

AFTER THE STORM

IRAQI WRECKS & FORTIFICATIONS

by Eric Micheletti



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603-609 Castle Peak Road
Kong Nam Industrial Building
10/F, B1, Tsuen Wan
New Territories, Hong Kong

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ISBN 962-361-024-6
Printed in Hong Kong

Front Cover:

A Polish manufactured T-55 of the 37th Armored Division litters the highway leading to Basra. All along the highway can be seen hundreds of Iraqi combat vehicles abandoned by their crew. Notice rounds from an RPG in front of the tank.

Back Cover:

Destroyed MT-LB lying still on the road to Basra. This is an engineer version but without the plough blade.

All photos by Eric Micheletti unless otherwise stated.

The author wishes to thank the French Army for its cooperation and specially the officers of the SIRPA who helped make this book possible.

Introduction

Before invading Kuwait in August of 1991, the Iraqi army was believed to be the fourth largest army in the world, with a total of 955,000 regulars and 450,000 reservists. Involvement in the 1980-1988 Iran/Iraq War made the Baghdad army the most experienced of all Arab armies.

The Iraqi armed forces were modeled after the British General Staff, which governed land operations involving the lowest unit (the squad), up to the highest unit (the corps).

The Iraqis have since made modifications based on Soviet influence and their own war-time experiences. These changes were necessary because of the use of a wide range of equipment, disorganization among the units, and overall expediency.

At the top of the Armed Forces organization is the General Headquarters (GHQ), which oversees all army, air force, navy and popular army operations. Controlling the active corps and the corps-level reservists is the responsibility of the Republican Guard Forces Command (RGFC).

The regular army consists of from 5 to 7 divisions. These usually include up to 6 infantry divisions, and 1 or 2 mechanized infantry and/or armored divisions. Other units available to the corps include, brigade size or larger artillery units, air defense artillery units, one or two commando brigades, an army aviation wing, a rocket brigade, a special forces brigade, tank transporter regiment, and several battalions with various specialties, reconnaissance, field engineering, anti-tank weapons, electronic warfare, chemical defense, supply and transportation, mechanical engineering, bridging and medical.

Each corps has usually three artillery battalions, equipped with 18 122mm towed howitzers. Although, in some cases 130mm, 152mm and 155mm have been used. These howitzers are towed by trucks from several different manufacturers: Tatra (Czechoslovakia), IFA (former East Germany) and ZIL/URAL (Soviet Union).

The corps air defense artillery brigade (ADA) is composed of up to 3 battalions of 57mm S-60, with 18 guns per battalion. The ADA unit may also contain the 37mm M1939 or the ZSU-23-4 in place of or in addition to the S-60. The Iraqis have demonstrated a large degree of flexibility in employing ADA assets at corps level and below. For example, the GHQ can assign some SA-6 and SA-8 units to defend high priority sites or units. Surface to air missiles (SAM) and anti-aircraft artillery (AAA) can be assigned to the ADA to augment coverage of corps level facilities.

The corps' reconnaissance battalion consists of two companies, each equipped with 18 BRDM-2 (six in each platoon) and 5 BTR-50 command vehicles. Some battalions were also equipped with French Panhard M-3 VTT or Yugoslav M-60 APC (The organization and number of vehicles are the same for the division's reconnaissance battalion). This unit may also contain a long range reconnaissance element for conducting extended patrols behind front lines as it did before the ground war broke out.

The anti-tank battalion of the corps is made up of 5 companies of 40 BRDM-Saggers and French VCR/TH (with hot missiles). Each company also has 2 GAZ-66 and 3 UAZ-469 vehicles. The field engineer battalion is equipped with ZIL trucks with barbed-wire laying equipment, graders and GAZ-69 and 63 vehicles. This battalion's mission involves constructing obstacles, conducting engineer reconnaissance,

constructing defensive positions and clearing away enemy obstacles. They also play a major part in assisting the bridging units. These units are equipped with their own vehicles as well; MTU-20, TPP pontoons and GSP ferries.

The artillery brigade consists of 3 battalions (18 transporter, erector-launchers or TEL), with 3 batteries (2 TEL). Iraq also has three operational SRBM systems, the Scud-B, and two modified Scuds; the Al-Hussein and Al-Habbas. These missiles hit Israel and Saudi Arabia when they were launched from the Soviet MAZ-543 TEL and Iraq made EL during the war, demonstrating a range capability of more than 600km.

The Iraqi regular army has three different types of divisions; armored, mechanized and infantry. The basic organizational structure of each is the same. This consists of the three maneuver brigades, divisional artillery and various combat support and service support units. In general, a mechanized division has two mechanized brigades and one armored brigade, whereas the armored division has two armored brigades and one mechanized brigade. The infantry division has three infantry brigades and a single organic tank battalion. One division comprises six to eight maneuver brigades.

The brigade is normally the lowest echelon in the Iraqi army which operates independently. There are three types of brigades; infantry (three infantry battalions), mechanized (three mechanized and one armored battalion), and armored (three armored and one mechanized battalion). Additionally, each maneuver brigade



has a supply and transportation company, a headquarters and signal company, a chemical platoon, a reconnaissance platoon, an assault engineer company, and a commando company sent from the division commando force. Note that the artillery, air defense and combat support services are from the division.

The mechanized infantry battalion consists of three mechanized companies, each with 12 APC, 2 GAZ-66, a heavy platoon (3 60mm mortars, 12 RPG-7 anti-tank weapons and 4 12.7mm heavy machine guns) and three rifle platoons. Each rifle platoon has 3 APC and three rifle squads, ten men each. In addition, each mechanized company is assigned a combat support company, an administration company, a headquarters company, and a reconnaissance platoon. This means an additional 39 BMP, 4 BRDM-2, 25 GAZ-66, 8 Ural-375, 4 Ural-375D and two fuel kitchens/trailers and three field kitchens.

Prior to the Iran-Iraq War, the role of the Republican Guards was to secure the Saddam Hussein regime, but between 1982 and 1986 the Republican Guard Forces Command (RGFC) served as a strategic reserve force, comprising six separate brigades which were employed in every counter-attack against Iranian offensives. Some defeats and lack of power convinced Baghdad that a large counter-attacking force was needed. By 1990, the RGFC had grown to eight divisions with a total of thirty-three brigades. Today, the RGFC is the best equipped and best trained force in the Iraqi army, saving the regime from the Kurd and Shi'ite revolts. This corps is also self-sufficient with organic combat and combat support elements. If the organization of the Republican Guards brigades is the same as the army brigades, then the number of combat vehicles becomes more important. Each Guard brigade is nearly self-contained, with an artillery battalion (mainly South African 155mm G-5) and tank battalions with four companies, instead of the army's three companies.

During the war, the allied intelligence reported around 430,000 Iraqi ground troops in Kuwait alone, made up of forty divisions and some independent brigade and special forces units. They also spotted approximately 3,500 tanks, 2,700 armored vehicles and 3,000 artillery pieces, all from various corps.

Intelligence services also reported activity outside of Kuwait. In the Basra region there were over 200,000 Republican Guard troops from three armored divisions; the "Hammurabi", the "Medina" and the "Tawakalna", with some elements of the 6th Guard Corps and three

independent Special Forces brigades of the 99th Special Forces Division. The allied also counted 1,500 T-72, T-59/69, T-62 and 1,200 guns. South of Baghdad were 250,000 men, 700 tanks and 600 artillery pieces of primarily the 9th Corps (reserve). 50,000 troops were sighted west of Baghdad, as were 200 T-72, T-62 and 150 guns from the 2nd Republican Guard Corps, the 4th Mechanized Division (Al-Fao) and the 6th Mechanized Division (Nebuchadnezzar).

By the end of 1990, the Iraqi army had a total of 5,500 tanks including; 700 T-72B, T-72G and T-72M (this includes the Yugoslavian M-84, a variant of the T-72 which was captured from the Kuwaiti army), 600 T-62, 1,500 Chinese T-59/69, 2,500 T54/55 and Romanian T-77, 100 PT-76 and 100 Chieftain (also captured from the Kuwaiti army).



Alongside this impressive tank fleet was a vast stock of artillery, including around 3,000 various towed guns: 105mm M-56, 122mm D-74, D-30 and M-1938, 130mm M-46 and type 59-1, 152mm M-1937 and M-1943, 155mm G-5, 200 GH N-45, M-114; 500 self-propelled guns: 122mm 2S1, 152mm 2S3, 155mm M-109A1/A2, AUF-1; 200 multiple-rocket launchers: 122mm BM-21, 127mm Astros II, 132mm BM-13, 180mm Astros SS-30, 262mm Ababeel 50 and 300mm Astros SS-60. Various armored reconnaissance vehicles: 1,300 BRDM-2, 600 EE-9 Cascavel, 300 EE-3 Jararaca, 300 AML-60/90 and ERC-90 Sagaie and Mowag Piranha, totalling around 2,500 pieces. The Iraqi divisions also counted 1,500 mechanized infantry combat vehicles BMP-1/2, and more than 6,000 APC: 1,000 YW-531, M-113, Panhard M-3, EE-11 Urutu, BTR-50/60/152, OT-62 and 1,500 MT-LB.

After the allied offensive, the experts considered the Iraqi army well equipped, but badly trained. They had little experience at the operational level of war, and very little

night fighting capacity. This army was totally out of its depth in the context of a modern land-air battle.

Even the Republican Guard divisions, like the other Iraqi divisions, altered no coordinated resistance and therefore were destroyed. For example, the Medina armored division RG was smashed by the USAF A-10 and F-16 as its T-72 and T-69 were being loaded aboard tank transporters. The only counter-attack launched by an armored brigade of the Tawakalna armored division was totally defeated by the M-1A1 Abrams of the 24th U.S. Infantry Division. It should be explained that just ten days before the ground offensive, coalition air forces shifted the weight of their attacks from the Republican Guard divisions, forming the strategic reserve in southern Iraq (already destroyed at 30%), to the armored divisions

of the tactical reserve in central Kuwait, and culminated with airstrikes on Iraqi forward positions. These air attacks left Iraqi units along the Kuwait border at only 50% capacity, according to Pentagon officials.

The coalition commanders were surprised at how ineffective the Iraqi artillery proved. Before the war, the specialized press told of the performance of Baghdad artillery against the Iranian army, and stated that the 3,800 guns alone would present a huge danger for the allied armies when the ground war did start. One aspect forgotten, was that the modern artillery pieces were in the Republican Guard units, and that by the time that the RG was engaged, the allied campaign was virtually finished!

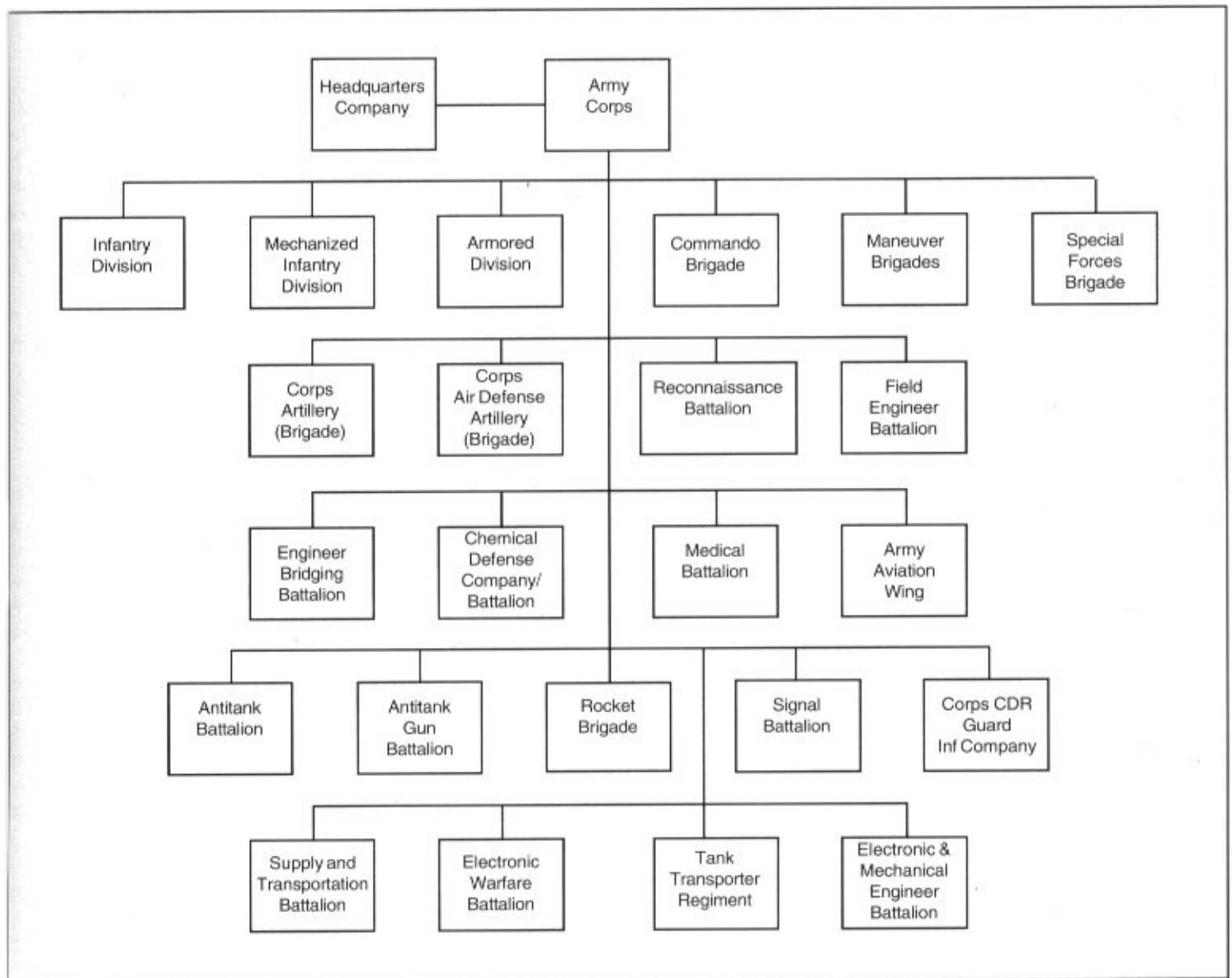
When the allied armies advanced, only two choices were left for the Iraqi artillery commanders; stand in place and be destroyed, or abandon the guns and survive. A few chose the former, most chose the latter. During the Gulf War, the Iraqis lost nearly 3,500 of 5,500 tanks, 2,500 of 6,000 APCs, 2,100 of 3,800 guns and 97 combat aircrafts. A total of 42 Iraqi divisions were destroyed or rendered ineffective. All in all, it was a total victory for the Allied

forces.

Until the day of the cease-fire, the Iraqi High Command believed in a large landing on the Kuwaiti coast. They massed more than 4 infantry divisions and one armored division along the coast, with 3 more around Kuwait City. When the Iraqi Corps in Kuwait realized that the allied armies had made a huge movement on their back to halt any retreat, it was too late.

Throughout Kuwait, but mostly within 10km of the coast, many blockhouse, bunkers and minefields were built. Units were forced to use whatever materials they could salvage; scrap-iron, barrels, water-tanks, old doors, and even chunks of pavement. This proved to be somewhat un-coordinated and ineffective, so the Iraqis relied primarily on a defense line of three lines of barbed wire, a minefield cover at high tide, then two-three lines of gasoline filled trenches, all protected by artillery position. In the suburbs, some armored battalions of T-55 and T-62 were used as mobile defense. But we can say that, even with soldiers in position, these defenses were no match for the allied firepower.

