



**ALTERNATIVES TO CONTINGENCY RESPONSE GROUP ORGANIZATION:  
TRADEOFFS TO BALANCE CAPABILITY AND CAPACITY**

GRADUATE RESEARCH PAPER

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AFIT-ENS-GRP-14-J-5

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GRADUATE RESEARCH PAPER

Presented to the Faculty

Graduate School of Engineering and Management

Air Force Institute of Technology

Air University

Air Education and Training Command

In Partial Fulfillment of the Requirements for the

Degree of Master of Science in Logistics

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June 2014

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## **Abstract**

This Graduate Research Project focuses on potential changes that could be made to the organization of active duty Contingency Response Groups (CRG). The research seeks to identify and weigh options that balance manpower capacity and capability in the mission areas of aerial port, command and control, maintenance, and security forces to meet combatant commander demand.

The researcher employs a three-phased methodology that includes interviews of a cross-section of contingency response subject matter experts, reports and document review, and quantitative data analysis of demand for CONUS CRGs over a 15 month period. The primary limitation of this data analysis is that it uses historical demand to determine required manning levels. The results show that Continental United States (CONUS) based CRGs could be consolidated to one group per coast with minimal impact to capability. Furthermore, the research suggests that the CONUS CRGs have excess manpower capacity in the mission areas of aerial port, command and control, and maintenance.

This research recommends having only one CRG per coast in CONUS and reducing excess capacity at these CRGs. It also recommends that Air Mobility Command (AMC) transfer excess capacity to theater CRGs yet maintain the ability to centrally task this capacity if needed.

## **Acknowledgments**

I would like to thank SMSgt Jesus Heurta and Mr. Steve Jordan for providing background information and data required for this project. I could not have completed this paper without their expertise and willingness to field countless questions.

I would also like to thank my advisor, Dr. Ken Schultz for his guidance and patience throughout this research project.

Ryan E. Durham

# Table of Contents

	Page
Acknowledgments.....	vi
Table of Contents .....	vii
List of Figures .....	x
List of Tables .....	xi
I. Introduction .....	1
Background, Motivation, and Problem Statement .....	1
Research Focus.....	3
Research Objectives/Questions/Hypotheses .....	4
Investigative Questions .....	4
Methodology .....	4
Assumptions/Limitations .....	5
Implications.....	6
II. Literature Review .....	7
Chapter Overview .....	7
<i>CRF Purpose</i> .....	7
<i>CRF Organization and Sizing</i> .....	8
<i>CRF Requirements</i> .....	13
Previous Research on CRGs .....	13
Summary .....	14
III. Methodology .....	15
Chapter Overview .....	15
Interviews.....	15
<i>Structure, Purpose, and Questions</i> .....	15
<i>Selecting Interviewees</i> .....	17
Document Review .....	19
Quantitative Data .....	20
<i>Deployment Data: Purpose</i> .....	20
<i>An Approach to Determine Demand</i> .....	20
<i>An Approach to Account for Actual Manning</i> .....	21
<i>An Approach to Account for JTF-PO Demand</i> .....	21
<i>An Approach to Account for Circumstances Preventing Deployment</i> .....	22
Summary .....	23
Interview Results.....	24

Category 1: General Agreement .....	24
Category 2: Answers agreed on within associated CRGs, but not as important to those associated to other CRGs.....	25
Category 3: Answers that reflect disagreement between members associated with the same CRG .....	26
Category 4: Answers agreed upon within the same associated CRG, but disagreed upon by members associated with the opposite GRG.....	26
621 CRW CRG Demand and Manning Analysis.....	27
Team Size Demand.....	27
As can be seen in Figure 6, the majority of deployments assessed in this 15 month period consisted of teams of less than five individuals. In addition, 98.2 percent of deployments consisted of 20 or less pax. This data validates interview data that suggests demand for CRF is below the CRG level. ....	28
Peak UTC Demand and Actual Manning.....	28
Accounting for 2 JTF-PO Demands and Circumstances Preventing Deployment .	29
Implications.....	30
Speed of Response .....	31
Utilization.....	34
Training and Leadership Synergy .....	35
Familiarity with the Area of Operations .....	35
Investigative Questions Answered.....	36
1. What tradeoffs to capability are associated with pooling CRF at Travis AFB and JB-MDL within a single CRG at each location? .....	36
2. What tradeoffs to capability are associated with combining CRGs at each coast and decreasing their overall size? .....	37
3. What tradeoffs are associated with AMC centrally managing PACAF and USAFE's CRGs?.....	39
4. What tradeoffs are associated with AMC divesting some of its CRF to geographic focused commands like PACAF and USAFE? .....	41
Summary .....	44
V. Conclusions and Recommendations .....	45
Conclusions Regarding Investigative Questions.....	45
Investigative Question 1 .....	45
Minimal downside exists in implementing the course of action described in Investigative Question 1. The primary advantage of implementation would be streamlining the command and control and increasing training synergy throughout the organization. The primary disadvantage would be the loss of up to four CR leaders capable of leading deployed CRGs.....	45
Investigative Question 2 .....	45
Investigative Question 3 .....	46
Investigative Question 4 .....	47
Recommendations for Action .....	47
Implications.....	48

Recommendations for Future Research .....	49
Conclusion .....	50
Bibliography .....	51

## List of Figures

	Page
Figure 1: Global CRG Laydown (Shrier, 2013) .....	2
Figure 2: 36 CRG Organization Chart (Shrier, 2013).....	9
Figure 3: 435 CRG Organization Chart (Shrier, 2013).....	10
Figure 4: 621 CRW Organization Chart (Shrier, 2013).....	11
Figure 5: Deployed CRG Organization & Composition (Shrier, 2013) .....	12
Figure 6: Team Size Demand .....	28
Figure 7: Disaster Management Cycle & Speed of Response (Cozzolino, 2012) .....	32
Figure 8: Joint Phasing Model (Joint Chiefs of Staff, 2012) .....	33
Figure 9: 36 CRG Proximity to Key Pacific Locations (36 CRG Mission Brief, 2014) ..	43

## **List of Tables**

	Page
Table 1: Interviewee Demographics .....	19
Table 2: Peak UTC Demand and Actual Manning of Core Mission Areas .....	29
Table 3: Multiplication Factors Where Demand Equals Assigned Manning .....	30

# **ALTERNATIVES TO CONTINGENCY RESPONSE GROUP ORGANIZATION: TRADEOFFS TO BALANCE CAPABILITY AND CAPACITY**

## **I. Introduction**

*“Achieving global agility requires adequate transportation capabilities and the ability to quickly open sea and air ports in or near the operational area. Creating those capabilities, in sufficient capacity, will be critical to implementing globally integrated operations successfully.”*

*–General Martin Dempsey*

### **Background, Motivation, and Problem Statement**

An increasingly complex global operating environment coupled with decreasing Air Force personnel strength levels demands that AMC reevaluates how it accomplishes its Rapid Global Mobility mission. The 2013 Mobility Air Forces (MAF) Strategy highlights this necessity stating that “more than simply being effective, we must redouble our efforts to become more efficient” (Air Mobility Command, 2013, p. 1). This push for efficiency has been a familiar theme within the Air Force for several years. Despite this push, the Air Force is facing unprecedented budgetary challenges that will force a change in mindset from being more efficient for the same level of effectiveness to that of finding areas where it can trade effectiveness for cost savings. This new approach will entail making real tradeoffs between capability effectiveness and capacity that will have to be applied to the entire mobility enterprise. This includes capabilities and capacity within airlift, air refueling, aeromedical evacuation, and air mobility support. Although air mobility support encompasses numerous enablers of global reach, this paper focuses on contingency response forces (CRF) that execute missions to “quickly open airfields and

establish, expand, sustain, and coordinate air mobility operations” (621st Contingency Resonse Wing (CRW) Fact Sheet). When in-garrison, CRF are organized in a CRG.

The following commands have CRGs: the Air National Guard (ANG), Pacific Air Forces (PACAF), United States Air Forces in Europe (USAFE), and AMC. See Figure 1: Global CRG Laydown.

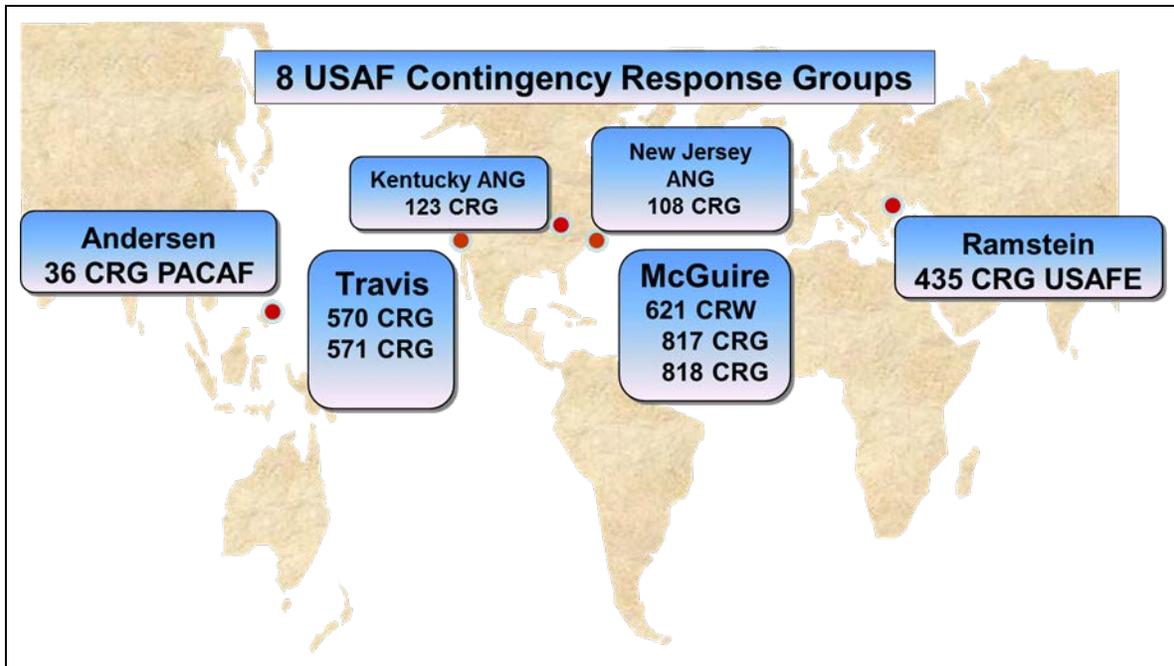


Figure 1: Global CRG Laydown (Shrier, 2013)

The ANG has two CRGs, the 123 CRG in Kentucky and the 108 CRG in New Jersey. PACAF has a single CRG, the 36 CRG in Guam. USAFE’s sole CRG, the 435 CRG resides in Germany. The PACAF and USAFE CRG are active duty units.

AMC has four CRGs to provide initial air base opening capability, two at Travis Air Force Base (AFB), California and two at Joint Base McGuire-Dix-Lakehurst (JB-MDL), New Jersey.

