

TRAINING NOTES



Iraqi Infantry

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Although many people tend to think the Iraqi Army is a copy of the Soviet Army, this is not true, nor does it use the same tactics.

The Iraqi Army is organized into regular army units and elite Republican Guard units. The regular army has ten armored and mechanized infantry divisions, and the Republican Guards have at least three armored divisions. (See "Armor in DESERT SHIELD," by Michael R. Jacobson, *INFANTRY*, November-December 1990, pages 32-37.) But the Iraqi Army is composed predominately of infantry divisions (with an estimated 42 or more), and its soldiers use a mixture of equipment from the Soviet Union and various other countries.

An Iraqi infantry division usually has three infantry brigades (although some divisions had more than three during the Iran-Iraq War), a commando battalion, a tank battalion, an antitank battalion, and other combat, combat support, and combat service support elements (see Figure 1).

An infantry brigade consists of three infantry battalions, a commando company, a mortar battery, and other combat support and service support elements. An infantry battalion consists of three infantry companies, each of which has three infantry platoons with three ten-man squads in each.

The squad weapons consist mostly of

7.62 x 39mm AKM/AK-47/SKS rifles. A squad may also have an SVD sniper rifle and a 7.62mm machinegun. In addition to the three infantry platoons, the infantry company has a heavy weapons platoon that probably has RPG-7 rocket-propelled grenade launchers, recoilless guns, and possibly 60mm mortars. The infantry brigade's indirect fire support is provided by a battery of four to six 82mm or 120mm mortars.

The antitank battalion consists of three batteries of six antitank guided missile (ATGM) vehicles or antitank guns. The Iraqi Army has the following vehicle mounted ATGMs: AT-1, AT-2, AT-3, AT-5, HOT, and TOW/ITOW. Iraqi antitank guns include the 85mm M-45 antitank gun, the 100mm M-44 antitank gun, and the 105mm OTO Melara 56 Pack Howitzer.

INFANTRY WEAPONS

The following are brief descriptions of some of the Iraqi Army's infantry weapon systems:

SKS. The Simonov (SKS) is a Soviet designed 7.62 x 39mm semiautomatic carbine with an effective range of 400 meters. It has an integrated magazine that is fed by a ten-round stripper clip.

AK-47/AKM/AKMS. These weapons, designed by the Soviets and referred

to as Kalashnikov assault rifles, are capable of either semiautomatic or automatic fire. They fire the 7.62 x 39mm round and have an effective range of 300 meters on semiautomatic. They have a practical rate of fire of 100 rounds per minute on automatic or 40 rounds per minute on semiautomatic and use a 30-round magazine.

SVD. The SVD (Dragunov) sniper rifle uses a 7.62 x 54Rmm cartridge. It has a maximum effective range of 800 meters, and the gunner carries four 10-round magazines. Its PSO-1 optical sight is a four-power telescope with an integral rangefinder, a battery powered reticle illumination system, and an infrared reconnaissance aid. The SVD can be equipped with the NSP-3 image intensifier night sight, which will give a sniper a 500-meter effective range.

RPD. The RPD is an automatic, bipod-mounted machinegun that fires the 7.62 x 39mm round. Two 50-round belts of ammunition are carried in a drum magazine. It has an effective range of 800 meters and a practical rate of fire of 150 rounds per minute.

RPK. The RPK machinegun, a variant of the AKM rifle, fires the same 7.62 x 39mm round as the SKS/AK-47/AKM and uses either a 40-round curved magazine or a 75-round drum magazine. The RPK has an effective range of 800 meters and a practical rate of fire of 150 rounds

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per minute on automatic or 50 rounds per minute on semiautomatic.

SGM. The SGM is the Soviet-designed Goryunov heavy machinegun. It fires the 7.62 x 54Rmm round out to 1,000 meters. The SGM has a practical rate of fire of 250 rounds per minute and uses a 250-round belt of ammunition.

