



INTELLIGENCE REQUIREMENTS

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Intelligence and operational requirements drive the planning and execution of global integrated intelligence, surveillance, and reconnaissance (ISR) operations. The requirements start at the national decision-maker level and are tailored and refined down to the tactical level. Global integrated ISR operations are executed to collect data on these focused requirements. This data is then combined with other data, analyzed, and incorporated into production to meet the larger intelligence requirements. Understanding these requirements and where they come from is the linchpin to successful global integrated ISR planning and execution.

COLLECTION MANAGEMENT AUTHORITY

[Collection management authority](#) (CMA) is defined as “the authority to establish, prioritize, and validate theater collection requirements, establish sensor tasking guidance, and develop theater-wide collection policies.”¹ Commanders exercising [operational control](#) (OPCON) over ISR forces may or may not assume CMA of tasking these global integrated ISR assets as part of the delegation of authority.

CMA usually includes authority to task geospatial intelligence (GEOINT) sensors and lower echelon signals intelligence (SIGINT) collection systems that have more localized collection capabilities. National Security Agency (NSA) still retains CMA over the tasking of strategic-capable SIGINT ISR systems. The combatant commander (CCDR) may specifically request and subsequently receive temporary SIGINT operational tasking authority (SOTA) over theater-wide capable platforms and sensors. The delegation of SOTA to the CCDR and subsequent delegation of this authority to the joint force commander (JFC) ensures the theater has the ability to prioritize requirements and focus SIGINT collection where it is needed to carry out the mission assigned to the command.

COLLECTION REQUIREMENTS MANAGEMENT (CRM)

[Collection requirements management](#) (CRM) is defined as “the authoritative development and control of collection, processing, exploitation, and/or reporting requirements that normally result in either the direct tasking of assets over which the collection manager has authority, or the generation of tasking requests to collection management authorities at a higher, lower, or lateral echelon to accomplish the

¹JP 2-0, *Joint Intelligence*.

collection mission.” CRM and validation of collection requirement requests for an AOR often resides at the combatant command level but may be delegated to a JFC. CRM focuses on the requirements of the customer, is all source oriented, and indicates what information is necessary for collection.

COLLECTION OPERATIONS MANAGEMENT (COM)

[Collection operations management](#) (COM) is defined as “authoritative direction, scheduling, and control of specific collection operations and associated processing, exploitation, and reporting resources.” COM is often delegated to an echelon below the JFC (usually the commander, Air Force forces [COMAFFOR]), when that echelon has the required expertise in daily collection operations for specific ISR assets. COM is the tasking, scheduling, and control of specific collection, processing and exploitation assets to satisfy joint force requirements that have been validated and prioritized via the CRM process.

COMMANDER’S CRITICAL INFORMATION REQUIREMENTS

Planning and direction of global integrated ISR operations start with the identification of needs for intelligence regarding all aspects of the operational environment. The President and Secretary of Defense direct JFCs engage in adaptive planning for the conduct of operations. The JFC should then provide the [commander’s critical information requirements](#) (CCIRs) to the joint staff and components.

CCIRs are information requirements identified by the commander as being critical to facilitating timely decision-making. The two key elements are friendly force information requirements and priority intelligence requirements.² Global integrated ISR activities in support of CCIRs should be coordinated with the servicing judge advocate to ensure compliance with the law and any existing rules of engagement (ROE).

PRIORITY INTELLIGENCE REQUIREMENTS

In the course of intelligence planning and direction, intelligence planners identify the intelligence required to answer the CCIRs. Those intelligence requirements deemed most important to mission accomplishment are identified [as priority intelligence requirements](#) (PIRs). PIRs are general statements of intelligence need. Examples of PIRs are as follows: “what is the operational status of the adversary’s integrated air defense system?” or “what terrorist groups are active within the area of responsibility/interest (AOR/AOI)?”

PIRs provide the framework for prioritization of all global integrated ISR operations within a CCMD. PIRs are driven by, and in turn drive, the joint [intelligence preparation of the operational environment](#) (JIPOE) process to refine information requirements and support the commander’s potential courses of action. The designation of intelligence requirements ensures efforts are focused on critical information needed to support warfighters. Additionally, PIRs drive the development of detailed EEIs.

²JP 3-0, *Joint Operations*.

