SCHEDULING FOR SUCCESS: TAILORING C-17 TRAINING AND APPORTIONMENT FOR THE EVOLVING MISSION ENVIRONMENT

Graduate Research Paper

Sean C. McConville, Major, USAF

AFIT-ENS-MS-19-J-040

DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY

AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio

AFIT-ENS-MS-19-J-040

SCHEDULING FOR SUCCESS: TAILORING C-17 TRAINING AND APPORTIONMENT FOR THE EVOLVING MISSION ENVIRONMENT

Graduate Research Paper

Presented to the Faculty

Department of Operational Sciences

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 Operations Management

Sean C. McConville, BS, MA

Major, USAF

June 2019

AFIT-ENS-MS-19-J-040

SCHEDULING FOR SUCCESS: TAILORING C-17 TRAINING AND APPORTIONMENT FOR THE EVOLVING MISSION ENVIRONMENT

Sean C. McConville, BS, MA

Major, USAF

Committee Membership:

Major Timothy Breitbach, Ph.D.

Chair

Abstract

The C-17 is tasked with worldwide direct delivery mission that is vital to the United States' ability to project power globally. Yet, even with the 2018 National Defense Strategy (NDS) and AMC Commander calling for increased capability across robust "multi-domain" threat environments, data from recent exercises and downrange operations suggest that the C-17 crew force is struggling to maintain its capability in environments whose demand does not match those heralded by the NDS. This research paper examines C-17 scheduling processes, looking specifically at AMC/A3's existing scheduling model, while comparing that to actual crew allocation. The researcher used modelling, data auditing and Subject Matter Expert (SME) consultation to gain insight into expected versus actual scheduling requirements and currency logging practices.

Data from the modelling process is compared and validated against actual Calendar Year (CY) 2018 local Flying Hour Programs (FHPs) across four different C-17 bases. Crew allocation data from two separate C-17 bases during two different timeframes is then compared to AMC A3O's existing crew allocation models. SME insights are used to gain insight into current practices. The researcher compiled and processed this data to make seven recommendations pertaining to C-17 scheduling and training.

“If we should have to fight, we should be prepared to do so from the neck up, instead of from the neck down.” – Gen (Ret.) James H. Doolittle

“Without a training allocation, units lose the ability to pair and tailor locally generated training lines to secure hard-to-get training requirements such as formation departures/arrivals/AAR, night fighter contacts, and unit specific mission qualifications.” – 2012 CAAP CONOP

Acknowledgments

There are several individuals with whom this research would not have been possible. I would like to first thank Col Erin Meinders and Lt Col (ret) Brian "Bingo" Smith. Their determination, grit intelligence, and mentorship not only inspired this undertaking, but fueled it as well. I thank Maj General Samuel “Bo” Mahaney for his interest and engagement in my work. Similarly, I thank Dr. Timothy Breitbach for his patience in guiding and refining my work.

Special thanks to Maj Matthew Herzberg at 62 OSS/OSO for balancing his hectic work schedule with my incessant demand to tap into his knowledge from his dual-hatted expertise at the 618 AOC and in working on the receiving end of those efforts as the Director of Current Operations at an operational C-17 base. Thanks also to Capt Dan Ryan at 437 OSS/OST for his “pro-bono” work processing end-of-semi crews 781s as well as his continual input and proverbial “murder” of my work. Very special thanks to Capt Courtney Vidt not only for her friendship, but for the extraordinary amount of data, peer review and ingenuity she brought to bear on this research.

Lastly, I would like to thank James McConville for his inspiration and passion in all things related to flight. None of this would have been possible without a Piper Tripacer and a flight out of a small, grass strip in Northern Michigan 29 years ago.

Table of Contents

List of Figures

List of Tables

List of Equations

SCHEDULING FOR SUCCESS: TAILORING C-17 TRAINING AND APPORTIONMENT FOR THE EVOLVING MISSION ENVIRONMENT

I. Introduction

Background

Capable of delivering 170,900lbs of outsized cargo to anywhere in the world –whether to an austere airfield or a strategic supply hub– the C-17 stands as the most versatile and advanced cargo aircraft ever created. The “Moose” has been a staple of the Global War on Terror (GWOT), having delivered 54% of its total airborne cargo over 665,107 sorties and 2.56 million flying hours since 2001 (Venne, 2019). The C-17’s versatility as a strategic, tactical, outsized cargo and aeromedical evacuation platform make it a staple of America’s capability to quickly project power.

Even with the aforementioned capability and all of the above the above milestones, early indications exist that the C-17 Crew Force may be beginning to buckle. Aircrew safety data from 2016 reveal a troubling, six-month period at an Operation Iraqi Freedom (OIF) airfield in which C-17 crews were aborting their arrivals (below 1000') on account of failing to properly configure the aircraft for landing. The advent of C-17 operations into Syria late in 2016 highlighted that not only were C-17 crews struggling with basic off-airway navigation and brevity, but C-17 Squadron and Group leadership struggled to understand basic facets of tactical airlift planning (McConville, 2018). In 2017, eight American C-17s were destroyed and another three were damaged during the first two days of the airland portion of AMC’s premier flag-level exercise, *Mobility Guardian*. These engagements stemmed from relatively low-order, pre-briefed threats (Fisk, 2017). By the most conservative estimates, the resultant loss of the assets totaled $1.6B in aircraft and 24 crewmembers. (This assessment excludes the operational cost and monetary loss of the notional cargo aboard each aircraft.)

It is significant to note that all of this comes within the context of the 2018 National Defense Strategy's call to establish "Resilient and Agile Logistics" capable of survival across "multi-domain threat environments" (Mattis, 2018).

The Commander of Air Mobility Command, Gen Maryanne Miller, similarly described readiness as her top priority:

"The National Defense Strategy clearly defines our path," said Miller. "We are in a time of great power competition, and we must be ready to compete, deter and win. My top priority is readiness. Our mission success depends on it" (Martinez, 2018).

A common frustration amongst ground-level instructor pilots is the difficultly in the way that both the operational mission and administrative duties at their assigned duty stations compete for training resources. A study conducted from October to December of 2017 at Joint Base Lewis-McChord found only 46% of the pilots allocated to local training sorties were able to attend the pre-mission planning and instructional period preceding the sortie due to conflicts with office work, post-mission crew rest and other training events. Often, the instructors themselves were unable to plan and teach during this period.

Problem Statement and Research Questions

The problem faced by the Air Force is that while strategic leaders in DoD are calling for increased capability across the C-17 crew force, the aforementioned operations and exercises call into question the C-17 community's ability to answer this demand. This research examines current aircrew scheduling practices, while focusing specifically on the method training assets are apportioned across the active duty C-17 fleet. The goal of this study is to improve the method by which the Air Force accounts for its C-17 crews. The desired end state is a training methodology that allows the C-17 crew force to successfully execute its current mission while raising its level of preparedness for the obligations upon which the 2018 NDS articulates.

This research seeks to answer four questions. First, how does the Air Force apportion crews/tails in the active duty C-17 community? Second, what crew allocation does the C-17 apportion to training? Third, how are these resources used at the squadron level? Lastly, how might this process be improved?

Methodology

The research used a combination of data collection and mathematical modeling to evaluate C-17 crew/tail apportionment and C-17 training. The paper draws upon various regulations and AMC-Staff sponsored white papers pertaining to aircrew scheduling and aircrew training. Consultation with Wing-level Subject Matter Experts (SMEs) was conducted augment and clarify this information, when needed.

Section II includes a comprehensive review of this information. Section III then provides a description of squadron data auditing, and local-training flight hour program (FHP) modeling. This data is analyzed in Section IV. Section V presents recommendations.

II. Review of Literature

Chapter Overview

C-17 Aircrew scheduling is an inherently complex process that is guided by a myriad of regulations and inter-agency agreements. There are a few documents, however, that form the basis for building a broader understanding of how this process works. These generally fall into two categories. The first category is comprised of staff-level documents: Concepts of Operation (CONOPs), Memorandums of Agreement (MOA)/Memorandums of Understanding (MUA) and white papers that directly guide or inform the scheduling process from an administrative perspective. The second category is aircrew regulations that inform and establish boundaries to the aforementioned process.

The list of works reviewed is by no means exhaustive; this paper's aim is to provide a basic understanding of the C-17 aircrew scheduling process as it is developed at the MAJCOM and then executed at the unit level.

Historical Evolution of CAAP.

An understanding of how AMC's aircrew accounting practices have evolved with both time and circumstance is requisite to understanding the current CAAP methodology.

The Aircrew/Aircraft Tasking System (AATS), originally fielded in November 2000, attempted to make each crewmember available for Tanker Airlift Control Center (TACC) driven mission 30% of the year. The rest of the time would be spent performing squadron duties, training, etc. Following the events of 11 September, 2001, AMC suspended this program to allow for crewmembers to be tasked on TACC missions during 50%-73% of the year. In April of 2002, the AMC/A3 enacted "Contingency AATS", which targeted aircrew TDY rates of 200 days as a general guide for an individual crewmember. (AMC/A3O, 2012)

The current CAAP methodology was published on 26 June 2012 in an attempt to balance capacity, Combatant Commander (CCDR) mission sets, organize, train and equip (OT&E) requirements within a risk-managed framework.

Current CAAP Construct

Apportionment Authority

The AMC/CC represents the over-arching approval authority for all apportionment, allocation and policy within the CAAP methodology. The AMC/CC has delegated allocation authority to the 18 AF/CV and AMC/DA3 to represent CCDR and OT&E requirements, respectively (AMC/A3O, 2012, p. 5).

Allocation Bins

Requirements are sorted into three general categories, known as allocation "bins." These bins are: CCDR, MAJCOM, and Unit. The CCDR allocation bin represents Joint Chiefs of Staff (JCS) priority ranked missions in support of Combatant Commanders. The MAJCOM bin represents MAJCOM directed priorities to include: Weapons Instructor Course (WIC), test and evaluations, AMC exercises, Thunderbird support, 82d Airborne support, and other priorities as determined by AMC staff through coordination with AMC/A3O (Herzberg, 2019). The Unit bin represents local training and currency requirements, as well as attempts to encapsulate all other things not specifically line item mentioned on the UAL such as: leave, pre/ post mission crew rest, and required manning to run the wing in order execute training plans, full spectrum readiness priorities and quality of life and service goals to improve retention (Herzberg, 2019). Reference Table 3 below for a graphical depiction of each of the allocation bins, along with examples of missions and resources that fall into each.

Table 1: CAAP Unit Allocation Bins. (Source: AMC/A3O, 62 OSS/OSO)

Allocation Bin	Example Requirements
Combatant Commander (CCDR)	JCS Alerts Flying Deployments TRANSCOM Missions
MAJCOM	Weapons School Joint Forcible Entry (JFE) Vul DV AirliftThunderbird Support *Deployment Reconstitution Joint Airborne/Air Transportability Exercises
Unit Bin	Admin Overhead Training Overhead Ground Deployments

Allocation Development Team

At the heart of CAAP lies the Allocation Development Team (ADT). Its mission is to forecast requirements and available capacity, while balancing those requirements with the condition of the crew force and fleet. It is comprised of representatives from AMC, AFRC, the ANG, 18 AF, 618 AOC and both AD and the ARC. An ADT exists for each of the strategic airlift, tactical airlift and tanker communities. Unless otherwise indicated, the reader should assume that any mention of the ADT is being used synonymously with the “Strategic Airlift Allocation Development Team”.

Guidance to the ADT is provided via the Commander’s Input and Planning Guidance (CIPG). The CPIG outline’s the AMC/CC’s priorities and desired end states (AMC/A3O, 2012, p. 16).

Table 2: ADT Composition and Role. (Source: 2012 CAAP CONOP)

ADT Component	Role
AMC/CC	Represents TRANSCOM’s Commander of Air Force Forces (COMAFFOR). Sets planning guidance & resolves allocation disputes, when necessary.
18 AF/CV	Represents CCDR interests. Co-validates apportionment recommendation with AMC/DA3.
AMC/DA3	Represents OT&E interests. Co-validates apportionment recommendation with 18 AF/CV
618 AOC	Briefs validated CCDR requirements in addition to projected MAJCOM and JCS exercise requirements.
AMC A3OO	Collects enterprise-wide capacity and requirements data, makes initial ADT allocation decision. Publishes allocation decision in form of Unit Accounting Listing (UAL).
AMC/A4M	Responsible for informing AMC/A3O as to the number of tails available. This is done by taking the total number of tails available and multiplying that by a planning factor (also known as the ‘commit rate’) which adjusts this to account for maintenance reliability.
AFRC/A3	Represents Air Force Reserve Command (AFRC) interests to the ADT.
NGB/A3	Represents National Guard Bureau (NGB) interests to the ADT.

ARC and NGB crews will be considered in the ADT when such forces are made available at TFI units through a MOA/MOU. Individual crews may volunteer to provide additional capacity, but the ADT will make no assumptions concerning ARC/NGB volunteerism (AMC/A3O, 2012, p. 13).

Adjustment.

Units are able to request adjustments to an allocation via a formal request, routed through its current operations flight to AMC/A3OO up to “60 days prior to the requested adjustment period” (AMC/A3O, 2012, p. 29).

Additionally, unit commanders may provide their remarks on a given allocation brief via either a routine, or specially scheduled secure, online teleconference. This permits them to offer input, ask for clarification and assess risk statements prior to the apportionment validation process (AMC/A3O, 2012, p. 37).

Crew Availability

According to the CAAP 2012 CONOP, it is the policy of AMC/A30 to “utilize the best available data for line qualified crewmembers to compute available crew numbers” (AMC/A3O, 2012, p. 12). The two primary tools used by AMC/A3O to compute crew availability are “Planning Wedges” and the Unit Forecasting Tool (UFT) (Nyenhuis, 2018, pp. 2–4).

Planning Wedges

“Planning Wedges” or “Wedge Factors” are assumptions concerning how a unit apportions its crew. These assumptions find their basis in an AMC audit of C-17 squadrons that was conducted between 2011-2013. (It is significant to note that during this timeframe, the C-17 crew force was manned at a 3 to 1 crew ratio. At the end of 2014, AMC reduced the crew ratio of its active duty C-17 crewforce to 2.5 to 1). Within the Wedge Factor planning methodology, a unit's total capacity is determined via Automated Aircrew Management Systems (AAMS). AAMS is a personnel management system which reports the total number of aircrew available to a unit. Planning wedges are then applied to that quantity to determine how many actual crews should be expected to be available.

AAMS excludes positions with an "API6" from its crew availability report. API6 positions are traditionally time-intensive positions that preclude routine mission tasking. Thus, their participation in flight-related events represents a windfall with respect to unit pilot availability. Table 3 below summarizes the API6 billets at McChord, along with the number of pilots allocated to each API6 position.

Table 3: McChord Field API6 Allocation. (Source: 62 OSS/OST)

Position	Office Symbol	Personnel
Wing Commander	Wg/CC	1
Vice Wing Commander	Wg/CV	1
Operations Group Commander	OG/CC	1
Operations Group Deputy Commander	OG/CD	1
Squadron Commander	Sq/CC	4
Squadron Director of Operations	Sq/DO	4
Wing Weapons and Tactics Chief	OSK	2
Wing Training Chief	OST	1
Wing Director of Current Operations	OSO	1
Group Standards and Evaluations Chief	OGV	2
Command Post Chief	AW/CP	1
Wing Safety Chief	AW/SE	2
Wing Inspector General	AW/IG	2
TOTAL		**23**

Table 4 below depicts AMC/A3O's planning wedges and their respective values.

Table 4: AMC/A3O Wedge Planning Factors (Source: Author/AMC A3O)

Wedge Name	% Unit	Wedge Description
Wing Duty	1	Wing Staff requirements
Ground Training	3	Accounts for training such as water survival, small arms training and survival.
Flight Training	4	Local training flights (Exercises are account for the in MAJCOM bin)
On Loan	7	Crew members designated as "on loan" work in billets outside of the squadron (Group jobs, operational support squadron, etc), but count against the Squadron's manning roster.
Attached	7	Conversely, personnel designated as "attached" work outside of the Squadron but are not allocated against the Squadron's manning roster. In this sense, they represent
Squadron Overhead	10	Squadron office duties
Leave	5	Self-explanatory
Upgrade Training	5	Aircraft Commander/Instructor Pilot/Airdrop, FTU upgrades.
Professional Military Education (PME)	1	Squadron Officer School, etc.
Unavailable	10	Other unavailable tasking

These wedges, adding up to 54% of a unit's personnel, comprise what is known as the "Administrative Overhead" (Admin Overhead) allocation. Pre and post mission crew rest, though not formally accounted for with dedicated wedges, are counted against "Admin overhead". Similarly, these planning wedges to do not formally account for special missions such as Prime Nuclear Airlift Force (PNAF) or Special Operations Low-Level II (SOLL II).

The Unit Forecasting Tool

In 2012 AMC/A3T began working on a forecasting tool that was designed to provide higher-fidelity crew allocation than the aforementioned planning wedges. This Microsoft Access based database, known as the Unit Forecasting Tool (UFT) enabled units to communicate their projected monthly crew allocation (and hence, availability) by designating individual crew members against administrative, training and mission taskings on a daily basis. This system, however, suffered from a few significant limitations:

1. Its fidelity was limited to one month increments. This meant that if a pilot had multiple commitments (i.e. medical appointment and ground training) in the same day, only one of those could be represented in the UFT.

2. The process of going through a squadron's scheduling program to determine how crews are scheduled and then entering that data on a pilot-by-pilot basis was, inherently, extremely time consuming. While individual units developed "business rules" with the desired end state of simplifying this practice, adherence to those rules and the reliability of the data that they produced was questionable. AMC/A3O discontinued the use of the UFT at the end of 2018. (Herzberg, 2019).

The Unit Allocation Listing (UAL)

The UAL is a monthly product, published by the ADT which balances CCDR and MAJCOM Service mission against the OT&E Allocation and a Unit's Admin Overhead. The UAL relevant to this research period may be found in *Appendix A: February-April 2019 C-17 UAL*.

Figure 1 represents an extracted portion of this UAL. Labels on the side of the figure differentiate the top of the UAL, representing a unit's crew allocation, from the bottom of the UAL, which represents its tail allocation.

