



Air Force ISR Operations

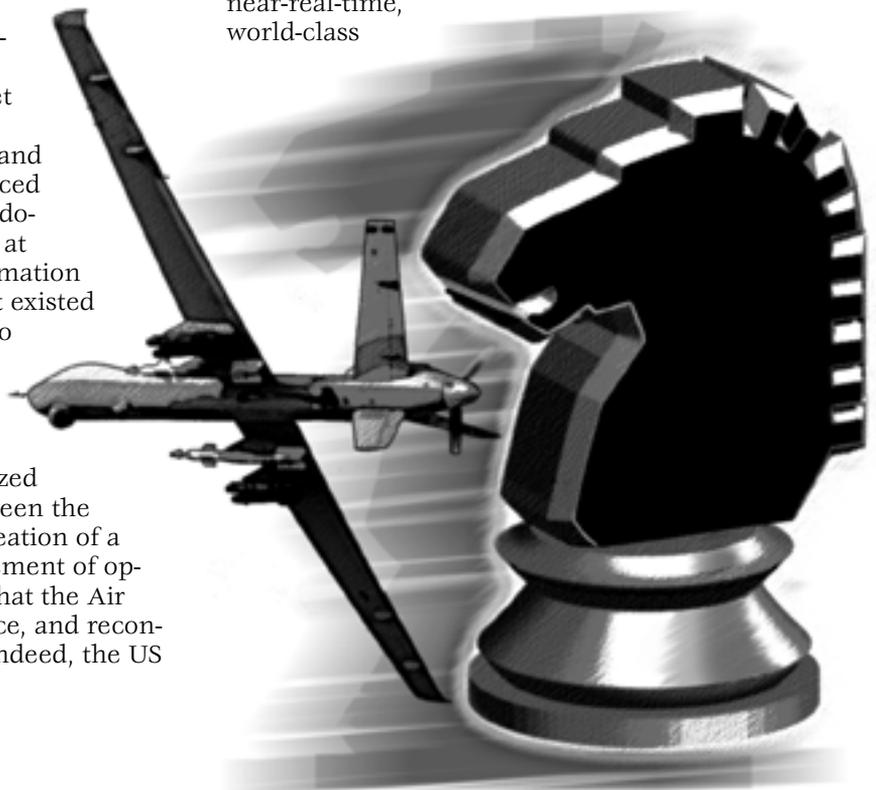
Hunting versus Gathering

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An often-repeated axiom attributed to General of the Army Omar Bradley opines that “amateurs talk about strategy, professionals talk about logistics.” This well-worn adage not only contains an obvious element of wisdom and timelessness but also expresses a fundamental shift in the context of today’s emerging era of military operations. Specifically, amateurs do continue to talk about strategy, but professionals increasingly talk about information—how to get it, use it, and keep getting it, given the speed, complexity, and character of the challenges faced by our forces abroad and our domestic security organizations at home. This elevation of information in war has closed the gap that existed in the past between those who created intelligence and those who operated with that intelligence.¹ Still, there remains much distance to cover in creating a synchronized and precise relationship between the view of information as the creation of a product and as a seamless element of operations. This article argues that the Air Force intelligence, surveillance, and reconnaissance (ISR) enterprise—indeed, the US

military itself—must undergo a cultural transformation and trade the farmer’s view of ISR (methodically producing information) for the hunter’s view (anticipating, finding, and fixing an elusive and often dangerous prey) in order to meet the challenges of the coming decades and eliminate the segregation that has historically existed between ISR and operations.

The Air Force ISR team does a superb job of collecting, analyzing, and reporting. It conducts both national and theater ISR missions, manages immensely complex collection decks, and operates air and space sensors globally with near-real-time, world-class



analysis across service, coalition, joint, and national centers that inform a host of regional and national priorities.² This approach, though highly efficient, bears more resemblance to a “batch process” such as farming—preparing the fields, gathering the harvest, and periodically delivering it to market—than to hunting elusive game animals. Even with our theater ISR air assets, we are collecting and providing information to others rather than anticipating and hunting the information we will need next. Air Force ISR today is operations, but in applying it to the emerging context of today’s tasks, we have a strategic imperative to do better. We need only review our track record in dealing with Iraqi Scuds, Bosnian SA-3 surface-to-air missiles, high-value individuals in Iraq and Afghanistan, and the present and future capabilities of mobile enemy weapons to realize the importance of improvement.

