

AD-A258 395



2

ASSAULT HELICOPTER CONTINGENCY OPERATIONS:  
THE FINE LINE BETWEEN PEACE AND WAR

A Monograph  
by

Major Bradley J. Mason

Aviation

**S** DTIC  
ELECTE  
DEC 21 1992  
**A** **D**



School of Advanced Military Studies  
United States Army Command and General Staff College  
Fort Leavenworth, Kansas

First Term AY 91-92

Approved for Public Release; Distribution is Unlimited

92-32355



92 12 18 045

# REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

The reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE 25/11/91	3. REPORT TYPE AND DATES COVERED MONOGRAPH		
4. TITLE AND SUBTITLE ASSAULT HELICOPTER CONTINGENCY OPERATIONS: THE FINE LINE BETWEEN PEACE AND WAR (U)			5. FUNDING NUMBERS		
6. AUTHOR(S) MAJ BRADLEY J. MASON, USA					
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) SCHOOL OF ADVANCED MILITARY STUDIES ATTN: ATZL-SWV FORT LEAVENWORTH, KANSAS 66027-6990 COM (913) 684-3437 AUTOVON 552-3437			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSORING / MONITORING AGENCY REPORT NUMBER		
11. SUPPLEMENTARY NOTES					
12a. DISTRIBUTION / AVAILABILITY STATEMENT APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.			12b. DISTRIBUTION CODE		
13. ABSTRACT (Maximum 200 words) <del>CLASSIFIED</del> .					
14. SUBJECT TERMS LOW INTENSITY CONFLICT ARMY AVIATION AIR ASSAULT			15. NUMBER OF PAGES 53		
			16. PRICE CODE		
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED			18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UNLIMITED

SCHOOL OF ADVANCED MILITARY STUDIES

MONOGRAPH APPROVAL

Major Bradley J. Mason

Title of Monograph: Assault Helicopter Contingency Operations:  
The Fine Line Between Peace and War

Approved by:

Robert H. Berlin Monograph Director  
Dr. Robert H. Berlin, Ph.D.

James R. McDonough Director, School of  
COL James R. McDonough, MS Advanced Military  
Studies

Philip J. Brookes Director, Graduate  
Philip J. Brookes, Ph.D. Degree Program

Accepted this 20th day of December 1991

DTIC QUALITY INSPECTED 1

Accession For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification .....	
By .....	
Distribution/ .....	
Availability Codes	
Dist	Avail and/or Special
A-1	

## Abstract

ASSAULT HELICOPTER CONTINGENCY OPERATIONS: THE FINE LINE BETWEEN PEACE AND WAR by MAJ Bradley J. Mason, USA, 53 pages.

This monograph analyzes the emphasis of assault helicopter doctrine and training programs on preparing units for conducting peacetime and crisis contingency operations in low intensity conflict. As fast and efficient transportation and logistical support assets, capable of operating in remote locations having little or no infrastructure, assault helicopter units are uniquely suited to assist with low intensity conflict operations. As a result, these operations have become a predominant mission focus for assault helicopter units, particularly since 1981, with the increased United States presence in Latin America.

The monograph establishes the context of low intensity conflict by describing some of the potential dangers and peculiarities of conducting operations short of war. An examination of the the early years of United States involvement in Vietnam (1961-1963), provides an historical antecedent. The monograph then defines specialized doctrine and training required to operate safely and effectively in the low intensity environment, and the emphasis low intensity conflict receives in current Army aviation and assault helicopter doctrinal and training publications. With that background, specific missions and deployments undertaken by assault helicopter units are analyzed, to include problems encountered and lessons learned.

Finally, the 4-228th Aviation Battalion in Honduras provides an example of a unit that has been successful in adapting specialized doctrine and training to meet the challenges of operating in low intensity conflict. The monograph concludes citing a passage from FM 25-101, Training the Force: Battle Focused Training, stating that, "training must conform to Army doctrine." The analysis suggests that assault helicopter doctrine is inadequate to provide a salient training focus and must evolve to meet the challenges, dangers, and uncertainties, of operating in low intensity conflict.

## Table of Contents

	Page
I. Introduction.....	1
II. Current Low Intensity Conflict Army Aviation and Assault Helicopter Doctrine and Training.....	11
III. Analysis of Assault Helicopter Operations and Deployments in the Low Intensity Environment.....	23
IV. The 4-228th Aviation Battalion In Honduras: A Synthesis.....	38
V. Conclusion.....	40
Endnotes.....	43
Bibliography.....	48

## I. Introduction

Since March 1981, when fourteen US Army advisors deployed to train the El Salvadoran military on the use and maintenance of helicopters<sup>1</sup>, the involvement of Army aviation assault helicopter units in low intensity conflict and peacetime contingency operations has steadily increased. As a fast and efficient transportation and logistical support asset capable of operating in remote locations with little or no infrastructure, assault helicopters are uniquely suited to assist with low intensity conflict operations.

Active and reserve component US Army aviation units stationed both in the continental United States and overseas are routinely deployed to participate in missions ranging from foreign internal development, disaster relief, and humanitarian assistance, to drug interdiction, noncombatant evacuation operations, shows of force, and combat assault operations. These missions can be both complex and politically sensitive. The political objective dominates low intensity conflict. While conventional war may require military victory before political objectives can be achieved, low intensity conflict seeks political objectives "through a continuing parallel process."<sup>2</sup> Military units may work closely with other United States and foreign government agencies to achieve political ends by other than

military means. Although low intensity conflict poses these unique challenges, it receives little institutional emphasis in current military doctrine, education, and training<sup>3</sup>.

During the summer of 1989 assault helicopter units rehearsed a series of contingency operations in Panama, designed both to show American resolve to protect and defend US lives and property, and to intimidate and demonstrate the vulnerability of General Manuel Noriega's leadership.<sup>4</sup> These tactical helicopter units were employed as a strategic force, and were limited by strict rules of engagement and political constraints, while operating tenuously between peace and war. Panamanian forces were observed manning air defense weapons and visually tracking US aircraft in flight, but US forces were ordered not to engage those air defense systems unless fired upon.<sup>5</sup>

The generic mission training that conventional assault helicopter units perform may not fully prepare them for conducting peacetime operations in potentially hostile situations. In his book, Americans at War, US Army officer Dan Bolger highlights the success of US Army helicopter units transporting Honduran soldiers to block a 1986 Nicaraguan border incursion, without provoking armed opposition. Bolger warns, however, that some American involvement has the potential to incite violent reaction:

When these American expeditions go "in harm's way" they usually find their path barred by determined men using Soviet weapons. The Third world opponents rarely match the Americans in troop quality or cohesion, but such hostile units often outnumber the intervention forces<sup>6</sup>.

On 2 January 1991, while flying an administrative mission in El Salvador, a UH-1H helicopter piloted by US Army Lieutenant Colonel David Pickett, commander of the 4-228th Aviation Battalion in Honduras, was shot down by Farabundo Marti Liberation Front Guerrillas. One crew member died as a result of the crash landing, and Pickett and the crew chief were summarily executed by the rebels<sup>7</sup>. A similar incident in January 1984, claimed the life of Chief Warrant Officer Jeffery Schwab, shot down while performing a reconnaissance mission for an Army engineer unit on the Honduras-Nicaragua border.<sup>8</sup> Even while conducting seemingly routine missions, aircrews operating in low intensity environments can be exposed to unanticipated dangers.

Army UH-60 pilot, Lieutenant Michael Warren, recalled his experience while leading a flight on an anti-narcotics raid during Operation "Blast Furnace" conducted in Bolivia in 1986, "All of us pilots wore body armor, the drug agents carried live ammo, and our door gunners were locked and loaded."<sup>9</sup> The narcotics traffickers posed a dangerous armed threat, and when conducting raids on suspected cocaine labs, aircrews were prepared for the worst. While no American aircraft

or soldiers were fired upon during "Blast Furnace", this mission also highlights the participation of a conventional Army aviation unit in a peacetime low intensity contingency operation that had the potential to escalate into armed conflict.

