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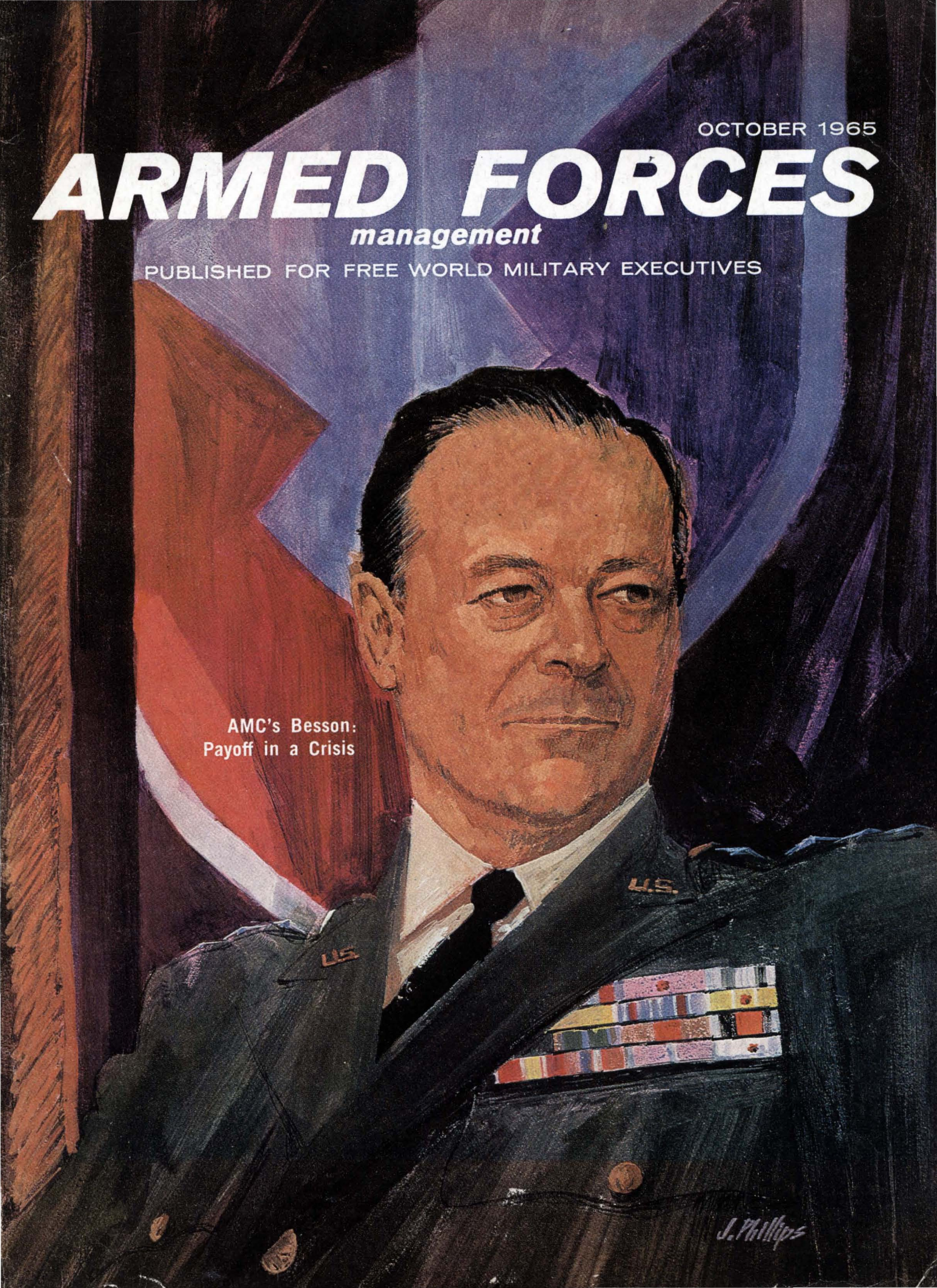

The Vietnam War: How Army Materiel Command Is Facing Its First Real Challenge

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Editor

Just past its third official birthday, the Army Materiel Command has always seemed, on paper, like a good idea ever since Robert Lovett first proposed it in 1952. Until now, the proof that he, and several score men in and out of the Army, had been right was mostly a paper exercise in savings and common sense. Fine as its performance might look to expert military business judgment, its peacetime effort had no profit-and-loss statement—as does private industry—against which to make a final, conclusive analysis. Now it has one, the traditional one of all military force: war. Its performance in backing up Vietnam so far: a great deal better than it has been given public credit for, but not nearly as good as it had hoped. . . .

