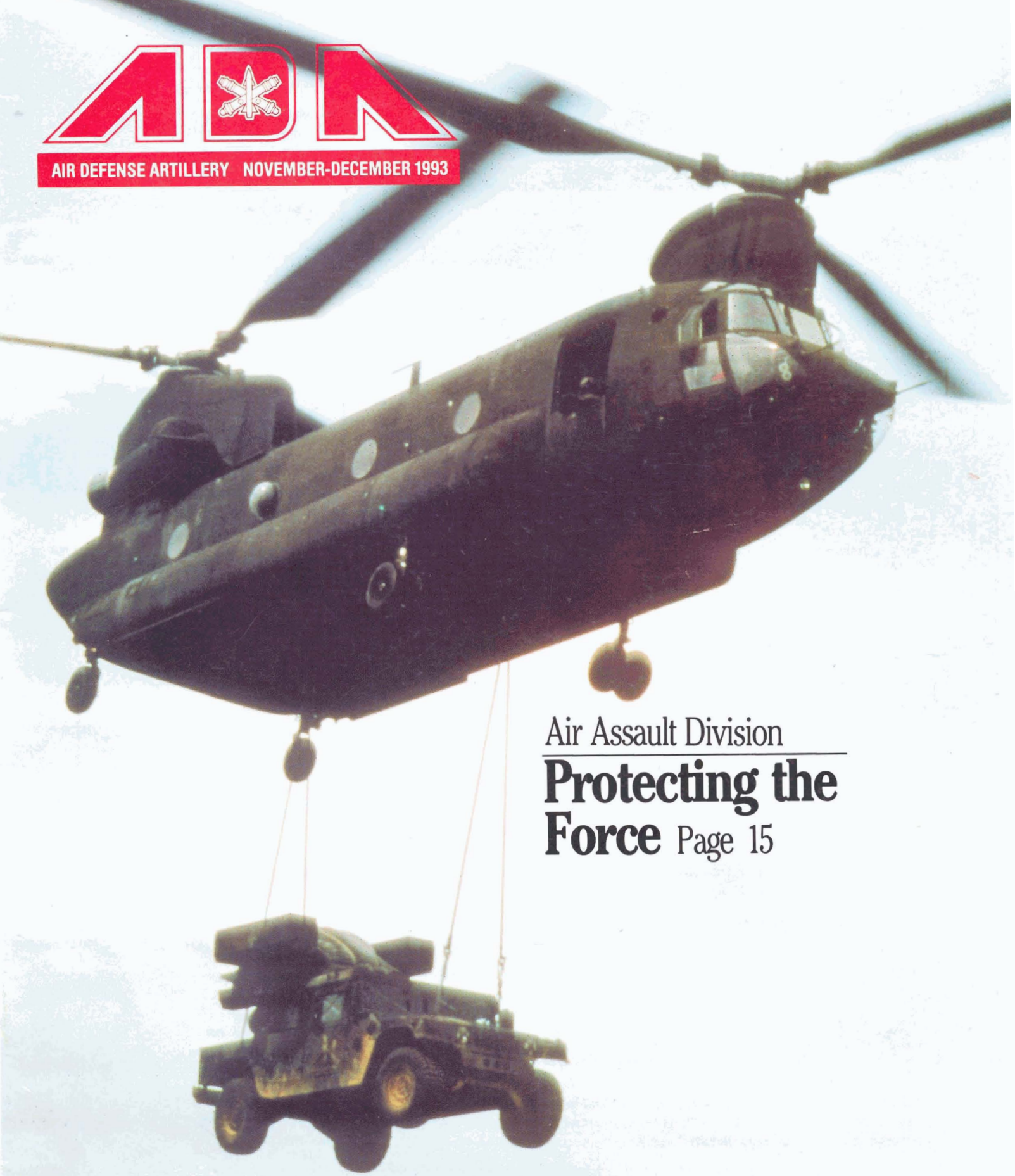
ADA
AIR DEFENSE ARTILLERY NOVEMBER-DECEMBER 1993



Air Assault Division

Protecting the Force

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AIR DEFENSE ARTILLERY NOV-DEC 93

FEATURES

MAGAZINE ISSUE AWOL

Due to temporary staffing shortages, the U.S. Army did not produce a September-October issue of ADA magazine. The magazine resumes regular publication with this, the November-December 1993 issue. Annual subscriptions will be extended so that subscribers receive their full six issues.

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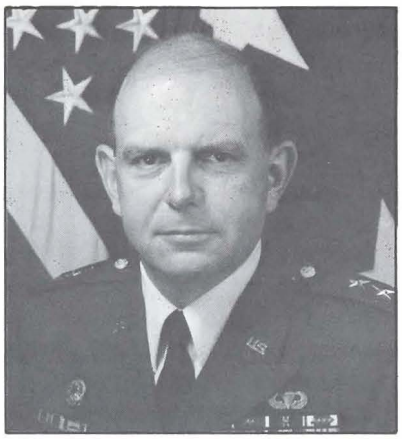


As the new Chief of Air Defense Artillery, my job is to sustain the "First to Fire" branch's ability to accomplish its new mission: **protect the force and selected geopolitical assets from aerial attack, missile attack and surveillance.** This new mission acknowledges the growing sophistication and diversification of the post-Cold War air threat.

The third-dimension threat to our force is significant and growing. Tactical ballistic and cruise missiles are proliferating rapidly around the globe. Technology transfer will enable a growing list of countries to use unmanned aerial vehicles to reconnoiter areas they are presently unable to penetrate with manned aircraft. Many countries have dedicated attack helicopters in their inventories, and nations that produce them are eager to exploit new export markets. We no longer expect Soviet-style saturation air attacks, but today's high-performance aircraft are equipped with sophisticated weapons of mass destruction and even one "leaker" could inflict enough casualties to alter a campaign scenario.

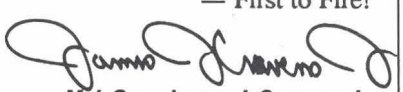
In short, the post-Cold War environment presents us with formidable challenges that only Air Defense Artillery can meet. Our task is to meet these challenges while we are coping with a drawdown of historic proportions.

Fortunately, ADA weapon programs are faring better, under the circumstances, than one might expect. Patriot PAC-3 "quick response" software will be fielded to all units by January 1994, and we expect a new Patriot missile (PAC-3) to be selected within a few months. The Theater High-Altitude Area Defense system is moving toward fielding shortly after the turn of the century. Corps SAM fielding is programmed for around 2005, and support for this critical system that protects the corps is mounting at every level. The National Missile Defense system will evolve over the next decade to protect the U.S. heartland against accidental, unauthorized or limited launch of long-range ballistic missiles. We just completed a Divisional Air Defense Study and validated the requirement for the Bradley Stinger Fighting Vehicle, manportable Stinger, Avenger and the FAAD Command, Control, Communications and Intelligence system in the forward area.

In view of the dramatic cuts in our modernization budget, there is a long way to go to ensure we field and sustain the weapon systems needed to assure maneuver commanders force protection. While we are doing this, we must ensure that ADA leaders at the brigade, battalion, battery, platoon and squad levels have the right doctrine, tactics, training devices and force structure to accomplish their mission. Inherent in all that we do is the necessity to produce superbly trained ADA soldiers and units that can fight and win decisively with minimum casualties on any battlefield.

The key to a successful transition to the Army of the 21st century is a commitment to excellence. We must never abandon our commitment to soldier care, to uncompromising integrity, to technical competence, to combat-oriented training and to soldier and leader development. These fundamentals are the bedrock upon which our Army rests. These are the building blocks that will continue to produce ADA soldiers and units fit to be . . .

— First to Fire!



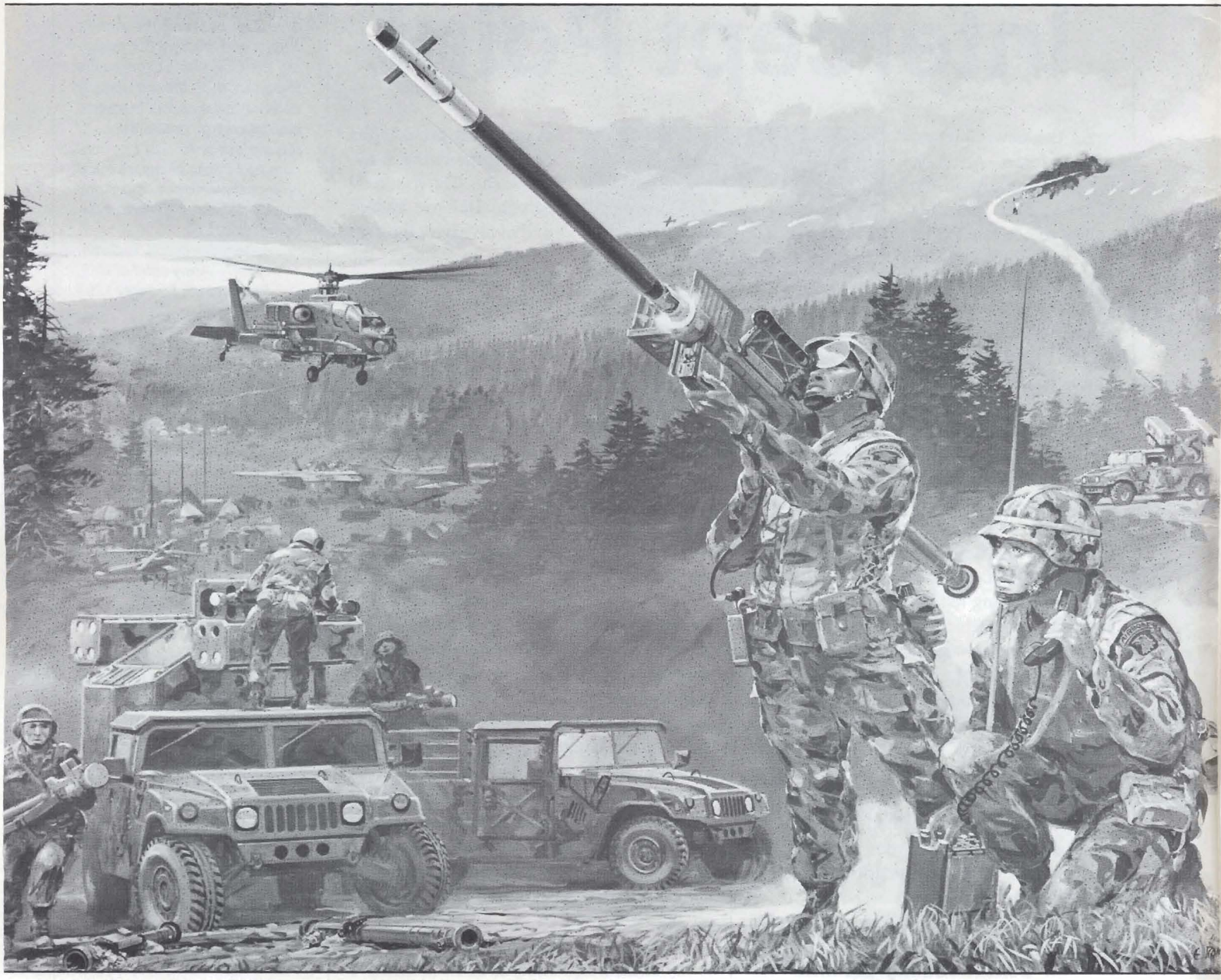
Maj. Gen. James J. Cravens Jr.
Chief, Air Defense Artillery

The duel between the Army's Patriot and the Iraqi Scuds during the Gulf War illustrates the importance of theater missile defense to the nation. In a world with growing proliferation of missile systems and the concomitant threat of nuclear and chemical munitions, the Army missile defense capabilities become critical.

— Gen. Gordon R. Sullivan, Army chief of staff, Parameters, Summer 1993

The summons to leadership that we face at present is our fourth rendezvous with destiny. Answering this summons does not mean peace, prosperity, justice for all and no more wars in the world — any more than the American Revolution meant all people were free, the Civil War meant an end to racial inequality, or World War II and our great victory in the Cold War meant the triumph of democracy and free markets. What our leadership in the world does mean is that these things have a chance. We can have peace. We can continue moving toward greater prosperity for all. We can strive for justice in the world. We can seek to limit the destruction and the casualties of war. We can help enslaved people find their freedom. This is our fourth rendezvous with destiny: to lead the world at a time of immense opportunity — an opportunity never seen in the world before.

— Gen. Colin Powell, former Chairman, U.S. Joint Chiefs of Staff



NEW AND IMPROVED FM 100-5

New operations manual sheds light on 20th century battlefields

by Capt. John Rossi

Just as the world is changing and preparing for the 21st century, so must our nation and its Army change. A new era in global relations is underway, and the Army is preparing for it now. One major adjustment the Army has already made is the revision of its operational doctrine. FM 100-5, *Operations*, was published in June 1993. The revised FM 100-5 incorporates several new concepts that will affect the way the Army conducts and executes future operations. Air Defense Artillery will also be affected by the new manual, but as in the past, the branch and its soldiers will anticipate and plan for the changes, quickly adapt and continue to excel. The revised FM 100-5 contains eight key topics that merit further discussion because of their ADA implications: force projection; overwhelming combat power; end state; operations other than war (OOTW); joint, combined and interagency operations; versatility; simultaneous operations; and battlefield framework.

Power projection is a central element of the revised U.S. national security strategy and national military strategy. It refers to the nation's ability to apply all or some of the elements of national power. The Army contributes to this strategy as part of a joint team through force projection, a demonstrated ability to rapidly alert, mobilize, deploy and conduct operations anywhere in the world. An excellent example of force projection is taken directly from FM 100-5 — Operation Just Cause, where the U.S. military rapidly mobilized, deployed, conducted entry operations, fought and emerged victorious in battle. Force projection is inherently joint in nature, and the key to success is the synchronized employment of land, sea, air, special operations, space forces and other assets. This joint aspect is not new to the branch since most operations, especially high- to medium-altitude air defense, have a joint flavor. However, since most of our future force will be stateside-based, and since force projection will occur in overseas locations, Air Defense Artillery must quickly re-focus and plan for moving on short notice anywhere in the world to immediately protect the force. Whether the movements occur by air, land or sea, air defense forces will protect forces in the lodgment areas. Airhead and seaport protection, as well as air defense of marshalling and staging areas, are vital. Air defense at these points is absolutely critical since this is usually when the force, as a whole, is most vulnerable.

Air Defense Artillery cannot afford to waste time. ADA units must quickly integrate into an existent air defense structure or rapidly develop a framework if one does not exist. Air defense commanders at all levels must be ready to deploy their units anywhere in the world on short notice since Air Defense Artillery will undoubtedly be one of the first called to the force projection locations. The days of Air Defense Artillery arriving in the contingency location at D+45 are gone. Corps- and higher-level commanders recognize the urgent need for air defense from the start.

FM 100-5 defines overwhelming combat power as the ability to bring together sufficient force to ensure success and deny the enemy any chance of escape or effective retaliation. This can only occur when forces bring to bear all elements so violently that the enemy is quickly defeated and has no opportunity to respond with coordinated or effective opposition. Overwhelming combat power results in a clear, decisive victory with minimal friendly casualties. The role of Air Defense Artillery in the application of overwhelming combat power is simple: protect the force. As U.S. or joint forces prepare to conduct and subsequently conduct these violent actions associated with overwhelming combat power, Air Defense Artillery must ensure that no third-dimension threat impedes the progress and success of friendly forces. Whether this is accomplished by providing air defense against enemy attack helicopters in the airspace above the maneuver elements of the 24th Infantry Division, defending against an unmanned aerial vehicle reconnaissance threat to the I Corps area, or countering a tactical ballistic or cruise missile threat to military and political assets in theater, air defense forces must be ready to protect the force as a whole.

"End state" refers to a set of required conditions that, when achieved, attain the aims set for the campaign or operation. The end state may include a variety of diplomatic, economic, informational and military

On July 16, 1953, Lt. Guy Bordelon, a Corsair pilot from the carrier Princeton, became the sole Navy ace of the Korean War when he "splashed" his fifth enemy aircraft in 17 days. As important as that was for Bordelon personally, the attack he disrupted was the last recorded enemy aircraft attack on U.S. ground forces. No more "Bedcheck Charlie" — not a single enemy aircraft has attacked U.S. air-protected surface forces since that day.

— USAF Maj. Hunder W. Vardaman, Army Times

Future enemies are unlikely to confront the United States with ill-trained ground troops and old Soviet tanks, Krepinevich [Defense Budget Project Director Andrew Krepinevich] predicted. Iraqi equivalents in the year 2005 probably will possess cruise missiles, ballistic missiles, precision munitions, advanced mines and space assets such as global positioning capabilities and communications and reconnaissance satellites.

"How does one base aircraft on airfields, or bring troops and supplies through ports that can be pre-targeted and struck by ballistic and cruise missiles? How does one operate carriers in waters infested by advanced mines? How does one execute flanking maneuvers when the enemy has access to satellite photography?

—Army Times, Sept. 27, 1993

conditions, and the relative emphasis among these elements of national power will vary according to the type of conflict. The end state must be determined and clearly understood during the operational planning process. Planners must consider what is necessary to end the conflict while also determining the likely period of post-conflict activities that will follow to clearly define the desired end state. FM 100-5 states that failure to make this determination will waste scarce resources and put the entire effort at risk. Leaders at all levels must have a common understanding, prior to hostilities, of the conditions that constitute success. With this in mind, air defenders must understand that they will play a unique role in attainment of the desired end state. As in Southwest Asia today, Air Defense Artillery may be used to achieve stabilization in the movement to the desired end state.

ADA weapons, such as Patriot, present no specific offensive threat, but make a strong statement concerning the resolve and commitment of the United States. The simple presence of the weapon systems alone often deters violence, and air defenders should anticipate being used in a residual presence role after force projection occurs. Air defenders must understand their uniqueness and importance, and that their presence may be required at various locations throughout the world to influence a political or military situation and achieve a specific outcome.

Throughout its history, the Army has often been involved in OOTW and now they are quickly becoming a major part of Army operations. OOTW are described as military activities conducted during peacetime and conflict that do not involve armed clashes between two organized forces. OOTW may precede or follow war, or occur simultaneously with war in the same theater, and they may occur in the United States. The Army usually conducts such operations as part of a joint team, often in conjunction with other U.S. and foreign government agencies.

In just the past two or three years, the Army has been involved in several OOTW. These include Operation Provide Comfort in northern Iraq, Operation Restore Hope in Somalia, riot assistance in Los Angeles, Patriot rotations to Southwest Asia and Hurricane Andrew relief efforts. As FM 100-5 illustrates, Army units presently perform OOTW functions on a daily basis: engineers help host nations build roads and improve infrastructures, military police assist in the restoration of civil order, medics provide inoculations and advice for preventing disease, and mobile training teams enhance local militaries' expertise in securing their nation's interests. All of these operations are extremely sensitive and sometimes dangerous, and they will continue to be necessary in the future. Although they may differ greatly from the previously planned Army missions in the Fulda Gap and the Hessian Corridor, they still require leaders' unequaled commitment and dedication to mission accomplishment.

ADA units are not excluded from the requirements of OOTW. For example, 3-62 ADA of the 10th Mountain Division sent elements to assist with Hurricane Andrew relief, and then immediately sent them to Somalia upon their return from Florida. Air Defense Artillery is already involved in, and will continue to perform such functions as, supporting counter-drug operations and conducting foreign assistance and training, as well as other non-traditional missions not usually associated with Air Defense Artillery. Rotational deployments to Southwest Asia are also included in OOTW and will continue to be a routine part of ADA units' training cycles. Air defenders must retain the maturity and professionalism to conduct these different operations as often as required, yet still maintain the training readiness to perform the air defense mission in combat.

