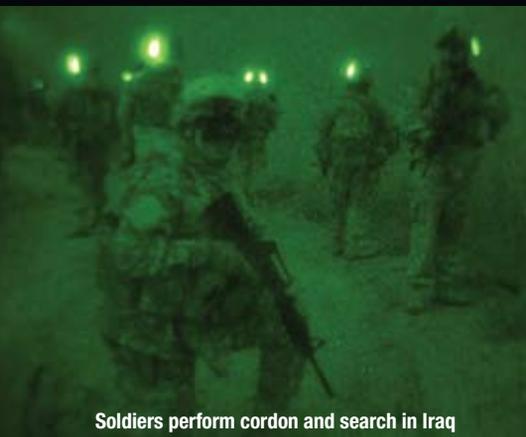


ISR Evolution in the Iraqi Theater



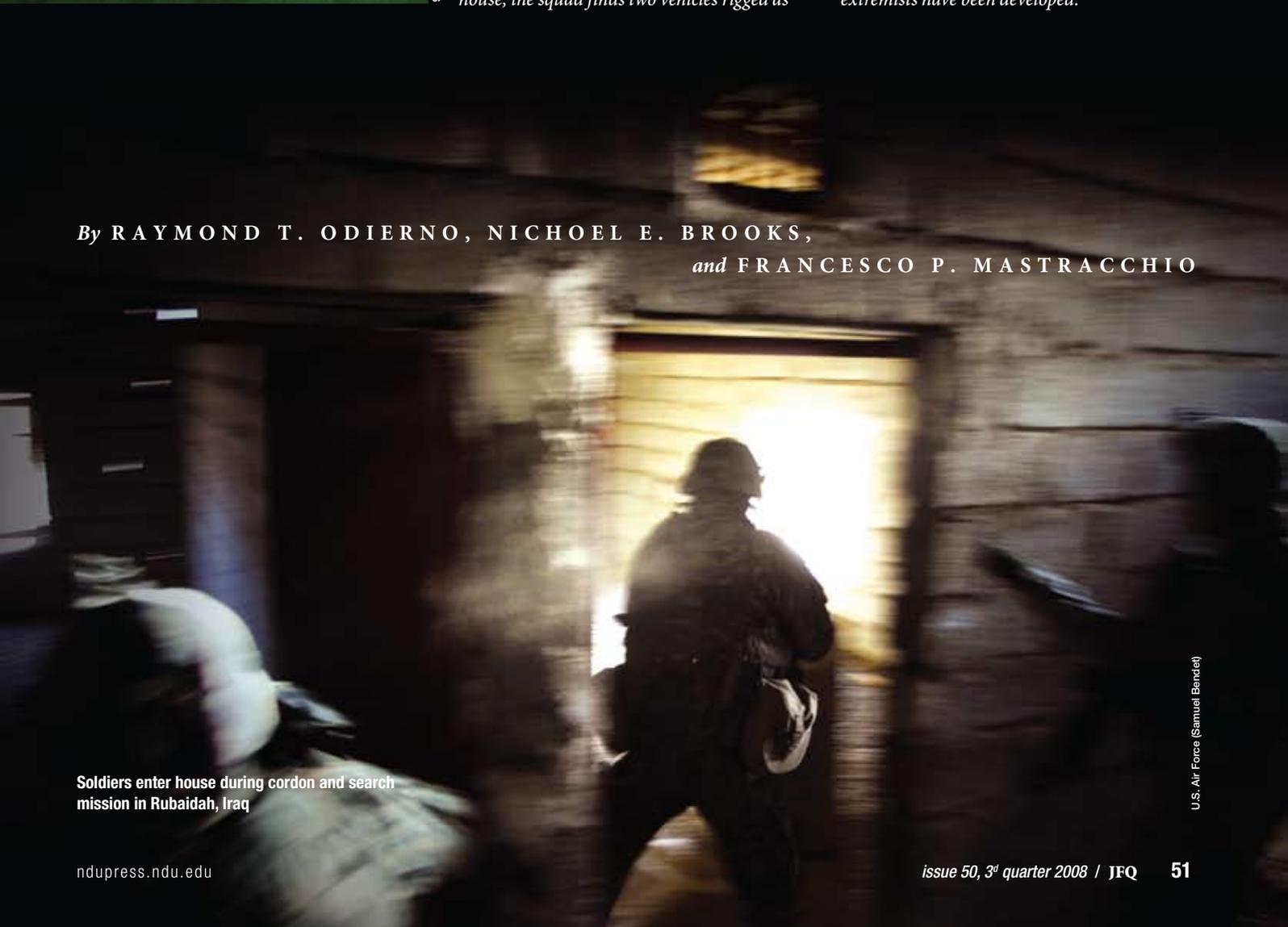
Soldiers perform cordon and search in Iraq

