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**Intelligence Needs in the Post
Cold War Environment**
Keith R. Hall

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Intelligence Needs in the Post Cold War Environment

Keith R. Hall

Keith R. Hall is the Deputy Assistant Secretary of Defense for Intelligence and Security in the office of the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence. Prior to his appointment, Mr. Hall was Deputy Staff Director for the Senate Select Committee on Intelligence (SSCI), with primary responsibility for supporting Committee members in the annual budget authorization process involving all U.S. intelligence activities. He also played a key role in other Committee activities, including oversight of intelligence programs, interaction with other congressional and executive branch elements, and review of intelligence-related legislation. Mr. Hall served nine years in Army intelligence, where he was assigned to various SIGINT and HUMINT positions, including two tours where he commanded overseas operational intelligence units. In 1979, as a Presidential Management Intern, he was the Office of Management and Budget's budget examiner for the Central Intelligence Agency, serving in that capacity until he joined the SSCI in 1983. Mr. Hall has received a number of military awards and decorations, as well as the Director OMB Award for Professional Achievement. He obtained his B.A. in history and political science from Alfred University, and an M.P.A. from Clark University.

Oettinger: We might as well begin, ladies and gentlemen. I don't need to introduce our guest today very elaborately. You've all had chance to read his biography and realize that he's had a lifetime of varied experience throughout the intelligence community, and I know he's going to share some of that with us. He has also agreed to be interruptible for questions and comments and discussion as we go along. So with that, I'm delighted to turn it over to Keith Hall.

Hall: Thank you.

Oettinger: You're welcome.

Hall: I enjoyed the discussion we had over lunch and I'd be glad if we could continue it along those same lines. I have a discussion outline, as they call it, on the points that I wanted to raise today (figure 1), and we can follow this or we can follow what you'd like to talk about. I'm not wedded to this. I should point out at the outset that what I'll be saying today you should consider to be my own personal views and not the views of the Department of Defense necessarily or of the U.S. government.

I've attached to the discussion outline a couple of pages on where I come from, which is the Office of the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence. I'm not going to bore you by going through those wiring diagrams, but I do want to point out a couple of things. On the first chart (figure 2) you'll see a double outlined box that says, "DASD Intelligence." That's me, and the boxes below it show the various offices that report to me.

What I want to point out is that if you trace down from the Office of the Secretary of Defense and try to find the first individual whose full-time job is intelligence, that's me. There are people above me who worry about intelligence, there are people laterally throughout the Office of the Secretary who worry about intelligence, but on the Secretary's staff I have the full-time job of worrying about intelligence, counterintelligence, and the associated area of security programs. So I am as far up as one gets in the apparatus that's just solely intelligence in the Office of the Secretary.

Now, having said that, there are tons of people in the Department of Defense who are involved in intelligence and probably have jobs that are more influential than

- **Intelligence role**
 - Intelligence as an instrument of national power
 - Surprise and the price of prevailing
 - The information explosion and maintaining the lead
- **The post-Cold War intelligence environment**
 - The Soviet Union as design goal
 - The post-Cold War intelligence target
 - Penalties of failure
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 - Common budget framework
 - Joint reviews
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 - Intelligence Systems Board
 - Utilization of the reserves
- **Policy changes**
 - Demystification of intelligence
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 - Mysteries and secrets
 - Learning from our mistakes
- **Issues**
 - Making the intelligence budget public
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 - The politicization of intelligence
 - Focusing on the key issues
 - Maintaining our preeminence
 - Managing change effectively
 - Ames

Figure 1
Discussion Outline

mine because they're actually engaged in intelligence activities. I don't do much in the way of intelligence. My job is one of providing advice to the Secretary on policy, on resources for intelligence, and on oversight of the department's intelligence activities.

One of the things that we're frequently asked is: why do we need this? After all, we have the heads of intelligence agencies that can advise the Secretary. We have the Director of Central Intelligence who can advise the Secretary. They meet frequently and so forth. The reason is that the Department of Defense has very broad, but nonetheless specific, needs for intelligence for support of military operations, for defense policy, and so forth, and the Department of Defense is entitled to make sure that the

activities that it has in this area are meeting its needs. While the Director of Central Intelligence, for example, has plenty of reason to make sure that Defense is happy with the intelligence services that are being provided, the Director of Central Intelligence has a whole bunch of other masters aside from the Secretary of Defense. So one of the key roles that I have is making sure that the defense intelligence activities are adequate to meet defense needs, and that is one of the things that I worry about.

The other thing I point out to people is that we're not the Department of Intelligence; we're the Department of Defense, and about 95 percent of our activities are not intelligence. We exist to fight wars, to be ready to fight wars, and so forth. Sometimes, in this vast enterprise that is the

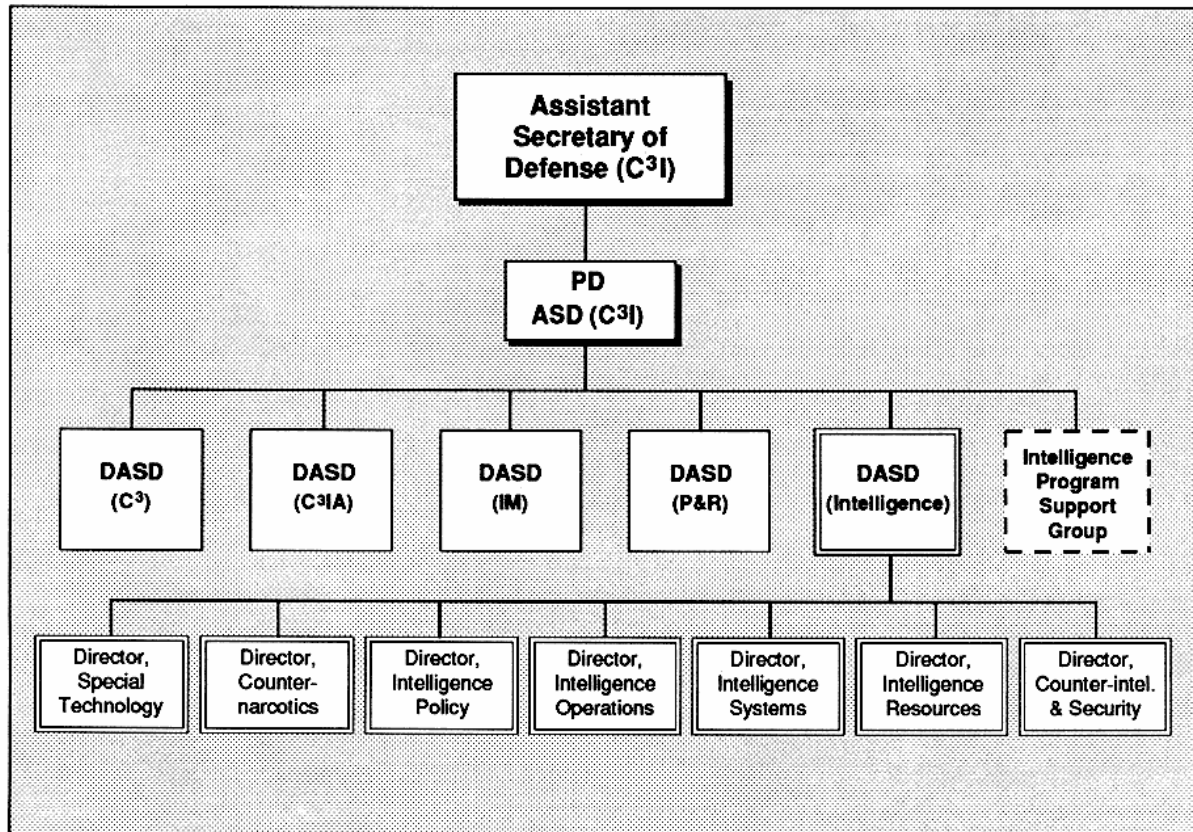


Figure 2
OASD (C³I) Organization: Offices

Department of Defense, there is a requirement for an advocate for intelligence to represent the needs for intelligence to the Secretary; otherwise they can be easily forgotten. So that's another role that we perform in this organization, with me being the chief one responsible for it: to be the advocate on the Secretary's staff for the intelligence craft. That's the C³I organization, per se.

On the last chart I list the various types of intelligence agencies that exist within the Department of Defense (figure 3), and their relationship to us. Some of these report directly to the Secretary and not to the Assistant Secretary, and those are the ones on the right, where we list my boss's overall staff supervision. The other ones, the direct reporting agencies, the direct reporting activities in effect, from a policy point of view—resources, oversight—work for my boss, the Assistant Secretary of Defense. This

chart excludes, of course, the military services, which have very extensive intelligence activities that we look at and then advise the Secretary on. So that's basically who I am, where I come from, and what the organization that I work for is all about.

If you turn to the discussion outline (figure 1), I wanted to start out by saying a few things about what I see as the role of intelligence that goes beyond the standard things that I've seen people write about it. I see intelligence as an instrument of U.S. national power. I think that if you look across the nations of the world, there is no nation that has the same ability to be informed about events—using intelligence means, anyway—as the United States. I think this can manifest itself in several ways for us as a world power and for the nations that are allied with us.