FM 100-5 discusses joint, combined and interagency operations in great detail, placing much more emphasis on these subjects than the 1986 edition. Joint operations refer to those conducted with sister services. They may be performed by elements of a designated unified command, such as Central Command in Desert Storm, or may be conducted by a joint task force such as Joint Task Force B in Honduras. These operations emphasize the importance of synchronizing air, land, sea and space assets for successful mission accomplishment. Combined operations are performed by elements of more than one nation and may vary in duration,

formality and purpose. The United States will often pursue its objectives through coalition and alliance arrangements and, as a result, through combined military forces. Desert Storm exemplifies this concept as more than 800,000 soldiers from 36 nations combined their will, forces and resources to oppose Iraq. Lastly, interagency operations are characterized by Army forces working hand-in-hand with other elements of the U.S. government. The war on drugs best illustrates this, as Army forces work closely with the Drug Enforcement Agency, the Federal Bureau of Investigation and other federal and state law enforcement agencies.

Although joint, combined and interagency operations are covered in great detail in the new FM 100-5, they should have already been highlighted within the mind of every air defender, since Air Defense Artillery has been performing in these arenas since its inception. The joint concept is automatically incorporated into all air defense planning, and most major air defense exercises are now conducted with sister service participation. Combined operations are also a way of life for air defenders. For years the 32nd Army Air Defense Command worked under the control of NATO elements and trained regularly with allied air defense forces. Another example of combined training occurred recently as elements of the 35th ADA Brigade of Fort Lewis, Wash., participated with our Korean allies in the Team Spirit exercise in Korea. Although combined training does occur regularly, air defense forces must still consider some future challenges: command and control of all air defense forces, aircraft identification, establishing rules of engagement in immature theaters and interoperability of weapon systems. These topics all represent potential problem areas for air defense elements if not planned for and coordinated well in advance. Air defenders are also familiar with interagency operations, as ADA units today work regularly with law enforcement agencies in the worldwide war on drugs. Future interagency operations may also present some new challenges for air defense leaders, as ADA units may have to provide liaison officers in an assistance role, or even quickly develop formal interagency agreements for an upcoming operation. Overall, joint, combined and interagency operations are not new to the air defense community, but they will require continued effort today to ensure success tomorrow.

One key change to FM 100-5 is the incorporation of a fifth tenet of Army operations doctrine. Versatility now joins initiative, agility, depth and synchronization. FM 100-5 defines versatility as the ability to meet diverse challenges, shift focus, tailor forces and move from one role or mission to another.

The best way to portray this concept is with the analogy of a baseball player. Some great players, such as Babe Ruth, are known for one thing: hitting home runs. That was their major contribution to the game. However, other players, such as Willie Mays or Pete Rose, did several things well that made them great. They hit for average, fielded at the Golden Glove level, stole numerous bases and hit home runs. These players were extremely versatile, because they could do everything well on a moment's notice.

The Army now mandates that units must quickly adapt to different missions that may not require performance of any of its mission essential task list tasks. These missions may be performed simultaneously or sequentially, and will usually occur on short notice. The 3-62 ADA's performance in Florida and later in Somalia exemplifies versatility. Other air defense forces have also shown their ability to perform in this fashion. Elements of 3-2 ADA of Fort Lewis were afforded the opportunity to serve in Desert Shield and Desert Storm, but not in an air defense role. These units deployed without their weapon systems to conduct transportation and security missions. A few years prior to that, elements of the 35th ADA Brigade were called upon to serve as firefighters in the northwest United States. Firefighting, hurricane relief and truck driving are not typical mission essential task list tasks for an ADA unit, yet air defenders performed these important missions in an outstanding manner. ADA units must continue to display their versatility as more new and challenging missions continue to develop. This is especially true as the branch mission changes from a primarily fixed-wing focus to one involving weapons such as cruise missiles and unmanned aerial vehicles.

The threat to friendly forces and combat functions is significantly greater than in the past due to weapons of mass destruction and the proliferation of missile technology. The potential for catastrophic loss of soldiers, time, or initiative, forcing a change to operational objectives, requires a greater role for theater missile defense when generating combat power at the operational level.

— FM 100-5

Together, these critical trends [increasing tactical ballistic missile range, accuracy, warhead lethality and variety] in missile proliferation will give rise to a far more daunting regional threat environment than currently exists. Coupled with the increasing availability of other relatively advanced military technologies still not generally found, but likely to become so, in Third World inventories — such as reconnaissance drones, communications satellites, submarines and robust command, control, communications and intelligence capabilities — such proliferation could make a scenario like Desert Storm — with its remarkable low casualty rates, hardly disrupted logistical trails and virtually unopposed armored sweeps — very difficult, if not impossible, to repeat 10 years hence.

— Charles M. Perry, "Theater Missile Threats and Defensive Options in the 1990s," The Annals of the American Academy of Political and Social Science

The next key topic is simultaneous operations. This concept stresses the importance of the synchronization required for actions at the tactical, operational and strategic levels, as well as the importance of synchronizing concurrent operations (war or OOTW). FM 100-5 stresses that commanders cannot only concern themselves with events at their echelons. They must understand how their actions affect, or are affected by, the other levels of war or other operations. These operations create opportunities to disrupt, demoralize and overwhelm the enemy. More than one campaign can occur concurrently within the same theater, and within those campaigns, simultaneous operations occur throughout the depth of enemy formations.

FM 100-5 illustrates a perfect example of this concept. In 1989, a joint force of 7,000 soldiers, airmen, sailors and marines simultaneously hit targets at 26 separate locations in Panama. Within the same hour on Dec. 20: Marines secured Howard Air Force Base and the Bridge of the Americas, 1-75 Rangers secured Tocumen Airport, 4-17 Infantry (7th Infantry Division) and 3-504 Infantry (82nd Airborne Division) secured Renacer Prison and Madden Dam, 2-75 and 3-75 Rangers secured the Panamanian Defense Forces base at Rio Hato, and the 193rd Infantry Brigade, along with 4-6 Infantry (5th Infantry Division), struck many targets in and around Panama City, including La Comandancia. These units conducted key operations precisely according to schedule and totally overwhelmed enemy forces.

During Operation Desert Storm the 11th ADA Brigade demonstrated its ability to perform several key actions concurrently. On the tactical level, 11th ADA Brigade elements performed simultaneous close, deep and rear activities in support of the operational plan. From Patriot units in Riyadh performing theater-strategic tactical ballistic

missile defense, to Hawk batteries in support of corps operations, to forward area air defense units maneuvering through Iraq in direct support of the 3rd Armored Cavalry Regiment, the 11th ADA Brigade displayed the tactical and technical expertise to successfully accomplish all required missions in superb fashion. Future air defenders must be capable of conducting similar activities simultaneously. The vision and flexibility of air defense commanders are key.

The last topic is battlefield framework, which FM 100-5 defines as the area of geography and operational responsibility that enables a commander to visualize how he will employ his force against an enemy. The framework consists of the area of operations, battle space and operations in depth.

The area of operations is a geographical area with lateral and rear boundaries that also includes the airspace above. Within this area, the commander has authority to control and synchronize the timing, priority and effects of joint force actions consistent with his higher commander's intent and concept.

Battle space, although not defined by physical boundaries, is described as the physical volume determined by the maximum capabilities of a unit to acquire and engage the enemy. A commander's battle space includes the three-dimensional area in which friendly combat power (regardless of whether it is controlled by the commander who has defined the battle space or by an adjacent commander) can be applied to affect enemy actions relating to the commander that defined the battle space. Battle space is a function of the commander's understanding of and ability to use all available assets that affect his fight. He may not physically possess the asset, but understanding its effect or using its information can impact on his decision-making process. The staff plays a key role in helping the commander establish his battle space by keeping him informed of all available assets.

Lastly, operations in depth refers to the commander's ability to synchronize deep, close and rear operations in an effort to accomplish the overall mission. These three elements — area of operations, battle space and operations in depth — must be clearly understood by commanders at all levels to achieve success on the battlefield.

Air defense commanders are not exempt from this requirement. For example, a corps ADA brigade commander and his staff must completely understand and visualize the corps battle space to fully support the corps commander's plan and intent. To fully support synchronized operations outlined in the new FM, ADA commanders must have a firm grasp of the battlefield framework and its relationship to force protection.

This article has highlighted key points from the new FM that will impact the branch. While not directive in nature, the FM serves as the baseline for future Army operations. ADA leaders must understand these topics, as well as FM 100-5 in its entirety, to ensure success in future operations.

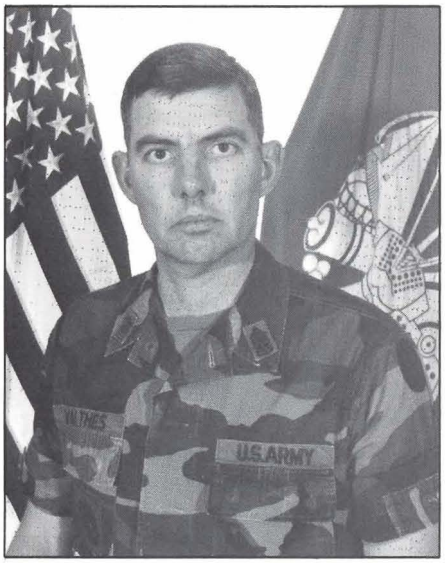
***Capt. John Rossi** is currently a student at the Command and General Staff College, Fort Leavenworth, Kan.*

While a slow diplomatic thaw appears to have come to the Korean peninsula following the end of the Cold War, it is still a fact that the Republic of Korea is perhaps the country most likely to suffer a "bolt from the blue" attack. Fast shifting regional allegiances and a succession crisis in the People's Republic in the north could lead to a desperate attempt to unify the peninsula by force. At the moment, the South is largely vulnerable to attack by North Korean Scud missile derivatives. Only U.S. Patriot batteries could be called up to deliver a credible defense.

— International Defense Review

Column Write

Patriot soldiers soon to get rotation relief



"He was gone three months in Desert Storm, when I was in Germany," said Mary McGriff of her husband, who had just returned from a rotation in Southwest Asia. "It's always natural to worry when any soldiers are in that part of the world. You never know what can happen; it's such a volatile region."

— El Paso Times, August 1993

We've all heard that "absence makes the heart grow fonder," but Air Defense Artillery's constant Patriot support in Southwest Asia is proving the adage wrong. Our younger Patriot soldiers are rapidly approaching a divorce rate of one in every 100, and our branch retention rate for Patriot soldiers has fallen significantly.

Patriot soldiers are PCSing from units completing rotations in Southwest Asia into units scheduled to go to Southwest Asia soon after they arrive. Consequently, some soldiers have rotated to Southwest Asia two or three times, with less than six months spent at home between the rotations. This puts a tremendous strain on a soldier's family life, causing marital stress and, in some cases, divorce. While most of our older soldiers' wives have handled separation in the past, and are continuing to do so very well, some of our younger soldiers are choosing to leave the Army rather than risk their marriages on another rotation.

The branch is hard at work to solve the problem and relieve the pressure caused by almost constant rotations to Southwest Asia. According to Maj. Ronald Mitchell, air defense branch chief, Enlisted Personnel, U.S. Army Personnel Command, a new branch policy covering Southwest Asia rotations will ensure Patriot soldiers coming off rotation will spend at least 18 months at home.

"The new policy will apply only to Patriot soldiers based in the continental United States as part of Southwest Asia rotating units," Mitchell explained. "The policy will not affect European-based Patriot soldiers, because European-based Patriot units will not be part of the rotation units after December 1993.

"Upon completion of a four-month rotation," Mitchell continued, "unit soldiers will be frozen for PCS-out purposes for 180 days. This freeze does not affect assignments into the unit. Upon PCS from the rotational units, soldiers will not be assigned to units due to rotate within 12 months of their report date."

This new policy will not go into effect until January 1994, allowing time for the last European-based unit on rotation in Southwest Asia to return. These soldiers will have no less than 12 months before making another Southwest Asia rotation regardless of their PCS date.

Patriot soldiers at Fort Polk, Fort Lewis and Fort Bliss can expect to rotate to Southwest Asia in 1994. Current plans call for Fort Polk's 2-43 ADA to take the first rotation, followed by 4-7 ADA Patriot soldiers from Fort Lewis and ending with 3-43 ADA Patriot soldiers from Fort Bliss. This equitable schedule should help balance the rotational scale.

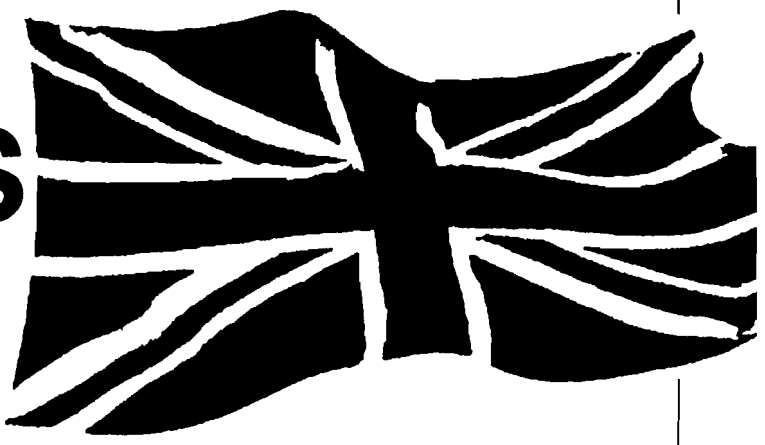
"This is a tough job," Mitchell explained. "Assignments personnel will have to stay on top of the files to ensure soldiers who have already rotated to Southwest Asia don't get slotted again too soon."

Obviously, our branch is doing all it can to promote the welfare of ADA soldiers. Senior NCOs should likewise help these soldiers. Counsel them prior to their rotation. Explain that separation can, in fact, strengthen a relationship. Urge soldiers to discuss the pending separation with their spouses long before it's time to leave, to face and conquer the insecurities that plague couples and ultimately drive them apart. Encourage homebound spouses to join or create family support groups, to trust in the Army way of life to see them through the lonely months of separation.

Our two basic responsibilities, according to the NCO creed, are mission accomplishment and soldier welfare. Supporting young soldiers and their families during this time of strife fulfills both of these obligations.

CSM James E. Walthes
Post Command Sergeant Major

IN HER MAJESTY'S SERVICE



by Maj. Joe Reed

Does the title of this article make you think of Queen Elizabeth, Princess Diana, Big Ben, Parliament, London, "Tommies" and pubs? When I first saw these four words at the top of an envelope from my sponsor, the first picture that flashed into my mind was of James Bond, Agent 007 (Licensed to Kill). I have since discovered that many others serve queen and country, including the Regiment of Royal Artillery. Although I wear U.S. Army insignia, I count myself as one of the "queen's men," for I happen to command 21 Air Defense Battery, 47 Regiment Royal Artillery.

In spring 1991, I was nominated for my present position within the U.S. Army Personnel Exchange program. I later discovered that this meant an adventure for my wife, my children and myself that would fill our lives with unique opportunities. New friends, extensive travel, exciting training and cherished family moments would soon be packed into the next two years.

I was fortunate to be posted to one of the most coveted locations in the British Royal Artillery: Thorney Island, England. The name is a bit misleading. Although it is an island, it is located just 10 miles from Portsmouth and Chichester, two towns on the Southern England coast with everything one could need or want. The actual post, called Baker Barracks, is a short two miles from the quaint, friendly town of Emsworth. In this article, I will share with you my perceptions of service with the British army, keying in on the differences between U.S. and British forces and training procedures while touching upon some of the experiences I was fortunate enough to enjoy during my first year . . . in Her Majesty's Service.

Organization, Roles and Mission

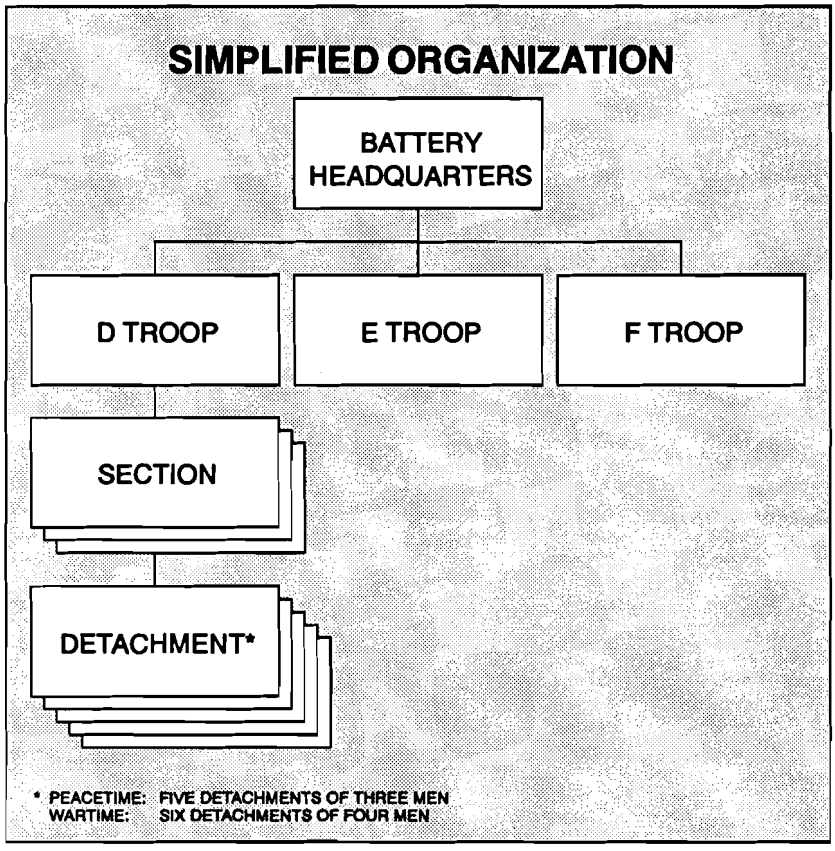
To put my observations in context, I will begin with a discussion of the structure of the unit and its role within the United Kingdom Land Forces. This is essential to understanding my perspective, as there are more than 50 personnel serving at this time with the Personnel Exchange Program in the United Kingdom. Each position is as diverse as the people and missions.

On my arrival, the battery's mission was providing close air defense to three different brigades within the United Kingdom Land Forces. These brigades ranged from one hour away (1 Infantry Brigade) to as much as eight hours away in Northern England (24 Airmobile Brigade). The final brigade, 19 Mechanized Brigade, was located in Colchester, approximately three hours from Thorney Island.

Since my arrival, the unit has seen an extensive role change, in part because the downsizing British forces have restructured and in part because of new equipment fielding. In the past year, the battery has begun its

We have some good news and some bad news. The good news is that Argentine planes are inbound. They will make good targets for our anti-aircraft guns and missiles. The bad news is that they are armed with Exocets.

— Warning broadcast as Argentina launched its first air strikes against British beacheads in the Falkland Islands, May 1982



transition from supporting three brigades to supporting a single brigade, 24 Airmobile. This involves two troops learning the nuances of the airmobile role as well as implementing a new organizational establishment (the British term for modified table of organization and equipment). The organizational change is a precursor to fielding the new Starstreak High Velocity Missile. To simplify matters, I will explain the organization as it will exist at the end of the restructure rather than discuss the transitional changes in depth.

As shown in the diagram, the simplified organization consists of three troops comprising nearly 150 personnel. The original establishment was designed to have three operational troops of two sections each. However, because of command and control assets at the battery level, the establishment in effect has two troops of three sections. The third troop is a support troop with supply, communications and maintenance sections. The headquarters includes the commander, battery captain, battery sergeant major and a clerk.

Blowpipe does not have identification, friend or foe radar. In essence, the British philosophy is that if a plane is attacking your position, it is hostile, so shoot it down!

— Lt. Col. Brian W. Moore, Royal Artillery

Each detachment is equipped with a Land Rover vehicle, air defense alerting device, lightweight missile launcher, aiming unit, missiles, radio and other common detachment equipment. When it is on an airmobile operation, the detachment flies forward with sufficient equipment for a 48-hour operation. One man from the detachment is left behind to drive the vehicle to a forward link-up point.

