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RESTRUCTURING ARMY TACTICAL INTELLIGENCE FOR THE 21ST CENTURY

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ABSTRACT

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In the post Cold War environment, the threats to the United States have grown increasingly complex, dynamic, and uncertain. This new security paradigm poses significant challenges to military intelligence in dealing with a wider array of threats than during the Cold War. At the same time, the information technology revolution offers unbound opportunities to meet these new challenges.

This paper will examine how the Army Military Intelligence Corps might reorganize its tactical intelligence forces for the 21st century. The information technology revolution has brought about a fundamental change in the nature of warfare and the associated threat environment. The challenge for Army Intelligence is to adapt to this new environment in the face of force structure cuts and declining budgets to provide timely, responsive, and rapidly deployable intelligence support to the Army and Joint Warfighter.

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> If you know the enemy and know yourself, you need not fear the result of a hundred battles.
>
> ⸺Sun Tzu

INTRODUCTION

This paper will examine how the Army Military Intelligence Corps might reorganize its tactical intelligence units for the 21st century. The information technology revolution has brought about a fundamental change in warfare and the associated threat environment. This task is made even more daunting in an environment of growing requirements, while at the same time the Army is dealing with force reductions, and stagnant or declining budgets. The new environment will alter the organizational dynamic for tactical intelligence forces. The challenge for Army Intelligence is to adapt to this new environment in order to provide responsive, timely, and more rapidly deployable intelligence support to the Army and Joint Warfighter.

Since the end of the Cold War, the threat paradigm has changed. The once monolithic threat posed by the Soviet Union has been replaced by a completely new array of threats; ambiguous and diffuse threats that are called "niche threats".[1] These niche threats manifest themselves in an increasingly dangerous and unstable world marked by separatist wars, ethnic and religious strife, border disputes, civil upheavals, and terrorism. The new threats bring with them new challenges for the military such as asymmetric warfare, military operations other than war, the non-linear battlefield, cyber warfare, information and network centric operations, and counter-terrorism. These present not only significant new mission areas, but also formidable initial and sustainment training challenges for the military intelligence corps.

As these threats proliferate, it is operationally imperative that the military intelligence corps shed its Cold War structure, doctrine, mentality, and transform itself to meet the challenges of the 21st century. The overarching focus of Army transformation is full spectrum dominance. Although the steady infusion of new technology and modernization is an important component of this effort, it is not the most critical area. The greatest impact on transformation will come from the development of doctrine, organizations, training and education of its leaders and people. The focus of this paper will be on ideas and recommendations for organizational changes that will make Army Intelligence a key enabler to the operational capabilities of the Army and Joint Warfighter.

Given the variety of these new and emerging threats, traditional concepts of security, threat, deterrence, intelligence, warning and military superiority are not adequate.

—Admiral Jacoby, Director, DIA

NEW THREAT ENVIRONMENT

Before we can address needed changes, a discussion of the new threat environment is in order. Instead of becoming a more stable and peaceful world as predicted by many, the end of the Cold War has brought about a far more turbulent and unpredictable security environment for the United States. The Army has become increasingly engaged in conducting Small Scale Contingencies (SSC) and Military Operations Other than War (MOOTW) ranging from Peacekeeping Operations (PKO) to Humanitarian Assistance (HA) missions. Since the 9-11 attacks, the Army is now engaged in a war on terrorism that by all accounts will be a long and protracted one. The new enemies are transnational terrorists, international organized crime and drug syndicates, and failed and rogue states. All indications point to this trend continuing for the foreseeable future.[2]

The Department of Defense (DOD) officially defines an *operational environment* as "a composite of the conditions, circumstances, and influences that affect the employment of military forces and bear on the decisions of the unit commander".[3] The contemporary operational environment (COE) is simply the environment that exists in the world today and is expected to exist until a peer competitor arises.

The COE is based on the premise that the United States will not have a peer competitor until the year 2020 and beyond. A peer is a country or coalition that has the instruments of power giving it the capability to contest U.S. interests on a global scale. A peer not only possesses military power, but diplomatic-political, informational, and economic power, and is willing to use this power against the United States or its allies.[4]

As the events of 9-11 demonstrate, the lack of a peer does not mean that the U.S. will not face challenges over the next two decades. It merely means that there is currently no single, great threat on which to focus our attention. The predictability and stability of the Cold War era has been replaced by a far more complex, dynamic, and uncertain future. It is impossible to predict from whom or from where the next challenge will rise, and the threat to our security is not diminished, but increased.