First, I think that any nation that plans on embarking on some secret course of

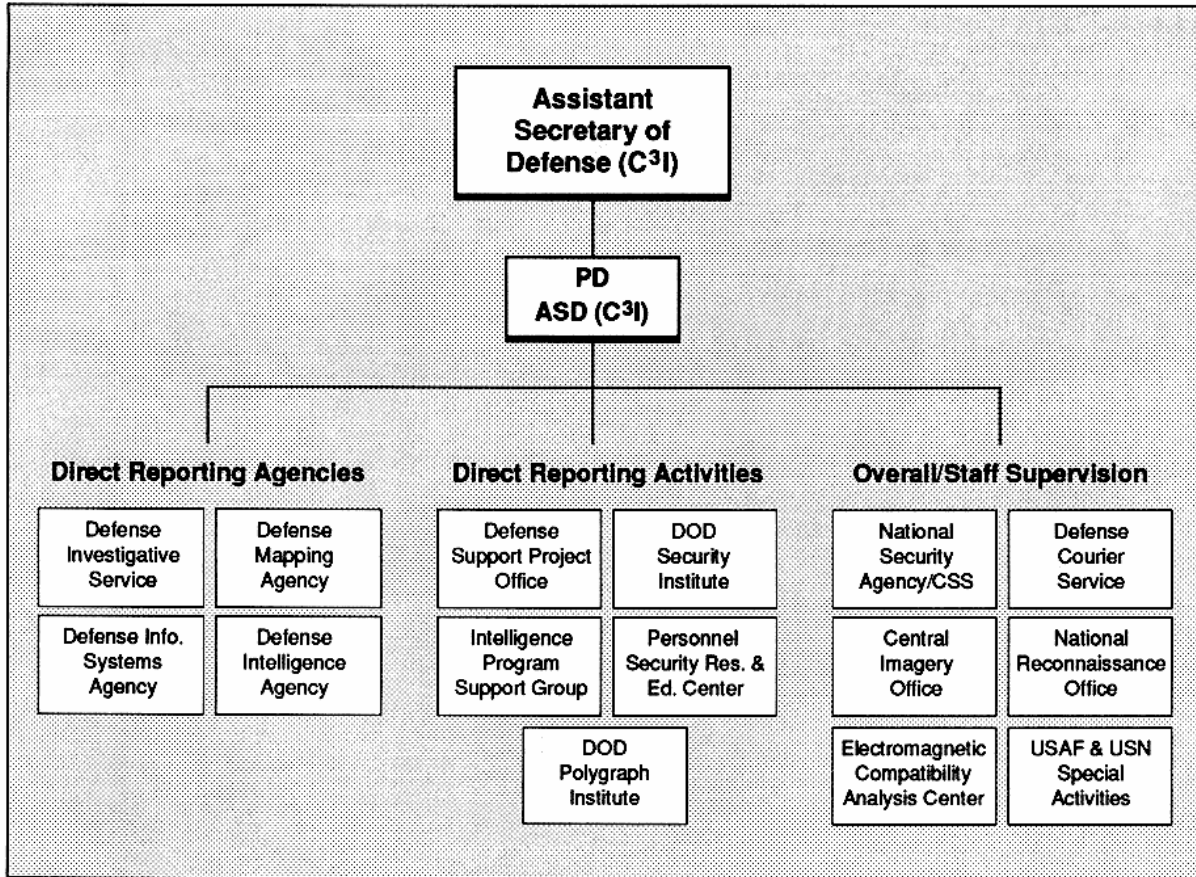


Figure 3
OASD (C³I) Organization: Relevant Agencies

activity that is inimical to the interests of the United States has got to think twice about whether or not the United States is going to learn about it because of the intelligence apparatus that we have. So in that case intelligence can act as a deterrent. Secondly, it provides the United States a commodity of value in terms of its relationships with other nations. We do have a globally dispersed ability to learn or to uncover what's going on and can use this information to assist our allies and our friends. If they have good relations with us, and trust us, along established relationships in particular, it represents things that they themselves don't have to do and expend as many resources on because we can do that for them. That leads us to become, in many instances, a partner of choice in many enterprises be-

cause knowledge, in this day and age, is power.

So I think that we need to look at intelligence not just as a supporting element to those things that are part of our national power—diplomatic and military or what have you—but as an actual element in the power equation itself.

Oettinger: Who agrees with you on that? Is that something that, let's say, the Secretary of Defense or the Under Secretary for Policy or somebody on the National Security Council staff would understand explicitly?

Hall: Yes. I think so. I've discussed this, for example, with members of the Defense Science Board. I've discussed it with members of the National Security Council.

I cite it as an observation. It's not something that somebody has to either agree or disagree with. I assert it and I don't think it's anything you measure.

Oettinger: The question is whether folks self consciously do what you mentioned: use it as a bargaining chip.

Hall: When I make these points directly to people who are involved in using them as bargaining chips, for example, they then acknowledge that it's true.

I think that this is probably growing in importance. As you look back at how much we've used it in this capacity, I think it is probably tainted more by the dynamics of relationships associated with the Cold War and bipolar world and so forth. But certainly, our experiences since the end of the Cold War lend credence to this in terms of actual experience. I know one person who agrees with me is Fritz Ermath. I don't know whether you've had Fritz come up. He was formerly the head of the National Intelligence Council. He and I see eye to eye on this.

The next point I want to make is that as I look at the world situation and the role of intelligence and how it fits into the United States as it finds itself in this world, my conclusion is that as the world's only superpower, we clearly have the predominant amount of political, military, and economic means at our disposal that would allow us to prevail in any confrontation, particularly in the political and military fronts. I don't see that changing any time soon. I think that's true for the foreseeable future until some other major actor, perhaps, appears on the world stage to challenge the U.S. role as the only superpower. But that doesn't necessarily mean that the cost of prevailing would be something that we as a nation would find ourselves willing to pay or bear.

One of the key elements in our ability to prevail is going to be the extent to which we're surprised. The more we know about what's happening, the more prepared we'll be to deal with it and the less the cost will be to prevail, particularly in the military sense. To the extent that we're surprised by it, the cost can go up high, perhaps too

high for us to decide even to engage in it. One can take a look at the Desert Shield example, the invasion of Kuwait, which I think took us by surprise. If it had gone all the way through Saudi Arabia, would we have followed through? Probably we would have, but the costs of prevailing and the cost of that surprise are much greater.

Lastly, I think that the prevalent position we have in terms of our ability in the intelligence arena is something that is eroding because of the information explosion. As time goes by, relatively unsophisticated actors on the world stage will probably be in a position to acquire information more easily as to what's going on than has been the case previously, where we've had to expend considerable amounts of energy and resources in building capabilities to surveil and to watch and monitor and spy, or what have you. There's a whole industry on the commercial side whose business is finding out what's going on and reporting it, whether it be the media or various other efforts to learn what's going on and advise people, and that can include government. So as time goes by, the edge that we have is slowly eroding, which means that if we're going to maintain an edge, we have to pay attention to this area.

Student: Can you comment on the role of requirements in terms of the balance between an intelligence agency's role and that of the media of getting out in front and identifying potential surprises down the road? In many ways we shouldn't be allowed to compete with the media or CNN or things like that. Could you address refining the whole requirements process and how the intelligence organizations are told what's important, and that kind of balance?

Hall: It's an excellent question. The intelligence community is in the business of finding out what is not publicly available. That's our job. When you have this explosion of information that's publicly available, it creates a problem for the intelligence community in several ways. First of all, it creates the problem that in order to understand the context of what's secret or what's different in the secret information from what is being said openly, you have to have

command of what's being said. You have to have command of what's publicly available to help you sort through what the significance is of the secret stuff. Now there's this mountain of information you have to get on top of that keeps growing.

Secondly, it potentially can create a short cut in intelligence analysis. You can say, "Let me just read all the stuff that is publicly available. I'll make my decisions on that, because, after all, some of the secret sources of information are very costly to get at, and this openly available information is really easy to get." As the budgets come down, it's hard to give up on this easy-to-get information that's openly available in favor of financing things that are very expensive, which may or may not lead to a dividend in some secret information. So I see it threatening the ability to do our core job, which I think is going after secrets.

Oettinger: May I add something to that? I'm fascinated by what you say, because there was a book about World War II called *Bodyguard of Lies*,* and your remarks bring to mind the notion of "bodyguard of truth." That is, in the days of the Cold War, the argument was always how hard it was to deal with a closed society and get information and so on. My sense always was that the Russians had a much harder time than we did because we have this magnificent built-in disinformation machine, which is all of the press and the openness, et cetera, that generates a tremendous amount of unsifted, unfiltered information. In a sense, your remarks bring that home, but I think the opening, in fact, is putting us now in a somewhat similar situation. There's this fire hose of stuff coming at us, not only from Russia but from other areas of the world that we're interested in, and the problem in the ways you outline has gotten much more difficult than it was before. It's a fascinating observation.

Hall: The nature of our job of going after secrets also involves confirming the negatives. In other words, you may question if

* Anthony Cave Brown, Ed., *Bodyguard of Lies*. New York: Harper & Row, 1975.

what they're saying publicly is accurate. Obviously the way people think about secrets is that you go in, and through some secret means discover that what they're saying is inaccurate: it's not true; they have some secret intention to do something different. That of course has value. But what's also of value is to go in through the secret means and say, "Yes, what they're saying is what they really believe. It's what really is the case." That's another important aspect of intelligence work that I think a lot of people neglect because they're looking for the really flashy stuff: "They say they don't have designs on their neighbor, but they really do, and here's the plan." They're not excited by the more mundane cases where what they say is true: they really aren't cheating on their arms control agreement or they really are abiding by their environmental agreement or whatever it is.

Student: Will we change or have we already changed from a military command, where the general staff selects the information given to each platoon commander, and that's the information you get for fulfilling that task? Or are we already in that stage where the commander himself selects what information he wants to have and the means are already available so that he can get all that information? For example, he sees there are three bridges and other obstacles in his way on his path, and he can ask, "Can my tanks cross the bridge?" or, "Will the bridge be there when I come?" so that he has to think about how to make it through. I know that the Warsaw Pact planned the track of each tank. They investigated all the bridges up behind the Rhine and into France and every power station and every fuel station and so on.

Hall: It's an interesting question, because the need for the commanders to say in advance what it is they need to know is probably more important now, when we really don't know what our campaign plan is because we don't know where the war is going to be. In the Cold War we all knew where the war was going to be. It was going to be in Central Europe, and we'd had 40 years of thinking about it. So you just had to adjust the amount of information that

was needed in order to conduct operations from time to time to take the new bridge into account, but everybody knew that you needed to know the information about a bridge as soon as it was built. So in a lot of ways the commanders or the military planners didn't even have to tell the intelligence guys, "Hey, I need the following types of information." Everybody understood it.