Given the eight CRGs identified above, the potential for excess capacity and unneeded redundancies exists. While this paper contends that decreasing capacity could eliminate unnecessary redundancies, it is important to not focus solely on the number of CRGs. Instead, one must emphasize the capabilities being presented by the CRGs and not the CRGs themselves.

### **Research Focus**

Although this paper considers the overall contributions and capacity to contingency response capabilities made by the ANG, it focuses on potential changes that could be made to active duty organizations. Specifically, this research aims to objectively identify and weigh options to meet CRF requirements with minimal mission degradation through changes to current active duty CRG organizations.

It is also important to note that even though two of the 621 CRW's CRGs have Mobility Support Advisory Squadrons (MSAS) that conduct building partner capacity missions, this research concentrates on the mission of air base opening. Additionally, the COSGs have air mobility liaison officers (AMLOs) aligned under them that have the mission of providing mobility expertise to Army and Marine Corps brigade and division level commander. This paper will not address changes to the MSAS or AMLO organization, capability or capacity. Instead, this paper will examine the functions of command and control, aerial port, and maintenance common throughout all CRGs. Given these functions, this research will encompass the CRG mission sets of air base opening (ABO), expeditionary air mobility support (EAMS), and Joint Task Force Port Opening (JTF-PO).

## **Research Objectives/Questions/Hypotheses**

The primary goal of this research is to determine how changes to the manning and organization of the current active duty CRGs might impact the contingency response missions of ABO, EAMS, and JTF-PO. Specifically, this paper seeks to illustrate the tradeoffs involved in resource savings initiatives with mission accomplishment. In order to make this determination, the following investigative questions must be addressed:

### **Investigative Questions**

1. What tradeoffs to capability are associated with pooling CRF at Travis AFB and JB-MDL within a single CRG at each location?
2. What tradeoffs to capability are associated with reducing the size of the 621 CRW's CRGs in addition to combining CRGs as described in investigative question 1?
3. What tradeoffs are associated with AMC centrally managing PACAF and USAFE's CRGs?
4. What tradeoffs are associated with AMC divesting some of its CRF to geographic focused commands like PACAF and USAFE?

### **Methodology**

This paper used interviews of a cross-section of contingency response subject matter experts to gain insights on how CRF might be organized to produce personnel savings. In the course of these interviews the researcher sought to discover recurring themes of perceived redundancies, potential tradeoffs between flexibility, capabilities and resources, limiting factors to capabilities, and metrics that CRF should be measured against. In addition to interviews, this paper used quantitative data from AMC/A3CM, 36 CRG, and 435 CRG to analyze capacity and CRF demand so that the above questions and metrics could be better understood in terms of actual feasibility. The feasibility of

options should in turn help senior leaders better understand the impact changes will or will not potentially have on mission accomplishment. Research methodology will be further discussed in Chapter III.

### **Assumptions/Limitations**

During the course of this research several important assumptions were made. The first assumption is that the consolidation the 621 CRW's four CRGs to one location will not take place and therefore was not considered as an investigative question although it seems likely a source of efficiency. This assumption is based primarily on observations from previous studies that the loss of CRGs at either Travis or JB-MDL is politically unacceptable (Self, 2009). The next assumption is that the 12-hour JTF-PO alert requirement for a CRG cannot be dismissed as excess capacity. Although rarely used for contingencies to date, this alert represents a combatant command requirement that must be factored in when discussing future organizational capability and capacity options. Another assumption is that the individuals interviewed represent the most appropriate sources of knowledge and expertise regarding key criteria for CRF organization and operations. The selection of interviewees is further discussed in Chapter III. The key limitation to this research is found in the use of historical demand data to determine required manning levels. Although historical demand most likely will not equal future demand, it was necessary to use this data to conduct a demand and manning analysis that accounts for routine demand for CRF in support of global mobility operations, required provisional demand for JTF-PO, and actual manning levels of the CRGs.

## **Implications**

Although this paper will not focus on the history of CRGs, it is important to highlight that CR forces have made significant contributions across the spectrum of military operations ranging from combat operations to humanitarian assistance in the past 12 years. To continue to remain relevant in a resource constrained environment, mobility leaders must find ways to balance this important capability with the reality of fiscal and personnel capacities. This research seeks to offer MAF leaders with several options that trade manpower savings for minimal impact to CR capabilities provided to combatant commanders. In doing so, this research sets out to highlight opportunities to eliminate overhead, align limited resources to critical mission capabilities, and ultimately drive a more globally integrated view of CR. As with most cost savings measures, reduced costs will most likely be accompanied with a reduction in capability. This paper seeks to set forth options that balance cost savings in terms reduced CRF capacity with retaining critical capabilities. Achieving this balance between capacity and capability is a painful, yet necessary task if CR leaders intend to guarantee CR remains viable in a time of uncertainty.

## II. Literature Review

### Chapter Overview

This chapter provides background about several important issues that help answer the research and investigative questions posed in Chapter I. This chapter examines current Department of Defense (DoD) guidance and policy regarding CRGs and CR forces by examining Joint and Air Force doctrine and instructions. *Joint Publication 1, Doctrine for the Armed Forces of the United States* (JP-1) offers that doctrine is authoritative guidance that incorporates best practices learned over time with the purpose of providing direction to those who support or are supported by joint forces. JP-1 also states that doctrine is closely tied to policy with the key differentiation being that “policy can direct, assign tasks, prescribe desired capabilities, and provide guidance for ensuring the Armed Forces of the United States are prepared to perform their assigned roles” (Joint Chiefs of Staff, 2013). For the purpose of this literature review policy is found in the form of instructions. The guidance and policy related to CR center around three important issues: the purpose of CRF, the organization and sizing of CRF, and requirements CRF must meet. Finally, this chapter reviews applicable previous CR and CRG research. This review offers valuable background on CRF as well highlights a gap in research that this paper hopes to fill.

### *CRF Purpose*

Joint Publication 3-17 highlights that CRF enable rapid global mobility by assessing, opening, and initially operating airbases for the United States Air Force component of their combatant command (Joint Chiefs of Staff, 2013). This CRF provide

the three core air mobility support functions of command and control, aerial port, and aircraft maintenance. When needed CRF can also provide weather, civil engineering, security forces, medical, contracting, finance, communications, logistics, and airfield operations functions (Curtis E. Lemay Doctrine Center, 2013). The Capstone Concept for Joint Operations: Joint Vision 2020 highlights the important role these CRF functions will play in future DoD requirements. Offered by the Chairman of the Joint Chiefs of Staff, this document proposes the idea of globally integrated operations predicated on speed and agility of forces. The document states that global agility and operational reach require rapid expeditionary basing.

### ***CRF Organization and Sizing***

The preponderance of CRF resides in AMC, although “USAFE and PACAF have CRGs which are usually the first source of CR forces for contingencies within their theaters” (Curtis E. Lemay Doctrine Center, 2013, p. 89). The PACAF CRG consists of four squadrons: the 36 Mobility Readiness Squadron, the 736 Security Forces Squadron, the 554 Red Horse Squadron, and the 644 Combat Communications Squadron. Figure 2 displays the CRGs organization structure.

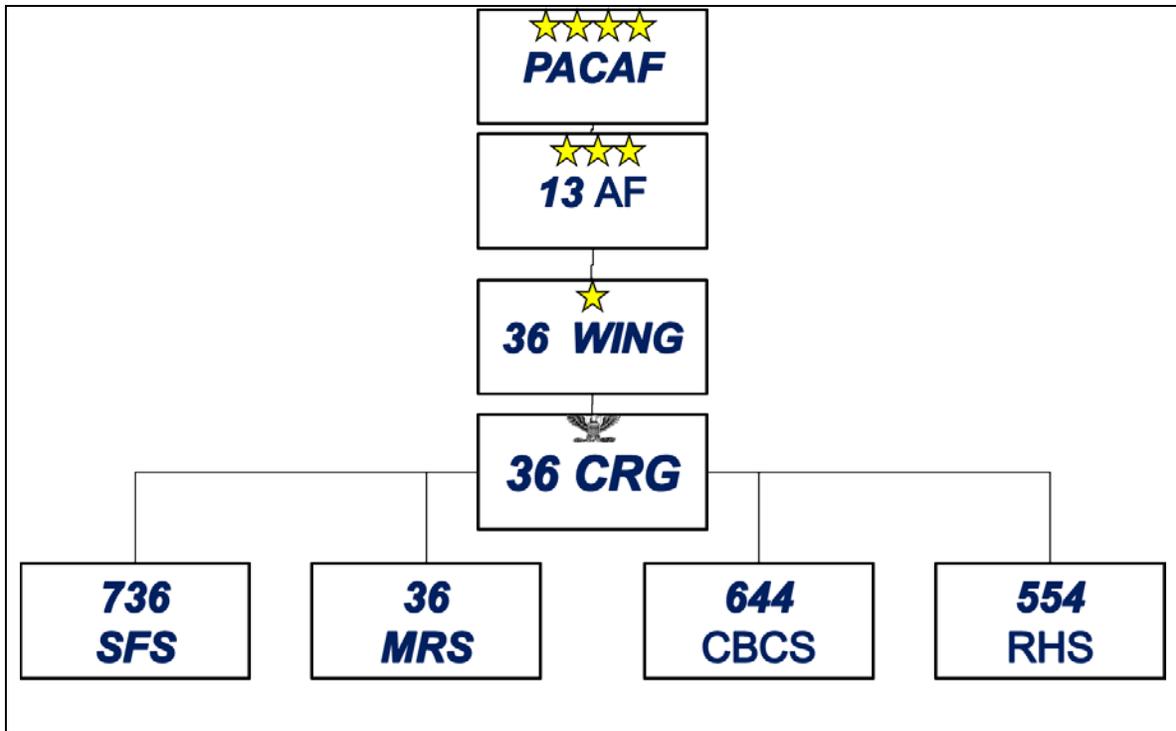


Figure 2: 36 CRG Organization Chart (Shrier, 2013)

The USAFE CRG consists of three squadrons: the 435 Air Mobility Squadron, the 435 Security Forces Squadron, and the 435 Construction and Training Squadron. Figure 3 outlines the 435 CRG organization structure.

