



# THE PREVENTIVE MAINTENANCE MONTHLY

ISSUE 804 NOVEMBER 2019



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JAMES C. MCCONVILLE  
General, United States Army  
Chief of Staff

Official:

*Kathleen S. Miller*  
KATHLEEN S. MILLER  
Administrative Assistant  
to the Secretary of the Army  
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# PS



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## THE PREVENTIVE MAINTENANCE MONTHLY

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PAGE 1.





## PS MAGAZINE— THE EVOLUTION CONTINUES, PART 2

IT'S BEEN A GOOD—MAKE THAT **GREAT**—RUN FOR OUR MONTHLY PUBLICATION.

EIGHT HUNDRED AND FOUR ISSUES OVER A SPAN OF OVER 68 YEARS.

WE'RE **PROUD** OF OUR HERITAGE AS THE ARMY'S LEADING SOURCE FOR PREVENTIVE MAINTENANCE AND SUPPLY ACCOUNTABILITY...

...A HERITAGE THAT WILL REMAIN UNCHANGED AS WE **EVOLVE** INTO A FULLY-ONLINE, MOBILE-FRIENDLY INFORMATION PORTAL.



WHAT **WILL** CHANGE, STARTING IMMEDIATELY, ARE THE FOLLOWING...



- **No more traditional magazine.** Rather than a 64-page, cartoon-illustrated periodical, we'll publish our articles directly to our mobile-friendly website:  
<https://www.psmagazine.army.mil>



- **No more hand-drawn cartoon illustrations or technical art.** The era of being essentially a comic book will come to an end. Instead, we'll rely much more heavily on photographs and computer-generated graphics, along with occasional videos. However, our current iconic characters—MSG Half-Mast, Connie, Bonnie, SFC Blade, and Cloe—will selectively appear on the website to sustain the PS brand.
- **No more mobile application.** Because we're adopting a mobile-friendly web platform, our articles will be readily accessible and readable using your mobile device's internet browser.
- **Rapid dissemination of information.** Because we won't be illustrating every article with hand-drawn art, which takes time to produce, we'll be able to post articles much faster.
- **More emphasis on trends.** The evolution of PS Magazine goes hand-in-hand with an evolution in the way the Army's logistics assistance programs and representatives go about their daily business. Moving forward, they'll be much more focused on identifying systemic trends that demand rapid information-sharing across the enterprise. PS will be integral to this information-sharing.

#### WHAT DOESN'T CHANGE IS:

- **Our Reader Service.** The ability to ask PS Magazine questions, request information or clarification, or recommend best practices remains intact. Every query will continue to receive a fully-researched and vetted reply.
- **Our commitment to the warfighter.** Our focus has always been on the Soldier/maintainer. The changes we're making are aimed at enhancing this commitment by getting critical information to those who need it faster and more efficiently.

SAYING GOODBYE TO OUR ICONIC COMIC BOOK-STYLE MAGAZINE IS **HARD** BUT ALSO **NECESSARY**.

EVEN THOUGH THE PLATFORM IS CHANGING, THE MISSION **ISN'T**. WE'RE COMMITTED TO BEING THE ARMY'S—EVEN THE DOD'S—GO-TO RESOURCE FOR INFORMATION THAT ENHANCES UNIT AND FLEET READINESS.

WITH YOUR CONTINUED SUPPORT AND FEEDBACK, WE'LL ENSURE YOU'RE **READY TO FIGHT AND WIN!**



OUR RECURRING QUESTION IS, "WOULD YOU STAKE YOUR LIFE RIGHT NOW ON THE CONDITION OF YOUR EQUIPMENT?"

THE STORIES WE PROVIDE HELP YOU ANSWER, **"YES!"**

**PS END**



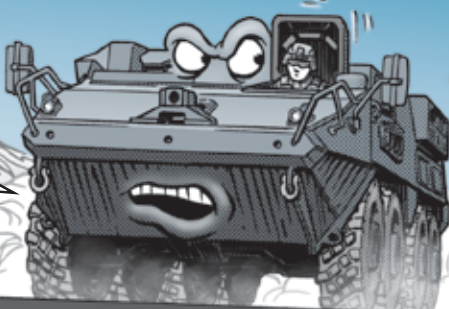
Stryker...

# HATCH SAFETY HEADS OFF HEADACHES!



YOU MUST  
LIKE LIVING  
DANGEROUSLY,  
PAL!

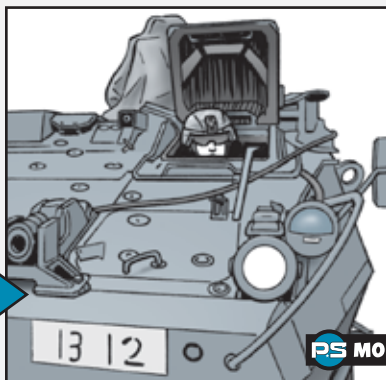
YOU'RE TAKING  
A REAL **GAMBLE**  
NOT ENGAGING  
MY HATCH STAY  
DEVICE!



**C**rewmen, a big headache could be in your future if you drive your Stryker without securing the driver's hatch.

Your vehicle has two safety devices to keep the hatch in place. But you've got to actually use them if you don't want that 250-pound hatch crashing down on your head!

Operating Stryker without engaging driver's safety hatch is **dangerous!**



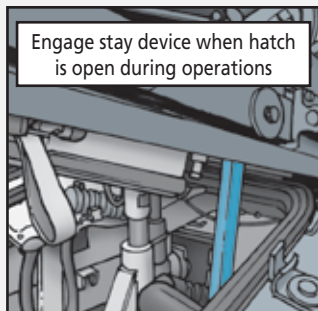
**PS MORE**

## Stay Device

The stay device is a spring-loaded pivot support with a sliding latch. It's located on the interior left-hand side of the driver's compartment.

When used properly, the stay device holds the latch open at the 10-degree and 25-degree positions. Those are the only two positions allowed for driving the vehicle. If the hatch springs or the detent assembly should fail, the stay device can save you from a world of serious hurt!

Engage stay device when hatch is open during operations

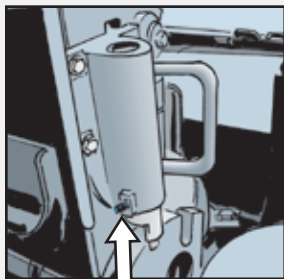


## Detent Assembly

As the hatch is raised to each position, the spring-loaded pin on the detent assembly engages the teeth on the interlock plate to keep it in place.

The detent assembly needs lube so the pin doesn't stick. If the pin sticks, it might not fully engage the interlock plate and could slip loose during operation.

Lube the pin anytime it shows signs of sticking. Just pump in GAA until you see grease coming out around the locking pin. Then wipe off the excess grease so it doesn't attract dirt and sand.



Add GAA to detent assembly when pin begins to stick

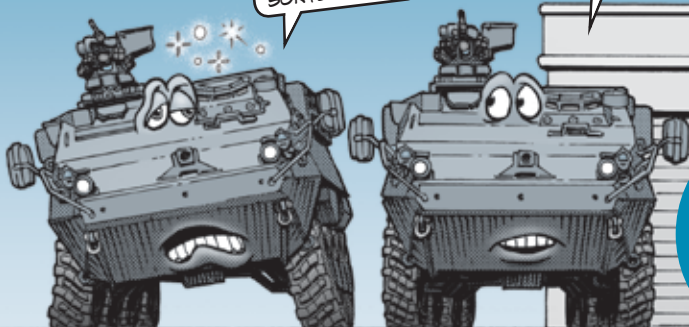
PS END

# STRYKER OUT OF KILTER?

# LEVEL IT!

EH, I FEEL A LITTLE OUT OF SORTS TODAY!

LOOKS LIKE YOU COULD USE A GOOD LEVELING!



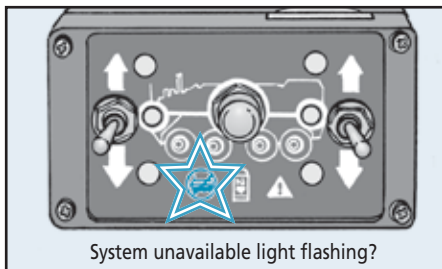
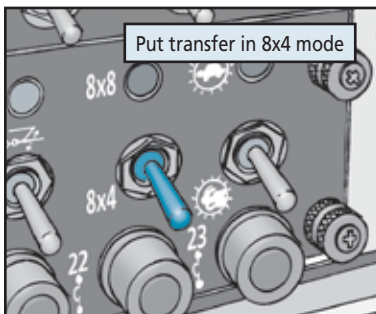
Crewmen, when your Stryker's height management system (HMS) gets out of kilter, it's time to *level* your vehicle.



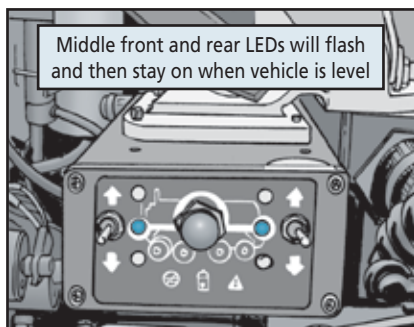
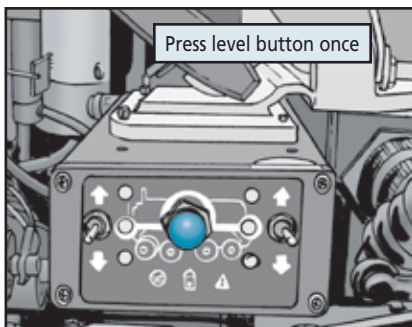
- When it starts sagging at one or more of its corners
- After it's unloaded from a ship, aircraft or any other form of transportation
- If the temperature swings from really hot to really cold or vice versa while operating the vehicle
- After it's been operated in mine ride high mode

### Here's how to level your Stryker just like it says in the TM:

1. Start the vehicle.
2. Make sure the transfer is in 8x4 mode.



4. While driving, press the center level button on the HMS panel one time. The middle front and rear LEDs will start flashing. The flashing will continue during the leveling process, which could take up to four minutes. Once the vehicle is level, the flashing will stop and the two LEDs will stay on.



If your Stryker doesn't level the first time, try it again.

If it fails on the second try, or if the system fault or low nitrogen light comes on, tell your mechanic.

# AFES PM Keeps Fires at Bay



YOUR M88A2 RECOVERY VEHICLE'S AUTOMATIC FIRE EXTINGUISHING SYSTEM-AFES- CAN SAVE YOUR VEHICLE FROM **SERIOUS DAMAGE...**

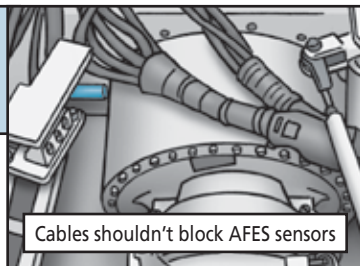
...AS WELL AS SAVE THE LIVES OF YOU AND YOUR FELLOW CREWMEN.





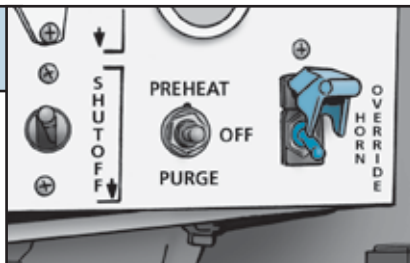


- The AFES sensors should be free of dirt or debris and the cables properly connected. Make sure the sensors and nozzles aren't blocked by improperly routed electrical cables, hydraulic hoses or fuel lines.



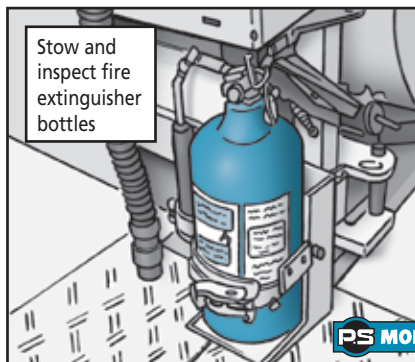
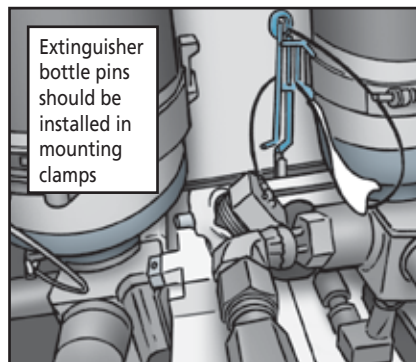
- The AFES interior and exterior handles should be properly laced with safety wire. The wire keeps the bottles from accidentally discharging. There should be two strands for a proper lace. The wire comes as part of a kit, NSN 4210-01-542-3071.

- The warning horn override should be off and the portable fire extinguishers stowed properly and inspected.

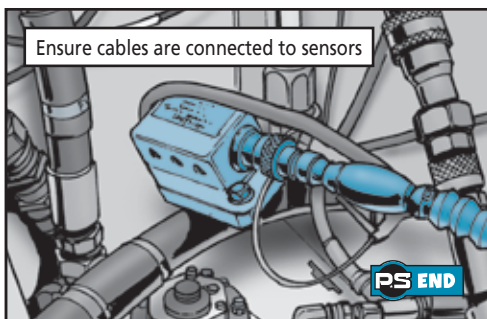


- Make it a habit when you turn on the master power switch to keep an eye on the Built-In Test (BIT) on the AFES control electronics panel (CEP). If a fault with any of the sensors occurs, a light will go on. Clean the sensors and check the electrical connection. If the fault isn't corrected, tell a mechanic.

- Make sure the extinguisher bottles don't have pins installed in the fire extinguisher operating levers. Ensure the pins are stowed properly in the fire extinguisher bottle mounting clamps. The anti-recoil plugs should be stowed out of the way of the bottle and vehicle linkages. Drape the anti-recoil plug lanyard over and through the stowed pins. The pins and anti-recoil plugs are only used when the fire extinguisher bottles are being replaced. Don't operate the AFES with empty bottles. Always check the pressure gauges like it says in the -10 TM.

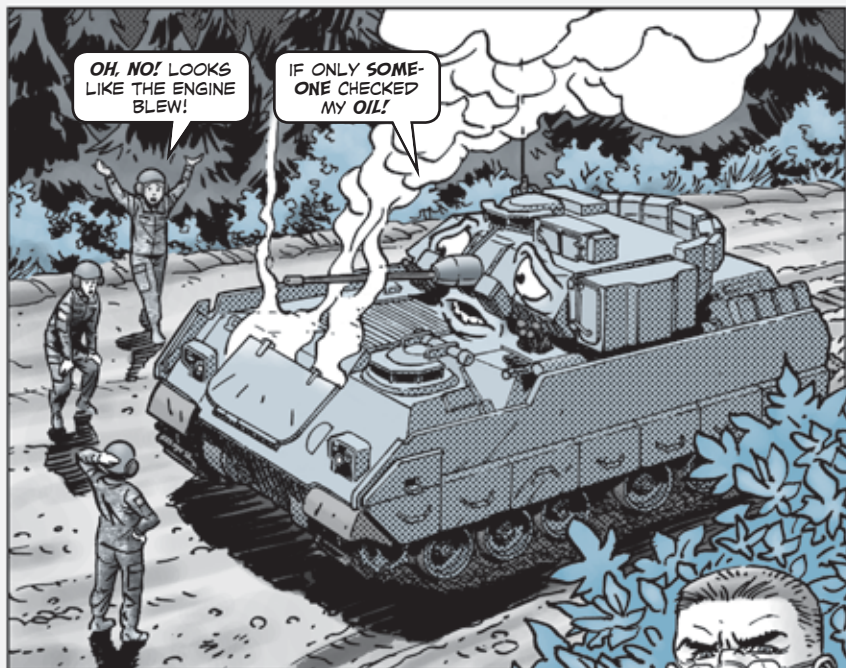


- Ensure the extinguisher's electrical cables are connected to the bottle. Remember, when the AFES is activated, only two bottles are deployed automatically. If the initial deployment doesn't put out the fire, you'll need to manually deploy the remaining bottles. Bottles 3 and 4 will be deployed in the engine compartment if you flip the ENG 2 switch. Bottle 5 will be deployed in the crew compartment if you flip the MECH switch.



M2/M3-Series Bradleys...

## DID YOU REMEMBER TO CHECK THE OIL?



EVERY CREWMEN KNOWS THAT CHECKING THE OIL LEVELS IN THEIR BRADLEY IS A PART OF REGULAR PMCS.

BUT BELIEVE IT OR NOT, SOME CREWS *AREN'T* DOING THAT BASIC CHECK.



Expensive components like:

- engines
- transmissions
- final drives
- right angle fan drives

are *failing* in the field.

As a result, vehicles are NMC and combat readiness is *suffering*.



All because some crews *never bother to check oil levels!*

A low oil level reading is often the first sign that a vehicle has a **serious** oil leak. That's part of why checking oil levels is so important.

