



GUIDE TO STUDY OF INTELLIGENCE

Decision Advantage, Decision Confidence

The Why of Intelligence

by John MacGaffin and Peter Oleson

Why have an intelligence service? If one believes that intelligence is the world's second oldest profession, obviously the need for intelligence has long been recognized. One should note that many rely on intelligence for various reasons. Nations have used intelligence since ancient times.¹ But others do too.² Intelligence is important to law enforcement and the private sector. It is also important to revolutionaries, terrorists, drug cartels, and other criminal organizations.

For nations, intelligence has provided warning of attack. As historian John Keegan has noted “[t]he intelligence services of all states originated... in the efforts to avert an enemy's achieving a military advantage [and] to achieve military advantage in return.”³ Additionally, intelligence has given nations understanding of an adversary's intentions and covertly advanced policy implementation. For companies, intelligence has assisted strategic planning, risk assessments, market decisions, R&D, and investments. For criminals, intelligence has provided forewarning of law enforcement actions, aided unlawful enterprises—including the subversion of police and politicians—and allowed intimidation of witnesses. Of course, there are many other uses.

At its most fundamental, intelligence is intended to provide decision-makers with an advantage. This

is true whether the decision-maker is a head of state making critical choices in foreign policy, a combatant commander planning details of offense or defense, a drug smuggler looking for an opening in the border, or a financial official making decisions about long term investments. Certainly, some decisions must be made without any contribution from intelligence, in which case the decision-maker could be blind. But if significant intelligence is available in support of decision-making, it can provide a *decision advantage* so the decision-maker is better informed and understands more aspects of an issue in ways that would not be possible without the intelligence. This decision advantage can be especially critical when adversaries or competitors do not possess the same insights or do not know what the opposing decision-maker does.

It is also important to recognize that the decision advantage that comes as a result of pertinent, accurate intelligence is always accompanied by a corresponding *disadvantage* to an adversary, competitor or others involved. The advantage-disadvantage dynamic represents a zero-sum situation. The offsetting disadvantage may sometimes be unintended, but most often it is at the heart and intent of the matter, e.g., one negotiator possessing intelligence about the negotiating strategies and plans of the opposing party is in a stronger position both during the negotiating process and in the ultimate outcome. A targeteer knowing the location of an unsuspecting enemy is another example. That is why resources were expended and risks taken to collect and analyze the information in the first place.

Decision Advantages

Probably the most significant example of decision advantage occurred during World War II with the Allies' breaking of the German Enigma and Japanese diplomatic and naval operational codes. The ability to read the German radio traffic gave the Allied planners an enormous strategic advantage for the Normandy landings and operational commanders an ability to counter Nazi attacks and exploit their weaknesses. British historian Sir F. H. Hinsley has said that the war in Europe would have lasted two, three or four years longer had it not been for breaking the German codes.⁴ And US Army Chief of Staff Marshall reported:

Operations in the Pacific are largely guided by the information we obtain of Japanese

1. See Col. Rose Mary Sheldon, PhD., “A Guide to Intelligence from Antiquity to Rome,” *THE INTELLIGENCER*, Vol. 18, No. 1, Summer/Fall 2011, and other historical articles in the *Guide to the Study of Intelligence* at www.afio.com/4o_guide.htm.

2. See Peter C. Oleson, “Who Are the Customers for Intelligence?” *Guide to the Study of Intelligence*, www.afio.com/4o_guide.htm.

3. John Keegan, *Intelligence in War: Knowledge of the Enemy from Napoleon to Al-Qaeda*. New York: Alfred A. Knopf, 2003: 4.

4. F. H. Hinsley. “The Influence of ULTRA in the Second World War,” address to the Security Group seminar at Babbage Lecture Theatre, Cambridge University Computer Laboratory, October 19, 1993. <http://www.cix.co.uk/~klockstone/hinsley.htm>.

deployments. We know their strength in various garrisons, the rations and other stores continuing [sic] available to them, and what is of vast importance, we check their fleet movements and the movements of their convoys. The heavy losses reported from time to time which they sustain by reason of our submarine action largely results from the fact that we have the sailing dates and routes of their convoys and can notify our submarines to lay in wait at the proper point.⁵

Breaking of the Japanese codes proved crucial in Pacific naval warfare and provided President Truman critical intelligence influencing his decision to employ the atomic bomb.⁶

In more recent history, the 1962 Cuba missile crisis is a good example of intelligence giving decision advantage to President Kennedy despite the fact that the latest National Intelligence Estimate discounted the possibility of Khrushchev placing missiles on the island. Tipped by SIGINT and some disturbing HUMINT reports, a U-2 spy plane mission collected photography revealing the existence of offensive missiles on the island, without the Soviets knowing about the discovery. This clandestine discovery, which took place a fortnight before the missiles were to become operational, provided the president and his advisors the advantage of time (albeit not a lot of time) to come up with an effective yet prudent response avoiding a nuclear war. President Kennedy's reading of the situation was strengthened by the US's prior intelligence on Soviet missile systems that had been provided by Russian Col. Oleg Penkovsky, one of the most important CIA human sources of the Cold War.

