

Dr. Paul Wolfowitz became the twenty-eighth Deputy Secretary of Defense on 2 March 2001. For the previous seven years, he was dean and professor of international relations at the Paul H. Nitze School of Advanced International Studies of the Johns Hopkins University. From 1989 to 1993, Dr. Wolfowitz served as Under Secretary of Defense for Policy with major responsibilities for the reshaping of strategy and force posture at the end of the Cold War. For three years during the Reagan administration, he was U.S. ambassador to Indonesia. Prior to that posting, Dr. Wolfowitz's government service also included tours as Assistant Secretary of State for East Asian and Pacific Affairs, head of the State Department's Policy Planning Staff, Deputy Assistant Secretary of Defense for Regional Programs, in the Arms Control and Disarmament Agency, and as a management intern at the Bureau of the Budget.

Dr. Wolfowitz received a bachelor of science degree from Cornell University in mathematics and a doctorate in political science from the University of Chicago, and has taught at Yale and Johns Hopkins. In 1993 he was the George F. Kennan Professor of National Security Strategy at the National War College. He has written widely on the subject of national strategy and foreign policy and has been a member of numerous advisory boards, including those of the journals Foreign Affairs and National Interest.

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“THE GREATEST DEEDS ARE YET TO BE DONE”

The Honorable Paul Wolfowitz

It is customary in commencement speeches to say something about the dynamic world that graduates are about to enter and how that change is going to affect their lives. But that traditional message does not work on this occasion, with this audience. You are graduating, but you are certainly not commencing. “To commence,” after all, is “to begin.” When you return to your fleet or to your units you will not be beginning a brand-new career. You will be going back to the noble profession to which you have chosen to dedicate your lives. But you will be going back enriched by what you have learned here and by what you will continue to learn with the tools that you have acquired here.

There have been dramatic changes in the world during your year at the Naval War College, particularly in the world of the military. You will be going back to operational assignments having had a chance to study those developments from a critical perspective. Your study here has prepared you to bring fresh ideas to the dynamic process of innovation that is under way in our military today.

One of the most significant elements that you observed was the battle of Iraq. I expect that, like the rest of the country, you were glued to televisions for much of March and April. The battlefield—or what we should more correctly call “the battle space”—is the ultimate classroom for your profession, and we are still learning the lessons from those crucial weeks. But some of those lessons are already obvious, and they indicate lasting changes in the way the U.S. armed forces will operate in the future.

Some of the changes that led to these lessons have been in the works for quite a long time. I am sure that many of you have contributed to those changes. But in the last year the whole world has had a chance—thanks in part to yet another

innovation, the concept of embedded reporters—to see what they are, and the effect has been dramatic.

The first has been the application of new networking and communications technologies, which have taken the integration of air and ground forces to an entirely new level and have given our soldiers and Marines on the ground nearly instantaneous access to precision air support. The presence of those brave soldiers and Marines in turn enabled our long-range striking power to find targets with precision. That too represents a quantum leap. Precision weapons are only good if you have precision targeting; we can now combine the two in dramatic new ways.

That new capability, in turn, enabled our ground forces to advance at an astonishing speed over distances far exceeding those of DESERT STORM. It also made possible the use of Special Forces on a scale that would have been difficult to conceive of in the past. More than a hundred Special Forces “A teams” were deployed throughout Iraq in this conflict. That in turn led to the disappearance of a “front” in the traditional sense, to be replaced by the concept of battle space.

We also saw some remarkable organizational innovations. Who would have imagined a conventional tank unit under the command of a Special Forces lieutenant colonel? Or the first-ever combined forces land component commander, integrating Army, Marine Corps, and coalition forces in a single, brilliant land combat campaign?

We saw revolutionary application of new technologies, such as unmanned aerial vehicles and hit-to-kill antimissile systems. So the question is not whether you in the audience today will adapt to these changes. I have no doubt that you will. You are professionals. The real question is whether the organizations that we work in will adapt as well.

