



Official Newsletter of the Michigan Company of Military Historians & Collectors  
**September 11, 2017**

*“It is true. I suppose, that the Americans consider that we have led them up the garden path in the Mediterranean—but what a beautiful path it has proved to be. They have picked peaches here, nectarines there. How grateful they should be!”* **Winston Churchill**, July 1943

*“It’s not hard to get promoted in the infantry if you do your job and stay alive. The problem is staying alive.”* **Felix Sparks**

*“Few victories are won on an empty belly.”* **Sir John Hawkwood** (1320-1394)

*“The greatest secret of war and the masterpiece of a skillful general is to starve his enemy. Hunger exhausts men more surely than courage, and you will succeed with much less risk than by fighting.”* **Frederick the Great**, 1747

*”Judgement, and not headlong courage, is the true arbiter of war.”* **Count Belisarius** 563 AD

Our September speaker has yet to be made known to me. If it was then I have forgotten their name. Such are one of the many benefits of being over 70. If I don’t remember something the result is seldom noteworthy.

**MEETINGS** take place the second Monday of every month at the **Downtown Holiday Inn**, 310 Pearl NW, Grand Rapids, MI 49504 (616) 235-7611. Socializing begins at 6:00 (1800 hrs), dinner at 7:00 (1900 hrs), business meeting 7:15 (1915 hrs), and program at 8:00 (2000 hrs). Ample free parking available

GENERAL STAFF  
OFFICERS OF THE  
COMPANY

- Commandant - Fern O’Beshaw
- Executive Officer - Gregg Metternich
- Adjutant -John Bornhofen
- Judge Advocate -Jay Stone
- Mess Officer - Mike Krushinsky
- Sgt-at-Arms - Richard Foster
- Editor Cannon Report - Kingman Davis
- Editor Emeritus - Jose Amoros
- Open Mess Chairman - Jay

- Former member Tom Sutter passed away near the end of August. He was a Navy veteran (1952-67) and was discharged as a Chief Petty Officer —Quartermaster.
- The Navy announced that the 10 Sailors who died aboard *USS John S. McCain* (DDG 56) were posthumously advanced to their next rank.
- Adm. Scott Swift, commander of U.S. Pacific Fleet, relieved the commander of Seventh Fleet, Vice Adm. Joseph Aucoin, due to a loss of confidence in his ability to command.

The editorial opinions and articles in *The Cannon Report* do not represent any official position of the Michigan Company of Military Historians and Collectors (MCMH&C) only the opinions of the editor. The

# The Goums

In reading The Liberator by Alex Kershaw I came across a reference to the Goums (more about them later). Kershaw's book is about 157th Infantry Regiment, part of the 45th Division, the Thunderbirds, and their eventual commander, Felix Sparks. The 157th was a Colorado Army National Guard Unit activated in 1942 and sent to North Africa to prepare for the invasion of Sicily in July, 1943. Sparks started out as second lieutenant and eventually became a lieutenant colonel and battalion commander. He spent over 512 days in continuous combat duty from Sicily, to Anzio, to Cassino, the invasion of Southern France, and through the Vosges Mountains into Germany. Kershaw does an outstanding job in relating all the combat engagements the 157th endured. In April, 1945 Sparks was ordered to take his battalion to Bad Tölz, site of the SS Officer candidate school. On the way he received a message to investigate something called a "concentration camp" in nearby Dachau. What his men found and Kershaw relates was the most horrific description of a liberated Nazi concentration camp I have ever read. The discovery of the camp and its many satellite facilities drove some of Spark's men into despair.

Digressing to the battle for Cassino, Sparks made a reference to meeting the Goums in May, 1944. In researching the Goums I read CASSINO-The Hollow Victory by John Ellis, who has been described by Len Deighton as "one of the best historians we have." He is the author of ten highly praised books, including A Social History the of Machine Gun, Eye-Deep in Hell, Brute Force, One Day in a Very Long War and The World War I and World War II Databooks. He doesn't hide his disdain for the leadership of the American Forces under General Mark Clark for wasting lives due to the ineptness of his command and the desire to gain personal glory. Clark was visibly irate when his thunder was stolen in the liberation of Rome, June 5, 1944 by the invasion of Normandy on June 6. Ellis' description of the battle for Cassino is broken up into four distinct sub-battles, starting from

January 12 to June 5, 1944. In the Fourth Battle (May 11-June 5) the Goums make their presence felt. They saved a company of Sparks' men when they seemed to appeared out of nowhere.

