

# Mobility

*Since the inception of the light infantry division, many voices have spoken out critical of its lack of battlefield mobility and unsuitability in mid- to high-intensity scenarios. The author here proposes that a new organization be developed, using vehicles and equipment already in the inventory, to augment light forces in certain contingencies. He offers a detailed structure with personnel and equipment requirements.*

21 JULY 1995—A crisis in the Persian Gulf requires the deployment of a light corps (the 82d Airborne and the 7th Infantry divisions) to Iran. US forces are engaged in offensive operations against elements of the Iranian army. After making successful penetrations through the main defensive position, the 7th Division commander seeks to exploit his success by inserting heliborne infantry into the gap. Unfortunately, Iranian air defense fires destroy most of the exploiting force before it lands.

As the corps continues to attempt an exploitation, the enemy counterattacks the shoulder of the US penetration with mechanized forces. The 82d's tank battalion is heavily engaged as it moves about the battlefield countering penetrations, quickly becoming combat ineffective. The Soviet Union, seeing an opportunity to expand its sphere of influence in the Persian Gulf, deploys an airborne division against the hard-pressed US forces. After a stiff fight, in which the airborne troopers and light fighters severely punish the enemy, the two divisions are encircled and rendered ineffective due to their inability to relocate rapidly on the battlefield. Only the massive use of naval aviation and the timely airborne delivery of elements of the 3rd Armored Cavalry Regiment (ACR) save the two divisions from destruction.<sup>1</sup>

**T**HIS IS an all-too-likely scenario for the deployment of a light corps into areas where the enemy is heavily mechanized or in which heavily mechanized Soviet airborne divisions are introduced. While it is recognized that light infantry divisions (LIDs) are tasked primarily for low-intensity conflict (LIC), they may well be among the first units deployed into mid- to high-intensity conflict because of their strategic mobility. This article explores the implications of the lack of operational mobility of light divisions and methods for improving it.

**Historical Background.** The LID is a strategically mobile force. However, when its operational mobility is compared to that of a modern heavy division, the mobility difference is greater than that of a World War II German infantry division vis-à-vis a panzer (tank) division. While this is not a crippling weakness, it does limit its usefulness in varied, open terrain.<sup>2</sup> Conversely, armored forces are valuable and can be effective in LIC.<sup>3</sup>

The Army presently has two tiers of organic mobility: one that is heavily mechanized and one that is not. This is much like the German army of World War II. Ten out of 18 active divisions are mechanized, and the separate brigades

and ACRs make up perhaps two more divisions. However, fully 40 percent of the Active Army moves to and about the battlefield on its feet. This counters General von Senger und Etterlin's thoughts in his forward to *Knights of the Black Cross* :

"Today there is no such thing as a two-tier army; today every army worthy of the name is mechanized. Higher military commanders there-

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fore do not dispose of an army within their army which they could use for operations with a degree of mobility manifoldly superior to the mass of their own or their opponents' armies."<sup>4</sup>

Indeed, a substantial proportion of our Army is less mobile than the mass of our own or of our potential opponents' armies.

Infantry divisions in World War II were initially organized without tanks. Tank support was provided by attaching independent tank battalions or armored combat commands to them. These attachments became institutionalized and later in the war, nearly all infantry divisions had permanent tank battalions.<sup>5</sup> The Germans compensated for the lack of mobility

