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**Mobile Training:**

**A Necessary Approach to Army Aviation Readiness**

SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF MILITARY STUDIES

**BRYAN J. CHIVERS**  
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## *Executive Summary*

**Title:** Mobile Training: A Necessary Approach to Army Aviation Readiness

**Author:** Major Bryan J. Chivers, United States Army

**Thesis:** Army Force Generation shortcomings and insufficient aviation force structure necessitate a mobile training approach to army aviation readiness.

**Discussion:** When the Army transformed from its Cold War structure in 2005, the intent was to modernize its forces through modular conversion, rebalance the forces and develop a force generation model that provides for continuous operations. Transformation throughout the operational army is largely a big success; however, the aviation generating force and institutional army did not undergo significant enough changes and are failing to keep pace with the operational army's demands. ARFORGEN shortcomings are a result of too few combat aviation brigades. Consequently, active component combat aviation brigades spend less than sixteen months at home between deployments, falling well short of the Secretary of Defense's goal of two years between deployments, and army aviators, families and contractors are stretched thin. The decision to grow two more combat aviation brigades will mitigate the stress and strain on the aviation force, but the increased force structure will only increase the average aviation brigade dwell time to twenty months. In order to provide combatant commanders with trained and ready aviation brigades and recuperate aviation personnel, the army must employ alternate methods to augment the generating force. This study examines the necessity of utilizing a mobile training strategy, where aviation subject matter experts deploy to operational force units and provide programs of instruction to soldiers at their home duty station, to enhance aviation readiness and promote soldier and family welfare. Leveraging the seven principles of army training, this study discusses the benefits and drawbacks to the mobile training concept.

**Conclusion:** Until deployments subside to a sustainable level, Army Force Generation shortcomings and insufficient aviation force structure necessitate a mobile training approach to army aviation readiness.

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## *Preface*

I chose this topic for two reasons. First, I wanted to conduct research on a subject that was both current and relevant, was a topic that I had firsthand knowledge about, and would professionally develop me as an army aviator. As an assault aviation battalion operations officer, I experienced the rigors of fielding a new helicopter, preparing a unit for deployment, deploying the aviation task force and fighting them in the harsh Afghanistan environment and finally redeploying them and preparing them for the next Afghanistan rotation just fourteen short months later. As an aviation senior leader, I struggled with the dilemma of effectively preparing our task force for combat and building resilient soldiers and families. This paper afforded me the opportunity to better understand the Army Force Generation (ARFORGEN) cycle and the process of requesting mobile training teams; areas that I was previously ignorant in and will most likely use in the future.

The second reason I chose this topic was to contribute to the aviation branch and the profession of arms. Despite proposed cutbacks that will decrease the army by 27,000 people, the army is building two more aviation brigades, evidence of the evolving and continued reliance on aviation in the maneuver, fires and effects realms. This paper provides aviation operations officers and junior leaders with a viable training alternative to institutional training programs, and lends insight to subjects that are not very well understood in the junior ranks.

I want to thank the Marine Corps Command and Staff College for affording me “another opportunity to excel.” Writing this paper taught me more about army doctrine and the aviation branch than I thought was possible. Lastly, I want to recognize my wife Alicia for her unrelenting support, patience and encouragement and providing a household environment conducive to learning and professional growth.

## **Introduction**

The United States armed forces have operated at a demanding pace over the past nine years. Over the next decade, the armed forces will be engaged in a period of persistent conflict.<sup>1</sup> Unit drawdowns in Iraq were intended to relieve the strain on a fractured force, but the increase in forces to support the surge in Afghanistan has only widened the gap. Charged with readying their units for combat, commanders at all levels face the dilemma of training their weary formation for the rigors of war or resting fatigued personnel and allowing them to make up for time spent away from home and families between deployments. Combined arms operations require razor-sharp individuals with the latest military technology trained to conduct full spectrum operations with surgical precision. The army process to man, equip and train units takes time and the bill payers are often its most precious commodity—its soldiers and families.

The increasing demand for land power has placed the army out of balance and the demand for warfighting capabilities exceeds the sustainable supply as readiness is consumed faster than it is built.<sup>2</sup> While the army continues to meet wartime requirements, the United States Army Chief of Staff, General George Casey, stated that “restoring balance and setting the conditions for the future are the two major challenges the Army currently faces.”<sup>3</sup> However, the Army Training and Leader Development Strategy indicated that our current training methods are not effective enough and that our training strategy must evolve. Significant changes will require innovation and regaining balance quickly will require a different thought process about how we train units and develop leaders in the years ahead.<sup>4</sup>

Army aviation is currently employing a mobile training strategy to ensure soldiers and officers meet professional military education requirements, gain required military occupational skills qualifications and posture units to conduct combined arms operations effectively all while

maximizing the time at home with families. There are many pros and cons for utilizing a mobile training strategy to individually and collectively train units to a standard that ensures success on the battlefield. But is a mobile training strategy necessary? This study will begin by describing the Army Force Generation cycle (ARFORGEN) and how it prioritizes and synchronizes institutional functions to man, equip, train and deploy units on a cyclic basis. This study will further describe army aviation's challenges with the ARFORGEN cycle as determined by Aviation Study-II, and identify the cycle's shortcoming that compel employing a mobile training strategy to prepare units for full spectrum operations. Leveraging the seven principles of training as outlined in U.S. Army Field Manual (FM) 7-0, *Training for Full Spectrum Operations*, this study will explain how a mobile training strategy maximizes efficiencies and builds effective capabilities in combat aviation brigades to support operational requirements. Lastly, this study illustrates that Army Force Generation shortcomings and insufficient aviation force structure necessitate a mobile training approach to army aviation readiness.

