Extending the Battlefield

General Donn A. Starry, US Army

General Donn A. Starry made the following comments on the genesis of this March 1981 article and AirLand Battle: "The ultimate lesson of `Active Defense' and the 1976 edition of FM [US Army Field Manual] 100-5 [Operations] is that it is virtually impossible to substantively rewrite doctrine satisfactorily in a matter of three years, e.g., 1973 to 1976. As principal author of the defense and offense chapters of the 1976 book, [I must say that] when it was done, I was not happy with what got written. Corollary is the fact that the 1976 book was not written at Leavenworth. Though he had stacked the staff at Leavenworth to do the writing, General [William E.] DePuy soon realized it would not be possible to think it all through and write anything worthwhile expeditiously. That conviction was the genesis of the now famous [Fort] A.P. Hill doctrine writing sessions. Indeed, much of the 1976 book was drafted at Fort Knox. . . . So AirLand Battle grew out of concept development at Knox as we struggled with Active Defense. For a very long time, AirLand Battle was a briefing—a bunch of slides I used to talk about war. . . . As suggested, it changed-frequently. [It] changed based on comments, observations and questions from audiences ranging from Congressional hearings to lectures at war and staff colleges in this country, in the United Kingdom, Canada, Germany, France and Israel.

When we finally cleared Leavenworth of the disappointed doctrine writers, got [then Lieutenant General] Bill Richardson in office there and [General] Shy Meyer in office as chief of staff, we were ready to write—at Leavenworth—what became the 1982 book. . . . Many people heard the briefing—whatever its name—and more than once. Most noted it was never quite the same—the second and third times they heard it, it may have included something someone in a past audience had suggested. Soon, many came to believe it made sense; further, they came to believe it was their idea. Armed with those two things, you can change a world. And we did."

THE EXTENDED BATTLEFIELD concept primarily deals with war in areas of the world where there are large numbers of relatively modern, well-equipped forces who use Soviet-style operational concepts and tactics. Quite naturally, therefore, the threat against which the concept is designed is typified by the Warsaw Pact in Central Europe, the larger aggregations of mechanized forces in the Middle East or the threat from the north in Korea.

The concept emphasizes the all-too-frequently ignored or misunderstood lesson of history that, once political authorities commit military forces in pursuit of political aims, military forces must win something, or else there will be no basis from which political authorities can bargain to win politically. Therefore, the purpose of military operations cannot be simply to avert defeat, but, rather, it must be to win.

This article does not propose new and radical ways to fight the battle to win. Rather, it describes an extension of the battle and the battlefield which is possible to accomplish now and which, if applied, will reinforce the prospects for winning.

The extended battlefield is not a new concept. It is a more descriptive term for indicating the full potential we must realize from our acquisition, targeting and weapons systems. The battlefield and the battle are extended in three ways: First, the battlefield is extended in depth, with engagement of enemy units not yet in contact to disrupt the enemy timetable, complicate command and control and frustrate his plans, thus weakening his grasp on the initiative.

Second, the battle is extended forward in time to the point that current actions such as attack of follow-on echelons, logistical preparation and maneuver

plans are interrelated to maximize the likelihood of winning the close-in battle as time goes on.

And, lastly, the range of assets figuring in the battle is extended toward more emphasis on higher level Army and sister service acquisition means and attack resources.

What emerges is a perception of the battlefield in which the goal of collapsing the enemy's ability to fight drives us to unified employment of a wide range of systems and organizations on a battlefield which, for corps and divisions, is much deeper than that foreseen by current doctrine. The word "doctrine" is used advisedly. It must be acknowledged at the outset that there is probably little set forth in this article which is not already being done and done well in some operational units. The purpose of this article is less to suggest innovation than it is to pull together many good ideas for making extended attack an integral feature of our combat capability-in all units.

In essence, our message can be distilled in four primary notions:

● First, deep attack is not a luxury; it is an absolute necessity to winning.

● Second, deep attack, particularly in an environment of scarce acquisition and strike assets, must be tightly coordinated over time with the decisive close-in battle. Without this coordination, many expensive and scarce resources may be wasted on apparently attractive targets whose destruction actually has little payoff in the close-in battle. The other side of this coin is that maneuver and logistical planning and execution must anticipate by many hours the vulnerabilities that deep attack helps create. It is all one battle.

● Third, it is important to consider now the number of systems entering the force in the near- and middle-term future (see Figure 1). These are not just weapons of greater lethality and greater range, but automated systems and communication systems for more responsive command control, as well as sensor systems to find, identify and target the enemy and to assess the effectiveness of deep attack.

● Finally, the concept is designed to be the unifying idea which pulls all these emerging capabilities together so that, together, they can allow us to realize their full combined potential for winning.

The extended battlefield is not a futuristic dream to remain on the shelf until all new systems are fielded. With minor adjustments, corps and divisions can and must begin to learn and practice fighting the extended battle now-during 1981. The payoffs in readiness for combat will be enormous, and implementing the concept today means that we are building the receptacle

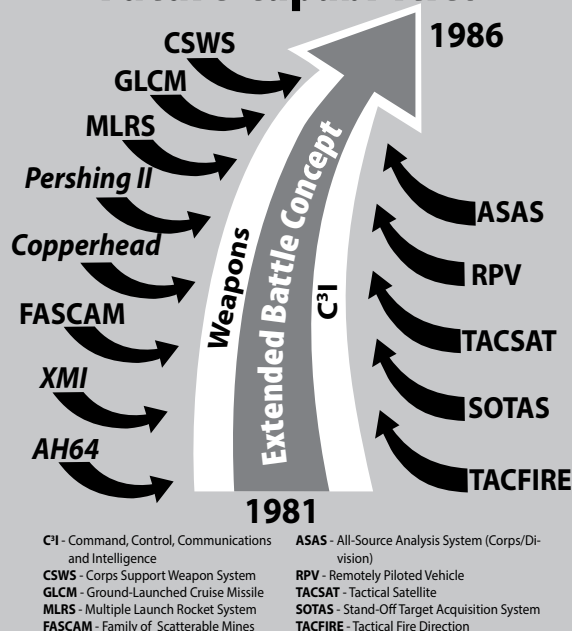into which every new system can be plugged immediately, minimizing the buildup time to full capability.

