

# FORUM & FEATURES



## The BIFV and Communications

CAPTAIN GREGORY J. PREMO

Slowly but surely, long promised high technology equipment is being integrated into the units of the Active Army. Of primary interest to the infantry soldier is the M2 Bradley Infantry Fighting Vehicle (BIFV) and the firepower and mobility it brings to the battlefield. This product of modern technology, more than ten years in development, is going to bring about some radical changes in the tactics and the combat philosophy of the units fortunate enough to get it.

The fielding of new technology has always meant that a wave of inconsistencies and incompatibilities had to be identified between the new system and the old. The differences in speed, maneuverability, firepower, and survivability between the Bradley and the M113, for example, will definitely affect the tactics of any unit that happens to have a mix of these two combat vehicles. Another of these inconsistencies involves communications equipment. The integration of current and future communication equipment into the Bradley will involve some consideration of the following points:

- The Bradley's communication

station is just large enough to accept two VRC-12 family radios and two VINSON family communications security (COMSEC) devices. The old NESTOR COMSEC equipment is not projected for use in the Bradley. But if the NESTOR equipment should be used in the Bradley, there is room enough for just one VRC-12 radio and one NESTOR device.

- There is no room for the addition of an R442 auxiliary receiver in the Bradley if two VRC-12 radios with VINSON devices are installed.

- The addition of more than two antennas would require major and very expensive turret redesign or the local installation of a less survivable "jury rigged" antenna system (even if three current family radios could be squeezed into the turret).

- The troop compartment of the Bradley is designed to accept only the electronic components designed into it at the factory. Electronic testing procedures and other considerations make the installation of extraneous electronic components in the troop compartment difficult and would result in expensive modifications.

- Even if a radio were mounted in the troop compartment, there is no

place on the hull to mount an antenna and no way to bring an antenna cable into the Bradley without drilling through the hull. Any antenna mounted on the hull would interfere with or be damaged or destroyed by the cannon and could possibly run afoul of TOW guidance wires.

- It is also impossible to transfer RF (radio frequency) energy from a radio in the troop compartment through the turret slip ring to an antenna on the turret.

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These limitations in communication system design in the Bradley could cause some commanders, who now mount three or more radios such as the GRC-160 and the VRC-47 in their M113s, to alter their way of doing business significantly once they get the Bradley. For example, some commanders like to keep their fire support officer (FSO) in their "hip

pocket," so to speak, by having him ride in the commander's vehicle. In the Bradley, these commanders will have to provide the FSO with one of their own two radios or let the FSO ride "blind." No longer will the FSO be able to plug his radio into an "extra" mount in the back of the vehicle.

Future communication equipment will certainly reduce the physical size of the radio itself. Theoretically, four radios of the scaled down SINC-GARS family could fit in the Bradley. Of course, an antenna multi-coupler (allowing two or more radios to use one antenna) would be needed to stay

within the current turret design limitation of two antenna blisters. But the proposed inclusion of PLARS (Position Location and Reporting System, SNAP (Steerable Null Antenna Processor), anti-jam devices, and other developmental devices in the communication station of a commander's Bradley could use up the space saved by smaller radios, once again limiting the commander to two radios.

As advanced weapon systems are integrated into our combat units, writers of tactical doctrine should be aware that the products of modern

technology will affect their tactical studies. Limiting a commander in the Bradley to two radios may not be a real problem, but any agency that is involved in developing tactics for this highly effective weapon system at least has to take it into consideration.

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# Where's the Commander?

CAPTAIN BARRY E. WILLEY

Much has been written about where in a formation the company commander should be when leading his unit, in training or in combat. The consensus among Infantry officers is that the commander should be where he can control his company. But just exactly where is that?

Field Manual 71-1 offers some sound principles to guide the mechanized infantry commander in most situations — mounted and dismounted, while moving and when in contact. But these general principles need to be translated into concrete examples on the ground.

Perhaps some examples from my own experiences as a mechanized infantry company commander in Panama will help. Sometimes I made the right decision, sometimes the wrong one, and sometimes I made a decision that was wrong by the book

but right for the particular situation. (There aren't many textbook cases for the jungles of Panama, where mechanized infantry terrain is scarce.)

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**A commander's boldness and decisiveness in training will carry over into combat. But he must always remember that boldness and brash heroics are distinctly different things.**

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Controlling a mounted or dismounted formation rarely calls for heroics, but it does call for spontaneous, sound judgments and orders. In my first training exercise, when the lead platoon came under fire, my first instinct was to dismount

with my RTO and move to the action, .45 caliber pistol in hand. So that is what I did, and I was promptly "killed" by a nearby controller. It was an embarrassing moment, but I learned a valuable lesson.

Of course, the situation may sometimes make it necessary for a company commander to be at a bottleneck, but he should not step in until his subordinate leader at the scene has tried to solve the problem. Even then, it may not be necessary for him to show up. He can send calm and deliberate instructions by radio, land line, or messenger to the unit in contact, which should allow him to stay where he can control the big picture — near his radio to higher headquarters and to his other subordinate elements. In other words, it is better for him to be in control of the action than *in* the action.