

ARMOR

July-August 2003



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**The Stryker-Equipped
Cavalry Squadron**

ARMOR

The Professional Development Bulletin of the Armor Branch PB 17-03-4

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ARMOR (ISSN 0004-2420) is published bi-monthly by the U.S. Army Armor Center, 1109A Sixth Avenue, Fort Knox, KY 40121.

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Periodicals Postage paid at Fort Knox, KY, and additional mailing offices. Postmaster: Send address changes to Editor, *ARMOR*, ATTN: ATZK-ARM, Fort Knox, KY 40121-5210.

Distribution Restriction: Approved for public release; distribution is unlimited.

USPS 467-970

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DSN prefix – 464-
Commercial prefix– (502) 624-

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ARTICLE SUBMISSIONS: To improve speed and accuracy in editing, manuscripts should be originals or clear copies, either typed or printed out double-spaced, with a 3½-inch disk in Microsoft Word, WordPerfect, WordStar, Rich Text Format, or ASCII (please indicate wordprocessing format on disk or cover letter). Tape captions to any illustrations or photos submitted. Additionally, we accept articles as e-mail or attachments at:

ArmorMagazine@knox.army.mil

When sending articles via e-mail, please include a complete mailing address and daytime phone number.

SUBMISSION POLICY NOTE: Due to the limited space per issue, we will not print articles that have been submitted to, and accepted for publication by, other Army journals. Please submit your article to only one Army journal at a time.

GRAPHICS AND PHOTOS: We prefer conventional photo prints, but will accept electronic graphic and photo files in no less than 300 dpi format. (Please do not send photos embedded in PowerPoint and Word.) If you use PowerPoint for illustrations, please try to avoid the use of excessive color and shading. If you have any questions concerning electronic art or photo submissions, call Vivian Oertle at the phone number above.

ADDRESS CHANGES, PAID SUBSCRIPTIONS, AND ST. GEORGE-ST. JOAN AWARDS: For paid subscription service, address changes, and delivery problems, or for awards information, contact Connie Stiggers or Darlene Kennedy, United States Armor Association, P.O. Box 607, Fort Knox, KY 40121; E-Mail: Brightcg@bbtel.com; phone (502) 942-8624; or FAX (502) 942-6219. You can also access the Association through their website at www.usarmor-assn.org.

UNIT DISTRIBUTION: To report unit free distribution delivery problems or changes of unit address, phone DSN 464-2249; commercial: (502) 624-2249. Requests to be added to the official distribution list should be in the form of a letter or e-mail to the Editor in Chief.

EDITORIAL MAILING ADDRESS: ARMOR, ATTN: ATZK-ARM, Bldg 1109A Sixth Avenue, Room 371, Fort Knox, KY 40121-5210.

ARMOR MAGAZINE ONLINE: Visit the ARMOR magazine website at www.knox.army.mil/armormag.

ARMOR HOTLINE — DSN 464-TANK: The Armor Hotline is a 24-hour service to provide assistance with questions concerning doctrine, training, organizations, and equipment of the armor force.

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LETTERS

Heavy Armor's Success in Iraq

Dear *ARMOR*:

I am sending this letter to ask that you publish the text of an e-mail I received today. It is from a Marine officer assigned to the Marine Expeditionary Force in Iraq. It is basically an after-action review and some tactics, techniques, and procedures learned on using tanks in urban areas from someone who never really thought much of tanks before:

"Some more ramblings since I have a few minutes to spare. I used to pooh-pooh tanks and the Marine Expeditionary Unit (SOC) program. At points, I wish I had a tank company. The tank platoon is awesome. During the first couple of days of fighting in Umm Qasr and at the Az Zubayr naval base, I had to split the tank platoon in sections and had sections supporting infantry companies. Grunts need to get used to working with tanks. Once in contact and the grunts were dismounted, the best technique seemed to be the grunts working right alongside the tanks. Be careful of when the main gun has to shoot. Make sure your guys are behind and to the sides. A few times we just had the tanks run over a few machine-gun nests and just cross-steer, crushing the guys beneath them.

