Maneuver Support Update

Explosive Ordnance Disposal (EOD) Integration Division. This division oversees collaborative capability development efforts between MANSCEN and the larger EOD community, including tactical and technical site exploitation, engineer explosive ordnance clearance agent (EOCA) and chemical, biological, radiological, nuclear, and high-yield explosives (CBRNE) developments. The EOD doctrine, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) functions remain with the Sustainment Center of Excellence (SCoE) at Fort Lee, Virginia. Making sure that there are no gaps between the MANSCEN and SCoE DOTMLPF communities is a key function for the EOD Integration Division. The Division has been heavily involved in supporting the TRADOC Improvised Explosive Device (IED) Defeat Integrated Capabilities Development Team (ICDT) and ensuring that the EOD community is being supported in its efforts against IEDs. One of the more significant actions was to ensure that the EOD maxi-candle capability was adopted for acquisition as part of the TRADOC capabilities development for rapid transition (CDRT) process. Keeping this capability in the EOD tool chest will guarantee that EOD Soldiers are equipped for combating vehicle-borne improvised explosive devices (VBIEDs). Additionally, the Division was instrumental in moving forward the effort to establish an EOD Center of Excellence at SCoE, which had an initial operating capability (IOC) of 1 October 2009. The EOD CoE will consolidate the EOD DOTMLPF functions within SCoE.

The point of contact is COL James L. Shivers, (573) 563-8233 or <*james.shivers@us.army.mil*>.

Maneuver Support Battle Lab (MSBL). The MSBL provides the MANSCEN Capability Development and Integration Directorate (CDID) and the CBRN, Engineer, and Military Police Schools an analysis and experimentation capability that gives the MANSCEN leadership information for decision-making on the combat developments and acquisitions process. The MSBL has three primary areas: focusing the Department of Defense's investments in science and technology toward MANSCEN requirements; conducting studies that provide analytic data to inform decision makers on choices on key performance parameters (KPPs) for material, possible solutions for organization sizing, insights on military utility, and effectiveness of possible solutions; and conducting experiments that inform concepts and doctrine and demonstrate possible technology solutions to operational gaps. Over the last few months the MSBL conducted several events with research and development agencies. These included a live experiment with the United States Air Force Research Laboratory to demonstrate the use of a laser technology in checkpoint operations and deterrence of vehicle operators; a technology demonstration of an unmanned aerial vehicle and an unmanned ground vehicle operating together in a semiautonomous mode; a military user assessment on a live-virtual-constructive computer training simulation that enhances training for Soldiers in a CBRN environment; and an effort with the Department of Energy's Idaho National Laboratory on development of autonomous behaviors for robots to detect mines. The MSBL also works with TRADOC and the United States Joint Forces Command on concept experimentation for the protection warfighting function and CBRN topics. The MSBL provides information to concept developers here at MANSCEN, as well as the joint CBRN community, as they develop new concepts and validate doctrine for all Services.

The point of contact is Mr. Richard Rodgers, (573) 563-5527 or <*richard.rodgers1@us.army.mil*>.

Nuclear, Biological, Chemical Reconnaissance Vehicle (NBCRV), Virtual Crew Trainer. The latest tool now available to help support NBCRV crew training and unit sustainment training is the Virtual Crew Trainer, Device No. 03-23. This training aids, devices, simulation, and simulator (TADSS) uses chemical, biological, radiological and nuclear (CBRN) reconnaissance-based scenarios to present individuals and crews with CBRN hazards that cannot be duplicated at the unit location due to various regulatory restrictions of using simulants. It can be configured to include six vehicles simultaneously or represent other mounted reconnaissance platforms such as the Nuclear, Biological and Chemical Reconnaissance System (NBCRS) M93A1 and M93A1P1 variants. The NBCRV Master Instructor Workstation (MIW) provides the capability for exercise generation and after-action reviews (AARs) that permit performance and evaluation of individual and collective tasks identified using the Combined Arms Training Strategy (CATS) for CBRN reconnaissance platoons. All scenarios conform to current doctrine according to

Field Manual (FM) 3-11.19, *Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical Reconnaissance*, and FM 3-11.86, *Multiservice Tactics, Techniques, and Procedures for Biological Surveillance*. Using the MIW, the instructor/leader can manipulate the environment by changing weather data, type of agent, type of release, and detection component-specific parameters (for example, the Joint Biological Point Detection System [JBPDS] provides a presumptive identification of a known biological agent; and the Chemical Biological Mass Spectrometer [CBMS] Block II can detect known and unknown chemical hazards).

