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A Guide to All-Source Analysis

by Thomas Fingar, PhD

The meaning of "all-source analysis" has evolved over time in ways that reflect important changes in the way the Intelligence Community (IC) operates and analysts perform their jobs. Books and articles on intelligence written more than a few years ago often drew a distinction between "all-source analysis" that integrated information from multiple types of sources (such as human intelligence or HUMINT and signals intelligence or SIGINT), and analysis that utilized or focused on a single type of information (such as imagery or IMINT).

This now-outmoded typology was intended to distinguish between specialists with particular expertise in interpreting photographs, discovering the true meaning of words used in deliberately obscured communications (for example, use of "wedding" as a substitute for "terrorist attack"), and other "technical" specialties, and analysts who worked on complicated problems and puzzles requiring the integration of many types of information. Unfortunately, the distinction often was conflated in ways that implied status differences akin to those between blue-collar and white-collar workers. These status differences sometimes were applied to agencies as well as individual analysts. Thus, for example, the Central Intelligence Agency (CIA), the Defense Intelligence Agency (DIA), and the State Department's Bureau of Intelligence and Research (INR) were described as all-source analytic agencies; the National Security Agency (NSA) and the National Geospatial Intelligence Agency (NGA) were characterized as single-source or single-INT agencies.[1]

The distinction was never as clear in practice as it was in the typology, but to the extent that it actually had an impact on the way the IC operates, it impeded the ability of analysts (and sometimes entire agencies) to access certain types of information and to integrate insights from multiple intelligence disciplines. It was, in effect, a situation that sometimes compelled analysts to work difficult problems without being able to collaborate with counterparts in other agencies. That was never desirable, and good analysts and responsible managers often found ways to overcome the inherent strictures of the distinction. But in the fast-paced, information-rich, and highly demanding environment of the 21st century, sharing information and capturing the insights of informed colleagues cannot be a function of individual initiative and creative workarounds.[2]

The potential perils of bureaucratic and behavioral impediments to information sharing, all-source analysis, and collaboration among analysts with complementary skills were tragically revealed by the events of September 11, 2001 and the post-mortem analysis of the 9/11 Commission.[3] Few consequences of failure to access and incorporate information from all available sources will be as dramatic or tragic as were the events of 9/11, but the purpose of intelligence analysis is to help decision makers anticipate, understand, and manage developments with the potential to affect the security of our nation, the safety of or citizens, and the interests of our country. They deserve and demand nothing less than the best possible analytic support. That, in turn, requires tapping all available sources of information, integrating the insights of numerous specialists, and applying high standards of analytic tradecraft.

The Intelligence Reform and Terrorism Prevention Act of 2004 was designed, among other goals, to break down obstacles to information sharing and to facilitate collaboration and "all-source analysis" of the wide and expanding range of national security issues.[4] To meet the challenges of the 21st century, we can no longer tolerate false distinctions between "all-source" and "single-INT" analysts or agencies. Stated another way, providing high-quality analysis and enhancing policymaker understanding of complex developments

1. See, for example, Mark M. Lowenthal, *Intelligence: From Secrets to Policy, Fourth Edition (Washington, DC: CQ Press, 2009), pp. 38, 125, 139; and Richard L. Russell, "Achieving All-Source Fusion in the Intelligence Community," Loch K. Johnson, Editor, Handbook of Intelligence (New York: Routledge, 2009), pp. 189-198.*

2. For more on what is expected of the Intelligence Community, see Thomas Fingar, *Reducing Uncertainty: Intelligence Analysis and National Security (Stanford, CA: Stanford University Press, 2011), chapters 1-2.*

3. The National Commission on Terrorist Attacks upon the United States, *The 9/11 Commission Report* (Washington, DC: U.S. Government Printing Office, 2004); and Amy Zegart, *Spying Blind: The CIA, the FBI, and the Origins of 9/11* (Princeton, NJ: Princeton University Press, 2007).

4. See Intelligence Reform and Terrorism Prevention Act of 2004, Public Law 108-458—Dec. 17, 2004, Sec 102(b) at www.dni.gov/history.htm.

require utilizing all types of information and the insights of everyone who can contribute. Information sharing and collaboration are now essential attributes of intelligence analysis. For example, imagery analysts need (and have) access to SIGINT and HUMINT that could help them to determine the purpose of a construction project. Diplomatic reporting and SIGINT are useful to determine the veracity or biases of a clandestine HUMINT source. Freely available unclassified materials (Open Source Intelligence or OSINT) provides context for all kinds of other reporting. In other words, all analysts are—and must be—all-source analysts.

All-source analysis entails more than simply making more intelligence available to more analysts. Probably the most important attribute is the systematic way that it utilizes information from multiple and varied sources to assess, interpret, and explain a development, discovery, or policy conundrum. Step one is to identify or define what it is that needs to be explained. Unless an analytic challenge is defined with reasonable precision, it is impossible to know what kinds of information might help to clarify what has occurred, why it happened, where developments appear to be headed, and other critical dimensions of the problem. Stated another way, unless one can specify with reasonable precision what needs to be explained, it is hard to know where to look for answers or what types of information and expertise might be most helpful. Simply amassing information on the assumption that "the answer must be in there somewhere" is seldom an effective strategy and can be highly counterproductive.

