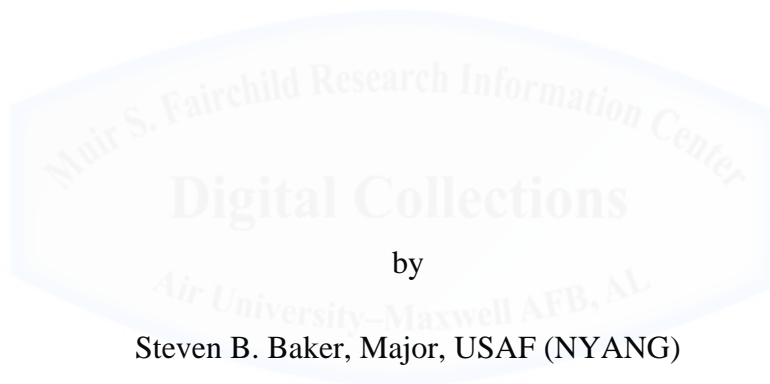


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AIR COMMAND AND STAFF COLLEGE

AIR UNIVERSITY

DOMESTIC NATURAL DISASTERS:
DEVELOPING JOINT LEADERS THROUGH DELIBERATE PLANNING



by

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ABSTRACT

Military domestic operations today are rarely conducted by a single service and span a wide spectrum of joint operations which include not only Homeland Defense but also non-combat Defense Support of Civil Authorities.¹ Accordingly, the Air Force needs more leaders within its squadrons - the core Air Force unit - prepared to meet the challenges associated with joint operations.²

Military responses to domestic natural disasters are organized into temporary Joint Task Forces using the joint operation planning process (JOPP).³ When responding to natural disasters, timeliness and Unity of Effort are critical.⁴ The reward for doing so is the possibility of saving additional lives, reducing unnecessary suffering, and preventing additional property and environmental damage.⁵

Deliberate planning for likely future domestic natural disasters using JOPP does more than establish critical relationships needed to adapt quickly to the uncertainties of natural disasters.⁶ It also enables Air Force leaders to develop their critical thinking skills and increase their capacity to lead joint operations. A variety of deliberate planning processes presently exist throughout the Air Force. Using four plausible future scenarios, this paper explores what effects transitioning squadron-level planning to the JOPP may have upon Air Force joint leadership capability and Unity of Effort during joint responses to domestic natural disasters.

Section I - Introduction

Of the world's top ten costliest natural disasters to occur within the past 27 years, the United States experienced four.⁷ America's ten costliest hurricanes resulted in a loss of \$136,768,000,000.⁸ The scientific community continues to investigate how domestic weather related natural disasters may be occurring with increased intensity and frequency.⁹ Criticisms of past inadequate government responses to domestic natural disasters such as Hurricane Katrina persist highlighting the complexity of achieving a unified homeland response to such events.¹⁰ The timely and efficient use of available resources when responding to natural disasters is critical. The more complex a disaster the greater the need for Unity of Effort to ensure a timely and efficient response.¹¹ When achieved, more lives are saved, property damage and unnecessary suffering is minimized, and negative criticisms of how the US responds to its domestic natural disasters are reduced.¹²

Driven by the National Defense Strategy and supported at the operational and tactical levels through respective Joint and Air Force directives, the Air Force will be expected to plan for and respond to future natural disasters.¹³ The inherent uncertainty of natural disasters has impacted the accuracy of forecasting as well as the ability to develop concise response plans ahead of time. This uncertainty often resulted in the Department of Defense (DOD) preferring to employ scalable, temporary Joint Task Forces (JTFs) to reactively plan and execute its response. Lessons learned from past world events have stressed the benefit of having established working relationships prior to a crisis.¹⁴ These task forces, however, often lacked the established "continuity and sound working relationships" required to adapt to the rapidly evolving disaster at hand; often at the cost of a timely response.¹⁵

JTF staff planners at the operational-level use the joint operation planning process (JOPP) to conduct detailed crisis action (reactive) and deliberate (proactive) planning to “fully develop options, identify resources, and identify and mitigate risks.”¹⁶ The resulting plans are a combination of “operational art and operational design” developed through the JOPP.¹⁷ The resources used to execute the orders formed from these plans reside at the tactical-level within Air Force Squadrons. Unlike the operational-level, Air Force tactical-level planning uses the Air Force Incident Management System (AFIMS) which is based upon the National Incident Management System (NIMS) methodology and aligns with the National Response Framework (NRF).¹⁸ Changing the current approach generates pertinent questions. What effects would deliberate planning within Air Force squadrons using the JOPP have upon Unity of Effort during responses to future domestic natural disasters? What effects would this have upon Air Force joint leadership capability?

Research Methodology

The framework chosen for this topic is Scenario Planning.¹⁹ This paper will use a series of constructed future scenarios to explore how conducting deliberate planning within Squadrons using the joint operation planning process (JOPP) may affect Unity of Effort during responses to domestic natural disasters. Potential impacts upon Air Force joint leadership capabilities resulting from these scenarios will also be explored.

