

At the beginning of World War I, America found herself unprepared to enter the fight in Europe because we had an inadequate supply of trained military leaders for our Armed Forces. Confusion prevailed at the War Department while recruiters rushed to select, and the military hastened to train, an officer corps that would be large enough to lead "Doughboys" and "Devil Dogs" on the battlefields of France and Germany. Despite the lack of initial preparation, the United States' entry into World War I proved to be the decisive factor in securing victory against our enemies and bringing peace to the continent. After the armistice was signed and our troops came home, American military leaders were wisely determined to never be faced with another shortage of commissioned officers, and on October 2, 1922, 140 reserve officers, at the suggestion of General of the Army John J. Pershing, met at the Willard Hotel in Washington, DC. At that meeting, General Pershing said, "I consider this gathering perhaps one of the most important, from a military point of view, that has assembled in Washington or anywhere else within the confines of this country within my time," and the Reserve Officers Association of the United States [ROA] was organized.

The new found commitment to a well-trained and equipped force got off to a positive start with the passage of the National Defense Act of 1920 which created a 2 million member "Citizens Army," to be led by a 200,000 member Officers Reserve Corps. However, it was clear that the success of this civilian army and reserve corps of officers would depend entirely upon the patriotic and voluntary spirit of Americans. With this understanding, General Pershing charged ROA with the responsibility to recruit the corps, develop public support for it, and petition Congress to appropriate adequate funds to train these citizen service members.

As the United States grappled with recovering from the Depression and getting its economy back on its feet, the seeds of war were being sowed in Europe and Asia, and on December 7, 1941, a surprise attack on American Navy facilities at Pearl Harbor finally pushed our Nation back into another global conflict, World War II. Though still under-prepared for war, we thankfully had an Officer Reserve Corps that had grown to 115,000 and the chaotic rush to recruit officers that took place in the First World War was not repeated. General George C. Marshall said, "In contrast with the hectic days of 1917 * * * with no adequate reservoir of officers to draw upon * * * we now have available in the Officers Reserve Corps a great pool of trained men available for instant service." Clearly, the R.O.A. had done their job.

During the war, the ROA suspended its activities as its members were off serving in the branches of the various armed services; once, however, the hostilities ceased and the troops came

home, the ROA resumed its activities as advocates for the Reserve forces and a strong national defense. That the founder of one of the first ROA chapters in Kansas City, Harry S. Truman, was now President of the United States signalled that the reserve structure was to grow and grow stronger in the post-World War II/cold war era. During his administration, President Truman ordered his Secretary of Defense to aggressively build a reserve military structure, and the Chief Executive took personal pride in the passage of a strong Armed Forces Reserve Act.

It was also during this period that Congress took the unusual step of granting the ROA a charter mandating the organization "to support a military policy of the United States that will provide adequate national security, and to promote the development and execution thereof". With this infrequently granted charter, Congress, in effect, was telling ROA that it respected its expertise and desired the association's advice on legislation affecting national security, as well as matters involving the military, both Reserve and Active.

Over the years, the ROA has taken its charter and congressional mandate seriously. Its positions are without partisanship and are based solely on promoting a strong defense. The officers and members of the ROA have supported initiatives they thought would strengthen our Nation's military, and opposed those which would undermine America's preparedness. The ROA helped block attempts to eliminate the Coast Guard and Air Force Reserves, and to cut the Navy Reserve in half; and, they stood strong against the Panama Canal and the SALT II treaties, as well as any budget or manpower cuts to our Reserve forces. On the other hand, revitalizing the Selective Service System, lifting the embargo on arms sales to Turkey, selling AWACS to Saudi Arabia, and activating the Reserves during the early days of the gulf war all were supported by the ROA. During the Clinton administration, the Association has been out front in seeking postwar benefits for military personnel including medical treatment for victims of gulf war illnesses, and it is most notable that since 1982, the ROA has successfully supported more than \$15 billion in equipment procurement and construction for the Reserve and National Guard.