982nd Combat Camera Company (Jeffrey Alexander)

The setting is Iraq, 2008. Picture the following: A vehicle-borne improvised explosive device (VBIED) network has been responsible for several high-casualty attacks on coalition forces and local civilians. But now a cordon is in place, and unmanned aerial vehicles (UAVs) are overhead. The squad is ready to move in—waiting on the last bit of close target reconnaissance information. The primary target is present, and the squad is cleared to execute. They enter, clear the house, and capture six individuals. While clearing the house, the squad finds two vehicles rigged as

car bombs. They quickly question the detainees and exploit the house. Jackpot—they get their guy (a Tier 2 target) and develop leads on a new target—someone higher up the chain in the insurgent cell. With minimal coordination and shift of close target reconnaissance assets, they follow up and hit the next target, taking down a VBIED cell leader, financier, and logistician. The squad also finds three more vehicles ready to execute additional bloody attacks. The result is that the back of a major VBIED cell has been broken so it can no longer terrorize the community, and leads on other extremists have been developed.

By RAYMOND T. ODIERNO, NICHOL E. BROOKS,
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Soldiers enter house during cordon and search mission in Rubaidah, Iraq

U.S. Air Force (Samuel Bendet)

Report Documentation Page

Form Approved
OMB No. 0704-0188

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1. REPORT DATE 2008	2. REPORT TYPE	3. DATES COVERED 00-00-2008 to 00-00-2008			
4. TITLE AND SUBTITLE ISR Evolution in the Iraqi Theater		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) National Defense University, Institute for National Strategic Studies, 260 Fifth Avenue SW Bg 64 Fort Lesley J. McNair, Washington, DC, 20319		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 Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified	Same as Report (SAR)	5	

If the reader thinks this was a special operations forces (SOF) maneuver, he would be wrong. Such operations are happening daily with armor, artillery, and infantry units executing the mission. What enables this SOF-like capability with conventional units is the sudden increase in intelligence, surveillance, and reconnaissance (ISR), analysis, and exploitation assets delegated down to the brigade combat teams (BCTs).

We have seen a significant metamorphosis of intelligence operations in Iraq. Indeed, we still have much to learn, but we are on the right track. The capacity and capability of our intelligence systems have improved greatly in just 3 years. The successes enjoyed by Multi-National

brigade level provides commanders with an unprecedented level of situational awareness. Commanders now have the flexibility to push ISR assets to the lowest tactical echelon, which is one of the most powerful enablers on the battlefield today.

Paradigm Shift

The current environment in Iraq is complex and consists of four interacting conflicts: counteroccupation, terrorism, insurgency, and a communal struggle for power and survival. All are occurring in the context of a fragile state. This situation is further complicated by external influences. Each of these four conflicts is in a different stage, depending

makes it apparent that no single approach to ISR management will apply effectively. To gain understanding and provide the battlespace owners at all echelons situational awareness, ISR must be robust and dynamic and controlled at the right headquarters in order to get commanders the information and intelligence needed to make decisions on a decentralized COIN battlefield.

Comprehensive coordination between operations and intelligence from the inception of major operations ensures that critical collection requirements are as well forecast and resourced as possible. However, it is important to note that deliberate planning for ISR support of COIN warfare does not



U.S. Army working dog sniffs for ordnance on truck entering Iraqi village

ISR must be controlled at the right headquarters to get commanders the information and intelligence needed to make decisions on a decentralized counterinsurgency battlefield

alter the fact that more immediate and critical requirements emerge and continually evolve. In fact, the ability to retask assets quickly is an important aspect of exploiting operational and strategic opportunities that present themselves and are in line with the commander's intent and standing ISR priorities.

Decentralized Control

The Iraqi threat environment contains insurgents and militias who at any time might be working with or against each other. Moreover, most are consistently working against coalition forces. The COIN environment's decentralized nature makes it imperative that ISR asset control, from tactical through theater level, be pushed to the lowest possible echelon, while it is simultaneously managed by the corps to maintain flexibility.