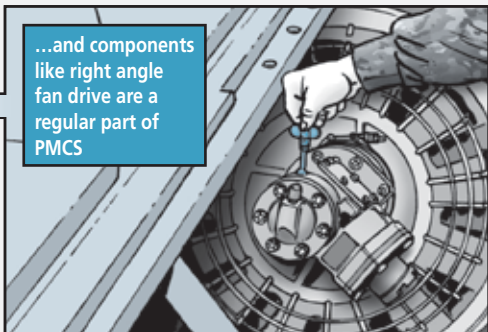
Your vehicle *isn't* good to go if it has a **Class III** oil leak or if oil levels are below the **ADD** mark.

It only takes a few minutes to check the various oil levels. Your Bradley's -10 TM spells it all out for you. All you have to do is follow the PMCS tables.



If you see the engine, transmission, final drives or right angle fan drive needs oil, add some just like the -10 TM says.

...and components like right angle fan drive are a regular part of PMCS



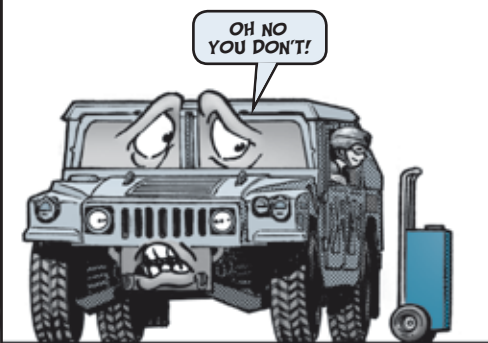
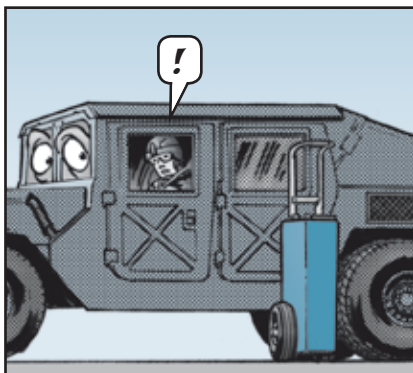
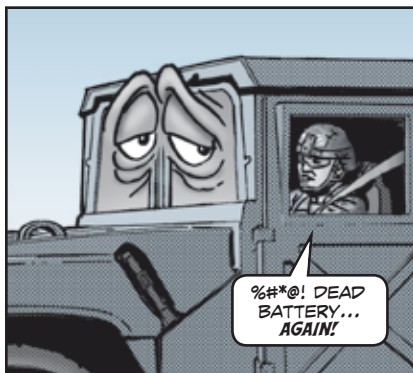
And if the oil level is above the **FULL** mark on the dipstick, or the oil looks milky or bubbly, tell your mechanic right away!



SO REMEMBER, WHETHER IT'S BEFORE, DURING OR AFTER OPERATIONS PMCS, YOU'RE **NOT** DONE UNTIL YOU'VE CHECKED THE OIL LEVELS!



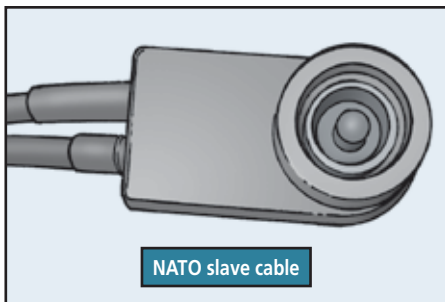
# HMMWV: Slave Start = Smart Start



## Dead HMMWV batteries?

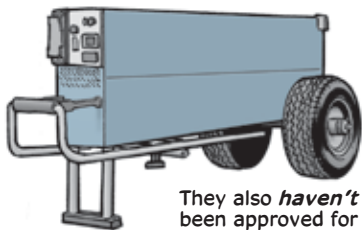
Think *twice* before you grab that handy ground power unit (GPU) for a jump start!

The **ONLY** approved method to jump start a HMMWV is with a NATO slave cable, NSN 6150-01-390-7058, attached to another HMMWV.

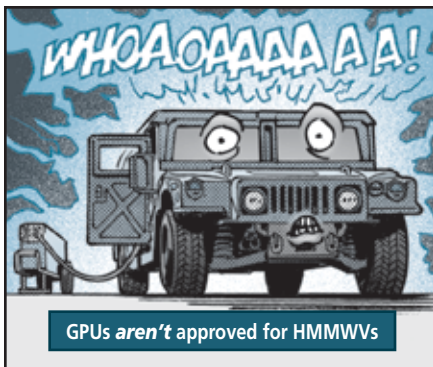




Those commercial GPUs deliver a power surge that can be *too strong* for HMMWV batteries!



They also *haven't* been approved for light, medium, or heavy tactical vehicles.



The surge blows the HMMWV's electronics and damages the batteries. The same thing can happen *even when* you jump start from another HMMWV if you don't follow proper slave starting procedures. Here's how to do it right:

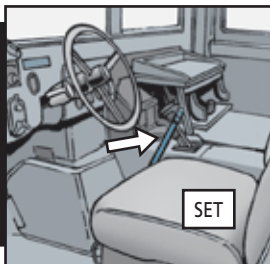
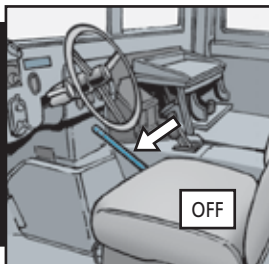
### Step 1:

Confirm that the dead batteries can accept a charge. Use the **battery analyzer**, NSN 6130-01-510-9594, from the Standard Automotive Tool Set (SATS). The **battery analyzer**, NSN 6625-01-466-1075, in the Forward Repair System (FRS) tool kit also works.

If batteries fail this test, don't attempt to slave start. Report the vehicle to field maintenance for repair.

### Step 2:

Before connecting the slave cable, set the parking brakes in *both* HMMWVs. Then turn off all the vehicles' electrical devices, accessories and switches. This prevents damage to those components if there's a power surge.



### Step 3:

Always connect a slave cable to the HMMWV being slaved first. You'll find the slave receptacle under the HMMWV's front passenger seat. Remove the cap and plug in the slave cable. Don't lose the cap because it keeps dirt and debris out of the receptacle when not in use. If the **cap** is missing, replace it with NSN 5340-01-315-7223.



Plug in slave cable under front passenger seat

### Step 4:

Connect the other end of the slave cable to the receptacle in the slaving HMMWV.

### Step 5:

Set the rotary switch of the slaving HMMWV to Run. Watch for the Wait-To-Start light to turn off, then start the vehicle. Then wait for the HMMWV's voltage gauge to stabilize in the green zone. If it **doesn't**, skip ahead to Step 10.

### Step 6:

Allow the slaving HMMWV to idle a **minimum** of five minutes with the slave cable connected before attempting to start the other HMMWV being slaved.

### Step 7:

Place the rotary switch in the slaved HMMWV to Run and watch for the Wait-To-Start light to go off. Then start the vehicle.

### Step 8:

Once the slaved HMMWV is started, monitor its voltage gauge until it stabilizes in the green zone, then let it idle for at least five minutes.



### Step 9:

Disconnect the slave cable. Always disconnect the slave cable from the slaving vehicle first; this rule applies, regardless of vehicles.

### Step 10:

Monitor the HMMWV's voltage gauge for fluctuations out of the green zone. If at any time the gauge enters the red zone, immediately shut down the HMMWV and notify maintenance personnel.

## Three Big No-No's

### Don't

operate any electrical accessories or components on the HMMWV during slaving operations.



### Don't

rev the HMMWV's engine; keep it at idle throughout slaving.



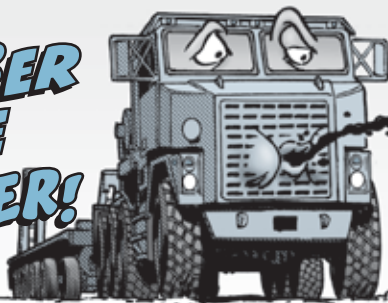
### Don't

touch the gas pedal or any other device that affects engine speed throughout slaving operation.



Diesel Engines...

# CLOBBER THE SLOBBER!



EWW! THAT SLOBBER IS NASTY!



Dear Half-Mast,

Lately, we've noticed oil leaking from the air box drain on our truck's Detroit Diesel engine. Any ideas on how to stop it?

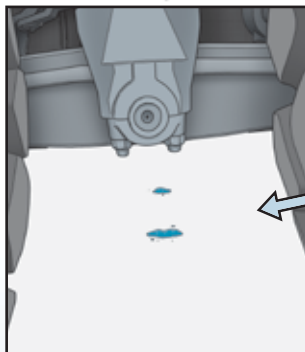
SGT M.S.F.

Dear Sergeant,

The 8V9TA Detroit Diesel engine used in some tactical vehicles is a two-stroke engine. A natural output of that type of engine is slobber, which is partially burned fuel and condensation that drains out of the hoses connected to the air box. This usually happens during long periods of low idling.

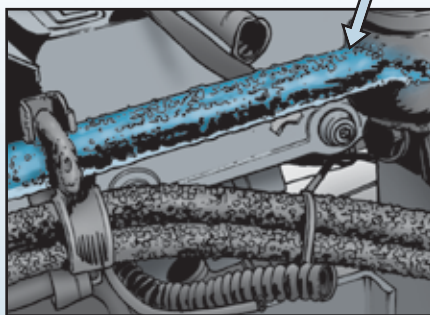
The best way to prevent this is to run the engine hard, under load, until it reaches normal operating temperatures. That'll help clobber your slobber problems.

*Half-Mast*



Finding oil drips on the floor? Low idle could be the culprit

Slobber from engine air box



NO MORE SPITTOONS FOR ME!

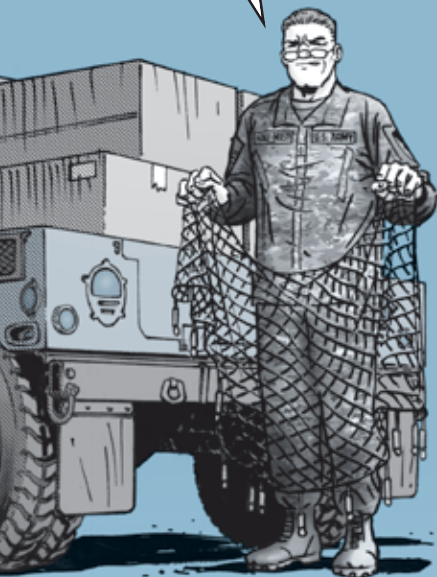


AND NOT A MOMENT TOO SOON!



# Your BEST Bet? A CARGO NET!

A CARGO NET IS YOUR  
BEST BET FOR SAFETY AND  
SECURITY ANYTIME YOU'RE  
HAULING STUFF.



An interior cargo net keeps gear in place and prevents stuff from hitting the driver or passengers if the vehicle swerves or rolls over.



A net *also* keeps gear from bouncing around the cargo bay where it'll likely get broken or damaged.



An exterior cargo net does the same thing for your bigger loads outside. Use one to keep your load from hitting the road!



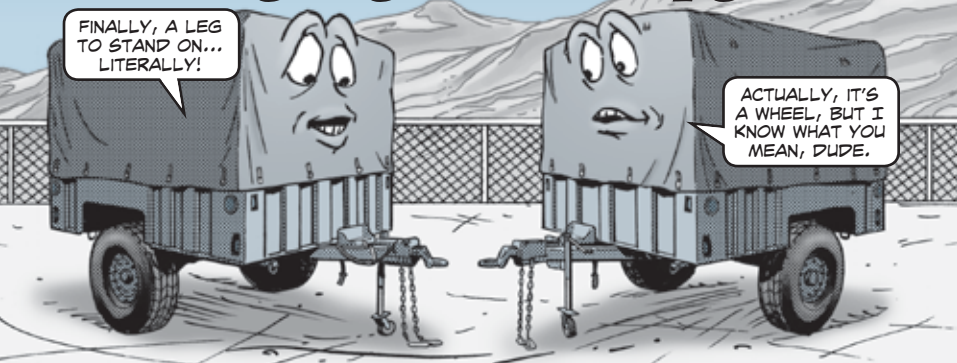
Some of the more common cargo nets may fit multiple vehicles or have additional capabilities. But it's up to each unit to determine which nets best meet their needs.

Here are common nets referenced in the TMs:

- Interior containment net, NSN 3940-01-509-9096, for all HMMWV models except M997A3, M1113 and M1167 (may also be used as an exterior net on HMMWVs with rear open cargo beds).
- Additional cargo tie-down net, NSN 3990-01-429-9352, for HMMWV model series M1114, M1151, M1152 and M1165.
- Additional cargo tie-down net, NSN 5340-01-415-8672, for HMMWV models M1151, M1151A1, and M1167.
- Cargo net for M1101 and M1102 trailers comes in accessory kit, NSN 2540-01-483-5853.
- Exterior cargo net, NSN 3990-01-603-9090, for MaxxPro M1235A4, M1235A5, and M1266A1.



## Landing Leg Wheels Upgrade

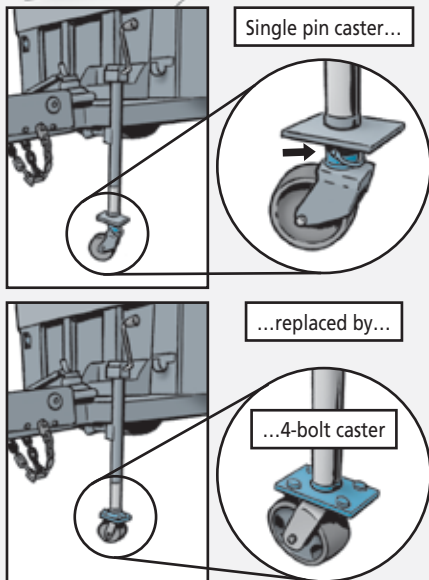


**T**he single pin caster wheels for the M1101/M1102 trailers' landing legs have been replaced by a **4-bolt caster**, with the same NSN 5340-01-611-2350.

Note, this 4-bolt caster appears as Item 7 of Group 1507 in TM 9-2330-392-13&P (Dec 12). It should **also** appear as Item 15, **but** the TM still shows the single pin caster as Item 15.

Until the TM is updated, make a note of this change.

Thanks to **CW3 Brandon T. Layne** of the Kentucky Army National Guard for this caster catch!



## M149A2 Water Buffalo Master Cylinder

Order a replacement master cylinder for the M149A2 water buffalo trailer with NSN 2530-01-339-8620. This replaces NSN 2530-00-204-4800, shown as Item 4 in Fig 7 of TM 9-2330-267-13&P (Dec 15), which is a terminal item.

## 8816M BMPM...

OPERATORS, KEEP THESE TIPS AND PROCEDURES IN MIND **BEFORE** CRANKING UP YOUR 8816M BITUMINOUS MATERIAL PAVING MACHINE—YOUR BMPM—AT THE WORKSITE.

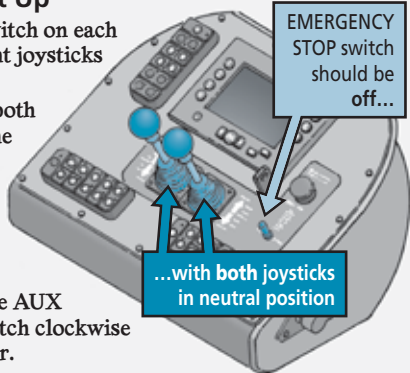


# PAVE THE WAY TO A SMOOTH START

These reminders can mean the difference between efficient paving and unnecessary down time.

## Start Up

1. Make sure the EMERGENCY STOP switch on each control panel is off and the left and right joysticks are in the neutral position.
2. Set the RUN/STOP toggle switches on both the left and right control pedestals to the STOP position.
3. Make sure the BMPM's BATTERY DISCONNECT switch is set to ON.
4. Set either the left or right RUN/STOP toggle switches to the RUN position.
5. Turn the keyless switch clockwise to the AUX position. Then continue turning the switch clockwise to the IGN position to engage the starter.
6. Release the switch back to the AUX position once the engine starts.



**Caution:** Don't operate the starter for longer than 10 to 15 seconds at a time. If the engine doesn't start, release the keyless engine switch back to the AUX position and allow the starter to cool for two to three minutes. Otherwise, you may **damage** the starter.

## 10-Minute Warm-Up

The engine needs to warm up for 10 minutes in cold weather before the BMPM is operated. Warm-up allows the vehicle's hydraulic oil to circulate for smooth operation. You'll find this info in WP 0006-3 of TM 5-3895-385-10 (Nov 11).

## Don't Use Spray Can Ether!

This can't be emphasized enough. **DO NOT USE SPRAY ETHER** as a starting aid for the paving machine's engine!

The engine has an intake air pre-heater. Using ether spray might cause a fire or explosion that could *kill* someone!



8816M BMPM...