			1-Feb-19	2-Feb-19	3-Feb-19	4-Feb-19	5-Feb-19	6-Feb-19	7-Feb-19	8-Feb-19	9-Feb-19	10-Feb-19	11-Feb-19	12-Feb-19	13-Feb-19	14-Feb-19	15-Feb-19	16-Feb-19
Crews		Line Assigned Crews (AAMS)	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
		Crews Committed to HHQ Tasking	21	21	21	22	20	22	22	22	22	22	20	20	20	22	24	22
	CCDR	CCDR Allocation (Crews)	18	18	18	18	18	18	18	18	19	19	19	19	19	19	19	19
		Deployed	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
		Long Range Schedule (CCDR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		TACC Mission (Manual Entry)	10	10	10	10	10	10	10	10	11	11	11	11	11	11	11	11
	MAJCOM	OT&E Allocation (Crews)	42	42	42	42	42	42	42	42	41	41	41	41	41	41	41	41
		MAJCOM Crew Allocation	3	3	3	4	2	4	4	4	3	3	1	1	1	3	5	3
		MAJCOM Mission	3	3	3	4	2	4	4	4	3	3	1	1	1	3	5	3
		Untasked MAJCOM (Crews)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	UNIT	UNIT Allocation (Crews)	39	39	39	38	40	38	38	38	38	38	40	40	40	38	36	38
		UNIT Admin Overhead: Crews	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
		Training Overhead: (Crews)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
		UNIT Available	1	1	1	0	2	0	0	0	0	0	2	2	2	0	-2	0
Tails		Total Possessed Tails (A4MM)	32	32	32	32	32	32	32	33	34	34	34	34	34	34	34	34
		Aircraft Commit Rate	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
		Committed Tails = Possessed X Commit Rate	27	26	26	25	25	25	25	27	28	28	27	27	27	27	28	28
	CCDR	CCDR Allocation (Tails)	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
		Deployed	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
		Long Range Schedule (CCDR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		TACC Mission (Manual Entry)	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	MAJCOM	OT&E Allocation (Tails)	19	19	19	19	19	19	19	20	21	21	21	21	21	21	21	21
		MAJCOM Allocation (Tails)	9	8	8	7	7	7	7	9	10	10	9	9	9	9	10	10
		MAJCOM Missions	6	2	2	7	6	6	6	1	0	0	4	4	4	0	1	0
		Untasked MAJCOM	3	6	6	0	1	1	1	8	10	10	5	5	5	9	9	10
	UNIT	UNIT Allocation (Tails)	10	11	11	12	12	12	12	11	11	11	12	12	12	12	11	11
		MX Allocation	5	6	6	7	7	7	7	6	6	6	7	7	7	7	6	6
		TNG Allocation	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
		UNIT Baseline Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure 1: McChord UAL 1-16 February. (Source: 62 OSS/OSO)

Each of these categories is further subdivided into Combatant Commander (CCDR), MAJCOM and Unit apportionments. A unit's crew availability may be determined by subtracting the sum of CCDR Allocation, MAJCOM Crew Allocation, Unit Admin Overhead and Training Overhead, from its line assigned crews.

Equation 1: UAL Unit Available Crews

$$UAL\ Unit\ Avail\ Crews = Line\ Asgnd\ Crews - (CCDR\ Crews + MAJCOM\ Crew\ Allocation + Unit\ Admin\ Crews + Training\ Overhead\ Crews)$$

As an example, reference the crew allocation for 2 February in Figure 1. For this day, the above expression is represented as such:

$$Unit\ Avail\ Crews = 60 - (18 + 3 + 23 + 15) = 1$$

When the CCDR, MAJCOM, Unit Admin Overhead and Training Crew Overhead exceed the number of line assigned crews, Equation 1 will result in a negative number. The 2012 CAAP CONOP refers to this condition when requirements outweigh the actual assets available as a "surge" (AMC/A3O, 2012, p. 49). In this case a unit must determine whether to balance this deficit by using a crew from either their unit training or administrative overhead allocation to fill the CCDR or Mission Tasking.

Insofar as tail allocation is concerned, a unit's available tails can be determined via a formula similar to that which determines crew availability:

Equation 2: UAL Unit Available Tails

$$UAL\ Unit\ Available\ Tails = Total\ Possessed\ Tails - (CCDR\ tails + MAJCOM\ Allocation + Unit\ Allocation + Tng\ Allcoation)$$

Using 2 Feb from Figure 1 as an example, the above formula becomes:

$Unit\ Available\ Tails = 32 -$ (13 + 8 + 6 + 5) = 0

Crew Ratio

One measure of unit capacity, crew ratio, is determined by dividing a unit's total available crews by its total effective tails on a given day.

Equation 3: Crew Ratio

$$Crew\ Ratio = \frac{basic\ crews}{available\ tails}$$

Whereas CAAP deals with strictly augmented crews (three pilots), crew ratio is measured using a basic crew compliment (two pilots). Therefore, a unit's AAMS augmented crew ratio can be covered into a basic crew ratio by multiplying it by 3/2. Using McChord as an example, we see that in the aforementioned February timeframe, the 62AW had, on average, 60 augmented crews assigned via AMS and 34 tails. Multiplying 60 augmented crews by 3/2, we determine that McChord had 90 basic crews available during this time period. Dividing that number by 34 tails, we see that McChord's crew ratio for the month of February 2019 was 2.6:1.

Level of Effort/Risk

The CAAP methodology measures a Unit's Level of Effort (LOE), or actual tasking vs its total capacity, as a ratio of crews tasked against CCDR and MACJOM missions. CAAP makes a standard set of assumptions about the impact that various LOEs have on readiness factors (ground training, flight training, aircrew upgrade training, and aircrew evaluations), quality of life factors (post mission crew rest, post-deployment downtime, leave) and administrative factors (PME completion, squadron administrative Duties.) (AMC/A3O, 2012, p. 49).

Table 5 summarizes these assumptions as a function of LOE.

Table 5: Level of Effort Vs Effect on Readiness, QoL and Unit Admin Function. (Source: AMC/A3O)

Level of Effort	LOE Summary	Readiness				QoL		Administrative	
		Continuation Flt Tng	Continuation Gnd Tng	Upgrade Tng	Flt Evals	Leave	MCR/PDD	Admin	PME
≈15	Provide unit with recovery period after extended surge	Recon	Recon	Recon	Recon	Recon	Full	Recon	Recon
≈30	Steady-state operations	Full Support	Full Support	Full Support	Full Support	Full	Full	Offices fully manned	Ful Support
≈45	Sustainment operations (reference OIF/OEF 2005-2010)	Occasional waivers ≈(90% of unit flt tng rqmts met)	Occasional waivers	Full Support	Full Support	≈75% of leave granted	Occasional waiver	Minimal impact	Full Support
≈60	AEF Sqap out. Frequent reptition and/or prolonged ops at this level mat undermine morale, good order and discipline	≈75% of unit flt tng rqmts met	6 month extensions considered	Full Support	Limited Extensions	50% granted (case-by-case basis & emergency leave)	some waived	Moderate Impact	Full Support
≈75	Significant commitment resulting in stop loss, ANG/AFRC mobilization	Very limited resources	Most ground tng events given 6-12 month extension	≈90%	Limited Evals	Emergency only	None	Limited	≈90%
≈90	Stop/loss, ANG/AFRC and AETC mobiliation	Incidental	None	None	None	None	None	Incidental	None

AMC/A3O attempts to target a 32-36% LOE across C-17 units (Herzberg, 2019).

Aircrew Regulations

While the 2012 CAAP CONOP and accompanying AMC-sponsored white papers lay the basic foundation which guides C-17 aircrew scheduling, aircrew regulations such as AFMAN 11-2C-17v1 and AFMAN 11-2C-17v3 drive the intent of the training program to which crews are scheduled and place limits on the above processes.

AFMAN 11-2C-17v1 governs the flight training program. Pilots are required to complete certain maneuvers and flight related tasked on a recurrent basis, usually within a quarterly, semi-annual, or annual period. The volume of these events is contingent on flight training level (FTL), a metric which measures a pilot’s experience. Less experienced pilots are designated

FTL C. Pilots at an in intermediate level are FTL B. Experienced pilots are designated FTL A. The metrics which drive the determination of a pilot's FTL are unit-specific, as are the requisites for progressing between FTLs. Airdrop qualified pilots (representing 15-20% of the crewforce, at any given time) are given additional airdrop training related tasks to accomplish over the aforementioned training periods.

It is important to note that pilot flight training requirements significantly exceed those of loadmasters. An airdrop qualified pilot has 60 flight training items to accomplish while a loadmaster has 16. An airland-only pilot has 33 in flight training events while an airland-only loadmaster has 9 (AFMAN 11-2C-17v1, pp. 38–46).

The "currency tables" that drive a C-17 pilot's required flight and ground training -as well as the timeframe on which that might take place are be found in AFMAN 11-2C-17v1 Ch 4. Individual training events are colloquially known as training "beans". Before a pilot is allowed to complete a mission, the squadron's operations staff must ensure that he/she will not go overdue for any of these training items during the course of that mission. In squadron parlance, the process of ground through an individual pilot's currency items prior to a mission is the "go-no-go process". Reference Appendix C for a 187-item Go/No-go inventory from an aircraft commander, airdrop copilot at McChord.

AFMAN 11-2C-17v3 mandates the presence of a qualified pilot-in-command (PIC), or colloquially known as an "A-code" on each flight. Evaluator Pilots (EPs), Instructor Pilots (IPs) and Mission Pilots (MPs) are positions all qualified to serve as the PIC. (AFI 11-202v3, pp. 17,62)

AFMAN 11-2C-17v3 also establishes regulations for standard operating procedures in the C-17. Its pertinence to this paper is primarily in relation to crew rest. Prior to leaving home station, crews are mandated 24 hours of pre-mission crew rest. Mission planning may be accomplished in the first 12 hours of this period. Operations Group Commanders may waive the first 12 hours of this 24-hour period. Following missions that keep crews off-station for more than 16 hours, Commanders will afford crews 1 hour of post-mission crew rest (for up to 96 hours) for every 3 hours off-station (AFMAN 11-2C-17v3, pp. 30–31). AFMAN 11-2C-17v3's parent regulation, AFI 11-202v3 establishes 12 hours of mandatory pre-mission crew rest for local training sorties (AFI 11-202v3, p. 12).

Chapter Summary

The C-17 aircrew scheduling process represents the intersection of staff, squadron, and aircrew-level regulations and interests. Currently, no assessment of actual crew allocation vs UAL-based crew allocation exists. Similarly, there is no formal, data-driven mechanism for framing actual C-17 pilot continuation training requirements. A comparison between expected vs. actual crew allocation at the unit level can be used to evaluate the current CAAP construct, and a data-driven approach can be used to further inform this evaluation. This research is designed specifically to address that organizational need, with the desired end-state being an accurate, unit tailorable means for properly apportioning scheduling resources across the C-17 fleet.

III. Methodology

The purpose of this section is to describe the two primary types of research methodology utilized in this study. Quantitative analysis (mathematical modelling and data collection) was used to the maximum extent possible. Consultation with Subject Matter Experts (SMEs) was used to clarify and add context to existing regulations.

Given that pilot flight training requirements so drastically exceed those of loadmasters, it is assumed that loadmasters will achieve their annual currency throughout the process of a pilot obtaining his/her currency.

Assumptions and Limitations

This research assumes that the current squadron manning levels stay relatively constant and that factors such as: airdrop-pilot/airland-pilot crew ratios, office manning and intra-squadron civilian hiring do not change appreciably.

The squadron audit is limited to McChord and Charleston. The spectrum of crew and mission qualifications at these bases (i.e. Airdrop, SOLL II, PNAF, Alert Aircrew and DV crew qualifications) represented the broadest range of mission sets available from sampling two squadrons. Time restrictions precluded a broader sample size from other bases. This study is limited to active duty units only. Reserve flying squadrons, by their nature, deal with inconsistent manning and tasking levels that are not conducive to developing a shared scheduling model with active duty.

Additionally, this research project is limited to unclassified data only. Sensitive information concerning special operations as well as the transportation of nuclear weapons and diplomats could potentially compromise security associated with these missions.

Model Methodology

As a starting point, a model was formulated to represent scheduling under ideal circumstances. This means that –within the model's framework– any crew can get any training event (ground or flight) on any weekday. Furthermore, training sorties are modeled and executed as perfectly efficient. The output of this model represents the minimum unit (or "low end") requirement for flight hours and crews. In theory, comparing these resource requirements to actual local training FHPs, could then, in turn be used to evaluate the efficiency of a unit's local training and scheduling over a one-year interval.

Given that pilot currency requirements significantly outnumber loadmaster training requirements, it is assumed that a unit's loadmasters will accomplish their required flight continuation training in the process of a unit's pilots accomplishing theirs. Leave, ground training and flight training requirements were all incorporated into the model.

Leave

All active duty personnel accrue leave at a rate of 2.5 days/month. Commensurate with the "low end" methodology, it is assumed that all leave is executed evenly throughout the year. In practice, squadrons generally allocate surges in leave during Thanksgiving, Christmas, and New Year.

With this, a unit's weekly leave requirement becomes:

Equation 4: Weekly Pilot Leave Allocation

$$Weekly\ pilot\ leave\ allocation = (\#\ pilots * 2.5)/52$$

Ground Training

C-17 crews complete ground training tasks comprised of AFMAN 11-2C-17v1 mandated training events and Advanced Distributed Learning System (ADLS) courseware. The Computer Based Training (CBT) software associated with quarterly phase training and ADLS both incorporate course descriptions which prescribe a specific amount of time for the given task. This information was used whenever it was available. The time required from ground training events outside of these tasks was determined from a 62 AW/62 OSS audit for each training event.

Given that not every ground every training event is required on an annual interval, the duration of training events falling outside of this frequency was normalized over a one-year interval. For instance, local communication procedures (XLCOM) is an AFMAN 11-2C-17v1 mandated, semi-annual course with a 0.5 hour duration. Thus, it is modeled as recurrent, 1-hour annual training. Similarly, Aircrew Chemical, Biological, Radioactive and Nuclear (ACBRNE) is an AFMAN 11-2C-17v1 mandated bi-annual course with a 6.0 hour duration. It is a modeled as a 3-hour, recurrent, annual ground training task.

Flight Training

Resolving the amount of time necessary for C-17 flight training is a considerably more complicated endeavor, as the amount of time required to complete a pilot's annual currency is not apportioned by AFMAN 11-2C-17v1. The duration of flight training events is contingent upon: a pilot's crew qualifications (to include their flight training level) the duration of local training sorties, the number of pilots on each local training sortie, the efficiency with which local training is planned and conducted, as well as maintenance cancellation rates pertinent to both the C-17 and supporting its units (i.e. KC-10 and KC-135 tanker assets).

To determine the amount of time required for each training sortie, the model aggregates relevant, complimentary flight training events and schedules these to be logged in succession. For instance, the model assumes that a tactical departure will be followed by a tactical arrival to an assault landing.

The CAAP CONOP assumes that each pilot will fly the currency “within the optimum profiles of the most demanding crew position” (AMC/A3O, 2012, p. 26). This particular aggregation of events not only makes the sortie more efficient, but serves to better meet the intent of AFMAN 11-2C-17v1, which describes the assault landing event as ”tactical ingress and landing at a small austere airfield.” (AFMAN 11-2C-17v1, p. 76). Very seldom is this done in practice; it is much more common for Assault Landings to be accomplished from a visual flight traffic pattern, very similar to those flown during the initial stages of pilot training. The context for the individual flying events represents an important tenant of aircrew training. The observation that local crews appear not to honor this guidance may be a contributing factor to the trend data presented in the introduction of this paper regarding C-17 aircrew improperly executing tactical arrivals into OIF airfield referenced in the introduction section of this paper.

In constructing this model, great care was taken to ensure that aircrew did not accomplish more currency than necessary. Yet, there exist some circumstances in which either meeting the stated intent of a flight currency event, or accomplishing training sortie in a deliberate, concise manner will drive additional logging. The example above concerning assault landing (AS11) currency is one such instance: FTL A pilots are required to log four AS11 events every semi-annual period, yet only two tactical arrivals are required over that same timeframe. Thus, by accomplishing four AS11 events (while honoring the intent of AFMAN 11-2C-17v1) during a semiannual period, C-17 pilots will accomplish two additional tactical arrivals.

FTL C Mission Pilots and First Pilots (FPs) require twice as many assault landing currency events as FTL A and FTL B pilots. This drives an additional quarterly training sortie strictly for FTL C pilots.

Counting Algorithm

In scheduling pilots to training sorties, the model uses a “smart” accounting algorithm that evaluates the ratio of instructor pilots to first pilots and mission pilots, then selects the most efficient way to schedule these sorties. The notion that each training sortie will include at least one IP is integral to this algorithm. Not only do certain C-17 crew positions require an instructor on board in order to accomplish training events, but it is intuitive from the nature of what a training sortie represents to have an instructor present.

Under most circumstances, schedulers have powerful incentives not to schedule multiple instructors against a training sortie; this unnecessarily reduces a unit’s ability to fly operational missions. Expressed mathematically, if n represents the number of “seats” available on a training sortie, n-1 represents the number of seats available for students (‘students’ are FPs and MPs, for the purpose of this model). Let x represent the number of IPs available in a unit and let y represent the quantity of FPs and MPs together.

We will examine 3 separate instances of x as it relates to y and determine the most efficient means for scheduling local training in each of these instances:

Case 1: Unit IP Training Requirements Exceed FP/MP Local Training Requirements

Equation 5: Unit IP Local Training Requirements Exceed Combined FP/MP Local Training Requirements

$$x > \frac{y}{n-1}$$

In this instance, the number of required local training sorties, *s* is expressed as:

Equation 6: Required Local Training Sorties for a Case 1 IP:FP/MP Ratio

$$s = \left\lceil \frac{x+y}{n} \right\rceil$$

As an example, consider the simplified case in which a unit has eight IPs, two FPs, two MPs and a training sortie is being conducted for three total pilots. Thus, x=4, *y*=8, and *n*=3

In this circumstance, the most efficient scheduling methodology to minimize additional flight training event logging is to fly each FP and MP with an IP, then fly local training sorties comprised of IPs until their currency requirements are met.

Equation 5 is then:

$$8 > \frac{4}{3-1}$$

And Equation 6 is expressed as:

$$s = \left\lceil \frac{4+8}{3} \right\rceil = 4$$

Figure 2 is a graphical depiction of a Case 1 scheduling scenario.

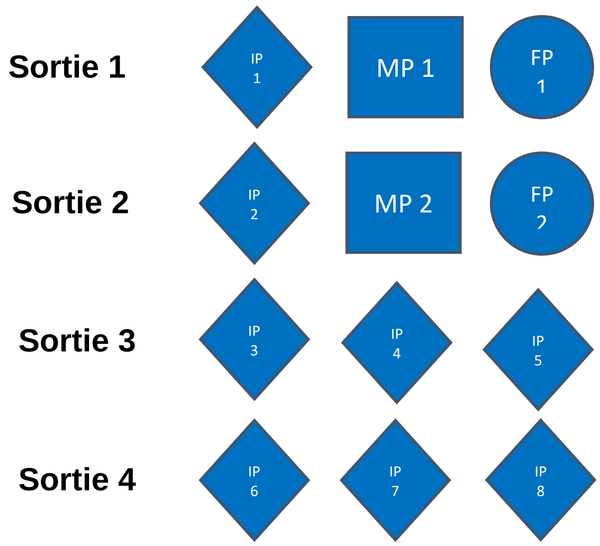


Figure 2: Case 1 Local Sortie Modelling

Case 2: Unit IP Training Requirements Equal FP/MP Local Training Requirements

A unit having an equivalent IP force and combined FP/MP force drives a 'Case 2' scheduling scenario:

Equation 7: Unit IP Local Training Requirements Equal Combined FP/MP Local Training Requirements

$$x = \frac{y}{n-1}$$

For Case 2, the number of required local training sorties is expressed as:

Equation 8: Required Local Training Sorties for a Case 2 IP: FP/MP Ratio

$$s = x = \frac{y}{n-1}$$

To illustrate, consider the simplified scenario in which a unit has four IPs, five MPs, three FPs and three pilots on each local training sortie. Therefore, x=4, x=8 and n=3.