Now, in this day and age, what do we need to be collecting? If somebody had said to me two years ago that we in U.S. intelligence would have to be world class experts on Somalia and its plans, and that we'd find ourselves with 25,000 U.S. military personnel involved in a coalition operation with allies and others in a peacekeeping operation that turned sour, I never would have anticipated that. There isn't a military commander in the world who would have asked me to tell him anything about the bridges in Somalia.

So I would say that the need today for the commanders to say what it is they need in terms of strategy is more important than ever. It's not just the commanders, obviously; it's the political leadership, who determine where we are going to go, and it's not as clear. In military operations there's a body of knowledge and training and so forth that tells you the type of information needed when you are conducting certain types of operations: offense, defense, counterattack, all of that. When you are conducting operations to deliver food to an outlying area, what's the type of information you need? There's no body of information that sets forth the commander's need-to-know situations; we've never done this before in terms of military operations. It's not something you can easily project. You sort of have to guess. So this is a very uncertain period, and it's a lot harder in many ways.

Student: I mean also access from a lower level, from the platoon commander, if he gets a certain task, and says, "All right, I knew that but I need some more information." Can he directly access Langley or whatever and get to a computer database and other resources?

Hall: We're not there yet, but that's the goal: information flows throughout all of the system. The objective is to give everybody who needs the information access to where the information resides through the command and control structure. Obviously that gets kind of expensive if you want to get all the way down to a platoon, particularly if that platoon is on the move, which they will be in an operation. So we're not there yet, but certainly amongst all of the major headquarters elements, I think we basically are. We can flow information in both directions.

Oettinger: Although, interestingly enough, this is one of those areas where what's civilian and what's military becomes blurred. If someone has the entrepreneurial vision or whatever that you read about in the newspapers—about AT&T and McCaw and McCaw and Microsoft fielding \$9 billion worth of satellites, et cetera—then at some point everybody's backpack will be a phone booth regardless of where they are, and then you have a considerably different situation. A lot of that is quite literally pie in the sky, but you get a sense, though, of why the answer to your question is not so easy. There's a rather significant investment involved and it's not clear that any military in the world, including the U.S. or anybody else, can afford to do that. It's not clear if the private sector can afford it yet.

Hall: The answer to the question that you just asked gets me to the next point I had about the fact that the Soviet Union was our design goal. We all knew what our mission was during the Cold War, and it affected everything we did. Even when we started becoming interested in other things, and people wanted us to devote resources in the intelligence business to watch other parts of the world, when I was sitting down at the Senate Intelligence Committee seeing the requests for these things come in, even then they were justified in terms of the Soviet target. We needed to spend this money so that we didn't have to divert the attention of these things that were aimed at the Russians onto these other things. The paradigm that I will give you is that everybody understood the penalty for our failing in that informa-

tion mission in terms of its effects on our ability to deter war, in terms of our ability to fight if we had to, and so forth. If someone came down and was able to portray an intelligence program or activity that clearly was going to provide value added in that mission area, it generally got support in a bipartisan way, regardless of the party, regardless of whether it's the executive branch or the legislative branch. There was very little politics involved.

In the post-Cold War, what's our target? We don't have a design goal anymore. What I find is that there's no consensus on how we go about downsizing; yet there is consensus that we all have to downsize. The apparatus that we had before is too large for our needs, so let's downsize it, but there's no designing guidance as to what it is we're supposed to be doing. You get to the point I made before: we're downsizing and we're eliminating a lot of capabilities, but people still expect us to know a lot about Somalia, even though they didn't tell us they were going to need anything on Somalia a couple of years ago.

Student: This is picking up on that very point. If your targets are growing exponentially because you don't know where in the world you're going to be involved, but you need a knowledge base—you need to know what the bridges in Somalia or Sri Lanka or whatever carry—and you're under budgetary pressure, is that leading in the system to more pressure for sharing the burden: collaborative efforts, coalition efforts to collect the information and to sort of distribute it? A nasty angle to this is the United Nations, and what kind of intelligence can help the United Nations, which is a very troublesome question.

Hall: It hasn't gotten to that yet in terms of a planning factor. In other words, we in the intelligence community are not yet saying, "I don't need to build a unilateral capability to do this particular mission because I can count on a coalition partner providing that in the event I'm in a military engagement." At the more strategic intelligence level, I think those types of calculations, and sort of a divvying up of the job, if you will, are beginning to be discussed

now. But I suspect that tremendous pressure will remain within the intelligence bureaucracy, with some support from the outside, to maintain a unilateral capability to acquire the information we need. Even in the bottom-up review that Defense conducted, one of the criticisms was that it basically didn't take into account the coalition forces that would be available in fighting a "two major regional contingencies" conflict, which is the strategy we have. So I think that if you apply that in the intelligence arena, with all the baggage associated with security and sharing of information and all the rest, it gets harder. I set aside some of the close partners we've traditionally had, which of course include Canada and Great Britain and so forth, which is sort of a separate case.

So, what I've been arguing for in sizing the mission is that we need to focus our attention on those areas where the penalty for not having the information is clear. In some of the things that have been bandied around as intelligence missions, it's not clear to me that if we didn't do the job the penalty to us as a nation would be all that great. This is somewhat self-serving, I'll admit, in terms of the defense mission, because everybody understands the penalty if we fail to provide the necessary information on a foe's possession of some weapon system that then causes an aircraft carrier and 2,000 sailors to be lost at sea, or some air defense capability that we didn't know existed and as a consequence transport planes or fighter aircraft or bombers get shot down with the loss of soldiers and airmen and women. So you may say that's self-serving, but I think it's also accurate.

I think the American public has tended to look at two categories as unacceptable failures on the part of intelligence. One is, in a military endeavor, failing to detect a threat to U.S. military personnel, and the second is failure to detect some major political change on the world stage. In the case of Iran, rightly or wrongly, we were told that we didn't do a good job at predicting that change from the Shah to a fundamentalist Islamic regime. In those two areas, the penalties are clear and we know what our missions are, and we need to focus on them. I think we should look at these other

mission areas—economic intelligence, counternarcotics, environment—that some people talk about. Some people are even talking about economic industrial espionage and stuff like that. My view is that it's not as clear to me what the penalty for not doing those jobs is. I don't think it's very great and therefore I don't think we should be doing them.

Oettinger: If I may just add a footnote to that, those of you who are interested in more details on this whole economic espionage question, in the proceedings of the 1993 seminar there's an account by Randy Fort, who did the economic analysis for the State Department.*

Student: Did he reach the same conclusion?

Oettinger: Yes, essentially: that it is not doable, and that if it were to be done, it's not clear what you would do with it, other than using economic information for the purposes of the government. Beyond that it would be very hard.

Hall: Again, I stress the areas where the penalties for failure are high and then I look at our prospects for failure and at the trends, and I say our opportunity to fail is going up. Our resources are declining. We have more U.S. military personnel deployed around the world today in various operations than we've had in years. I'm not talking about just being at bases overseas; I'm talking about an operational deployment in Bosnia and Cambodia and various places. We have a spread of high-tech weapons, some of which are weapons of mass destruction. Whenever we do become involved in an operation, it's with a coalition, and we are not versed in how to conduct intelligence in a coalition operation in a military sense. We haven't done that all that much. We have the nontraditional require-

ments we're being asked to meet: as I said, the environment, counternarcotics, but other types too, such as the point I was making before about peacekeeping. What is it that you need to know when you're distributing food in a country without any governmental infrastructure and bandits all over the place? What's the information you need to conduct that operation successfully? So our opportunities for failing are going up as I look at it in terms of military deployments, and that's a source of obvious concern to me.

Now, what are we doing about it? I'll offer an observation on the reinvention of U.S. intelligence and say that we really began this in earnest around 1990. We're four years into it. I participate on a thing called the Intelligence Community Quality Council, chaired by the Deputy Director of Central Intelligence, and that's all part of Vice President Gore's "Reinventing Government" program, the National Performance Review. I'll tell you the observation I bring away from that as we hear the stories about what the rest of the government is like compared to the intelligence community. I come away from it feeling that the Department of Defense and the intelligence community are subsidizing inefficiencies elsewhere in the government, because I sense that the intelligence community in particular is miles ahead of the rest of the government in terms of things like total quality management, in terms of relations to customers, in terms of downsizing. If you take a look at the National Performance Review, the goal is to reduce government by 12 percent. In 1994, we already have 15 percent fewer people than we had in 1990, and we're on a path to go down between 25 and 30 percent by 1999. All our organizations have had fundamental relooks in terms of mission, structure, organization, and bureaucratic layering. I guess there's always the danger that when the government looks at a problem it creates new bureaucracies to address them, and we've done that. We've created the Central Imagery Office to manage the problems that we saw in the Gulf War and our ability to disseminate photographic intelligence.

* Randall M. Fort, "The Role of Intelligence in Economic and Other Crises," in *Seminar on Command, Control, Communications and Intelligence, Guest Presentations, Spring 1993*. Program on Information Resources Policy, Harvard University, Cambridge, MA, August 1994.

Student: Can I just pick you up on your point about bureaucratic layering? What's happened, in general terms? Have you chopped middle management?

Hall: Yes, we have. We've flattened the organizations somewhat, and we've eliminated whole layers between the individuals making decisions and the people doing the work, particularly in organizations such as the National Security Agency, but it extends into other organizations as well. We've streamlined and consolidated our military intelligence apparatus to focus on support to unified commanders, à la Goldwater-Nichols joint approach, whereas before we had a lot of our intelligence resources tied up in Army, Navy, Air Force intermediate-level headquarters at overseas commands and so forth. Most of that has gone away and been put directly under joint commanders in joint intelligence centers, which is a way of eliminating middle management. So yes, I think we've done a lot. Have we eliminated all? No. As I said, we're at 15 percent fewer resources now and we're going down to between 25 and 30 percent fewer people, so we have more to go. But we're not going to be able to achieve those types of reductions just by eliminating middle management. We're hitting some of the tooth in our capabilities here.