In 1995, the use of geospatial intelligence provided US negotiators an important advantage in the Dayton Peace Accords for the Bosnian war. As Dr. Gary Weir explained, the rapid construction of detailed maps reflected the "territorial dispositions negotiated

less than thirty minutes earlier." Based on satellite imagery and other geographical and intelligence information, these maps and three-dimensional imagery used by the US negotiators "guaranteed accuracy, consistency, and reliability" that "in one instance... proved crucial in persuading Yugoslav President Slobodan Milosevic to compromise on a disputed area."⁷

US intelligence capabilities have given US and allied negotiators an advantage in various arms control negotiations. Satellite imagery, SIGINT, and on-site inspection capabilities (both human and technical) have allowed various US administrations to reach agreement on limiting both nuclear and conventional arms.

There are also examples of when a nation was at significant disadvantage because of a lack of intelligence or poor analysis of the intelligence that was available. In World War I, a lack of intelligence about the target area of Gallipoli contributed to the debacle suffered by the combined British-Australian-New Zealand-French forces at the hands of the Ottoman Empire. For the US, the surprises of the Japanese attack on Pearl Harbor in 1941 and of Al-Qaida's terrorist attacks of September 11, 2001 were both attributed to a failure of intelligence collection and analysis. The US may also have missed warnings before the North's invasion of South Korea in June 1950 due to spying by William Wiseband, a Soviet NKVD agent in the US Army's SIGINT organization, who told the Soviets that the US had broken its codes. "US SIGINT went deaf when the Soviets changed codes."⁸

The US was at a disadvantage due to a lack of intelligence, poor tradecraft, and faulty analysis in deciding on war with Iraq in 2003. The US had no vetted and controlled agents of its own inside Saddam's Iraq, relying on technical collection, access to UN inspection teams, and defectors and exile groups. The most compelling defector, Curveball, was controlled by a foreign intelligence service, the German BND, which refused to give the US access or even his true name until well after the war. He turned out to be a skilled fabricator; his claims of mobile biological weapons proved to be wholly false. The exile Iraqi National Congress persuaded US lawmakers and senior policymakers in the White House and Defense

5. Marshall to Dewey, September 25, 1944, SRH-043, cited in Christopher Andrew, *For the President's Eyes Only*, New York: Harper, 1996: 142-3.

6. Peter C. Oleson, "From Axis Surprises to Allied Victories: The Impact of Intelligence in World War II," *Guide to the Study of Intelligence*, <http://www.afio.com/publications/OLESON%20Intel%20in%20WW2%20DRAFT%202015Apr03.pdf>. Douglas J. MacEachin. *The Final Months of the War with Japan: Signals Intelligence, US Invasion Planning, and the A-Bomb Decision*. (Washington, DC: Central Intelligence Agency, Center for the Study of Intelligence, 1998). <https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/the-final-months-of-the-war-with-japan-signals-intelligence-u-s-invasion-planning-and-the-a-bomb-decision/csig810001.html#rtoc2>.

7. Gary E. Weir. "The Evolution of Geospatial Intelligence and the National Geospatial-Intelligence Agency," in the *Guide to the Study of Intelligence*, <http://www.afio.com/publications/WEIR%20NGA%20Essay%202014Nov05%20DRAFT.pdf>.

8. David Major and Peter C. Oleson. "Espionage Against America," *Guide to the Study of Intelligence*, <http://www.afio.com/publications/MAJOR%20OLESON%20Espionage%20DRAFT%20over%202014Nov10.pdf>. See footnote 25.

