

PS**THE
PREVENTIVE
MAINTENANCE
MONTHLY**

TB 43-PS-666, The Preventive Maintenance Monthly, is an official publication of the Department of the Army, providing information for all soldiers assigned to combat and combat support units and all soldiers with unit maintenance and supply duties. All information published has been reviewed and approved by the agency responsible for the equipment, publication or policy discussed. Masculine pronouns may refer to both genders.

ISSUE 666 MAY 2008**COMBAT VEHICLES**

M1-Series Tank Hydraulic Quick-Disconnect
M1-Series Tank Roadwheel Hub Caps
M2/M3-Series Bradley Fuel Tank Components
M2/M3-Series Bradley Ramp Safety
Stryker Ramp Door Hold-Open Lock
M88A2 Recovery Vehicle Winch
AVLB Launch Mechanism Hydraulics
M1068 CP Carrier Circuit Breaker
M119A2 Howitzer Wrench

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HEMTT Boom Winch Clamping, Load Testing
M939-Series 5-Ton Truck CTIS, Tire Pressure

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MLRS Cable Adapters

**SMALL ARMS**

M2 Machine Gun Maintenance
M2 Machine Gun Timing Procedure
M2/M3-Series Bradley M242 Breech Check

**AVIATION**

UH-60 Series SLAB Battery Holddowns
UH-60 Series Bleed Air Tube
UH-60 Series Hydraulic Deck Pylon Door
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You are invited to send PS your ideas for improving maintenance procedures, questions on maintenance and supply problems and questions or comments on material published in PS.

Just write to:

MSG Half-Mast**PS, the Preventive Maintenance Monthly****USAMC LOGSA (AMXLS-AM)****5307 Sparkman Circle****Redstone Arsenal, AL 35898-5000**

Or e-mail to:

logsa.psmag@conus.army.mil or**half.mast@us.army.mil**

Internet address:

<https://www.logsa.army.mil/psmag/pshome.html>

By order of the Secretary of the Army:

GEORGE W. CASEY, JR.

General, United States Army Chief of Staff

Official:

JOYCE E. MORROW

Administrative Assistant to the Secretary of the Army

0805201

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Issue 666

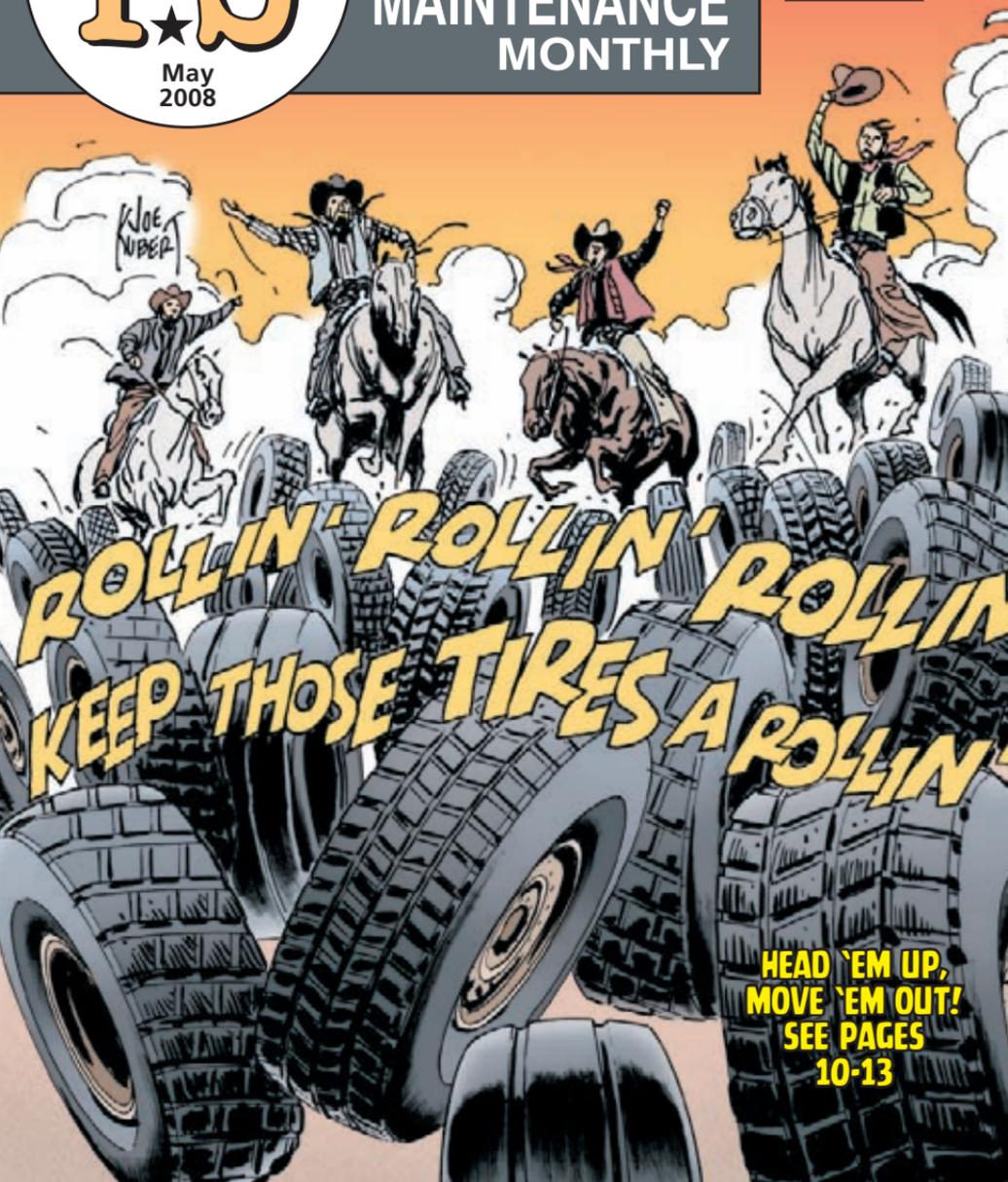
PS

May
2008

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TB 43-PS-666

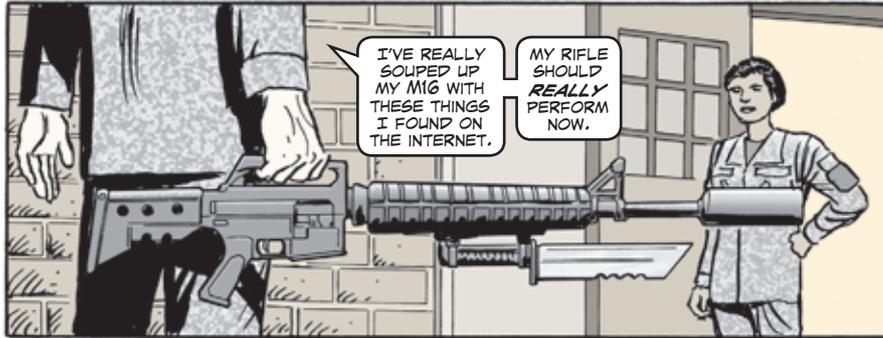
Approved for
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ROLLIN' ROLLIN' ROLLIN'
KEEP THOSE TIRES A ROLLIN'

**HEAD 'EM UP,
MOVE 'EM OUT!
SEE PAGES
10-13**

Modifications No! PM Yes!



It's natural for soldiers to want their equipment to work the best it possibly can. After all, your life depends on how well your weapon, or helicopter, or radio performs.

Some soldiers try to help their equipment do an even better job by modifying it. They've been successful improving their car or computer by adding the latest gadgets or programs, so they think they can do the same with their Army equipment.

That thinking is flawed! Unauthorized modification of your equipment is a big no in the Army, especially when it comes to your weapons. Modifications could cause your weapon to fail in battle. That failure could not only cost you your life, but also those of your fellow soldiers. Unauthorized modifications can also cost you bucks if the mods damage the equipment.

Para 3-1e in AR 750-10, *Army Modification Program*, spells it out plainly: "Commanders will not allow their equipment to be modified unless there is an official modification work order".

If you want your equipment to perform at its best, the best you can do for it is to religiously perform the PMCS laid out in its operator TM.

Just remember: Modifications no, PM yes!

[Click here for a copy of this article to save or email.](#)

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By order of the Secretary of the Army:
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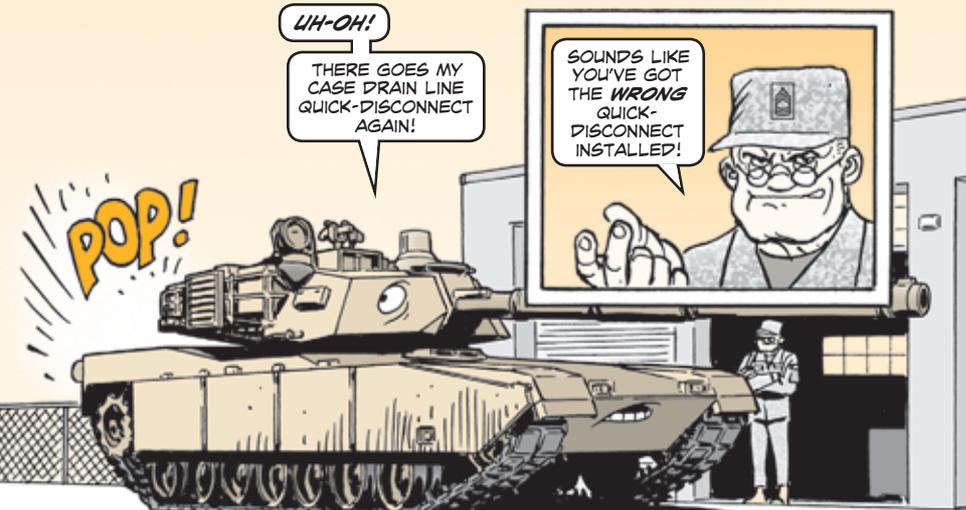
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NOT SO QUICK ON THE DISCONNECT

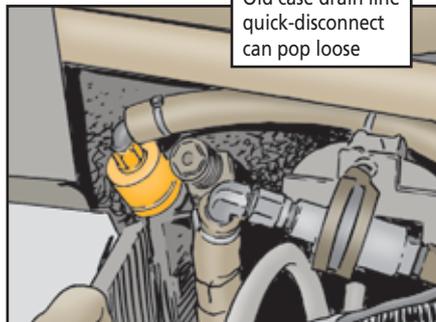


Reconnecting the main hydraulic pump's pretty easy, right mechanics? After all, the supply and return lines have bolt-down couplers and the case drain line has a quick-disconnect (QD) that makes the job pretty straightforward.

W-e-e-ll, maybe not.

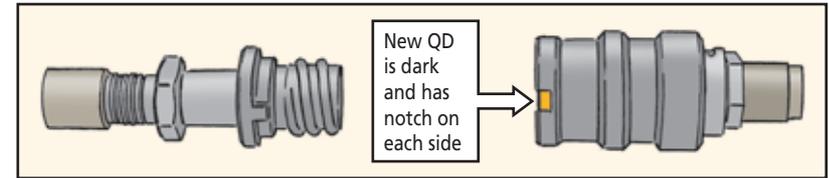
The case drain line sits back in a corner, so if you still have an old QD, NSN 4730-01-081-2106, installed, things can be a little tricky. Those old QDs may seem to be securely attached only to pop loose later. And a loose connection increases the chance of an engine fire and increases hydraulic pressure and temperature that could ruin the hydraulic pump.

That problem has been fixed with a replacement QD, NSN 4730-01-509-1330. This "sure lock" QD provides a one-way only connect feature that ensures a positive lock.

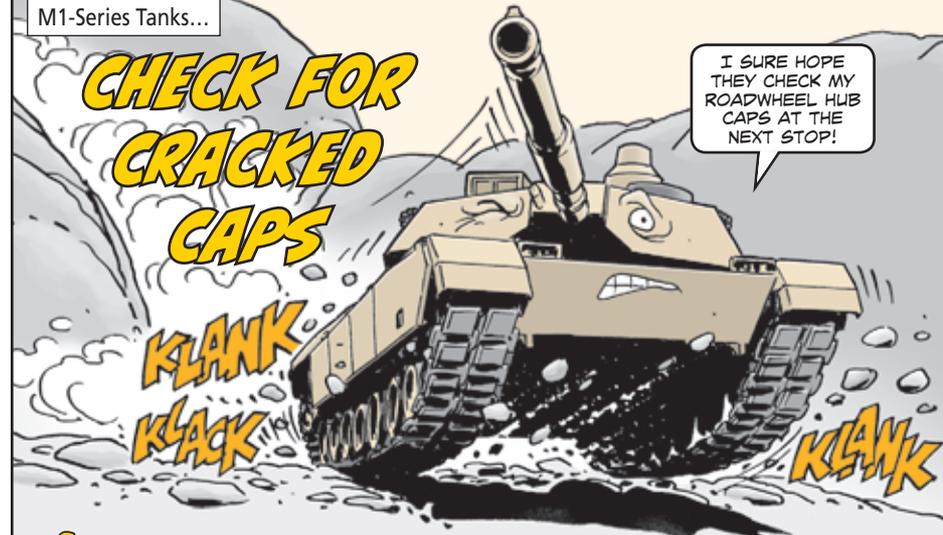


If you're having trouble keeping the case drain line QD connected, it could be that your tank still has the old one installed. If your QD is orange in color, it's the old one. Get your mechanic to change out the old unserviceable QD at the next scheduled service or when the powerpack is pulled for non-scheduled maintenance.

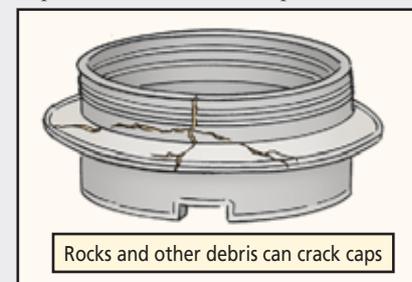
The new QD will be a dark color and have two notches at the opening end.



CHECK FOR CRACKED CAPS



Crewmen, the tracks on your M1-series tank throw up a lot of rocks and debris during cross-country operation. It only takes one thrown at the right angle and speed to put a crack in one of the plastic roadwheel hub caps.



Oil leaks out of the cap and eventually the hub bearings seize up. That's an expensive and time-consuming repair.

You can help prevent that problem by checking the hub caps frequently during stops. If you notice an oil leak, tell your mechanic.

He'll install a new cap, NSN 2530-01-063-5862, and torque it to 40-60 lb-ft like it says in the -20-1-4 TMs.

Fuel Tank Component Corrections

BRADLEY MECHANICS,
IT'S TIME TO GET OUT
THOSE STUBBY PENCILS AND
MAKE A FEW TM CHANGES!



TM 9-2350-284-24P-1

IF YOU'RE ORDERING
NEW COMPONENTS
FOR THE BRADLEY'S
FUEL SYSTEM, NOTE
THESE CORRECTIONS
TO TMS 9-2350-
284-24P-1 AND 9-
2350-294-24P-1.



THE FIXES FOR THE
DESCRIPTIONS, SMR
CODES AND ITEM
QUANTITIES ARE IN
PROCESS, BUT WON'T
APPEAR UNTIL THE
NEXT TM CHANGE.

| Fig | Item | Description | SMR | Qty |
|--------|------|--|-------|-----|
| 135 | 3 | Washer, seal, part of kit, PNs 12350614 (upper fuel tank) & 12350615 (lower fuel tank) | PAOZZ | 80 |
| 135 | 4 | Screw, cap, hexagon | PAOZZ | 80 |
| 135 | 53 | Gasket, part of kit, PNs 12350614 (upper fuel tank) & 12350615 (lower fuel tank) | PAOZZ | 1 |
| 135 | 77 | Gasket, part of kit, PNs 12350614 (upper fuel tank) & 12350615 (lower fuel tank) | PAOZZ | 1 |
| 136 | 11 | Washer, seal, part of kit, PNs 12350614 (upper fuel tank) & 12350615 (lower fuel tank) | PAOZZ | 136 |
| 136 | 12 | Screw, cap, hexagon | PAOZZ | 120 |
| 136 | 17 | Gasket, part of kit, PNs 12350614 (upper fuel tank) & 12350615 (lower fuel tank) | PAOZZ | 2 |
| 136 | 43 | Gasket, part of kit, PNs 12350614 (upper fuel tank) & 12350615 (lower fuel tank) | PAOZZ | 4 |
| 136 | 58 | Gasket | PAOZZ | 1 |
| KITS-1 | 10 | Gasket set, lower fuel tank | PAOZZ | 1 |
| KITS-2 | 11 | Gasket set, upper fuel tank | PAOZZ | 1 |

TM 9-2350-294-24P-1

| Fig | Item | Description | SMR | Qty |
|--------|------|--|-------|-----|
| 154 | 4 | Washer, seal, part of kit, PNs 12350614 (upper fuel tank) & 12350615 (lower fuel tank) | PAOZZ | 80 |
| 154 | 5 | Screw, cap, hexagon | PAOZZ | 80 |
| 154 | 50 | Gasket, part of kit, PNs 12350614 (upper fuel tank) & 12350615 (lower fuel tank) | PAOZZ | 1 |
| 154 | 68 | Gasket, part of kit, PNs 12350614 (upper fuel tank) & 12350615 (lower fuel tank) | PAOZZ | 1 |
| 155 | 11 | Washer, seal, part of kit, PNs 12350614 (upper fuel tank) & 12350615 (lower fuel tank) | PAOZZ | 136 |
| 155 | 12 | Screw, cap, hexagon | PAOZZ | 120 |
| 155 | 17 | Gasket, part of kit, PNs 12350614 (upper fuel tank) & 12350615 (lower fuel tank) | PAOZZ | 2 |
| 155 | 43 | Gasket, part of kit, PNs 12350614 (upper fuel tank) & 12350615 (lower fuel tank) | PAOZZ | 4 |
| 155 | 59 | Gasket | PAOZZ | 1 |
| KITS-1 | 7 | Gasket set, lower fuel tank | PAOZZ | 1 |
| KITS-1 | 8 | Gasket set, upper fuel tank | PAOZZ | 1 |

THE CORRECTED
INFO IS
HIGHLIGHTED.

