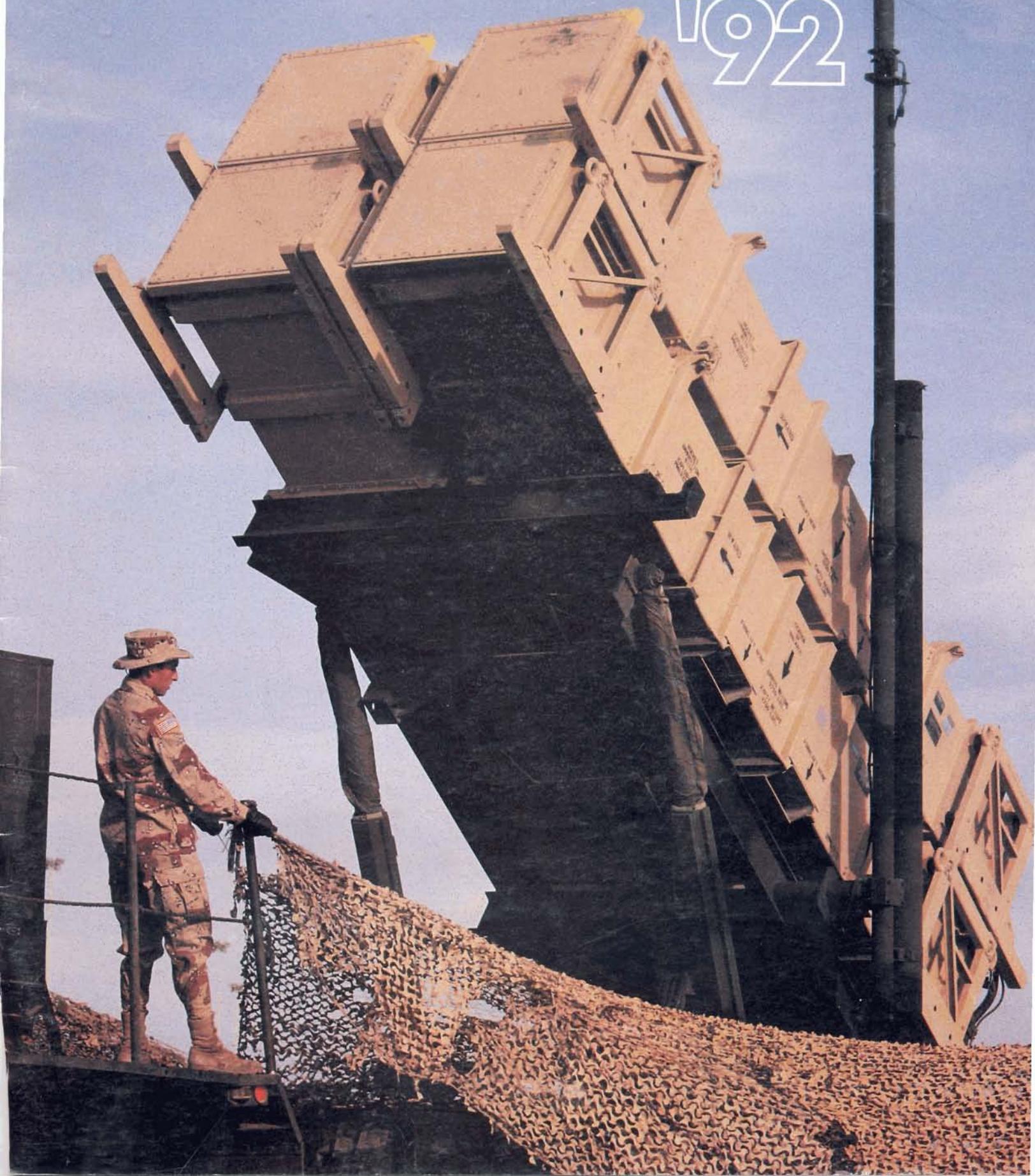
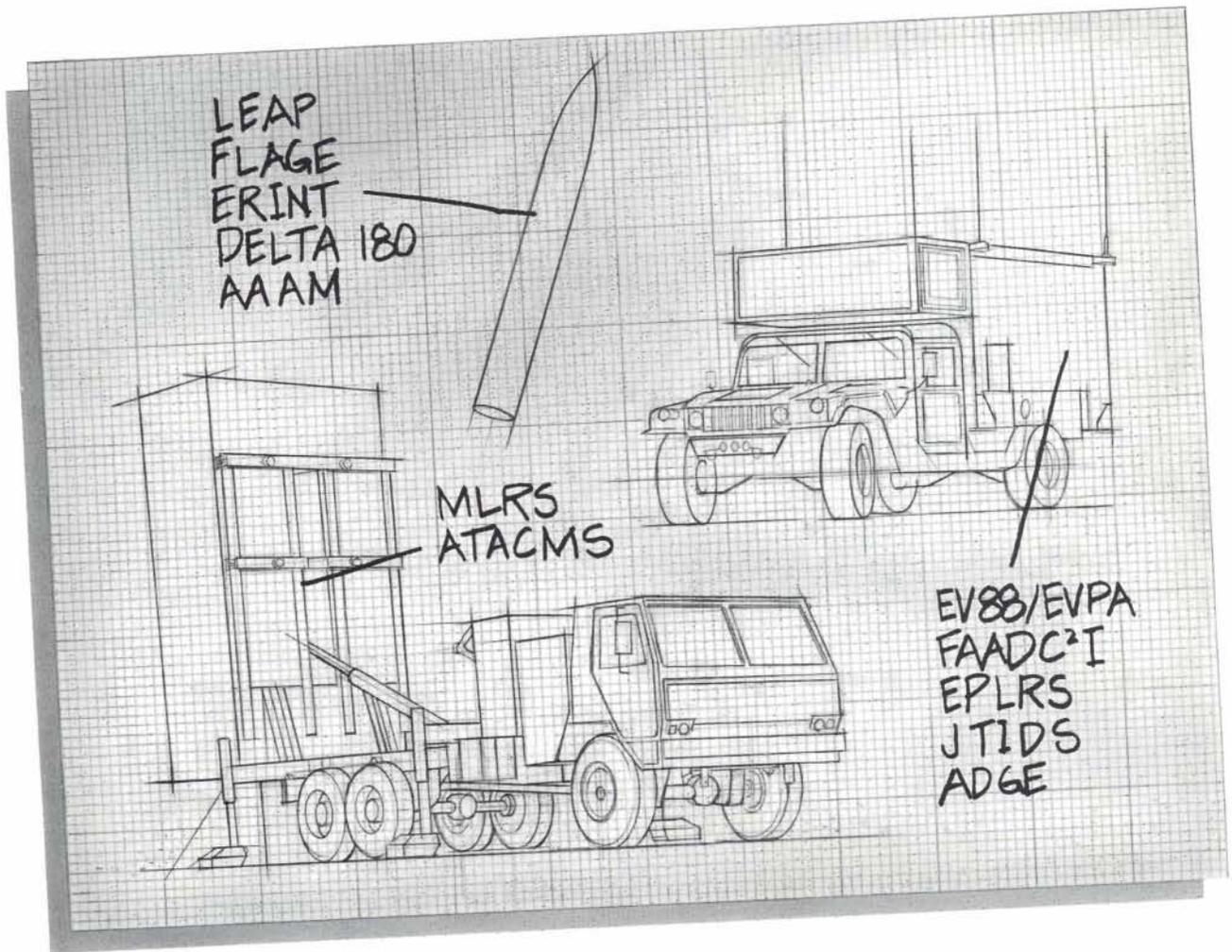


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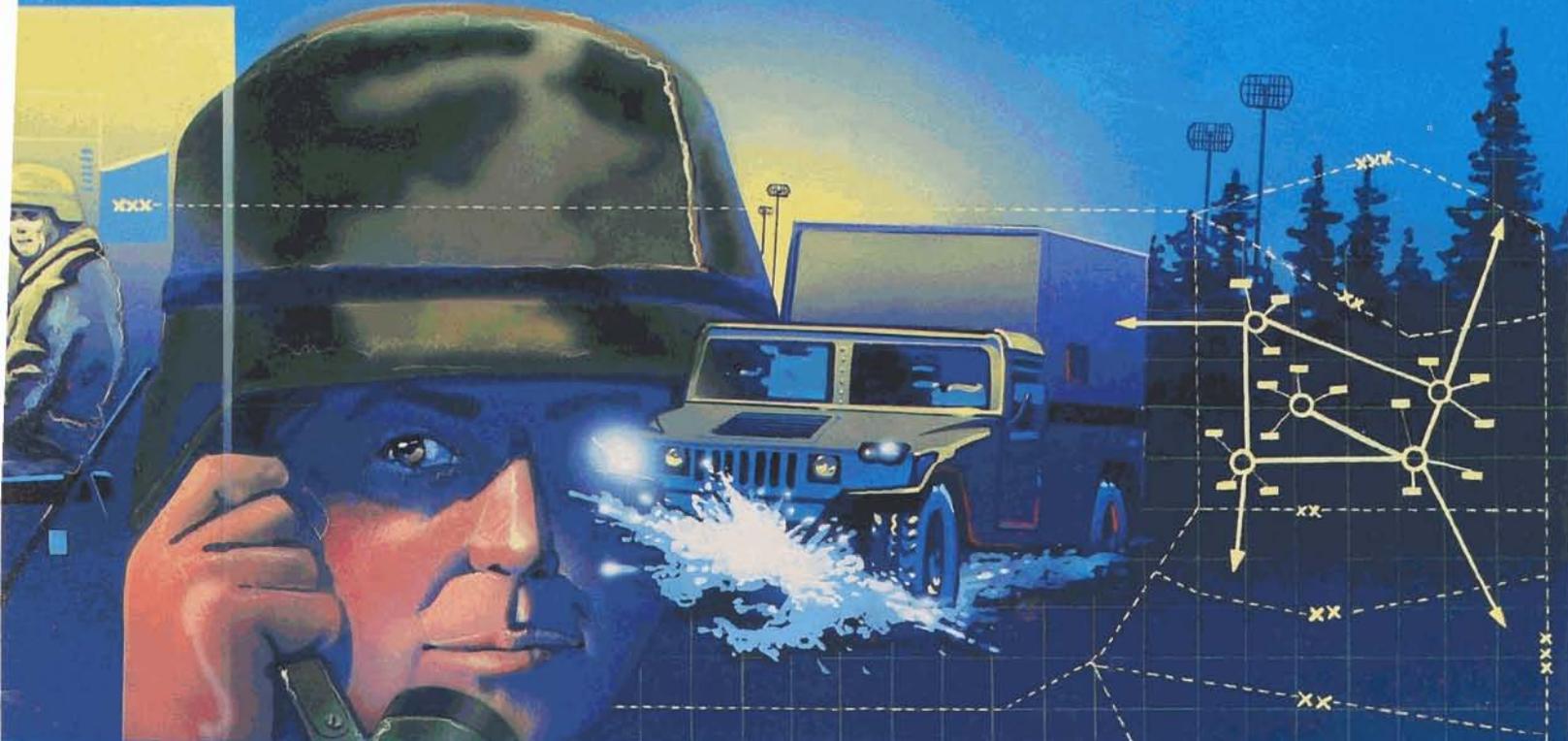
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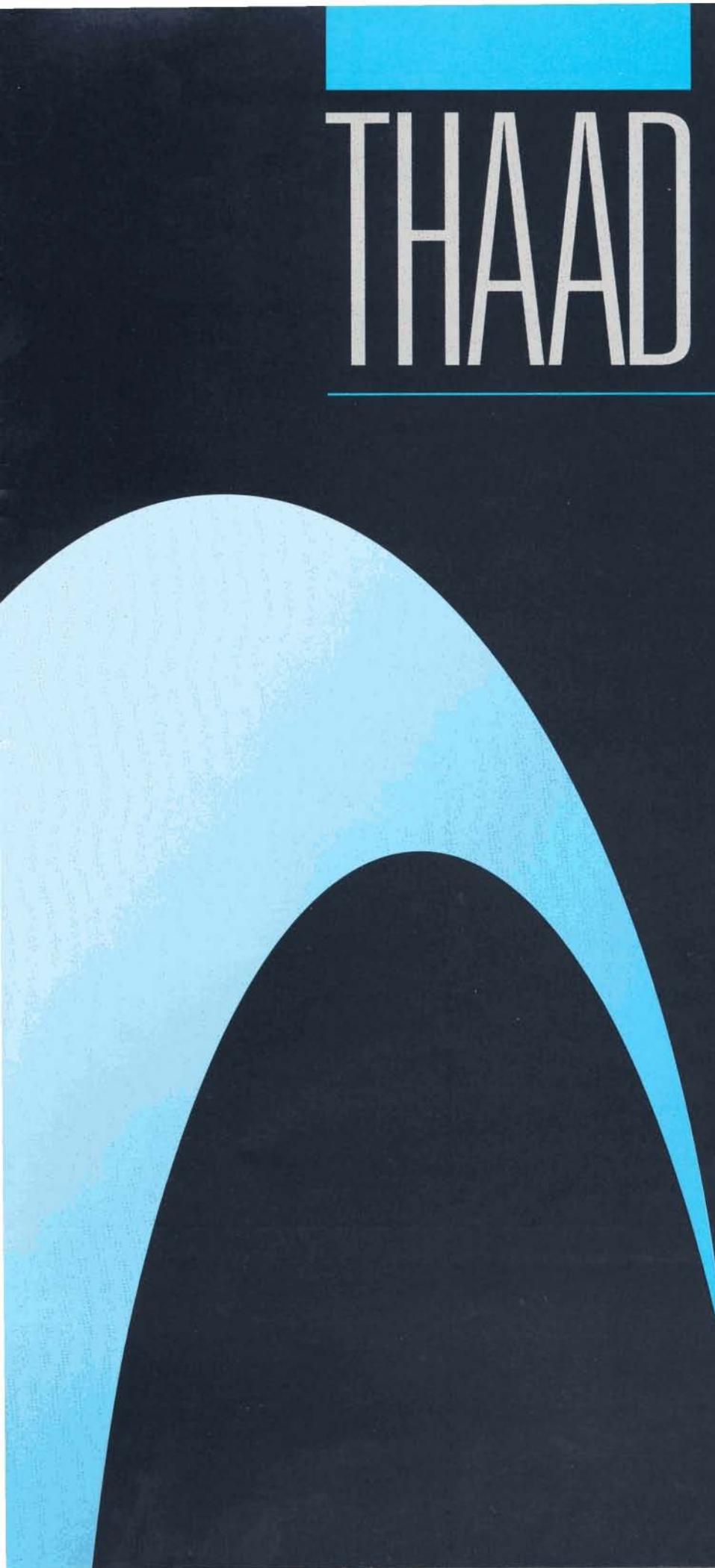
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On the Cover

Raytheon photographer Russ Schleipman took the front cover photo of a U.S. Patriot unit that was redeployed to Saudi Arabia following Operation Desert Storm.

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THAAD

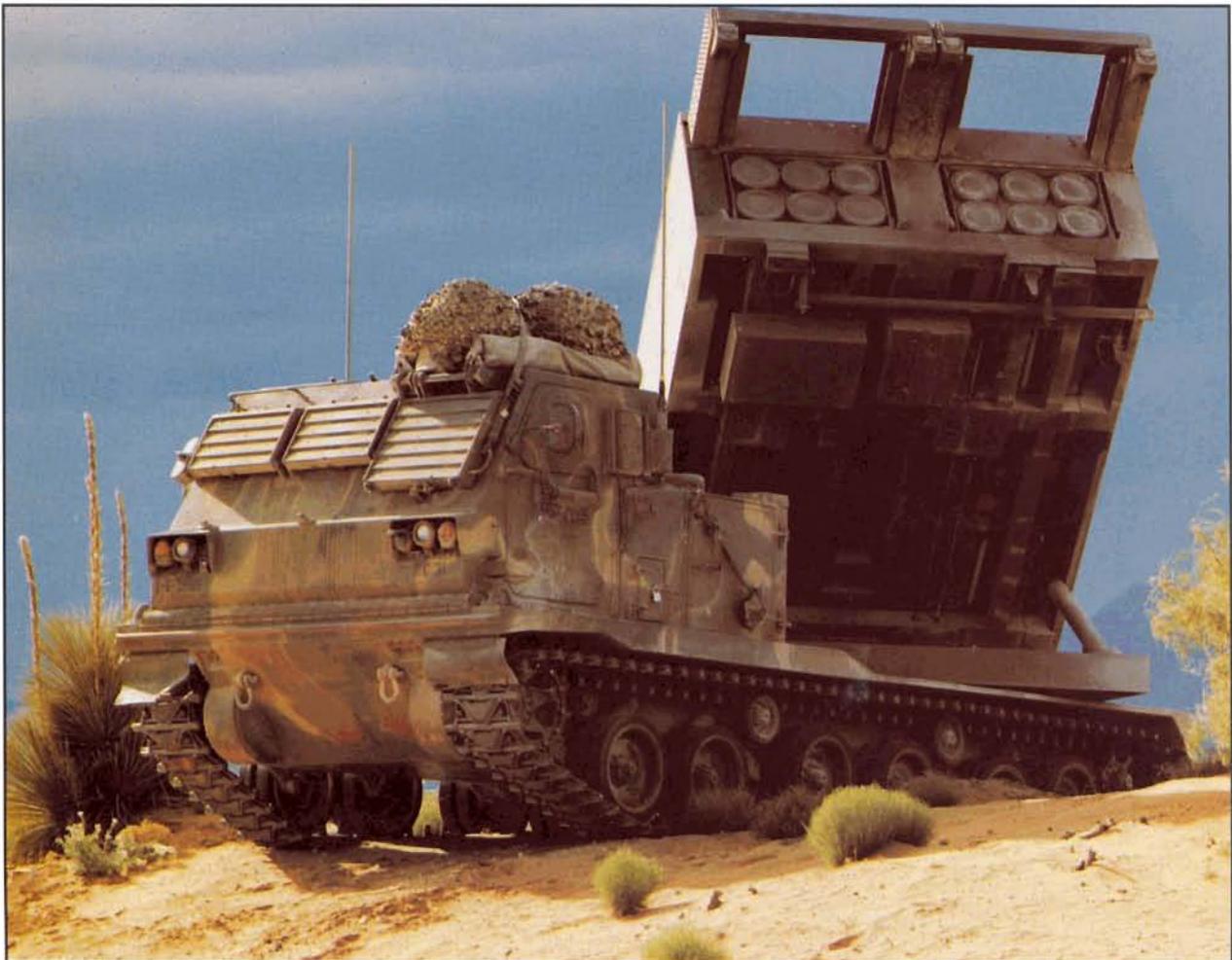
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Gen. Frederick M. Franks Jr.

Reshaping the Army

*Not a smaller Cold War
Army, but a new Army
for a radically altered
strategic environment*

Editor's Note: *Field Artillery* editor Lt. Col. Colin K. Dunn's interview with Gen. Frederick M. Franks Jr., commander of the U.S. Army Training and Doctrine Command, is also scheduled to appear in the *Armor*, *Aviation*, *Infantry* and *Field Artillery* magazines.

As the Army moves toward a force based in the continental United States (CONUS), what do you see as the capabilities critical to responding to crises?

General [Gordon R.] Sullivan [Chief of Staff of the Army] is reshaping our Army into a post-Cold War Army and not just a smaller version of our Cold War Army. We are reshaping both intellectually and in our training and leader development programs.

