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## DESERT STORM FIRE SUPPORT CLASSIC AIRLAND BATTLE OPERATIONS

by

**BG Paul F. Pearson, USA Ret.**

and

**GEN Glenn K. Otis, USA Ret.**

Fire support played an unusually dominant role in Desert Storm. The Air Force contribution is well-publicized, and it prepared or "conditioned" the enemy for coalition ground attack. However, little has been said in the public realm about the other half of the fire support team — the Army's field artillery. In fact, artillery was given a major role to play by senior ground commanders. Brigade, division and corps commanders state that their massive use of artillery fires paved the way for rapid victory.

Commanders assert that the Iraqi army was by no means bombed into oblivion. Many units were still ready to fight. They had to be devastated with firepower before breaking and surrendering.

Fire support was used in Desert Storm to the maximum in order to minimize the number of effective enemy units that our soldiers in tanks and infantry fighting vehicles had to take on at close range. The approach was: superior air and artillery fires rather than American troops against a potentially dangerous, well-armed enemy.

The plan of maneuver had battalion, brigade and division forces moving in massive wedge formations across the desert. A large amount of artillery was assigned to each division. A total of 43 Army and 11 Marine field artillery battalions were employed. Direct support cannon artillery and reinforcing rocket artillery were placed well forward in these formations. The idea was that massive artillery fire would be quickly placed on any enemy threatening the unit.

Maneuver commanders directed that when lead maneuver elements detected an Iraqi position, the artillery was to stop and plaster it with devastating fire. The object was to "pound them to jelly," reducing as much close range combat as possible. The standard minimum fire mission for cannon units seems to have been a "battalion six" — six rounds from each of twenty-four cannon, or 144 rounds of high explosive or dual purpose (antiarmor-antipersonnel) projectiles.

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Most fire missions were "first round fire for effect." Very little adjustment onto the target was necessary or used. Cannon artillery had accurate meteorological and muzzle velocity data, along with good firing location information, thanks to Global Positioning System receivers. The result was pin-point accurate fire.

The Multiple Launch Rocket System (MLRS) had its baptism by fire in Desert Storm. Commanders are unanimous in their praise. MLRS is a highly mobile, self-sufficient system that can halt from march column, orient its rockets and fire in a very short time. The launcher carrier transports and aims twelve rockets; each rocket packs 644 submunitions and can be fired to a range of 30 kilometers. The rockets were used against all types of targets.

A good example of MLRS usage was in the counterfire role. The AN/TPQ37 Artillery Locating Radar array detects incoming enemy artillery projectiles, accurately backtracks along the trajectory, computes the location of the enemy firing position, and digitally transmits the hostile location to an MLRS fire unit. The rocket fire is on the way in a matter of a minute or two. There have been no reports of additional hostile artillery fire coming from a position attacked by MLRS. In fact, Iraqi prisoners called MLRS bomblets "steel rain" and stated that it was the most terrifying threat they faced.

We often hear of peacetime maneuvers at the National Training Center in California or Hohenfels in Germany where artillery support involves platoon or battery fire missions. There was no such underuse of artillery in Desert Storm. It was used to dominate and obliterate. As stated earlier, a "battalion six" volley seems to have been the norm. There were instances of six, eight and 12 cannon and rocket battalions massing fires on one Iraqi maneuver unit. There were MLRS mass attacks of 400, 500 and 600 rockets. One division alone shot 10,000 dual purpose (anti-personnel and anti-armor) projectiles from 155mm and 8-inch howitzers and about 1,500 MLRS rockets.

Some related comments from senior unit commanders:

- Our artillery got most of the Iraqi artillery.
- There was no artillery fratricide. Not one man was killed by friendly artillery fires in the entire operation.
- There were no known casualties from the massive Iraqi artillery. The TPQ37-MLRS combination squashed Iraqi artillery whenever it tried to engage our forces.
- Scouts and cavalry units were a major source for locating artillery targets.
- We need longer range cannon and rocket systems.
- There is a need for an MLRS battalion in every division.
- An artillery brigade should habitually be associated with every division.
- Weather grounded air support at times. Artillery remained the only 24-hour fire support.

It is interesting to listen to commanders' accounts of this short war and realize how much U.S. tactics resemble the Army's ongoing doctrinal update, AirLand Operations. Three of the four phases (detection, condition and decision) were carried out very much as described in developing doctrine. The fourth phase, reconstitution, was of course unnecessary. *Detection* was made near perfect by air superiority, various means of photography and moving target locators like the Joint Surveillance and Target Attack Radar System (Joint STARS). *Conditioning* was handled admirably by the Air Force and the Army Tactical Missile System (Army TACMS), which achieved startling results though available in only a small quantity. *Decision* was achieved by the devastating combined arms ground attacks across the front, most particularly the massive end run by VII and XVIII Corps that was handled in true combined arms form.

One tenet of AirLand Operations is the continual destruction of enemy ground forces prior to actual engagement at close range by direct fire weapons. In this war the air, sea and artillery fire support did that job in spades!

From the outset, the U.S. objective to oust Iraq from Kuwait had an important corollary: Minimize casualties to the coalition. The combination of superb leadership, joint operations, magnificent soldiers and aggressive use of high technology fire support from ground and air achieved exactly that aim. No one service or single weapon can claim sole credit for the outstanding success in the Persian Gulf. Rather, it was the integration of combined arms from sea, air and land in accordance with a carefully planned campaign that achieved the victory.

In the 1990s we will have a budget-driven, greatly reduced force structure. Desert Storm showed that smaller forces can handle big challenges provided their training and equipment are BETTER THAN THE BEST of any potential aggressor they might have to face. The object is always to win with superior troops, training, teamwork and technology — never with the lives of American service members.

(Paul Pearson is vice president of CYPRESS International. Glenn Otis is a Senior Fellow of the AUSA Institute of Land Warfare and corporate vice president of Coleman Research Corporation.)

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