



**THE  
PREVENTIVE  
MAINTENANCE  
MONTHLY**

**ISSUE 625 DECEMBER 2004**

TB 43-PS-625, 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. Application of the information is optional with the user. Masculine pronouns may refer to both genders.



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- M16-Series Rifle, M4/M4A1 Carbine Primers
- M4/M4A1 Carbine New Extractor Spring
- Small Arms Gauge Calibration
- M249 Machine Gun Collar Removal
- Small Arms Sight Recommendations



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- HMMWV Lube Intervals
- 5-Ton Dump Trucks Hinge Pin Lubing
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- M1-Series Tank Lubing Reminders
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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:

**psmag@logsa.redstone.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:

**PETER J. SCHOOMAKER**

General, United States Army Chief of Staff

Official:

*Sandra R. Riley*

**SANDRA R. RILEY**

Administrative Assistant to the Secretary of the Army

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Issue 625

# PS

December  
2004

## THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-625

Approved for  
Public Release;  
Distribution is  
Unlimited

UNCLE SAM WANTS  
YOU TO USE THESE  
REUSABLE SHIPPING  
CONTAINERS,... BUT...

... NOT  
FOR  
THAT!



PAGES 46-48  
"CHOOSE TO  
RE-USE"

# THE PRINCIPLE OF PREVENTIVE MAINTENANCE



"IMPORTANT PRINCIPLES MUST BE INFLEXIBLE."  
-ABRAHAM LINCOLN

THERE IS NO MORE IMPORTANT A PRINCIPLE THAN THAT OF PREVENTIVE MAINTENANCE.



The principle of preventive maintenance is as sound as a dollar and as lasting as the love of freedom. Simply put, the principle is: **Preventing equipment failure is better than dealing with equipment failure.**

Preventing equipment failure happens on your time when you schedule it. At that moment, you are not faced with a life and death situation.

Dealing with equipment failure happens on the enemy's time and never fits into your schedule. And far too often, the situation is life and death.

Putting the wisdom of Abraham Lincoln and Master Sergeant Half-Mast together, we might have heard from them, "Preventive maintenance is an important principle that must be inflexible."



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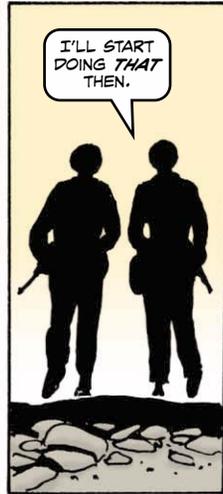
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# Dented Primer OK



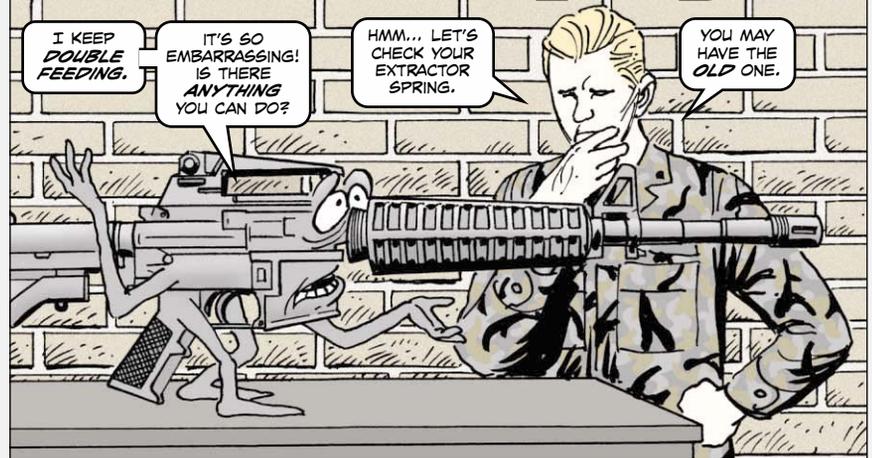
Dear Half-Mast,  
Here in Iraq we've noticed that when we chamber—but not fire—rounds in our M16-series rifles or M4/M4A1 carbines, it dents the round's primer. Is there something wrong with our weapons or is this normal?

SGT P.S.

Dear Sergeant P.S.,  
*It is normal for the round's primer to be dented when the round is chambered. The dent is about .007 inch deep, which isn't deep enough to set off the round. You can charge and chamber a round five times before you risk a deadened round that won't fire. It is a good idea when you're in a combat situation like Iraq to rotate a chambered round to the bottom of the magazine when you clean your weapon and the magazine each day. No use taking any chances.*

*Half-Mast*

# New M4/M4A1 Extractor Spring

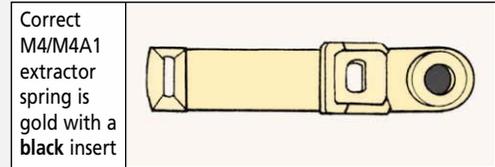


To improve the reliability of the M4/M4A1 carbine, the Army has gone to a new extractor spring assembly for the carbine's breech bolt assembly, whose NSN is now 1005-01-505-1035 because of the new extractor spring.

The new extractor spring assembly comes with NSN 1005-01-505-2886. It's gold colored with a black insert and will be added to TM 9-1005-319-23&P in Change 8.

All M4/M4A1s should have the new extractor spring assemblies installed by June 2005.

The M16-series rifle will continue to use the extractor spring assembly that comes with NSN 1005-01-424-5899 and is dark and has a black insert.



Correct M4/M4A1 extractor spring is gold with a black insert



FOR MORE INFO, SEE TACOM MAINTENANCE ADVISORY MESSAGE MAM-04-024.

QUESTIONS? CONTACT TACOM'S KEVIN MOORE AT DSN 793-2359/(309) 782-2359 OR EMAIL: moorek@ria.army.mil

# WHERE DO I GET INFO ON GAUGES?

I KNOW IT'S TIME YOU GUYS WERE GAUGED, BUT THE GAUGES DON'T LOOK SO GOOD.

TRY LOOKING IN TB 43-180. THAT'S THE CALIBRATION BIBLE!

I DON'T THINK THEY'RE ACCURATE ANYMORE. WHERE CAN WE GO TO GET YOUR GAUGES GAUGED?

Dear Half-Mast,

We were trying to get info on inspecting and calibrating our small arms gauges. We tried to order TB 43-0240, *Inspection and Calibration of Small Arms Gauges*, but it was rescinded in 1996. Where should we look?

LT R.T.

Dear LT R.T.,

TB 43-0240 was created just for Desert Storm and as you point out was later rescinded. TB 43-180, Calibration and Repair Requirements for the Maintenance of Army Materiel, is the word on calibration of small arms gauges. TB 43-180 is not available in printed form, but only on EM 0022, the CD which contains most of the TMDE regs. Your pubs clerk can order EM 0022 with PIN 074841-000 and IDN 344568.

Small arms gauges can only be calibrated by the five Army TMDE labs. The TB lists their names and addresses. Small arms gauges must be calibrated every 360 days, regardless of whether your unit is Active or Guard or Reserves.

All Army units and activated Guard and Reserve units must have all their small arms gauged by direct support within one year of receiving them. Active units must have all small arms gauged yearly at a minimum, while Guard and Reserve units not on active duty must get their small arms gauged every two years at a minimum. That is the minimum required to assure safety, operability, and reliability of small arms. If you fire your rifle and machine guns frequently, they should be gauged more frequently.

If you have questions about small arms gauging, contact TACOM's Kevin Moore at DSN 793-2359/(309) 782-2359 or email:

moorek@ria.army.mil

Half-Mast

# Remove Collar Without Breaking Scraper



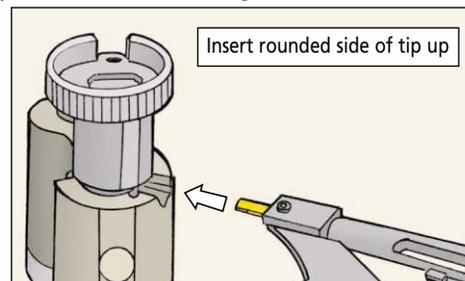
Dear Editor,

We see quite a few broken scrapers for the M249 machine gun here at the Ft Leonard Wood Directorate of Logisitics. We think gunners are snapping the scraper's tip when they remove the gas regulator collar. They pry the collar with the tip and—SNAP—there goes \$17.

Removing the collar can be a snap if you just remember a few points. Insert the scraper tip so that its rounded side is up. Turn the collar counterclockwise so that the collar pin rides up over the scraper tip. Push up slightly on the pin with the tip, but don't use force. That's what breaks the tip. The collar should come off.

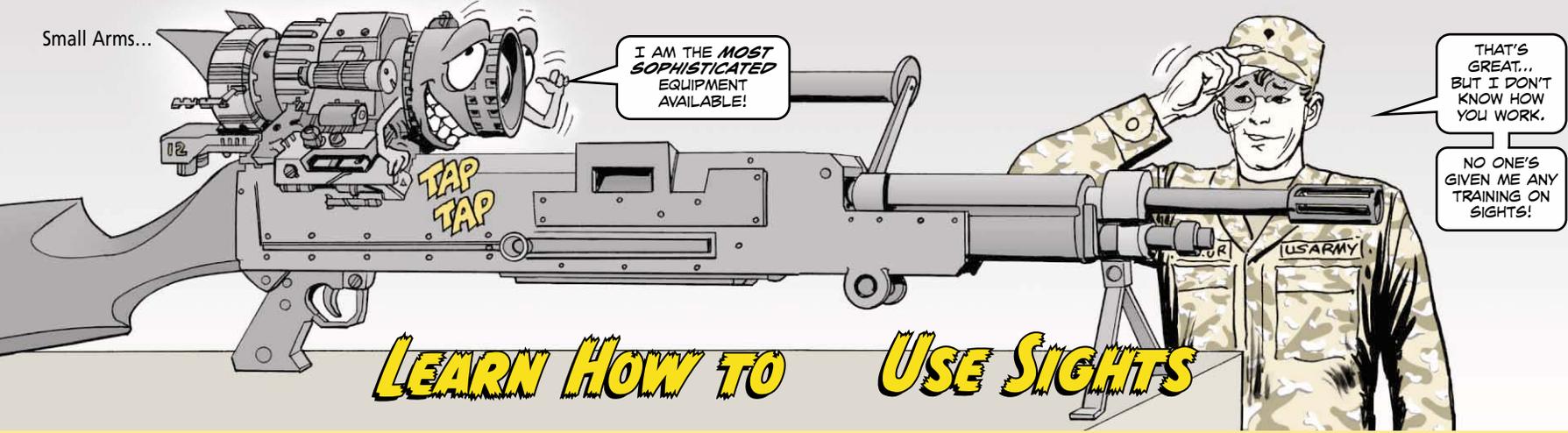
If the collar pin won't go over the scraper's tip, try putting one drop of CLP on the collar pin. The extra lubrication may make the difference. If it doesn't, get your armorer to help. Just **don't** try prying with the scraper!

Andy Free  
DOL  
Ft Leonard Wood, MO



**(Editor's note:** Thanks. Your tip on tips should keep scrapers out of a scrape.)

Small Arms...



# LEARN HOW TO USE SIGHTS

Dear Editor,

During my time at the National Training Center, I noticed many units had no SOP for training with the night vision and laser-aiming sights that can now be installed on rifles and machine guns. As a result, too many soldiers don't have a clear idea on how to use the sights, which means they won't be as effective in battle.

To make sure soldiers learn how to best use their night vision and laser-aiming sights, I recommend the following:

- Determine training requirements for your unit based on the five phases of marksmanship outlined on Pages 1-3 of FM 3-22.9, *Rifle Marksmanship*. The training must be managed at brigade level so that it can be standardized for all the units and so that equipment shortages can be evened out. You can find the FM at

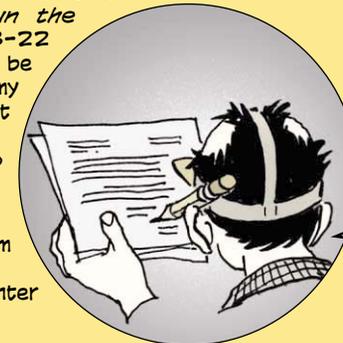
[http://www.army.mil/usapa/doctrine/23\\_Series\\_Collection\\_1.html](http://www.army.mil/usapa/doctrine/23_Series_Collection_1.html)

- Determine what night vision and laser-aiming devices are authorized for each unit, what's on-hand and what weapons the devices can be used with. Use the matrix at the bottom of the page to organize what devices you have.

- Publish an annex to unit SOP that standardizes mounting of equipment on weapons and makes batteries for these sighting devices part of the pre-combat checks.

Besides FM 3-22.9, another good reference is *Own the Night* Handbooks O3-22 and 96-3, which can be found at Center for Army Lessons Learned at <http://call.army.mil>. Sign in and go to HANDBOOKS.

MAJ John Lightner  
Brigade Training Team  
(Broncos)  
National Training Center  
Ft Irwin, CA



IT DOESN'T DO A UNIT MUCH GOOD TO HAVE THE NEW SIGHTING DEVICES IF SOLDIERS AREN'T SURE HOW TO USE THEM.

BY THE WAY, THE NSN FOR THE HARD-TO-FIND BORELIGHT IS NSN 5860-01-471-2091.

Capability		Day						Night				Zero		SOP		
Unit	M16A2 M16A4 or M4	M68 Reflex Sight	Backup Iron Sight	M249 or M240B	Machine Gun Optic	PVS-7	PVS-14	Total	Harness NVG or Advanced Combat Helmet	PAC-4C	PEQ-2A	Total	AN/PAS-13 Thermal Weapon Sight	Small Arms Borelight	Paper Offset Targets	Yes/ No/ Compliance

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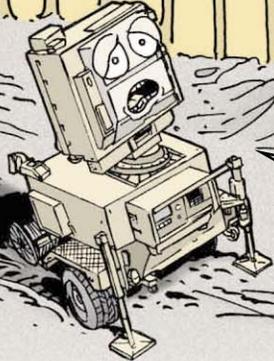
DEC 04

PS 625

7

DEC 04

# SUGGESTIONS FOR SENTINEL SUCCESS



THIS DESERT SAND AND HEAT AND ROUGH COUNTRY ARE KILLING ME!

THESE TWO GUYS HAVE SOME GOOD IDEAS, SO GIVE 'EM A LISTEN... AND HELP ME OUT!

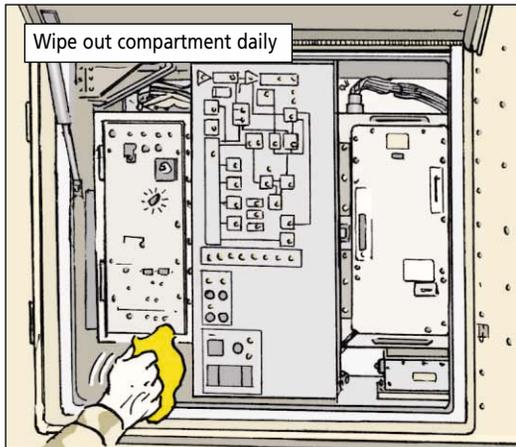
Dear Editor,

During our months fighting in Iraq we learned a couple of important lessons for our Sentinels that will help other radar crews.

### Seal out sand.

The doors that cover the compartments on the Sentinel do not always do a good job of sealing out sand. The sand causes abrasions and other problems on the Sentinel's electronic components, especially if you are dealing with the fine sand of Southwest Asia. The Sentinel compartment doors have an electromagnetic interference (EMI) seal/tape installed around each door. You cannot add weather stripping to the Sentinel compartment doors without affecting the EMI shield, which protects the crew and system from RF energy.