An advocate of the helicopter as a tool of modern warfare, British theorist Richard Simpkin in his book, Race to the Swift, expresses concern over the use of conventional military forces as police:

I have always seen it as wrong on the one hand to expose police to mass violence and the concerted use of firearms, and on the other to expect soldiers "to offer their lives to the enemy" without permitting them the unrestricted use of firepower.<sup>10</sup>

As valid as Simpkin's concern may be, the fact remains that the United States Army must be flexible and maintain the readiness to perform operations across the spectrum of conflict, even when those operations might require restrictions on the use of force. Writing for Military Review in January 1988, current Army Chief of Staff, General Gordon R. Sullivan, recognized this challenge:

We must combine our intellects and experiences to determine how operations short of war relate to our traditional role of warfighting and deterrence. We must define the concept and develop a doctrinal structure that clearly delineates the relationship between traditional war and activities short of war...We must seek to define the role of the military in a sort of competition that uses force, but which, by its very nature, is dominated by nonmilitary considerations.<sup>11</sup>

As within the rest of the Army, the focus of assault helicopter doctrine and training in the 1980's was primarily directed to counter the most dangerous threat posed by high intensity conflict with the Soviet Union. In spite of this focus, most contingency operations conducted by the Army since 1981 involved low intensity conflict. Due to the utility of the helicopter for troop transport and logistical operations, Army aviation performed a key role in many of those missions. The successful application of assault helicopters during a previous era of American military history established a precedent for that involvement.

The historical antecedents of Army assault helicopters in low intensity conflict date back to before the Vietnam war. From 1961 to 1963, the Kennedy administration wanted to avoid the political consequences of active US involvement in the Vietnam war. In an effort to downplay the war, combat decorations were not authorized. Army aviators wounded while transporting South Vietnamese soldiers into combat were not even awarded the Purple Heart.<sup>12</sup> Air crews sent to assist with nation building operations or to transport US advisors and South Vietnamese forces found themselves involved in a war of increasing intensity.<sup>13</sup>

The Americans gained valuable experience in a new type of war and learned airmobile tactics and techniques by trial and error. The lessons learned during the

early years (1961-1963) in Vietnam about the employment of the helicopter in air assault operations, paralleled the ongoing stateside testing of the 11th Air Assault Division, that deployed to Vietnam in 1965 as the 1st Cavalry Division.<sup>14</sup> As the war progressed, assault helicopter tactics were refined, and airmobile operations became increasingly dominant. While the Vietnam war remains an emotional issue for the American people and for the Army, Army aviation should not forget the war's lessons, and potential applicability to low intensity conflict (abbreviated as LIC).

Considering the potential relevance of the Vietnam experience to the ongoing involvement of aviation units in LIC, there is a notable absence of any reference to Vietnam in the current US Army assault helicopter doctrinal and training publications referenced for this paper. Addressing this issue in a School of Advanced Military Studies Monograph entitled, "What Can We Learn from a War We Lost?", Major Frank Taddonio argues:

Consideration must be given to the appropriateness of the Vietnam conflict to the development of assault helicopter doctrine for tomorrow. This is especially significant since the U.S. Army force structure now contains light infantry divisions designed for low intensity conflict...If the Vietnam experience provides a meaningful basis for doctrine, then by all means, it should be incorporated into the manuals we use today.<sup>15</sup>

Whether or not the Vietnam war provides a "meaningful basis" for Army doctrine in general, the prominence and

widespread employment of helicopters during the war warrants consideration for developing aviation doctrine for low intensity conflict.

In spite of the the lessons of Vietnam and more recent participation of aviation units in low intensity missions, there remains a void in the emphasis placed on preparing assault helicopter units for conducting peacetime and crisis contingency operations in low intensity conflict. FM 25-100, Training the Force, the Army's keystone training manual, suggests the importance of the linkage between training and doctrine. Emphasizing the need to "train as you fight", the manual states that:

Training must conform to Army doctrine... At higher echelons, standardized doctrinal principles provide a basis for a common vocabulary and for military literacy across the force. In units, new soldiers will have little time to learn nonstandard procedures. Therefore, units must train on peacetime training tasks to the Army standards contained in mission training plans (MTPS), battle drill books, soldier's manuals, regulations, and other training and doctrinal publications.<sup>16</sup>

The imperative to train as you fight and to learn the "nonstandard procedures" for operating in the low intensity environment may demand increased emphasis in assault helicopter doctrine and training. Units deploying to conduct peacetime contingency missions in potentially volatile areas of the world must be prepared to meet the challenges posed by conducting operations in low intensity conflict.

The analysis will begin with an overview of LIC doctrinal and training considerations addressed in current Army aviation and assault helicopter doctrinal and training publications. Examples of specialized training required to operate safely and effectively in LIC will also be explored. With that background, the monograph will analyze some of the varied missions and deployments undertaken by assault helicopter units, including problems encountered and lessons learned. Using the Training and Doctrine Command (TRADOC) Problem Solving Model, the paper will examine how units have adapted, or experienced difficulties adapting to often unique mission environments. A brief examination of 4-228th Aviation Battalion in Honduras will illustrate an example of a unit that adopted specialized training programs to meet the challenges of low intensity operations. The monograph will conclude by recommending whether or not specialized assault helicopter doctrine and training programs for LIC should be institutionalized within the Army aviation branch.

Two assumptions must be addressed to define and clarify the scope and content of the monograph. First, special operations aviation will not be discussed. Special operations aviation units routinely perform missions in the low intensity realm, and employ and practice specialized training techniques and procedures. Since the mainstay of special operations missions and

training are classified, however, the scope of this paper is limited to conventional forces. Secondly, evolving changes in terminology are potentially confusing. For the purposes of this monograph, the term low intensity conflict will be used to maintain consistency with the mainstay of cited doctrinal, training, and other reference material. The four categories of LIC addressed in FM 100-20, Military Operations in Low Intensity Conflict include:

insurgency and counterinsurgency, combatting terrorism, peacekeeping operations, and peacetime contingency operations.<sup>17</sup> Peacetime contingency operations may receive greater emphasis because they comprise an all-encompassing, or "catch all", category and dominate the mission focus for most deployed assault helicopter units. For example, when an aviation task force from the 9th Infantry Division at Fort Lewis, Washington deployed to Honduras in 1986 for a peacetime contingency rotation, the unit performed missions ranging from humanitarian assistance and foreign internal development, to transporting Honduran soldiers into a combat zone.<sup>18</sup> Operation "Urgent Fury" in Grenada and Operation "Just Cause" in Panama, also fit the broad definition of peacetime contingency operations, although it may be somewhat misleading to interpret the initial combat actions of these operations as "low intensity".

The Army's mission focus is increasingly reliant on the deployment of contingency forces for flexible response. Many of those contingency missions are oriented at the lower end of the spectrum of conflict and will be conducted in mission environments where helicopters will be relied upon to play a vital role as the principal means of combat, transportation, or logistical support. This monograph will explore examples of what that role may encompass, and the specialized doctrine, and training emphasis that may be necessary to perform it effectively. Assault helicopter doctrine and training must evolve to meet the challenges of the future, and be a "guide to action"<sup>19</sup> for those who will confront the dangers and uncertainties of operating on the fine line between peace and war.

Chapter II. Current Low Intensity Conflict  
Army Aviation and Assault Helicopter  
Doctrine and Training

The introduction inferred that assault helicopter doctrine and training may be inadequate for preparing units to operate effectively in low intensity conflict. To address those issues it is necessary to define examples of some of the specialized doctrinal concepts and training required to operate in LIC, and to examine the treatment those subjects receive in Army aviation and assault helicopter publications. Some specific areas that the experiences of Army assault helicopter units indicate require particular emphasis include:

- 1) Environmental training: Mountain flying and high altitude training, and jungle survival training.
- 2) Combat crew integration, which develops cohesiveness and efficiency by maintaining crew integrity for both training and missions.
- 3) Rules of engagement and force protection issues.
- 4) Helicopter door gunnery training and qualification.
- 5) Navigation and flight following procedures.
- 6) Noncombatant evacuation operations and flight techniques for operations in urban terrain.
- 7) Aircraft carrier landing qualification.

To substantiate the need to consider these areas, specific examples of their importance will be examined in light of recent operations.

When the Nevado Del Ruiz Volcano erupted in Colombia in November 1985, eight UH-60 Blackhawk utility

helicopters deployed from Panama to conduct disaster relief operations. Crews conducted mountain operations at altitudes in excess of 15,000 feet requiring the use of supplemental oxygen.<sup>20</sup> United States Army South regulations required the crews to be mountain qualified and a local qualification program had been established.