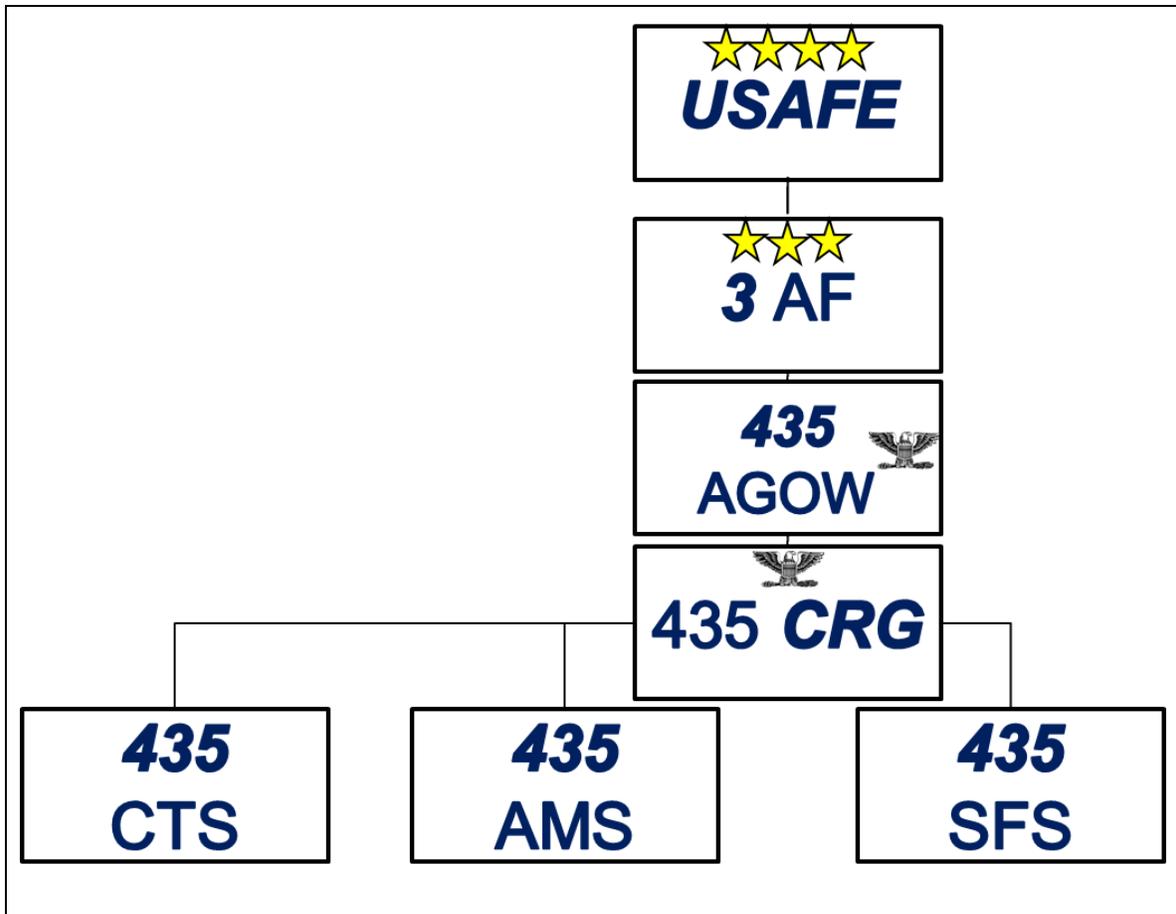
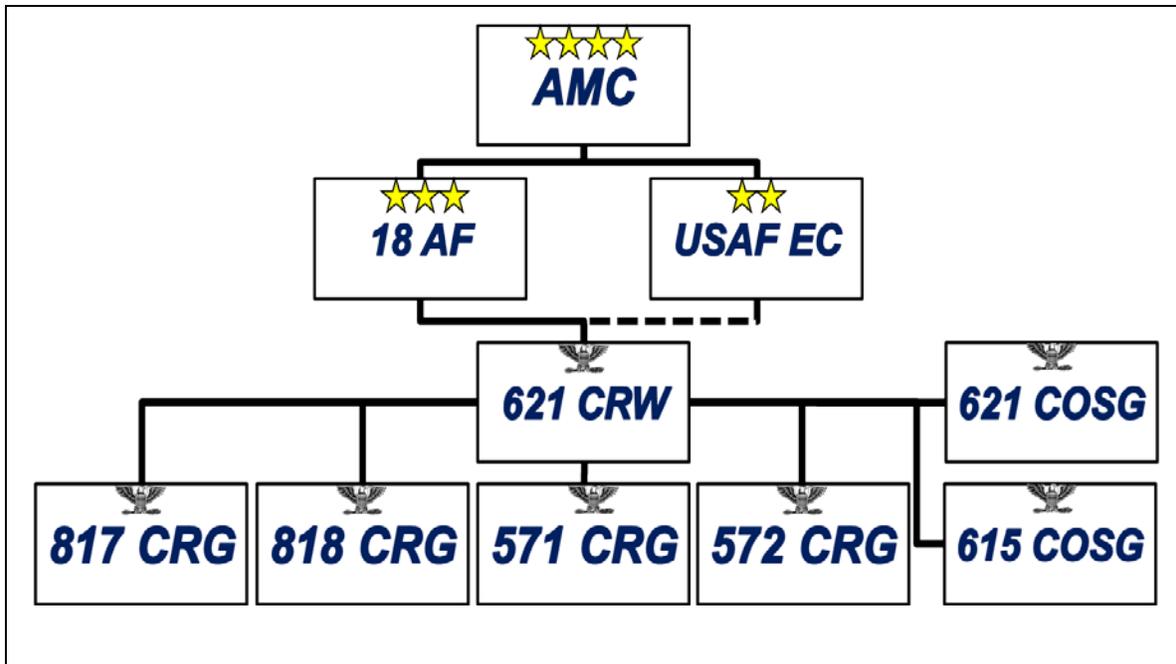


Figure 3: 435 CRG Organization Chart (Shrier, 2013)

AMC's single CRW, the 621 CRW does not deploy, but instead coordinates the readiness of subordinate contingency elements to providing mobility support in the areas of enroute support, ABO, BPC, Air Mobility Division augmentation and AMLO capability (Joint Chiefs of Staff, 2013). In addition to four CRGs, the 621 CRW also has two Contingency Operations Support Groups (COSGs), one located at both Travis AFB and JB-MDL (Shrier, 2013). Figure 4 summarizes the 621 CRW organization structure.



**Figure 4: 621 CRW Organization Chart (Shrier, 2013)**

In-garrison CRGs produce a deployed CRG that normally consist of 113 personnel and 257.6 short tons of cargo. This deployed organization also represents the commonly referred to alert force as well as the air element of JTF-PO (Brunhaver, 2009).

Figure 5 depicts the normal makeup of the deployed CRG.

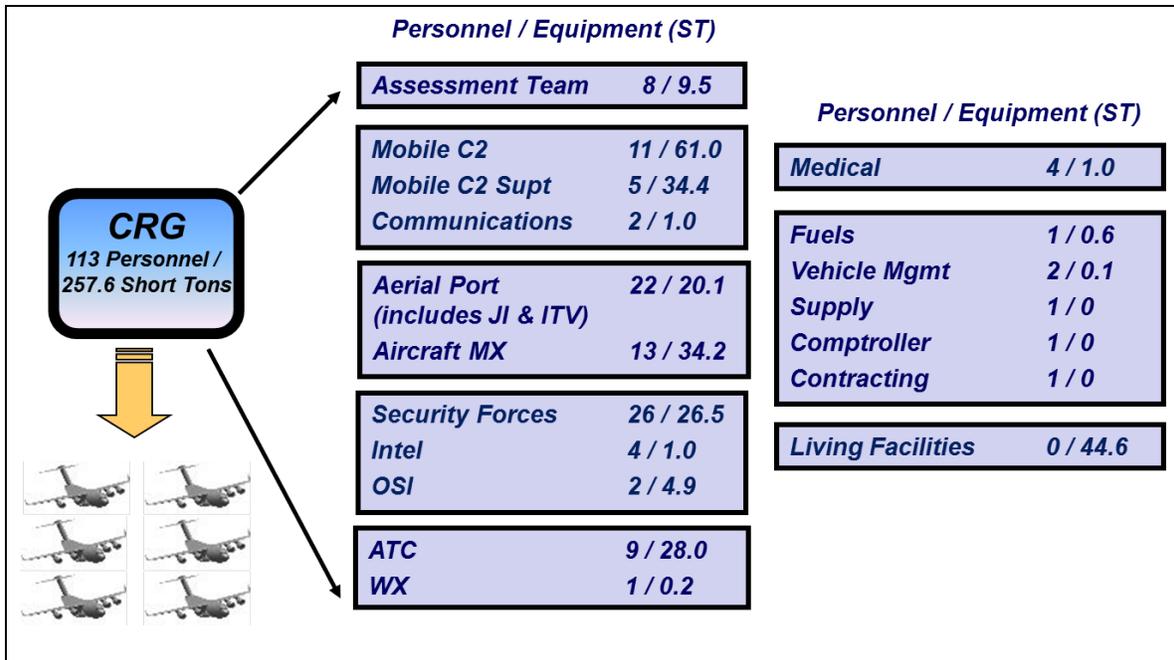


Figure 5: Deployed CRG Organization & Composition (Shrier, 2013)

CRGs are normally commanded by an O-6 and structured to support a maximum on ground (MOG) of two aircraft, 24-hours a day (Joint Chiefs of Staff, 2013).

The next deployable organization found within the CRG is the Contingency Response Element (CRE). CREs provide the three core functions of command and control, aerial port, and maintenance where mobility support is insufficient (Curtis E. Lemay Doctrine Center, 2013). The size of a CRE depends on the requirement. CREs are commanded by a rated officer and support 24 hour operations (Air Mobility Command, 2009). A contingency Response Team (CRT) also performs the three core functions identified above, but on a smaller scale (Curtis E. Lemay Doctrine Center, 2013). CRTs are led by an enlisted supervisor and provide 12 hour operations and 24 hour command and control (Air Mobility Command, 2009).

### ***CRF Requirements***

Active duty CRF must maintain readiness to deploy within 12 hours through the CRG alert force identified above (Joint Chiefs of Staff, 2013). This 12 hour readiness supports United States Transportation Command's (USTRANSCOM) JTF-PO requirement as the air element. Once the initial CRG is alerted, the next unit must be ready to assume alert within 96 hours. In addition, TRANSCOM requires up to three JTF-PO capabilities at one time. Although TRANSCOM does not stipulate how large these capabilities must be, it does define general capabilities in terms of heavy (bare base and uncertain environment with a MOG of 2 C-17s for 24-hour operations), medium (established airfield in a permissive environment with a MOG of 2 C-17s for 24-hour operations), and light (established airfield in a permissive environment with a MOG of 1 C-17 with 12-hour, daylight only operations) (Cox, 2013).

### **Previous Research on CRGs**

The research most closely aligned with this paper stems from an Air Force Institute of Technology Graduate Research Paper (GRP). Bufford's 2008 GRP, "Contingency Response Groups: How Many Do We Really Need" uses a case study methodology and personal interviews to contend that the Air Force needs three fully manned CONUS active duty CRGs, two ANG CRGs, and one CRG in each PACAF and USAFE. Several issues with this paper and its conclusion require further discussion. First, Bufford's unit of analysis is the CRG. I contend that a better unit of analysis is the capability a CRG can offer at the CRE and CRT levels. In addition, Bufford bases his conclusion on the assumption that each CRG will be manned to 100 percent. This

assumption has proven untenable. I contend that real-world manning levels make the number of CRGs less important than the amount of global capability CRF can project. Finally, despite mentioning PACAF and USAFE CRGs, Bufford's paper is overly focused on AMC's CRF (Bufford, 2008). Bufford fails to take into account the actual capabilities of PACAF and USAFE. Given this, Bufford's paper was unable to look at any real tradeoffs that could be made between CRGs worldwide. This paper hopes to fill this gap in research.

