

Right by Piece

NOTES FROM UNITS



GRENADA — Field artillerymen of the 82d Airborne Division fire on enemy hill positions in support of mopping-up operations in Grenada. (US Navy photo by Peter D. Sundberg)



FORT STEWART, GA — Staff Sergeant Howard Cobb (kneeling) and Sergeant James M. Brown, both members of Battery A, 1st Battalion, 24th Field Artillery, Georgia National Guard, assist in laying their unit's 155-mm self-propelled howitzers during two weeks of intensive field training at Fort Stewart. (Photo by MSG Mitch Kinney)

January-February 1984



Major General Thomas F. Healy (center), 1st Armored Division Commander, presents the Harmon Award to Lieutenant Colonel Tommy R. Franks as Command Sergeant Major Donald Mann looks on.

2-78th FA Wins Harmon Award

BAMBERG, GERMANY — As reported in the November-December 1983 *Journal*, the 2d Battalion, 78th Field Artillery, was presented the Harmon Award for 1983 as the best fire support unit in the 1st Armored Division. The award, named after Major General Earnest N. Harmon, the third commander of the 1st Armored Division (March 1943-July 1944), is awarded annually to the Field Artillery, Air Defense, Combat Aviation, or Engineer battalion which makes the greatest overall contribution to the division's combat readiness. The 2d Battalion's contributions were determined based on the following accomplishments:

- Satisfactory completion of all battalion ARTEP tasks during external evaluation in October of 1982.
- An annual SQT pass rate of 98 percent.
- First and third place batteries (Battery B and Battery A, respectively) during Division Artillery Best-By-Test Competition in March 1983.
- Satisfactory completion (with very high marks) of a VII Corps Operational Readiness Test in November 1982.
- Best small unit maintenance operations in the fire support category for three out of four quarters (Headquarters and Headquarters, C, and Service Batteries).
- Nomination by 1st Armored Division for the prestigious Connelly Dining Facility Award.
- Selection of Battery C to replace the Berlin Battery for six weeks while the latter trained in Grafenwoehr.
- Winner of the 3d Brigade military and sports "Bulldog Week" competition in 1982 (Headquarters and Headquarters Battery).
- Demonstration of its capability to take care of all soldiers through training, education, promotion, awards, and quality of life needs.

Artillery rocket/missile technology

REDSTONE ARSENAL, AL — Where do some of the state of the art ideas for future rocket/missile fire support systems come from within the United States Army? The answer to this question, with respect to artillery rocket/missile technology (AR/MT), can easily be furnished by the Fire Support Team, Advanced Systems Concepts Office of the US Army Missile Laboratory, US Army Missile Command, Redstone Arsenal, Alabama. The missions of the Advanced Systems Concepts Office are to analyze weapon system requirements and provide research and development plans to satisfy these requirements; to coordinate with US Army Training and Doctrine Command and Army staff agencies to insure integration of combat requirements and tactical concepts in new or evolutionary system generation; to act as the Missile Command focal point for Mission Area Analysis (MAA); to conduct evaluation and tests of friendly foreign missile systems; to manage research, development, test, and evaluation programs to assure the orderly evolution of preferred weapon systems candidates from program initiation to completion of the project; to manage the integration of technology to demonstrate systems' feasibility and potential; and to provide expert analysis in the system effectiveness and concept engineering of advanced missile and rocket systems.

In addition to conducting research and development, the Advanced Systems Concepts Office coordinates ongoing systems' acquisition activities. The Fire Support Team, through the efforts of its military personnel and its civilian force of general, electronic, and aerospace engineers, directs and coordinates the planning and execution of new system developmental activities and the integration of technology to demonstrate a new system's feasibility, as well as new applications of existing systems. It is because of this concentration that the team serves as the principal staff advisor to the Army Missile Command on Army requirements and concepts for future rocket/missile fire support systems. In addition, new applications of existing systems are accomplished within the team. Product improvements are currently being pursued in conjunction with the Pershing, Multiple Launch Rocket System, and Lance programs.

