USAWC STRATEGY RESEARCH PROJECT

ANALYSIS OF INTELLIGENCE SUPPORT TO THE 1991 PERSIAN GULF WAR: ENDURING LESSONS

by

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This SRP is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
03 MAY 2004		**-**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Analysis of Intelligence Support to the 1991 Persian Gulf War Enduring Lessons	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
John Bird	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)	8. PERFORMING ORGANIZATION REPORT NUMBER
U.S. Army War College,Carlisle Barracks,Carlisle,PA,17013-5050	
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
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT
See attached file.

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**		**28**	

ABSTRACT

AUTHOR: Lieutenant Colonel John J. Bird, United States Army

TITLE: Analysis of Intelligence Support to the 1991 Persian Gulf War: Enduring Lessons

FORMAT: Strategy Research Project

DATE: 19 March 2004 PAGES: 28 CLASSIFICATION: Unclassified

When examining intelligence support to military operations, one cannot truly appreciate where the United States Army is today, or, sense where it must go in the future unless we fully understand and embrace the critical lessons of the past. The 1991 Gulf War presented a number of critical intelligence support lessons which are highly relevant to future U.S. Army operations.

The intent of this paper is to analyze Gulf War intelligence collection and analysis efforts, primarily at echelons division through theater, in order to distill the enduring lessons learned. The paper is an unclassified, executive level presentation of the rich, timeless and meaningful intelligence lessons learned from the 1991 Gulf War.

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ACKNOWLEDGEMENTS

I would like to thank my Project Advisor, LTC Harry Phillips, for his magnificent insight and friendship.

ANALYSIS OF INTELLIGENCE SUPORT TO THE GULF WAR: ENDURING LESSONS

> "A proper understanding of the conduct of the Gulf War military operations – the achievements and the shortcomings – is an important and continuing task of the Department of Defense as we look toward the future."
>
> —Department of Defense Report to Congress, April 1992

When examining intelligence support to military operations, one cannot truly appreciate where the United States Army is today, or, sense where it must go in the future unless we fully understand and embrace the critical lessons of the past. The 1991 Gulf War presented a number of critical intelligence support lessons which are highly relevant to future U.S. Army operations. The intent of this paper is to analyze the 1991 Gulf War intelligence collection and analysis efforts, primarily at echelons division through theater, in order to distill the enduring lessons learned. The paper is an unclassified, executive level presentation of the rich, timeless and meaningful intelligence lessons learned during OPERATIONS DESERT SHIELD and DESERT STORM.

While it is widely agreed that the allied coalition's defeat of Iraq was truly an outstanding display of military prowess, most military professionals acknowledge that the execution of this complex combat operation was far from perfect. It is imperative that we closely study the intelligence achievements and shortcomings of this combat operation in order to bring back more of Americas' sons and daughters in subsequent combat operations.

Based on professional experience as a Military Intelligence Officer, the author feels adequately qualified to comment on selected Gulf War intelligence issues. First introduced to the complexities associated with intelligence support in the Central Command (CENTCOM) Area of Responsibility (AOR) while serving as the Intelligence Officer of a Joint Special Operations Task Force during OPERATION EARNEST WILL,[1] the author then served as a Military Intelligence Company Commander during OPERATION DESERT SHIELD/STORM.[2]

ANALYSIS OF COALITION INTELLIGENCE COMMUNITY CONTRIBUTIONS – THE UNITED STATES DOES NOT GO IT ALONE

A portion of the OPERATION DESERT SHIELD/STORM intelligence success can be directly attributed to the fact that U.S. intelligence, at all operational echelons, worked well with the allied coalition. The U.S. recognized early on that the Gulf War would be a true coalition effort and that the U.S. would simply not go it alone. Generally, there was an open exchange of intelligence between the U.S. and its 39 coalition partners from the early days of OPERATION DESERT SHIELD.[3] Across the breadth of the U.S. combat formation, U.S. intelligence staffs

were augmented with coalition intelligence liaison officers. Conversely, the U.S. provided intelligence liaison officers to augment several coalition intelligence staffs. The exchange of intelligence liaison officers greatly enabled the entire coalition to possess a clear and accurate intelligence picture while simultaneously fostering a team environment. Indeed, the Gulf War served to underscore the fact that the U.S. intelligence community could not go it alone in the modern era of coalition military operations.

