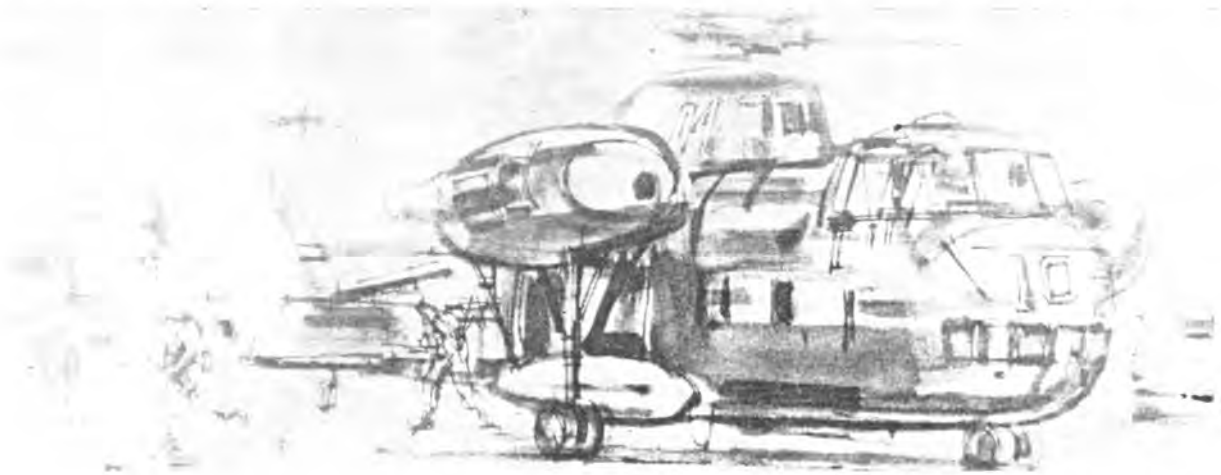
LET'S PRACTICE WHAT WE PREACH ABOUT HELICOPTER OPERATIONS



By LtCol Dennis J. Murphy

THE war in Vietnam probably has produced more "lessons learned" than any war in history. But one of its most obvious lessons has yet to be learned by the Marine Corps.

Criticism of Marine helicopter support has increased during the past few years, yet little has been done to erase the cause of the complaints. Emotional reactions on both sides of the issue seem to have thwarted clear thinking. Efforts to improve the situation indicate that the problem has been recognized but the root cause still exists.

The heart of the problem lies in the manner in which the forces providing Marine helicopter support have been organized for combat. Simply stated, we have not properly organized those forces to provide *sustained, fully responsive* helicopter support to combat units *engaged in land warfare.*

This article initially will address two questions which already may have occurred to the reader. First, why should Marines be concerned with organizing helicopter support for units engaged in land warfare? Secondly, what's wrong with the system we are now employing? Within this framework, the various methods and considerations in organizing forces for combat will be analyzed. Our goal is the development of an organization which will provide the swiftest response, on a continuing basis, with the helicopter assets that are now available.

Why should Marines be concerned with organizing for land warfare? Why don't we concentrate on amphibious operations and leave land warfare to the U.S. Army? The simplest answer is

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'Granting the same aggregate of force, it is never as great in two hands as in one, because it is not perfectly concentrated.'
Adm. Alfred T. Mahan

the obvious—we're already in the business, and have been for over three years. Let's look at the current situation in perspective.

The amphibious operation has been terminated and subsequent operations ashore have steadily expanded, both in scope and intensity. The initial forces projected ashore were specifically configured for an amphibious assault. Those forces have since been substantially reinforced. To meet changing requirements, several reorganizations and displacements have been accomplished. Service support agencies have been built up ashore and have been widely deployed to keep pace with the combat units. The efforts of combat support units, notably elements of Marine fixed-wing aviation, have been integrated with those of other services in country. Most recently a tactical corps headquarters was formed within the Third Marine Amphibious Force to exercise operational control of the additional forces that were deployed in the two northern provinces.

