

Canadian Forces College
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Setting Standards: Intelligence Analysis Standards and Analytic Rigour in the CAF

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Setting Standards: Intelligence Analysis Standards and Analytic Rigour in the CAF

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SETTING STANDARDS: INTELLIGENCE ANALYSIS STANDARDS AND ANALYTIC RIGOUR IN THE CAF

Introduction:

If a tree falls in the middle of the woods and there is no one or thing there to observe or listen, does it make a sound? If this question were posed to an intelligence officer, she would take the question as direction to start the process to mitigate some of the uncertainty around this question. Various methods and tradecraft would be employed to gather, collate, and analyse the data and information. This information would be synthesized into theories and concepts about whether the tree would make a sound in this scenario. These theories and concepts would then be packaged and disseminated to relevant stakeholders to aid in decision making. While the example is esoteric in nature, using this example as a proxy for the kind of questions asked of intelligence professionals, one can see that the business of intelligence deals with uncertainty and attempts to shed light on the uncertainty to increase understanding of the environment one works in. Based on this inherent uncertainty then, how do we know that the intelligence provided is of high quality? In other words, what is the policy that provides the quality assurance of analytical rigor? The United States (US) has ICD203, released in 2007 in the wake of intelligence failures related to the September 11, 2001 attack. As noted by Canadian defence researchers, David Mendel, Tonya Hendriks, and Daniel Irwin, Canada has no equivalent policy to govern analytical rigor in its intelligence community.¹ With oversight bodies like the National Security and Intelligence Committee of Parliamentarians (NSICOP) suggesting external review is necessary for defence intelligence, it is now more than critical than ever that the Canadian defence

¹ David R. Mandel, Tonya L. Hendriks, and Daniel Irwin, "Policy for Promoting Analytic Rigor in Intelligence: Professionals' Views and Their Psychological Correlates," *Intelligence and National Security* 37, no. 2 (2021): pp. 177-196, <https://doi.org/10.1080/02684527.2021.1999621>, 179.

intelligence community have a policy in place for quality assurance.² This essay reviews of the intelligence standards and quality assurance documents put forth by our allies in the five-eyes community to provide a path towards defining Canadian standards and policy for quality assurance in defence intelligence.

What is intelligence?

Canadian doctrine defines intelligence as, “The product resulting from the processing of information concerning foreign nations, hostile or potentially hostile forces or elements, or areas of actual or potential operations. The term is also applied to the activity which results in the product and to the organizations engaged in such activity.”³ In less technical terms, intelligence is the synthesis of data and information on an adversary or places into theories or concepts. These theories and concepts are used by decision makers to aid in military decisions both at strategic and tactical levels.

Given this basic definition, intelligence begins to sound vaguely like knowledge, as defined in Ackoff’s data, information, knowledge, wisdom (DIKW) pyramid.



Figure 1, the DIKW pyramid as denoted by Russell Ackoff.

² Canada. National Security and Intelligence Committee of Parliamentarians, *Annual Report 2018 (Revised version pursuant to subsection 21(5) of the NSICOP Act)* (Ottawa, Ontario: NSICOP, 2019), 59

³ Department of National Defence, Canada. *CFJP 2.0, Intelligence*. (Ottawa, ON: Chief Defence Intelligence, October 2011), 1-1.

Knowledge, is defined as "facts, information, and skills acquired through experience or education; the theoretical or practical understanding of a subject"⁴ In other words, one can view knowledge as the "human understanding of some concept or thing based on synthesizing accumulated information and experience."⁵ Similar to knowledge the process of producing intelligence requires an analyst to synthesize all the available information and data, both classified and open source, to create a theoretical or practical understanding of the topic.

