

COOP: NATIONAL GUARD'S ROLE DURING A CATASTROPHIC EMERGENCY

BY

COLONEL XAVIER STEWART
United States Army National Guard

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U.S. Army War College, Carlisle Barracks, PA 17013-5050

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COOP: NATIONAL GUARD'S ROLE DURING A CATASTROPHIC EMERGENCY

by

Colonel Xavier Stewart
United States Army National Guard

Colonel Mark Eshelman
Project Adviser

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U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

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Today's world climate remains volatile. Since the attacks on September 11, 2001, Americans have awakened to the on-going threat of terrorism. Widely dispersed chemical, biological, radiological, nuclear and cyberspace security (CBRN-C) materials, technologies and equipment often have dual uses. Preventing rogue states and terrorist organizations (state or non-state supported) from acquiring these materials is a formidable challenge.

Furthermore, the world is experiencing dramatic weather changes. Global climate change has caused unusual and devastating shifts in weather patterns, which in turn have triggered catastrophic events.

This SRP proposes establishment of a network of National Guard (NG) Continuity of Operation (COOP) sites to strengthen the U.S Government's response to catastrophic events. This SRP provides a strategic methodology and standardized template for using the NG as a force multiplier to support the federal government through dedicated COOP sites.

COOP: NATIONAL GUARD'S ROLE DURING A CATASTROPHIC EMERGENCY

Today's world climate remains volatile. Since the September 11, 2001 attacks on our homeland, Americans have awakened to the on-going threat of terrorism. Widely dispersed chemical, biological, radiological, nuclear, and cyberspace (CBRN-C) materials, technologies, and equipment often have dual uses. Preventing rogue states and terrorist organizations (state or non-state supported) from acquiring these materials is a formidable challenge.

Furthermore, the world is experiencing dramatic weather changes. Global climate change has caused unusual shifts in weather patterns, which in turn have triggered catastrophic events. U.S. emergency relief teams are challenged to respond to these events in a timely manner in order to save lives and property.

The establishment of a network of National Guard Continuity of Operation (COOP) sites to strengthen the U.S Government's response to natural catastrophes (earthquake, hurricane, flood) or a CBRN-C event should be part of the U.S. national response system. These sites would provide responders with command, control, coordination, communication, computers, intelligence and information (C5I2). Since inadequate responses to such catastrophes and events could disrupt governmental operations, the National Guard COOP would make such disruption much less likely. So the National Guard provision of C5I2 COOP during national emergencies will strategically posture the U.S. in the 21st century.

A strategic methodology and standardized template for using the NG as a force multiplier to support the Federal government by providing dedicated COOP sites will enable the U.S. to be better prepared to maintain continuity of government (COG). This

methodology and template should be incorporated into a future Presidential Policy Directive (PPD) by the Obama administration.

Clinton era Presidential Decision Directive (PDD) 67 addresses planning to ensure the continuity of essential government services during emergency situations. It designates the Federal Emergency Management Agency (FEMA) as executive agent for executive branch COOP planning. In response, in July 1999 FEMA issued guidance to agencies in a Federal Preparedness Circular (FPC) 65 addressing COOP capability and planning for federal agencies¹. In 1999 the Director of Office of Management and Budget (OMB) identified 42 programs with a high impact on the public, 38 which were the responsibility of 23 major departments and agencies. Although PDD 67 is a Top Secret document controlled by the National Security Council (NSC), FPC 65 and other unclassified documents have identified government-wide deficiencies, including disruptions of governmental services that could impair appropriate emergency responses.²

Indeed, inadequate responses to a catastrophic emergency could disrupt governmental operations. This SRP addresses special considerations in today's global environment that pertain to CBRN-C and catastrophic events. This SRP then recommends a strategic methodology and standardized template for using the NG as a force multiplier to support the federal government by providing dedicated C5I2 COOP sites. This recommended solution supports the goals of the following strategic entities: National Strategy for Homeland Security³, National Strategy for Pandemic Influenza⁴, National Strategy for Combating Terrorism⁵, Homeland Security Pandemic Influenza CI/KR⁶, the National Security Strategy⁷, National Strategy to Combat Weapons of Mass

Destruction⁸, National Military Strategic Plan on the War on Terrorism⁹, Homeland Security Presidential Directive 5 (HSPD5), National Incident Management System (NIMS), the National Response Framework (NRF), and the 15 Emergency Support Functions (ESF's) under the Incident Command System (ICS) construct to ensure continuity of operations (COOP).