To ensure that the extended battlefield concept is understood in the full context of the integrated conventional-nuclear-chemical battlefield, this article will first review, in a broad sense, major aspects of the concept. Then, it will describe how, by attacking assaulting and follow-on echelons simultaneously, the prospects for winning increase dramatically.

The Concept

In peacetime, the purpose of military forces, especially in the context of operations in areas critical to US interests, is to reduce to a minimum whatever incentives the enemy's leadership might perceive as favorable to seeking military solutions to political problems. In NATO, in the Middle East and in Korea, our defensive strategy must extend beyond simply denying victory to the other side. It must, instead, postulate a definable, recognizable (although perhaps limited) victory for the defender. Enemy leaders must be made to understand clearly that, if they choose to move militarily, no longer will there be a status quo ante-bellum-something to be restored. Rather, the situation they themselves have created is one which will be resolved on new terms.

As the strategic nuclear balance teeters, so grows the enemy's perception of his own freedom of action

A Substantial Step Toward Future Capabilities

1986

1981

CSWS
GLCM
MLRS
Pershing II
Copperhead
FASCAM
XMI
AH64

Weapons

Extended Battle Concept

C³I

ASAS
RPV
TACSAT
SOTAS
TACFIRE

C³I - Command, Control, Communications and Intelligence
CSWS - Corps Support Weapon System
GLCM - Ground-Launched Cruise Missile
MLRS - Multiple Launch Rocket System
FASCAM - Family of Scatterable Mines

ASAS - All-Source Analysis System (Corps/Division)
RPV - Remotely Piloted Vehicle
TACSAT - Tactical Satellite
SOTAS - Stand-Off Target Acquisition System
TACFIRE - Tactical Fire Direction

Figure 1

at theater levels—conventional and nuclear. Theater forces should not be considered solely as a bridge to strategic nuclear war. They are weapons which must be considered in the context of a warfighting capability.

These considerations dictate that NATO strategy must, from the outset, be designed to cope with the Soviet conventional-nuclear-chemical-combined arms-integrated battlefield threat. The growing threat of nuclear capabilities elsewhere suggests this strategy to be appropriate in other critical areas as well.

The Warsaw Pact/Soviet-style strategy embraces two fundamental concepts:

In the first, mass, momentum and continuous combat are the operative tactics. Breakthrough (somewhere) is sought as the initiator of collapse in the defender's system of defense.

In the alternative, surprise is substituted for mass in the daring thrust tactic. In NATO, this could involve a number of BMP regiments in independent attacks which, without warning, would seek to deny to defending forces the opportunity to get set forward. Both tactics are essentially maneuver-based schemes whose purpose is to disrupt the operational tactics of the defender, albeit by different methods.

The need for deep attack emerges from the nature of our potential enemies—their doctrine and their numerically superior forces. Whether our enemy is stylistically echeloned as shown in Figure 2 is not really critical. What is important is that superiority in numbers permits him to keep a significant portion of his force out of the fight with freedom to commit it either to overwhelm or to bypass the friendly force. The existence of these follow-on echelons gives the enemy a strong grip on the initiative which we must wrest from him and then retain in order to win.

NATO strategy (and defensive strategies in other key areas of the world as well) must be designed to preserve the territory, resources and facilities of the defended area for the defender. In none of the critical areas of the world, those to which US forces are likely to be committed, is there sufficient maneuver room to accommodate a traditional defense-in-depth strategy. The defense must, therefore, begin well forward and proceed aggressively from there to destroy enemy assault echelons and at the same time to slow, disrupt, break up, disperse or destroy follow-on echelons in order to quickly seize the initiative and go on the offense.

The operative tactics by which US forces seek to implement the operational concept set forth above must provide for quick resolution of the battle under circumstances that will allow political authorities to negotiate with their adversaries from a position of strength. This is so because the enemy generally enjoys a short-term advantage in ability to mobilize additional forces quickly. Clearly, then, one purpose of the battle concept must be to pre-empt the possibility of prolonged military operations. Further, these operative tactics should seek simultaneously to:

● Deny enemy access to the objectives he seeks.

● Prevent enemy forces from loading up the assault force fight with reinforcing assault echelons and thus achieving by continuous combat what might be denied them by a stiff forward defense.

● Find the opportunity to seize the initiative-to attack to destroy the integrity of the enemy operational scheme, forcing him to break off the attack or risk resounding defeat.

Because of the enemy's advantage in numbers, attack of follow-on echelons must always begin when those echelons are relatively deep in enemy territory. If an outnumbered defender waits until his numerically superior foe has penetrated the defender's territory to mount a counterattack, it is always too late to bring effective forces and fires to bear to defeat the incursion. This would especially be the case if theater nuclear weapons are considered necessary to defeat the penetration.

Therefore, on an integrated battlefield, systems designed to defeat enemy assault elements, to disrupt follow-on forces and to seize the initiative by attack must be able to deliver conventional and/or nuclear fires throughout the spectrum of the battle—throughout the depth of the battlefield.