Eric Micheletti



Iraqi Army Corps Organization

(see Appendix)

A Chinese manufactured T-59 abandoned in good condition near the Manageesh oilfield. Burning oilwells can be seen in the background. The Iraqis had planted a minefield around the oilfield to prevent the Coalition forces from approaching the oilfield.



A T-55 burns from an internal explosion after being hit by tank fire near the Al Birgan oilfield south of Kuwait-City. This tank belonged to the 37th Armored Division.



A Chinese-made T-59 tank of the 6th Armored Division fitted with side skirts, that was knocked out by the U.S. 7th Corps west of Kuwait. Notice the penetration on the lower side of the turret.



One of the 40 tanks that were destroyed by the French Gazelle helicopters equipped with HOT missiles. This T-59 belonged to the 45th Infantry Division and was taken out 50km south of As Salman. Note the fence in front of the tank that was supposed to stop anti-tank missiles.



Victim of an A-10 Warthog, this T-55 has the KMT-6 mine plough attached and the 12.7mm machine gun still intact.



A T-55 of the 10th Armored Division received a hit at the bottom of the turret.



A T-59 with its turret blown off after receiving a direct hit from an M1A1 Abrams along the Kuwait City-Basra Highway. The T-59's 100mm gun was no match for the M1A1's 120mm smooth-bore gun.



Soviet-made T-55 abandoned on the highway to Basra. Due to the lack of anti-aircraft artillery (towed or self-propelled) to protect the convoys, hundreds of Iraqi combat vehicles were destroyed on this highway by Coalition warplanes.



A T-59 that lost its tracks near the Sabriya oilfield. The Iraqi tank crew usually left their vehicles in such haste that they had no time to booby trap them.



A T-59 overturned by an explosion on the highway to Basra. Notice what are believed to be French Unit Markings painted on the lower glacis plate.



A T-55 got caught in the middle of a highway while trying to escape from Kuwait City. Hundreds of T-72s, T-62s and T-55s litter the highways leading north from Kuwait City.



A T-59 knocked out by Allied air power. With air superiority lost, the Iraqi tanks were easy targets for Coalition warplanes and anti-tank helicopters in the open desert. Notice the spare ammo without a machine gun to go with it.



This T-62 of the 10th Armored Division managed to reach Basra area after fleeing Kuwait but was eventually caught up and destroyed by the Allied air power.



A T-55 of the 37th Armored Division destroyed by U.S. warplanes at Multa Gap on 27th February 1991, about 20km from Kuwait City.



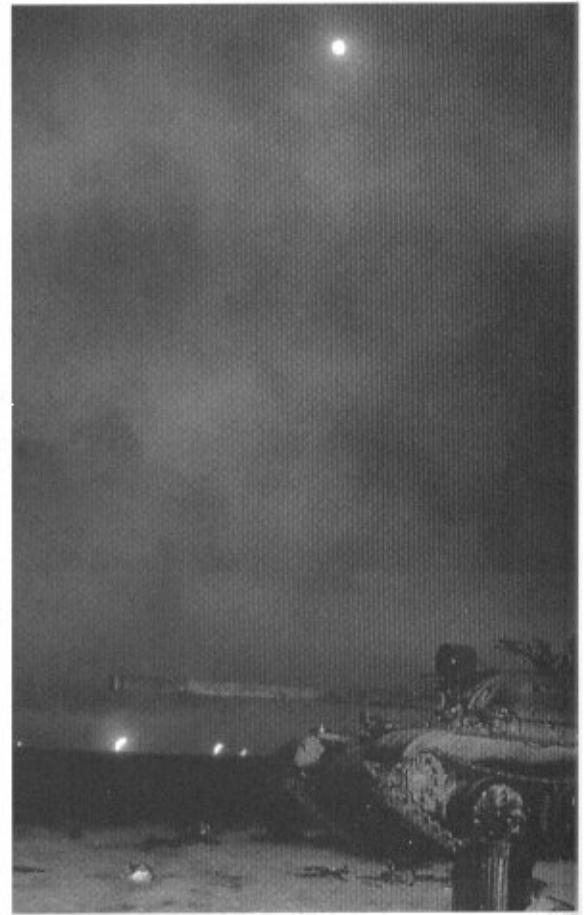
This T-62 took a hit at the back, somewhere north of Kuwait. On 27th February 1991, the Iraqi garrison abandoned Kuwait City and fled north towards Basra, but many couldn't make it.

American soldiers examine an abandoned T-59 from the 11th Infantry Division in a suburb of Kuwait City. Notice the tank commander's periscope on the ground near the closest U.S. soldier.





A destroyed T-55 at the Al Bargan oilfield with an oilwell fire forming the backdrop of the photo. (SIRPA)



Smoke from oilwell fires blackened the sky over the Al Bargan oilfield. On the foreground is a destroyed T-55 tank. (SIRPA)



A T-55 abandoned outside the stadium at Kuwait City. (SIRPA)



An upgraded T-55 with applique armor (a rubber and metal combination) fitted to the glacis plate, hull sides and turret. These improvements increase the weight of the tank so much that a counter-balance has to be fitted to the rear of the turret. The power to weight ratio has been reduced from 16hp/ton to 14hp/ton.



Result of a direct hit by an M1A1 Abrams. This T-59 has its turret blown off.





This T-59 with KMT-6 mine plough of the 1st Mechanized Division seen near the Al Birgan oilfield.



A Polish manufactured T-55 of the 37th Armored Division abandoned intact on a highway leading to Basra just outside Kuwait City.



This T-59 of the 45th Infantry Division was abandoned by its crew and later became a war trophy of the French Army. (SIRPA)



The last days of the war the Iraqis tended to flee Kuwait City by civilian cars, and they left their tanks in running condition (often loaded with ammunition) all over the suburbs of Kuwait City. This T-59 belonged to the 37th Armored Division.



A French helicopter pilot examines his most recent T-54 kill, one of forty Iraqi tanks taken out by French helicopters equipped with HOT anti-tank missiles. Notice the gun stuck in a recoiled position.



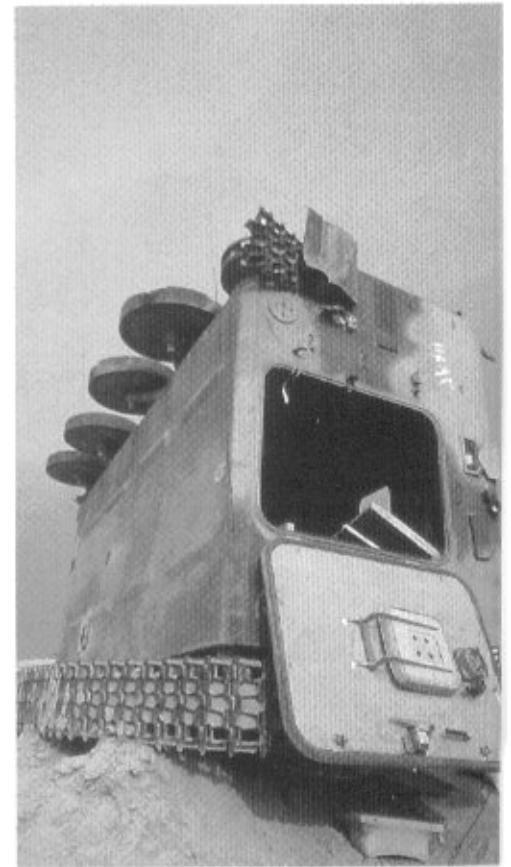
A T-55 of the 37th Armored Division abandoned intact in Kuwait City. The machine gun had been stolen by the Kuwaiti resistance.



A BRDM-2 wreck destroyed at Umm Al Aish. This amphibious scout car has a turret mounting a 14.5mm KPVT machine gun with a coaxial 7.62mm PKY machine gun.



Abandoned some 60km from Safwah is this Panhard M3 armored personnel carrier. Several versions of the M3 were used by the Iraqis. Some Kuwaiti M3s were captured by the Iraqis when they invaded the country.



A camouflaged YW-750 armored ambulance knocked out by a U.S. Marine unit in southern Kuwait. This variant is built on a Type 63 chassis and can carry either four stretcher or eight seated patients besides its normal crew of two plus two doctors.



A BMP-1 infantry combat vehicle of a mechanized division near Sabriya oilfield. Before the Gulf War, Iraq had around 1,500 BMP-1/2. Since only the Republican Guard units employed BMP-2s, the BMPs found in Kuwait theatre were mainly BMP-1s. This BMP-1 lost a track during a tight turn while trying to escape and the crew had to abandon the vehicle. AT-3 Sagger missiles and 73mm shells were all over the place.



A Chinese-built Type 63 (YW-531) armored personnel carrier. This APC carries 10 troops and a four men crew.



A burned down SA-9 Gaskin mobile surface-to-air missile system. The SA-9 has a maximum range of 7,000m with altitude limits being 900 to 5,000m.



The Iraqi army left behind in Kuwait more than 50% of its fleet of 1,500 MT-LB multi-purpose tracked vehicle. Most of the units in Kuwait were equipped with this type of cheap armored personnel carrier and artillery tractor. The MT-LB, with its low ground pressure, has good cross country performance on soft sand.

The Iraqis developed their own MT-LB mortar versions. This one mounts a 120mm mortar in the rear which is operated by a four men crew. The 120mm round has a range of 8,200m and the MT-LB can carry 104 rounds.



A pair of Type 653 engineer version destroyed by U.S. warplanes near Salman. (SIRPA)



What is left of an SA-6 Gainful surface-to-air missile system near the Sabriya oilfield area. Each launcher vehicle carries 3 missiles which are guided by the Straight Flush radar system. The missile has a range of 4 to 22km and a maximum speed of Mach 4.



2S1 Gvozdika 122mm self-propelled howitzer is built on an extended MT-LB chassis. The main armament is a modified version of the 122mm D-30 towed howitzer. It has a rate of fire of 5 rounds per minute and the 2S1 normally carries 40 122mm projectiles.



One of the many victims at Multa Gap, a BRDM-2 equipped with a 14.5mm KPVT machine gun in the turret. Notice the Toyota pick-up underneath the BRDM.



The ambulance version of the YW531 is the YW750. This ambulance is camouflaged and is armed with a 12.7mm machine gun.

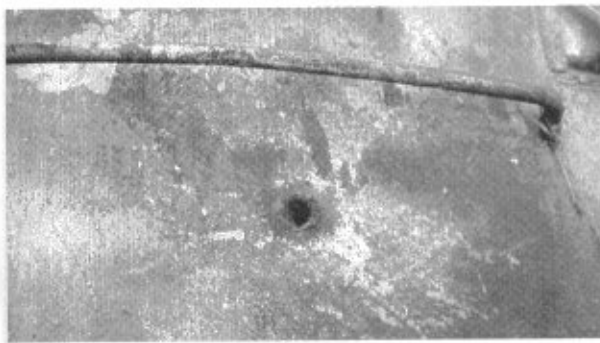


A Type 63 armored personnel carrier that will never reach Iraq. Often referred to as YW531, this vehicle has a crew of four and can carry 10 fully equipped infantrymen. Due to its cheap price, this Chinese built APC is being used in many countries.



On the road to Safwan, a Brazilian-made EE-11 Urutu armored personnel carrier of the 30th Infantry Division got bogged down in the sand and abandoned by its crew. The Iraqi army had more than 200 Urutus in service, some fitted with the 90mm gun turret. This EE-11 is in APC configuration and is only armed with a 12.7mm machine gun and a 7.62mm machine gun. Notice the snakehead emblem painted behind the front wheel well.

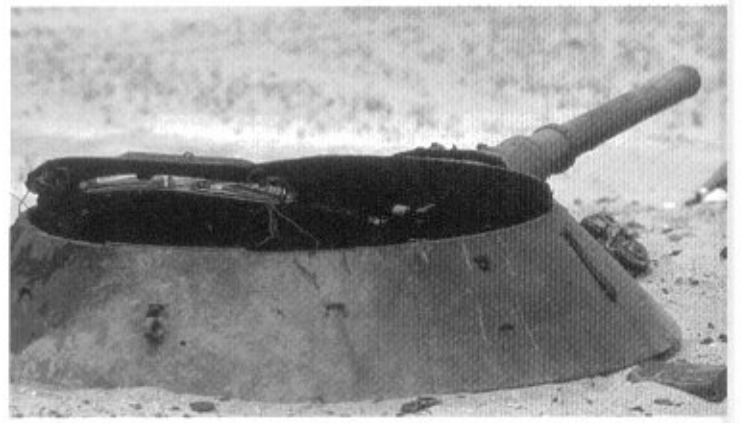




Effects of the A-10A gatling gun on T-55s and YW531. The 30mm projectiles can penetrate their armor easily.



A ZSU-23-4 self-propelled anti-aircraft gun and a SA-9 low-altitude SAM system of an air-defense unit being put out of action by U.S. warplanes they were supposed to shoot down. (SIRPA)



T-69, MT-LB, BMP-1 turrets blown off easily on Soviet designed tanks and armored personnel carriers when hit by direct fire.



A19 tagged north of Kuwait City near the Sabriya oilfield.



A T-55 tagged by the 1644th Transmission Unit. Most of the time, the taggers on Iraqi vehicles might not be the units that captured or destroyed them.



A T-59 sold for STP200 at the Multa Gap.



T-55 tagged by the U.S. engineers at Multa Gap.



A BRDM-2 with lots of tags at Multa Gap. This was the place where hundreds of U.S. soldiers went and look for souvenirs, even though the place was full of cluster bombs.



A T-59 of the 11th Infantry Division abandoned in the center of Kuwait City, tagged by the Kuwaiti resistance.



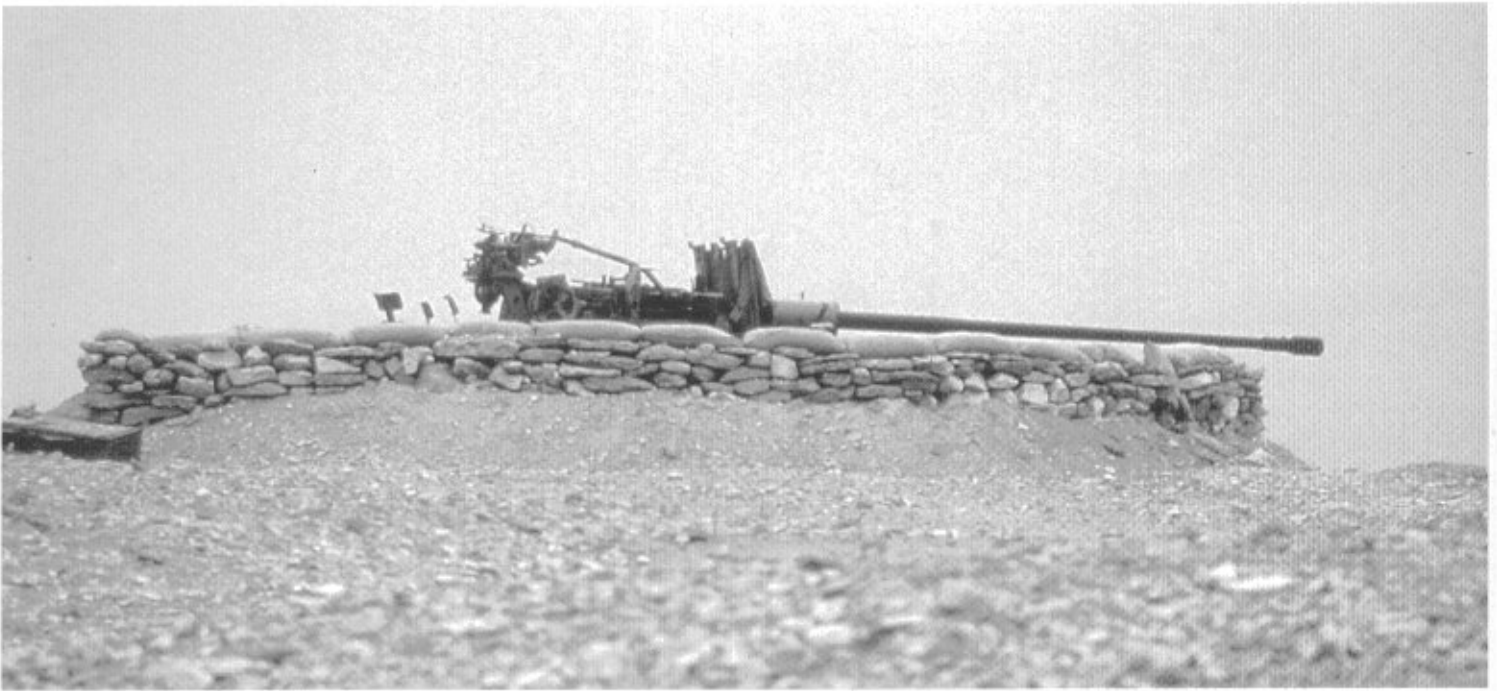
A column of tanks and trucks got caught by U.S. warplanes on 27th February, 1991.



