

means of tape or commercially available spring clips. One magazine is inserted in the weapon with the other attached to it upside down so it can be reversed and loaded as soon as the first one is expended.

If everything works well, this method may be slightly faster for a magazine change, but it offers little other advantage to the soldier, the weapon, the magazine, or the ammunition. In the prone position, the bottom magazine, with its cartridges frequently touching the ground, becomes nothing more than a highly efficient mud scoop. If the feed lips of that magazine bend or break for any reason, all the ammunition in it is dumped on the ground.

Also, the extended length of the two magazines forces a soldier into an uncommonly high prone position that adversely affects his marksmanship and increases his exposure to enemy detection and fire. The increased weight of the second magazine may also cause excessive wear to the weapon's magazine catch or magazine well, resulting in magazine/cartridge alignment problems (with accompanying malfunctions), or even magazine retention problems. (It is most embarrassing, to say nothing of hazardous, to have a magazine fall out in the middle of a fire fight.)

To resolve problems such as these, the U.S. Army Marksmanship Unit (AMU) recommends the following:

The Army's proponent for small arms marksmanship should develop detailed doctrine that encourages proper issue, maintenance, handling, storage, inspection, loading, and testing of magazines. Issue and range procedures should be developed that prohibit the pooling of magazines. Soldiers should then be required to load their own magazines and store them in their ammunition pouches. This might be done at the last concurrent training station before they are called to the firing line. Practice, qualification, ARTEP, or other courses should be developed that enable soldiers to fire fully loaded magazines for function testing along with their marksmanship training and evaluation.

In schools for officers, NCOs, and weapon or range instructors, training on proper magazine handling should be part of the marksmanship portion of the curriculum. Soldiers learn from their leaders, and AMU observations of hundreds of NCOs, officers, and instructors indicate a general lack of knowledge concerning magazine handling and maintenance.

At the unit level, individual soldiers should be issued basic loads of magazines and held responsible for their accountability, proper maintenance, and handling. Leaders should inspect the magazines during TA-50 or weapon inspections and enforce proper maintenance, storage, and handling procedures.

Although magazine pooling is currently mandatory at many ranges or installations, certain steps can be taken to reduce the problems with this procedure. Tape marking the magazines with the soldiers' names would ensure that each is issued the same magazine at the ammunition point. And proper training and supervision of the loading detail would reduce damages. Unserviceable magazines could then be destroyed and replaced.

Current marksmanship training doctrine and practices generally stress reducing the expenditure of resources and time, especially in deployment situations. But neither resources nor time should be reduced to the point that lives and combat readiness are placed in jeopardy.

Problems with M16A2 magazines can be solved, and solving them will increase the survivability of our soldiers and improve their proficiency and confidence in their weapons. No soldier should ever be required to perform the first complete operational check of his weapon after he is engaged with the enemy.

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# Fire Support in Low Intensity Conflicts

**MAJOR GARNETT ARNOLD**

Low intensity conflict poses a number of unique challenges for fire support planners. The nature of warfare within this spectrum exposes three key issues

that continue to plague both maneuver commanders and fire support personnel — the challenges of using fire support on a non-linear battlefield, avoiding

fratricide, and avoiding unnecessary collateral damage.

**The Non-linear Battlefield.** Field Manual 100-5, Operations (May 1986),

defines low intensity conflict as "a form of warfare that falls below the level of high and mid intensity operations and will pit Army forces against irregular or unconventional forces, enemy special operations forces, and terrorists."

While this definition says who the enemy will be, it does not imply where he will be. Fire support on the non-linear battlefield will therefore tax even the most sophisticated fire support systems. Unless friendly forces establish and maintain continuous contact with the enemy, that enemy is more likely to strike at a time and place of his own choosing.

History has shown us that well-trained guerrillas and insurgents do everything possible to avoid detection and the inevitable, devastating firepower for which U.S. forces are well known. They do this either by dispersion, by moving only during periods of limited visibility, or by staying close to areas or friendly forces that will preclude the use of our vastly superior firepower.

With only a limited number of fire support systems available, maneuver commanders often try to surround themselves with target reference points, final protective fire lines, priority targets, and other wasteful attempts to substitute the application of firepower for the common sense selection of defensible positions, and integrating fire support with barriers, early warning devices, and aggressive patrolling.