Considering the increasingly joint nature of American military operations, such developments were not unusual. They were a natural evolution in the expansion from our initial landings to our current dispositions. Moreover, they are to be expected, and should be planned for, in similar future commitments. Although we must continue to emphasize our amphibious role, we cannot afford to think solely in terms of amphibious assaults or single-service operations. The 1965 crisis in the Dominican Republic provides another excellent example of how the responsible unified commander may have to build upon the forces which are initially available.

However, the simplest answer to the question may not be the most complete. Lest we think only in terms of temporary arrangements in Vietnam, we should consider three other factors which seem certain to affect us in the future.

First, U.S. forces committed in South Vietnam, with two exceptions, were not specifically tailored for employment in that area. Only the riverine forces and the 1st Air Cavalry Division were structured and trained to operate in that type of environment. It appears that the other divisions were assigned mostly on the basis of availability. The point here is that a Marine division, an airborne division and an infantry division have been equated at the highest level. Military commanders recognize the differences, but those allocating forces to the military commander in future commitments may not be in a position to make any distinction. Thus all services must maintain balanced forces capable of employment under any conditions. Their primary roles and missions will remain constant, but the need for flexibility must also be fully appreciated.

Second, the impact of the helicopter on future military operations is certainly one of Vietnam's major developments. True, they were used in Korea. The Marine Corps subsequently pioneered in the concept of vertical envelopment, but never before have helicopters been employed so extensively in combat. It is not the helicopter *per se* that is significant, but the mobility which has proved to be so decisive. The ability to mass combat power quickly upon any area of enemy

concentration provides our forces with a tremendous advantage. This is particularly significant in an environment of friendly air supremacy.

Finally, the world situation must be considered. The United States generally follows the policy of maintaining the capability of "flexible response" against threats to world peace, while seeking to avoid a nuclear confrontation. At the same time, Communist leaders increasingly appear to favor aggression by proxy in the form of "wars of national liberation." Assuming no change in the *status quo*, the probability of American military involvement in future insurgencies, however unpalatable, appears likely.

Consideration of these factors and our current commitment in Vietnam leads us to certain conclusions. With our budgetary constraints, the United States cannot afford to maintain specialized forces capable of employment only in certain environments. All our forces must be able to contribute to the total effort under a variety of conditions. (Who would have guessed a few years ago that the Strategic Air Command would be dropping conventional ordnance, as it is today?) The Marine Corps, as a "Force in Readiness," must be prepared for employment under any conditions. Launched from one of the Amphibious Ready Groups, we may again be first ashore in the next crisis area. We must be prepared, however, to stay ashore long after the amphibious operation is terminated and through whatever build-up follows. Therefore, a sizable portion of our thinking must necessarily be devoted to operating ashore in a joint and/or combined effort in extended land warfare.

What's wrong with the way we now employ helicopters? The system does not provide sufficient flexibility nor rapid enough response to exploit our capability fully. The Marine Aircraft Wing, in general support of the divisions, provides helicopter support on a mission request basis. Requests for helicopter support are consolidated at the division level, assigned priorities and forwarded to the wing. Ostensibly, any conflicts between divisional requests would be resolved at the III MAF level. The surviving requests become missions to the helicopter units via the wing frag order for the *next day's* operations. If everything could be planned in that fashion there would be no problem. But combat operations do not follow a schedule and demand flexibility. Because the demand usually exceeds the supply, all available helicopters must be fully utilized for preplanned missions. None normally are held in reserve for immediate and emergency requests. In such cases, one or more preplanned missions must be cancelled or postponed, creating problems for units whose missions have to be diverted and compounding an already frustrating situation. The system in use was designed to make maximum use of available helicopters. However, optimum efficiency from a transportation standpoint does not necessarily produce maximum effectiveness of the combat forces. To do so, the combat units would continually have to predict their needs a day in advance.

Large helilifts normally are planned several days or even weeks in advance, but such operations are the exception rather than the rule. The type of actions most often encountered in South Vietnam, with some of the most decisive results, are reactions to unexpected contacts. Meeting engagements with enemy forces of platoon size or larger offer lucrative targets. These engagements usually open with a few casualties on both sides. They can quickly develop into furious small unit battles which demand swift reaction to ensure decisive results favorable to us.

