Paul Kaminski on Acquisition Reform

"Changing Culture is a Hard Process"

All through his career, Secretary of Defense William J. Perry was confronted with people who told him that acquisition reform simply could not be done. That you could write papers about it, you could do studies on it, you could do reorganizations to try to make it happen, but you were just shuffling paper around and shuffling people around, and in the long run, it wouldn't make any difference.

And over the years, Perry came to somewhat half believe those people. That is, until he became Secretary of Defense and was able to put together his own, hand-selected team to reform a complex, cumbersome, and burdensome acquisition system that had become so ingrained as to be impervious to change.

Perry found the man for the job—Dr. Paul G. Kaminski, Under Secretary of Defense for Acquisition and Technology, whose appointment was subsequently confirmed by the Senate in October 1994. Kaminski has proven himself a precise, focused man who chooses his words carefully. He readily agreed to be interviewed by our staff for this special edition of *Program Manager*.

Kaminski's long and distinguished government career bespeaks hard work and commitment in several key government positions. Now, at a point in his life where he could serve as a CEO, director, or trustee of defense- and technology-oriented companies,

DR. PAUL G. KAMINSKI, UNDER SECRETARY OF DEFENSE FOR ACQUISITION AND TECHNOLOGY (LEFT), IS INTERVIEWED FROM HIS PENTAGON OFFICE BY *PROGRAM MANAGER'S* REPRESENTATIVE, DR. J. RONALD FOX, SENIOR EDUCATIONAL ADVISOR, DSMC.

Dr. J. Ronald Fox, Senior Educational Advisor, Defense Systems Management College (DSMC), conducted the interview with Dr. Kaminski on behalf of the DSMC Press. Fox is Professor Emeritus at the Harvard Business School and author of several articles and books, including: The Defense Management Challenge: Weapons Acquisition*; Managing Business—Government Relations; and* Arming America: How the U.S. Buys Weapons*. Assisting Fox was Army Brig. Gen. Richard A. Black, Commandant, DSMC.*

he's chosen to give something back—something that many said could not be done. Has he been successful instituting needed reform in the government's antiquated procurement and acquisition system? The Congress and Perry believe so:

Photos by Greg Caruth

> Dr. Kaminski's inspiring leadership, extensive knowledge, and dedication to purpose were instrumental in the unprecedented successes of the Department of Defense's efforts to reengineer and streamline the acquisition process...he continually demonstrated an unequaled mastery for leading organizational change by empowering the acquisition workforce to explore better, faster, and more cost-effective ways of doing business.
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> (Remarks by Secretary of Defense William J. Perry as he awarded the Department of Defense Medal for Distinguished Public Service to Dr. Paul G. Kaminski, Pentagon, May 20, 1996.)

Program Manager and the Defense Systems Management College are honored to present to our readers an interview with the acquisition community's most senior leader.

Fox: *We'd like to get a little background on you to start with. Could you tell us a bit about your career and the jobs that you had that led to your current position?*

Kaminski: Certainly. I think really one of the interesting aspects of my background has been to have had the opportunity to serve as a program manager along the way. I had a 20-year career in the Air Force, and 10 years as a founding partner and eventually as CEO of an investment banking and consulting firm, before being appointed to this job. And during that 20-year Air Force career I did manage science and technology programs, but I also had the opportunity to manage the initial phases of a large (and still is a large) and classified space program.

When I worked on this program, I had the opportunity to manage in a highly streamlined, classified environment. I also had the opportunity in other assignments to do a few things in the normal business-as-usual acquisition environment. And the contrasts were very stark.

In one situation, the classified space program, it was up to the program manager pretty much to determine what one wanted to do, including for example, what conditions, what specifications one wanted to impose. Generally, the programs in the classified acquisition environment were very streamlined. In the business-as-usual, unclassified environment, we had a big engineering support organization whose job was to recommend contract data items, specifications, and the like. This put the program manager in the position of having to go on record as opposing the engineering support organization that recommended all the additional data and specification requirements to go on the contracts. It put the program manager in a very tough position, because if something happened on the program, and you had recommended removing these items, the blame would fall on you. However, the risk-rewards were such that most program managers widely accepted the responsibility for making these tough calls. And so at a point early in my career, this risk-rewards system reinforced for me the benefits of a less bureaucratic, more streamlined acquisition environment.

Also, this organization developed some very innovative contracting procedures. Some very creative people gave very careful attention to issues like incentives in contracts.