What you *can* do is try to keep the access doors closed as much as possible, wipe the compartments clean daily, and daily check and clean if necessary all the air filters.

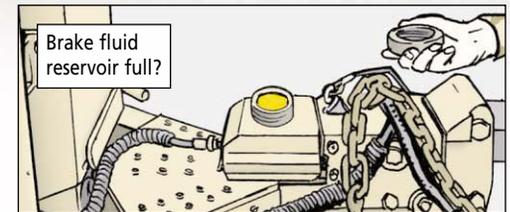


### Keep an eye on the trailer's brake fluid and wheel hub grease.

We found the heat and rough terrain of the desert were tough on the trailer. We lost one trailer axle because of no grease and discovered that the trailer needed much more brake fluid out there. You may need to check the brake fluid weekly in the desert instead of monthly like the PMCS in TM 9-2330-392-14&P says.

Carefully follow the lube instructions in Appendix G of the TM, particularly the ones about the wheel hubs. The hubs may need lubing monthly instead of semiannually in the desert.

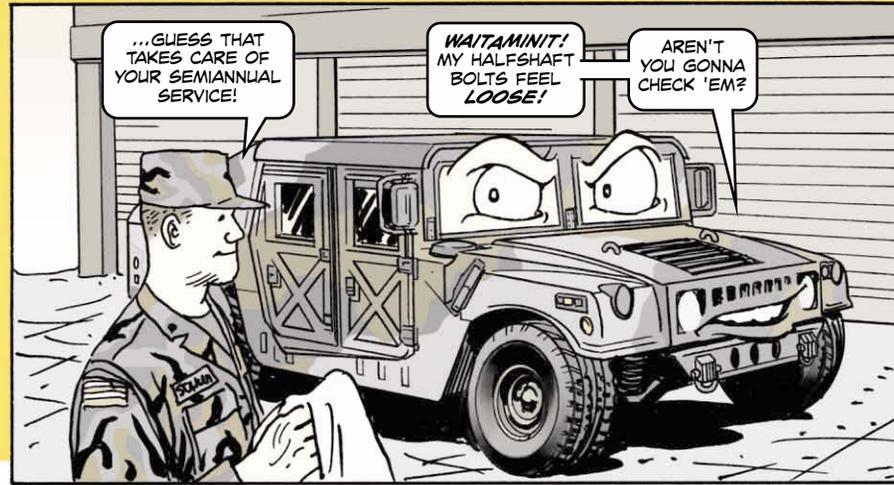
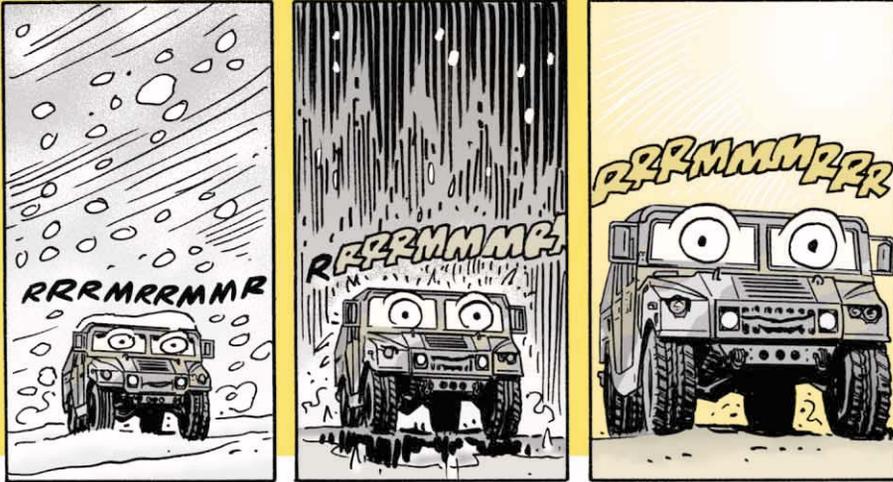
SGT James Lightner  
PFC Scott Mitchell  
HHB, 1/3 ADA  
Ft Stewart, GA



*(Editor's note: Thanks for sharing your Sentinel tips. Sentinel crews should keep them on their radar screens.)*

# DON'T GO HALFWAY

# ON HALFSHAFT CHECK

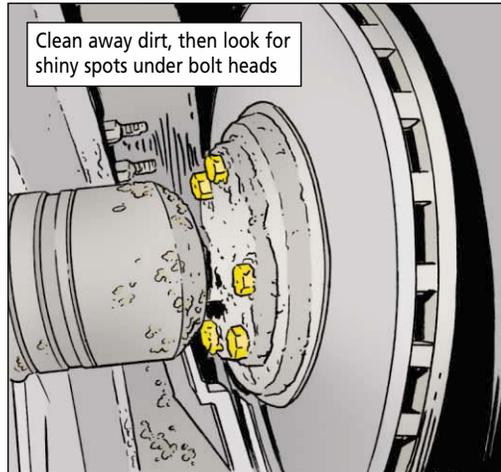


**A** little vibration over a long period of time. That's all it takes to loosen the bolts that hold the HMMWV's halfshafts in place, mechanics.

If a halfshaft flies loose, it can take out the brake lines, coolant tube and cause serious engine failure. That means you can't go halfway when checking halfshaft bolts for tightness.

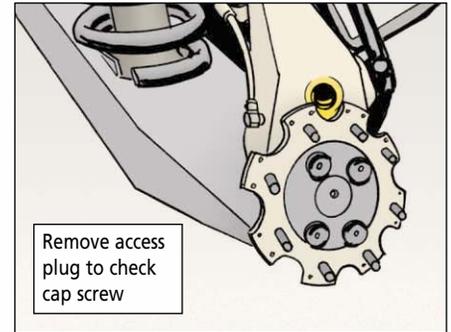
Once you've cleaned away the dirt and mud, it's pretty easy to see if the bolts that hold the halfshaft to the rotor are loose. Just look for shiny spots under the bolt heads.

If you find a loose bolt, replace both the lock washer, NSN 5310-01-185-7218, and the bolt, NSN 5306-01-185-7048. Dip the bolt in sealing compound, NSN 8030-01-171-7628, before installing it to help keep it tight. Then torque the bolt to 48 lb-ft.



It's not so easy to check the cap screw in the hub. You must first remove an access plug to get to the screw, then use a torque wrench to tell if the screw is loose.

If the screw moves before you reach 37 lb-ft of torque, it's loose. Replace it with a new lock washer, NSN 5310-00-011-5093, and cap screw, NSN 5305-00-068-0511. Dip the new screw in sealing compound and torque it to 37 lb-ft.



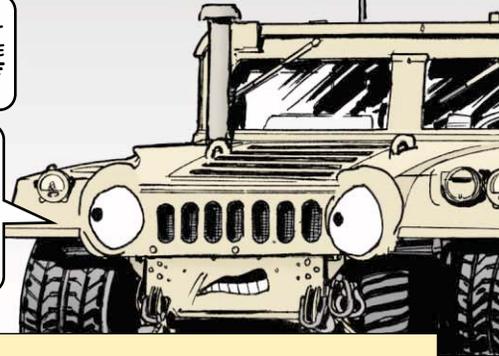
HMMWV...

# Twice a Year Not Enough?



LUBE YOUR TIE RODS? BUT THEY'RE NOT DUE FOR TWO MORE MONTHS!

ALL THIS HEAT AND SAND CHANGES THINGS! I NEED LUBE MORE OFTEN OVER HERE!



Dear Half-Mast,

LO 9-2320-280-12 says to lube the tie rod ends on our HMMWV every 3,000 miles or semiannually with GAA. Here in Iraq, we feel this just isn't enough.

The terrain here is very hard on tie rods. Sand and dirt make things even worse. If the tie rods seize and break, we could lose steering. Should we lube the tie rods more often?

SSG S.L.P.

Dear Sergeant S.L.P.,

Yes, you should. The LO says hard time intervals can be shortened if your lube is contaminated or if the vehicle is being operated under adverse conditions. The desert definitely qualifies!

Make sure you clean off both grease fittings on each tie rod end before lubing. That'll help keep sand out. While you're under the vehicle, take a close look at the rubber boots at each end. Look for cracks or tears that let lube out and sand in. Tell your mechanic if you find any.

*Half-Mast*

Lube tie rod ends here...

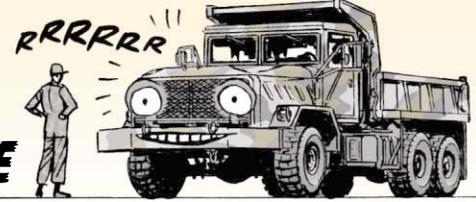


...and here with GAA

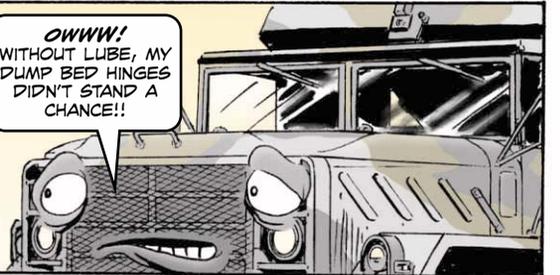


5-Ton Dump Trucks...

# PERFORMANCE HINGES ON LUBE



OWWWW! WITHOUT LUBE, MY DUMP BED HINGES DIDN'T STAND A CHANCE!!



When you've unslung the ol' grease gun, don't forget to get a few shots off on the dump bed hinge pins, operators.

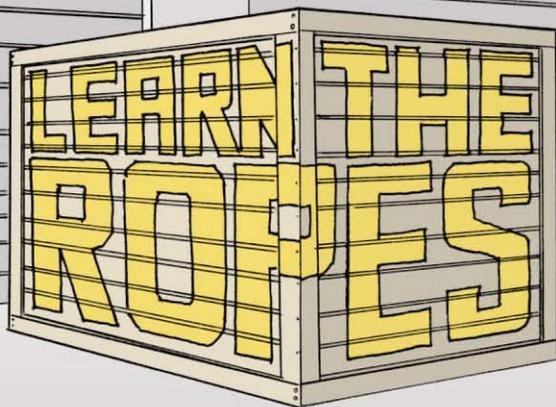
Forget, and the pins rust. When the bed is raised, the hinge is forced to pivot on the rusty pins. A lot of stress results, snapping the hinge bolts or cracking the hinge itself.

Prevent that damage by giving the hinge pins a few shots of GAA semiannually or every 3,000 miles. If operation is frequent or continuous or you're operating in severe conditions, lube the pins weekly.



Lube hinge pins semiannually or every 3,000 miles...

...or weekly in severe conditions

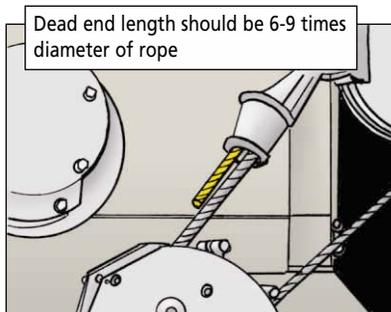


**D**rivers, when you lift a load on your HEMTT's boom winch, you don't want the wire rope suddenly popping loose. That's a disaster for whatever it is you're lifting.

Keeping the load secure means you have to properly attach the wire rope to the hook. The best way to do that is with a good wedge socket. Follow these steps:

1. Make sure there are no rough edges or burrs on the wedge or socket that might 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.
3. Thread the rope through the socket, make a 180° turn, and thread the rope back through the other side of the socket.

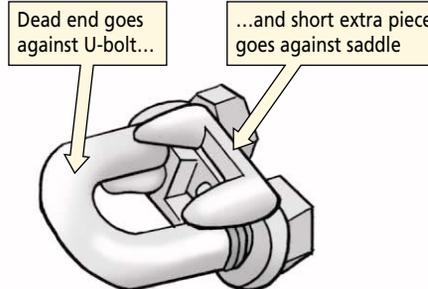
Make sure the end of the rope extends past the socket six to nine times the rope's diameter. For example, if you're using 1/2-in diameter rope, the end will have to extend 3 to 4 1/2 inches past the socket. Leave it short and the rope may slip free of the socket during a lift.



4. Insert the wedge into the socket.

5. Clamp the dead end of the rope to a short extra 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 extra piece against the saddle. Clamp the two as close to the wedge as possible.

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.



# DRIVING ON AIR



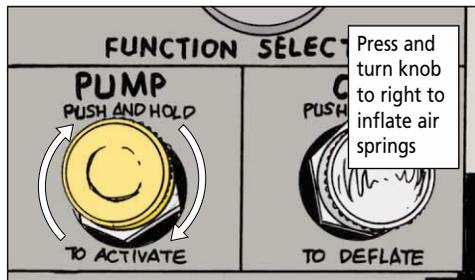
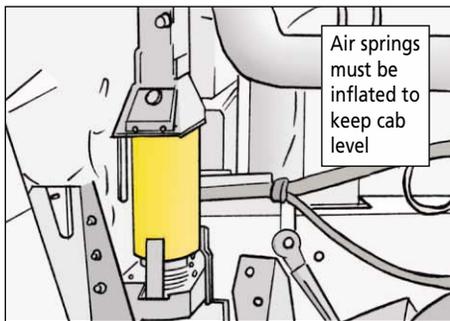
**D**rivers, you're in for a rough ride in your 2 1/2- or 5-ton FMTV if you don't keep the air springs inflated.

Some operators seem to think it's necessary to deflate the air springs before tilting the cab. Then they forget to re-inflate them when they finish their work.

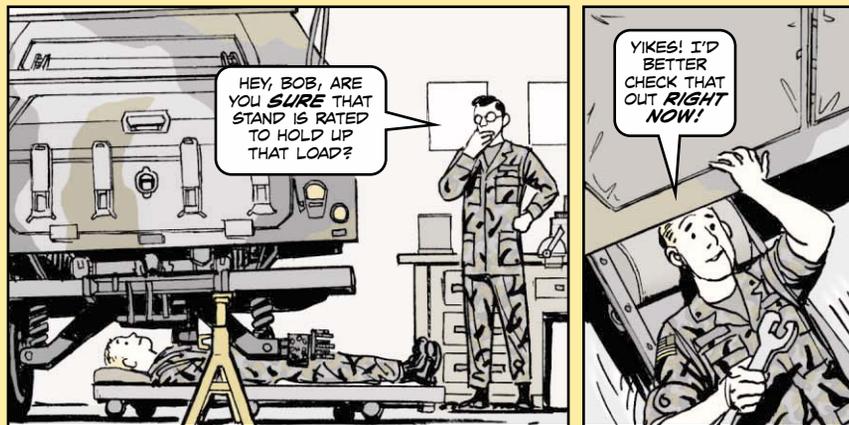
With no air, the cab isn't level. Bumps and jars during operation can make the springs pinch the bag. A damaged bag won't hold air so your backside suffers big time on a bumpy road.

The only time it's necessary to deflate the air springs is when you're preparing for air transport. So leave 'em inflated at all other times.

If the air springs on your truck are flat, re-inflate 'em. Just press and turn to the right the CAB knob on the hydraulic manifold control panel.



# Watch the Weight!



Dear Editor,

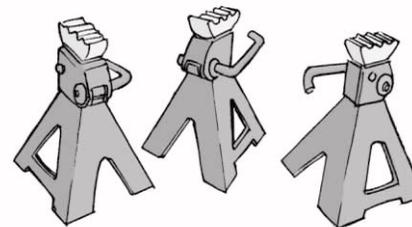
While walking through some maintenance areas lately, I've noticed that some jack stands are not clearly marked with their tonnage capacity.