Department of Saddam's program of weapons of mass destruction (WMD). Saddam had a WMD program prior to 1991 that was shielded by an active and very capable deception and denial program. After 1991, for purposes of deterrence, Saddam had an effective deception effort to convince his regional enemies that he still had extensive WMD capabilities. His harassment of UN inspectors suggested he had something to hide. The US was hoodwinked. What US intelligence analysts lacked was current intelligence from both technical and human sources that were controlled and vetted as reliable and up-to-date. The result was a long and costly conflict.⁹

Intelligence can also aid decision-makers to know whether past policy or operational decisions are being successful or failures. During the Vietnam conflict CIA's evaluations of intelligence about the enemy were often in conflict with the Pentagon's more optimistic operational assessments. This use of intelligence has often led to clashes between intelligence professionals and policymakers vested in a particular policy.¹⁰

Decision Confidence

Intelligence provides more than decision advantage. Less evident – but absolutely critical and generally unrecognized – is that it can provide decision-makers with *decision confidence*. It is simply in the nature of the world that adversaries or competitors often try to confuse and deceive their opponent's decision-making processes and, at times, succeed. Foreign intelligence services are principal instruments to undertake denial and deception programs. They discretely position information intended to lead others to make erroneous or flawed decisions, the consequences of which serve their interests. By their nature, the elements of such denial, deception and perception management programs appear authentic. Intelligence collection and analysis or policy decisions, therefore, which are based on such information, can be seriously flawed.

One job of counterintelligence is to expose for decision-makers the fact and nature of hostile denial, deception or perception management efforts. Put another way, collection and analysis, which are not

informed by a serious counterintelligence lens, can significantly mislead the very decision-maker whom it intended to support. Successful intelligence collection and analysis, accompanied by counterintelligence, is necessary to provide decision-makers not only decision advantage but also decision confidence.

While the importance of identifying hostile denial and deception is easy to understand, there are other more subtle aspects of counterintelligence, which also provide clear decision confidence. Consider, for example, the confidence in his choices that a decision-maker can have when counterintelligence provides not only an important foreign government secret, but also the knowledge that the foreign government is operating on the understanding that its adversary/competitor does not know that secret. Or consider how much better a decision-maker can understand all the nuances of a nation's foreign policies when he has visibility into the secret instructions and direction which that nation's leadership has given to its own intelligence service. Beyond denial and deception, a well-placed agent in a hostile intelligence service sometimes will provide insights to that government's secret plans and intentions which run directly contrary to its public pronouncements or its private assurances to the US.

Knowing whether a foreign intelligence or law enforcement service has or does not have secret sources within one's own service or organization can also provide confidence. This comes from one's own intelligence service penetrating an opponent's intelligence service. By betraying the US's human sources within the KGB and GRU, Aldridge Ames gave the Soviets confidence in their own counterintelligence. The KGB went to great lengths to protect its own penetrations of both CIA and the FBI (Robert Hanssen) to maintain their confidence in knowing about US counterintelligence operations. Pablo Escobar's Medellin Drug Cartel focused an intense counterintelligence effort against both Colombian government elements and the US to determine how secure his operations were.

Another aspect of counterintelligence, which is critical and not generally understood, is the *mitigation* of covert threats. Military force and diplomacy are asked to mitigate overt threats to national security by use of kinetic force or negotiation. Likewise, counterintelligence can provide decision-makers with a mitigation tool for use when faced by sub rosa threats posed by foreign intelligence services.

A prime example of mitigation is the early 1980s covert action to frustrate Soviet illegal acquisition of

9. This analysis is based on private correspondence between David Kay, Chief of the Iraqi Survey Group, and co-author John MacGaffin.

10. An interesting case study related to this point is recounted in James J. Wirtz's article, "Intelligence to Please? The order of battle controversy during the Vietnam War," *Political Science Quarterly*, Vol. 106, No. 2 (Summer 1991), pp 239-263. <http://www.jstor.org/stable/2152228>.

Western technologies. A Soviet defector provided the French with over 4,000 documents detailing the goals, achievements, and unfulfilled objectives of the KGB's Line X technology officers. The documents identified the Line X officers, how they obtained various technologies, from which companies in what countries, and often who provided the restricted technologies. President Mitterrand shared this counterintelligence information, codenamed the *Farewell Dossier*, with President Reagan at the Ottawa economic summit in July 1981. Rather than stopping the hemorrhaging by exposing the Line X personnel – the normal counterintelligence reaction – which would have been only temporary, President Reagan approved a covert action to provide the Soviets with desired technologies that had been “improved” with “extra ingredients” in their hardware and software. The covert action involved multiple US Government agencies, many private companies, and allied nations. With the advantage of knowing the KGB shopping list, CIA fed back—through controlled channels—items on the list that were designed to pass acceptance testing but had hidden Trojan Horses¹¹ that would cause them to fail randomly in service. The Soviets were provided flawed stealth technology, defective turbines and factory plans, convincing but flawed ideas for a space shuttle and combat aircraft, and corrupted industrial control software. “Every microchip [the Soviets] stole would run fine for 10 million cycles, and then it would go into some other mode. It would break down; it would start delivering false signals and go to a different logic.”¹² This caused severe setbacks for major segments of Soviet industry.