The development of new capabilities is enhanced through liaison with Department of Defense organizations, other Government agencies, universities, and industrial organizations. In order to insure user interaction, the Advanced Systems Concepts Office maintains close ties with the Field Artillery School's Directorate of Combat Developments, which has responsibility for overall artillery materiel and doctrine development and is addressing the

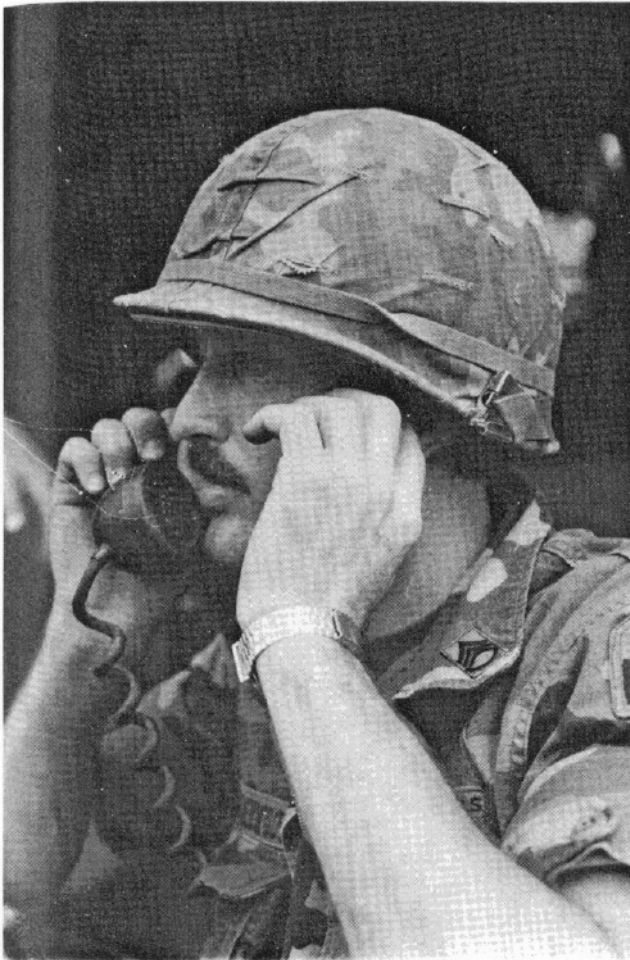
Army's fire support requirements through the Mission Area Analysis procedure.

Mission Area Analysis entails the identification of deficiencies affecting the various TRADOC mission activities in relation to their assigned tasks and the development of doctrine, training, materiel, and organizations to cope with the dynamic, multi-faceted threat. It has identified hardware deficiencies to the Government materiel developer, which for rocket/missile fire support systems is the Department of the Army Readiness and Development Command, the major subordinate command which includes the Missile Command.

To facilitate the state-of-the-art efforts, the Advanced Systems Concepts Office also maintains close liaison with industrial organizations which conduct independent research and development with government funding. The Fire Support Team is instrumental in orchestrating the identified hardware deficiencies and their proposed rocket/missile hardware solutions vis-a-vis technological advances made by the organizations. (At present, the Team is working on such projects as lethal attack of emitters, terminally guided warheads, rapid deployment integrated rocket systems, and total air base attack systems.)

To establish a framework for planning and allocation of resources, the Advanced Systems Concepts Office has developed and manages the Missile Command Long Range Weapons Plan. This document is the result of a process by which the Army Missile Command identifies development and acquisition strategies for proposed concepts to meet user needs within the allocation of Department of Defense resources. These resources are allocated based upon the priorities of the user command; and, through interactive computer-aided analysis, the Advanced Systems Concepts Office is able to obtain a realistic projection of affordable weapon system acquisition programs over the next 15 to 20 years. This planning is coordinated with the user, then with the Department of the Army Readiness and Development Command, and, finally, with the Department of the Army as part of the Army's planning, programming, and budgeting system.

