



Building the Base: Using the Army's Intelligence Program of Analysis to Drive Foundational Intelligence

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If you're an inch off on landing, no big deal. If you're an inch off on take-off, you miss the moon by a million miles.

—Neil Armstrong

Introduction

Construction engineers understand the value of a solid foundation and the dangers associated with a foundation of questionable quality. A solid base can support skyscrapers of more than a hundred stories, reinforce bridges across the most turbulent waters, and sustain coastal communities through hurricane-force winds. Similarly, military operations require information composed of foundational intelligence gathered, analyzed, and disseminated far in advance of engagement. This article will—

- ◆ Clarify how foundational intelligence is used, drawing on Army foundational intelligence for examples.
- ◆ Discuss historical case studies of its success and failure on the battlefield.
- ◆ Describe the role of the National Ground Intelligence Center (NGIC) as a Service intelligence center in the acquisition, analysis, and distribution of foundational intelligence.
- ◆ Describe the process used to organize information into a series of documents that drive production within NGIC.¹

The foundational intelligence for military operations is defined as the detailed knowledge of threat strengths, vulnerabilities, organizations, equipment, capabilities, and tactics required to plan for and execute unified land operations in a complex, dynamic, multi-domain operating environment.² Foundational intelligence encompasses knowledge of foreign armed forces, including the detailed analysis and cataloging of order of battle, infrastructure, and environmental knowledge to support military plans and operations.³ Foundational intelligence is analyzing and testing an enemy's artillery weapons to gauge their effective range to keep allied units out of harm's way. It is knowing how long it

takes to refuel and re-arm enemy helicopters to understand the window of time available to maximize an adversary's losses during a counterattack. Foundational intelligence makes up most of the doctrinal threat characteristics that tactical units require to begin planning and preparation of the battlefield—including composition, strength, combat effectiveness, doctrine/tactics, support relationships, electronic technical data, capabilities and limitations, and biometric and forensic data.⁴ Though every operation should begin with a review of this foundational intelligence, one cannot assume that the information will always be readily available and in a consumable format. Figure 1 (on the next page) shows foundational intelligence elements as they relate to intelligence preparation of the battlefield (IPB) setup.

Foundational Intelligence: Historical Perspectives

The impact of a lack of foundational intelligence can be illustrated by failures and lessons learned during the 25 October 1983 invasion of the island nation of Grenada. Elements of the United States Army, Navy, and Marine Corps embarked upon Operation Urgent Fury to rescue deposed Grenadian Governor General Paul Scoon and several hundred American medical students held by soldiers and revolutionary forces from Cuba and Grenada. The rapid escalation of the situation exposed weaknesses in the foundational intelligence required to plan and execute the operation.

Senior leadership at Fort Bragg, North Carolina, in charge of the 82nd Airborne Division assumed that orders to prepare for deployment related to an overwhelming retaliation for the 23 October 1983 bombing of the Marine barracks in Beirut, Lebanon, that killed 241 American Service members. Maps and diagrams in nearly every briefing room at Fort Bragg all related to Beirut and Lebanon; even though two battalions of U.S. Army Rangers elsewhere had received a warning order days earlier about invading the