Special Considerations for Today's Global Environment: Biological Threats

Biological diseases have plagued our planet since early Biblical times. These diseases are usually spread by vectors (human or non-human). Bacteria, viruses, and toxins are biological agents that have caused large numbers of deaths throughout human history, usually through natural causes, poor hygiene, or lack of waste control and treatment.

Weaponization of biological agents is increasing, particularly among underdeveloped nations. The use of biological weapons and agents is historically well-documented. The Assyrians poisoned enemy wells in the 16th century BC, and the Tartar Army hurled dead plague-infested corpses over city walls.¹⁰ "Today, scientists can engineer organisms to exhibit specific traits and resistant characteristics." The threat from a biological weapon released purposefully by a terrorist or accidentally discharged is of concern. In April 1979 over 800 residents died in a local Russian community near the Soviet Biological Research Facility located in Sverdlovsk, Russia, due to an accidental release of Anthrax spore aerosol.¹¹ This highly lethal Anthrax strain was being weaponized through technical engineering. More recently, on January 21, 2009, forty members of al Qaeda in the Islamic Maghreb died in Algeria from the

plague. The outbreak may have been the result of experimentation with developing biological weapons.”¹²

Biological weapons and agents have the potential to impact the globe with widespread devastation. They are the most difficult of all CBRN-C events to control, prevent or respond to. This SRP thus focuses on the biological threat, in particular a potential pandemic event.

Pandemics and Consequence Management Considerations

The field of medicine in the U.S. has grown tremendously in recent years. The first public health revolution has given Americans a wide range of benefits: improved diet, safe drinking water, better waste control and treatment, immunizations, pasteurized milk, and better housing. We are now a far healthier nation, better prepared to prevent and respond to a pandemic event or biological terrorist attack.¹³ Nevertheless, we must now deal with extensive alterations in disease patterns especially in those involving the respiratory system.¹⁴ Today, we have a compounded problem with the health of our population. The U.S. has an older population, citizens with immunosuppressed or compromised immune systems (i.e. Human Immune Virus and cancer) and special populations such as those in long-term care facilities, in prisons and densely populated cities.

Currently, approximately 36,000 Americans die from the flu each year and more than 200,000 are hospitalized annually. Influenza costs U.S. taxpayers about \$10 billion annually.¹⁵ Accordingly, Secretary of Homeland Security Michael Chertoff recently warned, “A severe pandemic influenza presents a tremendous challenge as it may affect the lives of millions of Americans, cause significant numbers of illnesses and

fatalities, and substantially disrupt our economic and social stability.”¹⁶ For example, the 1918 Spanish Flu influenza pandemic killed approximately 25% of the U.S. population and as many as 100 million people worldwide. An estimated 40 and 36 percent, respectively, of U.S. Army soldiers and U.S. Navy sailors were stricken with this virulent flu.¹⁷ These uniformed professionals of 1918 were rendered combat ineffective. An example of their vulnerabilities is of serious concern since today’s uniformed professionals are key to the U.S. National security at home and abroad. With the U.S. engaged in armed conflict in two wars, the challenge to maintain the U.S. elements of national power becomes even more tenuous.

The mounting risk of a worldwide pandemic event, whether caused naturally or by a biological attack, can pose an overwhelming public health management problem that could weaken our health care delivery system.¹⁸ The devastating consequences of a pandemic event will kill a large number of Americans and dramatically reduce the number of available workers in all sectors of our nation’s workforce through 30 to 40 percent absenteeism.¹⁹ Government employees will be similarly affected. A weaponized biological attack, such as genetically engineered smallpox, would be exponentially more lethal and enervating. The 2003 Severe Acute Respiratory Syndrome (SARS) outbreak should serve as a harbinger of pandemics.