ANALYSIS OF U.S. NATIONAL INTELLIGENCE COMMUNITY CONTRIBUTIONS – SEAMLESS, ECHELONED SUPPORT

Most military professionals would probably agree that the U.S. intelligence effort was an unqualified success during OPERATION DESERT SHIELD/STORM. The Department of Defense's Report to the Congress stated, "no combat commander has ever had as full and complete a view of his adversary as did our field commanders… This success reflected investments in technology and the efforts of thousands of U.S. intelligence professionals."[4]

The 2 August 1990 Iraqi invasion of Kuwait clearly caught many U.S. policymakers and national intelligence community professionals off-guard.[5] Nonetheless, so began the most massive U.S. military deployment, and subsequent combat operation, since World War II. The massive initial deployment and follow-on combat operations levied monumental requirements on the U.S. national intelligence community. To its credit, the national intelligence community responded quickly with decisive, aggressive, and perhaps most importantly, innovative intelligence collection, analysis, production and dissemination measures to support warfighting commanders forward-deployed in U.S. Central Command's area of operations.

The U.S. intelligence community immediately initiated an ambitious effort, fully energizing the national system to collect and disseminate intelligence of potential value to both policymakers and warfighters alike. It is important to note that the leadership of the U.S. intelligence community pledged early on to directly support tactical commanders in the field. It is precisely this notion of national level intelligence support to the operational commander that marked OPERATION DESERT SHIELD/STORM as a true watershed in the history of the U.S. intelligence community. Fortunately, the national intelligence community vigorously applied valuable lessons learned during its previous U.S. military combat experiences in Grenada and Panama where it was generally concluded that national-level intelligence support to tactical commanders was a far cry from being timely, relevant and accurate. From the outset of hostilities, the U.S. national intelligence community rallied to support the complex and challenging requirements of the warfighting commander. The entire national intelligence community was energized, focused and committed to supporting tactical commanders. Most

notable among the national intelligence agencies who responded quickly to tactical commanders were the Defense Intelligence Agency (DIA) and the National Security Agency (NSA).

DEFENSE INTELLIGENCE AGENCY CONTRIBUTIONS

The Defense Intelligence Agency activated an Intelligence Task Force and an Operational Intelligence Crisis Center on 1 August 1990. The Intelligence Task Force, residing in the Pentagon, focused on short-term intelligence production and briefing support to the Joint Staff and forward deployed warfighters. The Operational Intelligence Crisis Center, residing at Bolling Air Force Base in the Defense Intelligence Agency's Analysis Center, focused on long-term intelligence analysis and production in support of the Joint Staff and deployed campaign planners. Moreover, DIA deployed 11 National Military Intelligence Support Teams (NMISTs) to directly interface with tactical commanders in the field. The NMIST teams served as a direct link between the tactical commander and the national intelligence community. These teams were predominately manned with intelligence analysts who were resourced with state-of-the-art communications capabilities back to Washington.[6] The NMIST team concept, first employed during OPERATION EARNEST WILL and OPERATION JUST CAUSE, was further refined during the Gulf War and has since contributed immeasurably toward a number of operational successes.[7]

NATIONAL SECURITY AGENCY CONTRIBUTIONS

The National Security Agency provided highly tailored Signals Intelligence (SIGINT) products to support tactical commanders as well as provided liaison elements to several forward-deployed operational commands. These liaison teams served a similar task and purpose to the DIA NMIST teams mentioned previously.[8] These NSA SIGINT subject matter experts, coupled with their reachback communications capability, were warmly received at all echelons of command and expertly filled a void in much of the operating force. Like their DIA NMIST counter-part, these NSA liaison elements clearly paved the way for future support to the warfighter.

ANALYSIS OF U.S. THEATER AND TACTICAL INTELLIGENCE COMMUNITY INTELLIGENCE COLLECTION CONTRIBUTIONS – HUMINT/CI, SIGINT AND IMINT

The Gulf War was truly an historic and ground-breaking event from a "strategic" versus "tactical" intelligence perspective. The distinction between the two levels of intelligence was blurred. In fact, they often overlapped. Battalion Task Force Intelligence Officers collected

combat information and sent intelligence reports up the chain of command to be incorporated into Echelons Above Corps (EAC) Theater level intelligence products.[9] Conversely, there were instances where national intelligence agencies directly supported battalions with high quality, detailed intelligence reporting tailored for operational planning at the lowest levels.

U.S intelligence collection at the operational and tactical level of war was truly a multi-disciplined approach, leveraging the strengths of Human Intelligence (HUMINT), Signals Intelligence (SIGINT) and Imagery Intelligence (IMINT) disciplines to provide timely, accurate and relevant intelligence for the commander.

