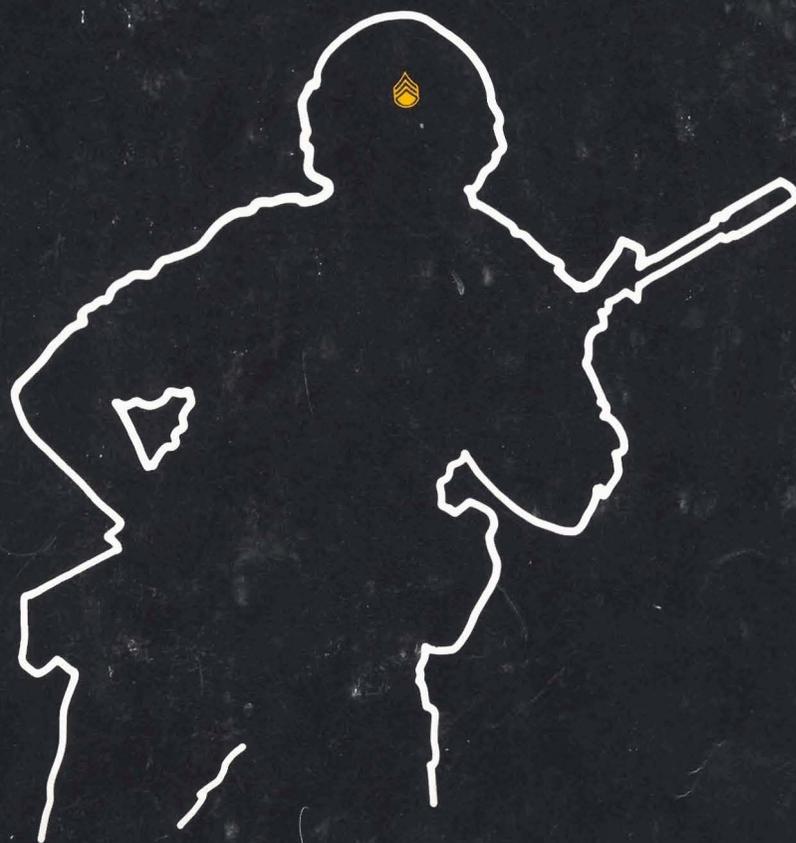


AIR DEFENSE ARTILLERY



FD 44-89-3

JULY-AUGUST 1988



Year of the NCO

Inside, a
special tribute
to ADA NCOs

AIR DEFENSE ARTILLERY



PB 44-89-3

JULY-AUGUST 1989

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This issue of Air Defense Artillery not only celebrates the "Year of the NCO" with a special section dedicated to the NCO Corps, the "backbone of the Army," it also marks a milestone in the history of the branch's professional journal — this is the first issue to be published using state-of-the-art desktop publishing technology.

Maj. Gen. Donald R. Infante
Commandant, USAADASCH

Blair Case
Chief, ADA Publications Division

Jim Collins
Editor-in-Chief

Hubert Koker
Editor

Lisa Henry
Managing Editor

Dennis Kurtz
Deb Letterle
Contributing Illustrators

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CARL E. VUONO

General, United States Army

Chief of Staff

Official:

WILLIAM J. MEEHAN II

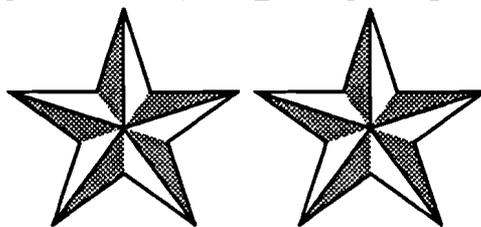
Brigadier General, United States Army

The Adjutant General

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INTERCEPT POINT

State of ADA NCOs

In honor of the Year of the NCO, Maj. Gen. Donald R. Infante, chief of Air Defense Artillery, has given me "Intercept Point" in this issue for my article on the state of the ADA Noncommissioned Officer Corps, and to say my farewells.

This is my last article for *Air Defense Artillery*, and as command sergeant major of the Air Defense Artillery Center and Fort Bliss, I take this opportunity to say farewell to Air Defense Artillery officers, noncommissioned officers and soldiers worldwide and to the U.S. Army.

During the past two years I have visited ADA units and military posts all over the world. I tried to visit every divisional air defense unit in CONUS. However, my short tenure as your senior enlisted air defender would not allow that to happen. I apologize to the air defenders at Forts Carson, Polk and Riley for not having time to see you. I will ask my successor, CSM Robert W. Harman, to put you at the top of his list of units to visit.

To the units that I did get to see, I say thank you for a great visit. All of you have made me the proudest air defender to wear the uniform of our U.S. Army. What I saw when I visited were Air Defense Artillery soldiers who had pride — pride in their units and pride in themselves. They walked around with their heads held high, chests out and, in most cases, stomachs in. I saw dedication — dedication to the soldiers, the noncommissioned officers corps, the unit and the U.S. Army. I saw determination — soldiers determined to be all they could be, determined to accomplish any task and any mission. I saw soldiers wearing the uniform well — looking sharp; soldiers standing at attention when the ADA March played. And when a crisp snappy salute was in order, soldiers sounded off with a loud "First to Fire" — our branch motto.

One ADA battalion stationed at Fort Bragg, N.C., was tasked to furnish the post color guard for all post and off-post ceremonies. That really says something

about the high quality of our ADA soldiers and the respect our divisions have for them.

What I have just described has not always been the case. I can recall in the not too distant past that we as air defenders lacked pride, did not have an ADA March nor a branch motto. Divisions to which we were assigned knew very little about us and in most cases did not want us around. Today, as I stated, we have that pride, that march and that motto. We are highly respected in the divisions we support and the divisions realize that to survive on the battlefield they need the Air Defense Artillery. We are definitely a part of the combined arms team.

Now let me pass on some of my other observations about our branch. At the present time Air Defense Artillery's enlisted strength is approximately 15,579. Of these, 22 are E-9s, 405 are E-8s, 1,421 are E-7s, 2,754 are E-6s, 2,906 are E-5s and 4,357 are E-4s.

For ADA NCOs, the Year of the NCO has been the best and the worst of times. The fielding of Patriot and the acquisition and testing of forward area air defense weapon systems have created exciting new career opportunities, but not everyone is celebrating. Statistics show that "First to Fire" NCOs are promoted at a rate equal to, or greater than, NCOs in other combat arms branches. These, however, are overall statistics. They don't show the inequities in the ADA MOS structure. NCOs in some ADA MOSs are on the fast track to promotion while NCOs in other ADA MOSs have two chances for promotion — slim and none.

Consider the plight of soldiers in MOS 16H, ADA Operations and Intelligence. Most NCOs stranded in this discontinued MOS are awaiting reclassification, but what about the NCOs on the verge of retirement? Soldiers with more than 18 years of service aren't eligible for reclassification unless they're willing to commit themselves to additional years of service. The elimination of MOS 16H could cost these soldiers the extra stripe they hoped to win before retirement.

Except for those soldiers nearing retirement, the

INTERCEPT POINT

16H problem is not as serious as it seems. If you have less than 18 years of service as of Oct. 1, 1989, submit a DA Form 4187 requesting a specific MOS preference for reclassification or be reclassified according to the Army's needs.

A significant number of 16H soldiers will reclassify into other ADA MOSs. However, the number of new authorizations these MOSs are scheduled to receive exceeds the number of spaces that will be filled by reclassification. A large number of soldiers in MOS 16H at grades E-6 through E-7 will not reclassify but will simply retire. A smaller percentage of soldiers filling E-6 and E-7 slots in MOS 16H hold non-ADA secondary MOSs which may become their primary MOSs.

Who's to blame? Sometimes circumstance, sometimes poor planning.

Happily, I can assure you that soldiers and civilian workers who deal with proponent issues at the U.S. Army Air Defense Artillery School are working hard to break the promotion logjams and to make sure they don't recur. For example, a recent MOS restructure has doubled the number of MOS 16S E-7 authorizations.

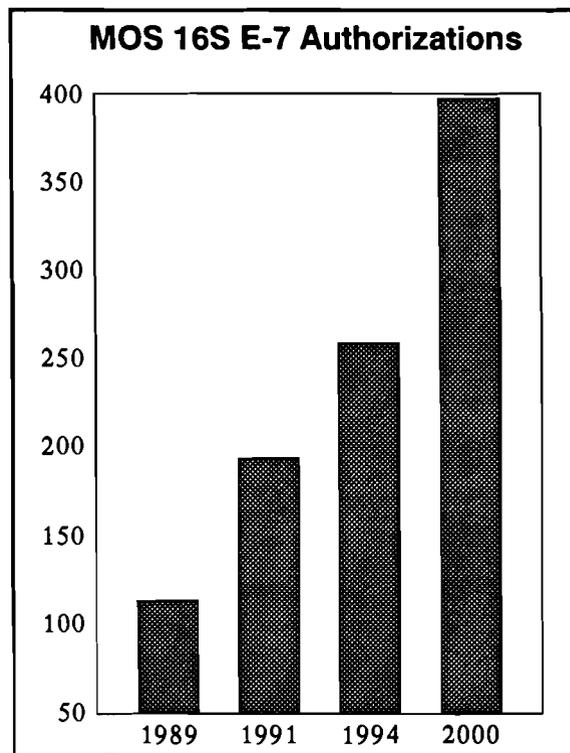
Your commanders are aware of your promotion problems. In his last "Intercept Point," Infante singled out slow promotion — especially to E-7 — as the "largest problem" facing ADA. "If it were within my power as branch chief to fix any one problem," he wrote, "this would be the one." Slow promotion and MOS restructuring were the hottest issues at the recent ADA Commanders Conference when many senior ADA officers rose to voice their concerns.

The ultimate answer is probably MOS consolidation. At the ADA Commanders Conference in June, the chief of branch displayed a chart which showed the number of ADA MOSs shrinking from 14 in 1989 to eight in the mid- to late 1990s, and eventually to four sometime past the turn of the century.

The cure, however, is likely to be as painful as the disease, for MOS consolidation is extremely strong medicine. Making it work will require adjustments — not to mention compassion — from everyone involved.

For example, with Chaparral being gradually turned over to the Army National Guard, senior NCOs converting into new MOSs from 16P, Chaparral Crewman, will likely be placed in charge of junior NCOs who

possess superior technical proficiency on their respective weapon systems. It will occur to the junior NCOs that the senior NCO, who isn't yet expert on the new system, has come between them and a promotion, but they will be wrong. In most instances, the reclassified NCO will be filling an additional authorization created by the MOS elimination and reclassification process. The junior NCO should also keep in mind that he or she may be making a similar transition sometime in their careers.



Officers will have to cut the newly reclassified NCO some slack while he or she learns the new job. This doesn't mean putting up with a lack of initiative and professionalism, but it does mean giving the newly assigned NCO the benefit of the doubt when it comes to filling out the first EER. Torpedoing a newly converted NCO's career with a bad efficiency rating based on inadequate technical proficiency would not only be unjust, it would also likely cost the Army the services of a good soldier.

(Continued on page

Can ADA fight in the snow and ice?

by Capt. (P) Thomas F. Underwood

In the winter of the year of 1812, Napoleon sits in his carriage, watching the Russian snow fly horizontally past the glass. French soldiers, wrapped in any scrap of cloth that provides warmth, stream by in the snow, their movements deliberate and slow. Every so often a soldier drops, only to be covered by the white death. A short distance down the road, a fight breaks out over strips of flesh cut from a frozen horse.

The *Grande Armee*, which consisted of more than 550,000 men at the start, now numbers less than 100,000. The tattered remnants are being further reduced by the cold vengeance of the north.

By the end of the campaign, fewer than 50,000 survive. A gruesome picture.

Does history repeat itself?

More than 100 years later, in 1942, less than 3,000 Japanese Naval Infantrymen hold the island of Attu in the Aleutian chain. American forces, with the mission of retaking American soil occupied by a foreign power, number more than 14,000. It shouldn't be hard to take the island. However, the American forces face stubborn terrain and weather. Supplies pile up on the beaches, waiting to be hand carried to the fighting lines. Howitzers bog

down in the soft tundra just meters from where they are off-loaded. None of them can provide fire support to the fighting men.

High winds whip the seas into impossible turmoil, scuttling landing craft at an alarming rate. Wind and fog, giving the island an unearthly appearance, strip away air support. Compounding the tragedy on the beach is the personal devastation as the desert-trained soldiers intended for Africa face bitter cold and endless moisture.

More than 1,000 Americans become casualties in less than seven days — 500 of them lost to cold injuries such as frostbite and hypothermia. The reports filtering back to Maj. Gen. Albert Brown are filled with horror. The blame flies from command to command and Brown is relieved.

Maj. Gen. Eugene Landrum, who succeeds Brown, fares little better but sees the island retaken after a suicide attack by the last 500 Japanese. When non-battle losses equal or exceed soldiers caught in the line of fire, too much combat power is wasted.

Does history then repeat itself?

Both of these forces faced operations in a cold region that hampered them more than the enemy. Numerous other examples exist of forces

fighting in cold regions that faced defeat or extreme difficulty through a lack of understanding, training, suitable equipment or acclimatization.

Let us examine how prepared Air Defense Artillery is to fight and survive in cold regions combat.

What is a cold region?

No hard definitions exist to adequately describe cold regions. FM 31-71, *Northern Operations*, combines arctic and subarctic areas and states: "About 45 percent of the North American continent and 65 percent of the Eurasian land mass lie in these regions." Coincidentally, Alaska and Canada comprise 45 percent of the North American continent. And the Soviet Union, Norway and Sweden comprise 65 percent of the Eurasian land mass. Within these regions, operationally significant factors consist of two categories — climate and terrain.

Climatic conditions are further divided into winter and summer effects. Winter effects include white-out, ice fog, severe cold (-40 to -80 degrees ambient), long periods of darkness (18 to 24 hours) and deep snows. Summer effects include high temperatures (70 to 90 degrees ambient), high humidity, continuous rains, extreme drought and long periods of daylight (18 to 24 hours).

Some conditions occur during both seasons, such as corona discharges (auroras) and high winds (70 to 100+ mph). Climatically, extremes beset the arctic and sub-arctic regions.

The impact of the terrain on operations is also divided into winter and summer effects. During the winter, snow and ice present the chief obstacles. Snow can hide ditches and rivers. Ice will appear solid but can give way under the lightest load. In the summer muskeg, tundra, water obstacles, glaciers and the scarcity of roads become operationally significant. No matter the season, the vast mountainous areas found in cold regions must be considered in every phase of an operation.

The degree to which these different considerations affect combat operations becomes a factor of leadership, training and equipment suitability. In the case of Napoleon's campaign into Russia, the lack of winter training and suitable equipment served to defeat the largest combat force in Europe.

Soldiers who withstood the forced march into a hostile country could not withstand the cold and hostile environment without proper training and materiel. Poor training and inadequate materiel also came close to defeating the U.S. 7th Infantry Division and other forces fighting on the island of Attu. Placing a desert-trained unit in a subarctic environment to fight a smaller, but better-equipped force served to make this the second most costly battle (percentage wise) in the Pacific Theater.

The U.S. Army uses several methods to train and indoctrinate personnel in cold regions warfare. One method, establishing a base of trained personnel and conditioned equipment, was accomplished by the activation and manning of the 6th Infantry Division (Light) at Fort Richardson and Fort Wainwright, Alaska.

This division provides a base for many branches of the military to rotate soldiers and equipment through cold regions training. Soldiers of this division and the remainder of U.S. Army Garrison Alaska not only train, but also live and play, in the harsh environment in which they may one day be forced to fight. Few better ways exist to learn something than to experience it firsthand.

In addition to the 6th Infantry Division, units and individuals receive cold regions training at the Northern Warfare Training Center, Fort Greely, Alaska. This school concentrates on individual and collective skills and familiarization of climatic considerations through several short courses. By their very nature, these courses limit the number of personnel trained and the detail of the training imparted.

Testing equipment in severe conditions provides another method of ensuring that we do not repeat the failures of the past. The Cold Regions Test Center (CRTC), also at Fort Greely, accomplishes much of this testing. The simple move and shoot tests conducted at this center, at temperatures below -40 degrees, produced unexpected and devastating results. During a test of the Vulcan, for example, a soldier in his full cold weather clothing could not physically fit inside the gun turret.

Beyond these three methods of training personnel and testing equipment there are few avenues for ensuring that the mistakes of the past are not repeated.

To what extent have we planned to ensure that we have a base of personnel capable of fighting in cold regions? Personnel who will not only survive, but will also defeat an enemy expert in cold regions warfare?

The one ADA battalion with a continuous mission in a cold regions environment is the 1-188th ADA, North Dakota Army National Guard. This unit is the divisional

ADA battalion of the 6th Infantry Division (Light) and will consist of about 320 personnel (currently about 20 are full time). About 30 soldiers from this unit have already spent short periods in Alaska learning about cold regions combat. While this battalion will one day become expert in arctic type warfare, there are several training limitations.

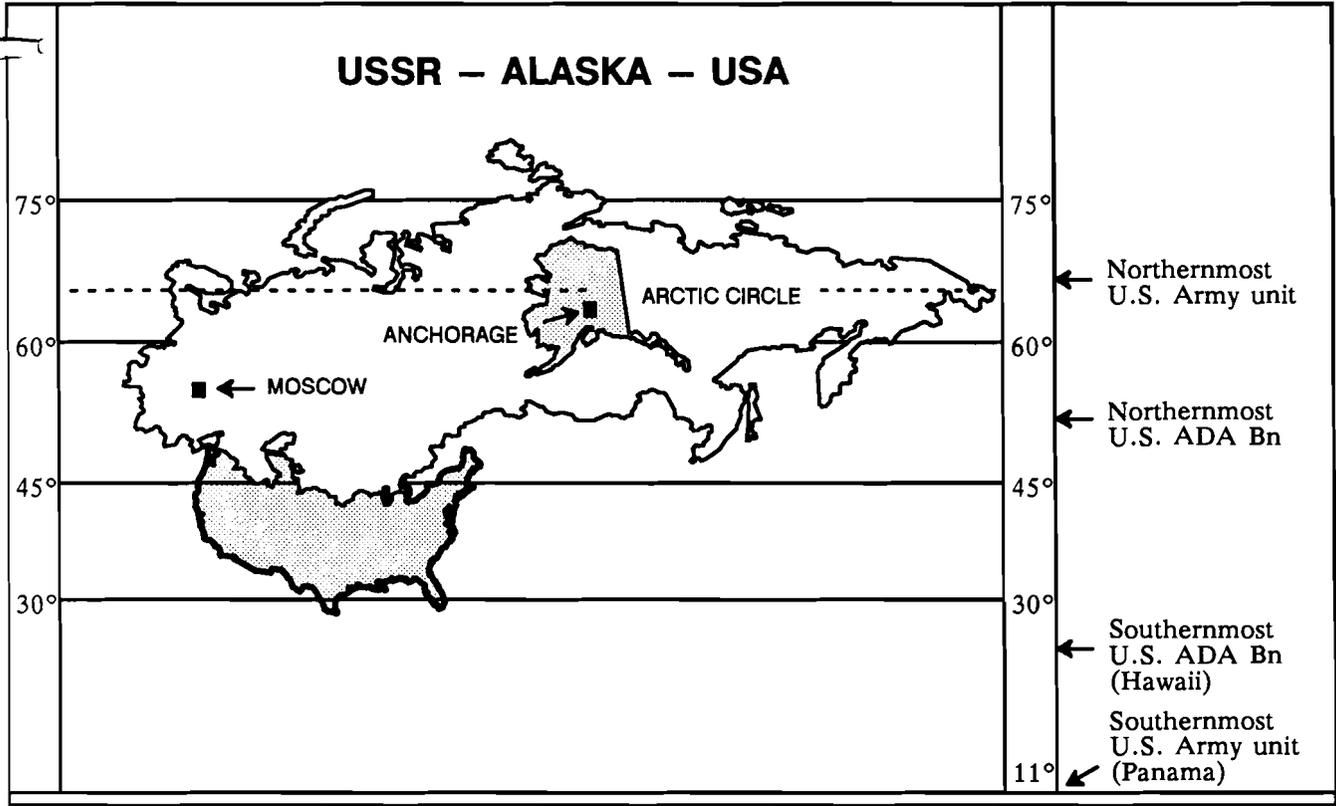
First, the battalion must send its personnel several thousand miles to receive cold regions peculiar training. This fact escalates operational costs and drastically limits the amount of training the battalion personnel can receive. Nor can this training be accomplished in North Dakota.

While North Dakota approximates some cold region conditions, it lacks a number of major problems such as tundra, vast mountain ranges, glaciers, limited road networks and the extremes in duration of daylight hours.

A second limitation is that only a relatively small number of ADA personnel will actually train in cold regions operations. Because the 1-188th ADA is National Guard, a majority of the personnel will remain in the unit. Soldiers cannot cycle through the battalion as occurs with Active Component organizations. Consequently, the trained base of the 1-188th ADA would remain relatively high while cross-fertilization throughout the Army remains low.

Many people will state that there are other ADA battalions stationed in cold regions. For the same reason that the 1-188th ADA is limited by their positioning in North Dakota, other units throughout the world will be limited in their exposure to the devastation of cold regions combat.

The following illustration depicts the latitudinal limits of ADA units and how they align with the United States (including Alaska) and Soviet Union. The northernmost



battalion on the chart is in Germany, a heavily populated area with many road networks. Germany's tough winters cannot approximate the harshness of winters in Central Alaska or Siberia, 10 and 15 degrees farther north.

Terrain and climate between these two areas is vastly and vitally different. This leaves only a handful of ADA personnel stationed at various places in the arctic and subarctic to serve as the training base for the rest of Air Defense Artillery.

How well are ADA weapons suited for cold regions combat? The table on the next page shows some of the problem areas faced by other units and equipment and which ADA systems they will most likely affect. FM 9-207, *Operation and Maintenance of Ordnance Material in Cold Weather (0 to -65 degrees F)*, explores these and many other difficulties.

The combined problems of terrain, climate and training clearly indicate the unsuitability of current

ADA weapons designs for cold regions combat. Because only a limited amount of unclassified test data exists on Air Defense Artillery in cold regions, it is necessary to deduce the problems based on the problems of other equipment and units.

For example, an engineer unit had an operational rate of less than 45 percent on their equipment during Exercise Brim Frost '89 in Alaska when, in addition to other cold-related failures, rubber fuel and hydraulic lines shattered at -50 degrees. What would this extreme cold do to the hydraulic lines in ADA systems?

The number of locations Patriot can be emplaced in cold regions is limited by the size and weight of the weapon system. As stated before, cold regions have few roads and road networks, while encompassing vast spaces. The ground in summer is saturated with moisture and in many places has a spongy nature similar to walking on a soft mattress.

In winter, deep and shifting snow can make the ground impassible except for those trained and equipped to move over it.

