



Roll-up of Articles
March 2023

General and Special Topics





I Sustain This: February 2023 Nominees

/ Published March 2, 2023

PS Magazine's *I Sustain This* campaign is designed to recognize civilian sustainers who exemplify the highest standards while maintaining equipment to meet combat readiness requirements and stay in the fight, even under the most arduous of circumstances.

For Feb 2023, we had one civilian sustainer nominated for this program. That individual was Raul C. Palomo of the TACOM Fleet Management Expansion (FMX) office, North Range, Ft Lee, VA.

Spotlight Profile



Raul C. Palomo

Heavy Mobile Technician

TACOM Fleet Management Expansion (FMX) office, North Range, Ft Lee, VA

Nominated by: Kevin C. Peavy

Why does this person deserve recognition? Mr. Palomo maintains the training

base operational readiness fleet comprised of M88A1, M88A2, M113A3, M1089A1, M1089A1P2 and M1075A1 vehicles, as well as the M10000 forklift. His meticulous attention to detail and superior maintenance knowledge enables TACOM FMX, Fort Lee, Virginia, Ordnance Division, North Range to execute organizational maintenance procedures to accomplish the critical objectives of no missed training time. With his expert support, the team is able to maintain readiness rates above 90 percent fully missioned capable status and adhere to funding goals and allocations..

Additional Comments: As an additional duty, Mr. Palomo administers the North Range battery rejuvenation program, which ensures compliance with installation's requirements for proper battery reutilization and disposal operations.



Half-Mast Sends: Lose the 'Rabbit Habit'

/ Published March 6, 2023

BLUF: Cutting corners may save time, but it can also result in consequences.



Photo by Staff Sgt. David Beckstrom

This article initially appeared in PS 736, p.1 (Mar 14).

Many of us know the old fable about the tortoise and the hare. There's a good lesson there.

While it's tempting to cut corners to save time, remember that rushing through PMCS, especially those oh-so-essential checklists, can result in ugly consequences.

It's not usually new Soldiers who are guilty of cutting corners. Most of them still go by the book because they haven't memorized it yet.

The worst danger is the kind that comes with complacency—like the long-time chief

mechanic who's memorized the ins-and-outs of PMCS and thinks the checklist in his head is good enough. We don't argue the expertise part. Chief probably does know his job inside-out, even upside down. But it only takes forgetting a critical step **once**.

The Army's *Knowledge** magazine is full of first person stories—hard lessons learned when overconfidence outweighed common sense for just a sec.

These true-life tales are sober reminders that, though a visual checklist may seem like a crutch to some of us, it sure beats the real kind of crutches. It also rings true that saving a stitch of time now isn't worth stitches later. So let's lose that 'rabbit habit.' Purposeful and steady wins the PMCS race.

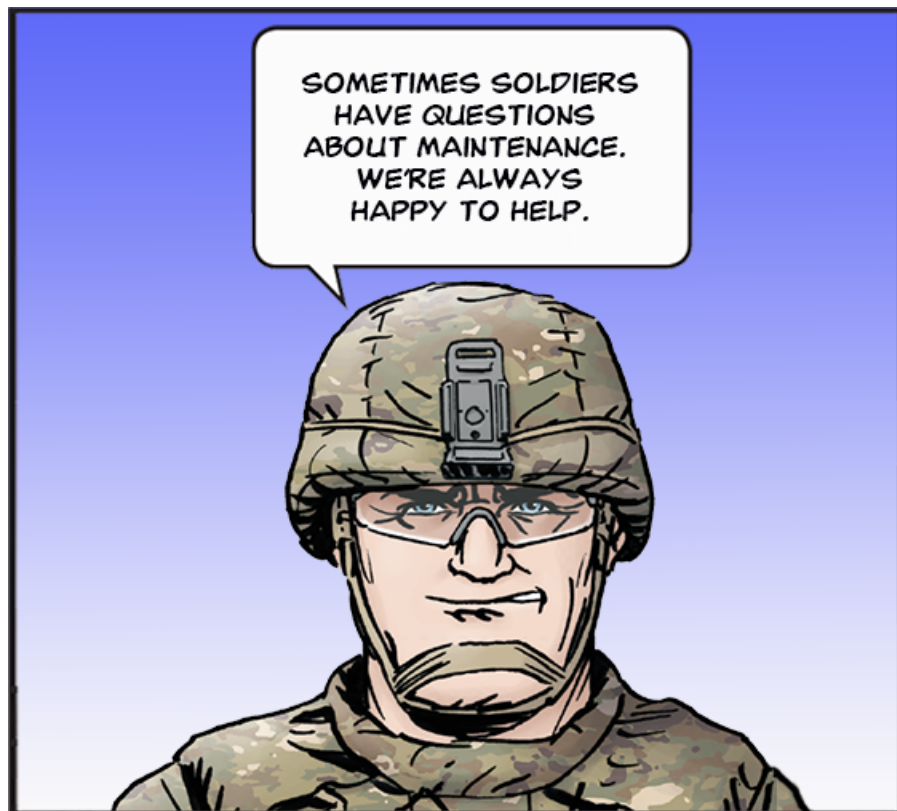
*Note: *Knowledge* magazine is now known as *Risk Management* magazine



PS Magazine: Breakdown of Reader Inquiries in 2022

/ Published March 15, 2023

BLUF: PS Magazine's Reader Service is here to help readers find answers and share their ideas.



Half-Mast

PS Magazine's Reader Service has been around since our creation in 1951. In fact, MSG Half-Mast was answering Soldier's questions even before *PS*. He actually started back in 1944 as part of *Army Motors*.

Through our Reader Service, we have the opportunity to help readers answer difficult questions, as well as offer possible solutions that can benefit the entire force. During

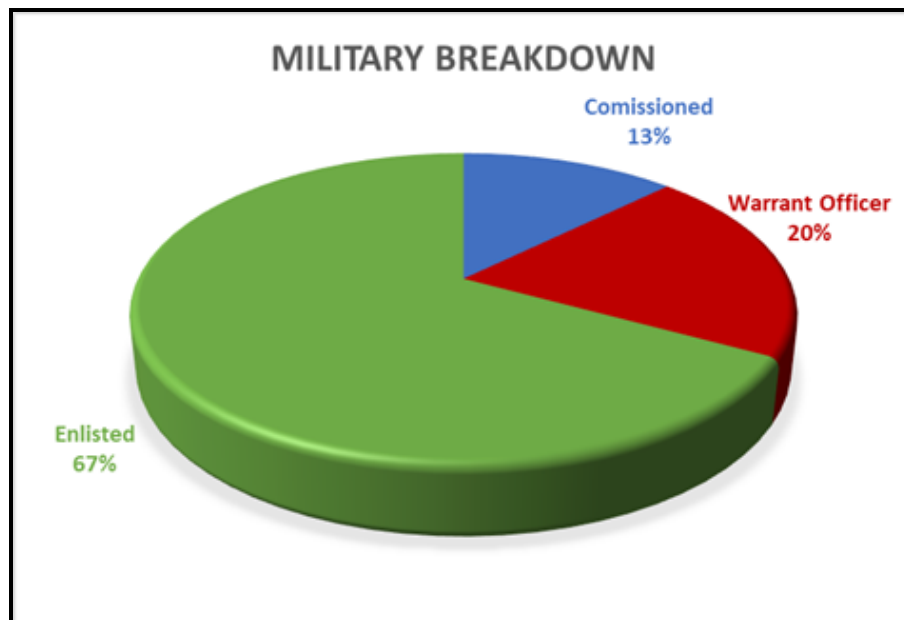
2022, *PS Magazine* received 729 questions and ideas on topics ranging from aircraft to small arms.

The inquiries were not limited to one specific demographic group. Soldiers submitted 412 and civilians emailed us 317.



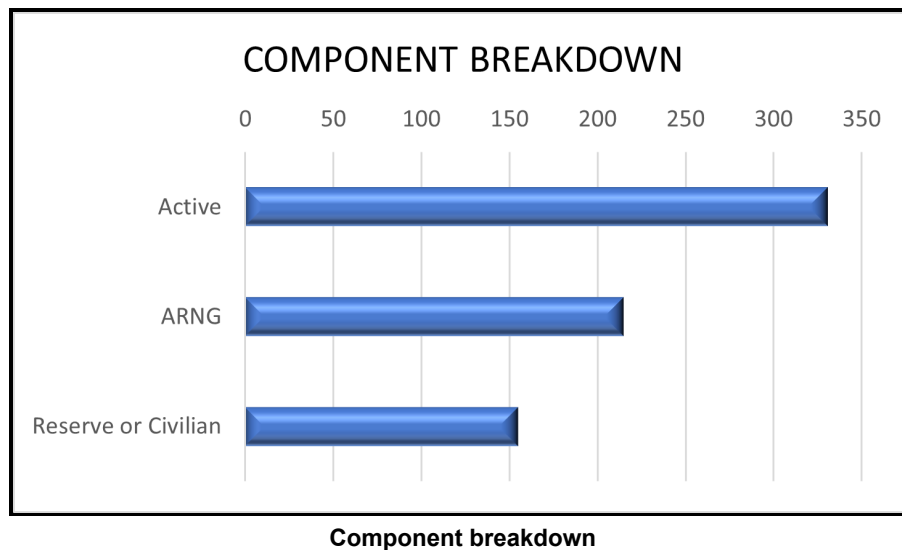
Military and civilian 2022 inquiry percentages

To break that down a little further, commissioned officers submitted 52, warrant officers 84 and enlisted Soldiers 276.



Military Breakdown

The 729 questions came from locations all around the globe and all from components. Active duty personnel led the way with 331 submissions, followed by the Army National Guard at 215 and 155 from Army Reserve Soldiers or civilian technicians.



If you were one of the inquirers or idea submitters in 2022 reflected in these numbers, **THANK YOU** for allowing us to serve you.

Whether it's answering your questions or getting your ideas reviewed and approved by the relevant life cycle management command, we make responding to reader inquiries a priority. In fact, we do our best to answer inquiries within 14 business days or less but since almost every inquiry—question or idea—must be sent to the appropriate subject-matter expert for input, it can take longer. However, we'll keep you posted when that happens.

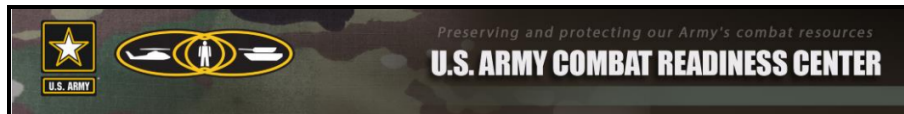
For a bit more information on submitting questions or ideas, click [HERE](#).



Safety: USACRC Launches New Courses

/ Published March 21, 2023

BLUF: USACRC safety courses are being streamlined to help with training requirements.



Courtesy photo

As of 1 Apr 23, there will be three (3) new safety courses offered by the US Army Combat Readiness Center (USACRC). These three (3) courses take the best content from several existing courses and combine them into a more streamlined product for Soldiers and civilians.

To get the full story, have your CAC ready and visit the USACRC website [HERE](#).

Get more safety tips on the [USACRC site](#).