Most of the time, the Iraqis didn't turn on their Gun Dish radar for fear of detection by Allied warplanes. However, the ZSU-23-4 Shilka self-propelled anti-aircraft gun was still effective against Allied warplanes even without its radar due to the high rate of fire.



T-55 with applique armor abandoned on the Kuwait City-Qasr highway. This T-55 belonged to the 14th Infantry Division.



A 57mm S-60 anti-aircraft artillery position abandoned near As Salman air base. (SIRPA)



Iraqi 122mm field gun D-74s destroyed by Allied counter-battery. The D-74 was used primarily in support missions by the Iraqis. The D-74 has a maximum range of 24,000m and is operated by a crew of ten. It can be towed by the AT-L, AT-S, Ural-375D or the Tatra 813 tractors.



An Iraqi artillery position belonged to one of the artillery battalions of the 19th Infantry Division.



Shelters for the artillery crew and shells. These positions were overrun by Allied forces near Al Fuhayhil. The crew left in such haste that the shells were all over the place.



A 37mm automatic anti-aircraft gun M1939 destroyed in Northern Kuwait. The Iraqi AA fire scored some hits during the early days of the air campaign.



A 57mm S-60 and its tractor destroyed by U.S. warplanes at Multa Gap. In the background can be seen the wrecks of looted cars and trucks.



A 57mm S-60 anti-aircraft gun left intact by its crew in a camp along the Kuwaiti coast at Mina Abd Allah area.



Destroyed W50LA/A (4x4) 3,000kg truck used by the majority of Iraqi divisions for general transport purpose. The W50L series of trucks were manufactured in former East Germany. It has a maximum road speed of 83km/h and a range of 720km.



A destroyed 37mm M1939 anti-aircraft gun that almost made it to the Iraqi border. Before the war, Iraq had about 4,000 pieces of AA artillery that ranged from 23mm to 130mm calibre. Around 60% of these artillery were lost in the war.



GAZ-66 truck of a parachute unit in a bomb crate. If required, the vehicle can be fitted with a tarpaulin cover.



Wrecks at the Mutla Gap. Among them two W50LA/A transport trucks and another one in shop-repair version. These trucks belonged to the 11th Infantry Division.



A GAZ-66 got stuck on its way to Basra and quickly abandoned by its crew. The GAZ-66 has a range of 875km and a maximum road speed of 95km/h.



A LKW 6t truck of the 11th Infantry Division struck a signal light post at the port entrance of Kuwait City. One must wonder how this could have happened.



A shop-repair version of the LKW 6t truck. Note the special camouflage pattern.



GAZ-66 NBC decontamination vehicle abandoned at Multa Gap. The vehicle appeared intact, apparently abandoned by its crew.



The ZIL-131 (6x6) 3,500kg truck was used by the Iraqis for transporting cargo, personnel and as the tractor for towed artillery such as the 122mm D-30 howitzer. Here, a ZIL-131 truck and a D-30 artillery destroyed along a highway leading away from Kuwait City.



A Soviet-built ZIL-151 (6x6) 2,500kg truck in shop-repair version on a naval base in southern Kuwait. The base was full of cluster bombs, continuously bombed until the last day by U.S. warplanes.



Iveco Magirus 75-13 AWM (4x4) 2,500kg truck (formerly Magirus-Deutz model 130M7FAL) in ambulance version. The former West Germany, like the former East Germany, sold a large number of trucks (4x4, 6x6) to Iraq.



GAZ-66 truck of a parachute unit (note the parachute logo on the door) left intact in the Kuwaiti desert. Even elite unit evacuated without giving a fight.



Toyota 4x4 trucks were used extensively by the Iraqi army. Also in widespread use were the UAZ-469B jeeps. The Iraqis captured many 4x4 vehicles during the invasion of Kuwait and turned them into liaison vehicles. This Toyota wreck was found near Salwan area.



A Soviet-made UAZ-469B (4x4) 600kg jeep, a successor of the GAZ-69 jeep that equipped most of the former Warsaw Pact countries. The Iraqi army had thousands of this vehicle, and large quantity can be found abandoned in the desert in good conditions.



GAZ-66 truck hit by sub-munitions of a U.S. cluster bomb.



Aerial view of Multa Gap, the Highway of Death, where hundreds of Iraqi military vehicles, looted commercial vehicles and private cars litter the highway. Allied tank busters attacked with devastating effect. (SIRPA)



W50 trucks destroyed at Multa Gap. It was very surprising to see so many different units mixed in the same area.



LKW 6t truck used as improvised storage and repair shelter. This hastily built wooden shelter sometimes acted as dormitory for the Iraqi soldiers.



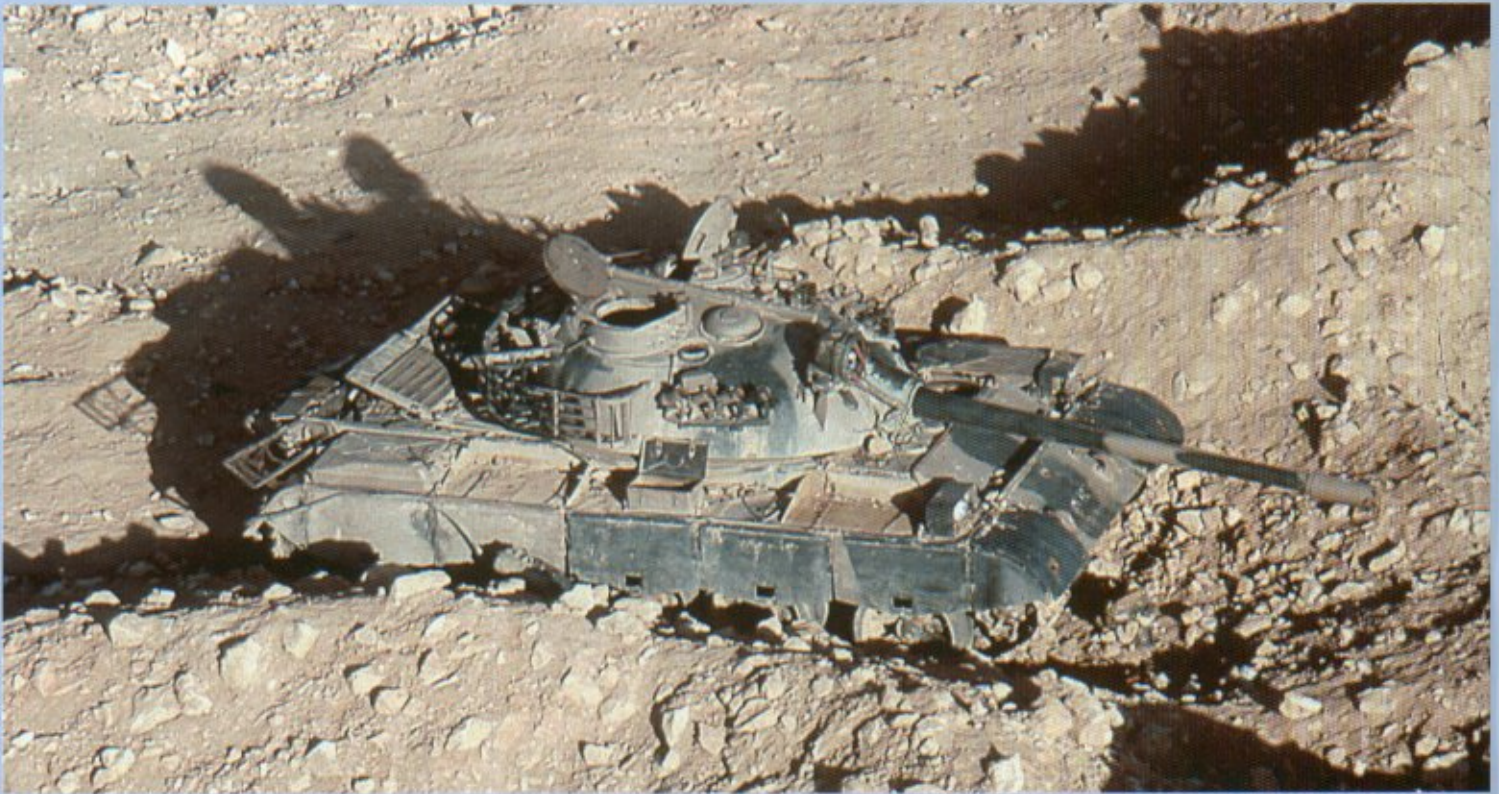
Multa Gap is a perfect example of an army without any order or discipline. The Iraqis tried to escape with whatever vehicles they could find, and filled the vehicles up with whatever they could loot in Kuwait. These demoralized Iraqi units that were stationed in Kuwait were consisted mainly with reservists and regular servicemen, more concerned to save their lives than to fight for a foreign country. Allied warplanes caught up with the fleeing convoy at Multa Gap and turned that area into a killing field.



A destroyed T-59 near the Al Birgan oilfield area. This T-59 is fitted with the KMT-6 mine plough and belonged to an assault engineer company of the 1st Mechanized Division.



An AT-69 of the 51st Mechanized Infantry Division equipped with a German laser rangefinder seen south of Ar Rawadatayn oilfield area.



A brand new T-59 of the 45th Infantry Division deserted by its crew near the road leading from As Salman to the Saudi border. This division had 8,000 men, 40 tanks and 3 artillery battalions with 122mm, 132mm and 152mm artillery pieces. Of this total strength, 4,500 men were taken prisoner, while all the tanks and artillery were either destroyed or captured.



A BMP-1 infantry combat vehicle of a mechanized division near Sabriya oilfield. AT-3 Sagger missiles and 73mm shells were all over the place.



A green/tan camouflaged T-55 abandoned in perfect condition outside Kuwait City. Along the highway leading to Basra, some Iraqi camps were built. When the Iraqis tried to escape north, they often left their vehicles, equipment and weapons behind.



A Chinese-made T-69 knocked out by U.S. warplane. Note the laser rangefinder on the turret, above the 100mm gun.



The charred remains of a T-59 after receiving a direct hit from U.S. A-10.

A ZSU-23-4 Shilka destroyed south of Kuwait City. The main armament of the ZSU-23-4 is comprised of four AZP-23 23mm cannon that has a cyclic rate of fire of 800 to 1,000 rounds per barrel per minute. (SIRPA)





A GAZ-66 (4x4) 2,000kg truck of a Special Force brigade attached to the 11th Infantry Division based near Al Fintas, around 20km south of Kuwait City. Note the camouflage scheme, often used by the special units. In this camp, the author found equipment of a Republican Guard unit, a large quantity of infra-red binoculars, and a pile of boxes of SAM-7 missiles.

A Romanian-made LKW 6t truck (4x2) deserted by its crew. This is a different version of the TV-51 having a maximum road speed of 100km/h.



A camouflaged MT-LB of the 45th Infantry Division abandoned in good condition. A French soldier is searching the vehicle for booby-traps. (SIRPA)



An uparmored T-55 of the 14th Infantry Division left behind by its crew on the Kuwait City-Qasr highway.



Tagged by various units, this command post version of Panhard M-3 APC/VPC destroyed at Mutla Gap, has been thoroughly searched by souvenir hunters.



A ZSU-23-4 Shilka destroyed on the highway to Basra. The Iraqi army had more than 400 vehicles in service before the war.





The S-60 automatic anti-aircraft gun has a 57mm calibre and is operated by a 7 men crew. It has a cyclic rate of fire of 120rpm and a maximum range of 12,000m (SIRPA)

ACRV (Artillery Command and Reconnaissance Vehicle) minus its tracks. These vehicles were assigned to Iraqi 2S1 and 2S3 self-propelled artillery batteries as battery fire direction center and command vehicles.



2S1 122mm self-propelled howitzer knocked out and tagged near the Multa Gap





An Egyptian manufactured FAHD armored personnel carrier captured by the Iraqis and turned into a mobile pillbox guarding the water-front in Kuwait City. This FAHD was designed by Thyssen Henschel with a French Creusot-Loire TLI turret, and armed with twin 7.62mm machine guns. The FAHD is amphibious and can carry twelve infantrymen plus a crew of two.



An ammunition outpost for artillery positions.



Marking of an Iraqi infantry division.



Marking of an Iraqi Republican Guard division.



Marking of an Iraqi Special Force brigade.



An Iraqi T-69 tank still burning after an air attack. The tank belonged to the 45th Infantry Division and was guarding a radar site near the border with Saudi Arabia. (SIRPA)



A Soviet-built 122mm 2S1 self-propelled howitzer of the 1st Mechanized Division disabled near the Al Birgan oilfield. (SIRPA)



A destroyed T-62 of the 37th Armored Division on the coastal road leading to Bubiya. This type of tank remained in front-line service though the Iraqi had a large number of Chinese-made T-69s and the new T-72s.



Weapons and ammunition found at Multa Gap.



SPG-9 73mm and B-10 82mm anti-tank weapons destroyed at Multa Gap.



Even water tankers were not spared at Multa Gap.



A burnt BM-21 multiple rocket launcher vehicle. The BM-21 consists of a standard Ural-375D (6x6) truck chassis fitted with a 40-round rocket launcher at the rear of the hull. The 122mm rockets can either be fired singularly or in a salvo.



ZIL-131 (6x6) truck overturned by a bomb.



SS-N-2 Styx anti-ship missiles found on a naval base south of Kuwait City. This missile equipped the Osa class missile boats.