Student: When you said "we," did you mean the whole intelligence community?

Hall: The whole intelligence community.

Student: Have those middle management changes affected the military hierarchy? Not so much the military tasking—the point you make about joint commands as opposed to civil service commands is well taken. But has that restructuring affected the command hierarchies within each kind of dollop of the military intelligence organization, or have they been relatively immune as opposed to the civil organizations?

Hall: There is a whole separate rationale behind the military structure—the ratio of colonels to lieutenant colonels and so on down the line, and we're not disturbing

that, in terms of middle management. The basic way we've gone about the military side is with base closures. We've closed whole facilities, or we've consolidated services into joint centers.

Oettinger: Before you go on (I can't make this question sound totally nonhostile): given that Deming, the arch guru of total quality management, died last year, I thought the high wave of TQM had passed us. Yet you've specifically singled out TQM as an area in which you're doing better than the rest of the world, and I was wondering what you might mean by that.

Hall: TQM principles are what I'm talking about. That means empowering the work force, getting with your customers—the people you are serving—to identify what their needs are and then tailoring and empowering your work force to be able to take the actions necessary to meet those needs. Some of the organizations have been more closely following the TQM model than others—NSA, complete with visioning, process action teams, and so forth. Others follow the principles. They don't call it a process action team, but it's basically the same type of approach. So that's what I'm talking about.

Based upon what we hear, and maybe we're not getting the most objective view of it, the rest of the government is struggling to figure out how to start reinventing itself. I'm not saying that the intelligence community and the Department of Defense decided to reinvent themselves without some major external impetus, although we had plenty of incentive to do that. Nonetheless, we're much further along. We're basically reinvented in most areas, and we're in the process of trying to manage the change, which is a problem area that I pointed out in my issues (figure 1).

Student: Are you using Malcolm Baldrige criteria there? Are you measuring things? What are your principal measurements?

Hall: I'd say we're following the Malcolm Baldrige criteria. We're in the process of looking at that. One of the functions that the

Intelligence Community Quality Council has is to apply the Baldrige criteria to agency-level activities. Keep in mind, I'm on a fairly senior panel looking across the entire intelligence community, so what we're looking at is applying the Baldrige criteria to an entire agency and seeing whether or not we can develop the measures for performance that would be accepted to receive the Baldrige Award; for example, nominate one of our agencies as a Baldrige Award winner or candidate. So we're looking at it from that standpoint. I can't say just how much of that is down in the lower levels of the organization. Obviously, performance measures are important to TQM.

Oettinger: What worries me as I hear you responding to that is that the whole TQM concept, Deming, et cetera, has barely made sense to me in manufacturing, where measuring how many machine screws you put out has some smidgen of a relationship to performance. But how many wars did you avert lately? Or how many bridges did you take that you otherwise would not have taken? What does it mean to meet Baldrige criteria in intelligence?

Hall: Let me offer you perhaps a different approach to it, because trying to do that in terms of the function that we're performing becomes difficult. How much information is enough? One of the ways we're approaching the question of performance is through a process we call issue managers. I don't know whether you've had anybody speak to you on this subject. Given that I come from 14 years of intensive top-level budget looks, I am a great believer in trying to find performance measures that can be tied to resource decisions. This has been a long-standing objective when anybody looked at the intelligence community: how do I know that the input that I'm giving you in the way of dollars and people and so forth is giving me an output that I can measure as to its value and its effectiveness and so forth?

What we have crafted is a notion that customers specify information needs, and we can measure in terms of the customer's view how well those information needs are

being satisfied. What we need is some people specifically charged with the task of dealing with customers and finding out how satisfied they are. The intelligence community has done that through various mechanisms, but they've tended not to be tied to any budget process. It's sort of current operations: "Gee, am I giving you what you need to know about North Korea for the decisions you're going to be making this week, next week, next month, or this year?" and not the type of stuff that has to take the longer view of resource management—what type of system should we buy and all the rest of that stuff. That's what we've impaneled issue coordinators to do.

It gets to one of my points about what we've done in a common requirements framework. This isn't through yet because we're not the ones who should be telling us what our requirements are: it's got to be some external group, and we're trying to get the National Security Council to structure it for us. What we're trying to do is to categorize the government's information needs in what I call tiers, with the first tier being those countries whose interests are inimical to those of the United States. Those are the countries that we need to keep our eye on in a full-service way because if they act on their interests that are inimical to ours, it's likely to be a big problem for us. We don't know in which direction they're going to act or what form our reaction would take—it could be economic, it could be political, it could be military—so we have to have a full-service look at those countries. They are few in number, obviously.

The second tier are other high-priority requirements, but not associated necessarily with countries whose interests are inimical to the United States. The best example is counternarcotics. It's a high-priority interest that we have to attend to, but it's a very narrow focus, unidimensional, not broad like a country whose interests are inimical to ours.

The third tier are low-priority countries, but low-priority countries that we're going to work on. In the past, U.S. intelligence has had a whole passel of countries that are low priority, where we tell people we're going to get to them, but we never actually

get to them, because we're seized with all these other high priorities and nobody is interested in these, therefore, we'll put them off for tomorrow. As a consequence, when we go into a place like Somalia, people say, "Well, where's our map?" and it's an Esso map from 1942 or whatever because nobody's been paying any attention to it. So tier three are those lower-priority places that we actually will work on, which means that we have to have a management apparatus that sees to it that we work on it. That's the challenge.

And then the fourth tier are those countries that we're not going to work on. We tell everybody, "We're not interested in this place."

Lastly, there's what we call tier zero. Since it's a government construct, I guess you would have been surprised if we had five tiers labeled one to five. We have to complicate it some way—five tiers, one through four with a tier zero. But tier zero are the current crisis areas that require us to drop what we're doing in a lot of areas to focus crisis-level attention on them. One of the things that we've discovered is that we're not uniform in turning our assets towards a crisis. If Saddam Hussein invades Kuwait, that's sort of a bell-ringer. Everybody says, "Oops! This is a biggie!" and drops what they are doing and starts working on Saddam Hussein. If you have something like Bosnia or Somalia, at what point does it warrant you to stop doing what you normally have been doing, which is not paying any attention to it, and start taking people off their other tasks and putting them on it? That's what tier zero is all about.

What we'd like is some prospective look at that. It might also help the policy makers, who tend to be worried about today's problems and forget about the problems building elsewhere. So there should be some means by which they can get together regularly and say, "What's the one we're likely going to be facing six months from now? Maybe U.S. intelligence ought to start looking at this." It's important for somebody to be responsible for looking at our performance and talking to the customers armed with this categorization. Then I think we have an ability to make some

long-term determination on resources, because I think that the categorization of countries into those four tiers that I mentioned to you is relatively enduring. It's not going to change very much. If you discovered a reserve of oil in Somalia of five billion barrels or something like that, that would probably change Somalia's categorization as a place of interest to the United States, but it would take something like that.

Student: I agree with your tier approach, the functional approach, to intelligence, but I don't see how it is or can be integrated with that integrated priority list the unified commanders give you, or the line items that the services rank order when they submit their budgets. How do you mesh those two items?

Hall: If you take a look at what the services and the unified commanders are worried about, they're worried about tier zero. They don't have requirements in any of the others until we are in a crisis situation, by and large. Now, obviously if you go out to a CINC and say, "What areas are you worried about?" he's going to take the real estate in his theater and say, "Well, I'm worried about these countries." What we're finding is that they match up very closely to how the State Department categorizes their interests in a region. Everybody knows what the tier one and tier two places are, and the CINCs do fine in that.

But when you get to spending money on intelligence systems in a theater, that's aimed at tier zero. We don't deploy tactical intelligence assets, for example, unless we're in an operation. So that becomes a tier zero construct, and indeed I think it's one of the values of looking at our requirements this way. We have an enduring set of things that we're interested in as a country in peacetime, and then things happen that are crises that sometimes will occasion the deployment of military forces, and when that happens, that's a big deal to the nation, to the American public.

We need to be structuring ourselves to meet those needs for intelligence with a view in mind of what we have been doing in these places on a day-to-day basis. One

would hope that if we were going to fight a war against a tier one country, we'd be pretty well prepared for that because we've had a day-to-day interest in that place. How we'd go about analyzing our tactical capabilities to fight the war would be totally different than if we found ourselves fighting in a tier four country where we don't have any day-to-day information or database. We haven't been watching this place. That argues for a different construct in terms of what we have to organize, train, and equip our military forces for and what the CINC needs to be thinking about in terms of planning. So I find the tiered arrangement fits very nicely into the reality of how we actually go about providing intelligence to a military operation, ranging from, "We've been expecting to fight this adversary, and we know a lot of what there is to know about this adversary," to "My God, where is this on the map? I never heard of this country!"

Student: I'm a little bit concerned in the verbs you keep using: "we fight." I came from Southern Command and we did a lot of stuff down there with operations other than war. A lot of what we have to do is to provide our allies information so they can be on the pointy end of the spear, and we're more in a support role. I think that's kind of the wave of the future: we'll have core capabilities, whether it's disaster relief, or it's noncombatant evacuation. I mean, there are a whole host of other things other than the verb "fight."

Hall: I think I admitted before that I don't think we have a good construct of information needs in the operations other than war. We sort of fly by the seat of our pants on those things, and we're learning from our experience. Any time we get involved in a military operation there's always the inevitable "lessons learned" drill and everybody goes through that and then action items come out on the list. You start fixing them one by one and report all that.

We've asked the Director of DIA to take a somewhat different approach: to look at all of the operations other than war that have been conducted in the last several years and tell us what we can learn from

that about the craft of intelligence and how we manage, how we're structured, how our information flows are arranged, how our requirements process works, and all of that, to see if we can get a better handle on those types of things, because we are structured to fight a war. That's what the whole arrangement is all about in terms of our military apparatus. We assume that that same structure serves us well when we go into a place like Somalia or Macedonia, but it's not at all clear that it does. So I take your point, but I don't know of any way to categorize needs other than the way I've described it. The other value is that it's simple enough that we might actually get the policy makers to sit down and give it some thought because they only have to parse things into four bins.