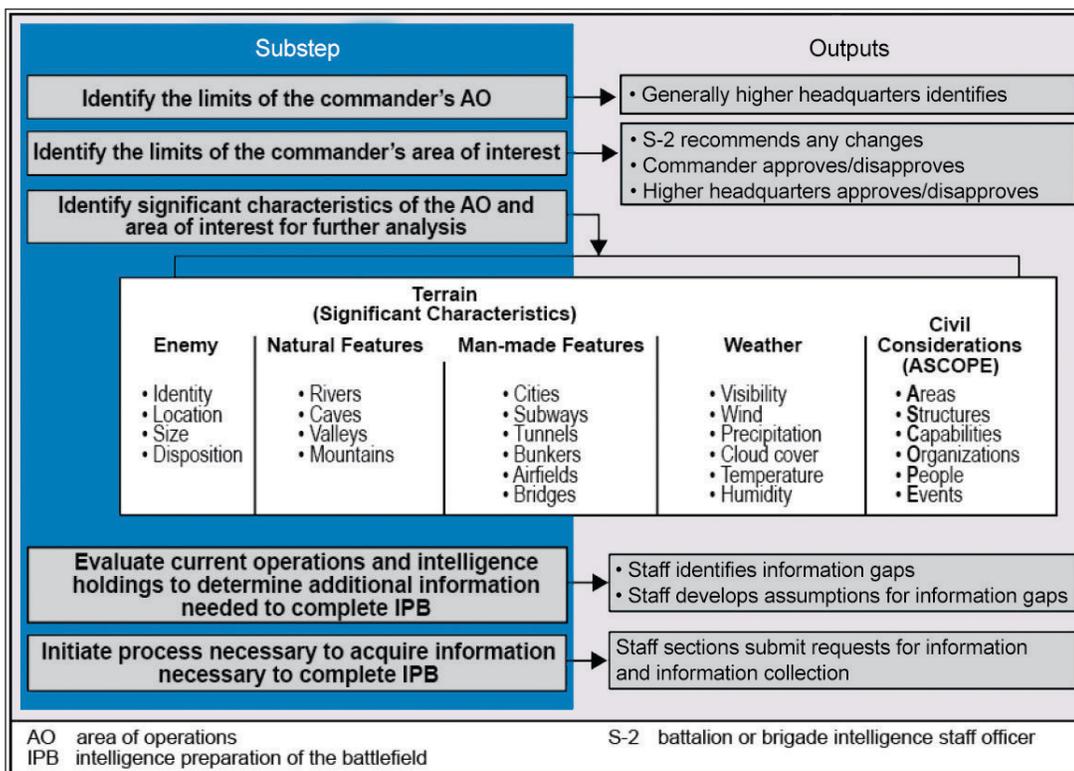


Figure 1. ATP 2-01.3: Substeps and Outputs of IPB Process⁵

ture U.S. Army operations.¹⁰ The surprise invasion of Kuwait by the Iraqi military, the rapid and massive initial deployment of coalition troops, and the growing international support for combat operations placed a large burden on the United States intelligence community. Given its comprehensive understanding of the adversary, the intelligence community was equipped and capable of responding with “decisive, aggressive, and perhaps most importantly, innovative collection, analysis, production, and dissemination measures” to support the operational environment.¹¹ The accurate

Caribbean island. Leadership at Fort Bragg had minimal information available regarding the composition of opposition forces on Grenada, the country’s topography, or the key facilities involved. Most of the information on the island nation was gleaned from articles found in a recent issue of *The Economist* magazine.⁶ Invading Soldiers; Sea, Air, and Land Forces (SEALs); and Marines were provided outdated tourist maps of Grenada with superimposed military grids that contained no detail regarding topography or key facilities.⁷ Deploying Joint Special Operations Command personnel were forced to use overhead photographs with hand-drawn key features, which severely limited artillery, naval gunfire, and air strikes.⁸

The lack of verified ground intelligence led to costly mistakes. Discrepancies in map coordinates, size and location of drop zones, facility identification, interoperability of communication equipment, and targeting systems led to the deaths of U.S. Service members and the unintentional targeting of a civilian mental hospital. Although the invasion ultimately succeeded—owing to the adaptability, ingenuity, and superiority of U.S. forces—the invasion resulted in 125 American casualties, of which 19 were killed and 106 injured.⁹

At its best, foundational intelligence enables rapid and unprecedented success within the operational environment. The 1991 Gulf War presented a number of critical intelligence support lessons that became highly relevant to fu-

breadth and depth of detail accumulated on the Iraqi chemical warfare program, the intelligence gathered regarding the Iraqi order of battle, and the identification of a multitude of structures scattered throughout Iraq as having military and strategic significance have all been identified as having critical foundational importance—without which the air war would never have been the success it was.¹²

Despite various operational dilemmas, such as a lack of cover and concealment, and the harshness of the desert environment, this intelligence facilitated the development of vastly improved tactics, techniques, and procedures for operating in an environment as austere as the Iraqi desert—lessons that would be perfected and used a little more than a decade later. Through knowledge gained regarding the lack of technological advancements of Iraqi armored and infantry units, the United States capitalized on the vast difference in night vision capabilities to “own the night” and conduct operations with relative impunity. Unit commanders and vehicle drivers used image-enhancement scopes and goggles and infrared and thermal-imaging systems to identify enemy vehicles using heat signatures developed years before through exploitation of foreign materiel.¹³ Furthermore, knowing that Iraqi units did not possess similar technology allowed United States armored divisions to successfully fire on and destroy the enemy from a range at which those units neither exposed themselves to harm nor were close enough for the enemy to determine their

position.¹⁴ The success of the foundational intelligence gained during Operation Desert Storm can best be summed up by the Department of Defense (DoD) report to Congress, which stated that “no combat commander has ever had as full and complete a view of his adversary as did our field commanders ...This success reflected investments in technology and the efforts of thousands of U.S. intelligence professionals.”¹⁵

