Army Aviation Systems Program Review '82

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YESTERDAY →
TODAY →
MISSION AREA ANALYSIS →
TOMORROW →

ARMY AVIATION to the year 2000; that is where our mission area analysis is coming from and pointing to, the how, why and what of Army Aviation from the ground up. This article is the first of an AASPR-82 series of five that will focus on specific details of aviation issues. Succeeding issues will encompass aviation concepts, doctrine and tactics; organization/force structure; training; and materiel

The entire aviation center team is pleased to share with you some background from the Ft. Rucker perspective on the increasingly critical role that Army Aviation must play if our Army is to be able to fight outnumbered on a battlefield and win. Most of our uniformed colleagues should be conversant with our AirLand Battle concepts and doctrine, while to some of our civilian counterparts and retired military family they may be somewhat new; but it is indeed important that we fully understand them and how they differ from our concepts and doctrine of the seventies. *The focus for* the aviation community today should be on where we have been, where we are and how we are using the Training and Doctrine Command (TRADOC) Mission Area Analysis (MAA) and our recent Systems Program Review (SPR) to get where we want to be, and indeed need to be, tomorrow.

YESTERDAY

You all know our history. Forty years ago, Army Aviation was officially born on 6 June 1942—when a team of two light observation aircraft were assigned to each Field Artillery headquarters. The invasion of North Africa was the inauguration of Army Aviation in combat when three Piper L-4 Grasshoppers launched from the deck of the carrier *USS Ranger* and adjusted artillery on the continent. History tells us that one of the three was shot down on the way to the beach.

But, even after 20 years and two major wars, World War II and Korea, it was not until development of the air assault division by the Howze Board that Army Aviation became the key innovation in which helicopters and fixed wing aircraft became principal tactical elements of the Army—providing support in every element of land combat.

Finally, the war in Vietnam conclusively established the worth of Army Aviation—in less than four decades, in three major conflicts, on every continent. Army Aviation has now evolved from a small auxiliary force of the Field Artillery to become a full-fledged member of the combined arms team.

TODAY

As part of the Total Army, our active forces have more than 5,800 aircraft in the field with 7,000 commissioned officers, 5,800 warrant officer aviators, and 23,000 noncommissioned officers and enlisted service members deployed worldwide. However, the status of our total aviation force is critically dependent on our Reserve Components: The National Guard, with about 2,550 aircraft at 85 installations, represents some 50 percent of all CONUS aviation forces while the Army Reserve has about 510 aircraft located in 38 Army Reserve flight facilities across the nation. Together they contain a wealth of tactical experience. The Guard aviation fleet has come a long way in the past 10 years, and while the majority of its aircraft are the same as our active fleet, an area of continuing concern is their attack aircraft which are mainly UH-1 B, C and M model Hueys. The bright spot is that AH-1 Cobras are now being assigned and the National Guard is doing a fine job of training with them. The principal utility helicopter in the Reserve Components will continue to be the UH-1; however, UH-60 Black Hawks are now being issued for cross-training. Furthermore, CH-47A Chinooks will be replaced with CH-47C models during the coming decade, and under current plans they will receive the "D" model Chinook in the 1990s.

Cavalry Brigade Air Attack (CBAA)

With respect to force organization, the generic Air Cavalry Attack Brigade (ACAB) is on the ground for testing in the 9th Infantry Division at Ft. Lewis, WA—where it is designated the 9th Cavalry Brigade (Air Attack) or CBAA. The CBAA is a highly mobile and flexible maneuver brigade tailored to fight (figure 1). It optimizes employment of all the new aviation equipment and provides the division commander additional tactical flexibility