### **Army Force Generation**

Growth of the army and the drawdown in Iraq allowed for an increased commitment in Afghanistan. To restore balance, the army focused its efforts in four specific areas: improve the ability to sustain its soldiers, families and civilians; prepare forces for success in the current conflict; reset returning units to build readiness; and transform to meet 21<sup>st</sup> Century demands. While the army made huge improvements, both the Iraq and Afghanistan campaigns continue to create demands beyond what the army can sustain and it continues to stress soldiers, families, civilians and equipment.<sup>5</sup>

While the army writ large is out of balance, the aviation branch is deployed most frequently. In fact, on average, aviation brigades only get sixteen months between deployments

and struggle to prioritize unit readiness versus soldier and family welfare.<sup>6</sup> With respect to the Chief of Staff's two major challenges, army aviation is neither restoring balance nor setting conditions for the future.

In 2009, concerned with army aviation's ability to sustain the previously described operational tempo, the Chief of Staff of the Army (CSA) directed a holistic review to address Army Force Generation requirements.<sup>7</sup> A task force of more than sixty aviation experts conducted Aviation Study-II to review aviation forces to make sure army aviation maintained relevance and continued to support the army with combat aviation capabilities.<sup>8</sup> Throughout the analysis, aviation experts identified numerous shortcomings with ARFORGEN. To better appreciate the impacts and significance of Aviation Study-II, it is necessary to understand the Army Force Generation cycle as it applies to active component forces.

Army Force Generation is a "structured progression of increased unit readiness over time, resulting in recurring periods of availability of trained, ready and cohesive units prepared for operational deployments in support of civil authorities and combatant commander requirements."<sup>9</sup> ARFORGEN provides a sustained flow of trained and ready forces at a pace that is sustainable for our all-volunteer force, their families and communities.<sup>10</sup> Operational requirements drive ARFORGEN training and readiness, which helps prioritize and synchronize the institutional (generating force) army to man, equip, train and deploy units effectively and efficiently.<sup>11</sup>

The entire ARFORGEN process is made up of three force pools—Reset, Train-Ready and Available. Each of these force pools provides an adaptable force package tailored to meet operational requirements at predetermined but varying time intervals depending on the unit's readiness level. To ensure the Army is capable of providing full spectrum operations at any time, each force pool will consist of one corps headquarters element, five division headquarters (one or

two are National Guard), twenty brigade combat teams (three or four are National Guard) and 90,000 enablers (including aviation).<sup>12</sup>

The Reset force pool is established when exactly 51% of the deployed unit's personnel have returned home (Return Date). All personnel are required to stabilize for the first 90 days before changing duty stations. At this time, units do not have any initial readiness requirements and will complete soldier-family reintegration, block leave, reconstitution, specific individual training tasks and receive new equipment and personnel. Units do not receive any external taskings that take them away from their home duty station unless there are absolutely no other units available. However, units in the Reset force pool are required to support Civil Support operations.<sup>13</sup>

The Train-Ready force pool is designed to increase training readiness as personnel and equipment become available. Units who do not have authorized equipment will draw necessary equipment and begin collective training no earlier than Return Date+180 days, focusing on their unit-specific full spectrum operations Mission Essential Task List (METL). Active Component forces will deploy from the Train-Ready force pool in surge situations only.<sup>14</sup>

When a unit commander assesses the organization capable of conducting full spectrum operations, the unit will transition to the Available force pool. Units will receive their full complement of equipment and can deploy, train with other services, government agencies and security forces from other nations, or remain in the Available force pool as a contingency force. After twelve months, whether the unit deployed or not, they will return to the Reset force pool and repeat the ARFORGEN cycle.<sup>15</sup>

While these three pools certainly provide the framework for the ARFORGEN cycle, there are training, manning and equipping strategies that further define the process. That level of detail

will not provide a significant amount of clarity to this study and therefore intentionally omitted. It is important to note that while specific days or time periods structure the three force pools, ARFORGEN is ultimately event driven, not time driven.<sup>16</sup> In other words, units will focus training against future mission sets with an associated timeline.

Complete comprehension of the ARFORGEN model comes with an understanding of the time soldiers spend deployed, referred to “boots on the ground” (BOG), compared to the time they are home between deployments, referred to as “dwell.” General Casey’s current “surge” goal is 1:2 years boots on the ground to dwell ratio (BOG:dwell) for the active component (AC) forces and a 1:4 years BOG:dwell ratio for reserve component (RC) forces. When combat operations abate, “steady-state” BOG:dwell ratios will increase to 1:3 years and 1:5 years for the active and reserve components respectively.<sup>17</sup>

The Army Force Generation cycle does provide combatant commanders and civil authorities trained and ready forces with the capability and depth to conduct full spectrum operations. While affording an element of predictability across the service as a whole, the ARFORGEN model is riddled with glaring shortcomings when applied to the aviation branch.

### **Aviation Study-II**

Aviation Study-II set out to determine the optimal aviation force structure that efficiently supports both current and future operational demands in the ARFORGEN cycle at the cheapest cost to the army.<sup>18</sup> The comprehensive analytical study consisted of three major steps: identify the quantity of aviation organizations required to meet steady-state operational demands, develop feasible and supportable courses of action and assess the courses of action across multiple lenses and iterated venues.<sup>19</sup> Most relevant to this study is Aviation Study-II’s review of the ARFORGEN impacts on the current aviation force. The specific ARFORGEN areas analyzed

include: combat aviation brigade and infantry brigade combat team force ratio, ARFORGEN training, manning, equipping and mobilization strategies, and lastly, aviation training and standardization in support of ARFORGEN.<sup>20</sup> Identified shortcomings in these areas and subsequent recommendations illustrate the current operating conditions that necessitate army aviation's use of a mobile training strategy to prepare units for war and reset soldiers and families.