But adapt they must. The world has changed, both technologically and politically. The armed forces that many of you joined were organized to fight an enemy that no longer exists, along boundaries that were fixed and identifiable. Our enemy today does not have those attributes. He is elusive and often invisible. He uses unconventional weapons against unconventional targets, including the American heartland. The conflict is, in a word, asymmetric, and we must be able to respond in kind.

The battle in Iraq—like the battle in Afghanistan before it—is a dramatic victory in the war on terrorism. In the last year there have also been important silent victories, achieved by extraordinary international cooperation among intelligence, law enforcement, and military authorities of dozens of countries. These combined efforts have killed and captured terrorists, among them the mastermind of the 11 September attacks, Khalid Shaykh Mohammad. But these victories are just battles in the larger war on terrorism. As President Bush said in

announcing the end of major combat operations in Iraq, “The battle of Iraq is one victory in a war on terror that began on September the 11th, 2001—and still goes on.”

Our purpose is not to “manage” terrorism or simply to arrest and prosecute terrorists after they have attacked us. Our goal is to destroy and delegitimize terrorism the way slavery and piracy were delegitimized in the nineteenth century.

The global war on terrorism needs to be understood as a two-front war. The first and most obvious front is the effort to kill and capture terrorists and to dismantle terrorist networks. That is not just a military operation; it is an effort that requires all the instruments of national power, including intelligence, law enforcement, and diplomacy. We are making important headway every single day. The enemy is on the run. We are destroying his bases of operation, his organization, his sources of funds, his ability to move and communicate, and his ability to strike. That is the first front in the war on terrorism. In the command and staff positions you will be assuming shortly, you will be on the front lines of that war. Let there be no doubt, we will win this war.

As the president has said, “We do not know the day of final victory but we have seen the turning of the tide. No act of the terrorists will change our purpose, or weaken our resolve, or alter their fate. Their cause is lost. Free nations will press on to victory.” We will win in part because our military is the best-equipped, best-trained, best-led fighting force on earth, and we have the support of dozens of other freedom-loving nations that are part of our coalition—many of them represented here today. When we engage militarily, the outcome is certain.

But there is a second front in the global war on terror—the challenge to build what President Bush has called “a just and peaceful world beyond the war on terror,” particularly in the Muslim world. That means helping a liberated Iraq to become the free and democratic country that it can be. It means resolving the Arab-Israeli conflict. Winning the peace is an even greater challenge than winning the war.

But even as the war on terrorism continues to consume our time and attention, it is vital that we also continue transformation, the initial effects of which were demonstrated so dramatically in the battle in Iraq. We need to sustain that effort not only to win the war on terror but to deter the wars of the future, or if necessary, fight them successfully. The American military has an extraordinary history of innovation in time of war. Some might even say that we are more innovative under the stress of war than in the leisure of peace. We should use the urgency of the present war on terror to continue transforming our military not only to win this war but to be prepared to win, or—even better, to prevent—the next one.

Needless to say, transformation means profound change. Not only technological change. Not even primarily technological change. The changes enabled by new networking and information technology take the potential of joint operations to a dramatically new and unprecedented level. And that is more than a mechanical change. It requires a change in the way we think and the way we organize. It is properly described as a *cultural* change. If we are going to depend on one another in wartime, we must forge the bonds of trust in peacetime. That means our training has to become increasingly joint as well.

With that thought in mind, we are developing a joint national training capability to create a distributed, global environment in which individuals and units will receive training and experience in joint operations at the strategic, operational, and tactical levels. It should include a live training component that connects live training exercises and allows the best practices to circulate among the services. It should also include a virtual capability to link service training centers. We want to increase the amount of joint field training that our forces receive, because we need to train like we fight, as a coherently integrated team. All of that requires what Secretary of Defense Donald Rumsfeld has called a culture of “innovation and intelligent risk taking.”

Someone once remarked on the huge number of failures that Thomas Alva Edison had suffered in his efforts to develop a new battery. “Some fifty thousand failed experiments,” this observer said, “with no results.” “Results?” Edison replied. “Why, I’ve gotten a lot of results. I know fifty thousand things that don’t work.”

