



SUPPORTING OUR TROOPS. DEFENDING OUR NATION.

THE STORY OF THE TACOM LIFE CYCLE MANAGEMENT COMMAND



OUR PURPOSE

The purpose of the TACOM Life Cycle Management Command (LCMC) is revealed in our name: we are responsible for the complete life cycle of vehicles, equipment, weaponry, and supplies used by U.S. Soldiers on the ground. From concept through production, deployment to disposal, every aspect of creating and maintaining equipment for our troops is managed by TACOM LCMC. The heart of our work is the very heart of our armed forces: our Soldiers. Our job is to protect the lives of our Soldiers and give them everything they need to do their job efficiently, effectively, and above all, safely.





THE DAWN OF A NEW ERA

Today, TACOM develops and sustains a vast range of vehicles and supplies for our armed forces. But our history began in World War II, when the Army was faced with the task of mobilizing our forces for the war effort. By teaming with industry—most notably, Detroit’s automotive industry—this task was accomplished beyond all expectations. Detroit became known as the Arsenal of Democracy (a phrase borrowed from a speech by President Franklin D. Roosevelt). And at the heart of the Arsenal of Democracy was the tank.

Tanks were first used in warfare during World War I, but early tanks were not mass produced and suffered from mechanical failures and design flaws. It wasn’t until World War II that the tank’s true potential was realized.

In 1939, before America entered World War II, the United States Army was poorly equipped to fight a major war. War games held in New York to test the Army’s capability were not encouraging; unable to find enough tanks or armored cars to supply the games, the Army was forced to substitute Good Humor trucks as decoys.¹ If the United States was to be prepared for war, manufacturers had their work cut out for them.

In 1940, William Knudsen, president of General Motors, went on leave from his position as an automotive executive to become the industrial production specialist for the National Defense Advisory Commission. One of his first acts was to contact K.T. Keller, then president of the Chrysler Corporation, and ask him if he could build tanks for the Army. Keller enthusiastically agreed, and suggested that in order to build the number of tanks required, a permanent, mass-production tank arsenal be built near Detroit.

¹Herman, Arthur. *Freedom’s Forge*. New York: Random House, 2012, p. 9.

The nearly completed Detroit Arsenal Tank Plant in 1941.



ARSENAL OF DEMOCRACY

Chrysler engineers had never even seen a tank, much less built one, but they forged ahead. They went to the U.S. Army's Rock Island Arsenal in Illinois to see their first tank and gather up the blueprints for the Army's newest model, the M2A1. In August 1940, the government and Chrysler reached an agreement: the government would build and tool a \$21 million plant for the mass production of tanks, and Chrysler would operate the plant. Each tank would be priced at \$33,500 (the cost of one of today's tanks is over \$5 million).

Famed industrial architect Albert Kahn was contracted to design the massive plant, to be located on a hundred acres of farmland north of Detroit in Warren Township, an area whose claim to fame at the time was that it was the "winter rhubarb capital of Michigan."² Soon more than rhubarb would be coming out of Warren.

Measuring 1.1 million square feet, covering an area of five city blocks and requiring over 1,000 machine tools and 8,500 specialized jigs and fixtures, the new plant would be the largest of its kind in the world. After several harsh months of construction braving rain, snow, and ice in rhubarb country, the plant was completed in January 1941.

Meanwhile, work continued on the design of the M3, the first tank that would roll off the production line of the Detroit Arsenal Tank Plant. On April 24, 1941, this first tank was unveiled to an audience of about 2,000 guests, employees,

generals, and dignitaries. Reducing a two-story frame building to kindling, plowing over telephone poles and flattening a small wooded area, the tank was a hit with the appreciative crowd. When a second tank emerged from the plant, firing its guns, the spectators were doubly delighted. Few realized just how soon these tanks would see wartime action.

On December 7, 1941, the Japanese attacked Pearl Harbor, killing over 2,400 Americans and wounding over 1,200 more. On December 8, President Roosevelt asked Congress for a declaration of war, which was overwhelmingly approved. With war now a reality, the government asked Chrysler to step up production to 1,000 tanks a month. Since April the plant had delivered only 500. In March 1942, the tank plant was expanded to keep up with the increased demand. Perhaps the most amazing feat achieved by the plant during this period was the retooling from production of the M3 to the newer M4 Sherman tank without slowing production by a single tank.




