



# JOINT CENTER FOR LESSONS LEARNED

• QUARTERLY BULLETIN •

Volume IV, Issue 3 June 2002



*Rethinking*

**COMBAT**  
IDENTIFICATION

# Report Documentation Page

*Form Approved  
OMB No. 0704-0188*

Public reporting burden for the 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. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE <b>JUN 2002</b>	2. REPORT TYPE <b>N/A</b>	3. DATES COVERED <b>-</b>			
4. TITLE AND SUBTITLE <b>Rethinking Combat Identification Joint Center for Lessons Learned Quarterly Bulletin Volume IV, Issue 3, June 2002</b>		5a. CONTRACT NUMBER			
		5b. GRANT NUMBER			
		5c. PROGRAM ELEMENT NUMBER			
6. AUTHOR(S)		5d. PROJECT NUMBER			
		5e. TASK NUMBER			
		5f. WORK UNIT NUMBER			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>USJFCOM JWFC ATTN: Joint Center for Lessons Learned 116 Lakeview Pkwy Suffolk, VA 23435-2697</b>		8. PERFORMING ORGANIZATION REPORT NUMBER			
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)			
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)			
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release, distribution unlimited</b>					
13. SUPPLEMENTARY NOTES <b>The original document contains color images.</b>					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>UU</b>	18. NUMBER OF PAGES <b>40</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

## JWFC Lessons Learned Points of Contact

The JCLL seeks to identify trends, issues, and lessons that impact our Joint Force capability. We rely on the inputs from you in the field. You are in the best position to know and report what may improve Joint Force capability. You work the issue every day, so let us know:

- What was supposed to happen?
- What happened?
- What went right?
- What went wrong?

If you or your unit have an input that could help others do it right the first time, send it to us. Don't wait until you have a polished article. The JCLL can take care of the editing, format, and layout. Do provide a short, one paragraph biography on yourself. We will acknowledge receipt and then work with you to put your article in a publishable form with you as the author.

**We want your e-mail address!** We now have the capability to electronically disseminate the Bulletin to you when it is published. You can sign up for this service in the Bulletin section of our website listed below. See the inside back cover for details and instructions.

We have a staff ready to serve you. Below are the staff points of contact if you have a question we can help you answer.

Position	Name	Phone (757) 686-XXXX DSN 668-XXXX FAX - 6057	E-mail XXXX@jwfc.jfcom.mil
Director, JCLL	Mike Barker, GS 13	7270	barker
CENTCOM	Bill Gustafson	7570	gustafson
EUCOM	Jim Waldeck	7101	waldeckj
JFCOM	Mike Runnals	7667	runnalsm
PACOM	Kevin Denham	7707	denham
SOCOM	Drew Brantley	7158	brantley
SOUTHCOM	Bob Lucas	7745	lucasr
SPACECOM	Charley Eastman	6045	eastmanc
STRATCOM	Les Burbage	7780	burbage
TRANSCOM	Bill Gustafson	7570	gustafson
Air Force	Al Preisser	7497	preisser
Army	Mike Runnals	7667	runnalsm
Navy	Kevin Denham	7707	denham
DIA	Chris Mayes	7678	mayes
DLA	Bill Gustafson	7570	gustafson
FBI	Mike Runnals	7667	runnalsm
FEMA	Chris Mayes	7678	mayes
NIMA	Chris Mayes	7678	mayes
NSA	Chris Mayes	7678	mayes
Help Line/ Information Services	Bob Lucas	7745	lucasr

You may contact us at the above number, e-mail account, at our office e-mail address which is [jcll@jwfc.jfcom.mil](mailto:jcll@jwfc.jfcom.mil), or through our www page at: <http://www.jwfc.jfcom.mil/dodnato/jcll/>

Our address is: COMMANDER  
USJFCOM JWFC JW4000  
116 Lake View Pkwy  
Suffolk, VA 23435-2697

### Disclaimer

The opinions, conclusions, and recommendations expressed or implied within are those of the contributors and do not necessarily reflect the views of the Department of Defense, USJFCOM, the Joint Warfighting Center, the JCLL, or any other government agency. This product is not a doctrinal publication and is not staffed, but is the perception of those individuals involved in military exercises, activities, and real-world events. The intent is to share knowledge, support discussions, and impart information in an expeditious manner.

Cover design by Mr. Wade Tooley and courtesy of the JWFC Graphics Department



## Message From the Commander

**BGen Gordon C. Nash, USMC**  
**Commander, JFCOM JWFC**



Combat identification and fratricide avoidance are two key elements of an effective warfighting campaign. Through the efforts of organizations like the Joint Combat Identification Evaluation Team (JCIET), great strides are being made to ensure friendly forces are identified and fratricide is minimized during battle. This Joint Center for Lessons Learned (JCLL) Bulletin is focused on the current status of these critical programs.

In the first article, *Joint Combat Identification Evaluation Team (JCIET)*, the current status of JCIET, its primary and secondary missions, and an overview of the JCIET 2002 exercise are discussed. An article is planned for later this year that will provide specific lessons and observations identified from the JCIET 2002 exercise, held in May of this year.

Our second article is a paper written for the Joint Forces Staff College entitled, *New Approach Required for an Old Problem: Rethinking Combat Identification*. A team of three students from different Services takes a close look at the area of combat identification, and then provides some recommendations on how to address the problem.

The third article is from the Center for Army Lessons Learned (CALL) and provides a historical overview of the problem of fratricide, discusses causes and effects of fratricide, and provides several examples from previous combat operations in DESERT STORM and URGENT FURY.

*The Federal Bureau of Investigation: A Military Perspective* is the second in a series of three articles on the Federal Bureau of Investigation (FBI). In this segment, Mr. Runnals presents an overview of the responsibilities of the military liaison officer (LNO) detailed to the Bureau. Working for the Assistant Secretary of Defense (ASD) for Special Operations and Low Intensity Conflict (SO/LIC), the LNO is the primary interface between the Department of Defense and the FBI.

The final article is a fact sheet summary written by Mr. Phil Kearley, head of the USJFCOM J9, Joint Experimentation Interagency Working Group, titled *Improving U.S. Interagency (IA) Operational Planning and Coordination*. The entire white paper is posted on the JCLL website for a more detailed study, if required.

Also new to this issue of the Bulletin is a joint lessons learned point of contact list for the major commands and Services. This new feature should be useful for those of you involved in the lessons learned process.

GORDON C. NASH  
Brigadier General, U.S. Marine Corps  
Commander, Joint Warfighting Center  
Director, Joint Training, J7

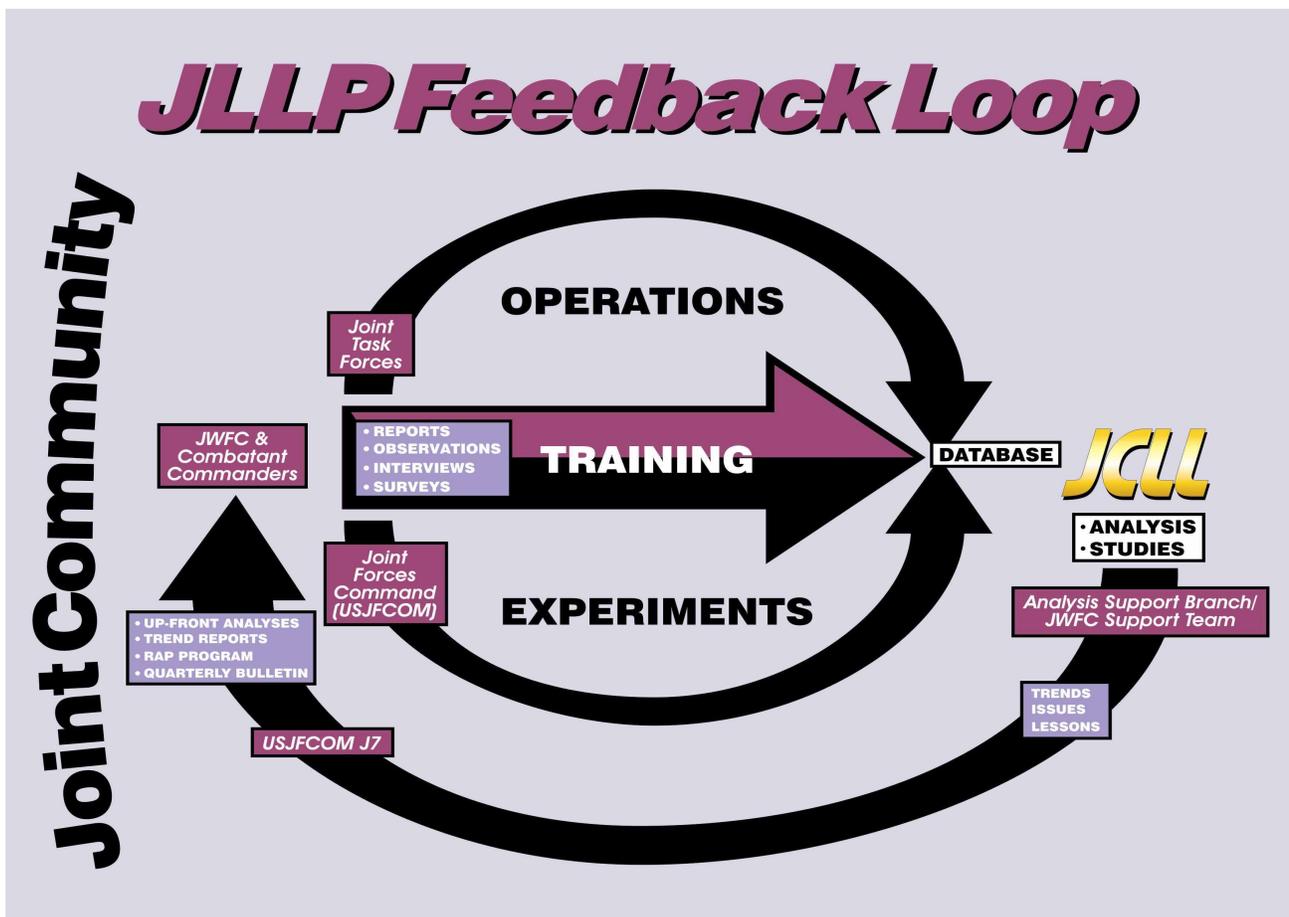


## JCLL UPDATE

*Mr. Mike Barker*

*Director, JCLL*

Several Bulletins ago, I mentioned that the Joint Warfighting Center (JWFC) awarded a new general support contract. As a result of the reorganization within the contractor JWFC support team (JST), the Joint Center for Lessons Learned's (JCLL) ability to perform a higher level of analysis was born. Through focused training, on-the-job training (OJT), and trial by error, the JCLL is now producing products that will help not only the JWFC execute its mission as joint trainer, but any regional, functional, or specified commander trying to assess his assigned forces. Let's start with what we call the Joint Lessons Learned Program (JLLP) Feedback Loop.



In general terms, the joint community, to include JWFC, submits reports, observations, interviews, etc. related to operations, training, and/or experimentation to the JCLL. The JCLL, acting as a trusted agent, treats these unfiltered submissions as sensitive command information. The information is used to develop non-attributive trends, issues, and lessons and returned to the joint community in the form of exercise read ahead packages, studies to support Joint Training System (JTS) Phase I and Phase IV, quarterly JCLL Bulletins, and monthly newsletters. These are also posted to the public database for general view. Filtered observations from the commands, in the form of joint after action reports (JAAR), are also posted in the database.

---

---

The grist for the feedback loop is information converted into individual records. Studies of these records are conducted by looking at each record and linking it to a specific Universal Joint Task List (UJTL) task, a Doctrine, Organization, Training, Materiel, Leadership, Personnel, and Facilities (DOTMLP-F) enabler/disabler, and an organizational relationship. Through the support of the Analysis Support Branch (ASB) under the general contract JST, analysis and studies are conducted looking at all of these linked records to identify trends (both positive and negative), issues, and lessons. The output of this effort is captured in exercise read ahead packages, trends reports, support to the Chairman, Joint Chiefs of Staff (CJCS) Remedial Action Program (RAP), and publications like the quarterly JCLL Bulletin and newsletter.

To date, the ASB has completed lessons learned analysis for use during training objective workshops (TOWs) for NORTHERN VIKING 03 (JWFC/JFCOM), BLUE ADVANCE 02 (SOUTHCOM), FUERTES DEFENSES 03 (SOUTHCOM), and AGILE LEADER 03 (EUCOM). Several in progress are BRIGHT STAR 03/04 (CENTCOM) and GLOBAL GUARDIAN 03 (STRATCOM). The studies being provided for the TOWs support Stage 1 (Planning) of the joint event life cycle (JELC). Eventually, studies will support both Phase 1 (Requirements) and Phase 4 (Assessment) of the joint training system (JTS).

In addition to the read ahead packages, trend and issue studies are being conducted in parallel. Examples include: Analysis of coalition/multinational lessons learned for the Office of Secretary of Defense (OSD), the effects of “ad hoc” manning of joint task force (JTF) headquarters, analysis of information management as a basis of joint warfighting capabilities assessment, Guantanamo detainee operations lessons learned report for successive JTF 160/170, and support of Operation ENDURING FREEDOM for the Joint Staff J7 Secretary of Defense (SECDEF) reports.

The work we can do is only as good as the information we receive. The JAAR and observation submissions from the commands are vital to assure success of the JLLP and RAP. Please keep that in mind as you are developing your after action reports.

*“If we do not learn from the mistakes of the past, we are destined to repeat them.”*

George Santayana, *The Life of Reason*, 1906.



---

---

# Contents

<b>JWFC lessons Learned Points of Contact .....</b>	<b>ii</b>
<b>Message from the Commander .....</b>	<b>iii</b>
<b>JCLL Update .....</b>	<b>iv</b>
<b>Joint Combat Identification Evaluation Team (JCIET) .....</b>	<b>1</b>
<b>New Approach Required for an Old Problem: Rethinking Combat Identification .....</b>	<b>6</b>
<b>Fratricide: Introduction and Historical Perspective .....</b>	<b>13</b>
<b>The Federal Bureau of Investigation</b>	
<b>A Military Perspective: Working within a Lead Federal Agency .....</b>	<b>22</b>
<b>Improving U.S. Interagency (IA) Operational Planning and Coordination .....</b>	<b>27</b>
<b>JCLL Point of Contact Page .....</b>	<b>30</b>

---

---

## Joint Combat Identification Evaluation Team (JCIET)

*Colonel Roger Jones, USA, JCIET Commander  
and  
Mrs. Cherie Johnson, Chief JCIET Staff Support*



Background: The All Service Combat Identification Evaluation Team (ASCIET) was chartered in 1994 by the Joint Requirements Oversight Council as a follow on to the Department of Defense (DOD)-sponsored Joint Air Defense Operations/Joint Engagement Zone (JADO/JEZ) Joint Test and Evaluation (JT&E). In October 1999, ASCIET became a joint activity under the United States Joint Forces Command (USJFCOM) and in October 2000 was renamed the Joint Combat Identification Evaluation Team (JCIET). JCIET is manned by military personnel from each of the four Services. The military staff is complemented by DOD civilians, government contractors, and Federally Funded Research and Development Center (FFRDC) personnel. The command reports directly to the Deputy Commander of USJFCOM, with the USJFCOM

J7 having oversight responsibilities. They also work in close coordination with the USJFCOM J8 to ensure joint combat identification (CID) training and evaluation objectives are met. JCIET is located at Eglin AFB, Florida, and is manned by 29 military and 65 civilian personnel.