The new MPAT [multipurpose antitank] round, which replaced the HEAT [high-explosive antitank] round, is great for urban combat. We normally have the tanks create breaches for our assault companies to enter buildings. One or two MPATs will create a hole big enough that you can drive an IFV [infantry fighting vehicle] through it. I am sure the guys at SOTG would be crying because we broke all the rules. We had to take down the Baath party headquarters in Umm Qasr. We did it with the tank platoon, force recon, and the trailer platoon. We led with tanks; four tanks got on line and blew the crap out of the building with their main gun using MPAT, which created two breaches. Once the trailers dismounted and moved abreast of the tanks, they switched to 7.62 and .50 cal, hosing down the house. When the trailers were ready to move forward, we shut off the tanks, and the trailers secured the perimeter of the house.

Tanks were then again pushed forward. A section covered each of the incoming roads. The force platoon went inside and finished the clearing operation. The biggest take away was that tanks work great in MOUT [military operations on urban terrain]. They need infantry support, which the infantry is more than happy to do. As long as the supported unit can talk directly to the tanks, it is fabulous. We blocked, numbered, and phase lined the entire city and that system worked well. Often, I could hear the guys coordinating tank fires by saying, "they are in building A3," and "don't be afraid to talk them just like an aircraft." We also communicated things like, "see the two-story house with a rusty roof" and "the bunkers are at the base of the white house to the east of that one." The platoon and company commander adapted well to using the tanks and every company has had to use them more than once. If only I could have made more than just a team

mech. We could have seized our objectives faster. I could have done a lot with a team tank.

Make sure to manage your fuel. I built a combat train run by the S4. The train had an ambulance team; security vehicle; ambulance; maintenance contact vehicle for HMMWVs; a 5-ton to transport enemy prisoners of war, support a forward battalion aid station (BAS), and for extra casualty collection; refueling truck that held 2,700 gallons of diesel; an explosive ordnance team contact team; and a management maintenance team (MMT) with their own security vehicle to run landing zones. The concept was to establish the combat train and the S4 could dispatch the ambulance team to collect casualties. The forward BAS in the back of the 5-ton would establish and the MMT would set up the landing zone (LZ). We could vector aircraft to the companies or ground evacuation back to our forward BAS and hasty LZ. The other half of the combat train could repair HMMWVs and refuel vehicles. A tank platoon needs to be refueled after 8 hours of continuous operation. Keep a close watch on this. I had to refuel and rearm these guys in the middle of a fight several times. We would refuel a section at a time so we would always have one engaging the enemy. On one occasion, the bad guys made the wrong decision to attack a company that had just finished a heliborne insert and was moving down to clear the old port at Umm Qasr. Luckily, we were refueling a tank section just north of town about 500 meters from the company's location. We finished refueling and sent the tanks in and through coordination with the company, the tanks made quick work of those knuckleheads. The learning point is always think ahead about refueling and rearming your tanks. You don't ever want to run dry."

As an armor soldier and a master gunner, I enjoyed this letter and wanted to share it. I would also say according to this letter, the MPAT round is a hit. Target, cease fire!

J. BARRY WELCH
MSG, U.S. Army

U.S. Army Sergeants Major Academy

Give Armor Its Due

Dear *ARMOR*:

As of this writing, American and British forces are on the brink of finally toppling the regime of Saddam Hussein. Had it not been for the use of the Abrams and Challenger series tanks, this would not have been possible. There was an article in a recent past issue of *ARMOR*, in which the author proclaimed that another war like Desert Storm would never happen again. He further advocated that heavy armor was going to be obsolete because of its logistics requirements, lack of quick deployability, and so on.

Armor should be geared more toward an urban fight based on the changing roles of the Army. This is not the first time this notion has been brought up. Critics in the past have been skeptical about the future of Armor and its necessity. We are witnessing the first major war of the 21st century in which, once again, tanks

have proven their place on the battlefield. This is by no means intended to take away from our fellow combat arms soldiers but rather reinforces the need for armor as a mainstay of our heavy forces.

I also believe it is time to look once more at the need to institute the expert and combat armor badge program. Undoubtedly, there will be many well deserving infantrymen pinning on the combat infantryman's badge in the near future. Medics will have a combat medical badge. Will our tankers and scouts, who have borne the brunt of some of the worst combat we have witnessed since possibly World War II, once again be denied recognition of their accomplishments as armor soldiers? Time will tell.

