THE ARMY RANGERS: MISSIONS AND HISTORY

BETTER TRAINED INFANTRYMEN THROUGH EXPANDED OSUT

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CALL FOR SUBMISSIONS

Do you have an opinion concerning one of the stories in this issue? We would like to print your responses in our Letters to the Editor column. Have you researched a topic that is of interest to Infantry Soldiers? Submit it to us as an article for the Infantry Bugler. Do you have personal experiences or valuable lessons learned that would benefit other readers? Let us be your vehicle for delivering those thoughts. Send your submissions to bugler@infantryassn.com.
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From the Chairman

My experience as a mentor to the Unified Quest ‘18 Deep Futures Wargame has fortified my opinion that the world we live in offers many dangers to our American way of life. The Information Age brings new and demanding challenges while making traditional threats more diverse, agile and lethal. The acceleration of conflict’s complexity means that finding solid ground upon which to build doctrine, organizations, training, materiel, leadership, personnel and facilities grows more difficult by the day.

When thinking about this complex problem, I turned to a sentence in T. R. Fehrenback’s book This Kind of War: “You may fly over a land forever; you may bomb it, atomize it, pulverize it and wipe it clean of life—but if you desire to defend it, to protect it and keep it for civilization, you must do this on the ground, the way the Roman legions did, by putting your young men into the mud.” As important as is having the world’s best technology and most innovative thinking, we must be capable of closing with and destroying our enemies. Having the ability and fortitude to do so is a deterrent which we can ill afford to lack.

The missions facing our Infantry span the spectrum of conflict from a massive cyber or electromagnetic pulse attack, protecting our borders, peacekeeping operations, deterrence deployments, counterinsurgency, counterterrorism and war with a peer to include an NBC environment. Opponents include law abiding, non-law abiding, nation states, non-states, in uniform and not.

Another challenge is rapidly expanding our Army while maintaining the highest standards required for victory. Doing so is difficult, time consuming and resource intensive, and is made more complex by equipment procurement processes measured in decades not months. Not being issued the best available equipment in a timely manner makes it difficult to train as we fight. Even if our wealthy, smart, and innovative nation could overcome many of these expansion challenges, finding the citizens who will join the Infantry might be the “long pole in the tent.”

In America, only a quarter of 18-24 year old cohort can meet the medical, mental, physical, educational and moral standards of our Armed Forces. Industry, service businesses, higher education and others are all competing for the top quarter of this cohort. The propensity to serve our nation, which was high after 9/11, is decreasing, as is the propensity to serve in the most demanding and challenging branch, the Infantry. Should a crisis require a rapid expansion of our Army, some of today’s standards could be waived via a very disciplined system; however, the medical, mental and physical standards must be carefully managed. Low bone mass density, poor strength and stamina, obesity, etc. result in frequent injuries to trainees which lead to too many Soldiers on profile and non-deployable.

The criticality of discipline, fundamentals of soldiering and the bare basics must be initially trained while the right strength and endurance levels are developed, means that officers and non-commissioned officers must demand standards during initial entry training. Once the graduates are at their first assignment, leaders must continue to demand maintenance of these standards. Doing so is imperative for our Infantry so that fire teams, squads, platoons, companies and battalions can close with and destroy our enemies.

To ensure we don’t experience the massive casualties of past wars, we must develop deterrence in all the domains of information, cyber, space, air, sea and ground. On the ground, deterrence is fundamentally built on the capability and fortitude to close with and destroy your enemy as Fehrenback reminds us.

Although Infantry Soldiers and Leaders face significant challenges, I am encouraged by the quality of the Unified Quest ‘18 Wargame. Attending Infantry graduations at the National Infantry Museum’s parade field makes me confident in not only the newly minted Infantry Soldiers, but also the Infantry Leaders who transformed these young men and women into a force to close with and destroy our enemies. Once assigned to their Infantry units, commanders must maintain the right and highest standards so that America is victorious when it puts its “your young men into the mud.”

From the President

I am again appreciative to be able to recognize our two Official Sponsors of the National Infantry Association, Phantom Products and Defense Products and Services Group (DPSG, USA).

I encourage all of our members to reciprocate by supporting them and their products.

Once again, the only constant seems to be change. By the time you read this, BG Donahue will have departed to join the Joint Staff in Washington as Deputy Director for Special Operations and Counter-Terrorism, J-3, a position for which he is very well qualified. The NIA thanks him for his support while Chief of Infantry, and we wish him and his family the best in their new assignment. Coming in July, will be BG David M. Hodne, currently Deputy Commanding General of the 4th Infantry Division. We look forward to working with and supporting him. In the meantime, the 58th Chief of Infantry is COL Townley R. Hedrick, who has already been very supportive as BG Donahue’s deputy.

The NIA’s affiliation with AUSA is going well, and I am told that NIA members (who have not declined) should soon— if they have not already—receive electronic membership cards from AUSA, which will entitle them to AUSA’s range of benefits. Also, the NIA will have a kiosk at the AUSA Annual Meeting in October in Washington, DC. We hope to see many of you there, as we do at the 2018 Maneuver Warfighter Conference at Fort Benning during the week of 10 September. The Doughboy Awards Dinner will be at the National Infantry Museum on 11 September, and the awardees will be LTG (Ret) Robert “Sam” Wetzel, CSM (Ret) Autrail Cobb and Mr. Gary M. Fox.

