



AUSA BACKGROUND BRIEF



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Army Issue: PROTECT THE FORCE

EXECUTIVE SUMMARY

Protecting the force is an essential element of the Army's requirement for land force dominance.

In an era in which rapid force projection will be the norm, the protection of deployed and deploying forces is second only to mission accomplishment in the application of resources and effort. Force protection is two-fold in purpose: preserving the force's combat potential and minimizing casualties and damage to resources.

The Army program to ensure protection for the land force component in any campaign is a five-pronged effort. It involves:

- detecting any and all threats, including mines, booby traps, missiles, air strikes, artillery, electronic jamming, biological and chemical agents, and nuclear fallout;
- integration of intelligence information into evaluation and communications systems that guarantee an informed force in the field;
- destruction of enemy threats before they can be employed as the most efficient means of protection, to include long-range countermeasure systems;
- defending against enemy systems that have not been destroyed, including immediate reaction target acquisition and destruction capabilities such as anti-air, anti-missile and counter-battery;
- measures taken to survive attacks that occur when enemy systems avoid or overwhelm friendly defenses.

The Army program which provides for research, development and acquisition of hardware essential for force protection includes weapons and equipment needed for each of the elements described above.

With respect to roles and missions, it is imperative that the Army retain control of systems which have a direct bearing on its ability to defend and protect its own forces. While the Air Force has proposed that theater air defense become an Air Force function, this is not possible if the ground

force commander is to retain the means of protecting his force throughout the maneuver battle area. This is particularly applicable to theater missile defense where the capabilities of enemy missiles are growing and will seriously threaten friendly ground forces in the future.

In a recent review of roles and missions by a Joint Chiefs of Staff (JCS) task force, it was recommended that the Army retain its theater air defense roles as well as the precision strike capabilities inherent in the AH-64 Apache attack helicopter and the Army Tactical Missile System (Army TACMS).

AUSA supports priority funding of the weapon systems which are critical to protecting ground forces and Army retention of the theater air defense role, to include associated weapons, under Army command and control.

ISSUE

The basic issue involves the requirement and inherent responsibility for land forces to be able to protect themselves in any combat environment. For the Army, this has a direct bearing on U.S. doctrine, weapons development, modernization and the assignment of roles and missions.

On the subject of roles and missions, the Air Force had proposed that all theater air defense systems (including missile defense) which fire to altitudes over 10,000 feet and all deep strike weapons firing more than 30 kilometers beyond the forward line of troops (FLOT) come under Air Force control. This would involve shifting from the Army to the Air Force certain systems which are critical to providing force protection. The Army adamantly opposes the concept on the principle that the ground commander has the responsibility to protect his forces and can do this effectively only if the protection systems are under his direct control.

BACKGROUND

Protection of the force is one of the basic pillars which assure land force dominance. In an era in which rapid force projection will be the principal employment mode for the armed forces, the protection of the deployed force — while enroute, upon insertion into the theater and during operations — is second only to mission accomplishment in demands for the commitment of resources and effort.

The determination of the armed forces to win decisively is linked inextricably with the requirement to do so with minimum casualties. The purpose of protection, then, is two-fold: preservation of the force and its combat potential and reduced losses of resources, especially human resources.

The lessons of Desert Storm have been instructive for both the United States and other countries. Third World countries are acquiring high technology weapons, particularly ballistic missiles, along with chemical and biological capabilities. This presents real threats that must be anticipated and countered by the United States.

Tactical missile defense is particularly essential, as is effective counter-battery capabilities to destroy enemy artillery forces. We must protect our forces from any of the effects of biological and chemical weapons and maintain the capability to operate in a chemical environment. Additionally, we must concentrate on combat identification to minimize the possibility of fratricide.

DISCUSSION

Ground forces must be able to protect themselves. Winning with minimum casualties is a guiding principle of U.S. military strategy.

The Army program designed to assure adequate protection for land forces is a five-sided, complementary effort. A summary discussion of each element, with a brief identification of the key systems in the Army's modernization program, follows:

Detection of enemy threat activities requires a determination of the military capabilities available to an enemy commander. This includes determining the existence of any nuclear, chemical or biological warfare capabilities and the means to deliver these weapons of mass destruction — i.e., missiles and aircraft. The size, composition and effectiveness of the armed forces of potential enemies and the purposes for which they might be employed must also be determined. Further, detection involves the surveillance of enemy activities to determine his intentions in sufficient time for friendly actions to deter or deny him his objectives.

For the Army, detection requires a robust intelligence system, reliance on national surveillance means, cooperation with other services for support, and a variety of battlefield detection systems. Major joint systems include the ground systems and Airborne Warning and Control System (AWACS) aircraft and Joint Surveillance Target Attack Radar System (Joint STARS) aircraft.

The key Army systems in the detection category, all of which are included in the Army's modernization program, are:

- Guardrail Common Sensor (GRCS) — electronic intercept and direction finding;
- Ground Based Common Sensor (GBCS) — intercept and location finding;
- Advanced Quick Fix (AQF) — communications intercept, direction finding and electronic countermeasures;
- Ground Based Sensor (GBS) — aerial target acquisition and tracking;
- Ground Based Radar (GBR) — provides acquisition, tracking and discrimination data on ballistic missile targets.

Integration is the requirement for a linkage to carry the information detected to the agencies and organizations that can react. It is the function which assures that we will deploy only an informed and forewarned military task force when responding to a contingency which threatens U.S. national interests. It requires worldwide command and control linkages so that field commanders can receive immediate information, guidance and direction from national command authorities. In addition to receiving current, real-time intelligence pertinent to the operation, the commander can in turn use the

information to more effectively direct subordinate and supporting forces as they execute their missions.