In addition, a worldwide pandemic will degrade our military forces at home and abroad and disrupt the movement of people and essential goods.²⁰ These dire consequences will threaten essential services across our nation and disrupt critical infrastructure (CI) and diminish key resources (KR). These consequences will adversely impact continuity of operations (COOP) and continuity of government (COG).²¹ To

reduce the effects of a pandemic, we must implement preventive measures for early detection and develop our capacity to respond to a pandemic event or biological attack to mitigate the impact.

Pandemics are unpredictable; they are not constrained by international borders. A pandemic event will most likely originate in an underdeveloped, overpopulated, or failing state. It will most likely overwhelm the stricken nation's healthcare delivery system, thereby triggering a widespread epidemic. This epidemic will spread over a wide geographic area to adjacent and neighboring nations, potentially escalating into a global pandemic.

In 2007, 900 million people travelled the globe and visited remote areas in Africa, Alaska, Australia, and Southeast Asia. Cambodia alone hosted 856,000 tourists in 2007.²² This Southeast Asian region remains the worst affected by the Avian Influenza virus H5N1 which continues to pose a global threat.²³ Cambodia's visitors also pose a potential threat as human vectors who may spread the influenza or a highly contagious biological disease such as smallpox, thereby foiling preventive measures. In December 2008 and January 2009, three individuals in China died from the H5N1 virus thereby raising concern that this deadly disease still threatens the world community.²⁴

Fortunately, the U.S. has developed a national strategy to respond to pandemic influenza.²⁵ *A Pandemic Influenza Preparedness, Response, and Recovery Guide for Critical Infrastructure and Key Resources*²⁶ was established, and the U.S. State Department established an Action Group for pandemic events.²⁷ The Action Group coordinates U.S. preparedness and response to Avian Influenza with the WHO, the Food and Agriculture Organization (FAO), World Organization for Animal Health (OIE),

and other international partners.²⁸ In addition, The Federal Emergency Management Agency (FEMA) has provided guidance for COOP during a pandemic influenza outbreak. Likewise, the White House has provided a National Security Presidential Directive 51 (NSPD 51) and Homeland Security Presidential Directive 20 (HSPD 20). The implementation of these documents will trigger essential national functions during a catastrophic emergency.²⁹ These documents--along with the directive plans and initiatives stated earlier in this paper (HSPD-5, NIMS, ICS)--provide a good first step toward ensuring that the U.S. is addressing the threat of a pandemic event.

The U.S. readiness for a global pandemic event through cooperation with the WHO and other international organizations will reduce the pandemic's adverse effects on the health and well-being of Americans. Furthermore, it prepares the U.S. to respond to a potential biological terrorist attack.

The U.S. forward-deploys some 250 diplomatic missions in the form of embassies, consulates, and representatives in specialized organizations. It employs its unified military command system to protect U.S. interests in all regions of the world.³⁰ By working through the WHO and other international organizations, U.S. agencies can leverage these assets for early identification of biological threats and for a quick, coordinated response to them. Early detection will enable the U.S. and international partners to mobilize a healthcare delivery team to prevent or reduce the spread of a disease which could lead to a global pandemic.

In addition, educating and training our international partners will help prevent the quick spread of the disease. Sharing surveillance instrumentation for early detection and quickly distributing medicines to mitigate the disease will likewise reduce the risk of

a global pandemic. The strategic placement of medicines, supplies, and other essential resources in the U.S. and nations where we have an established presence will shorten the response time and hasten delivery of essential resources to sites of a potential outbreak. Working with the WHO and other international partners will reduce our costs, both in financial and human resources.

Our world is small and the economic interdependence makes a future pandemic event difficult to control. Our global economy requires people and material to travel on all modes of transportation. Also, migratory birds travel worldwide and may spread the disease as a vector. Therefore, a pandemic event may be inevitable.

The U.S. has sufficient economic capacity; infrastructure; elements of national power; and pharmaceutical, technological, and transportation capability—as well as subject-matter experts—to limit the spread of an outbreak while working with the WHO and other international organizations. Although the U.S. has an excellent infrastructure, including its healthcare and public health delivery systems, a pandemic event will strain these systems. The U.S. can strategically position stockpiles around its large urban centers, transportation nodes, and CI/KR locations to ensure the timely distribution of essential resources to protect the populace, reduce the spread of the disease, and ensure COOP and COG.