While low intensity conflict and the non-linear battlefield may imply a 360-degree threat, the notion that the generous application of firepower and planning will get you a good night's sleep is both fallacious and dangerous.

Fire planning for the non-linear battlefield requires a thorough analysis of METT-T (mission, enemy, terrain, troops, and time), with particular emphasis on terrain and enemy forces. Whether in pursuit, temporary defensive positions, or movement to gain or maintain contact, fire support planners and systems must always be prepared to deliver adequate firepower in any direction.

Fire support planners, keeping in mind that stealth and deception are a

trained guerrilla's best protection, can also use a thorough analysis of his tactics and techniques (with the assistance of accurate intelligence from the G-2 or S-2) to prevent the indiscriminate diversion of valuable fire support assets.

**Fratricide.** Under no other circumstances is the probability of being engaged by friendly fire greater than in low intensity conflict. Having "friendly" bombs, rockets, and artillery fall on friendly troops and civilians not only has a devastating effect on morale, it also seriously damages the trust and confidence that maneuver commanders have in the fire support system. This trust, once lost, is not easy to regain.

Low intensity conflict, by its very nature, implies dismounted operations close to enemy forces; continuous operations where fatigue and limited visibility often contribute to human error; the lack of (or inadequate) fire support restriction measures; and, more commonly, the misidentification of friendly units and target locations.

## RESPONSIBILITY

Fire support planners and those who control the delivery systems cannot disown their responsibility for where their ordnance lands. While the maneuver units' are responsible for knowing where they are at all times and for keeping their chain of command informed, fire support planners and delivery system operators must take an equally active and aggressive role in seeing that adequate safeguards are in place.

These safeguards, among others, include the following:

- Positive control of all delivery systems within the assigned sector and adjacent sectors.
- Continuous updating of fire support coordination measures.
- Positive identification and location of all friendly elements operating within the assigned sector.
- Emergency cease-fire signals, such as code words, flares, smoke, or marker panels, down to the squad and fire team levels.

- Specific, simple instructions in the fire support operations plan and order and in maneuver tactical SOPs.

- Mandatory check-in or liaison with all delivery system leaders whenever possible.

- Double checking everything, whenever possible.

- Remembering that fatigue kills.

**Collateral Damage.** One of the more unfortunate aspects of low intensity conflict is that innocent people are often hurt or killed, or their property is damaged or destroyed. Depending on the sophistication of the insurgents, this may be a deliberate effort to alienate the local populace, or part of a plan that keeps us from using enough firepower to suppress or destroy their forces.

The Geneva and Hague Conventions clearly define legitimate military targets and what constitutes wanton and unnecessary destruction. Aside from being tactically unsound and wasteful, the injudicious use of firepower can cause unnecessary civilian casualties, alienate host nation support, and subject our forces to adverse publicity, which will inevitably affect morale.

Again, a thorough analysis of METT-T, with the help of the G-5 or S-5 and host nation liaison people, can prove valuable. The logic of "destroying a village in order to save it" may not be an adequate defense in an international court or a trial by court martial. Fire planners must constantly seek alternatives to the application of destructive firepower. In some extraordinary cases, this may mean sacrificing some time or lives in seizing an objective, but a conscientious effort on the part of our forces to minimize collateral damage can only have a positive effect on our cause.

Other techniques for reducing collateral damage include:

- Thorough training in the Law of Land Warfare.

- Using psychological operations detachments and host nation liaison personnel to evacuate noncombatants, when possible.

- Pushing enemy forces into more favorable kill zones instead of surround-

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ing them and trapping them in built-up areas.

- Conducting demonstrations of fire support capabilities in uninhabited areas.

- Using the least possible amount of fire support to accomplish the mission.

Fire support in low intensity conflict comes with some unique challenges —

using fire support on a non-linear battlefield, avoiding fratricide, and avoiding unnecessary collateral damage. Maneuver commanders, working closely with fire support planners at all levels and with the operators of the various delivery systems, can overcome these issues through training, planning, and the concern that comes with the

realization that lives and the mission are at stake.

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# The Brevity Matrix

**CAPTAIN DANIEL L. THOMAS**

When I was the S-2 of an infantry battalion, I had to send dismounted patrols of two or three soldiers forward to establish observation posts (OPs) and collect information on the enemy. These teams often went behind the enemy front-line trace, which created several support problems, particularly in communications.