We try our best to keep up with the mailing addresses of our members, but every month when we mail renewal reminders, we get a list of hundreds of updates from the USPS database. Unfortunately, this does not help us with Life Members who do not have to renew, so each year we run them through the database. Especially during PCS season, please remember to include the NIA on your change of address notifications, because the post office doesn’t forward the Infantry Bugler.

Finally to our NIA members, my continued thanks for your support, especially that of our active chapters that promote the branch and the Association through their activities. As of this writing, our membership has passed the 9,500 mark on its way to our goal of 10,000 and beyond. The brotherhood we share and support comprises America’s best.
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From the Chief of Infantry

Enhanced Lethality: Today’s Initiatives, Tomorrow’s Success

A previous Chief of Infantry column highlighted marksmanship as a key aspect of Soldier lethality—one of the Army’s top six modernization priorities. Soldier fitness, mission-oriented training, mobility, survivability and the ability to counter constantly changing threats all contribute to achieving dominant and sustained lethality as well. We are a nation at war, and will remain so for the foreseeable future. The enemies we potentially face range from marginally viable terrorist organizations to near-peer adversaries. This array of enemies counts on technological, logistical and tactical support from states whose industrial base, power projection potential and long-term goals compete with our own. These aggressor states continue to use today’s conflicts as the testbed for their own weapons systems, but our technological edge and industrial overmatch ensure that we remain the decisive military force against all adversaries.

A key element of achieving and maintaining our battlefield predominance is the Infantry Soldier. We strive to select, train, and sustain the right people. We need intelligent Soldiers in top physical condition who can deploy against a near-peer enemy, strike hard, win, survive and return home. Their training hinges upon mastery of the Infantry basics—taught at Fort Benning’s Maneuver Center of Excellence. With that mastery in mind, we are running a pilot 21-week One Station Unit Training (OSUT) pilot program to produce a Soldier who can report in to his unit ready to go to war. We cannot expect gaining units to absorb partially trained Soldiers and remediate deficiencies when they are trying to assimilate the new arrivals into the battle rhythm of the unit. These Soldiers must be prepared to fight and win in multiple environments of urban, subterranean, cyber and even space domains.

The urban fight has long proven to be one of the most protracted and costly venues in terms of casualties and materiel demands. The Army science and technology (S&T) community is employing geospatial research to generate multidimensional 3-D maps of urban environments. This technology is still in its early stages, but has potential to enhance situational awareness, navigation and tactical advantages as it matures. We commit to further urban-oriented priorities as envisioned by Army Chief of Staff, GEN Mark Milley who shares our concern about the potential for high military and civilian casualties commensurate with dislodging a determined enemy in an urban environment.

Given the proliferation of urban areas across the globe and the demonstrated preference of adversaries such as ISIS for the urban fight, it is hardly surprising that our enemies prefer to draw us into an urban domain where they can fight from prepared positions, draw support—willingly or unwillingly—from a refugee population, subject civilians to friendly and hostile weapons effects and exploit media to support their assertions. For U.S. forces deployed to cold war Germany, where noncombatant evacuation and population movement plans were considered—but never executed, these considerations were at least possible given the existing German infrastructure and willingness of authorities to discuss and plan for comprehensive host nation support. The megacities in which we could find ourselves in the Middle and Far East have little or no infrastructure to support these civil affairs contingency operations.

The future battlefield likely includes some of the most intense, protracted urban combat seen WWII in Aachen, Germany, in the Philippines, in Mosul or during the German fight for Stalingrad or the Soviet attack to capture Berlin. Then, as now, victory could only be earned by well-trained, disciplined, capably led Soldiers who had mastered the basics of their profession and who possessed the marksmanship skills to kill the enemy. They were able to fight outnumbered if necessary against a near-peer adversary in an austere environment in spite of marginal or non-existent communications, and they did it time and time again.

We remain a leader among the family of allied nations because of the American Soldier. His ability—and eagerness—to close with and defeat the enemy by close combat, fire, and maneuver continue to make the decisive difference. The Infantry School continues to be of the service of its brotherhood of professionals and warriors whose sense of duty and unsurpassed expertise inspire the branch. We appreciate and need your input as we strive to send the Infantry message to the force. Please continue to write the articles and the letters to help us be a better professional bulletin for the combined arms team.

One force, one fight!

Follow me!

MISSING

If you haven’t received your own copy of the Infantry Bugler, we may have an incorrect address for you and the USPS doesn’t forward the Bugler.

Please check the NIA website and click on the link for a list of names of members that we’ve tried to contact unsuccessfully. If you or someone you know is on this list, please contact us at Members@InfantryAssn.com or 706-323-2560 to update the contact information. We want to find you.
**Mission:**
“Rangers Lead the Way” isn’t just a motto; it’s a fact. Each Ranger battalion is capable of deploying anywhere in the world with only 18 hours notice. Rangers are part of a highly trained and rapidly deployable light Infantry force with specialized skills that enable it to engage a variety of conventional and Special Operations targets.

The Rangers’ primary mission is to engage the enemy in close combat and direct-fire battles. This mission includes direct action operations, raids, personnel and special equipment recovery, in addition to conventional or special light-Infantry operations.