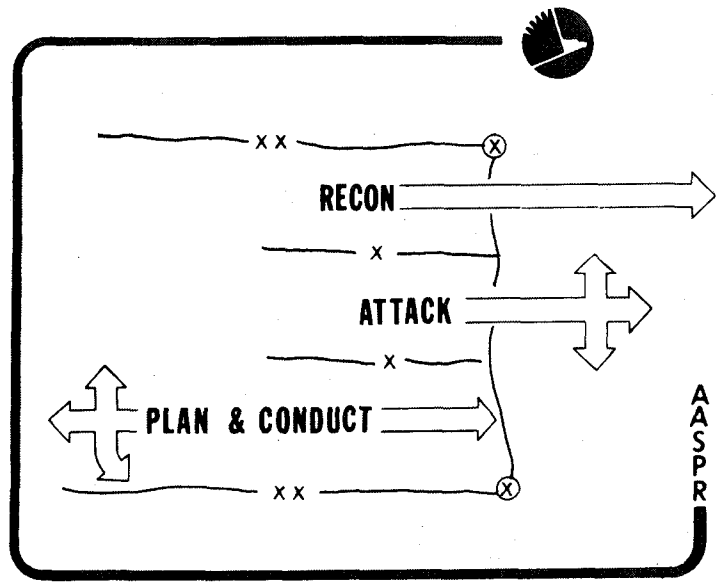


FIGURE 1: Cavalry Brigade Air Attack (CBAA)—a maneuver brigade

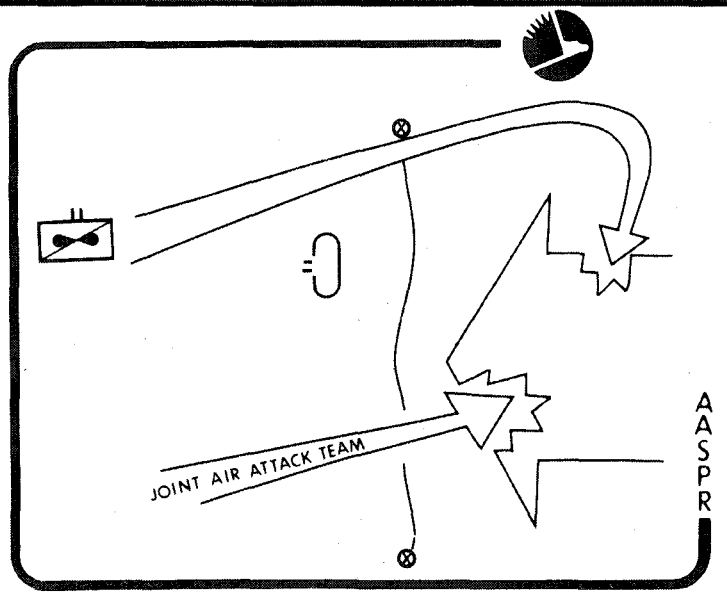


FIGURE 2: Cavalry Brigade Air Attack (CBAA)—aviation maneuver force

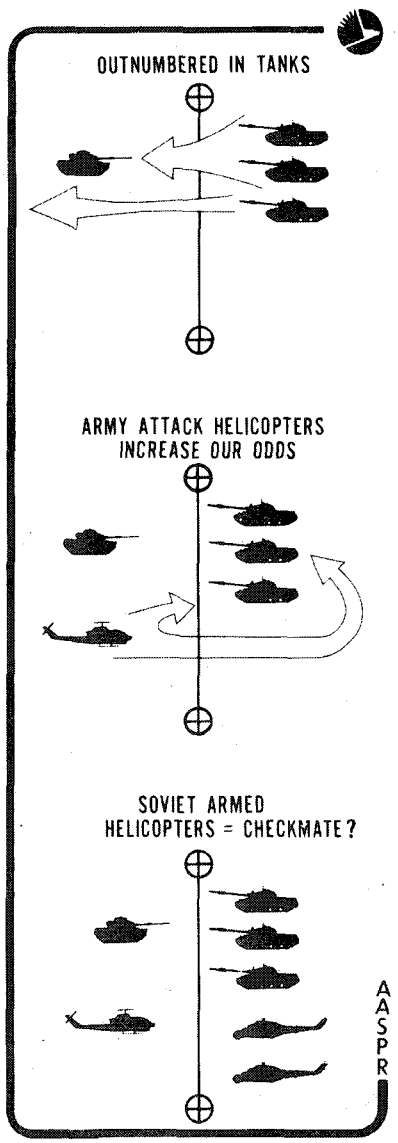


FIGURE 3: AirLand Battle

as all aviation assets of the division are located in this single brigade. The CBAA is an aviation maneuver force which has a full staff complement capable of planning and conducting combat operations to the rear and the flanks of the division, as well as the capacity to assume control of ground assets as necessary for mission accomplishment. The modularity of the brigade was designed to provide for improved command and control of aviation resources and to exploit the ability of the division to mass antiarmor forces (figure 2).

We know so well that the threat we face on the AirLand Battlefield outnumbers us significantly in main battle tanks. For this reason we try to organize and optimize our attack helicopter force to kill enemy tanks and threat systems. This would even the odds for the combined arms team. But now we face the real and imminent possibility that the threat will outnumber us not only in tanks but also in attack helicopters; thus, we could be checkmated (figure 3).

In other words, to protect both our offensive and defensive capability on the ground and in the air, we must carefully guard our aviation forces—and yet go after theirs!!

To combat this threat, Army Aviation forces, through the application of the inherent characteristics of speed and economy of force coupled with great firepower (figure 4) must make *even more* significant contributions to the integrated conduct of the close-in "Land Air" Battle and deep-attack in the extended "AirLand" Battle. These capabilities exist in our aviation organizations and equipment now, but we are going to be called upon to do even more. Engagement of the first echelon by our forward divisions requires that aviation destroy, delay and disrupt the threat. There simply is no other way—and our Chief of Staff has given us that mission, get more out of Army Aviation—in the high technology division—it is the wave of the future!

Just a brief look at the methods of tactical employment for aviation systems and forces reveals they differ little from classical ground fighting techniques. First, combined arms team employment optimizes our effectiveness, nap-of-the-earth terrain flying is essential, engaging from maximum standoff distance is a must, minimizing exposure time to threat air defense artillery is an absolute requirement, and we must neutralize forward air defenses, both ground and air!!