### **Summary**

This chapter provided background on current guidance and policy that provides required information concerning CRF purpose, organization and sizing, and requirements. In addition, it highlighted previous research regarding CRGs.

### **III. Methodology**

#### **Chapter Overview**

This chapter details the processes used to collect, analyze, and interpret data to increase understanding and present alternatives for CRF organization. This paper gained information and data using the following methods: qualitative interviews, reports and document review, and quantitative archival data review and analysis. This combination of methods and their associated data were used not only to address different aspects of the investigative questions, but also to gain a greater understanding of the relationship between the data. Furthermore, by using multiple methods, the researcher sought to overcome the potential for this paper to only focus on opinions regarding CRF and their organization. In order to increase reliability and viability and decrease bias, this paper pursued gathering the above data from numerous sources across each organization with an active duty CRF (AMC, PACAF, and USAFE). This approach attempted to capture the views of each stakeholder organization, and quantitative data related to these views when available.

#### **Interviews**

##### ***Structure, Purpose, and Questions***

The researcher conducted 16 semi-structured interviews with CR subject matter experts. Before discussing the purpose and questions of the interviews, it is important to discuss why the researcher used a semi-structured interview approach. Unlike a structured interview where a “researcher asks a standard set of questions and nothing more,” semi-structured interviews allow for tailored follow up questions to “get

clarification or probe a person's reasoning" (Leedy, 2010). The standard set of questions allows the researcher to address the same information across interviewees. One major advantage of the semi-structured interview compared to a structured interview is the ability of a researcher to gain a more thorough understanding of answers provided (Harrell, 2009). This advantage was especially beneficial in this research given the lack of CR experience and limited knowledge held by the researcher prior to this project. The major drawback of the semi-structured is the potential for a lack of reliability of the data. The interviewer must balance deviating to gain clearer or more information as discussed above while maintaining a somewhat standardized approach so that data can be compared between interviews (Barriball, 1994).

The purpose of the interviews was twofold. First the researcher intended to gain insight into CR operations with the specific focus on identifying characteristics upon which CRF and CR organizations should be judged against. This data was targeted in order to have a set of metrics that could be used to determine the impact of potential changes to CR organizations. These metrics were seen as the starting point for offering a benchmark of the effects tradeoffs between mission and resources would have. Second, the researcher intended to obtain insights that could lead to courses of action development. These insights focused on the interviewees' perceptions of the organization and effectiveness of CRF. Initial questions were posed in order to gain an understanding of areas that could be addressed that would result in resource savings through the elimination redundancies within CR organizations. Follow on questions addressed capabilities of CR organizations that were underutilized. After a brief

explanation of the purpose of the research, the research asked the following set of standard question:

1. What attributes of CRGs and CRF contributed most to mission success?
2. What barriers existed to mission success?
3. During your CR experience, what was the demand for forces?
4. How could CRGs be better organized or sized to optimize use?
5. What redundancies or inefficiencies, if any, could be changed within CRGs?
6. Are there any other issues regarding CRGs you would like to discuss?

In order to glean as much information as possible, the researcher attempted to ask these questions in an open-ended manner that allowed the interviewees to take whatever direction they saw fit. The set of questions was not sequentially followed during each interview. The researcher used the set of questions above as a guide for those items that needed to be addressed, but followed responses with questions from the list that made the most sense at the time or with alternative questions to probe more into the answers offered. The researcher limited the interviews to one hour. Several of the interviewees were gracious in allowing for follow-up questions via email.

### *Selecting Interviewees*

Individuals were selected that currently are or previously were assigned to CRWs, CRGs, or organizations directly linked to CR. In order to more accurately capture a holistic view of the CR enterprise and avoid an overemphasis of any specific tribal views, the interviewer found interviewees from AMC, PACAF, and USAFE. Furthermore, several opportunities for interaction with Joint and Air Force mission partners were used to discuss CRF performance. When interviewing mission partners the researcher did not

use the standard question set listed above. Instead questions focused on the relationship between the partner, the theater CRG, and United States Transportation Command (TRANSCOM). In addition to ensuring this study interviewed members from all active duty organizations in the CR enterprise, the researcher attempted to interview members at all levels of the organizations. This approach sought to gain viewpoints not just from senior CR leadership, but to also include perspectives from individuals at the mission execution level. For instance, the researcher found a cross-section of interviewees within AMC's CRF at the wing, group, and squadron levels. Finally, when able within the above framework the researcher attempted to maximize the number of former CR members interviewed. This attempted weighting towards former members sought to decrease potential bias introduced by current CR members potentially being more emotionally tied to the organizations, practices, and processes being studied. The researcher saw value in finding individuals who had a chance to take a step back from their experience. No former CR member interviewed had been removed from his last CR position more than three years. This structured sampling of multiple individuals representing multiple organizations at a variety of levels and when able not currently associated with CR attempted to counter any potential bias in the data. Table 1 summarizes demographics of those interviewed.

**Table 1: Interviewee Demographics**

Rank	Highest Position Held	Level(s) within Organization	CRG Association
Col	Commander	Wing	621
Col	Deputy Commander	Group	621
Lt Col	Inspector General	Group, Squadron	621
Maj	Operations Officer	Squadron	621
Maj	Asst Operations Ofcr	Squadron	621
Maj	Director of Staff	Group, Squadron	621
Maj	Cmdr's Action Group	Wing, Squadron	621
Maj	Chief of Training	Wing, Squadron	621
Col	Commander	Wing	435
Col	Commander	Wing	435 Mission Partner
COL	Chief of Staff	Command	435 Mission Partner
COL	Operations Officer	Command	435 Mission Partner
Lt Col	Commander	Squadron	435
Lt Col	Operations Officer	Squadron	435
Lt Col	Deputy Commander	Group	36
Capt	Chief of Plans	Squadron	36

**Document Review**

In addition to the doctrine and regulations highlighted in Chapter II, the researcher also reviewed numerous after action reports, lessons learned reports, previous capabilities studies, and mission briefings from each of the CRGs. After action and lessons learned reports were studied to find concrete examples of CR operations that might highlight attributes that contribute to or present barriers to mission accomplishment. The researcher wanted to find real-world examples that tied to the criteria found during the interview process of this research. The purpose of this review was to create a more robust understanding of CR operations from actual experiences. Previous capabilities studies were reviewed to add context and understanding to the demand aspect the investigative questions. Data from these demand studies represents requirements for meeting operational plan requirements. Finally, mission briefings from the 621 CRW, 435 CRG, and 36 CRG were reviewed to gain insight into each

organization's structure and mission focus. The command or mission briefings also provided the opportunity to compare and contrast between the organization of each active duty CRGs.

## **Quantitative Data**

### ***Deployment Data: Purpose***

The next source of data for this study focuses on CRF demand and was provided by AMC in the form of deployment and temporary duty information for the CRE core mission areas of aerial port, command and control, and maintenance of the 621 CRW CRGs. The deployment data also included security forces for each tasking if required. Including security forces to the three core areas allowed the researcher to gain insight into the range of operations from permissive to uncertain environments. The deployment data was extracted from a personnel tracking database and emailed as two excel spreadsheets from AMC/A3CM to the researcher. The deployment data represented actual demand from United States Northern Command (NORTHCOM), United States Southern Command (SOUTHCOM), United States Central Command (CENTCOM), and United States Africa Command (AFRICOM) for the core mission areas of both the Travis AFB and JB-MDL CRGs over a 15 month period from October 2012 to January 2014.

### ***An Approach to Determine Demand***

During the 15 months under investigation, the CRGs of the 621 CRW executed 166 deployments consisting of at least one segment of aerial port, command and control, maintenance, or security forces (herein also referred to as Unit Type Code(s) or UTC). The total number of airmen deployed during these 166 taskings was 856. These 856 CRF

and the 166 deployments were analyzed to determine two aspects of demand: team size and peak UTC demand. The process of calculating these demands will be discussed in Chapter IV.

#### ***An Approach to Account for Actual Manning***

Additional data used related to this topic included manning authorizations as well as actual number of personnel assigned to the CRGs of the 621 CRW. This data, also provided by AMC/A3CM, reflected manning levels as of August 1, 2013, approximately the midpoint of the deployment data. Manning levels were provided for both Travis and JB-MDL on separate excel spreadsheets. Because the demand analysis framed above did not differentiate between the two bases, the manning levels were combined to represent that found within all CRGs under the 621 CRW. The deployment demand aspects from above were compared against the actual manning of Air Force Specialty Codes (AFSCs) that made up the UTCs of the 166 deployment teams. Specifically, this comparison used the peak UTC demand for each of the four core mission areas and compares it to the total number of personnel assigned to AFSCs that comprise each of the four UTCs demanded. This analysis allows the research to see how the capacity of aerial port, command and control, maintenance, and security forces compares to its demand. Stopping the comparison as a total AFSC capacity versus demand does not reflect a truly accurate picture of how the two compare in reality.

#### ***An Approach to Account for JTF-PO Demand***

In order to present the most accurate picture of demand given the assumptions listed in Chapter I, JTF-PO required UTCs that mirror those examined above must also be accounted for in this study. This JTF-PO demand for aerial port, command and

control, maintenance, and security forces is highlighted in Figure 5 and result in the need to add additional demand to the peak UTC demands. The key question regarding this demand is how many JTF-PO capabilities must be present. The researcher assumed that each coast must have one JTF-PO capability at all times given TRANSCOM's requirement for a total of three capabilities across active duty and National Guard units. The two JTF-PO demands can be added to peak UTC demand to get a true demand for aerial port, command and control, maintenance, and security forces.

### *An Approach to Account for Circumstances Preventing Deployment*

Although the comparison outlined in the paragraphs above reflects total number on hand versus demand, it fails to take into account work and life events that prevent individuals from being able to deploy. Reasons for non-deployable status include members being on leave, medially restricted, at training, on temporary duty, or in spin-up for an alert cycle. These reasons effectively reduce the number of pax available to meet demand. Although no definitive guidance exists as to how to accurately plan for these non-deployable factors, several actions have been witnessed by the researcher. The first is to "fence" a percentage of your assigned personnel as hypothetically non-deployable to be able to plan for total forces available. Although this 10-20 percent reduction accounts for the reasons listed above, it ignores customer demand. For this reason, in this study the researcher opted to apply a multiplication factor to demand. In this case planners determine how many individuals on hand it will take to ensure one pax deploys for every one pax demanded. This might be accomplished with a red-amber-green cycle where three individuals are assigned to make sure a green cycle is filled with one pax for deployment. In that case a factor of 3.0 would be multiplied to demand. Other schools of

thought encourage a 2.0 factor meaning that for every one pax needed to deploy there are two assigned. The 2.0 factor allows for one individual to be at training, on leave, or medically unavailable and one individual to be available to meet demand. Most recently the researcher was in a unit that had an alert package of 54 individuals and required a pool of 130 per alert cycle to make sure demand was met. In that case a 2.4 ratio proved to be sufficient to allow for non-deployable members as well as act as a safeguard to spikes in demand compared to historical averages.