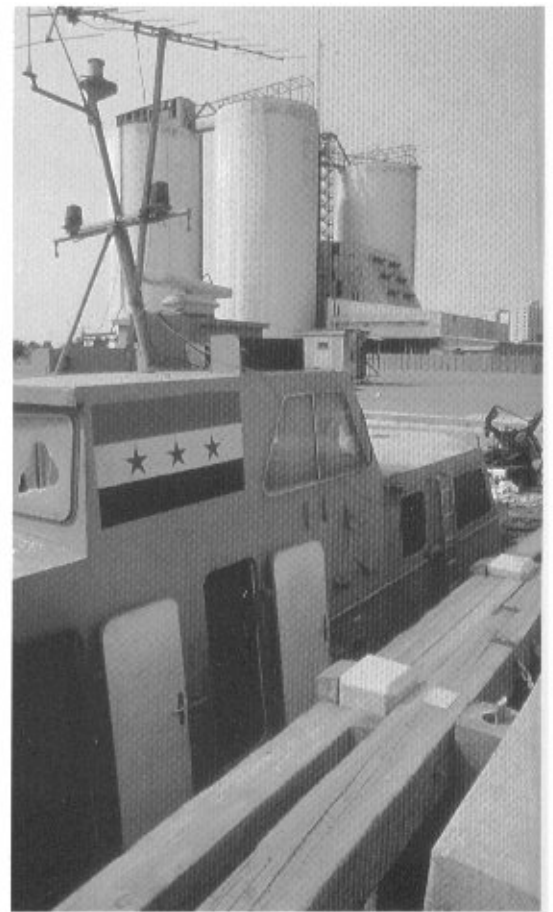
The Iraqis often fled Kuwait with truckloads of weapons. This unlucky truck was carrying a Yugoslavian M55 20mm anti-aircraft gun when it was hit by Allied tank-busters.



The Soviet F-1 fragmentation grenades can be found everywhere in the desert.

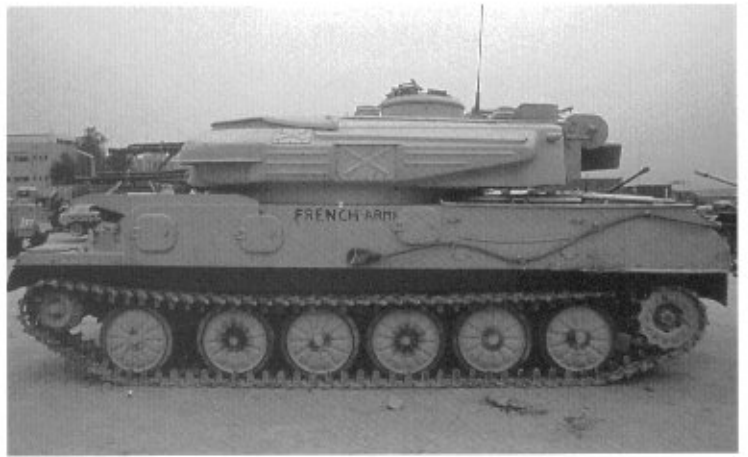


Two BM-21 multiple rocket launcher vehicles captured by the French Army. The Iraqi army had around 100 BM-21s in service before the Gulf War.



A Kuwaiti patrol boat captured by the Iraqis during the invasion and put into their own use. A ZPU-4 14.5mm machine gun was installed by the captors for added firepower.





A ZSU-23-4 Shilka self-propelled anti-aircraft gun captured at Kuwait City. Although introduced in the 1960s, the Shilka is still an effective anti-aircraft system against modern jets when operated by a well trained crew.



A BAZ-135L4 (8x8) chassis being used as tractor-erector-launcher (TEL) for FROG-7 (Free Rocket Over Ground 7) surface-to-surface tactical missile system. The warheads include nuclear, chemical, conventional high explosive, and cluster munition. Though Iraq did not possess nuclear warheads during the Gulf War, it had in service large quantities of chemical warheads.





A trailer full of Soviet LPO-50 manpack flamethrowers was destroyed at Multa Gap. The flamethrowers were mainly used by sapper units and has a range of 50/70m.



An IMR (Inzhenernaia Mashina Razgrazhdeniia) combat engineer vehicle captured in good condition by the French Army. The IMR is an engineer vehicle for obstacle-clearing based on the T-55 chassis.



Erector-launcher for the Chinese-made Silkworm coastal defense anti-ship missile. Two Iraqi coastal artillery units were equipped with this type of missile. One unit was based at Al Fuhayhil, south of Kuwait City; the other was based on the island Jazirat Faylaka.

A captured T-62 dismantling from a French Army trailer. Notice the Panhard M3/VAT repair vehicle in the background.





A brand new 2S1 122mm self-propelled howitzer left in the suburb of Kuwait City with only 23km in the odometer.



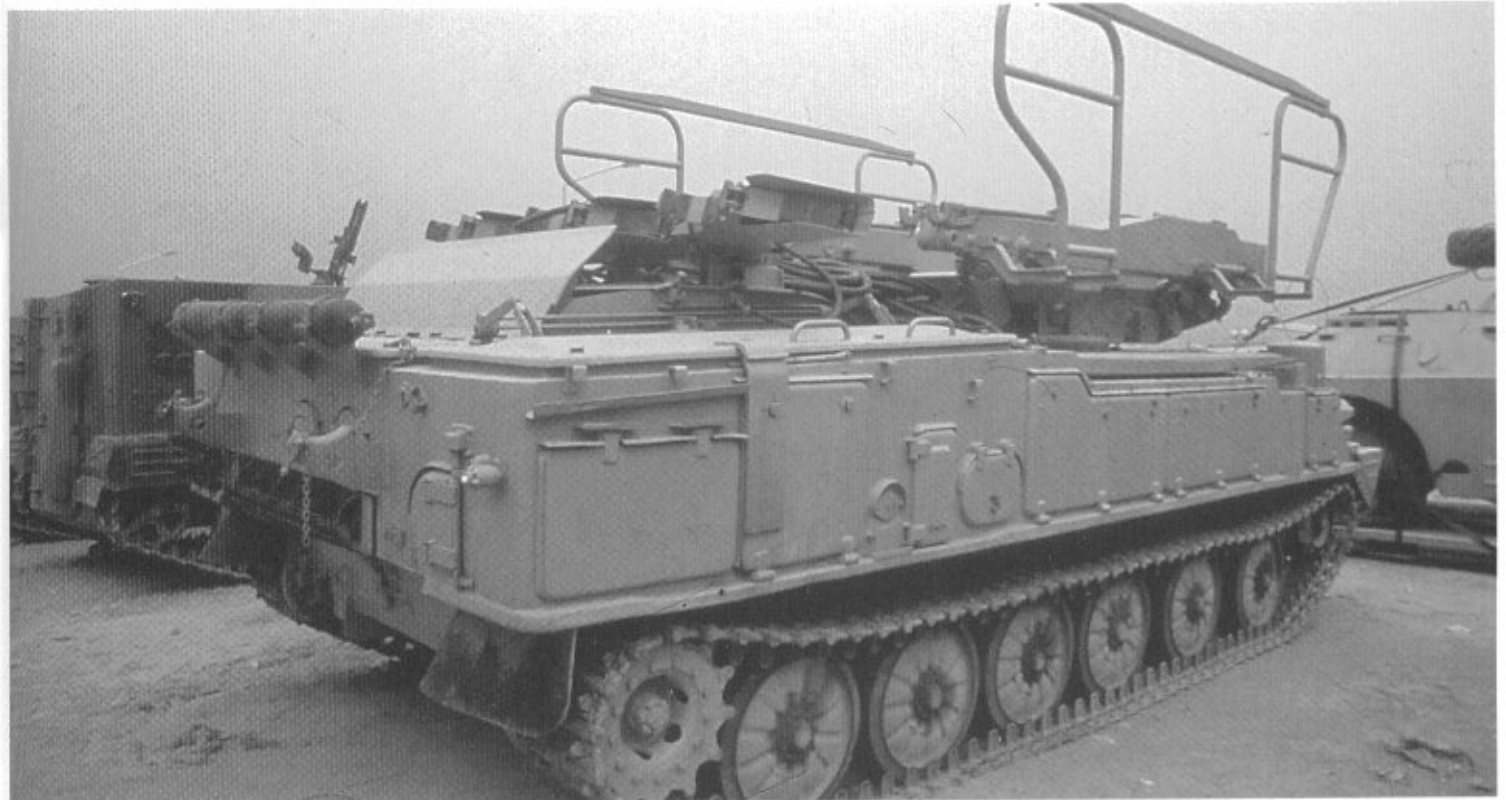
A Type YW701 command post vehicle and a Type YW750 armored ambulance captured by the French.



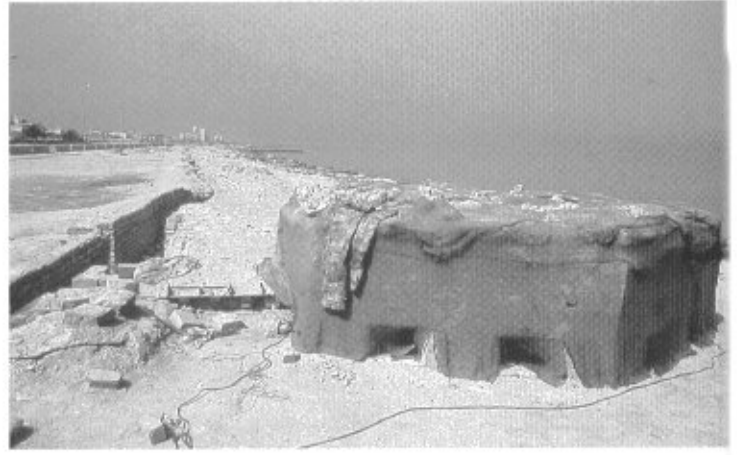
MT-LB engineer vehicle with a plough blade mounted on the roof.



MT-LB multi-purpose tracked vehicle in armored personnel carrier configuration.



SA-6 Gainful surface-to-air missile system SPU in French Army's possession. The launcher vehicle carries three SA-6 low to medium altitude surface-to-air missiles. Each battery consists of one Straight Flush radar vehicle, four SA-6 SPU launcher vehicles and two ZIL-131 TSM reload vehicles. Iraq had about 100 SA-6 systems in service before the war.



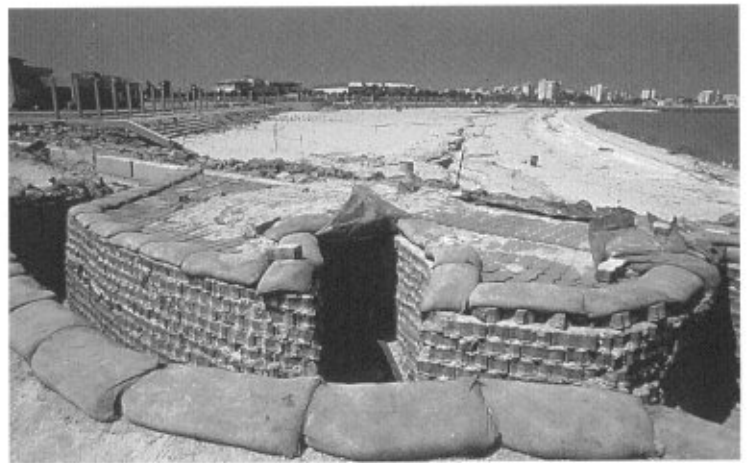
Iraqi bunkers along the coastline of Kuwait City.



BMP-1 infantry fighting vehicle. The turret of the BMP-1 houses a 73mm model 2A28 smoothbore gun, with a 7.62mm PKT machine gun mounted coaxially. Mounted over the 73mm gun is a launcher for the AT-3 Sagger wire-guided ATGW. Eight infantrymen can be carried in addition to a crew of three.



Iraq had about 500 of the 57mm S-60 automatic anti-aircraft gun before the war.



Trenches reinforced with concrete and bricks.



Some bunkers have machine gun apertures, designed to fortify the beachhead in case of a frontal assault from the sea.



A destroyed bunker in Kuwait City.



BTR-50PK armored personnel carrier used in large quantities by all the Iraqi infantry divisions.

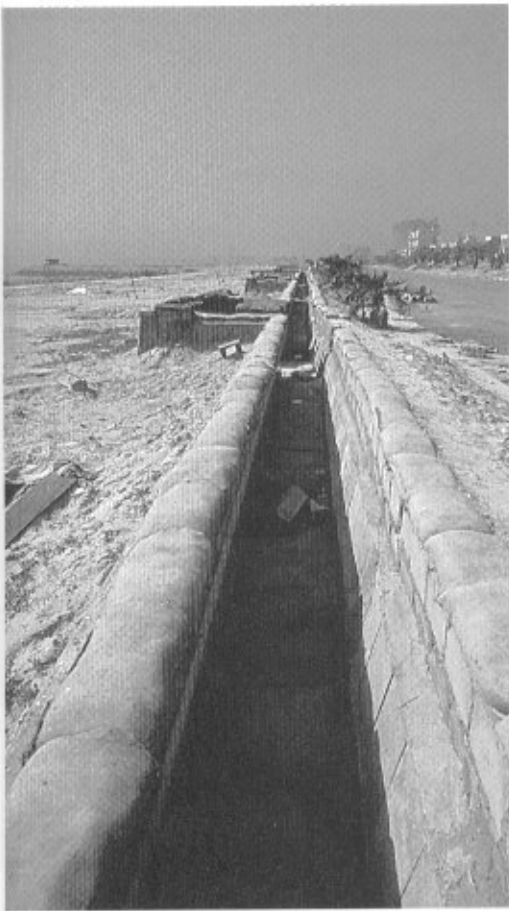


A trench 5km long and filled with petrol oil, intended to be set on fire in case the Coalition forces moved into Kuwait. This never materialized as the defenders chose to run away rather than to turn the trench into a flaming oil barrage. This trench was located 50km from the Saudi border.



Barbed wires and barricades integrated with anti-personnel mines defending the sandy beaches of Kuwait City, awaiting the amphibious assault that never came.





Different views of Iraqi's line of defense in Kuwait City water-front. Trenches were made of cement and sand bags, with barbed wires and barricades further off on the beach mingled with anti-personnel mines.





An artillery position in Kuwait City, linked by trenches to other positions.



Iraqi barracks built from wood constructions stolen from oil refineries.



The main depot of the 37th Armored Division, located not too far from the Kuwait International Airport. Little was protected against bombardment. When the Allied troops arrived, they found a huge amount of brand new equipment.



An Iraqi shelter that offers little protection against bombing and mortar shelling.



An apartment building at the waterfront in Kuwait City used as command post for an infantry battalion. The Iraqis had turned this building into a fortification. Note the sandbags and bricks on the windows, leaving only apertures for machine-guns. The red circles on the walls are divisional markings.



The tarmac of the international airport at Kuwait City, a week after the liberation by the Coalition forces. Aircraft wrecks can be seen on the tarmac.



An Iraqi campsite after the occupants surrendered.



An example of protection of bunkers against rockets and anti-tank missiles.



An abandoned Republican Guard unit camp near Kuwait City.



Many restaurants and buildings in Kuwait City were turned into some sort of bunkers and fortifications by the Iraqis. Many were blown up by the Iraqis when they evacuated Kuwait City.



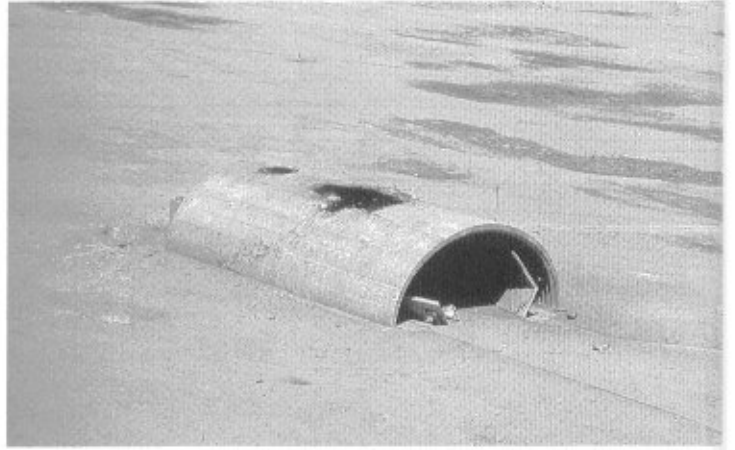
At every cross-road in Kuwait City, the Iraqis established a check-point. The soldiers manning this check-point lived in an Arab tent.