Section II – Background

World-wide from 1995 to 2015, over four billion people were affected by and 605,000 people lost their lives to weather-related disasters.²⁰ Hurricanes Katrina, Sandy and Ike, and the Northridge Earthquake occurred within or directly impacted the US and ranked as four of the world’s ten costliest natural disasters between 1980 and 2015 at the sum of \$275,000,000,000.²¹ The ten costliest US hurricanes all occurred within the last 25 years.²² A 2015 United Nations report revealed the United States was one of only two countries to report “the highest numbers of weather-related disasters” from 1995 to 2015 due to its “large and heterogeneous landmasses and population concentrations”.²³ The United States realized its second highest number of weather and climate disaster events in 2016 (Figure 1) where the overall damage of each event met or exceeded \$1 billion and increased cumulative losses since 1980 to \$1.1 trillion.²⁴

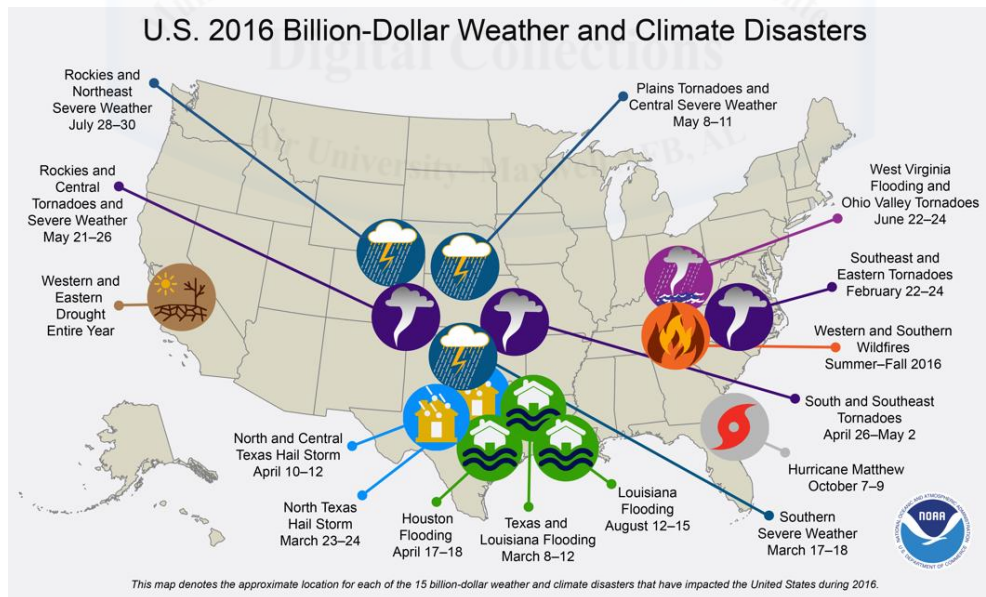


Figure 1. U.S. 2016 Billion-Dollar Weather and Climate Disasters. Reprinted from National Centers for Environmental Information, <https://www.ncdc.noaa.gov/billions/> (accessed 28 May 2017).

Predicting the date, time, type, and scale of the next US domestic natural disaster with great accuracy is generally an inexact science. The National Oceanic and Atmospheric Administration's forecast for the 2017 Atlantic hurricane season, for example, predicts a "45 percent chance of an above-normal season, a 35 percent chance for a near-normal season, and only a 20 percent chance of a below-normal season."²⁵ Studies on "Extreme Event Attribution" continue to examine whether recent weather events are occurring with increased intensity and frequency and, if so, what is the likelihood for reoccurrence.²⁶ Despite the unpredictable and uncertain nature of natural disasters, it is reasonable to assume they will continue to occur as well as the need to plan for them.

Why Deliberate Planning?

The uncertainties of precisely predicting past natural disasters often saw military planners favor using Crisis Action Planning (CAP) to react to each disaster as it occurred. Resource considerations aside, military leaders need not look far for support favoring this position. The former Prussian Chief of Staff Helmuth von Moltke is often cited for his realization that "no plan of operations extends with any certainty beyond the first contact with the [enemy's] main forces."²⁷ Former US President Eisenhower asserted "plans are worthless" simply because "the very definition of an emergency is that it is unexpected" and therefore things are unlikely to go as originally planned.²⁸

These, however, are cautions against considering plans as infallible and not a declaration that planning is futile. Eisenhower could not stress enough how it is not the plan but the planning which matters.²⁹ Even though plans may fail due to the uncertainty in predicting exactly what will be required for every future disaster, planning enables its participants to

establish those critical lines of communication and relationships which will be needed to more rapidly adapt to and overcome unforeseen eventualities.³⁰ Air Force doctrine cautions commanders to “remain keenly aware that they should anticipate, adapt, and affect future planning” to gain advantages both prior to and throughout a crisis.³¹

Where CAP typically involves reacting to the situation at hand (Figure 2), deliberate planning enables anticipated key players from all agencies to establish these crucial working relationships ahead of time.³² Blum and McIntyre, however, contend “the problem of achieving unity of effort in homeland responses is not one of poor planning.”³³ Rather America’s national and homeland security depends “fundamentally on our ability to work together, to bring our enormous capacity to bear at the right time, the right place, and in the right measure.”³⁴ To do this successfully, many roles, responsibilities, expectations, lines of communication, and working relationships need to be established and exercised well ahead of the next disaster. Reintroduced in 2011, deliberate planning in fact does this.³⁵

Deliberate Planning and Crisis Action Planning Comparison		
	Deliberate Planning	Crisis Action Planning
Time available	As defined in authoritative directives (normally 6+ months)	Situation dependent (hours, days, up to 12 months)
Environment	Distributed, collaborative planning	Distributed, collaborative planning and execution
JPEC involvement	Full JPEC participation (Note: JPEC participation may be limited for security reasons.)	Full JPEC participation (Note: JPEC participation may be limited for security reasons.)
APEX operational activities	Situational awareness Planning	Situational awareness Planning Execution
APEX functions	Strategic guidance Concept development Plan development Plan assessment	Strategic guidance Concept development Plan development Plan assessment
Document assigning planning task	CJCS issues: 1. JSCP 2. Planning directive 3. WARNORD (for short suspense planning)	CJCS issues: 1. WARNORD 2. PLANORD 3. SecDef-approved ALERTORD
Forces for planning	Apportioned in JSCP	Allocated in WARNORD, PLANORD, or ALERTORD
Planning guidance	CJCS issues JSCP or WARNORD CCDR issues PLANDIR and TPFDD LOI	CJCS issues WARNORD, PLANORD, or ALERTORD CCDR issues WARNORD, PLANORD, or ALERTORD and TPFDD LOI to subordinates, supporting commands, and supporting agencies
COA selection	CCDR selects COA and submits strategic concept to CJCS for review and SecDef approval	CCDR develops commander's estimate with recommended COA
CONOPS approval	SecDef approves CSC, disapproves or approves for further planning	President/SecDef approve COA, disapproves or approves further planning
Final planning product	Campaign plan Level 1–4 contingency plan	OPORD
Final planning product approval	CCDR submits final plan to CJCS for review and SecDef for approval	CCDR submits final plan to President/SecDef for approval
Execution document	Not applicable	CJCS issues SecDef-approved EXORD CCDR issues EXORD
Legend ALERTORD alert order APEX Adaptive Planning and Execution CCDR combatant commander CJCS Chairman of the Joint Chiefs of Staff COA course of action CONOPS concept of operations CSC commanders' strategic concept EXORD execution order JPEC joint planning and execution community JSCP Joint Strategic Capabilities Plan LOI letter of instruction PLANDIR planning directive PLANORD planning order OPORD operations order SecDef Secretary of Defense TPFDD time-phased force and deployment data WARNORD warning order		