Our adversaries will incorporate the lessons learned from the Gulf War. They are unlikely to make the same mistake that Saddam Hussein made in confronting the U.S. head on. An

enemy with limited capabilities will not fight in the same manner as an enemy with the capability to engage and defeat U.S. forces in a head-to-head fight. Although, the possibility of a force-on-force conflict remains, the probability is severely diminished. The enemy is highly adaptive and utilizes asymmetric means to attack our weaknesses, while avoiding our strengths. Adversaries will seek out asymmetric advantages by closely scrutinizing U.S. strategies and tactics, techniques, and procedures (TTPs), and developing his own strategies and TTPs to counter them. He will employ anti-access measures against APODs/SPODs to deny us the ability to project large forces to the battlefield, and use Weapons of Mass Destruction against our military forces as well as against unprotected civilians and infrastructure. He will also conduct sophisticated information warfare campaigns to mitigate our capabilities or weaken our will to use those capabilities against him.

The nature of warfare has also become increasingly complex. The lines between combatants and non-combatants, states and non-state actors, and rear area and forward area have blurred and in many cases no longer exist. The advent of the information age with instantaneous worldwide satellite communications and video imagery has shrunk the globe while expanding the range of control of our leaders.

This complexity has in effect resulted in the blurring of the strategic, operational, and tactical levels of war. Today the actions of a small squad of American soldiers patrolling the streets of Tuzla can have strategic reverberations. The complexity and potential for global consequences from the most basic of military operations is unprecedented in military history.

> "The times we live in are times of profound change, dramatic and fundamental change-political, ideological, and technical. We must adapt to that change, and we must grow."

—GEN Gordon R. Sullivan, 23 May 1993

CHALLENGES FOR INTELLIGENCE OPERATIONS

The complexity of the *operational environment* presents training and operational challenges for the Army. We no longer have the luxury of focusing on just one enemy as we did during the Cold War. Back then, commanders were able to focus on a known and specific threat and train to confront that threat. In fact, most American units in Germany knew exactly which Soviet or Warsaw Pact division they would face in case of war. This is no longer the situation. Rather there is not a single enemy doctrine that we can study. The "mature picture"

of the Cold War enemy developed from years and years of collection, research, and analysis no longer exists. Analysts will not have the luxury of detailed databases providing unprecedented levels of background and continuity on targets, or for that matter, even basic doctrinal templates to predict how an enemy might deploy his maneuver forces, array his artillery, or provide logistical support.

In fact, this change has resulted in a fundamental shift in the Department of Defense's National Military Strategy. Today, the Army is transitioning from a threat-based to a capabilities-based organization. In other words, the focus is no longer a specific country or threat, but a broad based set of capabilities that can respond to various types of conditions and situations.

The implications for intelligence support are staggering. How do you support the commander who will have to deploy rapidly to an unfamiliar area, face enemies as diverse as the transnational terrorist or a warlord, and conduct simultaneous, non-linear, and distributed operations. Unsurprisingly, his needs will be no different today than under the old paradigm. He will want and demand an immediate, all source intelligence product tailored to his situation and mission.[5] However, the differences will be in the source(s) of the collection, where it is processed, where the information is analyzed and fused, and how that report is produced and disseminated to the commander. Under the new paradigm, the focus of tactical military intelligence activities will change from the traditional intelligence cycle of directing assets/collecting and sorting data/conducting analysis/ and disseminating products, to receiving and sorting information "pushes"/ conducting analysis/ and disseminating products.

Analysts must now train for a broad range of strategic contingencies, and then quickly transition to support operational and tactical crises. Analysts will have to develop Order of Battle data for multiple enemies...assuming they are even identifiable and have standing conventional forces. What are we to do in the case of Al Queda? It is an organization that in the conventional sense lacks any visible structure, infrastructure, standing military units, and logistics tail. How do we develop a collection plan or a reconnaissance and surveillance plan against such an enemy? How do we identify its center of gravity?

The same set of challenges in varying degrees applies to the other types of operations that the Army faces today. Military Operations Other Than War, Humanitarian Assistance operations, and Small Scale Contingencies all present a different combination of variables that challenge conventional military intelligence methods and procedures. Only by studying and understanding these variables and incorporating them into our training, can we keep adversaries from using them against us or find ways to use them to our own advantage.