A hardened aircraft shelter destroyed by a French AS-30 laser guided missile.



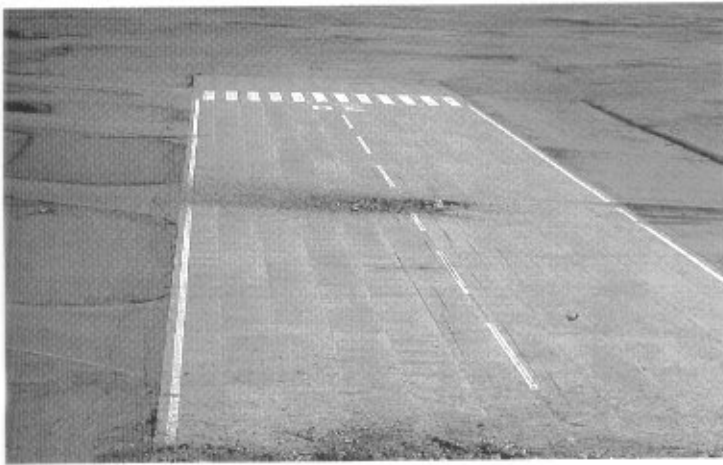
An aerial view of As Salman airbase totally destroyed by U.S. and French warplanes.



This is what a precision bombing can do to a hardened shelter. The French AS-30 laser guided missile entered the hanger through the roof.



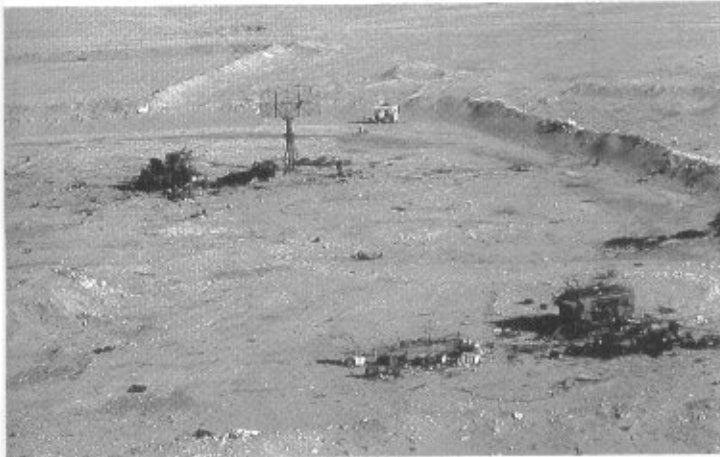
An Iraqi airbase captured by U.S. forces. American helicopters can be seen on the tarmacs.



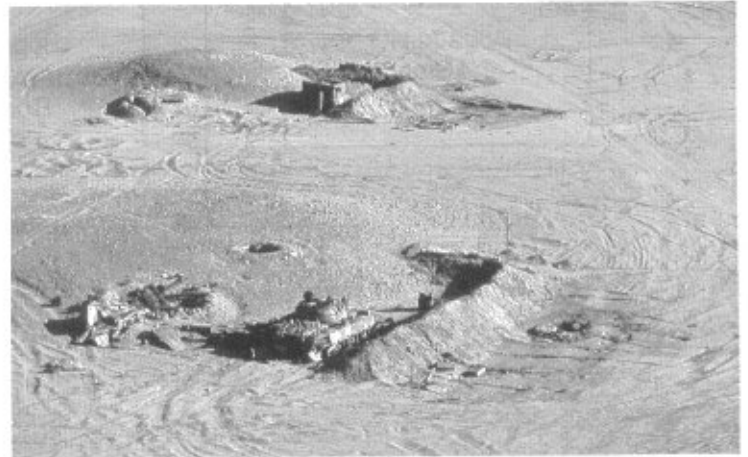
The effects of anti-runway bombs on a runway at As Salman airbase.



250kg bombs found intact in a destroyed hardened aircraft shelter.



An Iraqi radar site in southern Iraq. The early warning Squat Eye radar is still intact, while the Flat Face radar has been destroyed.

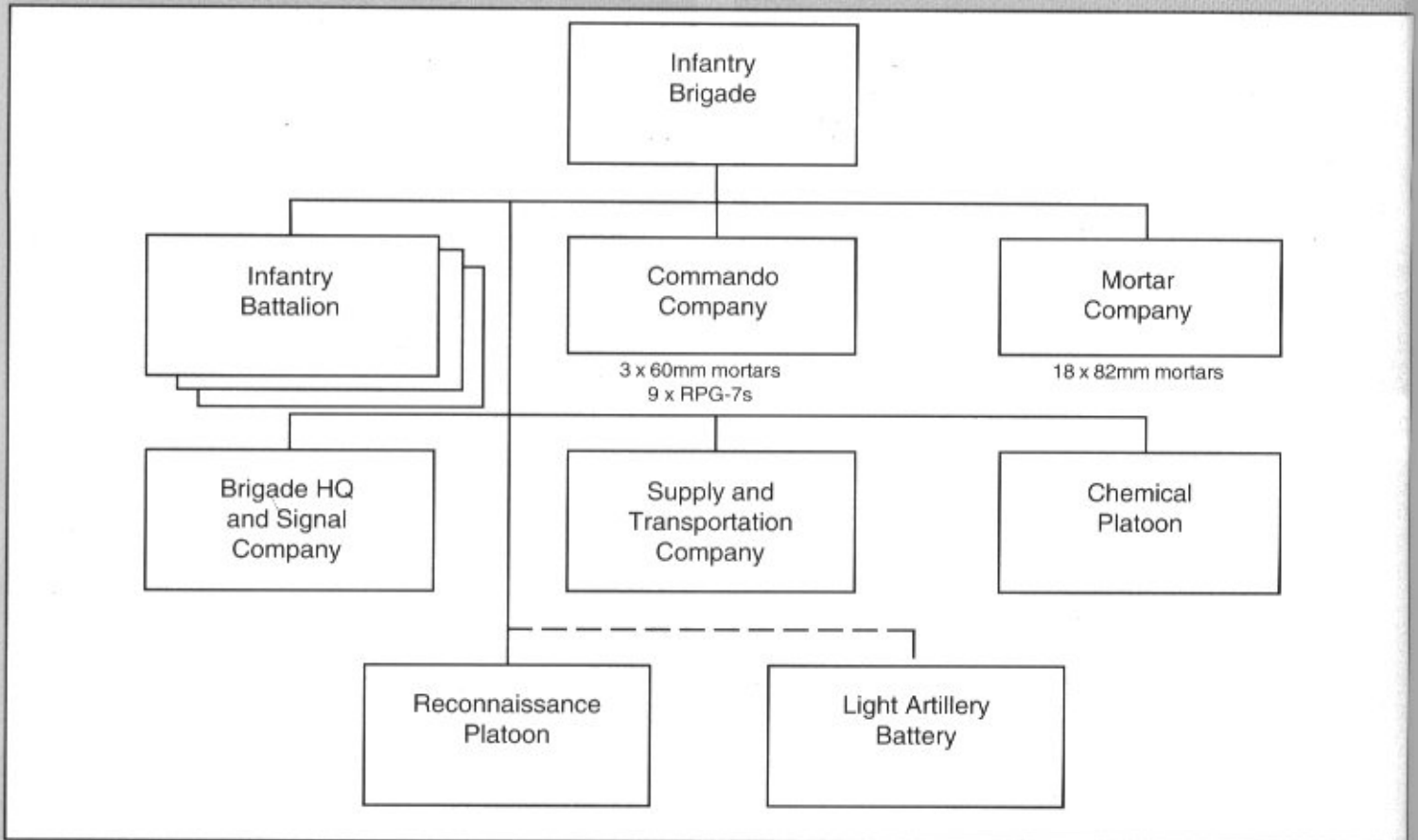


Revetments built according to Soviet doctrine in southern Iraq. The vehicles in these revetments were easy targets for Allied warplanes.

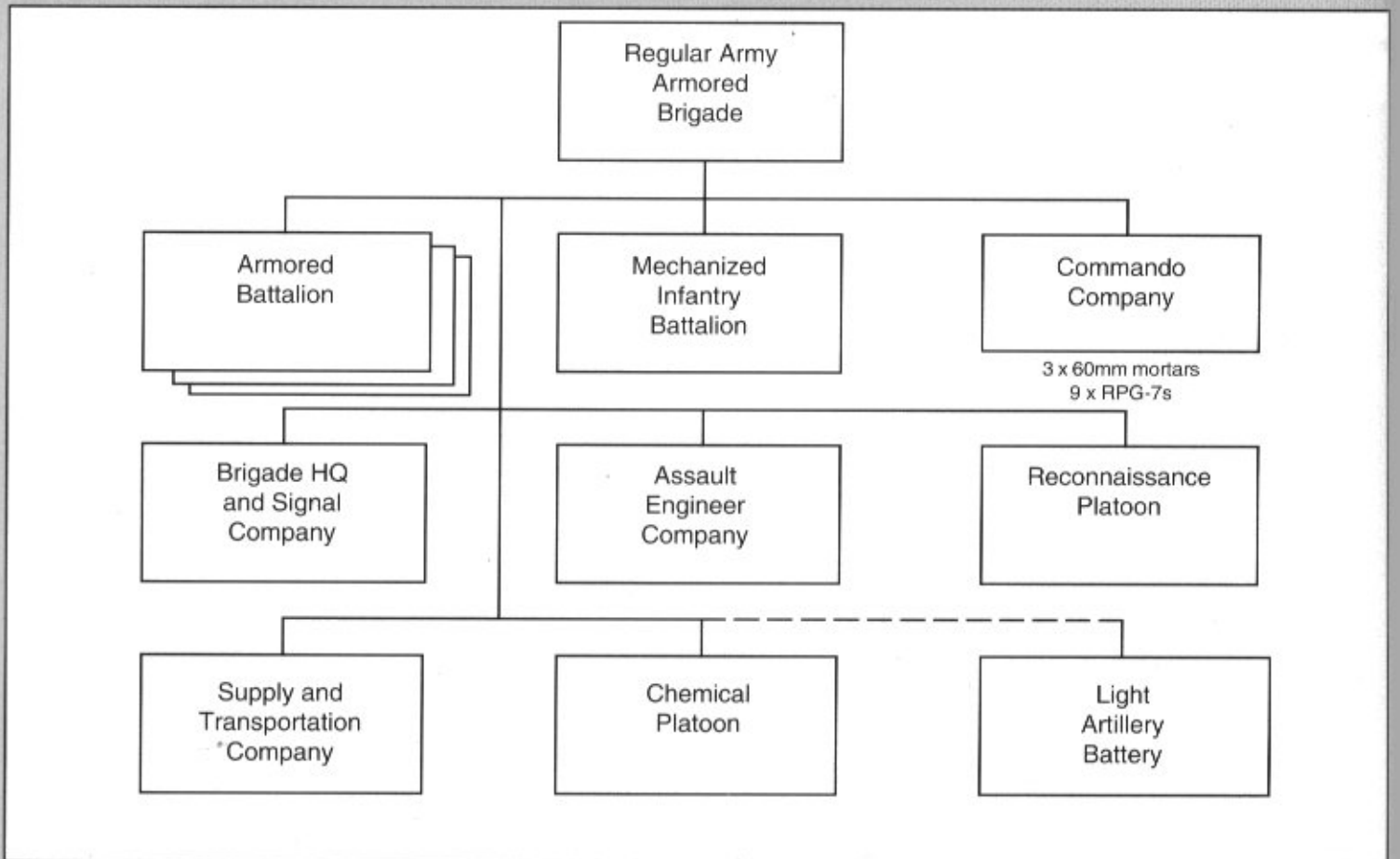


Explosions on As Salman airbase during the advance of the French Division Daguet. (SIRPA)