Equation 7 is valid for:

$$4 = \frac{8}{3-1}$$

And Equation 8 yields:

$$s = 4 = \frac{8}{3-1}$$

For a unit for which Case 2 is valid, the most efficient scheduling methodology is to fly IPs with a unique set of FPs and/or MPs until all IP, MP and FP currency is obtained.

Figure 3 represents Case 2 scheduling for the above example.

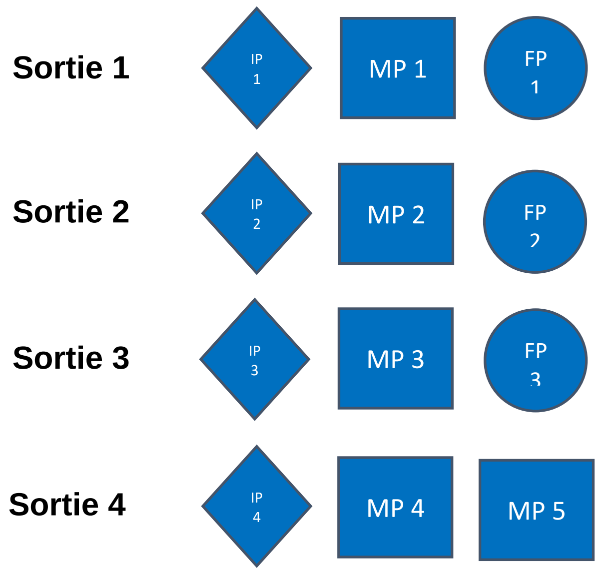


Figure 3: Case 2 Local Sortie Modelling

Case 3: Unit FP/MP Local Training Requirements Exceed IP Local Training Requirements.

Lastly, a ‘Case 3’ scheduling scenario exists when a unit’s FP/MP combined crew force outnumbers its IP corps.

Equation 9: Unit Combined FP and MP Local Training Requirements Exceed IP Local Training Requirements

$$x < \frac{y}{n-1}$$

The requisite local training required for Case 3 can be expressed as:

Equation 10: Required Local Training Sorties For A Case 3 FP: IP/MP Ratio

$$s = \left\lceil \frac{y}{n-1} \right\rceil$$

A simplified unit comprised of three IPs, five MPs and four FPs will illustrate a Case 3 modelling. For this, x=3, y=9 and n=3.

Equation 9 becomes:

$$3 < \frac{9}{3-2}$$

Equation 10 is expressed as:

$$s = \left\lceil \frac{9}{3-1} \right\rceil = 5$$

Figure 4 is a graphical depiction of the above example.

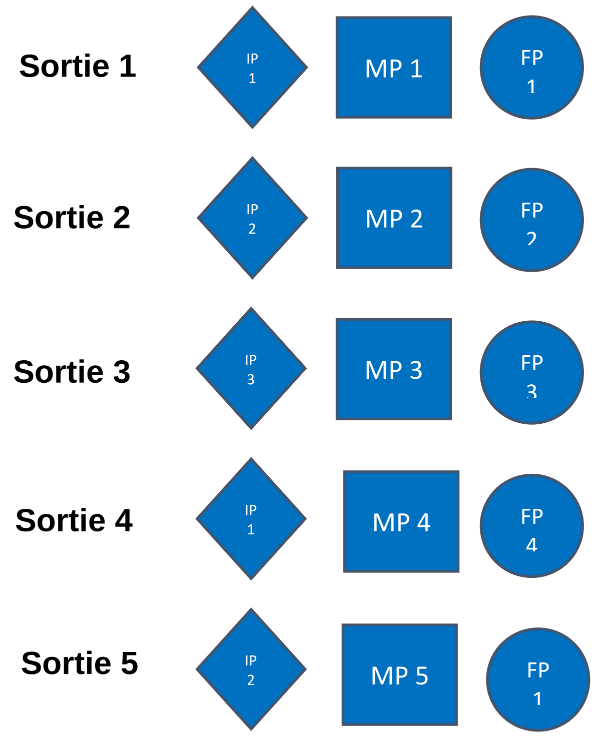


Figure 4: Case 3 Local Sortie Modelling (Source: Author)

Additional Modelling Information

Of particular pertinence to the discussion of baseline currency, is the Tactical Proficiency Sortie (M052). This training requirement was added largely in response to the shortcomings in Syria and Mobility Guardian that were mentioned in the beginning of this paper (Weinberg, 2019). M052 requires a full day of mission planning and instruction prior to sortie execution and a full debrief following the sortie. AFMAN 11-2C-17v1 requires 4x M052 sorties every annual period, therefore a starting baseline it was determined that FTL A and FTL B pilots could accomplish their bare minimum airland and airdrop currency requirements by flying a 5-hour sortie every quarter, with each sortie alternating between day/night.

A pilot's annual flight currency was condensed into the required quarterly M052 events. Modelled sortie timelines are found in Appendix D. Figure 5 and Figure 6 below represent timeline and training event comparisons between a local sortie profile audited from McChord and one of the sortie profiles used in the aforementioned training model.

The audited sortie profile was built for three pilots. Note that 3 hours and 15 minutes into the sortie (per the timeline in figure 5) the pilots "seat swapped" and a pilot occupying a primary position left that position to allow for the 3rd pilot to take his/her place. The modeled airland night sortie profile was built specifically for two pilots and hence, did not require the pilots to seat swap.

To better understand the "low end" methodology employed by the research model, observe that the audited sortie accomplishes 12 training "beans" for two pilots and an additional three air refueling events for an additional pilot, equating to 27 training events on a 4+55 hour sortie. (Reference Figures 5 and 6 below).

Audited Local Sortie Profile			Modeled Airland Sortie Profile		
Takeoff (NVG)	**Time**	**Running Time**	**Takeoff(NVG)**	**Time**	**Running Time**
Transit to AR 338	0+45		Transit to AR 338	0+45	
Refueling complete (w/3 seat swaps @ 10 mins each)	1+30	2+15	Refueling complete	1+15	2+00
Transit KMWH	0+15		Transit to IR326	0+30	
Low overhead to ALZ	0+10		IR326	0+40	3+10
Patterns (3x)	0+20	3+00	Transit KMWH	0+10	
Full Stop, Taxi-Back, Seat Swap	0+15	3+15	Beam Arrival to ALZ	0+10	
Takeoff/Gear Cooling	0+15		Full Stop, Taxi back	0+10	
Low overhead to ALZ	0+10		T/O, Tac departure (high), Set-up	0+10	
Patterns (3x)	0+20	4+00	High Tac Arrival to ALZ	0+10	4+00
Full Stop Taxi Back	0+15		Full Stop, Taxi back	0+10	
Takeoff/Transit TCM	0+30	4+45	T/O, Tac departure (high) Set-up	0+10	
Low overhead to ALZ	0+10		High Tac Arrival to ALZ	0+10	
Full Stop/ALZ		4+55	T/O, Tac departure (low), Setup	0+10	
			Low Tac Arrival to ALZ	0+10	
			Full Stop, Taxi back	0+10	5+00
			Transit TCM	0+30	
TOTAL	4+55		TOTAL	5+30	

Figure 5: Audited vs. Modeled Sortie Timeline Comparison (Source: Author)

Audited Local Sortie Training Events			Modeled Local Sortie Training Events		
P020	TAKEOFF	1	P020	TAKEOFF	2
NV47	NVG TAKEOFF	1	NV47	NVG TAKEOFF	2
R010	RECEIVER AAR	1	M052	INTEGRATED MISSION SORTIE	1
R020	RECEIVER AAR, NIGHT	1	R010	RECEIVER AAR	1
R050	RCVR AAR, AUTO PILOT OFF	1	R020	RECEIVER AAR, NIGHT	1
RS00	TACTICAL ARRIVAL	2	R050	RCVR AAR, AUTO PILOT OFF	1
RS16	LOW TACTICAL ARRIVAL	1	NV17	NVG LOW-LEVEL	1
NV48	NVG LANDING	1	RS00	TACTICAL ARRIVAL	2
NV49	NVG ASSAULT LANDING	1	RS06	HIGH TACTICAL ARRIVAL	1
AS11	LANDING, ASSAULT	1	RS16	LOW TACTICAL ARRIVAL	1
P190	LANDING	1	NV48	NVG LANDING	2
Note: The 3rd pilot on this sortie logs on the aerial refueling events			NV49	NVG ASSAULT LANDING	2
			RS20	TACTICAL DEPARTURE x 2	2
			AS11	LANDING, ASSAULT	2
			P190	LANDING	2
	Training Events/Pilot (+3 events for 3rd pilot)	12		Training Events/Pilot	23
	TOTAL	27		TOTAL	46

Figure 6: Audited vs Modeled Sortie Training Event Comparison (Source: Author)

Crew Rest

Per the crew rest requirements outlined in AFI 11-202v3 and AFMAN 11-2C-17v3, the model assumes that a pilot is untaskable for 12 hours prior to the launch of either a local training sortie or operational mission. The model also considers pilots untaskable for the 12 hours following a local training sortie, as a mission commitment during this period would infringe upon the pre-mission crew rest period for that mission. Following an operational mission, pilots are untaskable for the entire duration of the post-mission crew rest.

The 12-hour "cool down" period following a local mission is commensurate with the model's "low end" approach, as it inherently assumes that pre-mission crew rest is waived to 12 hours. To illustrate, assume that a day sortie launches at 0800L and lands at 1300L. It finishes debriefing at 1500L. Under normal circumstances, its crew could not be alerted for an operational mission until 1500L during the next duty day, though the Operations Group commander could waive the first 12 hours of pre-mission crew rest, which would make that crew taskable at 0300L the next day.

Tanker/Maintenance Cancellation

With respect to tanker cancellation, the model assumes that crews plan for their sortie, and then learn of tanker cancellation at show. They fly the sortie, obtain all of their other training "beans" then enter crew rest to fly (without planning) on the next available sortie that has air refueling. Ergo, a tanker cancellation has the effect of adding two additional days to a training sortie.

For a maintenance cancellation, the model assumes that a crew plans for a sortie, then discovers -at step time- that the aircraft is broken. They are unable to accomplish any flight training, re-enter crew rest and re-fly (without planning) at the next available opportunity. Much like a tanker cancellation, this has the effect of adding an additional two days to a training sortie.

Additional Data Collection

In addition to literature review, information was gathered on AMC scheduling and tasking practices via consultation with subject matter experts at Staff, Wing and Squadron levels. Discussions lasted between 10-40 minutes. This approach permitted clarification that would have not otherwise been possible.

Three sets of questions were considered: squadron instructor pilots were given questions pertaining to training, while schedulers and operations officers were asked about scheduling and apportionment. The researcher sought out subject matter experts at the Wing and Staff levels for the third set of questions, which were considerably more specific than the other two types of discussions, and were utilized to gain insight into differences between theory and execution of the CAAP Scheduling processes.

Squadron Audit Methodology

In order to assess squadron crew allocation, aircrew allocation was audited at two different squadrons from two wings, over two different time periods. When available, this information was taken directly from GDSS2. JBLM and JBC were selected for this audit, given that those two bases collectively represent a wide sampling of C-17 mission sets. Scheduling information over a 21-day period was sampled at each of these locations.

This audit was conducted in-person from 7-14 February 2019 at McChord and from 14-19 April 2019 at Charleston. To sample 21 days' worth of data, the researcher looked not only at the current week's scheduling data, but one week back and one week ahead. Both JBLM and JBC possess three active duty C-17 flying squadrons. It was determined that there was greater benefit in diversifying the data by sampling squadrons across multiples bases, than there was in trying to capture a single wing's allocation. As each squadron represents only 1/3 of its respective base's allocation, squadron data was "prorated" across the entire wing by assuming that an individual squadron's manning allocation was representative of the other two squadrons at that air wing.

Scheduling data at each above bases was pulled from GDSS2. GDSS2 is AMC's premiere Command and Control (C2) suite. It functions on both Non-Classified Internet Protocol Router Network (NIPRnet) and Secret Internet Protocol Router Network (SIPRnet). GDSS2 is used by both the organizational level and unit level of AMC to assign crews, tails and mission numbers to both operational and training tasking. As crews do not consistently enter duties apart from flying (doctor's appointments, officework, etc) into GDSS2, squadron schedulers were consulted to determine an individual's actual availability when they showed as untasked in GDSS2.

To organize scheduling data, each day was broken down into three, 8-hour increments. The researcher designated “Period 1” as the time from 2400L-0800L, “Period 2” as the time from 0800L-1600L and “Period 3” as the time from 1600L-2400L. This 8-hour resolution facilitated the aggregation of events into traditional duty (period 2) and non-duty (periods 1 and 3).

Given that the guiding precept in aggregating this data was to determine actual crew availability as it pertains to operational tasking, information from GDSS2 was rounded down to the nearest start-time and rounded up to the nearest finish time within a respective period. For instance, a pilot with a doctor’s appointment from 0930L-1100L would show scheduled for 0800L-1600L, as this doctor’s appointment would preclude that crewmember from being tasked with an operational mission during the period 2 timeframe. This crewmember would, however, still be available to accomplish office work and simulator training following the appointment. In the event that crew members had multiple commitments during any given scheduling period, the longest-running commitment was selected as representative for the entire period.

When applicable, pre-mission crew rest was rounded down to compensate for the aforementioned schedule “expansion”. To use the previous example, the soonest that the crew member with the doctor’s appointment could be tasked to fly an operational mission would be 1100L the next day. While the aforementioned data tracker would show an appointment from 0800L-1600L, it would only show pre-mission crew rest from 1600L-0800L, followed by an operational mission tasking beginning at 0800L the next day.

Both operational and training crews use a duty day (either the first or second day prior to mission execution) as a planning period. As this period is not traditionally reserved in GDSS2, it was added for both operational and training crews in the audit.

The collected data was coded into one of 33 task categories below. Raw data is found in Appendix E. The designators given to each of those scheduling tasks in the raw data are listed in Table 6.

Table 6: Squadron Audit Allocation Designators

Task	Designator
Local Mission Planning	LPLN
Simulator	SIM
Operation DEEP FREEZE	ODF
Operational Msn	M
Operational Mission Planning	OPLN
Pre-Mission Crewrest	PRE
Post Mission Crewrest	POST
Ground Deployment	GD
Flying Deployment	D
Flying Squadron Office	OFF
Operational Support Squadron Office	SOFF
Group Office	GOFF
Wing Office	WOFF
Attached Crewmember	A
Air Mobility Liaison Officer	AMLO
Altus TDY (Upgrade)	LTS
Squadron Officer School	SOS
Planning Conference (Exercise)	PLN
TDY (Other)	OTDY
Ground Training (Other)	GND
First Pilot Course	FPC
Tactics Integration Cell	TIC
Leave	L
Duties Not Including Flying (DNIF)	DNIF
Deployment Line	DPL
Household Goods Shipment	HHG
In-Processing	In Proc
SOLL II Unavailable	SOLL II
SOLL II Upgrade	SOLU
J1 Alert	J1
J1 Alert Reconstitution	J1R
J3 Alert	J3
J3 Alert Reconstitution	J3R

From this information, the number of available EPs, IPs, MPs and FPs was inventoried over any given period. As the former three demographics are capable of commanding missions, they were aggregated together into an additional category, “available A-codes”. From this, a determination of crew availability (we will call this *Periodic Crew Availability)* was derived by comparing the number of available A-codes to the number of available first pilots and constructing crews from this ratio. For the situation in which the number A-coded crew members, *x* exceeds the number of First Pilots, *y* by a factor of two or more, the crew availability (CA) is given by summing all available crew members and diving by 3, then rounding down to the nearest integer. Expressed mathematically:

Equation 11: Squadron Audit Crew Availability Eqn A

$$for\ \ x > \frac{y}{2},\ \ CA = \lfloor \frac{x+y}{3} \rfloor$$

Conversely, if the number of available A-coded crew members, does not meet this criteria, total crew availability is A-code limited and expressed by:

Equation 12: Squadron Audit Crew Availability Eqn B

$$for\ x < \frac{y}{2}, CA = x$$

From Appendix E, reference Charleston Day 2, Period 2.

During that timeframe, Charleston had 15 available A-coded crew members and five copilots. With that, equation 11 is:

$$CA = \left\lfloor \frac{15 + 5}{3} \right\rfloor = \left\lfloor \frac{20}{3} \right\rfloor = 6$$

Note that crew availability –as expressed– here, represents only number of crews that are available during that particular instant in time.

For a crew to be taskable on an operational mission, they must be available for not only the duration of that mission, but for the pre-mission time prior and post-mission time subsequent to that mission. Let another variable, *A-code mission availability* (x_{MA}) be defined as A-code availability projected over a time period, *t*, that encapsulates pre-mission crew rest, mission execution and post-mission crew rest. Similarly, *first pilot mission availability* (y_{MA}) is first pilot availability over the same time period, *t*. The number of crews available during the period *t*, Crew *Mission Availability* (C_{MA}), can then be derived from Equations 11 & 12 as such:

Equation 13: Squadron Audit Crew Mission Availability Eqn A

$$for\ x_{MA} > \frac{y_{MA}}{2}\ , C_{MA} = \left\lfloor \frac{x_{MA} + y_{MA}}{3} \right\rfloor$$

Equation 14: Squadron Audit Crew Mission Availability Eqn B

$$for\ x_{MA} < \frac{y_{MA}}{2}\ , C_{MA} = \lfloor x_{MA} \rfloor$$

As a starting point, *t* is defined as a 7-day period. This includes 24 hours of pre-mission crew rest and a 4.5-day mission followed by 1.5 days of post mission crew rest.

This assumption is conservative, given that for the sample period at McChord, the average mission duration was 5.5 days. (This number includes JA/AATs, which are typically one-day sorties).

"Look-Ahead" Scheduling reliability

From the data in Appendix E, one will observe that the scheduling information becomes considerably less reliable in the "look ahead" period. This is on account of two factors:

1. The operations tempo in squadrons precludes scheduling in advance and, as mentioned previously, the squadrons were audited in the middle of each month.

