

For the preceding issue, Robert M. Clark provided a layman's guide to the birth, developments, and some of the basic tenets of Scientific and Technical Intelligence, possibly with a somewhat jaundiced eye and with tongue rather firmly in cheek. In the interest of balance, we provide the answer he provoked from fellow S&Tman Donald C. Brown.

The Editor

ANOTHER VIEW OF S&T ANALYSIS

Donald C. Brown

It was with a feeling akin to *déjà vu* that I read Dr. Clark's article. What he describes is very familiar, but it just isn't the S&T intelligence that I know.

With the large variety of individuals, government agencies, quasi-official bodies, segments of private industry, and an assortment of fans involved in some way with scientific and technical intelligence, it is not surprising that there are so many views on what this area of the intelligence art is. Perhaps Dr. Clark's article can serve as a starting point for a more rigorous development of the philosophy of what technical intelligence *ought to be*. *Studies*, as the professional journal of Intelligence, would fill a real need by opening its pages to such a continuing dialogue. I shall return to this point later with some suggestions.

Although I think I agree with many of the things Bob Clark says, I profoundly disagree with others, and all in all I must conclude that he and I are viewing S&T Intelligence darkly through different glasses. His view appears to me in part to be too simplistic, in part to dwell on peripheral issues at the expense of the central point, and in part to be just plain wrong. A cynicism which I believe to be unwarranted crops up here and there against the intelligence "outsider," also.

A few of Clark's specific points bear discussion.

To Describe a Weapon is to Know All

Early on in the article, we come upon the surprising statement, "Once you know the characteristics of an enemy weapon system then his tactics and strategy for using the weapon system follow naturally" (!). It would be useful to know more clearly what the author means by tactics and strategy, but this statement does little justice to the complex distinctions between capabilities and intentions. The example the author uses, of the ICBM accuracy needed to disable Minuteman missile silos, appears plausible at first glance, but one need only follow the debate generated during the past year by Dr. Schlesinger's public musings on the proper use of this country's very accurate missiles to recognize that strategy and tactics are not wholly determined by a weapon's technical characteristics.

I would agree that it should be a goal of S&T Intelligence to describe weapon system characteristics, but there is much more to assessing the meaning of the system than sheer mechanical description.

Proving A Negative is a Fool's Errand

Under "Case #2" ("we develop weapons—they don't develop weapons"), the author cites several examples of estimates made in the absence of real evidence, then

complains about the difficulties of refuting such assertions. I suppose all of us analysts have complained at some point in our careers about this problem. The issue in my view, however, is not, how do we suppress the asserters?, but, how can S&T intelligence improve its capability to deal with important questions? Certainly, if we concern ourselves only with questions on which we have "adequate" information we will be in danger of propagating a distorted picture. There is much that we can do in the way of identifying the information needed to answer important questions, and much that we can do to collect it, but there will always be inadequate information. Someone needs to give some deep thought to a better way of usefully illuminating the issues for which hard intelligence information does not exist.

We Tend to Ignore Developments That Don't Mirror Our Own

In "Case #3" ("we don't develop weapons—they develop weapons"), Clark oversimplifies the history of U.S. intelligence interest in anti-ship cruise missiles by confusing the missile with the system. It is true that the threat posed to U.S. naval forces is better appreciated today than it was in the early 1960s, but that is because the threat is greater, not necessarily because the intelligence community was slow on the uptake. It takes more than a missile to threaten a ship: the missile must first be placed within firing range of the ship and provided with a knowledge of where it should go to hit the ship. In truth, the Soviet anti-ship missile forces did not pose a serious threat to the U.S. surface fleet 15 years ago. The fact that they do today is attributable to the tremendous growth and expansion of deployment of the Soviet navy and the consequent growth of total cruise missile *system* capabilities—launch platforms, targeting systems, and communications, as well as missiles.

There is nevertheless a lesson in this example. S&T Intelligence can and must do a better job of anticipating problems and putting itself in a position to cope with them when they become real.

Phantoms in the Night

I'm not sure what point Clark is trying to make in his discussion of "Case #4" ("we don't develop weapons—they don't develop weapons"), but I gather that he feels frustrated answering the "what if . . . ?" questions such as the one on SAM upgrade.