FN-MAG 58. The FN-MAG 58 is a Belgian machinegun that fires the 7.62 x 51mm NATO round out to 1,000 meters. It has a practical rate of fire of 150-200 rounds per minute. It uses 50-round belts of ammunition and can be fired from its bipod or from a tripod. The FN-MAG 58 is used by U.S. forces as the M240 coaxial machinegun.

DSHK. The M38/46 DShK is the Soviet-designed Degtyarev heavy machinegun. It fires the 12.7 x 108mm round effectively out to 1,500 meters against ground targets and 1,000 meters against aircraft.

The DShK has a practical rate of fire of 80 to 100 rounds per minute. It uses 50-round belts of ammunition and can be ground mounted, towed, or vehicle mounted. The DShK is generally used as an anti-aircraft machinegun, but it can also be used in the ground role.

(More information on small arms can be found in the Defense Intelligence Agency's "Small Arms Identification and Operation Guide—Eurasian Communist Countries," DST-1110H-394-76, 1 August 1983.)

Hand Grenades. The Iraqis use a variety of hand grenades including the Soviet F1, RGD-5, RG-42, Yugoslav M-75, Austrian Arges Model 78, and British Model 36M. These grenades have a bursting radius of 15 to 25 meters and a throwing range of 25 to 30 meters. The Iraqis produce copies of the Soviet F1 and RGD-5 grenades. NOTE: Do not use

captured Soviet grenades! There are reports of grenades that are fitted with zero-delay fuzes and used for booby traps. These grenades detonate as soon as the pins are pulled and the spoons released.

RPG-7. The RPG-7V is a recoilless, shoulder-fired, muzzle-loaded, reloadable, antitank grenade launcher. It fires a rocket-assisted high explosive antitank (HEAT) grenade. The grenadier normally carries two rounds of ammunition, and the assistant grenadier carries three rounds. In the defense, 20 rounds of ammunition may be positioned with each grenadier. The maximum effective range is 500 meters for stationary targets and 300 meters for moving targets. At the maximum range of 920 meters, the projectile self-destructs causing a shower of fragments. The RPG-7 grenade (PG-7 or PG-7M) will penetrate 330mm (13 inches) of armor. The RPG-7V has a rate of fire of six rounds per minute. Recently, an antipersonal round (the OG-7) has been identified.

The RPG-7V requires a well-trained gunner. Chain link fence was used during the Vietnam War as an effective defense against the RPG-7V, which has a noticeable signature of flash, smoke, and noise.

SPG-9. The SPG-9 is a tripod-mounted 73mm recoilless gun. Its HEAT round has an effective range of 1,000 meters and can penetrate 330mm of armor. The SPG-9 also has a high explosive (HE) round that can be fired to 1,300 meters. The SPG-9 has a rate of fire of six rounds per minute.

B-10. The B-10 is an 82mm smooth-bore recoilless gun. The HEAT round has an effective range of 400 meters and can penetrate 230mm of armor. The B-10 also fires HE rounds to 4,000 meters and has a rate of fire of six rounds per minute.

B-11. The B-11 is a 107mm smooth-bore recoilless gun. The HEAT round has an effective range of 450 meters and can penetrate 380mm of armor. The B-11 fires HE rounds 6,000 meters and has a rate of fire of five rounds per minute.

AT-3. The AT-3 Sagger is a wire-guided ATGM. The gunner must guide it to the target using a "joy-stick." The Sagger can engage targets at ranges of 500 to 3,000 meters and can penetrate