ALL OTHER
INFORMATION
STAYS THE
SAME.



M2/M3-Series
Bradleys...

It's Not a Race!

Drivers, dropping the ramp on your Bradley isn't a race—especially in the motor pool!

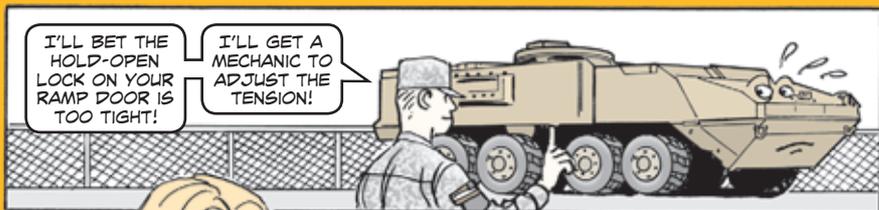
If there's someone in the way or walking by, lowering the ramp without clear warning is an invitation to disaster.

Use a ground guide if you can, but before that ramp comes down you must look around, shout "Clear!" and sound the horn. Then bring it down slow and smooth.



Give plenty of warning before dropping ramp

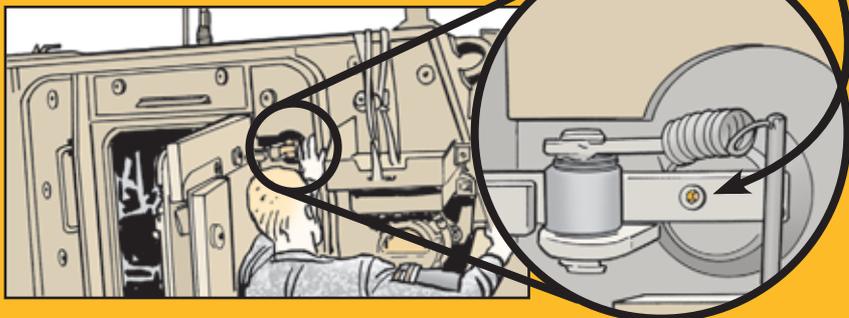
Stryker... **KEEP RAMP DOOR FROM TENSING UP**



If it's too loose, the door won't stay open. But if it's too tight, you'll have a hard time using either the internal or external release to close the door.

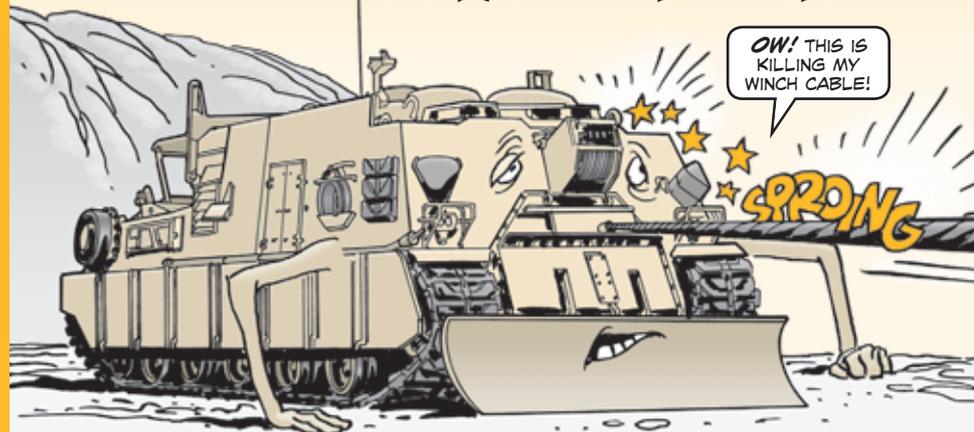
Over time, and with the constant vibration generated during operation, the tension on the lock release can change. If you notice problems with the release being too loose or too tight, notify your mechanic.

Adjusting the tension is a simple matter of loosening or tightening the hex-socket screw on the door's hold-open lock.



M88A2 Recovery Vehicle...

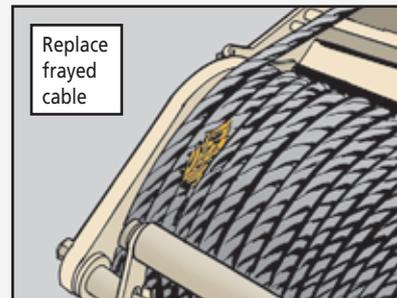
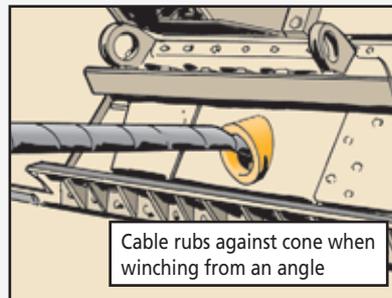
WINCH NOT, WANT NOT



Operators who are used to the M88A1 recovery vehicle may have a harder time using the main winch on the M88A2.

On the M88A1, you could use the winch from just about any angle. Not so with the A2. It comes with sensors installed that will shut down the winch if you try to recover a vehicle more than three degrees off center. And if your vehicle has Mod II installed, the winch will pull only up to 8,000 pounds in this situation, even when in override.

Not understanding why the winch won't work, many operators hook up to the vehicle being recovered and try to pull it out by backing up the M88A2. That frays the cable against the front cone (trumpet). Eventually, the entire cable has to be replaced.



You can prevent all those problems by using your recovery vehicle the way it was meant to be used. Take the few extra seconds needed to line up so that the winch will pull the disabled vehicle straight out.

WHO YA GONNA CALL?

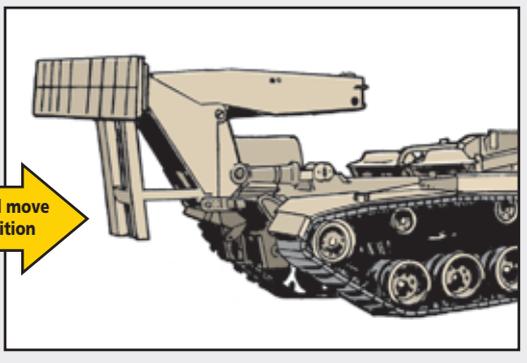


UNITS WITH THE NEW HYDRAULIC ELECTRICAL UPGRADED (HEU) AVLB HAVE NOTICED A PROBLEM: THEY SEEM TO HAVE A GHOST LOOSE IN THEIR MOTOR POOLS.

The ghost seems interested only in vehicles that are parked without their bridges and with the launch mechanism in the stowed position.

By the next morning, the foot will move a few inches from the stowed position

This strange phenomenon has come to be known as "ghost launching".



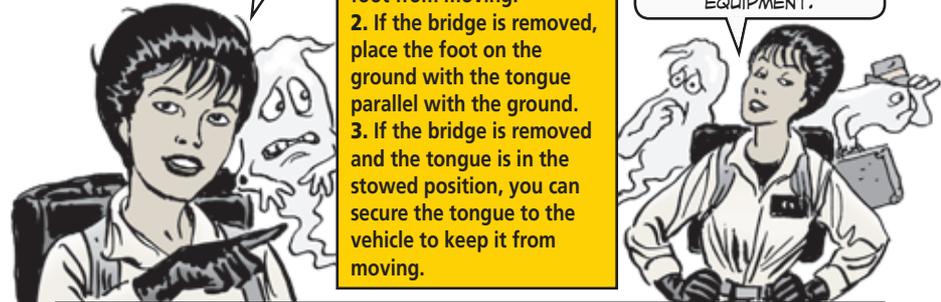
Before you make that emergency call to get rid of those pesky ghosts, check this out: Turns out there's no ghost at all.

The launching is due to a pressure build-up in the overhead cylinder of the bridge launch mechanism. Motion occurs very slowly and is hard to spot with the naked eye. But by the next morning, the foot will have moved from the stowed position.

IN THE MOTOR POOL, THERE ARE THREE WAYS TO PREVENT THIS MOVEMENT...

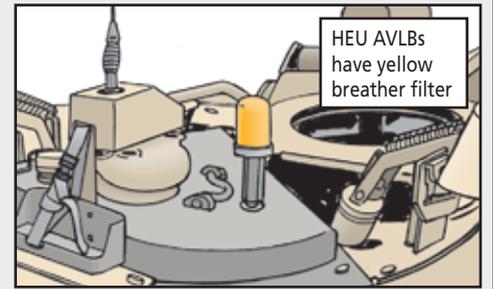
1. You can leave the bridge on top of the HEU AVLB. The weight will keep the foot from moving.
2. If the bridge is removed, place the foot on the ground with the tongue parallel with the ground.
3. If the bridge is removed and the tongue is in the stowed position, you can secure the tongue to the vehicle to keep it from moving.

JUST ONE OF THESE WILL ELIMINATE THE RISK OF GHOST LAUNCHING AND DAMAGE TO THE VEHICLE OR OTHER EQUIPMENT.



ID Tip

Not sure if your AVLB is the upgraded HEU? There are two easy ways to tell. First, look at the vehicle data plate in the driver's compartment. HEU AVLB's will be stamped with an "M". Second, look for the yellow hydraulic breather filter on top of upgraded vehicles.



HEU AVLBs have yellow breather filter

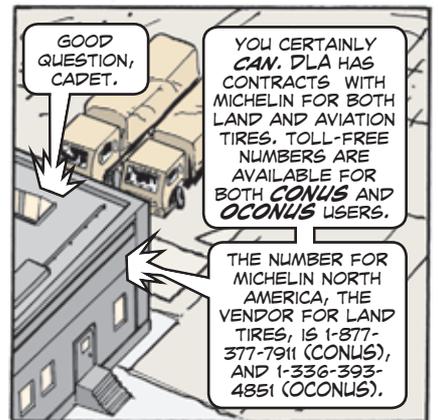
M1068 Circuit Breaker

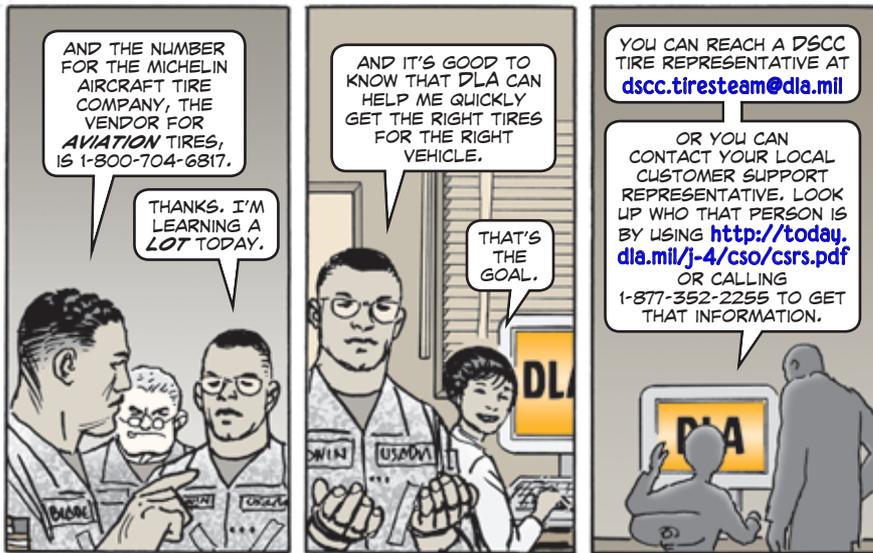
There's now an NSN available for the circuit breaker on your M1068 command post carrier's power control enclosure. Use NSN 5925-01-371-0179 for Item 2 in Fig 387 of TM 9-2350-261-24P. Also, note that the PN has changed to 12382014 and the CAGE to 19207. Make a note until the TM is updated.

M119A2 Howitzer Wrench

The 7/16 x 1/2-in open end wrench, listed as Item 50 in WP 0051 00-12 of TM 9-1015-252-10, is no longer available. It has been replaced by NSN 5120-01-335-1203, PN LTA1416, CAGE 55719. Make a note until the TM is updated.

Get Your Tires from DLA





AND THE NUMBER FOR THE MICHELIN AIRCRAFT TIRE COMPANY, THE VENDOR FOR AVIATION TIRES, IS 1-800-704-6817.

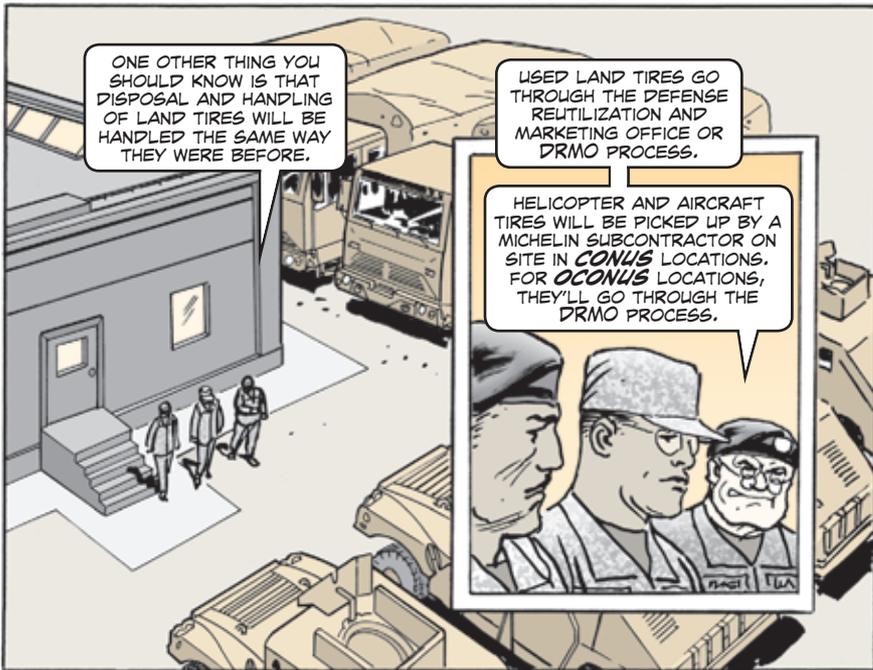
THANKS. I'M LEARNING A LOT TODAY.

AND IT'S GOOD TO KNOW THAT DLA CAN HELP ME QUICKLY GET THE RIGHT TIRES FOR THE RIGHT VEHICLE.

THAT'S THE GOAL.

YOU CAN REACH A DSCC TIRE REPRESENTATIVE AT dscctiresteam@dla.mil

OR YOU CAN CONTACT YOUR LOCAL CUSTOMER SUPPORT REPRESENTATIVE. LOOK UP WHO THAT PERSON IS BY USING <http://today.dla.mil/j-4/cso/csrs.pdf> OR CALLING 1-877-352-2255 TO GET THAT INFORMATION.



ONE OTHER THING YOU SHOULD KNOW IS THAT DISPOSAL AND HANDLING OF LAND TIRES WILL BE HANDLED THE SAME WAY THEY WERE BEFORE.

USED LAND TIRES GO THROUGH THE DEFENSE REUTILIZATION AND MARKETING OFFICE OR DRMO PROCESS.

HELICOPTER AND AIRCRAFT TIRES WILL BE PICKED UP BY A MICHELIN SUBCONTRACTOR ON SITE IN CONUS LOCATIONS. FOR OCONUS LOCATIONS, THEY'LL GO THROUGH THE DRMO PROCESS.



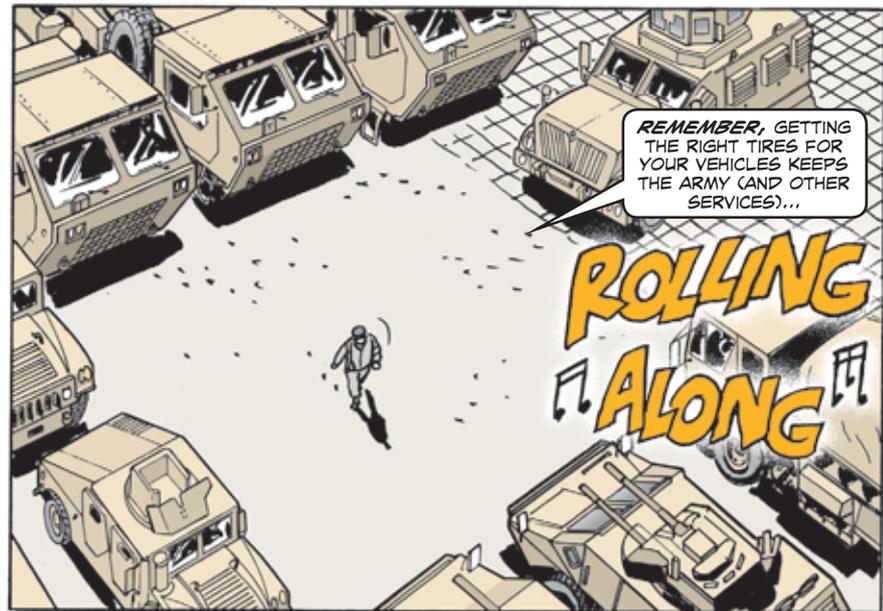
WE KNOW YOU HAVE TO GO NOW, BUT FEEL FREE TO CONTACT DLA OR MICHELIN IF YOU THINK OF OTHER QUESTIONS RELATED TO TIRES.

I WILL.

THE INFO CADET BALDWIN GOT ABOUT TIRES SHOULD BE HELPFUL, HALF-MAST.

RIGHT. SEE YOU LATER.

THAT CADET *ISN'T* THE *ONLY* ONE WHO COULD USE THIS INFORMATION.



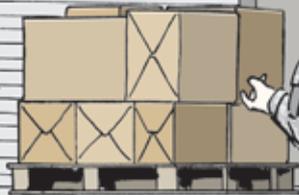
REMEMBER, GETTING THE RIGHT TIRES FOR YOUR VEHICLES KEEPS THE ARMY (AND OTHER SERVICES)...