Challenges of the New Threat Environment

Before 1990		Tomorrow
Soviet Bloc	**KEY THREAT**	Wide Range, Worldwide
Plains of W. Europe	**KEY ENVIRONMENT**	Worldwide, all varieties
IPB on Known Threat	**OVERALL EMPHASIS**	Information Superiority over Unfamiliar Threat
Conv/Nuclear War	**TYPE OF OPERATION**	SASO, SSC, MTW
Battalion/Brigade	**ECHELON**	Tactical/Joint/Natl/Coalitn
Army Tactical	**SYSTEMS**	Tactical/Joint/Natl/Coalitn
Battalion S2 Staff	**TYPE of TEAM**	S2/ACE/JIC/Agency
Tactical	**TYPE of INTELLIGENCE**	Tactical/Operational/ Strat

FIGURE 1

If intelligence analysts are to support that infantry squad on patrol in Tuzla effectively, they must be totally cognizant of the environment the infantrymen are operating in. It is not enough just to analyze the enemy but intelligence analysts must understand the political, social, economic, religious, and cultural factors of the environment. Intelligence analysts must be adaptive and responsive to support missions across the continuum of military operations, transition seamlessly from high intensity combat operations in a military theater of war scenario to relief operations in a humanitarian assistance scenario, and back again.

The reality is that the world and the new threat environment have become exceedingly complex. However, what is even more significant is that this complexity is not limited to just the strategic level. It affects every level of war and decision-making. Our leaders, from the President in the White House to the squad leader on patrol, are confronted with situations that are increasingly volatile, uncertain, complex, and ambiguous. The information technology revolution has shrunk the world and reduced the decision-making cycle. With satellite communications, cell phones, and video teleconferencing, superiors and subordinates have instant access to real time information and two-way access to each other. As a result, traditional lines and boundaries separating levels of war and decision-making have blurred. At the same time, our enemies have access to the same technologies, and enjoy the same advantages of instant communications and access to real time information.

The "so what" of all this is that Army intelligence cannot continue to do business as usual. We must change how we do our jobs and the means and methods in which we provide intelligence to our combat commanders and decision- makers. The old model of stovepiped

intelligence reporting and dissemination, and echeloned intelligence organizations must be replaced with a model that is more flexible, adaptive, and responsive. Brigadier General Mike Hall who headed up the Intel XXI study wrote, "Quite simply, the world is too complex and environments shift too quickly and dramatically to allow inflexible organizations, equipment or minds."[6]

However, reliance on technology and new equipment alone is not the answer. Army intelligence must make changes across the DPTLOMS (Doctrine, Personnel, Training and Education, Leadership, Materiel Development, Organization, and Soldier Systems). We must train our intelligence specialists and leaders to prepare them to tackle the challenges of the new threat environment. Brigadier General Quirk III wrote in Military Intelligence Professional Bulletin, "The intelligence soldiers of tomorrow will require a professional education; our traditional military training will not be sufficient."[7]

EVOLUTION OF TACTICAL MILITARY INTELLIGENCE STRUCTURE

Before we continue with the discussion of needed changes to military intelligence, a review of past restructuring efforts from the Cold War to the present is worthwhile.

There have been three major military intelligence restructuring efforts since 1975. The first one known as the Intelligence and Organization Stationing Study (IOSS) was commissioned in 1975. Led by MG James Ursano, the study was prompted by intelligence shortcomings during the Vietnam conflict.[8] The problem was that the military intelligence structure was optimized to support a war in Europe. It was characterized by large and permanent units and facilities forward positioned focused on the Soviet and Warsaw Pact armies, supported by detailed databases and collection plans and the ability to span intelligence sources up to and including the national level.

However, this structure was ill suited for the very different nature of the warfare in Vietnam with a very elusive enemy fighting in a jungle environment. The large and fixed facilities of Europe and national databases were of little use to ground commanders fighting an elusive guerrilla force.

IOSS concluded that tactical commanders required their own MI assets to collect and analyze information, and disseminate intelligence products directly to him and subordinate units.[9] The result was the creation of divisional MI units known as CEWI (Combat Electronic Warfare & Intelligence) battalions.[10]

However, IOSS did little to change the focus on the Soviet threat and high intensity combat operations. In the 1980's, operations such as Urgent Fury and Just Cause

demonstrated that tactical military intelligence was largely unable to provide ground commanders with current situational awareness beyond what had been provided by theater and national sources.[11] This was a function of both doctrinal and technological shortcomings.