Yet some argue that intelligence is more than knowledge, as there is, baked into the conception of intelligence, a usefulness or purpose to it. One does not pursue intelligence, as one could pursue knowledge, for the sake of itself. One conducts intelligence activities to develop an understanding of the environment so to gain a distinct advantage over one's adversary. Indeed, one can use knowledge of another topic to produce intelligence on the topic under study. Thus, in creating intelligence, the synthesis of data, information and knowledge can go into creating a more fulsome understanding of the environment in which a military is to operate in. Another feature of Intelligence is that the pursuit of intelligence, unlike the pursuit of knowledge, contends with active deception, which calls into question the veracity of the information being synthesised.

These distinctive features of intelligence separate it out from DIKW pyramid, and places it in a category of its own. In this way, intelligence become valuable to the decision maker as it informs the decision maker of potential concerns and pitfalls before the execution of a plan. From a strategy and planning perspective, high quality intelligence regarding an adversary or

⁴ "Knowledge," in *Lexico.com* (Oxford University Press), accessed May 13, 2022, <https://www.lexico.com/definition/knowledge>.

⁵ Heather J. Van Meter, "Revising the DIKW Pyramid and the Real Relationship between Data, Information, Knowledge, and Wisdom," *Law, Technology and Humans*.2 (2020): 75

rival's capabilities and intentions plays a large role in achieving balance and meaningful deterrence, as well as tactical success on the battlefield.

The Value of Intelligence

Canadian Joint Forces doctrine suggests that Intelligence is more than just mere information (or knowledge) as it is the natural result of an analytical process and the resultant product must provide decision makers with a critical advantage through “predictive, actionable insights that contribute to effective decision making.”⁶ Ultimately, the value of intelligence then is in its predictive nature. Indeed the value of intelligence was identified even in ancient times in the work the Chinese general and military philosopher, Sun Tzu, as well as in other works from the classical periods. In modern times, the value of intelligence is magnified by the destructive nature of the weapons systems we currently have. A *Globe and Mail* article from 1954 noted, “The power to create destruction is so great that any potential foe of the West will probably be wary of starting anything without first making sure the intended victim's capability to retaliate has been neutralized. It will place a fantastic premium on Intelligence.”⁷

To this end, much work is conducted to ensure the veracity and accuracy of information before it is analyzed into coherent theories and pathways that could describe the actions of an adversary entity. As economics professors Eyal Pecht and Asher Tishler suggests, Intelligence has three main goals. The first is to evaluate the rival's capabilities and intents. The second is to evaluate one's own ability to mitigate the rival's capabilities, and third, dominance in the information space, in particular intelligence yields an advantage over the rival.⁸ NATO Allied

⁶ Department of National Defence, Canada. *CFJP 2.0, Intelligence*. (Ottawa, ON: Chief Defence Intelligence, October 2011), 2.1

⁷ Alan Harvey, “Value of Intelligence Grows: NATO Moves Into Push Button Era,” *The Globe and Mail*, December 20, 1954, p. 1.

⁸ Eyal Pecht and Asher Tishler, “The Value of Intelligence,” *Defence and Peace Economics* 26, no. 2 (2015): pp. 179-211, <https://doi.org/10.1080/10242694.2014.886435>, 3.

Joint Doctrine suggests similar goals for intelligence more succinctly. According to NATO, the function of intelligence is to firstly “developing knowledge and enabling understanding” of adversary actors, and secondly produce “predictive assessments,” that enable a military commander to maintain an advantage over one’s rival (ie: the initiative).⁹ At the grand strategic level, intelligence provides a nation an advantage over its rivals. Pecht and Tishler note that high quality intelligence provides planners with a more accurate view of the environment, and therefore makes planning and building one’s own capabilities more efficient. This in turn naturally leads to higher level of security.¹⁰ In the military, high quality intelligence alleviates uncertainty, and enhances a commander’s understanding of the operating environment, which in turns makes for better decisions regarding manoeuvre, and naturally leads to operational success. Conversely, low quality intelligence does not necessarily alleviate uncertainty, rather it can be detrimental to contributing to a clearer picture of the environment, and thus detrimental to operational success.

The Intelligence Cycle.