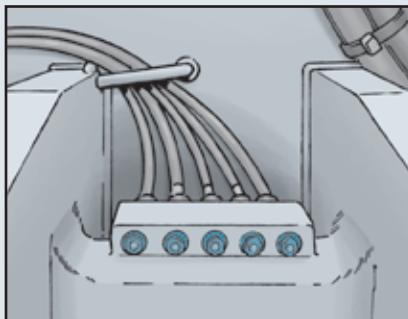
HEY!  
HOLD UP!

YOU  
FORGOT  
TO GREASE  
THE  
CONVEYOR!

**PAVE THE  
WAY TO PM**

Operators, a little lube in the right place means smoother paving operations for your 8816M bituminous material paving machine (BMPM). And the conveyor grease fittings definitely qualify as the right place!

The bank of five conveyor grease fittings is located under the BMPM's hopper wing in the middle of the track on the right side. These fittings are usually coated with dirt and sand, so make sure you wipe them off before starting the lube job.



Lube conveyor grease fittings daily with GAA

Follow the -10 TM and make sure these fittings get greased daily. Each fitting will need four to five shots of GAA.

And if  
any of the  
fittings clog  
and won't take  
grease, report  
it **RIGHT**  
AWAY.

M30 Bridge Erection Boat...

## ADAPTER PALLET CABLE NEEDS BACKUP!

YOU *STILL* NEED  
TO KEEP A CLOSE  
EYE ON LIFTING  
CABLES.

BUT YOU CAN  
COUNT ON ME  
TO SERVE AS  
*BACKUP!*

**T**he M15 bridge adapter pallet (BAP) is used to launch and retrieve the new M30 bridge erection boat (BEB). A new BAP is issued with every M30.

But be aware there are reports of damage to the high stress areas near the cable's bullet on older BAPs.

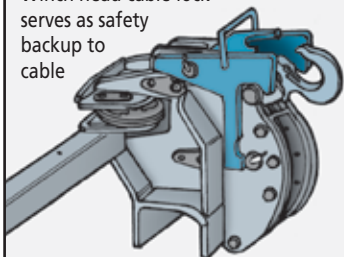
Watch high  
stress areas  
for cable  
damage



That could mean failure and an accident if the cable deteriorates enough. PMCS for the BAP's cable is covered as Item 14 in WP 0035-8 of TM 5-3990-263-13&P (Apr 12). Pay special attention to the area where the cable enters the bullet. Tell your mechanic if the cable has broken wire strands or lots of wear.

As an added safety measure, a winch head cable lock (WHCL) was designed to prevent equipment damage and personnel injury because of cable failure.

Winch head cable lock  
serves as safety  
backup to  
cable



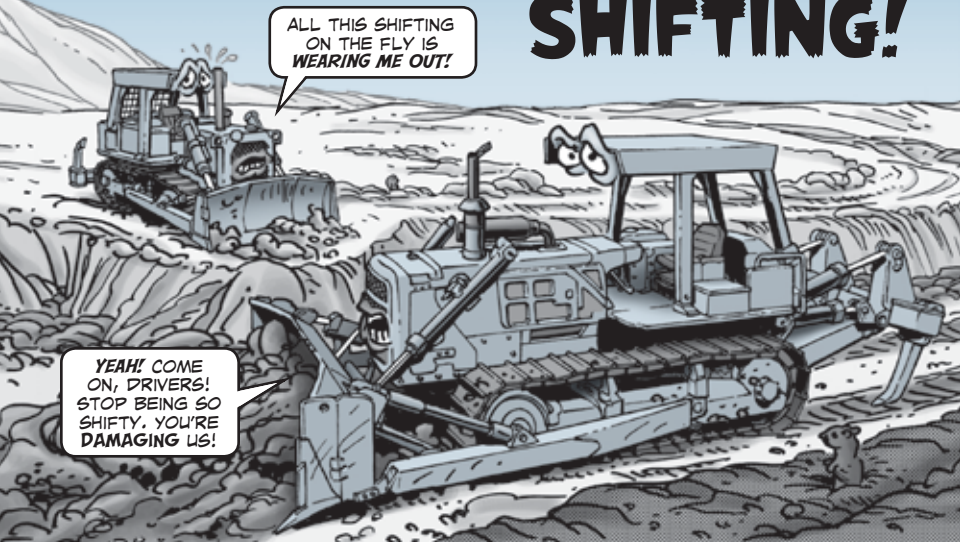


Use the WHCL when you launch or retrieve the BEB to the ground without the BAP. **One WHCL**, NSN 3950-20-011-8856, is now issued with each BAP and becomes part of the M15's basic issue items (BII).

Shipments of the WHCL will begin this year with one for each previously issued M15 BAP. Units will receive them as free issue.

D7G, D8K  
Dozers...

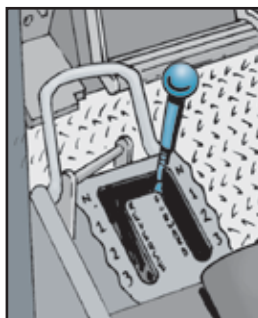
# NIX THE **SLAM-BAM** SHIFTING!



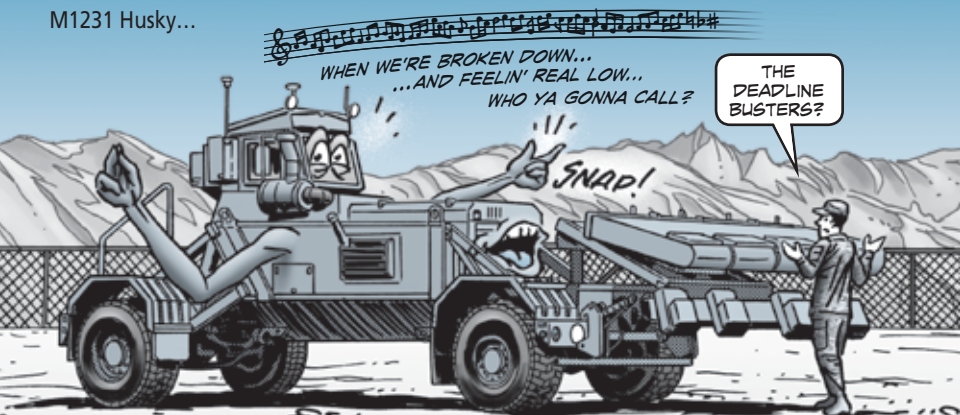
OPERATORS,  
YOU NEED TO  
**COOL IT ON**  
THE **SLAM-BAM**  
GEAR SHIFTING  
AT THE WORK  
SITE.

Slamming the shifter sideways from neutral, then down into reverse, will **break** the backup alarm's magnetic switch inside the shift console.

A **busted switch** means the backup alarms *won't* sound off in reverse. That makes your dozer **NMC!**



Slamming shifter will break magnetic switch



## Got a Maintenance Issue? *We've Got the Contacts!*

**M**any components on the M1231 Husky Mounted Detection System (HMDS) need specialized attention to keep the ground penetrating radar (GPR) running smoothly and mission-ready.v

### These HMDS components include:

- System cabling
- Control and Display Unit (CDU)
- Cabin Control Unit (CCU)
- Speakerphone
- Vehicle Motion Sensor (VMS)
- Power Control Unit (PCU)
- Ethernet Control Unit (ECU)
- Marking fluid reservoir
- Mission Computer (MC)
- Position Synthesis Module (PSM)
- HMDS circuit breaker
- Hydraulic Control Unit (HCU)
- Front marking bar
- GPR panel array
- Radar Mounting and Positioning System (RMPS)
- Marking fluid pump

If you have comments or questions about the installation, removal, troubleshooting, repair and calibration of these HMDS components, contact the following Contractor Logistics Support (CLS) POCs:

- > Mark Locke, Maintenance Team Chief: [mark.c.locke.ctr@mail.mil](mailto:mark.c.locke.ctr@mail.mil)
- > Rusty Jarrett, Fielding Manager: [normand.c.jarrett.civ@mail.mil](mailto:normand.c.jarrett.civ@mail.mil)

A maintenance mailbox is also available for questions:  
[usarmy.belvoir.peo-iwms.mbx.  
pm-ts-ceh-hmds-maint@mail.mil](mailto:usarmy.belvoir.peo-iwms.mbx.pm-ts-ceh-hmds-maint@mail.mil)

You can also send an email to the HMDS maintenance mailbox by scanning this QR code with your smart phone:



All Aircraft...

# Put an End to FOD

THE **BEST**  
DEFENSE  
AGAINST  
FOD IS  
**YOU.**

MAKE  
REGULAR  
FOD  
CHECKS  
ROUTINE.

**P**utting an end to foreign object damage starts with your taking steps to check for foreign object debris (FOD) on the flight line and picking it up.

On the flight line or anyplace where aircraft land, FOD is a never-ending battle. So make FOD checks a regular part of your routine.

For more info on the FOD program, check out Para 28 of DA PAM 385-90, *Army Aviation Accident Prevention*.

## When you're on the flight line:

- conduct regular FOD walks.
- perform FOD sweeps with ground equipment.
- maintain clean and orderly work areas to ensure a safe and FOD-free environment.
- be aware of what's on the ground around you at all times when the aircraft rotors or propellers are turning.
- emphasize your FOD program with training, involvement and teamwork.

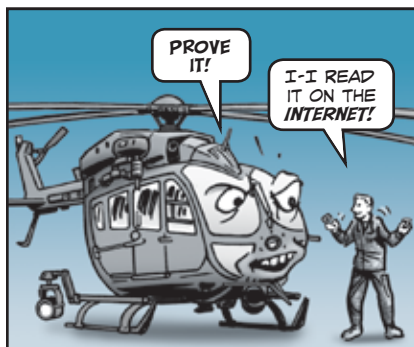
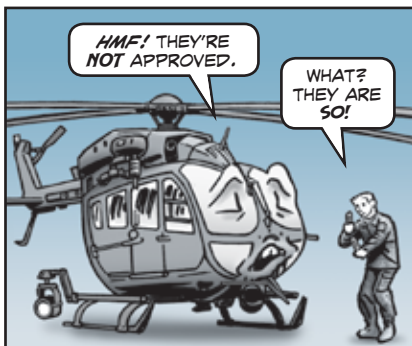
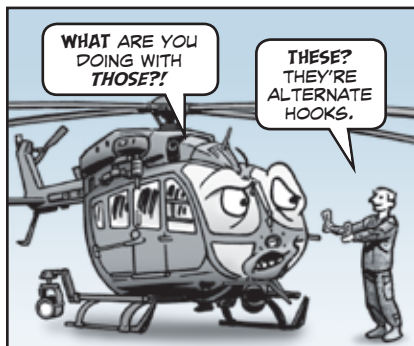
Get the **facts** on safety issues from the U.S. Army Combat Readiness Center website at: <https://safety.army.mil>

FOD CHECKS  
CAN SAVE YOUR  
AIRCRAFT AND  
YOUR LIFE!

BLADE

U.S. ARMY

# ALTERNATE RESCUE HOOKS **APPROVED**



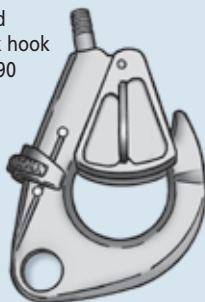
THERE'S A LOT OF CHATTER ABOUT WHICH HOIST HOOKS ARE OR AREN'T APPROVED FOR THE LAKOTA. WE'VE GOT THE OFFICIAL WORD...

The Lakota's Goodrich rescue hoist comes with a hook damper, PN 44307-480-2, and slide lock rescue hook, NSN 4030-01-583-4063 (PN 42315-490), that are installed at the factory.

**Both** are covered under contractor logistics support (CLS).

## Covered by CLS

Standard side lock hook  
42315-490





Component Maintenance Manual (CMM) 25-00-29-1 has **two more options** listed in the illustrated parts list.

**OPTION 1** is hook damper, PN 44307-480-1, with **D-lok hook**, NSN 4030-01-601-4980 (PN 42315-488), installed.

**OPTION 2** is hook damper, PN 44370-480, with **standard hook**, PN 42305-283, installed.

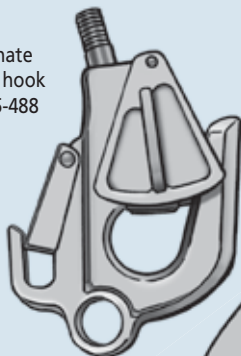
Both combinations work with the **hook damper** (PN 44307-480-2) currently installed on the Goodrich rescue hoist.

Note, because of its auto-lock feature, using the D-lok hook **doesn't** require the steel O-ring listed in SOF H-72-17-SOF-02.

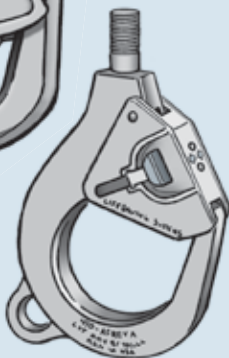
However, neither the **slide lock**, PN 42315-490, or the **standard hook**, PN 42305-283, has the auto-lock feature, so **all** requirements of SOF H-72-17-SOF-02 **must** be followed when using those components.

**Not covered by CLS**

Alternate  
D-lok hook  
42315-488



Alternate  
standard hook  
42305-283



IF UNITS  
DECIDE TO  
PURCHASE  
THESE  
ALTERNATE  
HOOKS...

...KEEP IN  
MIND THEY ARE  
**NOT** COVERED  
BY THE CLS  
CONTRACT FOR  
SUPPORT.

The options in the CMM help standardize platforms for rescue hoist operations. There was no need for an airworthiness release for the alternate hooks since they're covered in the CMM.

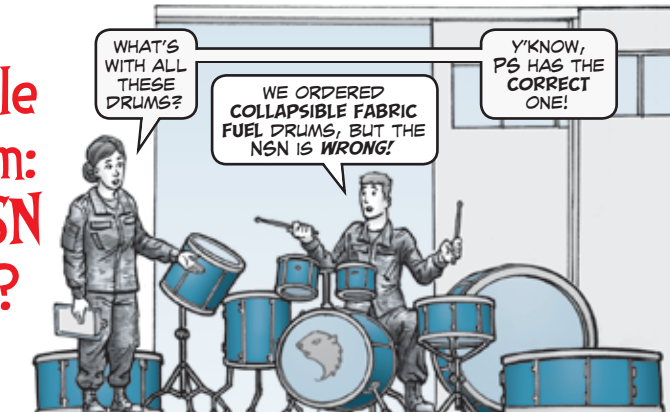
LAKOTA UNITS THAT  
DECIDE TO INSTALL AN  
ALTERNATE RESCUE HOOK  
ON THEIR HOIST ASSUME  
ALL RESPONSIBILITY FOR  
PROCUREMENT, OPERATION  
AND SUSTAINMENT.

BE SURE TO FOLLOW  
THE CMM **EXACTLY** WHEN  
INSTALLING ALTERNATE  
HOOKS. AND IT'S  
RECOMMENDED YOU  
**TAG AND STORE** ANY  
SERVICEABLE STANDARD  
HOOKS FOR FUTURE USE.



AAFARS...

# Collapsible Fuel Drum: Which NSN Is Right?



**M**echanics, Item 60 in Table 1 of the Mandatory Replacement Parts list of TM 10-4930-351-13 (Apr 11) and Item 1 in Fig 55 of TM 10-4930-351-24P (Jun 11) have the **wrong** NSN listed. NSN 8110-01-515-4727 for the Advanced Aviation Forward Area Refueling Station's (AAFARS) collapsible fabric fuel drum is an **invalid** item.



TACOM will revise the TM to fix that and other issues. If you find **other** mistakes, submit a DA Form 2028, *Recommended Changes to Publications and Blank Forms*, to TACOM using one of the following methods:

The **preferred and quickest way** is through the TULSA DA Form 2028 website:

<https://tulsa.tacom.army.mil/da2028/da2028.cfm>

You can **also** email a completed DA Form 2028 in PDF format to the EPCO at:

[usarmy.detroit.tacom.mbx.ilsc-tech-pubs@mail.mil](mailto:usarmy.detroit.tacom.mbx.ilsc-tech-pubs@mail.mil)

DOWNLOAD THE  
FORM FROM:

[https://armypubs.army.mil/  
ProductMaps/PubForm/DAForm.aspx](https://armypubs.army.mil/ProductMaps/PubForm/DAForm.aspx)

Mail a completed  
DA Form 2028 to:

Fax a completed  
DA Form 2028 to:  
DSN 786-1856 or  
(586) 282-1856.