Half-Mast Sends: Heed PMCS Cautions and Warnings

/ Published March 30, 2023

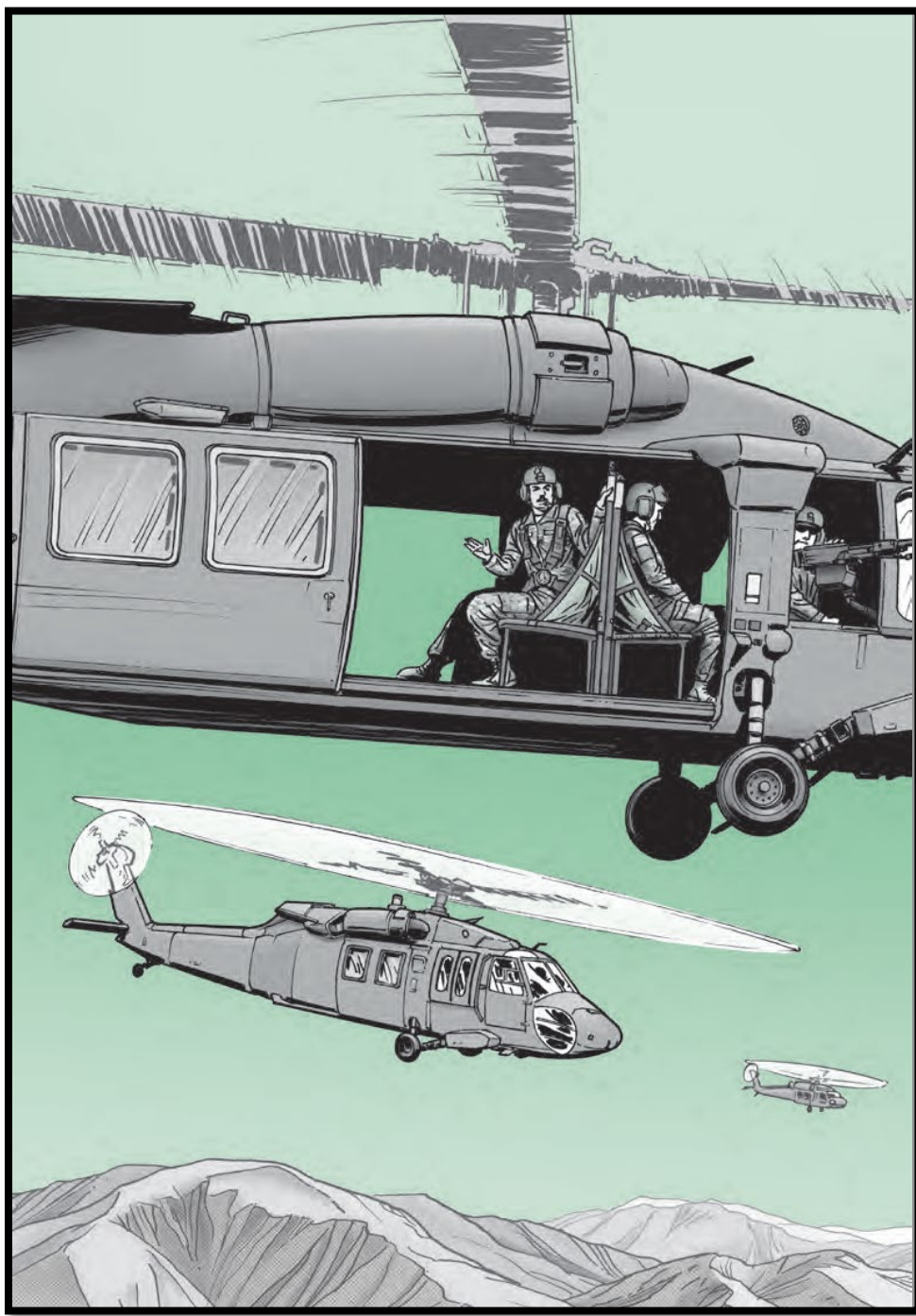
BLUF: Missing or skipping crucial PMCS steps can lead to disaster.



Years ago, when we created the graphic above, it was part funny, part serious. As MAJ Tolska points out in an article called “WARNING: Wheels Might Fall Off” appearing in *Risk Management Magazine* (Jan 23), the serious part is majorly serious (pun intended!)

This real-life example reminds us of the *why* behind PMCS, and the possible consequences when cautions, warnings or safety of use messages are missed or ignored. Read the major’s article [HERE](#).

Aviation





Chinook: Prevent Transmission Corrosion

/ Published March 2, 2023

BLUF: Prevent Chinook transmission corrosion during shipping by using the procedures in the IETM, TM 1-1520-271-23&P (15 Feb 23).



Photo by [Charles Rosemond](#)

This article initially appeared in PS 773 (Apr 17), pp. 18-19.

Mechanics, when removing a Chinook transmission for shipment or storage, corrosion prevention is a must. Static corrosion is happening between the time a transmission is placed in a shipping or storage container and when the container is opened at the depot for overhaul.

The corrosion problem has been found in these transmissions:

Item	NSN 1615-01-
Aft transmission	315-4071

Combining transmission	464-3974
Engine transmission	464-7113*
Forward transmission	317-6446

To correct the problem, follow the corrosion procedures in the latest update to IETM, TM 1-1520-271-23&P (15 Feb 23).

Follow these steps before shipping a transmission:

1. Check all transmission surfaces for corrosion, cracks, chipped paint and bare surfaces.
2. Spray corrosion preventive compound (CPC) onto corroded surfaces, areas of chipped paint, exposed metal and into visible cracks.
3. Put the transmission into its shipping and storage container.

Make a note that the CPC in the expendable materials section of the TM is an improved formula. Check out the chart below:

TM 1-1520-271-23&P, CH-47F			
Item	Old NSN/PN	New NSN/PN	Qty
E156	8030-01-347-0979 (MIL-DTL-85054C)	8030-01-347-0980 (MIL-DTL-85054)	11-oz Can
E157	8030-01-347-0980 (MIL-DTL-85054C)	8030-01-347-0981 (MIL-DTL-85054)	1 quart

When spraying CPC, be aware of the product warnings and cautions and always make sure you wear the proper safety and breathing equipment.

WARNING

Aerosol, MIL-DTL-85054, is flammable and toxic. In can irritate skin and cause burns. Use only in a well-ventilated area, away from heat and open flame.

In case of contact, immediately flush affected skin and eyes with water for at least 15 minutes. Get medical attention for eyes. Ensure you read and understand the safety and data sheet (SDS).

CAUTION

Aerosol, MIL-DTL-85054, is not compatible with corban-35! Mixing will compromise the corrosion protection required.

Editor's Notes:

* This NSN has been updated from the original article.

Other minor changes have been made to reflect the fact that information contained in a maintenance action message has now been incorporated into the TM. Also, references to the CH-47D have been removed.



General Aviation: Lock-out/Tag-out and Confined Space Resources

/ Published March 2, 2023

BLUF: The USACRC website details available lock-out/tag-out and confined space resources, to include training.



Photo by Sgt. Adeline Witherspoon

Dear Sergeant Blade,

Can you help us find information on lock-out/tag-out and confined space training?

Chief E.H.

Dear Chief,

Sure can. Visit these USACRC links for more information:

- For lock-out/tag-out, click [HERE](#).
- For confined space, click [HERE](#).

Each page offers listings of relevant regs, compliance guides and training opportunities and resources.

SFC "Rotor Blade"



AGSE: SATS Tire Chains NSN

/ Published March 9, 2023

BLUF: Order tire chains for the standard aircraft towing system (SATS) with NSN 2540-00-528-7360.



Photo by Staff Sgt. Sharon Matthias

Mechanics, if you need tire chains for the standard aircraft towing system (SATS) wheels, use NSN 2540-00-528-7360 to get them.

The SATS TM doesn't list tire chains in the BII or reference tire chains, but you can order them through FED LOG.



Apache D/E: Gun Barrel Cleaning Done Right

/ Published March 15, 2023

BLUF: The best way to clean the Apache's M230 gun is to remove the barrel first before cleaning.



Photo by 1st Lt. Aaron DeCapua

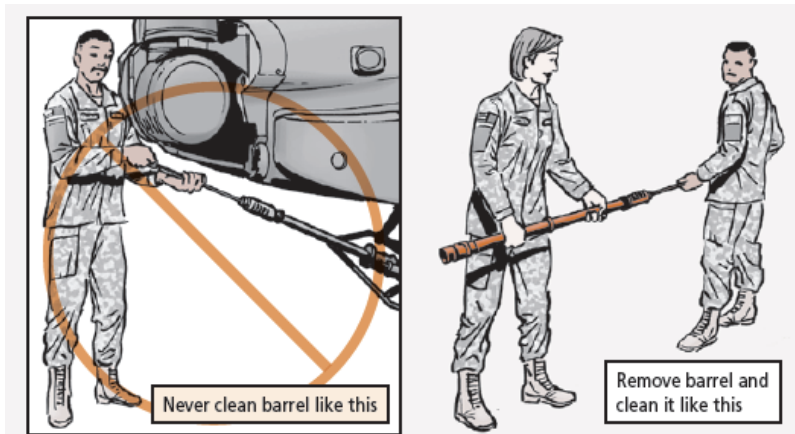
This article initially appeared in PS 738 (May 14), p. 26.

The AH-64's M230 gun won't be shooting straight if you're not straight on cleaning the gun barrel. So pay attention to the cleaning procedures in TM 1-1520-LONGBOW/APACHE EM 0126 (Aug 22).

During the 14-day barrel inspection, the barrel should be removed and cleaned using CLP, NSN 9150-01-053-6688, and a small-bore cleaning brush, NSN 1005-01-220-8635.

Now, you may think you can save yourself some cleaning time by not removing

the barrel but think again. If you go ahead and shove the bore brush into the barrel and then pull it out, all you've done is push dirt, grime, and gunk from inside the barrel further into the receiver of the gun itself, which increases the possibility of a weapon malfunction such as a misfire or jam.



Never clean the barrel while still attached to the aircraft: always remove it first

So don't get sloppy with maintenance. Never shove that bore brush into the barrel while it's attached to the gun. Remove it first.



Apache: Keep Rocket Launcher Firing Contacts Clean

/ Published March 16, 2023

BLUF: If the Apache M231 rocket launcher doesn't register when rockets are loaded, then check the contacts first before troubleshooting further.



Photo by [Markus Rauchenberger](#)

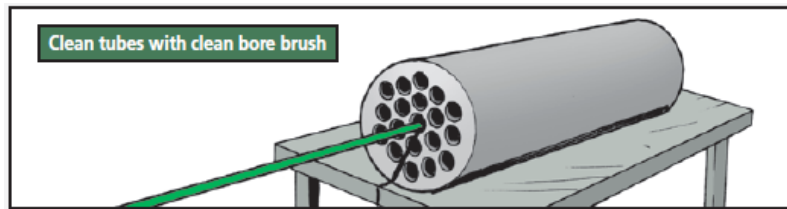
This article initially appeared in PS 745 (Dec 14), pp. 25-26 with the title "Rocket Launcher Needs Help"

Repairers, when you load rockets into your AH-64's M261 rocket launcher, you know something isn't right if the rockets don't register.

The first suspect is the launcher's contacts. Before you go on a major troubleshooting expedition, first try using a stainless-steel brush to clean the firing contacts in the tubes where the rockets won't register. If the contacts are dirty, the rockets don't have a good electrical connection. That prevents the launcher from knowing the rocket is loaded.

Sometimes when you clean the launcher tubes with CLP, too much gets applied to the bore brush. If that happens, and the excess CLP isn't removed or dried up, the fired rocket motors burn the CLP and leave behind a coating on the contacts. When you load the next rockets, they won't register on the cockpit display panel.

As always, make sure you use a clean bore brush when cleaning the rocket tubes. Don't use one coated with dirt and carbon. A dirty brush just spreads that stuff around inside the tube. If your brush is dirty, clean it with soap and water and allow it to dry completely before using it again. That way you don't introduce moisture into the tubes.



Clean tubes with clean bore brush

Another maintenance tip is to leave the igniter arm up for flights when no rockets are loaded. Doing this protects the contacts from the environment.



AGSE: ALUMMC Battery NSN

/ Published March 16, 2023

BLUF: Order the battery for the aviation light utility mobile maintenance cart (ALUMMC) with NSN 6140-01-523-6288.



Photo by Spc. Scott Lindblom

Mechanics, if you're having trouble locating the NSN for the aviation light utility mobile maintenance cart (ALUMMC) battery listed as Item 7 in Fig 19 of TM 1-1740-213-13&P (Feb 16), make a note that the TM doesn't list an NSN.

You can order the battery from the supply system with NSN 6140-01-523-6288, PN 8071-167.



ALUMMC battery

AGSE will submit a DA Form 2028 to add the battery NSN to the next update of the -13&P TM.



Chinook: Protect Cockpit from Elements

/ Published March 20, 2023

BLUF: Keep cockpit windows closed to prevent rain from causing damage to electrical panels.