The Moroccan Goumiers (French: Les Goumiers Marocains) were indigenous soldiers who served in auxiliary units attached to the French Army of Africa, between 1908 and 1956. While nominally in the service of the Sultan of Morocco, they served under French officers. Employed initially as tribal irregulars, then in regular contingents, the goumiers were used extensively during the French occupation of Morocco from 1908 to the early 1930s. They then served in Italy and France during World War II between 1942 and 1945. They arrived as the 4th Moroccan Mountain Division, the vanguard of the French Expeditionary Corps (CEF), under General Alphonse Juin. The newly arrived troops were very well adapted to fighting in the most rugged, trackless terrain around Cassino. They travelled extremely light, needing only mules for transport and could exist for days on minimal amounts of food and water. By the time of the Fourth Battle there were 9000 of them in Italy. "Here the Goums more than proved their value as light, highly mobile mountain troops who could penetrate the most vertical terrain in fighting order and with a minimum of logistical requirements. Most military analysts consider the Goumiers' maneuvering as the critical factor in the



victory that finally opened the way to the Italian capital of Rome. They came out of the mountains from where they were least expected and fell upon the over confident Panzer Grenadiers like demonic monks. Other allied forces were slow to advance due to the difficulty of being resupplied by trucks on roads that were always under German bombardment. The Goums, with their mules, although slow, seldom were in danger of wanting for supplies. Their mules needed no roads, just narrow mountain tracks to bring up the much needed ammunition and evacuate the wounded.

However, they were not without their detractors. One American officer commented that “they seemed to have small appreciation of some of the modern implements war. It was tragic to see elements of their reconnaissance groups moving forward with mine sweepers, always looking ahead in search of the enemy instead of observing the ground for possible mines. My surgeons reported amputating many feet of the men who had walked into the enemy minefields with seeming indifference.” In a report to their commander General Juin, he wrote “the goums have retained intact the qualities and the weakness of their race: indisputable valor in war, but unreliability under stress; an offensive spirit exalted by success, but soon dissipated by failure; an innate courage of infantry in combat, but a tendency to become unsettled in the face of modern weapons...; a peasant hardiness and an innate sense of ground, but an aversion to hard work and discipline. They had acquired a very poor reputation for their lack discipline. One British soldier had shared a rest area with some *goumiers* “who were living in the town with their wives! They were dirty, they pulled down doors as well as fruit trees for their firewood. They are bad propaganda for us...and putting them there seemed as erroneous as putting an Eskimo in a tube train and expecting him to know how to behave.

A journalist attached to the 8th Army wrote: “The Goums became a legend and a grim joke. No story about their rape, their progress or their other deeds was too wild to be believed. Their sexual proclivities were the subject of particularly gruesome rumour, not the least among the Germans for they we're reputed to bugger their prisoners. They were equally feared by the Italians on whom they were billeted. According to one civilian:

*We suffered more during the twenty-four hours of contact with the Moroccans than in the eight months under the Germans. The Germans took away our goats, sheep and food, but they respected our women and our meager savings. The Moroccans flung themselves upon us like unchained demons. They violated, threatening with machine guns, children, women, young men, following each other like beasts in rotation; they took our money from us, they followed us into the village and carried off every bundle, our linen, our shoes. Even those of their officers who tried to intervene came under their threats.*

“Accusations about the *goumiers* bugging, castrating or murdering their prisoners were vigorously denied by one French historian, although his explanation certainly confirms the unorthodoxy of their methods: “A prisoner was valuable. During the Italian Campaign the Fritz hunters were not slow to accord themselves a “perk”, that of selling their prisoners...to comrades-in-arms who had been less fortunate or less adept...but who were keen to get hold of a few *feldgrau* to pass them off as their own prisoners...From May to July 1944, the average price of an ordinary German soldier was to vary between 500 and 600 francs, that of an *oberleutnant* to reach almost double that... The traffic in prisoners was to become really lucrative when the Americans found out about it... These were the boys who were to pay well, with no discussion or haggling...” (Chambe, *Epopée, op. cit.*, pp245-6).