ROLLING ALONG

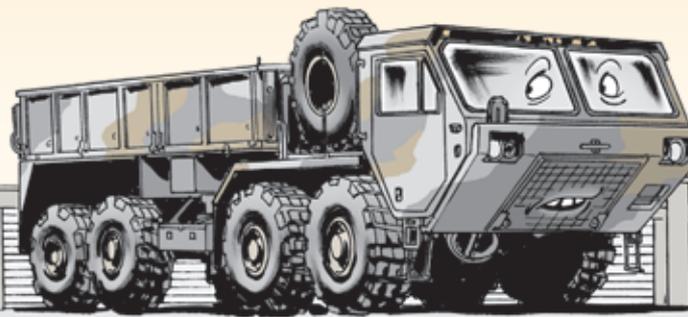
HEMTTs...

COMMON SENSE for the BOOM WINCH

TIME FOR YOU TO HELP ME WITH A LIFT...



DID YOU MAKE SURE I CAN BEAR THE LOAD?



Don't wanna hear a loud boom when using your HEMTT's boom winch? Then keep all loads secure by using a good wedge socket to attach the wire rope to the hook.

Whenever your M977, M984A1, and M985 HEMMTs are refurbished, the safety clamp on the cable is removed. But your vehicle **needs** this safety clamp because it keeps the wire rope from slipping back past the wedge and suddenly popping loose from the socket.

If the safety on your HEMMT's cable is missing, use a cable clamp and six inches of wire rope.

A BAD CLAMP JOB RESULTS IN FRAYED WIRES AND WEAK SUPPORT.

SO FOLLOW THESE STEPS TO CLAMP CORRECTLY...

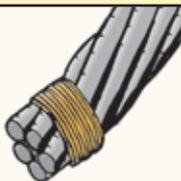


Clamping Correctly

1. Make sure there are no rough edges or burrs on the wedge or socket that could damage the wire rope.
2. If the end of the rope is welded, cut off that portion. That allows any distortion of the rope strands—caused by the sharp bend around the wedge—to adjust itself at the end of the rope.

Wrap steel wire around the end of the wire rope to keep it from unwinding or fraying. **Don't** use heavy-duty tape, since it's not strong enough to hold steel and frayed wires in place.

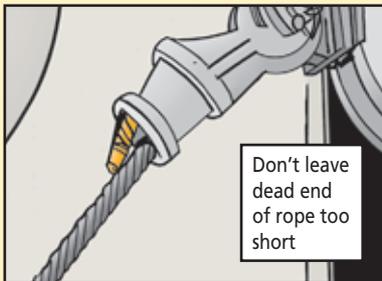
Wrap steel wire around ends of wire rope



3. Thread the rope through the socket, make a 180° turn, and then thread the rope back through the other side of the socket.

Make sure the end of the rope extends past the socket six to nine times the rope's diameter. For example, if you're using 1/2-in diameter rope, the end needs to extend 3 to 4 1/2 inches past the socket. Leaving it shorter might allow the rope to slip free of the socket during a lift.

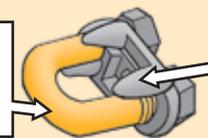
Don't leave dead end of rope too short



4. Insert the wedge into the socket.

5. Clamp the dead end of the rope to the three-inch piece of rope. Position the clamp, NSN 4030-00-233-9566, with the dead end of the rope against the U-bolt and the short piece against the saddle. Clamp the two as close to the wedge as possible.

Position dead end against U-bolt...



...and short piece against saddle

Clamping Tips

Never clamp the dead end of the rope to the live end. The live end should form a nearly direct line to the clevis pin of the fitting. Clamping to the live end could add a wear point, bend the nearly straight line, and keep the wire rope from pulling the wedge in tight against the socket.

A good way to remember the correct way to install cable clamps is to remember, "Never saddle a dead horse." The saddle portion looks like a little horse saddle, so install the U-bolt on the dead end and the saddle portion on the three-inch extra piece of wire rope.

Also, if you decide to use more than one clamp, make sure they all go on the same way. That way, the U-bolt won't damage the live end of the cable.



Correctly clamped rope looks like this

Load Testing

TM 9-2320-279-20-1 tells you that load testing of cranes is required before using cranes that have undergone modification or alteration. So when you've done these steps, take your HEMTT to support for testing. They'll need to use the guidance in TB 43-0142, *Safety Inspection and Testing of Lifting Devices*, and TB 9-2320-279-34, *Test Procedures, Direct Support and General Support Maintenance Levels Load Testing Heavy Expanded Mobility Tactical Truck (HEMTT) Vehicle Cranes*.

Cranes that don't meet load test requirements are NMC.

CTIS NMC CRITERIA

AND TIRE PRESSURE INFO



Dear Half-Mast,

Our unit mechanics disconnected the CTIS system on the up-armored M939-series 5-ton trucks and increased the tire pressure to 70 PSI manually.

Several mechanics removed and discarded the CTIS components, including the hoses and fittings. With the new ECU box that's shown on Pages 14 and 15 of PS 651 (Feb 07), should these components be reinstalled? The answer changes depending on whom you ask. Some say the vehicle is deadlined without the CTIS, some say it is not.

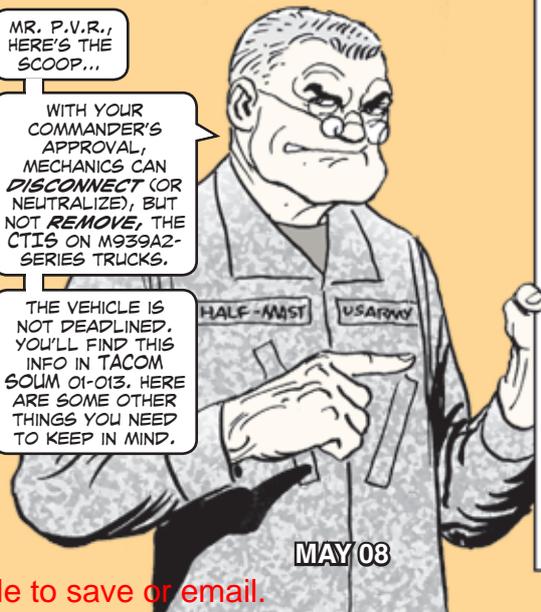
What's the straight story?

Mr. P.V.R.
Camp Arifjan, Kuwait

MR. P.V.R.,
HERE'S THE
SCOOP...

WITH YOUR
COMMANDER'S
APPROVAL,
MECHANICS CAN
DISCONNECT (OR
NEUTRALIZE), BUT
NOT REMOVE, THE
CTIS ON M939A2-
SERIES TRUCKS.

THE VEHICLE IS
NOT DEADLINED.
YOU'LL FIND THIS
INFO IN TACOM
SOUM 01-013. HERE
ARE SOME OTHER
THINGS YOU NEED
TO KEEP IN MIND.



On M939A2's equipped with the original CTIS ECU, the tires are automatically inflated to 60 psi on non-wrecker models and 80 psi on wrecker models when the vehicle's highway mode is selected. On up-armored 5-tonners, the CTIS is disconnected, valve cores are installed, and the tires are inflated to 70 psi on non-wrecker models and 90 psi for wrecker models.

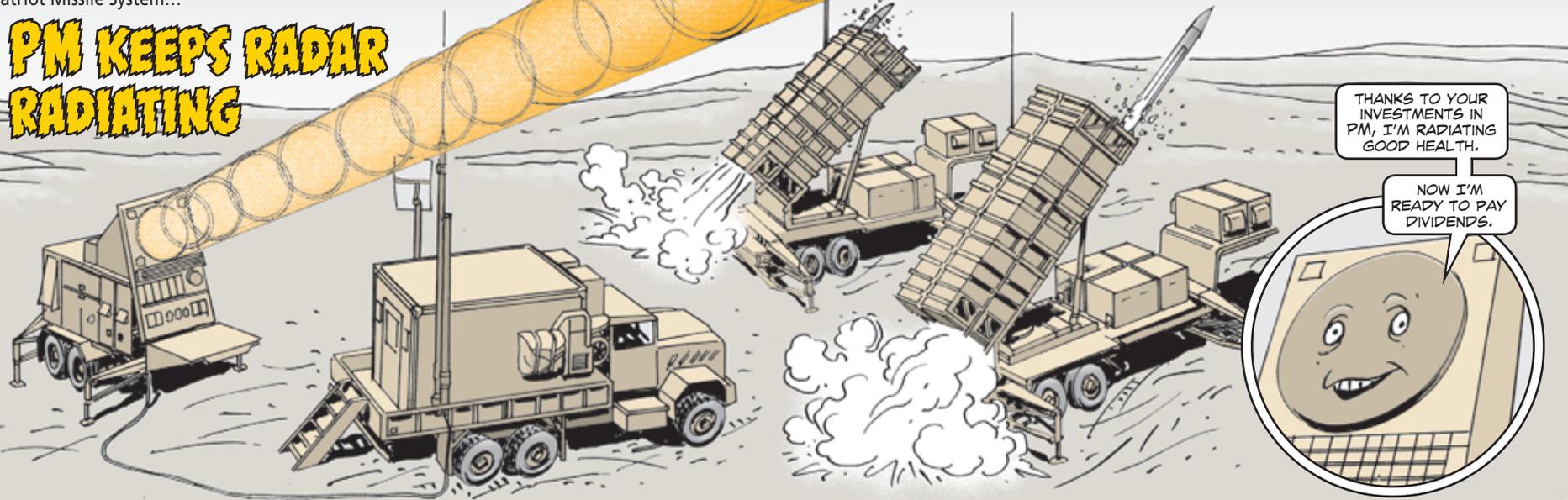
If any of the CTIS components are faulty, the non-armored truck with CTIS still connected becomes NMC only while the vehicle is being serviced during its semi-annual/annual inspection, also shown in Para 2-12 in Table 2-1 of TM 9-2320-272-24-1.

When the CTIS is disconnected on an up-armored 5-ton, there is no requirement to restore the CTIS to an operable condition. Leave it disabled. A disabled CTIS **does not** make the truck NMC during scheduled or unscheduled maintenance. You'll find this same info spelled out in TACOM SOUM 06-019. (See page 57 of this issue for more information.) **Remember, mechanics should not remove CTIS components or toss them out.**

TACOM LCMC recommends taking a close look at the SOUMs that address this issue—01-013 and 06-019. The headshed is also in the process of changing the CTIS components so mechanics can reactivate a disabled CTIS with new hardware. The new setup allows for higher tire pressures.

Half-Mast

PM KEEPS RADAR RADIATING

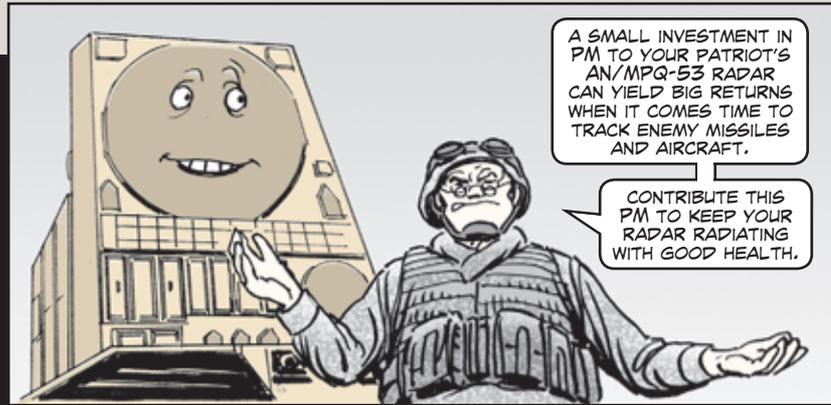


THANKS TO YOUR INVESTMENTS IN PM, I'M RADIATING GOOD HEALTH.

NOW I'M READY TO PAY DIVIDENDS.

A SMALL INVESTMENT IN PM TO YOUR PATRIOT'S AN/MPQ-53 RADAR CAN YIELD BIG RETURNS WHEN IT COMES TIME TO TRACK ENEMY MISSILES AND AIRCRAFT.

CONTRIBUTE THIS PM TO KEEP YOUR RADAR RADIATING WITH GOOD HEALTH.



Cables

If those big power cables you hook up to the AN/MPQ-53 are in bad shape, the radar is in bad shape. It has no power. Look over the cables and connectors' threads for burrs and corrosion. They make it difficult to screw on the cables and can fool you into thinking you have the cable securely connected when you don't. Report problems to your repairman.

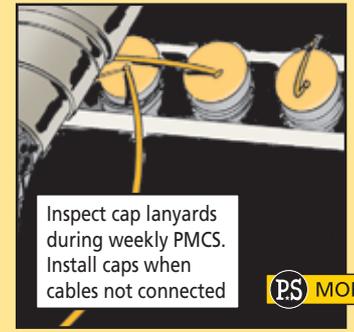
Connecting and disconnecting the large cables are **always** jobs for two hands. If you twist cables on and off with one hand, you eventually rip the cables' wiring. Those cables cost thousands to replace. Use one hand to support the cable and take the weight off the connector. Use the other hand to turn the connector.



Use two hands with cables

When you disconnect the cable, pull it straight off and don't let the head hit the ground. A hard fall could cost you a cable.

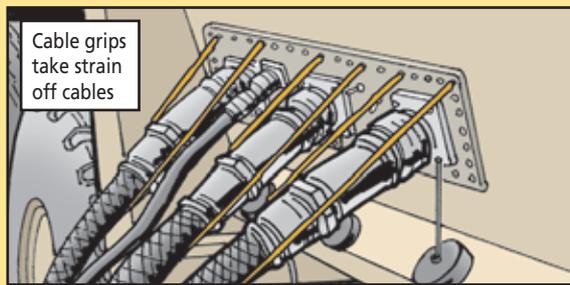
Cap cables and radar connectors when the cables are disconnected. If you leave them uncapped, sand plugs holes and unplugs power when you try to connect the cables. Check the caps' lanyards during weekly PMCS. They often break and once they do the caps soon disappear. It's difficult to get replacement caps. If a lanyard is shot, make a new one with wire or 550 cord. If a cap is missing, cover the cable and radar connectors with plastic bags until you can get a new cap.



Inspect cap lanyards during weekly PMCS. Install caps when cables not connected

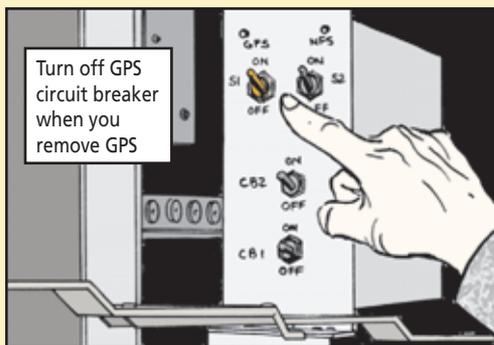
PS MORE

Using cable grips will help support the cables' weight and prevent wiring from being jerked loose. Order grips with NSN 5120-01-213-9538. These grips will work with all the Patriot's large cables.



GPS

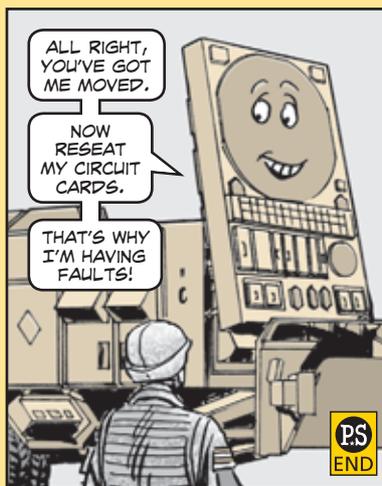
When you remove the GPS, remember to turn off the GPS circuit breaker. If you forget, the RGN10 circuit card may be fried when you power up. Without the circuit card, you'll have trouble auto-emplacing the radar. See your AMCOM logistics assistance representative for more details.



Cleaning and Reseating

The cleaner you keep the AN/MPQ-53, the fewer problems you'll have. Dirt blocks fresh air that keeps electronics cool and also can cause electrical faults. Keep the radar's door shut as much as possible and vacuum inside the radar before operating. Any dirt on the floor will be sucked into the air system. Use low-pressure air to blow dirt out of the cabinets with circuit cards and wipe off the cabinets.

If you get system faults after moving the radar to a new site, reseat all the circuit cards in the rack the fault is showing up in. A loose card will cause faults and cost you troubleshooting time.



MLRS... **DON'T LEAVE HOME WITHOUT THEM**

C'MON, WE'VE GOT A MISSION TO PERFORM.

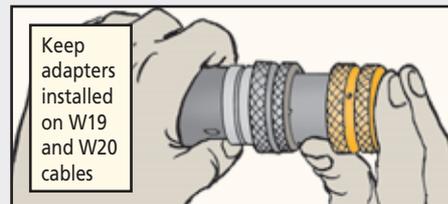
SORRY! I NEVER LEAVE HOME WITHOUT MY W19 AND W20 CABLE ADAPTERS.

You don't have to be a math genius to realize it makes good money sense to use the adapters for the MLRS W19 and W20 cables.

With the adapters screwed on the W19 and W20, the cable pins can't be broken when the cables are hooked up. That means expensive cables won't have to be replaced.

What's that mean in real money? The W19 costs more than \$700—its adapter, NSN 5935-01-155-9847, costs \$140. The W20 costs more than \$900—its adapter, NSN 5935-01-238-5896, costs \$127.

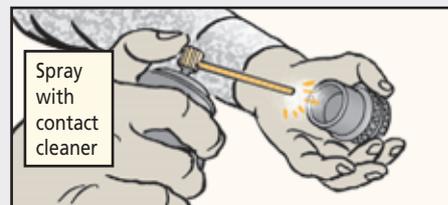
So never leave the motorpool without the adapters installed. And make sure the adapters are still on when you come back from the field. It's a good idea to keep extra adapters on hand because the adapters will eventually disappear or be damaged.



Because the W19 and W20 often have to be connected and disconnected in the field, the adapters clog up with dirt. This leads to faults like UMBILICAL CONNECTOR NOT CONNECTED or SNVT (short/no-voltage test).



