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Katherine Hibbs Pherson
Pherson Associates

Roy A. Sullivan Jr.
Pherson Associates

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Katherine Hibbs Pherson and Roy A. Sullivan, Jr.

Introduction

Fusion center intelligence analysis has come under the gun for not living up to expectations envisioned by the guidelines and funding allocated during the post-9/11 frenzy to create structures that would “connect the dots” of terrorist attacks. It is generally criticized for lacking analytic quality, rigor, and impact, but little systematic assessment of the products and services provided by the now seventy-eight centers across the nation has been undertaken. No two fusion centers may be alike, but general principles for building and sustaining multi-disciplinary analytic units can be implemented with more consistency and continuity. This paper explores challenges and opportunities for fusion centers, drawing conclusions about how they can improve their analytic products and what we as IAFIE educators and trainers should be doing to help.

What Is Different about Fusion Center Analysis?

Intersection of Intelligence and Law Enforcement

Analytic tradecraft for homeland security is at the intersection of concepts and practices relating to intelligence, law enforcement, and first responders, but for the most part it has been built on the foundation of existing state and local mechanisms for maintaining public safety and order. Homeland security analytic production is still new and evolving as the nation learns to combine disciplines, data, policies, priorities, and jurisdictions in ways now needed to protect our citizens and infrastructure.

Not surprisingly, analytic efforts lean toward the tactical, reactive techniques of law enforcement and emergency response rather than strategic, anticipatory intelligence methods. As a result, fusion centers largely focus on:

- Data rather than implications.
- Cases rather than forecasts.
- Operations rather than warning.

The Analytic Spectrum (see Figure 1) helps raise awareness of the range of activities that can be undertaken in a full-service analytic organization.¹ The preponderance of current production is descriptive; it selects, characterizes, and manipulates data to aid in response. Explanatory

¹ Pherson, Katherine Hibbs and Randolph H. Pherson, *Critical Thinking for Strategic Intelligence* (Washington, D.C.: CQ Press/Sage Publications, 2013); The Analytic Spectrum categorization of analytic arguments is based on a wide range of academic and career experience, but is specifically informed by Aristotle's *Rhetoric*; contributions of Sherman Kent as cited in Rob Johnston, “Foundations for Meta-Analysis: Developing a Taxonomy of Intelligence Analysis Variables,” *Studies in Intelligence* 47:3 (2003); Russell Ackoff as cited in Bellenger, et al., “Data, Information, Knowledge, Wisdom,” (2004), available at: <http://www.systems-thinking.org/dikw/dikw.htm>; David Moore, “Species of Competencies for Intelligence Analysis” (Washington, DC: Advanced Analysis Lab, National Security Agency, 2003).

analyses probe the reason or cause of situations. Evaluative analyses examine the significance of what has been established. Estimative analyses that explore what might happen next are relatively uncommon in the fusion center environment.

Figure 1: The Analytic Spectrum.

High Expectations for Fusion Center Analysts

In this post-9/11 world, the nation looks to analysts to make sense of incomplete and ambiguous information. Many fusion center customers view them as magical black boxes, expecting analysts to find the critical information in avalanches of data, develop in a few short weeks expertise on complicated topics, and generate with little guidance products that will head off catastrophic mistakes and prevent surprise. Much like the Sidney Harris cartoon in which the difficult part of a mathematical proof is accounted for by the words "and then a miracle occurs," analysts become the critical node in which the human brain is expected to take advantage of the systems that have been built, the processes that have been developed, and the information that has been shared. They work under the job title "analyst," but many come to that job with experience as students, targeters, or clerks. They have not developed the critical thinking skills and knowledge to meet these expectations as well as the training programs to satisfy established performance standards.

The Departments of Justice and Homeland Security have published guidelines for establishing and maintaining fusion center capabilities.² One of the publications laid out the Common Competencies or skills, abilities, behaviors, and other characteristics that homeland security

² Guidelines include the following: Global Justice Information Sharing Initiative, *Fusion Center Guidelines: Developing and Sharing Information and Intelligence in a New Era: Guidelines for Establishing and Operating Fusion Centers at the Local, State, and Federal Levels*, 2006; Global Justice Information Sharing Initiative, *Baseline Capabilities for State and Major Urban Area Fusion Centers: A Supplement to the Fusion Center Guidelines*, September 2008; Department of Homeland Security, *Baseline Capabilities Assessment of Fusion Centers and Critical Operational Capabilities Gap Mitigation Strategy*, 2012, available at: http://www.dhs.gov/files/programs/gc_1296491960442.shtm.