For the Army, integration requires support by the Strategic Communications Command, the ability to receive and compile data from joint systems, and improvement of area systems and combat netradios to assure adequate functioning in the electromagnetic environment of the modern battlefield. The Army systems must be capable of transforming detection information into target identification and fire direction messages that assure appropriate force reactions to threats. Joint Systems include Joint Tactical Information Distribution System (JTIDS) and Ground Control Stations (GCS).

Key systems supporting integration in the Army modernization program are:

- Mobile Subscriber Equipment (MSE) — secure, automatic tactical communications;
- Single Channel Ground and Airborne Radio System (SINCGARS) — combat communications with electronic counter countermeasures;
- All Source Analysis System (ASAS) — automatic, near real-time intelligence;
- Forward Area Air Defense System (FAADS) — integrates weapons, sensors, and command, control and intelligence systems;
- Global Position System (GPS) — space-based ground, sea and air navigation system.

Destroying the enemy's capability to neutralize our force protection measures requires the employment of a broad range of countermeasures and long-range weapons. Enemy command and control means, production facilities and long-range weapon launch sites are appropriate targets for both preemptive and reactive strikes by friendly forces. For these actions the Army is normally dependent on the long-range capabilities of other military services and the timely functioning of a request and response communications net that can be used to identify and prioritize missions.

On the battlefield, the Army relies more directly on its own systems of missiles, artillery and aviation to destroy enemy threats before they can be employed. This involves striking them while they are still beyond their effective range of employment or before they can be delivered to a launch site. The Army weapons required for this function include the Army Tactical Missile System (Army TACMS), long-range artillery (155mm, extended range), Multiple Launch Rocket System (MLRS) and the attack helicopter (Apache). Joint systems include air power provided by the other services and the Tri-Service Standoff Attack Missile (TSSAM) now under development.

Key systems in the Army modernization program in this category are:

- Sense and Destroy Armor (SADARM) — 155mm and MLRS submunitions to detect and destroy armor;
- Multiple Launch Rocket System (MLRS) — for counter artillery and enemy air defense suppression;
- Army Tactical Missile System (Army TACMS) — MLRS-fired long range missile system used against priority targets;
- Brilliant Anti-Armor Submunition (BAT) — Army TACMS-launched "brilliant" submunition that seeks and destroys armor;
- Apache AH64 Attack Helicopter — day/night/adverse weather capability to locate

- and destroy enemy armor;
- Comanche Scout Helicopter — next generation rotorcraft.

Defend. To defend involves the employment of countermeasures against enemy indirect fire systems (i.e., missiles and artillery), direct fire systems (to include enemy aircraft in a close air support or interdiction role), electronic warfare systems, and the means employed by guerrilla and terrorist forces (i.e., mines, booby traps, biological and chemical agents, and attacks by fire in friendly rear areas). For this function the Army is dependent almost entirely on its own systems, which must react rapidly to enemy initiatives and capabilities that have evaded or survived friendly countermeasures. The Army's defensive systems provide air defense, missile defense, anti-mine detection, and conventional defense capabilities to prevent enemy systems from successful engagements.

Key Army modernization systems in this category are:

- Patriot PAC-3 — enhanced anti-tactical missile capability;
- Theater High Altitude Area Defense (THAAD) Missile — to engage ballistic missiles at high altitude to minimize debris damage;
- Extended Range Intercept Technology (ERINT) — application of hit-to-kill anti-missile technology;
- Corps Surface-to-Air Missile (Corps SAM) — future replacement for the HAWK medium range air defense system.

Survive. This function entails the ability of a force to survive a successful enemy attack that has avoided or overwhelmed friendly defense measures. It involves providing our forces with clothing and equipment that is resistant to chemical and biological attack and the effects of nuclear fallout, and personal items for protection from enemy fires (i.e., body armor, helmet). It requires equipment that provides early warning for attacks of all kinds (missile, air, chemical and biological). It also includes the equipment needed for the preparation of defensive fortifications (i.e., heavy engineer equipment). Finally, it demands the presence of a medical treatment and evacuation system that assures rapid and thorough treatment of casualties.

Items in the Army modernization program in this category include nuclear, biological and chemical (NBC) protective clothing and equipment, improved protection from weapons effects, early warning systems, engineer construction equipment, modern medical equipment and trained medical personnel. The Stinger-RMP short-range air defense weapon can also be considered in this category.

Sum total of current and future program costs for Army systems listed above is approximately \$5 billion through FY 1999. When measured by the standard of protecting the force and minimizing U.S. casualties, they, of necessity, are high on the priority list for resources.

CONCLUSIONS AND RECOMMENDATIONS

Protecting the force is an essential requirement for land force dominance. It must be reflected in planning, doctrine and execution. It encompasses those things which help to preserve the force and its combat potential, ultimately minimizing casualties and damage to weapons and materiel.

The categories listed above — detect, integrate, destroy, defend and survive — are a convenient way to identify the weapons and systems in the Army modernization plan which are needed to provide force protection.

The ground commander must be able to defend his forces with weapons under his command and control. This applies especially to air and missile defense where the threat could be significant. Aircraft and missile defense systems must be able to move with the ground forces to provide continuous protection under all weather conditions. For this reason, theater air defense will have to remain an Army responsibility, to include such deep strike precision weapons as the Army Tactical Missile System (Army TACMS) with its range capability of 150 kilometers.

Weapon systems in the protection category have a high priority in the Army's modernization plan and should be given full support and funding.

(This *Background Brief* was prepared by General Frederick J. Kroesen, USA Ret., an AUSA Senior Fellow, and the Institute of Land Warfare staff.)

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