MSG CHRISTOPHER P. WORICK
North Georgia College and State University
Dahlonega, GA

Regarding Armor Badges

Dear *ARMOR*:

I offered my Armor Badge (one I bought from *soldiercity.com*) to Major General (MG) Whitcomb at Fort Riley last September when I was invested into the 34th Armor Regiment. As we were standing in the receiving line, he mentioned that, "There is a lot of resistance to that [the combat armor badge]." I asked him where the resistance is coming from and he replied, "The infantry." The sergeant major that followed him just glared at me as I wished him a nice day. I later read MG Whitcomb's biography and realized that he was a graduate of West Point in the Infantry branch.

MG Whitcomb's attitude is consistent with what I experienced at Cu Chi 35 years earlier. When we had to pull maintenance away from our base camp and went to Cu Chi, we were denied PX and shower privileges and restricted to a small motor pool area that we could not leave. My platoon sergeant was so mad that he accidentally backed over a tool shed. We were regularly denied drinking water and tank parts. I never met a grunt that didn't appreciate our tank next to them at night, but senior noncommissioned officers (NCO) and officers treated us like second-class citizens. One day, while we waited 4 hours for engineers to show up and sweep for mines, we lost two tanks and an M-88 outside of Cu Chi. After waiting nearly half-a-day, we found out they were too busy building an NCO club for the division command sergeant major and were not going to show. We got off the road approximately 300 feet, and lost my C-32 tank. Had I been inside the turret, I would have been killed. Luckily, I was standing in the loader's hatch and was catapulted over my tank commander and landed in the paddy on the other side of him. C-34 started off the road but didn't get as far as we did. Then the vehicle tank recovery (VTR) got off the road to start recovery and hit a smaller mine just off the road. All of these mines were command detonated.

During the long hours of guard duty out in the field, my tank commander mentioned that they had considered the CAB after Patton's run

through France. Patton was still in the political doghouse for the "slapping incident," so they decided against it — yet, established a combat infantry badge with an automatic Bronze Star.

I expect some whining from the elite media about soldiers wanting another badge, but they are only looking at a small portion of the view. To those of us that would like to see this materialize, I hope I have identified the obstructions for you to plot a strategy. I understand that you published the designs in 1991. Would you publish them again?

GARY LAPP
Green Bay, WI

Rave Review for "The Visible Hand"

Dear *ARMOR*:

I was impressed by your publication with the enlightening article, "The Visible Hand: Armor Looks at the Changing Face of Peacekeeping in the Balkans." You are to be commended for publishing such articles that look at the "other" missions that cavalry and armor soldiers are faced with in the current operating environment. Army National Guardsmen have been

fulfilling different missions within the Bosnia and Herzegovina (BiH) area since the 49th Armored Division, Texas Army National Guard, blazed the trail. They assumed control of the Multi-national Division-North on 7 March 2000. That initial trial of the Army National Guard's ability to handle a peacekeeping role was a resounding success that paved the way for other units in following rotations. Their success, I have always believed, was due to the attributes of the Guardsmen cited by the authors: "an inherent combination of military experience and exposure to civilian business practices."

When I was a scout platoon leader in the Texas Army National Guard, I had a handful of plumbers and tradesmen, three computer programmers, two business owners, a telecommunications specialist, and a self-made millionaire in my platoon. My platoon sergeant had once served in the army of the United Kingdom, and I was a practicing civil engineer. On the whole, this is a spectacular resume of experience that is not uncommon in the National Guard and is one of its great strengths.

I also agree with the authors' claim that cavalry troopers have a specific advantage in deployment on missions such as peacekeeping

in BiH. A cavalry trooper is typically a well-trained "jack-of-all-trades" in the combined arms arena. Troopers and their commanders are used to operating independently to creatively fulfill a higher commander's intent. Most importantly, they know how to gather information and paint a picture for the higher command and other operatives in the theater.

In the future, I would like to see all National Guard divisions take active steps to embrace deployment opportunities for their soldiers in support of missions like those ongoing in BiH and developing elsewhere. In particular, advanced training of cavalry troopers for such missions (task-organized with engineers) would probably prove to be greatly successful. Other active steps might include:

- Training at least one officer in a division to be a resident expert in peacekeeping or sustaining operations. A training certificate obtained through correspondence and residence phases with the United Nations Institute for Training and Research (UNITAR) Program of Correspondence Instruction in Peacekeeping Operations (POCI) would be a great starting point. These officers could serve as a pool of resident knowledge in the division staff, project officers for missions and liaisons with other divisions, and advanced party coordinators when battle-handover occurs in a theater of operations.