For example, the performance of our spacecraft was very important to us. We developed an arrangement to incentivize on-orbit performance with a 15-percent fee. Every on-orbit performance parameter that we did not make or failed on-orbit was a penalty against that fee. The innovation in this contract structure was that the 15-percent fee was paid up-front, and then as failures occurred, the CEO of the company wrote a check back to the government to return some of the fee. And I think that communicated a fairly clear message about the need to perform well on the ground before the spacecraft was launched. So people in these small teams were really very creative.

Black: *How comfortable did you feel that the training that you had had as a pro-*

Dr. Paul G. Kaminski

Under Secretary of Defense (Acquisition and Technology)

Dr. Paul G. Kaminski was sworn in as the Under Secretary of Defense (Acquisition and Technology) on Oct. 3, 1994. In this position, he is responsible for all matters relating to Department of Defense acquisition, including research and development, procurement, acquisition reform, advanced technology, atomic energy, economic security, environmental security, dual-use technology, logistics, the Defense technology and industrial base, and military construction.

Kaminski's long and distinguished career includes several key assignments in advanced technology and acquisition. Most recently, he was Chairman and Chief Executive Officer of Technology Strategies and Alliances, a technology-oriented investment banking and consulting firm. He served as Chairman of the Defense Science Board and was also a member of the Defense Policy Board. In addition, he served as a consultant and advisor to a wide variety of government agencies and as a director and trustee of several Defense and technology-oriented companies.

His extensive government experience includes a 20-year career in the Air Force. During 1981-1984, he served as Director for Low Observables Technology, with responsibility for directing the development of Stealth technology. Prior to that, he served as Special Assistant to the Under Secretary of Defense for Research and Engineering. Early in his career, he was responsible for development of inertial and terminal guidance components for the Minuteman missile and other precision-guided missiles. He was also active in development of spacecraft and payload technology.

Kaminski is also a member of the National Academy of Engineering; a senior member of the American Institute of Aeronautics, the Institute for Electrical and Electronic Engineering, and American Association for the Advancement of Science; and a member of Tau Beta Pi, Sigma Xi, and Sigma Gamma Tau Honor Societies. He has authored publications dealing with inertial and terminal guidance system performance, simulation techniques, Kalman filtering, and numerical techniques applied to estimation problems.

Kaminski was born in Cleveland, Ohio. He received a Bachelor of Science from the Air Force Academy; Master of Science degrees in Aeronautics and Astronautics and in Electrical Engineering from Massachusetts Institute of Technology; and a Ph.D. in Aeronautics and Astronautics from Stanford University. He and his wife, Julie, have two children.

gram manager prepared you to evaluate those contracting strategies and the innovation of those things while you were there? Were you totally dependent upon the Department or did you feel comfortable that you had enough higher training and experience that you could kind of agree or modify the acquisition strategy as it was developing?

Kaminski: Dick, that is an interesting question. At that point in my career, I had no formal training in acquisition management. I had technical training, but I had really very little experience as a program manager. So all of my training was obtained in what rubbed off in dealing with other people. I did have peers that I could go and talk to and learn from. A good deal of my learning experience came from interacting with the Aerospace Corporation personnel who were assigned to my small program office. There we had what I would describe as kind of an interesting role reversal in that I had military officers in my program office who were very competent technically, but they did not have a lot of program management experience. The military officers I had in my program office, in some cases, were as competent or were more competent in technical theory than the Aerospace staff since they had recently completed advanced degrees. Many had a great theoretical foundation but did not have a good, pragmatic foundation in program management.

And so the management continuity in those program offices was largely provided by the Aerospace staff—people who had bruised knuckles, who had been through previous programs. And that's where many of my learning experiences came from. So, it was gained with a complete absence of formal training and experience; it was "learn as you go." I started with some smaller contract activities before working up to responsibility for managing a large program.

***Fox**: Picking up on General Black's comment, many of the regulations on complex contracting approaches, incentive contracting, and approaches dealing with the*

relationship between government and industry are put in place because of a fear that the government program manager may not have sufficient experience or training to deal with those things. Now, in your case you were able to surmount that barrier, if you will, and deal with that. How is it that that occurred? Was it due to previous assignments that you had or, as you say, access to Aerospace Corporation?

Kaminski: It was not just access to the Aerospace Corporation. It was other acquisition professionals in the Air Force. I had access to other military officers in the organization. I would also say that in the special-projects environment, there were very substantial incentives for companies to perform. This was an environment that in a sense was like a commercial business environment. If your past performance on a previous effort was poor, you might expect not to receive a solicitation for the next opportunity—something different than the traditional contracting approaches practiced on unclassified programs. So there were real incentives for companies to perform. In some respects, it was an easier environment to manage in.