The most effective response in such situations involves quick reaction at many echelons. The unit in contact must maintain pressure and fix the enemy in place. The forward observers quickly adjust supporting arms to seal off the enemy's escape or reinforcement. Reinforcements must be inserted quickly to encircle the enemy and permit the full weight of our supporting fires to take its toll. If the cordon can be closed in time, the entire enemy force can be contained and annihilated without one of our units being decisively engaged. By using heliborne reinforcements, many units have achieved amazingly one-sided results with this technique.

However, many Marine commanders have found it difficult to get enough helicopters in sufficient time to exploit such contacts. Reinforcements are dispatched by surface means, most often by foot, while the unit in contact tries to destroy the enemy with supporting arms. But more often than not, the enemy withdraws before they can be trapped, taking with them many of their casualties and weapons. Such actions are frustrating because our units cannot determine what damage they have inflicted. They get little satisfaction for their efforts or the casualties they sustain. There have been times when the enemy reinforced before we did. In such cases a battalion was often engaged before the enemy withdrew from a firefight that had started between platoons. Results in those instances usually were not in our favor.

Moving by surface means is slow and often tedious. Time is of the essence in reacting to meeting engagements. Helicopters usually have to be scrambled or diverted to get them for an emergency troop lift. The commander controlling the troops on the ground does not control the helicopters in the area, so there is never any assurance that enough choppers can be assembled *in time* to help. Because of this uncertainty, most commanders move by whatever means are *imme-*

Inserted quickly, heliborne forces have had good success against odds.

diately available.

Poor reaction also involves logistics. Battalions operating in areas inaccessible by road, or far from fixed bases, depend upon helicopters for resupply. These are the natural enemy operating areas, and thus helicopter resupply has become the norm for maneuver battalions. To lighten the individual's load, resupply is generally planned once a day and delivery usually requested shortly before the battalion stops for the night. The resupply list is radioed the previous day to the battalion S-4. He then requests the helos and stages the cargo in the logistic support area. In some cases, operations are planned so as to have one company take the entire resupply in a landing zone some distance from the intended night position. The battalion later moves through that position, where distribution is made, and then continues into its night position. Although helo resupply has become normal for battalions moving in "Indian country," every effort is made to avoid setting patterns. The time of delivery varies from day to day. LZ's are rarely used twice in succession. Each battalion has its own variations which complement its operating style. But no matter how the resupply is planned, security is a prime consideration. Every precaution is taken to reduce the unit's vulnerability during the resupply evolution. Hence the procedures described are only intended to illustrate the relationship between resupply planning and the conduct of daily operations.

If everything goes according to schedule, this technique is extremely efficient. But problems arise when the timing has to be changed. If the battalion is in contact at the scheduled resupply time or, having to change its route, cannot get to another suitable LZ in time, its resupply helos are usually diverted to some other mission. Many times this results in no resupply that day, or worse, emergency ammo resupply under less than desirable conditions. A great deal of study has been devoted to this dilemma, but solutions generally result in planning operations around a firm resupply time. Logistic planning is vital in combat, particularly to a maneuver battalion which is limited to hauling only what the troops can carry without dissipating their strength. But something is wrong when operating flexibility has to be sacrificed to logistic rigidity.

Many other examples of poor response can be cited by those experienced with airmobile operations. But for readers without such experience, the foregoing should provide sufficient background for what follows.

To increase the flexibility of our helicopter support and at the same time reduce its response time, we must properly organize our assets for combat in the environment in which we're engaged. We need only to consider the situation objectively and apply the principles that we preach in our schools.