**Mission:** JCIET's primary mission is to evaluate, investigate, and assess joint integration and interoperability of systems, concepts, capabilities, tactics, techniques, and procedures (TTP), and doctrine directly affecting CID within the present and future joint battlespace. JCIET employs the equipment and personnel of all four Services and approved Allied/Coalition forces during "live" field evaluations conducted in conjunction with USJFCOM-sponsored Category 2 training exercises.

In addition to this primary mission, JCIET fulfills a number of collateral missions:

- Evaluates four mission areas—air to air, surface to air, air to surface, and surface to surface.
- Supports the transformation of joint forces through experimentation and evaluation within established joint exercises.
- Provides the primary mission venue as well as additional analysis support as required to the Single Integrated Air Picture System Engineer (SIAP SE).
- Serves as the primary test venue and provides additional analysis support as required to the Office of the Secretary of Defense (OSD) JT&E programs and Advanced Concept Technology Demonstrations (ACTD).
- Offers FFRDCs, Service Battle Laboratories, and industry the opportunity to review and evaluate emerging technologies in a joint environment on a not-to-interfere basis for risk reduction and verification.
- Assesses selected current and developmental CID programs, tools, instrumentation, and facilities for their potential value to the joint CID interoperability and training communities.
- Provides a primary venue for experimentation in areas of system integration and interoperability related to joint and allied CID and battlefield information management.
- Supports Recognition of Combat-Vehicles (ROC-V) program by offering direct support and providing subject matter expertise and/or funding.
- Supports and maximizes use of the JCIET venue by other DOD and joint activities.

**Operational Concept:** USJFCOM CID Capstone Requirement Document defines *CID* as “the process of attaining an accurate characterization of detected objects in the joint battlespace to the extent that high confidence, timely application of military options, and weapon resources can occur.” CID is a life-or-death, decision-making process that is fundamental to combat effectiveness and fratricide prevention.

JCIET conducts an annual, 2-week, fully instrumented field evaluation to evaluate TTP and systems and to recommend solutions for CID deficiencies. The field evaluation provides a realistic joint tactical environment that generates the “fog of war.” Soldiers, sailors, airmen, and marines execute tactical missions using their normal equipment and tactics.

Preplanned TTP excursions and new systems may also be evaluated online. Online status allows JCIET to evaluate candidate transformation initiatives as an integral part of the tactical decision-making process. Offline status allows the developmental community to exercise and evaluate prototype solutions in the JCIET environment on a noninterference basis.

JCIET analyzes resulting online data to evaluate interoperability among our joint forces and to quantify CID capabilities and identify opportunities for TTP development and systems improvement. Results are provided to the Services, the Joint Staff, and the Combatant Commanders through briefings, a 45-day “Quick Look” message, and the evaluation report. JCIET personnel also participate in and provide data to working groups charged with developing CID improvements.

**Evaluations:** JCIET evaluations have addressed air-to-air, surface-to-air, air-to-surface, and surface-to-surface mission areas in a joint, littoral environment using air, land, and sea ranges at two joint training complexes. Past evaluations were stand-alone events employing forces primarily focused on completing JCIET evaluation objectives. JCIET 2002 was completed in April. Analysis of data and formulation of 2002 lessons learned are ongoing. In the future, these field evaluations will be conducted in conjunction with USJFCOM-sponsored Category 2 training exercises. Current plans call for JCIET to coordinate and conduct a two- or three-mission area evaluation in combination with ROVING SANDS 2003 (June 2003) and a four-mission area evaluation in conjunction with Joint Task Force Exercise (JTFEX) 2004-02. The dates for the JTFEX are currently being coordinated with Second Fleet. JCIET supports Category 2 training events using the Joint Gulf Coast and the Joint East Coast range complexes. These complexes comprise over-water ranges, Air Force Combat Readiness Training Centers (CRTCs), Air Force training centers, Naval Air Stations, and Army training areas into a seamless littoral complex that supports joint tactical training. This complex is further expanded by developing military operating areas (MOAs) and provides air, land, and sea maneuver as well as live fire capability for all four Services. Table 1 outlines the venues previously utilized by JCIET for evaluations.

**Table 1. Evaluation Venues**

<b>Range Complex</b>	<b>Areas Included Within</b>
Joint Gulf Coast	Air National Guard CRTC and Gulfport (MS) Camp Shelby Training Site (MS) Eglin AFB/Gulf range over-water complex (FL) De Soto, Pine Hill, and Camden Ridge MOAs
Joint East Coast	Air National Guard CRTC, Savannah/Fort Stewart (GA) Fort Bragg/Camp Lejuene (NC) Glenco Naval Air Station (NAS) and NAS Jacksonville/ East Coast over-water range complex (FL) Moody, Live Oak, and Gator QT MOAs

Figure 1 shows the JCIET 2022 participating systems and their locations.

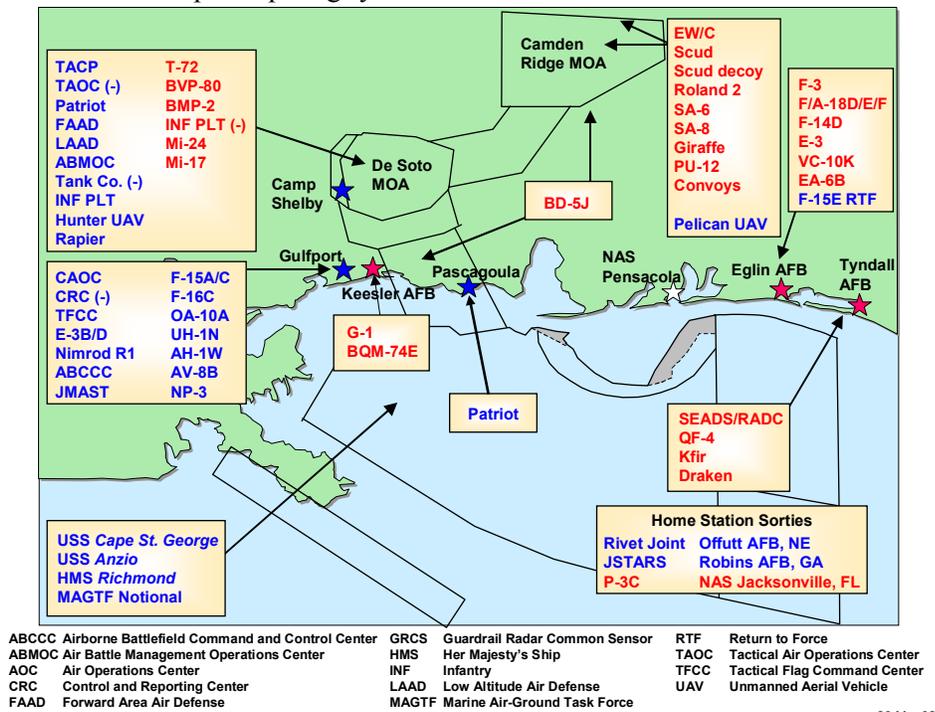


Figure 1. JCIET 2022 Force Laydown

**JCIET Debrief:** JCIET debriefs provide accurate mission feedback to participants by comparing participant perspectives with JCIET truth data. Participants are provided immediate postmission tactical debriefs via specific data replay as depicted in Figures 2 and 3. Time-space-position information (TSPI), or truth data, is overlaid on the system data. Participants are then linked via video teleconferencing (VTC) for a truth-based mission area debrief as depicted in Figure 4. This process improves participant knowledge of other Services' systems and capabilities and gives participants the opportunity to learn integrated joint operations. JCIET continues to expand and refine the debrief process to provide an unprecedented joint training environment for discovery and learning activities.

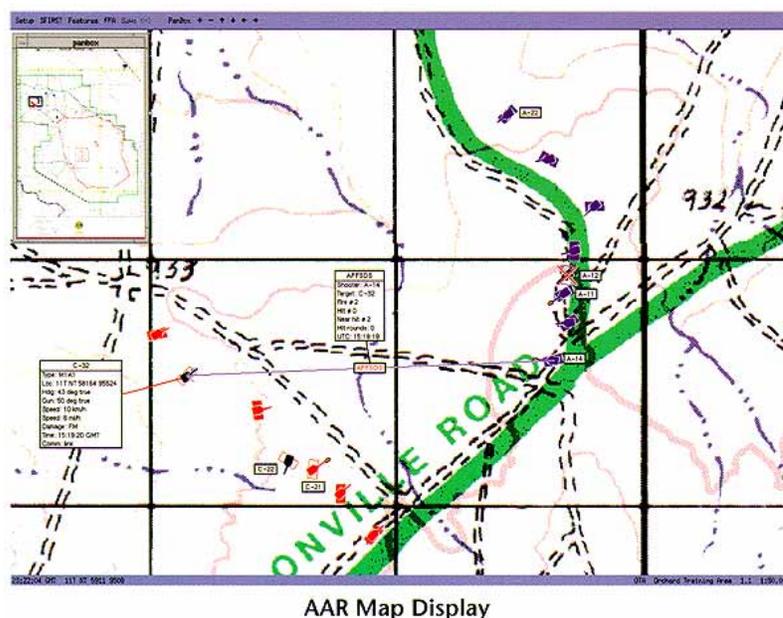


Figure 2. Sample Surface-to-Surface War Replay

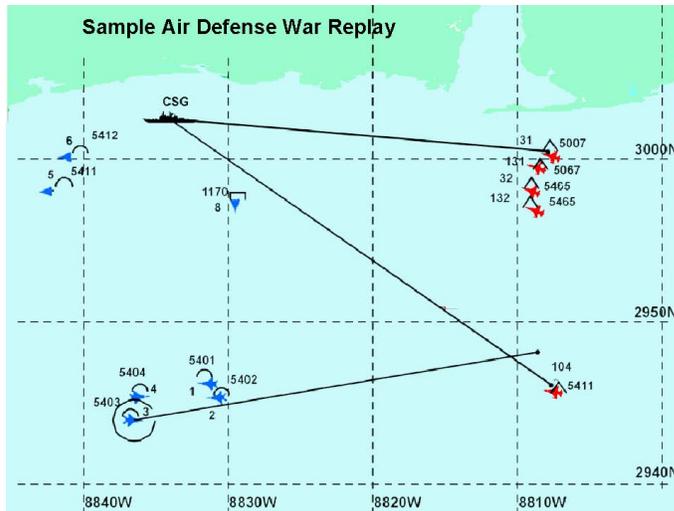


Figure 3. Sample Air Defense War Replay

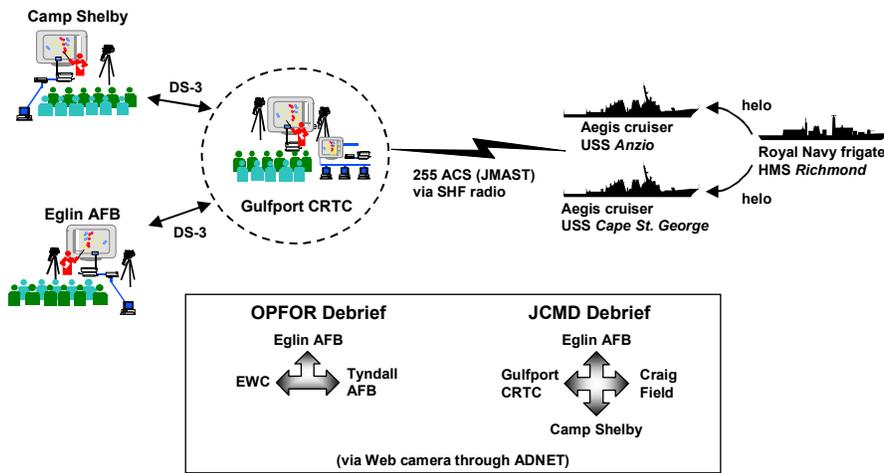


Figure 4. JCIET 2002 Debrief VTC Infrastructure

**Analysis and Reporting:** Within 45 days following each evaluation, JCIET publishes a “Quick Look” message to document anecdotal observations. Then JCIET conducts an in-depth analysis of the evaluation data to address combat effectiveness, identify CID and interoperability areas needing improvement, and assess the contributions of candidate solutions. Approximately 6 months after each evaluation, JCIET publishes an evaluation report that includes relevant findings, conclusions, and recommendations.

**Additional Information:** The JCIET staff is eager to provide data and support to related DOD activities.

For further information, here are the primary contacts:

JCIET  
104 Biscayne Road  
Eglin AFB, FL 32542-5310  
(850) 882-6700 (DSN 872-) Web site: <https://jciet.eglin.af.mil/>

**COL Roger Jones, USA**  
Commander  
email: [roger.jones@eglin.af.mil](mailto:roger.jones@eglin.af.mil)  
Phone extension: 7000

**Col Gregory Brown, USAF**  
Vice Commander  
email: [gregory.brown@eglin.af.mil](mailto:gregory.brown@eglin.af.mil)  
7010

email:  
Phone extension:

---

---

**Editor's Note:** This article provides an overview of the mission of the JCIET and the status of their ongoing projects. Specific lessons from the JCIET 2002 exercise will be provided by JCIET in a future JCLL Bulletin article, once the exercise analysis is complete and all lessons have been identified.

**About The Authors:**

**Colonel Roger W. Jones, USA, JCIET Commander:** Colonel Jones commands the Joint Combat Identification Evaluation Team (JCIET) At Eglin AFB, Florida. In previous assignments, he was Chief of Staff, First Infantry Division and Commander, 98th Area Support Group, Wuerzburg, Germany. He commanded the 3d Squadron, 11th ACR in Bad Hersfeld, Germany. His assignments include Scout Platoon Leader, Tank Platoon Leader, Troop Commander, S3 Plans Officer, Cavalry Branch Chief, and multiple assignments with the 2d Armor Cavalry Regiment, deploying with the regiment in support of Operations DESERT SHIELD and STORM as the Regimental Executive Officer. Stateside assignments include G3, 1st Cavalry Division, Director of the Training And Doctrine Command (TRADOC) Program Integration Office for the Army Battle Command System (TPIO-ABCS). Colonel Jones was commissioned in May 1973 as a Distinguished Military Graduate from the ROTC program at the University of Nebraska. He holds a Master's Degree in Systems Management from the University of Southern California. His military education includes the Army War College, Command and General Staff College, Armor Officers Basic and Advanced Courses, and Airborne School.