Becoming a Ranger requires completing one of the toughest military training schools in the world. Ranger candidates train to exhaustion, pushing the limits of their minds and bodies. The motto, “Rangers Lead the Way,” has proven true for over 60 years. Since the first group of handpicked volunteers was activated in World War II, Rangers have led the way on over 50 military campaigns including operations in Afghanistan and Iraq.

Known as the 75th Ranger Regiment, today’s Rangers are the premier light-Infantry of the U.S. Army and serve as part of the U.S. Special Operations Command. Their mission is to plan and conduct special missions in support of U.S. policy and objectives.

**Army Ranger History**
U.S. Army Ranger history predates the Revolutionary War. In the mid 1700s, CPT Benjamin Church and MAJ Robert Rogers both formed Ranger units to fight during the King Phillips War and the French and Indian War. Rogers wrote the 19 standing orders that are still in use today.

The Continental Congress formed eight companies of expert riflemen in 1775 to fight in the Revolutionary War. In 1777, this force of hardy frontiersmen commanded by Dan Morgan was known as the Corps of Rangers. Francis Marion—“The Swamp Fox”—organized another famous Revolutionary War Ranger element known as Marion’s Partisans.

During the War of 1812, companies of United States Rangers were raised from among the frontier settlers as part of the regular Army. Throughout the war, they patrolled the frontier from Ohio to Western Illinois on horseback and by boat. They participated in many
skirmishes and battles with the British and their Indian allies. Many famous men belonged to Ranger units during the 18th and 19th centuries to include Daniel Boone and Abraham Lincoln. The Civil War included Rangers, such as John Singleton Mosby, who was the most famous Confederate Ranger during the Civil War. His raids on Union camps and bases were so effective, part of North-Central Virginia soon became known as Mosby’s Confederacy. After the Civil War, more than half a century passed without military Ranger units in America. However, during World War II, the United States, using British Commando standards, activated six Ranger Infantry battalions. MAJ (later BG) William O. Darby organized and activated the 1st Ranger Battalion on 19 June 1942, at Carrickfergus, Northern Ireland. The 1st Ranger Battalion participated in the North African landing at Arzeu, Algeria, the Tunisian Battles and the critical Battle of El Guettar. The 3rd and 4th Ranger Battalions were activated and trained by Darby in Africa near the end of the Tunisian Campaign. The 1st, 3rd and 4th Battalions formed the Ranger Force. They began the tradition of wearing the scroll shoulder sleeve insignia, which has been officially adopted for today’s Ranger battalions. The 2nd and 5th Ranger Battalions participated in the 6 June 1944, D-Day landings at Omaha Beach, Normandy. It

“Rangers Lead the Way” isn’t just a motto; it’s a fact. Each Ranger battalion is capable of deploying anywhere in the world with only 18 hours notice.
was during the bitter fighting along the beaches that the Rangers gained their motto, “Rangers Lead the Way.” They conducted daring missions to include scaling the cliffs of Pointe Du Hoc, overlooking Omaha Beach, to destroy German gun emplacements trained on the beachhead.

The 6th Ranger Battalion operated in the Philippines and formed the rescue force that liberated American prisoners of war from a Japanese POW camp at Cabanatuan in January 1945. The 6th Battalion destroyed the Japanese POW camp and evacuated more than 500 prisoners.

The 75th Infantry Regiment was first organized in the China-Burma-India Theater on 3 October 1943 as Task Force Galahad. It was during the campaigns in the China-Burma-India Theater that the regiment became known as Merrill’s Marauders after its commander, MG Frank D. Merrill. The Ranger Battalions were deactivated at the close of WWII.

The outbreak of hostilities in Korea in June 1950 again signaled the need for Rangers. Fifteen Ranger companies were formed during the Korean War. The Rangers went to battle throughout the winter of 1950 and the spring of 1951. They were nomadic warriors, attached first to one regiment and then to another. They performed “out front” work—scouting, patrolling, raids, ambushes, spearheading assaults and as counterattack forces to regain lost positions.

Rangers were again called to serve their country during the Vietnam War. The 75th Infantry was reorganized once more on 1 January 1969, as a parent regiment under the Combat Arms Regimental System. Fifteen separate Ranger companies were formed from this reorganization. Thirteen served proudly in Vietnam until inactivation on 15 August 1972.

In January 1974, Army Chief of Staff GEN Creighton Abrams directed the formation of a Ranger battalion. The 1st Battalion (Ranger), 75th Infantry, was activated and parachuted into Fort Stewart, Georgia, on 1 July 1974. The 2nd Battalion (Ranger), 75th Infantry followed with activation on 1 October 1974. The 3rd Battalion, 75th Infantry (Ranger), and Headquarters and Headquarters Company, 75th Infantry (Ranger), received their colors on 3 October 1984, at Fort Benning, Georgia. The 75th Ranger Regiment was

Comments by COL (Ret) Ralph Puckett:

My research shows that there were 17 Airborne Ranger companies formed at Ft. Benning, Georgia, during the Korean War. These companies were designated 1 through 15 and there were two unnumbered. They were Companies A and B, as I remember. They were used to provide replacements. All of these companies were Airborne.

