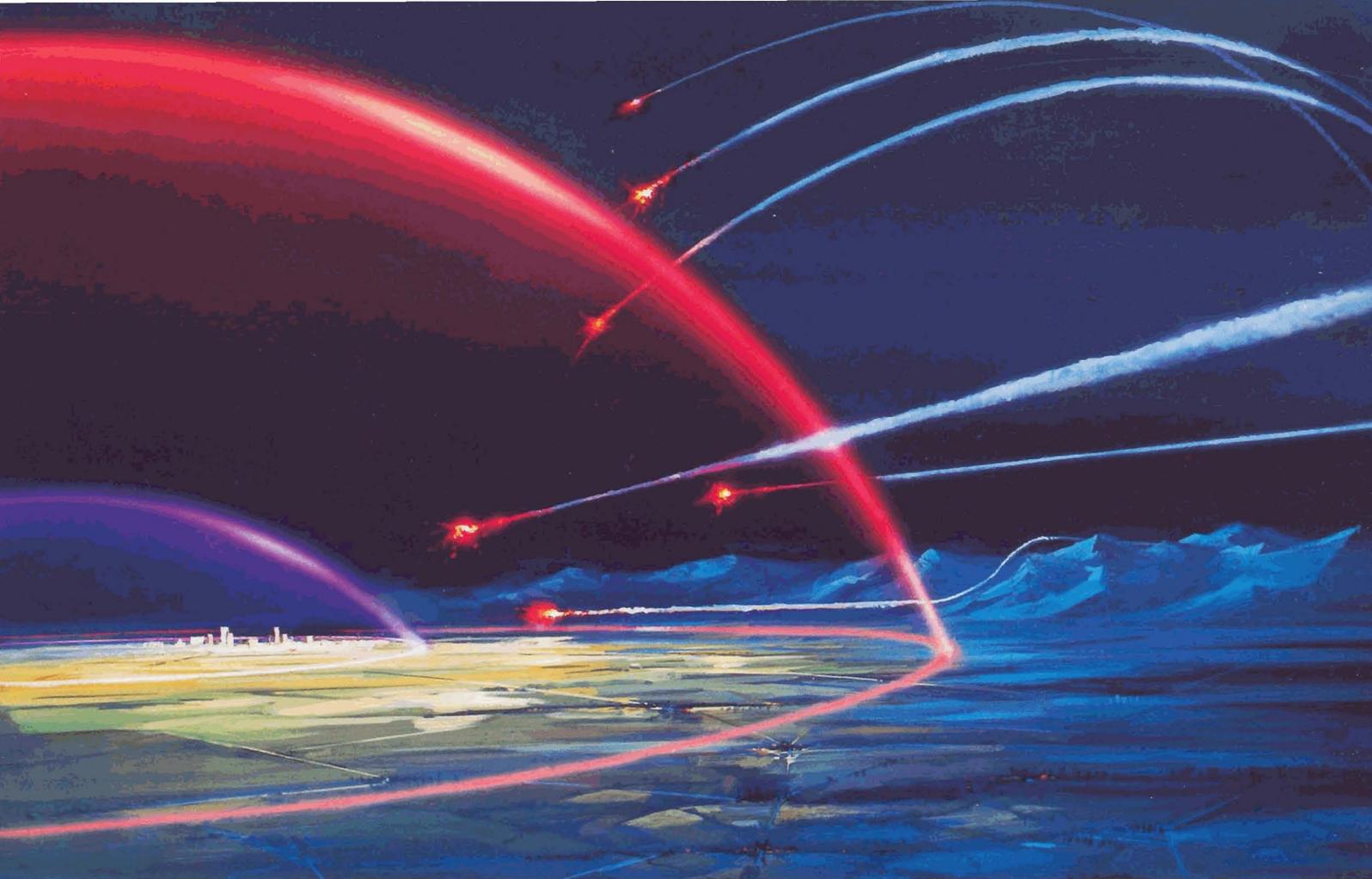


1998

**Air Defense Artillery
Yearbook**



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Air Defense Artillery Yearbook 1998

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ON THE COVER

The Theater High-Altitude Area Defense System's deployment during Roving Sands 97 goes down in history as the first time any military force has deployed a two-tier defense — THAAD and Patriot — against theater ballistic missiles. (Cover photo courtesy of Lockheed Martin Corporation.)

The 1998 ADA Yearbook is published by The Laven Group, 1420 Geronimo, El Paso, Texas, 79925, on behalf of the U.S. Army Air Defense Artillery Association. Articles appearing in this publication do not necessarily reflect the opinions of the officers or members of The Laven Group, the U.S. Army ADA Association, the U.S. Army or the Department of Defense.

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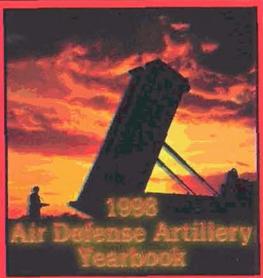
THE ADA YEARBOOK 1999

"Voice of the Air Defense Artillery"

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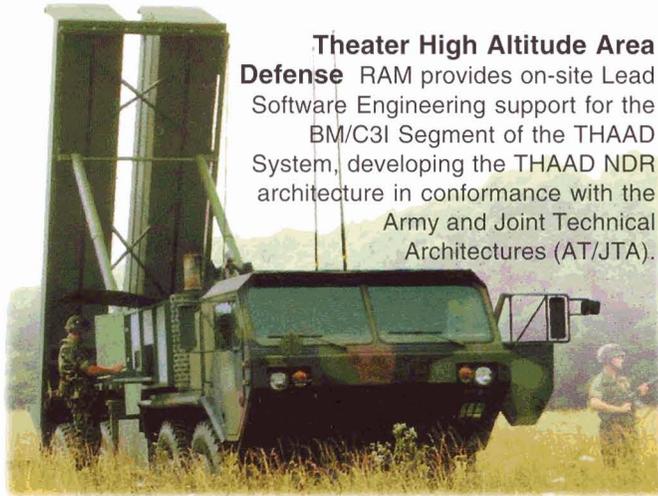




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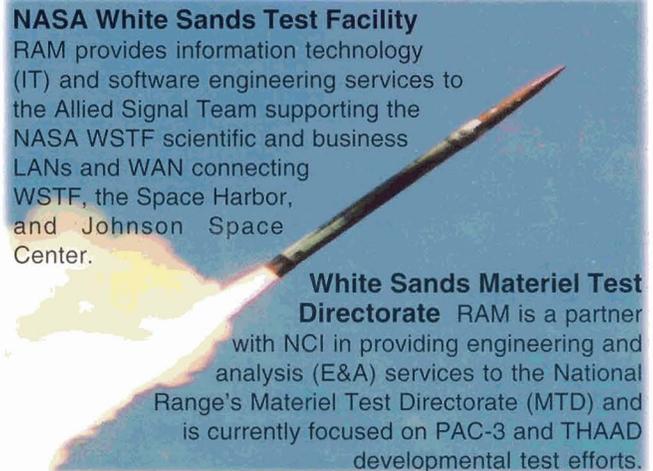
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The Foundations for Progress

American forces continue to make unmatched use of state-of-the-art weapons, surveillance and information systems, and the organizational and doctrinal flexibility for managing the integration of these complex innovations into "systems of systems" that is the key to modern military effectiveness. More than ever in military history, brains are brawn. Even if hostile countries somehow catch up in an arms race, their military organizations and cultures are unlikely to catch up in the competence race for management, technology assimilation and combat command skills.

— Richard K. Betts, "The New Threat of Mass Destruction," *Foreign Affairs*, January-February 1998

by Maj. Gen. John Costello

On a spring day three decades ago, while I was a cadet at The Citadel, a Duster track commanded by an ADA sergeant named Joe Bolado led a 1st Cavalry Division relief column through the gates of Khe Sanh Combat Base. Historians mark the relief of Khe Sanh, a beleaguered outpost just south of Vietnam's demilitarized zone, as the end of the 1968 Tet Offensive. The communist onslaught that, for months, raged from the Delta to the DMZ ended as a tremendous tactical victory for U.S. forces, but scenes of carnage in the streets of Saigon and Hue turned an American victory into a propaganda defeat of catastrophic proportions.

The Tet Offensive was a watershed event that explains our present-day emphasis on force protection and our doctrine of applying overwhelming force to produce decisive victory quickly with minimum casualties. But it also was the beginning of a long downward spiral that produced not only eventual defeat in Southeast Asia, but also the "Hollow Army" of the 1970s.

To those of us who served during the agonizing withdrawal from Vietnam and through



Recruiting and retaining top quality soldiers is the paramount challenge the branch faces as it enters the 21st century.

the dismal decade that preceded the Reagan buildup of the 1980s, the forging of the all-volunteer, all-professional fighting force that turned the Gulf War into a rout and won the Cold War still seems little short of miraculous, but no more miraculous than the continuing transformation of the Cold War Army into the Army of the 21st century.

The story of Air Defense Artillery's transformation from a neglected combat arm to a high-profile player in the geopolitical arena, as well as on the battlefield, begins with a death in the family – the abrupt cancellation of the Sergeant York Gun program in August 1985. The summer of 1985 was, in more ways than one, the “summer of our discontent.” Other combat arms openly questioned – not without cause – the ability of our aging Hawk, Nike Hercules, and Vulcan air defense systems to staunch massed Soviet air attacks. The U.S. Air Force, meanwhile, mounted a strong campaign to take over Patriot, which we had just deployed to Germany following a 15-year test and evaluation period.

We counted heavily on the 60-ton, self-propelled Sergeant York Gun to counter Soviet attack helicopters and close-combat support aircraft. Sergeant York, we expected, would carry Air Defense Artillery to the forward edge of the Cold War battlefield. It would, we hoped, dispel forever the “concrete artillery” label that had attached itself to the branch after long decades of interment in NATO surface-to-air missile revetments. The Army and the Ford Aerospace & Communications Corporation even invited Sergeant Alvin York's widow, Gracie Loretta York, out to Irvine, California, to help celebrate the roll-out of the first production model. So, when Secretary of Defense Caspar E. Weinberger announced the cancellation, the sensation was like being on an elevator when the cable snaps just as the doors begin to open on the top floor.

Branch morale hit rock bottom. One of the most die-hard air defense artillerymen, a lieutenant colonel who had commanded a Duster battery in Vietnam, sat down and penned an article, which he titled “The Death of ADA,” for publication in ADA Magazine. “Air Defense Ar-

tillery is a dying branch!” he wrote. “It is only a matter of time before some of us change to U.S. Air Force blue and others of us find ourselves in the Field Artillery.”

To many, the lieutenant colonel's gloomy prophecy did not seem terribly farfetched. Fortunately, events conspired to give Air Defense Artillery an inspirational leader just when the branch needed one most. Major General Donald R. Infante became chief of Air Defense Artillery in the summer of 1985. A tireless advocate and charismatic leader, he rebuilt branch pride and put a little swagger back into the stride of ADA soldiers. Major General Infante led us out of a doctrinal, tactical, and force structure wilderness and positioned the branch to begin its transition to the 21st century.

We rescued Patriot from the Air Force, the disgruntled lieutenant colonel became a brigade commander, and senior Army and ADA leaders spent the months following the demise of the Sergeant York Gun searching for a replacement. The solution they came up with was the Forward Area Air Defense (FAAD) system, a “system of systems” approach to air defense in the forward area.

The FAAD system, with its generic line-of-sight forward, non-line-of-sight, line-of-sight rear, and command, control, communications, and intelligence (C³I) components, was a Cold War solution to a Cold War threat. But when



The abrupt cancellation of the Sergeant York Gun catapulted Air Defense Artillery into its technological metamorphosis.

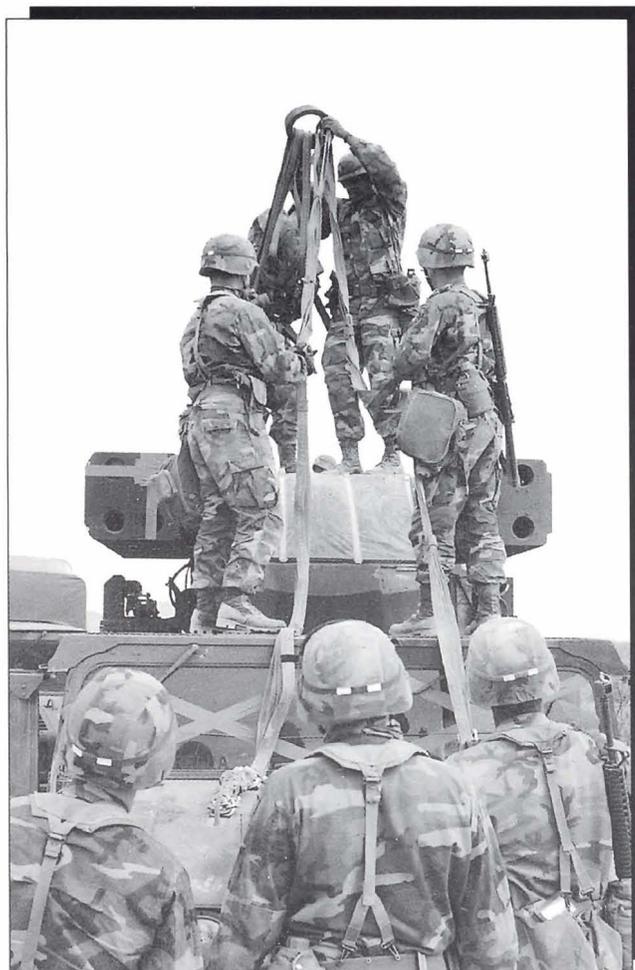
the Soviet Union crumbled in the late 1980s, it made an amazingly successful transition, almost intact, to a post-Cold War system-of-systems that will remain viable well into the 21st century.

