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M24 Chaffee Light Tank 1943–85



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Steven J. Zaloga • Illustrated by Jim Laurier

The design, development, operation and history of the machinery of warfare through the ages.



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M24 Chaffee Light Tank 1943–85

The history of US light tanks during World War II is a chequered one. The Light Battalions of US Armored Divisions were initially filled with M3A1 and M5 Stuart tanks. However, on the battlefields of North Africa it was realised that these were disastrously under armored and gunned, and a replacement, or the abandonment of light tank doctrine was desperately needed. It wasn't until the last few months of World War II that the M24 Chaffee came into service and it was extensively used in combat from the Battle of the Bulge to the final campaigns in Germany. This book traces the history of its design, its combat record in World War II, its many variants, and its extensive combat record post 1945.

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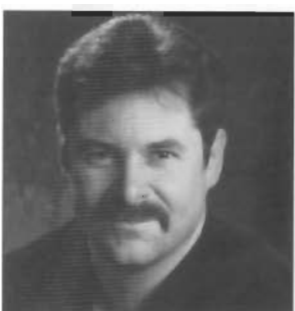


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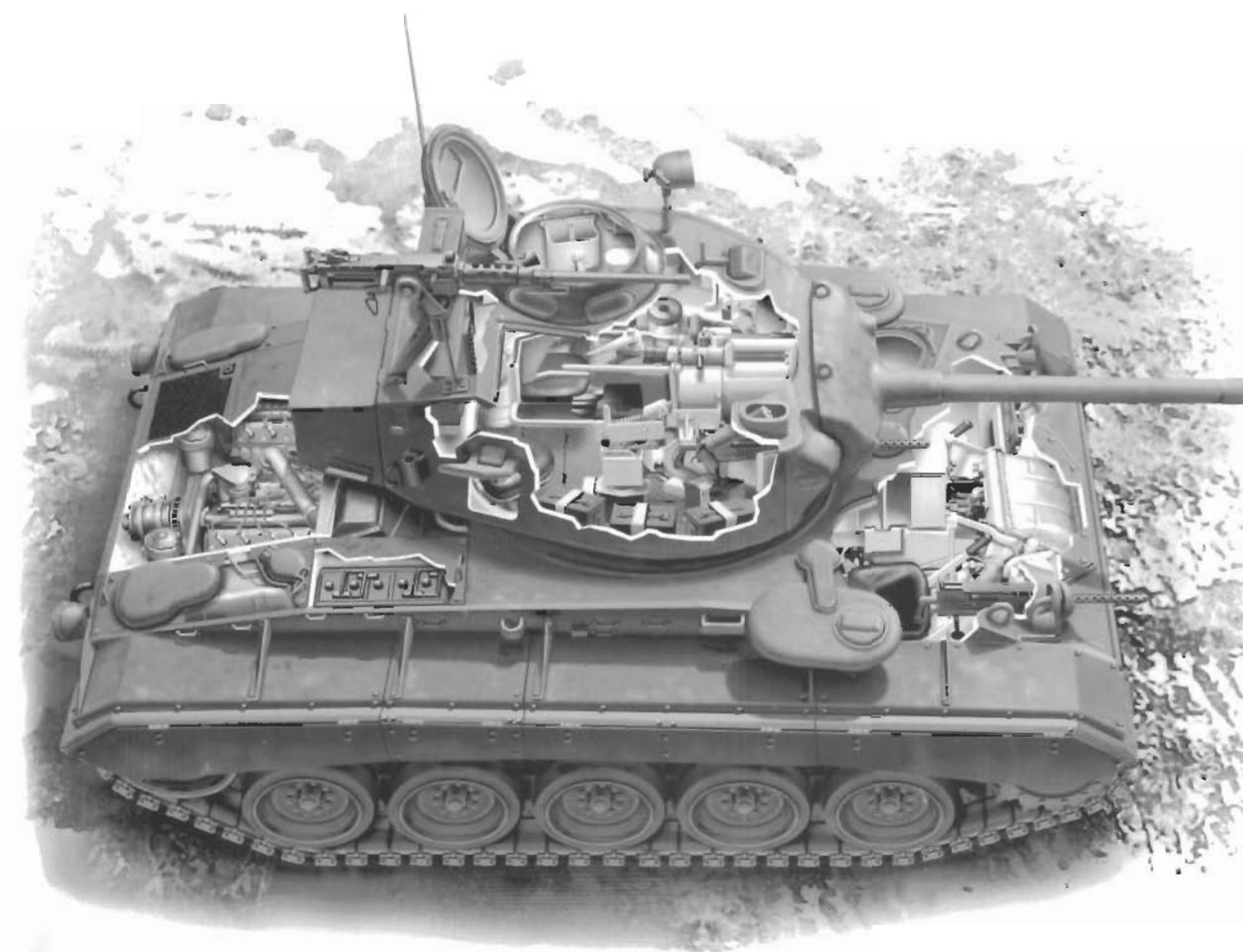
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THE M24 CHAFFEE LIGHT TANK 1943-85

The M24 Chaffee light tank was one of the finest US tank designs of World War II. Its contribution to the US war effort was limited by its late arrival in combat and the diminishing role of light tanks in the final years of the war. Nevertheless, its modernity ensured its continuing viability on the battlefield. It was exported around the world in significant numbers. Indeed, it is probably better known for its use in postwar conflicts in Korea, Indochina, and Pakistan.



The M24 proved to be one of the finest US tank designs of World War II, but its career in the US Army was short. With the advent of the M41 tank in 1951, the M24 was declared surplus and exported to allied armies around the globe. This M24 named Anadarko is seen here still in service with the 81st Reconnaissance, 1st Armored Division, on an exercise in New Mexico in 1952. (US Army)

THE LIGHT TANK DILEMMA

When the United States entered World War II in December 1941, its tank force was composed almost entirely of light tanks, principally the M3 light tank family. As the newer M3 and M4 medium tanks became available in increasing numbers in 1942, the role of light tanks began to diminish. Nevertheless, M3 light tanks played a prominent role in early US Army operations including the Philippines and Tunisia campaigns. By the end of 1942, US armored divisions were based around a mixture of light and medium tanks. Each of the division's two armored regiments consisted of two battalions of medium tanks and one battalion of light



tanks. Armored doctrine expected the light tanks to serve in the vanguard of the attack, and emphasized the importance of their speed and mobility to keep the enemy off balance. Combat experience in Tunisia would show the doctrine to be fanciful and the light tanks to be unsuitable to modern battlefield conditions.

By 1942, the M3 light tank was beginning to show its age, which was not surprising as it was an evolution of light tanks nearly a decade old. Its final incarnation was the M5A1 light tank which offered a better power-plant, but the same 37mm gun and weak armor. The shortcomings of the M3 were recognized by the US Army, and the development of a new light tank, the T7, began in February 1941. The design of the T7 was compromised by the rapidly changing requirements for light tanks and evolving tactical doctrine. Prior to World War II, US light tanks were primarily intended to serve as infantry support weapons, and the T7 design was heavily influenced by this requirement. When the Armored Force was formed in July 1940 as a reaction to the German blitzkrieg campaign in France, the light tank's role was expanded to encompass the fast cavalry missions previously assigned to the prewar combat cars. The T7 had been envisioned as a relatively slow 14 ton tank with the same 37mm gun as the M3 light tank. But the Armored Force wanted a faster vehicle in keeping with its new doctrine, which meant a bigger, and heavier engine. In addition, the requirements for the armament continued to change, first with a 57mm gun in May 1942. The Armored Force felt that this weapon was not suitable and opted for a 75mm gun instead, which was installed in August 1942. By this time, the weight of the T7E5 had climbed from the planned 14 tons to 27 tons, and in reality it was closer to 29 tons when combat loaded. What had begun as a new light tank had mutated to a mediocre medium tank.

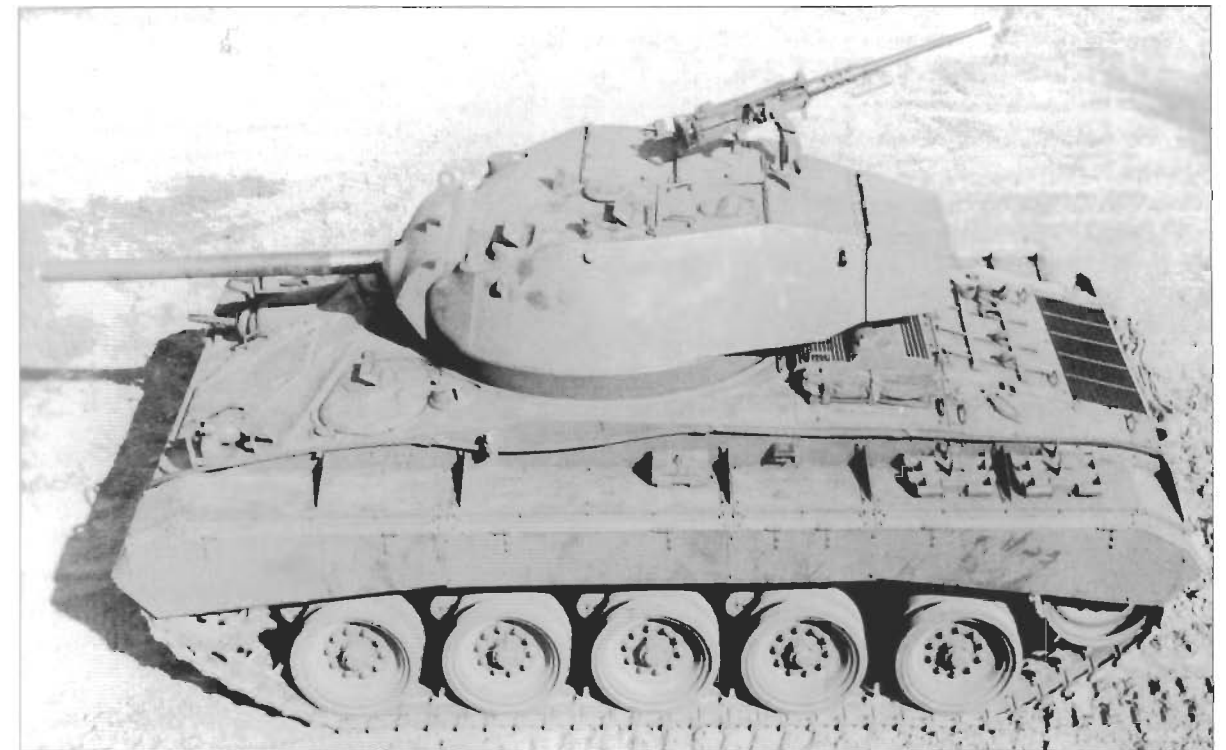
The unexpected mutation of the T7 light tank into the M7 medium tank created the need for a new light tank design in 1943. The M7 design failed due to tactical shifts in 1942-43 which recognized that the advent of more powerful German tanks and anti-tank guns reduced the viability of light tanks on the battlefield, restricting their role to reconnaissance. (Patton Museum)

The T24 pilot took advantage of Chrysler's engineering talent, and proved to be an excellent design from the outset. The two pilots lacked the vision cupola typical of the production tanks, but otherwise were very similar. (Patton Museum)

When the T7E5 pilot was standardized in 1942, it was designated as the M7 medium tank. Only seven production tanks were accepted by the US Army before it was cancelled. In March 1943, the Armored Force rejected the design as being inferior to the existing M4 medium tank in nearly all respects.

The M7 light tank fiasco suggested that the technical branches of the US Army had recognized that a light tank could not fulfill the role envisioned for it in the existing Armored Force doctrine. The armor of light tanks could not withstand contemporary anti-tank guns, and unless armed with the same weapon as the medium tanks, they had little chance of defeating enemy tanks. This was only fully recognized by the Armored Forces after the Tunisian campaign. Even the newer M5 light tank was found wanting in performance. The commander of the 70th Tank Battalion reported that:

... on occasions when this (M5) company was employed as a reconnaissance unit to determine the positions of enemy infantry, the presence of vastly superior enemy anti-tank guns were found to be ever present with the enemy infantry. The effective range of these guns were vastly superior to the 37mm gun mounted on the M5 tanks ... employment on coordinated attacks with infantry experienced the same results ... the light armor of the M5 tanks can not withstand these high-powered guns. ... The German tanks now employed completely outclass the M5 tank, making it impossible to consider engaging them to any degree. ... The light armor makes the M5 very vulnerable to enemy artillery fire, thereby making maneuver of tanks very difficult. Attack positions must often be



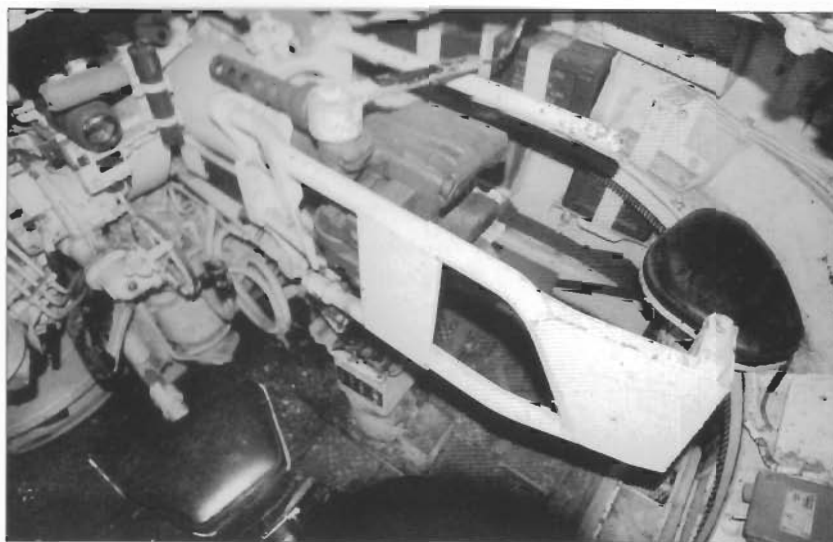
selected without regards to tactical situations in order to avoid enemy observation and artillery fire. ... In view of these facts it is recommended that M5 tanks be replaced with tanks much more heavily armored and much heavier gunned in order to effectively carry out the missions assigned to a tank unit.