Securing our homeland is in our national interest. It requires constant vigilance. The U.S. must be committed to ensure that our critical infrastructure and key resources are secure. The U.S. must also ensure that we maintain continuity of essential operations and continuity of government. The National Guard is particularly suited for this mission.

The U.S. has both the wherewithal to pursue readiness for a global pandemic or biological attack with the WHO and other international organizations and to develop a comprehensive internal implementation plan. The U.S. can work within the international community to quickly detect, respond to, reduce, and mitigate a pandemic event or biological attack. The U.S. is strategically positioned to support international partners.³¹ Furthermore, our infrastructure has the capability to support the U.S. populace in the event of a pandemic.

Nevertheless, we must especially consider the issues of CI, KR, COOP and COG. The U.S. Healthcare Delivery and Public Health system must have fully developed plans that incorporate all elements of national power in a coordinated response to a pandemic or biological terrorism event. This plan should minimize national economic disruption and security risks; it should also maintain social stability, sustain essential functions, ensure COOP and COG, provide for overseas military assets, and generally mitigate the event through a deliberate process.³² Incorporating the National Guard to provide dedicated COOP sites to ensue C5I2 as part of the U.S. internal plan will ensure that the nation's ability to prepare, detect, and respond to a pandemic event or biological attack is sufficient for a timely, organized and well-managed response that ensures COOP.

Special Considerations for Today's Global Environment: Chemical

The threat of terrorists' use of chemical weapons became a key concern of the U.S. in the 1990s. "In 1994, a Japanese religious cult, Aum Shinrikyo, reportedly released nerve agent in a residential area of Mat Sumoto, Japan, that killed seven and injured 500. A second attack on 20 March 1995 spread sarin through a crowded Tokyo

subway. This act of terrorism killed 12 and caused more than 5,500 civilians to seek medical attention".³³

Terrorism may be supported by either clandestine or state-sponsored initiatives with a specific agenda to make or acquire chemical warfare agents for the purpose of targeting a nation. Widely dispersed chemical and pharmaceutical industries have been built around the world; they provide terrorists groups with access to precursors and chemicals. Preventing rogue states, profit-making criminals and terrorists from acquiring these materials is a formidable challenge. Compounds such as chlorine, phosgene, and cyanide are readily available. Access to the internet communication system has enabled rogue states and terrorist groups to acquire technical information on how to make chemical weapons or acquire the materials. "Theft of such materials has been reported".³⁴

A terrorist attack in the U.S. with a chemical agent will have limited effect on the U.S. and would be a localized incident. This type of attack would not degrade the U.S. government's ability to maintain COOP and COG. The release of chemical agents in the environment targeting U.S. citizens is highly weather dependent and requires a fairly sophisticated and effective delivery system. In addition, chemical agents dissipate over time and are usually not persistent unless a large concentrated amount of agent is released in one specific area.³⁵

Although the release of a chemical agent will cause deaths and injuries, depending on the type of agent released, these deaths and injuries will be primarily localized in the targeted area. Medical management of casualties would pose a challenge for first responders and healthcare providers. There will be surge demands

for triage, de-contamination, specific supportive medical therapies, and equipment. Furthermore, the psychological impact will require crisis intervention stress management (CISM) and pastoral care teams.³⁶

Terrorist groups have the ability to use a myriad of toxic industrial materials (TIMs) or chemicals (TICs). Factors such as concentration of the agent, delivery method, location of release (confined sub terrain space), population demographics, local infrastructure and capabilities of the emergency management system will determine the TIM or TIC morbidity/mortality ratio. The terrorist group may choose a variety of agents: nerve (VX, sarin, tabon, soman), vesicant (mustard, lewisite, phosgene oxime), poisons (cyanide), or a TIC/TIM (chlorine).³⁷ Regardless of the agent used, the U.S. must have an effective plan to respond in a timely, well organized ICS construct to mitigate the incident at hand and save lives and prevent great property damage. The NG's role as a force multiplier in support of the 15 ESF's will be critical.³⁸