One of those principles is Unity of Command. It argues for giving every commander the authority and the means he requires to accomplish his mission. This principle flows logically from an application of the principles of Mass, Economy of Force and Simplicity. We adhere to these truths in providing for any other combat service support—but not for helicopter support. In essence, there is little difference between the mobility provided by a helicopter and by an amphibian tractor. These vehicles operate in different environments but with the same mission—to provide transportation. Why treat them differently when organizing for combat? The crucial point is that our forces must be organized so that the commander can concentrate his combat power at the decisive place and time. Thus total combat power must include not only troops and firepower, but mobility as well. The mobility means should not be controlled at the *highest level* of command but at that level where a combat mission is being executed—no higher than division level. Admiral Mahan expressed that idea eloquently:

"Granting the same aggregate of force, it is never as great in two hands as in one, because it is not perfectly concentrated. . ."

In organizing our forces for combat, we are bound to consider two basic factors: First, our mission and the capabilities of our available combat and supporting forces; second, the enemy forces and the terrain over which we have to fight.

The mission of a Marine Division includes not only conducting amphibious assaults, but other

operations as directed. For sustained operations ashore, the division requires combat support and combat service support from Force Troops and the Marine Aircraft Wing. The combat power of the division is built around its basic tactical units—the infantry battalions. The primary mission of those battalions is "to locate, close with and destroy the enemy by fire and maneuver, or to repel his assault by fire and close combat." Essentially that is the mission our Marine infantry units in South Vietnam have been assigned.

Helicopter support for a division is provided by a Marine Aircraft Group, composed of a Headquarters and Maintenance Squadron, a Marine Air Base Squadron, and two or more aircraft squadrons. Each MAG is task-organized for the mission assigned and facilities from which it will operate. The mission of a helicopter MAG is to provide "helicopter support for helicopterborne operations . . . and such other air operations as directed." The H&MS performs logistical and administrative support for units attached to the MAG. The MABS provides air base facilities and services for the MAG. The types of aircraft squadrons which may be assigned to a helicopter MAG include Light (HML), Medium (HMM), and Heavy (HMH) helicopter squadrons, and an observation (VMO) squadron. The HML's and the HMM's primarily provide personnel transportation. HMM's also carry cargo, both externally and internally, while the HML's can only carry light cargo loads internally. The HMH's primarily provide transportation of supplies and equipment but can also carry troops. The VMO provides the aircraft for visual aerial reconnaissance and observation. The VMO also provides helicopter gunships and the new armed reconnaissance aircraft, when assigned. The number of planes per squadron and the number of squadrons per MAG depend on the MAG's mission requirements and the number of aircraft and aircrews available. The number of helicopters programmed to support a Marine Division can generally be stated as providing sufficient lift for a single Regimental Landing Team. The reasons for this are based primarily upon the amphibious mission of our Corps. The ramifications of altering that ratio are not germane to this discussion and will not be addressed. Given that lift capability, and understanding that it may not always be available at a given time, the problem addressed will be the most effective method of organizing for combat those assets that are available.

The enemy forces encountered by Marines in Vietnam have been described too often to repeat here in detail. Generally, they rarely mass units of battalion size or larger. They try to avoid contact with our larger forces, and they seek the opportunity to pounce on relatively smaller units or patrols. When they do mass for an attack at some vulnerable spot, our reaction must be swift and decisive. The difficult terrain of South Vietnam is also well known. One key factor, however, is important. The operating areas for which Marines are responsible are extremely large. Thus, the time and space factors in such areas are as critical to our mobility as is the topography of the terrain.

These, then, are the building blocks we are concerned with: a Marine division and the helicopters programmed to support it. How can we organize these assets to provide the swiftest response, on a continuing basis, with the helicopter assets that are now available?

Supporting forces not organic to a unit are normally organized for combat by one of three methods:

1. They may be attached. Unless specifically excepted by the order of attachment, this usually implies full responsibility for the control, direction and support of the attached unit. Attachment is usually a temporary condition.

2. They may be assigned in support. This is a method requiring a force, under command of its parent headquarters, to support another specific

Mobility provided by helicopters and amtracs is much the same.

force and authorizing it to answer directly the supported force's requests for assistance. Support as a command relationship should not be confused with the tactical missions normally given fire support units.