Figure 2. Deliberate Planning and Crisis Action Planning Comparison. Reprinted from *JP 5-0* (page II-30, 11 Aug 2011)

Efforts Thus Far – Strategic-Level

In 2003, *Homeland Security Presidential Directive-5* or simply *HSPD-5* was issued to “enhance the ability of the United States to manage domestic incidents by establishing a single, comprehensive national incident management system (NIMS).”³⁶ Its objective, “to ensure that all levels of government across the Nation have the capability to work efficiently and effectively together, using a national approach to domestic incident management.”³⁷ The Department of Homeland Security (DHS) and the Department of Defense (DOD) echo this call for a “National Preparedness Goal”³⁸ through a single NIMS (Figure 3).³⁹

What NIMS Is:	What NIMS Is NOT:
<ul style="list-style-type: none"> • A comprehensive, nationwide, systematic approach to incident management, including the Incident Command System, Multiagency Coordination Systems, and Public Information • A set of preparedness concepts and principles for all hazards • Essential principles for a common operating picture and interoperability of communications and information management • Standardized resource management procedures that enable coordination among different jurisdictions or organizations • Scalable, so it may be used for all incidents (from day-to-day to large- scale) • A dynamic system that promotes ongoing management and maintenance 	<ul style="list-style-type: none"> • A response plan • Only used during large-scale incidents • A communications plan • Only applicable to certain emergency management/incident response personnel • Only the Incident Command System or an organization chart • A static system

Figure 3. Overview of NIMS. Reprinted from *National Incident Management System* (page 6, 18 December 2008)

The importance of planning and the need to establish relationships ahead of a disaster are identified throughout these strategic directives. In 2008, the *NIMS* was updated to include increased emphasis on planning.⁴⁰ It identified plans as the most important part of preparing for future disasters and how planning provides the needed mechanism to establish critical relationships ahead of time.⁴¹ It also called for plans to complement one another across all levels through an integrated planning system.⁴² The *National Response Framework* discusses

planning's importance:

Planning. Planning makes it possible to manage the life cycle of a potential crisis, determine capability requirements, and help stakeholders learn their roles. It includes the collection, analysis, and dissemination of risk assessment data and the development of plans, procedures, mutual aid and assistance agreements, strategies, and other arrangements to perform specific missions and tasks. Governments at all levels have a responsibility to develop all-hazards response plans prior to and during an incident. Including a broad range of partners in the planning process helps ensure that the needs and potential contributions of all elements are integrated into workable plans.⁴³

Operational-Level

While the strategic-level directs all government agencies to use the *NIMS* to effect greater Unity of Effort, the Department of Defense (DOD) was afforded a key exemption. *HSPD-5* keeps intact the DOD's chain of command; specifically:

Nothing in this directive impairs or otherwise affects the authority of the Secretary of Defense over the Department of Defense, including the chain of command for military forces from the President as Commander in Chief, to the Secretary of Defense, to the commander of military forces, or military command and control procedures. The Secretary of Defense shall provide military support to civil authorities for domestic incidents as directed by the President or when consistent with military readiness and appropriate under the circumstances and the law. The Secretary of Defense shall retain command of military forces providing civil support. The Secretary of Defense and the Secretary shall establish appropriate relationships and mechanisms for cooperation and coordination between their two departments.⁴⁴

The *NRF* affirms this: "Military forces always remain under the control of the military chain of command and are subject to redirection or recall at any time. Military forces do not operate under the command of the incident commander or under the unified command structure, but they do coordinate with response partners and work toward a unity of effort while maintaining their internal chain of command."⁴⁵

Defense Support of Civil Authorities (DSCA) during domestic operational responses to natural disasters occurs at both the federal and state levels via temporary Joint Task Forces: Title 10, USC, Active-Duty Air Force and Air Force Reserves typically organized under a USNORTHCOM assigned Joint Task Force and Title 32, USC, State Air and Army National Guard units under a State-Joint Task Force (JTF).⁴⁶ The temporary nature of these task forces enable scalability and flexibility to tailor the response to the disaster at hand, key concepts within the NIMS.⁴⁷

JTFs are typically organized with whatever resources are made available at the time of an exercise or incident. Unlike their full-time civilian emergency management counterparts, there is no guarantee the same JTF staff members will be available for every incident. Whenever participants join a new organization they require additional time to organize and orient themselves. The time it takes to do this minimizes gains made through past deliberate planning, precludes “continuity and sound working relationships” from being established ahead of the disaster, and culminates in unnecessary delays.⁴⁸