The intelligence cycle is an iterative process, which is simplified into four steps in CAF doctrine; these are Direction, Collection, Processing and Dissemination as depicted in Figure 2.

⁹ North Atlantic Treaty Organization, “Role and Functions of Intelligence” *NATO Standard AJP-2 Allied Joint Doctrine for Intelligence, Counter-Intelligence and Security*. (NATO Standardization Office, 2016), 3.2.2

¹⁰ Eyal Pecht and Asher Tishler, “The Value of Intelligence,” *Defence and Peace Economics* 26, no. 2 (2015): pp. 179-211, <https://doi.org/10.1080/10242694.2014.886435>, 3.



Figure 2: The Intelligence Cycle as denoted in CAF joint doctrine.

In other organizations in Canada's security and defence sector, the intelligence cycle is described in six steps beginning with defining requirements and direction through to planning, collection, analysis and ending with dissemination and feedback.¹¹ Still others like the United States (US) intelligence community (IC) use a five-step process and combine some of the steps or break out some of the step, as depicted in figure 3.¹²

¹¹ Canadian Security Intelligence Service, "The Intelligence Cycle" Canada.ca (Government of Canada, May 20, 2020), <https://www.canada.ca/en/security-intelligence-service/corporate/publications/2019-public-report/the-intelligence-cycle.html>.

¹² United States "The Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction Report to the President of the United States," The commission on the intelligence capabilities of the United States Regarding Weapons of mass destruction report to the president of the United States § (2005), 583-584.

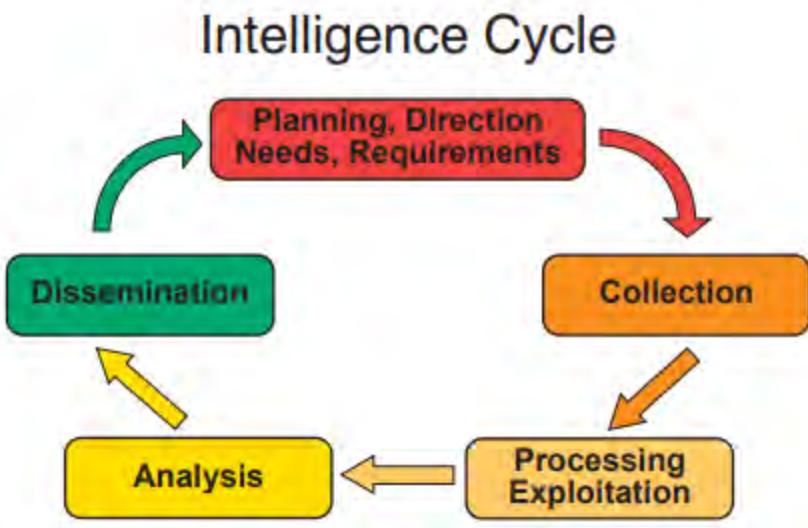


Figure 3: the Intelligence cycle as depicted from the Report of the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction.

No matter the model, be it four, five or six step cycle, all of them start with direction or a requirements definition step, and all of them end with dissemination and a feedback loop that then drives the additional direction and iterates the cycle. The differences in these different versions are in the emphasis placed on collation, evaluation, and analysis of information. In a four-step cycle, as adopted by CAF, these functions are grouped together in “production.” The issue with the simplicity of these cycles is that in practice they look nothing like a circle. Indeed, the feedback loops within this cycle are numerous and continuous. Even in Canadian joint doctrine it is acknowledged that the cycles are iterated for each piece of information thus there can be multiple cycles running concurrently to produce a single product.