As we move toward a strategic Army, the majority of our forces will be in the United States. But forward presence also will be part of our national military strategy. So we'll deploy from either forward presence or CONUS locations.

With this strategy, rapid mobilization and deployment become increasingly important. The circumstances under which the Army can deploy are more ambiguous now than they were a few years ago. When we had the certainty of the Cold War contingencies, commanders trained and prepared to win in those particular circumstances.

Now we must be more versatile — mix and match units in tailored force packages, fight battles at the tactical and operational levels and organize our contingency theater forces to defeat threats in many scenarios. This versatility is critical, but we've shown such versatility before. A lot of the ca-

pabilities we demonstrated in operations such as Just Cause and Desert Shield and Storm will continue to be important for our contingency Army in the future.

What are some of the greatest challenges the Army faces in training for joint operations?

First, we have to base our training on the situations we could face — the circumstances unified commanders need their forces to practice. We must have a relevant set of circumstances or conditions within which the training takes place.

Scenarios are important in joint operations. So, as we watch scenarios being developed in unified commands, in our schools, leader development programs and CTCs [combat training centers], they should be relevant for the U.S. Army now and in the future.

Next, we must capitalize on the significant strengths each service brings to the operations and harmonize them according to emerging joint and Army doctrine. For example, joint special operations at the JRTC [Joint Readiness Training Center], Fort Chaffee, Ark., harmonize air-ground fires, both close and deep. As the organic fires of our Army systems reach out farther and farther — MLRS [multiple launch rocket system] cannon artil-

non artillery, Army TACMS [tactical missile system], Apaches — as the ground commander can employ these assets at greater distances, that requires more coordination and more training in joint operations.

How do you see the Army increasing the lethality and survivability of our early deploying forces in a contingency operation?

We can increase our lethality and survivability in several ways. The most talked about way is through materiel solutions. Certainly, we'll pursue developing the armored gun system [Armor's lightly armored gun system with a high-velocity cannon, which is transportable by C-130 aircraft], HIMARS [Artillery's high-mobility artillery rocket system, a lightweight, wheeled version of MLRS], the Javelin [Infantry's one-man operated, fire-and-forget, advanced anti-tank weapon with a 1.25-mile range] and others that give us more lethality on the ground.

Fielding the M-119 light howitzer and adding fuel pods to Black Hawks, Apaches and the CH-47D model of the Chinook plus the helicopters' capability to be refueled in mid-air give us lethality options early on. Our aviation now can self-deploy as well as deploy aboard ships and inside strategic aircraft. Again, versatility is key.

"We are reshaping both intellectually and in our training and leader development programs."



Willard Owens



"Corps SAM and THAAD will greatly increase ADA capability against a variety of air threats, including tactical ballistic missiles."

How would you rate our ability to synchronize operating systems at the combat training centers?

I was enormously proud of the Desert Storm commanders orchestrating capabilities, at least those I observed personally. Their abilities to synchronize fires and maneuver were superb. The 1st Infantry Division in the breach, the 1st Armored Division (United Kingdom) with the 142nd Field Artillery National Guard from Arkansas and the 1st Cavalry Division in their raids, feints and demonstrations, the artillery raids and counterfire ambushes with MLRS, were all professional, skillful operations. The 1st and 3rd Armored Divisions in their zones of action against the Iraqis demonstrated their success in employing massed fires.

We need to continue this awareness of the capabilities of fires, an awareness forged in Desert Storm. And we need to practice it at the CTCs. I'm encouraged by some recent work at the National Training Center. Both counterfire and target acquisition are beginning to get the attention they deserve. I also see some encouraging changes at the JRTC, such as the participation of key players, for example ANGLICO [air naval gunfire liaison company] teams. We need continued emphasis on getting every player on the combined arms team "on the field" at the CTCs.

How do you envision the future CTCs evolving to maintain our Army's war-fighting edge?

We've got to ensure our practice fields remain relevant to the circum-

The Air Defense Artillery community is also a key player in virtually any contingency mission. During the Gulf War, the Patriot was used to increase lethality and survivability of our forces by protecting seaports, airports, billets and logistics centers as well as tactical units.

I was impressed with the agility and responsiveness of Patriot units in being able to protect key VII Corps assets on the move. That's what we need from ADA for a strategic Army.

The fielding of Corps SAM and THAAD [theater high-altitude air defense] will greatly increase ADA capability against a variety of air threats, including tactical ballistic missiles, in future operations. THAAD will engage tactical/theater ballistic missiles at high altitudes and is also interoperable with U.S. air defense systems, Air Force space-based sensors and NATO systems.

Depending on the contingency's circumstances, deployment means and time available, the commander can increase the lethality of his deploying light forces by introducing other types of units early on. He can mix and match his light, special operating and heavy forces to meet that particular threat.

You'll see more mixing and matching in your NTC [National Training

Center, Fort Irwin, Calif.] and JRTC rotations as you train on contingency operations. Those CTCs are employing heavy and light forces in operations specifically aimed at developing versatility.

In the joint arena, our sister services are helping us get forces on the ground faster in contingencies. The Navy, for example, is committed to building more fast sea-lift ships in the next few years. So we'll see a dramatic improvement in our forces' ability to deploy by surface means.

The Air Force has committed to the C-17. So our strategic transport aircraft capability is improving. Additionally, we can pre-position Army materiel on ships at selected locations.

The materiel, force package and other solutions to increasing our lethality early on are all part of being versatile enough to meet any contingency. What we don't want to do is get locked into inflexible *formulas* for specific scenarios.

Our doctrine should guide us — describe how to *think about* mobilization and deployment — how to think in terms of versatile force mixing and matching in combat, combat support and combat service support forces, etc. Using such doctrine, we would be flexible enough to organize and operate in any situation.

stances in which the Army finds itself. At one time we trained to fight based on the Cold War world order. Now the playing field has changed, and we've changed our training accordingly.

General Sullivan has directed we conduct contingency operations at both the NTC and JRTC. At the JRTC, you'll see joint operations on a continuing basis and armor-mech, light and special operating forces. You'll see light and armor-mech forces at the NTC. Units now face the threat in a variety of configurations as opposed to one threat. In our BCTPs [battle command training programs] for our divisions and corps, you'll see the same type of changes occurring. We're shifting quickly to post-Cold War warfighting.

But relevancy is key. Our training has to be relevant to the circumstances in which the Army finds itself. We must sustain excellence and relevance in training and leader development.

Current doctrine addresses the commander's intent in his concept for fires and maneuver but in general terms. What should fire support and maneuver expect from the combined arms commander?

The commander needs to precisely describe the effect he's trying to achieve and *where* and *when* he wants them. In simple, straightforward language, he should describe his desired effects in the conduct of the operation, the point of his main effort, a sensing of the speed of the operation and where it needs to be relatively tightly controlled. And depending on the echelon, the commander may have

"Relevancy is key. Our training has to be relevant to the circumstances in which the Army finds itself."

to tell where he chooses to fight the decisive battle over time. If he's the corps commander, he's probably describing two to four days of operations.

But the combined arms commander doesn't come up with his intent in isolation. Before he expresses the intent, either verbally or in the order, there needs to be continual dialogue face-to-face with subordinate commanders and his staff so he can harmonize his operating systems.

He gets advice for his running estimate by talking to subordinate commanders, members of his staff, commanders of fire support and engineer units and so forth. That's the way to make the combined arms orchestra play.

What impact do you believe future intelligence and fire support systems will have in terms of achieving success on the battlefield without major engagements of maneuver forces?

Most combined arms commanders would tell you that the major intelligence shortcoming in terms of identifying targets is their ability to see over the hill. What they're trying to avoid is unplanned meeting engagements. Friendly reconnaissance out front, either in the defense or the attack, is of utmost importance to commanders.

Our ability to see over the hill will be corrected, by and large, by the UAV [unmanned aerial vehicle].

We need the ability to rapidly target and deliver fires that contribute to the overall tactical scheme. For example, in Southwest Asia, we were fortunate to have the Pioneer [UAV]. So we flew it and, with a quick-fire capability, spotted and fired on targets in real time. It's the real-time capability we're looking for in delivering fires — not only with cannons, but also with the Army TACMS and MLRS.

As far as fires substituting for maneuver engagements are concerned, you have to watch how you think about that. Fires and maneuver are linked; one contributes to the other.

How can the combined arms commander make the most of his fire support and aviation assets?

In the factors of METT-T [mission, enemy, terrain, troops and time available] he looks for those elements of combat power he can rapidly shift from one part of the battlefield to another. I call those "reusable combat assets." Though the commander can usually shift his artillery the quickest, his reusable combat assets also include aviation and close air support.

So the commander formulates his plan to take advantage of reusable



Willard Owens



"Our doctrine, our training and our leader development strategies must evolve as we reshape the Army."

manual sometime in 1993, we'll have tapped the collective wisdom of the Army to include in the revised manual. FM 100-5 is TRADOC's "point of main effort" and requires the full attention of leaders Armywide.

What message would you send to combined arms soldiers worldwide?

We've got a great Army, and I'm proud to be part of it. It's one that's confident in itself, as proved by its successes in Operation Just Cause, the Cold War and Operation Desert Storm.

But we have work to do. We must rapidly shift our focus from preparing to fight the battles of a Cold War world to the battles of the future. And to do that in our smaller Army we must optimize all our combat capabilities, including making the most of our fires. So our doctrine, our training and our leader development strategies must evolve as we reshape the Army.

Then, as we reduce forces in Europe, move units to our TRADOC installations and as our Army gets smaller, we must do it all while caring for our soldiers, civilians and their families. For those who leave the Army, we must show our great appreciation for their service in peace and war, helping to make the Army the best in our nation's history. Every Army alumnus should depart with a sense of dignity and respect.

To our many soldiers who will remain in the Army, all of whom play some part on the combined arms team, I thank you for all you've done and challenge you to continue your record of excellence.

combat power available to him. But a fire plan is just that — a plan.

The fire supporter, the aviator and the Air Force representative must understand the commander will have to deviate from the plan to seize opportunities, rapidly adjust to take advantage of situations as they occur during the night.

The notion of positive control of indirect fire — as opposed to silence is consent — has caused some concern that there could be less responsive fires on the battlefield. What are your thoughts on this?

As we saw in Desert Storm, clearing fires quickly is critical. Certainly that's an area we'll continue to talk about and develop procedures for, especially as our artillery can fire at longer ranges.

We have to clear fires so we know the area we're firing into has no friendly forces in it. It's an issue of force protection versus the risk you incur in your situation — the commander has to weigh all the factors.

We must start with the base line of an agreed set of tactics, techniques and procedures for using fires. We've got to establish the right joint coordinating measures. Then we need to practice them in a variety of scenarios — the more practice, the better.

The Army's capstone warfighting doctrinal manual FM 100-5, Operations, is under revision. How is this manual changing?

The chief of staff of the Army has charged TRADOC with leading the Army through this intellectual change to a post-Cold War world by using doctrine as the engine of change. A part of this effort includes revising FM 100-5. Our doctrine isn't broken. But we need to include in it the operational versatility our Army now requires in a post-Cold War era.

FM 100-5 will describe how to think about mobilization and deployment, how to think about employing Army forces in actions short of war and other intellectual changes we must make — all of which we've done before in some form or other. But the centerpiece of the revised 100-5 will continue to be fighting at the tactical, operational and strategic levels — guidelines for employing forces, conditioned by the factors of METT-T.

We're engaging not only TRADOC, but the total Army in developing FM 100-5. The process is as important as the product. If we do the process right, if we have the kind of dialogue we need, we'll accomplish two things. First, we'll inform the Army about the need for change as we change. And second, by the time we publish the

THE THREAT ISN'T WAITING. NEITHER ARE WE.

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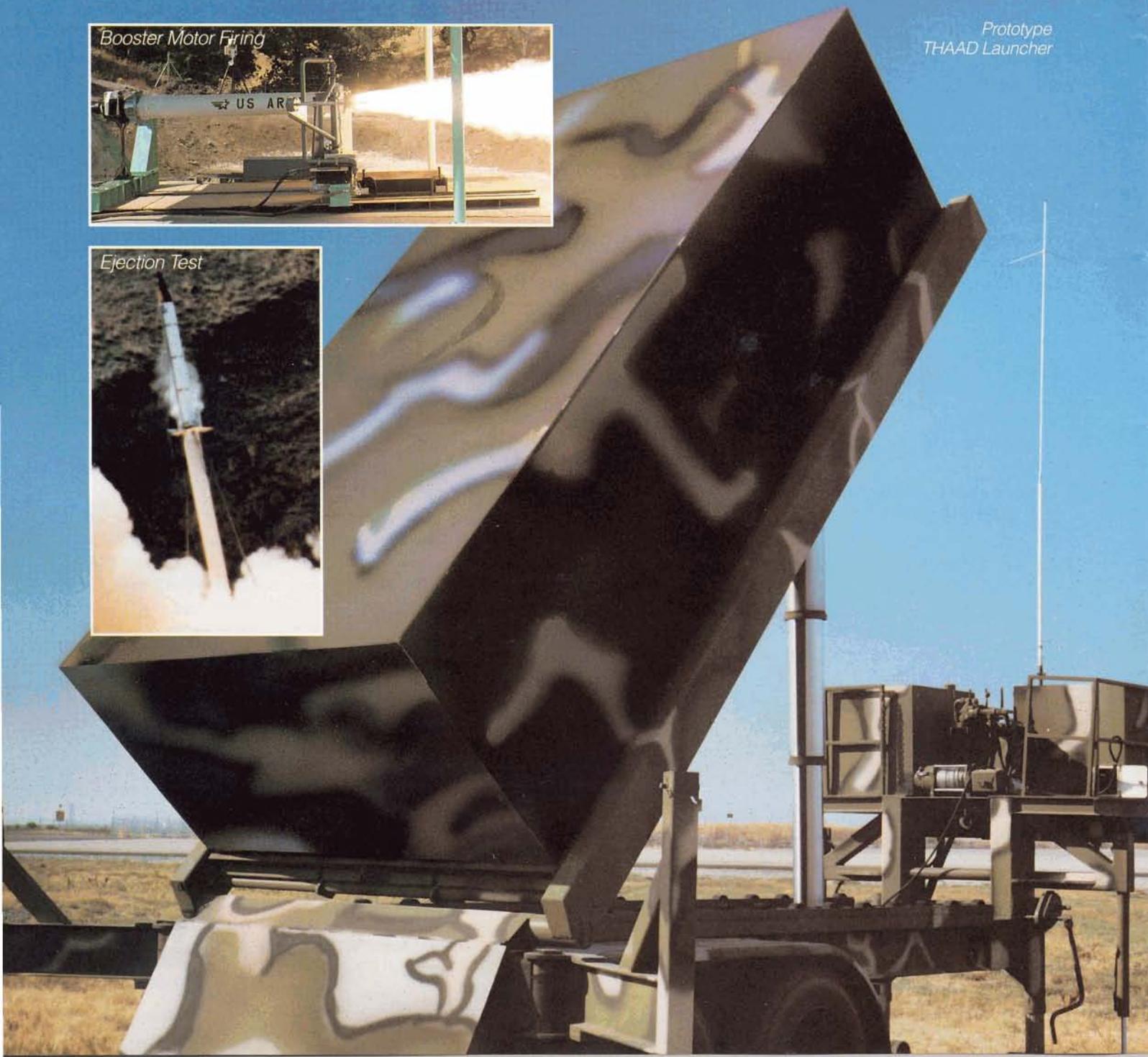
The Army is counting on THAAD to have a striking impact on theater defense. And they can count on the Lockheed team to put the punch in this vital system.

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Prototype
THAAD Launcher



Snapshots

Old Nike missiles take the prize

Winners of the 1991-1992 ADA Photo Contest will split \$1,500 in U.S. savings bonds for their award winning photos of Fort Bliss, Texas, and ADA soldiers in action around the world. Sponsored by the U.S. Army Air Defense Artillery School and Fort Bliss, the photo contest was designed to create an archive of quality ADA photos.

First place in the ADA in Action category went to SSgt. Kenneth H. Saleno Jr., of LaBelle, Fla., for a photo of a Chaparral missile firing in Crete. Gregory A. Winter of Killeen, Texas, took second place with his picture of an Avenger night firing. Maj. James M. Boling, a public affairs officer at Fort Hood, Texas, won third place for his shot of a Redeye missile firing at Fort Hood's Annual III Corps Stinger Competition.

Michael D. Kimak, El Paso manager of ARES Corp., swept first, second and third places in the Fort Bliss category for his photographs of old Nike missiles at the ADA Museum, sunlight glinting off the installation's "First to Fire" statue and a sunrise photo of the Center Chapel.

Contest judges were drawn from the staffs of the *NCO Journal* and Fort Bliss *Monitor*. First, second and third place in each of the two categories pay \$350, \$250 and \$150 savings bonds respectively.



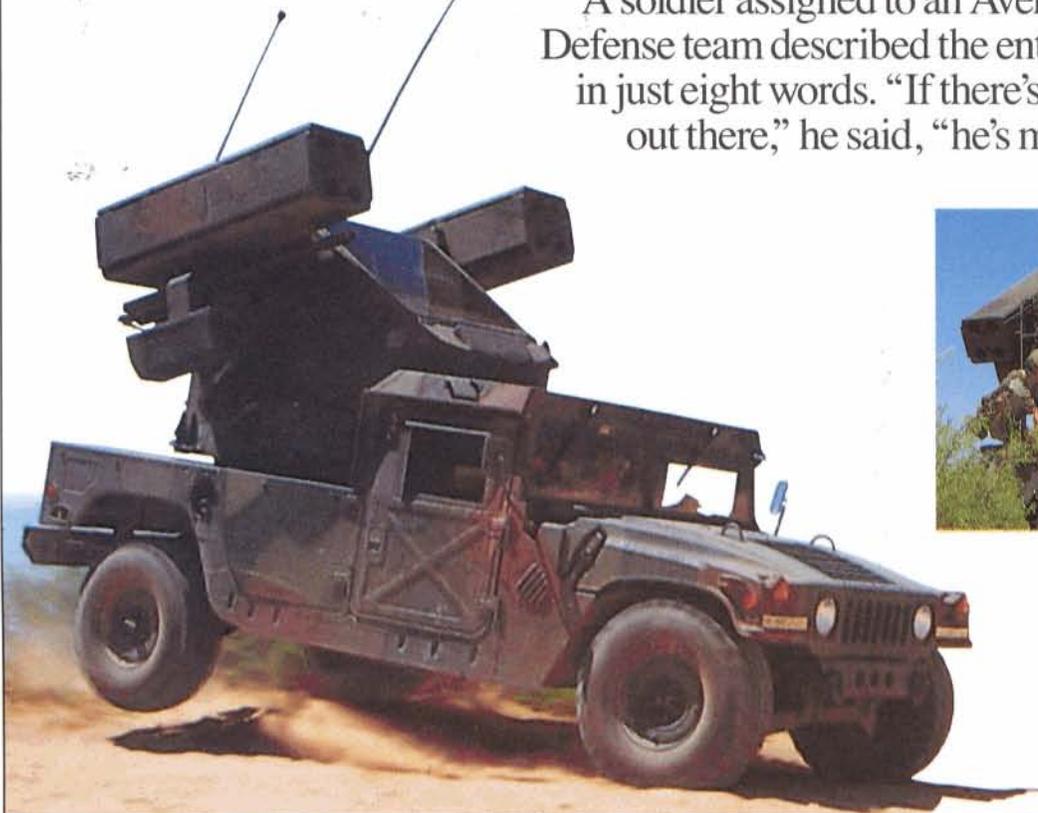
Michael D. Kimak



SSgt. Kenneth H. Saleno Jr.