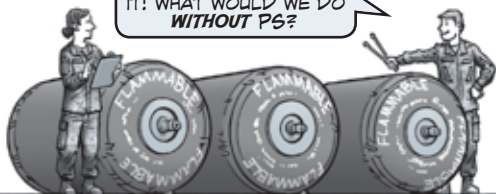
U.S. Army Tank-automotive and  
Armaments Command  
ATTN: AMSTA-LCL-IMP/Tech Pubs  
MS #727; 6501 E. 11 Mile Road  
Warren, MI 48397-5000

**Questions about the  
new procedures?**  
Send an email to:  
[usarmy.detroit.tacom.  
mbx.ilsc-tech-pubs@  
mail.mil](mailto:usarmy.detroit.tacom.mbx.ilsc-tech-pubs@mail.mil)

For overall problems or concerns  
with TACOM equipment, let your  
voice be heard by submitting a  
Collaborative Readiness Problem  
Solving (CREPS) report online:

[https://gfs.tacom.army.mil/  
hd/default.cfm?p=nt&cz=128](https://gfs.tacom.army.mil/hd/default.cfm?p=nt&cz=128)

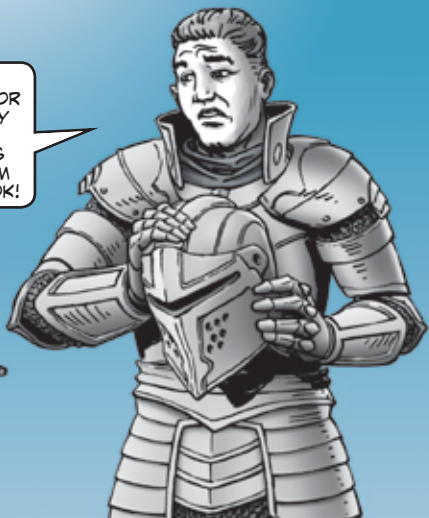
NOW THAT'S MORE LIKE  
IT! WHAT WOULD WE DO  
**WITHOUT PS?**





WHY ARE YOU WEARING THAT?!

UNITS ARE RESPONSIBLE FOR ALL FLEX BODY ARMOR NOW... AND OUR GUYS ORDERED FROM THE **WRONG** BOOK!



## Need Flex Body Armor?

THE AIR WARRIOR OFFICE IS NO LONGER ISSUING BODY ARMOR. CHECK OUT THE DETAILS!



Units, PM Air Warrior has been issuing flex body armor for more than 10 years. But they are now *out* of the flex body armor business.

Order body armor from supply



All flex body armor is the unit's responsibility and should be on unit property books for issue to deploying Soldiers.

If your unit *doesn't* have inserts to install in the flex body armor covers, you've got two choices:

1. Check with other units in your state that are not deploying to get inserts from those units.
2. Order them through the supply system.

Here are the NSNs:

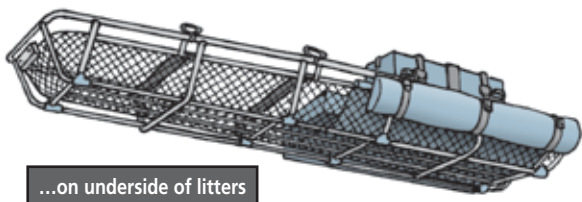
Size	NSN 8470-	PN
XS	01-525-8046	1005910-1
S	01-525-8047	1005910-3
M	01-525-8048	1005910-5
L	01-525-8050	1005910-7
XL	01-525-8051	1005910-9

MEDEVAC...



# SKID SHOES FOR RESCUE BASKETS

**MEDEVAC** operators are asking about the use of skid shoes on approved rescue baskets and litters. After reviewing the details and drawings of the skid shoes, the Aviation Engineering Directorate (AED) concluded that no AED approval is required for their use.



Use of skid shoes should extend the service life of the equipment while also protecting the aircraft floor from damage.

Skid shoe product information and pricing are available through Lifesaving Systems Corporation. Contact a rep at (813) 645-2748 or online:

<http://www.lifesavingsystems.com>



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<b>EDITORIAL</b>		5-kW MEP-1030--Paralleling cable NSN	803 50
Ask for Help!	797 01	5-kW TQG--Exhaust muffler gasket NSN	802 49
Back to Basics Readiness	802 01	ATP 3-34.45 released	796 55
Change Is Good!	799 01	MEL listing	800 46
Everyone's Responsible for FOD Control	796 01	MEP-831A, -832A 3-kW--Engine NSN	800 61
Memorial Day	798 01	Power generation training pub	797 61
Modern Note in an Old Song	800 01	<b>GLOBAL POSITIONING SYSTEM (GPS)</b>	
Ownership of the Vehicle	795 01	DAGR--Return & replacement info	804 50
PS Magazine-The Evolution Continues, Pt 1	803 01	<b>GRADERS</b>	
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What Do They Really Know?	801 01	120M--Battery disconnect switch	799 19
Wrecked by Neglect	794 01	120M--Battery drain prevention	797 18
<b>ELECTRICAL, GENERAL</b>		120M--Cab safety	802 47
MK-3413/U maintenance kit TM	804 49	120M--Cab step caution, circle drive hose	799 17
Solder, lead required	797 50	120M--Cab upper door stop adjustment	803 18
<b>ENVIRONMENTAL CONTROL UNITS (ECU)</b>		120M--Hydraulic hose leaks	797 19
60K-BTU IECU--Vinyl cover NSN	799 50	120M--Joysticks not a handhold	798 26
ECU/FDECU turn-ins needed	803 48	120M--Shank storage	801 18
IECU--Use legacy ECUs until fielded	800 54	120M--Tandem drive oil check	799 16
R438A refrigerant NSNs	800 61	<b>GRENADE LAUNCHER, M320</b>	
<b>EXCAVATOR, HYEX</b>		A1--Sight support cracks	803 44
230LCRD--Engine types	794 19	<b>GROUNDING</b>	
Hydraulic hoses, walk back on reel	800 19	TC 6-02.6 grounding techniques released	794 61
Swing bearing ring gear cleaning, lubing	802 46	<b>GUN, MACHINE</b>	
<b>FORKLIFTS</b>		M2/M2A1--Accelerator wear, coating...	801 40
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ATLAS--Wheel assembly correction (766-15)	795 61	M2/M2A1--Mandatory parts replacement	801 39
ATLAS II--Floodlight NSN	803 61	M2/M2A1--No bolt slam when unloaded	798 46
ATLAS II--Fuel pump NSN	802 61	M2/M2A1--Receiver NMC checks	794 36
ATLAS II--Parking brake pad NSN	803 19	M2/M2A1--Spade grip NMC if loose	794 38
ATLAS II--STE/ICE-R bolt NSN	798 61	M2/M2A1--Training, differences	804 38
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M10A--Wiper motor kit	800 61	M2A1--Barrel cap needed with BFA	796 36
RT-022 LCRTF--Starter cranking	797 21	M2A1--Barrel installation check	794 35
RT-022 LCRTF--Tire air pressure	798 21	M2A1--Bolt erosion criteria	803 41

Subject	Issue/Pg	Subject	Issue/Pg
M2A1--Flash suppressor, no anti-seize	797 41	<b>LASER RANGEFINDER</b>	
M2A1--Headspace and timing still required	794 38	AN/PED-5--Protective eyepiece filter MWO	799 39
M2A1--Visual user guide download	800 43	<b>LIGHTING SETS</b>	
M240--Buffer assembly cracks	801 39	DISE, PDISE--MEL list	800 46
M240--M80A1, M62A1 ammo, no changes	796 37	<b>LOADER, BACKHOE (BHL)</b>	
M240, M249--Finish standards changed	800 44	Battery PM	797 20
M240, M249--Gas system, scraper, BFA...	797 27	Bucket, rest on wood board when not in use	801 16
M249--Barrel collar movement	802 39	HMEE-1--Bucket pivot pin lubing	795 16
M249--Extractor pin check, no kicking	801 34	HMEE-1--Bucket, lay flat to keep water out	795 17
M249--Feed box support kit update (793-19)	802 40	HMEE-1--Egress window knob corrosion	796 20
M249--Scraper NSN change	798 46	HMEE-1--Tire and wheel assembly NSN	799 60
M249--Scraper NSN change	804 60	Repair parts, maintenance support	803 61
M249--Slamming feed cover causes damage	796 35	Transmission oil NSNs	800 17
MK 19--Feed tray cover, sight bar, charging	804 40	<b>LOADER, SCOOP-TYPE</b>	
MK 19--Rear sight replaced	799 40	966H--Joystick NSN	800 61
MK 19--Round removal tool required	799 39	966H--Quick-coupler parts NSNs	803 16
<b>HARDWARE</b>		<b>LOADER, SKID-STEER, BOBCAT</b>	
Bench stock help	803 58	M400W--Battery drain prevention	798 26
Lock washers, torque wrench, lockwire...	795 40	M400W--Cab door sensor drains batteries	803 17
<b>HAZARDOUS MATERIALS &amp; WASTE (HAZMAT)</b>		M400W--Locking lever, debris in latches	796 21
Absorbent compound NSN	799 60	M400W--Rear cab bolt replacement	796 21
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Drip pan NSNs	804 61	Safe combination security	803 51
PSCC help for shipping, storage	803 58	Series 200 padlock control	803 59
Spill kit NSNs, components	796 48	<b>LOGISTICS ASSISTANCE</b>	
Warning labels, shipping placards explained	794 56	AESIP, adding UICs	798 54
<b>HEATER, SPACE</b>		COMET POC	804 41
Maintenance a year-round effort	803 52	Deployer's toolbox	799 54
<b>HELMETS, AVIATION</b>		DLA-DS locations	801 61
AAIH, HGU-56P--Zeta III liners available	800 20	DLA handbook	798 60
AN/AVS-7 HUD TM available	796 55	DLA RTD program	803 55
<b>HOWITZER, SP, M109A6/A7 PALADIN</b>		ETID registration for DLA turn-in	801 55
Cradle mount bearing lube points	803 04	Property turn-in with DD Form 1348-1A	798 56
Fallback prevention tips	801 02	Safety, maintenance message web locations	798 58
<b>HOWITZER, TOWED, M119-SERIES</b>		UIC transfer help	802 57
A2--Equilibrator spring damage	795 08	<b>LOGISTICS MANAGEMENT</b>	
A3--Firing pin sticking	803 05	AR-COP training	796 58
<b>HOWITZER, TOWED, M777A2</b>		DEMIL codes defined	804 56
Hydrostrut cylinder corrosion	794 03	GCSS-Army--Help desk website	797 59
Loading tray piston swivel eye loosening	794 04	GCSS-Army--Serial number profile	804 59
<b>INSECT REPELLENT</b>		GCSS-Army--SLocs w/T-code printing	799 57
Deet-free repellent available	799 49	GCSS-Army--Storage codes	800 56
<b>INTERCOM SETS</b>		GCSS-Army--Transaction codes defined	804 55
AN/VIC-3--Power cable arcing	803 46	GCSS-Army--Unit of issue changes	799 56
<b>KITCHEN EQUIPMENT</b>		GCSS-Army--Warehouse activity monitor	802 58
Field sanitation team not required (794-53)	797 60	TMC/MCS added to MMDF	794 60
MBU--Dust protection tips	797 46	<b>MASK, PROTECTIVE</b>	
MTRCS--Top engine panel doors, rain cap	804 42	JSGPM--Carriers disappearing	802 42
MTRCS--Rollers, locking pins/clips missing	800 49	JSGPM--Faceform, outsert pouches	803 45



Subject	Issue/Pg	Subject	Issue/Pg
JSGPM--JSLIST hood too tight	795 44	<b>MOUNT, WEAPONS</b>	
M53A1--TM with parts list	804 43	FMTV LTAS ring mount components	799 44
Night vision device use and training	798 48	M153 CROWS II--Clearance issues	803 38
<b>MATERIAL HANDLING EQUIPMENT</b>		M153 CROWS II--Cover NSN changed	799 61
MEL updates	798 22	M153 CROWS II--Cover NSN changed	801 41
POC emails	797 60	<b>NIGHT VISION EQUIPMENT</b>	
<b>MEDICAL EQUIPMENT</b>		AN/PSQ-40--TM available	803 49
Repair parts in GCSS-Army	802 53	AN/PVS-14--Eyeguard vs eyeshield (788-59)	794 61
<b>MINE CLEARING EQUIPMENT</b>		Protective mask use and training	798 48
Buffalo--Emergency door, keep closed	797 19	<b>PACKAGING</b>	
Buffalo--Generator NSN	794 61	COSIS instructional videos	803 59
Buffalo--Water draining tips	796 16	LLRC inspection tips	802 55
M7 Spider--Battery tips	803 39	Packaged items, keep sealed until needed	797 55
M1231 Husky--Air dryer filter change interval	795 20	Strapping and sealing kit NSNs	797 44
M1231 Husky--Component maintenance help	804 20	<b>PARACHUTES</b>	
M1231 Husky--Fuel system contamination	796 19	T-11--Slider mesh panel criteria increased	800 52
M1231 Husky--Steering wheel clip	798 22	<b>PAVING MACHINE</b>	
M1270 MMPV--Talon robot parking	795 18	8816M BMPM--Air filter cleaning	801 17
<b>MINE DETECTOR</b>		8816M BMPM--Cold weather starts	804 16
AN/PSS-14--Turn-in request	794 43	8816M BMPM--Conveyor grease fittings	804 17
<b>MISSILE, AVENGER</b>		<b>PISTOLS</b>	
Caps/covers, tarp, NATO cable, CDT...	797 36	M9--Ammo, holstering, safety	797 40
ECU/PPU, use as primary power source	795 42	M9--Recoil spring flat spot criteria	801 38
<b>MISSILE, HELLFIRE</b>		M17/M18 MHS--Introduction	801 36
Launcher, loading and missile tips	802 35	<b>POL</b>	
<b>MISSILE, HIMARS</b>		Drip pan NSNs	804 61
AS-4701/VRC loop antenna stowage	797 35	Petroleum ops smart book	803 54
Hoist cable positioning	803 34	USAPC website	804 57
<b>MISSILE, JAVELIN</b>		<b>POWER SUPPLY</b>	
CLU protection in the field	796 38	X60M 60-KW--TM with enhanced videos	801 48
<b>MISSILE, PATRIOT</b>		<b>PS MAGAZINE</b>	
15-kW generator oil drain fitting	794 41	milSuite group added	800 53
Air filters, keep extra sets on hand	799 38	POC for article suggestions	804 57
AN/MPQ-65/A--CLET filter cracks	794 40	PS Mag Live	801 47
Connector caps, keep in place	797 39	Search engine instructions	796 44
Data recorder, ECH handle, PAC 2 MCU...	804 36	What'chu Lookin' at, Dawg? (PS mobile app)	794 62
Moisture, fiber optic cables, J4/J10/J11 cables...	803 35	<b>PUBLICATIONS</b>	
<b>MISSILE, THAAD</b>		AN/GYK-78B(V)3 TM released	803 49
PMCS, coolant leaks, antenna unit grounding...	799 35	AN/TPX-57(V)1 & 2 interrogator set TM	802 61
<b>MLRS</b>		AN/TSQ-232 TM correction	794 44
AS-4701/VRC loop antenna stowage	797 35	AN/TSX-4 TM revised	798 61
Cab lift, hoist pulley, hoist markings	796 40	AN/TYS-94H(V)2 TM	803 49
Hoist cable positioning	803 34	Army Sustainment goes quarterly	804 57
Shock absorber PM tips	795 06	ATP 4-25.12 provides sanitation guidance	794 53
Transmission housing cleaning	798 08	ATP 6-02.54 released	794 61
<b>MORTARS</b>		EIR digest	795 61
M120/A1--Firing pin alignment explanation	795 35	ICIDS-V TM available	802 49
M120/A1--Gun card updated for tracking	796 37	IHPS TM available	804 43
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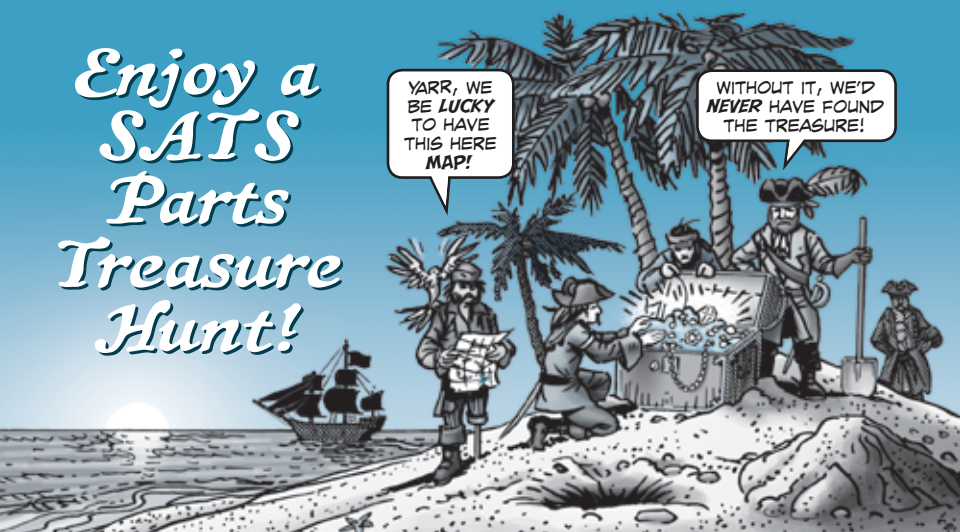
Subject	Issue/Pg	Subject	Issue/Pg
PM Bridging Newsletter download	802 61	<b>SIGHTS &amp; SCOPES</b>	
TB 43-0002-3 covers UAV MELs	794 26	Lithium batteries, use only if TM allows	797 53
TB 43-0134 updated	795 61	M68--NMC if ARD is missing	797 42
TB 43-180 revised	795 61	M68--Windage/elevation caps, cleaning...	802 38
TB 55-46-1 updated	797 55	M150--Lens cover NSNs	794 39
TC 3-04.71 released	796 61	M150--Tritium leak check	799 41
TC 6-02.6 grounding techniques released	794 61	Sight/weapon mix explained	803 28
TM 10-6130-523-10 released	795 61	<b>SMALL ARMS</b>	
<b>RADARS</b>		Acetylene torch not allowed for stuck parts	802 42
AN/TPQ-50--TM available	804 49	CCMCK cleaning reminder	802 41
Sentinel--Voltage, cybersecurity, cleaning...	798 42	CCMCK dangers explained	795 36
<b>RADIAC EQUIPMENT</b>		Controlled parts, statement needed for damage	794 39
AN/PDR-77--Pancake probes defective	799 48	Gaging not required for new weapons	797 43
<b>RADIO SET, GENERAL</b>		Gaging requirement back to 2 years	796 36
AN/TRC-238 radio terminal set TMs released	796 61	Lube not allowed for chamber, bore, ammo	801 35
Connector mating, knob jamming...	804 54	Shipping Do's and Dont's	799 42
Turn-in procedures explained	800 58	<b>SMALL EMPLACEMENT EXCAVATOR (SEE)</b>	
Vehicle power surge damages radios	795 45	Ball joint lubing	800 19
<b>RADIO SET, SINGGARS</b>		<b>SUPPLY, GENERAL</b>	
Installation kits stay with vehicle	796 52	CAGE code POC identification	800 57
RF and synthesizer CCA turn-in	794 44	CAGE codes, identify through SAM	804 57
<b>RIFLE, M16-SERIES</b>		DD Form 1348-6 for parts without NSNs	797 56
Front sight post detent lube	800 42	DLA handbook	798 60
Inspection for dirty, unlubed weapons	800 40	GCSS-Army stock control functions	796 59
M12 rack fitting	803 42	Property, equipment turn-in to DLA-DS	799 55
Ripcord barrel cleaning tool	801 42	Usable On Code (UOC) explained	796 56
Sling NSNs	804 37	<b>TANK, M1-SERIES</b>	
<b>ROBOTS, GROUND</b>		Air precleaner PM	796 06
Talon--Proper parking on M1270 MMPV	795 18	Ammo compartment lubing	798 04
<b>ROLLER, VIBRATORY</b>		Ammo tube round stopper damage	800 04
CS-433C--Seat belt replacement criteria	799 18	Cleaning tips for inside and out	801 08
<b>SAFETY</b>		Crosswind sensor fault caused by insects	800 02
Cold weather injuries	795 59	EMFS water damage	800 03
Eyewear protection NSNs	794 54	Engine exhaust deflector for towing	803 06
Laser myths and facts	795 57	Fire prevention: belly plate, grill doors...	801 06
<b>SATELLITE COMMUNICATION</b>		Gun mount travel lock pin	797 04
AN/FYQ-110C DSCS TM released	797 61	Hydraulic reservoir level check	801 05
AN/TSC-154A SMART-T--Ground rod door	804 48	M1A2 SEP--CROWS WSCP switch guards	797 03
AN/TSC-185(V)1, (V)2--HPA cables	801 46	M1A2 SEP--WTR only lube authorized	801 05
AN/TSC-185A(V)2 fire extinguisher bracket	798 52	Mine Blade--Hydraulic jack replaced	799 60
ATP 6-02.54 released	794 61	Oil types for engines	798 02
<b>SCRAPER, EARTHMOVER, 621G</b>		Parking brake check	802 03
Battery disconnect switch	803 20	Pintle lubing	796 08
Push loading allowed	797 60	Replenisher level, recoil bleeding	795 02
<b>SHELTERS</b>		Shock absorber sight glass cleaning	794 09
Commo--Exterior PM tips	795 50	Skirt hinge points	797 05
Commo--Interior PM tips	795 46	Transmission turn-in	798 61
TAS--NSNs	797 52	Transmission turn-in	800 05
		V-pack cleaning, maintenance	795 04