Operation Desert Shield/Storm further revealed the inadequacies of tactical MI. On one hand, its SIGINT capabilities were nullified by the Iraqi Army's avoidance of radio communications, and once ground operations begin, they were unable to conduct collection and analysis operations while on the move.[12] The result was tactical commanders became increasingly reliant on theater and national level intelligence. Theater aerial collection platforms and national satellite systems proved to be more responsive and effective, while at the same time were less vulnerable than ground-based tactical systems.[13]

The post-mortem assessment was that systemic problems prevented tactical intelligence from accessing and disseminating theater and national level intelligence sources. This was due to problems with stovepiped, incompatible, and inadequate communications architecture as well institutional resistance to share intelligence due to classification and compartmentation.[14]

The aftermath of Operations Desert Shield and Desert Storm resulted in the second formal reevaluation of military intelligence. The study called Military Intelligence (MI) RELOOK was commissioned to review Army intelligence and recommend ways to improve intelligence support to the warfighter.[15] As part of the overall drawdown due to the end of the Cold War, MI RELOOK was also tasked to look for ways to reduce structure and assets and determine the minimum essential capabilities required by tactical units, and even consider the elimination of collection assets from the divisional MI battalions.[16]

Although MI RELOOK was tasked to reduce tactical military intelligence assets, no substantial reductions were made. In fact, as a result of materiel development decisions made during the 1980s, the Army intelligence community was committed to upgrading existing systems and fielding new systems. MI RELOOK concluded that the hierarchical structure of tactical military intelligence was inefficient and promoted the use of "broadcast intelligence"[17] as a more effective way of getting information to the tactical commander.

During the 1990's, the Army found itself responding to multiple crises such as Somalia, Haiti, Bosnia, and Kosovo. In each case, the short notice and force projection nature of these operations did not lend themselves to the development of a "mature" tactical intelligence picture. Therefore, tactical MI units grew ever more reliant on the need for connectivity to higher echelon intelligence organizations for both collection and analysis support.[18]

The last and most recent study is INTEL XXI, which was led by BG Wayne M. Hall.[19]

INTEL XXI was a stem to stern review of how MI will support full spectrum operations in the 21st century. It looked at how the Army's intelligence system will be organized, equipped, trained, and employed as an integral part of our future force.[20]

Recognizing the impact of the information technology revolution, INTEL XXI seeks to "refocus intelligence programs according to mission requirements of anticipated contingencies and rebalance systems types and quantities appropriately."[21] There will be fewer tactical collection systems, and fewer intelligence personnel assigned at the tactical level. Future systems will be designed to be more modular and tailorable.[22] To support force projection operations, military intelligence will deploy teams tailored for the specific mission with access to national and joint intelligence.[23]

The key will be connectivity to higher echelon intelligence sources, made possible by new and emerging technologies. INTEL XXI envisions a "system of systems" approach to intelligence functions. New capabilities such as broadcast intelligence, vertically and horizontally internetted intelligence echelons, on-line collaboration, and data-mining will by-pass the conventional intelligence hierarchy of the past.[24]

Finally, INTEL XXI proposes a revolutionary concept for resource control. Intelligence personnel and assets will be managed by "need and effects" rather than by structure and form. In other words, assets and people will be task-organized based on mission requirements and not solely based on unit and echelon of assignment.[25]

> "No echelon has all the organic intelligence capabilities it needs to fully support the commander. Commanders and Military Intelligence leaders at higher echelons should anticipate the intelligence needs of the lower echelons and "push" tailored intelligence support down to them."
>
> —FM 34-1

ROADMAP TO CHANGE

Doctrine is the statement of how the Army intends to organize, equip, and train its forces. Therefore, before the Army can enact any changes, it must first begin with doctrine because this drives training, education, organization, and materiel development.

Military Intelligence principles and tenets are currently under review. From my observations, the trend is towards the elimination of collection assets at the tactical level, and migration of such assets to higher echelons. This inevitably will force a change in how tactical military intelligence units will be organized. At the same time, INTEL XXI maintains that the

intelligence cycle, functions, and tasks will continue to apply across the spectrum of operational requirements.[26]

Although the basics of military intelligence doctrine remain unchanged, the new nature of warfare and the force projection nature of operations require military intelligence to meet the following three fundamental parameters:

- System must be modular and on more deployable platforms.
- Timeliness and accuracy requirements will be more stringent
- Methods of delivering critical information will change[27]

In addition, tactical force structure reductions will necessitate the development of new tactics, techniques, and procedures. We must develop a system composed of people, machines, and processes to enable us to absorb, synthesize, and process large amounts of information. This will require close coordination between the trainers and materiel developers.