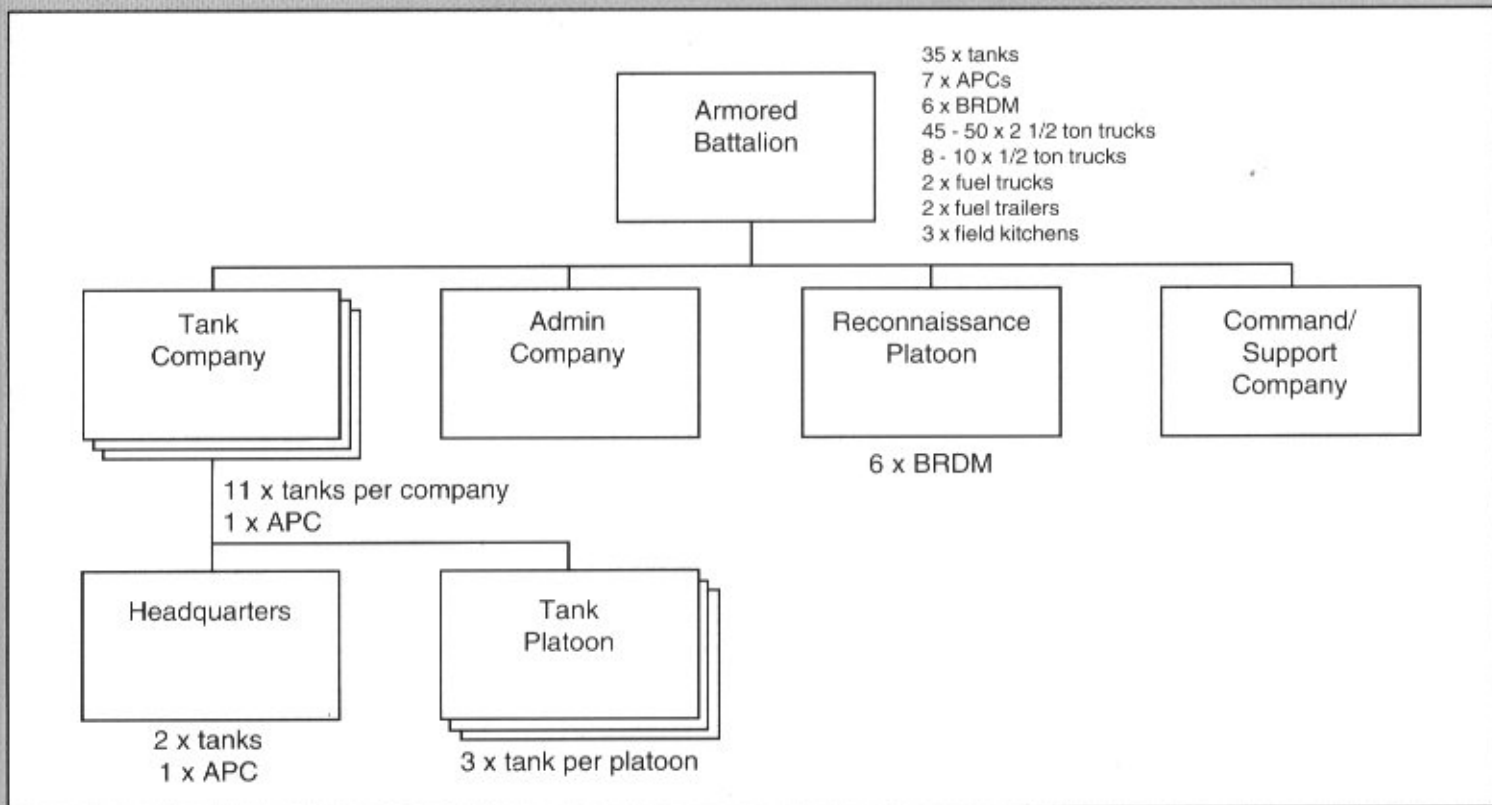
APPENDIX



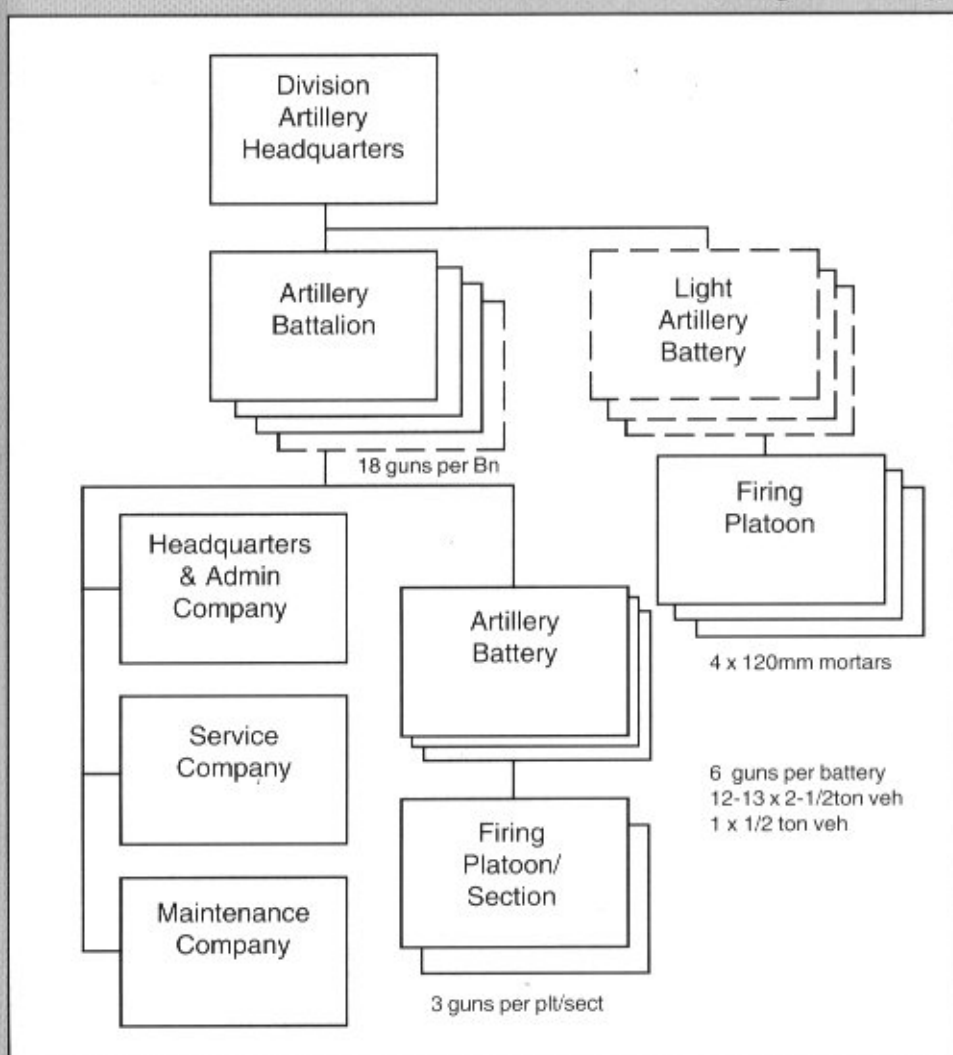
Regular Army Infantry Brigade, Division



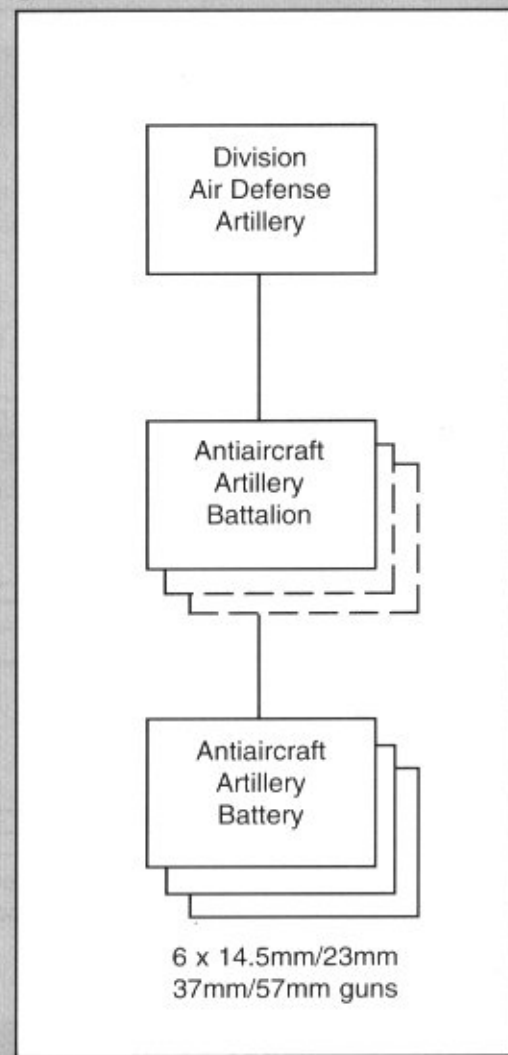
Regular Army Armored Brigade, Division



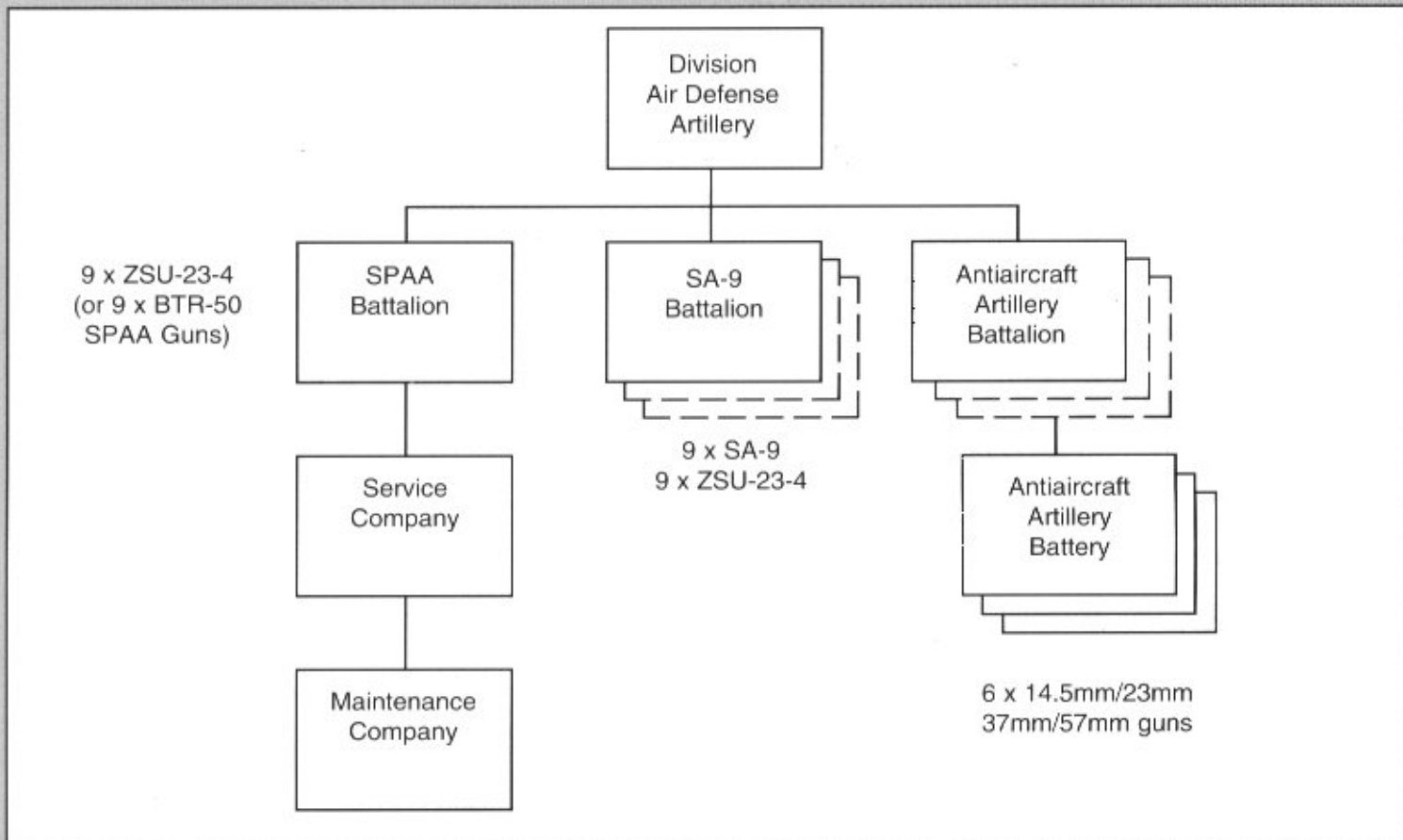
Armored Battalion, Regular Army Brigade



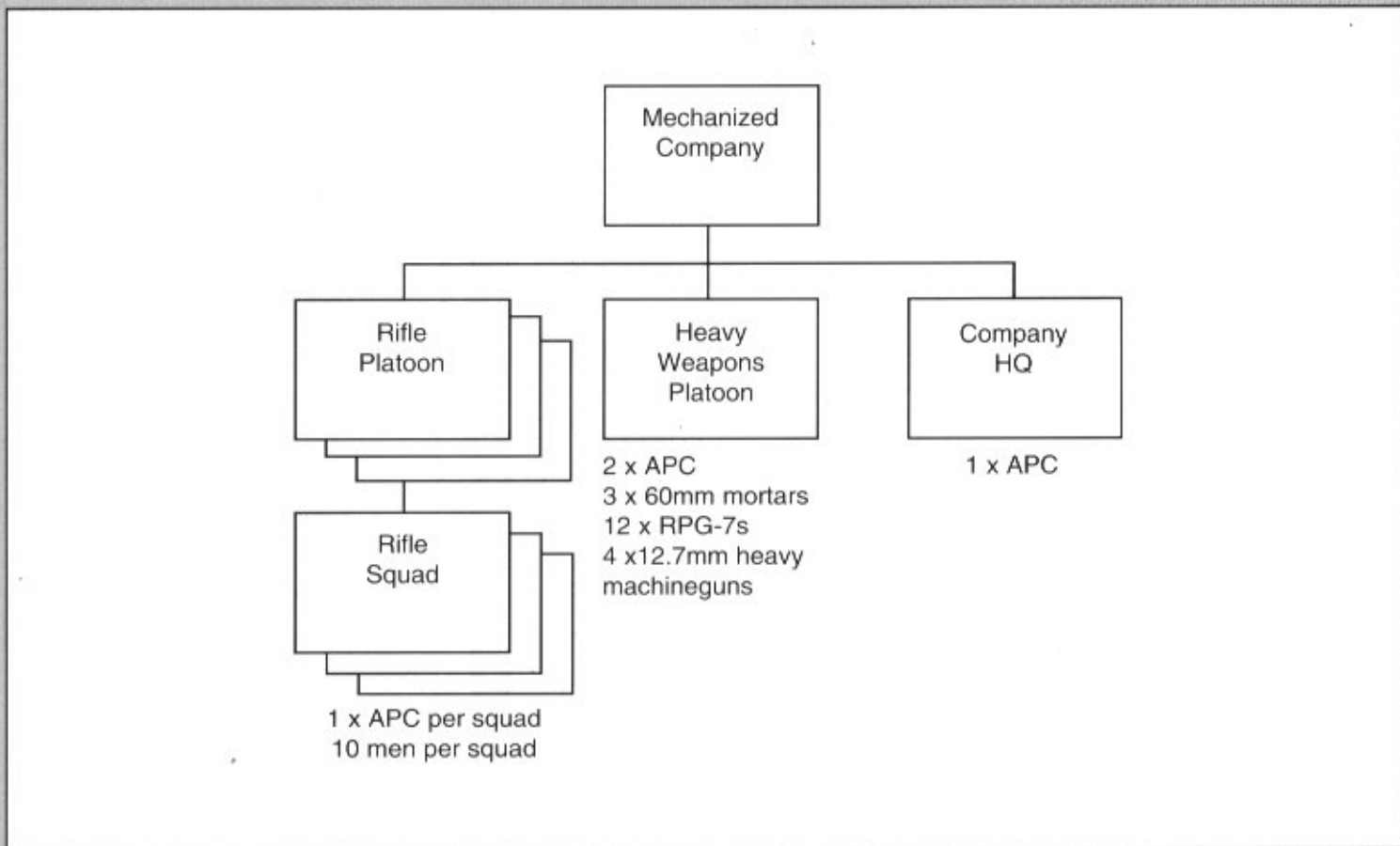
Division Artillery Organization



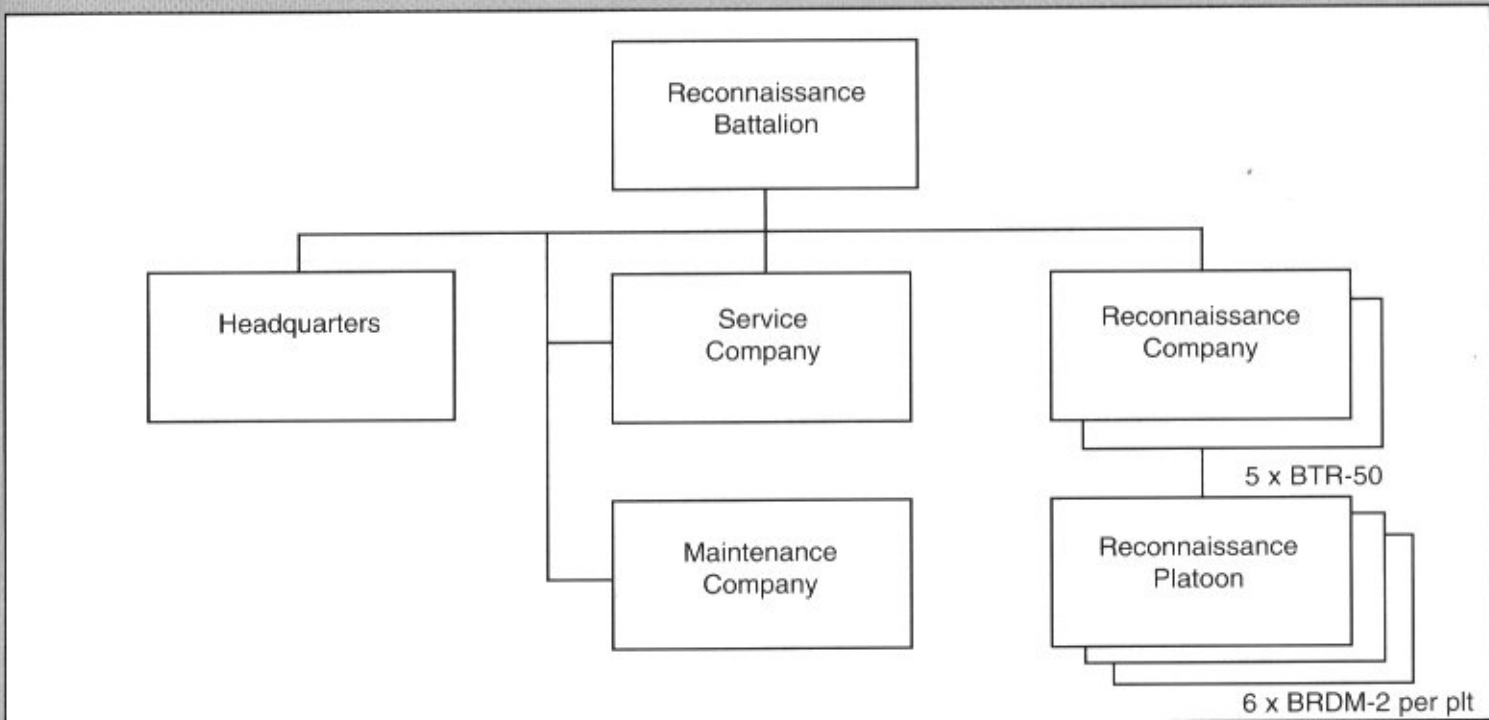
Infantry Division Air Defense



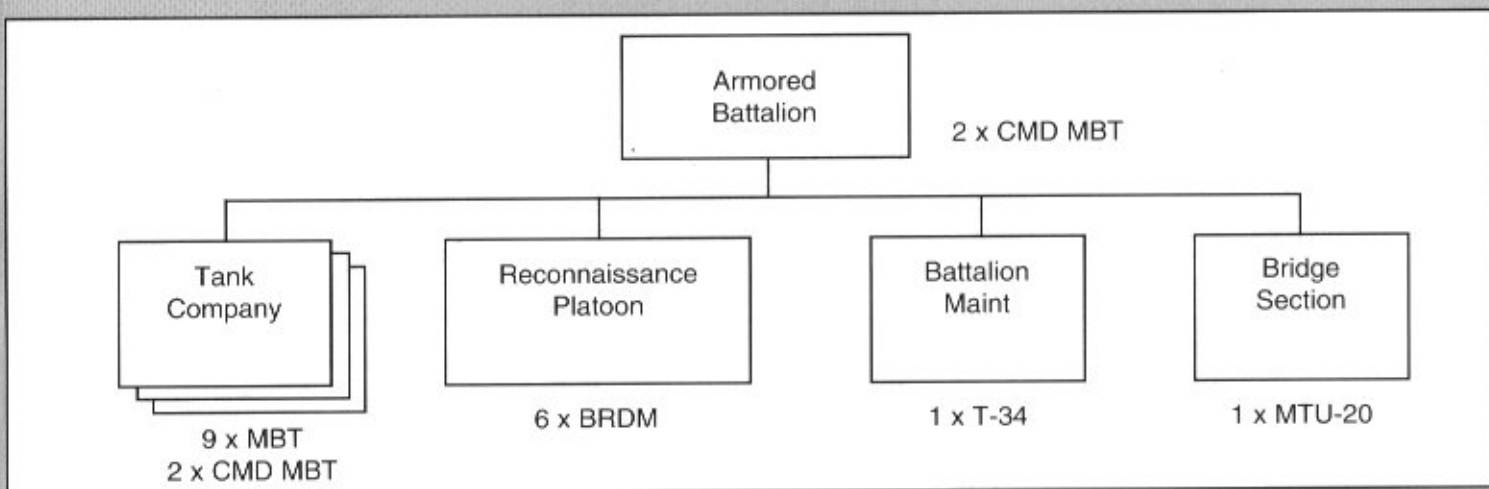
Armored Division Air Defense



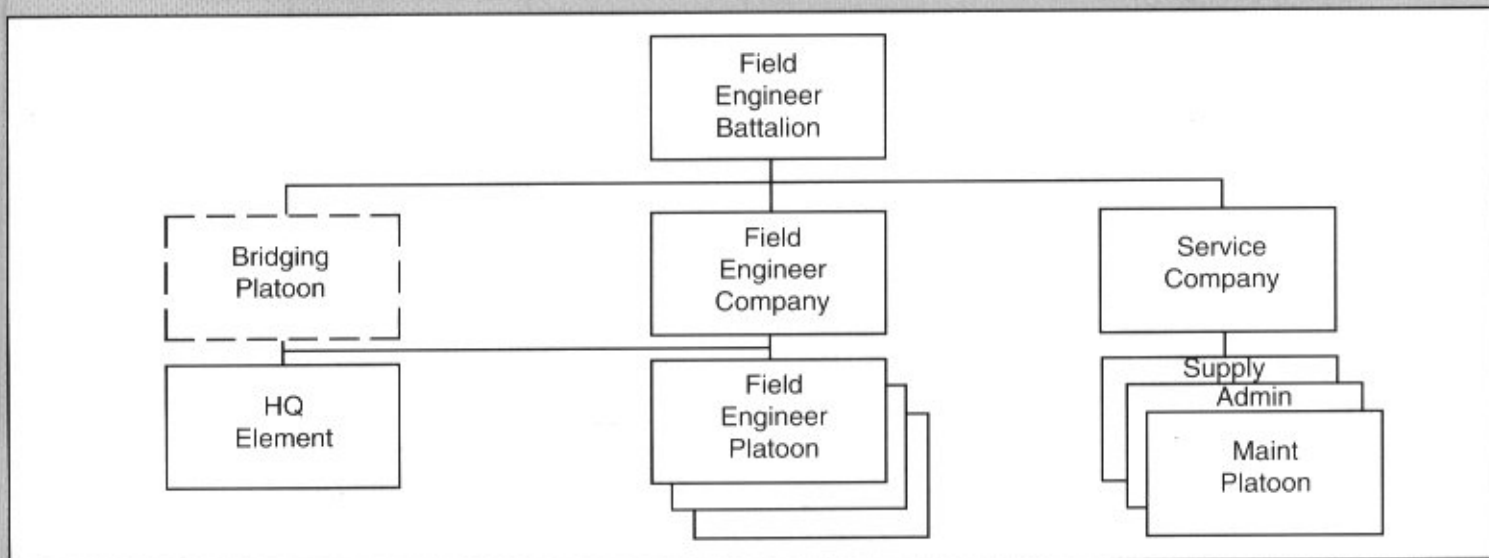
Regular Army Mechanized Company



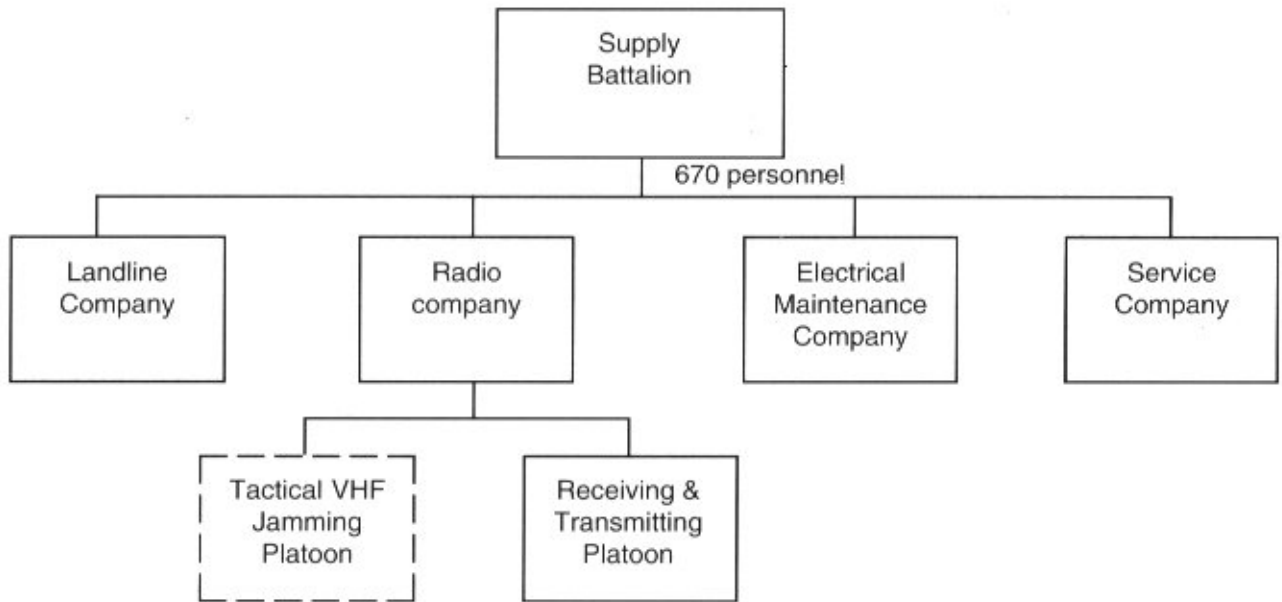