TWO MONTHS ago, on Army Materiel Command's third official birthday, its commander, General Frank Besson, told ARMED FORCES MANAGEMENT, "With a certain amount of humility, we think AMC has lived up to all the expectations Army had for it."

Backing him up, a Colonel in AMC's creaking old Temporary-Building-Seven headquarters South and East of the Pentagon said, "Through consolidations and transfers to the Defense Supply Agency and General Services Administration and other agencies, we have pared an inherited 278 installations and activities in 1962 down to 195. We are now doing with approximately 165,000 persons a job that was once done by 192,000—doing it faster and doing it better. And where the supply system once filled only 55% of all requisitions on time, AMC now averages a 78% on-time performance, and we're continuing to improve on that. Those three things are enough to satisfy me that AMC is doing the job it was set up to do."

Valid as those points are, they are tinged with a certain theoretical coloring based on the traditional peacetime ground rules of military performance: economy and efficiency. But in the final analysis, as with any military organization, a third segment of performance must be measured: how well is AMC supporting combat units in the field?

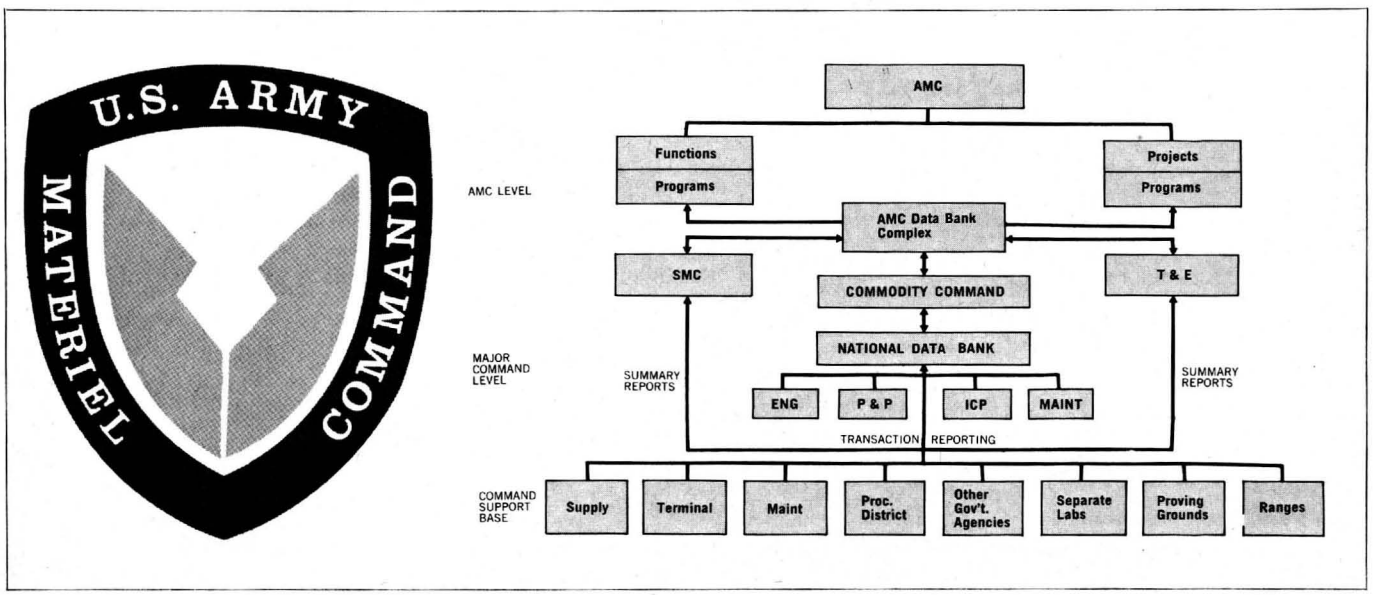
In peacetime, that third evaluation is almost an academic exercise based on judgments of materiel readiness, theoretical assessments of stockpile adequacy, and speculatively drawn charts of peacetime consumption rates on hardware and pipeline delivery times. In a war, such as the escalation now taking place in Vietnam, those statistics become pages in a profit-and-loss statement. In peacetime, even the assumptions upon which the charts are based, "How much is enough?" can be questioned. In a war, there's no longer any room for doubt. Operational requirements, and thus the equipment and supplies to support them adequately and correctly, are no longer guessing games. They fall out of daily battle reports.