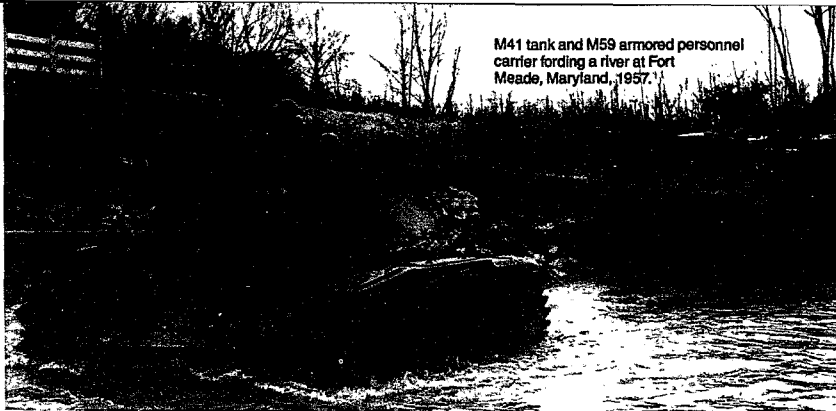
and firepower of their infantry divisions by adding assault gun battalions and by using their mobile formations as "fire brigades," rushing them from one critical point to another.<sup>6</sup>

Examples of the lack of mobility in and resulting vulnerability of light infantry abound. Operation *Market-Garden*, the deployment of the 24th Division to Korea, the defeat of the 272d Regiment/9th Vietcong Division by A Troop, 1-4 Cavalry and the destruction of the 290th NVA Regiment by the 1/11 ACR on 6 September 1969, are all examples in which the superior mobility and firepower of mechanized forces defeated light infantry units operating on terrain favorable to infantry.<sup>7</sup> All of these highlight the weaknesses of improperly supported light forces when employed against heavy forces.

This mobility difference, if properly exploited, can lead to the isolation and destruction of LIDs when operating alone or with heavy divisions against heavily mechanized and highly mobile enemy forces. When light infantry must redeploy, offensively or defensively, it is unable to maintain an operational tempo comparable to a mobile, protected force.<sup>8</sup> This particular vulnerability of LIDs seems to be, at least in part, a reason for the development of the 9th Infantry Division as a motorized unit.<sup>9</sup>

Examination of the light infantry battalion reveals only 35 high-mobility, multipurpose wheeled vehicles (HMMWVs), two 5-ton trucks and 15 motorcycles. Heavy weapons are limited to four 81mm mortars, six 60mm mortars, 18 Dragons and four TOW (tube-launched, optically tracked, wire-guided) missiles. No heavy machineguns are authorized.<sup>10</sup>

Previous articles exploring the various aspects of light/heavy operations and methods of minimizing this vulnerability have come to several important conclusions. First, for selected missions (generally in terrain favorable to mechanized maneuver), light infantry must be augmented with air or ground transportation to give it a mobility advantage over the enemy.<sup>11</sup> Second, light units must be able to plug into heavy units without placing an unrealistic or



M41 tank and M59 armored personnel carrier fording a river at Fort Meade, Maryland, 1957.

***In the pentomic division [an] armored transportation battalion was organic to the infantry division. Capable of lifting a battle group (an organization slightly larger than a battalion), the battalion was used to shuttle troops through penetrations made by nuclear weapons or to rapidly move units from one threatened sector to another.***

excessive burden on division or corps combat service support (CSS) assets.<sup>12</sup> Third, the issue focus should not be whether LIDs can operate with heavy divisions in Europe, but how they defend against armor in parts of the world where friendly heavy forces will not be immediately available.<sup>13</sup> Further, the LID may be hard pressed to deal rapidly with offensive opportunities or sudden breakthroughs of its sector in any type terrain.<sup>14</sup>

The common thought throughout is that light infantry requires augmentation under any but ideal conditions. Even movement of the unit to another location on the battlefield will require widespread use of aviation or ground transportation. This transportation will largely come out of CSS assets. With the heavy workload expected in the CSS units, one wonders what will happen if no deployed units are capable of providing the required transportation.

**Alternatives.** How can we retain strategic mobility while making some provision for increasing the tactical and operational mobility (and possibly the combat power) of the LID? This is an important question, as no LIDs have deployable organic armor support to accom-

pany them and reinforcing units would most likely be sealifted.