First, we must create organizations that are flexible and adaptive to function effectively in an environment of rapid change and to transition seamlessly from supporting combat operations to peace enforcement, and back again. We must design an organizational model that is capabilities-based and threat-adaptive, and task organized for specific missions and environments, or mission task-organized forces. We can no longer afford to tie up high demand/low density intelligence resources to a fixed organization or command. Instead, intelligence assets should be configured and tailored to support a mission or operation when the need arises

Second, we need intelligence professionals that are bright, adaptive, and resourceful. They must be able to think on their feet, quickly assess problems, and make adjustments as necessary. Due to the diversity of the threats we face, military intelligence training too must become more broad, expansive, and adaptive. We need to expand the scope of our training to include area studies, information technologies, and problem solving skills. Intelligence professionals must possess knowledge of the enemy, but more importantly today, must also possess area expertise, proficiency in information technology, and be firmly versed in the operating procedures and understand the needs of the supported commander.

The key to making all of this happen is leadership. Success will hinge on bold and visionary leadership willing and able to tackle problems with new ideas and thinking. It will take leadership to effectively forge the linkage between the trainers and materiel developers.

As the volume of information and complexity of the environment grows, it becomes even more critical that we maximize the power and capacity of the revolution in information technologies. It is humanly impossible nor would we want to analyze all the information that is available today. Therefore, we must develop a "system of systems" that is flexible and adaptable to rapidly changing environments. We must harness the power of data-mining technologies to help the intelligence sift through the volume of information and find the pertinent and critical information of value to the commander. Future intelligence systems must provide an accurate and consistent view of the battlespace across all echelons. This "red" picture when combined with the friendly "blue" picture will provide the commander with an immediate understanding of his situation.

INTEL XXI study describes four challenges that military intelligence must meet to provide timely and relevant intelligence support to combat commanders.

First, intelligence operators must be knowledgeable and understand the capabilities of intelligence assets at every echelon. Intelligence must exploit and leverage all sources of intelligence, to include non-intelligence battlefield sensors. Operators must correlate and fuse all input and provide a dynamic and accurate picture of the battlespace.[28]

Second, future intelligence systems must give commanders the ability to visualize the battlefield. Battlefield visualization will provide situational awareness of the battlespace, and locate, identify, and track critical targets. This will be accomplished with multiple ground, airborne, space, manned, and unmanned sensors tied into a common network.[29]

Third, intelligence systems must be interoperable with other Army systems, and those of other Services, theater, and national intelligence organizations. Interoperability is essential if commanders are to have access to a Common Relevant Operating Picture (CROP).[30]

The fourth requirement is a readily deployable, highly reliable, and high capacity communications system to rapidly disseminate intelligence and information to commanders.[31]

With the exception of the first challenge, the remaining challenges rely heavily on materiel solutions. We have made significant progress in this area, but we still have much more work to do. However, materiel solutions are expensive, and require years from concept development to production and to fielding. DTLOMS elements such as training, leader development, and doctrine are much easier to affect, cost less than materiel procurements, and implement relatively quickly. Having said that, however, we must be willing to consider and adopt radical changes to these elements and not just marginal or cosmetic fixes.

LEADERSHIP

As alluded to earlier, the key to making all of this happen is bold and visionary leadership. The new and complex challenges of the 21st century require new and aggressive approaches in tackling them. On one hand, we need smart and technically savvy leaders that have a vision for future requirements, as well as a thorough understanding of the Army Science & Technology process and the acquisition process. These skills are critical in order to successfully pick out promising technologies and then apply that technology into the conceptualization, design, and fielding of systems and platforms that are interoperable, modular/expandable, and deployable.