Past issues regarding State sovereignty and the coordination process to approve Title 10, USC, forces to assist states has also led to delays of essential support. To assist in overcoming this, military gains have been made possible through a governor’s command authority to immediately employ his/her state’s Air and Army National Guard units when those forces are not in Federal service.⁴⁹ Once approved, federal military support to states is often delegated to a State-Joint Task Force under the leadership of a Dual-Status Commander (DSC) – a “military commander who may, in accordance with the law, serve in two statuses, Federal and State, simultaneously while performing the duties of those statuses separately and distinctly.”⁵⁰

This unique ability was one way the government attempted to overcome the challenge of

ensuring Unity of Effort⁵¹ during Superstorm Sandy⁵² while multiple Joint Task Forces responded using doctrinal practices such as Centralized Control and Decentralized Execution.⁵³ Even so, Hurricane Sandy revealed that some commanders lacked “the necessary education and knowledge concerning DSCA construct,” lacked “clarity concerning the actual joint command structure,” and did not have “a clear understanding of the dual status commander construct,” especially during a “no-notice/limited notice” response.⁵⁴

Why JOPP?

A part of the Adaptive Planning and Execution (APEX) system, *Joint Publication 5-0, Joint Planning*, defines the joint operation planning process (JOPP) as “an orderly, analytical process, which consists of a set of logical steps to examine a mission; develop, analyze, and compare alternative COAs; select the best COA; and produce a plan or order. JOPP provides a proven process to organize the work of the commander, staff, subordinate commanders, and other partners, to develop plans that will appropriately address the problem to be solved. It focuses on defining the military mission and development and synchronization of detailed plans to accomplish that mission.”⁵⁵

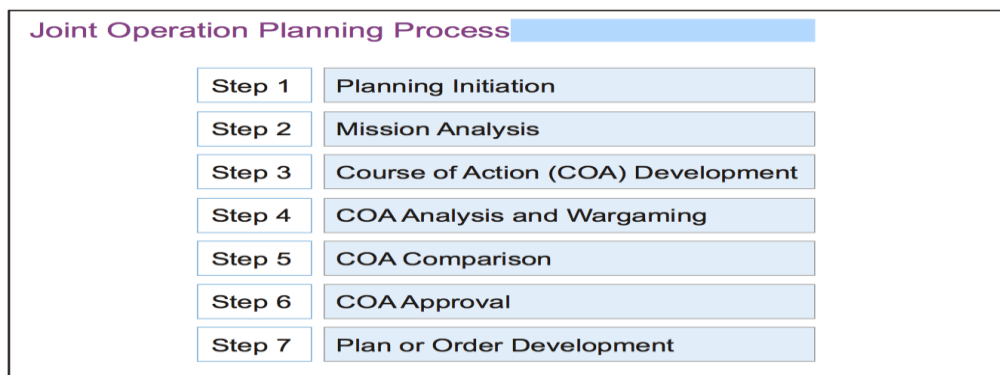


Figure 4. Joint Operation Planning Activities, Functions, and Products. Reprinted from JP 5-0 (page II-14, 11 Aug 2011)

Military responders to natural disasters are subject to redirection or recall at any time thus the *NIMS* permits them to remain under their military chain of command and not the Incident Commander (IC).⁵⁶ While this key provision does not relieve Unity of Effort requirements amongst military participants, its vague language does permit using other planning processes. To maximize interoperability and timely transitions between different mission types, these JTFs use the joint operation planning process (JOPP) to plan and execute their mission (Figure 4). Upon its reintroduction in 2011, joint planning was updated to incorporate deliberate planning.⁵⁷

Tactical-Level

Air Force units are organized by the Secretary of the Air Force.⁵⁸ Air National Guard units are further organized with their state's Army National Guard units under a State-Joint Force Headquarters (State-JFHQ) in order to support both its federal and state missions.⁵⁹ Wings, groups, and squadrons abide by the *Air Force Incident Management System (AFIMS)* which is based upon the *NIMS* methodology and aligns with the *NRF*.⁶⁰ Tactical-level planning for natural disasters is conducted by a planning team and captured within each wing's *Installation Emergency Management Plan 10-2*.⁶¹ Wing Plans Integration and Execution (XP) offices assist planning teams by facilitating the overall planning process, however, their most crucial role is to ensure the integration of the plan with that of other "local, state, and HHQ plans".⁶²

The *Commander's Inspection Program (CCIP)* implemented in 2013 caused a planning setback amongst its wings. The greatest impact was often upon Air National Guard (ANG) XPs which, unlike many of their active-duty counterparts, are authorized only one planner per their Unit Manning Document.⁶³ Lacking resources at the time of implementation, the Air Force directed its wing commanders to apportion their manpower to favor the new inspection program.⁶⁴ Many ANG commanders opted to vacate their XPs and transfer their sole

experienced planner to their Office of Inspector General in order to accommodate its new responsibility of reviewing, exercising, and evaluating plans.⁶⁵

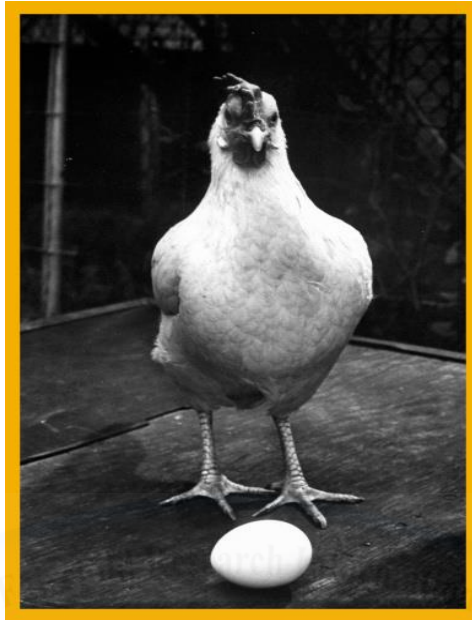


Figure 5. Chicken and egg. Nina Leen – The LIFE Picture Collection/Getty Images. Reprinted from *Time*, <http://time.com/4475048/which-came-first-chicken-egg/> (accessed 04 June 2017).