The personnel in the Advanced Systems Concepts Office and the functional directorates of the Army Missile Laboratory interact in multiple mission areas, technology base development, support to project management offices, and product improvements; and it is through the efforts of all these personnel, in cooperation with the user and the industrial community, that the missions of the Fire Support Team are successfully accomplished. (LTC Paul A. Hays and Mr. Jeffrey D. Cerny, Fire Support Team, Advanced Systems Concepts Office, US Army Missile Command)



FRANKFORT, KY — Preparing for the next fire mission of Battery B, 1st Battalion, 623d Field Artillery, Kentucky Army National Guard, Staff Sergeant Charles C. Underwood listens for the fire commands during annual training field exercises at Camp Shelby, Mississippi. (Photo by SGT F. Patrick Collins)



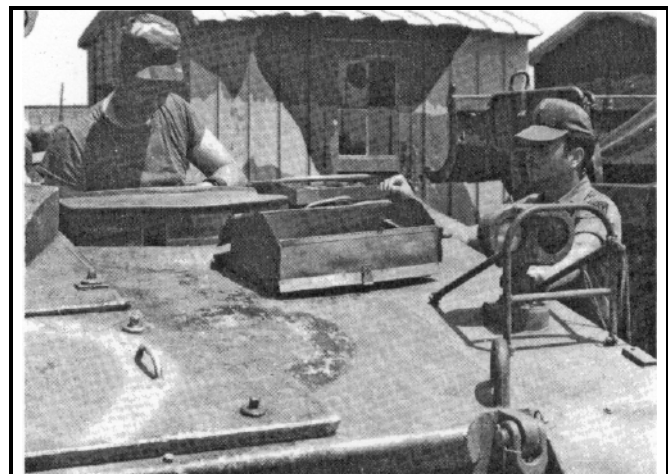
FRANKFORT, KY — As the temperature reaches above 90 degrees Fahrenheit, Specialist Four William V. Crawford computes the effects of weather variations during artillery exercises at Camp Shelby, Mississippi. Crawford is a member of Battery B, 1st Battalion, 623d Field Artillery, Kentucky Army National Guard. (Photo by SGT F. Patrick Collins)



FRANKFORT, KY — Practice! Practice! Members of Battery A, 1st Battalion, 623d Field Artillery, Kentucky Army National Guard, prepare to fire an 8-inch howitzer during field exercises at Camp Shelby, Mississippi. (Photo by SGT F. Patrick Collins)

Big voice

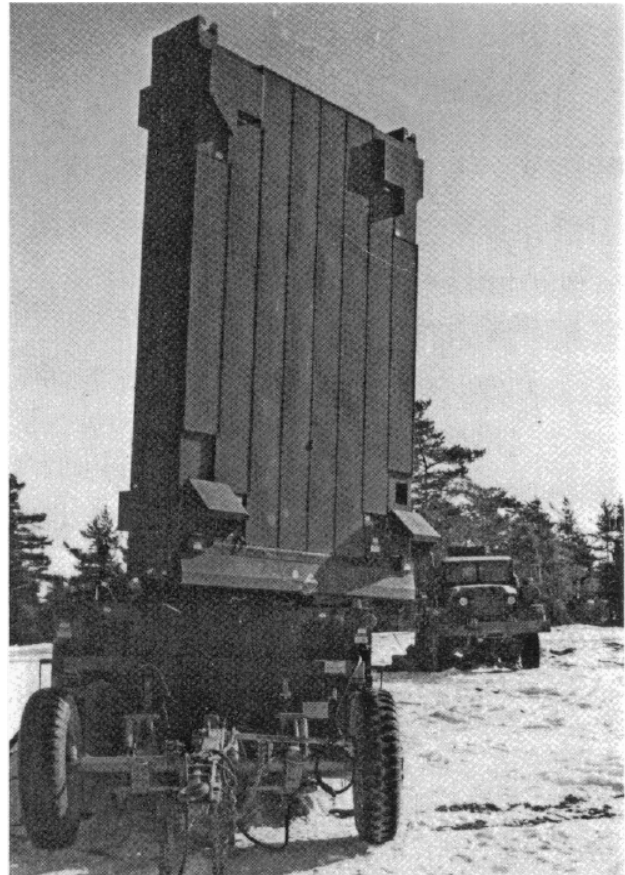
FORT HOOD, TX — The 12 8-inch howitzer sections of the 1st Battalion, 21st Field Artillery, distinguished themselves during the howitzer section evaluation conducted by the 1st Cavalry Division Artillery this past May. Competing against the standards set forth in FM 6-50 and against howitzer sections from the two 155-mm direct support battalions, 10 of the 12 howitzer crews of this general support battalion earned distinguished section patches, with the highest score achieved by Staff Sergeant Issard C. Legington's section in Bravo Battery. The remaining two sections in the battalion earned outstanding ratings. The Big Voice of Gary Owen proved itself still ready to provide "accurate and timely" artillery fires in support of the 1st Cavalry Division. (CPT Johnny E. Tolliver, HHB, 1-21st FA)