- Augment yearly training guidance with at least one drill weekend devoted to specifically training units for such missions.

- Create an organic platoon inside of an area command specifically focused on planning for peacekeeping and sustaining missions. The specific focus of the platoon would be to plan for and help units and commanders organize training to ramp up for those types of deployments.

In closing, National Guard divisions should embrace missions, such as those in the BiH area and around the world, realizing the inherent qualities of their soldiers make them highly qualified for success. Successful missions build morale, leadership, and esprit de corps that billions of dollars cannot purchase. National Guard divisions can also take active steps to ensure their control over the pace, training, and success of their troops in future deployments. Your thought-provoking article highlights the fact that National Guardsmen (especially trained cavalry) can be highly successful in future and current operations no matter what the operation's phase. Active steps to embrace this reality and prepare for it will solidify the National Guard's importance in that role.

CPT PATRICK D. NOLAN
C Troop, 1-124 Cavalry (49th AD)
Texas Army National Guard

Expensive Simulations Do Not Negate Trainer's Responsibility

Dear *ARMOR*:

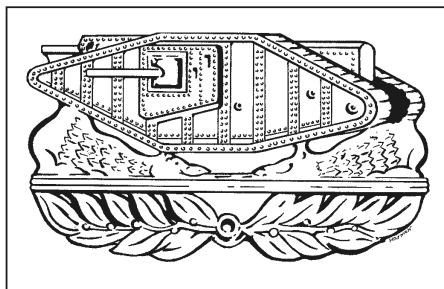
CPT Paul Maxwell's letter, "Modifying Existing Hardware to create a Maneuver Simulation," prompted some strong feelings regarding discussion of simulators and simulation. He states correctly that it is tough to get repeated maneuver experience. The environ-

(Reprinted from the November-December 1991 issue of *ARMOR*.)

Proposal for two Armor badges goes to Department of the Army

General Frederick M. Franks Jr., TRADOC commander, has recommended that the Chief of Staff of the Army approve a plan by the Chief of Armor to award Combat Armor and Expert Armor badges similar to the long-established Combat Infantryman's Badge and Expert Infantryman's Badge. If approved by the Chief of Staff, the badges will provide a way to recognize outstanding Armor soldiers, increasing the morale and esprit of the Armor Force.

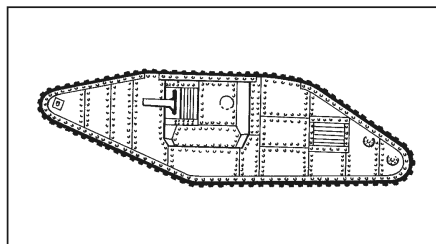
The Combat Armor Badge



The Combat Armor Badge would be an exact replica in size and color to the insignia approved in 1918 for what was then called the Tank Corps. The insignia was the second design authorized for wear and was in use between 1918 and 1920. George S. Patton Jr. and other officers of the Tank Corps wore it during the Battle of St. Mihiel, 12 September 1918, the initiation by fire for what is now called the Armor Force.

Expert Armor Badge

The Expert Armor Badge is an exact copy of the Armor Branch insignia worn during World War II and until 1951, when the current branch insignia was authorized. The Mark IV/V tank was one of the first tanks successfully employed at the Battle of Cambrai in 1917. The U.S. battalion of heavy tanks employed it at the Battle of Epehy during the Meuse-Argonne Campaign of WWI.



ment changes and the operational tempo (OP-TEMPO) is constantly changed by world events that put training cycles into disarray.

The need to practice is what has driven the injection of various simulations into the current environment. The use of the terms “simulator” and “simulation” should not be intermixed, as this causes confusion. A proponent requirement to get more gunnery practice drove developers to build a gunnery-training simulator that we know as the conduct-of-fire trainer (COFT). This is a virtual simulator with a level of fidelity required to train gunnery skills between the commander and gunner. It is purpose built to support that specific training function. It’s a self-contained environment and doesn’t connect with anything else.