***Fox**: Given your background in program management, as you look at the job of the program manager today, are there parts of that job that strike you as being particularly challenging in today's environment, or do you not think of it that way?*

Kaminski: In today's environment, I think there is a change. There is a new element that is probably more important, and it is this concept of Cost As an Independent Variable—CAIV. It is a situation in which I think of the program manager as the leader and a generalist who really needs to work with the warfighting user and understand the operational needs. The program manager also needs to be a facilitator in terms of understanding what industry has to offer in bridging that gap between what industry has available, what can be developed and produced at affordable costs, and what the operator really does need. I think of the program manager as being able to span these issues, to be able to get in and mix it up with the operators in terms of understanding what is really driving the requirement so that intelligent compromises can be proposed, and also to understand what is happening technologically and in the industrial base.

And I think that experience of this sort can really only be gained by working with the program for a period of time. In a perfect world, we would have an opportunity to start off with defining concepts to deal with a particular need, seeing those concepts mature, seeing the best concept go through an Engineering and Manufacturing Development program, and then seeing the system produced and deployed.

One of the practical difficulties, however, with that kind of an arrangement is that when the duration of the program is 12 to 15 years, you are not going to see one program manager stay through all those program phases. You are going to end up with three or four program managers over the whole duration of the program. And that is probably one of our greater problems—maintaining continuity through the transition of program managers. I do not think the solution to this problem is making a program manager's tour longer. I do not think that is practical for a whole variety of reasons. I think a better solution to this problem is to make the acquisition cycle time of the program shorter.

***Fox**: As you review the status of defense programs—and you've seen many of them while you've been in this particular job—could you reflect on what makes the difference between an average program manager and an outstanding program manager?*

Kaminski: I think there are several things that make a difference between the average and the outstanding. A very important feature is being objective. It is easy as a program manager to become enthralled with a particular approach, especially as the program environment is changing, and not recognize what is changing in the environment. So there is some need for flexibility, but most importantly, I would describe it as being objective. After looking at all the facts and circumstances, one should be able to arrive at an objective appraisal in the end.

A second very important characteristic, and this one probably will become more important in time, is the ability to communicate. As we work in Integrated Product Teams, the program manager really has a key role to play in dealing with multiple teams and multiple disciplines, and being able to make himself or herself understood. Being able to listen in that environment is very key as well.

Underlying the concept of Integrated Product Teams is that the entire team, whether it be a Working IPT or an Overarching IPT, functions in a way in which that team needs to operate off the same base of facts. That is very important because informed, intelligent people often tend to reach similar conclusions if they are operating off the same base of facts.

The benefits of drawing program managers into IPTs is that the issues are aired earlier. They are aired in a very substantive way. And when the team comes forward with a position, it is a position that's well vetted. I see the program manager as a key catalyst in this process. For this reason, there are probably more demands on communication and interaction with people today than there were in the past. The interaction with the contractor is equally important, but the ability to transcend those two communities is the key role that I see the program manager playing.

***Fox**: Your reference to objectivity is both interesting and understandable. For many years people have referred to the difficulties that program managers experience when they find themselves spending too much time being program advocates and insufficient time playing the objective role*

that you've described. At the same time, people will say, "Show me a program manager who is not an advocate, and I'll show you a program manager who is about to lose his program." I wonder if you have any advice on balancing these perspectives?

Kaminski: I do. In my mind, the order is important. I think advocacy has to come after objectivity. And the program manager has to be a strong advocate for his or her position, but that position cannot stay fixed in time forever. It requires a continuing sense of objectivity to understand where to go and why, and how to go about that. A decided benefit of this IPT process is that it allows for a whole team to really be able to come to these conclusions. Once having arrived at a decision, there is a need for the program manager—as an individual—to be the advocate and to have a team serve that advocacy position.

***Fox**: That certainly makes good sense. In reflecting on the time that you've spent in your current job, would you share with us your views on the types of problems that keep occurring over and over again? What are the most intractable kinds of problems that occur on acquisition programs?*

Kaminski: I am not sure I see one intractable problem. As I review on a monthly, or in fact in some cases a bimonthly basis, our Defense Acquisition Executive Summary or DAES reports, there are a whole number of flags that I look for. And one of the flags that actually appears very often has to do with late or overdue delivery of Test and Evaluation Master Plans or TEMPs. TEMPs are late when there has been some kind of breakdown in communication with the test community. Our relationships with the test and evaluation community, both developmental and operational testers, is an area that I and my senior test officers have been working to improve. We still have some work to do to change our respective cultures. It is the reason why we continue to see symptoms of problems—late test and evaluation plans, overdue test reports, or missed test milestones in programs. There is still inadequate team play between program managers and our testers. On occasion, there is a little bit of a sense of "we" and "they"; that is, the testers are in the role of the "Good Housekeeping Seal of Approval" and not finding themselves embedded in the program. Meanwhile, the program manager is viewing the test community as this outside bunch who, at the end, is going to come in and give the program a grade.