2. The above algorithm that defines the taskable time period t, does not look past the end of the sampling period. Therefore, *t* effectively becomes smaller when the end of the sample period occurs within its interval. For instance, using a 7-day interval as outlined above, with a squadron audit period running from 1 to 22 March, a 7-day availability projection would run from 15 to 22 March. On 16 March, *t* is not defined beyond the end of the audit period so its effective interval becomes 6 days. On 17 March, *t* is effectively 5 days. On 18 March, *t* is effectively 4 days, etc.

Combined, these factors create the illusion of excess availability towards the end of the sample period. For these reasons, the researcher conducted his analysis over both the 21-day interval and an adjusted 14-day interval.

IV. Analysis and Results

Modelling Results

Model output was compared with actual Calendar Year (CY) 18 information insofar as total training hours, airland training hours, airdrop training hours, sortie count and crew training fence is concerned. Next, sortie structure was analyzed to determine what cost (in terms of crews, hours and/or sorties) would be incurred by grouping similar training events together in order to deliberately structure local training towards more coherent objectives.

Table 7 contains a comparison between actual Calendar Year 18 (CY18) and modeled flight hours, crew allocation and sortie count.

Table 7: Modeled FHPs vs CY18 FHPs for Four C-17 Bases. (Source: Author)

	CHS	TCM	SUU	DOV
Modeled TOTAL Hours	4411.0	3501.0	1664.0	1181.0
CY 18 TOTAL Hours	4666.8	3123.9	1515.0	1134.4
Total delta	5.5%	-12.1%	-9.8%	-4.1%
Modeled Airdrop Hours	954.0	522.0	NA	NA
CY 18 Airdrop Hours	2588.6	550.5	0.0	0.0
Airdrop Delta	63.1%	5.2%	NA	NA
Modeled Airland Hours	3457.0	2979.0	1664.0	1181.0
CY 18 Airland Hours	2078.2	2573.4	1515.0	1134.4
Airland Delta	-66.3%	-15.8%	-9.8%	-4.1%
Modeled Fenced Crews	22.0	18.0	7.0	6.0
Actual Fenced Crews	18.0	15.0	4.0	4.0

Observe that the total FHP of each unit is represented to within 15% of its actual value. As mentioned previously, this number represents an over-estimate for three of the four bases. While Charleston's total CY18 FHP is modeled to within 5.48% of its actual value, Charleston's airdrop allocation is underestimated on the order of 63.15% by the model and its airland allocation is overestimated on the order of 66.35% by the model. This difference arises from the fact that Special Operations Low Level II (SOLL II) training missions include both airdrop and airland training events but are coded as airdrop sorties by Charleston. Of the 2588.6 airdrop hours flown and logged by Charleston in CY18, 1131.1 (43.6%) were SOLL II training sorties. An example of a SOLL II training profile may be found in Appendix G. For the one instance in which sortie count was provided independently of flight hours (Dover), this was used as an additional validation metric. (Dover flew 216 local area training sorties in 2018, the model predicted 232, representing a 7% deviation from Dover's actual FHP).

Significantly, Charleston and McChord are each under-allocated four and three weekly training crews, respectively. Travis and Dover are under-allocated three and two crews, respectively.

This data was used to explore measures which might be implemented to increase the efficiency of C-17 local training. Revisiting the audited local mentioned in section III, it was observed that there were three time periods in the sortie that represent "lost opportunity cost" with respect to training:

1. Transitioning to/from different objective areas
2. Extended periods of flying to cool the landing gear following assault landings
3. "Seat swap" periods during which pilots transition into/out of primary crew positions

Figure 7 represents the aforementioned sortie example with the above periods highlighted in orange.

Audited Local Sortie Profile		
Takeoff (NVG)	Time	Running Time
Transit to AR 338	0+45	
Refueling complete (w/3 seat swaps @ 10 mins each)	1+30	2+15
Transit KMWH	0+15	
Low overhead to ALZ	0+10	
Patterns (3x)	0+20	3+00
Full Stop, Taxi-Back, Seat Swap	0+15	3+15
Takeoff/Gear Cooling	0+15	
Low overhead to ALZ	0+10	
Patterns (3x)	0+20	4+00
Full Stop Taxi Back	0+15	
Takeoff/Transit TCM	0+30	4+45
Low overhead to ALZ	0+10	
Full Stop/ALZ		4+55
TOTAL	4+55	

Figure 7: Representative C-17 local training sortie with inefficiencies highlighted. (Source: Author)

Alternate Local Training Sortie Structure: Focused abd Efficient C-17 Training

It was observed that C-17 training events fall into five, broad categories:

1. Instrument training
2. Airland objective ingress and egress
3. Aerial refueling
4. Low altitude airdrop
5. High altitude airdrop

Not only will the aggregation of similar training events increase the focus of a training sortie, but it will serve to increase the efficiency of these sorties by minimizing the amount of time spent transitioning between objective areas. In limiting the number of pilots onboard these sorties to a maximum of three pilots (four for aerial refueling sorties), the lost training opportunity during "seat swaps" is also minimized. Lastly, the inefficiency induced by gear-cooling is minimized by using pre-planned maneuvers (such as configured tactical descents) to cool the landing gear following an assault landing. The implementation of this type of sortie organization requires no adjustment to current C-17 training regulations.

Appendix H contains a comprehensive list of sample sorties, timelines and training events accomplished within the above "alternative" training structure. Appendix H contains "training tables" in which the training events in AFMAN 11-2C-17v1 are organized within the above construct pertinent to FTL and required frequency. In this construct, any "day" sortie may be substituted with a "night" sortie. Quarterly day and night sorties in any given semi-annual period may be interchanged. Figure 8 is an excerpt from this table.

Airland	Q1	Q2	Q3	Q4
IP A	**1x AR (day)** **1x Integration Sortie (day)** ***1x Phase Sim***	**1x AR (night)** **1x Integration Sortie (night)** ***1x Phase Sim***	**1x AR (day)** **1x Integration Sortie (day)** ***1x Phase Sim***	**1x AR (night)** **1x Integration Sortie (night)** ***1x Phase Sim***
	1x G250 (AR or IE) ***1x Instrument Sim***		***1x G250 (AR or IE)*** ***1x Instrument Sim***	
IP B	**1x AR (day)** **1x Integration Sortie (day)** ***1x Phase Sim***	**1x AR (night)** **1x Integration Sortie (night)** ***1x Phase Sim***	**1x AR (day)** **1x Integration Sortie (day)** ***1x Phase Sim***	**1x AR (night)** **1x Integration Sortie (night)** ***1x Phase Sim***
	1x G250 (AR or IE) ***1x Instrument Sim***		***1x G250 (AR or IE)*** ***1x Instrument Sim***	
MP A	**1x AR (day)** **1x Integration Sortie (day)** ***1x Phase Sim***	**1x AR (night)** **1x Integration Sortie (night)** ***1x Phase Sim***	**1x AR (day)** **1x Integration Sortie (day)** ***1x Phase Sim***	**1x AR (night)** **1x Integration Sortie (night)** ***1x Phase Sim***
	1x G250 (AR or IE) ***1x Instrument Sim***		***1x G250 (AR or IE)*** ***1x Instrument Sim***	
MP B	**1x AR (day)** **1x Integration Sortie (day)** ***1x Phase Sim***	**1x AR (night)** **1x Integration Sortie (night)** ***1x Phase Sim***	**1x AR (day)** **1x Integration Sortie (day)** ***1x Phase Sim***	**1x AR (night)** **1x Integration Sortie (night)** ***1x Phase Sim***
	1x G250 (AR) ***1x Instrument Sim***		***1x G250 (AR)*** ***1x Instrument Sim***	
MP C	**1x AR (day)** **1x Integration Sortie** ***1x Phase Sim*** ***1x Instrument Sim*** ***1x G250 (AR or IE)***	**1x AR (Night)** **1x Integration Sortie** ***1x Phase Sim*** ***1x Instrument Sim*** ***1x G250 (AR or IE))***	**1x IE Day** **1x AR (day)** **1x Integration Sortie** ***1x Phase Sim*** ***1x Instrument Sim*** ***1x G250 (AR or IE)***	**1x IE Night** **1x AR (Night)** **1x Integration Sortie** ***1x Phase Sim*** ***1x Instrument Sim*** ***1x G250 (AR or IE)***
	1x IE Day		**1x IE Night**	

Figure 8: Proposed Alternate Training Table (Excerpt)

To illustrate, an airland MP FTL B pilot would need to fly a day aerial refueling (AR) sortie, a day integration sortie, and a phase simulator sortie in the first quarter to maintain currency. In the second quarter they would need a night AR sortie, a night integration sortie, and another phase simulator to maintain currency. However, this pilot could also interchange the night AR sortie in the first quarter with a day AR sortie in the second quarter. Similarly, this pilot could fly a night integration sortie in the first quarter and a day integration sortie in the second quarter. Also note that during the first semi-annual period, this pilot would need to fly a single G250 AR simulator sortie (on schedule to maintain air refueling currency between air refueling flights) and a simulator instrument sortie.

To quickly realize the efficiency brought about by this aggregation of events, examine the representative training sortie referenced throughout this paper compared to a sortie from the alternative profile mentioned above.

Audited Local Sortie Training Events			Modeled Local Sortie Training Events		
P020	TAKEOFF	1	P020	TAKEOFF	2
NV47	NVG TAKEOFF	1	NV47	NVG TAKEOFF	2
R010	RECEIVER AAR	1	M052	INTEGRATED MISSION SORTIE	1
R020	RECEIVER AAR, NIGHT	1	R010	RECEIVER AAR	1
R050	RCVR AAR, AUTO PILOT OFF	1	R020	RECEIVER AAR, NIGHT	1
RS00	TACTICAL ARRIVAL	2	R050	RCVR AAR, AUTO PILOT OFF	1
RS16	LOW TACTICAL ARRIVAL	1	NV17	NVG LOW-LEVEL	1
NV48	NVG LANDING	1	RS00	TACTICAL ARRIVAL	2
NV49	NVG ASSAULT LANDING	1	RS06	HIGH TACTICAL ARRIVAL	1
AS11	LANDING, ASSAULT	1	RS16	LOW TACTICAL ARRIVAL	1
P190	LANDING	1	NV48	NVG LANDING	2
Note: The 3rd pilot on this sortie logs on the aerial refueling events			NV49	NVG ASSAULT LANDING	2
			RS20	TACTICAL DEPARTURE x 2	2
			AS11	LANDING, ASSAULT	2
			P190	LANDING	2
	Training Events/Pilot (+3 events for 3rd pilot)	**12**		**Training Events/Pilot**	**23**
	TOTAL Training Events	**27**		**TOTAL Training Events**	**46**

Figure 8: Comparison of Training Logged in Traditional Vs Alternate Sortie Structure

Not only would this alternative sortie structure provide crews with more coherent, focused training sorties, but by utilizing the modelling developed for this research, in conjunction with the organizational sortie structure above, it was determined that AMC could attain -on average- an 18.4% savings in flight hours and a 14.1% savings in sorties. Table 10 summarizes these results across the four C-17 units audited in this study.

Table 8: Resource Comparison Between Traditional and Alternate Sortie Structures. (Source: Author)

	CHS	TCM	SUU	DOV
Traditional Sortie Structure				
Hours	4411	3501	1664	1181
Sorties	924	734	338	246
Weekly Fenced/Crews	22	18	7	6
Alternate Sortie Structure				
Hours	4000	3096	1090	968.00
Sorties	898	690	218	216
Weekly Fenced/Crews	23	18	7	6
Delta (%)				
Hours	9.3%	11.6%	34.5%	18.0%
Sorties	2.8%	6.0%	35.5%	12.2%
Weekly Fenced/Crews	0.0%	0.0%	0.0%	0.0%

Alternatively, by maintaining FHPs at their current levels, while utilizing the above construct, the C-17 crew force could leverage efficiency to both reconstitute the C-17 crew force and provide operations officers with scheduling flexibility.

As an additional benefit, the deliberate sortie structuring model provides operations officers with heightened forecasting ability. Rather than scrutinizing 187 disparate items to determine whether or not a pilot will go “non current” over a sortie, Operations Officers could simply reference whether or not a pilot had met the prescribed sortie schedule at the end of Appendix H.

The analysis above represents a key finding from this research: by focusing training sorties into constructs with a coherent focus, and by restricting the number of pilots on board these sorties, less training resources are required.

Alternate Sortie Structure Contingencies:

The prescribed model takes a multi-tiered approach in protecting local training. First, by protecting the planning period prior to a sortie, this model enables IPs to plan training to locations at which the weather supports operations. Should weather still preclude operations at launch, the author recommends rescheduling the sortie so that training can be accomplished. (It is noteworthy that, under the existing training structure, if crews are unable to accomplish their training on account of weather, they must refly.) If the point of a deliberately planned training sortie is accomplish specific skills, why expend resources (namely, time and money) needlessly when those skills cannot be accomplished?

If an unforeseen circumstance arise during the course of a sortie and training is incomplete, pilots may log up to one missed Ingress and Egress (Is and Es) and one Integration sortie in the simulator every semi-annual period while still meeting the guidance in the current AFMAN 11-2C-17v1 Chapter 4 training tables. This authority should be relegated to the squadron Weapons Officer, Chief Pilot or in-unit training SME, who possesses the insight as to the capability of a unit’s crew force and can exercise judgment in whether a pilot should attempt to re-accomplish training in the aircraft, or whether the simulator will suffice for the remaining currency items.

In the event that a Ready Aircrew Program (RAP) tasking message changes the tables, Wing Tactics and Wing Training (OSK and OST, respectively) should work together to adapt the new training table construct into the above structure. (This would provide AMC with the opportunity to use those organizations in their doctrinal role.)

Squadron Audit Results

Table 11 below is a summary of the comparison between the actual unit pilot allocation for a squadron at McChord and a squadron at Charleston, with each unit's UAL during the pertinent timeframe, for both the full sample and adjusted sample timeframes.

Table 9: Projected UAL Crew Allocation Vs Actual Allocation

Allocation	CHS		TCM	
Line Assigned Crews (AAMS)	70		60	
Basic Crews	105		90	
Tota Possessed Tails (A4MM)	32		34	
Effective Crew Ratio	3.28		2.65	
	Full Sample	Adjusted Sample	Full Sample	Adjusted Sample
Mission Crews (UAL)	27	27	23	23
Mission Crews (actual)	14	16	15	16
Alert	5	5	NA	NA
Total	19	21	15	16
Training Crews (UAL)	18	18	15	15
Training Crews (Actual)	2	2	2	2
Admin Overhead UAL)	27	27	24	24
Admin Overhead (actual)	40	40	39	41
UAL UNIT AVAILABLE (Average)	-1	-1	-1	-1
OGS Tasked	9	9	NA	NA
DAILY AVAILABLE (Average)	5	4	10	5
Mission Available (Average)	5	3	5	0
UAL Crews	71	71	61	61
Actual Accounted Crews	75	77	66	64

Observe that the Admin overhead allocation in the UAL underestimates the actual unit administrative overhead by 12 crews at Charleston and 15 crews at McChord. It is also noteworthy that the training fences at these two bases are drastically under-allocated by 16 and 13 crews for Charleston and McChord, respectively. As the unit audit counted API6 crew positions against a unit's allocation, each of Charleston and McChord will indicate approximately seven crews above the AAMS line assigned count. It is safe to assume that these positions -by their nature- function in primarily the admin overhead capacity. Adjusting Admin overhead for API6 crews, we see that and overage of five positions (32 total) in the Admin overhead bin for the Charleston adjusted sample, and eight crews at McChord in the same apportionment.

As pre-mission planning and crew rest for both operational and local training sorties -and post-mission crew rest for operational sorties- is apportioned to the "admin overhead" bin, it is difficult to tell the extent to which each of the operational and local mission taskings actually affect the unit admin allocation.

The data suggests that both bases "borrow" from their training overhead allocation to fill operational an administrative tasking. Given a conservative assumption that the crew shortages at the aforementioned bases are manifest only in the training fence, adding 16 and 13 augmented crews to each respective base raises Charleston's crew ratio by 0.7 and McChord's crew ratio by 0.8.

The above analysis also invites the question: With McChord and Charleston training programs manned -on average- at 13% and 11% respectively, how do units stay current with their 'training fence' so drastically under allocated?

It was hypothesized that units conduct “bleacher seating” (overloading local training sorties) towards the end of a semi-annual period to maintain currency. This hypothesis is consistent with data obtained from a squadron at McChord at the end of 2017. Data was collected over a two-month period, with the number of pilots scheduled against the training line vs those who were present at mission planning recorded. In the event that a crew member could not attend mission planning, the reason was annotated. Data from 15-26 December is not available, as the data was lost. During this period, only 54% of the pilots were at mission planning. That data is represented in Table 12.

Table 10: Sq Local Training Sample at End of Semi-Annual Period (Source: Author)

Date	# Pilots on Sortie	# Pilots at Mission Planning	Reason Missed Planning
7-Nov	4	3	Child sick
8-Nov	6	3	Officework
13-Nov	4	3	Post Mission Crew Rest
14-Nov	2	2	N/A
16-Nov	3	2	Leave
20-Nov	6	1	Post Mission Crew Rest / Officework
27-Nov	5	2	Post Mission Crew Rest / Officework
14-Dec	3	1	Post Mission Crew Rest / Officework
15-Dec	Data Not Available		
26-Dec			
27-Dec	4	2	Post Mission Crew Rest / Officework
30-Dec	4	3	Post Mission Crew Rest / Officework

Pre-mission planning is foundational to setting the tone and expectation for the sortie, as well as equipping students with tools to enable safe execution of that sortie. It is also significant to note that having more than three pilots on a local training sortie precludes loadmasters from sitting on the flight deck and observing cockpit activity. There is significant value in the Crew

Resource Management (CRM) skills that pilots and loadmasters glean from this type of training. For training sorties comprised of more than four pilots, additional crew members must sit either in the compartment behind the flight deck or the cargo compartment.

A follow-on study was conducted at the end of 2018 in which squadrons were asked to self-report on saturated local training and missed mission planning. But the data was discarded after inconsistencies were observed between GDSS2 and squadron-reported information.

Research Summary

A data-driven analysis of C-17 training requirements reveals that AMC currently under-allocates training crews at all four of the bases analyzed in this study (Charleston, McChord, Dover and Travis). Furthermore, an in-depth analysis of AMC's two largest active duty bases revealed a combined shortage of 29 augmented crews (87 pilots total). Nevertheless, currency reporting significantly over-estimates readiness, as data suggests that squadrons over-saturate local training sorties with pilots towards the end of the semi-annual period.