The most dramatic consequence of the *Farewell* covert action impacted the Soviet natural gas industry. A critical element of the economy that earned hard currency from the West, the Soviets needed advanced pipeline control technology for the new trans-Siberian pipeline. When export control restrictions prevented its purchase, Line X officers tried to steal it from a Canadian company. They succeeded, but once in the USSR, the computers and software ran the pipeline beautifully – for a while. Then the software commanded a covert pipeline pressure test. “We expected that the pipeline would spring leaks all the way from Siberia to Germany, but that wasn't what happened.

11. A Trojan Horse is a few lines of software, buried within a normal program, that will cause a system to go berserk at some future date or upon receipt of an external command.

12. Thomas C. Reed, former National Security Council staff member and Secretary of the Air Force, interview with Steve Ketterman, March 26, 2004.

Instead the welds all blew apart.”¹³ The result was the most monumental non-nuclear explosion and fire ever seen from space¹⁴ and severe damage to the Soviet economy. The Soviet defector, Lt. Colonel Vladimir Vetrov, murdered his mistress and carelessly admitted his spying in late 1982 and was executed. In 1984-85 the US and allied countries mitigated the threat of Line X, expelling approximately 250 Soviet “diplomats”: 41 from the UK, 55 from the US, and others from France, Italy, Germany, Belgium, Netherlands, Canada, and Japan.¹⁵

Necessary Elements of Intelligence for Advantage and Confidence

Like a three-legged stool, there are three essential elements of intelligence needed for solid decision advantage or confidence. These are collection, analysis, and counterintelligence.

Collection can be a very difficult business. In the SIGINT realm there is a constant struggle between successful collection measures and countermeasures, such as encryption. Disclosures of techniques, such as those by Edward Snowden, inevitably result in loss of collection.¹⁶ For HUMINT, finding worthwhile agents in a state that terrorizes its citizens (e.g., Iraq under Saddam before the invasion of 2003) is not an easy thing. Even more difficult is the penetration of terrorist cells or ethnically homogeneous groups. That is why liaison and collaboration with foreign intelligence and security services and law enforcement organizations are an important, complex and sometimes controversial part not only of HUMINT, but of the other intelligence disciplines as well. Liaison contacts are often the most secret and sensitive elements of bilateral relations and, in many countries, intelligence service leaders are also policy and power players. For example, for many years, CIA maintained a discreet relationship with the KGB, intended primarily to provide a venue for informal airing of potentially contentious issues. Known as the “Gavrilov channel,”

13. Reed, Ketterman interview.

14. Thomas C. Reed. *At the Abyss: An Insider's History of the Cold War*, New York: Presidio Press, 2004.

15. The *Farewell* episode is explained by Gus W. Weiss, the principal architect of the covert action, “The *Farewell Dossier*,” *Studies in Intelligence* 39 (5), 1996, at www.cia.gov/csi/studies/g6unclass and, from a French perspective, by Yves Bonnet, *Contre-espionage: Memoires d'un patron de la DST* [Counterintelligence: Memoirs of former head of the DST – the French internal security service of the time], Paris: Calman-Lévy, 2000.

16. Peter C. Oleson, “Assessing Edward Snowden: Whistleblower, Traitor, or Spy?” *THE INTELLIGENCER*, Vol. 21, #2, Spring/Summer 2015, p15, Association of Former Intelligence Officers.

it was first established in 1983.¹⁷

Fed by collection, analysis is difficult. “In many cases... collection is incomplete or inconclusive and analysts must work from fragments, some of which are contradictory, in order to assess what is going on or is likely to happen.”¹⁸ This can limit the confidence policymakers have in intelligence. Former Deputy Director of National Intelligence for Analysis, Thomas Fingar, has noted: “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.”¹⁹ Conveying intelligence to a policymaker to give him decision confidence “can be very difficult because the language that is used is often conditional or hedged.”

Yet as former Assistant Director of Central Intelligence for Analysis and Production, Mark Lowenthal, notes: “Wise policymakers understand that they cannot know all of the possible outcomes of the decisions they face. Intelligence analysis serves to bound their uncertainty, to give policymakers a better sense of what might or might not happen, based on known conditions, the actors involved, and the decisions made. It is important to understand that ‘bounding uncertainty’ is not the same as telling someone what will happen.”²⁰

Critical aspects of analysis occur long before the final assessments are made on the bits and pieces of collected information. Vetting (i.e., the careful and critical examination) of one’s source can be difficult. Vetting applies not only to human sources but technical sources as well. The failure of the vetting process can have significant consequences, as illustrated by Curveball.²¹ The Abwehr’s failure to vet its agents in

Britain during World War II allowed British counterintelligence to undertake extensive deception operations on numerous occasions with disastrous consequences for the German military.²² Counterintelligence vetting and vulnerability evaluations are critical to having confidence in planning operations and making fundamental policy decisions.