On the other hand, we require leaders who will shed the vestiges of Cold War mode of thinking…thinking dominated by old constructs such as echelonment, linear battlefields, threat templates, Echelons Corps Below vs. Echelons Above Corps, and organic vs. inorganic support. Military intelligence leaders must devise and implement 21st century solutions to the 21st century threat. Faced with leaner tactical intelligence structures, and the reliance on higher echelons for intelligence, military intelligence leaders must ensure there is robust connectivity to push and pull information to the tactical commander. As 21st century warfare shifts in focus from the positioning of forces to the art of orchestrating the effects of those forces, it becomes even more imperative that the military intelligence system gives the tactical commander timely and accurate visibility and understanding of his situation.[32]

ORGANIZATION

The new threat environment, changing missions, information technology revolution, and force structure reductions all point to the need for organizational change. However, changing the organizational structure invokes great emotion and resistance. The objective of the INTEL XXI Study was to see what changes were required to Army Intelligence in light of the new threat environment and the information technology revolution. The intent was to take a completely open approach and recommend wholesale changes where required versus small and incremental changes. [33]

The study's conclusions reinforced what had already been demonstrated in ad hoc structures that were assembled in support of contingency operations such as Somalia, Bosnia, and East Timor. To support short or no notice rapid deployment operations effectively, intelligence organizations will be assembled based on the mission's specific requirements.

We can no longer afford to maintain the old organizational paradigm in which each echelon had its own organic and very often-redundant intelligence structures. Such a paradigm is not only inflexible, but also highly inefficient. Highly skilled collectors and analysts that are

expensive to train, and even more difficult to retain are too valuable and too few to be organized this way.

Based on my experience, my opinion is that we simply cannot afford to continue the practice of fencing off echelon corps and below intelligence personnel for the exclusive purpose of supporting brigades, divisions and corps. On a day-to-day basis, echelon corps and below personnel train for the eventuality that their supported unit will be deployed. Intelligence skills are highly perishable and quickly atrophy without regular use. As a general rule, brigade, divisional and corps intelligence personnel do not perform a real world mission. Rather they receive their training through participation in field training exercises and command post exercises. Although these training scenarios are useful from a doctrinal standpoint, the training is artificial and provides little fidelity.

Another problem is that the current grade structure in the tactical intelligence force does not support timely, accurate intelligence production and dissemination. The large majority of intelligence specialists at the tactical level are very junior in grade. These novice analysts lack the additional training and experience and to work through complicated intelligence problems that our forces face today.

A partial solution then is to increase the grade structure in the tactical forces. Putting more senior and experienced personnel into tactical units will solve many of the problems. However, existing manpower and strength ceilings limit this option. The solution lies in the surge capabilities of echelon above corps units to augment tactical units with tailored teams providing specific capabilities when the need arises.

On the other hand, the vast majority of intelligence personnel assigned to echelon corps and above units perform real world missions everyday. These missions involve real people, organizations, and countries with real intercepts, imagery, and human reporting. In their daily work, collectors and analysts use their skills such as foreign language, imagery and signals analysis, tasking collection assets, and writing and disseminating intelligence products.

This is not an indictment of tactical intelligence. On the contrary, intelligence support to the tactical commander is and will always be military intelligence's primary mission and first priority. The rapid deployment nature of operations has not changed the criticality of tactical intelligence, but only served to magnify it.

Future intelligence structures must be modular, scalable, and tailorable.[34] Collection assets and personnel are assigned based upon the effects they provide rather than the traditional method of providing a cross-section of capabilities. Modularity means that a military intelligence unit commander can build an intelligence team using predetermined sets of

personnel and equipment. Predetermined modules can be built around functional areas such as counterintelligence and electronic intelligence, or by regional specialization. In this way, an intelligence unit commander can then build a team based on the specific mission requirements. This "plug and play" feature ensured that only the required capabilities deployed in support of the supported commander. Scalability gives the intelligence unit commander the ability to size the intelligence team. For example, during my tenure as a battalion commander, I organized three configurations of a deployable intelligence support element (DISE): a mini-DISE with only 5 personnel, a small DISE with 8-12 personnel, and a large DISE with as many as 30 personnel. All together, this gives the supported commander a tailored intelligence capability that meets his mission requirements and at the same time minimizes the deployment footprint.

The principles of economy of force, effects-based operations, and rapid deployability dictate that future tactical intelligence structures will have fewer personnel and assets. However, tactical units will retain the ability to receive information, conduct mission specific analysis, and disseminate intelligence products to subordinate and higher echelons.

