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HURRICANE

KATRINA

LESSONS LEARNED

Proposals to Improve Federal Response to Natural and Man Made Disasters

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Federal response to Hurricane Katrina highlighted numerous problems with the interface of federal agencies with state, local, and tribal first response organizations. Three areas present themselves as low hanging fruit in the effort to improve this interface.

There is no existing command and control (C2) architecture that is consistent across the United States, territories, and possessions and that links the Department of Defense (DOD) and other Federal departments and agencies in support of homeland defense (HD) and civil support (CS). An integrated national, regional, and state approach could provide a federal command and control coordination capability for federal agencies and link state and federal organizations. At the regional level the structure could provide timely visibility on geographically close resources, as well as a backup for any state which lost its own C2 capability. A standardized, command facility and deployable capability, to include connectivity and communications applications, provided for and maintained by the Department of Homeland Security (DHS), could provide a national approach to response to special security events as well as natural and man made disasters. At the state level the C2 centers are the governors' command center. Budgeting will be the responsibility of DHS per Chapter 1, Title 6 United States Code (USC), Section 103.

A separate, but related proposal is to coordinate the organization and structure of federal regions across departments and agencies for a more rational approach to existing regional constructs.

Finally, the National Guard (NG) and Reserve (RES) structures must be, and are being, reevaluated based on the requirements of the Global War on Terrorism, national strategic goals and objectives, the Quadrennial Defense Review, revisions of the Unified Command Plan, and the Base Realignment and Closure Commission recommendations. By focusing on the HD and CS mission areas, the NG in particular can build on traditional strengths while providing depth in knowledge and experience.

With four significant data points (G8 Summit, Republican National Convention, Democrat National Convention, and the 2005 Presidential Inauguration) as well as the recent requirements of Hurricanes Katrina and Rita and the 9/11 Commission Report, system and process shortfalls for federal response have been identified. While these events had US Northern Command (USNORTHCOM) acting in a supporting role for CS; process and system connectivity to the state and local levels of government are essential for an effective response in either CS or HD.[1]

Proposal One – Integrated Command and Control

DOD organizations have their own command and control systems and processes, some unique, others common across the DOD. This DOD approach must be expanded to integrate Federal with Regional and State approaches to command and control architecture. Currently, DHS has a centralized command center, USNORTHCOM has a command center, and the states have some form of emergency command and control center for the governor of the state.

Each state will create and man an emergency operations center (EOC), minimally manned 24-hours a day/7-days per week (24/7) with NG personnel, as a modification of existing NG state headquarters and in accordance with the creation of Joint Task Force – State (JTF-State) for every state. EOCs will be funded by DHS.

The Hurricane Katrina response highlighted the difficulty in coordinating a regional approach to disasters. LTG Honoré, as the regional JTF Katrina Commander, had some difficulties implementing decisions that ran across state boundaries. This shortfall argues for a regional approach to C2, at least to monitor and coordinate the use of scarce resources.

Regional operations centers (ROC) will monitor readiness status and in place agreements for all units in the region to include NG, RES, and active duty units and bases. ROC manning will be provided by each federal and state department and agency on full and/or part time basis. ROCs will be paid for by DHS, run 24/7 by the RES and have coordination authority only.

As illustrated in Figure 1, during civil support missions, the EOC provides a C2 center for the governor of a state, as well as a physical focal point for federal liaisons. The EOC is a part of the federal, state, and

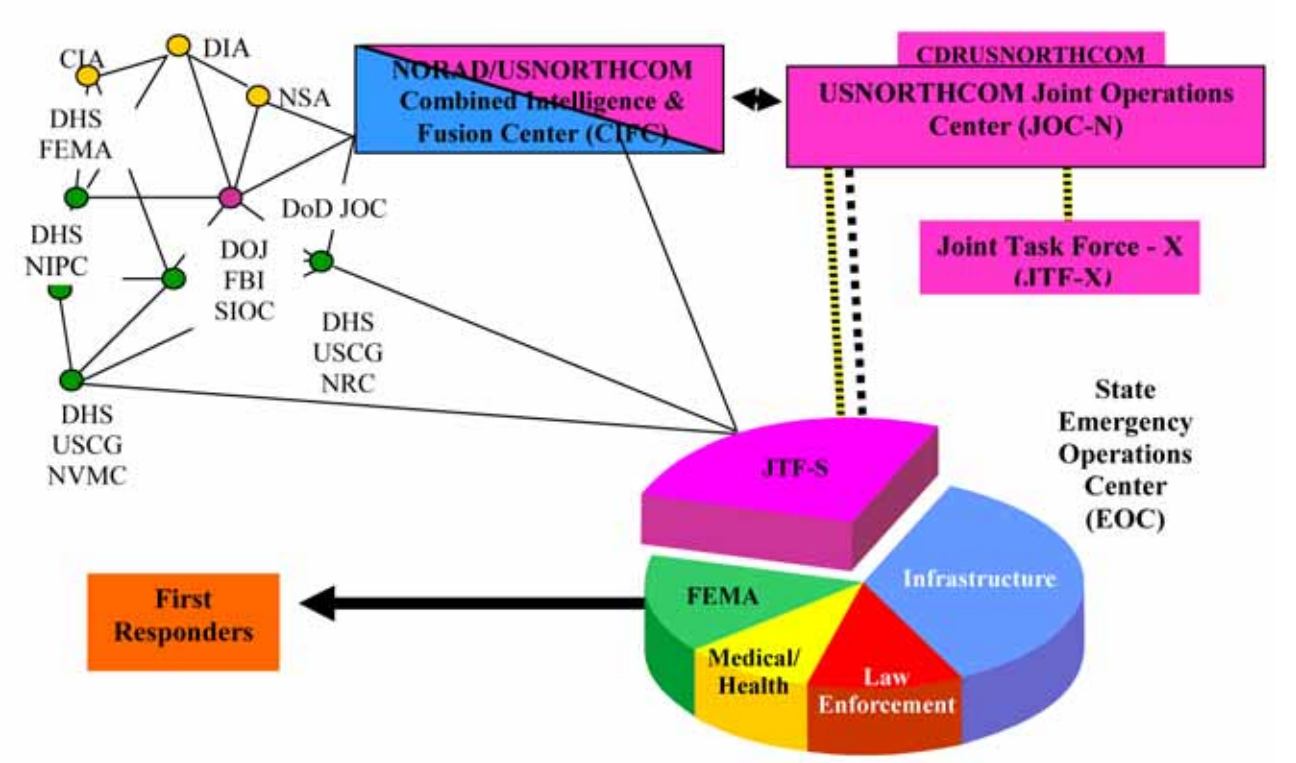

Figure 1– EOC and Federal Network with USNORTHCOM

local integrated network, capable of sharing data across standardized applications.

Creation of a ROC, with coordination authority, builds on NG procedures to establish agreements between states to share NG resources and the development of JTF-State.

Proposal Two – Rationalizing the Regions

While the concept of a ROC is interesting and meets a demonstrated need, there is no comprehensive federal approach to regions. At the federal level, agencies like DHS (e.g., Federal Emergency Management Agency (FEMA), US Army Corps of Engineers (ACE), Department of Justice (DOJ), US Coast Guard, Veterans Administration hospitals, and medical response areas) are organized along regional lines. The regions are not aligned with one another or state borders.

The following figures reflect examples of existing federal organizations and their regional structures.