First M3 tank produced at the Detroit Arsenal Tank Plant, 1941.

²Stout, Wesley. "Tanks Are Mighty Fine Things." Detroit: Chrysler, 1946, p. 20.

FDR visits the Detroit Arsenal Tank Plant in September 1942.



PRESIDENTS & KINGS



The massive scale of production taking place at the Detroit Arsenal Tank Plant, which was now operating 24 hours a day, drew visitors from all over the globe. The Premier of Poland, the Duke of Windsor (formerly King Edward VIII, before abdicating the throne to his brother Albert), the King of Yugoslavia, and the presidents of Czechoslovakia, Peru, and Ecuador were all visitors to the Arsenal. For the Arsenal workers, however, the most memorable visit came when President Roosevelt made the plant his first stop on a secret tour of the nation's war production facilities on September 18, 1942. The president and first lady's motorcade drove slowly through the plant, watching demonstrations of various production processes, while Arsenal workers cheered enthusiastically. Later Roosevelt described the Arsenal as "an amazing demonstration of what can be done by the right organization, spirit and planning."³

Though the Detroit Arsenal Tank Plant was undoubtedly impressive, it was just one of hundreds of plants that produced vehicles, spare parts, and supplies for the war effort. The entire automotive industry was now involved in mass production for the military. This massive undertaking, while impressive to dignitaries and heads of state, soon grew so unwieldy in scale that production threatened to fall into chaos. Consider that a single year's supply of parts for a hundred Sherman

tanks filled 30 railway boxcars. With thousands of tanks being produced and deployed, organizing and tracking these parts and supplies became a herculean task.

What was needed was an organization that could coordinate the needs of a rapidly growing military with the production capacity of the automotive industry in Detroit. This organization, born the Tank-Automotive Center in 1942, would later become TACOM. It became the critical link between the Army's mobilization needs and Detroit's automotive industry.

³Stout, p. 113.



TACOM'S BEGINNINGS

THE NEW TANK-AUTOMOTIVE CENTER WAS HOUSED IN THE UNION-GUARDIAN BUILDING IN DOWNTOWN DETROIT. ALFRED R. GLANCY, A FORMER VICE PRESIDENT OF GENERAL MOTORS AND A BRIGADIER GENERAL, WAS APPOINTED TO COMMAND THE CENTER. HIS COMBINED AUTOMOTIVE AND GOVERNMENT EXPERIENCE EXEMPLIFIED THE SYNERGY BETWEEN MILITARY AND INDUSTRY THAT HAD MADE THE ARSENAL OF DEMOCRACY SUCH A SUCCESS.