I am sure I do not need to tell this audience that military organizations, for all of their outstanding attributes, are not always the most welcoming of change. That great American inventor Robert Fulton, best known for his invention of a successful steamboat, was contracted by a foreign government to try to build a submarine. After an embarrassing trial of the design he produced, an admiral from that foreign navy snorted, “Thank God we still fight our battles above the waves and not beneath them.”

Well, we have to be prepared for change. In the interest of jointness let me tell a story on the Army—our Army. It is a story of an infantry officer who, here in the United States in the 1930s, began to write about the future of armored warfare. Instead of receiving support, he was chastised by his commander, who told him that if he published anything that was contrary to what was called “solid infantry doctrine,” he would be court-martialed. That soldier so interested in the future of armored warfare who was so nearly retired as a colonel was Dwight David Eisenhower. It took the intervention of General John J. Pershing’s chief of staff to save his career.

The rest, as they say, is history.

In one sense, of course, the successful organization is right to question too much innovation. There is an old proverb that says, “If it ain’t broke, don’t fix it.” Given the high stakes that attach to military decisions, there are good reasons to be conservative about risk taking. But there is another side to the same story. Professor Clayton Christensen of the Harvard Business School has pointed out in his book *The Innovator’s Dilemma* that the most successful companies—the ones that seem to have done everything right—have been the most vulnerable when disruptive innovations come along. As he put it, “The very decision-making and resource-allocation processes that are key to the success of established companies are the very processes that reject disruptive technologies.”*

Today one of our fundamental challenges is to encourage prospective Eisenhoweres, to inspire each of you to think about the war of the future. During my present tour at the Pentagon, I have been privileged to know some remarkable innovators—and I am sure there are many in this audience today as well. The commander of Central Command, General Tommy Franks, is a great example. In Operation ENDURING FREEDOM in Afghanistan, for example, Special Forces on the ground took nineteenth-century horse cavalry, combined it with fifty-year-old B-52 bombers, and, using modern satellite communications, produced a truly twenty-first-century capability. When Secretary Rumsfeld was asked what he had in mind by reintroducing the horse cavalry into modern warfare he replied, with a big grin, “It’s all part of our transformation plan.”

As I am sure you are all aware, the Naval War College has been one of the great generators of innovation for the U.S. military. During the period before World War II, naval officers here first thought about the concept of mass carrier operations. It was here that Plan ORANGE—the prophetic concept of operations for a war against Japan—was developed, long before Pearl Harbor. More recently, under the leadership of Vice Admiral Arthur K. Cebrowski, this college developed the concept of network-centric warfare. At the same time this institution maintains a curriculum that is traditional in substance, with a focus on the Great Books and history. Some of you probably say it had too much history, because you had to struggle with it. But that combination of innovative and classical thought has enabled the Naval War College to produce military leaders who harness an understanding of the past and the potential of technological progress to produce new ideas for the future.

So as you graduate you will take with you what is in effect a liberal education in the military art. The capacity for independent, critical thought and reflection and the ability to question assumptions and previous modes of warfare will give you an advantage over your adversaries in an age of great uncertainty and rapid change.

* Clayton M. Christensen, *The Innovator’s Dilemma: When New Technologies Cause Great Firms to Fail*, Management of Innovation and Change Series (Boston: Harvard Business School Press, 1997).

That classical education does several things. For one, it imparts a healthy skepticism about pat answers or easy solutions. It should make you wary about received wisdom. Second, it exposes students to a tremendous variety of experience. As someone once said, “History has more imagination than any scenario writer in the Pentagon.” In the summer of 2001, who would have dared to predict that by the end of the year Americans would have been viciously attacked on their own shores by an enemy without any capital, without any conventional military force? Who could have predicted that within weeks of that attack America would be at war in landlocked Afghanistan? Or who would have dared to predict that by the time the last fires of the World Trade Center were extinguished, U.S. forces would already be in Kabul?