Madam President, the ROA of today is a strong and vibrant association whose 100,000 strong membership includes active, retired, and honorably discharged officers of all the services; cadets and midshipmen from the service academies and ROTC programs; and officers of the Public Health Service, and the National Oceanic and Atmospheric Administration. That more than half of these individuals are life members is an indication of the amount of support the ROA has among the Reserve community, and the credibility it has as representatives of our Nation's

truest "citizen-soldiers". Obviously, such a dynamic organization requires dynamic leadership and I am proud to note that my friend and fellow South Carolinian, Maj. Gen. Herbert Koger, Jr., USAR, is serving as the president of the ROA this year, an office that is rotated annually among each of the services. Additionally, retired Maj. Gen. Roger W. Sandler, who was Chief of the Army Reserve prior to his 1994 retirement, very capably serves as the association's chief of staff. I commend both these men for the excellent jobs they do, especially for the input they give Congress on matters related to our national security.

Madam President, as the Reserve Officers Association prepares to enter its fourth quarter of a century of service, I think it is appropriate to cite another quote by General Pershing, who said, "It would be false economy to save a few dollars by neglecting commonsense preparation in peace times, and then to spend billions to make up for the deficiency when war comes." These are the watchwords of the men and women who makeup the ROA, and words each of us should bear in mind as we approach the 21st century and begin to consider the future needs, roles, and missions of our armed services.

Congratulations to the Reserve Officers Association of the United States on its 75th anniversary.

THE VERY BAD DEBT BOXSCORE

Mr. HELMS. Madam President, at the close of business, Friday, April 11, 1997, the Federal debt stood at \$5,378,191,895,041.28. Five trillion, three hundred seventy-eight billion, one hundred ninety-one million, eight hundred ninety-five thousand, forty-one dollars and twenty-eight cents.

One year ago, April 11, 1996, the Federal debt stood at \$5,143,688,000,000. Five trillion, one hundred forty-three billion, six hundred eighty-eight million dollars.

Twenty-five years ago, April 11, 1972, the Federal debt stood at \$429,624,000,000. Four hundred twenty-nine billion, six hundred twenty-four million dollars, which reflects a debt increase of nearly \$5 trillion—\$4,948,567,895,041.28. Four trillion, nine hundred forty-eight billion, five hundred sixty-seven million, eight hundred ninety-five thousand, forty-one dollars and twenty-eight cents, during the past 25 years.

THE U.S. ARMY'S TASK FORCE XXI ADVANCED WARFIGHTING EXPERIMENT

Mr. LEVIN. Madam President, during the recent congressional recess I visited the U.S. Army's National Training Center at Fort Irwin, CA, with Army Chief of Staff Gen. Dennis Reimer. The purpose of my visit was to observe the culmination of the Army's brigade-size Task Force XXI warfighting experiment. I want to take a few moments

today to describe this important and far-reaching exercise for my colleagues.

The Army's National Training Center is probably the best training center for mechanized ground combat forces in the world. Army brigades rotate through the NTC to test their skills in a 2-week exercise against the NTC's vaunted opposing force, or OPFOR—the 11th Armored Cavalry Regiment, currently commanded by Col. Guy Swan. This opposing force uses equipment and tactics similar to those used by the military forces of the former Warsaw Pact. Many in the Army consider this force to be the best-trained brigade-size force of any army in the world.

The exercise I observed with General Reimer was part of the Army's Task Force XXI advanced warfighting experiment. It involved the so-called experimental force of the 1st Brigade of the 4th Infantry Division, Mechanized—the EXFOR—commanded by Col. Tom Goedkoop. This was a long anticipated exercise, Mr. President, because it was the first brigade-level test of a range of digital technology capabilities designed to bring the power of information warfare to ground combat forces.