Returning to the study in question, the multiplication factor represents a necessary assumption to continue this research process. The multiplication factor allows for a more realistic comparison between assigned personnel and demand. The multiplication factor at which there would be zero excess for each mission area was determined by dividing actual manning by demand. The zero excess multiplication factor represents an amount of buffer between manning and demand. Once again it is critical to note that this demand is predicated on historical data.

## **Summary**

This chapter highlighted the research framework for this paper. When combined, the three-faceted approach of interviews, document review, and qualitative data analysis allows for recommended changes to CRF organizations. The framework also allows for an understanding of the associated costs of those changes in the form of tradeoffs between resources and aspects of mission accomplishment. The next chapter will examine the results of this research beginning with the results of the semi-structured interviews.

## IV. Results and Analysis

### Interview Results

During the course of the interviews outlined in Chapter III, answers to first six questions and associated follow up questions can be grouped into four categories:

1. Answers that interviewees across CRG associations all generally offered and could be assumed they all agreed upon
2. Answers that interviewees specific to either the 621 or the theater CRGs offered and seemed to agree upon with the same associated CRG interviewees, but was neither agreed with or disagreed with by the opposite associate. These answers were repeated within associated CRGs, but others associated with the opposite CRGs did not mention or noted it was not an issue.
3. Answers offered by interviewees from the same associated CRG that reflected disagreement on an issue
4. Answers offered agreed upon within the same associated CRG, but disagreed upon by members associated with the opposite CRG.

Before offering examples of answers from each of these categories, one important observation deserves mentioning. Answers from interviewees associated with either the 36 CRG or 435 CRG tended to match across the board. The cohesive nature of their answers likely stems from the similar organizational structure of the theater CRGs. This lead to results that tended to center on two actual associations: those to CRGs of 621 CRW and those to theater CRGs.

#### *Category 1: General Agreement*

Answers to question number 1 related to attributes adding to mission success that fall into this category include speed of response and the importance of training. Within answers related to training, it was generally agreed that unit integrity during training and

exercising with potential partners are important attributes. Regarding demand for forces, members across all associations noted that actual demand for CRF resides not for CRG as a whole, but for pieces of it at CRT to CRE levels. Finally, frustration was expressed by all members related to the lack of use of alert forces at each location. Members across associated CRGs feel that the alert force should be used when contingencies arise instead of sourcing for the contingency outside of members in the alert cycle.

***Category 2: Answers agreed on within associated CRGs, but not as important to those associated to other CRGs.***

The first answers in this category are 621 specific and both relate to question 5 addressing redundancies and inefficiencies within the CRGs. The first agreed upon answer between members associated with the 621 that was not important to the theater CRGs is the consensus that there are too many colonels assigned to the 621 CRW's CRGs given the size of the entire CRW is roughly only 1300-1500 personnel. The second issue that falls in this category is the belief that unneeded redundancies exist in having each CRG manage its own training resources when it could be accomplished under one organization. Although it would be inaccurate to state that members interviewed associated with the 621 CRGs were not concerned with capacity, they did not share the same level of concern with capacity in terms of ability to meet customer demand as expressed by the theater CRG associated members. Theater interviewees noted this in terms of a barrier to mission success offering that they witnessed unmet taskings and the need to rely on CONUS based forces to meet demand.

***Category 3: Answers that reflect disagreement between members associated with the same CRG***

Answers in this category focus on the 621 CRG associated members and their perceptions regarding the optimal sizing for CRGs. Members were split on the sizing required with three members stating the size was about right given steady demand, two members offering that the key to sizing the CRGs is to account for manning percentage and actual number of individuals available for deployment, and three members offering that they perceive the current size of the CRGs to be too large. Of the three interviewees that saw the CRGs as oversized, one pointed to their experience that the CONUS CRGs routinely spin-up for deployments, but are not called on due to the theater CRGs being tasked. The side members took on this issue were interestingly not tied to rank or level of position held.

***Category 4: Answers agreed upon within the same associated CRG, but disagreed upon by members associated with the opposite GRG***

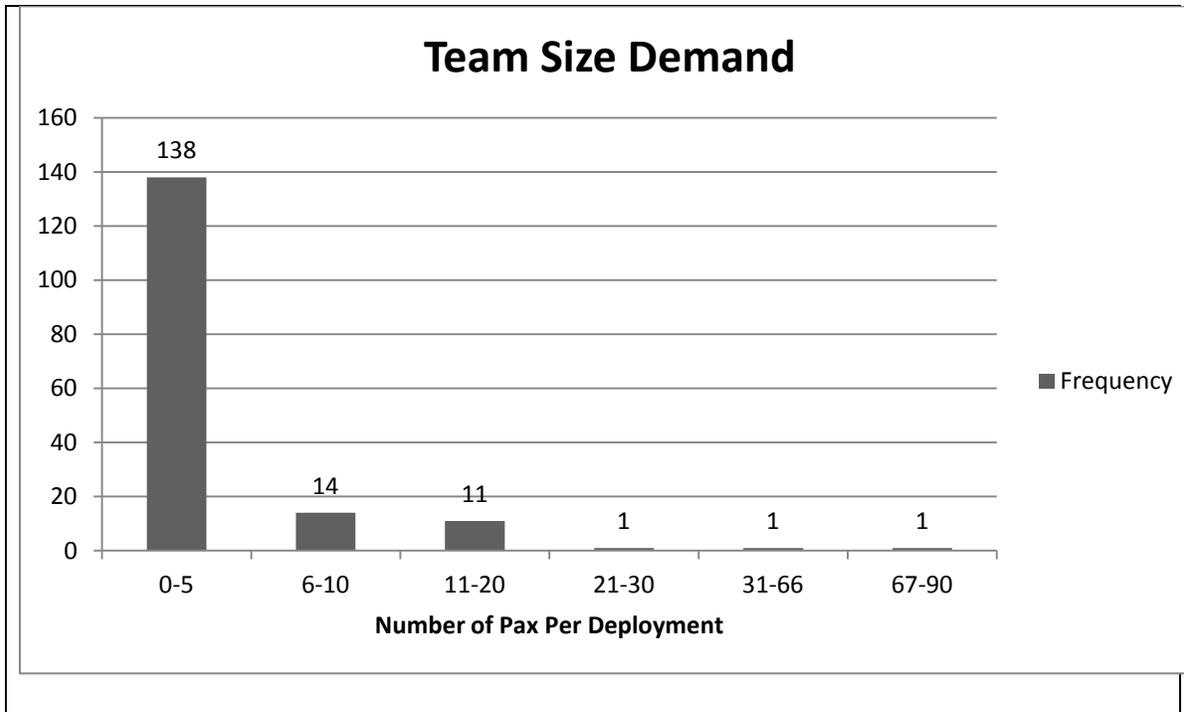
Answers in this category also focus on Question 4 and ways to organize CRF differently. Specifically, answers to whether TRANSCOM, through AMC, should control the theater CRGs highlighted a disagreement. Interviewees associated with the 621 were generally in favor this course of action while theater and theater partners were against it. The theater interviewees expressed the opinion that they felt local commanders could better manage and make use of its forces. Several members associated with the 621 noted that the central management AMC could offer would facilitate clear tasking authority for all CRF to include the theaters.

Answers in the categories above will not only help address this research's investigative questions, but also will help in measuring the implications of potential changes made to CR organization and sizing.

## **621 CRW CRG Demand and Manning Analysis**

### ***Team Size Demand***

The first aspect of demand analyzed was the total team size of each deployment and is determined by adding all of the airmen (herein referred to as “pax” in regards to deployment) departing for the same location on the same day. The team size demanded was independent of UTC and was used to determine the demand in relation to CRG, CRE, CRT sized capability. Team size demand over the 15 months and 166 total deployments is highlighted in Figure 6.



**Figure 6: Team Size Demand**

As can be seen in Figure 6, the majority of deployments assessed in this 15 month period consisted of teams of less than five individuals. In addition, 98.2 percent of deployments consisted of 20 or less pax. This data validates interview data that suggests demand for CRF is below the CRG level.

***Peak UTC Demand and Actual Manning***

The second demand aspect analyzed for the entirety of the 166 deployments was UTC makeup. This demand was used to determine what skill sets were requested by combatant commanders the most. This demand is dependent on UTC and required sorting each of the four UTCs. The highest demanded UTC was determined by adding the total number of UTCs and ranking them from highest to lowest. Although this number can help validate an overall demand signal for a UTC in comparison to the other three UTCs, the actual number demanded is of little use when attempting to organize a

finite amount of forces. Instead, UTC makeup and demand was further refined to determine each UTC’s peak demand (time with the largest number of pax deployed). In order to account for overlaps between deployments, a sliding 90 day window was used to determine peak demand. A limitation of the data provided by AMC was that it did not contain length of deployment. For this reason, the researcher used a +/- 45 day window (90 days total) based on AMCI 10-202v4 assertion that “contingency response forces deployments do not normally exceed 45 days” (Air Mobility Command, 2009). Peak UTC demand is calculated by adding each deployment pax for the specified UTC for any of the deployments that fall within the 90 day window. This peak demand offers a more useful number against which the organization of forces can be made. Once peak UTC demand is known, it can be compared to the actual manning levels related to the core mission areas. Peak UTC demand and assigned manning are summarized in Table 2.

**Table 2: Peak UTC Demand and Actual Manning of Core Mission Areas**

Core Mission Area	Number of Pax	Assigned Manning
Aerial Port	85	359
Command and Control	51	247
Security Forces	32	129
Maintenance	13	159

***Accounting for 2 JTF-PO Demands and Circumstances Preventing Deployment***

Table 3 summarizes the multiplication factors at which there would be no excess capacity in each mission area. This multiplication factor represents the buffer added to meet unknown demand and non-deployable members beyond historical peak UTC demand and two JTF-PO capabilities.