If you get faults or an adapter doesn't want to seat, take the adapter off and clean it. Twist its outer ring and tap it gently to get the dirt out. Spray electrical contact cleaner, NSN 6850-01-371-8048, into the adapter to really clean it out. Circuit board contact cleaner works, too.



When you install an adapter, make sure the keyways line up. If the adapter won't go on easily, something is wrong. Don't force it. The pins may be bent. You can often straighten bent pins with needle-nose pliers.

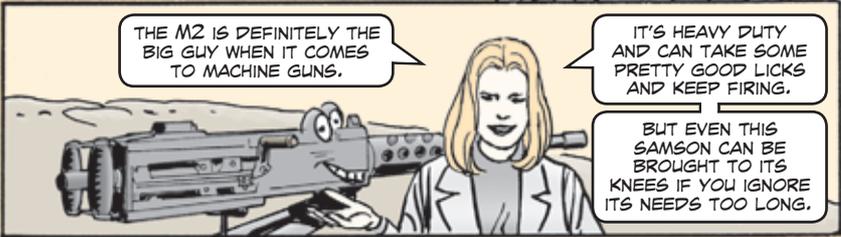
Never use the W19 and W20 without their adapters except in battlefield emergencies.

KEEP THE BIG GUY GOING



EVEN TOUGH GUYS NEED SOMEBODY TO LOOK OUT FOR 'EM!

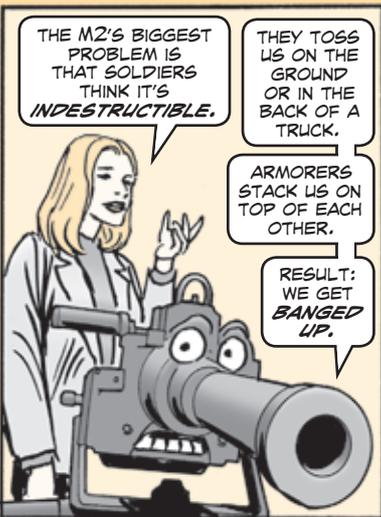
KOFF-KOFF!



THE M2 IS DEFINITELY THE BIG GUY WHEN IT COMES TO MACHINE GUNS.

IT'S HEAVY DUTY AND CAN TAKE SOME PRETTY GOOD LICKS AND KEEP FIRING.

BUT EVEN THIS SAMSON CAN BE BROUGHT TO ITS KNEES IF YOU IGNORE ITS NEEDS TOO LONG.

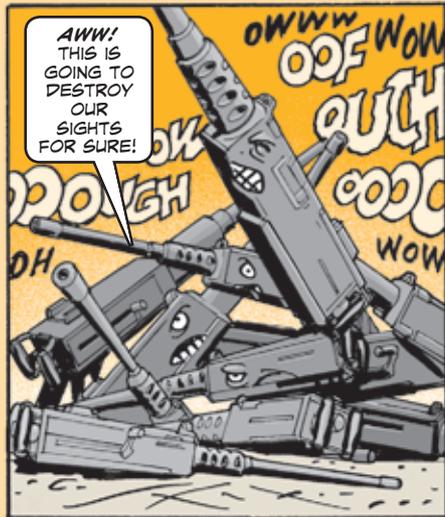


THE M2'S BIGGEST PROBLEM IS THAT SOLDIERS THINK IT'S INDESTRUCTIBLE.

THEY TOSS US ON THE GROUND OR IN THE BACK OF A TRUCK.

ARMORERS STACK US ON TOP OF EACH OTHER.

RESULT: WE GET BANGED UP.



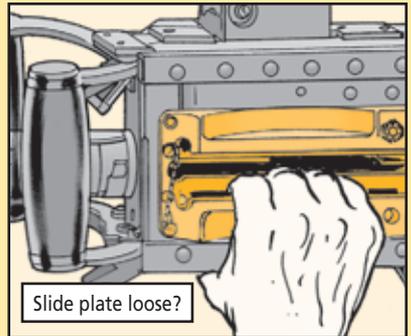
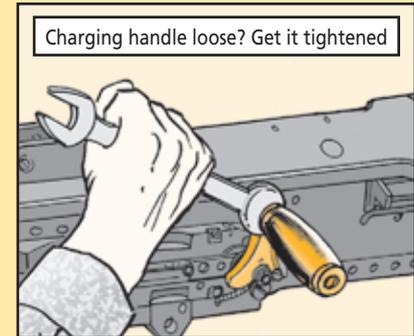
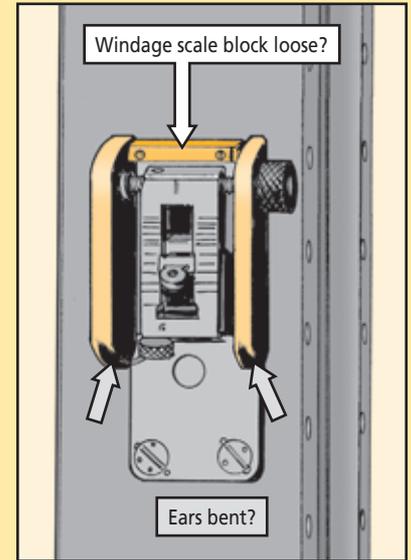
AWW! THIS IS GOING TO DESTROY OUR SIGHTS FOR SURE!

Never drop an M2 on the ground. Lay it down. Never toss it in a truck. Lay it in a truck. Whenever possible, get help carrying an M2. Help makes it less likely the gun takes a sudden fall.

Armorer's, the best way to store M2s is in the universal rack. If your unit can't afford the rack and you must store them in a locker, store them upright, not on top of each other.

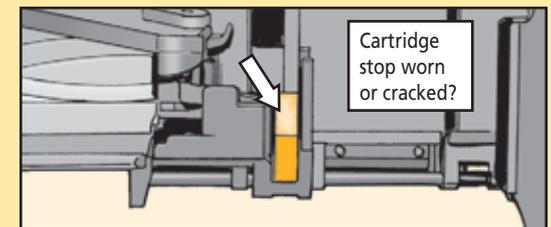
Gunners, before you go to the field check the sight and charging handle for problems. Make sure the rear sight's ears aren't so bent that the sight can't be raised. Check that the block for the rear sight's windage scale isn't loose. If it is, the scale won't stay in position.

Feel the charging handle for looseness. If it gets too loose, it can come off completely during firing. Your armorer can quickly tighten the handle with a 3/4-in wrench. Also feel the charging handle's slide plate for looseness. If it has any play, it could cause charging problems.



Eyeball the cartridge stop for wear and cracks. A worn stop is often a sign that a feed pawl is out of adjustment. That could cause the M2 to lock up.

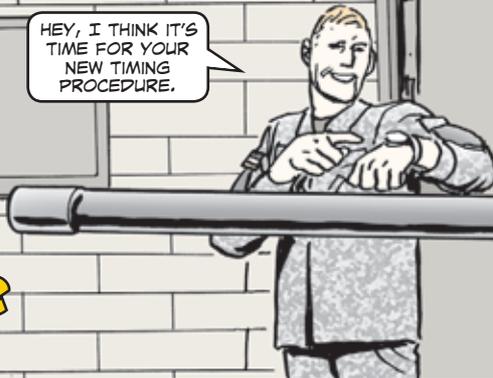
Report any problems you find to your armorer.



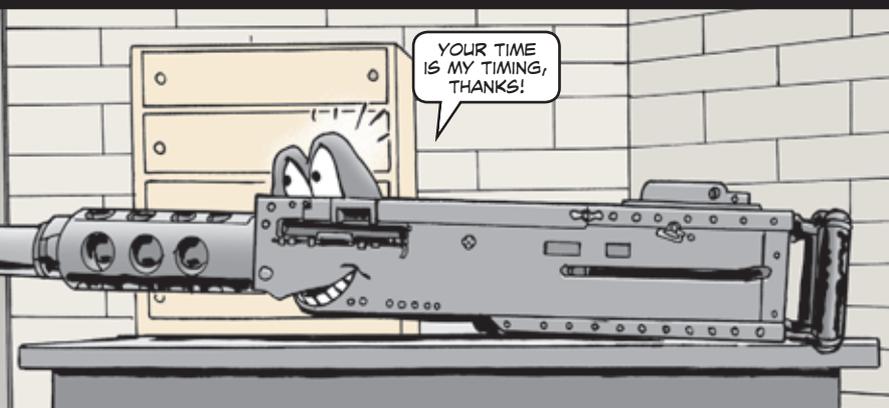
M2 Machine Gun...

Time to Change Timing Procedure

HEY, I THINK IT'S TIME FOR YOUR NEW TIMING PROCEDURE.



YOUR TIME IS MY TIMING, THANKS!



SINCE PS PUBLISHED THE HEADSPACE AND TIMING PROCEDURE FOR THE M2 MACHINE GUN IN PS 653 (APR 07), THE TIMING PART HAS BEEN REVISED SLIGHTLY.

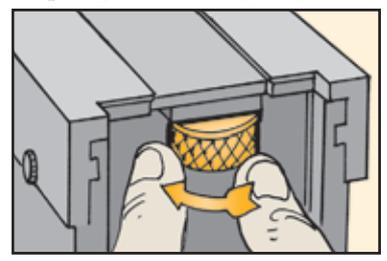
HERE'S THE NEW IMPROVED VERSION...



Never charge the gun with the back plate off. Do not stand directly behind the gun while removing the backplate. The gun must be in single shot mode before removing the backplate.

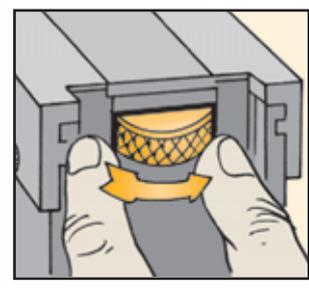
1. Raise the cover all the way up. Do not hold the barrel while charging the weapon. Charge the weapon and allow the bolt to go forward (but not slam).
2. Retract the bolt just enough to insert the FIRE gauge with its beveled edge against the barrel notches.
3. Remove the backplate. Pull the backplate latch lock straight back while lifting up on the backplate latch. Raise the backplate assembly straight up and remove it from the receiver.

4. Turn the timing adjustment nut all the way down to the left, but not completely off the timing stud.

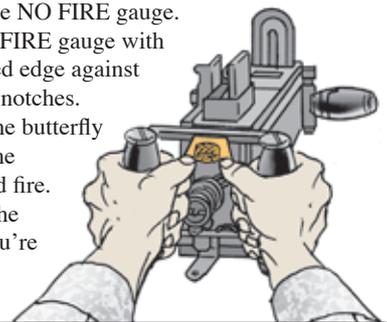


5. Retract the bolt just enough to remove the FIRE gauge. Reinstall the backplate. Retract the bolt just enough to insert the FIRE gauge and try to fire by pressing the butterfly trigger. The gun should not fire.

6. Retract the bolt just enough to remove the FIRE gauge. Remove the backplate. Screw the nut one click right. Reinstall the backplate. Retract the bolt just enough to insert the FIRE gauge and try to fire by pressing on the butterfly trigger. Repeat this procedure until the gun fires.



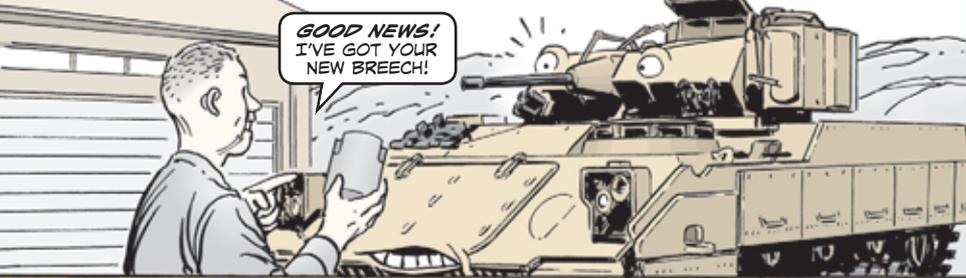
7. After the gun fires, remove the backplate, and turn the nut right two more clicks. Reinstall the backplate, charge the gun and allow the bolt to go forward without slamming.
8. Retract the bolt just enough to insert the NO FIRE gauge with the beveled edge against the barrel notches. Push on the butterfly trigger. The gun shouldn't fire.
9. Retract the bolt just enough to remove the NO FIRE gauge. Insert the FIRE gauge with the beveled edge against the barrel notches. Push on the butterfly trigger. The M2 should fire. Remove the gauge. You're done.



A poster is available that gives the complete procedure for timing and headspacing the M2 machine gun. Your pubs clerk can order the poster with DA Poster 750-98, IDN 401181, and PIN 083874. There is also a smart card available that gives the complete timing and headspacing procedure. It's available on the AEPS website: <https://aeps2.ria.army.mil/commodity/pubs/tacom/bulletin/m2-mg-time-gage2.doc>

Click here for a copy of this article to save or email.

Enhanced vs. Standard M242 *There is a Difference*



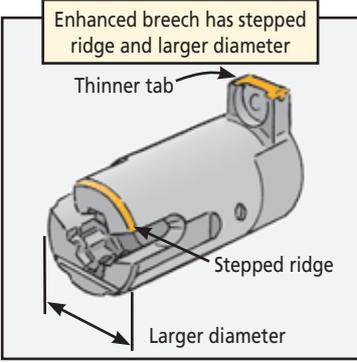
SOME BRADLEY UNITS ARE FORGETTING THERE ARE TWO DIFFERENT M242 AUTOMATIC GUN CONFIGURATIONS: THE STANDARD AND THE ENHANCED. AND MANY OF THEIR PARTS DON'T MIX, PARTICULARLY THE BREECH.

If you force the enhanced breech into the standard receiver, it is a major chore to get it back out because the enhanced breech is 5 millimeters larger. And you've probably damaged the receiver.

How do you tell the breeches apart? The enhanced breech has a stepped ridge cut into its aft end. The standard breech has no ridge.

If you're unsure which receiver you have, check the data plate on the side of the receiver.. The enhanced receiver's part number is 12524008-1 and the standard's is 12524008. For more info on differences, see WP 0002 in TM 9-1005-200-23&P.

Make sure you know which M242 you have before you order replacement parts.

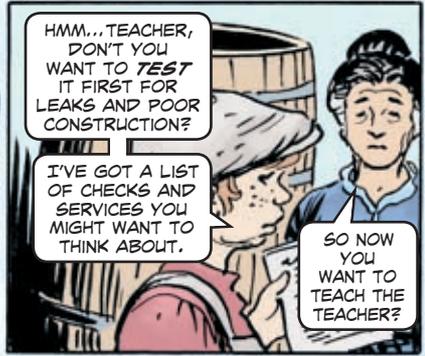
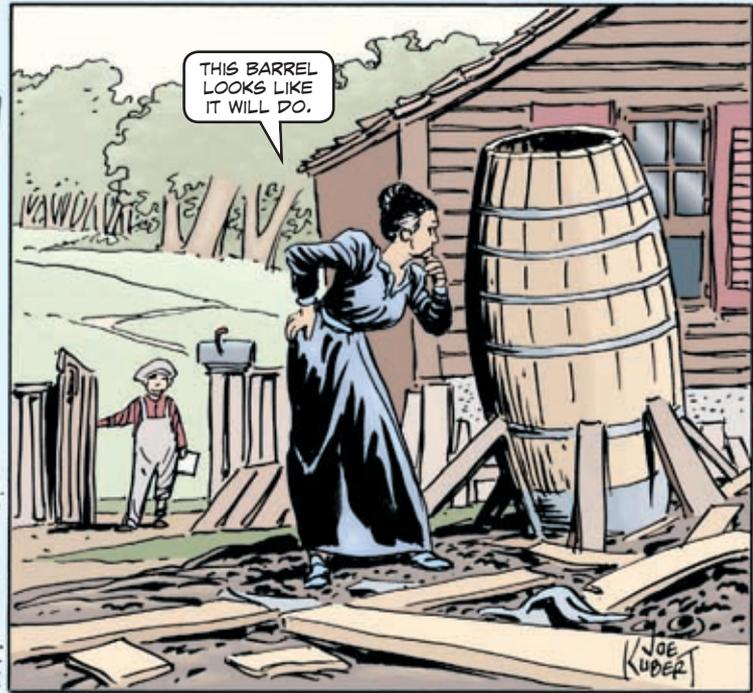


PM AT NIAGARA

SOME PEOPLE ARE AWARE OF THE STORIES ABOUT DAREDEVILS WHO TRIED TO CONQUER NIAGARA FALLS. SOME MADE IT... AND SOME DIDN'T.

OUR STORY TAKES PLACE IN 1901. A RETIRED 63-YEAR OLD SCHOOL TEACHER, ANNIE TAYLOR, DECIDED SHE WOULD 'GIVE IT A GO'.

ANNIE PICKED UP SOME PM POINTERS FROM A FORMER STUDENT ALONG THE WAY. THOSE SAME POINTERS SAVED HER LIFE.





WELL, DON'T YOU WANT TO LOOK AT THIS LIST I PUT TOGETHER?

WHAT LIST?



THIS LIST... OF PM CHECKS THAT YOU NEED TO LOOK AT BEFORE YOU HEAD OVER THE FALLS.



PM CHECKS? WHAT ARE YOU TALKING ABOUT?

THIS LIST HAS PREVENTIVE MAINTENANCE CHECKS TO MAKE SURE THAT BARREL IS IN TIP-TOP SHAPE.

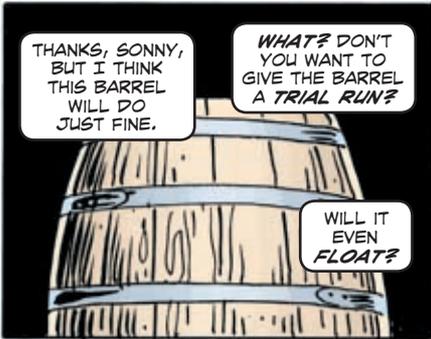


IT'S-IT'S LEAKING LIKE A SIEVE!

