

# Tank-Maintenance Playbook While Cross-Attached at National Training Center

by LTC Ken Selby, MAJ Patrick Howlett and CPT Daniel Krizan

Company B, 2<sup>nd</sup> Battalion, 34<sup>th</sup> Armor Regiment, 1<sup>st</sup> Armored Brigade Combat Team (ABCT), 1<sup>st</sup> Infantry Division, at Fort Riley, KS, participated in National Training Center (NTC) Rotation 20-05 with 1<sup>st</sup> Stryker Brigade Combat Team (SBCT), 2<sup>nd</sup> Infantry Division, in March 2020 with noteworthy success.

Company B maintained an 85-92 percent operational-readiness rate through deployment; reception, staging, onward movement and integration (RSOI); force-on-force (FOF); SBCT live-fire exercise (LFX); and regeneration. Despite a nonorganic higher headquarters and lack of an associated M1A2-M3A3 Class IX authorized stockage list, this consistent state of mechanical readiness required thoughtful conditions-setting during planning and preparation. Facilitating vehicle maintenance and efficient Class IX requisitioning and distribution also required meticulous coordination and conscientious leadership from multiple tactical command-and-control nodes and many headquarters across Fort Irwin, CA, and Fort Riley.

This article outlines “a way” that worked for Company B.

## Planning

Setting maintenance conditions for Company B before deployment required a team effort – company through brigade. Activating the training Department of Defense Activity Address Code (DoDAAC) at NTC for Company B required coordination among the 2-34 Armor maintenance-control technician (MCT), the 1<sup>st</sup> ABCT Property Book Office and 916<sup>th</sup> Brigade Supply-Support Activity (SSA) at Fort Irwin.

Once activated, the battalion MCT rehearsed ordering a dime-washer from Fort Riley, ensuring delivery at 916<sup>th</sup>'s SSA. The MCT also created signature cards for three SSAs: 11<sup>th</sup> Armored Cavalry Regiment (ACR), Army Materiel Command's Logistics Readiness Center (LRC) and 916<sup>th</sup> Brigade. This action provided access to all Fort Irwin Class IX resources while affording requisitioning flexibility.

Not surprisingly, the unit conducted a number of “walk-ups” at 11<sup>th</sup> ACR's SSA for line-replaceable units (LRU), nuclear/biological/chemical filters and V-packs (air filters for tanks) during the rotation. In coordination with 101<sup>st</sup> Brigade Support Battalion, 1<sup>st</sup> ABCT, Company B deployed a Direct Support Electrical Systems Test Set (DSESTS) that provided commensurate maintenance capability for the M1A2 SEP V2 and M3A3 Bradley Fire Support Team vehicle (11<sup>th</sup> ACR's DSESTS provides capability for M1A1 and M2A2 variant vehicles only).

More deployed sustainment capability included two M978 fuelers, one Modular Fuel System (MFS) trailer and two M88A2 tracked recovery vehicles. (See Figure 1 for complete vehicle listing). Company B also completed all tank annual services in February 2020, railed 14/14 fully-mission-capable (FMC) tanks at Fort Riley and deployed the company BOH cargo container with a full complement of shop-stock listing.

Furthermore, the Company B commander participated in 1-2 SBCT's military decision-making process (MDMP) at Joint Base Lewis McChord, WA. The commander discussed capabilities, limitations and sustainment requirements while providing tactical employment considerations. Sustainment discussion centered on Class III bulk requirements exceeding an SBCT's conventional consumption rates, demanding unconventional logistical planning. Moreover, Class III package incompatibility such as Turboshaft and fire-resistant hydraulic fluid required pre-requisitioning to ensure on-hand supplies met demands.

Similarly, the unique Class IX requirements and M1A2 maintenance challenges required meticulous preparatory planning. Because of Operation Atlantic Resolve requirements, the commander could not participate in 1-2 SBCT's leader-training program at NTC.

