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THE TRADecraft OF ANALYSIS

Challenge and Change in CIA's Directorate of Intelligence

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Tying the need for change in CIA's Directorate of Intelligence (DI) to the ending of the Cold War has tended to cause the focus for change to be on size and subject matter. There is the not unreasonable belief--inside the Agency as well as outside--that whatever organization emerges from the change process must be smaller and that the needed reductions are to be achieved mainly by cutting resources committed to the threats formerly posed by the Soviet Union.

The need for change goes beyond size and subject matter, however; dramatic changes in national priorities and the resulting funding reductions require a reexamination of the fundamental purposes and process of intelligence analysis. We need to go back to the basic questions of what we do and what is the best way to do it.

The purpose of this monograph is to describe corporate efforts underway in the DI to deal with these questions. It is not intended to be a critique of past practices or of the quality of analysis carried out in the Directorate. There has been much more that has been good than we are given credit for, but there also is much that needs changing.

We have all been a part of what has been good and of what needs changing. Some of the practices needing change came into being as the unforeseen result of efforts undertaken for sound constructive reasons, judged by participants at the time to have been fully valid, and usually aimed at correcting deficiencies of the time. But collectively, with time and bureaucratic evolution, they turned out to be counterproductive.

We cannot chart a course for the future without facing up to existing problems. Designing change requires us to lay bare what it is about the present system that needs changing, what problems the change must correct, how the changes are to make us better. Change in any large organization comes with substantial cost, and we need to be able to demonstrate--both to the work force and the outside critics--that the gains outweigh the costs.

The following sections describe changes that have been made or are underway in the DI in the fundamental areas of:

- **What we do:** Making the needs of the user--the policymaker--the driving factor in intelligence production, defining the contribution to those needs as the measure of performance, and eliminating practices that encourage production aimed at fulfilling internally established conventions for achievement and recognition.
- **How we do it:** Redefining our analytic tradecraft to emphasize "facts" and the "findings" derived from them. This does not mean opinions are no longer valued, but it does require that their credibility be established through intelligence practices that clearly identify what is known, how it is known and with what level of reliability; what is not known that could have importance consequences; the "drivers" or "linchpins" that are likely to govern the outcome of dynamic situations; the analytic calculus underlying all conclusions and forecasts; and the uncertainties in any of the components of the analysis and the implications of those uncertainties for alternative outcomes. Adherence to these principles of analytic tradecraft are to be the standard of professional excellence--the "professional ethic"--of the Directorate.

These changes are not directly tied to the substantive dynamic generated by the end of the Cold War. There is in fact consensus among the corporate leadership of the DI that these changes have been needed for some time. They represent major cultural change, however, which entails sizeable cost and pain, and it has taken the events

generated by the end of the Cold War to make clear that not making these changes ultimately would entail even higher costs than making them.

-- In sum, the **need** for change has existed for some time, but the end of the Cold War clearly generated **force** for change and provided the **occasion and conditions for implementing change**.

This is not meant as an argument against proposals for reducing the amount of resources devoted to intelligence and realigning the substantive focus of those resources for the post-Cold War world. A major effort is underway to design the architecture for a smaller DI with more streamlined supervisory structure and greater organizational flexibility to respond to more diverse and rapidly changing requirements.

But without the kinds of **systemic changes** described below, we would end up just doing the same things in different boxes, and that is not sustainable in a post-Cold War world. Therefore, while examining issues of resource allocation and ways to improve efficiency at lower levels, DI management during the past year has given first priority to fundamental changes in how we define our mission and carry out our work.

THE MISSION: FOCUSING ON THE USER

Crafting mission statements is always a difficult and somewhat metaphysical task. For purposes of this review, a short statement that is more descriptive than definitional seems most useful:

Provide U.S. policymakers with information and analysis they need to carry out their mission of formulating and implementing U.S. national security policy.