In applying *the fundamentals of tactical employment* Army Aviation must:

- See the battlefield
- Fight as a combined arms team
- Concentrate firepower
- Destroy enemy air defense
- Shock and destroy the enemy
- Attack deep
- Provide continuous airmobile support.

Our aviation force must contribute at all operational levels; it can bring about the winning concentration of forces either by mass or firepower at the critical time and place; it contributes to the control and direction of the battle; and, finally, by improving our ability to maneuver at the operational level, it helps us to fight the battle with firepower instead of manpower. Just as in physics, where F=MA, *Mass and Momentum equal force* on the battlefield. Consequently, in modern mounted warfare, the tank continues

to be the primary offensive weapon and considering the mobility advantage our new M-1 Abrams tank has demonstrated, the possibility cannot be discounted that the new M-1 equipped units may outdrive their combat support and combat service support elements.

In such a contingency, aviation forces may be the only means of providing armor units with the security, fire support and even logistical resupply demanded by a thrust for deep objectives. As armored units move forward, aviation units will support and assist them by performing the following critical combined arms missions:

- Guarding open flanks
- Reinforcing in event of enemy counterattacks
- Deepening penetrations
- Sweeping around flanks to hit enemy reserves
- Providing fires
  - —overwatching
  - —direct
  - —indirect.

The point is: Army Aviation forces are the catalyst to improve our ability through mobility, firepower and C³I capabilities: aviation is essential if we are to execute the doctrine of the AirLand Battle and exploit the full capabilities of all our weapons systems to support that doctrine.

Mission Area Analysis

Which brings us to the Army Aviation Mission Area Analysis (AAMAA) and Army Aviation Systems Program Review (AASPR) process—what they are and how they will help us to develop and exploit our full potential. Our AAMAA completed in March of this year used a front-to-rear conceptual approach, incorporated the materiel and nonmateriel aspects of Army Aviation, and produced a comprehensive chapter report for every arrowhead depicted in figure 5.

