

Putting the Right Man in the Loop

Intelligence, Surveillance, and Reconnaissance Tactical Controllers

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Today, Department of Defense (DOD) investments in airborne intelligence, surveillance, and reconnaissance (ISR) assets made during the early 2000s pay dividends for varied requirements. The DOD ISR Task Force and uniformed services must continue to reform intelligence operations, but it must rise above reliance on hardware purchases to solve its problems. Innovation, particularly at the tactical level, must extend to organizational and process remodeling. Rather than relying on gadget solutions alone, the DOD can achieve a greater return on investment by enacting changes to its intelligence organizations' behaviors and processes. Solutions to the conceptual problems can lead to better use of scarce ISR assets as well as reapplication of existing theory, military philosophies, and doctrine. People are the key to this type of reform, and a methodical investment must be made in the right people across the DOD but particularly in the United States Air Force (USAF).

The right people can tailor technological innovation, update doctrine, and create effective tactics, techniques, and procedures (TTP). The joint community needs intelligence professionals who are positioned, skilled, and empowered at the tactical level to make what we have count most. The same vigor applied to hardware acquisitions should apply to recruiting people who can make our billion-dollar hardware investments make sense. The special operations community started down this road at least five years ago through their institutionalized use of what they call ISR tactical controllers (ITC). Fortunately, efforts are under way to bring these tactical, joint information collection professionals to bear for conventional military forces. However, service headquarters staffs and collection tacticians must solidify mechanisms that train individuals to be the operations professionals that joint communities can request and use.¹

An Intelligence Operation's People Problem

In its simplest form, the airborne intelligence collection cycle consists of three components: planning, execution, and assessment. Each is made of complicated

and linked subprocesses. After 9/11, stale doctrine, unimaginative TTPs, and a rush to field technologies made initial hardware investments ineffective, leading to battle-field inconsistencies, inefficiencies, and failure. A large part of these problems stems from the absence of the right people at the tactical level with the skill set to decipher and employ sunk costs. In other words, the DOD made better instruments for the intelligence symphony, but today, the propensity for members of the intelligence community to play well together is complicated by a variety of factors that few understand.

In a 2014 *Joint Force Quarterly* article, Col Jason M. Brown, USAF, echoes the 2008 comments of Lt Gen Michael Flynn, US Army, about a requirement for intelligence personnel who create the right effects.² Colonel Brown highlights the use of USAF ISR liaison officers (ISRLO). He demonstrates that a small group of personnel can effectively weave together airborne intelligence collection efforts with the appropriate placement, skills, and authorities. But there are not enough ISRLOs to go around nor should there necessarily be.

Each service explored ways to identify, train, and employ better tactical ISR experts, but all are inadequate.³ For instance, those designated to integrate airborne collection to a supported commander's scheme of maneuver receive service-centric training of the supported command. Today, supported commanders have access to a variety of joint capabilities. At the tactical level, the supported commanders' ISR professionals must be able to understand and help employ the *full scope* of joint capabilities. While service-centric training is inadequate to this task, "joint" training, sadly, is far worse. It often consists of either PowerPoint slides which outline collection platforms' capabilities or a "how-to" pamphlet. Slides and pamphlets are poor substitutes for rigorous training programs that emphasize the practical application of combat ISR capabilities.

When it comes to planning, execution, and initial assessment of joint airborne ISR operations, many personnel tasked to do so are hardly prepared. It is most unfortunate for those individuals placed in collection management and ISR operations positions without any training at all. For a variety of reasons, the ones lucky enough to receive joint training are often *not* the ones who run the airborne intelligence collection process. This does not mean that those who, ultimately, help execute collections on behalf of the supported commander are incapable of doing so; it means they may not have the training, proximity to command, and delegated execution authorities to accomplish their mission effectively.

Independently, aircraft crews for tasked collection assets conduct all mission-related tasks. What is missing is a cadre of workers within the supported commands—regardless of service—that can reliably coordinate and integrate *planning, execution, and assessment* of tasked airborne ISR assets with the tactical supported commander's scheme of maneuver regardless of service lead. Tasked assets rely on these individuals to clarify the supported commander's initial guidance, refine collection plans and requirements, leverage all available intelligence community resources against a problem, and integrate with nonintelligence team members, as necessary, to achieve the supported commander's intent. This is the DOD's intelligence operation's people problem.