FROOSH

THAT CHILD IS SMARTER THAN I THOUGHT.

GUESS I SHOULD LOOK AT HIS PM LIST.



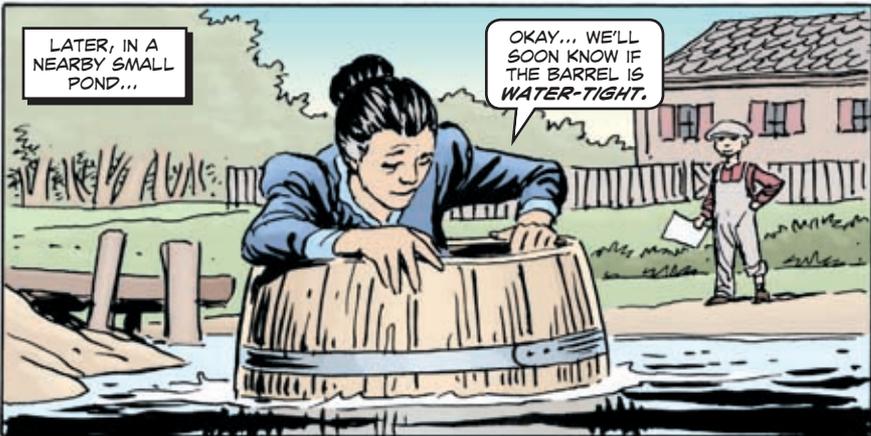
THANKS, SONNY, BUT I THINK THIS BARREL WILL DO JUST FINE.

WHAT? DON'T YOU WANT TO GIVE THE BARREL A TRIAL RUN?

WILL IT EVEN FLOAT?

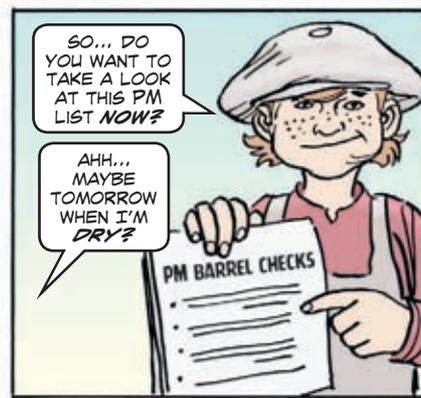


YOU KNOW... THE CHILD MIGHT HAVE A POINT!



LATER, IN A NEARBY SMALL POND...

OKAY... WE'LL SOON KNOW IF THE BARREL IS WATER-TIGHT.



SO... DO YOU WANT TO TAKE A LOOK AT THIS PM LIST NOW?

AHH... MAYBE TOMORROW WHEN I'M DRY?



THE NEXT DAY...

ARE YOU READY TO TAKE A LOOK AT THIS PM LIST?

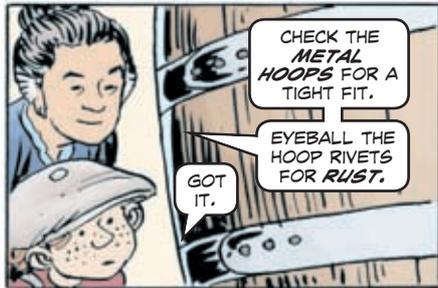
OK, SHOW ME WHAT YOU'VE GOT.



THIS PM LIST SHOWS WHAT CHECKS YOU NEED TO LOOK AT BEFORE A BARREL EVEN GETS CLOSE TO THE WATER.

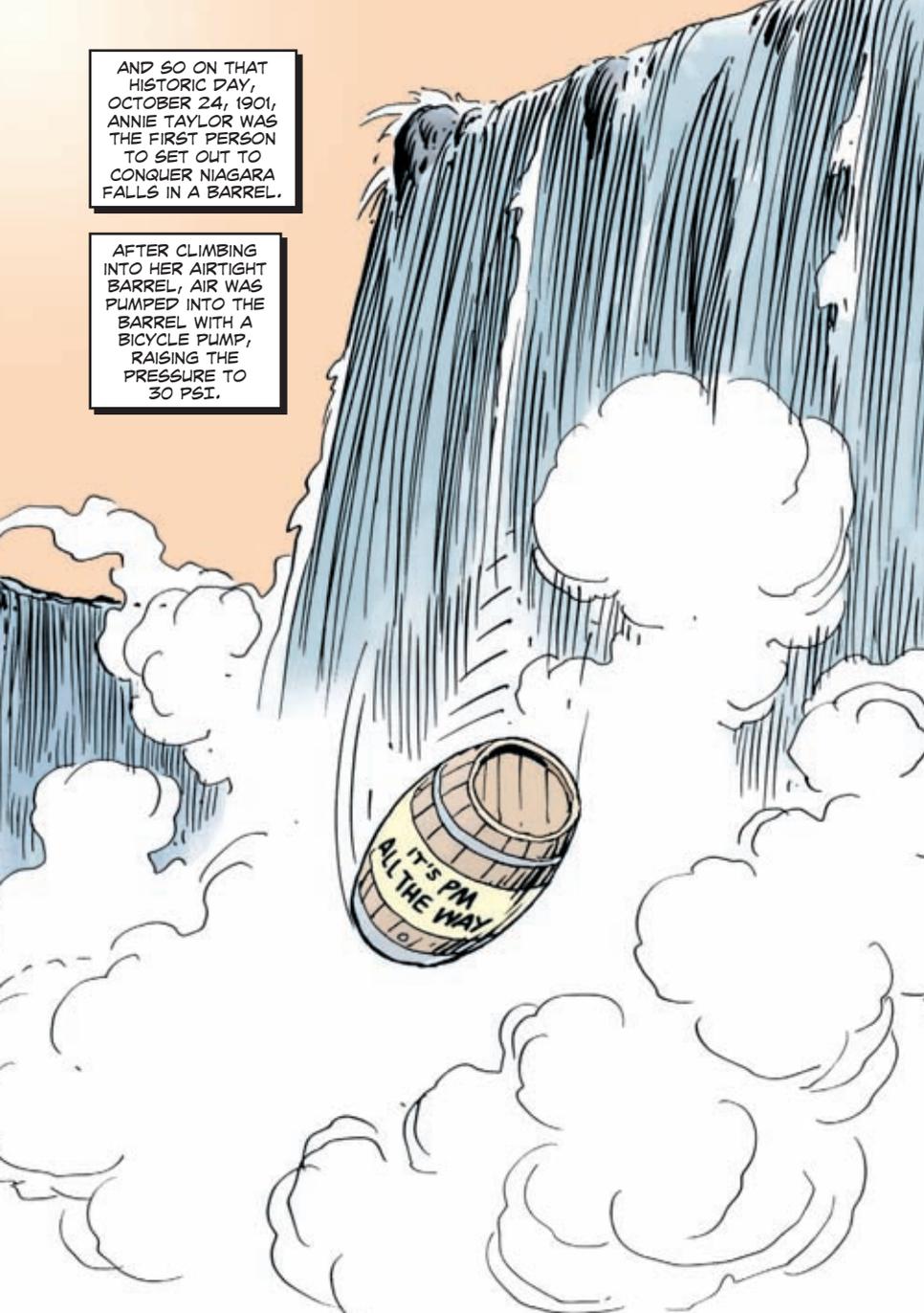


LET'S GET TO WORK.



AND SO ON THAT HISTORIC DAY, OCTOBER 24, 1901, ANNIE TAYLOR WAS THE FIRST PERSON TO SET OUT TO CONQUER NIAGARA FALLS IN A BARREL.

AFTER CLIMBING INTO HER AIRTIGHT BARREL, AIR WAS PUMPED INTO THE BARREL WITH A BICYCLE PUMP, RAISING THE PRESSURE TO 30 PSI.



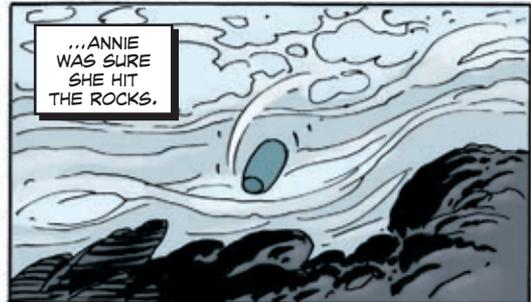
DOWN, DOWN, DOWN THE BARREL TUMBLED IN THE GRIP OF THE GREAT CATARACT.



SLAMMED BY THE RAPIDS FIRST ONE WAY, THEN ANOTHER...



...ANNIE WAS SURE SHE HIT THE ROCKS.



YET, JUST 17 MINUTES LATER, HER BARREL DRIFTED CLOSE ENOUGH TO THE CANADIAN SHORE...



...TO BE HOOKED AND DRAGGED ONTO A ROCK LEDGE.





TOO TIGHT IS TOO MUCH



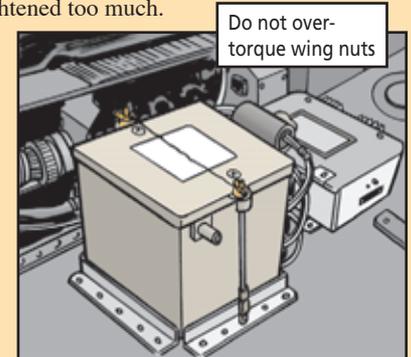
New mechanics and not-so-new mechanics, one extra twist to the wing nuts on the holddowns for the sealed lead-acid battery (SLAB), NSN 6140-01-286-6294, and you might hear a crack. That's the sound of the battery snapping.

Hand tight on the wing nut is tight enough. The battery tabs are not that sturdy, so they crack easily when the wing nut is tightened too much.

If you've already heard that sound, it means you've broken another battery locking tab. That makes the SLAB unserviceable.

Pay attention and follow the instructions on the battery's caution label. Don't work up a sweat when tightening the wing nuts. If you break a tab, you'll be replacing the SLAB battery at \$690 a pop.

Remember, for an unserviceable battery there is no 'wing and a prayer' solution—just replace it.



DON'T LEAN ON THE TUBE

HEY! DON'T LEAN ON MY BLEED AIR TUBE! IT'S NOT STRONG ENOUGH.

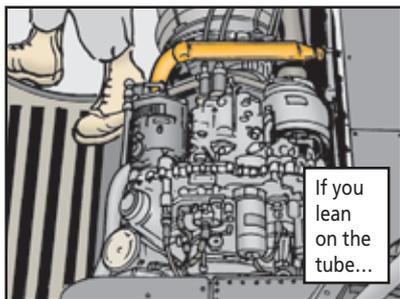


BLACK HAWK MECHANICS, CARELESSNESS WHILE WORKING ON YOUR NO. 1 ENGINE CAN MAKE YOUR BIRD NMC.

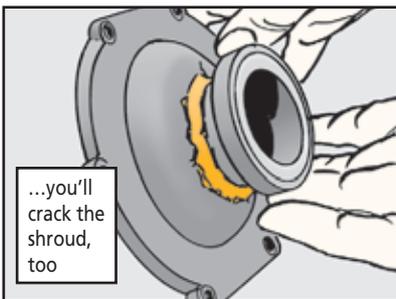
The work platform provides plenty of work space for engine maintenance, but some mechanics have a bad habit of leaning on the engine's bleed air tube when filling the engine with oil.

That's not good because the bleed air tube is made of light aluminum and it can't take your weight. It breaks!

One more thing: If you break the tube by leaning on it, the engine starter shroud will break also. You can't start the engine with a broken starter.



If you lean on the tube...



...you'll crack the shroud, too

While you're working around the engine, it's also a good habit to keep your feet off of other engine parts like the chip detector, the alternator stator, and the hydro-mechanical unit connectors.

Always keep in mind during engine maintenance that your weight and your feet in the wrong place downs your bird and creates unnecessary maintenance for the engine shop.

THINK BEFORE SLIDING PYLON DOOR

I'D BETTER CHECK THE HYDRAULIC DECK.

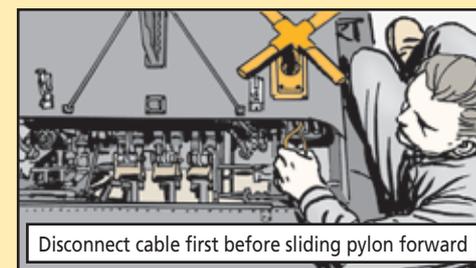
NOT SO FAST. OPEN MY PYLON JUST A LITTLE AND DISCONNECT MY ANTENNA CABLE FIRST.

Sliding the hydraulic deck pylon door forward on your Black Hawk was a no-brainer for a long time.

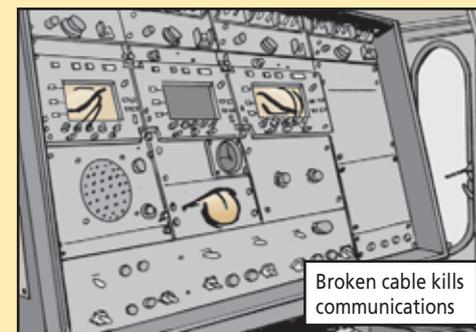
Things have changed. Now you must **think** before you slide. Since the installation of the SATCOM antenna on the pylon, shoving the door past the door stop on some birds is a no-no!

When the door catches on the doorstop, **stop!** Don't slide it forward any farther until you disconnect the antenna cable connector, NSN 5935-01-269-5305. If you push the door past the stop, you'll rip out the wire from the cable cannon plug. If that happens, you'll knock out the A2C2 satellite communications panel in the bird.

So the next time you head topside on your bird, pay attention to the stenciled wording on the pylon door that tells you to disconnect the antenna before sliding the pylon forward.



Disconnect cable first before sliding pylon forward



Broken cable kills communications

Check pylon door first

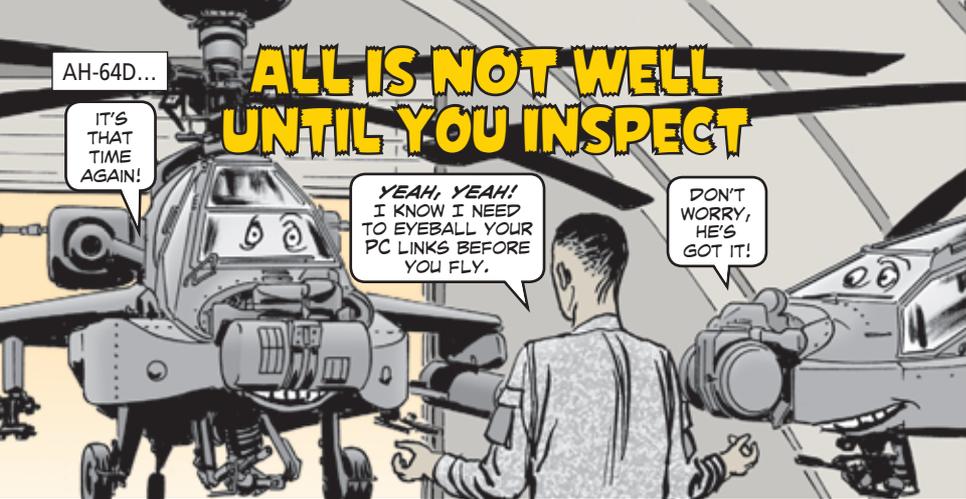
DISCONNECT ANTENNA BEFORE SLIDING PYLON FORWARD

ALL IS NOT WELL UNTIL YOU INSPECT

IT'S THAT TIME AGAIN!

YEAH, YEAH! I KNOW I NEED TO EYEBALL YOUR PC LINKS BEFORE YOU FLY.

DON'T WORRY, HE'S GOT IT!



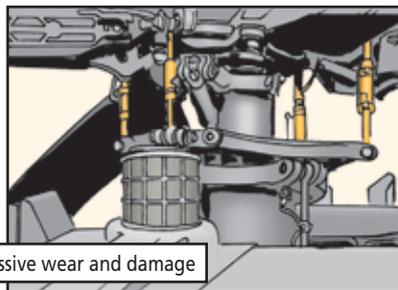
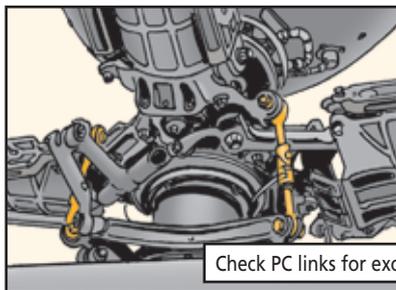
Crew, the required inspections of your AH-64 are not afterthoughts. Saying, "Oh, I'll get to it next time" won't cut the mustard.

Here's the problem. Pitch change (PC) link inspections must be done closely to detect problems. That means inspecting the link assemblies daily during pre-flight like it says in seq. no. 8.4 and 8.5 of TM 1-1520-251-PMD.

A PC link inspection should not be a quick and dirty look or done on a "now and then" basis. If you don't eyeball the links closely, it could mean trouble for you or worse, your bird.

Bearings wear out over time and the spherical bearing will fall out of the outer race because of wear.

Every day, check the pitch change link assemblies, NSN 1615-01-257-5795, for excessive wear and damage.



Check PC links for excessive wear and damage

If your complete visual inspection turns up something, call your AVIM shop so they can do a more thorough inspection.

Remember to also inspect the link assemblies every 25 hours/14 days and during routine phase maintenance.

NO HELMET PAINTING!



Pilots and crews, the question about whether you can or cannot paint your integrated helmet and display sight system (IHADSS) is settled.

No matter how badly you desire to paint your helmet like Picasso, you're not authorized to do anything but touch-up painting. Use only touch-up paint, NSN 8110-01-331-6113.

Besides no freelance painting, you can't put stickers or decals on the helmet either.

Now here's why you can't do what you want to your IHADSS helmet.

The helmet uses paint that has specific infrared characteristics that interfaces with technology used in the IHADSS system in the cockpit.

The helmet's paint has special heat absorption and reflection characteristics and if it's degraded in any way, your helmet's performance is degraded as well.

So touch up only and leave stickers and decals alone. Make a note of the NSN change until the next change to the TM.