COUNTERINTELLIGENCE (CI)/HUMAN INTELLIGENCE (HUMINT)

HUMINT and CI played a vital role in the conduct of the Gulf War. A number of HUMINT/CI intelligence collection platforms were highly productive. Before we enter into a discussion of the various HUMINT/CI collection means, it is instructive to note that language proficiency and area expertise were two of the clearest challenges confronting the HUMINT/CI intelligence collection discipline during the Gulf War.[10] Intelligence professionals cannot begin to underscore the serious language challenge which confronted the intelligence community; particularly with regard to low density language dialects such as Arabic Egyptian and Persian Farsi. The Gulf War was a combat scenario where the U.S. military was forced to rely heavily on human intelligence.[11] The intelligence community was hard-pressed to produce competent linguists to serve as counterintelligence agents, interrogators, translators, voice intercept operators and liaison officers. It takes a great deal of time and training to produce these linguists and area experts. Senator David Boren (Democrat, Oklahoma) put it best when he stated, “during the Cold War, we focused our resources on the Soviet Union. Now, clearly we need to shift many of these resources to the Middle East in an effort to improve HUMINT.”[12] The Gulf War served to reinforce the importance of HUMINT/CI on the battlefield as well as the belief that there is no “quick fix” solution to this seemingly timeless challenge that confronts the intelligence community.

A great many HUMINT/CI lessons were harvested from the Gulf War. These high value HUMINT/CI enduring lessons can best be captured in four broad areas:

- Counterintelligence operations.
- Interrogation operations.
- Special Operations Forces and Long Range Surveillance Detachment operations.
- Every soldier on a battlefield is a HUMINT collector.

Counterintelligence Operations

The first hours and days of OPERATION DESERT SHIELD/STORM presented a superb opportunity for Counterintelligence Agents to assist in protecting the force. Counterintelligence personnel provided valuable counter-terrorism briefings and site surveys [13] throughout the build-up of U.S. military forces and into combat operations. These briefings and surveys were particularly valuable in the early stages of OPERATION DESERT SHIELD when U.S. military units arriving in-country knew very little regarding Iraqi intelligence capabilities or the likelihood of terrorist activities directed against American troops and facilities. Moreover, "CI reporting from refugee centers proved an invaluable source for information about conditions in Kuwait," [14] contributing immeasurably toward the planning success of OPERATION DESERT STORM.

Interrogation Operations

During OPERATION DESERT SHIELD, Interrogators and debriefers produced critical intelligence reporting from the Border Stations along the Iraq/Saudi Arabian border. These Border Stations were manned by members of the coalition. Iraqi defectors normally reported to these outposts upon crossing the border. The defectors proved a valuable source of intelligence regarding Iraqi capabilities and intentions. During OPERATION DESERT STORM, interrogators harvested huge sums of highly perishable data to be immediately relayed to commanders in contact with the enemy. Interrogators were exceptionally busy as Enemy Prisoner of War cages were rapidly filled with Iraqi prisoners. Interrogators garnered a number of highly valuable lessons learned from the Gulf War. Of particular note, interrogators were reacquainted with the lost art of questioning through an interpreter. These types of interrogations had not been conducted since the U.S. military operated in Viet Nam.[15]

Special Operations Forces and Long Range Surveillance Detachment Operations

Special Operations Forces and Long Range Surveillance Detachments were inserted behind enemy lines to report Iraqi troop disposition, support to targeting, and, a host of non-traditional missions such as analyzing river crossing site feasibility and helicopter landing zone composition. Despite a myriad of operational dilemmas such as a lack of adequate cover and concealment and soldier load challenges,[16] these soldiers proved especially adept as the eyes and ears of the commander. SOF and LRSD soldiers became well sensitized to the challenges of operating in a desert environment. In the wake of the Gulf War, these lessons resulted in vastly improved tactics, techniques and procedures for operating in an environment as austere as the Iraqi desert.

Every Soldier on a Battlefield is a HUMINT Collector

The U.S. had an immensely sophisticated intelligence collection plan in place during the Gulf War, but this does not negate the fact that warfighting commanders have a clear responsibility to conduct reconnaissance and surveillance missions in their own assigned sector with their organic assets (e.g., scouts). After all, every soldier on a battlefield is a HUMINT collector capable of providing the pieces of the puzzle necessary to fully develop the situation on the ground. Many military professionals believe that far too many commanders exhibited what amounted to a "fox-hole mentality" when it came to intelligence collection operations during the Gulf War. Many commanders literally expected to be spoon-fed a complete intelligence picture of their area of operations.[17] During OPERATION DESERT STORM, a number of maneuver commanders were reminded of the doctrinal notion that describes the flow of intelligence as a two-way street, or, a push-pull concept. Tactical and theater level commanders, as well as the national intelligence collection systems, must perform intelligence collection in a manner that minimizes redundancy, maximizes efficiency and complements each other. The Gulf War served to underscore that old cavalry maxim, "scouts out!," where commanders recognize their inherent responsibility to reconnoiter beyond their own berm to develop situational awareness in their sector. At its bare essence, this is a "dog-eat-dog intelligence gathering situation… units are doing their best to find out what the enemy has while preventing the enemy from knowing what they have."[18]