Recognizing the importance of, and shortfalls in analytic capabilities at the tactical level, the military intelligence corps implemented changes in organization and tactics, techniques, and procedures changes. It created an Analysis and Control Team for the tactical brigade giving that commander a more robust in-house analytic capability and connectivity links to higher echelons.[35] Division, corps and theater Analysis and Control Elements (ACEs) were made more robust. In turn, Deployable Intelligence Support Elements were organized from within these ACEs to provide additional analytic support, technical expertise, regional expertise, and connectivity to theater and national level intelligence sources to deployed subordinate headquarters. [36]

The 21st century intelligence structure will be based around an "open architecture"[37] Most collection assets will be consolidated at corps-level and above, which will enable the controlling MI headquarters to surge support between operational and tactical levels. Based upon mission requirements, assets will be either resident at corps and above or pushed down to the lowest tactical level practical when needed. The notable exceptions to this design are close and short range UAVs[38] and some CI assets that will remain with the tactical commander.[39]

The Multi-component Contingency Support Brigade (MCSB) concept was a product of the INTEL XXI study. It originated from the idea of unique, one-of-a-kind military intelligence assets that had the potential of spanning all echelons of the Army. The mission of the MCSB is to provide increased full-spectrum capabilities at all echelons. The concept was to pool these

unique capabilities into a single organization, which would then task-organize into tailored packages to meet specific needs of the Total Force.[40]

I mentioned at the beginning of this section about how organizational change invokes great emotion and resistance. While combat commanders demand that military intelligence units follow the principles of economy of force, rapid deployability, and effects based operations, my experience has shown that they are resistant to giving up direct control of assets and personnel. Before we see any significant progress in organizational changes, this dichotomy in mindset must be resolved.

TRAINING

With the demise of the Soviet Union, we lost the value of a single minded focus and expertise on a given threat.   It has been replaced by the need and value of broader expertise. This expertise, breadth, and versatility to cover the wide range of threats around the world can only come from training and education. Driven by this necessity and the information technology revolution, the United States Army Intelligence Center at Ft Huachuca has already begun to modify its training methodology. It has begun to revamp traditional task-based instructional methodologies with a constructivist approach. The new approach emphasizes hands on instruction by placing students in realistic situations and performing intelligence functions with minimal intervention. The overarching objective is to build breadth as well as depth in military intelligence specialists. [41]

The business of intelligence is becoming more and more complex from both a technical and threat perspective. Twenty first century challenges for intelligence, surveillance, and reconnaissance (ISR) include integration of new sensor capabilities, distributed processing and exploitation, agile assets and dynamic allocation, integrated networks and broadcast systems, and non-traditional target sets such as cultural and human understanding.[42]

Since the end of the Cold War, the military has seen its operational tempo go up while force structure has been reduced. The Army has shrunk 30% as it downsized from eighteen divisions at the end of Desert Storm to ten divisions today. At the same time, our missions have increased in scope and complexity, [43] To increase personnel efficiency, the intelligence school is pursuing options to consolidate certain military occupational specialties (MOS), eliminating some and broadening others. For example, the United States Military Intelligence Center is currently studying the feasibility and impact of merging the MOS 98K (Signals Collection/Identification Analyst) and MOS 98J (Electronic Intelligence Interceptor/Analyst).[44]

The military intelligence branch has always asked its soldiers and officers to perform tasks beyond their occupational specialties. From my personal experience, the length of on-the-job (OJT) training has steadily increased over the years.   From my experience while in command of intelligence specialists working in the United States Army Pacific Command (USARPAC) Analysis and Collection Element, the minimum formal OJT time is about 90 days. However, in reality, due to the varied nature of the mission, an analyst is constantly undergoing OJT.[45]

Intelligence analysts must have the depth and versatility to operate across the spectrum of operations that the Army faces today. Intelligence professionals must support commanders in a military operations other than war environment and seamlessly transition to a mid or high intensity combat environment, and back again. Intelligence analysts must possess strong writing skills to produce concise and coherent assessments, and they must possess speaking skills to brief general officers and senior civilian leaders. They must be proficient in traditional skills such as developing a reconnaissance and surveillance plan, conducting intelligence preparation of the battlefield, and collection management. The complex 21st century operational environment requires intelligence analysts today to be knowledgeable in non-traditional fields such transnational issues of terrorism, drugs, organized crime, proliferation of weapons of mass destruction, environmental damage, pandemic disease, migration, economic dislocation, problems of governance, rapid population growth, and social and cultural norms of target countries.