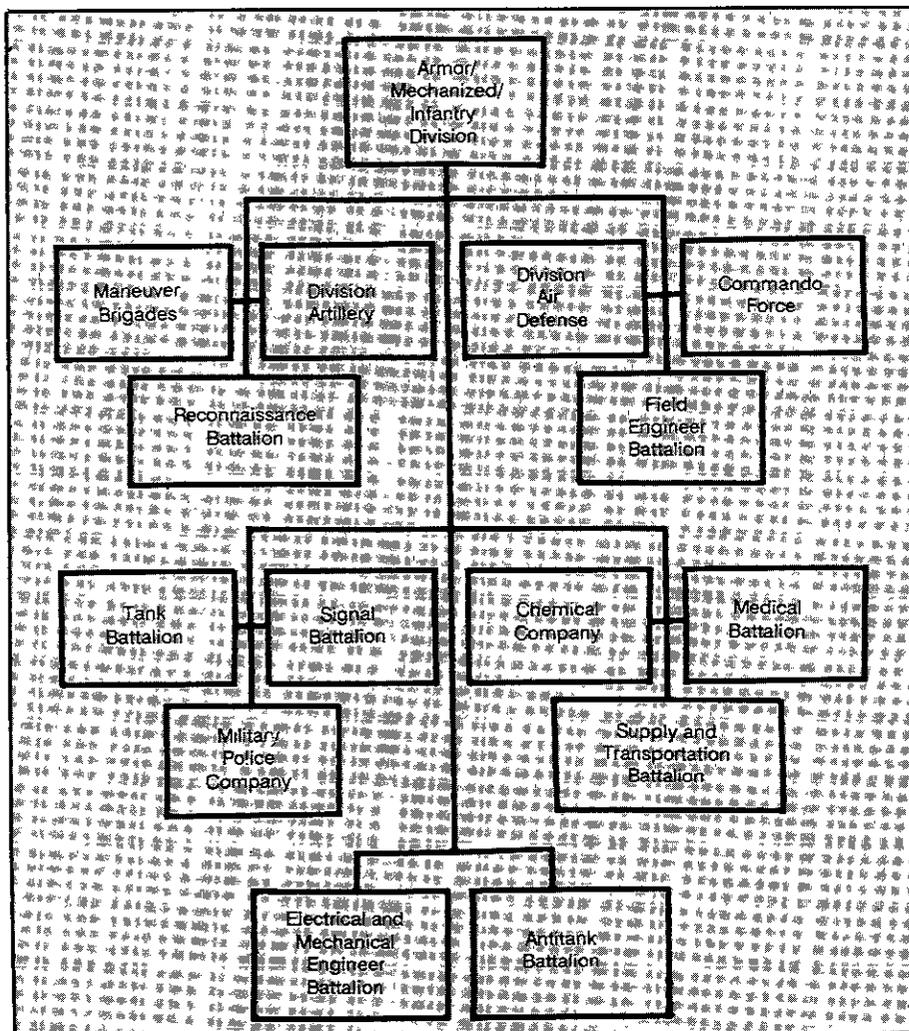


Figure 1

more than 400mm of armor. In the man-pack version, the gunner carries the missile in a fiber-glass suitcase. Each three-man team has a control box, four Sagger missiles, and an RPG-7V antitank grenade launcher. The gunner can fire the missile remotely up to 15 meters from his position, and all four missiles can be fired sequentially.

AT-4. The AT-4 Spigot is a tube-launched, wire-guided, semiautomatic, command to line of sight (SACLOS) guidance ATGM, similar in appearance to the Milan. It has a minimum range of 70 meters and a maximum range of 2,500 meters. It has a penetration capability of 500-600mm.

MILAN. The Milan is a manportable, Euromissile-produced, antitank guided missile. It is wire guided and has a 2,000-meter range requiring 12.5 seconds to travel that distance. The Milan can be equipped with a thermal night sight that is effective out to 3,000 meters. Two missiles are available—the Milan and the Milan 2—that can penetrate 600mm and 850mm of armor, respectively.

TOW. The Iraqis have ground TOW launchers, M113 TOW launchers, and Improved TOW Vehicles (ITVs) that they captured from the Kuwaitis and the Iranians. The TOW/ITOW missile has a range of 3,750 meters.

60mm Mortars. The Iraqi Army is believed to use two 60mm mortars, one may be the Yugoslav M-57, which is a copy of the U.S. M2 mortar. The M-57 has a minimum range of 74 meters and a maximum range of 1,690 meters. It normally has a two-man crew and fires high explosive, smoke, and illumination ammunition.