So how does the Air Force evolve the capabilities of its world-class ISR enterprise from the mind-set of a farmer to that of a hunter? The first step calls for codifying into doctrine the concept that the Air Force’s global integrated ISR mission includes hunting and actively participating in the destruction or negation of certain classes of targets—leading to defining, training, and refining the necessary ISR skills to fulfill these missions. Few people today recall that the ancestor of the 480th ISR Wing was an organization that knew how to hunt German submarines and actively participate in the kill.³ To help meet today’s ISR issues, we have at our disposal our air, space, and cyber operations centers; our ISR sensor systems deployed throughout the world and in space; the Air Force distributed common ground/surface system (DCGS-AF, the leading-edge element of the Defense Intelligence Information Enterprise), which integrates sensors, communications, and analysis; and the Air Force’s manned and managed intelligence centers such as the National Air and Space Intelligence Center. Linking these ISR nodes has shown great promise when adapted to the

role of a hunter—a process that we must codify if we wish to grow and meet the challenges of the future.

To deal with the irregular warfare taking place today in Iraq and Afghanistan, the Air Force created forward-based ISR exploitation cells (ISREC), whose mission has evolved from dedicated unit-level processing, exploitation, and dissemination of information gleaned from MC-12W aircraft, to the incorporation of new sensors for MQ-9 Reaper wide-area electro-optical and ground moving-target-indicator surveillance, to the soon-to-be-deployed Gorgon Stare wide-area airborne surveillance system.⁴ At the ground-component division and below, ISR liaison officers enable both the DCGS-AF and the ISRECs to successfully integrate the global Air Force ISR network into surface-force planning and operations. However, we have not yet codified the concepts behind the liaison officers and ISRECs into Air Force doctrine or tactics, techniques, and procedures (TTP) manuals.⁵ We will lose these powerful connections and their resulting lessons unless we do so. By integrating these types of cross-cueing and translation actions across the spectrum of Air Force ISR operations, we are beginning to define the requirements for creating a true ISR-hunting paradigm.

Next, the Air Force should implement a coherent approach that binds our air and space operations centers, the DCGS-AF, and the network-centric collaborative targeting system—not just to provide information but to conduct ISR operations in the role of a hunter. Most importantly, this approach includes developing trained ISR Airmen proficient in dynamic operations as *real-time* participants in the hunt—not simply intelligence analysts or collectors and reporters of batches of ISR information to a joint headquarters. The Air Force needs ISR warriors “on the wing” with the shooters—as they were late in the Vietnam air war over Hanoi in the Teaball program.⁶ Such a concept does not obviate the need for image analysts, signals analysts, and individuals proficient in other intelligence



skill sets—they are absolutely essential to both the military and national intelligence community. However, it does demand a systematic approach to organizing, training, and equipping ISR hunters. As an Air Force core function, air and space superiority requires providing ISR hunter capabilities to joint force commanders to counter integrated air defense systems, theater ballistic missiles, and the antisatellite capabilities of America's potential adversaries—again, as core functions, not merely in support of the intelligence community.

Thus, the Air Force ISR Agency must assign the 480th ISR Wing, ISR groups, their analysis and reporting teams, and their ISRECs a hunting mission for defined classes of mobile targets and must establish procedures to execute that mission. Those entities need training and proficiency in cross tasking (sharing information) in near real time, the situational awareness necessary to operate effectively, the ability to use their networks to enable real-time collaboration with ISR hunter analysts in air and space operations centers, and an enterprise approach focused on “finding, fixing, and finishing.” That preparation will enable them to have the right answers quickly enough for time-critical targeting cells to act effectively against fleeting targets, thereby exemplifying decentralized execution by Airmen who understand the intent of the mission orders provided by the joint force commander. This approach necessitates skills different from the rote execution of specific collection and reporting tasks assigned by a headquarters or by the collective intelligence community. The Air Force ISR enterprise must become proficient at implementing mission-type orders as a core function of the entire organization.