The battery is assigned to a regiment comprised of three air defense batteries, a headquarters battery and a workshop section. While the battery I command provides air defense for 24 Airmobile Brigade, the remaining two batteries and the regiment provide air defense for 3 UK Division. Finally, 24 Airmobile Brigade is the UK brigade within the multinational division central, a part of the Allied Command Europe Rapid Reaction Corps.

The unit's actual mission is to provide close air defense (point, area or route) of 24 Airmobile Brigade assets according to established priorities. This is done predominantly with airmobile deployments over long distances as quick reaction forces. In short, the role is best described as air defense in direct support of an airmobile brigade within a multinational division.

The Soldiers

Now that I have explained a bit about the organization and mission, I will discuss the aspect of the British Army with which I am most impressed. . . the soldiers. All commanders will say their soldiers are the best in the world. Certainly I was quite biased in favor of the first unit I commanded from 1984 to 1985: C Battery, 2nd Battalion, 2nd Air Defense Artillery, a Hawk unit whose soldiers were better known as the "Mudhawks" because of the muddy site they occupied in Giessen, Germany.

As good as those soldiers were, the British soldiers I now command are better in some ways. They are in prime running and marching condition. Twice each year, all soldiers must pass a fitness test requiring them to run 1.5 miles in 10.5 minutes. This is no great achievement. However, all soldiers must also pass a combat fitness test annually. This requires marching eight miles with a 35-pound load among other battle-related

An airmobile detachment from 21 Air Defense Battery moves to a new location for pickup by Puma helicopters.

tasks. Additionally, each unit has several school-trained physical fitness instructors. The program they use, tailorable by the unit commander, is generally very strenuous.

From initial entry into the service, the British soldier seems more dedicated to a full 22-year career. At least three of every four soldiers questioned at entry to their unit say they plan a full military career. I venture to say U.S. soldiers are more concerned with gaining experience, getting an education or saving money for college, largely because of our recruiting methods as well as the heritage of our soldiers. Each British battery in the regiment is assigned a geographical region where they must assist recruiting efforts. This fosters good relations with the local schools. Many British soldiers also join because their families have always done Army time.

The British soldier undergoes a different discipline system. The equivalent of a U.S. Army first sergeant is called the battery sergeant major. He is the focus of the battery's daily events. Soldiers look up to the battery sergeant major with a mixture of awe and fear. The troop is also run by a sergeant major. The sergeant major and battery sergeant major solve most problems and execute the unit's daily activities.

Officers play a more distant role, occasionally getting involved in daily activities to add emphasis or give guidance. The battery commander is viewed as someone "way at the top" who passes down orders and directives of a long-range nature to keep the unit ready for the next mission.

The average British soldier seems devoted to service and performs to the best of his ability. This, combined with stringent disciplinary procedures within the enlisted ranks, has yielded a battery that requires very little disciplinary involvement from the commander. In the year I have been in command, less than 10 cases have required my disciplinary action.

The experience of one Blowpipe detachment on a Royal Fleet auxiliary (support ship) is interesting. They fired six missiles: three destroyed targets, two Mirages and an A-4 Skyhawk. Of the three remaining missiles, one completely missed the target, possibly due to an operator error; on the second, the operator lost the tracking flares amongst all the other lights and tracers in the sky; and on the third, the operator was blown off his feet by a bomb blast while controlling the missile. A reasonable excuse for missing the target.

— Lt. Col. Brian W. Moore, Royal Artillery

No easy hope or lies
Shall bring us to our goal
But Iron sacrifice
Of body, will and soul
There is but one task for all
One life for each to give
Who stands if Freedom falls?
Who dies if England lives?
— Rudyard Kipling, 1914

The teamwork and spirit of the British unit are quite admirable. Rare indeed is the married soldier with less than five years in the service. The normal soldier's family is the battery and the regiment. He has fun working with them, and this contributes to very high unit morale despite the drawbacks of earning less and enduring slower promotion rates than American soldiers. Barracks conditions, meals and athletic facilities are also not as lavish as those provided for U.S. soldiers.

RANKS IN THE SERGEANTS' MESS

STAFF SERGEANT	SERGEANT FIRST CLASS
BATTERY QUARTERMASTER SGT	BATTERY SUPPLY SERGEANT
REGIMENTAL QUARTERMASTER	BATTALION S-4 SERGEANT
REGIMENTAL CHIEF CLERK	BN S-1 SGT
TROOP SGM	PLATOON SGT
BATTERY SGM	FIRST SGT
REGIMENTAL SGM	BATTALION CSM

The sand of the desert is sodden red,
Red with the wreck of a square that broke;
The Gatling's jammed and the Colonel dead
And the regiment blind with dust and smoke.
The river of death has brimmed his banks
And England's far, and Honour's a name
But the voice of a schoolboy rallies the ranks:
"Play up! play up! and play the game!"

Finally, though dedicated and hard working with a high morale, British soldiers are not as highly educated as their American counterparts. Most soldiers do not have any college-level education.

One characteristic common to both American and British soldiers is their ingenuity. They amaze their leaders with what they are capable of doing with very little guidance in the most difficult and unique situations.

The Noncommissioned Officers

Within the Royal Artillery, the enlisted ranks fall into three very distinct categories. First are the gunners, the equivalent of privates to privates first class in the U.S. Army. The next group is the junior NCOs. These are the lance bombardiers and bombardiers, equal to a specialist and U.S. sergeant respectively. These junior NCOs fall into a transitional group. They must segregate themselves from the gunners although they have not yet reached the British sergeant level. They lead the detachment (within a Javelin unit this is normally the operating team). A detachment must operate independently and move on the battlefield on short notice. This is a big responsibility for the equal of a fire team leader within the Infantry forces.

Upon his promotion from bombardier to sergeant, the soldier has not just achieved new rank and responsibilities. He enters a totally different social status. Now the equal of a U.S. staff sergeant, he enters the Sergeants' Mess. He must demonstrate, socially and professionally, all the qualities of a British sergeant.

The best way to explain the Sergeants' Mess is to say that it's not just a building, it's a way of life. The building holds the sleeping accommodations, eating area and bar for sergeants through regimental sergeants major (equivalent to a U.S. command sergeant major). The Sergeants' Mess describes the building and all the characteristics embodied in those who make the grade of sergeant or higher. To have achieved the rank of sergeant, one has met the requirements to have gained entry into a private club, society or fraternity. The ranks are in the table at left.

I have not discussed in depth the staff ranks, but as a general rule there are very few senior NCOs on staffs other than in the quartermaster or logistics fields.

After an appointment as regimental sergeant major, most enlisted soldiers have reached the peak of their careers. The British have no brigade- or higher-level command sergeants major as the Americans do. The only hope the 22-year ex-regimental sergeant major has of continued service is a special assignment or the rare chance of selection for commission as an officer. A screening process allows a small percentage of those at the pinnacle of their enlisted career to be commissioned as a late entry officer. Otherwise, they retire with 22 years allowable service.

Officers

Entire books have been written about British officers and "officership." I will not presume to attempt to do more than just give a thumbnail sketch. There are two primary types of commissioned officers: the late entry officer mentioned above, and the officer with the regular commission who has done time at Sandhurst (the British Military College) and completed a young officers' course (equivalent of a basic course).

Initially, a late entry officer has more experience in Army ways. Normally, his first job after being commissioned is battery cap-

tain, the same as a battery executive officer but, in the British Army, a captain's position. The late entry officer normally progresses through various quartermaster appointments until he retires. He is rarely considered the equal of a regular officer and receives a degree of ribbing and perhaps discrimination within the Officers' Mess.

I have had the luxury for the past year of having a late entry officer as my battery captain. He has progressed through the enlisted ranks to regimental sergeant major and has more than 20 years experience. His maturity and background have proven quite valuable.

The regular officer is very similar to his U.S. counterpart, although the lieutenant with a university degree is a rare item. Most future officers join Sandhurst in their late teens and enter the Army as second lieutenants well before age 21. As with the sergeants, officers have a very rich tradition that revolves around the Officers' Mess. Only one in 10 lieutenants marries before joining his regiment. Most do not marry until they are promoted to captain. This gives them many years of brotherhood and camaraderie in the social and fraternal atmosphere of the mess.

As lieutenants, they serve primarily as troop commanders and then do time at training establishments similar to a U.S. basic training establishment. As captains, they see battalion, brigade or school staff time and battery captain duties interspersed with required military schooling. Majors also do staff time, but the two key jobs for a major are battery command and chief of staff of a brigade. The only other significant difference in job assignments is that British brigades are commanded by brigadier generals, not colonels.

21 Battery British soldiers train on Trans Mountain Road, Fort Bliss, Texas, prior to the October 1992 Bataan Death March.

Finance and Personnel Management

Within the British Army, the battery commander plays a very important financial account manager role. In addition to the normal command concerns of marshalling resources to accomplish training and maintenance, the commander runs a separate battery account. This account comprises not only battery properties, but also investment property, artwork, financial securities, silver or other valuable assets. A measure of the battery commander's success is how the battery's financial wealth improves during his command.

Personnel management consumes a large percentage of a commander's time. As in the U.S. Army, there is a personnel manager at the branch level. However, in contrast, that manager normally plays only a coordinating role to execute the desires of battalion-level commanders. Within a battalion, the commander, battalion adjutant and battery commanders manage the soldiers' careers. The

BRITISH FORCES IN OPERATION DESERT STORM

1st Armoured Division

7th Armoured Bridade

Royal Scots Dragoon Guards
Queen's Royal Irish Hussars
1st Bn, Queen's Dragoon Guards
1st Bn, Staffordshire Regt
40th Field Regt, Royal Arty (RA)
10th Air Defence Btry, RA
21st Engineer Regt
207th Signals Sqdrn, Royal Corps of Signals (RCS)
654th Sqdrn, Army Air Corps (AAC)

4th Armoured Brigade

14th/20th King's Hussars
3rd Bn, Royal Regt of Fusiliers
1st Bn, Royal Scots
2nd Field Regt, RA
46th Air Defence Btry, RA
23rd Engineer Regt

(continued on next page)

(continued)

204th Signals Sqdn
659th Sqdm, AAC

Division Assets
16th/56th Queen's Royal Lancers
32nd Heavy Regt, RA
26th Field Regt, RA
39th Heavy Regt, RA
12th Air Defence Regt, RA
32nd Armoured Engineer Regt, Royal Engineers
4th Regiment, AAC
1st Armoured Division Transport Regt, Royal Corps of Transport (RCT)
4th Armoured Division Transport Regt, RCT
1st Armoured Division Field Ambulance, Royal Army Medical Corps (RAMC)
5th Armoured Division Field Ambulance, RAMC
3rd Ordnance Bn, Royal Army Ordnance Corps (RAOC)
7th Armoured Workshop, Royal Electrical and Mechanical Engineers (REME)
11th Armoured Workshop, REME

Force Troops
205th General Hospital, RAMC
24th Air Mobile Field Ambulance, RAMC
22nd Field Hospital, RAMC
32nd Field Hospital, RAMC
33rd General Hospital, RAMC
30th Signals Regt, RCS

Forward Maintenance Area
6th Armoured Workshop, REME
7th Aircraft Workshop, REME
6th Ordnance Group, RAOC

The Life Guards
9th/12th Royal Lancers
17th/21st Lancers
4th Royal Tank Regiment
1st Bn, Grenadier Guards
1st Bn, Scots Guards
1st Bn, Devonshire and Dorset Regts
1st Bn, Prince of Wales Own Regiment of Yorkshire
1st Bn, Queen's Own Royal Highlanders
1st Bn, Royal Green Jackets

soldier is assigned to a battery within the regiment, and he stays in the same battery throughout his career except for courses or short tours. He belongs to the regiment; the regiment is his home. The battery and regimental commander determine when and if a soldier ever goes away from the regiment. When a soldier needs an opportunity away from the regiment for his career progression, the commander has the adjutant look for an appropriate position, then work out the details and get concurrence from the branch. A soldier's education, assignments and progression are entirely at the discretion of his commanders. School and special assignments are not made at branch level. When a vacancy occurs at a school or other special position, the school advertises the vacancy via electronic signal, and the regiments nominate soldiers to fill the job.

Training

From a professional development perspective, I have found managing my unit's training to be the most rewarding experience. For the first year, mine was the only air defense battery within the regiment. The other batteries were all field artillery batteries. Because of our autonomy and the philosophy within the Royal Artillery, I was given the unit and a mission and allowed to plan all the training I thought the unit needed to maintain its combat effectiveness. The only mandates were an annual firing practice, a brigade exercise and a regimental maintenance inspection in the first year. All other training events were left up to the battery to plan. Resources have been quite liberal, so we have had an active year. We average two weeks in a field environment every month (sometimes more or less depending on the season).

Our exercises have included light infantry type exercises and village or city combat. With our emphasis on the airmobile role, we conduct helicopter training and physically draining cross-country exercises with fly-forward equipment. I quite enjoy flying around the battlefield to the different air defense positions to check their deployment.

Two benefits of training within the Royal Artillery include overseas training exercises and adventure training. I did not have the opportunity to experience much of this in my previous U.S. command, and it is a real morale booster for the soldiers. Because of the many exercises the British Army conducts annually with foreign countries and on foreign soil, an overseas training exercise will probably come your way every 18 months. Parts of the battery I command have been in the United States, New Zealand, Germany, Holland and Northern Ireland. Within the next eight months, the entire battery will participate in a one-month exchange in the United States and spend three weeks in Gibraltar at the southern tip of Spain.

The adventure training includes sailing, backpacking, scuba diving, skiing, mountain climbing, canoeing or other challenges limited only by the unit's ingenuity and planning. Each year's budget allows specific amounts for this type training. It gives adjunct military training while building the teamwork in the battery, not to mention having a jolly good time.

Finally, the annual firing practice. The entire battery shipped away to a firing camp in Wales, where we spent three weeks ensuring that every operator in the battery (more than 100) fired a missile. Each missile costs about $10,000; therefore, in missiles alone, the camp is a million-dollar training exercise. Tack onto this the cost of remote targets killed (more than $15,000 each), and this is an expensive three weeks! I think this is a good use of the money when I think of how many U.S. Stinger gunners never fire a live round.

One final training event I was lucky enough to participate in was a battlefield tour of France. We visited some of the key sites near Metz, Verdun and Sedan. We had a superb European military history professor who made us all feel as if we could not only see the battle, but could also see the camp followers, cooks and families of those in the battle. This was an experience of a lifetime.

In fact, the expression "experience of a lifetime" describes the entire assignment. I have certainly learned more than I have taught. I am thankful that we have such a program within the U.S. Army that allows one to receive so much while giving so little. I do hope that my assignment continues to be of some value to our British allies, but I fear they may only learn how to play softball and speak with a Fort Bliss, Texas, drawl.

PROTECTING THE FORCE

An air assault division perspective

by Lt. Gen. John E. Miller with Maj. Jeffrey C. Horne

Force projection provides the central element of our national military strategy. The 101st Airborne Division (Air Assault) and its ADA battalion, 2d Battalion, 44th Air Defense Artillery, provide XVIII Airborne Corps and the joint operations community with one of the key force projection capabilities available in our national arsenal. As such, we continually demonstrate our ability to rapidly alert, mobilize, deploy and conduct operations anywhere in the world.

Our missions range from forced entry to noncombatant evacuation operations. Given these challenges, the myriad of critical decisions surrounding deployment, and the uncertainty and friction that follows, our division focuses on versatility, anticipation and organizational flexibility. Mission analysis provides our most dynamic tool in achieving the best solution to these challenges.

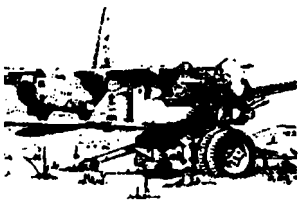
Early in the process, air defenders integrated into the planning staff at all levels throughout the division develop detailed plans to meet my intent while ensuring force protection of our most critical elements. This arduous process requires ADA planners to consider scores of issues as they develop and refine an already established division ready force or brigade package. Prior to deployment decisions, all of our staff sections work together to develop a detailed analysis of enemy force capabilities, projected joint air defense packages and subsequent communications requirements (see the figure at the top of next page).

The 101st Airborne Division (Air Assault) offers the joint task force commander a powerful force capable of striking directly into the enemy's most vulnerable areas. Properly employed, it is conceivably the most lethal, powerful, aggressive, organization on the battlefield. It can drive deeper, move faster, strike harder and exploit enemy weaknesses with a vengeance. However, as with any combat endeavor, aggressiveness brings risk. My air defenders are absolutely vital in mitigating this risk. Specifically, they must thoroughly understand my intent, analyze aspects of the intelligence preparation of the battlefield (IPB) process, destroy or deter enemy aircraft in the division's area of operations, successfully assist in procedural airspace control and use newly acquired state-of-the-art technology to develop deep targets.

2-44 ADA, or the "Strike Fear" battalion, recently underwent a massive reorganization to accomplish this mission. Originally established as a Vulcan/Stinger organization, it has now been fully transformed into the most advanced forward area air defense (FAAD) battalion in the U.S. Army. Recently fielded Avenger weapon systems, FAAD command, control, communications and intelligence (C^3I) systems, joint tactical information distribution system (JTIDS) and single channel ground and airborne radio system (SINCGARS) radios, soon to be received light and special division interim sensors (LSDISs), along with a fourth firing bat-

Airborne troops of the future will have to be capable of performing every type of ground operation now known. Strategical and tactical dispersion will be made possible and surprise in the attack obtained by their full and proper exploitation. Airborne troops will conduct raids, reconnaissances in force and withdrawals. They will fly in vehicles designed to land on roads and in fields, and if their plan requires a withdrawal, troops will move to prearranged take-off areas after they have accomplished their ground missions and will there be picked up and flown back to their bases.

— Maj. Gen. John M. Gavin, 1947



The 2-44 ADA has recently replaced its towed Vulcan air defense guns with the Avenger air defense system.

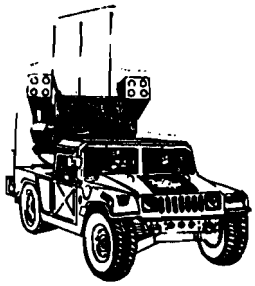


Figure 1

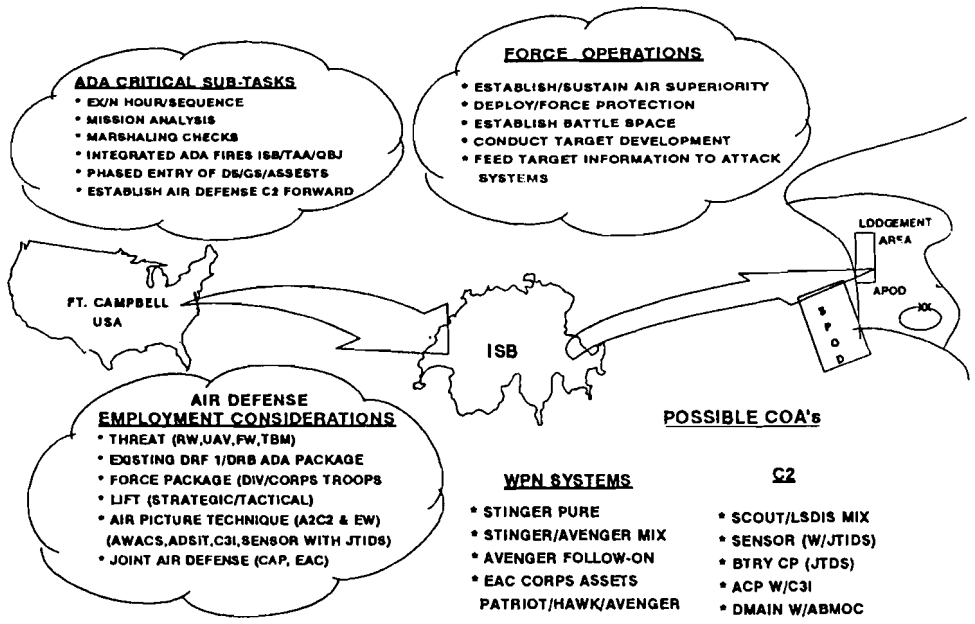
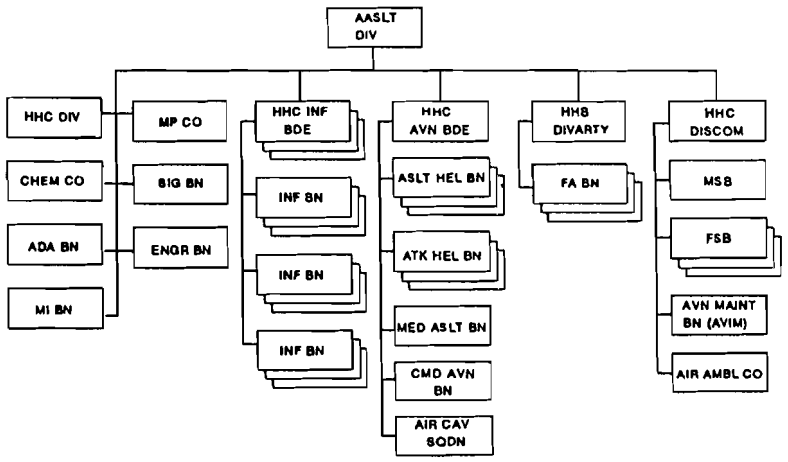


Figure 2



tery, provide the backbone of this revitalized organization.