One method would be to motorize all the LIDs in the Army with HMMWVs. This would confer a great measure of tactical and operational mobility, but limit the deployability of the LID. The success of substituting speed for armor in the HMMWV is doubtful, given the vulnerability of the tank destroyer in World War II. Likewise, although the manpower cost of changing the organization would not be significant, the economic burden of fielding the additional HMMWVs is considerable. Thus, it appears that this course of action is not economically or strategically desirable.

A second approach would reinforce LIDs with units from corps or other divisions, such as a motorized or mechanized infantry or tank battalions. This solution, while not requiring additional manpower or equipment, has a significant deployment cost. These units are not readily available to the division for training or deployment and do not necessarily provide mobility to the light infantry battalions. Although there has been some movement toward increasing the training of integrated light/



M113s awaiting overseas deployment

***[The TAB] would engage in combat operations only when coupled with a light infantry battalion or brigade. This unit could deploy before, with, or after the main body of the LID in its entirety or as separate companies, and would require an immediate reaction readiness posture closer to that of its Active Component LID. Deployment and sequencing the TAB would be determined by the division commander, based on his own situation analysis.***

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heavy forces at the National Training Center (NTC) and on some major exercises such as REFORGER and TEAM SPIRIT, such a remedy is extremely expensive. Additionally, it may well weaken the losing units at a critical time. As stated above, motorized infantry is not well protected. LIDs have only a limited ability to support highly mobile units. This method provides rapid reinforcement and additional combat power, but does not increase the operational mobility of the division.

A third solution would be to assign LIDs enough helicopters to enable them to lift more battalions simultaneously. While this dramatically increases the operational mobility of the division, it is not armor protected, is weather dependent and is vulnerable to air defense fires of all types. An aviation unit of sufficient size to transport a battalion or brigade is more expensive and is as difficult to deploy and support as armor. Therefore, for reasons of economy, manning, sustainability and transportability, helicopters are not a realistic option.

Fourth, why not just mechanize (or motorize) a battalion or brigade of the light division with M113s freed from mechanized battalions converting to M2s, as suggested by John A. Adams.<sup>15</sup> His proposal would significantly increase the operational mobility and combat power of the division. Unfortunately, several disadvantages immediately present themselves. First, the projected figure for moving the entire division would require much more than the 500 sortie estimate currently used for planning. Second, the formation of additional antitank companies armed with improved TOW vehicles would have to be paid for somewhere, because the M2 battalions currently retain them. Third, he advocates replacing 105mm guns with 155mm guns in the division artillery. These additional weapons would require an expanded division support command and increased transportation capabilities. This proposal seems to be unworkable, due to the increased manpower, equipment, support and airlift assets required to field these units.



A fifth alternative is available. Form an independent battalion, analogous to the Assault Amphibian Battalion (AAB) in the Marine Corps, equipped either with HMMWVs, Grizzly-wheeled personnel carriers, or M113s. Again, while HMMWVs are strategically mobile, they lack protection. Although Grizzly has adequate protection, operational and strategic mobility, it is not in service with the Army. While the wheeled vehicles are more deployable than the M113, the M113 is easily moved by C-141.<sup>16</sup>

The M113 is easily maintained and is found in the armies of at least 37 different nations including Iran, Lebanon, Libya, Pakistan, Thailand, Turkey and Uruguay.<sup>17</sup> It is entirely possible that an allied country could provide service support which the light division is incapable of providing. M113s appear to be the most economical and deployable vehicle readily available, even though there is a long prioritized list of proposed uses for M113s displaced by Bradleys.

This organization could be called a Tracked Assault Battalion (TAB). It would consist of the appropriate number of tracked and wheeled vehicles and a small cadre of personnel for movement and maintenance purposes. A similar approach was used in the pentomic division. An armored transportation battalion was organic to the infantry division. Capable of lifting a battle group (an organization slightly larger than a battalion), the battalion was used to shuttle troops through penetrations made by nuclear weapons or to rapidly move units from one threatened sector to another. The pentomic division was discarded in favor of the ROAD division due to command and control problems, as well as an overall lack of battlefield mobility.<sup>18</sup> The TAB is a successful application of using a small independent, mobile force to increase the operational mobility of a larger unit.