A soldier assigned to an Avenger Air Defense team described the entire system in just eight words. "If there's a bogey out there," he said, "he's mine."



Avenger has been recognized for years as a powerful component of the air defense system.

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Avenger has many advantages in the field. It can acquire targets automatically, shoot on the move, operate in bad weather and at night. And, because it was designed with the help of the soldiers who use it, Avenger is practical—easily transported, simple to use and maintain, ideal for light contingency forces.

It also is adaptable. First fielded on Highly Mobile Multi-Wheel Vehicles (HMMWV), Avenger can be used on other platforms and fire a variety of weapons.

And it all comes down to that soldier's eight-word summary: "If there's a bogey out there, he's mine."

BOEING



Maj. Gen. John H. Little

Reshaping the Branch

*Air Defense Artillery will
not retreat from the peak
of excellence it scaled in
Operation Desert Storm*

For Air Defense Artillery, the period of transition from the Cold War Army to the Army of the 21st Century will not be a gloomy retreat from the peak of excellence we scaled during Operation Desert Storm, but a decade of challenges and promise during which the branch will push forward into new missions with enhanced combat capabilities. Our intent in the re-forging of the Army is to produce a robust, modernized air defense force that can deploy rapidly, fight and defeat a wide range of new threats anywhere in the world.

Restructuring the Army and Air Defense Artillery is, indeed, a monumental task. The stakes are high; the consequences sobering. In a recent *Military Review* article, Col. James R. McDonnough, director, School of Advanced Military Studies, U.S. Army Command and General Staff College, eloquently defined the challenge:

Only a very good army could do what we are about to do — maintain our fighting edge while moving through the dramatic changes of today and on into the future. The challenge to our leadership is two-sided. One side is intellectual: What is the future? What is the role of the Army in it? What changes are necessary, when do you make them and how do they take us where we have to go?

The other side is managerial: How do we preserve the institution — its ethos, traditions, values and competence — while we complete the transition? What are the levers? Who pulls them, how hard and how fast?

These are big questions indeed. Their essence is evolution and stability, both necessary in meeting the nation's needs in a era of uncertainty. The tension is inherent. Move too fast, and we risk the loss of our capabilities before we have available the wherewithal to replace them. Move too slow, and we meet the challenges of today a little while longer, then fall by the wayside, unprepared to keep up with the momentous change that has overtaken us. The stakes in handling that tension are nothing less than the security of the United States.

To maintain the edge while working through the turbulence that lies ahead, ADA soldiers must reach out to one another in the same spirit of camaraderie that distinguishes close-knit combat units under fire. Our success is anything but assured, for, as Army Chief of Staff Gen. Gordon R. Sullivan observed in a recent speech, history is not on our side. America has traditionally mis-managed the downsizing of its armed forces following ev-

ery major conflict, producing “hollow” forces that encouraged rather than deterred renewed aggression. “We must break the historical pattern; we must maintain our warfighting effectiveness as we reshape for the future,” said Sullivan. “My theme as chief of staff is ‘No More Task Force Smiths.’”

Task Force Smith, a composite of units from the 24th Infantry Division, was the first American ground unit to fight in Korea. Rushed from occupation duty in Japan to confront North Korean forces that had crashed across the 38th Parallel, Task Force Smith passed retreating and demoralized Republic of Korea troops on the road as it pushed north to engage the North Korean People's Army. Green and cocky, the soldiers of Task Force Smith were confident that North Korean soldiers would turn and run at the first sight of an American uniform.

Overconfidence was the least of their shortcomings. They were also inadequately equipped, lackadaisically trained, physically soft and psychologically unprepared for the shock of battle. They lasted six hours. Despite scattered acts of individual heroism, the first wave of North Korean armor, not having rehearsed running away, rolled over and through Task Force Smith, pausing only briefly to obliterate the more troublesome automatic weapons positions. As scrimmage lines of North Korean infantrymen began deploying to follow up the armor, Task Force Smith, on the verge of disintegration with 150 killed, wounded or missing, beat a hasty retreat south. With them went the shattered illusion of American invincibility.



Russ Schleipman

The post-Desert Storm redeployment of Patriot to Saudi Arabia demonstrates ADA's value as a strategic force.

PAC-3 Patriot will serve as the lower tier of theater missile defense once the Theater High Altitude Air Defense System is fielded.



Today, America's military supremacy is non-illusionary, and it's up to air defenders to help keep it that way. Along with our combat arms brethren, we have the opportunity to *make* history rather than repeat it.

Ten years ago, when Eastern Europe still shivered in the shadow of the Berlin Wall and only the CIA worried about Manuel Noriega and Saddam Hussein, there were no thoughts of peace dividends or force reductions. The Reagan buildup of the 1980s rapidly transformed the dispirited and "hollow" post-Vietnam Army of the 1970s into a superbly trained, wonderfully equipped, highly motivated, professional fighting force. Our Total Army grew to five corps and 28 divisions and AirLand Battle Doctrine replaced the "trip wire" mentality and mutual assured destruction theorems that once dominated our Cold War strategy. American soldiers who, on freezing nights, patrolled Germany's Fulda Gap, stopped thinking of themselves as speed bumps in the path of Red armor. With growing confidence and then with certainty, they began to believe that the AirLand Battle mix of technical excellence, tactical proficiency and audacity would allow them to fight outnumbered against the Soviet colossus and win.

Then the Cold War ended, not, as many anticipated, with a nuclear bang, but with a breathtaking suddenness that defied comprehension. The Berlin Wall came tumbling down, followed by German reunification and, in quick succession, the collapse of the Warsaw Pact and the dissolution of the Soviet Union. The Commonwealth of Inde-

pendent States that emerged from the chaos of the "Evil Empire" is today a recipient of U.S. aid, a mini-Marshall Plan meant to speed it on the perilous road to democracy and a free market economy.

The end of the Cold War triggered a reduction in force that began prior to our Operation Desert Shield deployment and regained momentum following its conclusion. The cancellation or curtailment of defense contracts and closure of military installations will produce a ripple effect that will touch every segment of American society in ways we have only just begun to appreciate. No segment of society will be more transformed than the U.S. Army.

Today, the Army, in response to the diminished threat and the urgent requirement to revive the nation's troubled economy, is rapidly reducing its force structure from 780,000 active duty soldiers to meet a target end strength of approximately 535,000 by the end of FY95. Four divisions have already left the force, and by 1995 the Total Army will consist of four corps and 20 divisions. We now have fewer soldiers on active duty than we've had since the outbreak of the Korean War, and by the end of FY95 the Active Army will be smaller than at any time

since the beginning of World War II. Barring unforeseen developments, the force may grow even smaller in the out years beyond 1995 as we continue to reassess and redefine the international threat and tailor the force to its new strategic environment. No matter what the future brings, the force will maintain quality through an unrelenting commitment to recruiting quality people and tough demanding training.

The drawdown is proceeding neither carelessly nor callously. A lot of thought has gone into the mechanics of the drawdown to produce a balanced force, safeguard career opportunities for soldiers who will remain on active duty and ease the transition from military to civilian life for soldiers whose careers will be cut short. As we draw down the force, our senior defense leaders are fighting a rear-guard action against even deeper cuts — the sort of precipitous cuts that, following on the heels of past American triumphs, have produced Kasserine Passes and Task Force Smiths.

Secretary of Defense Dick Cheney and Chairman of the Joint Chiefs of Staff Gen. Colin Powell have patiently briefed the new national military strategy to a succession of congressional committees. "Downsizing the force is something we've never done



The Active Army will share Avenger, its shoot-on-the-move air defense weapon system, with the Army National Guard.

well," Cheney told the House Foreign Affairs Committee. "This time, for the first time, we must get it right." General Powell cautioned the committee against deeper cuts that would, as in the past, destroy the competitive edge we now enjoy and "serve as a provocation to our adversaries."

Many of the challenges that will confront the "First to Fire" branch during the transition period are microcosms of those that face the Total Army. The paramount challenge we share with other combat arms is to maintain the quality we have worked so hard to achieve through a balanced personnel reduction program.

The ADA drawdown plan is designed to keep quality soldiers in place while making separation as painless as possible for soldiers who opt for separation incentives or who are involuntarily separated. Slots in the expanding Army National Guard air defense force await many soldiers who leave the Active Army. Once the drawdown personnel turbulence subsides, reduced operating strengths and accessions and MOS consolidation will improve promotional opportunities for ADA soldiers of all ranks.

Maintaining quality training despite drawdown economics is another challenge common to the Total Army. However, the Army will not waiver from its commitment to soldier and

leader development and tough, realistic individual and collective unit training (see "Reshaping the School," page 31). Training remains top priority, and despite the drawdown, we will continue to receive training resources, including advanced training technologies, to produce ADA units as well or better trained than those that served in the Persian Gulf.

The drawdown presents some challenges unique to Air Defense Artillery. While other combat arms are canceling or sharply curtailing weapons procurement and fielding programs, ADA modernization continues apace. As we reconfigure the air defense force, we must cope with an influx of new weapon systems and the assumption of entirely new missions.

The force projection tables (page 17 to page 19) show Avengers and Bradley Stinger Fighting Vehicles (BSFVs) gradually replacing Chaparrals and Vulcans as the force declines, but do not show the transfer of Patriot, Hawk and Chaparral battalions to the National Guard (see "Reshaping the Guard," page 41). The tables also omit the yet-to-be-decided force structures for our Corps Surface-to-Air Missile (SAM) and Theater High-Altitude Air Defense (THAAD) systems, nor do they address Patriot PAC-3 refinements or the fielding of the forward area air defense (FAAD) ground-

based sensor (GBS). These are important force multipliers that merit more discussion in detail.

Avenger

Soldiers love Avenger. The deployment of Avenger to the Persian Gulf with the 11th Air Defense Artillery Brigade, the 3rd Armored Cavalry Regiment and the 1st Cavalry Division's 4th Battalion, 5th Air Defense Artillery, marked the FAAD line-of-sight rear component's successful combat debut. Modifications to correct minor problems that cropped up as a result of the extreme desert heat have already been incorporated into the Avenger systems currently being fielded.

In October 1991, the 5th Battalion, 5th Air Defense Artillery, stationed with the 2nd Infantry Division in Korea, became the second ADA battalion equipped with Avenger. The Army Missile Command recently awarded a \$436 million contract to Boeing to produce 679 Avenger fire units, bringing to 1,004 the total number of Avengers the Army has purchased since 1987.

Bradley Stinger Fighting Vehicle

Air Defense Artillery's longstanding Stinger Under Armor controversy was resolved in November 1991 when the branch won permission to replace self-propelled Vulcans with BSFVs. The BSFV is the interim FAAD line-of-sight forward (heavy) component. Now that DoD has placed the air defense/anti-tank system (ADATS), the system envisioned as the objective

Transition Force Projection Tables

ADA UNIT	PARENT UNIT/LOCATION	FY90	91	92	93	94	95	96	97	REMARKS
SP & LT DIV/BTRYs		NUMBER OF BNS/BTRYs								
3-4 ADA (VS)/3-4	82ND ABN DIV FT BRAGG	1/3	1/3	1/3	1/4	1/4	1/4	1/4	1/4	2Q95 AVEN
2-44 ADA (VS)/3-4	101ST AASLT DIV FT CAMPBELL	1/3	1/3	1/3	1/4	1/4	1/4	1/4	1/4	3Q93 AVEN
1-62 ADA (VS)/2-3	25TH INF DIV HAWAII	1/2	1/2	1/2	1/2	1/2	1/3	1/3	1/3	4Q95 AVEN
2-62 ADA (VS)/2-3	7TH INF DIV FT ORD	1/2	1/2	1/2	1/3	1/3	1/3	1/3	1/3	2Q93 AVEN
3-62 ADA (VS)/2	10TH INF DIV FT DRUM	1/2	1/2	1/2	1/2	1/2	0	0	0	FY95 INACT
TOTAL		5/12	5/12	5/12	5/15	5/15	4/14	4/14	4/14	

HVY DIV/BTRYs		NUMBER OF BNS/BTRYs								REMARKS
1-3 ADA (VS)/3-4	4TH INF DIV FT CARSON	1/3	1/3	1/3	1/4	1/4	1/4	1/4	1/4	1Q93 SFV 3Q96 AVEN
2-3 ADA (VS)/3-4	1ST INF DIV FT RILEY	1/3	1/3	1/3	1/4	1/4	1/4	1/4	1/4	2Q94 SFV 3Q96 AVEN
3-3 ADA (VS)/3-4	5TH INF DIV FT POLK	1/3	1/3	1/3	1/4	1/4	1/4	1/4	1/4	3Q93 SFV 4Q96 AVEN
4-3 ADA (CVS)/4	3RD ID KITZINGEN	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	3Q92 SFV 4Q94 AVEN
5-3 ADA (CVS)/4	8TH ID WACKERNHEIM	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	2Q92 REMIS TO 1ST AD 3Q92 SFV 4Q94 AVEN
6-3 ADA (CVS)/4	1ST AD SCHWABACH	1/4	1/4	0	0	0	0	0	0	2Q92 INACT
1-5 ADA (VSA)/3-4	24TH INF DIV FT STEWART	1/3	1/3	1/4	1/4	1/4	1/4	1/4	1/4	4Q92 SFV 1Q92 AVEN
3-5 ADA (CVS)/4	3RD AD GERMANY	1/4	0	0	0	0	0	0	0	1Q92 INACT
4-5 ADA (VSA)/3-4	1ST CAV DIV FT HOOD	1/3	1/4	1/4	1/4	1/4	1/4	1/4	1/4	3Q93 SFV FIELDLED
5-5 ADA (VSA)/3	2ND INF DIV KOREA	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	4Q92 SFV FIELDLED
TOTAL		10/34	9/31	8/28	8/31	8/31	8/31	8/31	8/31	

CORPS CHAP/BTRYs (GO TO AVEN BNS)		NUMBER OF BNS/BTRYs								REMARKS
1-2 ADA/3(CORPS AVEN)	XVIII CORPS FT STEWART	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	4Q92 AVEN RELO TO FT POLK 9310
2-2 ADA/3	III CORPS FT HOOD	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	3Q93 AVEN
3-2 ADA/3	I CORPS FT LEWIS	1/3	1/3	1/3	1/3	1/3	0	0	0	9410 INACT
5-2 ADA/3	V CORPS CRAILSHEIM	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1Q94 AVEN
TOTAL		4/12	4/12	4/12	4/12	4/12	3/9	3/9	3/9	

EAC/BTRYs		NUMBER OF BNS/BTRYs								REMARKS
3-44 ADA (C)/3	94TH BDE EAC RAMSTEIN	1/3	0	0	0	0	0	0	0	4Q91 INACT
5-44 ADA (C)/3	108TH BDE EAC SPANGDAHLEM	1/3	0	0	0	0	0	0	0	4Q91 INACT
5-62 ADA (VS)/3	11TH BDE EAC FT BLISS	1/3	1/3	1/3	0	0	0	0	0	9210 INACT
TOTAL		3/9	1/3	1/3	0	0	0	0	0	

Transition Force Projection Tables (continued)

ADA UNIT	PARENT UNIT/LOCATION	FY90	91	92	93	94	95	96	97	
HAWK/BTRYs		NUMBER OF BNS/BTRYs								REMARKS
1-1 ADA (PIP III)/4	108TH BDE EAC SPANGDAHLEM	1/3	0	0	0	0	0	0	0	4Q91 INACT
2-1 ADA (PIP III)/3	XVIII AB EAC FT BLISS	1/3	1/3	1/3	1/3	0	0	0	0	9410 INACT
3-1 ADA (PIP II)/3	31ST BDE CORPS FT HOOD	1/3	1/3	1/3	0	0	0	0	0	9310 INACT
4-1 ADA (PIP III)/4-3	94TH BDE EAC NEUBRUECKE	1/4	1/4	1/3	1/3	0	0	0	0	PHASE III FY92 COMP 9309 INACT
1-52 ADA (PIP II)/3	I CORPS CORPS FT LEWIS	1/3	1/3	1/3	0	0	0	0	0	9304 INACT
2-52 ADA (PIP III)/3	XVIII AB CORPS FT BRAGG	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	PHASE III FY 92 COMP RELOC TO POLK 9310
3-52 ADA (PIP II)/4	10TH BDE EAC WILDFLECKEN	1/4	1/4	0	0	0	0	0	0	9204 INACT
6-52 ADA (PIP III)/4-3	69TH BDE EAC GIEBELSTADT	1/4	1/4	1/3	1/3	1/3	1/3	1/3	1/3	PHASE III FY92 COMP
TOTAL		8/27	7/24	6/18	4/12	2/6	2/6	2/6	2/6	

PATRIOT/BTRYs		NUMBER OF BNS/BTRYs								REMARKS
1-7 ADA/3-6	94TH BDE EAC KAISERSLAUTERN	1/3	1/3	1/6	1/6	0	0	0	0	9309 INACT
2-7 ADA/6	11TH BDE EAC FT BLISS	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/6	
4-7 ADA/3-6-4	35TH BDE CORPS FT LEWIS	1/3	1/3	1/6	1/6	1/6	1/4	1/4	1/4	MOVE TO 35TH FT LEWIS 1Q92
5-7 ADA/3-6	108TH BDE EAC BITBURG	1/3	1/3	1/6	1/6	1/6	1/6	1/6	1/6	FY93 MOVE TO 32D BDE
1-43 ADA/3-6-4	11TH BDE EAC FT BLISS	1/3	1/3	1/6	1/6	1/6	1/4	1/4	1/4	CHG BDE 1 OCT 91
2-43 ADA/3-6	10TH BDE EAC HANAU	1/3	1/3	1/6	1/6	1/6	1/6	1/6	1/6	3Q92 MOVE TO 108TH BDE FT POLK
3-43 ADA/6	11TH BDE EAC FT BLISS	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/6	
4-43 ADA/3-4-6	10TH BDE EAC GIESSEN	1/3	1/4	1/6	1/6	0	0	0	0	9309 INACT
6-43 ADA/3-4-6	69TH BDE EAC ANSBACH	1/3	1/4	1/6	1/6	1/6	1/6	1/6	1/6	FY92 MOVE TO 69TH BDE
8-43 ADA/3	69TH BDE EAC GIEBELSTADT	1/3	0	0	0	0	0	0	0	9112 INACT
TOTAL		10/34	9/31	8/28	8/31	8/31	8/31	8/31	8/31	

TDA BN/BTRYs		NUMBER OF BNS/BTRYs								REMARKS
1-6 ADA (H)/4	6TH BDE FT BLISS	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	
2-6 ADA (FAAD)/4	6TH BDE FT BLISS	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	
3-6 ADA (P)/4	6TH BDE FT BLISS	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	
4-6 ADA (ALLIED)/0	6TH BDE FT BLISS	1/0	1/0	1/0	1/0	1/0	1/0	1/0	1/0	
1-56 ADA (AIT)/5	6TH BDE FT BLISS	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5	
BASE SPT	HOHENFELS	0	0	1/0	1/0	1/0	1/0	1/0	1/0	
BASE SPT	WURZBURG	0	0	0	1/0	1/0	1/0	1/0	1/0	
1ST CAS BN	MCGREGOR	0	0	0	1/1	1/1	1/1	1/1	1/1	BTRY CMD BY MAJ
TOTAL		5/17	5/17	6/17	8/18	8/18	8/18	8/18	8/18	

Transition Force Projection Tables (continued)

ADA UNIT	PARENT UNIT/LOCATION	FY90	91	92	93	94	95	96	97	
BRIGADES		NUMBER OF BRIGADES								REMARKS
6TH ADA	FT BLISS	1	1	1	1	1	1	1	1	
10TH ADA	EAC DARMSTADT	1	1	0	0	0	0	0	0	0692 INACT
11TH ADA	EAC FT BLISS	1	1	1	1	1	1	1	1	
31ST ADA	CORPS FT HOOD	1	1	1	1	1	1	1	1	
32D ADA	DARMSTADT	0	0	0	0	1	1	1	1	ACT FY94
35TH ADA	CORPS FT LEWIS	1	1	1	1	1	1	1	1	
69TH ADA	5TH CORPS WURZBURG	1	1	1	1	1	1	1	1	
94TH ADA	EAC KAISERSLAUTERN	1	1	1	1	0	0	0	0	FY94 INACT
108TH ADA	CORPS KAISERSLAUTERN	1	1	1	1	1	1	1	1	FY92 RELO FT POLK
AREA SPT GP	NUERNBERG	0	0	0	1	1	1	1	1	
TEXCOM	FT HUNTER-LIGGETT	0	0	1	1	1	1	1	1	
TOTAL		8	8	8	9	9	9	9	9	

BTRY		NUMBER OF BTRY								REMARKS
ACR	3RD ACR FT BLISS	0	0	0	0	0	0	0	0	4Q89 AVEN ACT 1Q96
ACR	11TH ACR GERMANY	0	0	0	0	1	1	1	1	1Q94 ACT 4Q94 AVEN
E BTRY, 44TH ADA (VS)	199TH BDE FT LEWIS	1	1	1	1	1	1	1	1	4Q94 AVEN/REMIS 2LCR 0692, RELO FT POLK 3Q93
HVY BTRY	194TH AR BDE FT KNOX	0	0	0	0	0	0	0	0	1Q97 AVEN ACT FY98
HVY BTRY	177TH AR BDE FT IRWIN	0	0	0	0	0	0	0	0	1Q97 AVEN ACT FY98
TOTAL		1	1	1	1	2	2	2	2	

RECAPITULATION									
AUTHORIZATIONS	FY90	91	92	93	94	95	96	97	
BRIGADES	8	8	8	9	9	9	9	9	
BATTALIONS	45	40	39	38	34	32	32	32	
XO/S3	82	72	70	66	58	50	50	50	
BATTERIES (CPT)	148	135	145	143	124	116	116	116	
BATTERIES (MAJ)	0	0	0	1	1	1	1	1	
LT (PMAD AUTH)			698	641					

line-of-sight (heavy) system, on hold due to the changed threat environment, the BSFV is likely to remain the interim system until a new or evolving threat triggers the resumption of the ADATS program. Fortunately, the BSFV is a very good interim solution to the problem of providing air defense firepower in the forward maneuver area.