The line-of-sight forward component became the Bradley Stinger Fighting Vehicle (soon to be replaced by the Bradley Linebacker), the line-of-sight rear component became Avenger, and now, the FAAD C³I component consists of a suite of sensors and communications nodes linked to the Sentinel radar. Only the non-line-of-sight component, the Fiber-Optic Guided Missile (or FOG-M), is missing, and even it is still under development as an indirect firepower asset.

But it was the system-of-systems concept, not the hardware, that made the FAAD system a revolution in military affairs long before the terms “system of systems” or “revolution in military affairs” became cliché. Air Defense Artillery was the first combat arm branch to make the “intellectual” leap from a Cold War to a post-Cold War mentality. Today, the system of systems, or family of systems, approach dominates all combat operating systems, not just Air Defense Artillery, but the “First to Fire” branch remains at the vanguard of the Army’s journey into the new millennium.

“Into the Twenty-First Century – The Foundation for Progress” is an appropriate theme for the 1998 ADA Commanders’ Conference. Today, we are on the verge of fielding a theater air and missile defense system-of-systems fully capable of defending deployed American forces in the Age of Weapons of Mass Destruction. However, time is short and the stakes are exceedingly high.

Operation Desert Storm forced Saddam Hussein to allow NATO inspection teams free access to suspected weapons storage sites, but Iraq is only one of 25 countries that have, or are in the process of developing, weapons of mass destruction. Many of these countries are rogue states led by ruthless and reckless tyrants who know they can’t win a conventional war against the United States; instead, they’re more likely to resort to nuclear, biological, or chemical attacks. Unless Air Defense Artillery succeeds, weapons of mass destruction will render our growing edge in sophisticated weaponry and information-age technologies irrel-



The branch expects to begin equipping Avengers with slew-to-cue capabilities this year.

evant. Fortunately, the foundations of success are in place.

Last March, soldiers of Alpha Battery, 1st Battalion, 44th Air Defense Artillery, secured a prominent place for ADA battalions in the redesigned Force XXI division. Participating in the Task Force XXI Advanced Warfighting Experiment (AWE), a digital brigade-level experiment conducted at the National Training Center, they demonstrated that the Sentinel radar, Bradley Linebacker, Avenger Slew-to-Cue and FAAD C³I comprise the most lethal short-range air defense (SHORAD) ever assembled. In a series of simulated battles, 1-44 ADA didn’t just “counter” the air threat, they “demolished” the air threat, killing 124 out of 168 opposing force aircraft. Their performance has shaped the future of divisional air defense for the next quarter of a century, and has settled the debate over Air Defense Artillery’s role in the



division that has raged since World War II.

After analyzing Task Force XXI AWE results, General William W. Hartzog, Commander, U.S. Army Training and Doctrine Command, termed the experimental ADA weapon systems “clear winners for Task Force XXI” and declared the Army should field them “as soon as possible.” As a result, the Sentinel, Bradley Linebacker, Avenger Slew-to-Cue, and FAAD C³I are included in the Army’s rapid acquisition program, a new acquisition, procurement, and fielding architecture designed to speed innovative weapons technologies to the field.

The Army approved the ADA battalion redesign, which features an acceptable manpower reduction but no drastic weapons systems reductions, for the Force XXI heavy division in April. Since projected 21st-century battlefields have no forward areas, we now refer to FAAD

system components (other than the FAAD C³I system) as SHORAD assets. We began fielding the Sentinel radar last year. We expect to begin equipping our Avenger with slew-to-cue capabilities and start replacing Bradley Stinger Fighting Vehicles with Bradley Linebackers this year. SHORAD units can mount an adequate defense against unmanned aerial vehicles, cruise missiles, attack helicopters and fixed-wing aircraft already; soon they will mount a more than adequate defense.

During Desert Storm, Saddam Hussein accomplished with a few dozen Scuds what hundreds of briefing slides and dozens of appearances before the Defense Acquisition Board could not — he made theater air and missile defense and national missile defense a top priority. We are well on our way to fielding a near-leakproof defense against short- and medium-range ballistic missiles.

The Theater High-Altitude Area Defense (THAAD) system, despite some setbacks in early flight tests, continues to enjoy strong Department of Defense and congressional support. The Department of Defense fiscal year 1999 budget request for \$822 million fully supports deployment of the system in 2006.

We have successfully fielded the first two Patriot Advanced Capabilities-3 (PAC-3) configurations. The third configuration will provide the final element in the form of the hit-to-kill interceptor missile, along with additional communications, radar, and ground support system improvements. The first Configuration 3 intercept flight test, scheduled later this year, will set the stage for a decision to continue testing or begin low-rate initial production of the new missile. The first deliveries of the ground system hardware and software have already begun, and development and operational testing will start this year. All of these efforts support a first unit equipped date of late fiscal year 1999. The Department of Defense’s fiscal year 1999 budget request supports the deployment of the Configuration 3 system starting in 2000.

The Medium Extended Air Defense System (MEADS) is a cooperative development program with our German and Italian allies to produce a more easily deployable, more mobile, high- to medium-altitude air and missile defense system. We displayed the prototype for the first time at the Association of the U.S. Army Air and Missile Defense Symposium in December. The MEADS project defi-

nition and validation phase ended in March, and we expect the Department of Defense to make a favorable decision on MEADS funding.

Air Defense Artillery is also "walking point" on the Army's journey to Force XXI when it comes to training. The U.S. Army ADA School is one of two service schools chosen to serve as pilot schools for Classroom XXI. We developed a 21st-century training vision that will guide ADA training development and learning into the next millennium. Using this vision, the "First to Fire" branch will harness emerging technologies and channel the energies, talents, innovative spirit, and dedication of its soldiers to achieve higher levels of capability and effectiveness as the Army's air and missile defense component.

The transition from today's resident learning structure to a distance-learning environment will be gradual. Our first step is to convert conventional ADA courses to Total Army Training System (TATS) courseware. The TATS concept blends active and reserve component training products into "one training packet for all," ensuring that ADA programs of instruction train both active and reserve component ADA soldiers to perform like tasks to the same standard. Once the TATS conversion is completed, the transition to distance learning and multimedia courseware will begin.

We are rapidly upgrading our classroom facilities to capitalize on these distance-learning applications. Our Digital Training Access Center (DTAC), the "heart" of Classroom XXI, became operational during the first quarter of fiscal year 1998. This

DTAC "library without walls" connects local and remote areas with the schoolhouse. It contains our automated library, training publications, computerized training (lessons), and the connectivity for battle simulations. The DTAC provides informational support to the field through local area networks and the worldwide web. It also provides the same support for institutional training through the Campus Area Network. The ADA School provided TRADOC with a short-range (FY97-01) classroom summary plan that requests funding for 37 high-tech classrooms. We completed the first TRADOC-funded classroom in October 1997, and it became operational the same month. Classroom XXI has capabilities for simultaneous use by our professional development instructors within our Officer, Warrant Officer, and NCO Education Systems.

We are also working on a long-range plan (FY02-05) that adds an additional 29 classrooms to the training base. Once the short-range plan and Classroom XXI have proven both training and cost-effective, we will implement the long-range plan. These classrooms must capitalize on distance learning, distributed interactive simulations, virtual reality, and emerging training technologies to provide a distance-learning and institution environment with a worldwide scope.

The organizational, doctrinal, technological, and training foundations for progress, therefore, are falling into place, but what about the most crucial element — the human element? The ranks of Air Defense Artillery are filled with wonderful soldiers.

In May, Captain Rick White, commander of Charlie Battery, 5th Battalion, 5th Air Defense Artillery (a separate battery located at Fort Lewis, Washington), accepted the General Douglas MacArthur Leadership Award during a ceremony at the Pentagon. White was one of a handful of outstanding company grade officers selected to receive the prestigious award. That Air Defense Artillery still produces junior leaders such as Rick White is encouraging, but what is more encouraging is what White had to say about ADA soldiers: "There seems to be a band of excellence in air defense," he said. "It's easy to integrate soldiers into this battery."

But the ranks of Air Defense Artillery are thinning at an alarming rate. Like other combat arms, we are not doing a good enough job of retaining top quality soldiers. Retention rates are dismal, especially among company grade officers. Flexible doctrine, agile organizations, and state-of-the-art weapons, surveillance and information systems may be the foundations of military effectiveness, but soldiers are the bedrock of the Army.

Therefore, recruiting and retaining top quality soldiers is the paramount challenge the branch faces as it prepares to enter the 21st century. It's a challenge we will meet, for failure is not a part of the ADA legacy. We will lay the foundations of progress on the solid bedrock of ADA soldiers imbued with core Army values — Loyalty, Duty, Respect, Selfless Service, Honor, Integrity, and Personal Courage — and move forward with confidence into the uncertainties of a new millennium.

ADA Units

Relive 1997

*What great capabilities and soldiers
This has always been my dream, and I see it right here.
Absolutely magnificent!*

— Brigadier General Gilad Ramot
Commander, Israeli Air Defense Forces

War may be hell, but peace is no picnic. Southwest Asia rotations, crisis deployments, operations other than war, peacekeeping operations, and the daily grind of skill sustainment training kept the U.S. Army and Air Defense Artillery working at a near wartime operating tempo during 1997. ADA soldiers patrolled mean streets torn by racial, religious, or ethnic strife; fought flood, fire, and famine; protected the globe against weapons of mass destruction; rescued many a damsel in distress; passed PT tests; and collected "Toys for Tots." If the Army gave out medals for peacekeeping operations such as Joint Guard or Southern Watch or multinational exercises such as Bright Star, Ulchi Focus Lens, Tropic Warrior and Roving Sands the way it does campaign medals, every ADA soldier would look like Audie Murphy.

PEACEKEEPING

January 1st, 1997, saw 4-3 ADA soldiers continuing their deployment to Bosnia-Herzegovina in support of Operation Joint Guard. The Bradley Stinger Fighting Vehicle (BSFV) batteries and Scouts maintained perimeter security around Eagle Base in Tuzla, home of the

1st Infantry Division (Forward) Headquarters. 4-3 ADA's Avenger battery provided security and documentation support for weapon site inspection teams in some of the most contested areas of the region, including Brcko. Through it all, Headquarters and Headquarters Battery maintained the day-to-day operations of Eagle Base, the largest in the U.S. contingent's sector. The battalion also extracted Special Forces units in the area when necessary, provided convoy escorts, secured and guarded highly sensitive sites, conducted internal and external intelligence-gathering patrols, and conducted Bradley, Stinger, and Avenger gunneries at the Taborflava Training Area in Hungary.

69th ADA Brigade soldiers also provided life and force protection support at the Redeployment Staging Base in Bosnia-Herzegovina during Operation Joint Guard, and deployed to Tuzla to provide maintenance and training support for 4-3 ADA. Their combined effort gave the 1st Infantry Division a clear air picture from the Combined Air Operations Center in Italy.

A no-notice deployment (December 1996 to March 1997) sent a 2-44 ADA task force to Al Jaber Airfield, Kuwait, to provide short-range air defense to F-117 Stealth Fighters in support of Operation Southern Watch. The task force consisted of two Light and Special Division Interim Sensor (LSDIS) Sections with joint tactical information distribution systems (JTIDS) and four Avenger weapon systems with six crews.

4-5 ADA Renegade soldiers of 2nd Platoon, Bravo Battery, took up where 2-44 ADA soldiers left off, fighting the elements in the deserts of Kuwait. 2nd Platoon spent its four months in Kuwait conducting numerous training events, including a Bradley gunnery, Stinger team certification, M-16 rifle and M-9 pistol qualification, combat

1997 NEWS BITS

35th ADA Brigade relocates to Fort Bliss

5-2 ADA (Avenger) inactivates

1-2 ADA (Avenger) inactivates

3-2 ADA activates C and D Batteries

training tests, NBC team certification, driver's training, and mandatory classes.

3-43 ADA (11th ADA Brigade) deployed two units, personnel, and equipment minimum engagement packages to Bahrain in September to support Air Expeditionary Forces in defense of selected vital assets. 5-52 ADA soldiers spent their time in Saudi Arabia, Kuwait, and Bahrain flawlessly executing Operations Desert Falcon, Deuce Express, Deuce Express II, Mongoose Thunder and Thunder II, Migration, and Reduced Readiness.

3-2 ADA, 31st ADA Brigade, deployed Team Echo to Southwest Asia from September to November as part of Task Force 1-1. 3-62 ADA also deployed two soldiers to Bosnia and one to Southwest Asia.

OPERATIONS OTHER THAN WAR

In April 1997, North Dakota experienced the worst natural disaster in the state's history. Harsh winter blizzards brought record snowfall to the Red River Valley, and when the snow melted, the resulting runoff set the stage for a disastrous flood. During April and May, 217 soldiers of the 1-188 ADA worked first to save, then later evacuate, their home town of Grand Forks.

The North Dakota air defenders filled sandbags and built levees, manned emergency operations centers, evacuated and transported citizens to shelters, fought fires, manned traffic control points, and patrolled neighborhoods to protect personal property. During the height of the crisis soldiers worked around the clock, often with only a "power nap" to sustain them, to evacuate citizens trapped inside their homes. Many soldiers lost

their own homes to floodwaters while they manned their posts throughout the stricken city.