In areas such as Alaska, terrain makes detecting and destroying a Patriot site extremely simple. A heavy, large weapon such as this must be near metropolitan areas and thus would provide only fixed site defense. Forces operating only a few hundred miles from a major population center would do so without Patriot coverage. Indeed, with terrain masking, the coverage distance often shrinks to 25 or 50 miles.

Hawk also faces a major problem when it comes to mobility. Cross-country construction, like the building of winter trails to support an operation, requires many months of preparatory work by engineers. For example, engineer units building the trails and ice bridges needed for a short phase of Exercise Brim Frost '89 began work two months in advance.

COLD REGIONS EFFECTS

		Patriot	Hawk	Chaparral	Stinger	Vulcan
M O V E	- Large and heavy equipment cannot move in tundra/deep snow. ---	X	X			X
	- Size of airlift required limits locations for deployment. ---	X	X			
	- Ice bridges and trails require extensive preparation. ---	X	X	X		
	- Extra equipment must be backpacked, forcing the 70+ pounds of basic survival equipment onto someone else. ---				X	
	- Engines freeze if not run every hour in extreme cold. ---	X	X	X		X
S H O O T	- Many systems cannot fire below -50 degrees. ---	?	?	?		
	- Electro-optical systems of extremely limited use in winter. ---		X			
	- Visual acquire systems of negligible use in winter. ---			X	X	X
	- External gun components freeze and shatter in extreme cold. ---					X
	- Soldiers cannot operate for extended periods without heat tents in extreme cold. ---			X	X	X
	- Aurorae (Northern Lights) affect some electro-magnetic equipment. ---	?	?			
- Extreme cold drastically increases reload time. ---		X	X		X	
C O M M O	- Extreme distances increase the amount of equipment needed. ---	X	X	X	X	X
	- Hoar frost buildup on antennas can attenuate signals. ---			X	X	X
	- Aurorae can wipe out satellite frequency bands. ---	X	X	X	X	X
	- Chemical reactions in batteries slow down in extreme cold making batteries die faster. ---			X	X	X
	- Ionosphere layers dissipate at night, eliminating RATT. ---	X	X			
	- Cold soaked radios require extensive warmup periods before applying power. ---	X	X	X	X	X
	- Breath moisture freezes in mikes, making them useless. ---			X	X	X
S U S T A I N	- Cold weather increases the amount of time it takes to fix external faults. ---	X	X	X	X	X
	- Rubber fuel and hydraulic lines shatter (even those that are reinforced with wire). ---	X	X	X		
	- Difficulty in electrical grounds in permafrost/frozen ground. ---	X	X			
	- Extreme cold affects large power/electronic cables. ---	X	X			
	- Increased fuel requirements for vehicles/engines in cold. ---	X	X	X		X
	- Frozen electronic systems require extensive warmup time before applying power. ---	X	X	X		
	- Engines/generators require unique oil weights in winter. ---	X	X	X		X
S U R V I V E	- Size and uniqueness of system easy to detect in environment. ---	X	X			
	- Not off-road mobile. ---	X	X			
	- Susceptible to direction-finding in electronic bare environment. ---	X	X			
	- Must have on-board heat. ---			X		
	- Ice fog below -35 degrees shows generator/truck locations. ---	X	X	X		
	- Vapor trails freeze below -35 degrees, increasing site signature. ---	X	X	X	X	..

Hawk, which would need the same type of preparatory work on the battlefield, could not keep up with the force it supports. The requirement for a level, stable base makes most of the terrain unsuitable as firing positions without vast and expensive engineer construction. This problem has been examined by many different agencies and, in most cases, the funds required vastly outstrip any benefit the system would be to the defense. The lack of suitable firing locations also decreases the survivability of the weapon system. Hawk must move often to remain a viable asset.

The major difficulty that Chaparral faces in winter cold regions combat deals more with personnel than with the system. Personnel forced to ride in an open cab are vulnerable to frostbite and other cold-related injuries. In areas such as the Tanana Flats, south of Fort Wainwright, ambient temperatures in winter stay between -30 and -50 degrees for weeks. The wind chill caused by merely driving in it can drop the ef-

fective temperature to well below -100 degrees.

The ability of the crew to function decreases measurably by continuous exposure to the severe cold conditions. Measured times to accomplish tasks such as missile reload become impossible to achieve. Simple tasks take three to four times longer than they would if the soldiers were not wearing their full cold weather clothing.

Vulcan and Stinger, the weapons assigned to divisional Air Defense Artillery, face one of the greatest difficulties. Both of these weapons require the gunner to visually acquire and track the target prior to firing. This feature alone limits the employment of these systems in the winter at northern latitudes.

The table below shows a sampling of the hours of daylight for various latitudes on four different dates. Areas as far south as Anchorage, Alaska, see only seven hours of effective twilight and daylight during winter months.

In addition, conditions such as

whiteout and ice fog further reduce visibility during the few hours of daylight. The Vulcan and Stinger may not be able to provide the defense that will be needed in a cold region conflict facing all weather airframes. Air defense is a 24-hour function and must not be tied to a particular time of day or weather pattern. If an aircraft can fly above or through the weather, we must be able to kill the target in the same weather.

Future ADA systems will be plagued with these same problems if the design and testing of these systems do not include cold regions effects. Current ADA systems must be significantly modified if they are used for any extended period of time in arctic and subarctic regions. The end result of this analysis is that Air Defense Artillery, as a branch, is not completely prepared for the devastation of cold regions combat. Our equipment is not properly modified and our soldiers are not sufficiently trained.

History demonstrates that cold region campaigns are the most arduous form of combat imaginable. Here the environment, not the hostile nation's army, poses the greatest threat: the environment can destroy both personnel and equipment.

Equipment and weapon systems not designed to operate in cold regions will not protect the force in war. Personnel not trained and conditioned for cold regions will not survive, much less function well enough to defeat the enemy.

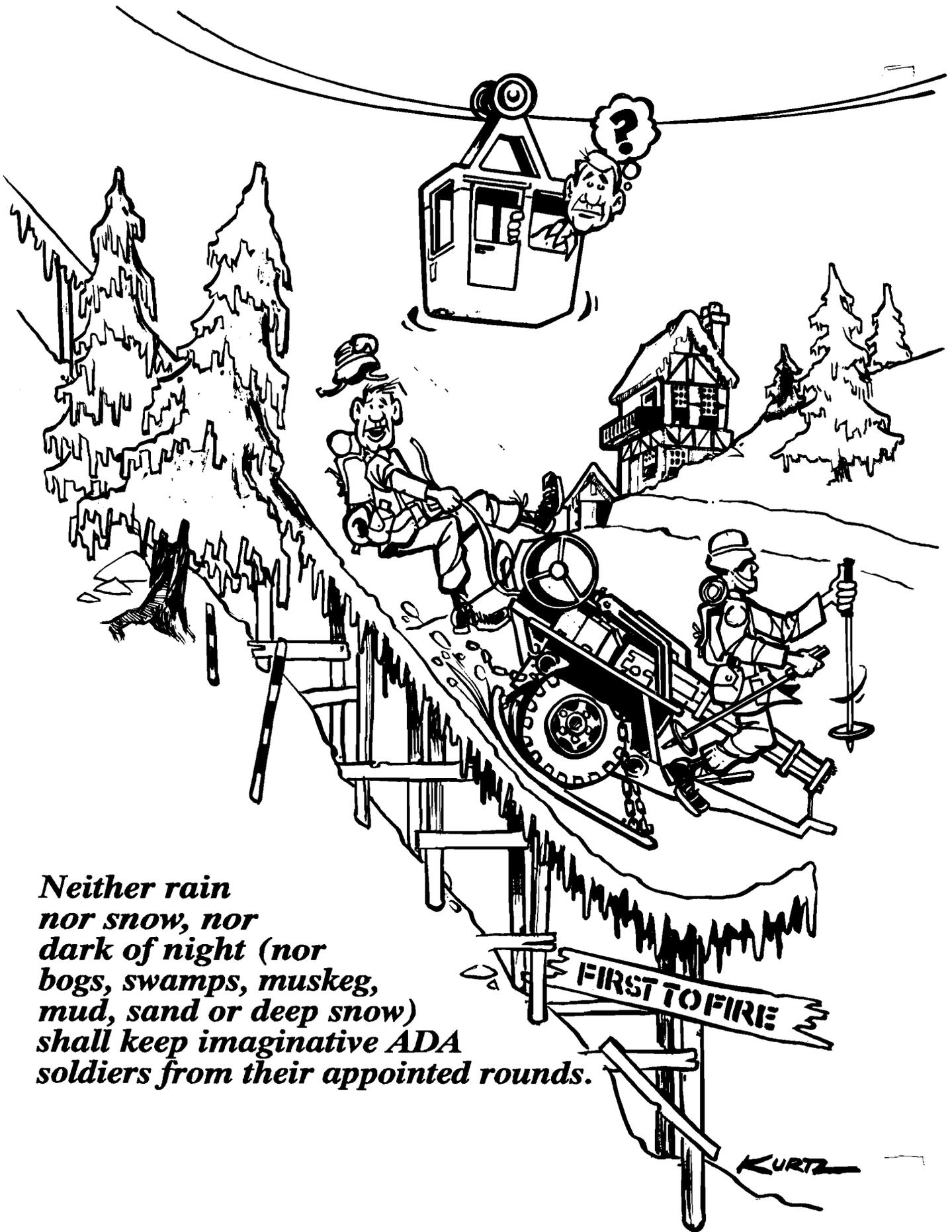
If we are forced to fight in the arctic or subarctic with our current equipment and level of training, Air Defense Artillery will not function and history may well repeat itself.

DAYLIGHT TIME COMPARISONS

		1 NOV	16 NOV	1 DEC	16 DEC
L A T I T U D E	60°	11:49	10:49	10:04	9:42
		10:10	9:03	8:14	7:48
		8:38	7:24	6:25	5:25
50°	12:10	11:29	11:00	10:45	
	10:53	10:11	9:38	9:22	
	9:45	8:57	8:23	8:04	
31°	12:42	12:21	12:07	12:00	
	11:44	11:22	11:05	10:58	
	10:54	10:30	10:13	10:05	

-  Hours from beginning morning nautical twilight to ending evening nautical twilight.
-  Hours from beginning morning civil twilight to ending evening civil twilight.
-  Hours from sunrise to sunset

Capt.(P) Thomas F. Underwood is assigned to the Air Defense Artillery Office, 6th Infantry Division (Light), Fort Richardson, Alaska.



*Neither rain
nor snow, nor
dark of night (nor
bogs, swamps, muskeg,
mud, sand or deep snow)
shall keep imaginative ADA
soldiers from their appointed rounds.*

KURTZ

ADA

How do you **on** *move a Vulcan*
through **Skis** *a muskeg?*

by Capt. Dale R. Rohe

Air defense on skis? It's a definite possibility.

How would you move a Vulcan, a towed artillery piece or a trailer through a bog, swamp, muskeg, mud, sand or deep snow? In cold regions such as Alaska, Germany and Northern Russia, immobilizing conditions exist everywhere. The use of skis will greatly increase the effectiveness of all units, especially light infantry, in the three-dimensional AirLand battle.

Wheels can only sink so far down before they become immobilized. As every soldier knows, if a vehicle or piece of towed equipment is going to get stuck, it's going to happen in the worst possible location and at the worst possible time. Usually any effort to forcibly extract the stuck equipment results in the subsequent burial of the towing vehicle as well.

An almost ancient device would alleviate some of these difficult and hazardous situations — skis. Skis have been used on a wide variety of vehicles and equipment for hundreds of years. A sled is just a vehi-

cle with permanently mounted skis. This means of transport is still used all over the globe in regions that preclude other forms of travel. Not only in winter, when snow and ice are the main mobility obstacles, but in the summer as well.

The spring thaw, or "breakup," and the summer rains create and maintain the moist terrain of these regions where wet tundra and muskeg abound. Muskeg is characteristic of permafrost areas. It's basically comprised of a mat of vegetation of varying thickness, floating over water above the permafrost. Where the vegetation mat is broken by vehicular traffic, mud holes develop and get larger and deeper with every passing vehicle. Mud is a mobility obstacle encountered all over the world.

By mounting a pair of skis onto a piece of towed equipment — such as a towed Vulcan — the conditions which previously hindered the mobility are overcome. There are many types, styles and designs for skis, ranging from wooden to plastic

laminated aluminum.

The Cold Regions Test Center (CRTC) at Fort Greely, Alaska, has conducted numerous mobility tests and experiments using skis of various types and designs. While testing the British Light Gun, now designated the M-119 105mm towed howitzer, the CRTC used a set of wooden (mahogany) skis during mobility trials. The skis performed adequately, but were not sufficiently durable when towed over rough surfaces such as asphalt or gravel. The addition of a tough plastic sheet to the bottom of the skis, similar to that on aircraft skis, greatly improved their durability, but not enough to meet Army requirements.

Based on the experience gained in Alaska and studies made on other ski designs and configurations, the Armament Research, Development and Engineering Center (ARDEC) designed a new lightweight aluminum ski which incorporated a curved bowed shape and plastic running surfaces. After fur-

ther modification to these skis by CRTC, mobility tests were conducted in powdered snow with depths ranging from 3 1/3 to seven feet. A summer phase was also conducted in mud, wet tundra and muskeg more than 36 inches deep. These tests demonstrated the greatly increased mobility of the ski-equipped howitzer over the howitzer equipped with only standard tires. In deep snow, mud or muskeg (over 24 inches), the towed M-101A1 and M-119 105mm howitzers using standard tires quickly became immobilized and required a great deal of digging to extricate them.

Trailers also benefited when equipped with these skis. During the

A lightweight aluminum ski, incorporating a curved shape and plastic surface, allows for increased mobility in cold regions.

winter phase of the test, a 3/4-ton trailer with a 500-gallon fuel pod was fitted with a pair of skis and towed over the same test course. The ski-equipped trailer was very stable and there was no degradation of its towing characteristics throughout the test.

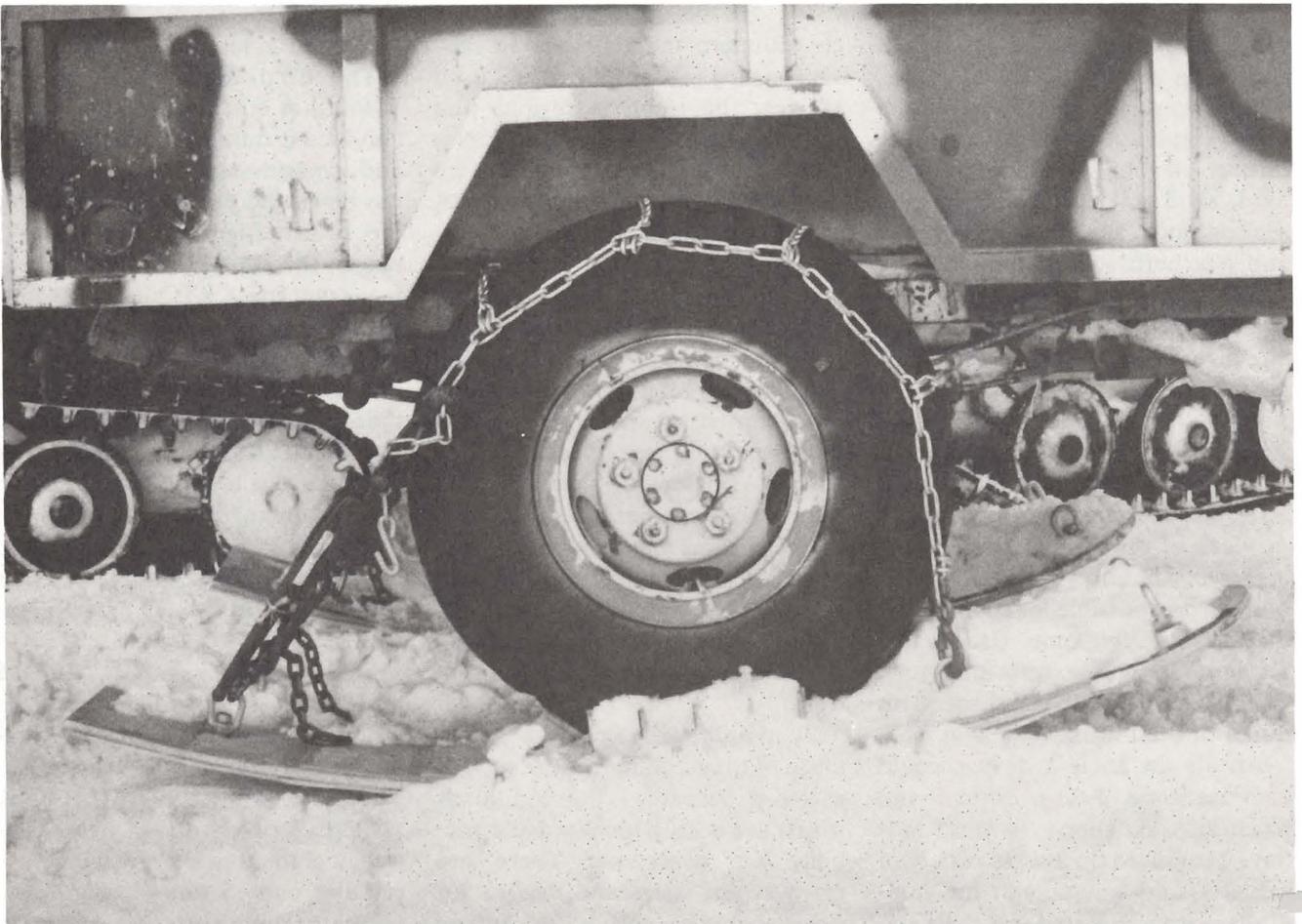
The vehicles used during these tests to tow the howitzers and the trailer were Swedish-made small unit support vehicles (M-973 SUSVs). This is a truly amazing vehicle with a wide variety of uses that is used extensively in the 6th Infantry Division (Light) in Alaska.

Oversized or "tundra" tires were tested on the howitzers under identical conditions. Test results concluded that they were inadequate in comparison to the skis. Oversized tires were susceptible to the same problems as their smaller counterparts and actually compounded mo-

bility problems. Their weight acted as an anchor and created a power strain on the towing vehicle. Also, in combat conditions, a tire might be destroyed and hinder mobility. Skies are not subject to these conditions.

The flexible design of the ARDEC-designed CRTC-modified skis enables mounting them on the 105mm family of towed howitzers, various trailers and the M-176A1 and M-2 towed Vulcans. These skis are the superior choice for mobility. Through imagination and creativity a vast number of applications for these skis await only a soldier's initiative.

Capt. Dale R. Rohe is a student at the Officers Advanced Course, U.S. Army Air Defense Artillery School, Fort Bliss, Texas.



INTERCEPT POINT

(Continued from page 2)

We must begin to think of these situations as normal. A tour through the U.S. Army Air Defense Artillery Museum at Fort Bliss, which features ADA weapon systems no longer in the Army inventory, illustrates that the personnel turbulence we are experiencing today is nothing new. Soldiers who once served on systems that are now museum displays didn't become relics, they learned new jobs. To avoid becoming museum pieces, those NCOs whose MOSs are scheduled for elimination or consolidation must adjust to new realities.

We owe it to these NCOs, of course, to see that the reclassification process is as equitable as possible.

A new type of ADA NCO must emerge from the restructuring of career fields and the consolidation of ADA MOSs — a more professional and more competent NCO whose technical proficiency, not to mention chances for promotion, are not limited to one weapon system.

In spite of these MOS and promotion problems, ADA NCOs are the best in the Army, maybe even in the world. Everywhere I went NCOs were meeting the challenge of new equipment and new doctrine. In my 31 years in the Army I see you, today's NCO, as the best mentally and physically. You are better equipped, trained, led and educated than NCOs at any time in history.

One of the first things I see when visiting a unit is their training. Training throughout the branch is exceptional, with the promulgation of FM 25-100 and the refinement of METL our "train as we would fight" standards are more easily attained, monitored and maintained.

NCOs in the field tell me the NCO support chain is now working better than ever. Commanders are seeing the results of NCO to NCO reaction in higher morale, fewer incidents and better family care. Family care is a new facet of soldier care and NCOs have taken the lead and are doing a fine job in this area.

The new Noncommissioned Officer Evaluation Report is receiving favorable reports from the field. As more and more NCOERs show up at promotion boards we will get a better feel of its effectiveness. The key here, of course, is counseling. Even now an Army NCOER review panel is at work to iron out any wrinkles found in the system during the past year.

For the past four years Air Defense Artillery battalions have been constituted, organized, reorganized, consolidated, redesignated, reconstituted, activated and inactivated, shuffled and re-dealt. This seemingly never-ending ceremony is the result of the U.S. Army Regimental System.

With the activation of the 3rd Regiment of the Air Defense Artillery in July of this year, the ADA Regimental System is complete. All 49 of our ADA battalions are now regiment affiliated.

After some changes the Noncommissioned Officer Education System (NCOES) is now firmly in place. NCOs can NOW plan their education and upward promotion windows more accurately. Although the linkage between NCOES courses and promotion is not yet complete, we must get our sergeants to BNCOC and ANCOC on time. Of the 1,902 E-6s whose records appeared before the last Department of the Army sergeant first class promotion board, only 58 percent had completed BNCOC.

The NCO of today combines history and tradition with skill and ability to prepare for combat. The schoolhouse gives us tactically and technically competent sergeants. However, leader development has three components, only one of which is institutional training. The other two are operational experience and self-study. From the results of exercises at the National Training Center, Fort Irwin, Calif., and the Joint Readiness Training Center, Fort Chaffee, Ark., and from maneuvers like Reforger in Europe and Team Spirit in Korea, I know that our NCOs have and are gaining operational experience. But I cannot overemphasize self-study. Sergeants not matriculating through our NCO academies do so mainly because of a weakness in reading comprehension. This can be remedied or at least helped by self-study.

Three years ago there was talk of doing away with the branch. Those were dark days. Yet last year when we celebrated the 20th anniversary of Air Defense Artillery as a branch, we had bounced back and were taking the lead as a branch to be proud of and a vital part of the combined arms team. Many good things have happened to Air Defense Artillery in the last few years — new equipment, doctrine and missions.

As I leave you and the Army let me pass on a little poem written by my favorite author that pretty well sums up my ideas of an NCO.

INTERCEPT POINT

The NCO

From the beginning of the Army
The NCO was there,
Teaching, helping others
Taking time to care.

At Valley Forge, Vietnam,
North Korea and Bataan
Name a conflict anywhere
The NCO was there.

The backbone of the Army
Is what they're often called,
Performing all of their duties
So the mission is never stalled.

Taking care of soldiers
And family members, too
Are just a few of the primary tasks
That an NCO must do.

Spit-shined boots, sun-polished brass
Uniform just so,
Who was that who just walked by?
That was an NCO!

Just what kind of person is the NCO?
One who takes the time to learn all there is to know
About the soldiers, about the job
To help the Army grow.

From PLDC to BNCOC to ANCOG
On through the Sergeants Major Academy
The NCO is always learning
And that's the way it should be.

