The Seven-Step Intelligence Cycle

Author Name
Center for Homeland Defense and Security
Dept. of National Security Affairs
Naval Postgraduate School

Slide 1

Opening Credits

Music

Slide 2

The Seven-Step Intelligence Cycle

By William Lahneman

Slide 3

The Intelligence Cycle Illustrated

The purpose of the intelligence process is to provide policymakers with timely, accurate, and relevant finished intelligence products. It is useful to express this process as a cycle with seven steps. While this view sometimes oversimplifies what actually occurs, it is a useful construct for understanding the basic functions that any intelligence enterprise must accomplish to be successful. Whenever there is a problem with intelligence, it is useful to analyze the problem in terms of the intelligence cycle. What step was missed? What step was ineffective? Such an approach invariably identifies important aspects of the problem.

Slide 4

Step 1: Requirements

Step one, requirements. The modern security landscape represents an endless and complex array of information, making it infeasible for intelligence agencies with limited resources to cover every possible threat with equal attention. Thus by necessity, the intelligence cycle begins with a shifting set of *requirements* that dictate which issues or targets receive highest priority. Depending on the threat environment at any given time, some issues and targets will receive top priority; others will only receive peripheral attention, while still others will receive little if any notice.

As vital as requirements setting is to the entire intelligence process, its very effectiveness depends on an accurate assessment of the threat environment at any given time. For if priorities and resources are misallocated, chances are greater that collectors will overlook

important information that cannot then contribute to subsequent stages of the process. This then begs the question: who sets these requirements?

Slide 5

Requirements II

In the case of the United States, intelligence agencies are separated from the policy process by a semi-permeable boundary, thus giving policymakers the job of setting requirements. In this framework, executive bodies such as the President, the National Security Council, and the Department of Defense are charged with strategically determining these priorities and communicating them to the Intelligence Community in a clear and detailed manner.

But are policymakers always active participants in this part of the process? With their own manifold duties and shifting priorities, tasks like requirements setting may easily fall through the cracks. This typically manifests itself when policymakers fall into the habit of assuming that their intelligence deputies already know what they have in mind.

Such scenarios leave intelligence professionals in an awkward position: should they take the initiative and set requirements themselves, or should they continue working on the last clearly communicated priorities? While the first option entails many risks such as crossing the intelligence/policy divide, the second option can be just as harmful if they focus on outdated requirements at the expense of important ones.

Slide 6

Requirements III

The success or failure of a set of requirements depends ultimately on the passage of time and the ability of policymakers and their appointed officials to adjust accordingly. As the transition from the Cold War to the War on Terrorism shows, intelligence requirements shift with the geopolitical winds. The single most overriding threat of today may fade to relative obscurity tomorrow, just as the peripheral concerns of the present may become quite threatening in the future. It is only through careful planning and effective communication that these requirements can be properly carried out to ensure the success of all subsequent phases of the intelligence cycle.

Slide 7

Step 2: Collection

Step two, collection. Once a clear set of requirements is established, the next step for the Intelligence Community is to *collect* the desired information on the specified subject. Through a variety of means more or less technical, collectors monitor a given target in search for a piece of information that may yield valuable intelligence further down the line.

Through a process often referred to as collection synergy, the U.S. Intelligence Community employs a host of different collection disciplines that may together create a more accurate profile of the subject in question. Signals Intelligence, or SIGINT, comprises intercepted signals such as communications, telemetric information, and electronic emissions. Imagery Intelligence, otherwise known as IMINT, is classified by its use of visual representations, ranging from outer space imagery to simple photography. There is also an emerging field known as Measurement and Signature Intelligence (MASINT) that interprets measurable readings like radiation levels and chemical breakdowns. Human Intelligence (HUMINT) represents the information received from human sources such as official diplomats or recruited spies. And spurred on by the revolution in information technology, a final type of intelligence known as Open Source (OSINT) comes from completely unclassified information such as newspapers, television broadcasts, and academic analyses.

Slide 8

Collection II

These disparate methods of collection share one major commonality: they are all resource intensive. Launching satellites, intercepting signals, and running agent networks are all costly. Accordingly, managers of the different collection disciplines compete for limited budgetary dollars. Each discipline has its own strengths and drawbacks that are considered in the budgeting process. HUMINT, while politically risky and especially vulnerable to denial and deception, is relatively inexpensive and is often the only collection activity to gather highly specific information, particularly information concerning future intentions of adversaries and potential adversaries. On the other hand, the more technical disciplines (SIGINT, IMINT, MASINT) are relatively more costly but are less politically risky than the alternatives. They also are capable of being accessed locally by operating forces and can collect vast amounts of information. Although HUMINT has risen in priority in recent years, policymakers still favor the technical disciplines, owing to their more easily understood nature, promise of instant results, and the occasional political windfalls from large spending projects.