SIGNALS INTELLIGENCE (SIGINT)

OPERATION DESERT SHIELD/STORM presented the opportunity for the U.S. Intelligence Community to showcase the most sophisticated SIGINT system the world has ever seen. "Spy satellite intercepts of Iraqi military communications gave U.S. Generals a capability their predecessors could only dream about – the ability to track just about every important military action Iraq undertook."[19] The U.S. SIGINT community was additionally credited with producing a great deal of precious warning and reporting with regard to SCUD missiles. While the SIGINT collection discipline received relatively high grades in the wake of the Gulf War, there was a common recognition that the system could be further improved. These enduring lessons can best be summed up in three broad categories:

- SIGINT organization and systems validation
- Quick Reaction Capability (QRC) strategies
- SIGINT capability as a deterrent

SIGINT Organization and Systems Validation

The Gulf War presented the first opportunity for the Military Intelligence community to validate its post-Vietnam era SIGINT organization for combat and collection systems. In the aftermath of the Vietnam War, the U.S. Army disestablished the Army Security Agency[20] to pave the way for the introduction of Division and Corps level multi-disciplined intelligence collection and analysis organizations.[21] Most would agree the newly organized Division and Corps level SIGINT support to commanders was a vast improvement over its Vietnam era counterpart, thereby validating the way ahead for this new concept of SIGINT support on the battlefield. Similarly, the Gulf War presented the U.S. Army with a superb opportunity to field test its post-Vietnam era SIGINT collection systems as well as to experiment with new systems. On balance, the Division and Corps level SIGINT collection capabilities met the expectations of commanders and validated continued refinement of established collection systems such as the AN/PRD-10/11, AN/TRQ-32, AN/MSQ-103 and AN/TLQ-17. In terms of new system experimentation, one system failed to meet expectations of the intelligence community, "Dragonfix" the U.S. Army's newest High Frequency collection asset, where it was concluded this type capability was no longer a requirement on the modern battlefield and the program was eliminated.[22] In the wake of the Gulf War, the U.S. Army validated its Division/Corps organization for combat as well as its tactical SIGINT investment strategy for the future.

Quick Reaction Capability (QRC) Strategies

The Gulf War presented a number of complex challenges to SIGINT professionals, paramount among them was the inability to collect every signal of interest on the battlefield. Given the rapidly evolving nature of technological change, SIGINT professionals recognized the U.S. intelligence community was entering into a technological era where the acquisition of SIGINT collection systems would never keep pace with emerging technology.[23] Simply put, the five to seven year Department of Defense acquisition cycle could never keep pace with the stark reality of the Moore's Law dictum which posits technology doubles every 12 to 18 months. This enduring lesson led to more aggressive pursuit of research and development, coupled with commercial off the shelf acquisition policy, which was widely acknowledged within the SIGINT community as the road ahead in the SIGINT collection discipline.

SIGINT Capability as Deterrent

Despite the ambitious hopes and dreams of SIGINT professionals, the Gulf War was not the target rich environment they hoped for. This was due in large part to the Iraqi understanding of the U.S. SIGINT collection capability. Given that the Iraqis were keenly aware of U.S. military

SIGINT collection capabilities, the Iraqis devised communications strategies to counter U.S. SIGINT collection systems. For example, the Iraqis relied on hard-wire buried cable communications and messengers wherever possible because the Iraqis knew the U.S. was incapable of listening to these communications methods. This in turn grossly slowed down Iraqi communications and forced the Iraqis to cope with numerous command and control challenges.[24] The enduring lesson gleaned from this strange twist of events is that a mere capability can in fact be a deterrent. In essence, because our Iraqi adversary understood our robust SIGINT collection capability, he lost his flexibility to communicate freely on the battlefield. What is more, discreetly advertising select intelligence collection capabilities may be an effective strategy to keep an adversary off balance by forcing him to cope with multiple dilemmas.