Exactly what is needed to be an NCO?
Wisdom, patience, courage and sensitivity,
Plus the guts to be a leader
And make tough decisions instantly.

No matter how individualistic
An NCO may seem,
He knows the success of the Army,
Demands he be a part of the team.

The seasoned NCO strives
to take the young recruits,
and turn them into soldiers
worthy of wearing "the green suits."

Strong, unbending in battle
Disdaining the word surrender,
Yet, this same person exhibits
Feelings warm and tender.

Sometimes that tough old soldier
Will think of way back when
He had the direct responsibility
For the survival of his men.

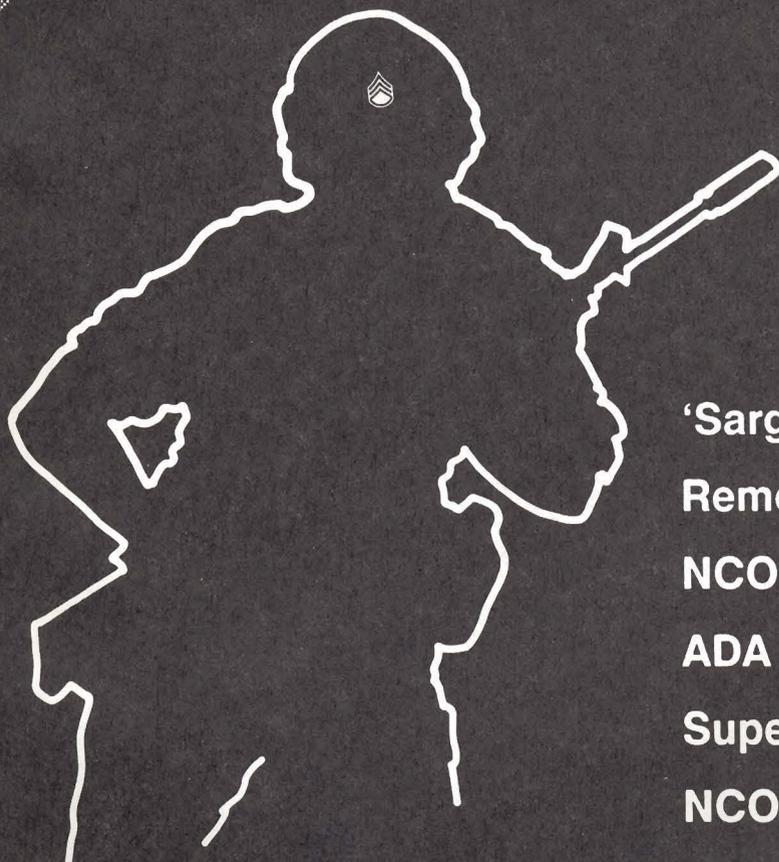
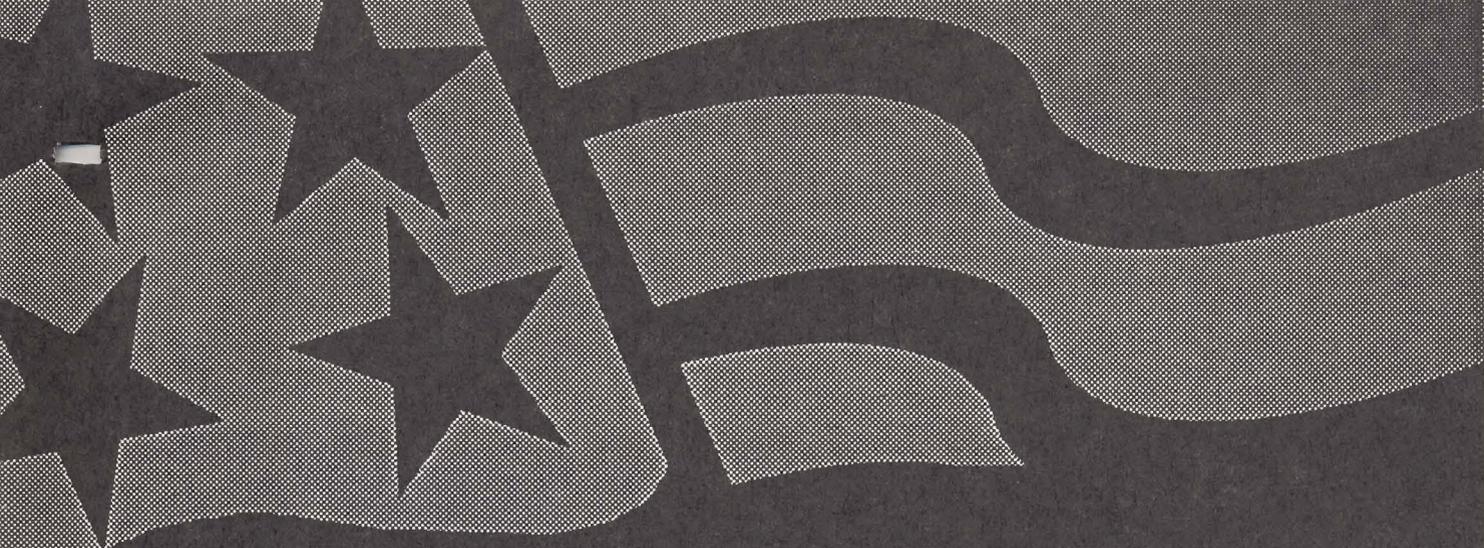
"Follow me into battle
We must fight, win and return,"
"God, I hope I taught them
all they needed to learn."

Old NCOs never die
And they don't fade away,
You'll find them standing proud and tall
On every Veterans' day.

Take a walk through Arlington
In sunshine or misting rain,
In the stillness, amid the headstones
There's a feeling you can't explain.

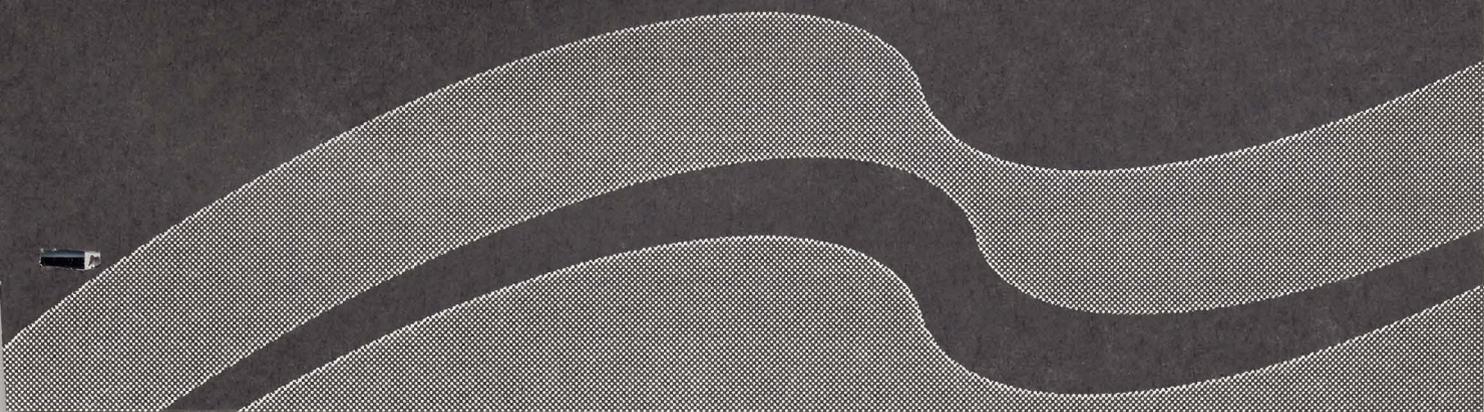
That, somewhere watching, taking charge
Guarding the freedom that we know,
Is the vigilant, undaunted spirit
Of the silent NCO.

*Laura. H. Hicks
Fort Bliss, Texas
1989*



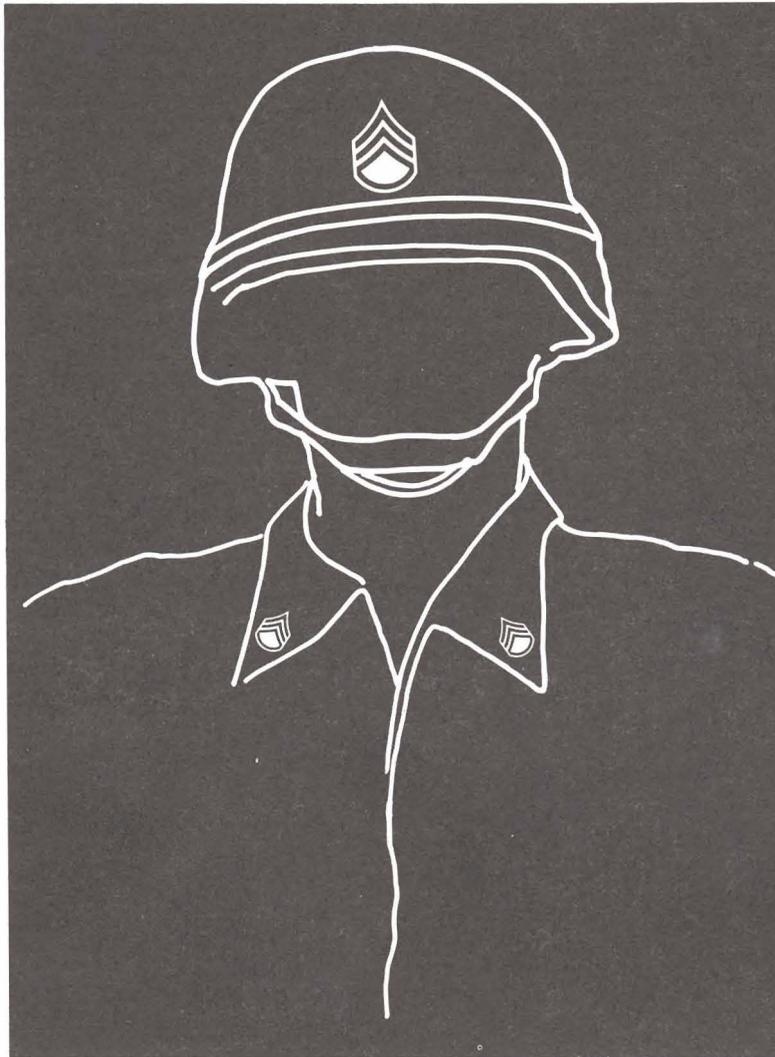
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ADA officers remember NCOs who made a difference

'Sarge'



In keeping with the 1989 Army theme — “The Year of the NCO” — Air Defense Artillery dispatched an ADA Officer Basic Course student, 2nd Lt. Renee Lee, to interview four highly successful ADA officers. Her mission: to assess the impact of NCOs on their careers. She discovered that the Hollywood cliché of the seasoned NCO who takes a green second lieutenant under his or her wing is firmly anchored in reality. She also learned that, while senior ADA commanders may no longer recall the first names of NCOs from decades past, they have never forgotten the soldiers they knew as “Sarge.”

Sitting on the sofa in his office, fingers interlaced behind his head, elbows outstretched, Brig. Gen. Jay M. Garner, assistant commandant of the U.S. Army Air Defense Artillery School, described his initiation as a platoon leader. His voice took on a reverential quality, like that of a proud father discussing the accomplishments of a talented son.

It was September 1962. Garner was a brand-new second lieutenant assigned to C Battery, 3rd Battalion, 7th Air Defense Artillery, in Bamberg, Federal Republic of Germany. Apprehensive about taking over as fire control platoon leader, Garner asked SFC Major Green Long for help. A soldier with 14 years of experience, Long put the new platoon leader on his personal training program.

Garner recalled that the training program was short on time for drinking coffee in the orderly room and long on hours spent with the platoon's enlisted soldiers. Long thought a platoon leader should understand his platoon the way a combat infantryman understands his M-16. He figured a platoon leader should be so familiar with his platoon that he could field strip it and, if necessary, re-assemble it in the dark. He couldn't see how a lieutenant could learn these things at the officers club.

Long "invited" Garner to attend the platoon's 5 a.m. reveille formations, although he made it quite clear that these were the platoon sergeant's formations. The sergeant wanted the young lieutenant to see the chain of command in action and to understand the interaction between NCOs and enlisted soldiers.

If the platoon was scheduled for a TA-50 inspection, Long would give the future general a diagram of how the gear was to be properly laid out and would "suggest" that he take the diagram home and memorize the configuration. Together, they would conduct the inspection.

Whether it was a motor pool or weapons inspection, Long always made sure that his platoon leader had studied the technical manuals and had received some private hands-on tutoring on how to perform the necessary task. The sergeant knew that soldiers expect leaders to be technically competent.

"Every day was a learning experience," Garner said. He credits Long's methodical mentoring not only for his development as a

"There are powerful factors at play on the battlefield which can't be measured"

platoon leader but for his preparation to take command of a battery. "The year I spent with Sergeant Long was the most informative period I've had in the military," Garner said.

During his first tour in Vietnam, Garner was to meet a second NCO he rates as one of the greatest soldiers he has ever known. Garner was serving as an assistant subsector adviser to the 23rd Infantry Division, Army of the Republic of Vietnam, in II Corps.

"Every night before we put out ambushes, he would kneel down and pray," Garner said. "I used to watch him and think 'there's the bravest man I've ever seen.'"

What impressed Garner most about SFC Bobby Henderson, an infantryman cross-trained as a medic, was the fact he was unafraid to display his faith in the midst of battle and in front of his fellow soldiers.

"There is a dimension of faith in being a soldier," Garner said. "There are powerful factors at play on the battlefield which can't be measured."

In June of 1979, Garner took command of the 2nd Battalion, 59th Air Defense Artillery, 1st Armored Division, Federal Republic of Germany. The previous commander had been relieved and Garner inherited a command "fraught with a lot of problems."

Fortunately, he also inherited the knowledge and skills of CSM Don Stafford.

"If you went out and bought a sergeant major modeling kit, you'd have Sergeant Major Stafford," Garner said. "He taught me that you've got to do the tough thing, but do it in the least painful way and make sure everyone, down to the lowest private, understands it."

Garner learned two valuable lessons while he worked with Stafford, lessons that were to stay with him throughout his career: the importance of effective internal communications and the essentiality of making sure that soldiers' families are cared for so soldiers can concentrate on their mission.

Today, Col. Vincent J. Tedesco commands the 6th Air Defense Artillery Brigade, Fort Bliss, Texas, and serves as president of the ADA Association. Although it has been more than 20 years since Tedesco was a platoon leader, his memories of working with his first platoon sergeant remain vivid. He still remembers the tact with which his platoon sergeant trained him when he was a second lieutenant. The two served together in B Battery, 5th Missile Battalion, in the Federal Republic of Germany. Castro Donas was a short Hispanic who was a bit older than most staff sergeants of the mid-1960s.

"He was kind," Tedesco said. "He listened to my ideas. He told me whether the ideas were good or bad. He made me feel like I was the boss whether I was really the boss or not."

In 1967, a first sergeant named Lonando played a key role in Tedesco's development as a commander of D Company, 3rd Battalion, 1st Brigade, Fort Lewis, Wash.

Tedesco, whose own frame of reference is about 5-foot-4, remembers Lonando as a short, stocky, tough-looking guy. He was forceful, direct and articulate.

"He could motivate soldiers with his speech," Tedesco said. Soldiers liked Lonando and respected him.

"He helped me learn what it meant to be a commander," Tedesco said. "He was the first guy who showed me what a good NCO could do, and he made it very clear what was officer business and what was NCO business."

CSM Wayne Barefoot was "everything a command sergeant major should be," when Tedesco commanded the 1st Battalion, 3rd Air Defense Artillery, 101st Airborne Division, Fort Campbell, Ky.

Standing about 5-foot-8 and weighing in at 130 pounds, Barefoot was a wiry man — an airborne infantryman with two tours in Vietnam under his belt. Tedesco credits Barefoot with forging his battalion of "Screaming Eagle" air defenders into a cohesive group. Barefoot looked after the younger soldiers like a mother hen, had great ideas and knew how to execute them.

He was also a friend, Tedesco said.

The mood in the room changes as the interview turns to combat experiences. Seated behind his desk, Tedesco pauses to light a cigar. Smoking silently, he takes much longer to reflect before answering questions. When he does speak, he leans forward and expresses himself with such intensity that you wonder how you would walk away from combat. Would you carry the memories with you forever?

In 1967, Captain Tedesco was a 25-year-old battery commander. 1st Sgt. Alex Crawford was one of the

few soldiers in the battery with any previous combat experience. Crawford had won his stripes the hard way, starting out in one of the Army's segregated antiaircraft units during the Korean War. "He had been there," Tedesco said. "He knew what it was like to be a 19-year-old kid and scared."

Crawford helped the novice soldiers come to grips with their fears.

"He had a quiet, strong way with soldiers," Tedesco said. Crawford's

"He knew what it was to be a 19-year-old kid and scared"

steadiness had a calming influence upon the troops.

Soldiers who serve together in combat develop a brotherhood born of their "mutual sharing of a very difficult time," said Tedesco, who neglects to mention the action which won him a Silver Star. The 24-hour-a-day relationship melds platoon members into a family unit. Associations made during times of war are much deeper and much stronger than those made under other circumstances.

Lt. Col. Terry L. Scott, commander of the 1st Battalion, 6th Air Defense Artillery, Fort Bliss, likes to credit his success as a commander to the top-notch NCOs who have served with him.

"The NCO has played a major role in my career in each unit that I have been in," Scott said. "If it were not for the professional NCOs doing their jobs, I would not be here. I would not have survived."

In January 1972, Scott took over B Battery, 6th Battalion, 44th Air Defense Artillery, Kunsan, Korea.

The former battalion commander had been relieved.

Scott conferred with 1st Sgt. Weir as to what he perceived as the primary problem in the battery. Weir was a large, dynamic man with a booming voice. He told Scott that the NCOs had not been allowed to do their jobs and were all but removed from the chain of command.

Scott made it a point to tell the NCOs that they would play a primary role in the operation of the battery and would be expected to perform their duties as intermediate supervisors. Once the battery's NCOs re-entered the chain of command at Kunsan, Scott said the battery morale "went sky high."

Scott's job as the new battery commander would have been more difficult had it not been for SFC Jesse James. Scott faced the sort of problem that faces many ADA NCOs today during a difficult period of MOS transition. Scott had been trained on Nike Hercules; his new outfit was a Hawk battery.

James was the fire control platoon sergeant. Scott said he learned the weapon system from James just as if he was a brand-new second lieutenant. Because NCOs such as Weir and James were managing, leading and motivating the soldiers, Scott could afford the luxury of learning the weapon system while commanding a battery.

In the mid-1970s, Scott's post was an isolated Nike Hercules site in West Germany. As commander of A Battery, 3rd Battalion, 71st Air Defense Artillery, Scott worked with 1st Sgt. Leon LaFramboise.

LaFramboise was a large, tall, aggressive man with a take-charge attitude. He was also an "outstanding soldier," Scott said.

The solitary atmosphere of the post created special soldier-care problems which LaFramboise understood and handled well.

"It was some tough duty," Scott said. "First Sergeant LaFramboise

allowed me to fight the fires that needed to be fought."

Whether you're a lieutenant, a battery commander or even a battalion commander, Scott believes an officer's key to success in the Army is seeking out professional NCOs, putting your trust and confidence in them by allowing them to do their jobs, then backing them up 100 percent.

"NCOs make us all better officers," Scott said.

Charisma is the quality which impressed Capt. Weldon Green about a Fort Hood NCO.

In 1985, Green was a platoon leader with Fort Hood's B Battery, 2nd Battalion, 5th Air Defense Artillery, 2nd Armored Division. SFC Nathaniel Solomon was a platoon sergeant from another unit.

At 6-foot-2, weighing in at 200 pounds, the muscular Solomon was the image of perfect physical health.

He wore his hair extremely short, to the point he looked almost bald.

"He walked with an air of confidence and looked like the ultimate warrior," said Green.

Green, who is currently training on the Patriot weapon system at Fort Bliss, recalled that Solomon's platoon seemed to thrive under the NCO's charismatic leadership.

"He had the amazing ability to influence his troops as well as troops in other platoons," he said.

Solomon's platoon members operated like a family with the platoon sergeant serving as the father figure. Platoon members depended upon one another, just as in a family unit. Green found this aspect of Solomon's leadership unique.

In *Follow Me*, Lt. Gen. Aubrey Newman states that the essential ingredients that make up the character of sergeants is the same as that of generals. There's no doubt

that the Army Officers Corps holds the NCO Corps in high esteem. If the four officers interviewed are indicative, the ADA Officers Corps is no exception.

They spoke of men of quiet wisdom, men of courage and men of faith who possess a keen insight to what make soldiers "tick."

They spoke of soldiers who got their jobs done in different ways. Some relied on personal charisma while others depended upon technical know-how and people skills drawn from that vast storehouse of knowledge called "having been there before."

And, always, they spoke with affection, admiration and a profound sense of gratitude.

2nd Lt. Renee Lee is an ADA Officer Basic Course student at the U.S. Army Air Defense Artillery School, Fort Bliss, Texas. Prior to her commissioning, she worked as a newspaper reporter in Texas and Kentucky.

Where They Are Now

The officer-NCO interdependence sometimes produces friendships that outlast the command-subordinate relationship. Some of the officers 2nd Lt. Renee Lee interviewed for "Sarge" have managed to keep track of the NCOs who, decades ago, played pivotal roles in their careers.

Typically, many of the retired soldiers have made El Paso, Texas, the home of Fort Bliss and the U.S. Army Air Defense Artillery School, their place of residence.

SFC Major Green Long, who taught Brig. Gen. Jay M. Garner, then a fledgling second lieutenant, how to run a platoon, retired from the Army as a first sergeant. He makes his home in El Paso, Texas.

CSM Wayne Barefoot, who helped make Col. Vincent J. Tedesco a successful battalion commander, is retired and lives in Clarksville, Tenn.

1st Sgt. Alex Crawford, the Korean War veteran who served with Tedesco in Vietnam, is a retired command sergeant major. A lieutenant with the El Paso County Sheriff's Office, he is in charge of the county jail.

SFC Nathaniel Solomon, Capt. Weldon Green's choice as the model NCO, is serving with the 2nd Infantry Division in Korea.

1st Sgt. Leon LaFramboise, who taught Lt. Col. Terry L. Scott the difference between Nike Hercules and Hawk is now a federal employee at Fort Bliss, Texas.

Remembering Top

When an Army Writing Program instructor tasked Air Defense Artillery Officer Basic Course students to write essays based on the Year of the NCO, the new second lieutenants were at a disadvantage. Most new second lieutenants know a lot less about NCOs than NCOs know about new second lieutenants. 2nd Lieutenant Dennis Clements, however, had an edge. Clements had begun his military career as an enlisted marine and had seen top-notch NCOs in action. His essay about a memorable master gunnery sergeant won his class' writing award.

by 2nd Lt. Dennis Clements

In my brief career in the military, I have met several NCOs. The NCO who has influenced me the most is Master Gunnery Sergeant Williams. He was a big man, towering over almost everyone with his 6-foot-7 frame. You could look at the lines in his face and tell that he has led a rigorous and eventful life — the life of an NCO.