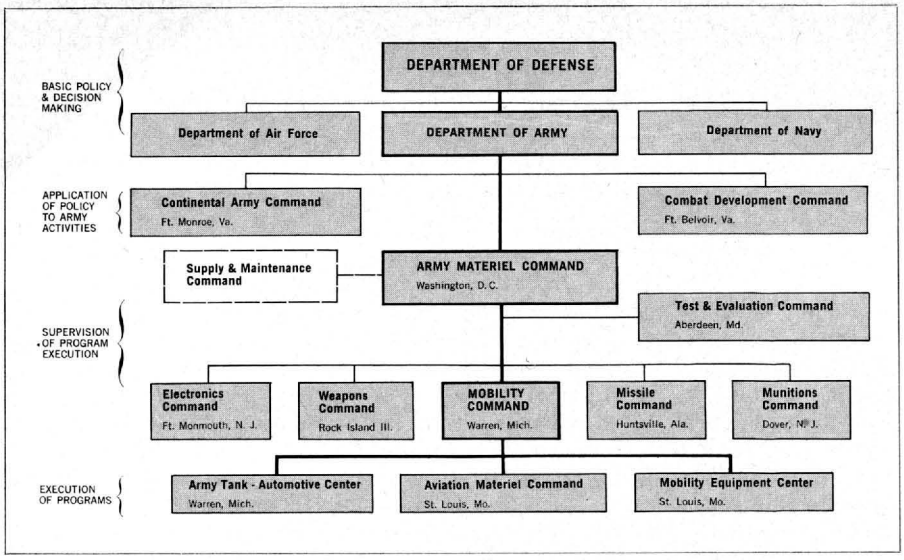
"We have a continuing responsibility to improve our ways of doing business," says Besson, "but support in Vietnam is having an overriding effect on the way we work. The crux of the matter is in a large scale emergency you can't operate with the strict controls essential in times of peace. The essential thing is that many decisions be made promptly anticipating as yet unclear requirements. To date, we've been able to keep ahead but it becomes increasingly difficult."

While Defense Secretary McNamara has been chastised bitterly in public and in print for many alleged equipment shortages, what rankles a good many of his subordinates—at least within AMC—is the implied criticism that he and Defense have been totally pre-occupied with economy to the detriment of combat strength. Summed up one angry colonel, "Those (military) people know their problem. What they need is help, not a spanking."

The toughest aspect of evaluating how well AMC is meeting its first real test under fire is to separate the complexities, the imponderables and even the failures in human judgment from the merits of AMC as an organization, *per se*. Even if the separation could be done accurately, the results might well be unconvincing because of an almost traditional

Army Materiel Command, having just celebrated its third birthday, finds itself under fire to support Vietnam and to control its internal problems.





Mobility Command, the AMC fireman, is shown in its relationship to the Army and Defense structure.

American tendency to view "the best organization chart" as a panacea to simplify the complexities, predict and fathom the imponderables, and automatically prevent human error. When it does not, past inclination has been "to reorganize."

Yet, philosophically, AMC has been organized all along, had its procedures re-shaped and polished, with one prime objective in mind: to see that problems got quick and comprehensive visibility so that competent people could tackle them. Sums up AMC Director of Research and Development, Brig. Gen. W. C. Gribble, "The worst kind of problem is one you don't know you have."

AMC Responds Quickly

How well AMC has met that test is all that can be asked of the organization. How well the people in the organization have solved those problems is another matter. Of the first, says AMC Deputy Commander, Maj. Gen. William Bunker, "The most significant aspect of Vietnam is the response of the commodity organizations to predictable problems—even though we didn't have time to completely shake AMC out. We are more aware of increased customer requirements than the old Technical Service setup could have been."

Among his substantiating points:

1—Today, the National Inventory Control Points are almost directly connected with the combat customers. In other words, in a supply system that is demand-oriented (rather than, as in some private industries, an inventory-oriented system). "There is," says Bunker, "a considerable amount of lead time in the nervous system before a message gets to the brain that something is happening." Under AMC, compared to the old setup, "We've been able to reduce considerably the administrative lead time."