There was one company, the Eighth Army Ranger Co. (8213th Army Unit) that was not Airborne. It was formed in Japan from service troops, activated 25 Aug 1950. It arrived in Korea, 2 Sep 1950 and was deactivated 28 March 1951. It was a different T/O&E. Called for 74 enlisted and 3 officers. I was the company commander who formed, trained, and commanded the company in combat until I was wounded 26 and 27 November 1950. This company was not Airborne although the three officers and 2-3 enlisted were Airborne qualified. The T/O&E for the Airborne companies called for 110 enlisted and five officers. It had much more equipment than my company.

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designated in February 1986. The modern Ranger battalions were first called upon in 1980. Elements of 1st Battalion, 75th Infantry (Ranger) participated in the Iranian hostage rescue attempts. In October 1983, 1st and 2nd Ranger Battalions spearheaded Operation Urgent Fury by conducting a daring low-level parachute assault to seize Point Salines Airfield and rescue American citizens at True Blue Medical Campus.

The entire 75th Ranger Regiment participated in Operation Just Cause. Rangers spearheaded the action by conducting two important operations. Simultaneous parachute assaults were conducted onto Torrijos/Tocumen International Airport, Rio Hato Airfield and General Manuel Noriega’s beach house, to neutralize Panamanian Defense Forces. The Rangers captured 1,014 enemy prisoners of war (EPW) and over 18,000 arms of various types.

Elements of Company B and 1st Platoon Company A, 1st Battalion, 75th Ranger Regiment deployed to Saudi Arabia from 12 February 1991 to 15 April 1991, in support of Operation Desert Storm. In August 1993, elements of 3rd Battalion and 75th Ranger Regiment deployed to Somalia to assist United Nations forces in bringing order to a desperately chaotic and starving nation. On 3 October 1993, the Rangers conducted a daring daylight raid with 1st Special Forces Operational Detachment-Delta (SFOD-D). For nearly 18 hours, the Rangers delivered devastating firepower, killing an estimated 600 Somalis in what many have called the fiercest ground combat since Vietnam.

On 24 November 2000 the 75th Ranger Regiment deployed Regimental Reconnaissance Detachment (RRD) Team 2 and a command and control element to Kosovo in support of Task Force Falcon.

After the events of 11 September 2001, Rangers were called upon to lead the way in the Global War on Terrorism. On 19 October 2001, 3rd Battalion and 75th Ranger Regiment spearheaded ground forces by conducting an airborne assault to seize Objective Rhino in Afghanistan in support of Operation Enduring Freedom. On 28 March 2003, 3rd Battalion employed the first airborne assault in Iraq to seize Objective Serpent in support of Operation Iraqi Freedom.

Due to the changing nature of warfare and the need for an agile and sustainable Ranger force, the Regimental Special Troops Battalion (RSTB) was activated 17 July 2006. The RSTB conducts sustainment, intelligence, reconnaissance and maintenance missions which were previously accomplished by small detachments assigned to the Regimental headquarters and then attached within each of the three Ranger battalions. The activation of the RSTB signifies a major waypoint in the transformation of the Ranger Force from a unit designed for short term “contingency missions” to continuous combat operations without loss in lethality or flexibility.

Today, Rangers from all four of its current Battalions continue to lead the way in the Global War on Terrorism. The 75th Ranger Regiment is conducting sustained combat operations in multiple countries deploying from multiple locations in the United States, a task that is unprecedented for the Regiment. Rangers continue conducting combat operations with almost every deployed special operations, conventional and coalition force in support of both Operation Enduring Freedom and Operation Iraqi Freedom. The Ranger Regiment is executing a wide range of diverse operations that include airborne and air assaults into Afghanistan and Iraq, mounted infiltrations behind enemy lines, complex urban raids and rescue operations.

In addition to conducting missions in support of the Global War on Terrorism, the 75th Ranger Regiment continues to train in the United States and overseas to prepare for future no-notice worldwide combat deployments. The Regiment also continues to recruit, assess and train the next generation of Rangers and Ranger leadership. ★ (Reprinted with permission from Military.com.)
Lethality & Proficiency

Infantry One Station Unit Training

Expands to 22 Weeks

The Maneuver Center of Excellence and the Infantry School are implementing an eight-week extension to Infantry One Station Unit Training (OSUT) to increase the length from 14 weeks to 22 weeks. Modern technological advances worldwide have increased the complexity and lethality of combat and diminished the capability gap between the U.S. and our peer threats on today’s multidomain battlefield. Despite the increased complexity, lethality and our constant state of conflict over the past two decades, the U.S. Army’s training of our Close Combat Soldiers remains almost unchanged over the previous 44 years. We must extend the current 14-week Infantry OSUT to provide markedly improved and more lethal Soldiers to first units of assignment across the Army.

The 14-week Infantry OSUT model is the shortest of all Military Occupation Specialty (MOS) training models for the U.S. Army’s Initial Entry Training (IET) and is also shorter than IET of the United States Marine Corps, the United Kingdom, Australia and Canada. The proposed 22 weeks increases individual Soldier lethality and improves all aspects of Soldier proficiency. These new Soldiers join the force better trained, more disciplined and mentally and physically tougher through increased sets and repetitions, prepared to fight, win and survive day or night anywhere, anytime—now or in the future. Expanding weapons training on crew served and shoulder launched weapons increases Soldier lethality and takes Soldier skills from familiarization to proficiency.