82mm Mortar. The Soviet M1937 is an 82mm smoothbore mortar that can be disassembled and carried in three one-man loads. The M1937 has a minimum range of 90 meters and a maximum range of 4,000 meters. It fires high explosive, smoke, and illumination rounds and has a rate of fire of 25 rounds per minute. The smoke round uses white phosphorus to provide both a screening and an incendiary capability. The round is designed to obscure and neutralize enemy observation points and artillery positions. The flying pieces of burning phosphorus

IRAQI IFVs/APCs		
Infantry Fighting Vehicles		
NAME	WEAPONS	INFANTRYMEN
AMX-10P	20mm, 7.62mm	8
BMP-1	73mm, 7.62mm, AT-3	8
BMP-2	30mm, 7.62mm, AT-5	7
BMD-1	73mm, 7.62mm, AT-3	4
Armored Personnel Carriers		
NAME	WEAPONS	INFANTRYMEN
EE-11 <i>Urtutu</i>	12.7mm	13
Type 531	12.7mm	10
OT-62B/C (BTR-50PK)	14.5mm, 7.62mm	18/12
OT-64C(1)	14.5mm, 7.62mm	15
<i>Waliq</i>	7.62mm	8/10
Panhard M3	20mm, 7.62mm	10
Fiat OTO 6614	12.7mm	10
Saracen	7.62mm	10
M113A1	12.7mm	11
MT-LB	7.62mm	11
BTR-40	14.5mm, 7.62mm	8
BTR-50P/PK	14.5mm	20
BTR-60PB	14.5mm, 7.62mm	14
M60P	12.7mm, 7.92mm	10

Data compiled from *Jane's Armour and Artillery, 1989-90; Military Balance, 1989-90; The Middle East Military Balance, 1988-89; IIAC: How They Fight, and Order of Battle Books.*

start fires, and shell fragments inflict enemy casualties. The illumination round burns for 90 seconds.

120mm Mortar. The Soviet M1943 is a 120mm smoothbore mortar. Rounds can be drop fired or lanyard fired. The mortar has a muzzle device to prevent double loading, a minimum range of 500 meters and a maximum range of 5,700 meters. It fires high explosive, smoke, and illumination rounds and has a rate of fire of 15 rounds per minute.

Self-Propelled Mortars. The Iraqis have displayed two versions of 120mm

self-propelled (SP) mortars. The first is similar to our M106 SP mortar carrier. They use the Soviet MT-LB vehicle and mount the 120mm mortar inside the carrier. The second version mounts four 120mm mortars externally on a hydraulic spade on the MT-LB. The vehicle carries 104 rounds of ammunition.

IFV/APC. The Iraqi Army may attach a mechanized infantry brigade to an infantry division. The accompanying table shows the types of infantry fighting vehicles (IFVs) and armored personnel carriers (APCs) that the Iraqi Army has and

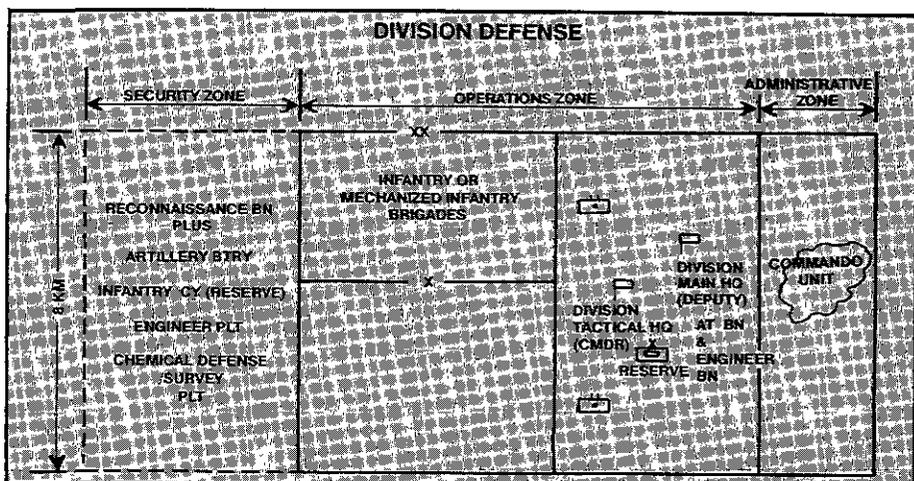


Figure 2

gives their weapons and the number of infantrymen the vehicles can dismount. It appears that only the Republican Guard Force's mechanized infantry has IFVs, whereas the Iraqi Army mechanized infantry has APCs. (Additional information on these vehicles can be found in "Armor in DESERT SHIELD," mentioned earlier.)