Soldier transition training is already underway at Fort Bliss, Texas, Korea and Germany and the BSFV fielding plan is being fine-tuned. Plans are to equip the first unit this year and the last of eight ADA heavy battalions by the fourth quarter of FY93.

Ground-Based Sensor

As the objective FAAD command, control, communications and intelligence radar component, the GBS will provide early warning to Avengers, Stingers, BSFVs and combined arms weapon platforms operating at or near the forward edge of the battlefield. The decision to field the GBS despite budget cuts and the diminished threat represents a major victory for ADA action officers who convinced senior defense officials and Army leaders

that the radar is critical to the protection of the maneuver force. With the radar-equipped ADATS out of the picture and the forward area alerting radar out of inventory, the GBS becomes the only heavy division air defense radar left in the forward area.

Hughes is scheduled to deliver six pre-production model GBSs in August 1993. Low initial rate production will begin in 1994, followed by full-scale production in 1995. Initial GBS fielding is set for 1995. The 4th Battalion, 5th Air Defense Artillery, 1st Cavalry Division, Fort Hood, Texas, is scheduled to become the first unit equipped.

Patriot PAC-3

Hailed as the high-tech hero of the Gulf War, the Patriot air defense system and the "Scudbuster" crews who operated it received a hero's welcome home. Who would have imagined that a year after Operation Desert Storm Patriot would become the object of controversy and the subject of congressional scrutiny?

In April, five ADA officers, Maj. Gen. Jay Garner, Army deputy chief of staff for operations; Brig. Gen.

Robert Drolet, Army program executive officer for air defense; Col. Jim Gustine, Patriot program manager; and Col. Skip Garrett and Col.(P) David Heebner, the officers who commanded our Patriot units in Saudi Arabia and Israel, were summoned to appear before the House Security Council's Subcommittee on Government Operations. Their sworn testimony decisively demolished revisionist allegations that the Army had exaggerated Patriot's effectiveness against Iraqi Scuds during Operation Desert Storm.

The latest Army reassessment places Patriot's effectiveness at 70 percent in Saudi Arabia, where it was properly deployed in point defense, and at 40 percent in Israel where the Israeli Air Force, in its eagerness to protect Israeli civilians against incoming Scuds, assigned Patriot an area defense mission that clearly exceeded its operational design parameters. The bottom line is that Patriot wasn't perfect, but it worked extremely well against a threat that it was never designed to counter.

Even critics of Patriot call it the world's best air defense system, and the Patriot is about to get even better. Late this summer, General Drolet is scheduled to brief the Army Systems Acquisition Review Council on Patriot PAC-3 refinements that will improve Patriot's accuracy, lethality and range. A "green light" will move an array of PAC-3 refinements, including radar enhancements, a new missile and a more mobile launcher, into the engineering and manufacturing development phase.



The Bradley Stinger Fighting Vehicle will transport ADA Stinger gunners to the forward edge of the battlefield.

Stinger scouts continue to improvise new methods of employment for the combat-proven Stinger missile system.



Theater High-Altitude Air Defense

We expect to award a THAAD demonstration/evaluation contract to one of three industry teams before year's end. THAAD, the only major weapon system the Army has scheduled for fielding in the 1990s, will become the upper tier of theater missile defense. The Patriot PAC-3 system will serve as the lower tier of theater missile defense.

The THAAD system schedule calls for 10 flight tests in FY94 and 10 systems tests in FY95. Full-scale development will begin in 1994 and continue until production is approved in late 1997. However, pre-production systems could be pressed into service as early as 1995 if world conditions warrant. Initial THAAD fielding may be limited to two battalions.

Corps Surface-to-Air Missile

Corps SAM is a highly mobile, low-to-medium altitude air defense system designed to replace Hawk in the corps and theater air defense brigades. The system will be employed with forward deployed forces, contingency forces and reinforcing forces to defeat air-breathing targets, tactical ballistic missiles, cruise missiles and unmanned aerial vehicles. Corps SAM's system design will stress high firepower, reduced manpower and increased survivability.

The Army released the Corps SAM request for proposals to industry in March. While production schedules are still very tentative, the current plan is to field three Active Army and five Army National Guard battalions.

New Missions

The immediate future also holds entirely new missions for Air Defense Artillery. The branch, which deployed the Safeguard anti-ballistic missile system in the 1970s, has recently been assigned proponent responsibility for the deployment of a national missile defense system consisting of ground-based interceptors stationed in the nation's heartland. Our anti-satellite program, revived by Gulf War lessons learned and the key role friendly satellites played in Operation Desert Storm, is still very much alive. These new missions will make the "First to Fire" branch an even more important player in the Total Army of the future.

Drawdown Focus

Senior ADA leaders are deeply involved in the mechanics of the drawdown. Gen. Frederick M. Franks Jr., commander of the U.S. Army Training and Doctrine Command (TRADOC), has emphasized five "Points of Main Effort" to guide us through the period of transition. These points are:

- Lead the Army through intellectual change.
- Propose modernization alternatives to maintain the technological edge for our soldiers on future battlefields.

- Sustain excellence and relevance in training and leader development.
- Foster organizational excellence.
- Focus on soldiers.

General Franks recently elaborated on each of these points.

Intellectual Change: "General [Gordon R.] Sullivan [Army chief of staff] likes to call doctrine the engine of change," Franks said. "If we're going to change ourselves from essentially a Cold War Army into a post-Cold War Army, then we need to use our doctrine as the engine of this change. It's not a matter of our doctrine being broken, it's a matter that you can't stand still."

The Army is currently preparing for an "intellectual exercise" called Louisiana Maneuvers-1994, in reference to the legendary 1940 maneuvers that shaped the force for World War II, to involve all combat arms in revising AirLand Battle Doctrine into AirLand Operations Doctrine. The new doctrine will describe future operations, operations short of war, how to deploy a strategic force and how to conduct joint operations.

Training: "We saw [during Operation Desert Storm] how training and leader development are the keys to success on the battlefield," Franks said, citing instances when soldiers



Chaparrals and Vulcans will disappear when Avengers and Bradley Stinger Fighting Vehicles eventually replace them in the Active Army inventory.

fresh out of advanced individual training and officer basic courses performed superbly in combat. "We want to sustain that excellence, but we also want to make it relevant."

By relevant, the general said he meant training that no longer focuses on "Fulda Gap scenarios," but prepares soldiers for the new threat environment.

Organizational Excellence: The general said that TRADOC "must be an organization that continues to look into the future, that stays ahead of change, that's agile-minded enough to be able to do that." He charged military and civilian personnel to continue to operate with integrity and openness while keeping a sense of humor and perspective.

This advice, of course, applies to the U.S. Army Air Defense Artillery School and to each of the brigades, battalions, batteries and platoons that make Air Defense Artillery an organization of excellence.

Focus on Soldiers: "It's a responsibility of leaders to see that our soldiers receive the training and skills needed to execute their mission on the battlefield," Franks said. "That's a matter of trust between leadership and soldiers. It's a matter of trust to see that our soldiers have equipment that gives us the edge, that our training is relevant and that there's a sense of family and

command climate that promotes teamwork and a sense of ownership in the organization."

Metamorphosis

A philosopher once observed that "only the dead have seen the end of war." Despite the euphoria generated by democracy's apparent triumph over communism, it would be premature even to hope that we have seen the beginning of the end of war.

The failure of communism and the breakup of the Warsaw Pact and the Soviet Union are positive factors, but the evening news is filled with reports of armed clashes on virtually every continent. Ethnic and religious strife, the competition for markets and resources, ideologies inimical to freedom and the proliferation of modern military technology throughout the developing world continue to make the world a perilous place. In fact, U.S. leaders who no longer have to worry about regional conflicts escalating to a confrontation with the Soviet Union may, in the future, be even more inclined to deal with "tyrant thugs" such as Noriega or Hussein by, unilaterally or with United Nations backing, giving war a chance.

The Total Army of the future, therefore, must not be a complacent garrison Army but a vigilant force prepared and poised for contingency deploy-

ment around the globe. The Operation Desert Storm experience has provided us with an excellent line of demarcation as we prepare to make the metamorphosis from the old Army to the new Army.

During Desert Storm, we saw first hand that our doctrine, training and weaponry work and that the skill, ingenuity and valor of our soldiers, as in previous wars, exceeded all expectations. We saw first hand the end results of our labors, toil and sweat vividly displayed in the bright explosion of Scuds. ADA soldiers who deployed and those of us who massed at airports to welcome them home rediscovered a sense of family — a sense of belonging that will succor us during the challenging transition period ahead. These are good things to know about ourselves. Armed with this knowledge, ADA soldiers can face the future with confidence.

Maj. Gen. John H. Little serves in the dual position of commanding general of the U.S. Army Air Defense Artillery Center and Fort Bliss and as commandant of the U.S. Army Air Defense Artillery School (USAADASCH), the latter a title that also makes him chief of Air Defense Artillery. Sprawling across more than one million acres, the Fort Bliss military reservation is larger than the State of Rhode Island. It is home to the 1st Combined Arms Support Battalion, 11th Air Defense Artillery Brigade, 3rd Armored Cavalry Regiment, 6th Air Defense Artillery Brigade and Biggs Army Airfield. As chief of branch and in conjunction with his duties as USAADASCH commandant, Little exercises proponent responsibility for a variety of issues, including combat developments, materiel development, force development, doctrine development, training development and personnel structure.

Products that work well, because we do. FMC Defense Systems

The Bradley Fighting Vehicle is a proven performer with a growing list of accomplishments. Other members of the Bradley family of vehicles are performing to the same high standard. The Fighting Vehicle Systems Carriers fielded as the chassis for the lethal Multiple Launch Rocket System and for the Army Tactical Missile System were invaluable during Operation Desert Storm. The latest in the distinguished line is the Electronic Fighting Vehicle System.



The EFVS improves a commander's ability to find the opposition, and obtain and distribute strategic intelligence for a decisive tactical edge. This vehicle is a flexible host for a variety of IEW, and C³I tasks. A Command and Control variant is one of the many roles being considered for the Bradley family. Also included are an improved FIST-V and affordable air defense systems. FMC remains committed to meet the requirements for a strong national defense.



FMC Defense Systems



An LTV FLAGE missile intercepting and destroying a surrogate tactical ballistic missile during testing.

Threat:
Incoming TBM

Defense:
Hit-to-Kill

Solution:
LTV's ERINT

Operation Desert Storm demonstrated the threat of tactical ballistic missiles (TBM). Fortunately, the Army's Patriot system countered that threat. But more advanced TBMs, carrying more advanced warheads, present a greater danger. That's why LTV is developing the Extended Range Interceptor (ERINT).

ERINT's design comes from the proven technology of the Flexible Lightweight Agile Guided Experiment (FLAGE) missile, developed by LTV Aerospace and Defense. FLAGE testing proved successful, destroying a series of targets. It also achieved the first body-to-body kill of a target TBM.

Unlike missiles that rely upon blast effect, ERINT impacts the incoming target directly. Precise homing

guidance accuracy and its intense kinetic energy ensure a hit-to-kill intercept.

Plus, it could utilize the U.S. Army's existing Patriot launchers. Four ERINT missiles fit in the space required for one Patriot. This alleviates the threat of TBM saturation attacks and provides greater firepower to a proven asset.

The ERINT missile has the technology to handle both current and anticipated TBM threats. But only if it's in our arsenal.

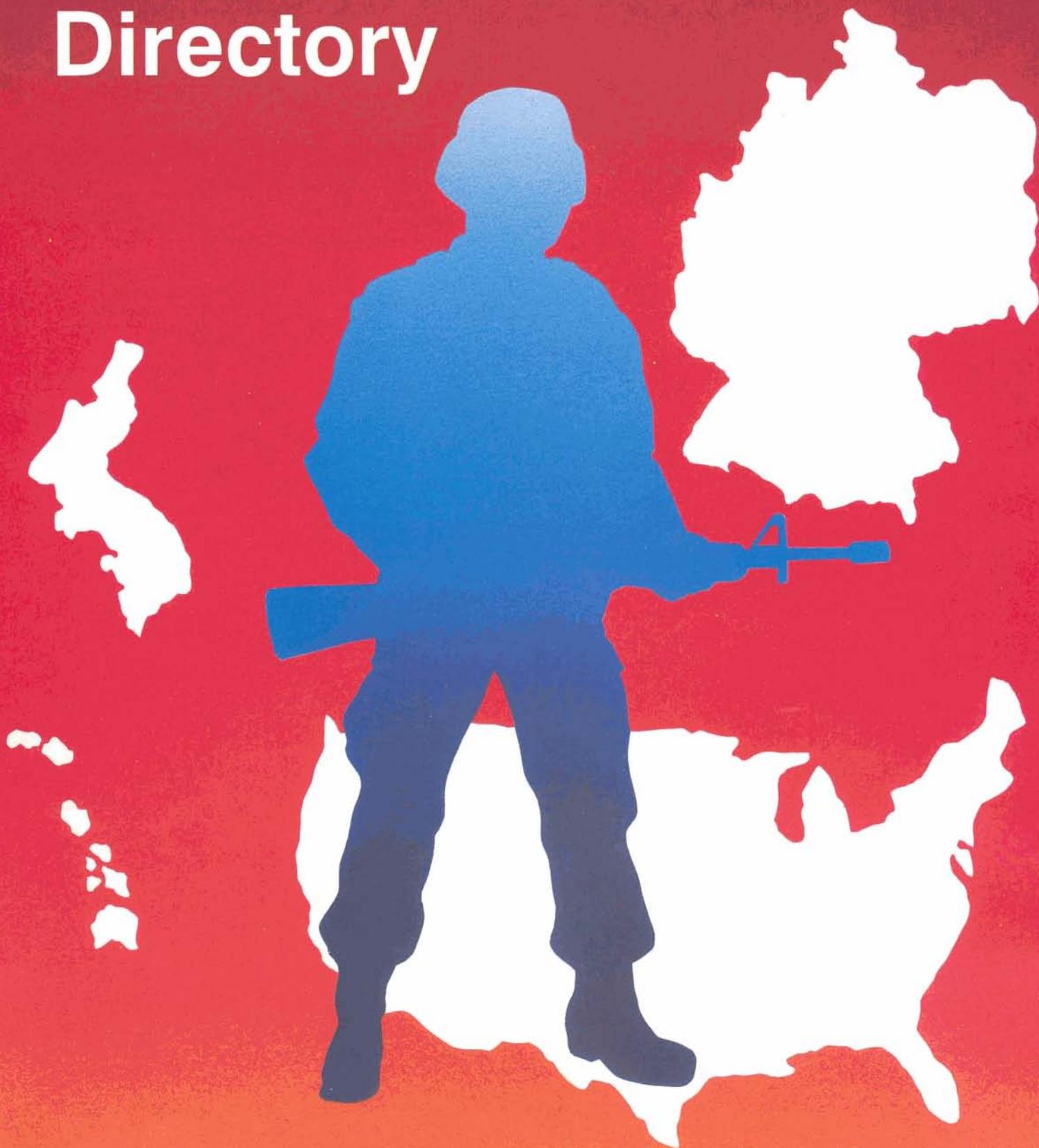


Aerospace and Defense

Missiles Division

L T V : L O O K I N G A H E A D

1992 ADA Directory



USAADACENFB and USAADASCH

**Commanding General,
Chief of ADA**
MG John H. Little

Assistant Commandant
BG James J. Cravens Jr.