Service Intelligence Centers

In 2017, GEN Joseph Dunford wrote, “The speed of war has changed, and the nature of these changes makes the global security environment even more unpredictable, dangerous, and unforgiving...Our decision-making processes and planning constructs must also be flexible enough to deliver options at the speed of war.”¹⁶ To generate decisions at the “speed of war,” foundational intelligence must be sound, and current threat characteristics for the most likely, and even possible, adversaries are mandatory. At the forefront of maintaining today’s foundational intelligence are members of the Defense Intelligence Enterprise. This enterprise, led by the Defense Intelligence Agency, comprises general and specialized intelligence centers focused on the production and maintenance of critical intelligence products and databases. The enterprise includes the Missile and Space Intelligence Center, the National Center for Medical Intelligence, and the Nation’s Service intelligence centers. Uniquely positioned at the crossroads between the operational force and the intelligence community, four Service intelligence centers represent each branch of Service: National Air and Space Intelligence Center (Air Force), Office of Naval Intelligence (Navy), Marine Corps Intelligence Activity (Marine Corps), and NGIC (Army).

Service intelligence centers fulfill two primary roles: direct intelligence support to their Service and production of foundational intelligence on foreign military service capabilities and operational art. The Service intelligence centers leverage their unique understanding of their particular Service’s mission and capabilities to address intelligence requirements and support mission command throughout the force. Direct support may include the provision of expertise to operationally deployed forces or support to senior decision makers within the Pentagon. In addition to this specific support to the Service, the Service intelligence center is also responsible for a layer of foundational data. This foundational layer consists of authoritative assessments regarding threat characteristics, future force projections, emerging capabilities, foreign force organization, and other topics. It represents a more general level of support not only to their Service but also to the DoD and the broader intelligence community.

NGIC, for example, is an Army military intelligence brigade that provides foundational all-source and geospatial intelligence on ground force capabilities and related military technologies while integrating with mission partners to ensure Army, DoD, joint, and national-level decision makers maintain decision advantage to protect U.S. interests at home and abroad. NGIC provides general military intelligence and the associated scientific and technical intelligence on foreign ground forces from the operational through small-unit level, maintaining detailed knowledge of current ground force capabilities and doctrine, as well as projecting 5, 10, and even 20 years into the future. The scope of this mission requires not only a specialized workforce but also a deliberate collection and prioritization of requirements from customers who rely on NGIC’s assessments.¹⁷

The NGIC workforce composition reflects the need for deep expertise and mission continuity. At NGIC, civilians make up most of the workforce and enable the center to maintain deep regional and functional understanding. NGIC employs not only civilian general military intelligence specialists but also chemists, computer scientists, mathematicians, and engineers in diverse fields from aeronautics to robotics, as well as modelers, simulation experts, and other technical specialists who evaluate capabilities and performance data.¹⁸ The Army also assigns active duty personnel to NGIC as a broadening assignment for intelligence non-commissioned officers, warrant officers, and officers, as well as a number of officers from other Service branches. These Soldiers bring recent operational experiences and perspective to NGIC, while gaining a greater depth of knowledge of analytic tradecraft and an understanding of the broader intelligence community. Finally, NGIC leverages a contract workforce that brings critical skills and capability not readily available within the civilian and military population.