**Mrs. Cherie Johnson, Chief JCIET Staff Support:** Mrs. Johnson is the Division Chief for the JCIET Commander's Support Staff. She is an Information Manager And Technical Editor with 20 years experience in administration and editing. Her affiliation with JCIET goes back to the organization's origin as the Office of Secretary of Defense-sponsored Joint Air Defense Operations, Joint Engagement Zone Joint Test and Evaluation Joint Test Force (JADO JEZ JT&E JTF). Prior to her assignment with JCIET, Mrs. Johnson was the Administrative Assistant to the Commander, NATO/SHAPE Support Group in Chievres, Belgium.

---

---

## **New Approach Required for an Old Problem: Rethinking Combat Identification**

*CDR Randy Hugenroth  
MAJ Donald Pruefer  
Maj Gary Ashworth*

*It was the most uncomfortable feeling knowing that our own troops were throwing everything they had at us. Planes dropped out of formation and crashed into the sea. Others, like clumsy whales, wheeled and attempted to get beyond the flak, which rose in fountains of fire, lighting the stricken faces of men as they stared through windows.<sup>1</sup>*

Thus a U.S. Army paratrooper described his feelings about being shot at by “friendly” troops during an airborne operation over Gela, Sicily, on 11 July 1943. The unfortunate trooper witnessed a particularly egregious example of fratricide among U.S./Allied armed forces: in terms of loss of life, injuries and damaged equipment, the Gela jump was one of the worst U.S. friendly fire incidents during modern war. The paratrooper’s words vividly show the negative impact of fratricide on operations — the needless and inexplicable loss of life, damage and loss of vital military resources, and crushing impact on morale. But his words are more than an abstract history lesson about a botched operation in World War II. They resonate in the questions posed by the wives of three U.S. Special Forces troopers killed by an errant U.S. Air Force bomb in Afghanistan on 5 December 2001. “Why?” the troopers’ wives asked. “How could this happen?”<sup>2</sup>

It is clear from such examples that the capabilities of U.S. forces to conduct combat identification (CID) of friendly forces have struggled to keep up with the evolution of lethality in weapons and the complexities of modern war. The struggle to solve the complex problem of timely and effective CID was somewhat masked during the Cold War era, when linear battlefields and contiguous operating areas allowed the U.S. armed services the “luxury” of a “stove-piped” approach. This luxury has vanished in the post-Cold War era, amid the advent of nonlinear battlefields, growing complexity of joint and combined operations, and persistent, real-time media coverage that will instantaneously discover and point out friendly force shoot-downs and blunders to a worldwide audience. Given these realities, it is clear that U.S. forces must focus all disparate CID programs, develop cohesive joint doctrine to address this problem and rapidly achieve a workable solution to minimize fratricide and protect noncombatants and historic and culturally sensitive sites on the battlefield. To do so, the Services must overcome three major stumbling blocks to the development of such a system: lack of joint terminology, dueling schools of thought, and failure to enshrine lessons learned in doctrine.

### **A Starting Point: Defining CID in Joint Doctrine**

Joint doctrine on CID is problematic, starting with how it is defined. “CID” is absent from the primary joint publication for terminology, Joint Publication Terms. The closest approximation for it in that publication is simply “identification,” described as “the process of determining the friendly or hostile character of an unknown detected contact.”<sup>3</sup> The definition focuses on CID as it relates to arms control, and then adds “[i]n ground combat operations discrimination between recognizable objects as being friendly or enemy.” But such terminology is insufficient to describe the many facets of CID and what it can do for the joint warfighter.

In the absence of a joint definition, the unified commands have attempted to define CID on their own. A good example comes from United States Joint Forces Command (USJFCOM), which defines CID as the positive, timely, and reliable identification of hostiles (for weapons release); identification of friendly and neutral (for initial sorting in adverse environment); classification of foes by platform (for target prioritization); and friend-from-

---

---

friend discrimination (for command and control of forces and military air traffic control).<sup>4</sup>

The USJFCOM definition is helpful because it provides deeper insights into the complexity of CID. First, it shows that CID must not be a “stove-pipe” (one type of system from one armed forces branch). Second, the USJFCOM definition points out the weakness of an approach to CID that merely provides friendly cooperative target identification — in today’s noncontiguous operating environment, the warfighter must have (in real time) a wider view of non-cooperative target identification (friendly, neutral, and hostile) as well. Third, it can be inferred from this definition that CID capabilities should be well distributed across the battle space. In addition to shooter platforms (fighter, tank, etc.), such “off-board” platforms as long-range surveillance and battle management players need to be linked to maximize the use of limited assets and achieve a common understanding of the battle space.

Overall, the USJFCOM definition makes clear the characteristics of CID in joint mission areas (air-to-air, air-to-surface, surface-to-air, and surface-to-surface). Given the limits of CID technology, it is intuitively obvious that such a capability can be achieved only through a “system-of-systems” approach: a balanced set of cooperative and non-cooperative systems distributed and networked between “on-board” and “off-board” platforms.

### **Dueling Schools of Thought: Don’t Shoot/Shoot Approaches to CID**

While the USJFCOM definition of CID is useful, it is not a substitute for a commonly understood term for this function across the Services. The lack of joint CID terminology precludes common understanding and has led to a bifurcated approach to developing a system to address CID issues. Two schools of thought have evolved. The first sees CID first and foremost as fratricide prevention, and focuses development and procurement on systems that achieve that goal through one-dimensional, cooperative (i.e., don’t shoot) systems. The second school of thought approaches CID primarily from a mission effectiveness approach, leading its adherents to support investment in non-cooperative (i.e., shoot) systems. Proponents of the second school postulate that such systems are the optimal solution: they can maximize effectiveness while reducing fratricide at the same time.

Lack of common terminology and competition between the two competing views complicate decisions on the best use of scarce resource dollars to address CID. Such competition is rooted in the inherent trade-offs between the cooperative and non-cooperative approaches. Cooperative CID systems are less technically complex, but are more costly, since each potential target (aircraft, ground vehicle, etc., non-shooters and shooters alike) must be outfitted with a device. Non-cooperative CID systems are much more complex, but are required only on platforms that are part of the “kill-chain” (surveillance, battle manager, shooter, etc.). Neither approach gives the warfighter an integrated capability to rapidly sort and classify targets in a complex combat environment, underscoring the need for a “systems-of-systems” approach to the problem.

The value of CID is borne out by an analysis of the complex relationship between fratricide and rules of engagement (ROE). A straightforward approach at fratricide reduction through more-restrictive ROE is a nonstarter — anecdotal evidence in recent technology assessments shows that while friendly fire losses decrease under such a regime, losses from enemy fire increase.<sup>5</sup> CID can help solve that problem, but its utility does not end there. CID can be a significant combat multiplier if a robust “system-of-systems” is achieved. Evolution and improvement of U.S. surveillance and weapon system technology have placed the joint warfighter in a battle space where he/she can conduct operations beyond visual range (BVR) engagement of an adversary — a critical combat advantage that theoretically enables a killer to shoot without entering the adversary’s weapons’ engagement zone (WEZ). At present, he/she lacks a robust CID “system-of-systems” to positively identify (PID) potential targets at such ranges, forcing the killer to close near/into the adversary’s WEZ to make a visual positive identification before firing. Thus, inadequate CID squanders a BVR engagement advantage and puts warriors at greater risk. It also compounds the problems of fratricide and mission effectiveness as seen in detail in the following examples.

---

---

## Operational Lessons Learned in the Post-Cold War Era

In addition to enabling U.S. forces to capitalize on the WEZ engagement advantage, the following three accounts of fratricide and impaired mission effectiveness (all in the post-Cold War era) further underscore the need for a robust, integrated CID “system-of-systems.” Such tragic incidents illustrate why the Services must overcome all obstacles to producing such a system that will help prevent continued pointless, preventable loss of life and destruction of valuable equipment.

The first incident occurred on 1 October 1992, when the USS SARATOGA accidentally fired two Sea Sparrow missiles into the Turkish ship TCG MUA VENET. Subsequent investigation of that incident (which claimed the lives of five allied seamen and brought significant embarrassment to the U.S. Navy) showed that an operator on the U.S. ship committed an error that resulted in an infrequently used missile system configuration and subsequent launch. An integrated CID system (had it existed) would have provided an additional check on the launch sequence, and therefore might have prevented the incident. It might also have obviated the negative effects on readiness spawned by the accident, as the accidental launch led the Chief of Naval Operations to shut down all Sea Sparrow missile systems force-wide until the completion of a board of inquiry. Chillingly, Congressional testimony brought up the question of the likelihood of a launch of a nuclear weapon systems after such an error, further underscoring the value of a robust CID system.<sup>6</sup>

The second incident was the shoot-down of two U.S. Army UH-60 Black Hawk helicopters by friendly aircraft over northern Iraq on 14 April 1994 — a tragedy brought about by a UN Security Council resolution demanding that Saddam Hussein stop repressing Iraq’s Kurds. After Saddam ignored the demand, the UN called on member nations to provide deterrence and humanitarian assistance. An emergency relief effort (Operation PROVIDE COMFORT) was the response. Military units from the U. S. and twelve other countries joined in a coalition effort, establishing a security zone for the Kurds, into which no Iraqi military unit could enter. Above the 36<sup>th</sup> parallel, planes from the air forces of four coalition members, including the United States, secured a designated “no-fly zone” for Iraqi aircraft.

Participating U.S. air assets in Operation PROVIDE COMFORT included Airborne Warning and Control System (AWACS) aircraft, F-15 fighters, and Black Hawk helicopters. Usually, AWACS aircraft were sent aloft first to control friendly aircraft in the no-fly zone, coordinate air refueling, provide threat warning, and track and identify unknown aircraft. Then the F-15s were used to “sanitize” the area with radar and electronic measures to ensure that it was clear of hostile aircraft and provide air cover. Finally, Black Hawks entered the area on supply and transport missions.

That was the order of operations on 14 April 1994, the day of the shoot-downs. Two Black Hawks with full complements of crews were transporting officials inside the area. While the AWACS crew flying support for the day was aware of the presence of these two friendly helicopters, two F-15 pilots sanitizing the area were not. The fighters picked up the Black Hawks as radar contacts, but the pilots were unable to identify them as friendly aircraft by electronic means, which they reported to the AWACS. The AWACS crew never notified the F-15 pilots of the presence of friendly helicopters in the area. Next, the F-15 pilots attempted a single-pass visual identification (VID) of the helicopters. Unfortunately, the pass was at a speed, altitude, and distance too fast and distant to properly identify them. Tragically, the F-15 pilots mistook the two Black Hawks for Iraqi Hinds and shot both down.<sup>7</sup>

An ensuing investigation uncovered evidence that CID might have helped avoid the entire incident. Specifically, the U.S. General Accounting Office (GAO) issued a report that pointed out two primary reasons for the shoot-down — a failure by the AWACS crew to provide an accurate air picture and the F-15 pilots’ misidentification of the targets.<sup>8</sup> If it had existed, joint CID doctrine outlining proper procedures would have helped prevent the breakdown in procedures between the Air Force AWACS and F-15s and the Army Black Hawks and might have also mitigated the communication disconnect between the AWACS and F-15s.<sup>9</sup> Clearly, the lack of a robust

---

---

“system-of-systems” CID capability prevented proper identification of the friendly Black Hawk helicopters. The dueling views on CID contributed to that incident — cooperative systems failed, and the lack of a non-cooperative system forced the F-15s to close for a problematic VID. While the GAO report did not state that an improved cooperative CID capability for the F-15s would have prevented this incident, it did support the addition of a non-cooperative CID capability to balance out the weaknesses of the cooperative system. Although it was not the report’s goal, such findings support the need for a “system-of-systems” approach as a way to preclude such senseless loss of life and equipment in the future.

The third incident involves the tragedy of 5 December 2001, during which a U.S. B-52 bomber dropped a 2,000-pound Joint Direct Attack Munition on U.S. forces in Afghanistan. Although the findings of the investigation into that incident have not been released, several experts (including Mackubin Thomas Owens, a professor of strategy at the U.S. Naval War College) have postulated three possible scenarios — the weapon’s guidance was jammed by Taliban forces, there was a mechanical defect, or the weapon was sent astray by human error (i.e., a person punching in the wrong coordinates).<sup>10</sup> Should the investigation reveal that the latter was the cause, it is possible that a CID “system-of-systems” would have provided an additional check on procedures, and possibly prevented fratricide.

If the finding bears it out, inadequate CID contributed to the deaths of three U.S. Special Forces soldiers and an unknown number of allied Afghani fighters. Occurring in the midst of a highly successful campaign, the incident struck particularly hard on the morale of fellow U.S. soldiers and family members. Captain Rob Way, the rear detachment commander for the affected unit, recounted for the media on 7 December 2001 that the possibility of fratricide as the cause of the accident was compounding the grief being felt by widows and comrades. One soldier from the affected unit (who had returned from Afghanistan for surgery) indicated that the incident had made him “more fearful” about returning to combat. The incident appears to have heightened distrust by the media — some reporters in the war zone bemoaned a “lack of information” about the incident and have alluded to stonewalling by the military.<sup>11</sup> [See Editor’s comment at end of article]

The lack of a robust CID system may also have impaired U.S. operations in Afghanistan against Taliban forces. Once it became clear that U.S. forces were reticent to strike mosques, hospitals and apartment buildings, the enemy began to park its tanks and artillery pieces near such sites and also used them to billet troops. This eventuality left U.S. planners in a quandary. Without a robust CID system to provide a common picture of “protected” sites on the battlefield, such targets had to be either ignored (allowing the Taliban forces to preserve combat power) or struck (often resulting in noncombatants’ deaths and injuries, damage to civilian homes, and swift and negative press coverage, particularly among networks serving Muslims in the Middle East, Pakistan, Indonesia, and Malaysia). Weapons accuracy issues aside, a solid CID system could have helped planners under such circumstances.

### **Capturing Lessons Learned and Building Joint CID**

Although the preceding examples bring home the continuing problems and tragedies the Services face without an effective CID system, and the fact that many of these issues (and proposed solutions) have been documented in the Joint Lessons Learned Program (JLLP), the U.S. armed forces are not capturing all lessons learned from CID failures. That is borne out by a cursory search of the JLLP database for fratricide lessons learned — it provides a disconnected smattering of incidents, with the need for CID generally couched in terms of fratricide prevention. A more complete database is needed to discuss systems, procedures, coalition operational concerns, ROE, and other planning factors across the range of CID capabilities. A further search of current joint doctrine reveals that the output of the Joint Lessons Learned Program (JLLP) on CID issues has not been institutionalized to take full advantage of all combat multiplier capabilities. Joint Pub 3-0, *Doctrine for Joint Operations*, and Joint Pub 5-00.2, *Joint Task Force Planning Guidance and Procedures*, contribute only minimal discussion on the subject. In general, such publications tend to brush past CID with a muted call for planners to think about it as an additional interest item.