Consequently, the ISR division (ISRD) of a combined/joint force air component commander's (C/JFACC) joint/combined air and space operations center must learn hunter collection management and ways of sustaining “killer” decision making for those mission sets. Today, these are separate processes. Giving the C/JFACC the where-

withal to advocate the right collection allocations to assigned mission sets and supply near-real-time decision support is essential. The ISRD must become an effective partner in brokering collaboration between DCGS-AFs and Air Force ISR collectors/analysts, knowing how to find and use national data tactically, and making decisions that enable the execution of time-critical hunter/killer operations faster than enemies can react. In the language of John Boyd, the ISRD must execute and accelerate the observe, orient, decide, act loop for ISR operations and tie it to the joint force commander's mission objectives in mere minutes—in some cases, seconds—as an active participant.

For air, space, and cyberspace ISR operations personnel, this requirement means they must understand and have training in how to use their systems effectively to participate in the hunt and in how to collaborate productively with each other. By understanding the enemy and the missions that air, space, and cyber forces execute, they can apply their sensor expertise to that goal and become more useful to the C/JFACC, delivering true hunting capability to joint or combined force commanders and allies. Today our ISR sensor warriors are driven by the collection deck, a complex set of tasks that issues from prioritization of large numbers of requests for information from a rear-area headquarters—more similar to a market process than a hunting regimen. It's time to change this anachronistic process, which is based on capability and culture from the middle of the last century. Because animals, submarines, terrorists, or surface-to-air missiles all hide from and avoid the hunter, he needs to understand their signs and prepare himself to sense, react, and shoot quickly.

As part of this process, we must develop TTPs that fuse ISR forces, shooters, and command and control elements as teammates in executing find, fix, and finish missions end-to-end on tactically useful timelines. These TTPs should incorporate the concept of employing sensors for ISR hunter-mission tasking. All the elements of

the ISR hunter architecture should understand the technical capabilities needed to execute ISR hunter missions, both in dealing with the fog and friction of actual warfare and in defining future system requirements and human interfaces. A key part of this enterprise approach should involve establishing an ISR test and evaluation unit at Nellis AFB, Nevada, to address ISR operational integration with current units that conduct command and control, air, and space system test and evaluation. Our present structure of using geographically dispersed, unrelated detachments to test U-2, MQ-1, MQ-9, RQ-4, and other ISR platforms precludes true operational testing of various configurations in carefully reproduced combat conditions, or layering and integrating ISR in test scenarios as we envision employing these capabilities. Finally, as with other operational forces in the Air Force, we need training and certification requirements, including continuation training, certification and proficiency identifiers, and metrics of ISR combat capabilities across the spectrum of Air Force mission areas. As a beneficial by-product of these efforts, if implemented, we will move from our historical “industrial age” military culture that far too long has segregated operations from intelligence, to a culture better suited to the information age—one that integrates opera-

tions and intelligence, producing unprecedented synergies in action, accuracy, and effectiveness.

We stand at the cusp of a new era in military operations in which the speed of information, advancements in technology, networking of our organizations, and mind-set of our people will directly shape the success or failure of our future military activities. The foundations of our achievement will hinge on the ability to sense, know, decide, and act ahead of our adversaries on a global scale. These technologies and challenges have trumped the buffer of geography that historically afforded us the luxury of time to think and act, demanding that we alter our ISR farmer-culture mind-set and begin to act more like hunters. Our ISRECs have given us a glimpse of this hunting role, but we must do more to apply what we’ve learned from this experience to carry us through tomorrow’s tasks. In an important first step, we must capture in our doctrine the importance of harnessing and linking every node in our ISR enterprise to hunt rather than simply farm, and we must change how our military forces think about their role in the ISR enterprise. In the future, Air Force ISR professionals must assure the availability of information necessary to bring a strategy to a successful outcome well before we need it. 🌟

Notes

1. Lt Gen David A. Deptula and Maj R. Greg Brown, “A House Divided: The Indivisibility of Intelligence, Surveillance, and Reconnaissance,” *Air and Space Power Journal* 22, no. 2 (Summer 2008): 5–10, <http://www.airpower.au.af.mil/airchronicles/apj/apj08/sum08/sum08.pdf>.