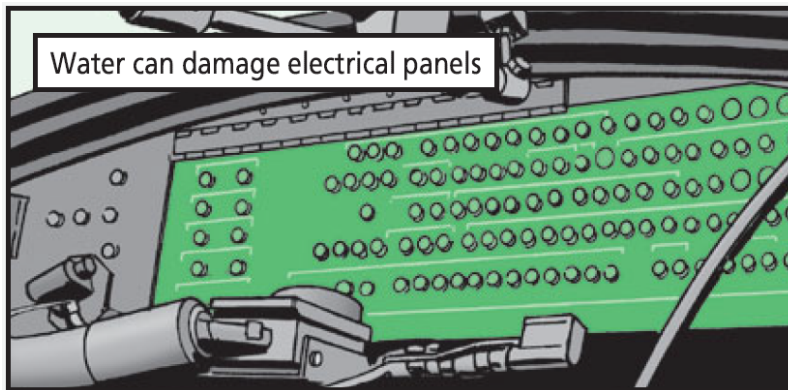


Photo by [Sgt. Jessica DuVernay](#)

Mechanics, as long as you batten down the cockpit hatches, your Chinook is well protected from the weather.

The weather we're talking about is rain. Your Chinook cockpit contains electrical equipment, including multi-functional displays. You should never leave the cockpit window open because a sudden rain shower and electricity don't mix.

The right (pilot) and left (co-pilot) cockpit circuit breaker panels, generally referred to as the AC and DC electrical panels, sit next to the windows. If rain contacts the circuit breakers, you could be looking at fried breakers and wiring damage.



Water can damage electrical panels

If the cockpit windows are accidentally left open during a shower, let the breakers dry before you start your aircraft. Then if you turn on the aircraft and circuit breakers pop or nothing works, it's time to call your electrician.

CBRN





M26 Decon: Diesel Engine Throttle Cable NSN

/ Published March 9, 2023

BLUF: Replace the M26 Decon throttle cable using NSN 2590-01-623-6988.



Photo by [Staff Sgt. Regina Machine](#)

Dear Half-Mast,

My unit has an M26 Decon with a crushed throttle cable housing. The TM reference, Item 105 in Fig 9 on Page 0075-24 of TM 3-4230-238-23&P (Dec 12), is only showing the *shaft, drive flexible*. This is the inner part and I need the outer part.

Can you help?

R.W.

Dear Sir,

TACOM's M26 equipment specialist compared TM 3-4230-238-23&P (Dec 12) with

the draft TM currently being worked. The updated TM will show the whole assembly as the *push-pull control assembly* You'll need to order the whole assembly in order to replace the throttle cable. Use NSN 2590-01-623-6988.

Half-Mast



CBRN: Get the New NRC Form 3

/ Published March 16, 2023

BLUF: Make sure the latest NRC Form 3 is in your unit's CBRN room.



Photo by [Antonio Bedin](#)

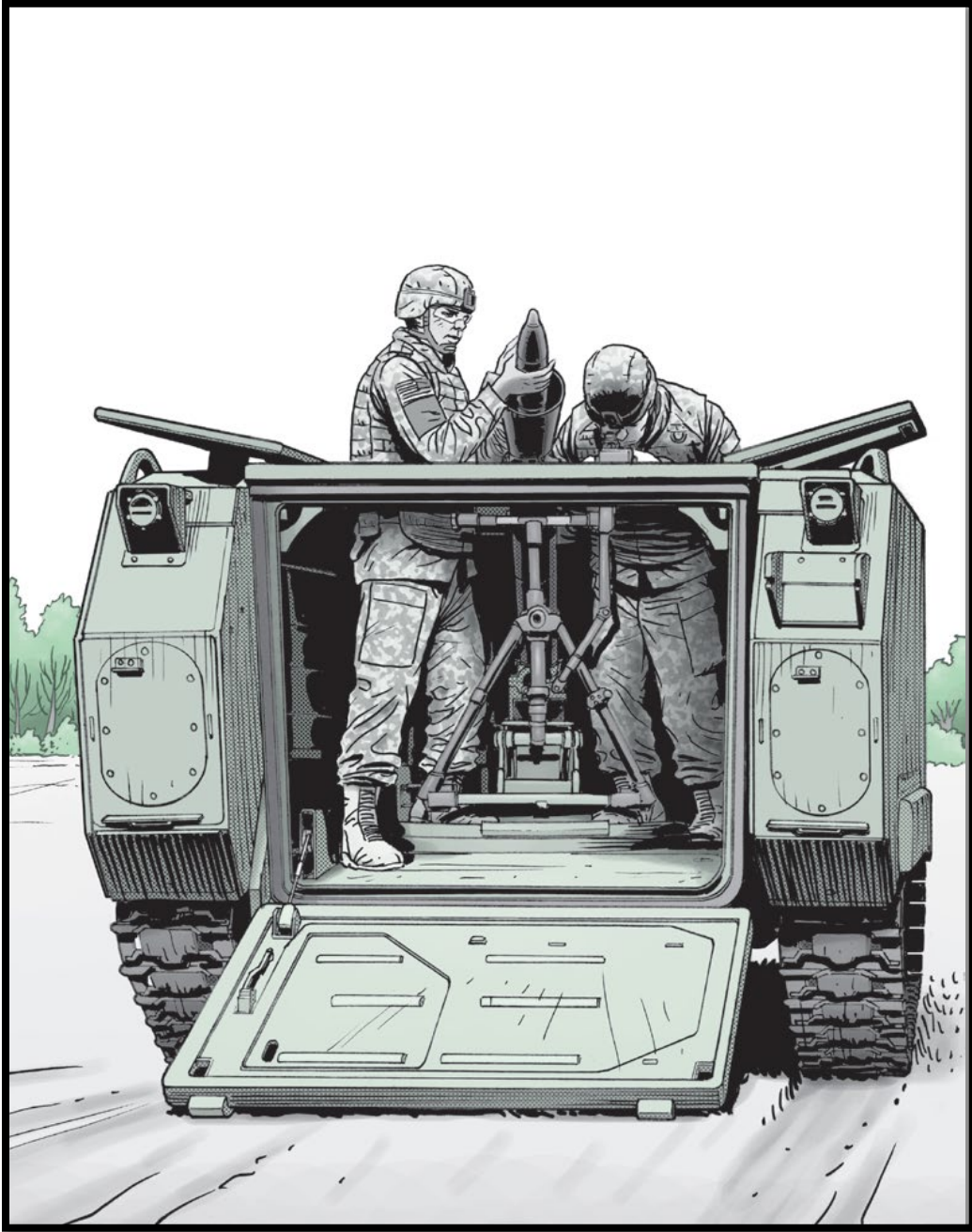
Dear Editor,

I'm a member of the I CORPS G4 Command Maintenance Evaluation and Training (COMET) team. While updating the CBRN checklist, I discovered the Nuclear Regulatory Commission (NRC) has updated its Form 3 (Nov 22).

Can you let the units know about the updated NRC Form 3? It's important because if a unit CBRN room has any equipment containing radioactive sources, then an NRC Form 3 must be posted in a clearly visible area to warn others of the radioactive materials present.

Units can get a copy [HERE](#) or download a copy by clicking on the image below.

Combat Vehicles





M1070A1 HET: Steering Gear NSN

/ Published March 6, 2023

BLUF: Get a new steering gear for the M1070A1 heavy equipment transporter (HET) with NSN 2530-01-593-9062



Photo by Staff Sgt. Victor Joecks

Get a new steering gear for the M1070A1 heavy equipment transporter (HET) with NSN 2530-01-593-9062. It replaces the current steering gear, NSN 2530-01-581-0438.

You'll notice that the new gear doesn't come with an additional tube attached like the old gear did. Once the old steering gear is disconnected from the truck, the tube should stay in place, so a replacement tube isn't needed.

Make a note of the new NSN for Item 1 in Fig 174 of TM 9-2320-427-13&P (IETM EM 0310, Jan 11).



Ground Vehicles: Remove Battery Corrosion

/ Published March 9, 2023

BLUF: When cleaning and removing corrosion from automotive lead-acid storage batteries, follow the guidance in WP 0027 of TM 9-6140-200-13 (May 11).



Photo by Spc. Ryan Scribner

Soldiers, we're getting closer to springtime and warmer weather. That means it's a good time to inspect the lead-acid batteries in your vehicles and remove any signs of corrosion.

How can you tell if there's corrosion? Look for the presence of white or greenish white powdery or gummy residue. It's usually built up on the exposed surfaces like the battery posts or cable ends. You might see a dry film or a wet glob of residue.

When cleaning and removing corrosion on batteries, make sure you follow WP 0027 of TM 9-6140-200-13, *Operator and Field Maintenance for Automotive Lead-Acid Storage Batteries* (May 11). Also refer to TB 43-0213 (Mar 19) and your vehicle's

operator and field maintenance TMs.

Pay close attention to all warnings and be sure to use rubber gloves and protective eyewear when you're cleaning batteries and removing corrosion.



Photo by Senior Airman Jeffrey Parkinson

The main areas to inspect are:

- **Cable ends.** Check for worn insulation, breaks and buckling. Replace all unserviceable parts and clean as required.
- **Battery terminal posts.** Clean as required. After cleaning, make sure that the cable terminals fit properly on the cleaned posts. Replace as needed.
- **Battery, battery box, hold downs, clamps, supports, fasteners and any adjacent equipment.** Clean, repair and replace them as required.



Ground Vehicles: Contact LARs for Maintenance Assistance

/ Published March 15, 2023

BLUF: Contact a LAR for maintenance and logistics assistance.



Photo courtesy of TACOM

Soldiers, did you know that TACOM has logistics assistance representatives (LARs) available to assist you with all matters related to TACOM-managed equipment? It doesn't matter if you're working on a truck, tank, howitzer or rifle. LARs can support maintenance teams and leaders with troubleshooting challenges.

You'll find LARs located at most major installations. What if a LAR isn't co-located with you? That's not an issue. They can usually travel and will assist your unit at no charge. Make sure to use your chain of command when requesting assistance because that will expedite your LAR's ability to provide support.

To find your commodity's AMC TACOM LAR, email a summary of your issue to:

Ask-TACOM-LAD@army.mil

Or contact the AMC TACOM Senior Command Representative (SCR) for your area. Use your CAC and download a current list of SCR regions and contacts by clicking on the following milSuite link:

[AMC TACOM - SCR by Location](#)



M1-Series Tanks: Keep Safety in Mind During Mine Clearing Operations

/ Published March 15, 2023

BLUF: Follow safety precautions during mine clearing operations to prevent personnel injuries and equipment damage.



Photo by Maj. Ellis Gales

Crewmen, your M1-series tank's mine clearing blade (MCB), NSN 2590-01-230-8862, is a powerful battlefield tool. But there are some things you need to pay attention to when using the blade to keep you and your fellow Soldiers safe from being injured and prevent damage to equipment:

- Read TM 9-2590-509-10 (Jan 22, w/Ch1, Oct 22), *Operator Manual for Mine Clearing Blade*, before starting any mine clearing operation.
- Conduct PMCS on all equipment prior to mine clearing operations.
- Do not start mine clearing operations within 32 feet of the edge of the minefield without both moldboards properly lowered. The plow should be

at the depth that was set prior to entering the mine field.

- Make sure the area in front of your tank is clear of personnel and equipment before starting mine clearing operations.
- When conducting mine clearing operations under battlefield conditions, make sure all crewmen remain inside the tank with all the hatches closed and rotate the main gun tube over the right #1 road wheel.
- Check the depth indicators regularly to ensure both plows are plowing correctly. If either moldboard is riding on the surface, this could result in uncleared mines that could be detonated by the tank running over them.
- Avoid plowing over ditches and depressions. The blades can skim over ditches and depressions leaving uncleared mines.
- Watch for broken, damaged or missing moldboards during operations. If any moldboard is broken, damaged or missing while plowing, immediately stop the mission.



M113-Series FOV: Regular Maintenance Reduces Fire Risk

/ Published March 15, 2023

BLUF: Regular engine compartment maintenance can reduce the risk of fires in M113-series personnel carriers.