Defining and redefining the core question is often an iterative process but the ideal starting point should be, "What question, if it can be answered, will provide the most useful insight into the phenomenon being studied?" This will typically be followed by subsequent questions such as, "What kinds of information are most likely to help me to answer the core question?" and "Where might I obtain that kind of information?" Some core questions can be answered using publicly available information (OSINT); others can best be addressed using imagery or SIGINT. Most analysts prefer to have multiple sources that can be used to corroborate or raise questions about what has been reported or revealed by other sources. Generally speaking, one can have higher confidence in information that comes from multiple sources and/or types of sources but, as every analyst must learn, sometimes information truly is "too good to be true" because its purpose is to mislead. This is what is known in the intelligence business as disinformation. Distinguishing disinformation from reliable intelligence requires both skill and familiarity with the characteristics of individual types of sources and how the same or related information is reflected in other sources.

Refining the key question to be examined benefits from, and often requires, obtaining and integrating information from colleagues who are familiar with the subject matter but may—and preferably do—approach the subject from different directions and utilize different types of information. The structure of the US Intelligence Community—16 agencies plus the Office of the Director of National Intelligence supporting dozens of bureaucratic organizations and missions and hundreds of customers—assures the existence of multiple perspectives on almost every issue.[5] Although it makes for untidy organization charts and invites suspicion and accusations of duplication of effort, the structure of the IC creates strengths as well as weaknesses. The primary reason for the existence of multiple agencies is to optimize abilities to support specific missions and customers. One-size-fits-all intelligence is not very useful to anyone; to be useful, intelligence must be tailored to the needs of specific customers. Simply put, the Secretary of State requires different types of intelligence and intelligence support than do the Secretary of Defense, the Attorney General, or the Commander of US Forces in Korea.

Each agency has assembled people with different types of expertise and trained them to focus on using what they know and what they can discover to support the missions of their primary customers. The result is a considerable amount of complementary expertise and independently developed analyses that can be integrated to achieve more holistic understanding of difficult problems. The structure and different missions also facilitate specialization and divisions of labor that enable the IC as a whole to cover more issues more effectively than would otherwise be the case. The existence of multiple agencies reporting to different cabinet-level superiors also has a downside in that it fosters and perpetuates organizational pathologies found in all large enterprises (e.g., unhealthy rivalries, reluctance to trust "competitors," and other impediments to collaboration).[6]

5. For more information, see Thomas Fingar, "Analysis in the U.S. Intelligence Community: Missions, Masters, and Methods," in National Research Council, *Intelligence Analysis: Behavioral and Social Science Foundations* (Washington, DC: The National Academies Press, 2011), pp. 3-27.
6. See, for example, Catherine H. Tinsley, "Social Categorization and Intergroup Dynamics," in National Research Council, pp. 199-223.

Although many structural elements of the US IC are conducive to collaboration across agency boundaries and among analysts with complementary experience and expertise (including in the use of particular types of sources), the amount of collaboration—and all-source analysis—were long-constrained by bureaucratic rivalries and incentives to work problems without substantial input from other agencies or analysts. The 9/11 Commission and other studies critical of impediments to "information sharing" captured a portion of this malady but impeded access to information from "all sources" was only part of the problem and was probably the easiest to address. The more important dimension of the problem was that too many analysts could not easily seek or obtain analytic insights from colleagues elsewhere in the Community.

Perhaps the most important reasons all-source analysis is essential are the complexity of the issues the Intelligence Community is expected to address, the volume of information that might be germane to understanding those issues, the often short timelines within which analytic input is required if it is to be useful, and the consequentiality of many decisions made by the United States government. In other words, the problems are hard; there is lots of information, albeit never as much as one desires and often of uneven quality; deadlines are short; and decisions affecting US interests can be very important to our nation and our relationships with other countries. Because the decisions matter, it is imperative that they be as well informed as possible. It is the responsibility of the Intelligence Community to ensure that they are.

The first requisite for analytic collaboration/all-source analysis is ready access to information and ease of sharing and discussing information with colleagues everywhere in the IC. "Need to know" has been replaced by "responsibility to provide" because "collectors" and other information stewards cannot possibly know the full range of analysts who might find a given piece of intelligence helpful or, if queried about the information in a given report, might be able to provide insights helpful to others. There are, and must be, some restrictions on access, but the working criterion is—and must be—that "all" information, of whatever source or type, must be accessible to all analysts with the clearances required for access to all but a small percentage of all intelligence.[7] Universal access facilitates collaboration and all-source analysis because analysts no longer have to guess whether a particular colleague, especially one that is not known to him or her, has access to a particular report or stream of reporting.