However, one must remember that despite this impressive capability to collect a seemingly endless amount of information, these systems alone cannot produce *intelligence*. They can

be usefully compared to a vacuum cleaner that inhales everything in its path. Of all that is collected, the analytically valuable information is buried in a heap of extraneous information. Often referred to as the "noise versus signals" problem, the valuable information must be separated and processed in order to yield any sort of intelligence. Ironically, as collection efforts outpace processing capacities, useful intelligence becomes progressively harder to locate.

Slide 9

Step 3: Processing and Exploitation

Step three, processing and exploitation. As previously hinted, collection systems accumulate oceans of information, of which only a fraction is usable. Not only must the relevant information be separated from the mass, but it also must be "repackaged" in accessible ways. These needs give rise to the *processing and exploitation* phase of the intelligence cycle, which serves to connect collected information to the analysts who will examine it.

In order to overcome the "noise versus signals" dilemma, skilled specialists must sift through collected information in search of useful intelligence. To use an example, photo-satellites capture thousands of images across the planet, all varying in terms of resolution, angles, daylight, and weather conditions. To the untrained eye, all these variations could mean nothing, but trained imagery professionals are able to screen each image for subtle clues and indicators that might suggest an important finding. Similarly, other intelligence professionals such as code breakers, translators, and weapons experts use their respective expertise to locate the most relevant information in their own seas of data. However, what seems crystal clear to one of these trained specialists could be unintelligible to analysts and policymakers. Hence, these specialists must also be able to effectively communicate the significance of their technical findings to the analysts and policymakers on the receiving end of their reports.

Slide 10

Processing and Exploitation II

Although by its very nature the Intelligence Community always collects more than it processes, there are frequent and perennial concerns that the disparity between the two is unmanageably large. In the halls of Congress, the White House, and the Pentagon, there is a tendency to give greater attention to collection activities than to areas such as processing and exploitation. Much of this involves the relative glamour of high-technology collection projects that promise progressively better technical capacities with each new model. By comparison, investment in processing and exploitation often is seen in the context of

bureaucratic expansion with no opportunities for outside profit, which often sidelines these activities in budgetary allocation.

This is one of many factors behind the growing ratio between collection efforts and processing capabilities. Collection advocates defend this disparity, arguing that expansive collection activities put more information in the hands of intelligence professionals. However, defenders of processing activities respond that collected but unprocessed information is little different from having no information in the first place. Although there is no uniform ratio of acceptable collection to processing priorities, there is widespread belief that the relationship between the two is greatly unbalanced and must be addressed.

Slide 11

Step 4: Analysis and Production

Step four, analysis and production. Even after collected information has been screened for relevancy and then converted into accessible concepts, it is still only considered raw intelligence at best. Only when this information clears the *analysis and production* stage, where many different pieces of information and raw intelligence are combined and evaluated by a series of experts and summarized in a written report, does it become finished intelligence.

Analysis is thus the most important part of the intelligence cycle. The essence of the analytical process lies in the individual analyst. Analysts are specially trained employees of intelligence agencies who typically combine substantive expertise in a variety of issues, cultures, and geographic regions with keen analytic capacities and strong written and oral communication skills. Their basic job is to assemble many different pieces of collected and processed information, evaluate this information in terms of their specialized knowledge, consider its implications for national security and policy interests, and succinctly express these judgments in written and oral formats as appropriate. Their analysis will then be scrutinized by a series of managers and deputies, often be cross-examined by analysts and managers in other intelligence agencies, vetted and fine-tuned in light of other views, and ultimately reported to policymakers in a very concise format. However, if at any time an analysis is deemed erroneous, irrelevant, or otherwise unpalatable, it may never reach the desk of a policymaker.

Slide 12

Analysis and Production II

An analytical report can best assure its chances of survival by abiding by four basic principles of good intelligence. First, useful intelligence must be timely, since one of its main functions is to provide early warning and indication. Even when working with uncertain and fragmented information, it is better for analysts to submit an inconclusive report on time than to wait for more information to arrive. Otherwise, policymakers might first learn of developments through the nightly news after an attack or some other significant event has occurred. Second, a good analysis should convey a clear sense of relative certainty and uncertainty. Rarely does collected information reveal anything approaching absolute knowledge, and analysts should aid policymakers in their strategic calculations by providing them with a degree of confidence in the conclusions of their analyses. Third, analysts should custom-tailor their reports to the specific policymakers they address. They should craft reports with individual policymakers' needs and requirements in mind, but must avoid losing their objectivity in the process. Lastly, intelligence reports must be quickly and easily digestible to extremely busy policymakers. This mandates a crisp and coherent writing style.

Slide 13

Analysis and Production III

Another analytical tool, designed to help produce more accurate intelligence, is the principle of competitive analysis. Due to its very nature, the intelligence process is plagued with doubt and lack of information at every step, which can be a breeding ground for errors and misperceptions. As a built-in safeguard, the U.S. Intelligence Community encourages its sixteen affiliated agencies to work on similar issues and discuss their alternate viewpoints. The presumption is that analysts are fallible human beings with unique worldviews, and are embedded in different bureaucratic structures with their own agendas. Thus individual analysts and agencies are capable of engaging in "groupthink" and producing flawed intelligence, yet by filtering one perspective through the viewpoints of many others, these inherent risks are greatly reduced. This practice is typically carried out in the form of roundtable discussions, where agency representatives present their respective positions. Inter-agency disagreement is not uncommon in these sessions, which often results in heated disputes. However, once opposing viewpoints are voiced and duly recorded, the result is an analytic product representing the views of all concerned agencies and professionals. This product is more useful than any individual perspective.