In addition to mountain operations, crews deploying to LIC environments can also expect to conduct operations in jungle conditions. The Vietnam example is prominent, but remote jungle terrain also prevails throughout Latin America. Crews deployed to Bolivia for Operation "Blast Furnace", as well as those conducting flight operations in regions of Panama, Honduras, Ecuador and Costa Rica routinely operate over vast areas of remote and often uncharted jungle terrain. The US Army Jungle Operations Training Center (JOTC) offers a special jungle survival school for aircrew members and the course has become a standard part of the training program for new crew members assigned in Panama.<sup>21</sup>

Another factor of particular importance for LIC operations is combat crew integration, or maintaining the integrity of established flight crews throughout training and operations. The Army-Air Force Center for Low Intensity Conflict stresses this point in a CLIC paper entitled, "Planning Considerations for the Combat Employment of Airpower in Peacetime Contingency Operations."

Aircrew Considerations. Develop and refine realistic procedures and methods to make habit patterns instinctive. Although there is no way to truly predict how individuals will react in high-stress situations, the tendency is to fall back on what has been thoroughly practiced...Training must focus on proper skills in the proper environment...<sup>22</sup>

The concept of maintaining combat crews and conducting detailed rehearsals was also apparent during the months of training preceding Operation "Just Cause" in Panama, and culminated in the successful execution of actual combat operations.<sup>23</sup> Crews rehearsed night vision goggle air assault operations, night vision goggle door gunnery, operations in urban terrain, and extended cross-country missions to remote areas of Panama. The show of force operations preceding "Just Cause" became "dress rehearsals" for the actual operation.<sup>24</sup>

Another lesson of "Just Cause" is the importance of helicopter door gunnery. Door gunnery is not emphasized in assault helicopter training for mid to high intensity operations, but becomes important when operating in LIC. Due to the political nature of low intensity operations, introducing attack helicopter into peacetime LIC environments is potentially provocative. Therefore, assault helicopters must routinely operate without escort or external protection. The M-60D door gun systems offer limited protection, provided that door gunners are properly trained. TC 1-140, Helicopter Gunnery prescribes generic door gunnery techniques and

offers a fairly comprehensive door gunnery training program that can easily be adapted by units in the field.<sup>25</sup> During the months preceding "Just Cause" door gunners in Panama trained extensively. In the ensuing combat assault operations they demonstrated the ability to fire accurately and to control their fire.<sup>26</sup>

The problem remains that door gunnery receives minimal emphasis in Army aviation training and doctrinal publications. Moreover, door gunnery programs are not evaluated during Army aviation standardization inspections. Units that must rely on door gunnery for force protection such as those permanently stationed or deployed in Honduras and Panama have added comprehensive door gunnery programs to their internal SOP's.<sup>27</sup> The importance of helicopter door gunnery training in preparing aircrews for operation "Just Cause" has already been established. Equally important was the discipline door gunners exhibited by discriminating between hostile targets and unarmed civilians, and withholding fire when in doubt. The judicious use of force demonstrated by aircrews during "Just Cause," is a fundamental aspect of LIC operations.

Controlling the use of force requires that commanders educate, train, and drill their soldiers in rules of engagement applicable to their specific mission or within their area of operations. Colonel Douglas Terrell, the commander of Task Force Aviation during

"Just Cause," summarized this point in a February 1990 interview with Armed Forces Journal International:

Everyone studied the ROE (rules of engagement), and every commander had to brief his subordinates on the ROE until he was sure they understood them...Those kids (helicopter door gunners) were receiving fire from houses and crowds--AK-47's, mostly--from people who then disappeared back into the houses and crowds. They didn't shoot back, just so they would avoid hitting innocent civilians or doing a lot of damage to buildings.<sup>28</sup>

Soldiers must understand the fine line between protecting friendly forces and minimizing collateral damage and danger to noncombatants. Assault helicopter aircrews in "Just Cause" realized that distinction and trained and conducted operations within the confines of specific rules of engagement for seven months prior to actual combat operations.

Problems created by navigation and flight following (air traffic control) procedures for operating in extremely remote areas are also prevalent in LIC. Special flight following procedures must be developed and special equipment and additional personnel must sometimes be deployed to ensure safe and effective operations. Units frequently operating in these environments are often equipped with satellite (SATCOM) or high frequency radios and special navigation packages, but units deploying from CONUS bases are unlikely to have such equipment. Commanders must establish local policies to operate safely in these

conditions, but there is no discussion of these considerations in current aviation publications. During Operation "Blast Furnace" in Bolivia the aviation task force commander required aircraft to operate in pairs at all times.<sup>29</sup> This regulation was necessary in case one aircraft become disabled while operating outside of radio contact with the base. Similar procedures were used by units deploying from CONUS to Honduras since 1983. A theater Army air traffic control detachment was assigned to Panama in 1989 to support Army operations in Latin America, but commanders and aircrews still require additional training to properly employ this asset.<sup>30</sup>

Another contingency that must be considered by units operating in LIC is the conduct of noncombatant evacuation operations (NEO) and the need to operate in urban terrain, often inherent to the NEO mission. During an interview, Major Stevan Hammack, commander of an aviation task force deployed from Fort Lewis, Washington, to Honduras in 1986, discussed his concerns in preparing for a possible NEO operation. His unit had not been informed of that contingency and had minimal time to prepare. The risks involved with conducting helicopter operations, possibly at night, into unfamiliar urban terrain, under a potentially opposed NEO scenario are extreme. Major Hammack expressed misgivings over conducting such operations without strenuous rehearsals and special training<sup>31</sup>. This

represents both a doctrinal and a training problem. The complexities of urban combat are acknowledged and studied in detail by ground forces, and similar considerations are warranted before conducting aviation operations in urban terrain.

Finally, another area of specialized training required for LIC is aircraft carrier deck landing qualification. In August 1983, an Aviation task force deployed from Ft. Campbell, Kentucky to Honduras aboard the US Navy helicopter carrier USS Nassau.<sup>32</sup> The crews were required by Navy regulations to be trained in deck landing procedures prior to embarkation. Units subject to participating in these deployments, or that regularly conduct operations with the US Navy now make carrier landing qualification a regulatory requirement.<sup>33</sup>

FM 1-100, Army Aviation in Combat Operations is the capstone manual that "embodies the tenets for the employment of aviation in modern warfare," and provides the doctrinal foundation for Army aviation maneuver echelon manuals.<sup>34</sup> Although low intensity conflict is acknowledged as a likely aviation combat mission, mid to high intensity conflict receives the premier emphasis:

Most Army doctrine, tactics, training and force structure focus on Soviet and Warsaw Pact forces in mid to high intensity conflict. However, low intensity conflict remains the most likely form of future combat operations.<sup>35</sup>

While the manual devotes a short descriptive

paragraph to LIC, the emphasis is minimal considering the extensive involvement of Army aviation units in LIC missions since 1981. The imperative to orient the foundation of Army and Army aviation doctrine to meet the more dangerous Soviet threat can be argued. With that threat diminishing, however, and with Americans "in harm's way" performing contingency operations worldwide, the space devoted to LIC in the capstone aviation doctrinal manual remains limited.

Major General Rudolph Ostovich, former Commander of the United States Army Aviation Center, recognized the need to stress low intensity operations in a February 1991 article for Military Review:

The future importance of aviation cannot be addressed solely in terms of mid or high intensity conflict. The true relevance of an aviation force is in its application across the entire spectrum of warfare. It is reasonable to expect that low intensity operations will continue to be a common requirement for our military forces.<sup>36</sup>

The aviation branch has made an effort to increase the emphasis on low intensity conflict. Major William T. Wolf served as the subject matter expert for low intensity conflict and light infantry operations at the Army Aviation Center, Fort Rucker Alabama. He deployed to Panama as a LIC evaluator for the Training and Doctrine Command in 1986 and observed Aviation operations conducted during operation "Kindle Liberty."<sup>37</sup> He also traveled to El Salvador and

interviewed US advisors sent to train the El Salvadoran aircrews. He brought back many lessons from these experiences including the need to conduct more aerial gunnery training for LIC, the difficulties encountered in flight following and navigation, and the need to employ different tactics in LIC than were being taught for operations in Europe. It was recognized that against a predominantly small arms threat with line of sight air defense guns, nap of the earth, or low level flight was not always the best tactic. The advisors, many Vietnam veterans, were teaching the same techniques many of them had used against a similar threat in the early years of Vietnam. Major Wolf realized the void in aviation doctrine for LIC and saw the need to incorporate these lessons into doctrine. He recommended separate LIC appendices for key doctrinal manuals and that LIC training tasks be included in the Aircrew Training Program Commander's Guide and Aircrew Training Manual Series.<sup>38</sup> Major Wolf's efforts may have resulted in the inclusion of a LIC appendix in FM 1-111, Aviation Brigades.