Our objective was to take a 1987 force and pit it against a 1992 threat, examine the tasks required to defeat that threat, then determine our ability to perform those tasks. The result was a list of key deficiencies which were in turn scrutinized for oppor-

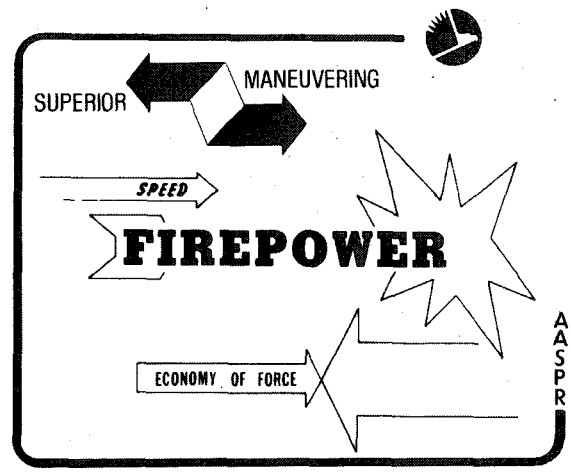
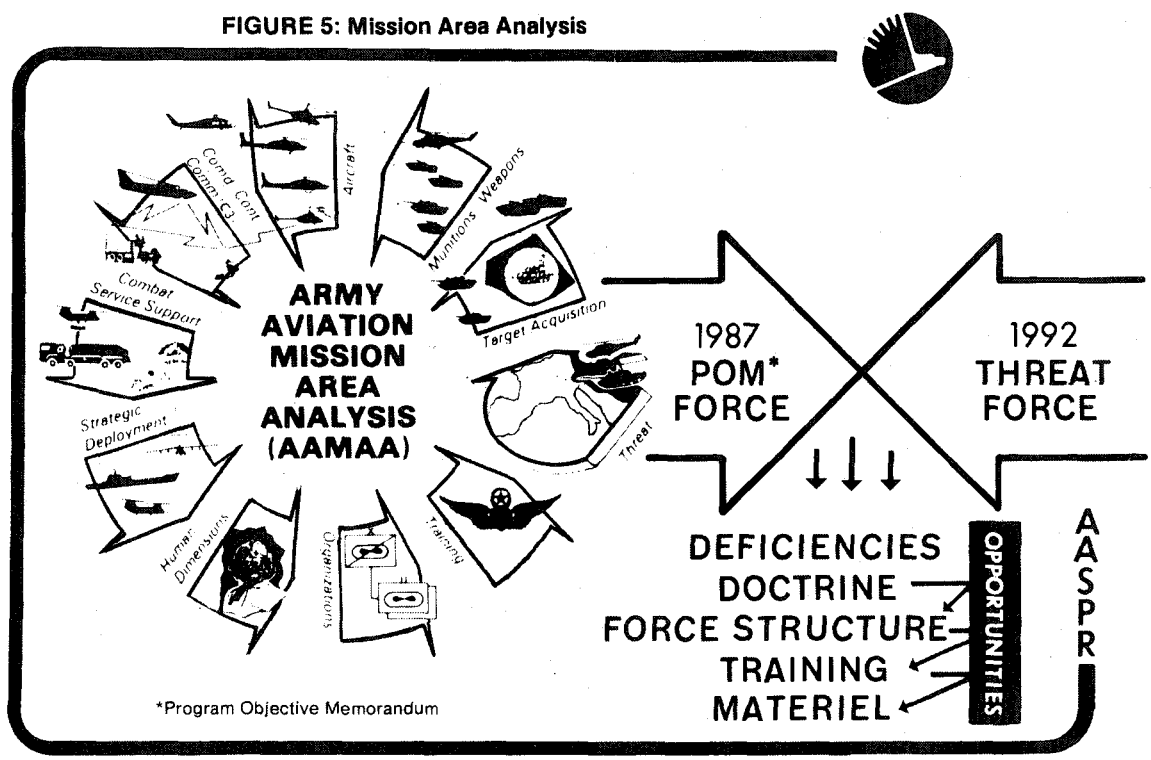