### **ARFORGEN Force Ratio Issues**

The Army Force Generation cycle does not produce a sufficient number of aviation brigades to support the number of brigade combat teams. Previously stated, ARFORGEN only produces five combat aviation brigades and twenty brigade combat teams annually. But looking beyond what ARFORGEN produces, there are currently eighteen CABs (ten AC and eight RC) and seventy-three brigade combat teams (forty-five AC and twenty-eight RC) in the Army, not including the aviation brigade in Korea since it does not train under the ARFORGEN model. However, there are 118 other brigade-sized units in the army that require aviation support during their ARFORGEN training cycle as well as numerous Special Forces and Joint and Coalition Forces that request support. Using a fundamental ratio of one CAB to four BCTs, eighteen CABs end up supporting 191 brigade-sized elements at a ratio of 1:10.6.<sup>21</sup> There simply are not enough aviation brigades to provide the required mission and training support the army demands resulting in limited time for combat aviation brigades to focus on individual aviation training requirements that are the foundation in every training strategy.

### **ARFORGEN Training Strategy Issues**

Aviation Study-II determined that the current ARFORGEN training strategy facilitates sequential training with increasing rigor and adequately trains aviation units. However, the timing of collective training events, such as a Forces Command (FORSCOM) mandated Mission

Readiness Exercise (MRE) at an Army Combat Training Center (CTC), are problematic in two specific areas.<sup>22</sup>

First, MREs scheduled too early in an aviation unit's ARFORGEN cycle introduces high levels of risk.<sup>23</sup> The ARFORGEN manning strategy prevents aviation units from task-organizing early in the cycle. The inability to task-organize forces aviation units to support MREs with personnel not scheduled to deploy with the brigade or with personnel who may actually deploy with a different task force inside the aviation brigade. Additionally, aviation units often lack critical trainers and key leaders required during the MRE who will eventually capitalize on the lessons learned prior to the unit's deployment. Lastly, immature unit manning may result in the unit conducting the MRE with inexperienced aviators who do not have the skill-sets required for a fast-paced CTC rotation.<sup>24</sup>

Another shortcoming with the ARFORGEN training strategy is that the Reserve Component pre-mobilization training does not facilitate both Active Component and Reserve Component collective training at the Mission Readiness Exercise. The lack of AC aviation assets (e.g. individual heavy lift helicopter and MEDEVAC companies) often requires RC aviation units to augment deployed task forces in Afghanistan and Iraq. The ARFORGEN cycle's inability to synchronize AC/RC collective pre-mobilization training prevents aviation task force commanders from observing RC aircrew proficiencies and capabilities prior to deployment and produces unnecessary accidental and tactical risk in theater.<sup>25</sup>

Mission Readiness Exercises are an important aspect of any army unit's pre-deployment training, unfortunately, not all units are afforded the opportunity to attend. These training exercises at the world's premier training centers most accurately replicate the rigor and operations tempo units will endure in a deployed combat environment. The timing of critical collective

training events in the ARFORGEN cycle is a shortcoming that negatively affects army aviation's ability to provide trained and ready forces.<sup>26</sup>

### **ARFORGEN Manning Strategy Issues**

The ARFORGEN manning strategy presents additional problems to aviation units as discovered in Aviation Study-II. Specifically, combat aviation brigades are not life-cycle manned like brigade combat teams. Under the life cycle manning concept, brigades are brought up to personnel strength with the intent that those individuals will remain with the unit for a total of thirty-six months.<sup>27</sup> This is certainly not the case with aviation brigades and key leadership and skill position personnel often do not arrive to units in time to attend critical training events.<sup>28</sup> Likewise, the ARFORGEN cycle's inability to provide critical maintenance positions to CABs drastically hinders their ability to support a vigorous training plan. Depending on the individual (maintenance test pilot, instructor pilot or operations and executive officer), their absence could affect the commander's maintenance and training strategies and negatively impact his ability to provide a trained and ready unit.<sup>29</sup>

The aforementioned issue impacts deploying units, but the late arrival of key personnel also affects the timing of individuals already in the unit who need to attend skill producing or career enhancing courses upon redeployment and unit Reset. The shortage of personnel or the late arrival of new personnel often requires service members to attend these necessary courses at inopportune times for the unit (i.e. critical collective training events) and becomes a detractor to family reconstitution. A worst case scenario is that the service member does not attend the course at all. This could impact a service member's next promotion or prevent the individual from acquiring a valuable skill for the next deployment.<sup>30</sup>

## ARFORGEN Equipping Strategy Issues

Aviation Study-II also describes areas in the ARFORGEN equipping strategy that hamper aviation operations. As previously described in the ARFORGEN cycle, Reset for a given unit starts when 51% of their assigned personnel redeploy from theater, not 51% of the unit's equipment. The length of time to ship equipment from theater back to the continental United States (CONUS) and the unit's ability to recover that equipment from port to their home station can be up to sixty days. Consequently, units are unable initiate equipment reset which directly impacts their ability to train on aviation specific skills.<sup>31</sup> This can result in units training on less equipment with less time in an already time-compressed Reset cycle.

As aviation brigades continue to field new aircraft or upgrade critical systems, specifically the UH-60M, CH-47F and AH-64D, the new equipment fielding strategy is an even larger problem in the current ARFORGEN cycle. The process is not efficient and a lack of synchronization impacts internal and external collective training events. While manufacturers have improved assembly line operations since fielding the UH-60M and CH-47F, timing is still largely based on the manufacturer's ability to build and deliver the airframe to the unit. However, receipt of a unit's authorized fleet of helicopters is piecemeal during the entire ARFORGEN cycle and affects the unit's individual and collective training strategy.<sup>32</sup> Piecemeal fieldings create additional issues as units must maintain two different types of aircraft and select individuals must maintain dual currency requirements in order to conduct support missions and train new personnel. The gaining unit is also required to transfer their old aircraft to other army AC or RC units, consuming valuable training time and spending more time away from home. Lastly, new aircraft are not completely ready to deploy to theater and require a myriad of modifications before doing so. This also affects aircraft availability and training plans. The ARFORGEN equipping

strategy is obviously not designed with combat aviation brigades in mind and another reason to employ a mobile training strategy to improve aviation readiness.