Only touch-up painting is authorized

A GRM Test That Needs a Check



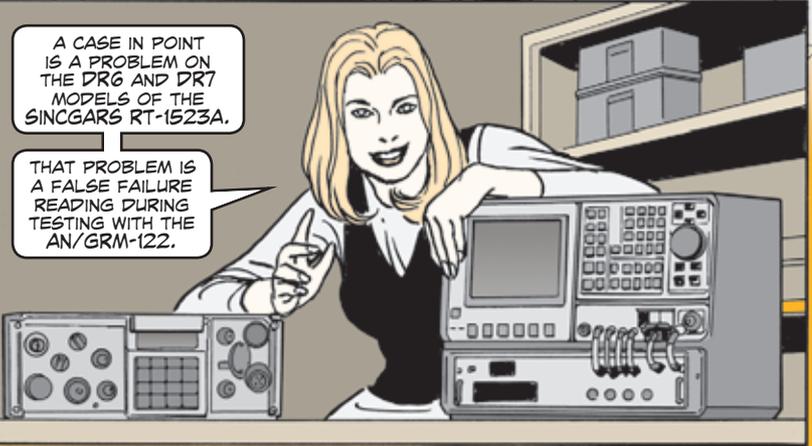
SOMETIMES EQUIPMENT PROBLEMS RESURFACE THAT WERE THOUGHT TO BE SOLVED.

THAT'S BECAUSE THE EQUIPMENT HAS LASTED LONGER THAN THE PAPERWORK THAT COVERED THE SOLUTION TO THE PROBLEM.

IF, WHILE TESTING A DR7 MODEL RT-1523A, THERE IS A FAILURE DURING THE FUNCTION SWITCH BIT CHECK IMMEDIATELY AFTER THE POINT THE GRM-122 DISPLAY READS "READ RT DISPLAY FOR FAIL6," SET THE RT FCTN TO TST AND FOLLOW THESE STEPS...



1. Remove the radio cover and check the part number of the CCA in the A10 slot. If the part number is A3131457, a real failure has happened. Replace the CCA. If the part number is A3137670, reinstall the cover and repeat the test.
2. If the RT displays a FAIL4 code as well as a FAIL6, press and release the "8" key on the keypad until the internal failure codes are displayed. If failure codes "A15-2" or "A10-5" appear, you have a false failure. Press the GO/ENTER key as instructed for a pass condition on the GRM display and soldier on.
3. If other failure codes are displayed, you have an actual failure and the CCA should be replaced.



A CASE IN POINT IS A PROBLEM ON THE DR6 AND DR7 MODELS OF THE SINCGARS RT-1523A.

THAT PROBLEM IS A FALSE FAILURE READING DURING TESTING WITH THE AN/GRM-122.



IF, WHILE TESTING A DR6 MODEL RT-1523A, THERE IS A FAILURE DURING THE FUNCTION SWITCH BIT CHECK IMMEDIATELY AFTER THE POINT THE GRM-122 DISPLAY READS "READ RT DISPLAY FOR FAIL6," SET THE RT FCTN TO TST AND FOLLOW THESE STEPS...

1. Remove the radio cover and check the part number of the CCA in the A10 slot. If the part number is A3131457, a real failure has happened. Replace the CCA. If the part number is A3137670, reinstall the cover and repeat the test.
2. If a failure occurs during the test where the GRM-122 display reads "Read RT display for FAIL6", set the RT FCTN to TST and observe the RT display. If FAIL4 and/or FAIL2 appears in addition to FAIL6, press and release the "8" key on the keypad until the internal failure codes are displayed. If failure codes "A15-2", "A10-5", "A12-1" or "A12-2" appear, you have a false failure. Press the GO/ENTER key as instructed for a pass condition on the GRM display and keep on testing.
3. If other failure codes are displayed, you have an actual failure and the CCA should be replaced.



AT THE HEART OF THE PROBLEM IS REMOTE SWITCH CCA, NSN 5998-01-490-7071.

IT'S THE SWITCH THAT REPLACED REMOTE SWITCH CCA, NSN 5998-01-352-1693.

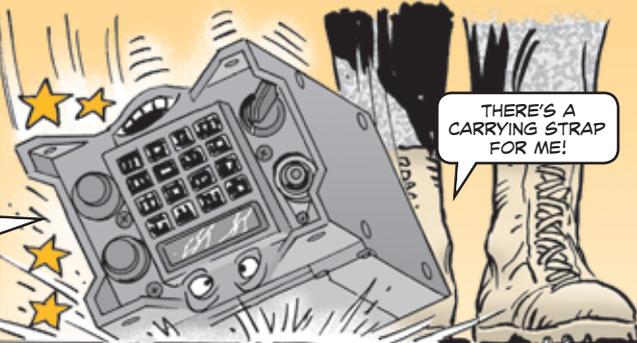
IF YOU HAVE QUESTIONS ABOUT ANY OF THIS, CECOM LCMC EXPERTS ARE STANDING BY AT DSN 992-2082, (732)532-2082, OR DSN 992-9141, (732)532-9141.

YOU CAN REACH THEM BY EMAIL: us.army.mil AND us.army.mil.



SAVE THE SCREENS!

THE SAD THING IS... I DIDN'T HAVE TO BE DROPPED...



THERE'S A CARRYING STRAP FOR ME!

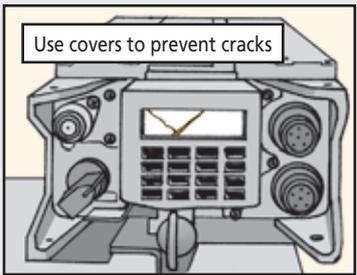
Since the arrival of the E-model ASIP SINGGARS, plunges, big feet, and shoved equipment have cracked about a billion keyboard displays. We could write it off as normal wear and tear if a solution had not been around for more than five years!

Yep! Here at PS we reckon at least 950 million of the billion displays could have been saved with the use of clip-on covers, NSN 5895-01-473-6804, and carrying strap, NSN 5340-01-461-4741.

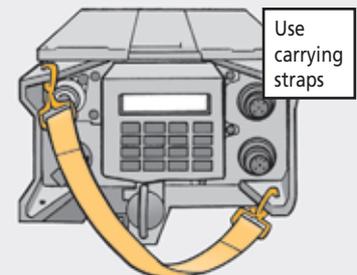
The carrying strap would prevent most accidental drops. The cover would protect the screen from big feet and equipment shoved into it. An added benefit of the cover is protection from wind-blown sand.

So, right now, get your supply people to order straps and covers for the ASIP. And while they're ordering those, have them order some guide rails, NSN 5975-01-467-4678. The guide rails go on the SINGGARS' vehicle amplifier (VAA) and help prevent damage to the P1 connector pins in the back of the ASIP.

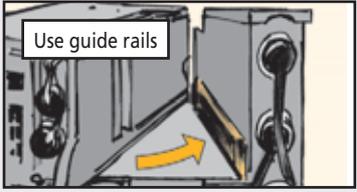
Finally, when the covers and rails come in, take the time to put them in place on every ASIP and every VAA under your control. In the long run these two little things will save you about a billion headaches! And put the straps in your commo shop and use them when carrying equipment from unit to unit and from shop to vehicle.



Use covers to prevent cracks

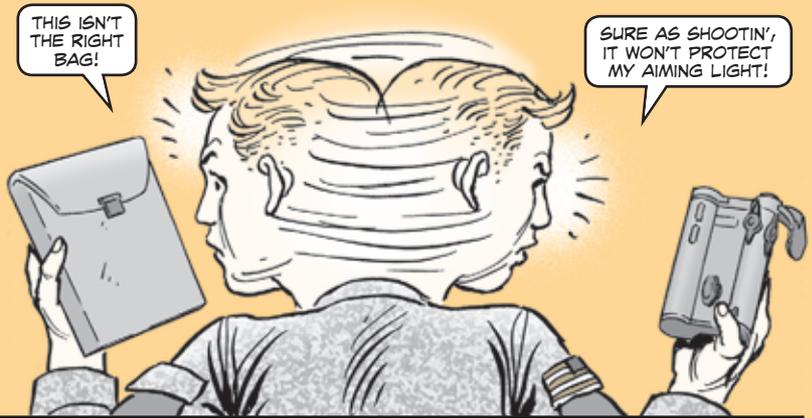


Use carrying straps



Use guide rails

AN AIMING LIGHT BAG?



THIS ISN'T THE RIGHT BAG!

SURE AS SHOOTIN', IT WON'T PROTECT MY AIMING LIGHT!

Dear MSG Half-Mast,
I ordered textile bag, NSN 8105-01-368-6253, Item 6 of Fig D5, in TM 11-5855-301-12&P on EMO163, for my aiming light. Unfortunately, a bag a lot different than the one I had came.
The bag I was trying to replace had three pockets and a velcro fastener. The bag that came has one pocket and a snap fastener. Has this bag replaced the old one? If so, it doesn't protect the aiming light nearly as well as the old bag.

SSG J. L. P.

Dear Sergeant J. L. P.,
There has not been a change in the bag. You did not get the right one. Unfortunately, the wrong bag is now the bag in the supply system. Those in the know are on the problem. Sometime, hopefully sooner than later, the wrong bags will be removed from inventory and the right bags will be stocked. When we know for sure this has happened, we'll put the word out in PS. In the meantime, don't order new bags for the AN/PAQ-4B, -4C and the AN/PEQ-2A, -14, -15 and -16 unless your alternative is no bag at all.

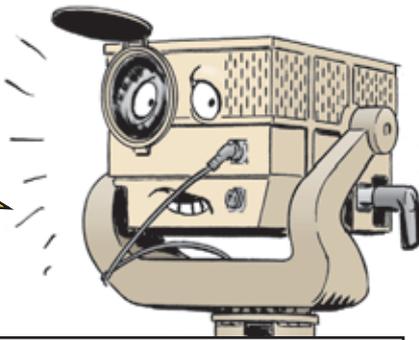
Half-Mast

Right bag



Wrong bag

WE NEED TECHNICAL MANUALS!



Dear MSG Half-Mast,
The LRAS3 infrared night vision sight is vital to our mission, yet we can't find pubs for it. Are there any? If so, how can we get them?
Sergeant P. L. T.

Dear Sergeant P. L. T.,
The pubs for the LRAS3 are in draft and, hopefully, will come to you through normal pub channels soon. However, for some of you, it may not be soon enough. We rarely recommend getting a draft publication, but in this case, we'll make an exception. The LRAS3 is a highly used, critical piece of equipment and you need manuals to order parts and maintain it right. So, contact your C-E LCMC logistics assistance representative (LAR). He or she will go to the LAR page at the AKO website and download a draft copy of TM 11-5855-310-12&P. When you get the draft manual, remember, it is a draft. It's not official, yet. That means you need to double check information like stock numbers whenever possible.



ONE OF THE FIRST AREAS IN THE PUB YOU MAY WANT TO CHECK IS THE REAR PANEL ASSEMBLY, NSN 5975-01-486-5035.

ONCE THERE, YOU'LL FIND YOU CAN REPLACE THE TWO GPS BATTERIES, NSN 6135-01-214-6441, ON THE PANEL INSTEAD OF REPLACING THE ENTIRE REAR PANEL, WHICH SOME OF YOU ARE DOING.

A PACKAGE OF 10 BATTERIES COSTS AROUND \$100.

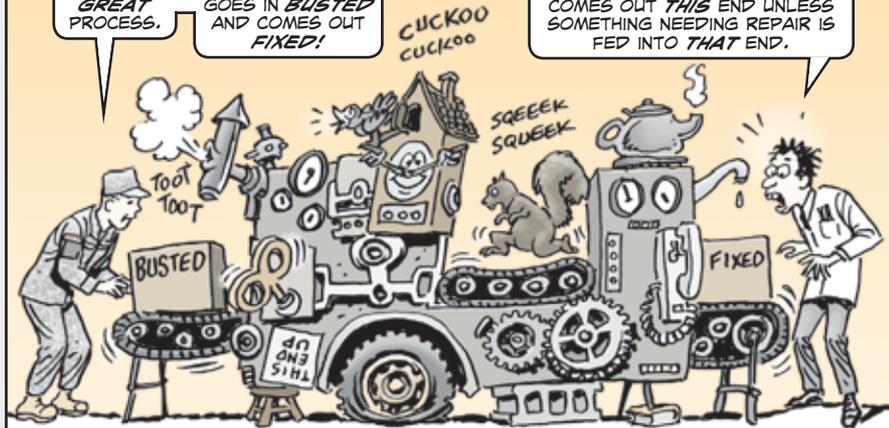
A NEW REAR PANEL ASSEMBLY COSTS AROUND \$6,500!

Return that Power Distribution Box

THIS IS A GREAT PROCESS.

EQUIPMENT GOES IN **BUSTED** AND COMES OUT **FIXED!**

YES, BUT NOTHING REPAIRED COMES OUT **THIS** END UNLESS SOMETHING NEEDING REPAIR IS FED INTO **THAT** END.



The PP-8440/ASM power distribution box, NSN 6110-01-423-8822, can reduce the number of generators needed to power your AN/ASM-146, AN/ASM-189 or AN/ASM-190 vans and shelters and help eliminate damage caused by wetstacking. But they only work when you can get them. And you can only get them when you turn in unserviceable ones to be repaired! That's not happening.

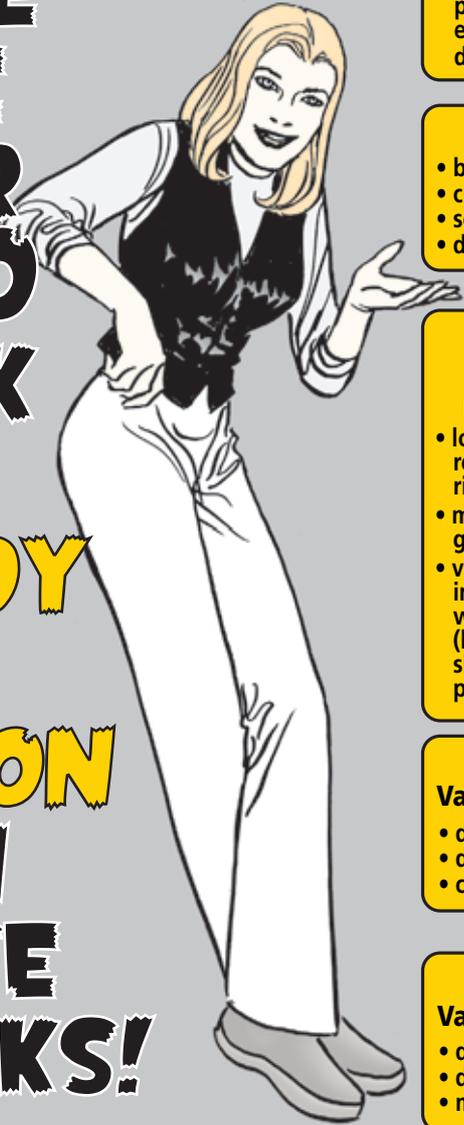
It's not happening with PP-8479(V)3/ ASM power distribution box, NSN 6110-01-474-6546, used on the AN/ASM-146 and -147, either. Return unserviceable distribution boxes to:
RIC: BY6
DoDAAC: W25G1W
For help, contact your C-E LCMC LAR or call C-E LCMC at DSN 992-3758 or (732) 532-3758.

Remove the Tags

Before shipping electronic reparables to Tobyhanna Army Depot and other repair facilities, remove all additional tags attached by field units. These tags clutter up the equipment with unnecessary directions and labels. But also, and more importantly, they are hazardous to the equipment. They are not electrostatic discharge (ESD) sensitive. They can cause ESD damage to an already damaged piece of equipment. So, remove the tags before you ship!

MAKE SURE YOUR M40 MASK IS READY FOR ACTION WITH THESE CHECKS!

PROBLEMS?
TELL YOUR CBRN
SPECIALIST!



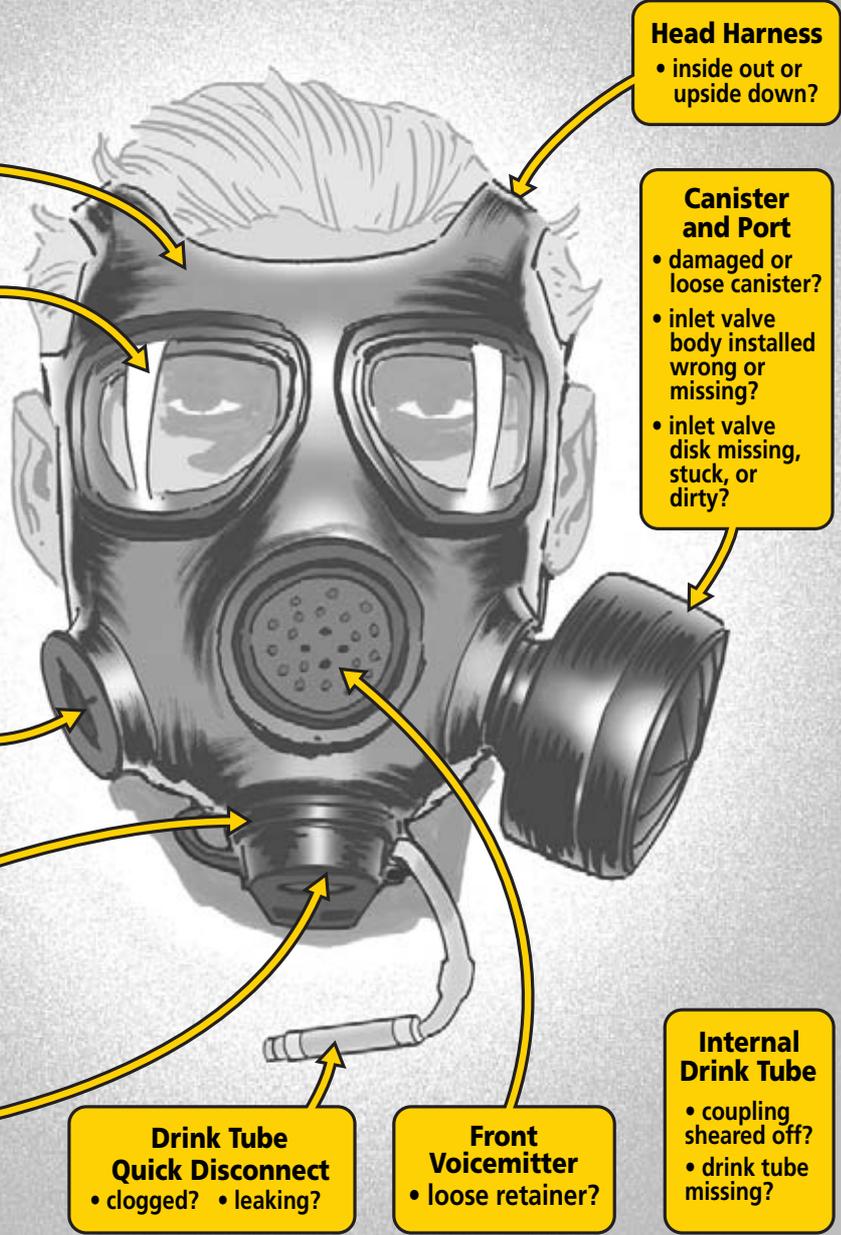
Face Piece
• deformed enough to prevent easy donning?