On the contrary, I feel that CIA's S&T Intelligence took a large step toward maturity as an analytic discipline during the SAM Upgrade Era of the late 1960s. It was certainly an unconventional issue in its time and one not without its frustrations. (One of my favorite memories is of a non-senior CIA official summing up his exasperation before an august review panel with the not-quite-technical argument, "What I don't understand is how the U.S. can't build an effective ABM system after spending ten years and billions of dollars, and you think the Soviets can do it with a bunch of tin cans.") But those of us who were intimately involved in the issue are a little proud that we were pushed by our management into wading into an argument that went against our intuition (a "stupid" hypothesis), and treating it from a strictly analytical viewpoint. It was a tough problem, and the stakes were potentially high, but isn't that exactly the sort of thing S&T Intelligence should be doing—reducing the uncertainties in the information used by policy makers.

The lesson I carried away from the SAM Upgrade Blues is that S&T Intelligence must be more open to unconventional approaches, and we must always be prepared to make our case on hard-headed technical analysis and not on emotion. Steps have

already been taken within the DDS&T to examine such "wild" schemes ourselves rather than waiting to be surprised by outsiders.

The Truth Shall Make You Free

Clark says, "The objective of any intelligence analysis is the *truth* . . ." That's a pretty highfalutin notion of our calling, especially since I think most people would be hard pressed to say what the truth might be in most of the issues on which we work. I certainly don't want to see the experiments which demonstrate the truth about the accuracy of Soviet ICBMs against the U.S. or the number of Minuteman reentry vehicles the Moscow ABM system can intercept.

I would prefer to see S&T Intelligence aim for something a little more attainable—and understandable. Part of that objective might be to describe and analyze foreign weapon systems and technologies in a way that is of most use to U.S. policy makers. How to meet this goal should be the subject of prolonged discussion, **but I think a central feature of any attempt should be to erect a rigorous logical framework for each analysis so that the user can clearly understand its underlying assumptions and the limits to its utility.** I am reasonably sure of one thing: We can only reduce the value of our efforts by any pretense that we are revealing abstract truth.

Inexpert Experts

On the subject of experts, Clark seems to miss the forest for the trees. By his definition, I gather, the expert is the tradition of someone from out of town who carries a briefcase. He should be more selective. The test of expertise is not hard to apply, and experts in and out of the official intelligence community have contributed in every facet of our work.

The tale of the ABM radar used to illustrate the caution about experts seems to me to have most of the characteristics of a shaggy dog story. All intelligence problems include different and often contradictory hypotheses at first (else, would they be problems)? As evidence accumulates (in the case of the ABM radar, as construction progressed), we hope we can narrow the bounds on the uncertainty. But what is the point of the tale? I contend that in the intelligence trade it is of little value to be right if your reasoning is not persuasive, and apparently, in Clark's example, those who eventually proved correct about the radar were unable to establish their case persuasively. Even guessers can be correct, but we are not in the business of guessing.

Those Perfidious Contractors

The section on contractors illustrates the ancient maxim: All generalizations are wrong, including this one. It is not hard to understand, when one is exposed to a philosophy as cynical as this, why Clark has had little success with contractors.

Of course a contractor is in the business for the money, much as Clark and I always cash our pay checks. If you can clearly define a problem which you can't solve yourself, if you can make a contractor understand your problem, if you have investigated the contractor's capabilities thoroughly enough to convince yourself that he can solve the problem, and if you supply him with the needed information, then you will probably be satisfied with the results. If you can't do those things, then you have no right to expect good results.

A Proposal

Scientific and Technical Intelligence has come a long way since the beginning days described in the opening of Dr. Clark's article. In the scope and importance of problems addressed and in the number of people engaged in it, it is a major influence in governmental decision making. In the quality and sophistication of some of its work, S&T Intelligence has approached the status of a major scientific discipline.

What is sorely needed to insure continued advances in S&T Intelligence, it has long seemed to me, is a critical mechanism—some means of defining standards and systematically judging our work against those standards.

Formal criticism exists in most other fields of human endeavor. The arts and literature, journalism, science, foreign policy, architecture, you name it—all have an established procedure, be it internal or external, for criticism. S&T Intelligence, and indeed intelligence as a whole, is mature enough—and Lord knows, influential enough in this country—to benefit as much from formal criticism as other disciplines.

Dr. Clark, whether intentionally or not, touches at many points in his article, on the need for criticism in intelligence. How are we (or more importantly our consumers) to tell the good from the bad, the assertive from the analytical, the casual from the rigorous, the valuable from the misdirected?

I hope the editors of *Studies* will join me in calling for a discussion in these pages of the need for criticism in intelligence and the form it should take.