The most important marking on a jack stand is the capacity rating. With no markings, the stand may be overloaded and collapse. Not only is the equipment damaged, but someone could be hurt or killed.

I suggest always stenciling the rating on at least two places on each jack stand. Use large print, too, so the stencil is easy to see.

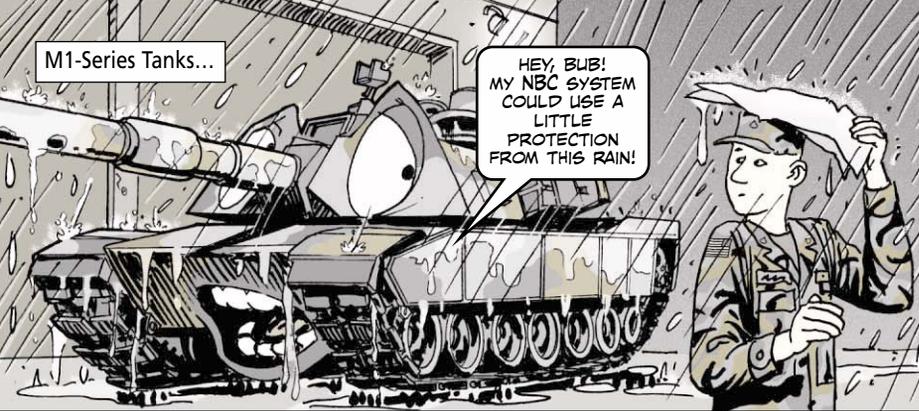
Louis Gorenc  
TACOM RESET Logistics Officer  
Ft Carson, CO

Unmarked jacks can be overloaded



**Editor's note:** An excellent suggestion, Sir. While the capacity rating should be stamped into the metal or part of the casting, that stamp is often illegible because it's been painted over.

It's also a good idea to stencil the last date of inspection on the stand as well. For more info on load testing jack stands, see Page E-1 in TB 43-0142, Safety Inspection and Testing of Lifting Devices. Check it out online at: <https://www.logsa.army.mil/etms/data/A/020130.pdf>



HEY, BUB!  
MY NBC SYSTEM  
COULD USE A  
LITTLE  
PROTECTION  
FROM THIS RAIN!

## HERE'S MUD IN YOUR EYE!

Water in your tank's NBC system is like you trying to breathe mud—stuff stops working real quick!

You're on your own with the mud-breathing thing, but keeping water out of the NBC system will be a lot easier if you follow these tips:

### Crewmen

- Keep the air induction system covered with a tarp whenever the tank is not in use.
- Never spray water toward the air induction system when washing the tank.
- Operate the NBC system when it's raining and while washing the tank. That lets the system extract any water before it can hit the filters.

Cover air induction system with tarp to keep out water



### Mechanics

- If you suspect there's water in the NBC system, remove the front NBC sponson box access cover and open up the drain plugs.
- During semiannual maintenance, make sure you do the sponson leak test like it says in your -20-1-5 TMs. Pay special attention to the sides of the hoses, tubes and connections. Use a mirror to view hard-to-see areas. If regular maintenance requires going into the NBC sponson box, check the components then, too.



Check hoses, tubes and connections for damage

# SQUELCH THAT SQUEAK!

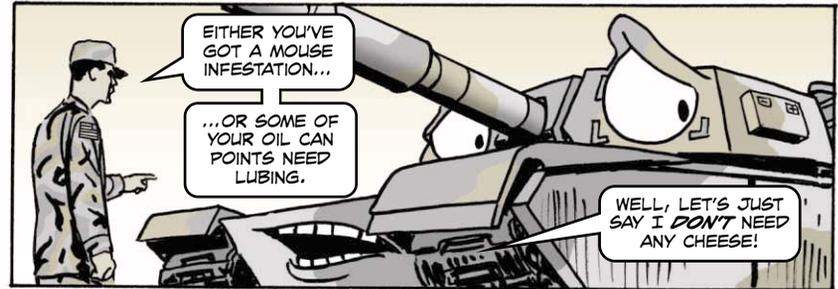


THE SQUEAKY WHEEL IS *SUPPOSED* TO GET THE GREASE, CREWMEN.

SO WHEN YOU HEAR METAL SCRAPING ON METAL, IT'S PROBABLY BECAUSE SOMETHING ON YOUR TANK NEEDED SOME LUBE A WHILE BACK...



SQUEEK  
SQUEEE  
SQUAWK



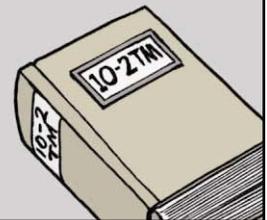
EITHER YOU'VE GOT A MOUSE INFESTATION...

...OR SOME OF YOUR OIL CAN POINTS NEED LUBING.

WELL, LET'S JUST SAY I *DON'T* NEED ANY CHEESE!

"THERE ARE *QUITE A FEW* OIL CAN POINTS ON YOUR TANK THAT GET LUBE AS NEEDED, NOT ACCORDING TO A SCHEDULE."

"YOU'LL FIND 'EM ALL LISTED IN APPENDIX H OF YOUR -10-2 TM."



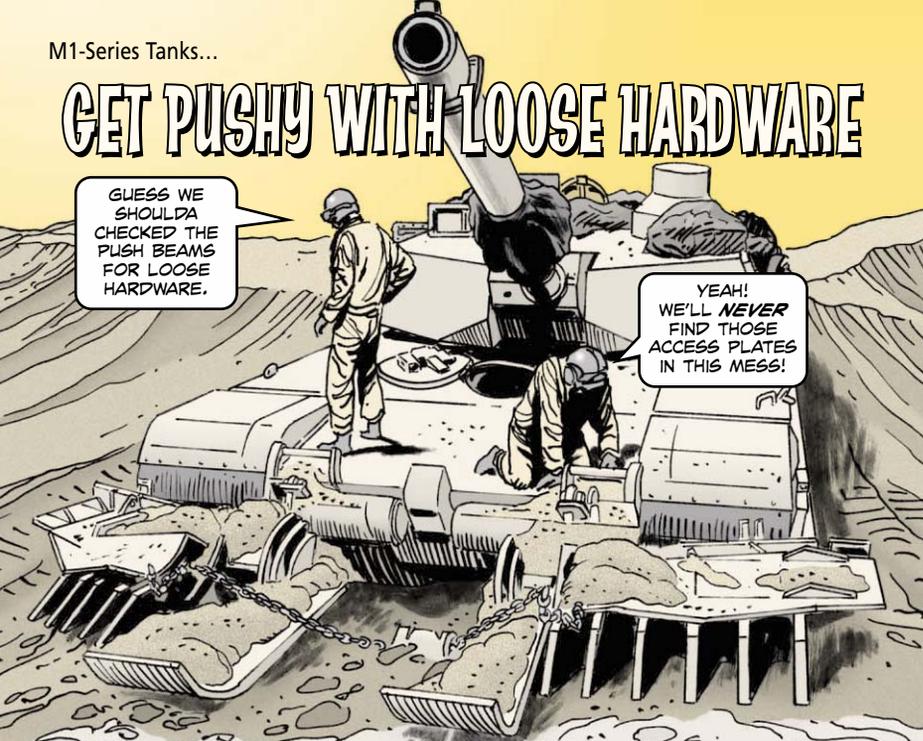
SO IF THE FRONT FENDER HINGES ARE STICKING A BIT OR THE DRIVER'S SEAT IS STARTING TO SQUEAL, *DON'T WAIT-DON'T EVEN HESITATE.*

GET OUT THE GENERAL PURPOSE OIL (PL-S) AND GIVE 'EM A FEW SQUIRTS.

# GET PUSHY WITH LOOSE HARDWARE

GUESS WE SHOULD'VE CHECKED THE PUSH BEAMS FOR LOOSE HARDWARE.

YEAH! WE'LL NEVER FIND THOSE ACCESS PLATES IN THIS MESS!



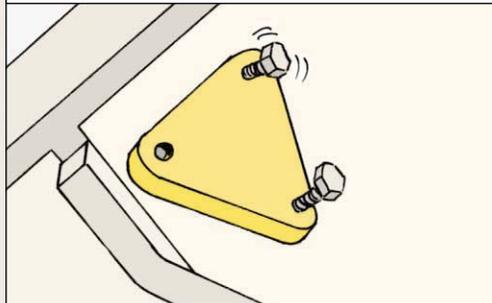
When you check for loose or missing hardware during PMCS on your tank's mine clearing blade, you need to look everywhere, crewmen.

There are six triangular access plates, NSN 5340-01-277-5670, on the blade's frame assembly. Crewmen generally check the hardware securing the access covers on top of the frame assembly, but miss those underneath.

The bottom access covers are important, too. If the hardware loosens or falls out, the shaft inside the pushbeam shifts, letting the pushbeam fall. That causes severe damage to the mine clearing blade.

So, check all of the push beam's hardware during PMCS. If any is loose or missing, the mine blade's NMC until repaired.

Check access plate hardware under frame assembly, too



# TOW'S A NO-GO WITHOUT PINTLE

OPEN UP, BUDDY! WE'VE GOT A TOWING MISSION!

ACK V OOB Z GVN MUH LH KS V AHKJUH\*

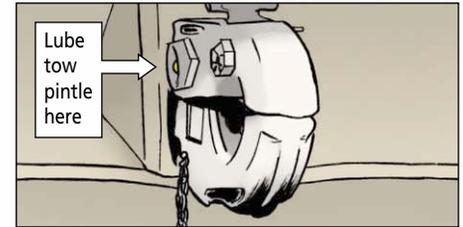
\*TRANSLATION: "LACK OF LUBE HAS GIVEN ME A CASE OF LOCKJAW!"



Try as you might, you can't tow if the pintle on your M1-series tank won't open. And that's what will happen if the pintle doesn't get regular lubing.

Without lube, the pintle develops a severe case of lockjaw. And if it won't open, you can't attach the tow bar.

So lube the pintle semiannually with WTR like it says in your LO. Just make sure you wipe off the grease fitting first to keep out dirt.



# Keep Tires In Place

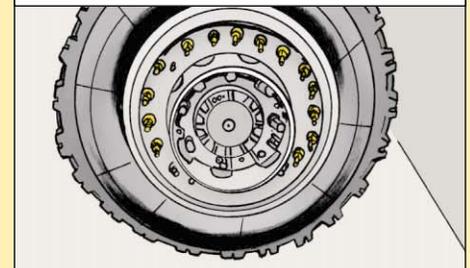
The little things can make a big difference when it comes to PM on your Stryker, drivers.

One such little thing is making sure the vehicle's wheel nuts are tight. Simple, sure, but important nonetheless.

One loose nut puts more strain on its neighbors. They loosen and, before you know it, you've got a runaway tire.

Look closely at the wheel stud nuts before operation. If you spot any rust or shiny areas that indicate a loose nut, report it. Your mechanic will retighten the nuts to 226-236 lb-ft.

Look for rust or shiny spots under wheel stud nuts



M2/M3-Series Bradleys...

# TIE IT UP... RIGHT!

HEY, WHAT HAPPENED TO JONESY?

HE USED THE WRONG ELASTIC STRAP IN HIS BRADLEY.

Crewmen, elastic straps are the thing to use for stowing equipment in your Bradley. But you need to use the right strap in the right place.

A strap used in the wrong place or for the wrong purpose can snap or slip loose. You could lose an eye if that happens.

Here's a list of the authorized straps and where to use them on all Bradleys:

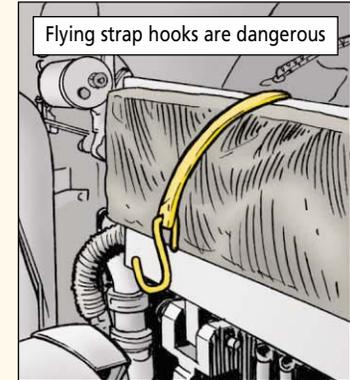
Vehicle	Use	Strap NSN 5340-01-
M2, M2A1	Ball port weapons	196-4677
M2, M2A1, M2A2	Missiles (vertically)	312-9553
M3, M3A1, M3A2, M3A2 ODS, M3A3	25mm ammo box	196-4677
M3, M3A1, M3A2, M3A2 ODS, M3A3	Missile rack	198-0508
M2A2, M2A2 ODS	Right squad bench seat	461-3805
M2A2, M2A2 ODS	Left squad bench seat	457-0202
M3A2, M3A2 ODS, M3A3	Bench seat	459-7941
M7 BFIST	NBC decontamination box	196-4677



EVEN THE RIGHT STRAPS CAN BE DANGEROUS...

...IF YOU DON'T USE THEM SAFELY...

- Keep your face away from the release path when putting a strap in place. If the strap breaks, it can fly up and hit you in the face.
- Properly secure the strap. When stretching an elastic strap, make sure you secure it to the attachment point shown in the TM. Then bend the strap hook slightly to keep it from coming free. Double check to make sure the hook can't be knocked loose accidentally.
- Never use damaged straps. Damaged straps can snap suddenly and send one end flying. Eyeball the straps for cuts and cracks. If you find one, remove it and order a new strap.
- Never use a commercially available strap. They may snap or slip loose unexpectedly. Even authorized straps don't have part numbers marked on them, so it's easy to use them in the wrong place.



DOUBLE CHECK THE PART NUMBER OR NSN ON THE PACKAGE AND MAKE SURE YOU USE IT WHERE THE TM SAYS.

YOU MAY ALSO WANT TO ETCH THE PART NUMBER OR NSN ON THE STRAP HOOK SO YOU CAN READILY IDENTIFY WHERE THE STRAP IS SUPPOSED TO BE USED.



## Driver's Compass



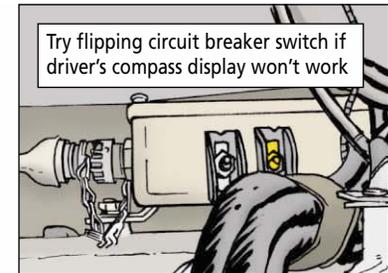
## Not Working?

Dear Editor,

If the driver's compass display on your Bradley is not displaying, the solution may be right underneath the display unit. The unit has a circuit breaker there. Flip the circuit breaker on the right before you call your repairman. That could get the display back.

By the way, the other circuit breaker is for the MRE heater. If the heater quits, try flipping its switch.

SFC Christopher Inman  
SGT Jeremi Timp  
A Btry, 1/32 ADA  
Ft Stewart, GA



*(Editor's note: Now there's a switch. Thanks.)*

# SHOW SOME

# RESPECT FOR RAMP

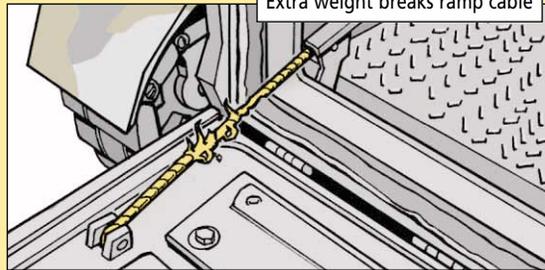


IF YOU WANT THE RAMP ON YOUR M113-SERIES CARRIER TO WORK ON THE BATTLEFIELD, YOU'LL HAVE TO TAKE GOOD CARE OF IT NOW.

KEEP THESE CAUTIONS IN MIND...

- The ramp is not a storage rack for tent poles, barbed wire and camouflage nets.

The ramp is heavy enough as it is. Strapping extra weight to the ramp can break the ramp cable or damage the hydraulic pump.



- Never move the carrier while the ramp is down (fully or partially) or not fully locked. That breaks locks and damages hinges. If the ramp warps, you won't be able to seal it properly.