The Guardsmen set up a perimeter around the evacuated town and waited for the floodwaters to recede. "That was the most frustrating part of the job, telling people they couldn't return to their homes," said LTC Richard Balliet, 1-188 ADA battalion commander.

Elements of 3-62 ADA's Charlie Battery and the Early Warning Platoon spent January 1997 on the move — deployed with their LSDIS and forward area air defense (FAAD) command, control, and intelligence (C²I) equipment to Fort Huachuca, Arizona, to conduct counter-drug operations along the U.S. and Mexico border. Participating in Joint Task Force Six with other elements of the 10th Mountain Division (Light Infantry) and elements from the 10th Aviation Brigade and 110th Military Intelligence Battalion, the Early Warning Platoon used their LSDIS radars and FAAD C²I equipment to locate and track aircraft (drug smuggling) crossing the border. The soldiers of Charlie Battery manned observation and listening posts.

TECHNOLOGICAL DEVELOPMENTS

Advances in technology are key to ensuring the United States remains the leader in modern military effectiveness, a status achieved largely through the efforts of air defenders who spend untold hours testing, evaluating, proving, and fielding today's state-of-the-art weapons. Air Defense Artillery tops the list of major contributors in today's technological race.

Advanced Warfighting Experiments. As 1-44 ADA soldiers rolled out of the blocks in January, they

immediately prepared for the Task Force XXI Advanced Warfighting Experiment at the National Training Center (NTC). Numerous train-ups with new equipment resulted in the creation of lethal squads and platoons. They not only learned how to use the new tools, but with the help of contractors and Fort Bliss, they learned how to use them with a lethality never before seen at the NTC. Of all the Army initiatives introduced during Task Force XXI, the most notable and recognizable were the air defense initiatives consisting of the Bradley Linebacker, Avenger Slew-to-Cue, Sentinel radar, and FAAD command, control, communications, and intelligence (C³I). Success at the NTC was the culmination of the inspired vision of ADA leadership, the partnership and commitment of the acquisition community, and most of all, the professionalism, dedication, and selflessness of the soldiers of the battalion.

The culmination of 1-44 ADA's Force XXI came with the arrival of the division advanced warfighting experiment in November. Trained through three simulation exercises and four staff exercises, the division's plan for success was outstanding. Superb performance by the soldiers, steadfast cooperation from the materiel developers, and unwavering proponent leadership again resulted in absolute success for Air Defense Artillery. During all three after-action reviews, division and brigade leadership commented on the "most valuable player" role 1-44 ADA played in the success of the division. Well-trained, equipped, led, and organized, the soldiers took the branch beyond its greatest expectations. They took these new tools, characterized their capabili-

ADA'S FINEST

LTC Heidi Brown takes command of 2-43 ADA in October 1997, becoming the first female combat arms commander in the U.S. Army.

ADA'S FINEST

3-62 ADA's SGT Bret M. Rogowitz, SGT Ethan M. Weeks, and SGT Daniel Schweizer received the Audie Murphy Award for leadership and outstanding performance as NCOs.

ties, and used them to become the most lethal ADA force in the history of the Army.

New Equipment Fieldings. 3-2 ADA is the first Patriot battalion fielded with equipment from within the total Army force. The battalion fielded the single-channel ground and airborne radio system (SINGARS) in October and more than 4,500 end items between October 1996 and January 1998. 3-2 ADA also fielded the M-249 squad automatic weapon and the MK-19 grenade gun in December.

3-43 ADA, 11th ADA Brigade, completed its Configuration II Patriot upgrade and converted all MOS 16T soldiers to MOS 14T.

The FAAD C³I fielding kept 3-4 ADA soldiers busy. They completed new equipment training in February, received the equipment in June, and immediately deployed it to the field. The unit then deployed the FAAD C³I equipment to Camp Shelby, Mississippi, where it spearheaded divisional ADA participation in the 1997 All Service Combat Identification and Evaluation Team (ASCIET) conference. In November, C/3-4 ADA deployed the system to the Joint Readiness Training Center (JRTC), Fort Polk, Louisiana, where the equipment greatly enhanced mission effectiveness. During the division command post exercise in December, FAAD C³I received outstanding comments on its value to the exercise from the division leadership.

Newer, more advanced systems have also enhanced the 108th ADA Brigade's wartime mission. The brigade S3 section came on line with the Air Missile Defense Planning Control System, while information and coordination centrals in the Patriot battalion fielded the Class IIM

JTIDS. The brigade's intelligence section also saw advancements with the addition of two All-Source Analysis Systems. This latest technology gives intelligence sections the ability to process and disseminate intelligence information down to unit commanders.

1-62 ADA also fielded the SINGARS-ICOM radio system in April while pursuing an accelerated fielding of the FAAD C³I and LSDIS radar. The battalion fielded the LSDIS radar in just two weeks in September.

A/2-6 ADA fielded 18 hand-held terminal units and developed a combined Hand-Held/Simplified Terminal Unit Lab to teach air defense soldiers combat situational awareness. D/2-6 ADA fielded three CHS 2 (common hardware/software) C³I shelters in August, one Patriot tactical command station in September, and the Sentinel training system in November. C/2-6 ADA completed the fielding of three institutional conduct of fire trainers for the Avenger weapon system.

1-203 ADA soldiers found May to be a very busy month, filled with new equipment training and Configuration 1 and 2 upgrades to the Patriot missile system. The training included all 14T, 14E, and 27X enlisted personnel, as well as all Patriot officers and warrant officers. The battalion conducted 80 hours of the 16T to 14T conversion during the annual training period.

1997 saw 2-263 ADA respond to a National Guard Bureau directive to begin conversion to the Avenger weapon system. In September, B/2-263 ADA, in conjunction with the Avenger conversion, became E Battery (BSFV), the dedicated ADA battery for the 218th enhanced Separate Brigade, a South Carolina

Army National Guard Heavy Separate Infantry Brigade.

The 111th ADA Brigade, New Mexico Army National Guard, implemented a modified table of organization and equipment that is in line with the active component. The brigade converted 1-200 ADA, 3-200 ADA, and 4-200 ADA to Avenger and instituted an MOS qualification training program for Avenger and associated MOSs. The brigade also converted 7-200 ADA (Hawk) to 2-200 ADA (Patriot).

2-174 ADA (Avenger), Ohio Army National Guard, successfully completed the Hawk turn-in and the fielding of the Avenger air defense missile system. 2-174 ADA soldiers are aggressively completing skill qualification training using exportable package training.

1-265 ADA, 164th ADA Brigade, completed Avenger and Stinger crew certification on two different occasions during training year 1997. An aggressive training program resulted in 213 soldiers successfully completing transition training from the Chaparral weapon system to the Avenger. During annual training, each firing battery completed Table IV certification. Units of 1-265 ADA were the first to fire the M3P .50-caliber machine gun at Camp Blanding, Florida. As a result, Camp Blanding Range Control adopted the battalion's M3P Firing SOP as its standard.

2-265 ADA, 164th ADA Brigade, concentrated on individual soldier training with emphasis on the conversion of Hawk MOSs to Avenger MOSs during the training year. The majority of the battalion's soldiers attended an MOS-producing school during the training year in lieu of annual training, resulting in an

ADA'S FINEST

May 1997 brought 4-3 ADA the news that the battalion had once again captured top honors in the Von Steuben Washington Partnership Awards, receiving the Best Battalion and Best Battery in U.S. Army Europe Awards for 1996.

overall MOS qualification rating of 62 percent. The remainder of the battalion conducted lanes training at Camp Blanding during annual training, concentrating on individual soldier skills, MOS sustainment training, and weapons qualification.

3-265 ADA, 164th ADA Brigade, fielded 35 Avenger weapon systems and also Stinger trainers, which will allow an increased operating tempo this upcoming training year.

Testing. D Battery, 2-6 ADA, completed the Ground-Based Sensor Product Verification Test on May 9, 1997. The 1st Combined Arms Support Battalion hosted the ADA Battle Lab's successful live-fire of the first Advanced Medium-Range Air-to-Air Missile (AMRAAM) from a high mobility multipurpose wheeled vehicle (HMMWV) platform at the Short-Range Air Defense Test Site at North McGregor Range, New Mexico, in December. The Army is testing the system's viability as an effective, cost-efficient short-range capability falling between the ranges of the Patriot and Stinger missile systems. The AMRAAM is intended to complement, not replace, the Stinger missile system.

SUSTAINMENT TRAINING

Training is the cornerstone of readiness, and no soldiers in the Army train harder than today's air defenders. Field training exercises, live-fires, emergency deployment readiness exercises, and multiple rotations at combat training centers ensure ADA soldiers are always ready to deploy, fight, and win.

Live Fires. In 1997, 5-5 ADA soldiers spent eight of 12 months involved in live-fires. Alpha Battery began the year with a very suc-

cessful gunnery; Delta Battery spent February at Warrior Base (close to Korea's demilitarized zone) conducting a variety of training that concluded with an Avenger .50-caliber gunnery; Bravo went into their gunnery in March; and Alpha conducted yet another gunnery in April.

The end of May found 5-5 ADA planning and executing the largest joint live-fire exercise of air defense weaponry ever conducted on the Korean peninsula, at the Chulmae Sea Range on the southwest Korean coast. Stinger teams from 5-5 ADA, 1-43 ADA (Patriot), the U.S. Marine Corps' 1st Stinger Battery, and the Joint Security Area at Panmunjon fired more than 75 missiles at both ballistic and remote-controlled miniature aerial targets. An August gunnery proved that Alpha battery ADA BSFV crews lead the division in gunnery, while Bravo deployed with the 4-7 Cav and the 2nd Brigade and fired the entire battery for most of September. November saw the battalion deploy to Chulmae Range for yet another successful live-fire exercise, this one focusing on a tactical scenario and firing from the Avenger remote control units. This joint operation included assets from 1-43 ADA (Patriot) and the 5th Marines, and required coordination between the battalion and the Republic of Korea's Air Force and Coast Guard.

3-62 ADA soldiers scored 15 direct hits during the battalion's annual Stinger and Avenger live-fire exercise in April. Every gunner and team chief in 3-4 ADA qualified on their weapons during the battalion's annual qualification firing rotations. 2-44 ADA joined the live-fire realm with two successful Stinger live-fires at Fort Knox, Kentucky.

1-62 ADA soldiers spent February at Hawaii's Pohakalua Training Area for their annual live-fire which, for the first time, included live-fire Stinger raid missions and a combined arms live-fire with 2-5 Infantry, 3-7 Field Artillery, 1-25 Aviation, and other units. The air defenders fired nine missiles during the combined arms live-fire and conducted two successful iterations of the live-fire Stinger raid. The battalion also conducted aggressive air assault training — more than 56 lifts in a three-week period.

4-5 ADA soldiers jumped immediately from a warfighter exercise in March to Brownwood, Texas, to participate in identification, friend or foe, training with 2-17 Cav (Combat Aviation) for a combined arms live-fire exercise. 4-5 ADA's D Battery conducted an M3P range at Trapnell Machine Gun Range, Fort Hood, Texas, to familiarize their soldiers with the Avenger's .50-caliber machine gun. During the live-fire ADA soldiers and equipment performed flawlessly, firing 24 machine guns at stationary targets at ranges of 500 to 1,250 meters. August witnessed the 4-5 ADA soldiers getting some of the best training air defenders can get: the chance to fire Stinger missiles during the largest Stinger live-fire in the battalion's history. Battalion teams fired a total of 29 Stingers.

The 1st Combined Arms Support Battalion handled the ranges as the Japanese Air Force successfully conducted their yearly annual service practice at McGregor Range, firing a total of 17 Hawk missiles and 32 Patriot missiles between August and December.

The highlight of 1-213 ADA's training year was the annual Stinger live-fire conducted by the

battalion at Fort Drum, New York. The rigorous and highly demanding competition resulted in the selection of the finest Stinger teams from each battery in the battalion. Fifteen teams and three alternate teams participated in this highly coveted live-fire event.

3-111 ADA's Stinger live-fire exercise at Fort Bragg, North Carolina, during May 1997, challenged the Stinger gunners to intercept targets moving at more than 200 miles per hour. The exercise was a tremendous success and showed the excellent training completed by each of the battalion's units.

Roving Sands 97. 1997's Roving Sands was one of the largest ever. More than 20,000 soldiers participated, including soldiers from Fort Bliss (11th ADA Brigade, 31st ADA Brigade, and 35th ADA Brigade), U.S. Marines, South Carolina and Florida National Guardsmen, the Netherlands Air Force, and the German Army, Air Force, and Navy. The 1st Combined Arms Support Battalion supported Roving Sands with more than 3,000 billeting spaces, over 500 square miles of maneuver space and over 1,500 square miles of restricted airspace. The battalion also supported this massive exercise with range enforcement operations and the live-fire exercise that followed Roving Sands' maneuver phase.

The 164th ADA Brigade, selected to round out the U.S. Army Space Command Defense Element Force Projection Operations Center for Exercise Roving Sands 97, began training approximately 10 days each month beginning in November 1996 at Colorado Springs, Colorado, with the Army Space

Command staff. The Operations Center integrated with the Army Air and Missile Defense Command (a theater-level headquarters) as it made its debut during Roving Sands. The complete success of the AAMDC concept as an integrated (active and reserve component) headquarters led to a recent Department of the Army decision to officially "stand up" the headquarters in October 1998. The brigade expects to receive the reserve component mission with the first AAMDC during training year 1998.