The virtual crew trainer is composed of four stations:

- *Commander Station:* Provides training for the .50-caliber Remote Weapon Station (RWS) with Joystick, RWS Camera View (Zoom and White Hot), 360-degree Vision Blocks, Force XXI Battle Command – Brigade and Below (FBCB2), and NBC Sensor Processing Group (NBCSPG).
- *Surveyor Station:* Includes Dual Wheel Sampling System (DWSS) control box with virtual view; Joint Service Lightweight Standoff Chemical Agent Detector (JSLSCAD) Operator Display Unit (ODU) box and virtual view; Chemical-Biological Mass Spectrometer Block II (CBMS II) Soldier Display Unit (SDU) box and virtual view; rear deck view, DWSS (wheels/arms/membrane); probe, markers; Chemical Vapor Sampling System (CVSS); Virtual Meteorological Sensor (METSMEN); and NBCSPG.
- *Driver Station:* Includes steering wheel with 6-speed transmission; gas and brake pedals, virtual drivers video enhancer (DVE), screen (change view) drivers alert panel (DAP), and screen (change view) vision blocks (F/B/L/R).
- *Master Instructor Station:* Provides the crew and commander with the ability to create various CBRN missions, or to alter preexisting scenarios from the scenario library. The MIW also provides the FBCB2 (networked with commanders' FBCB2), and provides playback capability to support AAR.

The primary purpose of the virtual crew trainer is to support unit sustainment of individual and collective training. The trainer is designed to be used by Soldiers with military occupational specialty (MOS) 74D/74A, with additional skill identifier (ASI) L6.

Four of these new trainers are located at the CBRN School. Each Stryker brigade combat team (SBCT) and heavy brigade combat team (HBCT) will be authorized one trainer. Each chemical company with the NBCRV will qualify for two trainers. Based on the current distribution plan, 80 systems are projected for fielding, with all trainers being fielded to the Training Support Centers (TSCs) for accountability and maintainability. Contact your servicing installation's TSC for details.

The point of contact is Mr. Bruce Baldwin, (573) 563-8127 or <*bruce.baldwin@us.army.mil*>.

Standards in Training Commission (STRAC). Commanders refer to the approved training standards and strategies in Department of the Army (DA) Pamphlet (Pam) 350-38 to determine their yearly training ammunition requirements for the following year's training events. The Department of the Army Ammunition Requirements Tool (DAART) is used by units to review, validate, and submit their ammunition requirements to the G-3. Following review and consolidation by Army commands and Army service component commands, and validation by the Army Training Support Center (ATSC), STRAC requirements become the basis for training ammunition authorized by the G-3. Each fiscal year, the MANSCEN STRAC manager ensures that necessary changes are made in DA Pam 350-38 for the CBRN, Engineer, and Military Police Schools. The FY10 (Draft) of DA PAM 350-38 can be found at <*http://www.atsc.army.mil/tcmlive/strac/MenuFY10.asp*>.