I have a different concept in mind about how the test and program management communities should relate to each other. I have a concept in mind in which the program manager ought to be thinking of the tester as his or her ally. The tester's job, in my opinion, is to work with the program manager to see how we can field the best equipment in the shortest time for the smallest amount of money. The tester needs to be concerned with the cycle time associated with the testing, and with the early use of simulation to understand and illuminate the issues. The tester does have a responsibility in the end for the integrity of the product and does have to fulfill that responsibility, but this can be done in a more integrated way.

This is happening on many programs, but it is not happening on all programs yet. I still see some aspects of "we" and "they" between the acquisition and the test communities. I am really looking to achieve a tighter integration for these two communities. Both are really working on the same problem—trying to field the best equipment in the shortest time.

***Fox**: People in the Under Secretary's job in the past have often referred to surprises that occur in reviewing programs. Is that still a problem, or have surprises become less significant in recent years?*

Kaminski: Surprises are much fewer in number and a lesser problem than they used to be. The IPT process is a very good warning indicator for me. I have had really very few surprises in this job. I have seen red flags going up early in the process we have in place for all of our major programs. Surprises may be more of a problem on smaller programs, but for the major acquisition programs, I see them as greatly reduced in number and significance.

***Fox**: That's good to hear.*

Kaminski: There is one point I would like to go back to. It relates to my own management experiences when I ended up serving for about three years as the Director of the Stealth program. That was a very interesting experience. I had been working for Secretary Perry when he then had my current job as he established the foundation for that program. At that time, I served as his special assistant and advisor for the Stealth program. We saw the huge potential. We launched various pieces of that program, which included fighter aircraft, bomber aircraft, missile programs, and a few other entities as well. And when the administration changed at the end of the Carter Administration, I left the OSD staff and was reassigned to the Air Force, to direct that program. I was a dual-hatted director in that I had responsibility for Air Force programs, but also had the responsibility, and was accountable to OSD, for oversight of the management arrangements for all the low observables programs for all the Services. And while I was not in a direct program management responsibility, I had oversight for all the programs.

There were several important lessons that I learned in that assignment about objectivity. I found that there was not a good set of checks and balances. We had very significant resources available to us. There was tremendous support for the program. And the program was a classified program, so it did not have a lot of outside review.

One of the things I resolved to do early on—that I needed to do for my own conscience and comfort—was to take about one percent of the resources I

had available to me and to set up a very aggressive RED team to see how one might develop countermeasures technology to defeat what we were doing. It helped ensure that we maintained a sense of objectivity and were indeed doing the right thing. It was important to do because we were breaking ground in a whole new field where we did not understand many of the technical underpinnings.

And I think as I look back, we would have run into a lot of problems, had we not chosen the countermeasures work to retain our objectivity. We gained valuable insights by spending one percent of our resources to develop our own system of checks and balances. We gave the best and brightest of the country full exposure to the technologies being developed so they could look at what the countermeasures might be. It was a very important thing for us to do.

The use of IPTs was the second thing done in that program. We did not call them Integrated Product Teams at the time, but our program management arrangements were set up very much on this concept. For example, in programs like the F-117, there was a monthly management meeting in which a handful of people would attend, something less than 10 percent. Each person on the team was empowered. The major program decisions were made at the monthly meetings. Team members did not go home to check with the boss about their organization's position. There was an opportunity to check with the boss beforehand, but at the meeting, participants were empowered to make the decision. The meeting was attended by the government program manager, by the F-117 Lockheed program manager, by the GE engine program manager, by our test director, by the (using) command, by the head of logistics, etc.—a small number of people who could go through all the issues and make a crisp decision.

Now, not every one of those decisions was correct at the time, but I would say it was rare to have a wrong decision last for two months. And the program's activities over the next month would reflect the decisions made at that meeting. It was a very streamlined, very quickly acting system that worked extremely well. It was a very well-run development program.

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And so those are some of the ideas I brought to this job in terms of using IPTs spanning many different functions: training, logistics, force employment, and new concepts.

***Fox**: Those are particularly useful insights for today's program managers.*

***Black**: If I could interject please, during your time there, you were not operating under a PEO structure?*

Kaminski: Right. While we didn't have PEOs at the time, I would describe my job then as the PEO of the Stealth program.