V. Reccomendation/Conclusions

Major Findings

Training represents not only the means for preparing crews to execute their primary mission as mobility aviators, but a point at which culture and purpose are defined. The results of this study suggest that:

1. AMC must formalize the restructuring of local training sorties. By aggregating similar training events, C-17 training programs become more focused and efficient, by an order of 18% in flight hours and 14% in local training sorties. This efficiency could then be used to reconstitute aircrew and provide operations officers with scheduling flexibility and additional forecasting capability.

2. C-17 training resources are neither properly allocated nor protected. As a result, the C-17 crew force is taking 'shortcuts' in its training programs by:

   a. Saturating local training flights with pilots at the end of the semi-annual period

   b. Foregoing the instructional period prior to sortie execution

Recommendations

C-17 Training resources require formal protection, as powerful incentives exist for squadron schedulers and operations officers to expend training resources towards filling operational and administrative taskings. As a starting point, AMC should formally codify the pre-mission planning and instructional period as a requisite for logging local flight training, waiverable only by the Operations Group Commander (OG/CC). This would provide the added benefit of serving as a feedback mechanism with which both a unit's OG/CC and AMC/Staff could assess -in real time- the effect of various LOEs on unit tasking. Given that Reserve and

Active Duty crews inherently work with different scheduling and training resources, this should initially apply to Active Duty crews only.

3. Similarly, to preserve the integrity of training sorties, the number of pilots on local training sorties should be formally restricted to 4 pilots maximum, with the OG/CC as the formal waiver authority.

4. AMC should provide the C-17 crew force with a baseline education in the range of C-17 mission sets. This should consist of a two-hour class -taught by a Weapons Officer or airdrop lead- at the FTU. This 2-hour course should include noteworthy examples of historical C-17 operations and lessons learned from each. Reference Appendix I for a suggested timeline and structure of this course.

5. Data from Charleston and McChord suggests that each base is under-allocated 16 and 13 augmented crews, respectively.

6. By allocating pre and post-mission planning and crew rest resources into their appropriate training or mission bin in the UAL, AMC could not only maintain increased situational awareness on the actual cost of these resources, but it could gain additional insight as to the extent to which various LOEs affect the expenditure of these resources at the Squadron level.

7. After the above measures are implemented, AMC should assess the efficacy of these recommendations by comparing comparing in *Mobility Guardian 2021* to crew performance in *Mobility Guardian 2019* and *Mobility Guardian 2017.*

Lastly, if "ground level" training represents our newest pilots' introduction to organizational norms, and if Air Mobility Command "grows" its leaders from the ground level, the command must consider the message its communicating in fostering a climate which seemingly incentivizes paying lip-service to a series of arbitrarily sequenced training events to create the illusion of competence and capability. Similarly, what could we -as leaders- accomplish if we provided these pilots with open-ended problems in a protected training environment and taught them to think critically?

Future Research

Long-term measures to address the C-17s manning shortfalls –namely, the utilization of the Civil Reserve Air Fleet (CRAF), and increasing the C-17 crew ratio– encourages a cost-benefit analysis of these courses of action. Additionally, the results of the research call into question the validity of AMC's allocation system as it pertains to other AMC platforms. Using the methodology in this study as foundation, data-driven training models can be built for other AMC-platforms and used as starting points for apportionment of training resources to those systems. Furthermore, the deliberate training construct presented in this paper may lend itself well to implementation in other MAF weapon systems.

Appendix A: C-17 February-April 2019 UAL

UNCLASSIFIED

McChord C-17 February

Wing	Category	Group	Row	1-Feb-19	2-Feb-19	3-Feb-19	4-Feb-19	5-Feb-19	6-Feb-19	7-Feb-19	8-Feb-19	9-Feb-19	10-Feb-19	11-Feb-19	12-Feb-19	13-Feb-19	14-Feb-19	15-Feb-19	16-Feb-19	17-Feb-19	18-Feb-19	19-Feb-19	20-Feb-19	21-Feb-19	22-Feb-19	23-Feb-19	24-Feb-19	25-Feb-19	26-Feb-19	27-Feb-19	28-Feb-19
62 AW	Crews		Line Assigned Crews (AAMS)	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
			Crews Committed to HHQ Tasking	21	21	21	22	20	22	22	22	22	22	20	20	20	22	24	22	22	22	22	24	24	24	24	24	25	25	25	25
		CCDR	CCDR Allocation (Crews)	18	18	18	18	18	18	18	18	19	19	19	19	19	19	19	19	19	19	19	15	15	15	15	15	15	15	15	15
			Deployed	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
			Long Range Schedule (CCDR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			TACC Mission (Manual Entry)	10	10	10	10	10	10	10	10	11	11	11	11	11	11	11	11	11	11	11	7	7	7	7	7	7	7	7	7
		MAJCOM	OT&E Allocation (Crews)	42	42	42	42	42	42	42	42	41	41	41	41	41	41	41	41	41	41	41	45	45	45	45	45	45	45	45	45
			MAJCOM Crew Allocation	3	3	3	4	2	4	4	4	3	3	1	1	1	3	5	3	3	3	3	9	9	9	9	9	10	10	10	10
			MAJCOM Mission	3	3	3	4	2	4	4	4	3	3	1	1	1	3	5	3	3	3	3	9	9	9	9	9	10	10	10	10
			Untasked MAJCOM (Crews)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			UNIT Allocation (Crews)	39	39	39	38	40	38	38	38	38	38	40	40	40	38	36	38	38	38	38	36	36	36	36	36	35	35	35	35
		UNIT	UNIT Admin Overhead: Crews	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
			Training Overhead: (Crews)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
			UNIT Available	1	1	1	0	2	0	0	0	0	0	2	2	2	0	-2	0	0	0	0	-2	-2	-2	-2	-2	-3	-3	-3	-3
	Tails		Total Possessed Tails (A4MM)	32	32	32	32	32	32	32	33	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
			Aircraft Commit Rate	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
			Committed Tails = Possessed X Commit Rate	27	26	26	25	25	25	25	27	28	28	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28	28	28	28
		CCDR	CCDR Allocation (Tails)	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	11	11	11	11	11	11	11	11	11
			Deployed	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
			Long Range Schedule (CCDR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			TACC Mission (Manual Entry)	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	7	7	7	7	7	7	7	7	7
		MAJCOM	OT&E Allocation (Tails)	19	19	19	19	19	19	19	20	21	21	21	21	21	21	21	21	21	21	21	23	23	23	23	23	23	23	23	23
			MAJCOM Allocation (Tails)	9	8	8	7	7	7	7	9	10	10	9	9	9	9	10	10	10	10	10	12	12	12	12	12	12	12	12	12
			MAJCOM Missions	6	2	2	7	6	6	6	1	0	0	4	4	4	0	1	0	0	0	4	4	5	6	6	6	2	2	6	6
			Untasked MAJCOM	3	6	6	0	1	1	1	8	10	10	5	5	5	9	9	10	10	10	6	8	7	6	6	6	10	10	6	6
			UNIT Allocation (Tails)	10	11	11	12	12	12	12	11	11	11	12	12	12	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11
		UNIT	MX Allocation	5	6	6	7	7	7	7	6	6	6	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6
			TNG Allocation	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
			UNIT Baseline Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

March-2019-"A2"

(as of 1Mar2019) Date:

CMD	MDS	Unit
AMC	C-17	62 AW

62 AW March 2019 "A2" (1 Mar 2019)

Category	Item	1-Mar-19	2-Mar-19	3-Mar-19	4-Mar-19	5-Mar-19	6-Mar-19	7-Mar-19	8-Mar-19	9-Mar-19	10-Mar-19	11-Mar-19	12-Mar-19	13-Mar-19	14-Mar-19	15-Mar-19	16-Mar-19	17-Mar-19	18-Mar-19	19-Mar-19	20-Mar-19	21-Mar-19	22-Mar-19	23-Mar-19	24-Mar-19	25-Mar-19	26-Mar-19	27-Mar-19	28-Mar-19	29-Mar-19	30-Mar-19	31-Mar-19
Crews	Line Assigned Crews (AAMS)	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Crews	Crews Committed to HHQ Tasking	24	24	24	21	21	23	23	23	23	23	23	25	25	23	24	24	25	24	24	19	19	22	21	21	22	22	20	20	20	20	20
Crews – CCDR	CCDR Allocation (Crews)	14	14	14	14	14	14	14	14	14	14	14	14	14	14	13	13	13	13	13	14	14	14	14	14	14	14	14	14	14	14	14
Crews – CCDR	Deployed	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Crews – CCDR	Long Range Schedule (CCDR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crews – CCDR	TACC Mission (Manual Entry)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8
Crews – MAJCOM	OT&E Allocation (Crews)	46	46	46	46	46	46	46	46	46	46	46	46	46	46	47	47	47	47	47	46	46	46	46	46	46	46	46	46	46	46	46
Crews – MAJCOM	MAJCOM Crew Allocation	10	10	10	7	7	9	9	9	9	9	9	11	11	9	11	11	12	11	11	5	5	8	7	7	8	8	6	6	6	6	6
Crews – MAJCOM	MAJCOM Mission	10	10	10	7	7	9	9	9	9	9	9	11	11	9	11	11	12	11	11	5	5	8	7	7	8	8	6	6	6	6	6
Crews – MAJCOM	Untasked MAJCOM (Crews)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crews – UNIT	UNIT Allocation (Crews)	36	36	36	39	39	37	37	37	37	37	37	35	35	37	36	36	35	36	36	41	41	38	39	39	38	38	40	40	40	40	40
Crews – UNIT	UNIT Admin Overhead: Crews	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Crews – UNIT	Training Overhead: (Crews)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Crews – UNIT	UNIT Available	-2	-2	-2	1	1	-1	-1	-1	-1	-1	-1	-3	-3	-1	-2	-2	-3	-2	-2	3	3	0	1	1	0	0	2	2	2	2	2
Tails	Total Possessed Tails (A4MM)	31	31	31	31	31	31	31	31	32	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
Tails	Aircraft Commit Rate	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Tails	Committed Tails = Possessed X Commit Rate	26	26	26	25	24	24	25	26	27	28	27	27	27	28	28	28	28	27	27	27	27	28	28	28	28	28	28	28	28	28	28
Tails – CCDR	CCDR Allocation (Tails)	14	14	14	14	14	14	14	14	14	14	14	14	14	14	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Tails – CCDR	Deployed	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Tails – CCDR	Long Range Schedule (CCDR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tails – CCDR	TACC Mission (Manual Entry)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Tails – MAJCOM	OT&E Allocation (Tails)	17	17	17	17	17	17	17	17	18	19	19	19	19	19	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Tails – MAJCOM	MAJCOM Allocation (Tails)	7	7	7	6	5	5	6	7	8	9	8	8	8	9	10	10	10	9	9	9	9	10	10	10	10	10	10	10	10	10	10
Tails – MAJCOM	MAJCOM Missions	6	6	6	4	4	4	4	4	4	4	5	5	5	4	5	6	7	6	6	6	6	9	8	8	9	9	8	8	8	8	8
Tails – MAJCOM	Untasked MAJCOM	1	1	1	2	1	1	2	3	4	5	3	3	3	5	5	4	3	3	3	3	3	1	2	2	1	1	2	2	2	2	2
Tails – UNIT	UNIT Allocation (Tails)	10	10	10	11	12	12	11	10	10	10	11	11	11	10	10	10	10	11	11	11	11	10	10	10	10	10	10	10	10	10	10
Tails – UNIT	MX Requirement (Forecast)	5	5	5	6	7	7	6	5	5	5	6	6	6	5	5	5	5	6	6	6	6	5	5	5	5	5	5	5	5	5	5
Tails – UNIT	TNG Allocation	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Tails – UNIT	UNIT Baseline Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CMD	MDS	Unit
AMC	C-17	437 AW

437 AW March 2019 "A2" (1 Mar 2019)

		1-Mar-19	2-Mar-19	3-Mar-19	4-Mar-19	5-Mar-19	6-Mar-19	7-Mar-19	8-Mar-19	9-Mar-19	10-Mar-19	11-Mar-19	12-Mar-19	13-Mar-19	14-Mar-19	15-Mar-19	16-Mar-19	17-Mar-19	18-Mar-19	19-Mar-19	20-Mar-19	21-Mar-19	22-Mar-19	23-Mar-19	24-Mar-19	25-Mar-19	26-Mar-19	27-Mar-19	28-Mar-19	29-Mar-19	30-Mar-19	31-Mar-19
Crews	Line Assigned Crews (AAMS)	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
Crews	Crews Committed to HHQ Tasking	28	27	25	26	26	26	26	27	25	26	26	26	29	29	27	26	26	24	24	24	24	25	24	24	27	27	27	27	28	24	24
Crews – CCDR	CCDR Allocation (Crews)	28	27	25	25	25	25	25	26	25	24	24	24	24	24	25	24	24	24	24	24	24	25	24	24	24	24	24	24	25	24	24
Crews – CCDR	Deployed	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Crews – CCDR	Long Range Schedule (CCDR)	7	6	6	6	6	6	6	7	6	6	6	6	6	6	7	6	6	6	6	6	6	7	6	6	6	6	6	6	7	6	6
Crews – CCDR	TACC Mission (Manual Entry)	15	15	13	13	13	13	13	13	13	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Crews – MAJCOM	OT&E Allocation (Crews)	41	42	44	44	44	44	44	43	44	45	45	45	45	45	44	45	45	45	45	45	45	44	45	45	45	45	45	45	44	45	45
Crews – MAJCOM	MAJCOM Crew Allocation	0	0	0	1	1	1	1	1	0	2	2	2	5	5	2	2	2	0	0	0	0	0	0	0	3	3	3	3	3	0	0
Crews – MAJCOM	MAJCOM Mission	0	0	0	1	1	1	1	1	0	2	2	2	5	5	2	2	2	0	0	0	0	0	0	0	3	3	3	3	3	0	0
Crews – MAJCOM	Untasked MAJCOM (Crews)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crews – UNIT	UNIT Allocation (Crews)	41	42	44	43	43	43	43	42	44	43	43	43	40	40	42	43	43	45	45	45	45	44	45	45	42	42	42	42	41	45	45
Crews – UNIT	UNIT Admin Overhead: Crews	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
Crews – UNIT	Training Overhead: (Crews)	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Crews – UNIT	UNIT Available	-4	-3	-1	-2	-2	-2	-2	-3	-1	-2	-2	-2	-5	-5	-3	-2	-2	0	0	0	0	-1	0	0	-3	-3	-3	-3	-4	0	0
Tails	Total Possessed Tails (A4MM)	32	32	31	31	31	31	31	31	32	32	32	32	32	32	32	32	32	32	32	32	32	34	34	34	34	34	34	34	34	34	34
Tails	Aircraft Commit Rate	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Tails	Committed Tails = Possessed X Commit Rate	24	26	22	22	22	23	23	24	26	25	25	25	25	25	25	25	25	25	25	25	25	27	27	28	28	28	28	28	28	28	28
Tails – CCDR	CCDR Allocation (Tails)	18	18	15	15	15	15	15	15	15	15	15	15	15	15	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Tails – CCDR	Deployed	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Tails – CCDR	Long Range Schedule (CCDR)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Tails – CCDR	TACC Mission (Manual Entry)	13	13	10	10	10	10	10	10	10	10	10	10	10	10	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Tails – MAJCOM	OT&E Allocation (Tails)	14	14	16	16	16	16	16	16	17	17	17	17	17	17	15	15	15	15	15	15	15	17	17	17	17	17	17	17	17	17	17
Tails – MAJCOM	MAJCOM Allocation (Tails)	0	2	1	1	1	2	2	3	5	4	4	4	4	4	2	2	2	2	2	2	2	4	4	5	5	5	5	5	5	5	5
Tails – MAJCOM	MAJCOM Missions	0	0	0	1	1	1	1	1	0	2	2	2	4	4	2	2	2	1	1	1	1	1	1	0	2	2	2	2	2	0	0
Tails – MAJCOM	Untasked MAJCOM	0	2	1	0	0	1	1	2	5	2	2	2	0	0	0	0	0	1	1	1	1	3	3	5	3	3	3	3	3	5	5
Tails – UNIT	UNIT Allocation (Tails)	14	12	15	15	15	14	14	13	12	13	13	13	13	13	13	13	13	13	13	13	13	13	13	12	12	12	12	12	12	12	12
Tails – UNIT	MX Requirement (Forecast)	8	6	9	9	9	8	8	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	6	6	6	6	6	6	6
Tails – UNIT	TNG Allocation	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Tails – UNIT	UNIT Baseline Adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

April-2019- "B"

(effective 18Apr2019)

CMD	MDS	Unit	Category	Date:	1-Apr-19	2-Apr-19	3-Apr-19	4-Apr-19	5-Apr-19	6-Apr-19	7-Apr-19	8-Apr-19	9-Apr-19	10-Apr-19	11-Apr-19	12-Apr-19	13-Apr-19	14-Apr-19	15-Apr-19	16-Apr-19	17-Apr-19	18-Apr-19	19-Apr-19	20-Apr-19	21-Apr-19	22-Apr-19	23-Apr-19	24-Apr-19	25-Apr-19	26-Apr-19	27-Apr-19	28-Apr-19	29-Apr-19	30-Apr-19
AMC	C-17	62 AW	Crews	Line Assigned Crews (AAMS)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			Crews	Crews Committed to HHQ Tasking	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	CCDR Allocation (Crews)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	Deployed	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	Long Range Schedule (CCDR)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	TACC Mission (Manual Entry)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	OT&E Allocation (Crews)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	MAJCOM Crew Allocation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	MAJCOM Mission	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	Untasked MAJCOM (Crews)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	UNIT Allocation (Crews)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	UNIT Admin Overhead: Crews	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	Training Overhead: (Crews)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	UNIT Available	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
62 AW April 2019 "B" (eff 18 Apr 2019)			Tails	Total Possessed Tails (AAMM)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			Tails	Aircraft Commit Rate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			Tails	Committed Tails = Possessed X Commit Rate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	CCDR Allocation (Tails)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	Deployed	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	Long Range Schedule (CCDR)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	TACC Mission (Manual Entry)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	OT&E Allocation (Tails)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	MAJCOM Allocation (Tails)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	MAJCOM Mission	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	Untasked MAJCOM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	UNIT Allocation (Tails)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	MX Requirement (Forecast)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	TNG Allocation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	UNIT Baseline Adjustment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AMC	C-17	437 AW	Crews	Line Assigned Crews (AAMS)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			Crews	Crews Committed to HHQ Tasking	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	CCDR Allocation (Crews)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	Deployed	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	Long Range Schedule (CCDR)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	TACC Mission (Manual Entry)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	OT&E Allocation (Crews)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	MAJCOM Crew Allocation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	MAJCOM Mission	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	Untasked MAJCOM (Crews)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	UNIT Allocation (Crews)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	UNIT Admin Overhead: Crews	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	Training Overhead: (Crews)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	UNIT Available	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
437 AW April 2019 "B" (eff 18 Apr 2019)			Tails	Total Possessed Tails (AAMM)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			Tails	Aircraft Commit Rate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			Tails	Committed Tails = Possessed X Commit Rate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	CCDR Allocation (Tails)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	Deployed	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	Long Range Schedule (CCDR)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			CCDR	TACC Mission (Manual Entry)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	OT&E Allocation (Tails)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	MAJCOM Allocation (Tails)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	MAJCOM Mission	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			MAJCOM	Untasked MAJCOM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	UNIT Allocation (Tails)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	MX Requirement (Forecast)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	TNG Allocation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			UNIT	UNIT Baseline Adjustment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Appendix B: Interview Questions

<u>Squadron Commanders/Ops Officers</u>

Tasking
What “authority” are you formally and informally given with respect to your crew force allocation? (i.e. are you given freedom to pushback if you are overtasked?”