The goal of the Army's Task Force XXI advanced warfighting experiment is to increase the combat power of Army divisions and to make them more versatile, more deployable and more agile across a broad range of missions. Some people have even compared the 2-week exercise at the National Training Center with the historic Louisiana maneuvers of the 1930's which established the structure and warfighting doctrine of our World War II Army.

The Army began this experiment with digitization with the decision over a year ago to use the 4th Infantry Division, Mechanized, stationed at Fort Hood as a testbed for this technology. The Army established a factory-like operation at Fort Hood to modify over 900 vehicles into over 180 different configurations. The EXFOR was equipped with 87 different digital systems—over 5,000 individual pieces of equipment in total. This digital equipment included unmanned aerial vehicles, a networked computer system, global positioning satellite receivers, position reporting transmitters, digital radios, and the most advanced night vision and thermal imaging equipment.

This equipment was developed and designed to dramatically improve the situational awareness capability of the experimental force. Situational awareness refers to the ability to determine and track the location of all forces on the battlefield at a given time. It is the ability to answer the three questions—Where am I? Where are my buddies? Where is the enemy?—which are critical to success on the modern battlefield. Each vehicle in the EXFOR brigade was outfitted with a computer terminal that gave the members of the brigade unprecedented and real-time friendly situational awareness from the

individual infantry fighting vehicles and tanks all the way up to division level, as well as unprecedented intelligence on enemy, or OPFOR, operations.

The digital equipment also provided the EXFOR with integrated and automated mission planning, mission execution, and command and control capabilities never before available to any army in the world. For intelligence information, commanders down to battalion level could access all levels of support, including national satellite systems, overhead reconnaissance aircraft like the U-2, the SR-71, and JSTARS, the Joint Surveillance Target Attack Radar System.

During my visit to the NTC, I observed the combat battalions of the experimental force in a deep attack against the opposing force. I watched as the EXFOR conducted breach operations against the OPFOR's formidable obstacle system as the OPFOR fought to defend its battle position. While this specific engagement turned out to be a tactical draw, there were many instances where the technology available to the experimental force demonstrated the potential for greatly enhanced capabilities in the Army of the future.

Before a combat operation the commander generally conducts what is called the intelligence preparation of the battlefield. In the case of offensive operations, the commander and his staff compare a doctrinal template of the way they expect the enemy to array his forces in the defense to that dictated by the actual terrain in the area of operations. The resultant situational template allows the commander to target his reconnaissance effort against the suspected enemy defensive positions to confirm or deny the accuracy of the template. He then adjusts his scheme of firing and maneuvering to effectively attack and destroy the enemy in his confirmed positions.

Today, Army units rely principally on their integral aerial and ground scouts with their current optical, thermal, or radar systems to conduct this reconnaissance. Very often scouts are destroyed before reaching their positions, or are unable to send back accurate or timely spot reports for any number of reasons. In that case a commander is forced to attack against an unconfirmed or incomplete situational template of the enemy defense, or is forced to change his scheme of maneuver at the last minute—a particularly difficult and dangerous endeavor.

With its enhanced situational awareness capability, the EXFOR was able to conduct the intelligence preparation of the battlefield much quicker and with greater accuracy than normal Army brigades. The situational template was developed and transmitted digitally to all echelons of command. The commander used all reconnaissance assets, including national satellite systems, overhead aircraft, UAV reconnaissance, and the Joint Surveillance Target At-

tack System, as well as his integral aerial and ground scouts who were equipped with enhanced sights and other surveillance equipment. OPFOR positions were detected and transmitted digitally to all of the EXFOR vehicle computer systems to update the situational template. With such accurate and timely intelligence the commander was able to quickly change the scheme of fires and maneuver for his attack with ample time and information for subordinate commanders to plan and react effectively.