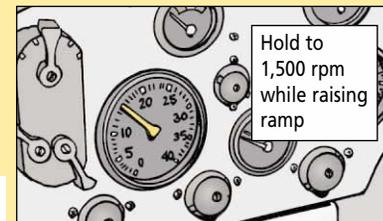
Moving with an open ramp can also break the ramp cable and damage the pump. Make sure the ramp is up and locked **before** you move out.

- Never partially lower the ramp for use as a table. That puts a lot of stress on the ramp rope and hydraulic pump. You wouldn't want to be sitting at your "makeshift table" if either one fails!

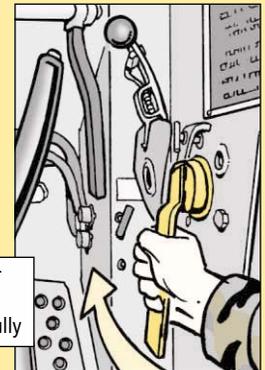
- Lock the ramp door, too. An unlocked door will fly open suddenly when the ramp is lowered. That breaks the door's hinges and can ruin the ramp's hydraulics.



- Never race the engine to raise the ramp faster. The ramp will raise in about 15 seconds at 1,500 rpm. It comes up a little quicker at higher revs, but you risk damaging the system.



- Protect hinges from warping by lowering the ramp carefully and on level ground.



M992A2 Ammo Carrier...

# Engine Snag's a Real Drag

YOUR NEW POWERPACK'S INSTALLED. YOU'RE READY TO GO!

NOT AFTER YOU BROKE MY FIRE NOZZLE!

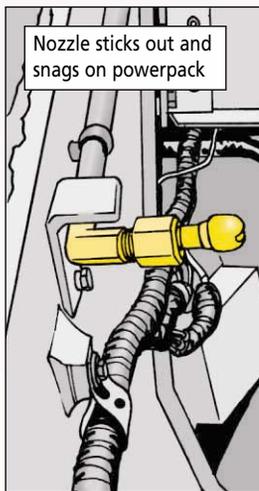


In the event of an engine fire, the crew is going to need the fire extinguisher nozzles in the M992A2 ammo carrier's engine compartment. Trouble is, one of 'em won't be there if you're not careful, mechanics.

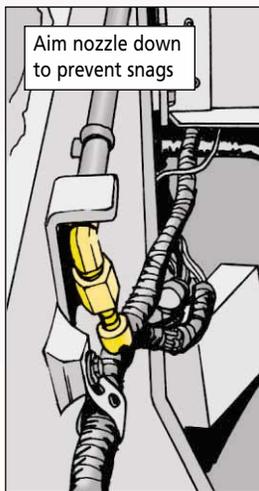
The front engine fire nozzle, NSN 4210-01-469-9880, sticks straight out into the engine compartment. When you remove or install the powerpack, it's easy to catch the edge of the pack on the nozzle and break it off.

Prevent that snag by loosening the connector nut at the nozzle's 90° bend and aiming the nozzle down. With the nozzle out of the way, the pack goes in and out easily.

Just remember to return the nozzle to its original position and retighten the nut once the powerpack's back in place.



Nozzle sticks out and snags on powerpack



Aim nozzle down to prevent snags

# PM FAMILY FEUD





**PM Family Feud**

**DING!**

55 Protect hydraulic system

**PM Family Feud**

**PM Family Feud**

**PM Family Feud**

**PM Family Feud**



DELTA, YOU'VE GOT THE FIRST ROUND **AND** 80 POINTS!

WE'LL BE RIGHT BACK FOR ROUND TWO AFTER THIS COMMERCIAL BREAK.

**PM Family Feud**

**DING!**

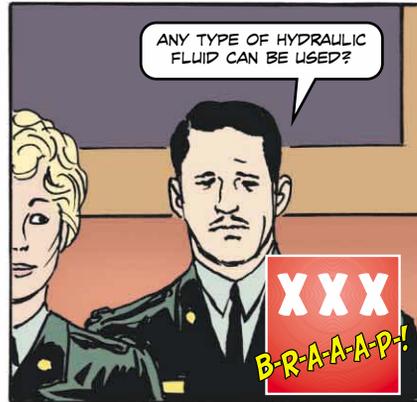
55 Protect hydraulic system

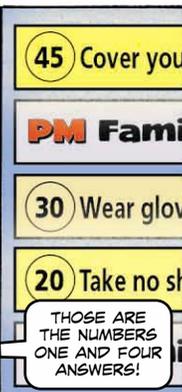
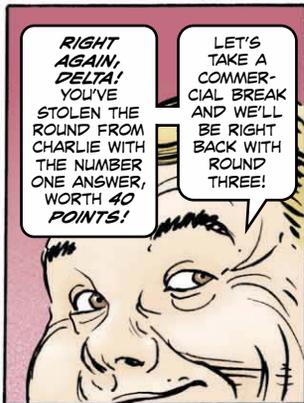
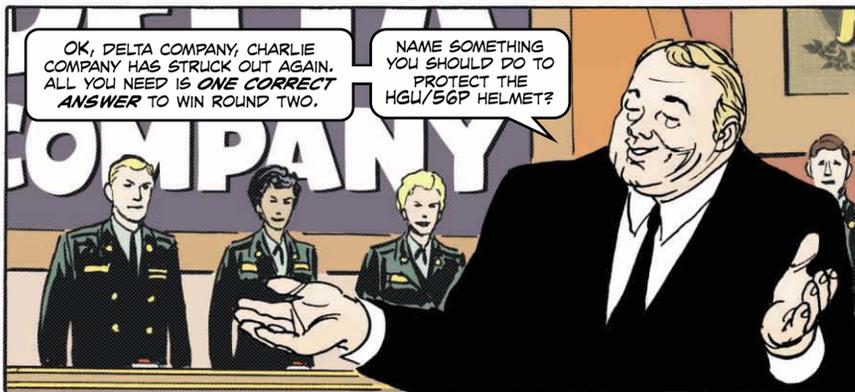
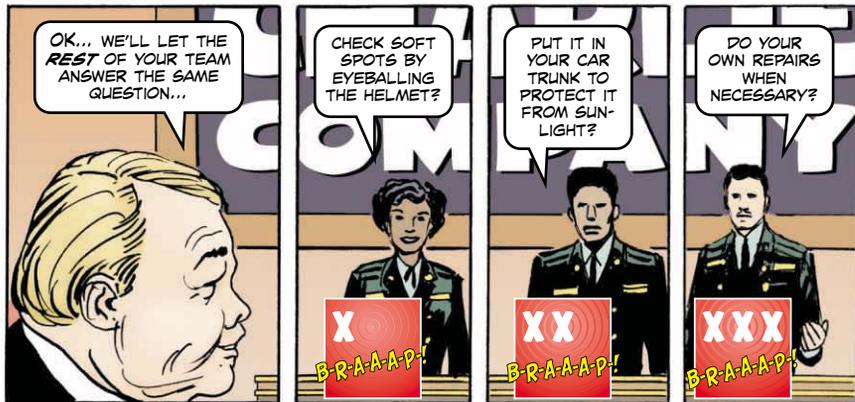
25 No leftover

**PM Family Feud**

**PM Family Feud**

**PM Family Feud**







60 SECONDS LATER...

WE'RE BACK WITH THE FEUD AND SERGEANT MASON AND PRIVATE GONZALEZ OF DELTA COMPANY ARE GOING FOR THE BIG MONEY FOR AER.



WE SURVEYED 200 CREW CHIEFS. THEIR TOP ANSWERS ARE ON THE BOARD. YOU WILL BE ASKED A TOTAL OF TEN AIRCRAFT MAINTENANCE QUESTIONS. 200 OR MORE POINTS WINS YOU THE \$20,000.



NAME SOMETHING THAT CAN DAMAGE AIRCRAFT DURING WASHING?

USING HIGH PRESSURE WATER.



YOU HAVE 30 SECONDS. NAME SOMETHING THAT IS DESCRIBED AS A HAZARD FOR AIRCRAFT.

FOD.



NAME SOMETHING THAT SOLDIERS USE TO SUBMIT IDEAS FOR IMPROVING MAINTENANCE.

SMART!



NAME SOMETHING THAT IS AN AIRCRAFT'S SILENT ENEMY.

CORROSION.



NAME SOMETHING THAT CAN HURT YOU IF YOU STAND TOO CLOSE WHILE IT'S OPERATING.

THE AN/ARC-220 AIRCRAFT RADIO ANTENNA.



AND NOW FOR YOUR QUESTIONS, PRIVATE GONZALEZ.



NAME SOMETHING YOU DO EVERY DAY ON AIRCRAFT.

INSPECTIONS.



YOU HAVE 25 SECONDS... HERE WE GO!



NAME SOMETHING YOU SHOULD NEVER DO WHEN GOING TOPSIDE ON A BLACK HAWK.

NEVER GRAB THE PITOT TUBE.



NAME SOMETHING ON AN APACHE THAT CAN DAMAGE YOUR FINGERS.



NAME THE HELMET USED BY APACHE PILOTS.

THE IHADSS HELMET.



THE SIDE LOADER FOR 30MM ROUNDS.

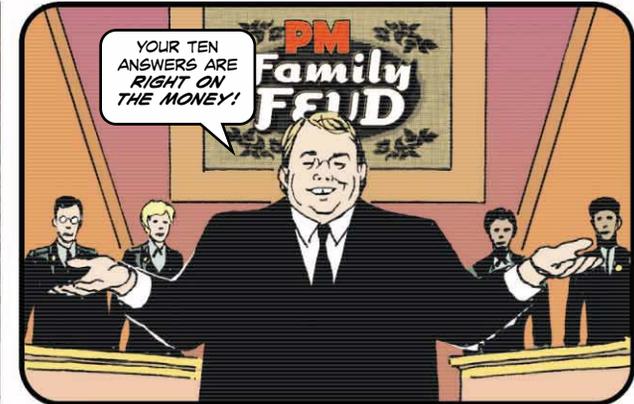


NAME SOMETHING YOU SHOULD ALWAYS USE WHEN SERVICING AIRCRAFT TIRES.

AN APPROVED TIRE CAGE.



ALL RIGHT, DELTA COMPANY... LET'S COMPARE YOUR ANSWERS TO THOSE 200 CREW CHIEFS.

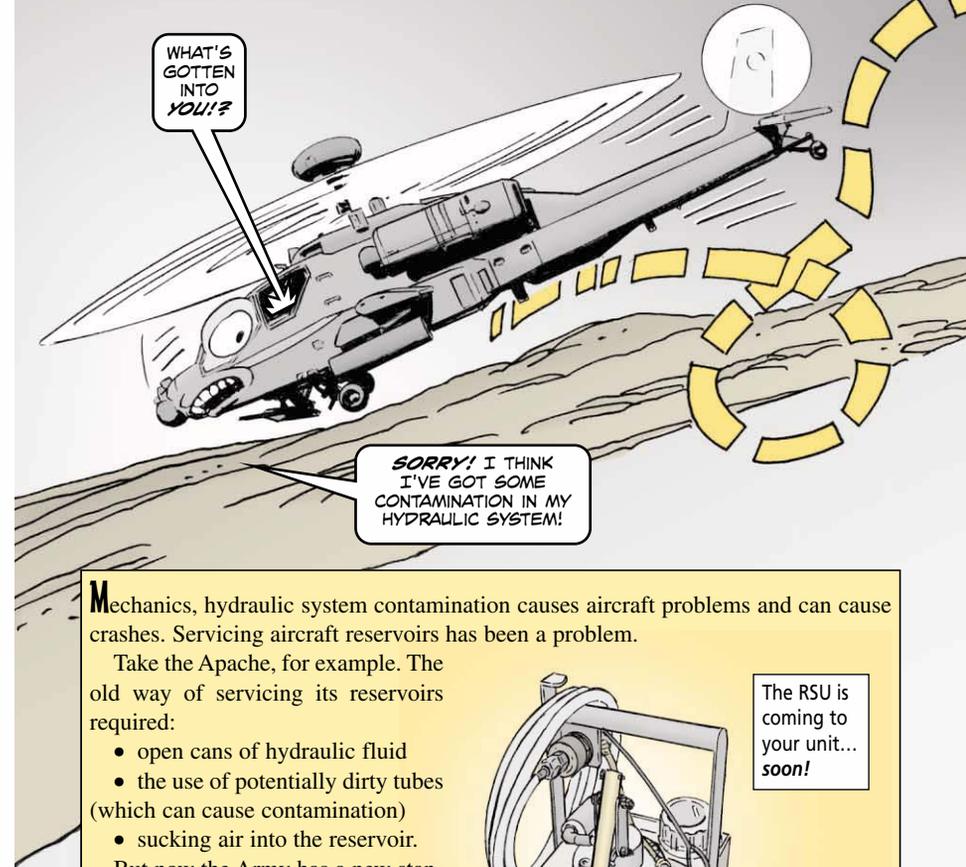


YOUR TEN ANSWERS ARE RIGHT ON THE MONEY!



All Aircraft...

# BETTER HYDRAULIC SYSTEMS SERVICE

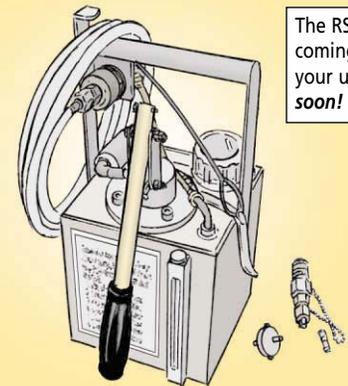


**M**echanics, hydraulic system contamination causes aircraft problems and can cause crashes. Servicing aircraft reservoirs has been a problem.

Take the Apache, for example. The old way of servicing its reservoirs required:

- open cans of hydraulic fluid
- the use of potentially dirty tubes (which can cause contamination)
- sucking air into the reservoir.

But now the Army has a new standard 2-gal reservoir servicing unit (RSU). It provides quick disconnects and an easy and quick way to refill aircraft reservoirs with clean, moisture- and air-free hydraulic fluid. The RSU is another tool to make servicing a little easier.



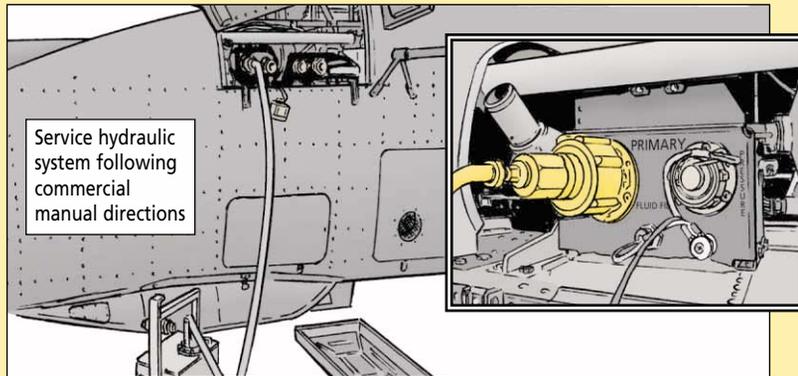
Initial issue to units will be configured with quick disconnect fittings based on the helicopter models in the unit.

For the AGPUs, you'll get a quick disconnect coupling used to fill AGPU reservoirs.

The basic RSU, NSN 4940-01-504-5279, is stocked without quick disconnects, but they are listed separately in the commercial manual as stocked items. NSNs are also available on the following: output hose, NSN 4720-00-484-5765, clear return tubing, NSN 4720-01-038-2651; and hose fitting, NSN 4730-00-472-4093.