Top Williams — “Top Willy” to his friends — joined the Marine Corps during the Korean War. His MOS was driving a tank. Since there was a shortage of tanks, he and a friend were sent to Korea to serve as infantrymen. They grew closer, each saving the other's life in combat. When the war was over, Top remained in the enlisted ranks. His friend went back to school, graduated, and eventually rose to the rank of general. During Top's last year in the Corps, this friend, General Smith, came by the tank park every month to check on his old friend. They shared a type of friendship based on a mutual respect that transcends rank.

I had the privilege of serving under Top for three years. He was an NCO's NCO.

Top Williams possessed an abundance of leadership qualities. First, he knew himself and was always seeking self-improvement. He realized late in his career that the military was changing. Top Williams chose to change with it. He enrolled in college at night and earned his bachelor's degree. He gave up drinking and smoking to extend his career. He never bent a principle, but he was willing to adjust to new realities.

Top, as you might expect, was technically and tactically proficient. He had the knowledge it takes to walk out on the tank ramp and evaluate the tank mechanics at their work. He could go to the field and supervise tank-recover operations. He also ran the battalion maintenance office. Top knew the Marine Corps runs on beans, bullets and paperwork. He made sure the paperwork, including supply requisitions, repair records and deadline reports, were completed to perfection.

Top Williams also realized the importance of setting the example. On the first day we met, I knew that I would follow this man anywhere.

We had just moved into a temporary tank park while we waited for our new complex to be completed. All of the tank mechanics were busily pulling maintenance on vehicles going out on float. As I walked back from picking up paperwork at the engineering section, I saw someone loading broken boards onto a truck. It was Top. I was impressed that a man with 32 years in the service would load a truck himself rather than pull the mechanics off their jobs. I put down my paperwork, walked over, and began loading the truck myself. Top didn't say a word. He expected others to follow his example — an example I, for one, will always gladly follow.

One of the most important, and most frequently overlooked leadership principles is to know your soldiers and look out for their welfare. Top Williams walked the tank park daily and talked to everyone he saw. He knew each marine and their personal problems. He was always ready to offer counsel or advice. On the tank ramp, he preached safety first. He had lost one marine due to an unsafe act and was determined he would never lose another. The

marine, walking backward in disregard of safety regulations, was ground-guiding a tank into a building. The marine fell and was crushed by the tank. On one occasion I watched Top knock a marine who was about to repeat the same potentially fatal mistake about five feet across the tank ramp. Top chewed him out, not because he disliked the soldier, but because he cared!

Top Williams was well known and respected by all of the senior officers and enlisted men. There is a story about the day Top picked up a two-and-a-half pound end connector and threw it through the window of a car that was speeding through the tank park. Top stood his ground when a very angry general emerged from the car. After Top explained the speeding car was a definite safety hazard, the general, recovering from his initial anger, apologized and promised his driver would never do it again.

When a marine neared the end of

his tour, Top would call him into his office. He would then discuss the man's career opportunities both within and without the Corps. He never pressured any marine to reenlist. He only wanted what was best for the marine.

When everyone secured for lunch, Top would inspect the tank ramp. If, God forbid, he found an unsecured mechanic's toolbox, that mechanic would pay! The worst part wasn't the verbal reprimand in Top's office that swiftly followed, nor the one-pound sack of black jelly beans that Top charged as ransom for the toolbox. The worst part was the fall from Top Williams' good graces.

Top Williams put me, a lowly E-3, to work as the engineer clerical section chief, a slot normally filled by an E-7. He told me that I had complete control and that the job was mine until I screwed up. The confidence the man placed in me drove me to work even harder than I normally would to succeed. I

couldn't let Top down because I knew he would never let me down.

Top Williams put me in a position to prove myself to myself as well as to others. I learned from personal experience that Top would reward your hard work with promotions and a sense of self worth.

Soon I will command my own platoon. If my platoon sergeant is half as good as Top Williams, I know I will have a first rate platoon. The thought of soon "leading" men the caliber of Top can be daunting. I base my confidence and my hopes of success on the lessons Top taught me. My one goal is never to do anything beneath Top's standards. In a sense, throughout my career, I'll always be striving to never let Master Gunnery Sergeant Williams down. He was truly an NCO to remember.

2nd Lt. Dennis Clements is an ADA Officer Basic Course student at the U.S. Air Defense Artillery School, Fort Bliss, Texas.

NCO Corps Bridges the Arms Gap

While attending the Air Defense Artillery Officer Basic Course, I have spent long hours studying threat capabilities. Threat forces are quite impressive — one might say, awesome. However, I soon discovered that they, like all armies, have their weaknesses. One of their glaring weaknesses is their lack of a professional NCO corps.

This weakness is in sharp contrast to one of the U.S. Army's major strengths, its professional, experienced and dedicated corps of NCOs.

The U.S. NCO Corps far surpasses its threat counterpart in training, professionalism and experience. When you compare the quality of our NCOs to their NCOs, our NCOs win hands down. The comparison isn't really fair, since our NCOs are accustomed to working at a level of responsi-

bility and accountability far above those delegated to threat NCOs.

The American NCO is the missing factor in comparisons of forces which count tanks, guns, troops and airplanes but not sergeants. While the threat has succeeded in partially closing the technological gap which once offset their quantitative advantage, they have made no headway in closing the "chevron" gap.

Threat forces will outnumber us by at least a five-to-one margin in any major confrontation that follows NATO scenarios. One of the keys to fighting outnumbered and winning will be the strength and professionalism of the NCO Corps. They will be the bridge that crosses the arms gap.

— 2nd Lt. Kenneth L. Onorato Jr.

NCOO

STANDARD BEARERS

by Maj. Gen. William H. Riley Jr.

Noncommissioned officers pass on the standards of the Army to those soldiers who have not yet assimilated them. In my own case, it was 1st Sgt. Charles Adams (now a retired command sergeant major living in El Paso) who helped me cross over the line into the ranks of those who have internalized and who enforce Army standards of conduct and discipline. Prior to meeting 1st Sgt. Adams, I must admit that my platoon sergeants and I only begrudgingly handled our garrison responsibilities (barracks checkup, bedcheck, dayroom self-help, mess inspection, etc.). After all, we felt we were field soldiers. I felt my job was primarily to pull TCO and run operational checks.

As a battery commander, I was aware of the troops' criticism of the first sergeant — he was too "hard core" and didn't appreciate the technical nature of Hawk. Why couldn't he move the orderly room to the tactical site and get involved with the "real job" of pulling operational status? At first, I struggled with doubt — maybe the troops were right. We were short on personnel;

during the Vietnam draw-down we had only two officers, a battery command and an executive officer, and few NCOs. Why not push the first sergeant into a more operational role?

When I discussed this with Top, he patiently explained to me the full scope of what he did back in garrison — accounting for soldiers (morning report), creating an environment of discipline and responding to the needs of soldiers. Before the discussion became heated, though, he agreed to try my way and move to the tactical site.

It wasn't too long before the barracks began to look shoddy (in those years the kasernes weren't much to start with), the number of "incidents" started to increase and we began to lose control. I finally realized that not only should I let the first sergeant return to the orderly room, I should also go back there more frequently myself to pitch in and help. Sponsorship, personal inspection and just plain old housekeeping are common tasks of all leaders.

Even today, air defense artillery

troops struggle with this "elitism" and conflict of identity. Some radar mechanics feel their job consists solely of troubleshooting their radars, and technicians sometimes don't like participating in "muddy boots" soldier tasks like drill and ceremonies, physical training and barracks "GI parties." Even in the field, many "soldier" tasks are neglected because of the press of "system checks." Were it not for the first sergeants and the platoon sergeants checking perimeter security, shaves, changes of socks, field sanitation, range cards, preventive maintenance checks and services, trailer brakes and a host of other details, the unit would eventually break down and suffer casualties.

The Army's standards must not break down at the working level. NCOs are still holding the line with courage, candor, competence, commitment, loyalty and selfless service. 1st Sgt. Adams remains in my memory as the soldier who taught me about standards — technical, tactical and garrison.

Maj. Gen. William H. Riley Jr. is deputy commander, 3rd U.S. Army, Fort McPhearson, Ga.

NCO Hall of Fame

"For conspicuous gallantry and intrepidity at risk of life, above and beyond the call of duty...."

With words similar to these, and a bit of ribbon and metal, the nation honors those in its armed forces who, engaged with the enemy, forgot personal danger and accomplished their missions with daring.

The awarding of medals to our national heroes dates back to the Revolutionary War when Washington recommended decorations be given to John Paulding, David Williams and Jacob Van Wert, captors of Major Andre, the British spy.

The ADA NCO Hall of Fame recognizes those air defense NCOs who performed gloriously to ensure the continued existence of our inheritance. Funded by the ADA Association, the NCO Hall of Fame display adorns the hallway of Headquarters Building, Fort Bliss, Texas.

The following narratives are accounts of air defense NCOs whose courage and dedication to duty won them not only the nation's top decorations for valor, but also a place of honor in the U.S. Army Air Defense Artillery School's NCO Hall of Fame.

DISTINGUISHED SERVICE CROSS

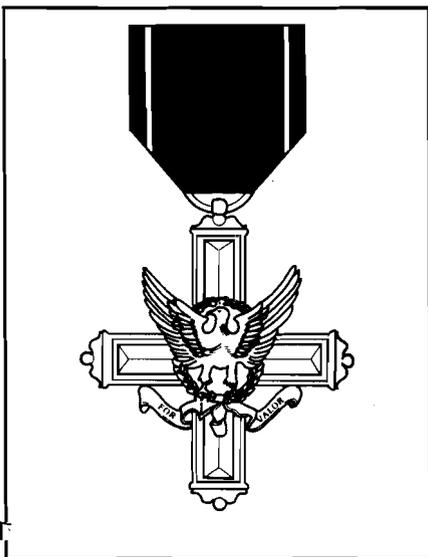
The Distinguished Service Cross is second only to the Medal of Honor as an award for heroism.

This award is made to any person, while serving in any capacity of the Army of the United States, who distinguishes himself by an act of extraordinary heroism in

in military operations against an armed enemy. The Distinguished Service Cross was created during World War I to take the place of the Certificate of Merit, established in 1846 for soldiers in the Mexican War.

The Distinguished Service Cross is bronze with an American eagle in the center. Below the eagle is a scroll with the words "For Valor." On the back is engraved the name of the recipient and the date of the event. The ribbon for the medal is blue, edged with narrow bands of red and white.

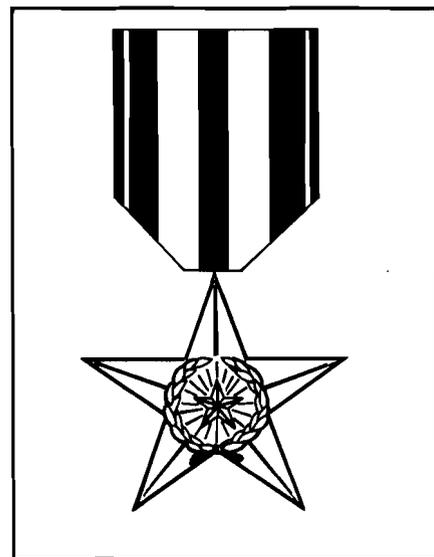
The medal is made of bronze in the shape of a star and is one-and-a-half inches across. In the center is a small, raised silver star. On the back of the medal are the words, "For Gallantry in Action." The medal is attached to its ribbon by a metal loop. The ribbon has a center stripe of red, a stripe of white, a stripe of blue and a narrow white and a narrow blue stripe.



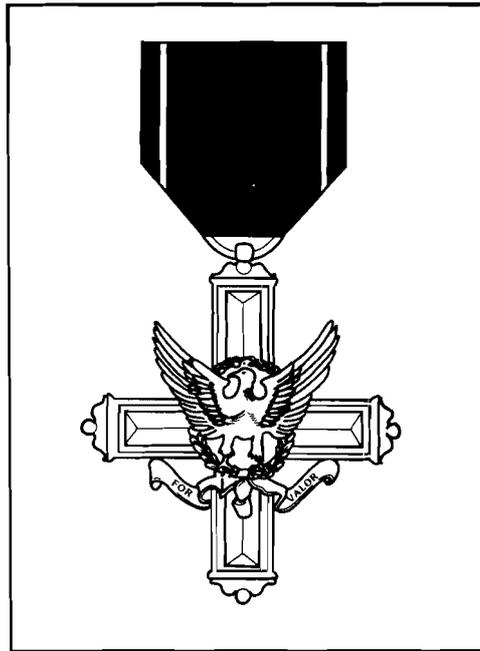
SILVER STAR

The Silver Star medal was created by an Act of Congress, July 8, 1918, as an award for heroism.

The medal is awarded for valor or gallantry in action against an enemy of the United States in a situation which does not warrant the award of a Medal of Honor or Distinguished Service Cross. It ranks third in order in awards.



Distinguished Service Cross Recipients



First Sergeant Dewey G. Brady

1st Sgt. Dewey G. Brady was killed in action April 24, 1942, while a member of D Battery, 60th Coast Artillery (AA) Regiment, Fort Mills, P.I. Brady was awarded the Distinguished Service Cross for extraordinary heroism in action on Corregidor, Philippine Islands, from April 13th to April 24th, 1942. Brady skillfully directed his battery's fire and resolutely searched the skies and hostile shores of Cavite and Bataan from an observation post on a water tower at Fort Mills. This post, the most dangerous and exposed on the island, afforded him advantageous communication with every gun position and director pit in the battery, and he refused to leave it although Corregidor was under virtually continuous aerial and artillery bombardment. Brady maintained his post with unfaltering determination as he reported enemy aircraft posi-

tions and gun locations. On many occasions he faced bursting shells to aid the wounded, move much-needed stores or repair artillery communications lines, although ordering his men to remain under cover in each instance. Brady was finally killed at his post, but his outstanding ability did much to make possible the dauntless defense of Corregidor, and his extraordinary heroism was an inspiration to his comrades.

Private First Class Luz A. Cisneros

During World War II, PFC Luz A. Cisneros served with D Battery, 60th Coast Artillery (AA) on Corregidor. When the Japanese landed, Cisneros fought in the infantry line across the island. On the night of May 6 and 7, 1942, he crawled up Kindley Field Ridge, the key terrain on that end of the island, and threw hand grenades into enemy machine gun positions,

temporarily clearing the ridge and allowing the defenses time to reorganize. Cisneros, already decorated with the Silver Star, was killed during the action and posthumously decorated with the Distinguished Service Cross.

Sergeant Harold P. Haugland

Sgt. Harold P. Haugland, while a member of D Battery, 15th Antiaircraft Artillery Automatic Weapons Battalion (Self-Propelled), 7th Infantry Division, distinguished himself by extraordinary heroism in action against an armed enemy near Chosin Reservoir, Korea, on Nov. 29 and 30, 1950. D Battery was providing ground defense for Field Artillery elements, and Haugland's M-19 was covering one sector of the perimeter defense. The enemy made numerous heavy attacks against his weapon on Nov. 29 and, by exposing himself voluntarily to intense fire, he was able to direct

the fire of his guns to the most vulnerable points with speed and efficiency. As a result of his selfless exposure to enemy fire, he was seriously wounded in one foot and was carried to the aid station. Early on the morning of Nov. 30, the enemy renewed the attack against the perimeter. Haugland, with complete disregard for his own welfare and safety, wrapped his wounded foot in cloths and, using an empty ration box for a shoe, made his way under enemy fire from the aid station to his M-19 where he resumed command and continued to expose himself to enemy fire while commanding the weapon. During this action an enemy mortar set fire to the ammunition trailer. In the midst of exploding 40mm high explosive shells, Haugland coolly walked in front of the vehicle and guided the driver of the gun carriage to an alternate position. As a direct result of his outstanding devotion to duty, his fearless leadership and his exemplary heroism, Haugland's M-19 prevented penetration of the perimeter and killed scores of the enemy.

Sergeant Jack R. Hiday

Sgt. Jack R. Hiday, D Battery, 15th Antiaircraft Artillery Automatic Weapons Battalion (SP), distinguished himself by extraordinary heroism in action on Nov. 30, 1950, in the vicinity of Chosin Reservoir, Korea. When the enemy launched a vicious mortar, automatic weapons and small-arms attack against the M-16 half-track vehicle that he commanded, he stood on top of the vehicle and directed a barrage of fire into the charging hostile force. At the peak of the assault, it became necessary to replenish the weapon with full chests of ammunition. Observing that the cannoneers were unprotected during the change, the enemy rushed the vehicle. Hiday, to protect his gun crew,

grabbed a bazooka and leaped from the vehicle to draw hostile fire. He was mortally wounded by a hail of fire, but his crew reloaded and threw a heavy blanket of fire into the enemy, killing a large number and dispersing the remaining element.

Sergeant John J. Kelly

Sgt. John J. Kelly was a member of the Coast Artillery Corps, 459th Antiaircraft Artillery Automatic Weapons Battalion. On June 6, 1944, upon landing at Omaha Beach, France, Kelly saw an enemy machine gun firing into troops that were trying to get ashore. Heedless of intervening minefields, he quickly organized a party to lead against the enemy gun emplacement. Despite a serious hand wound he had earlier received, and with complete disregard for his own personal safety, he advanced ahead of his attacking party and hurled a hand grenade into the enemy nest, thus killing the entire enemy gun crew. When enemy snipers directed fire against organizers who were clearing the minefields, Kelly voluntarily and courageously led an assault which cleared the snipers from the sector.

Sergeant First Class Neal M. Morris

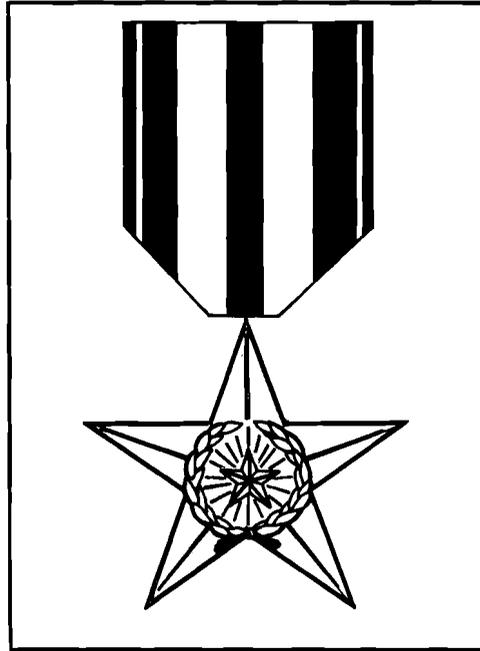
SFC Neal M. Morris, a member of A Battery, 26th Antiaircraft Artillery Battalion, 24th Infantry Division, distinguished himself by extraordinary heroism in action against the enemy near Yonch'on, Korea, on Dec. 13, 1950. During the night of Dec. 13, Morris was in charge of a half-track antiaircraft vehicle crew on outpost duty with the mission of protecting C Battery, 555th Field Artillery Battalion, from aircraft and ground attack. At about 2200, a force of approximately 60 guerrillas infiltrated through the darkness to within a few

yards of the vehicle. Observing that the enemy were too close for him to bring effective fire on them, he attempted to withdraw with his driver; however, the motor of the half-track drew heavy enemy fire and the driver was seriously wounded. Morris withdrew approximately 75 yards, reorganized the remaining seven men of his section and started back to the half-track position to engage the enemy. He crossed an open field under heavy enemy fire which became so intense that the group was pinned down 10 yards from their objective. Heedless of the enemy small-arms fire and with complete disregard for his personal safety, he crawled the remaining 10 yards and removed the wounded driver from the half-track. He then started the motor which operated the gun turret in an attempt to bring the machine guns to bear on the enemy. The motor again drew heavy small-arms and automatic weapons fire and an enemy hand grenade blew Morris from the track, mortally wounded. His display of courage, patriotism and devotion to duty so inspired his seven comrades that they successfully advanced into the face of the enemy and fought off the attack against overwhelming odds.

Sergeant George Westzenberg

Sgt. George Westzenberg, Medical Detachment, A Company, Second Antiaircraft Machine Gun Battalion, received the Distinguished Service Cross for displaying extraordinary heroism in action at Neuville, France, Sept. 25, 1918. He voluntarily ran through violent enemy shell fire to the aid of two soldiers of another organization who had been struck by an exploding shell. Finding one dead and the other severely wounded, he administered first aid to the wounded soldier and remained with him until an ambulance arrived.

Silver Star Recipients



Private First Class Clifford R. Arnold

PFC Clifford R. Arnold, a member of H Battery, 60th Coast Artillery, displayed outstanding gallantry on May 3, 1942. When the anti-aircraft gun he manned was out of action, he courageously left the comparative safety of the emplacement to man a machine gun against an enemy dive bomber until he fell mortally wounded. Arnold's heroic conduct reflects great credit on himself and the military service.

Sergeant First Class Rubin R. Beckman

SFC Rubin R. Beckman distinguished himself by gallantry in action while engaged in military operations involving conflict with an armed hostile force on May 11, 1968, while serving as a platoon sergeant with B Battery, 5th Battalion (Automatic Weapons) (Self-Propelled), 2nd Artillery, in the Republic of Vietnam. Beckman was in

charge of two armored vehicles whose mission was perimeter security of Fire Support Base Pike VI. During the early morning hours, the fire support base camp came under heavy enemy mortar and antitank rocket fire, followed by a ground attack from an unknown-size force. During the initial attack, Beckman ordered his men to mount the armored vehicles and return the enemy fire with 40mm guns. Observing that the enemy had advanced to within 100 meters of his position and realizing that there were too many to engage with the 40mm guns alone, Beckman jumped from his armored vehicle and manned an M-60 machine gun which he noticed in an unprotected position near the vehicle. After both armored vehicles had been disabled by antitank rockets and several crewmen were wounded, Beckman detonated three Claymore antipersonnel mines and rushed to the aid of his men. Through the intense

enemy fire, he guided two dazed crewmen to the relative safety of a howitzer position, then, with complete disregard for his personal safety, Beckman ran back through the devastating enemy fire to remove the remaining seriously wounded crewmen from the armored vehicles. Upon returning to the howitzer, Beckman directed artillery fire into his former position. Throughout the remainder of the battle, Beckman assisted the howitzer crew in loading ammunition. His leadership and initiative contributed greatly to the successful defense of the fire support base.