2. A collection deck is a list of ISR targets compiled by the collection manager and approved by the joint force commander. The ISR division of the combined/joint force air component commander assigns and synchronizes air, space, and cyberspace ISR systems to collect from the targets on the list.

3. “Guarding the Straits of Gibraltar: March–October 1943,” *United States Army Air Forces in World War II*, accessed 15 July 2010, <http://www.usaaf.net/ww2/uboats/uboatspg5.htm>.

4. Lt Gen David A. Deptula, “Airpower in an Information Age” (briefing to the Air Force Association, Arlington, VA, December 2009).

5. Maj Stephen C. Price Jr., “Close ISR Support: Re-organizing the Combined Forces Air Component Commander’s Intelligence, Surveillance and Reconnaissance Processes and Agencies” (thesis, Naval Postgraduate School, Monterey, CA, December



2009), 200–201, 272, 277, accessed 28 July 2010, http://edocs.nps.edu/npspubs/scholarly/theses/2009/Dec/09Dec_Price.pdf.

6. Maj Gen Doyle Larson, “Direct Intelligence Combat Support in Vietnam: Project Teaball,” *Ameri-*

can Intelligence Journal 15, no. 1 (Spring/Summer 1994): 56–58, accessed 15 July 2010, http://www.nmia.org/images/AIJ_15_1_Direct_Intelligence_Combat_Support_in_Vietnam,_Project_Teaball_Larson.pdf.



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Lieutenant General Deptula (BS, MS, University of Virginia; MS, National War College) retired from the Air Force as deputy chief of staff for intelligence, surveillance, and reconnaissance, Headquarters USAF, Washington, DC, in October 2010. He completed ROTC at the University of Virginia as a distinguished graduate. Having flown more than 3,000 hours (400 in combat), including multiple assignments to operational fighter commands, he has significant experience in combat and leadership in several major joint contingency operations. General Deptula has twice been a joint task force commander, a joint force air component commander, and director of a combined air operations center. He also served as principal attack planner for the air campaign during Operation Desert Storm. He has served on two congressional commissions charged with outlining America’s future defense posture: the Commission on Roles and Missions of the Armed Forces and the National Defense Panel. Prior to becoming deputy chief of staff for intelligence, surveillance, and reconnaissance, he was commander of the General George C. Kenney Warfighting Headquarters in the Pacific. General Deptula is a graduate of Squadron Officer School, US Air Force Fighter Weapons School, Air Command and Staff College, Armed Forces Staff College, and National War College.



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Colonel Francisco (USAF; MPA, Auburn University) is a former F-4/F-15 pilot with 20 years of experience in space and air intelligence, surveillance, and reconnaissance (ISR), and 20 years as a combat aviator and commander. He completed two tours in Vietnam, including 107.5 missions conducting reconnaissance and strike control as an F-4E “Stormy” forward air controller and 188 other combat missions flying long-range strike, close air support, and air superiority missions. He attended the USAF Fighter Weapons School, commanded an F-15 squadron and group, served on the Air Staff’s Tactical Air Command Panel, and led the Air Force’s Future Years Defense Program “Engine Room.” Colonel Francisco also directed Compass Call, worked operations support in the Air Intelligence Agency, established the Space Warfare Center, managed the Air Force’s Tactical Exploitation of National Capabilities Program, and oversaw innovation in the National Reconnaissance Office’s Directorate of Military Support. Since 1995 he has consulted with industry and labs on space and modern warfare, founded the concept of “five-minute war,” and increased technical and tactical collaboration across the national and service ISR communities.