This issue was only recently acknowledged by the Air Force within its *Manpower and Organization* guidance where “wing commanders may approve eliminating Plans as a separate office and merging its responsibilities and resources into the Wing Inspector General office.”⁶⁶ Did this recent guidance reveal Air Force desires for a greater focus upon exercising and evaluating their plans regardless of adequacy or currency concerns? Much like the classic question of whether the chicken or the egg came first (Figure 5), should priority be given to the planning process or the exercising and evaluating of plans?⁶⁷ Regardless of the outcome, natural disasters will persist.

Section III – Analysis

One key factor and the primary driving force of any disaster response is its timeliness (Figure 6). This is emphasized throughout numerous national and subordinate-level incident management directives and post-incident reports. The *NRF* identifies the primary objectives when responding to all disasters are to “save lives, protect property and the environment, meet basic human needs, stabilize the incident, stabilize the incident, restore basic services and community functionality, and establish a safe and secure environment to facilitate the integration of recovery activities.”⁶⁸ Similarly the DOD directs its officials to use resources under their control to provide immediate, temporary responses in order to “save lives, prevent human suffering, or mitigate great property damage.”⁶⁹ Untimely responses often result in additional and arguably unnecessary losses. The US military’s response to Hurricane Katrina lacked “overall response timeliness” and the “urgent need for policy changes” and an “improved coordination mechanism” emerged.⁷⁰

With timeliness identified as a key factor and the primary driving force, four additional key factors of natural disasters require consideration – their cause, size, location, and complexity.⁷¹ Since this paper is concerned with natural disasters, “cause” was replaced with the “type” of natural disaster. The type of disaster such as annual spring-time regional flooding along a major river system would likely require a larger response compared to that of localized flash flooding from an isolated thunderstorm. The enormous size of hurricanes Katrina and Sandy overwhelmed state and local responders which required large-scale, external support.⁷² The location where a natural disaster occurs such as rural or sparsely populated locations may only require a few localized assets to respond. Conversely, a densely populated metropolitan area may require an exorbitant amount of external support much like the “more than 4,000

National Guard personnel, along with Active and Reserve Soldiers, Sailors, Airmen and Marines” supporting New York City during Hurricane Sandy in 2012.⁷³

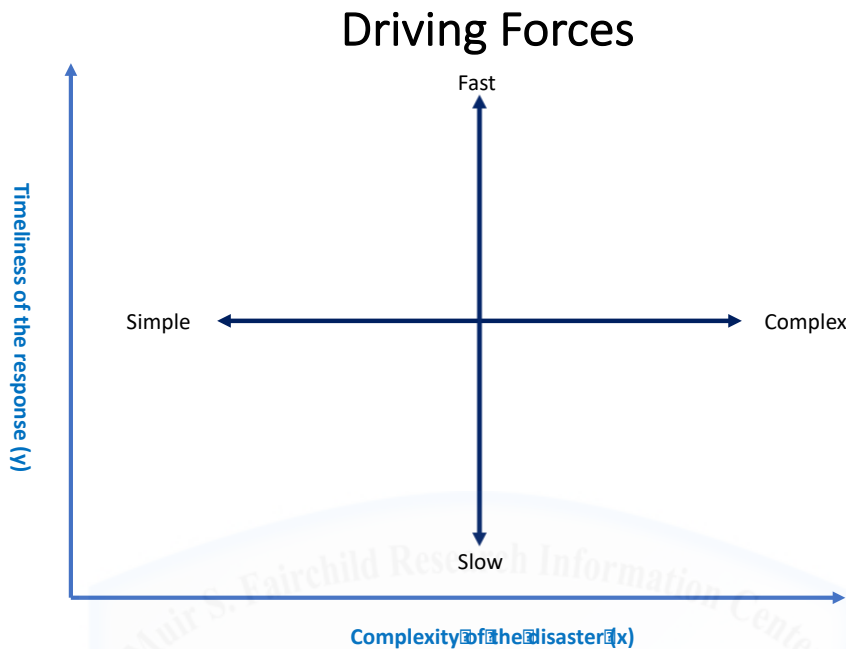


Figure 6. Driving Forces.

Each of these factors contribute independent and compounding variables to the overarching complexity (Figure 6) of the natural disaster; the secondary driving force. The simpler a disaster, the fewer the resources and time required to respond. The more complex the natural disaster, the greater uncertainty as to the size, type, and time required to organize, orient, and execute a response. One example of this was the 2004 Sumatra-Andaman earthquake; it “included the longest fault rupture ever observed” and “the longest duration of faulting.”⁷⁴ The resulting tsunami compounded the earthquake’s destructive effects into a very complex disaster requiring an international response.

What is being measured?

US Military domestic operations today are rarely conducted by a single service and span a wide spectrum of joint operations including DSCA during domestic natural disasters.⁷⁵ Many future disasters, especially larger events requiring regional, national, or international assistance will concern “all levels of government, nongovernmental organizations, and the private sector.”⁷⁶ Case studies of past complex domestic natural disasters have revealed poor Unity of Effort amongst the responders. Unity of Effort is the “coordination and cooperation toward common objectives, even if the participants are not necessarily part of the same command or organization, which is the product of successful unified action.”⁷⁷ Unity of Effort was selected as the benchmark because it simultaneously strives to achieve a timely response through the efficient use of resources.⁷⁸