---

---

In June 2001, the GAO produced a document on CID for the Secretary of Defense that shows that problems go beyond doctrine. Even if this shortfall was magically resolved, the dueling schools of thought on CID have led to Service parochialism over systems and funding — an eventuality that has likely delayed the development of a CID “system-of-systems” well into the future. The GAO report is most insightful, in that it approaches CID from a programmatic view, advocating the adoption of a comprehensive approach and placement of CID under a single organization or a functional mission area to transcend organizational boundaries.<sup>12</sup> Such a change would benefit the development of a robust CID system, as it would end dueling schools of thought, ensure joint force and coalition interoperability, and eliminate duplication of effort and waste of resources. The GAO report also points out that CID has not been adequately funded to achieve a robust, interoperable “system-of-systems,” reflecting the slow consolidation of requirements into a Capstone Requirements Document (CRD) — a relatively new, broad concept that requires all Services to address interoperability and operations concepts in new systems.<sup>13</sup> At present, the CRD does not suggest placing financial control into a single program office, instead leaving such responsibility for compliance with individual program offices and Services. Thus, the CRD is another big obstacle to overcome in the quest to fully “joint-ize” CID.

## Conclusions

Misunderstanding of what CID can do and a divided approach to system acquisitions are precluding the realization of its potential operational usefulness. Although fratricide prevention is a primary goal, CID can do much more for warfighters; in particular, it can enable the military to fully realize the advantage of standoff weapon systems in a confused operating environment. In terms of systems, the cited GAO report points out what is wrong with CID research, development, and procurement: there is no enterprise architecture for CID within the Department of Defense, just a disjointed, “stove-piped” effort by the Services. The best place for a joint CID program would be in a Secretary of Defense-level office empowered with the authority and funding to direct acquisition programs. That office would likely be able to transcend all Service and functional acquisition boundaries in the effort to achieve the robust, interoperable joint CID “system-of-systems” the forces clearly need in the modern battle space.

Beyond terminology and hardware, the military must widen its perception of all the facets of CID, do a better job at capturing lessons learned, and establish an overarching, joint doctrine that fully institutionalizes CID issues. Such a doctrine must cover at least the following areas — planning considerations, tactical procedures, joint and coalition operating requirements, ROE, Joint Operational Planning and Execution System (JOPES) requirements for integration, and a hierarchy for resolution of CID issues. To stay in step with the evolution of warfare in the post-Cold War era, doctrine should also consider how CID might be affected by such trends as asymmetric warfare, weapon system proliferation, coalition warfare, nonlinear battlefields, noncontiguous operating areas, and maritime littoral warfare. The armed forces’ less than successful efforts and disjointed approach to CID to date now compel an effort to play “catch-up.” Given that the United States has had 60 years between the timeless experience of the U.S. paratrooper shot at by “friendlylies” over Sicily and the recent, sad utterances of the war widows at Fort Campbell, it is imperative that the Department of Defense get started soon, and in earnest.

Editor’s Comment: The official cause of this incident was determined to be the changing of the battery in the Global Positioning System device, which caused the displayed coordinates to revert to its own location vice the enemy location that had been previously programmed. The combat controller did not realize this mistake and called in the wrong coordinates. (Vernon Loeb, Washington Post Staff Writer, 24 March 2002, pg A21)

<sup>1</sup> Garland, Albert N., and Smyth, Howard McGraw, assisted by Blumenson, Martin. *Sicily and the Surrender of Italy*. US Army in World War II. 1965. Reprint. Washington, DC: Office of the Chief of Military History, US Army, 1970. As cited in “Research Survey No. 1: Amicicide: The Problem of Friendly Fire in Modern War,” by LTC Schrader, Charles R. Combat Studies Institute, US Army Command and General Staff College, Fort Leavenworth, Kansas, December 1982.

<sup>2</sup> Rimer, Sarah. “A Nation Challenged: Fort Campbell—Back Home, A Time of Mourning for Three Soldiers Killed by Friendly

---

---

Fire." *New York Times*, December 7, 2001.

<sup>3</sup> Joint Pub 1-02. *DOD Dictionary of Military and Associated Terms*. Washington: GPO, 2001.

<sup>4</sup> McKean, William J., LTC, USA, USJFCOM. "Combat Identification Capstone Requirements Document."

<sup>5</sup> US Congress. Office of Technology Assessment. "Who Goes There: Friend or Foe?" (OTA-ISC-537). Washington, DC: GPO, June 1993.

<sup>6</sup> Hearing Before the Committee on Armed Services, United States Senate, One Hundred Second Congress, Second Session, October 5, 1992, "Accidental Firing of a Missile into the Turkish Ship TCG MUA VENET."

<sup>7</sup> U.S. General Accounting Office. Operation Provide Comfort: Review of U.S. Air Force Investigation of Black Hawk Fratricide INCIDENT. (GAO/OSI-98-4) Washington: GAO, Nov. 1997.

<sup>8</sup> U.S. General Accounting Office. Operation Provide Comfort: Review of U.S. Air Force Investigation of Black Hawk Fratricide INCIDENT. (GAO/OSI-98-4) Washington: GAO, Nov. 1997.

<sup>9</sup> U.S. General Accounting Office. Operation Provide Comfort: Review of U.S. Air Force Investigation of Black Hawk Fratricide INCIDENT. (GAO/OSI-98-4) Washington: GAO, Nov. 1997.

<sup>10</sup> Owens, Mackubin Thomas. "Fratricide and Friction: Perfection in War." *The National Review*, December 11, 2001.

<sup>11</sup> Rimer, "A Nation Challenged." *New York Times*, December 7, 2001; and Morello, Carol. "Tight Control Marks Coverage of Afghan War." *The Washington Post*, December 7, 2001.

<sup>12</sup> United States General Accounting Office Report to the Secretary of Defense, GAO-01-632, "Combat Identification Systems: Strengthened Management Efforts Needed to Ensure Required Capabilities," June 2001.

<sup>13</sup> USJFCOM, "Combat Identification Capstone Requirements Document," LTC William J. McKean.

## BIBLIOGRAPHY

Garland, Albert N., and Howard McGraw Smyth, assisted by Martin Blumenson. *Sicily and the Surrender of Italy*. U.S. Army in World War II. 1965. Reprint. Washington, DC: Office of the Chief of Military History, U.S. Army, 1970. As cited in Research Survey No. 1: "Amicide: The Problem of Friendly Fire in Modern War," by LTC Schrader, Charles R. Combat Studies Institute, U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, December 1982.

Gellman, Barton. "U.S. Missile Hits Turkish Destroyer." *The Washington Post*, 2 Oct. 1992.

Joint Pub 1-02. *DOD Dictionary of Military and Associated Terms*. Washington: GPO, 2001.

Joint Pub 3-0. *Doctrine for Joint Operations*. Washington: GPO, 2001.

Joint Pub 5-00.2. *Joint Task Force Planning Guidance and Procedures*. Washington: GPO 1999.

Loeb, Vernon. "U.S. Soldiers Recount Smart Bomb's Blunder." *The Washington Post*, 2 Feb. 2002.

McKean, William J., LTC, USA, USJFCOM. *Combat Identification Capstone Requirements Document*.

Morello, Carol. "Tight Control Marks Coverage of Afghan War." *The Washington Post*, 7 Dec. 2001.

Owens, Mackubin Thomas. "Fratricide and Friction: Perfection in War." *The National Review*, 11 Dec. 2001.

Rimer, Sarah. "A Nation Challenged: Fort Campbell—Back Home, A Time of Mourning for Three Soldiers Killed by Friendly Fire." *New York Times*, 7 Dec. 2001.

Snook, Scott A. *Friendly Fire, The Accidental Shootdown of U.S. Black Hawks Over Northern Iraq*. New Jersey: Princeton University Press, 2000.

U.S. Congress. Office of Technology Assessment. *Who Goes There: Friend or Foe?*. (OTA-ISC-537) Washington: GPO, June 1993.

---

---

U.S. Congress. Senate. Committee on Armed Services. *Accidental Firing of a Missile into the Turkish Ship TCG MUAVENET*. S. Hrg. 102-934. 102<sup>nd</sup> Cong., 2d sess. Washington: GPO, 1992.

U.S. Department of Defense. DUSD (S&T). *Joint Warfighting Science and Technology Plan*. Washington: GPO, Feb. 2000.

U.S. General Accounting Office. *Combat Identification Systems: Strengthened Management Efforts Needed to Ensure Required Capabilities*. (GAO-01-632) Washington: GAO, June 2001.

U.S. General Accounting Office. *Operation Provide Comfort: Review of U.S. Air Force Investigation of Black Hawk Fratricide Incident*. (GAO/OSI-98-4) Washington: GAO, Nov. 1997.

### **About the Authors:**

**Commander Randolph J. Hugenroth, USN:** CDR Hugenroth is currently serving as Chief, SLBM Employment Strategy, Employment Strategy Branch, at U.S. Strategic Command, Offutt Air Force Base, Nebraska. He was commissioned through the U.S. Naval Academy in 1985. CDR Hugenroth earned a Master's in Electrical Engineering from Johns Hopkins University in 1985 and a Master's in Nuclear Engineering from the University of Florida in 1992. Prior to his current assignment, CDR Hugenroth served as Executive Officer on USS TENNESSEE (SSBN 724) (GOLD) out of Kings Bay, Georgia.

**Major Gary A. Ashworth, USAF:** Maj Ashworth is currently serving as Chief, Joint Exercise Section, at U.S. Strategic Command, Offutt AFB, Nebraska. He was commissioned through ROTC at Lehigh University in 1988. He entered the U.S. Air Force soon afterwards as a Missile Launch Control Officer, serving at the 44<sup>th</sup> Strategic Missile Wing, Ellsworth AFB, South Dakota. While stationed at Ellsworth, he earned an MS in Electrical Engineering from South Dakota School of Mines & Technology. Maj Ashworth also served as a signals intelligence analyst at the National Air Intelligence Center, Wright-Patterson AFB, Ohio, and an acquisition officer for the AF Combat ID Integration Management Team, Hanscom AFB, Massachusetts, prior to his assignment to USSTRATCOM.

**Major Donald A. Pruefer, Jr., USA:** MAJ Pruefer is currently the Russian Foreign Area Officer at the Joint Intelligence Center, Pacific, Honolulu, Hawaii. He served for four years in the United States Marine Corps as a Spanish Voice Intercept Operator and also served two years in the United States Army as a Russian Voice Intercept Operator before being commissioned. He has served in a variety of assignments as a Field Artillery Officer (I Corps, Fort Lewis) and as a Military Intelligence officer (8<sup>th</sup> Army, ROK), as well as recently as a Russian Foreign Area Officer. MAJ Pruefer's education includes the Defense Language Institute's Spanish and Russian language courses, BA in Russian Language and Literature from the University of Wisconsin-Madison, MAIS in Russian/East European Studies from Indiana University-Bloomington, and he is a graduate of the George C. Marshall Center, Garmisch, Germany.

Editor's Note: This paper was submitted for publication by the Joint Forces Staff College and is printed with their permission. I'd like to thank the authors and the staff at JFSC for their support.

Editor’s Note: This article on Fratricide has been reprinted with the permission of the Center for Army Lessons Learned (CALL) from their website. Minor modifications have been made to identify some of the acronyms and abbreviations used in the article for the JCLL Bulletin readership, and to prepare the article for printing. I would like to thank CALL for providing this article as part of this JCLL Bulletin on Combat Identification.

## Fratricide

### INTRODUCTION AND HISTORICAL PERSPECTIVE

**“Fratricide is the employment of friendly weapons and munitions with the intent to kill the enemy or destroy his equipment or facilities, which results in unforeseen and unintentional death or injury to friendly personnel.” —TRADOC Fratricide Action Plan**

The goal of this newsletter is to help trainers develop skills and identify techniques, which can reduce the fratricide potential of circumstances such as those faced by U.S. forces in recent combat operations. Thus, this newsletter focuses on lessons available from previous historical and Combat Training Center (CTC) studies as well as on observations from the Operations JUST CAUSE and DESERT STORM After Action Reports (AARs). It is also designed to compliment CALL handbook No. 92-3, Apr 92, *Fratricide Risk Assessment for Company Leadership*.

Fratricide is a grim fact in combat operations. Such incidents cover a wide spectrum of conditions, but, historically, are most likely to occur in the early stages of combat, during reduced visibility, or along shared unit boundaries. In previous 20th century conflicts, supporting fires (air and artillery) accounted for almost 75 percent of fratricide incidents and an even greater proportion of friendly fire casualties. However, with current direct fire technology advances, this proportion may be changing for modernized armored forces in high intensity scenarios. Recent combat operations show that the nature of future fratricide risk may be dependant upon the specific theater and enemy encountered. As examples, Operation JUST CAUSE and Operation DESERT STORM are at opposite ends of the scale in several respects. Other factors may include the degree to which maneuver success is reliant upon fire support and the proportion of offensive to defensive missions. Theater characteristics lead to quite different command and control challenges and will vary with any given conflict.

JUST CAUSE	THEATER-DEPENDENT FACTORS	DESERT STORM
Very Short	Engagement Ranges	Beyond Identification (ID) Range
Urban and Jungle	Urbanization and Terrain	Non-urban and Desert
U.S. Joint	Joint and Allied Cooperation	Coalition
Minimal	Preparation and Acclimation	Extensive
Detailed	Enemy Situation	Variable (at front)
Long Term	Local Friendly Presence	None
Small Unit Action	Array of Forces	Operational Maneuver
Low Density	Density of Forces	High Density

#### OPERATION JUST CAUSE

During Operation JUST CAUSE, the vast majority of reported incidents involved the collateral effects of friendly weapons in urban and restricted terrain. Soldiers didn’t know the penetration, ricochet, and blast consequences of their own weapons. Ricochets, inexact ground locations, and incomplete identification by aircraft were factors in the two known air-to-ground incidents. In each case, ground elements cleared fire after either receiving incorrect information or moving after processing the call for fire.

---

---

## OPERATION DESERT STORM

During Operation DESERT STORM, **direct fire vehicular engagements caused 12 of the 15 Army friendly fire incidents.** Of these 12, all but one occurred at night. The majority (up to 10 incidents) appear to have occurred within 1,500 meters, but conditions almost universally included significant obscuration from dust, smoke, rain, and fog. Four incidents occurred across task force boundaries. Other **contributing factors** characteristic of DESERT STORM include the intense, continuous pace of operations, vast distances traveled over featureless terrain, and the high number of limited visibility, shoot-on-the-move engagements. Although coalition thermal sights greatly overmatched the Iraqi capability, many misidentification problems still arose. On the unrestricted desert battlefield, direct fire lethality far outstripped the gunner's ability to achieve **positive target identification.** Hence, he based his decision to fire largely upon his knowledge of where he and other friendlies were, or should have been, with respect to a given target. This **situational awareness**, dependant upon planning and control measures, became key to understanding DESERT STORM fratricide incidents. There were also two air-ground incidents, and one indirect fire incident where a premature burst of artillery Dual Purpose Improved Conventional Munition (DPICM) killed a soldier.