intelligence professionals need to meet the challenges in their work.³ Drafted by an Office of the Director of National Intelligence (ODNI) working group in 2010, the document consolidates analytic competencies from existing training and tradecraft documents to satisfy the need for a nationally recognized set of skills for analysts working in homeland security environments in which intelligence and law enforcement overlap. They were designed to be directly related to Intelligence Community Directive 610, Annex G, which defines Core Competencies for Intelligence Community Analysis and Production (see Figure 2) and to the Minimum Criminal Intelligence Training Standards.⁴

Figure 2: Mapping State and Local Common Competencies to ODNI Core Analytic Competencies.

The Global Justice Information Sharing Initiative, which approved and published the Common Competencies, specified they should be:

- Incorporated into analyst training course objectives, particularly for those courses intended to enhance and update capabilities.
- Used by managers and training partners to evaluate analytic training programs and determine which programs analysts should attend.⁵

Efforts to establish evaluation criteria and methodology do not appear to have been completed nor implemented. Taking the competencies into consideration in designing and implementing learning activities highlights intelligence analysis best practices and provides a consistent foundation to which fusion center analysts can tether their professional development efforts.

Easy Targets in the Political Crossfire

³ Global Justice Information Sharing Initiative, *Common Competencies for State, Local, and Tribal Analysts*, June 2010.

⁴ Office of the Director of National Intelligence, *Intelligence Community Directive 203: Analytic Standards*, June 21, 2007; Global Justice Information Sharing Initiative, *Minimum Criminal Intelligence Training Standards for Law Enforcement and Other Criminal Justice Agencies in the United States*, 2007.

⁵ Global Justice Information Sharing Initiative, *Common Competencies*, 2.

Post-disaster commissions and policymakers often seek to “fix” the inevitable gaps and miscommunications they identify with the benefit of hindsight by proposing the creation of an overarching organization to “ensure” disparate knowledge is brought together. Examples include the formation in 1947 of the Central Intelligence Agency after Pearl Harbor, the establishment in the 1980s of Director of Central Intelligence “centers” such as the Counterterrorism Center (after the increase in international terrorist attacks, including the against the U.S. Embassy in Beirut) and the Center for Security Evaluation (after the penetration of the U.S. Embassy in Moscow and the Beirut embassy bombing), and the creation of the Department of Homeland Security in 2002.

Addressing new and evolving problems with consolidated resources appears over time to pay off, but success depends on authorities, leadership, partnerships, and showing quick value that earns the continued support and respect of reviewers, partners, and potential critics. The scope of the creation of homeland security entities is unsurpassed in its ambitious goals to bridge the gap between national and domestic security, between law enforcement and intelligence, and between federal and state, local, and tribal. Creating umbrella organizations and plans is not easy, but even more difficult is getting them implemented with elegance and efficiency when they by definition are forcing change to established ways of doing business.

Fusion centers are a good idea: they provide a transitional buffer that allows each state or urban area to translate its unique way of organizing public order and public safety to tie into national systems and capabilities. At their best, they should connect, reinforce, and stiffen the beams of our nation’s complex infrastructure to ensure that federal, state, and local resources are communicating effectively, sharing information and analytic context. We identify them as a fundamental part of the solution; we need to give even more attention to the challenges and problems they face in building the analytic capabilities that will fulfill the expectations.

These seventy-eight centers are among the most obvious targets for criticism from all the elements they are charged to bring together. Some are not convinced of the imperative for change, others do not have the resources or knowledge to bring about the change, and still others are content to deflect attention from themselves. Reports such as the investigation by the US Senate Permanent Subcommittee on Investigations last October found that Department of Homeland Security efforts to engage fusion centers has not “yielded significant useful information to support federal counterterrorism intelligence efforts.”⁶ The conclusion is that fusion centers are not meeting expectations for collection or analysis.

What Are the Challenges in Improving Fusion Center Analytic Capabilities?

Focus and Scope

One of the first challenges that fusion centers faced in the post 9/11 environment was that terrorism activities at state levels were not numerous enough to justify units focused only on terrorism and not crime or other local disasters. Most fusion centers quickly resolved this problem by expanding to an “all crime” and then an “all crimes, all hazards” model. This placed fusion centers uniquely at the intelligence/law enforcement nexus, but also made it easier to

⁶ Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, United States Senate, “Federal Support for and Involvement in State and Local Fusion Centers,” October 3, 2012.

implement law enforcement case-based approaches rather than strategic intelligence analytic techniques.