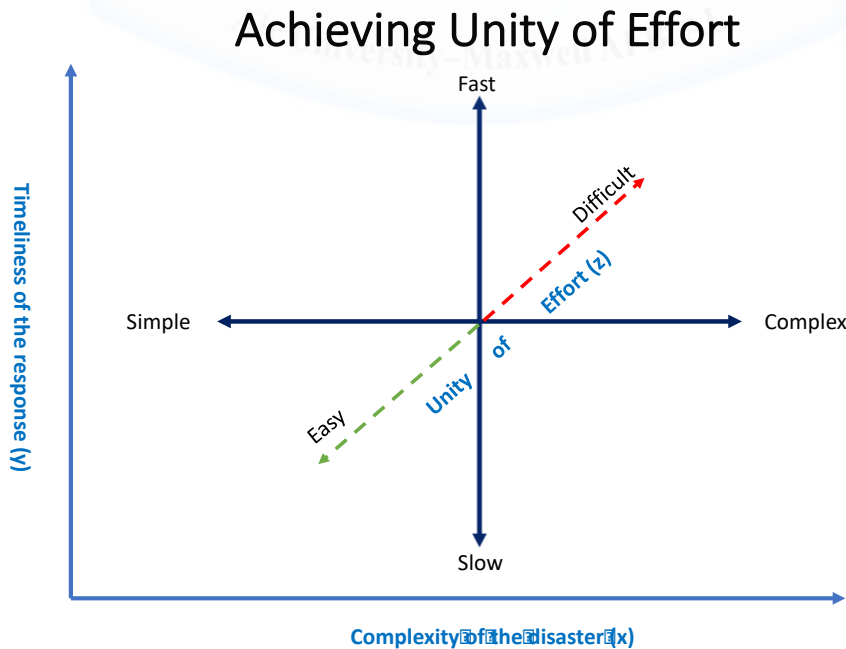


Figure 7. Effects upon Unity of Effort.

Analyzing the independent and compounding effects of these two driving forces (Figure 7) reveals small-scale, localized, and low-impact disasters occurring in rural locations are simpler and therefore easier to achieve Unity of Effort. Disasters which are large-scale, wide-spread, high-impact, and occur in more densely populated areas are more complex and more difficult to achieve Unity of Effort. Unity of Effort is also more difficult to achieve during urgent or hurried responses and easier during slower or methodical responses. Compounding effects show Unity of Effort is easiest to achieve during simple disasters which permit slower and better organized responses. Unity of Effort is most difficult to achieve during complex disasters requiring fast or hurried responses.

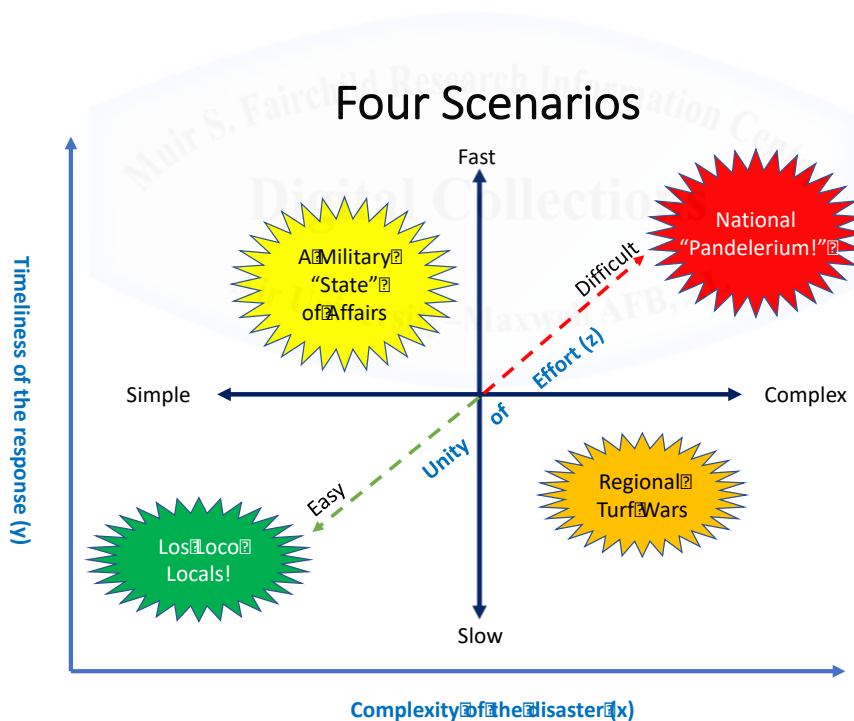


Figure 8. The Four Scenarios.

Assumptions

From this analysis, four alternate future scenarios emerge (Figure 8). While a number of different planning processes exist throughout today’s Air Force, this research assumes the Air

Force has transitioned all levels of planning to the *JOPP* and non-DOD agencies continue to use the *NIMS* and *NRF*. Each scenario explores potential effects deliberate planning within Air Force Squadrons using the *JOPP* might have upon Unity of Effort when responding to domestic natural disasters. They also explore what effects this might have upon squadron-level joint leadership capacity.

Los Loco Locals! (Simple, Slow, and Easy)

This scenario closely resembles a well-organized response to a localized natural disaster such as forecasted flash flooding associated with thunderstorms embedded in a passing cold front. The disaster's impact is short-term, small-scale, and relatively simple. Day-to-day first responders routinely train for this type of event, are adequately resourced, well organized, and have formalized mutual aid agreements with their adjacent municipal and county governments. Due to its simpler nature, identifying, tailoring, and assigning resources to the disaster is easier. The type and number of resources is not expected to exceed the capacity of local agencies. Areas prone to flash flooding are typically well known and local agencies, using continuously updated weather forecasts, have scheduled and staged the appropriate resources ahead of the storm. All of this enables the Incident Commander (IC) to maintain a high degree of situational awareness. This is the most ideal situation for achieving and maintaining Unity of Effort.

The limited scale and short duration of this type of event would not warrant much participation by military forces. Squadron-level involvement is limited to specific activities outlined within a Mutual Aid Agreement (MAA).⁷⁹ In the absence of a MAA, the Wing and Civil Engineer Squadron Commanders may use their "immediate response authority" to temporarily dispatch firefighting resources to assist in saving lives.⁸⁰ Gains using deliberate planning using the *JOPP* would have almost no effect upon Unity of Effort during this scenario.