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Bed net protects against insects	798 53	M1102--Breakaway cable carabiner NSN	798 61
<b>TEST EQUIPMENT</b>		M1112--Walking beam arm clearance	797 10
AN/GRM-122--Component TMs	797 48	Service kit NSNs	798 12
AN/PRM-36--Lithium batteries not allowed	799 51	XCK2000E1--Tire and wheel assembly NSN	798 61
Fluke multimeters recalled	801 44	<b>TRAILERS, SEMI</b>	
UIC change for TMDE	803 38	Brake chamber dust cap NSNs	800 14
<b>TIRES</b>		Linseed oil for deck preservation	804 61
FedMall tire catalog	794 14	M3/M3A1 CROP--Data plate NSNs	794 11
Tire lube NSNs	804 61	M3/M3A1 CROP--Strap assembly NSN	803 61
Universal high-flow ground tire inflator kit	796 10	M3/M3A1 CROP--Web tie-down straps	794 10
Universal high-flow tire inflator kit accessories	799 60	M3A1 CROP--Wear plates not needed	800 13
<b>TOOLS</b>		M172A1--Hub bearing NSN fix	799 61
Biometric automated toolset TM revised	798 61	M172A1--Hub bearing NSN fix	800 11
Calibration, keep current	802 43	M870A1--Hub & drum kit missing parts	802 60
Component lists, how to find	795 38	M871--Series--Glad hand cover seals	799 12
Don't Let Tools Trip You Up!	797 62	M969--Series--Vapor integrity test	802 61
JGMTK replaces GMTK	802 60	M1000--APU battery solar panel	799 13
Pallet jack NSN	803 61	M1000--APU hydraulic reservoir valve	799 14
SATS--A/C door panel thumbscrew	801 45	Service kit NSNs	798 12
SATS--Component list available	795 41	<b>TRAINING</b>	
SATS--Parts list	804 35	UTAP training materials website	798 20
SECM--Rain tube and gutter NSN	803 37	<b>TRUCK, 1 1/4-TON, HMMWV</b>	
SEW--Repair parts listing	800 36	A/C refrigerant charge weight	801 14
SKOT help desk email	799 61	High seat kit NSNs	797 60
TMDE coordinator online training	804 47	Incandescent vs LED bulbs, mix or match?	795 14
Tool set component lists	800 35	Installation kit for AN/VRC-104(V)5	802 48
<b>TRACTOR, D6K</b>		M1097R1--Special purpose kits	799 61
Platform wiring harness NSN	802 61	M1151A1--Gunner's sling NSN	802 15
<b>TRACTOR, D7E/F/G/R</b>		M1151A1--Gunner's sling NSN	804 60
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D7R II--Battery drain prevention	799 19	Tow bar bracket mod	798 18
D7R II--Blade float indicator check	799 60	Turret traversing handle replacement	801 12
D7R II--Hydraulic filter clearance	797 16	Unauthorized modifications	799 10
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D7R II--Track adjuster O-ring seal	794 18	<b>TRUCK, FMTV</b>	
<b>TRACTOR, D8K</b>		A1/A1P2--Electrical system part NSNs	801 10
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Cargo net NSNs	804 14	A1P2--EHPU cap NSN	797 61
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M149A2--Master cylinder NSN	803 60	A1P2--Window latch NSN	795 15
M149A2--Master cylinder NSN	804 15	A/C belt NSNs	798 16
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M1082, M1095--Tire & wheel assembly NSN	803 61	CTIS electronic control module, A0 vs A1	797 14
M1095--ABS light caps	797 61	Door handle parts NSNs	797 60
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M1101, M1102--Cover kit NSN	798 61	LTAS--Tow bar decal NSNs	801 11
		LTAS--Transmission control valve module	803 60

Subject	Issue/Pg	Subject	Issue/Pg
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M1087A1P2--Side platform parts list	797 12	Towing techniques explained	800 08
M1089A1P2--20-ton jack, amber light in BII	797 61	Track tension, cdr's hatch, ramp, idler wheels...	801 27
M1157A1P2--HVAC system parts	800 12	Transmission housing cleaning	798 08
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Spare wheel assy for trucks	798 15	M-ATV--Cab drain plugs	796 14
Towing FMTV/LTAS vehicles	795 12	<b>VEHICLE, RECOVERY, M88-SERIES</b>	
Transmission parts reversed	803 10	A1--Road wheel arm bearing lube	801 04
Troop seats and safety straps	800 10	A2--AFES PM tips	804 06
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Battery liner prevents corrosion	794 12	A2--Engine fire prevention flipbook	801 03
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Fuel tanker cleaning instructions	803 61	A2--Fuel injection lines faulty	800 06
M978--Main pump motor NSN	798 17	A2--Tarp NSN for full vehicle	794 03
M978-Series--Purging info	804 60	Hatch lever check	798 11
M983A4 LET--Fifth wheel mount screws	800 15	Transmission oil filter mounting bolt sequence	795 09
REBS retrieval cautions	796 18	<b>VEHICLE, STRYKER</b>	
Towing FMTV/LTAS vehicles	795 12	Armor panel damaged by winch cable	800 07
<b>TRUCK, M878 YARD TRACTOR</b>		Brake check before shutdown	797 06
A2--Backup alarm NSN	794 15	Bustle rack, cargo nets for storage	799 04
<b>TRUCK, M915-SERIES</b>		Cargo net NSNs	796 03
M915A5--Front hub rubber fill plug NSN	796 13	Driver's hatch stay device, detent assembly	804 03
M915-Series--Coolant filter kit	800 61	DVE cable routing	796 02
M917A2--Tire & wheel assy components	802 60	Fuel injector line inspection	797 07
<b>TRUCK, M1070 HET</b>		Fuel shutoff switch damage	798 05
A1--Engine fan clutch NSN	794 61	Height management system	804 04
<b>TRUCK, PALLETIZED LOADING (PLS)</b>		Hub seal replacement	803 07
Cold weather pubs, no ether for starts	795 10	ITH headset troubleshooting, repair parts	803 08
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<b>TRUCKS, GENERAL</b>		Start-up and shutdown procedures	797 08
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Cargo net NSNs	804 14	VV-Hull--Control arm assembly adjustment	794 02
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Universal high-flow ground tire inflator kit	796 10	DA Pam 750-8 update	795 20
Windshield washer fluid	804 61	Diving equipment, boats, motors POC	794 61
<b>VEHICLE, FIGHTING, M2/M3 BRADLEY</b>		M30 BEB--M15 bridge adapter pallet	804 18
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Engine access door hydraulic reservoir	798 06	MKII--Bilge drain plug location	794 19
M242--14-pin connector damage	802 04	MK-7 life raft replacements	800 18
M242--91F, recoil damper fluid, lockwire...	799 02	<b>WELDING</b>	
M242--Installation tips	794 07	Gas cylinder turn-in, delivery	802 50
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Oil level checks	804 08	<b>WIRE ROPE</b>	
Ramp and door seal check	796 04	Wire rope NSNs	794 15



# Enjoy a SATS Parts Treasure Hunt!



**I**n a tool set as huge as the standard auto tool set (SATS), sometimes it's hard to find tool and part NSNs.

Here's a roundup of recent answers to PS reader questions on SATS NSNs:

- 4-ft ramp, NSN 3990-01-603-1279
- 14-ft ramp with box, NSN 3990-01-628-2644
- 14-ft ramp without box, NSN 3990-01-603-1275
- guard rails (9 each), NSN 5340-01-629-9242
- keyhole strap assembly (14 each), NSN 5340-01-629-9583
- hook strap assembly (2 each), NSN 5340-01-629-9561
- threshold plate, NSN 5340-01-603-1286
- carbon monoxide detector, NSN 6350-01-612-6014
- environmental control unit (ECU) pig tail, NSN 6150-01-658-5433
- trailer basic issue items (BII) box, NSN 2540-01-679-3053

**Don't forget** there's a 91-page pictorial guide to every tool and drawer in SATS. The guide lists only part numbers, not NSNs. Those can generally be found in CL 4910-95-A81.

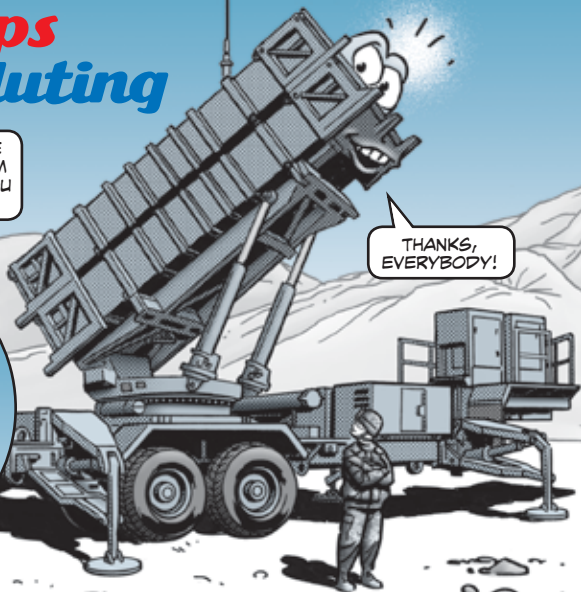
If you would like a copy of the guide, email PS: [usarmy.redstone.asc.mbx.psmag@mail.mil](mailto:usarmy.redstone.asc.mbx.psmag@mail.mil)

# Patriot Tips

## Worth Saluting

HERE ARE SOME  
GOOD TIPS FROM  
FT HOOD FOR YOU  
PATRIOTEERS!

THANKS,  
EVERYBODY!



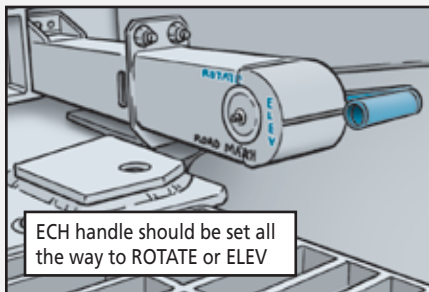
Dear Editor,

We've come up with a few tips that will save other Patriot Missile units time and trouble.

- **Remember that pulling out the embedded data recorder no longer reboots the system.** That used to be the standard check to see if the recorder was good. But the update to the Modern Man Station changed that.
- **Because of the Combined Cryptographic Modernization Phase-1 (CCMP-1) upgrade, you must follow the boot up steps in the ECS -10 TM exactly.** If you don't, you put faults in the system that lead to needless troubleshooting.

- **Put the engagement control handle (ECH) all the way to either ROTATE or ELEV when you rotate or raise the launcher.** If the handle isn't completely set to one of the two positions, it eventually gets damaged. Plus, this can cause faults in the launcher system.

If the handle becomes difficult to move, don't jerk it. That can damage it. Your unit maintenance can adjust the handle so it's easier to shift.



ECH handle should be set all the way to ROTATE or ELEV

- **Don't forget the PAC 2 launcher's motor control unit (MCU) circuit breaker.** If it's not turned off, the launcher can unexpectedly slew during maintenance. Just remember the circuit breaker must be turned back on to move the launcher. This isn't a problem with the PAC 3.

- **Keep launcher cables tied back.** Always check the launcher for dangling cables before you operate. Unsecured, cables snag and get ripped out when the launcher traverses. One Patriot unit lost a launcher J box along with its cable and wiring harness because all the cables weren't tied back. That cost them almost \$500K in repairs.

WO1 Kayla Wilkes  
SGT Travis Blackburn

**Editor's note:** *Excellent tips! Follow the TM for your launcher version for where to tie back cables.*

*Use launcher cable clamp assemblies, NSN 4030-01-582-8341, to secure them.*

M16-Series Rifles, M4/M4A1 Carbines...

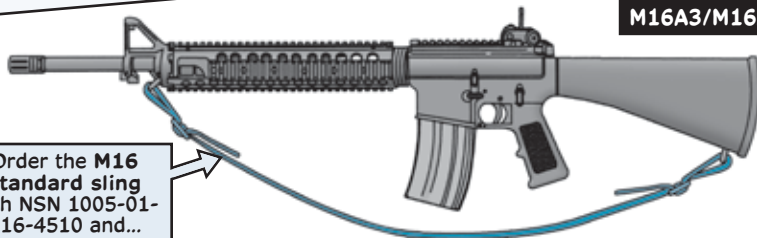
## WHAT SLINGS ARE AVAILABLE?

Dear Half-Mast,  
Are there any slings available for the M16 rifle and the M4 carbine other than the black sling and the classic black sling and the quick-release sling?