There is not enough space here to try to take on all the excursions that could be made on this statement. It leaves open such questions as what constitutes "national security policy," and therefore which substantive areas are addressed and which policymakers are the intelligence users. It also is broad enough to encompass what is often referred to in intelligence jargon as short-term "tactical intelligence" and longer term "strategic estimates," and is also neutral as regards the "clandestine" versus "open source" debates. Such discussions have bearing on issues

such as breadth of coverage, and ultimately on resource levels, but they do not affect the basic principle of the statement--that all considerations of the intelligence mission start with the user, who is the U.S. policymaker.

Some will doubtless argue that there is nothing new in this, that this has always been our understanding of our mission. Indeed, if a decade ago the question had been posed to a random sample of DI officers, the dominant answer probably would have been articulated much along the lines of the statement above. A fundamental tenet of my own argument for change, however, is that **back then the statement did not always drive what we did in practice nor how we did it.** Although great strides were made in the 1980s toward exposing our officers to the policy world and gaining greater understanding of its operation and needs, our business practice for a time evolved in ways that allowed our own internal goals and measures of quality to have a greater influence on our product than did the questions of "who is my user" and "what does my user need." In recent years, we have pushed the pendulum back toward direct customer service and we are now accelerating that trend.

The Publish or Perish Factor

There are probably some who will want to contest this criticism, but most present and past officers with whom I have tested it have agreed with it. A simple description of the dynamic that existed makes its own best case for the charge:

- **Success** in the DI meant showing a "production record" that included **published** papers. But to get their products published, analysts had to get them through a review process that contained at least four and sometimes more layers, from the immediate supervisor to the head of the Directorate. Not every written product had to go through this gauntlet, but those that did not counted for less in the rewards and advancement system.
- Once a paper cleared this process, it was **disseminated according to a list** of "user profiles" maintained in the office that did the formal printing. Publication was, de facto, a decision taken separately from a detailed identification of the audience.¹

The published products that counted most for demonstrating analyst achievement--and which therefore counted most for analyst advancement--followed the general rule that long was better than short (despite protestations to the contrary) because it demonstrated full scholarly effort. The Intelligence Assessment (IA) which was both long (incorporating extensive research and description) and "analytic" carried the most prestige within the DI culture. It was considered more reward worthy than the Research Paper which, while as long or longer, was more informational and descriptive than judgmental. Both, however, outranked--for purposes of rewards and promotions--the shorter memoranda, **despite the fact that our most important consumers have consistently told us that it is the latter that they found most useful.**

Production criteria for advancement also included the need to have produced a certain amount for the daily current intelligence publications. In some substantive areas, a high volume of current intelligence production could carry an analyst a certain distance up the promotion scale, but sooner or later the analysts had to prove their fundamental mettle by publishing one of the "big" papers.

- Analysts knew that to advance their careers they had to get papers published, and they knew what kinds of papers counted most for this purpose; managers knew they had to demonstrate component production records.

Most of this was instituted for what were seen at the time as sound, constructive reasons. For example, the IA was indeed the most **challenging product** of the DI in terms of demands placed on the individual producer, but it reflected a "degree of difficulty" system of evaluating products, rather than utility to the consumer. **The layered review system** was in large measure a version of the very appropriate principle of management accountability, and an effort to impose more rigor on the products.

- The way that these factors came together should make all of us who were here through it all find some sympathy with the Alec Guinness character in The Bridge Over the River Kwai.
- Our only solace lies in surveys of other organizations in the private sector, which

disclose that the tendency to drift away from customer focus toward internal criteria is one of the most common problems of large organizations.

Changing the System

In the mid-to-late 1980s, many efforts were made to address these problems and there was particular progress made in diversifying the product line. This trend was further accelerated by the Production Task Force, one of many task forces set up by Director Gates during 1992.