A Case for Conventional ISR Tactical Controllers

During Operations Iraqi Freedom (OIF) and Enduring Freedom (OEF), air and ground component commanders emphasized the importance of collocating intelligence airpower professionals with primarily land-supported commanders. Air component ISRLOs were introduced to the land component in 2006. Initially, ISRLOs were collocated with higher headquarters (HHQ) land component commanders, two or three echelons above the tactical fight. Over time, ISRLOs deployed to lower echelons because they were needed there. But, as previously mentioned, there are too few ISRLOs to fulfill requirements at the lower echelons, even for relatively limited contingencies such as Operation Inherent Resolve (OIR). Recently, land-supported commanders expanded ISRLO capabilities by adding ITCs to teams led by ISRLOs. For OIR, these teams consisted of an ISRLO lead with multiple joint ITCs. These teams reflect a concept mentioned by Lt Col Michael Grunwald in a 2009 paper that he termed “ISR Liaison Teams.”⁴ While these teams are primarily Air Force persons, importantly for OIR, the ITCs can come from *all* services. These joint ITCs executed their functions with limited training. The ITC training focused on surgical ISR collections while leaving a wider breadth of ISR competencies to ISRLOs.

ITCs are a small cadre of primarily intelligence operations personnel who are trained specifically to integrate and coordinate tactical airborne intelligence collection. To be clear, this training is provided above and beyond the person’s baseline intelligence duties. ITCs train to synthesize planning, execution and initial assessments for near real-time, tactical integration of airborne collection assets into the supported commander’s scheme of maneuver. Sometimes these effects are for a narrowly defined objective, while at other times their operations span broader objectives. ITCs are effective because they (1) are almost always collocated with or highly connected to the most tactical supported commander, (2) have a deft knowledge of ISR capabilities *and how to use them*, and (3) have sensor tasking authority (STA) that allows them to simultaneously coordinate and control multiple intelligence sensors, creating the effect that their supported organization requires. ITCs do not perform intelligence support functions; they coordinate intelligence sensor placement. A misapplication of intelligence support and intelligence operations personnel was a critical component of past intelligence collection failures.

Professionals who conduct intelligence *support* missions absorb every bit of classified and unclassified information about a problem set to analyze a situation. Then, they propose likely courses of actions by the adversary force so friendly forces can determine the best course of action. Intelligence support personnel produce intelligence via analysis of available information and ask questions to generate collection requirements to answer those questions. In military jargon, these individuals are often referenced as “analysts” though it is important to note that not all analysts are intelligence support personnel. The reverse is true that not all intelligence support personnel are analysts. There are a variety of other functions provided by intelligence support personnel such as information processing, briefing support, and information management.

On the other hand, operations personnel consume actionable intelligence provided by intelligence support professionals. For instance, fighter or bomber pilots

may choose to alter their flight paths, an infantry company may choose to maneuver differently to seize its objective, or a ship commander may bypass certain littoral areas. Likewise, an intelligence operations professional may plan or execute a different orbit for aircraft collection, choose a different time of day for collection, or select a completely different collection target to achieve desired effects.

Commanders and staff members *must* acknowledge the distinct functions of intelligence support and operations professionals before further progress can be made with information collection. Why? Because being good at one necessarily means that you will not be good at the other. For an individual, intelligence support and intelligence operations *are* a zero-sum game. The intelligence community needs more individuals like ITCs, bred as intelligence operations personnel who focus on making recommendations and decisions that help commanders and fellow operations personnel use our sometimes scarce resources to better effect. With a modest investment of time, money, and effort, joint ITCs can continue to fulfill conventional requirements as they have done for OIR.

Too often, circumstance forces tactical leaders to resort to better joint intelligence operations solutions. This scenario contrasts with one in which a deliberate process is used to facilitate effective intelligence operations. When the right person is collocated with the supported commander at the most appropriate level, that person has a deep understanding of a small plate of asset capabilities and limitations, is aware of effective TTPs, and is given STA. Perhaps the most important aspect of ITCs is their connection to the supported commander.

What Do ISR Tactical Controllers Look Like?

Airmen in proximity to the supported commander have the advantages of increased power and understanding in carrying out the commander's objectives. Clearly, the joint community demonstrated this lesson during the Vietnam conflict when tactical air control parties (TACP) established standards for the employment of munitions close to friendly forces. Airmen fused the ground commander's intent with an unparalleled ability to deliver fairly precise ordinance for devastating effect against the adversary. A 1967 *Air and Space Power Journal* article, "Tactical Air Employment: Current Status and Future Objectives," recounted this contribution by telling the story of the US experience in Ia Drang Valley during the Vietnam War.⁵ The lesson is that operations professionals collocated with the supported commander understand the supported commander's specific intelligence needs and can tailor collection to meet the commander's requirements. In addition to placement, training is an important aspect of being an ITC.