3. They may be assigned under the operational control of the supported unit. This involves the *assignment of tasks* and the authoritative direction that is necessary to accomplish the mission. Operational control "should be exercised by the use of the assigned normal organizational units through their responsible commanders." Unless assistance is requested by a subordinate commander, operational control does not extend to such matters as administration, organization, discipline or training.

A lengthy discussion of the relative merits of each method is unnecessary. Although permissible under certain conditions, attaching helicopter units to a division operating in South Vietnam would be both unnecessary and unwise. Logistically, the division could not support them. Even if that function were excepted, attachment remains the least desirable method of achieving our aims. Support is the method now being employed, and that's what we seek to improve. This method simply does not provide the division commander with all the means and authority he requires to employ his forces efficiently and economically. He can employ troops and firepower, but he must go outside his command to get real mobility.

The only way to satisfy all our objectives is to place the helicopter units under the operational control of the division. This gives the division commander all the authority he needs to exploit fully the mobility afforded by helicopters. The resulting improvement in response time and flexibility is obvious. But the most significant result is that the division commander will be able to control all the elements of his units' combat power—troops, firepower and mobility.

To implement this proposal, a helicopter group would be placed under the operational control of a division. The MAG would be organized to provide a division's proportionate share of the available lift capability. That share would depend on such factors as the number of battalions employed in mobile situations, the size of the division's area of operations and the nature of the terrain. The resulting mix of helicopters would determine the number and type of aircraft squadrons to be assigned to the MAG. The group should be based with or near the Division CP—on an existing airfield if available. The security for the Division CP would necessarily be expanded to insure adequate protection for these valuable assets. A traffic control unit (MATCU) should be attached to the MABS to operate the airfield tower and navigational aids. The aircraft squadrons attached to the MAG would bring sufficient intermediate maintenance personnel to enable the H&MS to operate on a continuous basis.

The group would remain under command of the Marine Aircraft Wing, which would continue to exercise full administrative control. Wing regulations on operating standards and flight safety would continue to apply. Logistic support would continue to come from the wing. The only changes involved in this proposal concern operational procedures. All missions would be assigned by the division through the MAG commander. The latter also would serve as the division commander's advisor for helicopter operations. Thus the Division Air Officer could devote all his efforts to coordinating that air support not furnished by the helicopter group. Extremely close coordination between the division and the MAG staffs is absolutely essential to the success of this proposal.

This point cannot be overemphasized. Merely assigning helicopter squadrons under operational control of the division will not achieve the desired results. The group commander and staff are absolutely necessary to provide the expertise required to ensure efficient operations. They also would perform an equally important function—that of educating the division staff to appreciate the capabilities and limitations of air mobility.

Conversely, the MAG staff would be intimately familiar with the division's situation—its commitments and plans. They would be instantly aware of the latest developments and be able to influence decisions they are not now involved in. Mission assignments to the aircraft squadrons would thus be based on full knowledge of the situation and not merely upon a request. Such close cooperation undoubtedly would lead to improved and more streamlined procedures which, in turn, could only result in more effective exploitation of this capability. A priceless dividend of this proposed organization would be the creation of an air-ground team IN FACT.

Some will say we don't have enough helicopters to adopt this proposal. However, the way Marines are spread out in Vietnam, it is ridiculous to try to employ centralized control at the MAF level. If one division were to develop a requirement for more than its share of helicopters, it is hard to conceive that such a requirement could be immediate. More probably, it would be identified several days in advance and could be arranged easily between the divisions, or on the MAF level if necessary.

Apart from the "centralized control" philosophy, there's a myth about our shortage of helicopters which needs to be exploded. The statement has often been heard that "the Air Cavalry Division has more helicopters than the entire Marine Corps." That is not only mathematically untrue but it obscures the fact that a typical Marine helicopter group has greater *troop lift capability* than the Air Cavalry.

The 1st Cavalry Division (Airmobile) is capa-

ble of moving about one-third of its maneuver elements, with combat support, in a single lift. This equates to two airmobile battalions and the assault elements of three 105mm howitzer batteries, or any combination thereof. As stated previously, the helicopter support programmed for a Marine division will lift the assault elements of an RLT. Both of these capability statements assume normal availability. Considering the relative sizes of Army and Marine battalions, the true extent of our Marine helicopter capability becomes even more apparent.