FM 1-111, Aviation Brigades, is "a doctrinal and tactical guide for employing aviation brigades in combat,"<sup>39</sup> and makes the best attempt at incorporating LIC into a doctrinal source. The manual devotes a six page appendix to LIC operations, addressing the LIC environment, the operational categories of LIC and the

the role and considerations for the employment of Army aviation in LIC. Although this treatment of the subject is expanded over previous editions, the material is still generic in content and does not address specific aviation doctrinal and training issues in adequate detail. The apparent intent of the appendix is to demonstrate possible aviation applications to various LIC mission profiles. Noticeably absent is any mention of specialized training or educational programs necessary to educate and prepare air crews to conduct low intensity operations. While a purely doctrinal manual is not intended to address tactics, techniques, and procedures in finite detail, FM 1-111 should at least acknowledge and define some of the aspects of LIC operations addressed earlier in this section.

The Aircrew Training Manual series does not address LIC subjects or training tasks, but does allow commanders flexibility in the design of mission training programs "to verify and develop the aviator's ability to perform specific tasks selected by the commander to support the unit's mission."<sup>40</sup> While this approach permits commanders the flexibility to design their own training, standardization is an important fundamental to any type of aviation training. Additionally, the Commander's Guide should provide guidance, or at a minimum, offer suggested training tasks for the consideration of commanders with

LIC oriented missions.

Colonel Michael Abbott, former Director of the Army Aviation Directorate of Evaluation and Standardization, at Fort Rucker, Alabama, and the former commander of the aviation battalion that participated in Operation "Blast Furnace", appealed to the field for standardization issues in a February 1990 article for Army Aviation. Discussing training programs for conducting counter narcotics operations, he recognized that units were performing training tasks not included in any Aircrew Training Manuals (ATM) or tasks that were included in an ATM, but being performed under different conditions. He encouraged units to provide feedback on their training programs for possible inclusion in future manuals.<sup>41</sup> Colonel Abbott recognized the importance of allowing commanders the flexibility to develop training requirements to support unique missions, but he also pointed to the need for training standardization, and to institutionalize training requirements that may be pertinent Army-wide. Integrating LIC doctrinal and training issues into the Commander's Guide, and Aircrew Training Manual series would standardize LIC training programs Army-wide, potentially enhancing both safety and readiness.

For assault helicopter operations in particular, the capstone doctrinal and training manual is FM 90-4, Air Assault Operations. The only mention of low

intensity conflict occurs in the first paragraph describing that air assault task forces "can be employed in low, mid, and high intensity environments."<sup>42</sup> None of the special training subjects discussed earlier in this section are addressed, and no mention is made of the need to tailor aircrew training programs to meet the specific demands of operating in LIC.

To this point the study suggests that operating in the low intensity environment requires specialized training. While the Army aviation branch has begun to more fully incorporate low intensity conflict into doctrinal manuals and training publications the study found that, to date, little written guidance is available. With the lack of emphasis on low intensity conflict in current aviation and assault helicopter doctrine, one obvious question remains. If LIC operations require specialized training and doctrinal emphasis, how have units conducted these missions with such success over the past 10 years? An analysis of several LIC deployments and operations may help to address that question and further illustrate the linkage between doctrine and training.

Chapter III. Analysis of Assault Helicopter  
Operations and Deployments in the Low  
Intensity Environment

An analysis of selected LIC deployments conducted by US Army assault helicopter units during the past ten years will highlight problems encountered by those units and any salient lessons units derived from their experiences. The focus of this analysis is to determine the means units had at their disposal to assist them in preparing for their missions, and if institutional doctrinal publications and training programs contained sufficient specialized information for operating in LIC. In a recent article for Infantry, entitled, "Low Intensity Conflict, What Captains Should Study," Colonel Richard T. Rhoades, a National War College faculty member, addressed the specialization issue:

Military operations in low intensity conflict clearly require a new level of sophistication and a knowledge of tactics and techniques that are entirely new to much of our "conventional wisdom." If recent history is an indicator of the future, all Army leaders need to be ready to operate in this environment.<sup>43</sup>

A paradigm may further clarify the need to develop specialized doctrine and training programs for low intensity conflict. The Training and Doctrine Command (TRADOC) Problem Solving Model can be used to illustrate the process of transitioning from potential warfighting problems to effective and manageable solutions. The outline of the basic model is illustrated below:<sup>44</sup>

- |   |    |                                   |
|---|----|-----------------------------------|
| 9. IMPLEMENTATION.                      | .  | 1. PROBLEM                        |
|   | :  |                                   |
| 8. DECISION                             | :} | 2. THREAT ANALYSIS                |
|   |    |                                   |
| 7. ANALYSIS                             |    | 3. FRIENDLY CAPABILITIES ANALYSIS |
|   |    |                                   |
| 6. OPERATIONAL AND ORGANIZATIONAL PLANS |    | 4. TECHNOLOGY ASSESSMENT          |
|   |    |                                   |
|   |    | 5. CONCEPTUAL ALTERNATIVES        |

The greatest utility of the model is its adaptability. During a 30 March 1989 address to the Colombian War College in Bogota, Colombia, former TRADOC Commander General Maxwell Thurman adapted the model to formulate a concept for the employment of light infantry and to compare US Army light infantry doctrine to potentially similar uses for light forces in Colombia.<sup>45</sup> The model does not restrict creative applications of available means and thereby suggests variable ways to attain the desired ends. If, for example, a military force is limited by the threat or by its own capabilities, use of the model might offer alternative solutions to counter those limitations and still achieve the desired end state. The products derived from the model are doctrine, force design, equipment, leader development, and training programs, required to

accomplish a mission or to solve a problem. Changes in one of these domains have potential impacts on all of the others, and the model serves to highlight the effects of changes or differences that are introduced. Having established the framework for the the model, it will now be applied to this study.

Applying the research question of this monograph as the "problem," the analysis will focus on a sample of recent deployments and examine common trends, problems, lessons learned, and solutions.

**PROBLEM:** Should assault helicopter doctrine and training place greater emphasis on preparing units for conducting peacetime and crisis contingency operations?

The model will examine several deployments. The scope of these operations and deployments--the size of the units and number of aircraft involved--varied but they are a representative sample of assault helicopter LIC operations conducted over the past 10 years, and highlight different units and mission orientations.

1. AHUAS TARA II, conducted in Honduras from August 1983 through February 1984. This operation involved units from the 101st Airborne Division and represented the first deployment of a large (34 aircraft) CONUS based task force to participate in LIC operations.<sup>46</sup>
2. Nevado del Ruiz Volcano Disaster, Colombia conducted in November and December 1985. This mission was conducted by an aviation task force (12 aircraft)

deployed from Panama and is notable due to the variety of missions conducted and the strenuous mission environment.<sup>47</sup>

3. Operation "Blast Furnace," conducted in Bolivia from July to October 1986. This operation was also conducted by a smaller (8 aircraft) task force deployed from Panama and it represents a clear example of an operation just short of war.<sup>48</sup>

4. Operation "Golden Pheasant," conducted in Honduras in March 1986. The focus will be on the participation of an aviation task force (25 aircraft) forward deployed in Honduras from Ft. Lewis, Washington. That unit was serving in Honduras on a routine rotation and quickly became involved in a major show of force operation.<sup>49</sup>

5. Operation "Just Cause," conducted in Panama from December 1989 to January 1990. The air assault operations for "Just Cause" involved an aviation task force comprised of units permanently assigned to Panama and units that had been rotating to Panama from Fort Ord, California since 1988. The number of UH-60 assault helicopters varied throughout the period, but ranged from a minimum of 25 to more than 45. This operation is notable because it represents the transition from peacetime operations short of war to a wartime contingency operation.<sup>50</sup>

As previously discussed the TRADOC model is adaptable. It can be tailored to analyze the research

problem by limiting the focus to elements of the model that are different for certain missions or units, and negating those elements that are the same. For each operation studied, the units had similar potential capabilities, force design, technological advantage, and required and available equipment. Disregarding those similarities, the model will be used to analyze the remaining variables:

- |                    |                    |   |
|--------------------|--------------------|---|
| 5. IMPLEMENTATION. |                    | 1. THREAT                               |
|                    | . ) DOCTRINE       |   |
|                    | LEADER DEVELOPMENT |   |
| 4. DECISION        | TRAINING           |   |
|                    |                    | 2. OPERATIONAL AND ORGANIZATIONAL PLANS |
|                    | 4. ANALYSIS        |   |

Returning to the first of the deployments to be analyzed, the model will be applied to AHUAS TARA II.

