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SPEECH TO AFIO CONVENTION: "THE STATE OF ANALYSIS"

14 OCTOBER 1988

It is very constructive that this convention is focused on the state of analysis in our intelligence community. And I am pleased to be able to make a presentation to you on this important topic, one that has received a lot of attention in the academic world and within the family, so to speak, but too little from the general public.

Let me give you my bottom line right off: The state of analysis is, on the whole, very healthy. It has improved in recent years, and it promises to get even better in the future. There are problems, some very old, some quite new; but they can be managed.

I reach this judgment neither casually nor as some kind of cheer leader. I have spent the most of a 25 year professional life in and around intelligence analysis, as an analyst and a manager of analysts, as a critic and assessor of the performance of analytic organizations, as a National Intelligence Officer and, now, as a manager of a body of such officers, as a consumer of intelligence at the National Security Council, and finally as a member of a think tank and even as a consultant.

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So I have pondered this animal from many vantage points over a good number of years in which much has changed. The views I shall offer you have been screened for propriety and security by colleagues. But I want to make clear that these views are my own, and should not be attributed to the DCI or other Community managers.

The bulk of my remarks will dwell on the two factors which are dominating the development of intelligence analysis: people and advanced data processing. But first I want to offer some more philosophical thoughts on the role and nature of analysis.

The Role and Nature of Analysis

Most students of intelligence know analysis as one of the links in the chain of activities that form the entire intelligence process, from defining requirements, to collection, to processing, analysis, production, impact on policy, and then back to defining the requirements that guide collection. Yet analysis is as much a glue that holds the whole process together as it is a specific link: Without analysis at every step -- namely, thoughtful and systematic assessment of the meaning of data for answering the questions of customers -- no step of the intelligence process can work. Exotic and sensitive collection is what makes official intelligence unique, that is, what distinguishes it from scholarship or

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journalism. But analysis is what makes it really intelligence, that is, focused on real problems and intelligible to a customer.

Standing against this ubiquitous necessity for analysis is one of the less healthy phenomena of our business, namely the barrier between the two cultures of analysis and operations. I sense a positive trend toward lowering this barrier, but it is painfully slow.

Although it started learning from others, primarily the British, the United States has developed its own intelligence style. I haven't done a rigorous study of this, but I suspect our intelligence style puts more emphasis on analysis than do other advanced intelligence systems. I have the impression that we put a higher proportion of our overall intelligence resources into processing and analysis. We also, I believe, push intelligence analysis deeper into what in other cultures is regarded as the province of the statesman. Thus, American intelligence analysts spend a lot of time trying to discover the answers to what I call mysteries, as opposed to secrets, a distinction I find extremely useful but which is not often consciously made by analysts. A secret is the answer to a question which somebody knows or which can be found in some reservoir of information; it is a collectible. A mystery, on the other hand, can only be resolved by God or, if you wish, by history. A hard fact like the radar cross section of a new

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Soviet aircraft, or even a soft fact like the real intentions of Gorbachev about economic reform...these are secrets. Whither Iran after Khomeini, on the other hand, or the impact of AIDS on underdeveloped countries, these are mysteries. Cracking secrets can sometimes help resolve mysteries, but in the main we must rely on the tools of science to provide inevitably uncertain answers. It is fundamentally America's respect for science that has made analysis so important a part of our intelligence culture. And why analysts have to spend time on both secrets and mysteries. Both add zest, drama, and gravity to our work. But the combination over a growing panorama of topics is what makes it impossible to reduce the business of analysis to some rules or codes comparable, let us say, to tradecraft or orbital mechanics in the collection disciplines. The only rules which apply across the board are reason, logic, and intellectual honesty.

The one issue that has drawn intermittent public attention to intelligence analysis is that of honesty, or "objectivity", usually in connection with some political controversy. Our national security requires objective intelligence analysis; this is truly the measure of our work. But outside critics as well as inside participants must understand in a mature way the conditions in which the measure must be met. Rarely in our business are there provably true answers to the really big questions. We cannot do our work without getting close to the policymaker and the policy process. Providing intelligence

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support to policy is like being a parson in a bordello. There are temptations and risks; but without running them, no sinners can be saved. The more serious dangers arise when intelligence analysis is too distant from policy, and corrective views don't even have a chance to form.

In this context, charges that policymakers or intelligence managers dictate analytical conclusions and thereby, as the expression has it, "politicize" intelligence analysis are usually overdrawn and often just plain wrong. During the 1970s, I spent many years fighting city hall on a major topic. In my case it was assessing the Soviet appetite for strategic nuclear superiority. My views did not prevail until the evidence became so convincing as to make it hardly an intelligence problem any longer. Now even Soviet spokesmen are admitting that the hawkish views I held were right all along. At no time, however, did I fail to get my views heard or even to get them, appropriately identified, to policymakers. Nor was I shunned on other topics because my views were rejected on this one.