Decentralized control of intelligence assets, including aerial collectors regardless of Service, is a key tenet of COIN doctrine. As stated in Field Manual 3-24, *Counterinsurgency*, "effective COIN operations are decentralized, and higher commanders owe it to their subordinates to push as many capabilities as possible down to their level." Every BCT and RCT has a different operating environment, and only the commander knows

Corps-Iraq (MNC-I) are clearly demonstrated in the ability to leverage the sophistication of intelligence operations ongoing in Iraq today at the lowest levels of command.

Employment of ISR, according to the current counterinsurgency (COIN) doctrine, sets the conditions for the initial success of the surge in Iraq. Decentralization of ISR assets allowed BCT and regimental combat team (RCT) commanders (faced with vastly different problem sets) to gain and maintain contact with the enemy. ISR evolved along with the fight. The robust ISR currently available at the

on which part of Iraq is being considered, and solving only one of these problems in isolation tends to make the others worse. Hence, there is no silver bullet solution; instead, solutions are as complex as the problem set. To confuse matters further, these conflicts cross unit, provincial, and international boundaries.

As the corps manages simultaneous, multidivision operations fighting a full-spectrum, decentralized counterinsurgency across multiple, disparate operating environments, ISR does not always lend itself to "streamlining." The nature of the conflict

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how to best integrate ISR. In a transformed military in which BCTs, by doctrine, fight autonomously, the concept of decentralizing control of ISR to the lowest possible level applies across the full spectrum of operations. In today's environment, a commander must plan operations based on specific ISR systems available, and they are often the sole determining factor in what the unit can or cannot do operationally.

Our commanders must be able to seamlessly and immediately retask the best available asset if it is not actively engaged on a higher priority target to take advantage of often fleeting opportunities. Real-time coordination to facilitate command decisionmaking is crucial. The BCT is the nexus for ISR operations, and success can be directly attributed to the agility possessed by the empowered commanders at the lowest level. MNC-I controls its own ISR assets and those apportioned from higher. The assets are then decentralized, either apportioned or allocated down to the lowest level to support operations. This decentralization of additional ISR enablers at the BCT/RCT levels allows for mission execution across the spectrum of tasks associated with the counterinsurgency fight. The capabilities and ability of conventional forces to conduct sophisticated and other complex operations have improved significantly and now complement, but do not replicate, SOF capabilities. Corps ISR operations run the gamut regarding counter-high value individual targets at differing tiers. The conventional force mission set is broad and must be managed accordingly.

New ISR Model

The current ISR strategy breaks assets into two categories: allocated and apportioned. This provides needed predictability to the major subordinate command (MSC) while ensuring flexibility. Allocated assets are used by the corps to fill emerging high priority requirements in a similar manner to that described above. Apportioned assets, however, are controlled by the MSCs. The divisions write their own target decks and can count on their apportioned assets day after day.

The current ISR strategy is possible because of a recent surge of both theater- and corps-level full motion video (FMV) assets and the commander's empowerment to division and brigade, along with the division or brigade's ability to manage them effectively. Previously, ground commanders could not plan operations around ISR availability; instead, they submitted requirements and then waited to find out if they would get echelons above division (EAD) coverage. At best, they would know 72 hours out if they had been allocated an FMV asset; at worst, they would find their asset pulled at the last minute to support a higher priority corps requirement.

Situations routinely arise requiring sustained FMV coverage beyond a given division's ability to support; the corps provides

one tactical UAV platoon per brigade combat team will not be enough to provide the "unblinking eye" required for success

allocated assets first, leaving the MSCs with their apportioned platforms. This gives the corps commander flexibility to provide FMV coverage for his main effort while still providing predictable ISR support to subordinate commands. This model is firmly governed by the commander's priorities, from the initial apportionment of the assets to the creation of the allocated asset targets. Additionally, by using a mix of organic, apportioned, and allocated assets, the MSCs can conduct ISR "soaks," generate cross-cueing opportunities, and achieve tactical successes on par with unconventional forces.

Evolution of ISR

Today's division and BCT commanders are benefiting from the decision to balance ISR assets. Spinoffs of early Future Combat System technology and the recognition of the importance of manned and unmanned teaming in the COIN environment, where precision and timeliness are essential, show that one tactical UAV platoon per BCT will not be enough to provide the "unblinking eye" required for success. Therefore, BCTs depend on the allocation of corps- and theater-level systems to help them accomplish their missions.