Key to a credible war-fighting capability on an integrated battlefield are:

● Sensor/surveillance systems to prevent surprise attack in peacetime and provide necessary targeting and surveillance information in wartime.
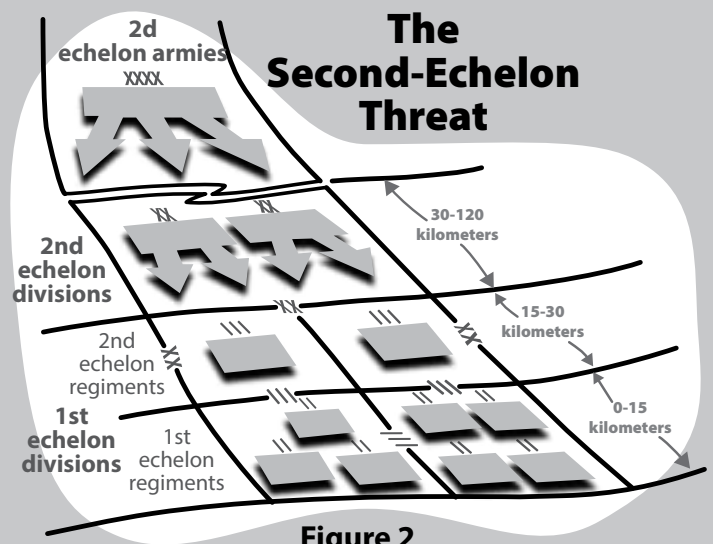

The Second-Echelon Threat

2d echelon armies
XXXX

30-120 kilometers

2nd echelon divisions

15-30 kilometers

2nd echelon regiments

0-15 kilometers

1st echelon divisions

1st echelon regiments

Figure 2

● Delivery systems—dual capable, with sufficient range, accuracy and lethality to hold enemy follow-on echelons at risk in peacetime and to attack them successfully in wartime.

● Command control sufficient to integrate all-source intelligence in near real time in peacetime and in wartime and to provide that intelligence and targeting information to maneuver force employments in near real time as well.

The operative tactics which support such an operational concept of an integrated defense well forward are:

● See deep and begin early to disrupt, delay and destroy follow-on/reinforcing echelons.

● Move fast against the assault echelons.

● Strike assault echelons quickly so as to prevent them from achieving their objectives.

● Finish the opening fight against assault and follow-on echelons rapidly so as to go on the attack and finish the battle against the assault armies before follow-on armies can join the battle.

Areas of Interest and Influence

In the execution of such a set of operative tactics, there must be a division of responsibilities among commanders. Just as the means with which commanders see and fight the battlefield vary so should their primary areas of interest vary.

See and Attack in Depth

Figure 3

As shown in Figure 3, each level of command has a dual responsibility. Each must attack one of the enemy's echelons and must see, or determine the intentions of, a follow-on echelon. Doctrinally, we say that the enemy's first-echelon divisions, the regiments in front of the assault divisions, as well as the follow-on regiments, are the responsibility of the defending division.

In an attack, those same echelons would also be the division commander's responsibility. The brigade commander fights first-echelon assault regiments. The division commander fights the first-echelon assault divisions. The corps commander fights first-echelon armies. It is the corps commander's responsibility to find and disrupt the advance of second-echelon divisions of first-echelon armies before they become a part of the first-echelon problem.

At the same time, the corps commander is very interested in where the second-echelon army of the *front* is deploying. At corps level, he must tie into national target acquisition systems and other surveillance means to get information concerning where that army is and what it is doing. His primary responsibility in battle fighting has to do with the follow-on echelons.

Attacking the Follow-on Echelons

For such a division in areas of interest and influence to be effective in wartime, it must be frequently practiced during peacetime. It is critical for us to realize that, as the enemy achieves the echelonment so necessary for his success, he inherently creates vulnerabilities—targets. These same vulnerabilities provide us with the opportunity to put threat second-echelon forces at great risk. But only through repetitive exercise can we capitalize on his vulnerabilities.

What we must do is practice acquiring and targeting Warsaw Pact units now during peacetime-so we will be prepared to attack them if need be. In addition, we can do careful intelligence prevparation of the battlefield and thus be prepared to attack high-value targets. Such targets include fixed bridges and mobile sites that will cause threat follow-on echelons to bunch up and present themselves as attractive targets. Additionally, attacking other high-value targets such as combat service support facilities, which must exist to support rolling forces, or selected command posts, will also generate delay. Attacks directed in this manner will provide friendly forces time to finish the battle at the forward line of troops (FLOT).

Figure 4 shows the problem inherent in fighting against echelonment tactics. If the battle is fought with no directed interdiction, enemy follow-on
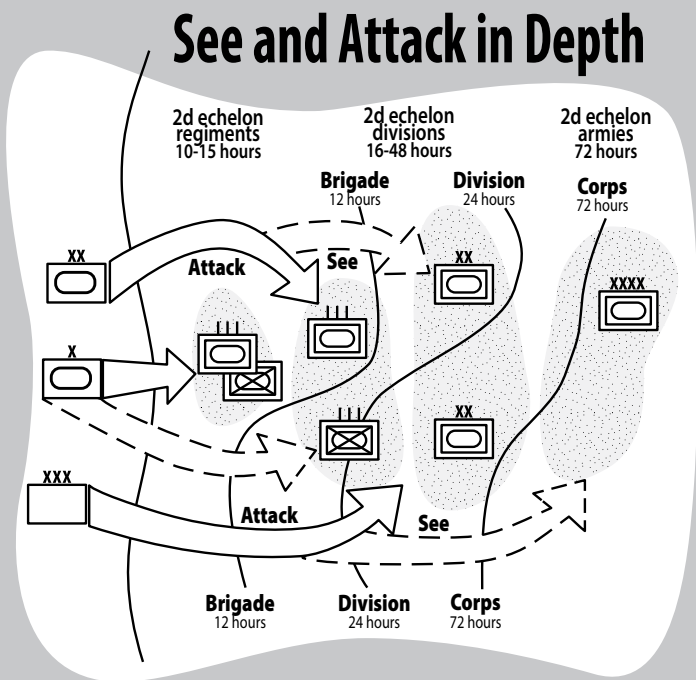
echelons have a "free ride" until they enter the close-in battle. Figure 4 suggests what happens when follow-on echelons are ignored and allowed to stack up behind assaulting forces at the FLOT until a breakthrough is achieved. The enemy retains flexibility, initiative and momentum to apply his mass at a point and time of his choice. As indicated by the hachured lines, deep attacks seek to deprive him of this freedom. There are three primary tools for a deep attack:

● Interdiction-air, artillery and special operations forces.