The MANSCEN new and modified strategies are as follows:

- Basic Officer Leader Course-B (BOLC-B) is a consolidation of BOLC II and III. Rifle qualification is a proposed element included in the BOLC-B program of instruction (POI). Each proponent will have to justify the additional training ammunition strategy driven by these changes to the next Army Munitions Requirements Working Group (AMRWG). If necessary adjustments are made, the proponent will proceed to the Army Munitions Requirements Council of Colonels (AMRCoC) to validate the need for extra funding.
- Close Combat Mission Capability Kit (CCMCK) temporarily converts service weapons, M16A2/A3/A4 rifles, M4/M4A1 carbines, M249 squad automatic weapons (SAWs), and M9/M11 pistols to fire low-velocity marking ammunition. The kit provides realistic force-on-force training; identifies shooter and shot placement; allows operator installation; fires from standard M4/M16/M249/M9/M11; does not penetrate skin through Army combat uniforms (ACUs) at 5 meters (T); discriminates among blue/red force killed in action (KIA), wounded in action (WIA), and fratricide; shoots through smoke.

Fort Leonard Wood has an established requirement for four CCMCK battalion sets and one authorized. The authorized infantry battalion set is due by December 2009 and consists of three company sets: 189 - M4/16 bolts; 54 - M249s; 60 - M9s, and 486 – Masks.

The service barrel assembly is replaced with a CCMCK training barrel assembly that allows the firing of CCMCK marking ammunition. Units will be required to supply their own vests, ballistic goggles, helmets, and other safety gear not listed above. Ammunition for the CCMCK is obtained through the ammunition supply point (ASP) and must be ordered/programmed according to ammunition regulations. Training aids, devices, simulators, and simulations (TADSS) are awaiting local guidance on priority of use. Once issued, further guidance will be given.

Systems tentatively scheduled to be presented to the next AMRWG are: improvised explosive device effects simulator (IEDES) training strategy and training support packages (TSPs); armored breaching vehicle (ABV) munitions requirement strategy combat load (CL); trailer ABV munitions requirement strategy for CL; engineer BOLC requirement for CCMCK; BOLC-B munitions requirements; Spider networked munitions system requirements; Scorpion networked munitions system requirements.

The next AMRWG will convene in March 2010 at Newport News, Virginia. The MANSCEN STRAC Manager and school subject matter experts will present new strategies or changes to existing strategies that will be presented to the AMRCoC in April 2010 for approval. This process is a semiannual event. Once approved by the AMRCoC, the strategies will be programmed objective memorandum (POM) for future Class V training munitions. The normal time for resources to be available to the field is four years from the date approved by the Army Munitions Council of Colonels (AMCOC). *(Note: The AMRCoC is not responsible for the resourcing of TADSS for unit-type training.)* The AMSWG and the AMCOC are also responsible for the munitions resourcing of institutional POIs, which go through the same semiannual process for resourcing. The resourcing dollars for POI Class V normally take 12 months to reach the institutions.

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MANSCEN Doctrine Update

U.S. Army Maneuver Support Center
Training and Doctrine Development Department
Doctrine Division

Publications Currently Under Development and/or Revision

Publication Number	Title	Date	Description (and Current Status)
FM 3-10	*Protection*	Pending	FM 3-10, *Protection*, is an Army keystone field manual that expands on the protection concepts outlined in FM 3-0, *Operations*. FM 3-10 will serve as a valuable resource to help commanders understand and visualize protection so they can describe it to their staffs and lead their Soldiers in the execution of those tasks required to preserve force effectiveness and accomplish the mission during full spectrum operations. FM 3-10 defines protection, specifies the twelve tasks that comprise the protection warfighting function, and introduces the five forms and principles of protection. Furthermore, the manual articulates how protection is achieved and integrated through the combining of reinforcing and complementary capabilities and affirms risk management as the overall process for integrating protection throughout the operations process. Finally, FM 3-10 reflects the addition of the protection cell in formations above brigade and provides advice to commanders on protection planning, preparation, execution, and assessment for staffs that lack a dedicated protection cell. Development Highlights: Protection warfighting function, twelve protection tasks, principles and forms of protection, and the protection planning process.

NOTE: Current (approved) publications can be accessed and downloaded in electronic format from the Reimer Digital Library at *<http://www.adtdl.army.mil>*. The manual discussed in this matrix is currently awaiting publication. Drafts may be obtained by contacting the MANSCEN Doctrine Division at: Commercial (573) 563-2740, DSN 676-2740 or *<james.b.jones1@us.army.mil>*.