Figure 2 depicts the Department of Veterans Affairs (DVA) health care system regions; 158 hospitals, with at least one in each of the 48 contiguous states, Puerto Rico, and the District of Columbia. DVA operates 854 ambulatory care and community-based outpatient clinics, 132 nursing homes, 42 residential rehabilitation treatment programs, and 88 comprehensive home-care programs. DVA health care facilities provide a broad spectrum of medical, surgical, and rehabilitative care. DVA's medical system serves as a backup to the Defense Department during national emergencies and as a federal support organization during major disasters.

In Figure 3, the Coast Guard's field operating units are divided into two regions: the Atlantic Area, based in Portsmouth, Virginia; and the Pacific Area, in Alameda, California. Each of these Areas is further broken down into districts, with district headquarters located in nine key cities around the country. Each district, in turn, includes a wide range of facilities; marine safety offices, groups, air stations, boat stations, and cutters.

DOD Joint Regional Medical Planning and Operations Offices (JRMPO) establish and maintain a liaison with governmental and healthcare agencies including Department of Health and Human Services (DHHS), FEMA, DVA, Federal Bureau of Investigation (FBI), and DOD. They are the DOD medical connection to FEMA and DHHS, and educate and advise on DOD medical capabilities, response times, and operating requirements. JRMPOs also provide interagency

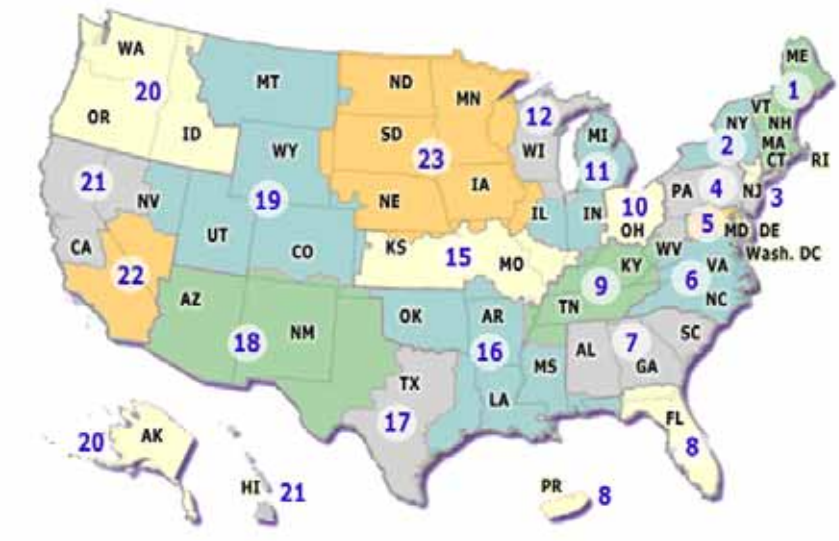

Figure 2–Veterans Integrated Service Networks (VISNs)

medical planning assistance to lead agencies and regional planning agents upon request. JRMPOs are shown in Figure 4.

Figures 5 and 6 illustrate the Army Corps of Engineers Divisions and the existing FEMA regions, respectively. As these diagrams demonstrate, the key organizations for response to natural and man made disasters already have a regional approach. There are, however, no efficiencies in the current design since there is no common C2 structure or processes. In fact, the disparate dividing lines can contribute to confusion and lack of response.

The existing FEMA regions, although convenient as a starting point, are not adjusted for the combination of state boundaries, the population base that the NG will require for recruiting support, and the distribution of resources. Population is also reflective of the availability of resources. Therefore, the next step will adjust the regions with the NG constraints in mind. An example of this approach follows; the color-coded boxes correspond to population totals in the regions.

The figure 7 proposal meets our assumptions for alignment with state geographic boundaries, while providing a catchement area with a population base ranging from 19 to 47 million. This is only one example