FORT SILL, OK — Staff Sergeant Manuel Villarreal (right) of the 2d Battalion, 18th Field Artillery, has been chosen as Fort Sill's NCO of the Year. Sergeant Villarreal is pictured here supervising his howitzer section's maintenance activities in the battery motor pool. (Photo by CSM Webster A. Woodruff, 2-18th FA)



VILSECK, GERMANY — One of the 105-mm howitzers of Battery D, 4th Battalion, 325th Infantry Regiment Airborne Battalion Combat Team, is hooked to the belly of a UH-60 Blackhawk helicopter for transport to Vilseck, Germany, where the battery participated in a week of live-fire exercises (top photo). In the bottom photo, artillerymen of the 4th Section, Battery D, prepare to send another live round downrange. Specialist Four Shawn McKenna pushes a high-explosive round into the tube while Specialist Four Mark Saia waits to slam the breech shut. (Photos by SP4 Ken Hudson)



GRAFENWOEHR, GERMANY — The AN/TPQ-36 Firefinder radar, which belongs to Target Acquisition Battery F, 29th Field Artillery, scans the skies for any incoming rounds during a 1st Armored Division exercise at the Grafenwoehr Training Area in West Germany. (Photo by Rick Chaney)



GRAFENWOEHR, GERMANY — During the Best by Test competition at Grafenwoehr Training Area in West Germany, soldiers from the 6th Battalion, 14th Field Artillery, 1st Armored Division, await the word for their next fire mission (top photo). In the bottom photo, a 6-14th FA soldier guards his perimeter during the competition. (Photos by SP4 Jacob Knight)

German-American Friendship Week 1983

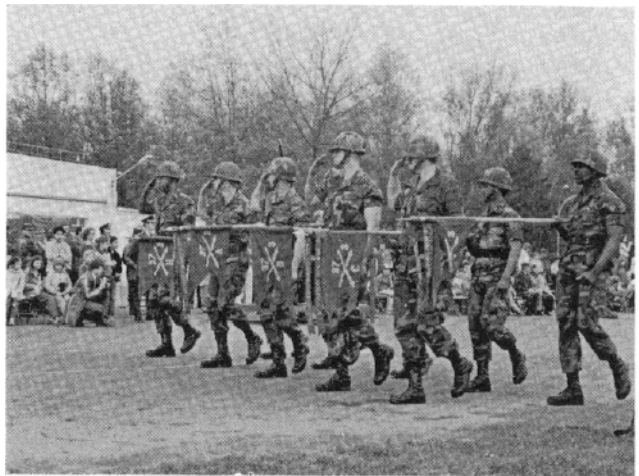
HERZOGENAURACH, GERMANY — Personnel of the city of Herzogenaurach and the Herzo Artillery Base in Germany look forward to the annual German-American Friendship Week which is held during the first week of May. The 17,000 inhabitants of this Franconian city and the 2,000 members of its American community participate in numerous exchanges and activities throughout the year, but none match the excitement of friendship week activities.

While many communities in Germany focus their German-American Friendship Week on fund-raising programs, the people of Herzogenaurach and the Herzo Artillery Base concentrate on fostering new friendships and contacts between Americans and Germans. There is a full program of activities for families and single soldiers, to include sports tournaments for both team and individual competitors.