Photo by Spc. Michael McDevitt

Maintainers, engine compartment fires are still happening far too often in M113-series vehicles. Many fires could be prevented just by doing regular preventive maintenance. Check out the tips below to decrease the risk of fires.

Engine Compartment Checks, Cleaning and Lubrication

- Check engine compartment gaskets, seals and covers for serviceability. Repair or replace damaged ones you find.
- Check for damaged, kinked or distorted hoses, tubes, or any line connecting assemblies for fuel, antifreeze or oil leaks.

- Replace damaged engine supply or return fuel hoses, tubes and fittings.
- Cover all air intakes in the engine compartment and openings on the engine prior to cleaning. Cover final drive couplings, filler caps and breather vents prior to high pressure cleaning. Failure to cover will lead to equipment damage.
- Remove and inspect exhaust insulators from the engine and check for oil and water saturation. Inspect the entire exhaust system for cracks, holes and serviceability.
- Inspect for missing or loose exhaust clamps and make sure exhaust clamps are properly installed.
- Clean the engine compartment and power plant, and remove all oil, dirt, mud and debris.
- Inspect all fixed fire extinguisher discharge tubes and caps in the engine compartment.
- Clean and inspect the radiator.

Note that the above items and more are in WP 0140 through WP 0145 of TM 9-2350-277-10 (Aug 22).

- Perform all the engine compartment lubrication procedures. The maintainer's lube order is found in WP 0934 of TM 9-2350-277-23&P (Aug 22) and the operator's lube order is found in WP 0146 of TM 9-2350-277-10 (Aug 22).

Thermostatic Fan Speed Switch (Original Configuration) or Variable Speed Fan Drive Override Switch (New Configuration)

- Inspect the variable speed fan drive (VSFD) thermostatic fan speed switch to make sure it's functional.
- Remove and then inspect the vaneaxial fan for signs of wear and missing or damaged rotors or stators.
- Visually inspect the right-angle drive for oil leaks around both the input and output shafts. If there's any oil leaking, replace the entire fan assembly.

Power Plant Tasks and Checks

- Inspect all electrical wires, leads and connectors for mildew, corrosion, burned and cracked or chaffed insulation.
- Check for loose connectors and pinched or loose wiring.

- Inspect and test the thermostat. Replace it if necessary.
- Inspect and adjust coolant pump belts.
- Inspect and adjust the ventilating fan and generator drive belts.

Check out TM 9-2350-277-23&P (Aug 22) for more information.



M88A1 Recovery Vehicle: Convert to Hatz APU

/ Published March 16, 2023

BLUF: Convert your M88A1 to the Hatz APU configuration with the conversion kit that comes with NSN 2520-01-604-1223.



Courtesy Photo

Dear Half-Mast,

Can you help me find the updated NSN for the M88A1 recovery vehicle's fuel pump? When I try to order the pump, NSN 2910-00-950-8384, it comes up as cancelled with no replacement.

D.G.

Dear D.G.,

Sure can! That fuel pump is for the ONAN auxiliary power unit (APU), which is now

obsolete. The ONAN APU, and many of its associated parts (including the fuel pump), are no longer supported.

Instead, convert your vehicle to the Hatz APU configuration with the conversion kit that comes with NSN 2520-01-604-1223. The kit includes everything needed to complete the conversion, including a Hatz APU, NSN 6115-01-465-8922, and installation instructions.

Half-Mast



Lead-Acid Batteries: WP Update for TM 9-6140-200-13

/ Published March 28, 2023

BLUF: WP 0020 of TM 9-6140-200-13 (May 11) has an update to key AR reference.



Photo by Capt. Scott Kuh

Heads up! There's an update to WP 0020 of TM 9-6140-200-13, *Operator and Field Maintenance for Automotive Lead-Acid Storage Batteries* (May 11). WP 0020 tells you to see Para 8-20 in AR 750-1 for current policy. However, the latest version of AR 750-1, *Army Materiel Maintenance Policy* (Feb 23), replaces Para 8-20 with Para 14-21.

Make a note that WP 0020 should now tell you to see **Para 14-21** in AR 750-1 for current policy.

TACOM will correct WP 0020 in a future TM update.



M88A2 Recovery Vehicles: Be Mindful of TM Typos

/ Published March 28, 2023

BLUF: There are some typographical errors in TM 9-2350-292-10 (May22) for the M88A2 recovery vehicle.

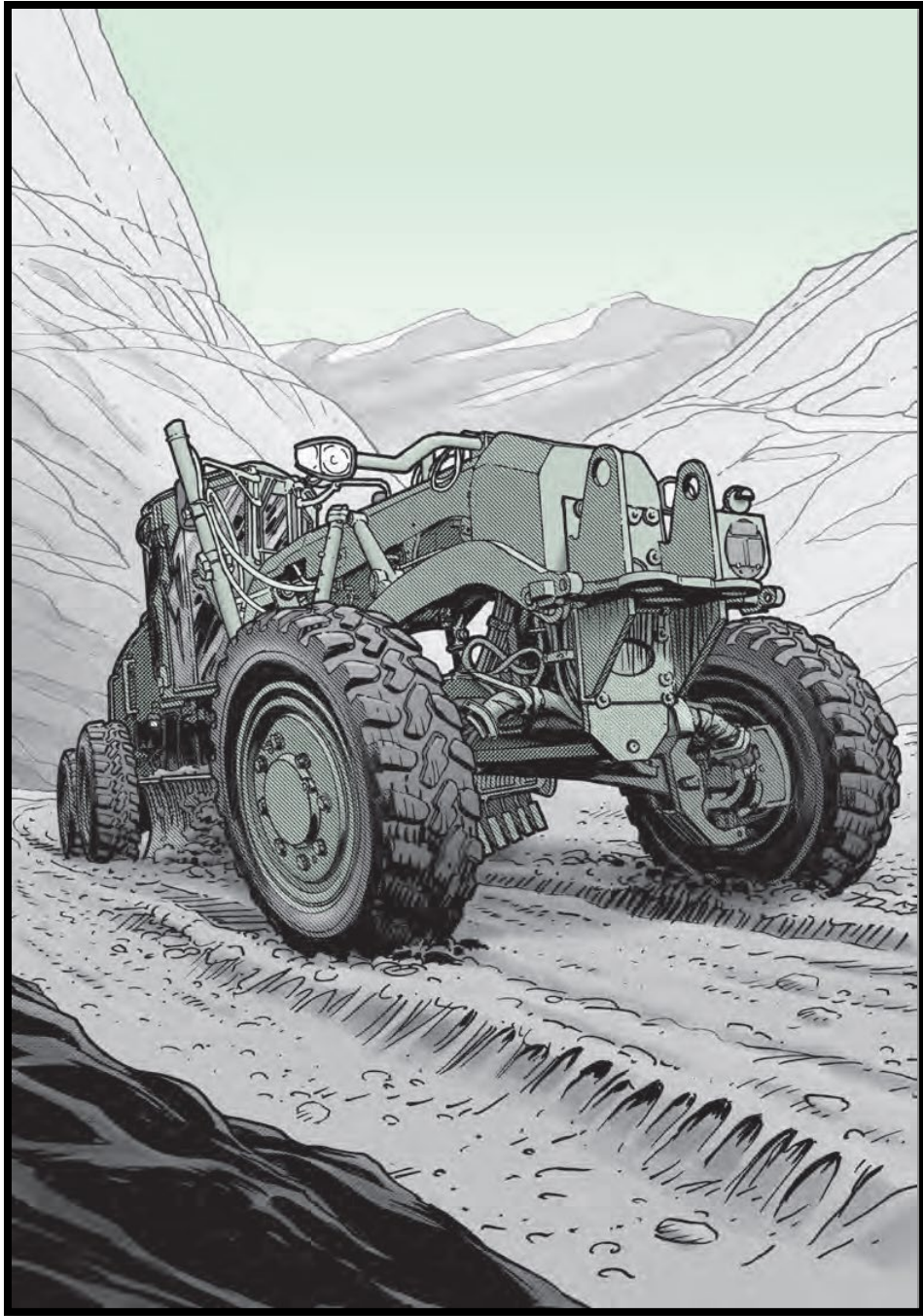


Photo by **Keith Hayes**

Mechanics and operators, be aware there are several typographical errors in TM 9-2350-292-10 (May 22) for the M88A2 recovery vehicle that could cause confusion. The errors are also in TM 9-2350-292-10HR (May 22). The next update to both TMs will correct these errors.

For info on the specific errors and what to do about them until the TMs are updated, check out TACOM Maintenance Action Message 23-014 [HERE](#).

Construction





HMEE-1: SINCGARS Mount?

/ Published March 9, 2023

BLUF: There is no SINCGARS radio kit authorized for the HMEE-1.



Photo by [Scott Sturkol](#)

A common question about the HMEE-1 is whether a SINCGARS radio can be mounted in it. A related question is whether a mounting kit is available.

No is the answer to both.

The HMEE-1 has wiring to power a SINCGARS radio, but a permanent mount was never added. Modifying a HMEE-1 and installing a permanent SINCGARS radio mount has **not** been approved.



Ground Vehicles: Remove Battery Corrosion

/ Published March 9, 2023

BLUF: When cleaning and removing corrosion from automotive lead-acid storage batteries, follow the guidance in WP 0027 of TM 9-6140-200-13 (May 11).



Photo by Spc. Ryan Scribner

Soldiers, we're getting closer to springtime and warmer weather. That means it's a good time to inspect the lead-acid batteries in your vehicles and remove any signs of corrosion.

How can you tell if there's corrosion? Look for the presence of white or greenish white powdery or gummy residue. It's usually built up on the exposed surfaces like the battery posts or cable ends. You might see a dry film or a wet glob of residue.

When cleaning and removing corrosion on batteries, make sure you follow WP 0027 of TM 9-6140-200-13, *Operator and Field Maintenance for Automotive Lead-Acid Storage Batteries* (May 11). Also refer to TB 43-0213 (Mar 19) and your vehicle's

operator and field maintenance TMs.

Pay close attention to all warnings and be sure to use rubber gloves and protective eyewear when you're cleaning batteries and removing corrosion.



Photo by Senior Airman Jeffrey Parkinson

The main areas to inspect are:

- **Cable ends.** Check for worn insulation, breaks and buckling. Replace all unserviceable parts and clean as required.
- **Battery terminal posts.** Clean as required. After cleaning, make sure that the cable terminals fit properly on the cleaned posts. Replace as needed.
- **Battery, battery box, hold downs, clamps, supports, fasteners and any adjacent equipment.** Clean, repair and replace them as required.



Ground Vehicles: Contact LARs for Maintenance Assistance

/ Published March 15, 2023

BLUF: Contact a LAR for maintenance and logistics assistance.



Photo courtesy of TACOM

Soldiers, did you know that TACOM has logistics assistance representatives (LARs) available to assist you with all matters related to TACOM-managed equipment? It doesn't matter if you're working on a truck, tank, howitzer or rifle. LARs can support maintenance teams and leaders with troubleshooting challenges.

You'll find LARs located at most major installations. What if a LAR isn't co-located with you? That's not an issue. They can usually travel and will assist your unit at no charge. Make sure to use your chain of command when requesting assistance because that will expedite your LAR's ability to provide support.

To find your commodity's AMC TACOM LAR, email a summary of your issue to:

Ask-TACOM-LAD@army.mil

Or contact the AMC TACOM Senior Command Representative (SCR) for your area. Use your CAC and download a current list of SCR regions and contacts by clicking on the following milSuite link:

[AMC TACOM - SCR by Location](#)



Lead-Acid Batteries: WP Update for TM 9-6140-200-13

/ Published March 28, 2023

BLUF: WP 0020 of TM 9-6140-200-13 (May 11) has an update to key AR reference.



Photo by [Capt. Scott Kuh](#)

Heads up! There's an update to WP 0020 of TM 9-6140-200-13, *Operator and Field Maintenance for Automotive Lead-Acid Storage Batteries* (May 11). WP 0020 tells you to see Para 8-20 in AR 750-1 for current policy. However, the latest version of AR 750-1, *Army Materiel Maintenance Policy* (Feb 23), replaces Para 8-20 with Para 14-21.