While still insufficient to meet the demand of the COIN environment, significantly more ISR assets are available to commanders in Iraq today than were available in the early stages of Operation Iraqi Freedom. Since 2003–2004, FMV within the corps has increased tenfold. However, it is not just about numbers; it is also about improved capability. For example, during 2003–2004, the corps/

Bombs dropped by B-1B Lancer destroy insurgent torture house and prison in Northern Zambraniyah, Iraq



U.S. Air Force (Andy Dunaway)



Company commander briefs LTG Odierno, Commander, Multi-National Corps-Iraq, on his unit's operations in Baghdad

U.S. Army (Curt Cashour)

combined joint task force (CJTF) could count on at most only two UAV systems to meet all corps/CJTF-and-below FMV requirements. Most divisions and BCTs had no capability at all. Today, the corps can count on daily support from at least 12 FMV systems while each BCT has its own organic FMV support.

This increase in ISR capability is most visible at the BCT level. The BCTs of 2003 had little to no ISR capability, no top secret/sensitive compartmented information communications channel, inadequate intelligence analysis capability, limited human intelligence capabilities, and no properly equipped signals intelligence (SIGINT) platoons. Furthermore, the available digital bandwidth was insufficient to synchronize intelligence databases within the BCT and did not meet requirements for reachback to intelligence architectures at echelons above division. In fact, couriers were often sent with Flash drives to various command posts to synchronize intelligence databases. Commanders were rarely allocated more than an hour of FMV

a week in the early stages of the war, and this allocation was often underutilized since BCT commanders did not know in advance when they would control the asset. Even when the BCT received FMV coverage, the ground control station or the picture remained at division level.

allocating ISR assets to subordinate divisions, combined joint special operations task forces, and BCTs/RCTs based on the commander's priorities. Corps, as the operational headquarters for coalition forces, is really the highest level at which this can be done with a true feel for what is going on at all levels, and MNC-I

division commanders task allocated assets in accordance with priorities and forward unaddressed requirements back to the corps commander for additional support

Today's BCT has three times the original analytic capability and twice the human intelligence capability of a 2003 legacy BCT. Additionally, each BCT has an organic tactical UAV platoon that provides 18 hours of FMV coverage a day and can often count on and plan for additional FMV support from a corps asset allocated to support division operations. The BCT SIGINT platoon is equipped to meet today's battlefield requirement, and Theater has resourced most BCTs with a cryptologic support team and SIGINT terminal guidance teams to augment their organic SIGINT analytic and collection capability, providing the ability to tap into vast national resources.

Most importantly, the BCT has ample bandwidth available to handle internal communications and to provide reachback to division and EAD intelligence architectures. BCT commanders can now truly prosecute a multi-disciplined intelligence fight and use tipping and cueing from all collectors to focus FMV ISR assets better, thereby improving agility and ability to gain and maintain contact with the enemy.

Our biggest challenge today is to synchronize the effectiveness and capabilities of these systems for the mission. The first time that BCT commanders experience the windfall of these assets is often when they assume responsibility over battlespace in Iraq. We must develop appropriate simulations and training scenarios to replicate these assets. This is truly commanders' business, and they must be trained and focused on these enablers.

The current system in U.S. Central Command is serving us well in support of Operation *Iraqi Freedom*. The combatant commander apportions ISR to subordinate units, including MNF-I and Multi-National Corps-Iraq (MNC-I), based on his priorities. MNC-I can then weight the battlefield with a mix of theater- and corps-level systems by

receives virtually all ISR for conventional forces in Iraq. Manned by a mix of highly qualified personnel from all Services, the collection management team works to achieve careful coordination with higher, adjacent, and lower headquarters, with an emphasis on focusing down by recommending the allocation of ISR assets, executing the commander's guidance, and monitoring ISR operations. But these assets are now as important as any combat asset in the corps, and they must be managed by commanders.

Armed with timely and accurate information, commanders have the ability to strike with surprise and mass at the right time and place. ISR assets are allocated largely from bottom-up input from BCTs, RCTs, and divisions and are influenced by the corps commander's understanding of the environment, established priorities, and the combined efforts of the C3 (operations) and C2 (intelligence) in managing the execution of those priorities. Division commanders task allocated assets in accordance with priorities and forward any unaddressed requirements back to the corps commander for additional support.