***Black**: And the function you just described while you were the Director of the Stealth sounds just like the responsibility of the PEOs. And they now, at least in current practice, embody some of the objectivity because they are not so much involved in the efficacy of the program and can look across the entire mission area and say, "Oh, I see some other things here that you need to consider," and they have the opportunity to look at a number of different programs in different phases of the program with different contract strategy.*

Kaminski: Yes.

***Black**: That gives them an immense advantage in helping the program manager today. I wondered if you would comment?*

Kaminski: That is a very interesting observation. I didn't think of the job I had then as a PEO's job. But in retrospect, it was very much like a PEO's position because I had major responsibility for resource allocation and deciding if a particular program was not really making it, was not doing what we were needing it to do, then it was time

to redirect resources away from that program. In some senses, I had a lot more authority than a PEO does because I could very often reallocate the resources to another program and not have to deal with an independent comptroller organization that might police up my funds. So in a sense, I actually had more control than a PEO in terms of being able to make those adjustments stick. I had the responsibility to assess the broader issues, which is what I am looking for from a PEO—to look at a mission area and to provide objective appraisals of how are we proceeding on various solutions, to develop alternative solutions, and to identify what adjustments should be made.

***Black**: The other point was that you said that a mistake didn't last more than a couple of months. And I think that's absolutely insightful in that I heard a comment yesterday about a master craftsman is a guy who is a professional, but the things that distinguish him from the amateur is that he can find his mistakes sooner and correct them at much less expense.*

And I thought, "How appropriate to what we do in the defense business." We're not perfect. We're not in a zero-defect environment. But when we find a mistake, we can get it corrected earlier if we have this openness—that distinguishes the difference.

Kaminski: I want to share with you a particular example. There is a sense that these special access programs end up being perfect programs that never have any problems. These programs do have many advantages.

One advantage is that test results typically are not made public very early on. And when a program manager is not concerned about the risk of early exposure of problems, the program manager will lean forward to find out what the problems are earlier in the program's development cycle. So we had a very aggressive test program that found problems very early on and gave us a path to solutions.

In a situation where the program manager is really very concerned about a program, the tendency very often is to wait and do tests until you are very sure you are going to pass. The problem is you are not illuminating all the potential problems at an early stage of the program.

In the case of the F-117 Stealth fighter, we stumbled onto a very serious problem very early in the program. For some unexplained reason, we had some badly calibrated wind tunnel data, and the airplane had some unaccounted for stability problems. There was insufficient surface area in the vertical stabilizers of the aircraft; and there is a well-known coefficient in aerodynamics associated with the restoring force due to a yaw displacement that was off by a large amount, by a factor of at least two. As a consequence, the aircraft did not have adequate control authority. The straightforward solution was to increase the area of the vertical stabilizers to get the required directional stability. To generate the right amount of restoring force, we would have had to double the area of the vertical stabilizers. But the aft structure of the airplane would not take that load. And so we were left with a real problem of what to do.

The Integrated Product Teams went to work with the contractor, our engineering and program management staff, and a very key feature here, the using command—the command that was going to use that airplane—and we went through a very quick set of trades. I think the whole process took less than three months. We looked at all the options available to us and came up with a very good alternative, one where we made only minor modifications to the aft structure, and increased the vertical stabilizer area by about 50 percent. We could carry these loads. Then we put a limiter in the airplane to prevent it from going into a flight condition where it would have trouble. This would occur at high angles of attack when you had to command high roll rates. This was an airplane that did not need that kind of maneuver capability. We worked that through very carefully using modeling and simulation, and including the using command fully in the decision process.

And so it was a very good closed process. It would have been very hard to undertake that kind of design change without major cost and schedule disruption in our typical programs.

***Fox**: It sounds as though you were operating in an environment where the incentives rewarded objectivity. I suspect that the trick will be finding ways to translate those kind of incentives into programs that are not highly classified.*

Kaminski: That is one of the things that I have tried to bring to this job, and implement throughout our whole acquisition system. There was a culture established in those programs in which program managers were willing to take prudent risks. As I said, not every decision at every one of those monthly meetings was correct but very rarely did we go for two months where the impact of a bad decision was evident and we did not take corrective action. In that environment, most people were quick to catch their own errors. If they were not willing to be objective and catch their own errors, let me assure you there were members of the team who were willing to point those out so that they could be objectively discussed.

So the idea of having a good closed-loop process, one where problems could be owned and dealt with objectively by a team, is the kind of environment I have been trying to foster. And I think the IPTs have been constructive in bringing this arrangement about.