**Table 3: Multiplication Factors Where Demand Equals Assigned Manning**

Core Mission Area	Assigned Manning	Peak UTC Demand + 2 JTF- PO Demand	Multiplication Factor
Aerial Port	359	129	2.78
Command and Control	247	87	2.84
Security Forces	129	84	1.53
Maintenance	159	39	4.08

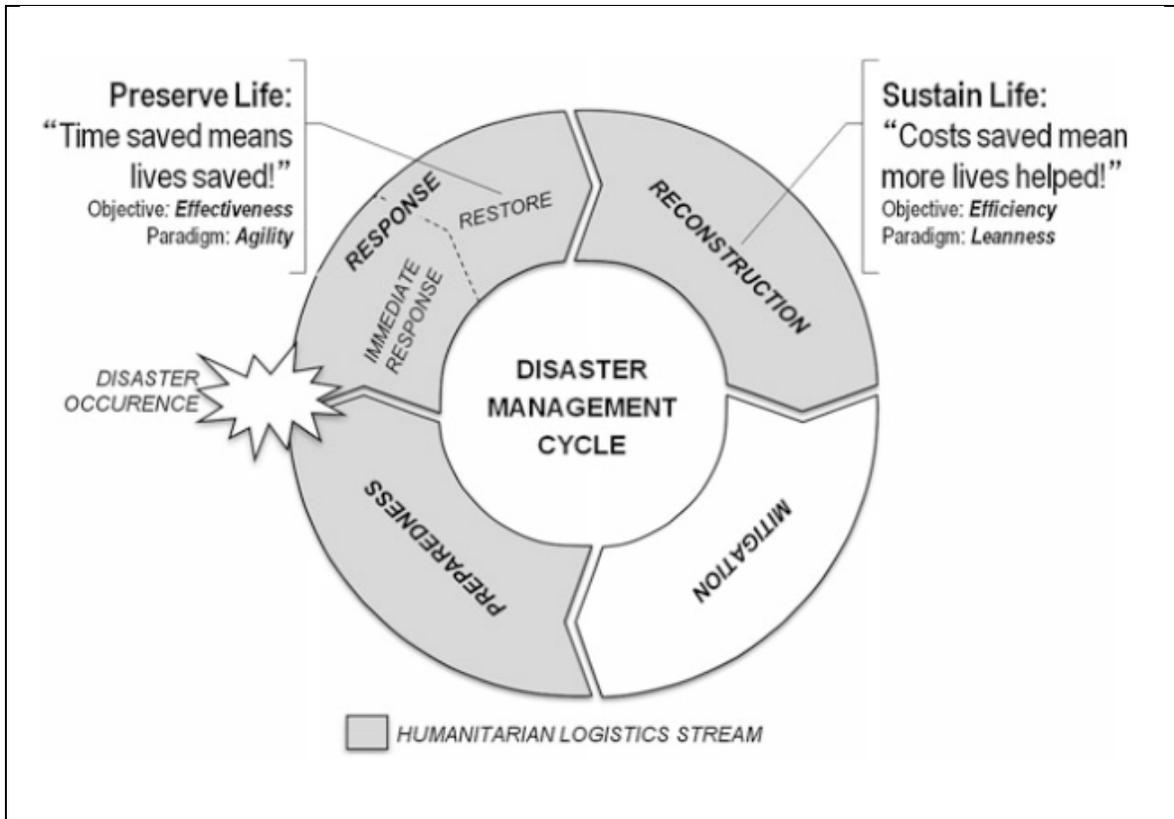
Table 3 represents the final demands on the core mission areas based upon three planning scenarios with differing levels of risk to each. The assumption that JTF-PO demand must be accounted for from in Chapter I will be discussed when reviewing Investigative Question 2 below. Commanders must decide if the multiplication factors listed in Table 3 warrant making changes to the number of JTF-PO ABO capabilities inherent in each of the CRGs. This risk decision will be further discussed below as well.

### **Implications**

Having examined the results of the interviews and analysis of demand versus capacity of the 621 CRW, it is necessary to highlight the metrics that surfaced as most important when judging the costs and benefits of CR organizations. Simply stated, these metrics offer decision makers with a list of critical capabilities, critical requirements and critical attributes that must be evaluated when making future decisions about the organization and allocation of CRF (Adapted from Phelps, 2011). The capabilities and requirements presented below are listed in order of importance.

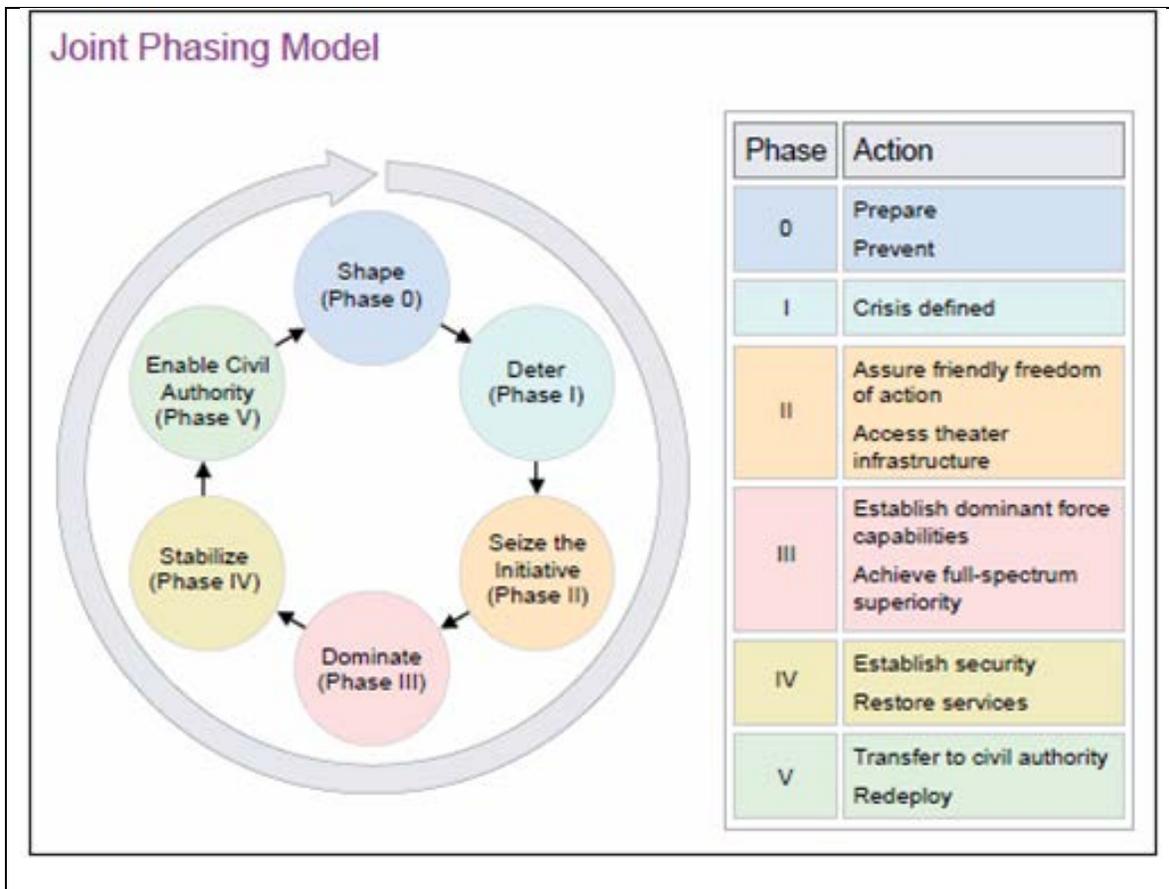
### *Speed of Response*

During interviews and through the examination of documents, speed was most often listed as the first and most important metric against which CRF and their operational impact should be judged. This observation about the importance of rapid response holds true across all organizations and at all levels of those interviewed. The paramount nature of speed can also be seen in the frequent reference to CRGs as a “9-1-1” force (435 Contingency Response Group, 2013). The focus on speed of response as a critical capability of CRF can be most easily seen in humanitarian assistance and disaster relief (HA/DR) operations. In these operations, speed of response is directly related to the amount of lives saved and the minimization of suffering (Cozzolino, 2012). Figure 7 depicts the typical disaster response cycle and highlights the critical capability of speed.



**Figure 7: Disaster Management Cycle & Speed of Response (Cuzzolino, 2012)**

Although HA/DR operations paint the easiest picture of why speed matters in CR, one would be wrong to assume that speed is less important throughout the spectrum of conflict to include combat operations. Whereas hours equate to lives saved in HA/DR, hours equate to gaining advantages against an enemy during combat operations. The speed at which CRF operate determine the speed at which joint force commanders can transition to different phases of operations (Joint Chiefs of Staff, 2012). For example, several CRF actions enable seizing the initiative or dominating. Figure 8 highlights the Joint Phasing Model and addresses key actions within each phase that facilitate movement into the next.



**Figure 8: Joint Phasing Model (Joint Chiefs of Staff, 2012)**

Given the above movement between phases, one could also argue that speed saves lives in combat operations as well by allowing for decisive advantages over the enemy to be gained.

Regardless of type of operation, three critical requirements enable the critical capability of speed. The first requirement for speed is access to airlift. As depicted in Figure 5, the full CRG deployment compliment requires six C-17 equivalents to move. Even when a smaller package such as a CRE or CRT deploys, airlift is required. A second requirement for speed is proximity to the area of operations. Miles between point of embarkation to point of debarkation determine how quickly CRF can begin doing their

job. The third requirement for speed is alert timeline. This requirement translates to how quickly CRF can mobilize the required members and equipment for movement. In conclusion, the three most important determining factors for speed are how quickly a unit can be prepared to move (alert timeline), its ability to move (access to airlift), and how far it must travel to accomplish its mission (proximity to the area of operations).

### *Utilization*

Another frequently recurring topic in interviews was utilization. Senior leaders and junior members both highlighted utilization as an important capability that must be examined when judging the value of CRF. In order for CRF to be viable, combatant command customers must have access to CRGs and use them. Several barriers to access surfaced during this research. The first barrier surrounded the ability of CRGs to reconstitute. The notion that many CRGs were a “one shot and done” capability was seen as reason to hesitate in using them (435 AGOW Briefing to ASAM, 2014). Closely related to this notion, many of the interviewees pointed to the opinion that utilization was negatively impacted because leaders above the wing level wanted to hold the CRG in reserve when an event took place in case a bigger event happened near simultaneously. The last barrier to utilization found during this research stems from the relationship between access to a CRG and who owns the CRG.

The critical requirements of utilization directly tie to the barriers to access mentioned above. Utilization is enabled by the following requirements: ability to access forces, ability to reconstitute forces, and sufficient capacity of forces. First and foremost, customers must have access to the forces they require to execute their assigned missions. In order for combatant commands to be comfortable using a CRG, it must be assured that

it will have access to another CRG if it needs to generate a maximum on ground (MOG) at another location within its theater. Because of this, reconstitution must be examined when analyzing capability tradeoffs. The requirement of sufficient capacity ties directly to reconstitution and is critical to the capability of utilization.

### ***Training and Leadership Synergy***

Many of those interviewed pointed to the value of sourcing CRF from the same group because of the synergy created by deploying with the same group that has trained together. This holds true for being under the same deployed leadership. This synergy represents a critical capability in that it represents one of the basic tenets of why CRGs exist: ABO, EAMS, and JTF-PO are too important to be sourced haphazardly. The synergy created by training together allows for greater mission effectiveness and avoids CR operations from being a “pick-up game.” Areas that enable this critical capability that should be considered critical requirements for synergy include capacity to source a request for forces from the same group, the ability to source the commander of forces from the same group as the forces, and finally the Senior Airfield Authority (SAA) being sourced from the same group as that of the forces.