Constrained Resources

No single challenge is as disruptive to fusion center development as resource restraints and the complex mechanisms they endure to receive funding. Fusion centers have been largely dependent on federal funds to get off the ground, but they lack the size and resiliency of federal organizations. Federal budget cuts have been devastating to some operations.

As post-9/11 federal dollars dwindle, fusion centers are struggling to maintain their funding; some centers have been eviscerated by cuts resulting from changes in risk-based methodologies for allocating federal dollars. Belt tightening at the state and local levels since the downturn in the economy has added to this strain. Limited resources impact fusion centers at every level from employee retention to travel and training to production.

Management Challenges

Fusion centers face both systemic and personnel management challenges. Their rapid creation and the limited oversight given to their implementation have led to dramatic variations in organization, size, and capability. Equipping states with basic guidelines gave them the recipe and the ingredients, but not the institutional knowledge and experience to build effective centers from scratch that could quickly produce quality analysis. Fusion centers lacked the extensive governing guidelines and policies that federal agencies developed over more than half a century.

Most fusion centers are managed by state law enforcement organizations. Many of the well-meaning center administrators have limited understanding of the analytic process or experience involved in managing analysts and analytic production. Fusion center analysts become frustrated that their managers do not know what they do—a sure sign is when the manager tells them to “go analyze something”—or the myriad ways they can contribute to the mission. Law enforcement hierarchies tend to pigeonhole analysts, even those with advanced degrees or years of experience, as subordinate rather than equal to sworn officers. This discourages many analysts from being as productive as they might and lowers their morale.

Analyst Turnover

Most fusion centers struggle to retain talented analysts. Those who are sworn officers often rotate out of the fusion center after a few years; their career ladders likely will not bring them back into intelligence or analytic assignments. Fusion center analysts are almost universally paid less than their federal counterparts, sometimes significantly so, and they can make even more in private sector jobs. Advancement opportunities are nearly nonexistent because many, if not most, supervisory roles are held by sworn officers. An analyst at a fusion center can expect to remain in the same position and at the same pay for the entirety of his or her career.

After gaining invaluable experience, many move on to federal or commercial jobs. One of the authors worked in a fusion center with a total of six civilian analysts, four of whom gave their resignation notices in four months. When analysts depart, their skills and knowledge are usually lost because the centers do not have a deep bench of similarly skilled and knowledgeable

analysts to fall back on, and they lack effective means of capturing knowledge for recall. Most centers can only afford to have one analyst focus on a given topic.

Operational Response

Fusion centers must provide near instant, reactive responses to their customers; these take precedence over strategic warnings and extended timeframes. The centers constantly need to prove their value and generate buy-in from law enforcement organizations and public and private sector partners. Many of the principal consumers of fusion center products—from police chiefs to the governors—do not know what they can task fusion centers to analyze or even how to task them.

Law enforcement organizations rely on quantitative rather than qualitative metrics when evaluating effectiveness—numbers of convictions, citations, or traffic fatalities—and apply similar evaluation criteria to fusion centers. These drivers push fusion centers to focus their time on information requests, background checks, recurring bulletins, and other case support type production. These products have obvious value but complicate the allocation of time for explanatory, evaluative, and estimative analysis.

How Can Fusion Centers Better Develop Their Analytic Capabilities?

Our review of publications, course evaluations, curricula, and comments from fusion center students is by no means exhaustive, but that foundation—combined with our firsthand experience and interactions with fusion center managers, analysts, and customers—reinforces several best practices for building analytic organizations.⁷

1. *Skills, skills, and more skills.* The Common Competencies clearly identify critical thinking, analytic tools and techniques, and communications and writing skills that characterize mature, fully functional state and local analytic efforts. These are challenging to teach and develop, which is why so many echo the bumper sticker: “Critical Thinking: The Next National Deficit.” Production checklists, process maps, and other visual reminders help make the practice of solid thinking skills more concrete and less ethereal. One example that has worked well with homeland security analysts is our Analyst’s Roadmap (see Figure 3). It has been adjusted for other analytic units and purposes.⁸

Figure 1: The Analyst’s Roadmap.