THREAT AHUAS TARA II, was a defacto show of force operation, conducted at a time when the US was determined to counter the Nicaraguan Sandinista threat.<sup>51</sup> Prior to deployment, the unit received briefings on the composition of active guerilla groups and terrorist operations and most planning involved preparations for a "show the flag" mission.

PLANS/ANALYSIS The scope of this deployment was unprecedented, and the unit had little information for detailed planning aside from that gained by an advanced party planning trip by key leaders and the collective experience of senior officers and non-commissioned

officers with Vietnam experience.

DECISION The task force would deploy to a totally undeveloped theater, set up a primitive base camp on a Honduran Air Force base and operate for up to six months.

IMPLEMENTATION Prior to deployment there was not ample time for specialized LIC training, but limited classroom training conducted on the ship oriented crews to the mission and the threat. As previously discussed, crews conducted carrier deck landing qualification prior to embarkation on the USS Nassau. No training or special emphasis was given to environmental training, combat crew integration, rules of engagement, helicopter door gunnery, or NEO and urban terrain operations. The unit did establish viable flight following and navigation procedures that were used from the outset of the operation. The task force learned from its own experiences and adapted to meet the parameters of an expanding mission. During the six month period, they conducted missions that included, humanitarian assistance, medical support, VIP support, troop transports of Honduran soldiers, and training for other possible contingency operations.<sup>52</sup>

This deployment illustrates a trend also noted in other deployments studied. The task force leadership met the challenges and the operation was successful in spite of the doctrinal and training shortfalls. Lessons

were learned from this initial large scale operation that would be later relearned. There was no institutional effort within the Army aviation community to capture the lessons learned from AHUAS TARA II.

When the Nevado del Ruiz volcano erupted in November 1985, burying the town of Armero, Colombia and killing 23,000 people, an aviation task force from Panama was deployed to conduct disaster relief and humanitarian assistance operations.

THREAT This operation illustrates that even in a situation where US intentions are totally humanitarian, aircrews and soldiers deployed to LIC environments may find themselves in "harms way." During the relief operation, crews were threatened by guerilla activity by a group called "M-19."<sup>53</sup>

PLANS/ANALYSIS The task force had only 36 hours notice prior to deployment, so planning time and mission analysis were minimal. They were instructed to prepare for disaster relief operations, but they did not fully understand the scope of the potential guerilla threat.

DECISION The task force deployed to a developed Colombian air base and received limited logistical and security support from the Colombian authorities.

IMPLEMENTATION The unit conducting this operation had established training programs for the mountain, jungle and over water flight conditions they would encounter during deployment, and throughout the conduct

of the mission.<sup>54</sup> This training focus prepared crews for hazardous mountain flying at altitudes in excess of 15,000 feet. There was no apparent emphasis on rules of engagement or helicopter gunnery, and it does not appear that the aircraft were even equipped with the M60D door guns. Due to the guerilla threat, crews were restricted to base when not flying and also instructed to never shut down their aircraft when working in remote locations.<sup>55</sup>

This deployment produces two key observations. First, even when conducting unprovocative relief operations, units operating in LIC environments must remain cognizant of all potential threats. Weapons training is essential. Secondly, this unit maintained readiness by the use of detailed standard operating procedures and by integrating the Commander's Task List and Aircrew Training Manual to develop a comprehensive training program. They were prepared to safely execute a non-standard mission on very short notice.

The same battalion was alerted to deploy a task force to Bolivia in 1986 for the antinarcotics mission, Operation "Blast Furnace." "Blast Furnace" was designed to interfere with cocaine processing and interdict trafficking operations. The helicopters were intended as a means to transport authorities to suspected cocaine processing laboratories in remote regions of Bolivia.

THREAT Antinarcotics operations pose a unique

threat for two reasons. First military personnel assume a role more closely resembling police, and that role further complicates the use and limits of force. Secondly, the threat is difficult to distinguish. Terrorist and guerilla organizations, organized crime, and even corrupt government officials and law enforcement personnel, are associated with the drug trade.<sup>56</sup>

PLANS/ANALYSIS The operational concept of Blast Furnace was to conduct strike operations from a fixed rear operating base in concert with US Drug Enforcement Agency personnel and the Bolivian police. Eight UH-60 Blackhawks and logistical and support soldiers would be deployed for 60 days.

DECISION Due to the considerable threat and the need for operational security, the deployment was to be "low key". Unknown sources compromised the deployment to the press, however, and the decision to maintain tight operational security was to little avail. Ultimately, the element of surprise was compromised and the operation was extended to 4 months.

IMPLEMENTATION The same mission training program that aided this unit during the volcano disaster in Colombia, also proved beneficial in Bolivia. Navigation and flight following were difficult in this operation and no air traffic control unit was forward deployed to assist. As cited in the introduction in the reference

to Lieutenant Warren's experiences, the drug lab raids posed a real threat that could have resulted in intense combat and lost aircraft and crews.<sup>57</sup>

This mission is a perfect example of what the title of the monograph refers to as "the fine line between peace and war." The crews were mentally ready and trained for combat, but also working in an undefined role as both police and a military force. Current aviation doctrine offers little guidance for this sort of operation. While rules of engagement establish criteria to assist crews in making decisions regarding the use of force, the evolving role of Army aviation in antinarcotics operations warrants more detailed doctrinal guidance concerning the employment of military personnel to assist with law enforcement.

The next mission to be examined is Operation "Golden Pheasant" conducted in March 1986, as a show of force operation<sup>58</sup>. The focus will be the participation of an aviation task force from Ft. Lewis, Washington, already deployed to Honduras for a routine rotational deployment. When the decision was made to launch "Golden Pheasant," this aviation task force was integrated into the mission.

THREAT For this operation the threat was anticipated by the task force. The Nicaraguan Sandinista regime, and allied guerrillas and terrorist groups working in Honduras posed a constant threat.

These groups were known to conduct both terrorist attacks and more overt military operations against Honduran and US bases and personnel.

PLANS/ANALYSIS Prior to deployment leaders from the task force conducted a site survey and liaison in Honduras with the unit from Fort Campbell, Kentucky that had participated in the previous rotation. The task force adopted portions of that unit's standard operating procedures. No plans were developed for conducting NEO operations, or for transporting Honduran combat soldiers.

DECISION Based on what was learned during the site survey and the SOP information transferred from the other unit, the task force commander implemented a training program prior to deployment, to prepare his crews for possible contingencies. He rewrote his Commanders Task List, adding training tasks to prepare for the mission. The unit conducted mountain training, deck landing qualification, and door gunnery training.

IMPLEMENTATION When the task force arrived in country, the situation changed rapidly. As discussed in Chapter II, the task force received an unanticipated NEO contingency that entailed flying into unknown urban terrain, possibly at night, and under opposition by hostile forces of unknown size and capabilities. When "Golden Pheasant" began, the task force also received the mission to transport Honduran troops close to the

Nicaraguan border. Throughout the deployment, the unit maintained a regular schedule of humanitarian assistance, medical support, and foreign internal development missions. Force protection issues were of special concern to the commander, particularly during the period of heightened tensions surrounding the NEO contingency and "Golden Pheasant."

The task force commander summarized the key lessons of this deployment during a recent interview. First, he considered doctrinal manuals incomplete for operating in LIC, specifically for failing to address key issues including: rules of engagement, door gunnery procedures, and NEO operations. Secondly, lessons learned were only transferred from one unit to another by word of mouth, or by the exchange of SOP's. The process was not formalized, and the commander realized that essential elements would inevitably be missed. He used the Commander's Task List effectively for areas of emphasis that could be anticipated, but there was no reference document available to ensure all key areas were addressed.<sup>59</sup>

The last operation that will be analyzed is Operation "Just Cause." Although the actual combat operations occurred from December 1989 to January 1990, this section will focus on the operations conducted by permanent party and forward deployed helicopter units in Panama prior to the combat phase.

THREAT The Panamanian Defense Forces (PDF) were the principal threat. During the weeks and months preceding "Just Cause," tensions between US forces and the PDF had steadily increased. US forces conducted a series of operations referred to as "Purple Storms" and "Sand Fleas" to intimidate the PDF, and actions by both forces became more provocative.

PLANS/ANALYSIS Contingency planning for combat operations against the PDF had been ongoing for more than two years. In 1988, Task Force Hawk, an aviation task force from Ft. Ord California, deployed to Panama on a rotational basis to augment in-country aviation assets. They trained with the forces in Panama, and had a comprehensive mission training program in place.