THE RSU CAN BE USED ON ALL AIRCRAFT, BUT IT IS MOST USEFUL WHEN SERVICING THE APACHE.

BLACK HAWKS AND CHINOOKS HAVE BUILT-IN FILL PUMPS WITH OPEN RESERVOIRS THAT MECHANICS CAN EASILY FILL FROM QUART CANS.



THE RSU CAN SERVICE THE OTHER AIRCRAFT LIKE THE APACHE THROUGH THE GSE RETURN OR BY DISPENSING FLUID INTO THE FILL RESERVOIRS.

KIOWA WARRIOR HELICOPTERS ALSO USE OPEN RESERVOIR DISPENSING.



WHEN YOU OPERATE THE RSU FOR THE FIRST TIME, HERE ARE SOME POINTS TO REMEMBER.

- The steps on flushing the hose, filling the reservoir, and stowing the output quick disconnects are listed on the reservoir's decal.
- Fluid is dispensed from the RSU using a manual pump, with a 200 psi output pressure.
- The output hose is fitted with a 2-micron filter to control solid contamination.
- A bulkhead connector and a return tube are provided to allow the output hose to be flushed prior to connecting to a bird.
- The return tube is transparent so that hydraulic fluid can be checked for air bubbles.
- The aircraft reservoir is filled by pumping the fluid through the quick disconnect fitting on the ground support return port for the hydraulic system to be serviced.
- The RSU delivers 4 cubic inches of fluid per stroke or a quart per 17 strokes.

The only maintenance requirement for AVUM is to replace the filter element in the output hose. But always make sure the RSU uses MIL-PRF-83282 as it says on the factory-applied label, since this fluid is used in all helicopter flight control systems.

Keep in mind that brakes use a different type of fluid, MIL-PRF-5606. For now, stay with the filter and bleeder assembly, NSN 4910-00-245-1832, to service brake systems.



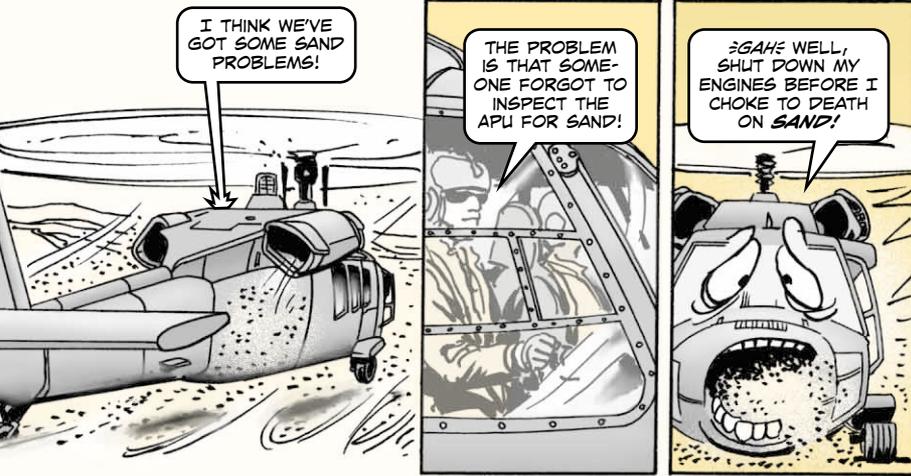
THIS IS A LOT BETTER, FASTER AND EASIER THAN THE OLD WAY!

THAT'S A FACT! BUT FOLLOW THE INSTRUCTIONS ON THE DECAL...

...AND NEVER USE THE SAME RSU ON THE BRAKE SYSTEM BECAUSE YOUR BRAKES USE DIFFERENT FLUID.

PS END

# APU SUCKIN' SAND?

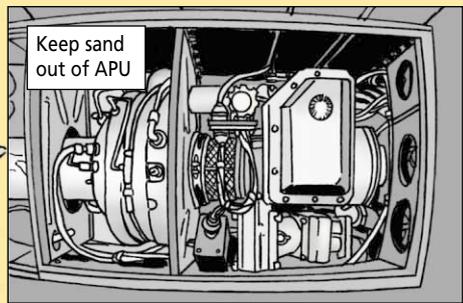


**M**echanics, repeated Black Hawk engine start-ups suck air into the APU. Unfortunately desert sand gets in the mix, clogs the APU and causes the engine control valve to stick open.

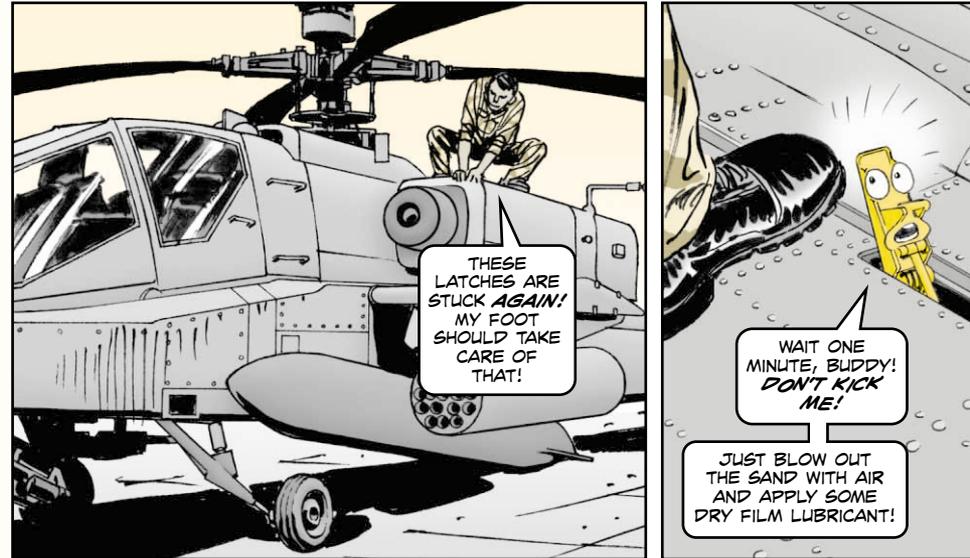
When that happens, the APU does not shut down, and the No. 1 and No. 2 engine starter valves don't close properly. It continues sucking air and sand. Then the starter light comes on in the cockpit, and an engine shutdown is the usual result.



Open all aircraft doors, cover the center console and turn on the heater and vent blowers. All the trapped sand will blow out all the ducts.



# GIVE LATCHES T-L-C



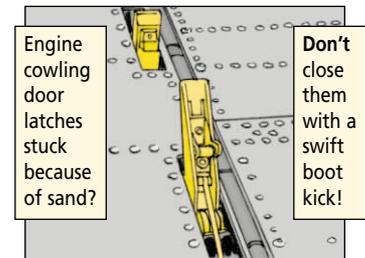
**O**perators and mechanics, your first inclination when something doesn't work properly is to kick, bang or force it.

That seems to be the case with the Apache's engine cowling door latches. They get plugged with sand in the desert and become hard to close.

When sand clogs the door latches, blow the sand out with air and slap a little dry film lubricant, NSN 9150-00-926-8963 on the latches to help them close easier.

Using your foot to force latches to lock only bends or breaks them. Then you'll be looking at replacing broken latches.

So stop your foot dead in its tracks and **don't kick** the latches to close them!



BROKEN LATCHES MEAN YOU CAN'T SECURE THE ENGINE COWLING DOORS...

...AND THAT MEANS YOU CAN'T FLY ANYWHERE UNTIL THEY ARE REPAIRED.

# FIRST, DO NO HARM

IF ONLY PM HAD BEEN DONE, WE WOULDN'T HAVE TO OPERATE!

NOW, THIS ANTENNA'S SURVIVAL IS ANYBODY'S GUESS...

...NURSE! GET ME A SCALPEL, STAT!

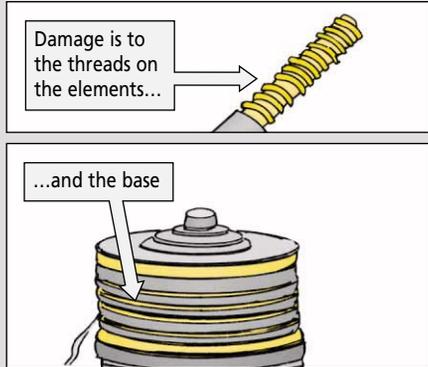


The AS-3900A antenna, NSN 5985-01-308-8988, used with the SINCGARS ground radio is getting damaged far too often.

The damage is happening when it's assembled, when it's installed, and when it's removed. The damage is happening to both the lower and upper antenna elements and the antenna spring base.

The antenna is not getting a break! Or at least not a good one.

Most of the damage is to the threads on the elements and the base and it's happening because proper assembly, installation and removal procedures are not being followed.



HERE ARE THE **DO'S AND DON'TS** WHEN CONNECTING AND DISCONNECTING THE UPPER AND LOWER ELEMENTS...



**DO:**

- Line up the upper and lower elements and gently push the elements together until the assemblies fit snugly.
- Rotate the upper element clockwise onto the lower element until the two elements are firmly attached.
- Carefully rotate the upper element counter-clockwise to disconnect the upper element from the lower element and carefully separate the elements.

**DON'T:**

- Overtighten the elements! Over-tightening the elements will increase the likelihood of damage to interior components—like the contact point—of the upper and lower elements.

HERE ARE THE **DO'S AND DON'TS** WHEN CONNECTING AND DISCONNECTING THE ELEMENTS TO THE SPRING BASE...



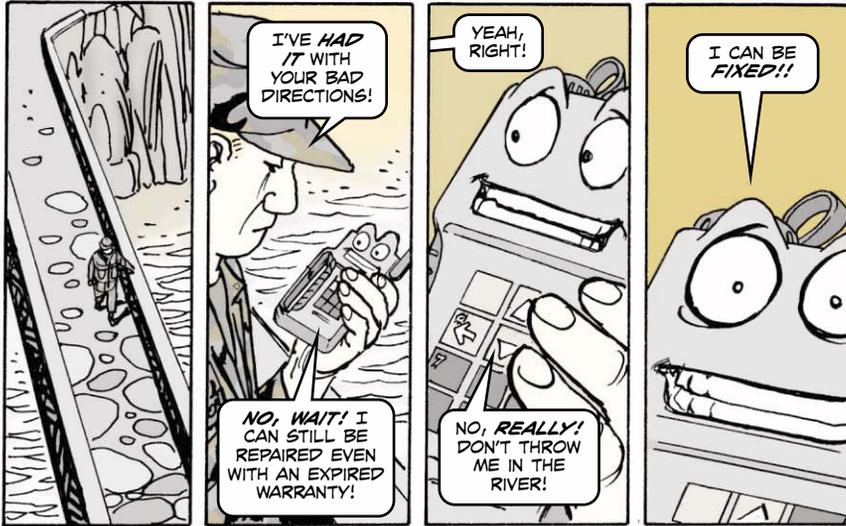
**DO:**

- Carefully line up the ferrule on the lower antenna element assembly with the threaded base on the antenna spring base.
- Slowly hand-tighten the ferrule by wrapping your hand around the metal ferrule and rotating the ferrule clockwise until the antenna is firmly attached to the spring base.
- Reverse the procedure to disconnect the lower antenna element from the spring base.

**DON'T:**

- Install the upper and lower element assembly onto the antenna spring base by rotating the element to secure the ferrule onto the spring base. This kind of mating might damage the lower element assembly with the separation of the fiberglass antenna element from the ferrule. Also, you could do damage to interior components of the antenna elements resulting in degraded antenna performance and to the thread surfaces.

# EXTENDED WARRANTY?



Dear MSG Half-Mast,

At one time, we were told the PLGR warranty was extended indefinitely. Is that still the case?

SGT T.J.T.

Dear Sergeant T.J.T.,

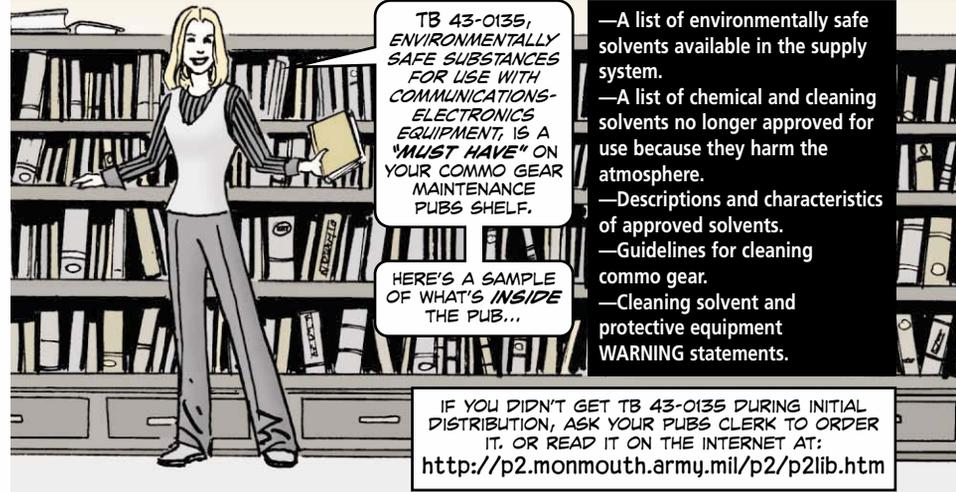
The original PLGR warranty has been extended several times, but the individual labels were never updated. So don't go by the warranty expiration date on your PLGR label! Warranty coverage is finally beginning to expire for the oldest PLGRs, but it doesn't affect your course of action.

There is no organic repair for the PLGR, so regardless of warranty status, all faulty or damaged PLGRs should be returned to the same repair facility. Here's the address:

Rockwell Collins, Inc  
ATTN: Service Center  
MS 139-141  
(M/F AN/PSN-11 warranty)  
855 35th St NE  
Cedar Rapids, IA 52402-3613  
DODAAC EZ7415

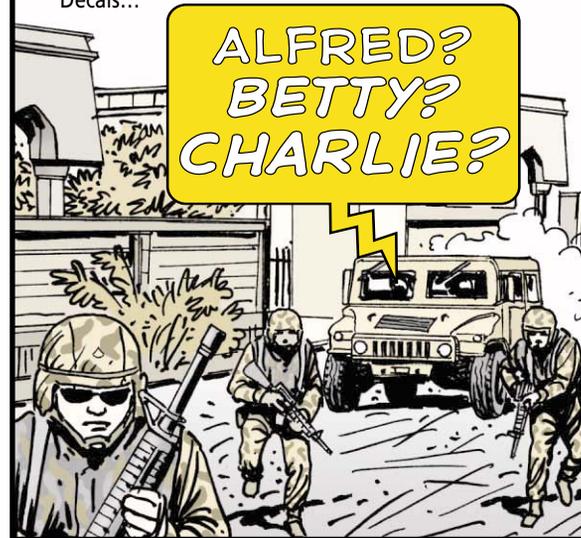


# Safe for Cleaning



- A list of environmentally safe solvents available in the supply system.
- A list of chemical and cleaning solvents no longer approved for use because they harm the atmosphere.
- Descriptions and characteristics of approved solvents.
- Guidelines for cleaning commo gear.
- Cleaning solvent and protective equipment WARNING statements.

Decals...