Make a note that WP 0020 should now tell you to see **Para 14-21** in AR 750-1 for current policy.

TACOM will correct WP 0020 in a future TM update.



HMEE-1: Egress Window WARNING Reminder

/ Published March 29, 2023

BLUF: Only hand-tighten egress knobs on the HMEE-1 and do not use solvent or petroleum-based products on ballistic glass.



Photo by Scott Sturkol

Motor sergeants, have your operators pay close attention to the HMEE-1's egress window WARNING and CAUTION shown with Item 3 in the PMCS information in WPs 0009-6 and -7 of TM 5-2540-236-13&P (Jul 16).

The warning says: *Only hand-tighten egress knobs. Overtightening knobs will prevent egress window from being opened. Failure to follow this warning may cause injury or death to personnel.*

The caution says: *Do not use solvent or petroleum-based products on ballistic glass. Failure to follow this caution will cause damage to ballistic glass.*

Additionally, it's important to open the windows periodically to ensure the egress knobs turn without difficulty and watch for and then mitigate corrosion.

A few years back a near-fatal accident occurred when a vehicle rolled over into a body of water. The operator quickly realized the cab's egress window turn knobs were corroded and hard to turn as he tried to escape. Turns out the windows were never opened. Over time, the window seals created a vacuum, preventing the windows from opening. With no time to spare, he had to kick the rear window out just to escape!

It's almost certain that the corrosion on the knobs would have been detected when inspecting the knobs to ensure they weren't over-tightened. That's why it's important to read and heed all WARNINGS and CAUTIONs in the TMs.

Commo/Electronics





TCN-L: Three New TMs Released

/ Published March 9, 2023

BLUF: Three (3) brand-new TMs for the Tactical Communications Node-Lite are now available.



Photo by [Staff Sgt. Taylor Scott Ellison](#)

A three (3)-volume set for the Tactical Communications Node-Lite (TCN-L), NSN 5895-01-657-3979, PN AN/MSC-85(V)1, has been released. The set includes:

- TM 11-5895-2037-13&P-1 (Feb 23)
- TM 11-5895-2037-13&P-2 (Feb 23)
- TM 11-5895-2037-13&P-3 (Feb 23)

These TMs are restricted, so you'll need your CAC to access them. Search for the TMs [HERE](#).

For a video overview of TCN-L by SGT Ryan Jenkins, go [HERE](#).



HMEE-1: SINCGARS Mount?

/ Published March 9, 2023

BLUF: There is no SINCGARS radio kit authorized for the HMEE-1.



Photo by [Scott Sturkol](#)

A common question about the HMEE-1 is whether a SINCGARS radio can be mounted in it. A related question is whether a mounting kit is available.

No is the answer to both.

The HMEE-1 has wiring to power a SINCGARS radio, but a permanent mount was never added. Modifying a HMEE-1 and installing a permanent SINCGARS radio mount has **not** been approved.



NOSC-L: Two New TMs Available

/ Published March 16, 2023

BLUF: Two new TMs for the NOSC-L are now available.

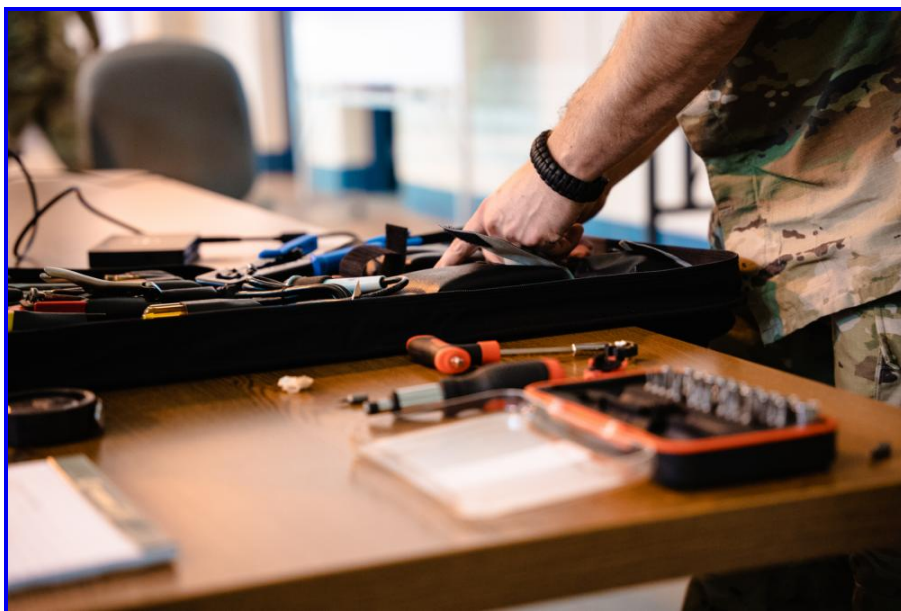


Photo by [Sgt. Thomas Lamb](#)

The following TMs for the AN/TSC-234(V1) network management system network operations and security center-lite (NOSC-L), NSN 5895-01-657-7337, have been released:

- TM 11-5895-2064-13&P-1 (Feb 23)
- TM 11-5895-2064-13&P-2 (Feb 23)

These new TMs are restricted so you'll need your CAC to access them. Search for the TMs [HERE](#).



CSS ISA VSAT: Antenna Retrofit Scheduled for FY23

/ Published March 28, 2023

BLUF: The CSS ISA VSAT/AN/TSC-245 (v)2 will be retrofitted and upgraded to CSS ISA VSAT/AN/TSC-245 (v)3 in 4QFY23.

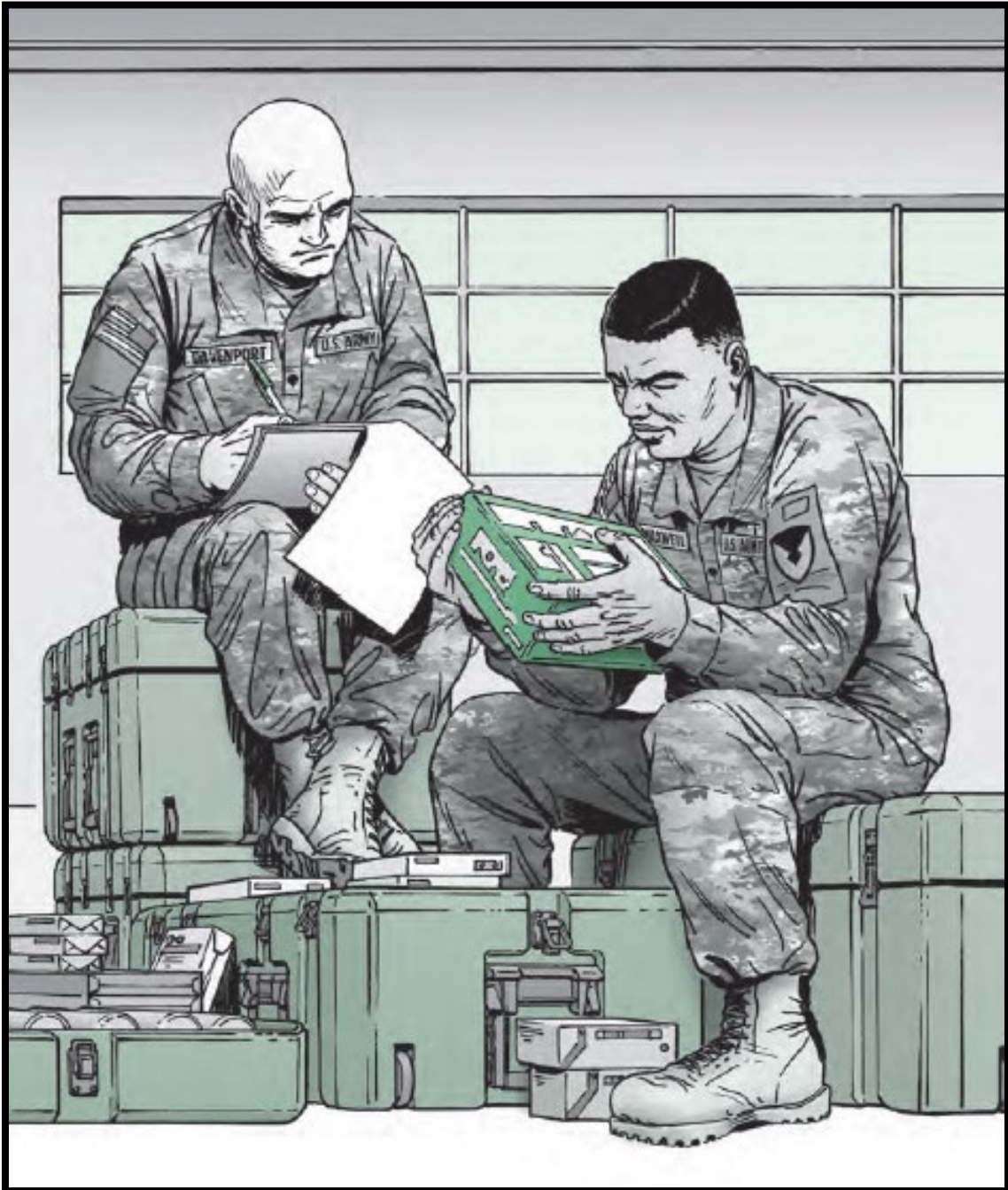


Photo courtesy of [8th Army](#)

The Combat Service Support (CSS) Inflatable Satellite Antenna (ISA) Very Small Aperture Terminal (VSAT) /AN/TSC-245 (v)2, LIN FA95CQ, NSN 5895-01-678-0179, will be retrofitted in FY23, changing the system nomenclature to STN ISA VSAT/AN/TSC-245 (v)3, LIN FA95CQ, NSN 5895-01-698-0981.

The change brings upgrades that are listed [HERE](#) in a related document (CAC required). Also included are POCs you can reach if you have questions.

Logistics Management





Half-Mast Sends: Lose the 'Rabbit Habit'

/ Published March 6, 2023

BLUF: Cutting corners may save time, but it can also result in consequences.



Photo by [Staff Sgt. David Beckstrom](#)

This article initially appeared in PS 736, p.1 (Mar 14).

Many of us know the old fable about the tortoise and the hare. There's a good lesson there.

While it's tempting to cut corners to save time, remember that rushing through PMCS, especially those oh-so-essential checklists, can result in ugly consequences.

It's not usually new Soldiers who are guilty of cutting corners. Most of them still go by the book because they haven't memorized it yet.

The worst danger is the kind that comes with complacency—like the long-time chief

mechanic who's memorized the ins-and-outs of PMCS and thinks the checklist in his head is good enough. We don't argue the expertise part. Chief probably does know his job inside-out, even upside down. But it only takes forgetting a critical step **once**.

The Army's *Knowledge** magazine is full of first person stories—hard lessons learned when overconfidence outweighed common sense for just a sec.

These true-life tales are sober reminders that, though a visual checklist may seem like a crutch to some of us, it sure beats the real kind of crutches. It also rings true that saving a stitch of time now isn't worth stitches later. So let's lose that 'rabbit habit.' Purposeful and steady wins the PMCS race.

*Note: *Knowledge* magazine is now known as *Risk Management* magazine



Log Management: DLA Battery Network Program

/ Published March 13, 2023

BLUF: DLA's BATTNET program will help your unit increase battery shelf life and reduce costs.

04:16

VIDEO | 04:16 | DLA Research &
Development: BATTNET
Energizing and Safeguarding the
Warfighter

The Defense Logistics Agency (DLA) procures \$200 million in batteries each year and is always looking for ways to improve battery support to warfighters. DLA Research and Development's Battery Network (BATTNET) Program leverages advanced manufacturing technologies through industry partnerships to increase the shelf life and safety of batteries as well as reduce premature disposals. Click [HERE](#) to read more about the program.



Log Management: DLA Technical Assistance

/ Published March 21, 2023

BLUF: DLA has several ways to assist you with DLA system access and technical issues.