### **ARFORGEN Mobilization Strategy Issues**

A final ARFORGEN deficiency with respect to providing trained and ready aviation units is the mobilization strategy. The lengthy process of getting aircraft into theater requires deploying units to fly their helicopters to port and ship them sixty days prior to their scheduled boots on the ground date. Without aircraft, units are unable to train late arriving aviators on mission tasks or maintain aircraft and night vision goggle currency (both a sixty-day requirement). Borrowing helicopters is a viable option that produces marginal results with the legacy aircraft, but there is not a surplus of new aircraft available until the army completes the new equipment fielding strategy. Borrowing airframes from other units impacts their ability train and may delay their Reset in the ARFORGEN cycle.<sup>33</sup> The inability to acquire donor aircraft results in unqualified or uncurrent aviators upon arrival in theater and places an additional workload on the outgoing unit to train incoming personnel while they are trying to conduct combat operations.

### **Aviation Study-II Recommendations**

After indentifying specific aviation issues with the ARFORGEN cycle, Aviation Study-II proceeded to determine the optimal aviation force structure that efficiently supports both current and future operational demands in the ARFORGEN cycle. These final recommendations are significant in understanding the importance of a mobile training strategy.

One of the findings of Aviation Study-II, was that Army aviation is currently not capable of achieving the Secretary of Defense's 1:2 BOG:dwell surge let alone a 1:3 steady-state BOG:dwell without acquiring additional combat aviation brigades.<sup>34</sup> The army currently has six CABs deployed to Iraq and Afghanistan. It currently takes twenty-three CABs to maintain that

requirement.<sup>35</sup> As the former Vice Chief of Staff of the Army, General Richard A. Cody, told the Committee on Armed Services House of Representatives during an Adequacy of Army Forces hearing in 2005, “it takes three [units] to make one—one resetting, one preparing to replace the unit and one being [deployed].”<sup>36</sup> In early 2010, the Secretary of Defense approved consolidating existing aviation force structure to create a 12<sup>th</sup> CAB (designated the 16<sup>th</sup> CAB) without growing infrastructure, and growing and equipping a 13<sup>th</sup> CAB.<sup>37</sup> Understandably, creating these new units will take a significant amount of time and money. The 12<sup>th</sup> and 13<sup>th</sup> CABs will not be functional until the second quarter, Fiscal Year (FY) 2011 and third quarter, FY 2015 respectively, and more importantly, are currently not scheduled to support operational deployments until FY 2013/2014 and FY 2016/2017 respectively.<sup>38</sup> An addition of two CABs will greatly benefit the entire army, but surprisingly only improve the aviation force BOG:dwell to a 1:1.7 ratio.<sup>39</sup>

To bridge the gap from now until the 12<sup>th</sup> and 13<sup>th</sup> CABs become operational and integrated into the deployment rotation, and to mitigate the many shortcomings identified in the ARFORGEN cycle, aviation brigades must employ more efficient and effective ways to provide trained and ready forces for the combatant commanders while reducing turbulence for soldiers and families. Currently, army aviation utilizes a mobile training concept to export institutional courses to units and provide training to soldiers at their home duty station, limiting their time away from families.

### **Mobile Training Teams**

According to U.S. Army Field Manual 101-5-1, *Operational Terms and Graphics*, a mobile training team (MTT) is:

“a team consisting of one or more US military or civilian personnel sent on temporary duty, often to a foreign nation, to give instruction. The mission of the team is to train indigenous personnel to operate, maintain, and employ weapons and support systems, or to develop a self-training capability in a particular skill.”<sup>40</sup>

As this definition implies, the army developed this mobile training team concept primarily to assist foreign countries train their militaries. Army aviation adapted the strategy to train its own individuals and formations to compensate for ARFORGEN shortcomings. Similar to foreign military training, aviation MTTs can consist of one or more aviation trainers who export training, typically only provided at generating force institutions, to operational force commanders at their location. There are multiple aviation agencies that provide mobile training support to assist combat aviation brigades with pre-deployment and post-deployment readiness. The mobile training concept is capable of providing any type of dislocated training, and frequent aviation requests include: the warrant officer advance course (WOAC), advance aircraft qualifications, basic noncommissioned officer course (BNCOC) and instructor pilot validations. Courses vary in length depending on the required amount of training and requesting units provide the necessary facilities and logistics to facilitate training.

There is however, a reluctance at all levels to employ provisional fixes to meet training, equipping and manning shortfalls. In his 2005 opening statement to the Committee on Armed Services House of Representatives on the Adequacy of Army Forces, the Honorable John M. McHugh, Representative from New York and chairman, military personnel subcommittee, stated “there may be an overreliance on interim measures to meet short-term manning and structuring requirements to get from one...rotation to another rather than the adoption of longer-term strategy and solutions.”<sup>41</sup> Chairman McHugh went on to say that “some of the DoD’s interim mitigating strategies could be harmful in the long run.”<sup>42</sup> While an interim solution to army aviation’s force generation issues and lack of resources, left with few options, mobile training teams are proven methods that achieve the Army Chief of Staff’s guidance of longer dwell times at home station

while providing the Army with a ready and capable aviation force. Representative McHugh's concern is valid and echoed by many army aviation senior leaders and trainers. CW5 Gregory Turberville, the Directorate of Evaluation and Standardization's (DES) senior Instructor Pilot at the United States Army Aviation Center of Excellence (USAACE) located at Fort Rucker, Alabama, has the same concern and states that "[mobile training teams are] a stop gap and... until [they are] funded/manned/equipped as a future qualification solution, any positive effects will eventually evaporate as the assets are exhausted."<sup>43</sup>