When examined at a larger level, almost all training is a simulation. A training and evaluation program is a simulation. It is a simulation in a live environment. A training session on Janus or battalion/brigade simulation (BBS) is a simulation in the constructive environment. A session on SIMNET or the close combat tactical trainer (CCTT) is a simulation in the virtual environment. CCTT is different in that the environment exists to support mounted maneuver training, so soldiers can practice their individual and collective crew skills at the same time that leaders practice their platoon and company collective tasks. Sounds like multicrew training. The simulators connected to the environment, the M1 and M2 modules are high fidelity to facilitate this. The difference between the CCTT modules and the COFT is that the CCTT modules support many more tasks (gunnery included). The CCTT modules can interact with each other and enemy forces present during the simulation.

Just because you want to use simulations in training does not mean you ignore the coordination and planning that a complex live training event would require. It’s just that most folks understand the live environment because this is where they have the most experience. Everyone knows what happens to a tank when it encounters mud. The CCTT has over 23 different terrain types that impact vehicle performance, from speed to fuel consumption, and yes, you can get a tank stuck in the virtual mud. It will take time for unit leaders to fully integrate the use of simulations into training toolkits so they can more readily choose the environment that most meets their training needs. This leads to the requisite “fidelity” discussion.

Let’s take the CCTT versus the “commercial” LAN-based multiplayer networkable games. As mentioned above, the number of soil types is only one of the levels of fidelity offered. The tank module is another. If the tank commander on night watch doesn’t recharge his batteries, the tank won’t start at “stand to.” Is that really required, and why? From the developer’s standpoint, it was a deliverable to the user. The proponents, the armor and infantry centers, developed the requirement and the tasks that were to be supported by the simulation. The level of detail was driven by what tasks the users need to train. This is what drives the level of fidelity. Can you get that detailed with a commercial simulation/game? In some cases, yes; in some cases, no. The tank module is a high fidelity reproduction of the interior of the

tank, with all the knobs dials and switches in all the right places. The commercial guys probably can’t support that level of detail. Fidelity is the underlying reason that systems like the CCTT are expensive and take a long time to develop. Electronically simulating a live training environment isn’t easy. If the requirement is multispectral imaging, to support thermal sights or night vision, then you have to develop the technology or buy it from someone and integrate it into the simulation. This takes time and money.

I can understand that the movement of the commercial PC market continues to advance very rapidly. The seemingly “realistic” games and simulations are very impressive. Everyone wants to use everything available to get the edge. The CCTT went through a very extensive process called validation and verification (V&V). This is where outside agencies and subject matter experts examined various aspects of the simulation environment, such as vehicle performance data, simulator measurements compared to the actual vehicle, ballistics of the various rounds, and how the visual systems represented vehicle types to support vehicle recognition tasks. This process gives the user a pretty good view of how well the developer built the system to requirement. In some cases, it was pretty close; in others, some improvement was needed. The U.S. Army Training and Doctrine Command used the V&V results to accredit the system to be an accurate enough environment to train actual mission essential task list tasks. This is also why it takes time. Most commercial developers use publicly available data or data from other games and simulations for their environment. You really don’t know what you are getting from the commercial game development environment. Remember, the primary purpose of a commercial product is to “entertain,” not to support military training.

CPT Maxwell has taken some of these tasks and integrated them into classes at the U.S. Military Academy. The tasks may not have been formally evaluated, but by his description, “a reasonable ‘driver’ for inducing the performance of certain tasks to allow the trainer to evaluate the cadet’s ability to demonstrate the integration of classroom concepts in a simulated environment.” This is an appropriate use of a commercial simulation. The trainer understood what the environment needed and used what was available with thought to cost schedule and performance. Can you do this on a regular basis? Possibly, but if the key advocate leaves the unit without “institutionalizing” the concept, it probably won’t survive. The fallacy of using commercial software for training is cost. Someone has to develop the scenarios, set up the events, and then monitor the execution. You also have to support the infrastructure. In essence, you now become your own training developer. This one is tough to take out of hide at the unit level. There is not a uniform level of knowledge at the average tank company to carry this off regularly. The other problem of using the “administrative” LAN at home station makes things even more complex — no division signal officer will allow a LAN party on his network and risk stability. Even if it is used for training, there may be other solutions than using the current infrastructure.