The TAB is more strategically mobile than a light infantry battalion that has been converted to a mechanized unit. The numbers of sorties required to deploy the battalion could be minimized by carefully choosing which subunits are

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to receive vehicles and transferring organic vehicles between platoons within the battalion. The division commander would have more flexibility in its employment, since it is not a permanent part of a unit and requires a conscious decision to deploy the TAB.

**Organization.** One TAB contains the equipment needed to mechanize up to one brigade of a light division. The headquarters company provides partial mobility to a brigade headquarters. Each of the three line companies in this battalion can equip a battalion. Two or three

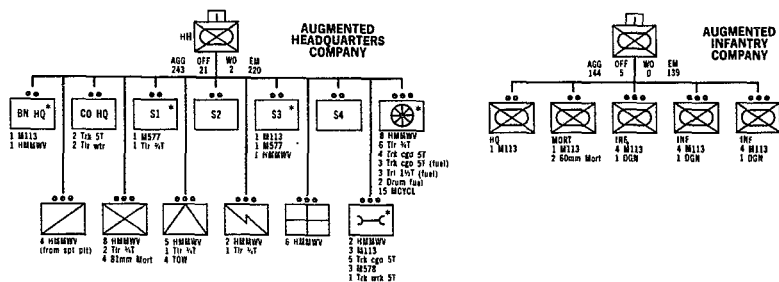


Figure 1

TABs Army-wide could provide increased mobility for all of our light divisions and could be combined to completely mechanize the infantry units in one LID. At least one company of the battalion would be associated with a specific LID.

The TAB for active LIDs is assigned to the Army Reserve, while the National Guard equips its own LIDs. This avoids potential difficulties in federalizing the Guard to support a particular mission. As envisioned, the TAB is capable of maintaining and supplying its equipment and would engage in combat operations only when coupled with a light infantry battalion or brigade. This unit could deploy before, with, or after the main body of the LID in its entirety or as separate companies, and would require an immediate reaction readiness posture closer to that of its Active Component LID. Deployment and sequencing the TAB would be determined by the division commander, based on his own situation analysis.

The battalion commander, an infantry major with an ordnance secondary, can act as a brigade S3 or S4 when required. The HHC strength would be four tracks, 11 wheels and 21 personnel.

Assault companies are commanded by infantry captains. The headquarters platoon contains the vehicles for the infantry battalion HHC. Each line platoon contains 14 M113s and equips a light infantry company. Company strength is 82 officers and men; each vehicle has one man assigned. The maintenance pla-

toon stocks necessary parts and tools to accomplish limited direct support (DS) tasks. The vehicle total in the company is 52 tracks and 13 wheels.

Total battalion strength is 267 men, 159 tracked and 44 wheeled vehicles. In addition to vehicles, the battalion is equipped with radios, heavy machineguns and other equipment normally found in a mechanized infantry battalion.

When augmented, a light battalion could be organized as shown in figure 2. Some units receive no equipment (signal and AT platoons) or transfer equipment to other sections (support platoon to scout platoon) while others receive considerable equipment (support platoon, the staff sections and infantry companies). Total augmented strength is 836 officers and men, 52 tracked and 50 wheeled vehicles.

Approximately 60 C-141 and six C-5 flights would be required to deploy the battalion, but only 10 C-141 and two C-5 sorties are needed

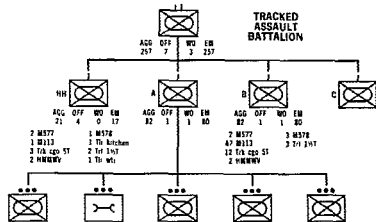


Figure 2



***[a TAB company would] provide mobility for and increase the firepower of a light infantry battalion that would be placed in reserve. This unit would then be available to seize an opportunity or to counter a penetration. One TAB could mechanize three infantry battalions and an HHC operating either in reserve or in its own sector. Still another approach would task the TAB as a taxi service, used to leapfrog infantry battalions forward or backward as the situation demands, much as was envisioned in the pentomic division.***

to move a company, which is all that is needed to equip a light infantry battalion. This is less than 25 percent of the flights required to deploy the entire division. Sorties could be further reduced by using the recovery variant of the M113, the M806A1, instead of the M578.<sup>19</sup>