● Offensive electronic warfare.

● Deception.

In practical current terms, interdiction—principally battlefield air interdiction-is the primary tool of deep attack. At present, the range of jammers precludes effective use against follow-on echelons. However, jamming can be used in the close-in battle as a nonlethal substitute for fires and battlefield air interdiction sorties which can then be freed for deep attacks. We would like deep attack to destroy enemy forces before they enter the close-in battle, but, in today's terms, and in all probability tomorrow's as well, expense and scarcity of assets will limit the practically achievable effects to delay and disruption. Delay and disruption, however, must be aimed at more ambitious goals than just fractional attrition or harassment.

The real goal of the deep attack is to create opportunities for friendly action—attack, counterattack or reconstitution of the defense—on favorable ground well forward in the battle area. This can be done by avoiding piecemeal employment of acquisition means and attack resources. These resources must be concentrated on critical targets which have the most payoff in upsetting enemy plans and to create situations wherein the friendly force can seize the initiative and win.

It is important to stress here that the deep attack is not just a tool of the defense. It is, if anything, even more critical in the offense. It is essential to winning because it creates opportunities to seize and retain the initiative. It is equally important that corps and division commanders fight this deep battle at the same time and in close coordination with the close-in battles. It is true that these commanders already have their hands full with the close-in battle, but the compelling reason for active corps and division commander involvement is because the number of targets we would like to attack and can acquire far exceeds available attack assets.

It is also essential, then, that attack means not be applied indiscriminately. Limited strike and acquisition means must be applied in a planned, well-organized and conducted scheme to support the plan for winning. Piecemealing long-range target acquisition and attack resources is a luxury that cannot be allowed.

The commander's choice of when to use deep attack means must be taken in such a way that it will create a window for offensive action some hours in the future. That choice must be based on a single unified scheme of maneuver and a plan of fires for the whole of the extended battle. The expected window for decisive action must be created in an area where previous plans have assured the availability of sufficient logistical support and fire support as well as maneuver forces.
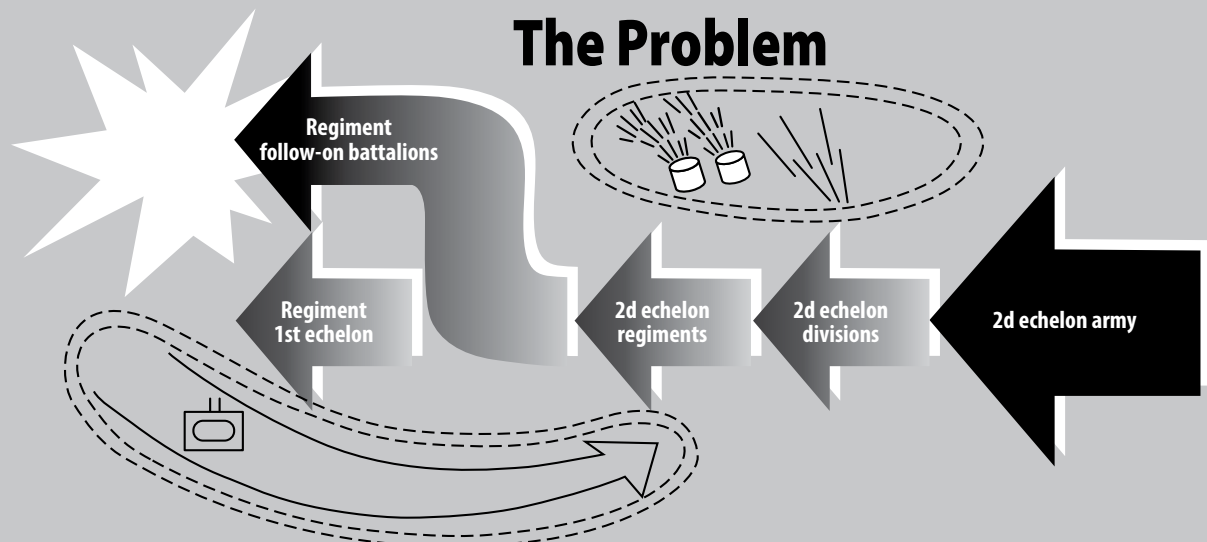

The Problem

Regiment follow-on battalions

Regiment 1st echelon

2d echelon regiments

2d echelon divisions

2d echelon army

Figure 4

This demand for careful coordination of present and future action throughout the depth of the battlefield dictates that the plan stem from the concept of a single commander. Separation of the close-in and follow-on battles invites the risk that windows will not be generated or that, if generated, units will be ill-prepared to identify and exploit them.

What emerges from this requirement for unity of command across the near and far components of the fight is a view of an extended battlefield, with well-defined depth and width in which the commander is fighting not several separate battles, but one well-integrated battle with several parts highly interrelated over time. The depth of this battlefield beyond the FLOT is really a function of the commander's planning horizon expressed in hours.

The following scenario describes an integrated battle situation in which it would be greatly to the commander's advantage to fight assault and follow-on echelons simultaneously. From the outset, it is acknowledged that, in this scenario, it would be advantageous to use tactical nuclear and chemical weapons at an early stage and in enemy territory. It is also fully realized, however, that authorization to do this may not be granted in timely fashion. And, that being the case, the battle will have to be fought with so-called conventional systems. Even though this somewhat reduces defensive combat power, the concept described here maximizes the remaining conventional power.

Figure 5 portrays the corps commander's concerns in the deep battle—-those enemy forces that are within 72 hours of the close-in battle. The corps commander needs to have a well-laid-out, flexible plan and 72 hours into the future in order to fight both close-in and extended battles, gain the initiative, win the fight and do it quickly. What is the purpose of looking out to 72 hours' depth. There are many things a corps must do in those hours. They should be used to plan, order and execute those maneuver, fire support and logistical preparations necessary to seize on an opportunity for offensive action.