1LT L.E.

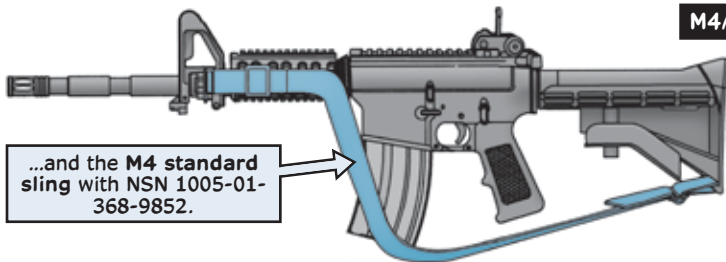
NO, SIR, THOSE ARE STILL THE **ONLY** APPROVED SLINGS FOR THE M16 AND M4.

**M16A3/M16A4**



Order the **M16 standard sling** with NSN 1005-01-216-4510 and...

**M4/M4A1**



...and the **M4 standard sling** with NSN 1005-01-368-9852.

The tactical quick-release sling for both the M16 and M4 comes with NSN 1005-01-562-9457.

# How To **STOP** M2/M2A1 Damage!



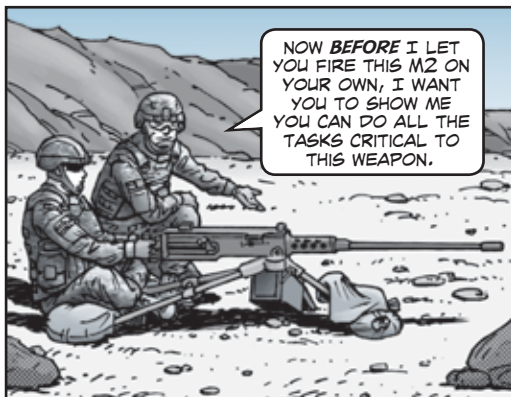
TOO MANY M2S AND M2A1S ARE BEING **DAMAGED** BECAUSE SOLDIERS **AREN'T** THOROUGHLY TRAINED ON HOW TO FIRE AND MAINTAIN THEM.

HERE'S WHAT UNITS NEED TO DO TO STOP THAT DAMAGE.

**S**ince Jan 2018, there've been 40 reported M2/M2A1 machine gun firing incidents resulting in damage to weapons. There are likely many more unreported incidents.

More than half of the incidents involved improper barrel installation. The barrels' alignment pins were sheared off and the barrels had to be replaced at a cost of more than \$1K each.

Most of this damage could've been avoided if units had required more training of gunners before certifying them to fire M2s.



## TRAINING SHOULD INCLUDE:

- emplacing the tripod.
- installing the weapon on a tripod or pedestal mount.
- properly installing the barrel.
- proper loading.
- determining distance to targets.
- engaging targets correctly.
- clearing weapon stoppages.
- diagnosing malfunctions.
- disassembly and assembly.
- required cleaning and lubing.

**Until Soldiers can demonstrate ability to do each task, they *shouldn't* be certified as an M2/M2A1 operator.**

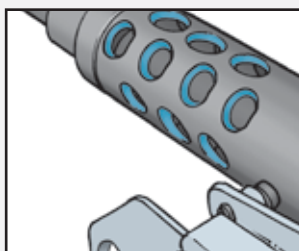
**These checks shouldn't be considered one-and-done.**

**Soldiers, like everyone else, forget skills. Refresher training is a *must*.**

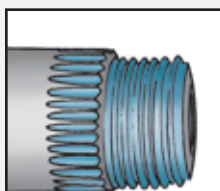


## M2 and M2A1 Differences

The **M2** has round holes in the barrel support and its barrel has notches and uninterrupted threading.

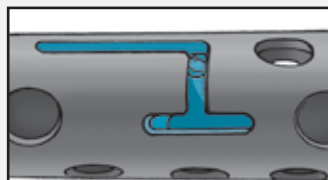


M2 has round holes in barrel support...

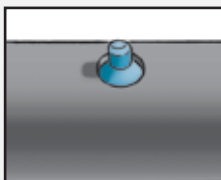


...barrel notches and uninterrupted threading

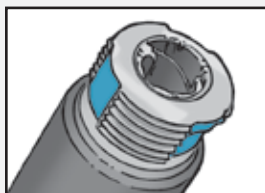
The **M2A1** has a zig-zag slot in the barrel support and its barrel has an alignment pin, an interrupted thread design and no notches.



M2A1 has zig-zag slot in barrel support...



...alignment pin...



...and interrupted thread design with no notches

It's critical to know *which* M2 you have.

**M2s** must be headspaced and timed by the operator *each time* they're fired or the barrel is changed.

**M2A1s** don't need to be headspaced and timed by the operator, *but* headspace and timing **must** be checked by the armorer.

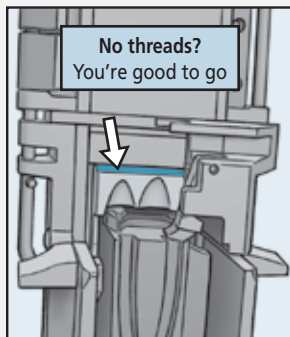
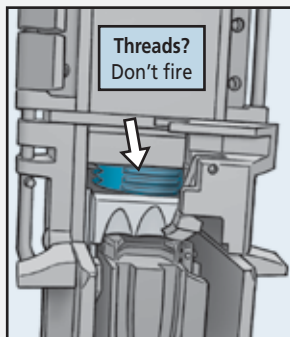
Many M2A1 barrels are ruined because operators don't screw them all the way into the barrel extension.

One simple check **prevents** that. Before firing, check for barrel threads in front of the barrel extension.

If you see threads, the barrel is not fully screwed in.

**No threads?**

You're good to fire.



**Train, train, train to prevent more M2/M2A1 damage.**

# **STOP** **Slamming** **and** **Jamming!**

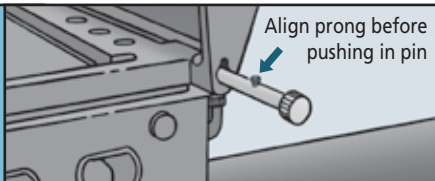


**E**ven on a heavy-duty weapon like the MK 19 machine gun, slamming and jamming can cause heavy-duty damage. Remember these rules, gunners, to keep you and your MK 19 out of jams:

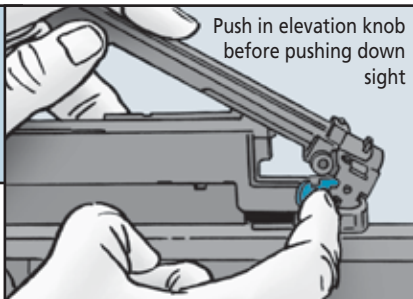
- **Guide the feed tray cover to the latched position.** Never let the cover slam down. If you slam the cover down, the cover lock is damaged. Then you can't lock the cover in place. If that's not enough, slamming also knocks the primary drive lever out of alignment with the secondary drive lever. That causes feeding problems.

Push the secondary drive lever all the way to the right and then guide the cover down, making sure the two levers mate. If they won't mate, you probably have a problem with the feed slide guide rod spring. Your small arms repairman should check it out.

- **Align the feed tray cover pin prong before pushing the pin in place.** If you jam in the pin without aligning the prong, the prong could be snapped off. Then the pin can work out during firing and the cover comes loose.



- **Put the rear sight bar down and push in the elevation screw knob before you push down the sight.** If you forget either step, you'll soon be without a sight. Protect the sight by locking it down when you're not firing.



- **Charge overhanded.** Charge with your hands on top of the charging handles and your palms down. Use a steady and smooth pull for a good charge.

# NOWHERE TO TURN? TURN TO COMET!



## COMET HAS THE ANSWERS!

**COMET stands for Command Maintenance Evaluation and Training team.**

The sole purpose of COMET is to help units solve their logistical problems through both assistance and training.

Since teams are generally composed of retired warrant officers and NCOs, they **know** what they're doing.

They work on **your behalf** and report their findings directly to you.



- PMCS.
- Maintenance management.
- Shop operations.
- Food service operations.
- GCSS-Army Supply.
- GCSS-Army Maintenance.
- Property accountability.
- Supply management.
- Supply support activity operations.
- Publications.
- Unit movement.
- Command Supply Discipline Program.
- Command Maintenance Discipline Program.

**COMET teams are located at Forts:**

- Stewart
- Campbell
- Hood
- Carson
- Riley
- Polk
- Bliss
- Irwin

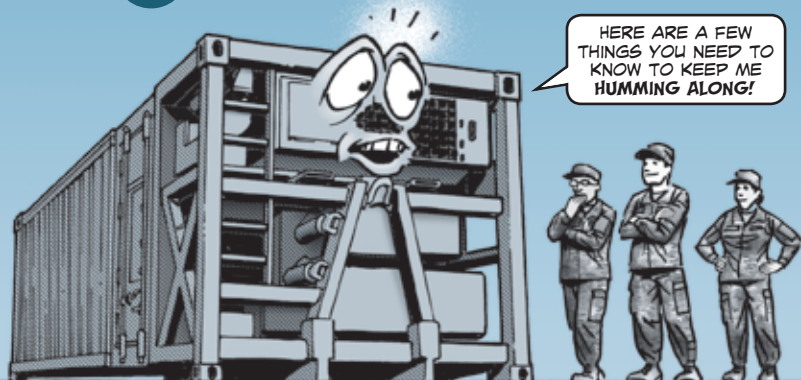
**plus** • Aberdeen Proving Ground  
**and** • Joint Base Lewis-McChord.

COMET teams will **also** come to **YOU.**

You can contact them through your division or brigade's G-4 or S-4 or through the COMET program manager listed below.

For **more information**, contact Willis Bennett at DSN 670-6428, (910) 570-6428, or email: [willis.m.bennett.ctr@mail.mil](mailto:willis.m.bennett.ctr@mail.mil)

# SHUT THOSE DOORS, and HEED RAIN CAP CAUTION!



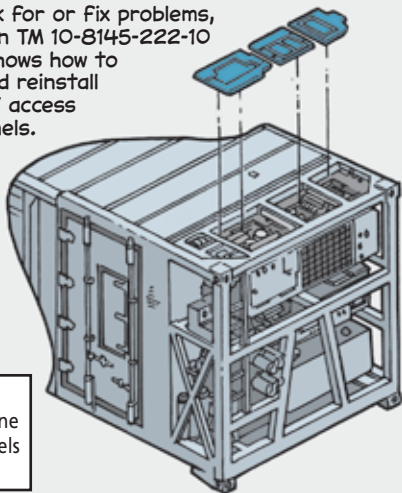
MAINTAINERS AND OPERATORS **AREN'T** FOLLOWING PROPER -10 TM PROCEDURES WITH THE MULTI-TEMPERATURE REFRIGERATED CONTAINER SYSTEM—KNOWN AS MTRCS.



First, it's important for maintainers to close the top engine access panels on the MTRCS.

Leaves, tree branches, bird nests and other debris get into the MTRCS' engine compartment through the open doors. Closing the three top door engine covers is crucial in preventing damage to the MTRCS.

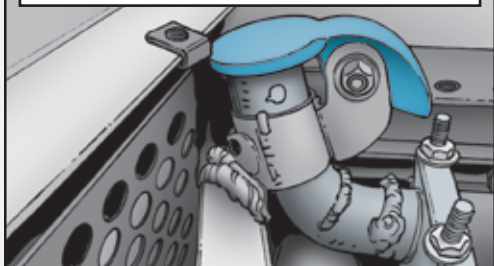
To check for or fix problems, WP 0027 in TM 10-8145-222-10 (Apr 16) shows how to remove and reinstall the doors' access engine panels.



Keep top three engine access panels closed

The MTRCS PMCS instructions also note that the rain cap needs to be functional and properly installed on the end of the engine's exhaust pipe. The rain cap prevents water getting into the engine.

Rain cap must be properly installed and functioning



Gustavo "Gus" Caruso  
402d AFSB Senior Command Rep

NO MATTER THE REASON  
OR THE SEASON, IF THE  
RAIN CAP *ISN'T* WORKING  
PROPERLY...

...THE EQUIPMENT  
IS **DEADLINED**.



**Editor's Note:** *You've certainly capped these problems for us, Gus!*

## IHPS TM Available

The operator's manual for the integrated head protection system (IHPS) is out. TM 10-8470-216-10 (Dec 18) covers the following helmet sizes:

- Small, NSN 8470-01-672-2752
- Medium, NSN 8470-01-672-2727
- Large, NSN 8470-01-672-2383
- X-large, NSN 8470-01-671-9927

TM distribution is restricted, so you'll need to log in with your CAC to:

<https://idmng.armyerp.army.mil/>

Choose the "ETM/IETM" app and search for the TM.

## M53A1 Mask TM Released

TM 3-4240-552-13&P (Oct 18) includes the repair parts and special tools list for the following mask sizes:

M53A1 (Right)	NSN 4240-	M53A1 (Left)	NSN 4240-
Extra Small	01-646-2614	Extra Small	01-646-2717
Small	01-646-2709	Small	01-646-2646
Medium	01-646-2699	Medium	01-646-2637
Large	01-646-2625	Large	01-646-2683

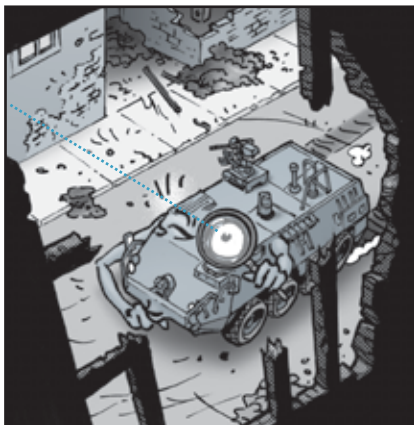
TM distribution is restricted, so you'll need to log in with your CAC to:

<https://idmng.armyerp.army.mil/>

Choose the "ETM/IETM" app and search for the TM.



# Help NBCRV Stryker Do Its **Detecting Duty!**



WANT TO HELP  
YOUR NBCRV  
STRYKER STAY ON  
THE DETECTING  
TRAIL? **READ ON!**



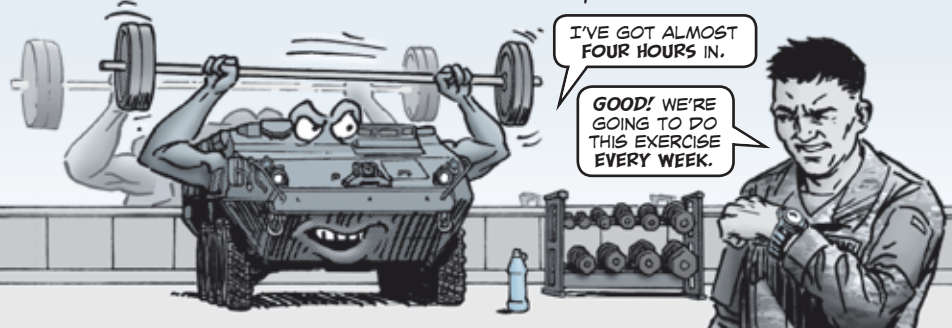
THE M1135  
NBCRV  
STRYKER IS  
CRITICAL IN AN  
ENVIRONMENT  
WITH CBRN  
THREATS.

IF IT **DOESN'T**  
DO ITS  
DETECTING  
JOB, THE  
RESULTS  
COULD BE  
**FATAL.**

HERE ARE  
SOME WAYS  
TO KEEP  
YOU AND  
YOUR NBCRV  
STRYKER  
DETECTING...



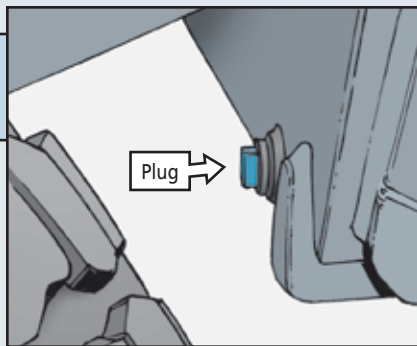
- **Run the NBCRV Stryker at least four hours weekly while doing a complete PMCS.** If you don't, you'll have guaranteed trouble. The chemical biological mass spectrometer II (CBMS II) needs at least that long to complete its built-in-test (BIT) sequence. That's the only way to find CBMS II problems **before** you go to the field. Plus it cuts down on the time needed for start-up.



Running the NBCRV Stryker for at least four hours weekly also helps dry up moisture. The A/C sucks up moisture that builds up inside the Stryker when it's closed up. The moisture can affect the sensors while leaving the interior a mildew mess. You don't want that cleaning job!

Don't forget to pull the 15 hull drain plugs, too. Water that collects in the hull will eventually damage critical electronics if it's not drained.

Because there's so much PMCS for the NBCRV Stryker, it's a good idea to devote one day just to the sensor suite and another just to the vehicle.