Mines. There is evidence that the Iraqi Army has more than 50 different types of mines and uses extensive minefields that contain both antipersonnel (AP) and antitank (AT) mines. Possible Iraqi mines include the Soviet PMN and PMD-6 AP mines and the TM 46 and TM 57 AT mines. The PMN is a plastic, pressure-activated AP mine and, once set, cannot be disarmed. The PMD-6 is a wooden-cased, pressure-activated AP mine. The TM 46 is a blast type AT mine that can be manually laid (tilt-rod activated) or mechanically laid (pressure-activated). The TM 57 is similar in appearance to the TM 46, but it contains more explosive. The TM 57 is a blast type AT mine that can be manually or mechanically laid.

Additionally, there is a possibility that Iraq has an air delivered scatterable AP and AT mine capability. Iraqi minefields are usually surrounded by barbed wire. The normal mix of mines is three APs and one AT per cluster. Minefields can be up to 350 meters deep. (The National Training Center has recently produced an excellent video tape on breaching and assaulting complex obstacles that all combat arms leaders should view.)

The Iraqis manufacture various military hardware items including ammunition, 125mm tank gun tubes, and artillery systems. They produce the following small arms: AKM, AKMS, RPK, SVD, and RPG-7; and the following small arms ammunition: 7.62 x 25mm, 7.62 x 39mm, 7.62 x 54Rmm, and 12.7 x 108mm. They also produce 82mm and 120mm mortars and ammunition.

The Iraqis use a mix of Soviet and British tactics, along with lessons learned from their war with Iran, and the maneuver brigade is the lowest level for independent operations.

An example of what an Iraqi infantry division defense may be like is shown in

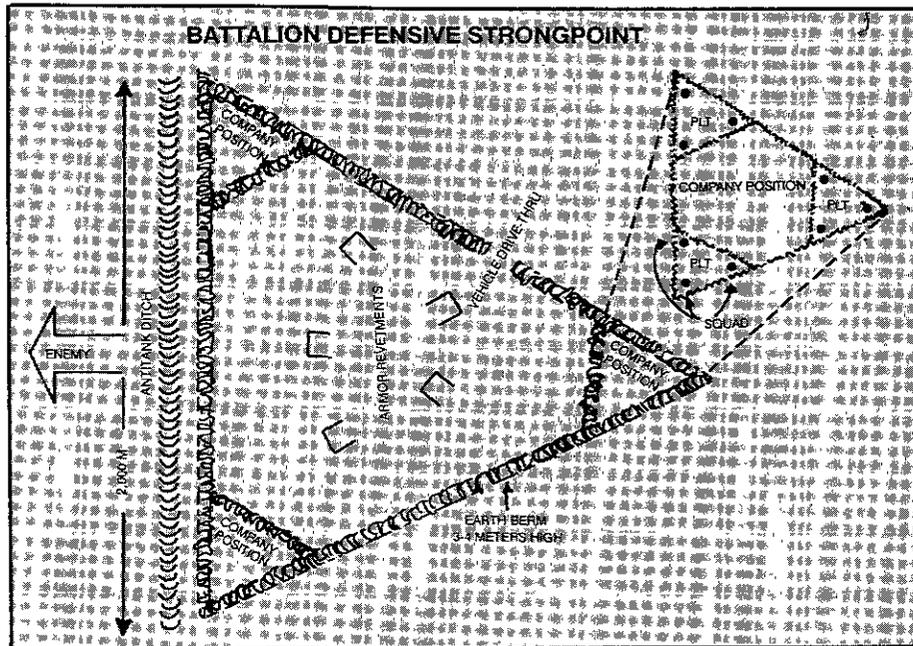


Figure 3

Figure 2. An infantry division will normally have a frontage of eight kilometers and a depth of ten kilometers. A security zone eight kilometers deep will be in front of the division. Forces in this security zone will consist of the reconnaissance battalion, reinforced by an artillery battery, an engineer platoon, and a chemical defense/survey platoon. The reserve

force of the security zone will probably be an infantry company.