The presence of any enemy formation in the corps commander's area of influence should trigger a re-evaluation of his long-range plan and generate options for defeating this force along with all others in the area of influence. Several options will probably be retained at this point. However, the range of options narrows as the force approaches and closure time decreases. Almost all options will include attack of the force to inflict delay and disruption. Although distances here are great, the payoff can be considerable since the critical targets include soft-skinned logistical and command control elements whose value will be far less when closer to the front-line battle.

As the force closes (Figure 6), its impending impact on the front-line battle will become more apparent, and the relative merits of the various attack options will begin to sharpen. Options at this stage should include deep nuclear strikes with *Lance* or air-delivered weap-

The Integrated Battle

The Deep Battle

▶ Delay, disrupt, destroy

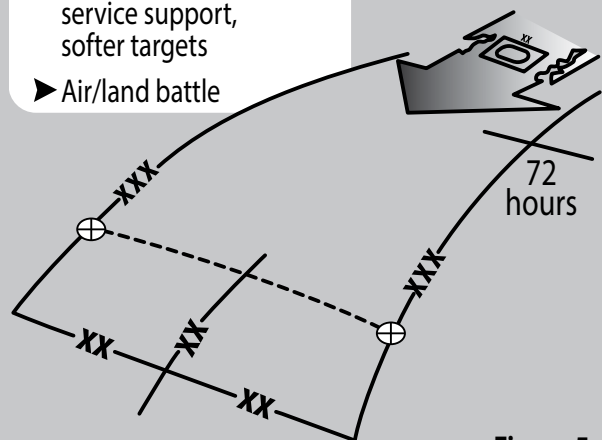▶ Attack command control, service support, softer targets

▶ Air/land battle

72 hours

Figure 5

The Corps Battle

▶ Delay, disrupt, destroy

▶ Air/land battle

▶ Tactical nuclear weapons used now if they are to be used at all
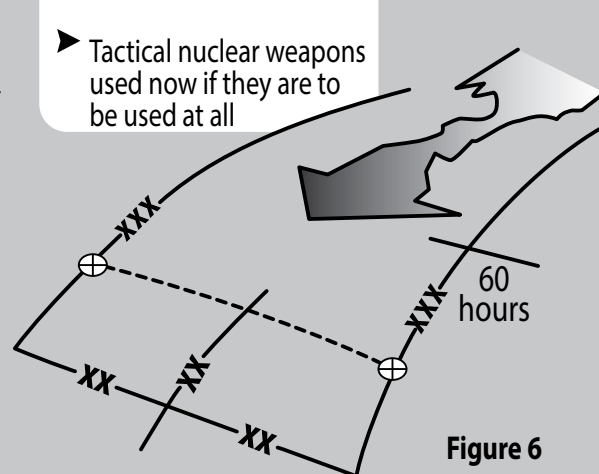
60 hours

Figure 6

ons. Targets at this stage are far more vulnerable to nuclear effects than at the FLOT. They are still well beyond the danger radius to friendly forces, and the time until closure is realistic enough to allow request release and execution to occur.

Of course, the commander must have a strong conventional option in the event nuclear release is not forthcoming. He must identify the critical time at which he must finally commit himself to one course of action. In any event, he seeks to hold the enemy formation out of the division area of influence long enough for division commanders to have sufficient space and time to accomplish their missions and prepare for the next echelon.

When the force enters the division area of influence (Figure 7)—about 24 hours' distance from the FLOT—the entire process is triggered again on a lower scale. Here, the importance of real-time target acquisition dominates. Since, at this point, the attacker is committed to specific attack avenues, he has few movement alternatives left to him. The defender can capitalize on that. Again, if tactical nuclear weapons are to be used, they must be used now.

A review has been made of innumerable planning exercises in which assumed enemy penetrations were drawn with great care to reflect that point "beyond which the integrity of the defense is jeopardized." It was found that, if the penetration was allowed to develop as it was drawn in the defended territory, it was *always* too late. If for no other reason, therefore,

it is of paramount importance that the planning process begin while that follow-on echelon target is still deep in enemy territory and that nuclear release be requested in sufficient time to allow employment while the target is still 24 to 60 hours from the FLOT.
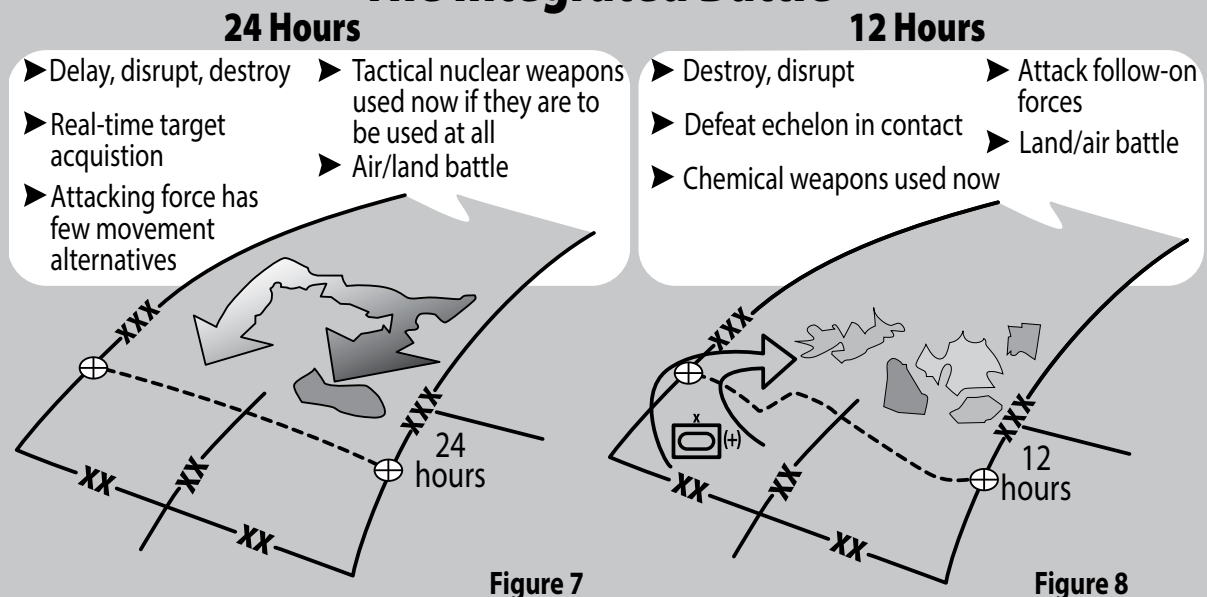
As in the earlier part of this battle, the commander must integrate the full spectrum of air and land weapons systems. It is, at this point, still an air/land battle, perhaps more air than land, however.