Deputy Assistant Commandant
COL Roy W. Tate

Post CSM
CSM Robert W. Harman

Office, Chief of ADA
James C. Mullett
SGM John Scott

**Directorate of
Combat Development**
COL Allen P. Hasbrouck
SGM James M. Cabiness Sr

**Directorate of
Training Development**
COL Milton A. Whitley Jr.
SGM Roger M. Folmar

**Combined Arms and
Tactics Department**
COL Jeffrey W. Gault
SGM Pernell Parker

**TRADOC System Manager
FAAD**
COL Richard F. Alley Jr.

**TRADOC System Manager
HIMAD**
COL Jeffrey L. Ellis

6th ADA Brigade
Fort Bliss, TX
COL Orin A. Nagel
CSM Thomas Waters

1-6 ADA
Fort Bliss, TX
LTC Thomas J. Allen
CSM William F. Mays

2-6 ADA
Fort Bliss, TX
LTC Glen M. Boney
CSM Raymond Harper

3-6 ADA
Fort Bliss, TX
LTC Clarence T. Hunter Jr.
CSM Earl G. Bailey

4-6 ADA
Fort Bliss, TX
LTC Gary M. Wilson
SGM Jesus F. Garza

1-56 ADA
Fort Bliss, TX
LTC Stephen J. Morin
CSM Reginald Ficklin

CONUS Units

11th ADA Brigade
Fort Bliss, TX
COL Joseph G. Garrett III
CSM Wade Hampton

2-1 ADA
Fort Bliss, TX
LTC Peter W. Thomson
CSM Dennis L. Coffman

1-2 ADA
Fort Stewart, GA
LTC James W. Green
CSM Jeffery G. Jordan

2-7 ADA
Fort Bliss, TX
LTC Michael A. Christian
CSM Mack M. Lewis

1-43 ADA
Fort Bliss, TX
LTC David L. Hartman
CSM William Jemison

3-43 ADA
Fort Bliss, TX
LTC Martin W. Leek
CSM Robert Davis

2-52 ADA
Fort Bragg, NC
LTC Teddy D. Bitner
CSM Arthur W. Jones

5-62 ADA
Fort Bliss, TX
LTC George R. Nelson
CSM Juan M. Ayala

31st ADA Brigade
Fort Hood, TX
COL William D. Hubbard
CSM Robert P. Robinson

3-1 ADA
Fort Hood, TX
LTC Allen M. McDavid Jr
CSM William Keeton

2-2 ADA
Fort Hood, TX
LTC Gary A. Smith
CSM Rodger Kimbrell

35th ADA Brigade
Fort Lewis, WA
COL Peter C. Franklin
CSM Dale Thompson

3-2 ADA
Fort Lewis, WA
LTC Michael B. Urrutia
CSM Timothy L. Madden

4-7 ADA
Fort Lewis, WA
LTC Michael A. Leeper
CSM Frank E. Makin II

1-52 ADA
Fort Lewis, WA
LTC Robert M. Reddick
CSM Danny K. Palmer

111th ADA Brigade
Albuquerque, NM
BG Terry L. Holden
CSM Albino A. Hernandez

1-200 ADA
Roswell, NM
LTC Jack F. Jones II
CSM Ronnie Kilgore

2-200 ADA
Las Cruces, NM
LTC Raymer W. Shaw

3-200 ADA
Belen, NM
LTC Jimmie M. McDonald
CSM Thomas Frost

4-200 ADA
Clovis, NM
LTC Thomas E. Meadows
CSM Gary Lawrence

6-200 ADA
Springer, NM
LTC Michael A. Gonzales
CSM Fred Arellano

7-200 ADA
Rio Rancho, NM
LTC T. Vance Hooton
CSM Ray Gonzales

164th ADA Brigade
Orlando, FL
COL(P) John C. Bridges
CSM Joseph Calkins

1-265 ADA
Daytona Beach, FL
LTC Richard T. Rintz
CSM Steven P. Boring

2-265 ADA
Longwood, FL
MAJ(P) Charles C. Craig
CSM Walter E. Russell

3-265 ADA
West Palm Beach, FL
LTC Ralph K. Jones
CSM Harry T. Carter

263rd ADA Brigade
Anderson, SC
BG Hoyt E. Thompson
SGM Cecil Nalley

1-263 ADA
Seneca, SC
LTC John E. Pendergast
CSM Thomas O'Dell

2-263 ADA
Anderson, SC
LTC Herman G. Kirven Jr.
CSM Edward H. Reezes

Divisional CONUS

1-3 ADA
Fort Carson, CO
LTC Howard I. Harmatz
CSM William H. Lowie

2-3 ADA
Fort Riley, KS
LTC John S. Warren
CSM Matthew T. Graham

3-3 ADA

Fort Polk, LA
LTC John B. Moseley
CSM Cephus Harvey

3-4 ADA

Fort Bragg, NC
LTC Robert E. Cardini
CSM Steven B. Miranda

1-5 ADA

Fort Stewart, GA
LTC Otis B. Ferguson Jr.
CSM Theoga Carrington Jr

4-5 ADA

Fort Hood, TX
LTC Randall D. Harris
CSM Vern C. Strebe

2-44 ADA

Fort Campbell, KY
LTC John M. Urias
CSM Lawrence D. Ruley

2-62 ADA

Fort Ord, CA
LTC Edwin G. Stikeleather
CSM James H. Hughes

3-62 ADA

Fort Drum, NY
LTC Daniel F. Lally
CSM Harold Collins

**E Battery, 44th ADA
(199th Inf Bde) (Mech)**

Fort Lewis, WA
CPT Robert J. Coy

3-111 ADA

Portsmouth, VA
LTC Danny C. Rose
CSM David Hoover

1-138 ADA

Lafayette, IN
LTC Glenn H. Huber Jr
CSM Marion H. Bush

2-174 ADA

McConnelsville, OH
LTC James C. Wilder
CSM Dwight Scott

1-188 ADA

Grand Forks, ND
LTC Arthur W. Perleberg Jr.
CSM Robert Saunders

1-202 ADA

Kewanee, IL
LTC Charles E. Fleming
CSM Robert Van Opdorp

1-213 ADA

Lehigh, PA
LTC William A. Slotter
CSM Dale Schoeneberger

1-233 ADA

Booneville, AR
LTC Philip J. Morriss
CSM Gary Branch

OCONUS Units**Headquarters
32nd AADCOC**

Darmstadt, Germany
BG John Costello
CSM James E. Walther

10th ADA Brigade

Darmstadt, Germany
COL Eugene P. Semmens
CSM Lewis R. Brooks

2-43 ADA

Hanau, Germany
LTC Edward W. Williams Jr
CSM Eddy R. Arnold

4-43 ADA

Giessen, Germany
LTC David E. Neely
CSM Charles Hermon

94th ADA Brigade

Kaiserslautern, Germany
COL Albert J. Madora
CSM Jimmie W. Bradshaw

4-1 ADA

Neubueke, Germany
LTC Joseph E. Miller
CSM Lamar R. Pounds

1-7 ADA

Kaiserslautern, Germany
LTC William T. Smith III
CSM Larry J. Gunnels

108th ADA Brigade

Kaiserslautern, Germany
LTC Terry L. Cornett
CSM Steve E. Allen

5-7 ADA

Bitburg, Germany
LTC Alvin Keith
CSM Larry Fierstine

69th ADA Brigade

Wurzburg, Germany
COL Gregory A. Rountree
CSM Thomas F. Salter

5-2 ADA

Crailsheim, Germany
LTC Kenny A. Searcy
CSM Roscoe Young

6-43 ADA

Ansbach, Germany
LTC David E. Lenz
CSM Earnest Haynes

6-52 ADA

Giebelstadt, Germany
LTC Michael M. Schroeder
CSM Jordan C. Canion

Divisional OCONUS**4-3 ADA**

Kitzingen, Germany
LTC Phillip R. Lindner
CSM Edward Calhoun

5-3 ADA

Wackernheim, Germany
LTC Robert B. Gregg
CSM Miguel Montoya

5-5 ADA

Camp Stanton, Korea
LTC Thomas M. McGinnis
CSM Daniel J. Lucas

1-62 ADA

Schofield Barracks, HI
LTC William F. McManaway
CSM John W. Hierath

**Special
Commands****Test & Experimentation
Command**

Fort Hunter Liggett, CA
COL Oscar W. Simmons III

USA Range Command

Kwajalein Atoll
LTC John A. Como

**1st Combined Arms
Support Battalion**

McGregor Range, NM
LTC Daniel M. Birmingham
CSM Lyle D. Yazel

**US Total Army
Personnel
Command**

Commanding General
MG Gerald H. Putman

Officer Branch Chief
COL Vernon W. Hatley

Colonel Assignments
MAJ(P) Kenneth M. Younger

Lieutenant Colonel
Assignments
CPT(P) Kenneth J. Cox

Major Assignments
MAJ Thomas H. Stanton

Captain Assignments
CPT Randy A. Buhidar

Lieutenant Assignments
CPT Bruce W. Russell

ADA Readiness Officer
CPT Donald P. Eady

Warrant Officer Assignments
CWO 4 Patrick D. Francis

CMF 14/23 Branch
CPT(P) Kent E. Friederich

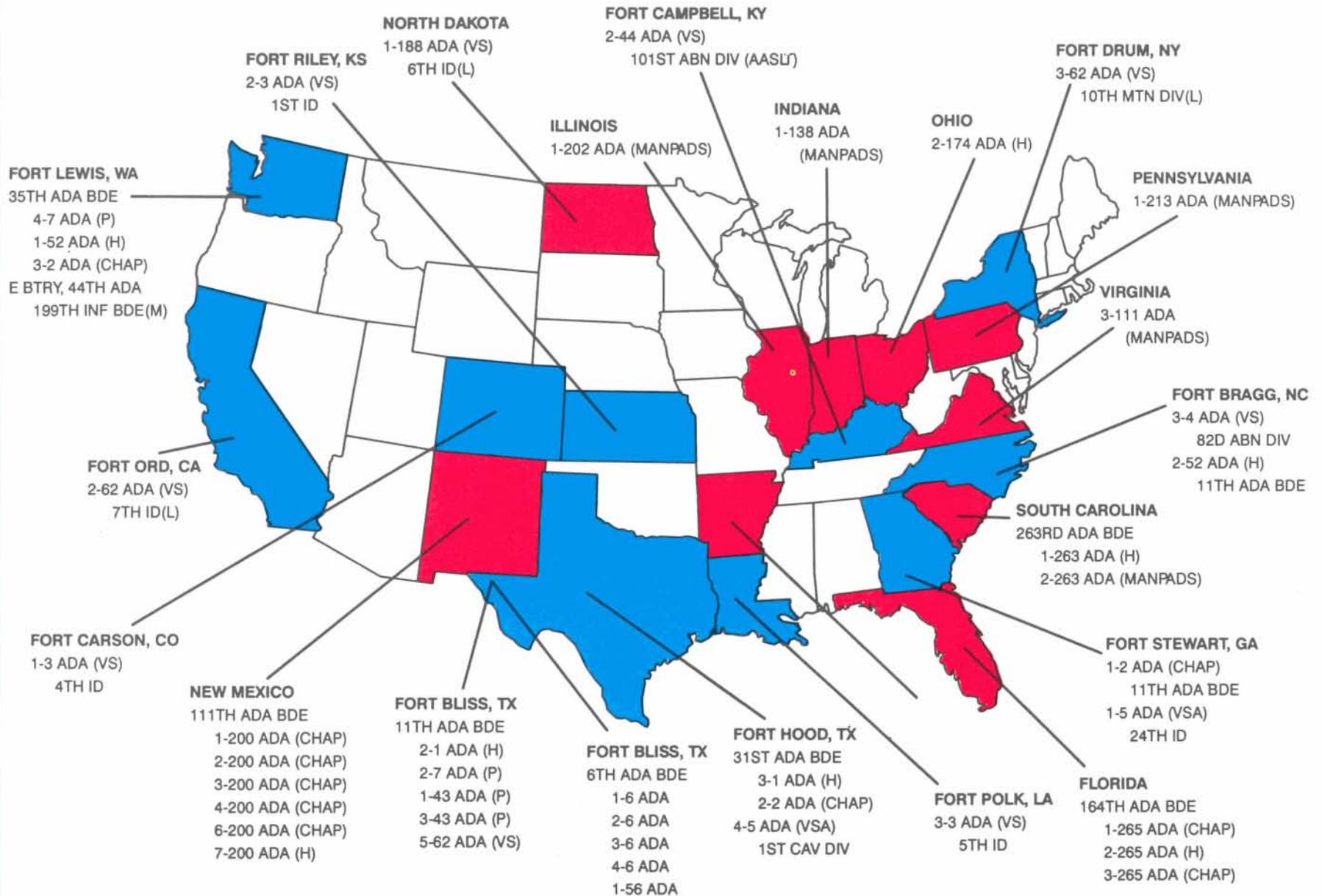
ADA Systems Manager
MAJ Frank Jessie Jr

Compiled by:**Office, Chief of
Air Defense Artillery**

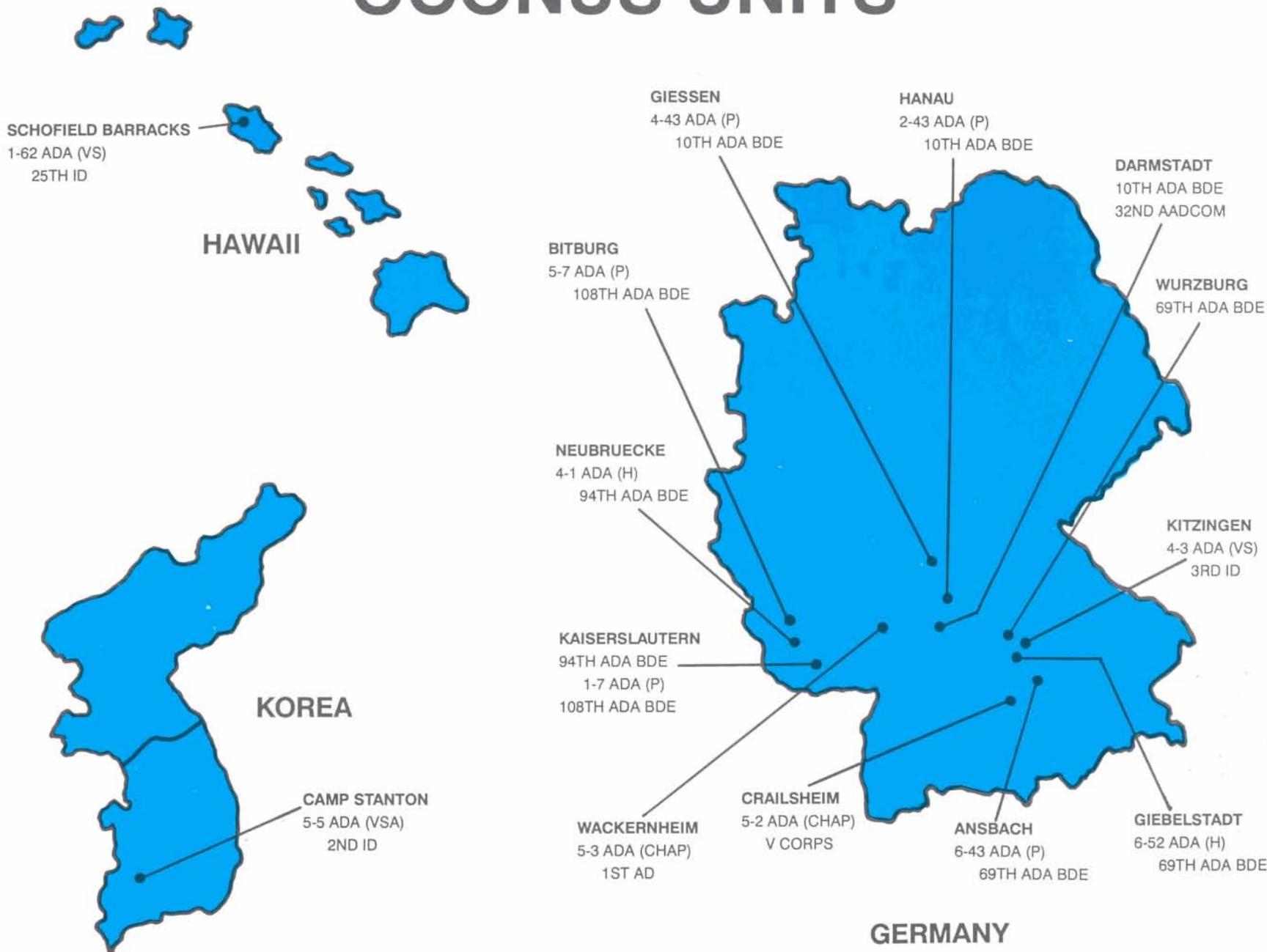
ATTN: ATSA-ADA
Building 55
George Jones
Fort Bliss, TX 79916

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SHORTS





Brig. Gen. James J. Cravens Jr.

Reshaping the School

*One thing the drawdown
won't change is the ADA
School's firm commitment
to tough, realistic training*

Editor's Note: Assistant Commandant Brig. Gen. James J. Cravens Jr. is responsible for the day-to-day operations of the U.S. Army ADA School, Fort Bliss, Texas. In a recent interview, *ADA* magazine asked about the impact of the drawdown on the school and ADA training.

Army leaders have repeatedly stated that they will not allow budget cuts to gut the training base, but given the magnitude of the budget cuts, is this a realistic expectation?

Training is our number one priority. Although our high-tech weapon systems worked spectacularly well during the Gulf War, it was highly trained soldiers and competent leaders who made the victory over Iraqi units both swift and decisive. We do not intend to relinquish the edge we have achieved in training. The Army's senior leadership is fully committed to maintaining quality training, even if it means decrementing weapon systems and modernization programs.

Our Desert Storm units were trained to near peak perfection, as evidenced by their performance and the outcome of the war. The challenge is to maintain a high state of training in the event we are called into action again. Our goal is to produce a force that can mobilize, deploy, fight and win at any level of intensity anywhere in the world. Without question, our top priority is realistic, challenging, multi-echelon, totally integrated combined arms training. The keys to our success will be training management reforms and the exploitation of new and emerging training technology.

"Our goal is to produce a force that can mobilize, deploy, fight and win at any level of intensity anywhere in the world."

What is the Army doing to reform training management?

Training management reforms have already begun to streamline and fine-tune the training process. For example, the ALRTP [Army Long-Range Training Plan] 1990-2010 was published last year. It provides the Army staff, MACOMs [major Army commands], Army component command planners and training developers the guidance they need to acquire training resources and to develop training policies for the next two decades.

The Army's new CATS [Combined Arms Training Strategy] is a practical expansion of the ALRTP. CATS produces strategies that govern the way we train now and projects strategies that will govern the way we expect to train in the future.

For example, in Air Defense Artillery, the Enhanced Operator Concept will offset the loss of unit-level maintenance support personnel by providing system operators and crew or section chiefs with additional training in maintenance, troubleshooting and repair techniques. Under this concept, Our ADA system operators become operator/maintainers. The Enhanced Operator Concept will give our ADA crew and section chiefs the additional

maintenance training they need to supervise their operator/maintainers and orchestrate battle damage repairs. Since it places diagnostic and simple fix skills as far forward as possible, the Enhanced Operator Concept will enhance combat sustainment and battlefield reconstitution.

The Army has also taken some important and innovative steps toward eliminating confusing and often contradictory regulations that plague the training process. For example, a recent Army Research Institute study showed that more than 60 Army regulations prescribe training requirements of one type or another. These requirements are, in turn, multiplied or expanded by intervening headquarters.

The results pose a significant problem for unit commanders who must translate these multiple requirements into training events. To rectify this situation, the Army has made the ODC-SOPS [Office of the Deputy Chief of Staff for Operations and Plans] the central clearing house for all regulations that prescribe training requirements.

The Army has also established a new policy that will require most of the combat-related training requirements emanating from the Department of the Army to be incorporated into ARTEPs [Army Training and Evaluation Programs] and STPs [Soldier Training Publications]. And from now on, directives that prescribe noncombat training requirements will outline training plans and clearly designate target audiences and training objectives.

These training management refinements are, of course, "top-down" initiatives. There have to be complementary "bottom-up" counterparts. The success of training management reform ultimately depends on the ingenuity and resourcefulness of our unit commanders, platoon leaders and key noncommissioned officer leaders. The bottom line is that we must carefully manage training so that we can train smarter.



Cleveland McKnight

Will budget cuts force unit commanders to absorb responsibility for training currently accomplished at the school?

The drawdown and accompanying reduction in resources at the schoolhouse will cause some shift in training focus from the school to the field, but it is a shift that has been underway for some time. Drawdown economics alone are not the driving force behind the shift away from traditional residency training. New and emerging training technologies, coupled with the expansion of embedded simulators throughout the training base, are giving unit commanders unprecedented individual and collective unit training capabilities. Drawdown economics will merely lend impetus to the transition. We will continue to gradually shift more and more responsibility for individual training from the school to the field. In fact, over the next several years, *portions* of virtually every course currently being taught in the schoolhouse will be transferred to the field.