Sergeant Milford A. Clingerman

Sgt. Milford A. Clingerman, a member of the Antiaircraft Artillery Battery, 187th Airborne Regimental Combat Team, distinguished himself by gallantry in action against the enemy in the vicinity of Solpyong-Korea, on May 29, 1951. Clinger-

man was ordered to proceed with his M-16 multiple-gun motor carriage and crew to an area near Solpyong and break up an enemy roadblock which had halted a truck convoy. Upon arriving at the area of the roadblock, he observed that the convoy personnel were pinned down by heavy enemy machine gun, automatic weapons and small arms fire. Moving the multiple-gun vehicle to the head of the convoy, Clingerman directed a devastating volume of fire on the enemy's positions, destroying one machine gun emplacement and inflicting heavy casualties on the hostile troops. He then left his vehicle and began organizing the convoy personnel, encouraging them and directing their defensive actions. Throughout the ensuing two-and-a-half hour battle, Clingerman continually exposed himself to enemy fire to direct the efforts of the friendly group and to assist the medical aidman in moving the wounded to safety and administering medical aid. Clingerman's aggressive leadership and gallant actions enabled the group to hold the position until reinforcements arrived.

Staff Sergeant Vincent de Santis

SSgt. Vincent de Santis distinguished himself by exceptionally valorous actions on Jan. 24, 1968, as leader of a self-propelled gun section sent to aid an ambushed convoy near Camp J.J. Carroll. He rapidly estimated the situation upon arrival at the battle site and maneuvered his vehicle to a position from which his guns delivered accurate and effective fires on entrenched hostile automatic weapons, recoilless rifle and mortar positions in the surrounding hills. While exposed to savage enemy fire, he was seriously wounded in the back. He refused medical aid and continued to direct his crew's fire and to load the guns.

An antitank round struck the rear of the turret, killing a cannoneer and wounding the rest of the crew. Wounded again, de Santis still refused treatment and evacuated the casualties from the stricken vehicle. With bullets showering all around him, he ensured that all the other wounded were removed from the battlefield to safety before he allowed himself to be attended.

Specialist Four Anthony S. Disanti

Spec. Anthony S. Disanti received the Silver Star by distinguishing himself by gallantry in action involving conflict with an armed hostile force on May 9, 1968, while serving as an M-42 Duster squad leader with B Battery, 5th Battalion, 2nd Artillery, in the Republic of Vietnam. On this date, Fire Support Base Maury came under heavy enemy mortar, antitank fire and a fierce ground attack. Disanti ordered his crew to open fire upon the enemy positions. Meanwhile, he effectively controlled the fire of his twin 40mm guns while he personally delivered fierce volleys of return fire with the M-60 machine gun on his Duster. On four occasions when the 40mm guns became low on ammunition, Disanti, fully exposed to the withering hostile fire, moved to the ammunition trailer 20 yards away and carried ammunition back to the Duster. After firing more than 700 rounds, both guns jammed. Without hesitation, Disanti grabbed the rammer staff, moved to the front of the vehicle and began to ram the jammed rounds out of the barrels of the weapon. While he was in this position he was seriously wounded by an enemy antitank round that exploded. Through his gallant actions, a heavy volume of fire was brought upon the enemy, considerably reducing their effectiveness and preventing the hostile force from penetrating the defensive perimeter.

Sergeant Harry Fineman

Sgt. Harry Fineman was on Fort Hughes during the Philippine Campaign of World War II. On April 10, 1942, a flight of Japanese bombers destroyed the communications between the AA guns and the battery's range section. As another flight of bombers approached, Fineman left cover and ran across open ground to the guns. He tested the lines, found the breaks, repaired the lines and restored communications vital to the efficiency of the battery. While he was doing his duty, this brave young NCO was killed by enemy artillery fire and posthumously decorated with the Silver Star.

Sergeant Finis R. Ford

Sgt. Finis R. Ford received the Silver Star for distinguishing himself by gallantry in action involving conflict with an armed hostile force. On Feb. 18, 1968, while serving as squad leader, D Battery (Machine Gun), 71st Artillery, in the Republic of Vietnam, Ford's vehicle was directed to support an infantry assault in the area of Phouc Binh. As they approached their objective, they encountered intense small arms and automatic weapons fire which disabled Ford's vehicle and wounded both the crew members and infantrymen in the vehicle. Although wounded in the face, neck and arms, Ford undauntedly returned the enemy's fire while the wounded were evacuated. With complete disregard for his personal safety, he remained in his exposed position, raking the enemy with suppressive fire, until the concussion of a direct hit threw him from the vehicle. The suppressive fire which he directed upon the enemy fortifications inflicted heavy losses among their ranks and was a significant factor in limiting the number of friendly casualties.

**Technical Sergeant
Jacob J. Johler**

Tech. Sgt. (then SSgt.) Jacob J. Johler, a member of E Battery, 60th Coast Artillery, displayed gallantry in action at Corregidor, Philippine Islands, on May 5 and 6, 1942. During extremely heavy artillery and air bombardment, Johler, with complete disregard for his personal safety, assisted in removing casualties under fire. When telephone communications at the battery were shot out, Johler voluntarily carried messages to and from the battery and the seaward defense command post, a distance of about a quarter of a mile, in the dark, over rugged terrain and through intense artillery fire. When very heavy casualties seriously reduced the effective strength of the battery, Johler, though a motor mechanic who had had no training on guns, voluntarily took over the hazardous position of chief of breech, a duty which required him to fire the gun while the other members of the gun crew took cover. Johler continued to function at this post until he received shrapnel wounds in the arm and body. He then assisted in caring for and evacuating the more seriously wounded.

**Private First Class
Thomas B. Jones**

PFC Thomas B. Jones distinguished himself by gallantry in action involving conflict with an armed hostile force on May 9, 1968, while serving as a crew member of a twin 40mm Duster track vehicle with B Battery, 5th Battalion (Automatic Weapons) (SP), 2nd Artillery, in the Republic of Vietnam. On this date, Fire Support Base Maury came under an intense enemy mortar, rocket and ground attack. Within seconds of the enemy's initial burst of fire, Jones and the remainder of the twin 40mm Duster crew had manned their positions and directed fire on the sus-

pected enemy positions until the guns became jammed. The crew then abandoned the mobile weapon. Jones then discovered that one of the crew had been seriously wounded and remained in the vehicle in a very vulnerable position. With complete disregard for his own personal safety, Jones returned to the vehicle and removed the unconscious soldier. Having freed the wounded soldier from the disabled vehicle and to a relatively safe area, he immediately began administering first aid. After treating his injured comrade, Jones once again disregarded his personal safety and immediately began extinguishing a fire that silhouetted the Duster and adjacent friendly positions to the enemy. With the fire extinguished, he continued to repel the enemy with highly accurate fire from his personal weapon.

**Corporal
Parke H. Klinow**

Cpl. Parke H. Klinow was a member of the Coast Artillery Corps. On May 5 and 6, 1942, acting as elevation setter on a coast defense gun, he displayed gallantry in action on Corregidor, Philippine Islands. He took command of the gun after an enemy salvo seriously wounded the commander. Although wounded, he kept a heavy and effective fire directed against Japanese landing craft. As other men were wounded, Klinow personally took over many of the duties necessary to keep the gun firing and, by his determined leadership, stamina and coolness, inspired and encouraged the gun crew during the heavy enemy barrage.

**Sergeant
James S. Light**

Sgt. James S. Light was a member of the 468th Antiaircraft Artillery AW Battalion (SP). In Belgium, on Dec. 29 and 30, 1944, Light, as section chief, was a member of the

1st Platoon of B Battery, furnishing antiaircraft protection to a Field Artillery battery. In addition to enemy shelling, the position was subjected to five attacks during the night by flights of eight to 12 enemy planes. During one of the attacks Light saw a delayed action antipersonnel bomb roll under the mount. Of his own volition he attempted to move the vehicle, but before he could enter the cab the bomb exploded. Despite the strafing and bombing by enemy aircraft and the enemy artillery shelling directed at the area, Light continued to direct intense and accurate fire on the aircraft. As a result of his actions, four of the attacking planes were brought down and the attack upon the Field Artillery battery diverted. He and the members of his section repeatedly displayed audacious determination and steadfast devotion to duty by remaining at their guns in spite of the superiority of the attacking enemy forces.

**Corporal
Louis G. Macholl**

Cpl. (then PFC) Louis G. Macholl, Coast Artillery Corps, displayed gallantry in action at Corregidor, Philippine Islands, on April 24, 1942. When an adjacent gun emplacement was hit and set on fire by enemy artillery, he courageously left the relative safety of his position, crossed an area under fire to the burning emplacement and assisted in reducing the fire and removing the wounded. Macholl's promptness and bravery contributed materially toward preventing a serious explosion and further loss of life.

**Corporal
Sherman E. Motley**

Cpl. Sherman E. Motley, a member of A Battery, 60th Coast Artillery (Antiaircraft), displayed gallantry in action at Fort Frank, Philippine Islands, on or about

March 21, 1942. An enemy shell penetrated a lateral tunnel at Fort Frank and exploded inside the tunnel, causing about 140 casualties, 34 of which were fatal. Motley voluntarily entered the tunnel during the continued enemy shelling, administered first aid to the wounded, brought in water, food and hot towels, then assisted in carrying the seriously wounded from the tunnel. Motley's gallant action not only raised the morale of the wounded, but also undoubtedly saved a number of lives.

Staff Sergeant Randolph Pickett

SSgt. Randolph Pickett distinguished himself by gallantry in action while engaged in military operations involving conflict with an armed hostile force on April 24, 1967, while serving as a section chief with D Battery (Machine Gun), 71st Artillery, in the Republic of Vietnam. Pickett was section chief of a quad .50-caliber machine gun section attached to B Battery, 5th Battalion (Searchlight), 2nd Artillery. As his unit was returning from a convoy escort mission in the vicinity of the Boi Loi Woods, the vehicle on which he was riding detonated an enemy land mine and overturned. All passengers on the vehicle were seriously injured. Pickett, in agonizing pain from his own injuries and unable to move the lower part of his body, quickly directed the establishment of a defensive position in the event of an enemy attack. Refusing first aid for himself, he offered comfort and reassurance to his injured comrades. Moments later, an unknown size enemy force began delivering intense automatic weapons fire on the beleaguered unit. Pickett fearlessly directed return fire on the hostile force and, despite almost unbearable pain, dragged himself into a position which enabled him to deliver a heavy volume of fire on the

insurgents. His efforts aided the squad to reposition its .50-caliber machine gun and directing intense suppressive fire on the Vietcong, causing the enemy to break contact and withdraw. Pickett's gallant actions prevented further casualties and loss of valuable equipment.

Staff Sergeant Francis M. Sewell

SSgt. Francis M. Sewell, 60th Coast Artillery, Antiaircraft, on May 5 and 6, 1942, displayed gallantry in action on Corregidor, Philippine Islands. During the night of Japanese landings on Corregidor, he made numerous trips, under heavy artillery and sniper fire, to repair communications lines which were destroyed constantly by enemy action. By his courageous performance of this voluntary work, Sewell did much to maintain communications between the headquarters and elements of the regiment.

Corporal Stafford D. Shipley

Cpl. Stafford D. Shipley, a member of A Battery, 15th Antiaircraft Artillery Automatic Weapons Battalion (Self-Propelled), received the Silver Star for his display of gallantry in action against an armed enemy near Hoengsung, Korea, on Feb. 12, 1951. Shipley was in charge of an M-16 multiple machine gun half-track which was protecting a road intersection to permit the passage of the vehicles of a task force into Wonju, Korea. While his M-16 was engaged in firing at the enemy, Shipley heard a call for assistance from his section chief, who had discovered eight seriously wounded soldiers in a burning house. Shipley unhesitatingly made his way to the house through intense enemy fire to assist in carrying the wounded men to a place of comparative safety, after which he helped to load them into passing vehicles for evacuation.

Sergeant First Class Elmer Snodgrass

SFC Elmer Snodgrass, while a member of A Battery, 15th Antiaircraft Artillery (AW) Battalion (SP), displayed gallantry in action against the armed enemy at Hoengsung, Korea, on Feb. 12, 1951. Snodgrass was protecting a road intersection with the two M-16 multiple machine gun half-tracks of his section to permit the passage of a withdrawing task force. While firing against the enemy, Snodgrass saw a wounded soldier crawl out of a burning house. Making his way through intense enemy mortar, automatic weapons and small arms fire, he rendered first aid to the wounded man and discovered seven other seriously wounded men in the house, all of whom were on litters and unarmed. While Snodgrass was rendering first aid to them, the house was hit by enemy mortar fire. With the assistance of three members of his section, he carried the wounded men to a place of comparative safety.

Private First Class Delbert R. Thomas

PFC Delbert R. Thomas, a member of G Battery, 60th Coast Artillery (Antiaircraft), displayed gallantry in action at Bataan, Philippine Islands, on or about April 5, 1942. During the course of an intensive aerial bombardment of his battery position, a dump of high explosives and aircraft ammunition was hit and set on fire, Thomas voluntarily left his position of safety and assisted in extinguishing the fire. His timely and courageous action at the risk of his life saved valuable and much-needed antiaircraft ammunition and vital and delicate fire-control equipment from destruction.

Sergeant Robert C. Turner

Sgt. Robert C. Turner, while a member of A Battery, 15th Antiair-

craft Artillery (AW) (SP), distinguished himself by gallantry in action against an armed enemy near Sinjumak, Korea, on Jan. 10, 1951. Turner's M-19 tracked vehicle, along with four other self-propelled automatic weapons of A Battery, was in support of a reinforced patrol of the 7th Reconnaissance Company. As the patrol entered a defile,

Turner's vehicle, in the leading element, encountered intense enemy small arms and automatic weapons fire from the steep hills on both sides of the road. The left cannoneer of Turner's M-19 was mortally wounded and his body, in falling, wedged between the left 40mm gun and the tracking and aiming controls, making the weapon inopera-

tive. When the driver of the vehicle behind him fell wounded, Turner left the comparative safety of his M-19 turret and, under intense enemy small arms and automatic weapons fire, ran to the aid of his wounded comrade. He removed the wounded man from the line of fire to the shelter of a stone wall and returned to his exposed vehicle.

NCO Hall of Fame Dedication



Photo by Sgt. Tammy Gilmore

On June 8 Maj. Gen. Donald R. Infante, Chief of ADA and commandant of Fort Bliss, Post CSM Harold Hicks and CSM William Doctor of 1-56th ADA cut the ribbon

for the NCO Hall of Fame dedication located in C Wing, Building 2. The NCO Hall of Fame recognizes real-life heroes and identifies post command sergeants major from 1963 to present.

★★★★ Superstars ★★★★★

by Col. Donald C. Ingram

The Year of the NCO finds the ADA NCO Corps, its ranks filled with superstars who clearly stand out in terms of performance, potential, military and civilian education and soldierly conduct, in excellent health. This isn't just my general impression. It's an assessment based on a recent review of hundreds of ADA NCO career management files.

I recently served as panel chief for a Department of the Army, Air Defense Artillery Sergeant First Class and Advanced Noncommissioned Officer Course (ANCOC) Selection Board. The board reviewed and voted 6,304 files. For Career Management Field (CMF) 16, 1,506 soldiers were in the primary zone (PZ) and 136 in the secondary zone (SZ). For CMF 23, 302 were in the PZ and 94 in the SZ.

I was especially impressed with the health of CMFs 16 and 23 across the board. As a group our staff sergeants are well trained and highly professional. In all cases, the best of the best came to the top, and given our select objectives, it was easy to identify those soldiers best qualified to be platoon sergeants. We all came away from our selection board experience with full faith and confidence in our NCO corps. I will highlight specific strengths and weaknesses of ADA NCOs and make some observations.

Strengths

Overall, we're doing a pretty good job of career managing CMFs 16 and 23. There was not much evi-

dence of mal-utilization or misassignment. It was obvious that a large number of NCOs sought out a variety of tough jobs and did very well. The exceptions were that some 16T (and to a lesser degree 16D) soldiers were serving out of their MOS. This is particularly prevalent at Fort Bliss, Texas.

Assignments as drill sergeant and recruiter were viewed favorably. CMF 23 soldiers need to jump at every chance to get into leadership positions. This is not easy, but those who do so stand out. NCOs assigned to the schoolhouse as instructors and writers should be closely monitored. They need immediate follow-on assignments back to the field to further enhance their leadership and technical skills. NCOs who stay in the school too long tend to lose their competitive edge. Overall, we're doing well in getting our junior NCOs into appropriate jobs.

The vast majority of our staff sergeants are good soldiers. We found relatively few serious disciplinary actions in the records that made a soldier not fully qualified. In most of these cases discipline problems were combined with low job performance. My sensing is that our junior NCO corps is well disciplined with high personal values and moral conduct. We only referred three percent in CMF 16 and two percent in CMF 23 for Quality Management Program (QMP) review.

We gave special attention to values and discipline problems noted in the Enlisted Evaluation Reports (EERs). A values hit was a detractor — the more current the more dam-

aging. We didn't find much drug abuse except in the very early years. Alcohol problems usually appeared as driving under the influence. It seemed that about five percent of the field had recent DUIs. I noted that alcohol incidents were more common than drug incidents.

We saw solid MOS performance in both CMFs. Technically our soldiers appear to be well trained. The skill qualification test (SQT) seems to be a valid indicator of technical competence. For those CMF 23 MOSs with SQTs, scores for NCOs in the zone were above average for all NCOs tested in FY 87 and FY 88. CMF 16 MOS scores were also above average the past two years. Except for 16J, which dropped 17 points in FY 88, all other tested CMF 16 MOSs showed a substantial increase in scores from FY 87 to FY 88.

Comments in the EER and indicators in the performance block contributed, especially over time, to get the whole soldier picture. Consistent remarks on tactical and technical competency in the narrative section helped if SQT scores were old or missing. Low SQT scores were obviously unfavorable. Strong performance in leadership positions, especially at the next higher grade, was a definite plus. Consistent potential recommendations in the EER for serving in a higher grade made the soldier stand out.

For the most part CMF 16 and 23 soldiers were found physically fit. We saw very few Army Physical Fitness Test (APFT) failures or P-3 profiles in the records. Soldiers in

TOE units, especially those serving in divisions, stand out as being in better shape than soldiers in TDA units. Physical profiles looked good. We only found a handful of P-3 profiles.

Without exception all CMF 16 and 23 soldiers have completed high school or have a GED equivalent. That was expected. The data base showed that 17 percent of CMF 16 and 22 percent of CMF 23 soldiers had one or more years of college. In reviewing the files it looked like about 40 to 50 percent had picked up some college credit. I found this encouraging. The trend looks good — it appears that a healthy number of soldiers are working on college level credits.

The military education level for both CMFs 16 and 23 is impressive. Soldiers are, for the most part, getting to the right schools and doing very well. Those few that failed in NCOES usually were not up to standard in other areas. In the PZ, 97 percent had attended NCOES courses; 58 percent of both CMFs are ANCOC graduates or selectees; 26 percent of CMF 16 and 16 percent of CMF 23 soldiers are BNCOC graduates; and 12 percent of CMF 16 and 23 percent of CMF 23 soldiers have completed PLDC. Note the difference in BNCOC attendance between CMFs 16 and 23. We need to do better at getting CMF 23 soldiers to BNCOC sooner.

In the SZ, 93 percent of CMF 16 and 97 percent of CMF 23 NCOs have attended BNCOC or PLDC with CMF 16 again leading the way for getting soldiers to BNCOC: 50 percent vs. 34 percent. Six CMF 16 soldiers and one CMF 23 soldier in the SZ are credited with ANCOC. Except for the problem of CMF 23 BNCOC attendance, we look pretty good.

Weaknesses

We saw too many NCOs with borderline weight problems. NCOs

that were overweight but showing no progress were referred for QMP. The real problem lies in the borderline cases. EERs of NCOs with borderline weight problems clearly stood out. Weight increases combined with changes in height were strong indicators that the soldier was borderline. Most of these EERs either had no comment on weight or reflected that body fat standards outlined in AR 600-9 had been met. These files usually had outdated or missing photos. We need to work hard on this one.

Photographs are very important. It is the initial impression and weighs heavily. We were briefed that 96 percent of all files before this board would have hard copy photos. My sensing is that we had considerably more than four percent without photos. A missing or outdated photo creates suspicion and an immediate check of the EER is made for weight entries. If the weight is good, then we question the soldier's initiative. A sharp, current photo makes a difference. Another problem is photo quality. Some of our soldiers flat look bad. The chain of command and the individual NCO need to tighten the standards.

Across the board the quality of records needs improvement. We found many missing personnel qualification records (PQRs), which really put the good soldier at a disadvantage. Many inconsistencies exist between the Personnel Qualification Record DA Form 2-1 and the Form 2A. We also found significant differences between the hard copy documents and the microfiche. Many times soldiers had certified that their PQR was accurate, but we would find additional unrecorded military schools and civilian education credits and awards on the fiche.

While missing PQRs or bad information may not always be the soldier's fault, the poor quality of records generally gave an impression of apathy and lack of interest.

We need to do a better job training our soldiers on their responsibility for monitoring their personnel records. The chain of command needs to get their soldiers energized to review and update their files one year before they enter a promotion zone.

Evaluating soldiers with recruiting duty time was tough. Recruiters either do very good or very bad and it mostly depends on mission production. Time away from the branch is a problem. We found more inaccurate records, old or missing photos, and outdated and low SQT results among this group. EERs were on an average lower for recruiters than for soldiers working in their MOS.

A soldier assigned to recruiting duty misses the opportunity to attend NCOES. Not many attended BNCOC while serving as recruiters. We need to get our soldiers through BNCOC before they go to recruiting duty. Also, SQT testing should be waived while a soldier is on recruiting duty. Being away from his MOS and the conflict of interest of preparing for an SQT while under the pressures of trying to make mission puts the soldier at a real disadvantage.

We didn't see enough of the new NCO-ER to make a hard assessment. However, my first impression is that the new rating system will go a long way in better describing a soldier's performance and overall potential.

Across the board I was impressed with the quality of our ADA staff sergeants. They clearly stand out in performance, potential, military and civilian education and soldierly conduct. We can take great pride in the ADA NCO Corps — they are superstars.

Col. Donald C. Ingram is the deputy assistant commandant of the U.S. Army Air Defense Artillery School, Fort Bliss, Texas.

NCO EDUCATION SYSTEM

by MSgt. Norman J. Oliver

One of my more pleasant duties is giving speeches to civilian organizations to explain the Sergeants Major Academy and the Noncommissioned Officer Education System.

After one of my talks to a business group, a man approached and introduced himself as a retired sergeant major. He had fought in Korea and Vietnam and had worn the patches of the 82nd and 101st Airborne Divisions, the Rangers and the Special Forces.

"What I don't understand," he said, "is all this new enthusiasm for the Noncommissioned Officer Education System. The U.S. Army has always had the best leadership training in the world. Look at the units I served in."

He made a valid point. Education for the sergeant isn't new. The 19th century saw the technology of war-fighting expand rapidly. After the Civil War, the Artillery School at Fort Monroe, Va., reopened to train both officers and noncommissioned officers. In 1870 the Signal Corps also established a school for training officers and noncommis-

sioned officers. However, in the less technical fields such as infantry, field experience, not the classroom, provided the education.