### **Seven Principles of Army Training**

There are obvious benefits to employing a mobile training strategy as well as associated downfalls. Possibly the most glaring downfall is that the Army was never designed to generate forces and capabilities in the manner that mobile training teams are intended to. Field Manual 7-0, *Training for Full Spectrum Operations*, contains army doctrine for training and it "addresses the fundamentals of training modular, expeditionary Army forces to conduct full spectrum operations...in an era of persistent conflict."<sup>44</sup> Field Manual 7-0 states that "effective training is the cornerstone of operational success and it builds discipline, endurance, unit cohesion and tolerance for uncertainty."<sup>45</sup> Leveraging the seven principles of training as outlined in FM 7-0, this study will explain how a mobile training strategy maximizes efficiencies and builds effective capabilities in combat aviation brigades.

### **Commanders and Other Leaders are Responsible for Training**

Mobile training teams present commanders far more benefits than challenges. Arguably the best benefit is that commanders can command and control during most MTTs. Other than combat training centers, MTTs are the only collective training opportunities offered by the generating force where leaders can command and control their formations and exercise critical

decision making skills. When weather and maintenance delays occur, commanders can prioritize training or allocate resources and react much more quickly to changing situations than respective training institutions, providing flexibility to unit training in a time-constrained ARFORGEN cycle.<sup>46</sup>

Commanders and leaders must also be aware of the drawbacks to mobile training teams. Leaders employ MTTs to train soldiers while recuperating them and their families, but the close proximity to family and their normal place of work can create distractions that are not conducive to fast-paced learning.<sup>47</sup> Unlike dislocated institutional training venues, MTTs allow a student to attend a course, complete job-specific or chain-of-command requested tasks and build or fix family bonds. Commanders must put the proper control measures in place to prevent the student's family and chain-of-command from abusing their position, negatively affecting training and undermining the spirited intent of MTTs.

After mobile training courses begin, leaders must stay engaged. A drawback to MTTs is that visiting instructors are usually not familiar with the requested unit's training area or administrative procedures and without continued commander oversight they can needlessly spin their wheels.<sup>48</sup> Efficient and effective mobile courses require proactive commanders and leaders. Just like all training, it is still the commander's responsibility to ensure mobile training team instructors have the required venue, audio and visual aids and printed material to properly train their organization.

### **Noncommissioned Officers Train Individuals, Crews and Small Teams**

Unquestionably, noncommissioned officers (NCO) are the principal trainers of enlisted soldiers, crews and small teams. In army aviation units, warrant officers satisfy a similar role.

Together warrant and noncommissioned officers provide input to the commander to facilitate an efficient and effective “top-down, bottom-up” training strategy.<sup>49</sup>

Mobile training teams utilize the same expert institutional instructors employed at resident courses. Perhaps even more beneficial to the unit, some MTTs train unit subject matter experts, such as instructor pilots or enlisted flight and standardization instructors, to effectively train-the-trainer. In concert with the United States Army Aviation Center of Excellence, the Program Executive Office, Aviation, utilizes a New Equipment Training (NET) MTT to field new helicopters to aviation units. This concept employs instructor pilots and maintainers contracted from Science and Engineering Services, Inc. (SES-I), the Directorate of Standardization and Evaluation and the National Guard to quickly field and qualify the most recently developed aircraft in the army’s inventory.<sup>50</sup> The NET MTT advocates the train-the-trainer method but ARFORGEN requirements and garrison taskings have made the 2<sup>nd</sup> Battalion, 82<sup>nd</sup> Airborne Division NET training very cumbersome and the concept has produced marginal results.<sup>51</sup>

Like institutional training centers, mobile training teams rely on outstanding instructors to train the operational forces. However, there are occasions that units supporting a specific MTT are not as polished as those aviators in the unit that requested their support. Institutions such as DES do not own their own helicopters. While instructors are rated in a particular aircraft and are almost always more tactically experienced than the students they teach, at times they barely manage to stay current in some of the newer aircraft and are often less proficient than students they are conducting evaluations on.<sup>52</sup> Units must recognize this shortcoming and accommodate the trainers with additional refresher flights if necessary. This will build time on the Army’s most experienced trainers, foster better instruction for unit aviators and mitigate unnecessary risk.

## **Train as You Will Fight**

Field Manual 7-0 defines 'training as you will fight' as "training under the conditions of the expected operational environment" and an important tenet of this principle is training while deployed (further discussed in the Train to Standard section).<sup>53</sup> Mobile training teams have a decided advantage over resident courses because they utilize the unit's equipment to train on.<sup>54</sup> Techniques, tactics and procedures (TTP) are a significant part of any skill and students will understand and retain TTPs better if they learn them on the aircraft, weapon and computer equipment they are assigned to, and employed using the standard operating procedures (SOP) that particular unit fights with.

High Altitude Mountain Environmental Training (HAMET) is an army MTT strategy to increase an aviator's understanding of aircraft performance and environmental limitations in mountainous environments.<sup>55</sup> Unlike its predecessor, the High Altitude Aviation Training Site (HAATS), the HAMET MTT uses qualified AH-64 Apache instructors and incorporates a train-the-trainer method to qualify aviators. Rather than use an OH-58A/C aircraft that all cavalry and attack aviators are relegated to at HAATS in only day conditions, attack battalions can conduct high altitude training on their own Apache aircraft in day and night conditions, as an individual crew or as a team, while their respective headquarters commands and controls them.<sup>56</sup> The HAMET MTT is an outstanding example of army aviation training as you fight.