DECISION As the political situation further deteriorated in 1989, both the 1-228th from Panama, and Task Force Hawk participated in show of force operations to demonstrate US capabilities and resolve to protect US lives and property, and to intimidate the Noriega regime. The decision was made to task organize these units to be mutually supportive and to form task forces to conduct specific missions. This led to the highly successful "dress rehearsal" operations already highlighted.<sup>60</sup>

IMPLEMENTATION Both of these units focused completely on the specialized training and mission tasks that would be required to transition from the period of

heightened tensions to combat. Using the Mission Essential Task List concept outlined in FM 25-101, Training the Force, Battle Focused Training, and Commander's Task Lists, areas of training emphasis tailored to the LIC environment were added to unit training programs. Night vision goggle operations, including night vision goggle door gunnery increased. Units trained as integrated combat crews in urban terrain flight techniques, mountain and jungle operations, and maintained deck landing currency. Constant emphasis was given to rules of engagement and force protection issues.

The successful aviation operations during "Just Cause" were due in large part to preparation and readiness. The specialized training programs highlighted in the previous paragraph and the emphasis by commanders on rules of engagement and conducting realistic rehearsals paid off. The assault helicopter units employed in Panama had trained to conduct LIC operations for both peace and war. They operated on "the fine line" for almost two years before engaging in actual hostilities, and their experiences could provide a meaningful foundation for assault helicopter LIC doctrine.<sup>61</sup>

Chapter IV will briefly highlight another success story that may also serve to bridge the gap between the need for doctrine, and the design of training programs

for low intensity operations. The assignment of a permanent aviation battalion in Honduras has heightened readiness for operating in low intensity conflict, and may provide a model for the standardization of LIC doctrine and training throughout Army aviation.

Chapter IV. The 4-228th in  
Honduras: A Synthesis

A brief examination of the 4-228th Aviation Battalion in Honduras will synthesize much of what has been examined thus far in the monograph, and serve as a basis for summarizing the results of the analysis. The 4-228th was activated in January 1990 to be a permanent aviation headquarters for Honduras. While units still rotate from CONUS to augment the 4-228th, the permanent headquarters provides a new level of standardization and continuity helping to ensure that effective procedures, training programs, and lessons learned are maintained.

The 4-228th Standard Operating Procedures, Mission Essential Task List, and Commander's Task List are specifically focused on the low intensity environment and emphasize the training subjects the monograph has examined thus far, including: deck landing qualification, helicopter door gunnery, environmental training, and detailed ROE and threat training. This unit continually operates on "the fine line" and recent incidents illustrate the danger inherent to their mission. In addition to the deaths of Lieutenant Colonel Pickett and his crew, another UH-1H pilot was wounded by small arms fire over El Salvador in November 1990. The threat is real, and the training focus is intense.

During an interview, Major Ralph Johnson, the

former operations officer of the 4-228th, offered his thoughts on the relationship between LIC doctrine and specialized training. Much of the basis of the 4-228th training program and emphasis on LIC specific issues were products of the "institutional knowledge of the personnel assigned to the unit and their collective experiences." He also stated that standard operating procedures and training programs from other units were helpful for developing the 4-228th program. Major Johnson did not cite the use of any Army aviation doctrinal manuals to provide a foundation for 4-228th training.

Major Johnson stressed the conviction that commanders should maintain the freedom to develop their own training programs. He found that Mission Essential Task Lists, Commander's Task Lists and The Aircrew Training program were adaptable to this purpose. A common thread between the interview with Major Johnson, and the other analysis contained in the monograph, is the lack of continuity between available doctrine and the development of training programs for assault helicopter operations in low intensity conflict.<sup>62</sup> Doctrine should provide the foundation and be a catalyst for the development of effective, mission oriented training.

## Chapter V. Conclusion

### FM 25-101, Training the Force, Battle Focused

Training, states:

Training must conform to Army doctrine. Doctrinal manuals provide leaders correct procedures and principles in order to conduct training properly.<sup>63</sup>

As proposed in the introduction, a simple definition of doctrine is "a guide to action." Doctrine is not tactics, techniques, and procedures, but must provide the foundations and principles for commanders to use in developing mission oriented training programs. As the analysis has shown, current assault helicopter doctrine does not provide an adequate foundation for developing effective and standardized training programs for low intensity conflict.

In spite of the lack of a doctrinal foundation, commanders and units have trained for, and conducted LIC operations successfully. That does not, however, lessen the need to institutionalize and more importantly, to standardize, LIC training programs to promote Army-wide implementation. Commanders should maintain the prerogative to design training tailored to their often unique mission requirements, but those programs should be founded within the parameters of established doctrine. If "training must conform to Army doctrine," the doctrine must be available.

While this study found the overall treatment of low

intensity conflict in aviation doctrinal and training publications to be lacking, many positive trends have also emerged from the analysis. First, the senior leadership of the Army, and more specifically, of the Army aviation branch, recognizes the relevance of maintaining readiness for LIC contingencies. Secondly, recent doctrinal manuals at least generically address LIC issues. Most importantly, existing Army and aviation training doctrine is easily adaptable to incorporating LIC specific tasks, once they are identified.

The recommendations that emerge from this analysis center on taking steps to elevating LIC doctrinal issues to the forefront. This will encourage commanders to adopt and tailor LIC specific training to meet their unit missions. It will also foster the Army-wide standardization of common LIC training techniques and procedures to promote safety, efficiency, and continuity. The LIC appendix in FM 1-111 Aviation Brigades and the brief portion of FM 1-100, Doctrinal Principles for Army Aviation in Combat Operations, should be expanded and more specifically address the common LIC considerations addressed in this monograph. Additionally, FM 90-4, Air Assault Operations, should provide guidance for the planning and conduct of air assault operations in the LIC environment, particularly focusing on operations short of war.

Another area of emphasis should be the sharing of existing institutional knowledge and experience with the field. A "lessons learned" book for conducting assault helicopter operations in low intensity conflict could prove to be a valuable publication, and preclude the recurring trend of relearning the same important lessons. The lessons learned book could be formatted to include vignettes highlighting examples of LIC missions and deployments, and important issues that emerged during those operations.

This monograph examined the increasing role of assault helicopter units in low intensity conflict and the specialized training and doctrine required to operate in that mission environment. Low intensity conflict poses unique challenges that must be confronted with sound doctrine, and with mission oriented training derived from that doctrine. Assault helicopter doctrine must evolve to meet the challenges of low intensity conflict, particularly as the the Army's mission focus increasingly emphasizes the deployment of contingency forces capable of operating anywhere in the World.

## ENDNOTES

<sup>1</sup>Cynthia Arnson, "Beefing up the Salvadoran Military Forces: Some Components Of U.S. Intervention" in El Salvador: Central America in the Cold War, ed. Marvin E. Gettleman, Patrick Lacefield, Louis Menashe, David Memelstein, and Donald Radosh, (New York: Grove Press, 1981), 226.

<sup>2</sup>Barry Crane, Joel Leson, Robert Plebanek, Paul Shemella, Ronald Smith, and Richard Williams, Between Peace and War: Comprehending Low Intensity Conflict, National Security Program Discussion Paper Series 88-02 (Harvard, MA: National Security Fellows 1986-87), 20.

<sup>3</sup>A.J. Bacevich, James D. Hallums, Richard H. White, and Thomas F. Young, American Military Policy in Small Wars: The Case of El Salvador, Institute for Foreign Policy Analysis, Inc. (New York: Pergamon Brassey's, 1988), 14.

<sup>4</sup>Frederick Kempe, Divorcing the Dictator (New York: Putnam's, 1990), 364.

<sup>5</sup>During these "Purple Storm" and "Sand Flea" operations, the rules of engagement permitted a commander to ensure the self defense of his unit, but mandated minimum force. Fire could only be returned once U.S. forces had been fired upon, and then only if the source of the fire could be precisely determined. The intent was to ensure little or no collateral damage or loss of life to Panamanian civilians. The author served as the air mission commander and piloted a UH-60 helicopter during a number of these missions. A discussion of rules of engagement can be found in Clarence Briggs', Operation Just Cause (Harrisburg, PA: Stackpole Books, 1990), 2-5.

<sup>6</sup>Daniel Bolger, Americans at War (Novato, CA: Presidio Press, 1988), 13.

<sup>7</sup>"Pentagon Identifies Shooting Victims," Army Times, 2 January 1991: 2.

<sup>8</sup>"White House Criticizes Nicaragua in Death of U.S. 'Copter Pilot," Army Times, 23 January 1984: 2.

<sup>9</sup>Dave Schad, "White Powder War," Soldiers 41 (November 1986): 17.