Special Considerations for Today's Global Environment: Radiological and Nuclear

The threat of terrorists or rogue states acquiring a nuclear weapon or weapons-grade material is fairly high.³⁹ "Between 1993 and 2006, there were 1,080 confirmed incidents of illicit trafficking in nuclear materials. Eighteen of those cases involved weapons-grade materials, and another 124 involved material capable of making a so-called dirty bomb that would use conventional explosives to spread nuclear material."⁴⁰

In a world community totaling 195+ states, a few have nuclear weapons; 20 or more states have a chemical or biological weapons program; and over 65 operate nuclear reactors.⁴¹ The rapidly expanding science of medical radiobiology has required an ever increasing use of radiological agents and specific isotopes. Radiological

material is ubiquitous in medical, engineering, and other research activities.

Radiological isotopes are widely available in the open market. In addition, nuclear arsenals primarily in the former Soviet Union (Russia), China, and the U.S. exercise a paradoxical effect on our collective human consciousness. Having become accustomed to vast quantities of nuclear weapons desensitizes people to the seriousness of these weapon systems. Other nations (Pakistan, India, France, North Korea, England, and Israel) have these weapons, and Iran is working towards the goal of developing a nuclear weapon. Other nations are also seeking to acquire these weapons, as noted in the November 2004 CIA 721 Report. This congressional report details countries' acquisition of nuclear weapons technology. The CIA report clearly demonstrated that Iran has been pursuing a clandestine nuclear weapons program.⁴² "The barriers to developing a nuclear weapon today are not intellectual; the barriers instead are the physical requirements needed to make a deliverable weapon that will function reliably."⁴³

The likelihood of a small-yield nuclear accidental release or purposeful (terrorist) attack on a targeted nation or detonation of a radiological dispersal device (RDD or dirty bomb) is increasing as the proliferation of and familiarity with nuclear technology is becoming more accessible in the cyber domain, on the illicit market, and from nations with the technology.⁴⁴ Therefore, should the threat become real the National Guard is particularly suited to provide C5I2 support.

Special Considerations for Today's Global Environment: Catastrophic Natural Events

The impact of global climate change and its potential to cause dramatic weather shifts that will likely result in catastrophic natural events and disasters (CNED). The

increasing scarcity of fresh water (non-salinated) due to global climate change is making it more difficult for many nations to have physical access to water thereby adversely impacting food production for a growing global population. Scarcity of food and water results in the deaths of millions annually through starvation or as a result of malnutrition and causes diseases via opportunistic organisms or vectors. The potential for these diseases to mutate into a pathogen that can spread pandemically is of concern. The impact of global climate change, whether from natural weather cycles or due to urban sprawl, is a concern. Whatever their provenance, the increased frequency and magnitude of hurricanes, earthquakes, tornadoes, tsunamis and typhoons seems likely. Hurricanes like Katrina, Rita, and Andrew have significantly impacted the U. S. economy and infrastructure, and taken many human lives. Effective preparation and response to natural disasters can be addressed by establishing many C512 sites to facilitate mobilization of units and resources and to ensure that COOP and COG are maintained.

The Role of the National Guard: Cyberspace

The prevalence of cyberspace operations on computer network systems and infrastructure—computer dependent networks—makes us potentially vulnerable to deliberate computer attacks or exploitation. We must ensure that we have cyber-security plans to protect CI/KR computer-dependent sites. The Center for Strategic and International Studies report on Cyber-security for the 44th Presidency (December 2008) declares that “America’s failure to protect cyberspace is one of the most urgent national security problems facing the new administration that will take office in January 2009.”⁴⁵

Cyberspace security concerns dramatically increased following the 2007 attacks on Estonia's networks and the 2008 Russian attacks on Georgia. Computer attacks can adversely affect access to key infrastructure, compromise vital intellectual data, and target C5I2 nodes, airbases, aircraft carriers, sea and space-based command-and-control platforms. Indeed, China is developing asymmetrical warfare weapons that can launch such attacks.⁴⁶

The National Infrastructure Protection Plan (NIPP) provides a comprehensive risk management framework to ensure that programs are in place for the protection of information on the assets, systems, networks, and functions that comprise the nation's infrastructure⁴⁷. National Guard C5I2 centers should be identified in cyberspace operations contingency plans and the NIPP.