## **Train to Standard**

An army standard is defined as the minimum proficiency required to complete a particular task under specific conditions. Standards-based training requires leaders to know and enforce the standards, define success when standards do not exist and train to standard, not to time.<sup>57</sup> Army aviation uses a number of written standards to ensure aviators meet civil and military requirements

and aviation mobile training teams are no different. However, Aviation Study-II pointed out that there are multiple AC and RC units who separately provide training, standardization and MTT support that results in redundant and potentially conflicting feedback to the operational army.<sup>58</sup> To ensure AC and RC units achieve the same standard, army aviation needs to consolidate the various standardization organizations (DES and the Aviation Resource Management Survey program).<sup>59</sup> Furthermore, army aviation should merge those units that provide MTT support (21<sup>st</sup> Cavalry Brigade, 166<sup>th</sup> Aviation Brigade and DES) and develop a single headquarters capable of providing and managing a holistic aviation MTT capacity.<sup>60</sup> Both improvements will better standardize and streamline aviation MTT capabilities.

Over the last nine years, deployed aviation units adapted to a cunning enemy and harsh environments. Units developed TTPs and quickly turned them into standards to execute missions safer and more effectively. To provide these TTPs to the rest of the aviation force, DES conducts theater visits to integrate with deployed units and collect observations, insights and lessons learned while helping the unit fight complacency and maintain published standards.<sup>61</sup> While not advertised as a mobile training team, this is certainly a mobile capability that enforces standards throughout the aviation force and provides valuable TTPs to units preparing to deploy.

An occasional complaint of MTT courses is that they are too condensed and valuable training and information normally provided at an equivalent resident course is omitted for the sake of saving time.<sup>62</sup> Since the objective of MTTs is to train units and individuals while maximizing the time soldiers spend with their families, an instructor's good intentions could reduce a course's effectiveness. The Warrant Officer Advance Course (WOAC) MTT conducts simultaneously video teleconferences with a concurrent resident course to maintain course standards, help share lessons learned and enhance the officer's professional military education.<sup>63</sup>

## **Train to Sustain (People and Equipment)**

Combat operations require units to operate twenty-four hours a day. Units must practice quality maintenance procedures to conduct continuous operations. This includes routinely taking care of equipment, personnel and entire systems for extended periods of time.<sup>64</sup> Mobile training teams allow aviation units to holistically sustain their formations while hosting training normally conducted at training institutions, and this is another advantage MTTs have over resident courses.

First MTTs allow commanders to improve the quality of life and increase moral of soldiers and their families between deployments, thereby sustaining manpower. While MTTs potentially expose soldiers to more work and family distractions, that argument is not sound. A soldier's ability to deal with personal or professional problems is only compounded when they are dislocated from their chain-of-command or family as they are attending a resident course. Mobile training teams tend to consolidate the program of instruction (POI) making the process more timely and this advantage allows students to work through their personal issues based on proximity and available time.<sup>65</sup>

The United States Army Aviation Logistics School at Fort Eustis, Virginia provides the Common Aviation Maintenance (CAM) portion of their Advanced Leaders Course as an MTT to units during their Reset period. The primary purpose of the CAM MTT is to reduce the backlog and ensure noncommissioned officers receive the training when they need it. An added benefit, the CAM MTT trains on an accelerated schedule and reduces soldier's time away from home station by two to eight weeks depending on the NCO's military occupational specialty (MOS). This equates to 27-50% less time away from home compared to the resident course without sacrificing any portion of the course curriculum or standards.<sup>66</sup>

Units and soldiers must use their own equipment during MTT courses and this forces them to manage their maintenance during a very critical and tumultuous Reset or Train/Ready period of the ARFORGEN cycle. When fielding new aircraft and conducting new equipment training (NET), the availability of helicopters varies from day-to-day based on scheduled and unscheduled maintenance and mandatory aircraft modifications. During NET, leaders become intimately involved with maintenance operations. The fluctuation of available aircraft mandates leaders prioritize maintenance based on training demands and generate the necessary combat power to quickly complete individual training in order to focus on collective and mission essential tasks before deployment. Using their own equipment is a huge advantage of aviation mobile training teams because they force units to train to sustain and develop necessary maintenance skills to successfully execute continuous combat operations.

Mobile training team support does come at a cost. Continued reliance on the generating force to provide a service they were never intended to provide or manned for will eventually degrade the institutional army's ability to conduct resident courses.<sup>67</sup> The generating force heavily recruits aviation warriors with recent combat experience who can provide the most relevant training to deploying units. Some warrant officer advance course and DES instructors spent more than three months away from home supporting MTT requests last year.<sup>68</sup> Coupled with the high operations tempo these instructors just left, there is potential to burn them out and lose the capability altogether. Aviation leaders must temper the amount of MTTs the undermanned institutional army supports, or consider manning them appropriately, to sustain its coveted trainers and maintain a mobile training capability.

