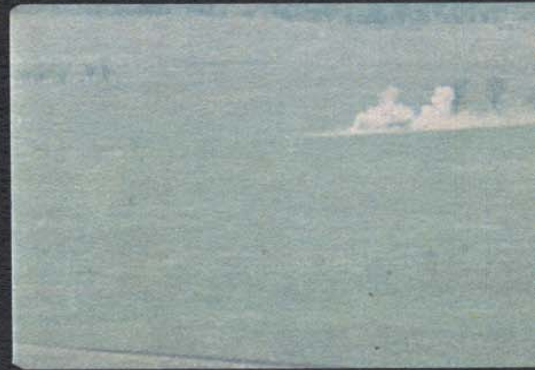


FIELD ARTILLERY JOURNAL

May-June 1974



HELBAT connects!



A Field Artillery Division

by
MAJ Robert E. Klein

On order of General of Division Ottenbacher, the 1st Fusilier Artillery Division launches a nuclear preparation to destroy enemy defensive positions. The massed guns of the division's three artillery brigades destroy the frontline positions of the enemy and open a gaping hole for the 39th Combined Arms Army's penetration. (FM 30-103, Aggressor Order of Battle Book)



With the advent of tactical nuclear weapons, the commander is presented with a new situation—a situation in which maneuver will support fire. "It is by fire and not by shock that battles are decided today." This statement, made by Napoleon, the greatest of all artillerymen, almost 200 years ago, remains a reality today. If maneuver is to support fire, who, then, will command?

Will today's military organizations be able to adjust to this situation? Will these organizations be able to respond when the destructiveness of modern firepower and the mobility of combatants place a high premium on responsiveness and flexibility?

Both the German and Russian Armies met this challenge by organizing their artillery into divisions. When flexibility was desired within the maneuver units of the US Army, the ROAD concept was developed to allow for any desired mix of maneuver units. Artillery in the US Army today must answer all of the above challenges. This article will examine a new organization for the artillery that will meet such challenges—the artillery division.

The US Army's current reorganization of the echelons above division (EAD) level provides an excellent opportunity for an examination of change within artillery organizations assigned to these higher echelons.

"Both the German and Russian Armies met this challenge by organizing their artillery into divisions."

This article will consider the organization, employment, and tactics of the artillery divisions of the German and Russian Armies to provide a frame by which an examination of the US Army artillery division will be analyzed. The article also will explore areas in which a divisional organization would alleviate existing deficiencies, to include command and control, attachments/detachments, fire support coordination, administration (e.g., automatic data processing, military justice), and logistical support.

In the discussion of this division, a US Army corps of three maneuver divisions will be assumed. This corps will have one organic artillery division, which will be organized with a fixed base (as are all maneuver divisions) and a flexible number of fire support battalions. With such an organization, the artillery division would be capable of supporting any corps organization by assigning the proper mix of fire support battalions to each group (brigade) headquarters. Specific organizational features of this division are not the subject of this article and will be discussed only when necessary to explain how the division would improve current operational procedures.

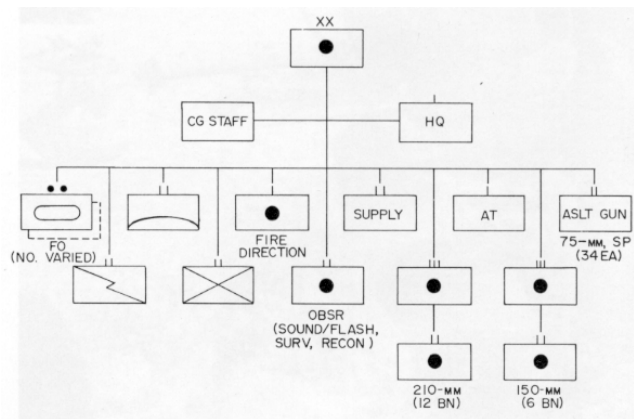
GERMAN AND RUSSIAN ARTILLERY DIVISIONS

Whenever large land armies are organized, the fire support battalion is one of the most numerous of all units. Today's US Army has more fire support battalions than infantry/mechanized infantry battalions. However, seldom are these fire support battalions organized to provide the utmost in command and control. These battalions are used to support maneuver or reserve divisions, or they are parcelled out or kept under the control of the corps commander or even the theater army commander. This organization seems to flaunt the first fundamental of field artillery organization for combat—maximum feasible centralized control. Instead of emphasizing the second adjective, "feasible," let us place emphasis on the first, "maximum," as is done in FM 6-20, Field Artillery Tactics and Operations:

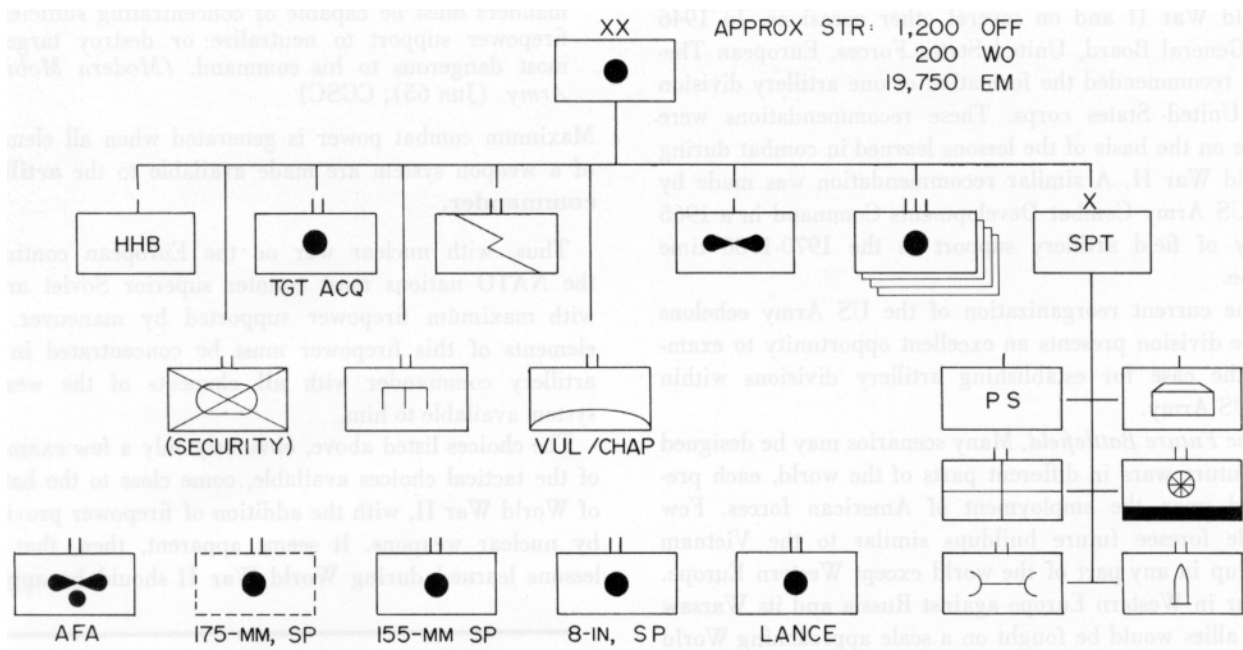
Field Artillery is most effective when control is centralized at the highest level consistent with its fire support capabilities and the requirements of the overall mission. Centralized control of field artillery permits flexibility in employment and aids in massing of fires.

In 1943, to support operations on the Russian front, the German Army organized the 18th Artillery Division. Prior to this time, German artillery had been organized much the same as is the current US Army artillery. However, in artillery duels fought with the massed Russian artillery, the Germans found that their artillery must be capable of exercising a multiplicity of missions. It is this same Russia that today is considered our principal threat, and Russian artillery is even more powerful now than it was in World War II. Battle experience proved to the Germans that an artillery division was needed to counter the mass of Russian artillery. Should we not take a lesson from history? If an American corps is to fight against the Russian Army, should we not be prepared? The German 18th Artillery Division was deactivated, not because of combat losses or because it failed in its mission, but because the artillery commanders within the German Army did not utilize it to its potential.

Much as the Germans organized their artillery to battle the Russians, so the Russian Army had previously organized its artillery and by so doing had consolidated its role as the main fire and striking power of the Soviet Army. Russian tactical doctrine charges the highest artillery commander involved in any operation with the responsibility for a unified system of fire that will fulfill the requirements of the operation. Is this not maximum feasible centralized control?



Organization of the German 18th Artillery Division.



**Organization of an artillery division
(approximately 20 FA battalions).**

At this point the following quotes from FM 30-102, Aggressor Order of Battle Book, might serve to reemphasize the need of maneuver to support fire:

Artillery theory employs the concept of fire strike, which is a severe and intense bombardment by all artillery weapons to defeat the enemy without the use of ground troops.