A second requisite is to be able to tap expertise wherever it exists, certainly anywhere in the Intelligence Community and, sometimes, anywhere inside or outside the United States government. This entails being able to discover and consider the perspectives of experts who utilize different types of information and interpret it using criteria appropriate to the missions they support (i.e., the different perspectives that result from the structure of the IC). Sometimes this entails soliciting information, insights, and advice from colleagues with whom one has worked previously and may take the form of "Do you have any information that would help me to understand this puzzle?" or "Which of these alternative hypotheses do you think best fits the data we have on this subject?" At other times, the analyst seeking help from colleagues can post a general inquiry within "A-Space" or on "Intellipedia" asking whether anyone has information or insights that might clarify the question he or she is trying to answer.[8] Such inquiries, and "publicly" posted exchanges among analysts who may not know one another, are the most "all-source" of all because they have the potential to tap different sources and types of information, different analytic perspectives, and the expertise of people in other organizations with whom the requesting analyst has had no previous contact.

A third requisite for all-source analysis is transparency in the analytic process; analysts must "show their homework" and anyone who looks at the analytic process should be able to determine without difficulty what sources were used, the degree of confidence in the sources, whether there is intelligence that contradicts or is inconsistent with that used to reach analytic judgments and, if so, why it was considered less reliable, what assumptions were used to close information gaps, why sources were evaluated and weighted as they were, and so on. In other words, the

7. See Bob Brewin, "Now It's 'Responsibility to Provide,'" *Government Executive,* April 7, 2009 at http://www.govexec.com/dailyfed/0408/040708wb.htm; and Intelligence Community Directive 501: Discovery and Dissemination or Retrieval of Information within the Intelligence Community (January 21, 2009) at http://www.dni.gov/electronic_reading_room/ICD_501.pdf.

8. A-Space is the name of a digital collaborative workspace open to all Intelligence Community analysts with required security clearances. Intellipedia is a classified Wiki modeled on Wikipedia utilized by Intelligence Community analysts, collectors, and many other U.S. Government employees. For more information, see "A-Space," *Wikipedia at* http://en.wikipedia.org/wiki/A-Space; and "Intellipedia," *Wikipedia at* http://en.wikipedia.org/wiki/Intellipedia.

analytic tradecraft must be as transparent as possible.[9] This applies to "single INT" judgments as well as to all-source judgments. For example, an imagery analyst who determines that the crate sitting on a dock contains a particular type of missile from a specific country must explain why he or she came to that conclusion. Most of the time, the explanation will derive from information gleaned from multiple sources and types of analysis.

The primary missions of intelligence analysis are to reduce uncertainty, provide warning, and identify opportunities for intervention to change the course of events. Achieving these missions cannot be accomplished by passively waiting to see what types of information dribble into the electronic in-box. To provide the timely, targeted, and consequential support desired and demanded by those who rely on the Intelligence Community, analysts must formulate questions designed to provide insight, give guidance to collectors on where to look for information that might help answer the question, and enlist the help of colleagues with complementary expertise, better knowledge of specific information streams, or alternative perspectives on the problem. Seeking help wherever it might be available, from whoever might have something to contribute is the essence of all-source analysis. In a growing number of cases, it is also the only practical way to provide the kinds of support required by the US national security enterprise.

READINGS FOR INSTRUCTORS

The readings recommended here provide additional detail and perspectives on the roles and characteristics of all-source intelligence analysis.

Mark M. Lowenthal's *Intelligence: From Secrets to Policy, Fourth Edition*, (Washington, DC: CQ Press, 2009) provides brief descriptions of different types of intelligence analysis and how they fit into the broader universe of intelligence activities and national security decisions.

Thomas Fingar, *Reducing Uncertainty: Intelligence Analysis and National Security* (Stanford, CA: Stanford University Press, 2011) describes the scope, escalating requirements, and different types of all-source analysis.

Books containing short articles, many written by intelligence analysts, on the relationship of analysis to specific intelligence and policymaking arenas, include...

Roger Z. George and James B. Bruce, Editors, *Analyzing Intelligence: Origins, Obstacles, and Innovations* (Washington, DC: Georgetown University Press, 2008)

Jennifer E. Sims and Burton Gerber, Editors, *Transforming U.S. Intelligence* (Washington, DC: Georgetown University Press, 2005).

Excellent books on intelligence analysis by academics include...

Richard K. Betts, *Enemies of Intelligence: Knowledge & Power in American National Security* (New York: Columbia University Press, 2007)

Robert Jervis, *Why Intelligence Fails* (Ithaca, NY: Cornell University Press, 2010).

Two volumes recently published by the National Research Council examine similarities and differences between intelligence analysis and the challenges of working complex problems in other organizational contexts. They are...

Intelligence Analysis: Behavioral and Social Scientific Foundations (Washington, DC: The National Academies Press, 2011)

Intelligence Analysis for Tomorrow: Advances from the Behavioral and Social Sciences (Washington, DC: The National Academies Press, 2011).

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9. See Intelligence Community Directive 203: Analytic Standards (June 21, 2007) at http://www.dni.gov/electronic_reading_room/ICD_203.pdf; and Intelligence Community Directive 206: Sourcing Requirements for Disseminated Analytic Products (October 17, 2007) at http://www.dni.gov/electronic_reading_room/ICD_206.pdf.