ANG Wing-level logistic planners do track all MAAs with oversight from the Wing Plans Integration and Execution (XP) Office for integration purposes, however, little to no effect upon joint leadership capability should be expected.⁸¹ Since all Air Force planning now uses the *JOPP* and should this incident expand, better interoperability between the operational and tactical-level is likely.

A Military “State” of Affairs (Simple, Fast, and Moderate)

This scenario resembles a statewide response to a simple, fast moving, short-term, and medium-scale natural disaster which temporarily exceeds the capacity of affected municipal and county resources. Immediate assistance is needed to prevent further loss of life and suffering. A comparable example would be the San Francisco-Oakland earthquake of 1989 where 67 people died and more than 3000 were injured from only 15 seconds of faulting.⁸² A temporary State-JTF is being established, however, the uncertainty and severity of the disaster’s impact is hastening its assembly. As facts and requests for assistance rapidly emerge, the need to deploy any type of assistance is paramount, regardless of suitability. State-JTF staffers are not ideal, rather who is available. Those with experience are relying upon working relationships from previous deliberate planning sessions and exercises to establish much needed lines of communications. Additional agencies are joining the response and everyone needs to adapt quickly and work together to ensure Unity of Effort is maintained.

The rapid onset and high impact of this type of disaster has temporarily overwhelmed local resources and warrants participation by state-level military forces. The civilian IC is using established *NIMS* relationships and practices to execute the overall response. Early support by the State-JTF is chaotic but is gaining focus as time advances. About the time it is fully

organized, local resources have recovered and no longer require the State-JTF's assistance. Almost as quickly as it was activated, it is deactivated and any outstanding issues are delegated either to individual units or the State-Joint Force Headquarters (State-JFHQ).

Wing and squadron commanders are using their temporary "immediate response authority" to assist in saving lives while the State-JTF organizes itself.⁸³ Due to the rapid onset of this disaster and urgent need for support, the Joint Force Commander (JFC) is soliciting squadron-level planners and leaders familiar with joint operations and the *JOPP* to backfill critical vacancies on the JTF staff. The ability to acquire operational-level capable leaders from tactical-level squadrons is enabling the JTF to organize more quickly, but delays with orienting and responding themselves are occurring. This interoperability between organizational levels, however, is making communication more effective and creates a favorable atmosphere for adapting to incoming requests for support. Since the State-JTF is being dissolved so quickly, the impact of past squadron deliberate planning using *JOPP* is having only moderate gains upon Unity of Effort. Beyond identifying future potentials for squadron personnel to be solicited to backfill future State-JTFs for this type of event, this disaster's brief response minimally increases squadron-level joint leadership capability.

Regional Turf Wars. (Complex, Slow, Moderate)

This scenario resembles a National response to a complex, relatively slow moving, medium-term, and medium-scale natural disaster. Its effects are expected to exceed the capacity of affected municipal, county, and state resources. The response to Hurricane Joaquin in 2015 would be a comparable example. South Carolina alone experienced 23 days of statewide flooding which led to 36 counties declaring disasters, 4,100 National Guard members being

deployed, and ten states as well as the Federal Emergency Management Agency (FEMA) providing support.⁸⁴

Fortunately, the frequency of hurricanes within the US has led to regular deliberate planning for them. The relatively slow movement of this type of disaster better enables Federal and State-JTFs to organize themselves. The JFCs again petition squadrons for experienced volunteers to join these temporary JTFs to minimize the time required to organize, establish lines of communication, and enable planners time to orient themselves with the situation at hand and compare it to existing plans. This enables civilians to begin evacuating and permits staging of resources in advance of the storm. Lines of jurisdiction will need to be addressed and maintaining overall situational awareness will be more difficult. Compounding effects such as widespread flooding, tornados, soil erosion, tidal surge, etc., are anticipated.

This type of disaster's scale and duration warrants participation by both Federal and State military forces. The civilian IC is using *NIMS* to organize, plan, and execute the overall response. The JTFs are supporting the overall IC and are taking additional steps to ensure its plans, recommendations, and orders developed from the *JOPP* are compatible with the *NIMS*.⁸⁵ The JFCs are dispatching a minimum of two Liaison officers to all affected civilian Offices of Emergency Management in hopes of streamlining communications, minimizing potential confusion between *NIMS*, *APEX* and *JOPP* products, and to ensure requests for support are clearly identified.⁸⁶ It will be a costly manpower piece but the commanders, governors, Congress, and the President all agree past mistakes clearly demonstrate the need to ensure unnecessary delays are avoided.

The prompt assignment of a Dual-Status Commander (DSC) will enhance Unity of Effort amongst military responders by minimizing coordination delays across lines of jurisdiction.⁸⁷

Overall squadron involvement will be high due to the number of resources being used. Due to all AF planning using the *JOPP* and the anticipated lengthy duration of this disaster, the JTF is planning to use squadron personnel to supplement the JTF staff beyond the response phase and into the recovery phase.⁸⁸ This operational and tactical interoperability increases overall joint leadership capability at both levels. The exposure of squadron members to using the *JOPP* for real-world planning both during the urgency of the and during the more stable recovery phase will prove invaluable.

National “Pandelerium!”⁸⁹ (Complex, Fast, Difficult)

This scenario resembles a multinational response to a complex, fast moving, long-term, and large-scale domestic natural disaster which has far exceeded the capacity of America’s resources.⁹⁰ Long-term assistance will be needed to not only save lives, but to facilitate the recovery. This scenario would likely be due to a series of compounding natural disasters similar to the 2004 Sumatra-Andaman earthquake and subsequent tsunami.⁹¹ Plausibly a Yellowstone ‘super eruption’ is occurring and begins its months long blanketing of ash across most of the US immediately halting all forms of air transportation.⁹² This size and duration of this eruption subsequently triggers a massive series of earthquakes along the New Madrid fault line similar to its last major faulting in 1811-1812.⁹³ Critical infrastructures are destroyed. Domestic civilian and military resources are instantly overwhelmed. The expansiveness of this type of response is the most difficult for achieving and maintaining Unity of Effort.