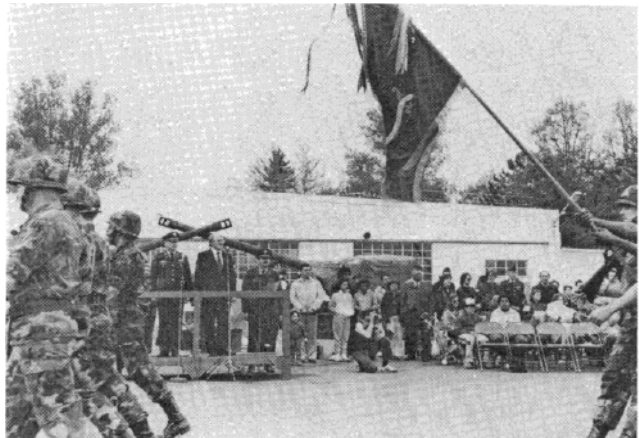
Local businesses and factories conduct tours for the American soldiers and their family members, many of whom visit the actual assembly lines. Two of the tours given each year are at the world headquarters for Adidas and Puma sportswear manufacturers. Of course, a perennial favorite for the soldiers is a tour of the local brewery.

And, what would a German-American celebration be without a festival? Each evening the beer tent opens, and German and American bands play all types of music. The week ends on a Saturday with a full day of music, food, games, military displays, and a parade.

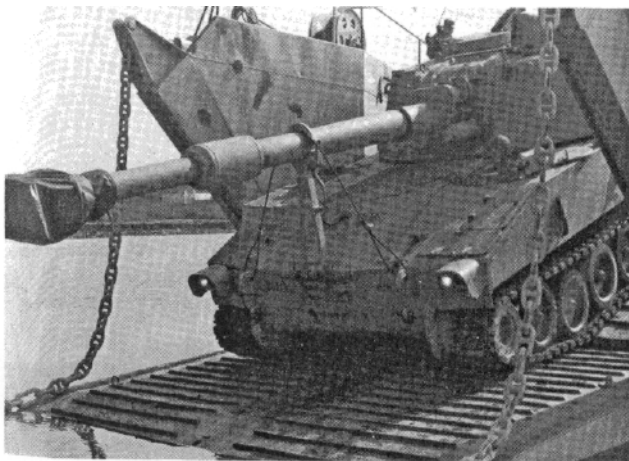
The 1983 edition of Friendship Week highlighted the 300th anniversary of German emigration to the United States. First Mayor of Herzogenaurach, Hans Ort, said, "We have 300 years of common culture and heritage to build upon. We both believe in democracy and freedom, and for these ideals we work together." (Story and photos by Ruthann M. Sprague)



Battery commanders and guidons of the 3d Battalion, 37th Field Artillery, pass the reviewing stand during the German-American Friendship Week parade.