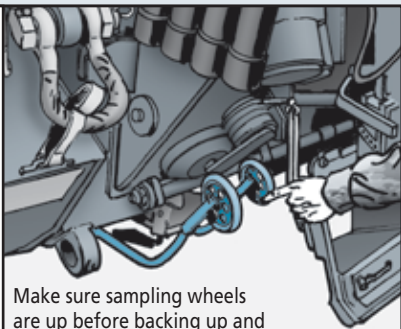


Monthly, run the Stryker CBMS II system for an 8-hour bake out. A bake out purges the system of any contaminants that can interfere with detecting.



- **Careful with the sampling wheels and lower rear door while backing up.** The wheels were designed to roll forward, not backward. They should go to the standby position 22 inches off the ground when you put the vehicle in reverse. One good bump while you're in reverse can snap them off. The two arms and wheels cost a total of \$2,800 to replace. In a non-tactical situation, use ground guides when backing up.

The lower rear door should be closed before backing up or changing the vehicle's height management system. Otherwise, the door will be damaged.



Make sure sampling wheels are up before backing up and use ground guides if possible

- **Don't forget the ACADA's M88 detector.** When you're not in the field, the best place for the M88 is in the CBRN room or locked in a shelter. If it's left exposed to the elements, water can seep past its seals. Keep dust caps installed on both the exhaust and inlet valves to seal out dust and moisture. If you need more caps, order them with NSN 5340-01-454-6322.

But remove the caps before you turn the M88 on. Otherwise, the M88's motor will burn out or it could get stuck in BIT mode.



- **Experiment with the tong box position.** For shorter Soldiers especially, it's very difficult to gather samples from inside the Stryker using the glove port. The tong box can be adjusted up and down and left to right, which makes the job somewhat easier. Experiment with the best position for the tong box.

Remember to put the guide out before you start a mission. That makes it easier for the wheels to contact the probe. You can't put the guide out from inside the vehicle.

- **Take care climbing around on the Stryker.** When you're on top of the Stryker, you're nine feet off the ground. That's a long way to fall, especially onto concrete. And the Stryker's roof gets very slippery when it's wet. Always practice three points of contact. Some units have improved footing with non-skid strips. NSN 7220-00-823-7419 gets a 60-ft roll.

The safest place to climb up and down is at wheel #1 by the driver's hatch. After you put your right foot on the hub, you have handholds to help the rest of the way up.

Climb up and down NBCRV Stryker **only** at #1 wheel





# TMDE Coordinators Now Train Online

**TMDE** wants all of its unit support coordinators to take online training, even if they've had local TMDE training.

After coordinators have taken the course and passed the five-question test, they'll receive a training certificate by email.

Here's how to access the course:

1. Go to <https://elc.learn.army.mil/> and click CAC/PKI Login. Select the appropriate certificate and input your PIN.
2. Click on Courses.
3. Once the Courses screen has loaded, click on Browse Course Catalog.
4. Type **TMDE** in the Search Catalog and click Go. Make sure the search criteria is "Name" for the course. Set the creation date to "Before" and the day after the current date.

**Browse Course Catalog**

Search Catalog Course  Contains  AND Creation Date Before

5. From the search results, select TMDE Support Coordinator Training.

6. Hover over the course's ID. A dropdown arrow will appear. Click on the arrow and another display box will appear. Click on Enroll.

7. The Self Enrollment screen will appear. Click Submit.

8. You should receive a message confirming your enrollment. Click OK and take the course.

Course ID	Course Name
991_196_94H30_C45_2015_01_N	TMDE Maintenance Support Specialist Advanced Leaders Course (ALC)
<input type="button" value="Enroll"/>	TMDE Support Coordinator Training

Questions? Contact Gary Davenport at (256) 955-8082 or email:  
[gary.m.davenport.civ@mail.mil](mailto:gary.m.davenport.civ@mail.mil)



# OPEN DOOR A **COSTLY** MISTAKE!

AFTER YOU PUT  
AWAY MY ANTENNA,  
BE SURE MY  
GROUND ROD COVER  
DOOR IS SHUT!

YOU  
GOT IT!

I RECENTLY INVESTIGATED  
AN ISSUE WITH AN AN/TSC-  
154A SECURE MOBILE ANTI-JAM  
RELIABLE TERMINAL-TACTICAL-  
SMART-T.

IT HAD A DIGITAL DATA  
TRANSMITTER-A DDT-  
AND CABLE DAMAGED  
DURING ANTENNA  
STOWAGE.

This happened because the ground rod cover door was left open during antenna stowage, which allowed the door to catch on the RF-IN cable to the SMART-T's DDT.

The end result was a broken cable at the DDT's cannon plug connector.

Cabling from  
digital data  
transmitter  
can get  
caught on  
open ground  
rod cover  
door, while  
deploying  
or stowing  
antenna...

...causing  
it to rip  
out from  
connector

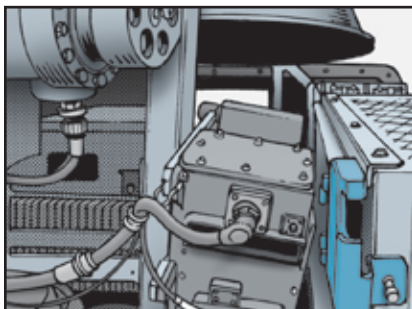
PLACE  
CCANT

RF INPUT  
JI

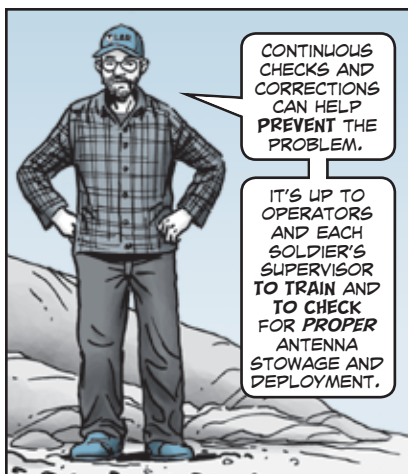


Unfortunately, it isn't the first time I've seen this happen. It'll be a problem until units ensure that all operators are properly trained.

Soldiers need to know the extent of damage this door can cause if left open. When the DDT is damaged, the mission stops until the DDT is changed out. Plus, it's costly to fix, as each DDT costs nearly \$200,000.



Keep ground rod cover door closed when deploying or stowing antenna



CONTINUOUS  
CHECKS AND  
CORRECTIONS  
CAN HELP  
PREVENT THE  
PROBLEM.

IT'S UP TO  
OPERATORS  
AND EACH  
SOLDIER'S  
SUPERVISOR  
TO TRAIN AND  
TO CHECK  
FOR PROPER  
ANTENNA  
STOWAGE AND  
DEPLOYMENT.

LHT LAR Joe Sheffield  
JBLM, WA

**Editor's Note:**

*Consider the message transmitted, Joe.*

## Scan for New AN/TPQ-50 Radar TM



TM 11-5840-392-10  
(JUN 19) IS THE NEW  
OPERATOR'S MANUAL FOR  
THE AN/TPQ-50 RADAR SET,  
NSN 5840-01-578-4119.

TM distribution is  
restricted, so you'll need to  
log in with your CAC:  
[https://idmng.armyerp.  
army.mil/](https://idmng.armyerp.army.mil/)

Choose the "ETM/IETM"  
app and search for the  
TM.

## MK-3413/U Maintenance Kit Gets TM

TM 11-5895-2018-13&P (Apr 19) is the new operator and field maintenance manual, including RPSTL, for the MK-3413/U electronic equipment maintenance kit, NSN 5895-01-630-1886.

TM distribution is restricted, so you'll need to log in with your CAC:

<https://idmng.armyerp.army.mil/>

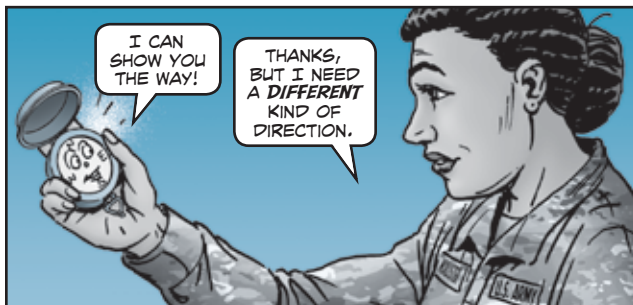
Choose the "ETM/IETM" app and search for the TM.

# DAGR

# Returns and Replacements



**D**efense Advanced GPS Receivers (DAGRs) give Soldiers an edge in directions. But another kind of direction is needed when it comes to replacing defective or older model DAGRs.



CECOM/ILSC (B16) is the source of supply for DAGRs and responsible for their sustainment

The current AN/PSN-13A's DAGR's NSN is 5825-01-526-4783, LIN N96248.

Only **unserviceable** DAGRs with serial numbers 0001 through 111,500 should be turned in for replacement.

Early DAGRs were initialized with incorrect crypto storage settings that rendered them unable to perform Over-The-Air Distribution or Over-The-Air-Rekey (OTAD/OTAR).

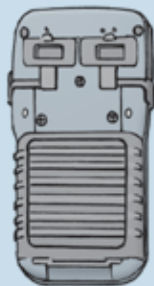
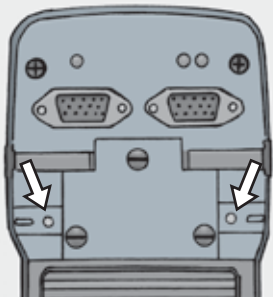
Since GPS satellites **weren't** beaming the OTAD/OTAR signal at that time, it **wasn't** considered an issue.

Since then, the GPS Directorate has activated the OTAD/OTAR signal, which makes unit-level action imperative to retrofit DAGRs to use the signal.

A depot-level settings change is **necessary** to correct the issue.

If you have a DAGR with SN 111,500 and below, and aren't sure if it has received the data element storage change, look at the **back** of the DAGR.

Check to see if the top two brass threaded inserts (screws) are painted green. If painted green, the DAGR is compliant and no further action is required.



DAGR SNs 111,500 and below whose screws *aren't* green are **non-compliant** and users should follow the turn-in instructions.

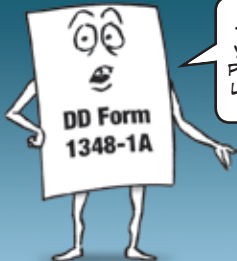
IF RETURNING EARLY DAGRS OR AFTER CONFIRMING DAGR FAILURE (IF THE DAGR WILL TURN ON) USING THE BUILT-IN TEST, THE BIT, RETURN EQUIPMENT USING THE FOLLOWING PROCEDURES...



## Instructions for DAGR Turn-In

Turn in unserviceable DAGRs through your unit's supply support activity (SSA) to the B16 account.

The unit's SSA signs the DD Form 1348-1A, *Disposal Turn-In Document*. The unit keeps a copy of the signed 1348-1A as proof of unserviceable turn-in and emails CECOM/ILSC a signed copy of the 1348-1A at: [usarmy.apg.cecom.mbx.dagr-support@mail.mil](mailto:usarmy.apg.cecom.mbx.dagr-support@mail.mil)



REMEMBER TO KEEP ME IN YOUR UNIT! I'M PROOF OF YOUR UNSERVICEABLE TURN-IN.

If an SSA *isn't* involved in the turn-in process, units may have **major problems** clearing their property books.

CECOM (B16) is *not* physically located at the depot, isn't authorized to sign 1348-1As, has *no* visibility of what is turned in, and *cannot* go back to retrieve a copy of the signed document from the depot.

Keep in mind that shipping directly to a depot could result in **lengthy delays**. Neither the depot nor the item manager is authorized to sign turn-in paperwork.

ARE YOU STILL WAITING TO CLEAR THAT TURN-IN OFF YOUR PROPERTY BOOK?



However, if the SSA turns in the DAGRs through their system, as soon as they're accepted by the depot, that closes the transaction and clears the property book.

PS MORE

If an SSA is not accessible to a unit, the property book officer (PBO) is responsible for the DAGRs, plus witnessing the packing and shipping, and recording the tracking number for the shipment.

The PBO can then use that tracking information as justification to drop those assets from the unit's property book.

When all steps are completed, email the integrated logistics support manager (ILSM) the DAGR replacement information sheet and a signed copy of the DD Form 1348-1A/SSA documentation to:

[usarmy.apg.cecom.mbx.dagr-support@mail.mil](mailto:usarmy.apg.cecom.mbx.dagr-support@mail.mil).

THIS STEP SERVES AS PROOF OF TURN-IN.



Once the return is verified, the ILSM will input a material release order to provide the DAGR replacement(s) to the DODAAC listed on the DAGR replacement information sheet. Keep in mind that the ILSM is only authorized to fill and ship unit shortages.

ONLY THE ILSM CAN GET YOU REPLACEMENTS.



AND I CAN **ONLY** SEND ASSETS TO THE TAC2 ADDRESS ON RECORD.



FOR OUTSTANDING DD FORM 1348-1A RECEIPTS, CONTACT THE DLA CUSTOMER INTERACTION CENTER—THE CIC.

THE CIC CAN BE REACHED AT 1-877-DLA-CALL, DSN 661-7766, OR COMMERCIAL 269-961-7766. OR EMAIL:

[DLAContactCenter@dla.mil](mailto:DLAContactCenter@dla.mil)



Give the CIC a copy of the DD Form 1348-1A and any other shipping documentation. The CIC will open a service ticket with DLA Distribution Research.

Each unit is responsible for return shipment costs, and B16 is responsible for the replacements. New DAGR replacements will have different serial numbers.

## Preparing a DAGR for Shipment

- Use the menu to “zeroize” the crypto key (if loaded). See TM 11-5820-1172-13&P (May 14, w/ Ch 1, Aug 15)



**DON'T** USE THE “EMERGENCY ZEROIZE” METHOD OR YOU’LL ERASE ALL MEMORY, INCLUDING FAULT CODES.

- Remove primary batteries.

**DON'T** SEND THE DAGR WITHOUT THE BATTERY PACK. KEEP THE BATTERIES, BUT SEND THE DAGR’S BATTERY PACK.



- Keep all accessories.

- Package the DAGR for in-transit protection.

USE REUSABLE CONTAINERS WHENEVER POSSIBLE. FOLLOW PROCEDURES IN TM 11-5820-1172-13&P (MAY 14).



- **Important:** Never send a DAGR to DLA Disposition Services for disposal.

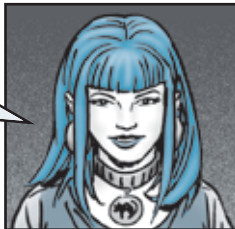
DAGR REQUIRES DEPOT-LEVEL DEMIL PRIOR TO DISPOSAL.

IF YOU HAVE EXCESS DAGRS, FOLLOW NORMAL SUPPLY SYSTEM PROCEDURES.



**Note:** The older AN/PSN-13 DAGR, NSN 5825-01-516-8038, is obsolete and *can't* be updated to the latest operating software. You'll receive a replacement AN/PSN-13A for every AN/PSN-13 turned in, but you must contact the ILSM at: [usarmy.apg.cecom.mbx.dagr-support@mail.mil](mailto:usarmy.apg.cecom.mbx.dagr-support@mail.mil)

FOR DAGR SUPPORT, QUESTIONS OR THE DAGR REPLACEMENT INFO SHEET, CONTACT THE ILSM AT THE ABOVE EMAIL.



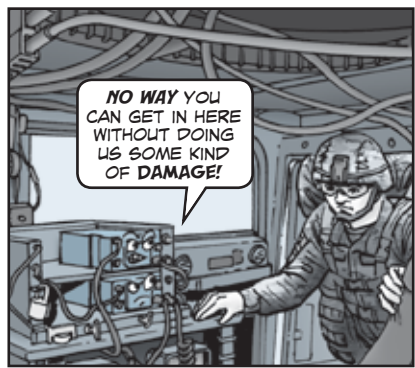
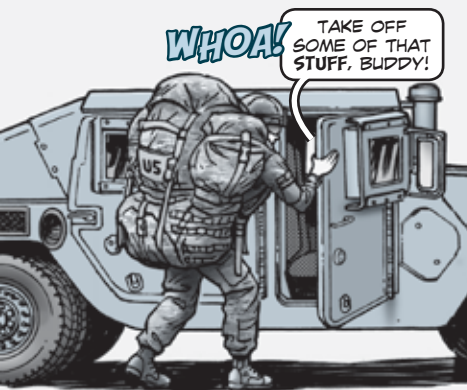
DAGR turn-ins should be sent through the unit's SSA or PBO to the following address:

7000 - Tobyhanna - BY6 - W25G1W  
W1A8 DLA DIST - TOBYHANNA  
GIBBS AND FIFTH STREETS  
WAREHOUSE 6 BAY 4  
TOBYHANNA, PA 18466-5059  
MARK FOR “B16 F STOCK”





# CARE KEEPS RADIOS COMMUNICATING!



Dear Editor,

Soldiers need reminding that rough treatment can quickly silence radios.