IMAGERY INTELLIGENCE (IMINT)

IMINT is a collection discipline that received a great deal of criticism during the Gulf War. In the days following the Gulf War, Lieutenant General William C. Odom, a former director of the National Security Agency, abruptly stated, "the whole imagery intelligence area is broken."[25] During OPERATION DESERT SHIELD/STORM most commanders demanded detailed imagery to support their operational planning; however this became a difficult order for the imagery community to fill. Because of the multiple challenges the IMINT community was forced to cope with, a number of enduring lessons emerged. These lessons served to "fix" the broken system Lieutenant General Odom referred to as well as to frame the future of IMINT support to warfighters. The lessons are best summed up in four broad areas:

- The necessity for improved imagery reconnaissance capabilities at the tactical level.
- The need for broad area search/surveillance systems.
- A call for continued refinement of Bomb Damage Assessment (BDA) procedures.

Tactical Imagery Reconnaissance

The Gulf War battlefield was fast-paced and fluid. Consequently, tactical units demonstrated a strong requirement for improved organic intelligence capabilities such as imagery platforms. This is because units were simply not afforded the time or the luxury of requesting national-level imagery to support their operations.[26] What is more, national level imagery assets were often proved unreliable because of challenges posed by inclement weather and cloud cover. Instead Commanders relied heavily on time-sensitive tactical imagery platforms such as the OV-1D and the RF-4C to meet their emerging operational requirements. Unfortunately, these platforms relied on Vietnam era technology, resulting in considerable film

processing lag, providing sub-optimal support to commanders with urgent operational requirements for imagery.[27] While these legacy platforms proved themselves marginally reliable, they were retired in the wake of the Gulf War.

The Gulf War set the conditions to accelerate the Unmanned Aerial Vehicle (UAV) program across the Department of Defense. "During the Gulf War, the Navy successfully used a Vietnam-era drone called the Pioneer to help direct gunfire from its battleships."[28] Because of this and other UAV success stories, the U.S. military concluded that the time was right to begin actively thinking about aggressively pursuing its newly fielded UAV capability. Widely recognized as the way ahead, UAVs represented a quantum leap in organic imagery collection capability for the force. What is more, UAVs became attractive because they did not place a pilot's life in danger and they are far more cost effective than manned aircraft. Albeit limited, the UAVs employed in the Gulf War were extremely successful and paved the way for today's family of UAVs.[29]

Broad Area Search/Surveillance Coverage

Because of its sheer size, Southwest Asia was a challenging geographic area to image, requiring a great deal of wide area swath coverage. Having retired the SR-71, the U.S. had no air-breathing imagery collection platforms to fulfill the critical wide area swath imagery mission during the Gulf War. Moreover, the only non air-breather capable of performing the wide area swath imagery collection mission was LandSat.[30] Unfortunately, LandSat was simply not an effective intelligence collection platform. On a more positive note, the Gulf War ushered in the introduction of a new platform called the Joint Surveillance Target and Attack Radar System (JSTARS) and its associated ground receiver systems.[31] Although in its infancy, the JSTARS platform was capable of performing limited wide area surveillance missions and proved effective at finding large concentrations of Iraqi troops, especially when these formations were on the move.[32] Indeed, the Gulf War served as a reminder that the U.S. intelligence community needed to revive the wide area swath imagery collection capability to reverse our extant shortcoming, both air-breathers and non air-breathers.

Bomb Damage Assessment (BDA)

While there is a widely held perception that BDA was a serious shortcoming during the Gulf War, some disagree. Granted, BDA was not always completely accurate or timely, but, given the long litany of mitigating circumstances, some may argue that the individuals involved with BDA can be justly proud of their mission accomplishment while simultaneously paving a way ahead based on their lessons learned.

During the early stages of planning for OPERATION DESERT SHIELD/STORM, the Department of Defense (DoD) intelligence community agreed that there would be a division of BDA responsibilities; however, the Central Intelligence Agency (CIA) refused to participate in the DoD managed BDA system.[33] This led to a duplication of some efforts and a more competitive analytical environment (between DoD and CIA). One might argue that this is not a bad news story. In fact, many intelligence professionals would agree that competitive intelligence analysis can be quite healthy.

A number of BDA problems were caused by events which were simply not in the hands of BDA technicians. For example, fighter/bomber aircraft sorties greatly outpaced imagery collection in support of BDA. That is to say, IMINT platforms dedicated to BDA collection could not keep up with the fast-paced operational tempo of the air campaign. Furthermore, many of the BDA imagery collection platforms were ineffective due to inclement weather.[34]

Within the intelligence community, there was a great deal of bureaucratic in-fighting regarding whether BDA imagery overflights had a higher priority than area coverage imagery overflights. This competition led to dedicated BDA imagery coverage to ensure this critical collection focus was not pushed aside in favor of constantly emerging requirements.