ESSENTIAL ELEMENTS OF INFORMATION

[Essential elements of information](#) (EEl)s further define the commander's priority intelligence requirements by outlining specific information requirements. An example of an EEl is as follows: "what is the current location of the adversary SA-20 battery?" EEl)s are linked to PIRs in order to trace accountability for global integrated ISR operations to commander priorities. As commander direction and guidance evolve, planners may develop new EEl requirements or modify existing requirements.

REQUESTS FOR INFORMATION

Requests for information (RFIs) are used to task and manage intelligence analysis requirements to answer CCIRs and PIRs. If analysis cannot be performed within an organization, RFIs for intelligence analysis from other organizations across the community in support of answering CCIRs and PIRs are coordinated through the automated requirements management system known as the Community On-Line Intelligence System for End Users.

PCPAD

Within a CCMD, the [planning and direction; collection; processing and exploitation; analysis and production; and dissemination](#) (PCPAD) process of planning global integrated ISR operations begins once the above requirements have been established, validated, and prioritized. As intelligence collection requirements are aligned with available collection capabilities; the planning process addresses such factors as the availability of ISR assets, platform and sensor capabilities, adversary threats to assets, and timeliness of a global integrated ISR response. These factors, when weighed together, affect how ISR assets are tasked and employed. In order to make the planning process more efficient, information requesters should clearly articulate their collection requirements and allow the CMs and operations planners to decide the best way to meet the requirements.

An optimal global integrated ISR strategy should be designed to maximize battlespace awareness. ISR strategy is encapsulated within the [joint air operation plan](#) and is synchronized with theater and national architectures and strategies. It provides the foundation for development and validation of intelligence requirements, captures the framework for planning and direction of global integrated ISR operations, and establishes guidance for the operation of all other elements of the global integrated ISR processes.

PLANNING AND DIRECTION

[Planning and direction](#) is defined as "the determination of intelligence requirements, development of appropriate intelligence architecture, preparation of a collection plan, and issuance of orders and requests to information collection agencies."³ Planning and direction of global integrated ISR activities involves synchronizing and integrating the activities of collection, processing and exploitation, analysis and production, and dissemination resources to meet information requirements of national and military

³ JP 2-01, *Joint and National Intelligence Support to Military Operations*.

decision-makers at all levels. Precise planning will mitigate and potentially defeat the traditional adversary advantages of surprise, speed, stealth, maneuver and initiative. For example, campaign planners rely on global integrated ISR to provide the intelligence crucial to understanding an adversary's weaknesses and key nodes that can be affected by air, space, land, maritime, cyberspace and information operations. Intelligence analysis helps detect/discover, identify, locate, and describe the vulnerable, vital elements of an adversary's physical and virtual structure and their COG. In this way Air Force global integrated ISR brings significant strengths to [foreign internal defense](#) and [counterinsurgency \(COIN\)](#), not the least of which is identifying key areas along the borders and monitoring traffic in coordination with host nations (HN).

COLLECTION

[Collection](#) is defined as “the acquisition of information and the provision of this information to processing elements.”⁴ The collection portion of the intelligence process involves tasking appropriate assets or resources to acquire the data and information required. Collection includes the identification, prioritization, coordination, and positioning of assets or resources in all domains to satisfy intelligence requirements. A unique advantage is that several platforms used for collection provide an opportunity to minimize the US footprint. Global integrated ISR assets can be based outside of the AOI or sequestered on airfields within the AOI that are relatively isolated from the population.

PROCESSING AND EXPLOITATION

[Processing and exploitation](#) is defined as “the conversion of collected information into forms suitable to the production of intelligence.”⁵ Once the data satisfying the requirements are collected, they undergo processing and exploitation. Through processing and exploitation, the collected raw data is transformed into information that can be readily disseminated, used, exploited, transmitted, stored, and retrieved by intelligence analysts. Relevant critical information should also be disseminated to the commander and staff to facilitate time-sensitive decision making. Processing and exploitation time varies depending on the characteristics of specific collection assets. For example, some systems accomplish processing automatically and nearly simultaneous with collection. However, other collection assets, such as [human intelligence](#) (HUMINT) teams, may require additional time. Processing and exploitation requirements are prioritized and synchronized with the commander's PIRs. During processing and exploitation, collected data is correlated and converted into a format suitable for analysis and production. Processing and exploitation remain distinct from analysis and production in that the resulting information receives tier one analysis for time-critical production but has not been subjected to full analytical assessment. Relevant time-sensitive information resulting from this step in the process (especially targeting, personnel recovery, or threat warning information) should be immediately disseminated through intelligence broadcasts, secure information workspace or internet relay chat channels, imagery product libraries (IPLs), intelligence databases, or message reporting.