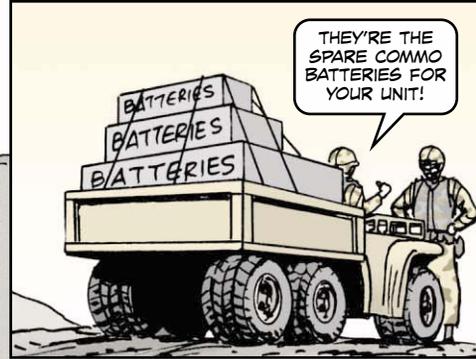
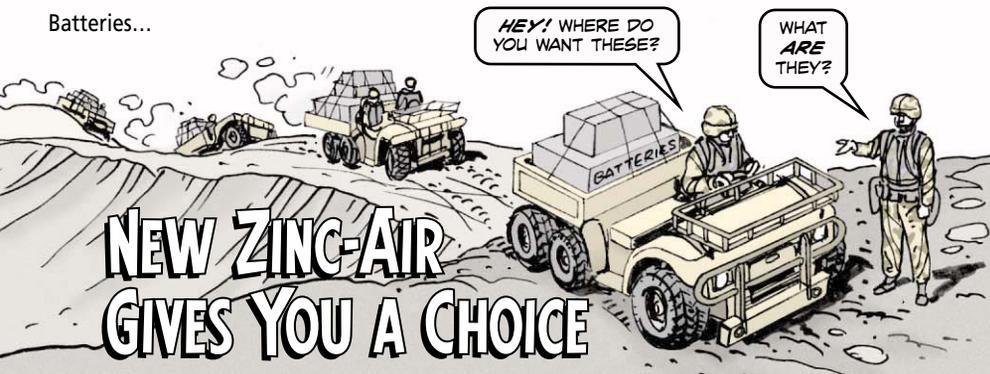


Hey, radio operators, the phonetic alphabet is used to make your life easier. But sometimes trying to remember whether it's Baker or Bravo or Delta or Dawn can put a strain on the brain.

Stop the strain with a phonetic alphabet decal, NSN 7960-00-243-9103. That NSN brings you 100 for about 30 cents per decal. That's a bargain.

The rectangular decals are 2 3/4 inches long and 1 1/2 inches tall. Stick them on or near your telephone or radio. Hotel, Mike,... Out!

Batteries...



# NEW ZINC-AIR GIVES YOU A CHOICE

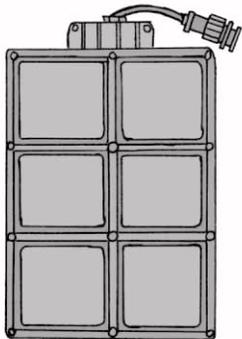
Your patience and your endurance can be stretched to the limit by hauling all the batteries you need for extended missions. A new zinc-air battery, BA-8180/U, NSN 6135-01-500-0572 can reduce the number of BA-5590s, BB-390s and BB-2590s you need to haul. For example, one non-rechargeable, zinc-air connected to a reusable interface adapter can replace up to seven BA-5590s.

Three interface adapters let the BA-8180/U power non-ASIP AN/PRC-119, J-6634/U, NSN 5940-01-504-5597; ASIP AN/PRC-119F, J-6633/U, NSN 5940-01-504-3218; and BA-5590 eliminator, J-6632/U, NSN 5940-01-504-3217.

The zinc-air battery is made of two 12 volt strings which can be wired in parallel to provide 56Ah at 12 volts or wired in series to provide 27 Ah at 24 volts.

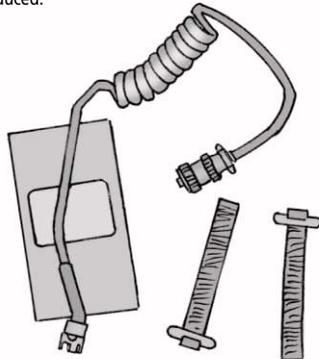
### BA-8180/U Non-rechargeable Zinc-Air battery, NSN 6135-01-500-0572

This BA-8180/U is a 12/24 Volt, 800 watt hour, 56Ah primary (non-rechargeable) zinc-air battery pack. The bottom line: One 6 lb. BA-8180/U connected to a reusable interface adapter can replace up to 5 BA-5590s for extended missions. Example: 7 days in an AN/PRC-119F, 20 hours in JAVELIN CLU (surveillance mode only), 5 days in older AN/PRC-119B. Re-supply is reduced, spare battery "dead" weight on your back is reduced and impact on unit's budgets is reduced. Save your BA-5590s, BB-390s or BB-2590s for shorter 12-36 hour missions.



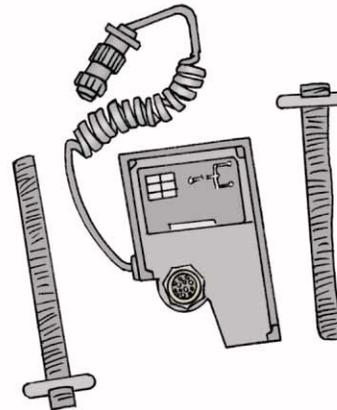
### J-6634/U SINGGARS 119 B Adaptor for BA-8180 Zinc-Air Battery NSN 5940-01-504-5597

This interface adaptor provides compatibility between the BA-8180/U zinc-air battery and the AN/PRC-119, SINGGARS (non-ASIP version) radio. The BA-8180/U is a 12/24 Volt, 800 watt-hour, 56ah primary (non-rechargeable) zinc-air battery pack. One 6 lb BA-8180/U connected to this reusable interface adaptor can replace up to 5 BA-5590s for extended missions, up to 5 days in AN/PRC-119B. Re-supply is reduced, spare battery "dead" weight on your back is reduced and impact on unit's budget is reduced.



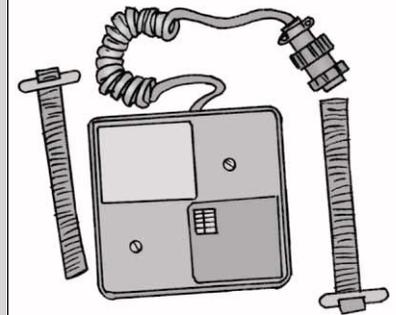
### Operating Instructions for J-6633/U 119 FEI ASIP (119 F) Adaptor NSN 5940-01-504-3218

Remove existing battery. Close cover. Connect the adaptor to SINGGARS (ASIP). Connect black connector of the adaptor to a BA-8180/U and operate the radio. To save battery power, disconnect adaptor from battery when radio is not in use.



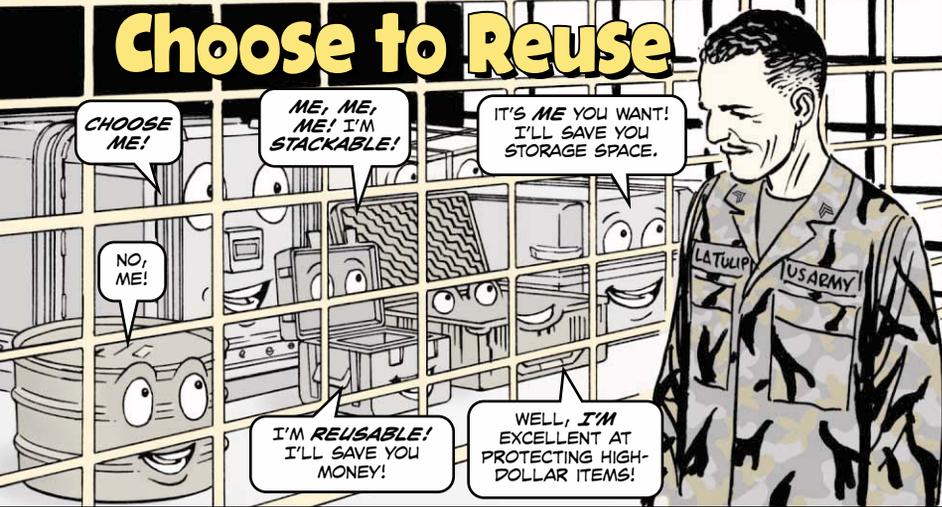
### Adaptors for BA-8180 Zinc-Air Battery J-6632/U DPEI BA-5590 Battery Eliminator Adaptor NSN 5940-01-504-3217

This interface adaptor provides compatibility between the BA-8180/U zinc-air battery and various items of military equipment. The BA-8180/U is a 12/24 volt 800 watt-hour, 56Ah primary (non-rechargeable) zinc-air battery pack.



For more info on this new battery, check out the CECOM website at: <http://irc7.monmouth.army.mil/ipm>

# Choose to Reuse



If you had a choice between a new or used car, which would you choose? You'd probably pick the new one, right? Same goes for furniture, appliances, clothes.

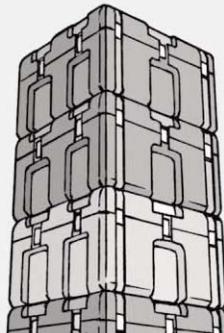
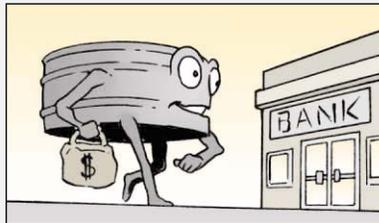
But new isn't always better. Sometimes used makes more sense. Take, for instance, reusable containers for shipping, handling and even storing repairables. They offer some clear benefits over disposable, single-use containers.

## The Bottom Line

The main advantage is that reusable containers **save you money**. They're made to use over and over again, unlike boxes you use once and throw away. During their lifetime, they more than pay for themselves. They also reduce the costs of disposal or recycling associated with ordinary cardboard boxes.

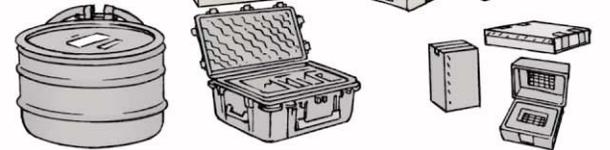
Reusable containers have still more advantages:

- They're sturdy and offer excellent protection for high-dollar repairable items.
- They're made to support the weight of their contents, which means safer handling.
- Their design makes for easier stacking and saves storage space.
- They're faster to pack and unpack.



## A Container for Every Occasion

Reusable containers come in many sizes, shapes and types in the Army:



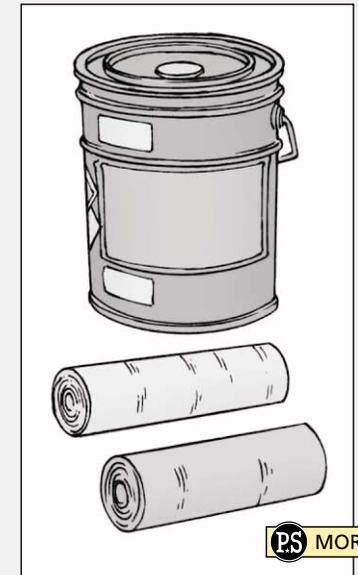
- Wooden boxes and crates
- Fiberglass and metal cans and drums
- Plastic, fiberglass, and metal containers and cases
- Cushioned, fiberboard Fast Pack containers

## Packaging Principles

No matter how good the packing materials, items run the risk of damage during shipment. But you can lower the odds of damage by following these basic principles when you pack:

- Dirt, mud and moisture cause corrosion. So clean and dry the item. Use forced air to blow off the loose stuff. Clean with steam rather than high pressure water. Steam dries faster. Just remember to seal all the openings with tape before cleaning. You can also brush or wipe off the container.
- Drain items containing oils or fluids. Then tape openings to prevent leaks. Use approved container for the fluids.
- Apply preservatives, grease or wraps on bare metal surfaces. Corrosion preventive compound works well for this purpose. Get a 1-gal can with NSN 8030-00-244-1297 or a 5-gal can with NSN 8030-00-244-1298. Use grease/waterproof barrier material to wrap items covered by the compound. Get a 36-in X 200-yd roll with NSN 8135-00-282-0565.
- Tape exposed surfaces—like splines and threads—for protection.
- Wrap and cushion items in bubble wrap if the container doesn't have cushioning built in..

Always use the same container that came with the item or its replacement. An item's reusable container is usually identified in FED LOG. Just enter the item's NSN or part number and click on the packaging icon.



If you're unsure about which container to use, contact the source of supply packaging manager. Go to:

<https://www.logsa.army.mil/>

Click on [Directory](#), then click on [Packaging Points of Contact](#). You'll need a login ID and password. Get them by completing a System Access Request (SAR). You'll find a link to SAR right under the Packaging Points of Contact link.

### Packaging Points of Contact

This booklet provides [packaging points of contact](#) throughout the Department of Defense as well as the Joint Services. Also includes packaging related boards and committee groups.

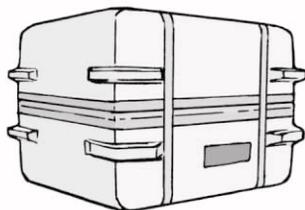
**Until Further Notice access to this Directory will be restricted to Customers who have a valid WebLOG password. If you require access and do not have a valid logonid and password, you can request one by completing a [System Access Request \(SAR\)](#).**

- Avoid damage and injury by making sure the item fits snugly inside the container. Some reusable containers come with mounts, strapping, bungee cords or fasteners. Use them to secure the item.
- If the reusable metal container has packing instructions inside the lid, follow them when shipping items.
- Drain any fluids from the bottom of containers.
- To prevent water seeping into a container, make sure all its gaskets, seals and bolts are in place.
- When taping Fast Packs, use waterproof, filament-reinforced tape for packages weighing more than 20 pounds. NSN 7510-00-159-4450 gets you a roll. For packages lighter than 20 pounds, use NSN 7510-00-266-6715 to get a roll of waterproof, transparent packing tape.

### Wrapping Up

AND HERE ARE A FEW FINAL THOUGHTS TO MAKE YOUR PACKING LIFE A LITTLE EASIER...

- Assemble components when possible. Label loose parts to help with reassembly.
- Label the container so you can clearly identify what's inside. Get rid of old markings, tags, part numbers and NSNs.
- When unpacking a metal container, keep its parts together so you don't lose them. That includes the cover, gasket, locking rings, hardware and accessories.



PS END

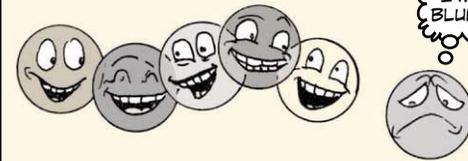
Flashlights...

# FLASH! Filters Available



YOUR MX-991, NSN 6230-00-264-8261, OR MX-992, NSN 6230-00-269-3034, FLASHLIGHTS CAN WORK WITH ANY OF SIX DIFFERENT FILTERS.

IF YOU NEED REPLACEMENT FILTERS, THE FIRST SOURCE OF SUPPLY IS A BUM FLASHLIGHT.



I'M BLUE!

"IF YOU CAN'T FIND THEM THERE, THEN ORDER FILTERS WITH THESE NSNs..."

Filter	NSN 6230-00-
Red	111-0190
Opaque (blackout)	128-2464
Green	504-8341
Amber	504-8342
Diffusion	356-4825

ORDER BLUE FILTERS WITH NSN 6230-01-189-1480. BE AWARE, HOWEVER, THAT THEY COME 100 TO A BOX.



"NSN 6240-00-155-8675 GETS YOU BULBS FOR YOUR FLASHLIGHT. IF YOU HAVE THE LONG, 3-CELL, EXPLOSION-PROOF FLASHLIGHT, NSN 6230-00-270-5417, YOU NEED 3-CELL BULBS. ORDER THEM WITH NSN 6240-00-155-7916."



DON'T WORRY ABOUT ME! I'VE GOT AN EXPLOSION-PROOF FLASHLIGHT!!!

Steam Cleaners...

# DON'T GET STEAMED



TACOM-RI  
CAN HELP WHEN  
YOU NEED MY  
REPAIR PARTS!

Steam cleaners come in many makes and models. No wonder it's hard to find repair parts and maintenance information.