In your opinion, do our current scheduling programs accurately capture our level of effort? If not, please explain what could be done to improve this process.

What feedback mechanism exists between ops officers and AMC/A3O?

Training
What do you see as the goal of AMC’s Training Programs?

Who is responsible for running training in your squadron?

What does “full spectrum readiness” mean?

Do our training programs foster “proficiency” in our current strategic airlift missionset?

Do our training programs foster proficiency in our current tactical airlift missionset? (Airdrop, Syria, OIF, etc)

Do our current training programs adequately address readiness within the context of “multi-domain threat environments” such as those articulated upon in the 2018 NDS? If not, what can be done to improve them?

Are “currency” and “proficiency” equivalent terms? If not, where is the disparity? On which do you see AMC placing more of an emphasis- currency or proficiency?

<u>Instructors</u>

Training
What do you see as the goal of AMC’s Training Programs?

Who is responsible for running training in your squadron?

What does “full spectrum readiness” mean?

Do our training programs foster “proficiency” in our current strategic airlift missionset?

Do our training programs foster proficiency in our current tactical airlift missionset? (Airdrop, Syria, OIF, etc)

Do our current training programs adequately address readiness within the context of "multi-domain threat environments" such as those articulated upon in the 2018 NDS? If not, what can be done to improve them?

Are "currency" and "proficiency" equivalent terms? If not, where is the disparity? On which do you see AMC placing more of an emphasis- currency or proficiency?

Wing-Level Scheduling SMEs:

In its "History" section, the 2012 CAAP CONOP discusses the suspension of AATS to allow for crewmembers to be tasked on TACC missions during 50-73 % of the year. How was the measured? (Was it a function of time tasked with a mission vs. untasked time? Was crew rest factored in? Etc)

Similarly, how did Contingency AATS measure its target aircrew TDY rate of 200 days/year as a general guide? Was that just TACC TDYs, or did LTS upgrade TDYs count too?

The CAAP conop talks about the ADT being comprised of representatives from AMC, AFRC, the ANG, 18 AF, 618 AOC and both AD and the ARC. What position (i.e. Ops Officer, Current Ops Chief, etc) serves as a representative from each of these organizations? What role does each of them serve in?

The CAAP CONOP mentions strategic airlift, tactical airlift and tanker ADTs. I'm assuming the strategic airlift ADT governs C-17 operations?

Insofar as the planning Wedges are concerned….what does the "unavailable" bin entail?

In the 2012-2013 aircrew wedge data collection effort, how were the percentages determined? From AAMS? Or was it a UFT type tool?

Who "Owns" the long range schedule and how do they populate it?

Are OGS crews factored into CHS's Unit Admin?

Why is local mission planning factored into Admin overhead and not into the local training fence? Is there anything that would preclude doing this?

Have you noticed any significant departures in the way that the ADT functions in the CONOP vs the way that it actually works?

Appendix C: Sample Go/No-Go Inventory

Sq.	Name & Rank	C. Pos.	PAC	ASC	Physical Due	Physiological Due	AO Term Dt	Profile Name	Training Task Name	Vol Acc	Vol Rem	Task ID	RES code	Last Acc Dt	Due Date	Waiver Dt	Status
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	QUALIFICATION EVALUATION	1.0	0.0	AA01	I	07-Feb-18	30-Jul-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	INSTRUMENT EVALUATION	1.0	0.0	AA11	I	07-Feb-18	30-Jul-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP EVENT	3.0	0.0	AD01	I	23-Aug-18	31-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP EQUIPMENT	1.0	1.0	AD03	I	23-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP CDS	0.0	2.0	AD04	I	29-Jun-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP PERSONNEL	1.0	1.0	AD05	I	23-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	MED/HIGH ALTITUDE AIRDROP	1.0	0.0	AD09	I	23-Aug-18	30-Jun-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	PADS OPERATOR UNGUIDED	0.0	2.0	AD11	I				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	PADS OPERATOR GUIDED	0.0	0.0	AD12	I				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	DUAL ROW	1.0	0.0	AD95	I	23-Aug-18	30-Jun-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	LANDING, ASSAULT	5.0	3.0	AS11	I	29-Aug-18	31-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	LANDING, ASSAULT NT UNAID	2.0	0.0	AS12	I	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	HEAVY WT ASSAULT LAND, NT	3.0	0.0	AS22	I	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	PASSPORT	0.0	0.0	E030	M	19-Jan-17	18-Jan-22		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	SECONDARY PASSPORT	0.0	0.0	E035	M	19-Jan-17	18-Jan-21		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP VISUAL WING	0.0	2.0	F080	I	29-Jun-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP VIS NIGHT WING	0.0	0.0	F100	I	29-Jun-18	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP SKE/FFS LEAD	0.0	0.0	F110	I	29-Jun-18	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP SKE/FFS WING	0.0	0.0	F130	I	29-Jun-18	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AD MULTI-ELEMENT SKE/FFS	0.0	0.0	F135	I	12-Jun-18	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP MULTI-ELEMENT VIS	0.0	0.0	F136	I	12-Jun-18	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	AIRCRAFT MARSHALING T&E	0.0	0.0	G002	G	10-Jan-17			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	ENAF	0.0	0.0	G055	N	10-Aug-16			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	TACTICS	0.0	0.0	G060	I	05-Mar-18	30-Dec-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	AIRCREW INTELL TRNG (AIT)	0.0	0.0	G070	M	04-Jan-17	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	COMMUNICATION PROCEDURES	1.0	0.0	G080	O	30-Aug-18	30-Aug-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	ANTI-HIJACKING	0.0	0.0	G090	I	15-Aug-16	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	ISOPREP REVIEW	1.0	0.0	G120	M	15-May-18	10-Nov-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	INSTRUMENT REFRESH COURSE	0.0	0.0	G130	I	16-Aug-17	27-Feb-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	OVERWATER NAVIGATION PROC	0.0	0.0	G160	O	20-Jan-17			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	HAZARDOUS CARGO	2.0	0.0	G182	I	03-Feb-18	30-May-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	AIRCRAFT SERVICING	0.0	0.0	G190	N	14-Aug-17	29-Sep-18		Due in 30 Days
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	CRM/TEM REFRESHER TRNG	0.0	0.0	G230	I	17-Aug-17	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	INITIAL CRM	0.0	0.0	G231	G	27-Sep-16			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	USE OF FORCE	0.0	0.0	G237	M	10-Apr-18	29-Apr-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	CRM/TEM MOST SIMULATOR	0.0	0.0	G240	I	26-Jun-18	30-Dec-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	PILOT PROF SIM	2.0	0.0	G250	I	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	AIRDROP PHASE 1 CBT	1.0	0.0	G256	G	03-Feb-18	30-Mar-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	AIRDROP PHASE 2 CBT	1.0	0.0	G257	G	25-Jun-18	29-Jun-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	AIRDROP PHASE 3 CBT	0.0	0.0	G258	G	11-Aug-17	29-Sep-18		Due in 30 Days
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	AIRDROP PHASE 4 CBT	0.0	0.0	G259	G	29-Dec-17	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP PHASE 1 SIMULATOR	0.0	0.0	G266	I	02-Feb-18	30-Mar-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP PHASE 2 SIMULATOR	0.0	0.0	G267	I	26-Jun-18	29-Jun-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP PHASE 3 SIMULATOR	0.0	0.0	G268	I	15-Aug-17	29-Sep-18		Due in 30 Days
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP PHASE 4 SIMULATOR	0.0	0.0	G269	I			30-Dec-18	
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	MAF MISSION PROFILE	0.0	0.0	G270	I				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	SMALL ARMS TRAINING	0.0	0.0	G280	M	05-Dec-16	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	INSTRUMENT SIM SORTIE	1.0	1.0	G294	I	23-Jul-18	31-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	AIR CARD USER TRAINING	0.0	0.0	G400	N	19-Jan-17	30-Dec-20		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	AIRCREW FLT EQUIP FAM	0.0	0.0	LL01	G	10-Jan-17			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	EMERG EGRESS TNG-NON EJEC	0.0	0.0	LL03	G	28-Oct-16	30-Dec-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	ACBRN TRAINING	0.0	0.0	LL04	M	06-Jan-17	05-Jan-18		OVERDUE
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	EGRESS/WACDE	0.0	0.0	LL05	O	06-Jan-17			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	AFET	0.0	0.0	LL06	G	01-Dec-16	30-Dec-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	AFE FIT CHECK	0.0	0.0	LL07	G	19-Jul-16	30-Dec-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	OCEANIC SORTIE	3.0	0.0	M030	I	10-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	INTEGRATED MISSION SORTIE	2.0	2.0	M052	I	29-Aug-18	31-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	DAY LOW-LEVEL	0.0	0.0	M055	I	29-Jun-18	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	NVG ACADEMICS	0.0	0.0	NV01	N	28-Oct-16			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	NVG GROUND REFRESHER	0.0	0.0	NV03	I	28-Oct-16	30-Oct-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	NVG LOW-LEVEL	0.0	0.0	NV17	I	25-Jan-18	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	NVG AIRDROP EVENT	0.0	0.0	NV18	I	29-Jun-18	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	NVG TAKEOFF	2.0	2.0	NV47	I	29-Aug-18	31-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	NVG LANDING	2.0	2.0	NV48	I	29-Aug-18	31-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	NVG ASSAULT LANDING	2.0	2.0	NV49	I	29-Aug-18	31-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	NVG INSTRUMENT APPROACH	2.0	0.0	NV80	N	23-Jul-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	TAKEOFF	7.0	5.0	P020	I	29-Aug-18	30-Sep-18		Due in 30 Days
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	INSTRUMENT APPROACH	8.0	4.0	P070	I	29-Aug-18	30-Sep-18		Due in 30 Days
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	PRECISION APPROACH	2.0	4.0	P100	I	06-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	NON-PRECISION APPROACH	6.0	0.0	P110	I	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	NDB APPRCH	2.0	0.0	P116	N	11-Apr-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	RNAV APPROACH	2.0	0.0	P118	N	25-Jul-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	CATEGORY II ILS	1.0	1.0	P120	I	06-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	MISSION COMPUTER APPROACH	1.0	0.0	P121	N	12-Apr-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	CIRCLING APPROACH	2.0	0.0	P130	N	14-Mar-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	LANDING	9.0	3.0	P190	I	29-Aug-18	30-Sep-18		Due in 30 Days
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	NIGHT LANDING (UNAIDED)	3.0	0.0	P192	I	29-Aug-18	31-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	HAVE QUICK	2.0	0.0	P260	I	25-Jul-18	31-Dec-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	SECURE RADIO OPERATION	2.0	0.0	P270	I	25-Jul-18	31-Dec-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMB/CPAD	ACBRNTQT	0.0	0.0	P280	I	20-Apr-18	30-Dec-18		

0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	AIRDROP EVALUATION	1.0	0.0	Q012	I	29-Jun-18	29-Nov-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	ILS PRM CERTIFICATION	0.0	0.0	Q017	N	07-Dec-16			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	AIRLAND MISSION EVAL	1.0	0.0	Q019	I	21-Mar-18	30-Aug-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	FLIGHT PUBLICATIONS CHECK	1.0	0.0	Q090	N	09-Feb-18	30-Dec-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	GRACC COMPLETE	1.0	0.0	Q280	O	10-May-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	JPADS PHASE I	0.0	0.0	Q521	N	11-May-17			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	JPADS PHASE II	0.0	0.0	Q522	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	PHOENIX BANNER	0.0	0.0	Q544	N	07-Dec-16			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	CP OR LM AIRDROP	0.0	0.0	Q555	O				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	AIRCRAFT COMMANDER AD	0.0	0.0	Q556	O	11-May-17			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	FORMATION LEAD AD CERT	0.0	0.0	Q557	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	DUAL ROW AD CERTIFICATION	0.0	0.0	Q558	O	24-May-17			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	ADAK CERT	0.0	0.0	Q587	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	CAPE LISBURNE	0.0	0.0	Q588	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	CAPE NEWENHAM	0.0	0.0	Q589	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	CAPE ROMANZOF	0.0	0.0	Q590	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	EL ALTO INTRNTL	0.0	0.0	Q591	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	INDIAN MT LRRS	0.0	0.0	Q592	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	SONDRE STROMFJO	0.0	0.0	Q593	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	SPARREVOHN LRRS	0.0	0.0	Q594	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	TATALINA LRRS	0.0	0.0	Q595	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	TIN CITY LRRS	0.0	0.0	Q596	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	UNALASKA	0.0	0.0	Q597	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	EAGLE CO. REG	0.0	0.0	Q598	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	MARISCAL SUCRET	0.0	0.0	Q599	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	TONCONTIN INTER	0.0	0.0	Q600	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	RECEIVER AAR	3.0	3.0	R010	I	29-Aug-18	13-Oct-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	FORMATION REFUELING	0.0	0.0	R015	I	29-Jun-18	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	RECEIVER AAR, NIGHT	1.0	1.0	R020	I	29-Aug-18	31-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	RCVR AAR, AUTO PILOT OFF	0.0	0.0	R050	I	29-Jun-18	29-Sep-18		Due in 30 Days
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	TACTICAL ARRIVAL	2.0	2.0	RS00	I	23-Jul-18	31-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	HIGH TACTICAL ARRIVAL	1.0	0.0	RS06	I	23-Jul-18	30-Jun-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	LOW TACTICAL ARRIVAL	1.0	0.0	RS16	I	16-Jul-18	29-Jun-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	TACTICAL DEPARTURE	2.0	2.0	RS20	I	29-Aug-18	31-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP EVENT SIM	3.0	0.0	SAD01	N	23-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP EQUIPMENT SIM	1.0	0.0	SAD03	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP CDS SIM	0.0	0.0	SAD04	N	26-Jun-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP PERSONNEL SIM	1.0	0.0	SAD05	N	23-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	MED/HIGH ALTITUDE AD SIM	1.0	0.0	SAD09	N	23-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	PADS OPERATR UNGUIDED SIM	0.0	0.0	SAD11	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	PADS OPERATOR GUIDED SIM	0.0	0.0	SAD12	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	DUAL ROW SIM	1.0	0.0	SAD95	N	23-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	LANDING, ASSUALT SIM	3.0	0.0	SAS11	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	LAND ASSUALT NT UNAID SIM	2.0	0.0	SAS12	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	HVY WT ASSAULT LND NT SIM	3.0	0.0	SAS22	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP VISUAL WING SIM	0.0	0.0	SF080	N	26-Jun-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP SKE/FFS LEAD SIM	0.0	0.0	SF110	N	26-Mar-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP SKE/FFS WING SIM	0.0	0.0	SF130	N	26-Jun-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AD MULTI-ELMT SKE/FFS SIM	0.0	0.0	SF135	N	26-Mar-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	AIRDROP MULTI-ELEMENT SIM	0.0	0.0	SF136	N	26-Mar-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	INTEGRATED MSN SORTIE SIM	1.0	0.0	SM052	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	NVG LOW-LEVEL SIM	0.0	0.0	SNV17	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	NVG AIRDROP EVENT SIM	0.0	0.0	SNV18	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	NVG TAKEOFF SIM	1.0	0.0	SNV47	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	NVG LANDING SIM	1.0	0.0	SNV48	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	NVG ASSAULT LANDING SIM	2.0	0.0	SNV49	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	NVG INSTRUMENT APP SIM	1.0	0.0	SNV80	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	TAKEOFF	4.0	0.0	SP020	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	INSTRUMENT APPROACH SIM	5.0	0.0	SP070	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	PRECISION APPROACH SIM	1.0	0.0	SP100	N	06-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	NON-PRECISION APPR SIM	4.0	0.0	SP110	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	NDB APP SIM	2.0	0.0	SP116	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	RNAV APPRCH SIM	1.0	0.0	SP118	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	CATEGORY II ILS SIM	1.0	0.0	SP120	N	06-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	MSN APP SIM	1.0	0.0	SP121	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	CIRCL APPR SIM	2.0	0.0	SP130	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	LANDING SIM	3.0	0.0	SP190	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	NIGHT LANDING SIM	2.0	0.0	SP192	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	ACBRNTQT SIM	0.0	0.0	SP280	N	19-Jan-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	RECEIVER AAR SIM	2.0	0.0	SR010	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	102C-AIRDROP PILOT	FORMATION REFUELING SIM	0.0	0.0	SR015	N	01-Feb-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	RECEIVER AAR, NIGHT SIM	1.0	0.0	SR020	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	HIGH TACTICAL ARRIVAL SIM	0.0	0.0	SRS06	N	17-Feb-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	LOW TACTICAL ARRIVAL SIM	1.0	0.0	SRS16	N	16-Jul-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	TACTICAL DEPARTURE SIM	2.0	0.0	SRS20	N	29-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	LOCAL AREA SURVIVAL TRAIN	0.0	0.0	SS01	G	28-Nov-16			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	COMBAT SURVIVAL (CST)	0.0	0.0	SS02	O	13-Dec-16	30-Dec-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	CONDUCT AFTER CAPTURE	0.0	0.0	SS03	M	13-Dec-16	30-Dec-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	WATER SURVIVAL TNG REF	0.0	0.0	SS05	O	03-Jan-17	30-Jan-20		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	CONTINGENCY SERE INDOC	0.0	0.0	SS07	O	28-Nov-16	29-Nov-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	INIT CMBT SURV (S-V80-A)	0.0	0.0	SS20	O	09-Aug-13			