On Dec. 17, 1949, the first class enrolled in the 2nd Constabulary Brigade's NCO school, located at Munich, Germany. Two years later, the U.S. Seventh Army took over the 2nd Constabulary Brigade's functions and the school became the Seventh Army Noncommissioned Officers Academy, the forerunner to today's NCO academies.

The history of NCO education remained spotty until the 1970s. The elite units the retired sergeant major had served with continued the strong emphasis on NCO leadership and development. In the early 1970s the NCO Corps, like the Army, was hard-pressed to retain its pride and sense of purpose. Army leadership at the time made a commitment to rebuild the NCO Corps and return to the basics of NCO professionalism.

The difference between the 1970s and the 1950s and 1960s when the retired sergeant major

served was this: For the first time in its history, the Army began to put in place a progressive and sequential education system for all NCOs, linked to promotion and the equivalent levels of officer training.

Perhaps more than anything, the intensity of modern combat operations and AirLand Battle doctrine have given focus to NCO education efforts. The nature of modern war-fighting increases the leadership burdens of the NCO. Decision-making takes place lower in the ranks than ever before. Squads, crews and teams will fight on a dispersed, decentralized battlefield. The burden of combat will no longer fall unequally on the combat arms. The Total Army can expect to be involved.

In the chaotic circumstances of the modern battlefield, the Army's young leaders must act on their own initiative to carry out the commander's intent. They must know how to fight and how to make the right decisions.

The purpose of the Noncommissioned Officer Education System is

to build NCO trust and confidence, to raise tactical and technical competence and to firmly embed the essential values of integrity and professionalism throughout the corps. These principles translate into credible leadership. The system aims to create and foster in our NCOs attributes like mentoring and caring for subordinates and their families. The NCO must be able to advise and assist his or her commander and others in these areas.

The Sergeants Major Academy keeps the focus on mentoring alive. Every day it hones the leadership qualities of the Noncommissioned Officer Corps.

For many, the Sergeants Major Academy means only the Sergeants Major Course, the capstone of the Noncommissioned Officer Education System. But today the academy does much more than that. The academy actively educates, directly or indirectly, all Army noncommissioned officers. From the first lessons a junior soldier learns at the Primary Leadership Development Course all the way to the Sergeants Major Course, the academy has a hand in developing his or her training.

The Noncommissioned Officer Education System has grown in the 1970s and 1980s. Today it includes the Primary Leadership Development Course, the Basic and Advanced Noncommissioned Officer Courses and the Sergeants Major Course.

The Primary Leadership Course and the core blocks of the Basic and Advanced Noncommissioned Officer Courses are developed at the Sergeants Major Academy and exported to Active and Reserve Component Army schools around the world. The Sergeants Major Course is taught at the academy's 125,000-square-foot education complex, Biggs Army Air Field, Fort Bliss, Texas. The \$18-million complex opened in 1987.

All the training developed at the academy underscores the combat environment for which the NCO must effectively train and lead his or her soldiers. The education system is designed, through the small-group instruction method, to enhance the leadership qualities of the NCO.

The first step in the Noncommissioned Officer Education System is the Primary Leadership Development Course. This leadership and tactical training is aimed at soldiers about to pin on sergeant's stripes.

PLDC consists of six major blocks: leadership, communications, resource management, training management, professional skills and military studies. Taught at 27 locations worldwide, the 28-day course is arduous, fast-paced and challenging. The training day is 14 hours long. Students learn how to lead and how to train. Throughout the course students demonstrate and practice what they have learned. They are placed in several stressful situations during a five-day tactical field training exercise. They must react under conditions similar to those encountered in combat. PLDC is the first experience junior enlisted leaders have with building the combined arms team needed for success on the battlefield.

The second step is the Basic Noncommissioned Officer Course. This consists of a core block of leadership and tactical training with advanced skill training.

BNCOC common core has six blocks: leadership, training management, communications, professional skills, resource management and military studies. It is taught at 19 service schools to sergeants and staff sergeants in about half the Army's 300 military occupational specialties. BNCOC common leader training complements the MOS training conducted in the service school. It builds on leadership skills, introduces new doctrine and provides refresher training.

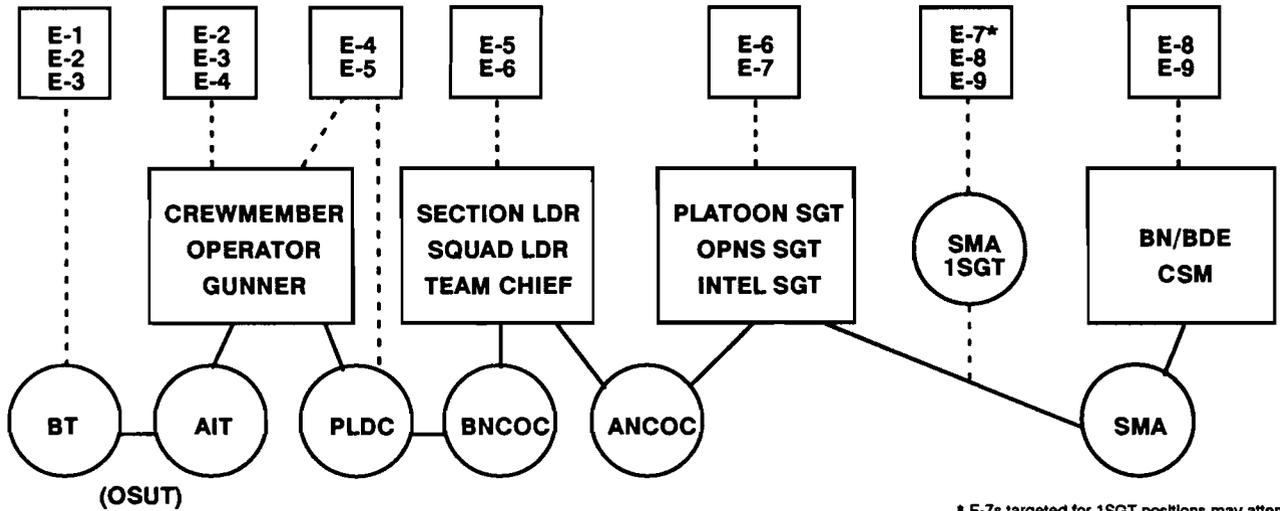
The third step is the Advanced Noncommissioned Officer course. Once again this couples a common block of leadership and tactical training with advanced skill training. ANCO is taught at 18 service schools worldwide. As with PLDC and BNCOC, the academy periodically inspects the training to ensure that it is done to standard and that all NCOs receive the same high quality training they deserve.

ANCO common core has six blocks: leadership, operations and tactics, professional skills, effective communications, resource management and military studies. Students are picked by a Department of the Army selection board. The course prepares staff sergeants for duties as sergeants first class. Students learn the latest leadership doctrine. They practice two critical areas of communication: speaking and writing. They study the basic concepts applicable to the management of people, logistics and maintenance. Most of all, the training emphasizes the role of the platoon sergeant and section sergeant on the battlefield in both offensive and defensive tactical field operations.

The capstone of NCOES is the Sergeants Major Course, the oldest senior NCO course in the Department of Defense. It trains master sergeants and sergeants major for positions of greater responsibility. At 22 weeks, it's two to three times longer than the courses of the other services. Since its establishment in 1972, the Army course also has been attended by members of the Navy, Air Force, Marine Corps and Coast Guard. Foreign students of equivalent rank have also attended.

There are two classes each year of about 450 students each, with 50 of those coming from the Army Reserve and National Guard. Despite the large class size, instruction takes place in groups of 16 students. The format is small-group discussion rather than lecture, an Army goal

TRAINING POSITION RELATIONSHIPS



for training throughout the Non-commissioned Officer Education System.

Topics covered include leadership and human relations, resource management, AirLand Battle doctrine and tactics, world studies and national security affairs. Students who have not earned an associate's degree take college electives while others work on special projects. Heavy emphasis is placed on physical fitness.

Senior commanders, NCOs and civilian experts from throughout DoD, the State Department and academia present lectures on special topics. Electives are taught by professors from nearby colleges.

The academy runs a non-resident version of the Sergeants Major Course that must be completed within two years, with the final two weeks spent at Fort Bliss. Enrollment in the course is projected to grow from slightly under 400 to about 650 in the next two years. The majority of the students come from the Army Reserve and National Guard. Graduates of the resident and non-resident versions receive equal weight in personnel management actions.

The Army has expanded the link-

age between the Noncommissioned Officer Education System and promotions. Currently soldiers promoted to master sergeant must be graduates of the Advanced Non-commissioned Officer Course, and only graduates of the Sergeants Major Course may be appointed to command sergeant major.

Beginning in October 1989, promotion for sergeant will be linked to the Primary Leadership Development Course. Soldiers must be PLDC graduates before they can go to a sergeant promotion board.

Graduation from the Basic Non-commissioned Officer Course will be linked to selection for the Advanced Noncommissioned Officer Course and to promotion to sergeant first class. This requirement begins in October 1990.

As the Noncommissioned Officer Education System continues to grow, the NCO of today combines history and tradition with skill and ability to prepare for combat. Leader development in the schoolhouse gives us tactically and technically competent sergeants.

However, training and leader development is an ongoing process. Most sergeants in a 20- to 30-year career will spend less than a year in

formal training. Leader development has three components, only one of which is institutional training. The other two are operational experience and self-study. The U.S. Army Training and Doctrine Command and the Sergeants Major Academy have worked very hard to provide our sergeants with the best leader development training in the schoolhouse.

That retired sergeant major who fought up and down the hills of South Korea and through the rain forests of South Vietnam still has a valid point. If the Army is going to provide American soldiers the caring, competent, concerned and motivated leadership they deserve, then leader development can't begin and end at the schoolhouse door.

Senior leaders must provide the junior leaders the mentoring, coaching and counseling they need. Sergeants themselves must study our doctrine, weapons systems and principles of leadership so they know how to translate the commander's intent into combat power on the battlefield.

MSgt. Norman J. Oliver is the public affairs officer for the U.S. Army Sergeants Major Academy, Fort Bliss, Texas.

**Take
Charge!**

NCO Commanders

by CSM Gary B. Cabato

As the Command Sergeant Major of the 1st Battalion, 62nd Air Defense Artillery, I participated in the joint training exercise, Team Spirit '89, in the Republic of Korea, spending a great deal of time traveling and visiting soldiers. The purposes of my travels were two-fold. First, to assess individual and collective training; second, to teach, coach and mentor as necessary.

I was amazed, and at the same time pleased, by the amount of duties shouldered by Stinger section sergeants. They undoubtedly qualify as "NCO commanders." In addition to the inherent duties of NCOs, they provided guidance and tactical decisions on the employment of their Stinger teams in a multi-echelon training arena. These NCOs served as the "Air Defense Artillery Experts" for the brigade task force they supported.

Working under handicapped conditions (no assigned driver), these section sergeants were exposed to a rapidly changing, fluid, force-on-force exercise. Most of these "NCO commanders" have only the doctrinal employment and warfighting skills taught at the Basic Noncommissioned Officers Course. Those more fortunate attended the Advanced Noncommissioned Officers Course, where the focus began with the AirLand battle overview and

multi-echelon training. Normally, it is not until these NCOs reach the senior level Noncommissioned Officer Education System that they become intimately involved with force-on-force scenarios.

These Stinger section sergeants made recommendations to their task force commanders about providing the best air defense coverage based on their priorities. Then, as NCO commanders, they positioned their teams for the best air defense design and employment measures to accomplish the mission. Technical considerations were made for the weapon requirements. The most distinct action that singled each as a commander was their tactical decisions. Now, not only were they concerned with the historically traditional role of "beans and bullets," but they also dealt with an integral part of the planning and mission accomplishment of a major force.

Keeping up with one of these NCOs was a task in itself. With constant changes of mission, each NCO was challenged to the limit of his physical and mental abilities. Working in the brigade sector, he traveled alone from the supported unit headquarters to the forward element in the deliberate attack. What may not have seemed like great distances were really very challenging, because of the meandering hills and

valleys characteristic of the Korean terrain.

It was extremely difficult to keep up with the tempo of the exercise; however, after five days and 350 miles, I caught up with one of these unique NCO commanders. His first comment was, "I just don't have enough dedicated air defense resources to provide adequate protection for my unit." I responded by asking what he was going to do. As he explained the process to me, I was surprised to hear the buzz words like "mass" and "economy of force." His use of these air defense principles and guidelines were also based on the factors of METT-T. To ensure his success on the battlefield, this NCO commander had acquired a keen understanding of the mission and the maneuver force commander's concept of the operation.

This NCO commander worked with two types of defense — static defense and critical asset defense. His supported unit was an Infantry brigade; therefore, he made special considerations when he planned his defense. The decisions he made dealt with dividing his assets to do an out-of-sector fly-away mission, single Stinger team in support of an air assault, and the reorganization of his remaining teams. Faced with the challenges of coordinating and

cross-attaching his teams, he began his travels immediately following the brigade's daily staff meeting. The terrain consisted of numerous hill masses, so FM radio communications were a hit or miss proposition.

Intuitively, he set out on a face-to-face rendezvous with one of the three supported unit commanders. Feeling some relief that this task was complete, he embarked to another rendezvous point to do the coordination for the air assault mission. His travels took him in excess of 60 kilometers. Not quite done, he prepared his operation order. I witnessed the perplexity in his facial expressions as he slowly wrote out the operation order.

That evening at their night defensive position, this NCO executed the innate task that qualified him as a commander: "OPORD." Fatigued, it became apparent that it was difficult for him to keep his enthusiastic spirits alive, but he knew that a positive attitude would regenerate motivation in his section.

Early that morning, the teams

deployed to their link-up point and/or battle positions. This NCO started at the brigade tactical operations center to provide status of his teams. Now, it was imperative that he observe his teams' performance. So, he traveled again, stopping first at the air assault mission, where he served as the quality control expert checking final preparation and rigging of the equipment prior to hook-up.

Following this, he was on the road again to a hasty airstrip for a two-team fly-away mission. He ensured that both teams performed their pre-load checks. This NCO stayed abreast of the current situations and updates in the conduct of the battle. He once again headed back to the brigade tactical operations center. Not fully satisfied, he pursued the final leg of his journey to observe his last team. Once there, I asked the team chief some specific questions so that I could assess the effectiveness of command and control. The results were unquestionably superb.

I was extremely pleased that this

section sergeant's skills included planning operations, issuing orders, employing his teams and serving as special staff representative for the task force commander. These techniques were developed during his career as a Stinger gunner, Stinger team chief and, now, as a Stinger section sergeant. Best of all, he will continue to do this same job in other assignments and at different levels. Knowledge, confidence and maturity exemplify this NCO. The essential qualities of an air defense leader — a sense of awareness, speed of reaction, initiative, common sense and flexibility — were used by the NCO.

Air Defense Artillery noncommissioned officers have sharpened their tactical warfighting skills over the past few years. They practice and show they are capable of filling the role of "NCO commander."

CSM Gary B. Cabato is the command sergeant major of the 1st Battalion, 62nd Air Defense Artillery, Schofield Barracks, Hawaii.

Let Sarge Do It!

NCOs frequently complain that today's young officers, who spring mostly from the middle class and have been weaned on its egalitarian values, often seem unwilling, or unable, to delegate authority, but believe that they must do everything themselves. With the best of intentions they remove the NCO from the chain of command. The results are not often pleasant.

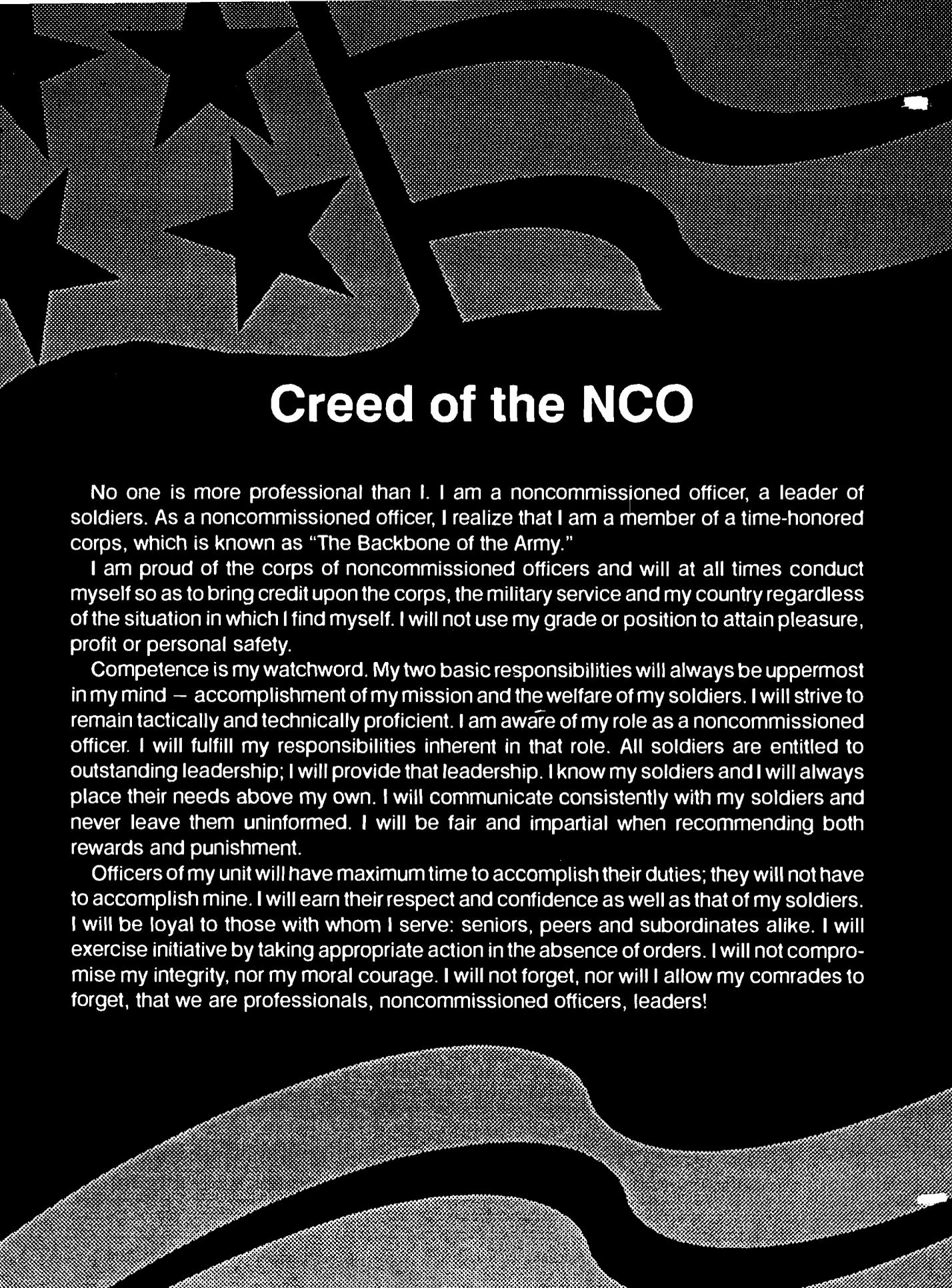
The problem can best be illustrated by an old Army story. A puzzled major watched as an OCS instructor put three officer candidates through an exercise in command and decision-making. The candidates were tasked to erect a flagpole. To help, the instructor had provided a sergeant and two privates.

The candidates pondered the problem. They started many times and tried several solutions, none of which worked. Finally the old major stepped in. "Gentlemen," he said, "allow me to demonstrate how a good officer would accomplish this task."

He turned to the sergeant and said, "Sergeant, please have the men put up the flagpole." Nothing more was said and, a few minutes later, the job was accomplished.

Good officers know good NCOs get the job done. Good NCOs know good officers will allow them to do it. Something worth remembering during the Year of the NCO.

— 2nd Lt. Jerry DeJarnett



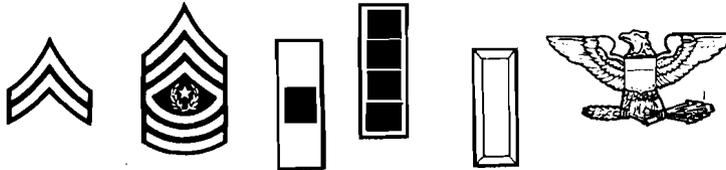
Creed of the NCO

No one is more professional than I. I am a noncommissioned officer, a leader of soldiers. As a noncommissioned officer, I realize that I am a member of a time-honored corps, which is known as "The Backbone of the Army."

I am proud of the corps of noncommissioned officers and will at all times conduct myself so as to bring credit upon the corps, the military service and my country regardless of the situation in which I find myself. I will not use my grade or position to attain pleasure, profit or personal safety.

Competence is my watchword. My two basic responsibilities will always be uppermost in my mind – accomplishment of my mission and the welfare of my soldiers. I will strive to remain tactically and technically proficient. I am aware of my role as a noncommissioned officer. I will fulfill my responsibilities inherent in that role. All soldiers are entitled to outstanding leadership; I will provide that leadership. I know my soldiers and I will always place their needs above my own. I will communicate consistently with my soldiers and never leave them uninformed. I will be fair and impartial when recommending both rewards and punishment.

Officers of my unit will have maximum time to accomplish their duties; they will not have to accomplish mine. I will earn their respect and confidence as well as that of my soldiers. I will be loyal to those with whom I serve: seniors, peers and subordinates alike. I will exercise initiative by taking appropriate action in the absence of orders. I will not compromise my integrity, nor my moral courage. I will not forget, nor will I allow my comrades to forget, that we are professionals, noncommissioned officers, leaders!



CAREER NEWS

Qualifying for Colonel

Air defense officers looking toward promotion to colonel should be aware of the following career qualifying factors. Promotion to colonel typically requires —

- successful completion of a command and staff college (MEL 4),
- a successful staff officer assignment in a lieutenant colonel-authorized position at division or installation (center or school) level or higher.

While not specifically required, the following qualifications significantly enhance your chances for selection:

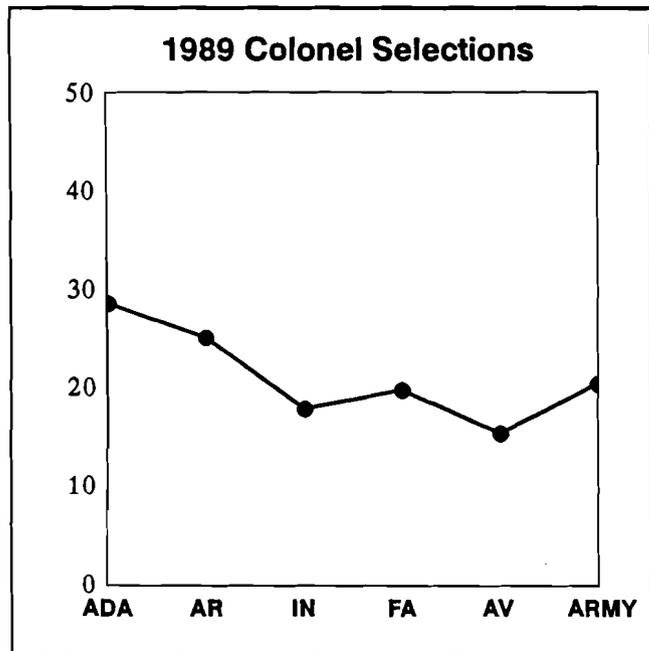
- Successful battalion command.
- Successful completion of a senior service college (MEL 1).
- Service as a deputy commander or executive officer of a brigade.