Both General George S. Patton and General Omar Bradley endorsed this report and recommended that in the future light tanks be restricted to reconnaissance missions.

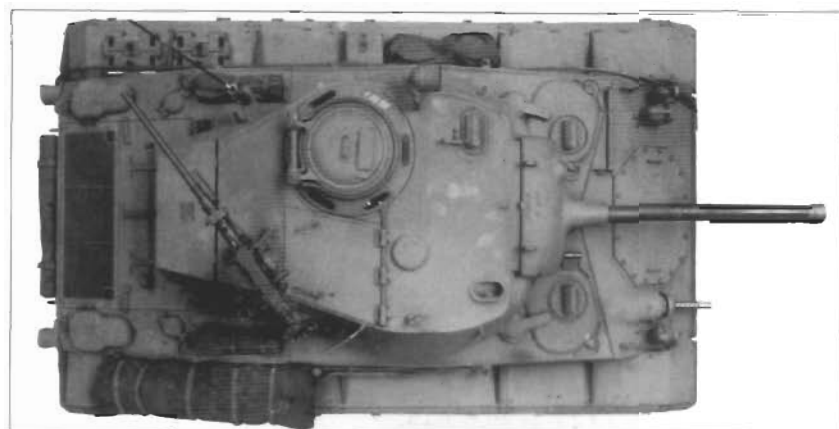
During the summer of 1943, the US Army was involved in a vigorous debate about the future configuration of its armored units based on the lessons of the North African campaign. The distinction between light and medium tank battalions disappeared, with the new standard pattern being a mixed battalion with three companies of medium tanks and a single company of light tanks. Only a handful of light tank battalions remained. The role of the light tank in US doctrine fundamentally changed from being a central weapon in tank operations to being a secondary type restricted to scouting.

DEVELOPING THE T24

The US Army was not yet willing to give up on the new M5A1 light tank, having produced 4,000 by 1943. The primary shortcoming of the M5A1 was felt to be its puny 37mm gun which made it difficult to carry out any mission, even scouting. As a result of early complaints from troops in North Africa about the poor performance of the 37mm gun, in late 1942



This view shows the internal layout of the M24 as viewed on entering the commander's station in the left rear of the turret. The 75mm gun is evident in the center of the photo, along with the prominent recoil guard. The gunner's seat is evident to the left along with the gun controls. The loader sat in the right side of the turret on the seat visible at the extreme right of this photo. (Author)



This overhead view shows one of the early production M24 light tanks with the standard stowage configuration. The production design introduced the 32 inch diameter D90095 all-round vision cupola for the tank commander which can be seen on the left side of the turret. This is similar to the 35 inch diameter D82183 cupola used on the M4 medium tank. (Patton Museum)

a project was started to determine whether it would be feasible to mount a more worthwhile gun on the M5 chassis. An M8 75mm howitzer motor carriage was modified to carry a 75mm tank gun instead of its usual short 75mm howitzer. The M8 HMC was based on the same chassis as the M5 light tank but had a larger turret ring better able to accommodate the heavier recoil of the 75mm gun. The pilot was tested in January 1943 and proved that such a weapon could be mounted. However, the Armored Force was unwilling to endorse such an improvised design, as the modified M8 lacked turret roof armor, machine guns, power traverse, a gun stabilizer, and other features necessary in a viable tank design. The Armored Force's rejection of the M7 design in March 1943 prompted the Ordnance Committee to recommend the development of a new light tank based around the power-train of the M5A1 light tank but armed with a 75mm gun. After the M7 tank fiasco, the armor was kept light, indeed thinner than the M5A1 in some aspects, to keep the design weight under 20 tons. This was supported by the Armored Force which had come to accept that light tanks would have a role limited to reconnaissance.

The new design was designated as the T24 light tank and the program was approved on April 29, 1943. Development of the tank was entrusted to the Chrysler Motor Car Division of General Motors Corporation. The design effort was headed by Chrysler's chief engineer, Ed Cole, who became president of General Motors after the war. Another branch of General Motors, the Cadillac Division, had already been working on an enlarged hull design, using M5A1 components, that was intended for self-propelled artillery. The adaptation of the hull helped speed along design of the T24 hull. Because of the need for a large diameter turret

ring, Chrysler modified the design by sloping the side panels inward, which permitted the use of a wide ring while at the same time increasing the effective protection of the side armor due to the angle while keeping weight in check. The Armored Force insisted on a change from the two-man turret of the M5A1 to a three-man turret as found in medium tanks. The vertical volute suspension used on the M5A1 was an old 1930s design that had outlived its potential, and the Armored Force wanted a design with wider tracks for better cross-country mobility. As a result, a new torsion bar suspension was selected. Although the design was

The first unit to use the M24 in combat was Company D, 740th Tank Battalion, which grabbed a pair of tanks that strayed into First Army hands in Belgium during the Battle of the Bulge while on the way to the Ninth Army. These two tanks were used in the fighting against Kampfgruppe Peiper around La Gleize in mid-December 1944, and one is seen here being inspected by troops of the 82nd Airborne Division in Nonceveux, Belgium, on January 19, 1945. (US Army)





supposed to use the power-train from the M5A1 light tank, in fact many changes were introduced, including the substitution of a manual transfer unit for the troublesome automatic transfer of the M5A1, and also an increased capacity for the engine radiators.

While Chrysler was undertaking the design of the tank, Rock Island Arsenal was developing the lightweight, short-recoil 75mm gun. The weapon selected for the T24 was a derivative of the T13E1 lightweight aircraft gun used in the B-25 bomber. This had the same ballistics and ammunition features as the M3 75mm gun used in the M4 Sherman tank, but used a more compact T19 concentric recoil mechanism that permitted a shorter recoil. Tests of the combination gun-mount T90 and the modified T33 recoil mechanism were conducted in the early summer of 1943 and proved that such a weapon could be mounted in a turret with a 60in. diameter turret race as planned for the T24.

A wooden mock-up of the T24 design was completed in May 1943 and work began on two pilots. Progress on the design was so good that in September 1943 the Ordnance Committee recommended the production of 1,000 tanks even before the pilots were completed. The only dissenting voice was that of the chief of engineers who complained that the weight and width of the design exceeded army regulations, but his complaint was ignored. The Service of Supply agreed to the plan on the condition that the 1,000 T24 light tanks be manufactured in lieu of the same number of M5A1 light tanks so that no new production facilities would be needed.

The first pilot was delivered to Aberdeen Proving Ground on October 15, 1943. Trials of the new gun mount found some problems with the new recoil system, and there were many small problems with the automotive components. This was normal for a new design, and overall the initial trials had been very satisfactory and a tribute to the experienced Chrysler design team. The second pilot incorporated a number of changes including a revised gun recoil system. Tests began in December 1943 and were followed by trials by the Armored Board at Fort Knox. The Armored Board was generally pleased by the design, but

The first unit scheduled to receive the M24 was the 744th Tank Battalion, one of only two battalions still equipped solely with light tanks. It reequipped with the M24 light tank in January 1945 and first deployed them in combat in late February during Operation Grenade, the assault over the Roer River. Here, a crew test fires the gun during training near Eschwiller, Germany, on February 12, 1945. (NARA)



The 18th Cavalry Reconnaissance Squadron of the 14th Cavalry Group received its first M24 on February 3, 1945, and was fully equipped by the middle of the month. Here, a whitewashed M24 is inspected during training in Petit Tiers, Belgium. (US Army)

recommended a number of changes including the use of wet ammunition stowage, a vision cupola for the tank commander, and the addition of a pistol port on the right side of the turret.

Production of the T24 began at Cadillac in late April 1944 but did not begin to pick up steam until M5A1 production ended there in May. After the procurement objective had increased from 1,000 to 1,800 tanks in December 1943, a second M5A1 manufacturer, Massey-Harris, also switched from M5A1 production in July 1944.

Dissatisfaction with the M5A1 light tank in Europe was so widespread that requirements continued to increase, eventually bringing the total to more than four times the initial plans. The T24 was standardized in July 1944 as the M24 Light Tank. It was later named the Chaffee, after the first head of the Armored Force, General Adna Chaffee, though the US Army seldom used this name in practice.

M24 CHAFFEE LIGHT TANK PRODUCTION

Month	Cadillac	Massey-Harris	Sub-total
April 1944	1	-	1
May	24	-	24
June	50	-	50
July	100	10	110
August	200	16	216
September	212	34	246
October	277	40	317
November	377	40	417
December	499	50	549
January 1945	200	125	325
February	300	155	455
March	350	192	542
April	205	138	343
May	350	190	540
June	280	149	429
July	167	-	167
Total	3,592	1,139	4,731

INTO COMBAT

By the autumn of 1944, there was an urgent demand for the M24 light tank because of continuing problems with the combat performance of

the M5A1 light tank. In September 1944, the Armored Section of General Bradley's 12th Army Group headquarters requested that all M5A1 light tanks be replaced as soon as possible by the new M24 light tank. The War Department in Washington did not concur, citing shipping and logistics problems. By 1945, the M5A1 had completely fallen out of favor with the tank units, and many officers wanted the light tank company dropped. An Armored Force observer from Washington who visited the 25th Tank Battalion, 12th Armored Division, in February 1945 was told that the M5A1 company was so useless that it was used as "anti-tank gun bait" for the M4 medium tank battalions. Other battalions used the company for supply and evacuation for forward medium tank companies, refusing to expose it to close combat.

In the event, the distribution of the M24 to combat units proved to be far more erratic than planned. The original plans were to ship the first 160 tanks to the European Theater of Operations (ETO) by August 1944. But technical problems delayed this by four months. On November 12, 1944, a plan was established under which the two tank battalions still equipped entirely with M5A1 light tanks, the 744th and 759th Tank Battalions (Light), would be given first priority, followed by the units of the two heavy armored divisions on the old 1942 table of organization and equipment, the 2nd and 3rd Armored Division. As is so often the case in war, these plans were altered by circumstance.

The first batch of M24 light tanks arrived in France in early December 1944 and were loaded on tank transporters at Cherbourg on December 8 for transfer to the Ninth Army, the northernmost of the three armies in Bradley's 12th Army Group. The 744th Tank Battalion (Light) was given priority to convert to the new M24 since the other light tank battalion, the 759th, was being used as part of the 4th Cavalry Group for reconnaissance and so was less desperate for the conversion. The transport column was on the way to the front when the Battle of

Four US armored divisions arrived in Europe fully equipped with the M24 light tank. One of the last to arrive was the 20th Armored Division, and one of its M24 light tanks is seen here on a road leading to Salzburg, Austria, on May 4, 1945, with a burning German Bergepanther armored recovery vehicle evident in the background. The adapter plates for attaching amphibious pontoons can be seen on either side of the rear hull star, indicating that this tank was produced after November 1944 when this feature was first introduced. (US Army)



The M24 arrived in Italy later than in northWest Europe, and served mainly with the 1st Armored Division. This particular tank from Company D, 13th Tank Battalion, 1st Armored Division, was the first to cross the Po River near Breda, Italy, on April 24, 1945. The two large hoops fitted on the right turret roof protect a "donkey sight," a field improvisation common in the 1st Armored Division which was used for aiming when the tank gun was used for indirect artillery fire support. (NARA)



the Bulge broke out in the Ardennes. Two of the 20 M24s were diverted, under somewhat mysterious circumstances, to the 710th Tank Battalion of the First US Army. This battalion had arrived in Europe days before without any tanks and had been given a blank check to round up tanks from depots on an urgent basis to help stem the German advance. The two M24 tanks were unofficially "requisitioned" when they strayed into First Army territory, much to the chagrin of the Ordnance officers managing the M24 program in the ETO. The two M24 light tanks were deployed in Company D, and they were first deployed near Remouchamps on December 20, 1944, even though their crews had received no special training. This was not a major problem as the M24's engine was the same as in the M5A1 light tank, and the gun was operated in essentially the same fashion as that of the M4 medium tank. The two M24 tanks took part in the fighting for Stoumont and La Gleize during the skirmishes that finally stopped the advance of the spearhead of 6.SS-Panzer Army, Kampfgruppe Peiper. The M24 tanks remained in action with the battalion for most of January 1945.

The arrival of the M24 in the ETO was accompanied by a program to familiarize US Army units with the new type. There was some concern that its novel shape and new suspension would lead to confusion with the German Panther tank. Indeed, as a result of this program the M24 soon received its most popular nickname, "Panther Pup".