FIGURE 4: Army Aviation Characteristics

FIGURE 5: Mission Area Analysis



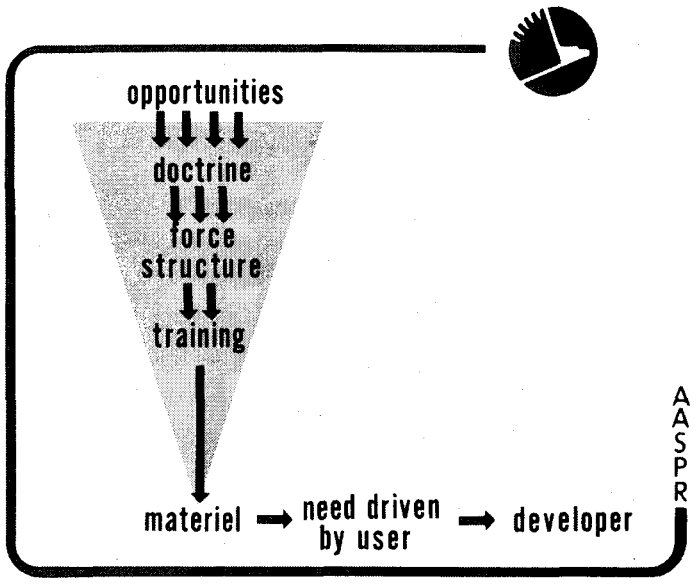


FIGURE 6: Concept Based Requirement System

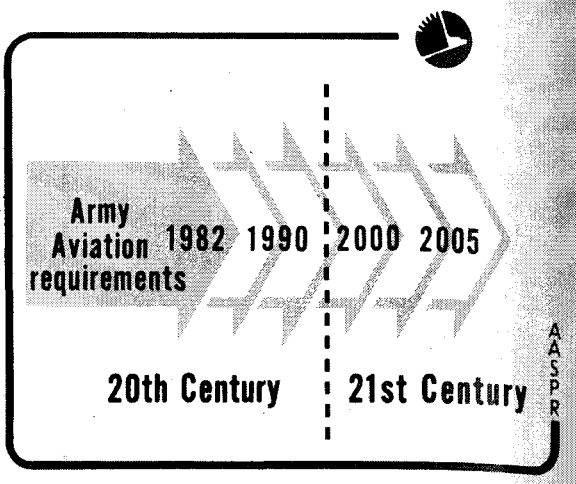


FIGURE 7: Forecast Future Requirements

tunities for resolution first in doctrine, then organization and training and, finally, in materiel.

These opportunities are now evolving into new concepts which will drive our long-term developments—better focusing the user's requirements to meet the challenge of the 1990s (figure 6). This methodology should then permit us to lead the threat, not merely react to it as we have in the past.

Ultimately then, we have identified the real and manageable deficiencies upon which to base Army Aviation requirements through the end of this century and into the next (figure 7). In this way, the Army Aviation-specific MAA will determine how Army Aviation forces can best serve the doctrine of the Air-Land Battle and amplify the effectiveness of the combat arms. It is this analysis that served as the keystone for our AASPR.

Army Aviation Systems Program Review—1982

That brings us to the very purpose of the AASPR conducted on 24 and 25 March at Ft. Rucker—to review Army Aviation—in a forum where the Army's senior leadership, which included 51 general officers to include half of our serving four stars and some 70 field grade officers representing the Army, Navy, Marines and Air Force and the senior executive service, could discuss aviation's deficiencies and opportunities. With the guidance we then received from the Vice Chief, the review chairman, the Aviation Center, is producing a development plan scheduled for publication in October 1982, to guide our aviation forces during the coming years.