Using the tree in the forest example to illuminate the intelligence cycle in practice, our intelligence officer would first need to develop a collection plan, by coming up with priority intelligence requirements, breaking those into intelligence requirements with indicators and elements of essential information. She would then assign those requirements to collectors who

would then go into the woods to forage for the information and data they were assigned to collect. The raw data is fed into the collation system where it is categorized according to a pre-designed cataloguing schema, organized, grouped together, and filed. Cross references would be made where appropriate for ease of retrieval and the information is evaluated for reliability and veracity. Analysis begins when our intelligence officer receives her first piece of information from her collectors. The cycle iterates as new information is received. The young intelligence officer sits down to review the entire body of information gathered and synthesizes the information at hand corroborating one source of information against another. If she feels she does not have enough information, she goes back to collect more information. Faced with this information she can collect may not answer the question of did the tree make a sound. Defeated by the philosophical dilemma, she makes an assessment based on the information she has. Like most intelligence reports, her assessment is not an empirical answer to the question, rather a best guess at an unknowable situation. Once our intelligence officer is satisfied with the product, she disseminates her reporting to all the relevant stakeholders, who would all nod sagely as they review her findings.

The issue with the intelligence cycle as a process is that quality assurance of the product is not systematically called out in the cycle. There may be an implied task of quality assurance, but no where in there in the process is there a policy in place to ensure the quality of the intelligence that is being produced. Specifically in the Canadian context there is no policy that governs performance and effectiveness of our intelligence products. In other words, we have no concrete policy for quality assurance in the Canadian intelligence community. As Defence researchers David Mandel et al write, “the pursuit of quality assurance and customer confidence represents an enduring challenge.”

Quality Assurance in the Five-Eyes.

In pursuit of quality assurances in the production of intelligence some of our allies have implemented policy to enhance analytical rigor within the process. A literature review of what constitutes quality assurance in intelligence suggests that analytical rigour is a critical aspect of quality of intelligence products. That is to say, the more rigorous the analysis undertaken in a product, the higher confidence a consumer can place in the insights provided.

In the Canadian context, as noted already, there is no unifying policy regarding Intelligence analytical rigour. While the CAF has the CFINTCOM Aide Memoire, I submit that it is not in and of itself policy as it is not binding to any analysts undertaking the analytical process. The document forms a body of knowledge that is passed on as “guidance” to the intelligence analyst. In fact, the document promotes that idea that intelligence analysis is tradecraft in its title. As ethnographer Dr. Rob Johnson noted of the US IC, “Tradecraft purposefully implies a mysterious process learned only by the initiated and acquired only through an elaborate ritual of professional indoctrination.”¹³ Dr Johnston goes on to suggests that connoting intelligence analysis methods as tradecraft suggests these methods, and by extensions the process of intelligence production, are “informal, idiosyncratic, unverifiable, and perhaps even unexplainable.”¹⁴ Due to the aforementioned traits, defining what is good intelligence becomes difficult.

In pursuing good intelligence analysis, some countries (Denmark and Israel) have adopted methodologies such as the Devil’s Advocacy model as interventions to ensure that the

¹³ Rob Johnston, *Analytic Culture in the US Intelligence Community*: (Washington, D.C.: Center for the Study of Intelligence, Central Intelligence Agency, 2005), 18.

¹⁴ Ibid, 18.

analysis of any given topic is produced with objectivity and rigour. The United States created the Office of the Director of National Intelligence (ODNI) in the wake of 9/11 to pull together the intelligence community within the US. In 2007, ODNI produced Intelligence Community Directive 203: Analytical Standards (ICD203). ICD203 was updated in 2015, yet ICD203 itself does not actually define what analytical rigor is—only suggesting it is necessary to maintain the standard set forth in the document.¹⁵ ICD203 suggests that analysts shall be consistent with five analytic standards of objectivity, independence of political consideration, timeliness, thoroughness of sourcing, and exhibit the nine analytic tradecraft standards.¹⁶ The advantage of ICD203 is that it binds all analysts in the US IC to a standard to be achieved.