There was also a tremendous amount of confusion created by the outdated and constantly changing BDA criterion. This was compounded by the very limited BDA analytical expertise, across the intelligence community, in dealing with new munitions, e.g., "smart bombs." This analytical shortcoming precipitated a call for more formalized BDA training for imagery analysts across the Department of Defense.[35]

ANALYSIS OF U.S. THEATER AND TACTICAL INTELLIGENCE COMMUNITY INTELLIGENCE ANALYSIS CONTRIBUTIONS – KNOW THE ENEMY

OPERATION DESERT SHIELD/STORM presented U.S. intelligence analysts, at all operational echelons, with great challenges. Subsequent to Iraq's invasion of Kuwait, most Intelligence analysts were first introduced to an Iraqi threat they had little previous experience with. From the onset of OPERATION DESERT SHIELD, Intelligence analysts labored arduously to develop the enemy situation and make sense of the complex Iraqi problem set for their respective commanders.[36] Once U.S. military forces were committed to combat operations, intelligence analysts were forced to cope with a rapidly changing environment to provide their commanders with timely, relevant and accurate intelligence reporting. Moreover, intelligence analysts were further challenged to share intelligence with subordinate, adjacent and higher headquarters so that warfighting commanders could achieve some semblance of common situational awareness. Like intelligence collection operations, intelligence analysis had

its share of noteworthy achievements and shortcomings. Enduring lessons with respect to intelligence analysis emerged in the broad areas of:

- Joint Intelligence Centers (JICs).
- Tactical intelligence analysis.
- Intelligence analyst training.

JOINT INTELLIGENCE CENTERS

Born out of OPERATION URGENT FURY (October 1983) and the Goldwater-Nicols Act of 1986, there has been a tremendous emphasis on improved joint operations or "jointness" in U.S. military operations. To that end, a number of Joint Intelligence Centers were established, the most notable being the Department of Defense JIC.[37]

The DoD JIC was created to provide a single defense intelligence coordinating organization to theater intelligence consumers. This was a noteworthy and long needed initiative welcomed by most in the U.S. intelligence community. U.S. CENTCOM then established its own JIC, following the DoD lead, to coordinate more efficient theater intelligence operations as well as to develop and refine bomb damage assessment procedures.

While the U.S. CENTCOM JIC and the DoD JIC experienced a similar number of challenges, the DoD JIC appears to be the JIC that best represents the enduring lessons common to all JICs supporting OPERATION DESERT SHIELD/STORM. The DoD JIC was created to speak as one voice for the Department of Defense on intelligence matters. This DoD JIC was comprised of representatives from the services, DIA and NSA. The newly created JIC, together with the Operational Intelligence Crisis Center (OICC), was designated to support the Intelligence Task Force (ITF) subordinate to the Deputy Director of DIA (DDIA). The major distinction between the DoD JIC and the OICC was the fact that while the OICC was concerned primarily with long-term intelligence studies and non time-sensitive taskings, the DoD JIC was a current intelligence center charged with reacting immediately to the requirements of the operational commander.[38]

Most would agree that the DoD JIC performed adequately during OPERATION DESERT SHIELD/STORM, but there were several shortcomings inherent to the organization. These shortcomings provided rich and enduring lessons for future JIC operations across the Department of Defense. The DoD JIC, like so many other ad hoc organizations, suffered from the fact that it was forced to mesh together intelligence personnel with varying backgrounds and experience levels into a coherent team. Moreover, this was done after the crisis began, denying the JIC personnel the opportunity to train as a team. Instead, the JIC was forced to establish

Standard Operating Procedures (SOPs) as the crisis unfolded. It was similar to picking nine players from several major league baseball teams and throwing them straight into game seven of the World Series. The ad hoc nature of the DoD JIC was compounded by the fact that many organizations did not send their "best and brightest" to support the JIC. Many of the DoD JIC personnel did not have experience with even basic skills such as order of battle maintenance, message handling procedures, word processing, the use of intelligence automated information systems, or area expertise pertaining to Southwest Asia. As a result, the JIC was easily overwhelmed with its "full plate" complement of missions consisting of: All-source analysis in support of the National Command Authority, Theater, Coalition, and other intelligence consumers; target nomination; and graphics development.