2—AMC has been able to take a much more coherent "systems" reaction to build-up problems than the splintered-responsibility Tech Services could have. Even though the build-up has been much more rapid than anticipated, (helicopter usage, for example, has tripled) AMC's recovery from the initial shock on the supply system has been rapid. That doesn't mean the situation today is necessarily smooth and efficient, however. If the TASAMs (for The Army Supply and Maintenance System) had been in operation six months longer before the pressure was turned on, the buildup would have been smoother. "But," adds Bunker philosophically, "it is almost impossible, even if the TASAMs had had more experience, to go from an idle engine to full speed without a skip or two in the cylinders."

3—Probably most important, AMC's answer for the direct challenge to its performance—Congressional and "informed observer" charges of "equipment shortages"—is that "these are easily misunderstood." First, equipments now being produced are part of a five-year Army modernization program that, until this year, had been geared to first-priority delivery to Europe. Vietnam escalation compressed the time frame and changed the priorities. One result: while most equipments had been rather thoroughly tested before they started down the 9,000-mile pipeline to Vietnam, some "went out with AMC's fingers crossed."

Moreover, as old business pros like Besson and Bunker well know, any increase in demand almost invariably creates shortages at first in the total inventory and later excesses. Bunker calls it the "water hammer effect." Says he, "Any time you turn the spigot on full, then shut it off real quick, you will get a bounce back." Knowing in advance the exact water pressure increase that will satisfy the customer's thirst is almost impossible to predict perfectly. "It's hard to outguess where this is going to level off," sums up Bunker.

Direct Action Helps

One technique for finding out has been AMC's, in effect, putting a man in the office with the customer doing the buying. Between AMC's own, and their industry contractor's people, more than 800 man-years have been spent since the escalation was announced, virtually living with the combat commands to find out precisely what they want and need—not only in off-the-shelf supply but in research and development (see below). "We're not trying to support the Army by the suttler system as in the early days of the West," says Besson, "but we must have a number of people in direct, day-to-day contact in the field." That simple-sounding move, coupled with AMC's expedite-oriented organization has given top Army and Defense management an ability to see support problems in the battle zone.

Another simple sounding attack on the Vietnam support problem has been for AMC to anticipate usage rates and tell the field-level commodity commands what they would stock. It's not a whole lot more than an educated guess but it's far better than waiting for actual usage rates to be felt in warehouses and procurement offices after-the-fact. For example, if the demand-oriented supply system were permitted to merely react to Vietnam pressures routinely, it's conceivable (allowing for time lag while the impact reached all the way back to the U.S.) that replenish procurement of Jeep tires might continue for some months based on peacetime usage rates. Thus, while Army might be using up 400 a month in Vietnam, procurement officers in the U.S. could still be replacing them at a rate of only 40 a month. "We could all of a sudden find ourselves without any Jeep tires were it not for ordering this increase in procurement based on ahead-of-time estimates."

On the other hand, the usage guess could turn out to be way high—and Army would be stuck with far more than it needs. (Jeep tires, as used here, are obviously a theoretical example. However, it proves the point as well as actual cases. Moreover, "exposing" the latter would provide aid and comfort only to the enemy. Besides, deficiencies are being corrected.)

The support challenge is, in sum, a very inexact art, and errors will most certainly be (and already have been) made. All of which, says one aide, is "why Besson will probably be one of the casualties if the war settles. Right now, the Monday morning quarterbacks are around saying he should have seen clearly months ago that he had to buy

all these things. In a year, they'll be around wanting to know why he couldn't see clearly that he didn't have to buy so much."

Another obstacle to achieving the theoretically perfect and immediate answers to next week's Army support problems is simply shifting the whole organization into higher gear. It shows up most clearly in the procurement business. "Field level buyers," says Bunker, "feel personally the impact of over-procurement more than they do under-procurement—from military auditors, the General Accounting Office, and other kibitzers. You can make speeches to them, but they're essentially conservative about spending money. And people don't spend a lifetime doing business one way, then suddenly and enthusiastically do it another." That is the other reason AMC has given them higher pipeline quotas to fill than the historical usage tables on their desks call for—simply to take the monkey of potential over-spending error off their backs.