These new assets are absolutely essential in meeting the demands of the air assault division's robust organization, tactical air movement techniques and rapid exploitation missions. Our imposing organization, comprised of the world's largest aviation brigade (nine battalions of combat aircraft), three maneuver brigades, division artillery, division support command, a corps support group and several of the Army's larger separate battalions, presents one of the largest rear area support packages in the U.S. Army (left). Clearly, this translates into one of the most lucrative targets on the battlefield. These facts, combined with an enormous area of operations, provide a massive challenge to the divisional ADA battalion.

The air assault division is the largest, most powerful, "light" division in today's army. In truth, the 101st bears no more resemblance to the standard light division than it does to a mechanized or armored division. Its rate of march, sustained operational speed, method of deployment, ability to conduct forced entry operations and rapid exploitation without significant augmentation make it a force unequaled on the modern battlefield.

The genesis of the division's combat power lies in its robust organizational structure and distinctively rapid operational tempo on

the battlefield. The division is capable of air assaulting one brigade with habitual attachments more than 100 miles (150 kilometers) every 24 hours. Additionally, several attack aviation battalions could be striking deep into enemy rear areas as a simultaneous portion of this operation (see figure below).

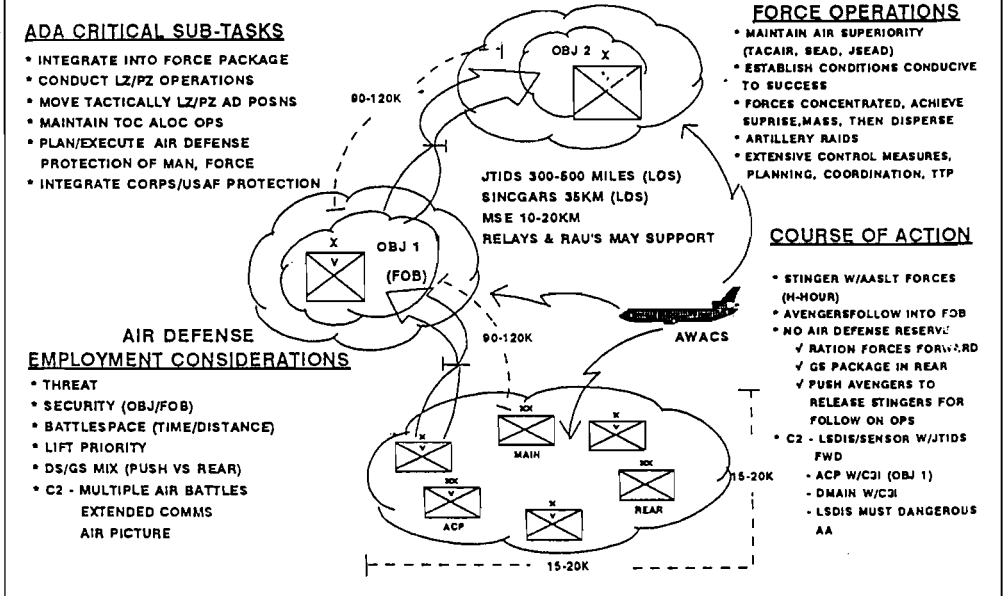
Accordingly, today's air assault task forces possess the potential to extend the battlefield to its operational depth, possibly deciding campaigns in a single well-executed operation. Its area of operations, nonlinear in nature, often exceeds 400 kilometers in depth and 100 kilometers in width. Certainly, the air assault division is an asset both difficult to support and worthy of optimal protection.

ADA planners must employ their technology and warfighters forward, providing force protection of division assets throughout the depth of this nonlinear environment. They must consider enemy threat capabilities and likely courses of action while preparing to manage air battles in multiple areas. Additionally, they must manage the highly volatile task organization mix, allocating ADA direct support and general support assets based on balancing mission, enemy, terrain, troops and time available (METT-T), the commander's intent and air defense employment considerations. The final result of this process is a finely tuned team product, tailored to the mission at hand. As complex as they seem, these thoughts only lay the baseline for the truly difficult work ahead — setting the conditions for a successful deep attack!

What, then, are the requirements, or preconditions, necessary to make such an operation successful? The newest doctrine on divisional ADA operations states that every battlefield operating system must receive detailed attention prior to actual execution of the air assault mission. Specifically, air assault deep attack operations demand a rapidly increasing series of targeted blows that reach crescendo proportions at H-hour, aircraft touchdown time. Every battlefield operating system must meet pre-established conditions to ensure success of the task forces on the objective; failure to do so may mean the complete annihilation of the force (see figure on next page).

Aviation assets and their support forces play a starring role in this mission. Once the conditions to go deep have been set by SEAD/JSEAD missions, attack aviation assets proceed forward to isolate objective

Figure 3



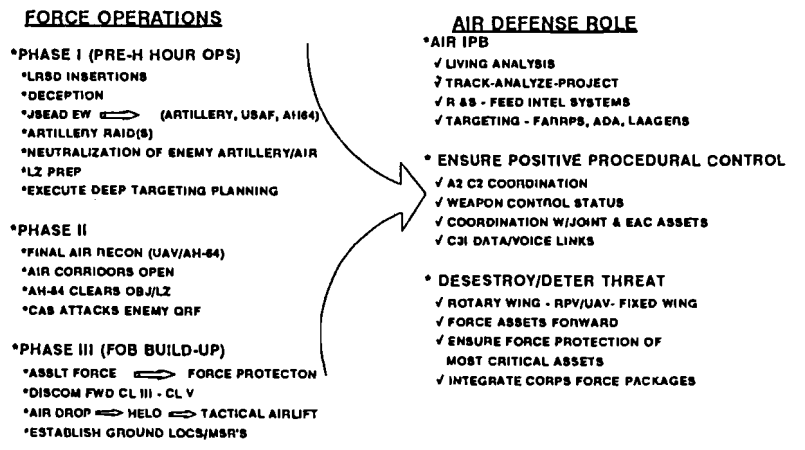
Early in the morning of Feb. 24, 1991, at approximately 0400, G-Day commenced. The 101st Airborne Division (Air Assault) launched what is considered the largest air assault operation in its history. Over 300 helicopters air assaulted over 2,000 soldiers into Forward Operating Base (FOB) Cobra, approximately 150 kilometers into Iraq. Included in this assault were elements of Alpha and Bravo Batteries (2-44 ADA) in support of 1st Brigade Task Force (+). A Stinger section from Alpha Battery, along with a Stinger section from Bravo Battery, air assaulted into FOB Cobra and established a defense in depth, achieving mutal support and overlapping fires.

— Arabian Knights

Cobra quickly grows to massive size, 20 miles by 40 miles, larger than the 101st's home base, Fort Campbell, Ken. Cobra permits the division's Black Hawk helicopters to fly from bases in Saudi Arabia all the way into the Euphrates river valley, refuel at Cobra on the way back, and return for another load. Apaches and Cobras start dropping in for fuel and ammunition for their hunting trips. With the FOB established, the 101st is now capable — if anyone wants — of launching air assault troop lifts into Baghdad itself.

— Hans Halberstadt, Desert Storm Ground War

Figure 4



The following morning, the "Screaming Eagles" moved nearly 100 miles farther north to the banks of the Euphrates where they cut Highway 8, the link between Baghdad and Basra. The 24th Infantry Division (Mechanized), its right flank guarded by the 3rd Armored Cavalry Regiment, drove north to link up with the 101st in the Euphrates River Valley. Having marched to within 150 miles of Baghdad, the XVIII Airborne Corps was astride Highway 8 in position to slam the door on Republican Guard units attempting to retreat across the Euphrates.

— ADA Magazine

areas and establish a double ring aerial cordon around the landing zones. The first, or inner, ring is established by a single attack battalion under operational control of the air assaulting brigade. It covers the area from the objective out to the forward support coordination line.

The second, outer ring, is established by the division aviation brigade attack units. Its mission is to roam from the inner ring out nearly 100 miles beyond the assault objective, conducting a ruthless, unceasing effort to seek and eliminate enemy forces moving in response to the surprise allied attack. This aggressive mission is continually taking place while the ground objectives are being secured and the logistics buildup is beginning at a forward operating base that will be established inside the objective area.

Clearly, an operation of this magnitude mandates freedom of maneuver for the aviation brigade. FM 90-4 states that execution of brigade and battalion task force air assaults require, as a minimum, local air parity or air superiority. This is not to say there is no air threat. Rather, the implication is that the conditions are set such that enemy air defense and fixed-wing aircraft are unable to respond in force in the deep attack area. Clearly, a great number of assets are required from divisional air defense, Army aviation, corps augmentation assets, as well as U.S. Air Force counterair protection forces to make this possible.

Given this, what role does the ground ADA commander within the division play as we establish these pre-conditions and conduct follow-on operations? He must ensure freedom of action for maneuver and aviation forces through the development of integrated force protection packages. The full range of our newly fielded equipment provides critical components of this structure. Accordingly, the ADA battalion has four significant responsibilities:

- Ensure understanding, planning and execution to meet the commander's intent.
- Assure a full analysis of enemy air assets in terms of a living IPB.
- Secure freedom of maneuver by destroying or deterring enemy aircraft (fixed-wing, rotary-wing and unmanned aerial vehicles) operating in the division area of operations.
- Support the G-3 air in ensuring positive procedural Army airspace command and control (A^2C^2) throughout the division area of operations.

Meeting the Commander's Intent

The more fluid the battlefield, the more important and difficult it is to identify decisive points and focus combat power there. Under such conditions, it is imperative that the commander's intent is understood throughout the force. The nonlinear nature of division air assault operations, and the speed and violence with which they must occur, makes this concept absolutely imperative for soldiers of the 101st and the Strike Fear battalion.

Doctrine dictates that the fundamental mission of all ADA units is to ensure freedom of movement and thereby force protection of maneuver forces. Our air defenders operate within the bounds of my intent by developing sound ADA priorities based on the integration of a number of imperatives to develop ADA priorities of protection. Specifically, 2-44 ADA melds the commander's intent, results of our living IPB analysis, METT-T and ADA priority development considerations into a single set of priority recommendations. The resultant task organization and ground ADA plan, approved by the commander, ensures force protection.

If an unanticipated situation arises, the newly reorganized air defenders will act decisively to employ the full range of their new capabilities to destroy enemy forces at the earliest possible moment. This may involve last minute air insertions onto our flanks to conduct ADA ambushes or rapid task organization changes to protect forces exploiting success following an air assault onto an objective.

ADA IPB Analysis Requirements

The nature of our power projection and crisis response missions mandates winning the information war early. Success in this endeavor permits us to focus our combat power, maximize lethality and keep our soldiers alive to fight another day. Given this concept and our dependence on a finite number of critical components, we demand an exceptional IPB product.

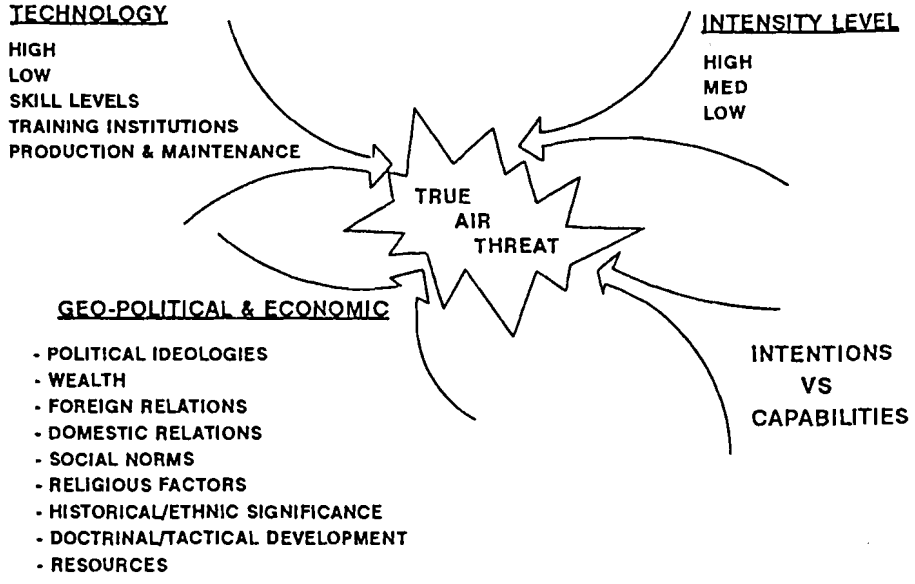
By definition, IPB has two fundamental components: air and ground. Traditionally, however, the air portion is often overlooked because of the enemy forces' limited ability to mount significant air activity. This viewpoint is the product of a narrow perspective that air power is a one-dimensional result of the level of intensity into which we are being thrust.

The Strike Fear battalion transcends this void by using a four-dimensional model to evaluate threat forces, effectively developing accurate, predictive enemy assessments (below). Key to their program is development of precise reconnaissance and surveillance plans directed at specific named areas of interest, target areas of interest and decision points. Additionally, we have developed procedures to predict air surges against friendly forces. Examples of information we believe enemy forces demand prior to committing air assets include —

- Identification of seams between divisions and brigades.
- Location of our most critical (high payoff) assets.
- Pinpointing of friendly ADA positions.
- Recognition of deep air assault operations.
- Identification of fast, well-protected ingress and egress routes.
- Perceiving the threat to geopolitical power sources.

Both the 101st and I Corps brigade command training programs validated this ap-

Figure 5



Early on the morning of G plus 1, the 3rd Brigade of the 101st Airborne air assaults deep into enemy territory again. This time, it is all the way up in the Euphrates river valley, just across the river from the city of As Samawah where the battle maps have been inscribed Area of Operations Eagle. A four-lane highway is the only road available for the Iraqis to move east or west on this side of the Euphrates, and now it is blocked by 3rd Brigade.

The road is cratered with explosives. The brigade sets up a kill zone along the highway, waiting for enemy convoys. And they don't have long to wait before a supply column shows up. The lead truck even has its headlights on — making it a conspicuous target. In an effort to get the truck drivers to stop and surrender, a machine gun fires tracers in front of the lead vehicle, but it speeds up rather than stops. An AT1-4 anti-tank rocket is fired into the cab, blowing it apart and stopping the truck and the whole convoy.

Daylight reveals the cargo, a large quantity of onions, scattered over a wide area. Soon Bedouin tribe members arrive to loot the convoy, which turns out to be entirely food for Iraqi soldiers. The soldiers try to scare the Bedouin off by shooting over their heads, but it doesn't work. So they give up on that tactic and proceed to help them pack up the food, just to get them out of the kill zone.

— Hans Halberstadt, Desert Storm Ground War

The Avenger air defense system (above and right) is perfectly suited for tactical air movement and rapid exploitation missions.

The 101st Airborne Division (Airmobile) helped pioneer airmobile tactics in Vietnam. The U.S. Army Strike Command first approved an airmobile air defense battalion table of organization and equipment in 1971.

proach when our air defenders accurately predicted the exact time, place, ingress/egress routes, intended target and size of the largest surge of enemy aircraft during the operation. Having made the prediction, they conducted a daring Hawk/Stinger ADA ambush hours before the attack, successfully decimating the attacking force and repelling follow-on forces. The battalion continues to refine these techniques with the fielding of FAAD C^3I systems.

Today's threat forces, and those of the future, are much less predictable than those of just a few years ago. Our potential foes may have limited air assets, yet their force composition, capability, national intent and level of technology is often unknown. We must anticipate that threats to seemingly harmless foes employ unconventional tactics.

Therefore, a minimum of four dimensions must be considered when determining potential air threat: geopolitical and economic conditions, level of technology available, intensity level, and intent and capability (see figure on preceding page). It is the mission of all air defenders, intelligence officers at all levels and the division staff to assess all of these dimensions depicting true air threat information to determine the answers to the following most critical questions:

- How does he intend to fight the air battle?
- How and when will he commit his air assets (close air support and BAI)?
- What does he intend to accomplish and what are his targets?
- What conditions are necessary for surging his aircraft?

The Strike Fear battalion's newly acquired FAAD C^3I and LSDIS radar systems facilitate a vast improvement in developing a truly "living" IPB product. Whereas in the past we have been restricted to the use of ADA scout and liaison teams, today we are learning to employ assets that literally track activity 400 nautical miles into the enemy rear areas. FAAD C^3I provides our division with the capability to target potential enemy forward area rearming and refueling points and potential pop-up locations, and to iden-

Air assault infantry units have great tactical and operational-level mobility. They train to fight across the range of military operations. Their significant antiarmor capability, coupled with their strategic deployability, makes them particularly well-suited as an early deploying force in contingency operations against heavy forces. They train and fight as a team in combination with air assault artillery and attack and lift aviation and are capable of penetrating deep into enemy territory to cut LOCs, seize airfields, destroy C^2 nodes, block reinforcing units, or seize key terrain. Because of their agility and mobility, air assault infantry units are well-suited for covering force operations.

— FM 100-5

The world's largest aviation brigade transports soldiers (above and right) of the 101st Airborne Division (Air Assault) into battle.

tify actual ingress and egress routes, using real-time airborne warning and control system air picture information.

The ADA battalion's "projections" and observation of most likely and dangerous air avenues of approach are significantly enhanced with our new vision of the battlefield. Once the battle begins, we will have "eyes on targets" to validate and refine our planning products. This living IPB process, along with our priority development procedures, assist in weighting our ADA protection. The targeting process is also enhanced significantly as we direct our division and corps indirect fires, U.S. Air Force offensive counterair sorties and air defense ambushes along high priority air avenues of approach.

Maintaining Freedom of Maneuver

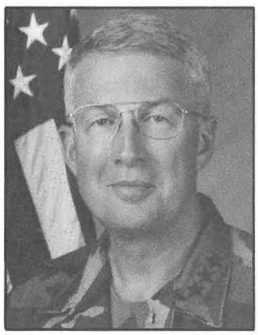
The very aspects that make the air assault division so formidable also complicate the accomplishment of this task. Extended lines of communication and our operational tempo demand maximum benefit from our limited ADA assets. Additionally, the threat posed to the air assault division (armed helicopters, unmanned aerial vehicles and rear threat aircraft) is potentially greater than that of other divisions. This assertion is based on the belief that as we continue to refine our concepts of employment, our adversaries also continue to better understand the fragile nature of the division at critical points in time on the battlefield.