Born out of the aforementioned shortcomings, the Gulf War served to pave the way for an era where JICs began to formalize organizations [39] as well as intelligence training before the outbreak of a crisis in order to avoid a repeat of the lessons learned during OPERATION DESERT SHIELD/STORM.

OPERATIONAL AND TACTICAL INTELLIGENCE ANALYSIS

When one examines intelligence analysis at operational and tactical echelons, perhaps the greatest Gulf War challenge confronting intelligence analysts was the development of common situational awareness, sometimes referred to as a common operating picture. Gulf War intelligence analysts relied exclusively on a number of slow and inaccurate analog tools, such as voice radio communications and plastic overlays, to disseminate and share intelligence[40] in the dawn of an era of warfare which demanded digital solutions to disseminate and share data on the battlefield in near real time. It was precisely this type of Gulf War challenge that precipitated the requirement for automated battlefield command tools in support of tactical intelligence analysis.[41]

INTELLIGENCE ANALYST TRAINING

The Gulf War served to validate the rigor of U.S. military intelligence analyst training as well as to push our training system to train the intelligence analyst of tomorrow. Unit after action reviews are replete with examples of young intelligence analysts rising to the occasion to perform unprecedented levels of support to maneuver commanders and planning staffs at all levels.[42] OPERATIONS DESERT SHIELD/STORM confirmed that the U.S. military is in fact recruiting and retaining some remarkably bright and capable young soldiers into our intelligence formations. The Gulf War additionally underscored a challenge to examine fundamentally different ways to train intelligence analysts so they could be more effective in a future era of

modern warfare characterized by vast amounts of data flowing throughout the battlefield at a cadence the world could never predict. Paul B. Stares, a defense specialist at the Brookings Institution, succinctly captured this notion when he stated, "for years the technology for collecting data has outpaced the technology for processing and distributing this data… this goal is to strike a better balance."[43] The imbalance Mr. Stares refers to became known as the intelligence collection versus Tasking/Processing/Exploitation/Dissemination (TPED) debate in which the intelligence community recognized its investment shortfalls, primarily in the area of intelligence analysis.[44] In the wake of the Gulf War, strategies emerged to correct the collection versus TPED imbalance. These strategies delivered powerful automated exploitation capabilities and robust communications networks.[45]

CONCLUSION

Intelligence professionals cannot truly appreciate where we stand today, or, sense where we must go in the future unless we fully understand and embrace the important lessons of the past. The 1991 Gulf War presented a number of critical and timeless intelligence support lessons which are highly relevant to future military operations. It is imperative that we closely study both the achievements and shortcomings of this combat operation in order to bring back more of Americas' sons and daughters in subsequent combat operations. The intent of this paper was to analyze the Gulf War intelligence collection and analysis efforts, primarily at echelons division through theater, to harvest the fertile and enduring intelligence lessons manifest in this complex combat operation. I hope the many meaningful lessons contained in this short paper will pave the way for improved intelligence support to future U.S. military combat operations.

WORD COUNT=5,857

ENDNOTES

[1] Intelligence Officer, S-2, of Task Force 118 from May 1988 through July of 1988.

[2] Commander, Alpha Company, 319th Military Intelligence Battalion (Operations) (Airborne) from July 1990 to July 1991.

[3] For example, the XVIII Airborne Corps had a number of reciprocal intelligence exchanges with the French Sixth Armored Division (Light) and the French Foreign Legion. The author had the opportunity to observe and participate in these productive intelligence exchanges on a daily basis.

[4] Department of Defense Report to Congress, Conduct of the Persian Gulf Conflict: Final Report to Congress, (Washington, D.C.: U.S. Government Printing Office, April 1992), 14-1.

[5] While the highest levels of the United States Government may have been surprised by Iraq's invasion of Kuwait, U.S. Central Command and its Component Commands were observing Iraqi preparations for offensive operations prior to its subsequent invasion of Kuwait.

[6] These communications capabilities are commonly referred to today as "reachback" communications.

[7] The NMIST Teams, today called NIST Teams, played an integral part in every post Gulf War U.S. military operation and continue to provide intelligence support today.

[8] Today DIA and NSA typically merge their respective capabilities into one team.

[9] The Army Intelligence Agency initiative to provide tactical commanders with detailed enemy templates and annotated imagery was but one fine example of national level support to the tactical force; these high quality products were well received and enormously helpful to battle staffs at all operational levels.

[10] The United States military was organized, trained and equipped to fight on the plains of Europe, not Southwest Asia. The force lacked Arab linguists and soldiers well versed in Arab history, geography, culture and religion.