During the EXFOR attack the OPFOR employed an artillery delivered minefield across the EXFOR's avenue of approach in an attempt to confuse and slow the EXFOR attack. With its superior situational awareness provided by its digital systems, the EXFOR was able to transmit the locations of the minefield quickly and accurately to follow-on attacking battalions. These battalions were able to avoid the minefield and resort to an alternate route of attack. Likewise, superior situational awareness permitted those battalions, in the dead of night, to rapidly traverse the more difficult terrain of the alternate route and surprise an OPFOR unaccustomed to such a rapid response on the part of a training unit.

During this attack highly accurate situational awareness permitted rapid and effective EXFOR response in other situations as well. In the battle I observed, the EXFOR placed very accurate counter-battery radar coverage zones around its units that needed priority protection. This proved critical when the EXFOR combat engineers were breaching the obstacles in front of the OPFOR defensive position and came under OPFOR mortar attack. The counter-battery radars detected the first incoming rounds and alerted EXFOR artillery, which immediately responded with counter-battery fires that destroyed the OPFOR mortars before they could fire another round against the engineers.

During the later stages of the battle I visited the brigade and divisional tactical operations centers and saw the soldiers and officers of the EXFOR using the digital equipment in the most realistic combat environment the Army can simulate short of actual war. I observed the unmanned aerial vehicle—or UAV—being flown from a van attached to the brigade tactical operations center under the direction of one of the brigade operations officers, providing the brigade with real-time intelligence and tremendous targeting information. The commander of the OPFOR brigade later told me that he had to devote significantly more resources to protecting his own forces in this exercise compared to others. He said that all of his soldiers, for example, spent a lot of time during the 2-week exercise looking up in the sky and watching for the EXFOR's UAV's.

Madam President, an important aspect of the Army's effort to incorporate digital technology into its divisions is the unprecedented cooperation between the Army and the contractor community. This cooperation extended to the exercise at the National Training Center. During my visit I toured what the Army calls the Central Technical Support Facility, a facility jointly manned by Army personnel and contractor personnel. The Army established this unique organization to act as an enabler for rapid integration of software and hardware systems through interaction of soldiers, contractors, and program managers. Any problems identified by the soldier-users of the tactical internet and digital systems were immediately dealt with by hardware and software engineers at the Central Technical Support Facility. In some cases, their solutions resulted in design changes which were immediately incorporated into the experiment, shaving months or years off the normal time-lines for the testing and acquisition process. Senior Army officials believe this concept is a prototype which holds great potential for changing the way users and contractors interact in the future. I share the Army's interest in further development of this arrangement.

I have inevitably been asked who won the 2-week exercise—was it the EXFOR with its new technology, or was it the OPFOR who lacked the newer technology but had a tremendous home-field advantage with its intimate knowledge of the terrain and long experience of fighting together? The answer to that question is not nearly as important as the answer to the question of how effective were the various new technologies used by the EXFOR.

The answer to both will have to wait for the results of the comprehensive after-action review that is being conducted by the Army. My own discussions during my visit left me with the overall impression that this digitization technology can be a tremendously powerful tool for the Army. UAV's—unmanned aerial vehicles—were a great force multiplier, as were the latest generation night vision equipment and the situational awareness technology. The Apache Longbow helicopter, the new Javelin antitank weapon and the Paladin howitzer were all combat systems available to the EXFOR which gave them a clear advantage over the OPFOR, and these systems were made even more effective by UAV's and other systems that provided real-time targeting data.

In some significant instances, the NTC exercise did not reflect the full potential of some new technologies that are already reaching the deployed forces. For example, the M1A2 tank is in such short supply at this time that the Army is fielding this system only with the early deploying combat forces. The EXFOR was using M1A1 tanks with internally mounted computer terminals to provide situational awareness. Although these internally mounted terminals are a great help,

they are not a long-term solution and do not adequately represent the target acquisition and situational awareness capability of the embedded information warfare systems fielded with the M1A2.