Photo courtesy of DLA

Need help with Defense Logistics Agency (DLA) system access, resetting a password or the Account Management and Provisioning System (AMPS)?

Then call the DISA global help desk at DSN 850-0032 or toll free at (844) 347-2457 (844-DISA-HLP).

- When prompted, press 5 and say D-L-A.
- You can also enter the agency name from the phone by pressing 1 and then the agency abbreviation, which is 352.

Another option if you need assistance is the DLA service portal, which you can reach [HERE](#). You'll need either your CAC or your username and password.

Don't forget that you can also email non-urgent general IT issues to:

disa.global.servicedesk.mbx.dla-ticket-request@mail.mil



GCSS-Army: Introducing My Workplace UI5

/ Published March 28, 2023

BLUF: GCSS-A's *My Workplace* UI5 interface update increases efficiency and productivity for maintenance and supply users.

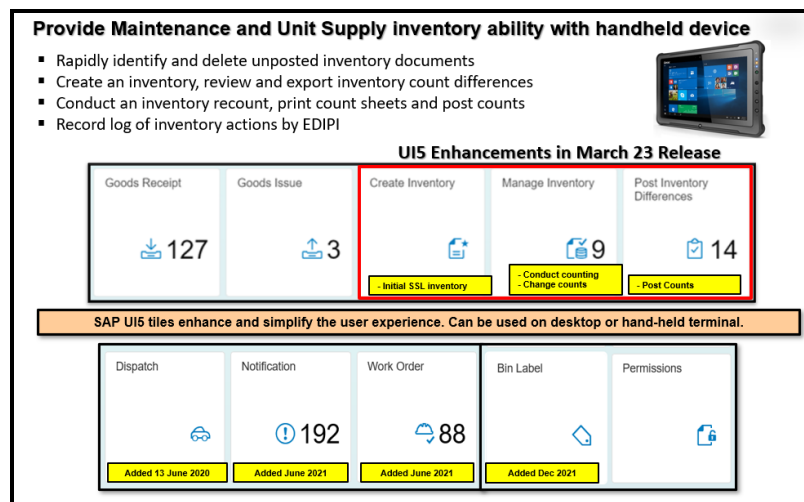


Image courtesy of CASCOT

A new update to GCSS-Army adds these functions to the *My Workplace* user interface (version 5 or UI5):

- Create inventory
- Manage inventory
- Post inventory differences

The updates, which include the entire physical inventory process for provisional materials, increase productivity by allowing users to conduct daily tasks with fewer errors.



New UI5 tiles

(right click on image and open in new tab or window to view larger)

Unlike the traditional transactions MI24 and MI31, which require several manual inputs in an assortment of fields, the UI5 interface provides user-friendly visual indicators called tiles. Tiles give the user a step-by-step process to follow to initiate the inventory by material requirements planning (MRP) type, material number, controlled item inventory code or recoverability code for the creation and counting process. Since the tiles are easier to understand, this approach can save time spent training users.

The interface:

- provides visual indicators when open inventories are approaching the end of the month.
- identifies materials that send workflow to the commander.
- applies red text whenever there's a negative loss.

And, just like other functions in the UI5 interface, managers can customize user access through transaction code ZAIT to personalize a user's daily duties. For example, a customization can assign tasks such as dispatching and processing turn-ins, creating notification work orders or performing goods receipts and issue.

UI5's new intuitive design and streamlined functionality improve the inventory process by saving time and increasing productivity for GCSS-A's maintenance and supply users.



Half-Mast Sends: Heed PMCS Cautions and Warnings

/ Published March 30, 2023

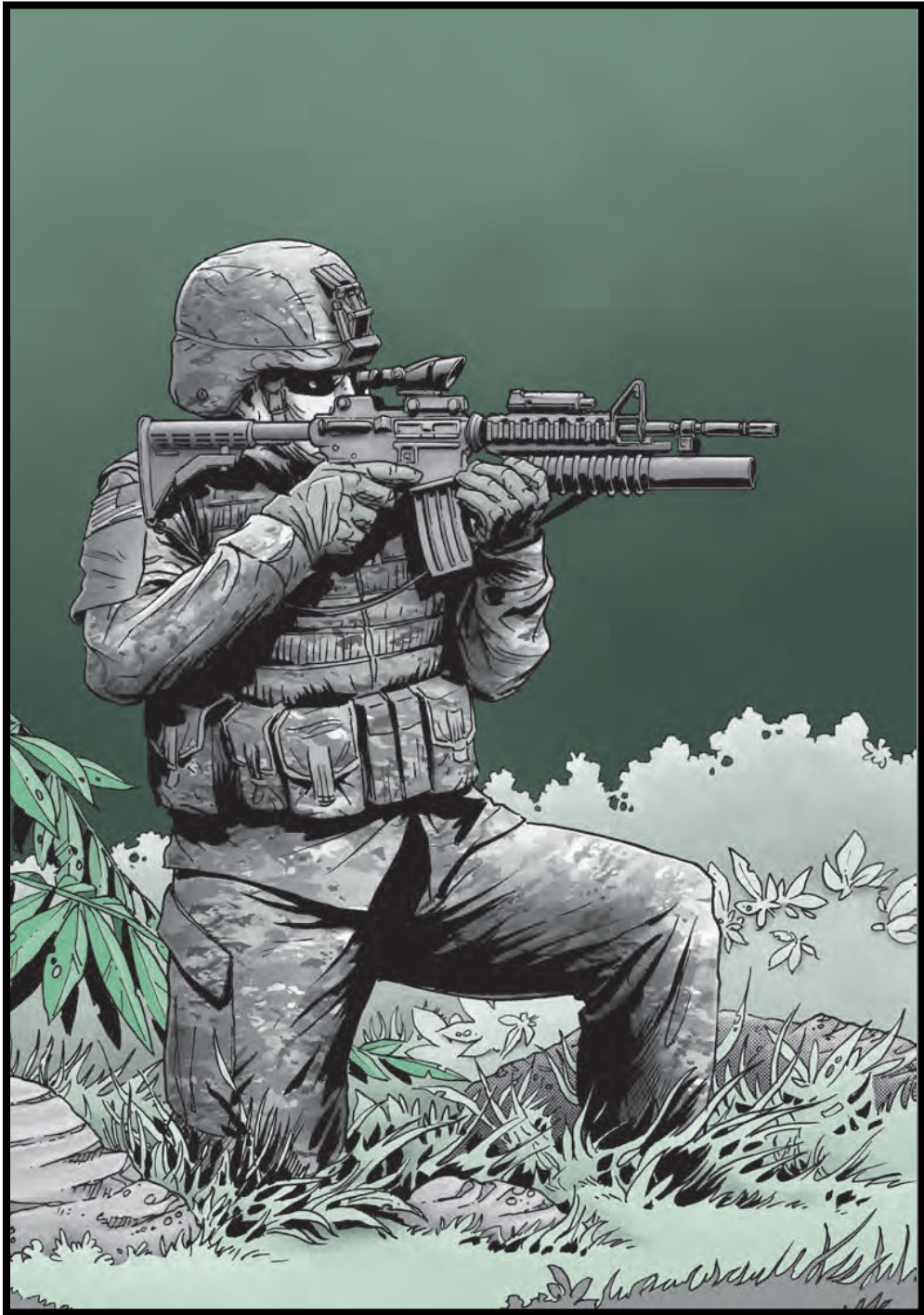
BLUF: Missing or skipping crucial PMCS steps can lead to disaster.



Years ago, when we created the graphic above, it was part funny, part serious. As MAJ Tolska points out in an article called “WARNING: Wheels Might Fall Off” appearing in *Risk Management Magazine* (Jan 23), the serious part is majorly serious (pun intended!)

This real-life example reminds us of the *why* behind PMCS, and the possible consequences when cautions, warnings or safety of use messages are missed or ignored. Read the major’s article [HERE](#).

Small Arms





M2A1 Machine Gun: Enhance Training with Visual User Guide

/ Published March 6, 2023

BLUF: Use the M2A1 machine gun Visual User Guide as a training tool.



Courtesy Photo

Units with the M2A1 machine gun can get more training help with the *M2A1 Visual User Guide*. The visual user guide (VUG) was distributed when the M2A1s were fielded but you can also download a copy below.

The guide is especially useful for units transitioning from the M2 to the M2A1 but can help all M2A1 gunners brush up on firing and caring for the weapon. It's an excellent tool to use before going to the range.

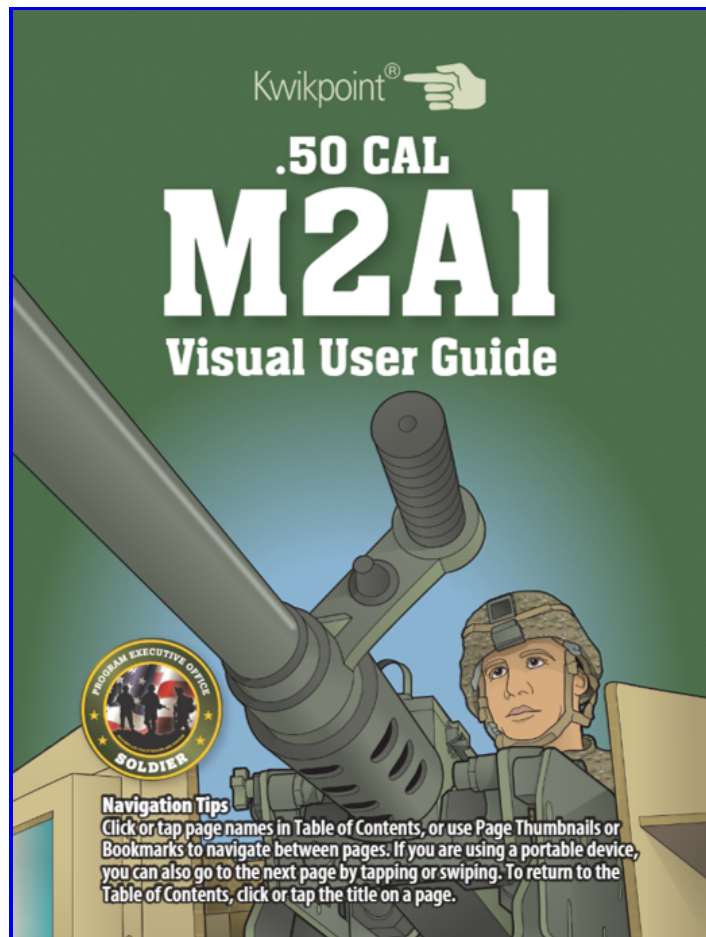
The visual guide covers:

- Differences between the M2 and M2A1.
- Barrel installation procedure.
- Visual checks.
- Final checks.
- Barrel removal.

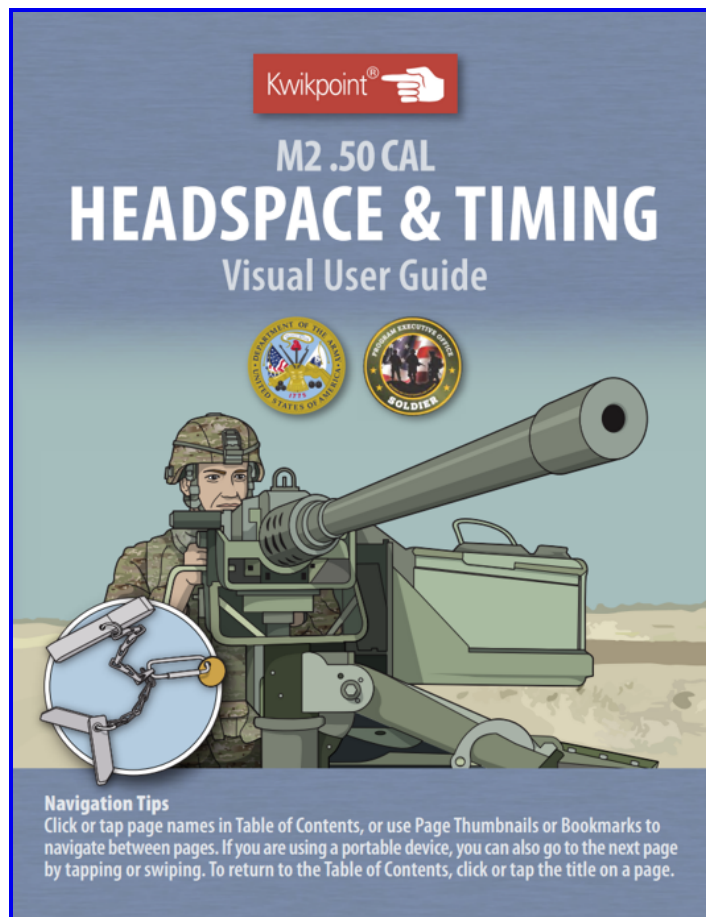
- M19 BFA prep.