The two fratricidal air-ground engagements were primarily due to the same kind of confusion about relative positions, compounded by misidentification. Aircraft drifting outside their division boundaries resulted in at least one corps—wide order to ground all Army aircraft and regain control during the ground war. Other problems included widespread disregard for air defense control measures and guidance. Only great professional restraint on the part of air defenders prevented any tragic engagements of coalition aircraft. With a significant enemy air presence in the future, this might not hold true.

The primary role of supporting fires in Operation DESERT STORM was to shape the battlefield in the days prior to G-Day and to strike withdrawing targets during the ground war. **Effective long-range direct fire engagements and the propensity for the enemy to retreat kept direct support artillery fires well away from units in contact.** Other than the generation of dud submunitions, the risk of artillery fratricide was abnormally low.

Although no casualties resulted, the risk of fratricide in rear areas became evident during Operation DESERT STORM. We saw that the combat support and combat service support elements contacted and bypassed enemy prisoners of war (EPWs), displaced civilians, and even enemy elements still capable of fighting. **Against an enemy more willing to fight in our rear area, this could cause major fire control and coordination problems.**

As with other 20th century conflicts, DESERT STORM fratricide casualties have often been expressed as a fraction of all friendly casualties (107 friendly fire casualties of 615 total wounded in action (WIA) and killed in action (KIA), or 17 percent). Although these two numbers are dramatically and readily available, they are not necessarily the best historical means to record fratricide. Our fire control failures are more appropriately expressed as a percentage of total effective friendly engagements (the total number of enemy and friendly casualties we inflicted). For example, we tragically killed 35 and wounded 72 American service members in the legitimate effort to inflict conservatively 20,000 casualties upon the enemy. Although this perspective by no means lessens our obligation to reduce these incidents, our actual rate of fratricide during DESERT STORM was probably well under 1 percent. **In future conflicts, the best predictor of fratricide risk may be a function of the projected number of engagements and not a function of our projected casualties.**

## COMBAT TRAINING CENTER (CTC) TRENDS

The Army's CTCs routinely track fratricidal engagements. A July 1990 study at the *Joint Readiness Training Center (JRTC)* showed that almost 7 percent of all friendly fire casualties in the previous year resulted from friendly fire. Characteristically, these occurred in close combat situations, with 81 percent due to indirect fire

---

---

and only 19 percent due to direct fire. This fire support hazard resulted from many dismounted elements moving separately in limited visibility and the employment of danger-close missions in support of light maneuver. These fires are often unobserved and cleared by company commanders, battalion S3s, and battalion or company Fire Support Officers (FSOs). However, unit performance at the JRTC since this 1990 study indicates that the proportion of indirect fire fratricide is decreasing. Just **since Operation DESERT STORM, fratricide overall is down approximately 40 percent, with a dramatic reduction in indirect friendly fire** (now almost equal to direct fire fratricide). Observers attribute this trend to the improved exercise of positive clearance of fires by ground commanders.

The Center for Army Lessons Learned (CALL) and the Army Research Institute (ARI) conducted detailed studies of direct fire computer records from 1986-1990 at the highly instrumented *National Training Center (NTC)*. Results indicated that under some conditions as many as 10.9 percent of attempted engagements were fratricidal. Generally, just over one half of these engagements (52 percent) resulted in Multiple Integrated Laser Engagement System (MILES) hits/kills (versus near misses) and hence casualties. Based upon our DESERT STORM experience, this probably under-represents the lethality of direct fire service ammunition. Keep in mind the computer profile only represents a fraction of actual engagements and the specific fratricide percentages are not necessarily representative of all engagements. We can, however, draw several conclusions. First, likelihood of fratricide is lower in defensive operations, which becomes useful information in operational risk assessment. Deliberate attacks involve the highest fratricide risk for offensive missions. **Although characterized by thorough preparation and detailed intelligence, the massing of units and the high density of weapons systems in a deliberate attack create the greatest likelihood of fratricide.** Less structured offensive operations (hasty attack and movement to contact) generally make contact with the smallest feasible element and employ simple, one-axis formations to enhance command and control. Finally, like the majority of all direct fires, most friendly fire engagements occur within 1500 meters. However, although **the volume of engagements beyond 2000 meters drops, the proportion that is fratricidal increases.** This reflects the problem of long-range combat identification.

Ultimately in this study, the computer registered about 5 percent of recorded friendly direct fire MILES hits and kills at the NTC as fratricidal. Although computer recorded hits are only a fraction of total engagements, comparison of rates by mission is impossible. Friendly fire rates in the offense exceed those in the defense by 3:1; however, the higher volume of engagements in the defense produces almost as many friendly casualties as in the offense (e.g., 5 percent of 300 hits in the defense equals 15 percent of 100 hits for offense). Thus, the average self-inflicted toll at the NTC per task force mission may be as high as two to three combat vehicles. These statistics apply equally to modernized and non-modernized forces.

An earlier study (1986) conducted by the Rand Corporation involved 83 direct fire battles and 15 task forces. **It demonstrated that good situational awareness at the lowest level is the key to preventing the majority of fratricide given the lack of an effective Identification Friend or Foe (IFF) system.** This study reported several conclusions. First, most direct fire fratricides are isolated incidents involving one engagement. Of the relatively few incidents involving multiple engagements, 75 percent occur in darkness. Second, 50 percent of shooting vehicles could have avoided fratricide if they had only known the location of their sister units. Another 33 percent would have needed to know the location of individual and isolated friendly vehicles not in contact with the enemy. The remaining 16 percent would have required an IFF device to distinguish friendly vehicles intermixed with the enemy.

The Rand Study also investigated **indirect fire** and found fratricidal missions in 51 of 116 battles reviewed. On average, task forces fired 26.7 missions per battle (excluding smoke and illumination) with 33 percent achieving at least some suppression of forces on the ground. **About one tenth of these “effective” missions or 3.6 percent of total missions were fratricidal.** Of interest, there was only a small deviation between kinds of operations (offense vs. defense) and between units with and without Tactical Fire Direction System (TACFIRE). However, the difference between training units was significant. The best task forces had fratricidal fire missions

---

---

in only 25 percent of their battles, while some had friendly indirect fire in every battle. Unfortunately, these figures do not readily translate to casualty estimates for comparison with direct fire casualties.

The *Combat Maneuver Training Center (CMTC)* at Hohenfels reports similar unit problems with fratricide. After Action Reports often link **poor quality rehearsals and lack of crosstalk** to command and control breakdowns causing fratricide. Unlike the desert, **short direct fire engagement windows and decision times contribute to vehicle identification problems.** Friendly indirect fire results from not clearing target areas and violating danger close. Additionally, the continuity of friendly unit operations in the maneuver area reveals many problems with casualties from friendly minefields. These stem from failure to coordinate and disseminate the obstacle plan and failure to accurately report obstacle locations back up the chain.

The simulation which supports the *Battle Command Training Program (BCTP)* does not have sufficient resolution to game direct fire fratricide, but the simulation does portray friendly fire casualties from artillery, Army aviation, air support, and minefields. Typically, forces in the security zone are not protected by restrictive fire support coordinating measures (FSCMs) and become engaged by USAF or indirect fires. Similarly, friendly maneuver units are engaged after crossing a permissive FSCM that has not been updated, such as a fire support coordination line (FSCL). As with the CMTC, units moving through another's area of operations often experience minefield fratricide. **Observers find that fratricide is minimized when units properly monitor, mark, and report barriers, adhere to obstacle restrictive measures, and conduct detailed movement coordination, to include route reconnaissance.**

## CAUSE AND EFFECT

Responsibility for reducing the risk of fratricide falls squarely on the shoulders of the task force commander. Yet, all leaders of the maneuver task force and leaders of supporting arms must assist him to accomplish the mission without friendly fire losses. He must exploit all training, material, and technological alternatives at his disposal. He must not be afraid of fratricide, but strive to minimize it through tough, realistic, combined arms training where each soldier and unit achieves the set standard. **All leaders must know the standard and relentlessly train to that standard.** Training properly allows us to make mistakes, correct them and, thus, reduce their likelihood in combat. Avoiding fratricide is an important training standard and key to effective mission accomplishment. Knowing where our soldiers are, and where we want the fire, will help keep our soldiers alive to kill the enemy. **We must avoid at all costs the reluctance to employ, integrate, and synchronize all the battlefield operating systems at the critical time and place.**

We will now discuss causes of fratricide in terms of the following two kinds of capabilities introduced by the TRADOC-AMC Task Force on Combat Identification. They are:

### SITUATIONAL AWARENESS:

The real-time accurate knowledge of one's own location (and orientation), as well as the locations of friendly, enemy, neutral, and noncombatants. This includes awareness of the mission, enemy, terrain, troops, and time available (METT-T) conditions that affect the operation.

### POSITIVE IDENTIFICATION:

The immediate, accurate, and dependable ability to discriminate through-sight between friends and foe. Optimally this ability extends to maximum engagement and acquisition range, and neither increases vulnerability, nor decreases system performance.

“Lack of positive target identification and the inability to maintain situational awareness in combat environments are the major contributors to fratricide. If we know where we are and where our friends are in relation to us, we can reduce the probability of fratricide. If, in addition, we can distinguish between friend, neutral, and enemy, we can reduce that probability even more.” — *TRADOC-AMC Combat identification Interim Report*

---

---

## PRIMARY CAUSES OF FRATRICIDE

### SITUATIONAL AWARENESS:

- **Inadequate Fire and Maneuver Control:** Units may fail to disseminate (via troop-leading procedures and rehearsals) the minimum necessary maneuver and fire support control measures to coordinate activities on the ground. Units fail to tie control measures to recognizable terrain and events or, where necessary, create a recognizable feature. Improper use or inconsistent understanding can likewise make control measures ineffective. As the battle develops, the plan cannot address obvious enemy moves as they occur and synchronization fails.
- **Direct Fire Control Failure:** Defensive and particularly offensive fire control plans may not be developed or may fail in execution. Some units do not designate target reference points, engagement areas, and priorities. Some may designate, but fail to adhere to them. Weapons positioning can be poor, and fire discipline can break down upon contact.
- **Land Navigation Failures:** Never easy, navigation is often complicated by difficult terrain or weather and visibility, navigation problems can cause units to stray out of sector, report wrong locations, become disoriented, or, employ fire support weapons from wrong locations. As a result, friendly units may collide unexpectedly or engage each other erroneously.
- **Reporting, Cross talk, and Battle Tracking Failures:** Commanders, leaders and their command posts (CPs) at all levels often do not generate timely, accurate, and complete reports or track subordinates as locations and the tactical situation change. Commanders are, therefore, unable to maintain situational awareness. This distorts the picture at each level and permits the erroneous clearance of support forces and violations of danger close.
- **Known Battlefield Hazards:** Unexploded ordnance, unmarked and unrecorded minefields, Family of Scatterable Mines (FASCAM), flying debris from discarding SABOTs (tank munitions) or illumination rounds, and booby traps litter the battlefield. Failure to mark, record, remove, or otherwise anticipate these threats leads to casualties.

### POSITIVE IDENTIFICATION:

- **Combat Identification Failures:** Vehicle commanders, gunners, and attack pilots distinguish friendly and enemy thermal and optical signatures near the maximum range of their weapons systems. However, our tactics lead us to exploit our range advantage over the enemy. During limited visibility, or in restricted terrain, units in proximity can mistake each other for the enemy due to short engagement windows and decision time. We do not have a means to determine friend or foe, other than visual recognition of our forces and the enemy's. When the enemy and our Allies are equipped similarly, and when the enemy used U.S. equipment, the problem is compounded.

### OTHER:

- **Weapons Errors:** Lapses in unit and individual discipline or violations of the rules of engagement allow errors that are not merely accidents. Examples are out-of-sector engagements, unauthorized discharges, mistakes with explosives and hand grenades, charge errors, incorrect gun data, and similar incidents.

Although every incident of fratricide is a function of many **contributing factors** or **preconditions**, the specific causes as we have discussed are relatively few. Contributing factors, such as anxiety, confusion, bad weather, and inadequate preparation, may greatly increase the chances of a navigation error that causes fratricide. Short planning time, failure to rehearse, and leader fatigue, are other preconditions which may result in a fatally flawed direct fire plan or lack of appropriate maneuver control measures. **Every mission will involve a unique mix of these factors and their relative importance will vary.** In other cases, favorable conditions will compensate for a fratricide-contributing factor (e.g., bright moonlight mitigates navigation and control challenges) or two otherwise minor conditions may combine to greatly increase risk (inexperienced flank platoon leader develops

---

---

communication problems). **Thus, these contributing factors are a critical dimension of realistic training conditions.**

#### **PRIMARY FRATRICIDE CONTRIBUTING FACTORS:**

##### ***Mission (and Command and Control)***

- High Vehicle or Weapons Density
- Commander's Intent Unclear or Complex
- Poor Flank Coordination
- Crosstalk Lacking
- No Habitual Relationships

##### ***Enemy***

- Weak Intelligence or Reconnaissance
- Intermingled With Friendly Forces

##### ***Terrain***

- Obscuration or Poor Visibility
- Extreme Engagement Ranges
- Navigation Difficulty
- Absence of Recognizable Features

##### ***Troops and Equipment***

- High Weapons Lethality
- Unseasoned Leaders or Troops
- Poor Fire Control Standard Operating Procedures (SOPs)
- Incomplete Rules Of Engagement
- Anxiety or Confusion
- Failure to Adhere to SOPs

##### ***Time***

- Soldier and Leader Fatigue
- Inadequate Rehearsals
- Short Planning Time

#### **LEAD TO THESE PRIMARY FRATRICIDE CAUSES:**

- A Fatal Navigation Error
- Loss of Fire Control — Direct and Indirect
- A Reporting, Battle Tracking, or Clearance of Fires Error
- Ineffective Maneuver Control
- Casualties in Friendly Minefields
- Combat Identification Errors
- Weapons Errors or Failures in Discipline

#### **EFFECTS OF FRATRICIDE**

The effects of fratricide can be devastating and spread deeply within a unit. Fratricide increases the risk of unacceptable losses and the risk of mission failure. Fratricide seriously affects the unit's ability to survive and function. Observations of units experiencing fratricide include:

- Hesitation to conduct limited visibility operations.
- Loss of confidence in the unit's leadership.