The 744th Tank Battalion received the 18 remaining M24 light tanks on December 24, 1944, and was completely reequipped with the new tanks by February 15, 1945. The unit saw its first extensive action with the new type during Operation Grenade, the final push over the Roer River at the end of February 1945 while supporting the 30th Infantry Division. In general, the unit was favorably impressed with the new type. In a report after the fighting, the unit noted that:

By reason of its speed, suspension system, tracks, and power, the Light Tank M24 has been found to be very maneuverable. In snow and wet ground, the M24 has been able to walk off and leave the

M5A1 and the Medium Tank M4. ... It has demonstrated the quality of ruggedness time and time again ... and has been able to remain in the fight with minor maintenance difficulties and even when hit by anti-tank weapons. ... The low silhouette has been an excellent advantage in that combined with the tank's speed and maneuverability, the enemy has been provided a poor target. ... Ample room in the fighting compartment has resulted in increased crew efficiency and less fatigue during long periods of combat. ... Telescopic sights are excellent. Gunnery have been able to pick up targets that tank commanders could not see. ... Engines are readily accessible for maintenance and can be changed in half the time of the Light Tank M5A1.

The report also highlighted the problems with the M24, many of which were inherent in any light tank design:

Armor of the M24 is generally felt by all personnel to be incapable of preventing a penetration by any German anti-tank weapon except perhaps at the most extreme ranges. Belly armor is insufficient to protect crews from injury due to exploding mines. Knowledge of the thinness of armor did not aid morale, but most personnel have felt that the present medium tank offered no appreciable difference in protection. ... The 75mm gun has proven ineffective against enemy armor, even at close range. ... Ammunition load of all calibers is considered insufficient for normal missions. In one instance a platoon fighting in the city of Lutgen-Dortmund used two full combat loads of 75mm ammunition and three loads of .30 and .50 caliber ammunition in one day. It has been normal to expend all ammunition in almost every action.

A pair of M24 light tanks of F Troop, 81st Cavalry Reconnaissance Squadron, 1st Armored Division, are seen while refueling in some ruins in the foothills of the Alps during operations in northern Italy on April 17, 1945. The Italian theater had lower priority for new equipment and so the M24 saw less combat service there than during the final campaign in Germany. (NARA)



Following the North Korean invasion of South Korea in July 1950, a small number of M24 tanks were rushed from occupation duty in Japan to the battle front. This is an M24 light tank of the 25th Reconnaissance Company which supported the 25th Division's 7th Infantry during the fighting there in July 1950. The M24 performed poorly against the NKPA T-34-85 medium tanks, which should not have been surprising as it was not designed for tank-to-tank fighting. (US Army)



The 744th Tank Battalion recommended a variety of improvements to the M24, many of which it had carried out on its own tanks. It developed a kit for adding belly armor to the tank, and also developed a two-round ready rack in the turret for the loader. The existing crew stowage was removed and the battalion added its own using angle-iron. The battalion was very unhappy about the awkward location of the .50 caliber machine gun on the turret, which was seldom used for anti-aircraft defense but which was poorly sited for use against enemy infantry. The notion of equipping a battalion exclusively with light tanks was flawed, and in the final month of the fighting the 744th Tank Battalion was partially reequipped with M4A3 (76mm) medium tanks, resulting in a unique hybrid formation. The other light tank battalion, the 759th, was not reequipped with the M24 during the war, and served out the remainder of the campaign with the unsatisfactory M5A1 light tank. However, in the final weeks of the war, one of its companies, like the 744th, was refitted with M4 medium tanks to provide more firepower.

With the 744th Tank Battalion reequipped, the plan was to reequip the 2nd and 3rd Armored Divisions. There was some reconsideration of this plan at the time, as in the wake of the Ardennes fighting many officers felt that it was more important to reequip the light tank troops in the cavalry reconnaissance squadrons which badly needed the added firepower. As a result, the first batch of 200 M24 tanks did go to the First and Ninth Armies as planned, but were divided among the cavalry reconnaissance groups. This is not immediately apparent in the accompanying chart which shows M24 light tanks in armored divisions as outnumbering the cavalry squadrons. However, these M24s were not replacements, but arrived with the four last armored divisions to be deployed in the ETO, the 8th, 13th, 16th and 20th Armored Divisions, which were equipped solely with the new type. Only after the cavalry squadrons were reequipped was priority shifted to other units. The separate tank



A well-camouflaged M24 Chaffee of the 64th Tank Battalion rests behind a ridge line while supporting the 3rd Infantry Division south of Seoul in February 1951. Behind it is one of the battalion's M46 heavy tanks. When used in its intended role as a reconnaissance vehicle, the M24 performed well. This M24 is unusual in that it has pattern-painted camouflage on the turret, which was uncommon in Korea. (US Army)

battalions received very few M24 tanks, with the exception of the 744th Tank Battalion. Most of the replacement tanks went to the armored divisions once cavalry needs were satisfied. Patton's Third Army was the last of the major field formations to receive the M24 tanks, and priority was given to his cavalry squadrons beginning in mid-February 1945.

The cavalry reconnaissance units were as impressed with the M24 as were the tank battalions. The 106th Cavalry Group noted that in mid-February 1945, "The light tank companies of both squadrons turned in their 37mm gun-toting M5A1's and drew the new M24's. Armed with a 75mm cannon and nearly twice the size of their precursors, these tanks seemed beautiful to us. Our tankers itched to try them out. On March 15, they got their chance. We were back in the line."

In a combat report from the 4th Cavalry Group, the officers noted that, "The superiority of the M24 over the M5 ... has greatly increased the striking power of cavalry units. We were able to employ them as assault guns and use our [M8 HMC] assault guns as supporting artillery." A March 1945 report from the 28th Cavalry Reconnaissance Squadron, 6th Cavalry Group, echoed these sentiments: "This tank is one of the best combat vehicles that ever furnished our army; it is the answer to a lot of our problems. We have fought with them for over a month now and there are few improvements that can be made." The 6th Cavalry Reconnaissance Squadron chimed in: "This tank is a wonderful improvement over the M5 light tank. It will go places that the M5 light tank and the M4 medium tank cannot negotiate." The 6th Cavalry Group commander commented: "I would rather have the M24 light tank than the M4 medium. The former can do everything that the M4 can do and the heavier armor of the latter is of no value. We have M4s and M5s operating in conjunction with the M24s, and they could not go where the M24 tanks went. Mobility of the M24 tank is outstanding."

The complaints about the design echoed the earlier ones from the 744th Tank Battalion. The location of the .50-cal. machine gun was

widely criticized since it was almost impossible to use it against enemy infantry. The cavalry also wanted a plate of belly armor added for mine protection. They were also critical of the lack of adequate provisions for crew stowage on the tank, and had been obliged to improvise their own stowage fixtures. Ammunition stowage in the tank was awkward, and there was a universal request for the addition of a ready rack inside the turret. Some units also wanted a generator added to keep the batteries charged when using the turret or radios with the engine off.

While the M24 was not designed to fight enemy tanks, such incidents did occur on occasion. In early March 1945, a pair of M24s of F Troop, 4th Cavalry Reconnaissance Squadron, stumbled on a pair of German tanks that they identified as Tigers on the outskirts of Domagen, Germany. More likely they were Panthers, but either way it was a considerable mismatch. But the German crews were as surprised as their American opponents, and the M24 had the advantage of faster turret traverse. Before the panzers could swing their clumsy turrets at their smaller foe, the M24s slammed several high explosive rounds against the thinner side and rear turret armor. These were enough to set off an internal fire which destroyed both panzers. While such incidents were flukes, they reaffirm that the outcome of tank-to-tank parties cannot be predicted with any certainty by paper calculations of tank characteristics since circumstance, luck, and crew performance can sometimes overcome disparities in equipment.

By the end of the fighting in the ETO in May 1945, the M24 constituted 34 percent of the light tanks deployed with the US Army. Shipments to US units in Italy had a much lower priority, and the only unit to receive any significant number of these tanks was the 1st Armored Division, especially its 81st Cavalry Reconnaissance Squadron, beginning in January 1945. These were first deployed in significant numbers in March 1945 and saw action in the final months of the campaign. The M24 was not deployed in time to see combat in the Pacific. The US Marine Corps obtained ten in 1945 and they were used to test fording



An M24 of the 3rd Reconnaissance Company, 3rd Infantry Division, named "Eagle Claw" in action against Chinese infantry near Songdong-bong on May 20, 1951. This was part of an offensive by IX Corps called Plan Detonate that was aimed at draining remaining Chinese strength north of Seoul. By this stage, many M24 tanks had their .50 caliber machine guns re-positioned on the front of the turret roof where they were more useful. (US Army)

M24 LIGHT TANK STRENGTH IN ETO, 1945

	Jan	Feb	Mar	Apr	May
Tank Battalions	20	34	51	71	97
Cavalry Recon Squadrons	0	12	150	302	455
Armored Divisions	0	82	163	363	611
Total	20	128	364	736	1163

*Data from beginning of month

trunk designs. The Marine Corps rejected the type for service use and placed them in storage.

Lend-Lease M24 Tanks

Because of its relatively late start in production, the M24 was not extensively exported under the Lend-Lease program. The only significant recipient was Britain, which ordered 842 but received only 302 – 203 in 1944 and 99 in 1945. They were deployed in small numbers in April 1945, replacing Stuart light tanks in the last few weeks of the war. Units known to have used them included the reconnaissance squadron of the 5th Royal Inniskilling Dragoon Guards and the reconnaissance troop of the 8th Hussars with the 7th Armoured Division. By June 1945, the 7th Armoured Division had 28 on hand. At least two British M24 light tanks were lost in combat. One M24 was received by the Canadian 4th Armoured Brigade in May 1945 for trials, and the verdict was that it was “impossible to speak too highly of its design and performance.” By the summer of 1945, small numbers of M24 tanks were sent to Italy and India for training.

The Soviet Union was supplied with two M24 light tanks in 1945. Although the issue of equipping French troops with the 6th Army Group was raised, the US Army decided against it, as the US units of the

France was the largest single recipient of the M24 through the MDAP program, receiving a quarter of the production run. The M24 tanks were refurbished prior to export, and, typical of the MDAP vehicles, they had an additional radio aerial added over the former smoke mortar port on the forward turret roof, an added pintle for the .50 caliber machine gun in front of the commander's cupola, and racks for jerrycans on the fenders. These M24s are seen on parade in February 1955 celebrating the battle for Colmar a decade before. (US Army)



Italy was another major recipient of MDAP aid, receiving over 500 M24 light tanks. Here the commander of an Italian M24 of an armored cavalry unit confers with a Canadian M8 armored car crew during exercises in Italy in August 1951 near Genoa. (US Army)



neighboring Seventh Army were still substantially short of their allotment of M24 light tanks.

Combat in Korea

After the war, the M24 was deployed on occupation duty in Japan, as Japanese roads and bridges were not designed to accommodate heavier tanks. The four US Army divisions with the Eighth Army in Japan (7th, 24th, 25th Infantry and 1st Cavalry) each had an attached tank battalion (the 77th, 78th, 79th and 71st Tank Battalions respectively). In reality, each battalion had only a single company of M24 light tanks in Japan.

When the North Korean People's Army (NKPA) invaded South Korea on June 25, 1950, the attack was spearheaded by the 105th Armored Brigade equipped with T-34-85 medium tanks. The North Korean tanks created a panic among South Korean troops since they had no tanks of their own and no weapons to defeat them. The first US infantry units deployed to Korea were also very poorly equipped to handle the threat, and the early defeats of US forces were largely attributed to their inability to deal with the onrush of North Korean tanks. As a result, a crash program was started to ship tanks to Korea. The M24 companies in Japan were the first to be sent.

The first of these to see combat was Company A, 78th Heavy Tank Battalion, which supported the 21st Infantry, 24th Division, at Chonju on July 10, 1950. They were hopelessly outclassed by the Korean T-34-85s as they could not penetrate their frontal armor. The M24 tanks fought in at least ten skirmishes with the NKPA tanks, mainly in July 1950, but did not manage to knock out a single one. The company's M24 tanks scored several direct hits on the T-34-85s, only disabling one, but having most of their ammunition simply bounce off. Two M24s were lost in the first day of fighting when their poorly maintained gun recoil systems malfunctioned, wrecking the guns and turrets. Three more M24s

were lost the following day for various reasons. The M24 was vulnerable not only to the T-34's 85mm gun but also to the NKPA's 14.5mm PTRS antitank rifles, which the American tankers called “buffalo guns.” The poor performance of the M24 against the T-34-85s demoralized the crews, and the tankers proved to be very skittish in supporting the infantry in the ensuing battles for the Kum river line, even without NKPA tank opposition. By August, only two tanks of the original 14 in



An M24 of the Norwegian Panserskolen on exercise in the 1950s. The M24 formed the seed of the post-war Norwegian tank force, and they were rebuilt in the early 1970s, extending their lives for two decades. (NARA)

the company survived. The other two tank companies were also roughly handled: Company A, 71st Tank Battalion, lost most of its tanks by early August, and Company A, 79th Tank Battalion, suffered several unequal skirmishes with T-34s. US Army commanders soon lost confidence in such feeble tank support and the balance was not redressed until August 1950 with the arrival of M4A3E8 and M26 medium tanks. The principal problem with the M24 in Korea in the early days was that it was expected to perform tasks for which it was never designed. The M24 was intended to be used as a reconnaissance vehicle, and not to perform the tasks of a medium tank. The M24 performed more satisfactorily in the latter half of 1950 when it was assigned missions more in keeping with its intended role of scouting. In total, four M24 tanks were destroyed by T-34-85 tanks, while eight T-34-85 tanks were knocked out by M24 light tanks, three in August 1950 and five in October 1950.