0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	INITAL WTR SURV (S-V90-A)	0.0	0.0	SS32	O				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	THREAT RESPONSE SIM	2.0	0.0	SVT06	N	23-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	LARGE FORCE PACKAGE	0.0	0.0	TW25Y	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	MPD PHASE I	0.0	0.0	V280	O				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	MPD PHASE II	1.0	0.0	V281	O	10-Apr-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	AMC ORIENT TOUR/GRACC	1.0	0.0	V282	O	10-May-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	VTRAT INIT TRNG	0.0	0.0	VT01	N	28-Oct-16			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	VTRAT REFRESH TRAINING	0.0	0.0	VT03	O	17-Oct-17	30-Dec-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	THREAT RESPONSE	2.0	0.0	VT06	I	23-Aug-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	AD DIFFERENCE CBT	1.0	0.0	XB19A	N	26-Jun-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	M5P AD DIFF PRESENTATION	1.0	0.0	XB19B	N	26-Jun-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	HANDS-ON TRAINING	1.0	0.0	XB19C	N	26-Jun-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	ANNUAL CLEARING BARREL TG	1.0	0.0	XCBRL	N	10-Apr-18	29-Jun-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	JT MSN PLN SYS-2 DAY	0.0	0.0	XJP2	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	JT MSN PLN SYS-5 DAY	0.0	0.0	XJP5	N				
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	MCCHORD LOCAL	0.0	6.0	XLCL	N	29-Jun-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	151-PILOT GROUND	LOCAL COMM PROCEDURES	1.0	0.0	XLCOM	O	10-Apr-18	30-Oct-18		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	155-PILOT AD PHASE	BLK 19 AD TRNG	1.0	0.0	XM5P	N	26-Jun-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	101CA-ACFT COMR/CPAD	NO TRAINING LOGGED	4.0	0.0	XNTL	N	26-Jul-18			
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	RESTR AREA BADGE TRAINING	1.0	0.0	XRAB	N	10-Apr-18	29-Apr-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	PRIVILEGED SAFETY INFO	2.0	0.0	XT80	N	27-Aug-18	31-Aug-19		
0008	Vidt, Courtney M., CPT	FPL43	A	1A	10-Nov-2018	30-May-2021	23-Jan-2024	150-GROUND ALL CPS	SAFETY MEETING	2.0	0.0	XT81	N	27-Aug-18	31-Dec-18		

Appendix D: C-17 Training Model Sample Sorties

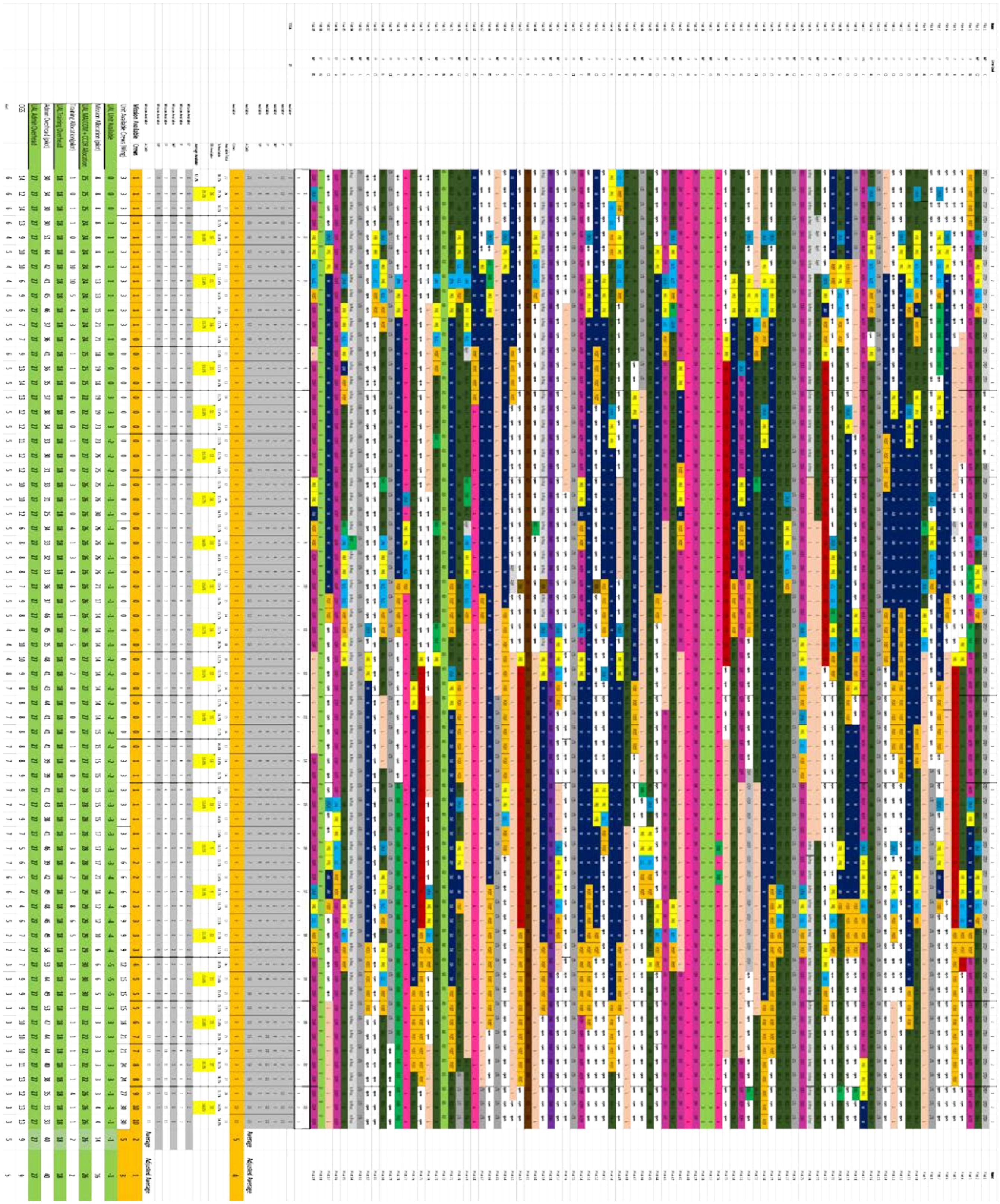
Airland Day Local					
Takeoff	Time	Running Time	Beans/Pilot		Quantity
Transit to IR326	0+30		P020	TAKEOFF	2
IR326 (w/3x Seat Swaps)	0+50	1+20	M052	INTEGRATED MISSION SORTIE	1
Transit KMWH	0+10		P260	HAVE QUICK	1
Beam Arrival to ALZ	0+10		P270	SECURE RADIO OPERATION	1
Full Stop, Taxi back	0+10		M055	DAY LOW-LEVEL	1
T/O, Tac departure (high), Set-up	0+10	2+00	VT06	THREAT RESPONSE	1
High Tac Arrival to ALZ	0+10		RS00	TACTICAL ARRIVAL	2
Full Stop, Taxi back (Seat Swap)	0+10		RS06	HIGH TACTICAL ARRIVAL	1
T/O, Tac departure (high) Set-up	0+10		RS16	LOW TACTICAL ARRIVAL	1
High Tac Arrival to ALZ	0+10		AS11	LANDING, ASSAULT	2
T/O, Tac departure (low), Setup	0+10		P190	LANDING	2
Low Tac Arrival to ALZ	0+10	3+00	Q019	AIRLAND MISSION EVAL	1
Full Stop, Taxi back (Seat Swap)	0+10			TOTAL Beans/Pilot	16
T/O, Tac departure (high) Set-up	0+10				
High Tac Arrival to ALZ	0+10				
T/O, Tac departure (low), Setup	0+10				
Low Tac Arrival to ALZ	0+10				
Full Stop, Taxi back (Seat Swap)	0+10	4+00			
Patterns	0+30				
Transit TCM	0+30				
TOTAL	5+00	5+00			

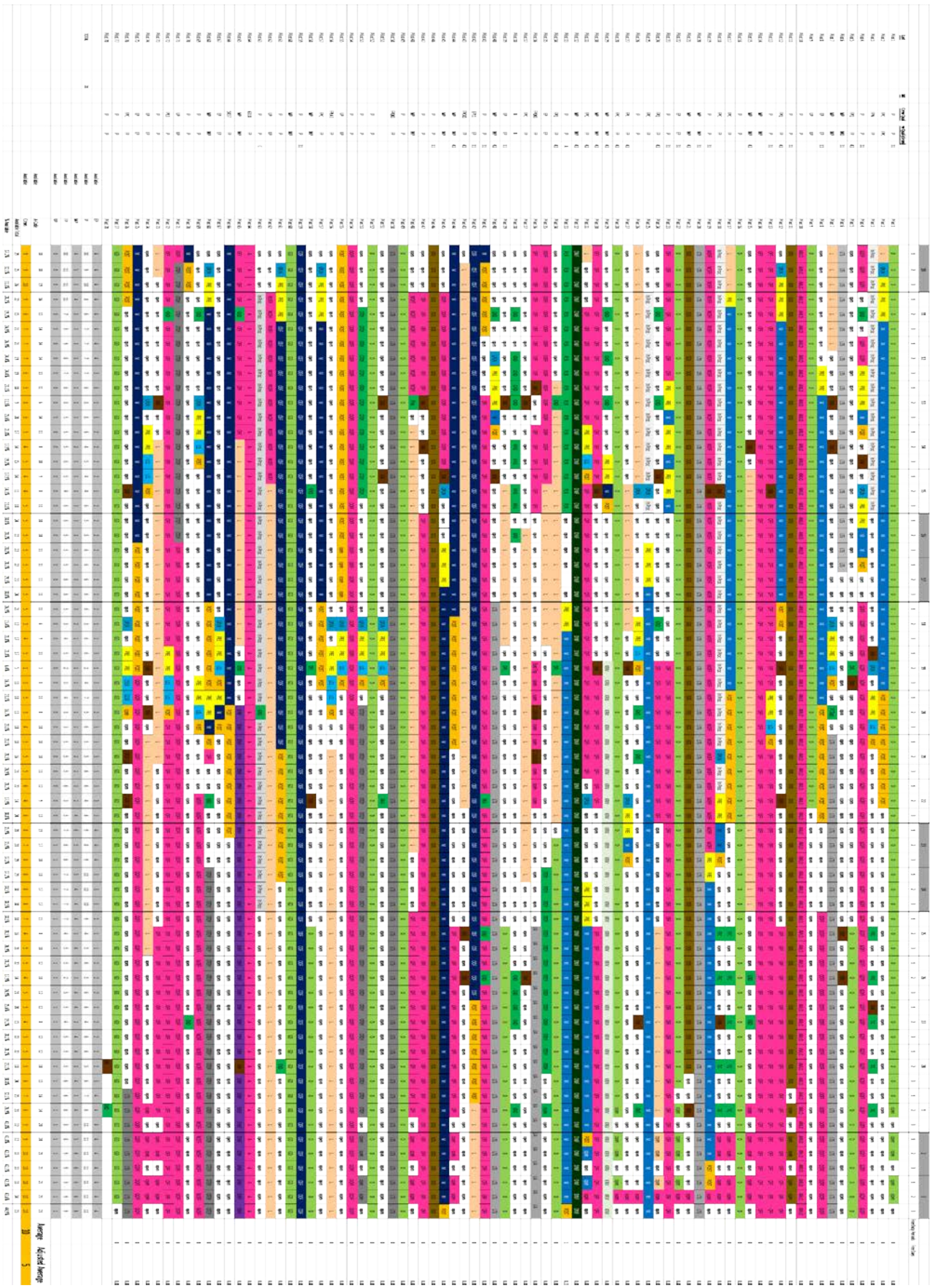
Airland Night Local					
Takeoff (NVG)	Time	Running Time	Beans/Pilot		Quantity
Transit to AR338	0+45		P020	TAKEOFF	2
Refueling complete	1+15	2+00	NV47	NVG TAKEOFF	2
Transit to IR326	0+30		M052	INTEGRATED MISSION SORTIE	1
IR326	0+40	3+10	R010	RECEIVER AAR	1
Transit KMWH	0+10		R020	RECEIVER AAR, NIGHT	1
Beam Arrival to ALZ	0+10		R050	RCVR AAR, AUTO PILOT OFF	1
Full Stop, Taxi back	0+10		NV17	NVG LOW-LEVEL	1
T/O, Tac departure (high), Set-up	0+10		RS00	TACTICAL ARRIVAL	2
High Tac Arrival to ALZ	0+10	4+00	RS06	HIGH TACTICAL ARRIVAL	1
Full Stop, Taxi back (Seat Swap)	0+10		RS16	LOW TACTICAL ARRIVAL	1
T/O, Tac departure (high) Set-up	0+10		NV48	NVG LANDING	2
High Tac Arrival to ALZ	0+10		NV49	NVG ASSAULT LANDING	2
T/O, Tac departure (low), Setup	0+10		RS20	TACTICAL DEPARTURE x 2	2
Low Tac Arrival to ALZ	0+10		AS11	LANDING, ASSAULT	2
Full Stop, Taxi back (Seat Swap)	0+10	5+00	P190	LANDING	2
				TOTAL Beans/Pilot	23
Transit TCM	0+30				
TOTAL	5+30				\

Airland Day FTL C Local						
Takeoff	Time	Running Time		Beans/Pilot		Quantity
Transit to KMWH	0+30			P020	TAKEOFF	2
Beam Arrival to ALZ	0+10			RS00	TACTICAL ARRIVAL	2
Full Stop, Taxi back	0+10			RS06	HIGH TACTICAL ARRIVAL	1
T/O, Tac departure (high), Set-up	0+10	1+00		RS16	LOW TACTICAL ARRIVAL	1
High Tac Arrival to ALZ	0+10			AS11	LANDING, ASSAULT	2
Full Stop, Taxi back (Seat Swap)	0+10			P190	LANDING	2
T/O, Tac departure (high) Set-up	0+10				TOTAL Beans/Pilot	10
High Tac Arrival to ALZ	0+10					
T/O, Tac departure (low), Setup	0+10					
Low Tac Arrival to ALZ	0+10	2+00				
Full Stop, Taxi back (Seat Swap)	0+10					
T/O, Tac departure (high) Set-up	0+10					
High Tac Arrival to ALZ	0+10					
T/O, Tac departure (low), Setup	0+10					
Low Tac Arrival to ALZ	0+10					
Full Stop, Taxi back (Seat Swap)	0+10	3+00				
Patterns	0+30					
Transit TCM	0+30					
TOTAL	**4+00**					

Airland Night FTL C Local						
Takeoff	Time			Beans/Pilot		Quantity
Transit to KMWH	0+30			P020	TAKEOFF	2
Beam Arrival to ALZ	0+10			NV47	NVG TAKEOFF	2
Full Stop, Taxi back	0+10			RS00	TACTICAL ARRIVAL	2
T/O, Tac departure (high), Set-up	0+10			RS06	HIGH TACTICAL ARRIVAL	1
High Tac Arrival to ALZ	0+10			RS16	LOW TACTICAL ARRIVAL	1
Full Stop, Taxi back (Seat Swap)	0+10			NV48	NVG LANDING	2
T/O, Tac departure (high) Set-up	0+10			NV49	NVG ASSAULT LANDING	2
High Tac Arrival to ALZ	0+10			AS11	LANDING, ASSAULT	2
T/O, Tac departure (low), Setup	0+10			P190	LANDING	2
Low Tac Arrival to ALZ	0+10				TOTAL Beans/Pilot	16
Full Stop, Taxi back (Seat Swap)	0+10					
T/O, Tac departure (high) Set-up	0+10					
High Tac Arrival to ALZ	0+10					
T/O, Tac departure (low), Setup	0+10					
Low Tac Arrival to ALZ	0+10					
Full Stop, Taxi back (Seat Swap)	0+10					
Patterns	0+30					
Transit TCM	0+30					
TOTAL	**4+00**					

Appendix E: C-17 Squadron Personnel Allocation Audit





Appendix F: SOLL II Training Profile (Source: 437 OSS)

		SOLL II 1	SOLL II 2	SOLL II 3
	C-17A RMT Requirement			
	FIRST PILOT FTL C			
MB28Y	ACBRNTQT			
MB30Y	Oceanic/ Overwater Sortie			
MB52Y	Integrated Mission Sortie			
TW25Y	Tactical lrg Frc Empylmnt			
GX05Y	Sim MAF Msn Profile			
GX11Y	Sim AD Phase GX11Y - GX14Y			
GX29Y	Sim CRM/TEM MOST			
GX61Y	Sim Instrument			
GX79Y	Sim Prof Sortie			
GX91Y	Sim Ref Phase GX91Y - GX94Y			
AT59Y	Takeoff	1	1	1
AT69Y	Takeoff-Left Seat			
AP03Y	Approach-RNAV/RNP/GPS			
AP07Y	Approach-Circling			
AP15Y	Approach-Instrument			
AP23Y	Approach-ILS Cat II			
AP33Y	Approach-Non Precision			
AP39Y	Approach-Non Precision RMI			
AP41Y	Approach-Precision			
AP49Y	Approach-Self-Contained	1	1	1
AL01Y	Landing	2	2	2
AL13Y	Landing-Left Seat			
AL15Y	Landing-Night Unaided			
PC35Y	Have-Quick			
PC39Y	Secure Voice Event	1	1	1
TW01Y	Tactical Departure	1	1	1
TW20Y	Tactical Route Day VLL			
TW35Y	Threat Response Event	1	1	1
TW50Y	Tactical Arrival	2	2	2
TW51Y	Tactical Arrival High Altitude			
TW52Y	Tactical Arrival Low Altitude	2	2	2
AL11Y	Landing-Heavyweight FFN			
AL51Y	Landing-Assault	2	2	2
AL55Y	Landing-Assault N Unaided			
AN05Y	NVG AD Event	5	5	5
AN11Y	NVG Takeoff Pilot Flying	1	1	1
AN21Y	NVG Low-level Air Craft	1	1	1
AN31Y	NVG Approach	1	1	1
AN33Y	NVG landing Pilot Flying	1	1	1
AN35Y	NVG Landing Assault PF	1	1	1
RU01Y	Receiver AAR	1	1	1
RU17Y	Receiver AAR Night	1	1	1
RU19Y	Receiver AAR Tnkr AP Off	1	1	1
AF31Y	Formation Air Refueling	1	1	1
AG01Y	Airdrop-Event	5	5	5
AG03Y	Airdrop-CDS	1	1	1
AG13Y	Airdrop-Dual Row Pilot	1	1	1
AG15Y	Airdrop-Equipment	1	1	1
AG33Y	Airdrop-Med/High Altitude			
AG35Y	Airdrop-Lead SKE/FFS			
AG39Y	Airdrop-Mulit-Elem SKE/FFS			
AG41Y	Airdrop Multi-Element Vis			
AG43Y	Airdrop-PADS Op Guided			
AG45Y	Airdrop-PADS Op Unguided			
AG47Y	Airdrop-Personnel	1	1	1
AG55Y	Airdrop-Wing SKE/FFS			
AG57Y	Airdrop-Wing Visual Day			
AG59Y	Airdrop-Wing Visual Night	1	1	1
V200	SOLL II Prof Sortie	1	1	1
V205	SOLL II Formation Sortie	1	1	1
V210	SOLL II Inadvertent Wx Pen	1	1	1
V215	SOLL II High-Low	1	1	1
V230	SOLL II AMP-4 NVG ALZ	2	2	2
V235	SOLL II Gin Bear AR	1	1	1
V245	SOLL II PDA	1	1	1
V250	SOLL II Jump PDA	1	1	1
V255	SOLL II FARP		1	
	Beans/Sortie	37	37	37

