

Arthur K. Cebrowski on Transformation of Defense

By anticipating evolution in social, threat and technological landscapes, the Office of Force Transformation makes changes before they're needed.

Arthur K. Cebrowski was appointed by the Secretary of Defense as Director, Force Transformation effective 29 October 2001, reporting directly to the Secretary and Deputy Secretary of Defense. He is a 1964 graduate of Villanova University, holds a Masters Degree in Computer Systems Management from the Naval Post Graduate School and attended the Naval War College. He has combat experience in Vietnam and Desert Storm. His Joint assignments included service as the Director, Command, Control, Communications and Computers (J-6), Joint Staff. Admiral Cebrowski retired from the Navy in 2001 with more than 37 years of service, after serving as the President of the Naval War College in Newport, Rhode Island.

UBIQUITY: Tell us about the Office of Force Transformation.

CEBROWSKI: Secretary Donald Rumsfeld created the Office in response to the President having made the transformation of defense a priority. Not surprisingly, it was also very high up on the Secretary's priority list. The office was created shortly after Sept. 11, 2001. At that time there was some concern that the transformation of the Department of Defense would have to wait for the more pressing global war on terrorism. The Secretary's approach was quite the opposite. It was that the Department had to transform in order to win and that delaying transformation would reduce our capability to cope with the challenges.

UBIQUITY: How would you describe transformation in terms of specific goals? For example, transform from what to what?

CEBROWSKI: First of all, transformation is a continuing process and consequently you cannot say exactly what it is you're transforming to. It's a journey. We read the changed strategic, threat, technological and social landscapes, and then make determinations about the directions that the force has to go. In transformation we look at anticipating or even creating the future. We look at new sources of power. We look at new rules that govern the enterprise. We look at the co-evolution of technologies, organization and processes. The word co-evolution is key, because when you change one of these three factors the others should

change. Indeed they must change. An approach that says well, I will merely insert this technology or I will make this organizational change and hold everything else constant doesn't work.

UBIQUITY: Can you give an example of that particular point?

CEBROWSKI: One of the most stunning examples is that several years ago some people in government laboratories thought that we could compete on the basis of how well we could navigate and tell time and that rather than telling time by the stars we could create artificial stars. This of course came to be known as the Global Positioning System or GPS. The advent of this technology changed the character of warfare. It facilitated the movement from daylight operations to 24-hour operations. It significantly enhanced precision and it increased the speed of conflict. Just about every aspect of the organization changed by virtue of introducing this technology. This of course went on to change society. All nations of the world to varying degrees use GPS. We use it in many civil undertakings. For example, our regular aircraft routing now is done by virtue of GPS. You can see how by starting there you can essentially create a new future that was not possible until now.

UBIQUITY: When these changes cascade through the various dimensions of service or services, do all the organizational parts seem to get on the program easily or with difficulty?

CEBROWSKI: There are varying degrees of difficulty depending on what it is you're trying to initiate, but also depending on what one's approach is. For example, the easiest thing to change is technologies. Technologies are morally neutral. It's when you get into organizations and processes that you start more directly touching human behavior and get into the value structure of the organization. It is easiest to lead a change with technology and then essentially back into the organizational and process changes rather than lead with the organizational and process changes and then go after the technological implications of that.

UBIQUITY: What is one of the more challenging transformations that you're working on?

CEBROWSKI: For example, the transformation of intelligence. The key change is that we're moving away from the concept of information ownership into one of information sharing and yet security must be maintained. In the course of this process change we realized that we're not particularly well organized for this and so we're looking at the organization of intelligence

networks. By virtue of that, one can reach for new information technologies that would facilitate these changes. This is a case where you essentially lead with process and organization and then reach for the technologies.

UBIQUITY: Have you stumbled across any dire or unintended consequences as you pursue change?

CEBROWSKI: No. One of the reasons why we tend not to be broadly surprised is because we assess the forces that are compelling the change. For example, several years ago when we articulated network-centric warfare, we drew from society at large and looked at the forces that were at play not so much in the world of information technology, but in how the values, attitudes and beliefs of society were changing, and at how human behavior changed when humans were put in the network environment. Then we made some judgments about the inevitability, or immutability if you will, of these pressures and then from that proceeded to craft the theory. That has largely unfolded as we hoped it might.

UBIQUITY: Has the net-centric approach to things impacted the notion of command-and-control in any way?

CEBROWSKI: Absolutely. For example, we've seen a profound compression of time to plan very complex operations -- ones that would frequently take months to plan. The planning window is reduced to days and at the same time we're finding a high degree of simultaneity at various echelons so that instead of planning being sequential by echelons -- higher echelon first then next echelon followed by a third echelon -- we're getting both horizontal and vertical collaboration that results in higher quality plans in far shorter time.

UBIQUITY: Obviously there are differences about the military from civilian life. Do those differences matter positively or negatively in terms of transformation? Is it easier to get a transformation in the military?

CEBROWSKI: I think that it's easier in the military, even though the organization is much larger, which of course is a problem. This kind of work doesn't necessarily scale. A very small firm can be very agile just by virtue of the fact that it is quite small. We have to draw out the implications of scale from your question.

UBIQUITY: OK. Separate out implications of scale and compare it to a very, very large enterprise.

CEBROWSKI: We're helped in the way that a transformation effort that starts in a smaller part of the enterprise will spread because we're highly competitive people. Also our officer corps is very well educated. We're almost certainly better educated on average say than the officer corps in a typical civilian firm. So by virtue of the competitiveness and the degree of sophistication, there tends to be an outreaching across lines for good ideas.