The division will normally defend with two infantry brigades forward and an infantry or armor brigade as the reserve. The division's rear area, called the administrative area, is defended by the commando battalion, which forms ambush teams to destroy any tanks that have

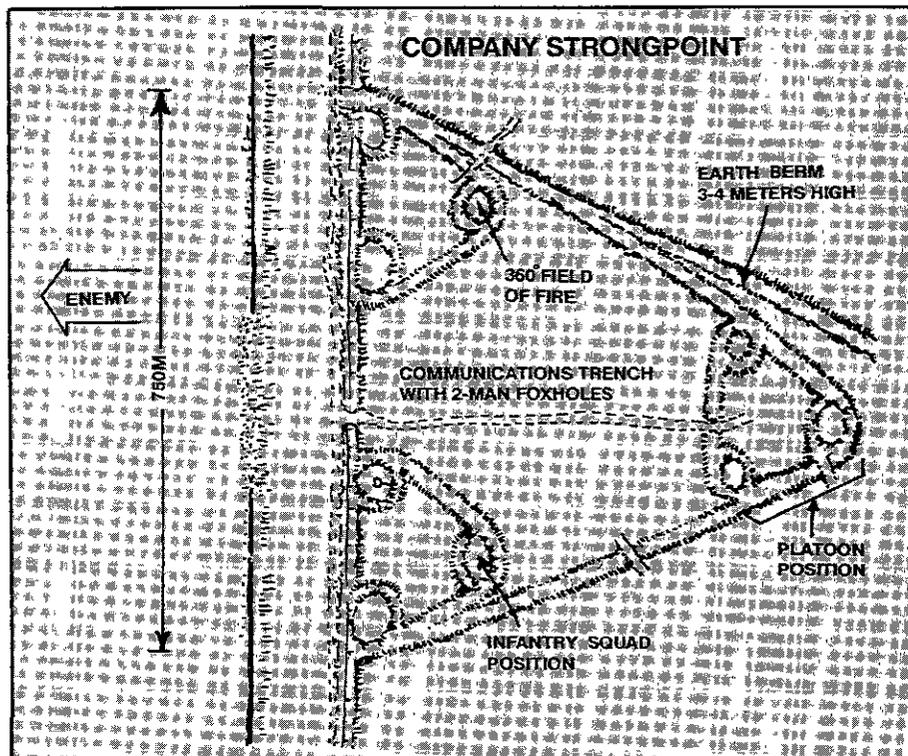


Figure 4

COMBAT TIPS

There are several things soldiers and leaders in Operation DESERT SHIELD can do to survive in battle:

Do not use the laser protective spectacles that you have been issued as sunglasses, because prolonged exposure to sunlight or scratches will reduce their effectiveness.

Do not use binoculars (M22) without laser filters, because nonfiltered binoculars will defeat the laser spectacles. If at all possible, use thermal sights or image intensifier sights. Although these sights may be damaged by a laser, your eyes will be safe. If you see a dazzling light, or if your sight blooms out (all the images are washed out), send an MIJI report on possible laser interference.

Additional information on laser threats is contained in the CATA (Combined Arms Training Activity) Special Text 1-1, Directed Energy Warfare Awareness Training, 25 November 1987. Finally, ask your medical personnel to get Field Manual 8-50, Prevention and Medical Management of Laser Injuries, August 1990, so they will know what to do.