Corps ISR allocation in support of these unaddressed requirements is determined based on corps commander priorities, desired effect, location, and time of the requirement, as well as other collection parameters. Furthermore, ad hoc or dynamic retasking of ISR assets is adjudicated by the corps C3 in accordance with the corps commander's stated priorities. Again, corps level is where these decisions are best made because a higher or more distant command and control node cannot act quickly enough or with sufficient insight into the implications of its decision-making process.

ISR Impact on the BCT

Commanders always want to arrange capabilities in terms of time, space, and



U.S. Marine Corps (Brett Shemanski)

Marine Corps explosive ordnance disposalmen prepare to destroy weapons cache

purpose to achieve decisive effect. On any given day, a conventional BCT commander might be simultaneously focused on targeting a cell leader in an IED network, providing security for a very important person convoy, monitoring a potentially violent demonstration, or responding to troops in contact—to name only a few potential operations. All of these missions require ISR coverage, and only a commander on the ground can make the appropriate decision about how to allocate assets.

Because of the diverse and complex needs of commanders in a COIN environment, our BCT commanders need to “own” not only their organic ISR assets but also theater- and corps-level systems for given periods based on the corps commander’s priorities. External agencies do not have the perspective, agility, or grasp of the full range of ISR systems in theater to responsively integrate ISR assets into COIN operations.

A recent combat action in Iraq supported by a variety of ISR systems enabled the successful engagement of a mortar team. A counterfire radar acquired an indirect fire point of origin and cross-cued a persistent surveillance platform to maintain contact with the threat mortar system. Close air support (CAS) arrived on station rapidly and gained positive identification in conjunction with a nearby air weapons team (AWT). The BCT Tactical Operations Center diverted a UAV to further refine the target; this UAV provided clear evidence of mortar tubes being transferred to a second truck. The AWT engaged and destroyed the target with CAS lasing. The UAV facilitated immediate battle damage assessment by verifying target destruction. Control of ISR, especially the UAV, at the lowest possible level was the key.

This successful intelligence operation is directly attributed to the enhanced agility possessed by commanders at the lowest level, enabled with corps assets, to orchestrate FMV assets based on rapid feedback from intelligence analysts supporting the commander and tipping and cueing from multidiscipline intelligence sensors.

The Way Ahead

One initiative that has helped tactical commanders in Iraq integrate theater ISR assets into their operations is the presence of Combined Air Operations Center (CAOC)/Combined Forces Air Component Command (CFACC) ISR liaison officers at division headquarters. Providing these Air

Force subject matter experts as advisors to division staff sections and as key members of the intelligence-operations team has been a combat multiplier. It would also be extremely helpful to have these experts at BCT level to provide the CAOC and related organizations with insight into the operations they support.

Tactics are continuously being refined, and it is not uncommon to have ISR assets guide CAS on station and on target to engage the enemy. It is incredibly difficult for commanders to predict when and where units will be decisively engaged. The ability to acquire additional UAV support and CAS is an invaluable capability that brings large amounts of firepower to the fight in short order. That said, there certainly is no shortage of lethal systems in the air over today’s battlefield. What we need is more ISR for ground commanders to employ, not more air support. Although armed UAVs are a bonus, systems such as the MQ-9 Reaper should not be designated as primarily attack platforms until the larger ISR void is filled.

ISR is working in Iraq because tactical leaders are maximizing the effectiveness of a limited resource. The optimal use of ISR is enabled through decentralized control that provides the greatest flexibility at the lowest levels within the command.

The Army and Marine Corps need to develop up-to-date and relevant training simulations and scenarios that expose commanders and their units to the vast complexity of ISR operations as part of predeployment training. Commanders and their staffs must know how to fight using all the ISR assets that will be available to them before arriving in theater.

B.H. Liddell Hart argued in his book *Strategy* that the guerrilla’s most important capabilities in surviving and acting on the battlefield were concealment and mobility. Full-spectrum intelligence, surveillance, and reconnaissance assets in the hands of commanders closest to the enemy have the best chance of revealing where to look for and where to interdict the enemy. On a decentralized battlefield, commanders charged with responsibilities to achieve successful outcomes to complex problems should be given all available means to enable success. Great commanders have traditionally used reconnaissance to disperse the fog of war to gain a view of the enemy for timely decisionmaking and actions. Intelligence, surveillance, and reconnaissance are some of the best tools our ground commanders have in breaking through that fog. **JFQ**

what we need is more ISR for ground commanders to employ, not more air support

4-2 SBCT Public Affairs (Antonietta Pico)



Soldiers take aim at suspected insurgents during patrol in Taji