In my opinion, the most important threats to objectivity come not from the chain of command or the policymaker. Rather they come from fashion and general intellectual conventions, on one hand, and from smug attachment by individuals to their own opinions, on the other. The antidotes to these ills are always at hand, curiosity and openmindedness, the liberal use of which is what makes intelligence analysis fun as well as productive.

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The Human Cadre

When I returned to CIA headquarters in the mid-1980s after a six-year absence in other government and private employment, I was struck by the omnipresence of computer terminals and the large number of very bright, very new, and very young faces. These two impressions arise from the most dynamic and influential trends in intelligence analysis: new and better people, and new and better ways of handling data.

The observations I want to offer about both these topics arise primarily from CIA's experience because the Agency's statistics were most accessible and my personal impressions have been formed there. But many of the trends I'll mention are also evident at DIA and probably other Community components. Where this is not the case, perhaps other speakers will offer corrective points. Out of security considerations, I shall not present any hard quantitative data.

With the growth of intelligence budgets in the early 1980s, the analytical complement of the Intelligence Community grew substantially. Other activities also grew so the size of analytic components, such as the CIA's Directorate of Intelligence, stayed about the same relative to other components and the proportion of analysts versus other types of personnel also stayed about the same. But the total number of analysts grew significantly.

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This new cadre of recruits showed some qualitative improvements over earlier cohorts.

Their test scores were higher than their counterparts' in the 1970s on analytical aptitudes, interpersonal skills, and work attitudes.

Larger percentages of the newcomers had advanced degrees and other specialized academic preparation.

More had had overseas travel experience through tourism or study, although interestingly, there was a statistically significant drop in the foreign language capabilties of the newcomers. This appears to have resulted from the unfortunate relaxation of language requirements in our universities.

On the whole, however, we saw both a quantitative and a qualitative boost to the analytical cadre. Why did this happen, beyond mere budget growth? Several factors were involved. The economic slump of the early 1980s made government employment more attractive to university graduates at that time; it also noticeably reduced the attrition rate among employees. In addition, the Agency adopted special programs to attract quality recruits, such as the Graduate Fellows Program, and focused recruiting efforts on specialities in high demand, such as engineers and economists.

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As a result of this, the analytical workforce at CIA is unusually young, half being under 35 years old. By and large they came to the Agency without prior analytic experience. This has made for an inexperienced workforce, but one which, as it acquires training and experience, offers great promise for the future. Because of the all-volunteer military, a much higher proportion of these recruits than in the past has no experience with military service, a problem to be compensated for in some areas where prior service gave a head start to military analysts. In DIA, however, the median age is about a decade older and more military experience is represented in the analytical cadre; so, from a community point of view, this problem is not acute.

Our managers and personnel people have noted some interesting attitude shifts among these newcomers. They are more performance oriented than their predecessors, but also more advancement oriented, and less committed to a given job or organization. In a word -- if I can use it non-pejoratively -- we too have acquired our yuppies. This, it seems to me, adds to the challenge of management in the years ahead.

In the past, the typical career development pattern for analysts was to get a fairly large number of different journeyman-level assignements clustered in a general discipline, like economics or military analysis, or perhaps in

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varied fields, and then to move into management. Herein has lain a management dilemma as old as our various services. How do you strike the right balance between the generalist and the specialist? Generalists are, by definition, the most broadly capable people, especially for management. So your more able people want to be or are encouraged to be generalists. But the generalist is not the one who knows an obscure but suddenly vital topic inside and out; he's not a real expert in anything. Intelligence needs real experts. Further, how do you strike the balance between management and advanced analytic achievement as paths to promotion? Much talked about in the past, both CIA and DIA have recently made real progress in setting aside supergrade positions for senior analysts as a means of easing this dilemma.

To make the most of the new influx of talented young people we got in the early 1980s, I think Community managers are going to have to work harder and show more imagination in addressing these problems in the future. Budget prospects bode for clogged headroom, thus limited advancement potential; the relative financial attractiveness of federal employment in general seems unlikely to grow. We could face a situation where the best and brightest of our new recruits get pessimistic about their prospects just when they are getting the experience they need to perform at peak, but before they are really shackled by the golden handcuffs of retirement benefits. If we don't rise to this challenge, we could lose

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the promise inherent in the new cohorts. If we do, however, maturation of this new generation of analysts could make it the best ever in production and management.

Advanced Data Processing and Electronic Tools

Let me now turn to the other dynamic factor on the analysis scene: Advanced Data Processing. I need to warn you that I am a real amateur in this field, a friendly and curious user, by no means an expert. But this makes it all the more obvious to me that we are witnessing a revolution in intelligence analysis.