Besides serving in the light tank companies in each of the three heavy tank battalions, M24 light tanks also served in the reconnaissance companies of the 3rd Infantry (24th Division), 7th Infantry (25th Division), 16th Infantry (1st Cavalry Division), and in ten reconnaissance platoons (502nd, 503rd, 10th BCT, 187th Airborne; 6th, 64th, 70th, 72nd, 73rd and 89th Tank Battalions). A total of 138 M24 light tanks were shipped to Korea in 1950, and in mid-January 1951 the Eighth Army had 64 M24 tanks in service. Although the improved M41 light tank first became available in 1951, none were deployed in Korea after the North Korean tank force was wiped out during the fighting of summer 1950.

International export

As increased tensions with the Soviet Union initiated the Cold War in the late 1940s, the US Army began to reassess its future equipment needs. Although the M24 had proven to be an excellent design, a General Board study of cavalry reconnaissance doctrine after the war concluded that such units often had to fight to gain intelligence. The 75mm gun on the



In a shot reminiscent of the war a decade before, a camouflaged Belgian M24 moves down a road outside Bastogne during a joint Dutch-Belgian exercise in August 1951 past a road-sign still riddled with holes from the fighting five years before. Belgium received over 200 M24 tanks through the MDAP program in the early 1950s. (US Army)

M24 was inadequate to deal with Soviet tanks, and a more potent weapon would be too large for the small chassis. Work began on an enlarged version of the M24 with a new long-barrel 76mm gun that would emerge in 1951 as the M41 Walker Bulldog tank. Its arrival, together with the poor reputation of the M24 in Korea, made the significant inventory of M24 tanks surplus to US Army needs. At the end of 1949, however, the US Army still had 3,833 on hand.

Most of the M24 light tanks manufactured during the war were subjected to upgrades during the late 1940s based on wartime recommendations. One of the primary complaints of the cavalry units was the lack of a second radio aerial, necessary when two radios were carried. Since the 60mm smoke mortar in the front of the turret was so little used, it was decided to replace this with a second radio aerial. The widespread complaints about the position of the .50 caliber antiaircraft machine gun led to the addition of a simple pintle mount on the turret in front of the commander's cupola to allow the machine gun to be used more easily against ground targets. There were a number of changes to the external stowage. These, as well as many automotive upgrades, were incorporated on most M24 light tanks by 1950.

In spite of the fact that very few M24 light tanks were supplied through the Lend-Lease program during the war, the M24 would experience a new lease of life in the 1950s through the Military Defense Aid Program (MDAP) and later transfer programs. While not the most powerful tank available, the M24 was attractive to many smaller armies since it was much better than anything they had in service. It was a modern and robust design and was relatively inexpensive to operate. As a result, nearly the entire remaining inventory of M24 light tanks was exported, totaling about 4,400 tanks or 90 percent of all M24 tanks manufactured.

The principal recipients of these tanks were the new NATO armies. France was by far the largest single recipient, and the M24 became the backbone of the French tank force in the 1950s alongside the M4 medium tank. By 1951, the French Army already had 590 M24 tanks in service and this more than doubled over the next few years, amounting to about a quarter of total M24 production. The M24 saw extensive combat in French hands in Indochina and Algeria. Italy was the second largest recipient of the M24 in Europe, with over 500 received by the mid-1950s. Some neutral, pro-Western countries such as Austria also received the M24 light

tank in the 1950s. Exports to Europe constituted the largest share of M24 tank transfers, amounting to more than 60 percent.

The M24 was also exported in significant numbers to Asia. Although the scale of M24 exports to Asia was much smaller than that to Europe, in many ways they were more significant. The M24 saw more combat in Asia than in any other region, and it formed the seed of the fledgling armored forces in the region. It was well suited to Asia, since bridges and other infrastructure was often inadequate to support larger and heavier types.

The M24 was used to create the armored force of the new Japanese Self-Defense Force in the early 1950s. The first postwar Japanese tank unit, the 101st Tank Battalion, was formed on Hokkaido on November 22, 1952, using the M24 tank. In total, three more battalions were formed through 1956 – the 102nd, 103rd, and 104th – though the 102nd was later reorganized as the Tank School Demonstration Unit at Gotembo on Honshu in the shadow of Mount Fuji. The M24 was gradually replaced by medium tanks, but some remained in service with the Fuji School Brigade well into the 1970s.

The tank forces of the Republic of China on Taiwan were originally created using M5A1 light tanks that had been extricated from the failed civil war on the mainland in the late 1940s. An infusion of M24 light tanks in the early 1950s permitted the expansion of this force into two armored divisions, the 1st at Hokou and the 2nd at Taichung, as well as four tank battalions in Kinmen (701st, 702nd, 711th, 731st). Curiously enough, there were not enough M24s supplied from the US, so some of the battalions deployed a mixed composition of M24 light tanks and M18 76mm tank destroyers. The US began supplying the more modern M41 in the late 1950s so that within a decade the M24 had disappeared from the armored divisions and remained only in service with four separate tank battalions.

The French use of the M24 during the Indochina war encouraged its proliferation in this region as part of the US-sponsored South East Asia Treaty Organization (SEATO). The Republic of Vietnam was the largest single recipient in the area, and the M24 formed the core of its fledgling armored force during the initial stages of the Vietnam War as mentioned below. Thailand created four light tank companies with the M24, which were attached to the 1st Infantry Division at Bangkok, the 3rd Infantry Division at Korat, the 4th Infantry Division at Phitsannlok, and the Cavalry Division in Bangkok. The Laotian Army had a single M24 tank company through most of the 1960s, and Cambodia's force was little bigger. Although the M24 saw extensive combat during the Korean War, very few were supplied to the Republic of Korea Army since more



Austria was one of a number of non-NATO countries to receive the M24 through MDAP grants. This is a good example of the vehicles after their postwar refit showing the added radio aerial over the smoke mortar port, the added front machine gun pintle, as well as the medical box and jerrycan rack on the fenders. It is a late production type fitted with the attachments for the pontoons on the lower bow plate, but by this time they have been plugged up with bolts. Most postwar M24s were fitted with the T87 rubber block track as seen here, instead of the steel T86 track seen during the war years. (Osterreich Heeresbild)



The South Korean Army received a modest number of M24 tanks, but they were used mainly for training. This is a tank of the ROK Army Tank Training Center at Kwang-ju in 1953, and it carries the national insignia prominently on the turret side. (US Army)

powerful tanks were favored. Pakistan received the M24 to replace old M3 and M5 light tanks, and they saw extensive combat in the 1971 war as detailed below.

Although some were supplied to countries in the Middle East, this was one region where the M24 saw little or no combat use. Although it was used by both Iran and Iraq, so far as is known, none took part in any of the wars in the area. There was little export to the Americas even though many South American armies were still using the old M3 and M5A1 light tanks. Uruguay received 17 M24 tanks and they were used to form a light tank company attached to the 13th Infantry Battalion in 1958.



The French Army made extensive use of the M24 during the war in Indochina, finding the tank well suited even in the soggy conditions in the Tonkin region. This is a Bison of the 1er Regiment de Chasseurs à Cheval on patrol in 1953 named Oudenarde. (Patton Museum)



The Norwegian Army rebuilt some of their M24 light tanks in the mid-1970s as the NM-116. This added a new French 90mm gun, advanced fire controls, new track, and a new diesel engine. These remained in service for nearly two decades, finally being retired in 1992-93. (Norwegian Army)

Combat use in Indochina

The United States began to supply M24 tanks to France in 1950 following the outbreak of the Korean War, when the US government began to take a more favorable attitude towards French military actions in Indochina. Prior to the Korean War, the US had opposed French attempts to re-establish colonial rule in the region. After the outbreak of the war, French actions were seen as part of a broader effort to stem the tide of Communist aggression in Asia. Although the French Army had the more powerful M4 medium tanks on hand, these were regarded as too heavy to deploy in Indochina. The principal tank type in Indochina in the late 1940s was the M5A1 light tank, but its small 37mm gun was not particularly effective, and its small internal size made it cramped and unsatisfactory in the hot tropical climate.

The new M24 tanks were soon sent to Indochina and became the principal French tank in use against the Viet Minh. The M24 was a godsend for the French armored units there, as its low ground pressure enabled it to traverse even the marshy ground and rice paddies. The 75mm gun was also much superior to the 37mm gun on the old M5A1, which did not have a very effective high explosive round. One of the main problems with the 75mm gun on the M24 was that most of the ammunition had super-quick fuzes, which meant that it often exploded on hitting anything, including bamboo, overhanging vegetation, and other obstructions in front of the main target. The M24 was also wider than the M5A1, and this caused trouble when moving through narrow village paths.

Probably the most famous of the units to use the M24 in large numbers was the 1er Regiment de Chasseurs à Cheval, which substituted M24s for M5A1s early in 1951. This unit nicknamed the M24 "Bison". Initially, French armored units were organized as they had been in France. It was quickly appreciated that this was unsuitable for

M24 LIGHT TANK EXPORT

WWII Lend-Lease	
UK	302
USSR	2
Sub-total	304

NATO/Europe	
Austria	69
Belgium	223
Denmark	63
France	1254
Greece	170
Italy	518
Norway	123
Portugal	16
Spain	31
Turkey	238
Sub-total	2705

Asia-Pacific	
Cambodia	36
Japan	289
Korea (ROK)	30
Laos	4
Pakistan	132
Taiwan	292
Thailand	118
Vietnam (RoV)	137
Sub-total	1038

Middle East	
Ethiopia	34
Iran	180
Iraq	78
Saudi Arabia	52
Sub-total	344



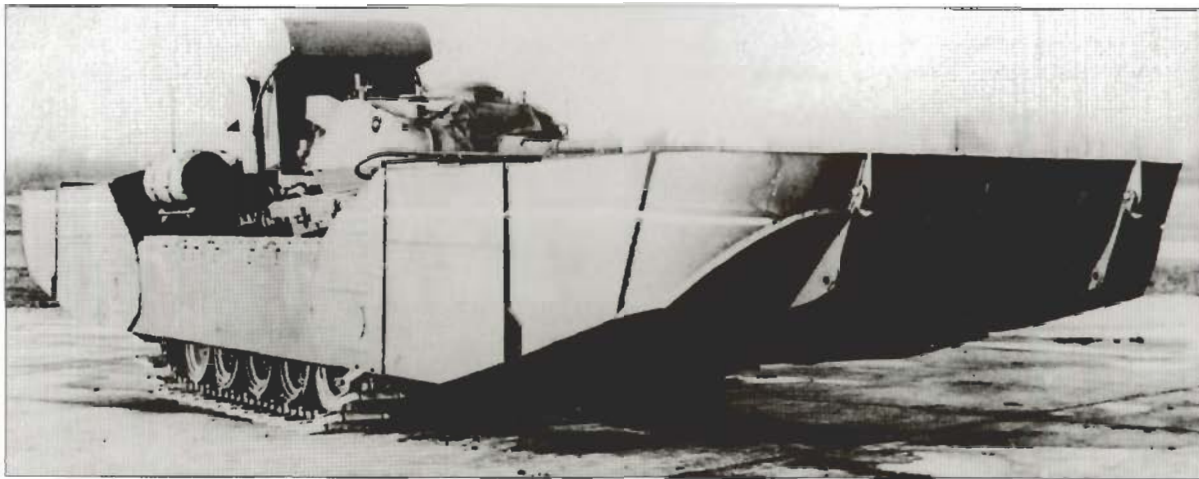
South Vietnam received over 100 M24 light tanks in the 1950s to help reestablish its armored force after the Indochina war. They won the dubious nickname of "voting machines" because of their frequent role in coups. This particular example is seen being used for airfield defense at Tan Son Nhut air base in November 1966, a frequent role for the M24 once the more modern M41 light tanks became available. (US Army)

the terrain of Indochina, and in 1951 the first sous-groupements blindées (GB) were organized. These were, in effect, small combined-arms battle groups. They had a single company of M24s and two mechanized infantry companies in half-tracks. Each tank company had 13 M24s, and eight or nine half-tracks, organized into four platoons each with three M24s and two half-tracks, plus a company command tank. The M24s were used mainly to provide fire support for the mobile infantry, escorting them along the few passable roads.

Besides their employment with these infantry support companies in the GBs, the M24s were also assigned to the groupes d'escadrons de reconnaissance (GER). Usually these scout groups consisted of a squadron of M24s, an armored car troop of 15 or 16 M8s, and a



The M24 formed the backbone of Pakistan's small armored force in Bangladesh during the 1971 war with India. This vehicle served with the 29th Cavalry and is seen here with some Indian soldiers aboard after it was lost during the battle for Boyra on November 21, 1971, against the Indian 9th Deccan Horse. (Patton Museum)



platoon of three M8 75mm Howitzer Motor Carriages for fire support. These GERs operated with a battalion-sized infantry formation on area control operations.