### ***Familiarity with the Area of Operations***

Not surprisingly, the theater CRGs pointed to familiarity with the area of operations of a contingency as a critical capability that must be examined. This capability might have been dismissed due to apparent bias if it had not been strongly echoed by combatant command customers and joint logistics teammates as well. There is obvious benefit to being familiar with an area one might be called to support. Critical requirements tied to this capability include physical familiarity, familiarity with potential

partner nations and organizations, and cultural familiarity. This section has outlined the critical capabilities and their associated critical requirements discovered during this research that will serve as a lens through which to view tradeoffs to mission accomplishment and customer service when examining this paper's investigative questions.

### **Investigative Questions Answered**

***1. What tradeoffs to capability are associated with pooling CRF at Travis AFB and JB-MDL within a single CRG at each location?***

This potential option entails the merger of two CRGs into one CRG at both Travis and JB-MDL. The 621 CRW would then have two CRGs and two COSG under its command. The key aspect of this course of action is that although the number of CRGs would be reduced from four to two, the two CRGs would still maintain the same inherent ability to produce a total four ABO packages (two at each location). The number of authorized billets at each location would only be slightly decreased or rearranged to account for required reclassification of group commander and associated positions that would no longer be necessary.

This course of action addresses two interview answers regarding redundancies from Category 2 above. Specifically this scenario would reduce the number of colonels required by 2-4. Reductions could also be made in associated support staff of 4-8 individuals. Additionally, reducing the number of CRGs would address the agreement that training could be better managed centrally instead of by multiple units.

When applying the framework of critical capabilities and critical requirements, speed, utilization, and familiarity are unaffected in this scenario. The critical requirement of CRF being sourced from the same group would be impacted. By breaking down the command and control barriers between the groups at JB-MDL and Travis AFB, there is an increased likelihood that members that deploy together will have had the same training and could have trained together. This impact also has the added benefit of decreasing the number of redundant positions required to oversee training. Reducing the number of CRGs from four to two will result in less leadership opportunities and billets for senior leaders on each coast. This decrease will result in fewer individuals to choose from when appointing deployment commanders and SAA. Despite this reduction in leaders, the overall tradeoff between consolidation and synergy would be positive given that greater importance is placed on the synergy gained from training together than that of leadership and SAA.

***2. What tradeoffs to capability are associated with combining CRGs at each coast and decreasing their overall size?***

This course of action builds on that from investigative question one, but differs in that in addition to combining the CRGs at both Travis and JB-MDL, it also seeks to reduce the overall number of personnel assigned from what it previously was to options that meet the demand for the CRGs core functions at the CRE and CRT level.

The tradeoffs to manpower for this question are evaluated when commanders choose to meet adjusted peak UTC demand and two JTF-PO alerts. Commanders can meet this requirement and gain manpower savings by reducing manning to levels below the multiplication factors identified in Table 3. Using a multiplier of 2.5, the CONUS

CRGs would be reduced by 26 aerial port personnel, 29 command and control personnel, and 62 maintenance personnel. As mentioned previously, TRANSCOM mandates that up to three JTF-PO capabilities be available, but does not stipulate at what size. The calculations from above represent two heavy capabilities. The above numbers also do not account for the National Guard's contribution to JTF-PO.

When the critical capability and critical requirement framework is applied to this scenario, one can see more tradeoffs would be required to accept this course of action. The capability of speed would once again be unaffected, but the utilization capability would be reduced. Specifically the requirements of the ability to reconstitute forces after being alerted and overall capacity would be decreased. Within the capability of synergy, the chance for deploying CRF to train together could be diminished due to a likely higher OPSTEMPO required to meet requirements with fewer individuals. The same impacts from Investigative Question 1 regarding leadership and SAA would exist in this scenario as well. An interesting observation was made during an interview that proposed that increased use from a smaller force could have a beneficial side effect in that a smaller CRG could result in more actual time deployed for CRF. This time deployed would increase experience levels. Much like aircrew members require seasoning (time spent flying to numerous locations) to upgrade, several interviewees pointed to the fact that CR members need to do their mission in order to upgrade and improve. Time spent in-garrison and not doing CR related operations is not useful in this seasoning process. Simply stated, a smaller CRG could result in higher performing CR members.

***3. What tradeoffs are associated with AMC centrally managing PACAF and USAFE's CRGs?***

This course of action entails AMC taking operational control of the 36 and 435 CRGs and centrally managing all CRF. It is important to note that this course of action does not propose the movement of forces from the theaters thus representing no tradeoff in manpower to any of the CR stakeholders. Instead, this scenario would allow AMC to move forces from theaters to areas it felt required CRF. The major advantages of this course of action include a greater chance for increased utilization and AMC's ability to shift forces across combatant command areas of responsibility. The major disadvantage of this alternative includes the potential of a decrease in speed of response.

Speed is potentially reduced in this scenario in the requirements of airlift access and proximity to operations. Despite also owning over 80% of airlift assets, AMC's ownership of the theater CRG could actually result in a decreased access to airlift (Brown, 2005). This decreased access would result from the fact that PACAF and USAFE already have organic airlift within their theaters that could be used for CRG deployment. This holds most true in USAFE where the 435 CRG and 37<sup>th</sup> Airlift Squadron (C-130s) are co-located and have arrangements in place for deployment process. Although PACAF's CRG is not co-located with PACAF's organic C-17s, the PACAF commander owns C-17s that he can use as he sees fit in his theater. This would not be the case if the AMC owned the CRGs. The CR assets and airlift assets would be owned by different commanders. This rift in ownership could cause delays in deployment that would not have otherwise been encountered. The argument can be made that the PACAF commander would allow the use of his C-17s if required to move an

AMC owned CRG in PACAF's theater, but that coordination could add unneeded steps in the deployment process that in turn could add time. This research found that the theater CRGs voiced much less frustration over access to airlift than the AMC controlled units. The organic lift seemed more accessible to the theaters whereas AMC units commented that they rarely can get airlift from their home stations as one might expect. In addition, the AMC CRGs noted that they had difficulty planning exactly who and what they would be able to take on a contingency to uncertainties surrounding when and how much airlift they would receive. The theater CRGs seemed more comfortable with their planning processes and expected lift allocation.

Regarding proximity to the area of operations one might question how this would be impacted since the CRG would still reside in PACAF. The answer rests in the fact that if AMC took ownership of the theater CRGs it could task its components to areas outside of the theater. This tasking could result in situations where the theater would not have the required forces for an emerging operation. In this case, AMC would have to source CRF from another location resulting in a slower speed of response.

Turning to utilization, central management results in a perceived lack of access for theater commanders given the inability to own the resource. The requirement of capacity is seen to increase in this scenario given an increased pool from which can be tapped to gain forces and reconstitute as needed. By owning all of the CRF and having more resources, there is a higher likelihood that the forces would be used. This tendency for an increased likelihood of use stems from the centralization of resources. There is a greater likelihood resources will be used if they are not segmented to different commanders who are hesitant to use them in fear that they will not be available when

needed. Overall, the utilization critical capability would be increased at the expense of guaranteed access for theater commanders to CRF residing in their area of operations.

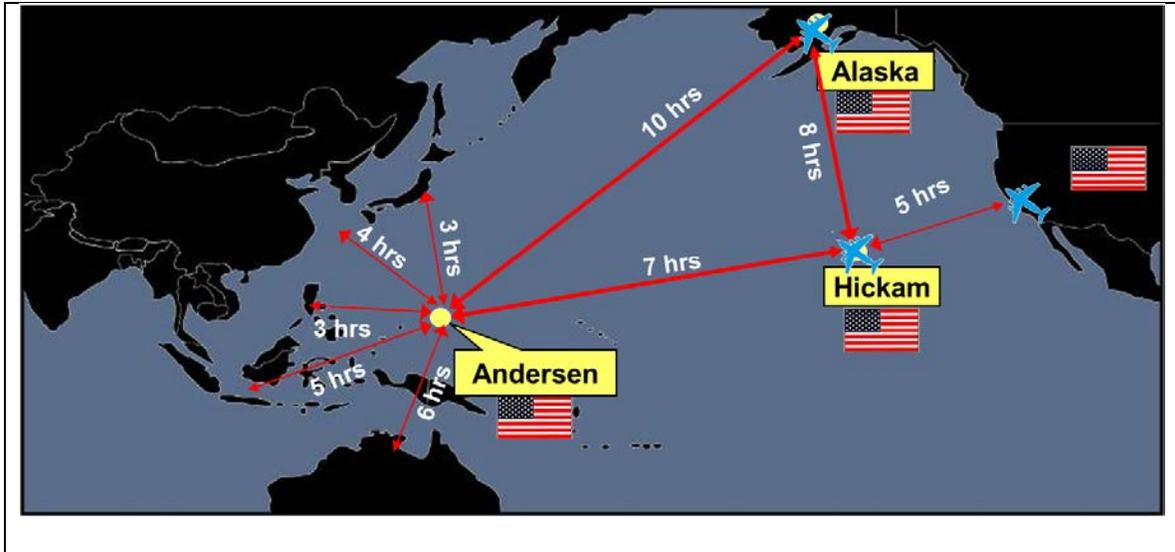
In a similar manner to the impact on utilization and access, there are impacts to familiarity that might not otherwise be associated with a theater CRG in this scenario. Once again, by AMC gaining control over the theater CRGs, the CRGs become a global asset that can deploy throughout the world. If the theater assets are out of the area when an operation kicks off, AMC would again have to source CRF from other locations. The issue of lack of familiarity to an operation area was highlighted by the 21 Theater Sustainment Command (TSC) with respect to the opening of an airbase in European Command's area of responsibility. The TSC was adamant about the positive ramifications of the 435 CRG's familiarity with how cargo moves through Europe. In addition, the TSC commented that there was increased effectiveness between the TSC and 435 CRG because of their habitual relationship and exercising together (21 Theater Sustainment Command Briefing to ASAM, 2014). Finally, there is negligible impact to the critical capability of synergy in this scenario.

***4. What tradeoffs are associated with AMC divesting some of its CRF to geographic focused commands like PACAF and USAFE?***

This course of action examines creating more robust CRGs within the Pacific and European theaters at the expense of reducing the CONUS based, AMC CRGs. This course of action builds on Investigative Question 2 and would shift potential surplus capacity identified in the areas of aerial port, command and control, and maintenance from CONUS to the theaters. Surplus exists in those mission areas up to the multiplication factors listed in Table 3. If AMC were to accept an across the board

multiplication factor of 2.5, it could provide 26 airmen for aerial port, 29 for command and control, and 61 for maintenance to the theaters. This represents a significant increase in capacity for the theaters given their starting size. Assuming the surplus was equally split, the additional capacity of 13 aerial port airmen, 14 command and control, and 30 maintenance provided to the 435 CRG would represent increases to its in personnel capacity in these mission areas between 54 and 92 percent. This increase would significantly help the 435 CRG's 62 total combined billets in aerial port, command and control, and maintenance (Hickey, 2014). Surplus does not exist to bolster the theater CRGs' security forces squadrons at similar multiplication factors and at the same JTF-PO capability. Security forces surplus only exists at a multiplication factor above 1.53 while supporting two JTF-PO capabilities. The shortage of security forces would make shifting any of that mission area difficult, forcing the theater CRG to rely on their inherent security forces squadrons.