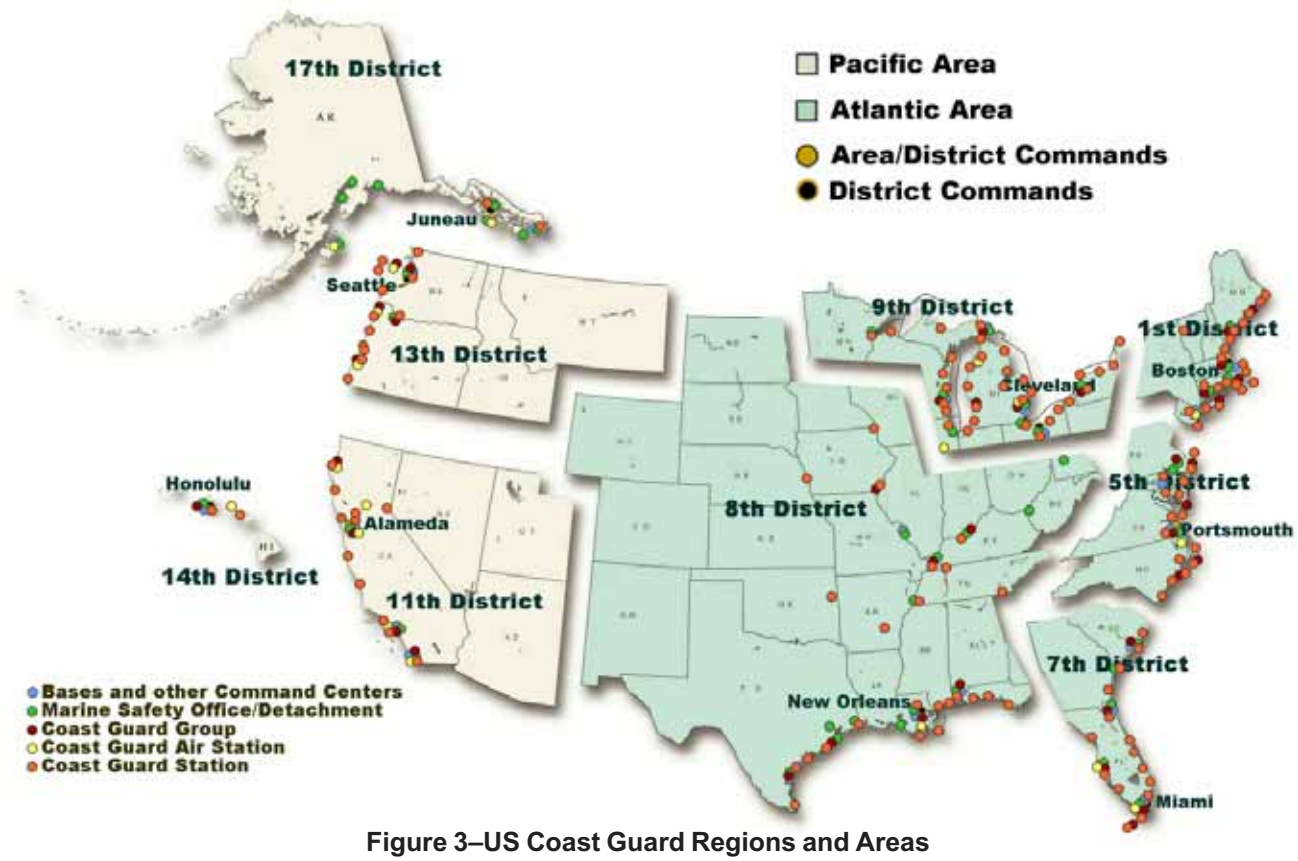

Figure 3–US Coast Guard Regions and Areas

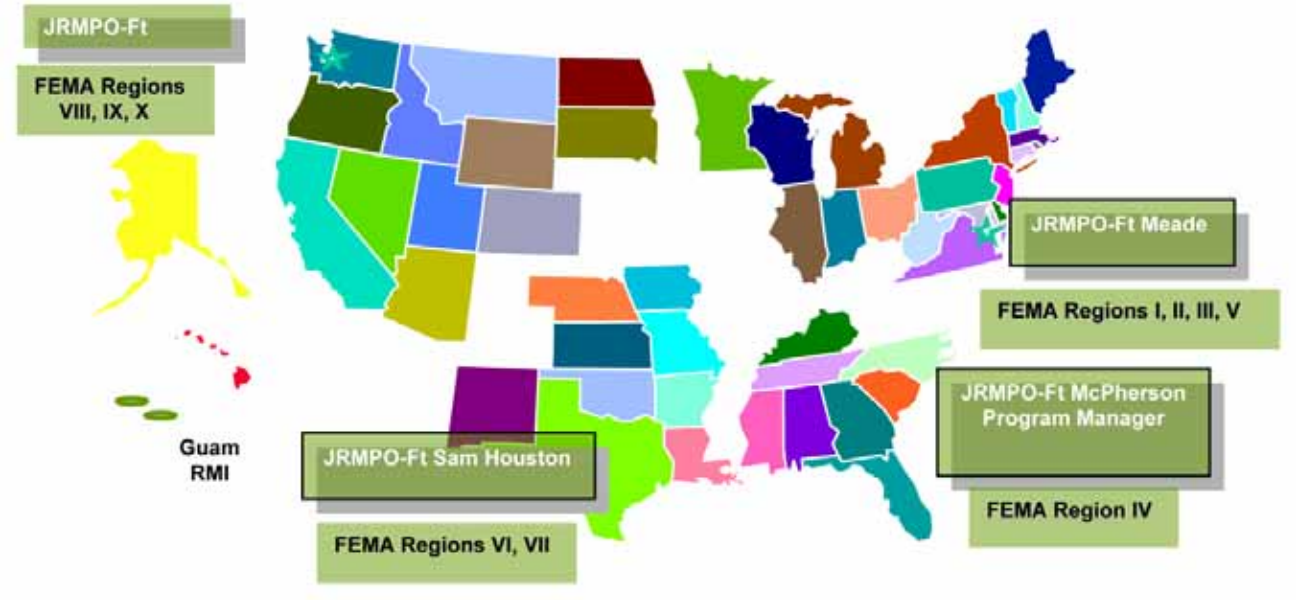

Figure 4–DOD Joint Regional Medical Planning and Operations Offices

based on arbitrary guidelines to demonstrate how the initial alignment with existing FEMA regions may be modified.

Proposal Three

The NG is directly organized and controlled by individual states with funding assistance from the Federal government. A mechanism exists whereby state governors may agree to shift NG units to another state to respond to need.

The traditional guard unit task of disaster relief takes on expanded meaning in an era of homeland defense against non-traditional enemies capable of unleashing attacks with weapons of mass destruction (WMD). In the aftermath of such attacks, with high yield explosives as well as nuclear, biological, and chemical weapons, the civilian government will need the services of rapid response organizations that can significantly augment local capabilities and support civilian agencies in the first critical hours of a crisis. In addition, involved units must be capable of limited self-deployment within the continental United States (CONUS).

Figure 5–US Army Corps of Engineers Divisions

Simultaneously, there is a growing demand for trained command and control personnel within the active duty force. These personnel run the gamut from crisis action

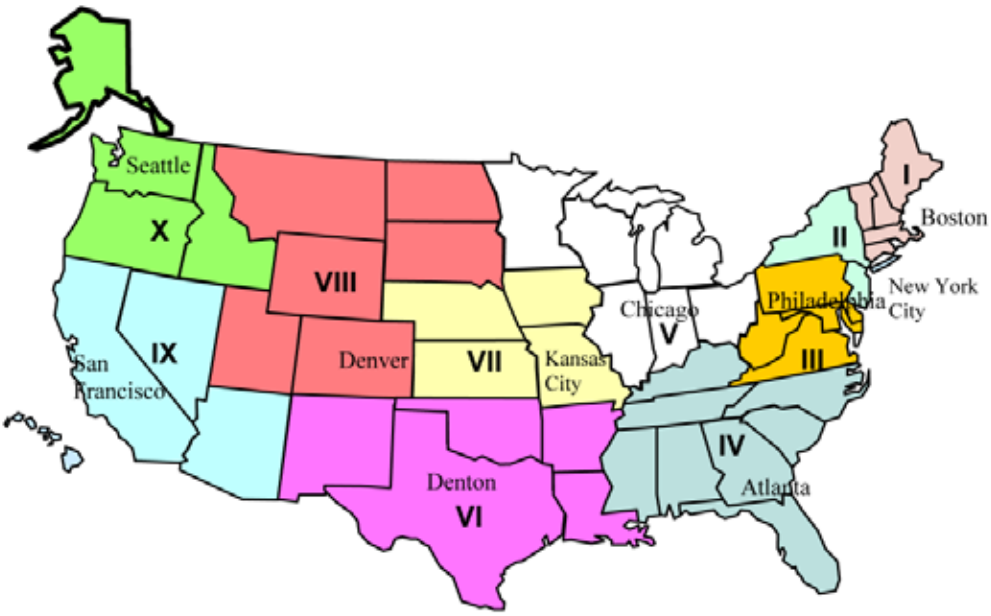

Figure 6–Current Federal Emergency Management Agency Regions

defense, the existing military force is trained and equipped, in general, to meet the mission requirements, such as securing areas or facilities and providing logistic support. However, CS requires a more complex array of skill sets. For example, the use of non-lethal weapons in suppression of a civil disturbance is not within the skill set for active duty line infantry companies.

planning specialists to network administrators; all capable of operating in harsh combat environments including nuclear, biological, and chemical (NBC) release situations. These personnel operate primarily at the operational level of warfare and can augment the critical C2 nodes, such as air operations centers (AOC) of the air and space expeditionary task force (AETF), providing the active force with a trained pool of resources.

A regional approach to C2 provides the governors with the depth of units necessary to respond to the full range of possible tasks. It provides self contained, deployable units that can support the DOD expeditionary philosophy (as exemplified by the Expeditionary Aerospace Force (EAF) concept of the active duty Air Force) while maintaining state and region unit identity. Also, the emerging role of Striker Brigades in the US Army will demand a new look at force integration, particularly regarding highly specialized skills like those found in the WMD civil support teams.

The existing structure of the National Guard must be evaluated for the relevance of each unit to both state and federal missions. To improve homeland security and national defense, a regional approach can provide highly trained units that can support both governors and the active duty force with a wide range of skilled citizen soldiers.