The employment of the M24 in Indochina was quite varied. It was most commonly used to support infantry attacks, but it also saw service as a convoy escort, for road patrols and for static defense of important bridges or other facilities. The convoy and road patrol duties were the least liked by the tank crews. The Viet Minh were very poorly equipped with antitank weapons, so preferred ambushes in terrain where anti-tank teams could sneak near the tanks with explosive satchels or Molotov cocktails. Regular road patrols or convoys obviously facilitated the planning of these ambushes, and the lack of passable terrain on either side of the road often channeled the tanks along very narrow routes. This was hardly the sort of mission that the speedy M24 had been designed for, but even so its firepower often turned the tables on the ambushers. For example, on October 25, 1953, the Viet Minh ambushed a 1er RCC column on the road near Lai Cac. In the ensuing fight 180 Viet Minh were killed for only modest French losses. As a result of increasing French finesse in countering such ambushes, most M24 losses came from mines

In preparation for possible amphibious operations against Japan, a device for adapting the M24 to the amphibious role was developed in 1944, based on the earlier Ritchie T-7 device for the M18 tank destroyer. It consisted of a pair of rigid steel floats on either end of the vehicle, a swimming skirt along the side, and special extended grousers for the track to provide propulsion in water. Although two pilots were built, the war ended before production started. Curiously enough, most late-production M24 tanks were fitted with mounts on either end to permit attachment of the steel floats. (Patton Museum)

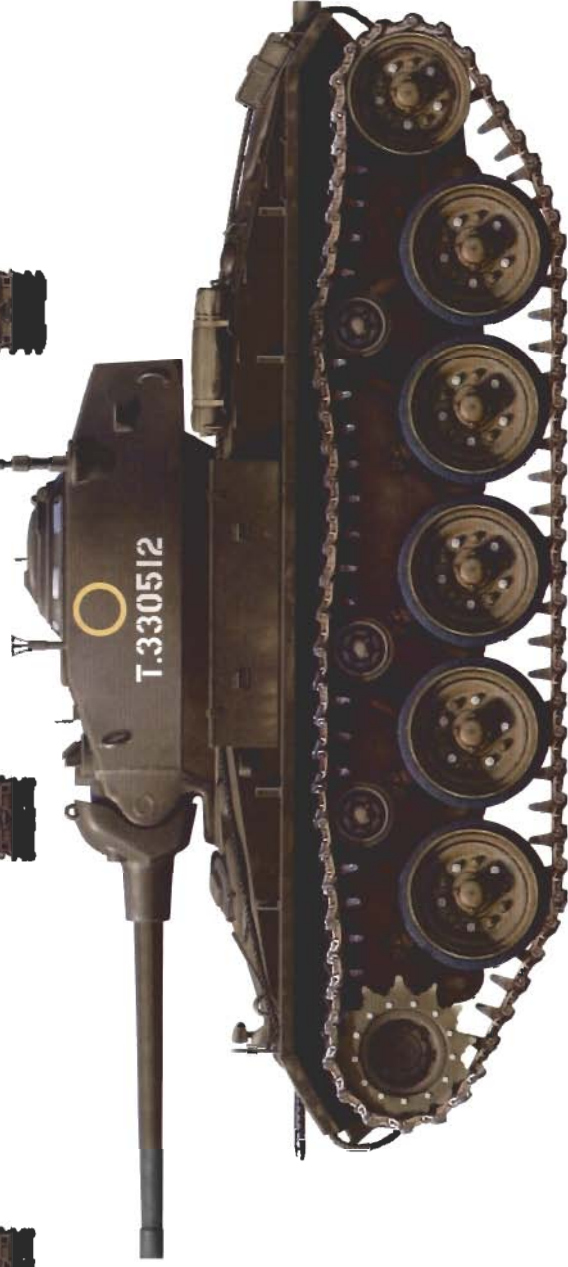
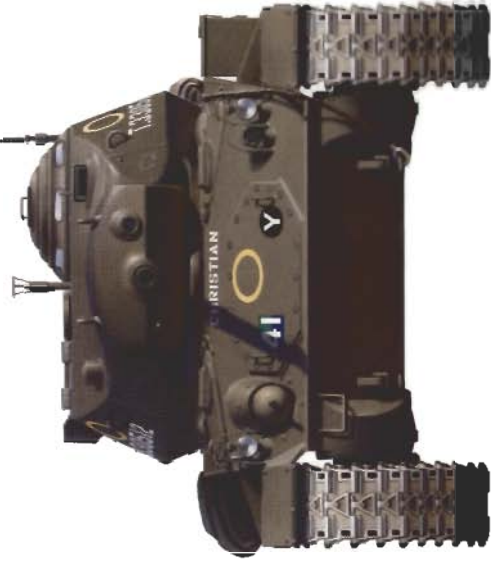
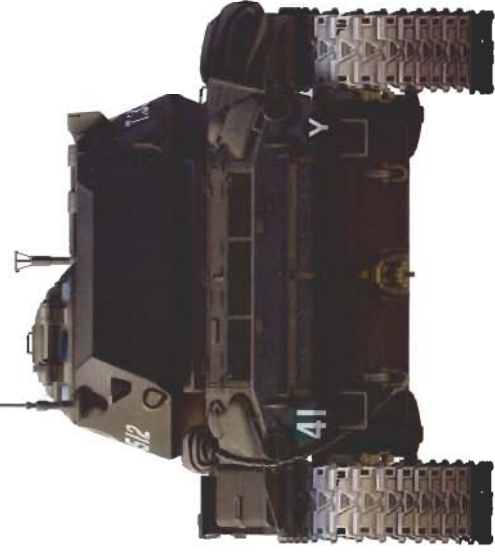


To improve the firepower of the LVT(A)1 amtank, an M24 turret was mounted on a modified hull and tested by the Landing Vehicle Board as seen here. The turret made the vehicle too top-heavy in the water, and the project was abandoned. (Patton Museum)

A. M24 light tank, Company D, 36th Tank Battalion, 8th Armored Division, Rheinberg, Germany, March 1945



B. Chaffee light tank, C Squadron, Reconnaissance Regiment,
5th Infantry Division, British Army, 1946

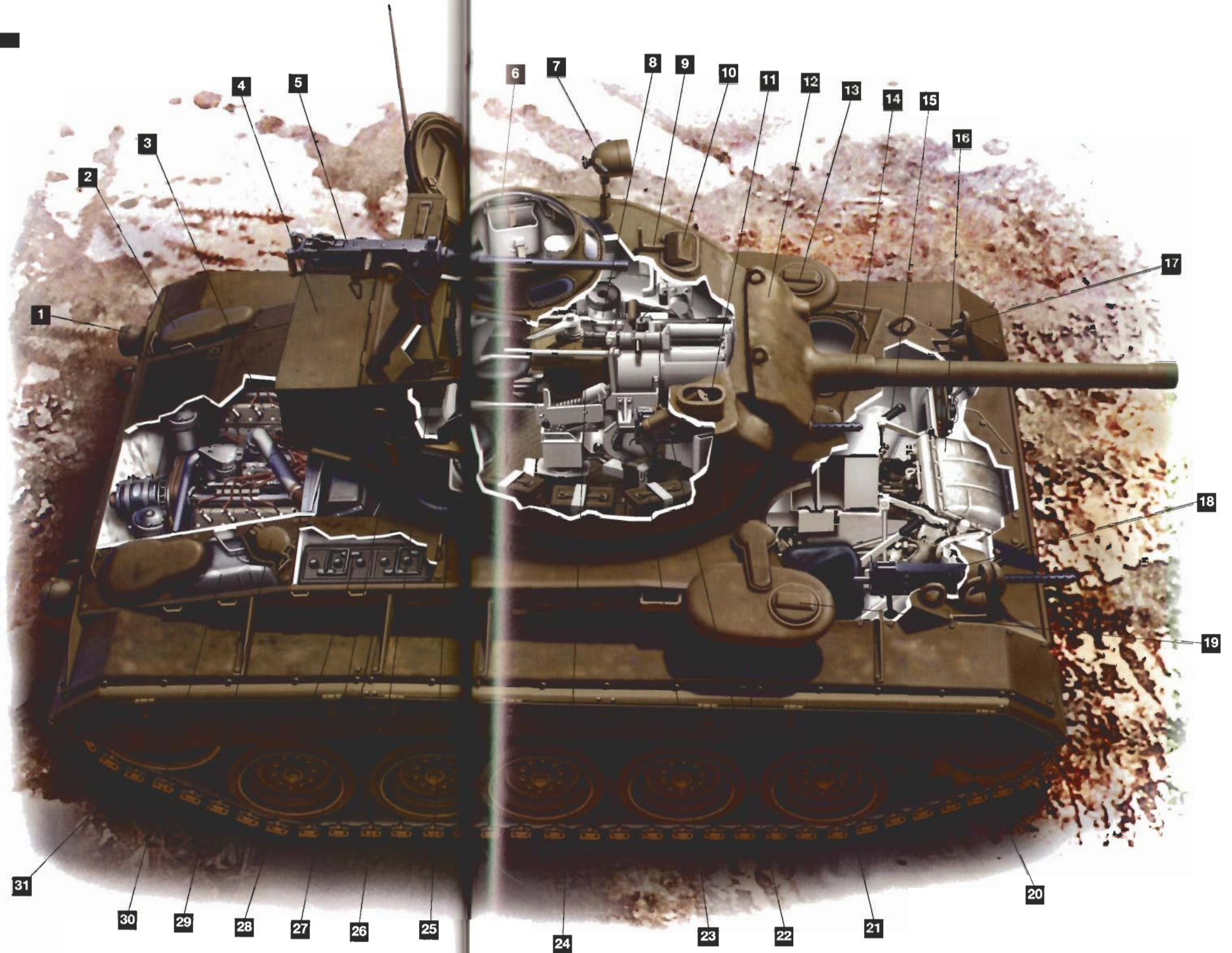


C. M24 Bison light tank, 1er Regiment de Chasseurs à Cheval,
Dien Bien Phu, Indochina, 1954

D. M24 LIGHT TANK, US ARMY, 1944

KEY

1. Rearlight
2. Engine compartment vent cover
3. Engine
4. Rear turret stowage bin
5. .50 cal. anti-aircraft machine gun
6. Commander's cupola
7. Searchlight
8. Gunner's controls
9. Commander's aiming sight
10. Gunner's periscopic sight
11. Smoke mortar
12. Gun mantlet
13. Driver's hatch
14. 75mm gun barrel
15. Driver's station
16. Transmission
17. Headlights
18. Hull .30 cal. machine gun
19. Hull machine-gunner's hatch
20. Drive sprocket
21. Road wheel
22. Co-axial .30 cal. machine gun
23. Machine gun ammunition stowage
24. 75mm gun
25. Shell ejection port
26. Tank radio
27. Travel stowage mount for machine gun
28. Battery
29. Fuel cap
30. Fuel tank
31. Idler wheel



E1. M24 light tank, Grupos Blindados de Caballería, Spanish Sahara, 1957



E2. M24 light tank, 2eme Escadron, 12e Regiment des Chasseurs d'Afrique, Algeria, 1962

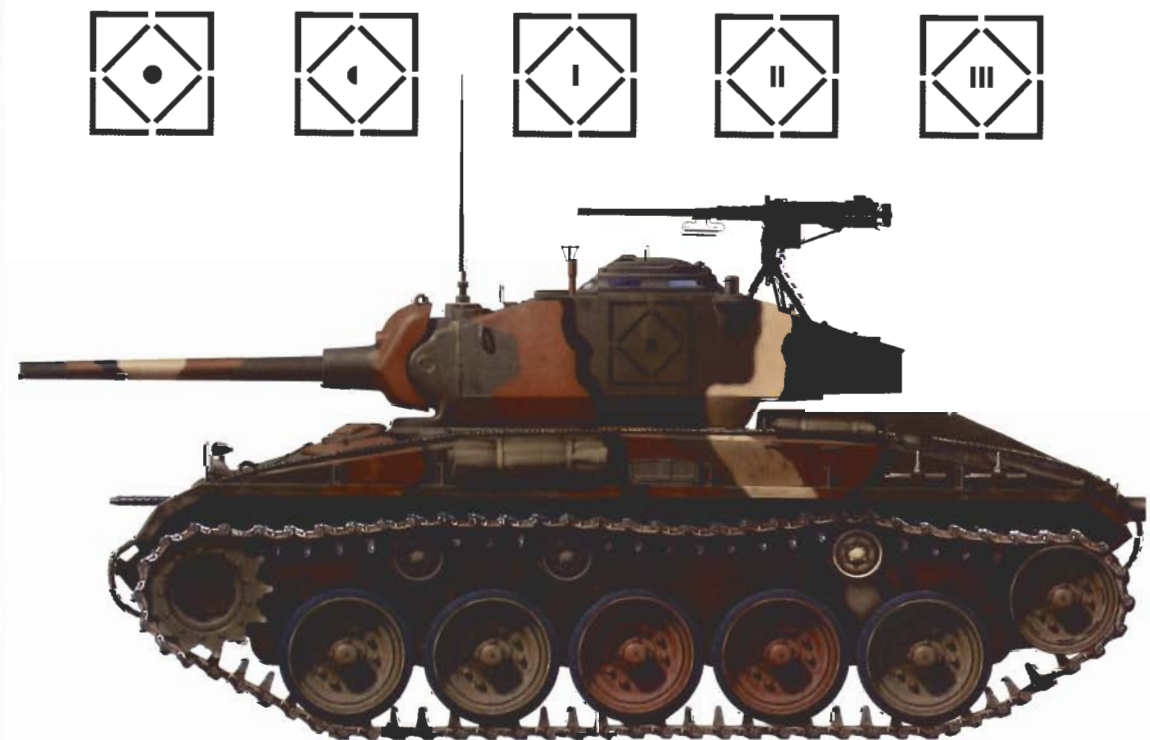


F. M24 light tank, Armored Brigade, Hellenic Army, Greece, 1985

G1. M24 light tank, 29th Cavalry, Pakistan Army, Boyra, Bangladesh, November 1971



G2. M24 light tank, Compania de Tanques BN.I.BLD0.13, Uruguayan Army, 1985



Tank dozers had proven to be an essential tool on the battlefield in 1944–45 to help surmount tank ditches and other obstacles. The T4 dozer blade, derived from the M1 dozer used on the M4 medium tank, was developed for the M24 but was not standardized. (Patton Museum)

rather than other antitank weapons. Indeed, mine losses probably accounted for over 85 percent of tank casualties.