But for all these problems, and the almost hourly watch by AMC leadership to see that they don't balloon out of hand any more than humanly necessary, it would be a gross injustice to conclude that AMC is all thumbs in trying to handle the Vietnam buildup, and at the same time continue its other business as usual. If anything, AMC is displaying a remarkable resilience in fighting its Southeast Asia fire and, at the same time, moving on a variety of long-range fronts to manage its total responsibility even better.

For some of these long term projects, Vietnam is, in a sense, an aggravating distraction. On others, it's becoming a test of the theories. (For one of the best of the latter, see following story.) Among the highlights:

Reorganization—Vietnam "has probably speeded me along in taking action aimed toward consolidation of Supply and Maintenance into AMC," says Besson. Before the war escalation, he had already discovered he just could not operate without a better integration of the two organization staffs. While details are still being hammered out, S&M commander, Gen. Engler, has, in effect, become Besson's Deputy Commanding General for support in the Supply, Maintenance and Transportation areas; co-location of the two formerly separate headquarters has taken place; and, in essence, says Bunker, the AMC-S&M setup operates as a single entity now.

Harbinger of this likely move came some months ago when, under TASAM, the Commodity Command control points became owners of Army stocks and the depots, etc., not merely the caretakers. No longer owning a logistics command function, S&M functions of supply, maintenance, etc., had such close "interfaces with other AMC responsibilities for materiel readiness, procurement, research and development that it became just impossible to get proper coordination unless the key executives were located physically close together."

Low silhouette, tracked carrier, called Spryte, is expected to provide the frontline soldier with mobility in tough terrain such as that encountered in Vietnam.

AMC has kept the Army General Staff informed on progress in developing plans for a full merger of the two headquarters with a view to seeking formal DA and DOD approval later this fall. The merger would, in effect, pull SMC directly under Besson's command, placing nearly one-third of AMC's manpower under his direct control and would probably list on paper a slight manpower reduction in some civil service employees—who will probably be quickly gobbled up by personnel-shy commands elsewhere.

Research and Development—AMC's R&D program, says Gribble, "has proven resilient enough to absorb Vietnam without any dramatic changes in the overall program, in the efforts of people or in the demands on money." That does not mean, though, that R&D is going about its "business as usual." Sums up Gribble, "We're darn interested in seeing we don't sell them any white elephants." All "reasonable precautions" are being taken to see that equipment going there can be supported. More thorough testing, in greater quantities, is being done on equipment under development—more than is the peacetime norm—to accumulate more experience data before deployment, all in the same or less time than calmer peacetime practices called for.

In addition, R&D has gotten more into the day-to-day business than normal. They became aware early that requirements coming back from Vietnam were couched in rather general terms, written from the relative vacuum of not knowing the latest that might be available nor in what time frame it would be available. R&D launched a three-pronged attack on this communications gap: 1) they tied these general requirements, where they could, to specific equipments available but not necessarily in Vietnam; 2) They took a closer look at those items not yet completely out of the development stage with Vietnam in

Amphibious Commando car is one of the many new weapons being tested in the Vietnam war.

mind; 3) After these two stateside exercises, they sent a series of teams (in order, communications, surveillance, mobility, weapons) to Vietnam to translate requirements into hardware.

War Reports Help

The teams came back with a blueprint of what they needed to really respond to Vietnam. Communications, for instance, went over with nine broadly stated requirements, came back with 36 specific problems. What concerns Gribble now, in the long term, is how much impact R&D can absorb without "a rather severe sacrifice on what we planned to do in the far reaching programs. It's like the guy who has more money right after payday than he has at the end of the month. What's done about it after Vietnam is the key. It's going to cost more to respond to Vietnam quickly and still keep other projects going—or we will lose some of the thoroughness desired on other projects." More likely, AMC will sacrifice some of what it planned to do on other projects while a Pentagon budget boost will pay for Vietnam and, in effect, most of what AMC originally intended to do.

Just as important to AMC R&D for the long haul as the Vietnam challenge is the creation recently of a new Director of Laboratories. The man, as yet unnamed, will in fact be Besson's deputy for research, responsible for the Command's basic research program as well as controlling programs conducted both in laboratories belonging to AMC's six major subordinate commands and in the several laboratories reporting directly to AMC which conduct general research and are not restricted to a specific commodity.