All of the 11th ADA Brigade's units, joined by 27 soldiers of the 263rd ADA Brigade, took part in Roving Sands. 5-52 ADA soldiers fired three live missiles to become winners of the Best Coalition Competition for Missile Reload. E and D Batteries, 3-43 ADA, also participated in the live-fire. 70th Ordnance Battalion soldiers successfully made Imperial Log Base operational for administrative, logistical, and communications support.

The move from Fort Lewis, Washington, to Fort Bliss did not deter more than 200 35th ADA Brigade soldiers from flying in to participate in the exercise, Best Crew Competition, and live-fire before returning to Fort Lewis to gather their families and belongings for the move to the Desert Southwest.

The 31st ADA Brigade's Patriot battalions, 1-1 ADA and 3-2 ADA, both scored big: A/3-2 ADA soldiers scored a direct hit and the A/1-1 ADA crew placed first among the U.S. Army teams in the Fort Bliss Best Crew Competition.

B/1-6 ADA successfully participated in the joint "simulated" theater with amazing success. For the

first time ever, the Theater High-Altitude Area Defense (THAAD) system and Patriot trained together, enhancing the interoperability between the two. Furthermore, THAAD equipment tied into the mobile subscriber equipment network and shared "tracks" with Patriot over the JTIDS link.

Life at the Combat Training Centers. 4-5 ADA soldiers participated in three NTC rotations last year, with mounted warriors from Alpha, Bravo, Charlie, Delta, and Headquarters and Headquarters Battery performing with skill and perpetual enthusiasm against the excellent opposing forces of the NTC's 11th Armored Cavalry Regiment. The battalion's first NTC rotation found Charlie Battery in the sands of Fort Irwin, California. As members of the "Blackjack" 2nd Brigade, the air defenders deployed their BSFVs, manportable Stingers and attached Avengers throughout the battlefield, successfully providing continuous air defense protection. The soldiers' success at these efforts were recognized as such by the brigade commander, who commented that the "Strykers" were the best ADA battery he had ever seen. The III Corps commander recognized the soldiers' individual accomplishments as well, presenting SGT David Buckins a III Corps coin for killing two Hinds during the battle. Finally, the observer-controllers at the NTC credited the C/4-5 ADA soldiers with firing more missiles than any other battery and credited them with shooting down more than 70 fixed-wing aircraft.

A/4-5 ADA soldiers gained fame as "Kings of the Desert" during NTC Rotation 97-12. B/4-5 ADA,

ADA'S FINEST

2-6 ADA instructors CPT Rick Wyatt, CW2 Richard Gale, SSG Kenny Pendleton, and Mr. Jerdan Simon Jr. won the 1997 Fort Bliss Instructor of the Year Awards for the officer, warrant officer, noncommissioned officer and civilian categories respectively — the first time in Fort Bliss' history that all the winners came from the same unit!

with elements of C and D Batteries, departed for NTC Rotation 98-3 in November. One platoon of Avengers from Delta Battery had to move 33 soldiers, six Avengers, and their additional equipment by air and rail car to Fort Irwin because the NTC did not yet have these advanced systems.

2-44 ADA soldiers executed three JRTC rotations in January, February and April with Alpha, Bravo, and Charlie Batteries respectively. They also executed an NTC rotation in November, supporting two maneuver brigade task forces with Bravo and Delta Batteries.

3-62 ADA's Alpha Battery deployed to the JRTC in February in support of the 1st Brigade, 10th Mountain Division (Light Infantry), training rotation. They provided outstanding air defense to the 1st Brigade Combat Team, destroying about 39 enemy aircraft.

Other Exercises. Exercise Adventure Express found 5-2 ADA, 69th ADA Brigade, deployed to northern Norway in support of NATO's rapid reaction force. They conducted cold weather and northern warfare training in Bardufoss, Norway, in preparation for the operations portion of the exercise that began in February. The unit conducted ADA cross training and identification, friend or foe, training with Norwegian ADA and aviation forces, culminating with force-on-force combat operations. Avenger platoons conducted air assault operations and provided short-range air defense for British, Dutch, and German infantry battalions by employing Avenger and dismounted Stinger teams.

In February, two batteries from 6-52 ADA, 69th ADA Brigade, participated in the NATO tactical bal-

listic missile exercise Optic Windmill. The joint exercise, held in DePeel, Netherlands, demonstrated Patriot and Hawk interoperability with other NATO information and coordination centrals. The units also conducted the first U.S. remote launch in the Netherlands and demonstrated the capability of German and Dutch units to integrate U.S. launchers to fire Patriot missiles from their engagement control stations.

In April, the 69th ADA Brigade hosted the four Visegrad nations, (Poland, Hungary, Czech Republic, and Slovakia) for a week-long computer simulation exercise in Wuerzburg, Germany. ADA soldiers introduced the representatives to a stability operations mission, and guided them through the tactical decision-making process and preparation of operations orders.

Presently, the 69th ADA Brigade is the only U.S. ADA brigade that represents the United States in NATO tactical evaluations. In October, in what was described as the best planned and orchestrated evaluation in memory, 69th ADA Brigade soldiers earned excellent or satisfactory ratings in 508 out of 531 evaluated areas – a 96 percent success rate. The brigade's 24 fire control crews all earned first time "Gos" – the first time since before the Cold War that any unit of any nation passed a tactical evaluation without requiring re-evaluations!

Following the NATO evaluation, 6-52 ADA's focus shifted to V Corps contingency planning and preparation. The battalion conducted its first emergency deployment readiness exercise as a deployment rehearsal for its Southwest Asia rotation. This hands-on training consisted of rail-loading operations and

actual loading of equipment onto the Air Force's new aircraft, the C-17. Battalion personnel worked directly with Air Force and German Railway loadmasters to verify load plans and ensure the battalion could rapidly deploy the equipment.

The 69th ADA Brigade headquarters deployed to Grafenwoehr in November for the V Corps warfighter exercise, Victory Focus. Working together with the rest of the corps, the brigade coordinated and implemented an Army airspace command and control rehearsal with V Corps aviation, focusing on attack aviation effectiveness, synchronization of plans, and prevention of fratricide. The brigade also maintained the corps commander's early warning with the air picture at both the corps main and rear command posts. The 69th ADA Brigade's efforts successfully integrated all of the corps air defense into a single, seamless effort, allowing the corps commander the freedom to maneuver and win on the battlefield.

5-5 ADA spent the first four months of 1997 in field training exercises, and in May, the majority of the battalion's leadership went down to 1-43 ADA (Patriot) to conduct an external evaluation of its sister ADA battalion in Korea. This was a great learning opportunity for both battalions. 1-43 ADA had a tremendous performance and 5-5 ADA benefited greatly from this outstanding display of a Patriot battalion. In August the battalion supported Ulchi Focus Lens 97, a joint combined arms exercise designed to test readiness across Korea. With participation from C/4-5 ADA from Fort Hood, the battalion continued to integrate new computer systems. In October, 5-5 ADA deployed to

ADA'S FINEST

SSG Ray A. Christopher, section chief, B/2-43 ADA (108th ADA Brigade), won Post NCO of the Year and CPT Angela Holmes, commander, D/2-43 ADA, won the Omar N. Bradley Award.

ADA'S FINEST

**3-2 ADA, 31st ADA Brigade, proudly announced its top winners for fiscal year 1998:
Post Soldier of the Year SPC(P) Matthew Carver and Battalion NCO of the Year SSG Stacey Kittell.**

Wonju for Foal Eagle 97, an annual event that puts over 33,000 soldiers, sailors, and marines from both the United States and the Republic of Korea in one area for maneuver training in a force-on-force scenario. This exercise provided the battalion a rare opportunity to train with the 5th Republic of Korea Armored Brigade. 5-5 ADA concluded an outstanding year of accomplishments with the division warfighter exercise.

During 1997, 3-4 ADA and its subordinate units conducted training exercises as far west as Fort Irwin, east to Camp Lejeune, North Carolina, and south to Panama. The Avenger and Stinger platoons and batteries deployed with their respective airborne task forces to Panama for the Jungle Operations Training Center, the NTC for a heavy/light rotation, and the JRTC. Numerous platoon deployments with airborne infantry battalions took the air defenders to places such as Camp Blanding, Florida, and Fort Pickett, Virginia. Gunnery exercises deployed the battalion to Camp Lejeune and Cherry Point, South Carolina, with the United States Marine Corps. These exercises were excellent examples of joint and combined arms training.

3-4 ADA jumped into Fort Bliss and McGregor Range on three deployments to hone the skills of its 14S Avenger and Stinger gunners. On Aug. 18, 1997, the battalion jumped the Stinger missile from the C-17 Globemaster for the first time in the U.S. Army. The annual qualification firing rotations were resounding successes. Every gunner and team chief qualified on his weapon system. In September 1997, elements of the battalion

were involved in the Centrasbat 97 exercise. Troopers from the battalion and division completed a 19-hour trip via C-17 Globemasters with a jump into Kazakstan, one of the Central Asian republics that was formerly part of the Soviet Union. 3-4 ADA troopers trained alongside Kazakstani airborne brethren as joint and coalition warfare partners.

Back at Fort Hood, B/4-5 ADA conducted Intrinsic Action Recoil until February. The beginning of the year witnessed the battery tactical operations centers (TOCs) participating in Renegade Energy (an exercise to test the battalion's simplified hand-held terminal units and engagement and force operations terminals) followed by the division warfighter ramp-up and the actual warfighter itself in March. This invaluable training permitted the battalion to participate in division-level planning and to establish the command and control relationships that are part of 4-5 ADA's wartime mission.

May 1997 witnessed the beginning of a new training program for the 4-5 ADA "Renegade" soldiers: Renegade Lightfighter. CPT Robert E. Duke, Headquarters and Headquarters Battery commander, developed the Lightfighter program to train 4-5 ADA personnel on the basic common skills that every soldier must master to survive on the battlefield. 4-5 ADA's unique program is a performance-oriented and scenario-driven week-long battery exercise under simulated combat conditions.

4-5 ADA's C Battery deployed its 3rd Platoon (Stinger), along with its headquarters element, to Korea as part of Exercise Foal

Eagle. The 3rd Platoon loaded its vehicles and equipment onto the railroad cars in September, shipping the equipment to Korea soon after. Following this, leaders and soldiers from 3/C and the Headquarters Platoon deployed from mid-October through mid-November. The exercise demonstrated the ability of the division's soldiers to deploy quickly to the Asian nation and conduct tactical movements to assist our Korean allies in the event of a crisis.

To support corps' requirements and be prepared as America's contingency ADA brigade, the 108th ADA Brigade executed a myriad of training exercises during 1997. By late April, 800 soldiers from 2-43 ADA wrapped up their Southwest Asia rotation while soldiers from 1-2 ADA were engaged in an opposing force mission at the NTC. The brigade staff also deployed approximately 150 soldiers, NCOs, and officers to Coherent Defense, ASCIET 97, and Unified Endeavor. December saw the last brigade field training exercise as more than 900 soldiers conducted ADA and communications operations in northern New Mexico.

The 108th ADA Brigade spent the end of 1997 on final planning for the Fort Bliss emergency deployment readiness exercise, ensuring all procedures and key personnel were in place. The exercise demonstrated the installation's ability to serve as a power projection platform. From the Departure Air Group at Biggs Army Airfield to transportation, housing, and chaplain officials, each organization worked around the clock preparing for the exercise and rendered yeomen's service to the brigade and its soldiers. The 108th ADA Brigade

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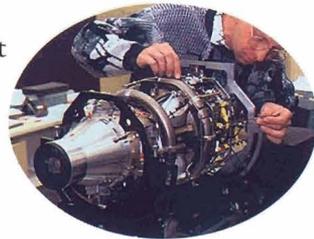
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ADA'S FINEST

SSG Richard Bailey, B/2-6 ADA, won the 6th ADA Brigade NCO of the Year competition and was runner-up for Post NCO of the Year honors. 2-6 ADA soldiers SSG Herbert Murphy, SSG Eric Olsen, and SGT Saundra Bowersox were inducted into the Sergeant Audie Murphy Club.

is confident it can meet all deployment requirements of the XVIII Airborne Corps.

2-44 ADA, participating in the ASCIET 97 Exercise at Camp Shelby with its air battle management operations center and air defense coordination section, successfully conducted links with airborne warning and control system aircraft via JTIDS.

In April, 1-62 ADA soldiers turned their attention to battery- and battalion-level collective training. They conducted a full round of platoon external evaluations (Tropic Warrior II) and numerous TOC deployments in local training areas to refine command and control. A three-week battalion exercise in May concluded the external evaluations and flushed out 1-62 ADA's split TOC concept in preparation for the ramp-up to the battalion's division warfighter.

In addition, all 1-62 ADA batteries conducted deployments to Japan, Thailand, and other Pacific Rim countries in support of division exercises and commitments. The battalion's 90-hour Battle Staff Training Program, also in May, trained leaders for their roles in the upcoming warfighter. This aggressive program was essential to success. A June battalion-level command post exercise with all key command and control personnel and command posts and continued deployments throughout the Pacific Rim during July made the summer fly by. The Battle Staff Training Program concluded with a "Warfighter University" that was a true roll-up of everything learned in the 90-hour block of instruction, and in December, 1-62 ADA conducted the division warfighter. Observer-controllers

cited 1-62 ADA soldiers as the best they had seen in any ADA battalion in the Army.