The DOD cannot give ITCs a cursory understanding of ISR operations and capabilities, then put them in the driver's seat of a multibillion-dollar enterprise. Ideally, ITCs would attend the short training courses already in existence held by the special operations community. Albeit ideal, the special operations trainers probably could not accommodate the volume of potential ITCs needed by conventional forces. Consequently, the conventional uniformed services should consider sponsoring their own school. Potentially, the school could be jointly managed and instructed at the Air Force's ISRLO training hub and home of the USAF Warfare Center

at Nellis Air Force Base, Nevada. Another alternative would be the Army's intelligence training center at Fort Huachuca, Arizona. Again, preferably, all ITC training would happen before deployment.

Sometimes it is not feasible to provide ITCs predeployment training, which is a unique benefit of the ISRLOs. For OIR and prior to ITCs showing up on the joint manning document (JMD) for key OIR locations, ISRLOs developed, staffed, and executed an ITC training program. By June 2015, the ISRLOs trained 10 USA and United States Marine Corps (USMC) ITCs. The joint ITCs went through a weeklong, intensive program that coupled academics and real-time operations to provide the ISR operations novices with necessary qualifications to perform as ITCs. Stateside ISR operations professionals highlighted the stark difference in forward-deployed ITCs for OIR compared with other contingencies, noting that the OIR ITCs were competent and comfortable with the full spectrum of planning, execution, and assessment of ISR operations. Most importantly, strong partnership between ITCs and other members of the TACP—like the joint terminal attack controller (JTAC)—enabled surgical strike operations in support of Iraqis on the ground. Assuming a pipeline to organize and train joint ITCs can be created, one final piece of the puzzle must be inherent to ITCs, and that is the supported commander's authority to task intelligence collection sensors once allocated from HHQ. This concept was recently introduced in a multiservice TTP known as the sensor tasking authority.⁶

A commander's ability to affect the battlespace is directly proportional to the appropriate delegation of authorities to appropriate personnel, which applies to the tasking of intelligence sensors. For instance, in planning for close air support (CAS), supported commanders establish target priorities, effects, and timing for CAS integration. Air liaison officers and JTACs subsequently plan and control CAS operations to meet those requirements. The same can be said for the conduct of electronic attack by electronic warfare officers. Manning, training, and doctrine precede CAS and electronic warfare at the tactical level. However, such is not necessarily the case for ISR operations. ITCs are the intelligence operations manifestation of planning and sensor tasking to meet the commander's requirements.

For intelligence sensors, STA is the authority to tactically task a sensor to achieve efficient effects on a specific target. In the context of an ITC, STA usually involves the fusion of multiple sensors toward various objectives. It is different from sensor control where, usually, a sensor operator manually actuates a mechanism to control a specific sensor. Think of STA as a music conductor's baton, dictating the rise, fall, and tempo of the music.

STA is a complex, inherent aspect of asset allocation. It involves the responsibility to plan, execute, and assess the initial effectiveness of allocated assets. A unit *must* plan specific, tactical use of sensors to ensure the commander's objectives are met. Planning involves coordinating with supporting intelligence units, such as flying squadrons and the Distributed Common Ground System (DCGS), and for the Air Force, securing MQ-1 Predator and MQ-9 Reaper assets. For instance, OIR ITCs provide tailored ISR plans, collection maximization documents, and updated collection priorities for tasked assets up to on-station time. Once on station, ITCs furnish specific sensor direction to ensure that tasked intelligence units remain on the precise and, sometimes, developing targets of the supported commander. A fully trained

ITC is in communication with aircraft crews from wheels-up to wheels-down, providing tailored, tactical direction. Once a mission is complete, the ITCs give and receive crew feedback for the front- and back-ends of the platform. They articulate how well or poorly the crew performed to achieve desired objectives. Further, the ITCs work with pilots, sensor operators, and other intelligence operations crew members to ensure feedback is incorporated into the next mission, which may be just a few hours away. STA exercised by an active and competent ITC is the full-spectrum mission piece that is a missing link to effective ISR operations.

What Does the DOD Get by Investing in This People Problem?

ITCs are more than well-positioned, well-trained, authority-bound intelligence operators; they are resource multipliers trained, certified, and qualified to perform their very specific functions. For airborne operations, they are the people who clearly understand *all* the facets involved with tactical information collection. The DOD spent billions to field hundreds of Predator-class and larger unmanned aerial vehicles among other intelligence assets for the varied requirements of supported commanders around the world. These hardware investments speak nothing of the tens of thousands of Soldiers, Sailors, Airmen, Marines, and Coast Guard members who make the entire front and back ends of the intelligence collection system work. ITCs recognize this complexity and maximize planning, execution, and assessment for the supported commander.