But don't get steamed. Instead, turn to the U.S. Army Tank-automotive and Armaments Command-Rock Island (TACOM-RI) for help.

They can give you the manufacturer's address and customer service phone number for your cleaner. They can also track down commercial manuals for many cleaners when no Army pub is available.

SO IF YOU NEED  
SOME FACTS  
ABOUT YOUR  
STEAM CLEANER,  
WHETHER PARTS  
OR MAINTENANCE,  
WRITE DOWN THE  
MANUFACTURER'S  
NAME AND  
MODEL NUMBER.

THEN WRITE TACOM-RI AT...

Tank-automotive and  
Armaments  
Command-Rock Island  
ATTN: AMSTA-LC-CTME  
Rock Island, IL 61299-6000

OR PHONE THEM AT...

DSN 793-0079  
Commercial (309) 782-0079

SEND YOUR EMAILS TO...

heuerd@ria.army.mil

LC-240/U...

# AN EASY CLIMB

YOU'LL FIND MANY WAYS TO CLIMB THE LADDER OF SUCCESS, BUT THERE'S ONLY ONE SAFE WAY TO CLIMB A TREE OR A TELEPHONE POLE.

YOU NEED TO STRAP ON THE LC-240/U TREE AND POLE CLIMBER'S SET, NSN 4240-00-273-9668.

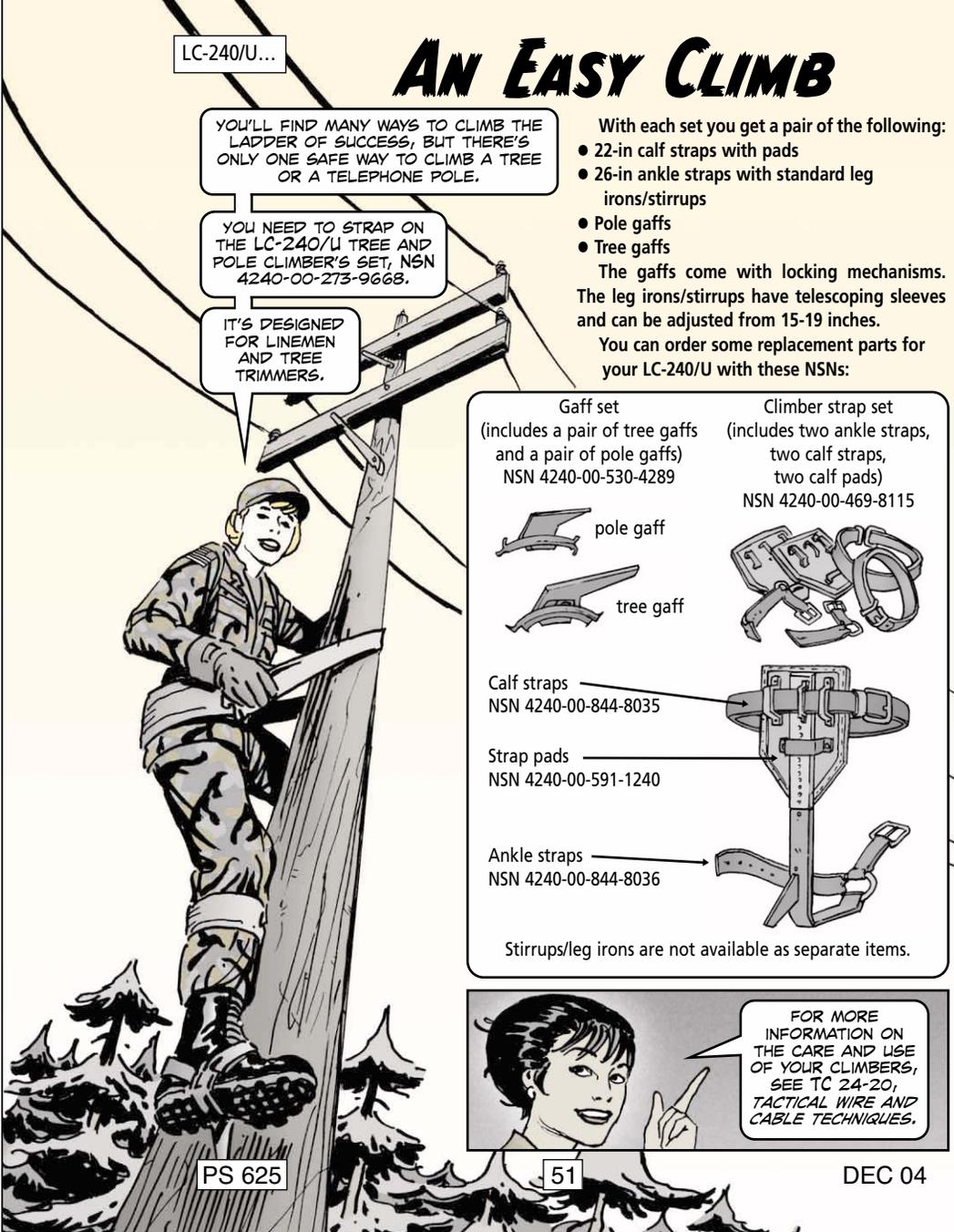
IT'S DESIGNED FOR LINEMEN AND TREE TRIMMERS.

With each set you get a pair of the following:

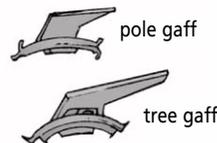
- 22-in calf straps with pads
- 26-in ankle straps with standard leg irons/stirrups
- Pole gaffs
- Tree gaffs

The gaffs come with locking mechanisms. The leg irons/stirrups have telescoping sleeves and can be adjusted from 15-19 inches.

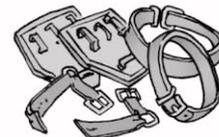
You can order some replacement parts for your LC-240/U with these NSNs:



Gaff set  
(includes a pair of tree gaffs  
and a pair of pole gaffs)  
NSN 4240-00-530-4289



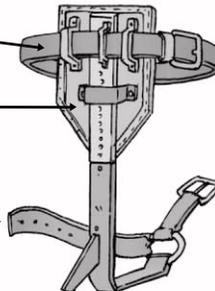
Climber strap set  
(includes two ankle straps,  
two calf straps,  
two calf pads)  
NSN 4240-00-469-8115



Calf straps  
NSN 4240-00-844-8035

Strap pads  
NSN 4240-00-591-1240

Ankle straps  
NSN 4240-00-844-8036



Stirrups/leg irons are not available as separate items.

FOR MORE  
INFORMATION ON  
THE CARE AND USE  
OF YOUR CLIMBERS,  
SEE TC 24-20,  
TACTICAL WIRE AND  
CABLE TECHNIQUES.

**DID YOU SET THE ALARM?**

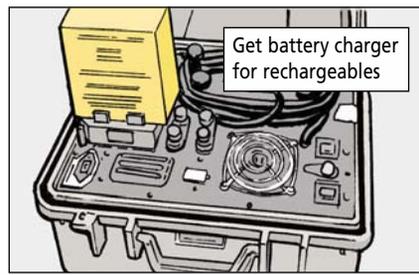
NO, BUT I SET THE ACADA WITH PM...

...AND THAT'S MORE IMPORTANT.

IF YOU *DIDN'T* DO THE PMCS YOUR M22 AUTOMATIC CHEMICAL AGENT ALARM (ACADA) NEEDS TO DETECT CHEMICAL THREATS, THE ANSWER IS **NO**, YOU DIDN'T SET THE ALARM.

HERE ARE SOME WAYS TO KEEP YOUR ACADA **ALARMED AND READY TO GO.**

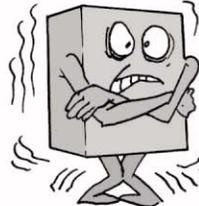
**Batteries:** The ACADA can use rechargeable battery BB-390A/U as well as the non-rechargeable BA-5590/U. But you won't get much use out of the rechargeables unless your unit gets the PP-8444A/U battery charger. It comes with NSN 6130-01-443-0970.



Get battery charger for rechargeables

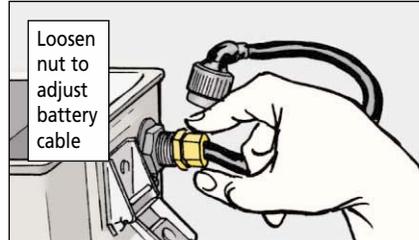
Remember, the colder it gets the shorter the time the batteries can power the ACADA. Once the temperature drops below freezing, battery life drops to six hours and keeps dropping the colder it gets. Your best bet in cold weather is to use the M28 power supply as much as possible—and take extra batteries.

HOLY COW! IT'S COLD OUT HERE. I'M NOT GOING TO LAST LONG IN THIS WEATHER!

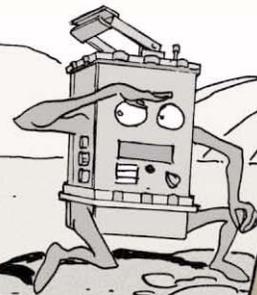


I HOPE THEY BROUGHT EXTRA BATTERIES!

Don't yank on the cable to the battery box to adjust the length of cable inside the box. That can tear wiring in the cable, especially if you're pulling on the connector. Loosen the nut where the cable goes in the box and then adjust the cable. Hold the cable, not the connector, when you slide the cable in and out of the box. When it's the right length, tighten the nut to hold the cable in place.



Loosen nut to adjust battery cable

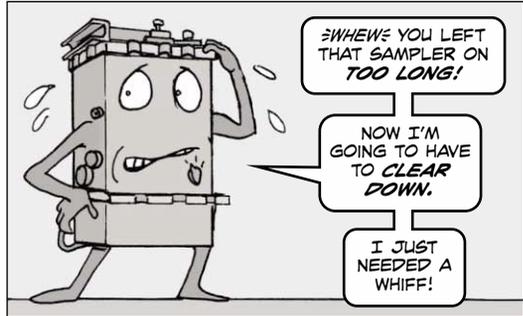


**Confidence sampler:**

Your ACADA needs just a whiff of the sampler. If you leave it on more than 1/4 second, you can saturate your ACADA and have trouble clearing it. If you have trouble getting three bars when you do the confidence test, you may have a sampler problem. Try a different sampler. But don't leave the sampler on longer.

**Let it warm up:** It may take up to 30 minutes for your ACADA to warm up to operating temperature—and there's nothing you can do about it. Just wait for the WAIT light to go off before starting PMCS and confidence testing.

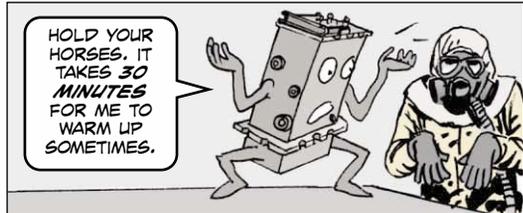
**Easy with the horn ON/OFF knob:** If you muscle it, you strip it.



SHHEW! YOU LEFT THAT SAMPLER ON TOO LONG!

NOW I'M GOING TO HAVE TO CLEAR DOWN.

I JUST NEEDED A WHIFF!



HOLD YOUR HORSES. IT TAKES 30 MINUTES FOR ME TO WARM UP SOMETIMES.

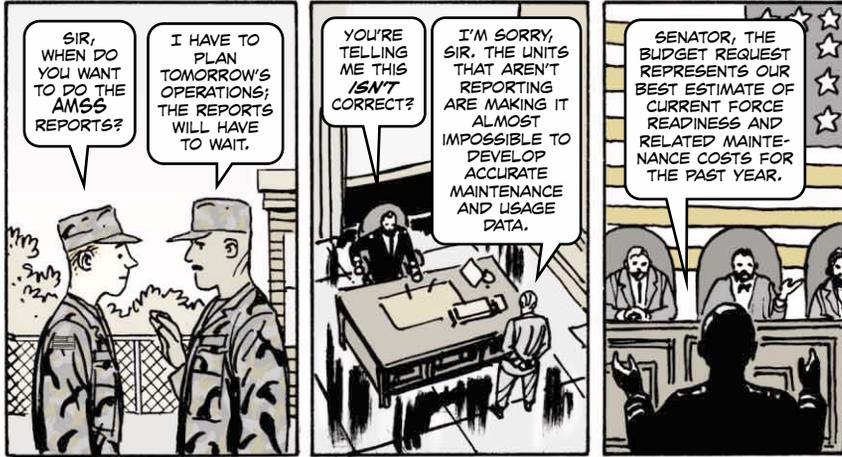


HORN ON

HEY, YOU OAF! YOU JUST STRIPPED ME!!

TEST

# LET MAINTENANCE REPORTS



## Army Materiel Status System

Missing Army Materiel Status System (AMSS) reports may not affect a unit in combat—but they can reduce maintenance dollars for the unit's equipment in the next budget. Missing reports make it difficult for the Army to determine how much money each unit should receive for equipment maintenance and operation.

There are many reasons units fail to submit AMSS reports. Whatever the reason, reports aren't submitted, and the missing reports can lead to reduced funding.

Maintenance and usage data from the AMSS reports supports the data Congress uses to determine whether the budget request is reasonable.

Maintenance budgets for 2002 or 2003 don't match actual spending for units deployed to Iraq or Afghanistan. Today's higher operational maintenance costs are being under-reported due to missing AMSS reports. The result is lost data. Lost data means fewer dollars in the unit maintenance budget just as maintenance costs balloon following high OPTEMPO.

Your unit's monthly AMSS report consists of the Equipment Usage and the Material Condition Status Report (MCSR) data.

The **ULLS Usage Report** provides usage data to LOGSA in cumulative miles and hours of operation. This data is used by budget and logistics managers to forecast POL expenditures, analyze readiness, and justify requests for new equipment.

Usage reports cover equipment that is in use as well as in storage. It includes Army Prepositioned Stocks that have been used during the reporting period.

Usage reporting is vital to getting your share of OPTEMPO dollars, and usage plays a major part in determining budgets.

# SUPPORT YOUR BUDGET



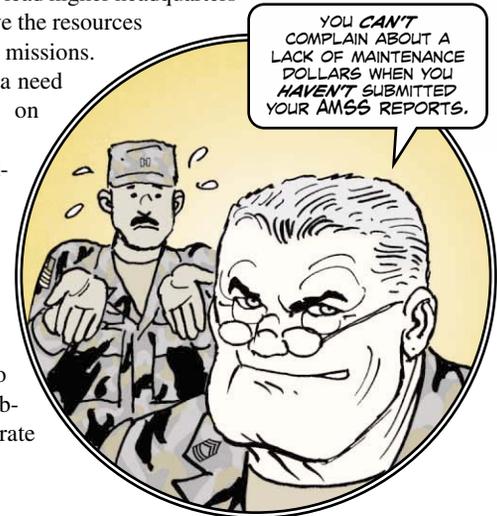
The **Material Condition Status Report (MCSR)** reports equipment status that also constitutes the equipment portion of the Unit Status Report.

The MCSR is used to identify equipment resource shortfalls, cross-allocate those resources, and assess a unit's ability to maintain allocated equipment. It helps the Army make decisions on funding individual units.

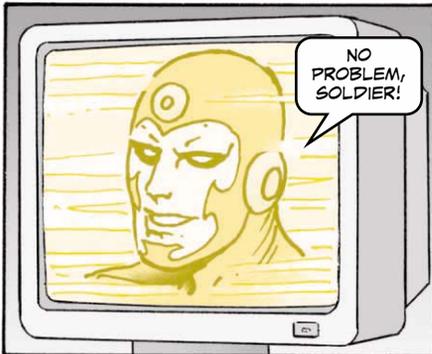
Units that fail to submit MCSR lead higher headquarters to the conclusion that the units have the resources they need to accomplish wartime missions. Units that do file the report show a need for resource allocation based on reported status.