It is tempting to add a DS unit and an antiarmor company to the TAB, but in order to transport the battalion with a minimum of C-141 sorties, that addition is not advisable. Firepower could be increased by adding 12 Dragons or 90mm recoilless rifles to the assault companies.

**Employment.** How would this unit be employed? As an independent unit, it is not capable of combat operations.

An excellent application of a TAB company would be to provide mobility for and increase the firepower of a light infantry battalion that would be placed in reserve. This unit would then be available to seize an opportunity or to counter a penetration. One TAB could mechanize three infantry battalions and an HHC

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Still another approach would task the TAB as a taxi service, used to leapfrog infantry battalions forward or backward as the situation demands, much as was envisioned in the pentomic division.

The TAB could be effectively used to increase the mobility and survivability of light battalions assigned a covering force mission as envisioned by Major James K. Greer. Such a force would retain the full dismount capability of light infantry, but be able to maintain an operational tempo equal to the mechanized forces of both sides, an important consideration in a flexible, high-risk covering force battle.<sup>20</sup>

Two or three TABs, deploying with a LID, could effectively transform it into a light mechanized division at far less cost in airlift than a mechanized division.

Let us reexamine the opening scenario. The 7th Division commander has formed a tank/mechanized infantry task force (TF), consisting

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of one company of a TAB, a light infantry battalion (now equipped with the TAB's tracks, wheels and weapons) and a tank company from the 82d and placed it in reserve. After a successful penetration of the enemy forward defense, the TF moves rapidly into the gap, destroying supporting field artillery and air defense units. The corps commander directs the two divisions to lift infantry units through the gap in the enemy's antiaircraft coverage to continue exploitation. The enemy force mounts a coun-

terattack toward the shoulder held by the 7th Division. The task force, relieved by heliborne infantry, quickly shifts, and together with Army and Naval aviation, attacks the enemy flank and destroys it. Sea lift delivers heavy units to the battle area. The campaign continues with a light/heavy force bringing the crisis to a solution through successful military operations and negotiation.

This organization, with no vehicle larger than a M578 and 5-ton truck, is capable of preceding, accompanying or following the deployment of a light infantry division. It significantly increases operational and tactical mobility, at limited expense, without the loss of strategic mobility. The tracked assault battalion, operating in conjunction with organic aviation and other units, will provide the division with greater agility and enhanced synchronization of forces. It will allow the division to gain and retain the initiative and to operate with considerable depth on the battlefield in a manner that may well mean the difference between victory and defeat.  $\square$

#### NOTES

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9 LTC Stephen L. Bowman, "The Old Reliables' One of a Kind," *Army*

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10 Modification Table of Organization and Equipment 07015JFC07 FC 1187. 17 April 1987.

11 Downing, 19.

12 Ibid, 20.

13 Bacovich, 15.

14 MAJ Paul L. Conway, Letter, "The Elusive Light/Heavy Mix," *Military Review* (January 1987) 83.

15 John A. Adams, "Heavy Versus Light Forces: A Middle Ground," *Military Review* (October 1986) 64 - 73.

16 Martin Goldsmith, "Last Reserves Augment Light Infantry," *Military Review* (March 1987) 87. Goldsmith suggests such a unit I have considerably expanded his concept.

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18 Christopher F. Foss, *Jane's World Fighting Vehicles* (New York: St. Martin's Press, 1976), 294.

19 Ibid, 297.

20 MAJ James K. Greer, "A Light/Heavy Covering Force in Europe," *Military Review* (July 1988) 11 - 15. See also Downing

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