The eight-week extension adds platform and driver training (Stryker/BFV/JLTV), and significantly increases medical training from a one day Program Of Instruction (POI) to a 40-hour Combat Lifesaver Certification, providing Soldiers with the medical training required in the operational force. Increased field training provides more sets and reps on battle drills allowing Soldier proficiency and understanding as well as field craft skills. Military Operations in Urban Terrain (MOUT) training increases by four days and adds a live fire exercise. The additional weeks allow for the introduction of combat water training, not only increasing Soldier confidence, but also preparing them for additional hazards encountered on the battlefield.

The MCoE conducts a 21-week Infantry OSUT extension pilot starting in July 2018 with two companies of 220 Trainees each. This pilot validates the 22-week POI and solidifies the training resource requirements for full implementation. Full implementation begins on or about October of 2019, with complete conversion from the 14-week to the 22-week POI occurring by October 2020. Individual OSUT graduates arrive in a higher state of readiness, capable of entering any phase of the Sustainable Readiness Model (SRM). Increased Soldier proficiency reduces First Unit of Assignment (FUA) training and integration requirements, assimilating Soldiers into their new formations quicker.

BY COL TOWNLEY R. HEDRICK

COL Townley R. Hedrick is Chief of Infantry.
Help on the Battlefield
Robots in the Army  BY TED MACIUBA

Do you want to influence the future of the Army for the foreseeable future? Do you consider yourself to be a technology expert or visionary? TRADOC Capability Manager for Robotics and Autonomous Systems (TCM RAS) recently stood up as a provisional organization of the Maneuver Center of Excellence Capabilities Development and Integration Directorate. Bottom line, we develop the requirements for systems that will enable Soldiers to fight effectively and win on the modern battlefield.

TCM RAS is looking for talented and innovative Officers and NCOs with the knowledge, skills, ability and drive to work successfully with and among Army labs: program managers; other services; foreign and domestic industry, as well as academia and foreign militaries.

TCM RAS develops the requirements for systems that fly, drive, walk and swim to include exoskeletons that lighten the load for dismounted Infantrymen and Scouts, unmanned ground vehicles that extend the reach of the small formation and small unmanned aircraft systems that can see behind the next hill or inside the next building. Exciting ongoing programs and initiatives of TCM RAS include:

**Squad Multipurpose Equipment Transport (SMET)**
SMET carries a dismounted squad’s rucksacks and equipment to reduce Soldier load. It is also capable of mounting other mission equipment packages that could extend the situational awareness, lethality, protection and mobility reach of the squad. The Army is buying four vendor solutions in the next few months to put technology demonstrators into the hands of Soldiers. Following Army testing and safety confirmation, the SMET will start to be issued to Infantry Brigade Combat Teams in the 10th Mountain Division and 101st Air Assault Division by the end of this year.

**Exoskeletons**
TCM RAS is working with the Natick Soldier Research, Development and Engineering Center to develop exoskeletons to reduce Soldier load. For those of you who have not read Robert Heinlein’s Starship Troopers, “… the beauty of an (exoskeleton is that) you don’t have to think about it. You don’t have to drive it, fly it, conn it, operate it: you just wear it, and it takes orders directly from your muscles...” Power and energy is the long pole in the tent. As batteries become more energy dense, exoskeletons will be able to last longer without recharge, carry more weight and move faster.

**Soldier Borne Sensor (SBS)**
The Soldier Borne Sensor (SBS) is a micro-drone that fits in a Soldier’s pocket. A squad leader can launch an SBS, day or night, to extend the situational awareness reach of the squad. The Army is buying the SBS this year, and Soldiers will see them in Brigade Combat Teams across the Army.

TCM RAS is also working with the Columbus Georgia Chamber of Commerce on the first Bot-Oberfest, a robotic competition that will raise the visibility of Fort Benning and the Chattahoochee Valley as a Robotic Center of Innovation. Initial plans include drone races, robot wars (Battlebots), and a Cross-Domain (xD) Maneuver Challenge over land, air and water all held on the Columbus riverfront tentatively scheduled for 20 October 2018. Held on the 100th anniversary of Fort Benning, Bot-Oberfest will usher in a new century of innovation for our Soldiers. Mark your calendars.

If you are a mid-grade Officer or NCO with a desire to influence the future of Army Robotics and Autonomous Systems, contact Ted Maciuba at ted.maciuba@us.army.mil for additional information.

TED MACIUBA, P.E.
Ted Maciuba, P.E., is the Deputy Director of TRADOC Capability Manager for Robotics and Autonomous Systems (Provisional) for the U.S. Army Maneuver Center of Excellence, Fort Benning, Georgia.
Power on Rubber Tracks
A Look at Steel Versus Rubber

Iron Tracks Are Obsolete
It began 15 September 1916 on the Somme Battlefield, with the debut of the first iron clad tracked Mark I tank, and today—some are still using steel tracks regardless of weight class. Most tracked military vehicles like Main Battle Tanks (MBTs) worldwide, e.g. the M1 Abrams, the Leopard 2, the Leclerc and Infantry Fighting Vehicles (IFV) like Puma, Bradley and Warrior, use steel tracks with rubber pads. Steel tracks have several inconvenient characteristics, including severe vibrations. Some Soldiers call tracked Armored Personnel Carriers (APCs) washing machines—bad both for the health of the people inside and for the mechanical health of vehicles and electronic equipment, subject to more frequent breakdowns. Metal tracks are also bad for roads, causing a lot of damage that must be repaired, and they wear out fast.