Reconnaissance Battalion, Division



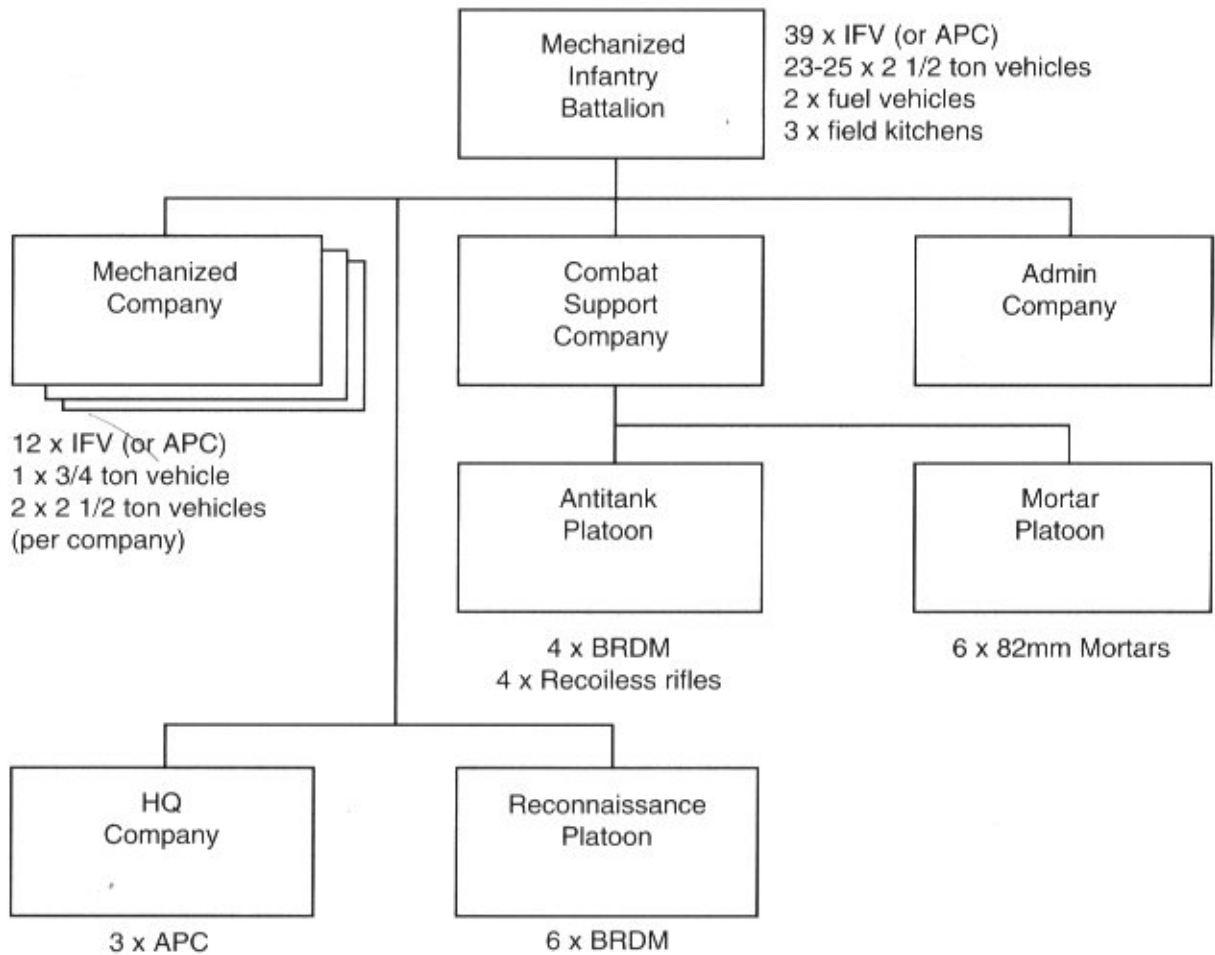
Armored Battalion, Infantry Division



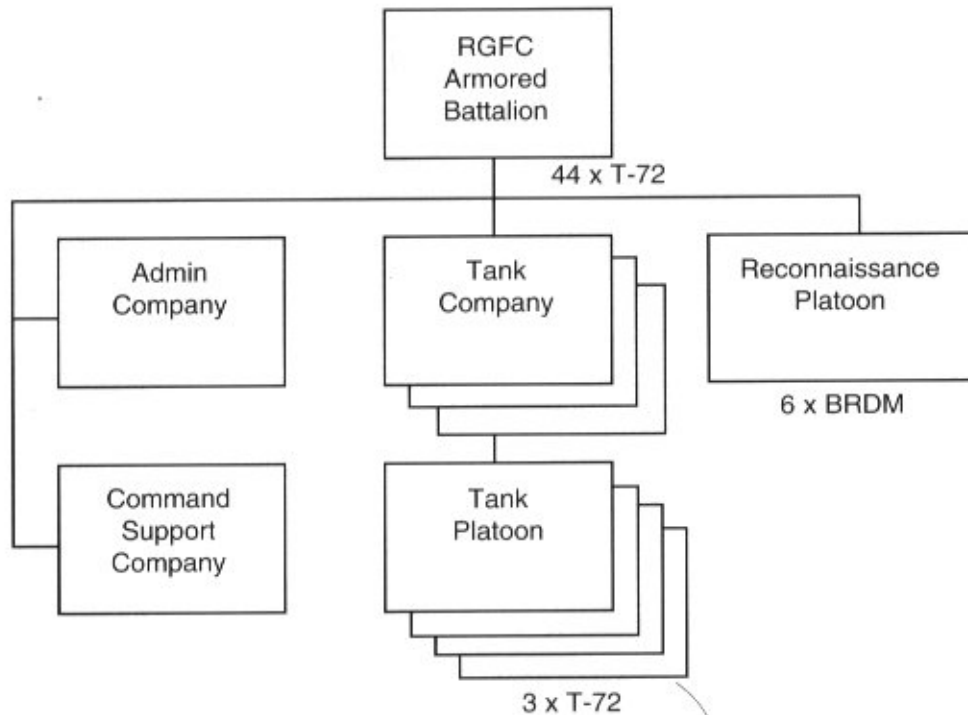
Field Engineer Battalion, Division



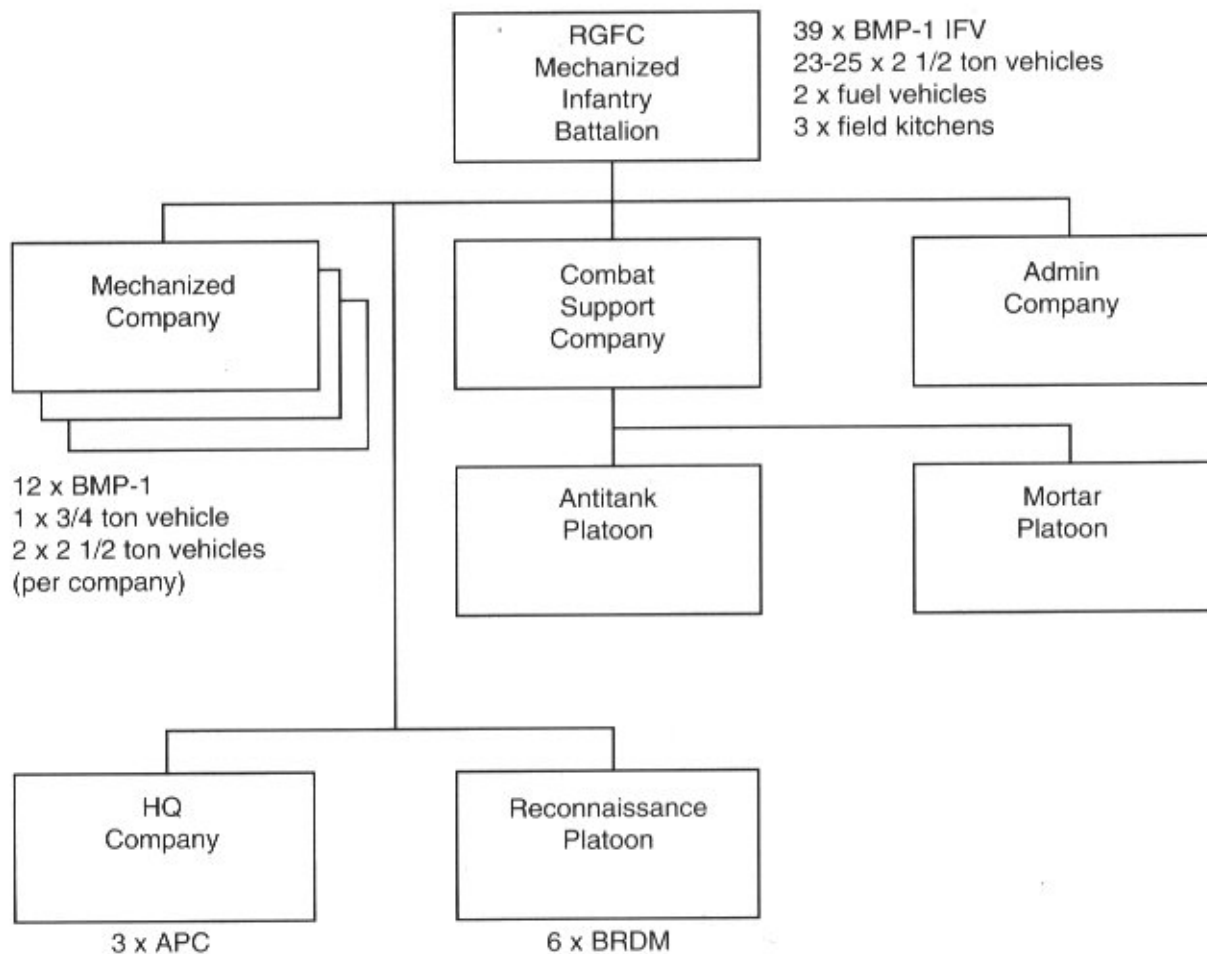
Signal Battalion, Division



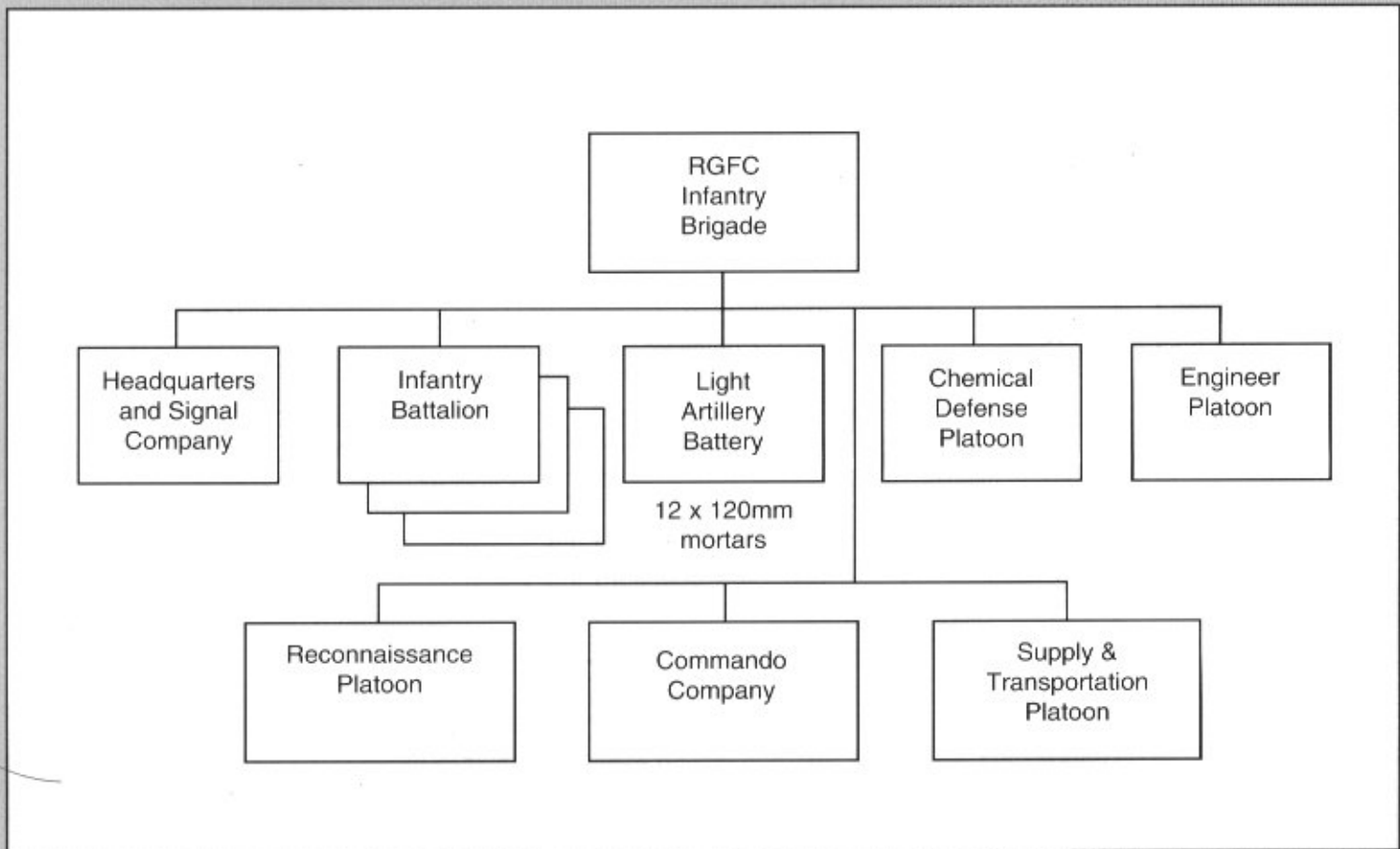
Regular Army Mechanized Infantry Bn.



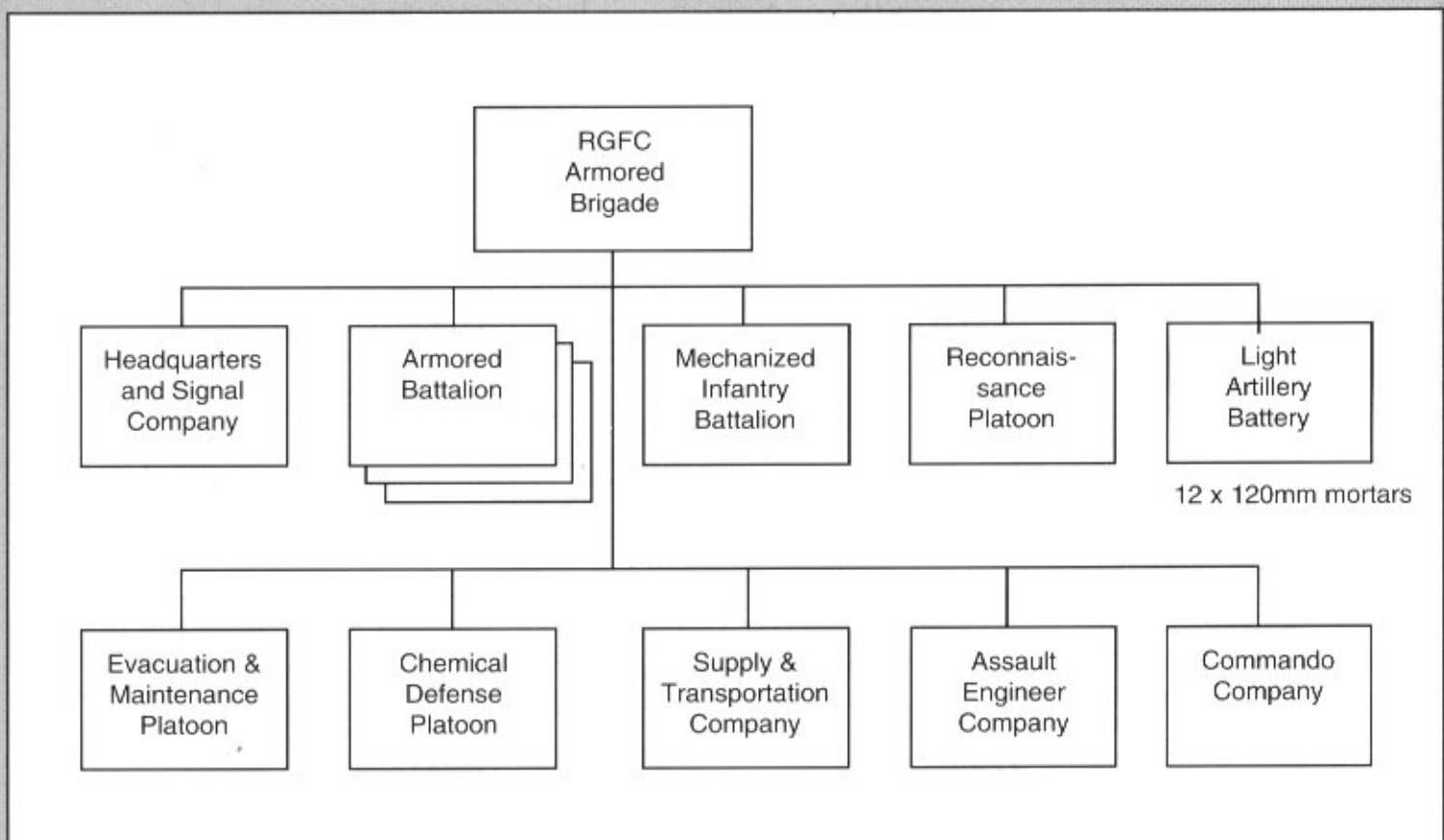
RGFC Armored Battalion



RGFC Mechanized Infantry Battalion



RGFC Infantry Brigade



RGFC Armored Brigade

1:35 Modern AFV Series



3520 SS-1c 'SCUD B'



3502 T-72 G/M



3503 BMP-1



3504 BMP-2



3513 BRDM-2