⁷ Specific fusion center interactions over the past five years in which the authors have been personally engaged include: Supporting since 2004 a variety of DHS components in their outreach, training, and mentoring for fusion center analysts. This includes supporting strategic analytic, training, and tradecraft components in their interactions with fusion centers; Consulting with and training five fusion centers in 2012-2013 either directly or as part of a Department of Justice grant to facilitate the use of indicators as a mechanism for collaboration between fusion centers and first responders; Designing and teaching the Analytic and Critical Thinking Skills (ACTS) Workshop on behalf of the DHS State and Local Program Office (SLPO) to 319 analysts in 13 locations between 2008 and 2010. Designing and reviewing three pilot fusion centers through the Analytic Skills and Knowledge Review (ASKR), a joint project of FEMA and the DHS Office of Intelligence and Analysis in 2010 to assess analysis, product planning, technology, and training; Serving as an analyst in the Delaware Information and Analysis Center and as a fusion center analyst teaching the Foundations of Intelligence Analysis Training (FIAT).

⁸ Pherson and Pherson, *Critical Thinking for Strategic Intelligence*, Inside Back Cover.

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2. *Consistency in terminology and techniques.* Focusing on the commonalities and not the differences in terminology, thinking styles, and techniques can help unite and allow fusion center analytic efforts to move forward. In writing *Critical Thinking for Strategic Intelligence*, for instance, the authors tried to bring together and build on the good work in intelligence and law enforcement analytic efforts, incorporating complementary practices from other nations. This helps break down the mental stovepipes for analysts who believe that they do not need to learn “strategic” techniques because they work on cases. We must balance teaching them what they want to know and what they need to know to improve the quality of their work.
3. *Analytic standards to guide analysts and managers through the analysis, production, and evaluation processes.* The standards the ODNI has promulgated in Intelligence Community Directive 203 and against which it evaluates Intelligence Community products should form the basis of our training and educational efforts to help analysts develop the skills outlined in the Common Competencies. The standards are in the process of being updated; we should be alert to adjustments that would increase their utility to state and local intelligence analysis.
4. *Collaborative work on hard issues and products.* In our complex and interconnected world, expertise is increasingly distributed as the boundaries blur between analyst, operator, and decision maker. Analysts need to reach out to those outside their immediate organization or specialty for information, insight, and assistance. Collaboration has

become a buzzword that is difficult to make work in practice; one interagency study concluded that it works most effectively when six imperatives (see Figure 4) are met.⁹ The biggest incentives to collaborate are that the analyst will save work over the long run and the analysis will be more compelling because it will answer the needs of a broader audience.

Figure 2: Achieving a Robust Collaborative Environment.

5. *Continued growth and practice.* Analysis is no different than music, sports, or any other skills-related endeavor; expertise is built over time and not over night. It requires practice, reflection, challenge, and working with those who have more experience or knowledge than yourself. Rob Johnston pointed out that it may take ten years for an analyst to become truly experienced; fusion center analysts need to build expertise much more quickly than that.¹⁰

A myriad of opportunities have been presented for fusion center analysts to learn together, but they are not coordinated and sometimes conflict. The analysts themselves have responded by forming their own trusted subgroups, but even those are sometimes hampered in writing collaborative products by organizational and oversight restrictions. Initiatives such as the Department of Homeland Security's Field Activities Support Taskforce (FAST) and the National

⁹ Pherson and Pherson, *Critical Thinking for Strategic Intelligence*, 59-69; See also Randolph H. Pherson and Joan McIntyre, "The Essence of Collaboration: The IC Experience," *Collaboration in the National Security Arena: Myths and Reality—What Science and Experience can Contribute to Its Success*, June 2009; The article is part of a collection published by the Topical Strategic Multilayer Assessment (SMA), Multi-Agency/Multi-Disciplinary White Papers in Support of Counter-Terrorism and Counter-WMD in the Office of the Secretary of Defense/DDR&E/RTTO.

¹⁰ Rob Johnston, *Analytic Culture in the US Intelligence Community* (Washington, D.C.: Center for the Study of Intelligence, CIA), 2005.

Counterterrorism Center's outreach efforts are commendable; their success will depend on how well they build on one another's efforts to mentor and assist fusion center analysis and incorporate their challenges into the larger homeland security system.

What Can IAFIE Educators and Trainers Who Work with Fusion Center Analysts Do to Help?