Typical Design Characteristics
Track drives give heavy combat vehicles an off-road capability, despite high weights, by having a relatively low specific ground pressure and a great ability to overcome obstacles (trenches, steps, etc.). The advantages of tracks are:

- Implementation of the best possible off-road capability and ability to overcome obstacles
- Relative security against enemy fire particularly when using protection skirts
- Convenient design which leads to low vehicle silhouettes
- Good maneuverability of the vehicles in a confined space (for example, with corresponding steering gears turning around the
**FEATURE**

**RUBBER TRACK REDUCES NOISE**

- Reduce noise up to 13 dBA outside & 6 to 10 dBA inside
- Increased operational effectiveness
- Drastic reduction in health issues
- Communication drastically enhance inside vehicle

**Noise vs Vehicle Speed (Crew & Driver)**

- Live rock music (108 - 114 dB)
- Power mower (96 dB)

110 dB is the average human pain threshold. 16 times as loud as 70 dB.

**INCREASE TROOP’S HEALTH & COMBAT READINESS**

**PERFORMANCE IN DRY SAND**

- Rubber track has 19% more traction

**IMPROVE MOBILITY AT TACTICAL LEVEL**
Steel tracks have several disadvantages, such as:

- Relatively high rolling resistance
- Relatively high cost (especially in the user phase)
- High vibration and vibration load of crew and equipment
- High noise level (especially at higher speeds)
- High maintenance requirements due to track stretching over time, pad wearing and link unreliability

Years ago, as a crew commander standing in fresh air onboard a brand new M113A1 with padded steel tracks, I was heading from the garrison to a far exercise area, a driving distance of 643 km along a main road. The vibration was very noticeable. The diesel fuel tanks got cracks in them, and it was very unpleasant for the soldiers sitting in the compartment smelling the odor.

**Composite Rubber Tracks**

Composite rubber tracks, (such as those made by Soucy), are up to 50 percent lighter than steel tracks and increase performance through:

- Less rolling resistance
- Reduced noise level
- Increased top speed
- Reduced vibration
- Increased traction
- Less fuel consumption

**Norwegian Army Experience**

The Norwegian Army has experience back from Afghanistan when the armored fighting vehicle CV9030 was equipped with composite rubber tracks. Norway has used composite rubber tracks for more than 10 years, both on the upgraded M113s and a few of the CV90 Mk Is. It was the first nation to use rubber belts on all CV9030 Mk III versions. When the conventional steel tracks on the old Infantry riding “horse” M113 were replaced and it was fitted with new “shoes, engines and suspension,” the new “shoes”—rubber band tracks—offered the user significant operational advantages, including reduced noise and vibration and a 50 percent reduction in track weight. The rubber track system is suitable for all types of ground conditions and temperatures and it is maintenance free. According to Soucy, the vibration level in the M113 has been reduced by almost 70 percent.

**Replacing steel with rubber**

On the CV9030, verification tests have resulted in showing that mobility is increased especially on snow, the lifetime of composite rubber tracks are comparable with steel tracks and they provide better acceleration.

The Norwegian Army tested the M113A2 series in 2004. Photo by Ingolf Tveter/Norwegian Armed Forces
One tester said: “It gives a feeling of almost like getting a few hundred horsepower extra, while fuel consumption is reduced.”

Composite rubber tracks offer better ergonometic conditions for the Soldiers and equipment inside the vehicle due to far less noise and vibration. Composite rubber tracks reduce the vehicle weight by 1200 kg., allowing for an enhanced armor package. The internal noise is significantly reduced—5-10 decibels—and the vibrations are also significantly reduced by 50 to 80 percent. In addition, the risks of track throwing and dust clouds were reduced.

**Fuel Economy**
Comparing APC/IFV with steel tracks versus composite rubber tracks show that vehicles with composite rubber tracks reduce fuel consumption a minimum of 30 percent.

**Life Cycle Savings**
On average, the segments of a steel track must be repaired or replaced after just 1280 km (800 miles) of use. The new composite rubber tracks last more than 3,000 km (1,865 miles) before they need to be replaced. Metal tracks are heavy, which means a need for a beefier suspension and the vehicle also needs to carry replacement links. Like wheeled vehicles, the composite rubber tracks with lower ground pressure than

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**Check This Out!**

**NIA Affiliation with AUSA**

As part of our continuous commitment to the strength of the National Infantry Association, NIA’s expanded relationship with the Association of the United States Army (AUSA) provides us with an expanded audience in telling the Infantrymen’s story in support of the Chief of Infantry and the Infantry Branch. NIA, as an Association Member in AUSA, extends this partnership to our members in the form of a 1-year membership.

This new offer gives you additional member benefits, such as a digital subscription to AUSA’s professional development publications, like ARMY Magazine and AUSA News. The full range of AUSA member benefits is on their website at www.ausa.org/benefits-services. If you are already a member of AUSA, your current AUSA membership will remain unchanged.

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8-wheeled combat vehicles, will not damage paved roads and thus avoid costly road repair.

**Conclusion**

Compared to steel tracks, composite rubber tracks provide more traction, in part because, being lighter, they can be made wider than steel tracks and thus give a lower ground pressure and tractive effort, meaning that vehicles fitted with them do not get stuck in the mud.