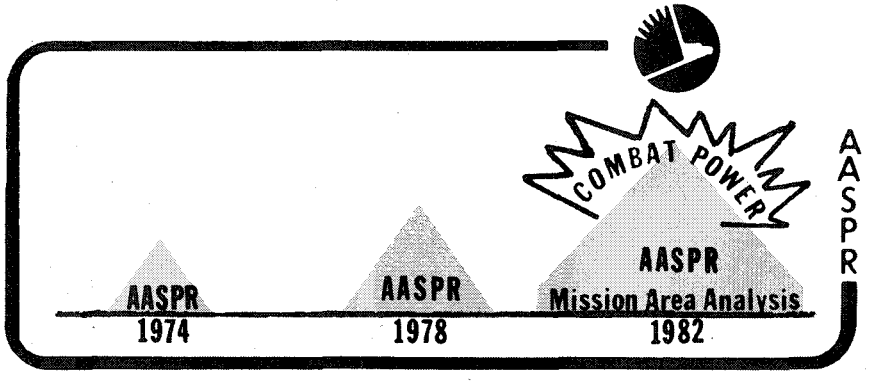
The progress of Army Aviation will be:

- Guided by periodic systems program reviews, and its
- Payoff heightened by mission area analysis.

These and past efforts are all in the pursuit of greater progress with a *realistic* roadmap toward our objective (figure 8). Our combat power will most certainly be enhanced as a result of those efforts.

The resultant of the entire study analysis and review is to assist us in enhancing the effectiveness of the Army and to leap-frog the enemy threat.

FIGURE 8: Army Aviation Progress



Major Issues

While we are moving forward on broad fronts in all areas, the recently completed mission area analysis identified 77 major deficiencies which has led us to further focus on these specific areas of challenge to aviation (figure 9): in concepts, doctrine, and tactics, in organization and force structure, in training, and

Concepts, Doctrine and Tactics Panel

- Survivability of SEMA Aircraft
- Combined Arms Operations
- JAAT Operations
- Helicopter Air-To-Air
- NBC Operations
- Airspace Management
- Reduced Visibility Operations
- Self-Deployment Procedures
- Across FLOT Operations
- Search and Rescue, Survival, Escape, Resistance and Evasion

Organization and Force Structure Panel

- CONUS Versus OCONUS—Aircraft Distribution
- Supporting the Force—Airframes
- War Reserve Stock and POMCUS
- Sustained Operations—Manning
- Wartime Flying Hours

Training Panel

- Commissioned Officer Aviator Training
- Integration of Army Aviation Into Combined Arms Training
- Training Device Development
- Range Adequacy for Training
- Special Electronic Mission Aircraft Training

Materiel Panel

- Aircraft Survivability Equipment
- Aviation Life Support Equipment
- Fleet Obsolescence
- Class IIIA and VA Sustainability
- Desert Operations
- Air-to-Air and Air Defense Suppression Weapons

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FIGURE 9: Systems Program Review—Panel Issues

last, but not least, in materiel. Quite a list in all areas, but a list that has been prioritized, sanitized and recognized by our community as representing the key deficiencies *where our energies must be focused now* if we are to get the most from Army Aviation.

The foregoing issues and the discussions that followed were summarized by the TRADOC commander to include these highlights (figure 10). General Otis is convinced that these issues are best addressed within the Total Army effort because of aviation's impact on all TRADOC mission areas.

Taking all of this into consideration, General Vessey summed up the conference and issued guidance in a number of the most critical areas (figure 11). Specifically, combined arms training must be a joint service effort; aviation should be integrated into the national training centers and aviation training ranges developed; our air-to-air combat capability as part of our overall air defense must be improved; and our flying hours and crew ratios increased to support wartime projections; our aircraft fleet must be modernized, keeping in mind the fact that we can't buy everything. We must therefore develop an optimum fleet mix of existing and new aircraft and equipment and we must further develop equipment and procedures to capitalize on aircraft self-deployability, survivability of aircraft and aircrew life support systems and finally our logistics support system must be enhanced. The Vice Chief's concluding counsel was that we must structure, equip and train our aviation forces to meet mission needs, recognizing that there are real world constraints such as men, money and time.