I hope this does not sound negative, but the training tasks drive the requirement, the level of fidelity required to support those tasks and the accuracy of the simulation environment should all be considered before choosing a training product — military or commercial. Homegrown solutions must be supported by those at home. If 1st Armored Division’s modification table of organization and equipment changes or there is a budget cut, who will maintain the network, play observer controller, and set up scenarios? If you need tweaks to the code, will there be enough in the division budget, after you buy repair parts, to pay for the tweaks? What if the commercial company decides to drop the game or goes out of business?

The current requirements process is in place to help with this. If the idea is good enough, the proponents will approve the idea and support the military budget process to fund it, which is great. You now have a supported simulation that meets a specific training need. This process is tough and the budget battle is even tougher. The current home-grown methodology works if you fully understand what is available in the system, and training is supported. If you use a commercial off-the-shelf product, understand its limitations and ensure it does not compromise task training by inducing unrealistic results. You don’t want to develop bad habits as a result of the training. Trainers need to fully understand how the commercial product supports the execution of training tasks, and when things are unrealistic from what we know of the “live” environment. A reduced level of fidelity and a specific set of tasks to be trained can most likely be supported by a commercial off-the-shelf simulation.

The trainer’s responsibility to plan, coordinate, set up, conduct, and evaluate training does not go away no matter how expensive the product or how far the training location and facilities are. No one said that training was easy. The choices are more high tech. If I were a company commander today, I would be fighting for as much CCTT time as I could get. Ultimately, a simulation (constructive, virtual, and live) is there to get you to the after-action review and that is where you really get your training investment payback.

DAVID M. DODGE
MAJ, Armor
U.S. Army (Retired)

‘Steel Tigers’ Should Rethink Lessons Learned from Russian EOD

Dear *ARMOR*:

I read with interest 1LT John DeRosa’s “Task Force Steel Tigers,” in the March-April 2003 issue of *ARMOR*. His effort to find lessons from the Russian 13th Tactical Group’s experience in Chechnya is laudable and shared by soldiers throughout the Army. However, one aspect of those lessons is to be taken with extreme caution; that being those gleaned from the discussion on explosive ordnance disposal (EOD) activities. Soldiers who assume U.S. Army EOD tactics, techniques, and procedures (TTPs) are similar to those found in 1LT DeRosa’s article

Continued on Page 50

The Stryker “Reconnaissance Vehicle”

The Reconnaissance Vehicle (RV) is but one of 10 configurations that make up the Stryker family of vehicles. The RV is designed to support the “see first” mission requirements of the reconnaissance, surveillance, and target acquisition (RSTA) squadron and infantry battalion scouts. It carries a crew of seven — two vehicle crewmembers, four scouts, and one aug-mentee.

The RV is equipped with the full-range command, control, communication, computer intelligence, surveillance, and recon-

speeds up to 60 mph and has a cruising range of 330 miles. It incorporates a vehicle height management system that allows the vehicle to raise and lower its elevation for C130 loading. The RV has a cupola configuration, by which the vehicle commander controls the actions of his squad and employs the mission equipment package, the long-range advance surveillance system, into operation. The RV is armed with either a MK-19 automatic grenade launcher or an M2 .50-cal machine gun, and the M6 countermeasure grenade launcher. The RV increases crew survivability through its 14.5mm armor and has the capability of adding rocket propelled grenade add-on armor protection.

The RV is C130 transportable, and because it is significantly lighter and more transportable than existing tanks and other armored vehicles, the RV is strategically and tactically deployable and capable of intra-theater deployment by ground, sea, or air transport.



naissance (C4ISR) suite. The C4ISR communications suite integrates the single-channel ground and air radio systems family, the enhanced position location reporting system, the force battle command brigade and below, and the global positioning system.

The RV is powered by a Caterpillar 350-horsepower diesel engine and an Allison transmission. The RV runs on eight wheels that have a run-flat capability and a central tire inflation system. It is capable of

ARMOR

*The Professional Development Bulletin
of the Armor Branch*
U.S. Army Armor Center
ATTN: ATZK-ARM
Fort Knox, KY 40121-5210

Periodicals Postage
Paid at Louisville, KY