The 31st ADA Brigade's new Patriot Maintenance Concept Evaluation Program field training exercises took place during the fall. Soldiers of the 518th Maintenance Company evaluated the program to determine if one reinforced maintenance company can support an ADA brigade with two Patriot battalions and two National Guard Avenger units. The 518th is the first to test, gather information on, and implement this program.

3-62 ADA soldiers spent part of October in Mountain Peak, a 2nd Brigade Combat Team exercise, then spent October and November participating in Unified Endeavor 98-01, a U.S. Atlantic Command (USACOM)-sponsored joint training exercise designed to train a joint task force. The 10th Mountain Division (Light Infantry) participated as the Army force. 3-62 ADA soldiers manned command and control response cells in the 10th Mountain's battle simulation center. The battalion staff also had the responsibility to command and control an ADA brigade task organized under the Army Forces Command. The exercise afforded a great opportunity for the staff to exercise the tactical decision-making process and to experience joint operations.

Training year 1997 provided some unique challenges and outstanding opportunities for the 164th ADA Brigade. The brigade participated in numerous joint service exercises and deployed overseas to Korea and Germany. Headquarters, 164th ADA Brigade, began the training year by participating with the 9th Air Force and 117th Air Control Squadron in the 9th Air

Force Joint Service Training Exercise 96-03 at Shaw Air Force Base, South Carolina. The brigade also participated in Forces Command Joint Services Training Exercise 97-03 with the 8th Air Force at Barksdale Air Force Base, Louisiana. 164th ADA Brigade soldiers took part in Coherent Defense (a USACOM-sponsored exercise in Virginia) in July and Ulchi Focus Lens (involving real-world air defense) in Korea in August.

The 263rd ADA Brigade sent seven soldiers with the 69th ADA Brigade to the Victory Strike 97 exercise in Grafenwoehr, Germany, in March. One soldier supported the 30th Infantry Brigade in a warfighter exercise in Fort Leavenworth, Kansas, in June, and 10 soldiers supported the AAMDC in Ulchi Focus Lens 97 in Seoul, Korea, last August.

111th ADA Brigade had an extremely successful corps battle simulation exercise with outstanding participation from staff sections and battalions. The New Mexico air defenders also attended the Brigade Battle Simulation at Fort Carson, Colorado.

1-213 ADA had a highly challenging and successful training year, attending five separate annual training sites and supporting six major brigade-size elements in support of the 28th Infantry Division (Mechanized).

1-203 ADA's command post exercise in August was the first actual test of its field and tactical SOPs. September saw the first field training exercise for the battalion as a whole, an opportunity for units to lay in their defensive positions and train on critical missions. In November, B and D Batteries joined the Air Force Reserve from

Montgomery, Alabama, and Dover, Delaware, for a "hot" load of a HMMWV onto a C-130 aircraft with the engines running. The C-130 was on the ground at Redstone Arsenal less than 15 minutes.

1-203 ADA soldiers also uploaded a C-5 aircraft from Dover Air Force Base with a Patriot launching station, two HMMWVs and an antenna mast group. Approximately 35 personnel accompanied the equipment to Maxwell Air Force Base in Montgomery, where they unloaded and reloaded the equipment. This was an excellent opportunity for units to train on their mission-essential task of deploying the battery.

Classrooms and Courses. The 6th ADA "School" Brigade's training battalions continue to fulfill their mission of producing the finest combat-ready Air Defense Artillery soldiers. 1-56 ADA successfully graduated more than 95 classes of MOS 24T, 14T, 14R, 14S, 14J, 14M, 27X, and 14E soldiers. 2-6 ADA conducted 73 graduation ceremonies, producing 1,762 new 14S, 14M, 14R, 14J, and 140A soldiers. B/2-6 ADA and C/2-6 ADA started a new 14R and 14S Driver's Certification Program that enabled 14R advanced individual training soldiers to arrive at their new duty stations with a valid operator's permit. D/2-6 ADA hosted the CHS 2 new equipment training for the 10th Mountain Division (Light Infantry), 101st Air Assault Division (Airborne), and the 2nd, 3rd, 4th, and 25th Infantry Divisions. D/2-6 ADA completed the programs of instruction and 122 lesson plans for both the 14J Enhanced and 140A ADA Systems Integrator Courses and began instruction in April.

3-6 ADA had a great year in 1997. The unit added the Hawk mission to its Patriot training mission, taking on the added duty of training foreign military students on the Hawk system and supporting U.S. Marine Corps Hawk instruction. In 1997 alone, 3-6 ADA trained more than 1,200 students on the Patriot missile system.

4-6 ADA conducts the ADA Officer Basic and Advanced Courses and Warrant Officer Basic and Advanced Courses. The 20-week OBC consists of a 10-week common core block of instruction and a 10-week track course. Small-group instructors and their platoon sergeants lead the students through the common core, and the class splits (usually 50-50) for the short-range and high- to medium-altitude air defense weapons tracks. Each of these 10-week blocks ends with a two-day field training exercise. Small groups are also the norm in the 18-week OAC, with each class conducting staff rides to such locations as Glorietta Pass in Santa Fe, New Mexico. OAC graduates attend the six-week Combined Arms Service and Staff School at Fort Leavenworth. Warrant officers attending their basic course, like OBC lieutenants, do follow-on training in their designated specialties after completing a common core block of instruction. The Warrant Officer Advanced Course is approximately seven weeks long, and many of the subjects parallel those in the OAC.

The School Brigade wasn't alone in its training efforts. Seventeen 1-203 ADA soldiers became graduates of the battalion's 16T Reserve

Component Configured MOS School that culminated with annual training 1997. Conducted in conjunction with the 200th Leadership Brigade, Alabama Army National Guard, the course consisted of eight inactive duty training assemblies and a two-week annual training period.

FOREIGN RELATIONS

Operation Desert Storm did more than rescue Kuwait from Saddam Hussein's clutches, it also served to validate the necessity of joint operations. The United States no longer stands alone against aggression and tyranny; instead, Americans train and fight shoulder to shoulder with soldiers of many nations. ADA soldiers make invaluable contributions to this "total force" concept.

4-6 ADA executes the Security Assistance Training Program for the U.S. Army Air Defense Artillery School and Fort Bliss. 4-6 ADA's International Military Detachment oversees all foreign students attending training at Fort Bliss, the largest foreign military training program in the Training and Doctrine Command! While our international partners attend courses at Fort Bliss, they spend a large portion of the program getting acquainted with our culture. The battalion hosts various trips throughout the Southwest, and each Officer Advanced Course student ends the program with a one-week trip to Washington, D.C. 1-56 also hosted foreign officials from Britain, Russia, Sweden, and Poland, who visited the home of Air Defense Artillery to view training tactics.

The 69th ADA Brigade interacted with military leadership from

ADA'S FINEST

In September 1997, 3-4 ADA received the Army Superior Unit Award for its actions during the 82nd Airborne Division's planned invasion of Haiti in September 1994. 3-4 ADA's Headquarters and Headquarters Battery took top honors as the best unit supply room in the XVIII Airborne Corps' Chief of Staff of the Army Supply Excellence Award Competition.

several foreign countries throughout the year. A brigade partnership team visiting the Hungarian Army's Danube Brigade in February viewed SA-2s, SA-3s, and SA-5s and toured the Danube Brigade's Logistic and Maintenance Kasernes. During the visit, the 69th ADA Brigade team also attended the retirement ceremony for the outgoing Danube brigade commander.

A delegation of five Macedonian officers visited the 69th ADA Brigade in April, attending an information briefing given by brigade staff officers and then spending two days of familiarization at each of the battalions. In December, the Romanian commander of the Air Force Air Defense Artillery and Missiles Staff led a Romanian delegation that visited the 69th ADA Brigade on Romania's National Day. The brigade provided an overview of corps air defense with visits to 4-3 ADA (Avenger, BSFV, and Stinger) and 6-52 ADA (Patriot). The Romanians also visited the Patriot conduct of fire trainer and Stinger moving target simulator. They were very interested in the Patriot weapon systems and our simulation systems.

4-5 ADA took part in III Corps' foreign soldier exchange program, which permits foreign soldiers to view U.S. Army training standards, equipment and, most importantly, American soldiers. 4-5 ADA had the privilege of hosting Lieutenant Alexander Miazga and Oberfeldwebel Oliver Maier from the 8th Antiaircraft Artillery Regiment of the 1st Mountain Division. The German soldiers viewed numerous training events, including a Renegade Strike exercise, an M-9 range, a Stinger live-fire, and C Battery's Lightfighter. The following month

4-5 ADA sent two soldiers to Bavaria to observe the German Army in action.

Four soldiers of the 1-213 ADA took part in foreign soldier exchanges during the annual training period. Two soldiers traded places with soldiers from the United Kingdom while the other two did the same with exchange soldiers from the German Army. 1-213 ADA also sent two senior officers to the Lithuanian Defense Force to conduct planning exercises in Europe's Baltic region.

COMMUNITY INVOLVEMENT

While almost everyone recognizes the contributions ADA soldiers make to the defense of the United States, few are quick to credit these same soldiers for their constant support of their host communities. Air defenders worldwide offer their time, expertise — even blood — to the civilians they protect.

El Paso and Fort Bliss join hands regularly to enhance the lives of citizens throughout the area. The 108th ADA Brigade, a relatively new addition to the Air Defense Center of Excellence, has already forged partnerships with Sam's Club East, the Donnie Brown Chapter of the 9th and 10th Horse (Cav) Buffalo Soldier Association, and three schools in the community. Soldiers served as tutors and mentors in their partner schools and used various initiatives to help students with the Texas Academic Assessment Skills test.

The brigade and its Partner In Progress, Sam's Club East, worked hand in hand to improve the quality of the Fort Bliss Junior Enlisted Family Center. Together, they conducted fundraisers to finance a

renovation of the center. The joint venture not only created a much better facility on Fort Bliss, it also resulted in the 108th ADA Brigade receiving the honor of being named Armed Services YMCA Volunteer of the Year — the first time in the history of this chapter that the award has gone to an organization rather than an individual.

Environmental stewardship remained at a constant high as the 108th ADA Brigade wrapped up 1997. Its greatest challenge was to give the Biggs Army Airfield entrance a complete makeover, a project similar to others conducted by the city of El Paso and contributing to the area's overall beautification. In just five days, 700 soldiers donated 36,750 man-hours and moved more than 2,000 tons of crushed rock to redesign the entrance and median.

Battalions with the 6th ADA "School" Brigade continue the tradition of community involvement with El Paso. 1-56 ADA soldiers, the largest contributors to William Beaumont Army Medical Center's Blood Donor Center, participated in more than 35 blood drives. 4-6 ADA officer students often assist their "Partner in Education," Austin High School, as tutors and science fair judges. 3-6 ADA, a proud member of Operation Santa Clause, hosts a Doll Ladies Tea Party to honor those gracious community volunteers who support Operation Santa Claus by fixing, cleaning, and stitching clothes for donated dolls. Approximately 100 doll ladies attended this December event.

The museums at Fort Bliss are among the best in the area, providing rich examples of our nation's history to the multitudes of El Paso

ADA'S FINEST

1-56 ADA is home to the Drill Sergeants of the Year for 1996, 1997, and 1998: Drill Sergeant Richard Clem (1996 and 1997) and Drill Sergeant Brock A. Olbert (selected in October for 1998). 1-56 ADA's S4 Section won the Brigade Supply Excellence Award for the third quarter.

ADA'S FINEST

C and B Batteries, 3-43 ADA, won the Commanding General Award for Unit Maintenance Excellence. The 70th Ordnance Battalion's 699th Maintenance Company won the Phoenix Award for Unit Maintenance Excellence.

children who visit each year. Donations of time and expertise, by soldiers and civilians alike, are as vital to the success of these museums as the artifacts they house.

3-6 ADA soldiers and veterans residing throughout the El Paso community joined hands in 1997 to restore a piece of ADA history: the M1A1 Rifle Bore Air Defense Artillery "Stratosphere" gun. The 120mm gun began production in 1943 and was phased out and replaced by the Nike Ajax missile by 1955. Hundreds of man hours went into restoring the 120mm gun, which today looks just like it did when it came out of the factory. Although the gun does not function, it will definitely inspire future visitors to the museum.

2-6 ADA participated in the "Adopt an Artifact Program," refurbishing a Chaparral, a towed Vulcan, and a self-propelled Vulcan for permanent display at the Fort Bliss Air Defense Museum. The battalion also donated a moving target simulator, a dome simulator used to teach air defense soldiers on Stinger tracking and engagement procedures.

The Fort Bliss/El Paso/Juarez metroplex is one of the greatest multicultural communities in the world. 3-43 ADA, 11th ADA Brigade, embraced this multicultural heritage by sponsoring the Martin Luther King Jr. observance in January; the brigade's Ethnic Observance, Jewish Holocaust, in May; and the Post Ethnic Observance, Native American, in November. The 70th Ordnance Battalion also sponsored an Ethnic Observance that included coverage of Asian, women, and black history.

By the end of 1997, the 35th ADA Brigade had successfully completed its move to Fort Bliss and had re-established its high readiness posture in support of America's Corps. 35th ADA Brigade soldiers have quickly adjusted to their new home, already partnering with the community and citizens of El Paso in a host of activities, such as promoting education through Fort Bliss' Partners in Education program.

Community involvement isn't just a matter of soldiers giving to the community. More than 200 El Paso families graciously welcomed approximately 600 military students into their homes for the 1997 Thanksgiving Day holiday. El Pasoans also demonstrated their support of ADA soldiers by dedicating the bright star on the mountain to soldiers of Task Force 5-52 (11th ADA Brigade), who spent their Christmas in Southwest Asia.

