**Mechanized Infantry**

From Wikipedia, the free encyclopedia

U.S. Army mechanized infantry dismount from an M113 armored personnel carrier during training in 1985.

**Mechanized infantry** are [infantry](http://en.wikipedia.org/wiki/Infantry) equipped with [armored personnel carriers](http://en.wikipedia.org/wiki/Armored_personnel_carriers) (APCs) or [infantry fighting vehicles](http://en.wikipedia.org/wiki/Infantry_fighting_vehicle) (IFVs) for transport and [combat](http://en.wikipedia.org/wiki/Combat) (see also [mechanized force](http://en.wikipedia.org/wiki/Mechanized_force)).

Mechanized infantry is distinguished from [motorized infantry](http://en.wikipedia.org/wiki/Motorized_infantry) in that their vehicles provide a degree of protection from hostile fire, as opposed to "soft-skinned" wheeled vehicles (trucks or jeeps) for motorized infantry. Most APCs and IFVs are fully tracked, or are all-wheel drive vehicles (6×6 or 8×8), for mobility across rough ground. Some nations distinguish between mechanized and **armored infantry**, designating troops carried by APCs as mechanized and those in IFVs as armored.

The support weapons for mechanized infantry are also provided with motorized transport, or are built directly into combat vehicles, in order to keep pace with the mechanized infantry in combat. For units equipped with most types of APC or any type of IFV, fire support weapons such as [machine guns](http://en.wikipedia.org/wiki/Machine_gun), [autocannons](http://en.wikipedia.org/wiki/Autocannon), small-bore direct-fire [howitzers](http://en.wikipedia.org/wiki/Howitzer), and even [anti-tank guided missiles](http://en.wikipedia.org/wiki/Anti-tank_guided_missile) are often mounted directly on the infantry's own transport vehicles.

Compared with "light" truck-mobile infantry, mechanized infantry can maintain rapid tactical movement and (if mounted in IFVs) possess more integral firepower. They require more combat supplies (ammunition and especially fuel) and ordnance supplies (spare vehicle components), and a comparatively larger proportion of their manpower is required to crew and maintain the vehicles. For example, most APCs mount a section of seven or eight infantrymen but have a crew of two. Most IFVs carry only six or seven infantry but require a crew of three. To be effective in the field, mechanized units also require large numbers of mechanics with specialized maintenance and recovery vehicles and equipment. Light infantry are more effective when fighting from prepared defense positions, but are more vulnerable than mechanized infantry on the attack.

**History**

Arguably, the first mechanized infantry were 36 two-man infantry squads carried forward by [Mark V\*](http://en.wikipedia.org/wiki/Mk_V_tank#Mark_V.2A) tanks at the [Battle of Amiens](http://en.wikipedia.org/wiki/Battle_of_Amiens_%281918%29) in 1918. In a battle of such scale, their contribution went unnoticed.

Toward the end of [World War I](http://en.wikipedia.org/wiki/World_War_I), all the armies involved were faced with the problem of maintaining the momentum of an attack. Tanks, artillery or infiltration tactics could all be used to break through an enemy defense, but almost all the offensives launched in 1918 ground to a halt after a few days. Pursuing infantry quickly became exhausted, and artillery, supplies and fresh formations could not be brought forward over the battlefields quickly enough to maintain the pressure on the regrouping enemy.

It was widely acknowledged that cavalry was too vulnerable to be used on most European battlefields, although many armies continued to deploy them. [Motorized infantry](http://en.wikipedia.org/wiki/Motorised_infantry) could maintain rapid movement, but their trucks required either a good road network, or firm open terrain (such as desert). They were unable to traverse a battlefield obstructed by craters, barbed wire and trenches. Tracked or all-wheel drive vehicles were to be the solution.

German SdKfz 251 half-track APC

Following the war, development of mechanized forces was largely theoretical for some time, until many nations began rearming in the 1930s. The [British Army](http://en.wikipedia.org/wiki/British_Army) had established an [Experimental Mechanized Force](http://en.wikipedia.org/wiki/Experimental_Mechanized_Force) in 1927, but they failed to pursue this line due to budget constraints and the prior need to garrison the frontiers of the [Empire](http://en.wikipedia.org/wiki/British_Empire).

