

Advancing ISR Analytic Tradecraft from Counterinsurgency and Violent Extremist  
Organizations: The Immediate ISR Constraints in a Taiwan Scenario

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21 May 2021

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## **Abstract**

With the United States Intelligence Community shifting collection priorities away from counterinsurgency (COIN) and counter Violent Extremist (VEO) operations, numerous deficiencies within the Intelligence Community (IC) have been revealed. The first is an outdated Intelligence, Surveillance, and Reconnaissance (ISR) collection structure that oversaturates intelligence analysts with overwhelming intelligence priorities. The second highlights a deficiency in the education of intelligence personnel to fight the next generation of ISR collection priorities. Finally, the last twenty years have created an attachment to air dominance to produce much of the intelligence communities' analytic production. When facing the Great Power Competition (GPC), the primary constraint is not the lack of advanced technology. The overall issue is an ISR structure that does not speak to all US service branches equally. Without a revised ISR tasking structure, the ability to coordinate critical intelligence in a collaborative environment will be strained and produce irrelevant intelligence. This paper will address the three most critical deficiencies within the ISR structure that will be a primary constraint to US and Allied forces in a Taiwan scenario. One, the over saturation of analysts through ineffective collection tasking, two, the lack of qualified or experienced intelligence analysts, and three, an outdated ISR structure that uses limited intelligence disciplines to compensate for an accelerated dissemination process.

## **Historical ISR trends**

As defined by Carl Von Clausewitz, the primary purpose of intelligence is gathering "every sort of information about the enemy and his country – the basis, in short, of our own plans and operations."<sup>1</sup> While the tools that modern intelligence analysts use have changed

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<sup>1</sup> Carl von Clausewitz et al., in *On War* (Princeton: Princeton University Press, 1984), 117.

dramatically since the publication of *On War*, Clausewitz's definition still applies to modern ISR; however, the process of refining intelligence has become overly complicated. This deficiency within the ISR structure began during the first Gulf War in 1991. American intelligence agencies struggled to coordinate between multiple organizations to provide the needed intelligence for theater commanders. In *Revolution in Warfare? AirPower in the Persian Gulf*, Thomas A. Keaney and Eliot A. Cohen outline General Norman H. Schwarzkopf's views on US intelligence during the Gulf War. In this overview, General Schwarzkopf recalled intelligence as "useless to him in the field and, two, bomb damage assessments done in Washington varied from those done in theater."<sup>2</sup> Both Cohen and Keaney reveal the inefficiencies of US intelligence collaboration during the air campaign, showing that analysts provided irrelevant or redundant reports to theater commanders. In addition to the disconnect from intelligence agencies during the air campaign, both authors highlight another critical problem with the ISR structure. This issue focuses on the distribution of personnel needed; "the system did not work well in practice because of inadequate numbers of trained, qualified personnel."<sup>3</sup> The combination of an outdated ISR structure and the lack of qualified personnel crippled US intelligence analysts during the Gulf War. These issues carried on to the current conflicts against Non-State Actors and VEOs.

The progression of ISR tasking, collection, and exploitation has made leaps and bounds since the First Gulf War but, has retained a few minor deficiencies with how it processes and tasks ISR collection assets. In *Strategy for Intelligence, Surveillance, and Reconnaissance*, Colonel Jason Brown USAF outlines the shift from the First Gulf War to the War on Terrorism. In this transition, Colonel Brown identifies a severe lack of knowledge from analysts and

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<sup>2</sup> Thomas A. Keaney and Eliot A. Cohen, "*Revolution in Warfare?: Air Power in the Persian Gulf*"(Annapolis, MD: Naval Inst. Press, 1996), 105.

<sup>3</sup> *Ibid.*, 120.

collection managers in addition to the lack of qualified personnel.<sup>4</sup> This lack of knowledge or general understanding of ISR capabilities inaccurately tasked collection assets and created an additional issue with how collection requirements were written. This issue highlighted the fact that "despite this lack of evidence, collection managers, were concerned more about the percentage of satisfied requirements than flaws in ISR strategy."<sup>5</sup>

### **Revolution in ISR Tasking and Analytics**

The combined lessons learned from the First Gulf War and the ongoing lessons from COIN and VEO operations have produced one common theme. This theme is an outdated ISR structure that has not advanced as quickly as the technology it uses to collect, exploit and analyze. Even with modern satellites that coordinate ISR collection, the intelligence produced falls short of what theater commanders need. The cause of this narrow focus started with COIN operations over twenty years ago, which called for increased use in tactical ISR assets at an overwhelming pace. The expedited rate at which theater commanders needed intelligence reports caused collection managers to reuse Essential Elements of Information (EEI) to keep up with the demand from theater units. While this process worked to maintain persistent ISR coverage against VEOs, the shift towards GPC adversaries highlighted a need to change how analytic lines of effort match collection priorities.