ADA officers qualifying for promotion to colonel typically have had these assignments:

- Command of an ADA battalion.
- ADA staff and/or general staff positions at all levels including DA staff.
- Positions on joint and unified staffs.
- Staff and faculty positions in service schools, ROTC or USMA.

The typical colonel selectee had 22.1 years of active federal commissioned service (basic year group 1967), was 43.7 years old and had 5.3 years time in grade. Of the officers selected for colonel, 22.2 percent had attended Senior Service College while 77.7 percent had attended Command and Staff College.

Among the combat arms ADA was the only branch to show an increase in this year's recapitulation rates for selection to colonel. ADA's first time considered rate of 46.3 percent represents an 11.6 percent increase over last year's selection rate. The ADA selection rate for previously considered officers exceeded every other combat arms branch.



Selection to Senior Service College

An analysis of the 1988 SSC selection board results shows that the ADA selection rate was above the Army average; however, the ADA selection rate fell below that of Armor, Infantry and Field Artillery. Of the 233 ADA officers eligible for SSC, 13 were selected and six are deferred selectees.

Armywide, there were 5,581 officers eligible for SSC. Of these, 257 were selected and 92 are validated deferred selectees. Year group 1969 had the most selectees. All selectees were former battalion commanders. The chart at the top of the next page compares the ADA selection rate with other combat arms branches.

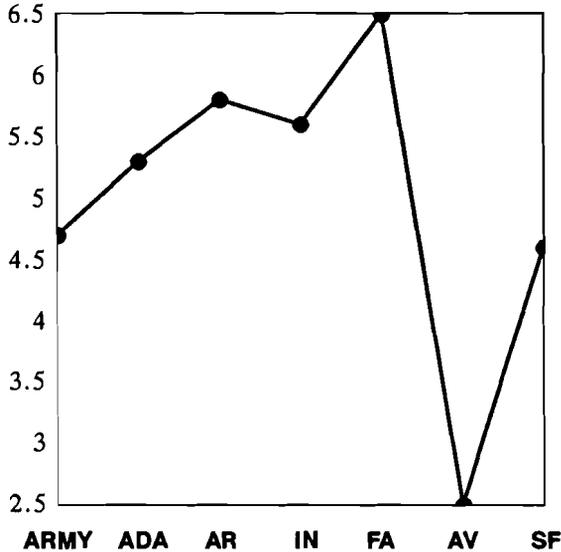
Qualifying for Lieutenant Colonel

The following qualifications must be met for promotion to lieutenant colonel:

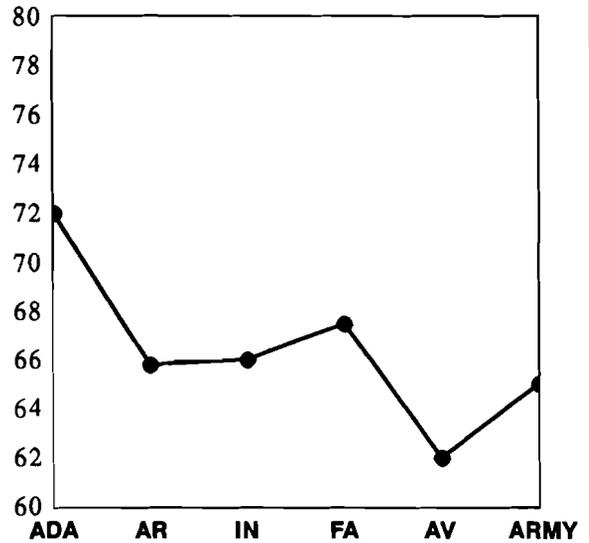
- Successful completion of a command and staff college (MEL 4).

CAREER NEWS

1988 SSC Selections



1988 LTC Selections



- Successful battery command.

While not specifically required for promotion to lieutenant colonel, the following qualifications enhance an officer's chances for selection:

- Staff officer at brigade or battalion with emphasis on primary staff positions, particularly XO and/or S-3.
- Staff officer at division or higher level, including installation staff.
- Successful assignments in the officer's functional area.

The average officer selected had 16.2 years of active federal commissioned service (basic year group 1972), was 38 years old and had 4.5 years time in grade.

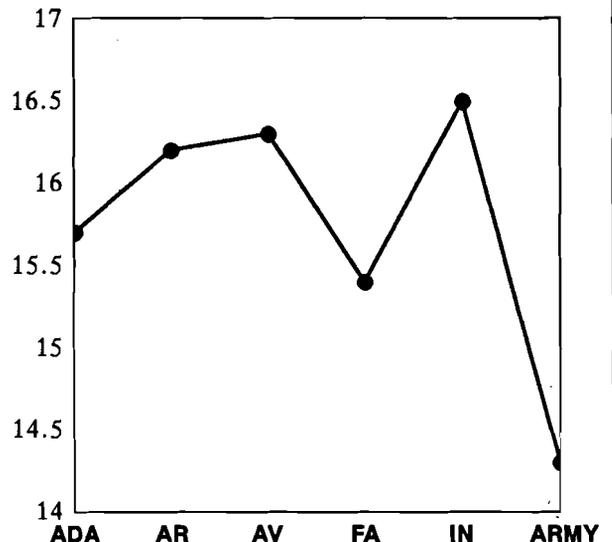
An analysis of the promotion board results shows that ADA did exceptionally well. The ADA first time considered selection rate exceeded every other combat arms branch and was 7.0 percent above the Armywide average. ADA is compared with other combat arms branches in the chart at the top of the next column.

Selection to Command and Staff College

An analysis of the 1988 CSC selection board results shows that, although the ADA selection rate was slightly lower than some of the other combat arms branches, it was 1.4 percent above the Army average. Of the 394 ADA officers eligible for CSC, 62 were

selected. Armywide, 913 of the 6,379 officers eligible for CSC were selected. The predominant basic year group was 1978. The chart below compares the ADA CSC selection rate with other combat arms branches.

1988 CSC Selections

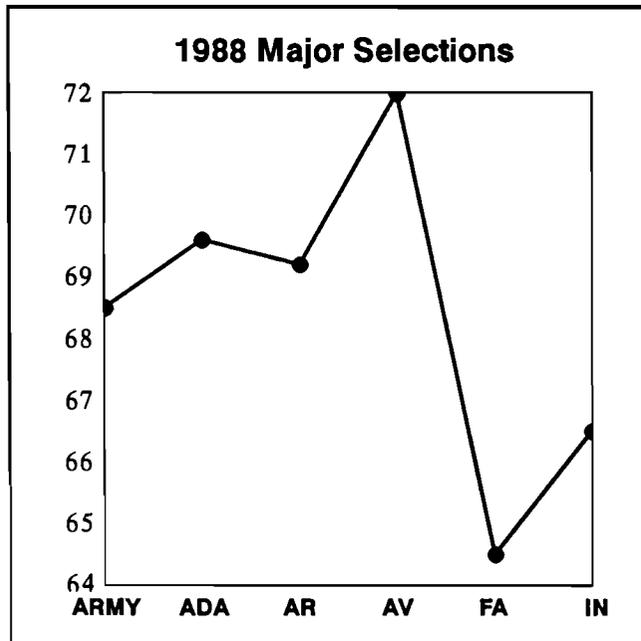


CAREER NEWS

Qualifying for Major

The typical officer selected for major had 9.2 years of active federal commissioned service (basic year group 1979), was 33 years old and had 5.6 years time in grade. Of those selected, 1.6 percent had attended Command and Staff College and 79.8 percent were CAS³ graduates.

An analysis of the board results reflects an Army-wide increase in the percent selected for promotion this year compared to the FY 88 board. For ADA, the first time considered selection rate of 68.5 percent reflects a 6.3 percent increase. The ADA selection rate for first time considered and below the zone promotions exceeded the Army average. A total of 141 ADA captains were recommended for promotion to major. The chart below compares the ADA major selection rate with other combat arms branches.



ADA Warrant Officer Promotions

Below are the ADA promotion results from the CY 88 Warrant Officer Promotion Board. ADA exceeded the Armywide promotion rate to CWO 3 by 1.5 percent and to CWO 4 by 13.6 percent.

The typical CWO 3 selectee (AZ and PZ) had 6.25 years of warrant active federal service, was 38 years old and had 4.25 years time in grade. Of the 18 selected,

1988 Warrant Officer Selections

CWO 3 ADA Specialties	Total Cons/Sel	Total Percent
140A C ² Sys Tech	2/1	50%
140B C/V Sys Tech	16/6	37%
140C NH Assy Tech	0/0	0%
140D Hawk Sys Tech	25/10	40%
140E Patriot Sys Tech	1/1	100%

CWO 4 ADA Specialties	Total Cons/Sel	Total Percent
140A C ² Sys Tech	0/0	0.0%
140B C/V Sys Tech	0/0	0.0%
140C NH Assy Tech	1/0	0.0%
140D Hawk Sys Tech	7/5	83.3%
140E Patriot Sys Tech	1/1	100.0%

MWO ADA Specialties	PZ	SZ
140A C ² Sys Tech	0	0
140B C/V Sys Tech	1	0
140D Hawk Sys Tech	1	1
140E Patriot Sys Tech	1	2

half had attended the Warrant Officer Advanced Course but none had attended the Warrant Officer Senior Course. The typical CWO 4 selectee (AZ and PZ) had 10.25 years of warrant active federal service, was 41 years old and had 6.12 years time in grade. Of the six selected, half had attended the Warrant Officer Senior Course but none had attended the Warrant Officer Advanced Course.

The typical Master Warrant Officer selectee had 19.58 years of warrant active federal service, was 47 years old and had six years time in grade.

ADA Sergeant Major Promotions

Below are the promotion results from the FY 89 sergeant major promotion board. An analysis of the promotion board results shows that both ADA career management fields (CMFs) 16 and 23 fell well below the Armywide average.

In CMF 16, 151 soldiers were eligible. Fifteen soldiers, seven in the primary zone and eight in the secondary zone, were selected. The typical PZ soldier

CAREER NEWS

selected was 40.1 years old, had 20 years time in service and 5.1 years time in grade. The typical SZ soldier selected was 37.6 years old, had 19 years time in service and 2.9 years time in grade. All of the soldiers selected for promotion included a current military photograph in their files.

In CMF 23, 29 soldiers were eligible. One soldier in the primary zone was selected. The typical soldier selected was 40.1 years old, had 19.7 years time in service and 4.7 years time in grade. The soldier selected for promotion included a current military photograph in his file.

Master Sergeant Promotions

Below are the promotion results from the master sergeant promotion board. An analysis of the promotion results shows that CMF 16 did extremely well, exceeding the Armywide selection rate in every category. CMF 23, however, fell below the Armywide selection rate.

In CMF 16, 394 soldiers were eligible for promotion. Seventy-five soldiers, 69 in the primary zone and six in the secondary zone, were selected. The typical CMF 16 selectee (PZ) was 37.5 years old, had 16.3 years time in service and 5.4 years time in grade, and had an average SQT score of 85.

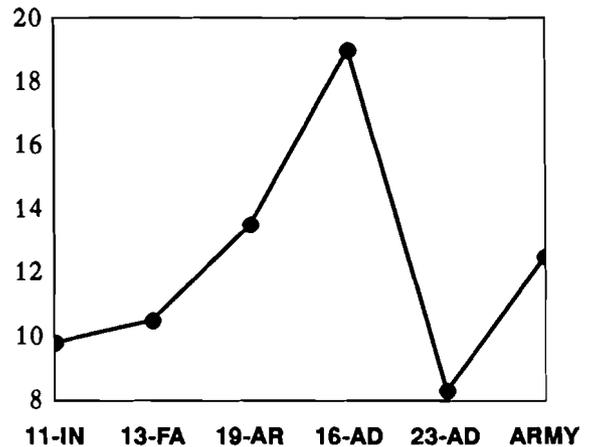
In CMF 23, 259 soldiers were eligible. Twenty-two soldiers, 20 in the primary zone and two in the secondary zone, were selected. The typical CMF 23 selectee (PZ) was 36.9 years old, had 16.6 years time in service and 5.7 years time in grade, and had an average SQT score of 87.5.

Sergeant First Class Promotions

An analysis of the November 1988 sergeant first class promotion board results shows that CMF 16 did poorly when compared to the Armywide selection rate. The CMF 16 selection rate was 3.5 percent below the Army average. The CMF 23 selection rate, however, was 15.3 percent above the Army average.

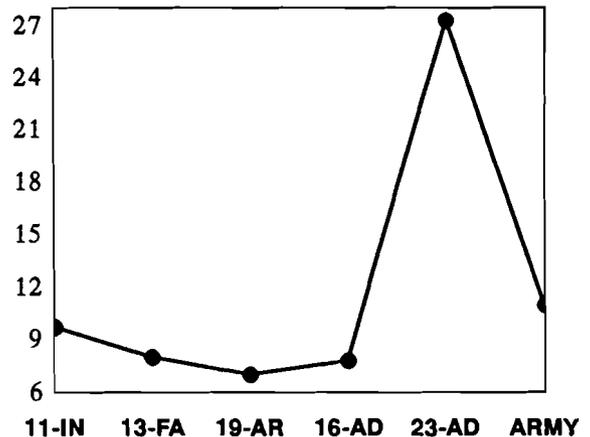
In CMF 16, 1,636 soldiers were eligible for promotion. One hundred twenty-six soldiers, 119 in the primary zone and seven in the secondary zone, were selected. The typical CMF 16 selectee (PZ) was 34.4 years old, had 13.7 years time in service and 6.2 years time in grade, and had an average SQT score of 89.6. The typical CMF 16 selectee (SZ) was 32.4 years old,

1988 Master Sergeant Selections



had 9.6 years time in service and 2.7 years time in grade, and had an average SQT score of 85. In CMF 23, 393 soldiers were eligible. One hundred four soldiers, 97 in the primary zone and seven in the secondary zone, were selected. The typical selectee (PZ) was 32.7 years old, had 12.7 years time in service and 5.5 years time in grade, and had an average SQT score of 86.7. The typical selectee (SZ) was 30 years old, had 10.2 years time in service and 2.6 years time in grade, and had an average SQT score of 87.

1988 SFC Selections



Compiled by the Personnel Proponent Division, Office, Chief of Air Defense Artillery, Fort Bliss, Texas.

CAREER NEWS

CAPTAIN COMMANDS

BRANCH	BRANCH TOE CO		BRANCH TOE/TDA CO		BRANCH/IMMATERIAL TOE/TDA CO		BRANCH/IMMATERIAL TOE/TDA CO/DET	
	12 MOS	18 MOS	12 MOS	18 MOS	12 MOS	18 MOS	12 MOS	18 MOS
ADA	100.0+	96.2	100.0+	100.0+	100.0+	100.0+	100.0+	100.0+
IN	100.0+	85.6	100.0+	98.3	100.0+	100.0+	100.0+	100.0+
AR	100.0+	97.7	100.0+	100.0+	100.0+	100.0+	100.0+	100.0+
FA	100.0+	96.0	100.0+	100.0+	100.0+	100.0+	100.0+	100.0+
AV	100.0+	75.3	100.0+	82.2	100.0+	82.6	100.0+	84.2
SF	28.0	18.7	39.7	26.5	39.7	26.5	100.0	100.0

MAJOR (BN/BDE S-3)

BRANCH	BRANCH TOE		BRANCH TOE/TDA		BRANCH & IMMATERIAL TOE/TDA	
	12 MOS	18 MOS	12 MOS	18 MOS	12 MOS	18 MOS
ADA	41.8	27.9	41.8	27.9	42.5	28.4
IN	42.4	28.3	45.8	30.5	46.5	31.0
AR	66.4	44.3	66.4	44.3	67.2	44.8
FA	45.6	30.4	48.0	32.0	48.7	32.5
AV	40.5	27.0	44.5	29.7	45.3	30.2
SF	33.0	22.1	36.7	24.5	36.7	24.5

MAJOR (BN XO)

BRANCH	BRANCH TOE		BRANCH TOE/TDA		BRANCH & IMMATERIAL TOE/TDA	
	12 MOS	18 MOS	12 MOS	18 MOS	12 MOS	18 MOS
ADA	41.8	27.9	50.1	33.5	52.4	35.0
IN	42.0	28.0	48.0	32.0	50.4	33.6
AR	44.3	29.5	49.1	32.8	51.4	34.3
FA	45.6	30.4	50.9	34.0	53.2	35.5
AV	47.4	31.6	52.0	34.7	54.5	36.4
SF	23.9	16.0	27.6	18.4	28.7	19.2

The FY 90 career opportunities above (expressed in percentages) are from an analysis completed by the Officer Distribution Division, Officer Personnel Management Directorate, U.S. Total Army Personnel Command.

They get a boot out of . . . That “Blooming” Tree

by SFC Sandi Pellicano

There's a tree in Hontheim, West Germany, that never loses its blooms. It's a fairly normal-looking tree by most botanical standards — except for the curious blossoms it bears . . . they're boots!

The “boot tree” has been around for so long that no one really knows when it first began, certainly not the men and women of D Battery, 1st Battalion, 1st Air Defense Artillery, whose administration area is just a stone's throw away. They've only been there about four years.

“It was here when we got here,” said 1st Lt. James Bailey, D Battery executive officer. “A number of units used this site over the years and, as far as anyone can remember, the boot tree has always been here. We've heard of other boot trees but we're pretty sure this one has got to be the original in Germany.”

Along with inheriting the tree as a neighbor when they moved in, D Battery also inherited the tree's tradition. “Legend has it,” explained Bailey, “that when a soldier gets set to PCS or ETS from here, they get three chances to try to throw a pair of boots into the tree and make them stick. If they can't do it after three tries, or if the boots

fall out later, they'll come back to this unit some day.”

Not that the soldiers have anything against being in D Battery, but when the time comes to leave, they and their boots are ready and leather personnel carriers have never looked like these.

Check out the hundreds of pairs of footgear adorning Hontheim's tree and you'll see purple boots, blue boots, jungle boots, silver boots, boots with wings and boots with names. And then there's the sneakers. “Those belonged to guys who had profiles while they were here,” Bailey quips.

According to short-timer Spec. Daniel Perkins, out-processing is the time when those who are short take spray cans in hand to create their own personalized pair of boots for the tree. “While everyone else is in formation, they'll be in the barracks painting away,” he says. “You can tell, looking at the tree, who some of the boots belonged to just by the way they're painted. Like those purple ones. We had one guy here, and everything he had was purple, so of course he painted his boots that color.”

“And then there was that one captain whose nickname was Sha-



zam,” adds Sgt. Gregory Kentel. “Those are his boots with the yellow wings on them.”

You'd think that a rather large tree covered with multi-hued boots by the hundreds and situated only feet from the main road leading into town might be considered an eyesore by the local population, but that's not true in Hontheim. “The mayor's the one who put up the sign in German underneath the tree that



explains the tradition," says Kentel.

"And one of the floats in the local *Rosen Montag* parade was a miniature boot tree," adds Bailey.

D Battery soldiers say they see all kinds of vehicles, from cars to trucks to tour buses, stop by the tree to take pictures and read the sign. According to Bailey, we've "had people come out and do paintings of it. The old first sergeant had a set of four of them, the boot tree during each of the four seasons." And, of course, when the battery pictures are taken each year, the tree is al-

ways included.

Not every soldier in D Battery observes the tree tradition in quite the same way. Perkins admits that he wasn't going to throw any boots into it at all but, "My sergeant said, 'Perk, you can't do that to the gods of the boot tree,' so I figured I would." According to Bailey, some of the soldiers wait until everyone else is asleep so there are no witnesses if their attempts fail. "And then there's some like Shoeman," he adds. "He sneaks out and climbs the tree and then nails his boots to

the trunk so they'll never fall out."

Almost at the very top of the tree (which looks to be at least 50 feet high), a single pair of boots hangs alone. "I was told when I got here that some general flew over in a helicopter and dropped them there," Bailey says. "There's no other humanly possible way they could've gotten up there."

"We did have a wrecker operator who took his wrecker up to the tree and threw his boots as high as he could from the top of it," Kentel adds. "But they're nowhere near that high."

Once the boots are in the tree, they're not necessarily safe from the occasional prankster or soldier in need, Bailey explains. "We've had some soldiers show up to formation with no boots on and climb up there and get a set."

"Yeah," Kentel adds, "they'll climb up there and take a set down, strip 'em, polish 'em and wear 'em."

Or, like one jokester did, find an old set some place, paint them the same colors as a pair in the tree and mail them to the owner of the originals claiming they'd fallen out. These were most likely accompanied by a card saying, "We'll be seeing you soon," signed "D Battery."

The spring thaw each year causes some of the limbs of the tree to break off and boots to fall. Kentel says the real story might just be how many boots are in the farmer's field that the tree borders. "I've seen him come out on his tractor in early spring and just plow under whatever boots had fallen there during the winter."

Someday archaeologists may decide that the "boot field" is the find of the century. Until then, the boot tree can bask in the glory.

SFC Sandi Pellicano is the editor of the 32nd Army Air Defense Command newspaper, the *Air Defender*, in Darmstadt, West Germany.

Patriot



Training

by 1st Lt.(P) Joseph M. Fischetti

The green glow of the CRT reflects across the wet brow of the tactical control officer (TCO). On the other side of the van the tactical control assistant (TCA) presses the engage button twice and two Patriot missiles head down-range. Suddenly a jam strobe appears, accelerating as it moves across the scope. "USE A SCOPE TRK 49" the computer alerts. The TCO evaluates the track and "ENGAGE TRK 49" directs the TCO. The TCA sends a missile down-range, its radar seeker homing in on the jamming source. At that very moment, two tracks pop up at a very close range and the lead aircraft fires two anti-radiation missiles now homing in on the main array radar.

The TCA sees what has transpired and brings it to the attention of the TCO. The TCO begins to evaluate the first track. "Sir, I've got two inbounds, high speed," shouts the TCA. The TCO begins to evaluate the second of the tracks. "Sir!" shouts the TCA. Just as two missiles slam into the radar, the screen freezes and a horrified look of disbelief crosses the TCO's suddenly pale face.

The light grows brighter. The trainer hovering over the console has his hand on the "halt" button and declares, "The battery has been destroyed. Let's put this into replay and see if we can find out where the process broke down."

In the "real time" mission of air defense in Europe, TCOs usually find themselves occupied with the next operational readiness evaluation (ORE) or studying the books which govern air defenders and their tactical actions. What often escapes the TCO is the realistic intensity of the air battle challenge. Through the on-line training mode (OTM) system found in post deployment build (PDB) II of the Patriot missile system troop proficiency trainer, the challenge has been made a reality.