In 1953, the armored units were reorganized to take advantage of the improvement in French tactics. The main new formation was the armored group, also sometimes called the armored task force. Four of these were formed. They consisted of one company of M24 tanks, three companies of truck-mounted infantry and one mechanized infantry company on half-tracks. Nominally, the tank company consisted of three platoons with five tanks each plus two command tanks, but in practice there were usually four platoons (one for each infantry company) and only one command tank. The main drawback of the armored task forces was that the trucks were not as mobile as the nimble M24, and so the whole force was apt to be less mobile. These task forces were considered part of the French strategic reserve and could be assigned to various regions for operations. They proved highly effective in combat. These units should be distinguished from the groupements mobiles, which usually only had a platoon of three M24 tanks. Some later had a full company of tanks added, but these were often the inferior M5A1s.

Probably the most famous use of the M24 took place in December 1953 when ten M24s were transported by air into the beleaguered garrison at Dien Bien Phu to support the French "airhead" being established there. The only transports available, the C-47 and the Bristol, could not carry an intact M24, so they had to be broken down into 180 components and reassembled at Dien Bien Phu. During the fighting of spring 1954 the "Bisons" were used as mobile artillery batteries, firing about 15,000 rounds during the course of the battle. This caused serious problems with the gun recoil system. Nevertheless, the "Bisons" soldiered on until Dien Bien Phu was finally overwhelmed in May 1954, when their crews destroyed them to prevent them falling into Viet Minh hands. Their hulks still litter the battlefield at Dien Bien Phu, a silent reminder of the battles half a century ago. Although this was the most famous use of airlifted tanks, it was not the only example. A platoon of five M24s was airlifted into Luang Prabang in Laos.



The M4 dozer blade was finally developed for the M24 tank, which differed from the experimental type in that it did not require the extensions along the hull side. This dozer was seldom seen fitted to the M24 in serving units, and this example is seen at the Butzbach depot in Germany serving with the 9th Reconnaissance Squadron in January 1946. Notice that the 60mm smoke mortar port on the turret roof has been modified to permit a second radio aerial to be fitted. (NARA)

In 1955, after the withdrawal of French forces from Indochina, the South Vietnamese Army retained four armored regiments, equipped mostly with armored cars and half-tracks. In 1956 the US began to supply advisers, and to train Vietnamese officers at the Armor School at Fort Knox. The four units were reorganized as armored cavalry regiments, and each had a squadron of M24 tanks. There were about 15 in each ACR squadron, with the remainder at the Thu Duc Armor School.

The M24s were not extensively used against the Viet Cong in the early days of the Vietnam War. Indeed, the first major combat operation by ARVN M24s occurred on November 2, 1963, when M24 tanks of the Armor School and other armored units fought it out with a smaller number of M24 tanks of the presidential guard brigade during the coup against Diem. The M24 tanks were used again on January 30, 1964, to support General Khanh's coup. Not surprisingly, ARVN tank troops soon came to be called "coup troops" and their M24 tanks "voting machines." The use of tanks as decisive factors in these rebellions led the leaders of subsequent successful coups to emasculate the armored units by assigning commanding officers more notable for their political loyalty than their military ability. The politicization of the armored force continued until 1968, and severely hampered the development of ARVN tank units.

In 1963, the US agreed to help form two more cavalry regiments and to reequip the armored force with the newer M41A3 tank. By this stage, the M24 tanks were a bit long in the tooth and in disrepair. They were dispatched to airports and other vital locations and were used as static pillboxes for perimeter defense. The engines were removed not only because of a lack of spares, but also to prevent their use in coups. The last operational Vietnamese M24 tanks were a small force at the Tan Son Nhut airport with Vietnamese air force crews. They were retained as a counter-coup force by Air Marshal Nguyen Cao Ky to prevent the use of army tanks in a coup against



There was some interest in light tank units for a specialized light recovery vehicle, leading to the development of the T6E1 recovery vehicle. A pilot was completed in September 1944 and put through trials with the Armored Board at Fort Knox as seen here. Although it proved to be an effective design, production never started as development was not complete when the war ended in August 1945. (Patton Museum)

Corps reconnaissance regiment but in fact served with the 6th Armoured Division in the Sialkot sector; and the 15th Lancers, which was nominally the I Corps reconnaissance regiment but which served under the 15th Infantry Division in the Sialkot sector. The 12th Cavalry Regiment saw some combat during the large tank battle at Assal Uttar on September 10, 1965. Pakistani sources state that only one M24 was lost during the 1965 war. Indian sources claim that 60 M24 tanks were knocked out, and that one was captured at Chamb from the 20th Lancers on September 1, 1965, following the tank engagement there between elements of the Pakistani 6th Armoured Division and Indian AMX-13 tanks of C Squadron, 20th Lancers.

In 1971, the employment of the M24 was more central to the fighting. The 29th Cavalry, stationed in Bangladesh, and two ad hoc armored squadrons, had the only Pakistani tanks in the eastern region. They were equipped with 66 M24s, but by this date the tanks were in very bad shape: the gun tubes were badly worn, which seriously degraded both their range and accuracy. The unit was not kept intact, being broken down into squadrons which were doled out to provide fire support for various Pakistani infantry units. They were faced by far larger numbers of Indian PT-76 and T-55 tanks, equipping two armored regiments and three separate armored squadrons. Many of the M24s fell to Indian recoilless rifle antitank teams and others to Indian tank fire. The M24 was hopelessly outmatched by the Indian T-55 tanks and did not have the range to compete even with the PT-76 reconnaissance tanks. All of the regiment's tanks were lost or surrendered. Surviving tanks were turned over to the Bangladesh government after the war, but they were in such a poor state of repair that they did not see extensive use.

his regime. The North Vietnamese Army captured a few M24 tanks, and propaganda photographs show them in use during the fighting near Quang Tri in 1972.

Other combat use

The Pakistan Army used the M24 light tank in both the 1965 and 1971 wars with India. The M24 did not play a significant role in 1965. There were three regiments in service: the 12th Cavalry, which was the divisional reconnaissance unit of the 1st Armoured Division near Khem Karan; the 20th Lancers, which was nominally the IV

REJUVENATION AND RETIREMENT

The M24 disappeared from the scene more rapidly than most postwar US export tanks, and there were few in service after the 1970s. This was in no small measure due to the arrival of the far superior M41 light tank in 1951, and the substantial export of this type starting in the mid-1950s, eventually totaling about 3,040 tanks. Most NATO armies retired the M24 in the late 1950s. Some countries retained small numbers for training or other secondary roles. For example, the Austrian Bundesheer kept a small number in service with their turrets removed for use as driver training vehicles at the school at Zwolfaxing. Even small armies such as that of Ethiopia had their M24 tanks replaced by M41s by the mid-1960s.

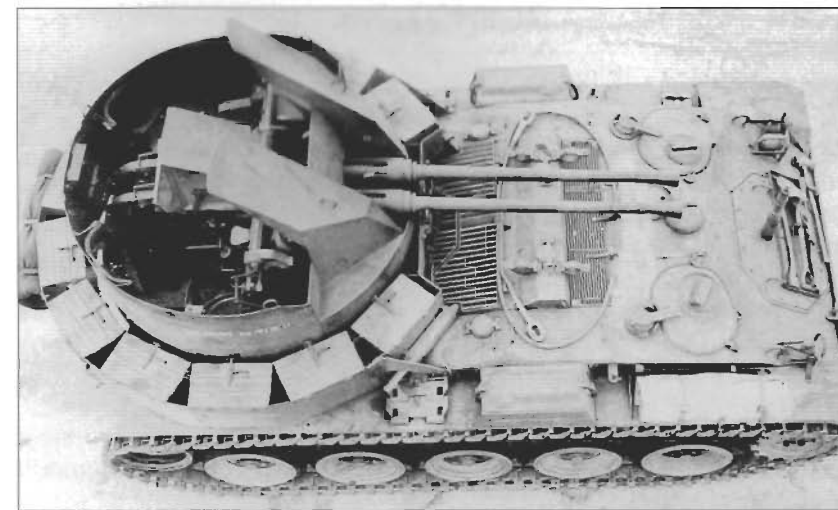
The French Army possessed the largest single holding of M24 tanks, and, not surprisingly, French firms made a number of attempts to develop improved variants for possible export. One of the first efforts in 1956 substituted the turret from the AMX-13 light tank for the normal M24 turret, since the French 75mm gun had considerably better anti-armor penetration. The conversion was not very successful and none were built beyond a pilot. Curiously enough, the French Army tried the opposite approach in May 1959 by taking an AMX-13 and replacing its turret with that of an M24. The 75mm gun on the AMX-13 did not fire a very useful high explosive round, and the M24's gun was more valuable in this respect. Tank units in Algeria wanted more high explosive firepower. A contract for 150 conversions was issued in March 1960. These hybrids were called AMX-13 Chaffees, and some served later as driver trainers at Carpiagne with their guns removed and the gun mantlet replaced by a simple window for the instructor. In 1967, the *Ingenieurs de Bourges* proposed the substitution of a CN-90 (D-925) 90mm low-pressure gun as used on the AML-90 armored car for the normal 75mm gun. A single French M24 was modified, but the sole customer was Norway, which acquired the guns as part of a broader modification effort.

In 1972, the Norwegian Army decided to retain 54 M24 light tanks as reconnaissance vehicles after they were substantially rebuilt under the designation NM-116. They calculated that the NM-116 rebuilding program cost only about a third as much as contemporary light tanks. This program was managed by the



The M24 also served as the test-bed for a variety of weapons options including the T122 machine gun mount seen here in 1947 at the Aberdeen Proving Ground. This remote-control mount was armed with a pair of .50-cal. machine guns, but there was little demand for such a weapons mount and it did not pass beyond the test stage. (NARA)

The T65E1 40mm gun motor carriage was the anti-aircraft version of the M24 light tank fitted with twin 40mm Bofors gun. It was accepted for production as the M19 40mm GMC but was not ready in time to serve in World War II. (Patton Museum)



An M19 40mm MGMC moves to the front in Korea, towing a standard M28 1-ton ammunition trailer. In Korea, the M19 was mainly used to provide fire support against ground targets owing to the absence of enemy aircraft after the summer of 1950. (US Army)



firm Thune-Eureka. The American firm NAPCO developed an improved power-pack based around the 6V53T diesel engine used in the M113 armored personnel carrier mated to an Allison MT-653 transmission. The original 75mm gun was replaced with a French D-925 90mm low pressure gun, with a co-axial .50-cal. machine gun. The bow gunner position was eliminated in favor of ammunition stowage. A new fire control system was installed, complete with a Simrad LV3 laser rangefinder. Norwegian firms also converted eight M24 light tanks into light armored recovery vehicles to support the NM-116. The NM-116 light tanks were retired in the early 1990s as part of the general demobilization of NATO forces following the end of the Cold War.

The NAPCO power-plant upgrade was offered to Greece to refurbish its old M24 tanks, but local firms were given the contract to carry out this modernization effort using surplus M113 engines.

When this failed, some of the M24 light tanks were dug in as static seacoast defenses. Taiwan acquired the NAPCO power-packs for at least some of its M24 force in the early 1980s.

Uruguay decided to refurbish its small force of M24 tanks in the 1980s, equipping them with a Belgian 90mm Cockerill gun, and refitting them with a new Scania diesel engine, and, so far as is known, these remained the only M24 light tanks in service at the beginning of the 21st century.

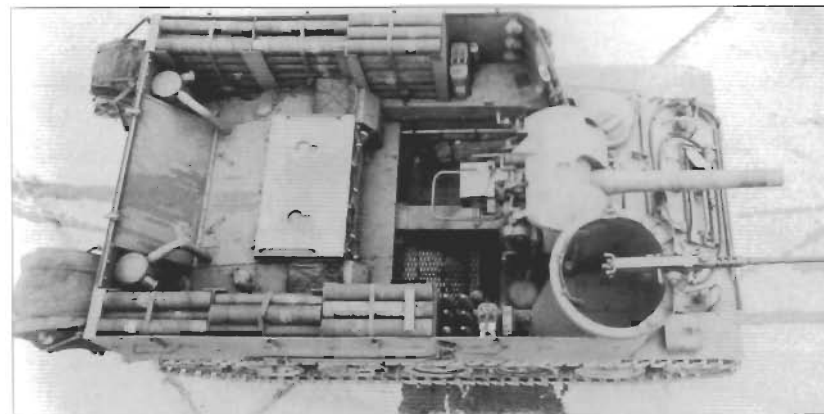
M24 TANK VARIANTS

The M24 tank chassis served as the basis for a number of special-purpose variants, as well as a number of derivative types. Of these, the most significant were the M19 40mm Multiple Gun Motor Carriage (MGMC), the M37 105mm Howitzer Motor Carriage (HMC), and the M41 155mm Howitzer Motor Carriage (HMC). Most of these programs came to fruition in the summer of 1945 at a time when the US Army was canceling most production contracts at the end of the war in Europe and the Pacific. As a result, production of these vehicles was on a very small scale.