The vehicles accelerate faster, too, and drivers say they handle almost as well on paved roads as wheeled vehicles do. On top of this, the vibration level is low and they are quieter. ★

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**Honor the Legacy**

From the battlefields of the American Revolution to the sands of Afghanistan, the Infantry has paved the way for America’s freedoms. Secure your place in history with a commemorative paver on Heritage Walk at the National Infantry Museum.

All engraved granite pavers are 4”x8” at $250 each. NIA members receive a $25 discount when submitting this form. All pavers include one 2”x4” desktop replica.

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Columbus, Georgia 31903
Thomas W. Wigle was born in Indianapolis, Indiana, on May 18, 1909. A violinist and violin teacher by trade, Wigle performed for five years with the Kansas City Philharmonic. Working with his hands in another arena, he was also employed as a mechanic in an airplane factory.

He joined the Army during World War II, from Detroit, Michigan, and soon found himself in Officer Candidate School at Fort Benning, Georgia. By September 14, 1944 he was serving as a second lieutenant in Company K, 135th Infantry Regiment, 34th Infantry Division. It was on that day, in Monte Frassino, Italy, that Wigle assumed leadership of a platoon, and led an assault on a heavily fortified German position. He single-handedly attacked three German-held houses before being wounded. Two days later, he died of those injuries at just 35 years old and was buried in Arlington National Cemetery. He left behind a wife and a two-year-old daughter.

On February 7, 1945, he was posthumously awarded the Medal of Honor. The medal was conferred on Wigle's widow Mrs. Margaret Henry Wigle on February 16 in Detroit, Michigan. MG Russell B. Reynolds made the presentation.

The citation reads:

For conspicuous gallantry and intrepidity at the risk of life above and beyond the call of duty in the vicinity of Monte Frassino, Italy. The 3d Platoon, in attempting to seize a strongly fortified hill position protected by 3 parallel high terraced stone walls, was twice thrown back by the withering crossfire. 2d Lt. Wigle, acting company executive, observing that the platoon was without an officer, volunteered to command it on the next attack. Leading his men up the bare, rocky slopes through intense and concentrated fire, he succeeded in reaching the first of the stone walls. Having himself boosted to the top and perching there in full view of the enemy, he drew and returned their fire while his men helped each other up and over. Following the same method, he successfully negotiated the second. Upon reaching the top of the third wall, he faced three houses, which were the key point of the enemy defense. Ordering his men to cover him, he made a dash through a hail of machine-pistol fire to reach the nearest house. Firing his carbine as he entered, he drove the enemy before him out of the back door and into the second house. Following closely on the heels of the foe, he drove them from this house into the third where they took refuge in the cellar. When his men rejoined him, they found him mortally wounded on the cellar stairs, which he had started to descend to force the surrender of the enemy. His heroic action resulted in the capture of 36 German soldiers and the seizure of the strongpoint.

Wigle was further honored by the naming of Wigle Hall at Fort Benning. Wigle Hall was the site of the original Officer Candidate School Hall of Fame before it was moved to the National Infantry Museum.
New Leadership

Two longtime champions of the National Infantry Museum have relinquished their positions of leadership on the museum’s National Advisory Board to make room for a new generation of warriors. At the board’s April Executive Committee meeting, GEN (Ret) Edwin Burba passed the Chairmanship of the board to GEN (Ret) John Abizaid. Longtime Vice Chairman GEN (Ret) Barry McCaffrey turned over his seat to Mr. James D. Weaver III.

Burba and McCaffrey have been the face of the Advisory Board since the National Infantry Museum was in the earliest planning stages. They have offered guidance to the museum’s leadership and have worked diligently to raise both construction and operational funding for the private nonprofit organization. Both have accepted Emeritus status and intend to continue efforts in support of the museum.

“But it’s time to turn over command to the younger generation,” GEN Burba said. “They are more closely connected to today’s Army. They have ties to contemporary leaders in both the military and civilian world—ties that are critical for the museum’s continued success.”

GEN Abizaid was the longest serving commander of U.S. Central Command when he retired from the Army in 2007. Mr. Weaver, the incoming Vice Chairman, is a Houston-based business leader and president of the Gordon and Mary Cain Foundation.

“What this team has accomplished—helping to build this national treasure from the ground up—is beyond measure,” Abizaid said. “Generals Burba and McCaffrey have been tireless Soldiers in this effort, and I’m grateful to both of them for pushing the museum toward its full potential.”

GEN Bill Richardson, a former TRADOC commander and active member of the Advisory Board, will retain his seat on the executive
On 19 January 2018 at Camp Zama, Japan, CSM Benjamin Jones (left) and CSM Richard R. Clark presented the Order of St. Maurice (Peregrinus) to Sergeant Major of the Japan Ground Self-Defense Force, Warrant Officer Susumu Takahashi.

In July 2017, COL (Ret) George Woods presented Chief of the Norwegian Army MG Odin Johannessen the Order of St. Maurice (Peregrinus) Award in Oslo, Norway.

On 7 March 2018 at OB Fenty, Jalalabad, Afghanistan, LTC James Uptgraft and CSM Joseph Hissong presented the Order of St. Maurice to SGM Michael Smith, SFC Antonio Clayton and SSG Gustav Schoengut.