- *Expose your students to topics of direct concern to fusion centers.* This means focusing as much or more on domestic threat actors versus international actors. One fusion center director told us that he was surprised when one of his analysts returned from a class saying that it was not useful to her because it was “all about terrorism.” Most analysts are involved in crime analysis and increasingly in infrastructure protection. Use a mixture of cases and issues to get them used to the fact that all of these specialties are critical to fusion center analytic success.
- *Focus on the application of critical thinking skills to homeland security issues and the production of actionable products.* The analysts we teach and mentor across the intelligence, homeland security, law enforcement, and defense communities appreciate the training they get, but characterize much of the coursework as descriptive or too theoretical. They learn some “interesting stuff” but are not coached in how actually to do analysis or how to know when they are doing it well. As one student wrote in an evaluation form, “I don’t just need to know that the “So What?” is critical, I need to be told how to find it and to recognize it when I have found it.” In short, they are asking to be taught the “how” of intelligence analysis and not just the “what.” They know they are at risk, and they do not want to be wrong.

The core thinking habits we call the “Five Habits of the Master Thinker” and their accompanying Structured Analytic Techniques (SATs) provide a manageable framework for analysts to get a handle on the skills that will make a difference in their analytic capabilities.

- Know when to challenge your **key assumptions**—usually far more often than you think!
- Consider **alternative explanations or hypotheses** for all events—including the null hypothesis and the deception hypothesis when applicable.
- Look for **inconsistent data** that provides sufficient justification to quickly discard a candidate hypothesis.
- Focus on the **key drivers** that best explain what has occurred or what is about to happen.
- Understand your customers’ needs and the overarching **context** within which you are working.

Educators and trainers can help make the Common Competencies, Analytic Standards, and Fusion Center Guidelines come to life for the analysts. They are the foundations of the common

understanding that will link analytic units to mutually reinforcing goals and collaborative projects.

- *Reinforce best practices in collaboration.* As trainers and educators, we can establish good practices through the small group and team exercises in our courses. We should encourage working in cross-organizational and cross-disciplinary teams. By having students work on cases and examples that are outside their areas of expertise, we can underscore that working alone or not reaching beyond our work group or comfort zone increases the risk that we will be wrong in our analysis or that our audience will be unimpressed with its limited scope.

This helps fusion center analytic development in several critical ways:

- Fusion centers struggle to develop subject matter experts, but analysts can take the initiative to leverage contacts at other centers to expand their knowledge base. We recently worked with analysts at one fusion center on a topic that is a concern to only a small number of states. As we facilitated their analytic process, the participants quickly realized that they could produce a better product by reaching out and engaging the centers in neighboring states rather than tackling the problem alone. Similarly, centers that normally do not deal with the topic would have a reach back capability within the fusion center network to analysts within this small, self-formed “working group” should the issue suddenly become a problem in their areas of responsibilities.
- Turnover and inexperience leads analysts to “reinvent the wheel” for problems that other centers or analytic organizations have already addressed. Analysts can expose one another to methods, including Structured Analytic Techniques that have helped them work through both threat and administrative issues, serving as in-network mentors to one another.
- Fusion center analysts have much they can learn from one another; we find many who are surprised that “not only my center has this problem.” Collaboration and leadership skills help fusion centers analysts work together to tackle shared struggles and challenges. “Training events” and conferences tend to focus on sharing information about threats and vulnerabilities rather than working together on hard problems. Enabling and empowering analysts to develop organic solutions to their challenges will encourage improved analysis.
- *Be innovative in using technology for continuous distance learning and collaboration.* Fusion centers and the law enforcement organizations they work with are besieged by equipment and technology vendors, but the solutions tend to be vendor-specific and few demonstrate new or cost effective technologies for collaboration or analysis. Educators and trainers have the opportunity to expose analysts to cutting edge technologies, particularly free or inexpensive options that would directly benefit analytic production without a negative impact on operational tempo. We can demonstrate to them in training environments some of the ways they might work collaboratively back in their work environments.

Both synchronous and asynchronous systems are useful to fusion centers. Synchronous three-dimensional virtual worlds with students and instructors interacting as avatars are particularly potent for distance learning and collaboration; they reproduce real world interaction using the latest in gaming technology and eliminate obstacles of geographic distance. Asynchronous solutions are more effective for analytic tools because they enable use by participants on different schedules, time zones, or office buildings without leaving their work environments.

- *Do not forget that managers of analysis need education and training as well.* Many fusion centers do not have the luxury of having analysts manage their analytic units. This can be an effective way to ensure that analytic insights directly support operations or it can lead to the dilution of analysis into an amalgamation of facts, data, and straight-line trends that do not help customers anticipate future challenges. Managers can best communicate with their analysts if they focus on preparing and supporting analysts through the conceptualization and production processes, guiding and evaluating their work through the use of standards, and providing them consistent mentoring and feedback.