A good training program depends on a thorough and meaningful evaluation process. The potential for this new system is staggering: realistic air battle with jammers, fast movers, formation flights and a number of other situations without the cost and coordination of live air flights. As political pressures increase, the OTM will become an even greater asset to the air defense community.

The new OTM now allows trainers to locally script the flights of 99 aircraft using a simulation of airspace control means (ACM) based on the unit's present or proposed position during wartime. The tool is invaluable. But the connection which moves the whole system is the trainer — and this is where the value of the system is realized.

In making the OTM successful the trainer must be completely familiar with a number of items.

He must know the unit's overall mission. In other words, what role the unit is to play in the overall scheme of air defense operations. For example, rear area units are in an asset defense role and forward units are in a maximum attrition role. Another major influence is the mission-essential task list developed by each battalion.

The trainer must be totally familiar with the unit's general defense plan (GDP), and should forecast and plan the likely avenues of approach from which the main wave of aircraft will flow.

He needs to receive S-2/G-2 updates on the types of threat aircraft present. Of even more interest is learning the actual attack profiles (to include the speeds, altitudes and formations in which we can expect threat aircraft to fly).

It is the trainer's responsibility to script a 45-minute scenario that includes a combat-rich environment using the information gathered from the previously mentioned sources. The goal of the exercise is not only to specifically train the crew (TCO and TCA) to shoot down aircraft, but also to protect friendly aircraft in a volume of airspace that is active in combat air patrol procedures, refueling operations, suppression of enemy air defense (SEAD), airborne surveillance or any number of other friendly airspace activities.

During the evaluation process the

trainer again becomes the prime mover in the total success of the OTM. A wide array of tactical situations and tactical procedures should be used to challenge the crew's familiarity with prescribed rules of engagement in peacetime as well as war. Only in this way can the trainer simulate the ferocity of battle under peacetime conditions.

The trainer must also evaluate all tactical actions to ensure no undue delays result in engagement errors.

Has the TCO performed the function of friendly protect? Here it becomes especially necessary for the trainer to truly challenge the crew. For example, three of four aircraft flying formation are transponding in an identification mode that generates a true friend identity, but the fourth aircraft is not transponding at all. The actions that the crew takes become the litmus test to actively protecting friendly aircraft.

Has the TCA updated tactical tabs to allow the computer to assist in the mission of friendly protect? In the course of the air battle the tactical situation will change, causing the information on tactical tabs to be updated and switch indicators to be activated or inactivated.

The trainer must be sure engagements have been carried out according to tactical directives. In this phase of training it is increasingly important to note each failed action, whether or not it had a tactical impact. It is imperative to build the pressure on the crew through the amount of threat aircraft, as well as the pressure of demanding correct decisions to be made throughout the scenario. Upon completion of the OTM scenario an evaluation selection tab will appear and the trainer should select the medium printout. This printout, amongst other information, provides a detailed chronology of operator actions through the 45-minute scenario. With this printout and the trainer's observations, pertinent information can be briefed to the evaluated crew. The outbrief should include:

- Invalid assumption of directed tactical posture.
- Number and kind of tactical omissions (incorrect tab entries and forgotten switch indicator activation and inactivation).
- Slow or undue delay in assumption of directed tactical measures.
- Improper engagement of air-

craft (engagements outside the missile engagement zone or firing with time to last launch (TTL) being higher than zero).

- Aircraft allowed to fly through area of responsibility without identification.

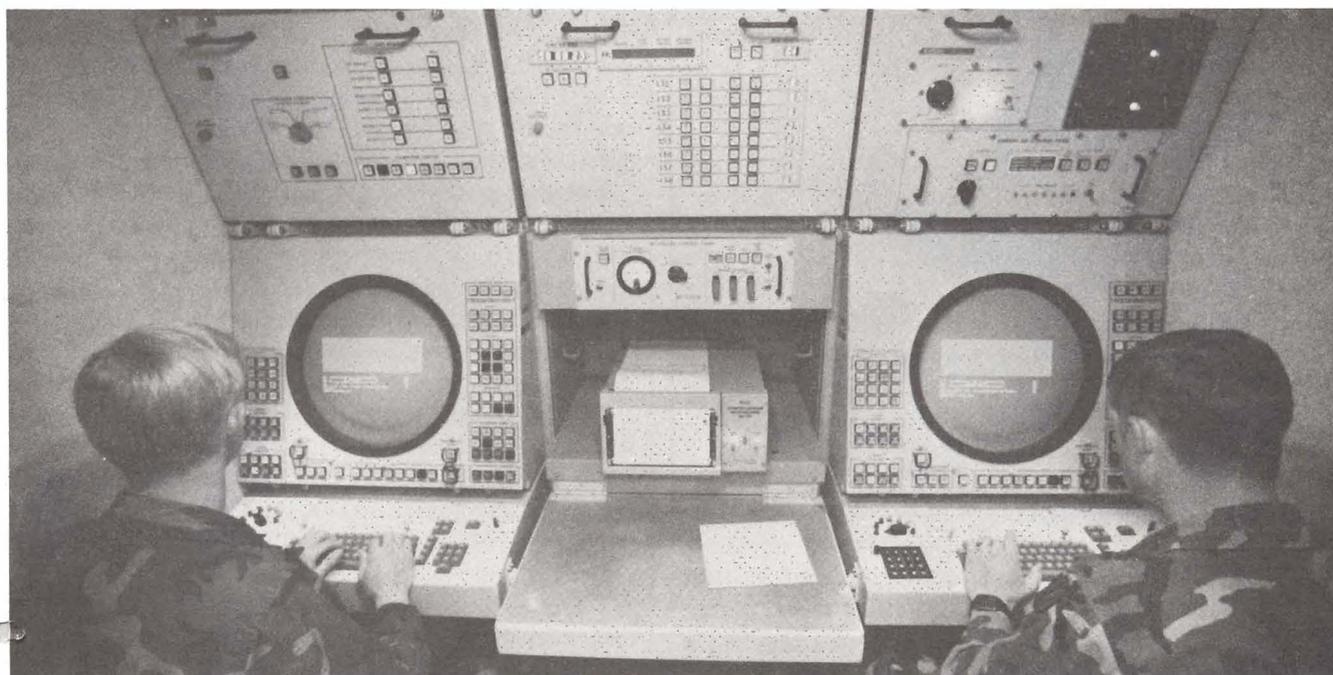
- Crew not reacting to a self-defense warning, allowing a hostile attack of the unit.

- Aircraft flying through area of responsibility without being engaged.

These are just a few of the items the trainer should address in the outbrief. I have purposely omitted the technical aspects of the OTM. You can find them in Technical Manual TM 9-6920-600-14, *Operator Manual, Troop Proficiency Trainer/Operator Training Instructions*.

This tool, as powerful as it is, is only as strong as the trainer. The trainer must be a *total* air defender, involved in every facet and understanding all areas of his profession. OTM will provide air defenders with a challenge that will train them for the mission of "First to Fire."

1st Lt.(P) Joseph M. Fischetti is the executive officer of C Battery, 1st Battalion, 7th Air Defense Artillery, Kaiserslautern, Germany.





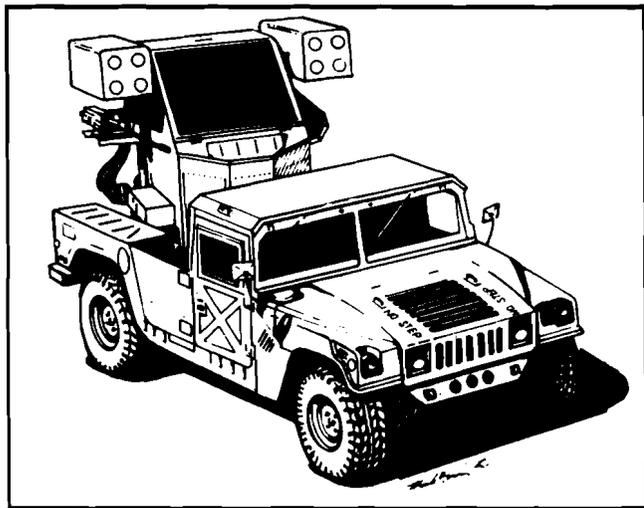
VAPOR TRAILS

PMS Testing

The Pedestal-Mounted Stinger (PMS) system (or Avenger), the line-of-sight-rear component of the forward area air defense system, recently underwent testing at Fort Hunter Liggett, Calif.

Soldiers from A Battery, 2nd Battalion, 6th Air Defense Artillery, teamed up with members of the U.S. Marine Corps for the duration of the tests. Also involved in the tests were members of the Boeing Aerospace Co. and pilots from 4th Squadron, 6th Cavalry, Fort Hood, Texas.

The two-man, lightweight, highly mobile PMS contains two Stinger missile pods and a .50-caliber machine gun mounted on a high-mobility multipurpose wheeled vehicle (HMMWV). The PMS has both rapid fire and shoot-on-the-move capabilities. Its other features include forward-looking infrared (FLIR), a laser rangefinder and two autotrack systems that enable it to distinguish between friendly and enemy aircraft.



The Avenger, scheduled for deployment in 1990, will provide air defense for static, mobile and maneuver unit assets against low-altitude hostile targets.

ABCA Troops Use Lasers

American, British, Canadian and Australian (ABCA) soldiers took part in Caltrop, the largest multiple integrated laser engagement system (MILES) exercise in history, held recently at the National Training Center, Fort Irwin, Calif. It was the first time Allied troops had used MILES.

MILES is an automatic casualty assessment. The system is designed to simulate combat as closely as possible. MILES devices come in two parts, the laser transmitter and the detector device. For a ground soldier, the transmitter — a small, black computer-like box — is fastened to the top of his weapon, either a rifle or a machine gun. The device is acoustically triggered by the blank ammunition fired from the weapon. A single laser beam is transmitted for every blank fired.

The detector device for ground troops comes in two parts: the torso harness and helmet band. Each device is lined with small, round detectors. When a laser hits a detector, a near miss, direct hit or kill buzzer sounds. The hit depends on the weapon used, how the detector is hit and the laser's distance from the hit soldier.

MILES devices are used for practically every weapon, vehicle and helicopter in the Army. Each is designed to simulate that particular weapon identically.

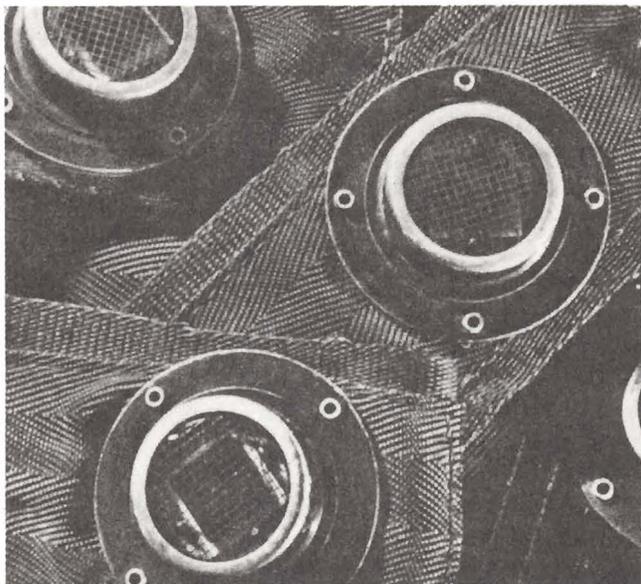
For example, when using MILES, the M-16 rifle has a kill and near-miss range of from five to 460 meters with no effect on any armored vehicle — identical to the weapon's real statistics. The M-2 .50-caliber machine gun, on the other hand, has a kill range of from five to 800 meters and a five percent probability of destroying an armored personnel carrier.

MILES is also used on all other machine guns, anti-tank weapons like the Dragon, tanks, air defense weapons like the Stinger and Vulcan, and many of the Army's helicopters, to include Cobras and Blackhawks. MILES kits were modified to fit British, Canadian and Australian small arms.

Using MILES in an exercise provides soldiers and their commanders immediate results: there is no judg

VAPOR TRAILS

ment time involved. If a soldier is hit, he knows it right away. He also knows what he did wrong.



To support the ABCA exercise, every MILES system destined to a base in the United States and nearly every system routed to Europe for the last fiscal year was diverted to Fort Ord, Calif., and then returned.

NTC Standard

A Battery, 2nd Battalion (Hawk), 52nd Air Defense Artillery, Fort Bragg, N.C., set a new standard for Hawk units at the National Training Center, Fort Irwin, Calif., by destroying 46 hostile (Red) aircraft. A Battery's aggressive snuggle-Hawk tactics, combined with its "take the high ground" attitude, fit well into the 197th Infantry Brigade's scheme of maneuver. Confirmed kills attributed to air defense artillery units numbered 106. The A/2-52nd ADA accounted for two-thirds of the fixed-wing kills.

A Battery met the challenging task of shoot and move with 11 moves in 14 days. Five-ton trucks afforded the battery the mobility required to place radars on the rugged desert hilltops. "The soldiers really enjoyed the realistic training. They had the opportunity to climb mountains, kill BRDMs (three of them), nullify 46 Red aircraft and eat their share of dust," said the platoon leader, 1st Lt. Michael Bissett. All of the F-16s engaged were captured on video

through the use of the TAS camera.

1st Lt. Mathew Hulburt, C/2-44th ADA, Fort Campbell, Ky., provided excellent early warning. Hulburt successfully took advantage of the Hawk air picture and the liaison officer on Beacon Hill, who represented an Air Force CRC. Early warning was then sent to the FAARs to provide every Stinger and Vulcan crew ample time to engage the hostile aircraft. Not one aircraft flew within 60 kilometers without being detected.

This one-of-a-kind experience provided A Battery the confidence to deploy to any desert region and successfully engage hostile aircraft. According to radar operator Sgt. Ethel Lickliter, "Hostile aircraft don't have a chance with 'Hawkers' guarding the skies." The NTC provided a unique opportunity to train with a full array of friendly and enemy forces. A/2-52nd ADA carried the battalion motto of "Always Prepared" to new heights, providing the 197th Brigade outstanding support and again proving the readiness of the XVIII Airborne Corps to meet any contingency mission.

— Maj. John B. Messamore

Roving Sands

One of the largest air defense exercises ever will take place at Fort Bliss, Texas, this summer when the 11th Air Defense Artillery Brigade sponsors "Roving Sands," a joint field training exercise involving more than 5,000 soldiers, airmen and marines.

The 2-52nd ADA, Fort Bragg, N.C., and the 1-2nd ADA, Fort Stewart, Ga., which joined the 11th ADA Brigade this year, will train as part of the unit for the first time during Roving Sands.

Other Army participants will include soldiers from the 13th Ordnance Company and the 2nd Platoon, 507th Medical Company, both from Fort Bliss, Texas; the 35th ADA Brigade, Fort Lewis, Wash.; the 164th ADA Brigade, Florida Army National Guard, Orlando, Fla.; and the 1-200th ADA and 7-200th ADA, New Mexico Army National Guard. These units are located in Roswell and Rio Rancho, N.M.

Confirmed participants from other services include Marine Corps units from El Toro and Camp Pendleton, Calif., and from Yuma, Ariz., and Air Force units from Carswell Air Force Base, Texas; Tinker Air Force Base, Okla.; and Cannon, Holloman and Kirtland Air Force Bases, N.M.

VAPOR TRAILS

Objectives of the exercise are to practice joint air and counterair operations, implement strategic and intratheater deployment and redeployment, and conduct live fire and soldier-oriented multi-echelon training.

Units will also conduct live-fire exercises involving the Chaparral, Hawk, Patriot, Stinger and Redeye missile systems and the Vulcan air defense gun.

Visiting units are scheduled to begin air, rail and convoy deployment from their respective home stations to Fort Bliss in early August and follow with time-phased deployment of ground forces into the maneuver areas.

An integral part of the exercise will include intratheater airlift operations to and from Roswell, N.M., and Stallion Range Camp at White Sands Missile Range, N.M.

— SFC Jim Austin

Hawk TCO

A Hawk tactical control officer (TCO) anxiously eyes the radarscope in his platoon command post. His radar operator (RO) listens intently for sounds of incoming enemy aircraft. Just 20 minutes ago the platoon was called to battle stations by the battalion fire direction center. The TCO was told to expect enemy jamming and electronic countermeasures.

Suddenly, the RO shouts, "Sir, air-to-surface missile inbound!"

The TCO springs into action, directing the RO to lock on the target. Within seconds, a missile is launched. A black puff of smoke in the sky several kilometers from the Hawk platoon indicates a successful engagement.

The above scenario is a realistic description of what air defenders can expect in future conflicts. Recent Soviet developments in electronic countermeasures and air-to-surface missile technology will make successful aircraft engagement by U.S. air defense forces difficult.

The 3rd Battalion, 1st Air Defense Artillery (Hawk), is prepared to meet this challenge. A specially trained simulator team from Fort Hood's only Hawk missile battalion trains TCOs and ROs on a weekly basis on electronic countermeasures. The goal of this training is for each crew to become technically and tactically proficient in countering several types of enemy jam-

ming and air-to-surface missiles (ASMs).

The simulator, or AN/TSQ-29, is a truck-mounted van that hooks up to a Hawk platoon's equipment with data cables. It can generate numerous types of jamming targets, helicopters, ASMs and "clean" or non-jamming targets.

It is operated by a two-man team: one operates the simulator while the other trains the crew.

Sgt. Jon Ratulowski, the primary trainer, said that there are six levels in simulator training. Level I teaches basic knowledge of the target engagement sequences on non-jamming, stationary targets.

In Level II, TCOs and ROs are taught to recognize the different types of jammers and how to prioritize targets. Finally, Levels III through VI contain maneuvering targets, jammers, ASMs and helicopters in increasing degrees of difficulty.

An evaluation is the last phase of electronic counter-countermeasures (ECCM) training.

SFC Velton Blake, noncommissioned officer-in-charge of the simulator team, said that crews are evaluated quarterly. The evaluation checks crew performance against jamming and non-jamming aircraft in simulated combat conditions. There are approximately 18 to 20 targets per run and the crew is evaluated on a points system.

All this training adds up to what Capt. Mike Monnett, battalion S-3, called "the single most effective means of training crews to shoot down airplanes in combat."

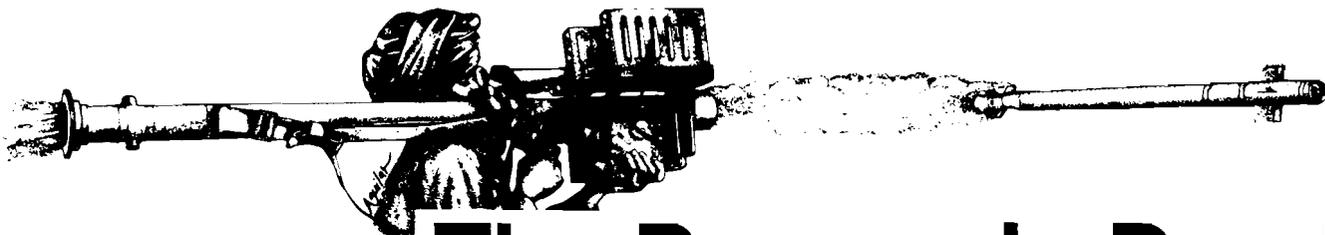
Monnett also noted the cost-effectiveness of the simulator, saying that to use real aircraft for this training would cost taxpayers millions.

Another advantage of the AN/TSQ-29 is its mobility. The simulator team frequently accompanies units to the field for training. This greatly increases the amount of training time for crews which, in turn, increases proficiency.

In the near future, 3-1st ADA will get an improved Hawk system that has a built-in simulator capability. Batteries will then train their own crews and training time will increase significantly.

In the meantime, 3-1st ADA will continue to use the AN/TSQ-29 to train its soldiers to perform their mission of providing air defense to III Corps on the modern battlefield.

— Steve Heihans



The Dragon is Dead!

The combat debut of Stinger in Afghanistan offers decisive proof of the weapon's effectiveness in a certain kind of war — a low-intensity conflict that offers few parallels to the fast-pace, high-intensity type of conflict we train for every day. Therefore, we must temper our high expectations for Stinger with the knowledge that the Afghan situation is unlikely to be duplicated.

Still, Stinger in Afghanistan dramatically demonstrates the validity of the AirLand Battle maxim which contends the "airspace of a theater is as important . . . as the terrain itself."

Heavily armored Hind-Ds and other combat aircraft at first ruled the skies over Afghanistan, visiting death and destruction upon *Mujahideen* forces whenever the rebels dared to mass forces or attempted to prolong engagements. The terrain favored the guerillas, but Soviet air power dictated the terms of battle, limiting the *Mujahideen* to hit and run tactics and robbing them of the operational initiative.

The rebels were clearly losing a war of attrition that pitted Soviet high-tech tank and motorized rifle regiments, lavishly supported by artillery and air power, against low-tech guerillas. A little high-tech air defense firepower in *Mujahideen* hands quickly changed things.

Stinger altered the course of battle, allowing the *Mujahideen* to graduate from simple harassment to victory. "The dragon is dead," said a rebel leader when asked about Stinger's effectiveness against the once-dreaded Hind-Ds and Frogfoots.

The *Mujahideen* produced dedicated and capable Stinger gunners by picking their best fighters for an intensive two-week training course. With valor a common virtue among the mountain tribesmen, they chose smart, dependable "killers" who had demonstrated ambition and initiative in combat. The training emphasized tracking skills and made engagement drills top priority. Since no friendly aircraft flew the hostile skies of Afghanistan, the *Mujahideen* allotted no time to aircraft recognition training.

During a two and a half year period, Stingers blunted the Soviet air threat by scoring approximately 269 kills in about 340 engagements — a 79 percent kill ratio. The Soviets' first reaction was to suspend flight operations for a month. When Soviet pilots returned to the arena, they resorted to tactics that negated their influence on the outcome of battle. Stinger had forced them out of the optimum ordnance release altitudes (1,000 to 3,500 feet). Instead, they delivered their ordnance

from low-altitude approaches or from above 10,000 feet, resorting to strategic conventional bombing — always a poor tactic against guerrilla forces.

Despite the mountain tribesmen's typical disregard for personal safety, no "Muj" Stinger gunner was killed during ground-to-air engagements.

The benefits which accrued to the *Mujahideen* were the same as those which would accrue to a conventional force fighting a conventional war. Stinger provided rebel forces freedom to maneuver and allowed them to regain the operational initiative. The rebels were no longer restricted to road ambushes and hit and run raids; they could mass forces at the right place and time. Stinger allowed the *Mujahideen* to sustain the battle. They were able to move heavier weapons and supplies by commercial trucks along main roads rather than by foot or pack mules along mountain trails.

Stinger de-synchronized Soviet air-ground operations while allowing the *Mujahideen* to synchronize their own operations.

Stinger operations in Afghanistan support the tenets of AirLand Battle doctrine by demonstrating that the integration of counterair operations is critical across the spectrum of conflict.

The Third Dimension
The Third Dimension

Afghan Stinger