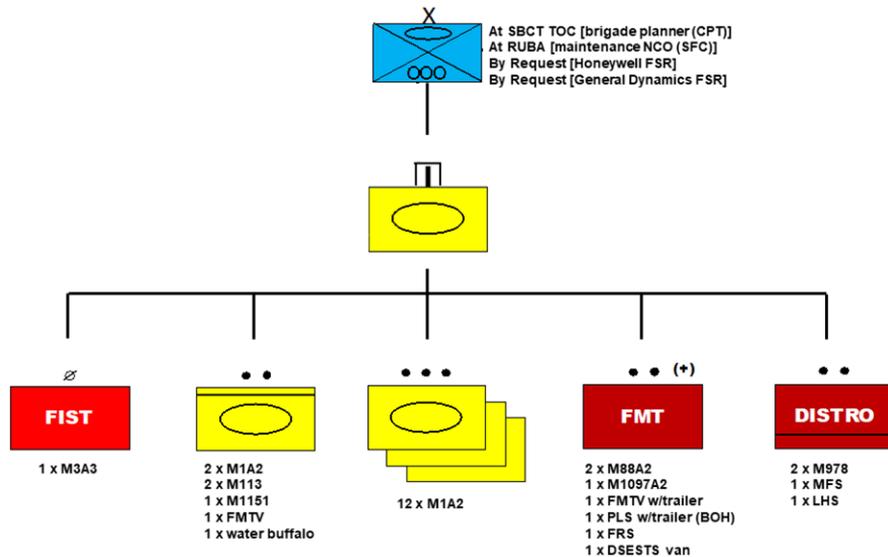


Figure 1. Task organization.

## Preparation

The 2-34 Armor deployed its S-3, MCT, maintenance-control noncommissioned officer (MCNCO), a Global Combat Support System-Army (GCSS-A) clerk, a General Dynamics field-service representative (FSR) and staff-captain liaison officer (LNO) to Fort Irwin, overseeing both combat-power build and maintenance execution (Figure 2). Also, 2-34 Armor employed another Honeywell FSR from Twenty-nine Palms, CA, for tank-engine support as needed.

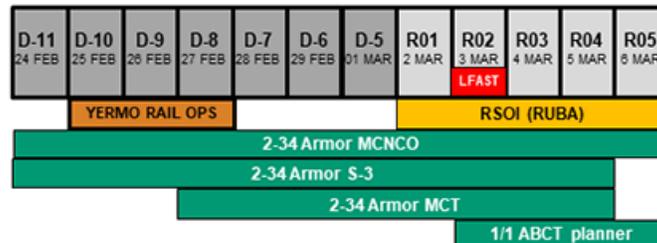


Figure 2. NTC 20-10 rotational design (updated branch).

Since attached to 1-14 Cav, the MCNCO configured his GCSS-A account to the squadron's Very Small Aperture Terminal (VSAT) to share both the equipment-status report and recoverable report. The MCNCO also coordinated with 1/2 SBCT's senior maintenance technician confirming that Company B's DoDAAC imported correctly. Of note, the MCNCO deployed with a 1<sup>st</sup> ABCT wifi "puck" (the puck is an interface to connect midi instruments wirelessly to smartphones, tablets, etc.), facilitating 24/7 visibility on both Fort Irwin and Fort Riley SSA parts availability, while monitoring Fort Riley Class IX shipments.

The MCT established points of contact with both Fort Irwin's Tank-Automotive and Armaments Command and Communications-Electronics Command for more maintenance resources. Concurrently, the S-3 coordinated with the Yermo team, ensuring efficient rail downloads and rapid onward movement of equipment to initiate RSOI and maintenance at the rotational-unit bivouac area (RUBA). The S-3 reported capability build and processing requests for information during both 1/14 Cav's and 1/2 SBCT's update briefs.

The S-3 also coordinated with the brigade S-4 and support-operations officer (SPO) on Class III consumption rates, fuel capacity, fueler placement, recovery-asset locations, logistics-status (LOGSTAT) reporting requirements and projected logistics package (LOGPAC) scheduling to avoid emergency resupply and potential backhaul. The S-3 also coordinated with sister battalion executive officers to advise on tank sustainment and recovery operations for future cross attachments (Figure 2).

This team effort facilitated early and uninterrupted Class IX requisitioning and distribution to Company B. The cooperation allowed the Bravo commander to focus on readying his company for combat while executing the many RSOI tasks. Combined with a relentless field-maintenance team (FMT), Company B maintained 13/14 FMC during RSOI.

## Execution

Once Company B deployed to the training area, the company executive officer executed a 72-hour 5988E cycle. The FMT verified faults, requested associated Class IX parts and packaged LOGSTAT via Joint Battle Command-Platform to 1-14 Cav's S-4 and 5988E reports through LOGPAC delivery to an embedded GCSS-A clerk at 1-14 Cav's unit maintenance-collection point (UMCP). The clerk validated requisitions for parts via VSAT communication to the MCNCO, who remained positioned with 916<sup>th</sup> Brigade's SSA. The MCNCO researched potential Fort Irwin or Fort Riley SSAs walk-ups.