Organizing the Effort to Maintain a Solid Foundation

Since 2014, NGIC has used the Director of National Intelligence’s Program of Analysis process as a means to organize and prioritize its analytic focus. Each of the 17 members of the intelligence community produces a Program of Analysis that identifies where the member will focus analysis over a defined period. Each year, on behalf of the Army G-2, NGIC collects requirements from its customers across the Army Service component commands, the Army acquisition community (e.g., including Army Futures Command), Training and Doctrine Command, Forces Command, combatant commands, and elements of Special Operations Command. NGIC conducts extensive coordination with these organizations and brings representatives together to

establish priorities for each community of interest. The results are then compiled and organized around key intelligence questions that represent focus areas for intelligence collection and analysis. The key intelligence questions are also assessed to ensure they are assigned to the appropriate production agencies, both inside the Army and across the Defense Intelligence Enterprise. The resulting document is published as guidance for intelligence organizations across the Army. At NGIC, the Program of Analysis and the priorities expressed in it guide the development of a detailed production plan to address the specific requirements and areas for knowledge development.¹⁹

Though this process is repeated annually, many of the focus areas are enduring and remain part of the plan for more than just one year. The process has been continually refined, and NGIC has been able to look beyond each fiscal year and consider multiyear efforts.²⁰ This evolution has allowed NGIC to look more holistically at an issue and plan a series of products intended to build the solid foundation required to answer complex questions. The Program of Analysis process has also highlighted opportunities for integration with other intelligence partners, as well as additional information and organizational dependencies. Ultimately, it will set conditions for more efficient use of resources and more holistic answers to intelligence requirements.

This iterative process of planning and production is used to ensure the foundation for Army and joint planning remains strong and, more importantly, accessible. Although each accomplishes the mission differently, the Service intelligence centers and other foundational intelligence producers go to great lengths to ensure their work is published in a form that commanders and their staffs need. NGIC uses the Army Knowledge Gateway across multiple networks to share intelligence assessments as they are produced and catalogued.

Using Foundational Intelligence

Foundational intelligence provides operational customers, capability developers, and senior decision

makers with the information they need to make informed decisions and avoid surprise. The depth of analysis provided by NGIC is most applicable to three Army intelligence support phases: IPB, current operations, and future acquisition. As the Army iterates IPB in response to current or potential crises, NGIC’s analysis of ground and irregular forces provides a baseline understanding of foreign forces and associated operating environments that is necessary to predict adversary courses of action. As conflict progresses to current operations, NGIC provides situational updates on the threat and potential opportunities as they emerge. Looking 5 to 20 years into the future, NGIC provides foresight of foreign technology acquisition to inform Army capabilities developers of emerging adversary capabilities to mitigate technology surprise. NGIC is an important partner and provider to the Army through these critical phases of intelligence support.²¹ Figure 2 shows foundational intelligence elements as they relate to IPB step 3 (evaluate the threat).

The 2018 National Defense Strategy signals that we are entering an era of dynamic force employment during which the Army must be prepared to respond to threats ranging from near-peer adversaries to violent extremist organizations. To achieve success in this global arena, Army units will rely heavily on the foundational intelligence provided by NGIC.²² For example, the basic capabilities of opposition forces must be understood to calibrate force posture. A baseline understanding of coalition force capabilities must exist in order to prepare the operational environment and build partner capacity and interoperability, while