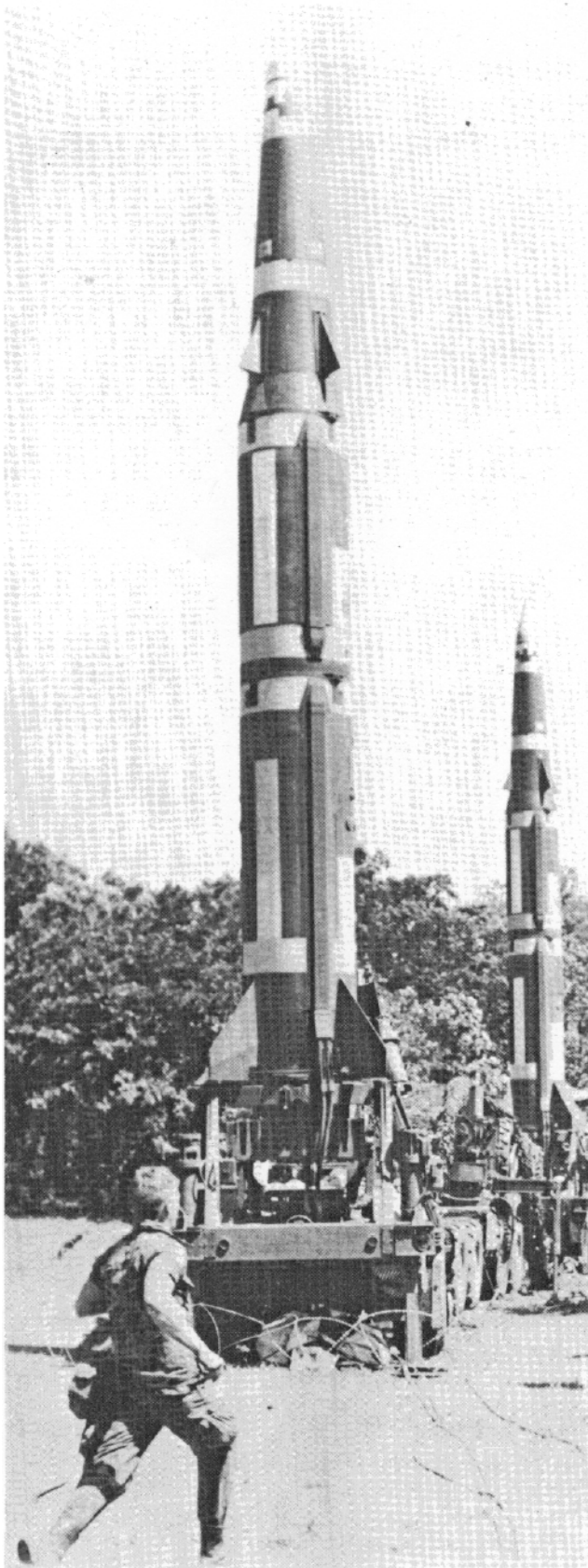
Colonel Jerome Granrud, 210th Field Artillery Brigade commander, and Hans Ort, First Mayor of Herzogenaurach, review the troops during the German-American Friendship Week parade.



FORT STEWART, GA — During Operation Lifeline, Private First Class Roger Maddux of the 2d Battalion, 35th Field Artillery, backs an M109 howitzer onto an Army landing craft at the port of Brunswick, Georgia. Some 200 vehicles were moved to Brunswick for deployment by sea to Savannah, Georgia. (Photo by SP4 Mark Bersani)



GRAFENWOEHR, GERMANY — Soldiers from the 1st Battalion, 22d Field Artillery, 1st Armored Division, demonstrate their night firing techniques on M109 howitzers during the "Best by Test" competition at Grafenwoehr. (Photo by Rick Chaney)



Pershing II missiles tower above a soldier from the 3d Battalion, 9th Field Artillery. (Photo by PV2 Steve Infanti)

Pershing II

FORT SILL, OK — Personnel of the 3d Battalion, 9th Field Artillery, are receiving training on the Pershing II missile, which will replace the Pershing Ia missile.

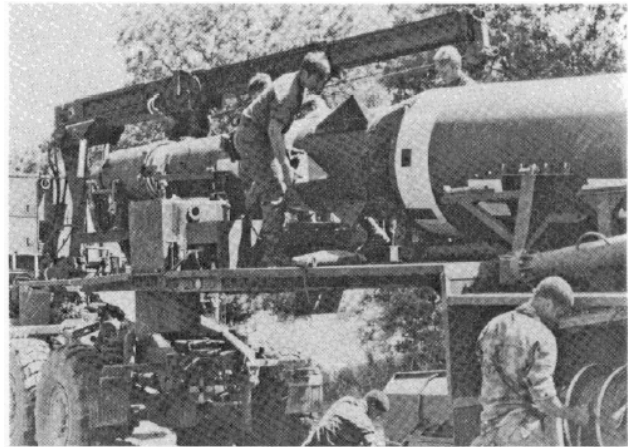
There are four military occupational specialties (MOSs) involved in the Pershing system. MOS 15E (Pershing missile crewmember) and MOS 21G (Pershing electronics materiel specialist) personnel perform crew work and receive training at Fort Sill, while MOS 21L (Pershing electronics repairer) and MOS 46N (Pershing electrical-mechanical repairer) personnel provide direct support maintenance and receive training at Redstone Arsenal, Alabama.