By the time the following echelons close to within about 12 hours of the FLOT (Figure 8), they become the concern of the brigade commander. At the 12-hour line, actions must be taken that not only delay and disrupt the following echelons, but also help to defeat those in contact at the FLOT. Given the right target, and that the enemy has already used chemical weapons, it is here that our use of them can be integrated. They should be used to isolate one part of the battlefield while an attack is launched against another part of the follow-on forces. It is here that the land aspects of the battle predominate-that is, the battle is more land than air.

With a little luck, the outcome (Figure 9) will find enemy assault forces destroyed, freedom to maneuver restored and the initiative wrested from the enemy. In the end, this simultaneous attacking of echelons becomes key to the primary objective of the extended battlefield—to win, not just to avert defeat.

Studies show clearly that successful interdiction does result in a degradation of the enemy's massive

The Integrated Battle

24 Hours

- ▶ Delay, disrupt, destroy
- ▶ Real-time target acquistion
- ▶ Attacking force has few movement alternatives
- ▶ Tactical nuclear weapons used now if they are to be used at all
- ▶ Air/land battle

24 hours

Figure 7

12 Hours

- ▶ Destroy, disrupt
- ▶ Defeat echelon in contact
- ▶ Chemical weapons used now
- ▶ Attack follow-on forces
- ▶ Land/air battle

12 hours

Figure 8

The Integrated Battle
Outcome

➤ Enemy assault forces destroyed

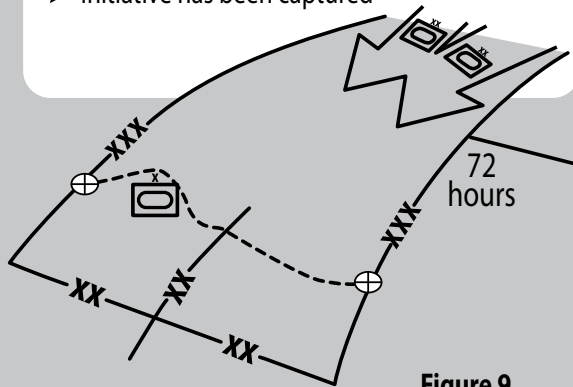➤ Restored freedom to maneuver

➤ Initiative has been captured

Figure 9

firepower. It is also clear that successful interdiction results in a reduction of enemy momentum brought on through loss of support and that it provides the defender time to secure nuclear release if required. Finally, interdiction reduces the attacker's alternatives by disrupting his ability to execute his intended

Effect of Interdiction

• Enemy is able to mount fewer regimental attacks

• Enemy first echelons defeated earlier

• Friendly reserves not needed so early

• Enemy penetrations far less extensive

Figure 10

plan.

The conviction that well-planned interdiction can provide these results is based in part on the target value analysis phase of a fire support mission area analysis completed by the US Army Field Artillery School. Part of that analysis was a simulation comparison of 1980 European corps battles, first without interdiction and then with interdiction. While the predicted availability of interdiction means may have been sanguine, some significant trends were, nonetheless, observed.

Each of the interdiction effects in Figure 10 is highly desirable. But their exact significance is more apparent considering the simulation output over time. Specifically, a look at the effect of interdiction

on enemy strength at the close-in battle shows the real value of deep attack. The top curve in Figure 11 shows that, without interdiction, the enemy is able to maintain consistent superiority at the FLOT over time. During this period, the defender's strength dwindles, freedom of action deteriorates and the enemy's grip on the initiative decisively tightens. What properly employed interdiction can provide is shown in the lower curve in Figure 12. Here, enemy follow-on echelons are held out long enough to create periods of friendly superiority in which the initiative can be seized with enough time to act. The longer and more frequent these windows can be made, the greater the chance of winning, providing we are prepared to identify them and act at the time and in the place where they develop.

We may not be capable of creating windows of such frequency and duration across the entire corps front. However, it is now possible to create such opportunities, and, if aggressively exploited, they could lead to the generation of longer, more extensive opportunities for higher level decisive action building toward a major offensive (Figure 13).
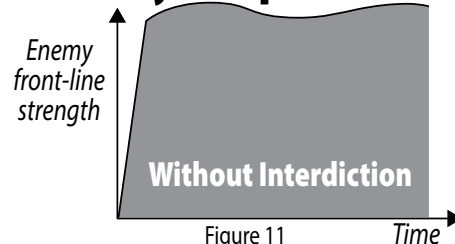
Why Deep Attack?