I would point out that one of the reasons why these classified programs retained strong support in the Congress is that when we had a problem, we would discuss those problems with the Congress so that they heard about them from us first, and understood what path we were pursuing to solve them. And I think it comes back again to those principles of objectivity and

communication. I have been trying to instill a culture that rewards the kind of behavior in which people are willing to raise problems, get advice on solving them, and then proceed to implement a solution that a team came to and could go off and implement.

***Fox**: That makes so much sense in terms of dealing with the persistent problems that have plagued the Pentagon for many years.*

If we could stay on the topic of your own background and your own experience as a program manager for a moment, you've cited several observations that I think our readers will find very useful in terms of applying those lessons to their own activities.

Could you reflect on whether there are other lessons learned or other observations that you could share that may be helpful to today's program managers?

Kaminski: One that I would share is that the environment we are in today has changed significantly over the environment that I was operating in for a key reason: There is much more available to us today from the commercial sector that can impact our programs.

I, frankly, did not pay much attention to what was going on in the commercial sector during my Air Force career. I was very narrowly channeled into the defense industry base. I do not think our program managers in most cases can afford to be that narrowly channeled today. I think they have to be more aware of what is happening in the commercial world, if not for the systems they are acquiring then for the systems that they plug into for program management support, and the information architectures and structures supporting these systems. Almost invariably, there are commercial subsystems or some commercial business practices that support their operation. And this is a place where I think we still have some deficiencies in our acquisition training and preparation.

I think we are doing good work to expose program managers to defense acquisition management principles and practices. We probably are not doing enough to expose them to what is happening in the commercial world or to give them adequate incentives to operate in that domain.

I think we are doing good work to expose program managers to defense acquisition management principles and practices. We probably are not doing enough to expose them to what is happening in the commercial world or to give them adequate incentives to operate in that domain.

I believe one of the things we have to start doing as a Department is thinking more about how we might rotate some of our personnel to give them some direct exposure to commercial industry and commercial practice. We need to be creating a path for some of our people to go out in the commercial industry, and creating a better path for people in commercial industry to come serve in the Department. We need more of a cross-flow. Much of the revolving-door legislation that we have in place today is a counter-incentive for doing that. I think it would be healthy for us as a Department to do more rotation of our personnel.

***Fox**: That makes sense as well.*

Kaminski: That is one of the things that has made DARPA so successful through the years—a heavy rotation of personnel. In fact, Larry Lynn has instituted a policy which limits the amount of time people can serve at DARPA. The limit is five years—after that, a waiver is required to stay in the organization. That kind of rotation and movement is very healthy.

It is one of the reasons why a program manager should not stay with the program forever. I think four years or so in a program management assignment is fine. It is time to broaden and get a better base of experience. To the extent that we can make key phases of the program go down to four years or less, it will be a much more rewarding experience as well.

***Fox**: Your reference to the PATs or Process Action Teams reminds me that it was about two years ago that your office chartered General Caldwell's Process Action Team on Reengineering the Acquisition Oversight and Review Process. Can you give us any observations on the results of that study? Were you pleased with that*

study, and were the results of that study fed into the acquisition initiatives that have been implemented by your office?

Kaminski: Yes. I was pleased by that PAT report. I think it was a very constructive study in that it pushed far enough to get beyond the comfort zone of some of the people supervising our acquisition system. And so it tested some people on the boundaries of how far could we go to reengineer the system. To me, that was the first prerequisite for what we wanted in that kind of an effort—to remove all existing constraints and have a fresh look.

In some cases, it went beyond where I or the Department were prepared to go on some issues. We had a very constructive interaction with the process action team, individually and collectively in that process.

I attribute to the PAT team many of the good ideas we are now implementing, such as the WIPT-OIPT process I have just described. If you go back and look at that PAT report, you will find those IPT principles were embodied very strongly in the report, and they resonated very much with me personally for the reasons that I just described.

At the time we were doing it, as I said, I had not hung the "Integrated Product Team" label on what we are doing. But I recognized the prescription when I saw it in the PAT report. And I associated what was being recommended with the very practices I had been involved in. So that resonated with me very strongly, and I picked up and pushed on those very hard.

But General Caldwell's PAT had a whole number of other recommendations. The preponderance of what was recommended was accepted, and I think most of those have been very effectively put into practice.