In the area of homeland defense, DOD is the supported lead federal agency (LFA). For the CS mission, various other federal agencies will be the supported LFA and DOD will be the supporting department. For homeland

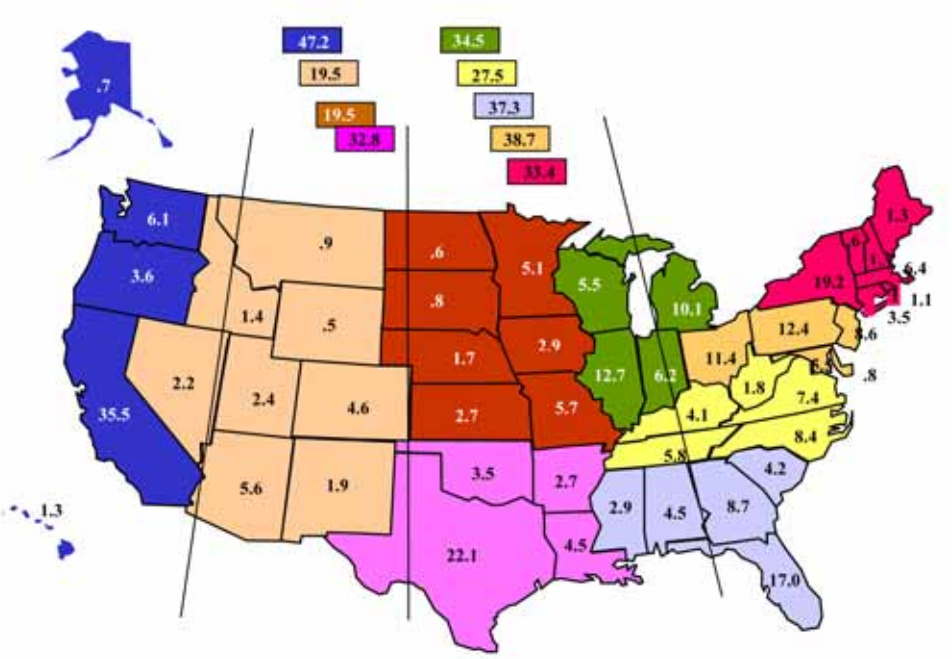

Figure 7–Regional Adjustment Reflecting State Population

Regions are based on geographic integrity of state borders and population density. Each region will support one US Army Civil Support Brigade, and one US Air Force Air Operations Group/Wing

The following unit descriptions provide examples of the type of units that could be created with a regional approach to mission requirements. These units will not only provide homeland security mission support, but also provide a pool of trained resources for non-combat operations within an area of operations (AOR) outside the continental United States (OCONUS). The examples are notional.

Army National Guard

Option 1 - Civil Support Brigade (Figure 8)

(a) Headquarters Company. The brigade commander will be a colonel with a colonel as executive officer. There will be a complete brigade staff, S1-S6. Officers and noncommissioned officers (NCO) with special area expertise such as public affairs and information operations will be imbedded in the staff.

This unit will be fully mobile with wheeled vehicles capable of operating in a chemical, biological, radiological, nuclear, and high yield explosives (CBRNE) environment and transportable by C-130 type aircraft. The commander and staff will be trained to integrate with military or civilian command and control systems. When tasked, the brigade commander will assemble a mission-oriented number of unit type codes (UTC) from the assigned battalions and deploy them to the mission area.

(b) Engineer Battalion. Headquarters and four companies. This unit will be fully mobile with wheeled vehicles capable of operating in a CBRNE environment and transportable by C-130 type aircraft. All personnel will train in crowd control techniques and the use of non-lethal weapons.

(c) Military Police Battalion. Headquarters and four companies. This unit will be fully mobile with wheeled vehicles capable of operating in a CBRNE environment and transportable by C-130 type aircraft. All personnel will train in crowd control techniques and the use of non-lethal weapons.

(d) CBRNE Battalion. Headquarters and four companies. This unit will be fully mobile with wheeled vehicles capable of operating in a CBRNE environment and transportable by C-130 type aircraft. Personnel will provide on-scene assessment of CBRNE effects to include type of attack medium used, persistence of residual CBRNE threat, and support requirements for decontamination of the event zone.

(e) Medical Battalion. Headquarters and four companies. This unit will be fully mobile with wheeled vehicles capable of operating in a CBRNE environment and transportable by C-130 type aircraft. The medical personnel will provide on-scene assessment of medical support requirements, initial triage, and critical care within the event zone. The medical battalion will include qualified medical examiners and mortuary affairs personnel.

(f) Signals Battalion. Headquarters and five companies.

- Computer Network Company

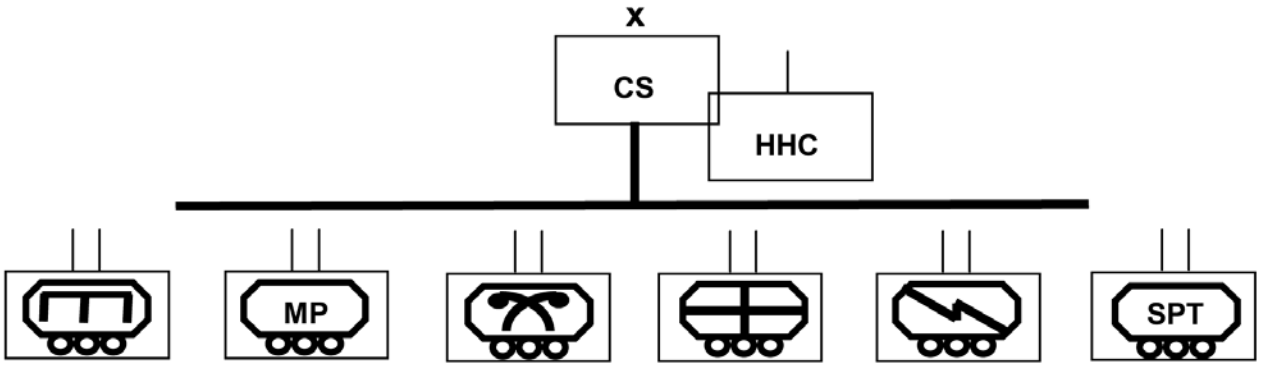

Figure 8–Regional Civil Support Brigade Option 1

- Long Range Communications Company
- Short Range Communications Company
- Public Affairs Company
- Psychological Operations Company

(g) Support Battalion. Headquarters and remaining combat support and combat service support slice elements to provide for thirty-day sustainment of the brigade, battalion, or company task forces as required. Mission requirements will include, but may not be limited to, messing, transportation, logistics, sanitation, water, power, and contracting.

Option 2 - Civil Support Brigade (Figure 9)

Under Option 2, each state will have a civil support battalion with component companies and platoons made up of the critical skills identified in Option 1. The civil support brigade will still have a regional focus and be able to shift a state battalion across state lines within the region.

(a) Headquarters Company. The brigade commander will be a colonel with a colonel as executive officer. There will be a complete brigade staff, S1-S6. Officers and NCOs with special area expertise such as public affairs and information operations will be imbedded in the staff.

This unit will be fully mobile with wheeled vehicles capable of operating in a CBRNE environment and transportable by C-130 type aircraft. The commander and staff will be trained to integrate with military as well as civilian command and control systems. When tasked, the brigade commander will assemble a mission-oriented number of UTCs from the assigned battalions and deploy them to the mission area.

(b) Civil Support Battalion

(1) Engineer Company. Headquarters and four Platoons. This unit will be fully mobile with wheeled vehicles capable of operating in a CBRNE environment and transportable by C-130 type aircraft. All personnel will train in crowd control techniques and the use of non-lethal weapons.

(2) Military Police Company. Headquarters and four Platoons. This unit will be fully mobile with wheeled vehicles capable of operating in a CBRNE environment and transportable by C-130 type aircraft. All personnel will train in crowd control techniques and the use of non-lethal weapons.

(3) CBRNE Company. Headquarters and four Platoons. This unit will be fully mobile with wheeled vehicles capable of operating in a CBRNE environment and transportable by C-130 type aircraft. Personnel will provide on-scene assessment of CBRNE effects to include type of attack medium used, persistence of residual CBRNE threat, and support requirements for decontamination of the event zone.

(4) Medical Company. Headquarters and four Platoons. This unit will be fully mobile with wheeled vehicles capable of operating in a CBRNE environment and transportable by C-130 type aircraft. The medical personnel will provide on-scene assessment of medical support requirements, initial triage, and critical care within the event zone. The medical battalion will include qualified medical examiners and mortuary affairs personnel.

(5) Signals Company. Headquarters and five Platoons.