An initial look at the four critical capabilities framework reveals that such a plan would actually result in increases to three of the capabilities and be neutral to the fourth. When assessing speed, access to airlift is positively impacted given the organic airlift capabilities already mentioned. Speed is most significantly increased in this scenario thanks to the requirement of proximity. PACAF is quick to remind those interested in its forward presence of the "tyranny of distance" that exists in their theater. Figure 9 highlights the relative proximity of the 36 CRG that affords it greater speed in the Pacific.



**Figure 9: 36 CRG Proximity to Key Pacific Locations (36 CRG Mission Brief, 2014)**

USAFE’s CRG enjoys the same advantage for proximity with the added benefit of being co-located with its airlift. EUCOM and USAFE leadership are also quick to point out that its location in Germany represents key terrain for not only the CRG, but also for the nation. The 435 CRG’s proximity to Europe, Africa, and the Middle East definitely represent a positive impact to proximity if forces were added.

When examining utilization, increasing the number of CRF in PACAF and USAFE would impact to all three critical requirements: access, reconstitution, and capacity. Theater commanders would own a larger capacity and therefore have increased access and would be able to use and then reconstitute forces. The capability of synergy and its critical requirements would not be impacted in this shift. Finally, a tradeoff of forces from AMC to the theaters would result in more forces with familiarity with the areas they would most like be operating.

## **Summary**

This chapter highlighted the results to interviews conducted, analyzed potential changes to manning based on demand, and offered criteria on which any changes must also be judged. These results, analysis, and criteria assist in answering the investigative questions of this research project. Chapter V builds on the findings from this chapter and offers recommendations for changes.

## **V. Conclusions and Recommendations**

### **Conclusions Regarding Investigative Questions**

#### ***Investigative Question 1***

Minimal downside exists in implementing the course of action described in Investigative Question 1. The primary advantage of implementation would be streamlining the command and control and increasing training synergy throughout the organization. The primary disadvantage would be the loss of up to four CR leaders capable of leading deployed CRGs.

#### ***Investigative Question 2***

Implementing this alternative results in true tradeoffs between capacity and capability. The primary advantage of this course of action would be to more accurately size the CRG to meet routine and required demand by minimizing surplus capacity. In order to execute this course of action, one must first determine the minimum manning for each mission area. This paper contends that minimum manning levels should be set at 2.5 times their total demand (peak UTC demand plus two JTF-PO capabilities). This level would provide ample capacity to maintain a total of four JTF-PO capabilities while reducing 26 aerial port personnel, 29 command and control personnel, and 62 maintenance personnel. The 2.5 multiplication factor would also allow for non-deployable members and the flexibility to meet unknown demand. The primary disadvantage of this alternative would be the decrease in overall capacity associated with a decrease in size. Reducing the number of CRGs and their size would require greater reliance on and synchronization between the entire CR enterprise in order to meet overall

demand and the TRANSCOM requirement of meeting up to three concurrent JTF-PO operations.

### *Investigative Question 3*

Although implementing this course of action would not result in any manpower tradeoffs, it would result in tradeoffs between theater commanders and AMC. The primary advantage of this alternative would be an increased overall capacity for the CR enterprise. With this increased capacity, there should be less hesitancy to use CRF due to concerns about reconstitution. The primary disadvantage of this alternative would be concerns of familiarity with and access to CRF for theater commanders.

It is unlikely that combatant commands would relinquish control of their CRGs without a fight, but senior leaders should still be prepared to present options for resource savings that minimize impacts to CR effectiveness. These options should not overlook potential tradeoffs between AMC and theater CRGs. For the option of AMC centrally controlling the CRGs to be viable, AMC and TRANSCOM must guaranteed theater commanders that they will have access to CRF when needed. This guarantee must be built on trust and demonstrated routinely. In order to make this course of action more agreeable to theater commanders, AMC might consider attempting to solve the concern voiced by theater associated interviewees above: capacity shortages. Instead of offering its normal structure of owning assets, and ensuring the theater has access, AMC could offer theater commanders and their CRGs more individuals physically located in theater. This approach would offer that AMC owns all the CRF, but the theater not only has access to the entire enterprise, but has more forces directly tied to its mission. These

forces could be shifted from the surpluses found in Investigative Question 2 in the areas of aerial port, command and control, and maintenance.

#### ***Investigative Question 4***

Implementing this course of action would require a manpower tradeoff from AMC to the theaters. The primary advantages of this alternative would be an increase to speed of response and access for theater commanders. While this course of action would place more forces closer to PACOM, EUCOM, AFRICOM and CENTCOM AORs, it would take forces farther away from NORTHCOM and SOUTHCOM. In order to overcome this disadvantage, increased reliance on the ANG would be required.

#### **Recommendations for Action**

As mentioned above, the four investigative questions above represent potential alternatives for changes to CR organization. These alternatives are not mutually exclusive. In fact, the alternatives should be considered in relation to one another in order to gain the most benefits of the advantages of each while minimizing the costs of the disadvantages of each. The researcher recommends several actions be taken as the result of this research. First, the actions described in investigative question number one should be implemented. Consolidation of CRGs at Travis and JB-MDL actually represents an overall increase to capability at the limited cost of the elimination of several senior leader positions and some associated synergies discussed above. Second, the size of the consolidated CRGs should be reduced below the current multiplication factor levels. This reduction must be done with full understanding that risk could be encountered when meeting actual demand given that this project used historical demand

for CRF. Any manpower savings should not be returned to AMC, however. Instead, the surplus individuals from the mission areas of aerial port, command and control, and maintenance should be redistributed to the PACAF and USAFE CRGs. This redistribution not only benefits the theaters, but also benefits AMC in that it increases its capability for rapid response, utilization, and familiarity with the area of operations. The following steps summarize the recommendations for action:

1. Consolidate to a single CRG at Travis AFB and JB-MDL (implement alternative from Investigative Question 1)
2. Reduce the size of the CRGs at Travis AFB and JB-MDL (implement alternative from Investigative Question 2)
3. Redistribute the billets saved during CONUS CRG reduction to 36 CRG and 435 CRG (implement alternative from Investigative Question 4)

### **Implications**

This research project offers a framework for analyzing not only the courses of action presented in the investigative questions above, but also any future courses of action regarding the global organization of CRF. Commanders are the only leaders in the Air Force with the authority to make decisions regarding the tradeoffs discussed in this paper. When making these decisions, aspects of demand and manning must be taken into account. Specifically, commanders must account for routine demand for CRF in support of global mobility operations, required provisional demand for JTF-PO, and actual manning levels of the CRGs. Once these aspects are known, commanders must decide what level of additional capacity is required. This research project expresses this additional capacity as a multiplication factor. While this paper proposes a reduced multiplication factor than that currently in use, commanders must decide what

multiplication factor they are comfortable using. With this multiplication factor chosen, they must next use speed, utilization, synergy, and familiarity as key measures against which changes to CRF capacity and organization should be judged.

### **Recommendations for Future Research**

Given the research conducted above, several future research areas deserve attention. First, research should examine the cost and benefit of the 12 hour alert. Many individuals interviewed questioned the utility of the alert if it rarely actually deploys. This topic quickly leads into whether or not CRGs need to posture for ABO given the rarity with which they conduct that mission set. Second, research should examine the savings that could be gained if CRGs were no longer required to be prepared to operate in an uncertain environment. There potential for savings exists not only in training requirements that could be lessened, but manpower could be saved. This topic should look into the relationship between the requesting commander and the CRGs as to who should be providing base support to include security. This topic seems especially relevant given the calculated shortage of security forces mission area personnel highlighted in Chapter IV. Finally, several senior leaders discussed the need for a planning tool or model that would turn their manning levels into a capability report express in ability to generate MOG. Flying squadrons can generate reports that tell exactly how many crews they can generate given experience levels and manning; the CR squadrons would benefit from the same ability.

## **Conclusion**

Air Force Chief of Staff Gen Mark Welsh testified before Congress on March 26, 2014 that “every major decision reflected in this budget proposal (FY15) hurts. Each of them reduces the capabilities our combatant commanders would love to have” (Welsh, 2014). This statement reflects that the Air Force can no longer continue to only look for efficiencies. Instead it must look for real tradeoffs in the form of capabilities. The intent of this paper was in no way to contend that CR is not a valuable capability. CR Airmen have repeatedly showcased its value. Unfortunately today’s Air Force cannot afford to keep every valuable capability. This exercise in tradeoffs with respect to CR capability and capacity reflects a very real possibility in the years ahead. CR commanders must begin to examine how they will balance capability and capacity if needed. This paper highlights options for doing so.

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<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved</i> <i>OMB No. 0704-0188</i>		
The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE (DD-MM-YYYY) 13-06-2014		2. REPORT TYPE Graduate Research Project		3. DATES COVERED (From — To) June 2013 – June 2014	
4. TITLE AND SUBTITLE Alternatives to Contingency Response Group Organization: Tradeoffs to Balance Capability and Capacity			5a. CONTRACT NUMBER		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S) Durham, Ryan, E., Major, USAF			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Air Force Institute of Technology Graduate School of Engineering and Management (AFIT/EN) 2950 Hobson Way WPAFB OH 45433-7765			8. PERFORMING ORGANIZATION REPORT NUMBER AFIT-ENS-GRP-14-J-5		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) United States Air Force Expeditionary Center Major General Frederick Martin 5656 Texas Avenue JB-MDL NJ 08640 Frederick.martin@us.af.mil			10. SPONSOR/MONITOR'S ACRONYM(S) USAF/EC		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION / AVAILABILITY STATEMENT Distribution statement A. Approved for public release, distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT This Graduate Research Project focuses on potential changes that could be made to the organization of active duty Contingency Response Groups (CRG). The research seeks to identify and weigh options that balance manpower capacity and capability in the mission areas of aerial port, command and control, maintenance, and security forces to meet combatant commander demand. The researcher employs a three-phased methodology that includes interviews of a cross-section of contingency response subject matter experts, reports and document review, and quantitative data analysis of demand for CONUS CRGs over a 15 month period. The primary limitation of this data analysis is that it uses historical demand to determine required manning levels. The results show that Continental United States (CONUS) based CRGs could be consolidated to one group per coast with minimal impact to capability. Furthermore, the research suggests that the CONUS CRGs have excess manpower capacity in the mission areas of aerial port, command and control, and maintenance. This research recommends having only one CRG per coast in CONUS and reducing excess capacity at these CRGs. It also recommends that Air Mobility Command (AMC) transfer excess capacity to theater CRGs yet maintain the ability to centrally task this capacity if needed.					
15. SUBJECT TERMS Contingency Response Groups, Contingency Response Forces					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			Dr. Kenneth Schultz, AFIT/ENS
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