## **Conduct Multiechelon and Concurrent Training**

Other than the High Altitude Mountain Environmental Training, aviation MTTs are limited in their ability to provide multiechelon and concurrent training. However, the capability exists in a much larger capacity. In 2004, Army Chief of Staff General Peter Schoomaker, requested Army officials develop an exportable training capability (ETC).<sup>69</sup> In March 2009, General Schoomaker's request became a reality when the Joint Maneuver Readiness Center (JMRC) out of Hohenfels, Germany deployed to Fort Bragg, North Carolina to train the 2<sup>nd</sup> Brigade, 82<sup>nd</sup> Airborne Division prior to their assumption as the army's Global Response Force.<sup>70</sup> This proof of concept was instrumental in developing an even better "expeditionary" training capability, separate from Operations Group but inherent to the National Training Center. The mission of the ETC is to "deploy to distant training locations in accordance with the ARFORGEN schedule and provide training in accordance with CTC training methodology in order to increase modular force brigade combat team readiness."<sup>71</sup> The most robust and holistic MTT the Army has, ETCs will increase mission readiness exercise throughput by six to eight rotations a year, build strategic depth in the force and provide an external assessment of the BCTs at home station.<sup>72</sup> Most institutional training courses are designed to teach individual soldiers specific skills relevant to their MOS. It is the operational force's responsibility to conduct multiechelon and concurrent training. The ETC's unique capability to provide units with operational scenarios tailored to support full spectrum operations training at home is the army's mobile answer to conducting multiechelon and concurrent training.

## **Train to Develop Agile Leaders and Organizations**

Effective training provides opportunities for leaders to think critically and adapt to rapidly changing situations. Leaders and organizations have to practice taking acceptable risks and

creating opportunities to exploit the initiative.<sup>73</sup> A leader's experience is shaped by personal experiences and shared successes and failures. Soldiers who attend MTTs are only getting one unit's myopic view of operations compared to resident courses that expose students to soldiers with vastly different experiences. Some MTT instructors mitigate this by utilizing video teleconferences to link resident and MTT courses. While this technique will broaden students' perspectives by providing more shared experiences, it will not facilitate building professional relationships also important in developing agile leaders and organizations.<sup>74</sup>

Training at home station affords leaders an opportunity to exercise more creativity than resident courses do.<sup>75</sup> This allows units to pioneer new TTPs and develop unit standard operating procedures when fielding new equipment.<sup>76</sup> Additionally, instructors who teach MTT courses at multiple units tend to bring new TTPs back to the training institutions much quicker because students are more open and more comfortable sharing experiences away from the "school house" environment.<sup>77</sup>

Directly tied to developing agile leaders and organizations, the 2010 Quadrennial Defense Review stated that the security of the United States is "inextricably tied to the effectiveness of our efforts to help partners and allies build their own security capacity."<sup>78</sup> The 21<sup>st</sup> Cavalry Brigade at Fort Hood, Texas, currently provides collective aviation foreign military training (FMT) to a host of allies and nearly all the training is conducted at Fort Hood.<sup>79</sup> Army aviation is conducting a study to determine the most cost efficient and effective way to build partner nations' rotary-wing capability. The Nonstandard Rotary-Wing Study (NSRW) identified thirty-nine strategically important partners that would benefit from rotary-wing security force assistance (RW-SFA). Seventy percent of these countries currently support named operations world-wide. If approved, the Army will create six Special Operation Force MTTs and three General Purpose Force MTTs

by Fiscal Year 2015.<sup>80</sup> Pending its success, aviation mobile training teams will validate their ability to develop agile leaders and organizations at home and build partner capacity abroad.

### **Conclusion**

When the Army transformed from its Cold War structure in 2005, the intent was to modernize its forces through modular conversion, rebalance the forces and develop a force generation model that provides for continuous operations.<sup>81</sup> Transformation throughout the operational army is largely a big success; however, the generating force and institutional army did not undergo significant enough changes and are failing to keep pace with the operational army's demands. The numerous aviation ARFORGEN shortcomings are a result of too few combat aviation brigades and an inability life-cycle man them. In the midst of the army's recent plan to reduce its numbers by 27,000 personnel by 2015, it is growing two more combat aviation brigades.<sup>82</sup> Understanding that these two CABs will only increase aviation BOG:dwell ratio to 1:1.7, any attempts to institute long-term solutions to improve the generating force will not increase this ratio and a mobile training strategy becomes absolutely necessary to provide the army with trained and ready forces until operational demands decrease. The mobile training team concept performs very well when analyzed with the seven principles of army training and many mobile training teams outperform comparable resident courses. Utilizing a mobile training strategy, army aviation has sustained high levels of overseas deployments, maintained ready units for possible contingencies and attempted to recuperate an aviation force that is stretched thin.

Today's operational environment requires a change of mindset in how the generating forces support the operational army and prepares its aviation units for full spectrum operations. Meeting the momentous challenges of today's operational environment requires an integrated and coordinated effort.<sup>83</sup> While a mobile training strategy is a temporary solution to the Army's lack

of deployable units and associated ARFORGEN limitations, MTTs are a very valuable long-term capability that requires improvements to better maximize efficiencies and build effective capabilities in combat aviation brigades. Until deployments subside to a sustainable level, Army Force Generation shortcomings and insufficient aviation force structure necessitate a mobile training approach to army aviation readiness.