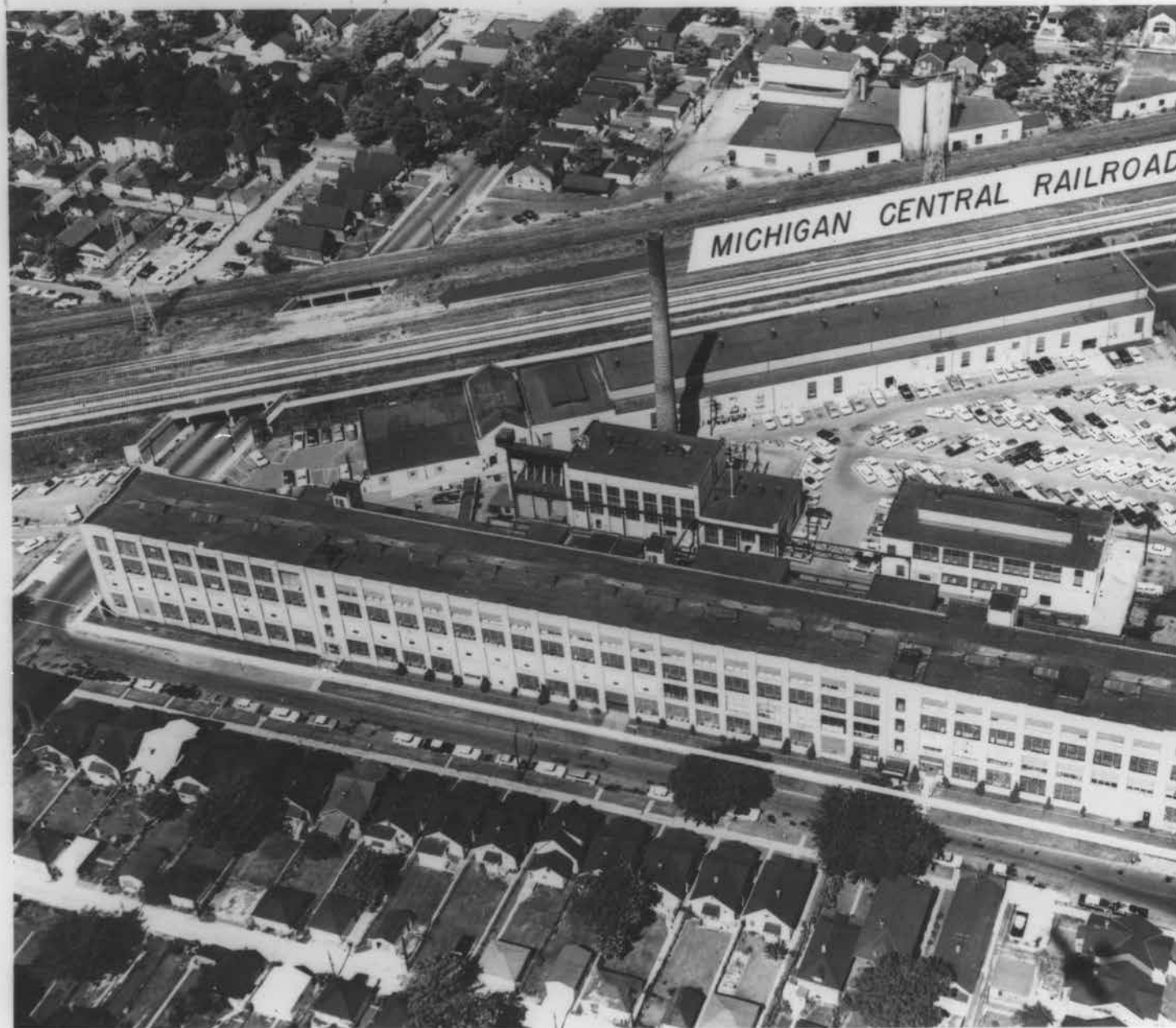
Union Guardian Building, Downtown Detroit.



When the Center was first formed in 1942, the Army transferred 40 officers and about 600 civilian employees from Washington, D.C. to Detroit to man the organization. By the end of the war in 1945, there was a staff of 500 officers and more than 4,000 civilians. Not surprisingly, the organization experienced growing pains: communication problems, inefficiencies, and a host of reorganizations and realignments necessary to handle the Center's ever-burgeoning demands. Coordinating the production and fielding of a staggering number of tanks and motor vehicles (by 1945, there was approximately one vehicle for every four American Soldiers), all requiring hundreds of thousands of parts, the Center was the "brain" of vehicle production and supply for the war effort. The Center even ran its own publishing operation, producing more than 2 billion pages of maintenance and technical manuals in the last year of the war alone.

The Tank-Automotive Center was renamed the Office, Chief of Ordnance-Detroit (OCO-D) in 1944; the Army was now producing the 45-ton Pershing tank. Over the course of the war, the Detroit Arsenal Tank Plant had produced 22,234 tanks, more than all the German manufacturers combined. But that was just a small fraction of the over 3 million total vehicles the Tank-Automotive Center was responsible for during the war, representing an expenditure of \$15 billion (\$3 trillion in today's dollars). The combined effort of military and industrial knowledge transformed the Army's methods of supplying troops efficiently and effectively, and made an indispensable contribution to the Allied victory.

OTAC Headquarters (Beard St.), former Detroit plant.