On top of all of this, intelligence analysts must be competent in operating complex systems such as All Source Analysis System (ASAS), Distributive Common Ground Station-Army (DCGS-A), PROPHET-a signals intelligence collection system, collaborative information systems such as Information Work Station, and be skilled in HTML and other web-based applications. ASAS and DCGS-A are linchpin systems that will form a seamless intelligence architecture between and across echelons. ASAS automates the processing and analysis of intelligence data from all sources.[46] DCGS-A is the next generation network-centric multiple intelligence enclave ground station architecture that will provide broad access to sensors/platforms for the Objective Force with real time tasking, dynamically reconfigurable, enhanced data access and fusion, and disseminates information and products to multiple users.[47]

The skills described above do not come easily or quickly. The average intelligence specialist spends over a year in Advance Individual Training (AIT) before reporting to their first unit. Even then, these soldiers possess just the basic essential skills. As I indicated earlier, OJT on unit specific Tactics, Techniques, and Procedures (TTPs), systems, and target sets

usually takes another 90 days. At this point, the analyst is still a novice. It will normally take a full year before that analyst can effectively function with minimal supervision. My experience is that on average, it is takes two to three years to develop a fully proficient and well-rounded intelligence analyst. The demands we place on our soldiers and officers are immense and the trend for increasing tasks is likely to continue.

CONCLUSION

The 21st century intelligence force will provide commanders with a knowledge-based, prediction-oriented capability that can meet their information and intelligence requirements. As part of the Army Transformation effort, the transformation of Army Intelligence is an ongoing process dependent on evolving warfighting doctrine, promises of the information technologies revolution, and adequate funding. The final force structure cannot be determined at this time, but whatever shape it takes, it will meet the FORCE XXI imperatives of modularity, scalability, and tailorability.

Some things will remain constant and unchanging. These include basic military intelligence doctrine, the fundamental intelligence tasks, and the criticality of intelligence at the tactical levels.

To support the rapid deployment nature of operations, tactical intelligence will become reliant on connectivity to operational and strategic collection sources. However, analysis at the tactical level will remain a key function. Towards this end, there needs to be a shift towards more senior and experienced intelligence professionals at the tactical level.

The principles of economy of force and effects based-operations will dictate leaner tactical MI forces designed not on common organizational structure, but based on a specific requirement.

Ultimately, the success of tactical intelligence in the 21st century will rest on the leadership, creativity, and innovations of the men and women of the military intelligence corps.

WORD COUNT = 7,126

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[7] Richard J. Quirk, Brigadier General, <u>Training the MI Force for the Future</u>, Military Intelligence Professional Bulletin, Oct-Dec 2000, vol 26, Number 4, 30.

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[11] William E. David, <u>"Modularity: A Force Design Methodology for the Force XXI Divisional Military Intelligence Battalion"</u>, School of Advanced Military Studies, 1995, 2-3.

[12] David, 19-20.

[13] Ibid, 22.

[14] John F. Stewart, Jr., <u>Operation Desert Storm, The Military Intelligence Story: A View from the G-2 Third U.S. Army</u>. U.S. Army After-action Report, 1991.

[15] John F. Stewart, BG, <u>Final Report, Task Force for the Review of Intelligence Functional Area</u> (MI RELOOK Task Force, ODSCINT, 1991.

[16] Ibid. 37.

[17] Broadcast intelligence is the dissemination of intelligence to consumers with the appropriate receiver via a fixed broadcast medium in very much the same way a radio station broadcasts music to listeners with a radio. This is an inexpensive means to disseminate widely used intelligence to a large array of consumers. Electronic intelligence of threat radars is frequently disseminated in this fashion.

[18] Hammond, 56-57.

[19] Department of the Army, TRADOC Pamphlet 525-75, INTEL XXI: A Concept for Force XXI Intelligence Operations. Fort Monroe, VA: TRADOC, 10 January 1996, 1.

[20] TRADOC Pamphlet 525-75, 1-4.

[21] Ibid.

[22] Ibid.

[23] Ibid.

[24] Ibid.

[25] Ibid.

[26] Ibid.

[27] Alfred H. Elliott III, Modernization: The Path to Intel XXI and Beyond the IEW Battlefield Operating System, Military Intelligence Professional Bulletin, Oct-Dec 98, Vol. 24, Issue 4. 5.

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[33] Elliott, 5.

[34] TRADOC Pamphlet 525-75, 2-5.

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[44] Eric Fatzinger, Lieutenant Colonel, "Proponent Notes", Military Intelligence Professional

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[45] The ideas in this paragraph are based on my experience as commander of the 205th Military Intelligence Battalion that supported the Deputy Chief of Staff for Intelligence of United States Army Pacific command. Due to a combination of expanding missions and personnel shortages, intelligence analysts were constantly being asked to take on more mission areas and responsibilities that increased the training regimen.

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