Student: That's really what I wanted to follow up on. I can see the attractions of a geographic classification system in providing support for military operations, but have other parts of the intelligence community thought about parceling up requirements like this perhaps in other ways, for example, functional requirements?

Hall: First and foremost, we have to start with the information needs, which should be independent of how we attack it, and get them prioritized, which this scheme does. Then one needs to develop a strategy if we're ever going to meet those needs based upon an assessment of performance. In that case, you now get into the functional areas. There are some things that you probably want to go after in multiple ways: let's go after it with technical means as well as human intelligence means. You may want to go after them with an analytic approach to openly available information; maybe applying different types of analytic methodologies will tell you what you need to do. But in each of the functional areas, you develop a strategy.

Again, we develop those things now, but it isn't comprehensive. The intelligence community gets criticized frequently for not paying attention to its customers, but I think we pay too much attention to our customers. It is what is in our customers' in-box that guides what we do when we

come in to work in the morning. If they're worried about Somalia, then that's what we're worried about. If they're worried about Korea, then that's what we're working on. If the commander-in-chief asks for information on this country, that's what we go off and do. That's the mentality we have, and as a consequence, we don't have a sense of where we stand in getting the total job done in terms of the interests of the country at large. With this approach, one can tie strategies to it. I can figure it out; I can go into an area like signals intelligence and say, "All right, let me see how what you're doing aligns with this overall scheme of what's important and what's not."

Oettinger: But the large question about do you do what your customer wants on a day-to-day basis, or do you look ahead and do some things independently, is something that plagues every knowledge producer. The same thing is true in a university. Your quarrel between what you do by way of teaching and what you do by way of research has a lot to do with whether you just dispense what people think is currently important versus laying the basis for the future.

But I'd like to engage you a little bit more, before we move on, regarding the question raised about Southern Command doing support things rather than fighting and/or, at the other end, humanitarian missions. Because it seems to me—and you didn't say that, because it didn't occur to you or it seems impossible or stupid or something—that as you move from fighting, which is what you've been talking about, to the kinds of things he's talking about, aren't you also moving from stuff where you do need secret intelligence to stuff where open sources or even the collaboration of the locals may provide different sources of information, and therefore it's not necessarily an intelligence requirement in the traditional sense? Can you sort of review that again and see if he agrees with anything you say?

Hall: I think, particularly if you get to these operations that happen other than war, which usually occur in places where

the United States' official presence is fairly limited anyway, that the intelligence community is often in a position to gather and analyze needed information regardless of whether it's secret or open. When we're involved in a major initiative by the U.S. government in one of these places, I wouldn't draw any distinctions about how the U.S. intelligence job is accomplished. We can't get distracted by who should collect and analyze all this open-source information. I think in these cases our job is to provide the information from whatever source to the policy makers and the military commanders on the scene as efficiently and effectively as possible, and tailor it in a way that best suits their needs.

What concerns me is that we're going to become the purveyor of this for everybody for all purposes. If the United States government, whether it be the Assistant Secretary of Defense governing what type of sales we want to make to a foreign country or what type of military assistance we want to provide them, or a State Department diplomat, or the Commerce Department official, or the FBI legal attaché, or whatever it is, has a need for information that's openly available, they ought to go out and get it and not rely on the U.S. intelligence community to go out and get it for them if there's no crisis. Otherwise, we'll spend all our time going after the openly available information, and, what's more difficult, we'll spend all our time analyzing it because it's a mountain of information.

Of course U.S. intelligence was hungry for information on what was going on in the Soviet Union, but somebody pointed out that in the late 1980s, with *glasnost*, suddenly we found ourselves with about 180 new newspapers, many in languages that were fairly exotic to us, not in Russian. We quickly realized that we don't have the means to read all this stuff, yet here were very valuable and new information sources. So at some point, you've got to draw the line here.

Student: You're talking about all the things that you do with your resources: you use them obviously for the intelligence you're gathering, and we established at the beginning that that's not specifically what

you're involved in, but I'm still a little bit confused. With the streamlining, the changing of the structure and taking more information directly to the CINCs based on what their requirements are, what's the exact interaction between your position and the individual service intelligence communities? And then how do they interact with the CINCs? Is there a duplication here?

Hall: What I'm interested in from the Office of the Secretary position is to make sure that the process by which requirements are made known and acted upon, or not acted upon, makes sense from a corporate Department of Defense point of view. I'm not the one who does this. So, for example, I and my colleagues in the DCI's shop conceived of the idea of the tiers and so forth, and it's going to be up to somebody else to implement that and go out to the CINCs and get their requirements categorized in all this.

In the Department of Defense the entity that's responsible for bringing together everybody's requirements, from the standpoint of the day-to-day operations of the intelligence community—the tier one to four activities I'd call it, I guess—is the Defense Intelligence Agency. They're the ones who deal with the CINCs on a day-to-day basis. They're the ones who deal with the services in terms of what information they need to design weapons systems and to perform their missions—organizing, training, and equipping.

When you get into a military operation, the focus of attention rapidly shifts. It's not the services anymore. Now it's the Joint Staff and the commander in the field, both the CINC and the Joint Task Force commander who are on the scene. They are the ones who specify the requirements. We have to hope they have a highly experienced, qualified J-2, i.e., intelligence, staff officer on the task force available to help the CINC formulate his needs, and then arrange the apparatus in such a way that the needs are met.

Student: So I guess, basically, have the individual service intelligence communities somehow decreased in their role?

Hall: Well, everybody's been decreased.

Oettinger: You know, you're putting it the wrong way. What you just described sounds like an idealized Goldwater-Nichols picture where everybody's cheerfully purple and so on, and that hardly reflects the reality.

Hall: No. One of the things I point out is that we still fight as services. In other words, under a joint commander, I still have Army corps, Navy battle groups, and Air Force wings. They possess organic tactical intelligence capabilities for which the services did their "organize, train, and equip" mission to meet the needs at the tactical, local level, and those are impressive and absolutely essential for warfighting. But these aren't engaged on a day-to-day basis, because they only become engaged when we deploy carrier battle groups, wings, and Army corps in some type of operation.

By and large, the things that have to enlighten the planning for the Army corps, wing, and so forth, are the day-to-day intelligence operations that are conducted, where the services and the CINCs have to specify what their information needs are. Then we go out and we fill the databases, presumably, with the information that we would need to conduct the operation. Just think of the mountain of information that was needed for targeting in Desert Storm! That's not something you can collect with tactical intelligence. I can tell you there's a building there, but I can't tell you what's going on in that building unless there's been a hell of a lot of work done before the war on what's happening in that building.

So, as you well know, we have what we call the preparation of the battlefield, which includes all the information databases and all the detailed analysis work that has to be done in order to support a prospective military operation. Then when the operation is conducted, you have the tactical assets to make sure that you can get force employed where it needs to be to achieve the objectives. So the service tactical intelligence remains a very important piece of this; relatively unchanged, I might

add, by the revolution that has been occurring in the larger intelligence community.

It's been affected in two ways that I would point out. One, the downsizing: as we eliminate a number of battle groups, corps, and so forth, obviously the intelligence components of that corps or battle group all go away too. But we also have significantly emphasized interoperability of systems. The Army likes to fight green and the Navy likes to fight blue, and they don't always provide the means to talk to each other or to share information and the like. We've established policies that require that anything that's being acquired in the Department of Defense for command, control, communications, or intelligence shall be deemed to be available for joint use, which means it has to be interoperable across the services. Now, we've had a tremendous amount of investment in these things over the years that create a huge rock pile of work we have to do before we achieve this goal, because the services have things that don't talk to the other services and they've invested a lot of money in them and they can't rapidly change them. So we have migration strategies and all sorts of things that are aimed at fixing it over time. That's the main effect that I'd say we've had in terms of what you would see in the post-Desert Storm effect on the tactical intelligence apparatus.

Student: In some things I've done in the past, I've provided raw data to the naval intelligence community. Obviously now a lot of that will be used in joint operations, et cetera. Does that go in to the Navy analyst, and the Navy hoards it there and analyzes it, and then when it's needed by a joint commander it's funneled through something to him? Or does everyone have access to that all the time as managed by some system that's organized by you or another entity?

Hall: The policy is that the information is corporately available. Now, if the information that you provided is in the Navy analyst's office on 3 x 5 cards, we may have a policy that says that's available, but it's awfully hard to get to. So what we're trying to

do is have corporate information available on electronic means so that anybody, anywhere, if they need it, can get access to it and pull the information out of it. That's the goal, and we're getting there faster than most people would expect. But it's going to be a while before information, particularly down at tactical level, is subjected to the same type of corporate availability. The higher up you go in U.S. intelligence, the more that is the case today. It's easier to make that stuff available to a guy at a tactical level than it is to do the reverse.

Oettinger: I might add to this that we've had some conversation in this seminar, perhaps not enough, on questions like technical standards, and there's a tendency to believe that technical standards have something to do with technical problems, but they often have a lot more to do with what Keith just described. It may be insubordinate to sit on top of one's shoebox and refuse point blank to make it corporately available because that's against policy. But, gosh, if you can't do it because the standardizing hasn't happened yet, then you're not insubordinate, you just have your hands tied. So the incentive to standardize is a curious thing, because everybody is always for it on principle, but you find that movement in that direction is always glacial. So you sort of wonder how come that disjunction occurs, and the conversation of the last couple of minutes, to me, has illuminated one of the reasons why actual performance in what looks like a technical standards problem is not necessarily what one would expect, because it has a lot to do with who gives what to whom under what circumstances and who pays for it and the like. Is that a reasonable observation?