Fort Riley SSA parts availability required coordination with 2-34 Armor's MCT for both the walk-up and overnight commercial shipment to Fort Irwin. Concurrently, the MCNCO requested Class IX funding authorization through the 1<sup>st</sup> ABCT senior maintenance technician or SPO for procurement. Upon receipt of Class IX parts to the 916<sup>th</sup> SSA, the MCNCO validated and signed for parts while coordinating with 1-14 Cav's LNO at the 1-2 SBCT brigade-supply area (BSA) for both parts custody exchange and prioritization for distribution.

The 1-14 Cav LNO would then coordinate with 1-2 SBCT's SPO through daily logistical synchronization meetings for LOGPAC distribution to 1-14 Cav's UMCP and onward to Company B trains. Recoverable Class IX parts and updated 5988Es were then returned through the reverse-chain-of-custody procedure.

Also, the maintenance team used the 1<sup>st</sup> ABCT DSESTS trailer to repair multiple LRUs, while 11<sup>th</sup> ACR's electronic maintenance was also employed to fix two cryptographic-key-generation communications-security components (Figure 3).

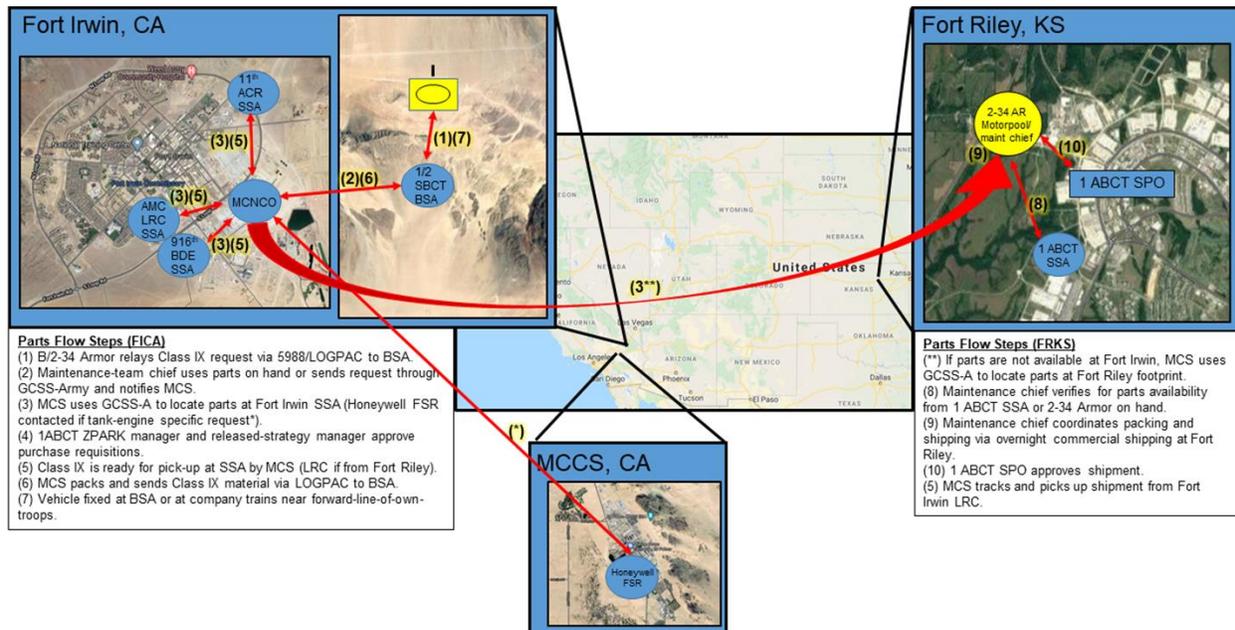
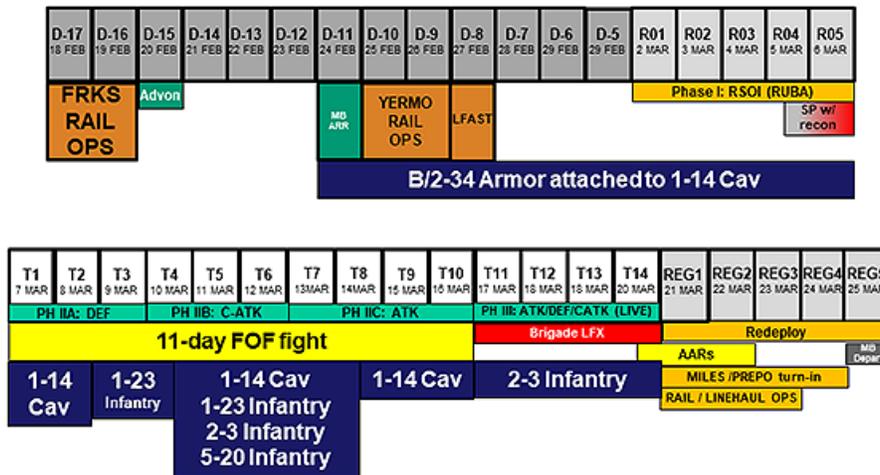