One solution to this new shift towards multi-source intelligence is developing the Distributed Common Ground Systems (DCGS) Next Generation (DCGS NextGen). This new shift in intelligence focus recognizes that "The landscape of today's challenges has changed from a focus on COIN/C-VEO to one of the near-peer adversaries competing directly with the United

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<sup>4</sup> Brown, Jason M. *Strategy for Intelligence, Surveillance, and Reconnaissance* (Maxwell Air Force Base, AL: Air University Press, 2014), 3.

<sup>5</sup> *Ibid.*, 2.

States.”<sup>6</sup> The change in analytic focus from the DCGS focuses intelligence priorities towards near-peer adversaries. This shift in analytic focus allows an analyst to broaden intelligence training since the transition from single intelligence reporting to multi-intelligence fused products aligns with the National Defense Strategy (NDS). This decision to shift most of the DCGS intelligence priorities away from COIN and VEO allowed DCGS analysts to "fuse multi-source data from across the intelligence community, regardless of source or sensor, into products that provide insight for decision-makers.”<sup>7</sup>

Providing multi-source intelligence products is not an original idea; however, the development of specific teams, the shift in analytic lines of effort, and the alignment of analysts to NDS priorities sparked innovation within an outdated ISR structure. Before the shift to DCGS Next-Gen, the DCGS enterprise faced similar challenges during the First Gulf War, where analysts did not communicate effectively between different intelligence organizations. The past twenty years of tactical ISR support to COIN and VEO operations developed a conveyor belt system that produced intelligence at an effective rate, but sacrificed analytic depth. These preliminary intelligence reports did not stem from the analysts, rather through the collection manager's inability to write effective EEIs and Priority Intelligence Requirements (PIR) to task ISR assets. Without adequate and meaningful EEIs and PIRs, the ability to produce adequate and accurate intelligence is strained and fails to meet the commander's priorities. In order to prevent collection managers from writing ineffective EEIs and PIRs, the coordination and communication between the supported unit and supporting unit needs to improve.

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<sup>6</sup> Borukhovich, Kelly, and Tyler Morton. *DCGS Next Generation: Accelerating Change to Deliver Decision Advantage*, September 26, 2020. <https://othjournal.com/2020/09/26/dcgs-next-generation-accelerating-change-to-deliver-decision-advantage/>.

<sup>7</sup> Ibid

### **A Possible solution to guide ISR in a Taiwan Scenario**

Many theories, solutions, and operational plans can direct successful ISR coordination during a Taiwan scenario. One such solution is the development of a tasking, collection, and dissemination template that properly aligns collection requirements from supporting units and converts them into multi-fused intelligence products. Much of this has already been accomplished through the DCGS Next-Gen concept and has shown tremendous results in supplying adequate multi-fused intelligence products to supported units deployed in various regions.<sup>8</sup>

In a Taiwan scenario, the primary ISR constraint will be the limitation of qualified ISR analysts to deliver intelligence products that are not constrained to one intelligence discipline. Most theater ISR assets will likely have limited opportunities to conduct ISR operations within the contested airspace.<sup>9</sup> To compensate for this limited collection window, ISR analysts must be armed with a simple ISR template that infuses multi-intelligence disciplines. With this template, an intelligence analyst with little to no experience will have a simple step-by-step conversion process that allows an analyst to convert single intelligence collection requirements and infuse them with more than one intelligence discipline. This idea had been mentioned by Colonel Brown, and described an effective way to build an ISR team that “must include the right mix of analysts, capability experts, and consumers from throughout the commander’s staff and external organizations who have the right planning, critical thinking, and leadership abilities.”<sup>10</sup> Little did Colonel Brown know that these effective teams he described are the Analysis and Exploitation Teams (AET) from the DCGS Next-Gen concept.

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<sup>8</sup> Ibid

<sup>9</sup> Gray, Colin S. *Understanding Air Power: Bonfire of the Fallacies*. (Maxwell Air Force Base, Ala: Air Force Research Institute, 2009), viii.

<sup>10</sup> Brown., 14.