ITCs conduct detailed premission planning to clearly understand the commander's intent for available assets, deconflict capabilities to address multiple commanders' priorities, plan to fill gaps in intelligence as identified by intelligence support personnel, and maintain situational awareness of other operations for the supported commander. Also, while much of the supported commander's intent is captured in vetted and validated collection requirements, ITCs address the inherent latency in the three- to four-day intelligence tasking process and the tactical surprises that almost always occur in the lead-up to mission execution. The ITC plans with and provides premission materials to supporting intelligence organizations such as remotely piloted aircraft units, the Air Force DCGS, HHQ organizations, and other vested parties. It is the one person or group that supporting intelligence organizations can rely upon to be their link into the supported commander's operations—the ITC is always there.

During execution, ITCs ensure that all apportioned and tasked intelligence assets remain on the appropriate commander priorities. Then, ITCs retask assets within a predefined construct. Inside a tactical operations area, ITCs have an incredible amount of flexibility to collect on targets that support the commander's intent. For OEF, OIF, and OIR, when ITCs were used, they tasked and retasked assets in real time based on developing intelligence collection, worked to get the residual collection from other assets in the area not tasked to their specific mission, and used that information to enhance collection with assets tasked to their mission. When it comes to information collection, ITCs care little for where the information comes from; they care about collecting what is needed to accomplish the supported commander's requirements.

Furthermore, ITCs work with JTACs to deconflict intelligence sensors against multiple targets so that various aspects of an intelligence situation can be addressed by a variety of available sensors. Sometimes ITCs may only be tasked one sensor, but when they can work with the JTAC, they can utilize a flight of F-16s or F-18s with targeting pods and the pilots' eyes to collect on other targets for development or potential prosecution. With a clear understanding of the intelligence battlespace provided by intelligence support professionals and an even better grasp of how to properly task sensors, ITCs execute intelligence collection efficiently and effectively. Further, ITCs train to be sensitive to the improper and inefficient use of sensors.

As with ISRLOs, ITCs debrief intelligence operations crew members on tactical scenarios and give direct input into improving intelligence operations. A properly trained ITC can identify points and periods in time where intelligence collection is not efficient or effective and provides direct feedback to a variety of entities—such as the DCGS that houses the back end of intelligence operations, the ground control element where pilots and sensor operators reside, real-time weather organizations, and collection management nodes. This function does not negate the need for ISRLOs. Rather, it sharpens the feedback from ISRLOs, who can also aggregate ITC input to ensure that many problems are fixed.

A variety of organizations during OEF, OIF, and previous operations complained that there was not enough feedback about intelligence collection operations. In part, individuals tasking the sensors could not provide feedback because they did not know what feedback to present. While ISRLOs are meant to fill this gap, they cannot be the ITCs for every aircraft. ITCs provided ample feedback during OIR, driving requirements to correct issues such as links with intelligence collection assets and to integrate CAS with sensor collection and deconfliction in real time. ISRLOs used tactical feedback from ITCs to fulfill their role of giving HHQ organizational-level feedback, sharing an understanding of tactical situations with the persons tasking ISR assets. The recipe of training ITCs to plan, execute, and assess ISR operations works.

Where Do We Go from Here?

During OIR a cooperative effort between the supported commander, Combined Joint Forces Land Component Command–Iraq (CJFLCC-I), and the US Central Command (CENTCOM) Combined Forces Air Component Command (CFACC) birthed the beginning of a conventional, joint training, certification, and fielding of ITCs. USAF-provided ISRLOs from the division-aligned air support operations squadron (ASOS) trained USAF, USA, and USMC ITCs on the specific aspects of ISR operations mentioned above. While none of the ISRLOs attended the only formal, special operations ITC training, all ISRLOs worked with ITCs and other tactical tasking authorities using their experiences to guide the creation of the training program. CJFLCC-I, through their intelligence chief, certified the trained ITCs as ready for information collection operations on behalf of the supported command. The certified ITCs executed functions alongside ISRLOs, who provided tactical direction based on inputs from the supported commander, the intelligence chief, the collection manager, and lower echelon units. While this program was a gap-filler for OIR,

it leaves several unresolved issues that the headquarters staffs of uniformed services must address to ensure that the benefits of this partnership are not lost.