Although their military achievements were admirable, the Goumiers in Italy were associated with widespread reports of war crimes. Exceptional numbers of Moroccans were executed—many without trial—for allegedly murdering, raping, and pillaging their way across the Italian countryside. The French authorities sought to defuse the problem by importing numbers of Berber women to serve as "camp followers" in rear areas set aside exclusively for the Goumiers.” According to Italian

sources, more than 7,000 people were raped by Goumiers. Those rapes, later known in Italy as *Marocchine*, were against women, children and men, including some priests. The mayor of Esperia (a commune in the Province of Frosinone), reported that in his town, 700 women out of 2,500 inhabitants were raped and that some had died as a result. In northern Latium and southern Tuscany, it is alleged that the Goumiers raped and occasionally killed women and young men after the Germans retreated, including members of various partisan groups. The French Expeditionary Corp (CEF) executed 15 soldiers by firing squad and sentenced 54 others to hard labor in military prisons for acts of rape or murder. In 2015, the Italian government acknowledged the atrocities committed against their civilian population and ordered compensation for the victims of those events.

Despite their checkered behavior, the Goums went on to help liberate Corsica and Elba, assisted in the Southern invasion of France, and in conjunction with other allied forces they fought in the Vosges mountains and entered southwest Germany in April, 1945. Goumier casualties in World War II from 1942 to 1945 totaled 8,018 of which 1,625 were killed in action.

## Interesting Militaria

The name that is most generally applied to the military forces from New Zealand, both individually and collectively, is Kiwi. One derivation of the name goes like this—Like the bird we can't fly, we can't see, and we are rapidly becoming extinct, Kiwi.

*From an anonymous New Zealander, January 1944, somewhere in Italy.*

British officers stationed with the II Polish Corps on Monte Cassino (May 11-18, 1944) commented on what they found to be an unusual practice by a Polish trumpeter. “He played a curious and appealing tune called the Hejnal—a traditional five-note Polish ditty (historically a timekeeping tool for the benefit of city residents, played daily on the hour) which ended suddenly—broken off in the middle of the musical phrase. The British were told that it commemorated a trumpeter who was calling the people of Krakow, the old Polish capital, to muster against the Tartar invasion of 1241. As he was playing an arrow pierced his throat. Ever since, this call is played at noon, in memory of the Poles' long struggle against barbarism and urging them to still fight in the same cause. It always ends on this broken note. Since 1927, it has been broadcasted daily at noon by Poland's national radio service.

It was a common practice on fighter planes to load every 5th round with a tracer round to aid in aiming. This was a mistake. Tracers had different ballistics so (at long range) if your tracers were hitting the target 80% of your rounds were missing. Worse yet tracers instantly told your enemy he was under fire and from which direction. Worst of all was the practice of loading a string of tracers at the end of the belt to tell you that you were out of ammo. This was definitely not something you wanted to tell the enemy. Units that stopped using tracers saw their success rate nearly double and their loss rate go down.

The Russians tried to wreak havoc on German Panzer divisions during the WWII by strapping bombs to the backs of dogs and teaching them to associate food with the underneath of their enemies' tanks. Unfortunately, the dogs only associated food with their own tanks and forced an entire Soviet division to retreat.

# Atomic Veterans

Atomic Veterans are members of the United States Armed Forces who participated in atmospheric and underwater nuclear weapons tests from 16 July, 1945 to 30 October 1962. They also include veterans who were assigned to post-test duties, such as “ground zero” nuclear warfare maneuvers & exercises, removing radiation cloud samples from aircraft wing pods, working in close proximity to radiated test animals, decontamination of aircraft and field test equipment, retrieval and transport of test instruments and devices, and a host of other duty assignments that provided an opportunity for a radiation exposure and contamination.

Jennifer LaFleur, an investigative reporter writes extensively about America’s atoms vets who unknowingly were used as guinea pigs. “The *USS DeHaven* sailed from Hawaii’s Pearl Harbor on May 5, 1958, carrying 240 men deep into the Pacific on a secret mission. Gunner’s mate Wayne Brooks had only a vague idea of their destination. But within a few days, he would experience an explosion so immense and bright that he could see his own bones. He and his crewmates had been assigned to witness Operation Hardtack I, a series of nuclear tests in the Pacific.