Hall: Absolutely. Intelligence isn't the only area that suffers from this problem, obviously. We have the same situation elsewhere in terms of information within the Defense Department. Each of the services classifies personnel differently. They describe their personnel differently in terms of databases, or the financing systems work differently. So if you wanted the Navy to pay the Air Force, they can't do it. The same thing works in contracts adminis-

tration and acquisition and all the rest. There are major efforts underway, as I'm sure you've heard about from other speakers, on data element standardization and commercial standards and so forth. They do proceed slowly, in part because it's expensive to fix. If somebody has built an automatic system to run their payroll in a certain way and now you say, "Okay, you have to change yours to be the same as the Navy's or what have you," the Air Force doesn't like that. They say, "Use mine; let the Navy change." So all of these things are going to take time, but the policies are in place to force the change.

There may have been a time when the government side on computers, and communications, and command and control, and all of that was driving everything else. But now the commercial side is preeminent and is driving these things, and we'll quickly be left behind if we don't change with it.

There's a lot to say about the elements of change in the intelligence community. I haven't covered everything on my list, but we really have done a lot of things that make us very much different from what we were in 1990.

Let me talk about a couple of things about policy changes. Quickly, demystification of intelligence. This manifests itself in several ways, but we are taking steps to place more of what is in the intelligence craft into the mainstream of things that are talked about in polite circles. We've acknowledged the existence of organizations such as the National Reconnaissance Office, which has been in existence for 30 years but was only officially acknowledged last year as the place where we build reconnaissance satellites.

Oettinger: Do you happen to remember the date on which Carter, for the first time, permitted satellite reconnaissance to be mentioned?

Hall: The fact of national technical means and so forth was first mentioned in 1978, I think, in conjunction with the debates that were about to take place on SALT I. I think you're about to see the United States government release a whole bunch of satellite

imagery on an unclassified basis and make it available publicly. That should take place within the next several months.

Oettinger: Commercially or free or what?

Hall: We're going to take it, we're going to put it in the archives. If anybody wants it, it's all yours.

Student: Has anybody studied the economic impact on Spot Images and Landsat and the commercial systems in terms of the U.S. government directly competing in certain ways?

Hall: Yes, that's been looked at, particularly by the private companies that want to sell services commercially. They are fearful that the U.S. government, by releasing its data, is going to compete. That's not going to happen with the policies that we have. The imagery that we are about to declassify is old stuff.

Student: Is that going to be sold or released?

Hall: I think it's going to work like any other government information which is, "You can come on in and get it, but if you want to make copies of it you are going to have to pay for it." It's going to be in the archives. It's going to be like public documents. It may bring about a cottage industry in value-added services, because what people will quickly see is, "Gee, I can't tell a damn thing from this imagery without any of the data about what it shows," and all the rest. It's not high-resolution stuff because it's old. But nonetheless, this is a sea change in our approach to these things, and there's more to come in terms of these types of initiatives to put more stuff out the door.

Student: What are the DOD guidelines going to be on what you can say, then? Because all you can do right now is just say there's an office.

Hall: Right now, the only things that we can say about the National Reconnaissance Office I can say in 30 seconds. It's in-

volved in the development of satellite reconnaissance systems. Its acting director is Mr. Jimmie Hill. The acting deputy director is Dan March. That's all I can tell you.

Now, what we are about to do, though, is put out a whole bunch of other information on that. That will be the next process in the demystification. Hopefully, what we're going to get to is an approach on release of information in our possession based upon the sensitivity of the information, and not based upon the category it comes from. Right now, there are whole categories of stuff we don't release because it comes from a particular source, and the fact of the source is no longer sensitive, but we classify it nonetheless.

Export policy. That's being changed also. The Presidential Decision Directive that was signed out this month will allow for the export of commercial services in remote sensing. Heretofore we haven't allowed any of that to leave our shores.

Coalition warfare. You had asked me in your letter, Tony, to say a few words about this. We are engaging in various means of intelligence cooperation in a coalition setting. We've been doing that for some time. My own personal view on where this needs to go is that I think we have to have a regular means of exchanging information with coalition partners, to include multilateral organizations such as the United Nations or the International Atomic Energy Agency and so forth, so that we can do so easily and rapidly and allow policy to drive what actually flows on these interconnections.

Oettinger: Do you want to explain if that's possible? Do you have views, personal or otherwise, on this problem? An example is the relationship with Iraq during the Iran-Iraq War, when we shared some things with the Iraqis that then, when we went to war with the Iraqis, we perhaps would rather not have shared. Or is that a non-problem?

Hall: Obviously, when you get involved in coalition operations, I think that anything you share in a coalition sense, particularly with a multilateral organization like the United Nations, you might as well say is unclassified for all intents and purposes. So

you don't put anything into that context that you are not willing to have unclassified.

Also obviously, not all partners in a coalition are going to be treated the same in terms of intelligence sharing. But the thing that I think we need to pay attention to is that since it's the norm, and probably characterizes the way we're going to do these things in the future more than unilateral operations, we have to be equipped to be able to share. We have to have interoperable systems that are in the hands of our partners, that they know how to use, and allow policy to determine what information flows on it, not whether or not we have the technical capability to share information. Because clearly, the way we do it today, if we haven't prepared for it, is what we call a sneaker net: you hand it to somebody and he goes running across the road and gives it to the person. We don't have a means of electronically doing that on a regular basis other than with our long established partners, such as NATO.

Oettinger: There's something that has just occurred to me, if I may. I wish we were back at the beginning of the semester and you were still all choosing term paper topics because there are many precedents here in the private sector in things like electronic data interchange among enterprises and common systems and competitive enterprises. There's a long history among the banks of what information about check clearing or credit cards and so on they were willing to share, and what they were willing to for the common good, and what was to be close held for competitive advantage. That set of issues has played itself out in the private sector in a number of areas for much longer than the issue has presented itself in the military. So it seems to me that there would be room for some retrospective and longitudinal studies that could be helpful then in the military context, with some adjustment in trying to think through what might work or might not work. There are also the strategic and not so strategic alliances among corporate entities, some of which you've seen blowing up and some of which get consummated, so that there's a richness there which it appears to me could

be useful in the military sense. We'll look at that next year.

Student: I applaud the efforts, though I guess one thing that's frustrating from an operator's point of view, and that is very typical of any organization, is that you can never find anybody to say "Yes." Everybody up the chain in that process can say "No," but nobody can say "Yes." Whether it's an issue between commands on who gets what asset, or it's sharing information between us and our allies and whether we can release this picture or copies of the picture, it's almost impossible to find people to say "Yes."

Hall: A lot of that is due to the fact that we don't exercise the mechanisms in peacetime, and we have a security apparatus that is so risk averse that even when you go out with a policy that says, "Okay, you can share anything you need to share with coalition partner Y," people down at the end are very reluctant to share, even if they think they need to. "Well, gee, you know, I'd provide that to him, but I've never been able to provide this information before," and they are very reluctant to do it.

That's why I think we need to approach this in stages: we need to crawl, walk, run. The crawl part is to provide the means. If I decide today that I will allow a satellite image to go to coalition partner Y and they're 300 miles from me in some different part of the operation, now I've got a problem. How am I going to get it to them? If I have set up the means to send that, I don't have to send them every picture I've got, but now when somebody says, "We can now share this information," I have a means of doing it. The policies will change. The things that we'll share tomorrow aren't necessarily the things that we share today. Let's have the means available to give us the flexibility to do so.

Oettinger: That's interesting you should say that. I don't know if you recall a thing called COINS (Community On-Line Intelligence Network System)?

Hall: Sure.

Oettinger: I see more of you know. That was not sharing among obscure coalition partners, but among agencies of one sovereign government. It took essentially years to do that, and the means was as you described it: to set up the technical means, which then provided some folks with some incentive to share it and the means to do it. But keeping that alive and avoiding its being throttled by the bureaucracies was a major job over a decade. It eventually died because it became obsolete, but keeping it alive while it lasted to do this mission was extraordinarily difficult—and this is within one government.

Hall: That gets to the point on corporate information. In the past, we've tended in the intelligence community (I think we're beyond that now to a very significant degree) toward ownership of information: "I sort of own this and I'll decide whether or not anybody else can have it," as opposed to this being corporate information to be available to everybody and now let's provide the means to get it.

So suffice it to say there have been some significant changes on the policy front as well. I discussed several of them.

Let me talk about performance. The intelligence community gets criticized frequently for performance, and justifiably so, but frequently it's unjustified. Folks have to keep in mind that in a lot of ways the intelligence community is in the crystal ball business, and we're no better at discerning mysteries than anybody else. One of the areas that we've been criticized for is that we failed to predict the fall of Communism in the Soviet Union and Eastern Europe. I dare say that those events took the leaders of those countries by surprise as well, and they had much better sources and methods than we did in terms of what was going on. If one looks at an area of performance, one has to take those types of things into account. I always ask the question, if there is a criticism of performance, "Was there a secret we could have stolen and we failed to do it?" In a lot of the cases where you'll hear criticism of the intelligence community, there wasn't any secret to be stolen.

Now having said that, I think that the intelligence community is among the worst

in terms of self criticism, and the thing that I would point to is the fact that there's a part of the intelligence statute on oversight that requires the Director of Central Intelligence promptly to notify the intelligence committees of any intelligence failure. That's been on the books since 1976. Would you believe there's never been an intelligence failure that has had to be reported by the DCI?

Student: That's because the press reports it first.

Hall: The press sent it down first, but there's never been an official report. In my look at post mortems on things, the intelligence community has an ability to find the silver lining in the cloud. They are very adept at that. The reason why I point this out is not that I think the intelligence community is any different from any other bureaucratic organization in terms of self-criticism, but it is insulated from some of the external mechanisms that evaluate performance that the rest of the government has to live with. Because of that, even though now I'm subjected to it from time to time, I place a value on external review of U.S. intelligence performance in particular.