Considering the overall reduction in Army strength, won't shifting training from the school to the field adversely affect unit readiness?

We wouldn't do it if we felt that it would have a negative impact on unit readiness. Decisions to shift any portion of training traditionally conducted in the school to the field are linked to our overall distributed training program. The distributed training program delivers training to soldiers, leaders and civilians when and where the Army needs that training. It is training conducted at the soldier's home station, rather than in the school.

The distributed training program is a component of an integrated training strategy that balances distributed training, device-based training and training conducted at combat training centers. The program's goal is to reduce training costs while sustaining or exceeding force readiness standards. Before we select any training task for transfer from the school to the field,

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we first determine whether or not the task will unduly burden the field commander in terms of time, resources and personnel.

Next, we make sure that the task is supported through the distributed training program. Tasks that are difficult to master, error prone, or require large amounts of logistical support may not be good candidates for transfer to the field.

Will drawdown economics affect the rotation of ADA units at our combat training centers?

The British were once fond of saying that World War I was won on the playing fields of Eton, the British equivalent of West Point. The Gulf War was won on the "playing fields" of our combat training centers.

At present, it looks as though budget cuts will not affect rotations through the National Training Center at Fort Irwin, the Combat Maneuver Training Center at Hohenfels, the Joint Readiness Training Center at Fort Chaffee or the Battle Command Training Program at Fort Leavenworth. These combat training centers have proven their worth, and they will continue to serve as the centerpieces of the Army's combined arms training.

"We've coped with military and civilian work reductions over the past few years by adapting a 'do more with less' strategy."

The Army drawdown will have an obvious impact on ADA force structure, but what about its impact on the U.S. Army Air Defense Artillery School structure?

The biggest challenge is to devise and implement a cost-effective training strategy that conforms with the future declining budget and force. With decreasing accessions, the Army is realigning and restructuring the training base to maintain quality training while reducing training resource requirements. We've coped with military and civilian work force reductions over the past few years by adapting a "do more with less" strategy... we've simply asked people to work harder. However, the "do more with less" philosophy is quickly reaching its limit.

The problem for Air Defense Artillery is complicated by the influx of new ADA systems. The list already includes the Avenger, Bradley Stinger Fighting Vehicle, Forward Area Air Defense Ground-Based Sensor and Theater High-Altitude Air Defense System. It now seems likely that the list will grow to include the National Missile Defense Ground-Based Interceptor.

Designing new MOS [military occupational specialty] training, new equipment training programs and training support packages, as well as writing and publishing new doctrinal and training manuals for so many new systems will be challenging. We will have to get the work done with a reduced military and civilian work force, which will require hard work, creative thinking and innovativeness on everyone's part.

We have already streamlined the school by eliminating the training departments and realigning their functions under the training battalions. This restructuring achieves unity of effort by placing all our training resources — the trainers, training equipment and soldiers to be trained — under the training battalion commander. It saves money, and it also improves efficiency. The school's Directorate of Combat Developments now functions as a matrix organization with special working groups. One special working group is developing the branch's strategy for anti-tactical missile defense and theater high-altitude air defense. We are in the process of adding a new special working group to handle national missile defense, a mission the branch has just recently been assigned.

Another training challenge posed by the drawdown of the Active Army is the growing importance of training support for the reserve component. At the end of the drawdown period (1995), the Active Army air defense force will have shrunk by 37.1 percent while the Army National Guard air defense force will have increased by approximately 116.8 percent (since 1987). Eventually, Army National Guard units will comprise nearly 50 percent of the air defense force. We must redefine the Guard's mission, support Guard units with quality recruits and MOS-qualified soldiers from active duty and ensure that Guard units are trained to standard. To fully support this expanding mission, we are creating a Directorate of Total Force Integration. Other service

schools throughout TRADOC [Training and Doctrine Command] are creating identical directorates, but the new directorate has special meaning for our branch because of the sizable portion of the active component air defense force that is being transferred to the Army National Guard.

A new automated system, the RCAS [Reserve Component Automation System], will help fully integrate the reserve component into the total force. The RCAS will link all Army National Guard and Reserve units with mobilization stations and MACOMs. The training management portion of RCAS will interface with CATS and the Army Training Requirements and Resources System to automate training management for the reserve component.

During the Gulf War, selected individual ready reserve (IRR) soldiers were called to active duty. Some underwent specialized training called the Rapid Train-up Program, or RTUP. With Air Defense Artillery in transition, will the school be able to offer RTUP training in future emergencies?

Yes, I expect RTUP to be a part of future mobilization training strategies. It is a program designed to pro-

vide refresher or transition training for highly critical combat tasks. RTUP provides only that training necessary for combat and thus saves time and other critical resources.

Concentration on highly critical combat tasks allows us to send IRR soldiers into combat with confidence they can survive and successfully accomplish the mission. A continually revised and updated RTUP training strategy will remain an integral part of each peacetime ADA program of instruction.

Training aids, training devices and simulations are taking on an ever-increasing role in Army training. Is Air Defense Artillery pursuing a training device for combined arms training?

Yes, we have forwarded to TRADOC a requirements document for an Air Defense Combined Arms Tactical Trainer. It will allow ADA units to conduct frequent training episodes in a combined arms setting, serve as a principal device for implementing ADA CATS and achieve significant reductions in unit OPTEMPO [operating tempo].

The Air Defense Combined Arms Tactical Trainer is the ADA variant of the Army's Combined Arms Tactical Trainer program. It's a computer-driven, distributed processing, network simulation system that provides collective combined arms training for ADA units. It includes a state-of-the-art tactical operations center with battalion staff elements. It also offers combat support, combat service support, semi-automated forces and after action review capabilities. It can present an array of threats under realistic combat conditions and provides real-time feedback.

The Air Defense Combined Arms Tactical Trainer is not the only new training device in Air Defense Artillery's future, but it promises to produce an immediate and significant benefit for collective combined arms training and will greatly assist ADA commanders in attaining and sustaining unit readiness.



Cleveland McKnight

"The Air Defense Combined Arms Tactical Trainer is the ADA variant of the Army's Combined Arms Tactical Trainer program."

You've previously mentioned the importance of exploiting new and emerging training technologies. Besides the Air Defense Combined Arms Tactical Trainer, what are some of the other new technologies, and how will they affect the relationship between the service schools and units in the field?

Computer simulation training is a cost savings surrogate for field training exercises. Desert Storm reporters who interviewed our Patriot engagement control station crews prior to the first Scud intercepts were startled to discover most of them had never participated in an actual live-fire engagement. Their training had consisted almost exclusively of computer-driven engagement scenarios. "It works the same way," one crewman told a newsman. Subsequent events proved him right.

Simulation technology works as well for Air Defense Artillery as it does for other combat arms. Since the technology is growing cheaper, as well as more sophisticated, as it matures, embedded or strap-on simulators will continue to proliferate throughout the training base. The eventual goal is "seamless simulation" that will link tactical, operational and strategic battlefield operating systems into the same network and permit us to integrate simulation and live training without regard to geographical constraints.

Emerging technologies will continue to blur the distinction between simulation and live training. For example, "virtual reality" imagery melds a computer-generated world with the real world. It could turn an empty field into a city that our Bradley Stinger Fighting Vehicle crews, equipped with virtual reality helmets or visors, could drive through. It would also permit them to experience the sensations of the actual battlefield without leaving the motor pool.

Voice recognition systems could eliminate reliance on a keyboard or mouse to input commands. Industry is already using artificial intelligence technologies in diagnostic equipment

Cleveland McKnight



to sharply reduce training periods and improve job performance.

Artificial intelligence could provide round-the-clock expertise to unit-level maintenance. Artificial intelligence may one day produce passive air defense engagement systems that will identify and engage targets automatically; a development that will reduce operator training time.

Rapidly maturing optical storage technologies may produce paperless technical manuals. For example, a single compact optical disk can hold 200,000 pages of text plus audio and video information, with reproduction costs running at approximately \$3.00 per disc. Random access and key word search features would give a soldier equipped with a visor-mounted miniature monitor instant access to troubleshooting and maintenance procedures.

The rapid proliferation of state-of-the-art simulators and ancillary simulation technology throughout Air Defense Artillery and the Total Army will add impetus to shifting the training focus from the service school to the unit. It's a shift that we should welcome, for it makes life at the unit level easier, rather than harder, for ADA unit commanders.

"The future Air Defense Artillery branch will be smaller, but will be just as good, if not better, than it is today."

The drawdown has produced a period of uncertainty. Soldiers in Air Defense Artillery and other branches are, with good reason, reassessing their career goals and opportunities and many have opted for early out incentives. Are we losing too many of our best soldiers? What advice do you have for ADA soldiers who've decided to stick with the Army?

First, congratulations to those soldiers who, believing they have something important to contribute, have decided to remain with ADA. The Army and Air Defense Artillery need you, and your choice is a good one. You can make a difference in the reshaping of our branch and our Army.

Overall, quality soldiers and leaders are remaining in the branch. That's important because of the critical role Air Defense Artillery will play in the future.

Don't let the diminished threat environment lull you into a false sense of complacency. The recent collapse of the Soviet Union hasn't made the world safe for democracy. The world, as Operations Urgent Fury, Just Cause and Desert Storm have dramatically demonstrated, is still full of trouble spots. No one can predict with confidence or with certainty when we will be called upon again for action. The proliferation of theater ballistic missiles throughout Third World countries makes the situation untenable, at best.

ADA soldiers will be afforded plenty of challenges and opportunities. If that's what you are looking for, stay the course with ADA. You won't regret your decision.

General Quarters

ADA general officers spread ADA expertise throughout defense establishment

Maj. Gen. John H. Little serves as commander of the U.S. Army Air Defense Artillery Center and Fort Bliss, Texas, and as commandant of the U.S. Army Air Defense Artillery School, the latter a job title that also makes him chief of Air Defense Artillery. As assistant commandant, Brig. Gen. James J. Cravens Jr. runs the day-to-day operations of the ADA School's directorates, departments and training battalions. Their positions make their names almost synonymous with Air Defense Artillery. They need no introduction to ADA audiences because

branch publications make their faces familiar to "First to Fire" soldiers around the world.

Other ADA generals may exercise their leadership skills, management talent and expertise away from the heart of Air Defense, but directly or indirectly, they continue to exert profound influence on the branch. The profiles below capsule the duties and responsibilities of the one- and two-star generals who, along with Little and Cravens, make up Air Defense Artillery's galaxy of Active Army and Army National Guard general officers.



Maj. Gen. Richard C. Alexander

Ohio Adjutant General, Army National Guard, Columbus, Ohio

Alexander made the transition from the U.S. Marine Corps to the U.S. Army in June 1960 when he enlisted in Battery C, 1st Missile Battalion (Nike-Hercules), 137th Artillery, of the Ohio Army National Guard. Today, as Ohio's 77th adjutant general, Alexander heads both the Ohio Army and Air National Guards and initiates policies and programs for 21,000 Guardsmen. The 2nd Battalion, 174th Air Defense Artillery, gives the Ohio Guard its air defense firepower. 2-174 ADA recently traded in its self-propelled "Dusters" for Hawk missile systems and now occupies a newly constructed 470-acre training site and maintenance facility. The battalion's first live Hawk missile firing is scheduled for July at Fort Bliss, Texas.

Maj. Gen. Wallace C. Arnold

CG, U.S. Army ROTC Cadet Command, Fort Monroe, Virginia

As commanding general of the U.S. Army Reserve Officer Training Corps (ROTC) Cadet Command, Arnold supervises the Senior ROTC Program at 350 universities and colleges in all 50 states and Puerto Rico, and the Junior ROTC Program in 853 high schools across the nation, Germany, Korea, Panama, Japan, Puerto Rico, the Virgin Islands, Guam and American Samoa. The Senior ROTC Program produces about 70 percent of the new lieutenants commissioned into the active and reserve components each year. Its emphasis is on training and leadership. Junior ROTC strives to motivate young people toward good citizenship, promotes "stay in school" programs and teaches the dangers of drug and alcohol abuse. It also stresses training, discipline and leadership development.



Maj. Gen. Edward D. Baca

New Mexico Adjutant General, Army National Guard, Santa Fe, New Mexico

The New Mexico National Guard, which traces its lineage back to the Spanish colonial militia formed in 1595 to defend mission settlements along the Rio Grande from Indian raids, is the nation's oldest military organization. Its six ADA battalions and ADA brigade headquarters make it one of the world's most potent air defense forces. Scheduled to receive Avengers, it will also be one of the world's most modern air defense forces. As adjutant general for the New Mexico National Guard, Baca heads both the state's Army and Air National Guards. He is also commander of the State Defense Force. In addition to his federal duties, Baca is the New Mexico governor's principal advisor on military affairs, serving as president of the State Armory Board and providing oversight for the New Mexico Civil Air Patrol.





Maj. Gen. Travis N. Dyer

Director of Personnel, J-1, Forces Command, Fort McPherson, Georgia

Dyer made an impact on soldiers long before he attained general officer rank. As a colonel, he developed the Army's physical fitness regimen that, today, inspires soldiers to reach peak physical condition. Now he has general staff responsibility for the development, execution and supervision of programs, plans, policies and procedures for individual and unit personnel readiness, strength maintenance and mobilization of forces in Army Forces Command, the Army's largest major command. He also directs a number of vital programs, including safety, equal employment opportunity and alcohol and drug education/rehabilitation. He provides staff supervision for the FORSCOM surgeon and provost marshal offices and monitors personnel policies for a civilian workforce of more than 50,000.

Maj. Gen. Jay M. Garner

Deputy Chief of Staff for Operations-Force Development, U.S. Army, Washington, D.C.

History shows that America has botched the downsizing of its armed forces after every victory. As the Army's deputy chief of staff for operations-force development (DCSOPS-FD), Garner bears much of the responsibility for seeing that we get it right this time. Garner helped rescue Kurdish refugees from Saddam Hussein as deputy commander of allied forces during Operation Provide Comfort. Today, in one of the Army's most influential positions, he oversees Army, joint and combined doctrinal development and coordinates and directs unit activations, inactivations and conversions. He also manages Army modernization and is instrumental in prioritizing Army research, development and procurement.



Maj. Gen. Donald M. Lionetti

Deputy Commanding General and Chief of Staff, TRADOC, Fort Monroe, Virginia

Chiefs of staff wield the "power behind the throne." Lionetti, the only former chief of branch still on active duty, acts with the delegated authority of the commander, U.S. Army Training and Doctrine Command (TRADOC), to achieve the TRADOC missions of "Preparing the Army for War" and serving as the "Architect of the Future." He extends the commanding general's effectiveness by formulating policy for TRADOC's special and directorate staffs and, then, directs, coordinates and integrates their activities. He allocates resources within the command in support of TRADOC's 17 installations; represents the commanding general on Department of the Army committees, councils and advisory groups; and chairs TRADOC committees and advisory groups.

Maj. Gen. Gerald H. Putman

Commanding General, PERSCOM, Alexandria, Virginia

Formerly the commander of the 32nd Army Air Defense Command, Putman took command of the U.S. Total Army Personnel Command (PERSCOM) and responsibility for managing the careers of hundreds of thousands of soldiers at the beginning of a drawdown of historic proportion. Putman recommends and executes military and civilian personnel policies, systems and programs. He plays a crucial role in the development and supervision of military personnel management procedures, including career development and assignments, personnel information systems, personnel aspects of force modernization and military personnel administration, that affect every Army career. He also supervises the Army Drug and Alcohol Program.



Brig. Gen.(P) Charles W. McClain Jr.

Chief, Public Affairs, Office of the Secretary of the Army, Washington, D.C.

Winning on the battlefield accomplishes little if you lose the war in the news media. McClain is largely responsible for influencing the way the nation views the Army and, courtesy of command information programs that spawn hundreds of installation newspapers and television broadcasts, how the Army views itself. He formulates Army public affairs policies and advises the secretary of the Army, chief of staff, secretariat and Army staff principals and agencies of the Department of Defense on public affairs matters relating to public understanding and support of defense in the development and accomplishment of DoD information objectives. As chief of public affairs, he also has command supervision responsibility for the Army Hometown News Center and OCPA's New York and Los Angeles branches.



Brig. Gen. Richard G. Capps

Florida Deputy Adjutant General, Army National Guard, St. Augustine, Florida

During the Cuban Missile Crisis of 1962, news cameramen photographed President John F. Kennedy as he stood next to a Hawk fire unit deployed on a Florida beach and gazed out to sea in the general direction of Havana. With Castro still in power, the Cold War isn't over just yet for air defenders of the Florida Army National Guard's two Chaparral battalions, Hawk battalion and ADA brigade headquarters. As assistant adjutant general for the Florida Army National Guard, Capps is responsible for duties as directed by the state adjutant general. Formerly commander of the Florida Guard's 164th ADA Brigade, Capps is now assigned to Headquarters, State Area Command, St. Augustine, Fla.

Brig. Gen. Vernon L. Conner

Director, J-5 (Plans), U.S. Space Command, Peterson Air Force Base, Colorado

Conner's job description reads like the script for a *Star Trek* episode, except that he has a lot more to worry about than Captain Kirk and a lot more than ratings are at stake. He develops plans, policy, doctrine, strategy and operational requirements for U.S. Commander in Chief, Space (USCINCSpace) missions, functions and responsibilities. An important part of his job is figuring out what materiel the United States needs to conduct successful space operations and deploy an effective ballistic missile defense. He also monitors compliance with, and recommends changes to, Joint Staff documents; monitors component activities to ensure consistency with USCINCSpace requirements; and supports Defense Planning Review Board and POM activities.



Brig. Gen. John Costello

Commander, 32nd AADCOM, Darmstadt, Germany

As commander of the 32nd Army Air Defense Command (AADCOM), Costello guides the world's most powerful air defense force as it adapts to a radically changed strategic environment. In recent months, 32nd AADCOM soldiers witnessed first hand the fall of the Berlin Wall, German reunification and the collapse of the Soviet Union. During the Gulf War, the command sent Patriot batteries to defend Israel and Turkey. Costello's command includes the 10th ADA Brigade, consisting of 2-43 ADA and 4-43 ADA; the 94th ADA Brigade, consisting of 4-1 ADA and 1-7 ADA; and the 108th ADA Brigade, consisting of 5-7 ADA. Its mission is to provide high- to medium-altitude air defense for critical assets in central Germany against air-breathing targets and tactical ballistic missiles.

Brig. Gen. Robert A. Drolet

Program Executive Officer, Air Defense, U.S. MICOM, Redstone Arsenal, Alabama

The Gulf War showcased tactical ballistic missiles, cruise missiles, attack helicopters and stealth aircraft. The knowledge that, sooner or later, we may have to shoot threat versions of the same down promises to keep Drolet, and his successors as program executive officer for air defense, busy well into the next century. Drolet manages the development, acquisition, deployment and sustainment of all Army air defense systems. He is responsible for allocating manpower, materiel and annual funding resources of approximately \$1.5 billion. Drolet coordinates and directs the activities of scientists, engineers, logisticians and government/contractor staffs in support of air defense mission goals. He is the senior Army official solely responsible for integrating all air defense materiel acquisitions.



Brig. Gen. Robert S. Hardy Jr.