Figure 3. Parts flow at NTC.

The team also positioned a 1<sup>st</sup> ABCT Armor staff-captain LNO with 1-2 SBCT planners to verify current combat power while providing tank-movement rate recommendations, terrain considerations and employment options to maximize Company B's combat effectiveness. This LNO participated in all 1-2 SBCT MDMP cycles while facilitating current-operations battle tracking, answering requests for information and providing updates as required.



**Figure 4. NTC 20-05 Rotation timeline. Notes: RSOI was five days. This timeline adjusts to include platoon LFX and troop LFX with squadron fires-coordination exercise (three days). There were transitions on Training Days 3, 6, 9, 14. There was a 14-day FOF with a four-day brigade LFX. The regeneration period was four days.**

## Assessment

Tank companies require effective maintenance to fight. Planning maintenance across time and space while setting conditions for personnel, equipment, communication and reporting is an essential prerequisite.

Establishing working relationships and procedural linkages, particularly with a non-organic higher headquarters, is paramount. Company B leveraged a team effort across echelons to prevent maintenance pitfalls and distractors that impede lethality.

Company B redeployed to Fort Riley after a 10-day FOF and four-day SBCT LFX with 13 of 14 tanks FMC. This maintenance system required relentless leadership and managerial oversight at echelon. Leaders quickly intervened to adjudicate friction points and delays to facilitate the maintenance process.

A consideration for improvement is reinstating the Commander's Exception Report to provide limited Class IX funding authorization at the point of repair, thereby reducing low-cost home-station transactions.

Though not perfect, these procedural maintenance methods worked and facilitated first-rate lethality training for both Company B and 1/2 SBCT.

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## **Acronym Quick-Scan**

(includes figures)

**ABCT** – armored brigade combat team

**ACR** – armored-cavalry regiment

**BOH** – name of a container, not an acronym

**BSA** – brigade-supply area

**CGSC** – Command and General Staff College

**DoDAAC** – Department of Defense Activity Address Code

**DSESTS** – Direct Support Electrical Systems Test Set

**FICA** – Fort Irwin, CA

**FIST** – fires-support team

**FMC** – fully mission capable

**FMT** – field-maintenance team

**FMTV** – Family of Medium Tactical Vehicles

**FRKS** – Fort Riley, KS

**FRS** – field-repair system

**FOF** – force-on-force

**FSR** – field-service representative

**GCSS-A** – Global Combat Support System-Army

**LFAST** – Live-Fire Accuracy Screening Test

**LFX** – live-fire exercise

**LHS** – load-handling system

**LOGPAC** – logistics package

**LOGSTAT** – logistics status

**LNO** – liaison officer

**LRC** – Logistics Readiness Center

**LRU** – line-replaceable unit

**MCCC** – Maneuver Captain's Career Course

**MCCS** – Marine Corps Community Services

**MCNCO** – maintenance-control noncommissioned officer

**MCS** – maintenance-control section

**MCT** – maintenance-control technician

**MDMP** – military decision-making process

**MFS** – Modular Fuel System

**MILES** – Multiple Integrated Laser-Engagement System

**NCO** – noncommissioned officer

**NTC** – National Training Center

**PH** – phase

**PLS** – palletized load system

**RSOI** – reception, staging, onward movement and integration

**RUBA** – rotational-unit bivouac area

**SBCT** – Stryker brigade combat team

**SPO** – support-operations officer

**SSA** – supply-support activity

**TOC** – tactical-operations center

**UCMP** – unit maintenance-collection point

**USMA** – U.S. Military Academy

**VSAT** – Very Small Aperture Terminal