Although some proponents of mobile warfare—such as [J. F. C. Fuller](http://en.wikipedia.org/wiki/J._F._C._Fuller)—advocated building "tank fleets", others—such as [Heinz Guderian](http://en.wikipedia.org/wiki/Heinz_Guderian) in [Germany](http://en.wikipedia.org/wiki/Germany), [Adna R. Chaffee Jr.](http://en.wikipedia.org/wiki/Adna_R._Chaffee_Jr.) in the [United States](http://en.wikipedia.org/wiki/United_States), and [Mikhail Tukhachevsky](http://en.wikipedia.org/wiki/Mikhail_Tukhachevsky) in the [Soviet Union](http://en.wikipedia.org/wiki/Soviet_Union)—recognized that tank units required close support from infantry and other arms, and that these supporting arms needed to maintain the same pace as the tanks.

As the Germans rearmed in the 1930s, they equipped some infantry units in their new [*Panzer*](http://en.wikipedia.org/wiki/Panzer) (armored) [divisions](http://en.wikipedia.org/wiki/Division_%28military%29) with the [half-track](http://en.wikipedia.org/wiki/Half-track) [Sd.Kfz. 251](http://en.wikipedia.org/wiki/Sd.Kfz._251), which could keep up with tanks on most terrain. The [French Army](http://en.wikipedia.org/wiki/French_Army) also created "Light Mechanized" (*Légère Méchanique*) divisions in which some of the infantry units possessed small tracked carriers. Together with the motorization of the other infantry and support units, this gave both armies highly mobile, combined-arms formations. The German doctrine was to use these to exploit breakthroughs in [*Blitzkrieg*](http://en.wikipedia.org/wiki/Blitzkrieg) offensives, the French envisaged them being used to shift reserves rapidly in a defensive battle.

**World War II**

U.S. M3 halftracks and infantry on exercises, Fort Knox, June 1942

As World War II progressed, most major armies integrated [tanks](http://en.wikipedia.org/wiki/Tank) or [assault guns](http://en.wikipedia.org/wiki/Assault_gun) with mechanized infantry (and other supporting arms such as artillery and engineers) as [combined arms](http://en.wikipedia.org/wiki/Combined_arms) units.

Allied armored formations included a mechanized infantry element for combined arms teamwork. For example, U.S. armored divisions had a balance of three battalions each of tanks, armored infantry, and self-propelled [artillery](http://en.wikipedia.org/wiki/Artillery). U.S. armored infantry were fully equipped with M2 and [M3 halftracks](http://en.wikipedia.org/wiki/M3_halftrack). In the British and Commonwealth armies, "Type A Armored Brigades"—which were intended for independent operations or to form part of armored divisions—had a "motor infantry" battalion mounted in [Bren Carriers](http://en.wikipedia.org/wiki/Bren_Carrier) or later in Lend-Lease halftracks. "Type B" brigades lacked a motor infantry component and were subordinated to infantry formations.

The [Canadian Army](http://en.wikipedia.org/wiki/Canadian_Army), and subsequently the British Army also, used expedients such as the [Kangaroo APC](http://en.wikipedia.org/wiki/Kangaroo_%28armoured_personnel_carrier%29), usually for specific operations rather than to create permanent mechanized infantry formations. The first such operation was [Operation Totalize](http://en.wikipedia.org/wiki/Operation_Totalize) in the [Battle of Normandy](http://en.wikipedia.org/wiki/Invasion_of_Normandy) which, although it failed to achieve its ultimate objectives, nevertheless showed that mechanized infantry could incur far fewer casualties than dismounted troops in set-piece operations.

Kangaroo APC carrying British infantry, 1945

The German Army, having introduced mechanized infantry in their *Panzer* divisions, later named them [*Panzergrenadier*](http://en.wikipedia.org/wiki/Panzergrenadier) units. In the middle years of the war, they created entire mechanized infantry divisions, which they named Panzergrenadier divisions.