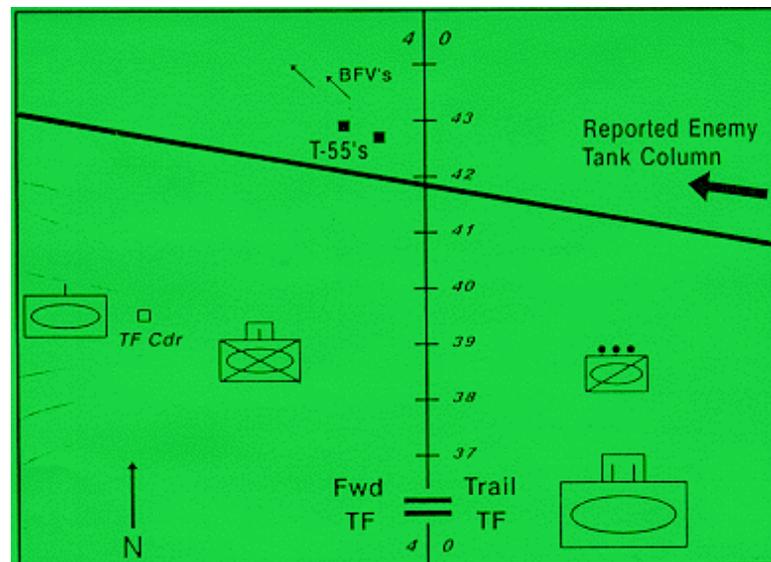
- Increase of leader self-doubt.
- Hesitation to use supporting combat systems.
- Over supervision of units.
- Loss of initiative.
- Loss of aggressiveness during fire and maneuver.
- Disrupted operations.
- Needless loss of combat power.
- General degradation of cohesion and morale.

## FRATRICIDE RISK ASSESSMENT IN PERSPECTIVE

The tactically competent and savvy leader must consider the risk of fratricide, take appropriate common sense measures to reduce the risk, and integrate those measures into his mission planning and execution. Combat is inherently risky, but the prudent leader takes reasonable measures to reduce the risk. Good commanders are careful not to place undue emphasis on risk avoidance and thus increase timidity and hesitance during battle. We fight and win by focusing overwhelming combat power on the enemy from three or four different systems, thus, giving him several different ways to die all at once. **Sensitivity to fratricide risk reduction should not deter this focus on decisive, integrated, combined arms engagements.**

### *Vignette 1: OPERATION DESERT STORM: ACTIONS ON DAY G + 3*

At 1400 on 26 February 1991, a U.S. armor task force consolidated its position and oriented north on a small desert hill to allow the task force on its right to catch up. Visibility was less than 1500 meters due to fog, dust, and smoke. Spot reports from higher indicated an enemy column of 20 tanks was crossing the brigade front from the east. At this time, the trailing task force in the right reported being stationary and over 2 kilometers behind the forward battalion on the left. Spot reports further confirmed the trailing unit's Scouts were in zone and no further north than the forward battalion's positions (vicinity the 39 grid line). Two T-55 tanks then appeared along a road 2500 meters to the forward unit's front and adjacent to its right boundary. Upon confirmation, these two tanks were destroyed, one by the task force commander's tank from his right flank vantage point.



The 40 N-S Gridline is the TF Boundary

A short time later, brigade reemphasized the threat of an enemy tank column from the east and cautioned the commander to be prepared. The trailing battalion reconfirmed its location south of the 37 grid line, with Scouts

---

---

vicinity the 39 grid line. During this time the forward battalion continued to have contact and enemy engagements among its left flank company teams. Then a tank platoon from the right flank of the forward battalion reported two more vehicles vicinity the brightly burning T-55s and moving in a direction consistent with the brigade spot report. The task force commander gave a fire command to that company and initiated a 2700 meter engagement with his own tank. Within moments, his gunner, SSG Michael Duda, exclaimed over the intercom: "Sir, there is something wrong here!" His commander immediately transmitted a cease-fire. Fortunately no one engaged the vehicles. SSG Duda had recognized the "hot" roadwheel thermal signature characteristic of the Bradley Fighting Vehicle (BFV). Quick investigation confirmed this was a misoriented Scout section from the adjacent battalion, and almost 4000 meters forward of the reported positions.

SSG Duda, ultimately credited with five tank kills during Operation DESERT STORM, terminated an almost certainly lethal engagement as a result of his excellent experience and training. Positive command and control in the battalion likewise averted any tragic shot from neighboring vehicles. Honor graduate of his Master Gunner's Course, SSG Duda benefited from many hours on the Unit Conduct-of-Fire Trainer (UCOFT) (which replicates the "hot" roadwheel BFV signature) as well as from field experience.

***Vignette 2: OPERATION URGENT FURY:  
AIR SUPPORT***

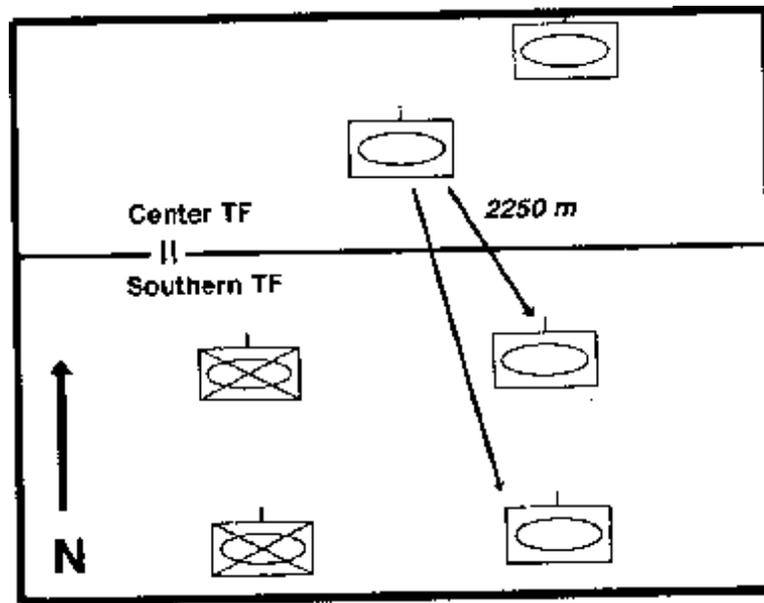
During a daylight movement to contact, the lead company in an infantry battalion received automatic weapons fire from buildings on high, relatively open ground several hundred meters to its left flank. Navy fighter-bombers were orbiting nearby and responded to a call for fire support. Two aircraft made an initial approach along the axis of the ridge in question to confirm the target. The ground element confirmed their orientation, but due to the proximity of friendlies, they made a second trial approach to absolutely assure themselves. On the third run, the infantry took cover, but observed that for the first time the aircraft oriented on a hill further to the rear and fired the ordnance. In the absence of positive ground marking, a friendly command and control element suffered severe casualties including one soldier killed.

**In retrospect, the care taken with dry runs could have been complimented with a near-ground impact artillery flare, a mortar white phosphorus (WP) mission, M203 smoke, or any one of several other positive means of marking the target. Also, positive marking of friendlies, such as VS-17 panels or colored smoke, could have made a difference. Recent combat operations point out that more than ever before, training must give leaders the seasoning that their predecessors acquired at too high a price.**

***Vignette 3: OPERATION DESERT STORM:  
ACTIONS IN A MOVEMENT TO CONTACT***

At 0500 on 27 Feb 1991, a balanced mechanized task force in box formation moved to contact on the right flank of a brigade wedge formation moving east. Although very dark, there was no obscuration of the battlefield and all companies maintained accurate position in the brigade wedge by global positioning system (GPS) headings along east-west gridlines. The brigade had long since outrun the operational graphics and maintained control primarily by formation. Subsequent investigation confirmed all unit positions were in accordance with the plan. Contact through the night had been heavy, but became sporadic as dawn approached.

The right flank company in the center task force trailed the lead tank company in the southern task force, maintaining a distance of 2-3 kilometers. In the confusion caused by enemy-dismounted contact within the brigade, this company acquired friendly vehicles in the southern task force's lead tank company. Amidst reports that enemy vehicles were engaging them (this may have been Regimental Artillery Group (RAG) fire impacting vehicles in the southern Task Force sector), gunners engaged the friendly vehicles to their south. All the vehicles involved in the exchange were moving.



**Brigade Formation Moving East**

In one engagement, the near tank company commander's tank was hit in the turret by an M1A1 sabot round. The tank shut down immediately, and the commander ordered evacuation. Himself wounded, he began trying to extract the mortally wounded gunner from the top of the turret, when a second round impacted the tank hull. Thrown to the ground, the commander now noticed flame erupting from the driver's hatch and turret hatch. By this time the lightly wounded loader and driver were off the tank, and within seconds a third round impacted the tank hull. This precluded further approach of the tank. As an immediate result of this one engagement, the gunner was killed and the company commander with remaining crew was out of the fight. The tank itself burned for one hour and 45 minutes before exploding ammunition completely destroyed it. In simultaneous engagements, four other tanks in the task force were hit for a total of two vehicles destroyed, one KIA, and seven WIA.

This fratricide incident significantly impaired the combat power and effectiveness of both units involved. Despite redundant and adequate maneuver control measures, direct fire control and discipline lapsed. Although instructions allowed no engagements beyond 2000 meters, it appears some shots violated this guidance. Contributing factors were visibility (50m with night vision goggles), turret orientation, thermal identification, fatigue, and RAG explosions mistaken for main gun signatures.

---

---

# The Federal Bureau of Investigation

## A Military Perspective:



### Working within a Lead Federal Agency

*Michael Runnals*  
*Military Analyst*

*Two months after 11 September members of the Joint Center for Lessons Learned (JCLL) arranged a series of interviews with officials of the Federal Bureau of Investigation (FBI). Due to unexpected operational requirements, the FBI officials were unavailable on the day of the interviews. However, JCLL members were able to meet with the senior military liaison officer detailed to the FBI for an informal question and answer session. That session is the basis for the following article.*

*The Federal Bureau of Investigation: A Military Perspective will be presented in three parts over three succeeding issues of the JCLL Bulletin. The March issue (Volume IV Issue 2) presented an overview of the FBI organization. This issue's installment describes the DOD liaison officer position at FBI Headquarters. The third installment will address the interface between the FBI and DOD, and some lessons that remain to be learned.*

### The Department of Defense Liaison Officer at FBI Headquarters

Assigned to the Under Secretary of Defense for Policy (USD (P)), Assistant Secretary of Defense (ASD) for Special Operations/Low Intensity Conflict (SO/LIC)

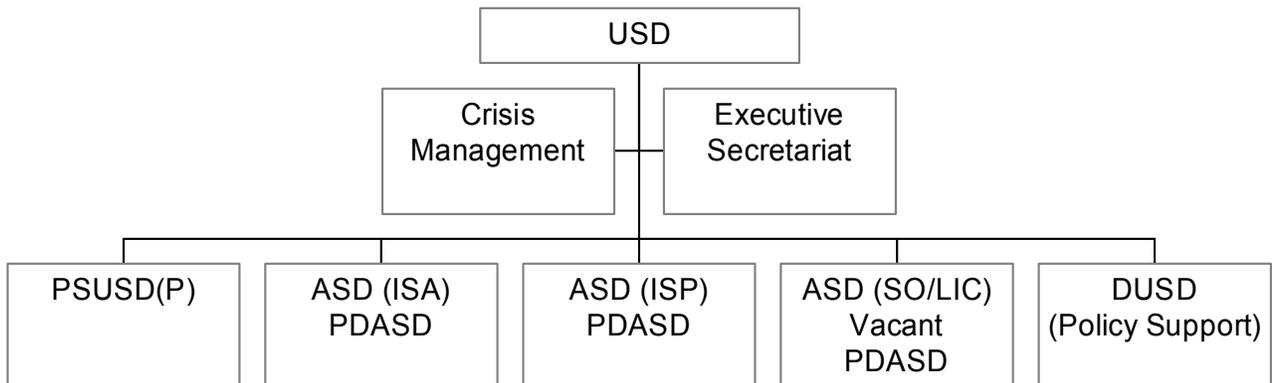


Figure 1 Under Secretary of Defense (Policy)<sup>1</sup>

The Department of Defense (DOD) senior liaison<sup>1</sup> officer (LNO) to the Federal Bureau of Investigation (FBI) is assigned to the Assistant Secretary of Defense (ASD) for Special Operations & Low Intensity Conflict (SO/LIC), which is under the direction of the Under Secretary of Defense for Policy (USD (P)). The USD (P) is the principal staff assistant and advisor to the Secretary and Deputy Secretary of Defense for all matters concerning the formulation of national security and defense policy, and the integration and oversight of DOD policy and plans to achieve national security objectives. In the exercise of this responsibility, one of functions of the USD (P) is to develop DOD policy and provide oversight for emergency planning and preparedness, crisis management, defense mobilization in emergency situations, military support to civil authorities, civil defense, and continuity of operations and government.<sup>2</sup>

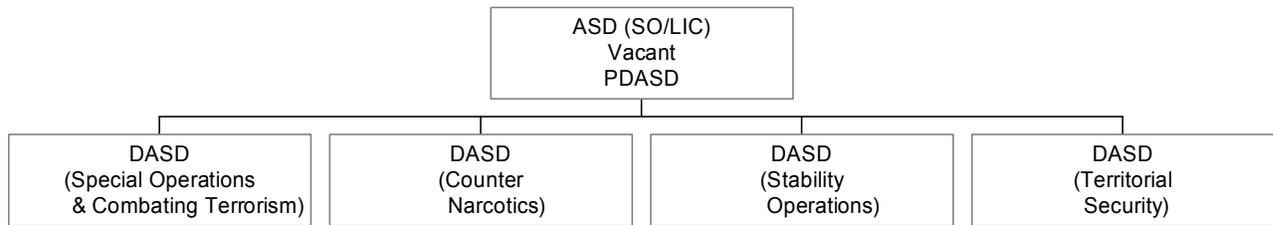


Figure 2 Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict <sup>1</sup>

In accordance with established responsibilities and procedures, one of the functions of the ASD (SO/LIC) is to advise the USD (P) on fulfillment of interagency support requests for utilization of DOD forces or resources in SO and LIC activities; monitor interagency use of DOD forces or resources in SO and LIC; and report to the USD (P) whenever it appears that questions may arise with respect to the legality or priority of such utilization.<sup>1</sup> Another ASD (SO/LIC) function is to develop policy and provide advice to senior DOD officials regarding the use of U.S. Government resources in counterterrorism and antiterrorism roles and other sensitive national missions. For these and other related reasons, ASD SO/LIC established a position for an active duty DOD LNO<sup>2</sup> at FBI Headquarters in downtown Washington, D.C.

The primary task of the LNO<sup>3</sup> is to act as the interface for all FBI requests for DOD assistance. For example, if an FBI Field Office needed divers to search for a plane that crashed in U.S. coastal waters, or if an FBI Legal Attaché required linguist support to investigate terrorist connections in Africa, the Special Agent in Charge (SAC) would route the request for assistance (RFA) to FBI Headquarters. There it would be passed to the DOD LNO who would forward the RFA to the ASD SO/LIC for staffing and Executive Secretariat approval. The LNO usually works with the FBI to identify the DOD assets best able to provide assistance and, when the supporting unit has been identified, works with the military unit to provide its commander with an overview of FBI organization and procedures, as well as background information on the specific RFA.