All Army National Guard units have strong ties with their city fathers and communities, and this is perhaps nowhere more evident than with Florida's 164th ADA Brigade, whose soldiers are not only "First to Fire," but "First to Help" as well.

Headquarters and Headquarters Battery, 164th ADA Brigade, is the proud sponsor of the McCoy Cadet Squadron of the Civil Air Patrol. As a member of the Orlando Anti-Drug Coalition, the headquarters assisted with several community festivals, the Orlando Fights Back Youth Alliance and Memorial March, and the Drug Demand Reduction State Conference held in Orlando. For the third straight year the brigade headquarters worked with the PAXEN Group Summer Youth Program,

serving as mentors for at-risk kids, and sponsored the About Face Program throughout the school year for children from families on welfare.

1-265 ADA volunteered use of its armory facilities for student college testing and food and blood drives, provided a display for the Daytona USA Museum during Armed Forces Week, and participated in open houses at Emory Riddle University and the state capitol in Tallahassee. 1-265 ADA soldiers supported ROTC students with quarterly visits to local high schools, equipment displays, and interaction with high school educators and administrators. 1-265 ADA also proudly supported the African-American Summit.

2-265 ADA was extremely active this training year, hosting the PAXEN Group Summer Youth Program, serving as mentors for at-risk kids, providing evaluator programs during the State JROTC Drill and Ceremonies competition at Palm Bay High School, and assisting the Marine Corps Reserve in their Toys for Tots. 2-265 ADA also assisted local chapters of the American Red Cross in blood drives and MASH Day activities.

3-265 ADA hosted the Martin Luther King Jr. Breakfast in Bradenton and participated in the Edison Parade of Lights in Fort Myers, the Ride for Toys Program and the Fourth of July Festival in Palmetto, and the MacDill Air Force Base Air Show in Tampa. The battalion also assisted the Manatee County Sheriff's Department Boot Camp Program and hosted the Operation About Face program in Bradenton, Sarasota, and Fort Myers.



Fort Bliss Sesquicentennial

by Tony Cuciniello

The 3d Regiment of Infantry . . . The six companies of the Regiment now in Texas, will, as soon as the necessary reconnaissance can be made in the direction of El Paso, be put en route for that post.

This brief military order, officially known as War Department General Orders No. 58, dated Nov. 7, 1848, set off a chain of events that resulted in the present home of the U.S. Army Air Defense Center and Fort Bliss.

Major Jefferson Van Horne, with Companies A, B, C, and D of the 3rd Infantry Regiment, arrived in the El Paso area Sept. 14, 1849.

They immediately established what was later to become known as the "Post of El Paso" on Franklin Coon's ranch. This site is near the present-day El Paso Civic Center in downtown El Paso. Their primary mission was to protect the ranchers from Apaches.

Van Horne and his troops departed the area in 1852. After the troops departed, the Native Ameri-

cans became even more daring, prompting the Inspector General of the Army to suggest that a new post be established in El Paso.

In December 1853 advance units of Companies B, E, I, and K, 8th Infantry, arrived at the pass and began negotiating with James Magoffin to establish a post at Magoffinsville. This second site, also known as the Military Post of El



This 1910-era photo (opposite page) shows Fort Bliss at its permanent residence on La Noria Mesa; Building 2011 (top), the Quartermaster Stables in 1895; and at left, the guard-house in Building 241, circa 1900.

Paso, is the present-day Magoffin and Willow Streets.

On March 8, 1854, the post's name changed to Fort Bliss in honor of William Wallace Smith Bliss, a veteran of the Florida Indian Wars and the Mexican War who had also served as private secretary to President Zachary Taylor.

Fort Bliss and all the other military forts in Texas surrendered to

the Confederacy on March 31, 1861. Confederate troops used the post sporadically until U.S. Army troops reoccupied the area in 1865 and constructed a fort near the Rio Grande. The ever-changing path of the river soon undermined the foundations of the buildings, and less than one year later, the post was moved three miles and renamed Camp Concordia. New orders issued March 23, 1869,

renamed the post Fort Bliss. By 1876 the majority of troops stationed at Fort Bliss were moved north, and in 1877, the post was once again abandoned.

Soon after the troops left, El Paso reverted to a lawless town. Business declined; gunfights and gambling took over the city. The situation grew steadily worse and Congress demanded an investigation.

Army units from Forts Brayard, Stanton, and Davis moved into the area. Troop L, 9th Cavalry, and Companies A, G, and I of the 15th Infantry, marched into Franklin (present-day El Paso) on New Year's Day, 1878.

Arrangements were made to purchase 135 acres of land from the Simeon Hart estate adjoining Hart's Mill. Fort Bliss, now perched on a bluff overlooking the Rio Grande, once again took on a look of permanence.

In 1881 the railroads demanded and received permission to

lay their lines through the military reservation. This arrangement caused extreme trepidation between the Army and the railroads. In 1890 the Secretary of War obtained permission to purchase a new site, and he chose La Noria Mesa, the current location of Fort Bliss.

General Orders No. 25, dated March 11, 1890, permitted the sale of Fort Bliss at Hart's Mill and, with the proceeds of that sale, the purchase of the land on La Noria Mesa. This site, approximately five miles from the center of town, was a wasteland of cactus and sand.

More land was purchased through subscription of funds donated by citizens of El Paso and, in October 1893, Companies A, C, D, and G of the 18th Infantry moved into barracks under the acting command of Captain William H. McLaughlin.

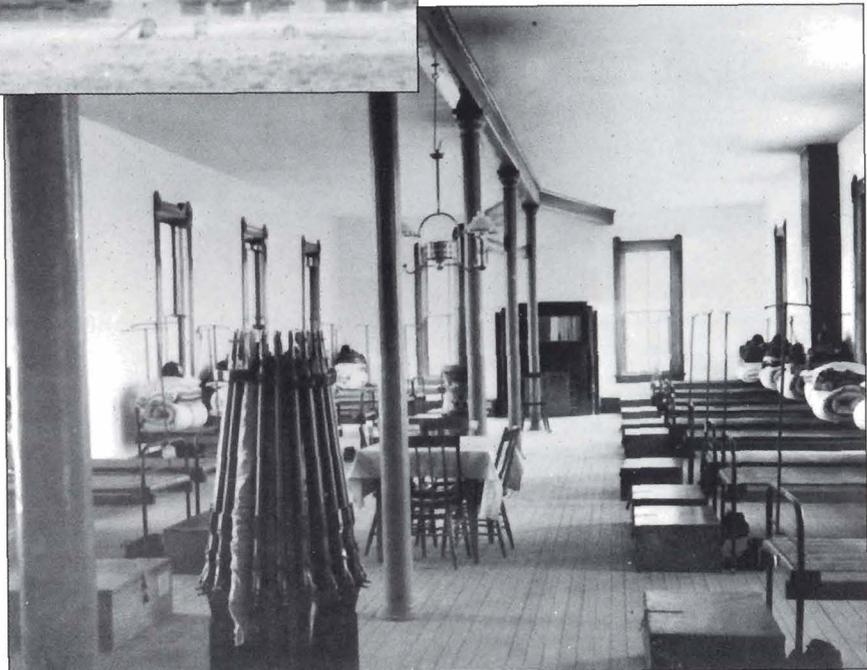
From its permanent site on La Noria Mesa, Fort Bliss troops continued to make history. Soldiers from Fort Bliss saw duty in the Philippines and China.

In 1914, Brigadier General John J. "Blackjack" Pershing arrived on Fort Bliss. Tensions along the border grew as the revolution in Mexico flared. When eight civilians and seven soldiers died during Pancho Villa's infamous raid on Columbus, New Mexico, Pershing reacted. On March 15, 1916, Pershing led his troops across the border in pursuit of Villa.

During World War I Fort Bliss became a major training center. It earned the reputation as the "training ground for generals." Four generals, who later became Army chiefs of staff, trained at Fort Bliss: Peyton



Some of the original Officer's Quarters, shown here in 1893, still stand at Fort Bliss today. The enlisted barracks (right), also shown in 1893, have undergone profound changes in the last 100 years.



C. Marsh, John J. Pershing, John Leonard Hines, and Hugh L. Scott.

Soon after World War I, Fort Bliss went through a large growing spurt. Four hangars were constructed on the original Biggs Field, and William Beaumont General Hospital was constructed as part of the \$366,000 congressionally approved expansion program.

The 1st Cavalry Division was organized at Fort Bliss in 1921 and became known as El Paso's own. Physical expansion and cavalry maneuvers were the order of the day during the late 1920s and through the 1930s. Polo became the sport and the post played host to numerous matches.

In September 1940, four National Guard regiments from Arkansas; Washington, D.C.; Illinois; and New Mexico were training to "shoot planes out of the sky." These Coast Artillery (Anti-Aircraft) regiments were training at the newly established Anti-Aircraft Training Center.

Throughout World War II, Fort Bliss saw many changes. In 1943, the 1st Cavalry turned in their horses, signifying an end to that era. Also in 1943, Fort Bliss added women to its ranks as the Women's Auxiliary Army Corps arrived.

Research conducted during the war, and subsequent post-war technological developments, led to the addition of a new weapon to the anti-aircraft artillery arsenal, the guided missile. Operation Paperclip, headed by world-renowned scientist Werner Von Braun, was the beginning of the technology development that would make the United States the leader in missile technology.

The 1st Anti-Aircraft Guided Missile Battalion was organized at Fort Bliss in October 1945. In 1946, the school at Fort Bliss was redesignated the Anti-Aircraft and Guided Missile School.

Fort Bliss Sesquicentennial Events

- 62nd U.S. Army Band NCO Concert (22 Feb 98)
- 62nd U.S. Army Band Spring Concert (22 Mar 98)
- Magoffinsville Site Event (25 Mar 98)
- U.S. Marine Corps Silent Drill Team (03 Apr 98)
- Camp Concordia Site Event (09 Apr 98)
- AUSA-sponsored Sesquicentennial Event (09 May 98)
- Armed Forces Day Fort Bliss Sesquicentennial (16-17 May 98)
- Memorial Day Ceremony (25 May 98)
- Welcome for U.S. Military Polo Team (28 May 98)
- Polo Matches (29-31 May 98)
- Formal Ball (29 May 98)
- Buffalo Soldier Memorial Groundbreaking (Jun 98)
- Fort Bliss Night at Viva El Pasol (14 Jun 98)
- Army Birthday/Flag Day Retreat Ceremony (15 Jun 98)
- ADA Commanders' Conference/
ADA Branch 30th Anniversary (15-19 Jun 98)
- Salute to the Union (04 Jul 98)
- Dog Days of Summer concerts (17 Jul 98)
- Hart's Mill Site Event (05 Aug 98)
- Amigo Airsho (Fort Bliss Sesquicentennial
in promotion package) (10-11 Oct 98)
- La Nora Mesa Site Event; 62nd U.S. Army Band concert;
ice cream social (25 Oct 98)
- Buffalo Soldier Memorial Dedication (Nov 98)
- El Paso County Historical Society Hall of Honor Banquet
(01 Nov 98)
- Veterans Day Parade "The Military on the Border" (07 Nov 98)
- Concert and ceremony with UTEP (School of Mines) (14 Nov 98)
- 1998 Sun Carnival Parade (26 Nov 98)
- 1998 Sun Bowl Game half-time Sesquicentennial
commemoration (31 Dec 98)

Missile development, in cooperation with White Sands Proving Grounds, continued. The first Nike missile battalion was established at Fort Meade, Maryland, in 1953. The school at Fort Bliss became the U.S. Army Air Defense School in 1957, and Fort Bliss became the U.S. Air Defense Center and Fort Bliss.

From the early days of the Nike Ajax to today's Stinger, Patriot, and Theater High-Altitude Area Defense missile systems, Fort Bliss trains the men and women of the military to operate the most sophisticated equipment in the world.

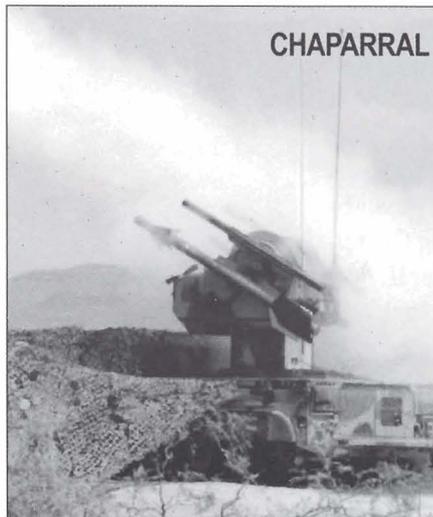
As they have since the days of the Indian Wars; through Black-jack Pershing's excursions into Mexico; through World Wars I and II, Korea, Vietnam, and Desert Storm; and through all the peace-keeping and disaster relief operations, Fort Bliss soldiers continue to represent the best of our country's young men and women.

Tony Cuciniello is a public affairs specialist with the Fort Bliss Public Affairs Office.