Enemy front-line strength

Without Interdiction

Figure 11 — *Time*

Without Interdiction

Enemy front-line strength

Windows for action

With Interdiction

Figure 12 — *Time*

Without Interdiction

Enemy front-line strength

Window for decisive action
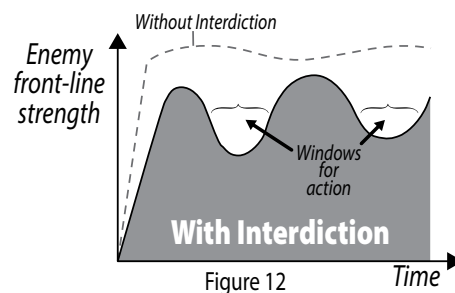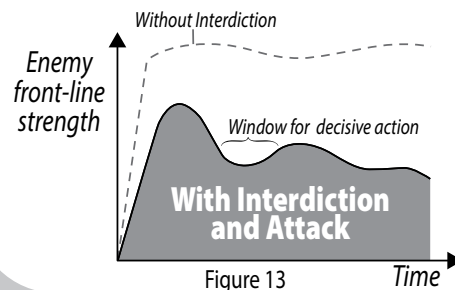
With Interdiction and Attack

Figure 13 — *Time*

Interdiction Planning

Summarizing, it can be seen that interdiction is key to battlefield success. The enemy's momentum can be altered by attacking high-value, second-echelon targets, reducing his ability to mass and build up momentum. Interdiction is the method whereby we achieve the leverage necessary to slow him down and ultimately, stop him from achieving his objectives.

It is interdiction that allows us to focus our attacks on those enemy targets whose damage, destruction or disruption would help us fight the battle to our advantage. Interdiction has as its main objective that portion of the enemy's force which is moving toward the FLOT or is in staging areas preparing to join that fight.

This interdiction concept does, however, imply some changes in current ways of thinking, especially in command control. In order to execute the concept, we must recognize the need to learn how to skillfully use resources far beyond those organic to corps and divisions and to plan their application over a greatly expanded battlefield. Of significance here is the establishment of timely and responsive working relationships with air forces for both target acquisition and attack.

The interdiction battle will be fought at the corps and division level. To do this well, it must be practiced routinely. Interdiction targets at division level are directly linked to tactical objectives. At corps, however, interdiction is a function of controlling target presentation rates and densities. As the enemy's second echelon moves closer to the FLOT, interdiction becomes more closely related to the defensive scheme of maneuver.

Advanced planning is absolutely critical to a successful interdiction battle. It is imperative that such planning be conducted continuously. This will ensure that commanders are aware of courses of action open to the enemy, and the vulnerabilities of each, thus enabling them to attack targets which present the highest payoff at a particular time. Prior to and during initial stages of the battle, the division intelligence officer, applying intelligence preparation of the battlefield techniques, must forecast enemy strength, progress and dispositions at selected times. By assessing these developing vulnerabilities, he can recommend courses of action for interdiction attacks. When blended with the scheme of maneuver, these enemy vulnerabilities can then be exploited.

Following such an interdiction planning process, the intelligence officer can develop an enemy probable event sequence which can be used to predict with some high degree of accuracy which courses of action the enemy is likely to follow. That is, the intelligence officer should be able to forecast what events must occur and in what order to produce the desired disposition of enemy forces at any critical moment. This probable event sequence is simply a template against which to assess the progress of events. It identifies interdiction requirements which will have to be met if friendly commanders are to influence the battle in a desired direction.

Interdiction targeting can be a complex and demanding staff process, particularly at division level. Its effect is to create time and space gaps, not to relieve maneuver forces of having to face second-echelon elements. It is most effective when it is an integrated effort, one which effectively integrates fire support, electronic warfare, deception and intelligence with maneuver.

Current and Future Capabilities

Having made a case for effective, continuous interdiction, what is the Army doing to achieve such a capability? Considering the weapons, sensors and automation capabilities which will be available through *Army 86* efforts, we will be able to do these things quickly and efficiently on the battlefield of the mid-to-late 1980s.

But what about now? The answer is that there is, today, considerable potential to do just what has thus far been described. Since the penalty in terms of battle outcome is too severe to wait to adopt the extended battlefield concept until 1986, our Army must set about seeing how we might get the most from current capabilities.

Even using conservative planning factors, interdiction of critical enemy second-echelon elements is possible within existing means. But, to make that a reality, we must begin transitioning to those concepts now and practice them daily. If we begin that transition with the resources at hand, we will thus be better prepared to fight and win while simultaneously maturing the conceptual notions in the day-to-day work of operational units. Such an approach will also ensure that we have the right capabilities included in the *Army 86* force designs.

And, so, as in all aspects of our profession, we must practice now what we intend to do in war. We must train as we will fight. Management of sensor assets in peacetime by those who will be expected to use them in war is the only prudent approach.

The same applies to the correlation of data in determining high-value targets. We must get the data into the hands of those who will be expected to use it in the future. We must establish integrated targeting cells in all fire support elements now. It is important that this capability be developed at corps and divisions for nuclear as well as for conventional and chemical targeting. It is important that it be done in all US Army units worldwide.

For the present, many of the acquisition means and most of the attacking means will come from air

forces. This is particularly true for corps interdiction requirements. Regardless of who owns them, these are the means we need to gain the best battlefield return. Applying them according to the conceptual notions described above is the way to realize their greatest potential.

Recent exercises have demonstrated that the type of targeting information described earlier is available now-with current means. What next needs to be done is to design exercises for corps and divisions which will focus that information at their level. To make the interdiction battle occur properly, and in a timely manner, corps and divisions must also be able to manage the current family of sensors. We know the tendencies and patterns of threat units when they are deployed as they would be in a second-echelon formation. The task is to make this information available to corps and division commanders for their use in interdiction targeting.

For timely acquisition, we need to ensure that corps have control of sensor systems such as the OV1D side-looking airborne radar, Guardrail, Quicklook and the Integrated Test/Evaluation Program. Of equal importance is that there be a direct down-link of this information to divisions. Data from a number of other supporting means must also be made available. This category includes the RF4C and other national and theater systems. Among the most challenging problems is to create the downlinks necessary to pass what is already available to corps and divisions in a timely manner.