Mission

Army Aviation's summary situation report today is that our doctrine is the AirLand Battle—our organization, the cavalry brigade air attack—our materiel will incorporate advan-

General Otis

- Branch Proponency
- Air-To-Air/Air Defense
- Airspace Management
- Sustained Operations
- Guard/Reserve Roundout
- Reinforce Europe
- Combined Arms Training
- Desert Operations
- Fleet Obsolescence
- Logistics Support

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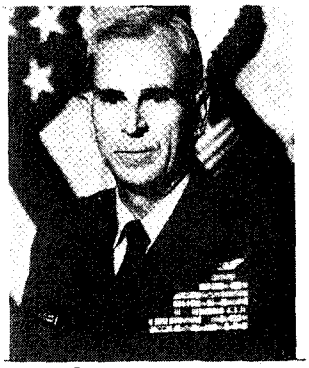
FIGURE 10: TRADOC Commander's Summary



General Vessey

- Combined Arms Training
- National Training Center
- Training Ranges
- Air-To-Air Capability
- Flying Hours
- Aircraft Modernization
- Self-Deployability
- Survivability/Life Support
- Logistics Support
- Force Structure

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FIGURE 11: Guidance from the Vice Chief of Staff of the Army

The Mission of the Total Army Is . . .
- To Deter Attack Upon National Interests

And If Deterrence Fails . . .
- To Engage and Defeat Any Enemy
- In Any Environment

E. C. Meyer and John O. Marsh Jr. December 1981

AASPR

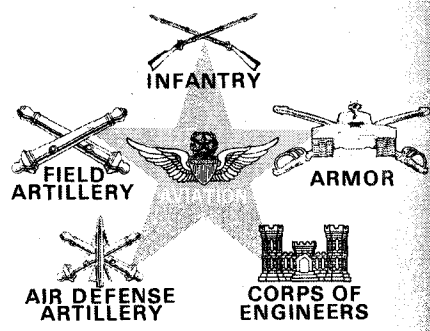
FIGURE 12: Total Army Goals

ced technology—and our training programs must fully integrate combined arms.

Furthermore, the mission of Army Aviation has now been redefined by the Chief of Staff of the Army. Our *mission now* is to *"conduct prompt and sustained combat operations."* Gone is the nuance of Army Aviation being simply a supporter, a transporter or an observer. The aviation community will meet its commitment to the Total Army goals as prescribed by the Chief of Staff and the Secretary of the Army (figure 12). Our AAMAA findings culminate our most extensive study ever, and the AASPR will serve as a roadmap to guide us through the bold, new concepts we need to reach our goals. We cannot overemphasize that the Aviation Center and the entire Army Aviation team recognize full well that the effectiveness of our Army depends on combined arms operations. For all of these reasons our Army and our aviation forces are meeting the challenge of the threat and are "Fit to Fight."

Army Aviation has evolved dramatically since its beginning and has come of age, almost 9,000 aircraft strong, with nearly 25,000 Army aviators and thousands more crewmen—throughout our Army, Active and Reserve Components.

Army Aviation is a vital combat system—a solid team, trained, equipped and prepared today for any contingency. For Army Aviation is



truly the most modern and promising of the combat arms, proudly joining with the Infantry, Armor, Field Artillery and Air Defense forces as the combat multiplier of the eighties . . . which is destined to be our decade of full maturity. Aviation can provide to the combined arms team the flexibility, maneuverability, shock action and firepower which will permit our forces to fight outnumbered and win on the AirLand Battlefield today—and tomorrow.

Keeping all of this in mind, let us in Army Aviation "be all we can be" in the next 40 years, as we have been in the first 40.

Next month: *The second article in this series looks at tactics and doctrine.*