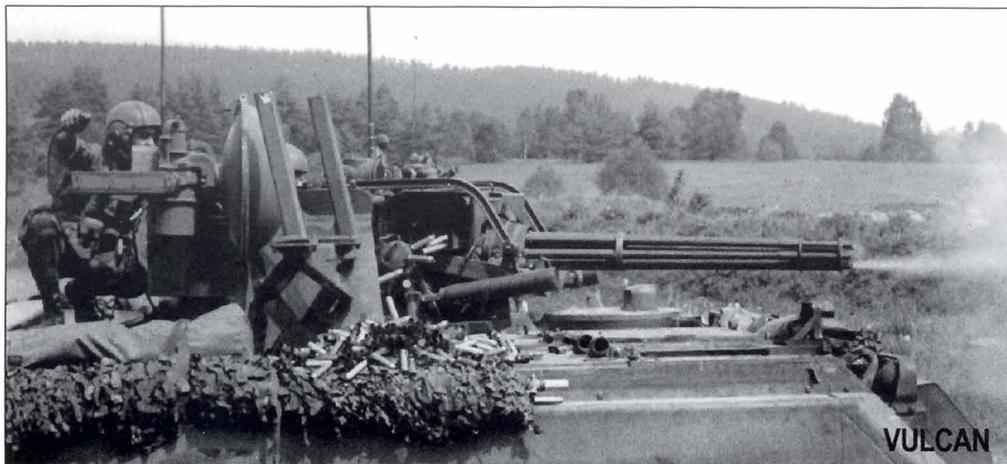
REDEYE



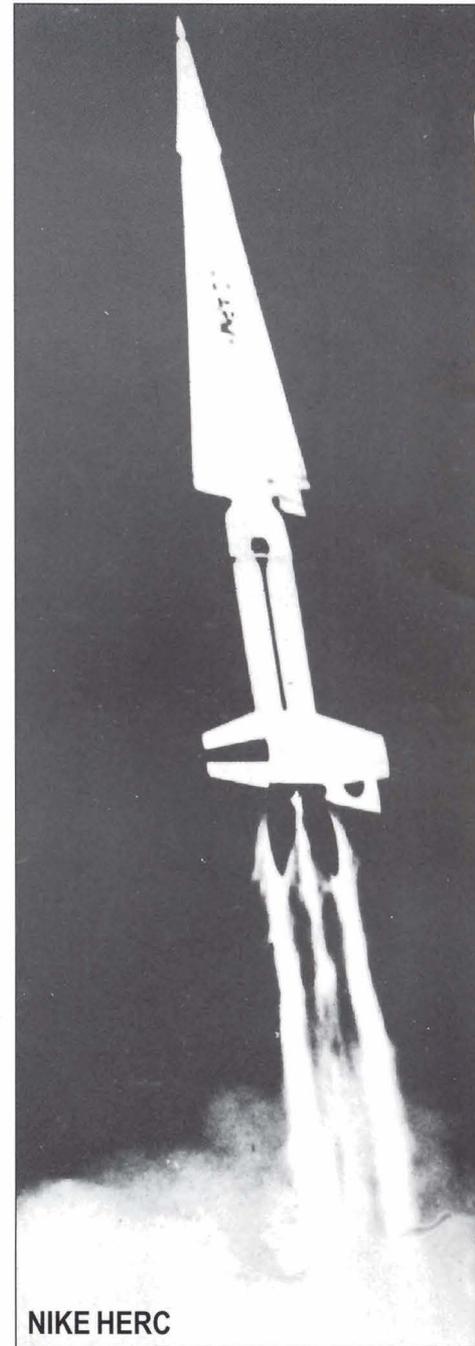
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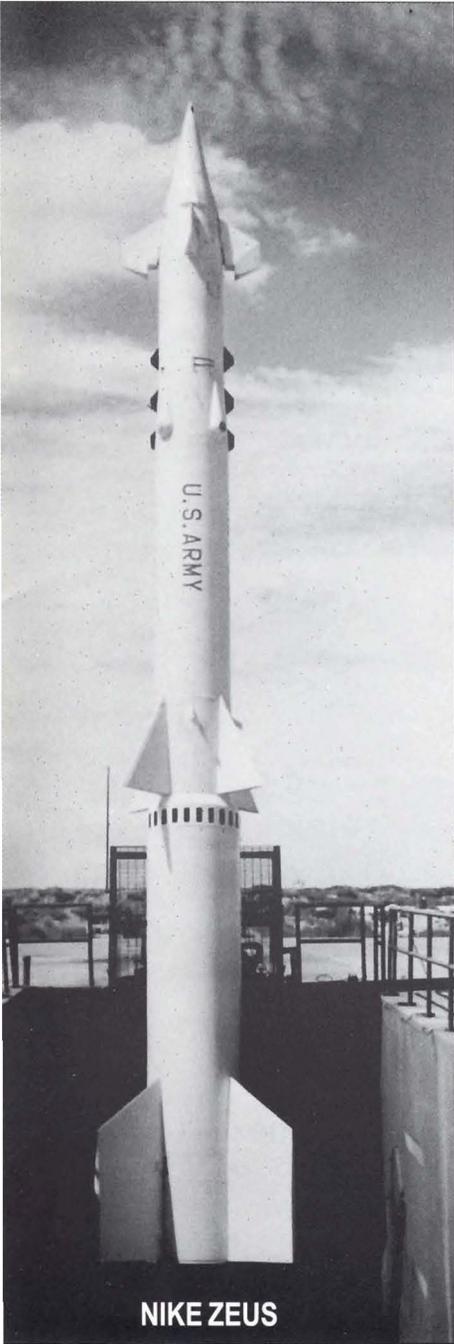
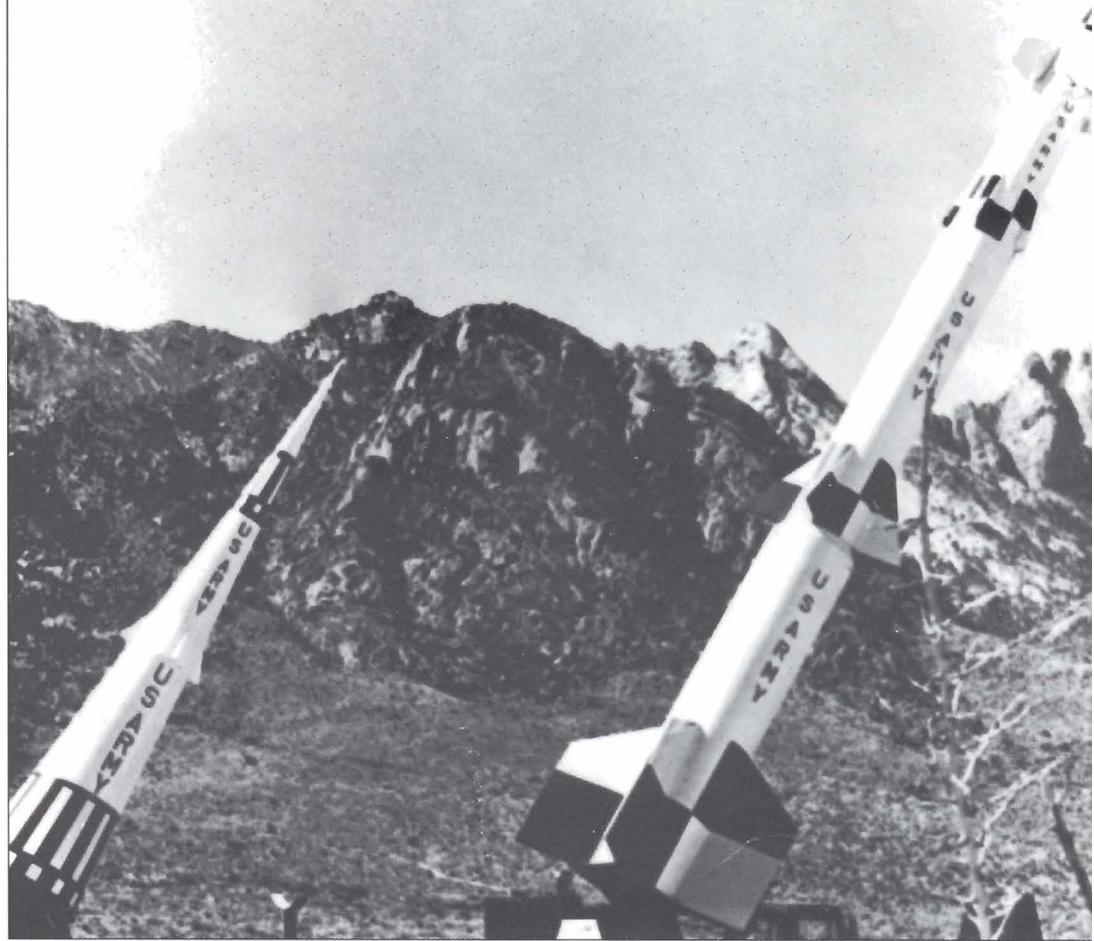
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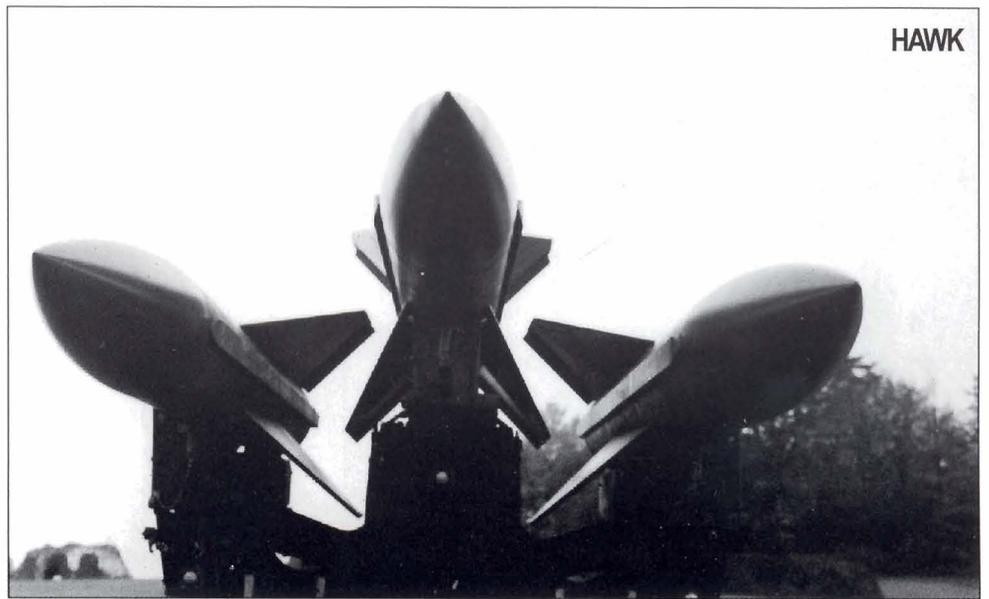
Air Defense

SAFEGUARD

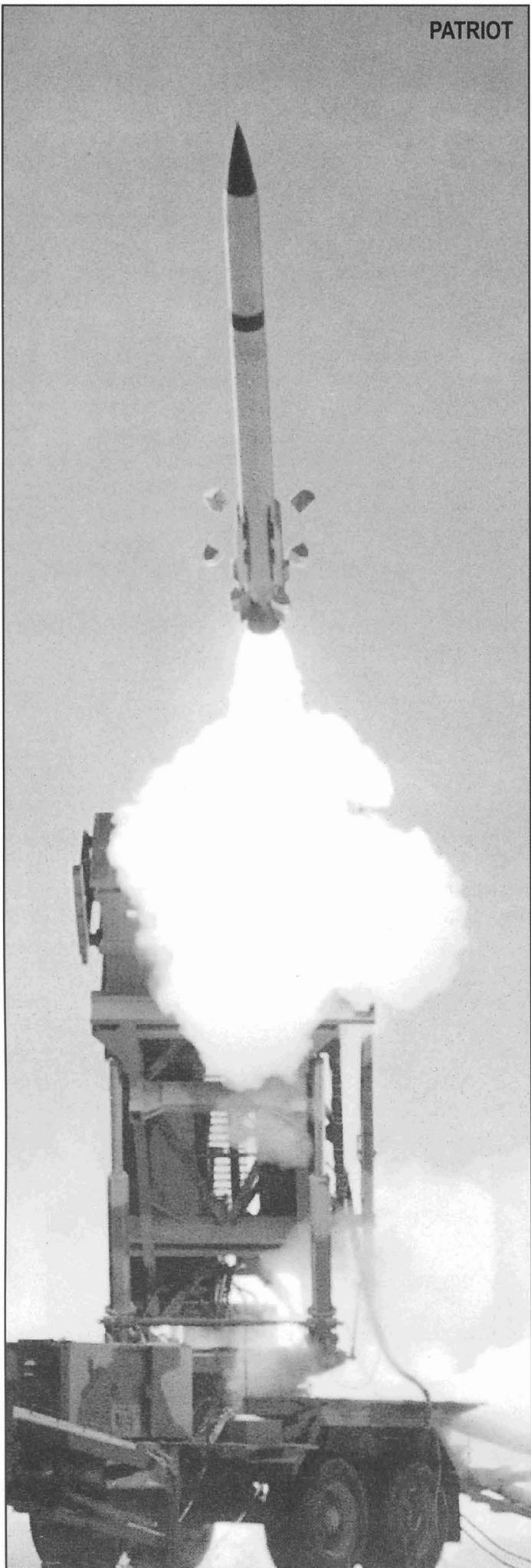


NIKE ZEUS

HAWK



Artillery at 30



GENERAL ORDERS

No. 25

AIR DEFENSE A

Effective 20 June 1968, pursuant to the au
Code, Section 3063 (a) (13), Air Defense
of the U.S. Army.