***Fox**: As you reflect on the initiatives that your office has pioneered in acquisition reform, looking at where we are today, and where we're going from here, what would you cite as the major improvements yet to be achieved in acquisition reform? Where should people look in the future?*

Kaminski: There are two or three that I would point out. Probably the biggest one is really being serious about addressing life-cycle cost. That is an area that I think we still talk about today, but I do not think we have followed through with serious initiatives. I still do not believe we have sufficient incentives put in place for most program managers to seriously consider the life-cycle cost of their program and do things during the EMD or production phase of the program that reduce life-cycle cost. The incentives still are too much in the direction of saving near-year monies, and that support costs will be somebody else's problem in the out-years. But as a Department, that is a very important issue.

We will not begin to solve that problem until we fix two components that are currently still broken. One of those components is having adequate visibility into what the life cycle costs are or will be. We do not, across the Department, have good data, a good base of O&M cost information to provide the program manager. And then the second issue is once we have the O&M cost data, we really need better incentives for program managers to use that data.

We have started a few budget initiatives to begin dealing with the incentives problem. I was personally involved in the '97 budget submission to set up a small capital fund, a $90 million capital fund out of the DBOF account, to fund reliability and maintainability improvements for current systems. The objective is to try to jump start the system by providing pilot funds which could be made available to program managers who make proposals that would give us a healthy return on investment. The proposals would compete on the basis of the return on investment. This would be a self-sustaining source of funds that within a four-year period, would have begun to pay for itself.

I will continue to push on this in a big way because this is another area that I would say we have talked about a lot, but we still have not done an awful lot about it.

Another issue that I would highlight—this is one we had made some progress on but I still think we have more work to do—and that is the issue of Cost As an Independent Variable, or CAIV. We are really sitting down and having an interchange with the operational users on the trades associated with requirements and the ultimate cost of the system. And I would say we have made progress here anecdotally—as opposed to systematically—across the whole Department.

I would give you some examples where I think we have done a good job there. One that comes to mind is the Army's SMART-T program. This is a tactical communications terminal that connects with the MILSTAR satellite system. When this program was first initiated, the program was estimated to cost around $790 million. And as a combination of exercising some smart procurement and competitive strategies plus looking at the requirements in a true CAIV sense, this $790 million system turned into a $250 million system, and it will adequately perform the mission.

Now, across the Department, I see this being done on an anecdotal basis or at the margins. I do not see us as fully engaged yet as we could be. And I especially do not see us fully engaged in CAIV trades where the "C" stands for not just acquisition cost, but life-cycle cost.

***Fox**: It's interesting that two of the innovations that you cite as needing to be made both deal with cost. When studies are made of program management offices and program managers are interviewed and they're asked, "What area would you wish you had greater strength in your program management office," almost invariably the leading comments have to do with the areas of cost analysis and financial management.*

Do you see any opportunities for strengthening that aspect of a program manager's office? I sense that there's often a feeling of less than full security in dealing with those kinds of problems as they arise.

Kaminski: We are making some progress in that arena. One of the key measures of progress is getting the program manager and the contractor on the same cost tracking system. When you have government and industry managers operating off the same set of data, the problems are displayed earlier. I think we run into more problems when we try to set up artificial arrangements to track costs.

One of the difficult problems we are still dealing with today is the unmatched disbursements problem–this inability of DFAS to pay our suppliers when a 30-digit code cannot be appropriately entered. Actually, the acquisition community has brought this problem on itself. We have shot ourselves in the foot on this because one of the things we did was set up multiple accounts, these so-called ACRN numbers that go with the contract. And each ACRN number has to be matched for a particular payment. And I think one of the reasons these multiple ACRN accounts got set up was so program managers could track where their funding was going on what aspect of a problem.

So a key contributor to our problem is an internal management arrangement that was set up in some cases by program or financial managers to be able to track funds without anticipating the problem that was going to result when a DFAS office had to certify the payment voucher with an ACRN against a particular contract and match those two up. And when one digit does not match, the invoice does not get paid.

***Fox**: On several occasions during our discussion you've referred to the importance of incentives and the need to change some incentives for the program manager. It is a very difficult area to get at. Do you see some progress being made in terms of creating better incentives?*

Kaminski: I see some progress. I do not think we are making enough progress yet. Let me give you some examples of the kind of incentives I would have in mind. For example, a program to deal with reducing life cycle costs, a reliability and maintainability improvement program, for example. If the system operates in a way so that a Service or a PEO or a program manager has to put up funds today to make that improvement, and then when the out-year savings are realized those funds are swept up by the financial community or elsewhere and those funds are not available to the program or to the Service, then you have to ask yourself, "Why do that? Why take this risk of investing up-front dollars and not be able to realize any benefit downstream?" So even if 20 percent of those savings in the out-years were made available back to the Service or to the PEO, that would create the kind of environment for people to be willing to take a little risk.