Since there was some likelihood of using M24 tanks in amphibious landings, there was a need to examine methods of getting the M24 ashore. The most straightforward of these was the design of a deep-water fording kit for the M24 which had become fairly standard for US tanks by this stage of the war. This used two trunks to provide air to the engine and fighting compartment, and permitted the tank to wade ashore from a landing craft after the tank had been waterproofed. A more elaborate effort began in March 1944 to design a swimming device to permit the tank to propel itself ashore. Such devices had already been developed by Buick in 1943 for the M18 76mm gun motor carriage, called the Ritchie T7 device. The M24 device was based on these earlier experiments. This floatation device consisted of a set of rigid steel floats mounted fore and aft, and a set of side skirts to reduce the hull drag when in the water. The tank track was modified by the addition of special grousers that propelled the tank in the water much like the tracks on the LVT amtracs then in service. On exiting the water, the pontoons could be dropped and the tank driven in the usual fashion. The first pilot was completed by Cadillac in late October 1944 and tested through early 1945. The trials revealed problems with the manually operated steering rudders, and the pontoon release system. A second pilot was completed in the spring of 1945. These trials were successful enough for the army to decide to fit all M24s with the adapters for the pontoons. The front adapters were fitted to all Cadillac-manufactured M24 tanks starting with serial number 713 in October 1944, and the rear adapters starting with serial number 1101 beginning in November 1944. The M24 tanks manufactured by Massey-Harris had the adapters added starting with serial number 250 in January 1945. In the event, the war ended before any of these devices could be put to use, and they were never standardized. The army also experimented with substituting the M24 turret for the modified



The T77 multiple caliber .50 motor carriage was an anti-aircraft tank derivative of the M24 light tank. It was not completed before the end of the war, and the advent of jet strike aircraft severely reduced its effectiveness. This photograph shows the pilot during trials. (NARA)



The T76 105mm HMC mated the M4 105mm howitzer with the M24 tank chassis. It was accepted for production as the M37 105mm HMC and was first deployed in combat in Korea in 1950. Unlike M24 self-propelled gun conversions, it retained the basic hull design of the M24 with the engine in the rear. (Patton Museum)

dozer blade, and the new T4 dozer was developed for the M24 based on the standard M1 dozer used on the M4 medium tank. Like the M1, it required a special attachment plate on the hull side. This type was not standardized, but an improved design that did not require the side attachments was accepted for service as the M4 dozer blade. This was not produced in significant numbers and was rarely seen in use.

The army had a long-standing requirement for a light tank recovery vehicle to serve in light tank units instead of the M31 and M32 tank recovery vehicles used in medium tank companies. The original T6 light tank recovery vehicle was based on the M5A1 light tank. However, before a pilot was built, the program was shifted to the M24 tank chassis, resulting in the T6E1. This had a fixed superstructure instead of the usual turret and was fitted with an "A" frame boom on the front. Although the T6E1 pilot proved to be a practical design when put through trials in 1945, the war ended before production could begin, and like many M24 variants it was abandoned during the wholesale cancellation of production contracts in the late summer of 1945.

There was some interest in examining other power-plants for the M24 tank, and the first pilot was converted by American Car and Foundry into the T24E1 powered by the Continental R-975-C4 radial engine. This pilot was also used as the test-bed for an improved 75mm gun, the T21. The T24E1 had a number of performance advantages over the normal M24 tank, but there were technical problems with its new Spicer automatic torque converter transmission. By the time that tests ended in November 1945, M24 production had come to a close. There were also a number of experiments with the suspension to improve performance, including trials of a new extended grouser to improve floatation in snow and mud. While trials in May 1945 were successful, this was not adopted for service use. One of the more curious experiments was the test of the tracked suspension from a German Sd.Kfz. 8 12-ton half-track on the M24 after the war.

There were a number of experiments with armament options for the M24. One M24 was fitted with a launch rack for the Navy 4.5in. barrage rocket, but this never proceeded beyond trials. In 1947, the M24 served as the test-bed for a new light tank machine mount, the T122, but this cumbersome contraption was rejected for service use.

M24 artillery variants

The US Army had begun to develop a number of self-propelled artillery vehicles in 1942 based on M5A1 components. Since the M5A1 hull was too narrow and too short to accommodate heavier weapons, Cadillac developed an enlarged hull with three bogie assemblies per side, and the engine compartment moved to the center of the chassis. The new chassis formed the basis for a family of vehicles, sometimes called the Light Combat Team. In 1943, when development of the T24 light tank began to pick up steam, Ordnance realized it would make more sense to transfer these projects to the new light tank hull to permit a greater degree of standardization of parts. As a result, most of the projects started on the M5A1 Light Combat Team chassis shifted to a similar design using M24 components. It is worth mentioning that the M24 hull design was based in part on the Light Combat Team chassis, particularly with regard to the configuration of the front hull.

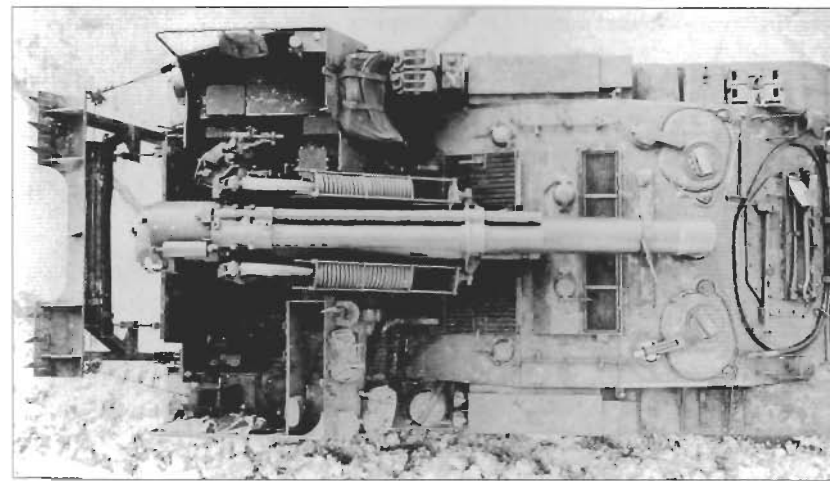
The T65 40mm gun motor carriage mounted a pair of 40mm Bofors antiaircraft guns in an open turret at the rear of the Cadillac hull. On May 25, 1943, the army approved the transfer of the project to the T24 chassis under the designation T65E1. A pilot was completed in early 1944 and underwent tests at APG and the Antiaircraft Artillery



This M37 105mm GMC is seen on trials in the Mojave desert by the Desert Warfare Board in 1945. It has become so caked in dust that it appears almost white. The "L"-shaped brackets on the hull side are hoops used to mount a foul-weather tarp over the fighting compartment. (Patton Museum)



The M37 105mm HMC became the backbone of US Army armored field artillery battalions in the early 1950s. It was deployed in Germany until the mid-1950s when it was gradually replaced by the M52 105mm HMC, a fully turreted design based on the newer M41 light tank chassis. (US Army)



There had been long-standing requests from US armored divisions for a self-propelled 155mm howitzer. It finally materialized as the T64E1 155mm HMC in 1944. This was modification of the basic M24 chassis with the engine repositioned in the center of the hull to permit the rear to be used as a platform for the M1 155mm howitzer. The production version, the M41 155mm HMC, differed in a number of details from the pilot seen here. (Patton Museum)

the M28 ammunition trailer for the M19 40mm GMC. There was very little pressure to push the project into service, and production did not begin at Cadillac and Massey-Harris until April 1945. Of the 904 originally authorized, only 300 chassis were completed by August 1945, and the vehicles did not have their turrets added until after the war. The M19 40mm GMC was modified in the late 1940s by the addition of an electrical generator on the center-right fender to power the turret when the tank engine was shut off. This modified vehicle was redesignated as the M19A1 40mm GMC. Because of the relatively small number of vehicles manufactured, this type was never exported. Some M19A1 40mm GMC saw combat service during the Korean War. Because of the lack of air opposition, they were often used for fire support against ground targets.

A second antiaircraft vehicle based on the T24 was begun on July 22, 1943, as the T77 multiple .50-cal. GMC. This was intended to replace the M16 MGMC based on the M3 half-track. The initial work focused on the development of the T89 quadruple mount, and as a result, the pilot was not completed until July 1945. A second pilot incorporated improved fire controls and was designated as T77E1. The main problem with such vehicles was the advent of jet combat aircraft. They had a very low probability of kill against high-speed strike aircraft, and as a result no production was undertaken. A heavier antiaircraft gun vehicle was also developed using a modified M19 and the T22 75mm antiaircraft gun. Trials were conducted in 1946-48, but the design had significant technical problems and was rejected.

Although the M7 105mm HMC on the M4 medium tank chassis had proven to be a perfectly adequate design, Ordnance recognized that such a weapon could be mounted on a lighter and more nimble chassis like the new T24 design. So on July 8, 1943, the army initiated the program under the designation T76 105mm HMC. Instead of using the standard towed M2A1 howitzer, the design used a version of the more compact M4 howitzer that had been designed for the turreted M4 105mm assault gun. The T76 was based on a modestly modified T24 hull with the engine in the rear position like the tank version. Most of the initial effort was devoted to developing the howitzer, and the pilot was shipped to APG for trials in early July 1944. After many small design

Board through the spring. After incorporating some modest improvements, the T65E1 was accepted for production and standardized as the M19 40mm gun motor carriage (GMC) on June 14, 1944. Although procuring a separate T23E1 cargo carrier to accompany the M19 for ammunition supply had been considered, this project was cancelled and the army decided instead to acquire

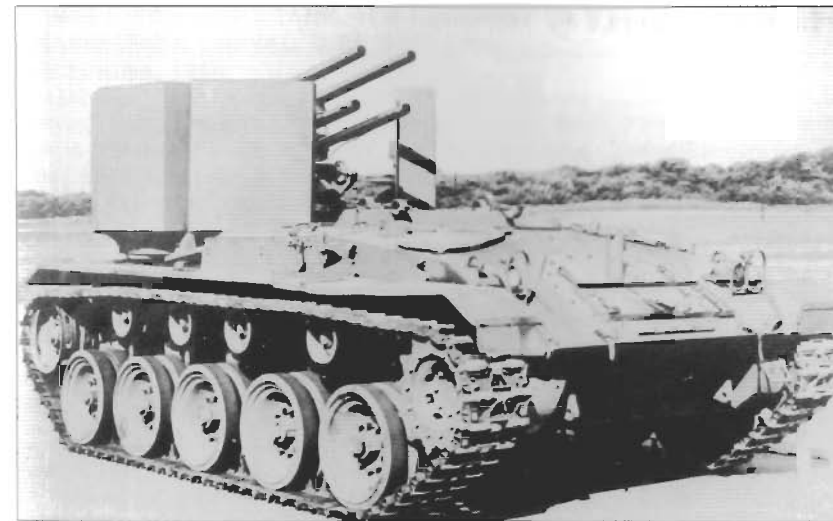
changes, the vehicle was accepted for production as the M37 105mm HMC in January 1945. The late date at which the design was accepted for production meant that only 316 vehicles of the 448 ordered were manufactured starting in October 1945. None were deployed in combat in World War II, though the type did see service during the Korean War. It was subsequently replaced by the turreted M52 HMC on the M41 light tank chassis in the late 1950s. One M37 was converted into the T38 pilot which mounted a 4.2in. mortar instead of the howitzer. Trials continued through 1949, but the type was never accepted for production. The M37 was one of the few M24 derivatives to be exported. Spain received 36 and they equipped the Regimiento de Artilleria a Caballo numero 19 of the Jarama Cavalry Division, and the Regimiento de Artilleria de Campana numero 13 of the Brunete Armored Division.

The Armored Force had been pressing for the development of a self-propelled 155mm howitzer since 1942 to supplement the 105mm self-propelled howitzers in each armored division. Development had begun in December 1942 as the T64 155mm HMC based on a Cadillac chassis derived from M5 light tank components. With the advent of the T24 program, the chassis was shifted to the new design, and a pilot of the T64E1 was authorized on January 20, 1944. The basic hull design was similar to that of the M19 40mm GMC with the engine in the center of the vehicle. The first T64E1 was completed by Cadillac in December 1944 and underwent trials at APG and by the Field Artillery Board. After minor changes were made, it was accepted for service on June 28, 1945, as the M41 155mm HMC. Unlike the M37, the M41 had the howitzer mounted at the rear of the hull along with a recoil spade. Production began at Massey-Harris in May 1945 but only 85 were completed in 1945 owing to the abrupt cancellation of many production contracts in the summer of 1945. One M41 was sent to Britain for evaluation. As in the case of so many of the M24 derivatives, none saw combat in World War II, but they were used in the Korean War. Consideration was given to developing a dedicated ammunition resupply vehicle, the T22E1, but the program was cancelled. This vehicle was similar to the M41, but had an open compartment at the rear of the vehicle to carry ammunition.