Lens
• broken?
• cracked?
• scratched?
• discolored?

Side Voicemitter
• loose retaining ring?
• missing gasket?
• voicemitter installed wrong (bumps should point out)?

Outlet Valve Seat
• damaged?
• dirty?
• corroded?

Outlet Valve Disk
• damaged?
• dirty?
• missing?



Head Harness
• inside out or upside down?

Canister and Port
• damaged or loose canister?
• inlet valve body installed wrong or missing?
• inlet valve disk missing, stuck, or dirty?

Drink Tube Quick Disconnect
• clogged? • leaking?

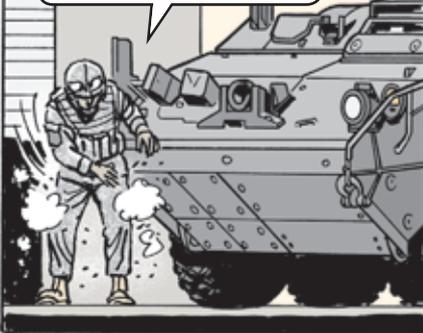
Front Voicemitter
• loose retainer?

Internal Drink Tube
• coupling sheared off?
• drink tube missing?

Tools...

Creepers Great for Tight Spaces

DARN IT! THERE'S GOT TO BE AN EASIER WAY TO DO PMCS UNDER MY STRYKER!



THERE IS! YOU NEED A MECHANIC'S CREEPER!



THIS ONE'S THE TOP-OF-THE-LINE, BUT THERE ARE OTHERS, TOO!

Dear Half-Mast,

Both our operators and mechanics spend a lot of time under their vehicles doing maintenance and PMCS inspections. A good mechanic's creeper would make it easier to get into those tight spaces and save some wear and tear on our uniforms.

Any suggestions?

SFC J.B.D.

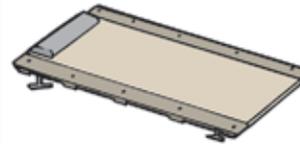
Dear Sergeant J.B.D.,

There are several creepers available to choose from, Sergeant.

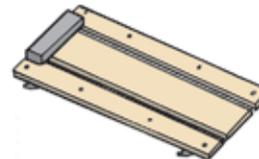
If you want to go with a top-of-the-line creeper, NSN 4910-01-487-7902 is your best bet. It's made of high-strength polypropylene, has a 400-lb capacity, and is designed to roll easily on gravel, dirt, and broken pavement as well as smooth surfaces. The creeper measures 47-in long x 25 1/2-in wide and costs about \$120.

If you'd like a standard creeper that costs less money, here are your options:

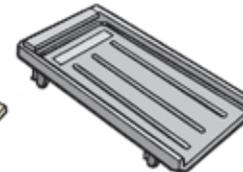
NSN 4910-00-251-6981



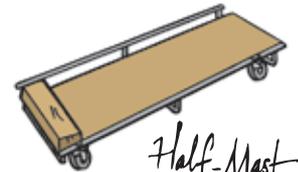
NSN 4910-01-100-7222



NSN 4910-01-322-4799



NSN 4910-01-484-6455



Half-Mast

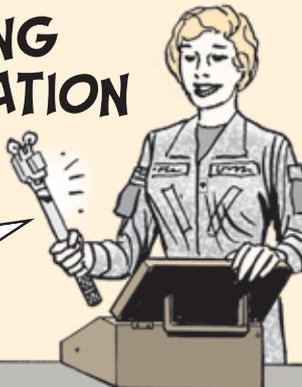
| NSN 4910- | Size, LxW (inches) | Frame | Cost (approx.) |
|-------------|--------------------|------------|----------------|
| 00-251-6981 | 35 x 14 1/2 | Solid wood | \$48 |
| 01-100-7222 | 36 x 16 | Solid wood | \$41 |
| 01-322-4799 | 36 x 13 | Plywood | \$53 |
| 01-484-6455 | 36 x 17 | Steel | \$53 |

TMDE...

TRACKING CALIBRATION 1,2,3

HEY, WHILE YOU'RE PACKING DON'T FORGET ABOUT MY CALIBRATION RECORDS.

WE'LL NEED THOSE OVER THERE.



Some of your equipment must be calibrated on a regular basis or it's not considered mission capable. So it's critical that you keep records of when TMDE calibrated these items and when they are due their next calibration. And when you deploy, it's critical that these records deploy with you.

The TMDE Integrated Materiel Management System (TIMMS) makes managing your calibration records during deployment as easy as 1,2,3.

- 1. Pre-deployment**—Work with your local TMDE shop to identify which equipment will be deploying with you. TMDE can scrub the equipment you won't be taking from your instrument master record file (IMRF). The revised IMRF can then be downloaded to a disk and taken to your new location.
- 2. Deployment**—Establish an account with your new TMDE support activity and have them upload your IMRF data. If you need help finding the closest TMDE activity in SWA, email the TMDE activity liason officer: TMDESWA@kuwait.swa.army.mil
- 3. Redeployment**—Close out your TMDE account before you leave and download your IMRF data. When you return to your post, have your TMDE folks upload the calibration records. You're back in business.

If you have questions about TIMMS, contact the TMDE Help Desk at DSN 645-6096, (256) 955-6096.

Handling Instructions

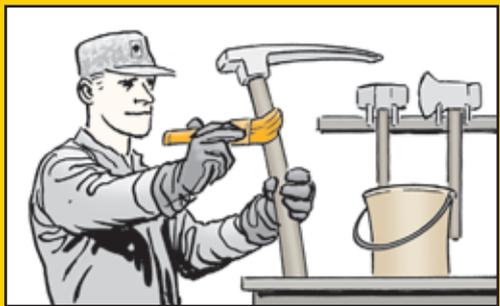


Paint

If a tool is stored outside, paint the handle to protect it against the weather.

Follow local SOP for paint color. Usually it's the same as the vehicle's basic color but not in a camouflage pattern.

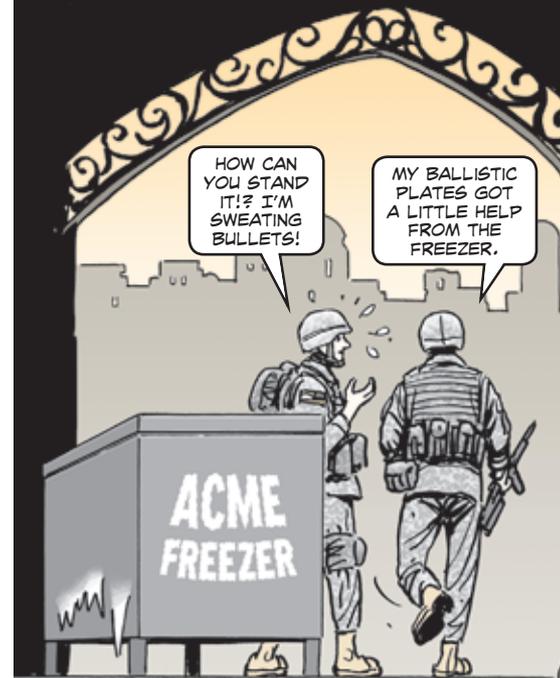
When the paint starts to chip and bare wood shows, strip the handle and repaint it.



Linseed Oil

If a tool is stored inside, rub the handle with linseed oil to prevent drying, cracking and splintering. NSN 8010-00-152-3245 gets you a gallon of linseed oil. When the handle starts to feel dry, rub it with oil again.

And here's a tip to tighten a loose wooden handle: Soak the portion of the handle installed in the tool head overnight in kerosene or antifreeze. Soaking will swell the wood and make the handle tight.



FREEZE BALLISTIC PLATES?

NOT!



It's hot. It's muggy, and the heat is unforgiving for personnel wearing full combat gear.

Keeping cool in the desert is a must for those wearing the interceptor body armor (IBA) with ballistic plates.

To get temporary relief from the heat, some soldiers freeze their ballistic plates before putting on their gear.

In the short run this practice may seem OK, but in the long run it could be deadly.

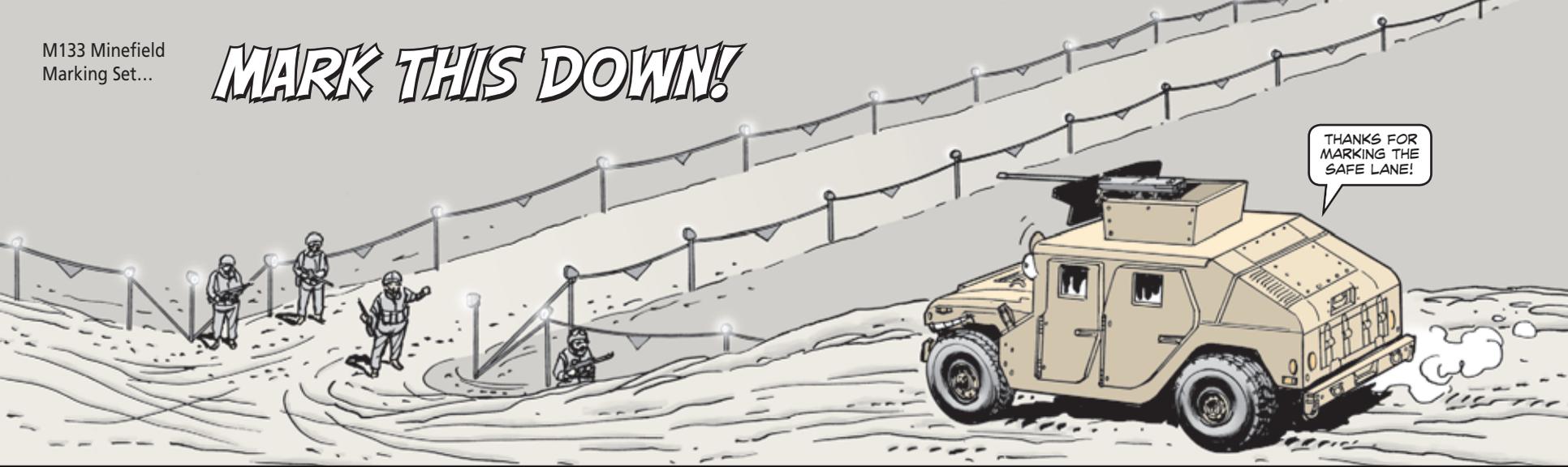
The constant freezing and thawing of plates over an extended period of time can degrade plate adhesives.

This is a big problem between the spall cover and the internal plate components, but more importantly, between the backing material and the ceramic tile within the plate. Repeated freezing and thawing can cause separation or debonding of material within the plates.

On one hand, you'll be cool for a while. On the other, repeatedly freezing and thawing plates can result in a catastrophic plate failure that can put your life in harm's way.

If you're hot, find another way to stay cool, but never freeze ballistic plates.

MARK THIS DOWN!



TM 5-9905-200-10 lists some wrong NSNs for components of the M133 minefield marking set, NSN 9905-01-019-0140. And the set's supply catalog, SC 9905-97-CL-E02, was rescinded without replacement in April 1995.

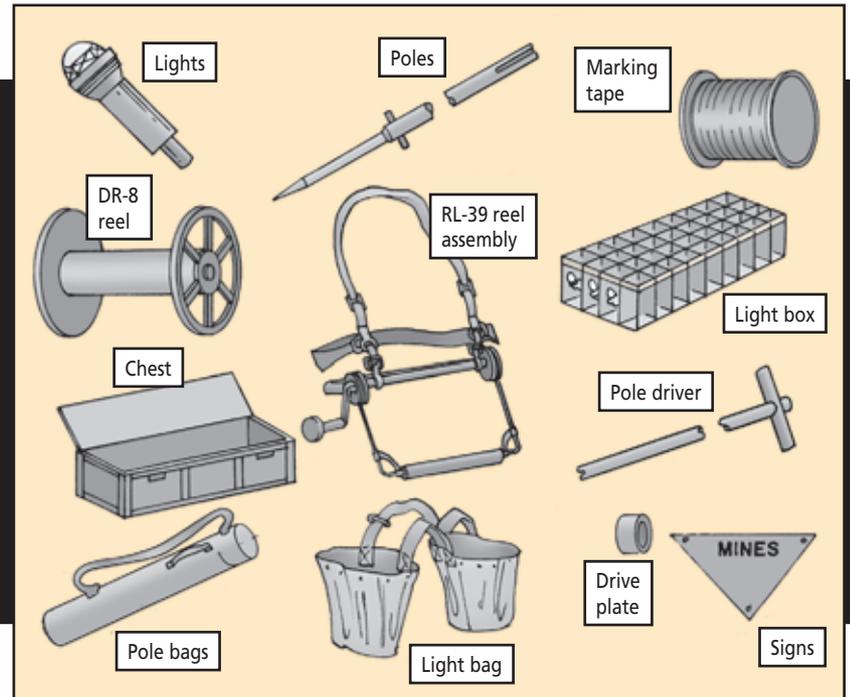
That puts you at a disadvantage when it comes to ordering components. So here's what makes up the set, the NSNs and the quantity needed:

There are no NSNs for the vapor-proof bag and the sign bag. If they are damaged or lost, you don't need to replace them.

The minefield marking set does not come with batteries. Order them separately. Each light needs its own 1.5 volt, D-cell battery to power it. NSN 6135-00-835-7210 brings you a package of 12 batteries.

| Name | NSN | Qty |
|---------------------------------|------------------|-------------------|
| Lights* | 6230-01-081-0592 | 72 |
| Poles | 9905-01-068-8638 | 70 |
| Marking tape* | 9390-01-066-9542 | 2 (3600-ft rolls) |
| DR-8 reel | 8130-00-407-7859 | 2 |
| Pole driver | 9905-01-066-9543 | 1 |
| RL-39 reel assembly | 3895-00-498-8343 | 1 |
| Light box | 6220-01-081-0593 | 1 |
| Light bag | 8105-01-066-9544 | 2 |
| Pole bags | 8105-01-066-9545 | 2 |
| Chest | 8145-01-082-1132 | 1 |
| Drive plate | 9905-01-066-9546 | 2 |
| Signs | 9905-01-066-9547 | 70 |
| Wire, nonelectrical (1-lb roll) | 9525-01-031-1086 | 1 |
| Vapor-proof bag | None | 1 |
| Sign bag | None | 2 |

*Terminal items. Order until supplies are exhausted.



HYDRAULIC PUMP DRIVESHAFT LUBE



YOUR GRADER'S GREASE FITTINGS CAN BE HARD TO FIND.



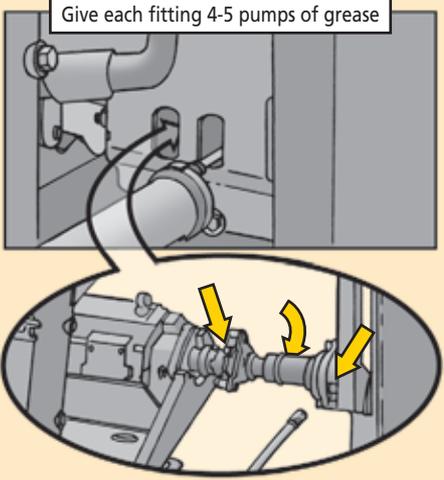
MAKE SURE YOU GET THE GUYS HIDING IN HERE

A little lube goes a long way when it comes to the three grease fittings on the hydraulic pump's driveshaft.

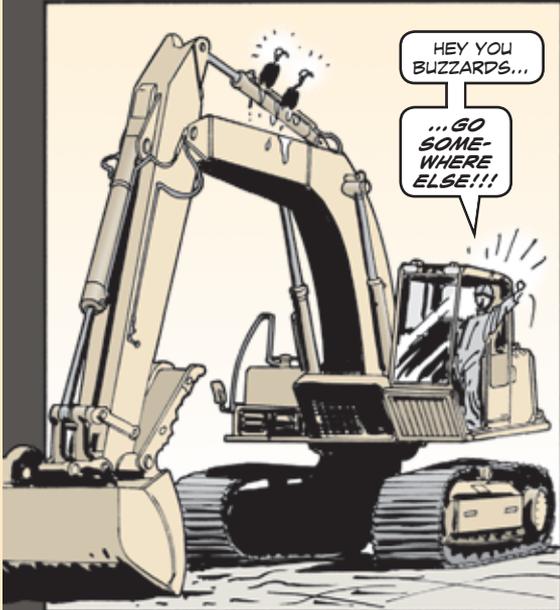
These fittings are often overlooked during scheduled services. Without lube, the U-joints on the pump's driveshaft shake loose from vibration and excessive wear. And, the shaft's bearings rust and burn out.