UBIQUITY: Is that surprising to people? Do they assume that the military is slow to change?

CEBROWSKI: I remember at one point we were interviewing a number of successful CEOs and one of our group asked, "How are the civilian firms so much more agile and change so much more quickly than we can in the military?" The CEO's pushed back on the question and said, "You have it wrong. We're trying to be like you. ... Look at what the military can do. A need develops and in a matter of hours or within days you cobble together a completely new organization tasked in a completely different way. You pull together the physical plant, the transportation, the plans and support and go off and execute, whether it's for weeks or years, and then reform the enterprise in a completely different way over again. ... You do this day in and day out in the military. That's extraordinarily difficult for firms to do." So that's their opinion of our agility or at least what they've told us. Perhaps what I'm saying is that the grass is always greener on the other side. I'm sure that both sides have their advantage.

UBIQUITY: Is there a sense of urgency behind your mission?

CEBROWSKI: The thing that we cannot tolerate is the burning platform approach to transformation. That is the approach that says the firm's going to die if we don't transform. We cannot allow the state of our institution to reach that point. We must make the changes in advance of need.

UBIQUITY: Tell me about your own group.

CEBROWSKI: We're in an office within the Office of the Secretary of Defense. I report directly to the Secretary and the Deputy Secretary. The title of our office is something of misnomer, because we really don't direct Force Transformation. The actual direction of the transformation

of enterprise must be held firmly in the hands of the senior leader, in this case the Secretary of Defense himself. Our office works at what we call the "intersection of unarticulated needs and non-consensual change."

UBIQUITY: Explain.

CEBROWSKI: We look for critically important areas that are very expensive and very difficult where the institution has not yet articulated its need. In other words, there is no obvious market pressure for it and there is no consensus on an appropriate way to deal with this need and so we work ahead of policy.

UBIQUITY: Talk about a case where you identified a critical need and worked ahead of policy.

CEBROWSKI: One of the cases that we've worked on quite successfully was that we identified within the Department a need for a new business model for space: an entirely new approach, new competitive attributes, new sources of power, and new ways to exploit the power of space and the institution. The institution was perfectly happy with the business model at that time. Furthermore the institution was happy with the technical approach and so we certainly did not have consensus on technical approach either. So we decided to run an operational experiment in which we exercised this new business model. Once the institution saw how we were doing it, suddenly they realized they'd like to have some of that as well. We consider that one of our great successes because the institution is beginning to embrace the additional business model for space. It's not that they'll walk away from their previous business model but rather that they're open to adding this approach.

UBIQUITY: What does this mean for the institution?

CEBROWSKI: What that means is that we have a broadened business capability and we also have a broadened operational capability and that also implies a broader technical base. From that point of view then if you look at our office we are a think-and-do tank. We are not just a think tank. We don't just do in-house consulting. We also create experimental opportunities and form a larger team to participate in these experiments.

UBIQUITY: Describe your own organization. Who's on it? What kind of people do you have?

CEBROWSKI: We have a mixture of civilian and military people. We have 11 officers and they are all highly experienced. We also have a small staff of professional civilians. The military people come and go, bringing their experiences from the field and then returning, in other words, keeping ideas from the customer base fresh. Our civilian workforce provides stability over time. We try to keep the staff small. We realize that there's power in keeping it small because of flexibility and agility. When it comes time to craft a project we contract in the needed help to create the project team.

UBIQUITY: Are we talking about all services or just Navy?

CEBROWSKI: We're all services. We have three Navy, three Army, three Air Force and two Marine. We also keep the lines of communication open to Department of Homeland Security to include the Coast Guard, the CIA and whatever agencies of government might provide a useful and appropriate team effort.

UBIQUITY: Do you coordinate or share your ideas with other agencies?

CEBROWSKI: Yes. For example, we're looking right now at a project for a sophisticated urban fighting vehicle designed for complex environments. Environments where it's difficult to tell a friend from an enemy, and where there's tremendous concerns about collateral damage, such as in Iraq. While we were doing this we also became aware of its potential application to law enforcement and border patrol and so right now we're taking a fresh look at that project. We recognize that just because we might happen to get a good idea it doesn't mean it has to be confined to our Department and similarly we're willing to reach out to anyone for a good idea. We're not so arrogant as to think that we have the corner on good ideas. We certainly don't. In fact we borrow shamelessly from others.

UBIQUITY: Good for you. It sounds like a fun place to work.

CEBROWSKI: It is. It is the kind of place where you cannot tell this week what you're going to be doing next week. We're highly opportunistic. Last year we had a very exciting event, a magnificent elderly fellow essentially walked in with a bold new design for high-speed craft that might be appropriate to Naval Special Forces. Right on the spur of the moment we dropped everything and created a project for it.

UBIQUITY: That's a nice place to end the interview. Do you have a recruiting pitch for the services?

CEBROWSKI: This of course is an easy thing to do. Speaking of recruiting, it's important to note that right now all of the services are making their recruiting goals. So while the pundits said, "Once the military gets dressed and people are shot at as we're trying to slog our way through this business in Iraq, morale will fall and people will become discouraged," actually, we found it to be just the opposite. Units that have been engaged in the toughest situations overseas have the highest retention rates. It's easy to recruit people for such units. Soldiers, sailors, airmen and marines like to be doing what they think they're meant to be doing and so when they're off doing the nation's business throughout the world that is a great motivator to them. They rise to the occasion and it's really a tribute to the team effort.

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