Fort Sill soldiers go through the one-station unit training; and, while attending advanced training at the Field Artillery School, crewmembers learn about the erector launcher which is used to transport, assemble, and fire the missile. They learn to remove the missile from shipping and storage containers and assemble it on the launcher. Next, they are instructed on how to maintain and use power generation equipment, how to inspect the warhead, how to mate and demate the warhead, and how to handle nuclear weapons. The final phase of instruction is the countdown operation, which teaches the students to prepare the missile for launch and actual firing. Collective training is then accomplished at their assigned unit.

The 3d Battalion, 9th Field Artillery, has 700 soldiers who possess Pershing MOSs; and the demands placed on these soldiers are extremely high. They go through constant checks, annual skill qualification tests, primary weapon proficiency inspections, and annual NATO tactical evaluations.

There are only four Pershing battalions — one at Fort Sill and three in Germany — and each battalion gets to fire two rounds per year as annual service practice. Personnel assigned to Pershing units normally rotate between assignments in Fort Sill and Europe.

The Pershing missile system is the US Army's longest range field artillery weapon system and is designed to support a large field army. Pershing II, which will replace Pershing, 1a, has a 1,000-mile combat range, compared with 400 miles for the Pershing 1a.



Pershing II crewmembers from the 3d Battalion, 9th Field Artillery, disassemble a Pershing II missile at Fort Sill, Oklahoma. (Photo by SP5 Toni Sprinkle)

Partnership contests

REGENSBURG, GERMANY — Soldiers from F Battery (Target Acquisition), 29th Field Artillery, placed third in a Triathlon and won the guest class competition in a Biathlon sponsored by Beobachtungsbataillon 43 of the Bundeswehr's Artillerieregiment 4 in Germany. The Triathlon team consisted of Chief Warrant Officer Roger I. Padgett, Staff Sergeant Arne J. Kalka, Staff Sergeant Charles N. Flaherty, Sergeant Mitchell W. Daniel, and Sergeant Timothy R. Luhring. The Biathlon team consisted of Staff Sergeant Arne Kalka, Sergeant Timothy Luhring, Corporal John Skidmore, and West Point Cadet Tamela Halstead; Corporal Skidmore won the individual competition in the guest class, and Sergeant Luhring placed second.

During the contests, soldiers were required to run 1,500 meters, fire the German G3 rifle, run another 1,500 meters, fire the G3 rifle again, and then sprint to the finish line. After a short rest, each individual entered in the Triathlon was required to complete a 200-meter, free-style swim.

F Battery has a formal partnership with Beobachtungsbataillon 43 (an observation battalion); and the two units participate in numerous joint training exercises, sport contests, and social events. Such activities strengthen the comradeship between German and American units as well as providing a forum for exchanging ideas and finding solutions to problems that confront all professional soldiers. (Story and photos by CPT John M. House)



Chief Warrant Officer Roger I. Padgett begins the Beobachtungsbataillon 43 Triathlon (top photo) and then prepares to fire the German G3 rifle (middle photo). In the bottom photo, Sergeant Timothy R. Luhring (number 26) prepares to fire the G3 rifle.

Operation Sommerwind I

CRAILSHEIM, WEST GERMANY — The 2d Battalion, 42d Field Artillery (Lance), 17th Field Artillery Brigade, was presented the United States Army, Europe Partnership Award for 1983 by General Glenn Otis, Commander-in-Chief, USAREUR. The award recognized the outstanding efforts made by the battalion to strengthen partnership with the Bundeswehr and, particularly, the 250th Raketen Artillerie Battalion (Lance) of the II German Korps.