An important step was taken by John Helgerson at the beginning of 1993, when he **eliminated the mandatory seventh floor review of finished products**. Since then, the individual offices have taken responsibility for the review, and they have instituted further flexibility on the level and amount of review required. The principle of management accountability still demands review of most products at some level, but the effort is to have it done as low in the supervisory line as possible, commensurate with the need for timeliness and the sensitivity of the issue addressed.²

- Today, the DI front office engages in pre-dissemination review only on request--if, for example, a production component wants to get another view on a particularly sensitive or venturesome product--or in the event the product is one that was directly tasked by the DDI or ADDI.
- Over the past year, these factors have led to DI review of no more than about a dozen or so products.

The practice of drawing up DI publication target lists for each fiscal year has been discontinued. Any publication lists that are prepared are done at the production office level, and they are used only for purposes of office-level planning and for coordinating resource use with other intelligence producers such as the Defense Intelligence Agency. No percentage tallies are kept; the focus is on quality and impact, not numbers or quotas.

The annual Directorate-level planning exercise which formerly produced the publication targets now focuses on strategic lines of analysis as a basis for resource allocation decisions and collection and research planning.

Research strategies developed in this effort are designed as capital investment in our intelligence production capabilities, not as a publication rationale.

Some in the DI have expressed a concern that the changes mean less value placed on research. That is an incorrect perception. What is being done is to establish a distinction between "research" and "publication." Research is critical to our effectiveness, and constitutes capital investment. What we are is what we know, and how well we analyze what we know. But the standard we want to apply to assessing the value attached to any given research effort is the knowledge gained and its contribution to our mission as a whole, not whether it fulfills a publication target.

- The results of individual research efforts probably will as a rule be compiled in some written form to exploit the learning and knowledge sharing benefits, but dissemination in hard cover form will be a separate decision based on demonstrated need by the policymakers.
- The results from a single research project can be disseminated in one or more of several forms: a relatively long written compilation of the information for other members of the Intelligence Community and selected components of the policy community that engage in in-depth studies; a short Intelligence Memorandum, a few pages in length, describing for more senior policymakers the principal findings and implications of the larger body of research; and a one-page version for the Cabinet Principals.
- Other research efforts might result in one or none of these products, and instead become part of a data base.

The DI will continue to devote resources to some products that are disseminated to a broad and diverse audience, including the NID and various specialized periodic journals which have high value to the users. We also will do our long-term strategic assessments when there is a clear need. **The key to all of these, however, is demonstrated need by the user, not continuation of a routine activity on our part.**

The most important strategic change has been directed at institutionalizing the principle that our analysis is for people not publications. The measure of achievement is not the publication of a paper but the delivery of intelligence information and analysis to a user that is critical to the users' needs. Written products are a means and not the only means of communication; face-to-face briefings are in many cases more useful to the consumer.³

This means customizing products according to issue and user. A paper or briefing that is designed to be useful to 100-200 people is not likely to be of significant value to the people--ranging from a handful to perhaps 30 or so--who are most deeply engaged on a given policy issue.

These officials are almost always going to be up-to-date on events that affect their most pressing policy concerns. They have staffs dedicated to keeping them informed, and they have ready access to reporting through diplomatic and defense channels, open sources, and even raw intelligence. They also routinely talk to foreign counterparts, journalists, academicians, contractors, and lobbyists--to name a few of our competitors.

Intelligence products for such consumers must be governed by the principle of "value added." Accumulation of information and views is not sufficient by itself to warrant a publication. Unlike the publish or perish system, more is not a criterion for better. The threshold for production is defined by the needs of a specific set of users, and the contribution of information and analysis to those needs--not whether the product qualifies for the publication scoreboard.

Moreover, the written product on a given issue need not and often should not be the same for each user. For example, an intelligence report or memorandum prepared for the Deputies and IWG members would properly be paralleled by a one-page highlight version for Cabinet Principals.