The move, in effect, places powerful top management emphasis on in-house laboratory management. Not a staff officer, the DOL will be more like a project manager or commodity manager. He is AMC's way, says Gribble, of providing "to the innovator's, the scientists in AMC a stovepipe to the top, a much clearer voice in management decision making. We are going to have a much more personal relationship among and between scientists and the management community—first just by identifying who they are which is a big part of the problem." Gribble will continue to be responsible for "integrity of the R&D program overall and for outside R&D work," while the new DOL will be "oriented toward basic and component work within the AMC organization."

Project Management—Although critics blanched when AMC announced three years ago that it would have some 30 special project managers, the total has now climbed to 45; and the disaster outsiders predicted for the whole approach to AMC organization has yet to materialize. In fact, while individual projects may have individual problems, the overall success of the whole Project Manager approach to problem solving is hardly questioned any longer.

Where AMC once emphasized the project manager's talent itself, they've now broadened that concern to cover the team he pulls around him. "Most of the project managers are on the road a great deal," said one colonel, "and a team of key, competent subordinates is necessary to keep the program running smoothly." Through training at schools in Ft. Lee, Va. and Dayton, Ohio, plus just experience, AMC has a much better professional base than it had three years ago. Moreover the working relationship is better between the project managers and the "doers in the functional organization. Thus, project managers are finding they can pare down the size of the staffs compared to what they once were. (Major project offices once employed about 200 people, are now finding they need only from 50 to 100.)

Personnel policies, and handling of people, have become more sophisticated and more closely related to the real needs of project management. A pool of career civilian personnel is being built, men who are trained in the techniques of the work with no sacrifice to their continuing career development in their specialties. In sum, many of the problems conjured up for project management (See October, 1963, AFM and following) have turned out to be theoretical ghosts which, practically speaking, don't exist. More importantly, said one observer, "It certainly is a heck of an efficient way to step on a problem."

Systems Analysis—AMC has obviously concluded that the Cost-Effectiveness and Systems-Analysis (the two phrases are used almost synonymously at Pentagon top levels) studies which work so well for McNamara will work just as well—if not better because they're closer to the field level problem —for Army. About a year ago, Besson pulled together an Evaluation Office, manned it with some 25 military and civilian personnel.

Today, it has established such rapport with other Army organizations, that the operation is, in effect, being expanded. (It works virtually hand in glove with Combat Developments Command, for instance). Idea will be to improve in-house capability for this kind of work, turn out the best possible studies to give Besson a total decision base.

One key point: to avoid the kind of criticism often leveled at the McNamara systems analysts, i.e. that they work in an unreal vacuum, Besson has a Materiel Studies Review Committee (all the top AMC headquarters generals) approve the scope of a study before it starts and the assumptions upon which it is based. The Evaluation office has learned from experience that "if you're not careful, you can assume away your most difficult problems." The committee also reviews study results after they are in.

Other—What is noted above will probably be making headlines among military leadership in weeks to come, but it does not represent all of AMC's activity. A Quality Assurance program on which AMC has been working for more than a year is now building up implementation speed rapidly, spearheaded by an AMC-wide Zero Defects program. (See AFM August, September.)

Aviation's Role Grows

An Aviation office, organized over a year ago because management of Army aviation was fragmented with no one looking at the total picture, has begun to make itself felt. It has become recognized as the focal point for all AMC aviation information. It will soon produce an aviation planning manual "so that all planners have the same standards to work from."