Eventually, the driveshaft and pump stop working. Then no hydraulic fluid gets pumped to the grader's blade, circle drive, scarifier or front wheel tilt. These components shut down and your grader is NMC.

So keep the pump's driveshaft lubed. During scheduled services every month, give each of the fittings four or five pumps of grease.



Hydraulic System PM



HEY YOU BUZZARDS...

... GO SOMEWHERE ELSE!!!



WHAT'S HIS PROBLEM?

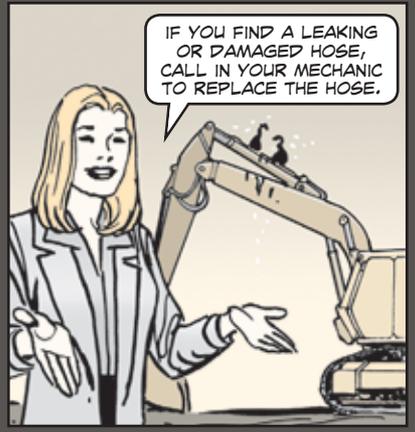
BEATS ME!

Operators, it takes the right amount of hydraulic fluid to lubricate the excavator's boom and keep it operating smoothly. That is, as long as the hoses are in good shape.

The excavator's hydraulic hoses get brittle from constant exposure to the elements. The biggest trouble spot is where the hoses are routed along the boom and arm.

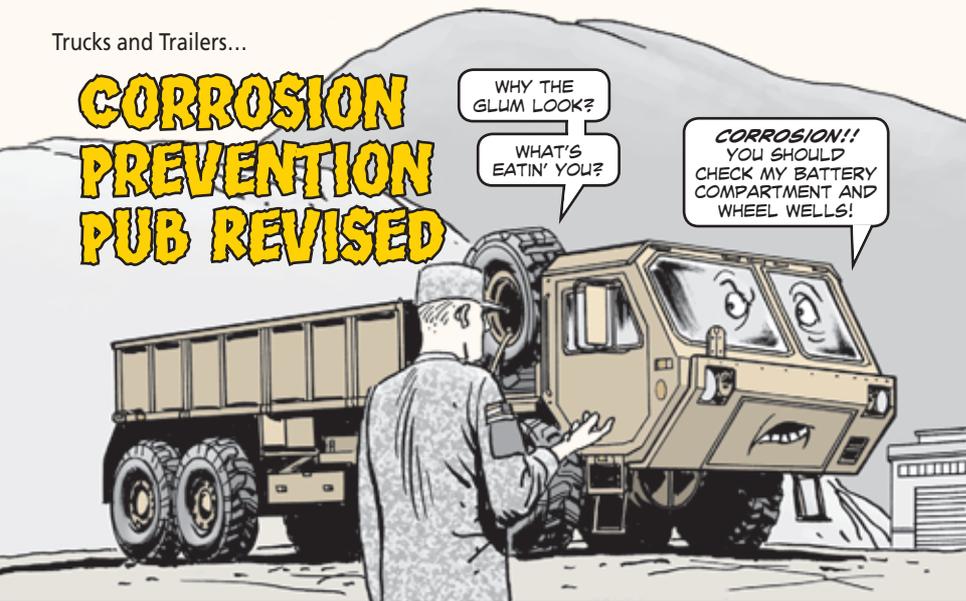
There's something else that causes hose damage—buzzards!!! They'll actually sit on the boom and start pecking at the hoses. Go figure! Eventually, the hose will deteriorate until it springs a leak.

Look for stains along the boom and arm hoses when tracking down a leak. Pinhole leaks in a high-pressure system can penetrate both the skin and clothing. So, use a piece of cardboard—not your hand—to find the leak.



IF YOU FIND A LEAKING OR DAMAGED HOSE, CALL IN YOUR MECHANIC TO REPLACE THE HOSE.

CORROSION PREVENTION PUB REVISED



A Army tactical wheeled vehicle and trailer operators and mechanics now have an up-to-date publication to help them prevent and control corrosion on their equipment. TB 43-0213, *Corrosion Prevention and Control [CPC] for Tactical Vehicles*, has been revised and was published in Sep 2007.

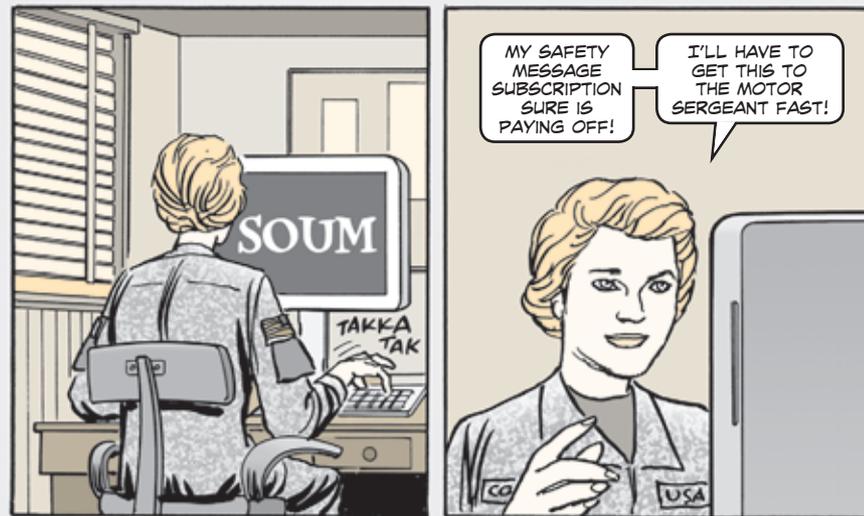
Units must practice CPC and use of the publication is mandatory, says the headshed, wherever corrosion prevention is essential. In simple terms, that's pretty much everywhere.

The pub covers heavy tactical vehicles (HEMTT, HET, PLS), medium vehicles (FMTV, ASV, M923), HMMWVs, and a variety of heavy, medium and light tactical trailers.

The publication defines corrosion, discusses the metals affected by corrosion, describes how corrosion occurs, and points out particular problem areas for each vehicle type and how to protect them.



SAFETY MESSAGE ANNOUNCEMENTS



You can get email announcements about new safety messages. The Army Electronic Product Support (AEPS) restricted website lists all of them.

AEPS PROVIDES A SUBSCRIBER SERVICE CONCERNING...



- ground precautionary messages (GPM)
- maintenance advisory messages (MAM)
- safety of use messages (SOUM)
- safety advisory/alert messages (SAFAM)
- aviation safety messages (ASAM)
- safety of flight messages (SOF)
- ammunition information notices
- missile information notices

You'll need to register an AKO logon and password or CAC to get access to the restricted AEPS website.

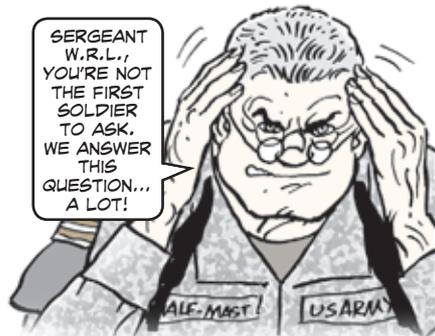
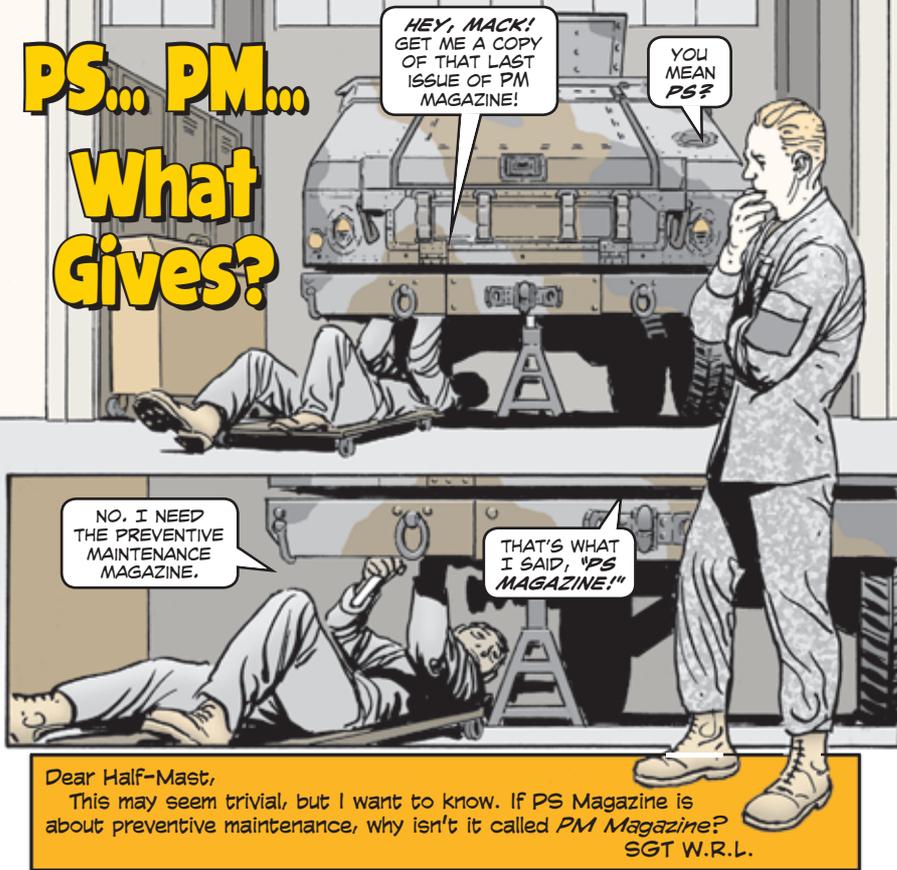
To get to the safety messages, open the AEPS public website and click on the restricted access icon: <https://aeps.ria.army.mil/aepspublic.cfm>

Log in, scroll down to and click on Safety Messages. Near the top right of the page under NEW FEATURE click on Subscribe to Safety Related Information.

You can choose email notifications by either weapons system code or by functionality (SOUM, SOF, etc).

Your notification will include the type of message, subject, release number, a short description, and a web link to the message.

PS... PM... What Gives?



PS, The Preventive Maintenance Monthly, is an Army technical bulletin dedicated to preventive maintenance, maintenance and repair, and logistics management at the field level.

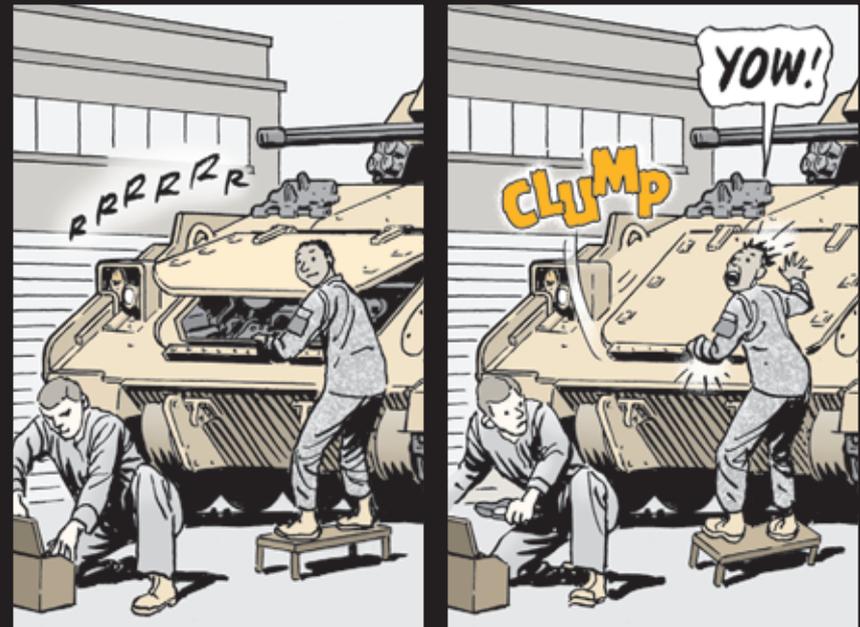
PS refers to the term *postscript*. The magazine serves as a postscript to advanced individual training (AIT) and to other technical and administrative publications related to maintenance, supply and logistics.

The pages of PS are used to present up-to-date instruction and to update info found in the publications that maintenance and supply personnel use everyday. We provide NSNs for new parts and equipment, replacement NSNs when parts change, and correct bad NSN info in tech pubs. We also update changes to PMCS and maintenance procedures.

So, you might say our magazine is the postscript that keeps PM up-to-date so soldiers can keep on shooting, moving and communicating.

Half-Mast

Safety - Make No Bones About It!



After completing PMCS on a Bradley Fighting Vehicle, a staff sergeant failed to stand clear as the engine cover was being lowered. It struck his arm, fracturing his wrist.

A private used his bare fingers to lift the floor boards on a Buffalo vehicle. He lost his grip causing the boards to slip and crush his fingers. The tip of one finger was amputated at the hospital.

Step away from possible hazards and keep an eye on moving equipment. When moving heavy materials, wear your gloves and be wary of loads that might shift.

Army Safe Is Army Strong

<https://crc.army.mil/home>



M1114 HMMWV Underbody Screw

The hex screw for your M1114's front passenger side underbody shown as Item 11 in Fig 194 of TM 9-2320-387-24P has the correct part number. The NSN is wrong, however. Replace it with NSN 5305-01-436-6377.

HELMET HARNESS TESTER

ALSE folks, here's some good news! Your integrated helmet and display system (IHADSS) has a new tester for the helmet's new IR harness. NSN 4931-01-534-1228 brings you the tester. You can use the tester on the old harness as well.

COMMUNICATION EARPLUG KIT

All new HGU-56/P helmets now come with the communication earplug (CEP) already installed. If you have a helmet that doesn't have a CEP installed, you can order the communication earplug kit with NSN 5965-01-474-5654.

Out with the Old BB-390B/U, In with the New BB-2590/U

There are two rechargeable batteries that can be used in your BA-5590 powered equipment like the ASIP SINGARS. One is the BB-390B/U, NSN 6140-01-490-4317. The other is the BB-2590/U, NSN 6140-01-490-4316. Order the BB-2590 and not the BB-390. Why? They're close in cost and the BB-2590/U is more powerful and lighter. But more important for the next few months, the BB-390 is out-of-stock while the BB-2590/U is ready to ship today!

FIBER OPTIC CABLE NSNs

Order 300 meters of CX-13295/G fiber optic cable with NSN 6020-01-220-5435. Order 1,000 meters with NSN 6020-01-208-1147.

Upgrading M7 FRS

If your M7 forward repair system (FRS) has a serial number from 0001 to 0743, you need to upgrade its tool load and/or data plate. M7's with tool load P/N SC4940-95-E41 (formerly P/N RIA149000), which is Granger, need to get tool load SC4940-95-E42, which is Snap On, and a new data plate, NSN 4940-01-533-1621.

If you already have SC4940-95-E42 (Snap On), you just need the new data plate. To receive the tool load and/or data plate, send TACOM-RI the following info:

- M7 serial number
- unit name
- ship to address
- POC with phone number and email

Email it to at@us.army.mil

RTCH Central Lube System

The project manager's office (PMO) at TACOM LCMC is looking for Kalmar RT 240 rough terrain container handlers that need a central lubrication system installed on the vehicle for **FREE**. Contact the PMO by writing to at this e-mail address:

[@us.army.mil](mailto:at@us.army.mil)

AIRSAVE VEST INFORMATION ON THE NET

The Army is a user of the Navy's AIRSAVE vest and other aviation life support equipment. If you need TM information on AIRSAVE, you can access the aircrew systems program office online: <https://home.navy.mil/pma202>

To access the site, you'll need CAC card certification and will have to apply for an email login and password.

HEMTT ENGINE WIRING HARNESS UPDATE

Get the -A2 and -A2R1 model HEMTT's DDEC 4 engine wiring harness (for HEMTTs other than wreckers) with NSN 6150-01-508-2486, PN 3462712, and CAGE 45152. This applies to the M1120A2 and M1120A2R1 HEMTT LHS trucks, too, but they aren't listed in the *usable on* codes in the HEMTT IETM, EM 0232.

Your M984A2 and M984A2R1 wrecker's DDEC 4 engine wiring harness comes with NSN 6150-01-508-2487, PN 3462713, and CAGE 45152. Use the sticky note feature in your HEMTT IETM to update Fig 543.

Up-Armored HMMWV Fuel Strainer Element

Need the strainer element that's part of the filler neck in the fuel filler pipe assembly of your up-armored HMMWV? You can't get it using the NSN listed for Item 23 in Fig 29 of TM 9-2320-387-24P. Make a note to get it with NSN 4730-01-311-4294.

ASV Annual Service Kit

Need the annual service kit for the armored security vehicle? It comes with NSN 4910-01-526-7869.

EMI FILTER FOR IMG MRAP FIRE SUPPRESSION SYSTEM PREVENTS ACCIDENTAL DISCHARGE

TACOM MAM 08-012 told you that users of International Military and Government (IMG-MaxxPro) Mine Resistant Ambush Protected vehicles (MRAP), NSN 2355-01-553-4634, were having accidental discharges of the cabin fire suppression system (FSS) bottles. Some of the vehicles arrived in Theater with the cabin FSS bottles already discharged.

Now we know the cause of this problem is electromagnetic interference (EMI). And you can solve this problem by using an EMI filter. The IMG FSS vendor, Lehavot, will provide free EMI filters for retrofit on vehicles in Theater beginning in mid-April 2008.

IMG field service reps will get them to you, and your unit mechanic can install them. Eyeball TACOM MAM 08-028 online for more details:

https://aeps2.ria.army.mil/commodity/mam/tacom_wn/08/mam08-028.html

DISTRIBUTION: To be distributed in accordance with the initial distribution number (IDN) 340312, requirements for TB 43-PS-Series.

Would You Stake Your Life ^{right now} on the Condition of Your Equipment?

[Click here for a copy of this article to save or email.](#)



**Also, read TM 9-2530-200-24,
*Standards for Inspection and
Classification of Tracks,
Track Components and
Solid-rubber Tires.***

