA another opportunity to ready the nation for catastrophic disasters. Section 1720 of the NDAA requires that the Chief of the National Guard Bureau submit to the congressional defense committees:

¹⁶ CBS News. "Hawaii agency behind false missile alert getting death threats." January 15, 2018. <https://www.cbsnews.com/news/hawaii-agency-behind-false-missile-alert-getting-death-threats/> (accessed February 8, 2020).

¹⁷ See for example upcoming events in: Tilton, NH (<https://www.eventbrite.com/e/emergency-preparedness-for-disasters-blackouts-or-the-zombie-apocalypse-tickets-90330485915>); Derry, NH (<https://www.eventbrite.com/e/emergency-preparedness-for-disasters-blackouts-or-the-zombie-apocalypse-tickets-90394210517>). Similar events have been held in other locations in New Hampshire.

¹⁸ Available at: <http://souhegancivildefense.org/emergency-checklists/> (accessed February 8, 2020).

(2) A list of the resources that each State and Territory National Guard has at its disposal that are available to respond to a homeland defense or security incident, with particular focus on a multi-state electromagnetic pulse event.

This plays directly into FEMA's obligation under Section 1740 and FEMA's Strategic Plan goal #2. In order to prepare the nation for catastrophic disasters (e.g., a wide-scale, long term power outage), we need to develop a common operating picture of what this would look like. The National Guard should be a critical aspect of this common operating picture.

The National Guard in every state would greatly benefit from involvement in local Tabletop exercises (recommendation #1 above). This would enable the National Guard to gather critical information on the resources they would need and inform them of the problems they would face in a nation without power. Again, while electromagnetic pulse (EMP) is the focus, this is an all hazards problem. Many other man-made and natural threats could cause a multi-state power outage. The problems – and solutions – are all the same regardless of the cause.

Recommendation #3

FEMA should engage the National Guard Bureau and the state Adjutants General to develop a common operating picture of a wide-scale, long-term power outage. This can be accomplished down to the local level by the National Guard's involvement in local Tabletop exercises (recommendation #1). This would mutually benefit the National Guard's obligations under NDAA Section 1720, FEMA's obligations under NDAA Section 1740 and FEMA's Strategic Plan goal #2.

3. Reduce the Complexity of FEMA (FEMA's Strategic Plan Goal #3)

This goal likely means different things to different people. At the local level, we need access to resources to support our efforts to “build a culture of preparedness” and “ready the nation [our communities] for catastrophic disasters.” Unfortunately, I have not found a way to do this. None of the FEMA and state grants seem to empower a local Emergency Manager or CERT team to get resources to work specifically towards accomplishing FEMA's Strategic Plan goals #1 and #2. This points to an obvious problem with goal #3.

For example, my CERT group, and many others I know, have had to start non-profit organizations to solicit donations to conduct these activities. There have been little or no federal resources available to us. FEMA must find a simplified way to get resources to local groups that are supporting FEMA's Strategic Plan goals #1 and #2. In doing so, FEMA accomplishes a critical aspect of goal #3.

Local CERT, MRC and other groups need to print preparedness brochures for presentations. They need presentation AV equipment, demonstration materials and equipment (e.g., emergency radios, potable water containers, water purification equipment, etc.). They need CERT uniforms and equipment.

In addition to the public outreach resources, communities need a way to get grants to acquire the resources they need to prepare for a long-term power outage as contemplated by the NDAA. If a wide-scale, long-term power outage scenario is “come as you are,” none of our communities across the nation are ready. Communities need to be prepared to address life threatening issues related to food, water, shelter and security.

Recommendation #4: Direct access to resources supporting FEMA's Strategic Plan Goals

FEMA should offer a way to get direct grants to local organizations whose primary mission is to build a culture of preparedness in their community and to ready their community for catastrophic disasters. FEMA should also find a way for local communities to have simplified access to resources to address these massive gaps in our readiness.

Conclusion

FEMA and the National Guard Bureau are presented with an opportunity. We can either “check the boxes” and meet the requirements, or we can take the opportunity to effectuate the intent of EO 13865 and the NDAA and truly make our nation more resilient and in doing so, substantially strengthen the national security of the United States. My hope is that we will choose the latter.

The nation was shocked on December 7, 1941 when a state actor attacked the United States – an event that, in retrospect, we should have seen coming. The nation was again shocked on September 11, 2001 when terrorists attacked the United States – an event that, in retrospect, we should have seen coming.

We know that the critical infrastructures, including specifically the electric grid, are present targets for both state actors and terrorists. We can see it coming.

Let us not suffer from a failure of imagination and do the minimum.