Artillery fires are laid down with such weight, volume, and accuracy that the artillery fire itself is an offensive.

One artillery division is usually allocated . . . to provide conventional and nuclear fire support to armies making the main effort in the advance or to assist in the defense of a critical coordinating area The division is capable of coordinating all its subordinate units when needed to support one sector of operations.

These quotations show the importance placed on artillery command and control by the Aggressor. Napoleon once said: "We could wipe out the enemy by an immense superiority in artillery." The Russians have set out to do just that. But, again, does the US Army not have the same potential with its tactical nuclear weapons and significant number of fire support battalions?

Before leaving the Soviet artillery, it might be well to point out two obvious differences between United States/German artillery doctrine and Soviet artillery doctrine. First, Soviet self-propelled artillery (assault guns)

are primarily employed as direct fire weapons that move with tank formations for attack of enemy pillboxes and bunkers; Soviet antitank guns are also assigned to the artillery. Second, much Soviet artillery is attached for combat operations; however, as previously noted, the senior artillery commander is charged with the employment of all attached artillery.

These two examples of the employment of artillery divisions in the German and Russian Armies highlight several areas, especially command and control, that will be investigated as an artillery division is placed in the framework of the US Army corps.

A US ARMY ARTILLERY DIVISION

As has been shown, the organization of artillery into divisions is not something new to the armies of the world, and artillery divisions do currently exist within the force structure of the Soviet Army. The United States has never formed an artillery division, probably because the size of the peacetime American Army prior to the Korean war was too small to support such an organization. It is the recommendations resulting from war's lessons learned that suggest the formation of such a division. Today, however, with three active heavy corps and the current number of field artillery battalions, size is no longer a constraint.

Recommendations for the formation of an artillery division were made in after-action reports at the close of

World War II and on several other occasions. In 1946 the General Board, United States Forces, European Theater, recommended the formation of one artillery division per United States corps. These recommendations were made on the basis of the lessons learned in combat during World War II. A similar recommendation was made by the US Army Combat Developments Command in a 1965 study of field artillery support in the 1970-1980 time frame.

The current reorganization of the US Army echelons above division presents an excellent opportunity to examine the case for establishing artillery divisions within the US Army.

The Future Battlefield. Many scenarios may be designed for future wars in different parts of the world, each predicted upon the employment of American forces. Few people foresee future buildups similar to the Vietnam buildup in any part of the world except Western Europe. A war in Western Europe against Russia and its Warsaw Pact allies would be fought on a scale approaching World War II and, in all probability, nuclear weapons would be employed.

As H. B. Malmgren pointed out in an article entitled "A Forward-Pause Defense for Europe" (*Orbis*, Fall, 1964), "[If NATO is to remain a viable force to deter attack in Western Europe, then] a forward defense designed to yield no territory is essential." Many types of defense have been proposed, but if no territory is to be yielded, then NATO is limited to few choices. The most logical choice is a tactical nuclear defense. This defense implies that NATO (i.e., the United States) will use nuclear weapons first. A second choice, called the "forward pause," is based on a static defense along the German border with a highly mobile reserve. Each case envisions the employment of tactical nuclear weapons as the principle means of stopping the Soviet offensive. The artillery and air forces of NATO thus become the systems within the NATO force structure which, by fire strikes, will defeat the enemy and permit our tactical forces to maneuver and gain the offensive. As stated by LTC Fowle in an article published in *The Journal of the Royal Artillery*:

[After nuclear strikes,] any future war in Europe will take the form of an armored battle between opposing tank forces supported by self-propelled guns and infantry in armored personnel carriers . . . probing weak spots in our defenses and . . . exploiting them by use of shock tactics.

Combat power thus will be brought to bear through firepower and maneuver—

employed in the combination best suited to the type of warfare in which the force is engaged. . . . Commanders must be capable of concentrating

sufficient firepower support to neutralize or destroy targets most dangerous to his command. (*Modern Mobile Army* (Jun 65), CGSC)

Maximum combat power is generated when all elements of a weapon system are made available to the **artillery commander**.

Thus, with nuclear war on the European continent, the NATO nations must counter superior Soviet armor with maximum firepower supported by maneuver. All elements of this firepower must be concentrated in the artillery commander with **all** elements of the weapon system available to him.