Appendix G: Alternative Sortie Structure Composition and Timeline

Is & Es Day/Night Local		
Takeoff	Time	Running Time
Transit KMWH	0+30	
Beam Arrival to ALZ	0+10	
Full Stop, Taxi back	0+10	
T/O, Tac departure (high), Set-up	0+10	1+00
High Tac Arrival to ALZ	0+10	
Full Stop, Taxi back (Seat Swap)	0+10	
T/O, Tac departure (high) Set-up	0+10	
High Tac Arrival to ALZ	0+10	
T/O, Tac departure (low), Setup	0+10	
Low Tac Arrival to ALZ	0+10	2+00
Full Stop, Taxi back (Seat Swap)	0+10	
T/O, Tac departure (high) Set-up	0+10	
High Tac Arrival to ALZ	0+10	
T/O, Tac departure (low), Setup	0+10	
Low Tac Arrival to ALZ	0+10	
Full Stop, Taxi back (Seat Swap)	0+10	3+00
Pattern Work/Currency Cleanup	1+30	
Transit TCM	0+30	
TOTAL	5+00	

Beans/Pilot	Day Profile	Quantity
P020	TAKEOFF	2
RS00	TACTICAL ARRIVAL	2
RS06	HIGH TACTICAL ARRIVAL	1
RS16	LOW TACTICAL ARRIVAL	1
AS11	LANDING, ASSAULT	2
P190	LANDING	2
	Total Beans/Pilot	10

Beans/Pilot	Night Profile	Quantity
P020	TAKEOFF	2
NV47	NVG TAKEOFF	1
RS00	TACTICAL ARRIVAL	2
RS06	HIGH TACTICAL ARRIVAL	1
RS16	LOW TACTICAL ARRIVAL	1
NV48	NVG LANDING	2
NV49	NVG ASSAULT LANDING	2
AS11	LANDING, ASSAULT	2
RS20	TACTICAL DEPARTURE x 2	2
P190	LANDING	2
	Total Beans/Pilot	17

Day/Night Airland Aerial Refueling Sortie (Single Track)		
Takeoff	Time	Running Time
Transit to AR 338	0+45	
IP Inbound		
Seatswap at 0+20 Track Time	0+20	1+05
Seatswap at 0+40 Track Time	0+20	
Seatswap at 1+00 Track Time	0+20	
Seatswap at 1+20 Track Time	0+20	2+05
Transit TCM	0+45	
Inst Appch/Transition	0+10	
Land TCM	3+00	

(Each 0+20 mins of track time includes 0+05 for practice emergency sep, seat swap and reclosure)

Beans/Pilot		Quantity
P020	TAKEOFF	1
R010	RECEIVER AAR	1
R050	RCVR AAR, AUTO PILOT OFF	1
P190	LANDING	1
	Total Beans/Pilot	4

Beans/Pilot		Quantity
P020	TAKEOFF	1
R010	RECEIVER AAR	1
R020	RECEIVER AAR, NIGHT	1
R050	RCVR AAR, AUTO PILOT OFF	1
P190	LANDING	1
	Total Beans/Pilot	5

Day Airland Integration Sortie					Day Profile	Beans/Pilot
Takeoff	Time	Running Time		P020	TAKEOFF	2
Transit to IR326	0+30			M052	INTEGRATED MISSION SORTIE	1
IR326 (w/3x Seat Swaps)	0+50	1+20		P260	HAVE QUICK	1
Transit KMWH	0+10			P270	SECURE RADIO OPERATION	1
Beam Arrival to ALZ	0+10			M055	DAY LOW-LEVEL	1
Full Stop, Taxi back	0+10			VT06	THREAT RESPONSE	1
T/O, Tac departure (high), Set-up	0+10	2+00		RS00	TACTICAL ARRIVAL	2
High Tac Arrival to ALZ	0+10			RS06	HIGH TACTICAL ARRIVAL	1
Full Stop, Taxi back (Seat Swap)	0+10			RS16	LOW TACTICAL ARRIVAL	1
T/O, Tac departure (high) Set-up	0+10			AS11	LANDING, ASSAULT	2
High Tac Arrival to ALZ	0+10			P190	LANDING	2
T/O, Tac departure (low), Setup	0+10			Q019	AIRLAND MISSION EVAL	2
Low Tac Arrival to ALZ	0+10	3+00			TOTAL	17
Full Stop, Taxi back (Seat Swap)	0+10					
T/O, Tac departure (high) Set-up	0+10					
High Tac Arrival to ALZ	0+10					
T/O, Tac departure (low), Setup	0+10					
Low Tac Arrival to ALZ	0+10					
Full Stop, Taxi back (Seat Swap)	0+10	4+00				
Patterns	0+30					
Transit TCM	0+30					
TOTAL	**5+00**	5+00				

Night Airland Integration Sortie					Night Profile	Beans/Pilot
Takeoff	Time	Running Time		P020	TAKEOFF	2
Transit to IR326	0+30			NV47	NVG TAKEOFF	2
IR326 (w/3x Seat Swaps)	0+50	1+20		M052	INTEGRATED MISSION SORTIE	1
Transit KMWH	0+10			P260	HAVE QUICK	1
Beam Arrival to ALZ	0+10			P270	SECURE RADIO OPERATION	1
Full Stop, Taxi back	0+10			M055	DAY LOW-LEVEL	1
T/O, Tac departure (high), Set-up	0+10	2+00		VT06	THREAT RESPONSE	1
High Tac Arrival to ALZ	0+10			RS00	TACTICAL ARRIVAL	2
Full Stop, Taxi back (Seat Swap)	0+10			RS06	HIGH TACTICAL ARRIVAL	1
T/O, Tac departure (high) Set-up	0+10			RS16	LOW TACTICAL ARRIVAL	1
High Tac Arrival to ALZ	0+10			NV48	NVG LANDING	2
T/O, Tac departure (low), Setup	0+10			NV49	NVG ASSAULT LANDING	2
Low Tac Arrival to ALZ	0+10	3+00		AS11	LANDING, ASSAULT	2
Full Stop, Taxi back (Seat Swap)	0+10			P190	LANDING	2
T/O, Tac departure (high) Set-up	0+10			Q019	AIRLAND MISSION EVAL	2
High Tac Arrival to ALZ	0+10				TOTAL Beans/Pilot	23
T/O, Tac departure (low), Setup	0+10					
Low Tac Arrival to ALZ	0+10					
Full Stop, Taxi back (Seat Swap)	0+10	4+00				
Patterns	0+30					
Transit TCM	0+30					
TOTAL	**5+00**	5+00				

Airdrop Day Local (Single Ship)

Takeoff	Time	Running Time
Transit to DZ	0+30	
High Altitude Airdrop		
Reattack for JPADS PF/PM Pass 1	0+20	
Reattack for JPADS PF/PM Pass 2	0+20	1+10
Reattack for JPADS PO (guided) Pass	0+20	
Reattack for Pads Operator (unguided) pass	0+20	
Seat swap		
Reattack for JPADS PF/PM Pass 1	0+20	2+10
Reattack for JPADS PF/PM Pass 2	0+20	
Reattack for JPADS PO (guided) Pass	0+20	
Reattack for Pads Operator (unguided) pass	0+20	3+10
Transit back to TCM	0+30	3+40

Beans/Pilot		Quantity
P020	TAKEOFF	2
AD01	AIRDROP EVENT	2
AD05	AIRDROP PERSONNEL	1
AD04	AIRDROP CDS	1
AD09	MED/HIGH ALTITUDE AIRDROP	1
AD11	PADS OPERATOR UNGUIDED	1
AD12	PADS OPERATOR GUIDED	1
P190	LANDING	2
	TOTAL	11

Airdrop NVG Local (Assumes 3 ship)

Takeoff	Time	Running Time
Transit to AR_____	0+45	
Refueling complete	1+15	2+00
Transit to IR 326	0+30	
Multi Element Vis Pass on IR 326	0+20	
Transit to Tac 11 Routing (second half of IR 326)	0+15	3+05
Run in to drop 1 (Lead change, vis pass)	0+05	
Vis Racetrack (lead change)	0+10	
SKE Reattack (Multi Element SKE)	0+20	3+40
SKE Reattack (w/Ld Change)	0+20	4+00
SKE Reattack (w/Ld Change)	0+20	
SKE Reattack (w/Ld Change)	0+20	
Transit back to TCM	0+30	5+10
Form arrival	0+10	
Total Time	5+20	

Beans/Pilot		Quantity
P020	TAKEOFF	2
R015	FORMATION REFUELING	1
R010	RECEIVER AAR	1
R020	RECEIVER AAR, NIGHT	1
R050	RCVR AAR, AUTO PILOT OFF	1
NV17	NVG LOW-LEVEL	1
NV18	NVG AIRDROP EVENT	7
AD03	AIRDROP EQUIPMENT	1
AD04	AIRDROP CDS	1
AD05	AIRDROP PERSONNEL	1
AD95	DUAL ROW	1
F136	AIRDROP MULTI-ELEMENT VIS	1
F080	AIRDROP VISUAL WING	1
F100	AIRDROP VIS NIGHT WING	2
F110	AIRDROP SKE/FFS LEAD	2
F130	AIRDROP SKE/FFS WING	2
F135	AD MULTI-ELEMENT SKE/FFS	1
P190	LANDING	1
P192	NIGHT LANDING (UNAIDED)	1
	TOTAL Beans/Pilot	29

Appendix H: Annual Sortie Schedule for Alternate Training Construct

Note: Simulator sorties are designated in italics.

Airland	Q1	Q2	Q3	Q4
IP A	1x AR (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x Integration Sortie (night) *1x Phase Sim*	1x AR (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x Integration Sortie (night) *1x Phase Sim*
	1x G250 (AR or IE) *1x Instrument Sim*		*1x G250 (AR or IE)* *1x Instrument Sim*	
IP B	1x AR (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x Integration Sortie (night) *1x Phase Sim*	1x AR (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x Integration Sortie (night) *1x Phase Sim*
	1x G250 (AR or IE) *1x Instrument Sim*		*1x G250 (AR or IE)* *1x Instrument Sim*	
MP A	1x AR (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x Integration Sortie (night) *1x Phase Sim*	1x AR (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x Integration Sortie (night) *1x Phase Sim*
	1x G250 (AR or IE) *1x Instrument Sim*		*1x G250 (AR or IE)* *1x Instrument Sim*	
MP B	1x AR (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x Integration Sortie (night) *1x Phase Sim*	1x AR (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x Integration Sortie (night) *1x Phase Sim*
	1x G250 (AR) *1x Instrument Sim*		*1x G250 (AR)* *1x Instrument Sim*	
MP C	1x AR (day) 1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE)*	1x AR (Night) 1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE))*	1x IE Day 1x AR (day) 1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE)*	1x IE Night 1x AR (Night) 1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE)*
	1x IE Day		1x IE Night	
FP A	1x Integration Sortie *1x Phase Sim*	1x Integration Sortie (night) *1x Phase Sim*	1x Integration Sortie *1x Phase Sim*	1x Integration Sortie (night) *1x Phase Sim*
	1x G250 (AR or IE) *1x Instrument Sim*		*1x G250 (AR or IE)* *1x Instrument Sim*	
FP B	1x Integration Sortie *1x Phase Sim* *1x Instrument Sim*	1x Integration Sortie (night) *1x Phase Sim* *1x Instrument Sim*	1x Integration Sortie *1x Phase Sim* *1x Instrument Sim*	1x Integration Sortie (night) *1x Phase Sim* *1x Instrument Sim*
	1x G250 (AR or IE)		*1x G250 (AR or IE)*	
FP C	1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE)*	1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE)*	1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE)*	1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE)*
	1x IE Day		1x IE Night	

Airdrop	Q1	Q2	Q3	Q4
IP A	1x AR (day) 1x AD (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x AD (night) 1x Integration Sortie (night) *1x Phase Sim*	1x AR (day) 1x AD (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x AD (night) 1x Integration Sortie (night) *1x Phase Sim*
	1x G250 (AR or IE) *1x Instrument Sim*		*1x G250 (AR or IE)* *1x Instrument Sim*	
IP B	1x AR (day) 1x AD (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x AD (night) 1x Integration Sortie (night) *1x Phase Sim*	1x AR (day) 1x AD (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x AD (night) 1x Integration Sortie (night) *1x Phase Sim*
	1x G250 (AR or IE) *1x Instrument Sim*		*1x G250 (AR or IE)* *1x Instrument Sim*	
MP A	1x AR (day) 1x AD (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x AD (night) 1x Integration Sortie (night) *1x Phase Sim*	1x AR (day) 1x AD (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x AD (night) 1x Integration Sortie (night) *1x Phase Sim*
	1x G250 (AR or IE) *1x Instrument Sim*		*1x G250 (AR or IE)* *1x Instrument Sim*	
MP B	1x AR (day) 1x AD (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x AD (night) 1x Integration Sortie (night) *1x Phase Sim*	1x AR (day) 1x AD (day) 1x Integration Sortie (day) *1x Phase Sim*	1x AR (night) 1x AD (night) 1x Integration Sortie (night) *1x Phase Sim*
	1x G250 (AR or IE) *1x Instrument Sim*		*1x G250 (AR or IE)* *1x Instrument Sim*	
MP C	1x AR (day) 1x AD (day) 1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE)*	1x AR (Night) 1x AD (night) 1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE))*	1x AR (day) 1x AD (day) 1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE)*	1x AR (Night) 1x AD (night) 1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE))*
	1x IE Day		1x IE Night	
FP A	1x IE (day) 1x AD (day) 1x Integration Sortie *1x Phase Sim*	1x IE (night) 1x AD (night) 1x Integration Sortie (night) *1x Phase Sim*	1x IE (day) 1x AD (day) 1x Integration Sortie *1x Phase Sim*	1x IE (night) 1x AD (night) 1x Integration Sortie (night) *1x Phase Sim*
	1x G250 (AR or IE) *1x Instrument Sim*		*1x G250 (AR or IE)* *1x Instrument Sim*	
FP B	1x IE (day) 1x AD (day) 1x Integration Sortie *1x Phase Sim*	1x IE (night) 1x AD (night) 1x Integration Sortie (night) *1x Phase Sim*	1x IE (day) 1x AD (day) 1x Integration Sortie *1x Phase Sim*	1x IE (night) 1x AD (night) 1x Integration Sortie (night) *1x Phase Sim*
	1x G250 (AR or IE)		*1x G250 (AR or IE)*	
FP C	1x AD (day) 1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE)*	1x AD (night) 1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE)*	1x AD (day) 1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE)*	1x AD (night) 1x Integration Sortie *1x Phase Sim* *1x Instrument Sim* *1x G250 (AR or IE)*
	1x IE Day		1x IE Night	

Bibliography

Air Mobility Command. *COMAFFOR Apportionment and Allocation Process (CAAP) CONOPS* 26 June 2012

Camm, J., Cochran, J., Fry, M., Ohlmann, J., Anderson, D., Sweeney, D., & Williams, T. (2017). *Business Analytics* (3rd ed.). Boston, MA: Cengage Learning, Inc.

Air Force Manual (AFMAN) 11-2C-17v1 . *C-17 Aircrew Training, 14 June 2018.*

Air Force Manual (AFMAN) 11-2C-17v3. *C-17 Operations Procedures, 16 November 2011.*

(Incorporates Change 1, 20 March 2015).

Air Force Instruction (AFI) 11-202v3. *General Flight Rules*. 10 August 2016.

Fisk, T. (2017). *Mobility Guardian Red Czar AAR*. Briefing. McChord Field, WA. 9 August 2017.

Herzberg, M. (2019). Personal Correspondence. To the author. E-mail, 20 May 2019. Martinez,

J. (2018). Gen. Maryanne Miller Unveils AMC Priorities. From The Defense Visual Information Distribution Service. Accessed April 28, 2019. https://www.dvidshub.net/news/299029/gen-maryanne-miller-unveils-amc-priorities

Mattis, J. (2018). 2018 National Defense Strategy of the United States Summary. From The US Department of Defense. Accessed 30 September, 2018. https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf

McConville, S. (2018). *Resilient and Agile Logistics: A Ground-Level Perspective on Training the MAF to the 2018 NDS*. Seminar. Airlift/Tanker Association, Dallas, TX. 28 October 2018.

Nyenhuis, A. *COMAFOR Apportionment and Allocation Process (CAAP)*. White Paper. 24 September 2018.

Venne, A. (2019). Personal Correspondence. To the author. E-mail, 8 April 2019.

Weinberg, M. (2019). Personal Correspondence. To the author. Phone call, 20 May 2019.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. REPORT DATE *(DD-MM-YYYY)*
14-06-2019

2. REPORT TYPE
Graduate Research Paper

3. DATES COVERED *(From - To)*
Jul 2018 - Jun 2019

4. TITLE AND SUBTITLE
Scheduling For Success: Tailoring C-17 Training and Apportionment For the Evolving Mission Environment

5a. CONTRACT NUMBER

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)
McConville, Sean, 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-MS-19-J-040

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)
Joint Staff: Strategy Plans and Policy
Brigadier General John D. Lamontagne
John.d.lamontagne.mil@mail

10. SPONSOR/MONITOR'S ACRONYM(S)
AMC

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
The C-17 is tasked with worldwide direct delivery mission that is vital to the United States' ability to project power globally. Yet, even with the 2018 National Defense Strategy (NDS) and AMC Commander calling for increased capability across robust ''multi-domain'' threat environments, data from recent exercises and downrange operations suggest that the C-17 crew force is struggling to maintain its capability in environments whose demand does not match those heralded by the NDS. This research paper examines C-17 scheduling processes, looking specifically at AMC/A3's existing scheduling model, while comparing that to actual crew allocation. The researcher used modelling, data auditing and Subject Matter Expert (SME) consultation to gain insight into expected versus actual scheduling requirements and currency logging practices.

Data from the modelling process is compared and validated against actual Calendar Year (CY) 2018 local Flying Hour Programs (FHPs) across four different C-17 bases. Crew allocation data from two separate C-17 bases during two different timeframes is then compared to AMC A3O's existing crew allocation models. SME insights are used to gain insight into current practices. The researcher compiled and processed this data to make seven recommendations pertaining to C-17 scheduling and training.

15. SUBJECT TERMS
C-17 Aircrew Scheduling, C-17 Aircrew Training, C-17 Flying Hour Programs

16. SECURITY CLASSIFICATION OF: a. REPORT	b. ABSTRACT	c. THIS PAGE	17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
U	U	U	UU	86	Major Timothy Breitbach, AFIT/ENS
					19b. TELEPHONE NUMBER *(include area code)* 937-255-3636x4458