When originally designed several years ago, the LNO position called for a senior field grade Special Operations officer who would double as the Deputy Chief of one of the sections in the Counter-Terrorism Division. An Army Special Forces (SF) Colonel was the first DOD officer in the LNO position. Sometime during his assignment the SF Colonel traveled to Capital Hill to present a briefing on terrorism/counterterrorism

Apparently, members of the congressional committee took exception to the fact that an Army Special Forces Colonel was acting as the Deputy Chief of the FBI's Domestic Terrorism/Counterterrorism Section. As a result of the incident, the Colonel was reassigned and the LNO position went unfilled. Eventually DOD redesigned the position, which now requires a junior field grade Chemical Corps officer.

The current LNO is a Chemical Corps Major detailed to the FBI Counterterrorism Division at FBI Headquarters in downtown Washington, D.C. His primary task remains acting as the interface for all FBI requests for DOD assistance. His secondary tasks include the coordination and staffing of DOD/FBI policy issues, manning the DOD desk at the Strategic Information Operations Center (SIOC) during national crises, and acting as a DOD point of contact at the FBI for the combatant commands.

---

---

## With Duty at FBI Headquarters

Although considered a liaison officer by those at ASD SO/LIC, the FBI deems the DOD LNO a “detailee.” To the Bureau, a liaison officer is someone who checks in once or twice a week with his counterpart, while a detailee is someone who works in the FBI building on a daily basis. According to the current Army officer in the LNO position, *“They open up the doors. They don’t keep anything back . . . I am embedded in the organization, as are some of the other DOD people working here. Like with any organization, if you’re part of the team—you work here on a daily basis—you’re able to build informal networks. The Bureau has bent over backwards to make me a part of the team.”*<sup>1</sup>

Although detailed to the Counterterrorism Division, the LNO is actually assigned to the Weapons of Mass Destruction (WMD) Countermeasures Unit (CMU), which is under the Domestic Terrorism/Counterterrorism Section, where he works for the chief of the unit. At the CMU, the LNO is involved in coordinating DOD assistance policy for FBI WMD countermeasures operations. He also works with the CMU to plan FBI support to DOD training exercises, and plays a limited role in coordinating military assistance to CMU operations. During last fall’s anthrax incidents, for example, the LNO coordinated Army assistance from Fort Detrick to the FBI and the WMD CMU.

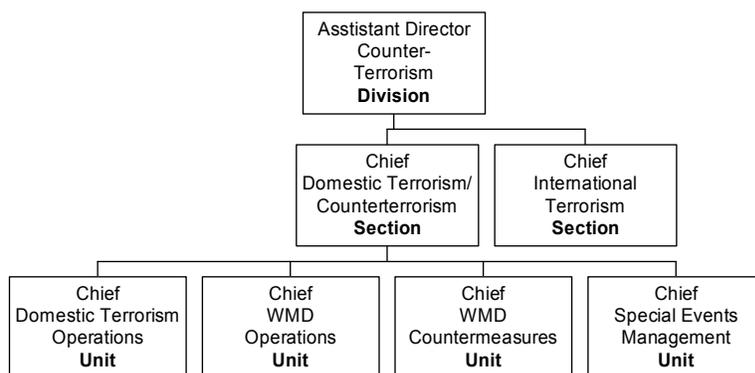


Figure 3 Division/Section/Unit Hierarchies

The LNO also supports the Special Events Management Unit (SEMU). The SEMU falls under the Domestic Terrorism/Counterterrorism Section and is a sister unit of the WMD CMU. The LNO is involved in planning military assistance to SEMU as it plans FBI support of National Special Security Event (NSSE) such as this year’s Super Bowl and 2002 Winter Olympics.

As originally designed the ASD (SO/LIC) LNO position at FBI Headquarters calls for the LNO to work at the Domestic Terrorism/Counterterrorism Section three days a week, then drive to Quantico to support the Critical Incident Response Group (CIRG) two days of the week. The current LNO, however, has found himself spending 90% of his time at FBI Headquarters and only 10% at the CIRG.

On any given day the LNO may find himself briefing the Attorney General in the morning and in the afternoon escorting visitors on a tour of FBI Headquarters. No two days are alike.

The current LNO’s first day at the Bureau was 12 October 2000. *“My first day on the job, after I got my badge and things, was the day of the USS Cole bombing. The FBI needed DOD planes to immediately transport the CIRG to Yemen. So, I had the luxury of a very steep learning curve on my first day of duty at the FBI.”* For the next few days the LNO worked the DOD desk in the FBI Strategic Information Operations Center (SIOC) serving as both the OSD operations officer and the senior DOD officer at FBI Headquarters. On a daily basis there are usually nine or so DOD LNOs working full-time in the FBI building, detailed to various Divisions of the Bureau. However, in a crisis situation all the LNOs work out of SIOC. They include LNOs from

---

---

three Service criminal investigation organizations: the Army Criminal Investigation Division (CID), the Navy Criminal Investigative Service (NCIS), and the Air Force Office of Special Investigations (OSI). There are also officers representing the Defense Intelligence Agency (DIA)/Joint Staff Directorate for Intelligence (J-2), the Defense HUMINT Service (DHS), the Army Intelligence and Security Command (INSCOM) as well as officers from the Joint Staff Operations Directorate (J-3) and ASD (SO/LIC). Some of the lessons learned in the SIOC by the LNOs during the Cole bombing were later applied during and after the 11 September terrorist attacks on the Pentagon and the World Trade Center.

### **Misperceptions of the LNO Assignment**

Upon assignment to the ASD (SO/LIC) LNO position, the current LNO believed he would be working 7:00 AM to 3:00 PM five days a week writing “big picture” DOD/FBI policy. Like his predecessor, he expected to spend three days a week at FBI Headquarters and two days a week at Quantico supporting the CIR. As described earlier, his first duty day was anything but policy oriented! Starting with his first day at the Bureau, the LNO has found himself focusing the majority of his efforts on operations/support to operations and only a small portion of his efforts on policy issues. He has also discovered he has the same authorities and responsibilities of his FBI counterparts, and that along with the responsibilities is the expectation of a 24-hour duty day, seven days a week. After fourteen months in the position, the LNO acknowledged that nothing he does is hard to do, he hardly ever sees the results of his efforts, and “the train just keeps moving on to the next thing.”

### **Professional Challenges of the Assignment**

The current ASD (SO/LIC) LNO has identified his top two challenges as: the gray area of Posse Comitatus and the difference in DOD and FBI lessons learned cultures. According to the LNO, *“If you’re not in a position that does this consistently, you end up being in unfamiliar territory and all you hear about are the posse comitatus ‘horror stories’ and not the ‘work-a-rounds.’”* He has found that by virtue of being a “detailee,” Bureau members do not ordinarily limit the law enforcement information they share with him. The dilemma is deciding what should, or should not, be released to DOD members working outside the FBI. The challenge is using law enforcement information in discussions with DOD personnel to identify what needs to be, or could be done, without disclosing the law enforcement sensitive specifics.

The difference in the DOD and FBI approach to lessons learned is a frustrating challenge. Early in his assignment, the LNO suggested a work-a-round for an operations-related lesson he had learned, but his counterparts didn’t take kindly to his suggestion. “I believe that over my years as an (Army) officer I’ve done a lot of things (like deploy overseas) and have seen the right way and the wrong way to do many tasks, and have learned from both. I come to the Bureau and find that its members are re-discovering some of the lessons I learned as a lieutenant. It is frustrating to watch my FBI counterparts re-learn lessons I already know, but don’t necessarily have the authority to implement.” The challenge is overcoming the reluctance of FBI members to apply lessons learned by other organizations.

**About the Author:** Mike Runnals is a retired US Army officer, a member of the Joint Warfighting Center (JWFC) Support Team, currently working as a military analyst in the Analysis Support Branch at the JWFC, Suffolk, Virginia. A former Combat Engineer, Mr. Runnals has been employed at the JWFC since September 1994, first working in the Training Support Branch and then working in the Joint Center for Lessons Learned support section.

Note to Readers: For the latest information on FBI reorganization please refer to the “FBI Reorganization: Strategic Focus” web page at <http://www.fbi.gov/page2/reorg529temp.htm>

---

---

<sup>1</sup> Figure developed from the Under Secretary of Defense for Policy organizational chart at <http://www.defenselink.mil/policy/orgchart.html>.

<sup>2</sup> Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, As Amended Through 7 May 2002, p. A-252.

<sup>3</sup> DOD Directive 5111.1, "Under Secretary of Defense for Policy," December 8, 1999.

<sup>4</sup> Figure developed from the Under Secretary of Defense for Policy organizational chart at <http://www.defenselink.mil/policy/orgchart.html>.

<sup>5</sup> DOD Directive 5111.10, "Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict (ASD (SO/LIC)), March 22, 1995.

<sup>6</sup> Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, As Amended Through 7 May 2002, p. A-68.

<sup>7</sup> For the purposes of this article the term LNO will be used to refer to the DOD Liaison Officer to the FBI. MSR

<sup>8</sup> Interview with Major Walter "Chip" Chase, ASD(SO/LIC) Liaison Officer to the Federal Bureau of Investigation, November 27, 2001.

<sup>9</sup> Ibid. The WMD CMU Chief is an ex-Army Ranger and Aviator who flew Apache helicopters during Operation DESERT STORM.

<sup>10</sup> Modification of chart at <http://www.fbi.gov.fbinbrief/todaysfbi/hqorg.htm>

<sup>11</sup> *Federal Bureau of Investigation: A Military Perspective* by Mike Runnals, JCLL Bulletin Volume IV, Issue 2, March 2002, page 11.

<sup>12</sup> FBI National Press Office Washington, D.C. Press Release dated 12 October 2000, FBI Dispatches Overseas Resources to Yemen.

<sup>13</sup> Interview with Major Walter "Chip" Chase, ASD(SO/LIC) Liaison Officer to the Federal Bureau of Investigation, November 27, 2001.

<sup>14</sup> *Federal Bureau of Investigation: A Military Perspective* by Mike Runnals, JCLL Bulletin Volume IV, Issue 2, March 2002, page 12.

<sup>15</sup> From interview with Major Walter "Chip" Chase, ASD(SO/LIC) Liaison Officer to the Federal Bureau of Investigation, November 27, 2001

<sup>16</sup> From interview with Major Walter "Chip" Chase, ASD(SO/LIC) Liaison Officer to the Federal Bureau of Investigation, November 27, 2001

<sup>17</sup> 18 USC, Part I, Chapter 6, Section 1385: Whoever, except in such cases and under circumstances expressly authorized by the Constitution or Act of Congress, willfully uses any part of the Army or the Air Force as a posse comitatus or otherwise to execute the laws shall be fined not more than \$10,000 or imprisoned not more than two years, or both.

<sup>18</sup> Interview with Major Walter "Chip" Chase, ASD(SO/LIC) Liaison Officer to the Federal Bureau of Investigation, November 27, 2001.

<sup>19</sup> For information on the origins of posse comitatus and understanding of its applications go to the Aerospace Power Chronicles Contributors Corner 1999Archive at <http://www.airpower.maxwell.af.mil/airchronicles/cc/archives.html> and select the article titled The Origins of the Posse Comitatus by Bonnie Baker dated 11/1/99.

<sup>20</sup> Sullivan, G. R. & Harper, M. V. (1996), *Hope is not a method*. New York: Broadway

Books. The book is written by a former U.S. Army Chief of Staff; it contains several discussions about the development of the Army's after action review and lessons learned programs.



## FACT SHEET

# Improving U.S. Interagency (IA) Operational Planning and Coordination

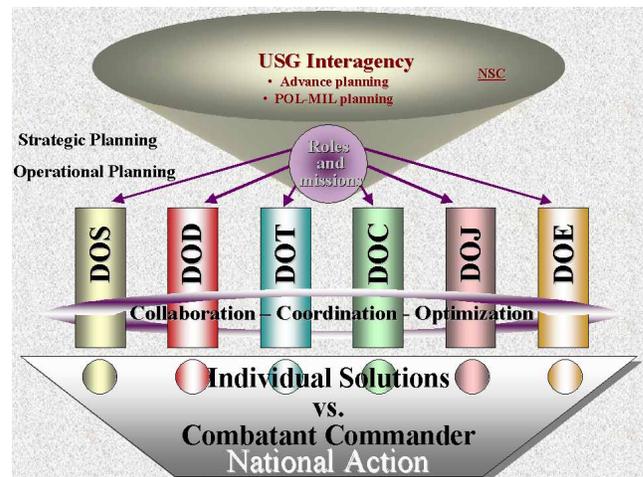
*Mr. Phil Kearle  
Interagency Working Group Lead*

### What's the IA Concept?

IA is a concept to address a widely recognized shortfall in coordinated interagency operational planning activities that has undermined mission success in past complex contingency operations. This concept presents a proposed package of improvements to harmonize campaign planning and achieve unity of effort between all participating U.S. government civilian and military departments and agencies.

### What's Different?

National Security Council (NSC) interagency policy-planning activities set the policy and guidance to integrate agency efforts at lower levels. Similarly, at the tactical level the Ambassador-Joint Task Force (JTF), Commander implement interagency activities on a routine basis. The connections at the operational level, where agencies formulate their “campaign plans,” are the least effective. The primary cause of weak collaboration in campaign planning is the difference in structures among military and civilian agencies. Agency structures from Washington to the field do not match up. For the State Department, the many important campaign planning activities – diplomatic engagement, political transition and elections, public security, war crimes prosecution – are normally accomplished in Washington within a regional or functional bureau. In comparison, at the Defense Department the regional combatant commander performs these activities outside of Washington. Additionally, with differing organizational cultures, civilian and military planners must overcome several dysfunctional attitudes – such as “stay in your own lane” – to successfully address the many divisive ramifications of policy decisions that are associated with undertaking these contingency operations.

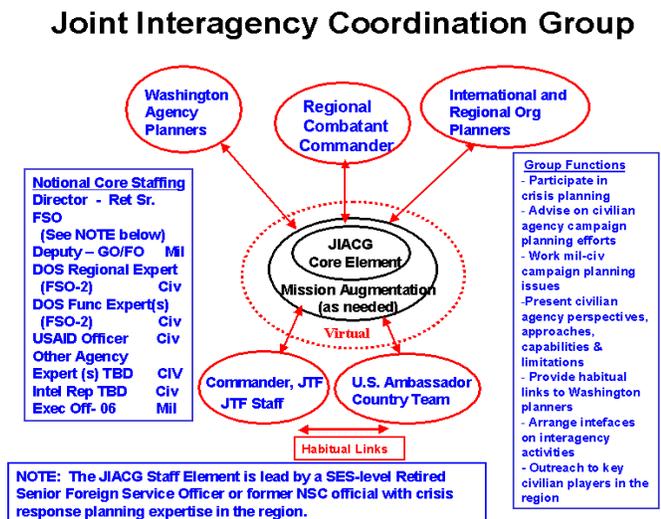


### IA Concept Description

This concept seeks to harmonize operational planning between civilian and military departments and agencies. Experimentation to date has identified two requisite capabilities to achieve this objective: a secure, virtual collaborative working environment and a staff interagency coordination element. While recognizing that the locus of staff coordination could be located in Washington or in the regions, the United States Joint Forces Command (USJFCOM) will initially experiment with this interagency element, the Joint Interagency Coordination Group (JIACG), on the combatant commander’s staff. The JIACG is as a multi-functional, advisory element that represents the civilian departments and agencies and facilitates information sharing across the interagency com-

community. It provides regular, timely, and collaborative day-to-day working relationships between civilian and military operational planners. Proposed JIACG functions include:

- Participate in Combatant Command staff crisis planning and assessment efforts.
- Advise the Combatant Command staff on civilian agency campaign planning efforts.
- Work civilian-military campaign planning issues.
- Provide civilian agency perspectives during military operational planning activities and exercises.
- Present civilian agency approaches, capabilities & limitations to the military campaign planners.
- Provide habitual links to Washington civilian agency campaign planners.
- Arrange interfaces for a number of useful agency crisis planning activities.
- Conduct outreach to key civilian international and regional actors in the region.