If they jam connectors on, twist knobs hard, throw gear around, don't watch where they're stepping, and pile equipment on radios, then they'll soon have a radio that can't communicate.

Carefully mate connectors. Don't twist knobs farther than they want to go. Watch where you put your feet. Don't throw stuff around radios that can knock off knobs or connectors. Never pile equipment on top of radios. If radios can't get fresh air, they overheat.



Please use caution when climbing into vehicles with installed radios.

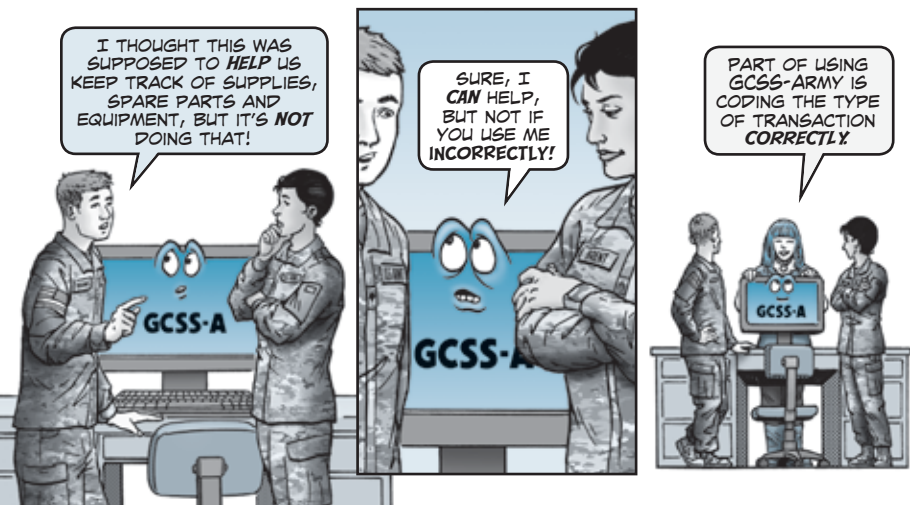
It's a good idea to take off as much gear as possible, depending on the tactical situation, before getting in the vehicle. Especially in HMWWVs, there's not much room inside to maneuver. The more gear you're wearing, the more likely you are to damage something on the radio.

CPL Ryan Latour  
Ft Hood, TX

WE HEAR  
YOU LOUD  
AND CLEAR,  
CORPORAL.  
THANKS!

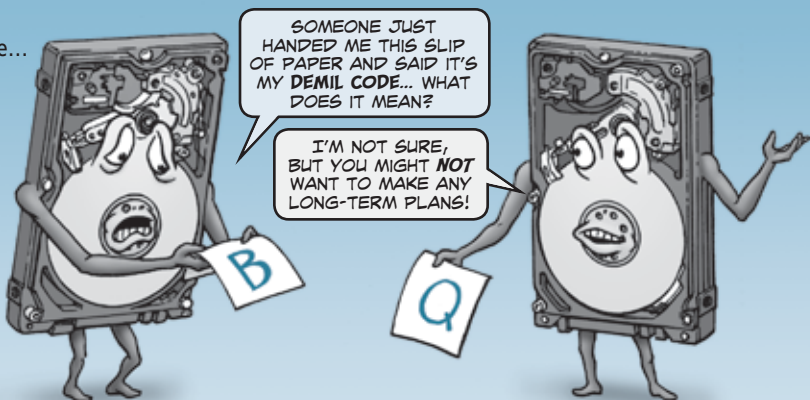


# Deciphering Document Numbers



GCSS-A documents numbers have 10 digits, but it's the **first two digits** that indicate the type of transaction taking place:

First two digits	Description
00	Transfer Order (TO) – Internal SSA movement that transfers an item from bin to bin within the warehouse.
10	Purchase Requirements (PR) – Request for a material pending release.
18	Inbound Delivery (IBD) - Created against a document when an item is shipped.
22	Property Book Purchase Order (PO) Property Book Dedicated Order
71	Unit Request or Turn in (STO) – Customer Order requesting supplies or turning in supplies.
45	Standard Purchase Order (PO) – SSA or dedicated customer order.
80	Outbound Delivery (OBD) – Created against a document when you have a due out at SSA or customer turn-in.
60	Purchase Requisition (PR) - for Property Book Asset Adjustments and "WANTS"
<b>Material documents</b>	
49	Inventory loss
50	Inventory gain



## DECODING DEMILITARIZATION

**D**emilitarization (DEMIL) codes are assigned to all DoD personal property for control and disposal. They indicate the required level of physical destruction or provide special handling instructions for United States Munitions List (USML) and Commerce Control List (CCL) items being turned in to Defense Logistics Agency (DLA) Disposition Services.

The codes also identify additional guidelines for some property and cover items that *don't* require DEMIL.

Here  
are the  
codes and  
what they  
mean:

Code	DEMIL Requirements
G	<b>USML or CCL military ammunitions and explosives (AE).</b> DEMIL is required for classified and unclassified items.
P	<b>USML classified items.</b> DEMIL is required.
F	<b>USML or CCL military items.</b> DEMIL is required, but item managers, equipment specialists or product specialists must provide special DEMIL instructions.
D	<b>USML or CCL military items.</b> DEMIL is required. Destroy the item and its components to prevent the item from being restored to a usable condition.
C	<b>USML or CCL military items.</b> Remove or demilitarize installed key point items as DEMIL code D.
E	The DoD DEMIL Program Office reserves exclusive rights to this code and issues the DEMIL instructions for items using it.
B	<b>USML Items.</b> Mutilation (MUT) to the point of scrap is required worldwide.
Q	<b>CCL items (CCLI).</b> MUT to the point of scrap required outside the US. Inside the US, MUT is required if the DEMIL integrity code (IC) is 3. MUT isn't required when the DEMIL IC is 6.
A	Items subject to the Export Administration Regulations (EAR) in parts 730-774 of Title 15 Code of Federal Regulations (CFR) (CCLI or EAR99) and determined by the DoD to present a low risk when released from DoD control.

DLA Disposition Services *doesn't* accept items with DEMIL codes G or P in their original configuration.

Turn in **DEMIL G** coded items with a *material documented as safe* (MDAS) certificate.

Turn in **DEMIL P** coded items with a declassification certification.

You can find more tips on disposal turn-in by downloading DLA Disposition Service's *Turn-in Smartbook*:

<https://www.dla.mil/Portals/104/Documents/DispositionServices/Library/CAH/Smartbook.pdf>

## SAM Finds CAGE Codes

NEED TO LOOK UP THE POC FOR A CAGE CODE QUICKLY WITHOUT THE HASSLE OF REGISTERING FOR AN ACCOUNT?

TRY THE SYSTEM FOR AWARD MANAGEMENT (SAM). YOU CAN USE IT TO LOOK UP A CAGE CODE OR POC:

<https://www.sam.gov/SAM/>



## All About USAPC

THE US ARMY PETROLEUM CENTER (USAPC) HAS A WEBSITE FULL OF INFO AT: <https://usapc.army.mil>

YOU'LL ALSO FIND THEM ON FACEBOOK: <https://facebook.com/usarmypetroleumcenter/>



## Army Sustainment Goes Quarterly

ARMY SUSTAINMENT PROFESSIONAL BULLETIN CHANGED ITS PUBLICATION FREQUENCY FROM BIMONTHLY TO QUARTERLY, EARLIER THIS YEAR.

THE MAGAZINE CONTINUES TO BE A VALUABLE SOURCE OF PROFESSIONAL DEVELOPMENT INFORMATION FOR THE ARMY SUSTAINMENT COMMUNITY. FIND THE MAGAZINE ONLINE AT:

<https://www.alu.army.mil/alogs>



## Help PS Help Your Fellow Soldiers

IF YOU'VE FOUND A MISTAKE IN YOUR TM OR FIGURED OUT A BETTER WAY TO DO MAINTENANCE OR SAVE THE ARMY MONEY, SHARE YOUR KNOWLEDGE WITH PS MAGAZINE. CONTACT US HERE: [usarmy.redstone.asc.mbx.psmag@mail.mil](mailto:usarmy.redstone.asc.mbx.psmag@mail.mil)





# GOT ANY GOOD COLD WEATHER ADVICE?



Dear Half-Mast,

A few issues ago, you offered some really helpful advice on how to avoid heat injuries. Now that the season has changed, do you have any wisdom to share on how to avoid cold weather injuries?

SGT K.B.



HERE ARE A FEW TIPS TO HELP KEEP YOU SAFE FROM OLD MAN WINTER.

When it comes to cold weather clothing, remember the acronym:

**C**lean: Always keep clothing clean

**O**verheating: Avoid getting too hot

**L**oose: Wear clothing loose and in layers

**D**ry: Keep clothing as dry as possible

## OTHER TIPS INCLUDE:

- Change into dry clothing every day or if your clothing becomes wet.
- Wash and dry your feet and change into dry socks as often as necessary.

- Wear gloves to handle equipment and fuel products.

- Use sunglasses with UV protection to protect your eyes from the sun's glare reflecting off of snow.

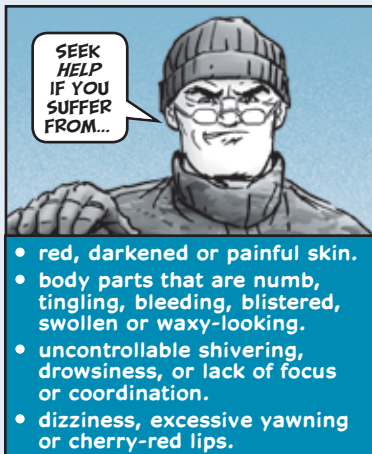
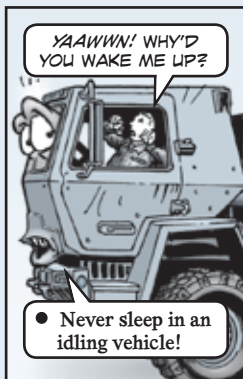
YEAH, YOU **DO** LOOK GOOD, BUT THAT TIP WAS FOR ME, **NOT** YOU!



- Once the temperature falls below 32°F (0°C), don't use skin camouflage. Instead of helping you hide, it might be hiding a cold weather injury.



- Use Army-approved heaters in sleeping areas and post a fire guard to keep an eye on things.



Get more information about **cold weather injury prevention** from the Army Public Health Center:

<https://phc.amedd.army.mil/topics/discond/cip/Pages/Cold-Weather-Casualties-and-Injuries.aspx>

GCSS-Army...



Dear Half-Mast,  
We have a pallet of new computer monitors sitting in the warehouse. Since they are going to be on our property book, is it OK to assign them serial numbers?

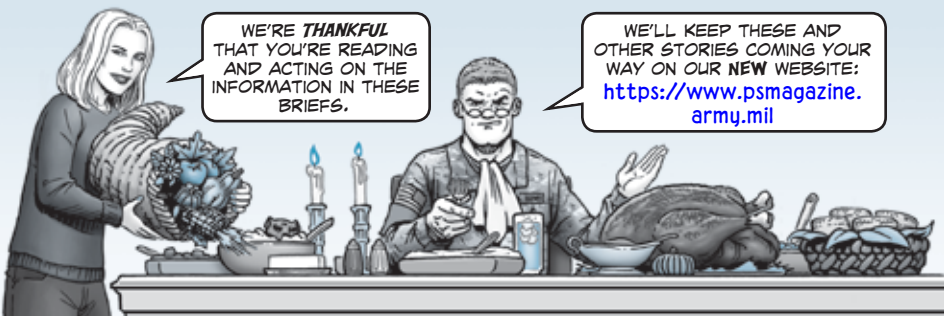
SSG D.K.

Dear Sergeant,

You can't add serial numbers to those monitors without a Serial Number Profile (SNP). We went over how to get a SNP on pages 55-57 of PS 782 (Jan 18). Here's a link to the article:

<https://www.logsa.army.mil/web2/archive/PS2018/782/782-55-57.pdf>

Half-Mast



## M249 Scraper NSN Changes

When your M249 machine gun's scraper tool wears out, don't use NSN 1005-01-131-1914 to order a new one. That NSN is obsolete. Instead, order a new scraper with NSN 5120-01-598-4301. It costs about \$25.

## The Solution For HEMTT Purging

Get a 5-gal container of cleaning compound (purging solution) for the M978-series HEMTT fuel tanker with NSN 7930-01-350-7034. For a 55-gal container, use NSN 7930-01-350-7035. You'll find it listed in ATP 4-43, *Petroleum Supply Operations*. Make sure all purging solution is removed from the tanker before deploying, shipping overseas or sending to RESET. Follow the procedure for gravity bulk unloading of fuel from the tanker. You'll find it in the operating instructions of TM 9-2320-279-14&P (IETM EM 0290, Jun 09) for the M978, TM 9-2320-325-14&P (IETM EM 0289, May 09) for the M978A2, and TM 9-2320-326-14&P (IETM EM 0288, Dec 15) for the M978A4.

## M113 FOV Oil Filter NSN

Order a new oil filter for the M113 FOV's 6V53 engine with NSN 2940-01-633-3432 (PN PH3612). It replaces NSN 2940-01-197-7106 (PN FL804FP), which is shown as Item 9 in Fig 22 of TM 9-2815-205-24P (Feb 13). The old oil filter has a high rate of failure. Make a note until the TM is updated.

## BITUMINOUS COATING COMPOUND

Get a gallon of bituminous coating compound for your battery box with NSN 8030-00-290-5141. First use a wire brush to scrape off rust and old paint. Then protect the bare metal inside the box with a coat of the compound.

## M1151A1 HMMWV Gunner's Sling NSN

Get the M1151A1 HMMWV gunner's sling with NSN 5340-01-530-1744. It's Item 11 in Fig 298 of TM 9-2320-387-13&P (IETM EM 0323, Mar 14).

## M9 ACE HYDRAULIC FLUID CHECK

Operators, when checking the M9 ACE's hydraulic oil level, make sure the vehicle is level and all the oil is in the hydraulic tank. To do that, put the vehicle in SPRUNG mode with the engine off, ejector retracted (back), apron down and hydraulic pressure relieved.

## Tire Lube NSNs

**Never** use oil or grease to mount a tire. Petroleum-based products will deteriorate rubber. Instead, use a premixed tire lube with a vegetable oil base. Get one gallon of the lube with NSN 2640-00-256-5527. Five gallons come with NSN 2640-00-256-5529.

## M9 ACE Parts Missing

TM 5-2350-262-24P (Jun 12) comes up short on some needed parts for the M9 armored combat earthmover (ACE). Fig 50 covers the apron, dozer and blade assembly. It shows the blade's sleeve bushings as Item 26, but not the lock pins that fit through the bushings. Also missing are the retaining clips holding the lock pins in place. Get a new lock pin with NSN 5315-01-184-4868 and a retaining clip with NSN 2590-01-239-1664.

## M9 ACE Hydraulic Kit NSN

Get a hydraulic parts kit for your M9 armored combat earthmover (ACE) with NSN 2590-01-216-8646. Need replacement parts? Check out Figure 228 of TM 5-2350-262-24P (Jun 12) for a complete list.

## BATTERY TERMINAL COVERS

Protect your vehicle's batteries from accidental shorts by adding rubber terminal covers. Single terminal covers come with NSN 2530-01-089-4992. NSN 5940-00-738-6272 brings a double terminal cover.

## LINSEED OIL PRESERVES DECKS

Constant exposure to the elements leads to dry, cracked and splintered wood decking on semitrailers. Prevent that damage by applying a light coat of linseed oil to the decking as needed. NSN 8010-00-152-3245 brings a gallon of linseed oil and NSN 8010-00-684-8789 gets five gallons. A 55-gal drum comes with NSN 8010-00-242-6114.

## Windshield Washer Fluid NSN

To get windshield washer fluid for your vehicle, order NSN 6850-00-926-2275. That brings a case of twelve 16-oz bottles of **concentrated** windshield cleaning compound. You'll need to mix it with water depending on the temperature:

Temperature (Fahrenheit)	Cleaning Compound	Water
+40° to -10°	1 bottle	2 bottles
0° to -40°	1 bottle	1 bottle
-30° to -65°	2 bottles	1 bottle

Use the empty cleaning compound bottles to measure the water.

## Crushproof Drip Pan NSNs

Crushproof drip pans are really handy for preventing spills around the motor pool. Order them with these NSNs:

NSN 4940-	Size
01-490-2455	3-gal
01-490-2463	6 1/2-gal
01-490-2470	15-gal

Each NSN brings a package of 10 drip pans.

**Would You Stake Your Life <sup>right now</sup> on the Condition of Your Equipment?**

# Make **PMCS**...

WOULD YOU STAKE  
YOUR LIFE, *RIGHT NOW*,  
ON THE CONDITION OF  
YOUR EQUIPMENT?



## ...a **Team Effort** in your Motor Pool!