ONE WAR ENDS, ANOTHER BEGINS

AFTER WORLD WAR II, THE DETROIT ARSENAL BECAME A GOVERNMENT OWNED AND OPERATED FACILITY. PRODUCTION OF TANKS WAS SUSPENDED, AND THE OCD-D WAS TRANSFERRED TO THE DETROIT ARSENAL AND THEN DISMANTLED. THE NATION SETTLED IN FOR SOME HARD-EARNED PEACE AND PROSPERITY.

This lasted just a little over five years, until the United States entered the Korean War. When communist North Korea crossed the 38th parallel and invaded U.S.-supported South Korea in June 1950, American fears that communism would spread prompted officials to take action. As in 1939, the United States military was unprepared for conflict, and the Detroit Arsenal Tank Plant rushed to modify World War II tanks that could be used until a new tank could be developed. Unlike 1939, however, the United States had valuable experience in the logistics of mass tank production, and in October 1950 the Army created the Ordnance Tank-Automotive Center (OTAC), yet another forerunner to today's TACOM LCMC, to replicate the work that the OCO-D accomplished in World War II. Having also learned the valuable role that industry could play in military production,

the Army reinstated the Chrysler Corporation as the operating contractor at the Detroit Arsenal Tank Plant. In two years, the plant produced 3,443 new M47 battle tanks.

The Korean conflict ended in 1953, but the war had galvanized American concerns over the global spread of communism. The Cold War had begun in earnest. The Detroit Arsenal was not returned completely to government hands, but instead was expanded as fears of a war with the Soviets prompted military buildups by both nations. The Arsenal increased in size to 340 acres, and new engineering, research, and test laboratories were completed. In 1960, Chrysler delivered the first Detroit-built M60 Patton tank. Over 14,400 Pattons would be produced by the tank plant over the next 25 years, becoming the main battle tank for the military.

COLD WAR, TACOM, & VIETNAM



As the Cold War buildup continued, and America prepared for a possible war, both the name and the role of OTAC changed. OTAC became the Tank Automotive Command (TACOM) in 1967, and now would manage all contract work for Army vehicles and equipment. Also, defense contractors produced Army-designed weapon systems and vehicles, allowing the armed forces to save money and military engineers to focus fully on the planning of future systems.

By the time OTAC became TACOM, there were already half a million American troops embroiled in hostilities in Vietnam. The United States was backing the anti-communist South Vietnam, attempting to halt the spread of communism and Soviet influence (as in the Korean War). After years of bloody conflict, America finally withdrew from the region in 1973.

During the conflict, TACOM managed the Army's jeeps, trucks, tanks, and 18,000+ versatile armored personnel carriers. The M113 armored personnel carrier became the workhorse vehicle system used in both defensive and assault roles in Vietnam.



BATTLEFIELD DOMINANCE

Stealth, speed, and power: the M1 Abrams Main Battle Tank combined all three to earn the nickname “Whispering Death.” Named after General Creighton Abrams, an armored battalion commander in World War II and Commander of U.S. forces in Vietnam from 1968 to 1972, the 70-ton vehicle contributed mightily to the United States victory in Operation Desert Storm (1991), in which the U.S. expelled Saddam Hussein’s invading Iraqi forces from the tiny country of Kuwait. The Detroit Arsenal Tank Plant manufactured the tanks from 1982 to 1991. Today the Abrams tank is still considered the world’s best main battle tank, technologically superior to any other.

During the Gulf War, TACOM also managed the Army’s tracked and wheeled vehicle fleets. TACOM ordered and shipped needed items to the Gulf, often within one day of request. Vehicles, tires, repair parts, and much more were fielded around the clock by the command.







THROUGHOUT ITS HISTORY, TACOM HAS MANAGED VEHICLES AND LOGISTICS SUPPORT FOR U.S. FORCES WORLDWIDE THROUGH THE USE OF LOGISTICS AREA REPRESENTATIVES (LARs), THE COMMAND'S "EYES AND EARS." FROM THE BEACHES OF NORMANDY TO THE MOUNTAINS OF AFGHANISTAN, THEY REPRESENT TACOM IN THE FIELD, ASSISTING SOLDIERS IN THE MAINTENANCE AND REPAIR OF EQUIPMENT.