The MCSR helps higher headquarters distribute limited wartime funding to those units that show use and need.

The ULLS Usage Report and the MCSR affect your future maintenance budgets and the current distribution of resources. To get your share of the resources, submit complete, timely and accurate AMSS reports.



# TRAINING AT YOUR FINGERTIPS



**FED LOG - Interactive**

File Edit Service Dataviews View Help Related Web Links

Today's Date: 29 Mar 04  
Item Name: CUP, MEDICINE  
Nomenclature: CUP MEDICINE PLAS5000

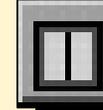
ACT	ADDL	SOS	AAC	PS	UNIT	PRICE	UI	FC	UM	MEAS-QTY
		S9M	L	E		25.25	PG		EA	5000
SCMC	AEC	MATCAT	LIN	LCC	RICC	ARC	SRC	SCIC	CIIC	

The most obvious way to learn about everything FED LOG offers is to attend classroom training. You can find out where the course is being taught at this Defense Logistics Information Service website:

<https://www.dlis.dla.mil/fedlog/training/training-schedule.asp>

HOWEVER, INFORMATION AND TRAINING IS AS CLOSE AS YOUR DESKTOP COMPUTER!

THESE FED LOG MENU BAR ICONS DESERVE BRIEF EXPLANATIONS.



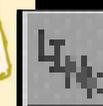
The **open book** icon is the user's manual.



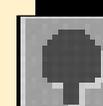
The **apple** icon. Associate **apple** with teacher and you have it—this is the tutorial used in the two-day classroom training course.



**0.5** is used on screens that deal with measurements. The **0.5** icon switches measurements between decimal and fraction measurements.



The **"LINK"** icon connects the user to the Logistics Information Network. If you need access, follow the instructions in the **Introduction to LINK**.



The **green tree** icon is used to find environmentally preferred items.



The **red circle with slash** is used to report data problems to FED LOG.

ONLINE INFO IS REALLY HELPFUL, BUT DON'T FORGET TO TALK WITH OTHER SOLDIERS AND LOGISTICS CIVILIANS AND GET **THEIR** ADVICE, TOO!

IN NO TIME AT ALL, **YOU'LL** BE AN ONLINE WARRIOR, TOO!



# 2004 SUPPLY EXCELLENCE AWARDS



## ACTIVE ARMY

### MTOE Company With Property Book

Winner: HHD, 59th Sig Bn, Ft Richardson, AK  
Runner-up: HHC, 8th MP Bde, Yongsan, Korea

### MTOE Company Without Property Book

Winner: 11th Sig Detachment,  
Mannheim, Germany  
Runner-up: 70th Trans Co, Mannheim, Germany

### MTOE Battalion With Property Book

Winner: 205th MI Bn, Ft Shafter, HI  
Runner-up: 95th MP Bn, Mannheim, Germany

### Category B TDA (Small)(Lower)

Winner: 222d Base Spt Bn, Baumholder, Germany  
Runner-up: Aviation Technical Test Center,  
Ft Rucker, AL  
Honorable Mention: HHD, 202d MP Grp,  
Mannheim, Germany

### Category B TDA (Large)(Upper)

Winner: 2d Bn (SHORAD) 6th ADA Bde,  
Ft Bliss, TX  
Runner-up: 6th PsyOps Bn, Ft Bragg, NC  
Honorable Mention: Material Spt Ctr, 19th TSC,  
Camp Carroll, Korea  
Honorable Mention: 527th MI Bn, Camp  
Humphreys, Korea

### Category C Small MTOE, Class IX

Winner: G Co, 52d Avn Regt, Wonju, Korea  
Runner-up: C Co, 25th Avn Regt,  
Wheeler Army Airfield, HI  
Honorable Mention: 558th Trans Co, Floating  
Craft GS, Ft Eustis, VA

### Category C Small MTOE, Class II, IV, VII

Winner: 305th QM Co, Yongsan, Korea  
Runner-up: 26th QM S&S Co, Hanau, Germany

### Category C Small TDA

Winner: HHC, 22d ASG, Vicenza, Italy  
Runner-up: 80th ASG Augmentation,  
Chievres, Belgium  
Honorable Mention: Supply Point 60, 20th ASG,  
Camp Carroll, Korea

### Category C Large MTOE, Class IX

Winner: D Co, 701st MSB, Kitzingen, Germany  
Runner-up: A Co, 172d Spt Bn, Ft Wainwright, AK

## ARMY NATIONAL GUARD

### MTOE Company With Property Book

Winner: 107th Maint Co, Sparta, WI  
Runner-up: 694th Maint Co, New Bern, NC

### MTOE Company Without Property Book

Winner: HHC, 1/114th Inf Bn, Ft Dix, NJ  
Runner-up: 909th QM Detachment,  
Tamuning, Guam  
Honorable Mention: HHC, 46th Inf Bde,  
Wyoming, MI

### MTOE Battalion With Property Book

Winner: HQ, 1/125th FA Bn, New Ulm, MN

### MTOE Battalion Without Property Book

Winner: HQ, 2/127th Inf Bn, Appleton, WI

### Category B TDA (Small)(Lower)

Winner: HQ, 209th RTI, Ashland, NE  
Runner-up: Joint Forces HQ, Jackson, MS

### Category B TDA (Large)(Upper)

Winner: Joint Forces HQ, Madison, WI  
Runner-up: 66th Trp Cmd, Jackson, MS

### Category C Small MTOE, Class IX

Winner: B Co, 193d Avn, Wheeler Army Airfield, HI

### Category C Small TDA

Winner: USPFO, Supply Ctr, Lincoln, NE  
Runner-up: USPFO, S&S Div, Camp Douglas, WI

### Category C Large MTOE, Class IX

Winner: USPFO, S&S Warehouse, Springfield, IL  
Runner-up: Dir of Logistics Class IX Warehouse,  
Little Falls, MN

## ARMY RESERVE

### MTOE Company Without Property Book

Winner: 216th Trans Detachment, Ft Bragg, NC

### MTOE Battalion Without Property Book

Winner: 317th QM Bn (S&S), Lawrence, KS

### Category B TDA (Small)(Lower)

Winner: 4249th Port Security Detachment (MP),  
Pocahontas, IA  
Runner-up: SETAF Augmentation Unit,  
Vicenza, Italy

### Category B TDA (Large)(Upper)

Winner: AMSA 57, Belton, MO  
Runner-up: HHC, 353d Civil Affairs Cmd,  
Ft Wadsworth, Staten Island, NY



## Connie's Post Scripts

THE TOP 14 HOT BRIEFS FOR THIS MONTH... AND THE SURVEY SAYS...

YOU'LL GET NO FEUD FROM ME ON THAT!



### SCAMP Latch Kit

Use NSN 4030-01-467-4737 to get the latch kit for the hook block assembly on the 4-ton self-propelled SCAMP crane. This NSN replaces the parts info shown as Item 18, Fig 150 of TM 5-3810-302-24P.

### Link to Small Arms Integration Book Changes

The link we gave you in PS 622 (Sep 04) for accessing the Small Arms Integration Book is no longer good. The correct link is now

<http://atiam.train.army.mil/portal/atia/adlsc/view/public/295518-1/st/saib/saib.htm>

### MAINTENANCE ADVISORY FOR NEW HELMET

Word from OIF and OEF is that some soldiers are not wearing the new advanced combat helmet (ACH) correctly. If the helmet is worn wrong or fits poorly, it may not protect soldiers from fragmentation or ballistic threats. Maintenance Advisory Message (MAM) 04-001-013 advises commanders to review fit and wear standards in TM 10-8470-204-10 and inspect their soldiers. The TM is found at <https://www.logsa.army.mil/etms/data/A/080445.pdf>

A video showing the correct fitting procedures and the TM are available on AKO and the PEO-Soldier website at

<https://PEOSOLDIER.army.mil>

### OIL PRESERVES DECKING

Constant exposure to the elements dries, cracks and splinters the wood decking on semitrailers. Prevent that damage by brushing boiled linseed oil on the decking as needed. NSN 8010-00-152-3245 gets 1 gallon of oil.

### John Deere in SWA

Need help with your John Deere equipment in Southwest Asia? Here's where you can go:

Bader Al Mulla & Bros Co. WLL  
Sharq Area, Sour Street  
Safat, Kuwait City  
Telephone # 965-244-5040

### D7G WATER PUMP

Use NSN 2930-01-498-2770 when ordering a new water pump for the D7G CAT tractor. Parts for the water pump shown as Item 5, Fig 45 of TM 5-2410-237-24P are still available, but the pump is no longer being stocked as an assembly.

### ATLAS Forklift Solenoid

Use NSN 5945-01-503-9468 to get the 24-volt solenoid for the SKYTRAC 10000M forklift's emergency steering pump. This NSN replaces the one shown as Item 3, Figure 126 of TM 10-3930-673-24P.

### M40, M42 Mask Demil Code Changes

The demilitarization code for the M40- and M42-series mask facepieces (NSN 4240-01-415-4517, 4240-01-415-4518, and 4240-01-416-0430) has changed from D (total destruction) to F (contact the item manager). The mask item manager is TACOM's Roberta Wright. Contact her for demil instructions at DSN 793-5757/(309) 782-5757 or email [wright@ria.army.mil](mailto:wright@ria.army.mil)

Unserviceable mask facepieces will be sent to Pine Bluff Arsenal Depot to support the mask rebuild program. Look for a supply advisory message soon. The demil code for the facepiece will also be changed on the AMDF.

### M915A3 FAN SHROUD

NSN 2930-01-496-1920 gets the fan shroud for the M915A3 tractor trucks with serial numbers up to S/N J21547 or J64175. Use NSN 2930-01-507-2367 to get a fan shroud for trucks starting with J21548.

### LRT-110 Crane Tire

Order NSN 2610-01-465-5823 when you need a tire for the 7 1/2-ton rough terrain crane. This NSN replaces the parts info shown for Item 1, Fig 9-11 of TM 5-3810-305-24P.

### SEE ENGINE OIL FILTER

Use NSN 2940-01-225-1531 to get the engine oil filter for the small emplacement excavator. This NSN replaces the one shown as Item 13, Fig 15 of TM 5-2420-224-24P-1.

### Oops! ARS Corrections

In the story on the adapter rail system (ARS) for the M16A4 rifle and M4/M4A1 carbine on Pages 14-16 in PS 623 (Oct 04), we used "mount" and "install" incorrectly. The M203A2 grenade launcher is mounted to the M16A4 or M4/M4A1, not the ARS. The M5 barrel stop is installed in the handguard cap. The M203A2 quick release bracket is installed, as is the ARS on the M16A4 or M4/M4A1. But sighting and aiming devices are mounted on the ARS.

### M109/M992A2 Current Regulator

Use NSN 6110-01-427-6395 to get a current regulator for the glow plug and controller on the engine (model 7083-7391) of the self-propelled howitzer and ammo carrier. This NSN replaces the parts info shown as Item 3, Fig 49 of TM 9-2815-202-24P.

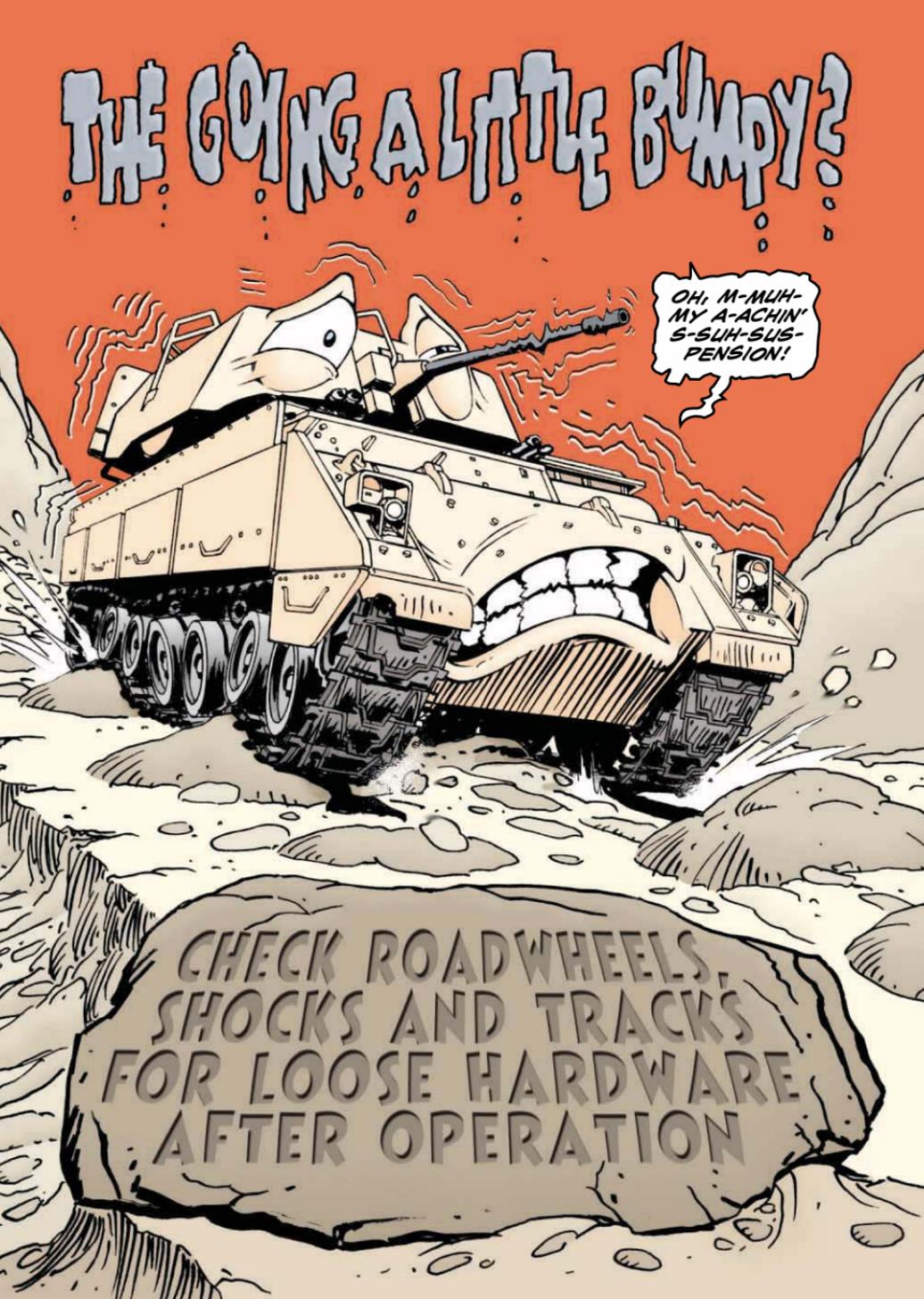
### Generator Shield NSN

Use NSN 4140-01-350-0839 to get a shield for the HMMVV's 60-amp generator. The guard keeps debris and foreign objects from getting inside the generator's cooling fan area. You'll need two hose clamps, NSN 4730-00-908-6294, to hold the shields in place. Installation instructions come with the shield. If you have any questions about the generator or the shield, contact Team Power at [batteries@tacom.army.mil](mailto:batteries@tacom.army.mil)

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

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

# THE GOING A LITTLE BUMPY?



OH, M-MUH-  
MY A-ACHIN'  
S-SUH-SUS-  
PENSION!

CHECK ROADWHEELS,  
SHOCKS AND TRACKS  
FOR LOOSE HARDWARE  
AFTER OPERATION