For BFV crewmen and unit commanders, I recommend the following: First, more than three to five 25mm rounds will be required to kill a BMP, so keep shooting until you see the desired target effect. Your battalion master gunner or the S-3 should have a copy of the classified Joint Munition Effectiveness Manual titled Effectiveness Data for M2/M3 Bradley Fighting Vehicle (U), FM 101-60-32, 1 March 1988.

This manual discusses the estimated number of rounds needed to kill several different lightly armored vehicles at different ranges and engagement angles. It points out that the greater the range to the target, the more rounds will be required to defeat a vehicle. In one case, for instance, an increase of 400 meters in range to a target could almost double the number of rounds that must be fired.

The Iraqis have applied additional (applique) armor on some of their BMPs that will limit the penetration of armor piercing discarding sabot (APDS) rounds, thus requiring short-

er engagement ranges. Additionally, because the Iraqis have few light armored vehicles, a BFV gunner will probably fire many more HE than APDS rounds. M792 high explosive ammunition rounds will be needed to suppress enemy infantry, antitank weapons, and other targets.

Finally, BFV crewmen and commanders should review the test results that were conducted with 25mm ammunition against urban targets and reported in the U.S. Army Human Engineering Laboratory's Technical Memorandum 13-85, Firing with the Bradley 25mm Against Urban Targets, August 1985. Against walls of brick and reinforced concrete, the training practice tracer (TP-T) round was superior to both the M791 and M792 rounds in providing large holes.

Additional information on U.S. antiarmor weapons and their effectiveness can be found in "Antiarmor: What You Don't Know Could Kill You," by Michael R. Jacobson, INFANTRY, March-April 1990.

penetrated the defense.

The Iraqi Army defends from triangular positions as shown in Figures 3 and 4. The battalion defensive triangle consists of company triangles that are made up of platoon triangles. In the company position, the infantry squads defend the first line with their small arms and RPG-7s and the second line with recoilless rifles and 60mm mortars. The Iraqis believe that three RPG-7 hits are required to kill a tank at less than 1,000 meters and the recoilless guns will each destroy two tanks at 1,000 meters.

The Iraqi Army has a limited number of night vision devices, so they may have to illuminate the battlefield. Image intensifier (starlight) sights are available for their antitank weapons, machineguns, and some armored vehicles. The remainder of the armor force uses active infrared sights.

When the Iraqi Army began fighting the Iranians, it did not use its infantry effectively. The Iraqis had rigidly controlled noncommissioned officers and junior officers and, after the battle for the

city of Khorramshahr, they realized they needed to develop initiative from the squad leader up, particularly in urban combat. The Iraqis used a static defense supported by massed firepower to destroy Iranian attacks and to limit their own losses. The army made extensive use of night vision sights and acoustic sensors.

Iraqi infantry generally fought with great courage. The Iraqi soldiers used their antiarmor weapons, ATGMs, and RPG-7s more to suppress and harass enemy forces than to kill armored vehicles. (The RPG-7 was a key weapon for antiarmor and infantry suppression.)

Almost all Iraqi tanks have laser rangefinders, and any confrontation with Iraqi forces will involve a threat from lasers. Additionally, some Iraqi aircraft and artillery fire control vehicles have laser rangefinders, and these lasers present a threat to soldiers' eyes. In fact, a laser rangefinder (U.S. or Iraqi) may cause eye damage within small arms range that can vary from temporary flash blindness (similar to that from a camera's flashbulb) to a partial loss of vision or to per-

manent blindness. When a soldier uses binoculars or other magnifying optics, the danger (or the range at which the soldier can be affected by the laser) is increased.

In any ground conflict with Iraq, the U.S. armed forces and their allies will have to be prepared to defeat an infantry force of 42 divisions or more that has just fought an eight-year war with Iran. To help soldiers and leaders plan for this possibility, the Foreign Science and Technology Center has produced two excellent classified books: Iraqi Infantry Weapons (U), AST-2660Z-135-90, dated 16 November 1990 and Iraqi Combat Engineer Capabilities (U), August 1990.

To quote Sun Tzu, "Know the enemy and know yourself: in a hundred battles you will never be in peril."

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