Director for Manpower, Personnel and Security (J-1), USEUCOM, Vaihingen, Germany

His ambition was to coach high school athletics, but some things are not to be. Fortunately for ADA, Hardy pursued a military career. Today, his decisions on manpower requirements, dependent education, morale, welfare and recreation, drug enforcement and military and civilian personnel management affect more than 600,000 soldiers and their families. Hardy manages personnel actions for Headquarters, U.S. European Command (USEUCOM) and outlying security assistance organizations. He also directs security for U.S. embassies and joint counter-terrorism and information security policies and programs within Headquarters, USEUCOM. Hardy commands a 6,000-person military community that will never win a state championship, but is still a winning team in anyone's book.



Brig. Gen. David K. Heebner

Executive Officer to the Vice Chief of Staff, OCSA, Washington, D.C.

While commanding U.S., Israeli and Belgian Patriot batteries defending Israel, Heebner learned how to shoot down Scuds. Today he's learning, first-hand, how the Army runs and how Army and DoD leaders interact to get things done as they shape the Army of the future. Heebner's principal duties encompass a range of activities designed to increase the efficient and effective use of the vice chief of staff's time. His daily responsibilities include supervising the VCSA staff, developing the vice chief's calendar and orchestrating the flow of information to the vice chief. He thinks of DA executive officer assignments as investments for the future of Air Defense Artillery and encourages other ADA officers to seek similar posts.

Brig. Gen. J. Morgan Jellett

Program Manager, Theater Missile Defense, USASDC, Huntsville, Alabama

As manager of one of the military's most highly publicized and most intensely scrutinized programs, Jellett is responsible for the development and procurement of tactical and theater missile defense weapons for the U.S. Army. Theater missile defense systems include the theater high-altitude air defense system, extended range intercept technology missile and Patriot anti-tactical ballistic missile improvements as well as associated surveillance means and command and control elements. He is further responsible for ensuring theater missile defense is addressed in counterfire weapons development such as improvements to Army tactical missile systems. He manages the government program office and contractor activities for multi-billion dollar programs extending over the next four years.



Brig. Gen. John P. Rose

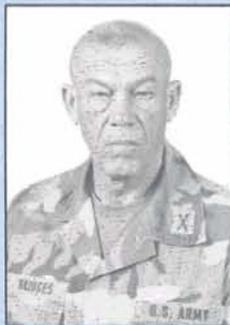
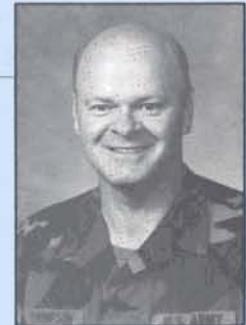
Senior Fellow, Counsel on Foreign Relations, New York, New York

Rose's mission is "to define the global security environment for the year 2020." He is embarked on a one-year sabbatical that allows him to read, analyze, contemplate and write on issues of foreign policies and affairs that involve national and international security. He currently attends lectures by presidents, foreign ministers, defense ministers, businessmen and other foreign and domestic dignitaries from all continents on their respective roles in the shaping of the new world order. Later, he will analyze foreign policy, foreign affairs and national security issues as they affect the United States and all regions of the world. Finally, he will attempt to chart the parameters and issues likely to have an impact on our defense and security posture between now and 2020.

Brig. Gen. Hoyt E. Thompson

Cdr, 263rd ADA Brigade, SC Army National Guard, Anderson, South Carolina

The South Carolina Army National Guard's 263rd Air Defense Artillery Brigade, Anderson, S.C., moved into its new headquarters in October 1991 and is still receiving start-up equipment. The unit is organized to provide corps Army control and organization for air defense assets in the corps area. As its commander, Thompson is also responsible for one Hawk and one Stinger battalion. The 1st Battalion (Hawk), 263rd ADA, began total package fielding in March and hopes to complete its first battalion-level ARTEP within three years. Dating from 1756, the 2nd Battalion (Stinger), 263rd ADA, is the nation's oldest continuously active air defense battalion. Configured as a divisional asset, the pure Stinger battalion can field 123 Stinger teams.



Col.(P) John C. Bridges

Cdr, 164th ADA Brigade, FL Army National Guard, Orlando, Florida

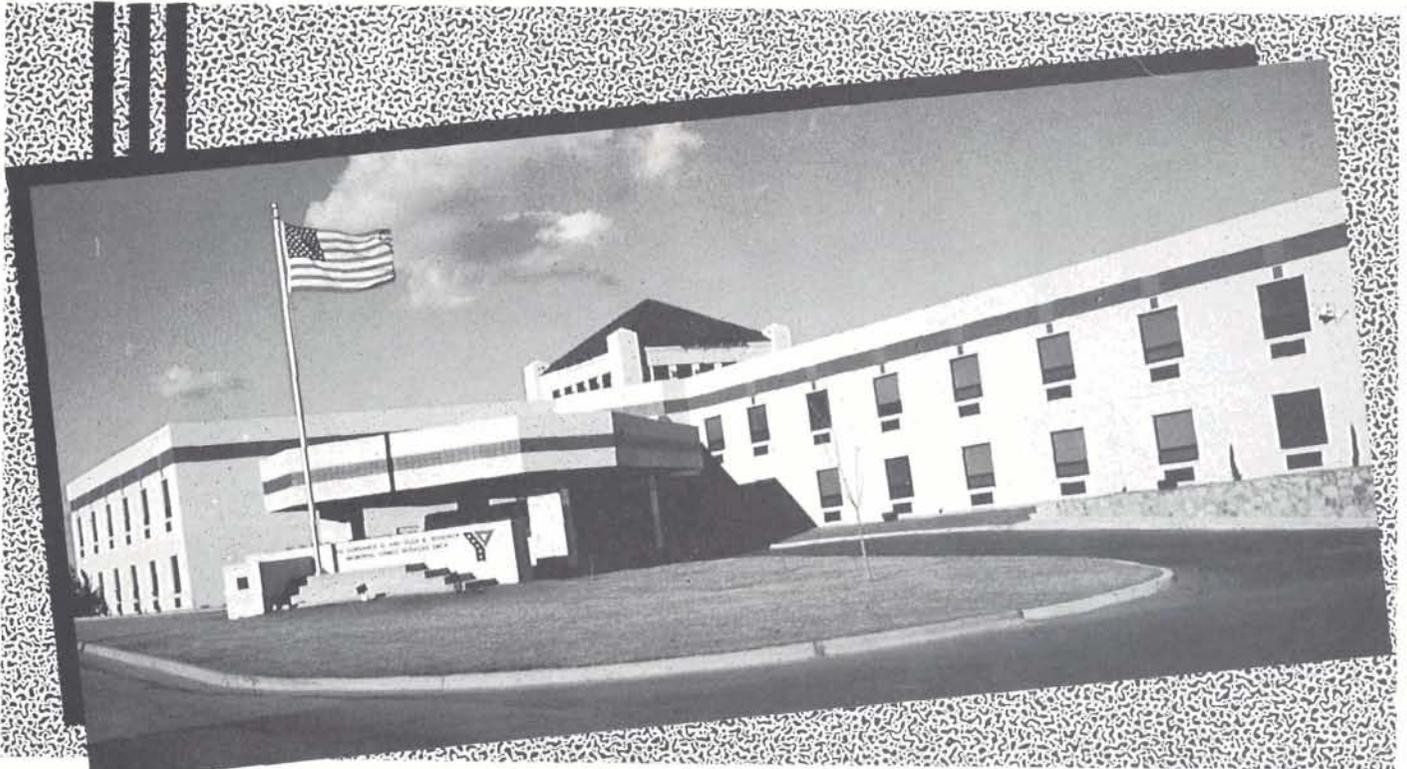
Bridges is a Field Artillery officer who commands an ADA brigade, a distinction his promotion to brigadier general will, at least, make less evident (the U.S. insignia of a general officer will replace the Redleg's crossed cannons). The Florida Army National Guard's 164th ADA Brigade, headquartered in Orlando, consists of two Chaparral battalions (1-265 ADA and 3-265 ADA) and one Hawk battalion (2-265 ADA). The Chaparral battalions are scheduled to replace their M-48A2 systems with M-48A3 systems and will eventually convert to Avengers. The Hawk battalion's Phase II Hawk fire units will soon be replaced with Phase III Hawk fire units. Bridges is currently drilling his commanders and staffs in multi-echelon operations while batteries, platoons and squads concentrate on tactical field training.



Col. (P) Terry L. Holden

Cdr, 111th ADA Brigade, NM Army National Guard, Albuquerque, New Mexico

As commander of the 111th Air Defense Artillery Brigade, New Mexico Army National Guard in Albuquerque, Holden is responsible for the peacetime command of four Chaparral battalions, one Hawk battalion, one ADA signal company and several miscellaneous detachments. Holden's brigade is a direct descendant of the 200th Coast Artillery (AA), the storied regiment that fought with antiquated anti-aircraft weaponry against modern Japanese warplanes in the losing battle for the Philippines. The 111th ADA Brigade, however, will never have to fight with obsolete weapons. The brigade's Hawk battalion is scheduled to convert to Hawk Phase III systems during FY93 while its Chaparral battalions are scheduled to make the transition to Avenger by the turn of the century.



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Maj. Joseph Pugh

Reshaping the Guard

*Army National Guard's
ADA firepower will grow
rather than shrink during
the downsizing of the force*

"We no longer differentiate in an ultimate sense between Army, National Guard and Reserve forces. Every energy . . . is bent to the development of the Army of the United States. Our purpose is to think only of the American citizen who is to be a soldier in that Army and to prepare him in time of peace for duties in war.

— Gen. John J. Pershing

At a time when the Total Army — Active Army, Army Reserve and Army National Guard — is downsizing, Air Defense Artillery in the Guard is the only segment that is growing. It's not that Guard ADA is simply not taking cuts — it's showing real growth! In fact, the Guard ADA force is approaching 50 percent of the total branch. Nor is it a case of placing older weapon systems in the Guard. Patriot, Phase III Hawk and Avenger are all due to be fielded to Guard units by the end of the decade.

Birth of the Total Force

Former Army Chief of Staff Gen. Creighton Abrams conceived the Total Army concept as a way of reuniting the alienated post-Vietnam Army with a disillusioned nation. To make the Total Army a reality, he reconfigured a number of the Army's most powerful divisions to consist of two Active Army maneuver brigades and one Guard "roundout" brigade that would be called to active duty in case of war. He also transferred corps and division support functions not required on a constant basis in peacetime to Guard and Reserve units. Thus, Abrams ensured that Americans would never think of the Army as a force of mercenary volunteers isolated from society but as an integral part of society.

While actions in Grenada and Panama used reserve component soldiers, the true test of the concept came during the Gulf War. Two hundred ninety-seven Guard units deployed to the Gulf. An additional 16 units deployed to Europe, and 57 were employed in the continental United States. The war literally could not have been won without them.

Although the lack of an enemy air threat precluded the need for a call-up of Guard ADA units, one outfit, the New Mexico ADA Training Activity, was mobilized to backfill instructor vacancies in the ADA School.

From Nike Hercules to the Present

Two decades before Abrams' concept, Air Defense Artillery had its own version of the total force — the Army Air Defense Command or ARADCOM. In much the same way as our ancestor, the Coast Artillery, guarded America's shores, ARADCOM was established in the 1950s to protect American cities from the Soviet long-range bomber threat. ARADCOM's strength reached a high of over 100 battalions — more than half of them Guard ADA — by the early 1960s. Each ARADCOM group consisted of both Active Army and Guard Nike Hercules battalions working side-by-

side to protect major metropolitan areas throughout the United States.

Unlike traditional Guard units, Nike units required a high level of full-time manning, which enabled them to reach enviable degrees of proficiency. Guard Nike Hercules units consistently held their own against their active component counterparts during short-notice annual practice exercises at McGregor Range, N.M. Because business and civic leaders from the unit's community came to Fort Bliss to watch the firing under a program called "Operation Understanding," to this day many people associate the Guard with those Nike Hercules units.

The 1970s brought lean years for the Army. With the inactivation of ARADCOM in 1973, Guard ADA was severely reduced. One ADA brigade headquarters and headquarters battery, eight divisional ADA battalions (for the Guard divisions) equipped with Korean War-era M-42 Dusters, and six remote-controlled miniature aerial target detachments were all that remained. Even so, Guard gunners training at Dona Ana Range, Camp Perry, Virginia Beach, Camp Blanding and Fort Jackson — many of whom manned Dusters in Vietnam — demonstrated that the Duster could still be an effective weapon when served by skilled crewmen.



Michael Kimak

Total Army — Active Army and Army National Guard soldiers posed for Air Defense Artillery's "First to Fire" statue.

Then, just 10 years after ARAD-COM's demise, a new era of Guard ADA modernization began when the Army decided to field the Roland system to the Guard. New Mexico accepted the new mission and formed the 5th Battalion, 200th ADA. There were several "firsts" involved in the activation of 5-200 ADA.

It was the first time a Guard unit received a modern weapon system that was not fielded to the active component. (In fact, 5-200 ADA was the only Roland battalion activated.) It was also the first time a Guard unit was given a rapid deployment mission (capstoned to the 11th ADA Brigade). Because of its rapid deployment mission, 5-200 ADA was established with an unprecedented National Guard full-time manning level of 80 percent, the other 20 percent being traditional part-time Guardsmen. This manning level enabled 5-200 ADA to quickly achieve certification. Unfortunately, it also made the unit a lucrative target for the budget cuts of the late 1980s. Inactivation came in September 1988, but the stage had been set for sweeping changes in Guard ADA force structure.

The Roland fielding demonstrated that Guard ADA soldiers could move from a Korean War-era system to state-of-the-art technology without much difficulty and achieve enviable results in the bargain. It also proved, as had the Nike Hercules partnership, that Guard units were as capable as ever of fighting alongside their active component counterparts.

Even before Roland was removed from the inventory, modernization of air defense in the Guard was well under way. The first Guard Chaparral battalion was fielded in 1985 when 1-200 ADA in New Mexico converted from a divisional Duster unit to the corps Chaparral configuration. In 1987, 4-200 ADA converted to Chaparral and another new unit, 7-200 ADA, was fielded to become the Guard's first Hawk battalion. Another chapter in the story of the Active Army/Guard ADA partnership began

in 1988 when 1-188 ADA was activated in North Dakota to be the divisional (roundout) ADA battalion for the 6th Light Infantry Division. 1-188 ADA was also the first — and as it turned out, the only — Guard unit to receive the Vulcan.

The plan for modernizing Guard forward area units was simple but ambitious. As the Active Army fielded the new forward area air defense weapons, Vulcan, Chaparral, man-portable air defense system (MANPADS) weapons and the forward area alerting radar would transfer to the Guard. The Guard would be modernized with forward area air defense weapons after the Active Army completed its fielding shortly after — it was thought at the time — the year 2000. Hawk would also continue to be fielded. According to this plan, Guard ADA would consist of three ADA brigade headquarters and headquarters batteries, four Hawk battalions, eight corps Chaparral battalions and 11 Vulcan/MANPADS battalions for the 10 Guard divisions and the 6th Light Infantry Division. Vulcan/MANPADS batteries were to be "grown" for the separate brigades and armored cavalry regiments in the Guard and the Reserve.

The eventual fielding to the Guard hasn't turned out exactly as planned. In 1989, the Army decided to completely remove Vulcan and the forward area alerting radar from the inventory. Projected force structure cuts stemming from a substantially reduced global threat will take two divisions from the Guard, and will convert two more to cadre divisions. (Cadre divisions will consist of a cadre of officers and NCOs who, upon total mobilization, will be able to assimilate a full complement of personnel and equipment, train to fight as a division and deploy into a theater.) However, today's Guard ADA does closely resemble the original plan.

The Guard now has three ADA brigade headquarters, eight corps Chaparral battalions and four Hawk battalions. (As this article is being written,

The Army of tomorrow may be smaller, but it cannot be less effective. We as Americans have achieved superpower status because of our commitment to the freedom and the values we hold true. The Total Army has played a major role in achieving that status. We all can be proud of this accomplishment. However, it is only prudent that we continue to retain a strong defense in order to sustain the status in the 21st Century.

Reshaping the Army must be done with logic and common sense. The nation expects it. The Army National Guard is committed to working with the Army to build a force that best meets the needs for our future defense.

— **Maj. Gen. Raymond F. Rees**
Director, Army National Guard

the last of these — 1-263 ADA in South Carolina — is fielding Phase III Hawk to become the first Guard Phase III unit.) In addition to the aforementioned 1-188 ADA, Guard ADA has five divisional ADA battalions fielded in pure MANPADS configurations.

This expansion required the Guard to change the way it did business. In the early 1980s, force integration was handled by a four-man cell at National Guard Bureau headquarters. This grew to a branch within the Operations and Training Division. In 1989, the bureau established the Force Management Division, a move that reflected the extreme importance being placed on modernization planning and execution.

Since the Guard would eventually have forward area air defense systems that the Active Component would no longer have — and thus not have a training base for — the Guard would need some way of training soldiers on their weapon systems. The Operations and Training Division at the bureau then authorized the establishment of the New Mexico ADA Training Activity, mentioned earlier, as the agent for training Guard ADA

units using exportable training packages developed at the ADA School.

The U.S. Army Training and Doctrine Command has also made fundamental changes to ensure intensive management of force modernization in the Guard. The Total Force Integration Program recognizes the need for Guard soldiers within the schools to imbue a total force vision in the future of each branch. The key to this program at the school level is to do away with the old positions of National Guard and Army Reserve Advisors — which were in the installation chain of command — and establish a senior representative position within the school chain of command to provide a reserve component perspective for all school activities. (At the ADA School there will only be such a position for a National Guard representative. There are no Army Reserve ADA units except for the Stinger platoon in the 157th Separate Mechanized Brigade in Pennsylvania.) The Total Force Integration Program also recognizes the need to increase the number of National Guard action officers and NCOs to provide effective integration in the areas of combat, training and leader development.

Force Modernization — a Complex Process

Modernizing any part of the force requires intensive management throughout the process, but ADA modernization presents the Guard with a number of unique challenges. The decision to field a system to the Guard can come about in several ways. As Active Army units receive new equipment, the older systems are given to the Guard to replace even more outmoded ones. This is known as displaced equipment fielding. Under a concept known as new equipment fielding, Guard ADA units receive new equipment along with active units. Finally, the Total Army Analysis process may transfer a requirement for a unit or units from the Active Army to the Guard. In that case, a new Guard ADA unit must be activated or

an existing unit of another branch must be converted, the latter being the most challenging type of fielding.

Once the Department of the Army has made such a decision, the bureau begins its own decision making. At this point we should note that the bureau acts as a coordinating agency. There are, in fact, 54 separate National Guards — one for each state and one each in the District of Columbia, Puerto Rico, Guam and the Virgin Islands. Each of these is commanded by The Adjutant General (TAG) of the state or territory, who in turn answers to the governor. Thus, in peacetime, the governor is the commander-in-chief of his state's guardsmen. Because they are state forces, Guard units have a dual mission. In peacetime they provide assistance on order to state authorities in cases of emergency or disaster. In war, they may be mobilized to perform their combat, or federal, mission. The bureau standardizes policies and training, allocates resources and plans the modernization and missioning of the Guard as a whole.

After the bureau decides to accept a proposed mission, the force structure (i.e., the authorizations for all of the personnel in the new unit) has to

be found. If an existing unit is to receive new or displaced equipment, this is not a problem as long as the new organization requires the same or fewer personnel. If the new unit configuration requires additional spaces (also known as claimants), then the bureau must find additional personnel authorizations or bill payers. Given today's budgetary restrictions, our bill payers have to be found within the Guard, usually from unit inactivations or personnel reductions resulting from other unit modernizations.