FACTS AND FINDINGS: THE PROFESSIONAL ETHIC OF ANALYTIC "TRADECRAFT"

For a long time it has been an article of faith in much of the DI that the primary value added from our product--written or oral--is our judgments. Consumers present and past, however, have been virtually unanimous in emphasizing that the first element of critical importance to them is

that we give the **facts**. First and foremost, they want the answers to the questions **What do we know? How do we know it--is it from a spy, an intercepted telephone message, a picture, or an embassy report? What important factors don't we know?** The products also must make clear the critical difference between what is, versus what a source reports, or national technical means indicate, or diplomatic observers calculate.

The reaction of some DI analysts to this is to question whether it means that their opinions are being devalued. On the contrary, opinions are indeed highly valued, but to be so they must be anchored in sound and clear argumentation that lays out what is known and with what degree of reliability, what is not known that could have significant consequences, and the analytic logic that forms the basis for the **findings**.

Findings are critically dependent on the analysts' ability to bring their expertise and knowledge base to the evidence. The patterns, relationships, and trends that analysts detect in the evidence are combined with the knowledge they bring to bear from both their training and education and from their daily scrutiny of the endless flow of classified and open source material. And this process needs to be explained to the recipient of the findings.

- "How do things usually work" in country "X" regarding weapons acquisition or economic corruption or manipulation of elections?
- "What is increasing, decreasing, new, and different" regarding terrorist incidents, diversion of resources to military objectives, money laundering?
- What is the relationship between meetings, speeches and action on the part of leader "Y"?

Some have suggested that including descriptions of the evidence and sources of it and laying out the analytic calculus is contrary to the need to make the products short and sharply focused. In fact, our experience in implementing these principles has shown that this is not so. A snappy march through the evidence followed by a delineation of the analytic logic for any conclusions makes for a short, punchy paper. What has tended to make papers long has been the practice in the past of writing them for

general audiences, thus requiring long background and explanatory sections that the informed, engaged policymaker does not need on **his or her issue**. (These background and educational contents were also needed for the several layers of review that had to be cleared.)

Some DI analysts also have expressed concern that laying all of this out in their products will lead the consumers to do their own analysis. Most consumers, particularly those directly engaged on a policy issue, are already doing that with or without the intelligence product. They have their own channels of information, often they have much of the same raw intelligence possessed by the analyst, and they often know the main foreign players from direct interaction.

Consumers present and past have consistently told us that for them, the value added--and the credibility--of the intelligence product is directly dependent on the information conveyed, its reliability, and their understanding of the analytic logic that supports the conclusions. If these are not made explicit and clear, the intelligence product becomes simply an opinion that may be agreed with or swept aside.

Forecasting vs. Fortunetelling: Identifying the "Linchpins"

Most consumers understand the difficulties of dealing with the unknowable. The future cannot be "known," nor can we "know" what is in the mind of leaders. These things can only be forecast or estimated on the basis of the evidence available and the combined impact of knowledge and expertise. But laying out the evidence and showing the interrelationships that form the basis for the judgments can define the difference between predictions derived through forecasting and predictions derived through fortunetelling.

- This distinction is not a matter of forecasts always providing a correct answer and fortunetelling an incorrect answer. With unknowables, there will always be forecasts that turn out to be incorrect.
- The difference is that in forecasts the evidentiary base and analytic logic is transparent.

Analyses of potential developments are based on assessments of factors which together would logically bring about a certain future. These factors are the **"drivers" or "linchpins" of the analysis**. If one or more of them should change, or be removed, or turn out to have been wrong to start with, the basis for the forecast would no longer hold.

- Identifying the role of these factors in the analytic calculus is a fundamental requirement of sound intelligence forecasts. The policymaker needs to know the potential impact of changes in these "linchpins."
- The consumer especially needs to know if there are any of these "linchpins" for which the evidence is particularly thin, for which there is high uncertainty, or for which there is no empirical evidence but only assumptions based on past practice or what appear to be logical extensions of what is known.