<sup>10</sup>Richard Simpkin, Race to the Swift (London: Brassey's Defence Publishers, 1985), 316.

<sup>11</sup>Gordon R. Sullivan, "From the Deputy Commandant," Military Review LXVII (January 1988): 3.

<sup>12</sup>Neil Sheehan, A Bright Shining Lie (New York: Random House, 1988), 51. Stanley Karnow, Vietnam: A History (New York: Penguin Books, 1984), 259.

<sup>13</sup>John J. Toison, Airmobility: 1961-1971, Vietnam Studies (Washington: Department of the Army, 1973), 26; Stanley Karnow, Vietnam: A History (New York: Penguin Books, 1984), 259.

<sup>14</sup>Tolson, Airmobility, 61.

<sup>15</sup>Frank T. Taddonio, "What Can We Learn from a War We Lost?" (School of Advanced Military Studies Monograph, US Army Command and General Staff College, 1985), 4-5.

<sup>16</sup>U.S. Army, FM 25-100, Training the Force (Washington: Department of the Army, 1988), 1-4.

<sup>17</sup>U.S. Army, FM 100-20, Military Operations in Low-Intensity Conflict (Washington: Department Of the Army, 1990), 1-6 - 1-7.

<sup>18</sup>Stevan Hammack, interview by author, Fort Leavenworth, KS, 24 September 1991.

<sup>19</sup>The phrase "a guide to action" was used by Colonel James R. McDonough as one simple definition of doctrine. The idea was introduced during an Advanced Military Studies Program combined seminar presentation conducted by Colonel McDonough on 30 August 1991.

<sup>20</sup>Cecil Stack, "When the Lion Struck," Soldiers 41 (February 1986): 38.

<sup>21</sup>One example of the remote jungle environment frequently encountered in LIC is described in Schad, "White Powder War," 17. The author attended the Aircrew Jungle Survival School in March 1989.

<sup>22</sup>Bradley Butler, "Planning Considerations for the Combat Employment of Air Power in Peacetime Contingency Operations," CLIC Papers (Langley Air Force Base, Virginia: Center for Low Intensity Conflict, 1988) 13.

<sup>23</sup>Robert Ropelewski, "Planning, Precision, and Surprise Led to Panama Successes." Armed Forces Journal International (February 1990): 26-32.

<sup>24</sup>Frank Colucci, "Rehearsal Reaps Rewards," Defence Helicopter World 9 (June-July 1990): 18-23; U.S. Army,

Soldiers in Panama: Stories of Operation Just Cause  
(Washington: Office of the Chief of Public Affairs,  
1990) 10.

<sup>25</sup>U.S. Army, TC 1-140, Helicopter Gunnery (Approved Draft) (Washington: Department of the Army, 1990) 4-19.

<sup>26</sup>Ropelewski, "Planning, Precision, and Surprise," 26-32; The author developed a door gunnery training program for the UH-60 helicopter company under his command and conducted extensive door gunnery training prior to "Just Cause."

<sup>27</sup>U.S. Army, U.S. Army South Supplement 1 to AR 95-1, Army Aviation: Flight Regulations (Fort Clayton, Panama: Headquarters, United States Army South, 1990), 2; U.S. Army, 4th Battalion 228th Aviation Regiment, Standard Operating Procedures (Soto Cano, Honduras: 1991) 60. The 4-228th SOP also establishes detailed rules of engagement for the use of door guns in Appendix AD.

<sup>28</sup>Ropelewski, "Planning, Precision, and Surprise," 32.

<sup>29</sup>U.S. Army, Operation Blast Furnace After Action Report (Fort Clayton, Panama: 324th Support Group, 1986) H.

<sup>30</sup>A theater Army air traffic control detachment was assigned to US Southern Command in 1989 to support aviation operations throughout Latin America. The author conducted operations with these controllers in remote locations of the Darien region of Panama in January 1990.

<sup>31</sup>Interview, Hammack, author.

<sup>32</sup>Harley Finley, "Army Aviation in Honduras," Army Aviation 33 (June 1984) 87. The author participated in this deployment and in the deck landing training.

<sup>33</sup>U.S. Army, U.S. Army South Supplement 1, 3. U.S. Army, 4th Battalion 228th Aviation, M1-3.

<sup>34</sup>U.S. Army, FM 1-100, Army Aviation in Combat Operations (Washington: Department of the Army, 1989) v.

<sup>35</sup>Ibid., 1-12.

<sup>36</sup>Rudolph Ostovich, "Army Aviation in AirLand Battle Future," Military Review LXXI (February 1991): 29.

<sup>37</sup>U.S. Army, CALL Observation Report, CALL Index #

000073, (Fort Leavenworth, Kansas: Center for Army Lessons Learned, 1986) 66-69.

<sup>38</sup>William Wolf, interview by author, Fort Leavenworth, KS, 24 September 1991.

<sup>39</sup>U.S. Army, FM 1-111, Aviation Brigades (Washington: Department of the Army, 1990) v.

<sup>40</sup>U.S. Army, TC 1-212, Aircrew Training Manual: Utility Helicopter UH-60 (Washington: Department of the Army, 1988) 4-1.

<sup>41</sup>Michael Abbott, "Army Aviation and the War on Drugs," Army Aviation 39 (February 1990): 53-54.

<sup>42</sup>U.S. Army, FM 90-4, Air Assault Operations (Washington: Department of the Army, 1987) 1-1.

<sup>43</sup>Richard Rhoades, "Low Intensity Conflict: What Captains should Study," Infantry 81 (March-April 1991): 12.

<sup>44</sup>Briefing slides, General Maxwell Thurman for address to Colombian War College, 30 March 1989. Slide number 3 introduced the TRADOC Problem Solving Model.

<sup>45</sup>Ibid. A series of briefing slides outlined the TRADOC Problem Solving applied to a concept for Colombian use of light infantry forces and doctrine similar to that used by the US Army.

<sup>46</sup>Finley, "Army Aviation," 88.

<sup>47</sup>Stack, "When the Lion Struck," 37-41.

<sup>48</sup>Michael Abbott, "The Army and the Drug War: Politics or National Security?" Parameters XVIII (December 1988): 95-96.

<sup>49</sup>Ned Ennis, "Exercise Golden Pheasant, A Show of Force," Military Review LXIX (March 1989): 20-23; Interview, Hammack, author.

<sup>50</sup>Videotapes, Southern Command Network News, 1989, in the possession of the author. The author participated in these operations while assigned in Panama.

<sup>51</sup>Alison Acker, Honduras: The Making of a Banana Republic (Boston: South End Press, 1988) 116-117.

<sup>52</sup>The author participated in AHUAS TARA II, while assigned to the 101st Airborne Division.

<sup>53</sup>Stack, "When the Lion Struck," 41.

<sup>54</sup>The author was assigned to the unit cited shortly after the operation and the same aircrew training program and Standard Operating procedures were in effect.

<sup>55</sup>Stack, "When the Lion Struck," 41.

<sup>56</sup>Abbott, "The Army and the Drug War," 106.

<sup>57</sup>Schad, "White Powder War," 16-17.

<sup>58</sup>Interview, Hammack, author.

<sup>59</sup>Interview, Hammack, author.

<sup>60</sup>Colucci, "Rehearsal Reaps Rewards," 18-23; U.S. Army, Soldiers in Panama, 10.

<sup>61</sup>This background for this analysis is based on the author's experience as a participant in these operations.

<sup>62</sup>Ralph Johnson, interview by author, Fort Leavenworth, KS, 24 September 1991.

<sup>63</sup>U.S. Army, FM 25-101, Training the Force, Battle Focused Training (Washington: Department of the Army, 1990), 1-5.

## BIBLIOGRAPHY

### 1. Books

- Acker, Alison. Honduras: The Making of a Banana Republic. Boston: South End Press, 1988.
- Adkin, Mark. Urgent Fury: The Battle for Grenada. Lexington: Lexington Books, 1989.
- Behar, David S., and Godfrey Harris. Invasion: The American Destruction of the Noriega Regime in Panama. Los Angeles: The Americas Group, 1990.
- Bergerson, Frederic A. The Army Gets an Air Force. Baltimore: John Hopkins University Press, 1980.
- Bolger, Daniel P. Americans at War. Novato: Presidio Press, 1988.
- Briggs, Clarence E. Operation Just Cause. Harrisburg: Stackpole Books, 1990.
- Dixon, Marlene, editor. On Trial: Reagan's War Against Nicaragua. San Francisco: Synthesis Publications, 1985.
- Galvin, John. Air Assault: The Development of Airmobile Warfare. New York: Hawthorne Books, 1969.
- Gettleman, Marvin E., Patrick Lacefield, Louis Menashe, David Mermelstein, and Ronald Radosh, editors. El Salvador: Central America in the New Cold War. New York: Grove Press, Inc., 1981.
- Karnow, Stanley. Vietnam: A History. New York: Penguin Books, 1984.
- Kempe, Frederick. Divorcing the Dictator. New York: Putnam, 1990.
- Schoenbaum, Thomas J. Waging War and Peace. New York: Simon and Schuster, 1988.
- Sheehan, Neil. A Bright Shining Lie, John Paul Vann and America in Vietnam. New York: Random House, 1988.
- Simpkin, Richard E. Race to the Swift. London: Brassey's Defence Publishers, 1988.