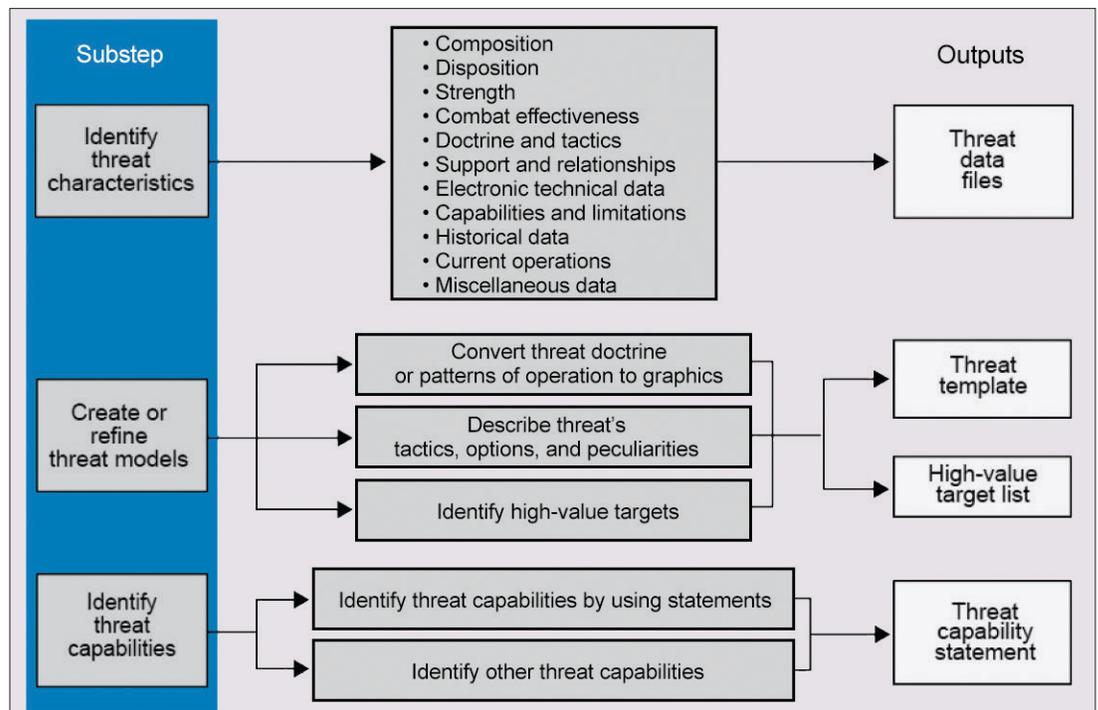


Figure 2. ATP 2-01.3: Substeps and Outputs of Step 3 of the IPB Process²³

simultaneously enhancing coalition forces' abilities to defeat increasingly sophisticated enemy unconventional and information warfare. As was clearly demonstrated in Operation Desert Storm, the intelligence regarding opposition vehicle and personnel electronic and heat signatures was imperative to achieving tactical and strategic success.²⁴ Enemy reconnaissance, strike, combined-arms, and unconventional warfare capabilities must be understood, and vulnerabilities must be identified to converge joint force abilities in highly contested environments.²⁵ Finally, Service intelligence centers, such as NGIC, must maintain and make available to their customers any and all available information that can be leveraged for situational advantage, including data from national, joint, commercial, and Service repositories and libraries or directly from collection assets.²⁶

Putting It All Together

The Army is called on to respond to threats to national interests worldwide, both conventional and asymmetric. This global mission carries with it an inherent risk: operational forces may be tasked to operate in theaters with little knowledge of the environment. NGIC's role is to reduce this risk by steadily monitoring the foundational enemy characteristics and environmental concerns of complex, dynamic, and multi-domain operating environs to enable decision advantage should military force be needed. NGIC does this by—

- ◆ Understanding the importance of foundational intelligence to the field.
- ◆ Taking critical lessons learned from a historical perspective.
- ◆ Finding its place as a Service intelligence center.
- ◆ Employing the Army's Program of Analysis to drive production.

In this way, NGIC supports the modern warfighter by providing, as its motto so aptly puts it, "intelligence today for tomorrow's fight." In his initial message to the Army team, incoming Chief of Staff GEN James C. McConville cited the need to "transform all linear industrial age processes to be more effective, protect our resources, and make better decisions."²⁷ Through close partnership between NGIC and the operational force, NGIC will continue to acquire, analyze, and disseminate foundational intelligence to maintain the decision advantage necessary to respond to current and future threats in an ever-changing global threat environment. 

Epigraph

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Endnotes

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What is Foundry

The Foundry Intelligence Training Program is a critical enabler to Army global readiness. It provides commanders the necessary resources (funding, facilities and subject matter experts) to prepare military intelligence Soldiers, Civilians, and units to conduct intelligence operations and activities at the tactical, operational, and strategic levels.

Foundry Training Types

- Foundry enhances individual and collective intelligence training for the Active and Reserve Components through –
- a. Resident (TDY) or at a Foundry Site
 - b. Live Environment Training
 - c. Mobile Training Teams



Funding

Headquarters, Department of the Army, Office of the Deputy Chief of Staff for Intelligence, may allocate Foundry resources that support unit METL, Army Service component command's intelligence warfighter function training requirements and advanced intelligence training provided by the intelligence community.

Schedules

Foundry Courses can be scheduled through the Army Training Requirements and Resources System (ATRRS). ATRRS allows units to submit training requests online and view calendars of all available, requested, and scheduled intelligence training. ATRRS also displays training objectives, prerequisites, class size, and course administrative requirements. ATRRS URL: <https://www.atrrs.army.mil>.

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