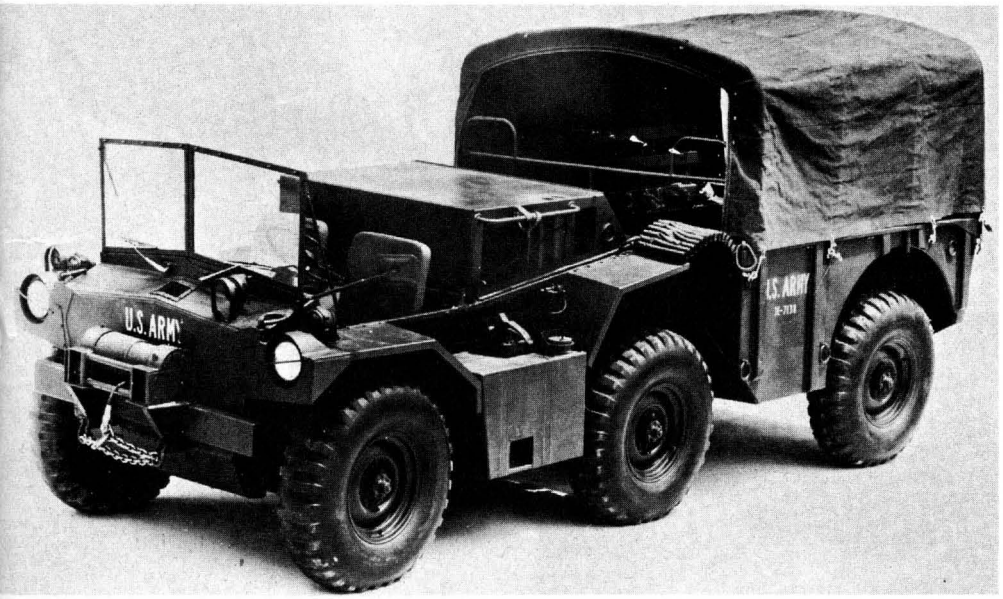
Getting a handle on technical information has become, recently, a major crusade in many Defense circles. As in many of his other major problem areas, Besson has set up a kind of management project office to handle it. Specifically, he says, "AMC has been charged with the responsibility for implementing the Technical Logistics Data and Information Program (TLDIP) within the Army. This program and the Scientific Technical Information Program (STINFO) are closely allied and somewhat overlapping. These two programs and the Defense Standardization Program make a homogeneous package; so I have pulled these responsibilities together into a single organizational element reporting directly to me." He has since added Configuration Management to the list for much the same reasons.

Beyond Besson's office, each major subordinate command has a similar setup. The heart of the problem, in essence: improve communications—although the job description says, basically, "interpret and promulgate policies." Turning out the manuals, standardizing the procedures in this multi-billion-dollar a year business of scientific and technical information would be tough enough. The office also considers one of its prime functions "getting out on the road about 75% of the time pushing the word down to the working levels."

Greater Gains Ahead

AMC has also come up with a method of tying project managers and the functional organization responsibilities together, a gap-filler as it were between

Although Vietnam, and the special terrain problems of that country, dominate Army thinking AMC has not forsaken such tried and true weapons as the 105mm howitzer.



One of the new vehicle concepts tested is the articulated vehicle shown above (LTV's XM561). It does not appear the Army will procure this particular vehicle, however, in quantity.

A old standby in new garb is this new five-ton truck which weighs two tons less than its predecessor and has greater off-road mobility.

the two called Commodity Management. Not a crash program but a matter of improving the overall fabric of AMC, tests on commodity management's use at various field levels were all a success. A directive is now being written to extend commodity management throughout the Command.

Finally, AMC is beginning to see the payoff from a three-year-long look at its management information system, is now confident it can approach development of a real-time automatic processing system that will eventually enable AMC to balance all its books at the end of every day. The interim step is a program called NAPALM (for National ADP Program for AMC Logistics Management). Specifications for the hardware and software in computers are on their way to industry, suppliers will be selected by mid-1966 and AMC hopes to install a pilot test on the result by the third quarter, 1967. A comprehensive rundown on NAPALM's objectives would make a story in itself, but it amounts in the larger scope to one of the first military attempts to use automatic data processing as a military management tool and not a crutch.

AMC Doing Job

Returning to analogy of the corporation, the balance sheet of Materiel Command in the area where it counts—support of the combat soldier—is pretty good. There are soft spots but these are primarily in the estimation of requirements and the shifting of priorities from Europe to Southeast Asia. Of the long term dangers, probably, the most serious is the possibility that the R&D program will suffer. As emphasis is put on "crashing out" those items near the end of the development cycle, the long range R&D program will suffer. AMC is fully aware of this, however, and being aware will take steps to ensure that this does not happen.

On balance, then, AMC is performing creditably but the profit margin is not as large as the Command would like to see it.

Three years ago in AFM, experts speculated that, if Besson did all he hoped in AMC, the organization would become a military pace-setter in new techniques, in smarter ways to operate the support end of military activity. Proof enough that Besson has a strong organization to back him up, one capable of keeping all these long-range projects from falling by the wayside in spite of Vietnam—and that AMC is not a one man organization—comes from Besson himself. Recently, he told AFM, "The main thing Vietnam has meant is that the managerial areas are getting less command attention from me." The key point is that none of them have slowed up because of it. ⬟