In the United Kingdom (UK), the Professional Head of Intelligence Assessments (PHIA) published the Professional Development Framework for All-source Intelligence Analysts, which is a framework for attracting, training, and retaining all-source intelligence analysts into the UK IC. Within the framework the PHIA propose competencies and the corresponding standard at each level of experience. More importantly, the PHIA propose an analytical standard to “ensure a consistent standard of rigour, integrity, language and best practice across the UK Intelligence assessment community.”¹⁷ The advantage of the framework is not the standard proposed, but ability for the system to consistently measure performance of an analyst and thereby continuously pursue self-improvement, thus in theory, improve the quality of intelligence produced. However there does not appear to be a framework for evaluating analytical rigour itself.

¹⁵ United States, Office of the Director of National Intelligence, “ICD 203 – Analytic Standards,” *Intelligence Community Directives* (Washington, D.C., (2015).

¹⁶ Ibid.

¹⁷ United Kingdom, Professional Head of Intelligence Analysis, “Professional Development Framework for all-source intelligence assessment” (2019), 26-28.

The Australians, in their hunt for analytical rigor, both critiqued and praised the Canadian Forces Intelligence Command's *Aide Memoire for Intelligence Analysts*, suggesting that while the definition in the document is wanting, at least there was an attempt at explicitly defining what “analytical rigor” meant.¹⁸ For CFINTCOM, analytic rigour is exhibited when an analyst makes accurate judgement, is clear, insightful, timely and relevant and can highlight trends over time.¹⁹ However as Australian researchers noted, the definition of analytic rigour is “incomplete”, as it misses some key elements of what is considered good analysis, such as objectivity.²⁰ As a result, the research from Australia proposes that analytical rigour be defined as conducting analytic work in a manner that is appropriately logical, objective, thorough, stringent, and acute (LOTSA).²¹ The work conducted at the University of Melbourne regarding improving analytical rigour in the Australian IC recommends four actions to be taken.²²

What's in a Standard?

Many of the policies regarding quality assurance in the five-eyes suggest adherence to standards to achieve analytical rigour. At its root, a standard is a measure of what is acceptable or achievement of a certain level.²³ The relationship between analytic rigour and standards is mutually reinforcing. Increasing analytic rigour makes standards easier to achieve, and the application of analytic standards ensures analytic rigour. In the US and UK philosophies, the

¹⁸ Tim van Gelder et al., “Analytic Rigour in Intelligence” (Hunt Lab for Intelligence Research, April 2021), <https://cpb-ap-se2.wpmucdn.com/blogs.unimelb.edu.au/dist/8/401/files/2021/04/Analytic-Rigour-in-Intelligence-Approved-for-Public-Release.pdf>, 59.

¹⁹ Canadian Forces Intelligence Command, *Aide Memoire on Intelligence Analysis Tradecraft*, 6th ed. (Ottawa, ON: Department of National Defence, August 2015), 13.

²⁰ Tim van Gelder et al., “Analytic Rigour in Intelligence” (Hunt Lab for Intelligence Research, April 2021), 60.

²¹ *Ibid*, 14.

²² *Ibid*, 1.

²³ “Standard,” in *Lexico.com* (Oxford University Press), accessed May 23, 2022, <https://www.lexico.com/definition/standard>.

application of analytic standards is certainly the methodology to ensuring analytic rigour. For the Canadians however, our standards are not policy, they are no more than a set of guidance as the language used in the document is descriptive and not prescriptive. That is the usage of the word “should” vice “shall”. For a standard to be true, one aught to have a measure of enforceability and it must be accepted across the entire defence intelligence community. The descriptive language indicates that there is room for analytic products to not meet this standard and still pass for intelligence product, thus it is important to first develop standards that are accepted across the defence intelligence community. The notion of a community wide standard is furthered in the Australian research on analytic rigour. Researchers there recommended that the Australian intelligence community adopt a common definition of what analytic rigour means (ie: a standard).²⁴

While adopting a standard may seem easy, there is much to be said about adopting a definition as it becomes policy, and with policy come the issue of enforcement. In the Canadian and the US context, intelligence analysis is considered by many to be not a science, but rather art, or something in between.²⁵ While analysis remains a human endeavour, intelligence analysis specifically will likely remain partly art and partially science, thus making a standard for intelligence analysis to codify and enforce. That said, the US ICD203 appears to be enforced throughout the US IC, and as a result, analytic rigour imposed upon the production of intelligence. As noted by Canadian researchers Mendel et al, there have been little empirical research into the effectiveness of ICD203 to improve analytic rigour.²⁶ Indeed research indicates

²⁴ Tim van Gelder et al., “Analytic Rigour in Intelligence” (Hunt Lab for Intelligence Research, April 2021), 1.