To mark their receipt of the award, the 2d Battalion, 42d Field Artillery, and the 250th Raketen Artillerie Battalion held a joint field training exercise, Operation Sommerwind I, in the Schwaebisch Alps during the latter part of June 1983. The battalions formed a Lance brigade and conducted fire support operations in support of a national Army corps. The exercise, based on an AirLand Battle scenario, was the first operational test of the Lance brigade concept and provided data that could be evaluated by Army planners. The brigade headquarters and headquarters battery and tactical operations center were composed of both German and American personnel.

The battalions also practiced interoperability. The 250th Raketen Artillerie battalion maintained operational

control of Bravo Battery, 2d Battalion, 42d Field Artillery throughout the exercise; and survey parties and fire direction center personnel were detached from the American battalion to the German 2d Battery and 4th Battery, allowing the Germans to survey firing points for American launcher platoons and to compute nonnuclear firing data. An air convoy resupply with German aircraft and an airmobile fire mission with American aircraft were conducted, and they involved both American and German firing and assembly and transport platoons. The two battalions and the brigade headquarters moved in retrograde over 100 miles during the exercise, but moved forward by air to deliver fire support for offensive operations. The brigade shot 29 training fire missions, both nuclear and nonnuclear.

Operation Sommerwind I demonstrated that American and German field artillerymen can easily achieve interoperability in staff planning, command, control, communications, fire control, survey, and logistics; it also indicated that the Lance brigade concept may have applications in organizing American Lance battalions for combat to support the AirLand Battle. The main value of the exercise, however, was partnership — the soldiers of both nations overcame linguistic, cultural, and procedural barriers to become efficient co-workers and comrades. (ILT Gary Bowman)

Target reference for Pershing II

FORT BELVOIR, VA — Redlegs from the 56th Field Artillery Brigade at Schwabebisch, West Germany, and from the US Army Field Artillery School and the Pershing II TRADOC Systems Managers Office at Fort Sill, Oklahoma, visited the US Army Engineer Topographic Laboratories to learn how to make target reference scenes (machine-readable maps) for Pershing II on the Reference Scene Generation Facility. The Redlegs made a reference scene for use in a test firing of the 34-foot missile.

Test firings of Pershing II early last year validated the fact that soldiers can make sophisticated scenes with the Reference Scene Generation Facility. The missile's near-pinpoint accuracy is achieved through a technique called radar area correlation; and, as the reentry vehicle descends toward a target area, it compares live radar reflection from the target with reference scenes stored in the missile before launch. The reentry vehicle then makes course adjustments based on the comparative readings supplied by the guidance system.



Sergeant First Class Donald V. Bowles, Captain John D. Schorr, Sergeant First Class Roger W. Crider, and Chief Warrant Officer Michael Lukes watch Captain David W. Adams operate the Reference Scene Generation Facility.



FORT ORD, CA — Sergeant Jon Dewey (right), ammunition section chief of A Battery, 2d Battalion, 8th Field Artillery, was chosen as Fort Ord's NCO of the Year. (Specialist 4 Marco Calvo, pictured on the left, is an aircraft hydraulics repairman with E Company, 7th Combat Battalion, who was named as Soldier of the Year.) Soldiers competing for NCO of the year had to appear before a board made up of sergeants major. Selection was based on a point spread system similar to the one used by a promotion board. Competing NCOs were judged on their manner of reporting, individual achievements, military bearing, knowledge of military subjects, personal appearance, manner of expressing ideas, military courtesy, and knowledge of current events. (Photo by Tim Guthrie)

XI Corps Artillery

SALT LAKE CITY, UT — Brigadier General James M. Miller received his star prior to assuming command of the XI Corps Artillery — the only corps artillery in the Reserve Components. The XI Corps Artillery serves as one of the major commands in the Utah Army National Guard and has a two-fold mission: it provides assistance to the state and local communities during emergencies and disaster and is the controlling

headquarters for all surfaced-delivered fire in support of corps level operations. There are three field artillery howitzer battalions attached to the XI Corps — they are headquartered at Ogden (1-145th FA), Salt Lake City (1-140th FA), and Cedar City (2-222d FA). In civilian life, General Miller is the Dean of Education at Southern Utah State College in Cedar City, Utah.