⁴ JP 2-01, *Joint and National Intelligence Support to Military Operations*.

⁵ JP 2-01, *Joint and National Intelligence Support to Military Operations*.

ANALYSIS AND PRODUCTION

[Analysis and production](#) is defined as “the conversion of processed information into intelligence through the integration, evaluation, analysis, and interpretation of all source data and the preparation of intelligence products in support of known or anticipated user requirements.”⁶ Integrated multi-domain ISR-generated data can provide understanding of demographics, culture, physical terrain, centers of gravity, and financial, social, and political infrastructures. Global integrated ISR must fuse all-source intelligence data and rapidly disseminate finished, timely, accurate and actionable intelligence to consumers in order to facilitate command decisions and rapid response options.

Analysis and production are accomplished through a structured series of actions which, usually occurring sequentially, may also take place concurrently. These actions include the integration, evaluation, analysis, and interpretation of information in response to known or anticipated intelligence production requirements.

- ✦ **Integration.** Information from single or multiple sources is received, collated, and entered into appropriate databases by the analysis and production elements of intelligence community organizations, the theater joint intelligence operations centers (JIOCs) or subordinate joint force elements like the ISR division. Information is integrated and grouped with related pieces of data according to predetermined criteria to facilitate the evaluation of newly received information.
- ✦ **Evaluation.** Each new item of information is evaluated by the appropriate analysis and production element with respect to the reliability of the source and the credibility of the information. The reliability of the source and the credibility of the information should be assessed independently of each other to avoid bias.
- ✦ **Analysis.** During analysis, assessments are made by comparing integrated and evaluated information with known facts and predetermined assumptions. These assessments are combined and assessed to discern patterns, links or recognized events. Analysis can also result in identification of opportunities or knowledge gaps that drive future collection. Examples of analytical activities include pattern of life analysis, spatial/temporal analysis, network analysis, trend analysis, forensic-based analysis.
- ✦ **Interpretation.** Interpretation is an inductive process in which the information is judged in relation to existing information and intelligence. This process involves the identification of new activity and a decision regarding the significance of that activity.

These actions enable intelligence fusion. Fusion is “the process of examining all sources of intelligence and information to derive a complete assessment of activity.”⁷ To promote fusion, analysts should work in collaborative environments which provide access to recognized, and often geographically separated, subject matter experts. Through collaboration, intelligence analysts are able to share information, discuss opinions, debate hypotheses, and identify or resolve analytic disagreements. Advances

⁶ JP 2-01, *Joint and National Intelligence Support to Military Operations*.

⁷ JP 2-0, *Joint Intelligence*.

in network capabilities greatly enhance analysts' ability to share, compare, and assess information. As databases grow in volume and complexity, potentially vital pieces of information may become increasingly difficult for analysts to find and retrieve. In order to overcome this limitation, virtual knowledge bases have been designed to serve as integrated repositories of multiple databases as well as reference documents and open-source material.

DISSEMINATION

[Dissemination](#) is defined as “the delivery of intelligence to users in a suitable form and the application of the intelligence to appropriate missions, tasks, and functions.”⁸ Dissemination of global integrated ISR provides the end user information required for application in a timely manner. Dissemination can take a variety of forms (i.e., electronic transmission, hardcopy annotated imagery/maps, direct threat warnings, oral and written reports, briefings, or via various servers allowing structured discovery and retrieval). Most importantly, the dissemination process requires continuous management. Without effective management, communications paths can become saturated by information being retransmitted by many intermediate collection agencies, resulting in “circular reporting.” Advances in cyberspace capabilities or technology also improve dissemination by reducing information-to-production timeline for delivering global integrated ISR products. Likewise, some collection systems are capable of disseminating collected information to requesters on a real- or near real-time basis, vastly increasing their responsiveness. With this consideration in mind, it is sometimes better to get the consumer data immediately rather than processed knowledge too late. Additionally, global integrated ISR planning should include local procedures for rapidly coordinating with [Public Affairs](#) for public release of select intelligence. This expanding collection capability makes secure network connectivity more important because real-time planning and targeting systems depend on tailored intelligence information. The integration of intelligence and operations on a continuous basis allows commanders and all operational planners access to the most current information available; thereby optimizing intelligence support to operation planning, preparation, execution, and assessment functions.

⁸ JP 2-01, *Joint and National Intelligence Support to Military Operations*.