- Computer Network Platoon
- Long Range Communications Platoon
- Short Range Communications Platoon
- Public Affairs Platoon
- Psychological Operations Platoon

(6) Support Company. Headquarters and remaining combat support and combat service support slice elements to provide for thirty-day sustainment of the brigade or battalion or company task forces as required. Mission requirements will include, but may not be limited to, messing, transportation, logistics, sanitation, water, power, and contracting.

Establishing the Unit. In creating the brigades, the NG Bureau will coordinate with geographically collocated states to develop sufficient catchment areas to provide a sustainable pool of recruits, and with the affected governors to ensure they are in agreement on

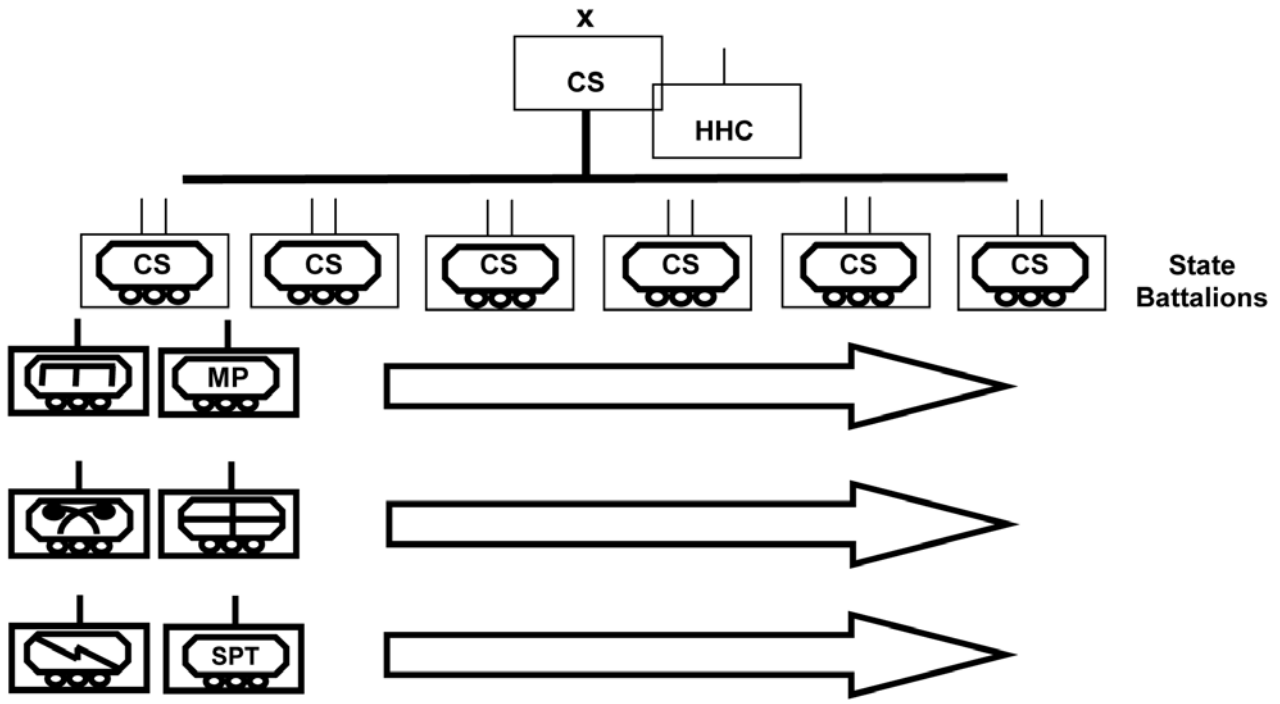

Figure 9–Regional Civil Support Brigade Option 2

support arrangements. Basing will be a function of C-130 aircraft with full cargo loads being able to rapidly reach any area within the region. (See Figures 11 - 13 for options with range and response times. Current Air National Guard (ANG) bases are used for comparison.)

Training. The personnel of the brigade will have a dual track-training program addressing the requirements for both homeland security and combat. Although some processes—crisis action planning and course of action development as well as assessment of the mission—will be similar, training scenarios will cover the range of employment options.

Employment Concept.

Disaster Relief. When activated by a supported governor (s), the brigade will activate a planning team from the staff to assess the nature of the disaster and the type of response team required. The team components will be assembled at rally fields and be deployed via C-130 to the designated forward area. The brigade will provide initial response and whatever sustained response as dictated by the affected governor(s) and the LFA.

USA Support. When activated or tasked for augmentation, the brigade will support operations of deployed forces.

Air National Guard

Option 1 - Aerospace Operations Group (Figure 10)

(a) Group Headquarters. A small headquarters with two colonel billets, a commander and deputy, with affiliated staff. The purpose of the headquarters is to track manpower, budget, training, and readiness of the affiliated squadrons. There will be a complete group staff, A1-A6. Officers and NCOs with special area expertise such as public affairs and information operations will be imbedded in the staff. The staff will be administratively organized as an operations support squadron.

This unit will be fully mobile with wheeled vehicles capable of operating in a CBRNE environment and transportable by C-130 type aircraft. The commander and staff will be trained to integrate with military as well as civilian command and control systems. When tasked, the group commander will assemble a mission-oriented number of UTCs from the assigned squadrons and deploy them to the mission area.

(b) Air Operations Squadron. This squadron will appear rank heavy since it will have O4 and O5 rank officers and senior NCOs. More senior personnel are necessary since they will be responsible for crisis action planning and course of action

development. Critical thinking and processes in these areas will be valuable for both disaster analysis and AOC augmentation. Squadron members will be from a wide range of Air Force specialty codes (AFSC) and will train at the operational level of command and control. This squadron will absorb senior personnel from other units that are excess.

(c) Combat Communications Squadron. Provides communications connectivity for the group. When the group is in support of disaster relief, the squadron will also provide analysis of the existing communications architecture in the disaster area. When supporting an AOC, the squadron will provide "inside the fence" networks and communications connectivity.

(d) Air Intelligence Squadron. Capable of gathering relevant data for the task and turning it into decision quality information. This capability includes battle damage assessment and combat assessment in the AOC, and predictive analysis in a terrorist threat environment. In disaster relief operations the squadron will provide a damage assessment to civilian authorities, focusing on damage to infrastructure and its ability to support recovery operations. The squadron would not collect on US nationals within the United States, territories, and possessions.

(e) Logistics Squadron. On site analysis of logistics infrastructure for restoration operations during a disaster response. Short-term, thirty-day minimum, sustainment of the deployed team, messing, billeting, etc. Initial support of deployed team as well as logistics planning and analysis when augmenting an AETF.

(f) Security Police Squadron. Trained in the following missions: law enforcement, air base ground defense, search and rescue in coordination with the medical squadron, crowd control, riot control, and combat patrol. Trained in the use of lethal and non-lethal force. Security planning and analysis when augmenting an AETF.

(g) Medical Squadron. Capable of performing medical infrastructure analysis during disaster relief as well as limited triage and emergency care. Able to perform search and rescue in coordination with the security police squadron. Medical planning and analysis when augmenting an AETF. Will provide an NBC flight capable of evaluating contamination when NBC weapons have been employed.

(h) Airlift Squadron. A six-aircraft primary aircraft authorization (PAA) squadron plus one aircraft in attrition reserve. This squadron structure is consistent with EAF tasking and Aerospace Expeditionary Force (AEF) rotation. Each squadron would include a flight based on a tanker airlift control element (TALCE) that could become the link to US Transportation Command (USTRANSCOM), the Air Mobility Command (AMC) Tactical Air Control Center (TACC), and the theater air mobility division in the theater AOC. The group may actually have multiple squadrons depending on the size of the area and the desired response time. The aircraft and personnel will be sourced from excess airlift projections for the C-130 starting with the FY06 budget. (See Figures 11 - 13 for options with range and response times. Current ANG bases and FEMA regions are used for comparison.)