The National Guard as a Strategic COOP C5I2 Partner

Weapons of Mass Destruction (WMD) are the most formidable terrorist weapons. In a world where state and non-state actors seek to acquire CBRN weapons, the risk to the global community is ever increasing.⁴⁸ Effective preparation and response to a CBRN-C attack, catastrophic natural disaster or other critical event that may result in mass casualties requires timely communication systems. To make sound decisions, our leaders need accurate, verifiable data. Such decisions will be made in many domains at the local, county, regional, state, and federal levels. Decision-makers include emergency responders, elected officials, public health officials, and leaders in the National Guard and federal government. These leaders will need large amounts of information, integrated health data, resource and asset management data from disparate sources. Through designated COOP C5I2 sites, the National Guard can serve

as an effective partner by providing these leaders with the ability to share information over multiple mediums during preparedness, response, and recovery operations.⁴⁹

Threats of WMD, CBRN-C, and other asymmetrical threats have created a new security environment. The National Guard is a formidable strategic military reserve component with significant operational experience in combat and responses to natural disasters. The National Guard has approximately 3,000 armories and 140 Air Guard bases situated in fifty-four (54) states and territories and Washington DC. These armories are widely dispersed in rural and urban communities, strategically located to meet the needs of the populace during emergencies. This close relationship between the National Guard and the community can be leveraged to ensure that typical disaster response mechanisms and methods, available resources and contingency plans are in place in these locales.

Since a national emergency will affect supply chain and delivery networks and adversely impact C5I2 capabilities, strategically selected National Guard armories and Air Guard bases can provide timely delivery of materials, goods and services, and C5I2 capabilities for the federal government. The National Guard is thus well positioned to assume a lead role in Homeland Security as part of the total force concept (TFC), so selected COOP C5I2 Guard sites should be part of the Homeland Security construct.

Furthermore, the National Guard has a habitual and well developed relationship with their states' emergency management agencies in order to support an ICS and NIMS structure while providing support to the incident commander and the 15 ESF's. In addition, the National Guard has worked with adjacent states and states nationwide through the Emergency Management Agreement Compact (EMAC). All fifty states are

signatories of the EMAC which obliges them to assist and provide resources during emergencies.

The EMAC process facilitates a synergistic approach and provides a mechanism for states to assist each other with resources to mitigate any emergency management incident. For example, more than 50,000 Guard members were activated following the 9/11 attacks, called up by both their states and the federal government to provide security at home and to combat terrorism abroad. Likewise in 2005, more than 50,000 Guardsmen supported the Gulf States following Hurricane Katrina.

The National Guard has many assets that are useful in national emergencies. In particular, the National Guard has a significant CBRN/WMD capability. Each state has at least one Civil Support Team (CST) trained and equipped to respond to a CBRN/WMD event. California has two CSTs, and New York and Florida are each forming an additional team. A CST is comprised of twenty-two (22) full-time active duty Guard (Title 32 AGR) Airmen and Soldiers who are highly trained with specialized skills to deal with WMD and CBRN incidents. In addition, 17 states have a CBRNE-Enhanced Response Force (CERF) made up of a command, decontamination, search and extraction, engineer, security and medical sections to support civil authority. CST and CERF teams are usually managed by a state's National Guard Joint Force Headquarters Director of Military Support to Civil Authority (DOMS). These Joint Headquarters have a C512 capability and can mobilize state assets rapidly under the direction of a governor.

COOP C5l2 Specificity: A State Template

The U.S. Government will eventually experience a catastrophic event (whether a global pandemic or a thermonuclear attack) of such magnitude that the federal government's ability to provide C5l2 COOP and COG will be disrupted for a period of time. The National Guard is a highly capable and strategically well placed asset to bridge the gap in providing C5l2 COOP until the federal government regains full capability.

Selection of COOP C5l2 sites throughout the 54 states and territories must be based on appropriate criteria to ensure COG for the U.S. Government. These include, but are not limited to, the state's capability to support a COOP site; proximity of site to key resources and critical infrastructure, strategic proximity to population centers; proximity to a designated joint reception, staging, onward movement and integration (JRSOI) center; and capability to support an array of computers and communication equipment to provide C5l2 via secure means.