Given these conditions, what assets does the ground ADA commander have at his disposal? Three firing batteries, comprised of 12 Avengers and 10 Stinger teams, support the Infantry brigades based on the priorities and task organization mentioned previously. This arrangement follows a "habitual relationship" — although each brigade does not always receive a complete "slice" — the triad of METT-T, commander's intent and IPB drive final task organization.

During air assault operations, a brigade might be spread out over a 150-kilometer area. Air defenders have to make tough choices between protecting maneuver forces, logistics areas, main supply routes or command and control nodes during these operations. Twenty-two fire units are employed very quickly in this scenario. Accordingly, the division's remaining general support package must take up the slack in one or more of these areas.

This was a very complicated problem prior to fielding a fourth line battery in March 1993. Previously, general support assets were provided by 20 Stinger teams assigned to Headquarters and Headquarters Battery (HHB) and augmented by task organizing teams away from the line brigades. This often created a situation of "robbing Peter to pay Paul." Furthermore, the command and control structure provided by a line battery commander, his lieutenants and support sections (motors, communications, etc.) proved to be a crucial missing link.

The fourth ADA firing battery (D Battery), with its additional combat power and organic command and control, provides



Lt. Gen. John E. Miller

Lt. Gen. John E. Miller, formerly Commanding General of the 101st Airborne Division (Air Assault), is now the Commander, Combined Arms Command and Fort Leavenworth, Kan. He received a B.S. from Southwest Missouri State University and an M.S. from Georgia State University. He is a graduate of the U.S. Army Command and General Staff College and the U.S. Army War College. He has served in a variety of command and staff positions, including Deputy Commandant, U.S. Army Command and General Staff College; Assistant Division Commander-Maneuver, 8th Infantry Division; Chief, Program Coordination Division, Office of the Deputy Chief of Staff for Research, Development and Acquisition, Washington, D.C.; and Assistant Deputy Chief of Staff for Combat Developments, U.S. Army Training and Doctrine Command, Fort Monroe, Va.

flexibility in overcoming this complicated problem. These air defense assets support a number of large, diverse, organizations unique to the air assault division.

- Aviation brigade. Nine battalions of combat aircraft. Includes heavy logistic support assets to establish multiple forward area rearming and refueling points.

- Division support command. Deploys substantial force packages to multiple logistic support areas throughout the battlefield. Organization must be tailored to aviation maintenance, fuel and ammunition requirements.

- Corps support group. Often more than 2,500 soldiers and 1,000 vehicles. Organization is extremely heavy with aviation support assets (i.e., fuel, armament, ammunition). Corps ADA assets do not support forward elements of this package.

Command and control, provided by the D Battery commander and his lieutenants, is a critical component of this package: effective planning, coordination and control of general support assets by face-to-face coordination between warfighters. The thought that this can be accomplished by the HHB commander and a very small S-3 organization is pure folly. This is especially true in light of the loss of liaison officers, high- to medium-altitude air defense control sections, and reduced HHB staffing in current and projected tables of organization and equipment (TOEs) and modified TOEs.

Procedural Airspace Control

A^2C^2 is particularly important in a division so reliant on aircraft. The nature of air assault operations, combined with our extensive aviation package and high priority for U.S. Air Force close air support, complicate this challenge. Appropriately, this subject provides one of the greatest areas of concern during the planning and execution of air assault operations, although the division G-3 ADA officer and his associated FAAD C^3I system will be an ever-present asset in managing this formidable task.

Previously, real-time radar observation was not a component of the division main or assault command post package. The advent of FAAD C^3I gives the G-3 air, and thereby the division commander, the capability to monitor aircraft and their compliance with A^2C^2 procedures. Transit routes, restricted airspace and corridors can be programmed along with maneuver graphics directly on the air picture presented by the airborne warning and control system aircraft. Additionally, air defense warnings and weapons control statuses are transmitted digitally across the SINCGARS data network. Clearly, this provides real-time procedural controls never before available to FAAD units.

The air assault division has been conceived and refined out of tough lessons learned in combat over the last 50 years. Its purpose, the true strength of the division, is to attack deep with a combined arms team. Any modern army can conduct such a mission once or more during a campaign. The 101st Airborne Division (Air Assault) can perform this feat every 24 hours.

The typical battle rhythm in the division allots 24 hours to each operation, with each brigade executing its missions 28 to 72 hours after the planning begins. This creates a complex cycle for the division, brigades and separate battalions rounding out the task forces. The result is a tough, hard-hitting, combat force threatening everything in a 300-mile (400-kilometer) radius.

With this lethality comes risk. The division's combat power paints a tremendous target on the battlefield. Threat forces being backed into an ugly corner will attempt to short circuit this tough organization. They will seek our most fragile moment and attempt to strike throughout the depth and breadth of our combat power, surely relying on operational air attacks and supporting rotary-wing attack forces.

The division cannot afford to rely on a reduced command and control structure and the hope of reinforcement from a higher headquarters. We have to take our air defense with us, under the belly of the warhorses of today's army. The organization of 2-44 ADA is a critical component of this combat-ready team.

Lt. Gen. John E. Miller contributed this article while assigned as commander of the 101st Airborne Division (Air Assault). **Maj. Jeffrey C. Horne** is the executive officer, 2nd Battalion, 44th Air Defense Artillery.

ADA DIGEST

INTERVIEWS

CSM JIMMIE BRADSHAW 32ND AADCOM

What changes in standing operating procedures have occurred because of the post-Cold War status of Germany and Europe? How does your present state of readiness compare with that of the past?

There have really been no changes to any standing operating procedures. One misconception in Germany is the belief that, since we no longer have the mission we once had, we're on a European vacation. It's still a lot of training, and we're still doing a lot. As far as policies, SOPs and procedures, everything is still the same as it was with very few changes.

We're no longer concerned about the USSR or Warsaw Pact rolling across the German border. Our new focus is on out-of-region conflicts, and this is a mission that we've already performed several times. We've deployed soldiers to Saudi and redeployed soldiers to Kuwait and Bahrain. The focus has changed. We're not sitting in the ready positions that we were before because the threat is not there, the threat is regional. Deploying out of the region to go to that conflict area is the focus that Europe and 32nd AADCOM have at this time.

Did you have to adjust your training to meet this new focus?

Somewhat. We needed soldiers who were better prepared and more knowledgeable about preparing equipment for airload, shipment by sea and quick response. Before, we sat 24 hours a day with equipment operating. We would deploy for short distances outside the gate, go out and set up, because that was the threat. Now the training we do focuses more on soldier readiness, family readiness, equipment readiness and preparing to move, upload, roll on to C-5s or ships and ship out.

Although now we have mostly short-notice deployments, our training continues and is still a priority. We have not de-emphasized training; in fact, we are conducting *more* training. We still conduct FTXs [field training exercises] to get the soldiers accustomed to operating in a field environment. We participated in Reforger '92 and '93. So even though we don't bring the number of soldiers over from CONUS to Germany that we once did, we still bring soldiers over in elements and we still participate.

With your focus on out-of-region deployments, which battery deploys if the need arises?

We have identified one battery as a quick-reaction battery, which is on short notification and can deploy anywhere, anytime. The quick-reaction mission rotates throughout 32nd AADCOM, so the battery to deploy will be the battery designated with that mission at that time.

We call on the quick-reaction battery for any type of mission. ⇨

In other words, whatever region they may be called upon to deploy to, that unit is there with all of its equipment — everything is there and ready. (We're only talking Patriot because Hawk is going away.) Regardless of where they may be called upon to go, whatever type of defense they are called upon to provide, they are well versed enough that they can do whatever is required of them.

Has 32nd AADCOM abandoned its contingency plan to evacuate dependents now that a Soviet blitzkrieg is no longer a threat?

Before, in Germany, American families prepared to get out of Germany before the enemy came rolling in. Today, although our emphasis is on preparing soldiers for deployment elsewhere, we still continue the NEO [noncombatant evacuation order] process. We must be prepared or have a contingency plan to evacuate families. NEO is still a part of what we do.

What are your views on the future of 32nd AADCOM and its soldiers?

First of all, I cannot foresee the future of 32d AADCOM. That's way above my pay grade. Instead of speculating on the future of 32nd AADCOM, our soldiers (as they have been) continue to train hard and prepare for anything. They are combat ready, they can go anywhere anytime they're called upon, and they can perform the mission no matter what the size of 32nd AADCOM. The Army is downsizing and so are we. But as long as we have soldiers, they will be capable of deploying anywhere, doing anything they are called upon to do, and they'll do it very well.

What effects of the drawdown have you witnessed?

I've been in Germany since 1988, before the Wall came down in 1989, and since 1989 I've seen many soldiers leave, and, naturally, during 1991 many of our soldiers deployed to Saudi Arabia, Kuwait and Iraq. Some came straight back to the states because of the drawdown. We had two corps, V and VII Corps, but VII Corps is now gone, redeployed. Some kasernes have closed. Units have shifted and realigned. Some soldiers with families now live in bedroom communities — the only thing there is housing. No tactical units are there as a result of the drawdown. But the leadership is still working, still moving units, still getting to the end state. Once those figures are known, then they will align everything in Germany and Europe to accommodate the size of the remaining force. So have I seen effects of the drawdown? Yes. I would not be honest if I said everyone is happy and there have been absolutely no problems, but there have been fewer problems than a lot of people anticipated, largely because the senior leadership made a conscious decision to take care of the families and the soldiers.

Obviously the loss of these soldiers and families has caused a change in economy. What have you heard?

As far as the economy, nothing. But there have always been those in Europe that wanted American forces to stay, and they still do; there are those in Germany and Europe that have wanted American forces to leave, and they still do. The thing I've seen is that, now that some of our forces are leaving, even some of the people who wanted us out are now saying it was a good idea to have us there. Whether that's a result of economics I don't know. Whether they still feel a need for our military presence, I don't know. We're pulling out, and they're as uncertain as we are about what will remain in Europe.

I assume the long waiting lists have subsided. Can people on orders for Europe anticipate shorter waiting times?

It's getting much better. Some areas still have waiting lists for government quarters; others have quarters waiting to be taken. It depends on the area. Still, it's much better than it was, and the waiting period is shorter, but it would be untrue if I said there is absolutely no waiting, and you move right into housing.

What is life like for ADA soldiers in post-Cold War Germany?

Our soldiers are in good shape as far as housing and availability of housing. One thing I would like to mention is the USAREUR [U.S. Army Europe] single-soldier initiative [quality of life]. This is a program General [Crosbie] Saint started about two-and-a-half years ago, and General [David] Maddox [present USAREUR commander) has continued to emphasize. In the past, single soldiers living in the barracks enjoyed virtually no freedom. They could only have a six pack of beer. NCOs went in at five in the morning and got them up. They stood for inspections, shoes lined up, lockers open. General Saint said "No more. We will treat single soldiers the same way we treat married soldiers." Single soldiers now make Army bunks with any type of civilian spread they want. They decorate the rooms any way they want, as long as it's in good taste. NCOs no longer go in and wake soldiers up. They are treated as adults — expected to get up, buy an alarm clock and get themselves to work on time. We wouldn't go to a married soldier's quarters and tell him to get up, so we no longer do this to the single soldiers.

There are no restrictions on alcohol, there are no overnight 

policies (you can have guests of the opposite sex), and they no longer have to leave the door ajar. It's worked very well. I've seen the single soldiers mature. The single soldier initiative has not affected soldier readiness; it has increased soldier morale.

When did the surprise hit you that this program has worked as well as it has?

I guess probably about a year ago. We've had some growing pains, and it's been an education process for both the soldiers and the leadership. Educating the soldiers just coming into Europe is a continuing process. A soldier who has had rigid discipline in the barracks, who has had people going through the barracks making sure that everything is dress-right-dress, if you're not careful, some of them will try to take advantage of you. You have to explain that they have to ensure they maintain the standards, that the responsibility now lies on their shoulders. We have single soldier task force meetings that establish barracks managers and floor managers. It's worked extremely well.

How do NCOs feel about their future in the Army and Air Defense Artillery?

Apprehensive, but it varies. Some NCOs feel very confident about the future, others are very uncomfortable. Not about their future in the AADCOM or in Germany, but in the Army. Others feel very positive. They know that, regardless of the size of the force, they are competitive and have a future in the Army.

Which soldiers feel most confident about their future?

I don't think it's based on the amount of time or number of years a soldier has in. It has to do with the soldier's performance and past performance. I would say the soldiers with a solid past performance and record are most comfortable about the future. Some, for whatever reason, who haven't done as well on their past performance as they should have or could have, feel a little apprehensive.

Is this a correct assumption on their part? Do you believe the Army will manage to keep its quality soldiers as it is striving to do?

I have no doubt that the Army will continue to maintain a quality force. I would be wrong if I said that during the drawdown we're keeping only the best. I contend that a lot of our great soldiers have left the Army, though we still have some great ones in. These soldiers were very successful and had a great future. Some of them felt that, with the drawdown, they could make it either in the military or as a civilian. They saw an opportunity with the incentives and took advantage of it. So if I were to say that all the substandard soldiers who felt they could not make it in the military left, and only the best remained, that would not be a true statement. We've lost some very good soldiers, and we've maintained some very good soldiers. I think we need to be very careful how we say this. If the Army says we're keeping only the best, a civilian firm or someone who doesn't know the military may assume only substandard soldiers are leaving. This is not the case. We've lost some quality soldiers.

Industry and the private sector have benefited from our drawdown?

Absolutely. Some very mature, capable, dedicated soldiers who left the Army will make some employer very happy.

If most of our experienced soldiers have left due to retirements or incentives, does the Army have experienced leaders for the future?

We have lost some, but we can't afford a stagnant Army. If we old guys sit here holding the spots, a young soldier can't move up. We must give these soldiers the opportunity to advance. Yes, we've lost some great senior leaders, but we've maintained a lot of senior leaders. We've had about a 25 percent reduction, but naturally that 25 percent is across the spectrum. Our advantage is that more of the young sergeants and staff sergeants are veterans now. We've lost some Vietnam-era combat experience, but Desert Shield and Desert Storm gave us more combat veterans in those grades, and that's where experience is important. That's where its critical. Senior leadership will overwatch and direct the things taking place. But that young, middle-grade NCO has to have the experience to properly train young soldiers.

Are you one of the old guys? Do you plan on retiring soon?

I have 27 and a half years in, and if I had 30 years today, I would be a very sad soldier to leave. I love the military. The thing that keeps me going is when I see the young soldiers and NCOs training, the hard work and effort they put into it. They're absolutely great. I know I have to move on to make room for some young first sergeant out there who's doing a great job, and when I move on someone else will move up — all the way down to private, someone's going to get the opportunity to advance. I know the time will come to turn the reins over to someone else. That's why it's so important that we properly train our subordinates, so when we leave, we will still have a trained and ready Army.

Are you satisfied that making a career in ADA was a correct decision?

I chose air defense specifically 27 and a half years ago, and I've never been sorry. I've seen a lot of weapon systems come and go, and we've always had great soldiers, but I think the caliber of our soldiers today is the best I've ever seen. The soldier of today is *so* responsive. They take initiative, they have a desire to do well, they take a lot of personal pride in themselves, and they do a tremendous job. No matter what type of weapon system we had, whether it was Herc, Nike, Chaparral, Vulcan, Redeye, Hawk, or any system that is now gone, the thing that's always made us great is not those weapon systems but the soldiers behind them. And we still have those soldiers.

Tell our readers what you feel is the best assignment.

Upon reflection, there are two positions I value and treasure more than any others I've held. One is squad leader. That is a position where you have more of a direct effect on soldiers' lives than any other. You are their trainer, you know their problems, you know their families, you become very close. You're the one who trains those soldiers, and you're the one who can mean the difference between their life or death.

The other is first sergeant. As a first sergeant you have a lot of very direct influence over soldiers. At the same time, you mustn't forget that you can't play squad leader anymore. You have to mentor the platoon sergeants and squad leaders so they can take care of and look out for their soldiers.

PERSONNEL

PREP SCHOOL OFFERS "COMPETITIVE EDGE"

Cut, cut, cut. That's all we seem to hear lately. As government, business and the military streamline and reorganize to meet the challenges of a rapidly changing world situation, future leaders must be more innovative and more flexible than ever before. In short, they need a "competitive edge."

With the current economic situation calling for deeper and deeper cuts, where will the opportunities lie for the military training and education necessary to meet the demands of a new strategy that now envisions the United States dealing with multiple regional threats?

Whether you are a company commander, platoon sergeant or squad leader, training the troops and providing opportunities for the quality soldier are leadership challenges that will become even more critical as budget belts tighten. But a smaller force isn't all bad. Today's troop leaders still have a direct influence over the Army's future leaders.

Soldiers chosen to attend the U.S. Military Academy Preparatory School (USMAPS) at Fort Monmouth, N.J., come from all over the world, from different backgrounds, from difference experiences, from units just like yours.

To be eligible for USMAPS, a soldier must be a U.S. citizen or able to become one prior to entering the Military Academy, single with no legal obligation to support a child or children, a high school graduate or GED equivalent, medically qualified for admission to the Military Academy, and of high moral character, with no military or felony conviction or history of drug or alcohol abuse.

After 10 months of rigorous academic, military and athletic training, about half of those soldiers earn appointments to the Military Academy at West Point, N.Y. Undoubtedly, all carry a deep appreciation for those leaders who laid the foundation for the Prep School opportunity.

Of the 300 students who began the USMAPS Class of 1994 in July, 160 were Regular Army soldiers. The Prep School curriculum is designed to prepare them for appointments to and success at the Military Academy.

Primary emphasis is on academics (English and mathematics), mixed with military training, physical conditioning and the development of leadership traits and ethics. While the main focus is on preparation for passing the entrance exams for West Point, the course is also designed to prepare students to meet the rigors of cadet life. Students gain valuable leadership experience serving in the student chain of command, participating in one of 16 varsity sports or intramurals, conducting peer evaluations, training in military drill, and a variety of other experiences ⇨

that follow the model that cadets undergo at West Point.

The Prep School is not just some abstract concept. Since 1916, USMAPS has provided a stepping stone to West Point for thousands of enlisted men and women. Its distinguished lineage of graduates includes 64 general officers, Rhodes scholars and decorated veterans of four wars.

In terms of education, it is a "chance of a lifetime," comparable to Officer Candidate School, Warrant Officer Candidate School and the Green-to-Gold program, but without any previous college work requirements.

Training the Army's enlisted people to become West Point cadets and future officers, the Prep School route provides the Army with a pool of experienced soldiers as leaders. The only way by which many of the enlisted soldiers can survive at West Point is if they have the one extra year of preparation at USMAPS. And the only way for a majority of soldiers to know about the program is through their troop level leaders.

If you know of a quality young soldier, make him or her aware of this opportunity. A troop leader who recognizes special traits in a soldier and then acts to assure that the soldier competes for admission to USMAPS leaves a very valuable legacy — one that benefits both the soldier and the nation's future force structure.

For more information, write the Commandant, USMAPS, Fort Monmouth, N.J. 07703, or call 908-532-1807 (DSN 992).

SSGT. JIM BLAZEVIC

DRAWDOWN TWO-YEAR OUTLOOK

Army personnel officials at the Pentagon have recently expressed concern that well publicized media accounts of military downsizing may lead many soldiers to question the viability of an Army career. Despite being caught up in the steepest drawdown since the end of the Vietnam War, the Army's top personnel official predicts that promotion and schooling opportunities will be comparable to those of the past — "or in some cases, even better."

The ranking manager of Army force levels, Lt. Gen. Thomas P. Carney, seeks to eliminate soldiers' anxiety by keeping them tuned to "fast, factual, focused" information.

Carney acknowledges that "we're going through a period of turbulence that causes some uncertainty among our soldiers" but adds that "the major reductions appear to be behind us."

Voluntary separation incentives and offers of early retirement will continue, probably through FY96, to be the primary means by which the Army will achieve its end-strength goals. Personnel officials offer the following by-rank look-ahead into the next two years based on the most current information, with some speculation regarding force structure and budget reductions.