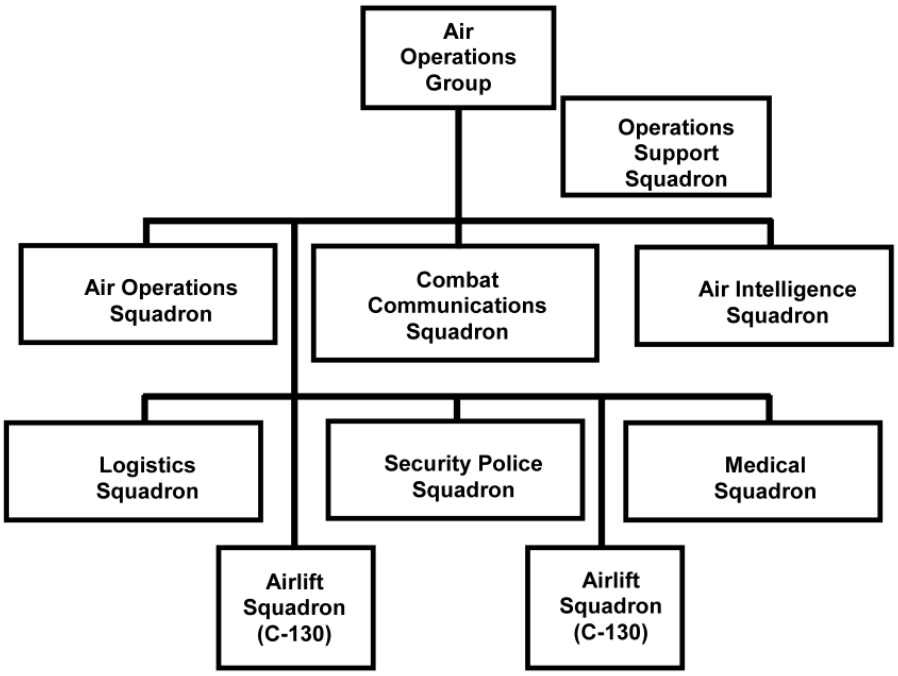

Figure 10–ANG Regional Air Operations Group Option 1

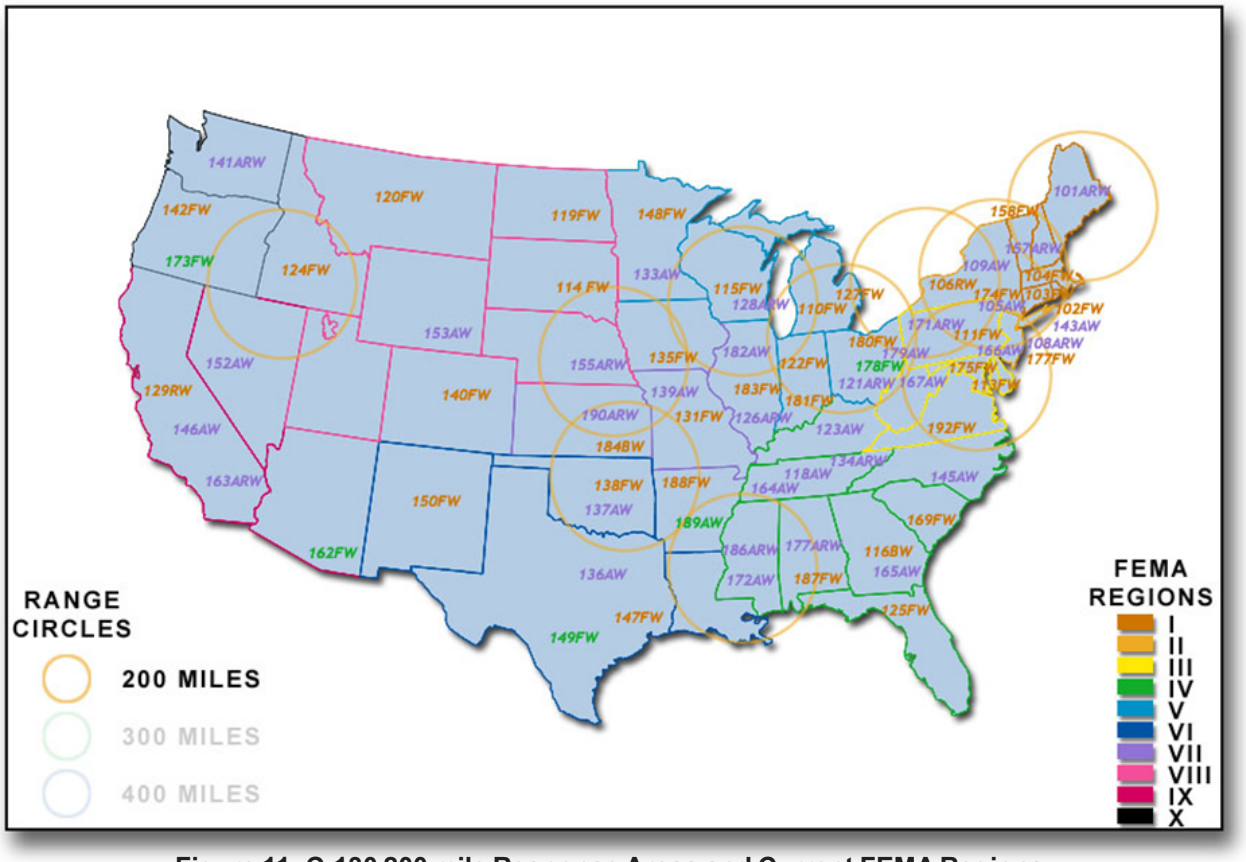

Figure 11–C-130 200 mile Response Areas and Current FEMA Regions

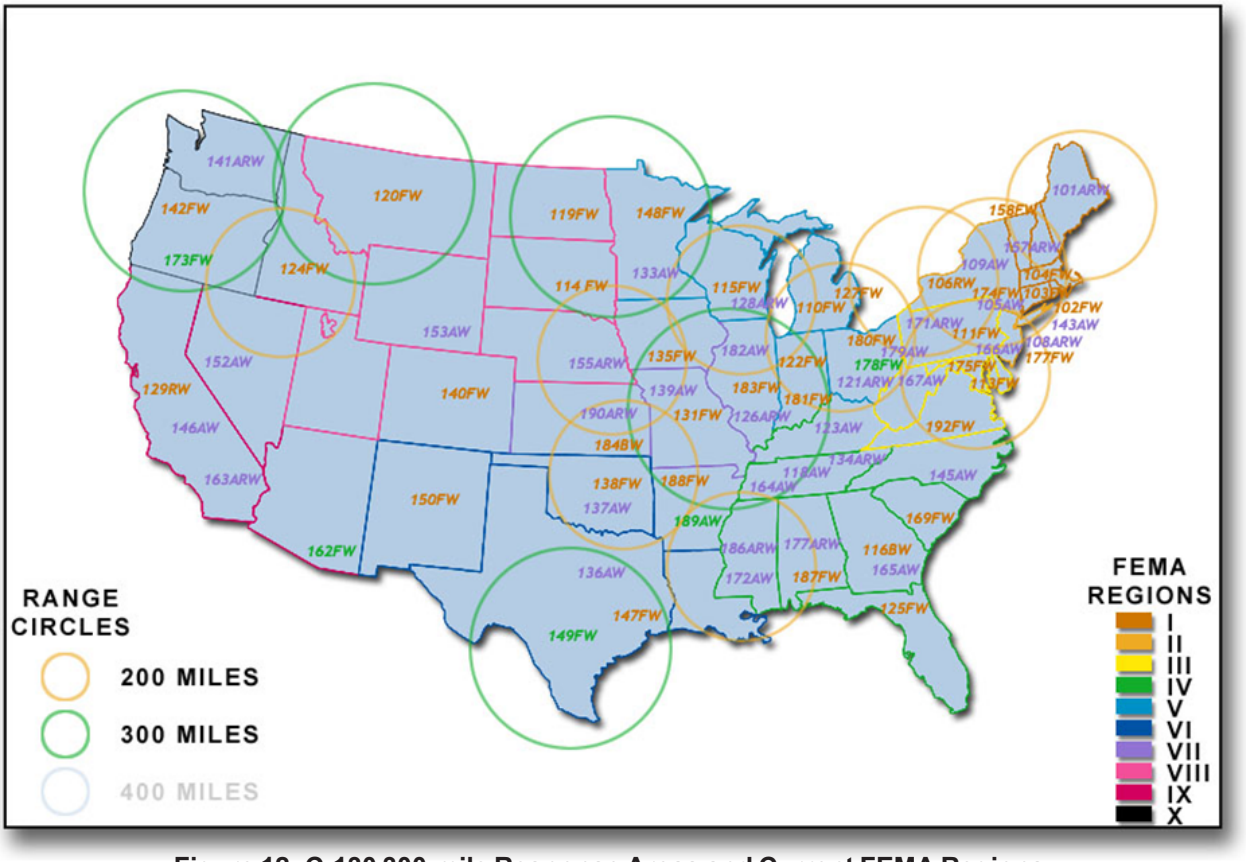

Figure 12–C-130 300-mile Response Areas and Current FEMA Regions

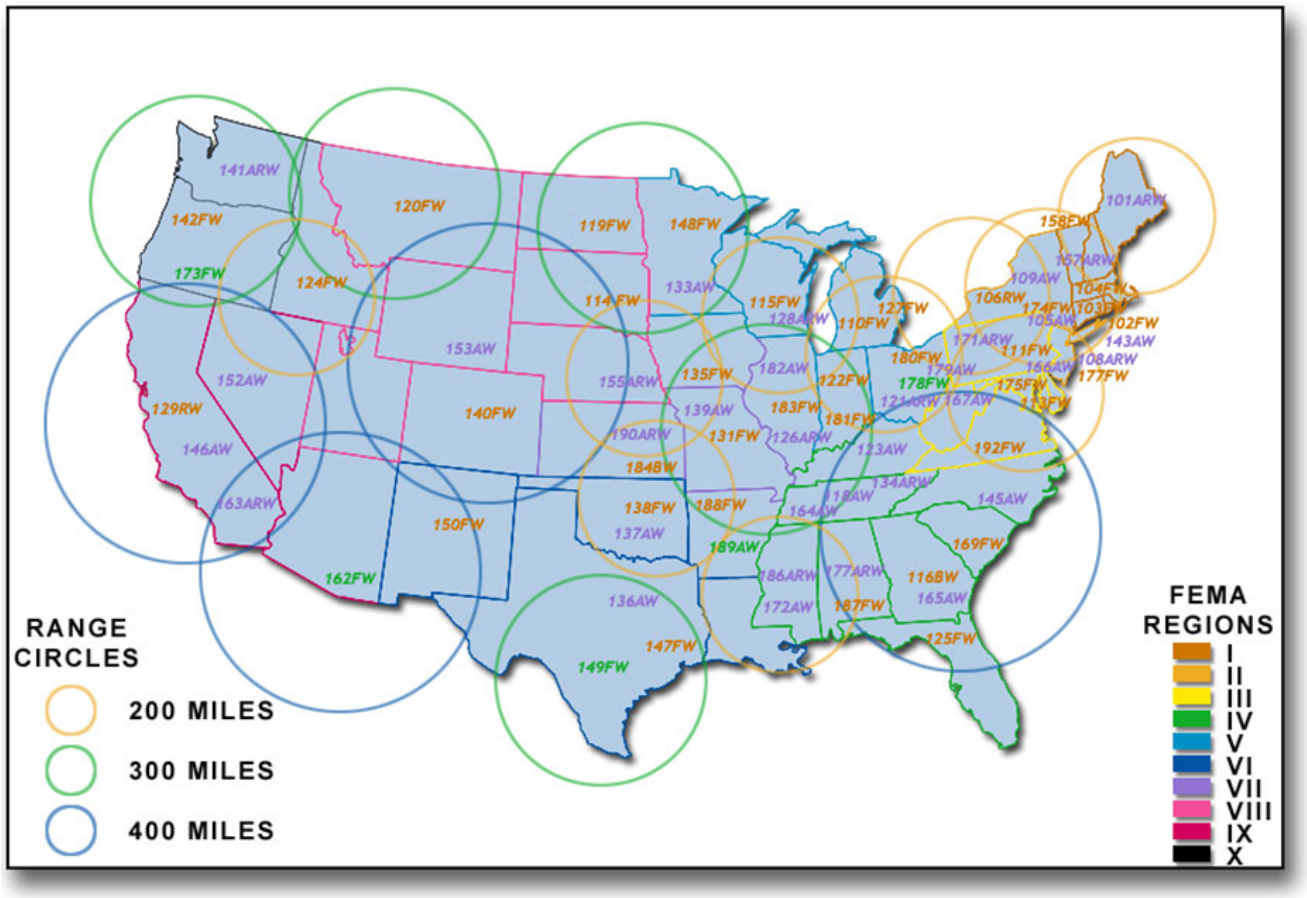

Figure 13–C-130 400 mile Response Areas and Current FEMA Regions

<u>Option 2 - Aerospace Operations Wing (AOW)</u> (Figure 14)

(a) Wing Headquarters. A small headquarters with a brigadier general billet and two colonel billets (consisting of a commander, vice, and chief of staff), with affiliated staff. The purpose of the headquarters is to track manpower, budget, training, and readiness of the affiliated squadrons. There will be a complete wing staff, A1-A6. Officers and NCOs with special area expertise such as public affairs and information operations will be imbedded in the staff. The staff will be administratively organized as an operations support squadron.

This unit will be fully mobile with wheeled vehicles capable of operating in a CBRNE environment and transportable by C-130 type aircraft. The commander and staff will be trained to integrate with military or civilian command and control systems. When tasked, the wing commander will assemble a mission-oriented number of UTCs from the assigned squadrons and deploy them to the mission area.

(b) Operations Group. There will be a complete group staff, A1-A6. Officers and NCOs with special area expertise such as public affairs and information operations will be imbedded in the staff. The staff will be administratively organized as an operations support squadron. This unit will be fully mobile with wheeled vehicles capable of operating in a CBRNE environment and transportable by C-130 type aircraft.

(1) Air Operations Squadron. This squadron will appear rank heavy since it will have O4 and O5 rank officers and senior NCOs. More senior personnel are necessary since they will be responsible for crisis action planning and course of action development. Critical thinking and processes in these areas will be valuable for both disaster analysis and AOC augmentation. Squadron members will be from a wide range of AFSCs and will train at the operational level of command and control. This squadron will absorb senior personnel from other units that are excess.