The Need for Training Target Cells

To begin an adequate effort at fusing this data and developing interdiction targeting, cells must be established in all fire support elements at levels from brigade through echelons above corps. These cells must learn to exploit enemy vulnerabilities by blending the information and expertise available from all-source intelligence centers and electronic warfare support elements. Historically, we have focused all our training efforts on winning the fight in the main battle area. However, we are now entering a new dimension of battle which permits the simultaneous engagement of enemy forces throughout the corps and division area of influence. To accomplish this, we must emphasize training in four basic areas:

● Friendly acquisition capabilities.
● Threat tactical norms.
● Friendly attack systems.
● Specific techniques such as target value analysis and intelligence preparation of the battlefield.

For this to be totally successful, both Army and Air Force targeteers must be trained to work together in these functions. Microcomputers, which are currently available in an off-the-shelf configuration, can provide excellent assistance to this training effort. They can store a multitude of data from terrain features to fire plans, from friendly weapons systems to likely threat courses of actions. They can perform target analyses and display them in alphanumerics and graphics. If such systems were available in division targeting cells now, and we created the necessary downlinks for passing acquisition data, targeteers could train now at their wartime tasks in a realistic manner.

Figure 14 shows a notional division fire support element. The operations cell includes the target analysts. What needs to be done, and we have embarked on this course, is to establish the targeting cell and staff it with people who are currently performing similar tasks elsewhere. We must bring the operations types and the targeting types together.

For such a fire support element to be effective, its personnel must train together daily, as a team, using real-time or near real-time data supplied by an integrated sensor network such as that described earlier. If actual real-time data is not available, then simulated acquisition information could be used, so long as the data base was developed from previously collected actual information.

Through continuous intelligence preparation of the battlefield, a clearer analysis of the area of operations can be developed, one which will facilitate updating interdiction plans and thereby better support operations plans. Such a training activity would contribute greatly to developing confidence and proficiency. By exchanging views and working together, Army and Air Force target cell personnel could establish a credible capability now to deal with any future second-echelon threat.
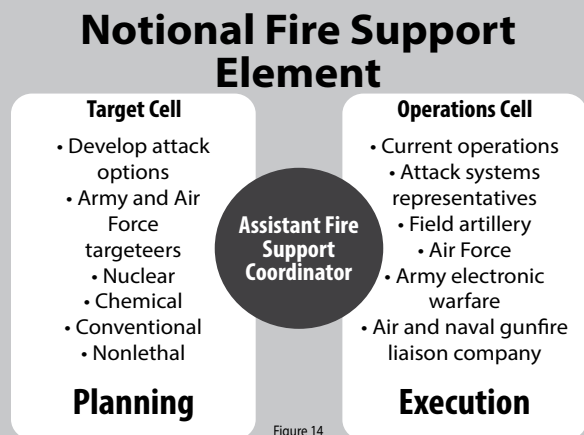
Notional Fire Support Element

Target Cell
• Develop attack options
• Army and Air Force targeteers
• Nuclear
• Chemical
• Conventional
• Nonlethal

Assistant Fire Support Coordinator

Operations Cell
• Current operations
• Attack systems representatives
• Field artillery
• Air Force
• Army electronic warfare
• Air and naval gunfire liaison company

Planning

Execution

Figure 14

Remaining Challenges

Like most things of great worth, this capability will not be easily gained. There are many challenges, but, in the end, it will be worth all the effort necessary to make it happen. Foremost among the challenges are those which inhibit our ability to blend current operational requirements of sensor means with the need to conduct real-time training at divisions and corps. It will also be difficult, though essential, that appropriate security clearances be acquired for all personnel working in the target cells. This is especially important, for they must have access in peacetime to the data they will be expected to process in war.

Recognizing it is beyond our capability to conduct actual exercises which simulate threat second-echelon patterns so target cells will have something to train against, it is within the state of the art for computer simulations to postulate and portray scenarios which the enemy traditionally follows because they are based on his known tendencies. This would be a useful substitute for targeteers to practice such analytical tasks as event sequencing. Lastly, we must continue to upgrade our communication capability and take advantage of existing commercial facilities. If we do all this, the payoff will be more than worth the investment.

The challenges notwithstanding, the message of all this is quite clear:

● Attacking deep is essential to winning.

● Attacking deep and the close-in fight are inseparable.

● The extended battlefield concept is the keystone of force modernization.

● We can begin today to practice, learn and refine the extended battlefield concept.

The ideas of the extended battlefield concept are, in fact, the very same ideas upon which the *Army 86* concepts are based—see and attack deep. And, as might be expected, therefore, organizations of *Division* and *Corps 86* correspond in makeup and function to elements of the extended battlefield team.

The question before the Army now is how to implement the concept quickly. While there are yet some questions, it is not likely that man-years of study will clear them up to the satisfaction of all concerned. It is, therefore, time to field and learn to use the concept on the ground with real troops, real equipment and the real-world problems of field commanders.

The time for implementation is now. This is so because there is, first of all, promise of a major increase in combat effectiveness with current means. There also exists an enhanced capability to exploit new sensors, weapons and command control systems as they are fielded. This enhanced capability is even more evident in the field of microprocessors and computers. As a nation, we have a considerable advantage over our potential adversaries in this technological field. If we strive to put that advantage to work for us, it could become a significant combat multiplier. And, finally, of equal importance, there is an opportunity to cause the enemy to wrestle right now with a problem he has traditionally assumed does not exist.

Army leadership is so convinced that a real potential exists now, if current assets are organized correctly, that a four-phase program has been developed. Phase one, already begun, includes conferences at each major command designed to lay down the basic ideas. This article is part of that phase. In phase two, the US Army Training and Doctrine Command and the major Army commands will jointly refine implementation proposals to fit specific priorities and assets. In phase three, the joint product will be provided to corps and divisions in the field. In phase four, Army service schools and centers will conduct training in the concept and implementing procedures to ensure that officers and noncommissioned officers leaving the training base are ready for their respective roles on the extended battlefield. *MR*

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