Sergeants Major

No Selective Early Retirement Boards or Senior Enlisted Release Boards will be held if voluntary retirements remain at projected rates. The 30-year retention control point will not change, and retention beyond 30 years' service will continue for nominative positions.

Master Sergeants

Promotions to sergeant major will be sustained at a rate of 300 to 400 yearly. The "pin-on" point average for promotion to sergeant major will hold steady at 20.9 years.

Master sergeants will be considered for promotion about six times during their careers. Nearly one of every three will be promoted. However, if a master sergeant has not been selected during the first four selection boards for which eligible, the likelihood for promotion will decrease to less than one in 25.

Sergeants Major Course attendance will continue at about 700 resident and 300 non-resident seats in 1994. When the course converts to nine months in length, attendance will be about 600 residents and 25 non-residents yearly.

The NCO Education System linkage to promotion will be complete by Oct. 1, when all promotable master sergeants must complete the Sergeants Major Course prior to promotion. NCOs selected for promotion who have not yet attended the Sergeants Major Course will receive first priority for attendance.

Master sergeants will not be considered for early retirement, nor will there be any change to the retention control point of 24 years.

A longevity pay increase has been added for 24 years of service, and is received for retirement purposes by the master sergeants and promotable sergeants first class who reach their retention control points.

(continued on page 35)

STRATEGIC ROTATION

by Lt. Col. David E. Neely and Maj. Marc J. Romanych

The Gulf War was a limited objective war. If it had not been, we would be ruling Baghdad today — at unpardonable expense in terms of money, lives lost and ruined regional relationships. The Gulf War was also a limited means war — we did not use every means at our disposal to eject the Iraqi Army from Kuwait. But we did use overwhelming force quickly and decisively. This, I believe, is why some have characterized that war as an "all-out" war. It was strictly speaking no such thing.
— Gen. Colin Powell, former Chairman, U.S. Joint Chiefs of Staff

One would have to have had his head buried in the sand not to be aware of Patriot's strategic and tactical roles in the Persian Gulf War. The saga of the accelerated production and rushed deployment of PAC II missiles, Task Force 8-43's left hook with VII Corps and the Scud launches into Israel and Saudi Arabia are well chronicled.

Almost forgotten in this high drama, however, is that less than three years ago, the men and women who manned Air Defense Artillery's high- to medium-altitude air defense (HIMAD) systems were patronizingly referred to as "concrete soldiers." This dubious title was, of course, bestowed upon them by their divisional combat arms counterparts who felt obligated to constantly remind them of the dirty nature of real soldiering.

Granted, both Hawk and Patriot were designed to be mobile, and HIMAD units were occasionally evaluated on their ability to shoot, move and communicate. For the most part, however, the daily maintenance and training routines were conducted on fixed concrete sites. If the Gulf War itself didn't change this stereotype forever, then perhaps the little-publicized Patriot deployments since the war will.

Beginning in September 1991, after the majority of U.S. ground forces had been withdrawn from the Southwest Asian theater, Patriot units began a series of no-notice deployments and strategic rotations that could last well through 1996. At least three times, Patriot fire units and controlling headquarters from U.S. Army-Europe have literally deployed on a moment's notice while both Forces Command and U.S. Army-Europe units have been involved in continuous strategic rotations or reliefs-in-place. These deployments have completely shattered the norms of yesteryear regarding HIMAD fixed-site operations.

From Jan. 19 through Feb. 5, 1992, the 10th ADA Brigade successfully deployed two battalions and a brigade headquarters from Germany to Saudi Arabia and conducted a predominantly personnel-only relief-in-place of the 94th ADA Brigade which had, without advance notice, deployed both personnel and equipment in September 1991. For the next five months, 2-43 ADA, 10th ADA Brigade, provided tactical ballistic missile coverage for the Dhahran area while 4-43 ADA, 10th ADA Brigade, provided coverage around the capital city of Riyadh. The brigade's successful deployment and mission assumption were possible mostly because of thorough predeployment planning. This article details

how 4-43 ADA planned for this strategic rotation with a view toward providing a general construct for the way other units might deal with similar mission requirements.

4-43 ADA received notification of deployment in early October 1991, with mission assumption scheduled for early February 1992. With approximately 120 days to plan, prepare and execute the deployment, the battalion had sufficient time to develop and execute a detailed deployment plan. The planning process used to prepare for the mission was simple and followed established doctrine. With one notable exception, to be discussed shortly, the deployment was to the strategic level of war what a deliberate attack is to the tactical level of war.

Initially, the battalion continued to operate and train according to its approved quarterly training plan while the staff began its analysis of the new mission. Realizing that the 94th ADA Brigade had already developed the tactical plan and support base to a reasonably mature level, the 10th ADA Brigade was free to concentrate its efforts on the administrative and logistical aspects of deployment, soldier and crew training, and perhaps most importantly, planning and building a rear detachment that could sustain itself and support the deployed battalion. Unlike no-notice deployments where much of the mission analysis must be devoted to the future area of operations, a planned strategic rotation allows a more balanced focus on the administrative, logistical and operational requirements of the unit's forward deployed and rear garrison elements.

While the battalion executive officer developed the battalion deployment plan and designed the rear detachment, the battalion operations officer (S-3) concentrated his efforts on the new area of operations and the selection of the advance party. As the battalion staff began to collectively refine mission requirements, future training plans (i.e., for the next training quarter) were modified to focus on those tasks that supported preparing the battalion for the new theater of operations and executing the deployment. As always, even though the mission was well understood, the staff had to plan with imperfect and incomplete information and, therefore, modify its estimate of the situation as changes occurred.

By early December 1991, approximately 60 days after notification and 60 days before mission assumption, the staff finalized the battalion deployment plan. Then a small quartering party, under the leadership of the S-3, made a site visit to the 94th ADA Brigade's area of operation to conduct a terrain walk, finalize the rotation timeline and coordinate the mechanics of the battle handover. During the 30 days prior to deployment, the battalion concentrated on preparing soldiers for the rotation (personal readiness; weapons qualification; nuclear, biological and chemical proficiency), finalizing the composition of the rear detachment, structuring family support groups and inventorying and transferring modified table of organization and equipment (MTOE) and installation property to rear detachment representatives for administrative storage.

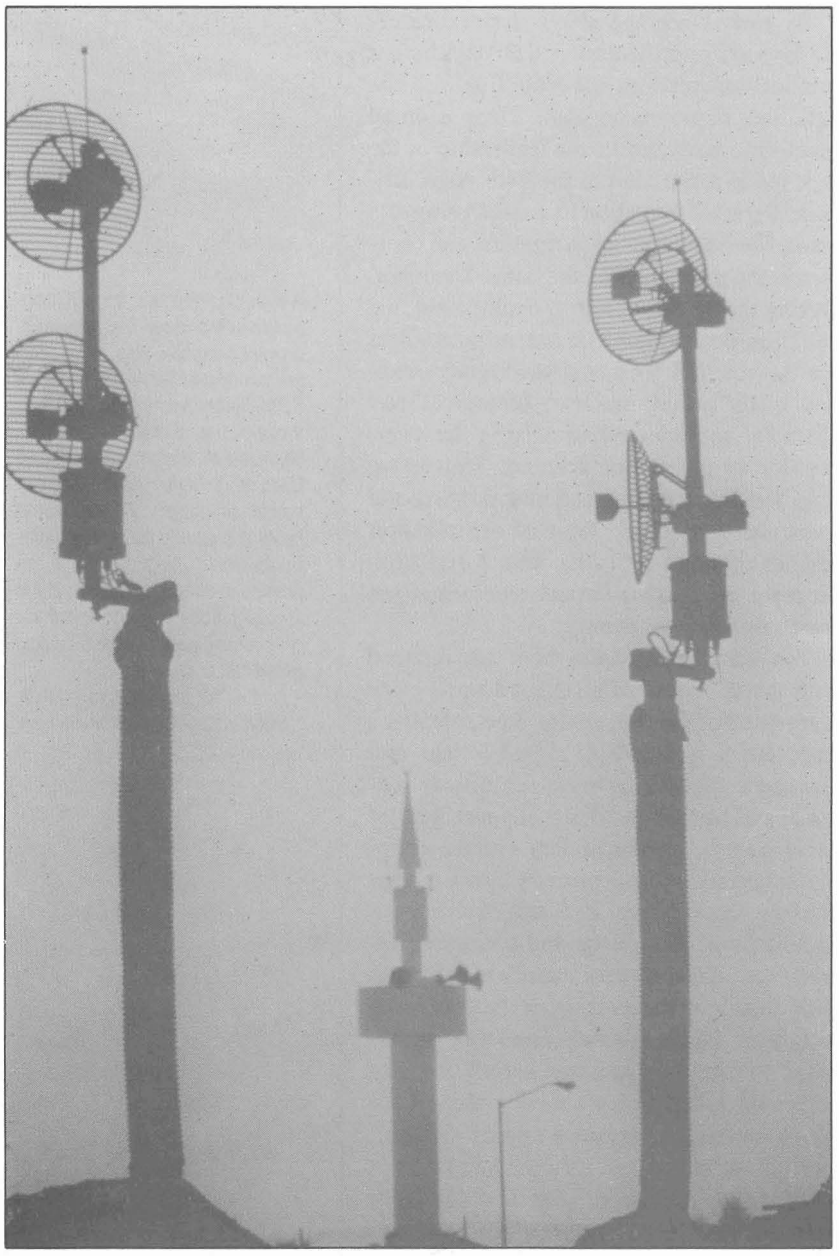
The battalion's deployment commenced with the departure of a large advance party comprised of the S-3; senior representatives from the S-1, S-2, S-4, signal officer and electronic missile maintenance officer sections; and battery and direct support maintenance company commanders with their supply sergeants and all primary hand receipt holders. Upon arrival in Saudi Arabia via a combination of military and chartered aircraft, the advance party members paired up with their counterparts from the outgoing battalions. Approximately one week was allotted to inventory and transfer all property before the battalion's main body arrived. To speed the equipment transfer process, inventorying was conducted between hand receipt holders and supervised by battery and company commanders who only inventoried major equipment end items. Component inventories were conducted by the primary hand receipt holders.

The battalion main body maintained battery and company integrity as it departed Germany over approximately eight days. As 4-43 ADA's main body arrived in Saudi Arabia over the next three days, advance party representatives processed soldiers in and oriented them on equipment and battle positions.

The incoming and outgoing batteries conducted a battle handover on the fourth day the battalion main body was in country. The handover was complete once a manning

Although Western export controls have slowed the spread of crucial technologies, a second generation of far more capable TBMs is on the verge of deployment in over a dozen countries. Situated in the volatile Middle East and North Africa region, some of these TBMs would have the ability to reach major European cities. . . . This increase in offensive capability is in turn placing heavy demands on current and next generation air defense systems.

— Clifford Beal, International Defense Review



Patriot communications antennas flank a minaret in Southwest Asia.

crew from each firing battery and the fire distribution section passed a system validation on their site's equipment, and 4-43 ADA became responsible for the air defense mission on the applicable site.

Although many of the planning considerations for 4-43 ADA's strategic rotation were the same as those for a no-notice deployment, the planned rotation had certain differences that warrant further explanation.

Tactical Versus Administrative/ Logistics Planning

Because the mission and its execution parameters were already well defined by the 94th ADA Brigade, tactical planning was narrowed to training the battalion for the new mission and executing the air movement from Germany to Saudi Arabia. Thus, the battalion staff concentrated primarily on administrative and logistics matters.

Identifying and preparing equipment for deployment. Although the brigade was directed to leave most of its MTOE property in theater, some Patriot end items and ancillary equipment accompanied 4-43 ADA soldiers on the rotation. Most noteworthy were weapons (individual and crew served), NBC equipment, office computers, facsimile machines, secure telephones, photocopiers and communications security equipment, Patriot and doctrinal publications.

Personnel replacement system. During the battalion's rotation, new soldiers continued to arrive at the rear detachment in Germany. A system had to be developed to receive, prepare and forward soldiers to the battalion in Saudi Arabia. Newly assigned soldiers were in-processed by the rear detachment and community, telephonically slotted by the forward deployed command sergeant major and S-1 and, if necessary, allotted time to settle their families. The soldiers were then formed into small groups under the charge of a deploying NCO. They were then systematically issued all Southwest Asia-peculiar clothing (desert camouflage) and equipment, certified on weapons and NBC qualifications, and finally deployed on either dedicated flights or routine "channel flights."

Property accountability, storage and security. Most of the battalion's MTOE property did not deploy. Property transfer from the deploying battery commanders to rear detachment hand receipt holders was conducted before the deployment. These inventories were essentially treated as change of command inventories. All property belonging to a given battery or company was hand receipted to one senior NCO who would remain until the unit returned. There were no sub-hand receipt holders because most of the rear detachments consisted of transient personnel (soldiers who were chang-

ing station, leaving the service or undergoing chapter eliminations and arrivals ultimately programmed for rotation to Southwest Asia). After all the Patriot and most conventional equipment was inventoried, it was winterized and placed in administrative storage. Unit areas and facilities not used by the rear detachment were secured.

Class IX repair parts flow. The rear detachment had to continue the pickup of Class IX parts and other supplies that had been ordered prior to the battalion's departure. This meant leaving behind knowledgeable maintenance and supply personnel who could have been of great value to the main body in Southwest Asia. A storage area was designated where parts could be segregated and stored until after the rotation.

Advance Party Composition

Unlike the advance party for a no-notice deployment, which is frequently oriented toward battalion-level operations and staff coordination, the advance party for a strategic rotation is weighted toward unit-level logistics and property accountability. Each battalion staff section sent representatives to work and coordinate with the outgoing battalion staff; however, most of the personnel assigned to the advance party were unit supply sergeants and NCOs designated to become hand receipt holders.

Rear Detachment Mission and Composition

The rear detachment was to maintain and secure the battalion's property and facilities, conduct replacement operations and support the battalion during its deployment. To accomplish this, the rear detachment had to be carefully manned with a few quality officers, NCOs and soldiers with the needed skills and retainability to execute the mission. This was a tough decision because the caliber of the required personnel was such that, under battle-ready circumstances, they would have been essential to the deploying battalion. Only the battalion rear detachment commander, a major, was provided from outside the battalion to provide some horsepower and a field grade Uniform Code of Military Justice authority for rear detachment personnel. All other rear detachment soldiers came from the deploying batteries and were consolidated under one rear detachment battery commander, a captain.

Unit DODAACs

As stated earlier, although the battalion's soldiers deployed, the majority of its equipment was left at the home station with open requisitions for repair parts. To maintain the equipment's readiness, the pre-deployment DoD activity address codes (DODAACs) had to remain active with the rear detachment. Likewise, the DODAACs supporting the outgoing units in the new theater remained active in the theater and were carried over to the relieving battalion. This means that DODAACs should remain with equipment sets, not with units during relief-in-place operations.

Personnel Actions

Needless to say, the deployment did not put personnel actions on hold. Soldiers continued to be promoted, personnel actions were still submitted for consideration, Uniform Code of Military Justice authority was still administered in the theater of deployment and awards continued to be recommended and presented. Accordingly, we had to leave one or two strong personnel clerks with the rear detachment. Furthermore, the supporting personnel services company had to be fully apprised of the battalion's situation prior to the deployment and their active assistance in processing transactions was absolutely essential to the battalion's success. Mail delivery and handling procedures, along with finance support in both the rear detachment and the theater of deployment, also had to be coordinated. An especially critical and volatile personnel issue was an unequivocal statement of emergency leave policy. The policy had to be understood by every soldier and family member prior to deployment and the chain of command had to repeatedly advertise that it would not consider exceptions that would open a Pandora's box of raw emotions. This seemingly harsh and impersonal policy was absolutely key to strength preservation during the deployment. Personnel management is an extremely tough area to make sacrifices in when it comes to leaving quality personnel behind, but not doing so would mean months of playing catchup when we returned.

I am also proposing as well new steps to thwart the proliferation of ballistic missiles. Recently, working with Russia, Argentina, Hungary and South Africa, we have made significant progress toward that goal. Now we will seek to strengthen the principles of the Missile Technology Control Regime by transforming it from an agreement on technology transfer among just 23 nations to a set of rules that can command universal adherence.

We will also reform our own system of export controls in the United States to reflect the realities of the post-Cold War world. While we seek to enlist the support of our former adversaries in the battle against proliferation at the same time that we stop deadly technologies from falling into the wrong hands, we will work with our partners to remove outdated controls that unfairly burden legitimate commerce and unduly restrain growth and opportunity all over the world.

As we work to keep the world's most destructive weapons out of conflicts, we must also strengthen the international community's ability to address those conflicts themselves. For as we all now know so painfully, the end of the Cold War did not bring us to the millennium of peace. Indeed, it simply removed the lid from many cauldrons of ethnic, religious and territorial animosity.

— U.S. President Bill Clinton, United Nations, September 1993

There is an artificial quality to the new report [the Clinton administration's study of defense needs]. The dangers to national security that it describes, and on which it is based, are necessarily more felt than sighted. Most people understand that it's a dangerous world, and that it would be wrong to disarm to the incautious extent the country did between World War I and World War II. But right now the threat has to be to some extent envisioned and projected. The report, with its talk of having to fight two possible "major regional conflicts" more or less at once — the scenario is that one breaks out on the Korean Peninsula just as another is breaking out in the Mideast — does this. Critics will pick at it and possibly even mock it, but now they won't be able to say just that the budget is bloated. They will have to say, this is the danger we are dismissing in the nation's name, this is the capability we propose to forego — and sign their names. That's a harder step.

—Washington Post, Sept. 3, 1993

Obviously, the aforementioned considerations are neither all-inclusive nor exhaustive. For example, personnel readiness processing alone encompassed such matters as privately owned vehicle storage and personal property inventories and storage, not to mention the myriad other actions normally encountered in predeployment processing. However, major areas addressed in this article highlight where detailed planning is needed to preclude disaster. 4-43 ADA's detailed plans for all of these areas easily consumed 200 to 250 pages, much of which may or may not be applicable to units that may engage in the same type of deployment in the future. As stated earlier, these areas are offered only as a construct for the development of detailed and tailored deployment checklists.

Perhaps the most significant challenge we are collectively confronted with is that institutionalization of these planning considerations will surely become an absolute requirement for all of us in the future, especially as our national military strategy evolves to one of predominantly force projection. Let there be no doubt that contingency planning is the wave of the future!

***Lt. Col. David E. Neely** is the battalion commander, 4-43 ADA. **Maj. Marc J. Romanych** was the battalion S-3 until April 1993.*

(continued from page 29)

Sergeants First Class

Promotions to master sergeant will average between 1,500 and 2,100 per year (compared to 2,333 in FY92). The "pin-on" point average for promotion to master sergeant will hold at 17.9 years.

Sergeants first class may be considered for promotion an average of eight times during their career. Nearly one in four will be promoted. However, if a sergeant first class has not been selected during the first four selection boards for which eligible, the likelihood for promotion drops to less than one in 30.

Early retirement may be offered in select overage specialties. There will be no change to the 22-year retention control point.

Staff Sergeants

Promotions to sergeant first class should average between 5,600 and 7,000 per year (compared to 5,473 in FY92). The "pin-on" point average for promotion will hold at 13.7 years.

Staff sergeants may be considered for promotion more than ten times during their career. Nearly two out of three staff sergeants will be promoted to sergeant first class. However, if a staff sergeant has not been selected during the first four boards for which eligible, the likelihood of promotion decreases to less than one in 15.

Beginning Oct. 1, promotable staff sergeants must complete the Advanced NCO Course before the promotion can take effect. Promotion selectees who haven't completed the Advanced NCO Course will receive priority placement.

Advanced NCO Course attendance projections (sustained in proportion to authorizations by specialty) are about 7,000 seats in FY94, and about 6,300 seats in FY95 and FY96.

Early retirement will be offered in select overage specialties as published by the U.S. Army Personnel Command. Voluntary separation incentives and separation benefits will continue to be offered in select specialties for FY94. No change will occur in the retention control point of 20 years.