Unbelievable? A close look at figures 1 and 2, plus some simple arithmetic, should dispel any doubts. Figure 1 depicts the TOE aircraft inventory for the Army Airmobile division. Figure 2 depicts the aircraft inventory of a typical Marine helicopter MAG. Since there is no T/O MAG, the organization shown is that which is commonly used in war gaming and for instruction in our schools.

AIRMOBILE DIVISION

	OV-1	OH-6	Armed UH-1B	UH-1B	UH-1D	CH-47	Total
Brigade HQ (3)		8			5		39
Air Cav Sqdn HQ			5		2		7
Air Cav Troop (3)		10	11		6		81
Div Arty		16	39	4			59
Spt Cmd Maint Co		4			5		9
Medical Bn					12		12
Avn Grp G/S Co	6	10		6	4		26
Assault Bn (2)		3	12		60		150
Assault Spt Bn		3				48	51
Division Totals	6	93	101	10	176	48	434

Figure 1

TYPICAL MAG (HELO)

	OV-10	UH-1	CH-46	CH-53	Total
HML		24			24
HMM (4)			21		84
HMH (2)				24	48
VMO	18	12			30
MAG Totals	18	36	84	48	186

Figure 2

Of the 434 aircraft in an airmobile division, 200 cannot be used to lift troops. These include all observation aircraft and gunships. However, the remainder aren't all troop carriers either. The 15 UH-1D's in the Brigade HQ are command and control helos and, as with the gunships, their conversion to troop ships is rarely considered. The helos in the MedBn are medevac ships but, since they are painted with the Red Cross symbol, they cannot be used as troop carriers. The relatively few helos in the Air Cavalry Squadron, Div Arty, Maint Co and the Aviation Group's G/S Co. are essential to the missions of those units in airmobile operations. Thus the troop and cargo lift for this division is provided by the two Assault Helo Bns and the Assault Support Helo Bn. The usual combat troop load of the CH-47 and UH-1D is about 33 and 8, respectively. This gives the division a gross lift capability of about 2,500 troops.

The only Marine helos we will consider are the CH-46 and CH-53 with a normal combat troop load of about 17 and 34, respectively. None of these have been converted for special missions, so they are all available for troop lift. This gives our MAG a gross lift capability of about 3,000 troops.

The preceding illustrations necessarily dealt in T/O and T/E quantities. Excluding maintenance and combat losses, the lift capabilities depicted are those that the Air Cav and a Marine division are *supposed to have*. Readers with access to such information can make a similar comparison between the Air Cav and the three Marine helo MAG's in Vietnam. While it is doubtful that there will ever be enough helos to fill all the requests, the foregoing comparison should teach us one lesson. It's not how many helos you have that counts—it's *how you use them*.

Other critics will say that this proposal would be much less efficient than the way we do it now. True, some helicopters might sit—like the crash crew and their equipment—until they were needed. It is possible that somewhat lower utilization might be obtained by employing helicopters in this manner. However, it would seem that if a division always knew generally how much lift it could count on, it would plan its operations accordingly. As a result, we would probably have to guard against over-utilization. Essentially, this proposal involves a trade off: the possibility of less complete utilization, as measured by transportation criteria, in return for more effective response to immediate combat requirements. This is the same sort of trade off involved in combat-loading a ship as opposed to an administrative loading. That seems to be a pretty good trade.

There may be many other objections to this proposal. However, they can't change the situation. Mobility is an integral part of total combat power and, if you don't control it, you can't count on it. To draw from Admiral Mahan again,

"Force does not exist for Mobility, but Mobility for Force."

We have the troops, the aircrews, enough helicopters and the demonstrated capability to exploit the advantage they afford us. All we have to do is properly organize those assets for the kind of combat in which we are or will be engaged. To do that we need only apply what is taught in our schools. *Let's practice what we preach.* USAF MC

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