Now, US intelligence grew up with and on computers. Indeed we have been pathfinders and inventors of all manner of advances in the service of needs which were very demanding and put us on the technological frontier of computer science. On the whole, I believe, the needs that drove our innovation in ADP over most of the past 40 years were, while technologically very demanding, also highly specialized, e.g., in cryptography, or weapons analysis. Innovation of this sort continues at what seems to be an ever accelerating pace: worldwide crop and agriculture analysis, for example; or assembly of large specialized data bases on such new topics as terrorism, narcotics, or AIDS. All these topics demand new computer-based tools.

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The subject matter of importance to US intelligence is continuing to expand, constantly adding new topics while the old ones stay on the agenda. Specialized, large-scale ADP tools for analysis are helping cope with the expanding work load.

I am fascinated, however, by another phenomenon, no less remarkable for the fact that it is becoming commonplace: The role of advanced electronic data handling and messaging in shaping the day-to-day work of all analysts, no matter what their specialty or need for special ADP tools. Another word for it is the electronic office.

This is an area where the Agency has also been a pioneer. This revolution was just beginning when I was the manager of a so-called pilot branch for a new electronic mail and filing system in the mid-1970s. My colleagues and I were able to watch the unfolding of a crisis of that time faster than our Operations Center. Now this revolution is in full swing.

Analysts can read electronically a large volume of mail assigned to them by profiles they design themselves. They can rummage around at will in the total current data base of incoming or recent mail to explore ad hoc topics. They can select out of this blizzard of material the reports they want to file, quickly assigning them to multiple files. Then they

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can rummage back through what they've decided to save and manipulate it in various ways. They can send a copy to a friend, with a comment or an extended dissertation, and in due course get a comment back, all electronically.

This is the electronic mailbox, shoebox, and filedrawer combined. Of course, there are always problems: Mainframes crash, my hardware or software won't do exactly what I want, some specialized data or mailflow isn't on the system, no keyword search profile will guarantee that a pertinent report wasn't missed.

But, nevertheless, this stuff is extremely powerful. It allows the analyst to scan or read his routine mail with much greater speed than hardcopy allows. It allows for more elegant and varied storage regimes. It allows for poking speedily into topics not routinely examined. And, I think most important, it allows rapid communication with colleagues about data or reports. Nothing in intelligence analysis is as creative as the colleague who bursts into your office with a report shouting "Get a load of this, will you!" Now it can be done remotely, rapidly, and, in my experience, with no less verbal impact.

This work environment is now typical; it will soon become universal. The volume of incoming information has more than tripled in the last decade and promises to grow even faster in

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the next. Without the capabilities of electronic mail, we simply could not cope. The impact has already been considerable even in very soft areas, such as political analysis, which are usually thought to be unfriendly to advanced data processing. From the time of Guttenberg the key to understanding an unfamiliar society has been to read intelligently. ADP allows the analyst to read more intelligently and faster, however old fashioned his analytic methods. It will take a lot of money and management to make sure our systems keep up with the demand of information flows in the future.

I am on the lookout for some developments that will amplify the already considerable impact of the ADP revolution on intelligence. Let me mention three that I think important:

I think we are moving toward a situation where the analyst, perhaps with the help of an ADP specialist at his elbow, can quickly design a specialized ADP software tool to work a problem unique to him, and perhaps needed only temporarily. This will bring the full power of ADP to the service of the whole family of analysts.

I suspect the pace and efficiency of innovation will accelerate as people who have grown up with ADP move into management positions replacing those who now know, but do not really feel, how important it is.

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Finally, electronic communications and mail make it much easier for the manager and even the policymaking customer to plug into the analyst's data environment. It is not widely appreciated how much raw intelligence reporting is now available electronically to the policymakers who constitute the customer community. This should permit new kinds of communication between analysts and customers.

In a related area, the graphics capability of modern ADP systems has had a considerable impact on physical production of final reports, helping to make the production of richly illustrated and therefore more communicative products easier.

How About the Quality and Impact of the Product?

You may well now ask: With more and better people and more powerful capabilities to move and absorb data, are we producing better analysis?

This is a hard question to answer convincingly. But I am convinced the answer is yes.

First, the professional standards of inteligence products have measurably improved in recent years. There is more interdisciplinary analysis. Clearer distinction is made between fact and judgment, and better sourcing is offered. There is more attention to audience needs and more use of outside experts to review products.

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Second, the very fact that US intelligence has managed to keep up with the information explosion is testimony to an improved overall performance.

Third, I'll just give you my personal view as one who has sat on the receiving end. I think the product from all the major agencies is better than it was a decade ago. The money and the attention given to US intelligence during the 1980s have brought dividends.

There are going to be problems in the years ahead bound up one way or another with the austere budgets that we all expect. But I suspect they will not be the most severe in areas of analysis, but rather in other areas. The American formula for organizing intelligence analysis has, I think, proved itself. A family of agencies of different but overlapping, and hence, somewhat competing concerns, of differing sizes, and differently subordinated: This makes for a rich and informative intelligence product. If the US government sometimes acts dumb in the world, it's usually for want of a kind of intelligence other than we are discussing here.

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