The technologies that the Army is testing under their advanced warfighting experiments are not without bugs and problems. Some echelons of command, for example, were reluctant to rely on the real-time situational awareness reported digitally over the EXFOR's tactical internet and preferred instead to rely on traditional acetate maps and voice communications. With much of the technology still in development, this reliance on traditional methods of command and control was understandable, and some backup capability to the tactical internet will need to be retained in the future. In general, though, much of the technology that I saw on display during the exercise can be incorporated into systems that will significantly improve the survivability and lethality of our Army combat forces. The commander of the OPFOR brigade acknowledged that his brigade had been tested more than usual by the EXFOR brigade. He also said that he would not like to fight the EXFOR brigade after they had a year to train with their new equipment.

There is an old saying that knowledge is power. The advanced warfighting experiment at the National Training Center demonstrated that knowledge is also military power—particularly the knowledge of the battlefield that comes from the tremendous situational awareness available through the digital technology of information warfare. No amount of technology is going to change the basic requirement for Army combat forces to be able to close with and destroy the enemy. But the information dominance that the Army is developing through the Force XXI effort can be a tremendous force multiplier.

Earlier this year General Shalikashvili told the Armed Services Committee that the Defense Department will have to change the way it does business. "Where possible," General Shalikashvili stated, "we will also have to trim personnel end strength especially where technological changes such as improved weapons systems afford us the possibility to consider fewer and smaller units." The technology of information warfare tested at the National Training Center last month is a good example of technology that may in fact allow a smaller force to have the same or even greater lethality and combat effectiveness as the forces we have today.

Madam President, I want to congratulate General Reimer, the Army Chief of Staff and his predecessor Gen. Gordon Sullivan; Gen. William Hartzog, the commander of the Army's Training and Doctrine Command; and Maj. Gen. Paul Kern, the commander of the 4th Infantry Division for their vision and determination to make information technology a force multiplier for the Army of the future. I also want

to congratulate the thousands of soldiers, Department of the Army civilians, and civilian contractors responsible for their contributions to this important effort.

The job, however, is not complete. There are a number of challenges that must be addressed before the decision is made to expand this technology throughout the Army, including questions of cost; the integration of new technology into existing systems; the impact of this technology on the Army's organizational structure and doctrine, and on the tactics, techniques and procedures to execute this doctrine; the impact on the training base; and the impact on personnel systems, including leader development.

Madam President, the Armed Services Committee will look closely at the results and lessons learned from the advanced warfighting experiment in the coming weeks and months. I look forward to working with the Army and with my colleagues on the Armed Services Committee to bring the best of this experiment to the rest of the Army in a timely manner.

MESSAGES FROM THE PRESIDENT

Messages from the President of the United States were communicated to the Senate by Mr. Williams, one of his secretaries.

EXECUTIVE MESSAGES REFERRED

As in executive session the Presiding Officer laid before the Senate messages from the President of the United States submitting sundry nominations which were referred to the appropriate committees.

(The nominations received today are printed at the end of the Senate proceedings.)

EXECUTIVE AND OTHER COMMUNICATIONS

The following communications were laid before the Senate, together with accompanying papers, reports, and documents, which were referred as indicated:

EC 1501. A communication from the Director of the U.S. Arms Control and Disarmament Agency, transmitting, a draft of proposed legislation entitled "The Chemical Weapons Convention Implementation Act of 1997"; to the Committee on Foreign Relations.

EC 1502. A communication from the Chairman of the Board of the African Development Foundation, transmitting, a draft of proposed legislation to authorize appropriations for the African Development Foundation; to the Committee on Foreign Relations.

EC 1503. A communication from the Assistant Secretary of State (Legislative Affairs), transmitting, pursuant to law, the report of voluntary contributions to international organizations for the period October 1, 1995 through March 31, 1996; to the Committee on Foreign Relations.

EC 1504. A communication from the Assistant Legal Adviser for Treaty Affairs, Department of State, the report of the texts of