Wayne Brooks was a gunner’s mate aboard the *USS DeHaven* when it sailed deep into the Pacific for Operation Hardtack I, a series of nuclear tests in 1958. Over three months, he witnessed 27 of them. The DeHaven, a destroyer, was one of dozens of ships assigned to the operation at Eniwetok Atoll, Bikini Atoll and Johnston Island. It would be their crews’ initiation into the ranks of hundreds of thousands of service members now known as “atomic veterans.” What seems like a story long tucked away in history books remains a very real struggle for those veterans still alive, the radiation cleanup crews who followed and their families – many of them sick and lacking not just the federal compensation, but also the recognition they believe they deserve. There is no commendation or medal for being an atomic vet.

The magnitude of the DeHaven’s mission became clearer even before the crew reached Eniwetok. As they reached an area near where tests already had been underway, they sailed into heavy showers. Radioactive rain poured down and “hot” seawater contaminated the ship’s wash-down system. The sailors were ordered to decontaminate the ship by scrubbing the decks with long-handled brushes. Then, as they closed in on Eniwetok on May 12, Brooks spotted a far-off flash in the distance: a nuclear blast. The next morning, a countdown blared from the DeHaven’s PA system. A nuclear test – code name Koa – was being conducted from a barge in the lagoon of Eniwetok Atoll. Its blast would release at least 75 times the power of the bomb that killed more than 130,000 people in Hiroshima, Japan, in 1945.

Brooks, a slender Texan, had enlisted in the Navy a year earlier at 17. That morning, he manned his gun station on deck. He had no special goggles or clothing. He and the other sailors wore long-sleeved shirts and tucked their pant legs into their socks. They did as they had been told, turning away from the blast site and putting their hands over their eyes. The flash was so bright that even 20 miles from the blast, Brooks, now 75, said, “When you put your hands over your eyes, you saw your bones in your hands and in your fingers.” The U.S. crews who took part in the Operation Hardtack I nuclear tests in 1958 are among the hundreds of thousands of service members now known as “atomic veterans.”

Shockwaves moved across the water. When the ship began to rock, Brooks uncovered his eyes and turned back toward the blast site. He saw a mushroom cloud rising into the sky. “The cloud just got bigger and bigger,” he said “It was really colorful – red, orange. It seemed like a fire was burning inside a cloud.” Three days later, Brooks witnessed another blast. The shot, named Wahoo, was



detonated 500 feet underwater. It sent a column of water hundreds of feet into the air, a surge taller than the nearby empty target ships. The DeHaven, only 3 miles from the explosion, shook “violently with a loud cracking,” and Brooks recalled rivets popping from their metal moorings. His story is not unique. In the aftermath of World War II and during the height of the Cold War – between 1946 and 1962 – the U.S. detonated more than 200 above-ground and undersea nuclear bombs. Over three months, Brooks would witness 27 of them.

In the decades since Brooks witnessed those 27 tests, he has suffered throat and lung problems, rashes and prostate cancer. Like other atomic veterans, he blames his ailments on his radiation exposure. So far, the U.S. Department of Veterans Affairs seems to disagree. Wayne Brooks, 75, coordinates quarterly meetings of local atomic veterans at an American Legion hall near Portland, Oregon. Brooks has suffered throat and lung problems, rashes and prostate cancer ever since he participated in Operation Hardtack I in 1958, but his pains and diseases don’t qualify for federal compensation. Brooks has applied multiple times for the special VA compensation reserved for atomic veterans. He was denied each time on the grounds that his pains and diseases are not among those that qualify.

This was a common experience among the dozens of atomic vets interviewed by Reveal from The Center for Investigative Reporting. Many feel, as Brooks does, abused, neglected and forgotten by the government and a country that exposed them to unforeseen risks. “We were used as guinea pigs – every one of us,” Brooks said. “They didn’t tell us what it was gonna do to us. They didn’t tell us that we were gonna have problems later on in life with cancers and multiple cancers.” The estimated number of service members who participated in the tests varies from source to source, but could be as high as 400,000. Brooks is among the fortunate: Even with his health challenges, he still is alive.

One of the few studies of atomic veterans looked at about 3,000 participants in a 1957 Nevada test shot code named Smoky. Released in 1979 by the Center for Disease Control, it found that they had more than twice the rate of leukemia than their peers – eight cases versus 3.5. Other studies have been inconclusive. The atomic testing program included a wide range of experiments and exposures. Thousands of service members were on ships in the Pacific. Thousands more stood or crouched in trenches carved into the Nevada desert. Pilots and their crews flew planes into mushroom clouds. Others were underwater in the ocean as blasts were detonated, swimming as frogmen or in submarines. Some parachuted into blast sites soon after the explosions.