The choices listed above, obviously only a few examples of the tactical choices available, come close to the battles of World War II, with the addition of firepower provided by nuclear weapons. It seems apparent, then, that the lessons learned during World War II should be applied

Napoleon once said: "We could wipe out the enemy by an immense superiority in artillery."

to today's situation in as many ways as possible. And one of the lessons learned was the need for an artillery division for each corps. Why did the European after-action reports recommend such an organization? What other factors can be added to today's tactical situation that will bear on the problem?

Command and Control. The mission assigned to the corps artillery headquarters by TOE 6-501H is to provide *tactical control* and *administrative supervision* of assigned and attached units. TOE 8-401H for the headquarters and headquarters battery, field artillery group, assigns the same missions to the group. The corps artillery supervises but does not support assigned and attached units. In and of itself, this unit must be supported by personnel service, finance, and medical personnel.

What is to be the size of the artillery assigned to the corps? Artillery-75, a 1968 study by the US Army Combat Developments Command, called for approximately 20 fire support battalions (SP 155-mm howitzer, SP 203-mm howitzer, aerial field artillery, and Lance) and four subordinate control headquarters (field artillery groups). On the basis of tables of organization associated with this study, approximately 14,000 officers, warrant officers, and enlisted men would be assigned to these fire support battalions. The span of command and control for an organization

of this size is an obvious problem, especially when the corps artillery commander does not have the administrative tools necessary to influence his own organization.

Other control problems discovered during World War II include those caused by shifts among units with different SOP's, commanders not cognizant of the capabilities and limitations of their subordinate units due to frequent shifts of these units, and the retention of inefficient battalion commanders for a considerable period of time because of frequent shifts in command.

Additional command and control problems will be experienced on a high-intensity nuclear battlefield, such as the extended distance necessary for adequate dispersion, the high priority given to attacks of command posts, and the effects of nuclear weapons on electrical equipment (caused by electromagnetic pulse).

An artillery division would alleviate many of these problems; SOP's would be standardized, commanders would know their subordinates, and extended distances could be handled as they are by the current maneuver divisions. In addition, attacks on command posts could be offset by two factors: (1) A division would have main, forward (jump), alternate, and rear command posts, each of which could serve if needed. (2) The artillery headquarters could serve as the alternate fire support element if the corps tactical operations center (CTOC) were attacked.

Tactics. The current tactical doctrine for the employment of field artillery need not be altered by the introduction of the artillery division. The tactical missions of direct support, general support, reinforcing, and general support-reinforcing can and should be performed in the same manner as current doctrine dictates. The most significant tactical change is the heightened ability for the centralized control of fire units that the artillery division will provide the corps commander.

TACFIRE. Problems of control of fire support units over the extended distances necessitated by a nuclear battlefield, problems associated with allocations and assignments of nuclear weapons, and the need for greater centralized control of fire support to counter expected maneuver superiority of Soviet forces might appear to conflict, but a division headquarters would centralize fire control up to the highest levels so as to obtain maximum flexibility. The system to be employed by future artillery headquarters will make maximum use of TACFIRE. The objective of TACFIRE is to increase the effectiveness of fire support by providing faster response, better use of target information, quicker fire planning, and ease of determining fire capabilities of units. TACFIRE, to be most effective, must tie in the entire fire support system of the corps. Uniting the corps artillery headquarters (artillery division) and the maneuver division artillery units in an

interconnecting net will allow the commander both maximum flexibility and maximum control. Having an artillery division in addition to the CTOC will heighten the flexibility of the system in the face of enemy attacks on headquarters. The artillery division becomes the perfect instrument through which such data as ammunition status, target intelligence, meteorological data, and fire unit status can be incorporated into the command system of the corps.

Communications. Evidence exists that current methods of artillery communication at higher echelons are not satisfactory and that these requirements must be met with "sole user" fire control circuits within proper systems. To provide this type of communications support, the artillery headquarters must be augmented with at least a signal company. Thus the addition of such essential support elements to a sustained combat role will add to the responsibilities of the artillery headquarters at corps level.