These COOP sites should be funded by the federal government. The state DOMS may require additional full-time employees to maintain a 24-hour, 365-day operational center providing C5l2 capabilities. Furthermore, the selection of these COOP sites will be classified to maintain operational security (OPSEC). The storage of vital records, documents, back-up data, computers, communication equipment and network integrated systems will ensure that C5l2 can be provided real time for any contingency and emergency. This will mean that these designated COOP sites will at a minimum have to be warm sites that are tested and operated monthly to ensure essential function and update of equipment and data sets. These sites must be able to stand up within 24 hours.

The federal government will also need to have selected hot sites. These sites would be maintained full time with a minimal staff. During a catastrophic event, these sites would be able to receive government and military personnel and function seamlessly within an hour to provide C5I2 COOP. This template to leverage National Guard resources for C5I2 COOP can be applied to all 54 states and territories.

The Pennsylvania National Guard (PNG) Model

Pennsylvania has one of the largest National Guard organizations in the United States. Within the PNG, there are resources equipped with many assets. The PNG is within a 150-mile radius of 40% of the U.S. population and can support all 15 Emergency Support Functions under the NIMS construct. The PNG has over 90 armories across the commonwealth and three Wings, as well as a large National Training Center (Fort Indiantown Gap).

Pennsylvania has 44,817 square miles of land strategically and ideally situated with six contiguous states (New York, New Jersey, Delaware, Maryland, West Virginia, Ohio, and is close to the National Capital Region (NCR). Due to the proximity of PNG assets to the NCR, it can support C5I2 sites.

The Model

The federal government would designate the three PNG Wings as joint reception, staging, onward movement and integration (JRSOI) sites. These JRSOI sites would process federal and military assets and resources through deliberate stages to ensure key services are provided to civil authorities. One Wing, Willow Grove, near Philadelphia, would also be a designated C5I2 COOP site with the ability to ensure continuity of essential federal functions to include plans and procedures for essential

functions, safekeeping of vital records and databases, interoperable communications facilities that enable officials to perform command, control, coordination, communications and computer support functions for periods in excess of ninety days.

In addition, the PNG has over 90 armories. The federal government could designate three, five, or seven sites (depending on requirements and funding) to provide C5I2. The sites would be classified to maintain OPSEC and would have either redundant overlap capability or specific and unique functionality.

For example, if five sites were selected in Pennsylvania, one site could be designated to store and secure hundreds of computers with integrated key asset management data available to key leaders in response to a designated emergency. This PNG site could test, update and provide maintenance for these computers to ensure they are operational, functional and available (just-in-time) for immediate delivery or use. The second site could provide intelligence support for Homeland Security. The role of National Guard Intelligence support to Homeland Security is well-documented and such a capability would be a key resource to decision-makers to make timely and crucial decisions.⁵⁰

The federal government could select strategic sites in the 54 states and territories to ensure the COOP and COG and security to CI/KR would be maintained via these National Guard C5I2 centers, in order to ensure a common operating picture (COP) and situational awareness (SA) for U.S. leaders.

Conclusion

Since the 9/11 attacks, substantial resources have been devoted to improving disaster preparedness for responses to CBRN-C and CNED emergencies.

Simultaneous catastrophic events in the U.S. could synergistically degrade COOP and COG. The U.S. must rely on C5I2 centers in many different locales since potential adversaries may seize upon such an opportunity to strike the U.S. at a most vulnerable time.

A network of National Guard C5I2 centers to ensure that adequate responses to such catastrophes and events will not adversely impact the U.S. would strengthen the nation's security. COOP and COG must be assured, and CI/KR sites must be protected. National Guard C5I2 centers should be part of the overall U.S. comprehensive Homeland Security Plan. These centers would ensure continuity of essential federal agency functions during a wide range of emergencies in an all hazards emergency construct. Furthermore, these National Guard C5I2 centers would provide redundancy, ensuring that no single point of failure would disrupt critical governmental functions. These National Guard C5I2 centers will thus strengthen national security, increase public safety, contribute to economic prosperity, and facilitate the delivery of critical services to U.S. citizens when they need them most.

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