Like a three-legged stool, take away one element and decision advantage and confidence suffer. While collection and analysis are well understood, counterintelligence often is not and is the least valued of the three. Partly this comes from the view, particularly among intelligence analysts and policymakers, that counterintelligence equals counterespionage – the catching of spies, but nothing more. Given that limited perspective, it is understandable that their bias is that counterintelligence has little, if anything, to offer the analytic and policy process. A very senior member of the National Intelligence Council once told one of the authors that there was no role for counterintelligence in his analyses. “There is nothing that we or policymakers need from counterintelligence”, he said. (That decision was overturned several years later.)

Counterespionage can often inform both analysts and policymakers. The realization that an adversary seeks or has obtained our secrets or evaded our laws can, in fact, tell us important things about the adversary. An example is the extensive clandestine attempts by Iran to evade US export controls.

Another invidious reason for resisting counterintelligence is that analysts and policymakers have experienced counterintelligence information that undercuts firmly held analytic views, policies and plans. An adversary’s denial and deception, once uncovered, might reveal that the adversary had actually planted the ‘dots’ on which a policy or an act was premised, resulting in egg on the face if the government already had taken action based on a flawed premise. Counterintelligence often adds tension and difficulties to the policymaking process, which, given natural tendencies, often makes it very difficult to bring the counterintelligence perspective to the table. In contrast to the narrow view of the National Intelligence Council official, cited above, a former National Security Advisor told one of the authors that the full insights which counterintelligence can provide were critical to the policy making process but were not vigorously sought out by analysts and policymakers as a matter of

17. Milt Bearden & James Risen, *The Main Enemy: The Inside Story of the CIA’s Final Showdown with the KGB*, New York: Random House, 2003: 189. See also “Dangerous Liaisons: Post-September 11 Intelligence Alliances,” *Harvard International Review*, Vol. 24, No. 3, September 2002: 49-54.

18. Mark Lowenthal. “Intelligence Analysis, Guide to its Study,” *INTELLIGENCER: JOURNAL OF US INTELLIGENCE STUDIES*, Summer/Fall 2011, 61. http://www.afio.com/publications/Lowenthal_Analysis_in_AFIO_INTEL_SummerFall2011.pdf.

19. Thomas Fingar. “A Guide to All-Source Analysis,” *INTELLIGENCER: JOURNAL OF US INTELLIGENCE STUDIES*, Winter/Spring 2012, 63. http://www.afio.com/publications/Fingar_All_Source_Analysis_in_AFIO_INTEL_WinterSprg2012.pdf.

20. Lowenthal. “Intelligence Analysis,” 61.

21. “The Record on CURVEBALL: Declassified Documents and Key Participants Show the Importance of Phony Intelligence in the Origins of the Iraq War”. National Security Archive, The George Washington

University. 2007.

22. See Thaddeus Holt, *The Deceivers: Allied Military Deception in the Second World War*, New York: Scribner, 2004.

course. As David Kay, Chief of the Iraqi Survey Group, concluded, “clandestine collection and information validation is essential to intelligence and required to provide effective support to policymakers...”²³

Only with all three elements of intelligence – collection, analysis, and counterintelligence – can decision-makers have decision advantage and decision confidence. And this is why we have an intelligence community.

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READINGS FOR INSTRUCTORS

Many books on crises and conflicts provide examples of how intelligence has provided decision advantages and confidence to leaders and commanders. The two texts below are relevant to this topic.

Allison, Graham and Philip Zelikow. *Essence of Decision: Explaining the Cuban Missile Crisis* (2nd Edition), New York: Longman, 1999. This book examines various decision models of the world’s most dangerous nuclear crisis.

May, Ernest R. (editor). *Knowing One’s Enemies: Intelligence Assessment Before the Two World Wars*, Princeton: Princeton University Press, 1984. A very thought-provoking series of articles on intelligence and the intelligence failings on all sides that often resulted in flawed strategic decisions.

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In 1998, he chaired a commission for the Secretary of Defense, the DCI, and the Director of FBI to restructure the national counterintelligence system – known as CI-21, implemented by the Bush administration. In 2009, he co-chaired, with former FBI Director Louis Freeh, a second national level review of the US Counterintelligence Program. He is a member of the Board of Visitors of National Intelligence University and a board member of AFIO.

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23. David Kay private correspondence with co-author John MacGaffin.