A review of the record of famous wrong forecasts nearly always reveals at least one "linchpin" that did not hold up: The Soviets will not invade Czechoslovakia because they will not want to pay the political costs, especially after having signed the Rejkavik Declaration the previous year; the Soviets will not invade Afghanistan because they do not want to sink SALT-II, which at that moment is being debated by the U.S. Senate; Saddam Hussein needs about two years to refurbish his military forces after the debilitating war with Iran and therefore will not, despite evidence of motives for doing so, invade Kuwait in the foreseeable future.

- Each of these linchpins was more of an assumption or postulate than an empirically based premise. Each was logical, but each turned out to be wrong.
- In each case, the sin was less in the fact that the linchpins did not hold than in the failure of the intelligence products to highlight the extent to which they were assumptions, and the potential impact on the bottom line judgments if they did not hold.

This approach to analytic tradecraft--facts and findings, and linchpins--forces systemic attention on the

range of and relationships among the factors at play in a given situation. Laying out the linchpins encourages testing of the key subordinate judgments that hold estimative conclusions together. Since the premises that warrant the bottom-line conclusion are subject to debate as well as error, analysts marshal findings and reasoning in defense of the linchpins. Finally, this approach helps to focus ongoing collection and analysis: what indicators or patterns of development could emerge to signal that the linchpins were unreliable? What triggers or dramatic internal and external events could reverse the expected momentum?

Implementing Change in "Tradecraft"

For most of the past year the application of these analytic tradecraft principles has been the primary focus of DI supervisors. This has included redesigning the product formats themselves in ways that facilitate customizing for users and create a natural flow for the "facts, findings, linchpins" tools. The DI's own Product Evaluation Staff has disseminated guidelines that establish these principles as the standards against which products will be evaluated, and as the measure of excellence for evaluating analysts' professional performance. All of us believe that much progress has been achieved, that the principles have begun to take root in the Directorate, and that change is evident.

Our aim, however, is to ensure that this is not allowed to be a passing thing, but rather becomes embedded in the professional ethic of the Directorate of Intelligence. To this end, a "Process Action Team" was commissioned in the latter part of 1993 to study means of institutionalizing these "analytic tradecraft" values in the Directorate culture, with particular emphasis on training supervisors and analysts. The Team was made up of supervisors and analysts from various substantive areas and echelons, and undertook an intensive training session with outside consultants on quality tools that addressed problem solving techniques.

- This Team's efforts included the canvassing of nearly 200 intelligence officers to understand their perceptions and expectations on the definition of DI tradecraft and the ways in which it had lasting impact. In these discussions the Team gave particular focus to officers who had served in assignments at policy agencies, where

they had the opportunity to see firsthand the needs and interaction with intelligence.

- The Team also undertook extensive discussions with people from other government agencies, private industry, the media, law and medical schools, and philosophy departments at colleges and universities to learn the systems that had been most effective.

The final report from this Team has been disseminated to all DI Officers and has been followed up with extensive oral briefing to DI supervisors and analysts at all levels as well as to nearly all senior Agency managers. It is in the process of being presented to the Staffs of the Congressional oversight committees.

As a result of the findings of this Team effort, the DI has cancelled all runnings of the current curriculum of its analyst training courses. A DI Training Board has been established to oversee the complete reengineering of the DI officer training program, for use at all levels including the senior-most supervisors.

The new curriculum, scheduled to be ready to launch around the end of the year, is being designed by DI officers detailed to this assignment, and reviewed by the DI corporate management with outside consultants. The courses will be taught by DI managers and analysts, as well as some training specialists, on the theory that teaching is one of the best ways to embed learning. This also will be aimed at ensuring there is no fault line between the training and its application in the production unit. The courses will use real world cases drawn from past and present issues and products.