## *Endnotes*

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- <sup>2</sup> \_\_\_\_\_, *P950 Preparatory Course Advance Book, Part II* (Fort Leavenworth: United States Army Command and General Staff College, 2010), L17AA-1. The CGSC course syllabus utilized excerpts from the 2006 Army Campaign Plan to teach students the strategic context of the Army Force Generation Cycle.
- <sup>3</sup> \_\_\_\_\_, *2010 Army Posture Statement* (2010), 2.
- <sup>4</sup> \_\_\_\_\_, *U.S. Army Training and Leader Development Strategy*, 1.
- <sup>5</sup> \_\_\_\_\_, *2010 Army Posture Statement*, 6.
- <sup>6</sup> Pate, Kelley, *USAACE Officials Discuss Aviation Study-II* (Fort Rucker: Public Affairs Office, 2010).
- <sup>7</sup> Ball, Daniel, *Army Aviation Study-II* (Fort Rucker: Headquarters CDID, United States Army Aviation Center of Excellence, 2010), 1.
- <sup>8</sup> Ball, 1.
- <sup>9</sup> \_\_\_\_\_, *P950 Preparatory Course Advance Book, Part II*, L17AA-1.
- <sup>10</sup> \_\_\_\_\_, *2010 Army Posture Statement*, 12.
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- <sup>13</sup> \_\_\_\_\_, *P950 Preparatory Course Advance Book, Part II*, L17AA-5.
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- <sup>15</sup> \_\_\_\_\_, *P950 Preparatory Course Advance Book, Part II*, L17AA-6.
- <sup>16</sup> \_\_\_\_\_, *P950 Preparatory Course Advance Book, Part II*, L17AA-5.
- <sup>17</sup> \_\_\_\_\_, *2010 Army Posture Statement*, 13.
- <sup>18</sup> Ball, 1-2.
- <sup>19</sup> Ball, 4.
- <sup>20</sup> Ball, 9.
- <sup>21</sup> Ball, 9-10. The 1:4 CAB:BCT ratio is the force break-down inherent in all Army divisions except the 101<sup>st</sup> Airborne Division (Air Assault) which has two Combat Aviation Brigades.
- <sup>22</sup> Ball, 14-15.
- <sup>23</sup> Ball, 24.

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<sup>24</sup> Ball, 14-15.

<sup>25</sup> Ball, 15.

<sup>26</sup> Ball, 24.

<sup>27</sup> Etheridge, Lynn E. et al., *Stretched Thin: Army Forces for Sustained Operations* (Santa Monica: Rand Corporation, 2005), 33.

<sup>28</sup> Ball, 24.

<sup>29</sup> Ball, 16. In extreme situations where units attend Combat Training Centers without an operations officer, units complete their Mission Readiness Exercise without the one individual (Battalion S3) who will be completely responsible for future full spectrum operations in combat.

<sup>30</sup> Ball, 16-17.

<sup>31</sup> Ball, 17.

<sup>32</sup> Ball, 18.

<sup>33</sup> Ball, 20.

<sup>34</sup> Ball, 150.

<sup>35</sup> Ball, 28.

<sup>36</sup> \_\_\_\_\_, *The Adequacy of Army Forces* (Washington, D.C.: U.S. Government Printing Office, 2007), 26.

<sup>37</sup> *2010 Army Posture Statement*, 11.

<sup>38</sup> \_\_\_\_\_, *Aviation FY12 Pre-decisional Planning Slide* (Department of the Army G-3/5/7).

<sup>39</sup> \_\_\_\_\_, *Building a Thirteenth Active Component Combat Aviation Brigade* ([http://www-rucker.army.mil/docs/usaace\\_info/USAACE%20Info%20Paper%20CDID%2013th%20CAB%2025%20Mar%2010.pdf](http://www-rucker.army.mil/docs/usaace_info/USAACE%20Info%20Paper%20CDID%2013th%20CAB%2025%20Mar%2010.pdf)), 26 January 2011.

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<sup>44</sup> \_\_\_\_\_, FM 7-0 *Training for Full Spectrum Operations* (Washington, D.C.: Headquarters, Department of the Army, 2008), iii.

<sup>45</sup> FM 7-0 *Training for Full Spectrum Operations*, 1-5.

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<sup>46</sup> Smith, Stephen C., statement taken from *MTT Supporting Unit Survey*, 1 January 2011.

<sup>47</sup> Observation made by the author based on information taken from *MTT Supported, Supporting and Trainee Surveys* data, 26 January 2011.

<sup>48</sup> Menold, Thaddeus A., observation made by the author taken from *MTT Supporting Unit Survey*, 20 January 2011.

<sup>49</sup> \_\_\_\_\_, *FM 7-0 Training for Full Spectrum Operations*, 2-4.

<sup>50</sup> Vergez, Nordbert E., *Fielding the Mobile Training Team* (Monroe, Connecticut: Army Aviation Association of America, 2009), 62.

<sup>51</sup> Wagen, Carey, statement taken from an email provided to the author, 25 January 2011.

<sup>52</sup> Hunt, Mark, observation made by the author based on personal experiences and information taken from *MTT Supporting Unit Survey*, 23 December 2010.

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<sup>54</sup> Driggers, Brent, statement made to author in *MTT Supporting Unit Survey*, 5 January 2011.

<sup>55</sup> \_\_\_\_\_, *Stand-To!*

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<sup>56</sup> Smith, Stephen C., statement made to author in *MTT Supporting Unit Survey*, 1 January 2011.

<sup>57</sup> \_\_\_\_\_, *FM 7-0 Training for Full Spectrum Operations*, 2-8.

<sup>58</sup> Ball, 22.

<sup>59</sup> Ball, 24.

<sup>60</sup> Baker, Philip C., statement made to author in *MTT Supported Unit Survey*, 20 December 2010.

<sup>61</sup> \_\_\_\_\_, *Directorate of Evaluation and Standardization*

([http://www.rucker.army.mil/docs/usaace\\_info/USAACE%20Info%20Paper%20DES%2022%20Mar%2010.pdf](http://www.rucker.army.mil/docs/usaace_info/USAACE%20Info%20Paper%20DES%2022%20Mar%2010.pdf)), 26 January 2011.

<sup>62</sup> Observation made by author based on information taken from *MTT Supporting Unit Survey*, 26 January 2011.

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<sup>64</sup> \_\_\_\_\_, *FM 7-0 Training for Full Spectrum Operations*, 2-8.

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<sup>66</sup> Braley, William W., *The Aviation BNCOC Mobile Training Team*, (Monroe, Connecticut: Army Aviation Association of America, 2008), 50.

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<sup>76</sup> Mong, Jacob, information provided to the author in *MTT Trainee Survey*, 21 January 2011.

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