Sergeants

Promotions to staff sergeant should average between 10,000 and 12,000 per year (compared to about 10,000 in FY92). The "pin-on" point average for promotion to staff sergeant will hold at 7.6 years.

The Basic NCO Course will drop proportionately to the drop in authorizations by specialty to about 18,000 seats in FY95 and FY96.

NCO Education System linkage to promotion was complete Oct. 1, 1992. All sergeants selected for promotion are required to complete the Basic NCO Course prior to promotion.

Beginning Oct. 1, the retention control point for promotable sergeants will be 15 years' service. Early retirement will be offered to this group of soldiers in FY94 at 15 years', 29 days' service.

Corporals and Specialists

Expect between 23,000 and 25,000 promotions per year to sergeant (compared to 26,700 in FY92), with slightly lower time-in-service average upon promotion. The "pin-on" point average for promotion to sergeants will hold steady at 3.9 years.

Promotable corporals and specialists must complete the Primary Leadership Development Course prior to promotion.

The retention control point will remain at eight years' service.

Privates First Class

Promotions to specialist should not change. The "pin-on" point average for promotion to specialist will hold steady at less than two years. Soldiers not promoted to specialist by the end of their first term of enlistment must separate from service.

ARMY NEWS SERVICE

COMBAT TRAINING CENTERS

JRTC TRENDS

The ADA branch continues to transition to the future by continuing to produce a force that can rapidly deploy, fight and defeat a wide range of new air threats anywhere in the world. ADA observer/controllers at the Joint Readiness Training Center are responsible for capturing trends associated with a rotational unit's training at the JRTC. This article highlights trends frequently observed in light ADA units starting with FY93 to date.

ADA trends will focus in the areas of early warning, command and control, Class V resupply of ADA munitions, fratricide, combined arms for air defense and passive air defense measures.

Early Warning

Timely air defense warnings and weapons control status changes frequently do not reach all ADA fire units. Directed early warning information which is trans- ⇨

mitted over command nets provides instantaneous early warning to the task force and offers another means for supported ADA fire units to receive critical early warning information. Directed early warning procedures are rarely accomplished by ADA officers (ADOs) and, when attempted, usually do not provide timely information (friendly/unknown aircraft, a cardinal direction and, if known, the most likely affected assets) necessary to counter the threat. Units do not deploy their modified table of organization and equipment (MTOE) ADA scouts and must rely solely upon the division early warning net. Units routinely do not deploy with the necessary MTOE communications equipment needed to monitor the division early warning net.

ADA early warning scouts are authorized for all active Army divisional forward area air defense (FAAD) battalions. Scout teams provide a redundant early warning source and must be equipped, trained and used until the light and special division interim sensor and ground-based sensor are fielded. Units must ensure all communications equipment is deployed and functional. Units must conduct communications exercises as a pre-combat inspection down to the Vulcan squad/Stinger team levels. The exercise's effectiveness will be enhanced by the user conducting a distant station check. Leaders can conduct command post exercises and practice passing directed early warning tracks over command nets to enhance timeliness and familiarity.

Command and Control

The ability to exercise reliable command and control within air defense is tied to the ability to communicate. Failure to deploy all authorized communications equipment, communications equipment failures, equipment misuse and a lack of operator knowledge on assigned equipment have all degraded the ADOs' ability to command and control the ADA battery. ADOs are routinely unfamiliar with Army airspace command and control measures, air tasking orders and airspace control orders, which results in critical airspace control measures not being transmitted to the fire unit and creates potential fratricide situations.

Units must deploy all authorized MTOE communications equipment (FM/AM radios, antennas, remotes, etc.) and ensure that the equipment is complete with all accessories. Communications exercises need to be conducted as a pre-combat inspection at all levels of command. Key leaders should conduct training on Army airspace command and control measures to include establishing procedures for tracking air tasking orders and airspace control orders.

Class V Resupply of Air Defense Munitions

The brigade task force and battalion S-4 personnel are unfamiliar with the high expenditure rates of Vulcan 20mm and Stinger ammunition and do not grasp the extreme criticality of ensuring ADA munitions are pushed forward to the ADA units. ADOs and senior NCOs are unfamiliar with the ADA required supply rate (RSR)/ controlled supply rate (CSR) and frequently fail to establish an RSR for an operation. Logisticians routinely do not address the CSR/RSR for ADA munitions in the logistics annex to the brigade operations order.

Failure to establish an RSR results in the unit operating off its basic load and either going zero balance or initiating an emergency resupply action to maintain combat effectiveness.

ADOs and senior ADA NCOs must become familiar with RSR/CSR procedures and understand the criticality of establishing an RSR. ADA battery executive officers must work closely with the brigade S-4 to ensure the RSR/CSR is in fact being met. ADOs must train the task force logisticians on the criticality of publishing and adhering to an established RSR/CSR.

Fratricide

Fratricide continues to be a concern. Failure to receive timely air defense warnings and weapons control status changes, combined with a failure to follow established procedural hostile criteria, have played a major role in every fratricide. Squad leaders or team chiefs must positively identify hostile aircraft. If their visual aircraft recognition skills are not to the expected standard, the result can be fratricide. Rules of engagement criteria that would further assist the squad leader or team chief are rarely addressed.

Fratricide from BLUEFOR Stinger teams has occurred in every unit that has rotated through JRTC. Aircraft recognition is a major training shortfall, and often includes a complete misunderstanding of hostile criteria. Units must stress aircraft recognition and train to standard according to FM 44-30, *Visual Aircraft Recognition*. Home station training should emphasize weapon control status definitions throughout all levels of command. Units need to conduct early warning exercises using authorized MTOE communications equipment, focusing on passing, plotting and updating aircraft tracks.

Combined Arms for Air Defense

Combined arms for air defense is a significant battlefield combat multiplier. Non-ADA units are unaware and untrained on the proper methods for engaging hostile aircraft, thus they perform poorly when defending themselves from enemy air attack.

Personnel and units should train to the standard in FM 44-8. The organic divisional ADA battalion, the proponent for this training shortfall, has organic radio-controlled miniature aerial targets and operators and must assist non-ADA units with training. Units must develop battle drills, conduct training and rehearse battle drills. During the rotation, ADA leaders must continually emphasize this key combat multiplier.

Passive Air Defense

Passive air defense measures are frequently ignored. Units usually camouflage equipment with nets, but fail to cover vehicle mirrors, windshields and headlamps. Position improvements routinely do not include obscuring vehicle tracks, adjusting nets and camouflaging bermed soil. During convoy movements air guards are not employed and vehicles bunch up and fail to herringbone during stops. Poor convoy discipline provides a lucrative air target.

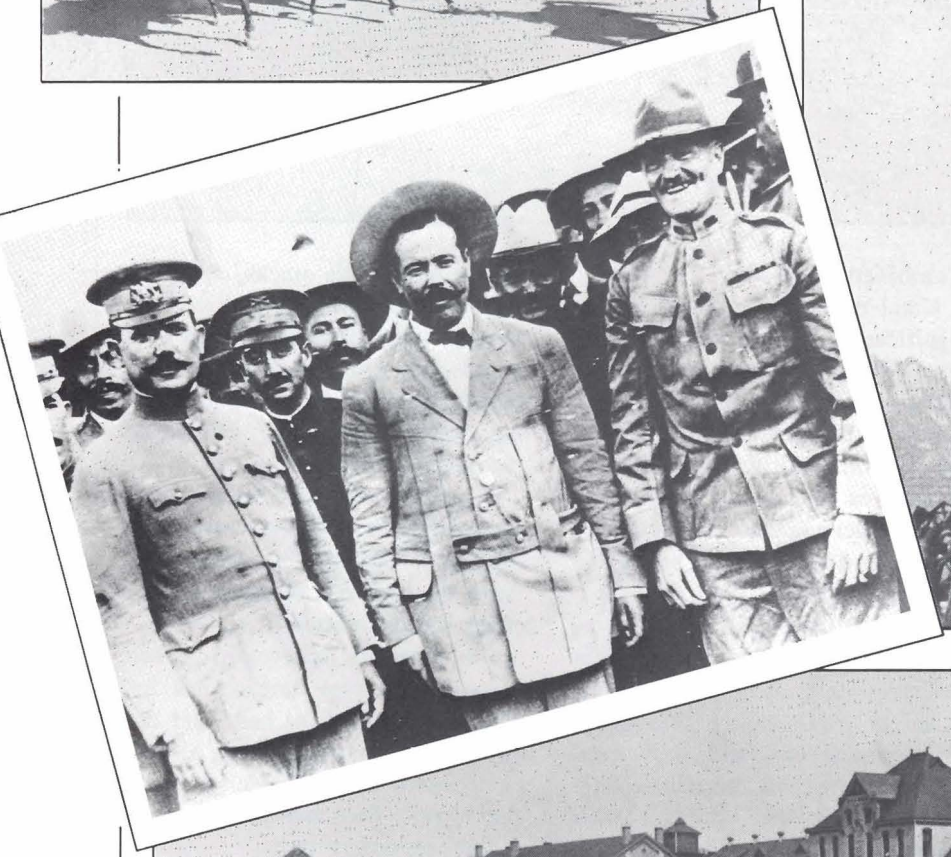
Key leaders must be familiar with the passive air defense measures described in FM 44-8. Leaders must know the high risk of detection and attack by hostile aircraft through failure to adhere to passive air defense measures. Convoy briefs must include instructions for halts and the importance of air guards in all vehicle convoys. Air defenders must be alert to poor field craft and take corrective actions to protect the force from hostile air defense.

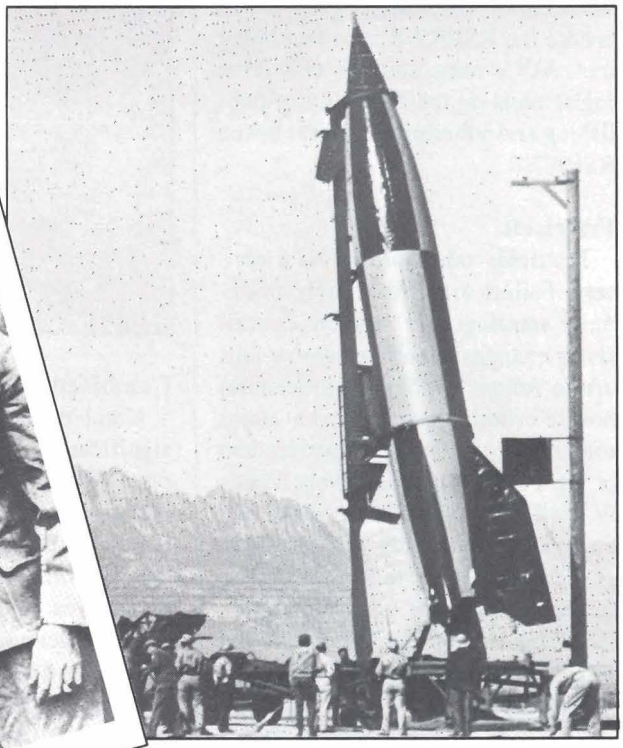
Force protection depends on combat readiness and trained and mission capable units. This proficiency can only be achieved through the type of tough, realistic training that units experience at JRTC.

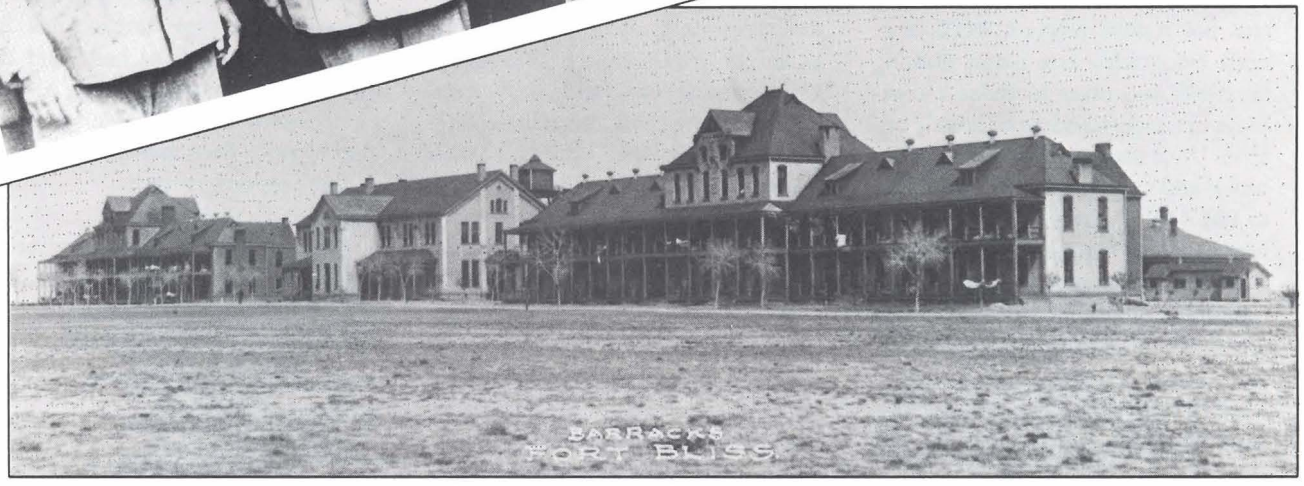
MAJ. JAMES OMAN

CELEBRATIONS

100th Anniversary — In October 1893, Fort Bliss moved from the banks of the Rio Grande to its present location atop a high mesa. Scenes from the post's past include early barracks; Lt. James L. Collins (father of astronaut Michael Collins) peering over Gen. John J. Pershing's left shoulder as he poses with Mexican Generals Pancho Villa and Alvarado Obregon; cavalry on parade; and a captured Nazi V-2 rocket.







DIVISION AIR DEFENSE STUDY

The U.S. Army Air Defense Artillery School held the last in-process review for the self-initiated Division Air Defense Study last June. One topic was the air threat to the force, which is shifting from a fixed- and rotary-wing threat to a rotary-wing and unmanned aerial vehicle threat. The near- and mid-term threat (to 1999) consists of running and short-range standoff helicopters, short-range reconnaissance unmanned aerial vehicles and fixed-wing leakers. The far-term threat (2000-2010+) consists of running and long-range standoff helicopters, long-range unmanned aerial vehicles and tactical cruise missiles.

The division air defense concept is a part of the integrated air defense concept, which graphically depicts how air defense will protect the division against helicopter, unmanned aerial vehicle and tactical cruise missile threats during each phase of a contingency operation.

The Division Air Defense Study team determined that the missile, helicopter, unmanned aerial vehicle and fixed-wing aircraft (leaker) threat to division forces creates an urgent requirement to upgrade the Bradley Stinger Fighting Vehicle so that it can engage without dismounting the Stinger teams. The current Stinger missile system can handle the near- and mid-term helicopter threat (except in clutter conditions), but is unable to counter the far-term standoff threat. A requirement also exists to counter unmanned aerial vehicles in excess of four kilometers.

School agencies have also been relooking the organization and employment of divisional air defense; specifically, the employment of Avenger and the Bradley Stinger Fighting Vehicle in the context of the Army's new doctrine (see "New and Improved FM 100-5," page 2).

MAJ. DAVE PERRY

COUNTERING UNMANNED AERIAL VEHICLES

After examining the documented successes of unmanned aerial vehicles during Operation Desert Storm, the Air Defense Lab began exploring the potential threat of enemy unmanned aerial vehicles to determine and demonstrate the capability to detect, acquire, track and neutralize them. Initially, the Air Defense Lab identified exercises and tests that could be used as potential data sources to provide answers to unmanned aerial vehicle issues.

Phase I consisted of collecting infrared and ultraviolet signatures by the Stinger reprogrammable microprocessor against the Pioneer unmanned aerial vehicle flown by Marines during their Weapons Tactics Instruction Course. The lab measured seeker performance with the Stinger reprogrammable microprocessor field test support system operated by Hughes Missile System Company personnel. The results will be published in the final report at the completion of Phase III.

Phase II, consisting of the tracking of the Pioneer unmanned aerial vehicle by multiple sensors (including Patriot, Hawk and forward area air defense), was conducted during the Roving Sands '93 exercise. The Air Defense Lab collected data on these systems' capability to detect, acquire, track and engage the Pioneer remotely piloted vehicle. The test results will be published in the final report at the completion of Phase III.

Phase III consisted of unmanned aerial vehicle tracking and shooter cueing during the ground-based sensor developmental testing at White Sands Missile Range, N.M., in August and September 1993. Testing beyond Phase III will cover emerging technologies and their potential to help defeat enemy unmanned aerial vehicles and cruise missiles.

MICHAEL COCHRANE

ADA SAYS NO TO DRUGS!

Counterdrug mission develops Army National Guard ADA soldiers

by Capt. Michael Schwartz and Capt. Brian Ray

The prime focus of the Army is warfighting, yet the Army's frequent role in operations other than war is critical. Use of Army forces in peacetime helps keep the day-to-day tensions between nations below the threshold of conflict. Typical peacetime operations include disaster relief, nation assistance, security and advisory assistance, counterdrug operations, arms control, treaty verification, support of domestic civil authorities and peacekeeping.

— FM 100-5

Air defenders who are bearing the brunt of the Army's counterdrug offensive in the desert Southwest are discovering that ADA doctrine, tactics and techniques that work on conventional battlefields also get the job done in operations other than war. Since 1989, New Mexico Army National Guard (NMARNG) soldiers have participated in more than 200 tactical counterdrug missions in support of local, state and federal law enforcement agencies. Many of these were multijurisdictional and multiagency operations, and some included more than two dozen different law enforcement agencies. Currently, National Guard soldiers support 16 types of National Guard Bureau approved missions that have broad parameters under which each state counterdrug support (CDS) task force commander can operate. National Guard Regulation 500-2 established a decentralized system of command and control that serves as a guidepost to narcotics-related military support to law enforcement agencies (LEAs). This regulation allows maximum latitude to individual states in conducting their counterdrug efforts. The Office of National Drug Control Policy, as part of its overall strategy, has preferentially funded the Southwest border states of New Mexico, Texas, Arizona and California and has designated portions of these states as high intensity drug trafficking areas.

In New Mexico, most of the 132 full-time National Guardsmen who serve on the CDS task force are air defenders. Ten of the task force's 12 officers (non-aviation) serve in ADA units and are qualified in short-range air defense (SHORAD). This is an important attribute, since many of the tasks associated with air defense doctrine are critical in providing CDS to LEAs. Soldiers and officers assigned to the CDS program also fulfill duties as inactive duty training soldiers. The CDS commander, for example, serves as the battalion commander of 6-200 ADA.

Definite organizational similarities exist between CDS task forces and active duty air defense units. The New Mexico CDS program structure parallels, in many aspects, the structure of an air defense battalion (see organizational chart, right). The primary function of most SHORAD ADA units is to *support* the maneuver force. The role of the CDS task force is to *support* law enforcement operations. In many active duty ADA units, junior ADA officers frequently serve as liaison officers (LNOs) or advisors to supported units. In the counterdrug role, junior officers serve as LNOs to a variety of LEAs. Several counterdrug missions are also indicative of the support divisional and corps ADA SHORAD units provide, such as radar coverage of likely air avenues of approach and the detection, monitoring and interdiction of aircraft that meet specific criteria. NMARNG CDS personnel regularly use planning procedures, ADA principles, intelligence estimates and common soldiering skills to plan, coordinate, execute and evaluate CDS missions.