- Studying what is good or bad about products from the present work force on issues directly confronted by our current consumers should provide extra stimulus for the application of the principles in the day-to-day work of the Directorate.
- Training has the most impact and lasting value when it is part of the common, everyday professional activity of the work force at all levels, when they engage in it together as colleagues.

Finally, rewards and recognition other than promotion must also be brought into line with the professional standards and values we wish to encourage among our work force. A Process Action Team is concluding its study on how we can bring this about and will soon make its recommendations.

Attitudinal or cultural change is not possible unless the behaviors we seek are openly recognized and rewarded. In an age of information explosion, bringing value added to our customers will require a blending of skills. Analysts, data organization specialists, visual display experts, research assistants, to name a few, will no longer be able to work independently, but must be organized into a skills team. Synergy and efficiencies in the work process are a must if we are to meet demands with a sharply reduced workforce.

A WORD ON "POLITICIZATION"

The close engagement of the policymaker-consumers and the more customized products sought through the changes described above have raised for some a concern about the risk of politicization. Fundamentally, the only guard against politicization lies in the integrity of the supervisors and analysts themselves. Formulating the products for general readership and distancing of analysts and firstline supervisors from policymakers is no guard against judgments being skewed to fit **someone's** particular vision.

The tools of tradecraft described above, however, do provide a standard which is inherently resistant to skewing. Conclusions are to be presented as the **result** of evidence and analysis, not simply as "views." Disagreements must be focused on the evidence and logic, not the judgment that proceeds from them. Conclusions stand on how they are derived, not simply on who made them. If a reader or reviewer who dislikes or disagrees with a given resultant conclusion is to be credible as offering more than a parochial challenge, he or she must be forced to show where the facts or the analytic calculus is wrong or how their own analytic calculus is the correct one.

- When analytic judgments are fully and demonstrably backed by evidence and the logic is

explained, simple assertions of disagreement don't do much for the asserter.

- On the other hand, conclusions not backed up by the analytic tradecraft become of the nature of assertions themselves, and invite the counter-assertion from whoever sees the conclusion as unhelpful.

In a large proportion of cases, the sketchy evidence available can in fact support different conclusions, depending--for example--on the unknowns and the "linchpins." This is what alternative judgments are all about. The intelligence analysts themselves should--indeed must--be the people to show the alternative outcomes and what are the factors that drive the differences. That is a fundamental principle of good intelligence Tradecraft; it is what linchpins are all about.

Experience has forcefully demonstrated that however much policymakers may differ on political philosophy, they react much the same to intelligence reports that run contrary to their expectations or hopes. Unhappy responses come with the intelligence territory. No policy official likes to see intelligence that suggests things are going bad for the policy, any more than a coach likes to hear a prediction that he will lose the game. But the job of a football scout is not to turn in a prediction of the score, but to give the coach information useful in formulating a game plan. The same applies to intelligence analysts.

Objectivity is not a matter of who makes the judgment; analysis is not objective simply because it originates from an intelligence analyst, anymore than it is automatically nonobjective if it originates from a policy official. Bias is not the private preserve of anyone. Analysts can become wedded to a certain analytic view, just as policymakers can become wedded to a policy view. The principles of tradecraft are the means that help all of us avoid falling victim to our own perspectives.

The test of objectivity is how well the evidence is laid out and its reliability exposed and how openly and carefully the basis for any conclusions is presented. Analysts who are confident that their information is fully laid out and their analytic calculus fully presented have nothing to fear from someone's attempt to find other

conclusions. We can let the quality and objectivity of our work speak for itself.

NOTES:

- ¹One former CIA officer has noted that this system on more than one occasion resulted in a product being disseminated to a person who was deceased or otherwise departed.
- ²One of the specified objectives in the studies of potential changes in organization currently being conducted is to facilitate the "flattening" of the review process while maintaining the benefits of management accountability.
- ³During March 1994, the DI delivered briefings to policy officials at the Deputy Assistant Secretary level or above; 552 were on demand.

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