During the final year of the war, the US Army began deploying recoilless rifles as infantry close-support weapons. These offered heavy firepower in a very small and compact weapon, so there was some interest in testing how practical it might be to mount several on an armored vehicle for fire support. The plan



This is an early production example of the M41 155mm HMC manufactured in the summer of 1945. The M41 arrived too late for combat use in World War II, but did see action in the Korean War with a number of artillery battalions. (Patton Museum)



There were a number of experimental mountings of recoilless rifles on M24 tank derivatives in the late 1940s. These were not based on specific requirements, but were test-beds to determine the feasibility of such weapons. This pilot was converted from an M19 40mm GMC fitted with four 75mm rifles. During trials, the vehicle demonstrated its ability to saturate a target with 24 75mm rounds fired in six salvos. A later test-bed was fitted with four 106mm rifles, but the concept never progressed further than experimental models. (Patton Museum)

was to test four T19 105mm recoilless rifles on a modified M19 40mm GMC chassis. Until the T19 became available, four 75mm T21 recoilless rifles were used in a modified M12 mount. The tests were successful enough that another series were conducted in 1946 using the 105mm recoilless rifle. With the war over, interest in the concept languished, and like so many other concepts the program slipped into limbo.

BIBLIOGRAPHY

This account was based primarily on original reports and unpublished Ordnance histories including reports of the Tank-Automotive Center; Ordnance Department; Requirements Division, US Army Ground Forces; and various Army Service Forces reports. Sources on the service history of the M24 tank were found in reports of the Observers Groups sent to the European Theater of Operations and operational records from the AFV&W Section of the 6th Army Group, and various headquarters records of ETOUSA and the US 12th Army Group. Other details of their combat use were found in unit histories, including those of the 740th Tank Battalion and the 106th Cavalry Group. The accounts of the use of the M24 in Korea were found in two army studies: Vincent McRae and Alvin Coox, *Tank-vs.-Tank Combat in Korea* (ORO, 1954), and Captain Milton Thompson et. al, *Employment of Armor in Korea: The First Year* (Fort Knox, 1952). Information on exports of the M24 through the MDAP program were located in various reports by US liaison teams and MDAP annual reports. These records were found primarily at the US National Archives and Records Administration (NARA) in College Park, Maryland, and the US Army Military History Institute (MHI) at the US Army War College, Carlisle Barracks, Pennsylvania.

The history of the M24 is covered in a number of publications. The best account of M24 development is available in Richard Hunnicutt's study of US light tank development, *Stuart: A History of the American Light Tank* (Presidio, 1992). There is a more abbreviated and dated account in the *Armour in Profile* series by R. J. Icks, *M24 Chaffee* (Profile Publications, 1967). Photographic coverage of the M24 can be found in Jim Mesko's *The M24 Chaffee in Action* (Squadron Signal, 1988) and the author's *US Light Tanks at War 1941-45* (Concord, 2001). A detailed account of the use of the M24 light tanks at Dien Bien Phu can be found in Andre Mengelle, *Dien Bien Phu: des Chars et des Hommes* (Lavauzelle, 1996), while a good overview of French operations in Indochina can be found in Simon Dunstan's *Vietnam Tracks* (Osprey, 1982).



A. M24 LIGHT TANK, COMPANY D, 36TH TANK BATTALION, 8TH ARMORED DIVISION, RHEINBERG, GERMANY, MARCH 1945

This tank is finished in typical late-war US Army markings and is painted in lusterless olive drab. The markings are the usual stars, in the simple form on the turret side, and in the standard Allied air identification form on the roof and rear hull deck. The 8th Armored Division painted their unit identification bumper codes and the tank registration number on the turret rather than the hull, as the hull of the M24 tended to become cluttered with the crew's gear, obscuring the numbers. In the case of the unit codes, these were carried on the front of the gun mantlet, split top to bottom, and then repeated again on the rear of the turret stowage bin, all in white. The vehicle name, following the company letter, starts with "D", in this case DUSTY. The crew has painted on their states of origin: Ohio (2), Maryland, California, and New York. The tactical marking at the front of the turret is unique to the 8th Armored Division and is presumably a company insignia. This tank was knocked out during the fighting in Rheinberg on March 3, 1945, when Company D lost 17 out of 18 M24 tanks. The town was heavily defended, and the Germans lost 14 antitank guns, 16 20mm anti-aircraft guns, four PzKpfw IV tanks, and one self-propelled gun during the encounter.

B. CHAFFEE LIGHT TANK, C SQUADRON, RECONNAISSANCE REGIMENT, 5TH INFANTRY DIVISION, BRITISH ARMY, 1946

This M24 is finished in typical late-war British markings. It is

The first T24 pilot was later rebuilt as the pilot for the T24E1 and is seen here during trials at Aberdeen Proving Ground in October 1944. This was a test-bed for a Continental radial engine, and, as can be seen from this rear view, it required a complete redesign of the rear hull. This never reached the production stage as the T24's power-plant proved perfectly acceptable. (Patton Museum)

finished in either its original olive drab or in the essentially identical British Shade No. 15 olive drab, which was adopted in April 1944 as an alternative to repainting Lend-Lease equipment. The British Chaffees received serial numbers in two blocks: T.330410 to 330809 and T.352200 to 352399. As in the case of some US units, British units often had the serial number on the turret sides since there was so little free space on the truncated upper hull side. The vehicle name is carried on the upper bow, starting with C to indicate C Squadron. The usual C Squadron circle is carried on the turret side and repeated on the octagonal transmission cover on the upper hull front. Next to the squadron markings on the front are the arm-of-service markings, a green over blue square for an infantry reconnaissance regiment, and the divisional insignia. Having been heavily recruited from Yorkshire, the divisional insignia was a white Y on a khaki square until 1946 when it switched to a black disc. These insignia are repeated on the hull rear. Some British units removed the rear turret stowage bin as seen here.

C. M24 BISON LIGHT TANK, 1ER REGIMENT DE CHASSEURS A CHEVAL, DIEN BIEN PHU, INDOCHINA, 1954

The M24 light tanks flown into Dien Bien Phu were sparsely marked, usually limited to a name in white on the side. This one is Smolensk, commanded by Mdl-Chef Petit. The other tanks were named Bazeille, Ettlingen, Auerstadt, Douaumont, Posen, Ratisbonne, Mulhouse, and Neumach. Some of the tanks received an improvised camouflage of small patches of sand and red brown as seen here. It is not clear if this was paint or an improvised camouflage mixed from local mud. During some phases of the battle, the tanks were used as static firing positions, usually in prepared dugouts as seen here.

Max. speed (cross-country): 20mph
 Max. range: 100 miles
 Fuel consumption: 1.1 miles per gallon
 Ground clearance: 18 in.
 Armament: 75mm gun M6 in M64 mount; .50-cal. heavy machine gun; two .30-cal. machine guns
 Main gun ammunition: 48 rounds 75mm; 440 rounds .50-cal.; 3,750 rounds .30 cal.
 Muzzle velocity: 2,030 ft/sec (M61 APCPC)
 Penetration: 66mm at 500yds at 30° obliquity
 Max. effective range: 14,000yds
 Gun depression/elevation: -10 to +15°
 Armor: 38mm gun mantlet; 25mm turret sides; 25mm upper hull front; 25mm lower hull front; 25mm hull side.

D. M24 LIGHT TANK, US ARMY, 1944
Specifications

Crew: 5 (commander, gunner, loader, driver, co-driver)
 Combat weight: 20.2 tons
 Power-to-weight ratio: 14.6hp/T
 Overall length: 18.2ft
 Width: 9.8ft
 Height: 9.1ft
 Engine: Two Cadillac 44T24 8 cylinder, 4 cycle engines, 148 hp each at 3200rpm
 Transmission: Hydramatic with four speeds
 Fuel capacity: 110 gallons
 Max. speed (road): 35mph

Following the war, the cavalry reconnaissance groups were reorganized as the Constabulary force for the occupation of Germany, and the M24 was one of their standard pieces of equipment. This is a tank of the 6th Constabulary Regiment during a parade in Germany in 1949. Since it is serving as the mount of the head of the US occupation force, Major General I.D. White, it is flying the appropriate red flag with white stars. This front view gives a particularly clear view of the attachment pads for amphibious pontoons on the final drive covers on the lower bow. (Patton Museum)



E1. M24 LIGHT TANK, GRUPOS BLINDADOS DE CABALLERIA, SPANISH SAHARA, 1957

Spain received 31 M24 light tanks starting in February 1954 and they were initially deployed with the *Dragones del Alfambra* of the Brunete 1st Armored Division, and in the Jarama Cavalry Division. During the Sahara crisis in December 1957, some M24s, along with M8 and M20 armored cars, were deployed with the *Grupos Blindados de Caballeria* (Cavalry Armored Groups) sent to the Spanish Sahara. These were finished in a simple scheme of overall light sand as seen here, with a single digit tactical number in black. They probably carried the Spanish Army serial number in black in small characters on the bow, but details are lacking.

E2. M24 LIGHT TANK, 2EME ESCADRON, 12E REGIMENT DES CHASSEURS D'AFRIQUE, ALGERIA, 1962

The 12e RCA traced itself back to the 12e GACA formed in 1941 in Morocco, which served with the Free French in the 1943 Tunisia campaign in Somua S.35 tanks, and on M4 Sherman tanks with LeClerc's 2e Division Blindée in the liberation of Paris in 1944. It returned to its North African roots in 1946 after occupation duty in Germany. The M24 Bison was widely used by the French mechanized cavalry, notably the various *Chasseurs d'Afrique* regiments that served in North Africa in the 1950s. The 12e RCA was reorganized in 1955, having a squadron (the 2nd) of Bison and two squadrons of M8 light armored cars (the 1st and 3rd), and was deployed in Morocco in its usual garrison role of maintaining the peace. It was sent to Algeria in late April 1958, and was eventually repatriated to France, being disbanded at

Sissonne camp on November 30, 1963. The plate here shows one of the unit's Bisons in parade markings near the end of its career. It is finished in French olive drab, which in the 1950s was similar to US olive drab. French armored cavalry units typically carried names on the tanks based on place names, historical figures, and other themes, and in this case the tank is named after the province of Lorraine. This is carried on the front transmission plate as well as on either side of the turret. In front of the name on the turret is the regimental insignia, a stylized rearing horse on a map of Africa within a tank wheel with the legend "Audace n'est pas Deraison-AOF" (Audacity is not Madness). In smaller letters is the inscription "Senegal" which replaced the earlier inscription "Dakar" on the insistence of General Leclerc, who felt that Dakar was too reminiscent of the fratricidal combat in French North Africa in 1942-43. The rearing horse, in simplified form, is also seen in silhouette above the transmission cover. The other insignia include the standard "flaming grenade" on the forward sides of the turret, the vehicle registration number on a black rectangle preceded by the national tricolor, and the NATO-style yellow bridging weight symbol in yellow with the 20 in black.

Both Iran and Iraq received modest numbers of M24 tanks as grant aid in the 1950s. These Iraqi M24s are seen on parade in the 1950s with a number of Churchill tanks evident in the background. (US Army)



F. M24 LIGHT TANK, ARMORED BRIGADE, HELLENIC ARMY, GREECE, 1985

The Greek Army was one of the last in NATO to retain the unmodified M24, with a few dozen still in service well into the 1990s. As a result, it has seen a wide range of camouflage finishes. In the 1980s, the Greek Army began to adopt a camouflage scheme for its armored vehicles inspired by the US Army's 1970s MERDC scheme. The base color is the usual dull olive drab, with a pattern of light earth, and small bands of light sand and black. The sand color bleaches ivory white in the sun. Greek tanks carry the national insignia, a pale blue square with white cross, on the upper center of the turret. On the lower bow is the usual NATO yellow bridging circle. In some cases, the vehicle registration number was carried on the lower side of the octagonal transmission cover, though it is not evident here.

G1. M24 LIGHT TANK, 29TH CAVALRY, PAKISTAN ARMY, BOYRA, BANGLADESH, NOVEMBER 1971

The Pakistani M24 light tanks seeing service with the 29th Cavalry in the 1971 war with India were frequently camouflaged painted in a pattern of light gray over the usual olive drab. Since Pakistan and India shared some common tank types such as the T-54A, Pakistan adopted the practice of painting a white band around the turret as a means of identification and to prevent friendly-fire incidents with its own infantry units. The band is broken in the center with the tactical number 13 in Arabic script. The vehicle registration number on the hull rear and bow follows the British style from the 1930s and 1940s, which was also used by the

This mud-splattered M24 has just returned from a run along the mud track at the Aberdeen Proving Ground in May 1945 to test the 28-in. wide extended grousers. These were intended to provide better mobility in mud or snow, but were never adopted for service use. This particular configuration with the "W"-shaped grousers was also intended for the amphibious version of the M24. The cylindrical canisters seen on the hull are weights added to test vehicles to simulate fully loaded combat weight during trials. (NARA)

Indian Army. The number is preceded by an upward arrow with the two prefix numbers in lower-case.

G2. M24 LIGHT TANK, COMPANIA DE TANQUES BN.I.BLDO.13, URUGUAYAN ARMY, 1985

The Uruguayan M24 light tanks all served with the tank company of the 13th Armored Infantry Battalion (Batallon de Infanteria Blindada 13). The Uruguayan Army had a colorful series of markings over the years. In 1982, they began to adopt a camouflage scheme inspired by the US Army MERDC scheme of the 1970s. In the Uruguayan case, the colors were dark olive green and red brown, with small bands of black and light sand. In 1985, a new style of tactical insignia was adopted based around a stenciled circle within a square. The company's two command tanks received a circle and a half circle, while the three sections each had the section number in Roman numerals. This tank was one of those re-engined with a Scania diesel as is evident from its raised engine deck.

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