Because the German economy could not produce adequate numbers of their halftrack APC, barely a quarter or a third of the infantry in Panzer or Panzergrenadier divisions was mechanized, except in a few favored formations. The rest were moved by truck. However, most German reconnaissance units in these formations were also primarily mechanized infantry and could undertake infantry missions when needed. The [Allies](http://en.wikipedia.org/wiki/Allies_of_World_War_II) generally used jeeps, armored cars or light tanks for reconnaissance.

The [Red Army](http://en.wikipedia.org/wiki/Red_Army) began the war while still in the process of reorganizing its armored and mechanized formations, most of which were destroyed during the first months of the German invasion of the Soviet Union. About a year later, the Soviets recreated division-sized mechanized infantry units termed [Mechanized Corps](http://en.wikipedia.org/wiki/Mechanized_corps_%28Soviet%29), usually consisting of one tank brigade and three mechanized infantry brigades, with motorized supporting arms. They were generally used in the exploitation phase of offensives, as part of the pre-war Soviet concept of [Deep operations](http://en.wikipedia.org/wiki/Deep_operations).

The Soviet Army also created several [Cavalry mechanized groups](http://en.wikipedia.org/wiki/Cavalry_mechanized_group) in which tanks, mechanized infantry and horsed cavalry were mixed. These also were used in the exploitation and pursuit phases of offensives. Red Army mechanized infantry were generally [carried on tanks](http://en.wikipedia.org/wiki/Tank_desant) or trucks, with only a few dedicated Lend-lease APCs.

The [New Zealand Army](http://en.wikipedia.org/wiki/New_Zealand_Army) ultimately fielded [a division](http://en.wikipedia.org/wiki/2nd_New_Zealand_Division) of roughly similar composition to a Soviet Mechanized Corps, which fought in the [Italian Campaign](http://en.wikipedia.org/wiki/Italian_Campaign_%28World_War_II%29), although it had little scope for mobile operations until near the end of the war.

**The Cold War**

[ARVN](http://en.wikipedia.org/wiki/ARVN) M113 APC with added side mounted .30 caliber machine gun, in Vietnam.

In the post-war era, the early years of the [Cold War](http://en.wikipedia.org/wiki/Cold_War), the Soviet [Red Army](http://en.wikipedia.org/wiki/Red_Army) and [NATO](http://en.wikipedia.org/wiki/NATO) further developed the equipment and doctrine for mechanized infantry. With the exception of airborne formations, the Red Army mechanized all its infantry formations. Initially, wheeled APCs (e.g. the [BTR-152](http://en.wikipedia.org/wiki/BTR-152)) were used, some of which lacked overhead protection and were therefore vulnerable to artillery fire. This nevertheless gave the Soviet Army greater strategic flexibility, given the large land area and long borders of the Soviet Union and its allies in the [Warsaw Pact](http://en.wikipedia.org/wiki/Warsaw_Pact).

The U.S. Army established the basic configuration of the tracked APC with the [M75](http://en.wikipedia.org/wiki/M75_armored_personnel_carrier) and [M59](http://en.wikipedia.org/wiki/M59_armored_personnel_carrier) before adopting the lighter [M113](http://en.wikipedia.org/wiki/M113_armored_personnel_carrier) which could be carried by [Lockheed C-130 Hercules](http://en.wikipedia.org/wiki/Lockheed_C-130_Hercules) and other transport aircraft. The vehicle gave infantry the same mobility as tanks though with much less effective armor protection (but with nuclear, biological, and chemical protection).

In [Vietnam](http://en.wikipedia.org/wiki/Vietnam_War), the M113 was often fitted with extra armament and used as an ad-hoc Infantry Fighting Vehicle. Early operations by the [Army of the Republic of Vietnam](http://en.wikipedia.org/wiki/Army_of_the_Republic_of_Vietnam) using the vehicle showed that troops were far more effective while mounted in the vehicles than when they dismounted. American doctrine subsequently emphasized mounted tactics. The Americans ultimately deployed a mechanized brigade and ten mechanized battalions to Vietnam.