A lot of people look at external review as a means of making sure we're not doing illegal things. That's always, of course, important to make sure, but I don't think that's the problem area. I think that the problem area, and the area that we need to focus on, is our performance. I welcome the idea that there are people outside, such as the President's Foreign Intelligence Advisory Board, the Senate and House Intelligence Committees, and various ad hoc groups that are formed of people from the outside, who come in and look at performance. That's important, because without it all we have is what we think of our performance and we would usually be breaking our arm patting ourselves on the back.

Oettinger: I should indicate that this is non-motherhood: this is a radical statement that you heard here. If you go back in the record and look at the arguments surrounding the use of the so-called "A" team and "B" team a decade or two ago, the notion of

an outside group—outside in the sense of being of different folks from the analysts themselves—looking at the same evidence and drawing conclusions and having that be a kind of collegial argument, raised an enormous hue and cry. So what you're hearing Keith say is not exactly a platitude that everybody would accept, I'm not sure even today.

Hall: That's why I say it, because I think it bears repeating, and I point it out to people at every opportunity. It's like going to the proctologist. It's something you need done, and it ain't pleasant, but you do it anyway.

Oettinger: If you look at, for example, Lionel Olmer's and Fred Demech's accounts in the annals of the seminar* of some of the reactions to the "A" team-"B" team exercise, which was only one of a number, you'll get a bit of the flavor of how difficult this was to carry out. That's by way of contrast to this attitude.

Student: Obviously there are a lot of failures or setbacks within the organizations of various kinds that never see the light of day, because they're handled internally or whatever. But do you feel that most of the criticism that you get for "failures" comes from the consumers that are using the information—policy makers, et cetera—or are they from the press, which is using it as a good story they want to blow up?

Hall: It's a mixture of the two. It's frequently uninformed. One of the dynamics here, and something worth mentioning in the performance arena, is that sometimes the intelligence community has performed perfectly well, it's just that what it was saying was ignored by the people who

* Lionel Olmer, "Watchdogging Intelligence," in *Seminar on Command, Control, Communications and Intelligence, Guest Presentations, Spring 1980*. Program on Information Resources Policy, Harvard University, Cambridge, MA, December 1980; Fred R. Demech, Jr., "Making Intelligence Better," in *Seminar on Command, Control, Communications and Intelligence, Guest Presentations, Spring 1987*. Program on Information Resources Policy, Harvard University, Cambridge, MA, May 1988.

made decisions that then turned into disasters. It's very rare in the intelligence business that you provide certainty; there's always some measure of ambiguity in what you're saying. If it's a really critical question that somebody's been trying to keep secret from you, there's some measure of ambiguity, so the policy maker is faced with a tough choice. The intelligence analyst or professional will give the best judgment, but also give the range of other possibilities to explain what it is that we're observing or seeing or what we've been told or what have you. That gives the policy maker the ability to say, "My intelligence wasn't good enough."

Student: Right, kind of covering himself. Even though the intelligence source may have presented the right option, he chose the wrong one and so to cover himself he's saying the intelligence failed.

Hall: That's sort of the darkest way of looking at it. You've got to look at it from their point of view. General Schwarzkopf pointed out that during the war, when he was asking for the effectiveness of battle damage assessment, he'd get an intelligence analyst who'd come in and say, "The bridge is 35 percent destroyed, based upon what we were observing the bridge to be and how much of the structure is there." Schwarzkopf would say, "I don't care what percentage of the bridge has been destroyed! I want to know if anybody can cross it!" That's a yes/no sort of answer, and in lots of ways those types of decisions are not ones that intelligence is empowered to make because they are operational decisions. That's not the issue in the case of a bridge, but a lot of this stuff is more like, "Hey, this is what's happening on the ground. Now, if you want me to tell you what its operational significance is, I'm starting to get into your business." We'll do that, and in the military sense that's usually a measure of how good the relationship is between the commander or his ops person and the intelligence officer. That allows that type of real interchange to take place, but you get to a point where the information is being handled so aggressively by the intel

guy that it's starting to tell the decision maker what his decision is.

Oettinger: It's so interesting you should mention that, because last week Jack Leide was here, and you'll recall how different the viewpoints are.* With Jack it was that he had a relationship with Schwarzkopf where he was asked to provide that type of analysis, and he felt comfortable with it because he had the mind of an analyst but the soul of an operator. So he was comfortable essentially being Schwarzkopf's guy who evaluated all this stuff and said "Yea" or "Nay." Not everybody is comfortable with that, and the general situation that Keith is describing is, I think, much more typical among professional intelligence people than the attitude that Leide was exhibiting because I don't know of many intel people with that kind of personality. He amazed me. He had a very clear, cool, analytical mind, and at the same time, he didn't have the slightest hesitation about behaving like a line officer or an operations guy. Even then, if you don't have the chemistry with the boss, that doesn't work.

Student: That's why I asked the question.

Hall: The chemistry with the boss is all-important, I think, in the intelligence arena because it determines whether or not the person who has to make a decision based upon the intelligence has confidence, and how it is placed in the context of the decision making. Intelligence that's not acted upon is sort of an interesting historical item, but otherwise it's fairly worthless.

Student: Just a general comment on something that I've never cleared up in my own mind. It seems to me that the Western analytical systems, whether we're talking about intelligence systems, or foreign policy systems, or political systems, or whatever, when you look at the international scene, have been pretty consistently wrong or inaccurate in predicting when there would be major events. We seem to be able to predict a sort of five-degree turn here or

* See General Leide's presentation in this volume.

a ten-degree turn there, but we couldn't predict the fall of Communism. We really weren't very good collectively in predicting these things. I see that on the one hand (at least I imagine I see that), and on the other hand I see from my own experience that in the relationship, let's say, between the policy makers and the intelligence community there's always a feeling on the part of the policy makers or the non-intel community people that the intel assessments are apocalyptic. I could never quite reconcile those two assessments.

Hall: There were an awful lot of people among the ones that you cite. It wasn't just the intelligence community.

Student: No, I'm not trying to finger the intelligence community, I mean the whole analysis.

Hall: That's the history of the world, isn't it? Things happen that take us by surprise. Events occur that we think are inconsequential and that in retrospect turn out to be monumental. The intelligence craft is no different than any other analytic effort trying to understand world events. It's just relying on some specialized sources.

Student: I guess there's a kind of an intellectual inertia that makes it easier to predict a five-degree or a ten-degree turn ...

Oettinger: But that is fundamental to knowledge. That's why last time I handed out to you that series of stuff, ranging from that paper on cow and bull on through the paper from last month's *Science*, where this guy analyzes in some detail what can be known about certain environmental health problems and so on.

I think Keith has put it just right, and it's universal, even when you look at corporate entities across the board and in any nation. IBM was taken by surprise by the shift in the market. Wang Laboratories is dead from having been a pioneer. Digital Equipment Corporation was the cradle of the electronics and computer industry. Thirty or 40 years into it, some of the pioneers have gone arteriosclerotic, and one of the worst predictors is success, because

you tend to continue to be good at what you're doing and when there is a radical shift in outlook, yes, of course it's unpredictable. I think that's a very fundamental condition of existence, which gets back to one of the assets of Western society. The reason why the failure of IBM or of Digital or of Wang doesn't matter to the economy of the United States is that for every failing IBM there are 1,600 entrepreneurs out there, some of whom are losing their shirts with experiments that fail, but others of whom are making it big, so Bill Gates* is a millionaire. They could be screwing IBM. They weren't smart and agile enough to figure out what was going on, and they probably asked their intel guys. Some of the retired chairmen of the board are probably sitting around puffing their pipes and saying what kind of intelligence failure they had, and nobody ever told them that when they went into this coalition with Bill Gates he was going to eat their lunch. That's not an intelligence problem.

Student: But it's interesting because it pertains to this question of intelligence failure. If you accept the fact that there are going to be dramatic turns of events in the world that are not predictable by any of our systems, not only intelligence but foreign policy, then you excuse these things. You think, "Well, we really couldn't anticipate that Sadat would go to Jerusalem." Well, why couldn't we predict and anticipate that Sadat would go to Jerusalem?

Oettinger: Because you can't read anybody's mind!

Student: My question boils down to: are we too easy on ourselves by saying, "Well, these major things will happen. We win some and we lose some."

Student: I think the book on chaos has a clue there, where you've just got to stay in touch with who you think your customers are. You've got to walk out there. You've got to get away from behind the desk. That's how you do things like that.

* Founder of Microsoft.

Oettinger: Somebody mentioned—I guess it was you, Keith—that General Motors didn't get snookered by an intelligence failure. What happened was that they believed their five percent, et cetera. They knew all of the micro data better than anybody else. They could tell you costs on their car lines down to the mil, and so on. They failed to go to enough cocktail parties to grasp the fact that people were buying Toyotas and Hondas and so on because small cars with less fuel consumption were what was interesting. There was no way that their incremental intelligence system could give them that. Maybe some of the GM executives did go to cocktail parties and they just couldn't get the message up to Roger Smith. I don't know, though it would again be an interesting study, but I think in defense of intelligence—defense intelligence or any other intelligence—most activity by and large is within the sort of incremental, predictable stuff. One shouldn't dump on the notion that that's an important thing to do, because there are things that are trackable and predictable. The facts—that you observe a fighter aircraft coming off a runway, and he's heading your way, and even the trajectory up to certain evasive tactics—are quite predictable, and you don't want to throw that away.

Hall: There's so much one could say on the question of performance. Another point that I think bears noting here is that if you take a look at the driving factor behind most intelligence activities—my friend from CIA may disagree—is military activities. If you take a look at the things we spend a lot of money on, it's usually aimed at some type of military need, and those are more measurable in terms of what information we need about that potential enemy aircraft in order to counter it, or what I need to know about the opposition and the way they train so that I know what their capabilities are to use the weapon, up to the extent of its in-air capability and so forth. If you take a look at intelligence performance in that sense, we do an excellent job.

Student: I would agree with that.