²⁵ Rob Johnston, *Analytic Culture in the US Intelligence Community*: (Washington, D.C.: Center for the Study of Intelligence, Central Intelligence Agency, 2005), 19-20.

²⁶ David R. Mandel, Tonya L. Hendriks, and Daniel Irwin, “Policy for Promoting Analytic Rigor in Intelligence: Professionals’ Views and Their Psychological Correlates,” *Intelligence and National Security* 37, no. 2 (2021): pp. 177-196, <https://doi.org/10.1080/02684527.2021.1999621>, 178.

that “individual assessors do not reliably rate analytic product quality using the ICD203 rubric, unless ratings of three or more assessors are averaged.”²⁷ Thus even with a standard, that is binding to the IC at large, there is little proof that the standards are effective in improving rigour.

In the UK, the PHIA All-Source Intelligence Assessment Framework is a unique response to the challenge of addressing analytic rigour. Through this framework, the UK seeks to establish a career path for intelligence analysts in the public sector. The framework lays out six skills or competencies that are believed to be important to do the function of intelligence analysis. Through developing proficiency in each of the six competencies, one is assumed to be better able to apply the analytic standards of which there are eight facets that are similar to the elements of the US IC analytic standards found in ICD203. However, given the descriptive word-picture book to compare one’s skills in analysis against, it potentially more reliable in determining shortcomings and career paths than ICD 203.

Canada would benefit first from agreeing upon a standard, much like the ICD203. Mendar et al, suggested in their research that most analysts tested agreed that analytic rigour is part of good intelligence. It is therefore proposed that adapting the aide memoire that currently exists into a policy document and making it binding across the defence intelligence community in Canada would be a positive step in reforming intelligence production for the better and increasing analytic rigour. In policy review, health policy researchers, Gill Walt, and Lucy Gilson, of the London School of Hygiene and Tropical Medicine, note that in general, policy reviews focus on the process, and not the agents that make the change.²⁸ Thus, the second step to implementing a policy for analytical standards, would be the evaluation of the people doing the

²⁷ *Ibid*, 178,

²⁸ Gill Walt and Lucy Gilson, “Reforming the Health Sector in Developing Countries: The Central Role of Policy Analysis,” *Health Policy and Planning* 9, no. 4 (1994): pp. 353-370, <https://doi.org/10.1093/heapol/9.4.353>, 358.

analysis. For this we look to the PHIA framework to develop an understanding of where one sits in terms of proficiency of skills required to conduct analysis. Better understanding of the career paths lends itself to better training, which in turn potentially leads to increased rigour in the production of intelligence.

Conclusion

By implementing a standard to intelligence analysis and adopting a framework to evaluate proficiency in the role of intelligence analysis, we gain a better understanding of not only the expected conduct, but also develop a tailored roadmap for each analyst suited towards their specialty. The goal of implementing this as policy is to increase the analytical rigour, and consumer confidence in our products and analysis. While calls for external oversight will always be present, having an internal process that is well reviewed and effective would hopefully alleviate some of the concerns any outside parties would have that the defence intelligence community is abusing its authorities, and thus head off future calls for changing our authority to conduct intelligence operations in support of the CAF's primary mission, defence of Canada, its people and way of life. Turning back to our intrepid intelligence officer who tried to answer the unanswerable question, with a policy that enforces standards on analysis and analytical rigour, our intelligence officer, and more importantly the consumers of that intelligence can be confident that reporting and analysis is good and therefore can trust the analysis therein.

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