### IA's Value to National Security Planning

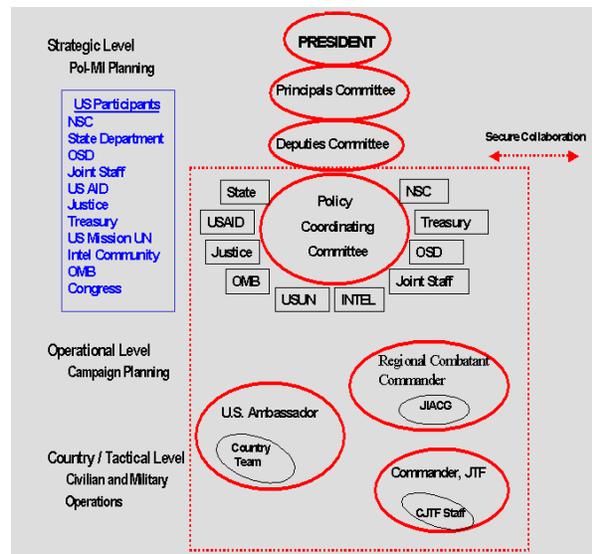
With a small investment of experts to make the necessary habitual working relationships among agencies, this new operational capability could provide the following benefits to all U.S. government agencies:

- Strengthen multi-agency operational planning of complex mission tasks.
- Establish a mechanism to integrate agency efforts.
- Keep all agencies informed of each other's efforts and prevent misconceptions.
- Provide real time feedback between civilian and military agency efforts.
- Create realistic cooperative efforts and harmonize implementation.
- Increase implementation effectiveness through better integrated operational planning and tactical execution.
- Shorten commitments and create foundation for stable transition activities.
- Provide coordinated options to key decision makers.

### MILLENNIUM CHALLENGE (MC) 02 Interagency CONOPS

In day-to-day planning at the Combatant Commander HQs, the JIACG supports the standing joint force headquarters (JFHQ) planners by advising on civilian agency operations and plans, and providing perspective on civilian agency approaches, capabilities, and limitations to develop synchronous application of national power.

When the JTF is formed and deployed, the JIACG extends this support to the combined JTF (CJTF)/JTF staff through the JFHQ political-military planner. This becomes the mechanism to plan the best mix of capabilities to achieve the desired effects that includes the full realm of diplomatic, information, and economic inter-agency activities.



---

---

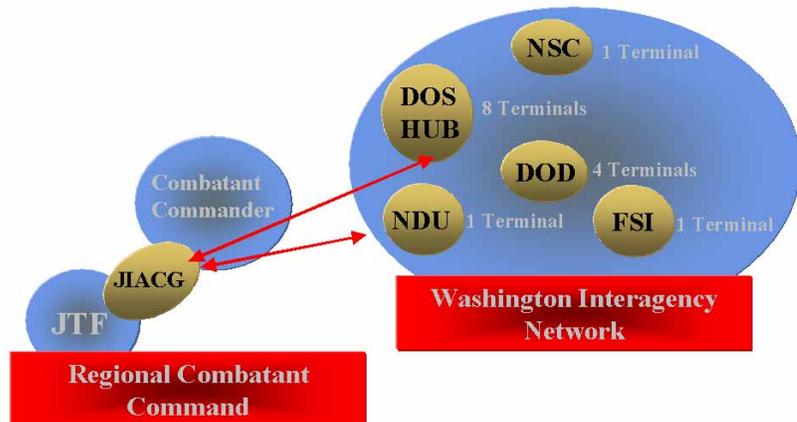
## MC 02 Interagency Command, Control, Communication, Computers, and Intelligence (C4I) Architecture

Building on our insights and experience from UNIFIED VISION (UV) 01, we will constitute a JIACG that will have secure virtual collaboration with JIACG participants in the Washington, DC, area. In addition to the hub in Suffolk, VA, there will be five remote collaborative sites located at the National Security Council, State Department, Pentagon National Military Command Center (NMCC), National Defense University, and the Foreign Service Institute.

**For more information contact:**

Phil Kearley, Interagency Working  
Group Lead  
(757) 836-8063  
kearley@je.jfcom.mil

### MC 02 Interagency C4I Architecture



**About the Author:** Phil Kearley is a retired USAF Officer with a background in intelligence and political-military affairs. Currently a government civilian employee, he works in US Joint Forces Command's Joint Experimentation Directorate (J9) at Suffolk, Virginia. He is member in the Concepts Development Department and serves as the Interagency Working Group Lead. Mr. Kearley has been working J9 concept development since May 2000.

**Editor's Note:** This fact sheet was an extrapolation summary of a much longer USJFCOM J9 white paper on interagency planning and coordination. For those readers who are interested in a more detailed study, the entire white paper has been posted on the JCLL website in the Bulletin section.

## Joint Staff, J7 JDETD

7000 Joint Staff Pentagon  
Washington, D.C.  
20318-7000

	<u>user name</u>	<u>phone#</u>
CAPT. B. Russell	(russellbf)	x9619
LTC V. Calhoun	(victoria.calhoun)	x1995
COL D. Laine	(lainehd)	x7252

DSN: 227 Comm: (703) 697 - XXXX  
Internet: (username)@js.pentagon.mil  
SIPRNET: (username)@js.pentagon.smil.mil

## USJFCOM

Commander JWFC JW4000  
116 Lake View Parkway  
Suffolk, VA 23435-2697

### Joint Center for Lessons Learned

	<u>user name</u>	<u>phone#</u>
Mr. Mike Barker	(barker)	x7270
Mr. Sam Wasaff	(wasaff)	x7954
Mike Runnals	(runnalsm)	x7667
Bob Lucas	(lucasr)	x7745
Les Burbage	(burbage)	x7780

DSN: 686 COMM: (757) 686 - XXXX  
Internet: (username)@jwfc.jfcom.mil  
SIPRNET: (username)@jwfc.jfcom.smil.mil

## FEMA

FCP 200-H  
500 C St. SW  
Washington, D.C. 20472

### Office of National Preparedness

	<u>user name</u>	<u>phone#</u>
Mr. K. Iacobacci	(kevin.iacobacci)	x3293

Comm: (202) 646 - XXXX  
Internet: (username)@fema.gov

## CENTCOM

US Central Command  
7115 South Boundary Blvd.  
MacDill AFB, FL 33621 - 5101

	<u>user name</u>	<u>phone#</u>
Mr. L. Underwood	(underwlm)	x3384
Ms. M. Avery	(averyma)	x6301

DSN: 651 Comm: (813) 827 - XXXX  
Internet: (username)@centcom.mil  
SIPRNET: (username)@centcom.smil.mil

## Joint Lessons Learned Points of Contact

## PACOM

HQ US Pacific Command  
ATTN: J30R  
Camp Smith, HI 96861

	<u>user name</u>	<u>phone#</u>
Mr. C. Springer	(cspringer)	x0300

Comm: (865) 599 - XXXX  
Internet: (username)@camber.com

## TRANSCOM

US Transportation Command(TCJ3-OPT)  
Scott AFB, IL 62225 - 5357

	<u>user name</u>	<u>phone#</u>
Mr. R. Netemeyer	(robert.netemeyer)	x1810

DSN: 779 Comm: (618) 229 - XXXX  
Internet: (username)@hq.transcom.mil  
SIPRNET: (username)@transcom.smil.mil

## SOUTHCOM

US Southern Command  
3511 NW 91st Avenue  
Miami, FL 33172 - 1217

	<u>user name</u>	<u>phone#</u>
Mr. William Knightly	(knightlyw)	x3047

DSN: 567 Comm: (305) 437 - XXXX  
Internet: (username)@hq.southcom.mil

## STRATCOM

US Strategic Command(J371)  
901 SAC Blvd. Suite M133  
Offutt AFB, NE 68113 - 6500

	<u>user name</u>	<u>phone#</u>
Capt. R Olson	(olsonra)	x2376
Mr. P McVay	(mcvayp)	x7697
Mr. D. Coombs	(coombs)	x2378

DSN: 271 Comm: (402) 294 - XXXX  
Internet: (username)@stratcom.mil  
SIPRNET: (username)@stratnets.stratcom.smil.mil

## EUCOM

USEUCOM/ECJ37  
Unit 30400  
APO AE, 09131

	<u>user name</u>	<u>phone#</u>
CDR. S. Snyder	(snyders)	x5925/4162
MAJ S. Pierce	(pierces)	x4235

DSN: (314) 430 - XXXX  
Internet: (username)@eucom.mi  
SIPRNET: (username)@eucom.smil.mill

## SOCOM

HQ Special Operations Command  
7701 Tampa Point Blvd.  
Macdill AFB, FL 33621 - 5323

	<u>user name</u>	<u>phone#</u>
Mr. Rick Corson	(ocj3reor)	x7092

DSN: 299 COMM: (813) 828 - XXXX  
SIPRNET: (username)@hqsocom.socom.smil.mil

## NORAD

HQ North American Aerospace Defense Command J38R  
250 South Peterson Blvd.  
Peterson AFB, CO

	<u>user name</u>	<u>phone#</u>
LTC. N. Mueller	(nanette.mueller)	x3687
MSGT H. Hunt	(harold.hunt)	x9762

DSN: 692 COMM: (719) 554 - XXXX  
SIPRNET: (username)@spacecom.smil.mil

## SPACECOM

US Space Command  
Bldg 1470  
Peterson AFB, CO 80914-3240

	<u>user name</u>	<u>phone#</u>
Mr. Stephen Zakaluk (Stephen.Zakaluk)		x5453

DSN: 692 Comm: (719) 554 - XXXX  
Internet: (username)@peterson.af.mil  
SIPRNET: (username)@spacecom.smil.mil

## DIA

DIA/J20-2  
Pentagon RM BD875A  
Washington, D.C. 20340 - 5556

	<u>user name</u>	<u>phone#</u>
CDR P. White	(reswhip)	x0533
MAJ M. Leamy	(resleam)	x0532

DSN: 222 COMM: (703) 692 - XXXX  
Internet: (username)@dia.ic.gov  
SIPRNET:(username)@notes.dawn.dia.smil.mil

## US Marine Corps

WDID, MCCDC  
Capabilities and Assessment Branch  
3300 Russell Rd.  
Quantico, VA 22134

	<u>user name</u>	<u>phone#</u>
LtCol C. Rogers	(rogerscm)	x7916

DSN: 278 Comm: (703) 784-XXXX FAX: 4917  
Internet: (username)@mccdc.usmc.mil  
SIPRNET: (username)@mccdc.usmc.smil.mil

## US Navy

Navy Warfare Development Command  
Sims Hall dept. N-59  
686 Cushing Rd.  
Newport, RI 02841

	<u>user name</u>	<u>phone#</u>
Mr. Ron Bogle	(bogler)	x1126
Mr. William Russell	(russellw)	x1143

DSN: 948 Comm: (401) 841 - XXXX  
Internet: (username)@nwdc.navy.mil  
SIPRNET: (username)@nwdc.navy.smil.mil

## US Air Force

Air Force Center for Knowledge Sharing  
Lessons Learned  
HQ USAF/XOOT-AFCKSL  
114 Thompson St., Ste. 102  
Langley AFB, VA 23665

	<u>user name</u>	<u>phone#</u>
Mr. David Free	(david.free)	x7315

DSN: 574 Comm:(757) 764-XXXX FAX: 8337  
Interent: (username)@langely.af.mil

## US Army

Center for Army Lessons Learned(CALL)  
10 Meade Avenue Bldg. 50  
Fort Leavenworth, KS 66027

	<u>user name</u>	<u>phone#</u>
Mr. Jim Walley	(walleyj)	x9571

DSN: 552 Comm: (913) 684 - XXXX  
Internet: (username)@leavenworth.army.mil

---

---

## **JCLL BULLETIN DELIVERED TO YOU ELECTRONICALLY!**

The JCLL Bulletin is now available through electronic subscription and distribution to approved subscribers. Currently, it is only available on the Non-Secure Internet Protocol Router Network (NIPRNET).

**Users within the jfcom.mil:** There is no need to register for a Webgate account. You have three options to access the sign up: first option, you can go to the JWFC Staff Working Area and under 'Research,' locate the link for JCLL and click the button for JCLL Bulletin; or, second option, under the sub-heading 'Publication' (also under 'Research'), locate the link for the JCLL Bulletin; or, third option, under 'JDLS Work Areas,' locate the link for JW4000 and click the button for the JCLL Bulletin.

Once at the JCLL Bulletin page, you will see the subscription link. Click on the link, fill out, and submit the subscription form.

You will be notified via e-mail when your subscription registration has been approved (if your request must be manually approved). The next time the JCLL Bulletin is distributed against the JCLL list of subscribers, you will receive e-mail with the latest Bulletin attached.

**Users outside the jfcom.mil:** You will need to register and be cleared for approval for a JWFC Webgate account. The Webgate account allows you to access the JCLL web site and thus submit the subscription request. If you cannot access the JCLL web site from the JWFC web page follow this URL: <http://www.jwfc.jfcom.mil/dodnato/jcll/> and click on "...request account [click here](#)." to obtain a Webgate account.

When filling out the information needed to obtain a Webgate account, you will be asked for a sponsor/POC and a purpose for the request. For the purpose of obtaining an electronic JCLL Bulletin subscription, please use Mr. Al Preisser as the sponsor/POC.

Once a Webgate account has been established, you will need to visit the same URL above and click on the purple button in the middle of the page, "Registered Users." After reaching the JCLL homepage, click on the link for "JCLL Bulletins" and you will see the subscription link on the JCLL Bulletin page. Click on the link, fill out, and submit the subscription form.

You will be notified via e-mail when your subscription registration has been approved (if your request must be manually approved). The next time the JCLL Bulletin is distributed against the JCLL list of subscribers, you will receive e-mail with the latest Bulletin attached.

DEPARTMENT OF DEFENSE

COMMANDER  
USJFCOM JWFC CODE JW 4000  
116 LAKE VIEW PKWY  
SUFFOLK VA 23435-2697

OFFICIAL BUSINESS