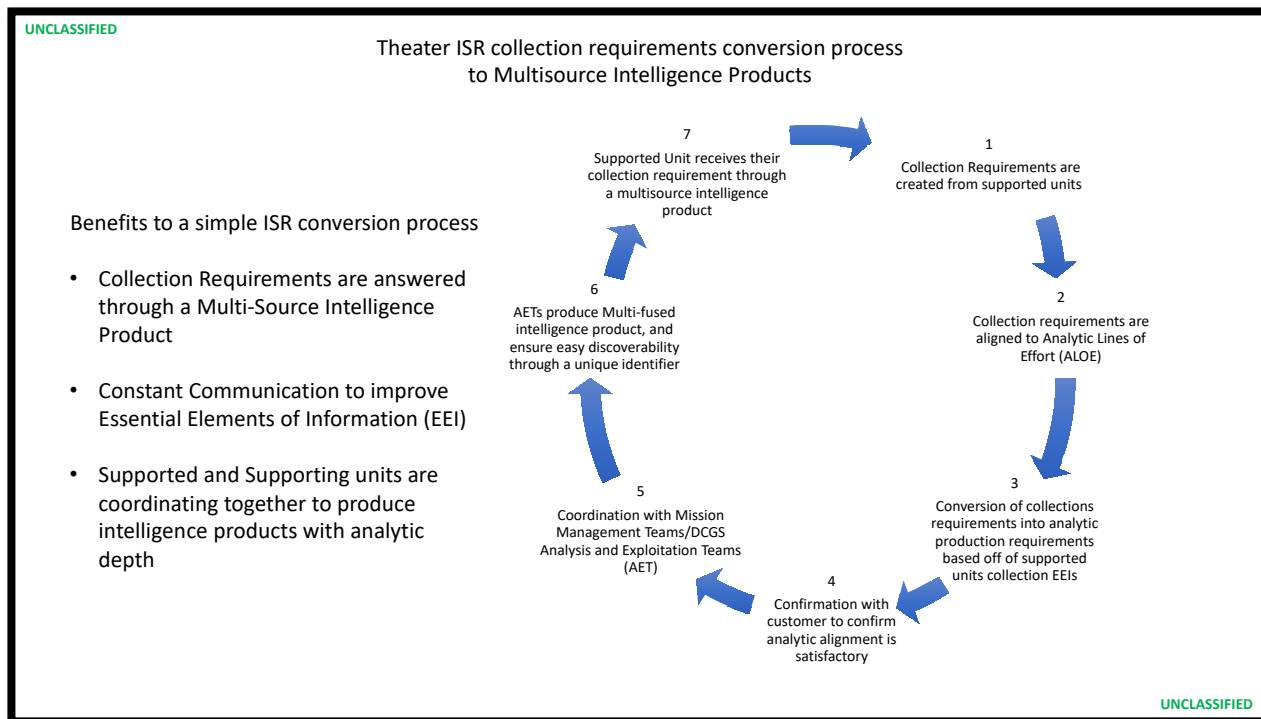


Figure 1. Collection requirements aligned to Multi-Source Intelligence Products

These AETs serve as a possible solution to compensate for the lack of subject matter experts during a Taiwan scenario. These teams are converting theater-based ISR requirements and aligning each requirement to an existing analytic line of effort. As shown in Figure 1, this new ISR template emphasizes increased communication and coordination between larger intelligence agencies and the AETs.<sup>11</sup> With this new template, the role of converting theater collection requirements is handled by the Air Operation Centers (AOC), and the DCGS creates the multi-source intelligence products to distribute to the supported units.

### The Collection Alignment and Conversion Process

This collection conversion process allows ISR collection requirements to be aligned and processed without the sole reliance on one intelligence discipline. Should any ISR collection

<sup>11</sup> Olsen, John Andreas. *Airpower Reborn: The Strategic Concepts of John Warden and John Boyd*. (Annapolis, MD: Naval Institute Press, 2015), 6.

asset fail to answer a specific EEI, the multi-source intelligence product allows the collection requirement to be answered through another intelligence discipline. This process is substantially different from previous theater collection and exploitation processes, as most rely on the theater asset to be airborne for the EEI to be answered. This current process allows the collection EEI to be answered through national ISR assets, theater ISR assets, Signal Intelligence (SIGINT), Electronic Intelligence (ELINT), Human Intelligence (HUMINT), Open Source Intelligence (OSINT), and other intelligence disciplines. This process gives the ISR community the flexibility to maintain adequate collection, exploitation, analysis, and dissemination during a Taiwan scenario.<sup>12</sup> The DCGS and tactical like units, need to have the authority to develop multisource intelligence products that can provide more analytic depth without the long process from the national intelligence agencies.

### **Conclusion**

Overall, without a revised ISR tasking structure, the ability to coordinate critical intelligence in a collaborative environment will be strained and fail to deliver the intelligence needed during a Taiwan scenario. In order to prevent failure, the ISR community must update its current ISR structure to shift away from persistent 24/7 ISR coverage. Using concepts like DCGS Next-Gen, the ISR community improves its outdated ISR structure, creates an analytic template that new analysts can use, and creates a new process to ensure theater ISR collection is deliberate. The future of ISR needs to focus on the continuous development of its analysts or "find itself losing its cutting edge in more than one area."<sup>13</sup>

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<sup>12</sup> Gray, Colin S. *Understanding Air Power: Bonfire of the Fallacies*. (Maxwell Air Force Base, Ala: Air Force Research Institute, 2009), 20.

<sup>13</sup> Gray, Colin S. *Air Power for Strategic Effect* (Maxwell Air Force Base, Ala: Air Power Research Institute, 2012), 63.



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