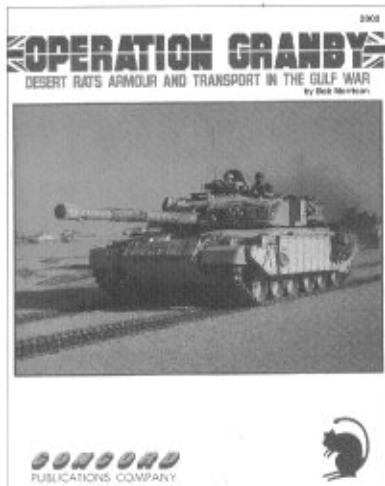
3514 BRDM-3



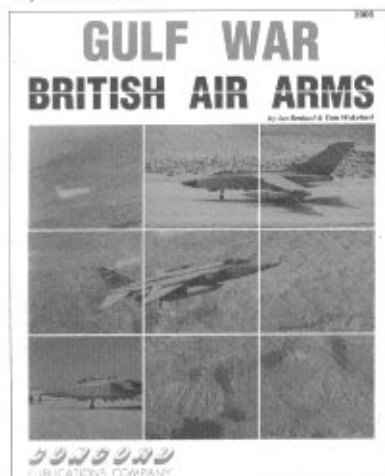
3515 SA-9 GASKIN

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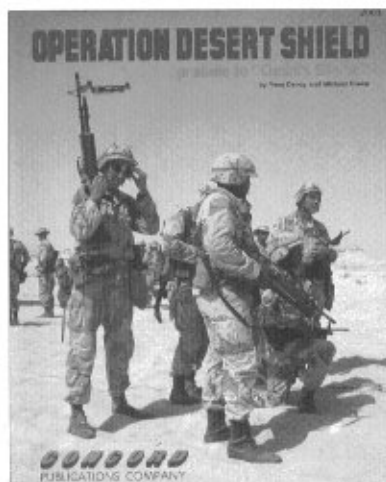
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by Bob Morrison



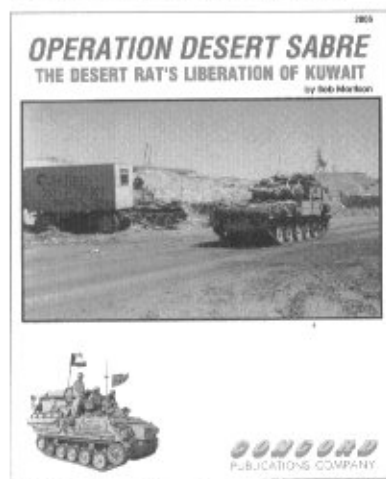
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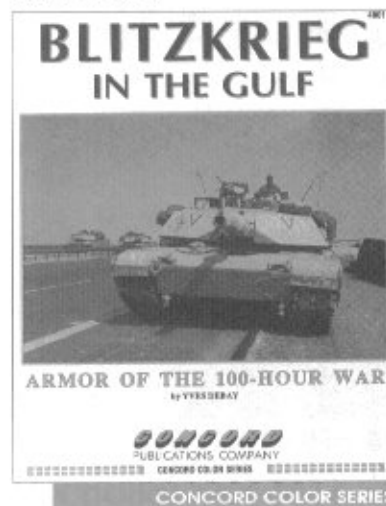
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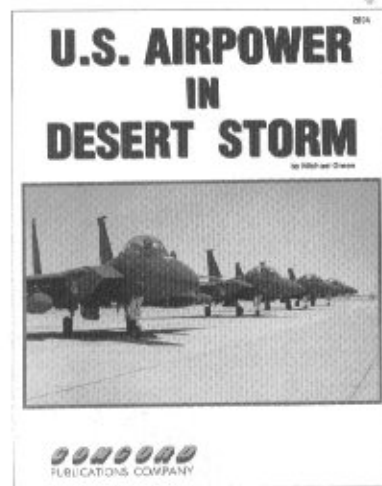
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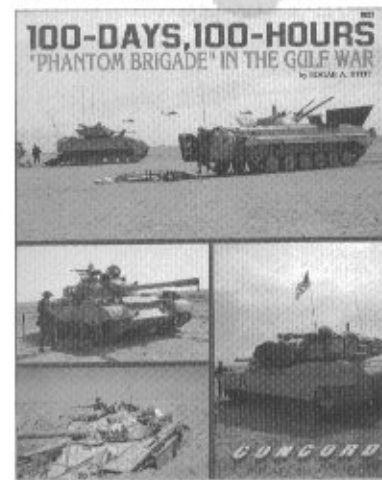
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