[11] Saddam Hussein was painfully aware of the U.S. National Technical Means capability; particularly with regard to SIGINT and IMINT.

[12] Walter S. Mossberg, "U.S. Intelligence Agencies Triumphed in Gulf War despite Some Weak Spots," The Wall Street Journal, 18 March 1991, sec A, p. 10.

[13] These ad hoc CI site surveys paved the way for emerging CI doctrine, ultimately producing today's extremely professional Threat Vulnerability Assessments (TVAs).

[14] Charles J. Quilter II, U.S. Marines in the Persian Gulf, 1990 – 1991, (Washington, D.C.: Headquarters, U.S. Marine Corps, 1993), 18.

[15] Since Vietnam, the majority of U.S. military operations were conducted in places such as El Salvador, Grenada and Panama where it was able to leverage its tremendous population of native Spanish linguists. Iraq presented U.S. intelligence linguist with exceptional challenges.

[16] Soldiers routinely carried packs in excess of 150 pounds. Soldier loads were excessive to due the large amount of water which had to be carried into battle.

[17] This was a critical issue, particularly during OPERATION DESERT SHIELD, when units were hunkered down in a defense inside northern Saudi Arabia waiting to cross the line of departure.

[18] Dominic J. Caraccilo, The Ready Brigade of the 82d Airborne in Desert Storm , (Jefferson, North Carolina: McFarland and Company, 1993), 114.

[19] Mossberg, 10.

[20] The Army Security Agency was exclusively chartered with SIGINT operations in support of tactical and operational commanders.

[21] The U.S. Army fielded a number of tactical SIGINT collection platforms as well as fielding an analytical organization known as the Technical Control and Analysis Element (TCAE).

[22] Dragonfix, a High Frequency Direction Finding Electronic Support Measures system, was tested by C/519th Military Intelligence Battalion (Tactical Exploitation) (Airborne).

[23] QRC became increasingly important through the 1990s as the SIGINT community essentially went deaf because it could not exploit emerging technologies such as cellular phones and the internet.

[24] Richard J. Quirk III, Intelligence For The Division: A G2 Perspective , An Individual Study Project (Carlisle Barracks: U.S. Army War College, 8 July 1992), 307.

[25] Paul Richter and Tracy Wilkinson, "Turning Facts Into Attacks," The Los Angeles Times , 6 April 1991, p.4.

[26] While national imagery products greatly enhance operational planning, the time lag from request to delivery is often long.

[27] Richter, 3.

[28] Ibid., 4.

[29] The fledgling Hunter UAV program was field tested during the Gulf War.

[30] LandSat is a commercial imaging capability which is more appropriate for mapping. Furthermore, LandSat does not have a secure downlink.

[31] The JSTARS program dated back to 1982 as a joint venture between the U.S. Army and the U.S. Air Force. The system was not originally planned to be fielded until the mid 1990s.

[32] Richter, 1.

[33] Department of Defense, 14-3.

[34] The air campaign and subsequent ground war kicked off during the “shamal” season in which visibility was extremely limited due to high winds and sandstorms.

[35] BDA analysis was not taught at DoD imagery analysis courses prior to the Gulf War.

[36] The challenges confronting intelligence analysts was further compounded by the fact that analysts at all levels commonly disagreed over enemy composition, strength and disposition.

[37] Currently called the National Joint Military Intelligence Center.

[38] The DoD JIC was located in the Pentagon’s National Military Intelligence Center and the OICC was located in the Defense Intelligence Agency Center at Bolling Air Force Base, Washington, D.C.

[39] In the wake of the Gulf War, JICs stood up at all nine of the Combatant Commands.

[40] U.S. News & World Report, Triumph Without Victory: The Unreported History of the Persian Gulf War, (New York: Times Books, Inc., 1992), 321.

[41] Although in its program infancy and not yet fielded during OPERATION DESERT SHIELD/STORM, the U.S. Army’s All Source Analysis System was fielded following the Gulf War.

[42] While this discussion is centered on the role of intelligence analysts, it must be noted that terrain analysts proved themselves equally noteworthy during OPERATION DESERT STORM. The terrain assessments produced by U.S. Army Engineers were critical planning tools during the Intelligence Preparation of the Battlefield (IPB) staff planning process.

[43] Richter, 3.

[44] The collection versus TPED debate still rages today in the resource war of the Pentagon.

[45] Automated exploitation capabilities such as Automatic Target Recognition (ATR) and communications networks such as the Joint WorldWide Intelligence Communications System (JWICS) were developed in the wake of the Gulf War.

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