Administration. The corps artillery, by TOE mission, has administrative supervisory responsibility for its attached units, yet it does not command the resources necessary to really fulfill this responsibility. In World War II, administrative problems had a deleterious effect on the morale of the separate artillery battalions, and administrative problems arose in the areas of mail delivery, loss of promotions, inadequate replacements, few decorations and awards, and fewer passes and furloughs for these units. Many of these same problems continue to plague corps artillery battalions. Problems were encountered in Vietnam in the areas of pay records, R&R, and promotions because these areas were administered by field artillery group headquarters that were neither equipped nor manned for such operations. Another major area of concern is the handling of court-martials. So long as the senior artillery officer is only a brigadier general, he does not possess general court-martial authority for the 14,000 men under his command. This authority is retained at the higher command level.

Each of these problems can be solved by the formation of an artillery division that will provide the artillery commander with the necessary support units, the personnel services, and the finance companies of a division support command (DISCOM). Having such units under the control of the artillery commander will preclude the field artilleryman from feeling like a "bastard child," a common feeling among non-divisional artillerymen today.

Logistics. The areas of maintenance and supply proved to be large stumbling blocks for the non-divisional artillery battalions of World War II. The shifting of units caused delays in repairs and the filling of requisitions, and it became imperative that the artillery group headquarters assist the battalions with these problems. These

"The available supply rate for a . . . battalion fighting in Europe is currently forecast to exceed 150 metric tons a day"

headquarters were not organized to provide the necessary support. Today's mobile field artillery battalion, which has more vehicles, significantly more ammunition, and greatly increased sophistication in fire direction, survey, and communications, has a multiplicity of supply and maintenance problems never dreamed of by the World War II battalion commander.

The increase in supply requirements can be vividly demonstrated by comparing conventional ammunition supplies. During the Korean conflict, an 8-inch howitzer battalion consumed 35 metric tons of ammunition a day. The available supply rate for a similar battalion fighting in Europe is currently forecast to exceed 150 metric tons a day—more than four times the amount consumed during the Korean war. In addition to this, consideration must be given to the nuclear fires of the same battalion. Anyone who has supervised a nuclear resupply on a field exercise knows the time and effort required for such an operation.


Medical and engineer support for non-divisional artillery battalions takes on added significance when considering operations under nuclear conditions. If the support is poor, what recourse does the artillery commander have under the current organization? He does not have command over all the elements of the fire support system, command that in today's operations can be equated to time, time that will not be there in a nuclear situation. The most feasible solution to these logistics problems is to provide the artillery of the corps with full-time maintenance, supply, ammunition, medical, and, possibly, engineer support (or a DISCOM).

CONCLUSIONS

If the artillery headquarters of the corps is to comprise 14,000 officers and enlisted men and must be permanently augmented by signal, personnel service, and finance companies and maintenance, supply, ammunition, and medical organizations (or a DISCOM), then the recommendation of the General Board, United States Forces, European Theater, for formation of a unit "called the corps artillery division and containing organically the services and other units necessary to sustain itself administratively in the same manner as any other

division" should be put into effect for the United States Army of the 1970's. This division, using the field artillery group as the major subordinate tactical headquarters, could then tailor its fire support battalions, as today's divisions tailor their brigades, to provide maximum combat power at the decisive place while maintaining the inherent flexibility of the tailoring concept. This division would give the artillery commander all the needed forces that would enable him to exert maximum combat power by providing him the command and control facilities and the administrative and logistic base so necessary to today's sophisticated forces.

This article has shown that the lessons learned by American artillerymen during World War II, as they fought on the same grounds on which future military campaigns may well be fought, favored the establishment of such a division. The German Army, in an attempt to apply its experience, organized an artillery division on the Russian front during World War II. It is this same Russia that poses the greatest threat to the American Army today. This threat can be adequately met only by employment of nuclear weapons to stop the superior Soviet troop concentrations. Once the Soviet offensive power has been degraded, then NATO forces can begin to maneuver around the supporting nuclear fire.

It therefore seems to be in the best interests of the United States to organize an artillery division to take advantages of these past lessons and present strategies. The heightened readiness and greater esprit this division would provide the artillery of the corps would greatly enhance the corps commander's ability to use firepower as a key ingredient in preventing or halting the potential Soviet thrust into Western Europe. 

MAJ Robert E. Klein is a 1960 graduate of the United States Military Academy and a graduate of the Field Artillery Officer Basic and Advanced Courses. He has served in field artillery assignments as a battery commander in Germany and on both artillery group and corps artillery staffs. Major Klein received his MA in geography from Syracuse University in 1967 and served as an assistant professor of geography at the USMA. His last tour in Vietnam was as a member of the J3 staff at MACV headquarters. He is currently a student at the US Army Command and General Staff College.