If you're still using the old M2s, there's a visual guide available that takes Soldiers through the headspace and timing procedure.

Grab your CAC and download a copy of the guide you need.



M2A1 VUG link



M2 VUG link

If you have questions about the guides or need more, email Laura Battista at:

laura.l.battista.civ@army.mil



Small Arms: Firing Range NSNs

/ Published March 22, 2023

BLUF: Here are some NSNs you'll need when you operate the next range.



Photo by [Pfc. Devin Klecan](#)

This article initially appeared in PS 762 (May 16).

It can be frustrating to arrive at the firing range only to realize you're missing important items like targets. A few years back, Master Sergeant Ernie Hammons (Ret) from Camp Beauregard in Pineville, LA, shared this list of NSNs for everything you need at the range.

Leaders/OICs, keep a copy of this list. You'll need it eventually, gar-on-teed (as they say in Louisiana)!

Item	NSN
Case, weapons cleaning, with ALICE belt clip	1005-00-781-9564

Chemlights, green (for night firing)	6260-01-074-4229
Chemlights, red (for night firing)	6260-01-178-5559
Cleaners, pipe	9920-00-292-9946
Cleaning compound, rifle bore (RBC)	6850-00-224-6656
CLP, 1/2 oz bottle	9150-01-102-1473
CLP, 4 oz bottle	9150-01-079-6124
Combat lifesaver bag (complete)	6546-01-677-4906 *
Cooler, water (5 gal), orange	7330-01-449-2319 *
Cups, styrofoam 6 oz (1,000)	7350-00-721-9003
Earplug cases (20)	6515-01-100-1674
Earplugs, foam (200)	6515-00-137-6345
Fire extinguisher	4210-01-149-1356
First aid kit	6545-00-922-1200
Flag, red range	8345-00-025-3355
Flashlight filter, red	6230-00-504-8342
Flashlight filter, green	6230-00-504-8341
Glue, target adhesive	8040-00-275-8105
Green Condition Code tag	DD Form 1577-2
M16/M4 improved cleaning kit	1005-01-653-9567 *
M249 front sight tool	5120-13-112-9600
Magazine, M14	1005-00-628-9048
Magazine, M16 / M4 (30 round)	1005-01-630-9508 *
Magazine, M9	1005-01-204-4376

Magazine, M17/M18 (17 round)	1005-01-665-3062 *
Magazine, M17/M18 (21 round)	1005-01-665-4553 *
Nails, 10d (1-lb box)	5315-00-753-3883
Oil, LSA (2 oz bottle)	9150-00-935-6597
Oil, LSA (4 oz bottle)	9150-00-889-3522
Pasters, black (5,000)	6920-00-165-6354
Pasters, white (5,000)	6920-00-172-3572
Rags (50-lb bundle)	7920-00-205-1711
Rod, brass (for clearing M16, M4, M249)	3439-00-244-4541
Sandbags (100)	8105-00-285-4744
Self-sealing bags, clear (quart)	8105-00-837-7755
Silhouettes, plastic	6920-00-071-4780
Staple gun	5120-00-889-1796
Staples, 3/8 in	5315-00-889-2604
Stopwatch	6645-01-106-4302
Sunblock	6505-01-121-2336
Swabs (for M240B, M9, M2)	1005-00-288-3565
Swabs, M16 cleaning	1005-00-912-4248
Tape 100 mph, 1-in	7510-00-890-9872
Tape 100 mph, 2-in	7510-00-515-0319
Tape, engineer white	8315-01-463-5853
Targets, M16A1/A2 (25 meter)	6920-01-167-1398
Targets, M16A1/A2 (15 meter)	6920-01-167-1396

Targets, M16A2 / M4 zero (25 meter)	6920-01-482-0098 *
Targets, M16A2 zero (15 meter)	6920-01-167-1393
Targets, M16A2 zero (25 meter)	6920-01-253-4005
Targets, M9 pistol	6920-01-276-6604
Toothbrush	1005-00-494-6602
Trash bags, clear (10 gal)	8105-01-195-8730
Trash bags, clear (33 gal)	8105-01-183-9768
VS17 panel, marker for helicopter landing	8345-00-174-6865

Editor's Note: This article has been edited lightly to bring it current. NSNs with an asterisk (*) have been updated and obsolete equipment removed.

Soldier Support





Modern Burner Unit: Left in the Dust

/ Published March 20, 2023

BLUF: Follow guidance to keep MBU clean.



Photo by [Maj. Long Pham](#)

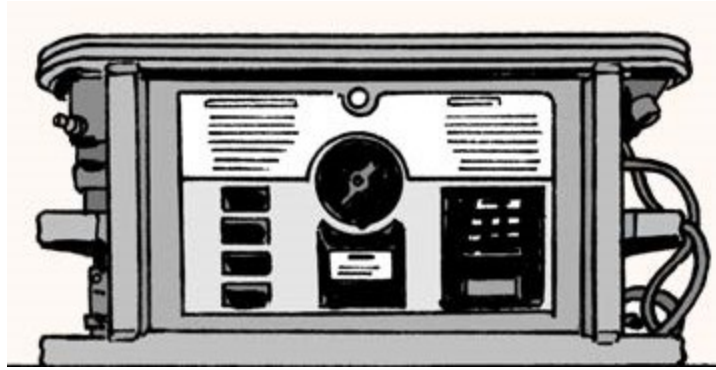
This article initially appeared in PS 736, pp. 48-49 (Apr 14).

Fine wind-blown dust is the curse of every Soldier serving in the field. Dust blankets equipment and settles into openings big and small.

Allowed to do its dirty work, dust will jam your weapon, choke your vehicle's air filter and overheat your ammo. So if dust gets into your modern burner unit (MBU), it could extinguish the flame and...that spells the end of hot chow.

For the sake of fine dining, take a stand against dust. Heed these tips for keeping your MBU clean...

- Place the MBU with the control panel facing into the wind. The panel helps to block wind-blown dust from getting inside.



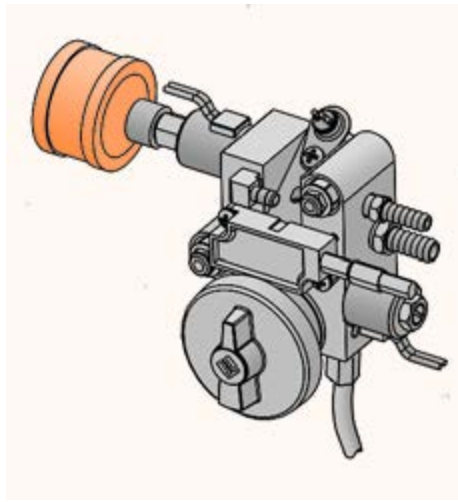
To block dust, face control panel into wind

- Make sure fuel cans are tightly capped. That keeps dust from contaminating the fuel.



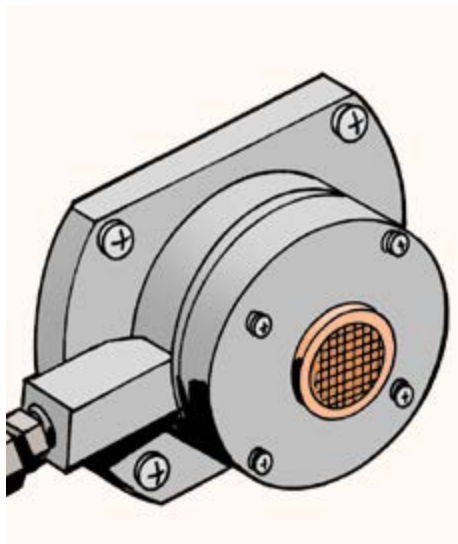
Tight fuel cans keep out dust

- After using the MBU, inspect the air filter, NSN 7310-01-462-4913, on the fuel delivery block. Replace the air filter if it's dirty. Keep spare filters on hand. Clean the fuel nozzle whenever you change the air filter.



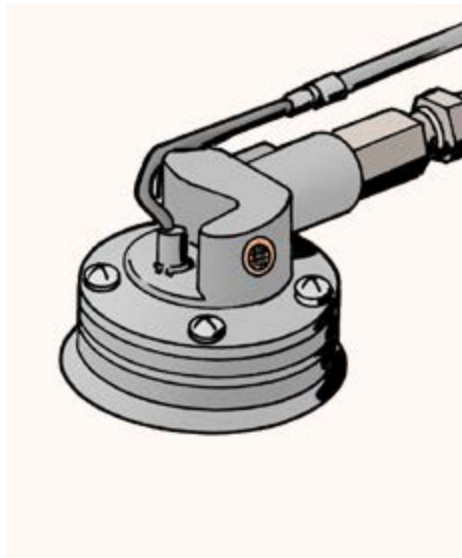
Keep spare filters on hand

- Keep the MBU under cover or indoors when not in use.
- Wipe down the MBU more often.



Clean air vents on fuel regulator...and vent valve

- Check the air vents on the fuel regulator and vent valve assembly. Make sure the vents are not clogged. Clean them if needed.



Check air vents for clogs

For more on cleaning and maintaining your MBU, read TM 10-7310-281-13&P (May 2010).



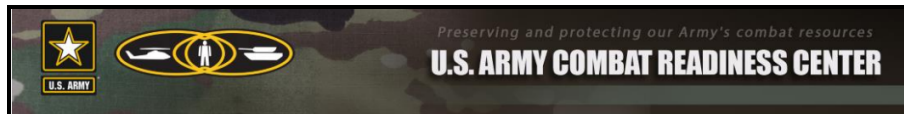
Read the MBU TM



Safety: USACRC Launches New Courses

/ Published March 21, 2023

BLUF: USACRC safety courses are being streamlined to help with training requirements.



Courtesy photo

As of 1 Apr 23, there will be three (3) new safety courses offered by the US Army Combat Readiness Center (USACRC). These three (3) courses take the best content from several existing courses and combine them into a more streamlined product for Soldiers and civilians.

To get the full story, have your CAC ready and visit the USACRC website [HERE](#).

Get more safety tips on the [USACRC site](#).



Publications: How to Find New and Revised TMs

/ Published March 23, 2023

BLUF: Find new and revised TMs on the Army Publishing Directorate website.



Photo by Kinsey Lindstrom

Dear Connie,

Is there a way I can find new TMs? By new, I mean brand-new TMs, as well as updates to existing TMs.

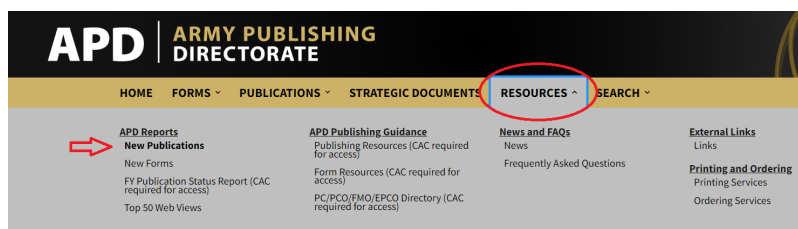
SGT M.E.

Dear Sergeant,

The Army Publishing Directorate (APD) has you covered. First, visit their website

[HERE](#).

Go to the Resources tab at the top of the page. Under APD Reports, click on New Publications.



Select New Publications under Resources tab
(to view larger, right click and select "open image in new tab")

The list that's generated may contain both new and revised, as well as rescinded publications. You'll see all newly released TMs and IETMs listed weekly. Be advised, some weeks may have no entries.