I cannot help but wonder where the incentives are in the system for the producer to reduce the unit price when that is simply going to result in less revenue.

A similar initiative I began is something I call the "Buy To The Dollars Rather Than To The Numbers." There is a case where we, in fact, implemented this with a particular system buy. And the idea was if the production cost could be reduced, we would buy the same number of dollars worth of the article as we still had room in our stocks to fill rather than buying to the original quantity. The incentive would then be to reduce the cost. We would buy out the inventory faster by buying a larger number of missiles at the same total cost. I cannot help but wonder where the incentives are in the system for the producer to reduce the unit price when that is simply going to result in less revenue.

***Fox**: That's right. And that's a difficult incentive to try to change.*

Kaminski: Yes. And it is hard to change this incentive because the financial management of the Department understandably does not want to spend any more money this year than it has to, so sometimes the issues were not at odds. That is why it is hard to change. It sometimes takes a long-term view vice a short-term view.

***Fox**: In several of your speeches, you've mentioned a quote that you've attributed to Winston Churchill, "...We are now at the end of the beginning." Could you explain the philosophy behind that remark?*

Kaminski: Yes. The philosophy behind it is what has happened thus far in ac-

quisition reform. We now have two good pieces of legislation (FASA and FARA); a new 5000 series; a set of principles enunciated from the top down; and there is now a whole foundation in place for acquisition reform.

And there are good, although anecdotal, examples of this foundation actually being propagated in the field for our major programs. But I see this as a "wave" that has been launched, and now our task ahead is to propagate this wave through our entire system.

It is already propagating to our major defense acquisition programs; I can see that. My measure here, Ron, is not policy announcements or pronouncements from my office or from the SAEs or even one step down. My measure of effectiveness is what is actually happening in the field in the contracts that we are issuing. And I can see that this wave is propagating through today on our major defense acquisition programs.

It is propagating less so in our smaller programs. It is propagating even less in our base procurement system. And it has also not propagated very well yet into our depot procurement systems. So our mission, as I see it, is to start from this "end of the beginning" and push this wave all through the rest of the system. This wave has been launched, and I think it is moving well, and I think it is likely to continue independent of the leadership here because I do see ownership in the field. I see enough field involvement and participation to create some user pull as well. But there are a lot of people in the system. There is a lot of culture involved in the system, and changing culture is a hard process; it takes time.

***Fox**: You're doing very useful things for the defense community. I wish you continuing success.*

Kaminski: The real credit should go to a very fine, a very dedicated, and very professional acquisition workforce. I would like to thank them very much.

Tuition Assistance Available for Acquisition Workforce Civilians!

Under the auspices of the Acquisition Education, Training, and Career Development Program, each military department has a special tuition assistance program for civilian members of the acquisition workforce. The defense agencies and other components outside the military departments also set aside funds for the same purpose. Funding is limited, and no one is entitled to receive assistance, but if you are in the acquisition workforce (or want to qualify), you can apply.

Authorized by the Defense Acquisition Workforce Improvement Act (DAWIA), the acquisition workforce tuition-assistance program is designed especially to support employees who take one or two undergraduate or graduate courses for credit at a college near where they work and live. Generally, employees take the courses on their own time, but local commands can authorize attendance during duty hours. DoD-wide, during FY 1993, 6,068 civilian members of the acquisition workforce participated in the program.

The DAWIA sets certain educational standards, and the tuition-assistance program is intended to help employees meet them. The standards are (1) a baccalaureate degree to qualify for membership in an Acquisition Corps or to be in the contracting occupation (i.e., GS-1102 and warranted contracting officers in other occupations); and (2) 24 semester credit hours in specified management disciplines (12 credits if you have 24 credits in your acquisition career field, e.g., engineering). The "specified disciplines" are accounting, business finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, and organization and management. If you need to work on the degree, it should be in a field related to acquisition, such as a science, engineering or technical subject, business, or management. Any course in any subject that meets a college requirement relating to that degree can be funded by this program.

The scope of the program is a bit broader than indicated by the preceding paragraph, and there is a system of priorities for dealing with funding limitations. For example, DoD policy for members of the test and evaluation acquisition workforce makes a master's degree in engineering a "desirable" qualification, so tuition for courses toward such a degree could be supported by this program. However, priority would be lower than, say, for courses mandatory by statute, so getting support would depend on availability of funding.

To apply, contact your civilian personnel office or training coordinator. Ask about the acquisition workforce tuition-reimbursement program. The program may be known by different names in different organizations.