By order of the Secretary of the Army:

HAROLD K. JOH
General, United
Chief of Staff.

Official:

KENNETH G. WICKHAM,
Major General, United States Army,
The Adjutant General.

During its first 30 years of existence as an independent combat arm, Air Defense Artillery has established a reputation for adaptability, flexibility, professionalism, and performance. The branch has successfully shifted its primary focus from U.S.-based strategic defense against long-range bombers and point defense of upper echelon assets to force protection of the field army. It evolved from producing weapon systems based on off-the-shelf technologies verging on obsolescence to fielding future-based systems that placed Air Defense Artillery a quantum leap ahead of the air threat. While accomplishing this remarkable transition, the "First to Fire" branch also succeeded in producing ADA soldiers and units whose competence, dedication, professionalism, and performance under fire matched the unparalleled excellence of their weapon systems.

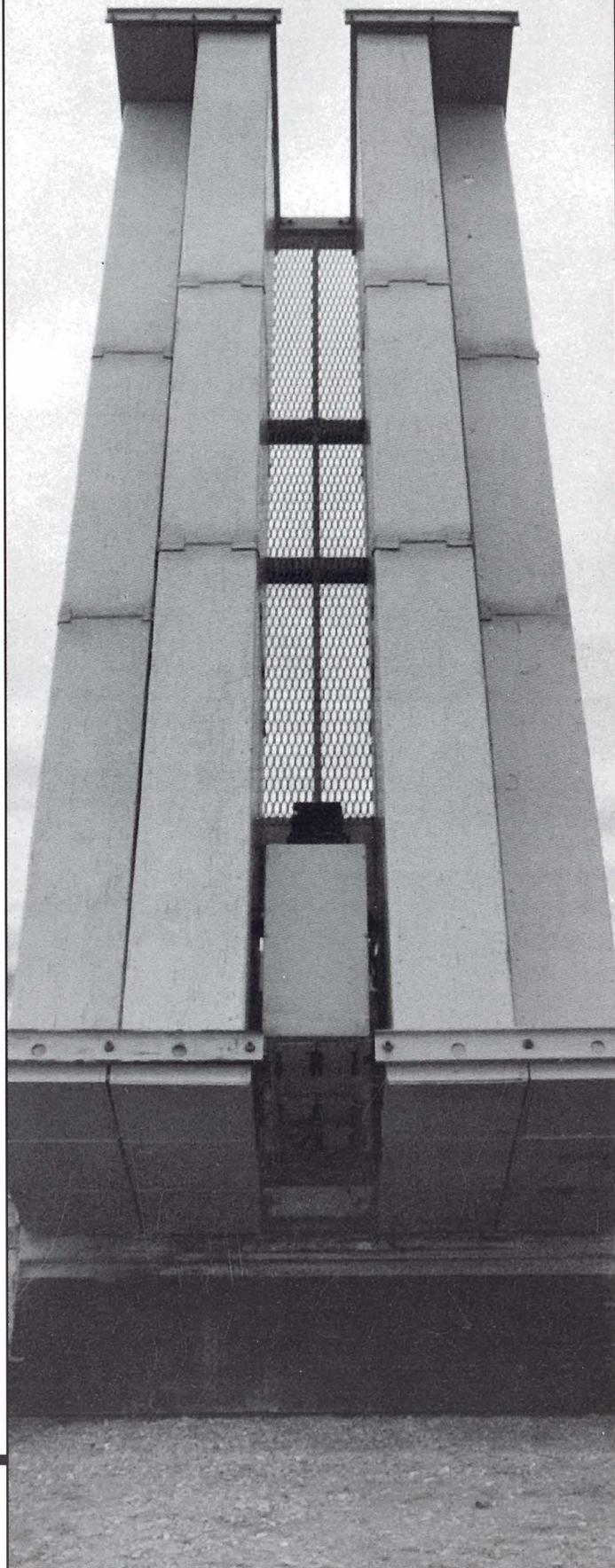
ARTILLERY BRANCH

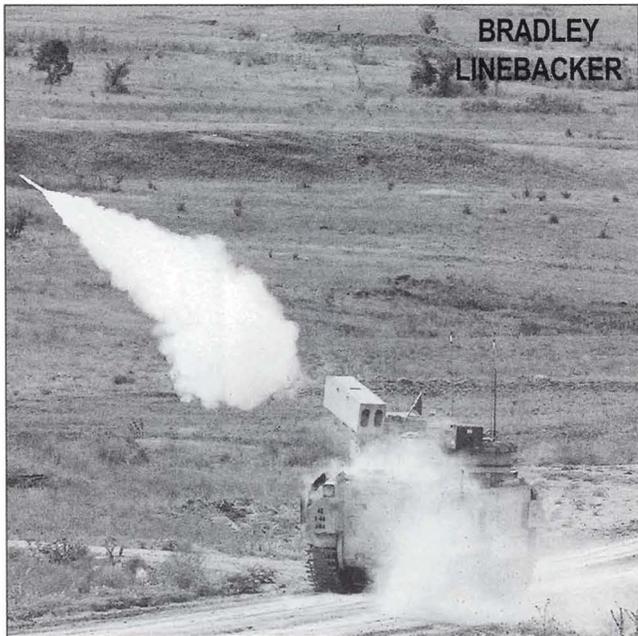
Authority contained in Title 10, United States
Artillery is established as a basic branch

NSON,
States Army,

This achievement is all the more remarkable considering Air Defense Artillery's starting point. On June 20, 1968, the day General Orders No. 25 created Air Defense Artillery, the Nike Hercules batteries of the U.S. Army Air Defense Command (ARADCOM) were still employed in defensive rings around the nation's great population centers, but the long-range bomber threat they were designed to defend against had been made irrelevant by the ascendancy of the intercontinental ballistic missile threat. The United States had just fought one war, Korea, in which the air threat was insignificant and was engaged in a second, Vietnam, in which the air threat never appeared south of the Demilitarized Zone. During the years ADA Duster and Quad .50 crews battled Viet Cong and North Vietnamese Army infantry in the rain forests and rice paddies of Southwest Asia, the Soviet Union refocused its air force from

THAAD





strategic defense to support of offensive operations. The air threat to the U.S. Army's maneuver forces grew tremendously stronger, with little growth in our air defense capabilities to offset it.

Fortunately, 1968, the year of Air Defense Artillery's birth, was a pivotal year in many

ways. Work was already underway on improved Hawk and the technologies that would eventually mature into Patriot, but more importantly, the branch was preparing itself for the day ARADCOM would inevitably disappear. The 1970s saw the branch committed to stopping a massive fixed-wing threat that had



only a small number of supporting rotary-wing aircraft, while 1980's doctrine demanded that ADA soldiers go on the attack, executing the fight faster and more daringly than the enemy.

During the Gulf War, divisional ADA units were fully integrated into the assault forces that smashed through Iraq's defensive barriers, and mobile Patriot and Hawk task forces provided a moving overlay to the majestic Operation Desert Storm scheme of maneuver. Operation Desert Storm focused the nation's attention on the tactical ballistic missile threat and Patriot's success provided Air Defense Artillery the leverage its leaders need to field vital new air defense weapon systems in an austere budget environment. In September 1992, the Army awarded an industry team led by Lockheed Missile and Space Company a contract to demonstrate and test Theater High-Altitude Area Defense (THAAD) system

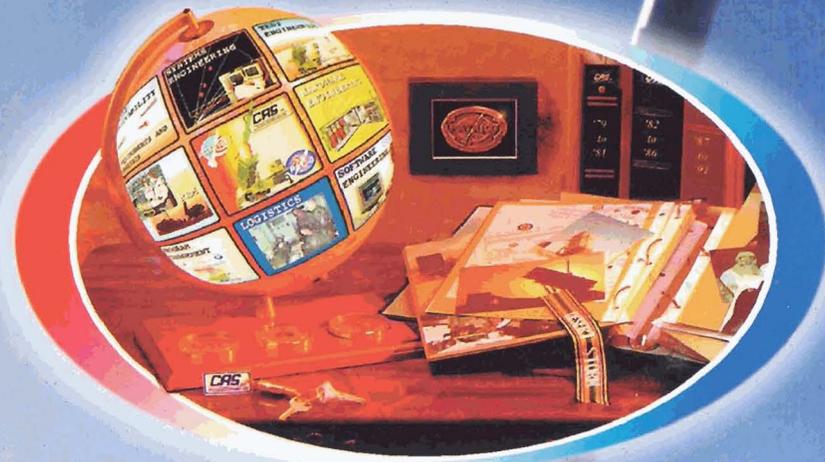
prototypes. 1993 saw the Army choose contractors to perform studies on the Medium Extended Area Defense System, a light, mobile missile and aircraft defense system that will arrive in the theater by airlift ready to fight and then travel on the battlefield with forward combat forces.

Air Defense Artillery has come a long way since 1968, and the forecast for the branch is bright. ADA soldiers remain on 24-hour alert in Southwest Asia, Korea, and Bosnia. ADA units are ever-poised to deploy to contingency areas around the globe. And everywhere ADA soldiers and ADA units are held in high esteem. Air Defense Artillery has achieved what it has been striving for since its creation: a unified theory of air defense that elevates and extends total air defense force protection against the whole spectrum of threat platforms across an entire theater of operations.

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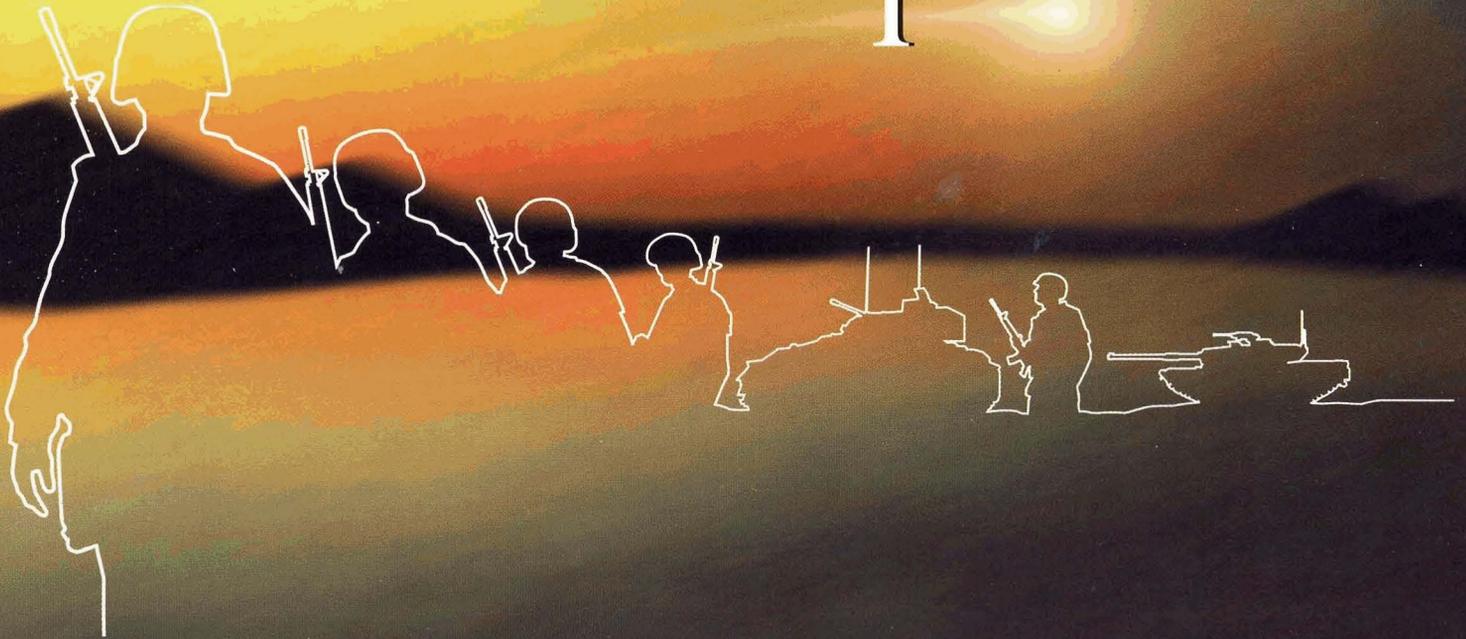
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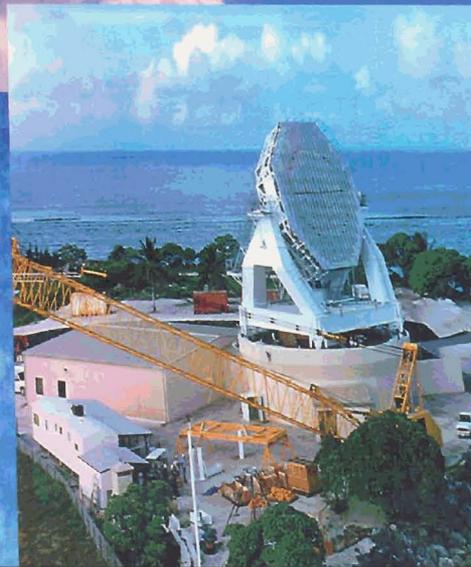
PATRIOT
RADAR

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MISSILE

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EKV



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EXPECT GREAT THINGS

DEFENSE SYSTEMS

C3 (COMMAND, CONTROL AND
COMMUNICATIONS) SYSTEMS

INTELLIGENCE,
INFORMATION AND AIRCRAFT
INTEGRATION SYSTEMS

SENSORS AND
ELECTRONIC SYSTEMS

TRAINING AND SERVICES