Looking for something older than this week's pubs? Click on Archived Weekly Releases under New Publication Releases and choose the date range you want to review.

Connie



Half-Mast Sends: Heed PMCS Cautions and Warnings

/ Published March 30, 2023

BLUF: Missing or skipping crucial PMCS steps can lead to disaster.



Years ago, when we created the graphic above, it was part funny, part serious. As MAJ Tolska points out in an article called “WARNING: Wheels Might Fall Off” appearing in *Risk Management Magazine* (Jan 23), the serious part is majorly serious (pun intended!)

This real-life example reminds us of the *why* behind PMCS, and the possible consequences when cautions, warnings or safety of use messages are missed or ignored. Read the major’s article [HERE](#).

Tactical Vehicles





M-ATV MRAP: Think Twice Before Scrapping Shocks

/ Published March 6, 2023

BLUF: Knowing the difference between leaking and misting shocks will save your unit a lot of money.



Photo by Cpl. Michael Curvin

Damaged or leaky shock absorbers on your M-ATV MRAP make the vehicle NMC; however, it's common to mistake “misting” for a leak.

Misting causes a thin film of oil on the outer surface of the shock. It isn't considered a leak—it's part of normal operations. PMCS Item 1 in WP 0060-12 of TM 9-2355-335-10 (Jan 22) clearly spells that out.



Oil film on shock absorber's normal

You can blow through a lot of money needlessly replacing shocks for a leak that isn't a leak. A front shock, NSN 2510-01-593-2843, costs just over \$4,100. A single rear shock, NSN 2510-01-610-9572, is just under \$4,400. Check carefully before deciding your vehicle needs new shocks.

If you're still unsure whether the shock is leaking, notify your mechanic. He'll check the nitrogen pressure using the shock absorber replacement (M16003) procedures in

TM 9-2355-335-23&P in IETM EM 0426 (Jan 22). If the nitrogen level is too low and the shock isn't performing well, he'll install a new one.

If your mechanic decides not to replace the shock, he'll need to record the current nitrogen pressure and then refill it to the required pressure listed in the IETM'S shock absorber replacement (M16003) guidance. At the next scheduled maintenance, he'll need to reevaluate the shock to determine if it needs replacing.



M149-Series Water Trailers: Water Tank Cleaning Tips

/ Published March 6, 2023

BLUF: Failure to always keep the water tank clean could result in serious injury or death to personnel.



Photo by Sgt. Christopher Sarratori

This article initially appeared in PS 726, p. 6-7 (May 13).

WARNING: If contents of water tank was other than potable water, the water tank must be flushed out with clean potable water and drained. Do not allow trailer to sit for extended periods of time with any amount of liquid in it. Standing water will result in contamination and food poisoning. **KEEP WATER TANK CLEAN AT ALL TIMES.** Failure to follow this warning may result in serious injury or death to personnel.

If you've read TM 9-2330-267-13&P (Dec 15*), you've probably seen this warning. It

lets you know it's not a good idea to wait until the last minute to clean your water trailer's tank. And it's not a good idea to leave water in the tank for months at a time!

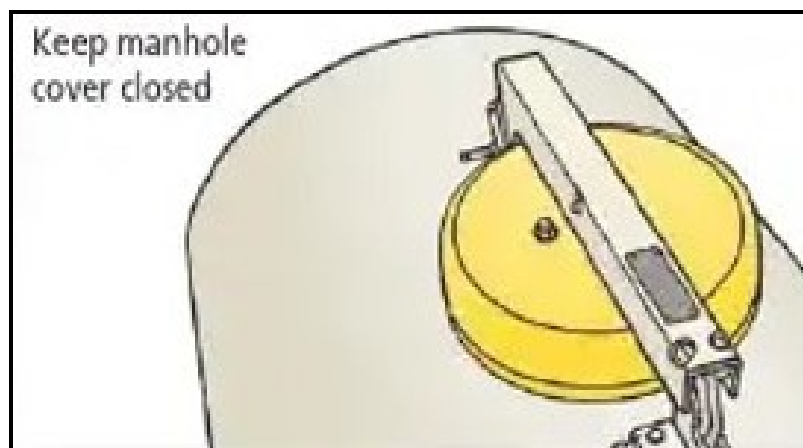
Cleaning the tank improves the taste of the water and keeps the tank safe to use. The TM says to clean the tank annually or when the medics tell you the tank is contaminated. But why wait? You have to drink the water too!

Here are some PM tips to keep you from drinking slimy, rusty or metallic-tasting water.



Trailer on incline enables water to drain through the drain plug completely.

- When you're done using the water trailer, empty the tank completely. Water left in the tank causes rust, mineral deposits and algae buildup. Put the trailer on an incline with the rear slightly lower than the front so that all water will drain through the drain plug. Then open the faucets to let out any water still in the pipes.

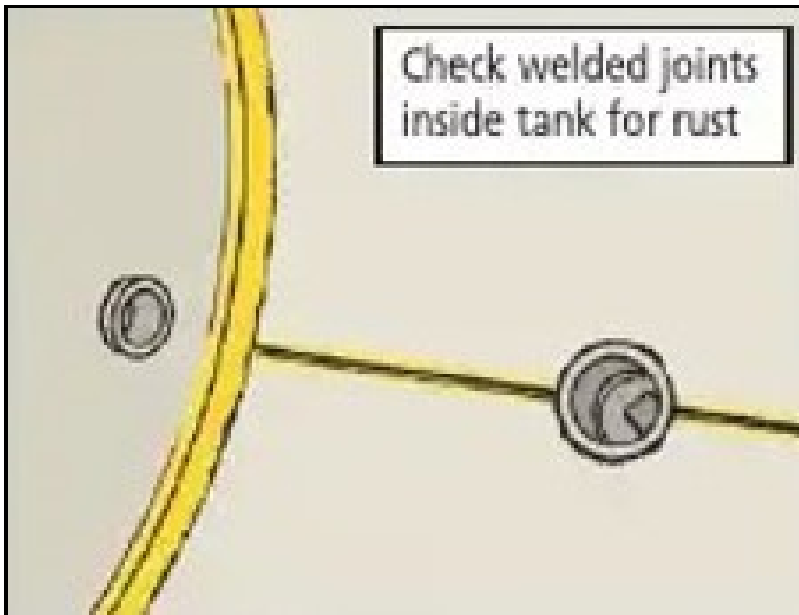


Closing manhole keeps out dirt, sand and rain.

- Close the manhole cover tightly when the water trailer is in storage. That keeps out dirt, sand and rain.
- To stop deposit buildup, every three (3) months pour in eight (8) gallons of vinegar, NSN 8950-01-079-3978, and leave it for 5-6 hours. Then empty the tank and flush it with clean water.
- Clean the tank more often during the summer since you'll be drinking more water then. Make sure you drain the tank completely between uses.

Rusty Stainless-Steel

If the water from a stainless-steel tank has a rusty, metallic taste, check the weld joints in the tank for rust.



Rust on welded joints can cause metallic taste of water in tank.

Scrub away rust with a solution of water and scouring powder, NSN 7930-01-294-1116. Always use a nonmetallic, nylon brush. You can get one with NSN 7920-00-061-0038.

Flush the tank thoroughly with clean water. Scrub it again if you still see rust. You're done when the rust is gone.

Look at TB MED 577 (May 10), *Sanitary Control and Surveillance of Field Water Supplies*, for more on cleaning.

* **Editor's Note:** The TM date of issue has been updated since this article initially appeared.



Ground Vehicles: Remove Battery Corrosion

/ Published March 9, 2023

BLUF: When cleaning and removing corrosion from automotive lead-acid storage batteries, follow the guidance in WP 0027 of TM 9-6140-200-13 (May 11).



Photo by Spc. Ryan Scribner

Soldiers, we're getting closer to springtime and warmer weather. That means it's a good time to inspect the lead-acid batteries in your vehicles and remove any signs of corrosion.

How can you tell if there's corrosion? Look for the presence of white or greenish white powdery or gummy residue. It's usually built up on the exposed surfaces like the battery posts or cable ends. You might see a dry film or a wet glob of residue.

When cleaning and removing corrosion on batteries, make sure you follow WP 0027 of TM 9-6140-200-13, *Operator and Field Maintenance for Automotive Lead-Acid Storage Batteries* (May 11). Also refer to TB 43-0213 (Mar 19) and your vehicle's

operator and field maintenance TMs.

Pay close attention to all warnings and be sure to use rubber gloves and protective eyewear when you're cleaning batteries and removing corrosion.



Photo by [Senior Airman Jeffrey Parkinson](#)

The main areas to inspect are:

- **Cable ends.** Check for worn insulation, breaks and buckling. Replace all unserviceable parts and clean as required.
- **Battery terminal posts.** Clean as required. After cleaning, make sure that the cable terminals fit properly on the cleaned posts. Replace as needed.
- **Battery, battery box, hold downs, clamps, supports, fasteners and any adjacent equipment.** Clean, repair and replace them as required.



Ground Vehicles: Contact LARs for Maintenance Assistance

/ Published March 15, 2023

BLUF: Contact a LAR for maintenance and logistics assistance.



Photo courtesy of TACOM

Soldiers, did you know that TACOM has logistics assistance representatives (LARs) available to assist you with all matters related to TACOM-managed equipment? It doesn't matter if you're working on a truck, tank, howitzer or rifle. LARs can support maintenance teams and leaders with troubleshooting challenges.

You'll find LARs located at most major installations. What if a LAR isn't co-located with you? That's not an issue. They can usually travel and will assist your unit at no charge. Make sure to use your chain of command when requesting assistance because that will expedite your LAR's ability to provide support.

To find your commodity's AMC TACOM LAR, email a summary of your issue to:

Ask-TACOM-LAD@army.mil

Or contact the AMC TACOM Senior Command Representative (SCR) for your area. Use your CAC and download a current list of SCR regions and contacts by clicking on the following milSuite link:

[AMC TACOM - SCR by Location](#)



Lead-Acid Batteries: WP Update for TM 9-6140-200-13

/ Published March 28, 2023

BLUF: WP 0020 of TM 9-6140-200-13 (May 11) has an update to key AR reference.



Photo by [Capt. Scott Kuh](#)

Heads up! There's an update to WP 0020 of TM 9-6140-200-13, *Operator and Field Maintenance for Automotive Lead-Acid Storage Batteries* (May 11). WP 0020 tells you to see Para 8-20 in AR 750-1 for current policy. However, the latest version of AR 750-1, *Army Materiel Maintenance Policy* (Feb 23), replaces Para 8-20 with Para 14-21.

Make a note that WP 0020 should now tell you to see **Para 14-21** in AR 750-1 for current policy.

TACOM will correct WP 0020 in a future TM update.



MRAP: Troubleshooting 10-Amp Fuse Could Solve Problems

/ Published March 29, 2023

BLUF: Check the 10-AMP fuse on your MRAP's C51 connector before attempting in-depth troubleshooting.



Photo by Cpl. Michael Curvin

Maintenance leaders, do you have an MRAP vehicle that won't crank and the transmission shift selector display is blank? To make matters worse, there aren't any fault codes on the maintenance support device (MSD)?



Driver side of M-ATV with open engine compartment

The problem just described could mean you've a blown 10-AMP fuse located on your MRAP's C51 connector along wire 336 in the engine compartment, near the firewall on the driver side of vehicle. If that fuse is blown, then it **won't** provide power.



10-AMP fuse on C51 connector in engine compartment

Currently, the troubleshooting steps in the MRAP TMs don't require you to check the 10-AMP fuse, which could cause you to replace the entire wiring harness, NSN 6150-01-576-4550. That costs about \$723 when you may only need to replace the 10-AMP fuse, NSN 5920-01-123-5211. You can get five (5) of the fuses for less than \$1.



10-AMP fuse on C51 connector with fuse cover removed

TACOM is updating the TM 9-2355-335-series to add a fuse check. Make a note until the TMs are released.

This info applies to all MRAP models, except the SOCOM M1245A1 M-ATV.