Once the bureau is sure that the force structure will be available, it must find a home for a new unit. The states submit proposals for fielding the unit, which the bureau then analyzes. The availability of bill payers within the state, demographics, the adequacy of existing armories (or their ability to be economically upgraded), proximity to maneuver areas and mobilization stations are just some of the criteria on which the bureau bases its decision.

The U.S. Army Missile Command (MICOM) manages equipment fielding and is responsible for locating not only the system-peculiar equipment, but the associated support items of equipment as well. The Guard unit receives all of its equipment at once, a process known as total package fielding (TPF). Active Army units are the source of displaced equipment while new equipment comes from the Army's total buy. (Displaced equipment is sent to depot for refurbishment before being delivered to the gaining Guard unit.) From the start of the TPF planning process, MICOM



North Dakota's 1-188 ADA is the only Army National Guard ADA battalion equipped with the towed Vulcan.

works closely with the bureau and state and unit personnel. The ADA school and supporting commodity commands are also key players.

Despite the best efforts of MICOM and the commodity commands, TPF doesn't go as planned. Equipment shortages throughout the Army inventory often prevent a smooth fielding. However, MICOM makes every effort to find the items of equipment that are essential to getting the unit up and running. One solution is to field a like item in lieu of the one called for in the table of organization and equipment, at least until the design item can be provided. While a unit can usually make do with the substitutions, the preference is to eventually field the equipment called for in the TOE. This is not a small point. More is at stake than realism. We ultimately have to consider the impact on the theater to which we will deploy if we arrive with equipment that the Corps Support Command is not prepared to sustain.

Equipment delivery schedules are also critical, since Guard units schedule their annual training periods to coincide with the equipment hand-off. Delays of even a few days, which may not make any difference to an active Army commander, represent a significant loss of time to the Guard unit commander. Even so, some problems just can't be anticipated, let alone avoided. An official in the Hawk Project Office once told the story of a civilian truck driver who was hauling Hawk system equipment. Along the route, he had a disagreement with his trucking firm, got angry, unhitched the trailer at a truck stop and drove off. After some two weeks the Project Office managed to locate the cargo!

Finding the personnel for a new Guard unit is not as simple as in the Active Army. While a surprising number of men and women will "commute" over long distances, Guard units are essentially limited to the population in the area around home

station armories (hence the weight given to demographics in the stationing analysis). Units have to find their own people. Unit personnel provide leads to unit and state recruiters, who channel the new recruits to the right units. Guard ADA (and the Army Reserve) also has transition NCOs — formerly called in-service recruiters — at Army installations to assist soldiers who are leaving active duty with finding homes in the Guard.

Training in the Guard, even for an experienced ADA unit, presents probably the most complex set of problems in the entire modernization process. Not because of the subject matter — Guard air defenders have always been able to master any weapon system fielded to them. Rather, the time constraints under which Guard units operate constitute the biggest hurdle.

The typical Guard M-Day (for mobilization day) soldier — i.e., a part-timer — has 39 training days each year: two days (one weekend) each month and 15 days of annual training. Fifteen days of the year (over and above vacation time) are the maximum that an employer is legally required to grant. More than one weekend per month is about all that the family will tolerate. While we don't have the same training distractions that the Active Army has, we still have a few, such as issuing ID cards, driver training and testing, movement to and from maneuver areas, common task training, preparing equipment for movement to annual training sites and the like. Add the occasional parade and civil disturbance training. That's not a complaint — we serve our states proudly — but we must use those 39 days wisely! This is especially true when a unit fields a new system; in general, problems increase with the complexity of the weapon system.

Recruits go through basic and advanced individual training just like Active Army soldiers. Sometimes a unit recruits prior service personnel who hold an MOS in the new system, thereby solving the problem of training some new personnel.

Building Today's Guard ADA

1961	111th ADA Brigade (New Mexico)	Activation
1985	1-200 ADA (Chap) (New Mexico)	Conversion
1987	4-200 ADA (Chap) (New Mexico)	Conversion
	7-200 ADA (Hawk) (New Mexico)	Activation
1988	1-138 ADA (MANPADS) (Indiana)	Activation
	1-188 ADA (Gun/Stinger) (North Dakota)	Activation
	3-200 ADA (Chap) (New Mexico)	Conversion
	1-202 ADA (MANPADS) (Illinois)	Activation
1989	164th ADA Brigade (Florida)	Activation
	2-200 ADA (Chap) (New Mexico)	Conversion
	6-200 ADA (Chap) (New Mexico)	Activation
	1-265 ADA (Chap) (Florida)	Conversion
	3-265 ADA (Chap) (Florida)	Activation
1990	2-174 ADA (Hawk) (Ohio)	Conversion
	1-233 ADA (Chap) (Arkansas)	Activation
	2-263 ADA (MANPADS) (South Carolina)	Conversion
	2-265 ADA (Hawk) (Florida)	Activation
1991	263rd ADA Brigade (South Carolina)	Activation
	3-111 ADA (MANPADS) (Virginia)	Conversion
	1-213 ADA (MANPADS) (Pennsylvania)	Activation
	1-263 ADA (Hawk) (South Carolina)	Activation



South Carolina's 2-263 ADA, the oldest continuously active U.S. ADA battalion, can field 123 Stinger teams.

Prior service personnel from other branches or other ADA systems can be trained in their new MOSs at the unit using exportable training materials. Occasionally, a soldier may be between jobs and have time to attend resident courses in active duty status. But most unit personnel will undergo new equipment training when the equipment is fielded. Since the training for more complex weapon systems takes longer than the two weeks allotted for annual training, a good deal of creativity has to go into planning and managing the training process. Back-to-back annual training (conducting training for two years consecutively, yielding a total of four weeks training time) is one alternative. Conducting some preliminary training at the unit on weekend drills prior to new equipment training is another. Deferring some subjects until subsequent weekend drills is still another.

Even greater challenges arise when an ADA unit forms from a unit or units of another branch. 1-213 ADA, the divisional Stinger battalion for the 28th Infantry Division in Pennsylvania, evolved from a Military Police battalion. 1-233 ADA, the corps Chaparral battalion in Arkansas, was formed from maintenance, medical and transportation companies. But

while people join the Guard for any or all of a variety of reasons, the stimulation of doing something different and unique is usually among them. Guard ADA soldiers welcome such changes and the opportunities they bring.

Patriot will present a new set of challenges. Active Army Patriot units were fielded under the backfill concept. New batteries were activated and trained at Fort Bliss and then deployed to join their parent battalions. In the Guard, a new battalion will activate or an existing one will convert. In either case, Patriot training will have to start from scratch. School allocations starting in FY94 have already been programmed for Guard Patriot soldiers. The National Guard Bureau, the ADA and Ordnance Schools, the Patriot Project Office and Raytheon, Patriot's builder, have already begun to study the Guard's peculiar requirements for a new equipment training plan that the battalion will be able to execute.

The 1990s and Beyond

Continued reassessments of the new strategic environment will likely transform Guard ADA more than the Active ADA. Guard ADA is sure to draw down along with the Active Army, but the exact end state is still

being debated. The number of additional ADA units that may be transferred from the Active Army to the Guard is still a question mark, but our vision of Guard ADA is relatively clear.

Guard ADA brigade headquarters will become integral parts of any theater reinforcing structure. A Patriot battalion will reside in the Guard by the end of FY96, and chances are good that others will follow. A fifth Hawk battalion is due to be fielded by FY96, and existing Hawk units will convert to Phase III. By 2000, all of our corps Chaparral battalions will convert to Avenger. After 2000, Avenger will give our divisional ADA units a shoot-on-the-move capability.

Other missions may be just over the horizon. Under study is a MANPADS Under Armor configuration for our divisional outfits using the M-113A3 in lieu of the Bradley Stinger Fighting Vehicle. The Army may also deem anti-satellite technology and national missile defense appropriate missions for the Guard.

As we observe the 50th anniversary of World War II, we are reminded that Guard ADA soldiers have always worked and trained, and sometimes fought and died, shoulder to shoulder with their Active Army counterparts. The concepts — and the ideals — we have discussed here are not new ones. Only the weapon systems will be new.

Maj. Joseph Pugh is an officer in the New Jersey Army National Guard. He is currently assigned as the Army National Guard Force Modernization Officer at the U.S. Army Air Defense Artillery School, Fort Bliss, Texas.



Stinger-RMP Makes Obsolescence a Thing of the Past.

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Association sponsors more than \$62,500 in awards

Today, Air Defense Artillery is plotting new azimuths as it makes the transition from the Cold War Army of the past to the Total Army of the 21st Century. Your ADA Association is also planning for the future, a future that, despite the downsizing of the active air defense force, holds bright promise.

The ADA Association is a healthy, vibrant organization with a sound financial portfolio. The association has an ample operating budget, and its membership has reached 4,744 and is still climbing. Increased membership, improved chapter awards programs for soldiers and profitable gift shop operations are accomplishments that we can all point to with pride. The association has pumped more than \$62,500 into its awards program, sponsoring more than 40 "Soldier of the Year" awards and presenting an annual award to the top-ranked West Point graduate who selects Air Defense Artillery as his or her basic branch.

In recognition of the valor and spirit of self-sacrifice displayed by the antiaircraft artillerymen of the 200th Coast Artillery (AA) during their desperate defense of Clark Field in the Philippines, and their suffering during the infamous Bataan "Death March," the ADA association commissioned noted artist Don Stivers to capture a scene from their heroic struggle on canvas. The artist delivered a truly magnificent painting that the association unveiled at the Fort Bliss, Texas, St. Barbara's Day banquet in December 1991. The painting, reproduced as limited edition prints, promises to be a huge money maker for the association and an important addition to the legacy of the branch.

The ADA Association will continue to provide personal copies of the ADA Yearbook to each association member. The ADA Association Council recently voted to underwrite the publication's increased production and mailing costs to ensure that association members continue to receive the annual status report on the "First to Fire" branch.

Local ADA Association chapters remain the key to the association's expansion and success. The association's growth has been enhanced by the continuing establishment of association chapters away from Fort Bliss, Texas, the home of the association and Air Defense Artillery. Their activities and *esprit de corps* help spread the ADA 'gospel' throughout the Army's combined arms team.

The **Redstone Arsenal/Huntsville Chapter**, the first ADA Association chapter, formed at Huntsville, Ala., in February 1989. Col. Arthur E. Theobald is now the president of this active and dynamic chapter that operates at the heart of the U.S. Army Missile Command.

Write the Redstone Arsenal/Huntsville Chapter, P.O. Box 8321, Redstone Arsenal, AL 35898, for membership information and application forms.

The first ADA Association chapter outside the continental United States was formed in May 1989 at Kaiserslautern, Germany. Founded by Brig. Gen. Vernon L. Conner, then commander, 94th ADA Brigade, the **European Chapter** became the second association chapter.

The European Chapter president, Col. Peter H. Poesiger, invites anyone interested in becoming a member of the association's European Chapter to contact HHB, 32nd AADCOC, APO AE 09175, to obtain membership information and application forms.

In August 1989, the 35th ADA Brigade formed the **Rainier Chapter** of the ADA Association at Fort Lewis, Wash., as a professional organization for the promotion of Air Defense Artillery and the professional development of Air Defense Artillery soldiers. For more information contact Col. Peter C. Franklin, President, Rainier Chapter, 35th ADA Brigade, ATTN: AFZH-AD, Fort Lewis, WA 98433-5830.

The **Bataan Chapter** of the ADA Association applied for full chapter status in December 1990, received notification of approval in January 1991 and held its first dinner meeting the following May in Albuquerque, N.M.

This chapter was named in honor of the 200th Coast Artillery Regiment, New Mexico Army National Guard, which served in the Pacific Theater during World War II. The regiment was among those units captured by Japanese forces in the fall of the Philippines and forced to make the infamous "Bataan Death March" to internment in Japanese prisoner of war camps. These "Battling Bastards of Bataan" were the forerunners of today's New Mexico Army National Guard's 200th Air Defense Artillery Regiment.

The Bataan Chapter's president is Maj. Daniel J. McCormack. Association members living in New Mexico should contact the Bataan Chapter secretary at 505-294-8994 to update the membership roster. The chapter, of course, invites all those who wish to join the

association and the Bataan Chapter to contact the chapter secretary for membership applications.

Since the Army National Guard air defense force will grow as the size of the Active Component air defense force is reduced during the present drawdown, we need to establish more Guard ADA chapters and increase Guard ADA participation in the ADA Association. With the Bataan Chapter as an encouraging start, our goal is to establish ADA Association chapters in each of the nine other states that have Guard ADA units.

The **Phantom Corps Chapter** of the Air Defense Artillery Association ended its first year with the same enthusiasm with which it began. During Fort Hood's Post ADA Week, Dec. 1-7, 1991, the chapter sponsored two exciting events.

On Dec. 2, the 31st ADA Brigade sponsored a three-mile run. Participants included runners from Headquarters and Headquarters Battery, 31st ADA Brigade; and 2-2 ADA, 1st Cavalry Division. The week ended with the annual ADA Ball at Fort Hood's Soldier's Dome.

Col. William D. Hubbard, 31st ADA Brigade commander, continues to serve as the first president since the chapter's inception on Oct. 11, 1990. The executive council also includes 31st ADA Deputy Commander Lt. Col. James R. Prouty, vice president; 31st ADA Assistant S-3 Maj. Ronald S. Skvir, secretary; and 2-2 ADA Executive Officer Maj. Randolph J. Thomas, treasurer. The Phantom Corps Chapter's voting members include Lt. Col. Gary A. Smith, 2-2 ADA commander; Lt. Col. Allen M. McDavid, 3-1 ADA commander; Lt. Col. Randall D. Harris, 4-5 ADA commander; and Capt. William E. Bales, Headquarters and Headquarters Battery commander, 31st ADA Brigade.

The chapter's board members are 31st ADA Brigade CSM Robert P. Robinson, 3-1 ADA CSM William F. Keeton, 2-2 ADA CSM Rodger Kimbrell, 4-5 ADA CSM Vern Strebe, and 1st Sgt. Lloyd Coley, Headquarters and Headquarters Battery, 31st ADA Brigade.

Contact the Phantom Corps Chapter secretary at 817-288-7411 or DSN 738-7411 to obtain membership information and application forms.

The **263rd ADA Brigade's** ADA Association chapter was formed June 20, 1991. Located in Anderson, S.C., the chapter represents the 263rd ADA Headquarters, 1-263 ADA (Hawk) and 2-263 ADA (Stinger).

The South Carolina chapter has had a busy year with the activation of 1-263 ADA and the subsequent fielding of equipment for the battalion. Selection and construction of armory locations for the Hawk battalion have also been major priorities. The chapter sponsored a formal dining-out for the brigade in November 1991 (its second celebration) and presented Order of St. Barbara awards. The chapter also assisted in providing a brigade hospital room at the South Carolina National Guard Association Conference.

One of the 263rd ADA Brigade chapter's 1992 goals is to continue its aggressive membership drive. As of the end of 1991, the chapter had over 20 members. The association and the benefits of membership will be presented to the battalions during the year, which should increase membership.

Maj. Dennis Fraley is president of the 263rd ADA Chapter. His address is HQ, 263rd Air Defense Artillery Brigade, South Carolina Army National Guard, P.O. Box 616, Anderson, S.C. 29622-0616.

The most recently formed ADA Association chapter is the **2-3 ADA Chapter** at Fort Riley, Kan. The formation of the 2-3 ADA chapter brings the number of local chapters to eight.

The chapter currently has 35 members. Its president is Lt. Col. John S. Warren. Other council members include Maj. Robert A. Rosenwald, 1st Lt. Dennis K. Kater, Capt. Christopher L. Spillman, Capt. James H. Jenkins III, Capt. Robert Edwards and Capt. Dwight L. Cook.

To obtain further information about membership in the 2-3 ADA Chapter, contact Warren at 913-239-4201 (DSN 856).

Why does membership continue to grow? The reason is simple: association members support Air Defense Artillery. The means of support are easily identified by looking at the ADA Association's goals. During its recent years of rapid growth and expansion, the association's goals have remained the same: support ADA soldiers and retirees and promote the history and traditions of Air Defense Artillery.

To support Air Defense Artillery's history and traditions, one of your ADA Association's primary objectives is to support the Air Defense Artillery Museum. Located just a few blocks away from the headquarters of the U.S. Army Air Defense Artillery School, Fort Bliss, Texas, the museum preserves Air Defense Artillery's rich heritage and serves the "First to Fire" branch as its most popular and effective showcase. The ADA Association supports the museum by sharing revenues generated by the ADA Association Gift Shop, collocated with the museum at Building 5000, Pleasanton Road, Fort Bliss. The long-term goal is to help the museum build a new, state-of-the-art facility to replace the existing World War II-era wooden structure it currently occupies.

Yesterday, ADA soldiers returning from the Persian Gulf and ADA soldiers who welcomed them home were buoyed by the warm outpouring of public acclaim for the branch's history-making performance during Operations Desert Shield and Desert Storm. Today, "First to Fire" soldiers and their families face a difficult period of transition as the Army downsizes to smaller troop levels. With your help, the Air Defense Artillery Association, with its commitment to branch pride, heritage and soldier support, can play an important role during this transitory period.

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More than one thousand ADA Association members who have forgotten to forward address changes to the association

The recent inactivation and relocation of ADA units have left the Air Defense Artillery Association with hundreds of obsolete addresses on its membership rolls. We need your new address to update our ADA Association mailing lists.

If you've moved, but haven't notified the association secretary, please fill out the change of address form below and mail it to:

Secretary
ADA Association
P.O. Box 6101
Fort Bliss, TX 79906

ADA Association Secretary

Please use this change of address to update your mailing list

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Address _____
City _____ State _____ Zip _____
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(Card Size)	40.00

Bookends

\$40.00

Pen Set

(Double)	\$30.00
(Single)	25.00

ADA Desk Flag Set

\$6.00

First to Fire Sunscreen

\$5.00

ADA Tie

\$16.95

Chapters and units may order any item in larger quantities and receive a 15% discount.

Prices do not include shipping and handling.

ADA Association Membership Application



Mail form and payment to:

ADA Association
P. O. Box 6101
Fort Bliss, TX 79906

Or call Association Secretary:

Edith Fanning
915-562-0665

MAILING ADDRESS

LAST NAME	FIRST NAME	RANK

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CITY	STATE	ZIP

PERMANENT MAILING ADDRESS OR HOME OF RECORD
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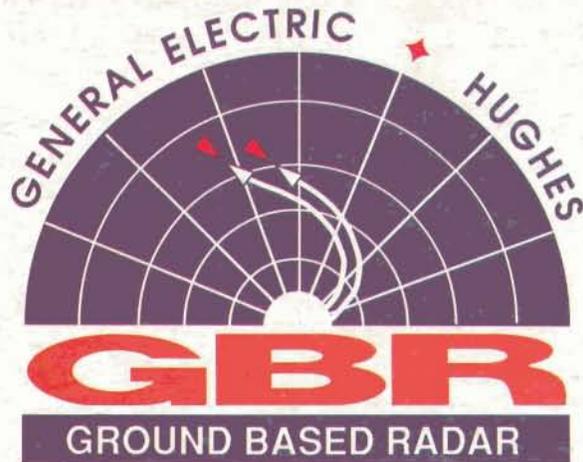
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MEMBERSHIP DUES (P AYABLE TO THE ADA ASSOCIATION)
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