Slide 14

Analysis and Production IV

Despite the best efforts of analytic tradecraft and competitive analysis, there remain many ways in which an analysis can go awry. As part of his or her training, every analyst is warned of common analytical pitfalls that can contribute to flawed intelligence. Such errors include "mirror imaging" (automatically extending one's own ideas of motivation to other actors), "clientism" (justifying rather than analyzing the actions of the subject of an analysis), and "layering" (building an analysis based on pre-existing, yet faulty assumptions). Moreover, the institution of competitive analysis can be a double-edged sword in itself. Although the existence of opposing viewpoints is often helpful in producing accurate and objective analysis, there are other times when the competition is neither helpful nor healthy. Disagreement between agencies sometimes escalates into a state of "tribalism", where distrusting agencies may wage bureaucratic turf battles or withhold important information from each other. Even when the competition is less destructive, analytical teams are often so entrenched in their opposing viewpoints that true reconciliation never takes place. They may instead resort to more parliamentary tactics that create the appearance of consensus without adding anything to the analysis. While reforms are in progress to curb the worst of these tendencies, they nevertheless highlight the challenges and uncertainties inherent in the analytical process.

Slide 15

Step 5: Dissemination

Step five, dissemination. Despite the best collection and analytical efforts, intelligence does not exist until policymakers acknowledge and understand it. The process of distributing finished intelligence to appropriate officials is known as the process of *dissemination*.

Most intelligence consumers are assaulted by a constant barrage of competing information. Especially in the case of policymakers, intelligence reports may constitute only a fraction of the documents they receive. To keep up with these demands, intelligence professionals must find ways to customize reports for different types of consumers and put them together in ways that convey the most important information in the least demanding fashion. For instance, the President's Daily Briefing (PDB) is a high-profile report given each morning to top White House officials, written with the President's preferences and requirements in mind. The Senior Executive Intelligence Brief (SEIB), amicably dubbed "the newspaper", is another type of specialized intelligence report; it is distributed to congressional oversight committees and hundreds of senior officials. There also are highly specific briefings, such as the Department of Defense's Military Intelligence Digest (MID),

which provides specialized reports for a narrow set of intelligence consumers. And in contrast to the previous three types of current intelligence reports, National Intelligence Estimates (NIEs) are community-wide assessments of longer-term issues that are distributed to the President and other senior officials.

Slide 16

Dissemination II

The challenges of maintaining a systematic and routine flow of intelligence are both numerous and demanding. First and most importantly, senior intelligence officials must examine which of the many intelligence findings they receive in a given day are most important, and hence worthy of consumers' time. In making these judgments, senior officials must also strike a balance between too much and too little information, and find a way to give policymakers the essential facts they need and not a sentence more. Other considerations might involve different consumers' preferred methods of presentation, the speed and intervals at which different types of intelligence should be disseminated, and the fundamental question of who should receive intelligence in the first place. Getting the right intelligence to the right people at the right time is a rigorous job that represents the sum efforts of all previous stages combined.

Slide 17

Step 6: Consumption

Step six, consumption. Consumption is a critical stage that is often overlooked in descriptions of the intelligence cycle. It is often taken for granted that policymakers will digest and act upon the intelligence they receive, but this outcome is by no means guaranteed. For example, some policymakers might discount intelligence that challenges their preconceived notions about a particular issue. Or policymakers might find it difficult to acknowledge intelligence that indicates they should readjust their priorities, possibly requiring them to initiate major new projects, or cancel others to which they may have become attached. Although a full discussion of this role would require a broader description of foreign policy-making and other issues, mere acknowledgement of this stage of the intelligence process is sufficient for purposes here.

Slide 18

Step 7: Feedback

Step seven, feedback. A final and often-forgotten stage of the intelligence cycle is the process of *feedback*, whereby policymakers evaluate the Intelligence Community's performance on any of the parts of the intelligence cycle and provide recommendations for future improvement. Feedback is most needed in activities such as requirement setting and dissemination, where two-way communication with policymakers is key.

But in reality feedback, is not always forthcoming from policymakers, who perceive themselves to be too busy to take the time to develop constructive criticism of intelligence community performance. Indeed, it is typically in the aftermath of intelligence failures that policymakers devote significant time to this function. But whether or not feedback occurs in a timely and constructive fashion, the intelligence cycle depends on the ability of policymakers to reflect on their own intelligence requirements and communicate them to the agencies; feedback renews the intelligence cycle with the hopeful benefits of hindsight and clarity.

Slide 19

Closing Credits

Music