In the spring and summer of 2015, CENTCOM, CFACC, and CJFLCC-I personnel built a framework outlining requirements, manning, and a command structure for joint ITCs. The framework empowered Air Force ISRLOs as leads for joint ITCs to meet the supported commander's intent for tactical information collection operations. The framework stipulates that all services provide ITCs and that ITCs could include coalition partners. Ideally, an intelligence operations team would consist of one or two Air Force ISRLOs and two to four joint ITCs, depending on the echelon and tempo of operations. The ITCs may be trained from within the organization that they are requested by. For instance, for a USA brigade, a USMC battalion, or a US Navy fleet, one ISRLO and three or four joint ITCs may be appropriate for sustained 24-hour operations. Less important than numbers is that ITCs were positioned at the most tactical level of the organization. It was unnecessary to have ITCs at all levels of the supported command. Hence, the command and control of ITCs present a unique challenge to traditional command structures.

ITC is both a function and a position. For instance, a USA brigade intelligence person can execute the ITC function but not be in an ITC position or billet, as was the case during OIR. When a function, the ITC should fall under the guidelines of airpower execution through the ISRLO. In this case, through the ISRLO, the ASOS exercises tactical control (TACON) of the ITC; however, administrative control (ADCON) and operational control (OPCON) remain within USA channels. Conversely, if a person is billeted as an intelligence, surveillance, and reconnaissance controller, TACON, ADCON, and OPCON should fall within the air support operational squadrons. Optimally, ITCs should be deployed in that position to achieve their specific function even though this is not always feasible.

The proposed framework mirrors an existing agreement between the USA and USAF that creates joint fires observers (JFO). JFOs are USA personnel who enhance JTAC capabilities by providing individuals with JTAC-lite training without terminal guidance authorities. Terminal guidance for munitions requires that a person is certified and qualified as a JTAC or forward air controller (airborne). While the JFO program has its drawbacks, such as JFO training not always executed as intended, it is an excellent construct for ITC training and certification.

If a conventional ITC program is to exist, its execution must be joint because all services have something to lose if it does not come to fruition. The special operations community already has a well-developed training and certification program for ITCs. Conventional forces can replicate the special operations community's best practices. Invariably, each service will be driven to develop its standards and certify its ITCs. If that should happen, the standards upon which that certification is based should be joint and integrate some of the lessons learned from existing ISRLOs and ITCs. For instance, an ITC should do the following:

- Hold an intelligence operations military occupational specialty or Air Force specialty code for at least three years.

- Presently, take a direct part in intelligence operations for at least one year (e.g., USAF DCGS operations, Shadow/Gray Eagle platoon operations, collection management, ISRLO, etc.).
- Complete an ITC curriculum managed by the Directorate of Command, Control, and Communications (J-6), which is similar to the JFO program.

Likely, Headquarters Air Force intelligence and Air Combat Command intelligence would be the lead for Air Force contributions to a joint curriculum. Once these prerequisites are met, a joint certification should be conferred for presentation to the requesting combatant command. Again, mirroring the JFO program, the Joint Staff J-6 could manage ITC administration. The standards need not be overly laborious, but they must be clearly defined and agreed to by all the uniformed services before any training or certification programs are initiated within each service.

Finally, combatant and combatant component commanders must ensure that ITCs continue to appear on JMDs that drive in-theater requirements. Service staffs should coordinate to validate the ITC requirement and define it. When validated, combatant commands should request ITCs as a part of a baseline package for any contingency that involves airborne information collection. Most importantly, ITCs cannot be seen as a Band-Aid for all intelligence problems. They cannot be used as intelligence support personnel or collection managers because each of these personnel has very specific roles and functions to affect the battlespace for the supported commander. If they are to be effective, ITCs must be ITCs—certified, qualified, and empowered to perform their function. Also, while ISRLOs can be ITCs if the situation dictates, they must not be relied upon as the sole source of ITCs.

Conclusion

ITCs are a critical, missing link for effective, tactical ISR operations processes. Intelligence collection operations have benefited from a decade of debate and movement in the realm of doctrine and technology. The DOD must now address a specific intelligence people problem: recruiting, certifying, and properly deploying enough ITCs to integrate with ISRLOs within the joint tactical air control system. Modern ISR operations require the tactical edge of effectively placed, well-trained, and empowered operators. While it makes the most sense to have Airmen fill these roles, the problem is joint, requiring a joint solution. The USAF has taken the lead to develop the structures needed to support a joint ITC endeavor. These efforts include developing the initial training plan and sending in-garrison ISRLOs to special operations ITC training courses. However, all the services must come together to determine the most appropriate joint solution. Time is of the essence.

Future US military strategy depends heavily on airborne reconnaissance and surveillance operations. Large, global footprints will no longer be acceptable or affordable to the American people and supported commanders. Thus, the ways in which the military addresses surgical problems must be constructed surgically. ITCs enhance the small-team concept that equips supported commanders with the expertise needed as a part of a functioning, effective, and efficient team. ✪

Notes

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