Since secure communications often fail, it is dangerous and irresponsible to give a team full SOIs (signal

operation instructions) that may become compromised. To solve this problem, I modified a method the opposing force at the National Training Center (NTC) uses. It is a one-page code sheet called the Brevity Matrix, which enables OPs, scouts, and the S-2 section to encode and decode transmissions quickly and easily.

Each reconnaissance element and the S-2 section has a copy of the Brevity Matrix. It is used either all the time

or only when secure communications are not available. I found that when teams used the matrix, communications were faster. The code was clear and it eliminated difficulties that arose from mispronunciation and interference. It is on a single page and is easier to use than the brevity codes in the standard SOIs.

The Brevity Matrix is a box with 11 vertical columns and 27 horizontal rows. The numbers 0 through 9 are in

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>0</b>
<b>A</b>	1	6	A	B	C	D	E	F	G	H
<b>B</b>	2	7	I	J	K	L	M	N	O	P
<b>C</b>	3	8	Q	R	S	T	U	V	W	X
<b>D</b>	4	9	Y	Z	HULL				ROAD	UN/ID
<b>E</b>	5	0			IDENTIFY	LZ	MRC	OP/LP	SA	UNIT
<b>F</b>		BRDM			ILLUMINATION		MRB	OPSEC	SAW	
<b>G</b>	ACTIVITY	BULLDOZER	DIG	FRAGO	IMPROVE	M-1	MRR	ORIENT	SCREEN	VEHICLE
<b>H</b>	ADA	BYPASS	DIRECTION	FREQUENCY	OM	M-16	MOVE	OVERHEAD	SEND	VISUALLY
<b>I</b>	AIR	CALIBER	DISMOUNT	FRIENDLY	INDIRECT	M113	MOVING	PASSAGE	SIGNAL	
<b>J</b>	AIRCRAFT	CAMOUFLAGE	DISTANCE	FROM	INFANTRY	M-60 TANK	MY	PATROL	SITREP	WADI
<b>K</b>	ALTERNATE	CHANGE	DRAGON	FRONT	INFILTRATE	M-60 MG	NAI	PERSONNEL	SOUTH	WATER
<b>L</b>	ANTI-TANK	CHEMICAL	DUST	FUEL	INFO	M577	NBC	PHASE LINE	SPELL	WE
<b>M</b>	APACHE	COBRA/AH-1	EAST		INFRARED	MACHINEGUN	NEED	PIR	SPEED	WEST
<b>N</b>	APC	COLUMN	ECHOLON	GALLONS	ING	MAINTENANCE	NEGATIVE	PLATOON	SUPPLY	WHAT
<b>O</b>	AREA	COMMO	ED	GOOD	INSERT	MANEUVER	NLT	POW		WHEELED
<b>P</b>	ARMOR	COMPANY	ENEMY	GREEN	IR		NONE	PREPARE	TANK	WHEN
<b>Q</b>	ARTILLERY	CONDUCT	ENGINEER	GRID		MANY	NORTH	PRIMARY	TEAM	WHERE
<b>R</b>	ASAP		EQUIPMENT	GSR	KIA	MARCH	NUMBER	PROTECTIVE	TIME	WHY
<b>S</b>	AT	CONVOY	ETA		KILL	MEDICAL		P2	TO	WOUNDED
<b>T</b>		COVER	EW	HASTY	KILOMETER	METERS	OBJECTIVE	RADAR	TOTAL	WIDE
<b>U</b>	ATTACK	DARKNESS	EWFILTRATE	HELICOPTER	LIGHT	MILES	OBSERVE	RECON	TRACKED	WIRE
<b>V</b>	AYLB	DECEPTION		HIND	LD/LC	MINES	OBSTACLE	RED	TRAIL	WITHDRAW
<b>W</b>	AXIS	DEEP		HILLTOP	LENGTH	MISSION	OCCUPY	REINFORCE	TRENCH	YOU
<b>X</b>	BATTALION	DEFEND	FEBA	HOW	LOCATE	MOPP	OH-58	REPORT	TURRET	
<b>Y</b>	BLACKHAWK	DEFILADE	FIGHTING	HOURS	LOCATION	MORTAR	ON	RIDGE		ZONE
<b>Z</b>	BMP		FOOD	HUEY/OH-1H	LOOK					ZSU