The military had a long history of using war games to train troops. During the nuclear testing era, troops were exposed to detonations to see how they would react to a nuclear attack and whether equipment still would function. All of the atomic vets were sworn to secrecy. Until the secrecy was lifted decades later, they could not tell anyone about their experiences. Even if they became ill, they could not tell doctors they might have been exposed to radiation. Scientists had known from the earliest days of building the atomic bomb that radiation posed risks. Research found increased rates of certain cancers among the survivors of the Japanese bombings. It also showed that the children of survivors were more likely to have smaller heads and physical disabilities. But there never was a coordinated attempt to study or track the health effects of radiation on the atomic vets or their children.

“They never used the knowledge that they could have gotten from us,” Brooks said. “They could have watched us all our lives and seen what it did, but they didn’t. They dropped us like a hot potato.” Brooks is a gentle man who ties back his long gray hair in a ponytail. He still speaks with a West Texas accent but now lives outside Portland, Oregon. He belongs to the National Association of Atomic Veterans, a group trying to help others get compensation and push for recognition. He also coordinates quarterly meetings of local atomic veterans at an American Legion hall, where they share

their experiences and support one another. Pushing for change has been a challenge for a group whose members are aging and dying. The youngest remaining atomic veterans are in their 70s. Many more are in their 80s and 90s. Despite all the information the government has compiled about the dangers of radiation they still haven't taken the necessary precautions to protect a new class of Atomic Veterans. The push has now been taken up by a younger group of veterans who never witnessed the atomic blasts but were exposed to their aftermath.

Decades after the last atomic test in the Marshall's troops returned to ready some islands to be returned to the Marshallese. Of the 8,000 personnel who worked on the cleanup from 1972 to 1980, nearly 2,700 were Army engineers such as Steve Harrison and assorted Naval personnel, including the Seabees. "We were the 'Rock and Rebar Crew,'" said Harrison, now 58. "That's what they called us because we picked up concrete blocks, rebar, anything man-made." They scraped tons of dirt from island surfaces and gathered up debris. They often worked in T-shirts and shorts. Radioactive materials were mixed with cement and buried in a blast crater on the island of Runit. Later, the crater was sealed under an 18-inch-thick concrete dome.

Just as the atomic veterans experienced illnesses years after their exposure, the cleanup veterans now are beginning to get sick. In a recent survey conducted by a group of the cleanup veterans, more than half the respondents reported a health problem they attribute to radiation exposure.



*Concrete dome being poured on Runit, 1980*

"One of my buddies there just recently came down with lung cancer," Harrison said. "There were (a) number of guys, though, that are sick with different kinds of cancers, skin rashes, and they're all being denied by the VA. The VA does not acknowledge us as atomic veterans, though we went in and cleaned up the mess." Harrison is not sick. But he said he feels like a "time bomb." Because of the secrecy around the nuclear tests, some veterans do not have documents showing they participated in

the tests. In addition, many of the documents that did exist were destroyed in a fire at a military records facility in St. Louis more than four decades ago.

Congress passed legislation in 1990 to compensate residents who lived downwind of atomic blasts, uranium miners and on-site participants in atomic tests. The program, administered by the U.S. Department of Justice, awards a lump sum of \$50,000 to \$100,000 to applicants with any of 20 cancers if a doctor attests that the disease was caused by ionizing radiation. Some atomic veterans are eligible for this program, but any who receive it have to pay back prior VA compensation for the same health condition.

These new atomic veterans have taken their plight to Congress. U.S. Rep. Mark Takai, D-Hawaii, introduced the Atomic Veterans Healthcare Parity Act in November, 2015, which would extend atomic veteran compensation to cleanup crews. In April, 2016, Senators. Al Franken, D-Minn., and Thom Tillis, R-N.C., introduced similar legislation.

“Around 40 years ago, thousands of members of the U.S. Armed Forces participated in the cleanup of nuclear testing sites in the Marshall Islands,” Franken said in a statement. “Often clad in t-shirts, shorts, and boots, the service members were exposed to radioactive waste, and many are now facing serious health problems. But despite being put in harm’s way, these veterans are not being adequately compensated.” The veterans also share the belief that they have been neglected. “We were told that it was just going to be cleaning up the islands of debris,” Harrison said. “They told us that it would be basically like going to the dentist and getting an X-ray done, but then they didn’t talk about the six months, 24 hours a day that we’re exposed.” As of this writing the bills have yet to make it out of committee.