### 2. Interviews

Forrester, Major William, flight operations officer for Task Force 101st Aviation, Joint Task Force 11, Honduras, August 1983 - February 1984. Interview conducted by author 24 September 1991, Fort Leavenworth, Kansas.

Hammack, Major Stevan, Commander of an aviation task force deployed from Fort Lewis, Washington to support JTF-B in Honduras, 1986. Interview conducted by author, 24 September 1991, Fort Leavenworth, Kansas.

Johnson, MAJ Ralph, flight operations officer for 4-228th Aviation Battalion, Joint Task Force Bravo, Honduras, January 1990 - December 1990. Interview conducted by author 24 September 1991, Fort Leavenworth, Kansas.

Wolf, MAJ William, Chief TRADOC Evaluator for air assault operations conducted during Operation Kindly Liberty, Panama, 1986. Interview conducted by author 24 September 1991, Fort Leavenworth Kansas.

### 3. Reports, Monographs, and Studies

Bacevich, A. J., James D. Hallums, Richard H. White, and Thomas F. Young. American Policy in Small Wars: The Case of El Salvador, Institute for Foreign Policy Analysis, Inc. Washington D. C.: Pergamon - Brassey's, 1988.

Barbero, Michael D. "Peacemaking: The Brother of Peacekeeping or a Combat Operation?" School of Advanced Military Studies Monograph, US Army Command and General Staff College, 1989.

Butler, Bradley. "Planning Considerations for the Combat Employment of Air Power in Peacetime Contingency Operations," CLIC Papers, Langley Air Force Base, Virginia: Center for Low Intensity Conflict, 1988.

Crane, Barry, Joel Leson, Robert Plebanek, Paul Shemella, Ronald Smith, and Richard Williams. Between Peace and War: Comprehending Low Intensity Conflict, National Security Program Discussion Paper Series 88-02 Harvard, MA: National Security Fellows 1986-87.

Holt, Jimmie F. "Low Intensity Conflict in Central America--Training Implications for the US Army." School of Advanced Military Studies Monograph, US Army Command and General Staff College, 1989.

House, Jonathon M. Golden Pheasant, The US Army in a Show of Force, March 1988. Military Studies Branch, US

Army Center for Military History, Washington D.C.:  
Department of the Army, 1989.

Knox, Raymond O. "High Speed Jets in a Low Speed War:  
The Utility of Tactical Airpower in Low-Intensity  
Conflict." School of Advanced Military Studies  
Monograph, US Army Command and General Staff  
College, 1989.

Taddonio, Frank T. "What Can We Learn From a War We  
Lost? The Relevance of the Vietnam Experience for  
Today's Assault Helicopter Doctrine." School of  
Advanced Military Studies Monograph, US Army Command  
and General Staff College, 1985.

Thurman, M. R. Briefing slides for "Address to the  
Colombian War College, Bogota Colombia, 30 March 1989.  
US Army Training and Doctrine Command, 1989.

Tolson, John J. Airmobility 1961-1971. Department of the  
Army Vietnam Studies, Washington, D.C.: U.S.  
Government Printing Office 1973.

U.S. Army, CALL Observation Report, CALL Index # 000073,  
Fort Leavenworth, Kansas: Center for Army Lessons  
Learned, 1986.

US Army. "Low Intensity Conflict Panama--Trip Report,  
9-14 October 1989." US Army Infantry School,  
Information Paper, 1989.

US Army. "Operation Blast Furnace After Action Report."  
(Bolivia) 324th Support Group, Fort Clayton, Panama,  
1986.

US Army. Operation Just Cause Lessons Learned Volume I.  
Soldiers and Leadership. Fort Leavenworth, Kansas:  
Center for Army Lessons Learned, 1990.

US Army. Operation Just Cause Lessons Learned Volume II.  
Operations. Fort Leavenworth, Kansas: Center for Army  
Lessons Learned, 1990.

#### 4. Articles

Abbott, Michael H. "Army Aviation and the War on Drugs,"  
Army Aviation 39 (February 1990) 52-54.

Abbott, Michael H. "The Army and the Drug War: Politics  
or National Security?" Parameters 18 (December 1988)  
95-112.

Colucci, Frank. "Rehearsal Reaps Rewards." Defence

- Helicopter World 6 (June/July 1990) 18-24.
- Cook, Charles B. "In Memorium," Army Aviation 40 (February 1991) 73.
- Ennis, Ned B. "Exercise Golden Pheasant -- A Show of Force." Military Review 69 (March 1989) 20-26.
- Finley, Harley. "Army Aviation in Honduras." Army Aviation Digest 33 (June 1984) 87-88.
- Hasenauer, Heike. "Panama - One Year Later." Soldiers 45 (December 1990) 50-52.
- Ostovich, Rudolph. "Army Aviation in AirLand Battle Future," Military Review LXXI (February 1991) 25-29.
- Rhoades, Richard T. "Low Intensity Conflict: What Captains Should Study." Infantry 81 (March-April 1991) 10-12.
- Ropelewski, Robert. "Planning, Precision, and Surprise Led to Panama Successes," Armed Forces Journal International (February 1990) 26-32.
- Schad, Dave. "White Powder War," Soldiers 41 (November 1986) 14-20.
- Stack, Cecil. "When the Lion Struck," Soldiers 41 (February 1986) 37-41.
- Stanton, Shelby. "Lessons Learned of Lost, Air Cavalry and Air Mobility." Military Review 69 (January 1989) 75-82.
- Sullivan, Gordon R. "From the Deputy Commandant," Military Review LXVII (January 1988) 1-3.
- Taylor, Richard H. "What Are These Things Called Operations Short of War?" Military Review 68 (January 1988) 4-8.

##### 5. Newspapers and Magazines

Army Times (Springfield, Virginia), 1984.

Army Times (Springfield, Virginia), 1991.

The Tropic Times (Fort Clayton, Panama), 1989-1990.

##### 6. Government Publications

- US Army. FM 1-100, Army Aviation in Combat Operations. Washington D.C.: Department of the Army, 1989.
- US Army. FM 1-111, Aviation Brigades. Washington D.C.: Department of the Army, 1990.
- US Army. FM 1-113, Assault Helicopter Battalion. Washington D.C.: Department of the Army, 1986.
- US Army. FM 1-202, Environmental Flight. Washington D.C.: Department of the Army, 1986.
- US Army. FM 25-100, Training the Force. Washington D.C.: Department of the Army, 1988.
- US Army. FM 25-101, Training the Force, Battle Focused Training. Washington D.C.: Department of the Army, 1990).
- US Army. FM 90-4, Air Assault Operations. Washington D.C.: Department of the Army, 1987.
- US Army. FM 90-5, Jungle Operations. Washington D.C.: Department of the Army, 1982.
- US Army. FM 100-20, Military Operations in Low Intensity Conflict. Washington D.C.: Department of the Army, 1990.
- US Army. TC 1-140, Helicopter Gunnery, Approved Draft. Washington, D.C.: Department of the Army, 1990.
- US Army. TC 1-212, Aircrew Training Manual: Utility Helicopter UH-60 Washington: Department of the Army, 1988.
- US Army. Soldiers in Panama: Stories of Operation Just Cause. Washington D.C.: Chief of Public Affairs, 1990.
- US Army. U. S. Army South Supplement i to AR 95-1, Army Aviation: Flight Regulations. Fort Clayton, Panama: Headquarters, United States Army South, 1990.
- US Army. 4th Battalion 228th Aviation Regiment, Standard Operating Procedures. Soto Cano, Honduras: 1991.

## 7. Television Tapes

Author's television tapes in his possession documenting pre-Just Cause "Purple Storm" and "Sand Flea" operations

in Panama, 1989. Tapes are from footage from Southern  
Command Network reports and from personal video cameras.