Even more important for future developments was the Soviet [BMP-1](http://en.wikipedia.org/wiki/BMP-1), which was the first true Infantry Fighting Vehicle (IFV). Its introduction prompted the development of similar vehicles in Western armies, such as the [West German](http://en.wikipedia.org/wiki/West_Germany) [Marder](http://en.wikipedia.org/wiki/Marder_%28IFV%29) and American [M2 Bradley](http://en.wikipedia.org/wiki/M2_Bradley). Unlike the APC (which was intended merely to transport the infantry from place to place under armor), the IFV possessed heavy firepower which could support the infantry in attack or defense. Many IFVs were also equipped with firing ports from which their infantry could fire their weapons from inside, although these were generally not successful and have been dropped from modern IFVs.

Soviet organization led to different tactics between the "light" and "heavy" varieties of mechanized infantry. In the Soviet Army, a first-line "Motor Rifle" division from the 1970s onward usually had two regiments equipped with the wheeled [BTR-60](http://en.wikipedia.org/wiki/BTR-60) APC and one with the tracked BMP-1 IFV. The "light" regiments were intended to make dismounted attacks on the division's flanks while the BMP-equipped "heavy" regiment remained mounted and supported the division's tank regiment on the main axis of advance. Both types of infantry regiment nevertheless were officially titled "Motor Rifle" units.

A Wiesel equipped with a TOW deploys from a CH-53

A line of development in the Soviet Armed Forces from the 1980s was the provision of specialized IFVs for use by their [airborne forces](http://en.wikipedia.org/wiki/VDV). The first of these was the [BMD-1](http://en.wikipedia.org/wiki/BMD-1), which had the same firepower as the [BMP-1](http://en.wikipedia.org/wiki/BMP-1), but which could be carried in or even parachuted from the standard Soviet transport aircraft. This made airborne formations into mechanized infantry at the cost of reducing their "bayonet" strength, as the BMD could carry only three, or at most four, paratroopers in addition to its three-man crew. They were used in this role in the [Soviet invasion of Afghanistan](http://en.wikipedia.org/wiki/Soviet_war_in_Afghanistan) in 1979. This trend has had limited uptake in Western forces with only Germany equipping their airmobile division with the similar [Wiesel](http://en.wikipedia.org/wiki/Wiesel_AWC) tankette two of which can be carried inside a [Sikorsky CH-53 Sea Stallion](http://en.wikipedia.org/wiki/Sikorsky_CH-53_Sea_Stallion) [helicopter](http://en.wikipedia.org/wiki/Helicopter).

**The present day**

BMP-1, an early infantry fighting vehicle

Stryker vehicle and dismounted infantry of the US Army's [1st Brigade Combat Team](http://en.wikipedia.org/wiki/Brigade_combat_team#Stryker_brigade_combat_team) in Mosul, Iraq 2004.

At present, almost all infantry units from industrialized nations are provided with some type of motor transport. Infantry units equipped with IFVs rather than lighter vehicles are commonly designated as "heavy", indicating more combat power but also more costly long-range transportation requirements. In [Operation Desert Shield](http://en.wikipedia.org/wiki/Gulf_War#Operation_Desert_Shield) during the buildup phase of the 1st Gulf War, the U.S. Army were concerned about the lack of mobility, protection and firepower offered by existing rapid deployment (i.e. airborne) formations; and also about the slowness of deploying regular armored units. The experience led the U.S. Army to form [combat brigades](http://en.wikipedia.org/wiki/Brigade_combat_team) based upon the [Stryker](http://en.wikipedia.org/wiki/Stryker) wheeled IFV.

In the British Army, "heavy" units equipped with the [Warrior IFV](http://en.wikipedia.org/wiki/Warrior_Tracked_Armoured_Vehicle) are described as "Armored Infantry", and units with the [Bulldog APC](http://en.wikipedia.org/wiki/FV432#Bulldog) as "Mechanized Infantry". This convention is becoming widespread; for example the [French Army](http://en.wikipedia.org/wiki/French_Army) has "Motorisées" units equipped with the wheeled [VAB](http://en.wikipedia.org/wiki/V%C3%A9hicule_de_l%27Avant_Blind%C3%A9) and "Mécanisées" (armored) units with the tracked [AMX-10P](http://en.wikipedia.org/wiki/AMX-10P).