## **Bradley Fighting Vehicle**

The mission of the Bradley Fighting Vehicle [BFV] is to provide mobile protected transport of an infantry squad to critical points on the battlefield and to perform cavalry scout missions. The BFVS will also provide overwatching fire to support dismounted infantry and to suppress or defeat enemy tanks and other fighting vehicles. The Bradley Fighting Vehicle is a fully armored, fully tracked vehicle designed to carry Mechanized Infantry into close contact with the enemy. It possesses sufficient cross-country mobility to keep up with the Abrams Main Battle Tank, medium and long-range firepower capable of defeating any vehicle on the battlefield, and is adequately armored to protect the crew from artillery and small arms threats. During World War II, the vehicle's namesake, General Omar Bradley, was known as the "GI General". The Bradley is able to close with and destroy enemy forces in support of mounted and dismounted Infantry and Cavalry combat operations. The Bradley Fighting Vehicle family currently consists of two vehicles: the M2 Infantry Fighting Vehicle and the M3 Cavalry Fighting Vehicle.

The M1 Abrams tank and the M2 Bradley Infantry Fighting Vehicle have the armored protection to provide a relatively high degree of battlefield survivability. Initially the Bradley was protected against 14.5mm projectiles on all sides. The M2A2 provided protection against 30mm projectiles on all sides, and added spall liners. The M2A3 added titanium roof armor. The M1 and the M2 together form a formidable hunter/killer team. Dillard Johnson writes about his experience as a Bradley commander during the Persian Gulf War in Carnivore. It is a story never heard about in the media. Johnson writes: “First and foremost, this was a war fought by and between armor—M1 tanks and Bradleys against top-of-the-line Soviet T-72s, APCs, anything and everything the Iraqis could throw at us. The Special Forces operators are the darlings of the media, but the regular army always does the heavy lifting, and in Iraq things were no different. Armor wins wars. Crazy Horse Troop, 3/7



Cavalry, 3rd Infantry Division was the tip of the spear throughout the war” and his story provides a critical revealing look into what combat was like in Iraq, 2003-2004.

To better appreciate his story a description of the main character is necessary. The Bradley's main armament is the M242 25mm "Bushmaster" Chain Gun, manufactured by McDonnell Douglas. The M242 has a single barrel with an integrated dual-feed mechanism and remote ammunition selection. Either armor piercing (AP) or high explosive (HE) ammunition may be selected with the flick of a switch. The Gunner may select from single or multiple shot modes. The standard rate of fire is 200 rounds per minute, and has a range of 2,000 meters (1.5 miles), depending on the ammunition used. A wide range of ammunition has been developed for this weapon, making it capable of defeating the majority of armored vehicles it is likely to encounter, up to and including



some main battle tanks. In 2003 subsequent ammunition developments resulted in the M919 APFSDS-T (Armor-Piercing Fin Stabilized Discarding Sabot with Tracer) round, which contains a finned depleted uranium penetrator similar in concept to armor-piercing munitions used in modern tanks. The M240C machine gun, mounted to right of the Bushmaster, fires 7.62mm rounds.

When facing heavier enemy armor the Bradley relies on the TOW Anti-Tank Missile, manufactured by the Hughes Aircraft. Launched from a smooth tube launcher, the missile's wings and tail fins are folded inside its body until launch. Two of these

missiles are carried ready to fire in a collapsible, armored launch rack on the left of the turret. The Bradley must stop in order to fire these missiles, which are then reloaded by an infantryman in the back of the vehicle, using a special hatch which provides armor protection during the reload operation. The missile is equipped with a massive shaped charge, high explosive warhead and is propelled by a two-stage solid propellant motor. The range of the TOW missile is nearly 4 kilometers (2.5 miles) and the missile will reach a speed of almost Mach 1 on its way to the target. This weapon is capable of destroying any armored vehicle in existence today and is deadly accurate. The wide tracks and 800 horsepower turbo-diesel power plant give the vehicle the mobility it needs to keep up with the Abrams, and keep the soldiers it carries out of harms way. In order to fulfill the requirement for rapid worldwide deployability, the Bradley can be transported by truck, rail, ship and transporter aircraft. The M2 holds a crew of three (a commander, a gunner, and a driver) along with six fully equipped soldiers. The M3 variant or cavalry model carries two scouts in addition to the regular crew of three, with space for additional BGM-71 TOW missiles and ammunition.