NEW MISSIONS, SAME FOCUS

The Base Realignment and Closure (BRAC) Acts of 1988, 1993, 1995, and 2005 gave TACOM new responsibilities. For example, TACOM took over operational control of numerous Army depots: Anniston Army Depot (Alabama), Red River Army Depot (Texas), Rock Island Arsenal (Illinois) and the Joint Manufacturing and Technology Center, Sierra Army Depot (California), and Watervliet Arsenal (New York). These facilities combined with the Integrated Logistics Support Center (ILSC) to become the Industrial Base Operations Directorate, specializing in ground systems manufacturing, repair, storage, and rapid deployment. TACOM received the Army's watercraft mission (the Army has more hulls than the Navy), petroleum and water systems that keep our vehicles fueled, and many other missions as the Army reorganized.

Sadly, these actions also saw the closing of the Detroit Arsenal Tank Plant and eventual sale of the facility to the City of Warren. Tank production ended on the Detroit Arsenal after its average run of three tanks a day, every day, for 55 years.



“BY UNITING THE COMPLETE LIFE CYCLE OF THESE SYSTEMS, WE ARE ABLE TO BE MORE FLEXIBLE, ADAPTIVE, AND RESPONSIVE TO THE JOINT WARFIGHTER’S NEEDS IN THE FIELD.”



TACOM IN THE 21ST CENTURY

As part of the 2003 Army reorganization, TACOM received the chemical, biological, and radiological protection and detection equipment mission, maintaining the materiel that keeps Soldiers safe in hazardous environments. As the Army moved to strengthen core competencies, all research facilities and laboratories were transferred to the U.S. Army Research, Development and Engineering Command (RDECOM), including two facilities belonging to TACOM.

In 2004, TACOM became TACOM Life Cycle Management Command (LCMC), uniting every organization that focuses on Soldier and ground systems. By uniting the complete life cycle of these systems, from development to deployment, fleet management and sustainment, we are able to be more flexible, adaptive, and responsive to the joint warfighter's needs in the field, and to ensure the quality and performance of their equipment.





“WHILE THE IMPORTANCE OF TANKS AND PERSONNEL CARRIERS IS OBVIOUS DURING COMBAT, PEACEKEEPING AND COALITION-BUILDING MISSIONS DEMAND A HUGE NUMBER OF VEHICLES AS WELL.”





WARFIGHTER SUPPORT

Nowhere has the adaptable and responsive nature of TACOM LCMC had more impact than in Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). While the importance of tanks and personnel carriers is obvious during combat, peacekeeping and coalition-building missions demand a huge number of vehicles as well. TACOM LCMC keeps today's joint warfighters and peacekeepers equipped against all contingencies.

Insurgents target our Soldiers' vehicles with a wide array of weaponry to disrupt U.S. missions. Responding quickly to this threat, TACOM LCMC developed solutions such as armored add-on kits for wheeled vehicles, and the Mine Resistant Ambush Protected (MRAP) vehicle. TACOM's rapid response in providing lifesaving safety equipment not only protects our Soldiers, but allows their missions to be more effectively accomplished.

THE FUTURE

As with any large organization heavily reliant on technology, TACOM is constantly innovating and improving vehicle technology. Even now, as we look to the future, we see that though our force is formidable, it must become lighter, faster, and more responsive to be prepared for future combat missions.

Today's conflicts require our Army to be rapidly deployed, anywhere in the world. Our objective is to be able to deploy highly trained Brigade Combat Teams (BCTs) to any location on the globe in 96 hours.

During World War II, Detroit was the hub of tank and vehicle production for the war effort. Today, though TACOM LCMC's over 22,000 employees are spread across the globe, a full 30 percent of them are headquartered in Michigan. And the ties with academia and industry—especially the automotive industry—remain strong. The lessons of the war in which TACOM was born have not been forgotten.

The importance of TACOM LCMC's work cannot be overstated. As we like to say, TACOM products touch every Soldier, every day. As we strive toward our goal of a lighter, faster, modernized, safer, and more lethal force in the field, we do it with a strong sense of our history and our purpose: to support our Soldiers and their mission, any way we can, anywhere in the world.





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