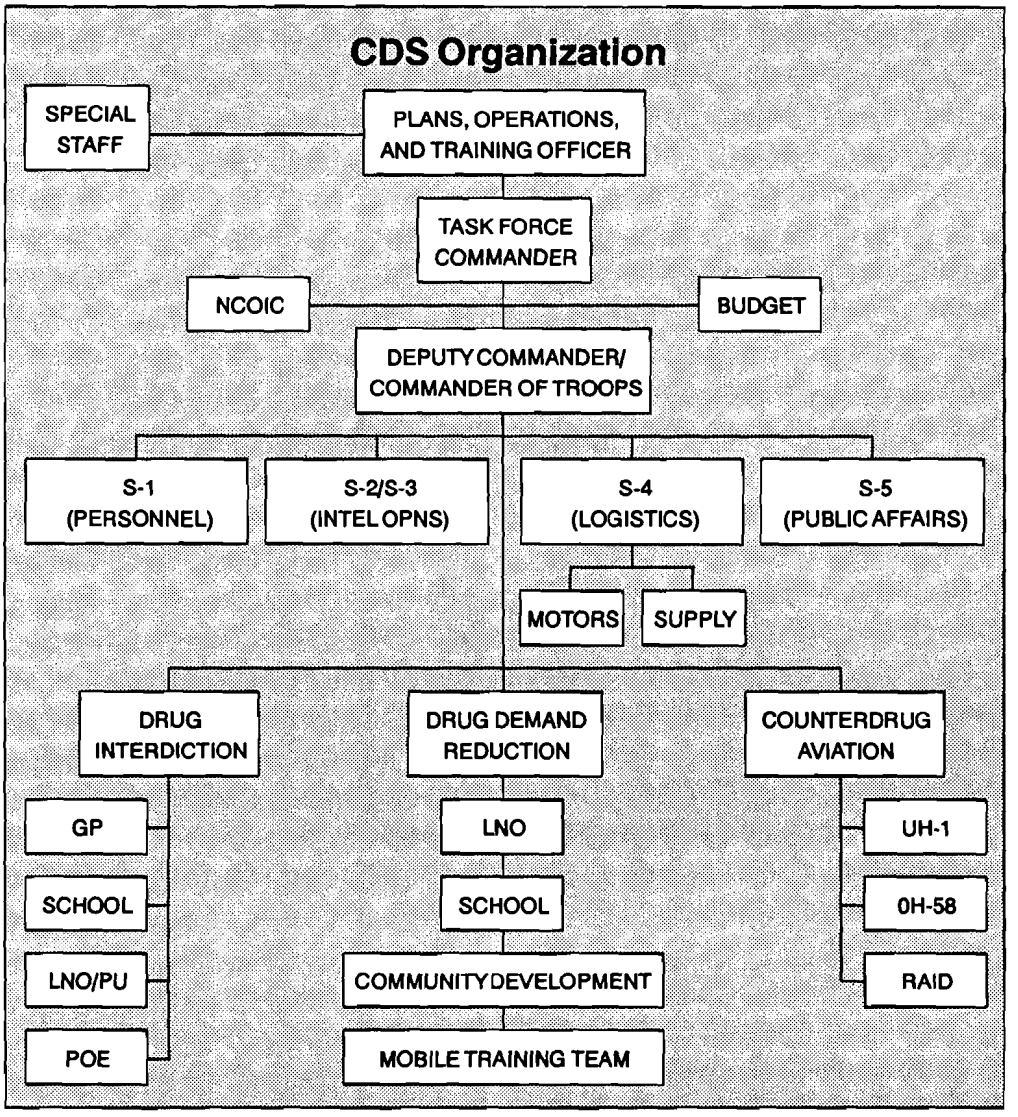
Full-time CDS personnel must pass a series of screening tests and a rigorous 10-day CDS Ground Operations Course. Soldiers must complete the course within a "reason-

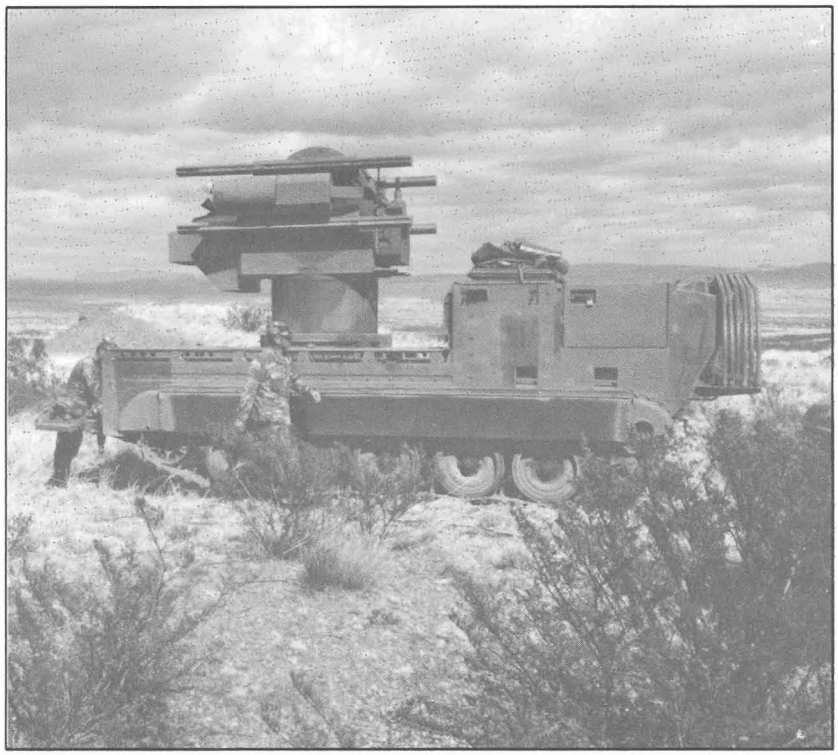
able" period of time after being placed on orders. A variety of other training courses are also available to soldiers assigned to the CDS task force. For example, LNO training is conducted through the National Interagency Counterdrug Institute in San Luis Obispo, Calif.

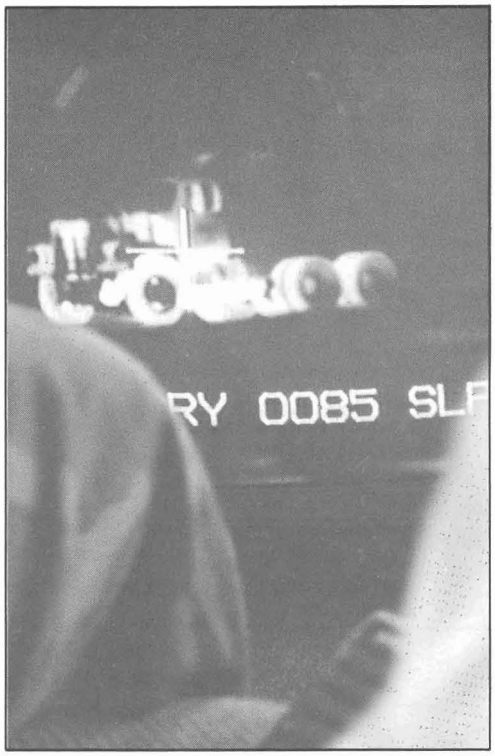
Many CDS task force soldiers are also qualified in a variety of special military and law enforcement related tasks. Currently, nine personnel are Airborne qualified (two jumpmasters), 35 are Air Assault qualified, three are Rappel Master qualified, four are instructor trainers and one is Ranger qualified. The operational platoons also train and use common tasks such as cover and concealment, first aid (combat lifesaver), survival skills, marksmanship, sustained operations and visual aircraft recognition of commercial and private aircraft. Some soldiers are also skilled in aerial insertion techniques, hazardous material procedures, surveillance operations, air and ground intelligence preparation of the battlefield (IPB), translation, electronics countermeasures recognition, narcotics identification and aerial photography interpretation. Soldiers sometimes use long-range surveillance devices or thermal imagers (similar to the one mounted on the Chaparral missile system) and special night vision (infrared) devices designed by Los Alamos National Laboratories.

The LNO's relationship with an LEA parallels, in many respects, the relationship established between maneuver units and the

The Army is competent in many areas, such as nation assistance, counterdrug operations, security assistance, deterrence and stability operations, that can combine with other elements of national power to achieve strategic effects favorable to U.S. interests around the world. The Army's capabilities provide the nation a diverse, deployable and sustainable set of options that include strategic and operational logistics and communications capabilities.
— FM 100-5







The Chaparral's forward-looking infrared identifies ground targets in southern New Mexico (left) and observes an 18-wheeler, approximately one kilometer away, through a remote TV monitor.

ADA LNO in the Army. The commander establishes policy regarding the placement, training, duties and goals for LNOs in the CDS program. The supported LEA assists in defining the LNO's scope of duties and priorities.

The CDS commander has assigned full time LNOs to the Bureau of Land Management, the Department of Public Safety, the Drug Enforcement Administration, the U.S. Department of Agriculture, the U.S. Forestry Service and Joint Task Force 6. Each liaison relationship is unique, and the commander usually assigns officers based on performance, area of expertise and experience.

The skills required in developing liaison with supported agencies are similar to ADA liaison relationships. The counterdrug LNO must be able to identify operational techniques, organizational objectives and the supported organization's goals. He must effectively use military assets to best support the LEA. The LNO must also establish lines of communication. He must effectively communicate National Guard capabilities and limitations to the supported agency. The LNO must understand fiscal constraints, primary and secondary roles of the supported organization and leadership goals and objectives. The LNO must also establish and maintain an atmosphere of mutual trust, cooperation and collaboration. He or she must be the eyes and ears of the CDS commander. In most cases, the LNO answers directly to the highest-ranking law enforcement agent in the supported organization. LNO duties are critical in establishing and maintaining credibility with the supported LEAs. Often, the LNO is the primary military advisor to supported agencies.

The CDS LNO is also responsible for several areas that specifically correlate with ADA LNO responsibilities. For the LNO, interagency joint coordination, mission planning and smooth execution are paramount. The LNO's primary duty is to assist the lead LEA in developing, implementing and evaluating military supported operations. The LNO must assist the law enforcement officer in determining the capabilities and limitations of specific military assets. He must also determine the proper type of equipment for a specified task and prioritize

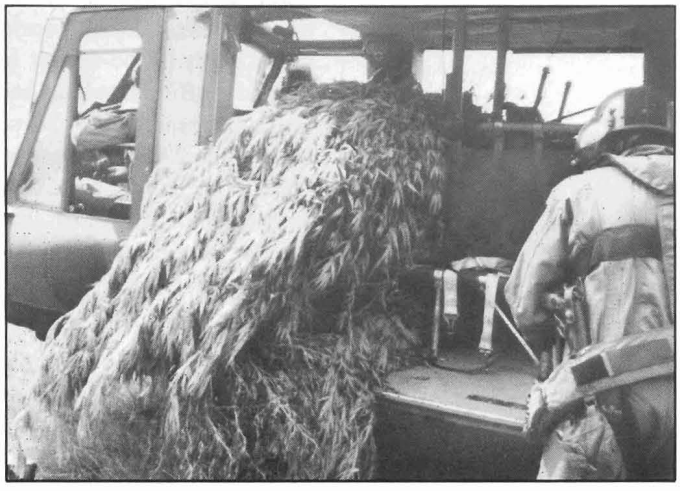
assets based on guidance from the LEA. The LNO is expected to provide the supported agency military assets and information in a manner that best meets the needs of the LEA.

Using ADA equipment in the war on drugs is advantageous to both soldiers and the supported agency. It provides soldiers with MOS-specific training on ADA equipment, and it provides valuable support to the LEA. For example, in 1991, 7-200 ADA participated in a CDS mission in California. They used Hawk radar systems to track aircraft using suspect air routes, and reported numerous suspicious tracks. The Chaparral thermal imaging system has also been tested for its effectiveness in locating ground and aerial targets at standoff distances of up to five miles.

Soldiers and officers in the CDS program also receive valuable training in a variety of common soldiering tasks. Soldiers assigned to the CDS program routinely participate in missions requiring skill in land navigation, patrolling techniques and surveillance. Officers gain experience in mission planning and coordination, intelligence-related tasks, personnel management, supply and logistics, and liaison tasks.

In many respects, the mission commander's duties parallel those of an ADA platoon leader or battery commander. The commander works in almost complete autonomy and often conducts missions within several hundred feet of the Mexican-American border, nearly 300 miles south of the nearest command element. There is no room for miscalculation or navigational error, especially when using air support. Even the slightest error may spark an international incident. The mission commander is responsible for every phase of the mission, including air support, medical evacuation procedures, tactical planning, communications and lo-

Federal agents and National Guardsmen work together to eradicate marijuana, which grows abundantly in the southern United States.



Military efforts principally support law enforcement agencies, the counterdrug efforts of other U.S. agencies, the states and cooperating foreign governments to interdict the flow of illegal drugs at the source, in transit and during distribution.

Support to host nations includes assistance to their forces to destroy drug production facilities; collaboration with host nation armed forces to prevent export of illegal drugs; and nation assistance to help develop economic alternatives to production, exportation and distribution of drugs. Support to interdiction efforts centers on monitoring and detecting illegal drugs in transit as well as integrating C³I systems. U.S. forces may well assist host nation forces at war where they are in an operations-other-than-war posture.

Support for domestic counterdrug operations includes law enforcement agencies, National Guard participation, equipment loans and transfers, use of military facilities, and other assistance as requested and authorized. This support may expand as national policy and legal prohibitions evolve.

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gistical support. He or she is also recognized as the primary military expert available to the LEA and is expected to advise the supported agency on all military matters. The commander develops tactics that best support the intent of the LEA while maximizing use of assets.

ADA principles and employment guidelines are often observed when using military assets to support LEAs. The principles of mass, mix, mobility and maneuverability are critical; in many cases, these principles guide the tactical decisions. For example, mobility is critical when conducting surveillance missions along the border. Within 72 hours of establishing positions, countersurveillance usually identifies most friendly positions. Therefore, it is vital to remain light, mobile and flexible. The proper placement of manpower, specifically LEA intercept teams, is critical to mission success. Since LEAs are very limited in resources, it is essential to insert them at the appropriate time in the proper position.

Although ADA tactics are not specifically used in the planning process, planners of counterdrug missions often discover their ADA background useful. For example, in missions designed to inhibit shipment of narcotics across the Mexican-New Mexican border, commanders frequently use "defense in depth." Soldiers are stationed along portions of the border to channelize traffickers into specified zones. Law enforcement officers, stationed at key points, conduct surveillance in anticipation of intercepting smugglers at predetermined locations. Other agents conduct ramp checks of targeted airports, which normally serve as secondary transit points. LEAs located 100 to 150 miles north of the border look for air and ground traffic traveling known secondary trafficking routes. In the past, roadblocks that targeted traffickers were set up as far north of the border as 250 miles. To a large extent, junior ADA officers coordinate and support missions of this magnitude.

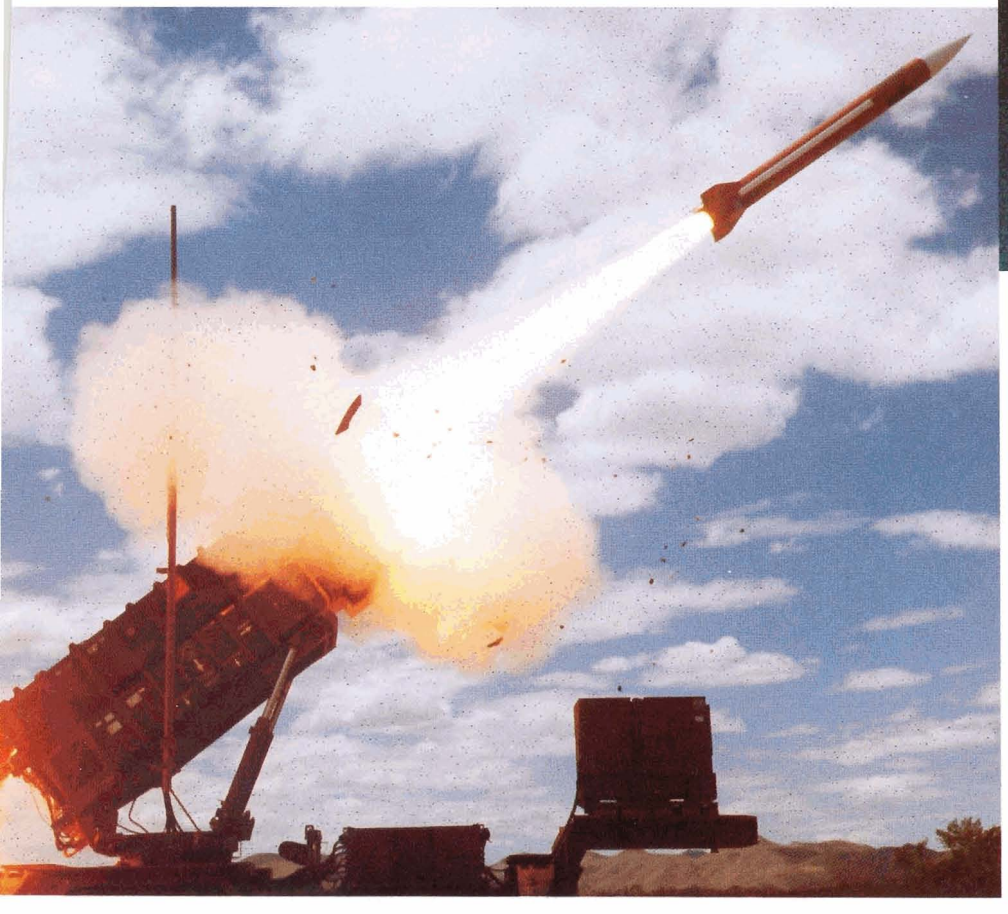
Some LEAs use "early engagement" as an effective technique to identify, track and intercept aircraft. 7-200 ADA soldiers deployed to California in 1991, in support of a Drug Enforcement Agency operation, primarily to identify specific air trafficking routes and also to identify flight characteristics of northbound suspect aircraft flying south of the California-Mexico border. Based on information provided by 7-200 ADA's Hawk radar systems, Drug Enforcement Agency agents determined probable landing and drop zones and established unique narcotrafficking air route characteristics. As a result, smugglers changed their tactics by landing in northern Mexico and transporting most loads through or between the points of entry to the United States.

In many instances LEAs ask soldiers to conduct terrain denial or covert surveillance operations. Whenever possible, soldiers set up surveillance positions to provide mutual support. However, law enforcement officers sometimes ask soldiers to cover a 100- to 150-mile stretch of border. This makes mutual support and, in many cases, overlapping coverage, impossible. The NMARNG CDS task force only has 30 to 50 soldiers available to support surveillance operations, and these soldiers often assist LEAs in conducting low profile, covert surveillance and interdiction operations on the periphery of Title 10 (Regular Army) terrain denial operations. Teams are concentrated in specific areas, depending on the IPB results or on a combination of law enforcement intelligence and the traditional IPB process (with a few peculiarities).

The NMARNG CDS task force has provided valuable support to local, state and federal LEAs while improving military specific skills. Officers have had the opportunity to plan, coordinate, execute and evaluate actual field operations. In the CDS role, many officers have developed effective leadership, liaison and staff skills. In many instances ADA officers have applied SHORAD doctrine in a new and unusual set of circumstances. Soldiers have maintained and improved skills in several MOS-specific areas, and have become some of the most competent soldiers in common soldiering tasks. Commanders at all levels have learned to rely on the knowledge, professionalism and dedication of CDS task force soldiers!

Capt. Michael Schwartz and Capt. Brian Ray are both members of the New Mexico National Guard CDS Task Force.

Patriot meets the challenge...



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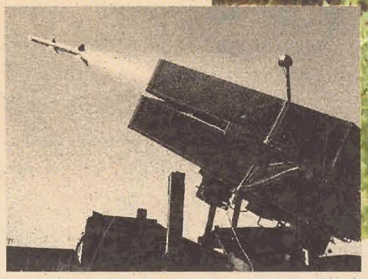
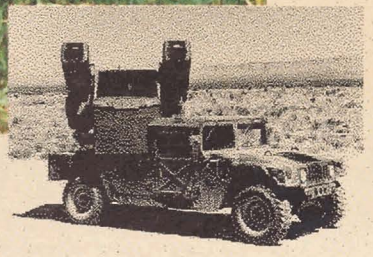
AN/MPQ-64





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