During the Gulf War, M2 Bradleys destroyed more Iraqi armored vehicles than the M1 Abrams. A total of 20 Bradleys was lost—three by enemy fire and 17 due to friendly fire incidents; another 12 were damaged. The gunner of one Bradley was killed when his vehicle was hit by Iraqi fire, possibly from an Iraqi BMP-1, during the Battle of 73 Easting. To remedy some problems that were identified

as contributing factors in the friendly fire incidents, infrared identification panels and other marking/identification measures were added to the Bradleys.

In the Iraq War, the Bradley proved vulnerable to improvised explosive device and rocket-propelled grenade attacks, but casualties were light with the crew able to escape. In 2006, total losses included 55 Bradleys destroyed and some 700 others damaged. By 2007, the Army had stopped using the M2 Bradley in combat, instead favoring more survivable MRAPs. By the end of the war, about 150 Bradleys had been destroyed.

Aside from being a good read three interesting facts stand out. First, the prodigious amount of ammunition expended by the Bradleys of Crazy Horse Troop. The normal complement for the chain gun was 300 rounds of ammunition in two ready boxes (one of 70 rounds, the other of 230 rounds), with an extra 600 rounds in storage (in the M2 Infantry Fighting Vehicle variant) or 1200 stowed rounds (in the M3 Cavalry Fighting Vehicle variant). The M240C machine gun had 2,200 rounds of 7.62 mm ammunition. When anticipating combat another 600 rounds of 25mm ammo and 2,200 rounds of machine ammo was put aboard. In addition to their personal rifles (M4) and side arms (Beretta) it was a not unusual to run out of ammo and be resupplied while engaging in combat. Dillard Johnson mentioned throughout his narrative that the Iraqis were lousy shooters. The volume of fire the Americans faced was astounding yet their casualties were minimal. I can't imagine the outcome if US forces had faced an enemy that was more disciplined and fired their weapons with some sort of accuracy.

During one battle, 225 miles south of Bagdad, over 1000 Iraqi soldiers attacked 3 Bradleys and 2 Abrams. Buttoned up, the American armor was unstoppable. Enemy reinforcements would arrive in white trucks or cars with the fenders painted orange. These were hundreds of the Fedayeen, or non-Iraqi fighters who answered Saddam's call to repel the Americans. When the carnage ended and Crazy Horse Troop conducted a Battle Damage Assessment (BDA), a body count was too difficult for many were in pieces, but over 1200 AKs were recovered. Never was American firepower more lethal than during this one engagement. Helicopters and A-10s finished off any retreating enemy still alive.

During Johnson's second tour, 18 months later, an Iraqi survivor of that engagement was the interpreter traveling with the Crazy Horse platoon. They were in Bagdad proper on patrol and whenever a white vehicle with orange fenders was seen they were immediately fired upon and destroyed. After several such encounters the interpreter asked why they were shooting at Iraqi taxi cabs? Johnson told him about the prior fire fight when all those vehicles had dropped off those foreign fighters. The Fedayeen had taken all those vehicles by force because it was the only way to reach the American lines. In Bagdad, all those vehicles were owned and run by civilians and just going about their normal activity. The paint scheme was the common marking for commercial vehicles for hire. I can only presume that many innocents may have been killed because we failed to recognize or understand the customs of a country we had invaded.

Unlike Vietnam, the Iraqi landscape provided an ideal platform for our armor to dominate the situation. When the rural landscape turned into an urban environment our advantage was greatly reduced. Our technology in using drones and UAV's was useful to a point, but it still took an infantryman, walking the streets to ensure the safety of civilians. IED's and snipers replaced the mass infantry and armor attacks. Unless we change our tactics and realize that the battlefield has taken a new dimension, and respond accordingly, we will truly find ourselves in another quagmire.

One unfortunate result of using 25mm depleted uranium rounds was the radioactive dust released by the rounds as they were fired from a barrel that oftentimes was cherry red. The Army is now finding many Bradley crew members suffering from a variety of exotic cancers. The VA had yet to acknowledge that the uranium rounds are the culprit.