The transport and other logistic requirements have led many armies to adopt wheeled APCs when their existing stocks of tracked APCs require replacement. An example is the [Canadian Army](http://en.wikipedia.org/wiki/Canadian_Army), who have used the [LAV III](http://en.wikipedia.org/wiki/LAV_III) wheeled IFV in fighting in Afghanistan. On the other hand, the [Italian](http://en.wikipedia.org/wiki/Italian_Army), [Spanish](http://en.wikipedia.org/wiki/Spanish_Army) and [Swedish](http://en.wikipedia.org/wiki/Swedish_Army) armies are adopting (and exporting) new indigenous-produced tracked IFVs. The Swedish [CV90](http://en.wikipedia.org/wiki/CV90) IFV in particular has been adopted by several armies.

A recent trend seen in the [Israel Defense Forces](http://en.wikipedia.org/wiki/Israel_Defense_Forces), the [Armed Forces of the Russian Federation](http://en.wikipedia.org/wiki/Armed_Forces_of_the_Russian_Federation) is the development and introduction of exceptionally well-armored APCs (HAPC) such as the [IDF Achzarit](http://en.wikipedia.org/wiki/IDF_Achzarit) which are converted from obsolete [Main Battle Tanks](http://en.wikipedia.org/wiki/Tank) (such as the [Russian](http://en.wikipedia.org/wiki/Russia) [T-55](http://en.wikipedia.org/wiki/T-55)). Such vehicles are usually expedients, and lack of space prevents the armament of an IFV being carried in addition to an infantry section or squad. In the Russian Army, such vehicles were introduced for fighting in urban areas, where the risk from short range infantry anti-tank weapons such as the [RPG-7](http://en.wikipedia.org/wiki/RPG-7) is highest, after Russian tank and motor infantry units suffered heavy losses fighting insurgents in [Grozny](http://en.wikipedia.org/wiki/Grozny) during the [First Chechen War](http://en.wikipedia.org/wiki/First_Chechen_War) in 1995.

Many APCs and IFVs currently under development are intended for rapid deployment by aircraft. New technologies which promise reduction in weight, such as electric drive, may be incorporated. However, facing a similar threat in [Post-invasion Iraq](http://en.wikipedia.org/wiki/Post-invasion_Iraq%2C_2003%E2%80%93present) to that which prompted the Russians to convert tanks to APCs, the occupying armies have found it necessary to apply extra armor to existing APCs and IFVs, which adds to the overall size and weight. Some of the latest designs (such as the German [Puma](http://en.wikipedia.org/wiki/Puma_%28IFV%29)) are intended to allow a light, basic model vehicle which is air-transportable to be fitted in the field with additional protection, thereby ensuring both strategic flexibility and survivability.

**Combined arms operations**

Mowag Piranha of the Irish Army, typical of wheeled IFVs under development.

It is generally accepted that single weapons system types are much less effective without the support of the full combined arms team; the pre-World War II notion of "tank fleets" has proven to be as unsound as the World War I idea of unsupported infantry attacks. Though many nations' armored formations included an [organic](http://en.wikipedia.org/wiki/Organic_%28military%29) mechanized infantry component at the start of World War II, the proportion of mechanized infantry in such combined arms formations was increased by most armies as the war progressed.

The lesson was re-learned, first by the Pakistani Army in the 1965 War with India, where the nation fielded two different types of armored divisions: one which was almost exclusively armor (the 1st) while another was more balanced (the 6th). The latter division showed itself to be far more combat capable than the former.

Having achieved spectacular successes in the offensive with tank-heavy formations during the [Six Day War](http://en.wikipedia.org/wiki/Six_Day_War), the [Israeli Defense Force](http://en.wikipedia.org/wiki/Israeli_Defense_Force) found in the [Yom Kippur War](http://en.wikipedia.org/wiki/Yom_Kippur_War) of 1973 that a doctrine that relied primarily on tanks and aircraft had proven inadequate. As a makeshift remedy, paratroopers were provided with motorized transport and used as mechanized infantry in coordination with the armor.

**See also**

* [Armored Warfare](http://en.wikipedia.org/wiki/Armoured_warfare)
* [Motorized Infantry](http://en.wikipedia.org/wiki/Motorised_infantry)
* This page was last modified on 27 July 2012 at 00:27.