(2) Airlift Squadrons. Three each, six-aircraft PAA squadron plus one aircraft in attrition reserve. This

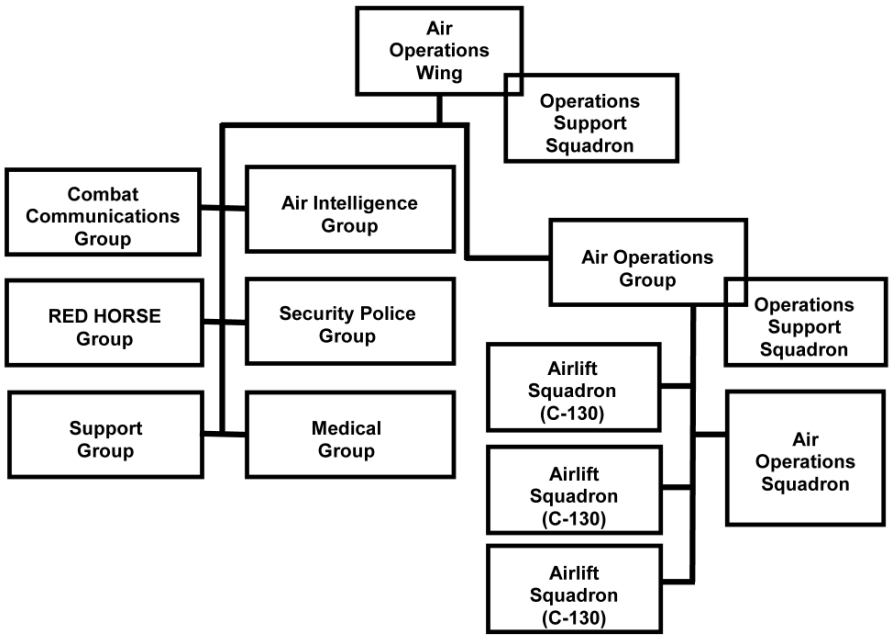

Figure 14–ANG Regional Air Operations Wing Option 2

squadron structure is consistent with EAF tasking and Aerospace Expeditionary Force (AEF) rotation. Each squadron would include a flight based on a TALCE that could become the link to USTRANSCOM, AMC TACC, and the theater air mobility division in the First Air Force/Continental US North American Aerospace Defense Command Region AOC. The group may actually have multiple squadrons depending on the size of the area and the desired response time. The aircraft and personnel will be sourced from excess airlift projections for the C-130 starting with the FY06 budget. (See Figures 11 - 13 for options with range and response times. Current ANG bases are used for comparison.)

(b) Combat Communications Group. Provides communications connectivity for the wing. When the wing is in support of disaster relief, the group will also provide analysis of the existing communications architecture in the disaster area. When supporting an AOC, the squadron will provide "inside the fence" networks and communications connectivity, as well as long haul communications.

(c) Air Intelligence Group. Capable of gathering relevant data for the task and turning it into decision quality information. This capability includes battle damage assessment and combat assessment in the AOC, and predictive analysis in a terrorist threat environment. In disaster relief operations the squadron will provide a damage assessment to civilian authorities, focusing on damage to infrastructure and its ability to support recovery operations. The group will not collect on US nationals within the United States, territories, and possessions.

(d) Logistics Group. On site analysis of logistics infrastructure for restoration operations during a disaster response. Short-term, thirty-day minimum, sustainment of the deployed team, messing, billeting, etc. Initial support of deployed team, and logistics planning and analysis when augmenting an AETF.

(e) RED HORSE Group. On site analysis of civil engineering infrastructure for restoration operations during a disaster response. Provides initial support of deployed team, as well as base construction and civil engineering logistics planning and analysis when augmenting a theater headquarters.

(f) Security Police Group. Trained in the following missions: law enforcement, air base ground defense, search and rescue in coordination with the medical squadron, crowd control, riot control, and combat patrol. Trained in the use of lethal and non-lethal force. Security planning and analysis when augmenting an AETF.

(g) Medical Group. Capable of performing medical infrastructure analysis during disaster relief along with limited triage and emergency care. Fully deployable as an air transportable hospital. Able to perform search and rescue in coordination with the security police squadron. Provides medical planning and analysis when augmenting an AETF. Will provide an NBC flight capable of evaluating contamination when NBC weapons have been employed.

Establishing the Unit. In creating the air operations group/air operations wings (AOG/AOW), the ANG Bureau will coordinate with geographically collocated states to develop sufficient catchment areas to provide a sustainable pool of recruits, and with the affected governors to ensure they are in agreement on support

arrangements. Basing will be a function of C-130 aircraft with full cargo loads being able to rapidly reach any area within the AOG/AOW region. (See Figures 11 - 13 for options with range and response times. Current ANG bases are used for comparison.)

Collocated with the TALCE at the host base, it will be an aerial port of embarkation/debarkation (APOE/APOD). By creating multiple APOE/APOD, the regional capability can be used to support CONUS and OCONUS unit deployments for active duty, RES, and NG units.

Training. The personnel of the AOG/AOW will have a dual-track training program addressing the requirements for both homeland security and combat at the operational level of warfare. Although some processes will be similar (crisis action planning and course of action development, as well as assessment of the mission), training scenarios will cover the range of employment options.

Employment Concept.

Disaster Relief. When activated by a supported governor(s), the AOG/AOW will assemble a planning team from the operations support squadron to assess the nature of the disaster and the type of response required. The team components will be assembled at squadron rally fields and be deployed via C-130 to the designated forward area. The team will provide initial response and whatever sustained response as dictated by the affected governor (s) and the LFA.

US Air Force Support. When activated or tasked for augmentation, the group/wing will support operations of deployed AETFs. The airlift squadrons will also provide flex in support of increased airlift tasking.

Way Ahead

In order to avoid difficulties in dealing with the fifty four states and territories, the DOD should suggest these proposals in coordination with DHS. DHS could then create a standard command center facility design and communications package, as well as a mobile force package and budgets for deployment, maintenance, and upgrade of these state and regional level resources. DHS could further create a federal standard region approach for all federal departments and agencies. DOD, in conjunction with National Guard Bureau, would then create civil support brigades and AOG/AOWs within regions.

These proposals address critical problems that continue to plague CS and CD responses for the United States.

Endnote:

[1] ***OSD Strategy for Homeland Defense and Civil Support, June 2005,*** addresses the need to restructure the RES and the NG to provide better support to Homeland Security. The GAO Report to the Chairman, Committee on Government Reform, House of Representatives, ***HOMELAND SECURITY: Effective Regional Coordination Can Enhance Emergency Preparedness*** also supports a regional approach to optimize coordination in support of homeland security.

About the Author:

Lieutenant Colonel (Ret) John M. "Jay" Fawcett, JR., is a civilian contractor supporting the USNORTHCOM J5 in the area of doctrine and legislative liaison. Jay's previous contractor assignment was at the US Air Force Command and Control Training and Innovation Group where he worked directly for the commander in strategy and concept development, and was liaison to various foreign air force organizations such as the RAF Air Warfare Centre; RAF JFAC Headquarters; Royal Norwegian Air Force; Luftwaffe; Royal Australian Air Force; and NATO. He earned his commission from the United States Air Force Academy, including one semester on exchange at the United States Military Academy, West Point, New York. He has commanded a headquarters squadron and a Tactical Air Control Party at brigade level during combat operations, including the initial helicopter assault into Iraq during Operation Desert Storm. He retired as a Senior Navigator and was awarded the Bronze Star medal. Jay has authored numerous articles for publication in Air Power Journal, Aerospace Power Journal, Parameters magazine, and Air and Space Power Journal. He has also presented papers at the Command and Control Research and Technology Symposium in 2002 and 2004.