Third, a classical education makes one think differently. It prepares one to continue self-education. It makes one more intellectually adaptable as circumstances change and one confronts surprise. While technology confers many advantages, it cannot synthesize the value of interpersonal debate and discussion. There is simply no substitute for face-to-face learning and interaction between students and faculty, and among students themselves. Keep in touch with your classmates after you leave. You will cross paths again, and you can continue to learn from one another.

Education, as opposed to training, teaches us that clichés about war—like the three-to-one rule for offense—have fallen by the wayside. Unorthodox battle plans, such as those employed in Afghanistan or in Iraq, cannot be found in any textbook or manual. They were produced by military leaders who grasped the lessons of military history and applied them in entirely new circumstances.

Let me mention just one example. In preparing for the urban offensive on Baghdad, one that many predicted would result in horrendous loss of life, General Franks and his staff developed a brilliant plan that was informed by the lessons of the Russian military experience in Grozny, the capital city of Chechnya. But rather than simply accepting the superficial lesson that urban operations can defeat advancing conventional armies and therefore should be avoided, they applied a critical thought process to discern a fundamental difference about Baghdad—a city with people awaiting liberation and blessed with wide boulevards. That was an important distinction from Grozny that could easily have been missed. No manual could tell you that. It proves that education is not the same thing as training.

We have entered a period in which discrepancies between militaries are far greater than at any time in the recent past. The world of homogeneous armed forces that fought the same way with the same weapons is a recent development. Asymmetric warfare is not a new phenomenon. It is the story of our own national military history—of Continental Army forces firing from behind trees

and wearing down a numerically superior, better trained, and better equipped British force.

Whatever conflicts lie ahead, you can be sure they will be as different from Iraq as Iraq was from Afghanistan—as Afghanistan was from Kosovo—as Kosovo was from DESERT STORM—as DESERT STORM was from JUST CAUSE. Meeting the challenges of the future will require continuous questioning of accepted truths, a constant pursuit of lessons from history and of lessons from technology that may have relevance to the contemporary situation. Because of the premium we place on innovation, we require a joint officer corps that has studied not only the technique of its profession but the very logic of war as an instrument of policy; we require a joint officer corps that is not afraid to ask questions or to offer answers that seem to violate bureaucratic norms and conventional wisdom.

It is no accident that the commanders in Iraq include distinguished graduates of this institution. They include a former commander of the Atlantic Fleet, Admiral Robert Natter, who won the college's Distinguished Graduate Leadership Award in 2000. They include a former Vice Chief of Naval Operations, Admiral William Fallon; the Deputy Chief of Naval Operations, Vice Admiral Charles Moore; and the Deputy Chief of Naval Operations for Readiness and Logistics, Vice Admiral Dennis McGinn, who recently retired. It is a long list.

It has been said that this college made its greatest contribution to winning the present war ten or fifteen years ago, when it educated the men and women who are now taking the fight to the enemy. You will be following in their footsteps. You have been preparing for what we expect will be senior leadership responsibilities. That is the sole purpose of this institution. In the twenty-first century we need leaders who can both think creatively and carry out orders.

Charles William Elliott had a distinguished career over forty years as president of Harvard. When he was retiring in the early part of the last century, he was treated to a dinner by his faculty. The Harvard faculty fell all over themselves offering praise, one after the other, for the retiring president. One finally said, "President Elliott, during your tenure here, Harvard has become a veritable storehouse of knowledge." Elliott replied, "What you say is true, but I can claim little credit for it. It is simply that the freshmen bring so much and the seniors take so little away."

You have brought much to this institution, but I am pretty certain you are also taking a great deal away. So I want to congratulate you, wish you best of luck as you continue your careers, and in closing leave you with the words of President Theodore Roosevelt, who walked these very grounds near the turn of the last century. A man of great vision and courage, Roosevelt said, "We see across the dangers of the great future, and we rejoice as a giant refreshed. The great victories are yet to be won, the greatest deeds yet to be done."