Hall: There's an important point I want to make here. Fortunately we're not at war very often. So we build up this marvelous apparatus to answer wartime questions and use it for other purposes in peacetime. Diplomatic activity is our main interchange with foreign governments in peacetime, and the purpose is to inform ourselves and have good relations and avoid problems and all of that stuff. It's an information gathering tool, too. If you ask an intelligence analyst, "What's your most valuable source of information on political matters?" there are always two things on the list: first, the reporting from diplomats abroad, just the normal, "I met with so-and-so and this is what he told me his government is planning on," and second, what they get out of open sources—foreign government publications, newspaper accounts, and the like. These are the most valuable sources of political information.

We now have all these other sources of information aimed primarily at military things, and we apply it in the diplomatic arena, but the lion's share of information that comes on political intelligence is coming from the people whose profession it is to be in the political intelligence business. They just don't call it intelligence, particularly in the United States. The diplomatic establishment in the United States sort of treats intelligence as just a cut above the Hezbollah in terms of a profession. Somebody said to me that the Canadians have the same approach. You'd be in a position to judge. I'm told that Canada and the United States are the only two Western countries that don't have intelligence as an integral part of their foreign diplomatic apparatus in terms of its being fully integrated. It's sort of kept at arm's length.

So if you take a look at what intelligence is basically arrayed to do, I think we do it pretty well in terms of military activities. When you get into these other things, it ain't easier for intel to figure out what's happening in politics than it is for the diplomats.

Oettinger: But this is not an accident, and I think part of the continuing debate is from a failure to appreciate that there's a range of truths that has to do with a range

of predictability, and that things that have high inertia, like bureaucracies or trained, large military groups, are inherently predictable because they have high energy. They can't function without training, et cetera, and if they're asked to do something they weren't trained for, they're likely to disintegrate, as opposed to a single leader à la Sadat, who conceives of this notion that it would be a good idea to fly to Jerusalem. It's the history of one man and inside his mind. That's a very different thing from 10,000 trained something-or-others that are visible out there, have bureaucracy, and take ten months to be retrained to do something else.

I wish that I could stimulate somebody to write an intelligible and non-artsy-fartsy-sounding kind of analysis of the range from high inertial truths, like the behavior of the military formation or the behavior of a fighter aircraft or the behavior of the sun tomorrow, which are highly predictable, versus the state of mind of Anwar Sadat or Saddam Hussein or Bill Clinton, to the extent that they are able to act without acting through an instrument like a trained military force. Because if you take the most weird and impulsive leader, and he conceives of something that requires inertial stuff to execute, he's stuck!

Hall: Sure, and of course, it's not only the leader, it's also the institutions and the processes. Consider the Mexican intelligence analyst advising the President of Mexico whether the United States is going to pass NAFTA. He's got a tough job.

Student: But I see that the so-called intelligence failure, besides maybe Grenada or something that you can really call a failure, is that you take certain events, draw a line, and that's it. You continue the line, and predict. It's like inflating a tire with compressed air and you know sometimes it bangs, but you don't know where the hole will be in the tire, or when it will explode. It could be a little more or a little less. That's a difficult thing to do, and especially for military intelligence it may be impossible to do. Vernon Walters was ambassador to West Germany during the time of the crash of East Germany and he couldn't see

it. Maybe his guys were in Hungary to open the wire, but he couldn't say, "The Wall will come down on this day, and Honecker will retire on that day, and that day something else will happen." It's impossible. Sometimes you have chaos, like in an earthquake. You can predict there will be an earthquake somewhere between, let's say, San Diego and San Francisco, but you can't say, "Here, in that valley, on that day at six in the afternoon, and with this degree of damage."

Hall: You always say that intelligence consumers want to get their intelligence from a crystal ball, and that's obviously true. All of us would like to have a crystal ball for a variety of decision-making purposes, government or otherwise, and it's just elusive.

Oettinger: It's elusive at the political end, but I think the other point you made is that at certain levels the trajectory of an incoming missile is something that an Aegis cruiser can do a pretty good job on. It would be ridiculous to say that you cannot predict that or use intelligence effectively with a very high success rate. That's why I think that a taxonomy of degrees of predictability would be a useful tool in helping to adjudicate these questions of failure versus success. In some areas I think the political is fundamental; you can stand on your head and you're not going to improve that fundamentally.

Hall: There's one other aspect of performance that I think is important, and that's to take into account the natures of the bureaucracies that have to make the decisions. The reason why the United States has a Central Intelligence Agency is, I think, tied to that question: that each of the elements of the bureaucracy, no matter how objective it may try to be in predicting future events or analyzing current events and their meaning and all the rest, is not totally divorced from the institutions that it represents. One of the main purposes of CIA is just to look at information in a dispassionate way and advise the President. This relates to another aspect of performance.

In the national intelligence estimates that are produced in the intelligence community,

there's a provision for taking footnotes when you disagree with the consensus view. I'm struck by the fact that over the years as I've read those things, and see an assertion made, and then see the notation of a footnote, about 95 percent of the time I can state the agency that has taken the footnote on the basis of the ox that's being gored by the estimate, in terms of a policy or a weapon system, or what have you. That's another problem in performance. That's why I say that this is a multifaceted subject, but even when you're trying to be honest and objective, without polluting it with politicization or policy direction or anything else, there's a tendency to look at the world a certain way depending upon where you sit, and that enters into the intelligence performance arena as well.

Oettinger: Again, not limited to that, if you get any lawyer worth his salt and who's engaged, say, in litigation having to do with environment or torts or accidents or whatever, he'll have his repertoire, his roster, of expert witnesses who are totally sincere and will not perjure themselves at all, but will testify north or south, or east or west, according to the lawyer's needs. The best of them are the totally sincere ones who are predictable, in the sense of what kind of footnotes they will take, because in a number of areas there are positions that are influenced either by knowledge or discipline or the political or economic stakes and what have you. I think a lot of these things that we talk about in intelligence are not unique to intelligence, but are part of any kind of professional or knowledge-oriented situation. A courtroom battle is as good an example as you can find of that.

We just have a couple of minutes left. I wanted to bring you back for a moment, if I might, to an item on your list about utilization of the reserves in management initiatives. That struck me as being potentially interesting in terms of use of open sources, use of civilian things and other assets, and maybe we can bring it to a close on that.

Hall: If you take a look at the way that the Department of Defense has thought about the reserves, certainly in the Cold War arena, we've looked at the reserves as

something to mobilize when we are about to go into a general, major war. That sets up a whole set of policies and procedures and training and so forth that really aren't applicable in this environment that we have, particularly as you look at the intelligence functions. We have a significant number of reservists who are in the intelligence field, and the view has been that, "Why can't we utilize that resource to take advantage of them?" (not during tier zero, if I can go back to that, but in tiers one through four). Particularly if you take a look at low-priority areas where, no matter how much we want to try and get to them, we never seem to, why not utilize the reserves, provide them a means to get the data—the general, raw information—and have the reserves, when they come in on the weekends or what have you, pull together the analysis and start working the databases on the lower-priority areas, or even some of the higher-priority areas?

So what we're looking at is changing several of the policies that exist on the reserves, for that reason and for others as well. You have a reason that also ties into the nature of the operations we conduct. As you can imagine, we didn't have much incentive prior to last year to have a whole bunch of Somali linguists floating around in the apparatus of the U.S. military. But when we did need them, we needed them very badly, for about 18 months. At the end of this month (March 1994) we're most likely not going to need very many of them anymore. If you take a look at our policies, I think that the minimum number of reserves that the President can call up under law is 25,000, in terms of an involuntary call-up. This means that if I had 25 Somali linguists, and I needed them badly, and they didn't want to show up, I'd have to activate 25,000 people in order to get them in, which doesn't make much sense, obviously. So we're looking at changing this, and it's not just for intelligence. We're looking at other applications: very specialized, limited number of ways where we can take some of these low-probability-of-ever-needing-them skills, perhaps, and have them in the reserve force, and be able to rely on getting them quickly if we did need them.

When we were in the Cold War, everything we wanted to know about what the Russians were doing we wanted to know right away. We didn't want to wait until the end of the month to analyze the data, because what they were doing today might be threatening to us. The intelligence problems we face today lend themselves to "Well, let's take care. We'll collect the data, put it in a database somewhere, and we'll work on that three weeks from now," and then focus the folks who were in the day-to-day business on the Somalias and the Bosnias and the North Koreas of today, and the stuff that you do have to watch on a day-to-day basis. So we're looking at that whole arrangement.

Then lastly, what we're looking at is the whole management structure for the reserves. Each service manages its reserves differently in terms of command and control, organization arrangements, and so forth. Some of it seems to work well for intelligence, and some are totally dysfunctional for intelligence. One of the examples that I'll cite is that in one of the reserve areas, we generally don't take intelligence forces and make them available to the governors of the states as the National Guard. We keep them in the reserves, not in the National Guard. The units and their locations don't always lend themselves to being attached to an organization that makes sense. So what is happening in some places is that we take intelligence, and what unit do we assign them to? We assign them to civil affairs battalions or something like

that. It ends up being totally mixed up; it makes no sense at all. When the colonels come down from the civil affairs battalions, what they end up inspecting has nothing to do with intelligence.

So the intelligence arrangements are all screwed up in the reserves, based upon the unit to which the folks are attached. All of that needs to get some attention, and we're looking at that arrangement as well. But if we can work this out and get the legislative relief and so forth, it holds a prospect, I think, of allowing us to do a better job in some of these important areas that we otherwise neglect.

Student: Does that include IMAs (individual mobilization augments) as well as units?

Hall: No, it doesn't. IMAs are in a better situation than most because they can get attached individually to the right place. Generally, when IMAs come on active duty, they're attached to some active unit to begin with, not a reserve unit. So that's the way many of them work, and in those situations, whenever they're on duty they're productively employed. Anyway, that's what the reserve initiative is about.

Oettinger: On that note, we could go on quite a bit, but I've got to get you to an airplane, so thank you. It's been a pleasure.

Hall: I've enjoyed it.



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