Continued from page 19

committee. He will be joined by new members GEN Chuck Jacoby, the first Army officer to assume command of U.S. Northern Command, and GEN Lloyd Austin, who served for 41 years, culminating as commanding general of U.S. Central Command.

The full National Advisory Board will hold its annual meeting at the museum on September 7.

New Exhibit
The museum unveiled a new exhibit in March that formally recognizes the best of the best members of the Officer Candidate School Hall of Fame. It spotlights 21 Distinguished Members for their extraordinary contributions to both military and civilian endeavors.

Recipients include:
Gov. Winthrop Rockefeller
Secretary Caspar Weinberger
Sen. Frank Church
GEN Frederick Kroesen, Jr.
Sen. Bob Dole
William Buckley, Jr.
William Gates, Sr.
Secretary John Marsh, Jr.
Ambassador Terence Todman
Secretary Gordon Gray
GEN Robert Kingston
GEN James Lindsay
GEN Leon Salomon
GEN John Shalikashvili
GEN Johnnie Wilson
GEN Tommy Franks
GEN John Abrams
GEN Buck Kernan
GEN Benjamin Griffin
GEN Bryan Brown

Col. (Ret) John Ionoff, President of the Officer Candidate School Alumni Association, said the effort to recognize these Distinguished Members began years ago in the old Hall of Fame in Fort Benning’s Wigle Hall, but that the program was never formalized.

BG (Ret) Pete Jones, President of the National Infantry Museum Foundation, noted that not all of the honorees are general officers.

“These Distinguished Members have tackled challenges as ambassadors, governors, senators and congressman. One has even faced the challenges of providing responsible and meaningful philanthropic support to make the world a better place to live, which ultimately makes conflicts less likely. Their collective efforts are an inspiration to us all, and especially for the 200 candidates here who are at the starting point of their own lives of selfless service to our nation.”

Representatives of several Distinguished Members attended the ceremony and exhibit unveiling. They included family members and friends of Secretary of Defense Caspar Weinberger, Sen. Frank Church, Ambassador Terence Todman, GEN Robert Kingston and GEN John Shalikashvili. Sen. Bob Dole, himself a graduate of Officer Candidate School, sent a letter to be read, not only in appreciation for the designation of Distinguished Member, but to encourage and inspire the candidates in the audience, whose names may eventually be the ones added to this prestigious circle.

The new exhibit is located in the OCS Hall of Honor, on the museum’s mezzanine level.
On 24 Feb 2018, SFC Kyle Lewis (right) and SFC Jonathan Ward received the Order of Saint Maurice at the ARNG Warrior Training Center’s Ball.

On 11 April 2018, 1SG Justin Richardson (left) presented the Order of St. Maurice to SSG (P) Kyle Chattin (right) at the U.S. Army Drill Sergeant Academy.

On 27 March 2017 at the 75th Ranger Regiment Headquarters, Mrs. Lori Nelson was awarded the Shield of Sparta during a retirement ceremony for MSG Kevin Nelson, who served 22 years in the 75th Ranger Regiment. Also pictured is their son, Tyler.

On 24 Nov 2018 during the 175th Infantry Regimental Association Annual Dinner at the Dundalk Readiness Center, the following individuals were awarded the NIA Order of Saint Maurice for their dedication and commitment to the Infantry. (Left to right) COL Bruce Kahl, LTC Dennis Pulkett, COL Delbert Parks, COL Cecil Phillips, SSG John Cross and BG Robert Schweitzer. The 175th Infantry Regimental Association routinely honors current servicing members of the 1/175th Infantry Battalion, along with former and retired members of the “The Dandy Fifth.”

On 18 Apr 2018, Fort Stewart Garrison Commander COL Jason Wolter (left) and Fort Stewart Garrison Operations NCOIC SFC James Valentin (right) presented the Order of St. Maurice to Fort Stewart Garrison CSM Marty Conroy (center).

On 10 May 2018 during the 175th Infantry Regimental Association Annual Dinner at the Dundalk Readiness Center, the following individuals were awarded the NIA Order of Saint Maurice for their dedication and commitment to the Infantry. (Left to right) COL Bruce Kahl, LTC Dennis Pulkett, COL Delbert Parks, COL Cecil Phillips, SSG John Cross and BG Robert Schweitzer. The 175th Infantry Regimental Association routinely honors current servicing members of the 1/175th Infantry Battalion, along with former and retired members of the “The Dandy Fifth.”

On 12 April 2018, SFC (Ret) Juan Santiago (left) presented the Order of St. Maurice to fellow Ramrod, SSG William Moody at the National Infantry Museum’s mezzanine, which is dedicated to the 2d Infantry Regiment (Ramrods). Moody currently serves as an Army recruiter in Anderson, South Carolina.

On 11 April 2018, 1SG Justin Richardson (left) presented the Order of St. Maurice to SSG (P) Kyle Chattin (right) at the U.S. Army Drill Sergeant Academy.
WHY BELONG TO THE NIA? To support the work of the ONLY organization representing the entire Infantry and the Chief of Infantry: The combined strength of our membership ensures that the Infantry voice is heard by decision makers. • To share the camaraderie of like-minded soldiers and citizens who believe in maintaining the Infantry spirit, and to help recognize outstanding Infantrymen. • To grow professionally through participation in Association activities, programs and publications. • To support a new, expanded National Infantry Museum and the educational values associated with its contents.

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