Every resource is overwhelmed. Because the Nation’s infrastructure has been so severely weakened and National Security is facing its greatest risk, the President directs USNORTHCOM to establish a JTF as the lead organization for this multinational response. All civilian and State-JTFs organize under the Federal JTF. A DSC from the National Guard is appointed as the

Federal JFC to overcome jurisdictional concerns. America's military and International military partners routinely train and exercise together using the *JOPP*. This streamlines their assimilation into the JTF. Unaccustomed to the military being in the lead for a domestic response, civilian agencies look to the military for liaisons who can assist them with integrating their recommendations so Unity of Effort is minimally affected. This will be a key tool when transitioning back to a civilian led recovery phase but it is a huge manpower bill.

Squadron involvement throughout the response phase will be very high for the duration of a compounding disaster. Squadron integrity may be difficult to maintain over the long term due to follow-on mission assignments. Past use of squadron-level deliberate JOPP will prove invaluable in helping to overcome the difficulties this disaster imposes upon Unity of Effort. Squadron members familiar with the JOPP and joint operations can expect to be routinely employed across all levels of organization. The long duration of this operation exposes more military members to the joint operating environment and dramatically increases joint leadership capability throughout all Air Force units.

Section IV – Conclusions

Despite difficulties in predicting with great accuracy the next domestic natural disaster, they undoubtedly will continue to occur. Developing accurate plans through deliberate planning ahead of natural disasters will always have varying results. Plans will typically fail, or at best, be significantly incomplete, if followed as originally conceived, but planning must continue. The greatest challenge to a timely response and Unity of Effort will be a complex, fast-moving, long-term, and large-scale domestic natural disaster which far exceeds the capacity of America's resources. Military support to civil authorities during domestic natural disasters are rarely conducted by a single service and are typically joint operations.⁹⁴ Accordingly, the Air Force needs more leaders within its squadrons - the core Air Force unit - prepared to meet the challenges associated with joint operations.⁹⁵

Recommendations

Strategic and operational-level Air Force and joint planning still lacks synchrony with Air Force tactical-level planning. Current tactical-level planning practices and plan formats place minimal importance upon standards and uniformity. This increases the difficulty to effectively integrate them with complementing and supporting plans. Unnecessary delays are experienced by unfamiliar users who must take time to orient themselves to these unique processes and products. Because of this, consideration should be given to transitioning all Air Force tactical-level planning to the *JOPP*. This will increase interoperability across all levels, especially between the operational and tactical-levels, by making their process jointly uniform. Air Force personnel will be exposed earlier and more often to joint operations and the *JOPP*, increasing joint leadership capacity throughout.

The use of temporary JTFs reflects today's fiscal climate and increases DOD flexibility, however, consideration should be given to establishing more permanent JTFs. The temporary nature of these organizations precludes the opportunity to establish critical relationships ahead of a disaster which will be needed to adapt to evolving circumstances. Using permanent JTFs maximizes working relationships generated from deliberate planning by retaining experienced personnel versus reassigning them immediately upon deactivation. This permanent arrangement also requires less time to organize, orient, and respond to natural disasters.

Expanding Air National Guard (ANG) and Army National Guard (ARNG) roles with these JTFs is a must. Unique DSCA capabilities reside only within these organizations such as conducting domestic law enforcement operations or employing a Dual-Status Commander (DSC) "operating in state active duty or Title 32, USC, status" to speed up access to all levels of DOD assistance and more quickly address jurisdictional concerns.⁹⁶ This will be critical for all DSCA events.

These recommendations, however, still reflect two complementing systems and not the singular national incident management system envisioned within *HSPD-5*, the *NIMS*, and the *NRF*. While these directives direct assurances of compatibility with the *NIMS*, they still permit the DOD to use its own command structure and the *JOPP* during DSCA events.⁹⁷ While beyond the scope of this research paper, questions remain regarding the effect of these two complementing yet separate incident management systems upon the timeliness and Unity of Effort of domestic responses to natural disasters. Does the DOD still need to ensure its command structures and joint processes remain intact during DSCA events due to being subject to recall and reassignment at any time? If so, would the creation of a new, singular NIMS significantly enhance our capabilities?

Past experiences, observations, and possible scenarios continue to suggest serious considerations should be given to expanding joint operations to a new, conceptual doctrine concerning “Whole of Government” operations or WoGOPS – defined as guidance for planning preparing, executing, and assessing activities across the whole range of government operations?⁹⁸ A possible approach to facilitate and accelerate the development of WoGOPS would be the placement of the project at one or more joint service schools that focus on the *JOPP* to draw upon the diverse backgrounds and experiences of students and faculty. Critical to the success in using this medium is the integration and participation of Air and Army National Guard members whose experiences include state-level joint operations and transition between Title 32, USC, Title 10, USC.

Summary

Air Force leaders will be expected to plan efficient and timely responses which maximize Unity of Effort. Delays in responding to natural disasters are costly. Delays often come at the price of additional lives lost, unabated human suffering, and further damage to property and the environment.⁹⁹ With a price this high, all options for eliminating unnecessary delays must be considered. Leaders must push past the temptation to forgo planning based solely upon their misinterpretation from individuals such as Moltke who cautioned not against planning, rather of the futility in relying too heavily upon plans.¹⁰⁰ It has never been about plans and it never will be. It has and always will be about conducting planning to facilitate adapting to future uncertainties. Eisenhower still says it best; “plans are worthless, but planning is everything.”¹⁰¹

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